MAD

PROJECT ID: **5992-11-31**

WITH: 5992-11-32, 5992-11-33

COUNTY: **DANE**

MARCH 2022

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 710



09

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5992-11-31	WISC 2022233	1
5992-11-32	—	—
5992-11-33	—	—

CITY OF MADISON, UNIVERSITY AVENUE

(SHOREWOOD BLVD. TO UNIVERSITY BAY DRIVE)

LOCAL STREET
DANE COUNTY

STATE PROJECT NUMBER
5992-11-31

LOCAL STREET
SANITARY SEWER & WATER MAIN
DANE COUNTY

STATE PROJECT NUMBER
5992-11-32

LOCAL STREET
MMSD INTERCEPTOR
DANE COUNTY

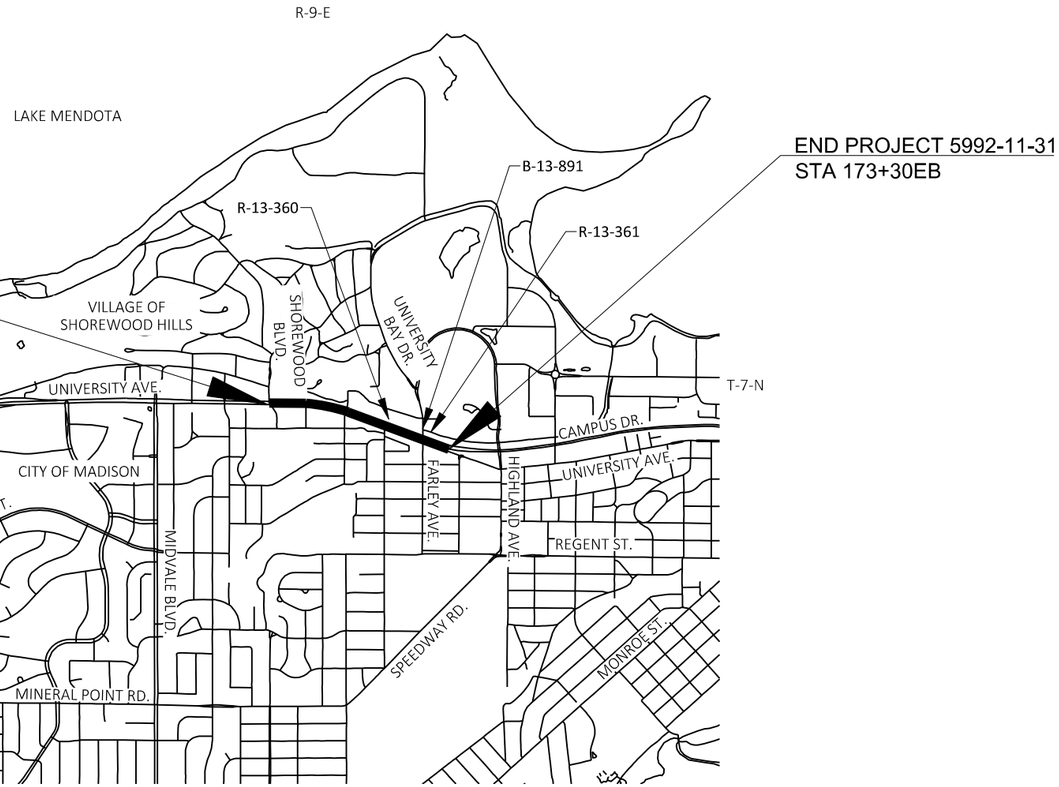
STATE PROJECT NUMBER
5992-11-33

DESIGN DESIGNATION

A.A.D.T.	(2022)	=	52,465
A.A.D.T.	(2042)	=	54,765
D.H.V.		=	5,590
D.D.		=	59/41
T.		=	3.4
DESIGN SPEED		=	40 M.P.H.
ESALS		=	3,300,000

BEGIN PROJECT 5992-11-31
STA 138+09EB
Y = 483,017.08
X = 805,215.88

END PROJECT 5992-11-31
STA 173+30EB



LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.667 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DANE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (1991). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'ER')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR
CITY OF MADISON

Date 11/1/21 — (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
BRAD R. HALVENSLEBEN
34638-006
BELLEVILLE, WI
PROFESSIONAL ENGINEER

DATE: 10/21/2021 — (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
- Surveyor: KL ENGINEERING, INC.
- Designer: KL ENGINEERING, INC.
- Regional Examiner:
- Regional Supervisior:

APPROVED FOR THE DEPARTMENT
DATE: 11/01/2021 — (Signature)

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/21/2021 4:52 PM PLOT BY : KL ENGINEERING PLOT NAME :

ABBREVIATIONS

BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
BLDG.	BUILDING
C/L	CENTERLINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CSW	CONCRETE SIDEWALK
CMCP	CORRUGATED METAL CULVERT PIPE
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPT	CONSTRUCTION PERMIT
CTR	CENTER
EAT	ENERGY ABSORBING TERMINAL
EB	EASTBOUND
ELEC	ELECTRIC
EX. OR EXIST	EXISTING
FO	FIBER OPTIC
HMA	HOT MIX ASPHALT
LHF	LEFT HAND FORWARD
MH	MANHOLE
MAX.	MAXIMUM
MIN.	MINIMUM
NB	NORTHBOUND
NOR.	NORMAL
NTS	NOT TO SCALE
PLE	PERMANENT LIMITED EASEMENT
P.E.	PRIVATE ENTRANCE
P.L.	PROPERTY LINE
RW OR R/W	RIGHT-OF-WAY
RAD OR R	RADIUS
R/L	REFERENCE LINE
REQ'D.	REQUIRED
RHF	RIGHT HAND FORWARD
SAN	SANITARY SEWER
SB	SOUTHBOUND
SHLD	SHOULDER
SI	SLOPE INTERCEPT
SW	SIDEWALK
SF	SQUARE FEET
SY	SQUARE YARD
S.D.D.	STANDARD DETAIL DRAWING
STA	STATION
SS	STORM SEWER
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
WAT	WATER
WB	WESTBOUND

ORDER OF DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
STORM SEWER PLAN
SANITARY SEWER & WATER MAIN PLAN
PERMANENT SIGNING PLAN
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING PLAN
TRAFFIC CONTROL AND CONSTRUCTION STAGING PLAN
ALIGNMENT DETAIL
CONTROL POINT DETAIL
SOIL BORINGS DETAIL

DIGGERS HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

** INDICATES A UTILITY IS NOT PART OF DIGGER'S HOTLINE

UTILITY CONTACTS

COMMUNICATIONS

AT&T WISCONSIN
CAROL ANASON
316 W. WASHINGTON AVENUE
MADISON, WI 53703
(608) 252-2385
ca2624@att.com

COMMUNICATIONS

LUMEN/CENTURYLINK
MASOOD ZEERAK
1025 ELDORADO BLVD
BROOMFIELD, CO 80021
(720) 888-8568
masood.zeerek@lumen.com

COMMUNICATIONS

CHARTER COMMUNICATIONS
JOSEPH ROSE
2701 DANIELS ST
MADISON, WI 53718
(608) 206-7061
Joseph.Rose@charter.com

COMMUNICATIONS

RESTECH SERVICES
JOSH ROGERS
2901 LATHAM DRIVE
MADISON, WI 53713
(608) 661-2473
MOBILE: (608) 320-6063
josh@gsdinstallation.com

COMMUNICATIONS

TDS METROCOM/TDS TELECOM
MICHAEL SWEET
525 JUNCTION ROAD
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(608) 664-4404
michael.sweet@tdstelecom.com

COMMUNICATIONS

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TODD ELLICKSON
800 WISCONSIN ST, #107
EAU CLAIRE, WI 54703-3613
(715) 832-3750
todd.ellickson@wintechnology.com

ELECTRIC

AMERICAN TRANSMISSION COMPANY
JEFF VANDERWERFF
W234 N2000 RIDGEVIEW PKWY CT
WAUKESHA, WI 53188
(262) 206-4966
jvanderwerff@atcllc.com

ELECTRIC

MADISON GAS & ELECTRIC COMPANY
MARK BOHM
P.O. BOX 1231
MADISON, WI 53701
(608) 252-4730
MBohm@mge.com

ELECTRIC

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215 MARTIN LUTHER KING JR BLVD
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MBenzschawel@cityofmadison.com

GAS

MADISON GAS & ELECTRIC COMPANY
SHAUN ENDRES
P.O. BOX 1231
MADISON, WI 53701
(608) 252-7224
SEndres@mge.com

SAN

CITY OF MADISON ENGINEERING
MARK MODER
CITY-COUNTY BUILDING, ROOM 115
210 MARTIN LUTHER KING JR. BLVD
MADISON, WI 53703
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mmoder@cityofmadison.com

SAN

VILLAGE OF SHOREWOOD HILLS
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mmeier@shorewood-hills.org

SAN

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MOBILE: (608) 347-3613
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WATER

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CITY OF MADISON

JAMES WOLFE
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jwolfe@cityofmadison.com

VILLAGE OF SHOREWOOD HILLS

KARL FRANTZ
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MADISON, WI 53705
(608) 267-2680
kfrantz@shorewood-hills.org

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
DNR SOUTH CENTRAL REGION HEADQUARTERS
ERIC HEGGELUND
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
(608) 275-3301
eric.heggelund@wisconsin.gov

GENERAL NOTES

ALL GRADES PROVIDED ALONG CURB RADII ARE ALONG EDGE OF PAVEMENT. ALL GUTTER CROSS SLOPES ARE 6.25% UNLESS NOTED ON PLANS.

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADII POINTS IN THE CURB AND GUTTER OR AT LOCATIONS SHOWN ON THE PLAN.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN IN THE PLAN, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTACT DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO START OF WORK.

UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR APPROXIMATE HORIZONTAL REFERENCE ONLY.

REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

NO TREES AND/OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

STATIONING AND OFFSETS TO APRON ENDWALLS FOR STORM SEWER AND CULVERT PIPES ARE SHOWN TO THE END OF THE PIPE.

LOCATIONS OF INLETS AND MANHOLES AS SHOWN ON THE STORM SEWER SHEETS ARE BY STATION AND OFFSET TO THE CENTER OF THE STRUCTURE (SEE DETAIL).

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

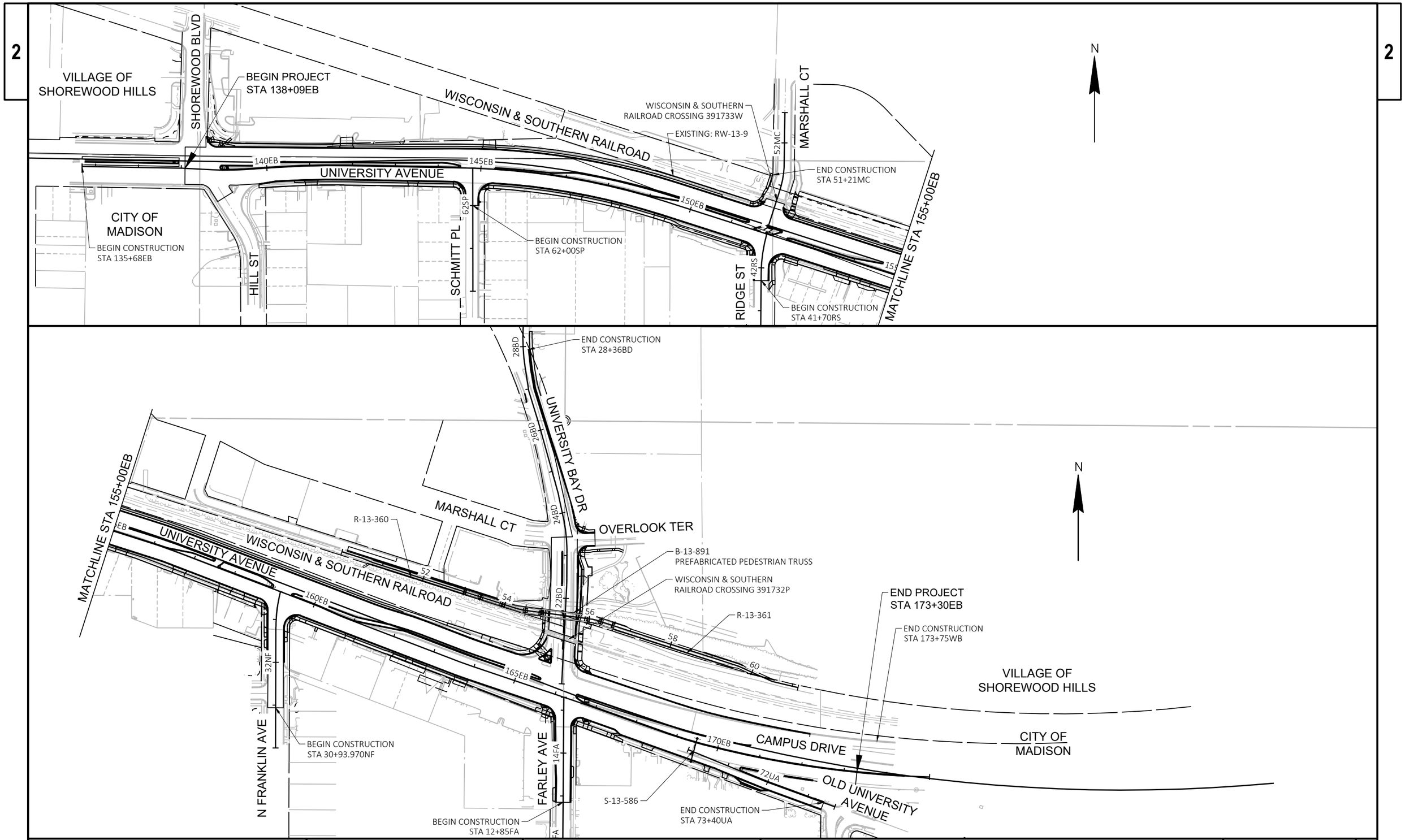
TOTAL DEPTH	LAYERS	HMA MIXTURES	LOCATIONS
6.75-INCH	1.75" UPPER 2.5" LOWER 2.5" LOWER	4 MT 58-28 H 3 MT 58-28 S 3 MT 58-28 S	UNIVERSITY AVENUE
6-INCH	2.25" UPPER 3.75" LOWER	4 MT 58-28 H 3 MT 58-28 S	UNIVERSITY BAY DRIVE
5.25-INCH	2.25" UPPER 3" LOWER	4 MT 58-28 H 3 MT 58-28 S	FARLEY AVENUE N FRANKLIN AVENUE

ROADWAYS

IDENTIFIER	DESCRIPTION
EB	UNIVERSITY AVE/CAMPUS DR EASTBOUND
WB	UNIVERSITY AVE/CAMPUS DR WESTBOUND
UA	OLD UNIVERSITY AVE
SP	SCHMITT PL
RS	RIDGE ST
MC	MARSHALL CT
NF	N. FRANKLIN AVE
FA	FARLEY AVE
BD	UNIVERSITY BAY DR
HA	HIGHLAND AVE ON-RAMP

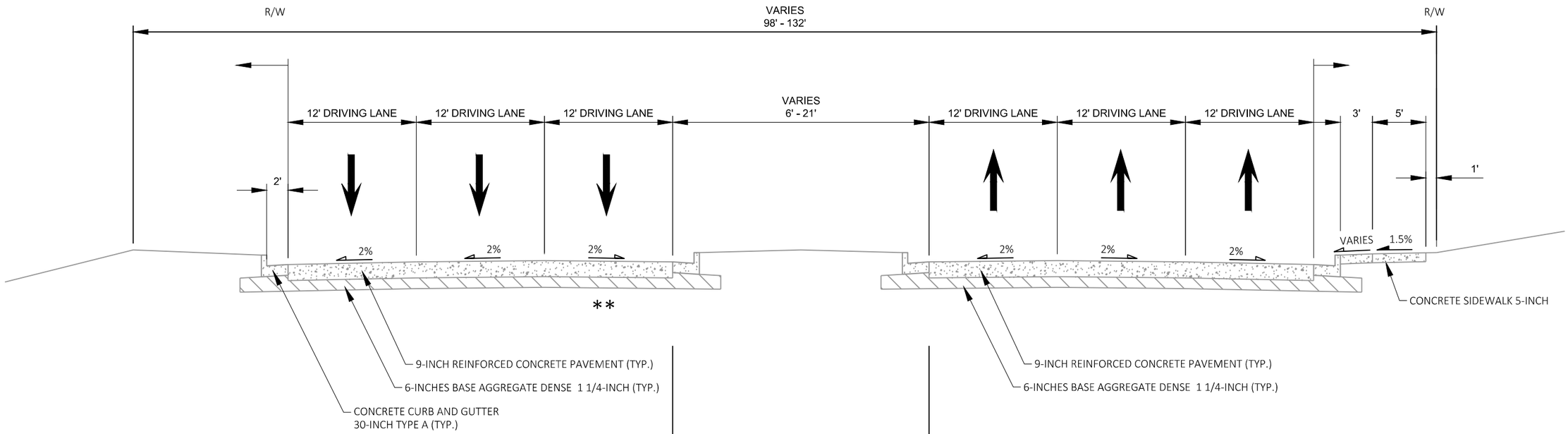
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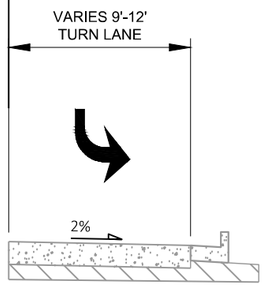


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - OVERVIEW
PLOT DATE : 8/23/2021 6:48 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42

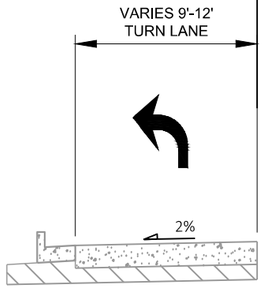


** NOTE: STA 169+33WB TO STA 173+75WB
ASPHALT PAVEMENT OVER BASE AGGREGATE DENSE



WB LEFT TURN LANE

STA 138+93 WB - STA 140+50 WB
STA 145+30 WB - STA 147+45 WB
STA 152+45 WB - STA 154+34 WB
STA 159+73 WB - STA 161+68 WB
STA 166+68 WB - STA 171+25 WB



EB LEFT TURN LANE

STA 149+20 EB - STA 151+48 EB
STA 161+59 EB - STA 165+66 EB

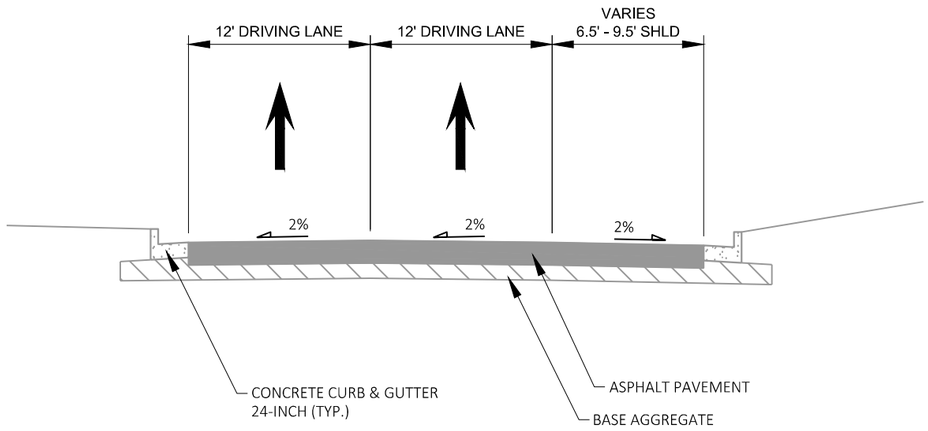
EXISTING TYPICAL SECTION - UNIVERSITY AVENUE

STA. 138+09 EB - STA. 169+45 EB
STA. 138+85 WB - STA. 173+75 WB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	EXISTING TYPICAL SECTIONS	SHEET 4	E

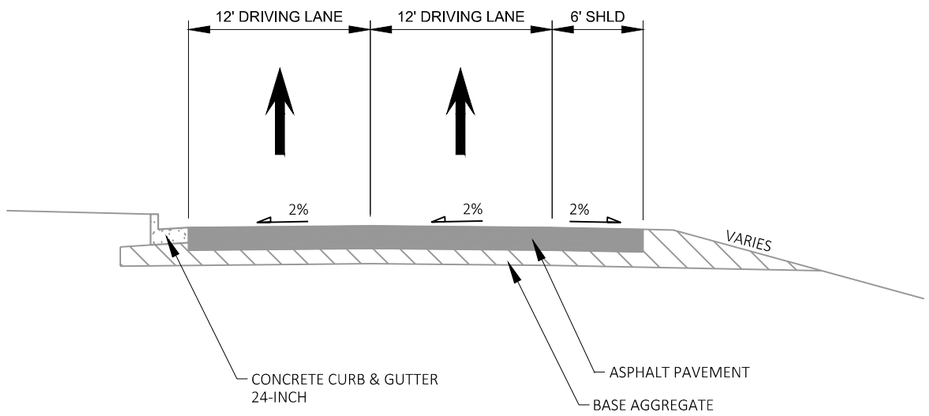
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LAYOUT NAME - Exist 01
PLOT DATE : 7/27/2021 8:57 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION - UNIVERSITY AVENUE

STA. 169+45 EB - STA. 172+29 EB

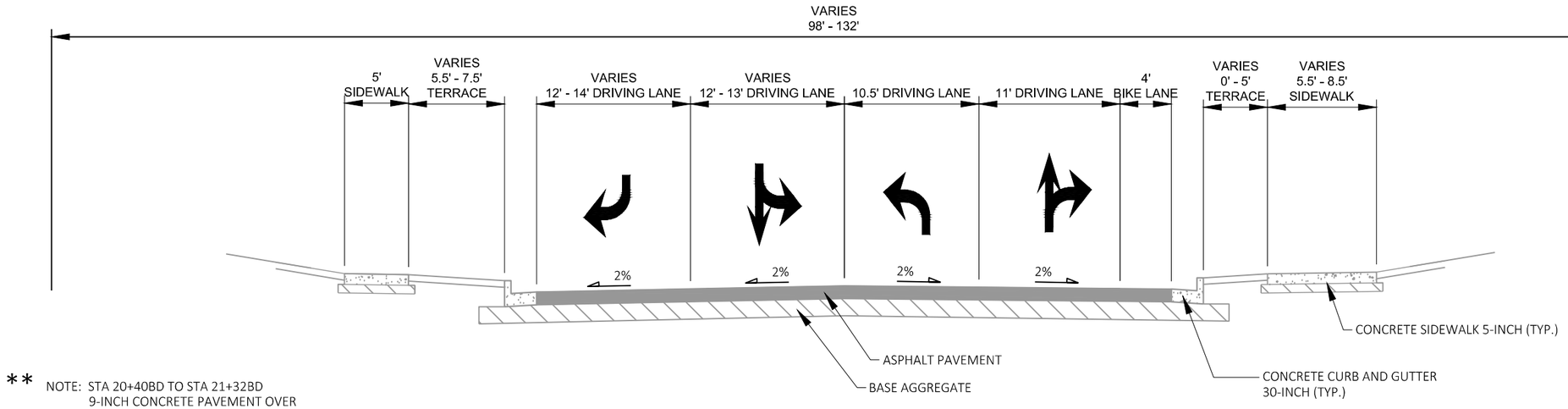


EXISTING TYPICAL SECTION - UNIVERSITY AVENUE

STA. 172+29 EB - STA. 173+30 EB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	EXISTING TYPICAL SECTIONS	SHEET 5	E

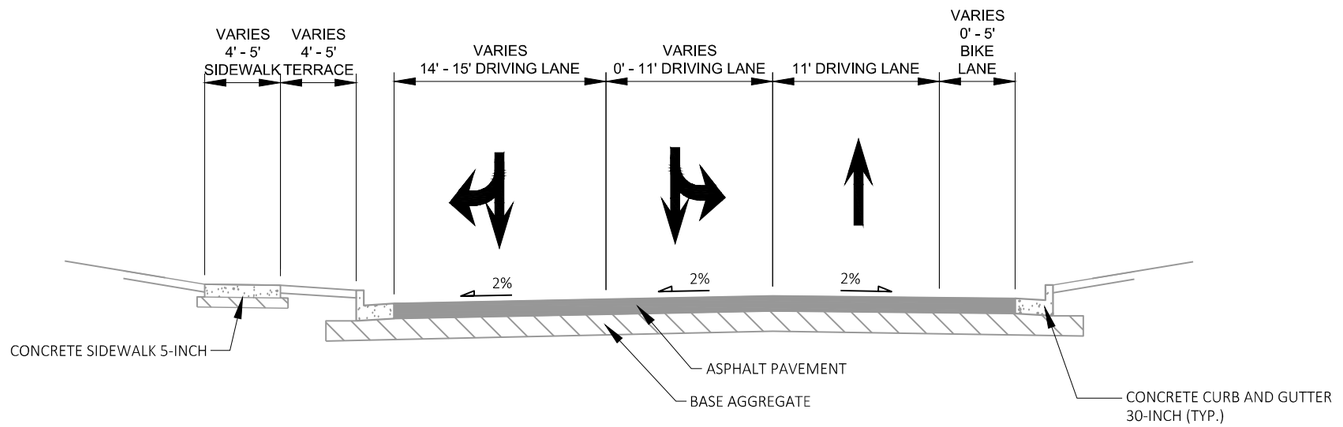
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** NOTE: STA 20+40BD TO STA 21+32BD
9-INCH CONCRETE PAVEMENT OVER
6-INCH BASE AGGREGATE DENSE

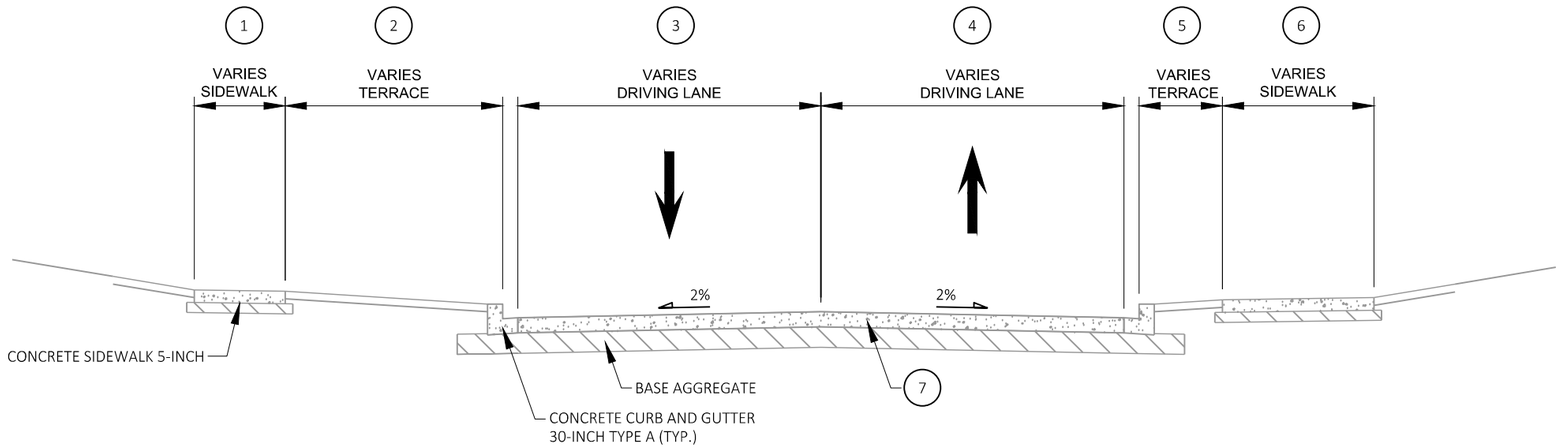
EXISTING TYPICAL SECTION - UNIVERSITY BAY DRIVE

STA. 20+40 BD - STA. 23+20 BD



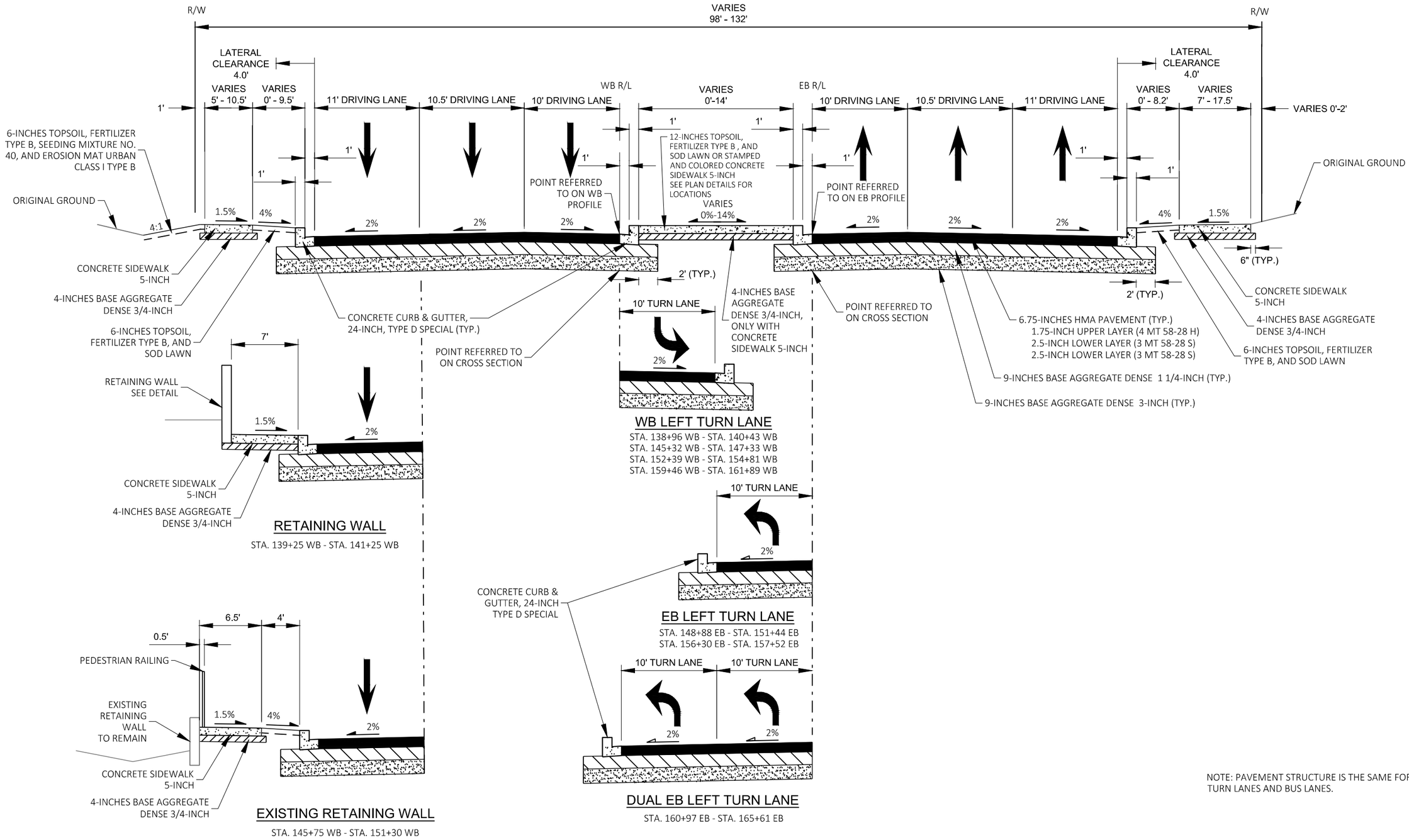
EXISTING TYPICAL SECTION - UNIVERSITY BAY DRIVE

STA. 23+20 BD - STA. 27+92 BD



SIDE ROAD	(1) SIDEWALK WIDTH	(2) TERRACE WIDTH	(3) DRIVING LANE WIDTH	(4) DRIVING LANE WIDTH	(5) TERRACE WIDTH	(6) SIDEWALK WIDTH	(7) PAVEMENT TYPE
SCHMITT PLACE 'SP'	5'	3.5'	14'	14'	12.5'	NONE	ASPHALT
RIDGE STREET 'RS'	5'	9'	16'	16'	5'-8'	4'-5'	ASPHALT
MARSHALL COURT 'MC'	NONE	ALL	21.5'	21.5'	0'-6'	5'	CONCRETE
FRANKLIN AVENUE 'NF'	5'	6.5'	18'	18'	6'	5'	ASPHALT
FARLEY AVENUE 'FA'	5'	3'-6'	16'-18.5'	16'-16.5'	4'-5.5'	5'	ASPHALT
OLD UNIVERSITY AVENUE 'UA'	NONE	ALL	NONE	15'	8'	5'	CONCRETE

EXISTING TYPICAL SECTION - SIDE ROADS

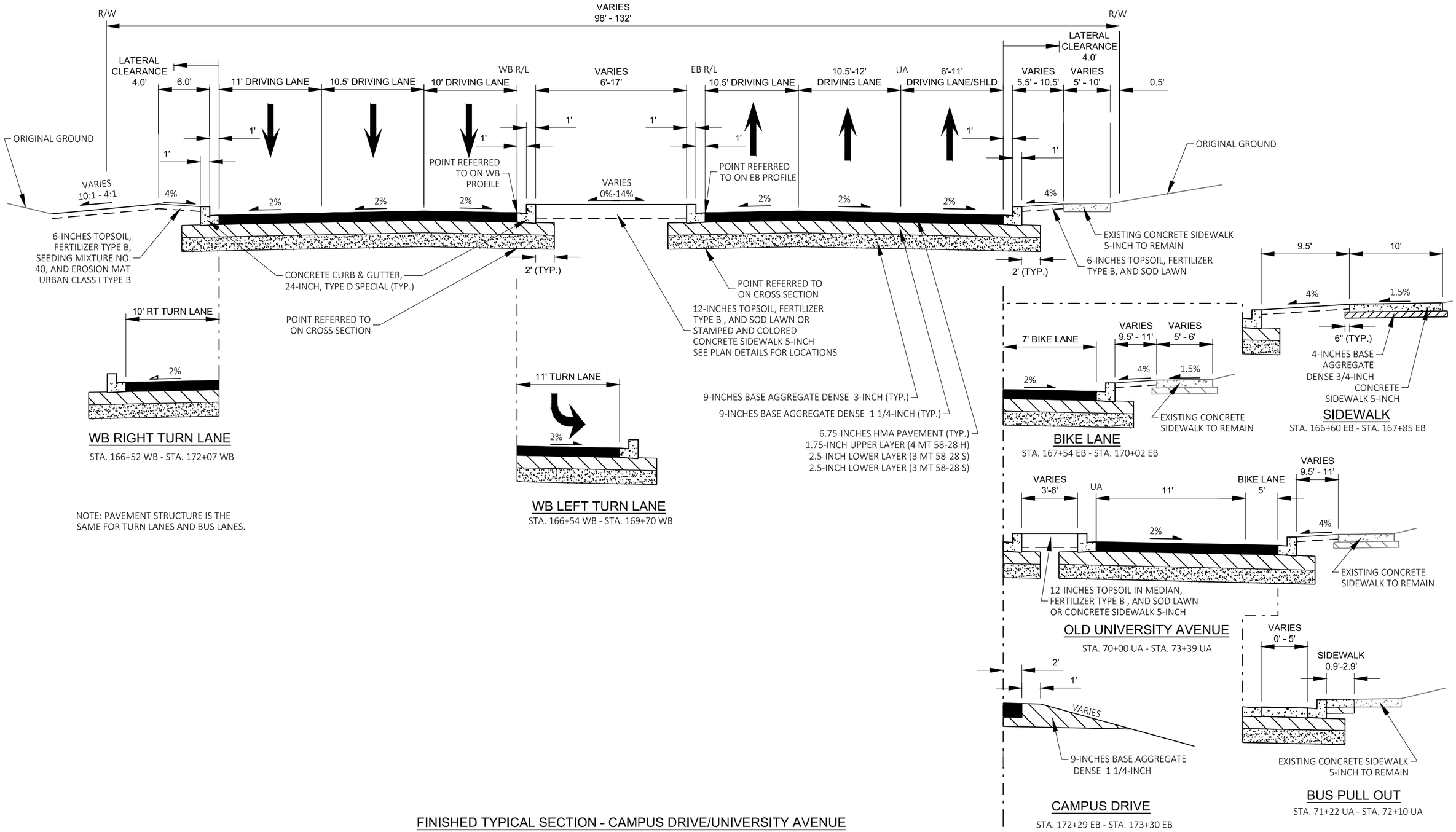


NOTE: PAVEMENT STRUCTURE IS THE SAME FOR TURN LANES AND BUS LANES.

FINISHED TYPICAL SECTION - UNIVERSITY AVENUE

STA. 138+09 EB - STA. 166+25 EB
STA. 138+08 WB - STA. 166+25 WB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	FINISHED TYPICAL SECTIONS	SHEET 8	E

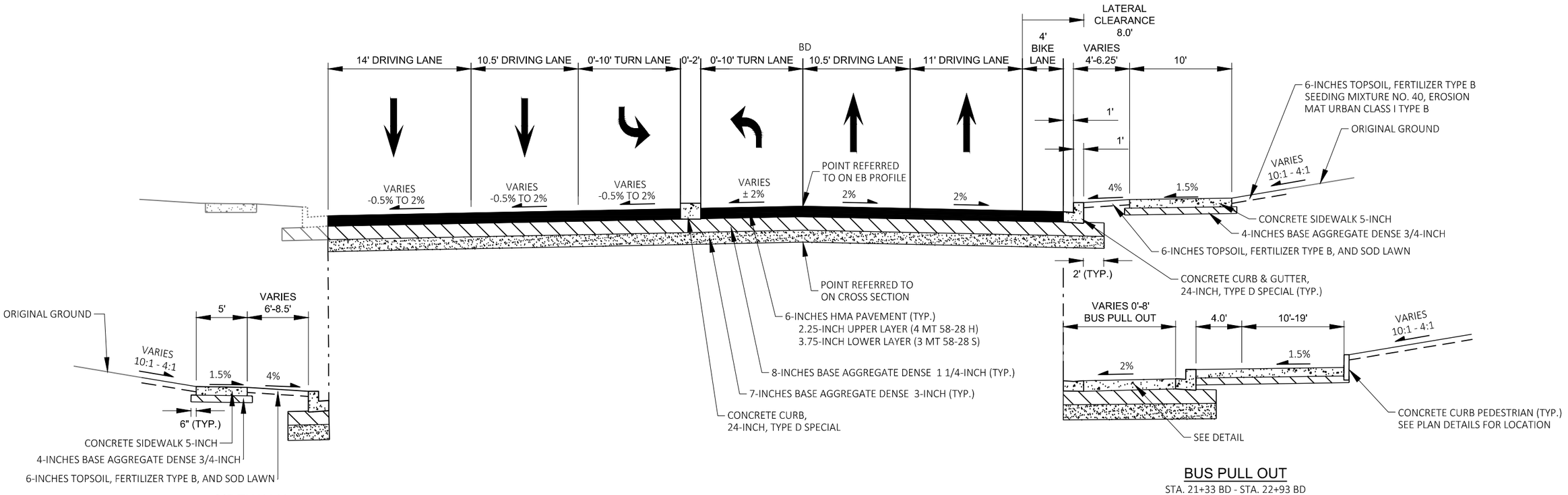


NOTE: PAVEMENT STRUCTURE IS THE SAME FOR TURN LANES AND BUS LANES.

FINISHED TYPICAL SECTION - CAMPUS DRIVE/UNIVERSITY AVENUE

STA. 166+25 EB - STA. 173+30 EB
STA. 166+25 WB - STA. 172+08 WB

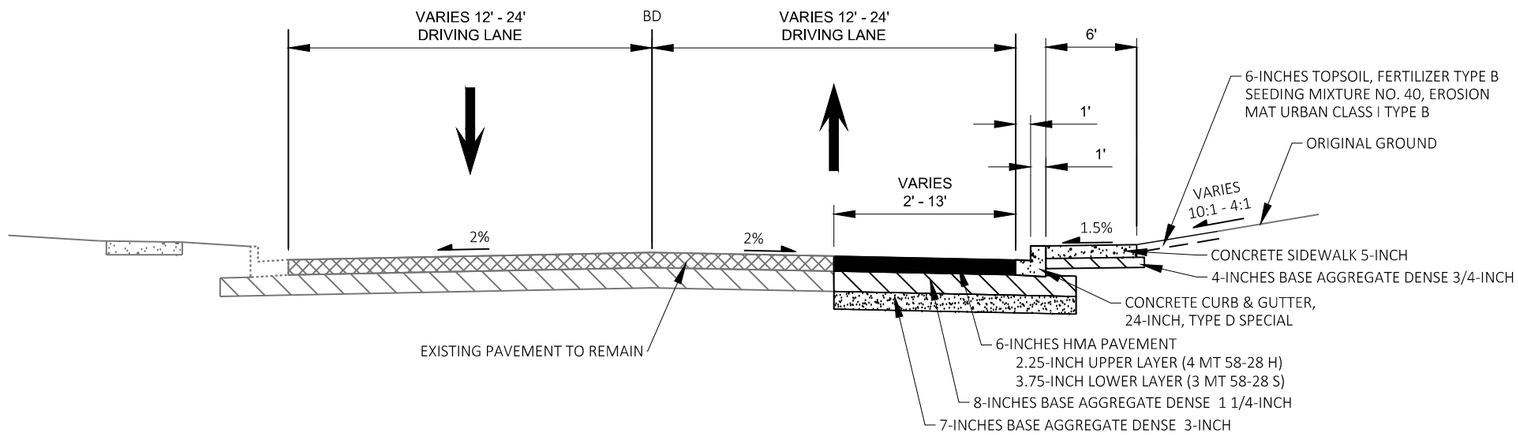
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	FINISHED TYPICAL SECTIONS	SHEET 9	E



SIDEWALK
STA. 20+40 BD - STA. 21+71 BD

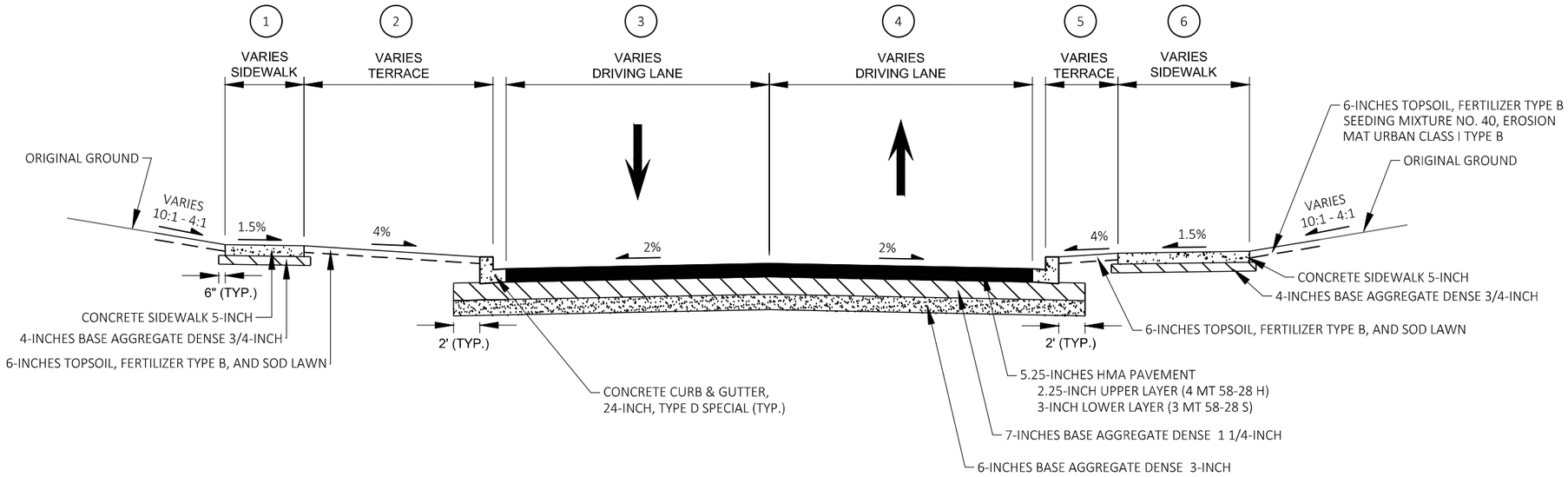
BUS PULL OUT
STA. 21+33 BD - STA. 22+93 BD

FINISHED TYPICAL SECTION - UNIVERSITY BAY DRIVE
STA. 20+40 BD - STA. 23+20 BD



FINISHED TYPICAL SECTION - UNIVERSITY BAY DRIVE
STA. 23+20 BD - STA. 28+36 BD

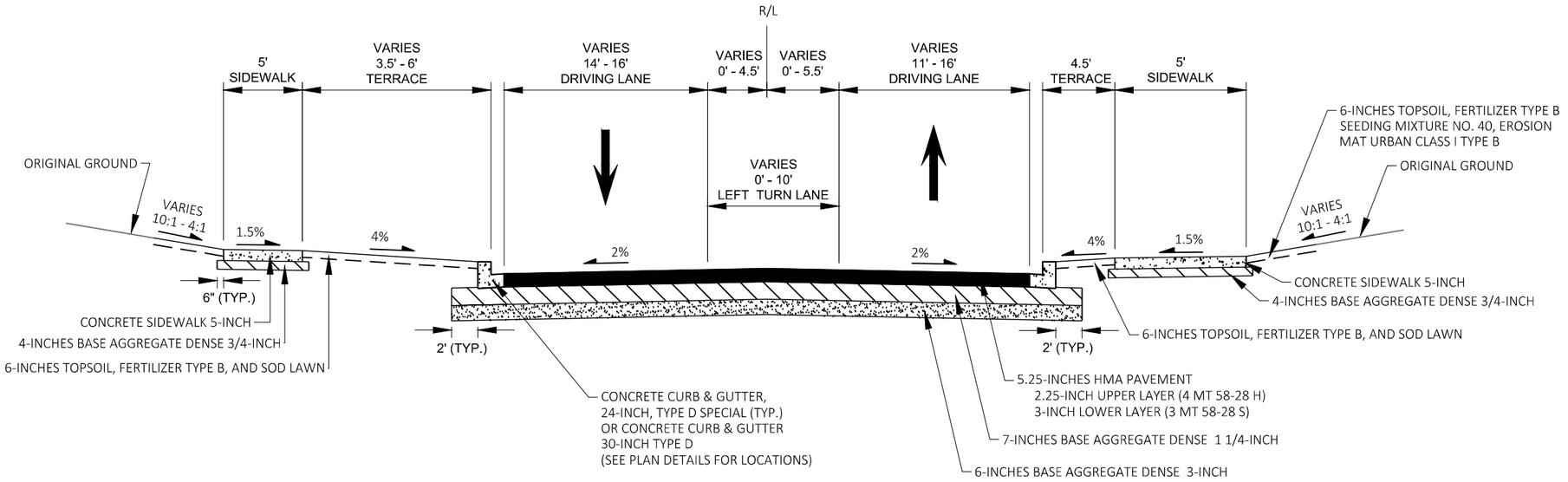
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	FINISHED TYPICAL SECTIONS	SHEET 10	E



SIDE ROAD	1 SIDEWALK WIDTH	2 TERRACE WIDTH	3 DRIVING LANE WIDTH	4 DRIVING LANE WIDTH	5 TERRACE WIDTH	6 SIDEWALK WIDTH
SCHMITT PLACE 'SP'	5'	3.5'	14'	14'	ALL	NONE
RIDGE STREET 'RS'	5' EXIST.	9'	16'	16'	4'-6'	7'
MARSHALL COURT 'MC'	5'	8'	20'	20'	16.5'	10' PATH
FRANKLIN AVENUE 'NF'	5' EXIST.	6.5'	18'	18'	6'	5' EXIST.

FINISHED TYPICAL SECTION - SIDE ROADS

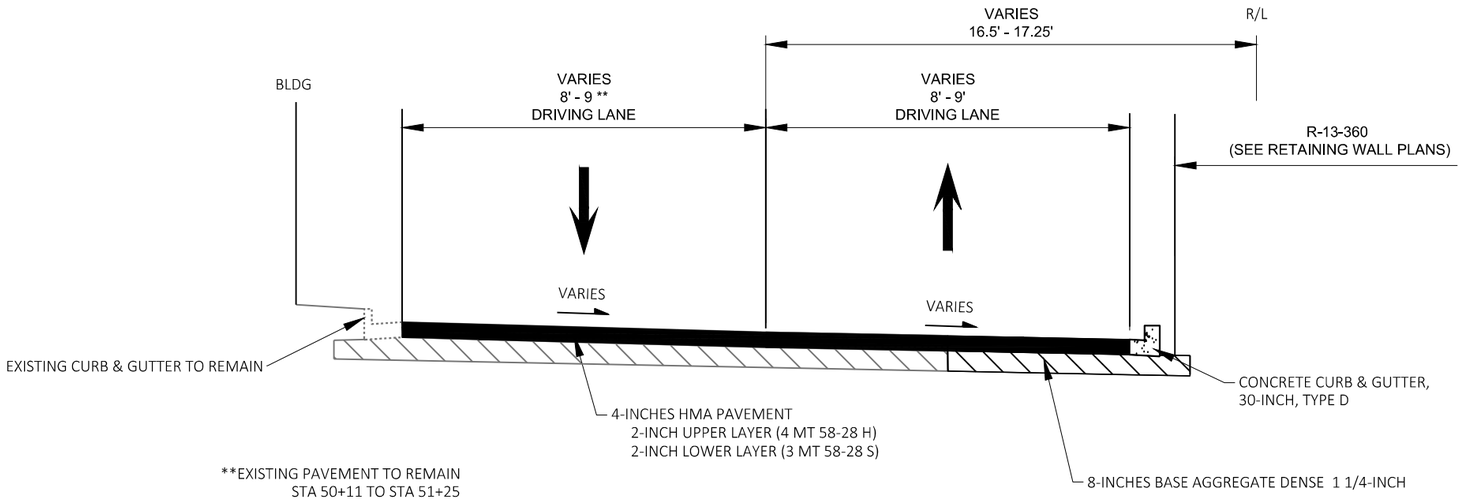
2



FINISHED TYPICAL SECTION - FARLEY AVENUE 'FA'

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	FINISHED TYPICAL SECTIONS	SHEET 12	E

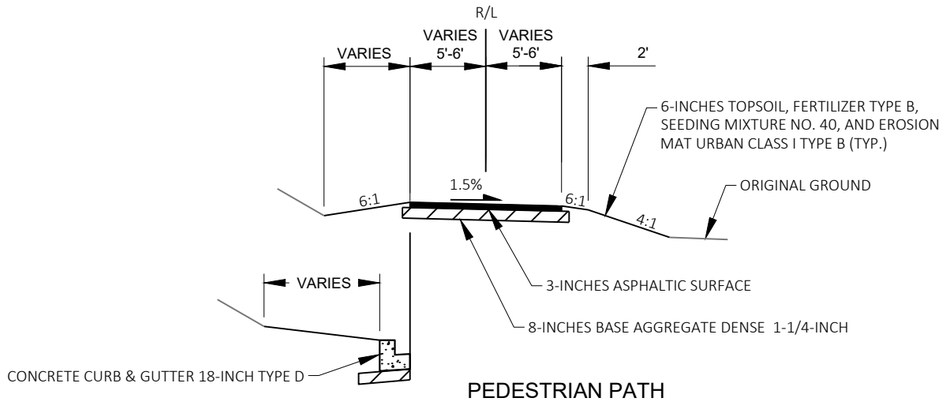
2



**EXISTING PAVEMENT TO REMAIN
STA 50+11 TO STA 51+25

FINISHED TYPICAL SECTION - CATAFALQUE COURT

STA. 50+11 - STA. 53+77

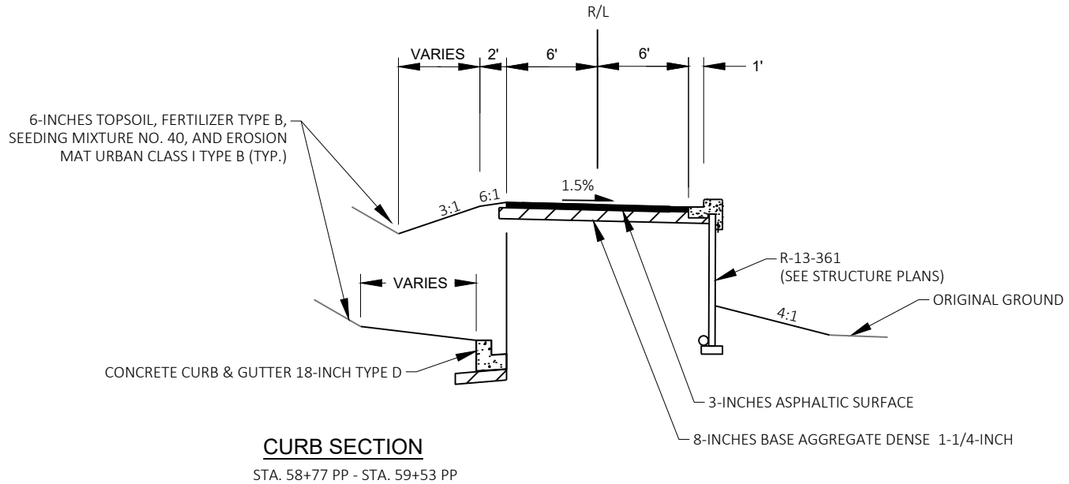


CURB SECTION

STA. 59+53 PP - STA. 59+74 PP

PEDESTRIAN PATH

STA. 50+50 PP - STA. 50+75 PP
STA. 59+55 PP - STA. 60+55 PP

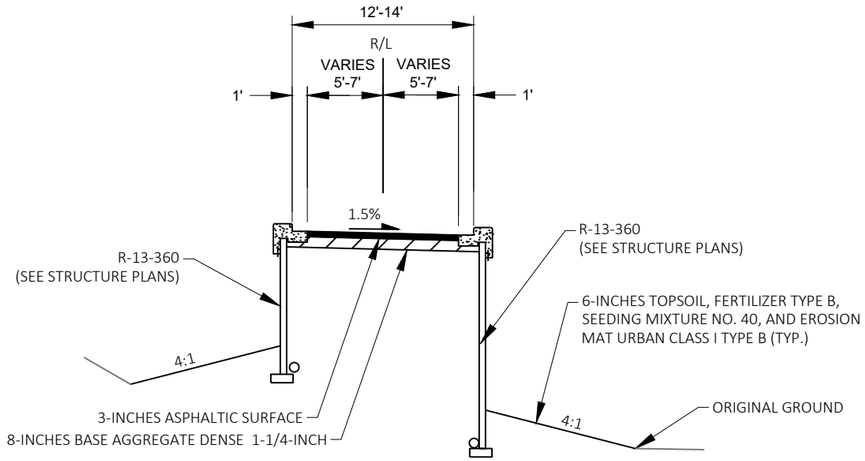


CURB SECTION

STA. 58+77 PP - STA. 59+53 PP

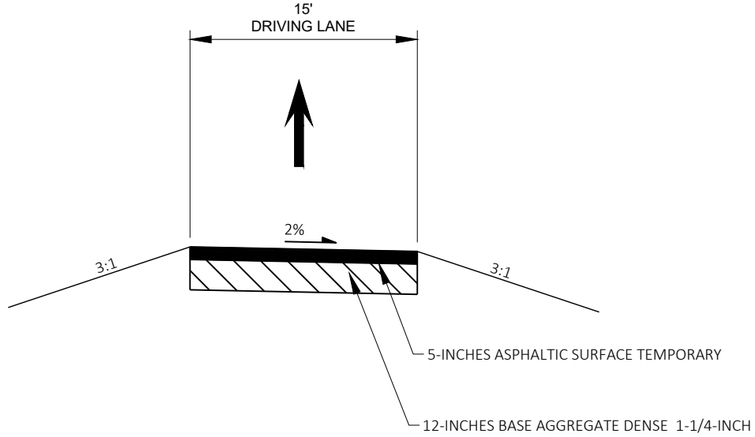
PEDESTRIAN PATH

STA. 56+90 PP - STA. 59+55 PP



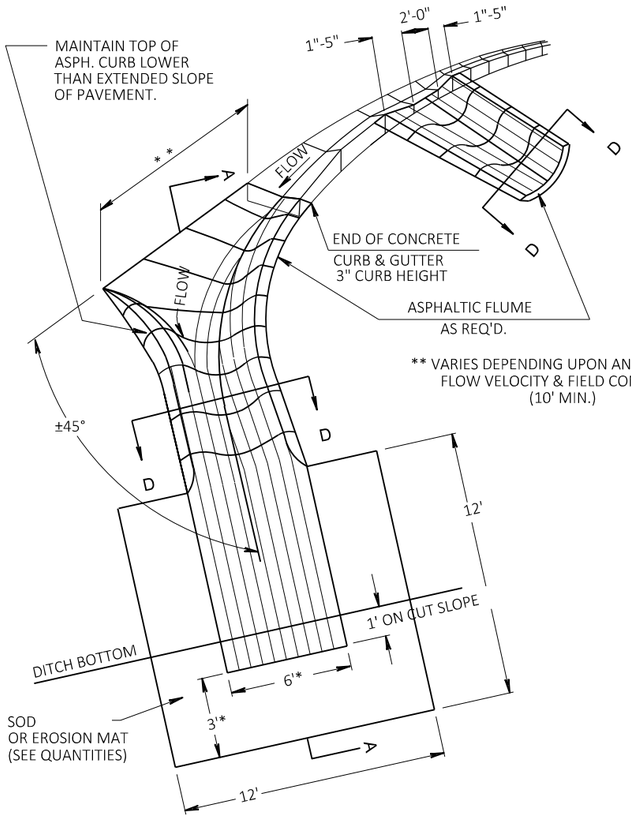
PEDESTRIAN PATH

STA. 50+75 PP - STA. 53+05 PP
STA. 56+55 PP - STA. 56+90 PP

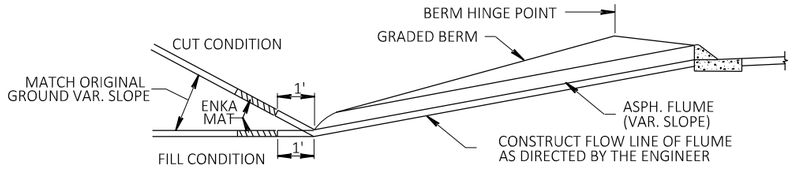


FINISHED TYPICAL SECTION - STAGE 4 TEMP BUS ACCESS

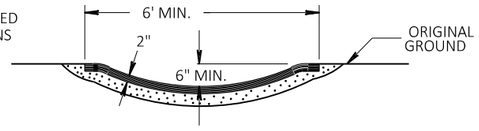
STA. 0+27- STA. 1+30



** VARIES DEPENDING UPON ANTICIPATED FLOW VELOCITY & FIELD CONDITIONS (10' MIN.)

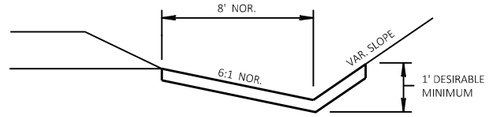


SECTION A-A



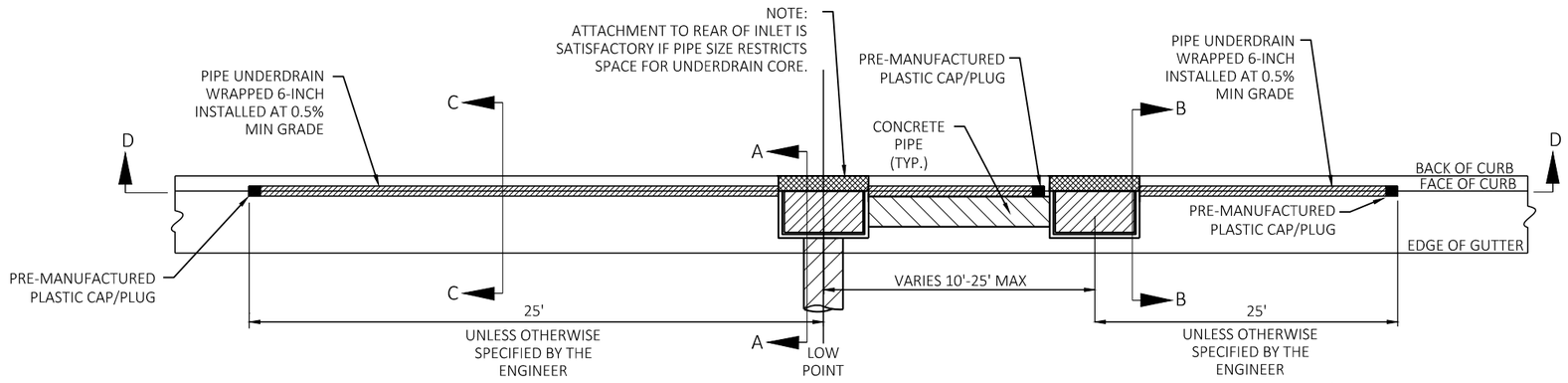
SECTION D-D

ASPHALTIC FLUME DETAIL AT RURAL INTERSECTIONS



EROSION MAT DETAIL FOR DITCHES

2



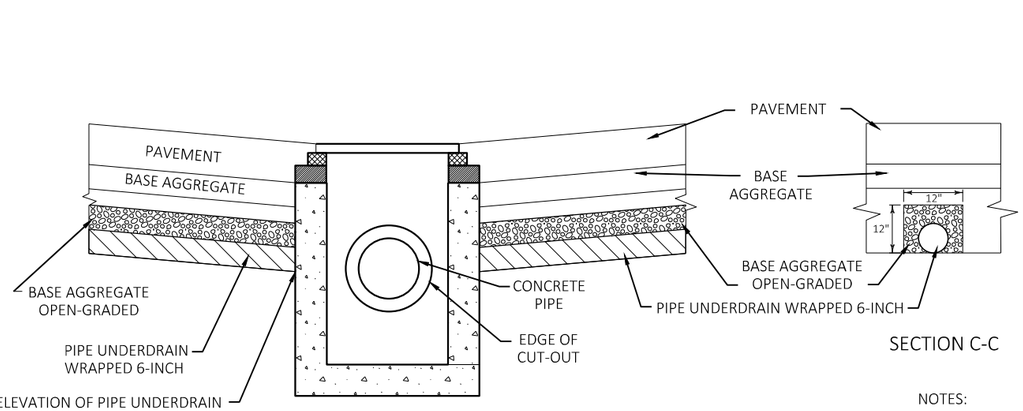
LOW POINT INLET

TOP VIEW
SPLIT DETAIL

LOW POINT INLET WITH FLANKING INLETS

INLET CONFIGURATION WITH UNDERDRAIN AT LOW POINTS

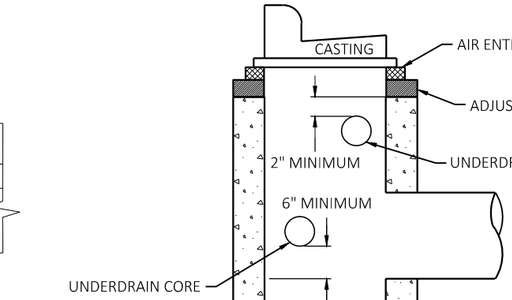
NOTE:
WHERE MULTIPLE INLETS ARE USED AT LOW POINTS, PIPE UNDERDRAIN WRAPPED 6-INCH SHALL BE INSTALLED 25 FEET TO EITHER DIRECTION FROM THE LOW POINT AT A MINIMUM POSITIVE GRADE OF 0.5%.
THE SECTION OF UNDERDRAIN BETWEEN THE CENTER AND OUTER INLETS SHALL BE PLACED TIGHT TO THE OUTER INLET, CAPPED WITH A PREMANUFACTURED PLASTIC CAP OR PLUG, AND LAID AS SPECIFIED ABOVE TO THE CENTER INLET.



ELEVATION OF PIPE UNDERDRAIN WRAPPED 6-INCH SHALL BE PLACED AT A MINIMUM OF 6" ABOVE THE INVERT OF STORM SEWER PIPE. UNDERDRAIN PIPE INVERT NOT NECESSARILY AT BOTTOM OF SELECT CRUSHED MATERIAL. ELEVATIONS TO BE DETERMINED BY ENGINEER IN FIELD.

SECTION D-D

TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL WITH NO PIPE FOUND AT LOW POINTS WITHOUT FLANKING INLETS



SECTION C-C

NOTES:

(1) BOTTOM OF PIPE SHALL BE PLACED AT THE BOTTOM OF BASE AGGREGATE OPEN-GRADED MATERIAL.
(2) BOTTOM OF BASE AGGREGATE OPEN-GRADED MATERIAL IS NOT NECESSARILY THE BOTTOM OF THE SELECT CRUSHED MATERIAL.

SECTION A-A

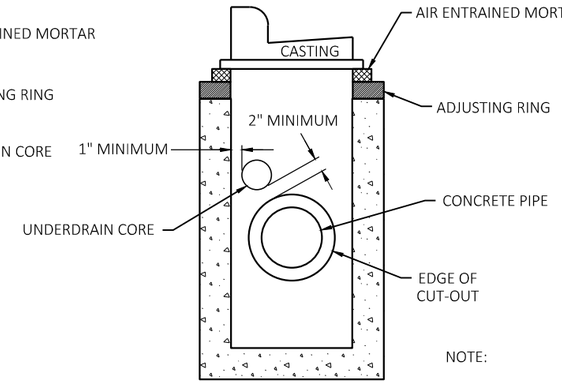
NOTES:

(1) BOTTOM OF CORE PLACED A MINIMUM OF 6" ABOVE THE INVERT OF THE CROSS PIPE.
(2) TOP OF CORE HOLES WILL BE A MINIMUM OF 2" BELOW THE TOP OF THE INLET STRUCTURES (BOTTOM OF RINGS)
(3) DRAIN TILES SHALL NOT BE ALLOWED IN THE RING OF THE STRUCTURE OF INLETS OR SEWER ACCESS STRUCTURES

CROSS-SECTION VIEW

TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL WITH CROSSPIPE ONLY

FOUND AT LOW POINTS WITHOUT FLANKING INLETS



SECTION B-B

NOTE:

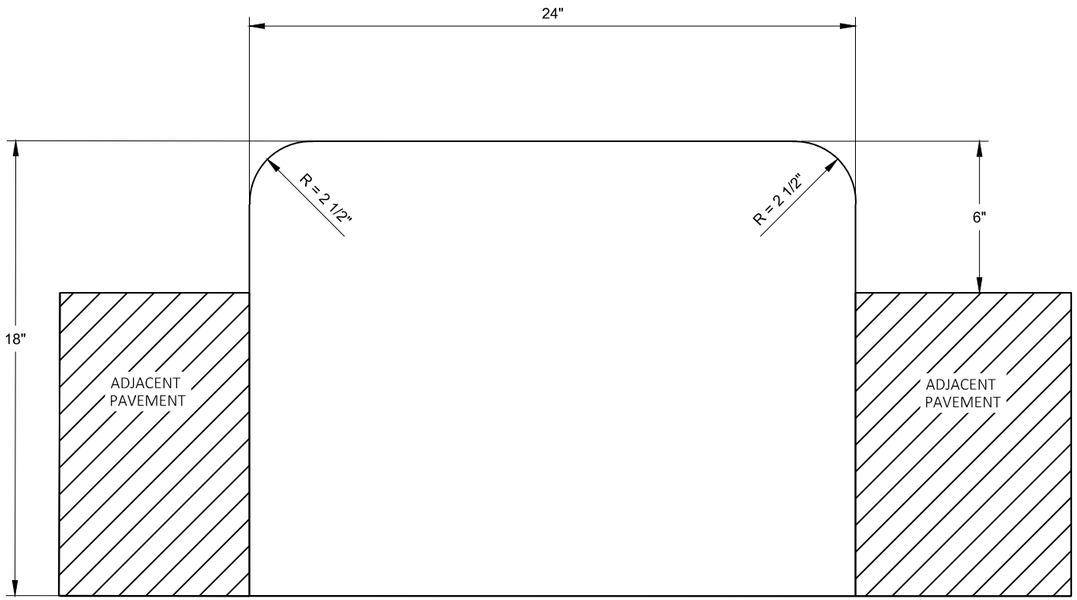
(1) CORE HOLES SHALL PROVIDE FOR A MINIMUM OF 2" OF CONCRETE BETWEEN THE CUTOUT FOR A CONCRETE PIPE AND THE EDGE OF THE CORE HOLE.
(2) CORE HOLES MAY HAVE 0" CLEARANCE FROM THE INSIDE WALLS OF A STRUCTURE.

CROSS-SECTION VIEW

TYPICAL INLET IN SUMP CONDITION WITH UNDERDRAIN CORED INTO WALL WITH PIPE FOUND AT FLANKING INLETS NEAR LOWPOINTS

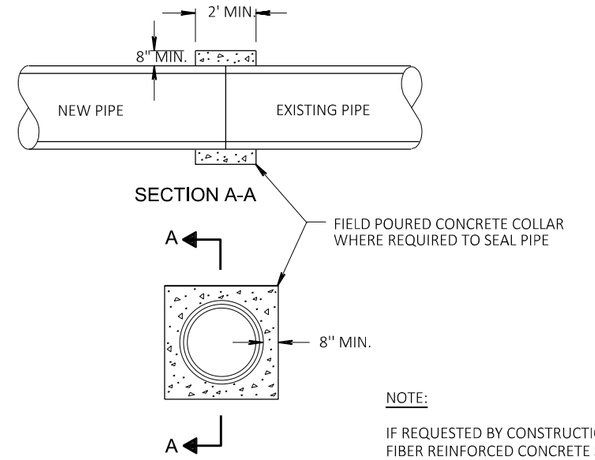
UNDERDRAIN PIPE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E



CONCRETE CURB 24-INCH TYPE D SPECIAL

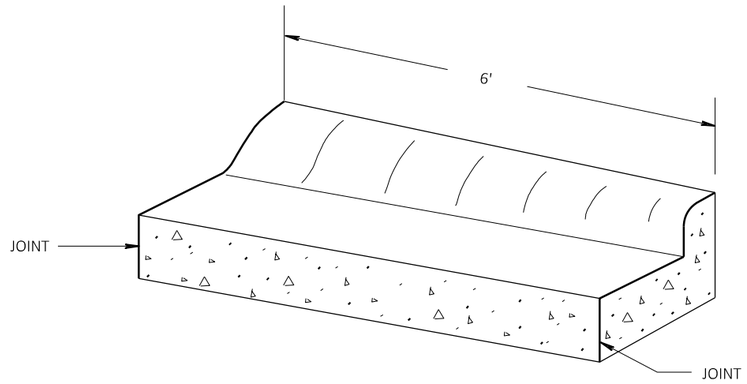
SEE CONCRETE CURB & GUTTER 24-INCH SPECIAL FOR DETAILS AND NOTES NOT SHOWN



NOTE:

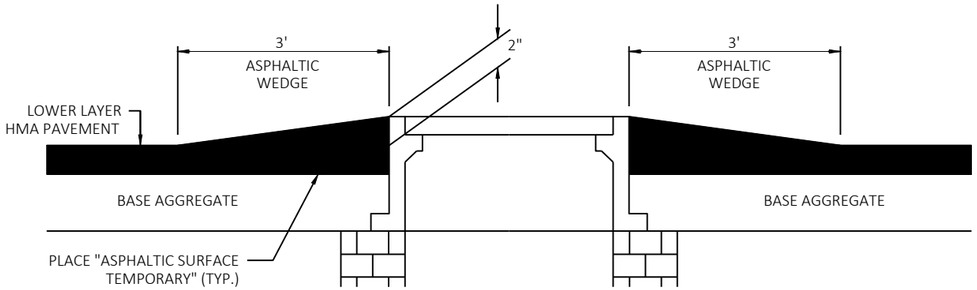
IF REQUESTED BY CONSTRUCTION ENGINEER, FIBER REINFORCED CONCRETE SHALL BE PROVIDED. THIS SHALL BE INCIDENTAL TO THE CONCRETE COLLAR ITEM.

CONCRETE COLLAR DETAIL



TRANSITION DETAIL

24-INCH CURB & GUTTER TO 30-INCH CURB & GUTTER (MEASURED & PAID FOR AS 30-INCH CURB & GUTTER)

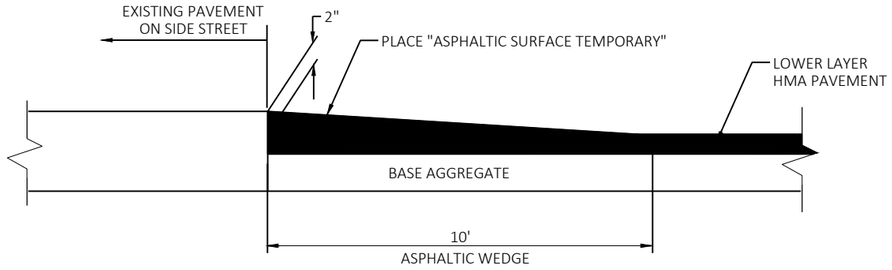


NOTES:

REMOVAL OF ASPHALTIC WEDGES WILL BE PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS."

PROVIDE ASPHALTIC WEDGES PRIOR TO OPENING LANE TO TRAFFIC.

TEMPORARY WEDGES DETAIL (MANHOLES)

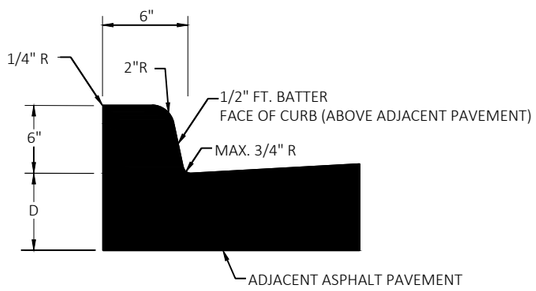


NOTES:

REMOVAL OF ASPHALTIC WEDGES WILL BE PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINT."

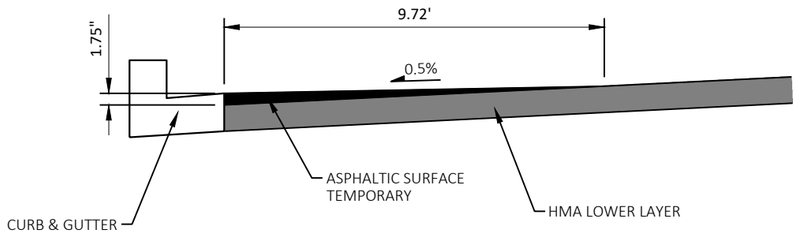
PROVIDE ASPHALTIC WEDGE PRIOR TO OPENING LANE TO TRAFFIC.

TEMPORARY WEDGES DETAIL (MATCH POINTS)



D = DEPTH OF ADJACENT ASPHALT PAVEMENT

TEMPORARY ASPHALTIC CURB DETAIL



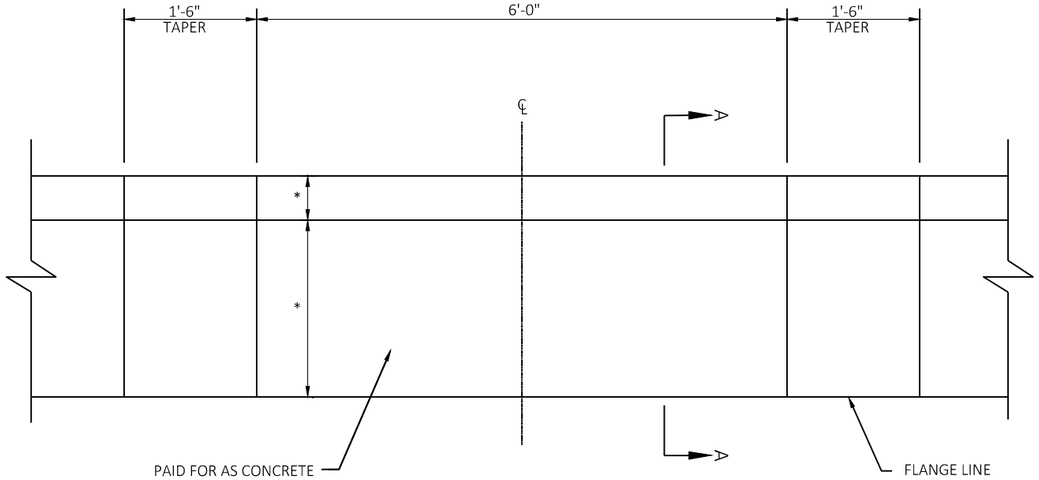
TRAFFIC CONTROL WEDGE DETAIL

NOTES:

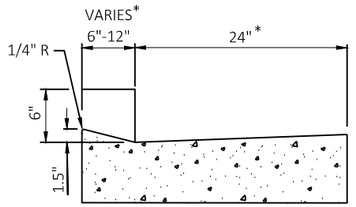
WEDGE TO BE PLACED PRIOR TRAFFIC LANE SWITCH FOR STAGE 3

REMOVAL OF TEMPORARY ASPHALTIC SURFACE WILL BE PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINT".

2

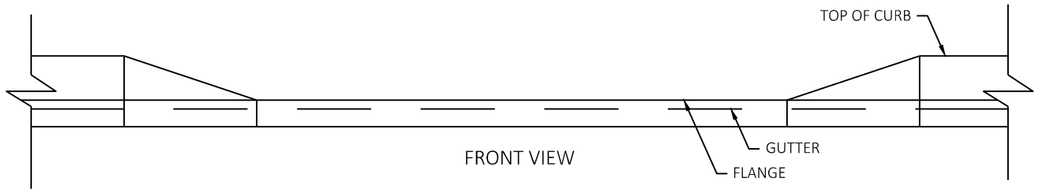


PLAN VIEW



END VIEW

SECTION A-A



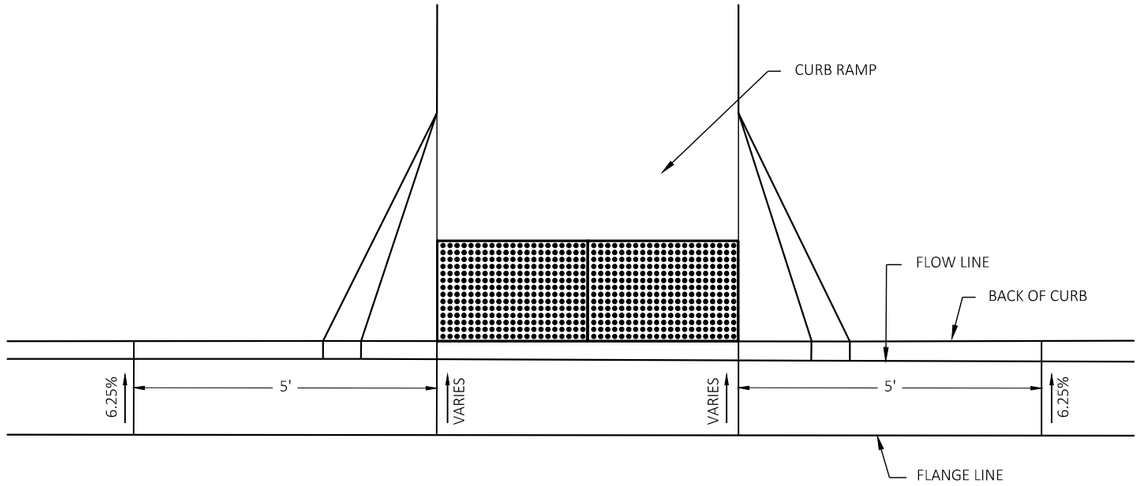
FRONT VIEW

* TYPE AND DIMENSIONS TO MATCH ADJACENT CURB AND GUTTER.

MAINTENANCE OPENING DETAIL

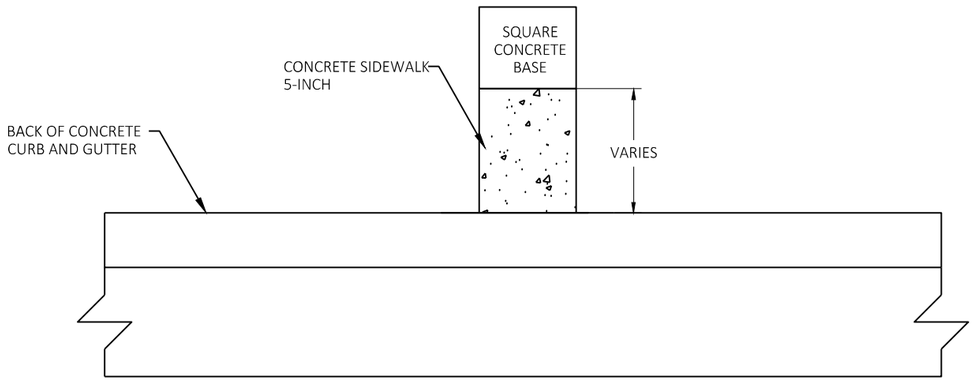
LOCATIONS SHOWN ON PLAN DETAILS

2

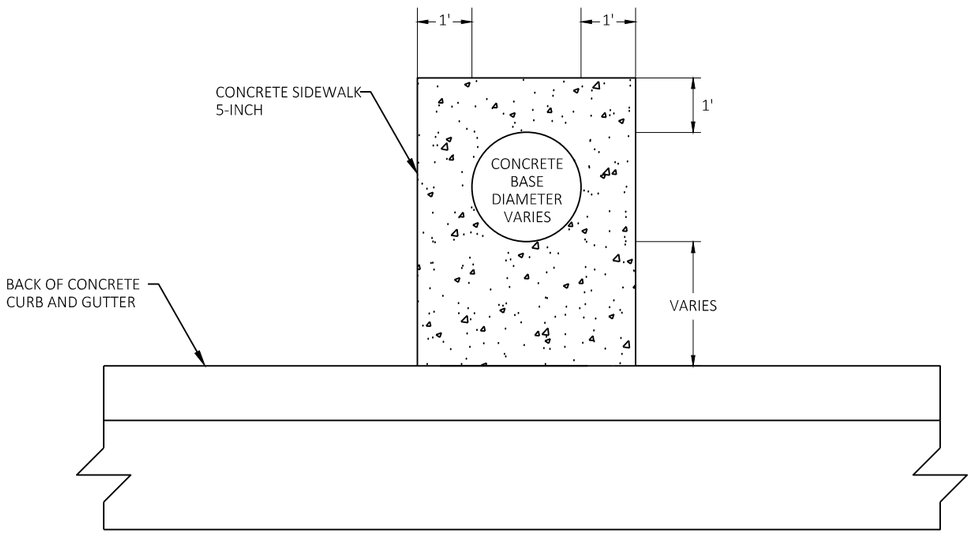


GUTTER PAN TRANSITION AT CURB RAMPS

(6.25% TO PERCENT SHOWN ON PLANS)
(SEE PLAN DETAILS FOR LOCATIONS)



CONCRETE SIDEWALK AROUND CONCRETE BASE



CONCRETE SIDEWALK AROUND CONCRETE BASE

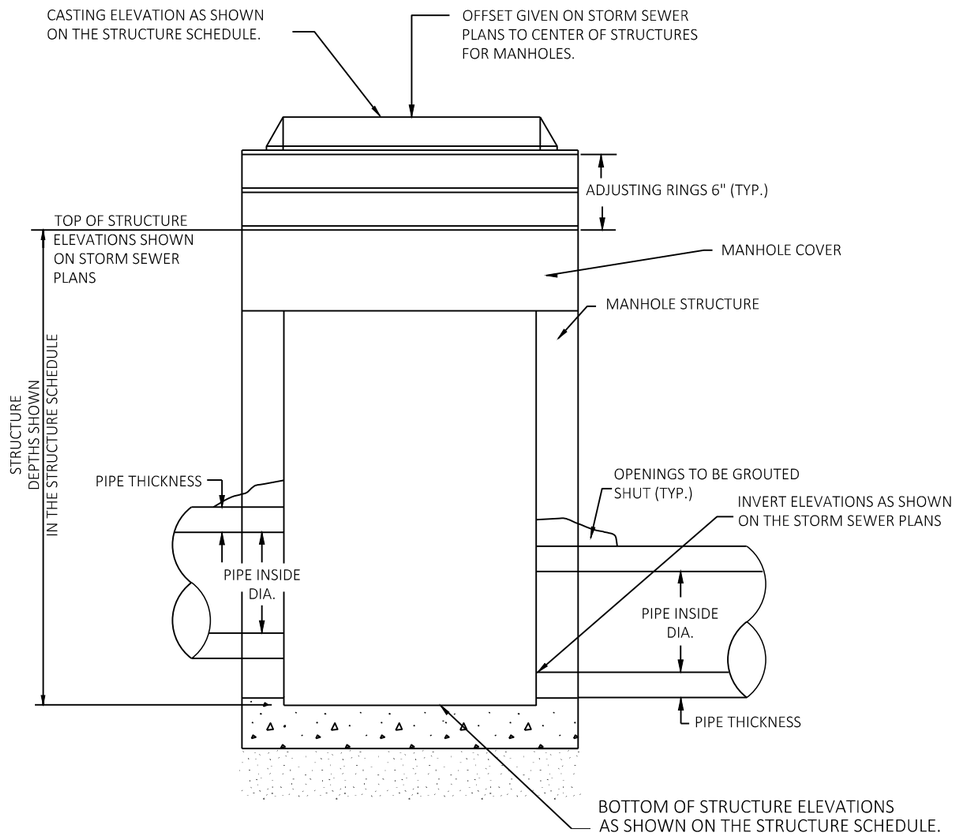
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 20	E

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLES TYPE 1.

THE CITY OF MADISON REQUIRES THAT ALL STEPS ARE REMOVED FROM THE STRUCTURES BEFORE ACCEPTANCE.
STEPS CAN BE IN PLACE FOR CONSTRUCTION ACCESS BUT WILL NEED TO BE REMOVED PRIOR TO THE END OF THE PROJECT.



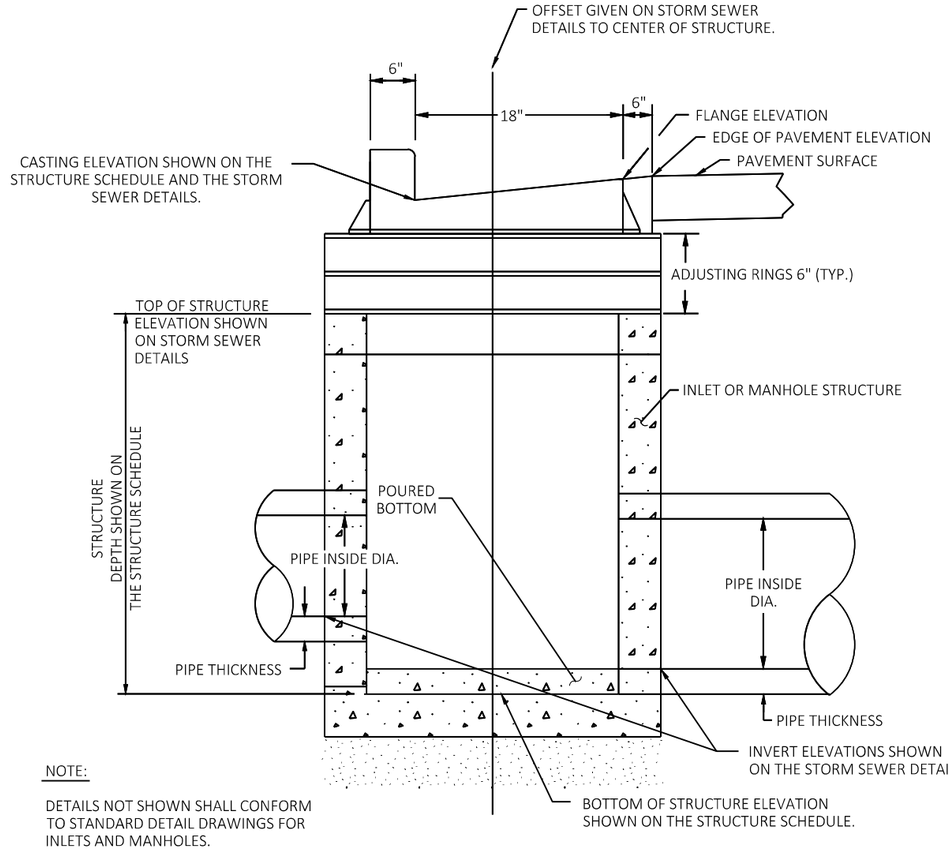
MANHOLE W/CASTING DETAIL

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLES TYPE 1.

THE CITY OF MADISON REQUIRES THAT ALL STEPS ARE REMOVED FROM THE STRUCTURES BEFORE ACCEPTANCE.
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NOTE:

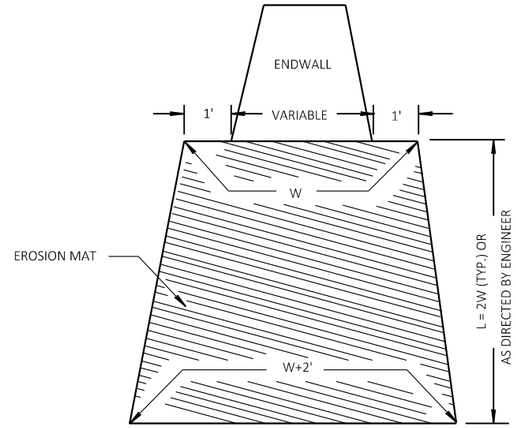
DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWINGS FOR INLETS AND MANHOLES.

DETAIL OF INLET/MANHOLE W/CASTING

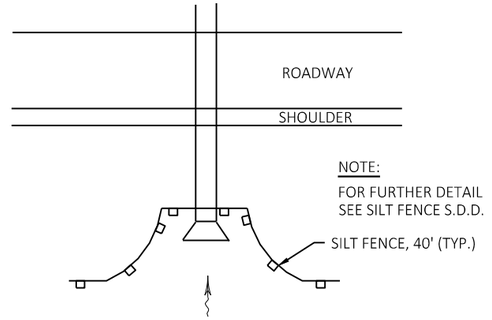
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = **14.9** ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 11.7 ACRES

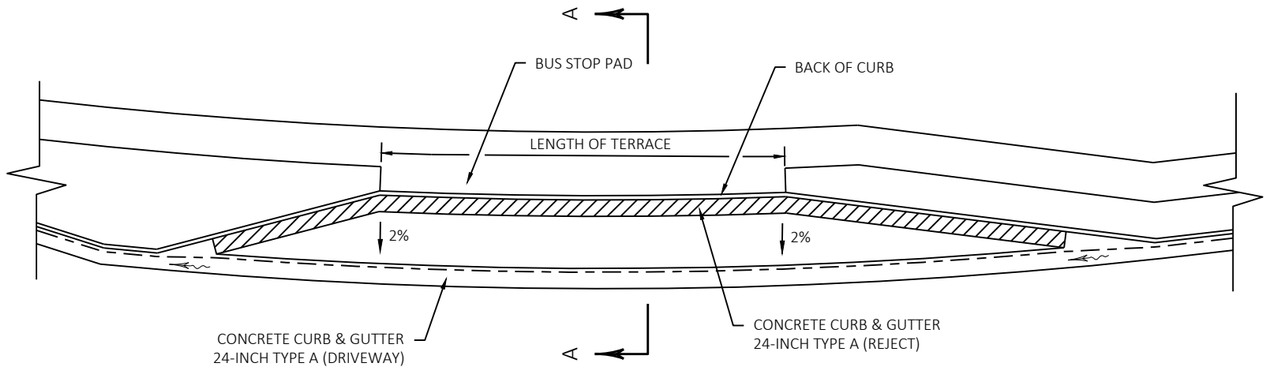


EROSION MAT TREATMENT AT CULVERTS

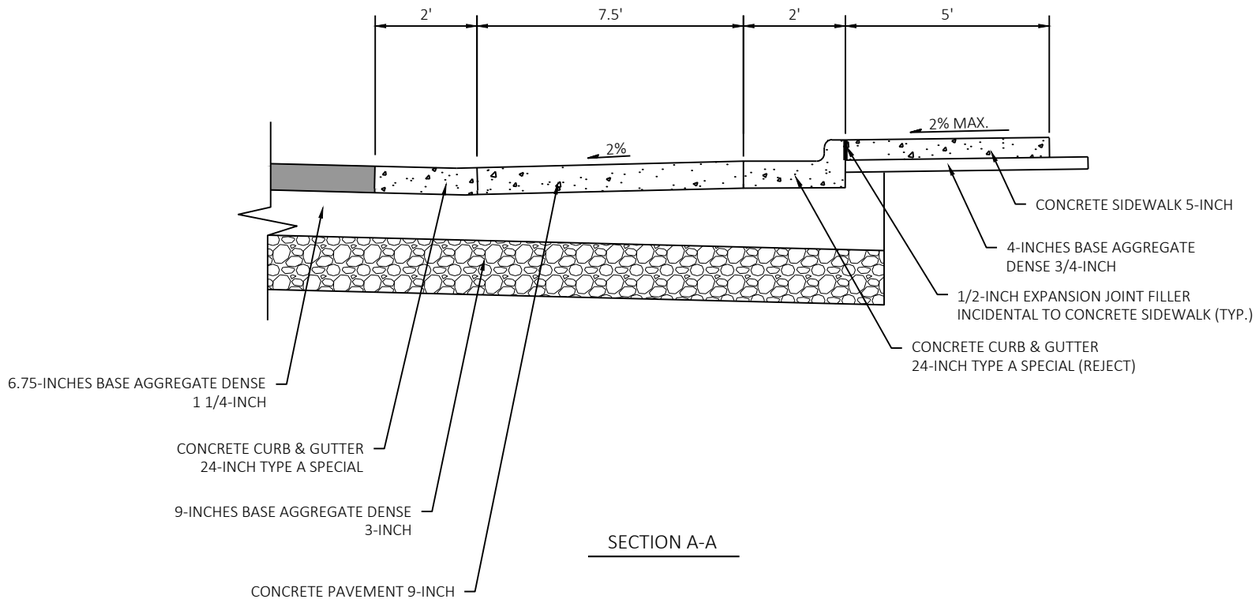


SILT FENCE AT PIPE INLET
SEE EROSION CONTROL PLAN FOR LOCATIONS

2



PLAN VIEW



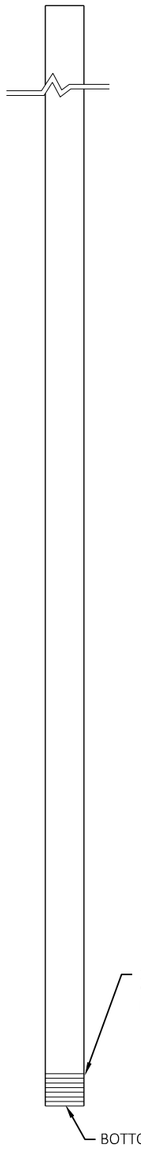
SECTION A-A

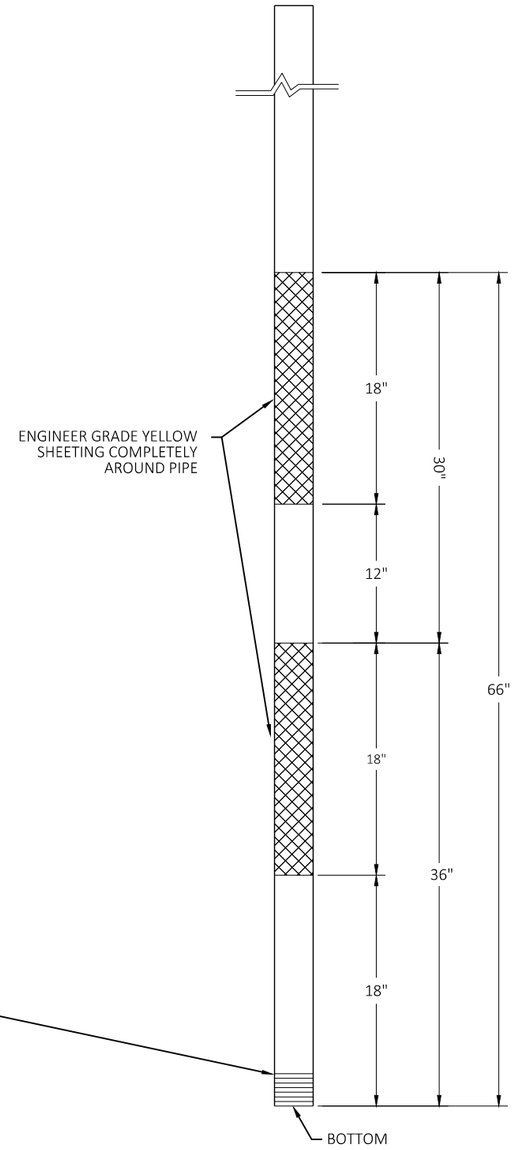
BUS PULL-OUT DETAIL

SEE PLANS FOR LOCATIONS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 23	E

2





2" GALVANIZED PIPE,
SCHEDULE-40, WITH
NATIONAL PIPE STRAIGHT THREADS

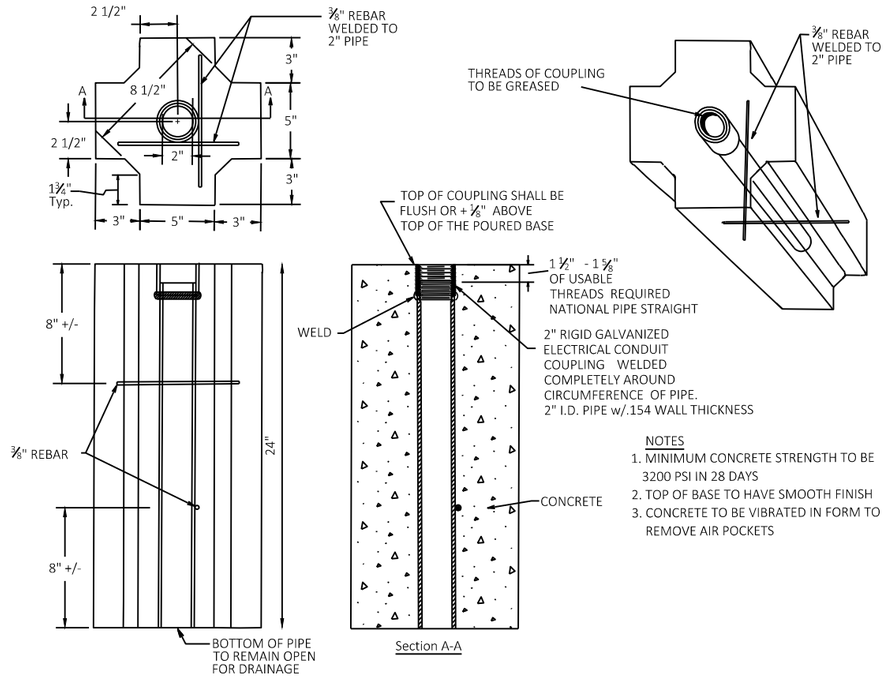
BOTTOM

BOTTOM

SIGN POST

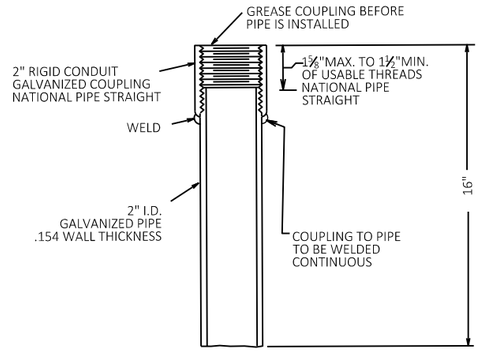
REFLECTIVE SIGN POST
(TRUCK ROUTE STREETS ONLY)

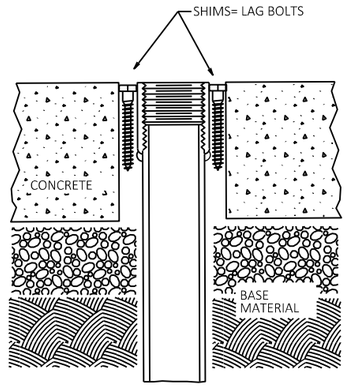
SIGN POST AND REFLECTIVE SIGN POST



NOTES
1. MINIMUM CONCRETE STRENGTH TO BE 3200 PSI IN 28 DAYS
2. TOP OF BASE TO HAVE SMOOTH FINISH
3. CONCRETE TO BE VIBRATED IN FORM TO REMOVE AIR POCKETS

PRECAST CONCRETE SIGN BASE



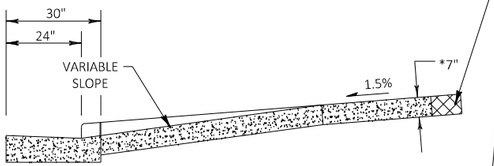


SIGN POST PIPE INSERT IN CONCRETE INSTALLATION:
Drill or core drill 3 1/8" hole all the way through the concrete to the base material.
Temporarily hand-tighten a threaded pipe about 4 feet long into the insert (see Insert detail).
Drive the insert into the base material at a level/plumb position until the insert is flush with the top of the concrete. Shim insert to a level/plumb position using various sizes of lag bolts. Remove temporary pipe, install permanent pipe. Use large pipe wrench to tighten until insert turns, then reset shims/or add shims until pipe no longer turns.
Re-tighten pipe, recheck level/plumb/top of concrete with insert.
Mix up a batch of waterproof anchoring cement for concrete that has a compressive strength of 8000psi at 28 days. The anchoring cement should be mixed up to a liquid consistency, not a paste. Pour the anchoring cement between the concrete and outside of the pipe, until flush with the top of the insert. Quickly recheck insert for level/plumb/top of concrete since the anchoring cement is fast-setting. May need to add more anchoring cement as it settles. Installation needs to be level/plumb, solid and strong when completed.

SIGN POST BASE FOR CONCRETE INSTALLATION DETAIL

THIS AREA TO BE REPLACED IN KIND
AS NOTED ON PLANS:

CONCRETE = CONCRETE DRIVEWAY 7-INCH OVER 6-INCHES BASE AGGREGATE DENSE 1 1/4"
ASPHALT = 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 8-INCHES BASE AGGREGATE DENSE 1 1/4-INCH



SECTION A-A

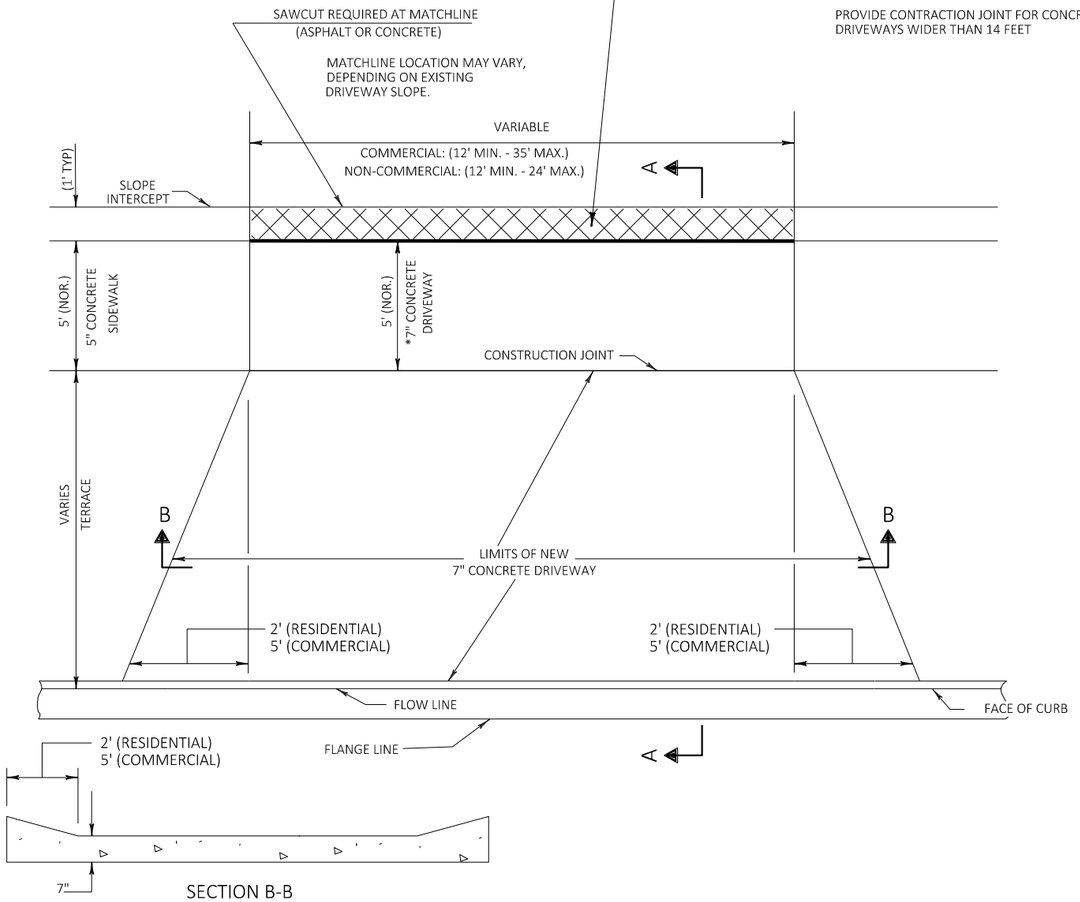
DRIVEWAY CONSTRUCTION NOTES:

HEAVY LINE INDICATES " EXPANSION JOINT MATERIAL.

WHEN MATCHING EXISTING CONCRETE DRIVEWAY INSTALL " EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY.

* UNLESS OTHERWISE NOTED ON PLAN

PROVIDE CONTRACTION JOINT FOR CONCRETE DRIVEWAYS WIDER THAN 14 FEET



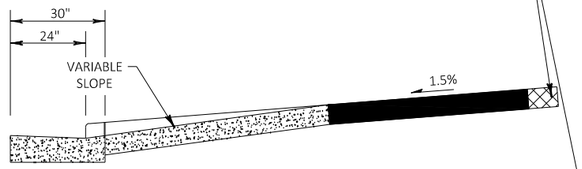
SECTION B-B

CONCRETE DRIVEWAY DETAIL

(ADJACENT TO SIDEWALK)

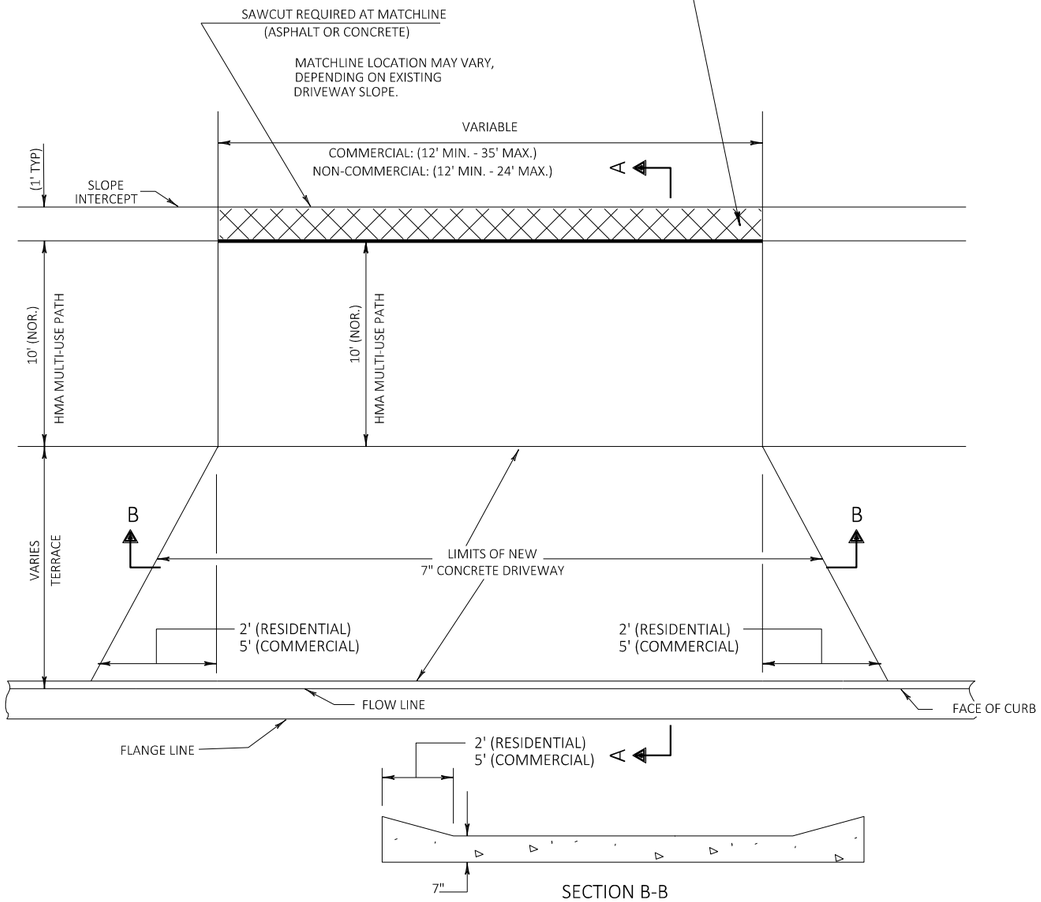
THIS AREA TO BE REPLACED IN KIND
AS NOTED ON PLANS:

CONCRETE = CONCRETE DRIVEWAY 7-INCH OVER 6-INCHES BASE AGGREGATE DENSE 1 1/4"
ASPHALT = 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 8-INCHES BASE AGGREGATE DENSE 1 1/4-INCH



SECTION A-A

DRIVEWAY APRON CONSTRUCTION NOTES:
PROVIDE CONTRACTION JOINT FOR CONCRETE DRIVEWAYS WIDER THAN 14 FEET

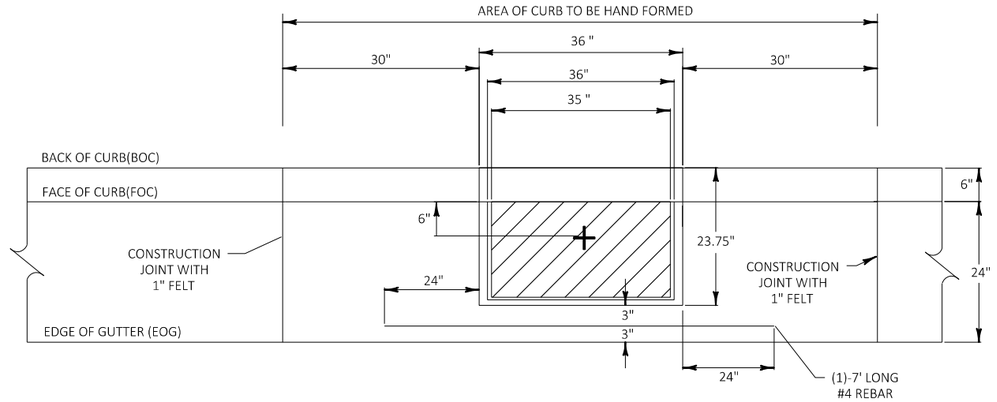


SECTION B-B

CONCRETE DRIVEWAY DETAIL

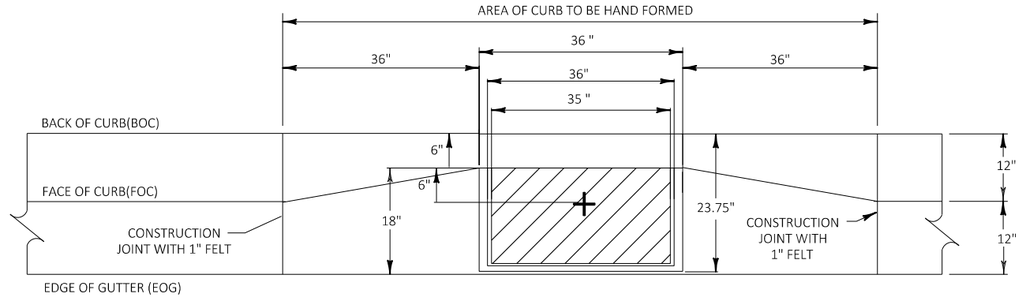
(ADJACENT TO MULTI-USE PATH)

2



CONCRETE CURB AND GUTTER 30-INCH TYPE D
PLAN VIEW

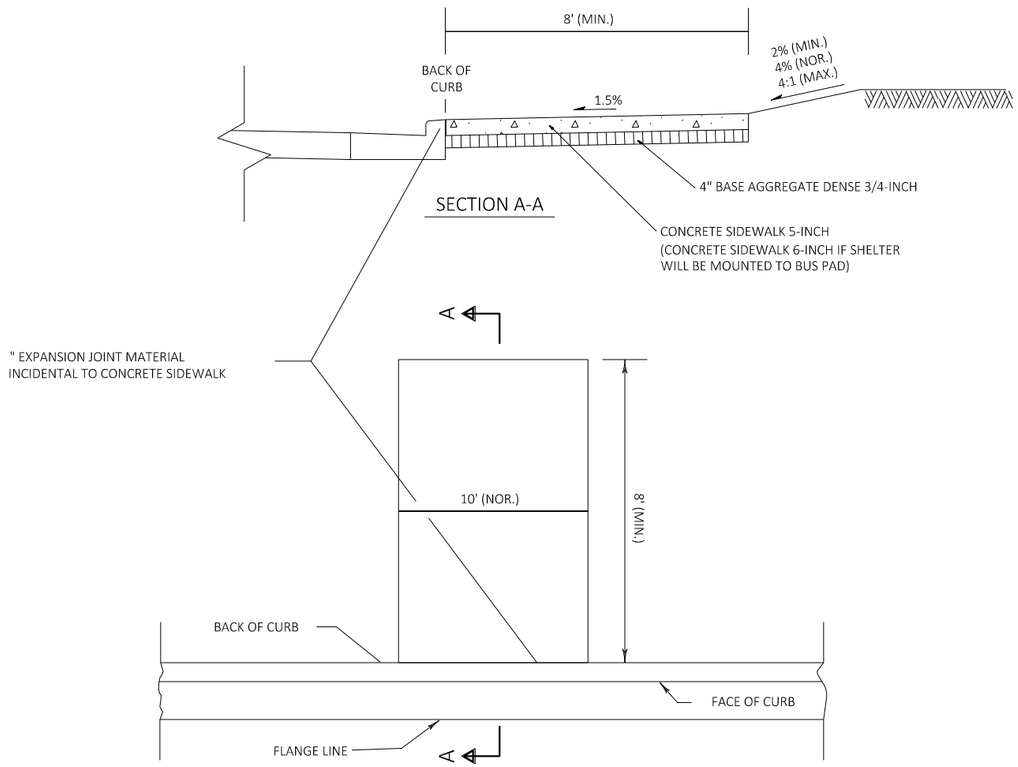
\+ = CENTER OF STRUCTURE (STATION AND OFFSET AS INDICATED ON THE STORM SCHEDULE)



CONCRETE CURB AND GUTTER 24-INCH TYPE D SPECIAL
PLAN VIEW

INLET LOCATIONS IN VARIOUS TYPES OF CURB DETAIL

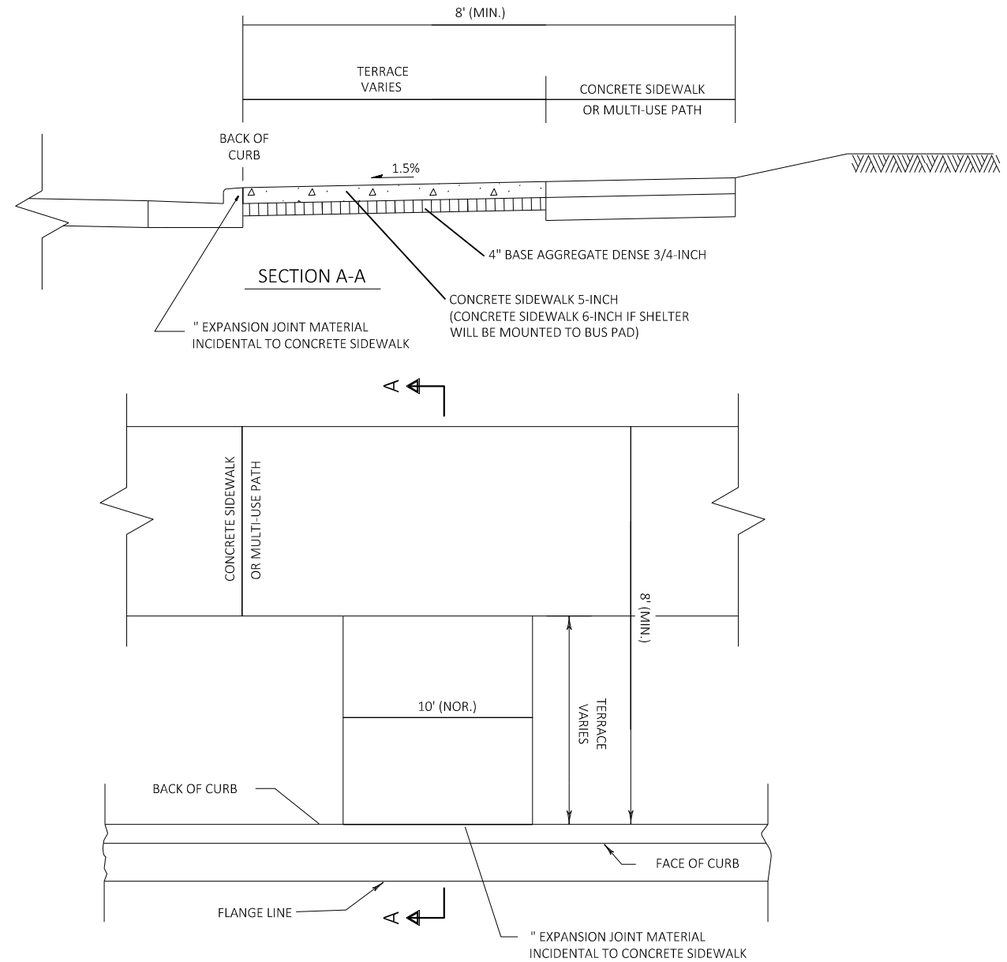
NOTE:
CASTING FLANGE (NOT SHOWN) PROTRUDES APPROXIMATELY 3.63" INTO THE PAVEMENT.
SEE S.D.D. FOR INLET FRAME DETAILS.



BUS STOP PAD DETAIL

WITHOUT ADJACENT SIDEWALK

(SEE PLAN DETAILS FOR LOCATIONS)

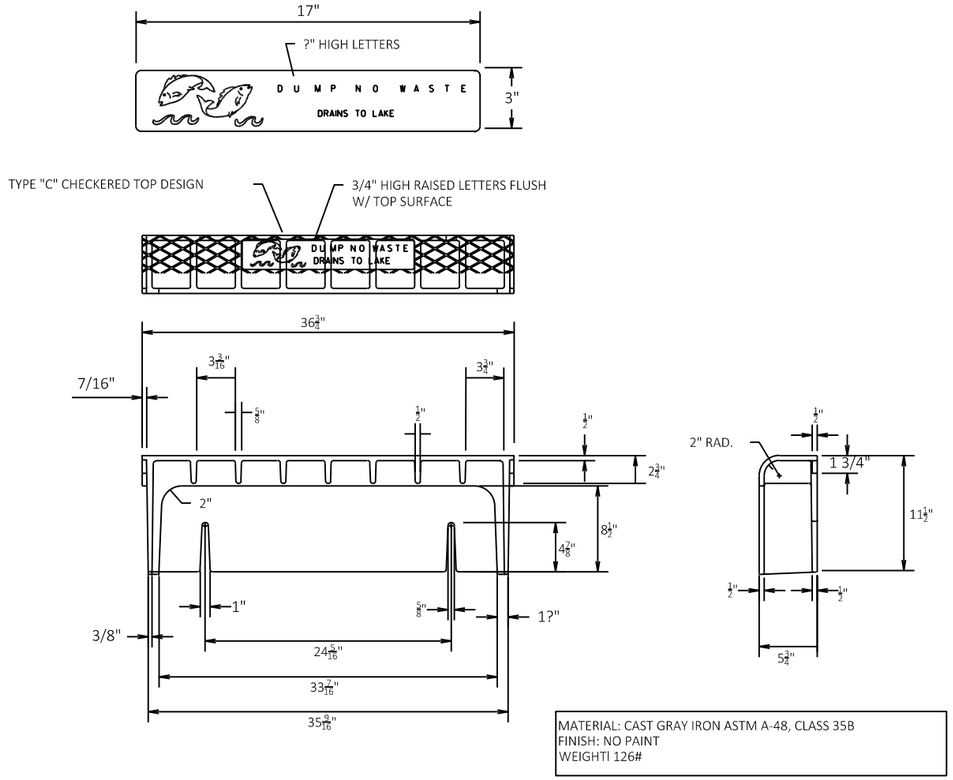


BUS STOP PAD DETAIL

WITH ADJACENT SIDEWALK

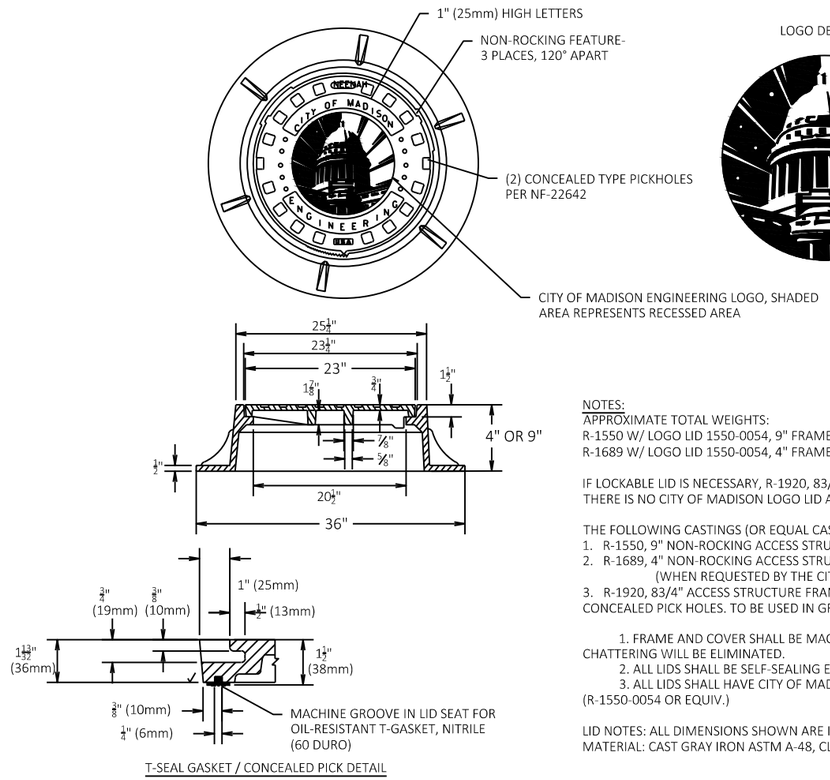
(SEE PLAN DETAILS FOR LOCATIONS)

2

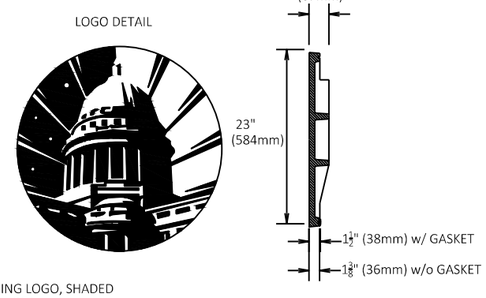


MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHTI 126#

INLET COVER TYPE H SPECIAL & TYPE H-S SPECIAL DETAIL



T-SEAL GASKET / CONCEALED PICK DETAIL



NOTES:
APPROXIMATE TOTAL WEIGHTS:
R-1550 W/ LOGO LID 1550-0054, 9" FRAME AND LID = 315 LBS.
R-1689 W/ LOGO LID 1550-0054, 4" FRAME AND LID = 279 LBS.

IF LOCKABLE LID IS NECESSARY, R-1920, 83/4" FRAME AND LID = 300 LBS.
THERE IS NO CITY OF MADISON LOGO LID AVAILABLE FOR THIS FRAME AND CASTING.

THE FOLLOWING CASTINGS (OR EQUAL CASTINGS) SHALL BE ACCEPTABLE:
1. R-1550, 9" NON-ROCKING ACCESS STRUCTURE FRAME.
2. R-1689, 4" NON-ROCKING ACCESS STRUCTURE FRAME (WHEN REQUESTED BY THE CITY CONSTRUCTION ENGINEER).
3. R-1920, 83/4" ACCESS STRUCTURE FRAME WITH LOCKING LID, TYPE 'F' LOCKS, AND CONCEALED PICK HOLES. TO BE USED IN GREENWAYS AND EASEMENTS.

1. FRAME AND COVER SHALL BE MACHINED AND FITTED SO THAT ROCKING AND CHATTERING WILL BE ELIMINATED.
2. ALL LIDS SHALL BE SELF-SEALING EXCEPT FOR STORM SEWER.
3. ALL LIDS SHALL HAVE CITY OF MADISON LOGO AS SHOWN IN DETAIL (R-1550-0054 OR EQUIV.)

LID NOTES: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND (METRIC)
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B

MANHOLE COVER TYPE J MODIFIED

GENERAL NOTES

TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPE 'A'

TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 509.2.6.2 OF THE STANDARD SPECIFICATIONS

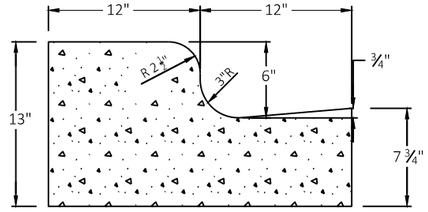
WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATIONS WILL BE SHOWN ELSEWHERE IN THE PLAN.

THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 10" MINIMUM GUTTER THICKNESS IS MAINTAINED

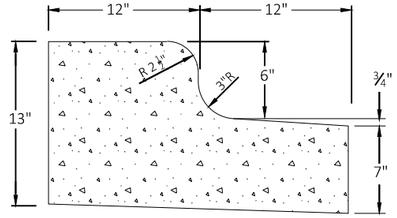
LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH

EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION.

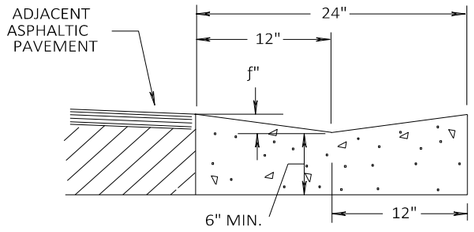
IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE



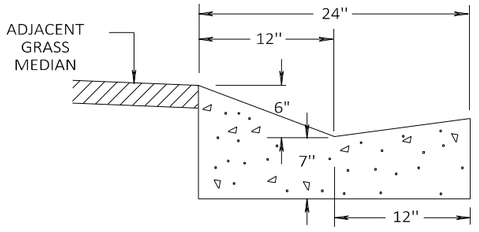
STANDARD
CURB & GUTTER



REJECT
CURB & GUTTER



DRIVEWAY
CURB & GUTTER



MOWER ACCESS
CURB & GUTTER

CONCRETE CURB & GUTTER 24-INCH TYPE A/D SPECIAL DETAIL

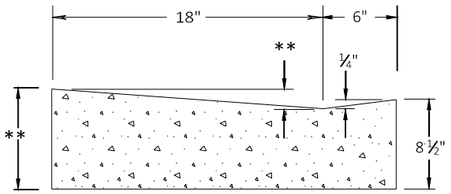
** VARIES - MATCH SLOPE OF DRIVE APRON

GENERAL NOTES

LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH

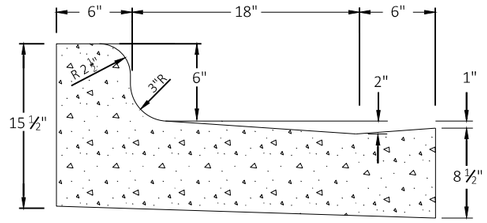
EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION.

IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE

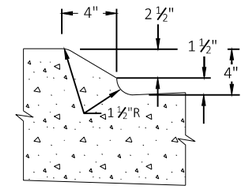


DRIVEWAY SECTION
CONCRETE CURB & GUTTER
TYPE 'X'

(PAY AS CONCRETE CURB & GUTTER 24-INCH TYPE D SPECIAL)



TYPE 'X' CONCRETE
CURB & GUTTER



MOWER ACCESS
CURB & GUTTER

(PAY AS ADJACENT CURB & GUTTER TYPE)

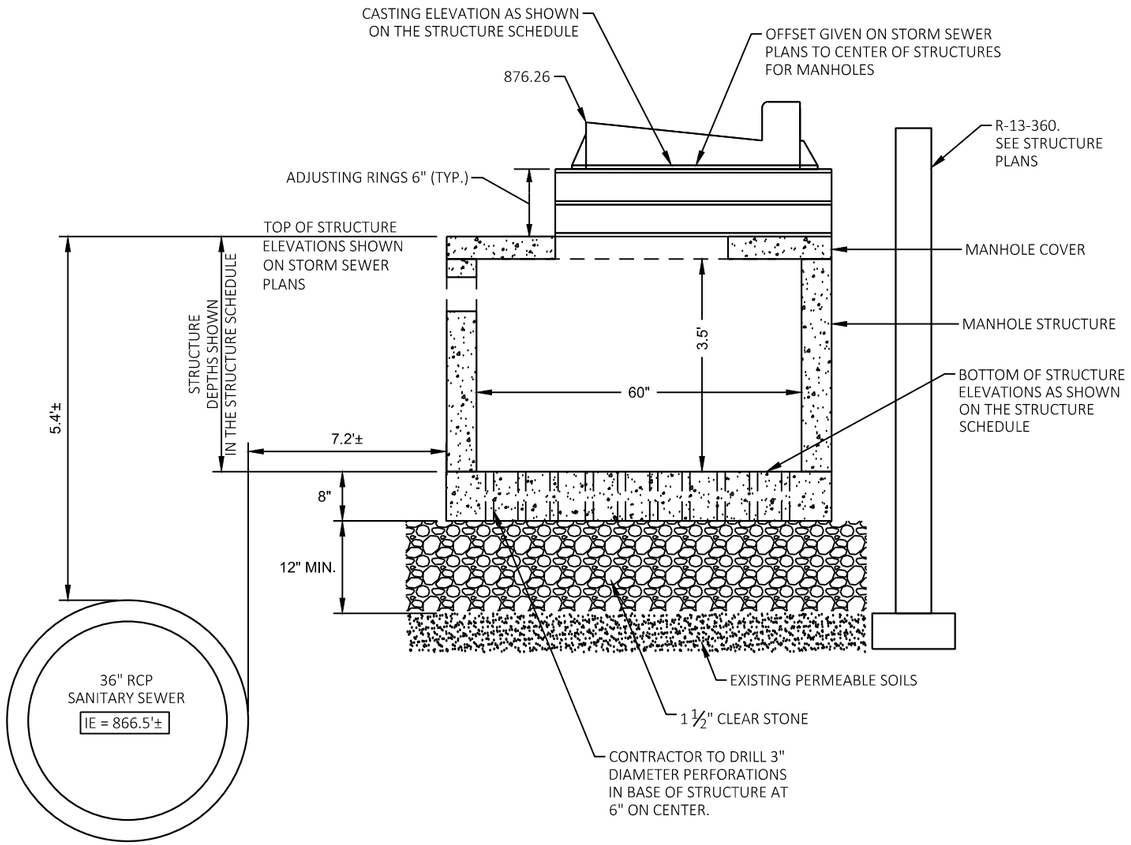
CONCRETE CURB & GUTTER 24-INCH TYPE 'X' DETAIL

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 30	E

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLES TYPE 1.



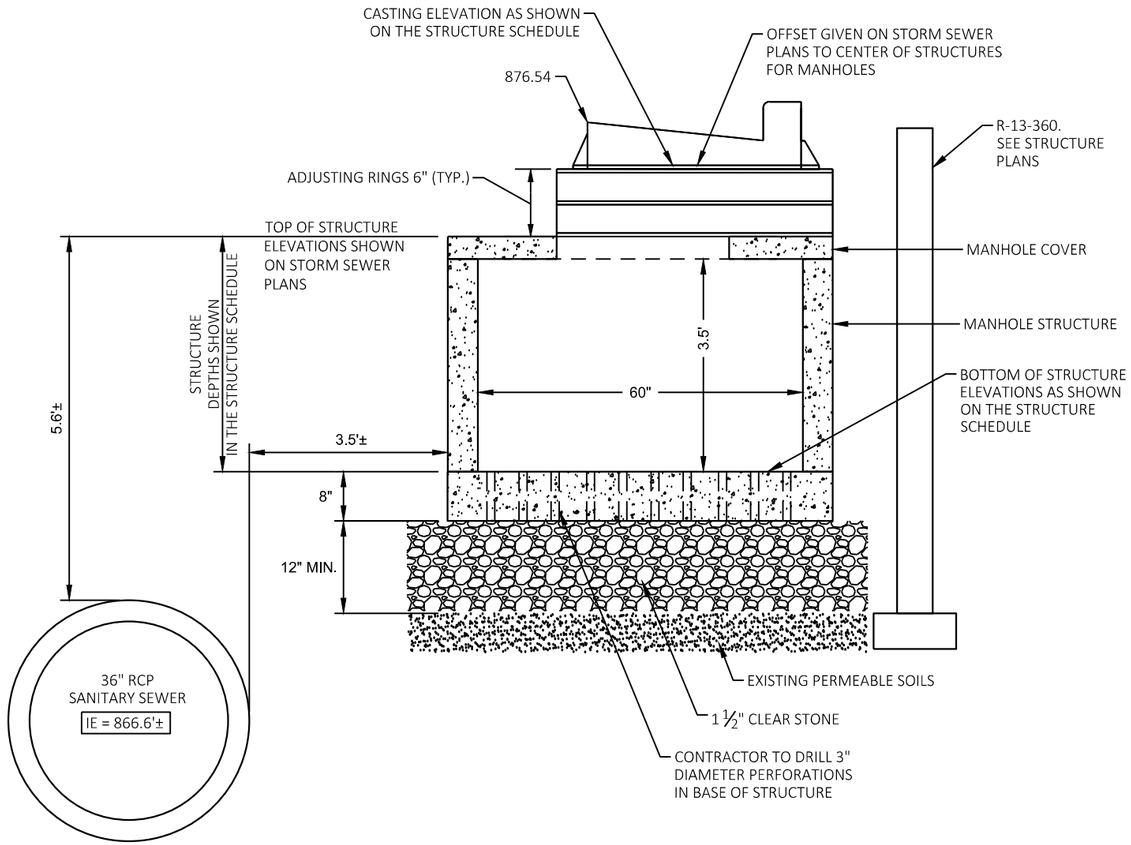
STA. 52+80 MANHOLE

CATAFALQUE COURT

GENERAL NOTES:

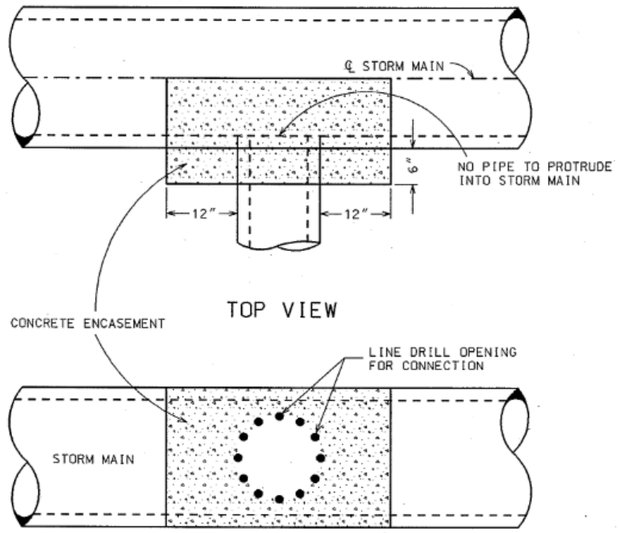
GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

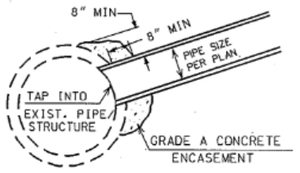
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLES TYPE 1.



STA. 51+87.5 MANHOLE

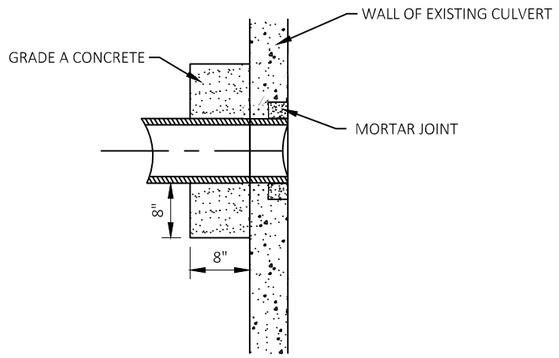
CATAFALQUE COURT



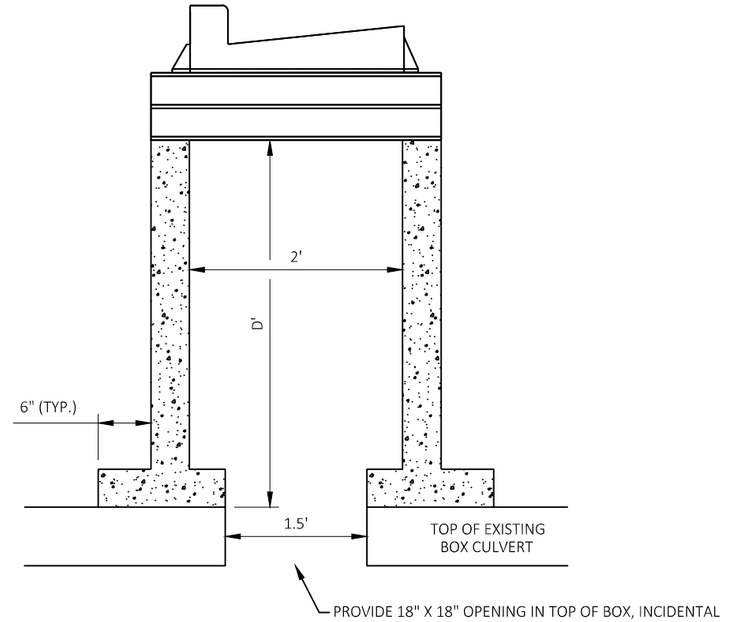


ALTERNATE CONCRETE ENCASEMENT

STORM SEWER TAP



STORM SEWER TAP (BOX CULVERT)

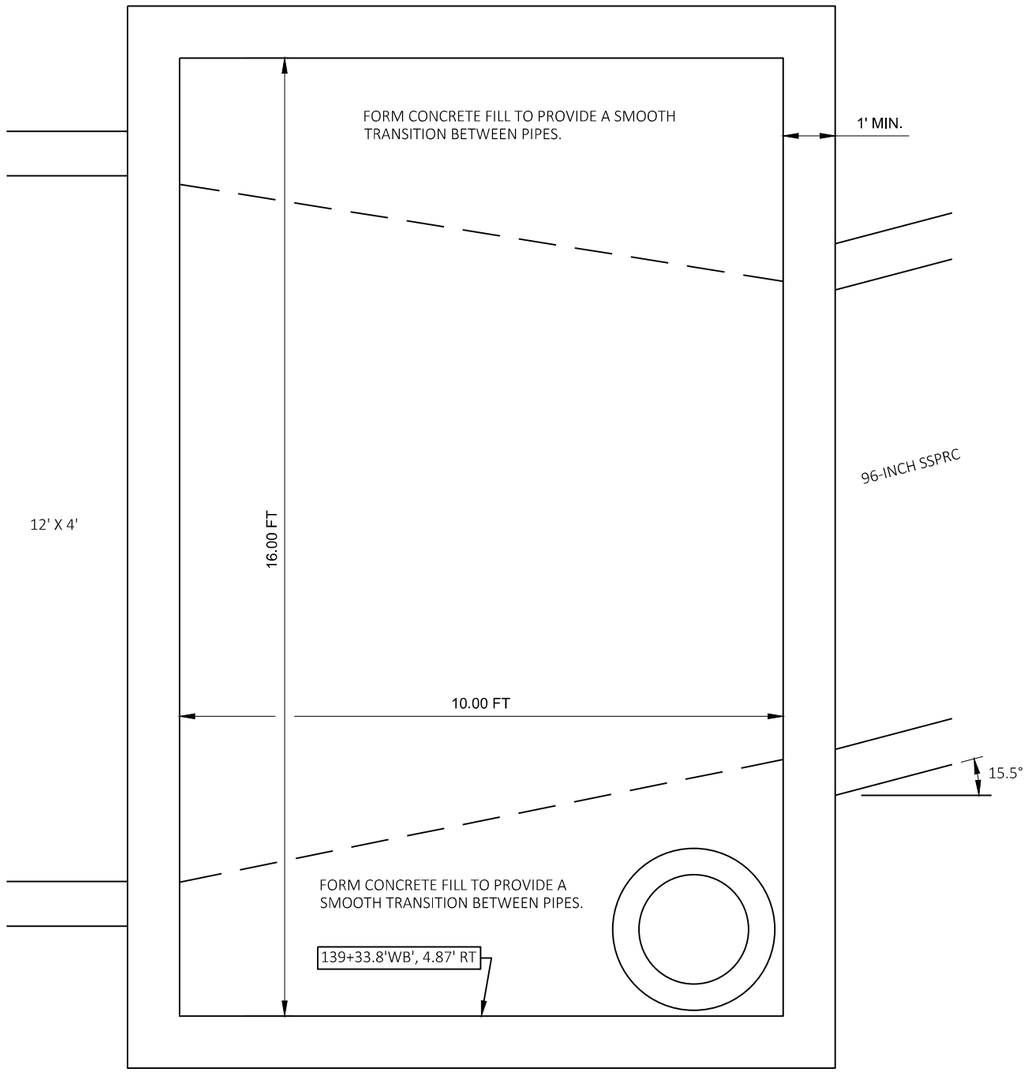


NOTES:

OTHER DETAILS NOT SHOWN REFER TO SDD "INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT".

WHEN DEPTH, D, IS LESS THAN 6", USE ADJUSTING RINGS OR APPROVED EQUIVALENT.

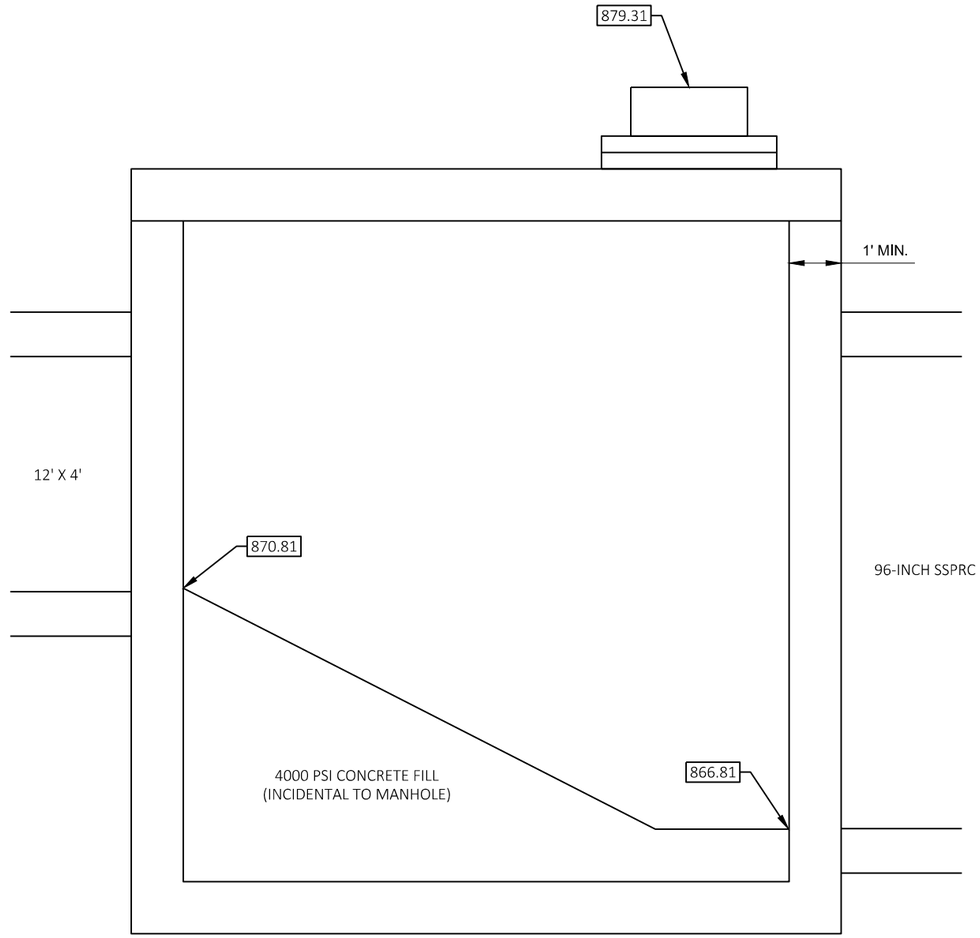
INLET SPECIAL



PLAN VIEW

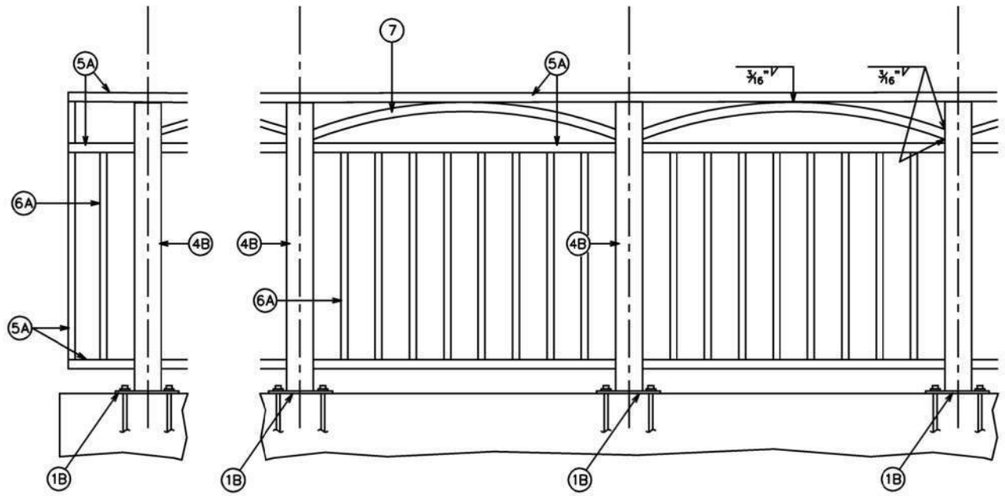
NOTE:

SEE MANHOLE SDD FOR DETAILS NOT SHOWN.

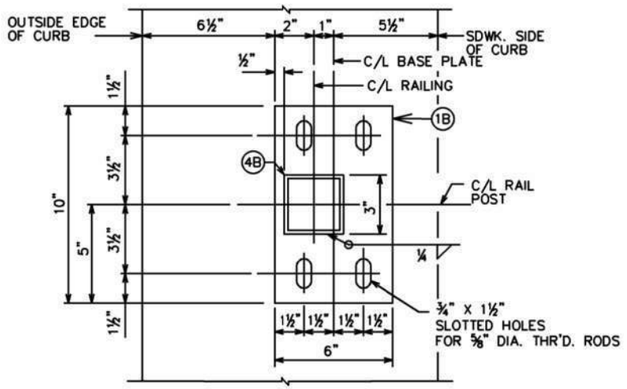


PROFILE VIEW

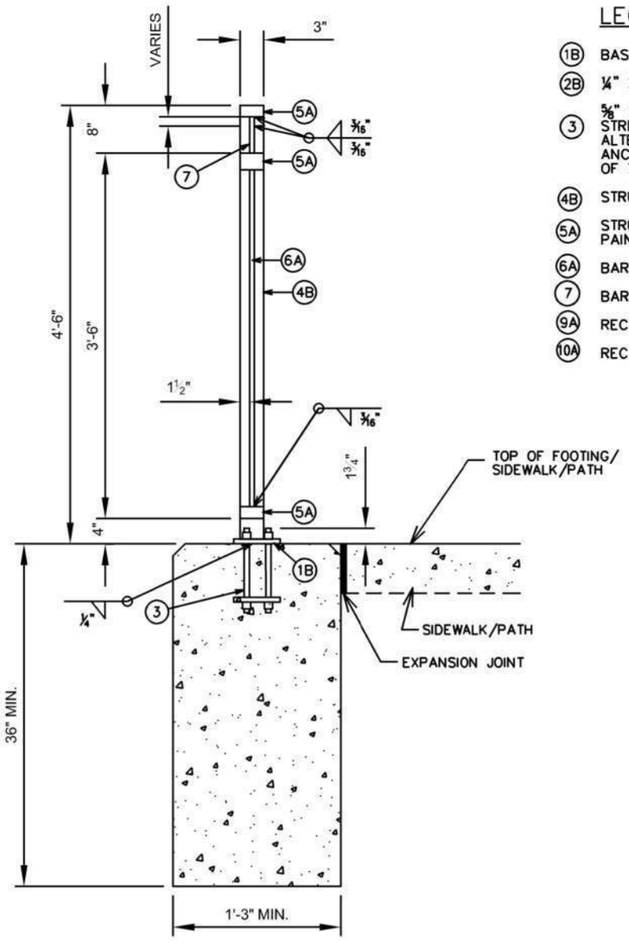
STORM SEWER MANHOLE DETAIL



ELEVATION TYPE C3



TYPICAL RAIL POST BASE PLATE



SECTION THRU RAILING

LEGEND

- (1B) BASE PLATE ⅜" X 6" X 10" WITH ⅝" X 1½" SLOTTED HOLES
- (2B) ¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 1⅛" DIA. HOLES FOR THR'D. RODS NO. 3.
- (3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE RAIL POST ANCHORAGE – 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝"DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POST.
- (4B) STRUCTURAL TUBING 3" X 3" X 3/16" POSTS, PLACE VERTICAL. WELD TO NO. 1 & 5
- (5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
- (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5 PLACE VERTICAL.
- (7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'–4" @ FIELD ERECTION JTS.)

RAILING NOTES

BID ITEM SHALL BE "PEDESTRIAN RAILING" , WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, BARS AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

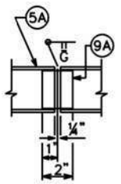
CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING STEEL SHALL BE PAINTED ASM–STD. COLOR NO. 24260, (GREEN).

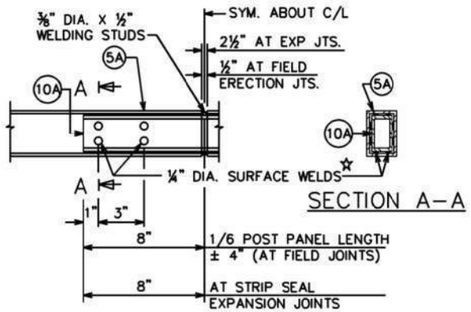
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

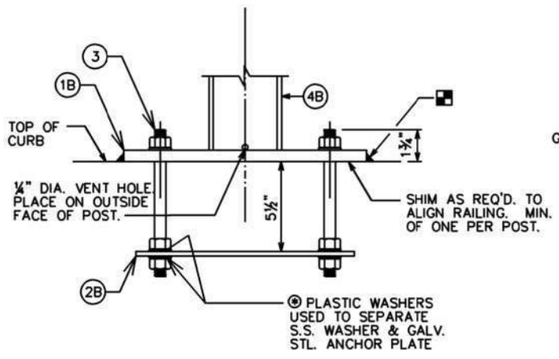
TOUCH–UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



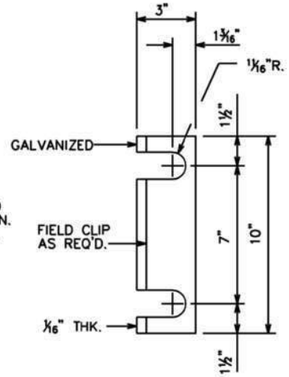
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

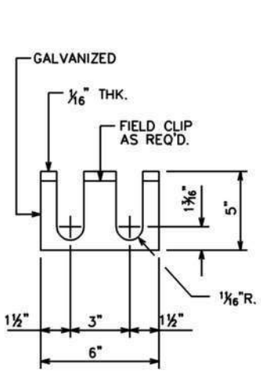


FIELD ERECTION JOINT DETAIL
☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

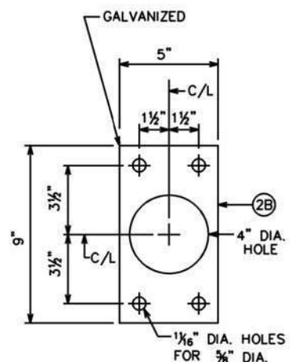


ANCHORAGE FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.





RAIL POST SHIM DETAIL
(2 SETS PER POST)

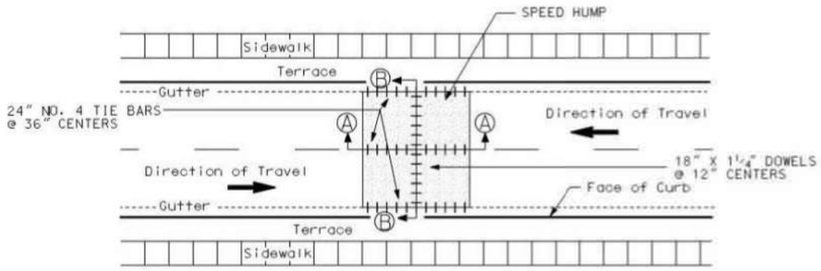


ANCHOR PLATE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

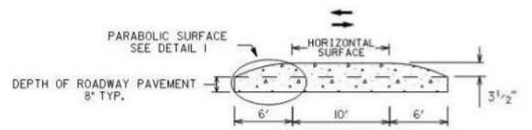
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\0I21002-CD_RAILING..DWG
LAYOUT NAME - SHEET 1
PLOT DATE : 8/20/2021 11:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ####

2



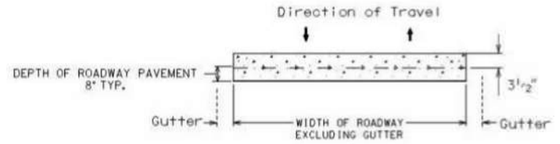
PLAN VIEW

SPEED HUMP ON TYPICAL URBAN STREET



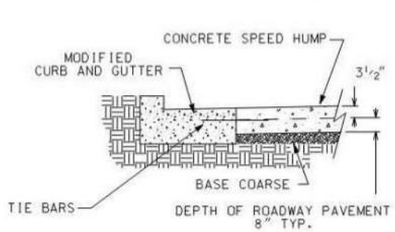
SECTION AA

NOT TO SCALE
(VERTICAL SCALE IS EXAGERATED)



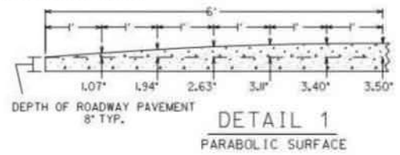
SECTION BB

NOT TO SCALE
(VERTICAL SCALE IS EXAGERATED)



CURB DETAIL

CROSS SECTION



DETAIL 1

PARABOLIC SURFACE

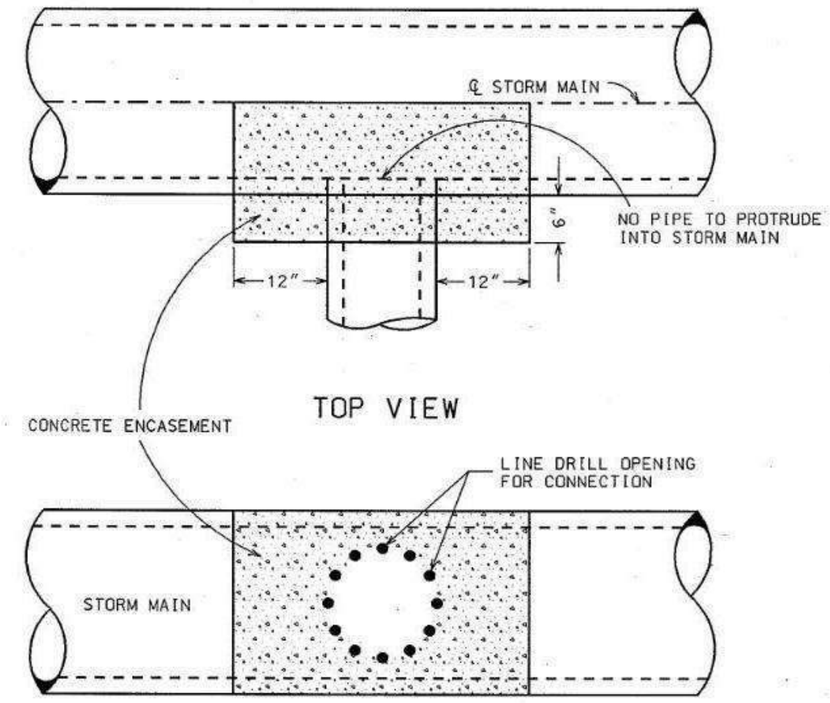
CONCRETE SPEED HUMP RAISED GUTTER DETAIL

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME: G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 24

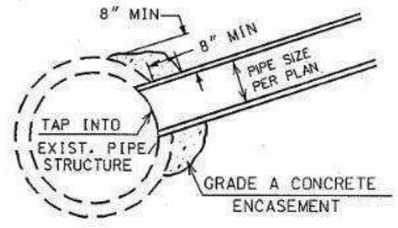
PLOT DATE: 4/30/2021 6:27 AM PLOT BY: SCOTT DEMEUSE PLOT NAME: PLOT SCALE: 1" = 1'

IDSSHEET 42



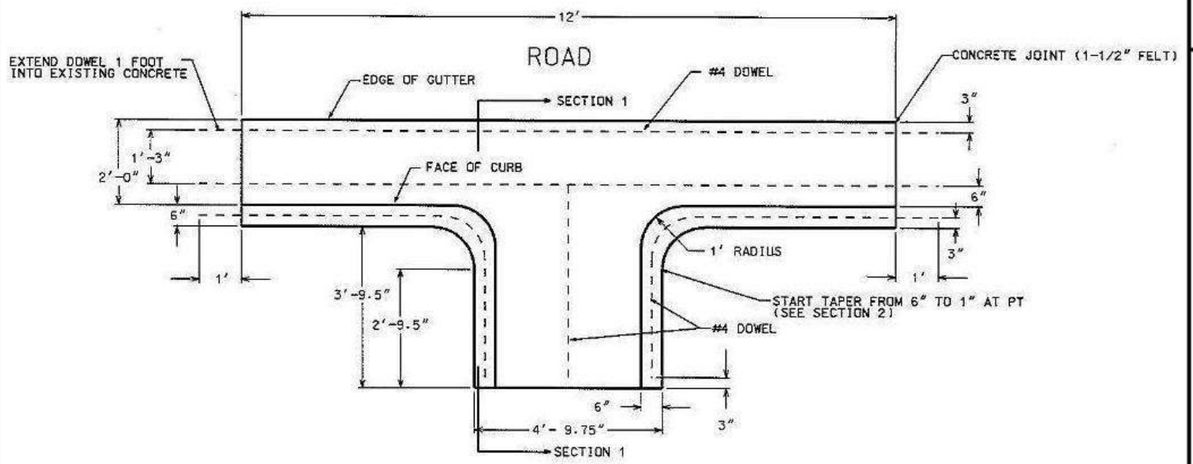
TOP VIEW

SIDE VIEW

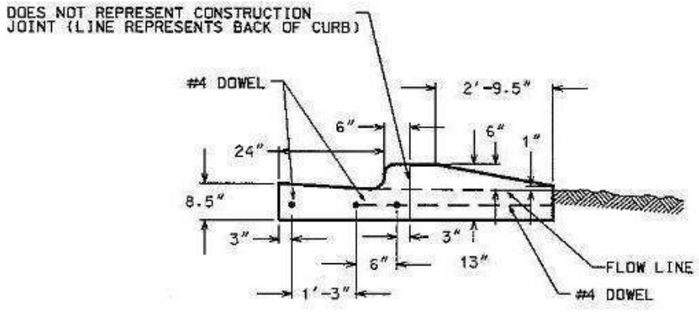


ALTERNATE CONCRETE ENCASEMENT

STORM SEWER TAP DETAIL



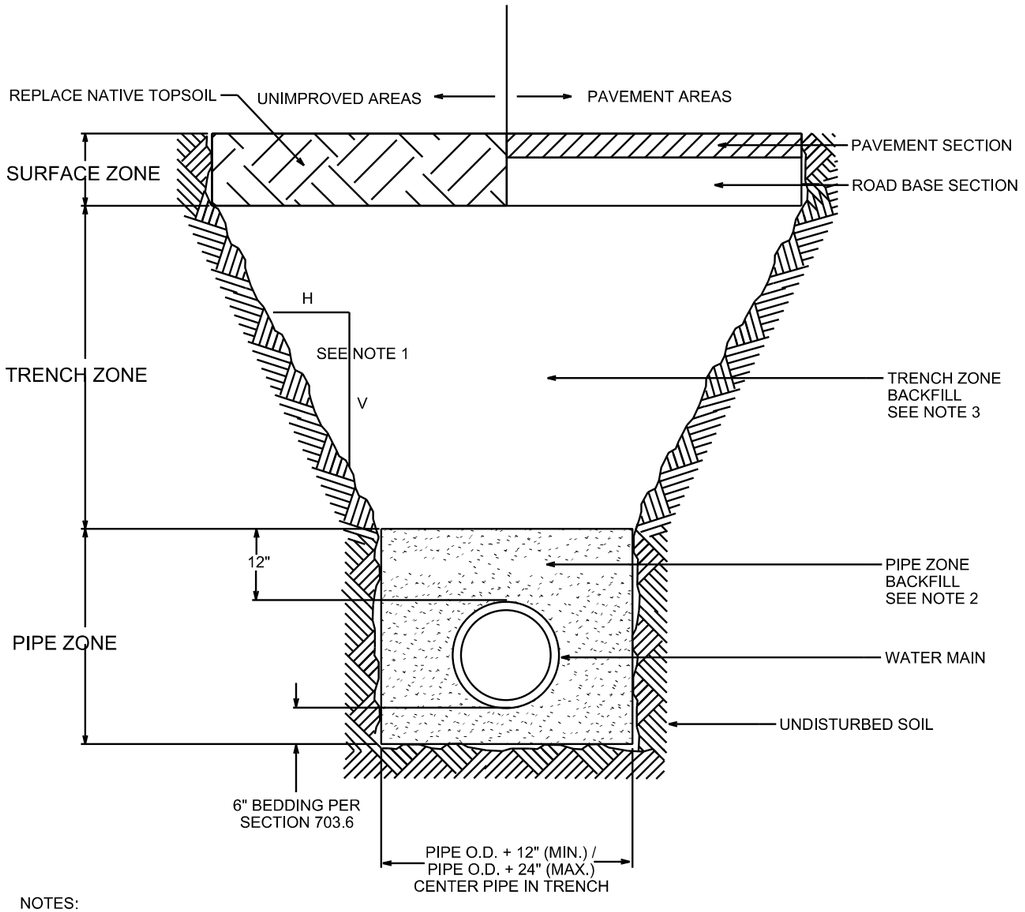
PLAN VIEW



NOTE: TYPE 'A' CONCRETE CURB AND GUTTER IS SHOWN

SECTION 1

TERRACE FLUME DETAIL



NOTES:

1) ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE WISCONSIN ADMINISTRATIVE CODE FOR "TRENCH EXCAVATION AND TUNNEL CONSTRUCTION" AND ANY ADDITIONAL REQUIREMENTS INCLUDING IN THE CONTRACT DOCUMENTS.

2) BACKFILL OPERATIONS SHALL COMPLY WITH SECTIONS 703.6 AND 202.2(B) OF THE STANDARD SPECIFICATIONS.

3) THE PIPE ZONE BEDDING MATERIAL SHALL CONSIST OF SELECT FILL SAND, LIMESTONE SCREENINGS, CLEAR STONE, OR WASHED GRAVEL.

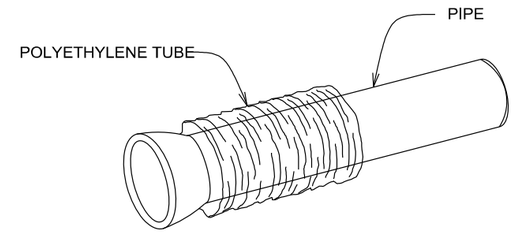
4) SEE SECTION 703.6.1 FOR BACKFILL/COMPACTION REQUIREMENTS OF BEDDING/COVER MATERIAL IN THE PIPE ZONE.

5) TRENCH ZONE COMPACTION REQUIREMENTS:
   - ALL COMPACTION OPERATIONS SHALL COMPLY WITH SECTION 703.6.3
   - DENSITY REQUIREMENTS:
     1. FROM 2-FEET OVER THE PIPE TO WITHIN 3-FEET OF THE SUBGRADE: A MINIMUM OF 90% OF MAXIMUM DENSITY.
     2. WITHIN 3-FEET OF THE BOTTOM OF SUBGRADE: A MINIMUM OF 95% OF MAXIMUM DENSITY.

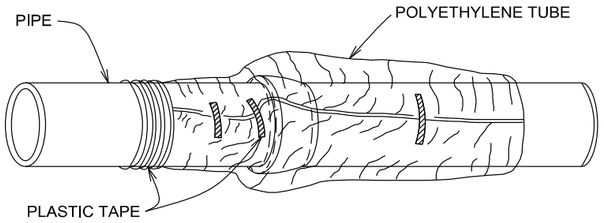
TYPICAL WATER PIPE TRENCH

FIELD INSTALLATION-POLYETHYLENE WRAP

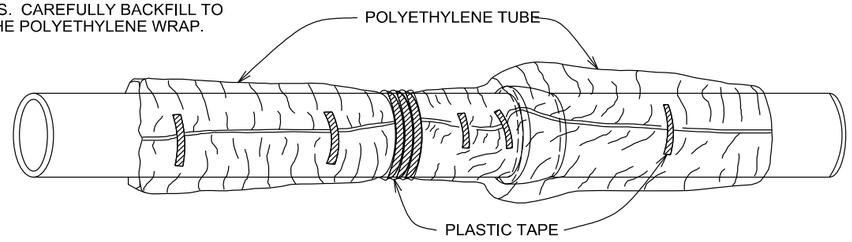
STEP-1
CLEAN SURFACE OF PIPE. CUT POLYETHYLENE TWO FEET LONGER THAN THE PIPE (8 MIL MIN.). PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH. DIG BELL HOLES AT JOINTS, LOWER PIPE.



STEP-2
LIFT ENOUGH TO PULL THE TUBE OVER THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF TWO-INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.

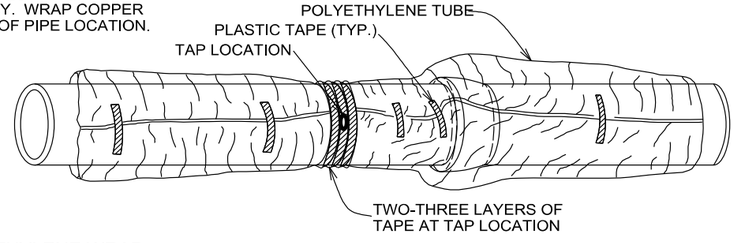


STEP-3
ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROX. THREE FOOT INTERVALS. REPAIR ANY TEARS WITH TAPE OR SECURED POLYWRAP PATCHES. CAREFULLY BACKFILL TO AVOID DAMAGING THE POLYETHYLENE WRAP.

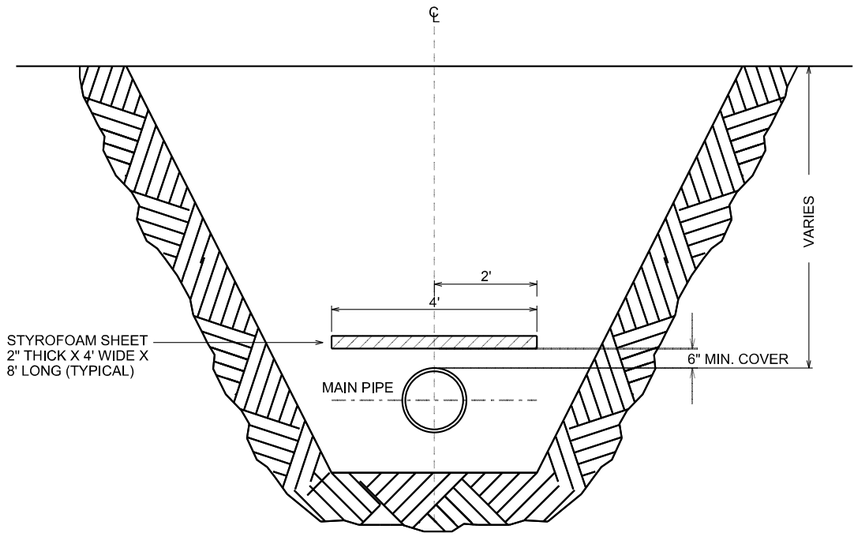


FIELD INSTALLATION POLYETHYLENE WRAP

STEP-1
WRAP TWO OR THREE LAYERS OF TAPE COMPLETELY AROUND PIPE WHERE TAPPING MACHINE WILL BE PLACED. MOUNT TAPPING MACHINE ON TAPED AREA AND TAP DIRECTLY THROUGH THE TAPE AND POLYETHYLENE WRAP. INSTALL CORPORATION STOP. INSPECT AREA FOR DAMAGE AND REPAIR IF NECESSARY. WRAP COPPER SERVICE LINE WITHIN THREE FEET OF PIPE LOCATION.

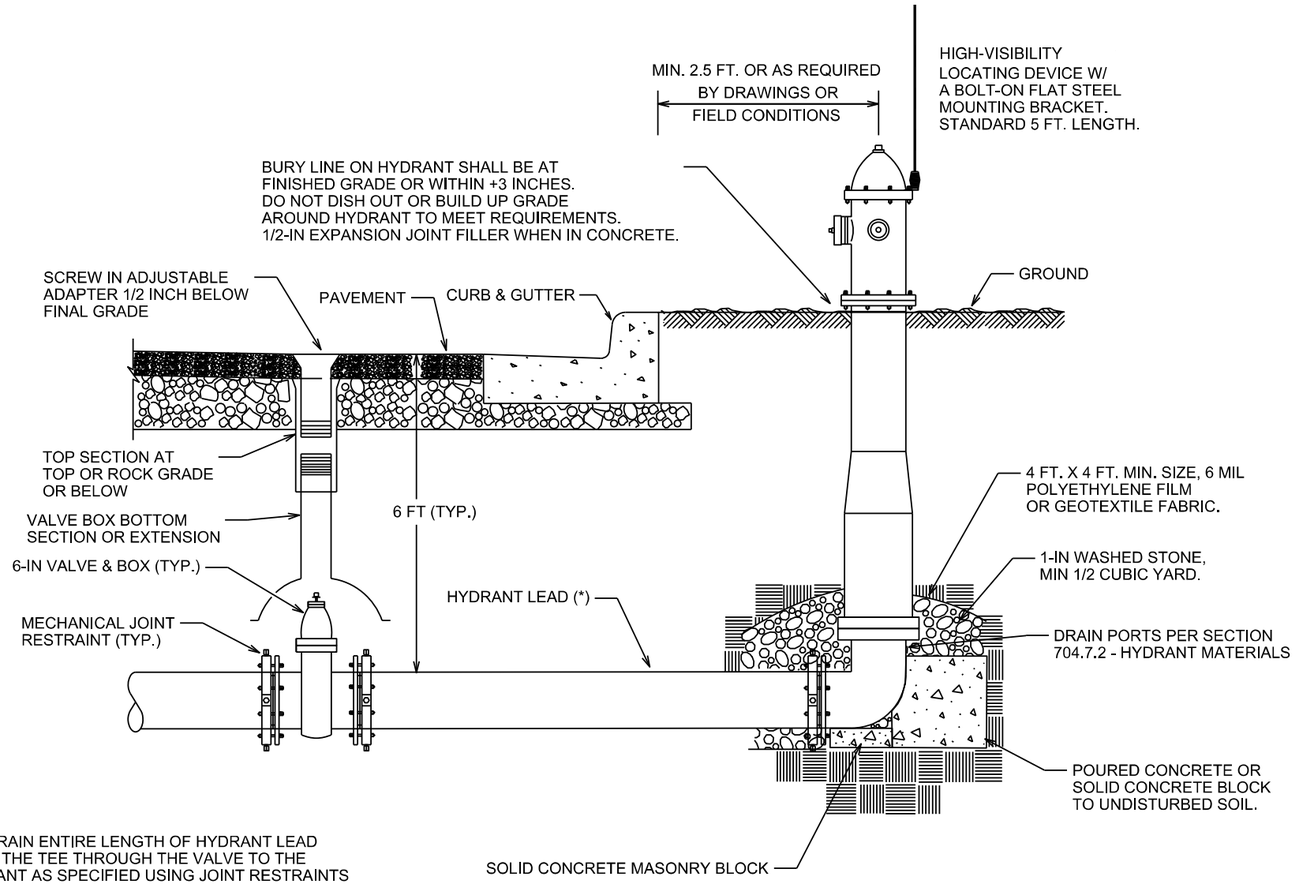


TAPPING POLYETHYLENE WRAP



NOTE: ALL STYROFOAM TO BE 2" THICK
HIGH DENSITY POLYSTYRENE BOARD

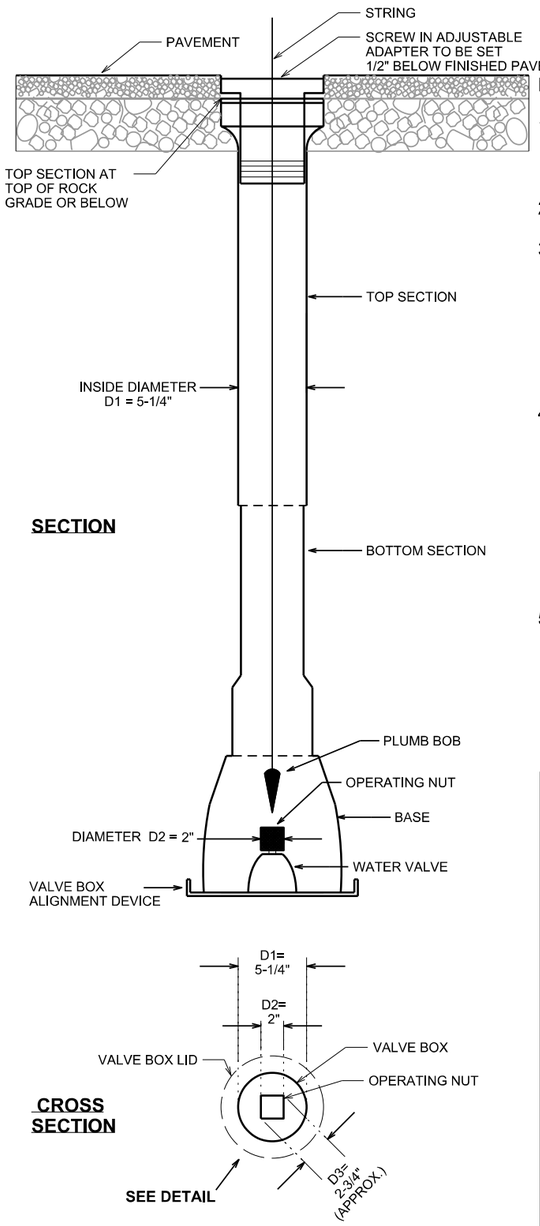
TYPICAL STYROFOAM INSTALLATION



NOTE:

(*) RESTRAIN ENTIRE LENGTH OF HYDRANT LEAD FROM THE TEE THROUGH THE VALVE TO THE HYDRANT AS SPECIFIED USING JOINT RESTRAINTS PER SECTION 703.10

TYPICAL HYDRANT INSTALLATION



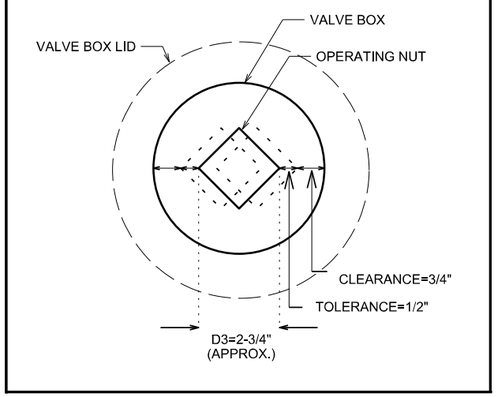
SECTION

NOTES:

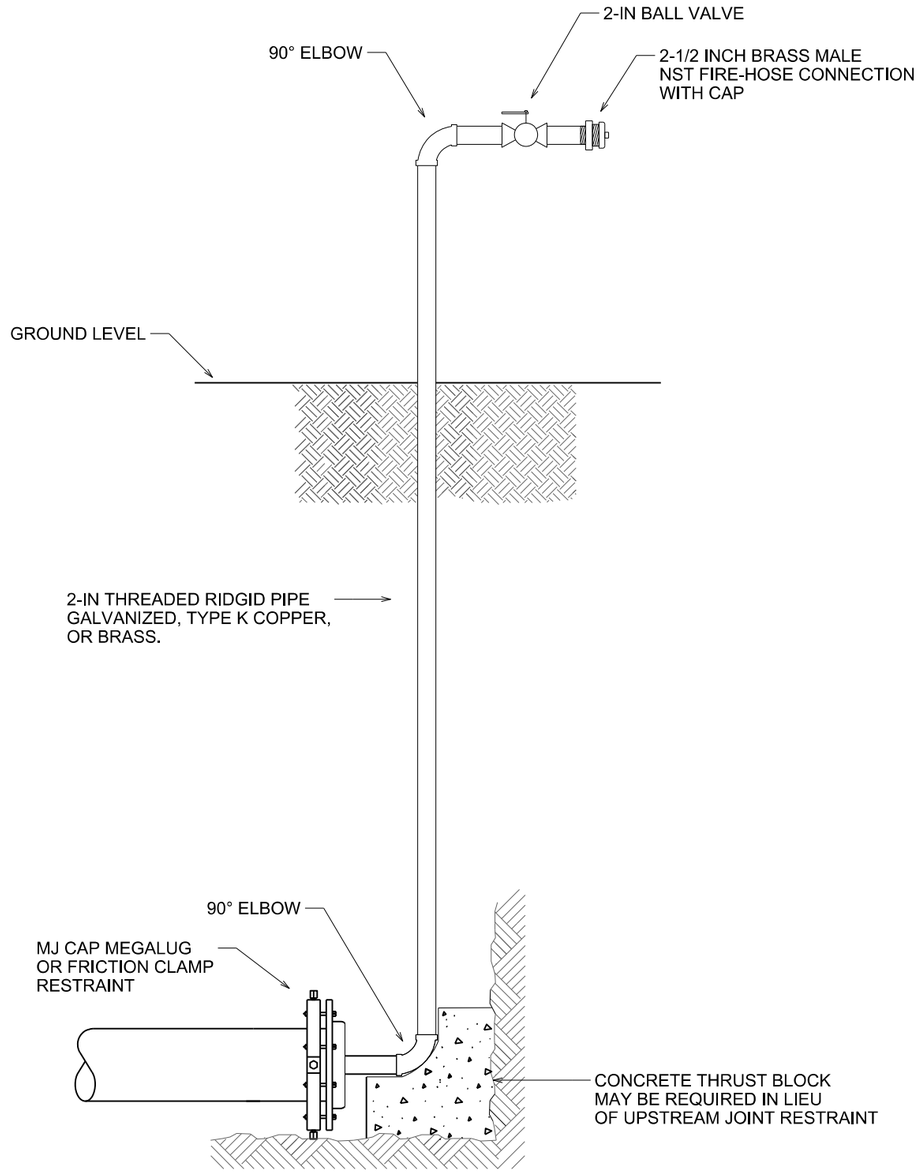
1. VALVE BOX SHALL BE LOCATED PLUMB AND CENTERED WITH RESPECT TO THE VALVE OPERATING NUT.
2. ALLOWABLE TOLERANCE SHALL BE 1/2"
3. PLUMBNESS AND ALIGNMENT SHALL BE VERIFIED WITH A PLUMB BOB, LOCATING THE VALVE NUT WITHIN THE ALLOWABLE TOLERANCE, AND CONFIRMING THAT THE VALVE IS OPERATIONAL WITHOUT THE VALVE KEY TOUCHING THE INSIDE EDGE OF THE VALVE BOX.
4. FOR STREETS WITH SLOPE GREATER THAN 3% THAT DO NOT ALLOW EASY PLUMBNESS VERIFICATION, THE VALVE BOX STRAIGHTNESS SHALL BE VISUALLY ASSESSED VERIFYING ITS RELATIVE CENTERED POSITION, CONFIRMING THAT THE VALVE IS OPERATIONAL WITHOUT THE VALVE KEY TOUCHING THE INSIDE EDGE OF THE VALVE BOX AND RESTRICTING ITS USE.
5. FOR VALVE BOXES GREATER THAN 10 FT, UTILIZE ONE CONTINUOUS TUBE OF PVC CUT TO APPROPRIATE LENGTH INSIDE VALVE BOX TO MAINTAIN ALIGNMENT THROUGHOUT CONSTRUCTION

CROSS SECTION

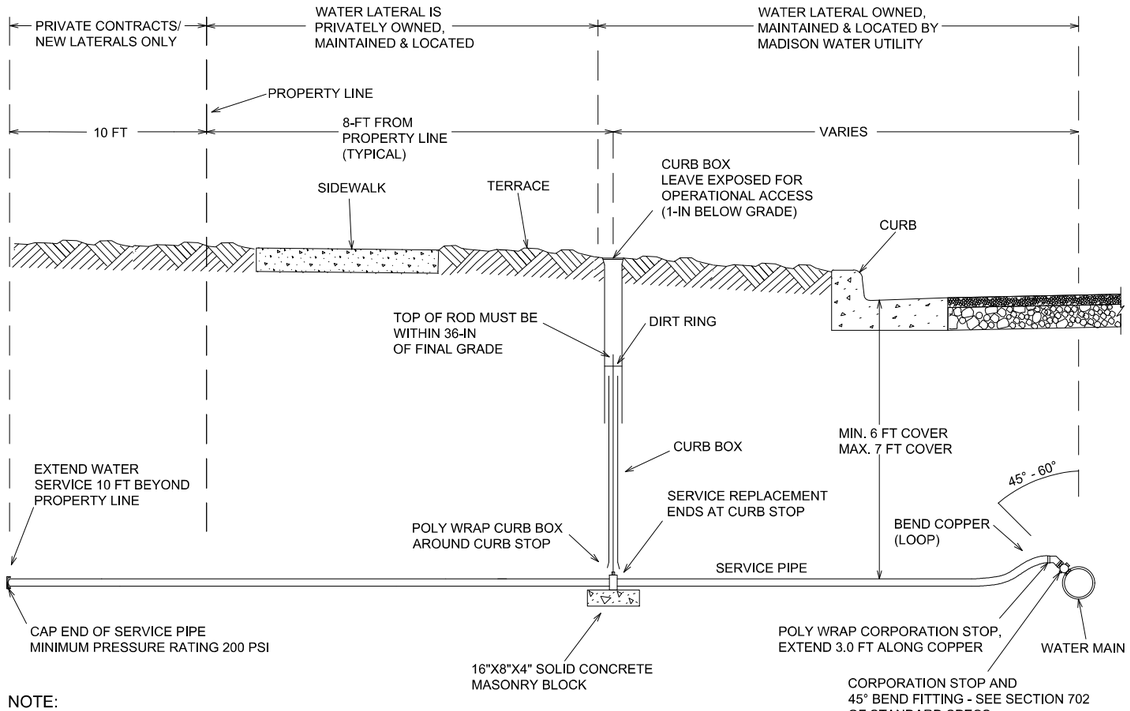
DETAIL



WATER VALVE BOX ALIGNMENT

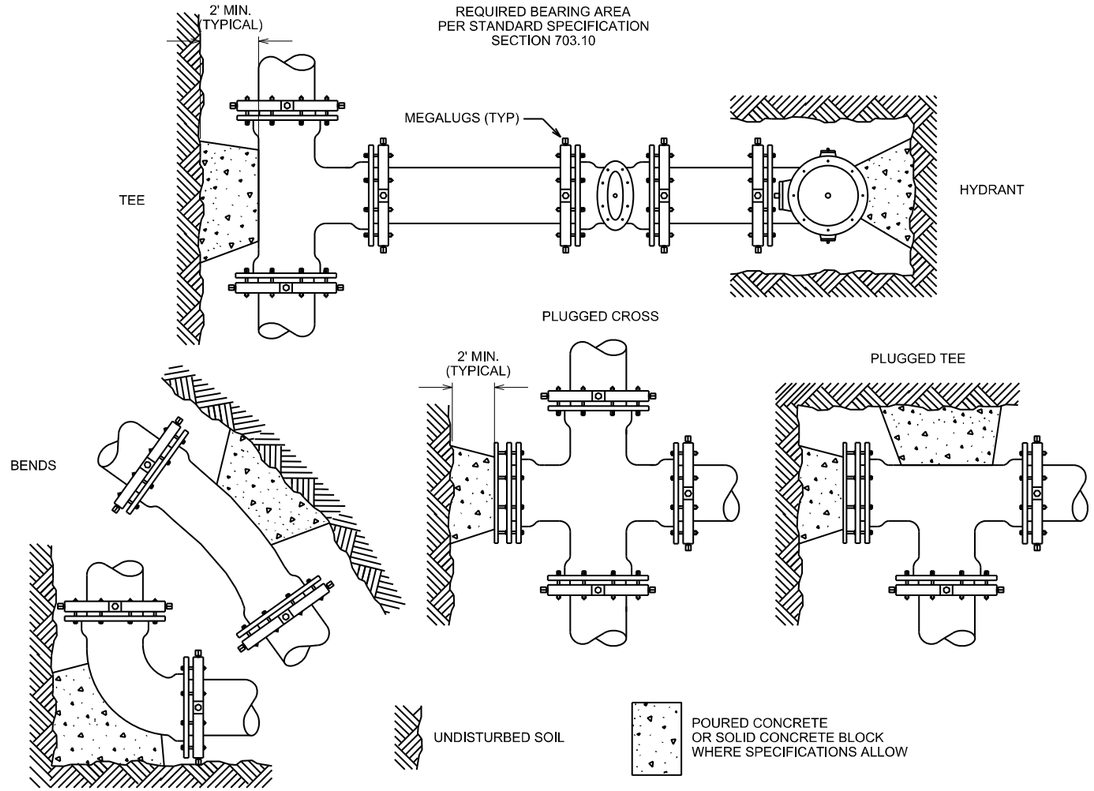


2-IN TEMPORARY FLUSHING/BLOW-OFF FOR 8-IN PIPE AND SMALLER



NOTE:
ON CUL-DE-SACS WITH NO SIDEWALKS, WATER SERVICE PIPE TO END AT PROPERTY LINE.

SERVICE LATERAL INSTALLATION

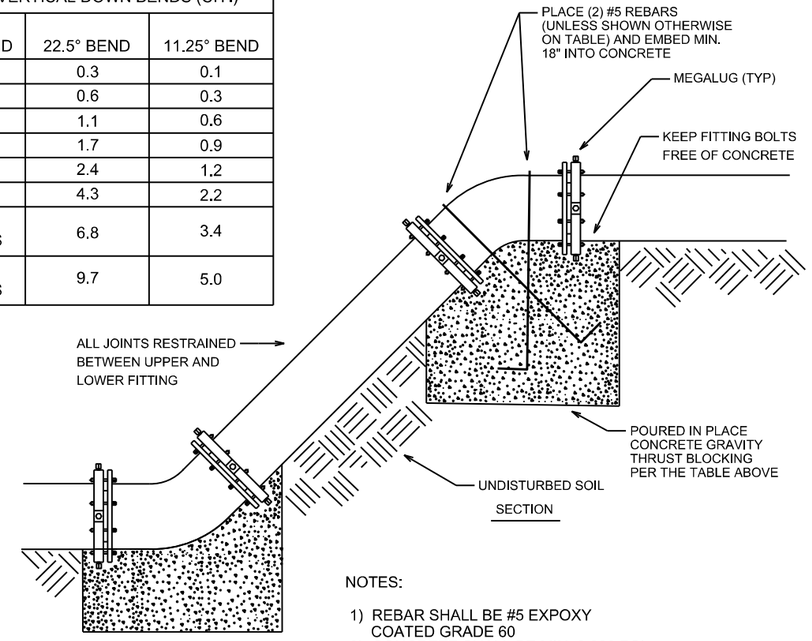


STANDARD CONCRETE BLOCK THRUST RESTRAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

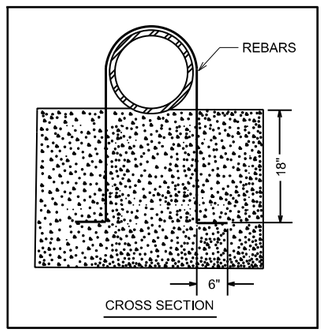
FILE NAME: G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 24
PLOT DATE: 4/30/2021 6:27 AM PLOT BY: SCOTT DEMEUSE PLOT NAME: PLOT SCALE: 1" = 1'

VOLUME REQUIREMENT FOR VERTICAL DOWN BENDS (C.Y.)				
FITTING SIZE (IN)	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4	0.7	0.5	0.3	0.1
6	1.6	1.1	0.6	0.3
8	2.8	2.0	1.1	0.6
10	4.4	3.1	1.7	0.9
12	6.4	4.5	2.4	1.2
16	11.3	8.0	4.3	2.2
20	17.7 3 BARS	12.5 3 BARS	6.8	3.4
24	25.4 6 BARS	18.0 4 BARS	9.7	5.0

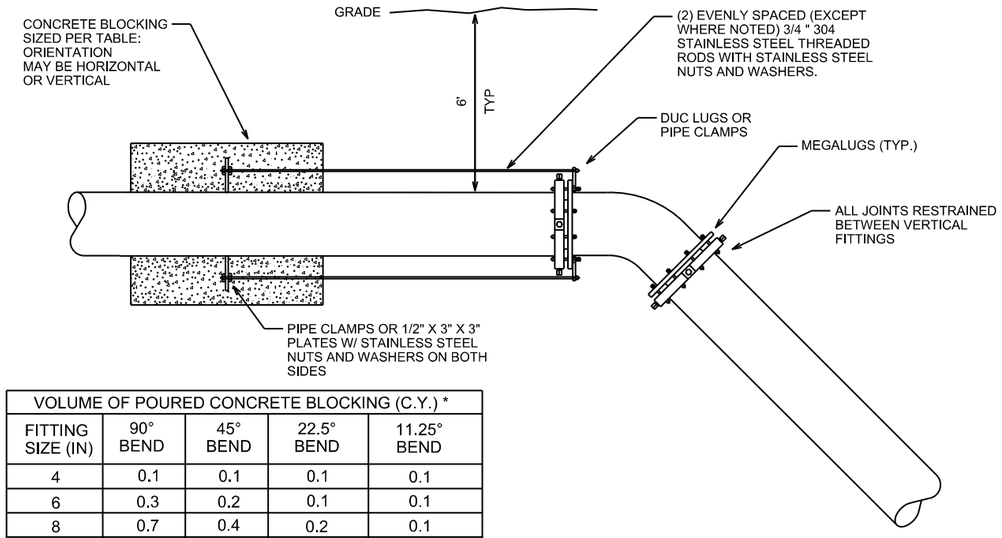


NOTES:

1) REBAR SHALL BE #5 EXPOXY COATED GRADE 60
2) CONCRETE SHALL BE MIN. 3,000 PSI COMPRESSIVE STRENGTH
3) ABOVE VALUES ARE BASED ON 150 PSI TEST PRESSURE FOR OTHER TEST PRESSURES PROPORTION AS FOLLOWS: BLOCK VOLUME=TEST PRESSURE/150 X TABLE VALUE



GRAVITY BLOCK THRUST RESTRAINT FOR VERTICAL BENDS



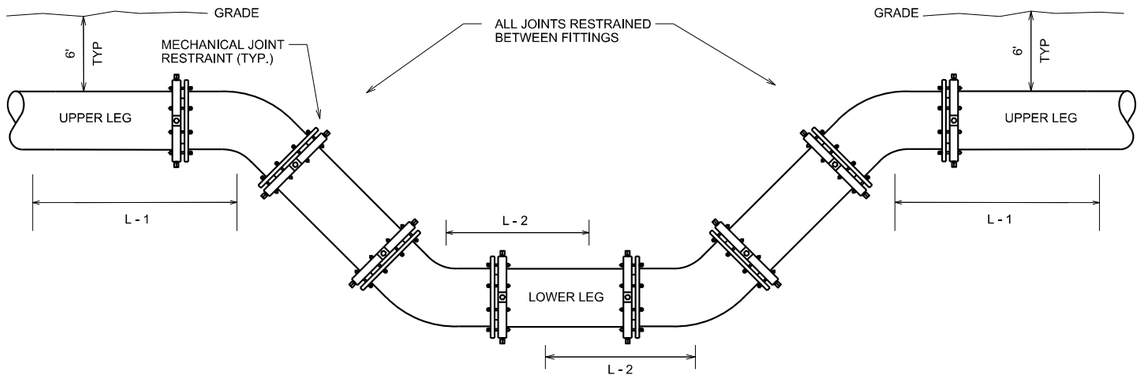
VOLUME OF POURED CONCRETE BLOCKING (C.Y.) *				
FITTING SIZE (IN)	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4	0.1	0.1	0.1	0.1
6	0.3	0.2	0.1	0.1
8	0.7	0.4	0.2	0.1
10	1.3	0.8	0.3	0.1
12	2.1	1.3	0.6	0.2
16	4.6	2.9	1.3	0.5
20	8.2 4 RODS	5.4 3 RODS	2.3	0.9
24	13.0 5 RODS	8.4 4 RODS	3.8	1.5

* CONCRETE SHALL BE A MIN. 3000 PSI COMPRESSIVE STRENGTH

NOTE:

THIS METHOD MAY ONLY BE USED WHERE SPECIFIED OR WITH ENGINEER'S APPROVAL

ROD & CONCRETE BLOCK THRUST RESTRAINT FOR VERTICAL BENDS



L - 1: RESTRAINED JOINT LENGTH UPPER LEG OF VERTICAL BEND

L - 2: RESTRAINED JOINT LENGTH LOWER LEG OF VERTICAL BEND

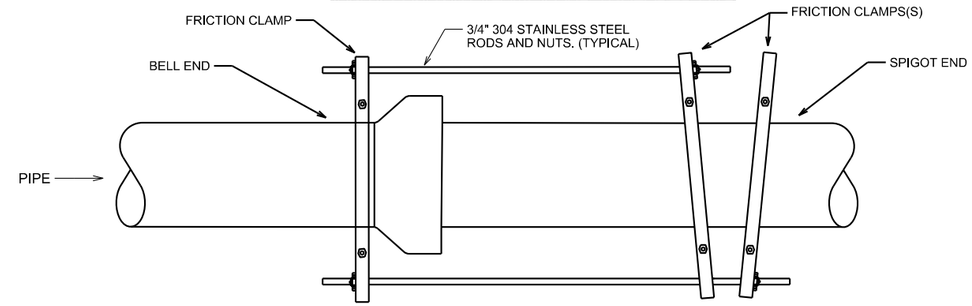
	90° BEND		45° BEND		22.5° BEND		11.25° BEND	
FITTING SIZE (IN)	L - 1 (FT)	L - 2 (FT)	L - 1 (FT)	L - 2 (FT)	L - 1 (FT)	L - 2 (FT)	L - 1 (FT)	L - 2 (FT)
4	33 *	33 *	13	3	6	2	3	1
6	46 *	46 *	18	4	9	2	5	1
8	61 *	61 *	24	5	12	3	6	2
10	73 *	73 *	28	6	14	3	7	2
12	87 *	87 *	34	7	16	4	8	2
16	112 *	112 *	43	10	21	5	11	3
20	137 *	137 *	53	12	26	6	13	3
24	161 *	161 *	62	13	30	7	15	4

NOTES:
SOURCE: Adapted from the EBAA Iron Restraint Length Calculator, Version 7.1.2
Materials = Poly Wrapped Ductile Iron Pipe
Soil Type = GM (Silty Gravels, Gravel-Sand-Silt Mixtures)
Test Pressure = 150 PSI
* SOURCE: DIPRA - THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE

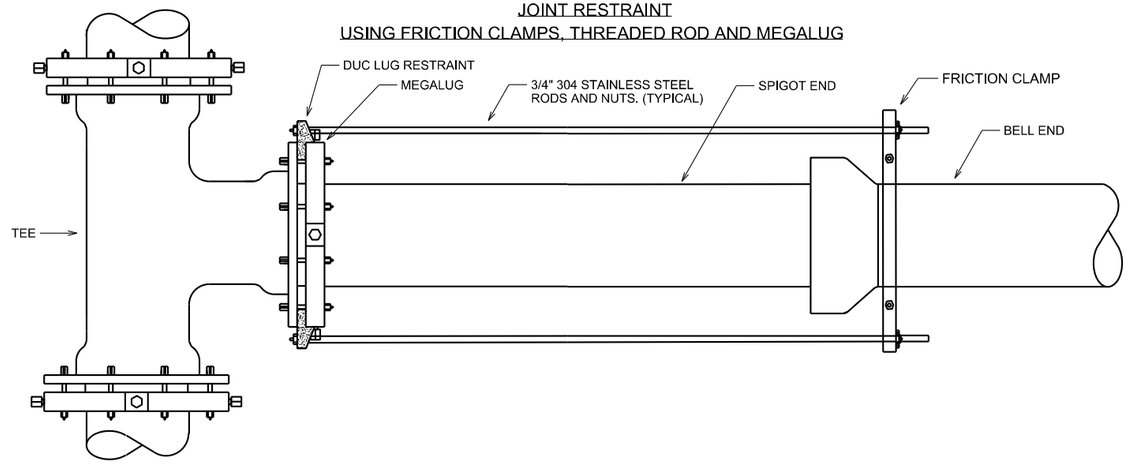
Safety Factor = 1.5
Trench Type = 4
Bury Depth = 6'
Low Side Depth = 8'

JOINT RESTRAINT LENGTHS FOR VERTICAL BENDS

JOINT RESTRAINT
USING FRICTION CLAMPS AND THREADED ROD

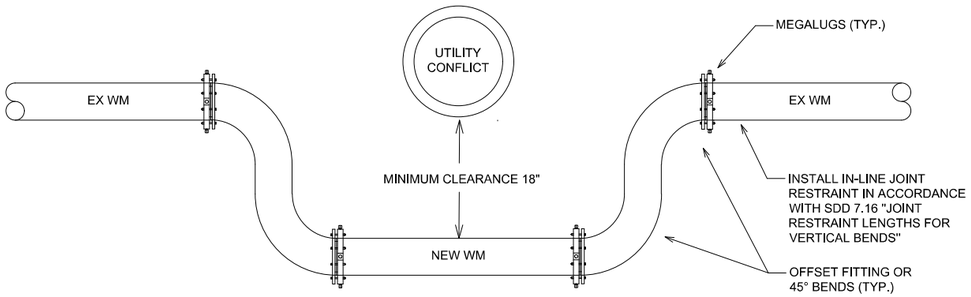


JOINT RESTRAINT
USING FRICTION CLAMPS, THREADED ROD AND MEGALUG

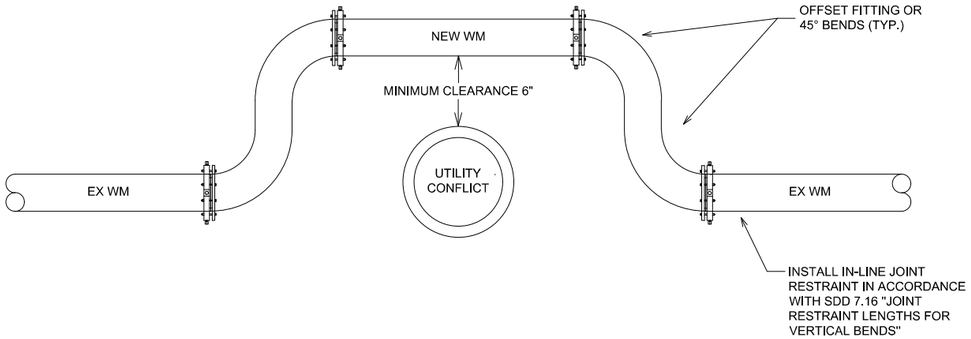


THREADED ROD - JOINT RESTRAINT

OFFSETTING UNDER UTILITY CONFLICTS (PREFERRED METHOD)



OFFSETTING ABOVE UTILITY CONFLICTS (ALTERNATE METHOD WITH ENGINEER APPROVAL)



NOTES:

1) CLEARANCE SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS, AS INDICATED ON THE CONSTRUCTION DRAWINGS, OR AS OTHERWISE AUTHORIZED BY THE ENGINEER.

2) CROSSING BELOW THE EXISTING UTILITY IS THE PREFERRED METHOD, CROSSING ABOVE ONLY WHEN AUTHORIZED BY THE ENGINEER, OR UNDER SPECIAL CIRCUMSTANCES.

3) MINIMUM ALLOWABLE CLEARANCE WHEN CROSSING BELOW SANITARY OR STORM SEWERS IS 18-IN,

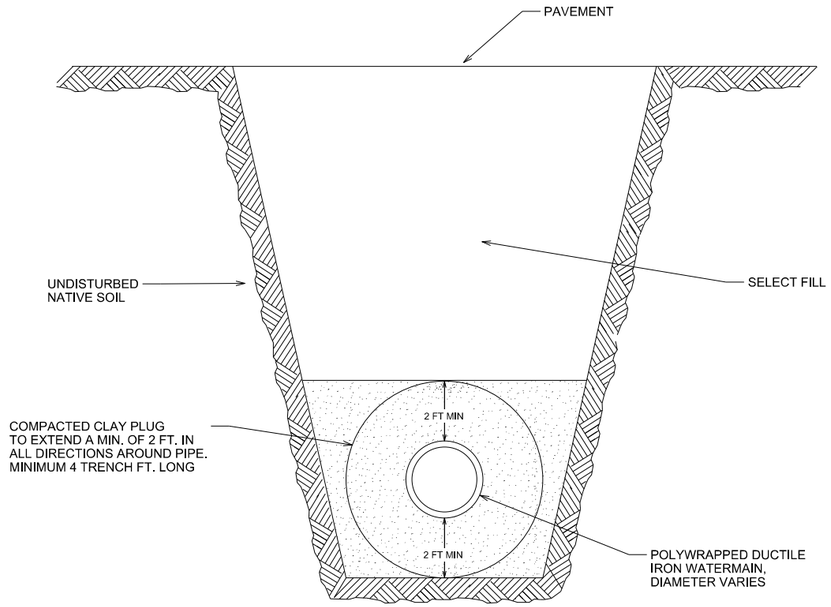
4) IF REQUIRED CLEARANCE CANNOT BE OBTAINED, USE 45° FITTINGS IN LIEU OF OFFSET FITTINGS.

5) 11.25°, 22.5°, OR 90° FITTINGS ARE NOT ALLOWED WITHOUT ENGINEER APPROVAL.

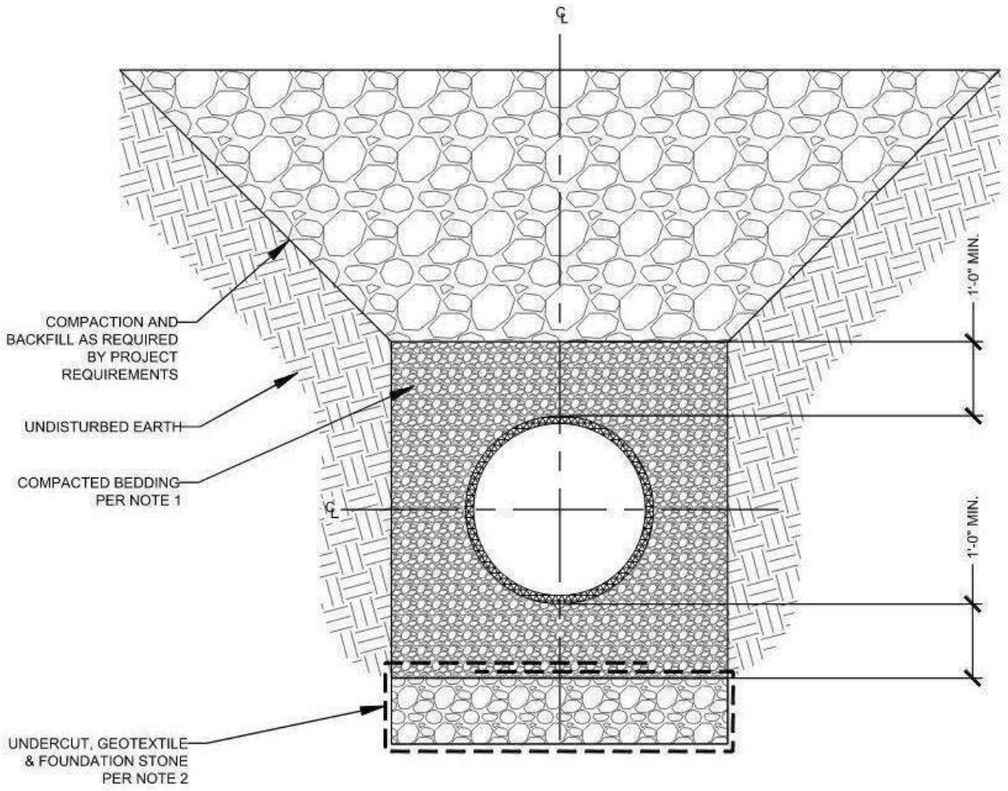
6) INSULATE AS REQUIRED PER THE STANDARD SPECIFICATIONS OR AS INDICATED ON THE DRAWINGS.

7) NEW PIPE SHALL HAVE NO JOINTS BETWEEN FITTINGS.

OFFSETTING EXISTING WATERMAIN OVER/UNDER UTILITY CONFLICTS



CLAY TRENCH PLUG



NOTES:

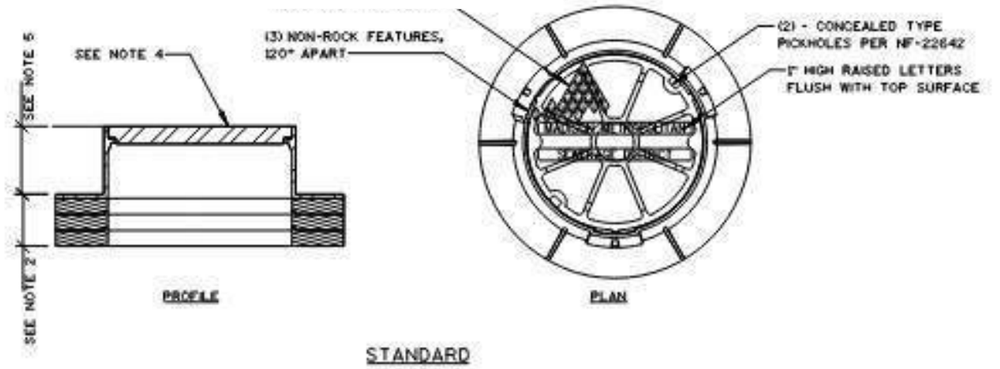
1. BEDDING SHALL BE PER THE PROJECT REQUIREMENTS. IF NO PROJECT REQUIREMENTS THE FOLLOWING SHALL BE USED:

   1.1. BEDDING SHALL BE CRUSHED STONE. CRUSHED STONE SHALL CONFIRM TO THE FOLLOWING WISDOT/AASHTO GRADATION:

PASSING 1" SIEVE	100%
PASSING 3/4" SIEVE	90%-100%
PASSING 3/8" SIEVE	20%-55%
PASSING NO. 4 SIEVE	0%-10%
PASSING NO. 8 SIEVE	0%-5%

2. UNDERCUT, GEOTEXTILE FABRIC AND FOUNDATION STONE SHALL BE ADDED TO PROVIDE ADEQUATE SUPPORT AS REQUIRED BY PROJECT REQUIREMENTS AND ENGINEER. MATERIAL AND DEPTH AS DIRECTED BY ENGINEER.

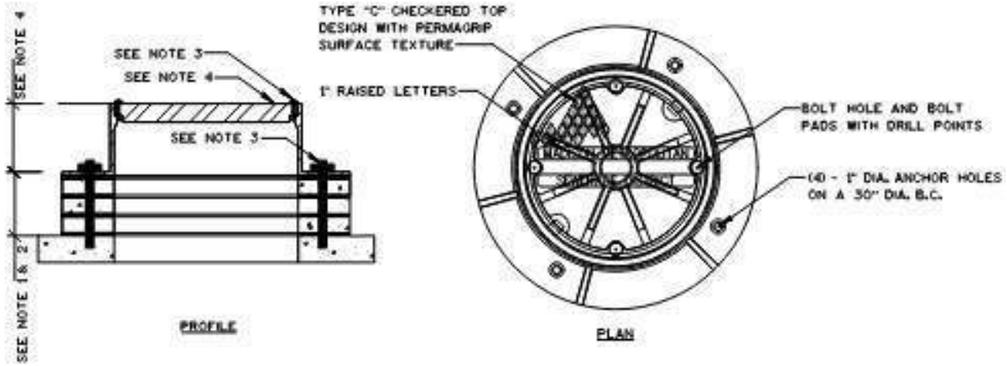
STANDARD PIPE BEDDING DETAIL



STANDARD

NOTE

1. STANDARD MANHOLE, ACCESS HOLE, LADDER, CONNECTORS, AND BENCH SHALL BE INSTALLED PER THE INTERCEPTOR SEWER MANHOLE 48-FOOT DIAMETER) DETAIL.
2. CHIMNEY SHALL HAVE A MINIMUM HEIGHT OF 3 INCHES AND A MAXIMUM HEIGHT OF 9 INCHES OF ADJUSTING RINGS. ADJUSTING RINGS UNDER ROADWAY SURFACES SHALL BE CONCRETE. ADJUSTING RINGS UNDER NON-ROADWAY SURFACES SHALL BE HDPE LADTECH OR EQUAL.
3. RINGS SHALL BE PLACED ON A BED OF 3/8 INCH BY 3-1/2 INCH PRE-MOLDED BUTYL BASED SEALANT. ALL VOIDS SHALL BE FILLED WITH SEALANT INCLUDING BETWEEN TOP RING AND FRAME. SEAL BETWEEN RINGS, CASTING, AND TOP DECK PER MANUFACTURER REQUIREMENTS AT MINIMUM.
4. MANHOLE CHIMNEY OPENINGS SHALL BE 24 INCH OFFSET, CENTERED OVER MANHOLE STEPS.
5. MANHOLE FRAME AND COVER SHALL BE CAST IRON WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES, NON-ROCKING, SEALF SEALING, WITH CONCEALED PICK HOLES, STAMPED WITH THE LETTERING "MADISON METROPOLITAN SEWERAGE DISTRICT", NF-1060015L
6. 9 INCH HEIGHT (NF-10602301 OR EQUAL) IS STANDARD. 4 INCH HEIGH (NF-16892301 OR EQUAL) MAY BE PERMITTED PER MADISON METROPOLITAN DISTRICT APPROVAL.
7. CHIMNEY SEALS DETERMINED ON A CASE-BY-CASE BASIS.
8. BROKEN OR CRACKED ADJUSTING RINGS ARE NOT PERMITTED AND WILL BE REJECTED.

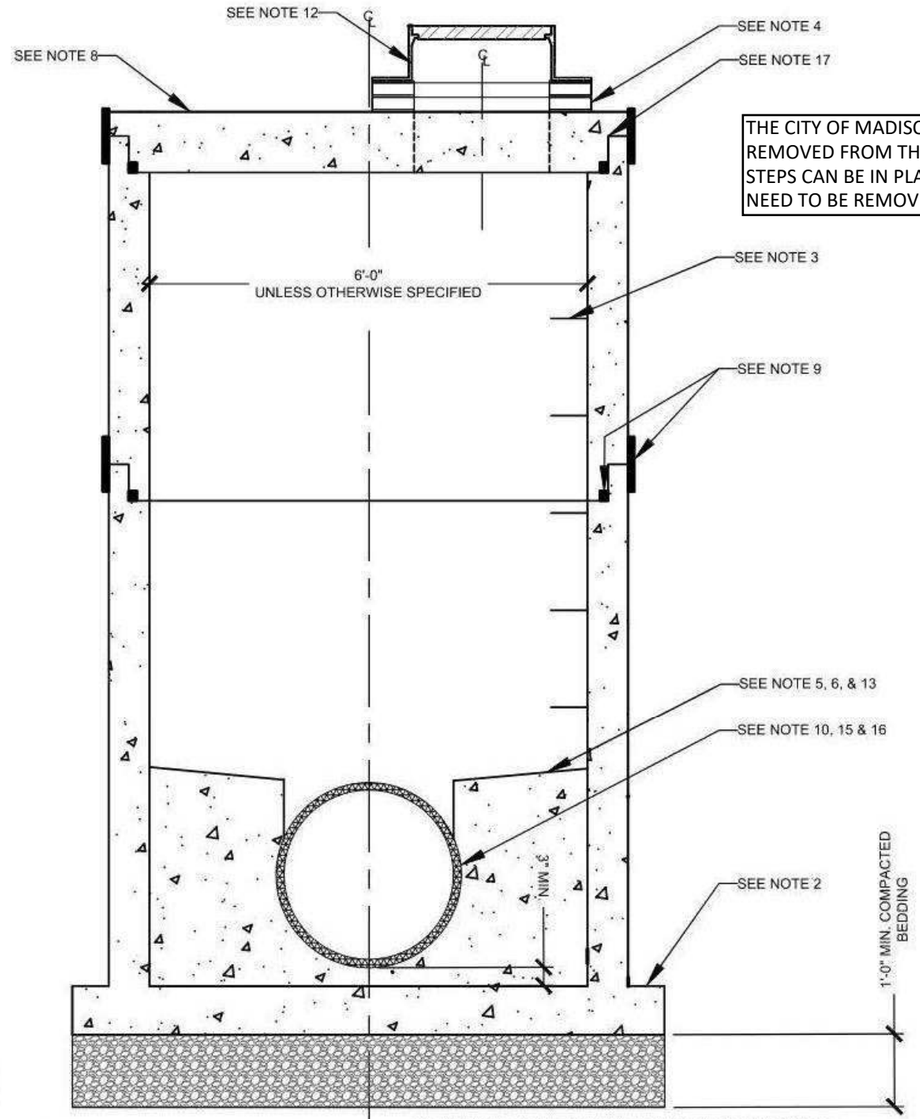


BOLTED DOWN

NOTE

1. FOLLOW STANDARD CHIMNEY DETAIL REQUIREMENTS UNLESS OTHERWISE SUPERSEDED BY FOLLOWING NOTES.
2. RINGS SHALL BE CONCRETE. SHOULD RINGS BECOME CRACKED BY ANCHORS, COAT RINGS WITH EPOXY.
3. SECURE CAASTINGS TO MANHOLE TOP DECK, MINIMUM 2" EMBEDMENT, IN FOUR LOCATIONS WITH HEX HEAD SCREWS.
4. LID SHALL BE NF-19160436 OR EQUAL. 9" FRAME SHALL BE NF-19160280 OR EQUAL.

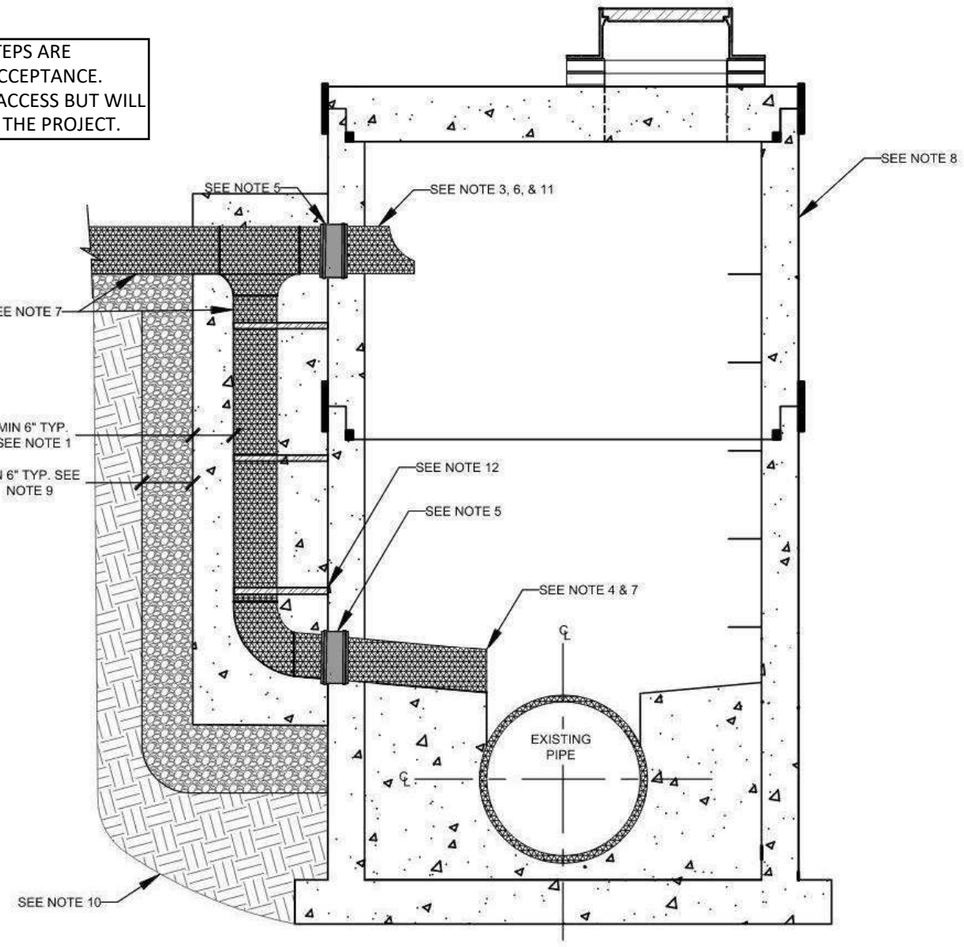
STANDARD MANHOLE CHIMNEY DETAIL



THE CITY OF MADISON REQUIRES THAT ALL STEPS ARE REMOVED FROM THE STRUCTURES BEFORE ACCEPTANCE. STEPS CAN BE IN PLACE FOR CONSTRUCTION ACCESS BUT WILL NEED TO BE REMOVED PRIOR TO THE END OF THE PROJECT.

NOTES:
1. MANHOLE SECTIONS AND THICKNESSES SHALL BE PRECAST REINFORCED CONCRETE, CONSTRUCTED PER ASTM C-478 (ROUND) OR C-913 (SQUARE).
2. THE BASE THICKNESS SHALL BE 8 INCHES FOR DEPTHS 10 FEET OR LESS AND 12 INCHES FOR DEPTHS OVER 10 FEET.
3. STEPS, M.A. INDUSTRIES OR EQUAL, SHALL BE PLACED 16" ON CENTER IN ALL MANHOLES AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. STEPS SHALL BE CENTERED ON BENCH. TOP STEP SHALL BE INSTALLED 24" FROM DECK UNDERSIDE.
4. MANHOLE CHIMNEYS SHALL HAVE FROM 3 TO 9 INCHES OF ADJUSTING RINGS. OPENING SHALL BE 24" OFFSET, CENTERED OVER MANHOLE STEPS.
5. THE BENCH SHALL BE 75% OF THE HEIGHT OF THE PIPE WITH A MAX HEIGHT OF 24" FOR PIPES 24" DIA. OR LARGER, OR TO THE PIPE CROWN FOR PIPES LESS THAN 24" DIA.
6. BENCH SHALL BE SLOPED 1" - 2" PER FOOT.
7. THE INVERT CHANNEL SHALL BE TOWELED TO SMOOTH, DENSE SURFACE AND A SEMICIRCULAR SHAPE CONFORMING TO THE INSIDE OF THE ADJACENT SEWER.
8. TOP DECK SHOULD BE A FLATTOP UNLESS OTHERWISE NOTED.
9. JOINTS SHALL RECEIVE NON-HARDENING BUTYL RUBBER SEALANT MINIMUM THICKNESS 3/4", TYP. EXTERIOR JOINTS SHALL RECEIVE JOINT PROTECTION SUCH AS MACWRAP OR APPROVED EQUAL TO A MINIMUM WIDTH OF 9", TYP.
10. PROVIDE WATERTIGHT FLEXIBLE PIPE CONNECTOR FOR ALL CONNECTIONS UNLESS OTHERWISE NOTED.
11. MANHOLE INTERIOR COATINGS TO BE DIRECTED BY THE DISTRICT.
12. CHIMNEY, FRAME, & COVER PER SHEET SD-201.
13. MINIMUM HEIGHT FROM TOP OF BENCH TO DECK UNDERSIDE SHALL BE 7'-0".
14. PICKHOLES SHALL UNDER NO CIRCUMSTANCES PENETRATE THRU CONCRETE. EARHOLE STYLE PICKHOLES OR USE SUPERFICIAL LIFTING HOOKS SHOULD BE USED INSTEAD. ALL PICKHOLES SHALL BE MORTARED PRIOR TO BACKFILLING.
15. BOOT EXPANDERS SHALL BE PLACED AND INSTALLED AT THE 12 O'CLOCK POSITION WITH SCREW ENDS CAPPED, UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER.
16. CONCRETE OPENINGS MUST BE CORED FOR SURFACE APPLIED WATERTIGHT FLEXIBLE PIPE CONNECTORS (I.E. KOR-N-SEAL BOOTS). POURING ONLY ACCEPTABLE IF CONNECTOR IS DESIGNED TO BE POURED-IN-PLACE (I.E. A-LOK).
17. FOR A RECONSTRUCTED MANHOLE, IF A JOINT BETWEEN MANHOLE SECTIONS IS NOT A TONGUE AND GROOVE CONFIGURATION, THE CONTRACTOR SHALL INSTALL DOWELS AT A MINIMUM OF THREE LOCATIONS AROUND THE PERIMETER OF THE MANHOLE. THE DOWELS SHALL BE #4 REBAR EMBEDDED 3-INCHES INTO EACH SECTION OF THE MANHOLE. IN LIEU OF THIS, THE CONTRACTOR MAY INSTALL 6"X6" SST PLATES AT A MINIMUM OF THREE LOCATIONS ON THE OUTSIDE OF THE MANHOLE. THE PLATES SHALL BE ANCHORED WITH TWO 3/8" DIAMETER SST BOLTS ON EACH SIDE OF THE JOINT AT ALL LOCATIONS.

STANDARD TYPICAL MANHOLE DETAIL



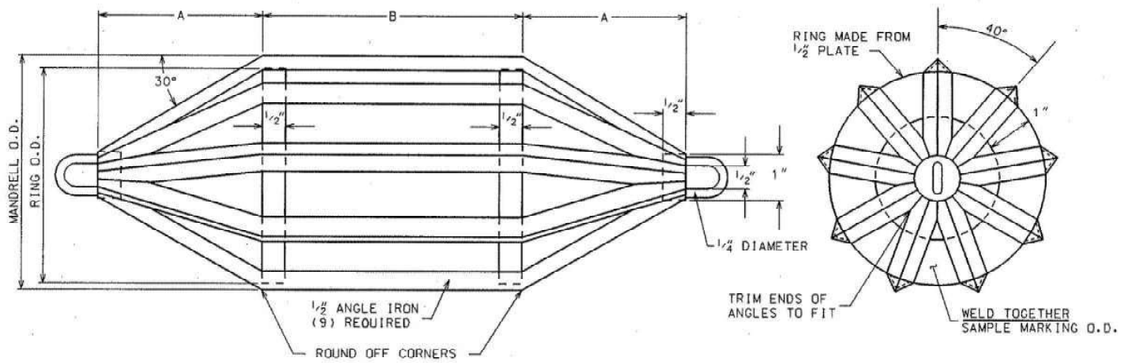
NOTES:
1. DROP CONNECTION TO BE ENCASED IN CONCRETE MIN. 6" ALL AROUND.
2. A DROP IS REQUIRED FOR A SEWER ENTERING A MANHOLE WHERE THE INVERT ELEVATION OF THE ENTERING SEWER IS 2 FEET OR MORE ABOVE THE SPRING LINE OF THE OUTGOING SEWER.
3. TEE TO REMAIN OPEN UNLESS OTHERWISE DIRECTED.
4. EXTEND PIPE TO CHANNEL. PIPE SHALL BE FLUSH WITH BENCH IF POSSIBLE.
5. CORED HOLE WITH WATERTIGHT RESILIENT CONNECTOR REQUIRED.
6. OPENING EQUAL TO DIAMETER OF SEWER MAIN.
7. PIPE SIZED BY OTHERS, TYP.
8. EXISTING MANHOLE, FOR NEW MANHOLE SEE SHEET SD-201.
9. 6" MIN. COMPACTED BEDDING MATERIAL PER PROJECT REQUIREMENTS.
10. COMPACTED BACKFILL PER PROJECT REQUIREMENTS.
11. EXTEND PIPE TOWARDS CHANNEL AND CUT OFF, EDGE OF PIPE SHALL NOT PROTRUDE MORE THAN 1'-6" MAX FROM THE WALL.
12. ATTACH DROP TO MANHOLE WALL WITH STAINLESS STEEL STRAPS 2'-0"C.C. STRAPPING ANCHORED WITH MASONRY FASTNERS (MIN. 2 STRAPS PER DROP). SHIM AS NECESSARY.
13. CONNECTION MUST BE INSPECTED AND APPROVED BY MMSD REPRESENTATIVE. CALL 608-222-1201 THREE DAYS PRIOR TO INSTALLATION.
14. FOR NEW MANHOLES SHALL BE PER SHEET SD-101.

0' 1' 2'

STANDARD OUTSIDE DROP CONNECTION DETAIL

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME: G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 24
PLOT DATE: 4/30/2021 6:27 AM PLOT BY: SCOTT DEMEUSE PLOT NAME: PLOT SCALE: 1" = 1'



SIDE VIEW

END VIEW

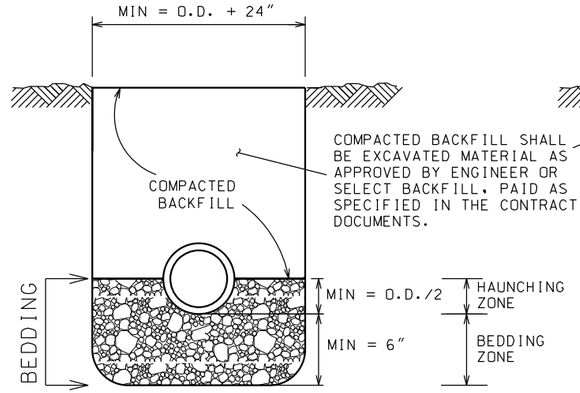
NOMINAL PIPE SIZE ID. in	DIMENSIONS A. in	DIMENSIONS B. in	MANDRELL O.D., in	RING O.D., in
6	4.0	4	5.61	4.90
8	5.3	6	7.36	6.65
10	6.7	6	9.21	8.50
12	8.0	8	11.06	10.35
15	10.0	9	13.82	13.11

MANDREL FOR USE IN ALL P.V.C. SEWER PIPE

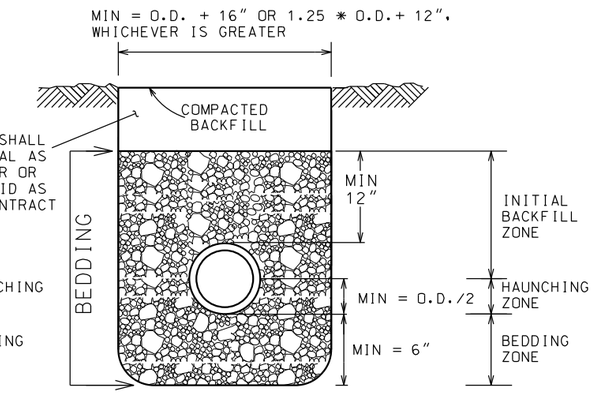
NOTE:

AFTER CONSTRUCTION IS COMPLETE, TRUE THE O.D. DIMENSION FOR THE FULL LENGTH OF "B" TO +/-0.010" BY TOOL AND LATHE OR GRINDING.

MANDREL DETAIL



BEDDING FOR REINFORCED CONCRETE SEWER PIPES



BEDDING FOR SANITARY PIPE

NOTES:

UNLESS OTHERWISE SPECIFIED, ALL SANITARY PIPES, INCLUDING LATERALS AND LEADS, SHALL BE INSTALLED WITH THE TYPE OF BEDDING SHOWN FOR THE TYPE AND SIZE OF PIPE INSTALLED.

THE COSTS OF BEDDING SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PIPE. FOR RCP, BEDDING INCLUDES THE HAUNCHING & BEDDING ZONES. FOR PLASTIC PIPES, THE BEDDING INCLUDES THE HAUNCHING, BEDDING & INITIAL BACKFILL ZONES. THE BEDDING SHALL BE INSTALLED & COMPACTED IN 6" MAXIMUM LIFTS.

ALL TRENCHES SHALL BE HAND BACKFILLED TO A POINT 12" ABOVE THE TOP OF THE PIPE. ALL BEDDING SHALL BE MECHANICALLY COMPACTED.

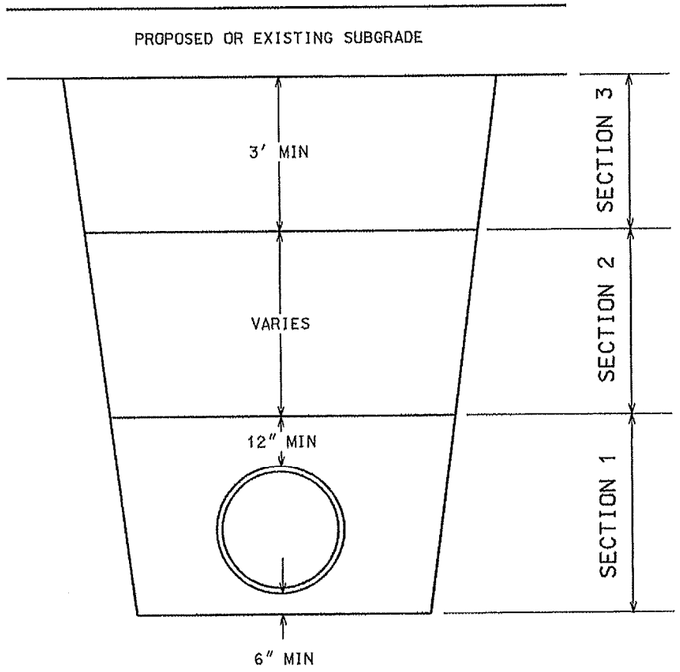
PAYMENT SHALL NOT BE MADE FOR BACKFILL WITH EXCAVATED MATERIAL, IF APPROVED. SELECT FILL, IF REQUIRED, SHALL BE PAID PER CONTRACT.

THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE 3 * O.D., THE MINIMUM TRENCH WIDTH AS SPECIFIED, AND SHALL APPLY FROM THE BOTTOM OF THE TRENCH TO A POINT 12" ABOVE THE TOP OF THE PIPE. WHERE THIS WIDTH IS EXCEEDED, THE CONTRACTOR SHALL FURNISH AND INSTALL A HIGHER TYPE OF BEDDING AND SHALL BE INCIDENTAL. THE TYPE OF BEDDING SHALL BE DETERMINED BY THE ENGINEER.

O.D. EQUALS THE OUTSIDE DIAMETER OF THE PIPE.

DRAWING NOT TO SCALE

PIPE BEDDING AND BACKFILL



TYPICAL TRENCH COMPACTION

ALL BACKFILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 6" BEFORE COMPACTION UNLESS AUTHORIZED BY THE ENGINEER DUE TO THE CHARACTER OF THE MATERIAL AND THE COMPACTING EQUIPMENT. EACH LIFT SHALL BE MECHANICALLY COMPACTED TO THE REQUIRED DENSITY PRIOR TO PLACING SUCCEEDING LIFTS OF BACKFILL MATERIAL.

IN COLD WEATHER, TRENCHES SHALL BE COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN SECTION 502.1 (e), BACKFILLING EXCAVATIONS AND COMPACTION OF BACKFILL, OF THESE SPECIFICATIONS.

SECTION 1:

MECHANICALLY COMPACTED BEDDING AS REQUIRED BY THE SPECIFICATIONS. COMPACTION ACHIEVED WITH SMALLER PLATE COMPACTOR. FOR ALL PLASTIC PIPE SECTION 1 SHALL BE INSTALLED IN ACCORDANCE WITH S.D.D. 5.2.1A

SECTION 2:

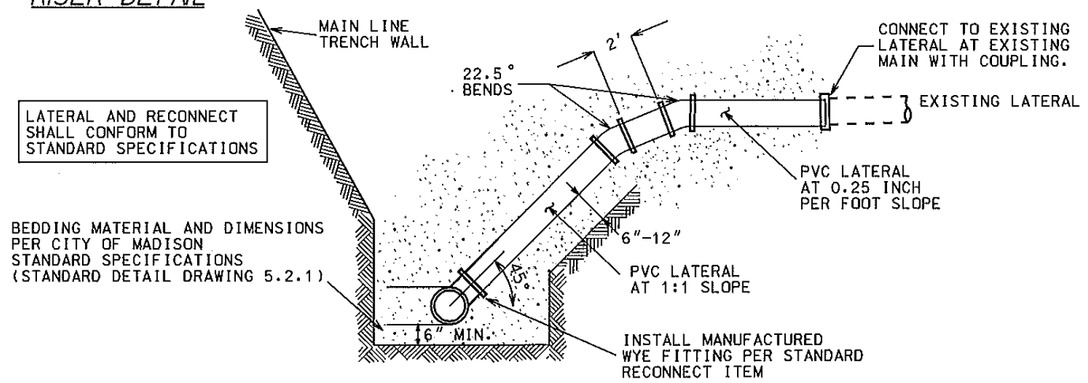
MINIMUM COMPACTION OF 90% MAXIMUM DENSITY. COMPACTION OF BACKFILL WITH BOMAG OR HOE-PAC SHALL NOT BEGIN UNTIL THE DEPTH OF BACKFILL MATERIAL IS TWO FEET ABOVE THE TOP OF PIPE.

SECTION 3:

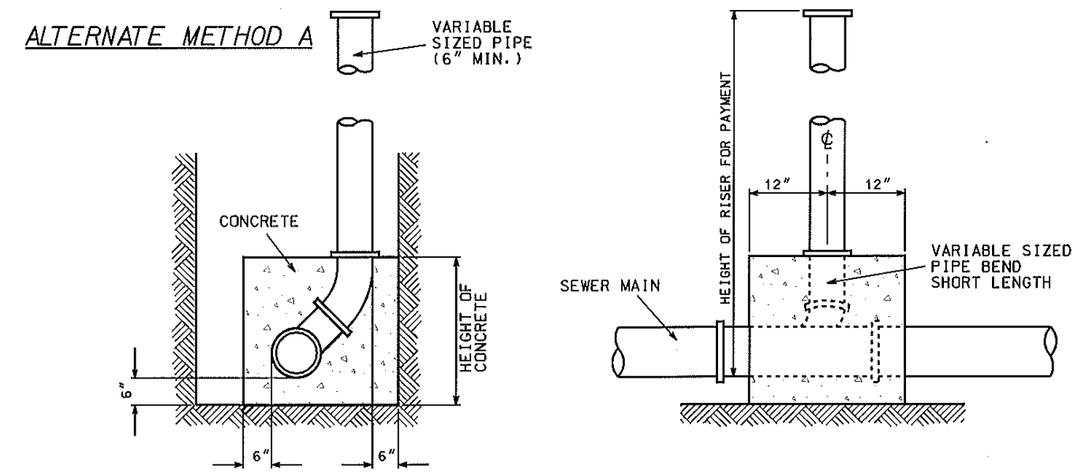
MINIMUM COMPACTION OF 95% MAXIMUM DENSITY.

TYPICAL TRENCH COMPACTION

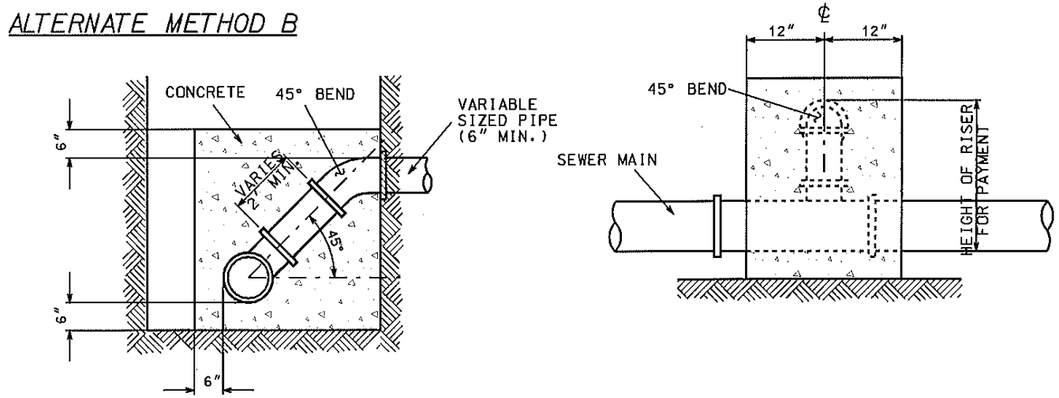
RISER DETAIL



ALTERNATE METHOD A



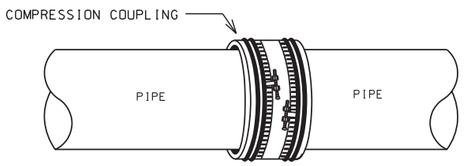
ALTERNATE METHOD B



RISER DETAIL

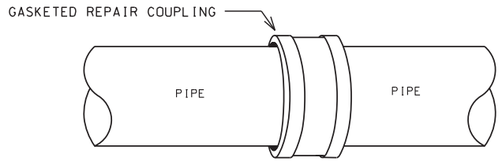
COMPRESSION COUPLING

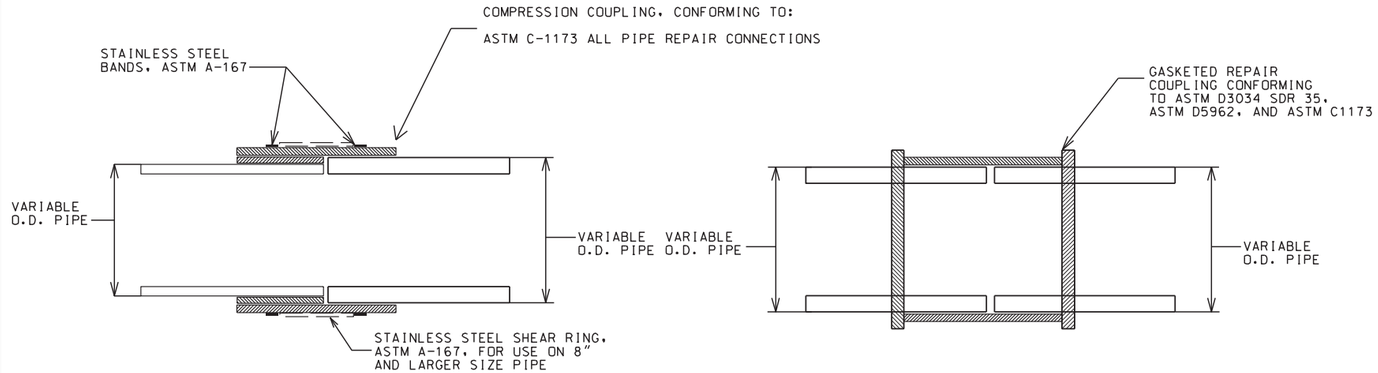
PIPES WITH DIFFERENT MATERIAL TYPES
PIPES WITH DIFFERENT OUTSIDE DIAMETERS



GASKETED REPAIR COUPLING

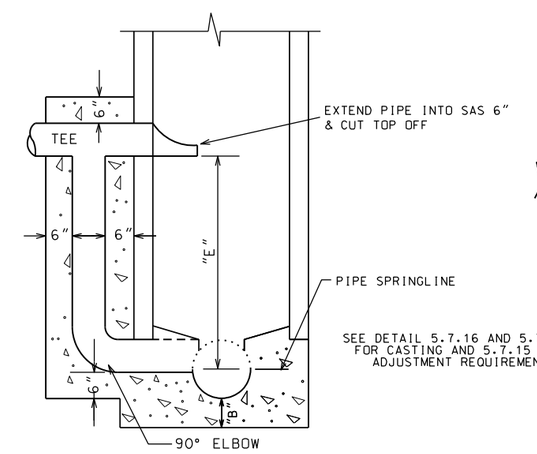
PVC TO PVC CONNECTION





ALL REPAIRS INVOLVING PIPE CONNECTIONS 8" IN DIAMETER TO 8" IN DIAMETER OR LARGER SHALL UTILIZE THE FERNCO RC STRONGBACK OR EQUIVALENT REPAIR COUPLING. (ASTM C1173).

COUPLING DETAILS



DETAIL A

SHOWING DROP INLET CONSTRUCTION FOR SANITARY SEWER MAINS & LATERALS

NOTES:

1) PRECAST S.A.S. SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.

2) THICKNESS OF BASE, "B":
   6" MIN. FOR 4' DIAMETER SAS
   8" MIN. FOR 5' AND 6' DIAMETER SAS

3) FOR CASTING DESIGNATION REFER TO STANDARD DETAIL DRAWING 5.7.16 AND 5.7.16A

4) CENTERED (CONCENTRIC) CONE SHALL BE INSTALLED UNLESS OTHERWISE DIRECTED.

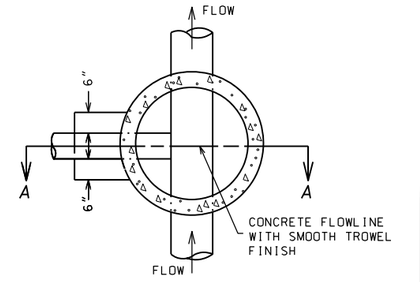
5) DROP INLET SHALL BE BUILT FOR ALL SEWER MAINS AND LATERALS WHEN "E" IS GREATER THAN 24". "E" SHOULD BE MEASURED FROM INVERT OF INCOMING PIPE TO THE SPRINGLINE OF THE OUTGOING SEWER. INSIDE DROP PER STANDARD DETAIL DRAWING 5.7.30 MAY BE INSTALLED FOR 4" AND 6" SERVICE CONNECTIONS WHERE OUTSIDE DROP INLET CONSTRUCTION IS INFEASIBLE. ENGINEER SHALL APPROVE INSIDE DROP INLET PRIOR TO INSTALLATION.

6) FLEXIBLE PIPE TO SAS CONNECTOR REQUIRED PER STANDARD DETAIL DRAWING 5.7.31

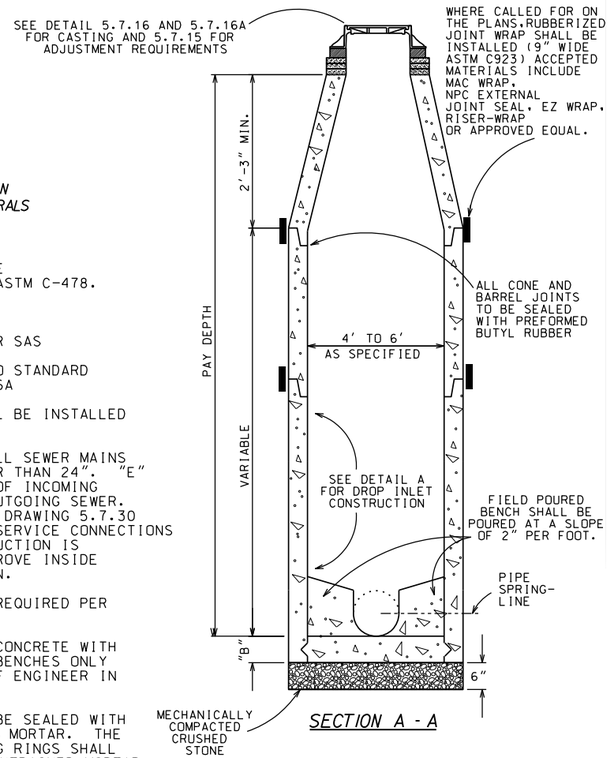
7) ALL BENCHES TO BE FIELD POURED CONCRETE WITH SMOOTH TROWEL FINISH. PRECAST BENCHES ONLY PERMITTED WITH PRIOR APPROVAL OF ENGINEER IN WRITING.

8) ALL JOINTS BETWEEN RINGS SHALL BE SEALED WITH $\frac{3}{8}$" OF AIR-ENTRAINED TYPE M OR S MORTAR. THE OUTSIDE SURFACE OF THE ADJUSTING RINGS SHALL BE SEALED WITH A $\frac{1}{2}$" THICK AIR-ENTRAINED MORTAR TYPE M OR S SEAL. THE METHOD USED FOR SEALING THE OUTSIDE SURFACE SHALL BE COMPATIBLE WITH THAT USED TO SEAL JOINTS BETWEEN THE RINGS.

9) PRECAST SANITARY SEWER ACCESS STRUCTURES FOR STREET RECONSTRUCTION PROJECTS AND FOR STREET EXCAVATION PERMITS REQUIRE PRECAST SHOP DRAWING APPROVAL FROM CITY ENGINEERING. PRIOR TO BEING FABRICATED BY THE MANUFACTURER NO PRECAST SHOP DRAWINGS ARE REQUIRED FOR NEW CONSTRUCTION IN SUBDIVISION DEVELOPMENTS.



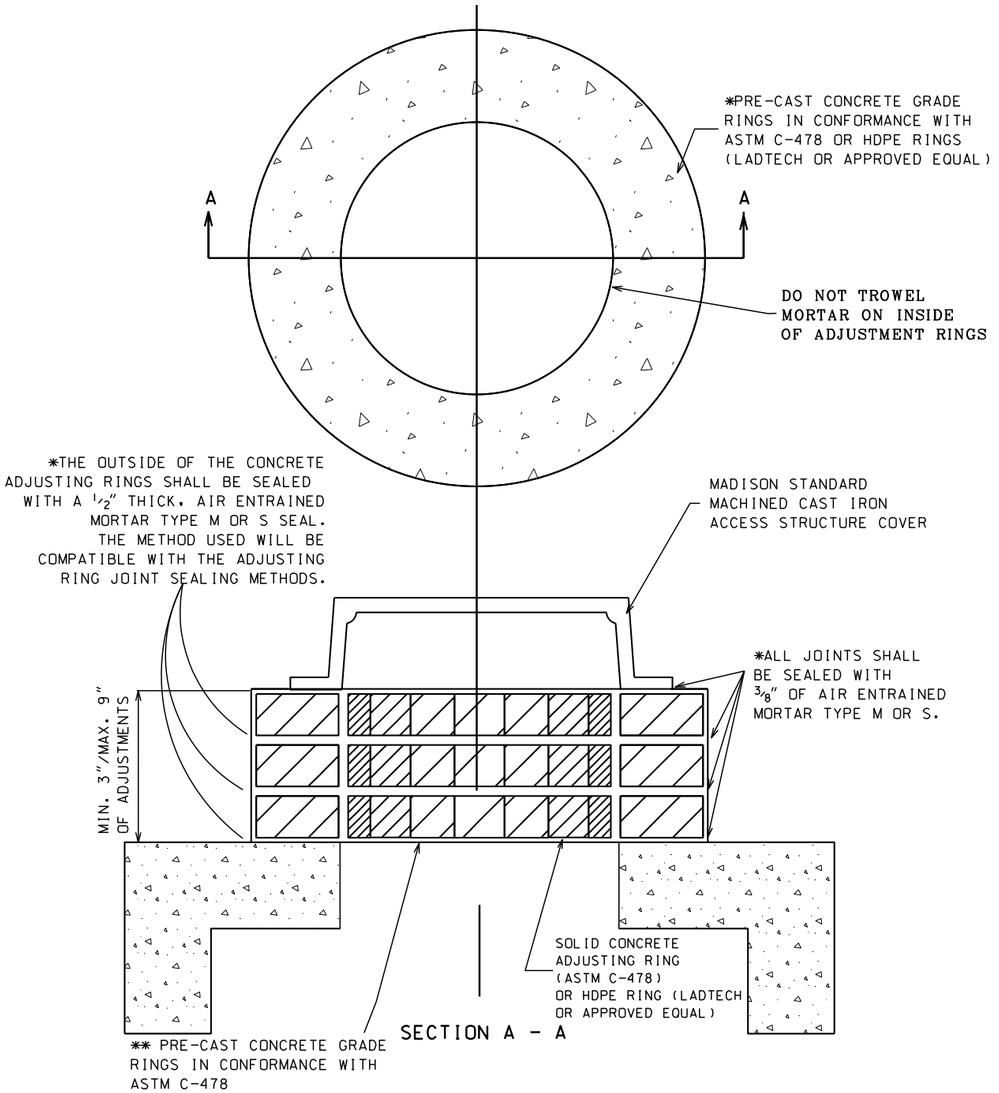
TOP VIEW



SECTION A - A

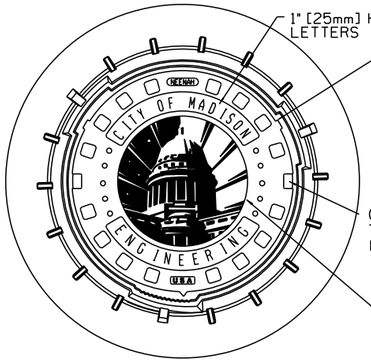
SANITARY SEWER PRECAST SAS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E



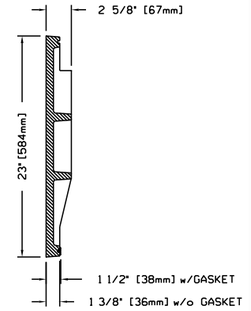
**** NOTE: HDPE ADJUSTMENT RINGS (LADTECH OR APPROVED EQUAL) MEETING AASHTO HS25 SPECS. ASTM D-1248 INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS WILL BE CONSIDERED AN ACCEPTABLE ALTERNATE TO PRECAST RINGS. IF PRO-RINGS ARE INSTALLED FOR THE WHOLE ADJUSTMENT, CONTRACTOR WILL BE PAID FOR AN INTERNAL CHIMNEY SEAL. PRO-RING ADJUSTMENT IS CONSIDERED TO BE EQUIVALENT OF AN INTERNAL CHIMNEY SEAL. PRO-RING SHALL HAVE M-1 ADHESIVE BETWEEN RINGS. CRETEX PRO RING WILL BE CONSIDERED AN ACCEPTED ALTERNATE FOR PRECAST RINGS.**
RING JOINT SEALANT SHALL BE ASTM C990 AND AASHTO M-198 (TROWLABLE EZ-STICK #3 OR EQUAL)

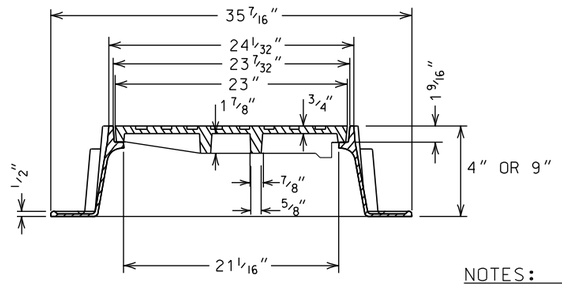
SAS CHIMNEY AND CASTING

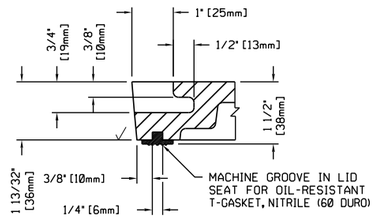


LOGO DETAIL









T-SEAL GASKET / CONCEALED PICK DETAIL

NOTES:

APPROXIMATE TOTAL WEIGHTS:
R-1550 R-1050 FRAME w/ LOGO LID 1550-0054, 9" FRAME AND LID = 240 LBS.
R-1689 FRAME w/ LOGO LID 1550-0054, 4" FRAME AND LID = 279 LBS.

IF LOCKABLE LID IS NECESSARY, R-1916 C, 83/4" FRAME AND LID = 300 LBS
THERE IS NO CITY OF MADISON LOGO LID AVAILABLE FOR THIS FRAME AND CASTING.

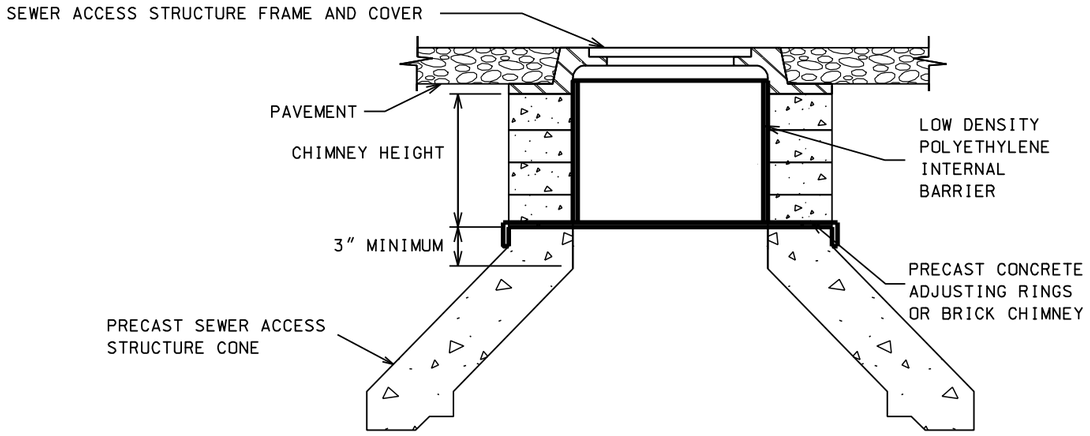
THE FOLLOWING NEENAH FOUNDRY CASTINGS (OR EQUAL CASTINGS) SHALL BE ACCEPTABLE:

1. R-1050, 9" NON-ROCKING ACCESS STRUCTURE FRAME.
2. R-1689, 4" NON-ROCKING ACCESS STRUCTURE FRAME (WHEN REQUESTED BY THE CITY CONSTRUCTION ENGINEER).
3. R-1916 C LOGO WITH A LOCKING CASTING AS WELL AS A LOCKING FRAME. THIS CASTING SHALL BE USED IN GREENWAYS AND EASEMENTS (SEE SDD 5.7.16a)

1. FRAME AND COVER SHALL BE MACHINED AND FITTED SO THAT ROCKING AND CHATTERING WILL BE ELIMINATED.
2. ALL LIDS SHALL BE SELF-SEALING EXCEPT FOR STORM SEWER.
3. ALL LIDS SHALL HAVE CITY OF MADISON LOGO AS SHOWN IN DETAIL (R-1050-0054 OR EQUIV.)

LID NOTES: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC]
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 40A

SAS FRAME AND COVER



LOW DENSITY POLYETHYLENE INTERNAL BARRIER

INTERNAL CHIMNEY SEALS SHALL BE USED ON
ALL SANITARY SEWER ACCESS STRUCTURES
AT THE FOLLOWING LOCATIONS:
1) WITHIN 100' OF A STREET LOW POINT
2) ALL GREENWAYS
3) WHERE SPECIFIED BY THE ENGINEER

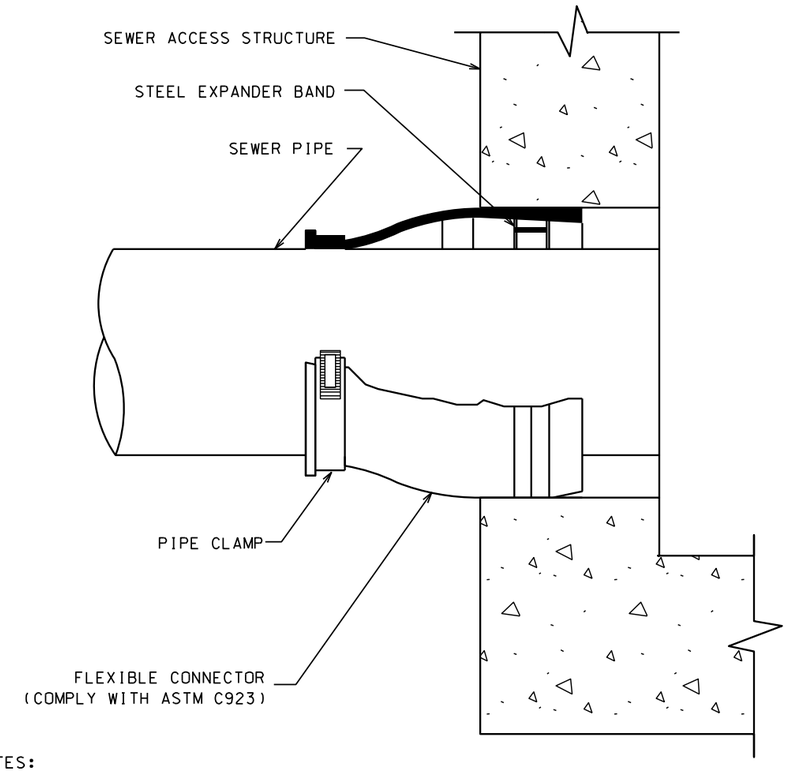
AN INTERNAL CHIMNEY SEAL WHERE NEEDED, SHALL BE INSTALLED TO COVER THE ENTIRE CHIMNEY AREA IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. FRAME SEALS SHALL CONSIST OF THE FOLLOWING INTERNAL SEAL:

LOW DENISTY POLYETHYLENE INTERNAL BARRIER

A LOW DENSITY POLYETHYLENE INTERNAL BARRIER SHALL MAINTAIN THEIR ADHESION ALLOWING REPEATED HORIZONTAL MOVEMENT OF NOT LESS THAN 1 INCH. THE BARRIER SHALL HAVE A MINIMUM THICKNESS OF $^{1}/_{4}$INCH AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING STANDARDS:
ASTM D 1248, D 1238, D 790, D 648, D 1693, ASTN D-792, UL-94.

IF CRETEX PRO-RINGS ARE INSTALLED FOR THE ENTIRE ADJUSTMENT,
CONTRACTOR WILL BE PAID FOR AN INTERNAL CHIMNEY SEAL.
CRETEX PRO-RING SHALL HAVE M-1 ADJESIVE INSTALLED BETWEEN RINGS.

INTERNAL CHIMNEY SEAL



NOTES:

1. S.A.S. CONNECTIONS FOR SEWER MAINS SHALL BE MADE USING FLEXIBLE, WATERTIGHT CONNECTIONS SUCH AS KOR-N-SEAL I OR APPROVED EQUAL, UNLESS DIRECTED OTHERWISE BY ENGINEER.

2. ALL STAINLESS STEEL ELEMENTS OF CONNECTOR SHALL BE TOTALLY NON-MAGNETIC SERIES 304 STAINLESS, EXCLUDING THE WORM SCREW FOR TIGHTENING THE STEEL BAND AROUND THE PIPE WHICH SHALL BE SERIES 305 STAINLESS. THE WORM SCREW FOR TIGHTENING THE STEEL BAND SHALL BE TORQUED BY A BREAK-AWAY TORQUE WRENCH AVAILABLE FOR THE PRECAST S.A.S SUPPLIER AND SET FOR 60 - 70 INCH/LBS.

3. THE CONNECTOR SHALL BE INSTALLED IN THE S.A.S. WALL BY ACTIVATING THE EXPANDING MECHANISM IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE CONNECTOR MANUFACTURER.

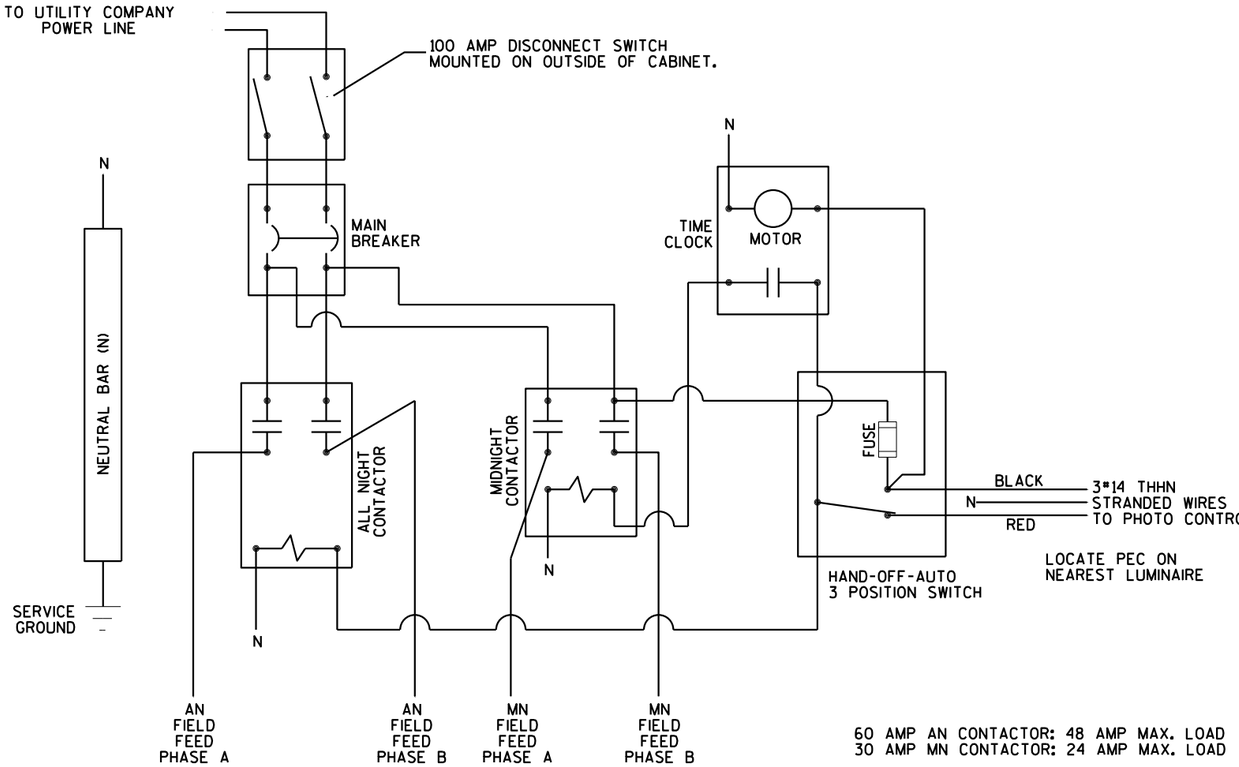
4. THE CONNECTOR SHALL BE OF A SIZE SPECIFICALLY DESIGNED FOR THE PIPE MATERIAL AND SIZE BEING UTILIZED ON THE PROJECT.

5. ALL COSTS SHALL BE CONSIDERED INCIDENTAL TO THE S.A.S. AND/OR PIPE. THE ENGINEER RESERVES THE RIGHT TO REQUIRE A "CONCRETE ENCASEMENT" CONNECTION AT NO ADDITIONAL EXPENSE IN THE EVENT OF DESIGN CHANGE.

6. FLEXIBLE, WATERTIGHT CONNECTIONS SHALL ALSO BE USED AS REQUIRED FOR STORM SEWER CONNECTIONS.

FLEXIBLE PIPE TO SAS CONNECTOR

2

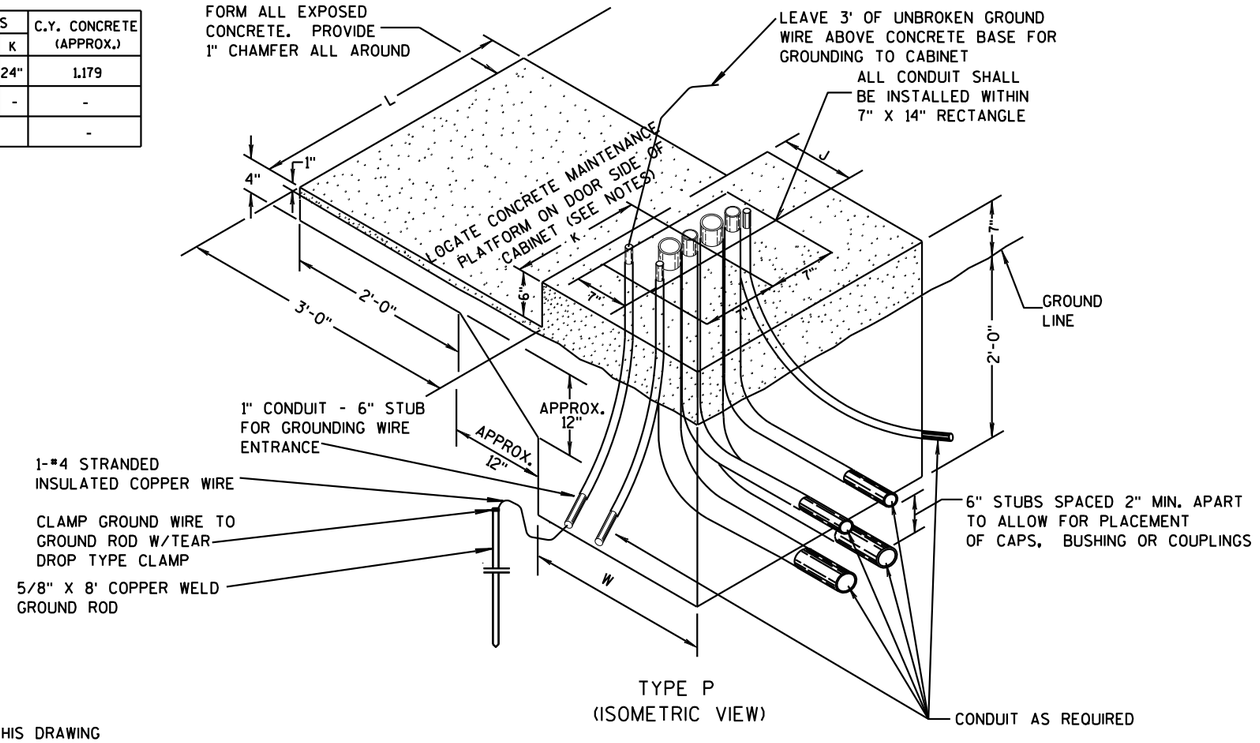


NOTE:
CONTRACTOR SHALL CONNECT CIRCUIT WIRING IN SUCH A MANNER TO BALANCE THE LOAD BETWEEN PHASE A AND B AS CLOSE AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.

120V STREET LIGHT CONTROL PANEL ELECTRICAL SERVICE DETAIL

2

CONCRETE BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	L	W	J	K	
TYPE P	48"	30"	16"	24"	1.179
TYPE P MODIFIED	-	-	-	-	-
TYPE OTHER	-				-



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

DEPTH OF CONDUIT EXITING THE BASE SHALL MATCH THE DEPTH SPECIFIED FOR CONDUIT INSTALLATION.
ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

MAINTENANCE PLATFORM SHALL NOT BE INSTALLED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

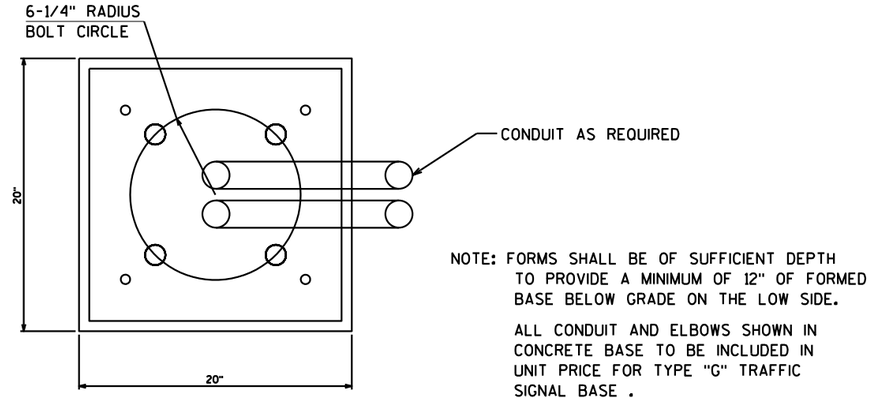
ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MINIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUITS SHALL EXIT THE BASE IN THE DIRECTION OF THE STRUCTURE IT IS TERMINATING INTO.

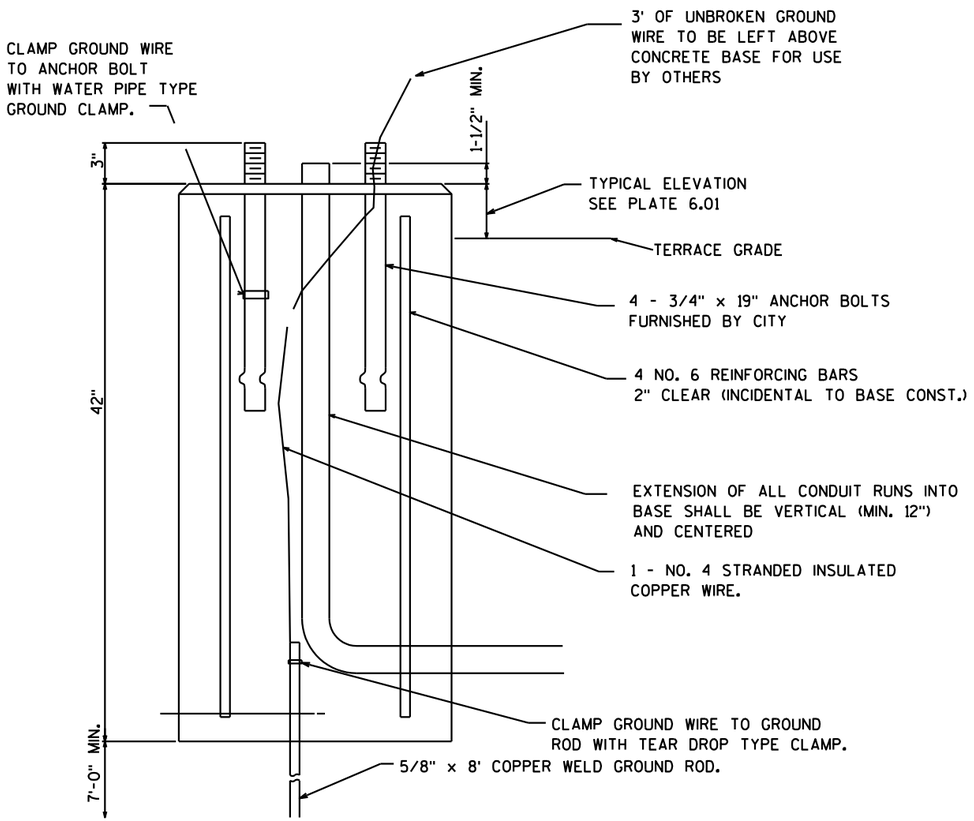
MAINTENANCE PLATFORM SIZE MAY VARY ON ACCOUNT OF CONDITIONS. VERIFY THE MAINTENANCE PLATFORM SIZE WITH ENGINEER PRIOR TO POURING BASE.

CONCRETE BASES TYPE P DETAIL

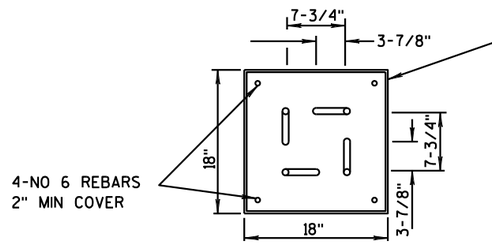


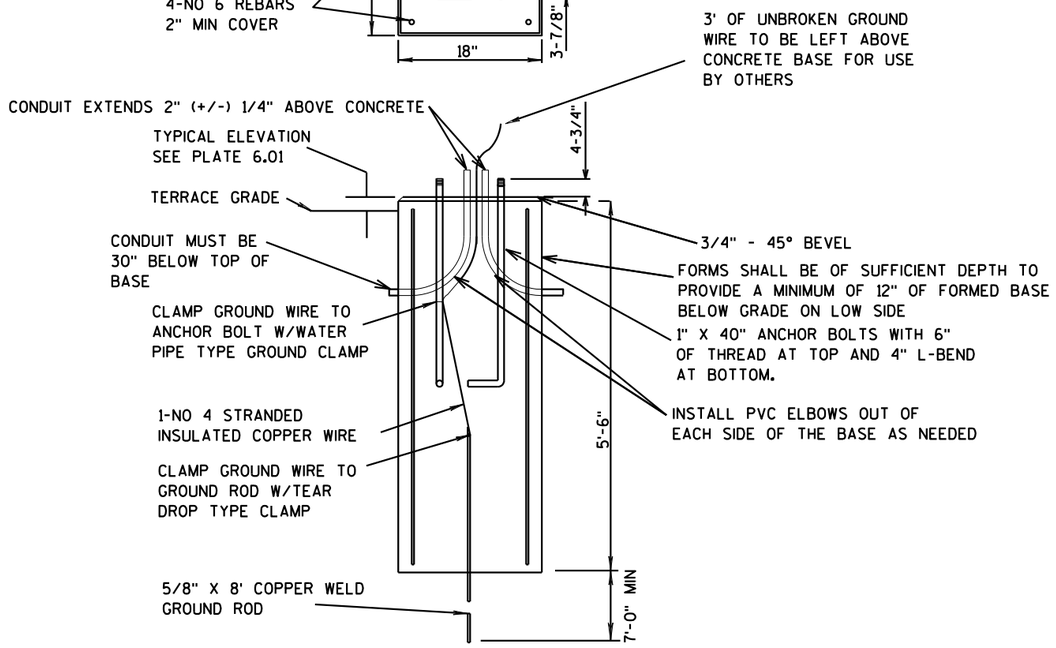
NOTE: FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON THE LOW SIDE.

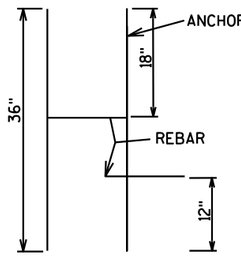
ALL CONDUIT AND ELBOWS SHOWN IN CONCRETE BASE TO BE INCLUDED IN UNIT PRICE FOR TYPE "G" TRAFFIC SIGNAL BASE .



CONCRETE BASES TYPE G DETAIL



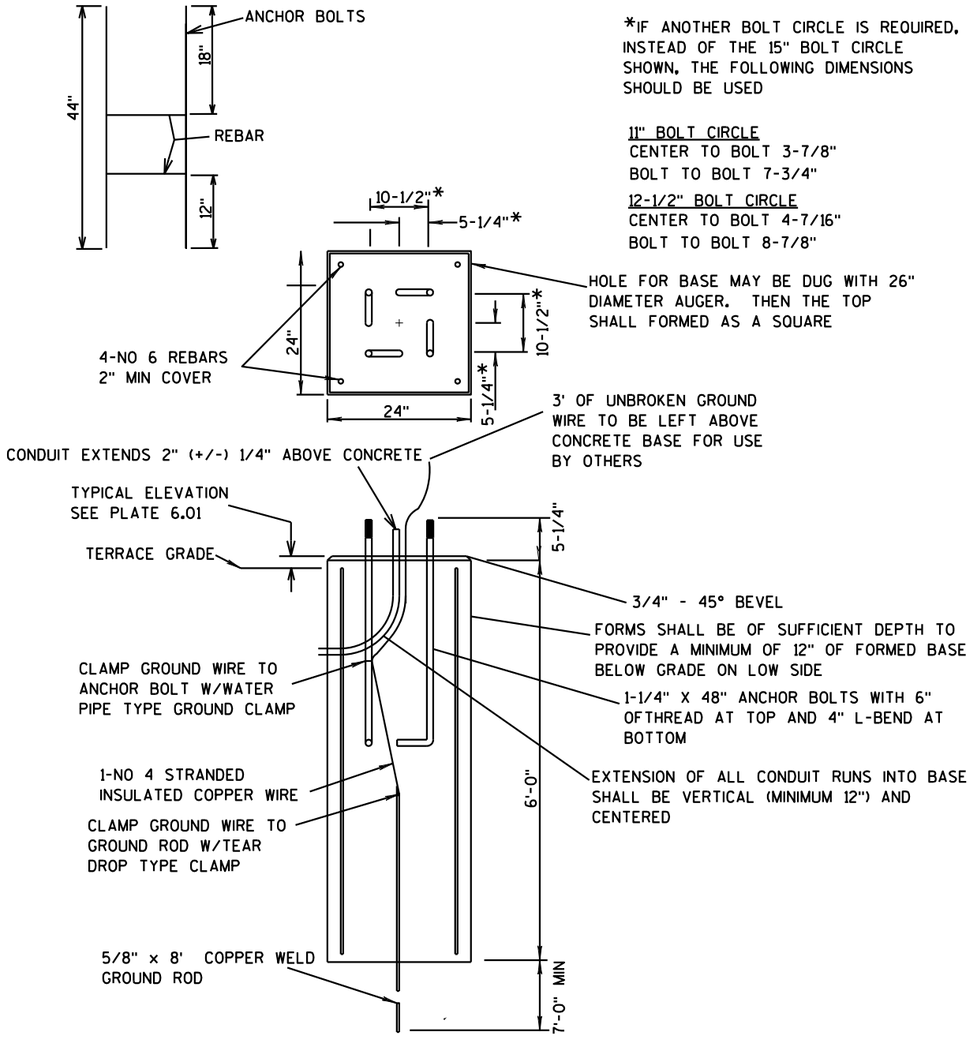




HORIZONTAL REBAR SHALL BE TACK WELDED OR WIRED TO ANCHOR BOLTS TO FORM ANCHOR BOLT CAGE BEFORE POURING CONCRETE.

CONCRETE BASES TYPE LB-3 DETAIL

HORIZONTAL REBAR SHALL BE TACK WELDED OR WIRED TO ANCHOR BOLTS TO FORM ANCHOR BOLT CAGE BEFORE POURING CONCRETE.

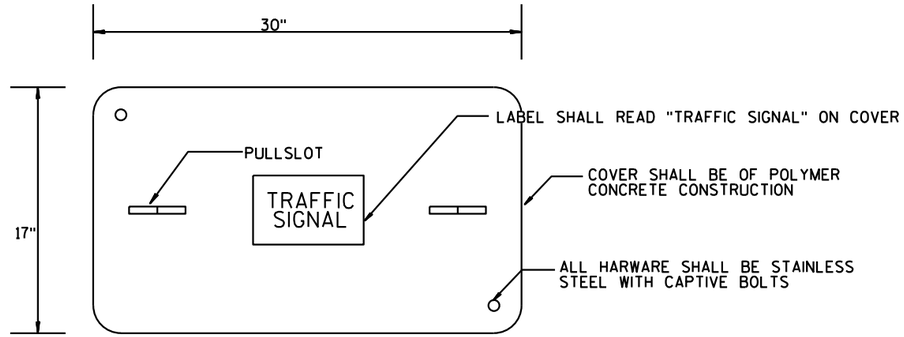


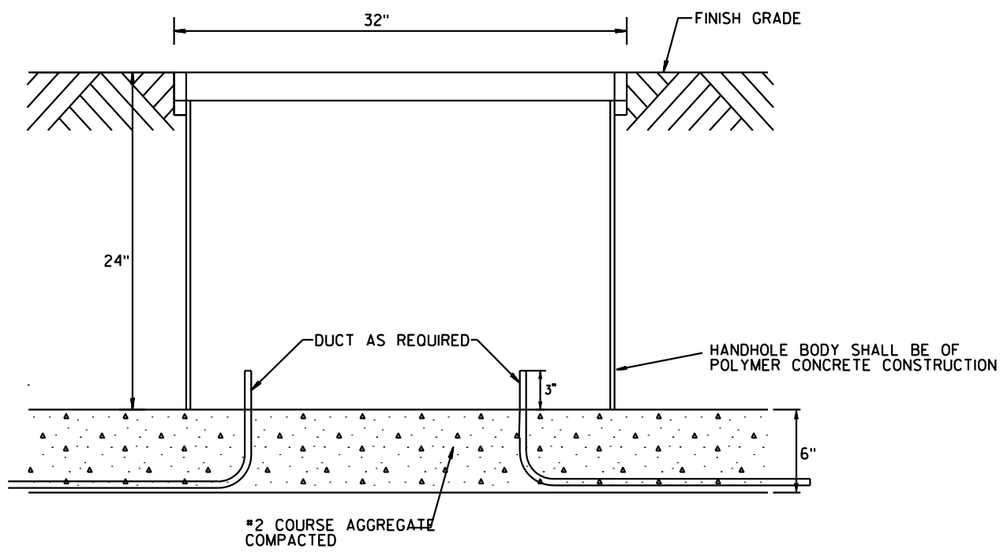
*IF ANOTHER BOLT CIRCLE IS REQUIRED, INSTEAD OF THE 15" BOLT CIRCLE SHOWN, THE FOLLOWING DIMENSIONS SHOULD BE USED

11" BOLT CIRCLE
CENTER TO BOLT 3-7/8"
BOLT TO BOLT 7-3/4"

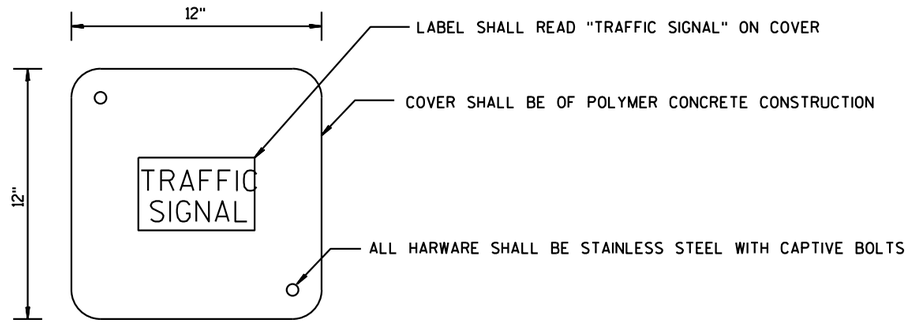
12-1/2" BOLT CIRCLE
CENTER TO BOLT 4-7/16"
BOLT TO BOLT 8-7/8"

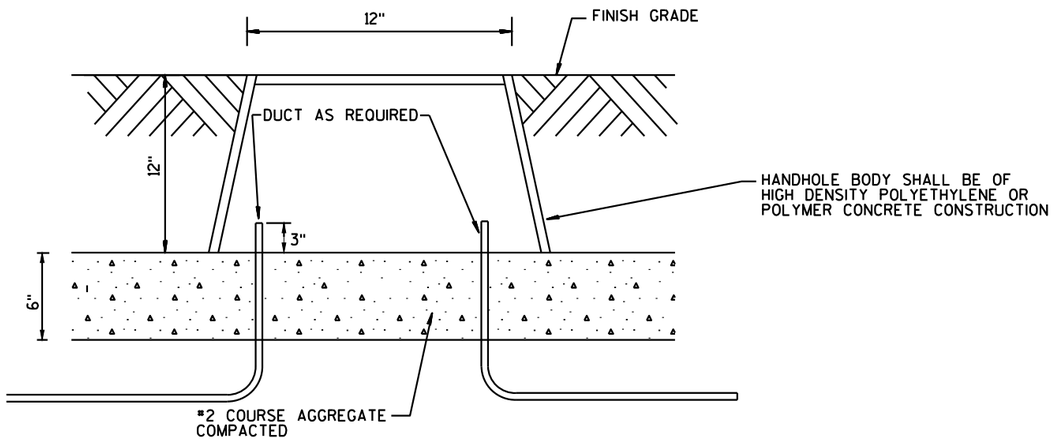
CONCRETE BASES TYPE LB-8 DETAIL



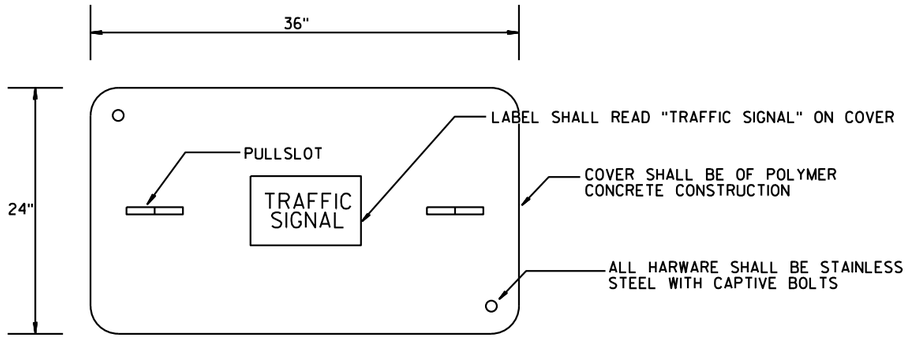


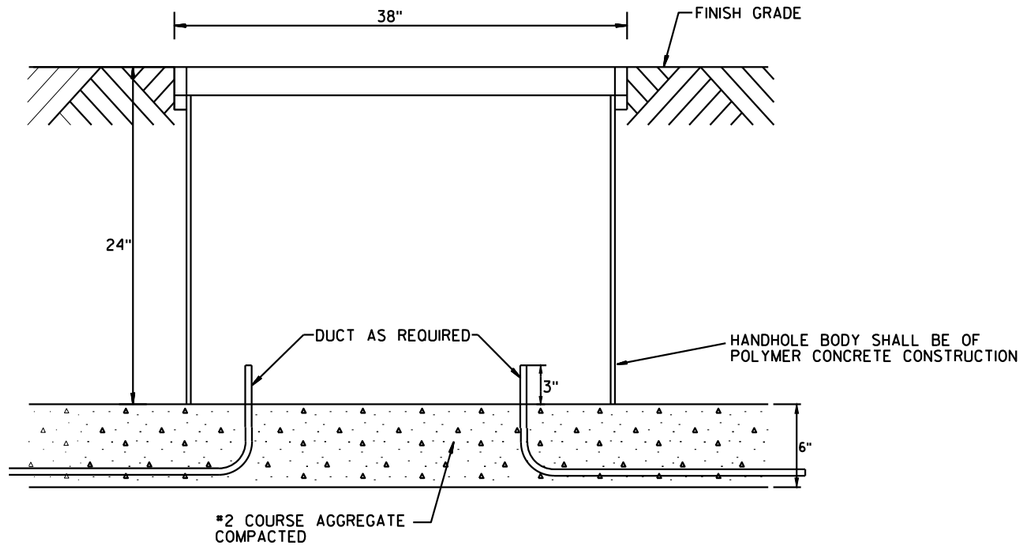
ELECTRICAL PULL BOX TYPE 1 DETAIL



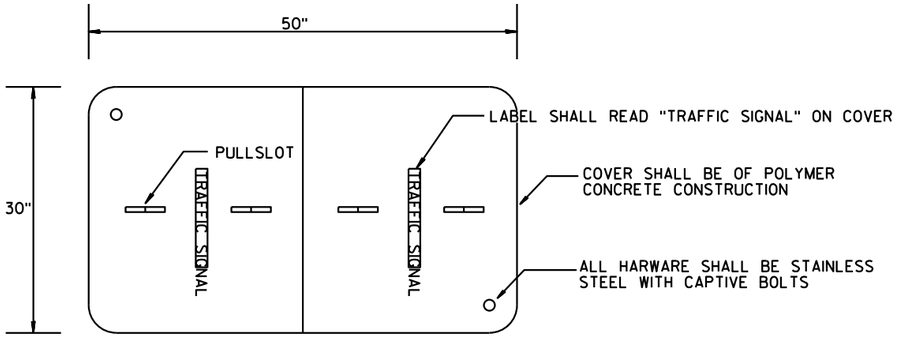


ELECTRICAL PULL BOX TYPE 3 DETAIL

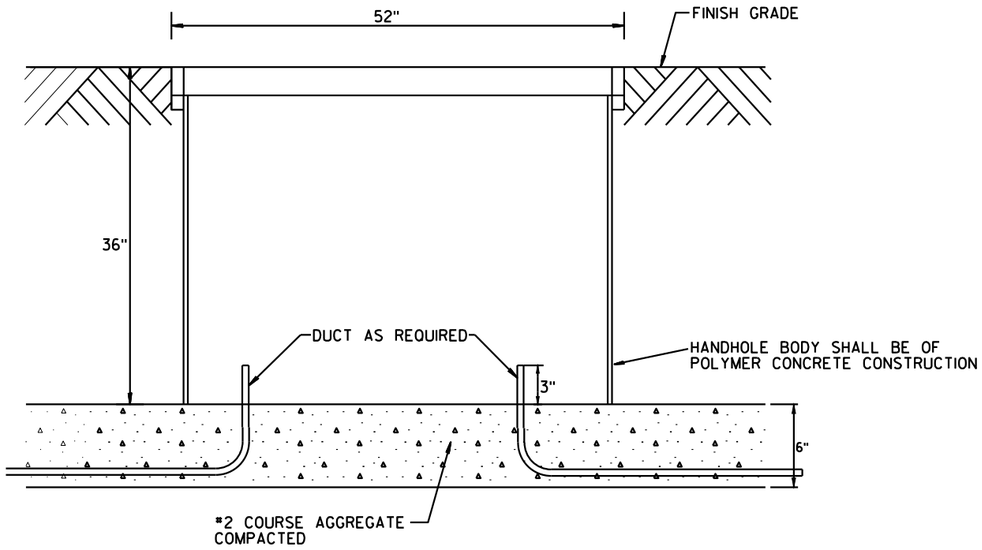




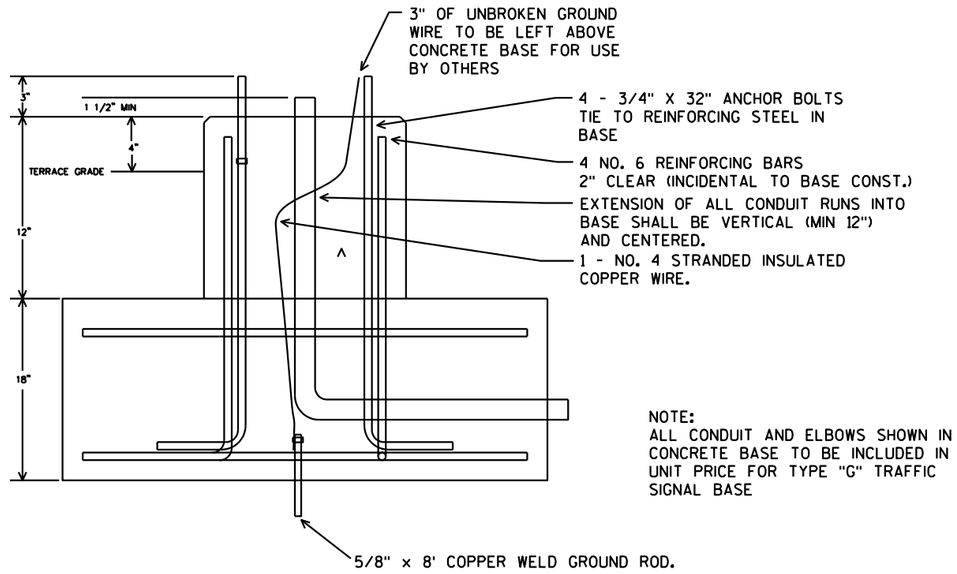
ELECTRICAL PULL BOX TYPE 5 DETAIL



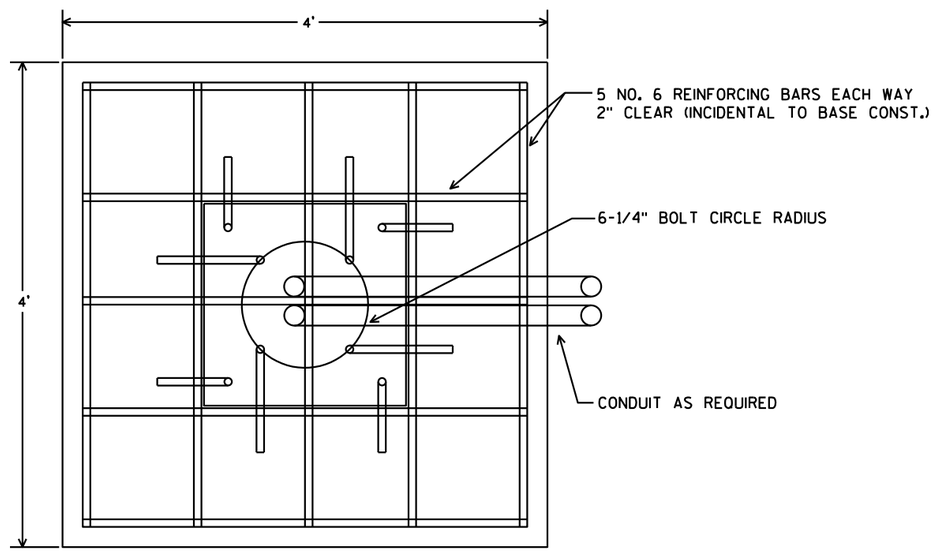
*15,000 LBS MAXIMUM LOAD OVER A 10'X10' TEST AREA RATING FOR COVER AND BOX



ELECTRICAL PULL BOX TYPE 7 DETAIL

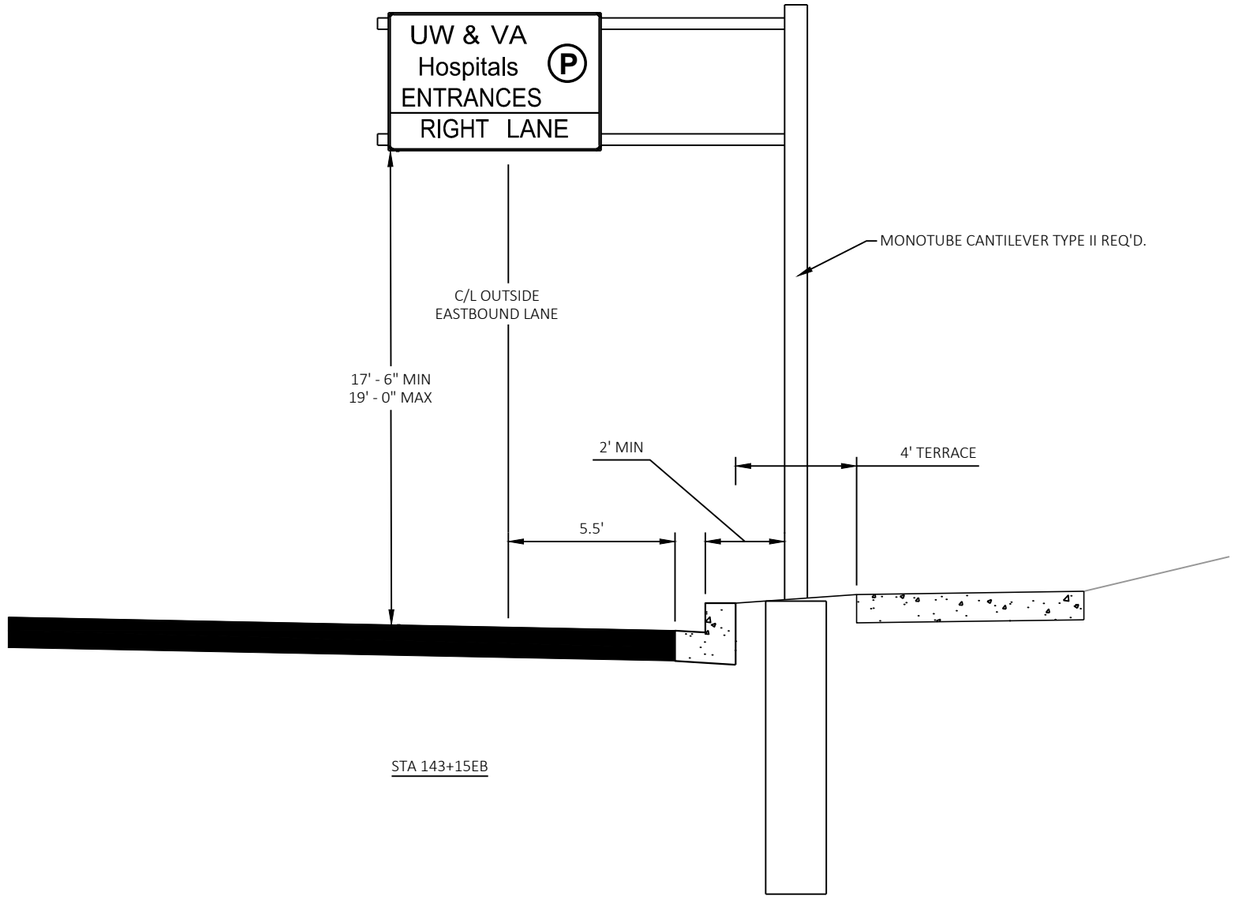


NOTE:
ALL CONDUIT AND ELBOWS SHOWN IN CONCRETE BASE TO BE INCLUDED IN UNIT PRICE FOR TYPE "G" TRAFFIC SIGNAL BASE



CONCRETE BASES TYPE G SPREAD FOOTING DETAIL

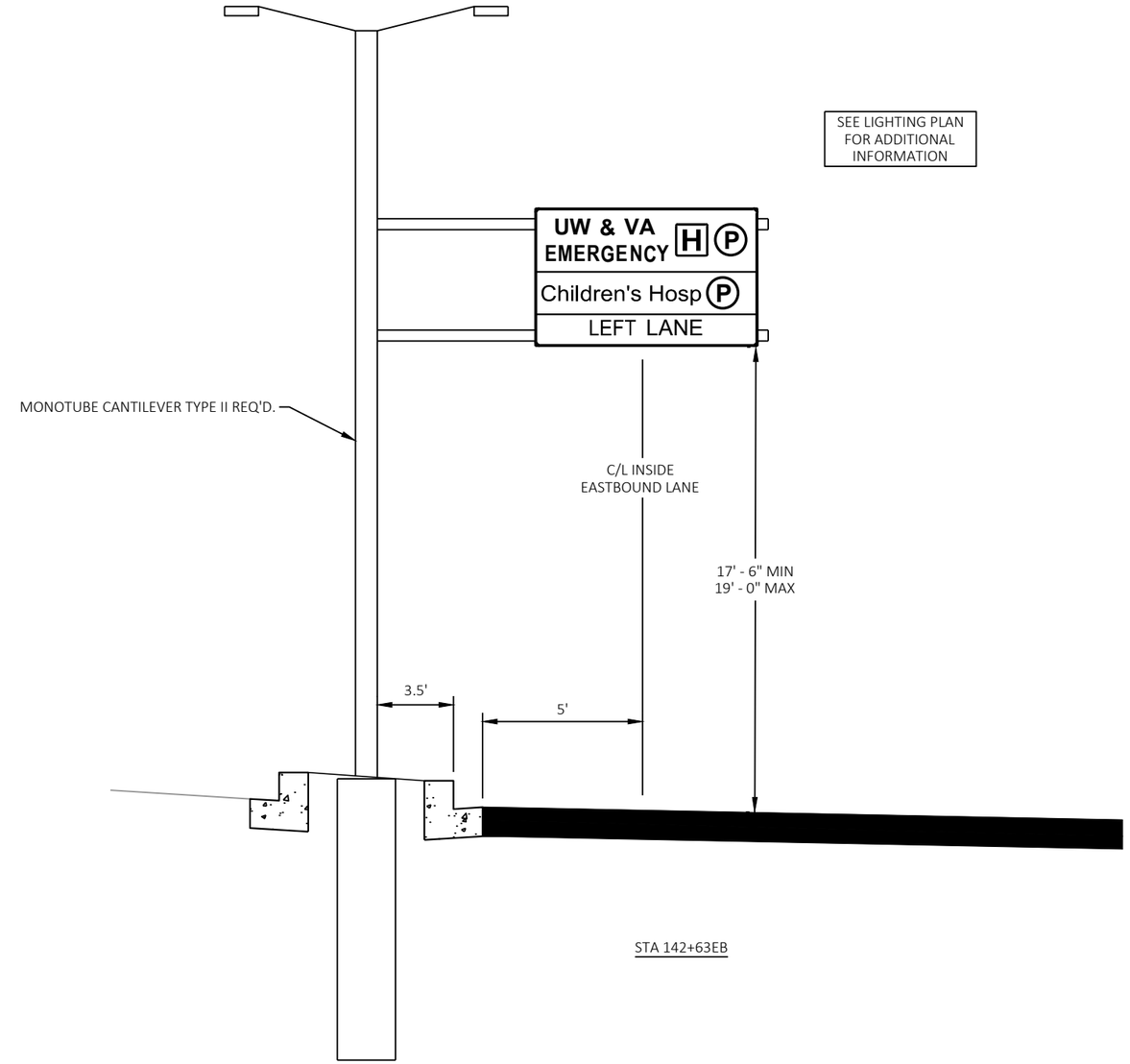
2



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 57	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\070103-SD.DWG
LAYOUT NAME - MONOTUBE DETAIL - 1
PLOT DATE : 1/3/2022 2:24 PM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

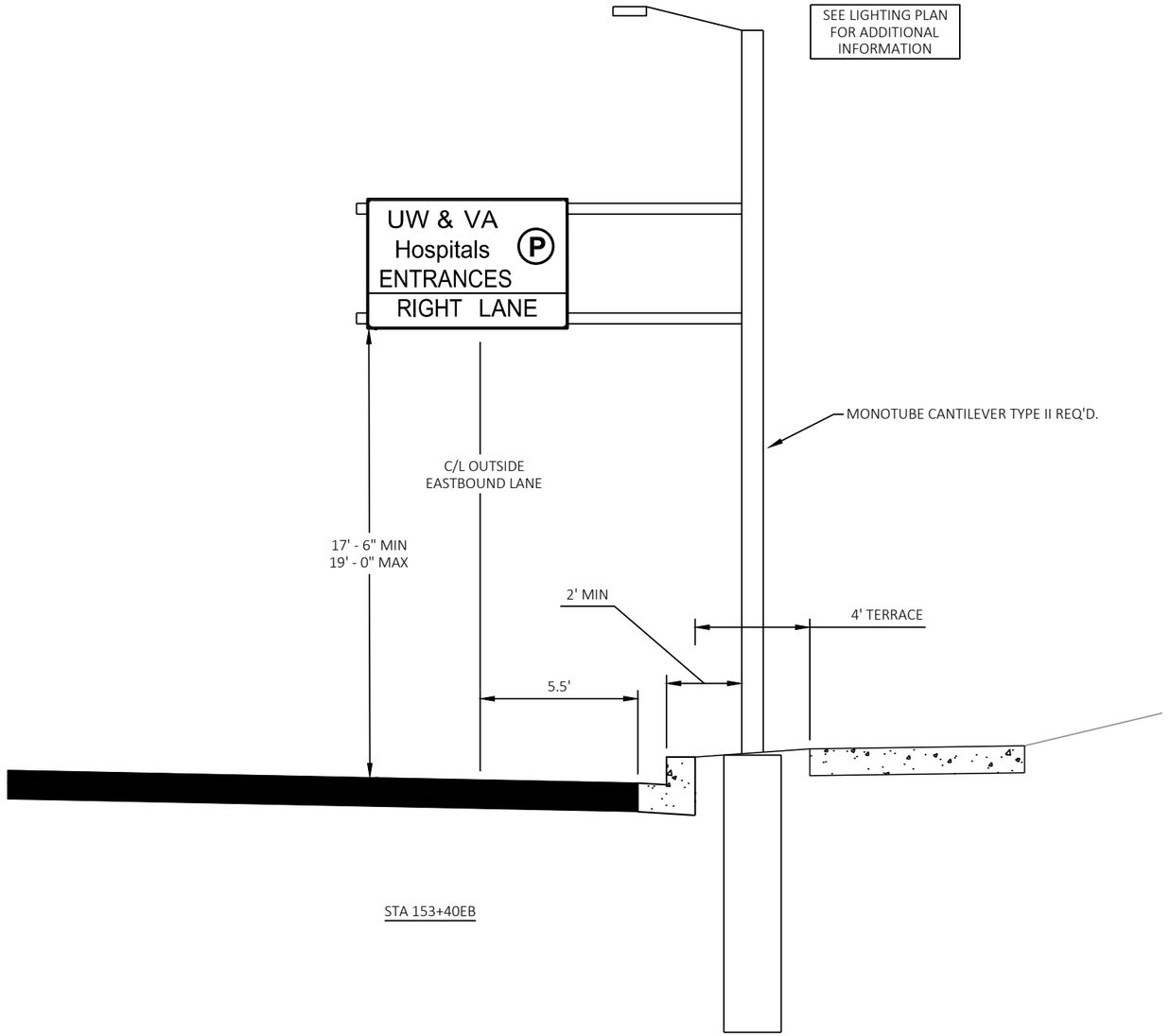


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 58	E

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LAYOUT NAME - MONOTUBE DETAIL - 4
PLOT DATE : 1/5/2022 11:11 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

2

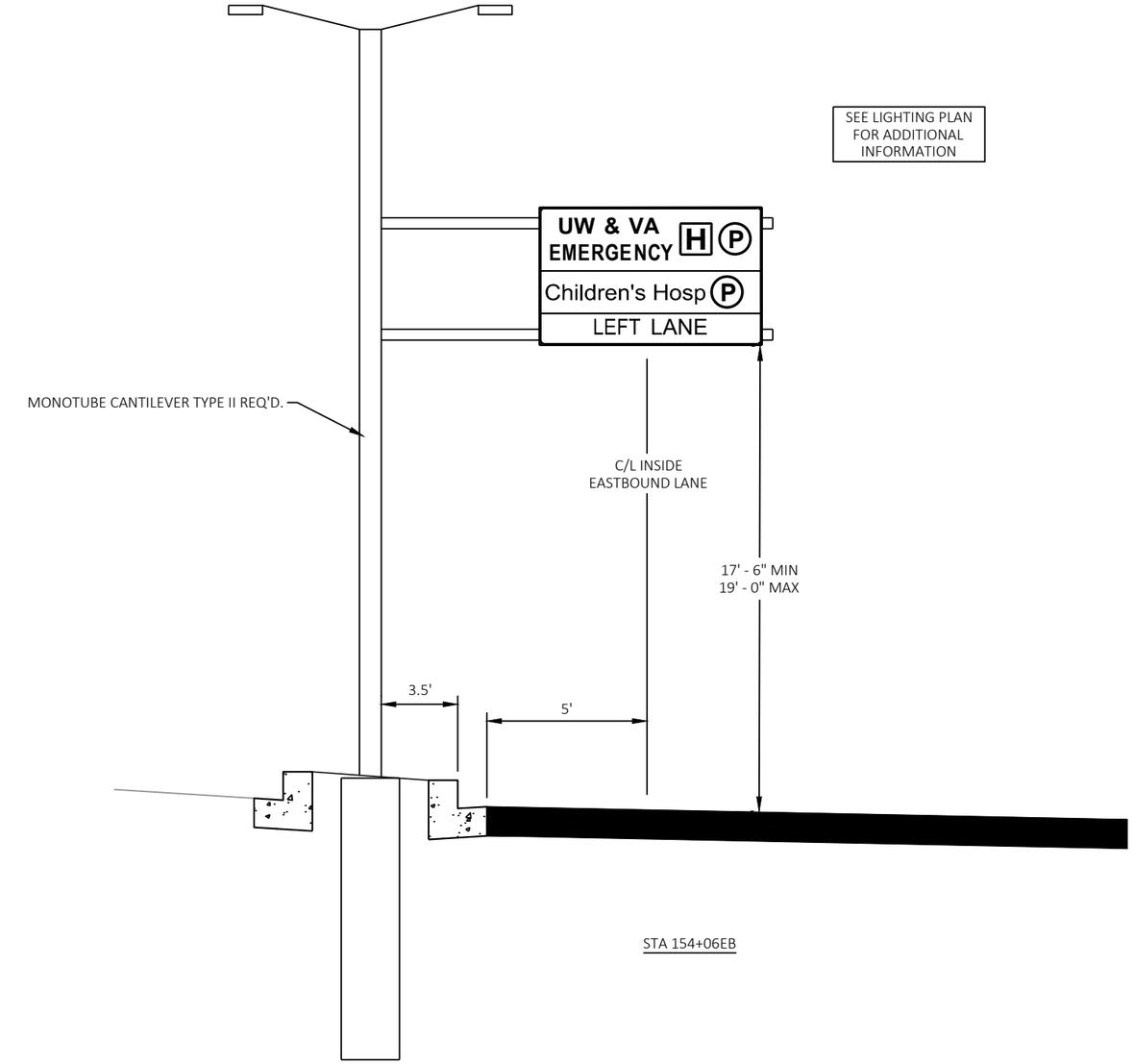


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 59	E

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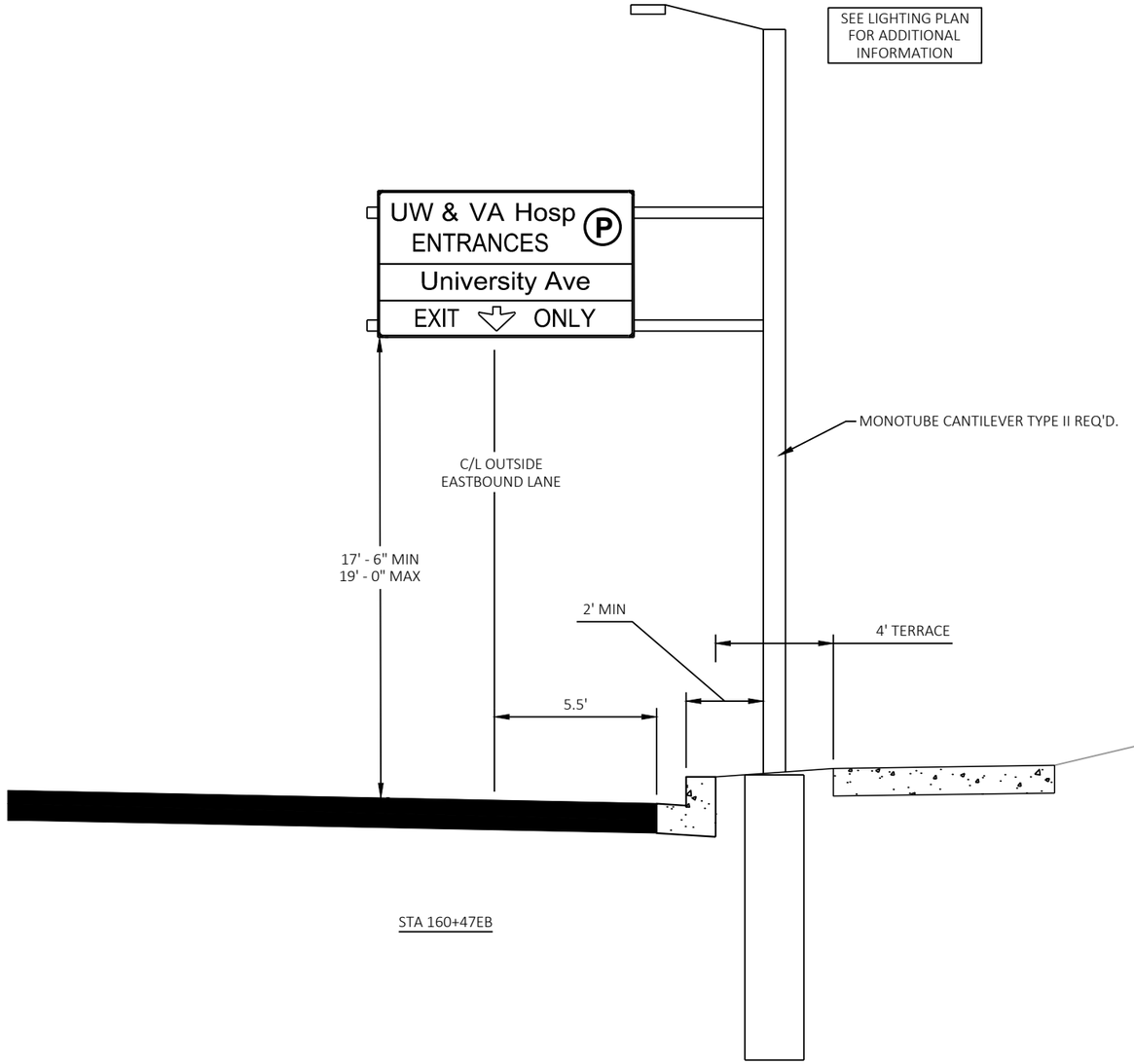
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2



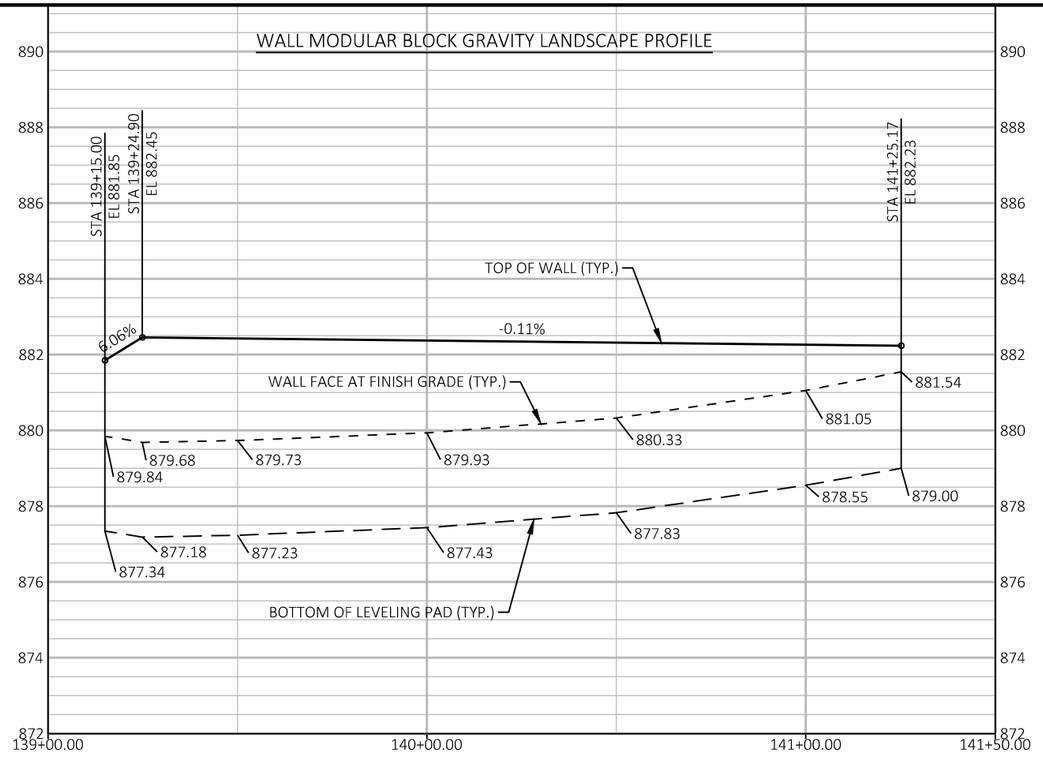
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2

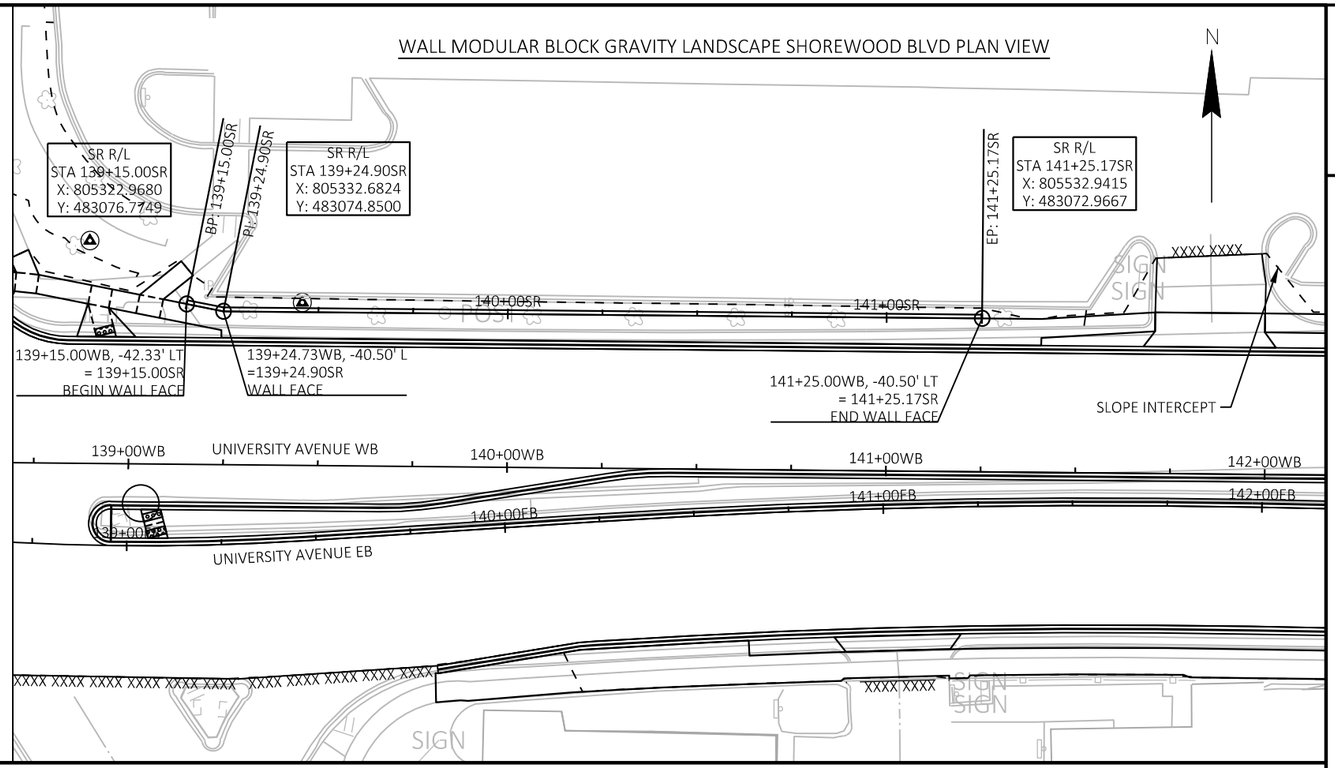


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 61	E

WALL MODULAR BLOCK GRAVITY LANDSCAPE PROFILE



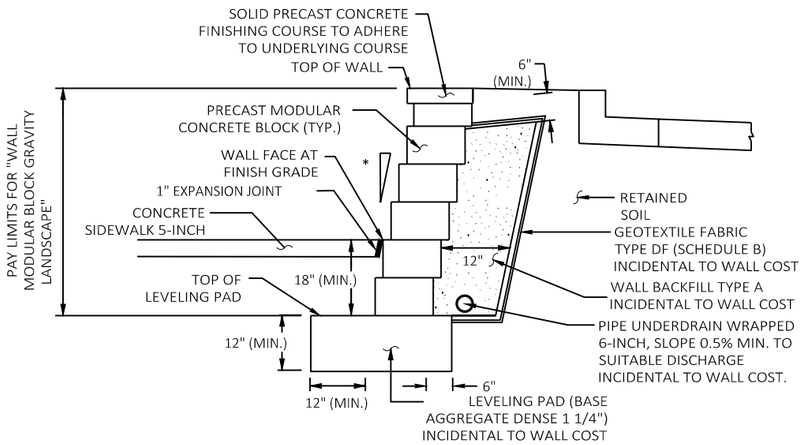
WALL MODULAR BLOCK GRAVITY LANDSCAPE SHOREWOOD BLVD PLAN VIEW



2

**VARY AS NEEDED TO FACILITATE DRAINAGE BEHIND WALL

*BATTER VARIES BY MANUFACTURER



RETAINING WALL TYPICAL SECTION

STA. 139+15.00SR - STA. 141+25.17SR

SOIL PARAMETERS

SOIL DESCRIPTION	UNIT WEIGHT (pcf)	FRICTION ANGLE (degrees)	COHESION (psf)
GRANULAR FILL	125	30°	0

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISION "WALL MODULAR BLOCK GRAVITY LANDSCAPE".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE GRADES PROVIDED ON THIS DETAIL.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN OR GRAY IN COLORATION. (TO BE APPROVED BY THE ENGINEER)

ALLOWABLE SOIL BEARING CAPACITY = 2,500 PSF.

2

2

TABLETOP CROSSWALK ELEVATION
DETAILS

N

20+87.41UB
50.3LT

874.57

874.62

874.66

874.73

874.78

20+73.04UB
36.0LT

875.13

20+68.83UB
40.2LT

875.05

874.95

875.06

875.16

20+62.53UB
48.1LT

874.95

20+59.20UB
53.2LT

874.83

874.68

874.53

874.40

20+72.55UB
66.6LT

874.71

874.85

874.95

874.86

20+75.99UB
61.6LT

874.77

20+82.77UB
54.2LT

UNIVERSITY BAY DR

UNIVERSITY AVENUE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 63	E

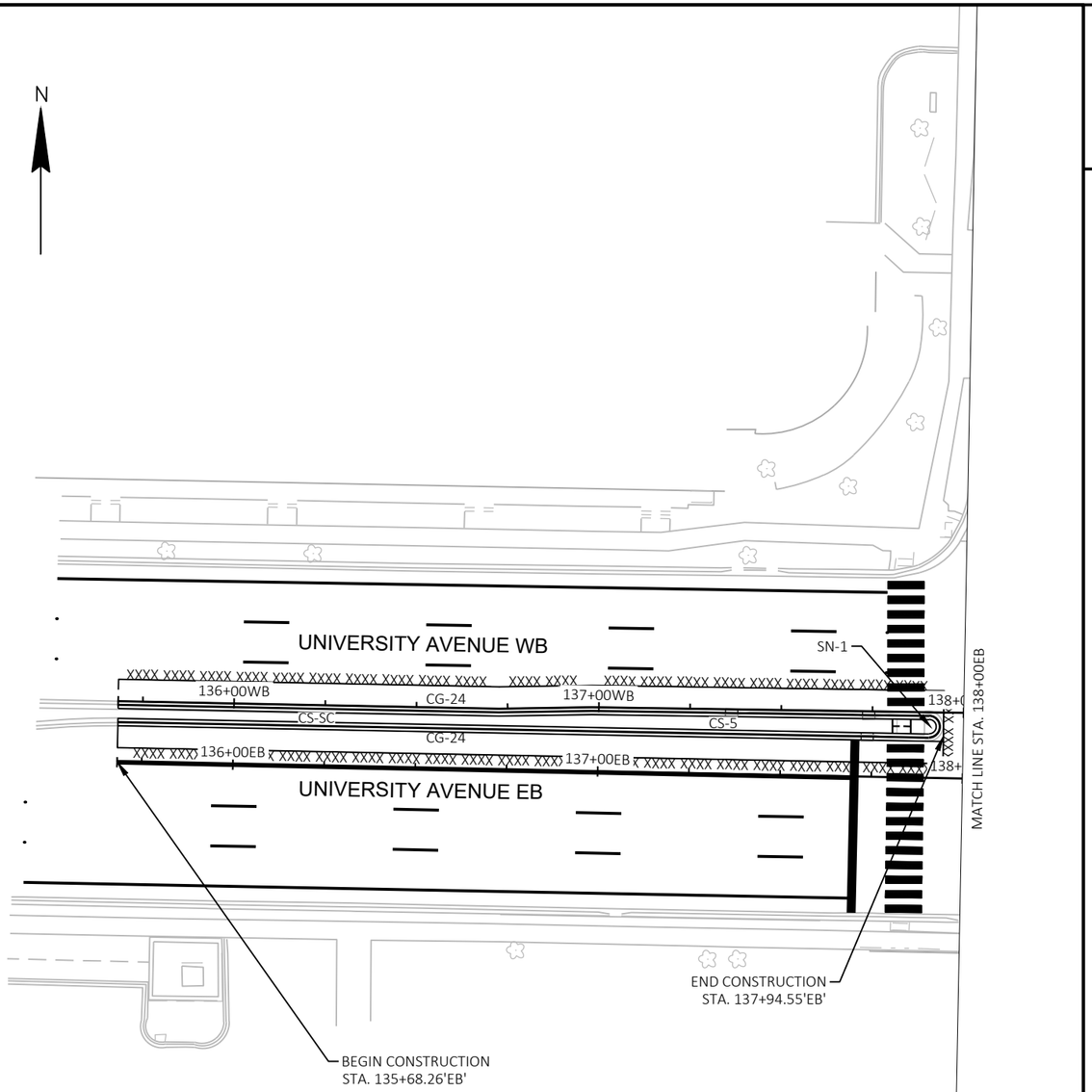
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LAYOUT NAME - 27

PLOT DATE : 8/17/2021 2:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

PLAN DETAILS LEGEND

←	TRAFFIC FLOW
□	PROPOSED STORM SEWER INLET
○	PROPOSED STORM SEWER MANHOLE
– – – – –	SLOPE INTERCEPT
XXXX XXXX XXXX	SAWING ASPHALT
//////////	SAWING CONCRETE
R-WAL	RETAINING WALL
CS-5	CONCRETE SIDEWALK 5-INCH
CS-6	CONCRETE SIDEWALK 6-INCH
CS-SC	CONCRETE SIDEWALK STAMPED/COLORED
CD-7	CONCRETE DRIVEWAY 7-INCH
ASPH	ASPHALTIC SURFACE DRIVEWAYS
TER	TERRACE (SEE TYPICAL SECTION FOR LANDSCAPING TYPE)
GRVL-6	6-INCH BASE AGGREGATE DENSE 3/4 -INCH
CG-30	CONCRETE CURB & GUTTER, 30-INCH TYPE D
CG-24	CONCRETE CURB & GUTTER, 24-INCH TYPE D SPECIAL (SEE CONSTRUCTION DETAIL)
CG-24X	CONCRETE CURB & GUTTER, 24-INCH TYPE X SPECIAL (PAID FOR AS CONCRETE CURB & GUTTER, 24-INCH TYPE D SPECIAL)
CP	CONCRETE CURB PEDESTRIAN
AC	ASPHALTIC CURB
M-A	MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)
SN-1	CONCRETE MEDIAN SLOPED NOSE TYPE-1



2

2

N

SHOREWOOD BLVD.

RETAINING WALL REQ'D
(SEE DETAIL)

XXXX XXXX
ASPH

CD-7
CD-7
CS-5
TER
CG-24

XXXX XXXX XXXX XXXX

MATCH LINE STA. 138+00EB

00WB
139+00WB
140+00WB
141+00WB
UNIVERSITY AVENUE WB
142+00WB
143+00WB
144+

SN-1
CS-SC
CS-5

00EB
139+00EB
140+00EB
141+00EB
UNIVERSITY AVENUE EB
142+00EB
143+00EB
144+

11'
10.5'
10'
10'
10.5'
11'
4'
7'

MATCH LINE STA. 144+00EB

CD-7
CG-24
TER
CS-5
CD-7
CD-7
XXXX XXXX

HES
REQ'D.

CG-24X
(DRIVEWAY)

HES
REQ'D.

BEGIN CONSTRUCTION
STA. 138+09'EB'

HILL STREET

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 65	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - pd 1

PLOT DATE : 10/15/2021 6:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

WISCONSIN & SOUTHERN RAILROAD

PEDESTRIAN RAILING REQ'D
EXISTING WALL TO REMAIN

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 144+00EB

MATCH LINE STA. 150+00EB

SCHMITT PLACE

SN-1

CG30

CG-24X
(DRIVEWAY)

CG-24X
(DRIVEWAY)

HES
REQ'D.

BEGIN CONSTRUCTION
STA. 62+00.00SP

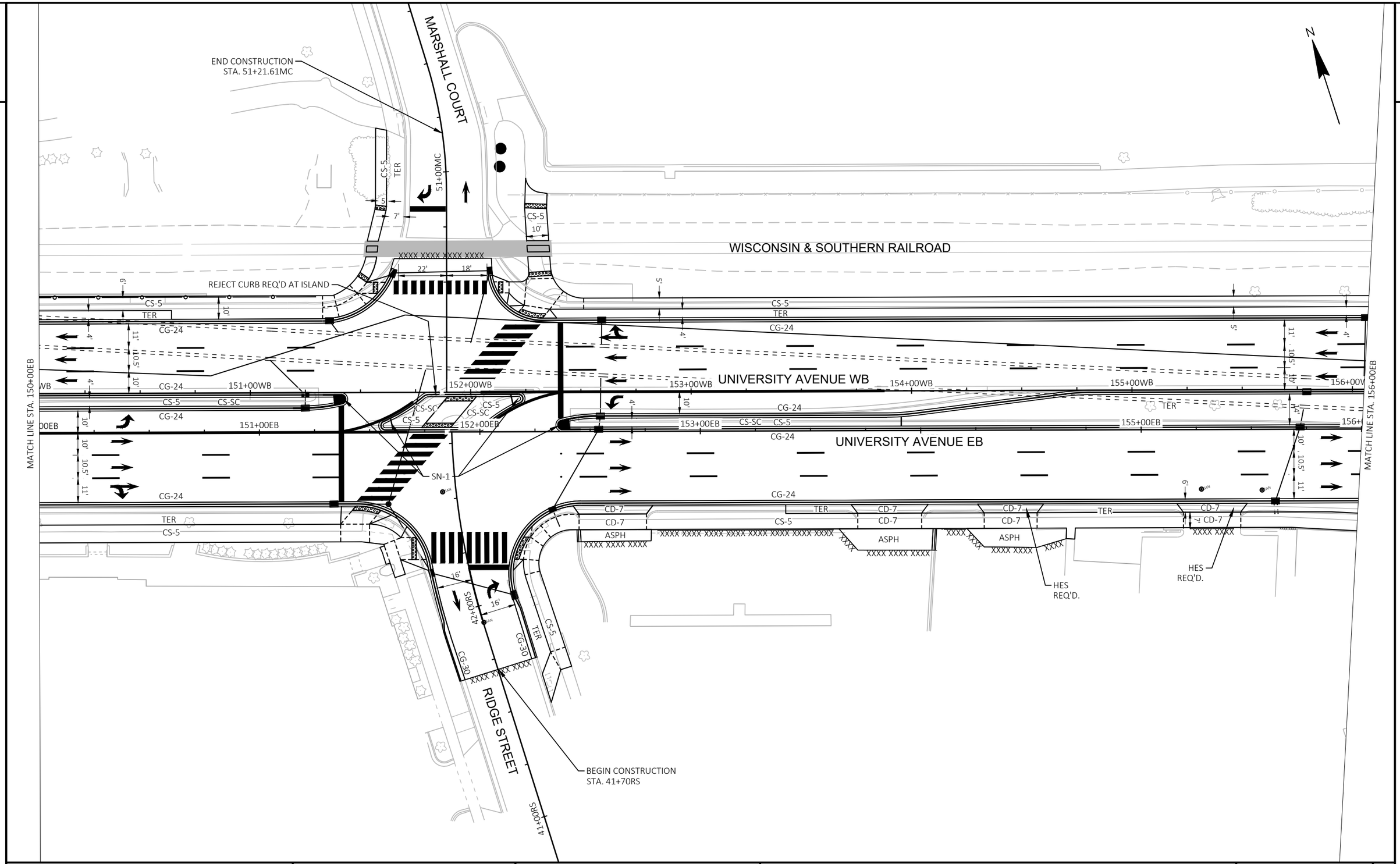
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 66	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - pd 2

PLOT DATE : 10/15/2021 6:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 67	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - pd 3

PLOT DATE : 10/15/2021 6:35 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

WISCONSIN & SOUTHERN RAILROAD

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

N. FRANKLIN AVE.

MATCH LINE STA. 156+00EB

MATCH LINE STA. 162+00EB

157+00WB

158+00WB

159+00WB

160+00WB

161+00WB

157+00EB

158+00EB

159+00EB

160+00EB

161+00EB

SN-1

CS-5

CS-SC

TER

CG-24

CG-30

CD-7

ASPH

XXXX XXXX

HES REQ'D.

33+00NF

32+00NF

31+00NF

18'

BEGIN CONSTRUCTION
STA. 30+93.97NF

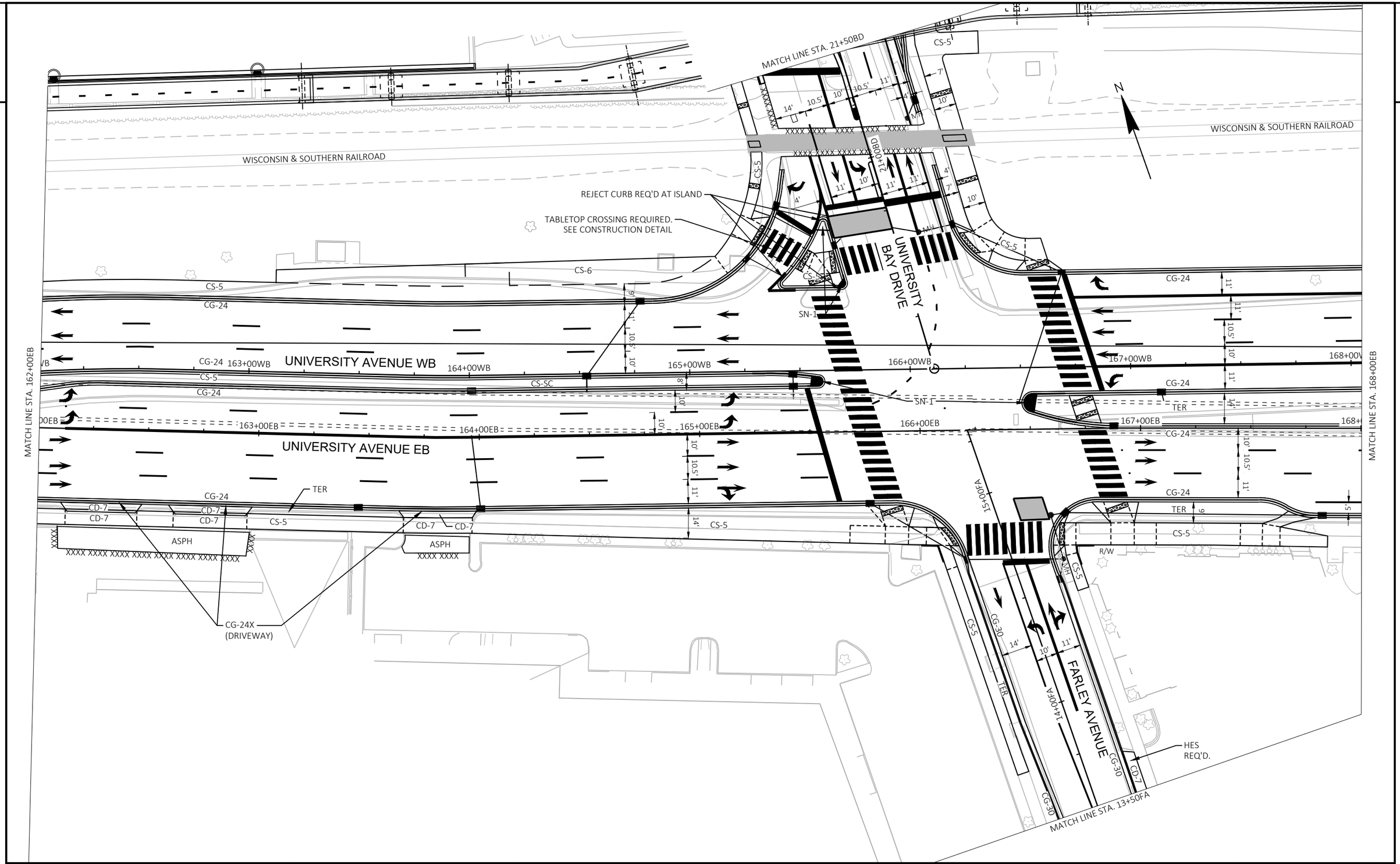
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 68	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - pd 4

PLOT DATE : 10/15/2021 6:35 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



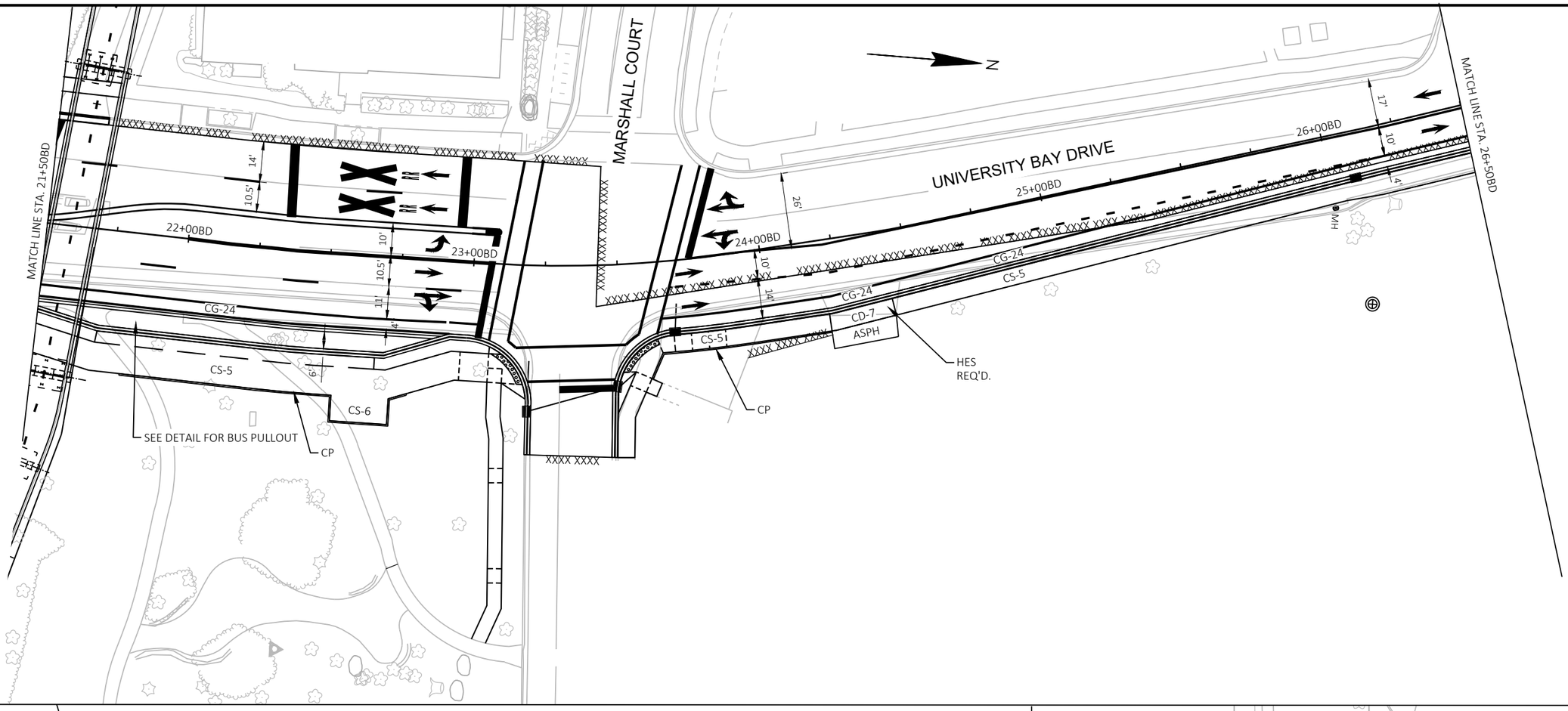
PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 69	E

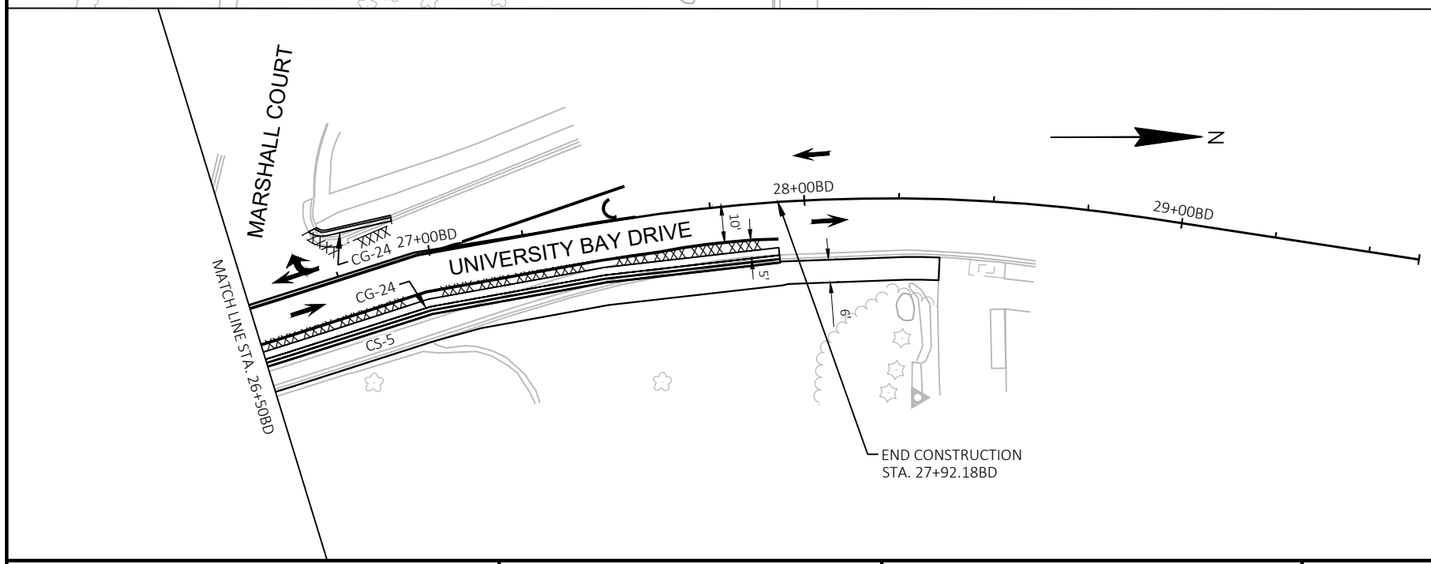
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - pd 5

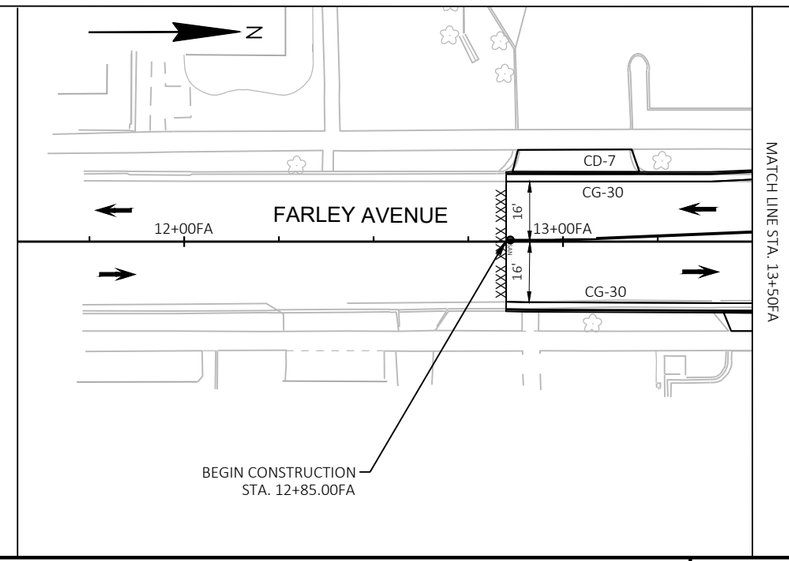
PLOT DATE : 1/4/2022 7:56 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2







PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 70	E

2

WISCONSIN & SOUTHERN RAILROAD

N

END CONSTRUCTION
STA. 81+24.60HI

81+00HI

82+00HI

15'

CG-24

11'

11'

10.5'

10'

11'

15'

13'

5'

10'

VB

169+00WB

170+00WB

171+00WB

172+00WB

CAMPUS DRIVE WB

173+00WB

MATCH LINE STA. 168+00EB

CG-24

TER

00EB

169+00EB

170+00EB

171+00EB

CAMPUS DRIVE EB

172+00EB

173+00EB

END CONSTRUCTION
STA. 171+50WB

MATCH LINE STA. 173+50EB

END CONSTRUCTION
STA. 173+30.00EB

CG-24

CD-7

TER

10'

71+00UA

SN-1

72+00UA

CG-24

11'

73+00UA

HES
REQ'D.

CD-7

HES
REQ'D.

CD-7

HES
REQ'D.

CS-5

5'

UNIVERSITY AVENUE EB

END CONSTRUCTION
STA. 73+39.26UA

HSE

HSE

HSE

HSE

83+00HI

N

CAMPUS DRIVE WB

MATCH LINE STA. 173+50EB

174+00EB

CAMPUS DRIVE EB

END CONSTRUCTION
STA. 174+40.96EB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 71	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - pd 7

PLOT DATE : 10/15/2021 6:37 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

EXISTING RW

BP: 50+00.00

PI: 50+49.78

PI: 50+74.85

8-1

8-2

8-3

8-4

8-5

8-6

9'

9'

18'

51+00

52+00

MATCH LINE STA. 52+50EB

EXISTING RW

R-13-360

EXISTING RW

WISCONSIN SOUTHERN RAILROAD

N

Marshall Ct Driveway			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
8-1	50+11.28	4.91' LT	START C&G
8-2	50+11.39	16.58' LT	SAWCUT
8-3	51+26.93	18.50' LT	SAWCUT
8-4	51+26.93	27.50' LT	SAWCUT
8-5	51+94.32	27.59' LT	SAWCUT
8-6	52+42.57	27.61' LT	SAWCUT
8-7	53+79.00	9.50' LT	END C&G

16'

MATCH LINE STA. 52+50EB

8-7

PRW

EXISTING RW

PC: 54+28.91

PT: 54+46.52

53+00

54+00

55+00

UNIVERSITY BAY DR

R-13-360

EXISTING FLUME TO REMAIN

B-13-891

EXISTING RW

WISCONSIN SOUTHERN RAILROAD

N

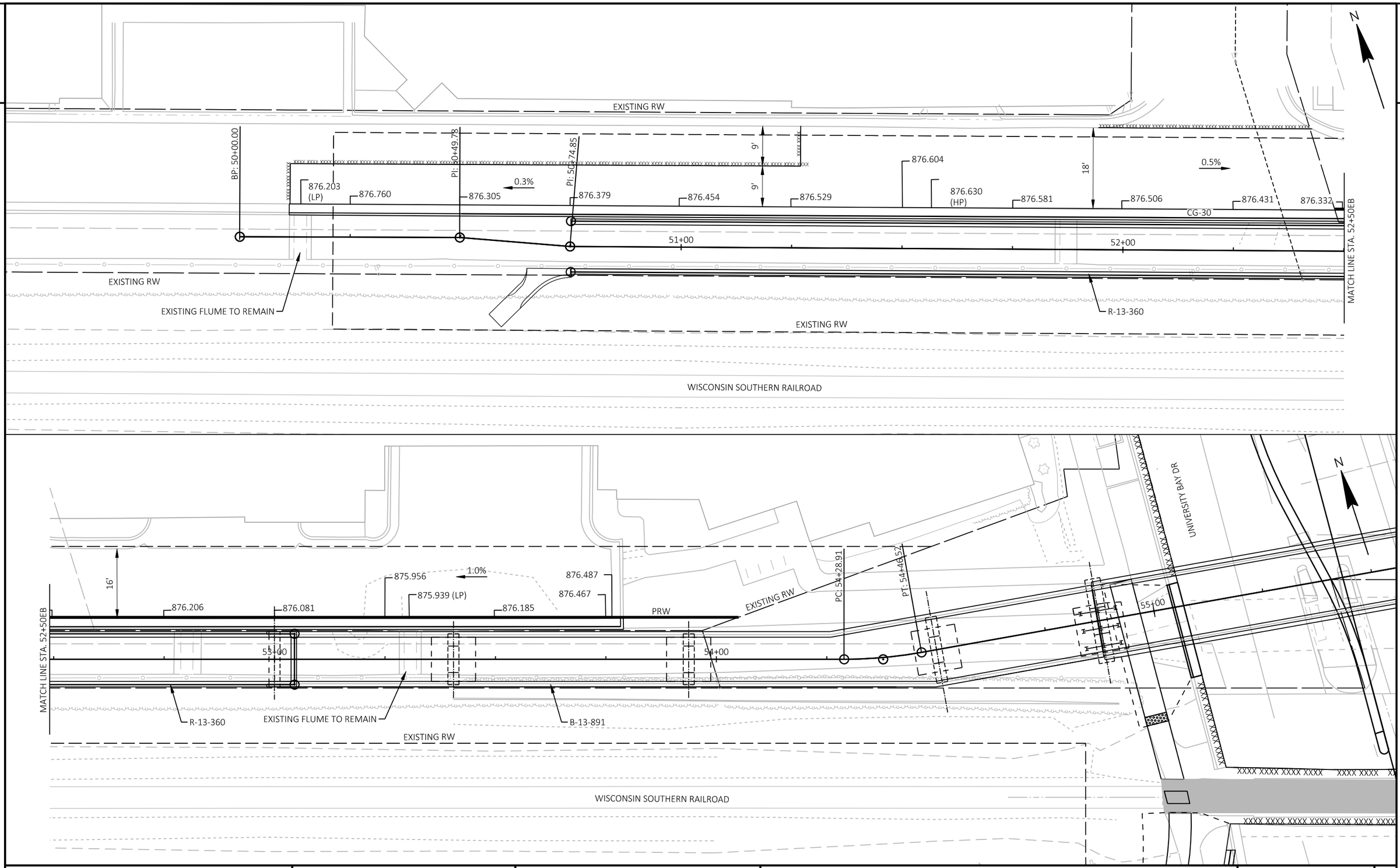
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - MARSHALL COURT DRIVEWAY	SHEET 72	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021202-PD (MARSHALL COURT).DWG
LAYOUT NAME - pd_Marshall Court Driveway (2)

PLOT DATE : 8/17/2021 4:22 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

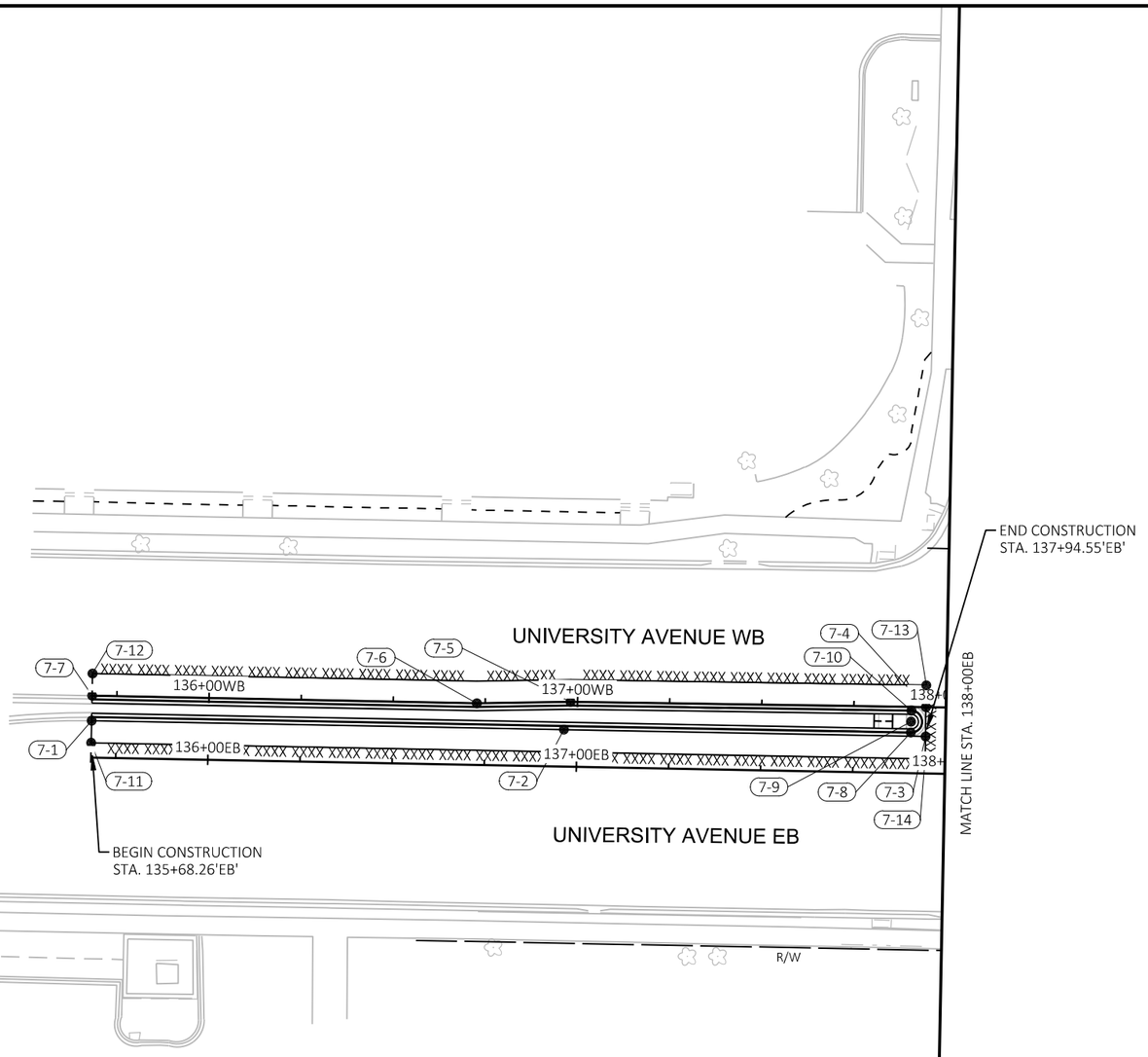


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAIL - MARSHALL COURT DRIVEWAY	SHEET 73	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021201-PD (MARSHALL COURT-R13360).DWG
LAYOUT NAME - pd_Marshall Court Driveway (2)

PLOT DATE : 8/17/2021 4:03 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT





Median Curb (Univ Ave EB)			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
7-1	135+68.26	10.00' LT	BEGIN SAWCUT
7-2	136+96.43	10.00' LT	---
7-3	137+94.56	10.00' LT	SAWCUT
7-4	137+94.53	17.98' LT	SAWCUT
7-5	136+98.07	17.58' LT	INFLECTION POINT
7-6	136+72.64	16.70' LT	INFLECTION POINT
7-7	135+68.26	16.78' LT	END SAWCUT
7-8	137+90.56	11.00' LT	PC 2.98-FT RADIUS
7-9	137+90.56	13.98' LT	2.98-FT RADIUS
7-10	137+90.59	16.96' LT	PT 2.98-FT RADIUS
7-11	135+68.26	4.00' LT	SAWCUT
7-12	135+68.26	22.78' LT	SAWCUT
7-13	137+94.50	23.89' LT	SAWCUT
7-14	137+94.58	3.89' LT	SAWCUT

2

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1-1	138+58.60	55.46' LT	BEGIN NEW PAVEMENT/SAWCUT
1-2	138+58.88	53.27' LT	PC 25-FT RADIUS
1-3	138+83.67	56.50' LT	100-FT RADIUS
1-4	138+83.67	31.50' LT	PT 25-FT RADIUS
1-15	139+24.73	41.51' LT	SIDEWALK MATCHPOINT/BEGIN RETAINING WALL
1-89	141+25.00	41.51' LT	END RETAINING WALL
1-90	141+40.73	40.50' LT	INFLECTION POINT
1-91	141+40.72	33.50' LT	END WIDENED SIDEWALK

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1-92	141+40.73	35.50' LT	BEGIN SIDEWALK
1-93	141+70.75	42.50' LT	DWY OPENING/BEGIN SAWCUT
1-95	141+67.72	33.50' LT	DWY OPENING
1-96	142+99.35	31.50' LT	CURVE MIDPOINT 730.5-FT RADIUS
1-97	142+95.08	31.50' LT	PC 730.5-FT RADIUS
1-98	138+56.61	55.20' LT	SAWCUT
1-99	138+57.03	31.55' LT	SAWCUT
1-100	138+08.47	31.50' LT	SAWCUT

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1-113	143+03.62	31.50' LT	PT 730.5-FT RADIUS
1-114	141+71.07	56.83' LT	BEGIN SAWCUT
1-115	141+98.74	58.26' LT	SAWCUT
1-116	141+99.90	50.45' LT	INFLECTION POINT
1-117	141+99.77	42.50' LT	END DWY OPENING/END SAWCUT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 75	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021202-PD.DWG
LAYOUT NAME - pd 1

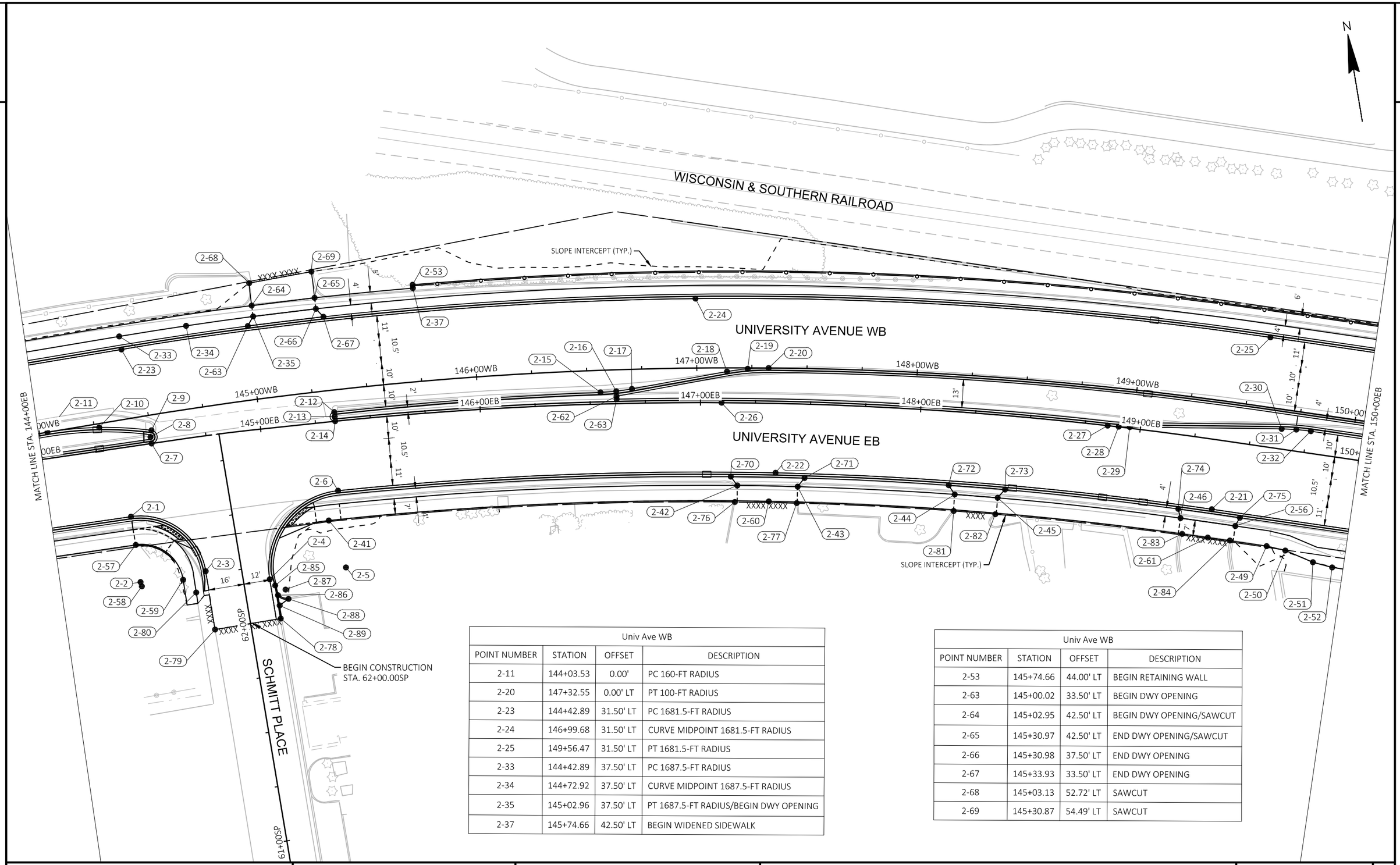
PLOT DATE : 8/17/2021 4:38 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1-17	138+95.57	11.60' LT	PC 5.8-FT RADIUS
1-18	138+95.57	5.80' LT	5.8-FT RADIUS
1-19	138+95.57	0.00'	PT 5.8-FT RADIUS/PC 650-FT RADIUS
1-20	139+67.26	8.34' LT	PC 100-FT RADIUS
1-21	139+75.52	8.06' LT	CURVE MIDPOINT 100-FT RADIUS
1-22	139+83.76	8.47' LT	PT 100-FT RADIUS
1-24	140+27.82	12.50' LT	PC 100-FT RADIUS
1-25	140+36.01	12.94' LT	CURVE MIDPOINT 100-FT RADIUS
1-27	139+21.31	0.00'	CURVE MIDPOINT 650-FT RADIUS
1-28	139+47.06	0.00'	PT 650-FT RADIUS
1-30	140+21.92	0.00'	PC 2080-FT RADIUS
1-32	139+79.83	35.22' RT	INFLECTION POINT
1-33	139+83.74	34.84' RT	--
1-34	140+17.61	31.50' RT	--
1-35	140+21.92	31.50' RT	PC 2048.5-FT RADIUS
1-36	141+97.41	31.50' RT	PT 2048.5-FT RADIUS
1-37	141+09.67	31.50' RT	CURVE MIDPOINT 2048.5-FT RADIUS
1-42	141+09.67	0.00'	CURVE MIDPOINT 2080-FT RADIUS
1-43	141+97.41	0.00'	PT 2080-FT RADIUS
1-50	139+78.82	44.85' RT	BEGIN SIDEWALK

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1-51	139+85.39	44.70' RT	INFLECTION POINT
1-52	139+87.03	44.97' RT	--
1-53	140+15.19	44.50' RT	--
1-54	140+87.37	45.09' RT	INFLECTION POINT
1-55	140+88.16	44.50' RT	INFLECTION POINT
1-56	141+16.56	45.21' RT	INFLECTION POINT
1-57	141+21.62	45.21' RT	INFLECTION POINT
1-58	141+22.24	44.50' RT	INFLECTION POINT
1-59	141+79.82	44.50' RT	BEGIN TRANSITION TO X-FT SIDEWALK
1-60	141+81.41	45.14' RT	BEGIN X-FT SIDEWALK
1-62	143+31.00	37.50' RT	22-FT DWY OPENING
1-63	140+62.94	37.40' RT	BEGIN X-FT SIDEWALK
1-65	140+88.95	37.50' RT	BEGIN DWY OPENING
1-66	140+26.72	44.58' RT	--
1-67	140+44.63	44.80' RT	--
1-68	140+67.80	45.03' RT	--
1-69	142+65.94	44.83' RT	INFLECTION POINT
1-70	143+09.08	44.54' RT	INFLECTION POINT
1-102	138+10.19	37.05' RT	SAWCUT
1-108	139+28.24	35.56' RT	INFLECTION POINT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1-109	143+28.00	33.50' RT	28-FT DWY OPENING
1-110	140+85.95	33.51' RT	BEGIN DWY OPENING
1-111	141+16.97	37.50' RT	END DWY OPENING
1-112	141+19.97	33.51' RT	END DWY OPENING
1-118	143+31.08	45.50' RT	SAWCUT
1-119	143+53.10	45.50' RT	SAWCUT
1-120	143+53.00	37.50' RT	DWY OPENING
1-121	143+56.00	33.50' RT	DWY OPENING
1-122	138+87.27	73.49' RT	SAWCUT
1-123	139+18.79	51.89' RT	SAWCUT

2



Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
2-11	144+03.53	0.00'	PC 160-FT RADIUS
2-20	147+32.55	0.00' LT	PT 100-FT RADIUS
2-23	144+42.89	31.50' LT	PC 1681.5-FT RADIUS
2-24	146+99.68	31.50' LT	CURVE MIDPOINT 1681.5-FT RADIUS
2-25	149+56.47	31.50' LT	PT 1681.5-FT RADIUS
2-33	144+42.89	37.50' LT	PC 1687.5-FT RADIUS
2-34	144+72.92	37.50' LT	CURVE MIDPOINT 1687.5-FT RADIUS
2-35	145+02.96	37.50' LT	PT 1687.5-FT RADIUS/BEGIN DWY OPENING
2-37	145+74.66	42.50' LT	BEGIN WIDENED SIDEWALK

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
2-53	145+74.66	44.00' LT	BEGIN RETAINING WALL
2-63	145+00.02	33.50' LT	BEGIN DWY OPENING
2-64	145+02.95	42.50' LT	BEGIN DWY OPENING/SAWCUT
2-65	145+30.97	42.50' LT	END DWY OPENING/SAWCUT
2-66	145+30.98	37.50' LT	END DWY OPENING
2-67	145+33.93	33.50' LT	END DWY OPENING
2-68	145+03.13	52.72' LT	SAWCUT
2-69	145+30.87	54.49' LT	SAWCUT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
2-1	144+36.02	31.50' RT	PC 30-FT RADIUS
2-2	144+36.02	61.50' RT	30-FT RADIUS
2-3	144+66.01	60.88' RT	PT 30-FT RADIUS
2-4	144+96.83	68.20' RT	PT 35-FT RADIUS
2-5	145+32.05	66.50' RT	35-FT RADIUS
2-6	145+32.06	31.50' RT	PC 35-FT RADIUS/PC 1603.5-FT RADIUS
2-7	144+50.06	0.00'	PT 3-FT RADIUS
2-8	144+50.06	3.00' LT	3-FT RADIUS
2-9	144+50.87	5.89' LT	PT 160-FT RADIUS/PC 3-FT RADIUS
2-10	144+27.67	10.61' LT	CURVE MIDPOINT 160-FT RADIUS
2-12	145+33.99	4.16' LT	PC 2.08-FT RADIUS
2-13	145+33.99	2.08' LT	2.08-FT RADIUS
2-14	145+33.99	0.00'	PT 2.08-FT RADIUS/PC 1635-FT RADIUS
2-15	146+54.76	5.29' LT	PC 100-FT RADIUS
2-16	146+61.91	5.63' LT	CURVE MIDPOINT 100-FT RADIUS
2-17	146+69.00	6.52' LT	PT 100-FT RADIUS
2-18	147+11.91	14.14' LT	PC 100-FT RADIUS

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
2-19	147+21.22	15.49' LT	CURVE MIDPOINT 100-FT RADIUS
2-21	149+37.36	31.50' RT	PT 1603.5-FT RADIUS
2-22	147+34.71	31.50' RT	CURVE MIDPOINT 1603.5-FT RADIUS
2-26	147+09.54	0.00'	CURVE MIDPOINT 1635-FT RADIUS
2-27	148+85.09	0.00'	PT 1635-FT RADIUS/PC 100-FT RADIUS
2-28	148+90.13	0.13' LT	CURVE MIDPOINT 100-FT RADIUS
2-29	148+95.16	0.54' LT	PT 100-FT RADIUS
2-30	149+63.42	9.12' LT	PC 100-FT RADIUS
2-31	149+70.03	9.78' LT	CURVE MIDPOINT 100-FT RADIUS
2-32	149+76.66	10.00' LT	PT 100-FT RADIUS
2-41	145+26.33	44.50' RT	PC 1590.67-FT RADIUS
2-42	147+17.10	37.50' RT	DWY OPENING
2-43	147+45.11	37.50' RT	DWY OPENING
2-44	148+18.13	37.50' RT	BEGIN DWY OPENING
2-45	148+38.13	37.50' RT	END DWY OPENING
2-46	149+23.54	37.50' RT	BEGIN DWY OPENING
2-49	149+64.34	44.50' RT	INFLECTION POINT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
2-50	149+73.05	45.24' RT	--
2-51	149+86.19	48.70' RT	--
2-52	149+95.17	49.76' RT	--
2-56	149+49.00	37.50' RT	END DWY OPENING
2-57	144+36.34	44.50' RT	PC 19-FT RADIUS
2-58	144+36.35	63.50' RT	19-FT RADIUS
2-59	144+55.35	63.28' RT	PT 19-FT RADIUS
2-60	147+31.84	44.50' RT	CURVE MIDPOINT 1590.67-FT RADIUS
2-61	149+37.36	44.50' RT	PT 1590.67-FT RADIUS
2-62	146+61.99	3.36' LT	BEGIN BACK OF C&G
2-63	146+61.99	2.00' LT	BEGIN BACK OF C&G
2-70	147+14.03	33.53' RT	BEGIN DWY OPENING
2-71	147+48.17	33.52' RT	END DWY OPENING
2-72	148+15.06	33.52' RT	BEGIN DWY OPENING
2-73	148+41.20	33.51' RT	END DWY OPENING
2-74	149+21.94	33.50' RT	BEGIN DWY OPENING
2-75	149+50.50	33.50' RT	END DWY OPENING

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
2-76	147+16.01	45.01' RT	BEGIN SAWCUT
2-77	147+44.90	45.00' RT	END SAWCUT
2-78	144+99.91	86.41' RT	END SAWCUT
2-79	144+66.39	87.67' RT	INFLECTION POINT
2-80	144+60.35	69.81' RT	BEGIN SAWCUT
2-81	148+18.19	45.00' RT	BEGIN SAWCUT
2-82	148+37.69	45.00' RT	END SAWCUT
2-83	149+25.28	44.49' RT	BEGIN SAWCUT
2-84	149+47.51	44.36' RT	END SAWCUT
2-85	144+99.02	71.22' RT	INFLECTION POINT
2-86	144+99.78	75.74' RT	PC 4.56-FT RADIUS
2-87	145+03.49	73.57' RT	4.56-FT RADIUS
2-88	145+04.39	77.91' RT	PT 4.56-FT RADIUS
2-89	145+00.06	80.44' RT	---

2

END CONSTRUCTION
STA. 51+21.61MC

MARSHALL COURT

51+00WC

WISCONSIN & SOUTHERN RAILROAD

SLOPE INTERCEPT (TYP.)

SLOPE INTERCEPT (TYP.)

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 150+00EB

MATCH LINE STA. 156+00EB

151+00WB

151+00EB

152+00WB

152+00EB

153+00WB

153+00EB

154+00WB

154+00EB

155+00WB

155+00EB

156+00WB

156+00EB

880.36

879.84

42+00RS

41+00RS

16'

RIDGE STREET

BEGIN CONSTRUCTION
STA. 41+70.20RS

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-10	151+41.18	0.00' RT	PC 3-FT RADIUS
3-11	151+64.89	52.22' LT	PC 35-FT RADIUS
3-12	151+32.93	66.50' LT	35-FT RADIUS
3-13	151+32.93	31.50' LT	PT 35-FT RADIUS
3-14	152+07.95	52.64' LT	PC 25-FT RADIUS
3-15	152+32.65	56.50' LT	25-FT RADIUS
3-16	152+32.65	31.50' LT	PT 35-FT RADIUS

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-23	151+81.03	0.00' RT	PT 5-FT RADIUS
3-24	152+21.65	0.00' RT	PT 3-FT RADIUS
3-44	154+81.40	0.00' RT	PT 100-FT RADIUS
3-64	150+60.27	55.50' LT	BEGIN WIDENED SIDEWALK
3-129	151+65.42	60.70' LT	SAWCUT
3-130	152+09.54	60.74' LT	SAWCUT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 79	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021202-PD.DWG
LAYOUT NAME - pd 3

PLOT DATE : 8/17/2021 4:39 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-1	151+43.73	31.50' RT	PC 35-FT RADIUS
3-2	151+43.73	66.50' RT	35-FT RADIUS
3-3	151+78.03	59.55' RT	PT 35-FT RADIUS
3-4	152+14.33	74.22' RT	PT 33-FT RADIUS
3-5	152+45.87	64.50' RT	33-FT RADIUS
3-6	152+45.87	31.50' RT	PC 33-FT RADIUS
3-7	151+20.25	10.00' LT	PC 75-FT RADIUS
3-8	151+37.79	12.08' LT	PT 75-FT RADIUS/PT 3-FT RADIUS
3-9	151+37.09	15.00' LT	3-FT RADIUS
3-17	151+55.90	5.74' LT	PT 3-FT RADIUS/PT 75-FT RADIUS
3-18	151+57.11	3.00' LT	3-FT RADIUS
3-19	151+57.11	0.00'	PC 3-FT RADIUS
3-20	154+71.10	17.81' LT	CURVE MIDPOINT 100-FT RADIUS
3-21	151+73.73	16.83' LT	PC 5-FT RADIUS/PC 75-FT RADIUS
3-22	151+76.94	13.00' LT	5-FT RADIUS
3-25	152+17.56	15.00' LT	3-FT RADIUS
3-26	152+18.82	12.28' LT	PC 3-FT RADIUS/PC 70-FT RADIUS

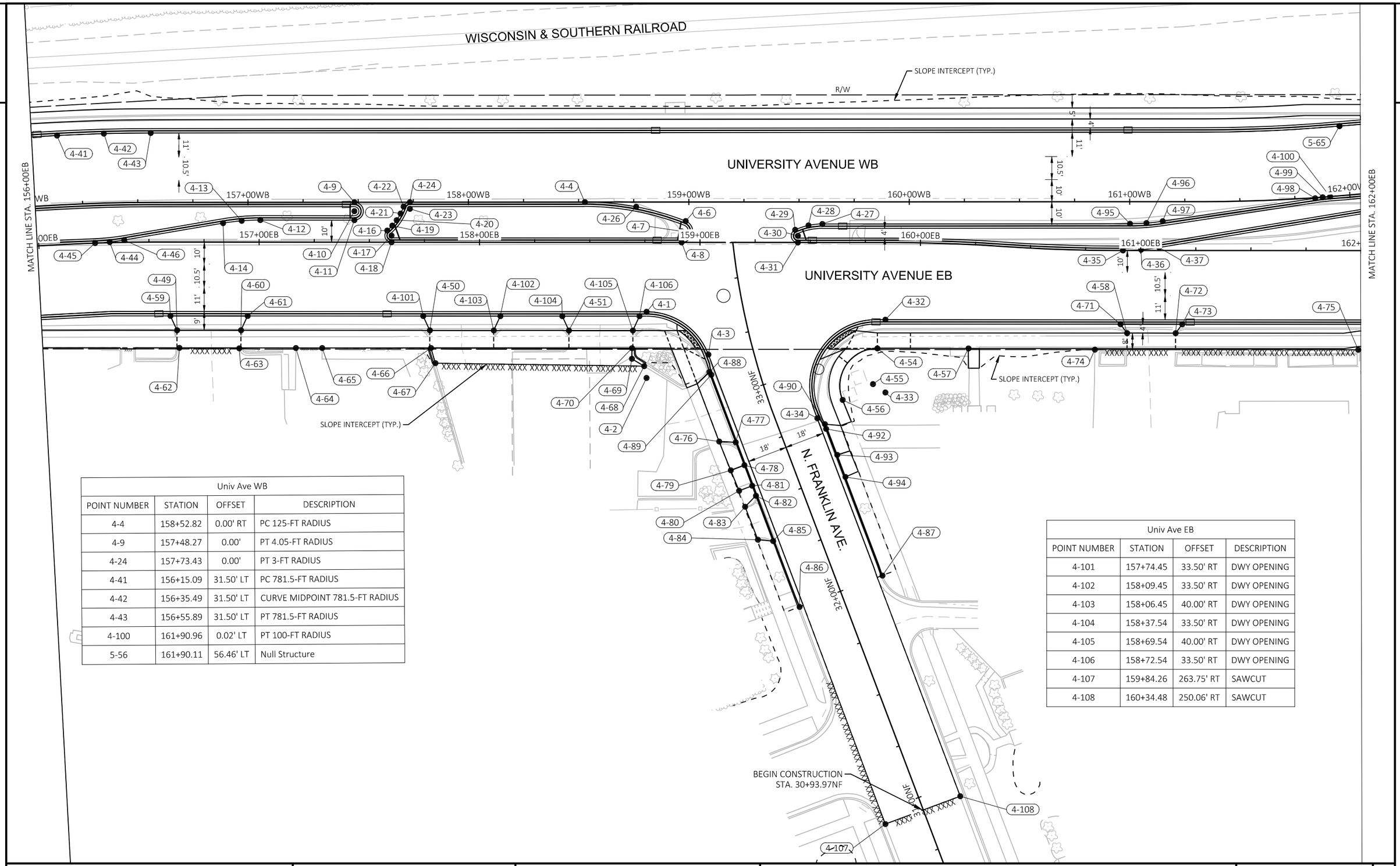
Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-27	152+48.21	51.26' RT	Null Structure
3-28	152+01.92	1.25' LT	PT 5-FT RADIUS/PT 70-FT RADIUS
3-29	151+98.61	5.00' LT	5-FT RADIUS
3-30	151+98.62	0.00'	PC 5-FT RADIUS
3-31	152+51.07	7.95' LT	PT 70-FT RADIUS
3-32	152+45.16	7.47' LT	CURVE MIDOIUNT 70-FT RADIUS
3-33	152+36.74	5.91' LT	PC 3-FT RADIUS/PC 70-FT RADIUS
3-34	152+37.47	3.00' LT	3-FT RADIUS
3-35	152+37.47	0.00'	PT 3-FT RADIUS
3-39	153+91.07	8.19' LT	CURVE MIDPOINT 100-FT RADIUS
3-40	153+84.86	8.00' LT	PC 100-FT RADIUS
3-41	154+64.91	17.23' LT	PC 100-FT RADIUS
3-42	153+97.26	8.77' LT	PT 100-FT RADIUS
3-45	152+42.20	33.72' RT	Null Structure
3-48	152+75.47	37.50' RT	Null Structure
3-49	152+78.46	33.50' RT	Null Structure
3-50	153+38.65	37.50' RT	INFLECTION POINT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-53	153+71.32	37.50' RT	X-FT DWY OPENING
3-54	154+28.67	37.50' RT	X-FT DWY OPENING
3-57	154+66.01	44.50' RT	SIDEWALK X-FT BREAKPOINT/SAWCUT
3-58	155+19.07	37.50' RT	X-FT DWY OPENING
3-59	155+86.19	37.50' RT	INFLECTION POINT
3-63	151+25.00	49.70' RT	--
3-76	151+65.21	10.66' LT	CURVE MIDPOINT 75-FT RADIUS
3-78	151+29.08	10.52' LT	CURVE MIDPOINT 75-FT RADIUS
3-99	152+45.82	49.99' RT	SAWCUT
3-100	152+77.55	49.69' RT	SAWCUT
3-101	152+77.65	44.50' RT	SAWCUT
3-102	152+45.48	44.50' RT	SAWCUT
3-103	153+62.72	44.50' RT	SAWCUT
3-104	153+71.32	54.19' RT	INFLECTION POINT
3-105	154+04.92	54.30' RT	SAWCUT
3-106	154+05.50	44.50' RT	SAWCUT
3-107	154+09.45	45.00' RT	SAWCUT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-108	154+20.73	44.50' RT	SAWCUT
3-109	154+28.67	52.94' RT	INFLECTION POINT
3-110	154+52.67	53.23' RT	--
3-111	154+65.86	49.32' RT	SAWCUT/BACK OF SIDEWALK
3-112	155+19.16	45.00' RT	SAWCUT
3-114	155+44.99	45.00' RT	SAWCUT
3-116	155+61.94	44.50' RT	SAWCUT
3-117	155+70.58	44.64' RT	SAWCUT
3-120	153+68.31	33.50' RT	BEGIN DWY OPENING
3-121	154+00.32	37.50' RT	END DWY OPENING
3-122	154+03.31	33.50' RT	END DWY OPENING
3-123	154+25.66	33.50' RT	BEGIN DWY OPENING
3-124	154+52.67	37.50' RT	END DWY OPENING
3-125	154+55.66	33.50' RT	END DWY OPENING
3-126	155+16.06	33.50' RT	BEGIN DWY OPENING
3-127	155+45.07	37.50' RT	END DWY OPENING
3-128	155+48.06	33.50' RT	END DWY OPENING

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
3-131	151+92.95	112.45' RT	SAWCUT
3-132	152+23.21	103.04' RT	SAWCUT

2



Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-4	158+52.82	0.00' RT	PC 125-FT RADIUS
4-9	157+48.27	0.00'	PT 4.05-FT RADIUS
4-24	157+73.43	0.00'	PT 3-FT RADIUS
4-41	156+15.09	31.50' LT	PC 781.5-FT RADIUS
4-42	156+35.49	31.50' LT	CURVE MIDPOINT 781.5-FT RADIUS
4-43	156+55.89	31.50' LT	PT 781.5-FT RADIUS
4-100	161+90.96	0.02' LT	PT 100-FT RADIUS
5-56	161+90.11	56.46' LT	Null Structure

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-101	157+74.45	33.50' RT	DWY OPENING
4-102	158+09.45	33.50' RT	DWY OPENING
4-103	158+06.45	40.00' RT	DWY OPENING
4-104	158+37.54	33.50' RT	DWY OPENING
4-105	158+69.54	40.00' RT	DWY OPENING
4-106	158+72.54	33.50' RT	DWY OPENING
4-107	159+84.26	263.75' RT	SAWCUT
4-108	160+34.48	250.06' RT	SAWCUT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 81	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021202-PD.DWG
LAYOUT NAME - pd 4
PLOT DATE : 8/17/2021 4:39 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-1	158+75.76	31.50' RT	PC 30-FT RADIUS
4-2	158+75.76	61.50' RT	30-FT RADIUS
4-3	159+03.80	50.85' RT	PT 30-FT RADIUS
4-6	158+93.47	9.66' LT	PT 125-FT RADIUS/PC 5-FT RADIUS
4-7	158+91.65	5.00' LT	5-FT RADIUS
4-8	158+91.65	0.00'	PT 5-FT RADIUS
4-10	157+43.19	14.05' LT	4.05-FT RADIUS
4-11	157+43.19	10.00' LT	PC 4.05-FT RADIUS
4-12	157+00.51	10.00' LT	PT 100-FT RADIUS
4-13	156+92.03	9.64' LT	CURVE MIDPOINT 100-FT RADIUS
4-14	156+83.62	8.56' LT	PC 100-FT RADIUS
4-16	157+58.07	5.28' LT	PT 3-FT RADIUS/PC 26-FT RADIUS
4-17	157+60.02	3.00' LT	3-FT RADIUS
4-18	157+60.02	0.00'	PC 3-FT RADIUS

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-19	157+60.36	7.51' LT	CURVE MIDPOINT 26-FT RADIUS
4-20	157+62.37	10.01' LT	PT 26-FT RADIUS/PC 24.74-FT RADIUS
4-21	157+64.15	12.96' LT	CURVE MIDPOINT 24.74-FT RADIUS
4-22	157+65.51	16.13' LT	PT 24.74-FT RADIUS/PC 3-FT RADIUS
4-23	157+68.34	15.14' LT	3-FT RADIUS
4-26	158+71.00	16.10' LT	CURVE MIDPOINT 125-FT RADIUS
4-27	159+55.48	8.41' LT	PT 30-FT RADIUS
4-28	159+49.16	7.73' LT	CURVE MIDPOINT 30-FT RADIUS
4-29	159+43.13	5.73' LT	PT 3-FT RADIUS/PC 30-FT RADIUS
4-30	159+44.37	3.00' LT	3-FT RADIUS
4-31	159+44.37	0.00'	PC 3-FT RADIUS
4-32	159+84.12	35.00' RT	PC 33-FT RADIUS
4-33	159+84.12	68.00' RT	33-FT RADIUS
4-34	159+53.27	79.71' RT	PT 33-FT RADIUS

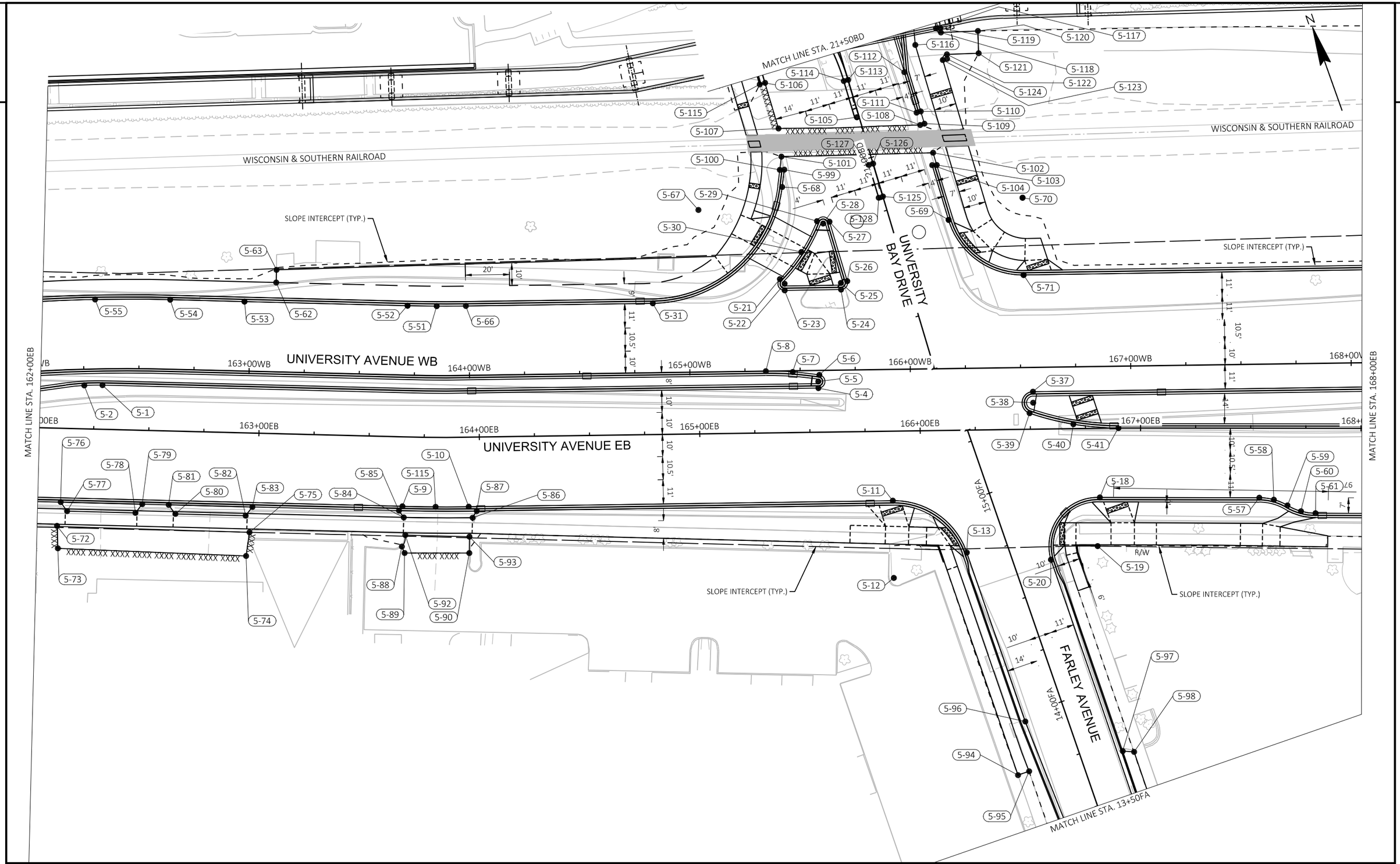
Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-35	160+91.91	0.00'	PC 100-FT RADIUS
4-36	161+00.16	0.34' LT	CURVE MIDPOINT 100-FT RADIUS
4-37	161+08.35	1.36' LT	PT 100-FT RADIUS
4-44	156+32.20	0.25' LT	CURVE MIDPOINT 100-FT RADIUS
4-45	156+25.55	0.00'	PC 100-FT RADIUS
4-46	156+38.80	1.00' LT	PT 100-FT RADIUS
4-49	156+62.77	40.00' RT	DWY OPENING
4-50	157+77.45	40.00' RT	DWY OPENING
4-51	158+40.54	40.00' RT	DWY OPENING
4-54	159+80.48	48.00' RT	PT 17-FT RADIUS
4-55	159+78.48	64.21' RT	17-FT RADIUS
4-56	159+64.72	71.38' RT	PC 17-FT RADIUS
4-57	160+24.20	47.11' RT	SIDEWALK BREAKPOINT
4-58	160+93.85	37.50' RT	DWY OPENING

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-59	156+59.77	33.50' RT	DWY OPENING
4-60	156+91.77	40.00' RT	DWY OPENING
4-61	156+94.77	33.50' RT	DWY OPENING
4-62	156+63.83	48.00' RT	SAWCUT
4-63	156+91.00	48.18' RT	SAWCUT
4-64	157+16.68	48.04' RT	SAWCUT
4-65	157+28.62	48.03' RT	SAWCUT
4-66	157+77.98	48.00' RT	SAWCUT
4-67	157+80.00	54.86' RT	SAWCUT
4-68	158+74.68	56.15' RT	SAWCUT
4-69	158+69.12	52.78' RT	INFLECTION POINT
4-70	158+69.15	48.00' RT	SAWCUT
4-71	160+90.85	33.50' RT	DWY OPENING
4-72	161+15.85	37.50' RT	DWY OPENING

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-73	161+18.85	33.50' RT	DWY OPENING
4-74	160+79.73	45.05' RT	DWY OPENING
4-75	161+98.71	45.00' RT	SAWCUT
4-76	159+08.76	90.31' RT	DWY OPENING
4-77	159+16.25	90.67' RT	DWY OPENING
4-78	159+20.17	101.01' RT	SIDEWALK BREAKPOINT?
4-79	159+14.02	103.34' RT	SIDEWALK BREAKPOINT?
4-80	159+17.79	112.61' RT	SIDEWALK BREAKPOINT?
4-81	159+23.72	110.36' RT	SIDEWALK BREAKPOINT?
4-82	159+25.44	114.88' RT	DWY OPENING
4-83	159+20.55	119.89' RT	DWY OPENING
4-84	159+26.33	134.81' RT	DWY OPENING
4-85	159+33.23	135.40' RT	DWY OPENING
4-86	159+45.25	165.26' RT	BEGIN SAWCUT

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
4-87	159+82.87	151.05' RT	END SAWCUT
4-88	159+04.30	58.77' RT	DWY OPENING
4-89	159+05.15	60.04' RT	INFLECTION POINT
4-90	159+56.66	82.40' RT	DWY OPENING
4-92	159+57.24	84.53' RT	INFLECTION POINT
4-93	159+62.33	96.33' RT	SIDEWALK BREAKPOINT?
4-95	160+95.12	12.12' LT	PC 100-FT RADIUS
4-96	161+02.55	12.40' LT	CURVE MIDPOINT 100-FT RADIUS
4-97	161+09.94	13.24' LT	PT 100-FT RADIUS
4-98	161+79.12	23.71' LT	PC 100-FT RADIUS
4-99	161+82.50	24.17' LT	CURVE MIDPOINT 100-FT RADIUS

2



PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 83	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\021202-PD.DWG
LAYOUT NAME - pd 5

PLOT DATE : 8/17/2021 4:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
5-1	162+28.47	20.00' LT	PT 100-FT RADIUS
5-2	162+20.22	19.66' LT	CURVE MIDPOINT 100-FT RADIUS
5-4	165+54.09	20.00' LT	PC, 3-FT RADIUS
5-5	165+54.09	23.00' LT	3-FT RADIUS
5-6	165+54.60	25.96' LT	PT 145-FT RADIUS/PC 3-FT RADIUS
5-7	165+42.52	27.49' LT	CURVE MIDPOINT 145-FT RADIUS
5-9	163+65.87	31.50' RT	PC 763.5-FT RADIUS
5-10	163+94.71	31.50' RT	PT 763.5-FT RADIUS
5-11	165+87.11	31.50' RT	PC 35-FT RADIUS
5-12	165+87.08	66.52' RT	35-FT RADIUS
5-13	166+20.34	55.52' RT	PT 35-FT RADIUS
5-18	166+81.06	31.39' RT	PC 22.05-FT RADIUS
5-19	166+79.70	53.41' RT	22.05-FT RADIUS
5-20	166+58.44	59.30' RT	PT 22.05-FT RADIUS
5-37	166+51.39	17.00' LT	PC 5-FT RADIUS
5-38	166+51.39	12.00' LT	5-FT RADIUS
5-39	166+49.70	7.29' LT	PT 5-FT RADIUS/PC 125-FT RADIUS
5-40	166+69.51	1.98' LT	CURVE MIDPOINT 125-FT RADIUS

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
5-41	166+89.92	0.00'	PT 125-FT RADIUS
5-57	167+53.87	31.50' RT	PC 25-FT RADIUS
5-58	167+60.49	32.39' RT	CURVE MIDPOINT 25-FT RADIUS
5-59	167+66.63	35.00' RT	PT 25-FT RADIUS/PC 25-FT RADIUS
5-60	167+72.78	37.61' RT	CURVE MIDPOINT 25-FT RADIUS
5-61	167+79.39	38.50' RT	PT 25-FT RADIUS
5-72	162+09.46	44.29' RT	SAWCUT
5-73	162+10.06	54.45' RT	SAWCUT
5-74	162+95.52	55.78' RT	SAWCUT
5-75	162+96.79	45.00' RT	SAWCUT
5-76	162+10.85	33.50' RT	DWY OPENING
5-77	162+13.85	37.50' RT	DWY OPENING
5-78	162+44.85	37.50' RT	DWY OPENING
5-79	162+47.85	33.50' RT	DWY OPENING
5-80	162+63.00	37.50' RT	DWY OPENING
5-81	162+59.85	33.50' RT	DWY OPENING
5-82	162+94.88	37.50' RT	DWY OPENING
5-83	162+97.85	33.50' RT	DWY OPENING

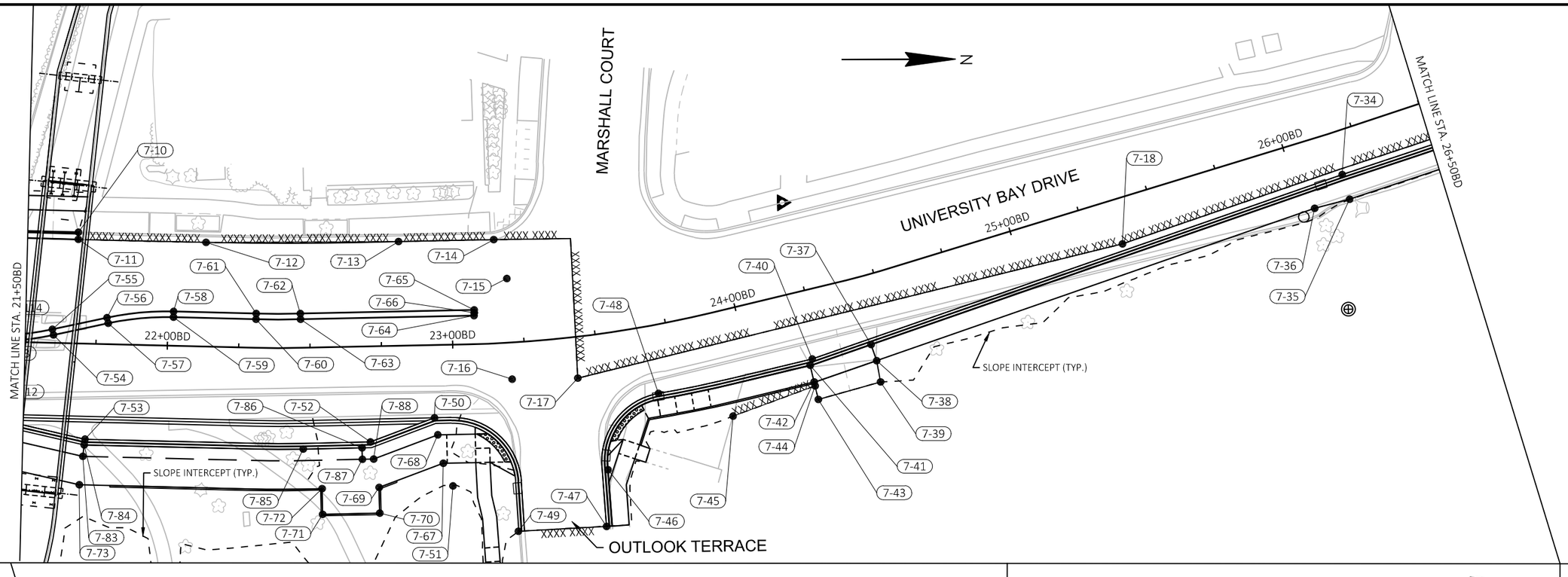
Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
5-84	163+66.57	36.50' RT	DWY OPENING
5-85	163+64.35	33.50' RT	DWY OPENING
5-86	163+96.38	36.50' RT	DWY OPENING
5-87	163+98.29	33.50' RT	DWY OPENING
5-88	163+66.07	49.71' RT	SAWCUT
5-89	163+67.28	52.62' RT	SAWCUT
5-90	163+94.68	52.52' RT	SAWCUT
5-92	163+67.40	44.50' RT	SAWCUT
5-93	163+94.83	45.11' RT	SAWCUT
5-94	166+42.11	156.73' RT	END SIDEWALK
5-95	166+47.17	155.06' RT	END SIDEWALK
5-96	166+45.76	132.46' RT	END TAPER POINT
5-97	166+92.07	146.50' RT	DWY OPENING
5-98	166+97.24	146.82' RT	DWY OPENING

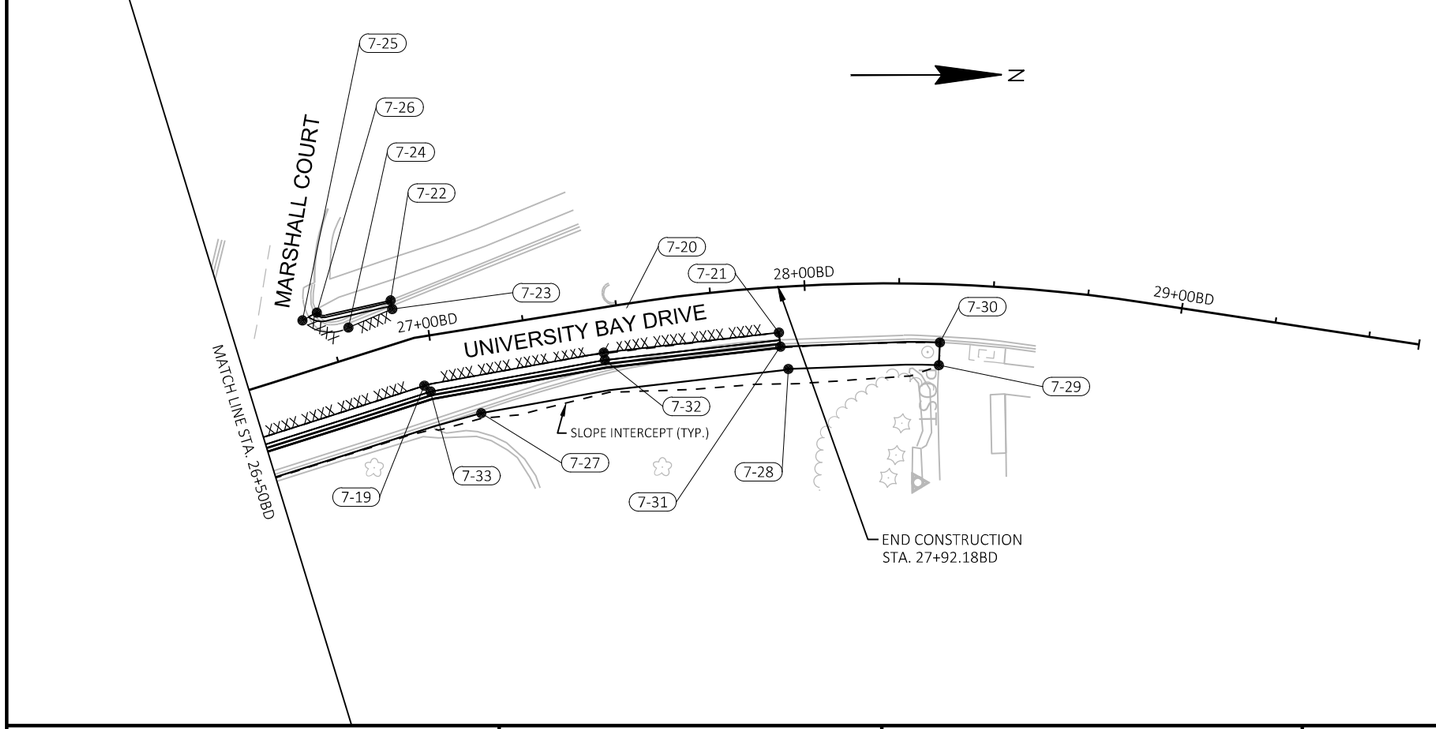
Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
5-8	165+34.45	0.00'	Null Structure
5-21	165+41.39	41.64' LT	PT 3-FT RADIUS/PC 77.5-FT RADIUS
5-22	165+43.50	39.51' LT	3-FT RADIUS
5-23	165+43.50	36.51' LT	PC 3-FT RADIUS
5-24	165+69.05	36.51' LT	Null Structure
5-25	165+69.05	39.51' LT	Null Structure
5-26	165+71.94	40.32' LT	Null Structure
5-27	165+64.27	67.37' LT	PT 3-FT RADIUS
5-28	165+61.38	66.56' LT	3-FT RADIUS
5-29	165+58.60	67.67' LT	PT 77.5-FT RADIUS/PC 3-FT RADIUS
5-30	165+51.31	53.78' LT	CURVE MIDPOINT 77.5-FT RADIUS
5-31	164+83.59	31.50' LT	PC 60-FT RADIUS
5-51	163+84.93	31.50' LT	CURVE MIDPOINT 672.5-FT RADIUS
5-52	163+71.06	31.50' LT	PC 672.5-FT RADIUS
5-53	162+97.09	31.50' LT	Null Structure
5-54	162+63.39	31.50' LT	PT 763.5-FT RADIUS
5-55	162+30.71	31.50' LT	CURVE MIDPOINT 763.5-FT RADIUS
5-62	163+11.27	40.50' LT	Null Structure
5-63	163+11.27	46.24' LT	Null Structure

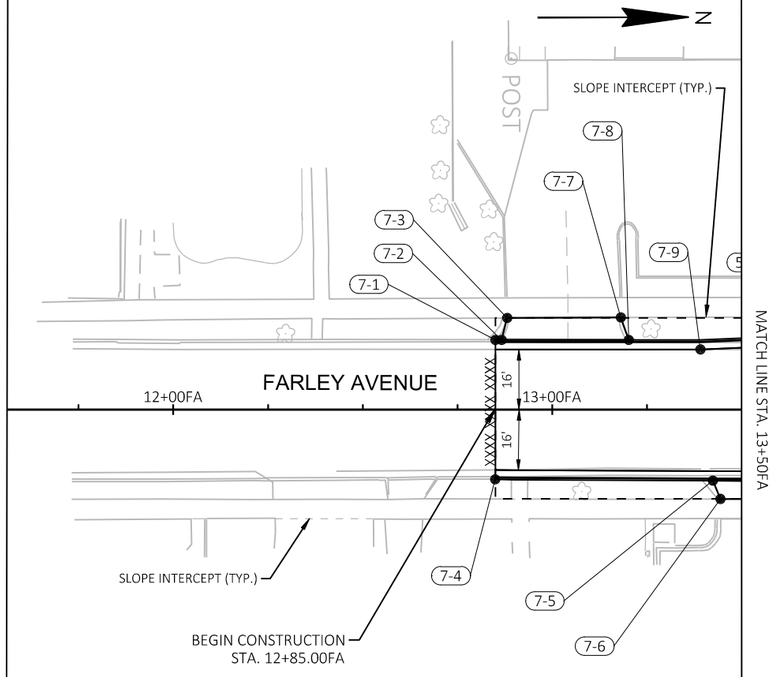
Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
5-66	163+98.79	31.50' LT	PT 672.5-FT RADIUS
5-67	165+04.90	73.54' LT	60-FT RADIUS
5-68	165+43.04	83.39' LT	PT 60-FT RADIUS
5-69	166+18.30	67.43' LT	PC 35-FT RADIUS
5-70	166+51.97	76.98' LT	35-FT RADIUS
5-71	166+51.99	41.98' LT	PT 35-FT RADIUS
5-99	165+44.12	91.23' LT	END C&G
5-100	165+42.08	91.19' LT	SAWCUT
5-101	165+42.89	97.16' LT	SAWCUT
5-102	166+11.72	97.97' LT	SAWCUT
5-103	166+13.30	92.36' LT	SAWCUT
5-104	166+11.24	92.33' LT	END C&G
5-105	165+77.39	114.55' LT	CENTER 1-FT RADIUS
5-106	165+35.94	130.70' LT	SAWCUT
5-107	165+41.73	109.95' LT	SAWCUT
5-108	166+06.05	110.61' LT	SAWCUT
5-109	166+07.97	111.16' LT	SAWCUT
5-110	166+06.38	116.77' LT	SAWCUT
5-111	166+04.46	116.22' LT	BEGIN C&G

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
5-112	165+99.23	134.66' LT	TAPER POINT
5-113	165+73.61	131.56' LT	PC 100-FT RADIUS
5-114	165+71.68	131.01' LT	PC 98-FT RADIUS
5-115	165+33.54	130.03' LT	BEGIN C&G
5-116	166+04.32	146.94' LT	ANGLE POINT
5-117	166+13.80	154.27' LT	END 2-FT RADIUS
5-118	166+16.00	152.43' LT	END 2-FT RADIUS
5-119	166+15.80	154.42' LT	CENTER 2-FT RADIUS
5-120	166+32.82	152.86' LT	MATCH EXISTING
5-121	166+33.01	142.74' LT	MATCH EXISTING
5-122	166+18.60	142.46' LT	END 2-FT RADIUS
5-123	166+16.71	139.91' LT	END 2-FT RADIUS
5-124	166+18.63	140.46' LT	CENTER 2-FT RADIUS
5-125	165+88.66	78.46' LT	PC 1-FT RADIUS
5-126	165+84.43	93.39' LT	PC 1-FT RADIUS
5-127	165+82.50	92.85' LT	PC 1-FT RADIUS
5-128	165+86.74	77.91' LT	PC 1-FT RADIUS

2







PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 85	E

1UNIVERSITY BAY DRIVE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
7-12	22+12.64	36.47' LT	SAWCUT
7-13	22+81.77	36.50' LT	SAWCUT
7-14	23+16.10	36.33' LT	SAWCUT
7-15	23+20.26	22.46' LT	SAWCUT
7-16	23+20.06	12.83' RT	SAWCUT
7-17	23+42.28	14.43' RT	SAWCUT
7-18	25+36.38	15.71' RT	SAWCUT
7-19	26+94.67	12.86' RT	SAWCUT
7-20	27+44.77	11.77' RT	SAWCUT
7-21	27+92.40	12.02' RT	SAWCUT
7-22	26+93.03	11.30' LT	SAWCUT
7-23	26+92.74	8.98' LT	SAWCUT
7-24	26+80.26	7.83' LT	SAWCUT
7-25	26+69.23	13.32' LT	SAWCUT
7-26	26+73.48	14.09' LT	SAWCUT
7-27	27+10.32	22.47' RT	PC BACK OF WALK
7-28	27+94.35	21.78' RT	PT BACK OF WALK

1UNIVERSITY BAY DRIVE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
7-29	28+36.11	21.39' RT	END BACK OF WALK
7-30	28+36.21	15.39' RT	END SIDEWALK
7-31	27+92.58	15.73' RT	END C&G
7-32	27+44.75	13.78' RT	PT C&G
7-33	26+98.00	14.71' RT	ANGLE POINT C&G
7-34	26+16.76	15.00' RT	END TAPER POINT C&G
7-35	26+16.53	24.01' RT	END TAPER POINT
7-36	26+04.42	23.48' RT	BEGIN TAPER POINT
7-37	24+42.95	23.92' RT	DWY OPENING
7-38	24+43.40	29.90' RT	DWY OPENING
7-39	24+42.95	37.45' RT	SAWCUT
7-40	24+22.03	24.00' RT	PT C&G
7-41	24+20.85	26.00' RT	DWY OPENING
7-42	24+20.85	32.00' RT	DWY OPENING
7-43	24+20.85	38.30' RT	SAWCUT
7-44	24+20.85	33.43' RT	SAWCUT
7-45	23+90.46	36.98' RT	SAWCUT

1UNIVERSITY BAY DRIVE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
7-46	23+48.41	47.56' RT	SAWCUT
7-47	23+45.82	67.22' RT	PC 24-FT RADIUS
7-48	23+68.23	23.86' RT	PT 24-FT RADIUS
7-49	23+19.29	66.17' RT	SAWCUT
7-50	22+93.05	25.50' RT	PC 24-FT RADIUS
7-51	22+99.02	49.50' RT	CENTER RADIUS
7-52	22+70.42	33.50' RT	ANGLE POINT C&G
7-53	21+71.93	33.50' RT	ANGLE POINT C&G
7-54	21+60.03	2.75' LT	PT CURB 100-FT RADIUS
7-55	21+59.56	4.69' LT	PT CURB 98-FT RADIUS
7-56	21+78.60	9.25' LT	PC CURB 100-FT RADIUS
7-57	21+79.06	7.31' LT	PC 98-FT RADIUS
7-58	22+01.88	12.00' LT	PT CURB 100-FT RADIUS
7-59	22+01.88	10.00' LT	PT CURB 98-FT RADIUS
7-60	22+30.81	10.00' LT	PC 340-FT RADIUS
7-61	22+30.81	12.00' LT	PT 338-FC RADIUS
7-62	22+46.84	12.00' LT	PC 338-FT RADIUS

1UNIVERSITY BAY DRIVE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
7-63	22+46.84	10.00' LT	PC 340-FT RADIUS
7-64	23+07.73	9.99' LT	END 1-FT RADIUS
7-65	23+07.80	11.99' LT	END 1-FT RADIUS
7-66	23+07.80	10.99' LT	CENTER 1-FT RADIUS
7-67	22+95.79	41.50' RT	SIDEWALK ANGLE POINT
7-68	22+94.08	31.50' RT	SIDEWALK ANGLE POINT
7-69	22+73.17	49.50' RT	SIDEWALK ANGLE POINT
7-70	22+73.17	58.50' RT	SIDEWALK ANGLE POINT
7-71	22+53.17	58.50' RT	SIDEWALK ANGLE POINT
7-72	22+53.17	49.50' RT	SIDEWALK ANGLE POINT
7-73	21+70.32	49.50' RT	SIDEWALK ANGLE POINT
7-83	21+71.33	39.50' RT	ANGLE POINT
7-84	21+71.73	35.50' RT	ANGLE POINT
7-85	22+46.84	35.50' RT	ANGLE POINT
7-86	22+67.47	35.50' RT	ANGLE POINT
7-87	22+67.47	39.50' RT	ANGLE POINT
7-88	22+71.45	39.50' RT	ANGLE POINT

FARLEY AVE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
7-1	12+85.00	18.40' LT	SAWCUT
7-2	12+86.64	18.40' LT	DWY OPENING
7-3	12+88.11	24.22' LT	DWY OPENING
7-4	12+84.94	18.37' RT	SAWCUT
7-5	13+42.39	18.72' RT	DWY OPENING
7-6	13+44.39	23.57' RT	DWY OPENING
7-7	13+18.11	24.34' LT	DWY OPENING
7-8	13+20.19	18.39' LT	DWY OPENING
7-9	13+39.09	15.89' LT	BEGIN TAPER POINT

2

2

SLOPE INTERCEPT (TYP.)

WISCONSIN & SOUTHERN RAILROAD

N

SLOPE INTERCEPT (TYP.)

BP: 80+00.00HI

END CONSTRUCTION
STA. 81+24.60HI

6-6

6-7

6-64

81+00HI

82+00HI

15'

6-34

CAMPUS DRIVE WB

MATCH LINE STA. 168+00EB

MATCH LINE STA. 173+50EB

VB

169+00WB

170+00WB

171+00WB

172+00WB

173+00WB

6-62

6-1

6-2

6-3

6-55

6-56

6-58

6-59

6-57

6-60

6-61

6-63

6-54

6-45

END CONSTRUCTION
STA. 173+30.00EB

6-44

00EB

169+00EB

170+00EB

171+00EB

172+00EB

173+00EB

6-47

6-48

6-49

6-50

6-51

6-52

6-53

CAMPUS DRIVE EB

6-43

6-29

6-30

6-32

6-31

6-8

6-7

71+00UA

6-9

6-20

6-42

6-16

6-21

6-23

6-24

6-36

6-26

72+00UA

SLOPE INTERCEPT (TYP.)

6-37

6-38

6-39

UNIVERSITY AVENUE EB

73+00UA

6-17

6-27

6-22

6-35

6-25

END CONSTRUCTION
STA. 73+39.26UA

6-40

SLOPE INTERCEPT (TYP.)

83+00HI

N

CAMPUS DRIVE WB

MATCH LINE STA. 173+50EB

6-46

174+00EB

CAMPUS DRIVE EB

END CONSTRUCTION
STA. 174+40.96EB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS - UNIVERSITY AVENUE	SHEET 87	E

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
6-1	168+71.13	19.87' LT	PC 1211-FT RADIUS
6-2	169+19.63	20.76' LT	CURVE MIDPOINT 1211-FT RADIUS
6-3	169+68.29	21.23' LT	PT 1211-FT RADIUS/SAWCUT
6-7	170+64.93	30.00' RT	PC 3-FT RADIUS
6-8	170+64.93	35.00' RT	3-FT RADIUS
6-29	168+28.47	40.50' RT	DWY OPENING
6-30	168+31.41	44.50' RT	DWY OPENING
6-31	168+60.49	40.49' RT	DWY OPENING
6-32	168+57.42	44.50' RT	DWY OPENING
6-43	172+30.88	30.00' RT	END C&G

Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
6-44	173+30.00	32.00' RT	SAWCUT BREAKPOINT
6-45	173+30.00	1.00' RT	SAWCUT BREAKPOINT
6-46	174+40.96	1.00' RT	END C&G/SAWCUT
6-47	168+79.20	0.00'	PC 1000-FT RADIUS
6-48	169+22.16	0.00'	CURVE MIDPOINT 1000-FT RADIUS
6-49	169+65.12	0.00'	PT 1000-FT RADIUS
6-50	170+35.55	0.01' LT	PC 2350-FT RADIUS
6-51	171+06.89	0.00'	---
6-52	171+57.71	0.03' RT	CURVE MIDPOINT 2350-FT RADIUS
6-54	173+30.00	0.00'	PT 2350-FT RADIUS

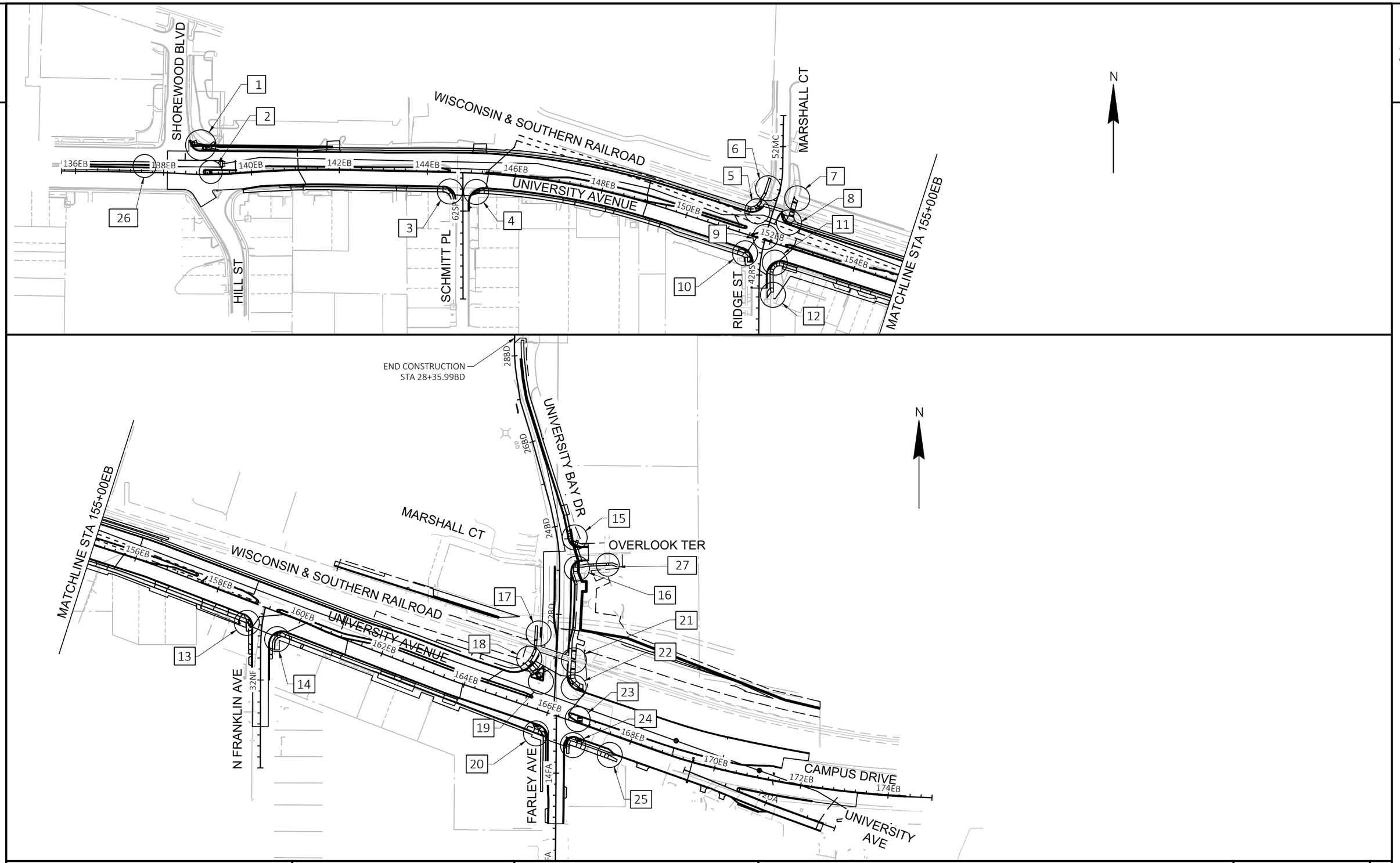
Univ Ave EB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
6-55	169+97.36	21.61' LT	---
6-56	170+24.00	22.03' LT	---
6-57	170+50.64	22.33' LT	PC 100-FT RADIUS
6-58	170+59.47	22.77' LT	CURVE MIDPOINT 100-FT RADIUS
6-59	170+68.23	23.95' LT	PT 100-FT RADIUS
6-60	171+18.61	32.28' LT	PC 100-FT RADIUS
6-61	171+26.41	33.17' LT	CURVE MIDPOINT 100-FT RADIUS
6-62	171+34.25	33.43' LT	PT 100-FT RADIUS
6-63	171+50.78	33.30' LT	END C&G/SAWCUT

Univ Ave WB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
6-6	172+05.96	42.00' LT	SAWCUT
6-7	169+38.79	42.06' LT	CURVE MIDPOINT 1158-FT RADIUS
6-34	172+06.74	26.08' LT	SAWCUT
6-64	171+50.00	22.80' LT	SAWCUT BREAKPOINT

Old Univ Ave			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
6-9	70+47.06	19.27' RT	DWY OPENING
6-11	70+50.78	23.10' RT	DWY OPENING
6-12	70+64.55	18.43' RT	DWY OPENING
6-13	70+62.18	22.55' RT	DWY OPENING
6-14	70+92.40	18.00' RT	DWY OPENING
6-15	70+96.10	22.00' RT	DWY OPENING
6-16	71+10.04	18.00' RT	DWY OPENING
6-17	71+07.66	21.99' RT	DWY OPENING
6-18	70+71.14	16.11' RT	PC 100-FT RADIUS
6-19	70+73.53	16.03' RT	CURVE MIDPOINT 100-FT RADIUS
6-20	70+75.93	16.00' RT	PT 100-FT RADIUS
6-21	71+22.60	16.00' RT	INFLECTION POINT
6-22	71+28.32	18.00' RT	BEGIN PAVEMENT EDGE

Old Univ Ave			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
6-23	71+42.60	23.00' RT	INFLECTION POINT
6-24	71+92.60	23.00' RT	--
6-25	72+04.40	18.00' RT	END PAVEMENT EDGE
6-26	72+01.29	16.00' RT	INFLECTION POINT
6-27	71+42.38	27.90' RT	BEGIN SIDEWALK
6-35	71+93.03	25.95' RT	END SIDEWALK
6-36	72+09.87	16.00' RT	INFLECTION POINT
6-37	73+11.32	1.00' LT	INFLECTION POINT
6-38	73+16.23	1.92' LT	--
6-39	73+39.26	0.00'	SAWCUT
6-40	73+39.22	14.90' RT	SAWCUT
6-41	73+34.22	16.00' RT	INFLECTION POINT
6-42	71+32.56	0.00'	PT 3-FT RADIUS

2



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP OVERVIEW	SHEET 89	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - OVERVIEW

PLOT DATE : 8/24/2021 12:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:200 FT

UNIVERSITY AVE WB SHEET 1			
POINT NO.	STATION	OFFSET	ELEVATION
1-1	138+61.33	51.04' L	879.01
1-2	138+63.29	45.84' L	879.13
1-3	138+63.75	50.82' L	879.05
1-5	138+69.98	50.24' L	879.49
1-6	138+69.52	45.26' L	879.41
1-7	138+68.14	53.94' L	879.58
1-8	138+73.11	56.25' L	879.70

UNIVERSITY AVE WB SHEET 1			
POINT NO.	STATION	OFFSET	ELEVATION
1-9	138+75.92	49.70' L	879.58
1-10	138+75.23	44.74' L	879.50
1-11	138+89.91	47.06' L	879.84
1-12	138+95.36	46.03' L	879.92
1-13	138+88.99	42.15' L	879.76
1-14	138+94.44	41.12' L	879.84
1-16	138+96.12	34.79' L	879.38

UNIVERSITY AVE WB SHEET 1			
POINT NO.	STATION	OFFSET	ELEVATION
1-17	138+91.29	33.50' L	879.41
1-18	138+96.47	33.50' L	879.36
1-19	139+02.62	44.67' L	880.11
1-20	139+08.82	43.50' L	880.22
1-21	139+13.49	53.65' L	880.72
1-22	139+16.63	49.89' L	880.72
1-23	139+01.69	39.75' L	880.03

UNIVERSITY AVE WB SHEET 1			
POINT NO.	STATION	OFFSET	ELEVATION
1-24	139+07.89	38.59' L	880.14
1-25	139+24.27	35.50' L	879.61
1-26	139+24.73	40.50' L	879.68

EXISTING R/W
TLE
MG&E (GAS)
CITY OF MADISON (STORM SEWER)
SHOREWOOD BOULEVARD
SLOPE INTERCEPT (TYP.)
CS-5
PRW
EXISTING R/W
MG&E (GAS)
CITY OF MADISON (STORM SEWER)
AT&T (TELE)
UNIVERSITY AVENUE WB

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY AVENUE WB R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

N

1 CURB RAMP DETAIL
UNIVERSITY AVE/SHOREWOOD BLVD (NE QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 1 - UNVERSITY AVENUE/SHOREWOOD BOULEVARD - NE QUAD	SHEET 1	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 1
PLOT DATE : 8/17/2021 3:32 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

2

UNIVERSITY AVE EB SHEET 2			
POINT NO.	STATION	OFFSET	ELEVATION
2-1	139+03.71	9.59' L	879.26
2-2	139+08.96	9.53' L	879.24
2-3	139+04.87	5.15' L	879.33
2-4	139+09.76	6.37' L	879.29
2-5	139+05.68	2.00' L	879.28
2-6	139+10.85	1.98' L	879.23

139WB

UNIVERSITY AVENUE WB

CITY OF MADISON (WATER)

CITY OF MADISON (STORM SEWER)

CITY OF MADISON (SANITARY)

CITY OF MADISON SIGNALS (FIBER OPTIC)

2-1 2-2 2-3 2-4 2-5 2-6

-1.5% -0.8% -1.5% -1.5% -1.3%

CS-5

5

CITY OF MADISON SIGNALS (FIBER OPTIC)

CITY OF MADISON (WATER)

UNIVERSITY AVENUE EB

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY AVENUE EB R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

N

2 CURB RAMP DETAIL

UNIVERSITY AVE/SHOREWOOD BLVD (EAST MEDIAN)

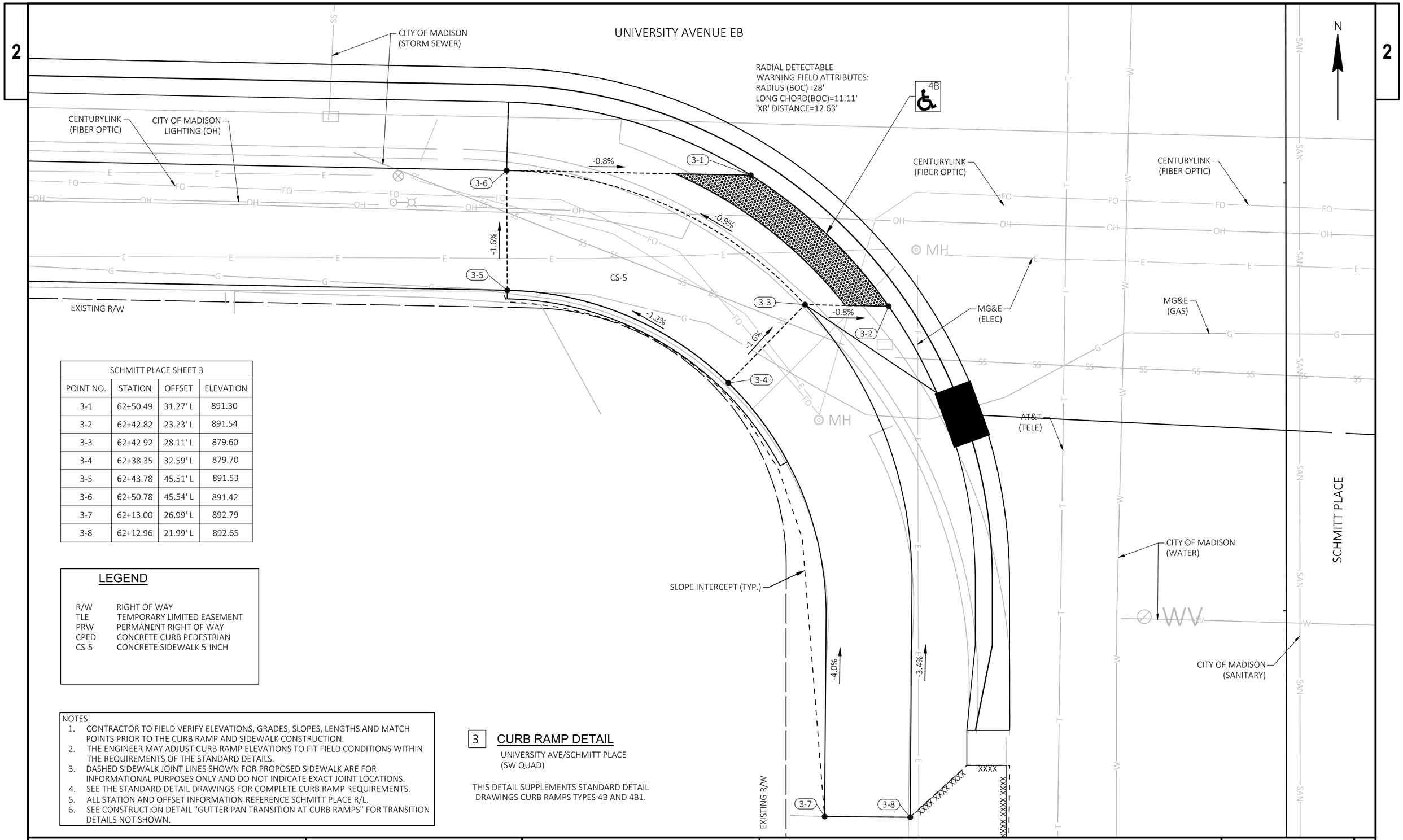
THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B AND 8

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 2 - UNVERSITY AVENUE/SHOREWOOD BOULEVARD - EAST MEDIAN	SHEET 2	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 2
PLOT DATE : 8/17/2021 3:32 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42



SCHMITT PLACE SHEET 3			
POINT NO.	STATION	OFFSET	ELEVATION
3-1	62+50.49	31.27' L	891.30
3-2	62+42.82	23.23' L	891.54
3-3	62+42.92	28.11' L	879.60
3-4	62+38.35	32.59' L	879.70
3-5	62+43.78	45.51' L	891.53
3-6	62+50.78	45.54' L	891.42
3-7	62+13.00	26.99' L	892.79
3-8	62+12.96	21.99' L	892.65

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE SCHMITT PLACE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

3 CURB RAMP DETAIL

UNIVERSITY AVE/SCHMITT PLACE
(SW QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 4B AND 4B1.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 3 - UNVERSITY AVENUE/SCHMITT PLACE - SW QUAD	SHEET 3

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 3

PLOT DATE : 8/17/2021 3:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

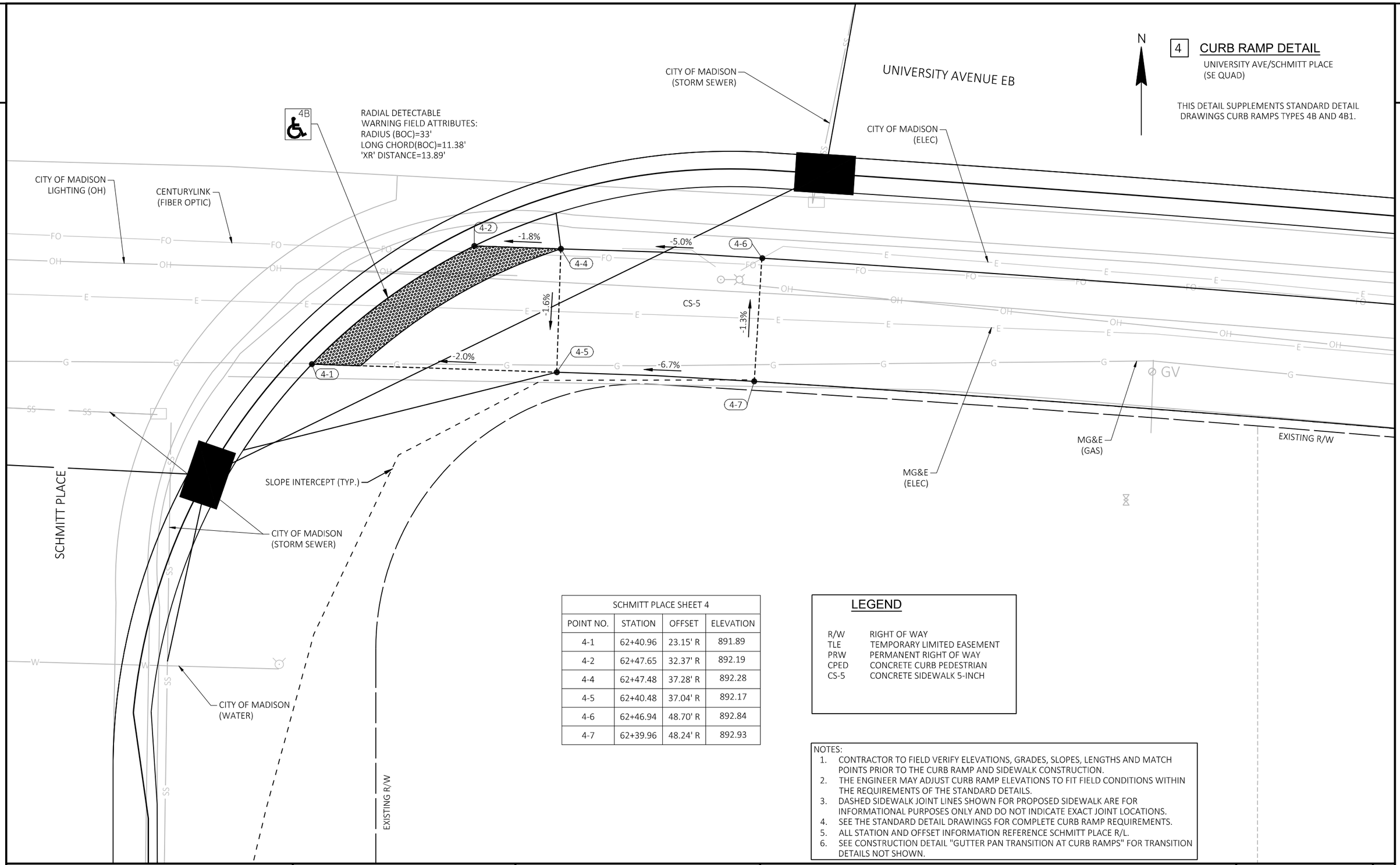
2

N

4 CURB RAMP DETAIL

UNIVERSITY AVE/SCHMITT PLACE
(SE QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 4B AND 4B1.



SCHMITT PLACE SHEET 4			
POINT NO.	STATION	OFFSET	ELEVATION
4-1	62+40.96	23.15' R	891.89
4-2	62+47.65	32.37' R	892.19
4-4	62+47.48	37.28' R	892.28
4-5	62+40.48	37.04' R	892.17
4-6	62+46.94	48.70' R	892.84
4-7	62+39.96	48.24' R	892.93

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE SCHMITT PLACE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

MARSHALL COURT SHEET 5			
POINT NO.	STATION	OFFSET	ELEVATION
5-1	50+49.94	27.71' L	880.07
5-2	50+44.94	31.25' L	880.21
5-4	50+49.94	31.25' L	880.12
5-5	50+49.93	36.23' L	880.30
5-6	50+52.76	40.35' L	880.38
5-7	50+48.62	43.97' L	880.48
5-8	50+44.92	40.61' L	880.40
5-9	50+44.13	51.10' L	881.06

MARSHALL COURT SHEET 5			
POINT NO.	STATION	OFFSET	ELEVATION
5-10	50+39.21	49.95' L	880.98
5-11	50+43.89	56.27' L	881.46
5-12	50+38.64	56.26' L	881.38
5-13	50+33.39	56.25' L	881.30
5-14	50+34.26	48.79' L	881.13
5-15	50+61.47	36.60' L	879.72
5-16	50+61.47	31.73' L	879.72

TLE

SLOPE INTERCEPT (TYP.)

ATC
(ELEC)

EXISTING R/W

MARSHALL COURT

UNIVERSITY AVENUE WB

CS-5

CITY OF MADISON
(STORM SEWER)

MMSD
(SANITARY)

5 CURB RAMP DETAIL

UNIVERSITY AVE/MARSHALL COURT
(NW QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

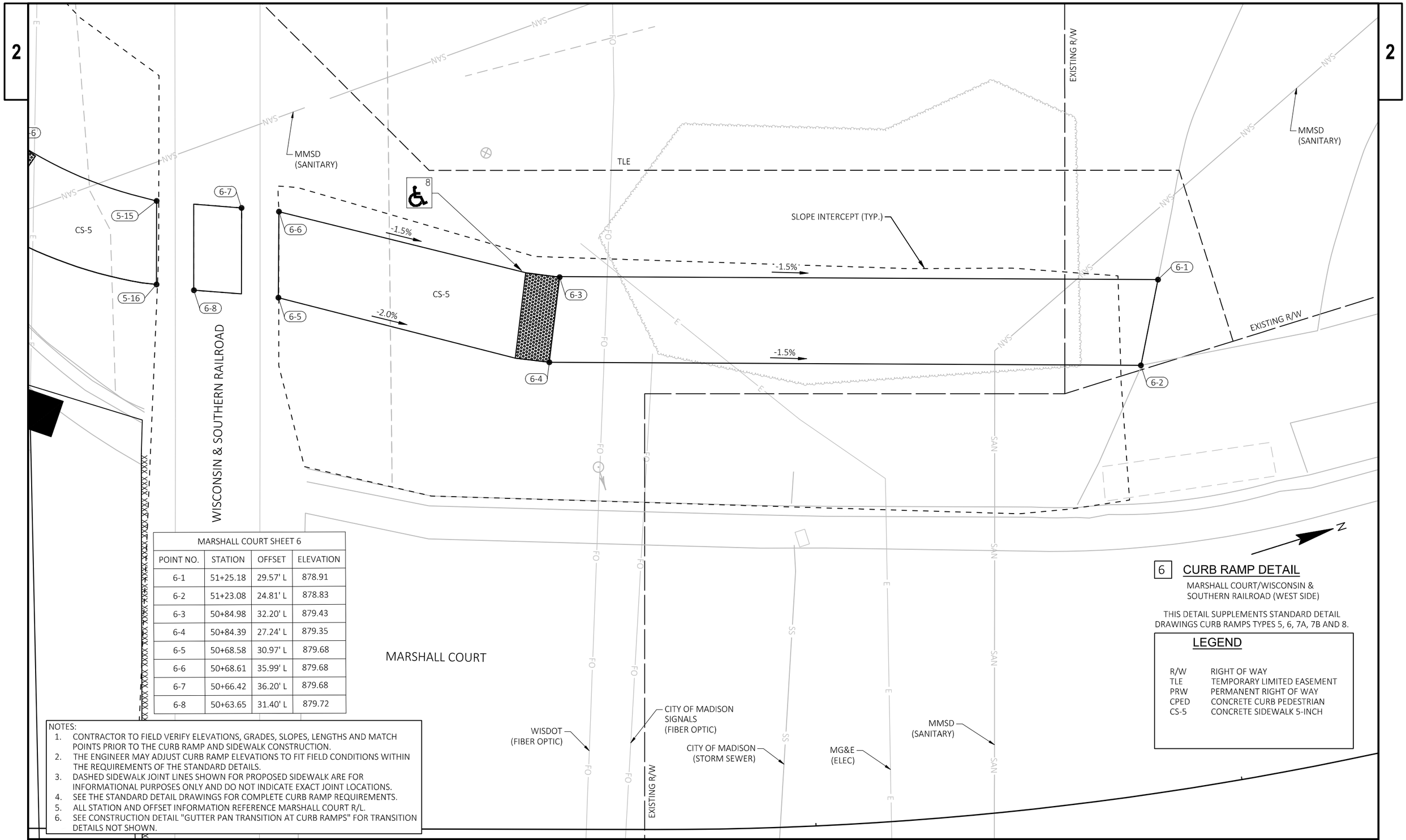
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE MARSHALL COURT R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 5 - UNVERSITY AVENUE/MARSHALL COURT - NW QUAD	SHEET 5	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 5
PLOT DATE : 8/24/2021 12:07 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



MARSHALL COURT SHEET 6			
POINT NO.	STATION	OFFSET	ELEVATION
6-1	51+25.18	29.57' L	878.91
6-2	51+23.08	24.81' L	878.83
6-3	50+84.98	32.20' L	879.43
6-4	50+84.39	27.24' L	879.35
6-5	50+68.58	30.97' L	879.68
6-6	50+68.61	35.99' L	879.68
6-7	50+66.42	36.20' L	879.68
6-8	50+63.65	31.40' L	879.72

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE MARSHALL COURT R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

6 CURB RAMP DETAIL

MARSHALL COURT/WISCONSIN & SOUTHERN RAILROAD (WEST SIDE)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B AND 8.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 6 - MARSHALL COURT/WISCONSIN & SOUTHERN RAILROAD - WEST SIDE	SHEET 6	95	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 6
PLOT DATE : 8/17/2021 3:34 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

MARSHALL COURT

WISDOT (FIBER OPTIC)

CITY OF MADISON (STORM SEWER)

MMSD (SANITARY)

WISCONSIN & SOUTHERN RAILROAD

SLOPE INTERCEPT (TYP.)

CITY OF MADISON SIGNALS (FIBER OPTIC)

MG&E (ELEC)

EXISTING R/W

7-1 7-2 7-3 7-4 7-5 7-6 7-7 7-8 7-9 7-10

-3.4% -1.0% -1.6% -4.3% -1.5%

CS-5

MATCH EXISTING SIDEWALK

EXISTING R/W

N

MARSHALL COURT SHEET 7			
POINT NO.	STATION	OFFSET	ELEVATION
7-1	50+96.14	35.99' R	878.80
7-2	50+90.09	45.62' R	878.64
7-3	50+83.62	35.43' R	878.94
7-4	50+83.28	45.39' R	878.78
7-5	50+68.70	36.34' R	879.45
7-6	50+68.73	46.36' R	879.37
7-7	50+66.53	36.49' R	879.45
7-8	50+63.68	46.71' R	879.44
7-9	50+61.50	46.85' R	879.44
7-10	50+61.44	36.83' R	879.52

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

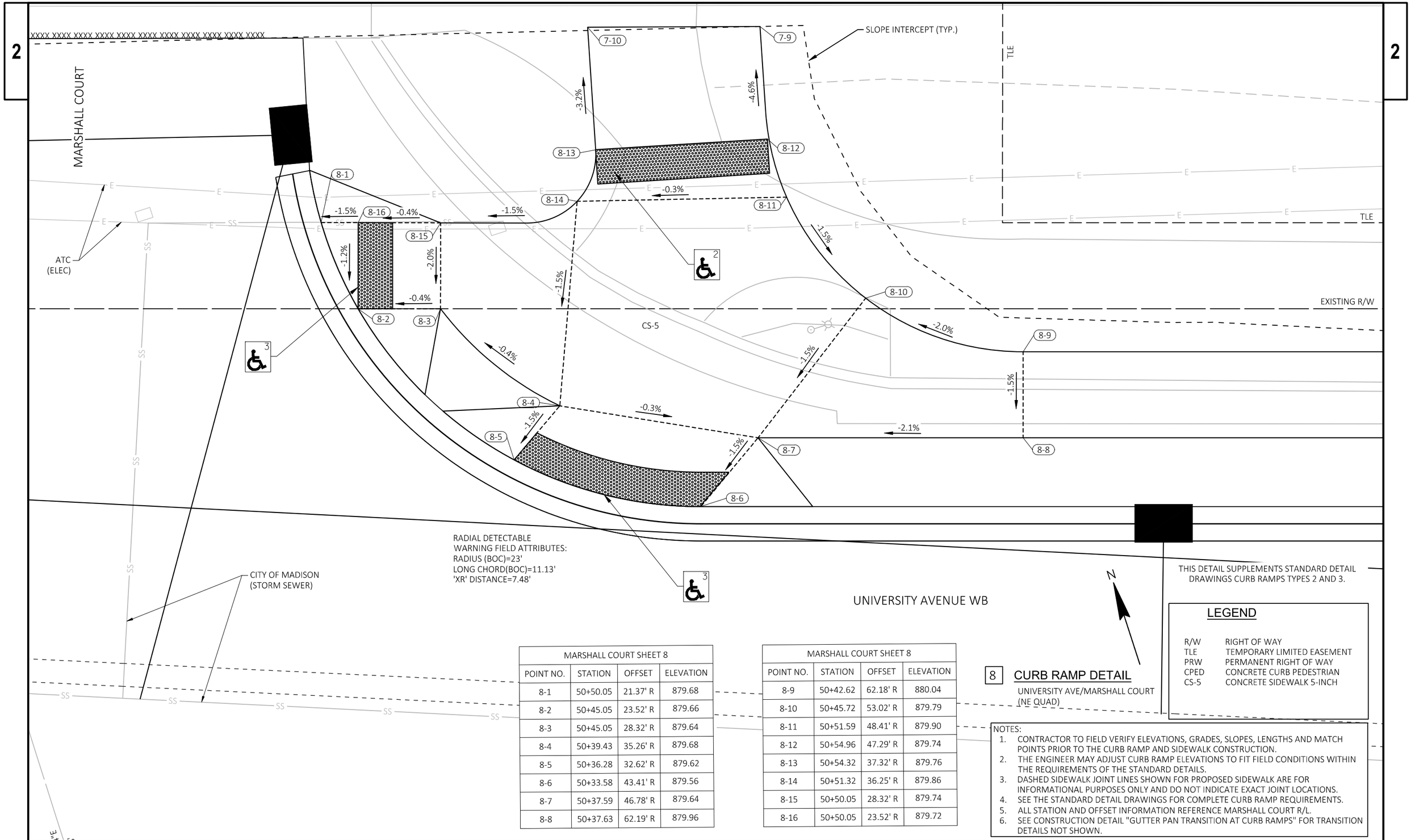
7 CURB RAMP DETAIL

MARSHALL COURT/WISCONSIN & SOUTHERN RAILROAD (EAST SIDE)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B AND 8.

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE MARSHALL COURT R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.



MARSHALL COURT SHEET 8			
POINT NO.	STATION	OFFSET	ELEVATION
8-1	50+50.05	21.37' R	879.68
8-2	50+45.05	23.52' R	879.66
8-3	50+45.05	28.32' R	879.64
8-4	50+39.43	35.26' R	879.68
8-5	50+36.28	32.62' R	879.62
8-6	50+33.58	43.41' R	879.56
8-7	50+37.59	46.78' R	879.64
8-8	50+37.63	62.19' R	879.96

MARSHALL COURT SHEET 8			
POINT NO.	STATION	OFFSET	ELEVATION
8-9	50+42.62	62.18' R	880.04
8-10	50+45.72	53.02' R	879.79
8-11	50+51.59	48.41' R	879.90
8-12	50+54.96	47.29' R	879.74
8-13	50+54.32	37.32' R	879.76
8-14	50+51.32	36.25' R	879.86
8-15	50+50.05	28.32' R	879.74
8-16	50+50.05	23.52' R	879.72

8 CURB RAMP DETAIL

UNIVERSITY AVE/MARSHALL COURT
(NE QUAD)

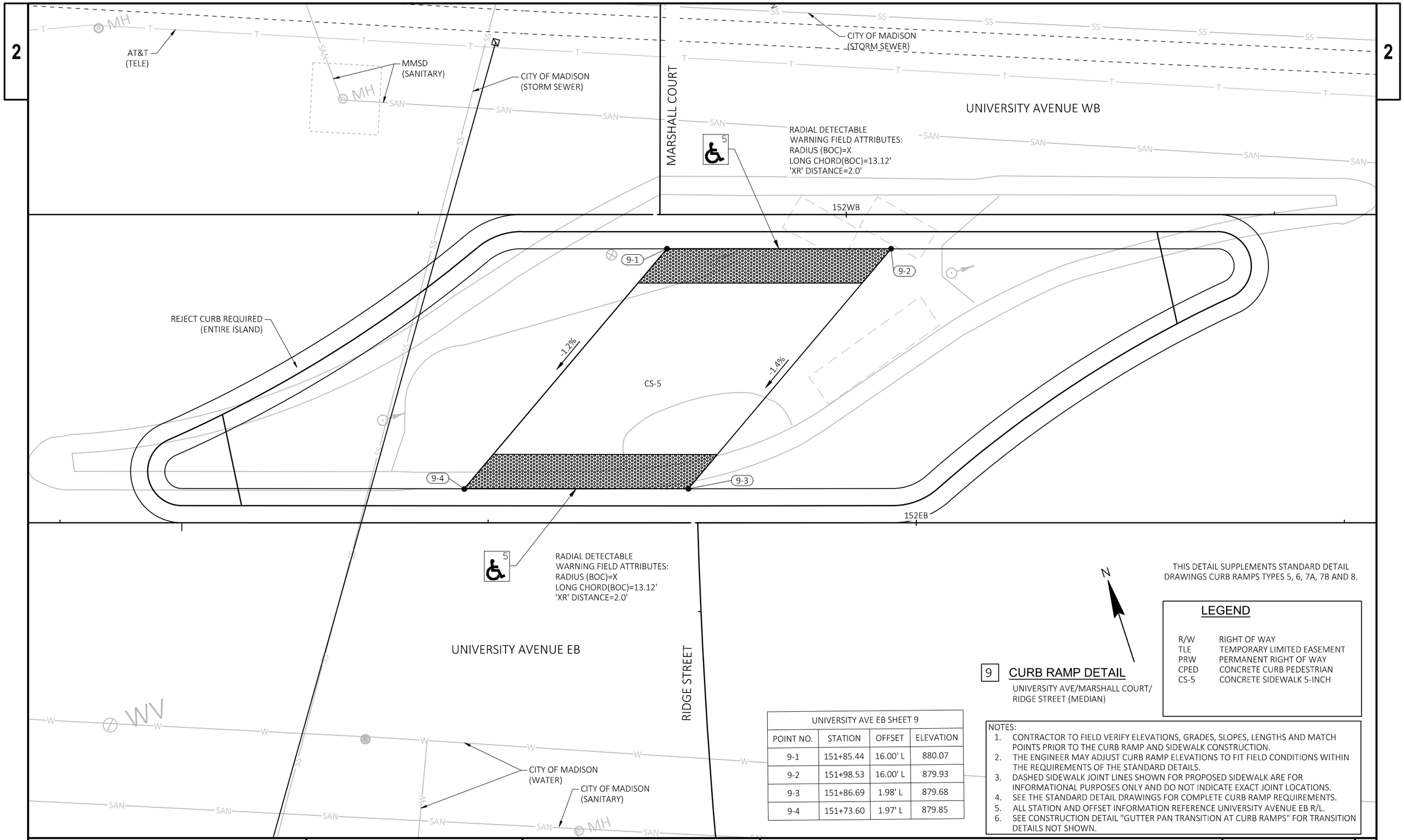
LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE MARSHALL COURT R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 8 - UNVERSITY AVENUE/MARSHALL COURT - NE QUAD	SHEET 8	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 8
PLOT DATE : 8/24/2021 12:08 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########



THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B AND 8.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

9 CURB RAMP DETAIL

UNIVERSITY AVE/MARSHALL COURT/
RIDGE STREET (MEDIAN)

UNIVERSITY AVE EB SHEET 9			
POINT NO.	STATION	OFFSET	ELEVATION
9-1	151+85.44	16.00' L	880.07
9-2	151+98.53	16.00' L	879.93
9-3	151+86.69	1.98' L	879.68
9-4	151+73.60	1.97' L	879.85

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY AVENUE EB R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

UNIVERSITY AVENUE EB

CITY OF MADISON (SANITARY)

CITY OF MADISON (STORM SEWER)

CITY OF MADISON (WATER)

CITY OF MADISON (STORM SEWER)

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=33'
LONG CHORD(BOC)=11.58'
'XR' DISTANCE=8.45'

CENTURYLINK (FIBER OPTIC)

CITY OF MADISON (ELEC)

MG&E (GAS)

MG&E (ELEC)

CITY OF MADISON (ELEC)

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=33'
LONG CHORD(BOC)=11.00'
'XR' DISTANCE=7.07'

SLOPE INTERCEPT (TYP.)

CS-5

RIDGE STREET

EXISTING R/W

EXISTING R/W

RIDGE ST SHEET 10			
POINT NO.	STATION	OFFSET	ELEVATION
10-1	42+51.85	45.94' L	880.05
10-2	42+48.87	34.85' L	879.78
10-3	42+43.96	40.85' L	879.89
10-4	42+45.51	53.82' L	880.08
10-5	42+38.70	54.97' L	880.20
10-6	42+36.54	42.10' L	880.02
10-7	42+34.29	35.70' L	880.05
10-8	42+33.97	37.89' L	880.23
10-9	42+26.72	36.46' L	880.18
10-10	42+26.91	34.53' L	880.02

RIDGE ST SHEET 10			
POINT NO.	STATION	OFFSET	ELEVATION
10-11	42+27.41	29.59' L	879.94
10-12	42+35.87	30.85' L	879.97
10-13	42+36.50	27.68' L	879.76
10-14	42+35.46	20.83' L	879.30
10-15	42+25.39	18.08' L	879.26
10-16	42+21.12	28.82' L	880.03
10-17	42+20.67	33.67' L	880.13
10-18	42+26.22	22.60' L	879.35
10-20	42+34.90	35.84' L	880.05

N

10 CURB RAMP DETAIL

UNIVERSITY AVE/RIDGE STREET
(SW QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE RIDGE STREET R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 10 - UNVERSITY AVENUE/RIDGE STREET - SW QUAD	SHEET 10

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 10

PLOT DATE : 8/17/2021 3:35 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

UNIVERSITY AVENUE EB

CITY OF MADISON
(STORM SEWER)

RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=31'
LONG CHORD(BOC)=10.8'
'XR' DISTANCE=7.30'

11-1
11-2
11-3
11-4
11-5
11-6
11-7
11-8
11-9
11-10
12-1
12-2

-1.5%
-1.4%
-1.9%
-0.7%
-0.8%
-1.3%
-3.8%
-0.3%

CS-5

MG&E
(GAS)

CENTURYLINK
(FIBER OPTIC)

MG&E
(ELEC)

EXISTING R/W

SLOPE INTERCEPT (TYP.)

RIDGE STREET

CITY OF MADISON
(WATER)

EXISTING R/W

TLE

RIDGE ST SHEET 11			
POINT NO.	STATION	OFFSET	ELEVATION
11-1	42+17.16	21.07' R	879.08
11-2	42+26.82	27.13' R	879.02
11-3	42+26.16	30.27' R	879.08
11-4	42+33.31	53.75' R	879.43
11-5	42+25.14	52.49' R	879.53
11-6	42+20.43	35.04' R	879.18
11-7	42+24.11	39.18' R	879.28
11-8	42+31.00	35.78' R	879.18
11-9	42+16.21	25.04' R	879.15
11-10	42+13.96	31.73' R	879.23

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

11 CURB RAMP DETAIL

UNIVERSITY AVE/RIDGE STREET
(SE QUAD)

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE RIDGE STREET R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 11 - UNVERSITY AVENUE/RIDGE STREET - SE QUAD	SHEET 11

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 11
PLOT DATE : 8/17/2021 3:35 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE RIDGE STREET R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

LEGEND

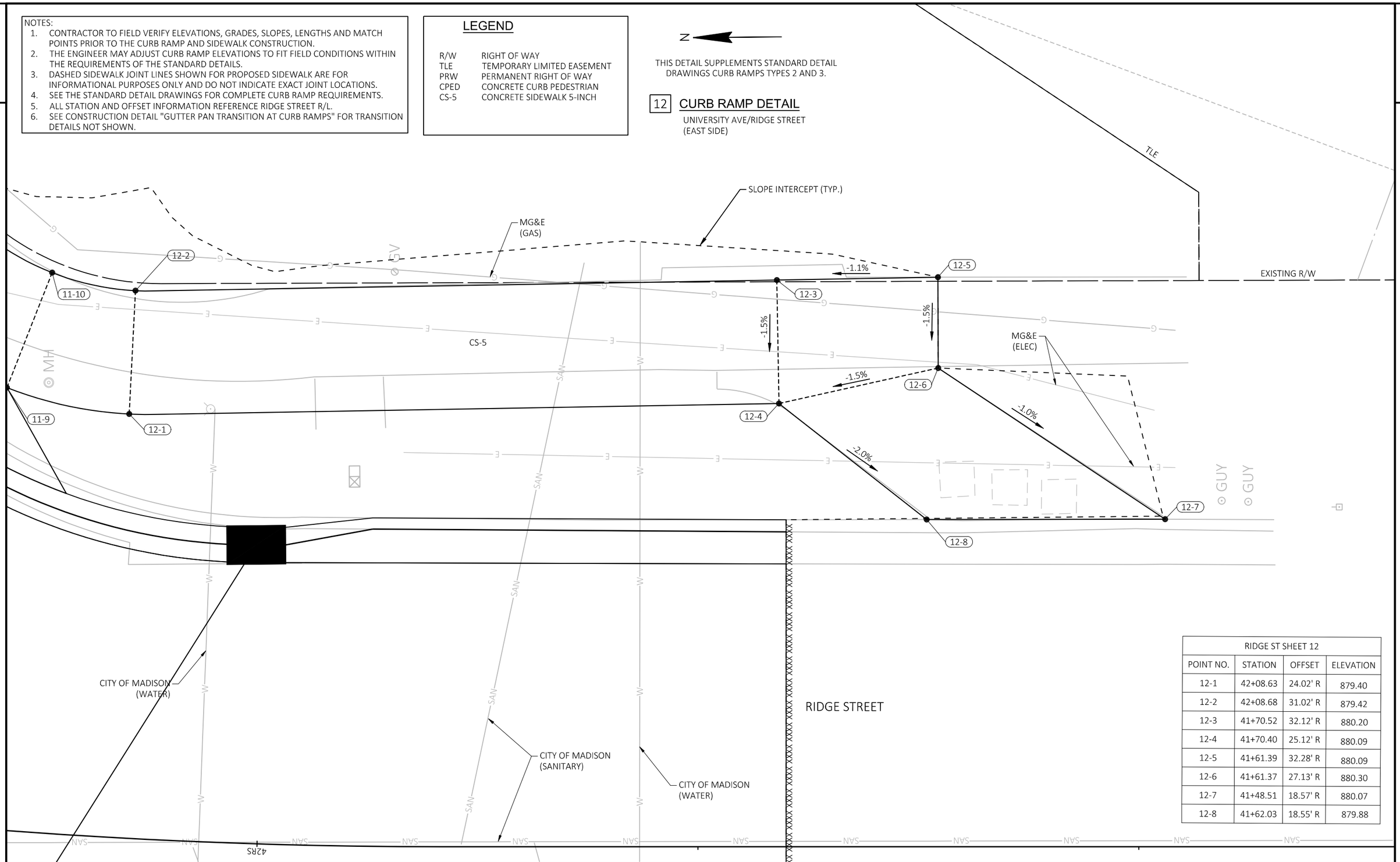
R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

N

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

12 CURB RAMP DETAIL

UNIVERSITY AVE/RIDGE STREET
(EAST SIDE)



RIDGE ST SHEET 12			
POINT NO.	STATION	OFFSET	ELEVATION
12-1	42+08.63	24.02' R	879.40
12-2	42+08.68	31.02' R	879.42
12-3	41+70.52	32.12' R	880.20
12-4	41+70.40	25.12' R	880.09
12-5	41+61.39	32.28' R	880.09
12-6	41+61.37	27.13' R	880.30
12-7	41+48.51	18.57' R	880.07
12-8	41+62.03	18.55' R	879.88

UNIVERSITY AVENUE EB

CENTURYLINK (FIBER OPTIC)

CITY OF MADISON (ELEC)

MG&E (ELEC)

CITY OF MADISON (WATER)

MG&E (GAS)

CS-5

EXISTING R/W

TLE

SLOPE INTERCEPT (TYP.)

CITY OF MADISON (STORM SEWER)

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=28'
LONG CHORD(BOC)=10.37'
'XR' DISTANCE=9.89'

13-1 13-2 13-3 13-4 13-5 13-6 13-7 13-8 13-9 13-10

-2.9% -1.5% -1.5% -1.5% -1.5% -3.3% -1.5% -7.5% -0.4% -4.5% -4.4%

N. FRANKLIN AVE.

EXISTING R/W

N

13 CURB RAMP DETAIL

UNIVERSITY AVE/N. FRANKLILN AVE (SW QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE NORTH FRANKLIN AVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NORTH FRANKLIN AVE SHEET 13

POINT NO.	STATION	OFFSET	ELEVATION
13-1	33+31.56	27.47' L	874.97
13-2	33+22.92	22.86' L	874.89
13-3	33+24.60	30.27' L	875.00
13-4	33+32.35	31.45' L	875.03
13-5	33+33.44	37.00' L	875.12
13-6	33+25.80	35.79' L	875.09
13-7	33+29.28	52.79' L	875.67
13-8	33+36.05	51.10' L	875.55
13-9	33+08.39	33.51' L	875.94
13-10	33+08.81	28.50' L	875.77

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 13 - UNVERSITY AVENUE/N. FRANKLIN AVENUE - SW QUAD	SHEET 13

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 13
PLOT DATE : 8/24/2021 2:17 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

UNIVERSITY AVENUE EB

CITY OF MADISON (WATER)
CENTURYLINK (FIBER OPTIC)
CITY OF MADISON (ELEC)
MG&E (ELEC)
CITY OF MADISON LIGHTING (OH)
CHARTER (OH)
CITY OF MADISON (STORM SEWER)
MG&E (GAS)
MG&E (ELEC)
CITY OF MADISON (WATER)
CITY OF MADISON LIGHTING (OH)
CITY OF MADISON (WATER)
CHARTER (OH)
SLOPE INTERCEPT (TYP.)
EXISTING R/W
N. FRANKLIN AVE.

14-1 -1.5% 14-4 -0.6% 14-5 -5.4% 14-8
14-2 -1.5% 14-3 -1.5% 14-6 -5.8% 14-7
14-9 -0.5% 14-10
14-11 -4.2% 14-12

-1.2%
-0.5%
-1.5%
-0.6%
-5.5%

CS-5

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=28'
LONG CHORD(BOC)=12.52'
'XR' DISTANCE=13.27'

NORTH FRANKLIN AVE SHEET 14			
POINT NO.	STATION	OFFSET	ELEVATION
14-1	33+13.41	43.86' R	875.18
14-2	33+07.72	32.39' R	874.98
14-3	33+04.81	40.99' R	875.12
14-4	33+12.27	47.37' R	875.23
14-5	33+07.96	56.38' R	875.29
14-6	32+99.94	54.32' R	875.33
14-7	32+94.16	68.56' R	876.20
14-8	33+02.57	70.73' R	876.10
14-9	32+97.44	39.43' R	875.24
14-10	33+02.08	36.59' R	875.20
14-11	32+70.32	26.72' R	876.59
14-12	32+70.20	31.89' R	876.80

14 CURB RAMP DETAIL

UNIVERSITY AVE/N FRANKLILN AVE (SE QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE NORTH FRANKLIN AVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 14 - UNVERSITY AVENUE/N. FRANKLIN AVENUE - SE QUAD	SHEET 14

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 14
PLOT DATE : 8/17/2021 3:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

UNIVERSITY BAY DRIVE

CITY OF MADISON (STORM SEWER)

CITY OF MADISON (STORM SEWER)

CITY OF MADISON SIGNALS (FIBER OPTIC)

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=22'
LONG CHORD(BOC)=16.64'
'XR' DISTANCE=13.14'

CITY OF MADISON (STORM SEWER)

OVERLOOK TERRACE

PRW

EXISTING R/W

TLE

CS-5

SLOPE INTERCEPT (TYP.)

-3.3% -8.2% -8.2% -8.2%

-1.5% -1.5% -1.5% -1.5%

-1.7% -8.2% -8.2% -8.2% -8.2%

-1.3%

-0.9% -2.0% -8.3% -6.7% -5.8%

-1.5% -1.5% -1.5% -1.5% -5.5%

15-1 15-2 15-3 15-4 15-5 15-6 15-7 15-8 15-9 15-10 15-11 15-12 15-13 15-14 15-15 15-16 15-17 15-18 15-19

N

UNIVERSITY BAY DR SHEET 15			
POINT NO.	STATION	OFFSET	ELEVATION
15-1	23+50.44	37.78' R	885.80
15-2	23+62.07	26.87' R	886.09
15-3	23+63.55	31.83' R	886.00
15-4	23+54.52	37.78' R	885.84
15-5	23+52.43	42.40' R	885.92
15-6	23+48.19	52.12' R	886.51
15-7	23+53.41	53.68' R	886.60
15-8	23+57.27	45.09' R	886.04
15-9	23+59.40	40.50' R	885.96
15-10	23+62.50	42.39' R	886.29

UNIVERSITY BAY DR SHEET 15			
POINT NO.	STATION	OFFSET	ELEVATION
15-11	23+60.49	46.87' R	886.31
15-12	23+67.60	31.85' R	886.36
15-13	23+67.63	25.86' R	886.28
15-14	23+73.16	31.89' R	886.85
15-15	23+73.26	25.89' R	885.77
15-16	23+78.71	31.92' R	887.34
15-17	23+78.90	25.92' R	887.26
15-18	23+84.27	31.95' R	887.84
15-19	23+84.54	25.95' R	887.76

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

15 CURB RAMP DETAIL

UNIVERSITY BAY DR./OVERLOOK TERRACE (NE QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 15 - UNVERSITY BAY DRIVE/OVERLOOK TERRACE - NE QUAD	SHEET 15

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 15
PLOT DATE : 8/17/2021 3:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

N

16 CURB RAMP DETAIL

UNIVERSITY BAY DR./OVERLOOK TERRACE
(SE QUAD)

UNIVERSITY BAY DR SHEET 16			
POINT NO.	STATION	OFFSET	ELEVATION
16-1	23+18.18	41.73' R	884.69
16-2	23+11.21	31.55' R	884.41
16-3	23+07.08	31.50' R	884.50
16-4	23+07.06	36.50' R	884.55
16-5	23+11.65	36.55' R	884.51
16-6	23+11.57	41.55' R	884.54
16-7	23+07.04	41.50' R	884.60
16-10	22+97.21	31.50' R	884.98
16-11	22+97.21	41.50' R	884.88

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

UNIVERSITY BAY DRIVE
CITY OF MADISON SIGNALS (FIBER OPTIC)
MG&E (ELEC)
MG&E (GAS)
REESTECH (FIBER OPTIC)
EXISTING R/W
CITY OF MADISON (STORM SEWER)
CITY OF MADISON SIGNALS (FIBER OPTIC)
16-10
16-11
16-2
16-3
16-4
16-5
16-6
16-7
16-1
-8.0%
-2.0%
-1.5%
-1.0%
-0.8%
-7.5%
-1.2%
-0.6%
-7.4%
-6.8%
CS-5
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=22'
LONG CHORD(BOC)=12.71'
'XR' DISTANCE=11.78'
PRW
SLOPE INTERCEPT (TYP.)
27-5
27-1
SEE CURB RAMP DETAIL 27 FOR SIDEWALK DETAILS ALONG OVERLOOK TERRACE
OVERLOOK TERRACE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 16 - UNVERSITY BAY DRIVE/OVERLOOK TERRACE - SE QUAD	SHEET 16	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 16
PLOT DATE : 8/17/2021 3:37 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

WISCONSIN & SOUTHERN RAILROAD

TLE

EXISTING R/W

CITY OF MADISON (STORM SEWER)

AT&T (FIBER OPTIC)

MMSD (SANITARY)

CITY OF MADISON (WATER)

ATC (ELEC)

R/W

CITY OF MADISON LIGHTING (OH)

SLOPE INTERCEPT (TYP.)

18-1 18-2 18-3 18-4

17-1 17-2 17-3 17-4 17-5 17-6

-4.6%

-4.4%

CS-5

8

N

MG&E (ELEC)

CITY OF MADISON (ELEC)

MG&E (ELEC)

MG&E (GAS)

CITY OF MADISON (WATER)

MG&E (GAS)

UNIVERSITY BAY DRIVE

17 CURB RAMP DETAIL

UNIVERSITY BAY DR./WISCONSIN & SOUTHERN RAILROAD (WEST SIDE)

UNIVERSITY BAY DR SHEET 17			
POINT NO.	STATION	OFFSET	ELEVATION
17-1	21+71.30	51.40' L	878.04
17-2	21+71.30	46.40' L	877.96
17-3	21+40.26	51.43' L	876.61
17-4	21+40.17	46.43' L	876.59
17-5	21+38.26	51.44' L	876.52
17-6	21+38.17	46.44' L	876.50

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

2

UNIVERSITY BAY DR SHEET 18			
POINT NO.	STATION	OFFSET	ELEVATION
18-10	21+02.98	57.15' L	875.23
18-11	20+92.04	64.21' L	874.67
18-12	20+88.92	60.29' L	874.59
18-13	20+83.48	54.86' L	874.48
18-14	20+76.73	62.25' L	874.41
18-15	20+85.10	70.61' L	874.59
18-16	20+77.34	80.72' L	875.12
18-17	20+68.37	77.40' L	874.98

UNIVERSITY BAY DR SHEET 18			
POINT NO.	STATION	OFFSET	ELEVATION
18-1	21+25.84	51.45' L	875.93
18-2	21+24.49	46.45' L	875.93
18-3	21+23.02	51.47' L	875.93
18-4	21+18.85	46.60' L	875.93
18-5	21+18.04	51.68' L	875.93
18-6	21+16.73	46.79' L	875.93
18-7	21+04.77	56.26' L	875.32
18-8	21+02.64	51.75' L	875.29
18-9	21+00.85	52.63' L	875.20

18 CURB RAMP DETAIL

UNIVERSITY AVE/UNIVERSITY BAY DR.
(NW QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1, 1A, 2 AND 3.

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

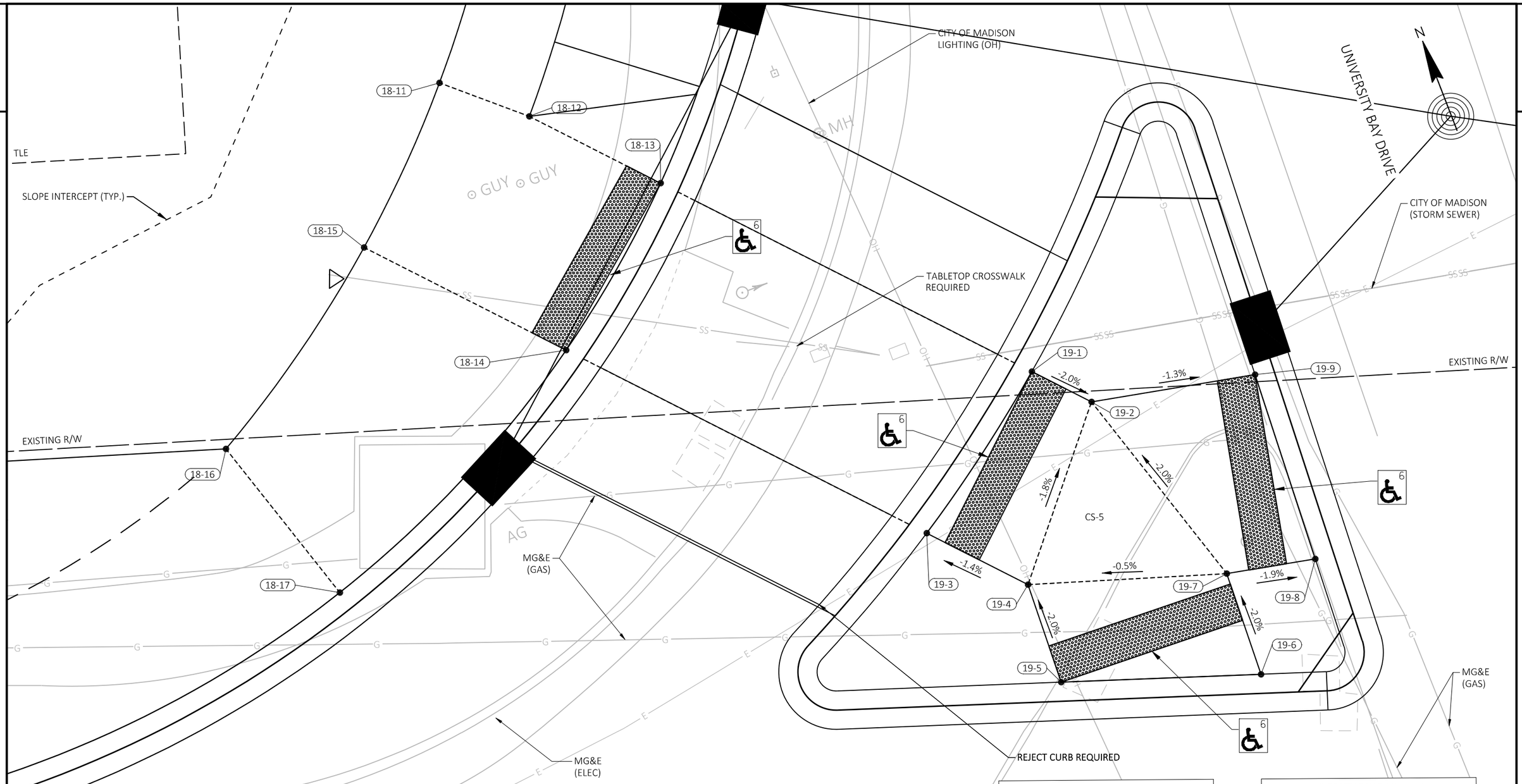
LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 18 - UNVERSITY AVENUE/UNIVERSITY BAY DRIVE. - NW QUAD	SHEET 18	107	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 18
PLOT DATE : 8/17/2021 3:37 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

2



NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

19 CURB RAMP DETAIL

UNIVERSITY AVE/N. UNIVERSITY BAY DRIVE
(WEST MEDIAN ISLAND)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

UNIVERSITY BAY DR SHEET 19			
POINT NO.	STATION	OFFSET	ELEVATION
19-1	20+68.12	39.51' L	875.17
19-2	20+65.66	37.05' L	875.10
19-3	20+61.81	47.34' L	875.20
19-4	20+57.62	43.16' L	875.28
19-5	20+52.25	43.09' L	875.39

UNIVERSITY BAY DR SHEET 19			
POINT NO.	STATION	OFFSET	ELEVATION
19-6	20+49.40	33.05' L	875.44
19-7	20+54.95	33.12' L	875.33
19-8	20+54.24	28.50' L	875.24
19-9	20+64.36	28.50' L	874.99

UNIVERSITY AVENUE WB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 19 - UNVERSITY AVENUE/UNIVERSITY BAY DRIVE - WEST MEDIAN	SHEET 19	108	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 19
PLOT DATE : 8/17/2021 3:37 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

UNIVERSITY AVENUE EB

CENTURYLINK (FIBER OPTIC)

CITY OF MADISON (WATER)

MG&E (GAS)

CITY OF MADISON LIGHTING (OH)

CITY OF MADISON (WATER)

MG&E (GAS)

CITY OF MADISON LIGHTING (OH)

CHARTER (OH)

20-1 20-2 20-3 20-4 20-5 20-6 20-7 20-8 20-9 20-10 20-12 20-13 20-14 20-15 20-16 20-17 20-18 20-19

-1.5% -4.3% -3.2% -1.1% -1.4% -0.9% -1.5% -2.0% -1.5% -1.4% -1.5% -1.6% -0.8% -1.1% -1.5% -0.4% -1.5% -2.0% -5.7% -4.8% -1.5%

CS-5

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=33'
LONG CHORD(BOC)=9.92'
'XR' DISTANCE=9.86'

MG&E (ELEC)

FARLEY AVENUE

EXISTING R/W

SLOPE INTERCEPT (TYP.)

CENTURYLINK (FIBER OPTIC)

CITY OF MADISON (STORM SEWER)

CITY OF MADISON (ELEC)

CITY OF MADISON (FIBER OPTIC)

CITY OF MADISON (ELEC)

CITY OF MADISON (WATER)

MG&E (GAS)

MG&E (ELEC)

TLE

EXISTING R/W

TLE

N

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

20 CURB RAMP DETAIL

UNIVERSITY AVE/FARLEY AVE (SW QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE FARLEY AVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

FARLEY AVE SHEET 20			
POINT NO.	STATION	OFFSET	ELEVATION
20-1	15+11.22	49.04' L	875.79
20-2	15+07.67	39.15' L	875.96
20-3	15+07.98	49.15' L	875.84
20-4	15+01.27	49.36' L	876.13
20-5	14+97.56	39.46' L	876.28
20-6	14+94.72	31.87' L	876.21
20-7	14+92.97	27.19' L	876.13
20-8	14+91.56	23.43' L	876.05
20-9	14+82.01	20.74' L	876.13
20-10	14+83.41	24.50' L	876.21

FARLEY AVE SHEET 20			
POINT NO.	STATION	OFFSET	ELEVATION
20-12	14+73.41	24.51' L	876.78
20-13	14+73.42	29.51' L	876.86
20-14	14+85.29	29.50' L	876.29
20-15	14+87.23	34.68' L	876.37
20-16	14+90.08	42.27' L	876.40
20-17	14+93.78	52.16' L	876.24
20-18	14+99.40	67.15' L	876.42
20-19	15+06.89	64.34' L	876.31

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 20 - UNVERSITY AVENUE/FARLEY AVENUE - SW QUAD	SHEET 20

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 20

PLOT DATE : 8/17/2021 3:38 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

UNIVERSITY BAY DRIVE

WISDOT
(FIBER OPTIC)

UNKNOWN
(FIBER OPTIC)

EXISTING RW

CITY OF MADISON
(STORM SEWER)

MMSD
(SANITARY)

MG&E
(ELEC)

CITY OF MADISON
SIGNALS
(FIBER OPTIC)

21-9 21-8 21-5 21-3 21-1

-0.3% -1.9%

-1.5% -1.5%

CS-5 CS-5

21-7 21-6 21-4 21-2

-1.5% -2.5%

21-10

SLOPE INTERCEPT (TYP.)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B AND 8.

WISCONSIN & SOUTHERN RAILROAD

CITY OF MADISON
LIGHTING (OH)

ATC (ELEC)

TLE

N

2

21 CURB RAMP DETAIL

UNIVERSITY BAY DR./WISCONSIN &
SOUTHERN RAILROAD (EAST SIDE)

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

UNIVERSITY BAY DR SHEET 21			
POINT NO.	STATION	OFFSET	ELEVATION
21-1	21+19.70	33.75' R	876.11
21-2	21+19.70	43.75' R	876.26
21-3	21+02.76	33.75' R	875.79
21-4	21+00.14	43.75' R	875.77
21-5	21+00.37	33.75' R	875.79
21-6	20+94.86	43.75' R	875.77
21-7	20+92.42	43.75' R	875.77
21-8	20+95.04	33.75' R	875.80
21-9	20+76.65	33.75' R	875.86
21-10	20+76.65	43.75' R	876.01

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 21 - UNVERSITY BAY DRIVE/WISCONSIN & SOUTHERN RAILROAD-EAST	SHEET 21	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 21
PLOT DATE : 8/24/2021 2:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

UNIVERSITY BAY DRIVE

21-10

21-9

CITY OF MADISON
SIGNALS
(FIBER OPTIC)

SLOPE INTERCEPT (TYP.)

-3.3%

-2.9%

22-14

-1.5%

-1.7%

CITY OF MADISON
(STORM SEWER)

-1.5%

22-1

22-3

CS-5

22-13

-4.8%

22-12

-1.3%

22-11

RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES:
RADIUS (BOC)=33'
LONG CHORD(BOC)=11.71'
'XR' DISTANCE=8.83'

-1.5%

-1.0%

EXISTING R/W

-1.5%

-1.5%

-1.3%

22-6

-2.8%

-0.9%

22-10

22-5

-4.9%

22-7

-3.2%

22-9

-1.5%

22-8

22-4

CITY OF MADISON
(STORM SEWER)

CITY OF MADISON
SIGNALS
(FIBER OPTIC)

UNIVERSITY AVENUE WB

UNIVERSITY BAY DR SHEET 22			
POINT NO.	STATION	OFFSET	ELEVATION
22-1	20+54.75	34.79' R	875.22
22-3	20+55.74	28.28' R	875.12
22-4	20+44.94	32.79' R	875.31
22-5	20+30.81	63.50' R	875.79
22-6	20+43.74	40.68' R	875.41
22-7	20+35.28	53.37' R	875.84
22-8	20+30.54	53.50' R	875.69
22-9	20+27.69	63.58' R	875.74
22-10	20+32.81	63.44' R	875.93
22-11	20+42.88	63.17' R	876.08
22-12	20+44.78	56.49' R	875.99
22-13	20+50.27	48.25' R	875.51
22-14	20+57.42	44.42' R	875.37

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

22 CURB RAMP DETAIL

UNIVERSITY AVE/N. UNIVERSITY BAY DR.
(NE QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 22 - UNVERSITY AVENUE/UNIVERSITY BAY DRIVE - NE QUAD	SHEET 22	111	E

2

UNIVERSITY BAY DRIVE

UNIVERSITY AVENUE WB

CITY OF MADISON
SIGNALS
(FIBER OPTIC)

23-1

23-2

23-3

CS-5

2.6%

2.6%

23-6

23-4

23-5

MH

CITY OF MADISON
(STORM SEWER)

CITY OF MADISON
(WATER)

AT&T
(TELE)

UNIVERSITY AVENUE EB

MMSD
(SANITARY)

CITY OF MADISON
(WATER)

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

23 CURB RAMP DETAIL

UNIVERSITY AVE/N. UNIVERSITY BAY DRIVE
(EAST ISLAND MEDIAN)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

UNIVERSITY AVE EB SHEET 23			
POINT NO.	STATION	OFFSET	ELEVATION
23-1	166+67.81	15.00' L	876.23
23-2	166+78.29	15.00' L	876.23
23-3	166+68.75	12.01' L	876.31
23-4	166+71.36	3.68' L	876.54
23-5	166+82.26	2.33' L	876.61
23-6	166+80.90	6.67' L	876.48

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY AVENUE EB R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

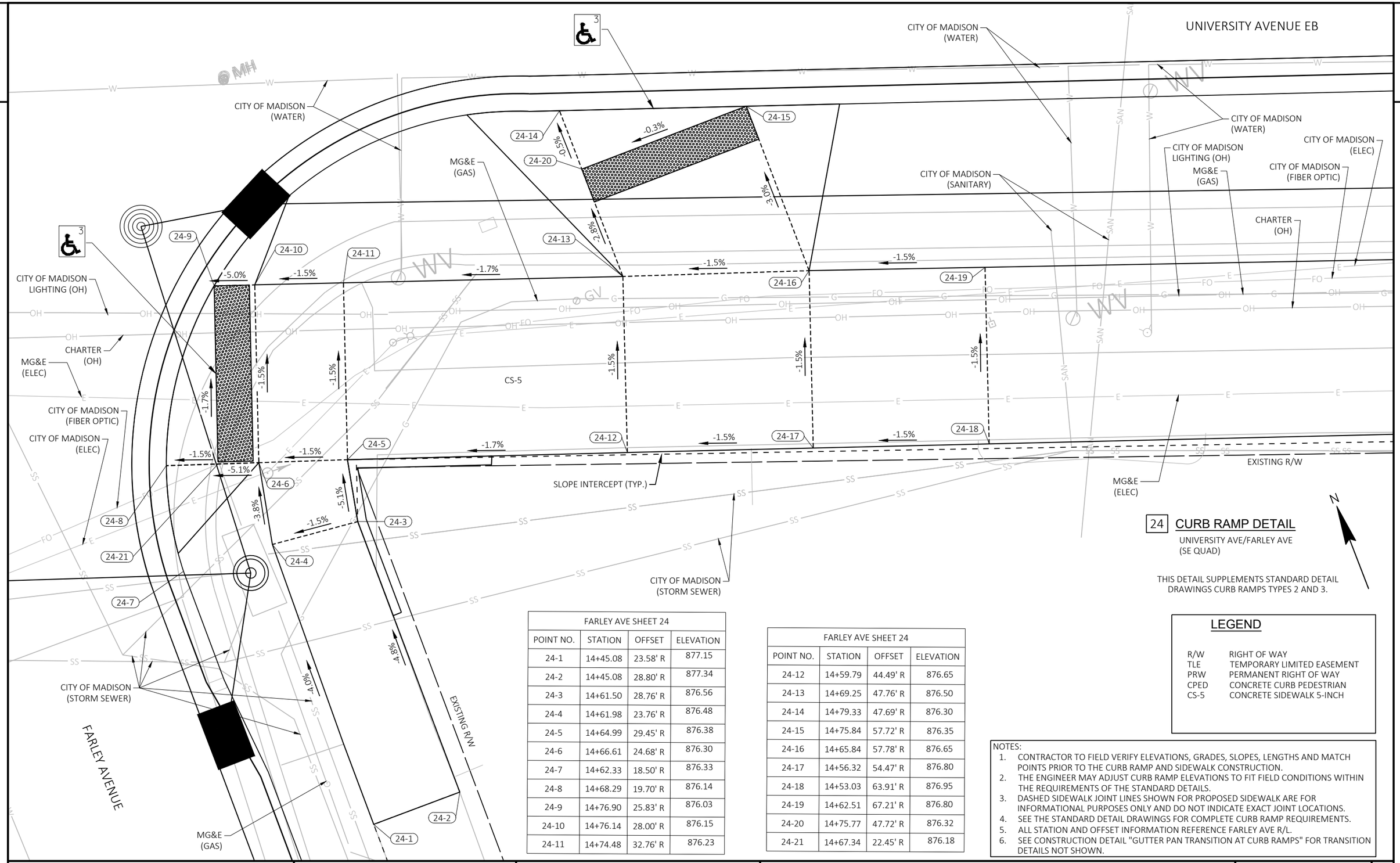
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 23 - UNVERSITY AVENUE/UNIVERSITY BAY DRIVE - EAST MEDIAN ISLAND	SHEET 23

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 23
PLOT DATE : 8/17/2021 3:39 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

UNIVERSITY AVENUE EB



24 CURB RAMP DETAIL

UNIVERSITY AVE/FARLEY AVE
(SE QUAD)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

FARLEY AVE SHEET 24			
POINT NO.	STATION	OFFSET	ELEVATION
24-1	14+45.08	23.58' R	877.15
24-2	14+45.08	28.80' R	877.34
24-3	14+61.50	28.76' R	876.56
24-4	14+61.98	23.76' R	876.48
24-5	14+64.99	29.45' R	876.38
24-6	14+66.61	24.68' R	876.30
24-7	14+62.33	18.50' R	876.33
24-8	14+68.29	19.70' R	876.14
24-9	14+76.90	25.83' R	876.03
24-10	14+76.14	28.00' R	876.15
24-11	14+74.48	32.76' R	876.23

FARLEY AVE SHEET 24			
POINT NO.	STATION	OFFSET	ELEVATION
24-12	14+59.79	44.49' R	876.65
24-13	14+69.25	47.76' R	876.50
24-14	14+79.33	47.69' R	876.30
24-15	14+75.84	57.72' R	876.35
24-16	14+65.84	57.78' R	876.65
24-17	14+56.32	54.47' R	876.80
24-18	14+53.03	63.91' R	876.95
24-19	14+62.51	67.21' R	876.80
24-20	14+75.77	47.72' R	876.32
24-21	14+67.34	22.45' R	876.18

LEGEND

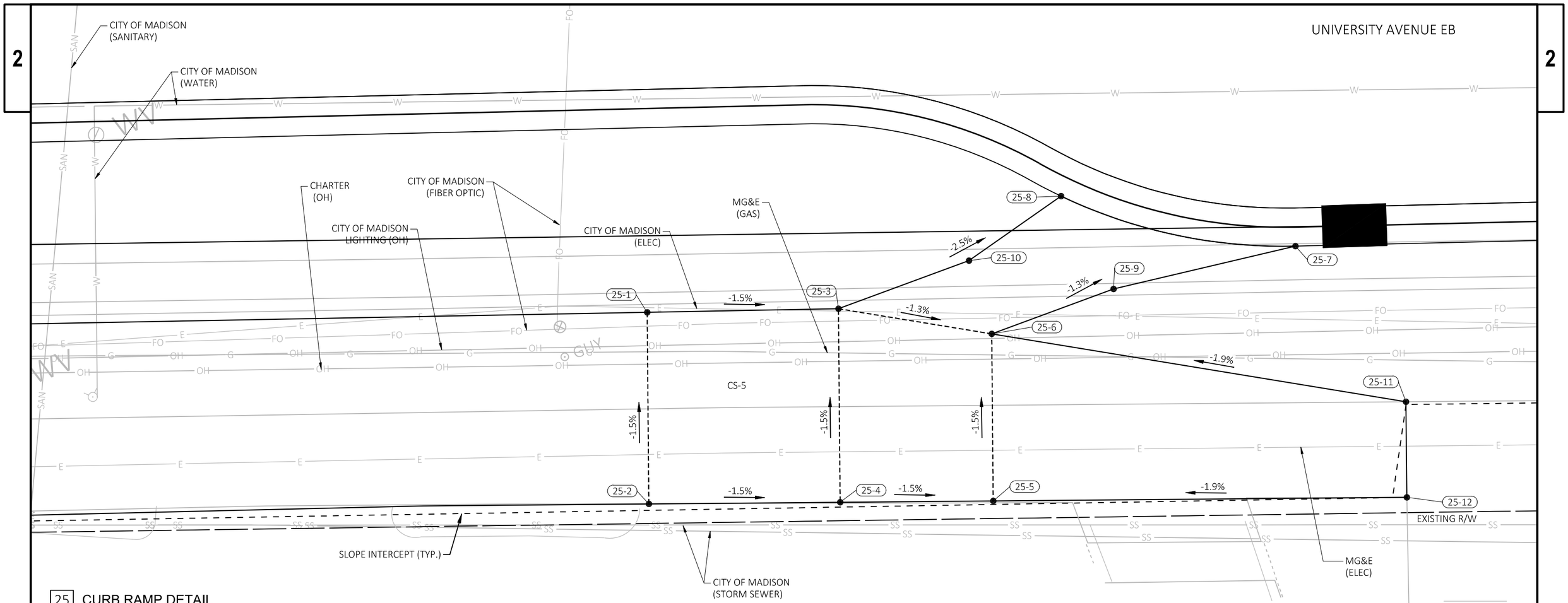
R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE FARLEY AVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 24 - UNVERSITY AVENUE/FARLEY AVENUE - SE QUAD	SHEET 24

E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 24
PLOT DATE : 8/24/2021 2:56 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



25 CURB RAMP DETAIL

UNIVERSITY AVE (SOUTH SIDE)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 2 AND 3.

LEGEND

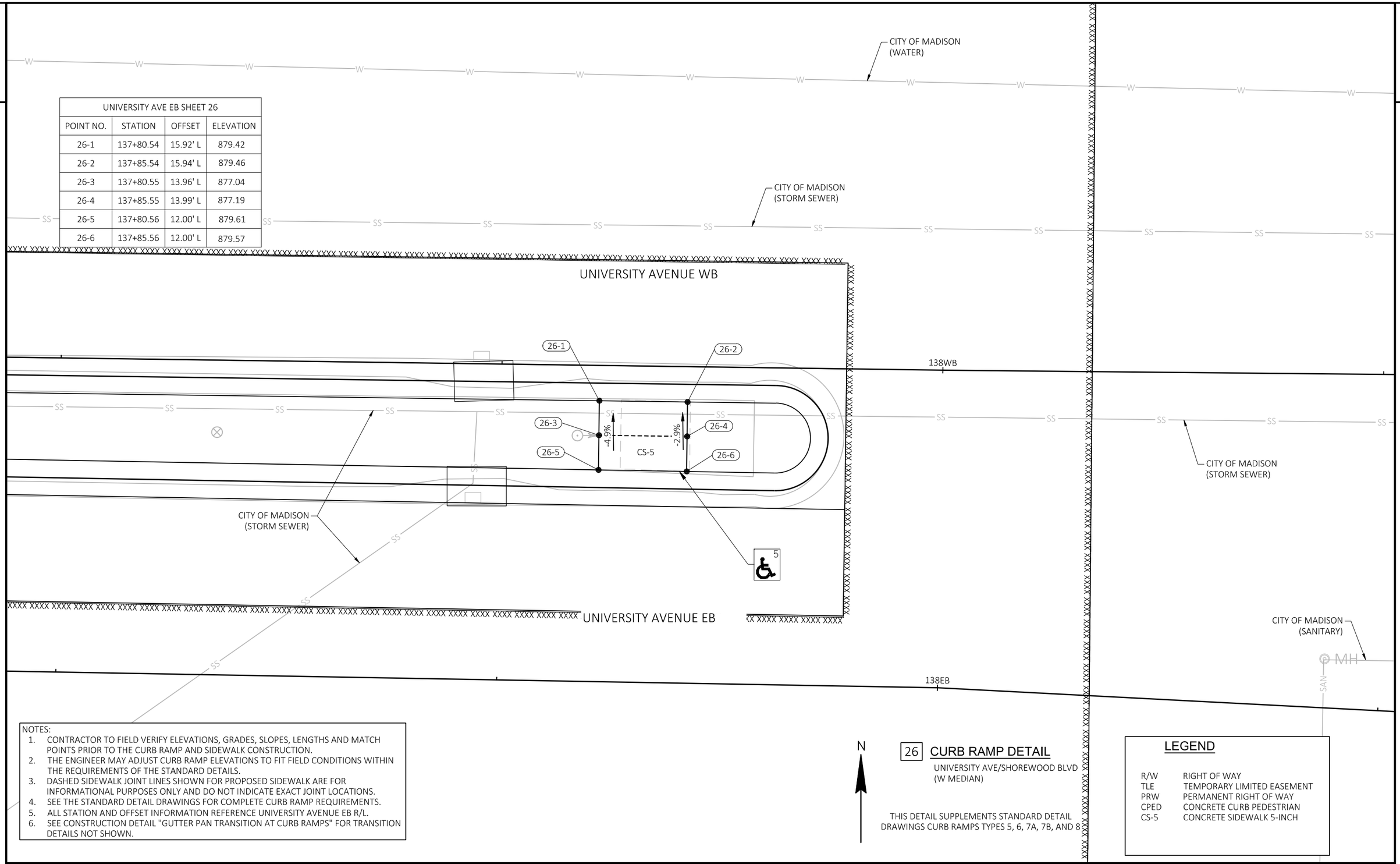
R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY AVENUE EB R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

UNIVERSITY AVE EB SHEET 25

POINT NO.	STATION	OFFSET	ELEVATION
25-1	167+45.43	43.16' R	877.19
25-2	167+45.28	53.18' R	877.34
25-3	167+55.43	43.21' R	877.04
25-4	167+55.28	53.33' R	877.19
25-5	167+63.28	53.45' R	877.07
25-6	167+63.41	44.71' R	876.94
25-7	167+79.39	40.50' R	876.73
25-8	167+67.20	37.59' R	876.71
25-9	167+69.83	42.51' R	876.85
25-10	167+62.31	40.85' R	876.86
25-11	167+84.97	48.77' R	877.35
25-12	167+84.90	53.77' R	877.47

UNIVERSITY AVE EB SHEET 26			
POINT NO.	STATION	OFFSET	ELEVATION
26-1	137+80.54	15.92' L	879.42
26-2	137+85.54	15.94' L	879.46
26-3	137+80.55	13.96' L	877.04
26-4	137+85.55	13.99' L	877.19
26-5	137+80.56	12.00' L	879.61
26-6	137+85.56	12.00' L	879.57



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY AVENUE EB R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

N

26 CURB RAMP DETAIL

UNIVERSITY AVE/SHOREWOOD BLVD
(W MEDIAN)

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CURB RAMP DETAIL 26 - UNVERSITY AVENUE/SHOREWOOD BOULEVARD - W MEDIAN	SHEET 1	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\020203-PD-CURB RAMPS.DWG
LAYOUT NAME - 26
PLOT DATE : 8/17/2021 3:40 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO THE CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE UNIVERSITY BAY DRIVE R/L.
6. SEE CONSTRUCTION DETAIL "GUTTER PAN TRANSITION AT CURB RAMPS" FOR TRANSITION DETAILS NOT SHOWN.

27 CURB RAMP DETAIL

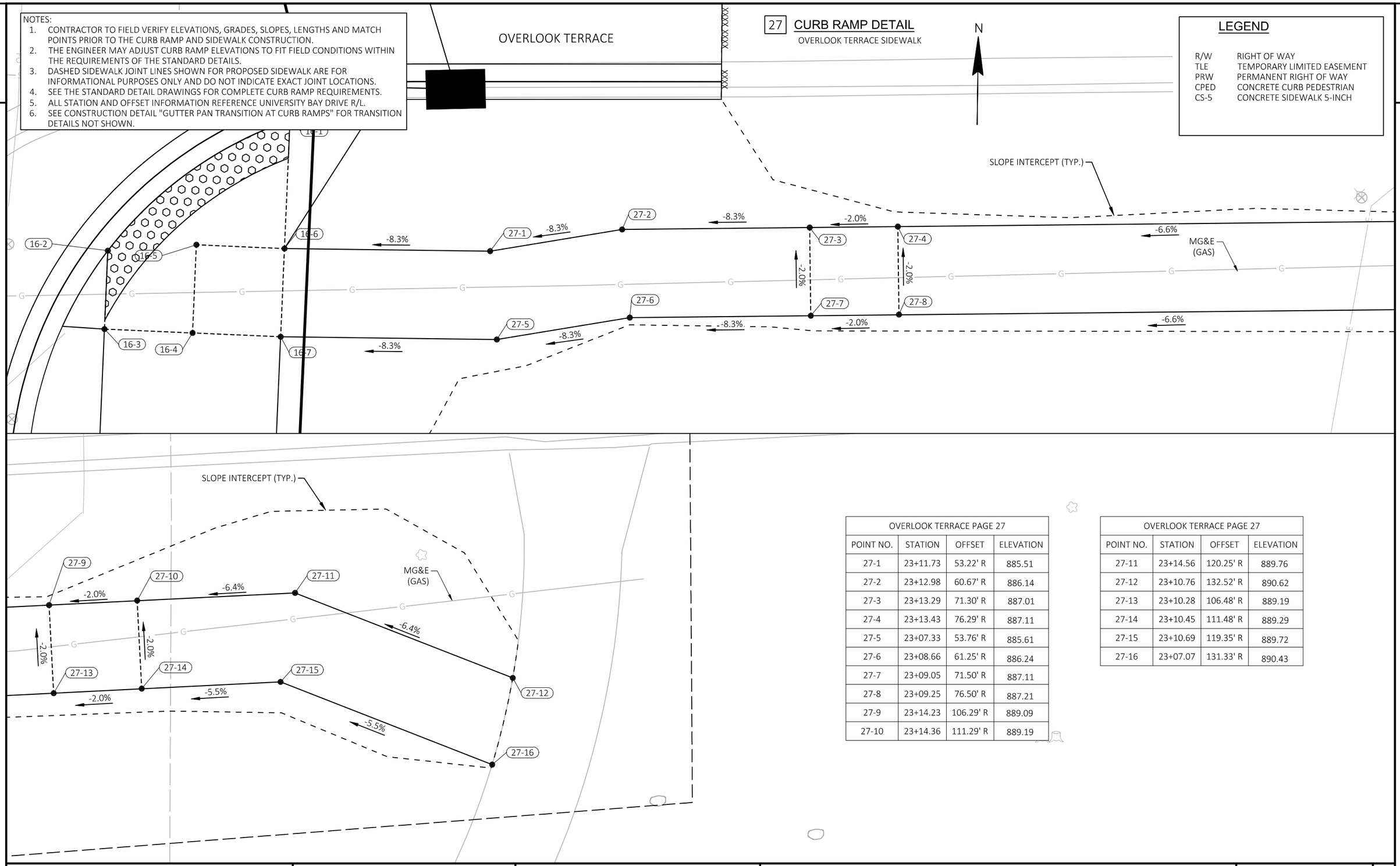
OVERLOOK TERRACE SIDEWALK

OVERLOOK TERRACE

N

LEGEND

R/W	RIGHT OF WAY
TLE	TEMPORARY LIMITED EASEMENT
PRW	PERMANENT RIGHT OF WAY
CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH



OVERLOOK TERRACE PAGE 27			
POINT NO.	STATION	OFFSET	ELEVATION
27-1	23+11.73	53.22' R	885.51
27-2	23+12.98	60.67' R	886.14
27-3	23+13.29	71.30' R	887.01
27-4	23+13.43	76.29' R	887.11
27-5	23+07.33	53.76' R	885.61
27-6	23+08.66	61.25' R	886.24
27-7	23+09.05	71.50' R	887.11
27-8	23+09.25	76.50' R	887.21
27-9	23+14.23	106.29' R	889.09
27-10	23+14.36	111.29' R	889.19

OVERLOOK TERRACE PAGE 27			
POINT NO.	STATION	OFFSET	ELEVATION
27-11	23+14.56	120.25' R	889.76
27-12	23+10.76	132.52' R	890.62
27-13	23+10.28	106.48' R	889.19
27-14	23+10.45	111.48' R	889.29
27-15	23+10.69	119.35' R	889.72
27-16	23+07.07	131.33' R	890.43

2

SHOREWOOD BLVD.

PETROLEUM IN SOIL:
> 4 FT BGS

PETROLEUM IN SOIL (GB4):
8-10 FT BGS

901 140+19.00WB, -18.9LT
11.25° HORIZ. BEND

138+48.82WB, -26.3LT
898
CONCRETE COLLAR
36-INCH SSPRC TO 12'X4' CONCRETE BOX

899 138+48.77WB, -11.0LT
CONNECT TO BOX

UNIVERSITY AVENUE WB

138+00WB
139+00WB
140+00WB
141+00WB
142+00WB
143+00WB
144+00WB

138+00EB
139+00EB
140+00EB
141+00EB
142+00EB
143+00EB
144+00EB

POTENTIAL TUNNELING ALIGNMENT

GB1

UNIVERSITY AVENUE EB

MATCH LINE STA 144+50.00EB

900 139+33.83WB, -3.1LT
MANHOLE SPECIAL
12'X4' BOX TO 96-INCH SSPRC

CINDERS > 4 FT BGS (GB3)

PETROLEUM IN SOIL (GB2):
2-5 FT BGS

HILL ST.

N

LEGEND

PETROLEUM SOIL CONTAMINATION

CINDERS OBSERVED IN FILL SOIL

15 LF SSPRC CLASS IV 36-INCH @ 0.59%

STORMSEWER TAP REQD
SEE STORMSEWER PLANS

107 LF 12' X 4' CONCRETE BOX CULVERT @ 0.00%

870.81

87 LF SSPRC CLASS III 96-INCH @
0.00%

866.81

STORMSEWER TAP REQD
36-INCH SSRC CLASS IV

POTENTIAL PETROLEUM
CONTAMINATED SOIL

POTENTIAL CINDERS

TOP OF BEDROCK
FROM BORINGS

STORMSEWER TAP REQD
SEE STORMSEWER PLANS

632 LF SSPRC ROCK CUT 96-INCH @ 0.00%

POTENTIAL PETROLEUM
CONTAMINATED SOIL

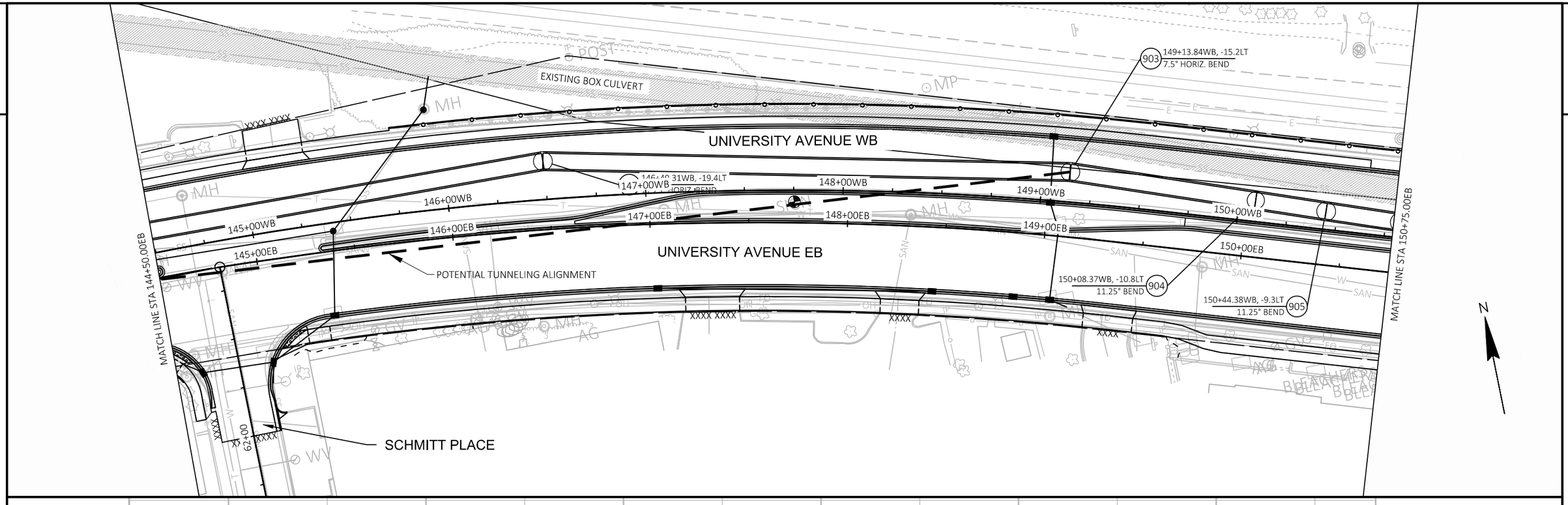
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAIL: STORMSEWER TRUNK LINE	SHEET 117	E

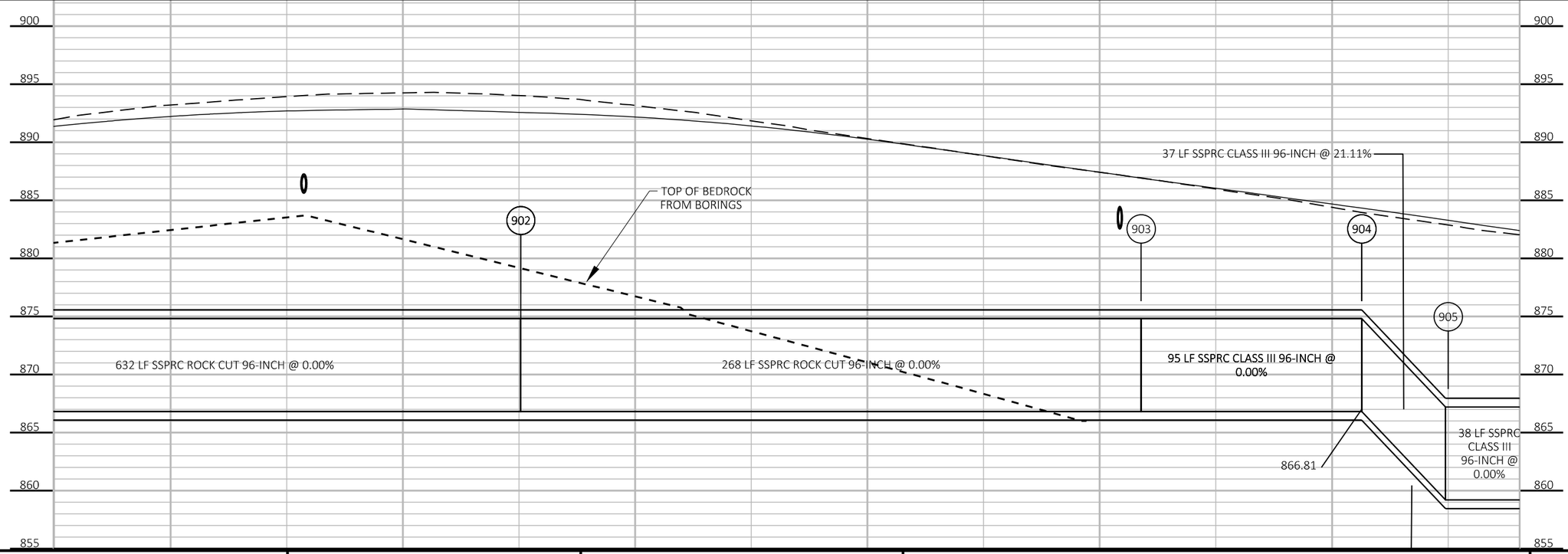
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER\022500-SS.DWG
LAYOUT NAME - SS138

PLOT DATE : 1/4/2022 8:05 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAIL: STORMSEWER TRUNK LINE	SHEET 118	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER\022500-SS.DWG
LAYOUT NAME - SS144+50

PLOT DATE : 10/15/2021 11:03 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:50 FT

MARSHALL COURT

PC: 50+90.84MC

PETROLEUM IN SOIL (GB12 & 13): >14 FT BGS
CINDERS: 0-5 BGS

CINDERS 0.5 - 5 FT (GB14)

151+70.33WB, -35.1LT
20.25^ HORIZ. BEND
907

EXISTING BOX CULVERT

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA 150+75.00EB

MATCH LINE STA 157+50.00EB

151+00WB | BP: 50+00.00MC | 152+00WB | 153+00WB | 155+00WB | 156+00WB | 157+00WB

151+00EB | EP: 42+80.15RS | 152+00EB | 153+00EB | 154+00EB | 155+00EB | 156+00EB | 157+00EB

906
150+82.08WB, -7.8LT
19.5° BEND

RIDGE ST.

PC: 41+89.56RS

POTENTIALLY VOC-CONTAMINATED GROUNDWATER.
DEWATERING TO SANITARY SEWER WITH MMSD
AND CITY OF MADISON PRE-APPROVAL REQUIRED

N

LEGEND

- GROUNDWATER CONTAMINATION
- PETROLEUM SOIL CONTAMINATION
- CINDERS OBSERVED IN FILL SOIL

POTENTIALLY VOC-CONTAMINATED GROUNDWATER.
DEWATERING TO SANITARY SEWER WITH MMSD AND
CITY OF MADISON PRE-APPROVAL REQUIRED

890
885
880
875
870
865
860
855
850
845

906

907

POTENTIAL CINDERS

VERIFY EXISTING BOTTOM OF EXISTING BOX CULVERT GRADE
AT CROSSING OF 96-INCH STORMSEWER BEFORE INSTALLING
96-INCH STORMSEWER FROM BEND AT 906 TO END

POTENTIAL CINDERS

92 LF SSPRC CLASS IV 96-INCH @
0.00%

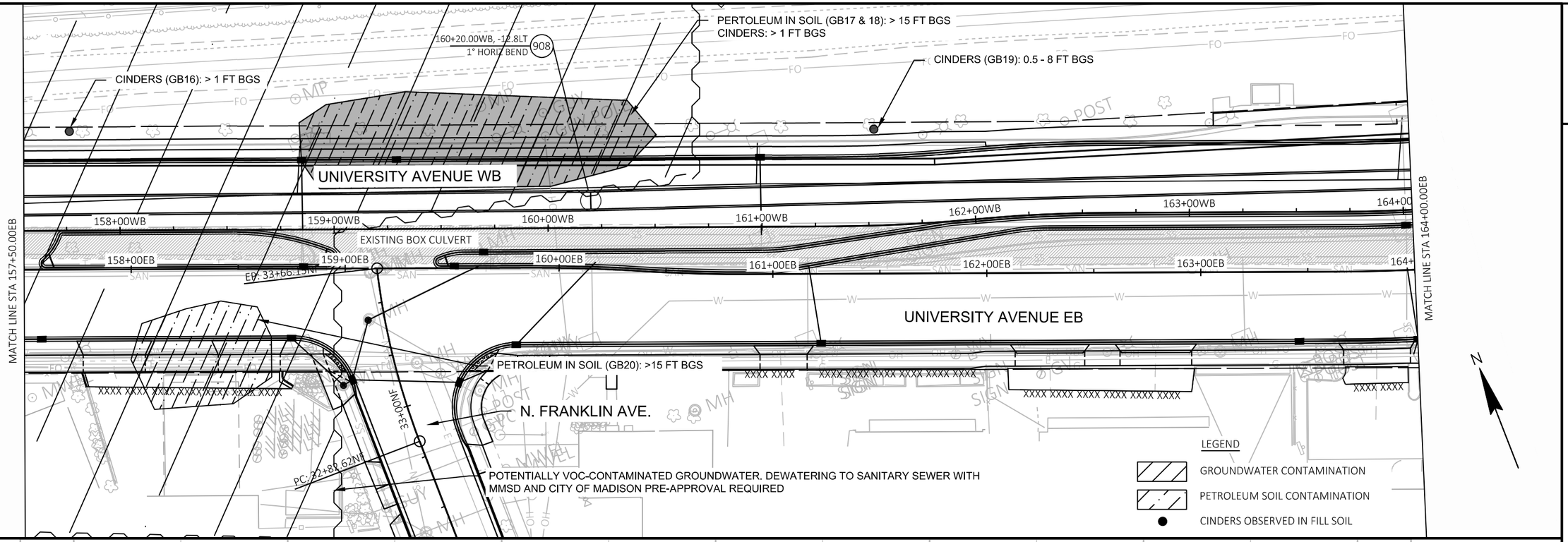
851 LF SSPRC CLASS III 96-INCH @ 0.00%

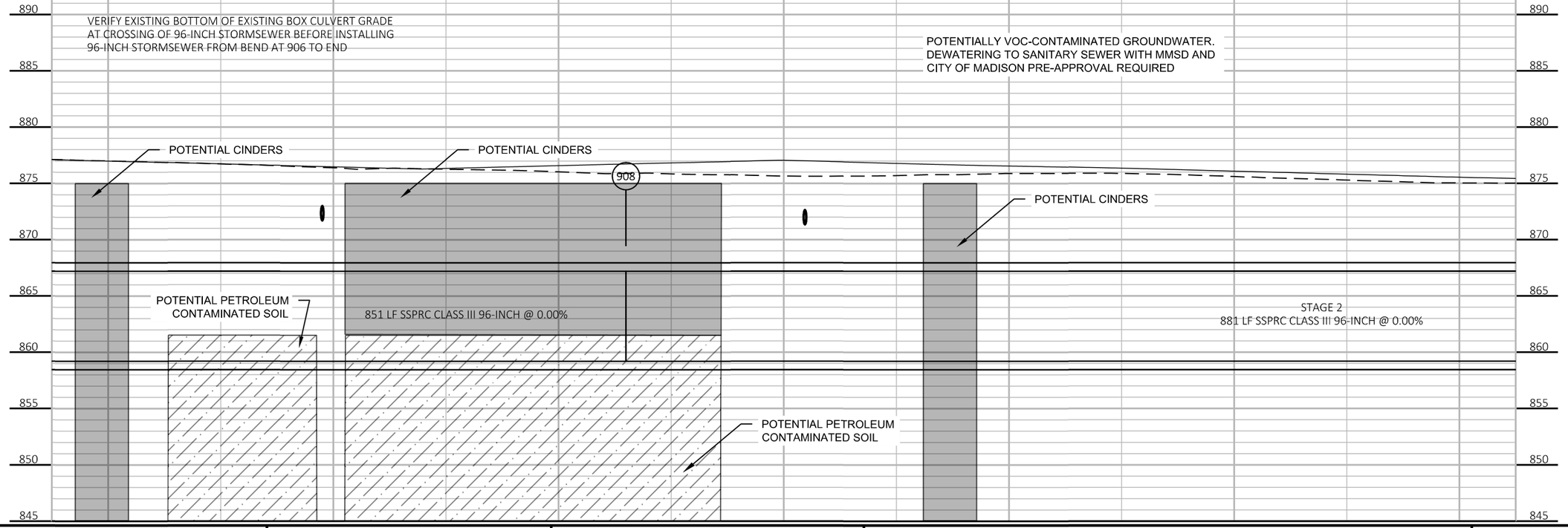
POTENTIAL PETROLEUM
CONTAMINATED SOIL

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAIL: STORMSEWER TRUNK LINE	SHEET 119	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER\022500-SS.DWG
LAYOUT NAME - SS151+00
PLOT DATE : 10/15/2021 11:03 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

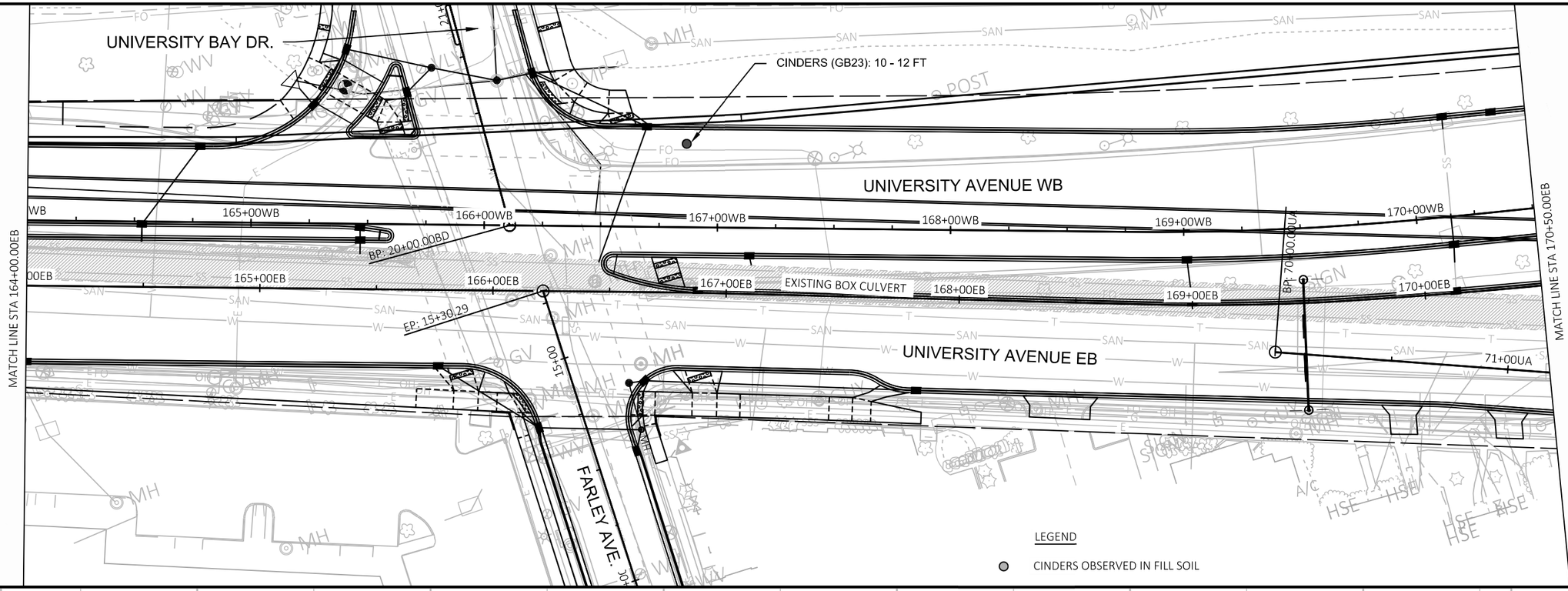
2



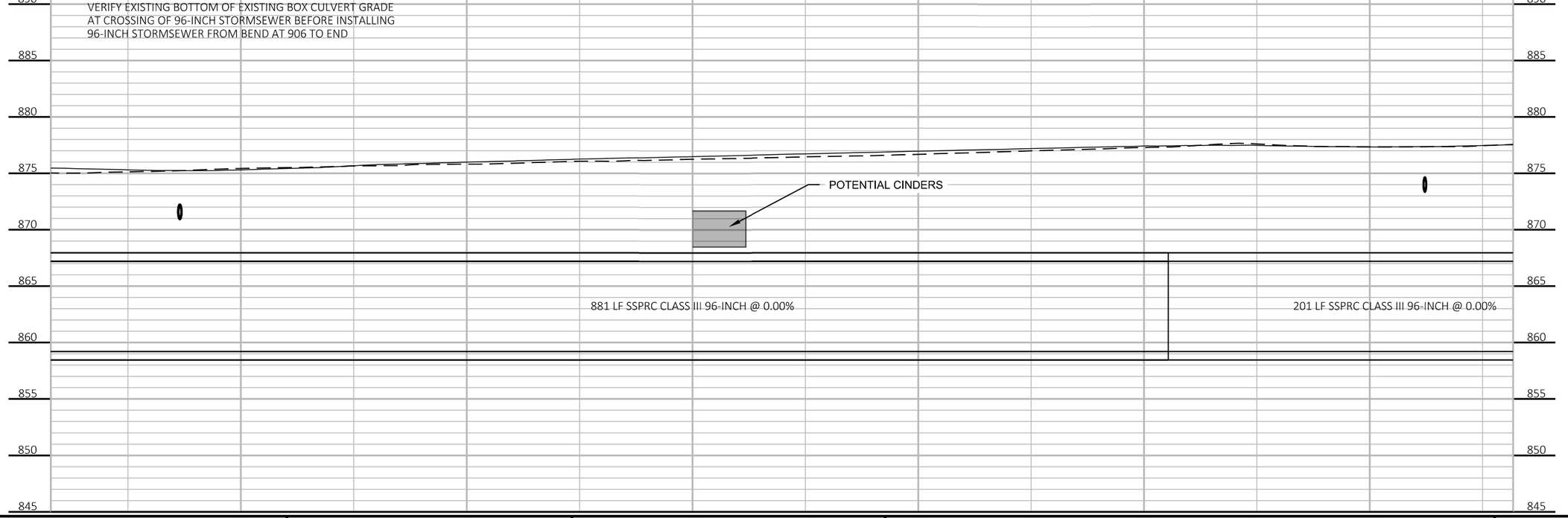


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAIL: STORMSEWER TRUNK LINE	SHEET 120	E

2



VERIFY EXISTING BOTTOM OF EXISTING BOX CULVERT GRADE AT CROSSING OF 96-INCH STORMSEWER BEFORE INSTALLING 96-INCH STORMSEWER FROM BEND AT 906 TO END

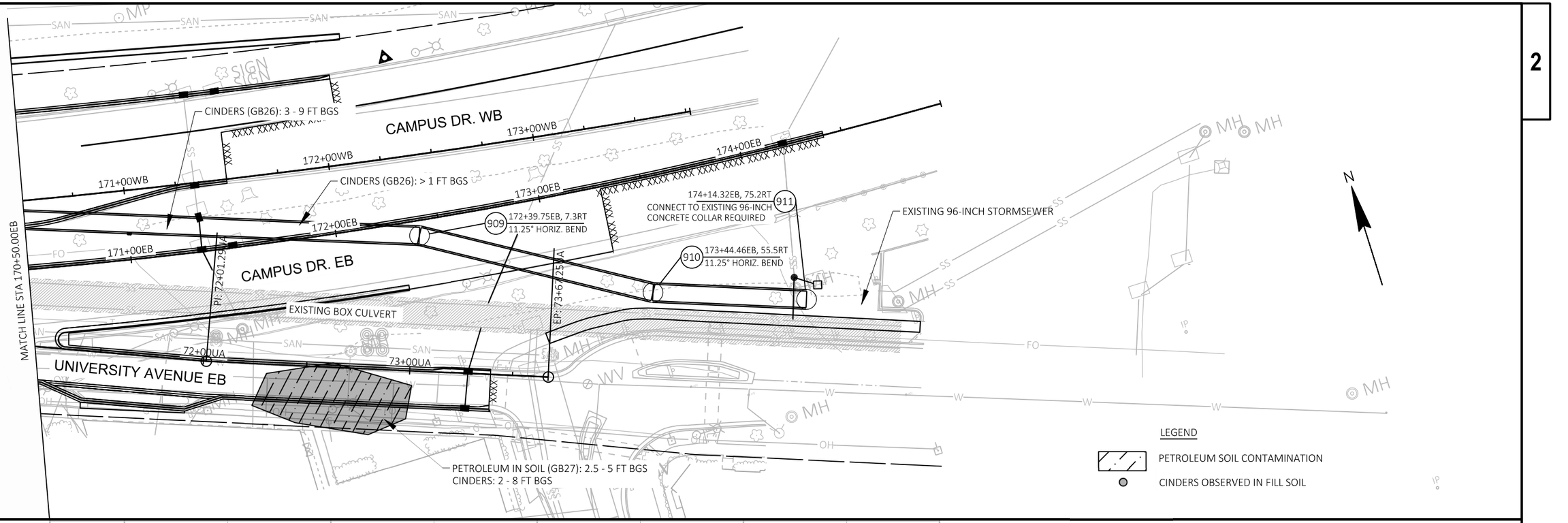


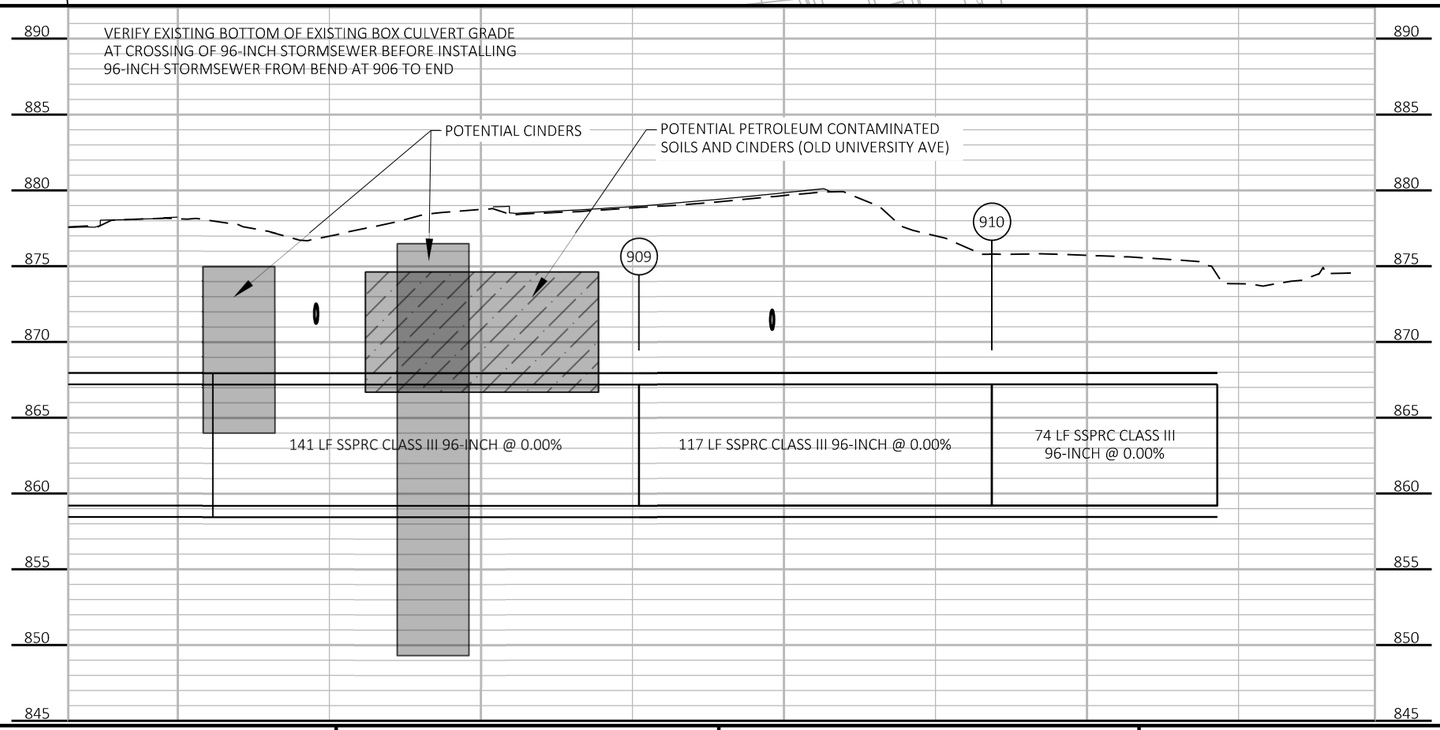
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAIL: STORMSEWER TRUNK LINE	SHEET 121	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER\022500-SS.DWG
LAYOUT NAME - SS164+00

PLOT DATE : 10/15/2021 11:04 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

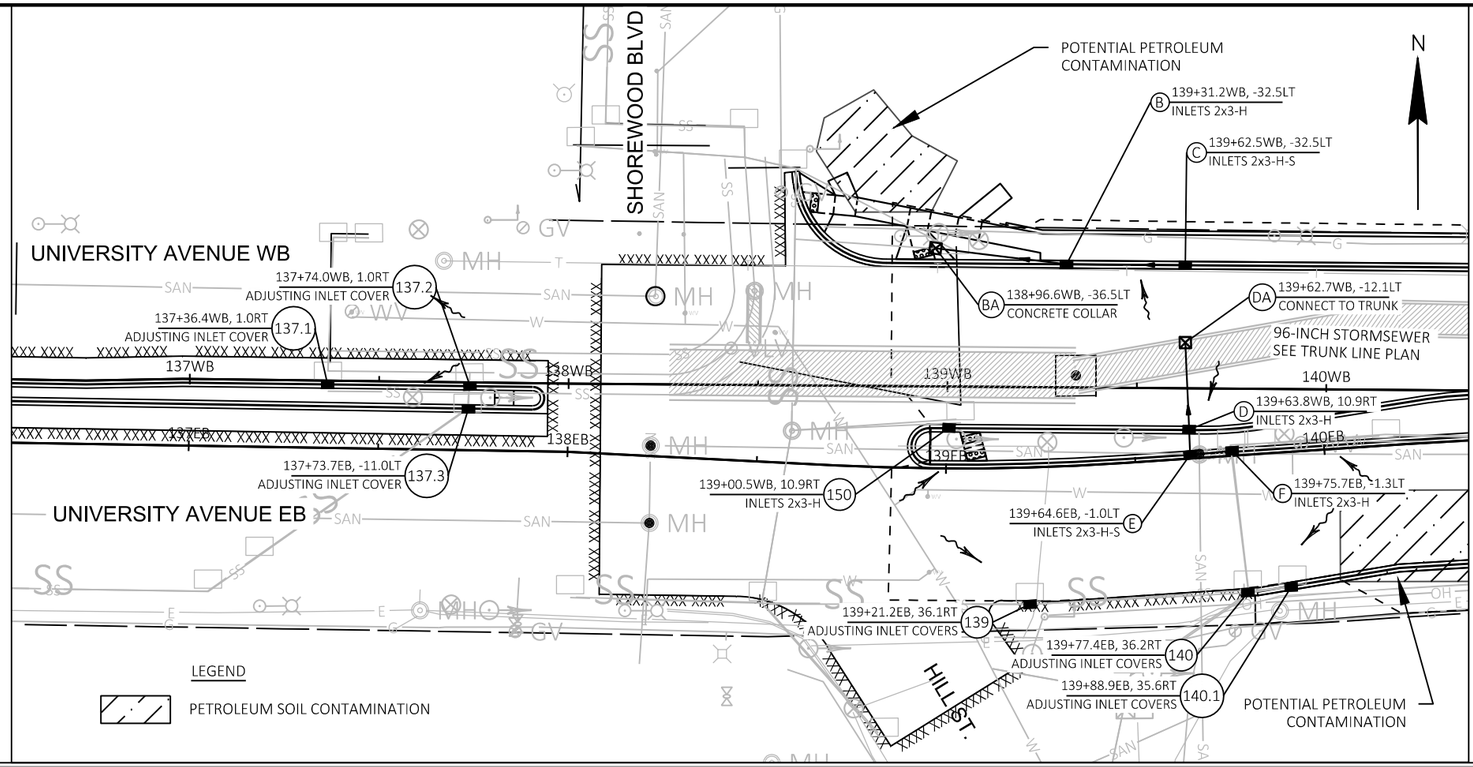




PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAIL: STORMSEWER TRUNK LINE	SHEET 122	E

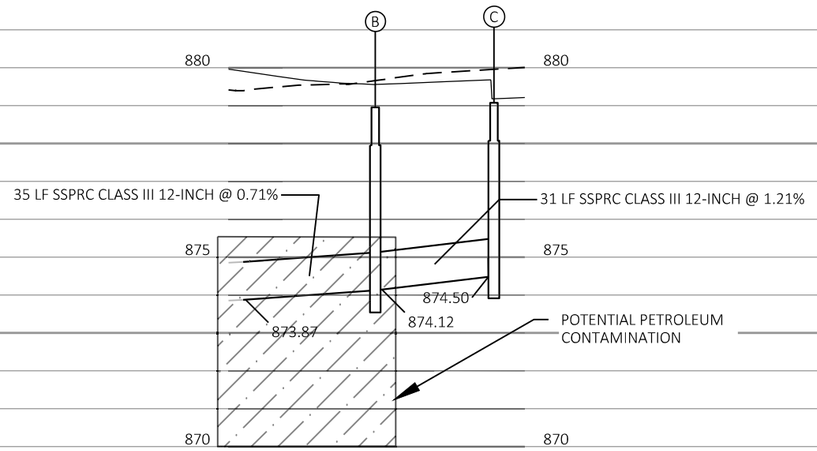
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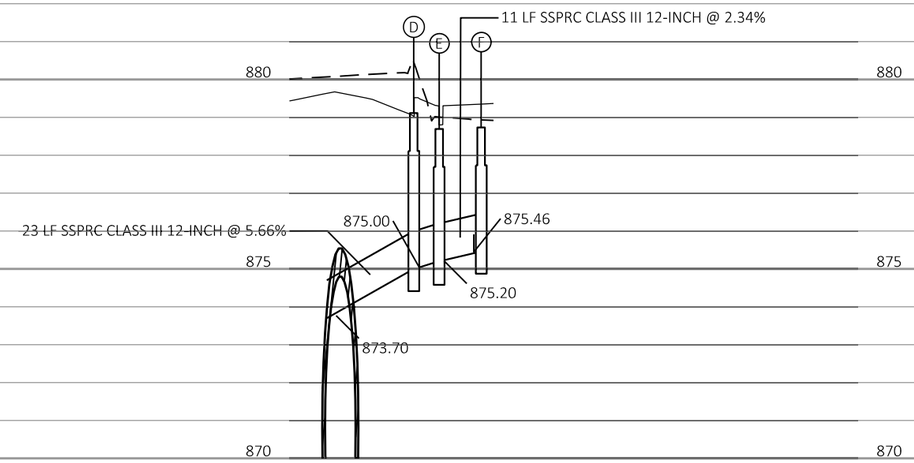
NOTE: ADJUST MANHOLE CASTINGS SO MANHOLE LIDS ARE AT A LANE LINE OR CENTER OF LANE



2

LEGEND
PETROLEUM SOIL CONTAMINATION





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 123	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER_SHEETS.DWG
LAYOUT NAME - SS00
PLOT DATE : 10/15/2021 10:39 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

141+03.6WB, -32.5LT
INLETS 2x3-H
141.1

141+03.3WB, -38.9LT
CONCRETE COLLAR
141.1A

141+04.3WB, -20.9LT
CONNECT TO TRUNK
141.1B

141+04.6WB, -15.9LT
CONNECT TO TRUNK
141.2A

141+05.7WB, 1.0RT
INLETS 2x3-H
141.2

141+06.6EB, -1.0LT
INLETS 2x3-H
141.3

141+24.2EB, 32.5RT
INLETS 2x3-H
141.4

141+10.0EB, 38.8RT
CONNECT TO PRIVATE 6-INCH SS
45° BEND REQUIRED
141.4A

142+58.7EB, 32.5RT
INLETS 2x3-H
141.5

STA 142+22EB, 32.9' RT
CONNECT 8-INCH
PRIVATE STORMSEWER
X

144+26.1WB, 2.6RT
INLETS 2x3-H
04

144+26.3EB, -1.0LT
INLETS 2x3-H
05

62+36.5S, -18.9LT
INLETS 2x3-H
08

145+40.4WB, 4.3RT
MANHOLES 6-J
03

145+35.4EB, 32.5RT
INLETS 4-FT DIA-H
06

62+34.7S, 17.2RT
INLETS 4-H
07

144+97.6WB, 75.9RT
CONCRETE COLLAR
CONNECT TO 12-INCH PVC
7A

145+96.9WB, -67.5LT
CONNECT TO BOX
02A

145+92.7WB, -50.9LT
MANHOLES 4-J
02

EXISTING CONCRETE BOX CULVERT

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

96-INCH STORMSEWER
SEE TRUNK LINE PLAN

141WB 142WB 143WB 144WB 145WB 146WB

141EB 142EB 143EB 144EB 145EB 146EB

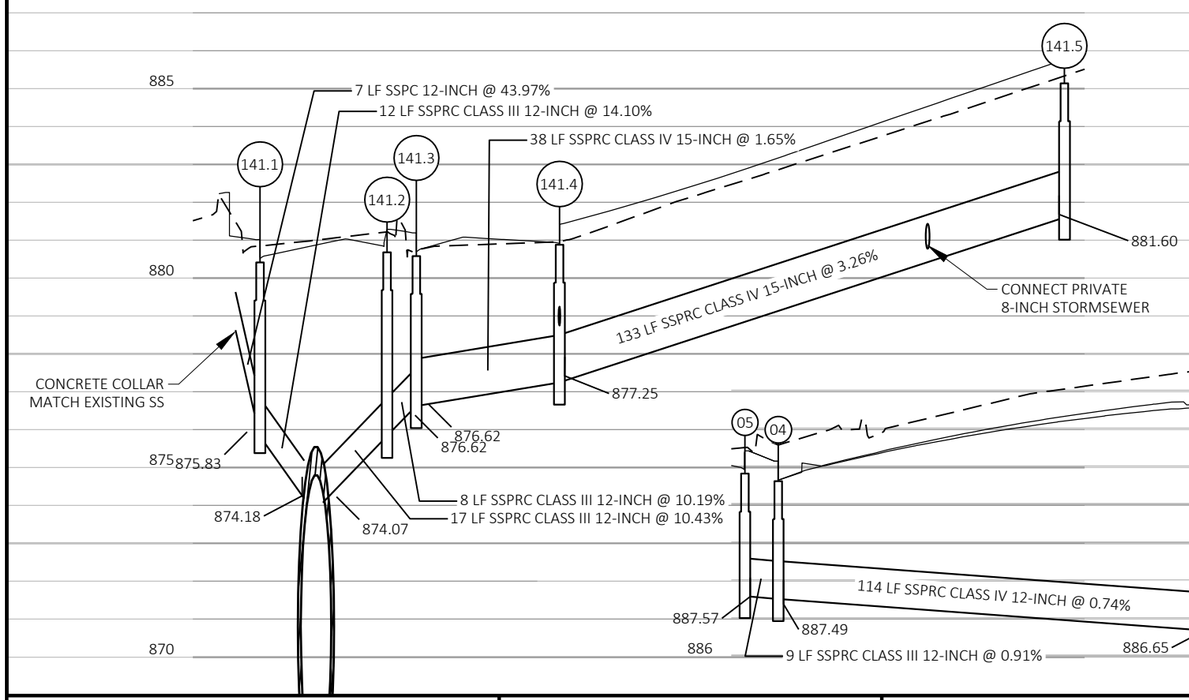
SCHMITT PLACE

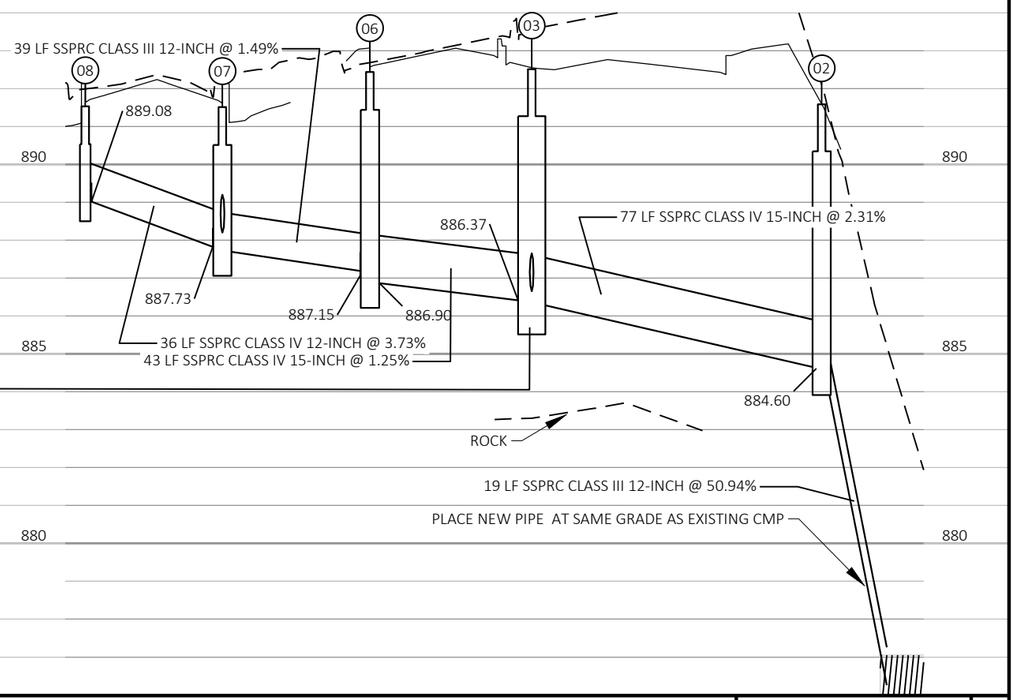
LEGEND

GROUNDWATER CONTAMINATION

PETROLEUM SOIL CONTAMINATION

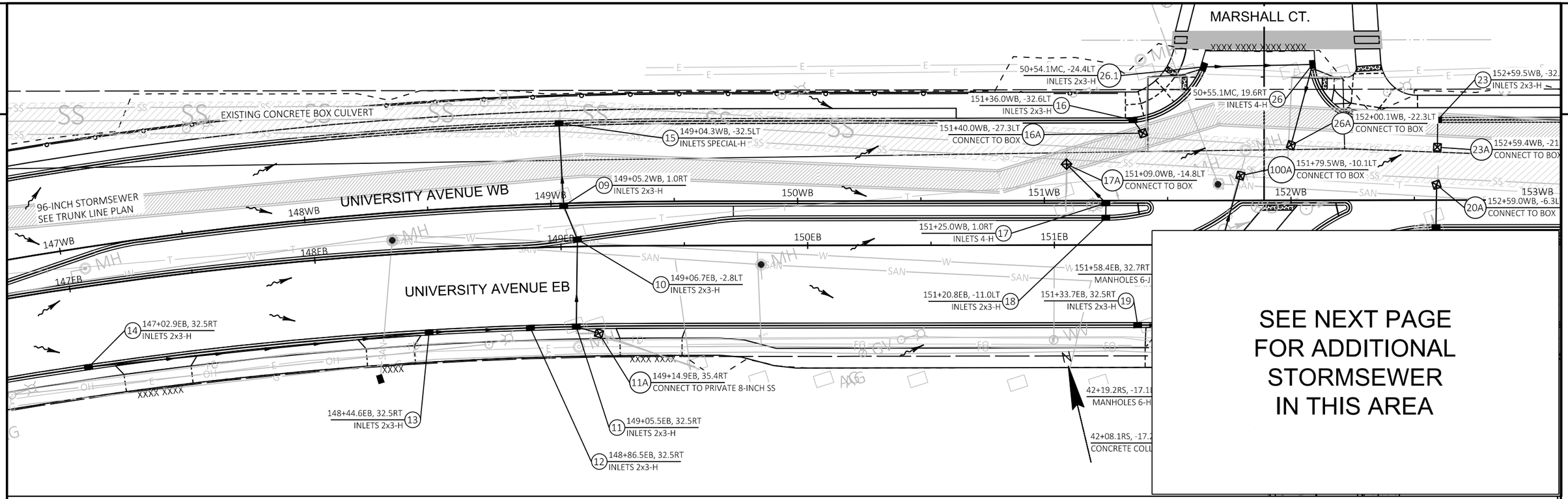
CINDERS OBSERVED IN FILL SOIL



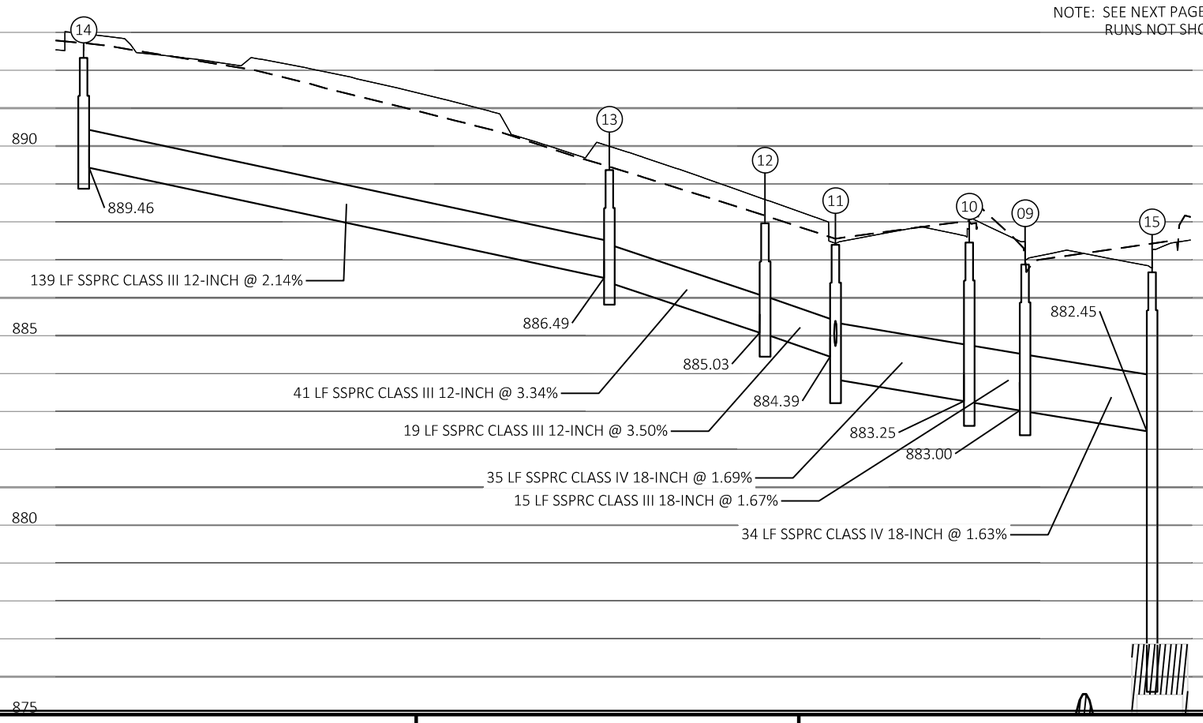


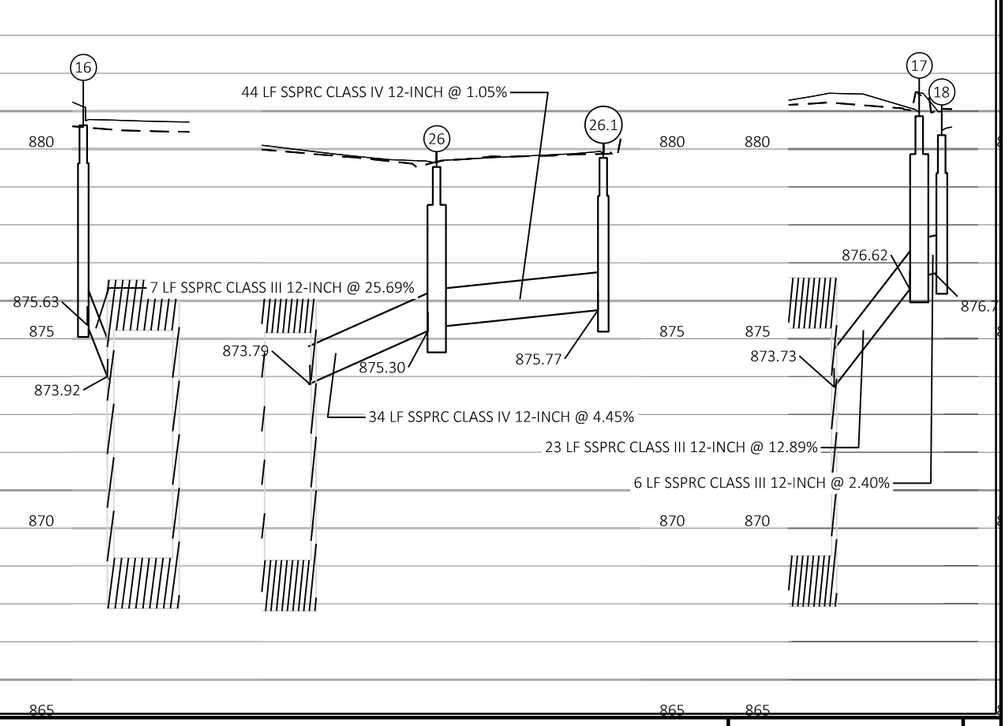
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 124	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER_SHEETS.DWG
LAYOUT NAME - SS01
PLOT DATE : 12/10/2021 9:18 AM
PLOT BY : JON BLOMQUIST
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



NOTE: SEE NEXT PAGE FOR PROFILE RUNS NOT SHOWN BELOW.

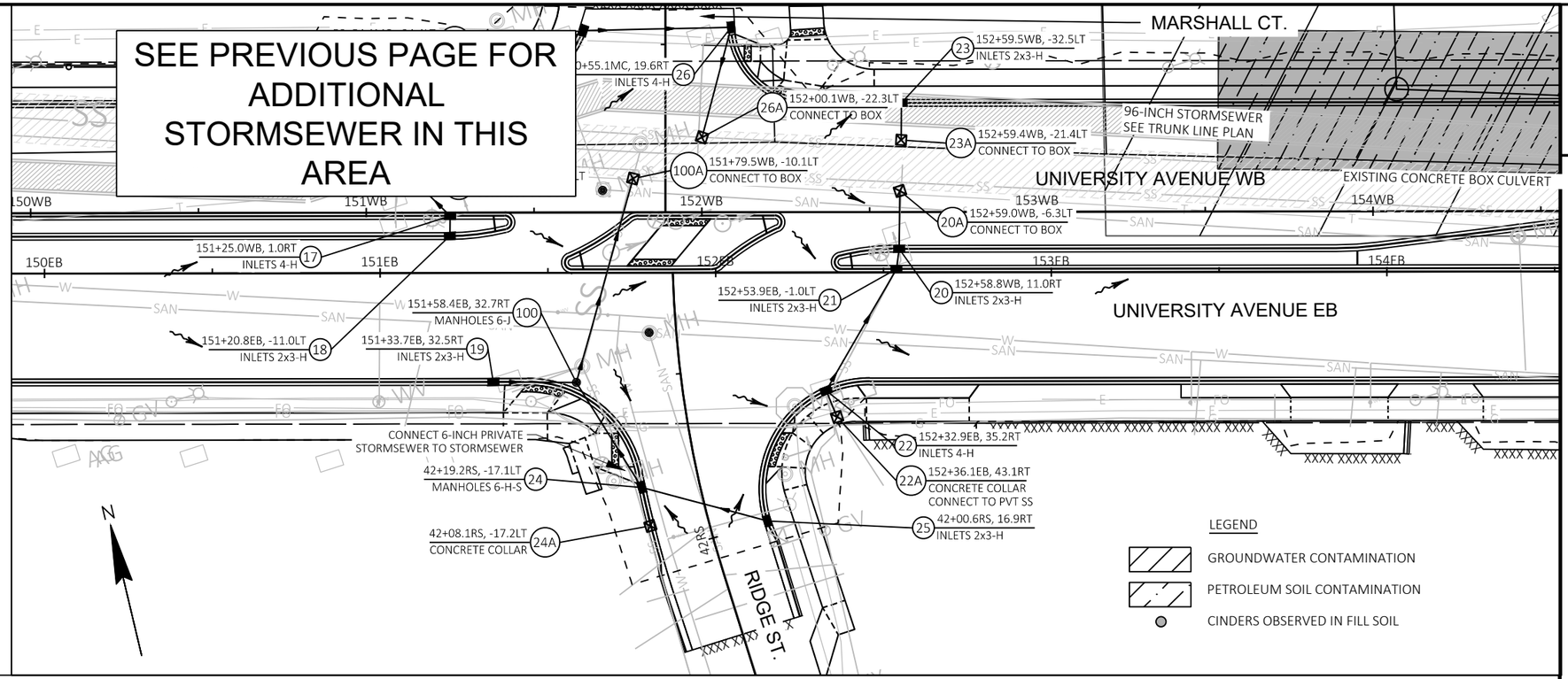




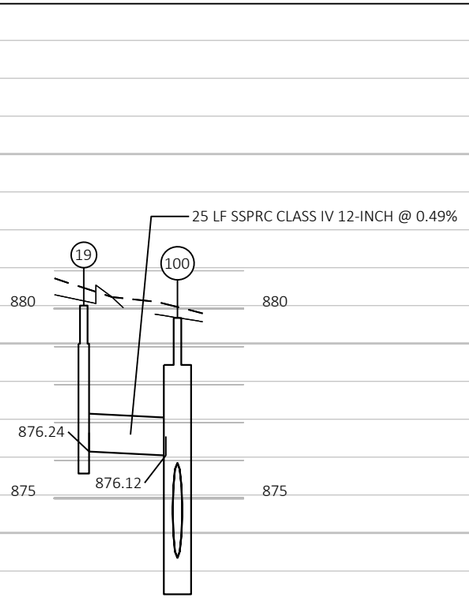
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 125	E

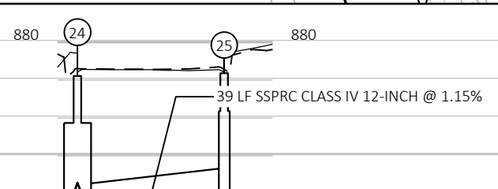
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER_SHEETS.DWG
LAYOUT NAME - SS02
PLOT DATE : 10/15/2021 10:39 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

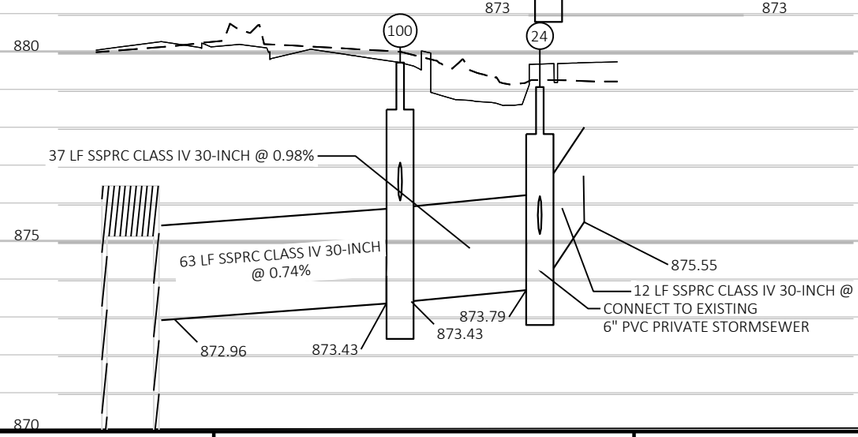
SEE PREVIOUS PAGE FOR ADDITIONAL STORMSEWER IN THIS AREA



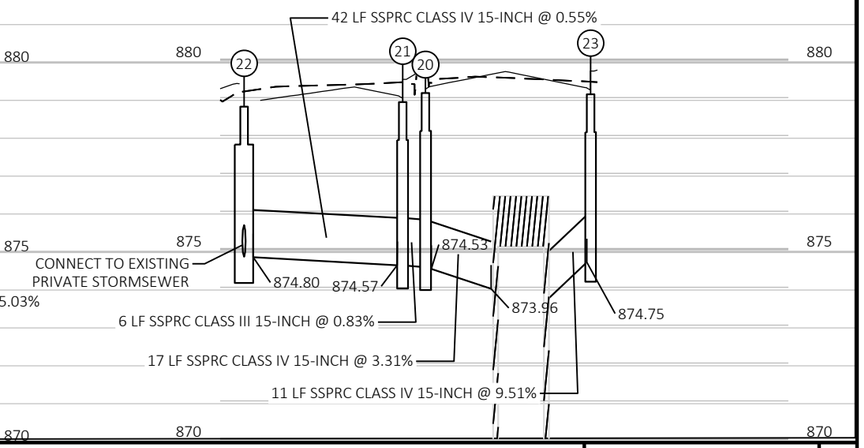
NOTE: SEE PREVIOUS PAGE FOR PROFILE RUNS NOT SHOWN BELOW.







POTENTIAL CONTAMINATED GROUNDWATER IS ANTICIPATED TO BE BEYOND THE EXCAVATION LIMITS



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 126	E

2

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

96-INCH STORMSEWER
SEE TRUNK LINE PLAN

156+06.1WB, -32.5LT
INLETS 2x3-H
27

27.1
156+41.4EB, -56.1LT
REPLACE CASTING-J

27A
156+05.3WB, -4.8LT
CONNECT TO BOX

155+79.3WB, 1.0RT
INLETS SPECIAL-H
28

29A
155+77.8WB, 9.0RT
CONNECT TO BOX

29
155+72.1EB, -1.0LT
INLETS 2x3-H

30
155+60.8EB, 32.5RT
INLETS 2x3-H

30A
155+61.3EB, 38.4RT
CONCRETE COLLAR
CONNECT TO PVT SS

37.3
156+54.5EB, 32.5RT
INLETS 2x3-H

37.2
157+58.1EB, 32.5RT
INLETS 2x3-H

31.1
157+39.9EB, -11.0LT
INLETS SPECIAL-H

31.2
157+44.7WB, 1.0RT
INLETS SPECIAL-H

33.2
158+80.6EB, -1.0LT
RECONSTRUCT INLET-H

33.1
158+85.4WB, 5.4RT
RECONSTRUCT INLET SPECIAL-H

32.1
158+85.0WB, -32.5LT
INLETS 2x3-H

32A
158+85.3WB, 0.0
CONNECT TO BOX

32.2
159+29.3WB, -32.5LT
INLETS 2x3-H-S

35
159+69.8WB, 11.0RT
INLETS SPECIAL-H

37
159+10.7EB, 24.2RT
RECONSTRUCT MANHOLE-J

37.1
158+74.8EB, 32.5RT
INLETS 2x3-H

38.1
33+18.5NF, -21.0LT
MANHOLES 5-H-S

39
33+17.2NF, -25.8LT
RECONSTRUCT MANHOLE

36
159+51.0EB, -1.0LT
INLETS SPECIAL-H

37A
159+62.9EB, -1.2LT
CONNECT TO BOX

40
159+79.9EB, 36.0RT
INLETS 2x3-H

38.2
33+03.3NF, 26.6RT
INLETS 2x3-H-S

41
160+99.3WB, -32.5LT
INLETS 2x3-H

41A
160+99.8WB, 3.8
CONNECT TO BOX

40A
160+17.0EB, -3.2LT
CONNECT TO BOX

43A
161+16.7EB, -3.8LT
CONNECT TO BOX

43
161+22.5EB, 32.5RT
INLETS 2x3-H

EXISTING CONCRETE BOX CULVERT

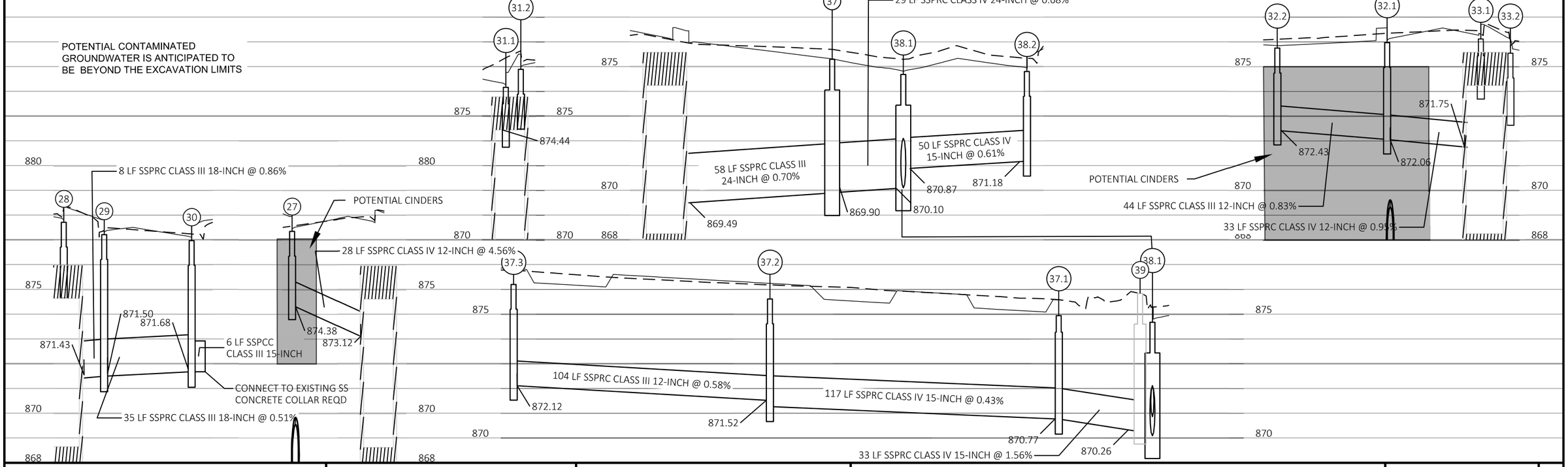
N. FRANKLIN AVE.

MATCH LINE STA 161+50.00EB

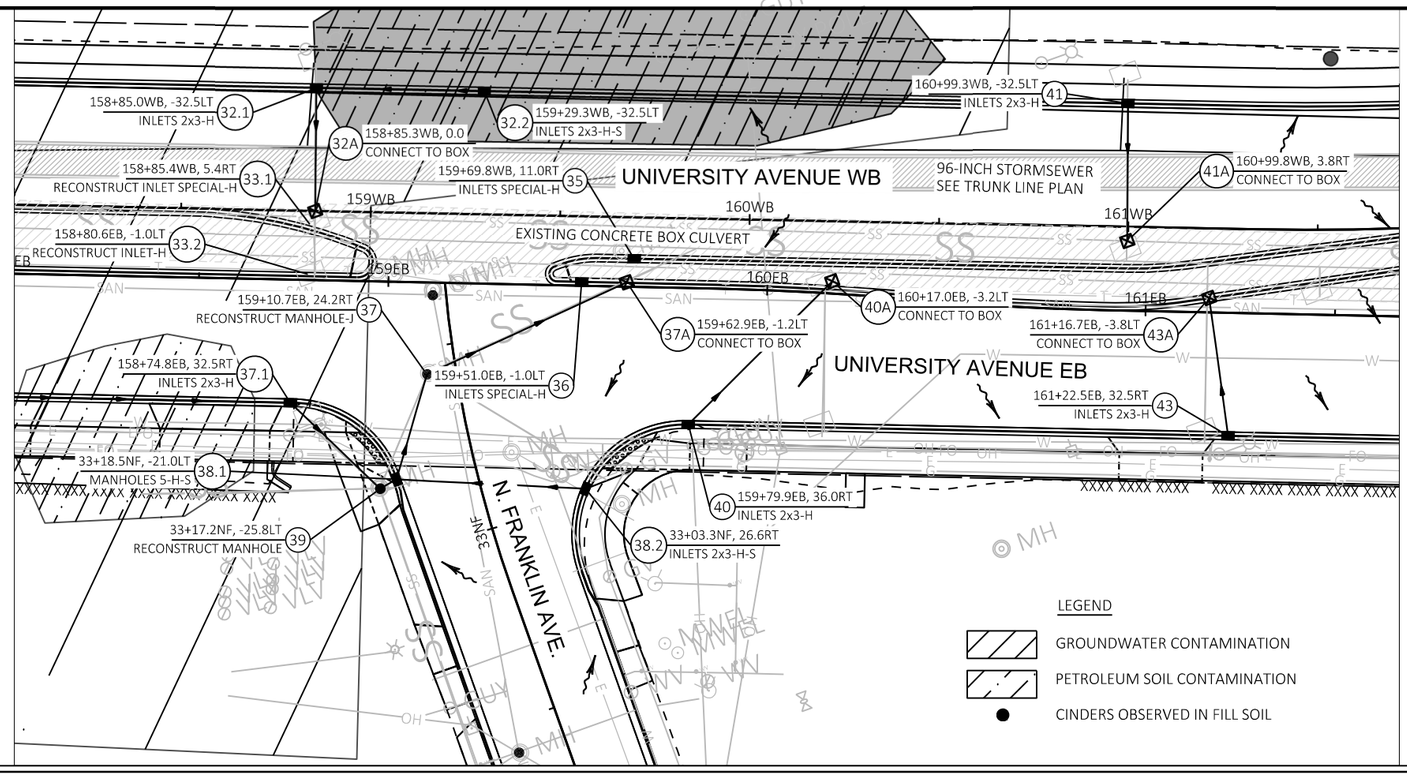
156WB 157WB 158WB 159WB 160WB 161WB
156EB 157EB 158EB 159EB 160EB 161EB

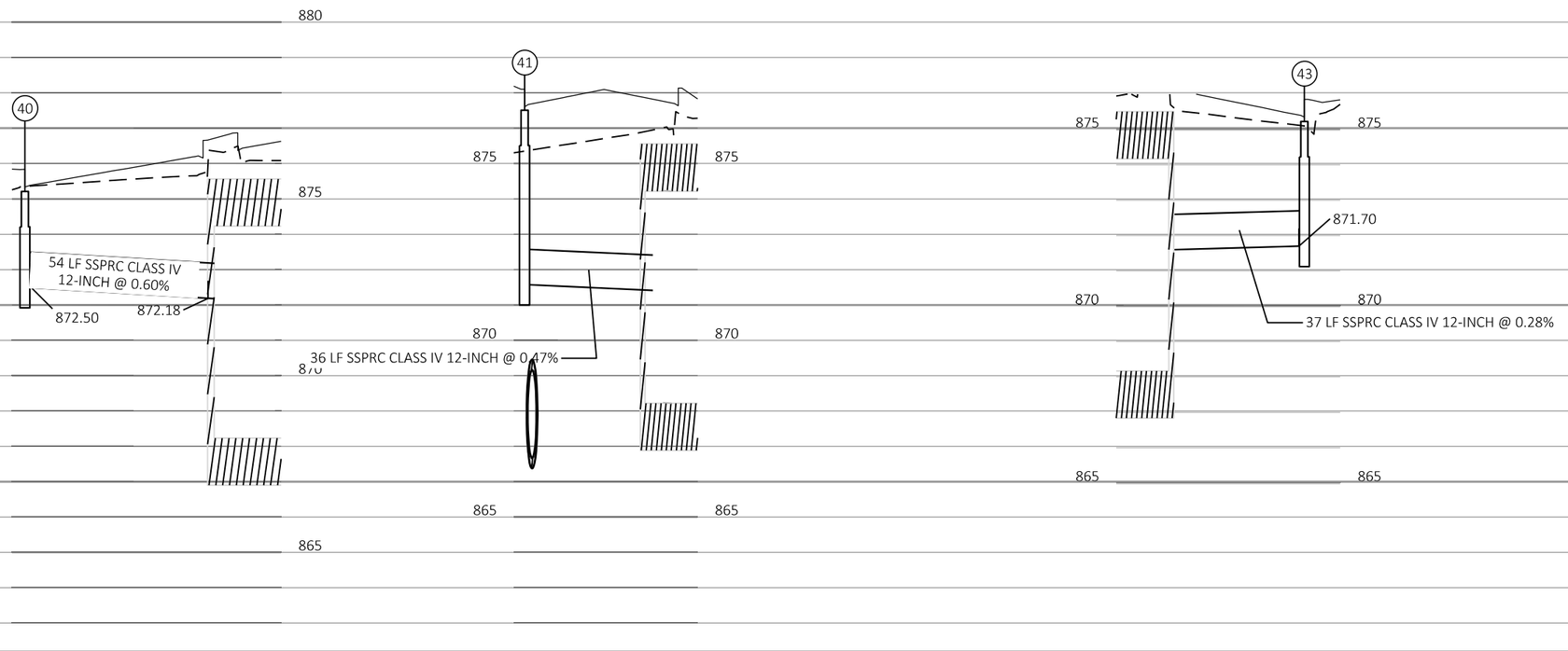
LEGEND
GROUNDWATER CONTAMINATION
PETROLEUM SOIL CONTAMINATION
CINDERS OBSERVED IN FILL SOIL

POTENTIAL CONTAMINATED
GROUNDWATER IS ANTICIPATED TO
BE BEYOND THE EXCAVATION LIMITS



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 127	E





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 128	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER_SHEETS.DWG
LAYOUT NAME - SS05

PLOT DATE : 10/15/2021 10:40 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

UNIVERSITY BAY DRIVE

MATCH LINE STA 20+85.00BD

20+91.3BD, -47.7LT
INLETS 2x3-H
501.1

501
20+74.0BD, -14.6LT
MANHOLES 5-J

500
20+61.4BD, 11.0RT
RECONSTRUCT MANHOLE

500.1A
20+58.4BD, 36.4RT
CONCRETE COLLAR REQD

500.1
20+60.4BD, 26.6RT
MANHOLES 5-H

501.3
20+66.6BD, -27.5LT
INLETS 4-H

POTENTIAL CINDERS

164+77.9WB, -32.5LT
INLETS 2x3-H-S
47

501.2
165+26.3WB, -50.8LT
INLETS 2x3-H-S

500.2
166+69.3WB, -43.0LT
MANHOLES 5-H

UNIVERSITY AVENUE WB

96-INCH STORM SEWER
SEE TRUNK LINE PLAN

MATCH LINE STA 162+50.00EB

163WB
164WB
165WB
166WB
167WB
168WB

165+42.8EB, -21.0LT
INLETS 2x3-H
54

55
165+46.8WB, 1.5RT
INLETS 2x3-H

46
164+53.2WB, 1.0RT
INLETS 2x3-H

EXISTING CONCRETE BOX CULVERT

500X
166+45.1EB, -12.5LT
CONNECT TO BOX

56
167+13.8WB, 12.0RT
INLETS 2x3-H-S

56A
167+14.8WB, 16.0RT
CONNECT TO BOX

163EB
164EB
165EB
166EB
167EB
168EB

163+96.3EB, -3.2LT
CONNECT TO BOX
48A

45
163+96.8EB, -21.0LT
SPECIAL INLET-H

46A
164+48.9EB, -19.3LT
CONNECT TO BOX

57
166+87.9EB, -1.0LT
INLETS SPECIAL-H

UNIVERSITY AVENUE EB

163+45.9EB, 32.5RT
INLETS 2x3-H-S
49

164+00.2EB, 32.5RT
INLETS 2x3-H
48

165+42.8EB, -15.0LT
CONNECT TO BOX
54A

165+76.8EB, 32.6RT
INLETS 2x3-H
60.3

58
166+65.3EB, 38.0RT
INLETS 2x3-H

62
167+82.5EB, 39.5RT
INLETS 2x3-H

48B
163+97.8EB, 39.5RT
CONNECT TO PVT SS
CONCRETE COLLAR REQD

600
14+81.5FA, 23.1RT
MANHOLES 4-J

14+75.0FA, -19.5LT
INLETS 4-H
59

60.0
14+60.9FA, 22.1RT
RECONSTRUCT MANHOLE

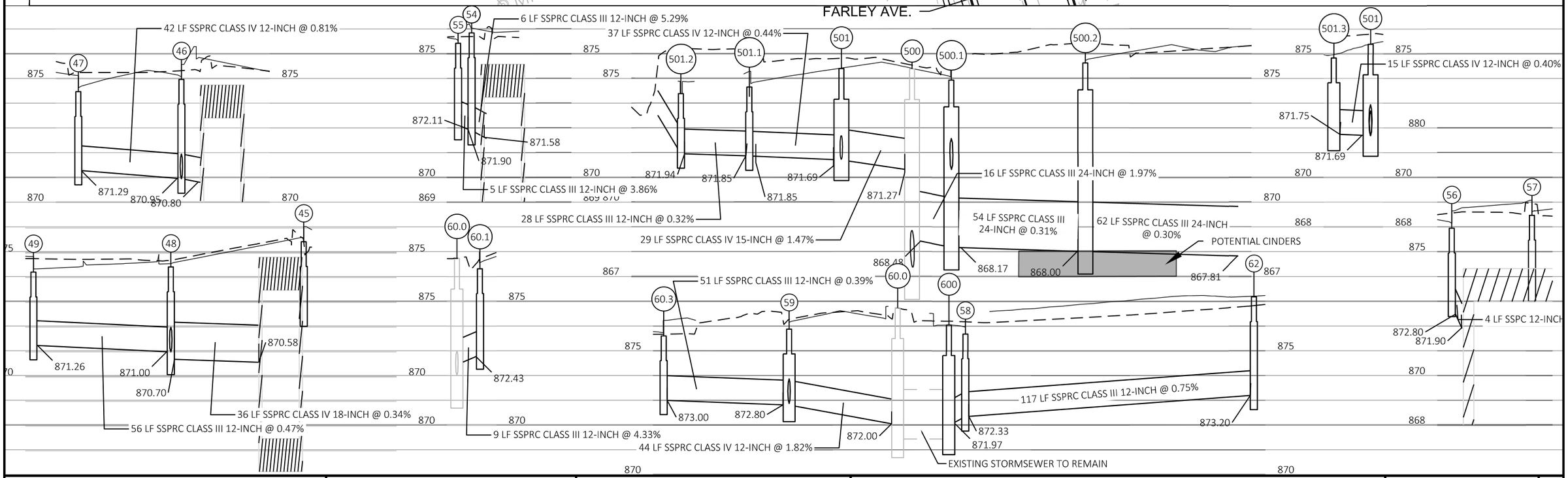
14+71.4FA, -20.6LT
CONNECT TO PVT SS
CONCRETE COLLAR REQD
59A

60.1
14+52.8FA, 17.5RT
INLETS 2x3-H

LEGEND

CINDERS OBSERVED IN FILL SOIL

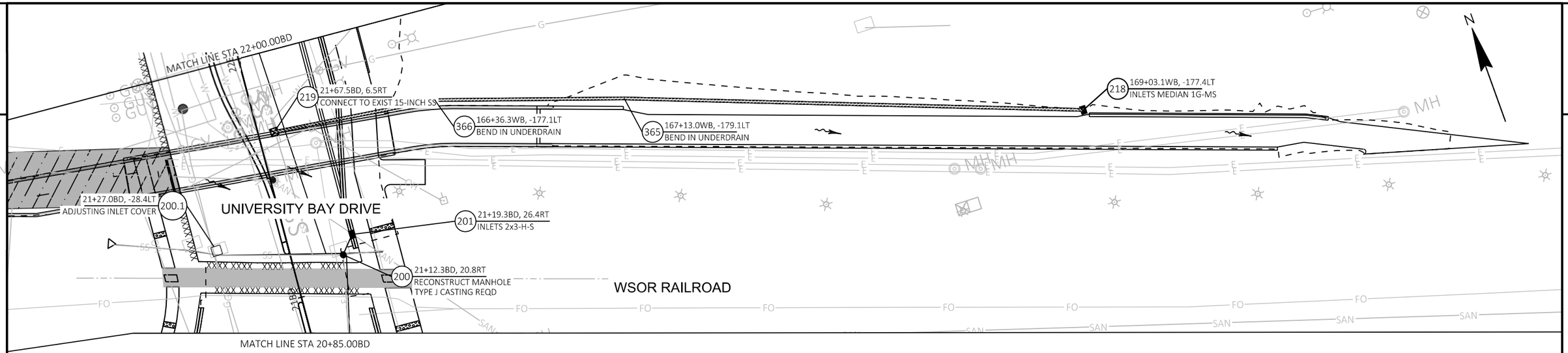
FARLEY AVE.



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 129	E

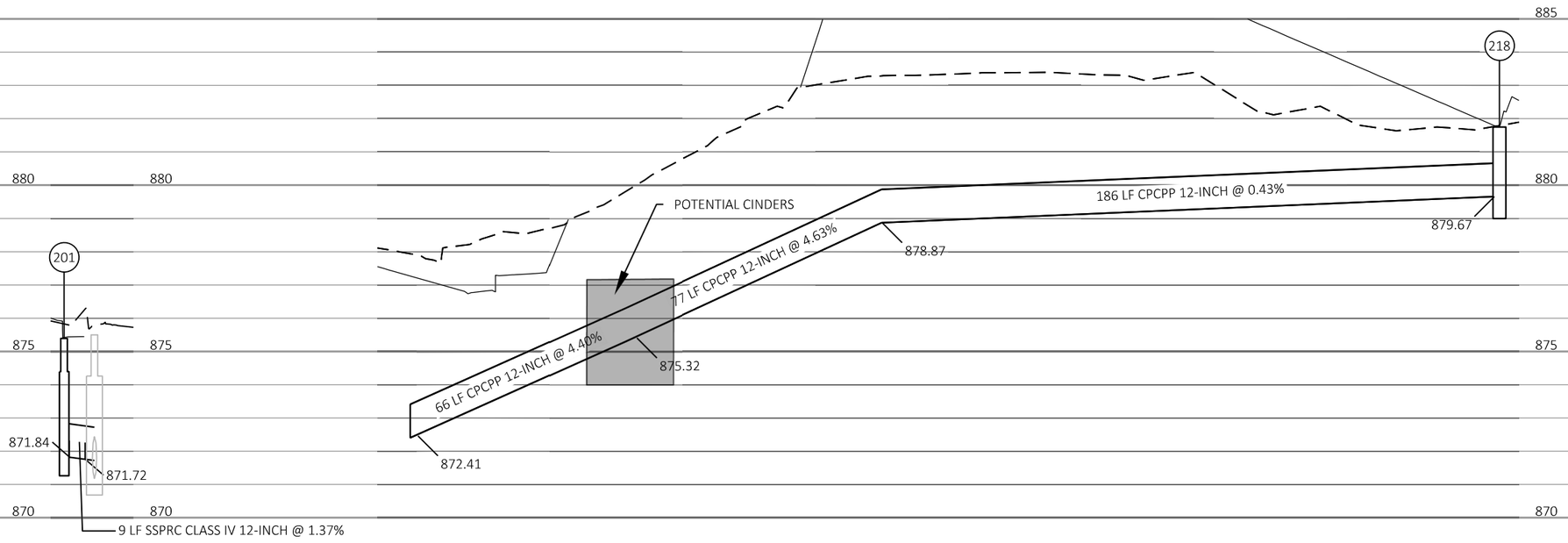
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER_SHEETS.DWG
LAYOUT NAME - SS06
PLOT DATE : 10/15/2021 10:41 AM
PLOT BY : JENNIFER LAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



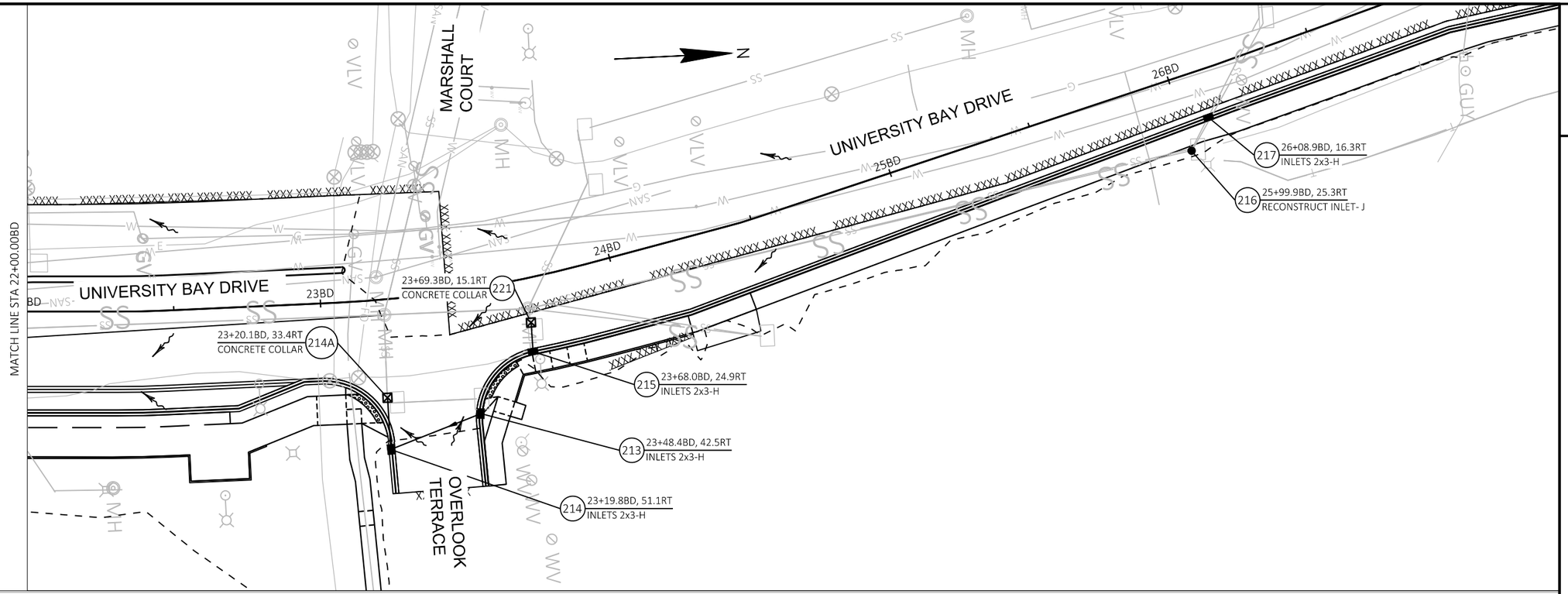
LEGEND

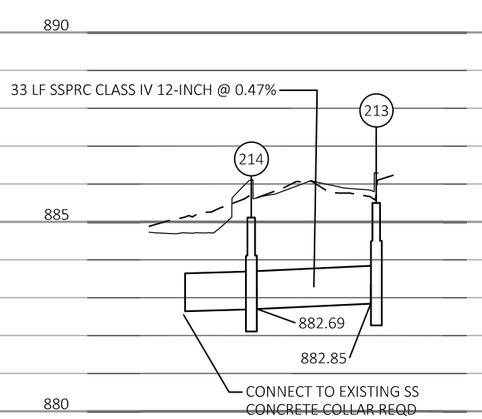
CINDERS OBSERVED IN FILL SOIL

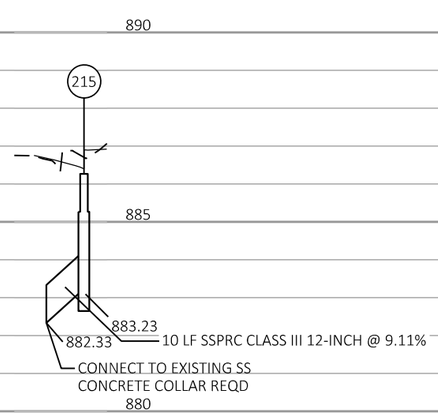


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 130	E

2



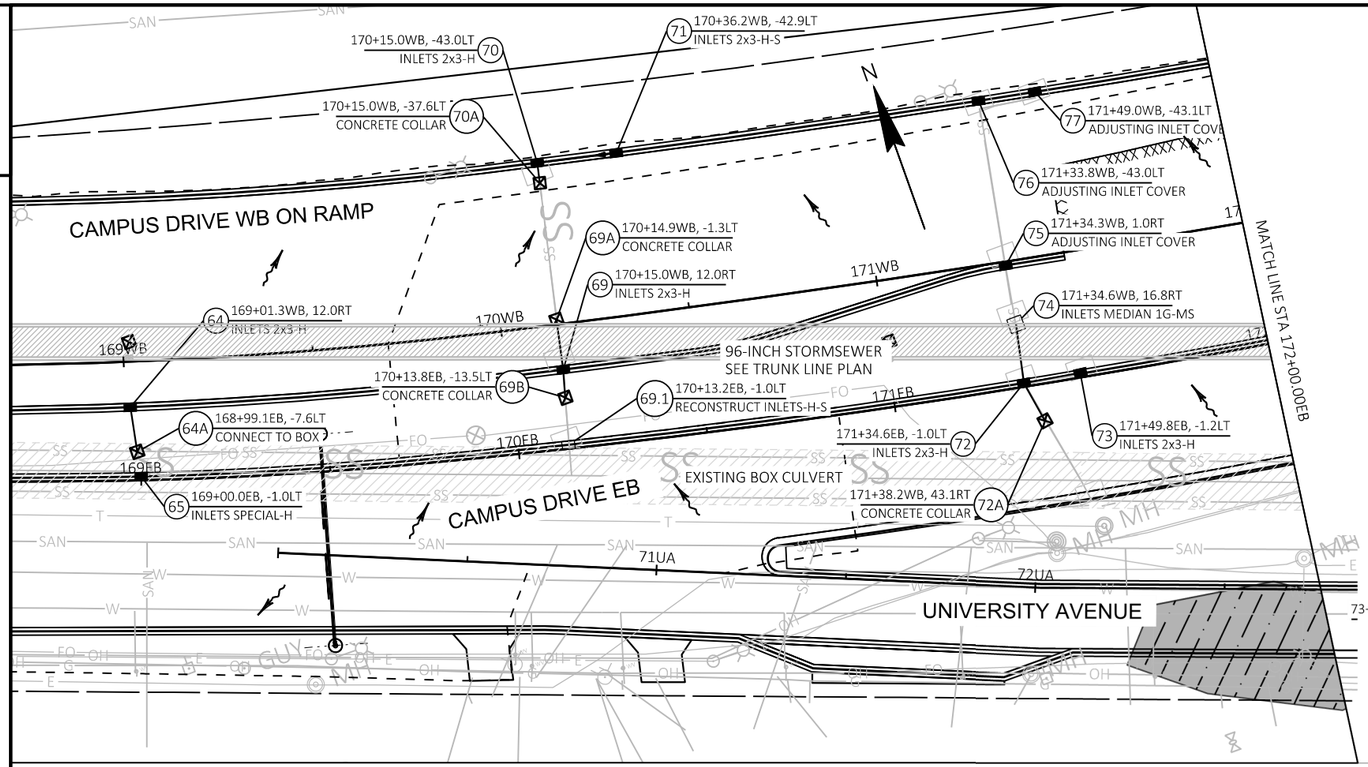


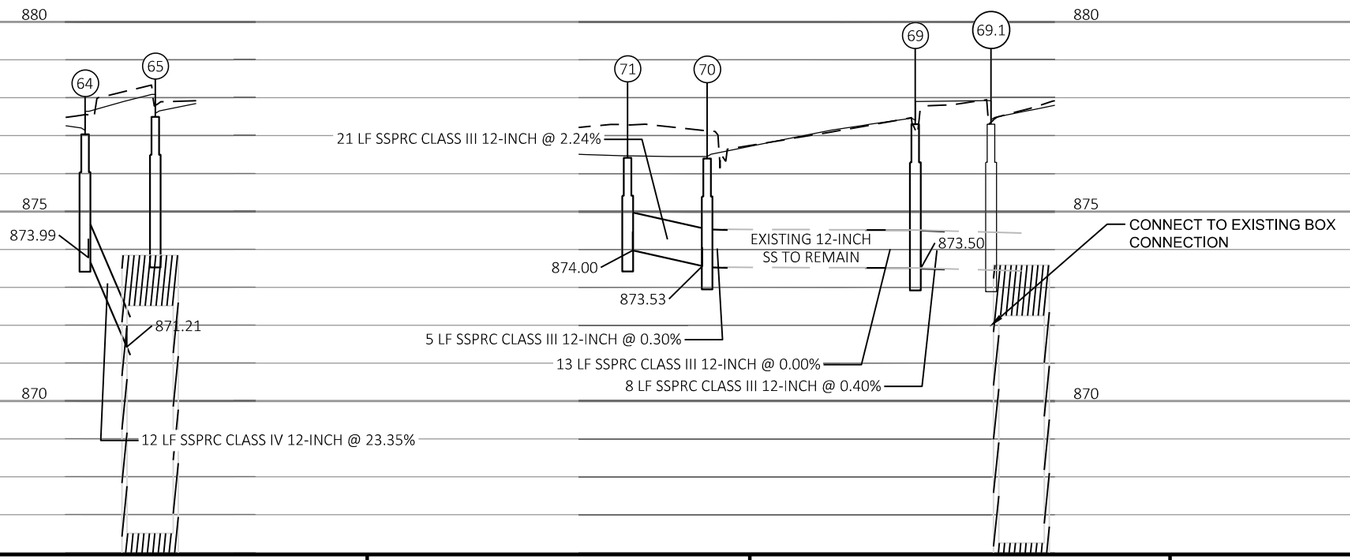


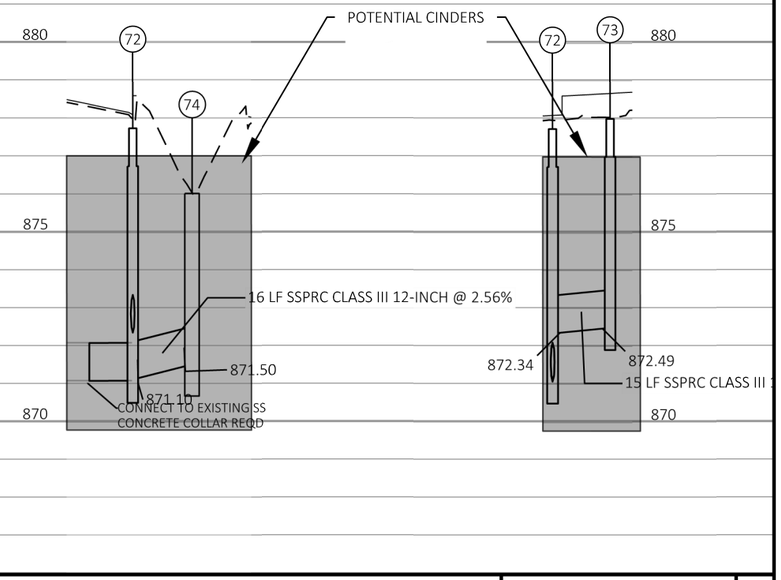


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 131	E

2

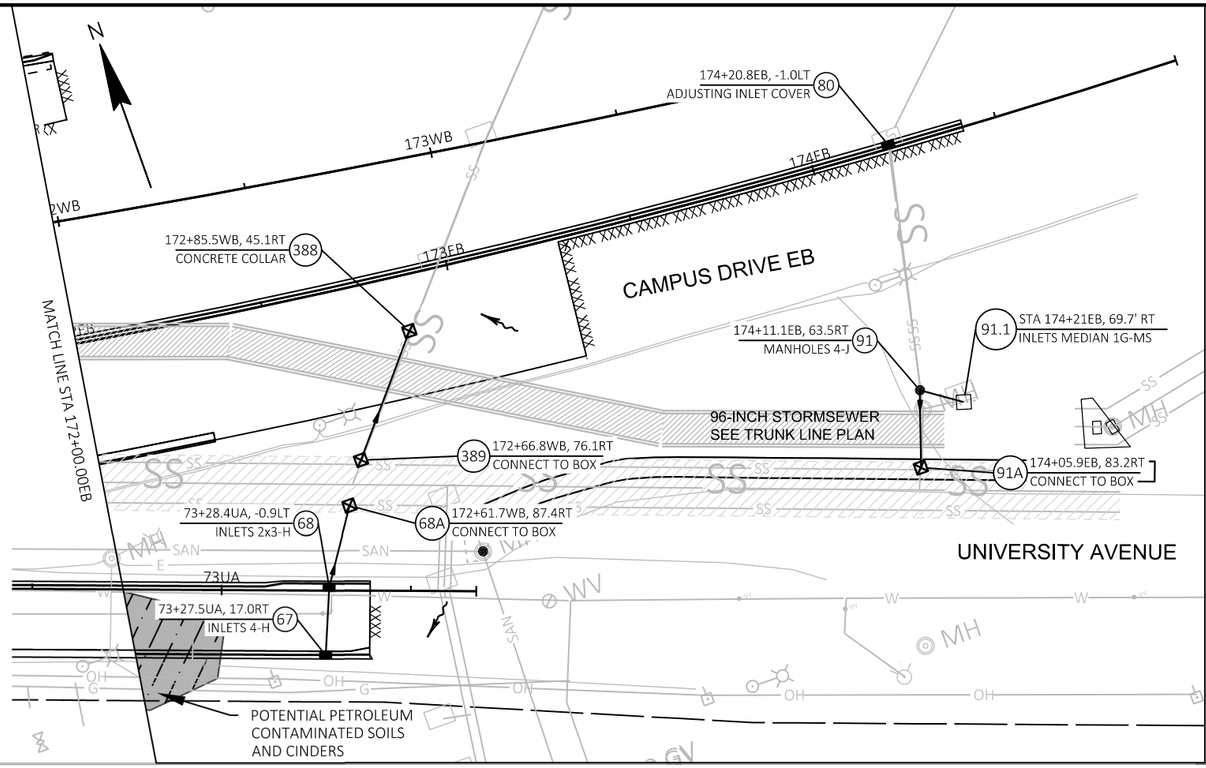


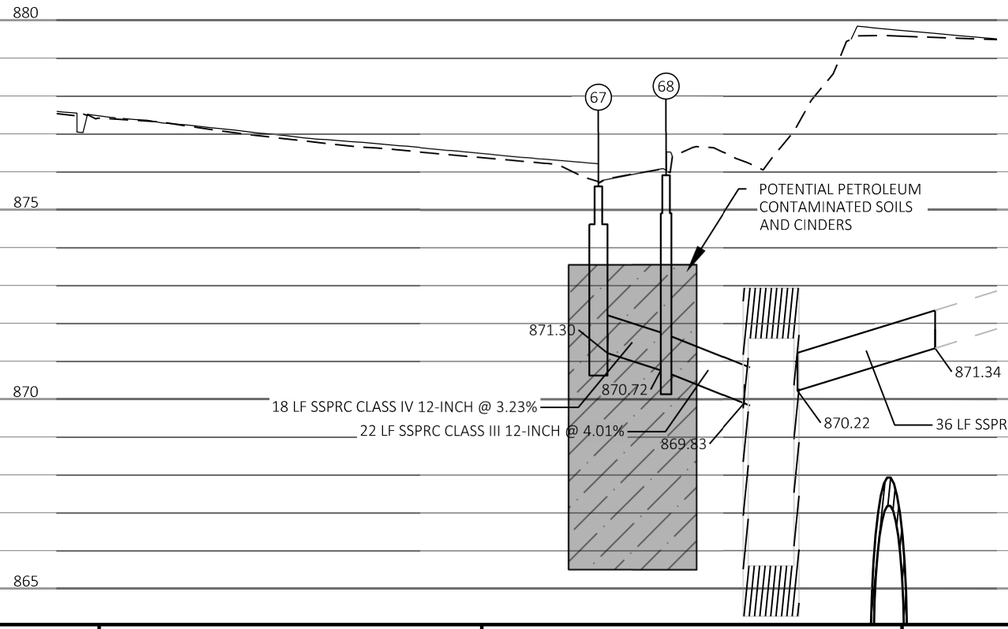


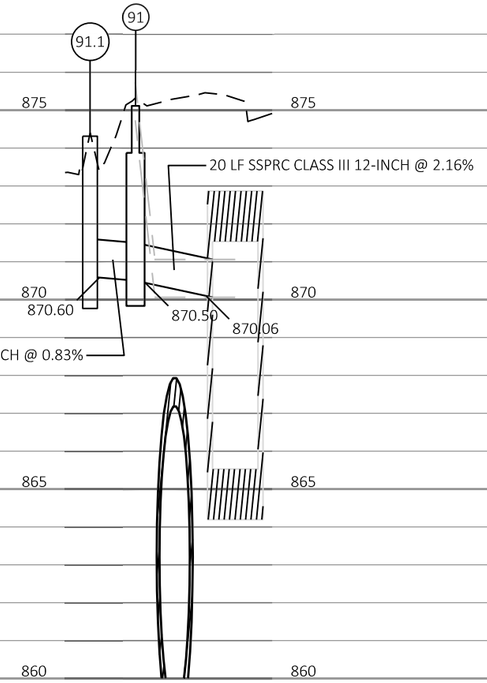


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 132	E

2







PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	PLAN DETAILS: STORMSEWER	SHEET 133	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\02 STORM SEWER_SHEETS.DWG
LAYOUT NAME - SS10
PLOT DATE : 10/15/2021 10:42 AM
PLOT BY : JENNIFER LAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

MMSD MH02-048 REPAIRS REQ'D. SEE DETAIL

SHOREWOOD BLVD

EXISTING WM ADJUSTMENT SEE NOTE ON CROSSING DETAIL

ABANDON EX. 12" SAN W/ SLURRY

ABAN. EX. SAS 3850-005
RIM=879.49
EI=872.27(E)
EI=872.27(S)

ABANDON EXISTING SANITARY SEWER 12" PVC

UNIVERSITY AVE EB

POTENTIAL PETROLEUM CONTAMINATED SOIL

ABANDON 12" SANITARY SEWER WITH SLURRY

ABANDON EXISTING SAS 3950-004

96-INCH STORMSEWER

ABANDON 12" SANITARY SEWER WITH SLURRY

ABANDON VALVE BOX

CUT OFF EXISTING W.M.

ABANDON SANITARY SEWER PIPE PLUG (PAID)

12"-59'@0.40%

10"-86'@0.40%

10"-42'@0.31%

10"-233'@0.40%

10"-282'@3.11%

CLAY TRENCH PLUG REQ'D 50-FT FROM EDGE OF CONTAMINATION

DEFLECT PIPE

POTENTIAL PETROLEUM CONTAMINATED SOIL

POTENTIAL CINDERS

16-IN X 6-IN TEE

PLACE FLUOROCARBON GASKETS ON ALL JOINTS BETWEEN CLAY TRENCH PLUGS

CONNECT TO EXISTING 16-IN TEE
16-IN BUTTERFLY VALVE - EAST.
CLAY TRENCH PLUG REQ'D

SANITARY TAP EXISTING 10-IN SANITARY SEWER

INSTALL ELECTRONIC MARKER BALL ABOVE LATERAL (TYP.)

NOTE 2: TYPICAL: MINIMUM TAP SIZE FOR COPPER LATERALS IS 1-INCH. FOR 0.75-INCH LATERALS, CONTRACTOR IS RESPONSIBLE FOR REDUCING DOWN TO EXISTING LATERAL SIZE. RE-USE EXISTING SLEEVE THROUGH MG&E DUCT

0.75" LEAD

ABANDON HYDRANT

CAP MAIN AND TAP NEW SERVICE OFF OF MAIN

6-IN 90-DGR BEND

TEMP CONNECTION AND GATE VALVE AT STAGING LIMITS

SEE NOTE ON CROSSING DETAIL

NOTE 1: TYPICAL FOR ALL "LONG" EXISTING 1", 1.5", OR 2" LATERALS: LATERAL CAN BE DISCONNECTED FROM THE EXISTING MAIN AND TAPPED ONTO THE NEW MAIN (UNLESS CURB BOX RELOCATION IS REQ'D).

6-IN VALVE

5-IN HYDRANT

ABANDON VALVE BOX

ABANDON EXISTING WATER MAIN AND SANITARY SEWER THROUGH PROJECT AFTER NEW UTILITIES IN SERVICE

ABANDON 6" VP SANITARY SEWER WITH SLURRY

POTENTIAL PETROLEUM CONTAMINATED SOIL

ABANDON EX. SAS 3950-003

EXTEND AND CONNECT SANITARY AND WATER SERVICE (CORP, CURB STOP AND BOX) AT RW. (TYP ALL SHEETS)

ABANDON SANITARY LATERAL PIPE PLUG. INCIDENTAL TO SANITARY LATERAL RECONNECT (TYP.)

16-IN X 6-IN TEE
6-IN GATE VALVE, SOUTH

6-IN 90 DEG BEND
6-IN X 4-IN REDUCER
CONNECT TO EXST SERVICE

B-12

B-11

RB-1

NOTES:
-EXISTING UTILITIES BASED ON FIELD MEASUREMENTS, AS-BUILT DRAWINGS, AND CITY CAD FILES. FIELD VERIFY LOCATION AND ELEVATION
-EXISTING SANITARY LATERALS 5-IN UNLESS OTHERWISE NOTED. ACTIVE LATERALS DRAWN. IF ADDITIONAL LATERALS FOUND TO BE ACTIVE PLACE IN SERVICE.
-INSULATION (4-IN) PLACED OVER WATER MAIN AT ALL STORM SEWER CROSSINGS AND WHERE 6.5-FT OF COVER NOT MET.
-WM DESIGNED FOR MIN. 6.5-FT OF COVER, UNLESS NOTED OTHERWISE

N

STA 138+81.60, 16.24' RT
5-FT DIA SAS
SAS 1

VLV

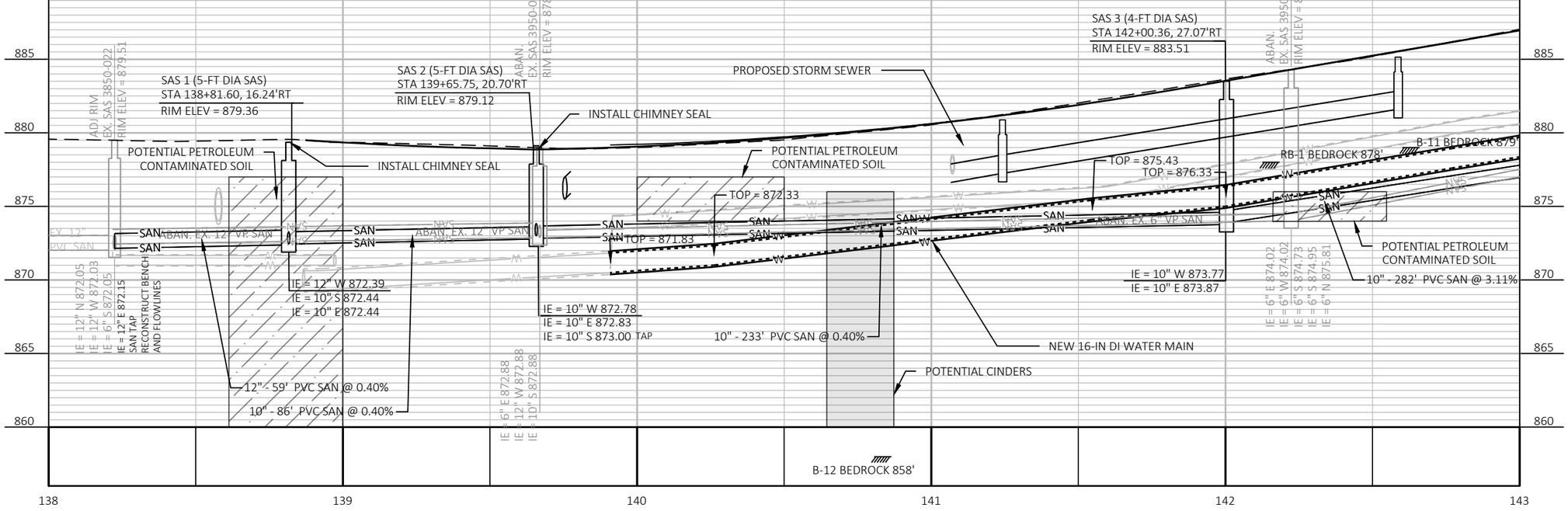
STA 138+95.33, 55.14' RT
5-FT DIA SAS
SAS 1A

STA 139+65.75, 20.70' RT
5-FT DIA SAS
SAS 2

STA 142+00.36, 27.07' RT
4-FT DIA SAS
SAS 3

HILL STREET

3260 UNIVERSITY AVE
3313 UNIVERSITY AVE
3033 UNIVERSITY AVE
3029 UNIVERSITY AVE
3009 UNIVERSITY AVE

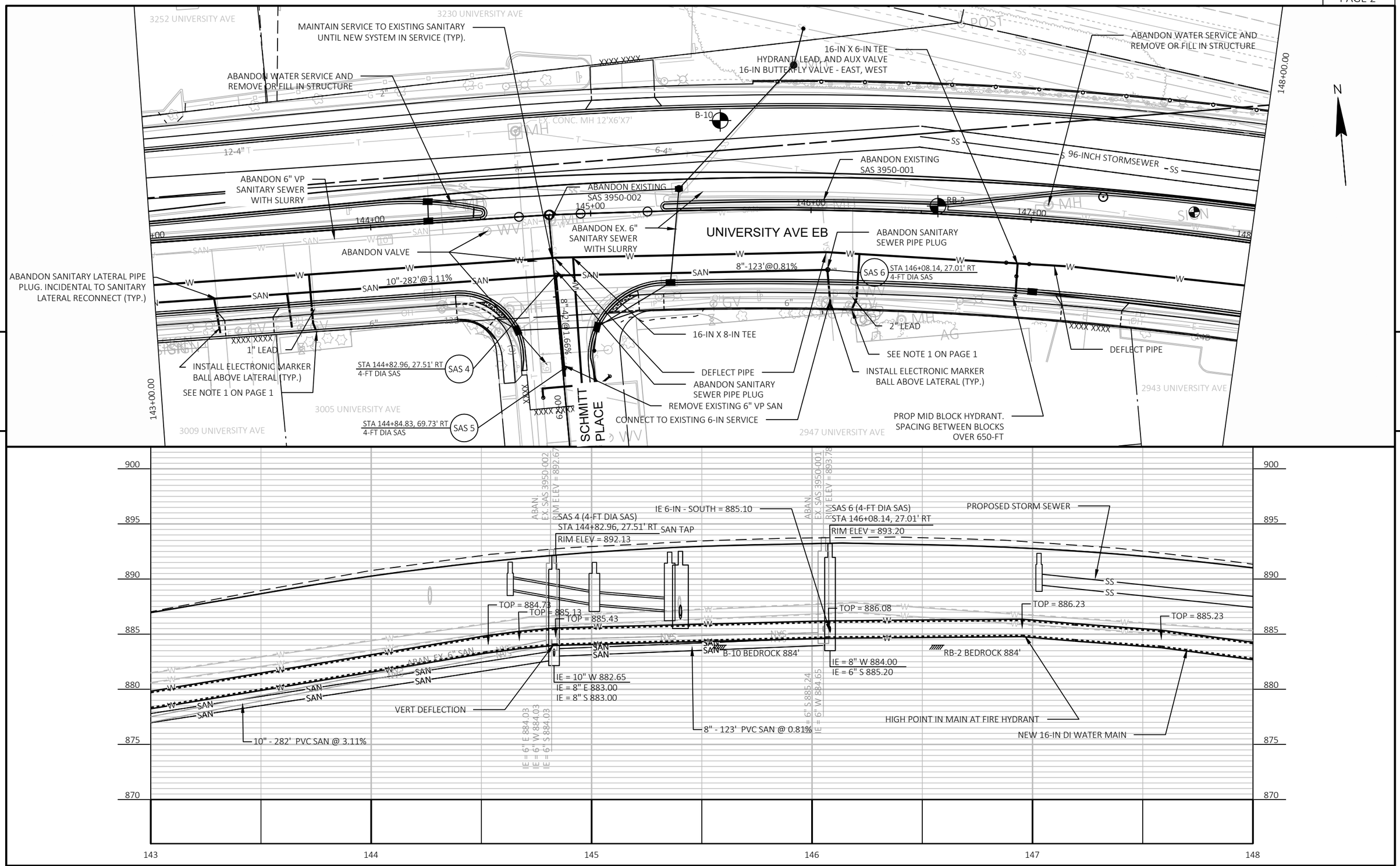


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 134	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA Utility P&P - (8)

PLOT DATE : 12/17/2021 8:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 135 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA Utility P&P - (9)

PLOT DATE : 10/29/2021 8:28 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

EXISTING 18" MMSD SANITARY TO BE ABANDONED WITH INSTALLATION OF NEW INTERCEPTOR (BY OTHERS)

MARSHALL COURT

THIS SECTION OF MMSD SEWER COULD ALSO BE ABANDONED UNLESS CONNECTION MADE

15' X 6' EXISTING BOX CULVERT

EXISTING 18-IN MMSD SANITARY SEWER TO REMAIN IN PLACE

B-9

(6) 4"D TEL

PROPOSED 96-INCH STORMSEWER

DEFLECT PIPE

ABANDON EXISTING SAS 3950-012

ABANDON EXISTING 6" VP SAN

ABANDON EXISTING SAS 3950-013

ABANDON EXISTING 6" VP SAN

ABANDON SANITARY SEWER PIPE PLUG SS MH WILL BE SHIFTED

UNIVERSITY AVE EB

ABANDON SANITARY SEWER PIPE PLUG

10"-91'@3.18%

10"-263'@2.43%

ABANDON EXISTING SAS 3950-014

16-IN X 8-IN TEE

16-IN BUTTERFLY VALVE - WEST

12"-344'@0.55%

ABANDON EXISTING 10" VP SAN

MAINTAIN SERVICE TO EXISTING WATER MAIN DURING CONSTRUCTION

IF UNABLE TO CONSTRUCT WATER MAIN. CUT AND CAP EXISTING ON BOTH SIDES OF PROPOSED CROSSING. EXISTING WATER MAIN ON EACH SIDE TO REMAIN ACTIVE UNTIL NEW WATER MAIN PLACED IN SERVICE AND LATERALS CONNECT. EXISTING WATER MAIN TO THEN BE ABANDONED

SAS 12 STA 148+26.76, 26.55' RT 4-FT DIA SAS

SAS 9 STA 149+19.45, 27.02' RT 4-FT DIA SAS

1" LEAD

ABANDON 0.75" LEAD ABANDON SANITARY LATERAL PIPE PLUG. INCIDENTAL TO SANITARY LATERAL RECONNECT (TYP.)

2" DIA.

PROVIDE NEW 6-IN SANITARY SEWER LATERAL

PROVIDE NEW 8-IN SANITARY SEWER CONNECTION

INSTALL ELECTRONIC MARKER BALL ABOVE LATERAL (TYP.)

SEE NOTE 1 ON PAGE 1

STA 151+82.96, 27.18' RT 4-FT DIA SAS

SAS 8

ABANDON VALVE BOX

STA 152+01.51, 86.48' RT 4-FT DIA SAS

SAS 10

XXXX XXXX XXXX

BEND (11 DEG)

8-IN X 6-IN TEE HYDRANT, LEAD, AND AUX VALVE

8-IN X 6-IN TEE CAP/PLUG - SOUTH CONNECT TO EXISTING WATER MAIN - WEST

8-IN GATE VALVE - NORTH REMOVE EXISTING 10" VP SAN

2943 UNIVERSITY AVE

2924 HARVEY ST

2919 UNIVERSITY AVE

710 RIDGE ST

2871 UNIVERSITY AVE

148+00.00

153+00.00

5

5

SAS 12 (4-FT DIA SAS)
STA 148+26.76, 26.55'RT
RIM ELEV = 890.26

SAN TAP

ABAN. EX. SAS 3950-012 RIM ELEV = 890.76

SAS 9 (4-FT DIA SAS)
STA 149+19.45, 27.02' RT
RIM ELEV = 887.24

ABAN. EX. SAS 3950-013 RIM ELEV = 885.45

TOP = 883.43

TOP = 881.83

TOP = 880.33

IE = 10" E 879.00
IE = 6" SW 879.10

IE = 6" W 879.41
IE = 6" E 879.40

10" - 91' PVC SAN @ 3.18%

B-9 BEDROCK 870'

IE = 10" W 876.10
IE = 10" E 876.00

IE = 6" W 874.23
IE = 6" E 874.21
IE = 4" S 874.65

NEW 16-IN DI WATER MAIN

10" - 263' PVC SAN @ 2.43%

PROPOSED STORM SEWER

EX. MH02-042 RIM ELEV = 880.27

ABAN. EX. SAS 3950-014 RIM ELEV = 879.85

SAS 8 (4-FT DIA SAS)
STA 151+82.96, 27.18' RT
RIM ELEV = 879.88

TOP = 874.33

TOP = 872.83

TOP = 872.53

VERTICAL DEFLECTION

IE = 10" W 869.60
IE = 12" E 869.50
IE = 10" S 869.60

IE = 18" N 868.10
IE = 18" E 868.10

IE = 6" W 870.59
IE = 10" E 870.59
IE = 10" S 870.57

ABAN. EX. 10" VP SAN

12" - 344' PVC SAN @ 0.55%

895 890 885 880 875 870 865

148 149 150 151 152 153

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 136 E

ABANDON WATER SERVICE AND REMOVE OR FILL IN STRUCTURE

PROPOSED 30-IN MMSD INTERCEPTOR

POTENTIAL PETROLEUM CONTAMINATED SOIL AND CINDERS

POTENTIAL CINDERS

EXISTING 18-IN MMSD SANITARY SEWER TO REMAIN IN PLACE

15'X6' EXISTING BOX CULVERT

PROPOSED 96-INCH STORMSEWER

UNIVERSITY AVE EB

ABANDON EXISTING 10" VP SAN

DEFLECT PIPE

ABANDON 0.75" LEAD

HYDRANT LEAD MUST MAINTAIN A MINIMUM OF 6-IN CLEARANCE OVER THE SANITARY MAIN (TYP.)

INSTALL ELECTRONIC MARKER BALL ABOVE LATERAL (TYP.)

ABANDON EXISTING SAS 4050-002

12"-344'@0.55%

0.75" LEAD

12"-27'@0.50%

8"-172'@0.49%

ABANDON EXISTING 6" VP SAN

ABANDON SANITARY LATERAL PIPE PLUG. INCIDENTAL TO SANITARY LATERAL RECONNECT (TYP.)

SAS 11 STA 155+54.79, 27.55' RT 5-FT DIA SAS

SAS 7 STA 155+27.30, 27.03' RT 5-FT DIA SAS

8'-9' @ 0.50%

SERVICE LATERAL MUST MAINTAIN A MINIMUM OF 6-IN CLEARANCE OVER THE SANITARY MAIN (TYP.)

SAS 13 STA 157+28.31, 26.94' RT 5-FT DIA SAS

PLUG INACTIVE LATERALS (TYP.)

NOTE 3: TYPICAL FOR ALL "SHORT" EXISTING 1", 1.5", OR 2" LATERALS: LATERAL CAN BE EXTENDED FROM THE EXISTING MAIN AND TAPPED ONTO THE NEW MAIN (UNLESS CURB BOX RELOCATION IS REQ'D).

16-IN X 6-IN TEE HYDRANT, LEAD, AND AUX VALVE 16-IN BUTTERFLY VALVE - WEST CONNECT TO EX. SAS 4050-001 SAN TAP AND RECONSTRUCT BENCH SAN TAP AT EI = 868.54 RECONSTRUCT BENCH AND FLOWLINES

PROP MID BLOCK HYDRANT. SPACING BETWEEN BLOCKS OVER 650-FT

1" LEAD

SEE NOTE 3

2875 UNIVERSITY AVE

2837 UNIVERSITY AVE

2825 UNIVERSITY AVE

2801 UNIVERSITY AVE

153+00.00

154+00

155+00

156+00

157+00

158+00.00

SAS 11 (5-FT DIA SAS)
STA 155+54.79, 27.55' RT
RIM ELEV = 877.35

12" - 30' PVC SAN @ 0.50%

IE = 8" E 867.60
IE = 12" W 867.25
IE = 12" NE 867.25

EX. MMSD MH02-041
RIM ELEV = 877.54
SAN TAP @ EI = 867.13
RECONSTRUCT BENCH AND FLOWLINES

IE = 10" SW 867.13
IE = 18" E 866.97
IE = 18" W 867.03

SAN TAP @ EI = 868.54(N)
RECONSTRUCT BENCH AND FLOWLINES
EX. 4050 - 001
RIM ELEV = 877.36

IE = 6" S 868.58
IE = 10" NE 868.54
IE = 6" E 868.70
IE = 10" W 868.62

SAS 7 (5-FT DIA SAS)
STA 155+27.30, 27.03' RT
RIM ELEV = 877.52

8" - 9' PVC SAN @ 0.50%

IE = 12" E 867.39
IE = 8" S 868.49
IE = 12" W 867.60

POTENTIAL CONTAMINATED GROUNDWATER IS ANTICIPATED TO BE BEYOND EXCAVATION LIMITS

SAS 7 (5-FT DIA SAS)
STA 155+27.30, 27.03'RT
RIM ELEV = 877.52

12" - 27' PVC SAN @ 0.50%

SAS 11 (5-FT DIA SAS)
STA 155+54.79, 27.55' RT
RIM ELEV = 877.35

EX. MH02-041
RIM ELEV = 877.54

IE = 10" SW 867.13
IE = 18" E 866.97
IE = 18" W 867.03

NOTE: CONTRACTOR SHALL NOTIFY RAY SCHNEIDER AT (608) 347-3628, RAYS@MADSEWER.ORG 5 DAYS PRIOR TO MAKING TAP CONNECTION TO MMSD MANHOLE. CONTRACTOR IS RESPONSIBLE FOR MMSD PERMIT FEE AND ADHERING TO ALL MMSD PERMIT CRITERIA.

SAS 13 (5-FT DIA SAS)
STA 157+28.31, 26.94'RT
RIM ELEV = 876.44

ABAN. EX. SAS 4050-002
RIM ELEV = 875.72

NEW 16-IN DI WATER MAIN

8-IN IE - SOUTH = 868.49

POTENTIAL CINDERS

PROPOSED STORM SEWER
POTENTIAL CINDERS

TOP = 870.73

TOP = 870.13

ABAN. EX. 10" VP SAN

ABAN. EX. 6" VP SAN

POTENTIAL PETROLEUM CONTAMINATED SOIL

12" - 344' PVC SAN @ 0.55%

IE = 12" E 867.39
IE = 8" S 868.49
IE = 12" W 867.60

IE = 8" E 867.60
IE = 12" W 867.25
IE = 12" NE 867.25

12" - 30' PVC SAN @ 0.50%

8" - 172' PVC SAN @ 0.49%

IE = 8" W 868.45

880 875 870 865 864 895 890 885

153 154 155 156 157 158

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 137 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA Utility P&P - (11)

PLOT DATE : 10/29/2021 8:31 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

PROPOSED 30-IN MMSD INTERCEPTOR

POTENTIAL PETROLEUM CONTAMINATED SOIL AND POTENTIAL CINDERS

DEFLECT PIPE

16-IN X 16-IN TEE
16-IN BUTTERFLY VALVE - SOUTH, EAST, WEST
CONNECT TO EXISTING 16-IN WATER MAIN (REMOVE EXISTING BEND) - EAST

POTENTIAL CINDERS

REMOVE EXISTING 16-IN PIPE AT CROSSING

EXISTING 16-IN WATER MAIN TO REMAIN IN PLACE AND ACTIVE AFTER CONNECTION

PROPOSED 96-INCH STORMSEWER

15'X6' EXISTING BOX CULVERT

EXISTING 18-IN MMSD SANITARY SEWER TO REMAIN IN PLACE

UNIVERSITY AVE EB

12"-50'@0.40%

ABANDON VALVE BOX

REMOVE EXISTING 10" CI SAN

16-IN X 12-IN TEE
16-IN BUTTERFLY VALVE - WEST
12-IN BUTTERFLY VALVE - SOUTH
BEND (22 DEG)
12"-112'@1.30%

ABANDON 0.75" LEAD

1" LEAD

PROVIDE NEW 6-IN SANITARY SEWER LATERAL (TYP.)

16-IN BEND (45 DEG)
CONNECT TO EXISTING 16-IN WATER MAIN - SOUTH

TAP/CONNECT NEW SERVICE TO EXISTING 16-IN WM. EXTEND TO RIGHT WAY AND CONNECT TO EXISTING SERVICE. PROVIDE NEW CORP, CURB BOX AND CURB STOP (TYP.). SEE NOTE 3 ON PAGE 4.

POTENTIAL PETROLEUM CONTAMINATED SOIL

STA 33+15.03, 3.56' LT
5-FT DIA SAS
SAS 14

ABANDON EXISTING 10" CI SAN

N FRANKLIN AVE

2801 UNIVERSITY AVE
2757 UNIVERSITY AVE
2741 UNIVERSITY AVE
2733 UNIVERSITY AVE

158+00.00
159+00
160+00
161+00
162+00
163+00.00

POTENTIAL CONTAMINATED GROUNDWATER IS ANTICIPATED TO BE BEYOND EXCAVATION LIMITS

EX. MMSD MH02-040
RIM ELEV = 875.99

CONNECT TO EXISTING 16-IN WATER MAIN

PROPOSED STORM SEWER

TOP = 868.68
TOP = 867.13
TOP = 868.83
TOP = 868.83
TOP = 868.83
TOP = 868.83
TOP = 867.13

EX. 18" VP MMSD

VERT DEFLECTION

POTENTIAL CINDERS

POTENTIAL PETROLEUM CONTAMINATED SOIL

VERT BEND (11 DEG)

POTENTIAL CINDERS

POTENTIAL PETROLEUM CONTAMINATED SOIL

EX. MMSD MH02-039
RIM ELEV = 875.55

IE = 18" W 866.29
IE = 18" E 866.29

NOTE: CONTRACTOR SHALL NOTIFY RAY SCHNEIDER AT (608) 347-3628, RAYS@MADSEWER.ORG 5 DAYS PRIOR TO MAKING TAP CONNECTION TO MMSD MANHOLE. CONTRACTOR IS RESPONSIBLE FOR MMSD PERMIT FEE AND ADHERING TO ALL MMSD PERMIT CRITERIA.

885
880
875
870
865
860
855

158
159
160
161
162
163

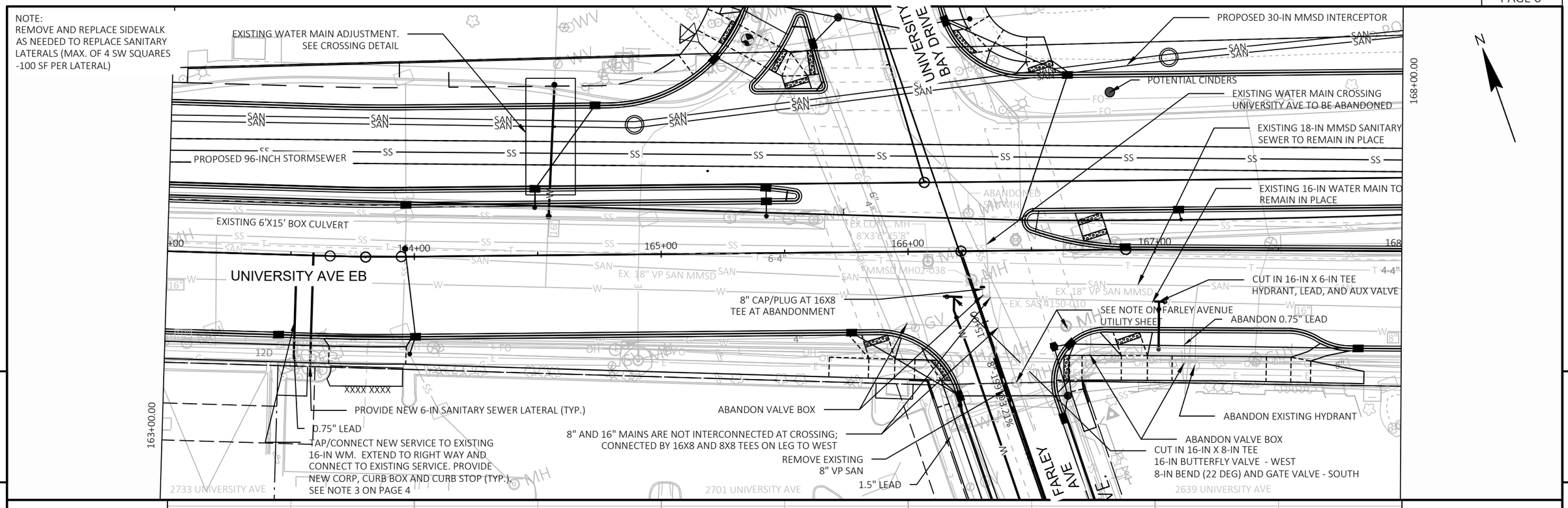
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 138	E

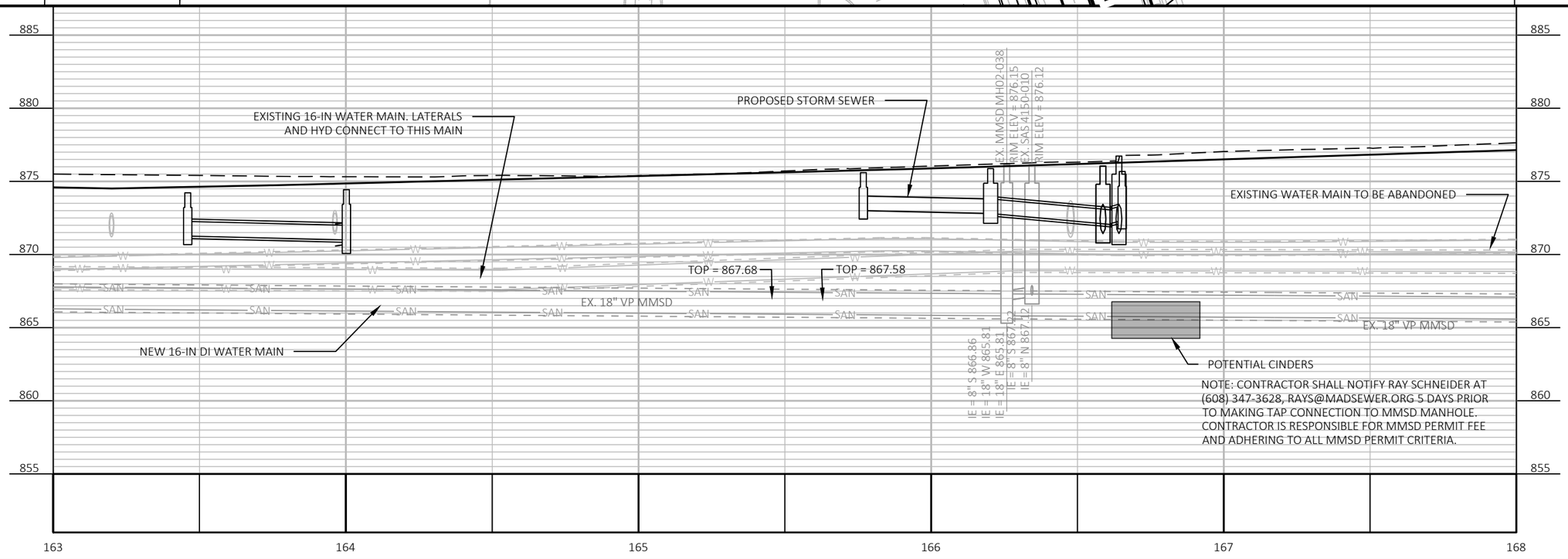
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LAYOUT NAME - UA Utility P&P - (12)

PLOT DATE : 10/29/2021 8:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

NOTE:
REMOVE AND REPLACE SIDEWALK AS NEEDED TO REPLACE SANITARY LATERALS (MAX. OF 4 SW SQUARES -100 SF PER LATERAL)





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 139	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA Utility P&P - (13)
PLOT DATE : 10/29/2021 8:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

PROPOSED 30-IN MMSD INTERCEPTOR

EXISTING 16-IN WATER MAIN TO REMAIN IN PLACE

EXISTING 18-IN MMSD SANITARY SEWER TO REMAIN IN PLACE

POTENTIAL CINDERS

EXISTING 6'X15' BOX CULVERT

CAMPUS DRIVE EB

OLD UNIVERSITY AVE

GRANDSTAND AVE

POTENTIAL PETROLEUM CONTAMINATED SOIL AND CINDERS

ABANDON EXISTING 8-IN WATERMAIN AT EXISTING 16-IN WATER MAIN

ABANDON VALVE BOX

ABANDON 5/8" SERVICE

2" LEAD

1" LEAD

0.75" LEAD

NOTE 3: TYPICAL FOR ALL "SHORT" EXISTING 1", 1.5", OR 2" LATERALS: LATERAL CAN BE EXTENDED FROM THE EXISTING MAIN AND TAPPED ONTO THE NEW MAIN (UNLESS CURB BOX RELOCATION IS REQ'D).

EXISTING HYDRANT TO REMAIN IN PLACE. CONNECT LEAD TO EXISTING 16-IN MAIN

NOTE 2: TYPICAL: MINIMUM TAP SIZE FOR COPPER LATERALS IS 1-INCH. FOR 0.75-INCH LATERALS, CONTRACTOR IS RESPONSIBLE FOR REDUCING DOWN TO EXISTING LATERAL SIZE.

EXISTING WATER MAIN TO BE ABANDONED

EXISTING 16-IN WATER MAIN. LATERALS AND HYD CONNECT TO THIS MAIN

EX. 18" VP MMSD TO REMAIN

PROPOSED STORM SEWER

POTENTIAL PETROLEUM CONTAMINATED SOIL (OLD UNIVERSITY AVE)

POTENTIAL CINDERS (OLD UNIVERSITY AVE)

B-7 BEDROCK 866'

EX. MMSD MH02-037 RIM ELEV = 876.22

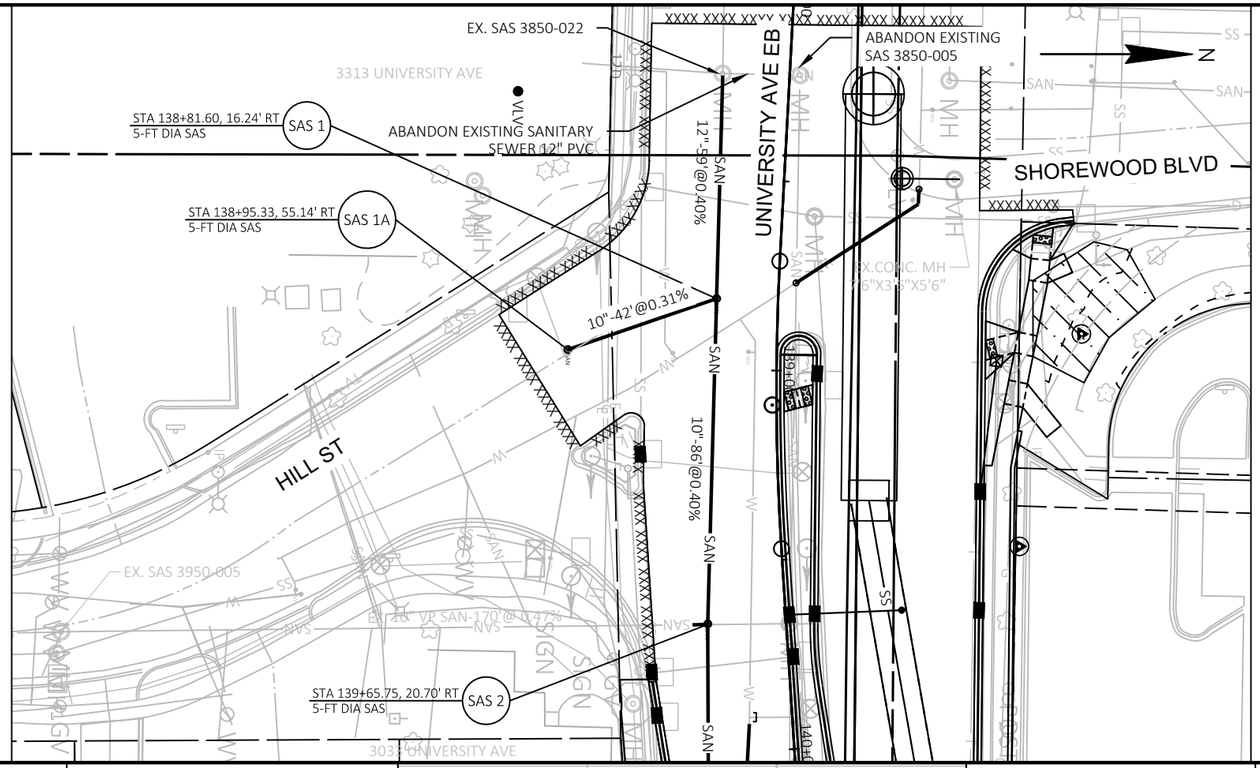
IE = 10" S 866.42
IE = 18" W 864.97

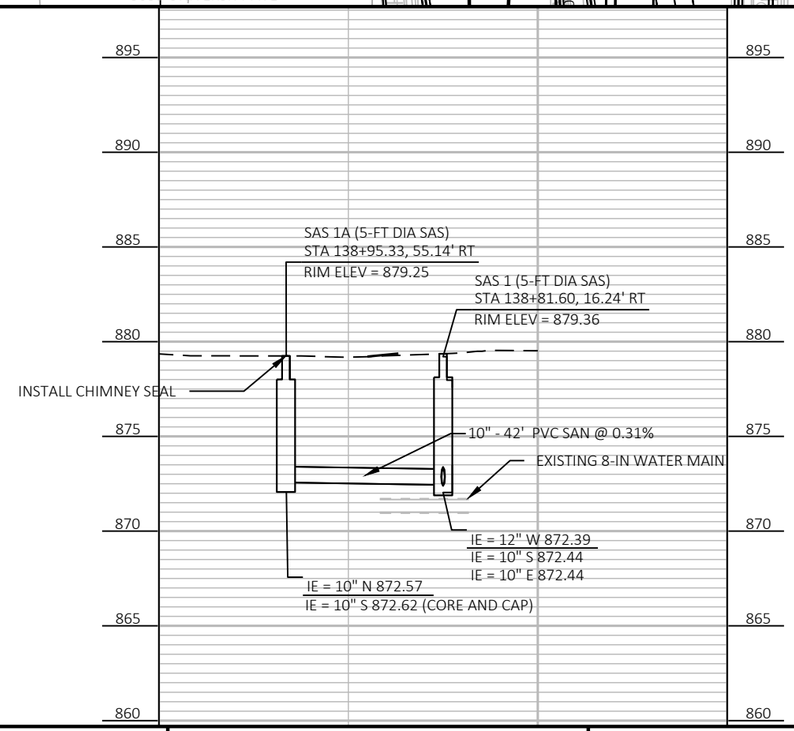
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES	SHEET 140	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA Utility P&P - (14)

PLOT DATE : 10/29/2021 8:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

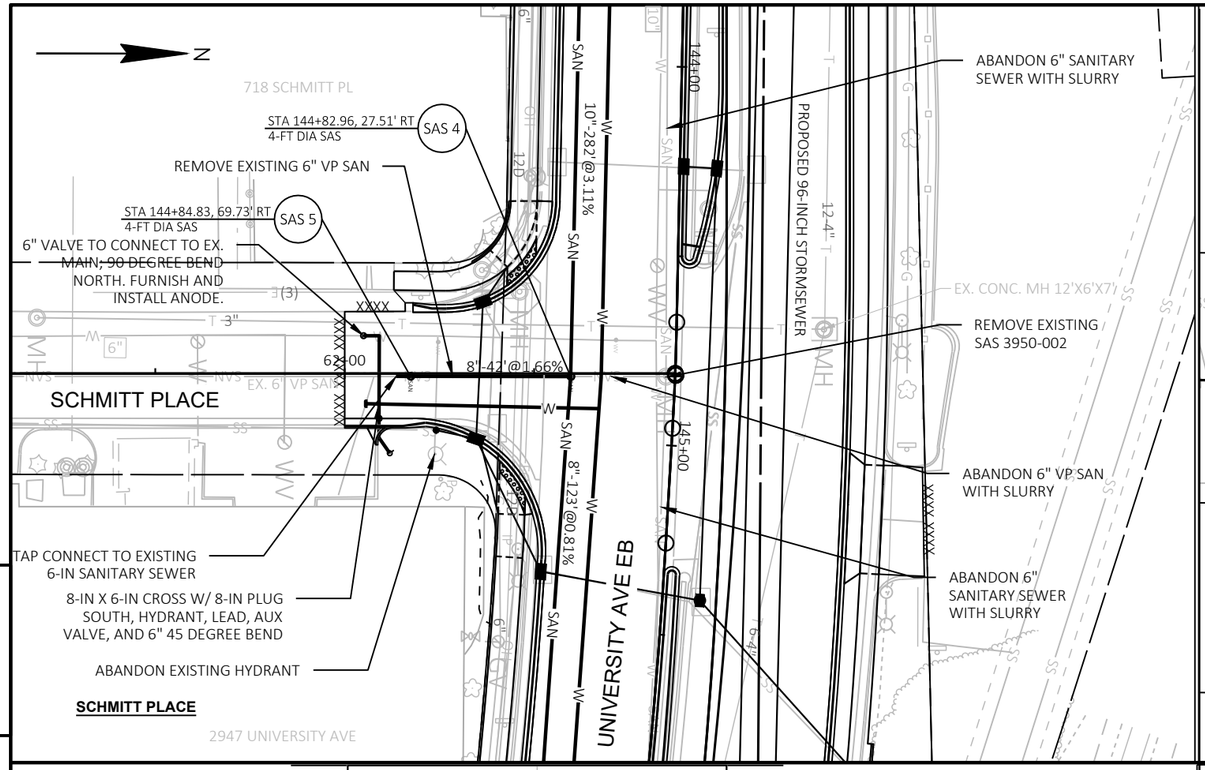


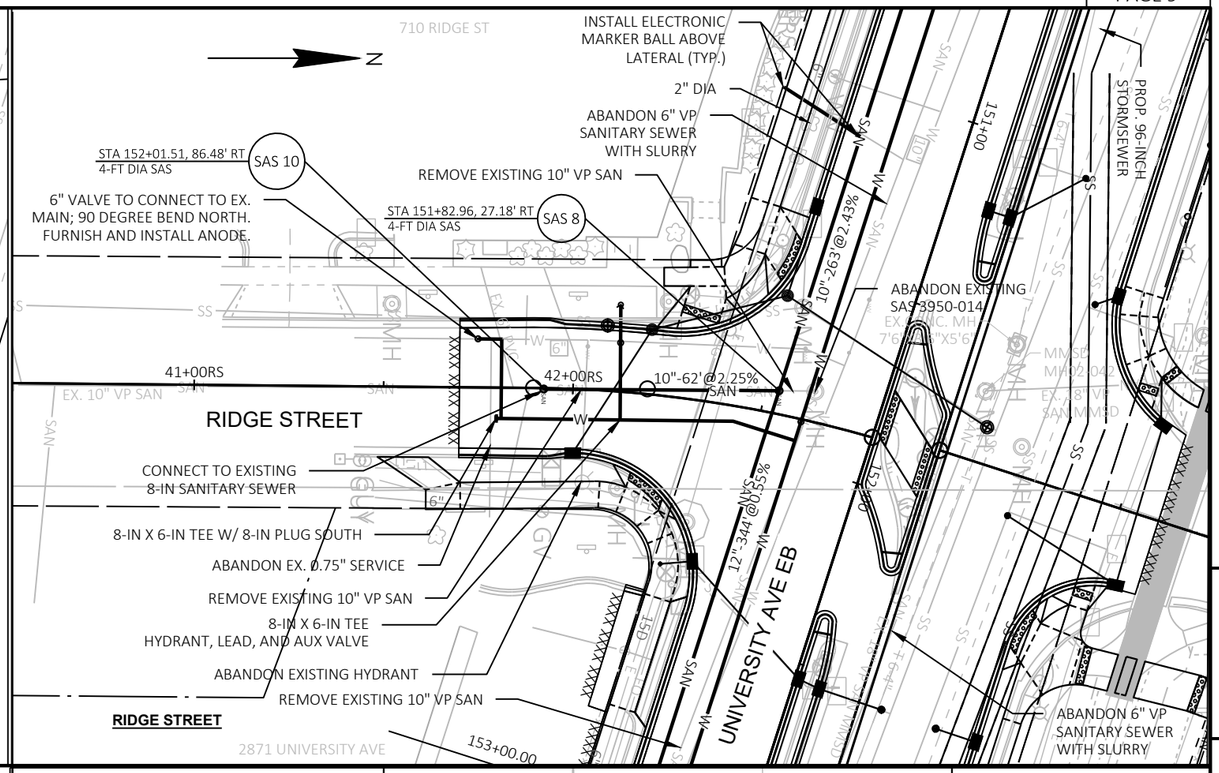


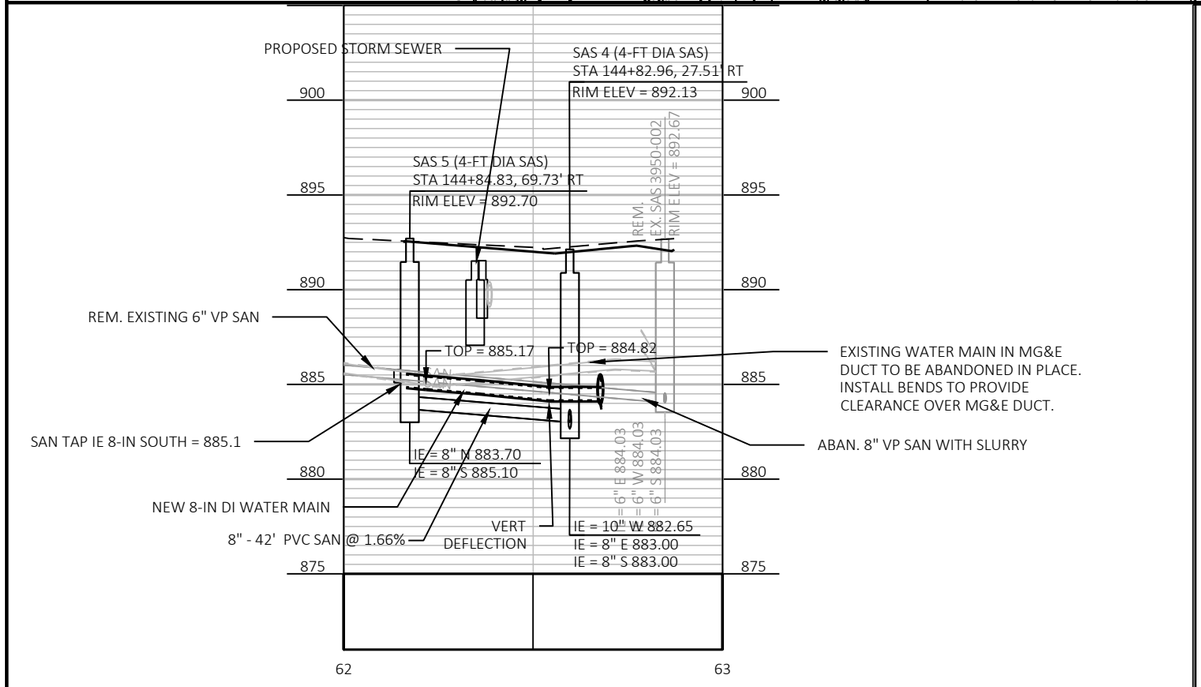
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - SCHMITT PL & RIDGE ST	SHEET 141	E

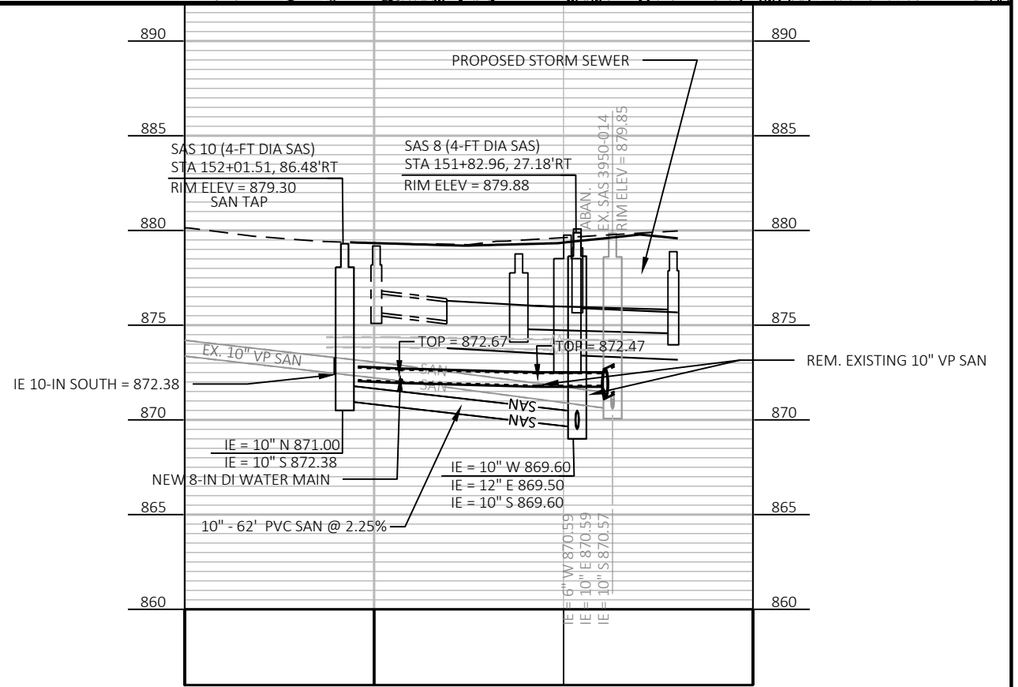
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - Side Road P&P 0

PLOT DATE : 10/29/2021 8:36 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

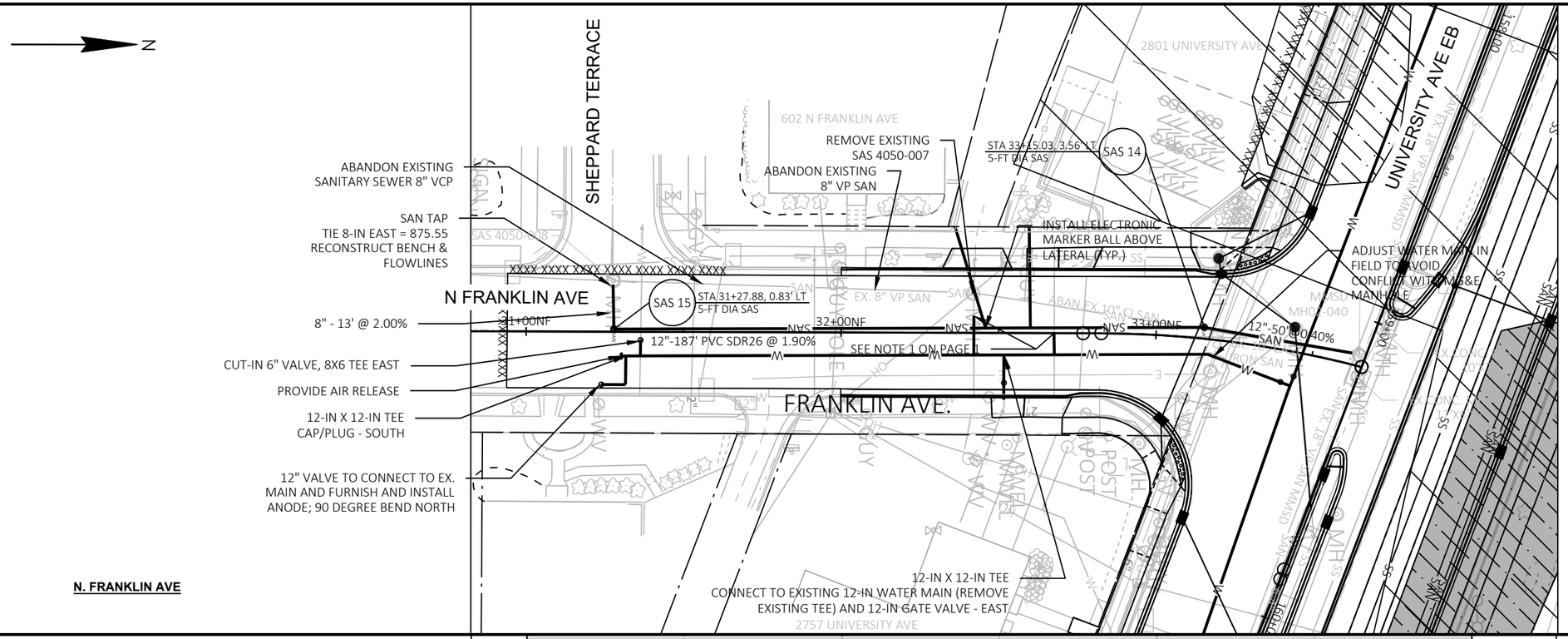








PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - SCHMITT PL & RIDGE ST	SHEET 142	E

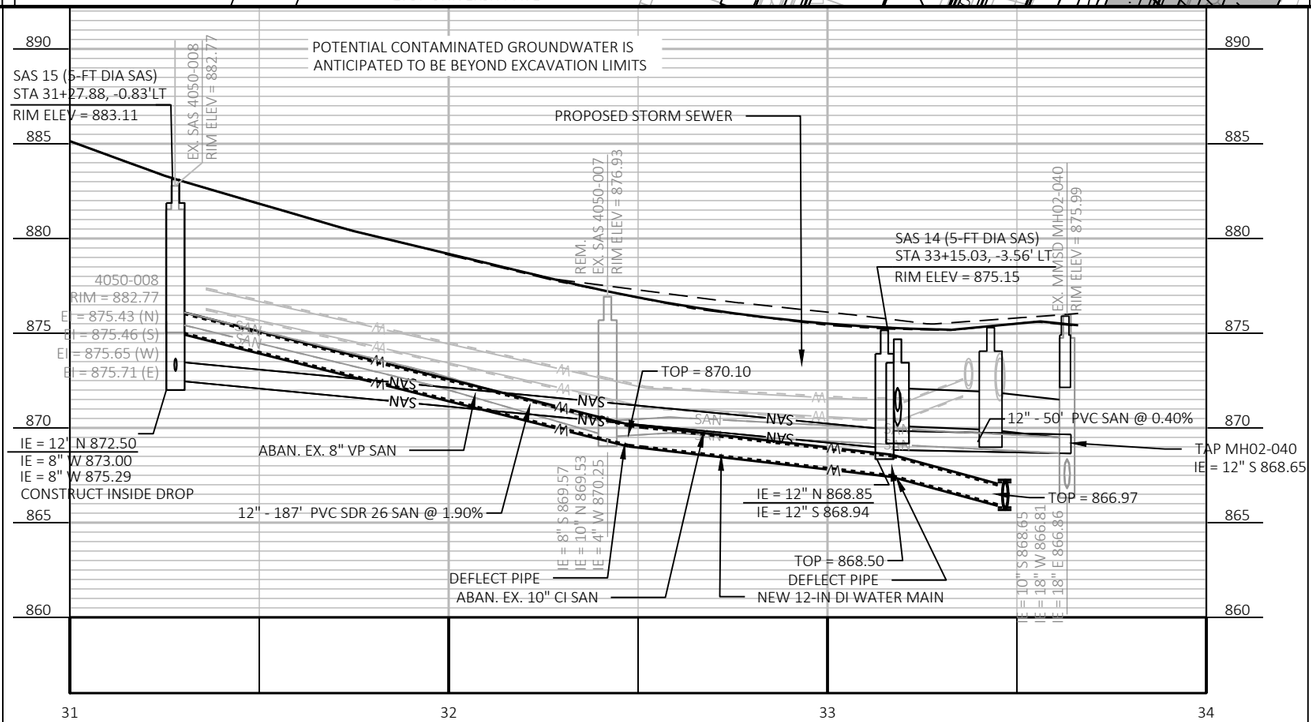


5

5

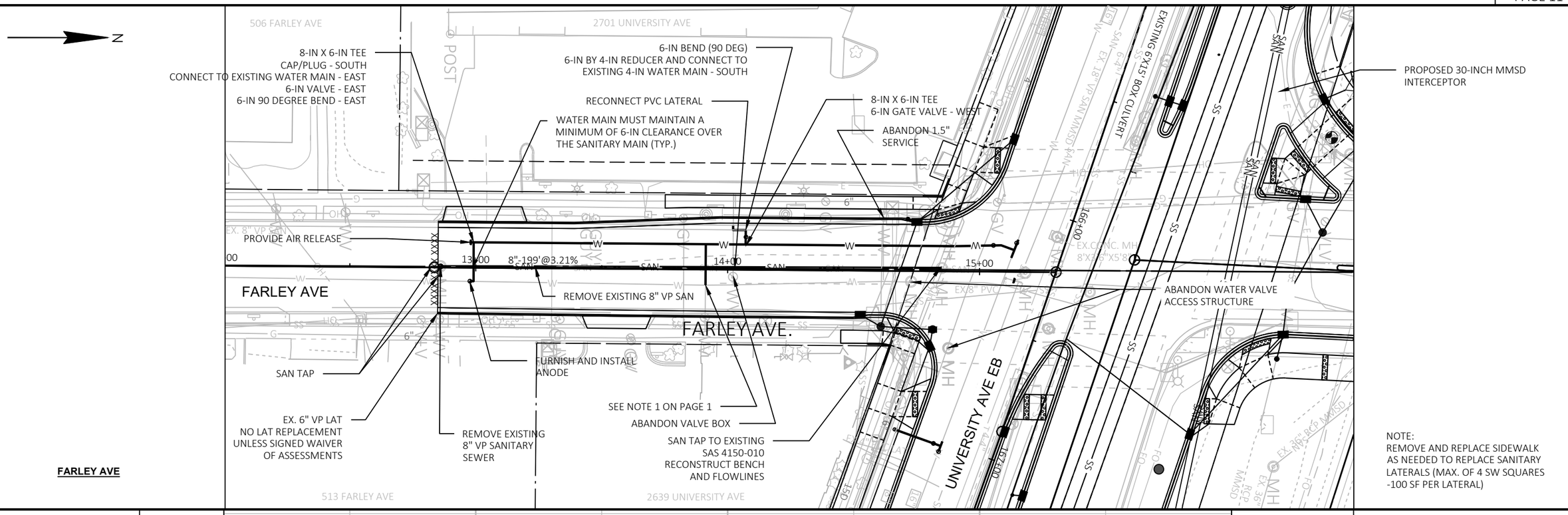
N. FRANKLIN AVE

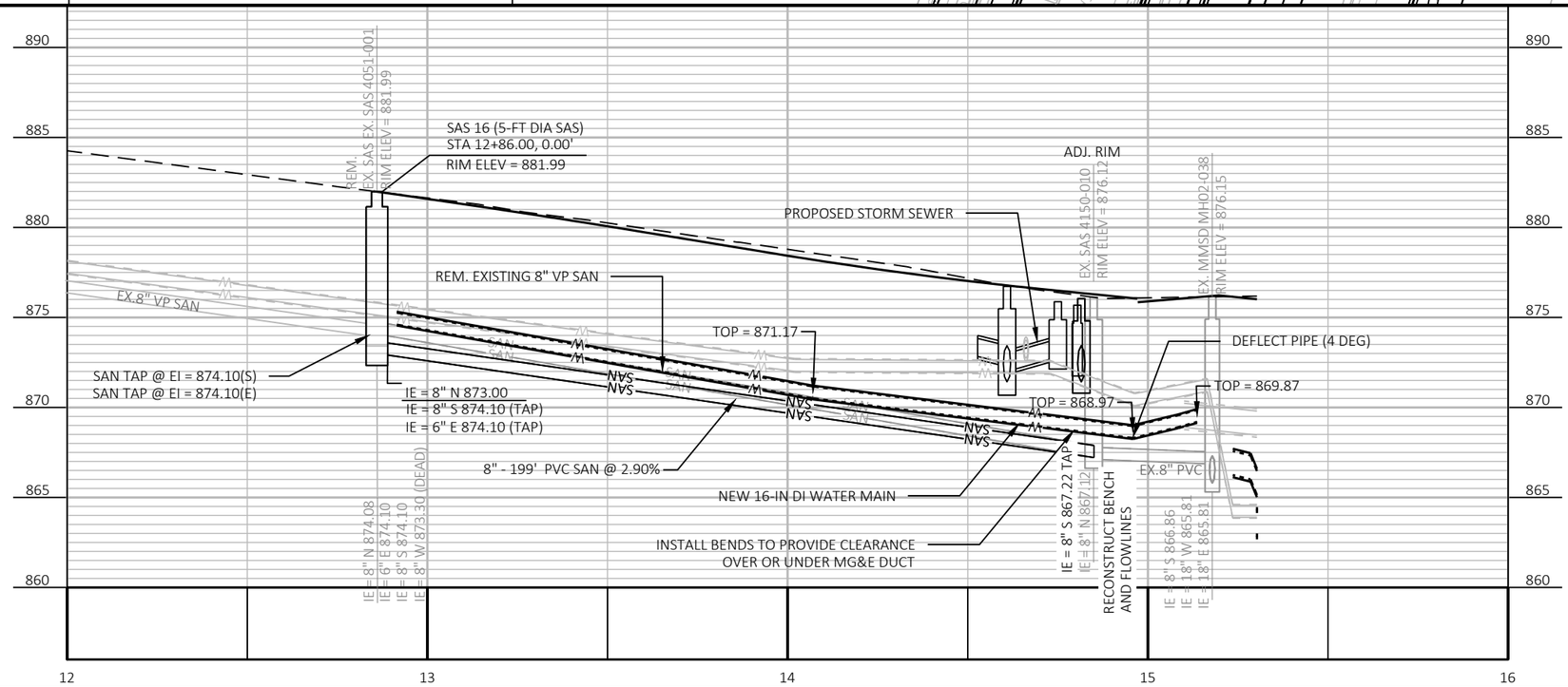
NOTE:
REMOVE AND REPLACE SIDEWALK AS NEEDED TO REPLACE SANITARY LATERALS (MAX. OF 4 SW SQUARES -100 SF PER LATERAL)



NOTE: CONTRACTOR SHALL NOTIFY RAY SCHNEIDER AT (608) 347-3628, RAYS@MADSEWER.ORG 5 DAYS PRIOR TO MAKING TAP CONNECTION TO MMSD MANHOLE. CONTRACTOR IS RESPONSIBLE FOR MMSD PERMIT FEE AND ADHERING TO ALL MMSD PERMIT CRITERIA.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - N FRANKLIN AVE	SHEET 143	E





NOTE: CONTRACTOR SHALL NOTIFY RAY SCHNEIDER AT (608) 347-3628, RAYS@MADSEWER.ORG 5 DAYS PRIOR TO MAKING TAP CONNECTION TO MMSD MANHOLE. CONTRACTOR IS RESPONSIBLE FOR MMSD PERMIT FEE AND ADHERING TO ALL MMSD PERMIT CRITERIA.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - FARLEY AVENUE	SHEET 144	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - Side Road P&P 3
PLOT DATE : 10/29/2021 8:40 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

N

LOCATE AND ABANDON 1.5-IN SERVICE LATERAL

EXISTING 36-IN MMSD INTERCEPTOR TO REMAIN IN PLACE

CONNECT TO EX. 16-IN WATER MAIN WITH 90-DGR BEND

11.25-DGR BEND

22.5-DGR BEND

11.25-DGR BEND

VILLAGE OF SHOREWOOD HILLS METER PIT

CUT IN 16X6 TEE, HYDRANT, LEAD VALVE WEST; AND 16" MAIN LINE VALVE NORTH; SEE SEQUENCING AND MADISON WATER UTILITY ACCESS REQUIREMENTS IN SPECIAL PROVISIONS

NEW 12" MAIN FROM 16" MAIN WITH 16X12 TEE, 12" VALVE, TWO 12" 45-DGR BEND, 12" 90-DGR BEND, AND 12X6 REDUCER TO CONNECT TO EXISTING 6" WATER MAIN. TIE IN SOUTH OF SERVICE VALVE TO V.A. HOSPITAL

POTENTIAL CINDERS

CONNECT TO EX. METER PIT

CONNECT TO EX. SOUTH LEG VALVE

ABANDON EXISTING WATER MAIN SOUTH OF 16-IN CONNECTION

PROPOSED 30-IN MMSD INTERCEPTOR

VILLAGE OF SHOREWOOD SAN TO REMAIN IN PLACE

EXISTING WATER MAIN TO VA METER PIT TO REMAIN IN PLACE

UNIVERSITY BAY DRIVE

700 UNIVERSITY BAY DR

2704 MARSHALL CT

MARSHALL COURT

UNIVERSITY BAY DRIVE

5

5

EXISTING WATER MAIN TO BE ABANDONED SOUTH OF CONNECTION

POTENTIAL CINDERS

ATC CROSSING $6\frac{5}{8}$" AND $5\frac{9}{16}$"

6" GAS CROSSING

PROPOSED STORM SEWER

10-IN DI WATER MAIN

VILLAGE OF SHOREWOOD EXISTING SANITARY TO REMAIN IN PLACE

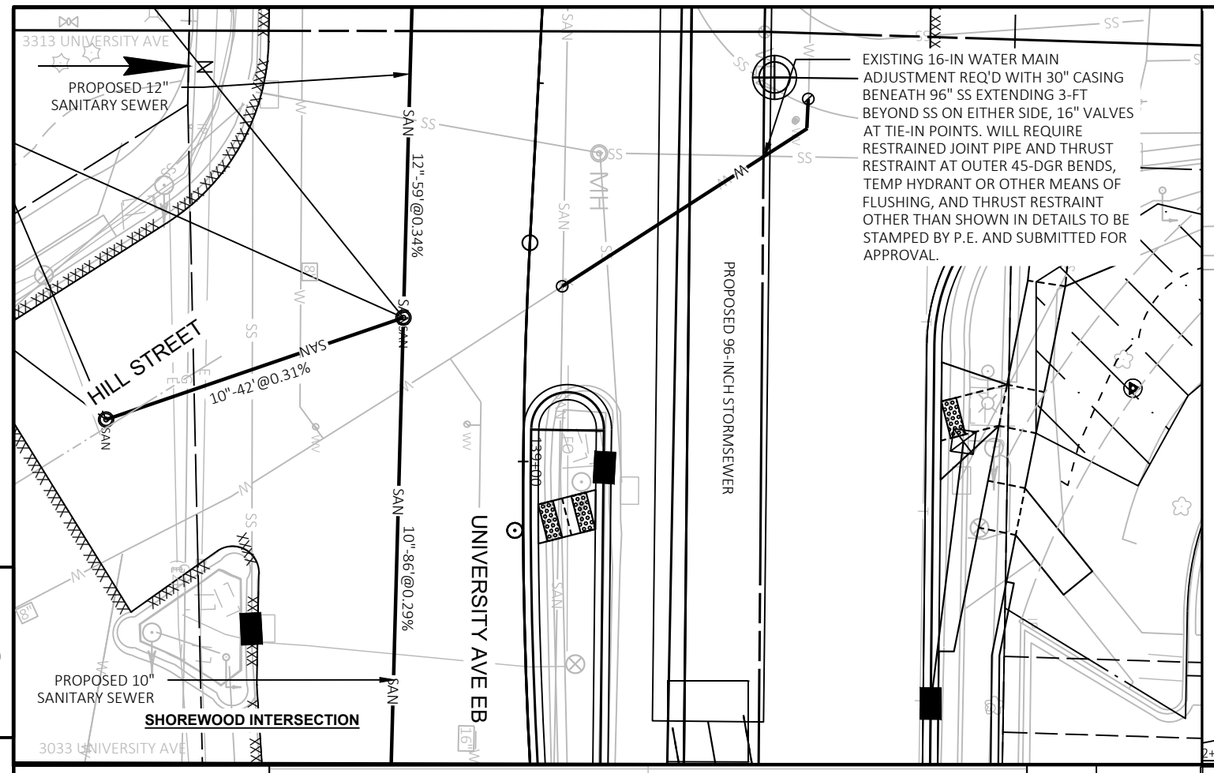
885 880 875 870 865 860 855

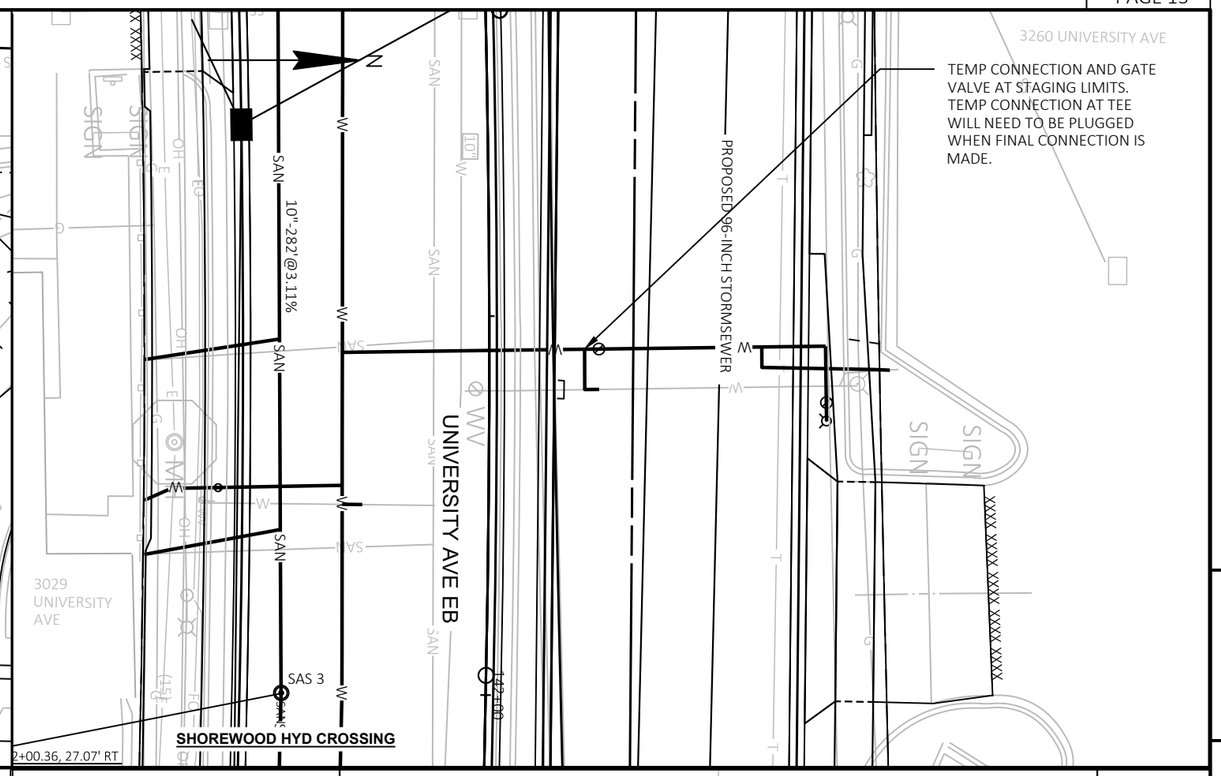
20 21 22 23 24 24

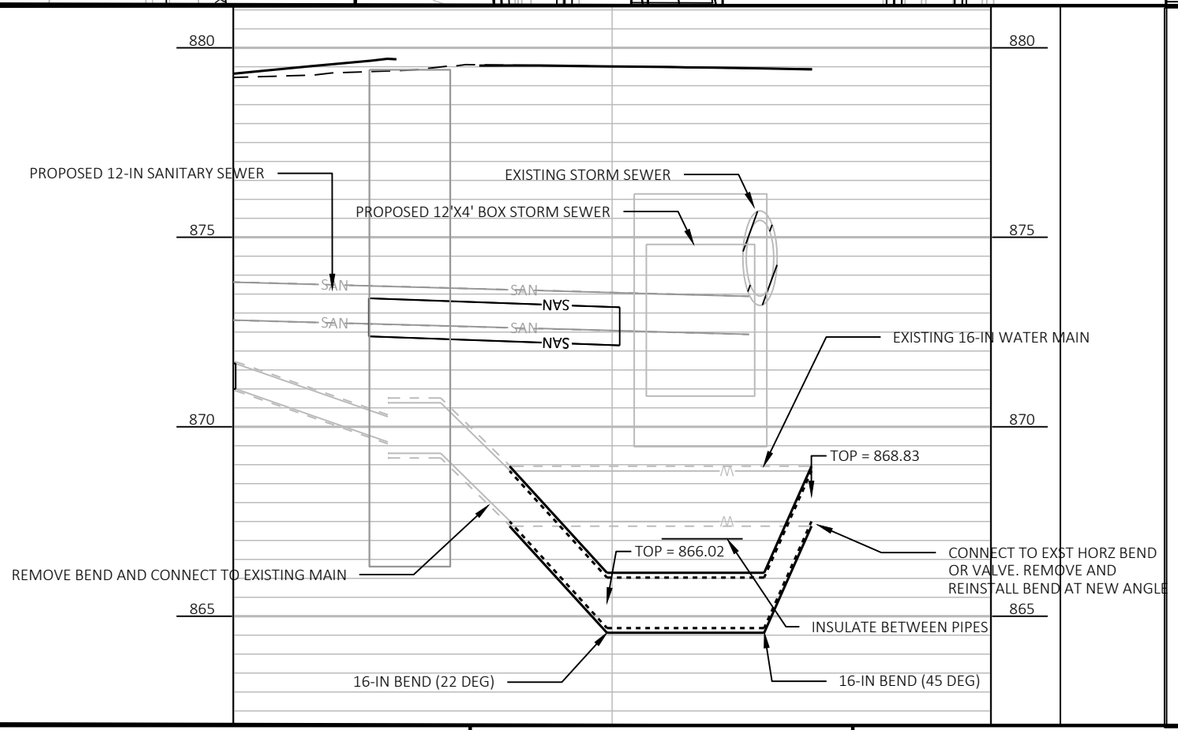
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - UNIVERSITY BAY DR	SHEET 145	E

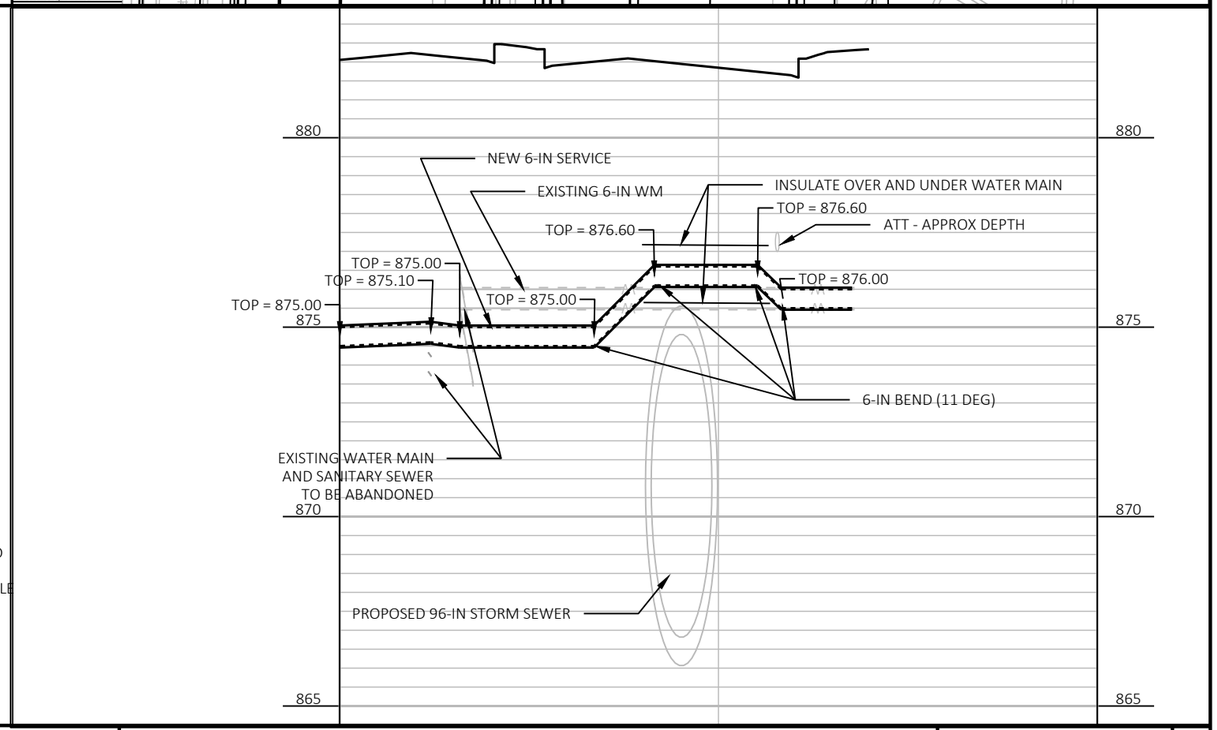
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LAYOUT NAME - Side Road P&P 4

PLOT DATE : 10/29/2021 8:42 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT



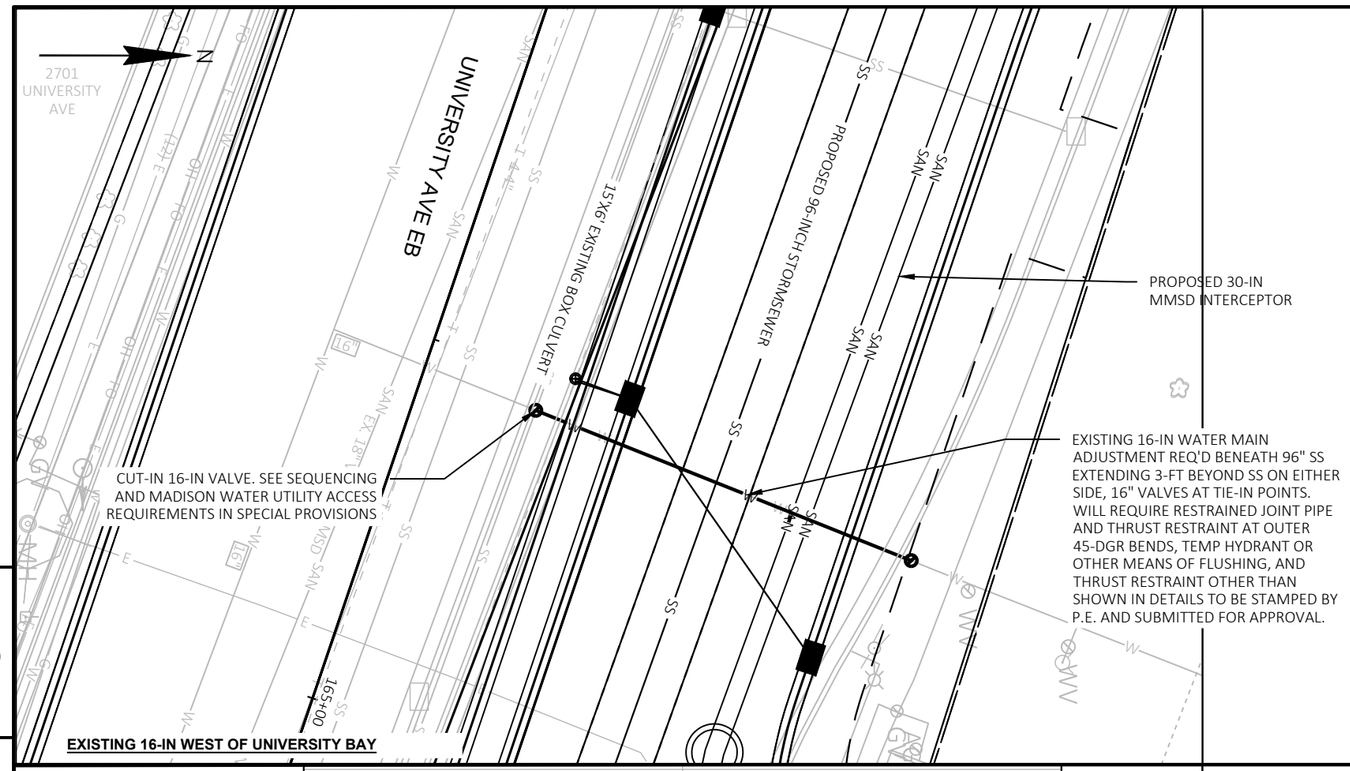


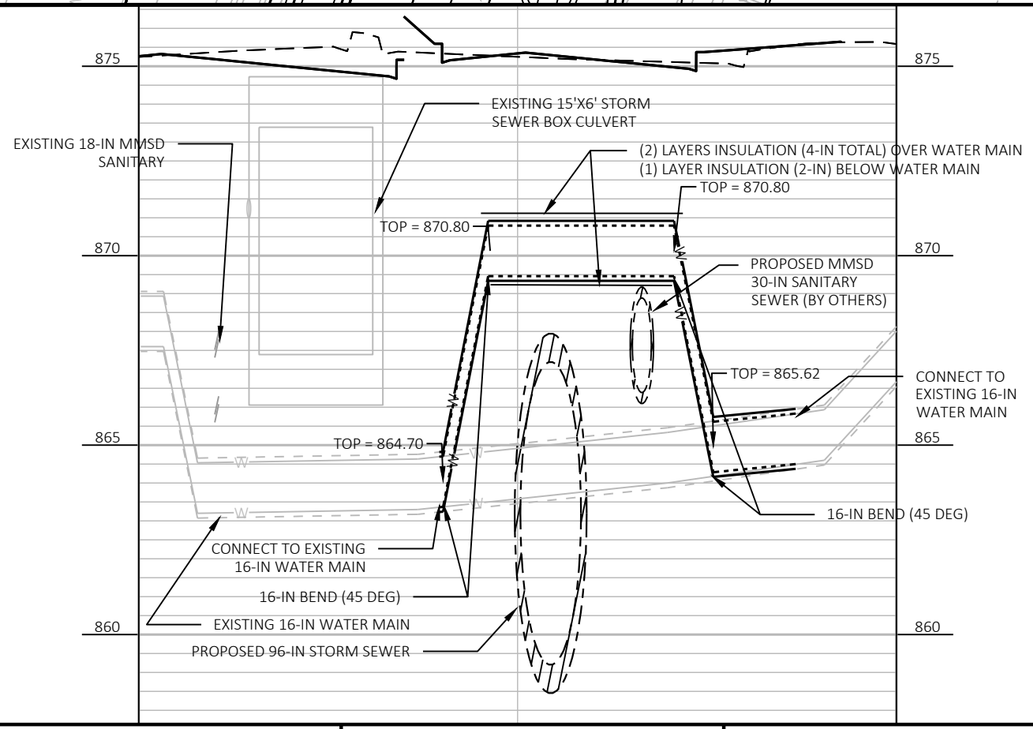




PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - CROSSING DETAILS	SHEET 146	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA WM XING 1
PLOT DATE : 10/29/2021 8:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY AVENUE UTILITIES - CROSSING DETAILS	SHEET 147	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\UTILITIES\UTILITY PLAN AND PROFILE.DWG
LAYOUT NAME - UA WM XING 1 (2)
PLOT DATE : 10/29/2021 8:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

NOTES:
-EXISTING UTILITIES BASED ON FIELD MEASUREMENTS, AS-BUILT DRAWINGS, AND CITY CAD FILES. FIELD VERIFY LOCATION AND ELEVATION.
-2 ULO'S WERE CONDUCTED ON ATC CONDUIT, REMAINING ELEVATIONS ARE BASED ON AS-BUILT FILES AND FIELD LOCATES. FIELD VERIFY PRIOR TO CONSTRUCTION
-DEPTH OF EXISTING WATER MAIN APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION TO CONFIRM VERTICAL OFFSET REQUIRED OVER PROPOSED SANITARY SEWER (MIN 6-IN BETWEEN BOTTOM OF WATER MAIN AND TOP OF SAN SEWER).
-INSULATION (4-IN) PLACED OVER WATER MAIN AT ALL STORM SEWER CROSSINGS AND WHERE 6.5-FT OF COVER NOT MET.
-WM DESIGNED FOR MIN. 6.5-FT OF COVER, UNLESS NOTED OTHERWISE
-STA/OFFSET FOR MMSD MH FROM OVERPASS ALIGNMENT
-SUBMIT BYPASSING PLANS TO MMSD AT LEAST 2 WEEKS PRIOR TO CONSTRUCTION.
-COORDINATE WITH MMSD FOR INSPECTION OF STRUCTURES.

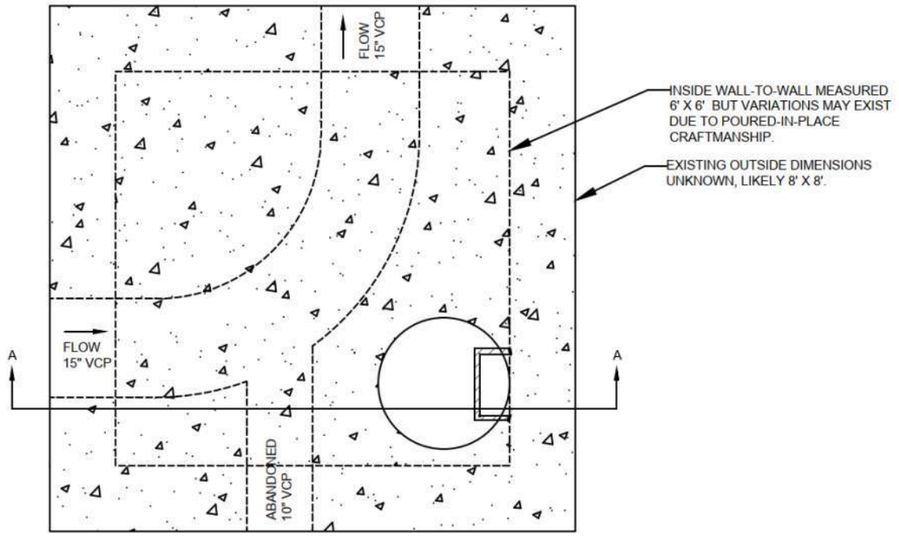
POTENTIAL CINDERS
APPROXIMATE LOCATION OF NEW RAILROAD GATE AND CANTILEVER STRUCTURE
WATER METER PIT
CLAY TRENCH PLUG REQ'D
UNIVERSITY BAY DRIVE
MMSD 1 | STA 54+32, 12.4' LT | 6 - FT DIA MH
PLACE FLUOROCARBON GASKETS ON ALL JOINTS BETWEEN CLAY TRENCH PLUGS
CONNECT TO EXISTING 36-IN MMSD SANITARY SEWER
ALIGNMENT ALONG PROPOSED MMSD SANITARY SEWER
POTENTIAL PETROLEUM CONTAMINATED SOIL AND CINDERS
PROPOSED PEDESTRIAN OVERPASS STRUCTURE ALIGNMENT
54+00
55+00
66+00
POTENTIAL CINDERS
APPROXIMATE LOCATION OF ATC CROSSING.
6-IN COND - NORTH
7-IN COND - SOUTH
CONNECT TO EXISTING 10-IN VIL OF SHOREWOOD SANITARY SEWER. MATCH EXISTING SLOPE (1.33%) WITH NEW 10-IN PVC SAN SEWER
CONNECT TO EXISTING 36-IN MMSD SANITARY SEWER
MMSD 4 | STA 55+71, 35.3' RT | 6-FT DIA MH
REMOVE EXISTING SANITARY SEWER BETWEEN MMSD 1 AND MMSD 4.
PROVIDE REQUIRED VERT CLEARANCE UNDER WATER MAIN AND OVER SANITARY SEWER
CLAY TRENCH PLUG REQ'D
MMSD 2 | STA 54+86, 18.0' LT | 6 - FT DIA MH
PROPOSED PIER AND FOOTING (DASHED) (TYP.)
PROTECT EXISTING ATC
MMSD 3 | STA 55+47, 21.6' RT | 7 - FT DIA MH (OUTSIDE DROP)
PROPOSED PEDESTRIAN OVERPASS STRUCTURE (SEE OTHER PLANS)
WSOR

880
875
870
865
MMSD 1 RIM = 876.5
MMSD 2 RIM = 878.4
MMSD 3 RIM = 876.2
MMSD 4 RIM = 875.5
INSULATE OVER WATER MAIN
ATC CROSSING 6-IN COND - NORTH 7-IN COND - SOUTH
POTENTIAL CINDERS
EXISTING 8-IN WATER MAIN
EXISTING 15-IN STORM SEWER
APPROXIMATE EXISTING GROUND OVER PROP MMSD SANITARY SEWER
APPROXIMATE PROPOSED GROUND OVER PROPOSED MMSD SANITARY SEWER
POTENTIAL PETROLEUM CONTAMINATED SOIL
6-IN GAS CROSSING (HP ON EAST SIDE)
OUTSIDE DROP REQUIRED.
IE 10-IN NORTH = 870.07
IE 10-IN NORTH = 867.73
16-IN DI WATER MAIN RELOCATION
36 SAN SEWER @ 0.07%
CONNECT TO EXIST 36-IN SAN
IE = 866.31
36 SAN SEWER @ 0.11%
CONNECT TO EXIST 36-IN SAN
IE = 866.19
APPROXIMATE FLOWLINE OF EXISTING 36-IN RCP MMSD SANITARY SEWER
52.8 - LF OF 36 SAN SEWER @ 0.07%
IE = 866.31 / IE = 866.28
72.2 - LF OF 36 SAN SEWER @ 0.06%
IE = 866.28 / IE = 866.23
27.6 - LF OF 36 SAN SEWER @ 0.14%
IE = 866.23
IE = 866.19

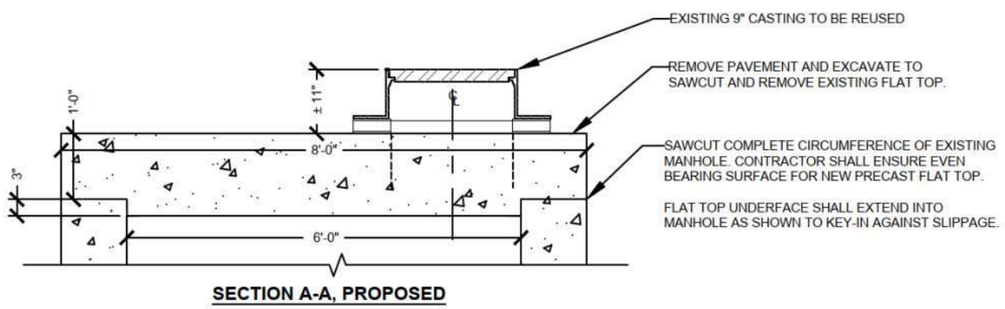
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY BAY DRIVE MMSD SANITARY SEWER RELOCATE	SHEET 148	E

2

MMSD MANHOLE 02-048 FLAT TOP REPLACEMENT



PLAN



SECTION A-A, PROPOSED



PHOTO #1:
EXISTING ACCESS LADDER



PHOTO #2:
FLAT TOP AND WALL INTERFACE



PHOTO #3:
FLAT TOP AND WALL INTERFACE

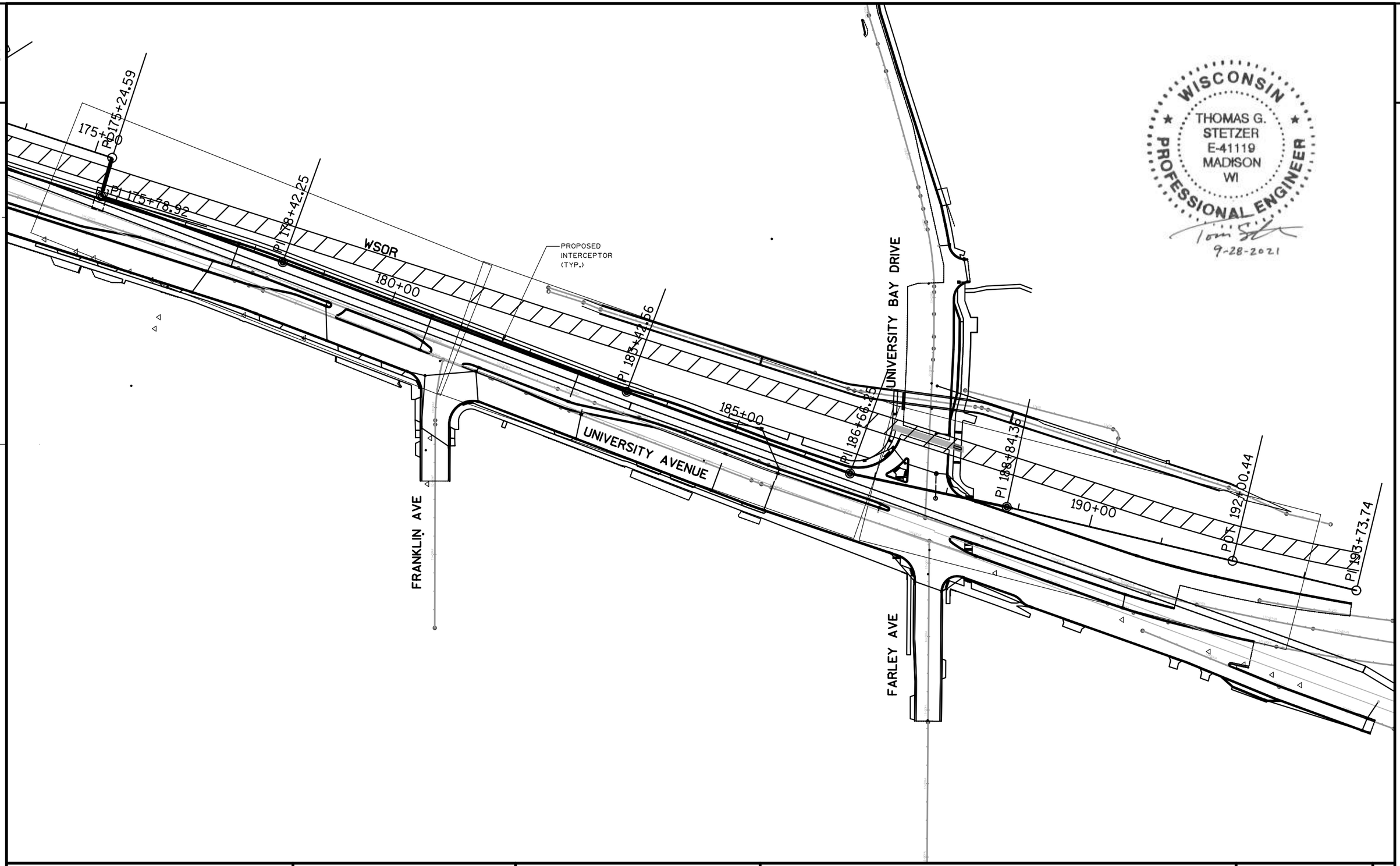


PHOTO #4:
EXISTING DEBRIS TO BE CLEANED

NOTES:

1. DRAWING IS NOT TO SCALE.
2. EXISTING RECORDS INDICATE MANHOLE WAS INSTALLED IN 1930'S.
3. ALL PHOTOS TAKEN 08/10/2020.
4. THE EXISTING UNDERSIDE OF FLAT TOP TO TOP OF BENCH IS 54".
5. SEE SPECIFICATIONS **"MMSD MANHOLE 02-048 FLAT TOP REPLACEMENT"** FOR SPECIFIC MATERIALS AND CONSTRUCTION REQUIREMENTS.

2



WISCONSIN
THOMAS G. STETZER
E-41119
MADISON
WI
PROFESSIONAL ENGINEER
9-28-2021

PROJECT NO: 5992-11-33	HWY: UNIVERSITY AVENUE	COUNTY: DANE	MMSD INTERCEPTOR SEWER OVERVIEW	SHEET	E

FILE NAME : S:\MAD\1000--1099\1021\034\Drawings\CAD\Micros\PLAN\InterceptorOverview.dgn PLOT DATE : 9/27/2021 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

STANDARD SYMBOLS

- TEMPORARY EASEMENT
- PROPERTY LINE AND/OR RIGHT OF WAY
- SOIL BORING
- BENCH MARK
- PROPERTY STAKE
- IRON PIPE
- INLET
- CURB WATER BOX
- ROAD SIGN
- PRIVATE WELL
- EXISTING UTILITY POLE
- BURIED TELEPHONE CABLE PEDESTAL
- SIGN
- LIGHT POLE
- MAIL BOX
- OBJECTS TO BE REMOVED
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- WETLAND AREA
- PAVED ROAD
- EXISTING CULVERT
- UNDERGROUND CONFLICT
- FORCE MAIN
- WATER MAIN
- STORM SEWER
- SANITARY SEWER
- EXISTING SANITARY SEWER AND MANHOLE
- TELEPHONE OR TV CABLE
- FIBER OPTIC CABLE
- GAS MAIN
- UNDERGROUND ELECTRIC CABLE
- ORIGINAL GROUND IN PROFILE
- FENCE
- GUARD RAIL
- SILT FENCE
- CONTROL POINT
- GUY WIRE & ANCHOR
- INLET PROTECTION

GENERAL NOTES

1. EASEMENTS, EXISTING UTILITIES, PROPERTY LINES, AND R.O.W. LINES SHOWN ARE APPROXIMATE. NOTALL UTILITY MAINS AND SERVICES ARE SHOWN ON THE DRAWINGS. CONTRACTOR SHALL CONTACT DIGGERS HOTLINE FOR UTILITY LOCATES AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS OF THE UTILITY MAINS AND SERVICES DURING CONSTRUCTION.
2. CONTRACTOR SHALL CHECK BETWEEN ALL BENCHMARKS AND CONTROL POINTS TO CONFIRM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PROTECT ALL CONTROL POINTS NOT DIRECTLY IN THE CONSTUCTION AREA.
4. CONTRACTOR SHALL ESTABLISH ADDITIONAL BENCHMARKS AND CONTROL POINTS AS NECESSARY TO COMPLETE THE WORK. CONTRACTOR IS ENCOURAGED TO CHECK BENCHMARKS AND CONTROL POINTS PERIODICALLY FOR MOVEMENT.
5. CONTRACTOR SHALL MAINTAIN STORM SEWER CAPACITY EQUIVALENT TO THE EXISTING STORM SEWER SYSTEM WITHIN THE PROJECT LIMITS DURING RAIN EVENTS AND AT THE END OF EVERY DAY.
6. PROTECT EXISTING UTILITIES DURING CONSTRUCTION. PROVIDE SHORING AS REQUIRED TO PREVENT UNDERMINING EXISTING UTILITIES AND STRUCTURES.
7. ALL CONCRETE AND ASPHALT SHALL BE SAWCUT UNLESS EXISTING CONCRETE AND ASPHALT CAN BE REMOVED WITHOUT DAMAGING CONCRETE TO REMAIN IN PLACE.
8. CONTRACTOR SHALL PROTECT ALL PROPERTY IRONS.

SURVEY BENCHMARK TABLE

BENCHMARK	DESCRIPTION	ELEV.
BM 10	TOP NUT OF FIRE HYDRANT AT SOUTHWEST CORNER OF LOCUST DR AND SHOREWOOD BLVD	884.09
BM 11	TOP NUT OF FIRE HYDRANT AT NORTHWEST CORNER OF COLUMBIA RD AND BIKE PATH	880.35
BM 12	TOP NUT OF FIRE HYDRANT AT NORTHWEST CORNER OF PURDUE ST AND SWARTHMORE CT	879.96
BM 13	CHISELED CROSS FOUND IN SIDEWALK AT NORTHEAST CORNER OF UNIVERSITY AVE AND MARSHALL CT (APPROX 50'W OF CP 70)	879.66
BM 14	TOP NUT OF FIRE HYDRANT AT NORTHWEST CORNER OF UNIVERSITY AVE AND UNIVERSITY BAY DRIVE	878.43

CONTROL POINTS

CONTROL POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP 55	483284.412	805270.150	880.87	cp 55 mag nail
CP 60	483432.843	805287.643	881.50	cp 60 mag nail
CP 65	483257.991	805857.316	887.94	cp 65 mag nail
CP 70	482904.557	806665.920	879.69	cp 70 mag nail
CP 75	482523.705	807950.888	875.87	cp 75 mag nail
CP 80	482361.647	808664.811	882.24	cp 80 mag nail
CP 85	482331.521	809280.468	878.25	cp 85 spike

TREE LEGEND

SPECIES NAME	Abbreviation
American Elm (Ulmus americana)	EL
Basswood (Tilia americana)	BW
Black Cherry (Prunus serotina)	BC
Black Locust (Robinia pseudoacacia)	BL
Black Walnut (Juglans nigra)	BN
Box Elder (Acer negundo)	BX
Buckthorn (Rhamnus cathartica)	BT
Bur Oak (Quercus macrocarpa)	BO
Catalpa (Catalpa speciosa)	CT
Chesnut (Castenea sp.)	CH
Cottonwood (Populous deltoides)	CW
Crab Apple (Malus sp.)	CA
Dogwood (Cornus sp.)	DW
Fir (Abies sp.)	FR
Freeman Maple (Acer rubrum x saccharinum)	FM
Ginkgo (Ginkgo sp.)	GI
Green Ash (Fraxinus pennsylvanica)	GA
Hackberry (Celtis occidentalis)	HA
Hemlock (Tsuga canadensis)	TS
Honey Locust (Gleditsia tricanthos)	HL
Juniper (Juniperus sp.)	JU
Linden (Tilia sp.)	LI
Mulberry (Morus sp.)	MU
Norway Maple (Acer platenoides)	NM
Paper Birch (Betula papyrifera)	PB
Red Maple (Acer rubrum)	RM
Red Oak (Quercus rubra)	RO
Red Pine (Pinus resinosa)	RP
Redbud (Cercis canadensis)	RB
Scots Pine (Pinus sylvestris)	SP
Shagbark Hickory (Carya ovata)	SH
Siberian Elm (Ulmus pumila)	SE
Silver Maple (Acer sacharrinum)	SV
Spruce (Picea sp.)	SR
Sugar Maple (Acer saccharum)	SM
Swamp White Oak (Quercus bicolor)	WO
Sycamore (Platanus occidentalis)	SY
Tamarack (Larix sp.)	TM
Tree Lilac (Syringa reticulata)	LL
Trembling Aspen (Populous tremuloides)	TA
Tulip Poplar (Liriodenderon tulipifera)	TP
White Ash (Fraxinus americana)	WA
White Cedar (Thuja occidentalis)	WC
White Oak (Quercus alba)	WO
White Pine (Pinus strobus)	WP
Willow (Salix sp.)	WI

UTILITY OWNERS AND CONTACTS

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RD1238@ATT.COM

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VILLAGE OF SHOREWOOD HILLS
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MADISON GAS & ELECTRIC
MARK BOHM (ELECTRIC)
133 BLAIR STREET
MADISON, WI 53701
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MADISON GAS & ELECTRIC
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CITY OF MADISON
TOM MOHR (TRAFFIC)
30 W. MIFFLIN STREET, SUITE 900
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608-267-8725

CITY OF MADISON
MARK MODER (SANITARY AND STORM)
210 MARTIN LUTHER KING JR. BLVD., ROOM 115
MADISON, WI 53703
608-261-9250

MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)
BRUCE BORELLI, DIRECTOR OF ENGINEERING
1610 MOORLAND ROAD
MADISON, WI 53713
608-222-1201 EXT. 206

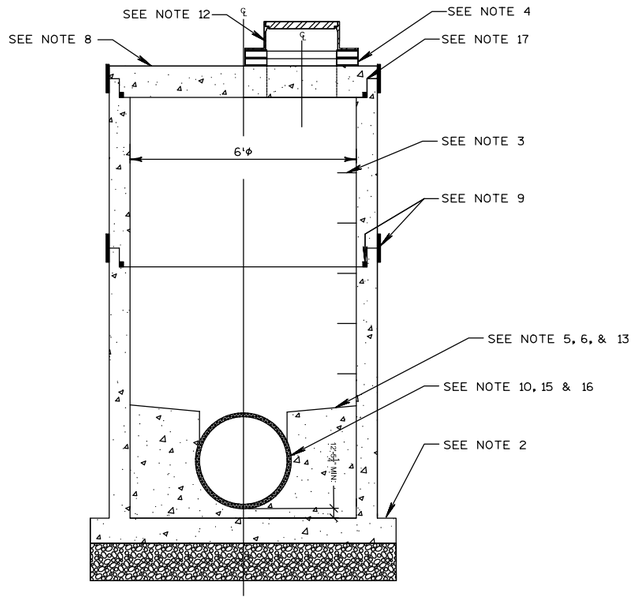
MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)
ERIC HJELLEN, PROJECT MANAGER
1610 MOORLAND ROAD
MADISON, WI 53713
608-222-1201 EXT. 348

CITY OF MADISON
CHRISTY BACHMANN (STREETS)
210 MARTIN LUTHER KING JR. BLVD., ROOM 115
MADISON, WI 53703
608-266-4095

CITY OF MADISON WATER UTILITY
PETE HOLMGREN
119 E. OLIN AVE.
MADISON, WI 53713
608-261-9250

WISCONSIN & SOUTHERN RAILROAD
BRENT J. MARSH
1890 E. JOHNSON STREET
MADISON, WI 53704
414-750-6433

WISCONSIN & SOUTHERN RAILROAD
CHRIS JACOBSON (FLAGGING PROTECTION)
1890 E. JOHNSON STREET
MADISON, WI 53704
414-750-6427



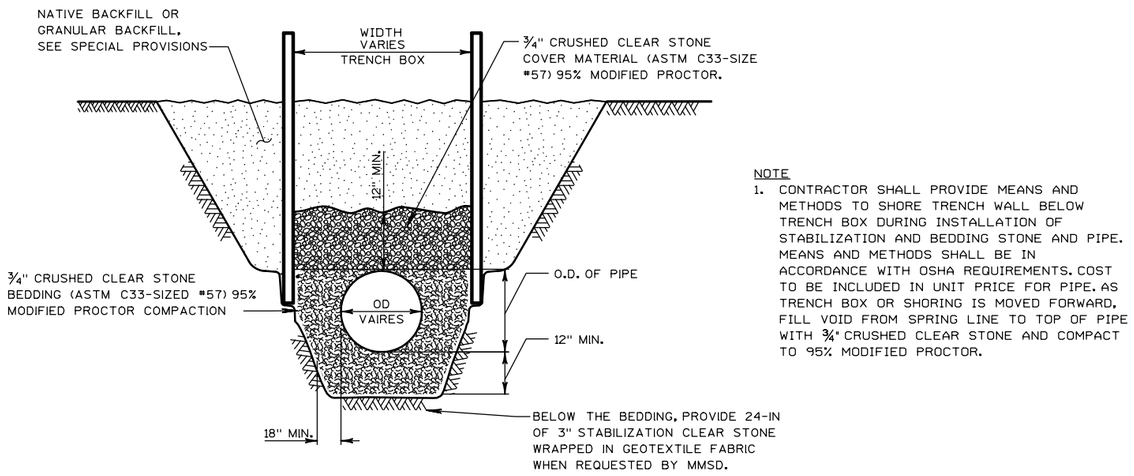
NOTES

1. MANHOLE SECTIONS AND THICKNESS SHALL BE PRECAST REINFORCED CONCRETE, CONSTRUCTED PER ASTM C-478 (ROUND) OR C-913 (SQUARE)
2. THE BASE THICKNESS SHALL BE 8 INCHES FOR DEPTHS 10 FEET OR LESS AND 12 INCHES FOR DEPTHS OVER 10 FEET.

NOTES

3. STEPS, M.A. INDUSTRIES OR EQUAL, SHALL BE PLACED 16 INCHES ON CENTER IN ALL MANHOLES AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. STEPS SHALL BE CENTERED ON BENCH. TOP STEP SHALL BE INSTALLED 24 INCHES FROM DECK UNDERSIDE.
4. MANHOLE CHIMNEYS SHALL HAVE FROM 3 TO 9 INCHES OF ADJUSTING RINGS. OPENING SHALL BE 24 INCHES OFFSET, CENTERED OVER MANHOLE STEPS.
5. THE BENCH SHALL BE 75% OF THE HEIGHT OF THE PIPE WITH A MAX HEIGHT OF 24 INCHES FOR PIPES 24 INCH DIAMETER OR LARGER, OR TO THE PIPE CROWN FOR PIPES LESS THAN 24 INCH DIAMETER.
6. BENCH SHALL BE SLOPED 1 INCH TO 2 INCHES PER FOOT.
7. THE INVERT CHANNEL SHALL BE TROWELED TO SMOOTH, DENSE SURFACE AND A SEMICIRCULAR SHAPE CONFORMING TO THE INSIDE OF THE ADJACENT SEWER SECTIONS.
8. TOP DECK SHOULD BE A FLATTOP UNLESS OTHERWISE NOTED.
9. JOINTS SHALL RECEIVE NON-HARDENING BUTYL RUBBER SEALANT MINIMUM THICKNESS ¾ INCH, TYP. EXTERIOR JOINTS SHALL RECEIVE JOINT PROTECTION SUCH AS MACWRAP OR APPROVED EQUAL TO A MINIMUM WIDTH OF 9 INCH, TYP.
10. PROVIDE WATERTIGHT FLEXIBLE PIPE CONNECTOR FOR ALL CONNECTIONS UNLESS OTHERWISE NOTED.
11. MANHOLE INTERIOR COATINGS TO BE DIRECTED BY MMSD.
12. CHIMNEY, FRAME, AND COVER PER DETAILS
13. MINIMUM HEIGHT FROM TOP OF BENCH TO DECK UNDERSIDE SHALL BE 7 FOOT Ø INCHES.
14. PICKHOLES SHALL UNDER NO CIRCUMSTANCE PENETRATE THROUGH CONCRETE. EARHOLE STYLE PICKHOLES OR SUPERFICIAL LIFTING HOOKS SHOULD BE USED.
15. BOOT EXPANDERS SHALL BE PLACED AND INSTALLED AT THE 12 O'CLOCK POSITION WITH SCREW ENDS CAPPED, UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER.
16. CONCRETE OPENINGS MUST BE CORED FOR SURFACE APPLIED WATERTIGHT FLEXIBLE PIPE CONNECTORS (I.E. KOR-N-SEAL BOOTS). POURING ONLY ACCEPTABLE IF CONNECTOR IS DESIGNED TO BE POURED-IN-PLACE (I.E. A-LOK)
17. FOR A RECONSTRUCTED MANHOLE, IF A JOINT BETWEEN MANHOLE SECTIONS IS NOT TONGUE AND GROOVE CONFIGURATION, THE CONTRACTOR SHALL INSTALL DOWELS AT A MINIMUM OF THREE LOCATIONS AROUND THE PERIMETER OF THE MANHOLE. THE DOWELS SHALL BE #4 REBAR EMBEDDED 3-INCHES INTO EACH SECTION OF THE MANHOLE. IN LIEU OF THIS, THE CONTRACTOR MAY INSTALL 6 INCH BY 6 INCH SST PLATES AT A MINIMUM OF THREE LOCATIONS ON THE OUTSIDE OF THE MANHOLE. THE PLATES SHALL BE ANCHORED WITH TWO 3/8" DIAMETER SST BOLTS ON EACH SIDE OF THE JOINT AT ALL LOCATIONS.

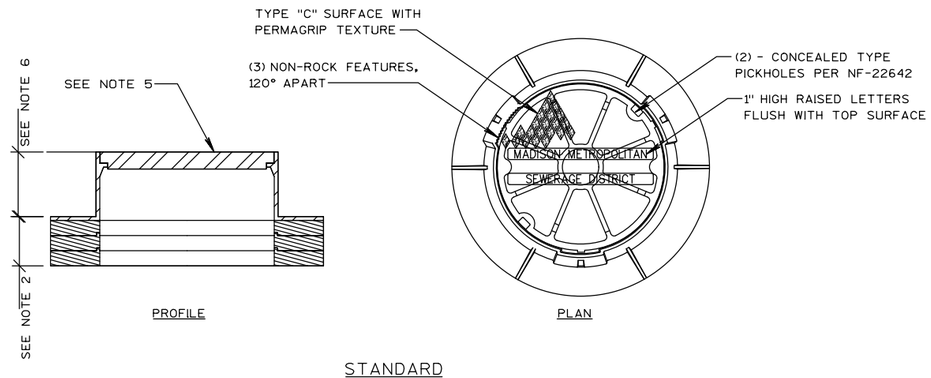
INTERCEPTOR SEWER MANHOLE, (6-FOOT DIAMETER)



NOTE

1. CONTRACTOR SHALL PROVIDE MEANS AND METHODS TO SHORE TRENCH WALL BELOW TRENCH BOX DURING INSTALLATION OF STABILIZATION AND BEDDING STONE AND PIPE. MEANS AND METHODS SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. COST TO BE INCLUDED IN UNIT PRICE FOR PIPE. AS TRENCH BOX OR SHORING IS MOVED FORWARD, FILL VOID FROM SPRING LINE TO TOP OF PIPE WITH ¾" CRUSHED CLEAR STONE AND COMPACT TO 95% MODIFIED PROCTOR.

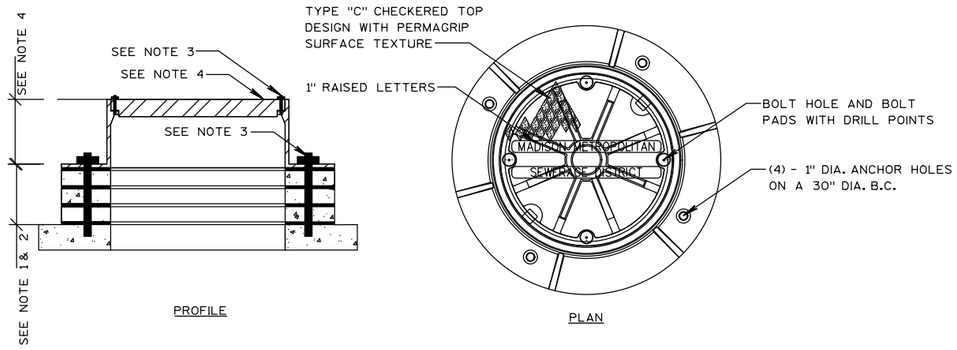
BEDDING AND COVER DETAIL



STANDARD

NOTE

1. STANDARD MANHOLE, ACCESS HOLE, LADDER, CONNECTORS, AND BENCH SHALL BE INSTALLED PER THE INTERCEPTOR SEWER MANHOLE (6-FOOT DIAMETER) DETAIL.
2. CHIMNEY SHALL HAVE A MINIMUM HEIGHT OF 3 INCHES AND A MAXIMUM HEIGHT OF 9 INCHES OF ADJUSTING RINGS. ADJUSTING RINGS SHALL BE HDPE LADTECH OR EQUAL.
3. RINGS SHALL BE PLACED ON A BED OF 3/8 INCH BY 3-1/2 INCH PRE-MOLDED BUTYL BASED SEALANT. ALL VOIDS SHALL BE FILLED WITH SEALANT INCLUDING BETWEEN TOP RING AND FRAME. SEAL BETWEEN RINGS, CASTING, AND TOP DECK PER MANUFACTURER REQUIREMENTS AT MINIMUM.
4. MANHOLE CHIMNEY OPENINGS SHALL BE 24 INCH OFFSET, CENTERED OVER MANHOLE STEPS.
5. MANHOLE FRAME AND COVER SHALL BE CAST IRON WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES, NON-ROCKING, SELF SEALING, WITH CONCEALED PICK HOLES, STAMPED WITH THE LETTERING "MADISON METROPOLITIAN SEWERAGE DISTRICT", NF-10500151.
6. 9 INCH HEIGHT CASTING (NF-10502301 OR EQUAL) IS STANDARD. 4 INCH HEIGHT (NF-16892301 OR EQUAL) CASTING MAY BE PERMITTED PER MMSD APPROVAL.
7. CHIMNEY SEALS DETERMINED ON A CASE-BY-CASE BASIS.
8. DAMAGED OR CRACKED ADJUSTING RINGS ARE NOT PERMITTED AND WILL BE REJECTED.



BOLTED DOWN

NOTE

1. FOLLOW STANDARD CHIMNEY DETAIL REQUIREMENTS UNLESS OTHERWISE SUPERSECED BY FOLLOWING NOTES.
2. RINGS SHALL BE CONCRETE. SHOULD RINGS BECOME CRACKED BY ANCHORS, COAT RINGS WITH EPOXY.
3. SECURE CASTINGS TO MANHOLE TOP DECK, MINIMUM 2" EMBEDMENT, IN FOUR LOCATIONS WITH HEX HEAD BOLTS.
4. LID SHALL BE NF-19160436 OR EQUAL. 9" FRAME SHALL BE NF-19160280 OR EQUAL.

CASTING AND ADJUSTING RING DETAIL

PROJECT NO: 5992-11-33	HWY: UNIVERSITY AVENUE	COUNTY: DANE	MMSD INTERCEPTOR SEWER CONSTRUCTION DETAILS	SHEET 152	E

UTILITY LINE OPENING OF EXISTING PRIVATE UTILITIES (TYP. OF 2) COORDINATE ULO WORK WITH WSOR. ANY ULO WITHIN 12.5' OF THE RAILROAD TRACKS CENTERLINE REQUIRES APPROVAL BY WSOR.

MH 08-308
STA. 175+78.92 WI
N = 482850.14
E = 806796.14
INTERCEPTOR SEWER MANHOLE, (6-FOOT DIA.)

END TRENCHLESS CASING PIPE, STA 175+26 WI
NO EXCAVATION ALLOWED WITHIN RAILROAD RIGHT-OF-WAY
BULK HEAD AT NORTH END OF CASING PIPE.
INSTALL 30-INCH INTERCEPTOR SEWER THROUGH CASING PIPE WITH CAP AT NORTH END.
BRING TWO 2-INCH PVC PIPES TO THE SURFACE AT THE SOUTH SIDE OF CASING PIPE FOR FUTURE FILLING OF THE ANNULAR SPACE.
BULK HEAD AT SOUTH END OF CASING PIPE.

TRENCHLESS STEEL CASING PIPE, 48-INCH MINIMUM

PROTECT EXISTING 36-INCH MMSD RELIEF INTERCEPTOR

WISDOT OWNED RAILROAD WSOR OPERATED

RAILROAD RIGHT-OF-WAY

IMPLEMENT TREE PROTECTION PLAN, (TYP. OF 6)

TREES TO REMAIN. PROTECT AS REQUIRED (TYP.)

ROOT PROTECTION ZONE

2522 8" SE FAIR CONDITION
2523 19" SE FAIR CONDITION
2524 8" SE FAIR CONDITION
2525 4" FM GOOD CONDITION
2526 4.5" FM GOOD CONDITION
2527 8" FM FAIR CONDITION

WSOR

ATC, 69kV

BORE #14

24.5' 17.5' 12.5' 20.5' 92.85° 30' 15'

176+00 WI +50 WI 177+00 WI +50 WI 178+00 WI +50 WI 179+00 WI +50 WI 180+00 WI +50 WI 181+00

PROPOSED 96-INCH CITY OF MADISON STORM SEWER
SEE STORM SEWER SHEETS

UNIVERSITY AVENUE

SUPPORT EXISTING UTILITY DURING CONSTRUCTION TO PREVENT UNDERMINING

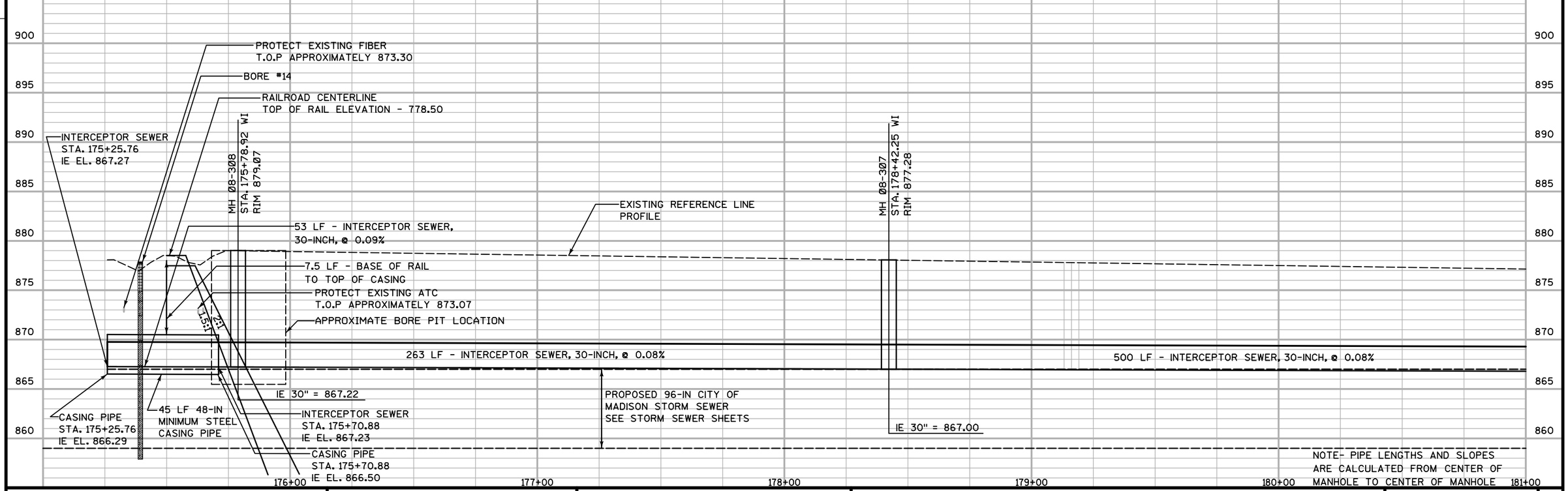
RAILROAD RIGHT-OF-WAY

APPROXIMATE BORE PIT LOCATION

PROTECT EXISTING STORM SEWER BOX CULVERT

INTERCEPTOR SEWER, 30-INCH

MH 08-307
STA. 178+42.25 WI
N = 482760.24
E = 807043.65
INTERCEPTOR SEWER MANHOLE, (6-FOOT DIA.)



PROJECT NO: 5992-11-33	HWY: UNIVERSITY AVENUE	COUNTY: DANE	MMSD INTERCEPTOR SEWER	SHEET 153	E

RAILROAD RIGHT-OF-WAY

WSOR

WISDOT OWNED RAILROAD WSOR OPERATED

INTERCEPTOR SEWER, 30-INCH

TREES TO REMAIN. PROTECT AS REQUIRED (TYP.)

IMPLEMENT TREE PROTECTION PLAN. (TYP.)

ROOT PROTECTION ZONE (TYP.)

RAILROAD RIGHT-OF-WAY

BORE #15

2528 25.5" FM GOOD CONDITION

2529 24" HL GOOD CONDITION

2530 25" HL GOOD CONDITION

2531 22" HL GOOD CONDITION

2532 22.5" HL GOOD CONDITION

2533 25" HL GOOD CONDITION

2534 26" HL FAIR CONDITION

2535 15" HR FAIR CONDITION

2536 26" NM FAIR CONDITION

181+00 WI | +50 WI | 182+00 WI | +50 WI | 183+00 WI | +50 WI | 184+00 WI | +50 WI | 185+00 WI | +50 WI | 186+00 WI | +50 WI | 187+00 WI

PROPOSED 96-INCH CITY OF MADISON STORM SEWER
SEE STORM SEWER SHEETS

INTERCEPTOR SEWER, 30-INCH

PROPOSED 96-INCH CITY OF MADISON STORM SEWER
SEE STORM SEWER SHEETS

PROTECT EXISTING STORM SEWER BOX CULVERT

UNIVERSITY AVENUE

MH 08-306
STA. 183+42.56 WI
N = 482583.82
E = 807511.82
INTERCEPTOR SEWER
MANHOLE, (6-FOOT DIA.)

MH 08-305
STA. 186+66.25 WI
N = 482472.722
E = 807815.846
INTERCEPTOR SEWER
MANHOLE, (6-FOOT DIA.)

MH 08-306
STA. 183+42.56 WI
RIM 876.36

MH 08-305
STA. 186+66.25 WI
RIM 874.94

BORE #15

EXISTING REFERENCE LINE PROFILE

500 LF - INTERCEPTOR SEWER, 30-INCH, @ 0.08%

324 LF - INTERCEPTOR SEWER, 30-INCH, @ 0.08%

PROPOSED 96-IN CITY OF MADISON STORM SEWER
SEE STORM SEWER SHEETS

IE 30" = 866.61

IE 30" = 866.36

895 890 885 880 875 870 865 860 855

181+00 182+00 183+00 184+00 185+00 186+00 187+00

NOTE- PIPE LENGTHS AND SLOPES ARE CALCULATED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE

PROJECT NO: 5992-11-33	HWY: UNIVERSITY AVENUE	COUNTY: DANE	MMSD INTERCEPTOR SEWER	SHEET 154	E

2

MH A 5-FT DIAMETER
STA. 187+81.09 WI / 24.35'LT
IE 12" N = 870.80 COLLAR
IE 15" E = 871.26
IE 18" W = 871.42
IE 18" S = 870.80

MH 08-304
STA. 188+84.36 WI
N = 482427.205
E = 808029.153
INTERCEPTOR SEWER
MANHOLE, (6-FOOT DIA.)

RAILROAD RIGHT-OF-WAY

PROTECT EXISTING
STORM SEWER

INSTALL 5-FT STUB OF
INTERCEPTOR SEWER, 30-INCH,
WITH A CAP TO THE EAST

PROTECT EXISTING 36"
MMSD RELIEF
INTERCEPTOR

END INTERCEPTOR SEWER CONSTRUCTION
STA 188+92 WI, I.E. 30" = 866.18

RAILROAD RIGHT-OF-WAY

PROTECT UTILITIES

INTERCEPTOR SEWER,
30-INCH

WISDOT OWNED RAILROAD
WSOR OPERATED

PROTECT EXISTING
WATERMAIN

PROTECT EXISTING
STORM SEWER BOX
CULVERT

PROPOSED 96-INCH CITY OF MADISON STORM SEWER
SEE STORM SEWER SHEETS

MH B 5-FT DIAMETER
STA. 187+87.26 WI / 8.80'RT
IE 18" N = 870.46
IE 18" S = 867.90 COLLAR

MH A (5-FT DIA)
RIM 875.38

MH B (5-FT DIA)
RIM 875.74

MH 08-304
STA. 188+83.91 WI
RIM 876.18

5 LF - INTERCEPTOR SEWER, 30-INCH, @ 0.08%

CAP INTERCEPTOR SEWER PIPE
I.E. 30" = 866.18

BORE #16

EXISTING REFERENCE
LINE PROFILE

218 LF - INTERCEPTOR SEWER,
30-INCH, @ 0.08%

34 LF SSPRC
CLASS III
18-INCH @ 1.0%

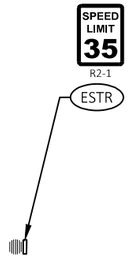
PROPOSED 96-IN CITY OF
MADISON STORM SEWER
SEE STORM SEWER SHEETS

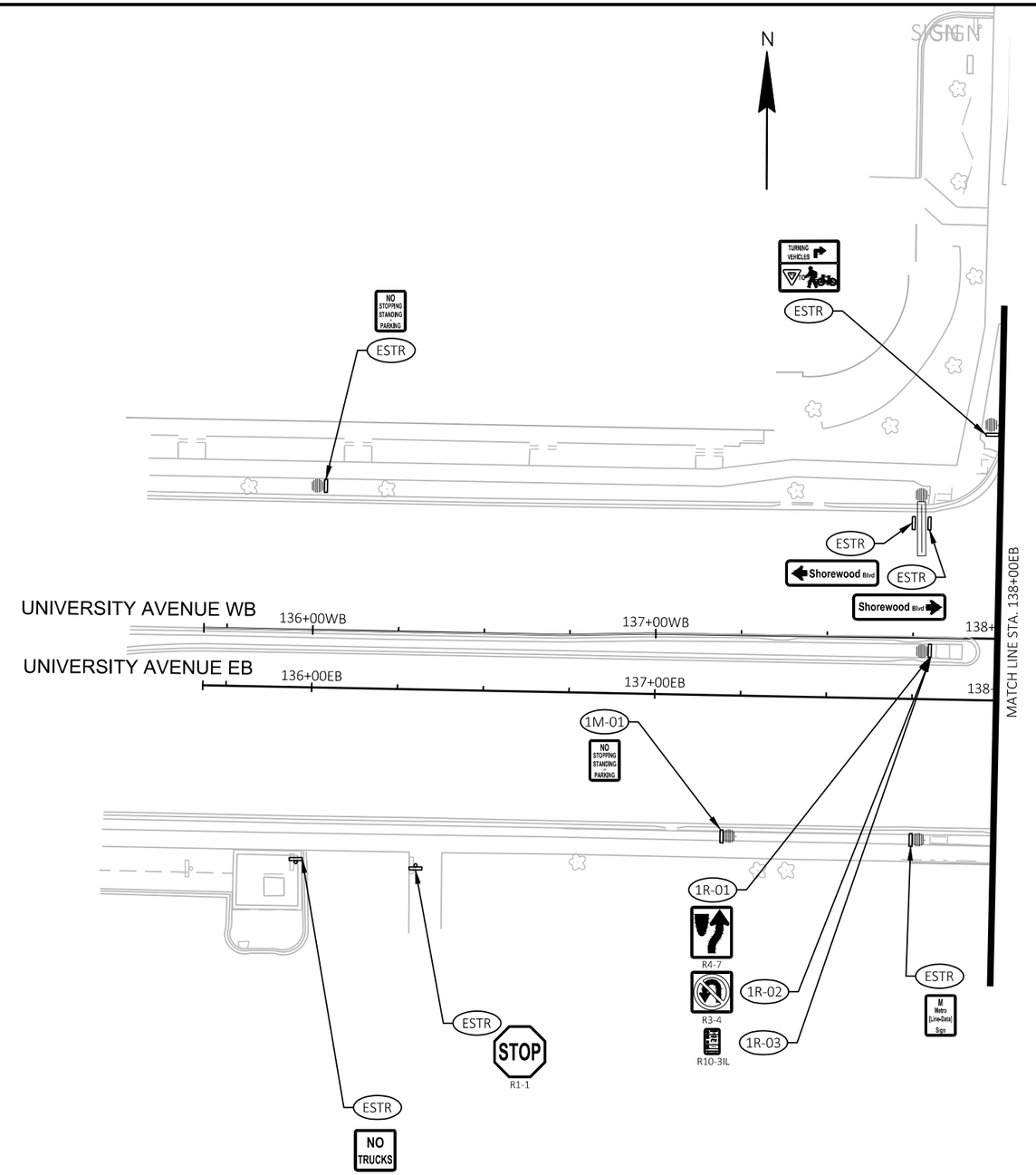
IE 30" = 866.19

NOTE- PIPE LENGTHS AND SLOPES
ARE CALCULATED FROM CENTER OF
MANHOLE TO CENTER OF MANHOLE

PROJECT NO: 5992-11-33	HWY: UNIVERSITY AVENUE	COUNTY: DANE	MMSD INTERCEPTOR SEWER	SHEET 155	E

2





LEGEND

	EXISTING SIGN(S) MOUNTED ON POST(S)		EXISTING CANTILEVER SIGN BRIDGE
	EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM	ESTR	DENOTES EXISTING SIGN TO REMAIN
	EXISTING LIGHT POLE OR TRAFFIC SIGNAL	XR-XX	DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
	EXISTING TROMBONE ARM	XM-XX	DENOTES EXISTING SIGN TO BE MOVED
	EXISTING SIGN BRIDGE		

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 156 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023202-PSREM.DWG
LAYOUT NAME - psrem 1
PLOT DATE : 10/28/2021 6:58 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

SHOREWOOD BLVD.

W10-1
ESTR

NO STOPPING STANDING PARKING
2R-05

NO STOPPING STANDING PARKING
2R-06

R3-4
R10-3IL
2R-02

2R-01

UW & VA Hospitals Emergency LEFT LANE
2R-08

MATCH LINE STA. 138+00EB

0WB 139+00WB 140+00WB 141+00WB UNIVERSITY AVENUE WB 142+00WB 143+00WB 144+

0EB 139+00EB 140+00EB 141+00EB UNIVERSITY AVENUE EB 142+00EB 143+00EB 144+

MATCH LINE STA. 144+00EB

NO STOPPING STANDING PARKING
2R-04

NO STOPPING STANDING PARKING
2R-07

Hill St
ESTR

Hill St
ESTR

ESTR
R10-3IL

ESTR

TURNING VEHICLES

W12-1D
ESTR

Hill St
University Av
Shorewood Blvd
ESTR

NO PARKING THIS SIDE
R7-53R
(MOD)
ESTR

HILL STREET

ESTR
NO PARKING ANY
R7-1D

ESTR
SPEED LIMIT 25
R2-1

SIGN

LEGEND

- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- XR-XX — DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 157	E

2

N

WISCONSIN & SOUTHERN RAILROAD

Schmitt Pl
University Av
3M-01
3R-01
R3-18

NO LEFT TURN
3R-02

3R-06
NO STOPPING STANDING PARKING

NO STOPPING STANDING PARKING
3R-08

UNIVERSITY AVENUE WB

145+00WB
146+00WB
147+00WB
148+00WB
149+00WB
150+00

UNIVERSITY AVENUE EB

145+00EB
146+00EB
147+00EB
148+00EB
149+00EB
150+00

SIGN

UW & VA Hospitals Emergency H
3R-07

MATCH LINE STA. 144+00EB

MATCH LINE STA. 150+00EB

3R-04
STOP
R1-1

NO STOPPING STANDING PARKING
3R-05

SPEED LIMIT 25
R2-1
3R-03

SCHMITT PLACE

60+00SP

61+00SP

LEGEND

- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (XR-XX) DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 158	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023202-PSREM.DWG
LAYOUT NAME - psrem 3

PLOT DATE : 10/28/2021 6:58 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

MARSHALL COURT

511+00MC

WISCONSIN & SOUTHERN RAILROAD

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

RIDGE STREET

MATCH LINE STA. 150+00EB

MATCH LINE STA. 156+00EB

151+00WB

152+00WB

153+00WB

154+00WB

155+00WB

151+00EB

152+00EB

153+00EB

154+00EB

155+00EB

4+40RS

41+40RS

ONE WAY
R6-2R
4R-05

ONE WAY
R6-2R
4R-04

M Metro [Line-Data] Sign
4R-06

NO STOPPING STANDING PARKING
4R-12

LEFT TURN YIELD ON FLASHING YELLOW ARROW
R10-3L
R10-50L
4R-03
4R-02

ONE WAY
R6-2R
4R-07

R10-3L
4R-13
Ridge St

UW & VA Hospitals Parking RIGHT LANE P
4R-08

4R-01
NO STOPPING STANDING PARKING

University Ave
Ridge Dr
4M-01

M Metro [Line-Data] Sign
4R-11

NO STOPPING STANDING PARKING
4R-10

4R-09
ONE WAY
R6-2R

ESTR
NO PARKING ANY TIME
R7-1D

SIGN
SIGN

LEGEND

- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- XR-XX — DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 159	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023202-PSREM.DWG
LAYOUT NAME - psrem 4

PLOT DATE : 10/28/2021 6:58 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

WISCONSIN & SOUTHERN RAILROAD

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 156+00EB

MATCH LINE STA. 162+00EB

157+00WB 158+00WB 159+00WB 160+00WB 161+00WB

157+00EB 158+00EB 159+00EB 160+00EB 161+00EB

33+00NF

32+00NF

N. FRANKLIN AVE.

5R-01 SPEED LIMIT 35 R2-1

5R-02 SPEED LIMIT 35 R2-1

ESTR PRIVATE PARKING IHOP

5R-03 NO STOPPING STANDING PARKING

5R-04 BUS STOP

5R-05 SPEED LIMIT 25 R2-1

5R-06 STOP R1-1

5M-02 University Av / N Franklin Av

5R-07 NO STOPPING STANDING PARKING

5R-08 Univ Av EXIT ONLY

5R-09 NO STOPPING STANDING PARKING

5R-11 SPEED LIMIT 35 R2-1

5R-12 SPEED LIMIT 35 R2-1

5R-13 H UW & VA Hosp Emergency / University Bay Dr. / Farley Ave

5M-03 FIRST UNITARIAN SOCIETY MEETING HOUSE

5M-01 N Franklin Av / Franklin Ct STOP R1-1

ESTR M Metro (Line-Data) Sign

ESTR 2 HOUR PARKING 8AM-6PM

ESTR N Metro (Line-Data) Sign

LEGEND

- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- XR-XX — DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 160	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023202-PSREM.DWG
LAYOUT NAME - psrem 5
PLOT DATE : 10/28/2021 6:58 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA. 21+50BD

WISCONSIN & SOUTHERN RAILROAD

WISCONSIN & SOUTHERN RAILROAD

21+00BD

UNIVERSITY BAY DRIVE

ESTR

NO MOTOR VEHICLES
R5-3

6M-01

CAMPUS DRIVE BIKE PATH
Blackhawk Path

STOP
R1-1

6R-16

W10-2

6R-17

NO STOPPING STANDING PARKING

6R-03

Metro (Line-Outs) Sign

6R-10

TURNING VEHICLES

6R-04

NO STOPPING STANDING PARKING

TURNING VEHICLES

6R-05

6R-08

University Bay Dr

R3-4

6R-07

6R-09

University Bay Dr

6M-03

University Bay Dr

Campus Dr

163+00WB

164+00WB

165+00WB

166+00WB

167+00WB

UNIVERSITY AVENUE WB

MATCH LINE STA. 162+00EB

163+00EB

164+00EB

165+00EB

166+00EB

167+00EB

UNIVERSITY AVENUE EB

6R-01

NO STOPPING STANDING PARKING

6R-02

6R-06

Metro (Line-Outs) Sign

6R-12

Farley Av

R3-4

6R-13

6R-14

Farley Av

R4-7

15+00FA

6M-02

Farley Av

University Av

FARLEY AVENUE

14+00FA

6R-15

NO PARKING ANY TIME
R7-1D

ESTR

NO PARKING ANY TIME
R7-1D

ESTR

ESTR

ONLY
R3-50L

R3-60R

MATCH LINE STA. 13+50FA

MATCH LINE STA. 168+00EB

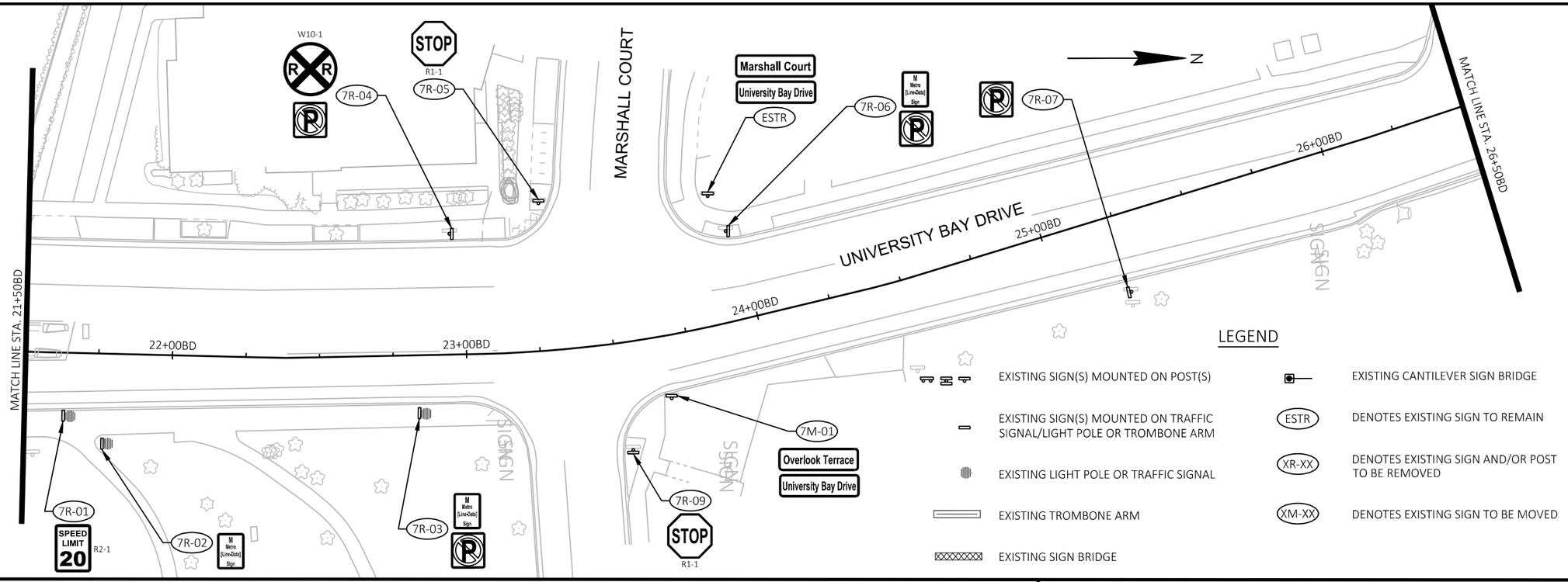
LEGEND

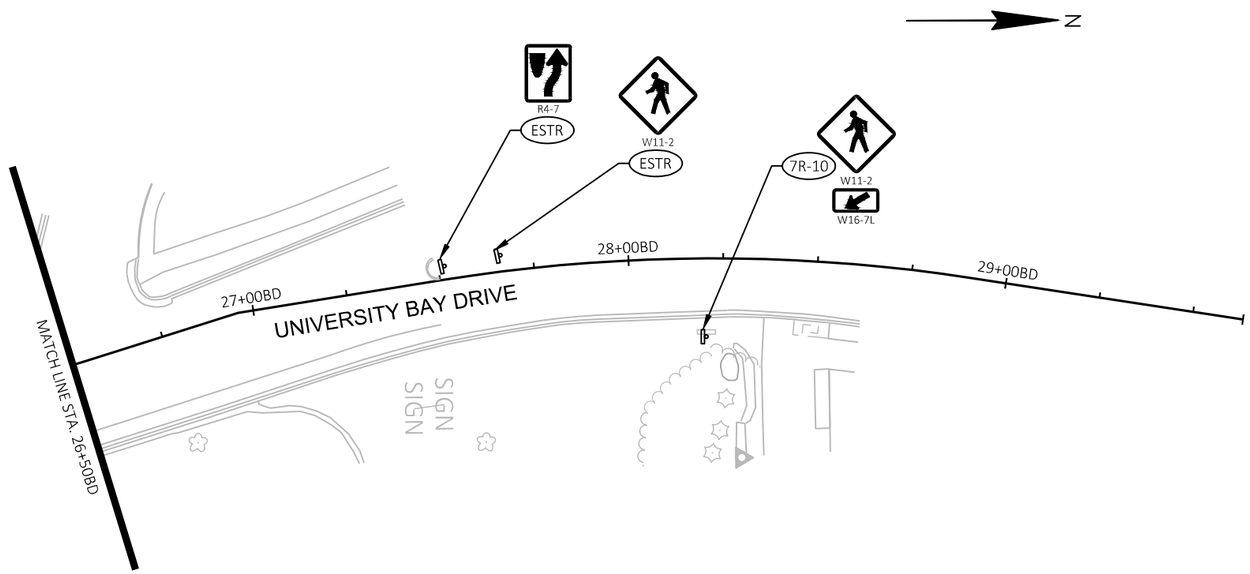
- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (XR-XX) DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED

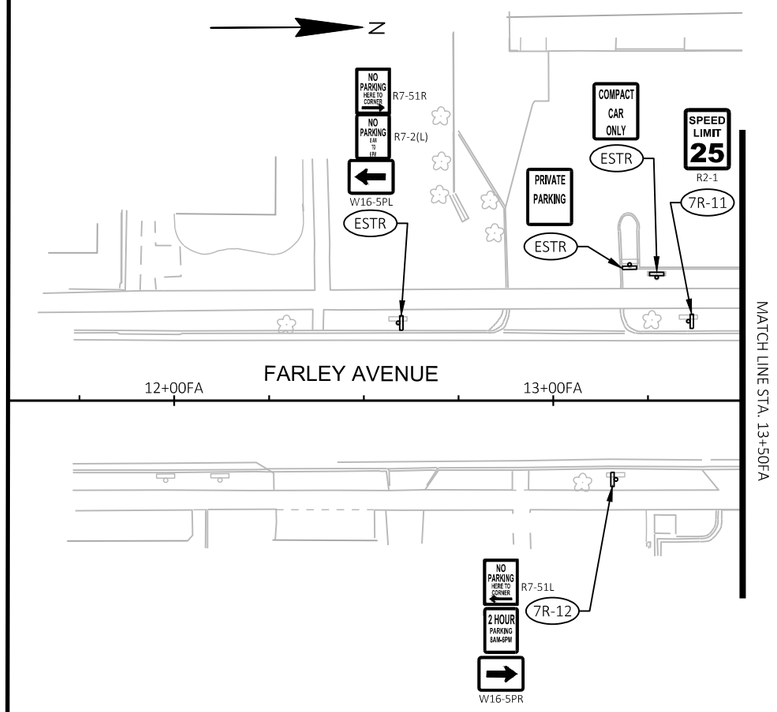
PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 161	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023202-PSREM.DWG
LAYOUT NAME - psrem 6

PLOT DATE : 10/28/2021 6:58 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT







PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 162	E

2

WISCONSIN & SOUTHERN RAILROAD

UW & VA Hosp (P)
University Ave
EXIT ONLY

Campus Drive

Farley Av
University Bay Dr

ESTR

8R-01 NO STOPPING STANDING PARKING
8R-02 SPEED LIMIT 25 R2-1
8R-03
8R-04
8R-05 W12-1D
8R-06 W6-3 TWO WAY TRAFFIC AHEAD
8R-07 2 HOUR PARKING 8AM-6PM W16-5PR
8R-08 NO STOPPING STANDING PARKING
8R-09 UW HOSPITAL EMERGENCY ENTRANCE
8R-10 NO STOPPING STANDING PARKING
8R-11 R3-1 7AM-6PM
8R-12 DO NOT ENTER R5-1
8R-13 R3-1 7AM-6PM
8R-14 DO NOT ENTER R5-1
8R-15 NO STOPPING STANDING PARKING
8M-01 FIRST UNITARIAN SOCIETY MEETING HOUSE
8M-02 [UW Symbol] UW Campus [Capitol Symbol] Downtown

ESTR R3-2
ESTR R4-7
ESTR STOP R1-1
ESTR W1-8
ESTR R4-7
ESTR STOP R1-1
ESTR W1-8

MATCH LINE STA. 168+00EB
MATCH LINE STA. 173+50EB

169+00WB 170+00WB 171+00WB 172+00WB 173+00WB
CAMPUS DRIVE WB
81+00HI 82+00HI
169+00EB 170+00EB 171+00EB 172+00EB 173+00EB
CAMPUS DRIVE EB
71+00UA 72+00UA 73+00UA
UNIVERSITY AVENUE EB

SIGN
HSE

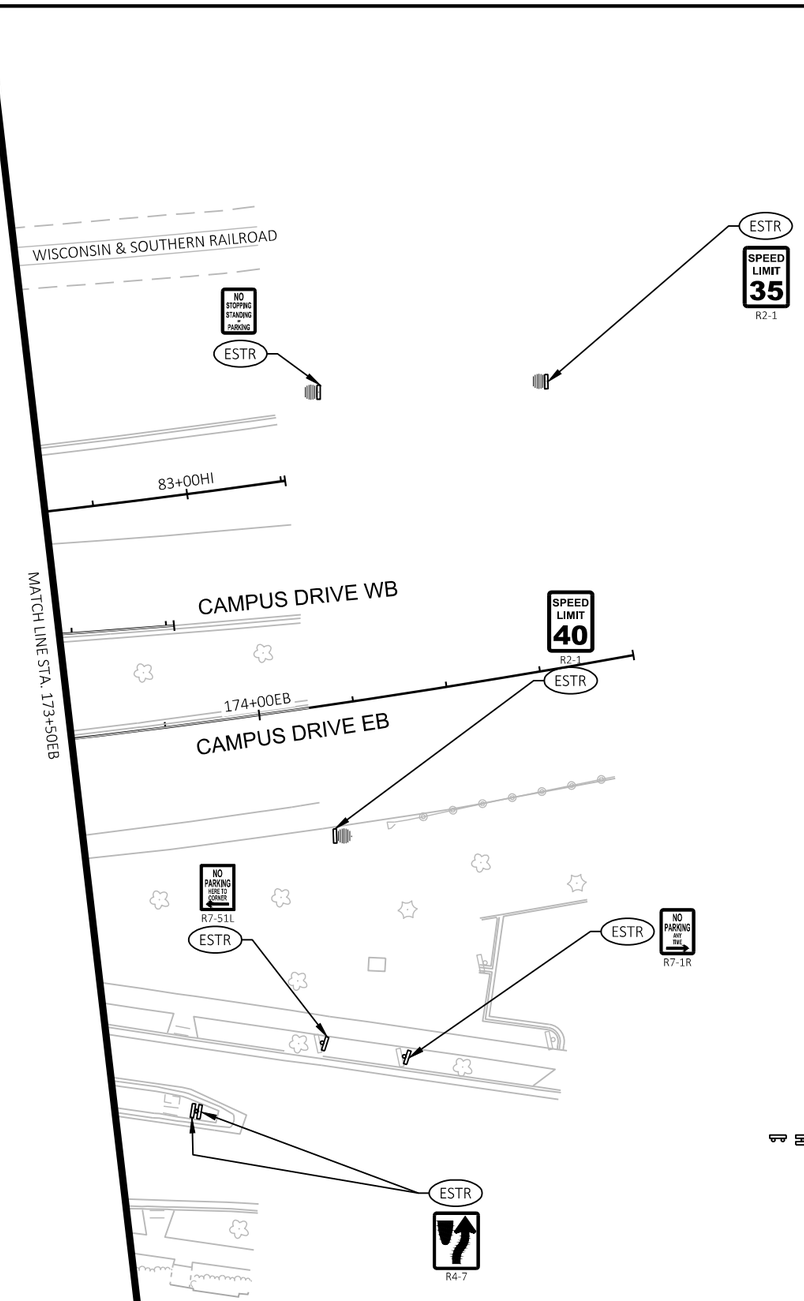
LEGEND

- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- XR-XX — DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 163	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023202-PSREM.DWG
LAYOUT NAME - psrem 8
PLOT DATE : 10/28/2021 6:59 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

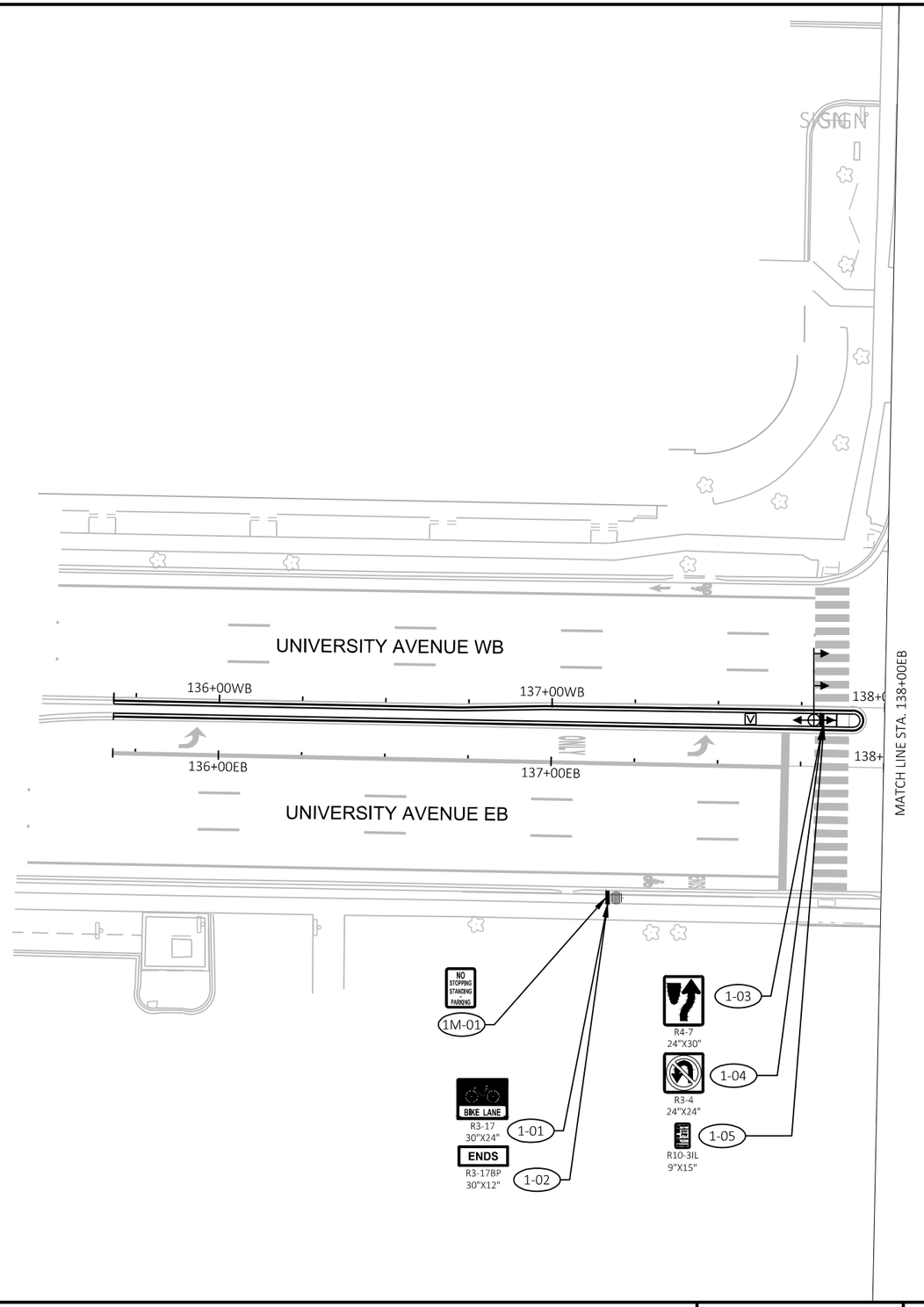
- EXISTING SIGN(S) MOUNTED ON POST(S)
- EXISTING SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR TROMBONE ARM
- EXISTING LIGHT POLE OR TRAFFIC SIGNAL
- EXISTING TROMBONE ARM
- EXISTING SIGN BRIDGE
- EXISTING CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (XR-XX) DENOTES EXISTING SIGN AND/OR POST TO BE REMOVED
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIGNING REMOVALS - UNIVERSITY AVENUE	SHEET 164	E

2

LEGEND

- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- X-XX — DENOTES PROPOSED SIGN AND POST LOCATION
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED
- BUS — SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS



2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 165	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023203-PS.DWG
LAYOUT NAME - ps 1

PLOT DATE : 10/29/2021 10:24 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

SHOREWOOD BLVD.

N

DO NOT ENTER
R5-1
30"X30"
2-01

STOP
R1-1F
30"X30"
2-05
2-04

BEGIN LEFT TURN LANE
R3-20L
24"X36"
2-06

WRONG WAY
R5-1A
36"X24"
2-10

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
2-11

SPEED LIMIT 30
R2-1
24"X30"
2-12
2-13
2-14

R4-7
24"X30"
2-02

R3-4
24"X24"
2-03

MATCH LINE STA. 138+00EB

139+00WB
140+00WB
141+00WB
142+00WB
143+00WB
144+

UNIVERSITY AVENUE WB

139+00EB
140+00EB
141+00EB
142+00EB
143+00EB
144+

UNIVERSITY AVENUE EB

MATCH LINE STA. 144+00EB

SIGN
SIGN

M
Metro
(Low-Floor)
Sign
BUS

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
2-08

WRONG WAY
R5-1A
36"X24"
2-09

SPEED LIMIT 30
R2-1
24"X30"
2-15

2-18
*SEE SIGN DETAIL

UW & VA
Hospitals (P)
ENTRANCES
RIGHT LANE

2-07
*SEE SIGN DETAIL

UW & VA
EMERGENCY (H) (P)
Children's Hosp (P)
LEFT LANE

HILL STREET

2-16
BIKE LANE
R3-17
30"X24"

2-17
AHEAD
R3-17AP
30"X12"

LEGEND

- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (X-XX) DENOTES PROPOSED SIGN AND POST LOCATION
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED
- (BUS) SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 166	E

2

N

WRONG WAY
R5-1A
36"X24"
3-12

DO NOT ENTER
R5-1
30"X30"
3-04

R4-7
24"X30"
3-02

R3-4
24"X24"
3-01

R3-4
24"X24"
3-03

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
3-11

BEGIN LEFT TURN LANE
R3-20L
24"X36"
3-13

WISCONSIN & SOUTHERN RAILROAD

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
3-16

UNIVERSITY AVENUE WB

ONE WAY
R6-2L
24"X30"
3-05

146+00WB
147+00WB
148+00WB
149+00WB
145+00WB
SIGN
146+00EB
147+00EB
148+00EB
149+00EB
145+00EB
UNIVERSITY AVENUE EB
150+00
150+
MATCH LINE STA. 144+00EB
MATCH LINE STA. 150+00EB

DO NOT ENTER
R5-1
30"X30"
3-06

ONE WAY
R6-2L
24"X30"
3-09

3M-01

Schmitt Pl
University Av

STOP
R1-1
30"X30"
3-08

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
3-10

62+00SP

SCHMITT PLACE

SPEED LIMIT 25
R2-1
24"X30"
3-07

61+00SP

BEGIN LEFT TURN LANE
R3-20L
24"X36"
3-15

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
3-17

WRONG WAY
R5-1A
36"X24"
3-18

LEGEND

- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (X-XX) DENOTES PROPOSED SIGN AND POST LOCATION
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED
- (BUS) SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 167	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023203-PS.DWG
LAYOUT NAME - ps 3
PLOT DATE : 10/29/2021 10:24 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

*SEE SIGN DETAIL
Marshall Ct
M1-94H
90"X18"
4-30

ONE WAY
R6-2R
24"X30"
4-10
4-09

STOP
R1-1F
30"X30"
4-11

MARSHALL COURT

M Metro (Line-Outs) Sign
BUS

*SEE SIGN DETAIL
Marshall Ct
M1-94H
90"X18"
4-02

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
4-01

LEFT TURN YIELD ON FLASHING YELLOW ARROW
R10-50L
30"X36"
4-08

51+00MC

LEFT TURN YIELD ON FLASHING YELLOW ARROW
R10-50L
30"X36"
4-12

W12-1D
24"X24"
4-13

DO NOT ENTER
R5-1
30"X30"
4-14

STOP
R1-1F
30"X30"
4-15
4-16

*SEE SIGN DETAIL
UW & VA Hospitals (P)
ENTRANCES
RIGHT LANE
4-23

WRONG WAY
R5-1A
36"X24"
4-25

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
4-26

*SEE SIGN DETAIL
UW & VA EMERGENCY (H) (P)
Children's Hosp (P)
LEFT LANE
4-22

N

WISCONSIN & SOUTHERN RAILROAD

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 150+00EB

MATCH LINE STA. 156+00EB

151+00WB
152+00WB
153+00WB
154+00WB
155+00WB
156+00W
151+00EB
152+00EB
153+00EB
154+00EB
155+00EB
156+

STOP
R1-1F
30"X30"
4-03

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
4-04

4M-01
University Ave
Ridge Dr

STOP
R1-1F
30"X30"
4-06

DO NOT ENTER
R5-1
30"X30"
4-07

4-05
W12-1D
24"X24"

47+00RS

RIDGE STREET

41+00RS

4-17
*SEE SIGN DETAIL
Ridge St
M1-94H
72"X18"

4-18
*SEE SIGN DETAIL
Ridge St
M1-94H
72"X18"

BUS
M Metro (Line-Outs) Sign

4-19
4-20
ONE WAY
R6-2R
24"X30"

4-21
STOP
R1-1F
30"X30"

4-29
NO TURN ON RED ARROW
R10-11T(MOD)
24"X36"

4-24
NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18

4-27
SPEED LIMIT 30
R2-1
24"X30"
4-28

LEGEND

- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (X-XX) DENOTES PROPOSED SIGN AND POST LOCATION
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED
- (BUS) SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 168	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023203-PS.DWG
LAYOUT NAME - ps 4
PLOT DATE : 12/17/2021 8:57 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
5-02

R3-1
24"X24"
5-03

DO NOT ENTER
R5-1
30"X30"
5-04

5-08
ONE WAY
R6-2L
24"X30"

PATH OVERPASS

WISCONSIN & SOUTHERN RAILROAD

5-09
R4-7
24"X30"
5-10

5-11
DO NOT ENTER
R5-1
30"X30"

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18
5-12

WRONG WAY
R5-1A
36"X24"
5-19

5-20
SPEED LIMIT 30
R2-1
24"X30"
5-21

MATCH LINE STA. 156+00EB

157+00WB
158+00WB
159+00WB
160+00WB
161+00WB
162+00W

157+00EB
158+00EB
159+00EB
160+00EB
161+00EB

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 162+00EB

5-01
BEGIN LEFT TURN LANE
R3-20L
24"X36"

5-05
NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18

5-06
WRONG WAY
R5-1A
36"X24"

5-07
DO NOT ENTER
R5-1
30"X30"

5M-02
University Av
N Franklin Av

N. FRANKLIN AVE.

5-13
NO PARKING BUS STOP
R7-7L
18"X24"

5-14
SPEED LIMIT 25
R2-1
24"X30"

ESTR
M Metro (LineOutA) Sign

5-15
STOP
R1-1
30"X30"

5-16
*SEE SIGN DETAIL
UW & VA Hosp (P)
ENTRANCES
University Ave
EXIT ONLY

5-17
NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18

5M-01
Franklin Ct
N Franklin Av

ESTR
M Metro (LineOutA) Sign

5-22
*SEE SIGN DETAIL
UW & VA Hospital (H)
EMERGENCY (P)
Children's Hospital (P)

5-23
University Bay Dr
Farley Ave
*SEE SIGN DETAIL

5-18
BEGIN LEFT TURN LANE
R3-20L
24"X36"

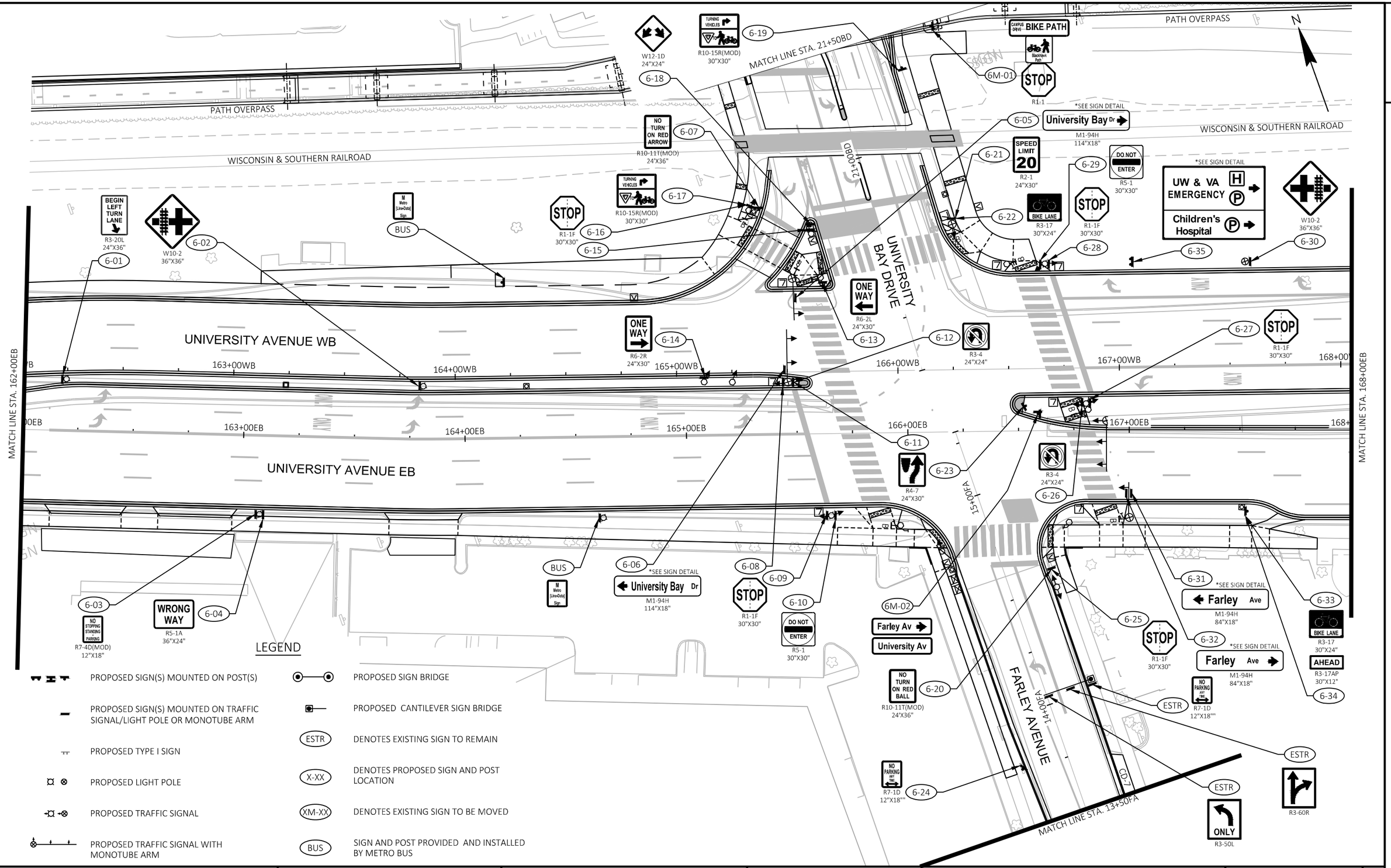
5M-03
FIRST UNITARIAN SOCIETY MEETING HOUSE

LEGEND

- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- X-XX — DENOTES PROPOSED SIGN AND POST LOCATION
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED
- BUS — SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 169	E

2

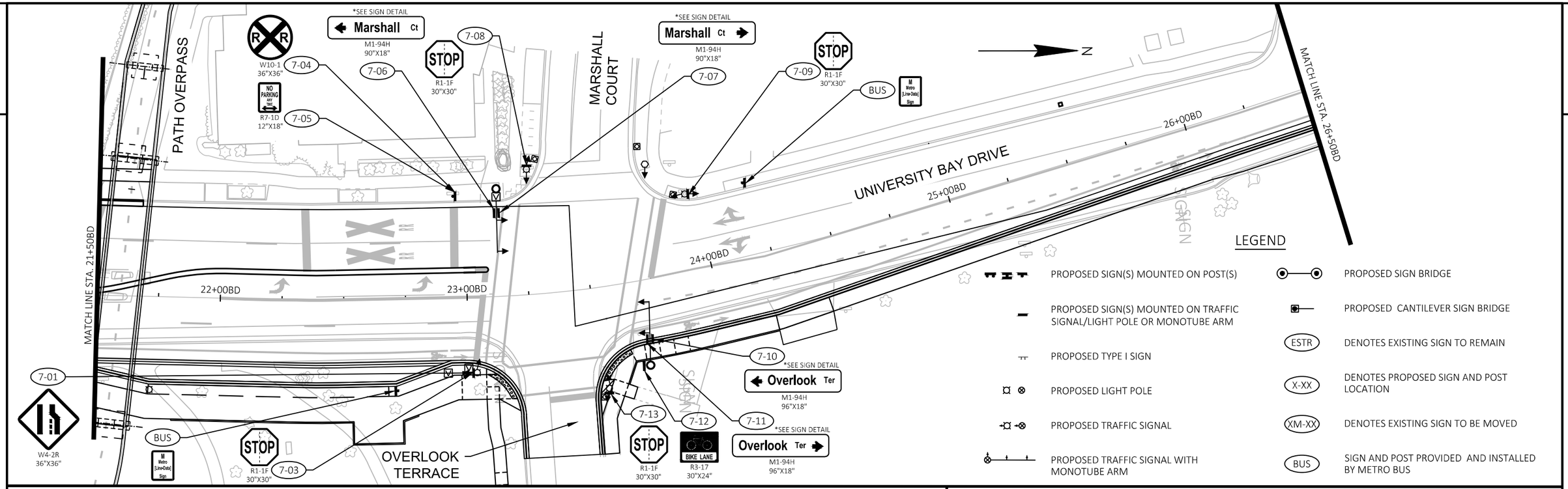


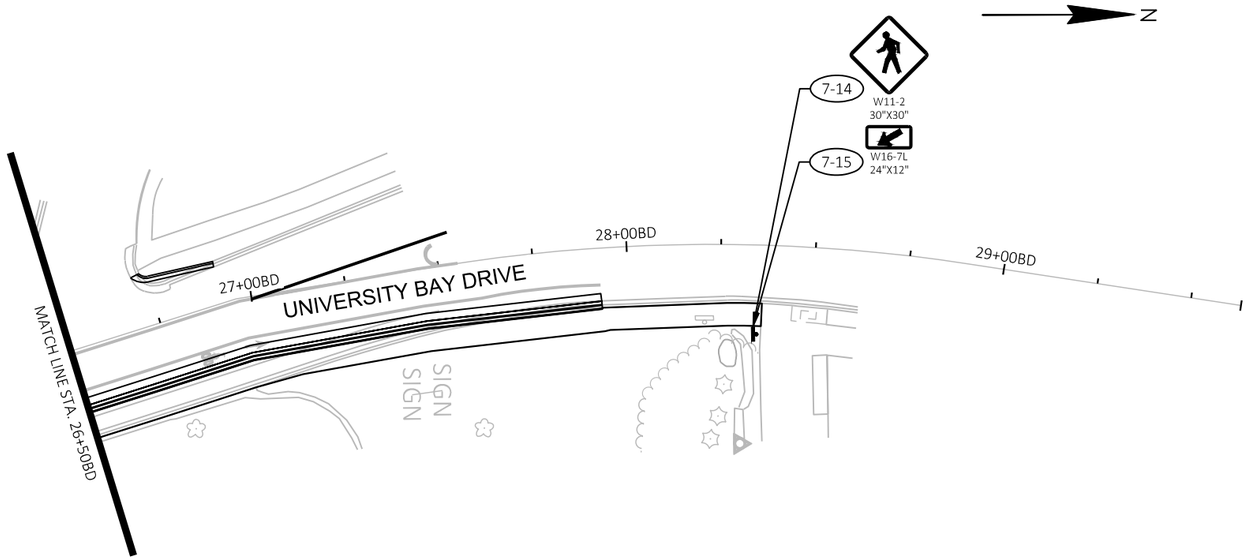
LEGEND

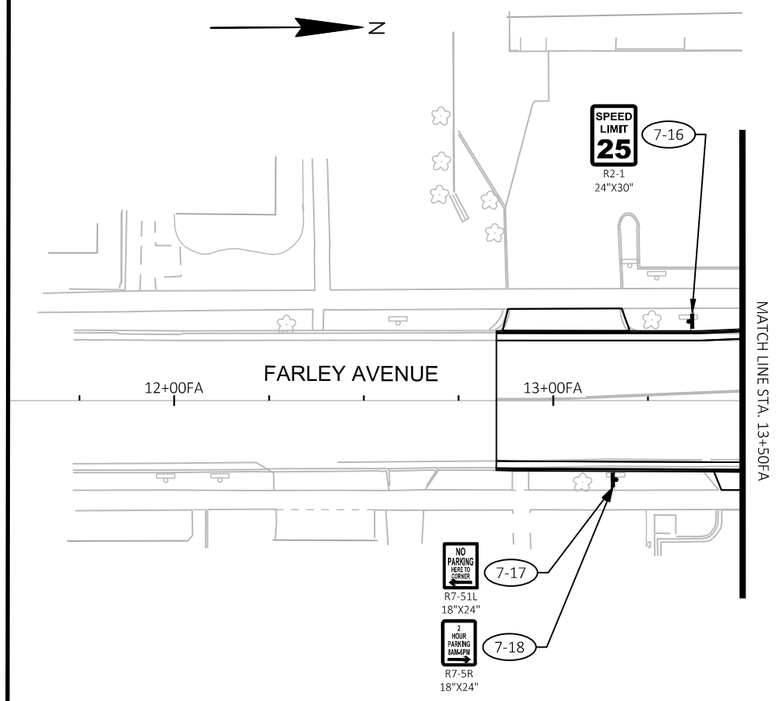
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- (ESTR) DENOTES EXISTING SIGN TO REMAIN
- (X-XX) DENOTES PROPOSED SIGN AND POST LOCATION
- (XM-XX) DENOTES EXISTING SIGN TO BE MOVED
- (BUS) SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS

PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 170	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\023203-PS.DWG
LAYOUT NAME - ps 6
PLOT DATE : 10/29/2021 10:24 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42







PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 171	E

2

PATH OVERPASS

*SEE SIGN DETAIL

WISCONSIN & SOUTHERN RAILROAD

WRONG WAY
R5-1A
36"X24"
8-01

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18"
8-02

UW & VA Hosp ENTRANCES (P)
University Ave
EXIT ONLY
8-03

*SEE SIGN DETAIL
UW & VA EMERGENCY (H) (P)
Children's Hospital (P)
8-10

Campus Drive
*SEE SIGN DETAIL
8-04

RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"
8-09

ESTR
Farley Ave
University Bay Dr
D2-1
8-11

ONLY | ONLY
R3-8XXXXX
84"X30"

8M-01
FIRST UNITARIAN SOCIETY MEETING HOUSE

MATCH LINE STA. 168+00EB

169+00WB
170+00WB
CAMPUS DRIVE WB
171+00WB
172+00WB
173+00WB
81+00HI
82+00HI
83+00HI

169+00EB
170+00EB
171+00EB
172+00EB
173+00EB
174+00EB
CAMPUS DRIVE EB

71+00UA
72+00UA
73+00UA
UNIVERSITY AVENUE EB

8-12
BEGIN LEFT TURN LANE
R3-20L
24"X36"

DO NOT ENTER
R5-1
30"X30"
8-18
8-19

BIKE LANE
R3-17
30"X24"
8-05

8-06
W6-3
36"X36"

8-07
W12-1D
24"X24"

8-08
2 HOUR PARKING
LW
R7-2R(MOD)
12"X18"

8M-02
(UW Symbol) UW Campus
(Capitol Symbol) Downtown

BIKE LANE
R3-17
30"X24"
8-13

ENDS
R3-17BP
30"X12"
8-14

NO STOPPING STANDING PARKING
R7-4D(MOD)
12"X18"
8-15

R3-1
24"X24"
7AM-9AM
8-16
8-17

LEGEND

- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN(S) MOUNTED ON TRAFFIC SIGNAL/LIGHT POLE OR MONOTUBE ARM
- PROPOSED TYPE I SIGN
- PROPOSED LIGHT POLE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL WITH MONOTUBE ARM
- PROPOSED SIGN BRIDGE
- PROPOSED CANTILEVER SIGN BRIDGE
- ESTR — DENOTES EXISTING SIGN TO REMAIN
- X-XX — DENOTES PROPOSED SIGN AND POST LOCATION
- XM-XX — DENOTES EXISTING SIGN TO BE MOVED
- BUS — SIGN AND POST PROVIDED AND INSTALLED BY METRO BUS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PERMANENT SIGNING - UNIVERSITY AVENUE	SHEET 172	E

ELECTRICAL REMOVALS LEGEND

- XX' — SIGNAL HEAD, TRAFFIC SIGNAL POLE, MAST ARM, TRASNFORMER BASE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SINGLE ARM LIGHTING UNIT AND CONCRETE BASE
- PULL BOX NON-CONDUCTIVE (24"X42")
- CONTROL CABINET
- OH — OVERHEAD CABLE
- ELECTRICAL CONDUIT

* BOLD INDICATES ITEMS TO BE REMOVED

N

SHOREWOOD BOULEVARD

UNIVERSITY AVENUE

HILL STREET

MATCHLINE 142+50'WB'

TS1 TS2 TS3 TS4 TS5 TS6 TS7 TS8 TS9 TS10 TS11 TS12 TS13

PB100 PB100A PB101 PB102

SL1352 SL1353 SL1354 SL1355 SL1351

SEE NOTE 3

137+00WB 138+00WB 139+00WB 140+00WB 141+00WB 142+00WB

137+00EB 138+00EB 139+00EB 140+00EB 141+00EB 142+00EB

15' 20' 20' 20'

SAN T E OH

CONSTRUCTION NOTES:

1) CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL LIGHTING INFRASTRUCTURE, ABOVE AND BELOW GROUND, AS WELL AS ALL BELOW GROUND SIGNAL INFRASTRUCTURE, INCLUDING CONCRETE BASES.

2) CITY OF MADISON SHALL BE RESPONSIBLE FOR REMOVAL OF ALL ABOVE GROUND SIGNAL INFRASTRUCTURE, AS WELL AS ALL FIBER AND COMMUNICATIONS INFRASTRUCTURE.

3) REMOVE ABOVE GROUND INFRASTRUCTURE. CONCRETE BASE TO REMAIN.

2

N

SAN

POST

MH

SL1350

SL1348

SL1346

SL1344

MATCHLINE 142+50'WB'

143+00WB

144+00WB

145+00WB

146+00WB

147+00WB

143+00EB

144+00EB

145+00EB

146+00EB

147+00EB

MATCHLINE 147+50'WB'

UNIVERSITY AVENUE

SL1349

PB103

SL1347

PB104

SL1345

SL1343

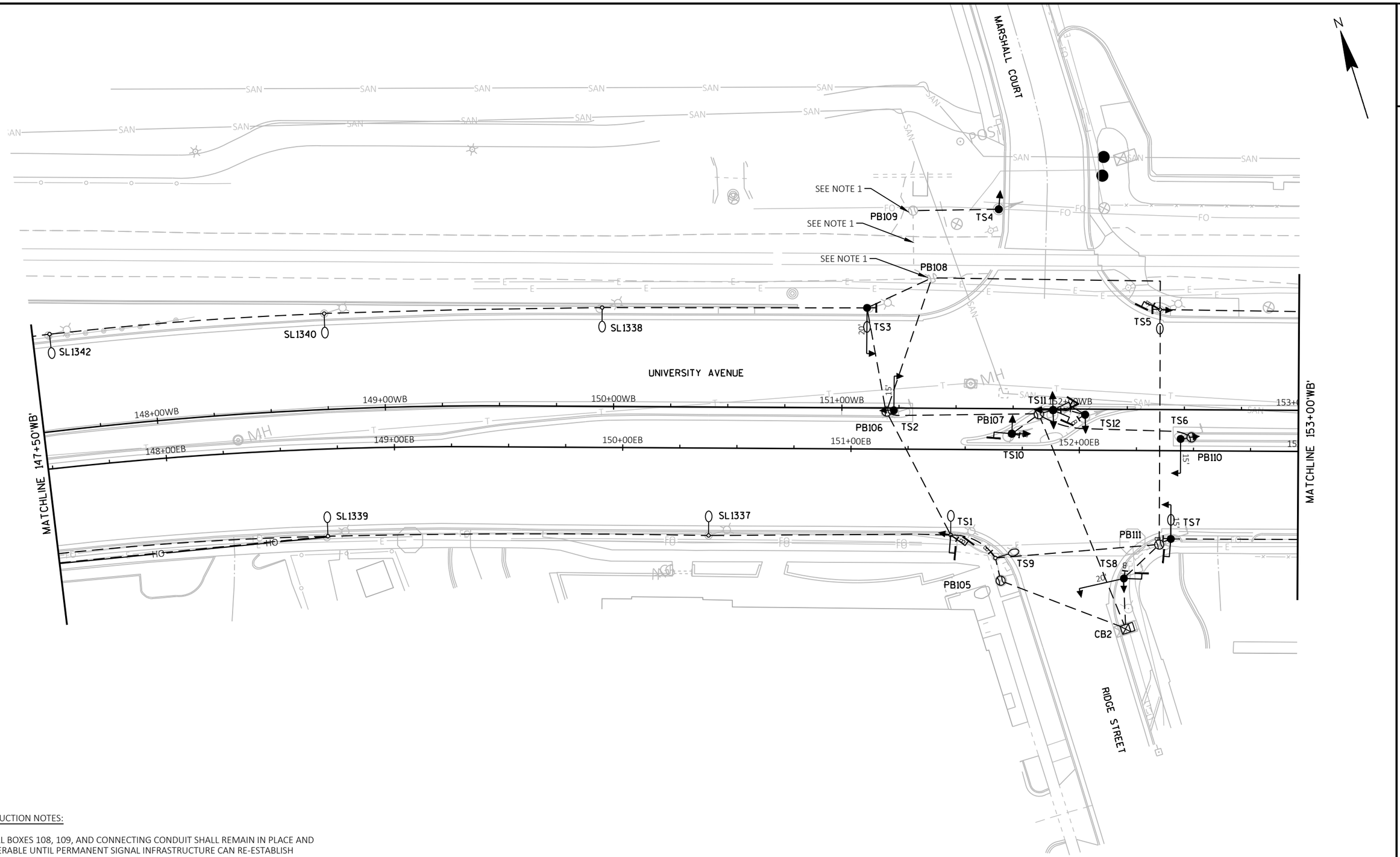
HO

AG

SCHMIDT PLACE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 174	E

2



CONSTRUCTION NOTES:

1) PULL BOXES 108, 109, AND CONNECTING CONDUIT SHALL REMAIN IN PLACE AND OPERABLE UNTIL PERMANENT SIGNAL INFRASTRUCTURE CAN RE-ESTABLISH CONNECTION FROM THE RAILROAD BUNGALOW TO THE CONTROL CABINET.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 175	E

2

2

N

SL1330

SL1328

SL1326

SL1324

UNIVERSITY AVENUE

MATCHLINE 153+00'WB'

MATCHLINE 158+00'WB'

153+00EB

154+00WB

154+00EB

155+00WB

155+00EB

156+00WB

156+00EB

157+00WB

157+00EB

SL1329

PB112

SL1327

SL1325

SL1323

MH

MWEL

PROJECT NO: 5992-11-XX	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 176	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023401_LR.DWG PLOT DATE : 1/5/2022 7:19 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 158+00'WB'

MATCHLINE 163+50'WB'

UNIVERSITY AVENUE

N. FRANKLIN AVENUE

SL1322 SL1320 SL1318 SL1316 SL1314

SL1321 SL1319 SL1317 SL1315

PB113 PB114

159+00WB 160+00WB 161+00WB 162+00WB 163+00WB

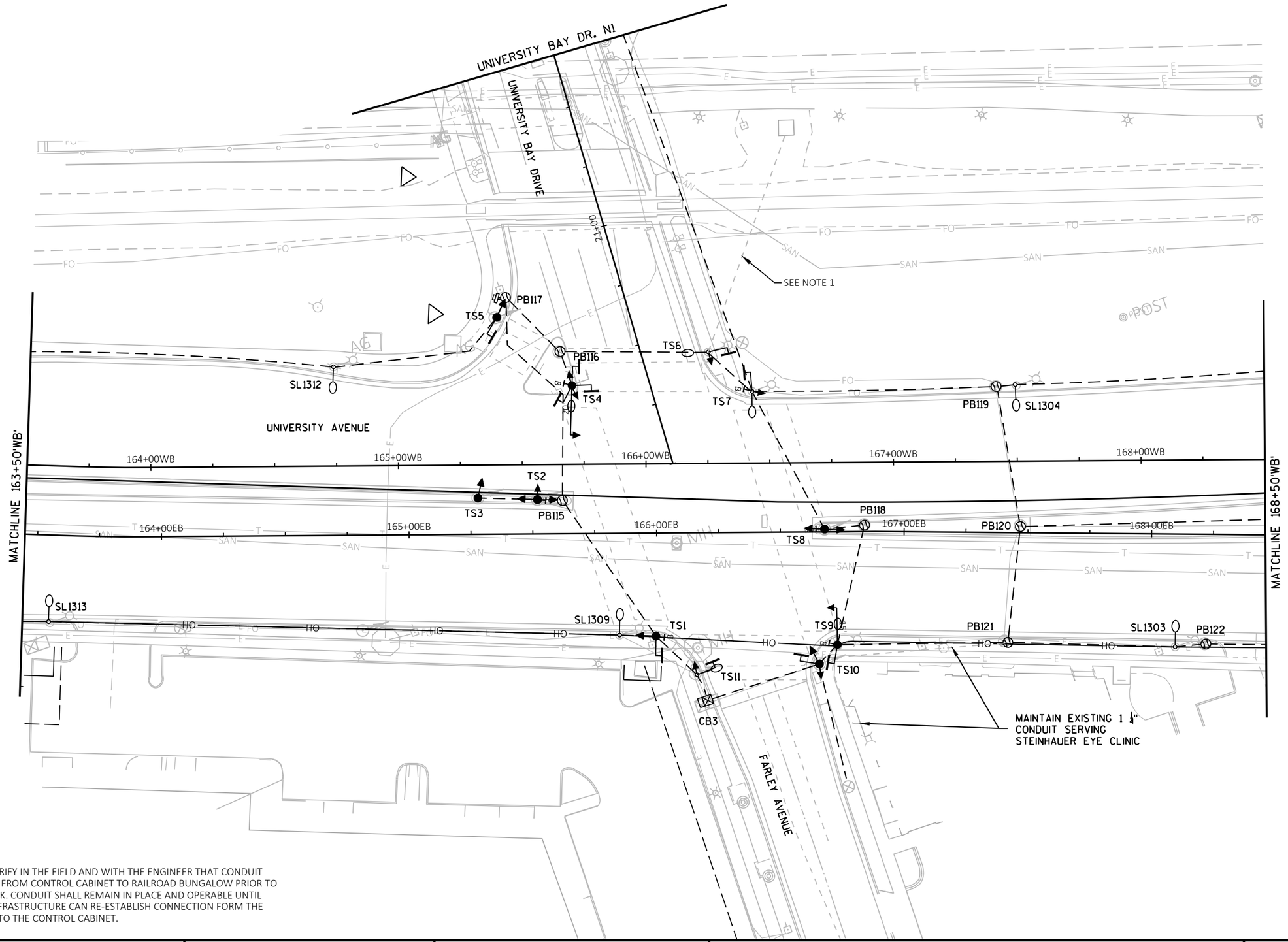
159+00EB 160+00EB 161+00EB 162+00EB 163+00EB

GUY POLE GUY POLE MH MH MANHOLE POST

PROJECT NO: 5992-11-XX	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 177	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023401_LR.DWG PLOT DATE : 1/5/2022 7:19 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



CONSTRUCTION NOTES:

1) CONTRACTOR SHALL VERIFY IN THE FIELD AND WITH THE ENGINEER THAT CONDUIT EXISTS AS CONNECTION FROM CONTROL CABINET TO RAILROAD BUNGALOW PRIOR TO PERFORMING ANY WORK. CONDUIT SHALL REMAIN IN PLACE AND OPERABLE UNTIL PERMANENT SIGNAL INFRASTRUCTURE CAN RE-ESTABLISH CONNECTION FORM THE RAILROAD BUNGALOW TO THE CONTROL CABINET.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 178	E

2

N

UNIVERSITY BAY DRIVE

25+00

24+00

23+00

SL1358

SL1357

SL1356

MARSHALL COURT

UNIVERSITY BAY DR. N1

SAN

FO

E

MH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 179	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023401_LR.DWG PLOT DATE : 1/5/2022 7:19 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

SL1302

SL1300

SL1298

SL1301

SL1299

SL1296

SL1295

PB123

CAMPUS DRIVE

CAMPUS DRIVE

UNIVERSITY AVENUE

GRAND AVENUE

MATCHLINE 168+50'WB'

169+00WB

170+00WB

171+00WB

172+00WB

173+00WB

174+00EB

173+00EB

172+00EB

171+00EB

170+00EB

169+00EB

MH

POST

FO

SAN

T

HO

E

A/C

HSE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ELECTRICAL REMOVALS	SHEET 180	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023401_LR.DWG PLOT DATE : 1/5/2022 7:20 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE
- HANDHOLE TYPE 5
- CONDUIT 3"

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.
2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.
3) INSTALL HANDHOLE TO INTERCEPT EXISTING 3" FIBER LINE. FIELD LOCATE HANDHOLE AND WOOD POLES SUCH THAT THEY ARE BEYOND THE TRAFFIC CROSSOVER.
4) CITY OF MADISON TO INSTALL FIBER CABLE.

N

SHOREWOOD BOULEVARD

CONNECT TO TEMP TRAFFIC SIGNAL LIGHTING CIRCUIT

SEE NOTE 3
WP2

STA. 139+16.6'WB', 35.0'L
WP3

STA. 140+82.4'WB', 35.2'L
WP4

STA. 142+16.5'WB', 36.2'L
WP5 - LIGHT

SEE NOTE 4

137+00WB
137+00EB
138+00WB
138+00EB
139+00WB
139+00EB
140+00WB
140+00EB
141+00WB
141+00EB
142+00WB
142+00EB

UNIVERSITY AVENUE

SEE NOTE 3
WP1

SEE NOTE 3
HH1

MATCHLINE 142+50'WB'

EX. R/W (TYP.)

STA. 142+18.3'EB', 35.3'R
WP6 - LIGHT

HILL STREET

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 181	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.

N

STA. 143+37.0'WB', 36.0'L
WP7

STA. 144+56.6'WB', 35.9'L
WP8 - LIGHT

STA. 145+74.3'WB', 36.0'L
WP10

STA. 146+92.5'WB', 35.5'L
WP11

STA. 145+44.2'EB', 36.4'R
WP9 - LIGHT

OH

143+00WB

143+00EB

144+00WB

144+00EB

145+00WB

145+00EB

146+00WB

146+00EB

147+00WB

147+00EB

UNIVERSITY AVENUE

SCHMIDT PLACE

EX. R/W (TYP.)

MATCHLINE 142+50'WB'

MATCHLINE 147+50'WB'

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 182	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

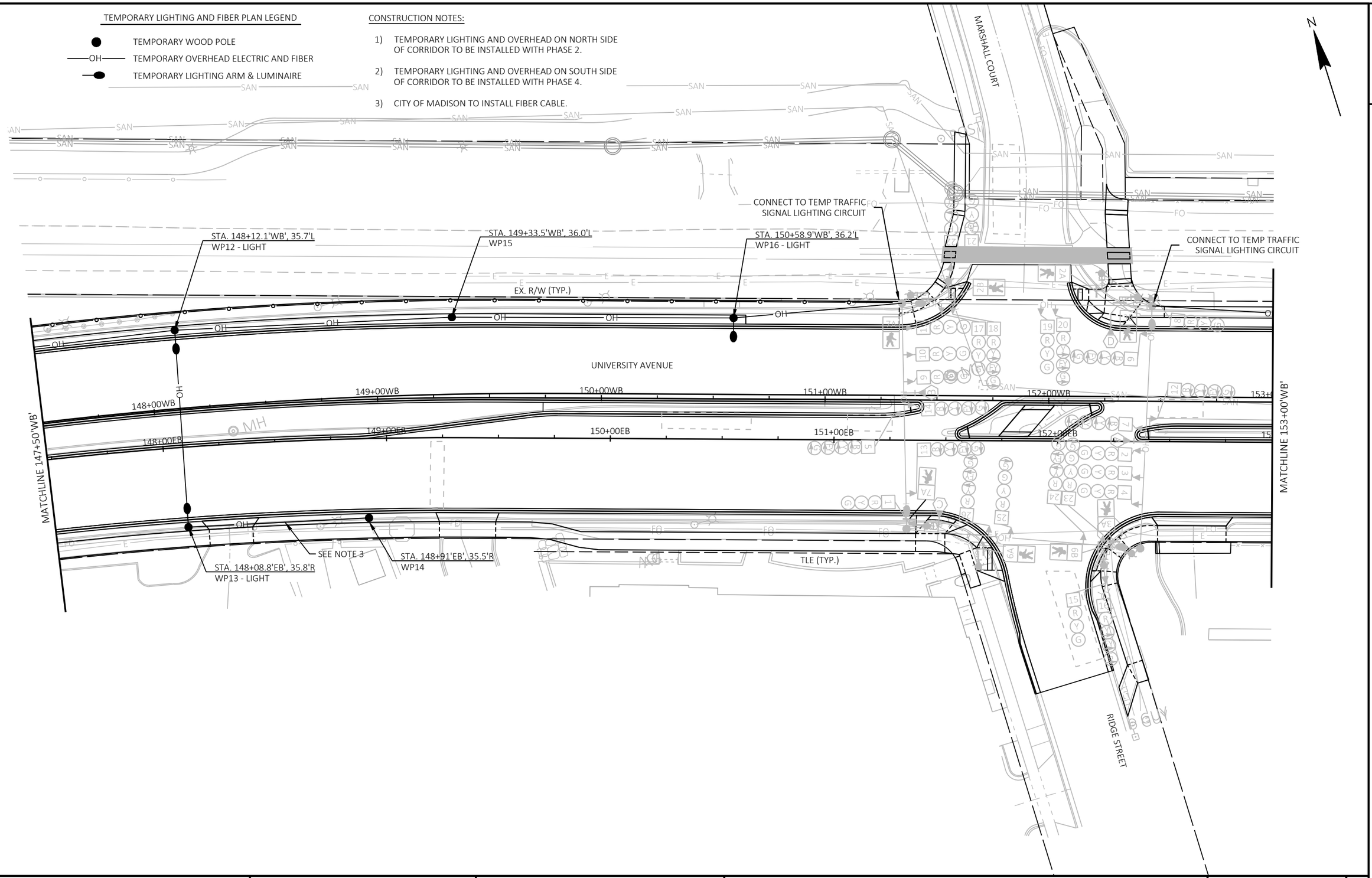
2

TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.
2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.
3) CITY OF MADISON TO INSTALL FIBER CABLE.



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 183	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

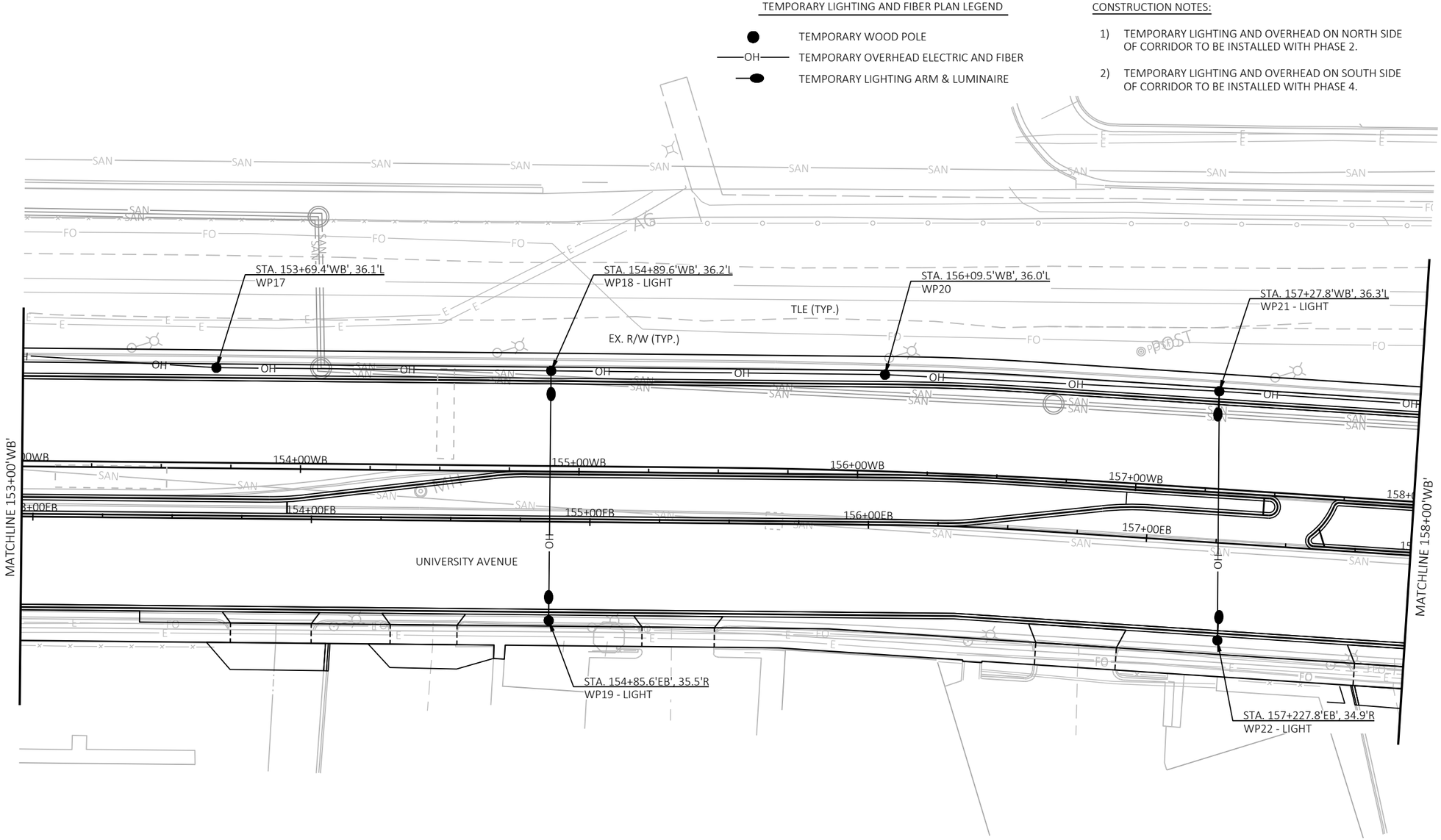
TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 184	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.

N

STA. 158+47.9'WB', 36.2'L
WP23

STA. 159+68.1'WB', 36.6'L
WP24 - LIGHT

STA. 160+88.3'WB', 36.0'L
WP26

STA. 161+95.2'WB', 35.2'L
WP27

STA. 163+10.0'WB', 41.7'L
WP28 - LIGHT

TLE (TYP.)

EX. R/W (TYP.)

UNIVERSITY AVENUE

MATCHLINE 158+00'WB'

MATCHLINE 163+50'WB'

159+00WB

160+00WB

161+00WB

162+00WB

163+00WB

160+00EB

161+00EB

162+00EB

163+00EB

STA. 159+65.9'EB', 56.2'R
WP25 - LIGHT

STA. 163+29.4'EB', 34.7'R
WP29 - LIGHT

N. FRANKLIN AVENUE

GUY

GUY POLE

POST

MH

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 185	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

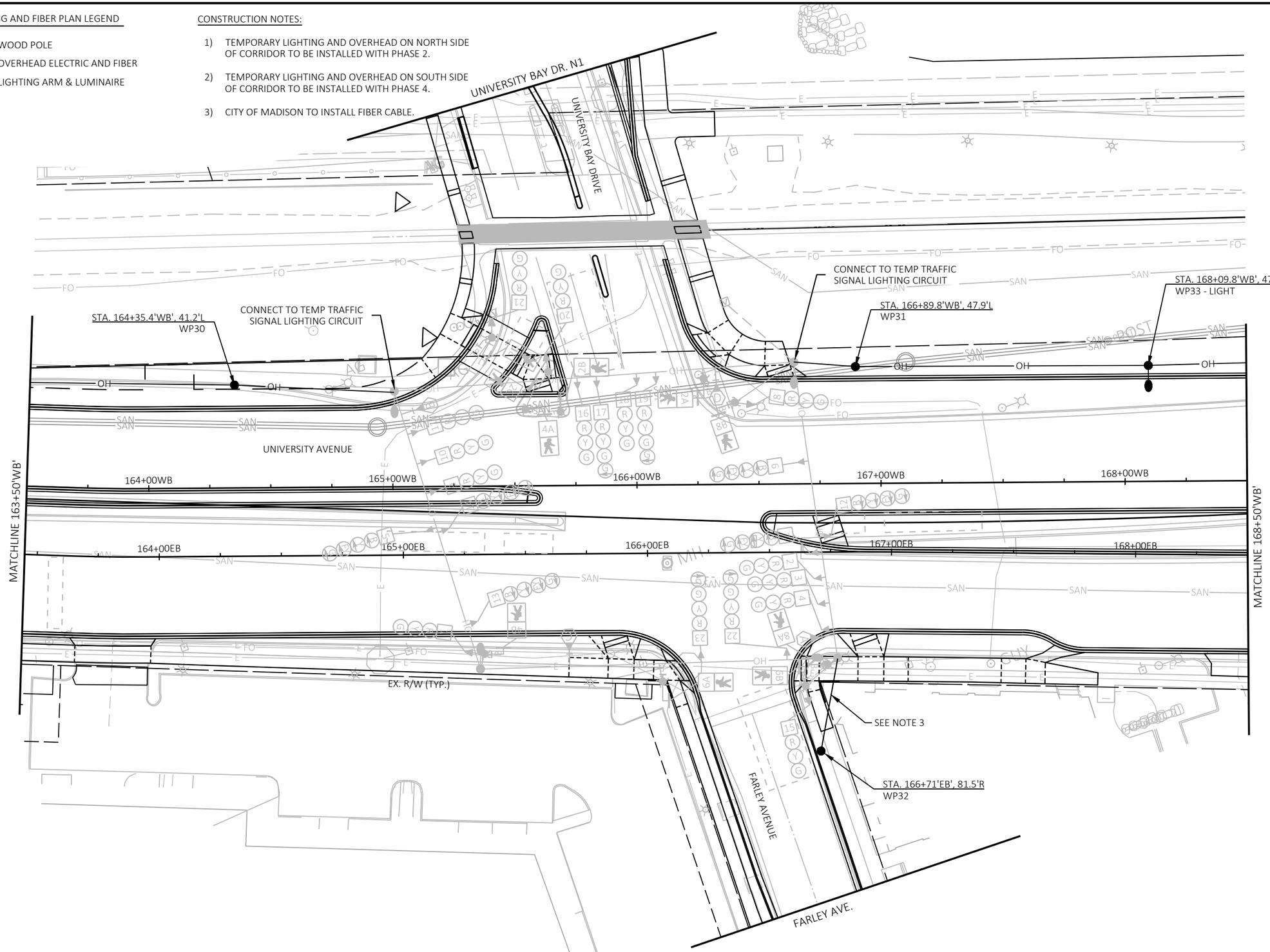
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TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.
2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.
3) CITY OF MADISON TO INSTALL FIBER CABLE.



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 186	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.

N

UNIVERSITY BAY DR. N2

UNIVERSITY BAY DRIVE

MARSHALL COURT

EX. R/W (TYP.)

UNIVERSITY BAY DR. N1

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 187	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.



2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 188	E

2

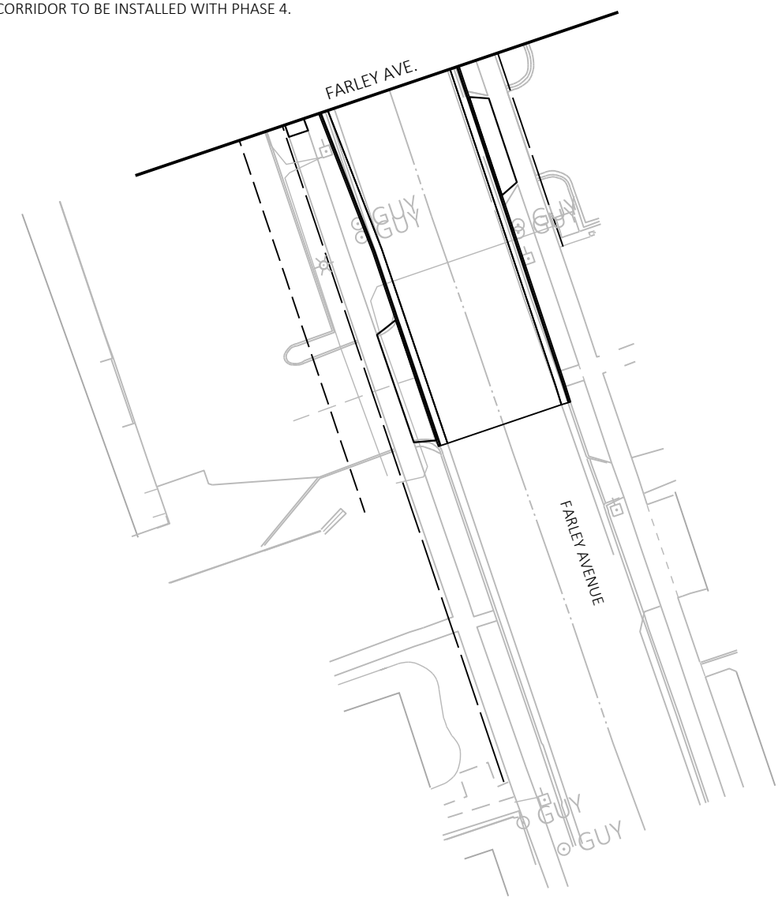
TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.



N

2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 189	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

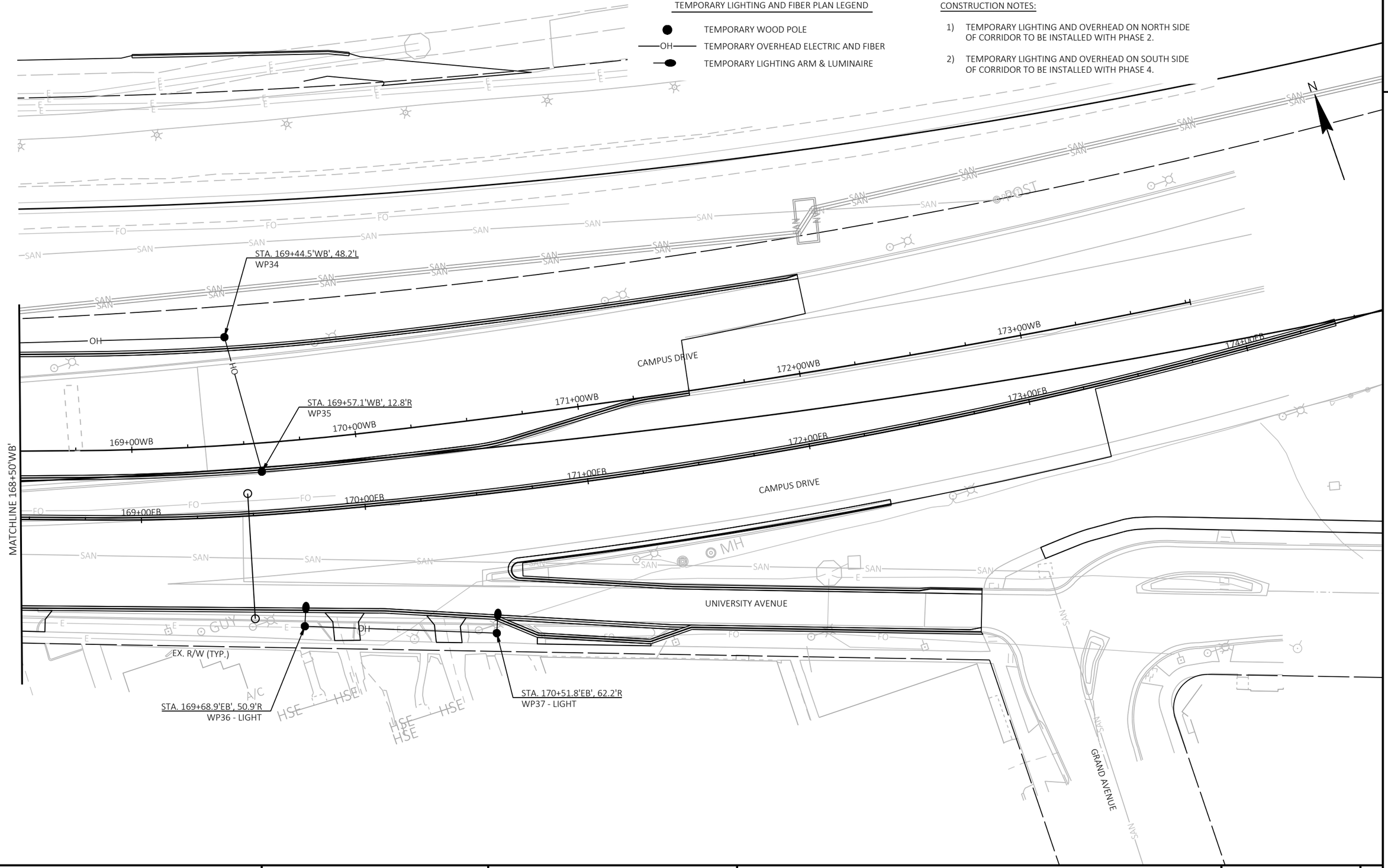
TEMPORARY LIGHTING AND FIBER PLAN LEGEND

- TEMPORARY WOOD POLE
- OH — TEMPORARY OVERHEAD ELECTRIC AND FIBER
- TEMPORARY LIGHTING ARM & LUMINAIRE

CONSTRUCTION NOTES:

1) TEMPORARY LIGHTING AND OVERHEAD ON NORTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 2.

2) TEMPORARY LIGHTING AND OVERHEAD ON SOUTH SIDE OF CORRIDOR TO BE INSTALLED WITH PHASE 4.



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY LIGHTING & FIBER PLAN	SHEET 190	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023501-LT.DWG PLOT DATE : 12/29/2021 7:34 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

CONSTRUCTION NOTES:

1) CONCRETE CABINET BASE TO REMAIN.

2) INSTALL NEW INFRASTRUCTURE ON EXISTING CONCRETE BASE.

N

SHOREWOOD BOULEVARD

EXHH51

STA. 137+95.5'WB', 56.2' LT
1361 - LC1 - A2 - TYPE IV
SEE NOTE 2

MATCH INTO EXISTING LIGHTING

SL1361

SEE NOTE 2

TS2

EXHH52

TS3

TS4

HH2

HH3

TS5

TLE (TYP.)

MATCH INTO EXISTING LIGHTING

137+00WB

HH1

138+00WB

139+00WB

STA. 139+11.5 'WB', 15.6' RT
1358 - LC1 - A2/A2 - (2) TYPE I

140+00WB

UNIVERSITY AVENUE

141+00WB

HH5

142+00WB

137+00EB

138+00EB

HH4

TS6

140+00EB

141+00EB

142+00EB

CONNECT TO HANDHOLE INSTALLED WITH TEMPORARY LIGHTING

STA. 137+78.7'WB', 4.0' RT
1362 - LC1 - A2/A2 - (2) TYPE I

MATCH INTO EXISTING LIGHTING

STA. 140+86.8 'WB', 5.2' RT
1357 - LC1 - T3/A2 - (2) TYPE II

MATCHLINE 142+50'WB'

SEE NOTE 2

MATCH INTO EXISTING LIGHTING

TS10

TS7

EXHH54

SEE NOTE 2

EXHH55

SEE NOTE 2

TS9

EXHH57

EX. R/W (TYP.)

STA. 138+65.1'EB', 47.9' RT
1360 - LC1 - A2 - TYPE IV
SEE NOTE 2

TS8

SEE NOTE 2

EXHH56

TC4

STA. 139+21.7'EB', 49.0' RT
1359 - LC1 - A2 - TYPE IV
SEE NOTE 2

SEE NOTE 1

HILL STREET

NOTE: STORM SEWER NOT INCLUDED ON PLANS TO HELP WITH PLAN CLARITY.

LIGHTING TYPE

TYPE I - TLM-E05-LED-E1-SL3-AP-8030
TYPE II - TLM-E04-LED-E1-SL2-AP-8030
TYPE III - TLM-E04-LED-E1-SL3-AP-8030
TYPE IV - TLM-EL3-LED-E1-SL2-AP-8030
TYPE V - WISDOT LED B

$A_{\#}$ = ALL NIGHT, CIRCUIT NUMBER
$T_{\#}$ = TIMED, CIRCUIT NUMBER

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 191	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG PLOT DATE : 1/5/2022 9:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

TLE (TYP.)

HH7

HH10

STA 146+00.6 'WB', 36.5' LT
1353 - LC1 - A2 - TYPE II

STA 142+63.3 'WB', 4.7' RT
1356 - LC1 - A2/A2 - (2) TYPE V
SEE NOTE 1

143+00WB

143+00EB

144+00WB

144+00EB

HH6

145+00WB

145+00EB

146+00WB

146+00EB

147+00WB

147+00EB

STA 144+24.3 'WB', 6.9' RT
1355 - LC1 - A2/A2 - (2) TYPE I

HH8

HH9

UNIVERSITY AVENUE

EX. R/W (TYP.)

STA 146+00.0 'EB', 36.5' RT
1352 - LC1 - A2 - TYPE II

STA 145+05.3 'EB', 52.0' RT
1354 - LC1 - A2 - TYPE IV

SCHMIDT PLACE

MATCHLINE 142+50'WB'

MATCHLINE 147+50'WB'

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

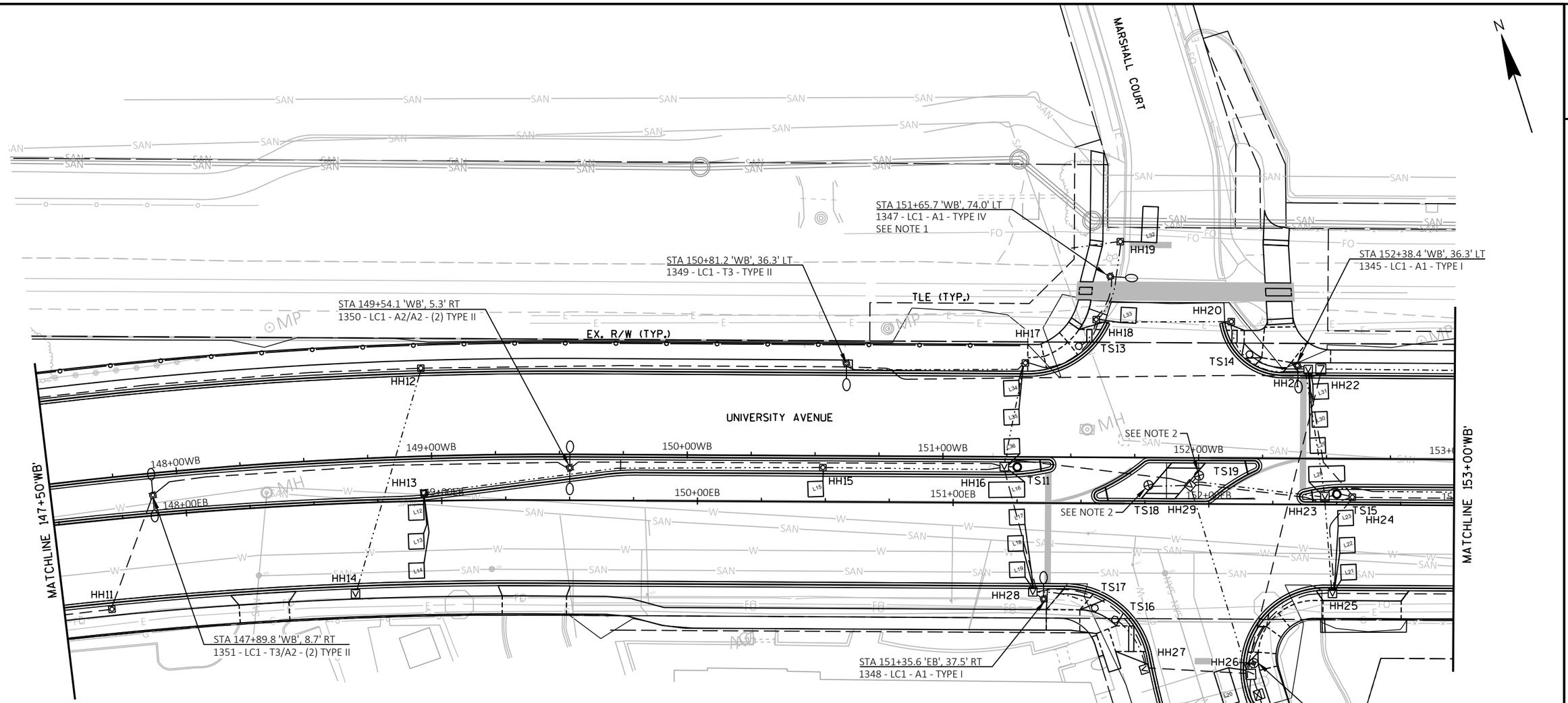
- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

CONSTRUCTIONS NOTES:

1) INFRASTRUCTURE TO BE SHARED WITH OVERHEAD SIGNING. SEE PERMANENT SIGNING PLANS FOR FURTHER INFORMATION

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 192	E

2



LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

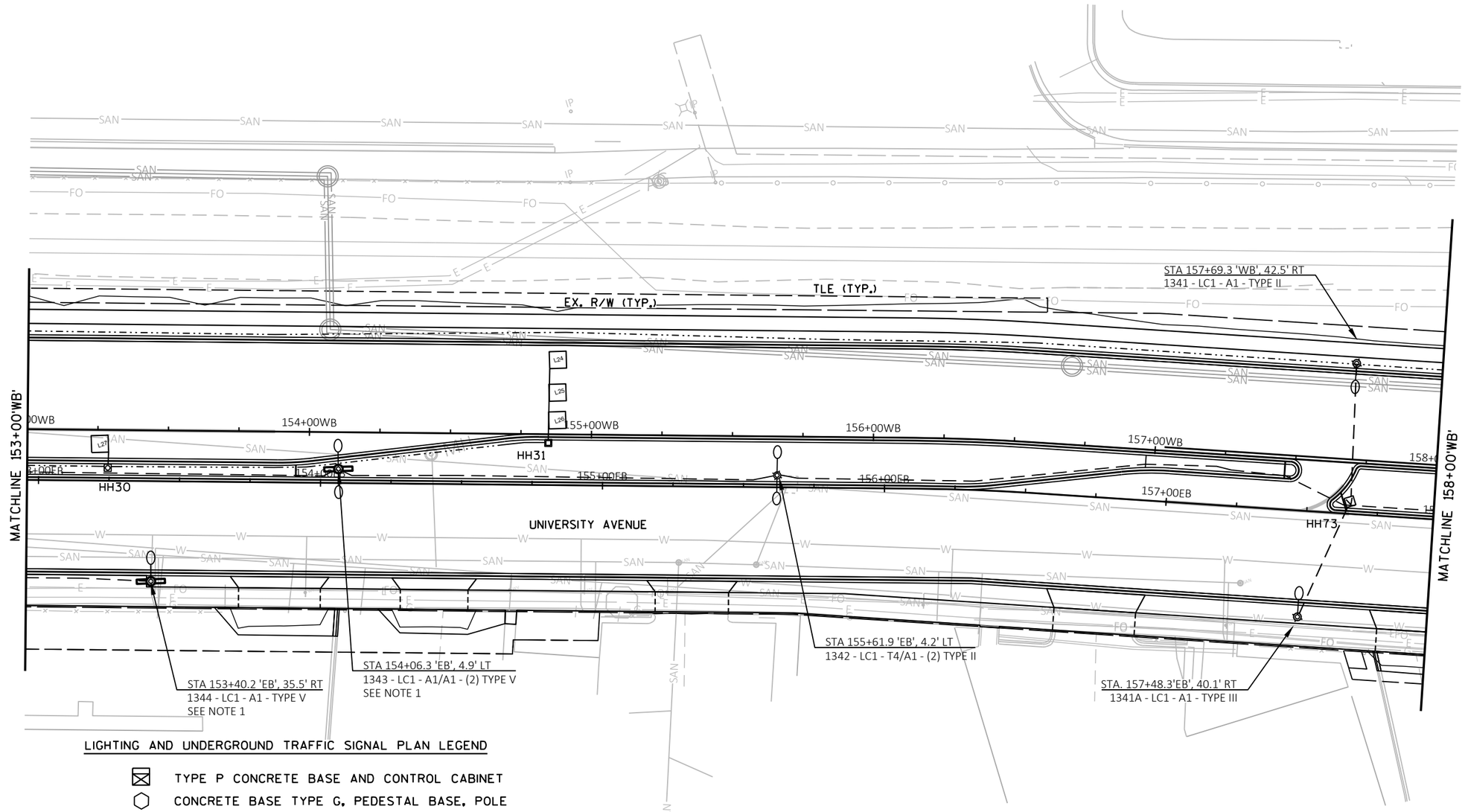
CONSTRUCTION NOTES:

1) VERIFY POLE LOCATION WITH ENGINEER IN THE FIELD TO ENSURE PLACEMENT IS NOT IN CONFLICT WITH EXISTING RAILROAD SIGNAL.

2) FURNISH LB-8 CONCRETE BASE FOR TS18 AND TS19 WITH 12 1/2-INCH BOLT CIRCLE ACCORDING TO DETAIL DRAWING.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 193	E

2



LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

CONSTRUCTIONS NOTES:

1) INFRASTRUCTURE TO BE SHARED WITH OVERHEAD SIGNING. SEE PERMANENT SIGNING PLANS FOR FURTHER INFORMATION

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 194	E

2

N

STA 158+83.5 'WB', 34.9' LT
1339 - LC1 - A1 - TYPE I

STA 160+43.2 'WB', 34.3' LT
1336 - LC2 - A1 - TYPE II

TLE (TYP.)

EX. R/W (TYP.)

STA 162+24.3 'WB', 3.7' RT
1335 - LC2 - A1/A1 - TYPE II/III

HH33

HH34

HH35

UNIVERSITY AVENUE

MATCHLINE 158+00'WB'

159+00WB

160+00WB

161+00WB

162+00WB

163+00WB

HH32

HH36

HH39

160+00EB

161+00EB

162+00EB

163+00EB

MATCHLINE 163+50'WB'

HH38

HH37

STA 158+77.4 'EB', 38.5' RT
1340 - LC1 - A1 - TYPE I

STA 159+59.0 'EB', 55.7' RT
1338 - LC2 - A1 - TYPE IV

STA 160+47.0 'EB', 36.6' RT
1337 - LC2 - A1 - TYPE V
SEE NOTE 1

STA 163+08.0 'EB', 35.7' RT
1334 - LC2 - A1 - TYPE II

NORTH FRANKLIN AVE

GUY POLE

CONSTRUCTIONS NOTES:

1) INFRASTRUCTURE TO BE SHARED WITH OVERHEAD SIGNING. SEE PERMANENT SIGNING PLANS FOR FURTHER INFORMATION

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

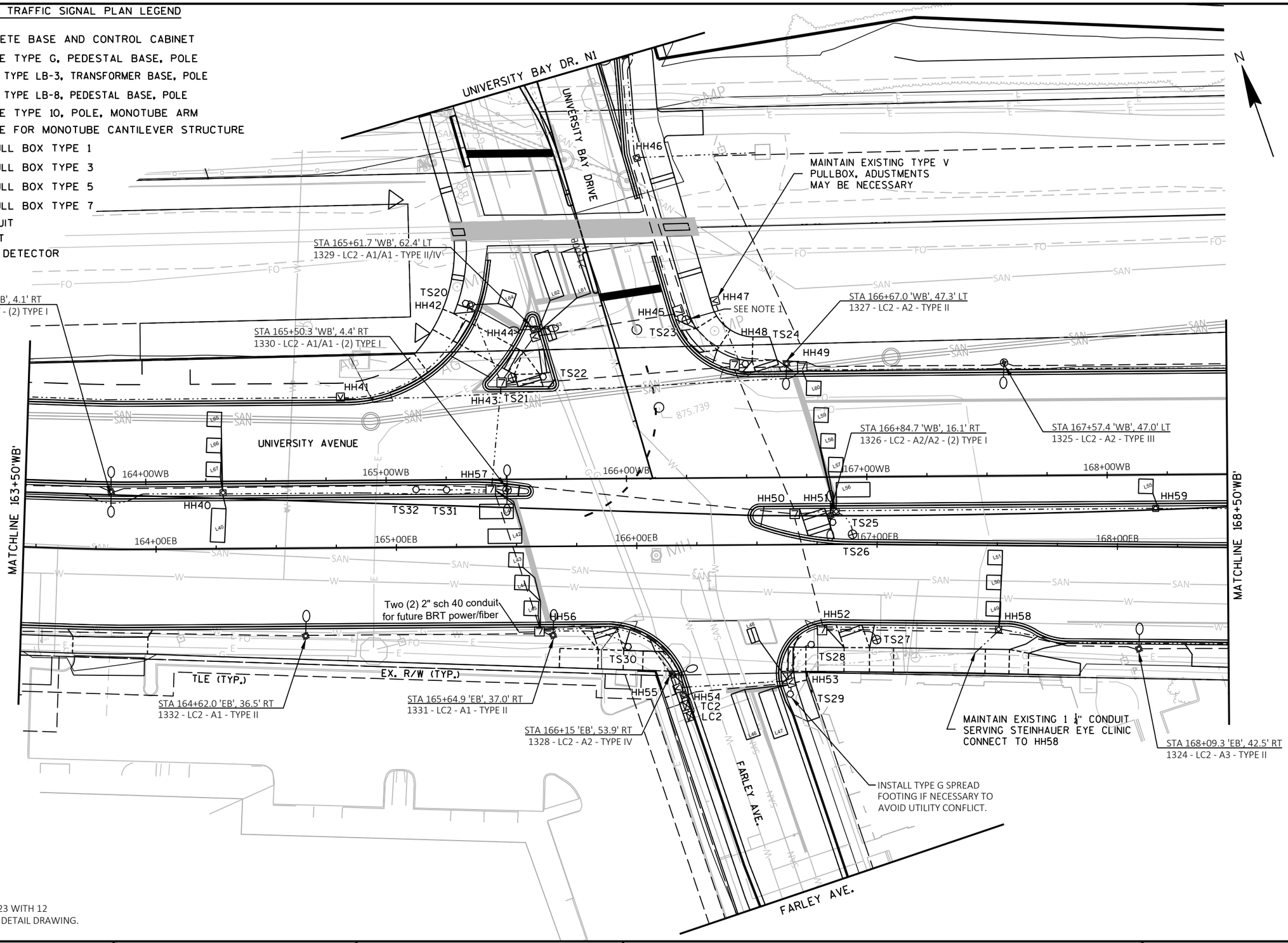
- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 195	E

2

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR



CONSTRUCTION NOTES:

1) FURNISH LB-8 CONCRETE BASE FOR TS23 WITH 12 1/2-INCH BOLT CIRCLE ACCORDING TO DETAIL DRAWING.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 196	E

2

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

N

UNIVERSITY BAY DR. N2

UNIVERSITY BAY DRIVE

MARSHALL COURT

STA 23+96.2 'BD', 30.4' LT
1313 - TC3 - A1 - TYPE I

STA 23+52.1 'BD', 41.1' RT
1314 - TC3 - A1 - TYPE IV

STA 23+03.4 'BD', 30.7' RT
1315 - TC3 - A1 - TYPE I

STA 23+28.0 'BD', 50.8' LT
SL1312 - TC3 - A1 - TYPE IV

STA 21+72.0 'BD', 37.7' RT
1316 - LC2 - A3 - TYPE III

HH68 TS34 HH67 HH66 TS32 HH65 TS35 HH69 HH70 TC3 HH71

TLE (TYP.)

EX. R/W (TYP.)

UNIVERSITY BAY DR. N1

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 197	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG PLOT DATE : 1/5/2022 9:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

N

29+00BD

28+00BD

27+00BD

26+00BD

HH72

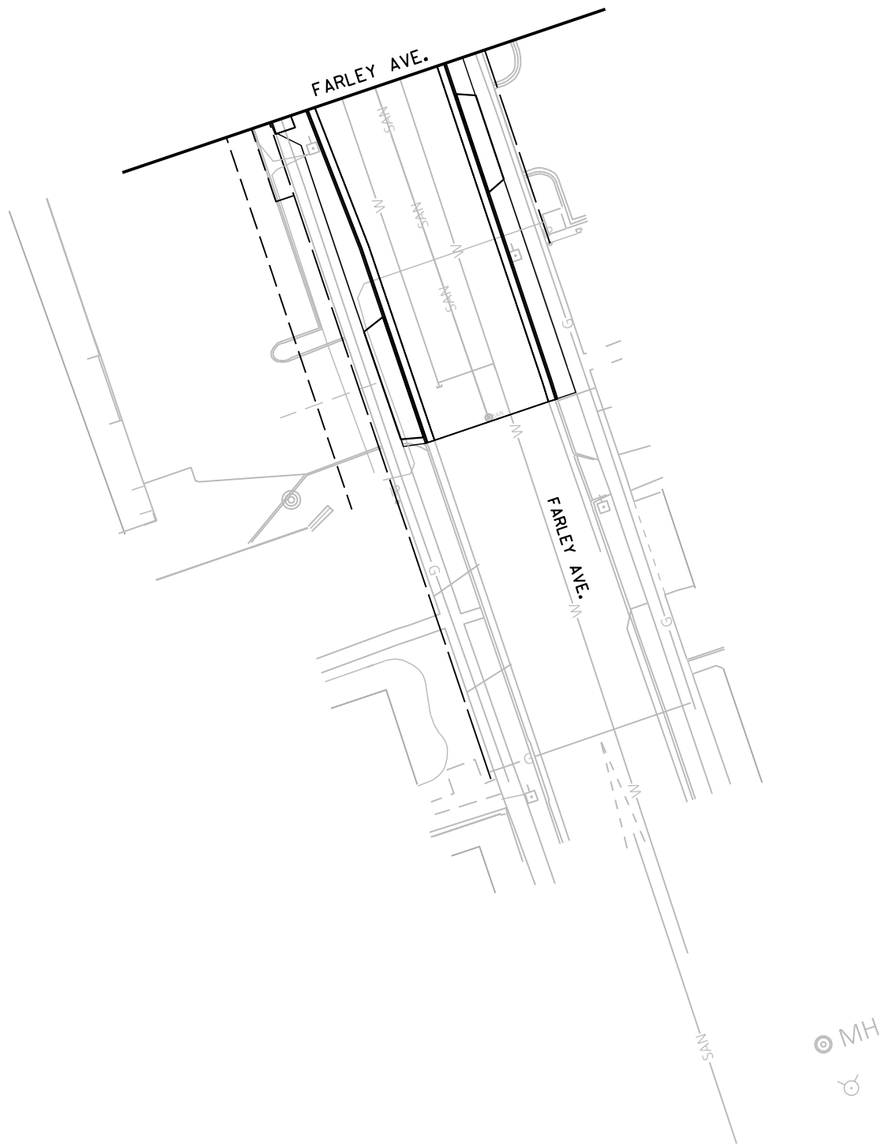
UNIVERSITY BAY DR. N2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 198	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG PLOT DATE : 1/5/2022 9:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

N

2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 199	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG PLOT DATE : 1/5/2022 9:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LIGHTING AND UNDERGROUND TRAFFIC SIGNAL PLAN LEGEND

- TYPE P CONCRETE BASE AND CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE FOR MONOTUBE CANTILEVER STRUCTURE
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- LIGHTING CONDUIT
- SIGNAL CONDUIT
- CONDUIT LOOP DETECTOR

N

TLE (TYP.)

STA 168+62.6 'WB', 46.1' LT
1323 - LC2 - A2 - TYPE III

STA 169+71.3 'WB', 46.8' LT
1321 - LC2 - A2 - TYPE III

STA 170+90.2 'WB', 46.9' LT
1319 - LC2 - A2 - TYPE III

HH62

CONNECT TO EXISTING CONDUIT

CAMPUS DR.

169+00WB
170+00WB
171+00WB
172+00WB
173+00WB

169+00EB
170+00EB
171+00EB
172+00EB
173+00EB

MATCHLINE 168+50'WB'

HH60
HH61
HH63
HH64

STA 172+58.2 'EB', 34.0' RT
1317 - LC2 - A3 - TYPE II

CAMPUS DR.

UNIVERSITY AVE.

MATCH INTO EXISTING LIGHTING

EX. R/W (TYP.)

STA 169+40.9 'EB', 45.0' RT
1322 - LC2 - A3 - TYPE II

STA 170+47.4 'EB', 58.3' RT
1320 - LC2 - A3 - TYPE III

STA 171+83.8 'EB', 83.1' RT
1318 - LC2 - A3 - TYPE II

GRAND AVE.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT PLAN	SHEET 200	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG PLOT DATE : 1/5/2022 9:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

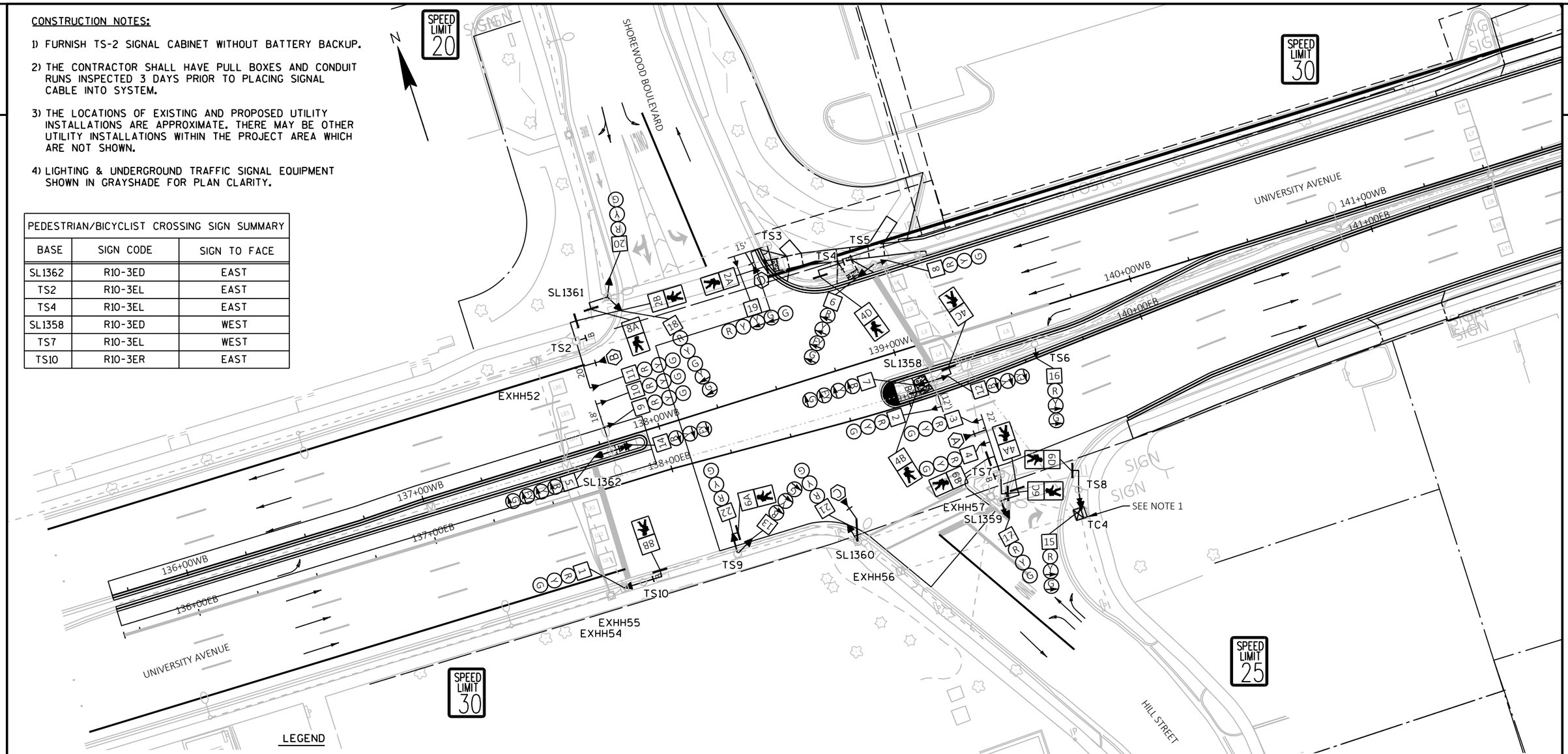
1) FURNISH TS-2 SIGNAL CABINET WITHOUT BATTERY BACKUP.

2) THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.

3) THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

4) LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT SHOWN IN GRAYSHADE FOR PLAN CLARITY.

PEDESTRIAN/BICYCLIST CROSSING SIGN SUMMARY		
BASE	SIGN CODE	SIGN TO FACE
SL1362	R10-3ED	EAST
TS2	R10-3EL	EAST
TS4	R10-3EL	EAST
SL1358	R10-3ED	WEST
TS7	R10-3EL	WEST
TS10	R10-3ER	EAST



LEGEND

- TRAFFIC SIGNAL HEAD
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- MONOTUBE BASE, POLE, 15'-30' ARM
- CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- NOTE: ALL LENSES 12-INCH
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE, TROMBONE ARM
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- SIGNAL CONDUIT
- LIGHTING CONDUIT
- LUMINAIRE INSTALLED IN LIGHTING PLANS

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE — TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

APPROVED
DATE DATE — STATE ENGINEER
STATE TRAFFIC ENGINEER

REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

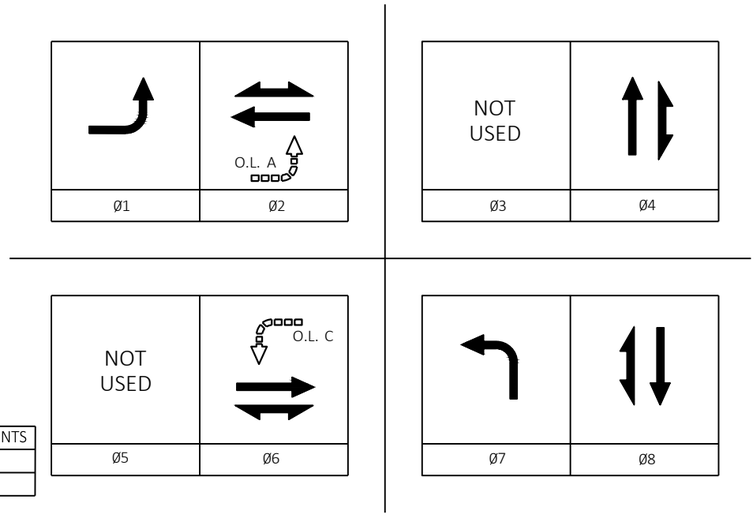
PAGE XX OF XX

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 201	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\024001-SP.DWG
LAYOUT NAME - Shorewood Int.
PLOT DATE : 1/5/2022 8:38 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH	O.L. ASSIGNMENTS
Ø1	5,6,7	—	
Ø2	8,9,10,11,12,13	R	
Ø3	17,18	—	
Ø4	19,20,21	R	
Ø5			
Ø6	1,2,3,4	R	
Ø7			
Ø8	14,15,16	R	
Ø2 PED	2A,2B	—	
Ø4 PED	4A,4B,4C,4D	—	
Ø6 PED	6A,6B,6C,6D	—	
Ø8 PED	8A,8B	—	O.L. ASSIGNMENTS
O.L. A	5,6	—	Ø2
O.L. C	7,9	—	Ø6

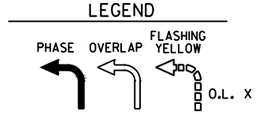


PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+6	WB
5	EVP	C	4+8	SB
6	EVP	D	3+8	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4		8		X
5				
6	X	2	MIN	X
7				X
8		4		X

LEGEND



TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	L1	L3	L5	L7	L55	L56	L58	
PHASE CALLED	2	2	2	2	1	6	6	
PHASE EXTENDED	2	2	2	2	1	6	6	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	L2	L4	L6	L8		L57		
PHASE CALLED	2	2	2	2		6		
PHASE EXTENDED	2	2	2	2		6		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE _____ TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

APPROVED
DATE DATE _____ STATE ENGINEER
STATE TRAFFIC ENGINEER

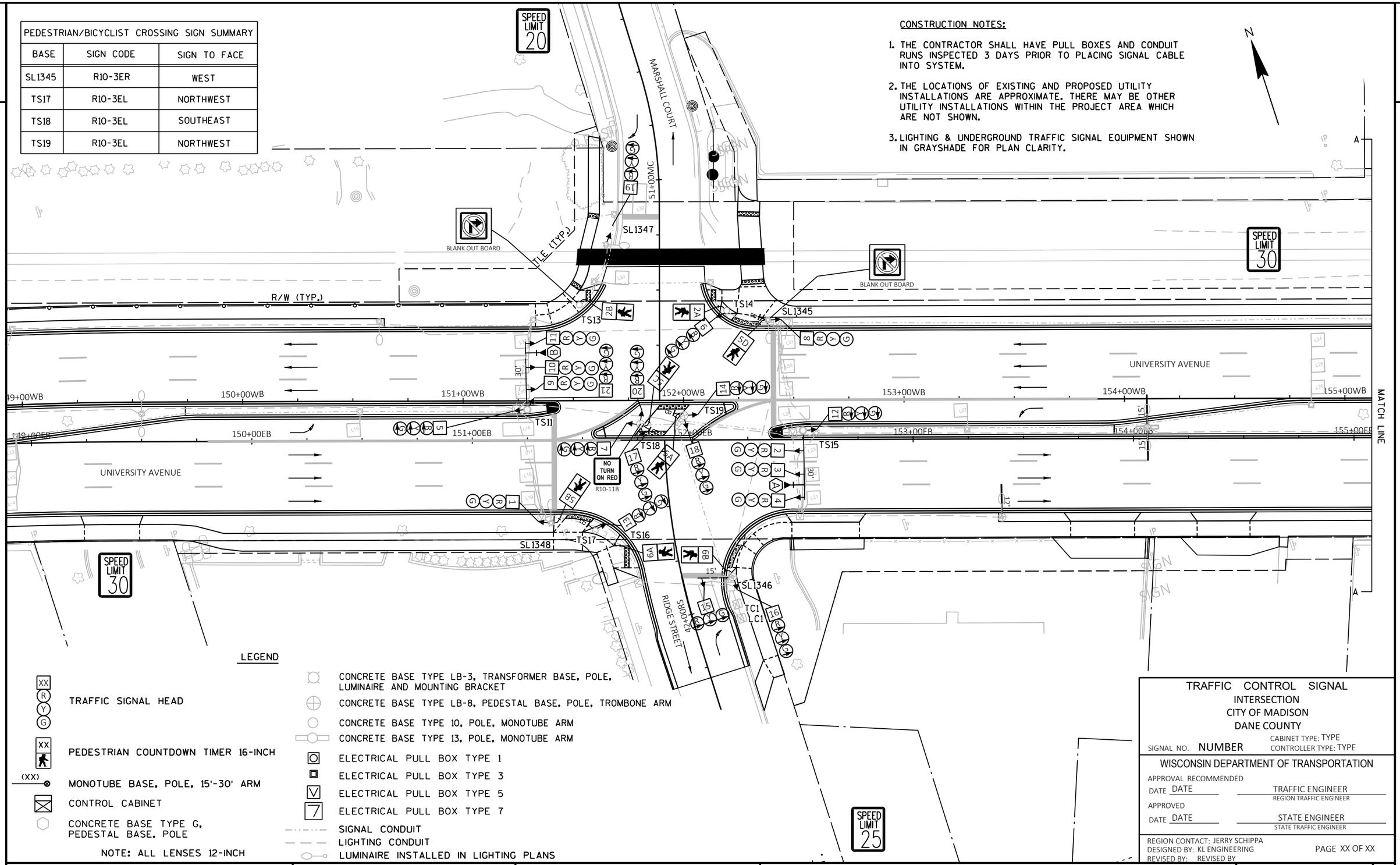
REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

PAGE XX OF XX

PEDESTRIAN/BICYCLIST CROSSING SIGN SUMMARY		
BASE	SIGN CODE	SIGN TO FACE
SL1345	R10-3ER	WEST
TS17	R10-3EL	NORTHWEST
TS18	R10-3EL	SOUTHEAST
TS19	R10-3EL	NORTHWEST

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT SHOWN IN GRAYSHADE FOR PLAN CLARITY.



LEGEND

- TRAFFIC SIGNAL HEAD
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- MONOTUBE BASE, POLE, 15'-30' ARM
- CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE

NOTE: ALL LENSES 12-INCH

- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE, TROMBONE ARM
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- SIGNAL CONDUIT
- LIGHTING CONDUIT
- LUMINAIRE INSTALLED IN LIGHTING PLANS

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE _____ TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

APPROVED
DATE DATE _____ STATE ENGINEER
STATE TRAFFIC ENGINEER

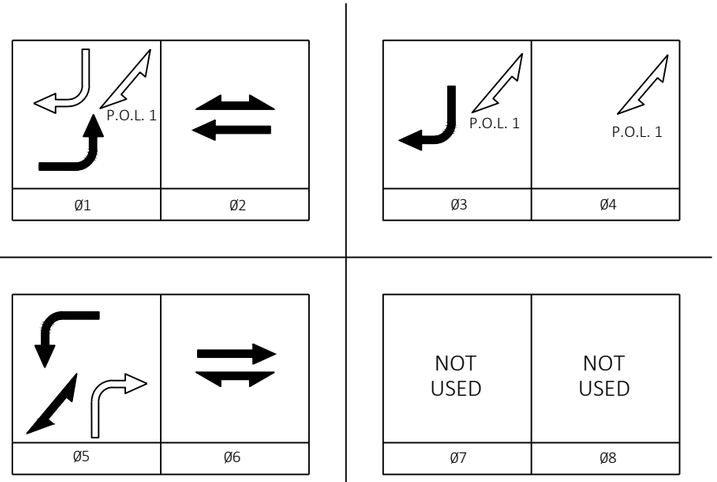
REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

PAGE XX OF XX

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 203	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\024001-SP.DWG
LAYOUT NAME - Ridge Int.
PLOT DATE : 1/5/2022 8:38 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	5,6,7,19,20,21	R
Ø2	8,9,10,11	R
Ø3	19,20,21	R
Ø4		
Ø5	12,13,14,15,16,17,18	R
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø1 PED	1A,1B	
Ø2 PED	2A,2B	
P.O.L. 1	5C,5D	
Ø5 PED	5A,5B	
Ø6 PED	6A,6B	



LEGEND

PHASE OVERLAP FLASHING YELLOW O.L. X

NOTES:

1. PED INPUTS:
   1.1. PUSH BUTTON 1 ON SL1345 (CALLS PED1)
   1.2. PUSH BUTTON 2 ON TS19 (CALLS PED1)
   1.3. PUSH BUTTON 3 ON TS18 (CALLS PED 5,8)
   1.4. PUSH BUTTON 4 ON TS17 (CALLS PED 5,8)
2. LOGIC STEP 1 DRIVES BLANK OUT BOARD FOR RR PRE-EMPT.
3. LOGIC STEPS 2-4 DRIVES BLANK OUT BOARD DURING PED CROSSING OF WB LANES.
4. LOGIC STEPS 5-6 SETS UP NB PED CROSSING PROGRESSION.
5. LOGIC STEPS 7-8 SETS UP SB PED PROGRESSION (INCLUDING IN RR PRE-EMPT).

LOGIC STEPS:

1. IF PRE-EMPT 1 IS ON, SET SIGNAL OVERLAP 2 YELLOW ON (WBRT BLANK OUT BOARD)
2. IF PED CALL ON 5, AND PHASE 5 NEXT, SET LOGIC FLAG 1 ON.
3. IF LOGIC FLAG 1 IS ON, SET SIGNAL OVERLAP 2 YELLOW ON (WBRT BLANK OUT BOARD).
4. IF LOGIC FLAG 2 AND PED WALK 5 ON, DELAY FOR 10 SECONDS THEN SHUT OFF LOGIC FLAG 1.
5. IF PED DET 1 IS ON, SET LOGIC FLAG 2 ON.
6. IF LOGIC FLAG 2 ON, AND PED PHASE 1 WALK ON, CALL PED2 5 AND 8 ON, THEN SHUT OFF LOGIC FLAG 2.
7. IF PED DET 4 IS ON, SET LOGIC FLAG 3 ON.
8. IF LOGIC FLAG 3 ON, AND PED OVERLAP 1 IS TIMING, CALL PED2 PHASE 1, THEN SHUT OFF LOGIC FLAG 3.

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	NOT USED	-	-	-
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	PED	X
3				
4				
5				X
6	X	2	PED	X
7				
8				X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	L12	L14	L15	L17	L19	L20	L24	L26
PHASE CALLED	6	6	1	6	6	5	2	2
PHASE EXTENDED	6	6	6	6	6	5	2	2
DISCONNECT TIME				22	22			
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	L27	L29	L31	L32				
PHASE CALLED	5	2	2	3				
PHASE EXTENDED	5	2	2	3				
DISCONNECT TIME			22	22				
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	L13		L16	L18			L25	
PHASE CALLED	6		1	6			2	
PHASE EXTENDED	6		6	6			2	
DISCONNECT TIME			10	22				
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	L28	L30		L33				
PHASE CALLED	5	2		3				
PHASE EXTENDED	5	2		3				
DISCONNECT TIME	10	22						
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

TYPE OF REMOTE COMMUNICATION	
NONE	
FIBER	X
CELL MODEM	
PHONE	

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE _____ TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

APPROVED
DATE DATE _____ STATE ENGINEER
STATE TRAFFIC ENGINEER

REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

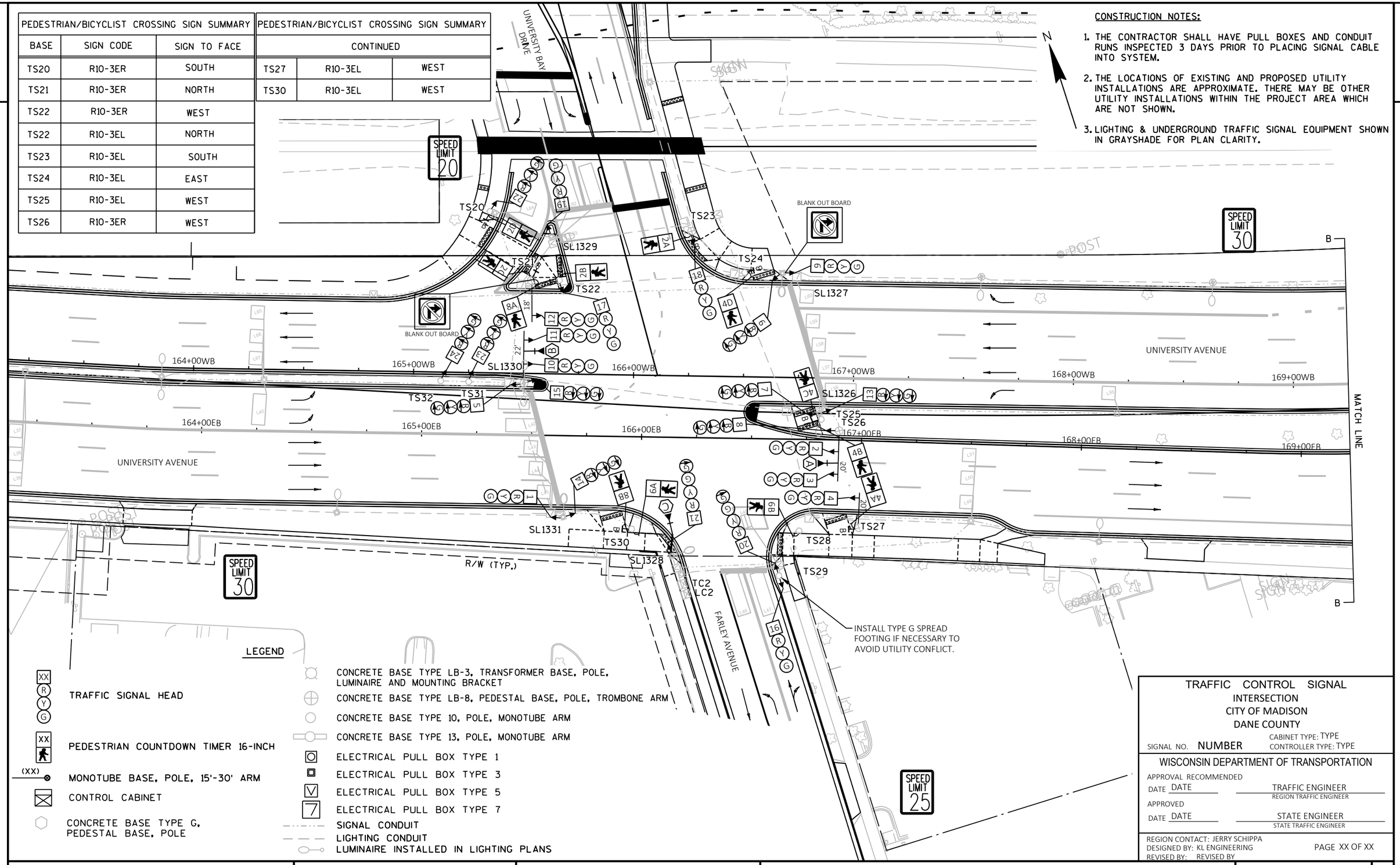
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\024001-SP.DWG PLOT DATE : 1/5/2022 8:38 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

PEDESTRIAN/BICYCLIST CROSSING SIGN SUMMARY		
BASE	SIGN CODE	SIGN TO FACE
TS20	R10-3ER	SOUTH
TS21	R10-3ER	NORTH
TS22	R10-3ER	WEST
TS22	R10-3EL	NORTH
TS23	R10-3EL	SOUTH
TS24	R10-3EL	EAST
TS25	R10-3EL	WEST
TS26	R10-3ER	WEST

PEDESTRIAN/BICYCLIST CROSSING SIGN SUMMARY		
CONTINUED		
TS27	R10-3EL	WEST
TS30	R10-3EL	WEST

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT SHOWN IN GRAYSHADE FOR PLAN CLARITY.



LEGEND

- TRAFFIC SIGNAL HEAD
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE, TROMBONE ARM
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- SIGNAL CONDUIT
- LIGHTING CONDUIT
- LUMINAIRE INSTALLED IN LIGHTING PLANS

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE — TRAFFIC ENGINEER, REGION TRAFFIC ENGINEER

APPROVED
DATE DATE — STATE ENGINEER, STATE TRAFFIC ENGINEER

REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

PAGE XX OF XX

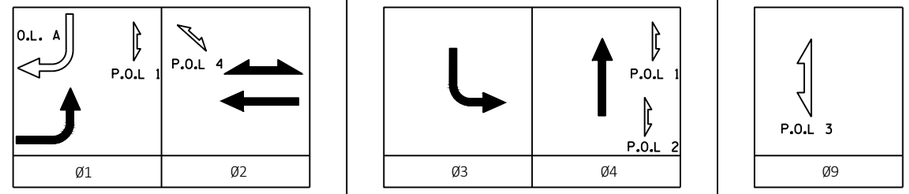
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 205 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\024001-SP.DWG
PLOT DATE : 1/5/2022 8:38 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

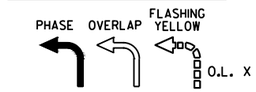
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6,7,8	R
Ø2	9,10,11,12	R
Ø3	20,21	
Ø4	16,17,18	
Ø5	13,14,15	R
Ø6	1,2,3,4	R
Ø7	5,6,7,8	
Ø8	19,20,21,22,23,24	R
Ø2 PED	2A,2B,2C,2D	
Ø6 PED	6A,6B	
O.L. A	22,23,24	
P.O.L 1	4C,4D	
P.O.L 2	4A,4B	
P.O.L 3	8A,8B	
P.O.L 4	2C,2D	

O.L. ASSIGNMENT
Ø1,Ø8
Ø1,Ø4,Ø7,Ø10
Ø4,Ø5
Ø8,Ø9
Ø2,Ø7



LEGEND



NOTES:

1. PED INPUTS:
   - 1.1. PUSH BUTTON 1 ON TS24 (CALLS PED 1,4,7,10)
   - 1.2. PUSH BUTTON 2 ON TS25 (CALLS PED 1,4,7,10)
   - 1.3. PUSH BUTTON 3 ON TS20 (CALLS PED 2,7)
   - 1.4. PUSH BUTTON 4 ON TS21 (CALLS PED 2,7)
   - 1.5. PUSH BUTTON 5 ON TS26 (CALLS PED 4,5,10)
   - 1.6. PUSH BUTTON 6 ON TS27 (CALLS PED 4,5,10)
   - 1.7. PUSH BUTTON 7 ONTS30 (CALLS PED 8,9)
   - 1.8. PUSH BUTTON 8 ON TS22 (CALLS PED 8,9)
2. PHASES 3, 9, 10 ARE IN USE ONLY DURING PRE-EMPT 1.

LOGIC STEPS:

1. TURNS BLANK OUT BOARD ON DURING RR PRE-EMPT.
2. ALLOWS PED MOVEMENTS ACROSS UNIVERSITY AND SIDE STREETS IF PRE-EMPT IS ON.
3. IF PED DET 1 IS ON (SE CORNER) AND PHASE 4 IS TIMING, SET LOGIC FLAG 1 ON.
4. IF LF 1 IS ON, AND PHASE 4 TIMING, AND PHASE 4 WALK NOT ON, CALL PED PHASES 5 AND 1, FLAG 1 OFF.
   - 4.1. ALLOWS SOMEONE WHO JUST MISSED THE PHASE 4 WALK TO GET ADDITIONAL CROSSING TIME WITHOUT DELAYING MAINLINE TRAFFIC SIGNIFICANTLY.
5. LOGIC FLAG 2 ON IF PED 2 ON (SE MEDIAN BUTTON).
6. IF FLAG 2 IS ON AND PED OVERLAP 5 IS CLEARING, OR PHASE 5 IS NEXT, CALL PED2 PHASE 5.
7. IF PED DET 3 ON (N, E MEDIAN), CALL LOGIC FLAG 3 ON.
8. IF LOGIC FLAG 3 ON AND PHASE 2 IS TIMING, CALL PED2 ON PHASE 1, SHUT OFF FLAG 3.
9. IF LOGIC FLAG 3 IS ON AND PHASE 4 IS NEXT, SHUT OFF LOGIC FLAG 3.
10. USES LONGER ALL RED FOR PHASE 1 WHEN 2 IS NEXT.
11. IF PED PHASE 4 IS ON WALK, AND A CALL COMES IN ON PHASE 5, CALL PED PHASE 5.

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	3+8	SB
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY w /Ø	PHASE RECALL	PHASE ACTIVE
1	X			X
2	X		PED	X
3				X
4	X	8		X
5	X			X
6	X		PED	X
7				X
8	X	4		X
9				X
10				X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	L37	L39	L40	L42	L43	L45	L46	L48
PHASE CALLED	6	6	1	1	6	6	4	4
PHASE EXTENDED	6	6	1	1	6	6	4	4
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	L52	L54	L55	L57	L59	L61	L63	
PHASE CALLED	2	2	5	2	2	8	8	
PHASE EXTENDED	2	2	5	2	2	8	8	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	L38		L41		L44		L47	
PHASE CALLED	6		1		6		4	
PHASE EXTENDED	6		1		6		4	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	L53		L56	L58	L60	L62	L64	
PHASE CALLED	2		5	2	2	8	8	
PHASE EXTENDED	2		5	2	2	8	8	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE
TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

APPROVED
DATE DATE
STATE ENGINEER
STATE TRAFFIC ENGINEER

REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

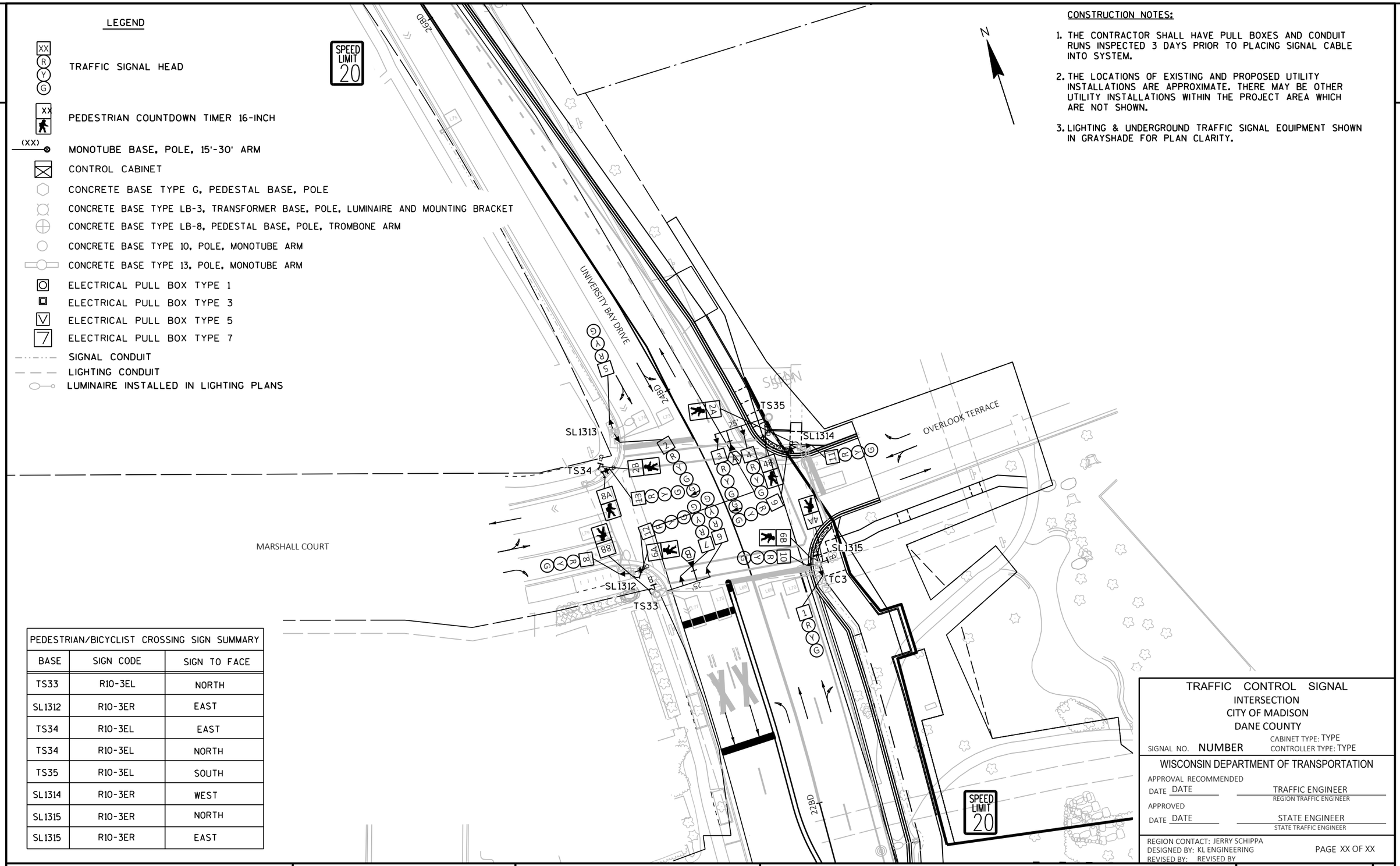
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SEQUENCE OF OPERATIONS	SHEET 206	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\024001-SP.DWG
PLOT DATE : 1/5/2022 8:38 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

LEGEND

- TRAFFIC SIGNAL HEAD
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- MONOTUBE BASE, POLE, 15'-30' ARM
- CONTROL CABINET
- CONCRETE BASE TYPE G, PEDESTAL BASE, POLE
- CONCRETE BASE TYPE LB-3, TRANSFORMER BASE, POLE, LUMINAIRE AND MOUNTING BRACKET
- CONCRETE BASE TYPE LB-8, PEDESTAL BASE, POLE, TROMBONE ARM
- CONCRETE BASE TYPE 10, POLE, MONOTUBE ARM
- CONCRETE BASE TYPE 13, POLE, MONOTUBE ARM
- ELECTRICAL PULL BOX TYPE 1
- ELECTRICAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- SIGNAL CONDUIT
- LIGHTING CONDUIT
- LUMINAIRE INSTALLED IN LIGHTING PLANS



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. LIGHTING & UNDERGROUND TRAFFIC SIGNAL EQUIPMENT SHOWN IN GRAYSHADE FOR PLAN CLARITY.

PEDESTRIAN/BICYCLIST CROSSING SIGN SUMMARY		
BASE	SIGN CODE	SIGN TO FACE
TS33	R10-3EL	NORTH
SL1312	R10-3ER	EAST
TS34	R10-3EL	EAST
TS34	R10-3EL	NORTH
TS35	R10-3EL	SOUTH
SL1314	R10-3ER	WEST
SL1315	R10-3ER	NORTH
SL1315	R10-3ER	EAST

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE — TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

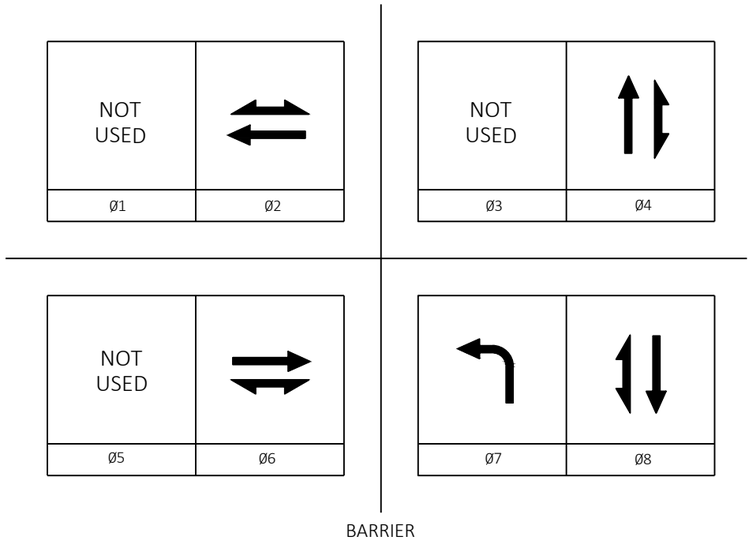
APPROVED
DATE DATE — STATE ENGINEER
STATE TRAFFIC ENGINEER

REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 207	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\024001-SP.DWG
PLOT DATE : 1/5/2022 8:38 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1		
Ø2	11,12,13	R
Ø3		
Ø4	1,2,3	R
Ø5		
Ø6	8,9,10	R
Ø7	4	
Ø8	5,6,7	R
Ø2 PED	2A,2B	
Ø4 PED	4A,4B	
Ø6 PED	6A,6B	
Ø8 PED	8A,8B	

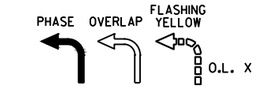


PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	4	NB
4	EVP	B	8	SB
5	NOT USED	-	-	-
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X			X
3				
4		8	PED	X
5				
6				
7				X
8		4	PED	X

LEGEND



TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF REMOTE COMMUNICATION	
NONE	
FIBER	X
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
DETECTOR #(S)	L68	L69	L71	L73	L75	L76										
PHASE CALLED	7	4	2	8	8	6										
PHASE EXTENDED	7	4	2	8	8	6										
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
DETECTOR #(S)		L70	L72	L74		L79										
PHASE CALLED		4	2	8		6										
PHASE EXTENDED		4	2	8		6										
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

TRAFFIC CONTROL SIGNAL
INTERSECTION
CITY OF MADISON
DANE COUNTY

SIGNAL NO. NUMBER
CABINET TYPE: TYPE
CONTROLLER TYPE: TYPE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE DATE _____ TRAFFIC ENGINEER
REGION TRAFFIC ENGINEER

APPROVED
DATE DATE _____ STATE ENGINEER
STATE TRAFFIC ENGINEER

REGION CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY: REVISED BY

PAGE XX OF XX

2

GENERAL NOTES:

1. FINAL LOCATION OF WOOD POLES, SIGNAL HEADS, AND TEMPORARY CABINET SHALL BE AS DIRECTED BY THE ENGINEER. USE CAUTION WHEN LOCATING WOOD POLES WITH THE STAKING INFORMATION SHOWN.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE ADJUSTMENTS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
3. NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN AND TETHER WIRES.
4. CONTRACTOR SHALL PROVIDE NON-INTRUSIVE DETECTION FOR ALL DETECTION ZONES. DETECTION EQUIPMENT PLACEMENT MAY REQUIRE ADDITIONAL POLE INSTALLATIONS WHICH ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
5. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
6. INSTALLATION OF WP3 WILL REQUIRE REMOVAL OF EXISTING CONCRETE BASE, SIGNAL POLE, SIGNAL HEAD, PEDESTRIAN HEAD, AND SIGNS. CONCRETE BASE SHALL BE REPLACED AFTER CONSTRUCTION. MAINTAIN FIBER OPTIC CONNECTION. COORDINATE WITH THE CITY OF MADISON PER THEIR SPECS.

NOTES - STAGE 1:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 3, 4, 11, 20, AND 23 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 2 AND 9 SHALL BE BAGGED DURING THIS STAGE.
4. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

NOTES - STAGE 2:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 3, 4, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 2 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. PEDESTRIAN HEADS 8A AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK TO BE COVERED AND DEACTIVATED DURING THIS STAGE.
5. SIGNAL HEADS 5, 6, 7, 21, 22, 23, AND 24 SHALL BE BAGGED, AND DETECTION ZONES 11 AND 41 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF SHOREWOOD BOULEVARD.

NOTES - STAGE 3:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 3, 4, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 2 AND 9 SHALL BE BAGGED DURING THIS STAGE.
4. PEDESTRIAN HEADS 8A AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED DURING THIS STAGE.
5. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

NOTES - STAGE 3A (WINTER):

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 4, 9, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. TEMPORARY SIGNALS WILL BE IN PLACE DURING WINTER. CONTRACTOR SHALL ENSURE TEMPORARY SIGNAL SYSTEM IS SUFFICIENT FOR EXTENDED OPERATIONS THROUGH WINTER.

NOTES - STAGE 4:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 9 SHALL BE BAGGED DURING THIS STAGE.
4. PEDESTRIAN HEADS 6A, 6B, 6C, 6D, 8A AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED DURING THIS STAGE.
5. HILL STREET NORTHBOUND RIGHT TURN LANE SHALL BE STOP-CONTROLLED DURING THIS STAGE. SIGNAL HEADS 15 AND 16 SHALL BE BAGGED FOR DURATION OF PHASE.
6. SIGNAL HEADS 12, 13, 14, 15, 16, 17, 18, 19, AND 20 SHALL BE BAGGED, AND DETECTION ZONES 31, 51, AND 81 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF HILL STREET.

NOTES - STAGE 5:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 3, 4, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 2 AND 9 SHALL BE BAGGED DURING THIS STAGE.
4. PEDESTRIAN HEADS 8A AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED DURING THIS STAGE.
5. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

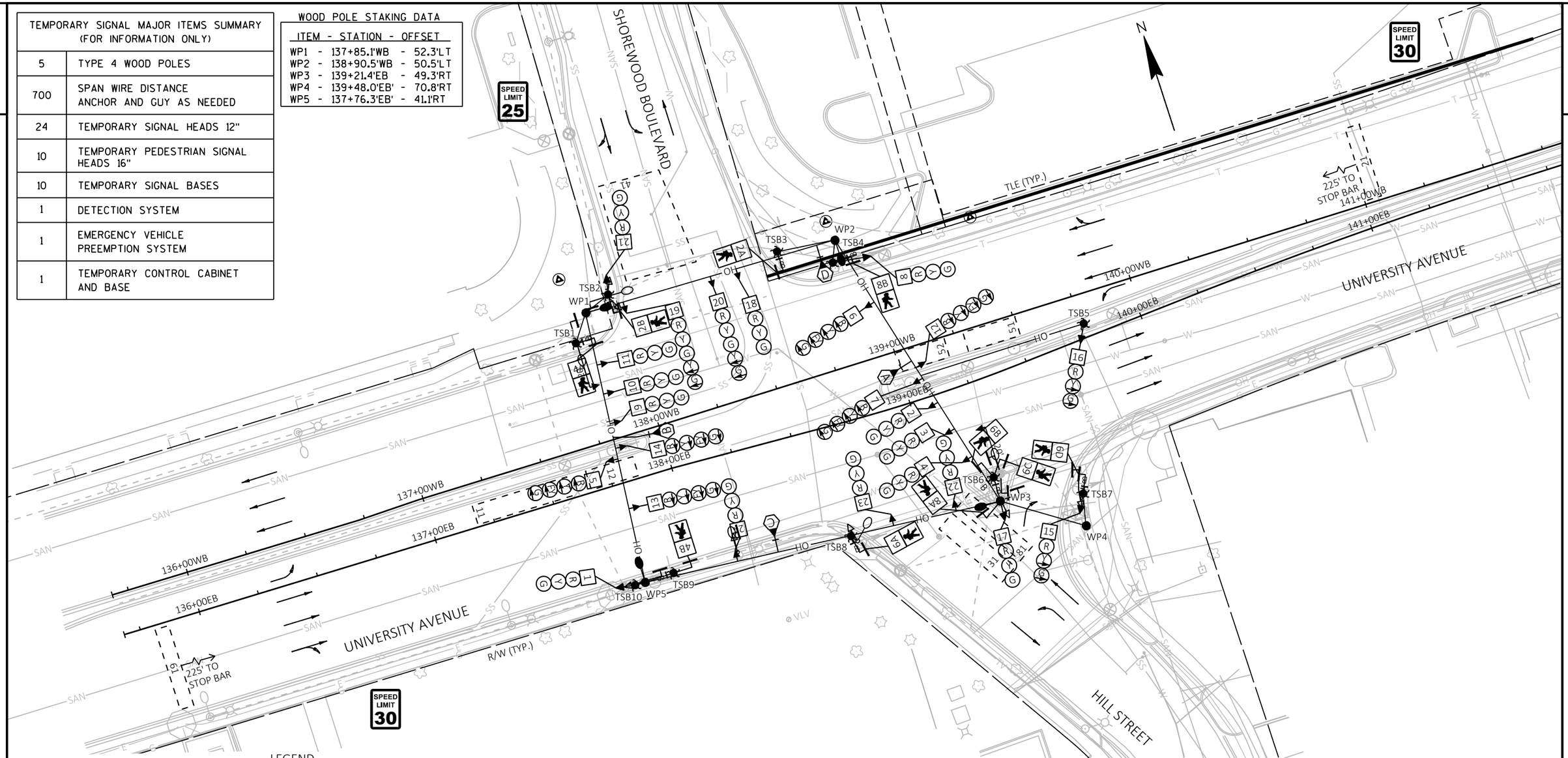
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - SHOREWOOD/HILL	SHEET 209	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Shorewood Notes
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)	
5	TYPE 4 WOOD POLES
700	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED
24	TEMPORARY SIGNAL HEADS 12"
10	TEMPORARY PEDESTRIAN SIGNAL HEADS 16"
10	TEMPORARY SIGNAL BASES
1	DETECTION SYSTEM
1	EMERGENCY VEHICLE PREEMPTION SYSTEM
1	TEMPORARY CONTROL CABINET AND BASE

WOOD POLE STAKING DATA

ITEM - STATION - OFFSET
WP1 - 137+85.1'WB - 52.3'LT
WP2 - 138+90.5'WB - 50.5'LT
WP3 - 139+21.4'EB - 49.3'RT
WP4 - 139+48.0'EB' - 70.8'RT
WP5 - 137+76.3'EB' - 41.1'RT



LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- TRAFFIC SIGNAL HEAD
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- NON-INTRUSIVE DETECTION ZONE
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & SHOREWOOD BLVD/HILL ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 3

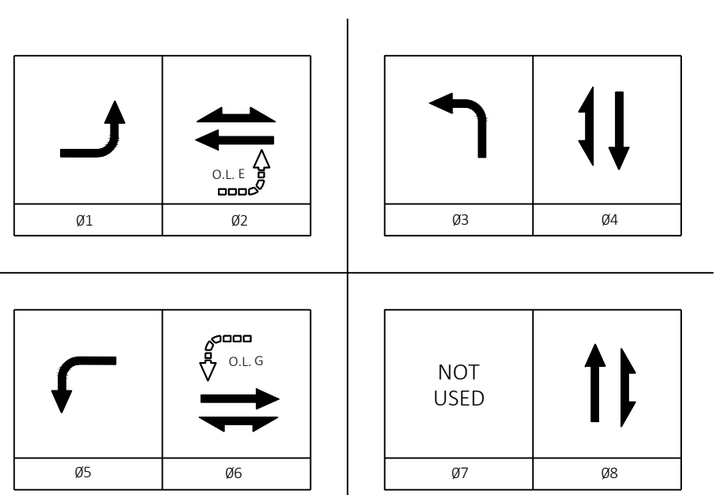
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - SHOREWOOD/HILL	SHEET 210	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Shorewood Int.
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6,7	–
Ø2	8,9,10,11	R
Ø3	19,20	–
Ø4	21,22,23,24	R
Ø5	12,13,14	–
Ø6	1,2,3,4	R
Ø7		
Ø8	15,16,17,18,19,20	R
Ø2 PED	2A,2B	
Ø4 PED	4A,4B	
Ø6 PED	6A,6B,6C,6D	
Ø8 PED	8A,8B	

O.L. ASSIGNMENTS		
O.L. E	5,6,7	R Ø2
O.L. G	12,13,14	R Ø6



GENERAL NOTES:

1. PEDESTRIAN PHASES 6 AND 8 SHALL BE OMITTED WHEN THE CORRESPONDING CROSSWALKS ARE CLOSED.
2. SIGNAL PHASES 1 AND 4 TO BE DEACTIVATED DURING SHORT-TERM CLOSURE OF SHOREWOOD BOULEVARD.
3. SIGNAL PHASES 3, 5, AND 8 TO BE DEACTIVATED DURING SHORT-TERM CLOSURE OF HILL STREET.
4. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	4+8	SB
6	EVP	D	3+8	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY w/Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	1+6	2+5	4+8	3+8

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
2. AFTER PREEMPTION SEQUENCE 3+8 OR 4+8, CONTROLLER SHALL RETURN TO PHASES 2+6.

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	31	41	51	61	81	
PHASE CALLED	1	2	3	4	5	6	8	
PHASE EXTENDED	1	2	3	4	5	6	8	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12				52			
PHASE CALLED								
PHASE EXTENDED	1				5			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTION NOTES:

1. DETECTION ZONES 11 AND 41 TO BE INACTIVE DURING SHORT-TERM CLOSURE OF SHOREWOOD BOULEVARD.
2. DETECTION ZONES 31, 51, AND 81 TO BE INACTIVE DURING SHORT-TERM CLOSURE OF HILL STREET.

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & SHOREWOOD BLVD/HILL ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY SEQUENCE OF OPERATIONS - SHOREWOOD/HILL	SHEET 211	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Shorewood SOO
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

2

GENERAL NOTES:

1. FINAL LOCATION OF WOOD POLES, SIGNAL HEADS, AND TEMPORARY CABINET SHALL BE AS DIRECTED BY THE ENGINEER. USE CAUTION WHEN LOCATING WOOD POLES WITH THE STAKING INFORMATION SHOWN.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE ADJUSTMENTS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
3. NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN AND TETHER WIRES.
4. CONTRACTOR SHALL PROVIDE NON-INTRUSIVE DETECTION FOR ALL DETECTION ZONES. DETECTION EQUIPMENT PLACEMENT MAY REQUIRE ADDITIONAL POLE INSTALLATIONS WHICH ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
5. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
6. ENGINEER IN THE FIELD SHALL COORDINATE WITH RAILROAD FOR PREEMPTION AT EACH TRAFFIC CONTROL STAGE.

NOTES - STAGE 1:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. ONLY RIGHT TURNS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET ONTO UNIVERSITY AVENUE. SIGNAL HEADS 17, 19, 23, AND 25 SHALL BE BAGGED FOR DURATION OF THIS STAGE. SIGNAL HEADS 16 AND 22 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 7 FOR PHASING INFORMATION.
5. R1-5 "YIELD HERE TO PEDESTRIANS" SIGNS SHALL BE INSTALLED ON MARSHALL COURT AND RIDGE STREET. SEE TRAFFIC CONTROL PLANS FOR PLACEMENT OF SIGNS.
6. PEDESTRIAN HEADS 2A AND 2B SHALL BE BAGGED FOR DURATION OF THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.

NOTES - STAGE 2:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. FULL TURNING MOVEMENTS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET. SIGNAL HEADS 18, 20, 24, AND 26 TO BE BAGGED FOR DURATION OF THIS STAGE. SIGNAL HEADS 15 AND 21 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 7 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 2A AND 2B SHALL BE BAGGED FOR DURATION OF THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNAL HEADS 5, 6, 7, 21, 22, 23, 24, 25, AND 26 SHALL BE BAGGED, AND DETECTION ZONES 11, 12, AND 41 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF MARSHALL COURT.

NOTES - STAGE 3:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. FULL TURNING MOVEMENTS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET. SIGNAL HEADS 18, 20, 24, AND 26 SHALL BE BAGGED FOR DURATION OF THIS STAGE. SIGNAL HEADS 15 AND 21 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 7 FOR PHASING INFORMATION.
5. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

NOTES - STAGE 3A (WINTER):

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 4, 9, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. ONLY RIGHT TURNS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET ONTO UNIVERSITY AVENUE. SIGNAL HEADS 17, 18, 19, 20, 23, 24, 25, AND 26, AND PEDESTRIAN SIGNAL HEAD 8A SHALL BE BAGGED DURING THIS STAGE. SIGNAL HEADS 16 AND 22 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 8 FOR PHASING INFORMATION.
4. THREE-SECTION HEADS 29, 30, 31, AND 32 SHOWN FOR PLAN CLARITY ON TSB8, TSB9, AND TSB10. HOWEVER, IT IS ACCEPTABLE TO RELOCATE SIGNAL HEADS 18, 20, 24, AND 26 FROM OVERHEAD SPANS TO PLACE ON GROUND MOUNT POLES.
5. R1-5 "YIELD HERE TO PEDESTRIANS" SIGNS SHALL BE INSTALLED ON MARSHALL COURT AND RIDGE STREET. SEE TRAFFIC CONTROL PLANS FOR PLACEMENT OF SIGNS.
6. TEMPORARY SIGNALS WILL BE IN PLACE DURING WINTER. CONTRACTOR SHALL ENSURE TEMPORARY SIGNAL SYSTEM IS SUFFICIENT FOR EXTENDED OPERATIONS THROUGH WINTER. OVERHEAD SPAN AND CABLING SHALL BE MOUNTED TO AVOID OBSCURING SIGNAL HEADS.
7. OVERHEAD SPAN WIRE; TEMPORARY SIGNAL BASES 8, 9, AND 10; AND TEMPORARY SIGNAL HEADS 27, 28, 29, 30, 31, AND 32 SHALL BE REMOVED BEFORE BEGINNING STAGE 4. SEE PAGE 6 FOR SIGNAL EQUIPMENT LAYOUT.

NOTES - STAGE 4:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. FULL TURNING MOVEMENTS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET. SIGNAL HEADS 18, 20, 24, AND 26 SHALL BE BAGGED FOR DURATION OF THIS STAGE. SIGNAL HEADS 15 AND 21 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 7 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 6A AND 6B SHALL BE BAGGED FOR DURATION OF THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNAL HEADS 12, 13, 14, 15, 16, 17, 18, 19, AND 20 SHALL BE BAGGED, AND DETECTION ZONES 51, 52, AND 81 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF RIDGE STREET.

NOTES - STAGE 5:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. ONLY RIGHT TURNS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET ONTO UNIVERSITY AVENUE. SIGNAL HEADS 17, 19, 23, AND 25 SHALL BE BAGGED FOR DURATION OF THIS STAGE. SIGNAL HEADS 16 AND 22 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 9 FOR PHASING INFORMATION.
5. R1-5 "YIELD HERE TO PEDESTRIANS" SIGNS SHALL BE INSTALLED ON MARSHALL COURT AND RIDGE STREET. SEE TRAFFIC CONTROL PLANS FOR PLACEMENT OF SIGNS.
6. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TUNRS WHEN PATHS ARE OVERLAPPING.

NOTES - POST-STAGE:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 4, 9, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. ONLY RIGHT TURNS WILL BE PERMITTED FROM MARSHALL COURT AND RIDGE STREET ONTO UNIVERSITY AVENUE. SIGNAL HEADS 17, 19, 23, AND 25 SHALL BE BAGGED FOR DURATION OF THIS STAGE. SIGNAL HEADS 16 AND 22 SHALL BE PUT INTO USE FOR DURATION OF THIS STAGE. SEE PAGE 7 FOR PHASING INFORMATION.
4. R1-5 "YIELD HERE TO PEDESTRIANS SIGNS SHALL BE INSTALLED ON MARSHALL COURT AND RIDGE STREET. SEE TRAFFIC CONTROL PLANS FOR PLACEMENT OF SIGNS.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - MARSHALL/RIDGE	SHEET 212	E

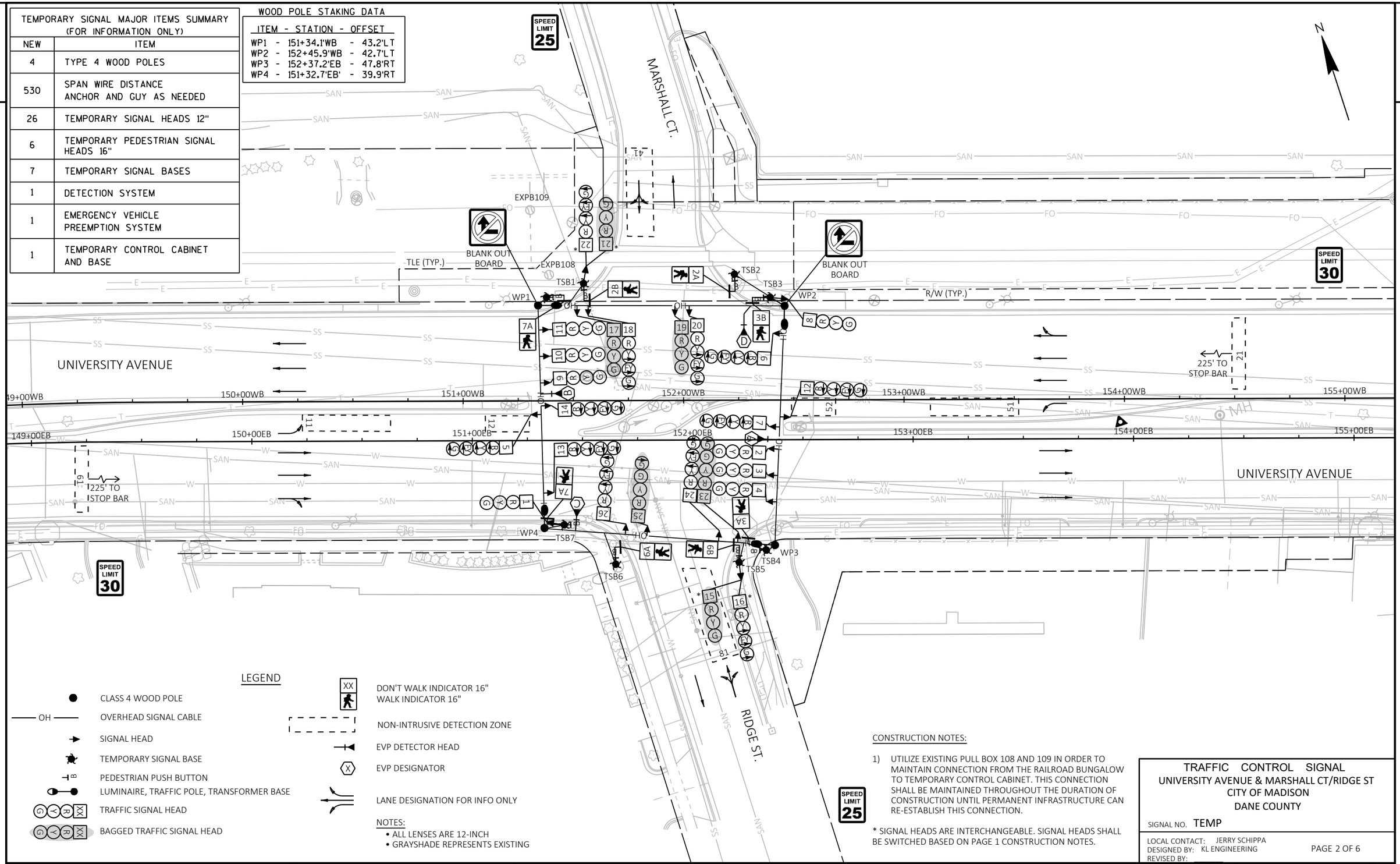
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Ridge Notes
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)	
NEW	ITEM
4	TYPE 4 WOOD POLES
530	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED
26	TEMPORARY SIGNAL HEADS 12"
6	TEMPORARY PEDESTRIAN SIGNAL HEADS 16"
7	TEMPORARY SIGNAL BASES
1	DETECTION SYSTEM
1	EMERGENCY VEHICLE PREEMPTION SYSTEM
1	TEMPORARY CONTROL CABINET AND BASE

WOOD POLE STAKING DATA

ITEM - STATION - OFFSET		
WP1	151+34.1'WB	43.2'LT
WP2	152+45.9'WB	42.7'LT
WP3	152+37.2'EB	47.8'RT
WP4	151+32.7'EB'	39.9'RT



LEGEND

- CLASS 4 WOOD POLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- B — PEDESTRIAN PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- TRAFFIC SIGNAL HEAD
- BAGGED TRAFFIC SIGNAL HEAD
- XX — DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- NON-INTRUSIVE DETECTION ZONE
- EVP DETECTOR HEAD
- X — EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1) UTILIZE EXISTING PULL BOX 108 AND 109 IN ORDER TO MAINTAIN CONNECTION FROM THE RAILROAD BUNGALOW TO TEMPORARY CONTROL CABINET. THIS CONNECTION SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNTIL PERMANENT INFRASTRUCTURE CAN RE-ESTABLISH THIS CONNECTION.

* SIGNAL HEADS ARE INTERCHANGEABLE. SIGNAL HEADS SHALL BE SWITCHED BASED ON PAGE 1 CONSTRUCTION NOTES.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & MARSHALL CT/RIDGE ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

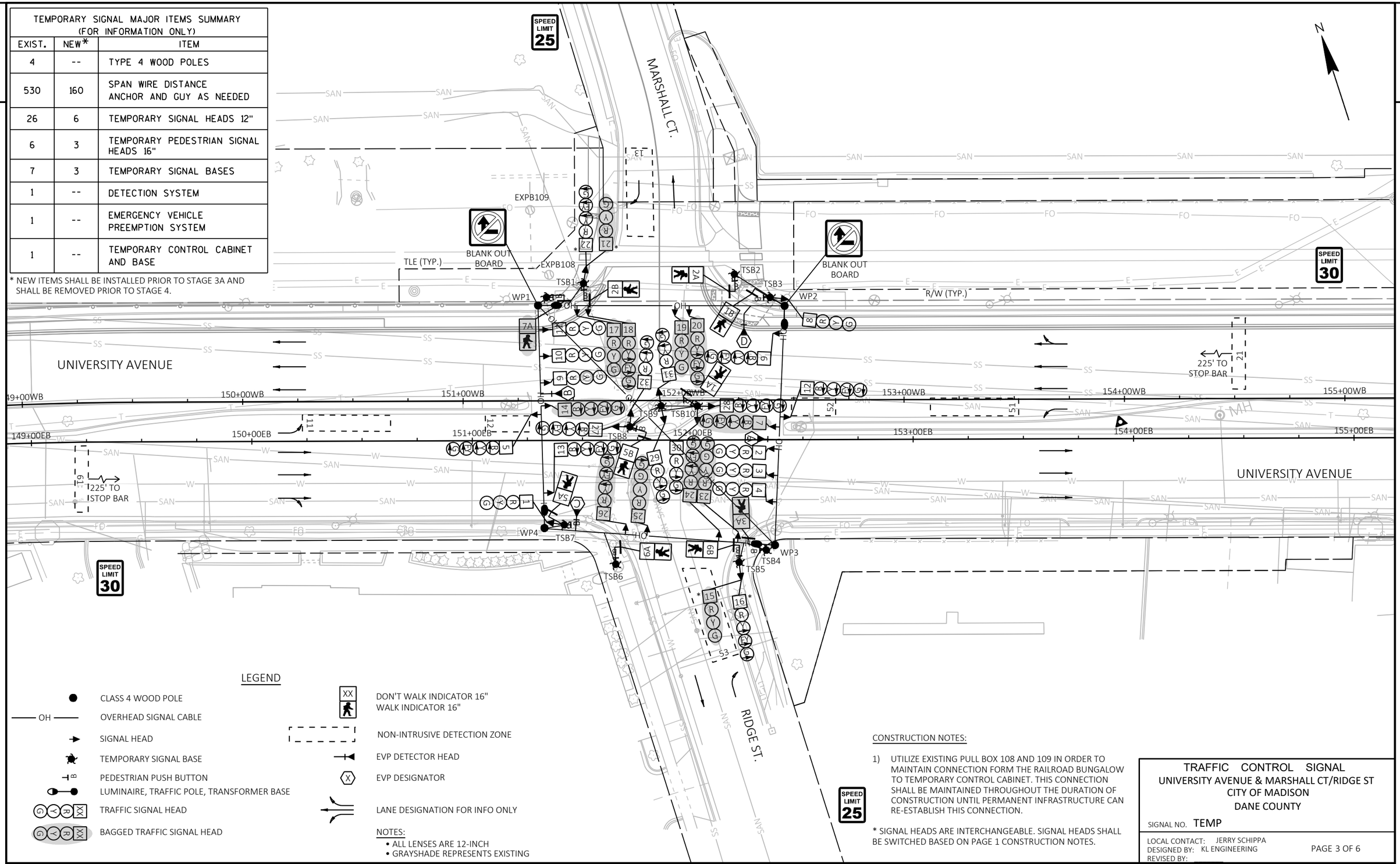
PAGE 2 OF 6

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - MARSHALL/RIDGE - STAGES 1, 2, 3, 4, 5	SHEET 213	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Ridge Int. -full movt
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)		
EXIST.	NEW*	ITEM
4	--	TYPE 4 WOOD POLES
530	160	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED
26	6	TEMPORARY SIGNAL HEADS 12"
6	3	TEMPORARY PEDESTRIAN SIGNAL HEADS 16"
7	3	TEMPORARY SIGNAL BASES
1	--	DETECTION SYSTEM
1	--	EMERGENCY VEHICLE PREEMPTION SYSTEM
1	--	TEMPORARY CONTROL CABINET AND BASE

* NEW ITEMS SHALL BE INSTALLED PRIOR TO STAGE 3A AND SHALL BE REMOVED PRIOR TO STAGE 4.



LEGEND

- CLASS 4 WOOD POLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- B — PEDESTRIAN PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- TRAFFIC SIGNAL HEAD
- BAGGED TRAFFIC SIGNAL HEAD
- XX — DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- NON-INTRUSIVE DETECTION ZONE
- EVP DETECTOR HEAD
- X — EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1) UTILIZE EXISTING PULL BOX 108 AND 109 IN ORDER TO MAINTAIN CONNECTION FORM THE RAILROAD BUNGALOW TO TEMPORARY CONTROL CABINET. THIS CONNECTION SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNTIL PERMANENT INFRASTRUCTURE CAN RE-ESTABLISH THIS CONNECTION.

* SIGNAL HEADS ARE INTERCHANGEABLE. SIGNAL HEADS SHALL BE SWITCHED BASED ON PAGE 1 CONSTRUCTION NOTES.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & MARSHALL CT/RIDGE ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

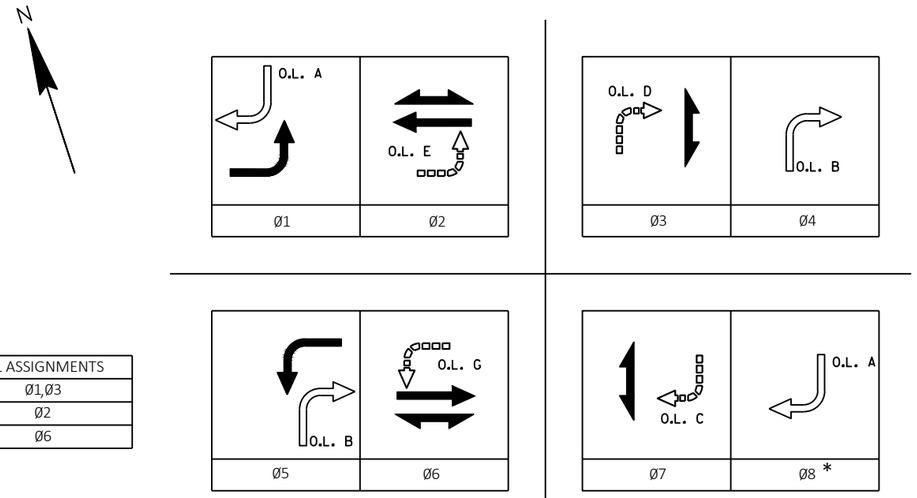
PAGE 3 OF 6

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - MARSHALL/RIDGE: STAGE 3A (WINTER), POST	SHEET 214	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Ridge Int.-rights only
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

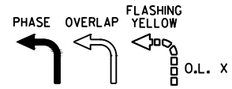
	HEAD NUMBERS	FLASH
Ø1	5,6,27	–
Ø2	8,9,10	R
Ø3		
Ø4		
Ø5	12,13,16,28,29,30	R
Ø6	1,2,3	R
Ø7		
Ø8		
Ø5 PED	5A,5B	–
Ø6 PED	6A,6B	–
O.L. A	22,31,32	R →
O.L. E	5,6,27	R ←
O.L. G	12,13,28	R ←

OL ASSIGNMENTS
Ø1,Ø3
Ø2
Ø6



BARRIER

LEGEND



GENERAL NOTES:

1. SIGNAL PHASES 4 AND 8 TO ALLOW RIGHT TURNS ONLY DURING CONSTRUCTION STAGE 5.
2. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

* PHASE 8 SHALL BE USED ONLY FOR RAILROAD PREEMPTION.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	81		
PHASE CALLED	1	2	1	5	6	5		
PHASE EXTENDED	1	2	1	5	6	5		
DISCONNECT TIME								
CALLING DELAY			20			20		
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12			52				
PHASE CALLED								
PHASE EXTENDED	1			5				
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

CONTROLLER LOGIC

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	8	SB
6	EVP	D	2+5	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5		2		X
6	X	2	MIN	X
7				
8				X

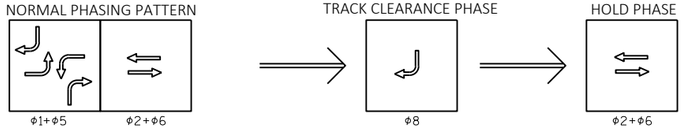
TYPE OF LIGHTING	
BY OTHER AGENCY	X
* IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

* WISDOT OWNS AND OPERATES THE LIGHTING UNITS ON THE SIGNAL MAST ARMS

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

RAILROAD PREEMPTION PHASING
SEE NOTES BELOW



RAILROAD PREEMPT NOTES:

1. IN THE EVENT OF A RAILROAD PREEMPTION CALL, TERMINATE ACTIVE PHASES, FOLLOWING TERMINATION OF THE ACTIVE PHASES, THE PHASE 8 SHALL RECEIVE A GREEN INDICATION TO CLEAR THE NORTH APPROACH. FOLLOWING THE NORTH APPROACH CLEARANCE PHASING, THE CONTROLLER SHALL HOLD PHASES 2 AND 6 AND OMIT O.L.E. THE BLANK OUT BOARDS SHALL BE ACTIVATED. AT THE END OF PREEMPTION, THE CONTROLLER SHALL RETURN TO PHASES 2 AND68 GREEN, AND THE BLANK OUT BOARDS SHALL BE DEACTIVATED.
2. IN THE EVENT OF A RAILROAD PREEMPTION CALL, BEGINNING WITH THE TRACK CLEARANCE PHASE UNTIL THE END OF THE PREEMPTION HOLD PHASE, THE "NO RIGHT TURN" BLANK OUT SIGNS SHALL BE ILLUMINATED.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C
MOVEMENT			
PHASE	1+6	2+5	8

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
2. AFTER PREEMPTION SEQUENCE 3, CONTROLLER SHALL RETURN TO PHASES 2+6.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & MARSHALL CT/RIDGE ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

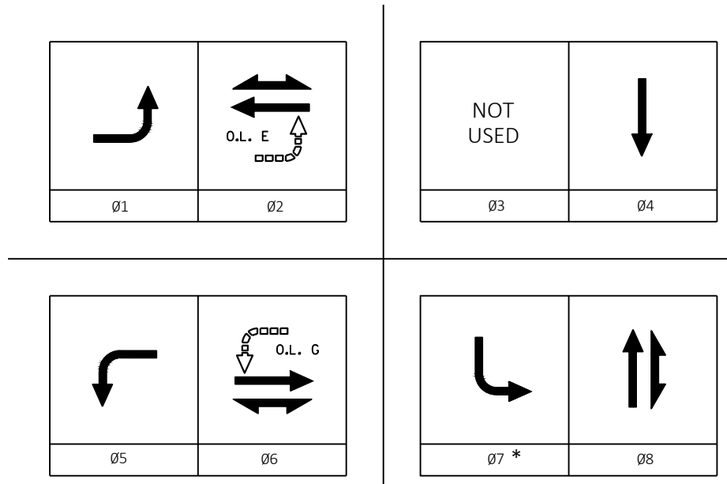
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY SEQUENCE OF OPERATIONS - MARSHALL/RIDGE - STAGES 1 & 5	SHEET 215	E

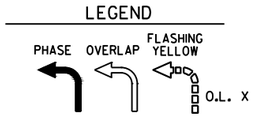
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Ridge SOO -STG 1 & 5
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6,7	–
Ø2	8,9,10	R
Ø3		
Ø4	21,22,23,24,25,26	R
Ø5	12,13,14	–
Ø6	1,2,3	R
Ø7		
Ø8	15,16,17,18,19,20	R
Ø2 PED	2A,2B	–
Ø6 PED	6A,6B	–
Ø8 PED	3A,3B	–
O.L. E	5,6,7	R ←
O.L. G	12,13,14	R ←

OL ASSIGNMENTS
Ø2
Ø6







GENERAL NOTES:

1. PEDESTRIAN PHASES 2 AND 6 SHALL BE OMITTED WHEN THE CORRESPONDING CROSSWALKS ARE CLOSED.
2. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

* PHASE 7 SHALL BE USED ONLY FOR RAILROAD PREEMPTION.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	81		
PHASE CALLED	1	2	4	5	6	8		
PHASE EXTENDED	1	2	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY			20			20		
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12			52				
PHASE CALLED								
PHASE EXTENDED	1			5				
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTION NOTES:

1. DETECTION ZONES 11, 12, AND 41 TO BE INACTIVE DURING SHORT-TERM CLOSURE OF MARSHALL COURT.
2. DETECTION ZONES 51, 52, AND 81 TO BE INACTIVE DURING SHORT-TERM CLOSURE OF RIDGE STREET.

CONTROLLER LOGIC

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	4+7	SB
6	EVP	D	4+8	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				X
8		4		X

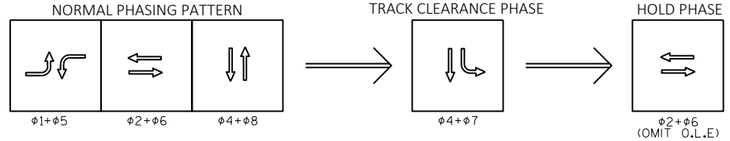
TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

RAILROAD PREEMPTION PHASING
SEE NOTES BELOW



RAILROAD PREEMPT NOTES:

1. IN THE EVENT OF A RAILROAD PREEMPTION CALL, TERMINATE ACTIVE PHASES. FOLLOWING TERMINATION OF THE ACTIVE PHASES, PHASES 4 AND 7 SHALL RECEIVE A GREEN INDICATION TO CLEAR THE NORTH APPROACH. FOLLOWING THE NORTH APPROACH CLEARANCE PHASING, THE CONTROLLER SHALL HOLD PHASES 2 AND 6. THE BLANK OUT BOARDS SHALL BE ACTIVATED. AT THE END OF PREEMPTION, THE CONTROLLER SHALL RETURN TO PHASES 4 AND 8 GREEN, AND THE BLANK OUT BOARDS SHALL BE DEACTIVATED.
2. IN THE EVENT THAT PHASES 4 AND 8 ARE ACTIVE AT THE TIME OF THE PREEMPTION CALL, PHASES 4 AND 8 SHALL BE TERMINATED BEFORE ACTIVATION OF THE PHASE 4 TRACK CLEARANCE PHASE TO PREVENT YELLOW TRAP.
3. IN THE EVENT OF A RAILROAD PREEMPTION CALL, BEGINNING WITH THE TRACK CLEARANCE PHASE UNTIL THE END OF THE PREEMPTION HOLD PHASE, THE "NO RIGHT TURN" BLANK OUT SIGNS SHALL BE ILLUMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	1+6	2+5	4+7	4+8

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
2. AFTER PREEMPTION SEQUENCE 4+8, CONTROLLER SHALL RETURN TO PHASES 2+6.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & MARSHALL CT/RIDGE ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

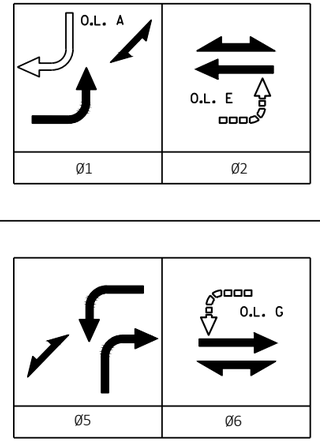
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY SEQUENCE OF OPERATIONS - MARSHALL/RIDGE - STAGES 2, 3, 4	SHEET 216	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Ridge SOO- 2-4
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

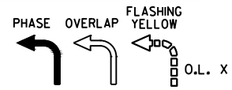
	HEAD NUMBERS	FLASH
Ø1	5,6,27	–
Ø2	8,9,10,11	R
Ø3		
Ø4		
Ø5	12,13,16,28,29,30	*
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø5 PED	5A,5B	–
Ø6 PED	6A,6B	–
O.L. A	22,31,32	R →
O.L. E	5,6,27	R ←
O.L. G	12,13,28	R ←

OL ASSIGNMENTS
Ø1,Ø8
Ø2
Ø6

* HEADS 16, 29, AND 30 SHALL FLASH A RED ARROW. HEADS 12, 13, AND 28 SHALL BE DARK.



LEGEND



GENERAL NOTES:

1. RING 1 AND RING 2 SHALL RUN INDEPENDENTLY.

* PHASE 8 SHALL BE USED ONLY FOR RAILROAD PREEMPTION.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	13	21	51	53	61		
PHASE CALLED	1	1	2	5	5	6		
PHASE EXTENDED	1	1	2	5	5	6		
DISCONNECT TIME								
CALLING DELAY		20			20			
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12			52				
PHASE CALLED								
PHASE EXTENDED	1			5				
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

CONTROLLER LOGIC

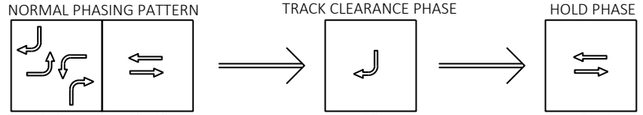
PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	1+6	SB
6	EVP	D	2+5	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				
5		2		X
6	X	2	MIN	X
7				
8				X

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

RAILROAD PREEMPTION PHASING
SEE NOTES BELOW



TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

RAILROAD PREEMPT NOTES:

1. IN THE EVENT OF A RAILROAD PREEMPTION CALL, TERMINATE ACTIVE PHASES, FOLLOWING TERMINATION OF THE ACTIVE PHASES, THE PHASE 8 SHALL RECEIVE A GREEN INDICATION TO CLEAR THE NORTH APPROACH. FOLLOWING THE NORTH APPROACH CLEARANCE PHASING, THE CONTROLLER SHALL HOLD PHASES 2 AND 6. THE BLANK OUT BOARDS SHALL BE ACTIVATED. AT THE END OF PREEMPTION, THE CONTROLLER SHALL RETURN TO PHASES 4 AND 8 GREEN, AND THE BLANK OUT BOARDS SHALL BE DEACTIVATED.
2. IN THE EVENT THAT PHASES 4 AND 8 ARE ACTIVE AT THE TIME OF THE PREEMPTION CALL, PHASES 4 AND 8 SHALL BE TERMINATED BEFORE ACTIVATION OF THE PHASE 4 TRACK CLEARANCE PHASE TO PREVENT YELLOW TRAP.
3. IN THE EVENT OF A RAILROAD PREEMPTION CALL, BEGINNING WITH THE TRACK CLEARANCE PHASE UNTIL THE END OF THE PREEMPTION HOLD PHASE, THE "NO RIGHT TURN" AND "NO LEFT TURN" BLANK OUT SIGNS SHALL BE ILLUMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	1+6	2+5	1+6	2+5

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
2. AFTER PREEMPTION SEQUENCE 3, CONTROLLER SHALL RETURN TO PHASES 2+6.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & MARSHALL CT/RIDGE ST
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY SEQUENCE OF OPERATIONS - MARSHALL/RIDGE - STAGE 3A (WINTER)	SHEET 217 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - Ridge SOO -3A
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

2

GENERAL NOTES:

1. FINAL LOCATION OF WOOD POLES, SIGNAL HEADS, AND TEMPORARY CABINET SHALL BE AS DIRECTED BY THE ENGINEER. USE CAUTION WHEN LOCATING WOOD POLES WITH THE STAKING INFORMATION SHOWN.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE ADJUSTMENTS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
3. NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN AND TETHER WIRES.
4. CONTRACTOR SHALL PROVIDE NON-INTRUSIVE DETECTION FOR ALL DETECTION ZONES. DETECTION EQUIPMENT PLACEMENT MAY REQUIRE ADDITIONAL POLE INSTALLATIONS WHICH ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
5. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
6. ENGINEER IN THE FIELD SHALL COORDINATE WITH RAILROAD FOR PREEMPTION AT EACH TRAFFIC CONTROL STAGE.

NOTES - STAGE 1:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. THIS INTERSECTION SHALL RUN WITH CONCURRENT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 17 AND 19 SHALL BE BAGGED. SEE PAGE 12 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 2A, 2B, 2C, 2D, 8A, AND 8B SHALL BE BAGGED FOR DURATION OF THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. TSB2 WITH PEDESTRIAN HEAD 4A AND PUSH BUTTON SHALL BE RELOCATED TO NORTHWEST INTERSECTION QUADRANT.
7. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

NOTES - STAGE 2:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. THIS INTERSECTION SHALL RUN WITH SPLIT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 16 AND 18 TO BE BAGGED. SEE PAGE 13 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 2A, 2B, 2C, 2D, 8A, AND 8B SHALL BE BAGGED FOR DURATION OF THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNAL HEADS 5, 6, 7, 18, 19, 20, AND 21 SHALL BE BAGGED, AND DETECTION ZONES 11, 12, AND 41 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF UNIVERSITY BAY DRIVE.

NOTES - STAGE 2A:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. THIS INTERSECTION SHALL RUN WITH SPLIT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 16 AND 18 TO BE BAGGED. SEE PAGE 13 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 2A, 2B, 2C, 2D, 4A, AND 4B SHALL BE BAGGED FOR DURATION OF THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNAL HEADS 5, 6, 7, 18, 19, 20, AND 21 SHALL BE BAGGED, AND DETECTION ZONES 11, 12, AND 41 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF UNIVERSITY BAY DRIVE.

NOTES - STAGE 3:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. THE INTERSECTION SHALL RUN WITH CONCURRENT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 17 AND 19 TO BE BAGGED. SEE PAGE 12 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 8A AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

NOTES - STAGE 3A (WINTER):

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 4, 9, 10, AND 11 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. TEMPORARY SIGNALS WILL BE IN PLACE DURING WINTER. CONTRACTOR SHALL ENSURE TEMPORARY SIGNAL SYSTEM IS SUFFICIENT FOR EXTENDED OPERATIONS THROUGH WINTER.
4. THE INTERSECTION SHALL RUN WITH CONCURRENT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 17 AND 19 SHALL BE BAGGED. SEE PAGE 12 FOR PHASING INFORMATION.

NOTES - STAGE 4:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. THIS INTERSECTION SHALL RUN WITH CONCURRENT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 17 AND 19 SHALL BE BAGGED. SEE PAGE 12 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 6A, 6B, 8A, AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNAL HEADS 12, 13, 14, 15, 16, AND 17 SHALL BE BAGGED, AND DETECTION ZONES 51, 52, AND 81 SHALL BE INACTIVE DURING SHORT-TERM CLOSURE OF FARLEY AVENUE.

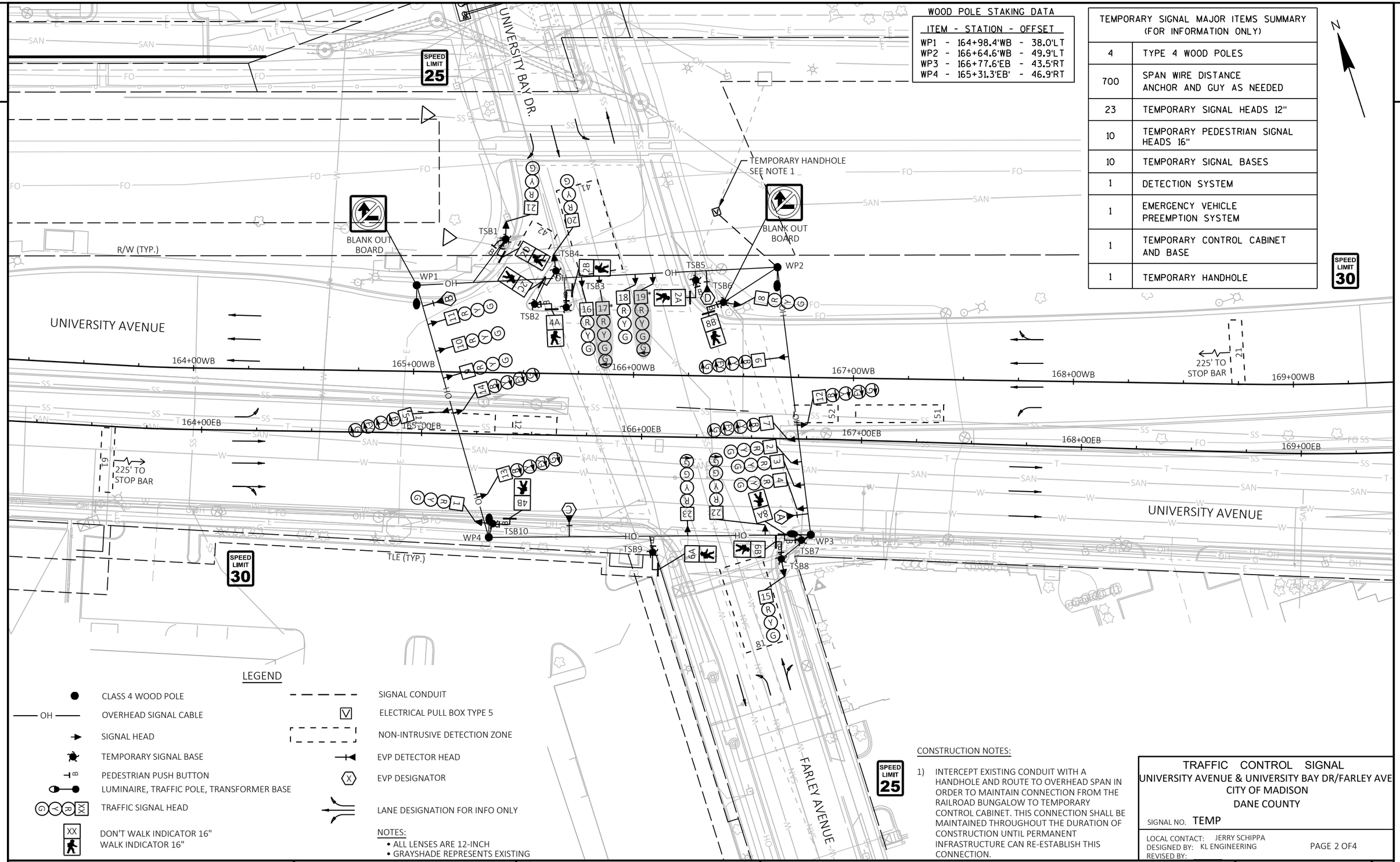
NOTES - STAGE 5:

1. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH LANE CONFIGURATIONS AND WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS. SIGNAL HEADS 2, 3, 9, AND 10 SHALL BE POSITIONED IN THE CENTER OF EACH RECEIVING LANE. SIGNAL HEADS 7 AND 14 SHALL BE PLACED IN THE CENTER OF THE EXTENSION OF THE TURN LANE PER MUTCD REQUIREMENTS.
2. ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS AS SHOWN ON THE TRAFFIC CONTROL PLANS.
3. SIGNAL HEADS 4 AND 11 SHALL BE BAGGED DURING THIS STAGE.
4. THIS INTERSECTION SHALL RUN WITH CONCURRENT PHASING FOR DURATION OF THIS STAGE. SIGNAL HEADS 17 AND 19 SHALL BE BAGGED. SEE PAGE 12 FOR PHASING INFORMATION.
5. PEDESTRIAN HEADS 8A AND 8B SHALL BE BAGGED DURING THIS STAGE. PEDESTRIAN PUSH BUTTONS AND SIGNS FOR CROSSWALK SHALL BE COVERED AND DEACTIVATED FOR DURATION OF THIS STAGE.
6. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - UNIVERSITY BAY	SHEET 218	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - University Bay Notes
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



WOOD POLE STAKING DATA

ITEM	STATION	OFFSET
WP1	164+98.4'WB	38.0'LT
WP2	166+64.6'WB	49.9'LT
WP3	166+77.6'EB	43.5'RT
WP4	165+31.3'EB'	46.9'RT

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)	
4	TYPE 4 WOOD POLES
700	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED
23	TEMPORARY SIGNAL HEADS 12"
10	TEMPORARY PEDESTRIAN SIGNAL HEADS 16"
10	TEMPORARY SIGNAL BASES
1	DETECTION SYSTEM
1	EMERGENCY VEHICLE PREEMPTION SYSTEM
1	TEMPORARY CONTROL CABINET AND BASE
1	TEMPORARY HANDHOLE

LEGEND

- CLASS 4 WOOD POLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- TRAFFIC SIGNAL HEAD
- XX — DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- SIGNAL CONDUIT
- ELECTRICAL PULL BOX TYPE 5
- NON-INTRUSIVE DETECTION ZONE
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1) INTERCEPT EXISTING CONDUIT WITH A HANDHOLE AND ROUTE TO OVERHEAD SPAN IN ORDER TO MAINTAIN CONNECTION FROM THE RAILROAD BUNGALOW TO TEMPORARY CONTROL CABINET. THIS CONNECTION SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNTIL PERMANENT INFRASTRUCTURE CAN RE-ESTABLISH THIS CONNECTION.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & UNIVERSITY BAY DR/FARLEY AVE
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF4

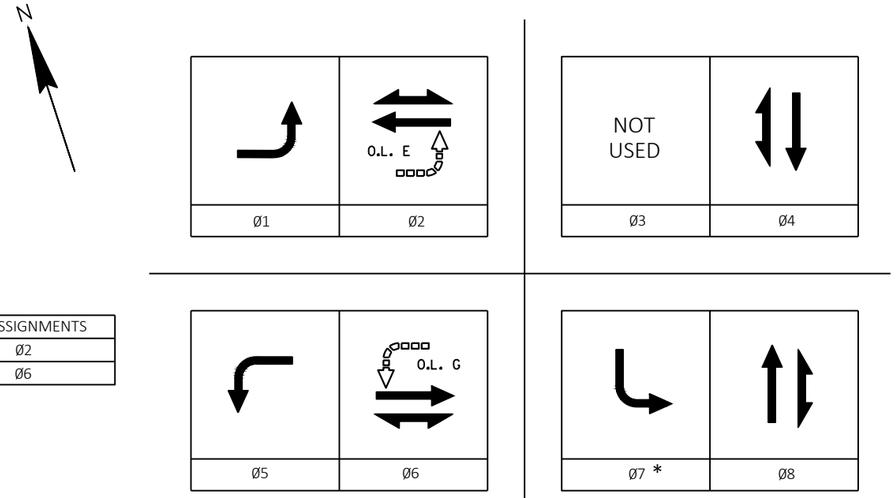
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY TRAFFIC SIGNAL PLAN - UNIVERSITY BAY	SHEET 219	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
PLOT DATE : 12/13/2021 8:06 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

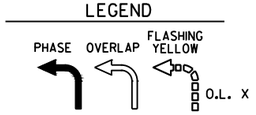
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6,7	–
Ø2	8,9,10,11	R
Ø3		
Ø4	20,21,22,23	R
Ø5	12,13,14	–
Ø6	1,2,3,4	R
Ø7	22,23	R
Ø8	15,16,17,18,19	R
Ø2 PED	2A,2B,2C,2D	–
Ø4 PED	4A,4B	–
Ø6 PED	6A,6B	–
Ø8 PED	8A,8B	–
O.L. E	5,6,7	R ←
O.L. G	12,13,14	R ←

OL ASSIGNMENTS
Ø2
Ø6



LEGEND



GENERAL NOTES:

1. PEDESTRIAN PHASES 2, 6, AND 8 SHALL BE OMITTED WHEN THE CORRESPONDING CROSSWALKS ARE CLOSED.
2. SIGNAL PHASES 5 AND 8 TO BE DEACTIVATED DURING SHORT-TERM CLOSURE OF FARLEY AVENUE.
3. PEDESTRIAN PHASE 8 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 5.
4. SIGNALS SHALL OPERATE AS LEAD/LAG FOR MAINLINE LEFT TURNS WHEN PATHS ARE OVERLAPPING.

* PHASE 7 SHALL BE USED ONLY FOR RAILROAD PREEMPTION.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	81		
PHASE CALLED	1	2	4	5	6	8		
PHASE EXTENDED	1	2	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY			3			3		
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12		42	52				
PHASE CALLED			4					
PHASE EXTENDED	1		4	5				
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTION NOTES:

1. DETECTION ZONES 51 AND 81 TO BE INACTIVE DURING SHORT-TERM CLOSURE OF FARLEY AVENUE.

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	4+7	SB
6	EVP	D	4+8	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

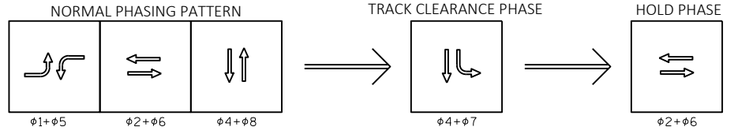
PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF LIGHTING	
BY OTHER AGENCY	X
* IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

* WISDOT OWNS AND OPERATES THE LIGHTING UNITS ON THE SIGNAL MAST ARMS

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

RAILROAD PREEMPTION PHASING
SEE NOTES BELOW



TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

RAILROAD PREEMPT NOTES:

1. IN THE EVENT OF A RAILROAD PREEMPTION CALL, TERMINATE ACTIVE PHASES, FOLLOWING TERMINATION OF THE ACTIVE PHASES, THE PHASE 4 SHALL RECEIVE A GREEN INDICATION TO CLEAR THE NORTH APPROACH. FOLLOWING THE NORTH APPROACH CLEARANCE PHASING, THE CONTROLLER SHALL HOLD PHASES 2 AND 6. THE BLANK OUT BOARDS SHALL BE ACTIVATED. AT THE END OF PREEMPTION, THE CONTROLLER SHALL RETURN TO PHASES 4 AND 8 GREEN, AND THE BLANK OUT BOARDS SHALL BE DEACTIVATED.
2. IN THE EVENT THAT PHASES 4 AND 8 ARE ACTIVE AT THE TIME OF THE PREEMPTION CALL, PHASES 4 AND 8 SHALL BE TERMINATED BEFORE ACTIVATION OF THE PHASE 4 TRACK CLEARANCE PHASE TO PREVENT YELLOW TRAP.
3. IN THE EVENT OF A RAILROAD PREEMPTION CALL, BEGINNING WITH THE TRACK CLEARANCE PHASE UNTIL THE END OF THE PREEMPTION HOLD PHASE, THE "NO RIGHT TURN" AND "NO LEFT TURN" BLANK OUT SIGNS SHALL BE ILLUMINATED.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	1+6	2+5	4+7	4+8

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
2. AFTER PREEMPTION SEQUENCE 4+8, CONTROLLER SHALL RETURN TO PHASES 2+6.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & UNIVERSITY BAY DR/FARLEY AVE
CITY OF MADISON
DANE COUNTY

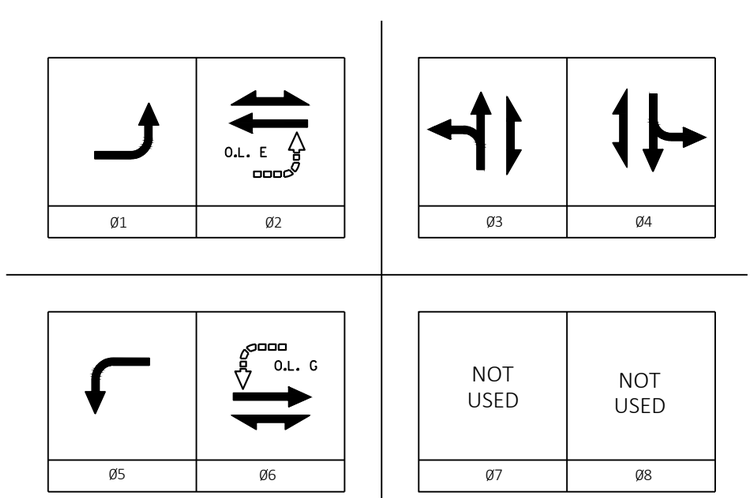
SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - UBD SOO
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6,7	–
Ø2	8,9,10,11	R
Ø3	15,17,19	R
Ø4	18,19,20,21	R
Ø5	12,13,14	–
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø2 PED	2A,2B,2C,2D	–
Ø4 PED	4A,4B	–
Ø6 PED	6A,6B	–
Ø8 PED	8A,8B	–
O.L. E	5,6,7	R
O.L. G	12,13,14	R

OL ASSIGNMENTS
Ø2
Ø6



PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RAILROAD	-	SEE CHART	-
2	RESERVED	-	-	-
3	EVP	A	1+6	EB
4	EVP	B	2+5	WB
5	EVP	C	4	SB
6	EVP	D	3	NB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				X
4				X
5		2		X
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	X
* IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

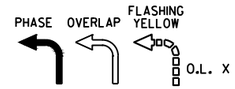
* WISDOT OWNS AND OPERATES THE LIGHTING UNITS ON THE SIGNAL MAST ARMS

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

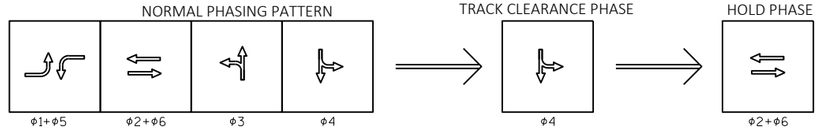
GENERAL NOTES:

1. PEDESTRIAN PHASES 2 AND 8 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 2.
2. PEDESTRIAN PHASES 2 AND 4 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 2A.
3. SIGNAL PHASES 1 AND 4 TO BE DEACTIVATED DURING SHORT-TERM CLOSURE OF UNIVERSITY BAY DRIVE.

LEGEND



RAILROAD PREEMPTION PHASING
SEE NOTES BELOW



TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	81		
PHASE CALLED	1	2	4	5	6	3		
PHASE EXTENDED	1	2	4	5	6	3		
DISCONNECT TIME								
CALLING DELAY			3			3		
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12		42	52				
PHASE CALLED			4					
PHASE EXTENDED	1		4	5				
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTION NOTES:

1. DETECTION ZONES 11 AND 41 TO BE INACTIVE DURING SHORT-TERM CLOSURE OF UNIVERSITY BAY DRIVE.

RAILROAD PREEMPT NOTES:

1. IN THE EVENT OF A RAILROAD PREEMPTION CALL, TERMINATE ACTIVE PHASES, FOLLOWING TERMINATION OF THE ACTIVE PHASES, THE PHASE 4 SHALL RECEIVE A GREEN INDICATION TO CLEAR THE NORTH APPROACH. FOLLOWING THE NORTH APPROACH CLEARANCE PHASING, THE CONTROLLER SHALL HOLD PHASES 2 AND 6. THE BLANK OUT BOARDS SHALL BE ACTIVATED. AT THE END OF PREEMPTION, THE CONTROLLER SHALL RETURN TO PHASES 4 AND 8 GREEN, AND THE BLANK OUT BOARDS SHALL BE DEACTIVATED.
2. IN THE EVENT THAT PHASES 4 AND 8 ARE ACTIVE AT THE TIME OF THE PREEMPTION CALL, PHASES 4 AND 8 SHALL BE TERMINATED BEFORE ACTIVATION OF THE PHASE 4 TRACK CLEARANCE PHASE TO PREVENT YELLOW TRAP.
3. IN THE EVENT OF A RAILROAD PREEMPTION CALL, BEGINNING WITH THE TRACK CLEARANCE PHASE UNTIL THE END OF THE PREEMPTION HOLD PHASE, THE "NO RIGHT TURN" AND "NO LEFT TURN" BLANK OUT SIGNS SHALL BE ILLUMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	1+6	2+5	4	3

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
2. AFTER PREEMPTION SEQUENCE 3 OR 4, CONTROLLER SHALL RETURN TO PHASES 2+6.

TRAFFIC CONTROL SIGNAL
UNIVERSITY AVENUE & UNIVERSITY BAY DR/FARLEY AVE
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP

LOCAL CONTACT: JERRY SCHIPPA
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TEMPORARY SEQUENCE OF OPERATIONS - UNIVERSITY BAY STAGES 2, 2A	SHEET 221	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\TEMP SIGNALS\024101-ST-ALL PHASES.DWG
LAYOUT NAME - UBD Split SOO
PLOT DATE : 12/13/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (LANE LINE 12.5 FT 37.5 FT SKIP-WHITE)
1A. MARKING LINE EPOXY 4-INCH (LANE LINE 12.5 FT 37.5 FT SKIP-YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (3 FT LINE 9 FT SKIP-WHITE)
4A. MARKING LINE EPOXY 4-INCH (3 FT LINE 9 FT SKIP-YELLOW)
5. MARKING LINE EPOXY 8-INCH (WHITE)
6. MARKING LINE EPOXY 8-INCH (3 FT LINE 9 FT SKIP-WHITE)
7. MARKING ARROW EPOXY (TYPE 2-WHITE)
8. MARKING ARROW EPOXY (TYPE 3-WHITE)
9. MARKING ARROW EPOXY (TYPE 1-WHITE)
10. MARKING ARROW EPOXY (BIKE LANE ARROW-WHITE)
11. MARKING WORD EPOXY (ONLY-WHITE)
11A. MARKING WORD EPOXY (ENDS-WHITE)
12. MARKING SYMBOLS EPOXY (BIKE SYMBOL-WHITE)
13. MARKING RAILROAD CROSSING EPOXY (WHITE)
14. MARKING STOP LINE EPOXY 18-INCH (WHITE)
15. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
16. MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
17. MARKING CURB EPOXY (YELLOW)
18. MARKING ISLAND NOSE EPOXY (YELLOW)
19. MARKING ARROW EPOXY (SPECIAL U-TURN-WHITE)
20. HIGH FRICTION COLORED SURFACE (BIKE LANE GREEN)

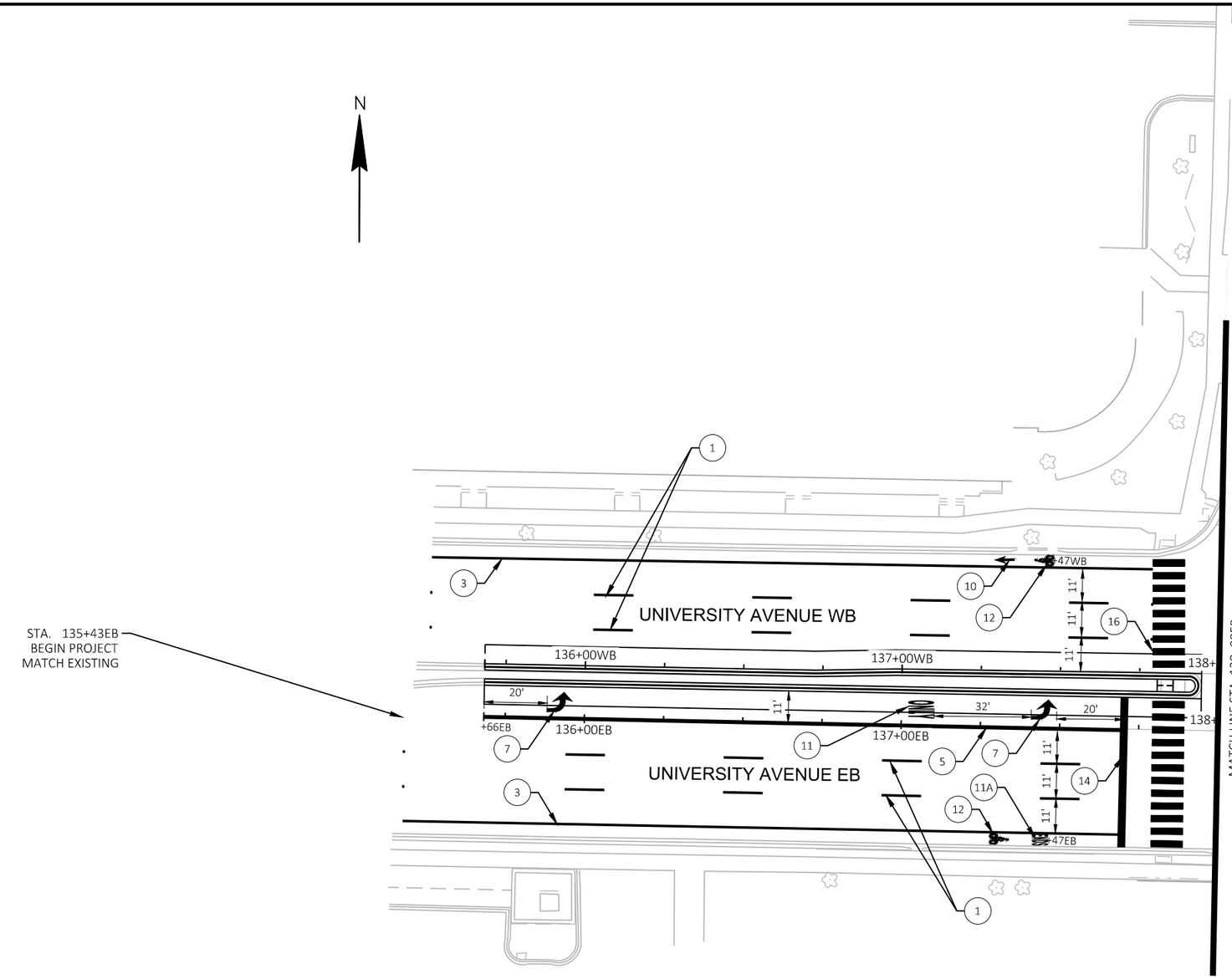
NOTE: REMOVE EXISTING PAVEMENT MARKING THAT CONFLICTS WITH PROPOSED PAVEMENT MARKING.

PAVEMENT MARKING SHOULD MATCH EXISTING AT BOTH ENDS OF THE PROJECT.

2

N

STA. 135+43EB
BEGIN PROJECT
MATCH EXISTING



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 223	E

2

2

SHOREWOOD BLVD.

N

MATCH LINE STA. 138+00EB

MATCH LINE STA. 144+00EB

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

139+00WB

140+00WB

141+00WB

142+00WB

143+00WB

139+00EB

140+00EB

141+00EB

142+00EB

143+00EB

+66WB

+99WB

10'

20'

10.5'

11'

HILL STREET

DETAIL
NOT TO SCALE

UNIVERSITY AVENUE EB

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 224	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 2
PLOT DATE : 10/28/2021 11:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

WISCONSIN & SOUTHERN RAILROAD

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 144+00EB

MATCH LINE STA. 150+00EB

SCHMITT PLACE

145+00WB

145+00EB

146+00WB

146+00EB

147+00WB

147+00EB

148+00WB

148+00EB

149+00WB

149+00EB

150+00

+31WB

+39EB

+42EB

+50WB

+80EB

20'

16'

12'

11'

10.5'

10'

62+00SP

61+00SP

1

5

7

14

16

17

18

2

MARSHALL COURT

51+00MC

+83MC

WISCONSIN & SOUTHERN RAILROAD

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

MATCH LINE STA. 150+00EB

MATCH LINE STA. 156+00EB

151+00WB

152+00WB

153+00WB

154+00WB

155+00WB

156+00

+33WB

+15EB

+04WB

+88WB

+10EB

+67EB

152+00EB

+58WB

153+00EB

154+00EB

155+00EB

+46EB

151+00EB

11'

10.5'

10'

32'

20'

RIDGE STREET

+18RS

42+00RS

41+00RS

DOUBLE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 226	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 4

PLOT DATE : 10/28/2021 11:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

PATH OVERPASS

WISCONSIN & SOUTHERN RAILROAD

4A

MATCH LINE STA. 156+00EB

157+00WB

157+00EB

158+00WB

158+00EB

159+00WB

159+00EB

+41WB

+48WB

+48EB

+65EB

+68WB

+85EB

20'

10'

11'

10.5'

10'

UNIVERSITY AVENUE WB

UNIVERSITY AVENUE EB

160+00WB

160+00EB

161+00WB

161+00EB

+54WB

+66WB

+53EB

+01WB

30'

20'

MATCH LINE STA. 162+00EB

33+00NF

N. FRANKLIN AVE.

FRANKLIN COURT

MATCH LINE STA. 32+00NF

LYNN TERRACE

SHEPARD TERRACE

32+00NF

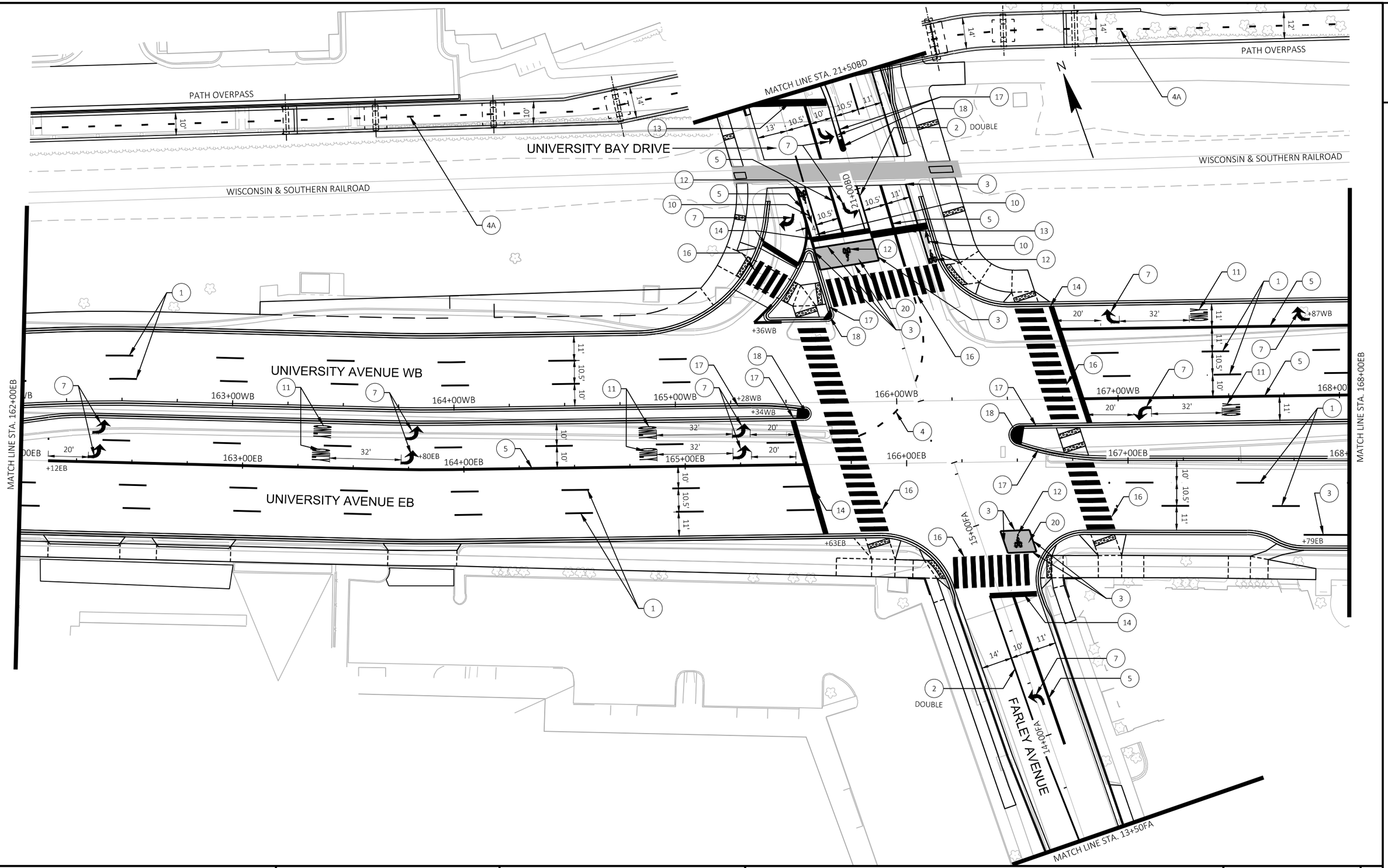
33+00NF

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 227	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 5

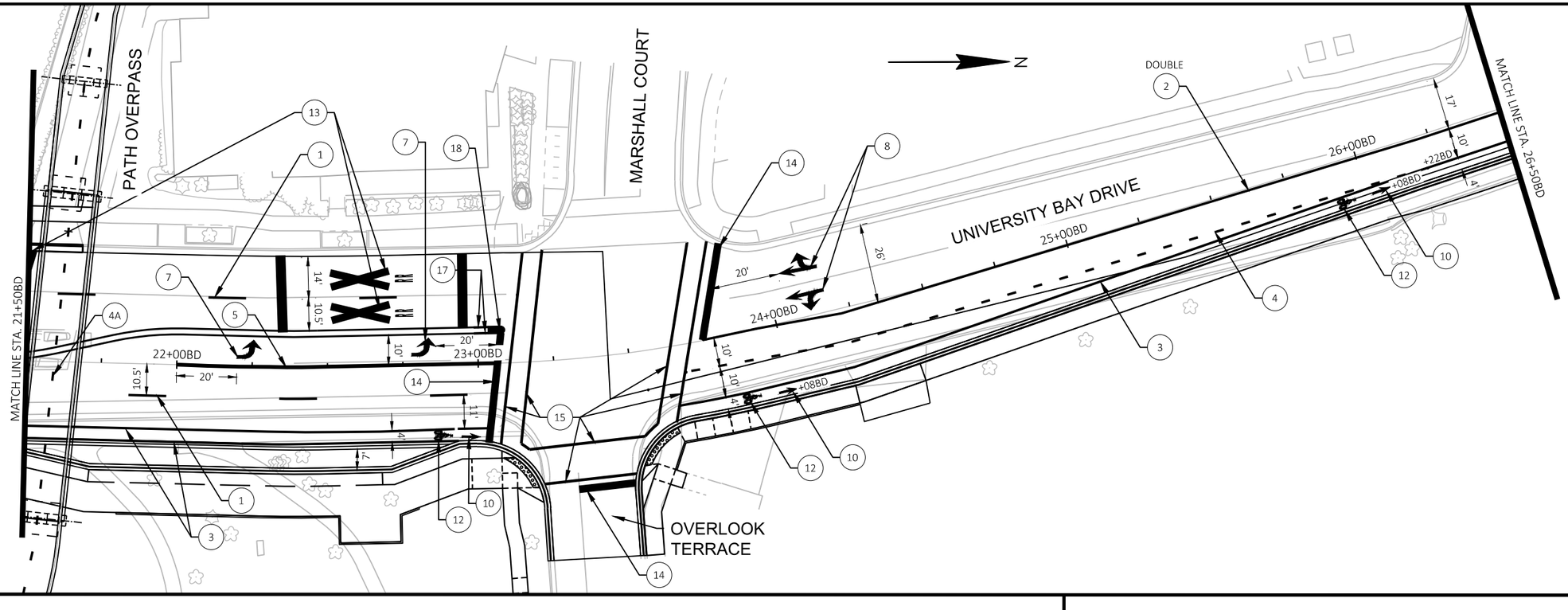
PLOT DATE : 10/28/2021 11:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

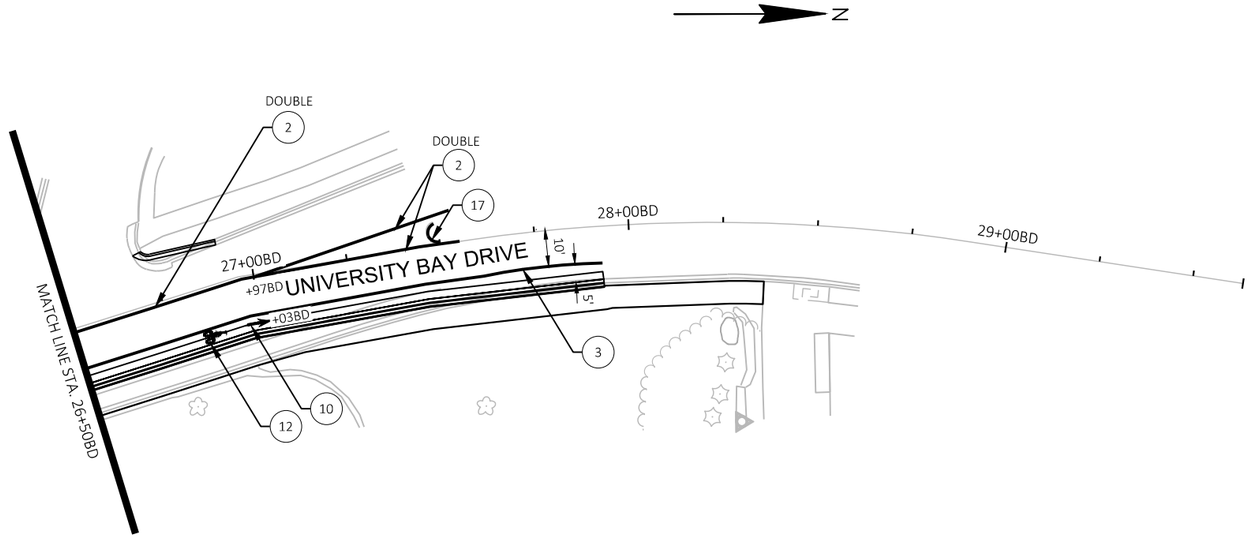
2

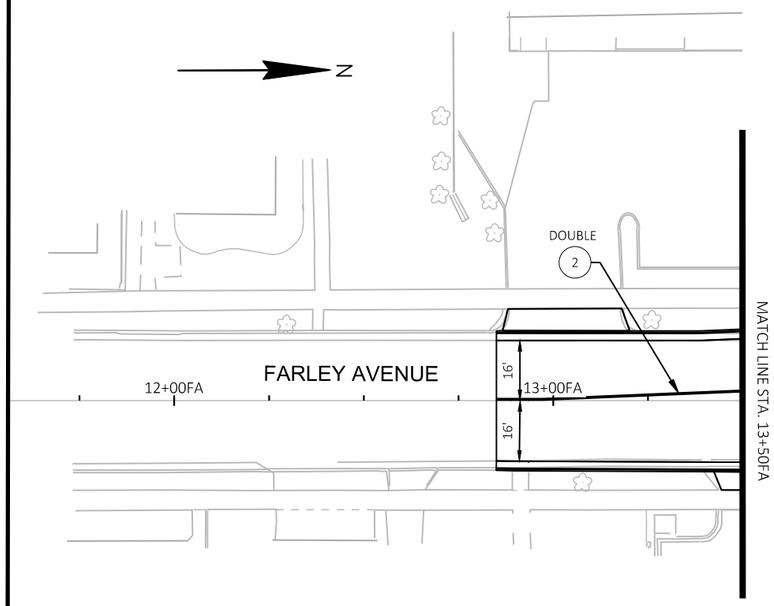


PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 228 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 6
PLOT DATE : 10/28/2021 11:22 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42







PROJECT NO: 5992-11-31	HWY: UNIVERISTY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 229	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 7

PLOT DATE : 10/28/2021 11:18 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

PATH OVERPASS

4A

WISCONSIN & SOUTHERN RAILROAD

END CONSTRUCTION
STA. 81+24.60HI

MATCH LINE STA. 168+00EB

MATCH LINE STA. 173+50EB

CAMPUS DRIVE WB

CAMPUS DRIVE EB

UNIVERSITY AVENUE EB

END CONSTRUCTION
STA. 73+39.26UA

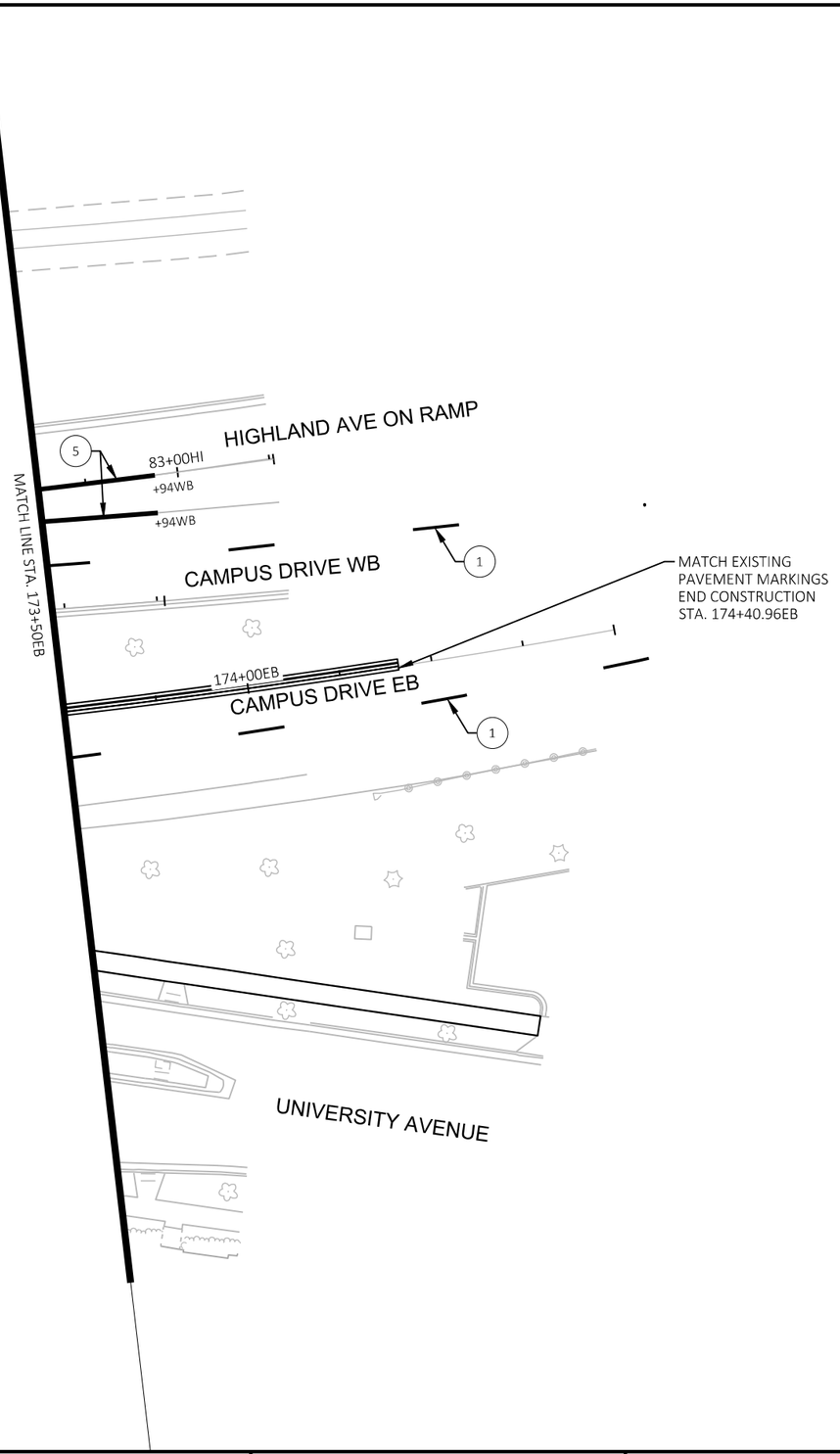
GRAND AVENUE

HSE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 230	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 8
PLOT DATE : 1/4/2022 8:11 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PAVEMENT MARKING - UNIVERSITY AVENUE	SHEET 231	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\024501-PM.DWG
LAYOUT NAME - pm 9
PLOT DATE : 10/28/2021 11:18 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

TRAFFIC CONTROL GENERAL NOTES:

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. REMOVING/REPLACING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE SIGNS AND SIGN MESSAGE BOARDS.

IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.

ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE WISCONSIN SUPPLEMENT TO THE MUTCD, TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.

SIGNS SHALL BE SIZE 2S UNLESS OTHERWISE NOTED.

THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION.

CONTRACTORS EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST.

USE OF FLAGGING OPERATIONS IS INCIDENTAL TO THE CONTRACT.

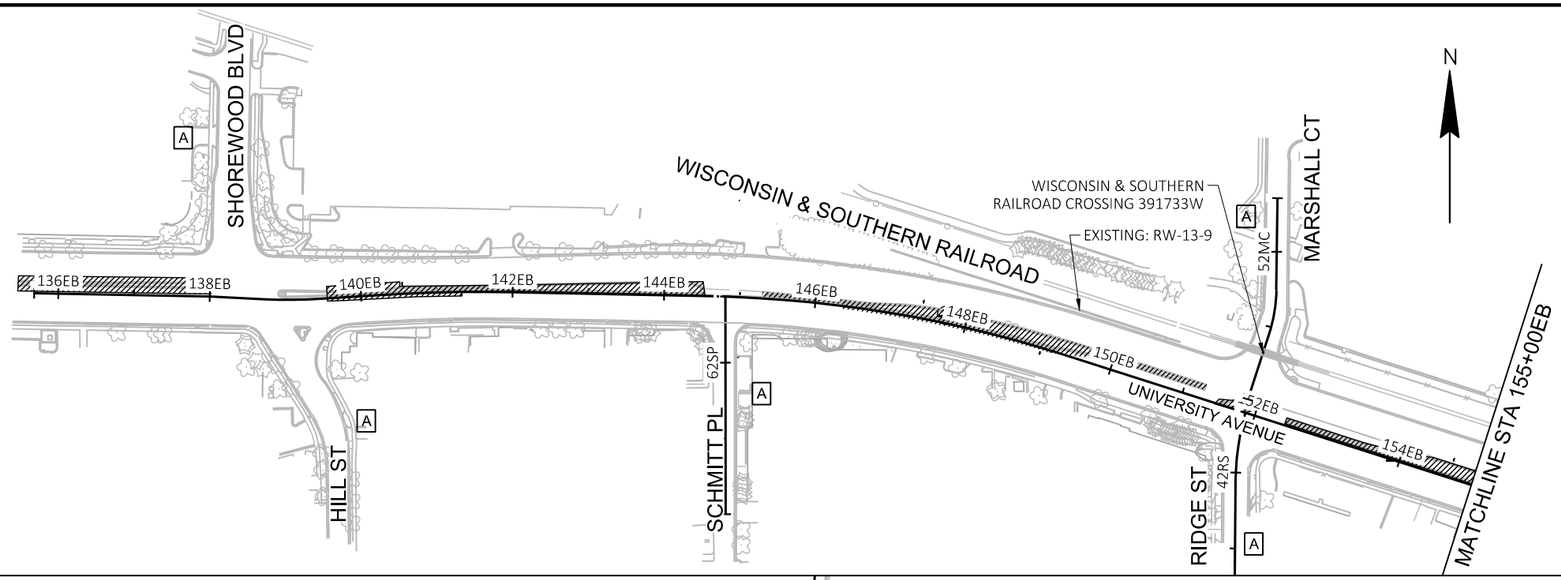
REMOVE PAVEMENT MARKING NOT APPROPRIATE FOR TRAVEL PATH IN USE.

PCMS MESSAGE PLAN

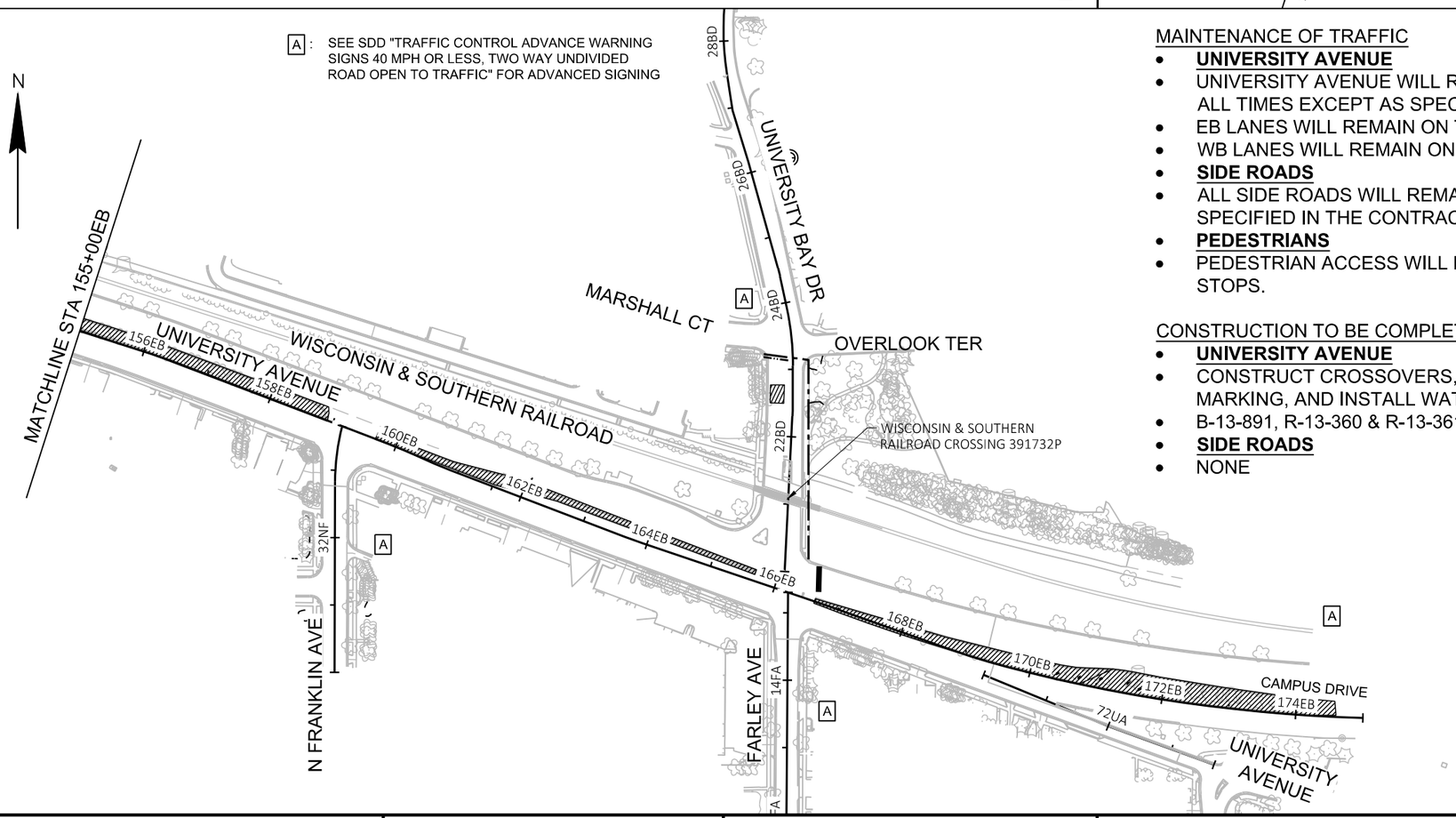
EVENT/LOCATION	PANEL 1	PANEL 2
START OF CONSTRUCTION	UNIV AVE WORK TO BEGIN	(DATE)
SIDE ROAD CLOSURE	SIDE ROAD NAME TO CLOSE	(DATE)

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - GENERAL NOTES	SHEET 232	E

2



A : SEE SDD "TRAFFIC CONTROL ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED SIGNING



MAINTENANCE OF TRAFFIC

- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 2 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISION
- EB LANES WILL REMAIN ON THE EXISTING TWO OUTSIDE LANES
- WB LANES WILL REMAIN ON THE EXISTING TWO OUTSIDE LANES.
- **SIDE ROADS**
- ALL SIDE ROADS WILL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS
- **PEDESTRIANS**
- PEDESTRIAN ACCESS WILL BE MAINTAINED ON ALL EXISTING CROSSINGS AND BUS STOPS.

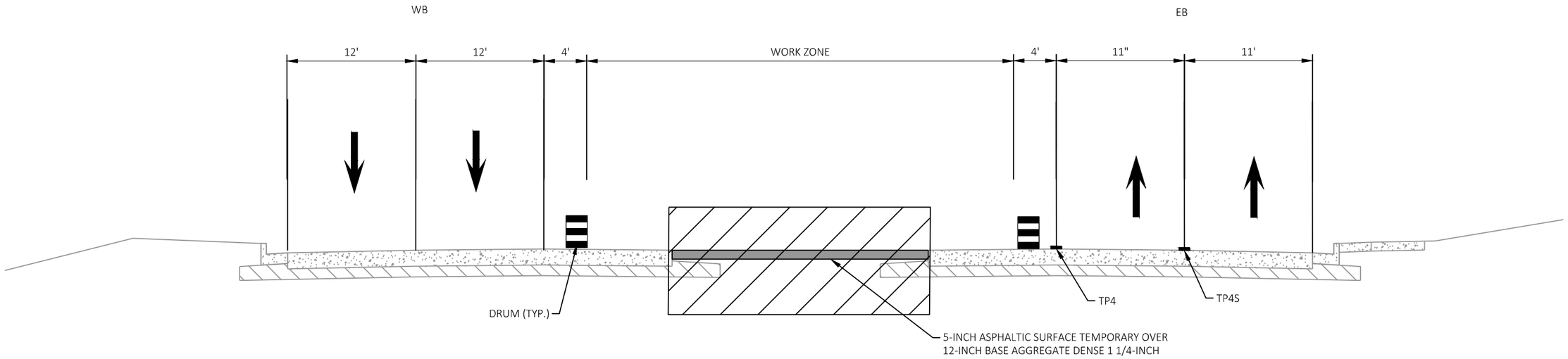
CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- CONSTRUCT CROSSOVERS, TEMPORARY MEDIAN WIDENING, TEMPORARY PAVEMENT MARKING, AND INSTALL WATER MAIN VALVES.
- B-13-891, R-13-360 & R-13-361
- **SIDE ROADS**
- NONE

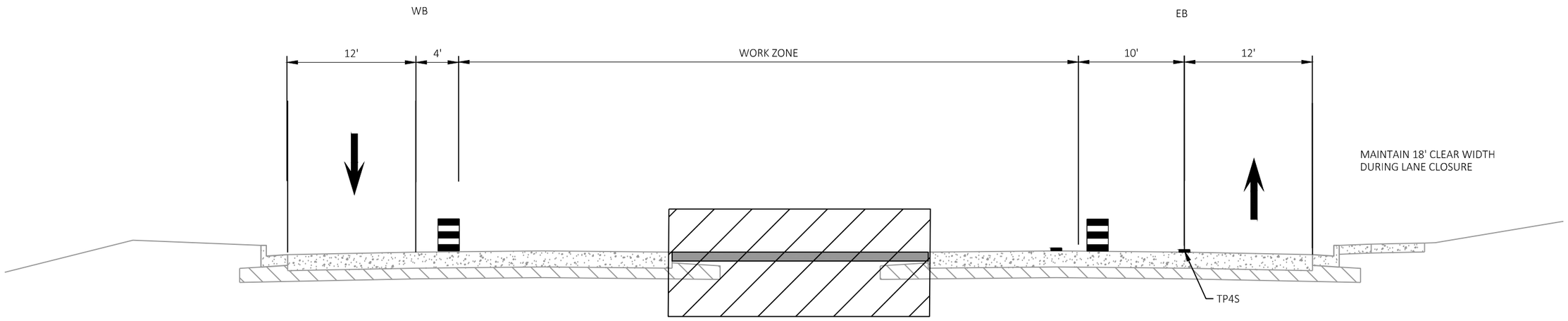
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 1 OVERVIEW	SHEET 233	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1.DWG
LAYOUT NAME - OVERVIEW
PLOT DATE : 7/27/2021 7:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:400 FT

2



STAGE 1
UNIVERSITY AVENUE



STAGE 1
UNIVERSITY AVENUE
OFF - PEAK HOURS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 1)	SHEET 234	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC_TYP SECTIONS.DWG
LAYOUT NAME - Typ Section S1-1
PLOT DATE : 7/26/2021 3:44 PM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

N

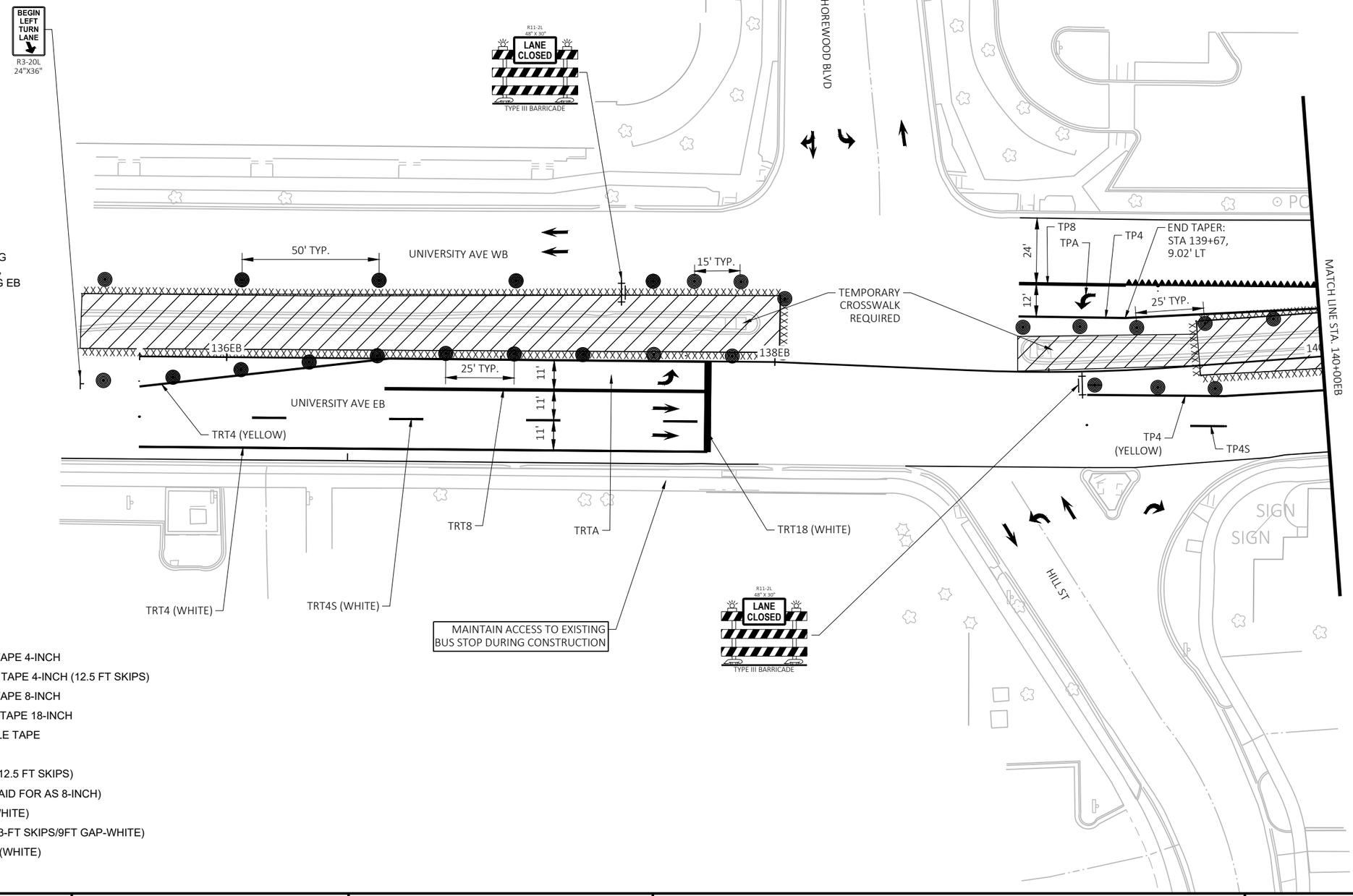
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY' FOR DETAILS NOT SHOWN.

NOTES:
STATION CALLOUTS ON WB ARE REFERENCING TEMPORARY PAVEMENT STAGE 1 ALIGNMENT, STATION CALLOUTS ON EB ARE REFERENCING EB ALIGNMENT (ALL SHEETS)

EXISTING WB PAVEMENT MARKINGS ARE INTENDED TO REMAIN FOR STAGE 1.

LEGEND

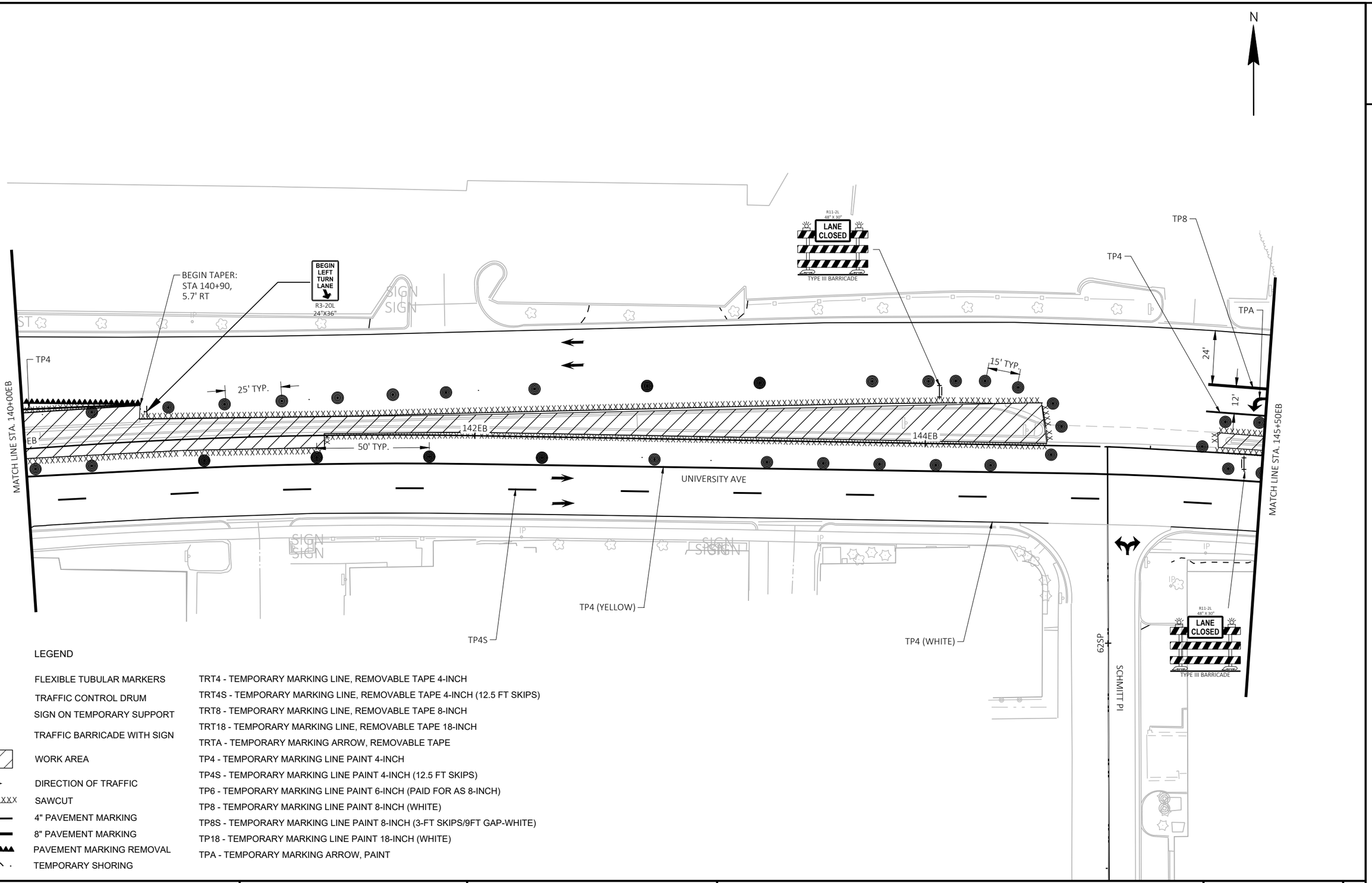
- FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- PAVEMENT MARKING REMOVAL
- TEMPORARY SHORING



TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 235	E

2



LEGEND

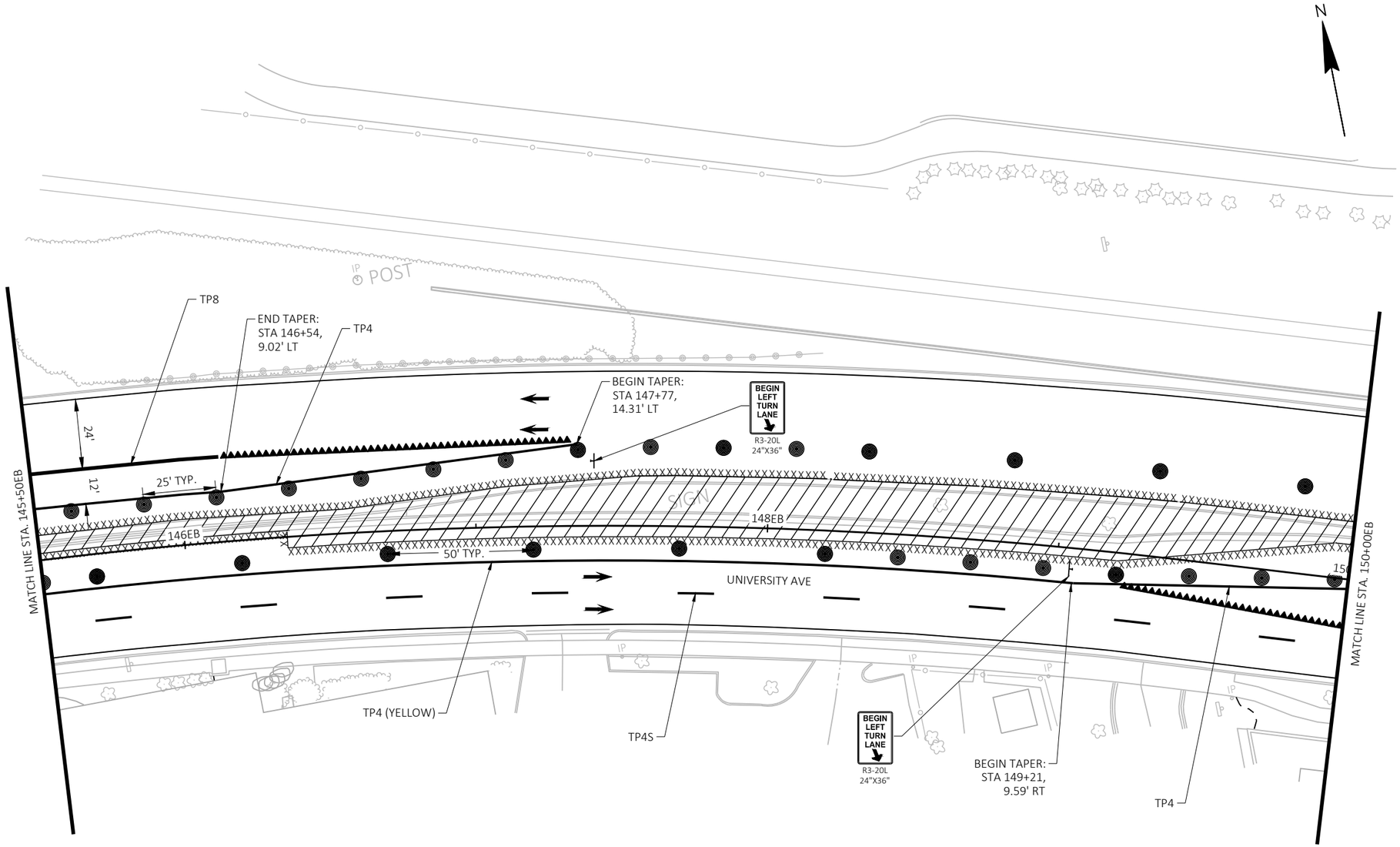
⊙	FLEXIBLE TUBULAR MARKERS
●	TRAFFIC CONTROL DRUM
⊢	SIGN ON TEMPORARY SUPPORT
⫿	TRAFFIC BARRICADE WITH SIGN
▨	WORK AREA
→	DIRECTION OF TRAFFIC
XXXXXXXXX	SAWCUT
———	4" PAVEMENT MARKING
———	8" PAVEMENT MARKING
▲▲▲▲▲▲▲▲	PAVEMENT MARKING REMOVAL
·~~~·	TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 236	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1.DWG
LAYOUT NAME - Sheet - (2)
PLOT DATE : 1/4/2022 8:52 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



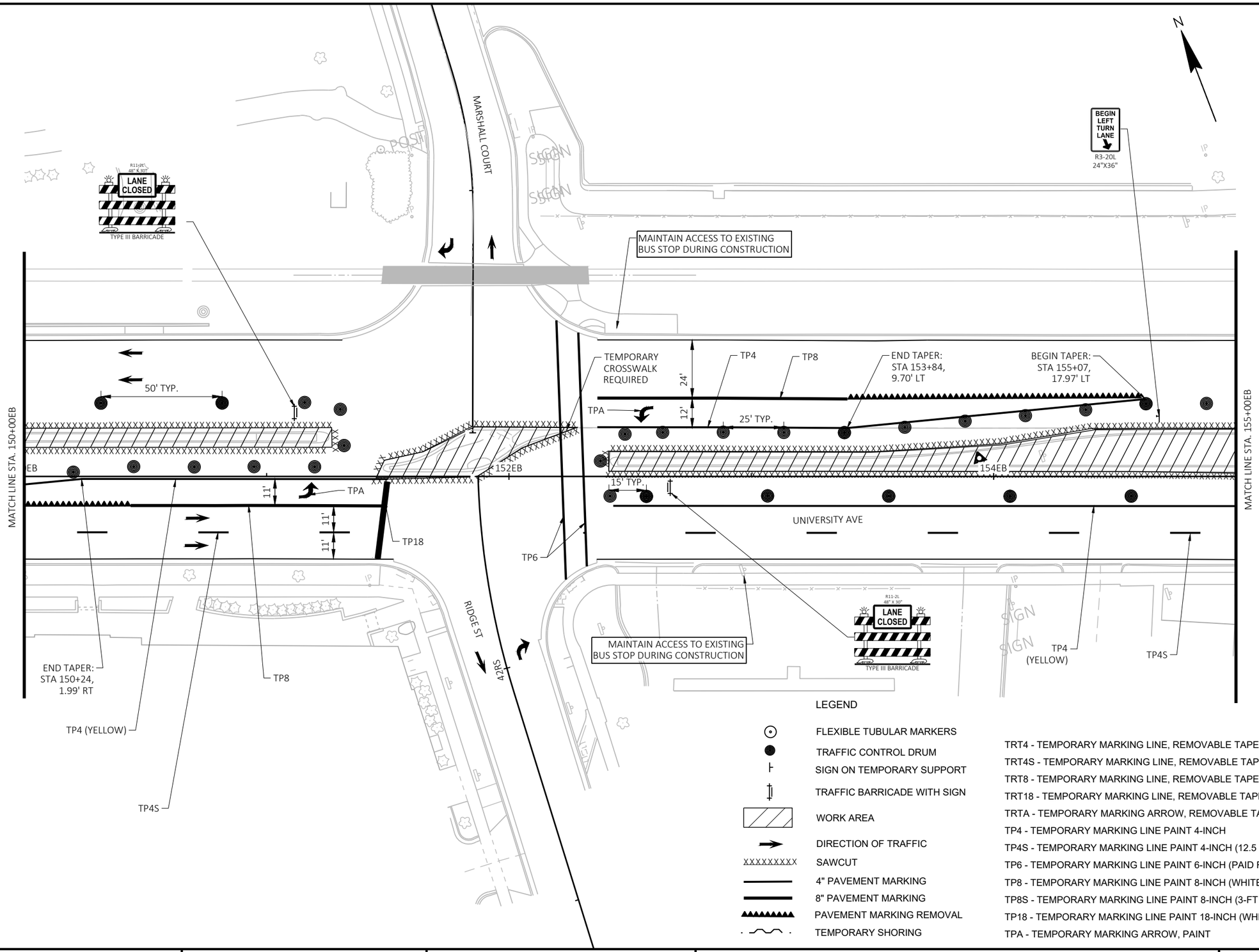
LEGEND

- FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- PAVEMENT MARKING REMOVAL
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 237	E

2



LEGEND

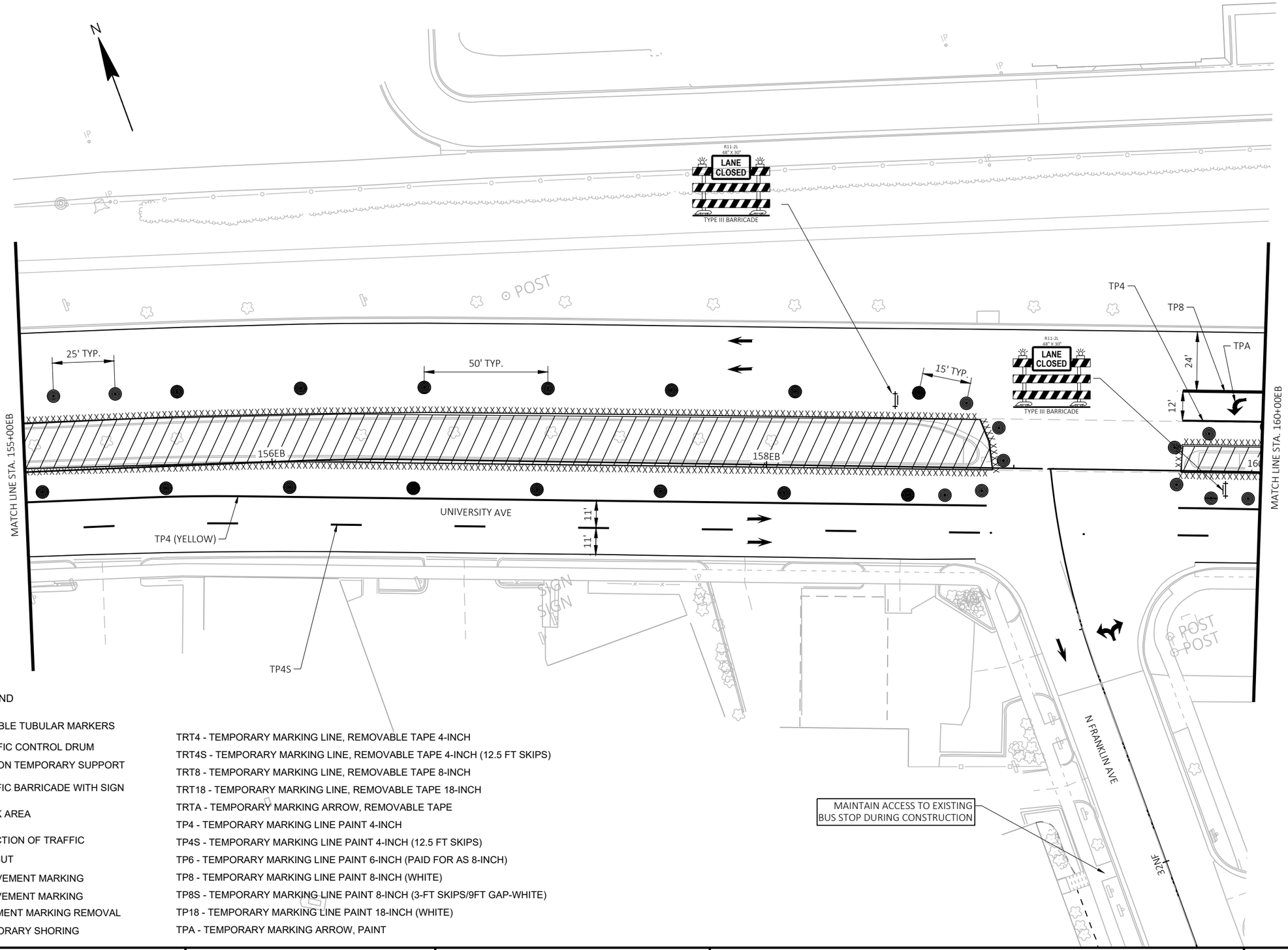
- FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL DRUM
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- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
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- PAVEMENT MARKING REMOVAL
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 238	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1.DWG
LAYOUT NAME - Sheet - (4)
PLOT DATE : 1/4/2022 8:52 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



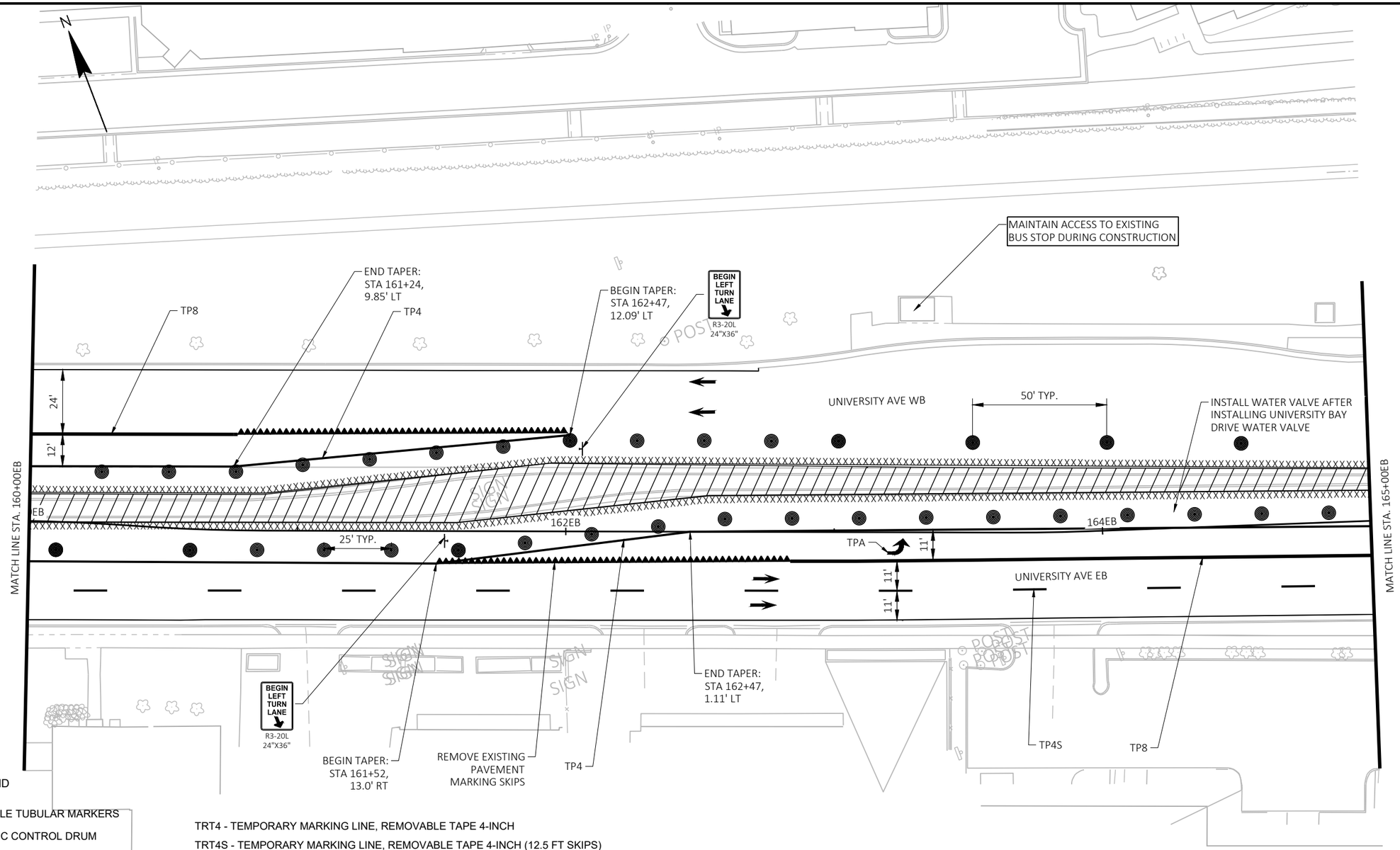
LEGEND

- FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- PAVEMENT MARKING REMOVAL
- TEMPORARY SHORING

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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 239	E

2



LEGEND

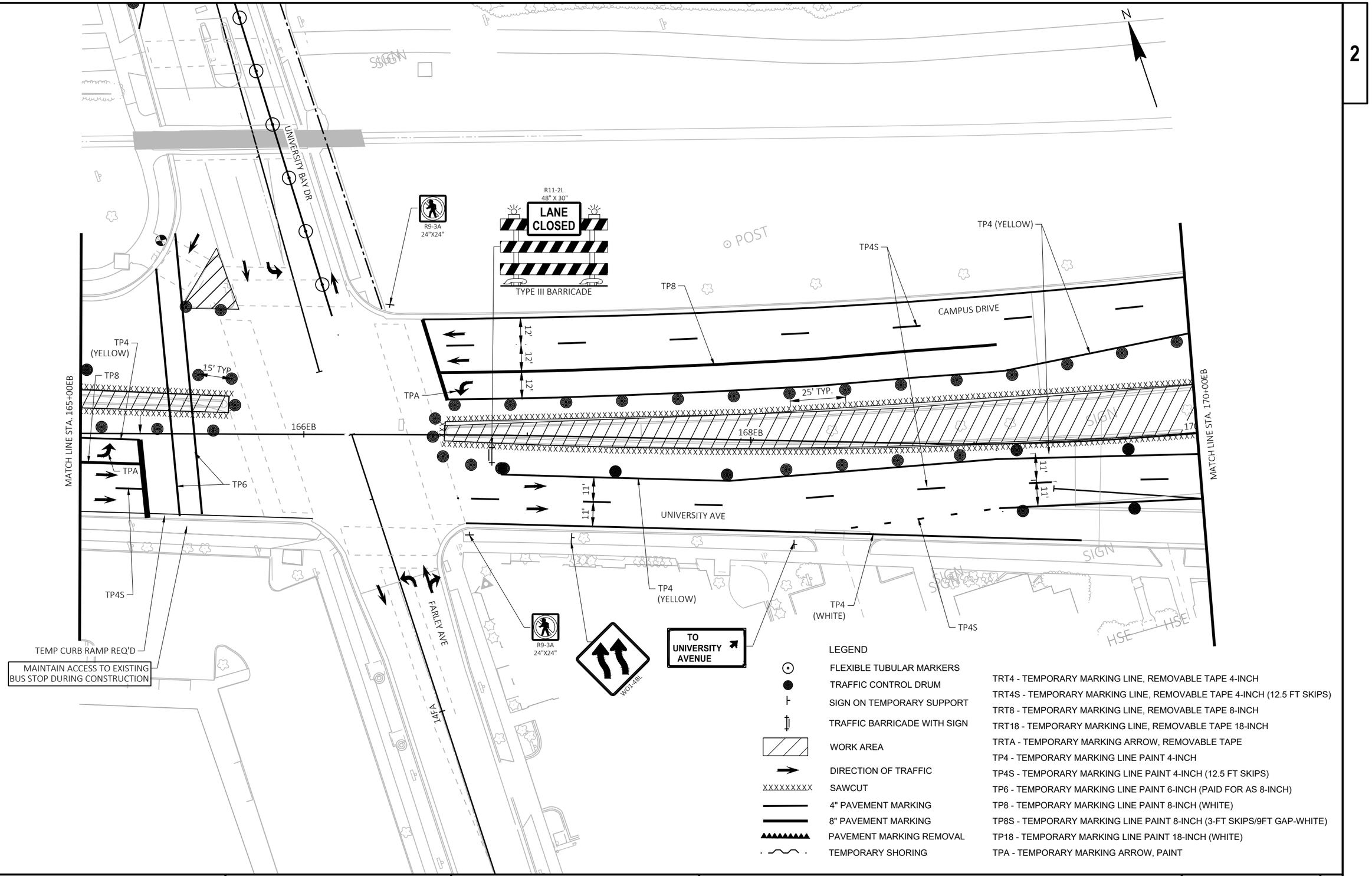
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 240	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1.DWG
LAYOUT NAME - Sheet - (6)
PLOT DATE : 1/4/2022 8:53 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

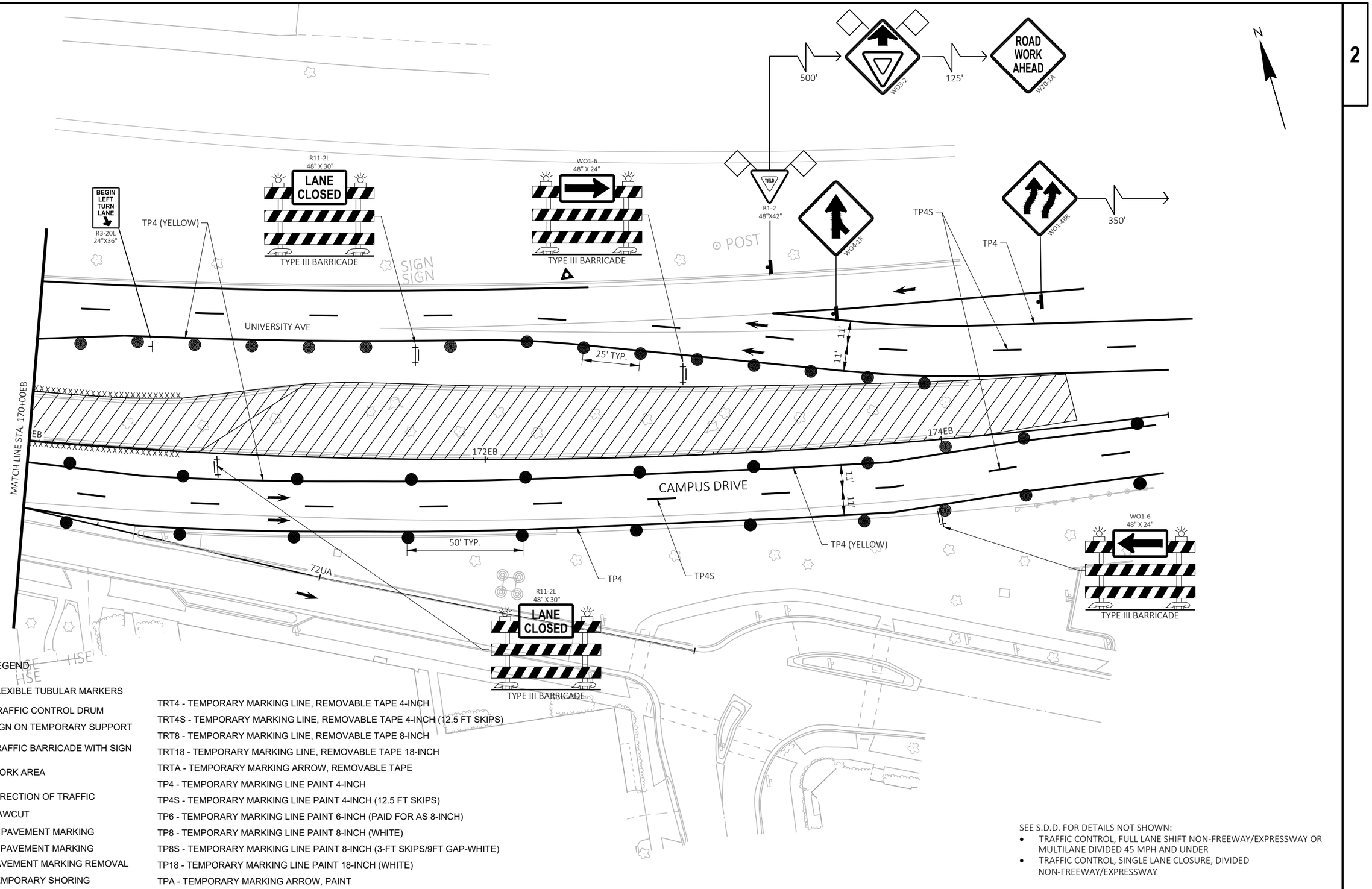


LEGEND

- FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- PAVEMENT MARKING REMOVAL
- TEMPORARY SHORING

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TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 241	E



LEGEND

- FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

SEE S.D.D. FOR DETAILS NOT SHOWN:

- TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
- TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 1	SHEET 242	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1.DWG
LAYOUT NAME - Sheet - (8)
PLOT DATE : 1/4/2022 8:53 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

UNIVERSITY AVENUE

16GEB

LANE CLOSED
R11-2L
48"X30"

TP18

25' TYP.

22BD

UNIVERSITY BAY DR

11'

11'

TRT4 (YELLOW)

WO1-6
48"X24"

INSTALL WATER VALVE AND HYDRANT
AS FIRST WATER MAIN IMPROVEMENTS

TRT4 (WHITE)

PEDESTRIAN
ROUTE

SIGN

MAINTAIN ACCESS TO EXISTING
BUS STOP DURING CONSTRUCTION

MARSHALL COURT

MAINTAIN ACCESS TO EXISTING
BUS STOP DURING CONSTRUCTION

50' TYP.

24BD

MATCH LINE STA. 25+30EB

TRT4 (YELLOW)

TRT4 (WHITE)

SIGN

POST

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

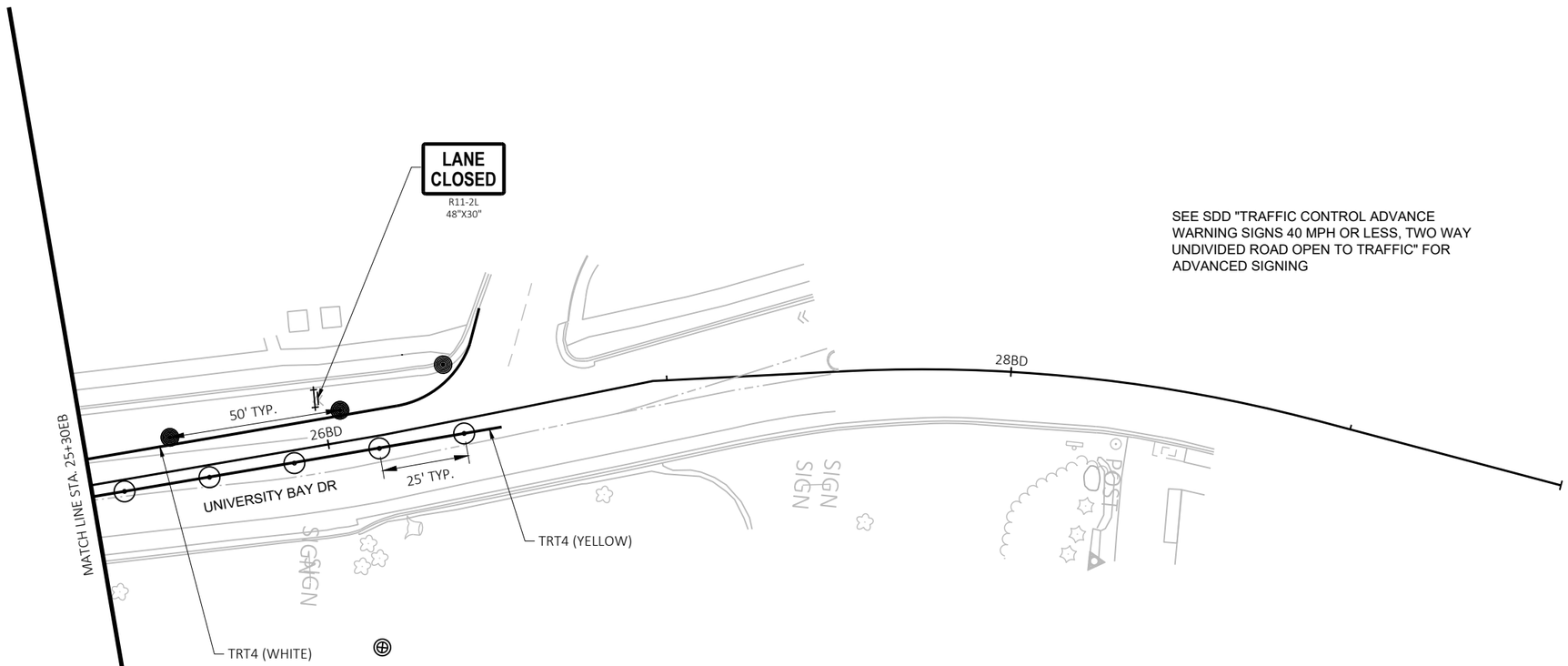
TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 243	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1.DWG
LAYOUT NAME - Sheet - (9)
PLOT DATE : 1/4/2022 8:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N



SEE SDD "TRAFFIC CONTROL ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED SIGNING

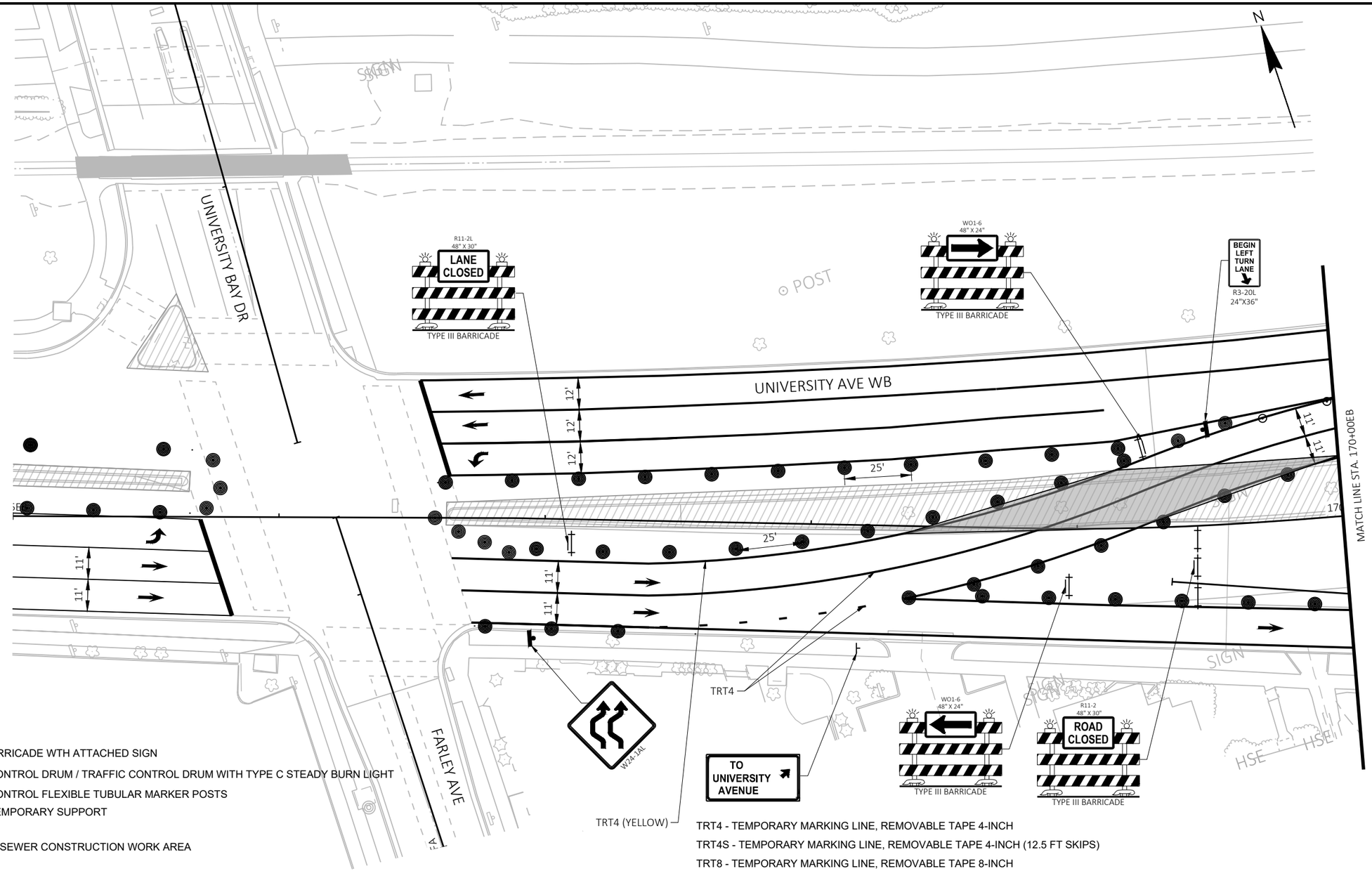
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 244	E

2



LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM / TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS
- SIGN ON TEMPORARY SUPPORT
- 96" STORM SEWER CONSTRUCTION WORK AREA
- WORK ZONE
- TEMPORARY ASPHALTIC PAVEMENT
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

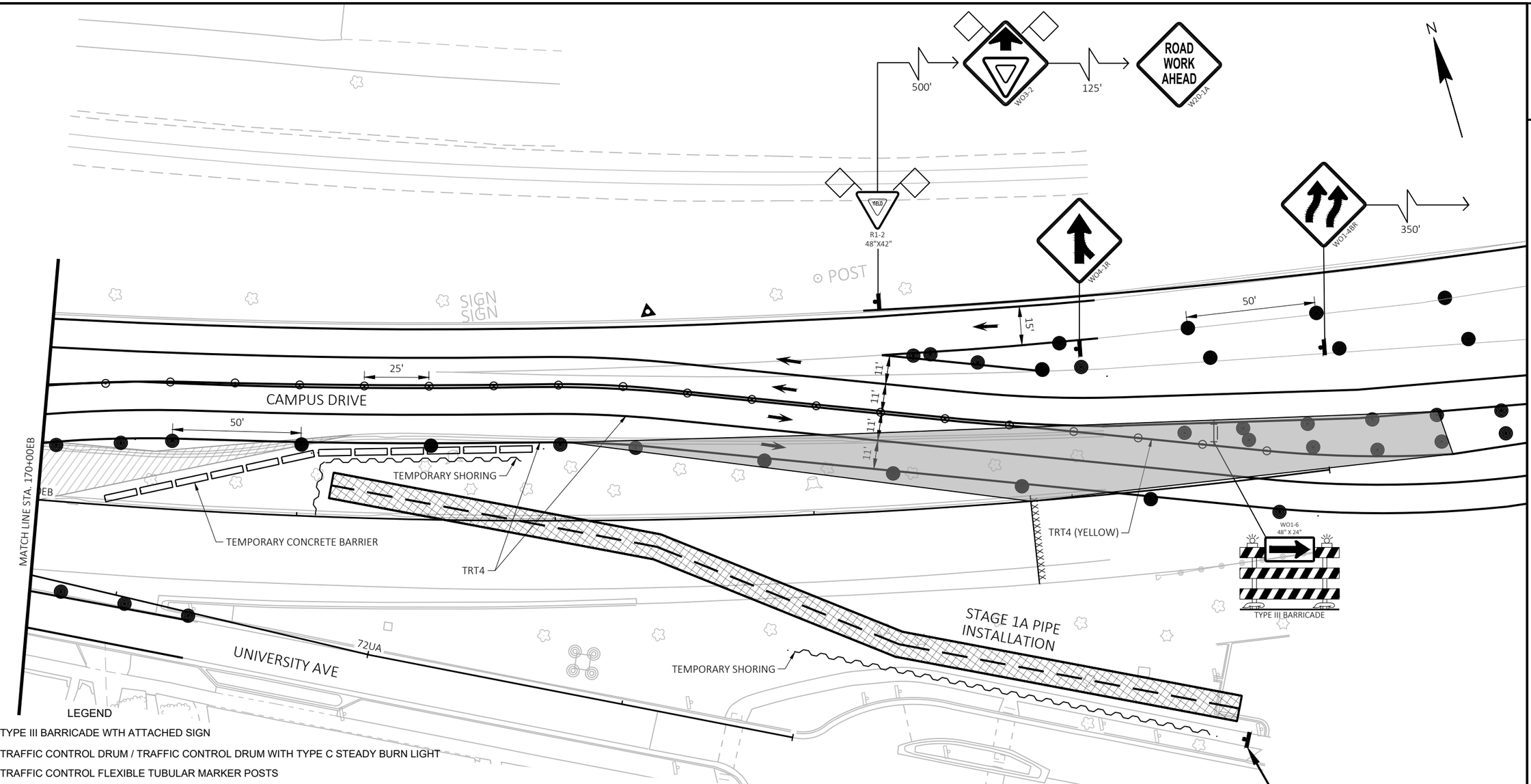
SEE S.D.D. FOR DETAILS NOT SHOWN:

- TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
- TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1A	SHEET 245	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1A.DWG
LAYOUT NAME - STAGE 1A -1
PLOT DATE : 1/4/2022 9:05 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM / TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS
- SIGN ON TEMPORARY SUPPORT
- 96" STORM SEWER CONSTRUCTION WORK AREA
- WORK ZONE
- TEMPORARY ASPHALTIC PAVEMENT
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- TEMPORARY CONCRETE BARRIER

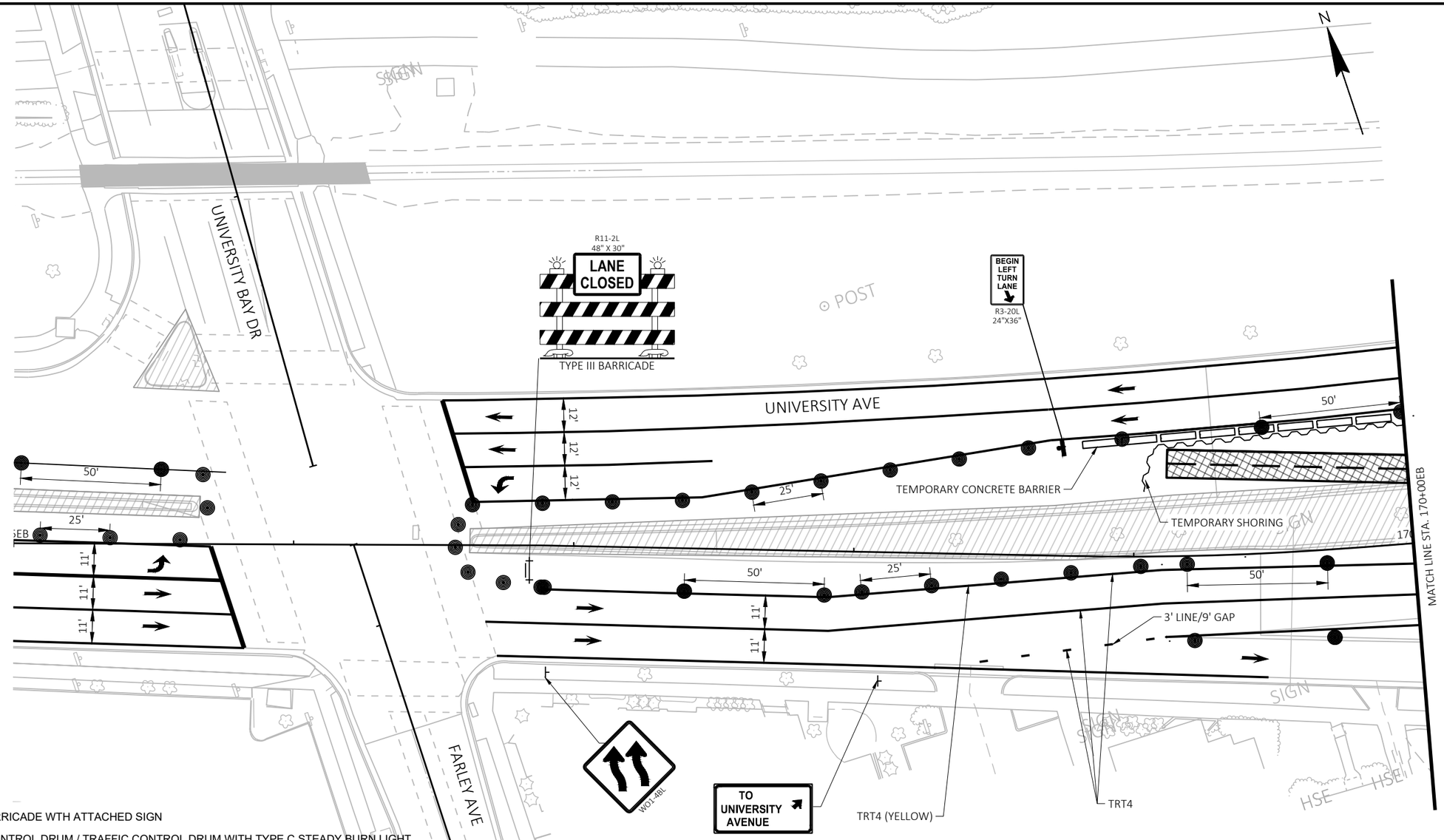
TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
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TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

SEE S.D.D. FOR DETAILS NOT SHOWN:

- TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
- TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1A	SHEET 246	E

2



SEE STAGE 1 FOR FOR TRAFFIC CONTROL

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM / TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS
- SIGN ON TEMPORARY SUPPORT
- 96" STORM SEWER CONSTRUCTION WORK AREA
- WORK ZONE
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- TEMPORARY CONCRETE BARRIER

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

SEE S.D.D. FOR DETAILS NOT SHOWN:

- TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
- TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

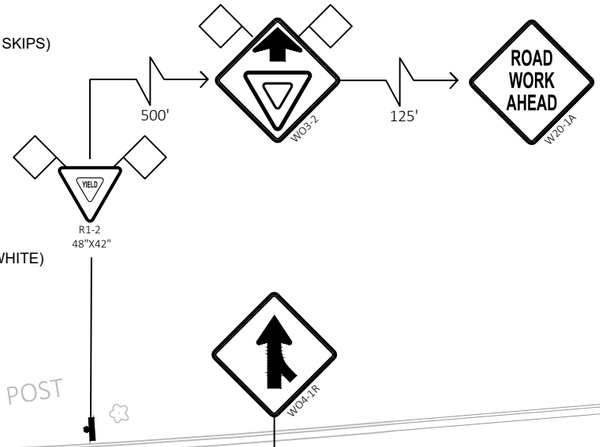
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1B	SHEET 247	E

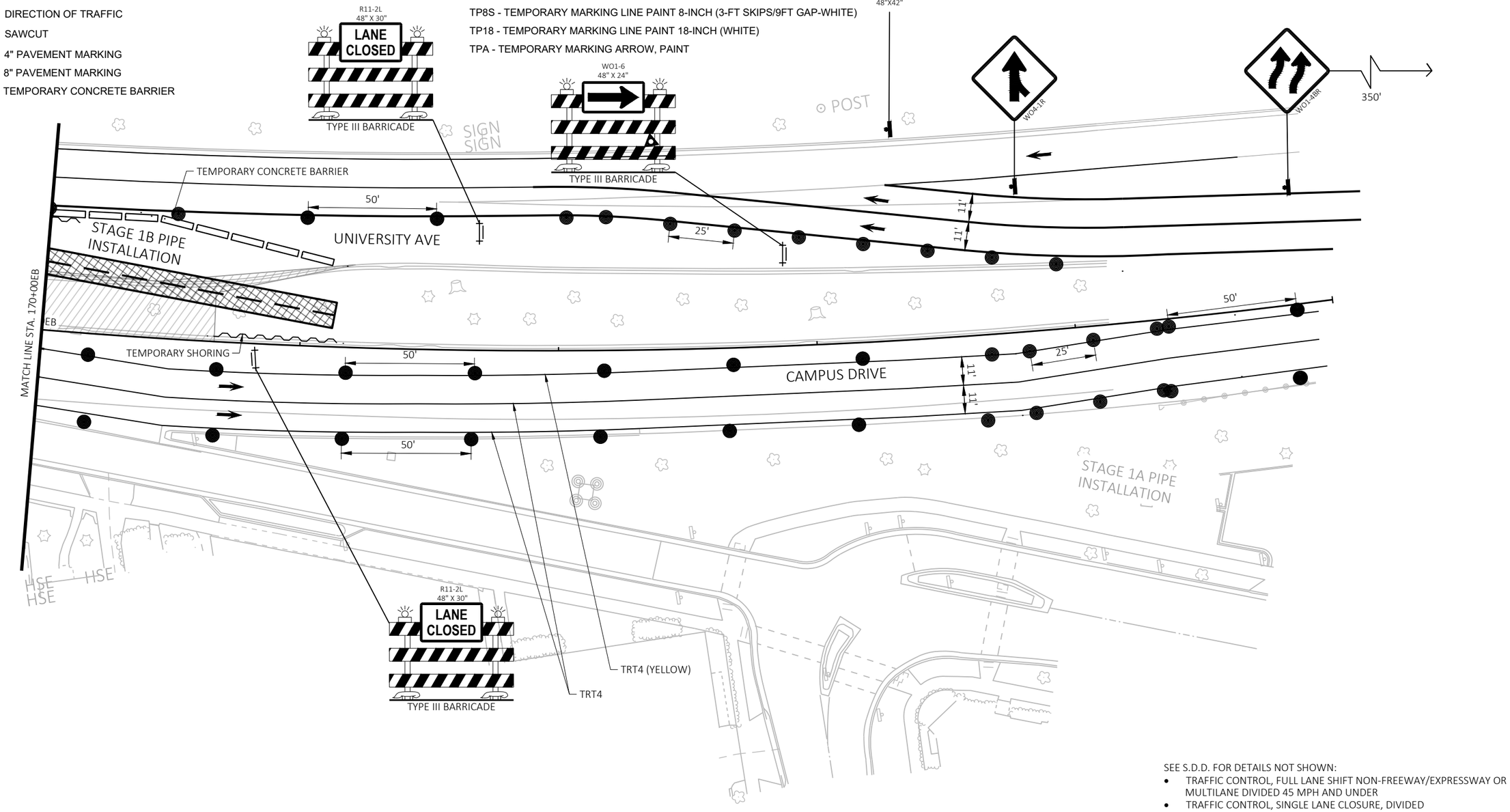
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 1B.DWG
LAYOUT NAME - STAGE 1B -1
PLOT DATE : 1/4/2022 9:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM / TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS
- SIGN ON TEMPORARY SUPPORT
- 96" STORM SEWER CONSTRUCTION WORK AREA
- WORK ZONE
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- 4" PAVEMENT MARKING
- 8" PAVEMENT MARKING
- TEMPORARY CONCRETE BARRIER

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
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TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT



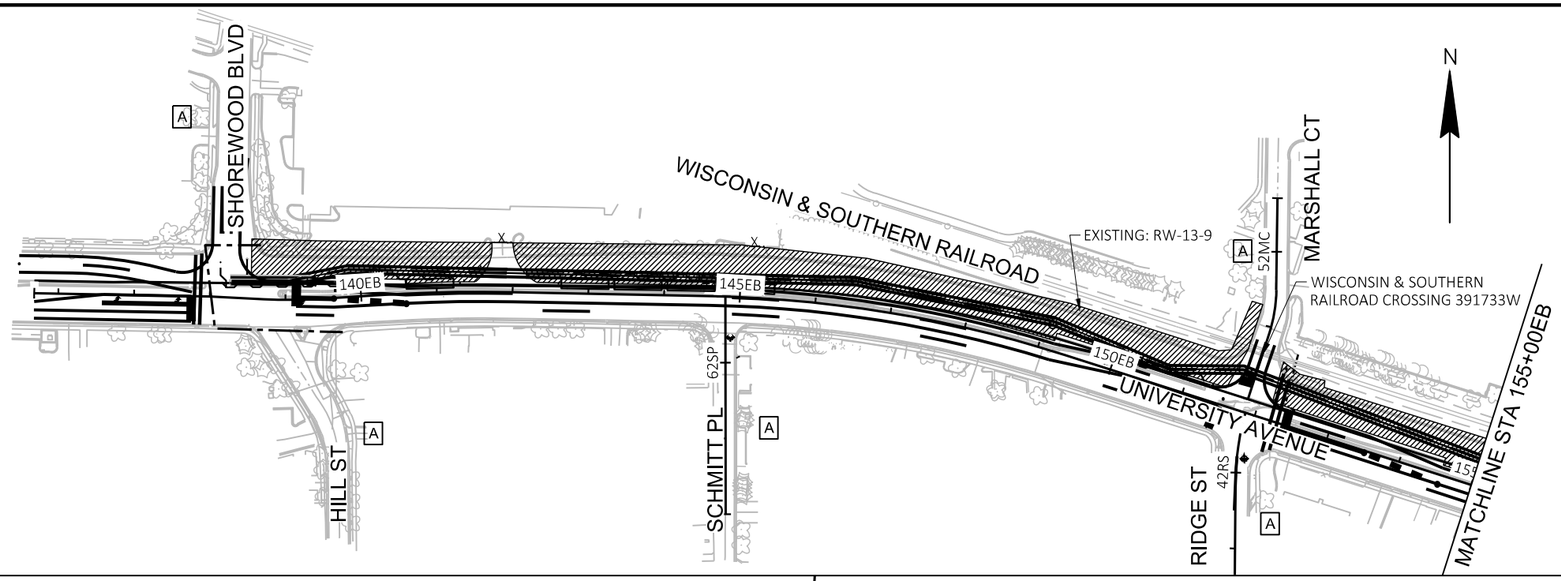


SEE S.D.D. FOR DETAILS NOT SHOWN:

- TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
- TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1B	SHEET 248	E

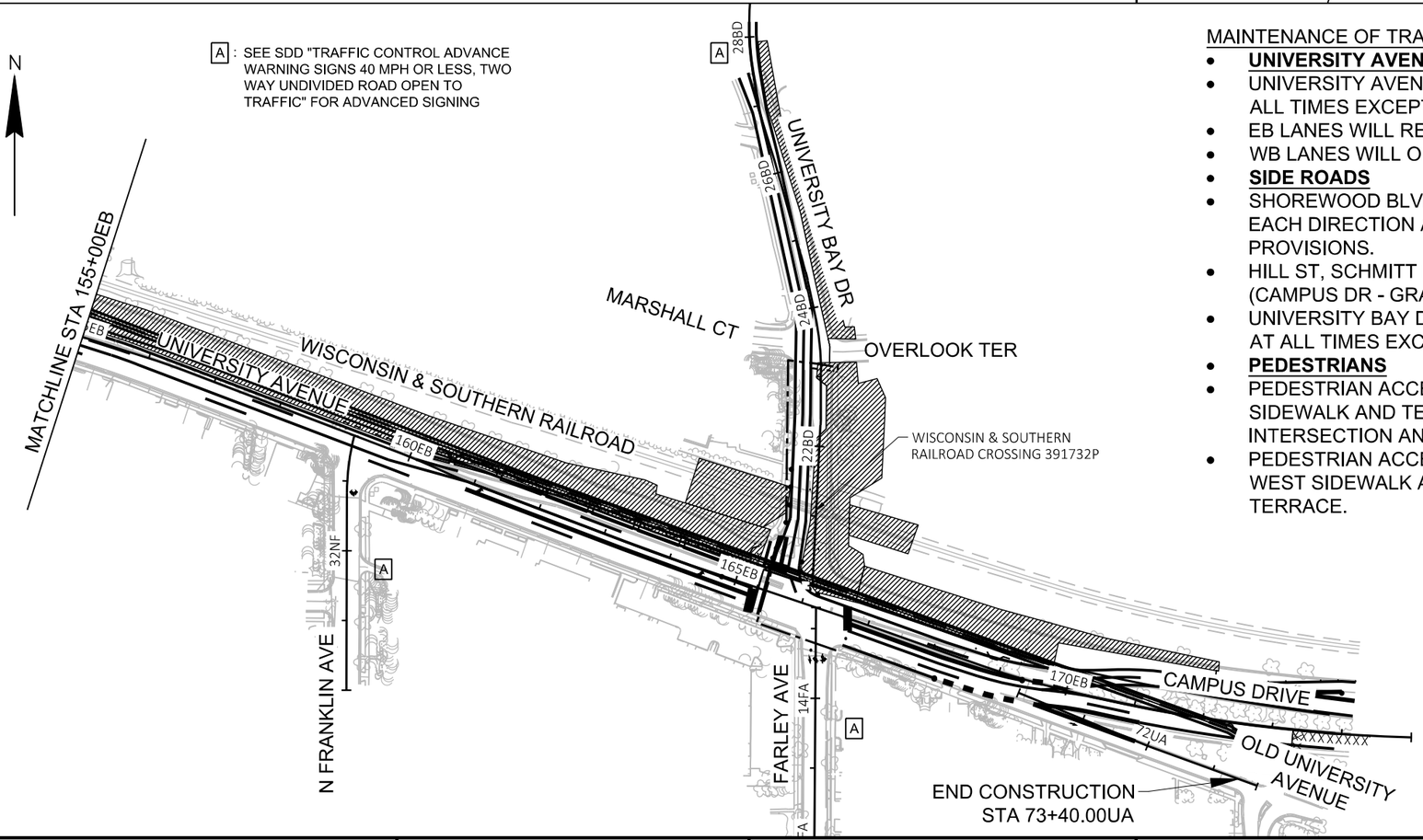
2



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- RECONSTRUCT THE WESTBOUND DIRECTION, INCLUDING THE MULTI-USE PATH AND OVERPASS STRUCTURES (B-13-891, R-13-360 AND R-13-360), 96-INCH STORM SEWER AND SANITARY AND WATER REPLACEMENT IN WESTBOUND LANES.
- **SIDE ROADS**
- RECONSTRUCT THE NORTH HALF OF THE MARSHALL COURT INTERSECTION.
- RECONSTRUCT THE NORTHBOUND DIRECTION OF UNIVERSITY BAY DRIVE.

A : SEE SDD "TRAFFIC CONTROL ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED SIGNING

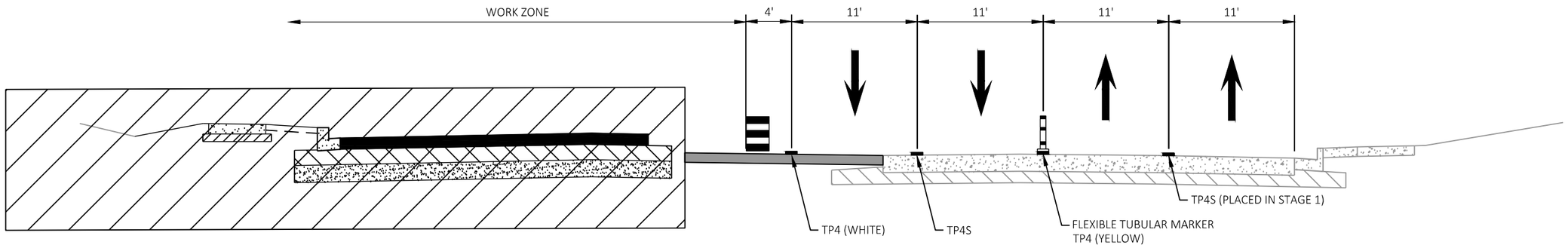


MAINTENANCE OF TRAFFIC

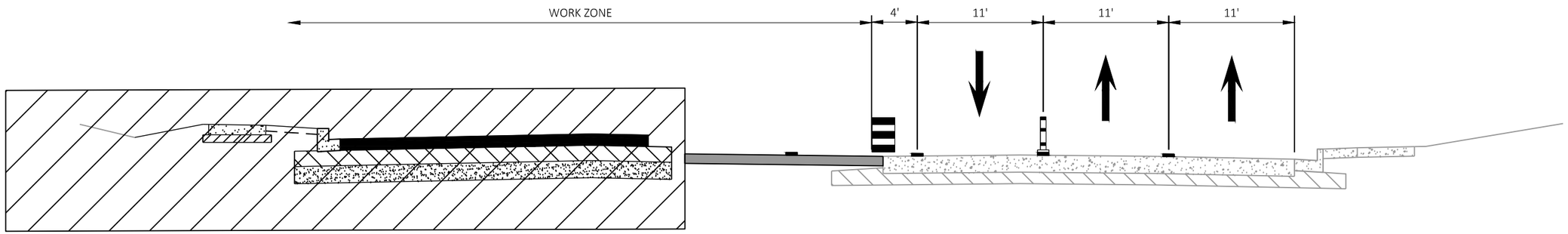
- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 2 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- EB LANES WILL REMAIN ON THE EXISTING TWO OUTSIDE LANES.
- WB LANES WILL ON THE EXISTING EB INSIDE LANE AND MEDIAN WIDENING.
- **SIDE ROADS**
- SHOREWOOD BLVD & MARSHALL COURT WILL REMAIN OPEN TO ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- HILL ST, SCHMITT PI, RIDGE ST, FRANKLIN AVE, FARLEY AVE AND UNIVERSITY AVE (CAMPUS DR - GRAND AVE) WILL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES.
- UNIVERSITY BAY DRIVE WILL REMAIN OPEN TO ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS ON UNIVERSITY AVE WILL BE MAINTAINED ON THE EXISTING SOUTH SIDEWALK AND TEMPORARY CROSSINGS AT THE MARSHALL COURT/RIDGE STREET INTERSECTION AND THE UNIVERSITY BAY DRIVE/FARLEY AVENUE INTERSECTION.
- PEDESTRIAN ACCESS ON UNIVERSITY BAY DRIVE WILL BE MAINTAINED ON THE EXISTING WEST SIDEWALK AND TEMPORARY CROSSING AT MARSHALL COURT/OVERLOOK TERRACE.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 2 OVERVIEW	SHEET 249	E

2



STAGE 2
UNIVERSITY AVENUE

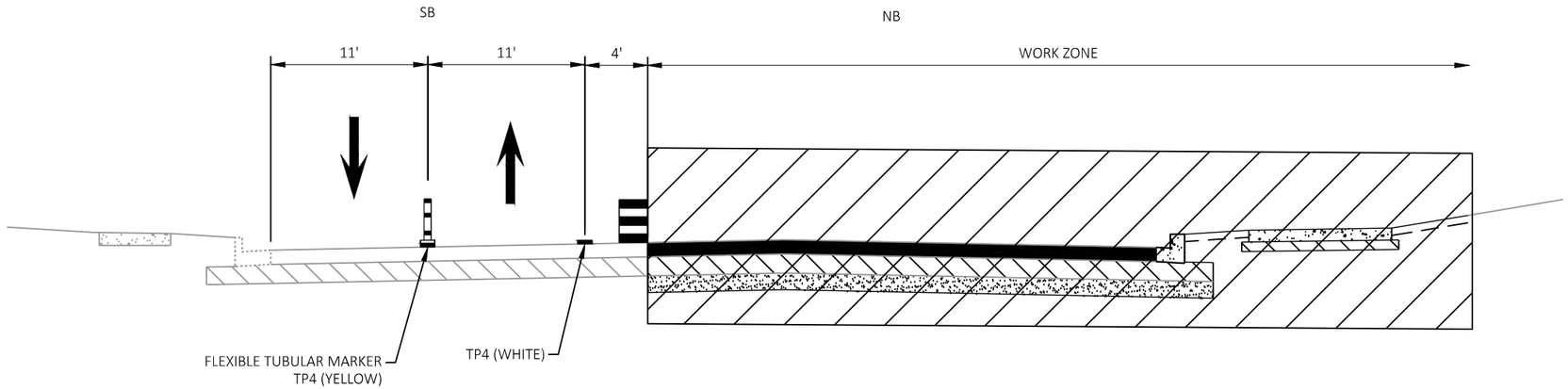


STAGE 2
UNIVERSITY AVENUE
OFF - PEAK HOURS

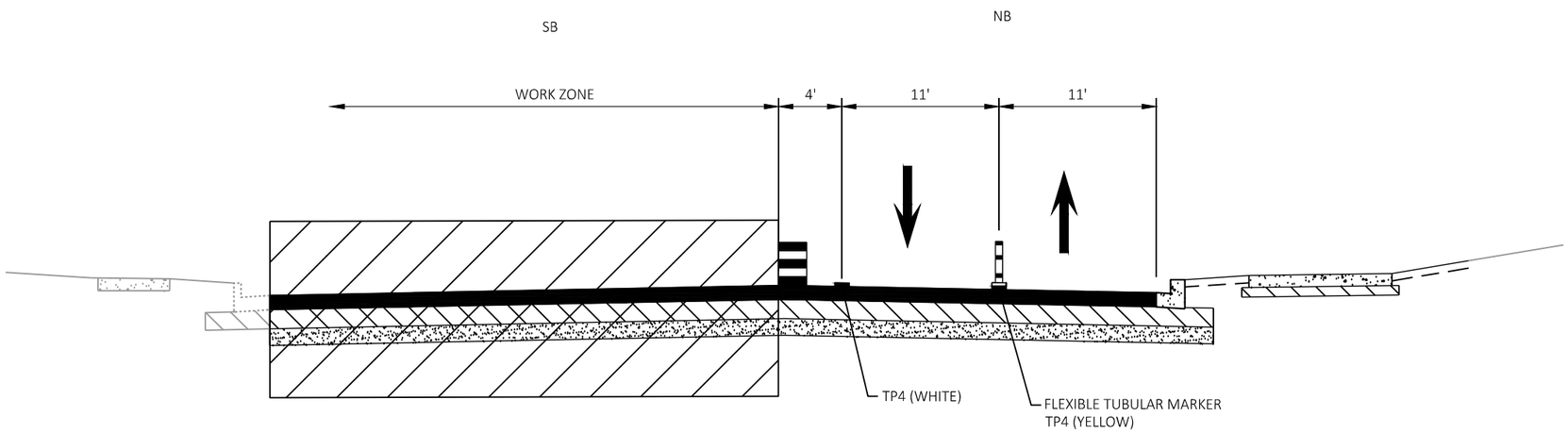
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 2)	SHEET 250	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC_TYP SECTIONS.DWG
LAYOUT NAME - Typ Section S2-2
PLOT DATE : 7/26/2021 3:44 PM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT

2



STAGE 2
UNIVERSITY BAY DRIVE

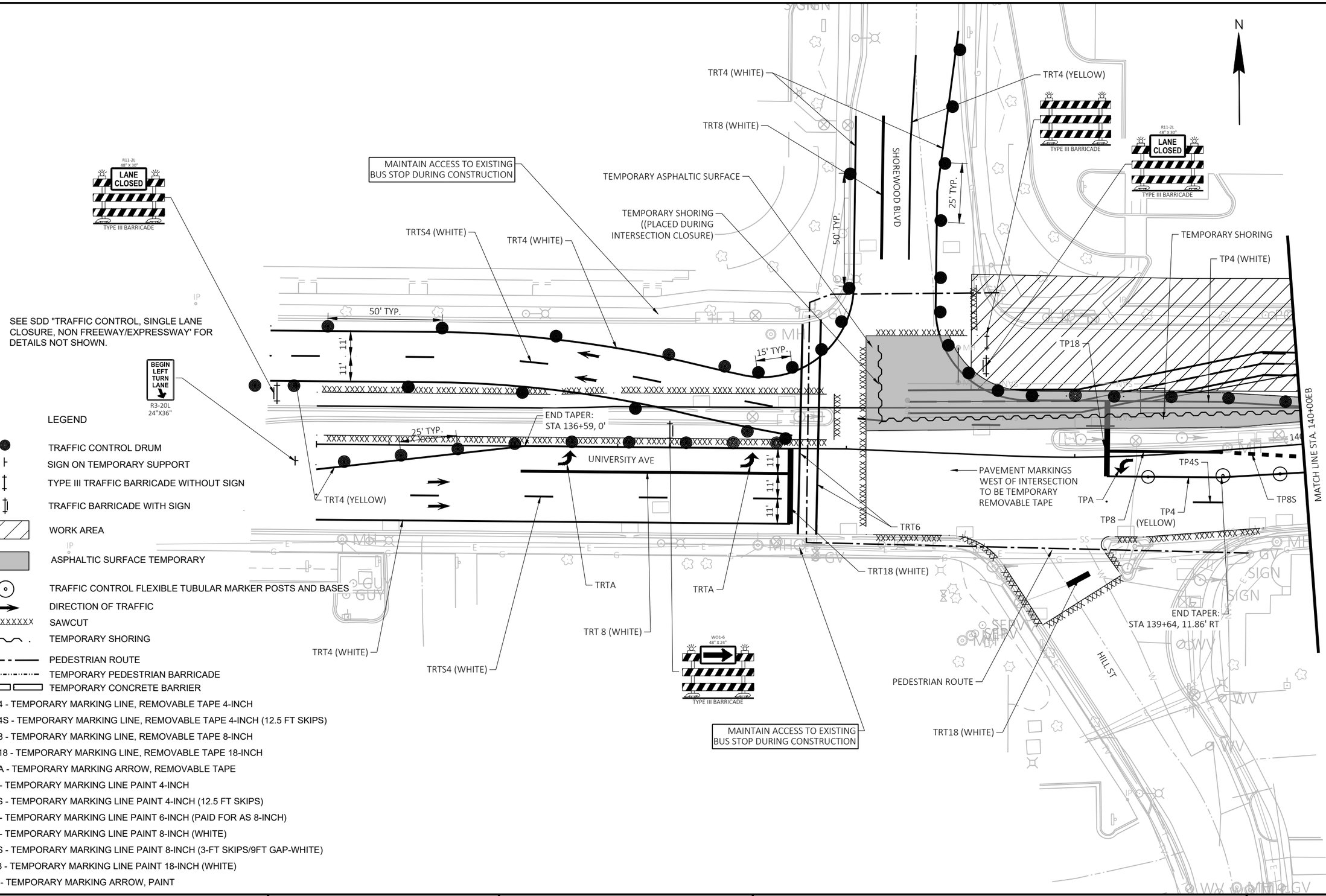


STAGE 2A
UNIVERSITY BAY DRIVE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 2A)	SHEET 251	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC_TYP SECTIONS.DWG
LAYOUT NAME - Typ Section Unv Bay S2-2A-3
PLOT DATE : 7/26/2021 3:44 PM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY CONCRETE BARRIER

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 252	E

2

N

TYPE III BARRICADE

TYPE III BARRICADE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

TYPE III BARRICADE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

TEMPORARY CONCRETE BARRIER

TEMPORARY SHORING

TEMPORARY SHORING

XXXXXXXX

XXXXXXXX

15' TYP.

MATCH LINE STA. 140+00EB

EB

11'

11'

11'

11'

TP8S

BEGIN TAPER:
STA 140+59, 12.95' RT

TP4S

TP4 (YELLOW)

TP4 (WHITE)

UNIVERSITY AVE

25' TYP.

145EB

MATCH LINE STA. 145+50EB

TEMPORARY CONCRETE BARRIER

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

63SP

SCHMITT PL

SIGN

SIGN

SIGN

SEPV

SEPV

SEPV

MH

MH

MH

MH

MH

WV

WV

WV

WV

WV

GV

GV

FO

OH

E

G

IP

W

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY CONCRETE BARRIER

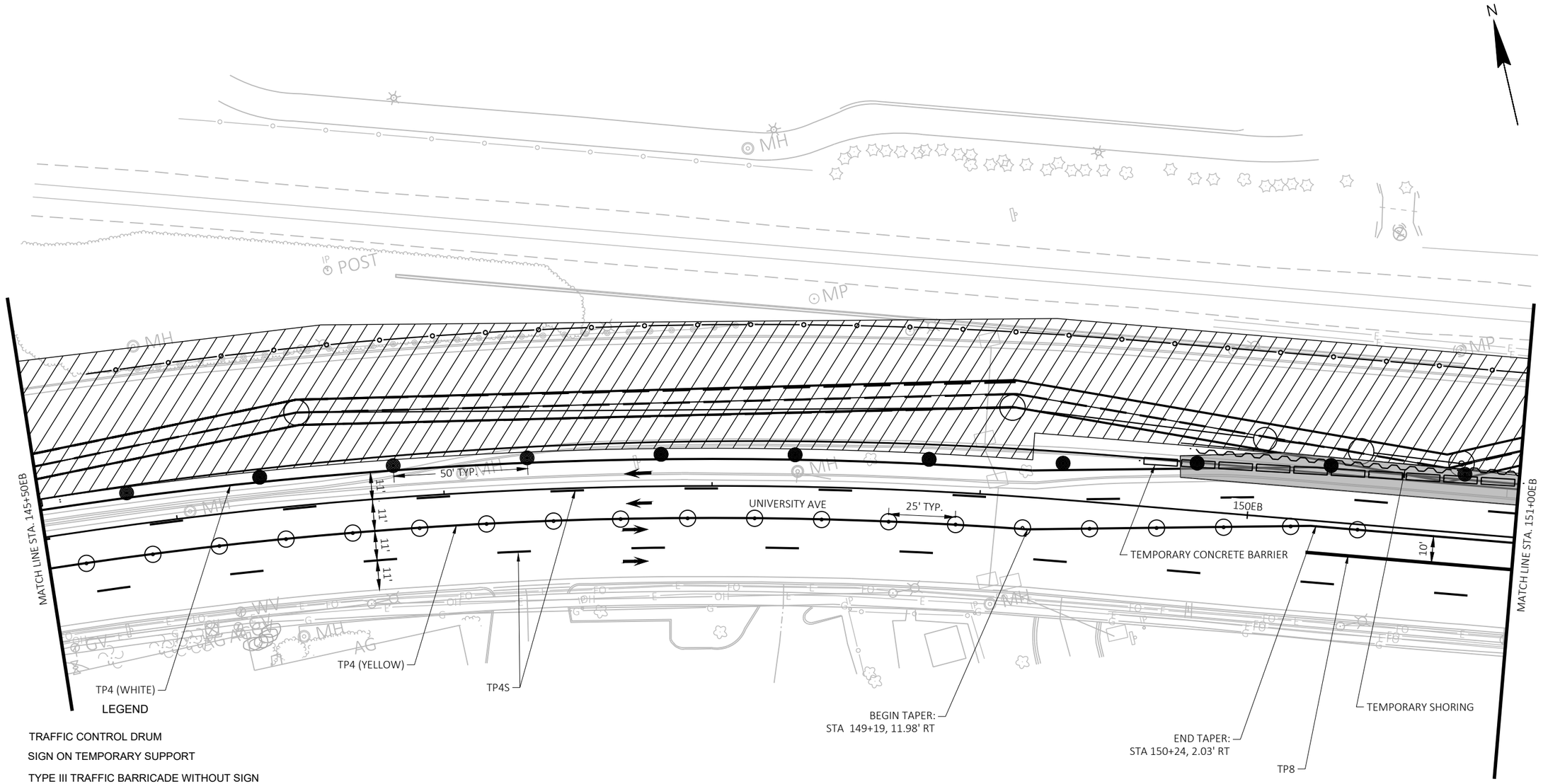
TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 253	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 2.DWG
LAYOUT NAME - Sheet - (2)

PLOT DATE : 1/4/2022 1:43 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

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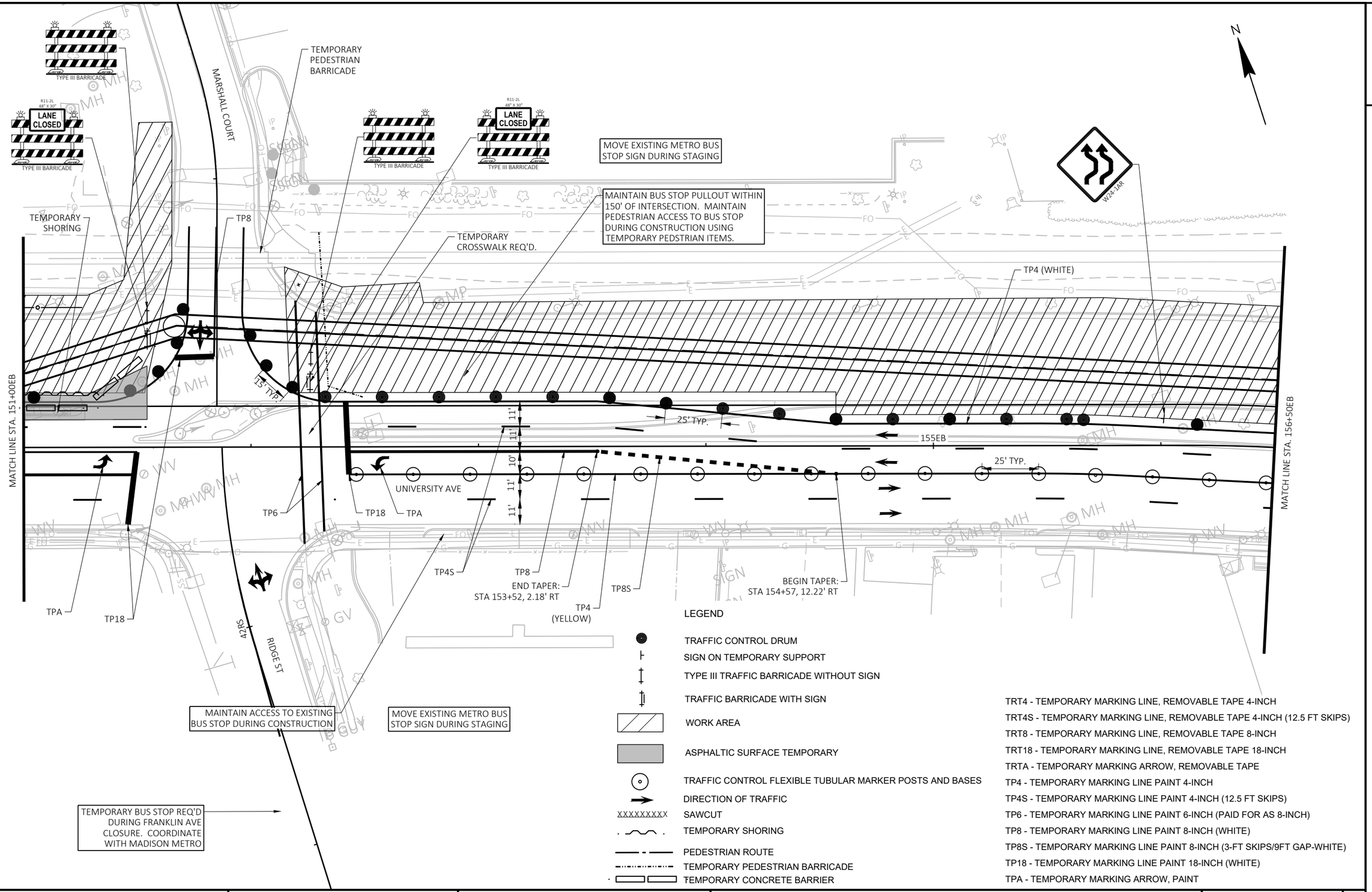
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY CONCRETE BARRIER

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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 254	E

2



LEGEND

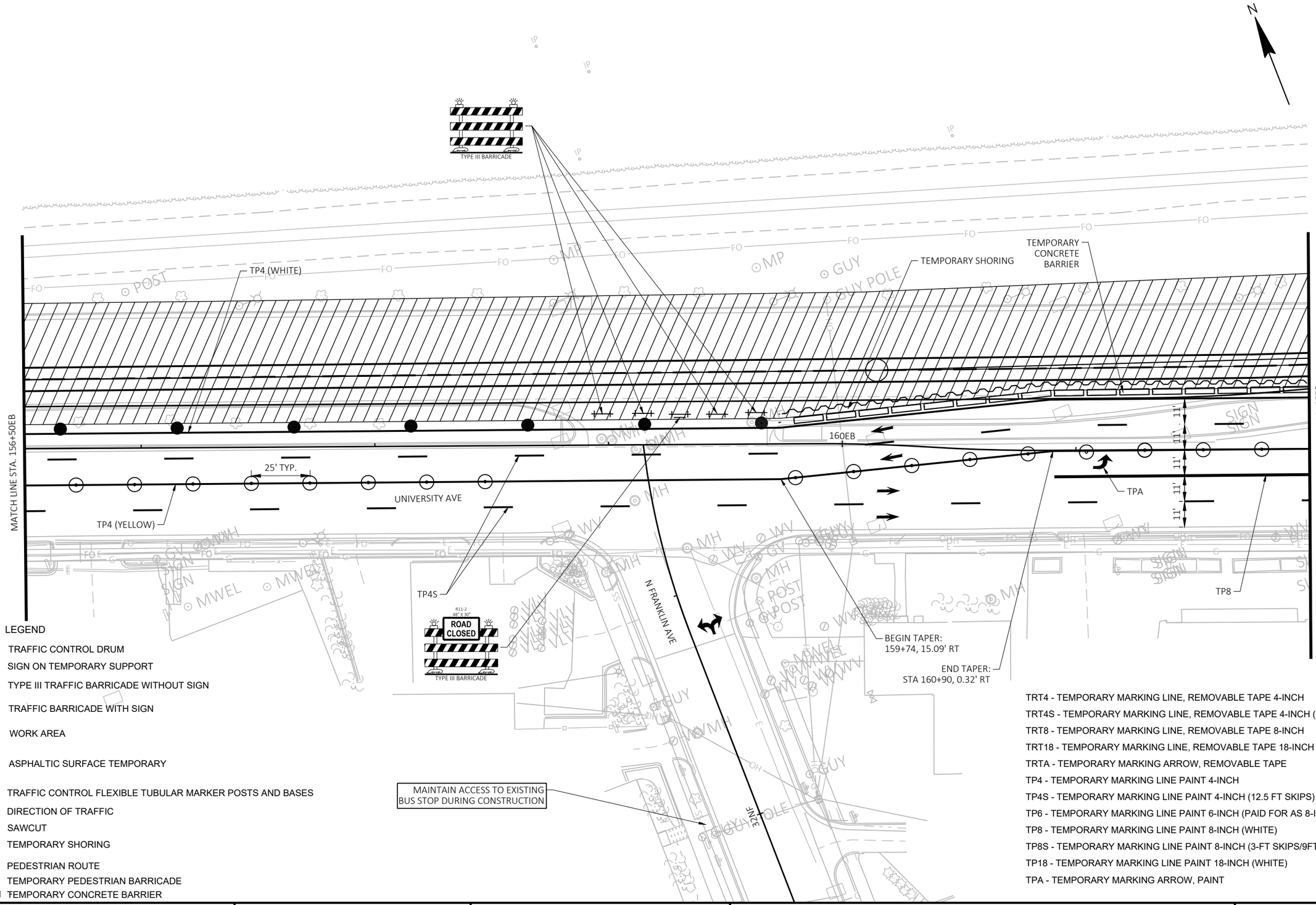
- TRAFFIC CONTROL DRUM
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 255	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 2.DWG
LAYOUT NAME - Sheet - (4)
PLOT DATE : 1/4/2022 1:43 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



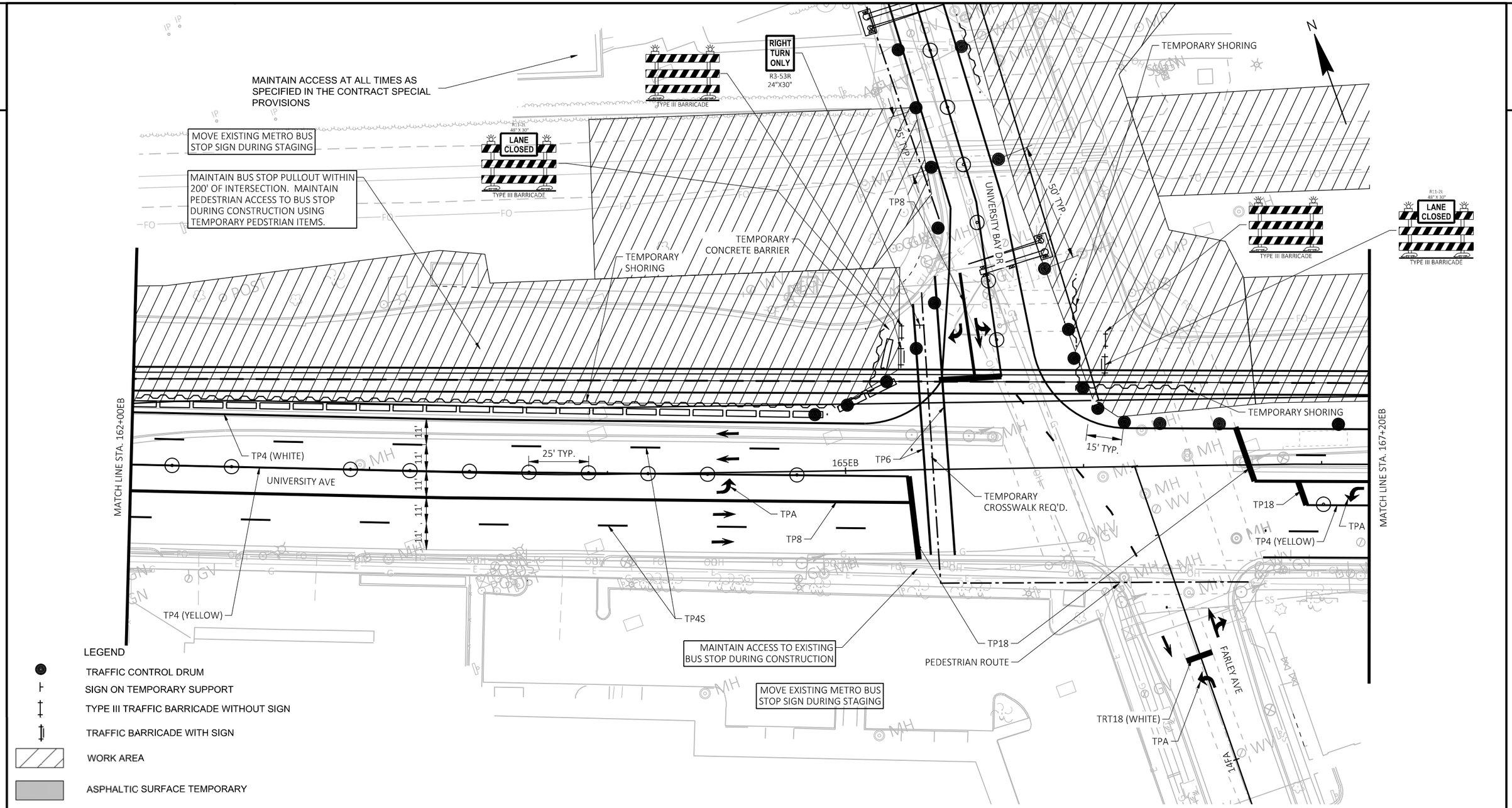
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 256	E

2



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
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- XXXXXXXXX SAWCUT
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- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
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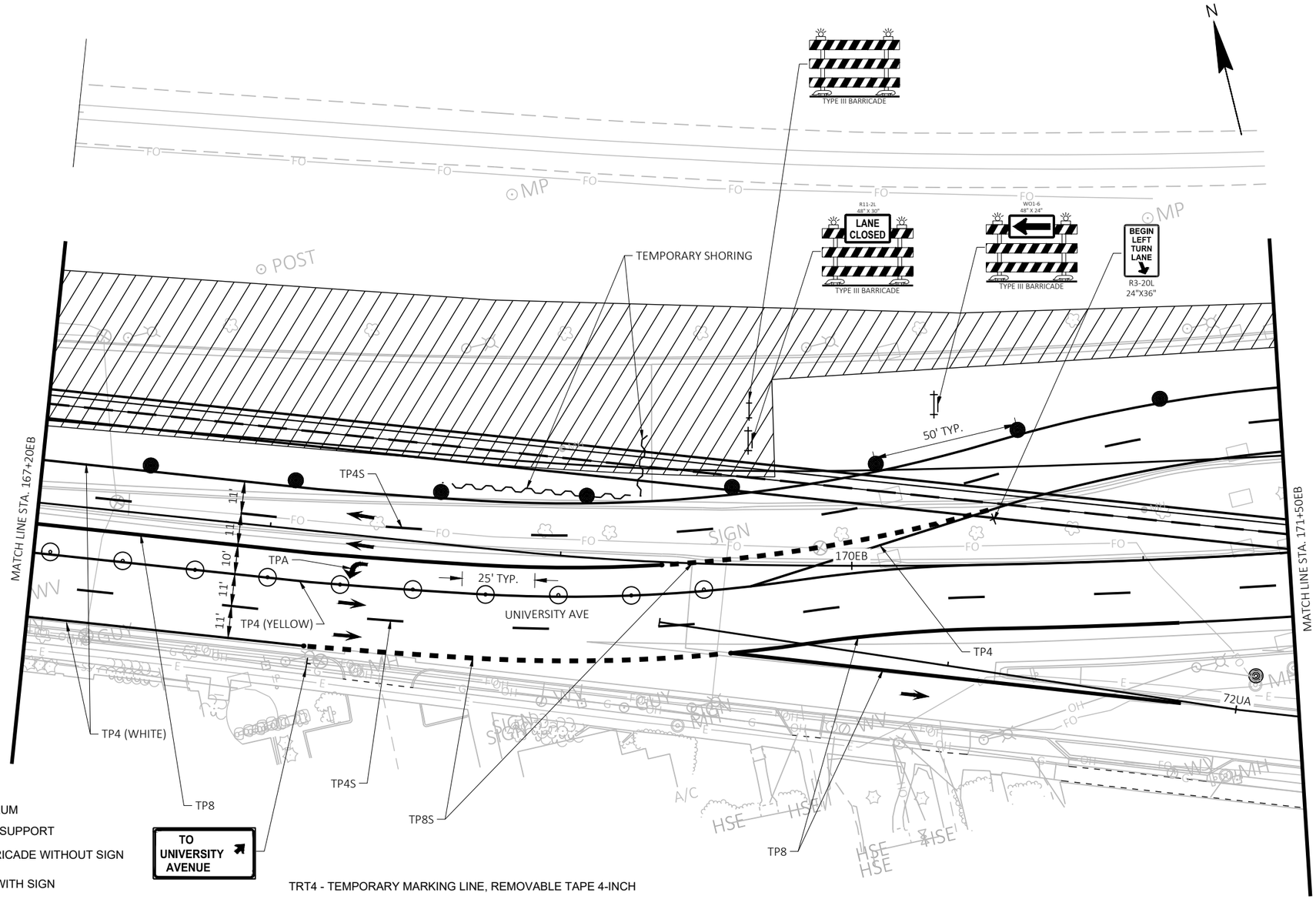
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 257	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 2.DWG
LAYOUT NAME - Sheet - (6)
PLOT DATE : 1/4/2022 3:16 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

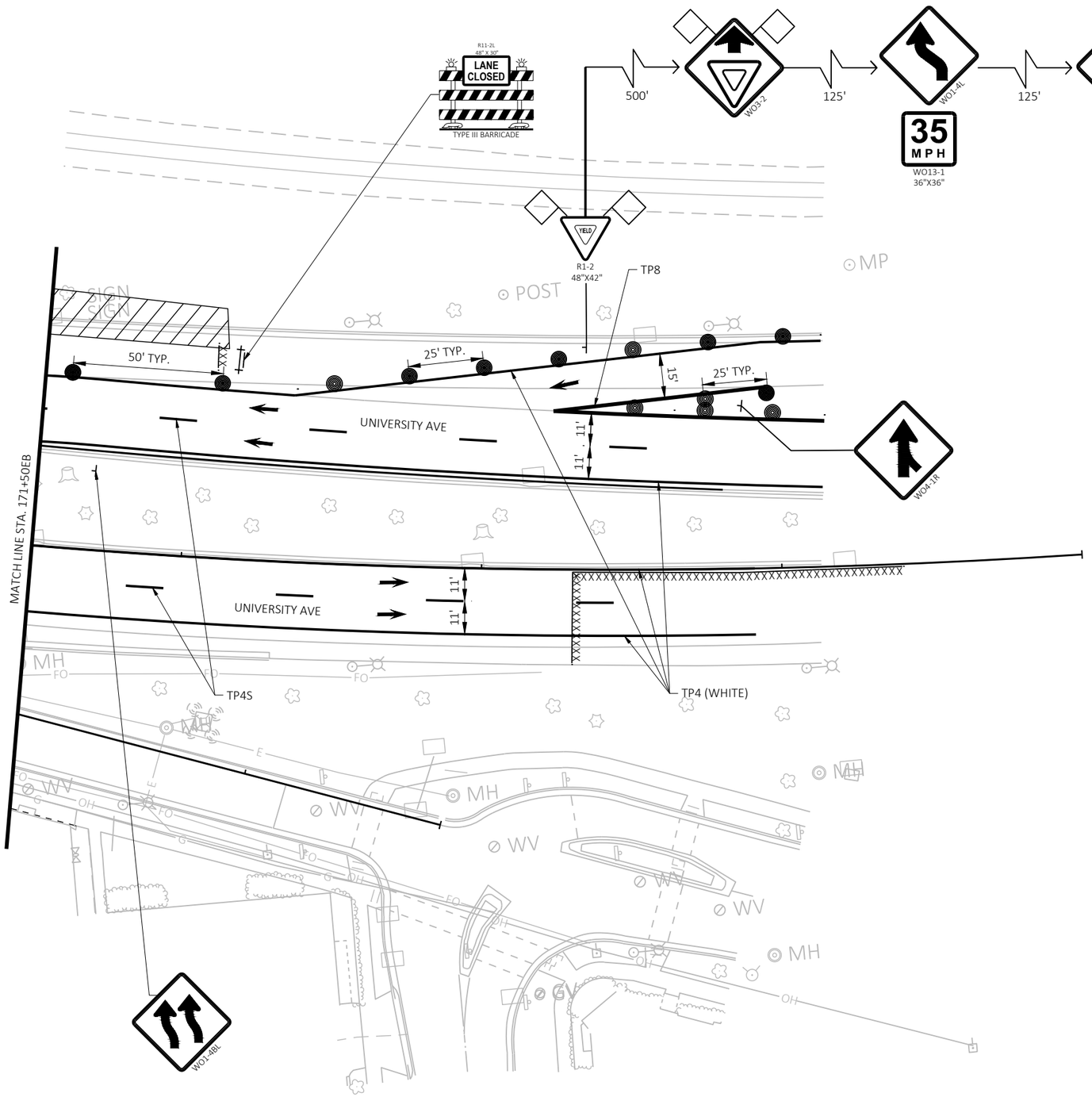
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- TRAFFIC BARRICADE WITH SIGN
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- XXXXXXXXX SAWCUT
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 258	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 2.DWG
LAYOUT NAME - Sheet - (7)
PLOT DATE : 1/4/2022 1:44 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



SEE SDD "TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER"

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 259	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 2.DWG
LAYOUT NAME - Sheet - (8)
PLOT DATE : 1/4/2022 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MAINTAIN ACCESS AT ALL TIMES AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS

ANY MARKING NORTH OF INTERSECTION TO BE REMOVABLE TAPE

PEDESTRIAN ROUTE

TP4 (YELLOW)

TP4 (WHITE)

TEMPORARY CROSSWALK REQUIRED

TP8

TP18

UNIVERSITY AVE

MARSHALL COURT

UNIVERSITY BAY DR

16SEB

22BD

24BD

25' TYP.

50' TYP.

11'

11'

R11-2L 48" X 30"

LANE CLOSED

TYPE III BARRICADE

TRT4 (YELLOW)

MATCH LINE STA. 24+50EB

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

TRT4 (WHITE)

MOVE EXISTING METRO BUS STOP SIGN DURING STAGING

MOVE EXISTING METRO BUS STOP SIGN DURING STAGING

MAINTAIN 80' BUS STOP PULLOUT AND PEDESTRIAN ACCESS DURING CONSTRUCTION. USE TEMPORARY PEDESTRIAN ITEMS TO MAINTAIN ACCESS.

XXXX XXXX

TEMPORARY PEDESTRIAN BARRICADE

TYPE III BARRICADE

R11-2L 48" X 30"

LANE CLOSED

TYPE III BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
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- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY CONCRETE BARRIER

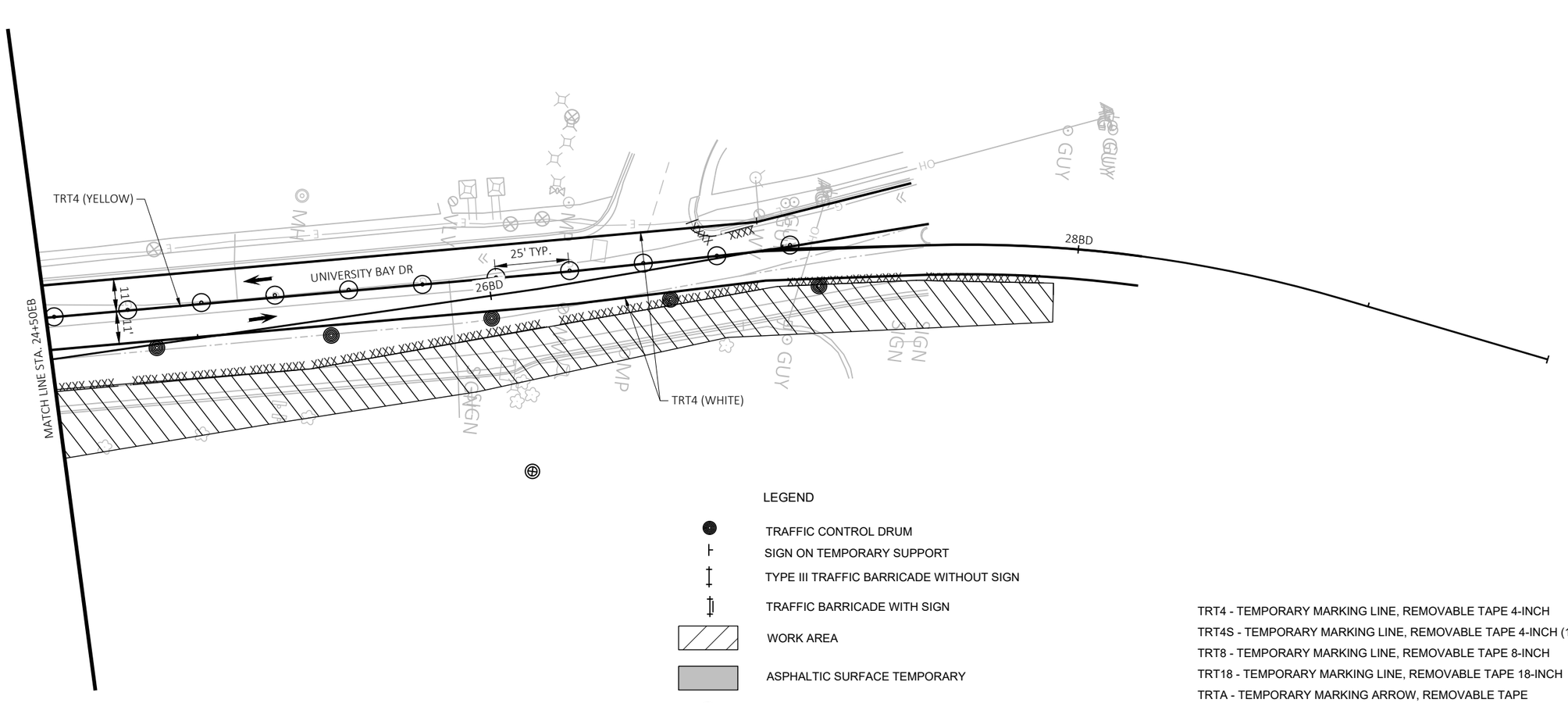
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 260	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 2.DWG
LAYOUT NAME - Sheet - (9)
PLOT DATE : 1/4/2022 3:18 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

SEE SDD "TRAFFIC CONTROL ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED SIGNING



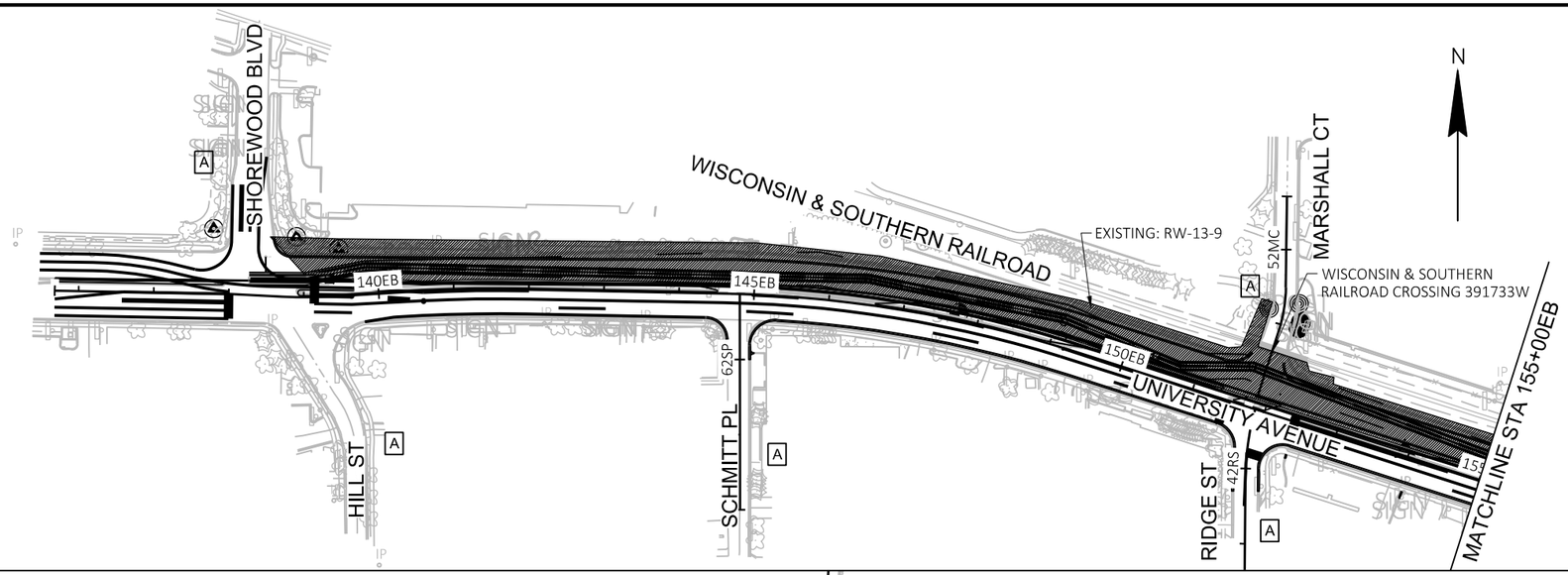
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- TRAFFIC CONTROL DRUM
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- TEMPORARY SHORING
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2	SHEET 261	E

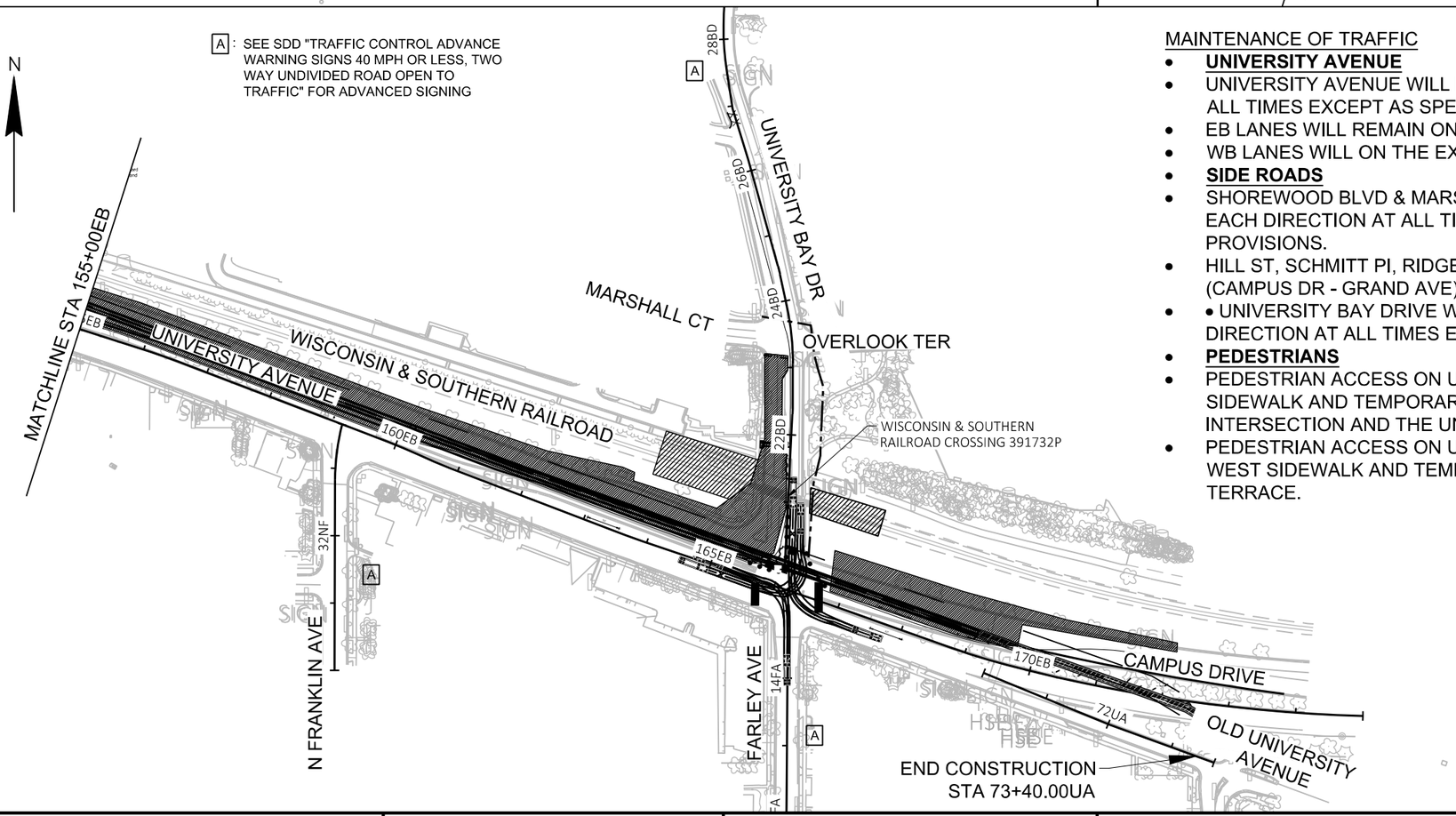
2



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
  RECONSTRUCT THE WESTBOUND DIRECTION, INCLUDING THE MULTI-USE PATH AND OVERPASS STRUCTURES (B-13-891, R-13-360 AND R-13-360), 96-INCH STORM SEWER AND SANITARY AND WATER REPLACEMENT IN WESTBOUND LANES.
- **SIDE ROADS**
- RECONSTRUCT THE SOUTHBOUND DIRECTION OF UNIVERSITY BAY DRIVE.

A: SEE SDD "TRAFFIC CONTROL ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED SIGNING



MAINTENANCE OF TRAFFIC

- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 2 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- EB LANES WILL REMAIN ON THE EXISTING TWO OUTSIDE LANES.
- WB LANES WILL ON THE EXISTING EB INSIDE LANE AND MEDIAN WIDENING.
- **SIDE ROADS**
- SHOREWOOD BLVD & MARSHALL COURT WILL REMAIN OPEN TO ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- HILL ST, SCHMITT PI, RIDGE ST, FRANKLIN AVE, FARLEY AVE AND UNIVERSITY AVE (CAMPUS DR - GRAND AVE) WILL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES.
- • UNIVERSITY BAY DRIVE WILL REMAIN OPEN TO ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS ON UNIVERSITY AVE WILL BE MAINTAINED ON THE EXISTING SOUTH SIDEWALK AND TEMPORARY CROSSINGS AT THE MARSHALL COURT/RIDGE STREET INTERSECTION AND THE UNIVERSITY BAY DRIVE/FARLEY AVENUE INTERSECTION.
- PEDESTRIAN ACCESS ON UNIVERSITY BAY DRIVE WILL BE MAINTAINED ON THE EXISTING WEST SIDEWALK AND TEMPORARY CROSSING AT MARSHALL COURT/OVERLOOK TERRACE.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 2A OVERVIEW	SHEET 262	E

2

2

MAINTAIN ACCESS AT ALL TIMES AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS

N

TYPE III BARRICADE

R11-2L 48" X 30" LANE CLOSED TYPE III BARRICADE

R11-2L 48" X 30" LANE CLOSED TYPE III BARRICADE

SIDEWALK CLOSED USE OTHER SIDE R9-10 24"X12"

TYPE III BARRICADE

TEMPORARY CROSSWALK REQ'D.

MARSHALL COURT

MATCH LINE STA. 25+00BD

UNIVERSITY AVE

TEMPORARY SHORING

15' TYP.

22BD

25' TYP.

25' TYP.

50' TYP.

24BD

11'

11'

UNIVERSITY BAY DR

TP4 (WHITE)

INSTALLED 96" STORM SEWER

TEMPORARY SHORING

TP4 (YELLOW)

TRT4 (YELLOW)

TRT4 (WHITE)

TRT4 (WHITE)

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

PEDESTRIAN ROUTE

NORTH OF INTERSECTION TRANSITION TO REMOVABLE TAPE

TYPE III BARRICADE

R11-2L 48" X 30" LANE CLOSED TYPE III BARRICADE

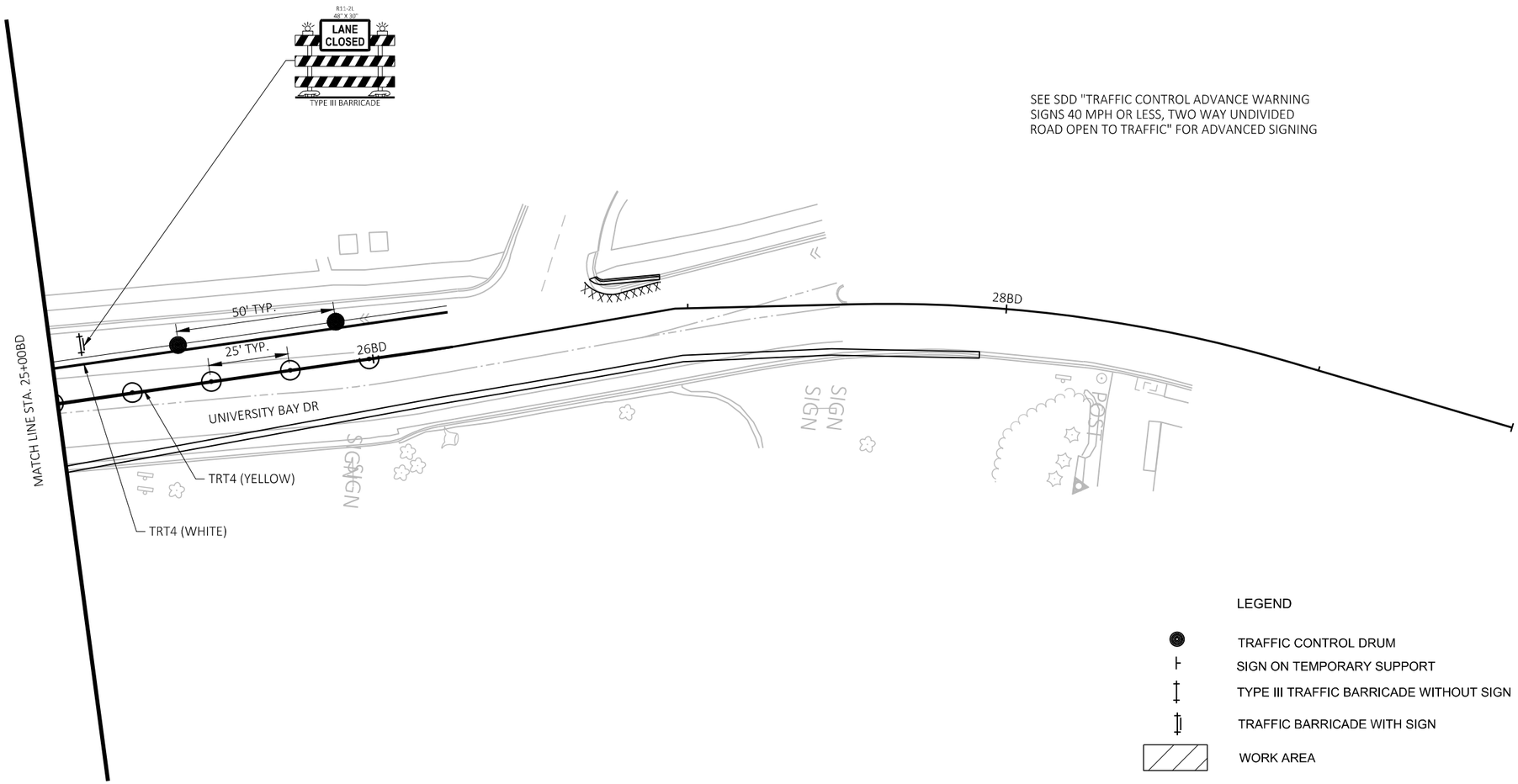
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2A	SHEET 263	E

2

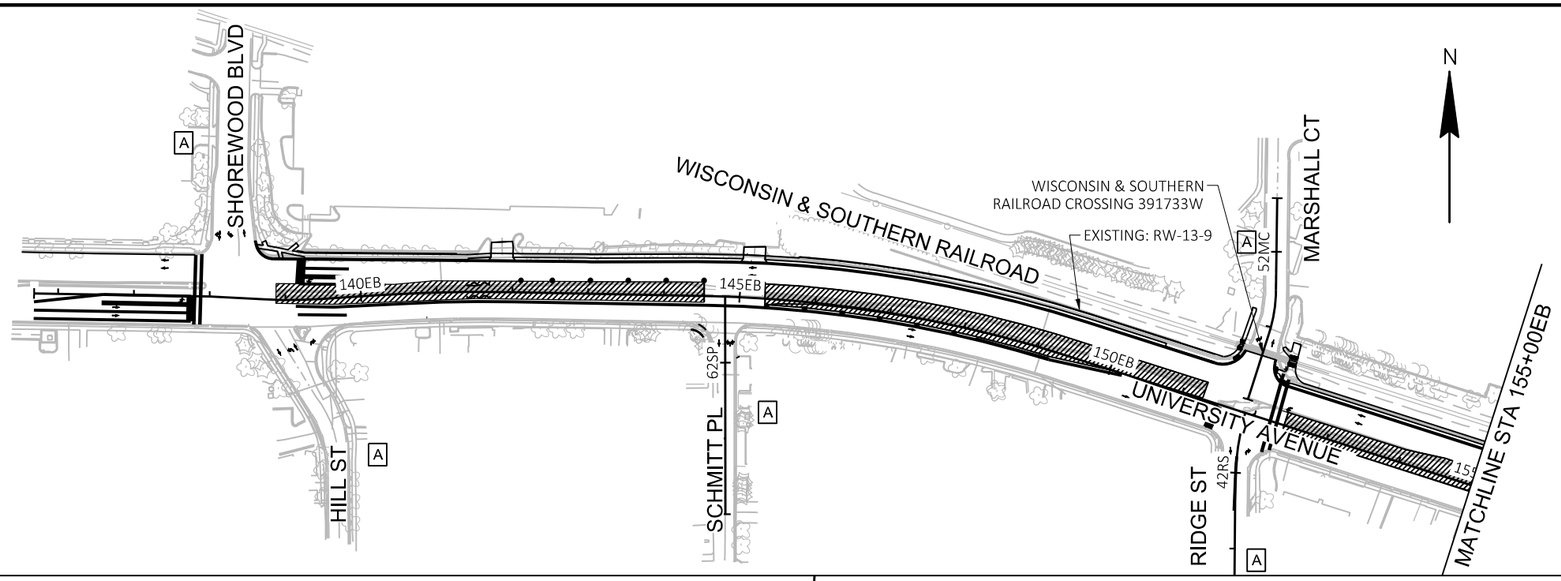


LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

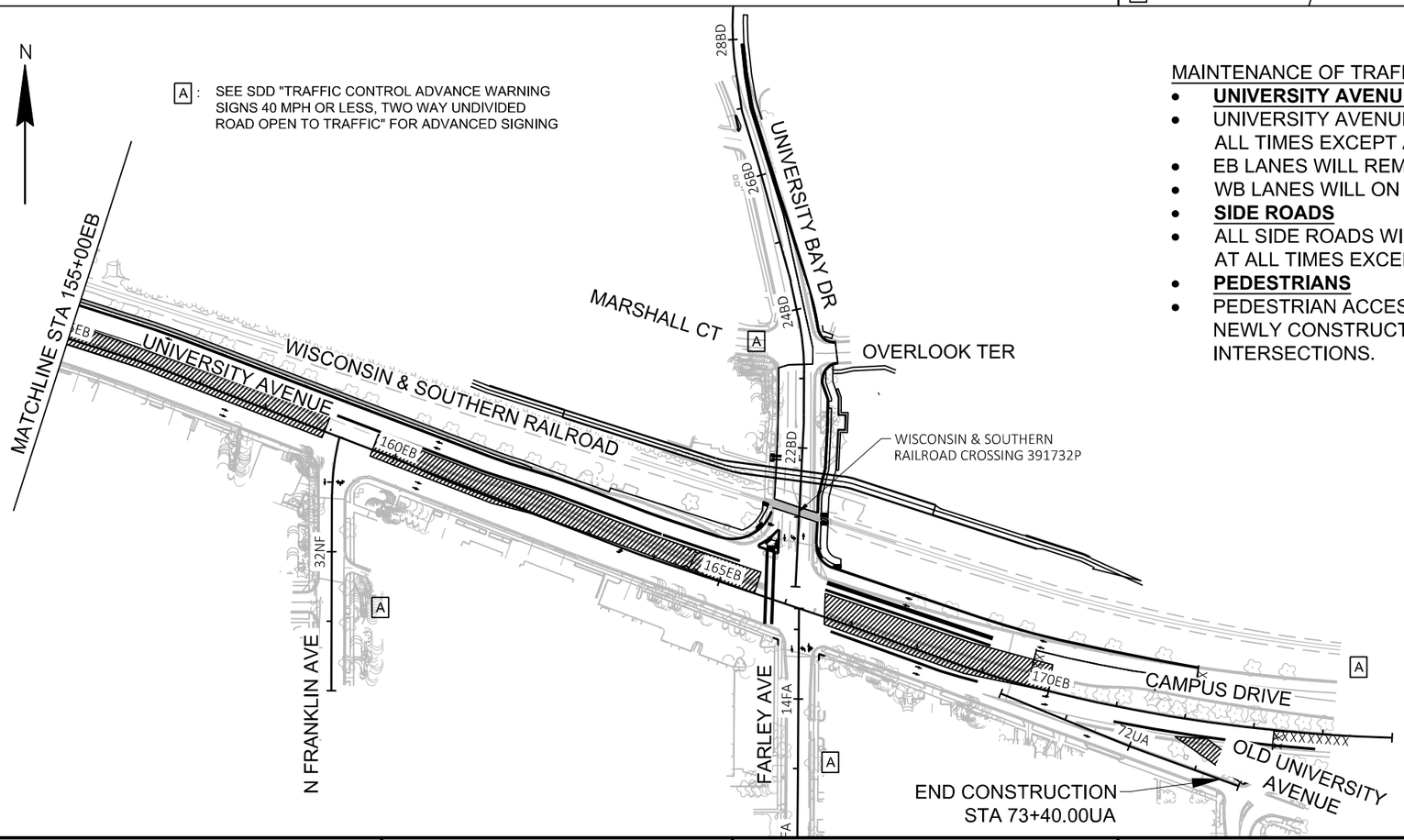
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 2A	SHEET 264	E



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- CONSTRUCT CROSSOVERS, MEDIAN INLETS, STORM SEWER, TEMPORARY MEDIAN WIDENING, TEMPORARY PAVEMENT MARKING AND SANITARY AND WATER REPLACEMENT IN MEDIAN.
- **SIDE ROADS**
- NONE.

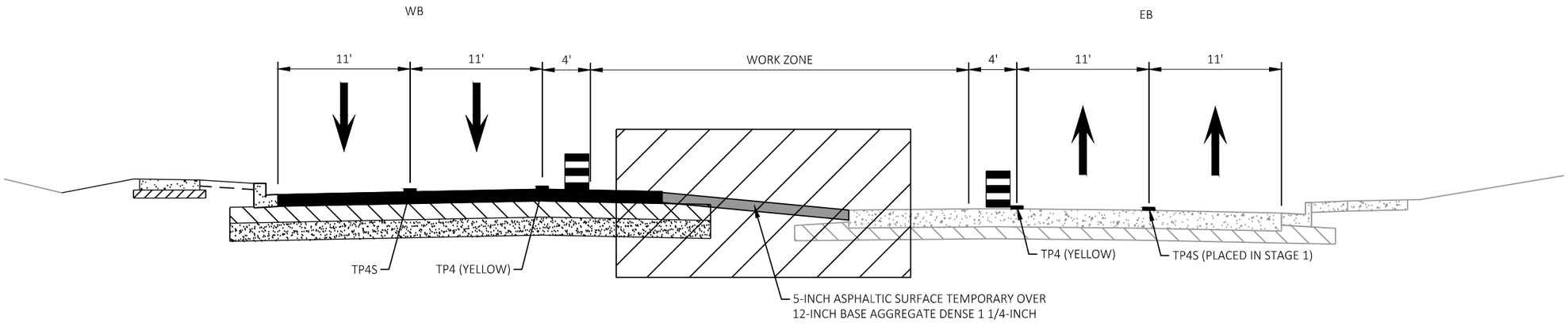


MAINTENANCE OF TRAFFIC

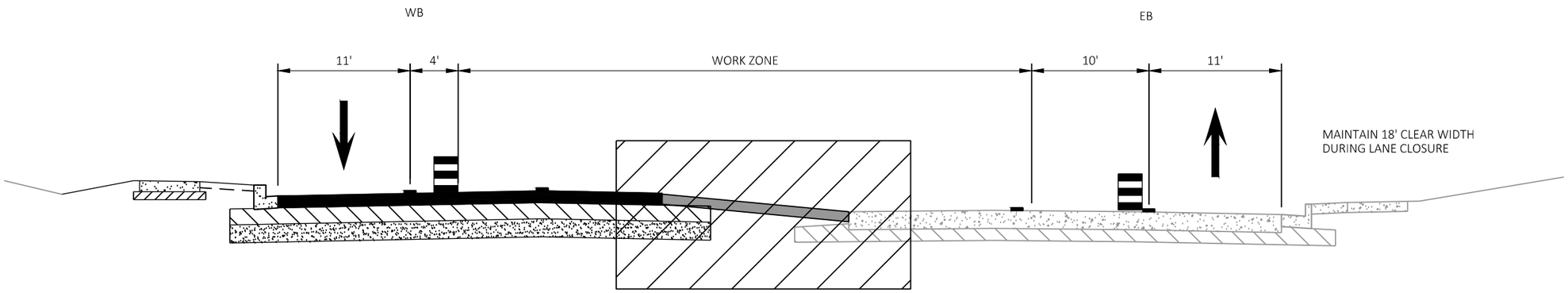
- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 2 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- EB LANES WILL REMAIN ON THE EXISTING TWO OUTSIDE LANES.
- WB LANES WILL ON THE NEWLY CONSTRUCTED WB OUTSIDE LANES.
- **SIDE ROADS**
- ALL SIDE ROADS WILL REMAIN OPEN TO ALL EXISTING OR NEWLY CONSTRUCTED LANES AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS WILL BE MAINTAINED ON THE EXISTING SOUTH SIDEWALK AND NEWLY CONSTRUCTED NORTH SIDEWALK AND TEMPORARY CROSSING AT INTERSECTIONS.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 3 OVERVIEW	SHEET 265	E

2



STAGE 3
UNIVERSITY AVENUE



STAGE 3
UNIVERSITY AVENUE
OFF - PEAK HOURS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 3)	SHEET 266	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC_TYP SECTIONS.DWG
LAYOUT NAME - Typ Section S3-4
PLOT DATE : 7/26/2021 3:44 PM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

N

SHOREWOOD BLVD

HILL ST

R11-2L 48" X 30" LANE CLOSED — TYPE III BARRICADE

R11-2L 48" X 30" LANE CLOSED — TYPE III BARRICADE

R11-2 48" X 30" ROAD CLOSED — TYPE III BARRICADE

R9-9 30"X18" SIDEWALK CLOSED — TYPE II BARRICADE

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

NOTE: STA CALLOUTS ON WB LANE ARE REFERENCING WB ALIGNMENT, STA CALLOUTS ON EB LANE ARE REFERENCING EB ALIGNMENT (ALL SHEETS)

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY' FOR DETAILS NOT SHOWN.

50' TYP.

25' TYP.

11'

11'

11'

11'

BEGIN LEFT TURN LANE
R3-20L 24"X36"

TP4S

TP4 (YELLOW)

TP18

END TAPER: STA 139+92, 0.77' LT

TRT8 (WHITE)

TRTA

MATCH LINE STA. 140+00EB

NOTE: EASTBOUND PAVEMENT MARKING FROM STAGE 2

PAVEMENT MARKINGS WEST OF INTERSECTION TO BE TEMPORARY REMOVABLE TAPE

LEGEND

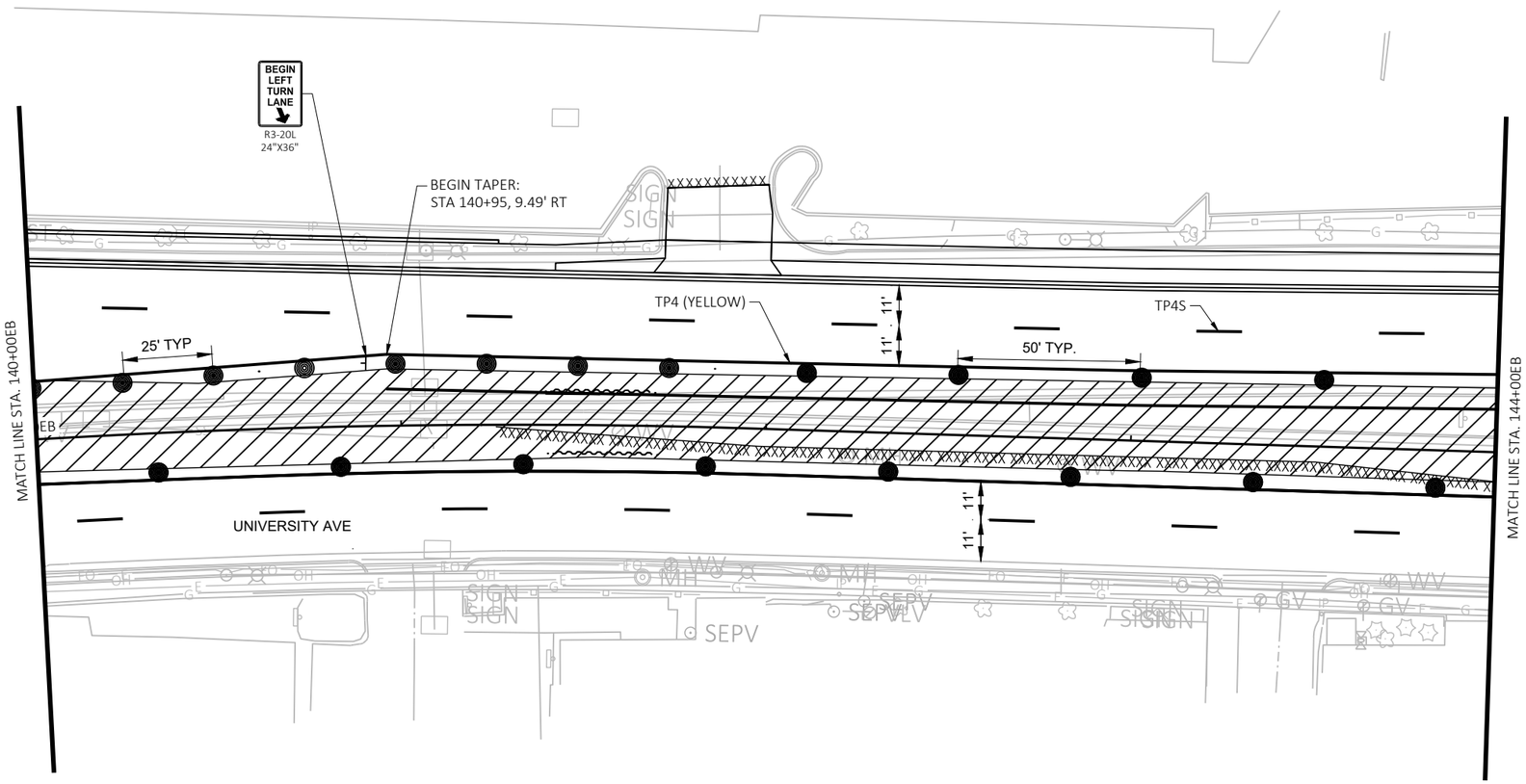
- TRAFFIC CONTROL DRUM
- TYPE II TRAFFIC BARRICADE WITH SIGN
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
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TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 267	E

2

N



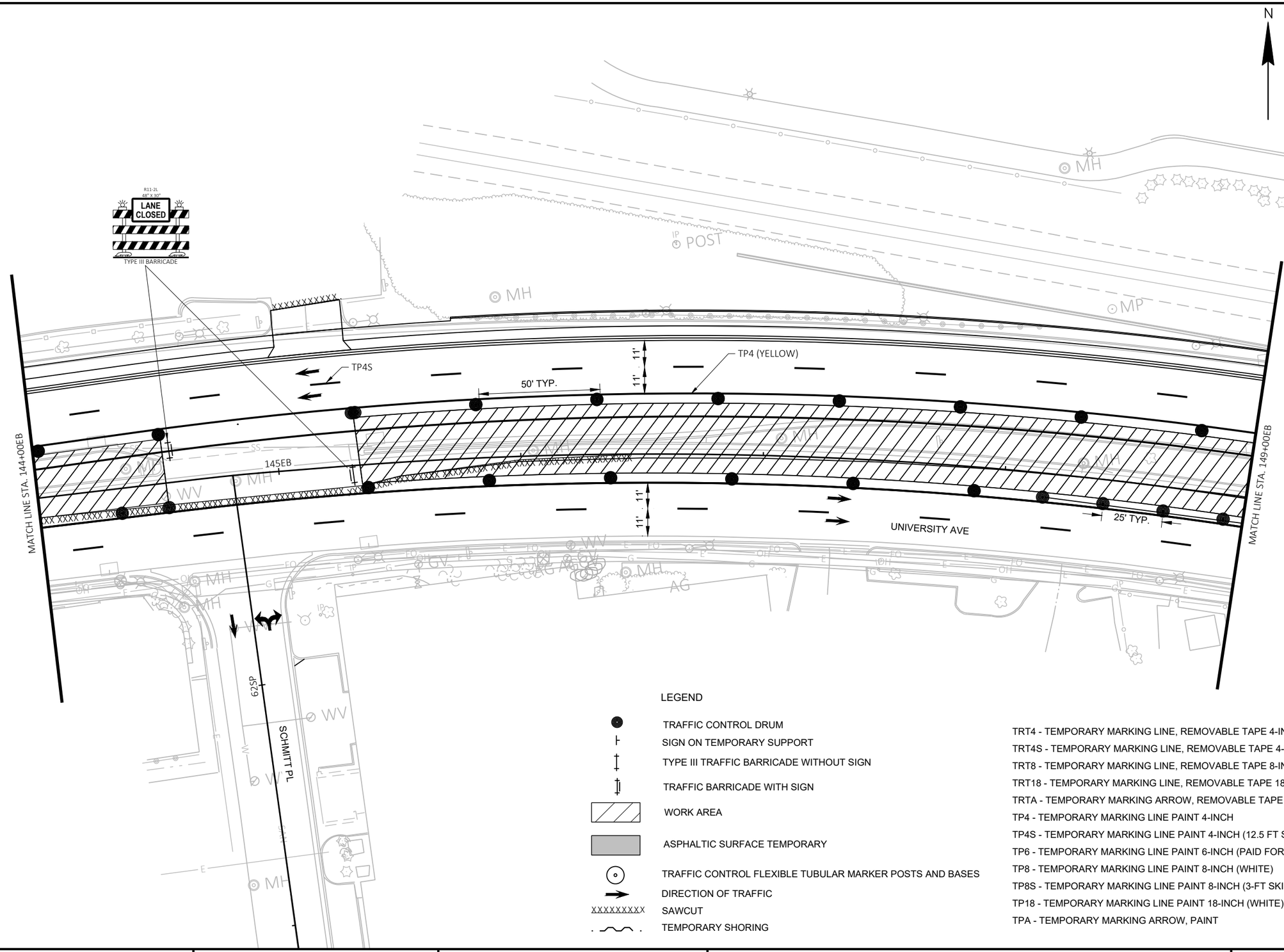
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 268	E

2



LEGEND

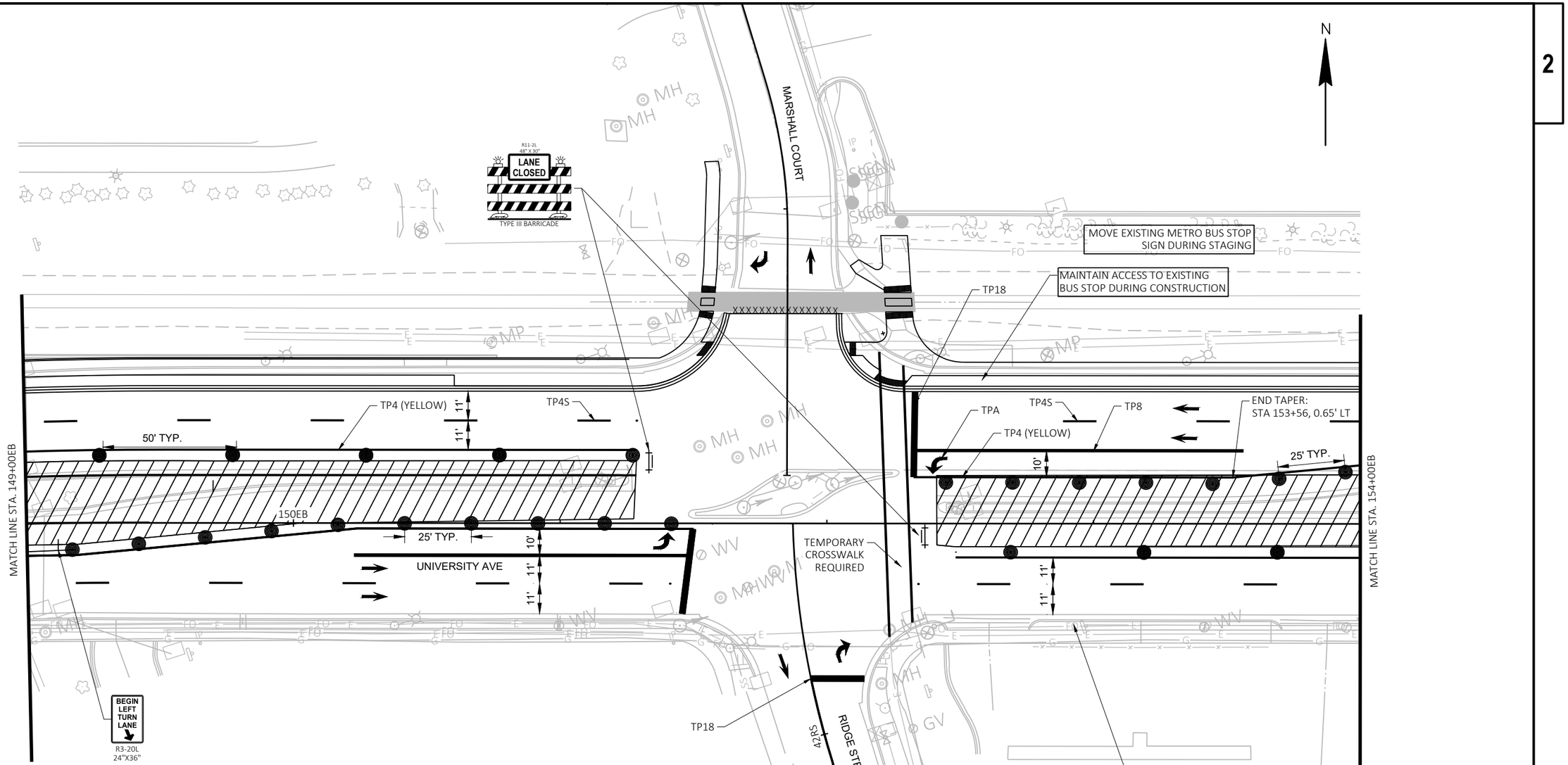
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

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TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 269	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3.DWG
LAYOUT NAME - Sheet - (3)
PLOT DATE : 1/4/2022 9:13 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



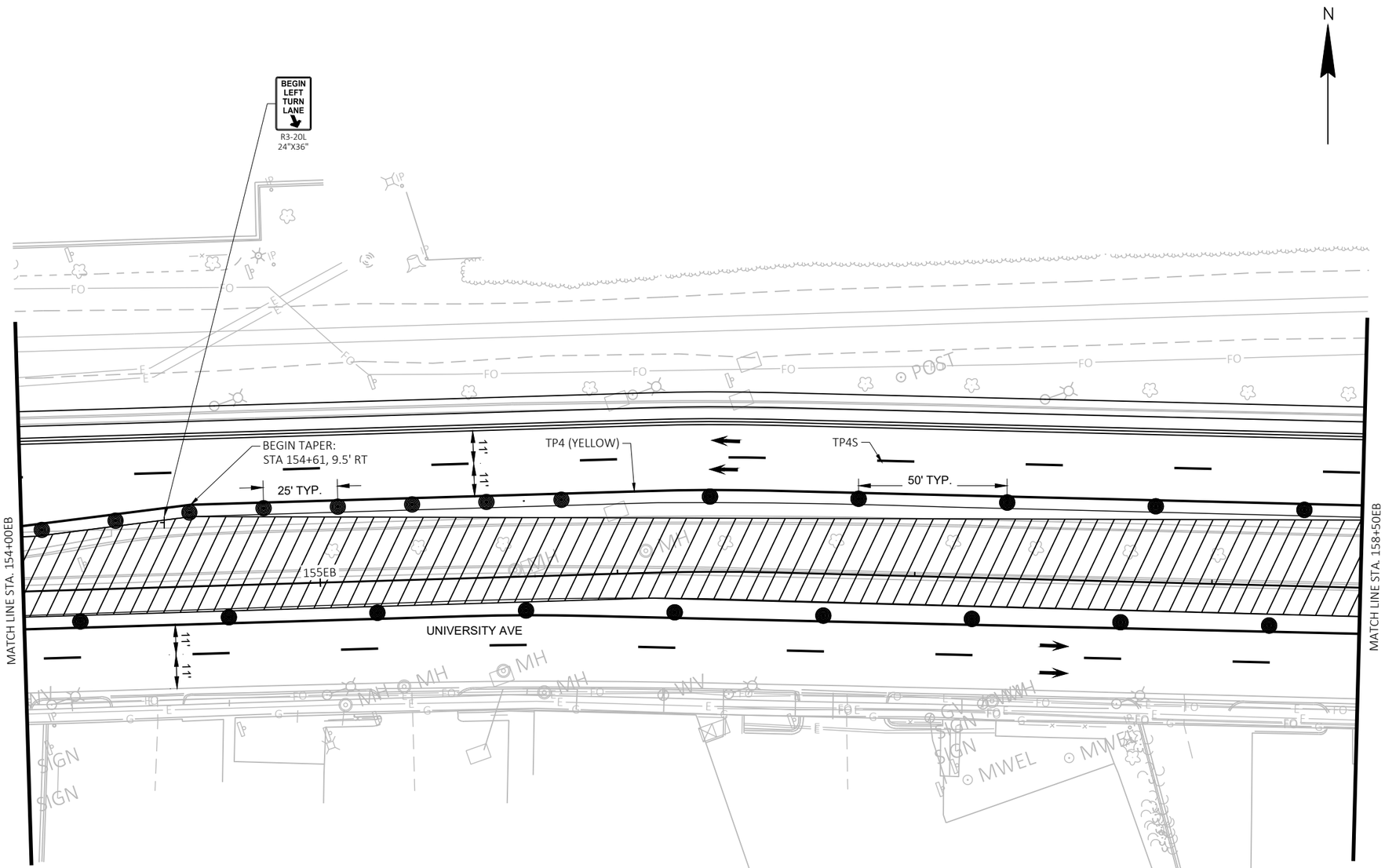
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 270	E

2



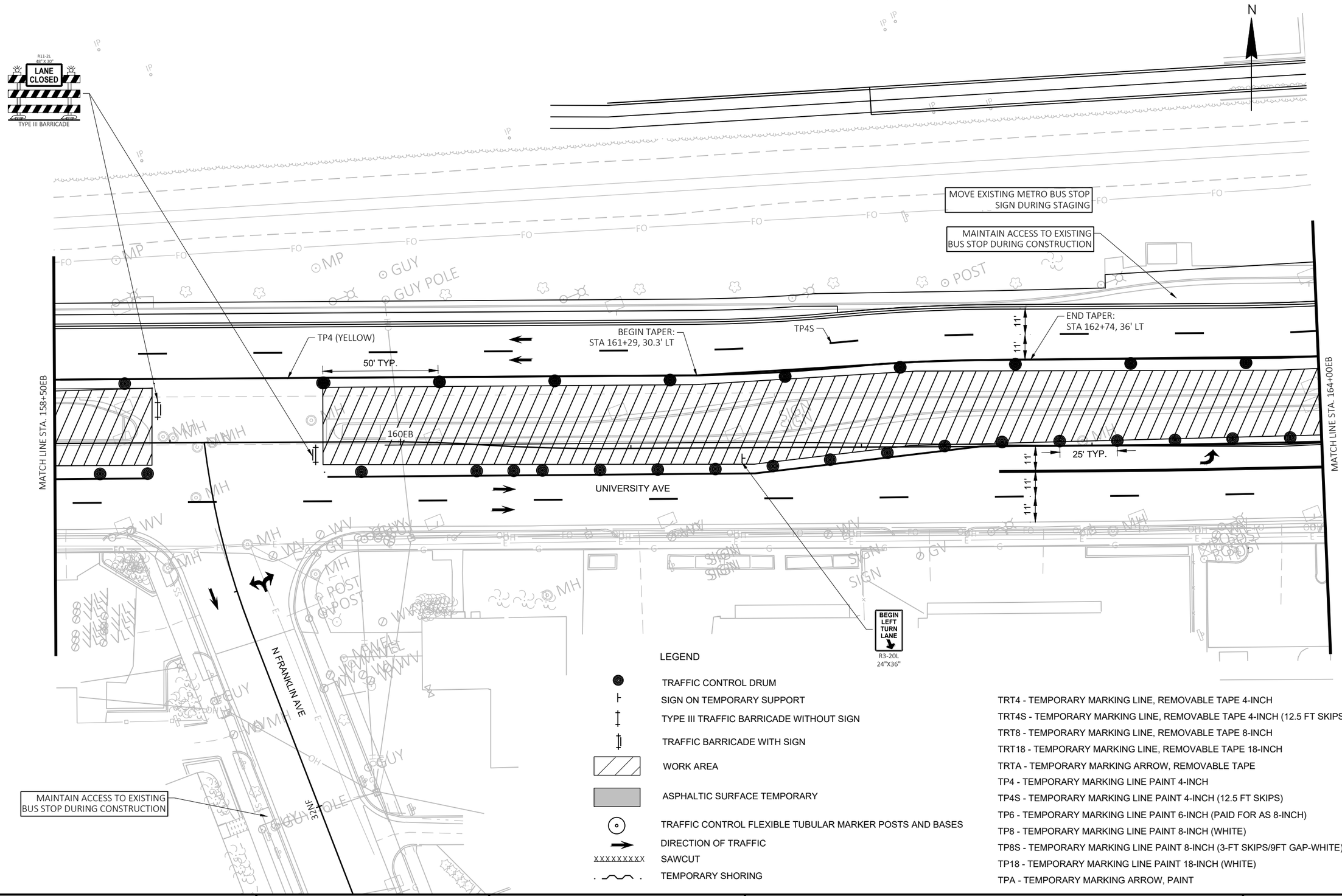
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 271	E

2



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 272	E

2

2

N

UNIVERSITY BAY DR

R9-10
24"X12"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

TP4S
TP4 (YELLOW)
TP8

11'
11'
50' TYP.
165EB
11'
11'

MATCH LINE STA. 140+00EB

MATCH LINE STA. 169+00EB

UNIVERSITY AVE

MAINTAIN ACCESS TO EXISTING
BUS STOP DURING CONSTRUCTION

FARLEY AVE

14F-A

W01-4BR

TO
UNIVERSITY
AVENUE

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 273	E

2

N

R11-2L
48"X 30"
LANE CLOSED
TYPE III BARRICADE

500'
W03-2
125'
ROAD WORK AHEAD
W20-1A

R1-2
48"X42"
YIELD

W04-1R

W01-4BR
350'

TP4S
TP8
TP8S
TP4 (YELLOW)
TP4 (WHITE)
TP4 (WHITE)
TP8

11'
11'
UNIVERSITY AVE
50' TYP.

MATCH LINE STA. 169+00EB

BEGIN LEFT TURN LANE
R3-20L
24"X36"

170EB

11'
11'

W01-6
48" X 24"
TYPE III BARRICADE

SEE SDD "TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER"

R9-11
30"X18"
TYPE II BARRICADE

72UA

LEGEND

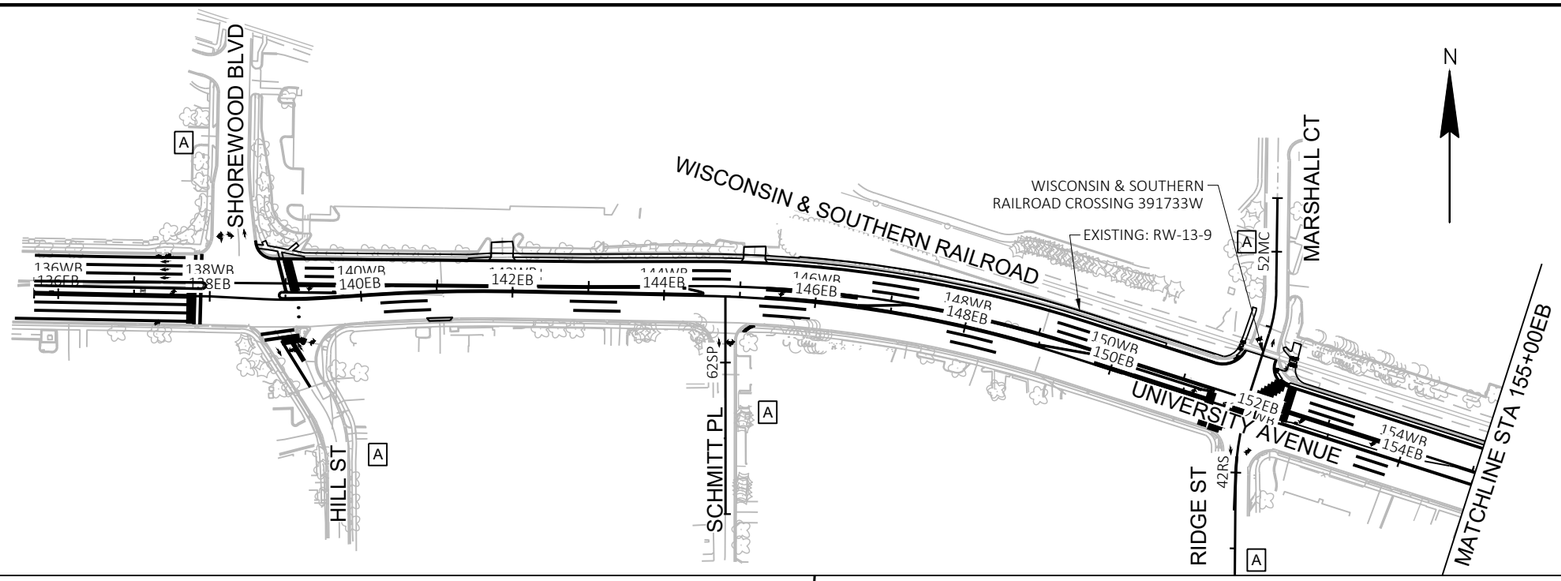
- TRAFFIC CONTROL DRUM
- TYPE II TRAFFIC BARRICADE WITH SIGN
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- TEMPORARY SHORING

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3	SHEET 274	E

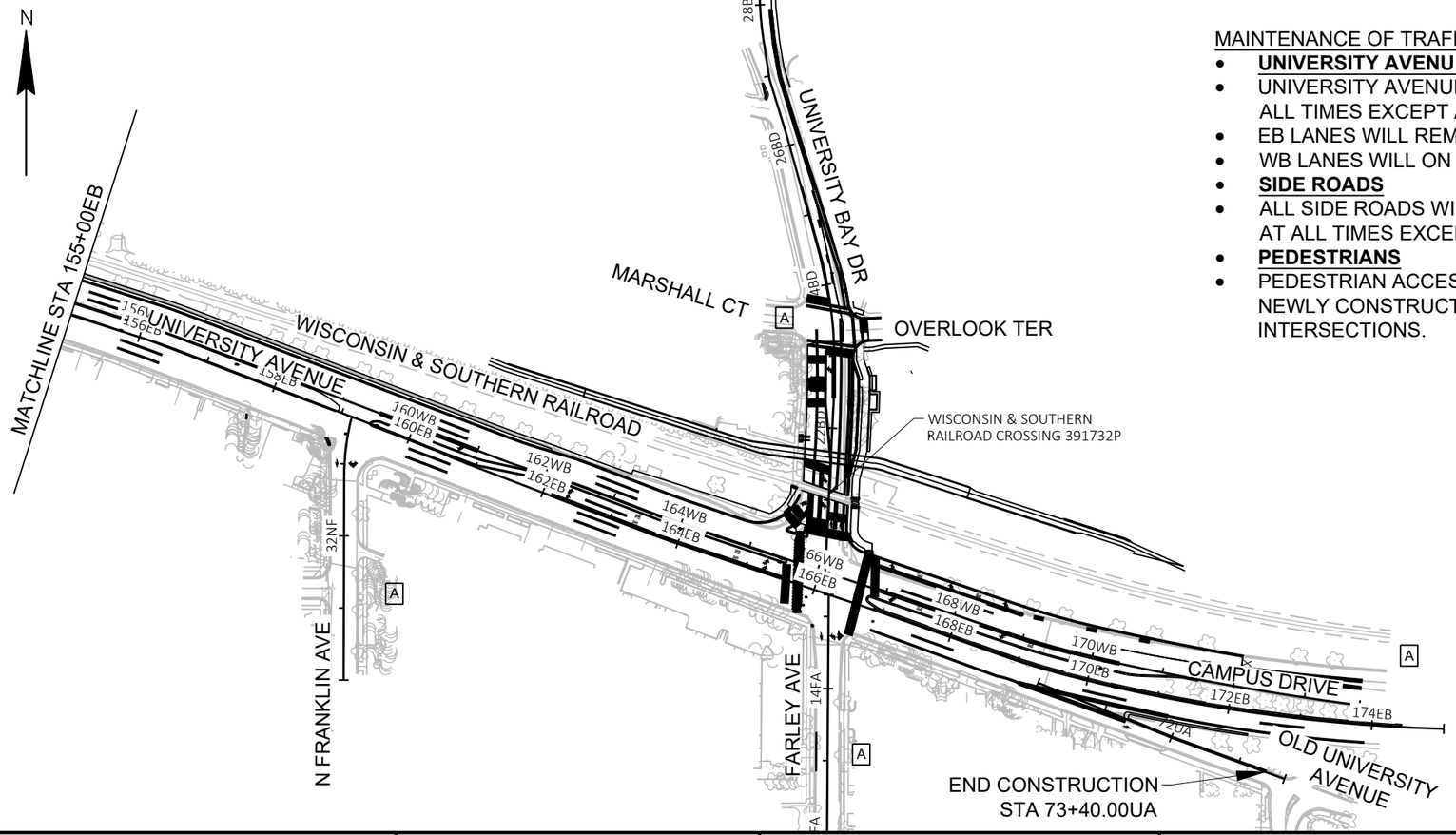
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3.DWG
LAYOUT NAME - Sheet - (8)
PLOT DATE : 1/4/2022 9:14 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- NONE (WINTER SHUTDOWN)
- **SIDE ROADS**
- NONE.

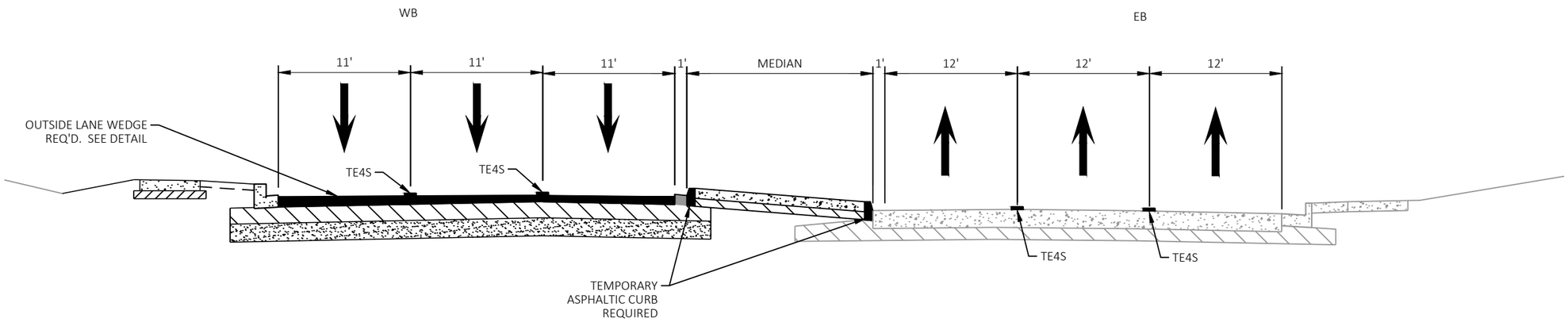


MAINTENANCE OF TRAFFIC

- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 3 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- EB LANES WILL REMAIN ON THE EXISTING LANES.
- WB LANES WILL ON THE NEWLY CONSTRUCTED WB LANES.
- **SIDE ROADS**
- ALL SIDE ROADS WILL REMAIN OPEN TO ALL EXISTING OR NEWLY CONSTRUCTED LANES AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS WILL BE MAINTAINED ON THE EXISTING SOUTH SIDEWALK AND NEWLY CONSTRUCTED NORTH SIDEWALK AND TEMPORARY CROSSING AT INTERSECTIONS.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 3A OVERVIEW	SHEET 275	E

2



STAGE 3A
UNIVERSITY AVENUE

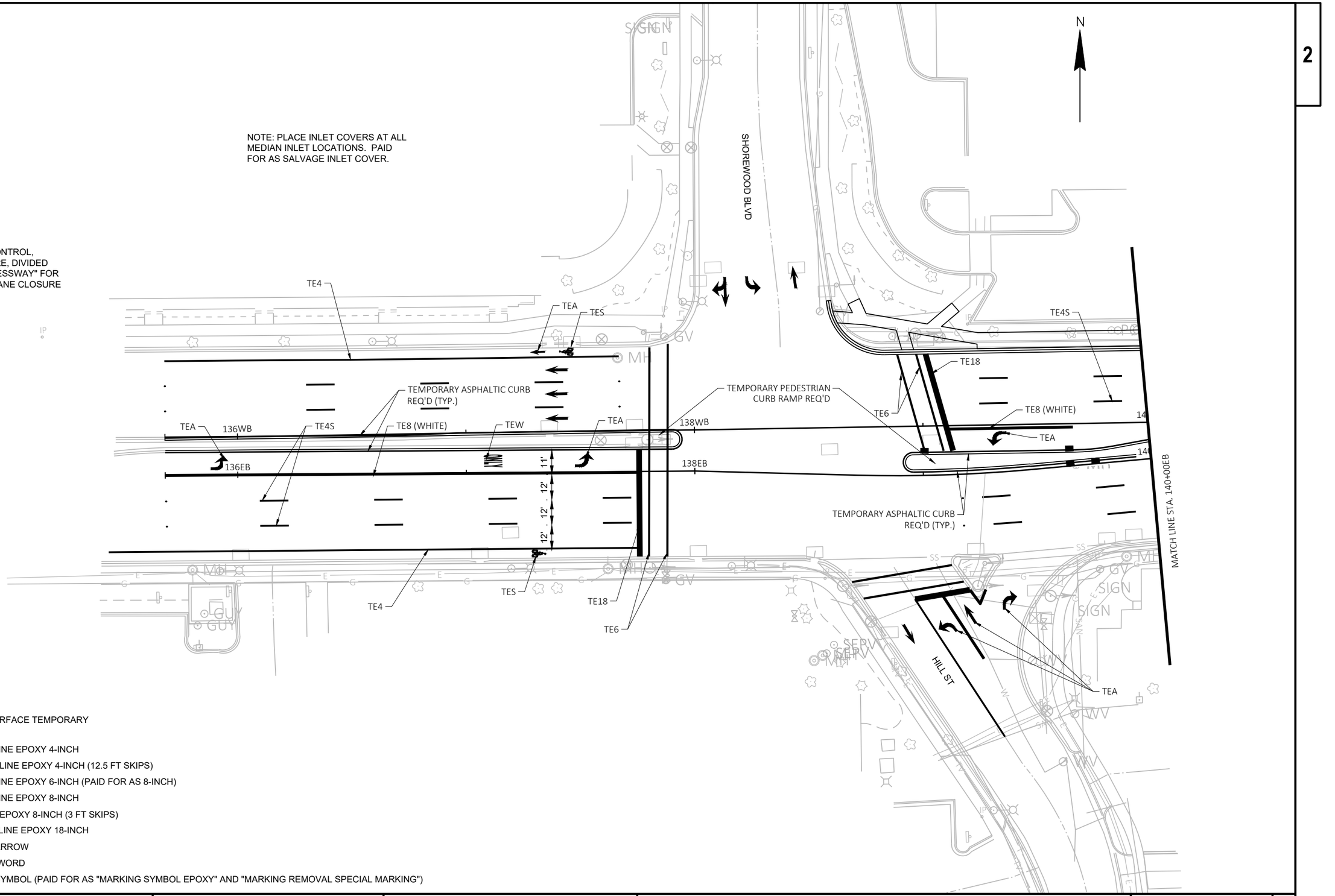
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 3A)	SHEET 276	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC_TYP SECTIONS.DWG
LAYOUT NAME - Typ Section S3A-5
PLOT DATE : 1/4/2022 9:16 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

NOTE: PLACE INLET COVERS AT ALL MEDIAN INLET LOCATIONS. PAID FOR AS SALVAGE INLET COVER.

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR EB AND WB MEDIAN LANE CLOSURE PRIOR TO STAGE 4



LEGEND

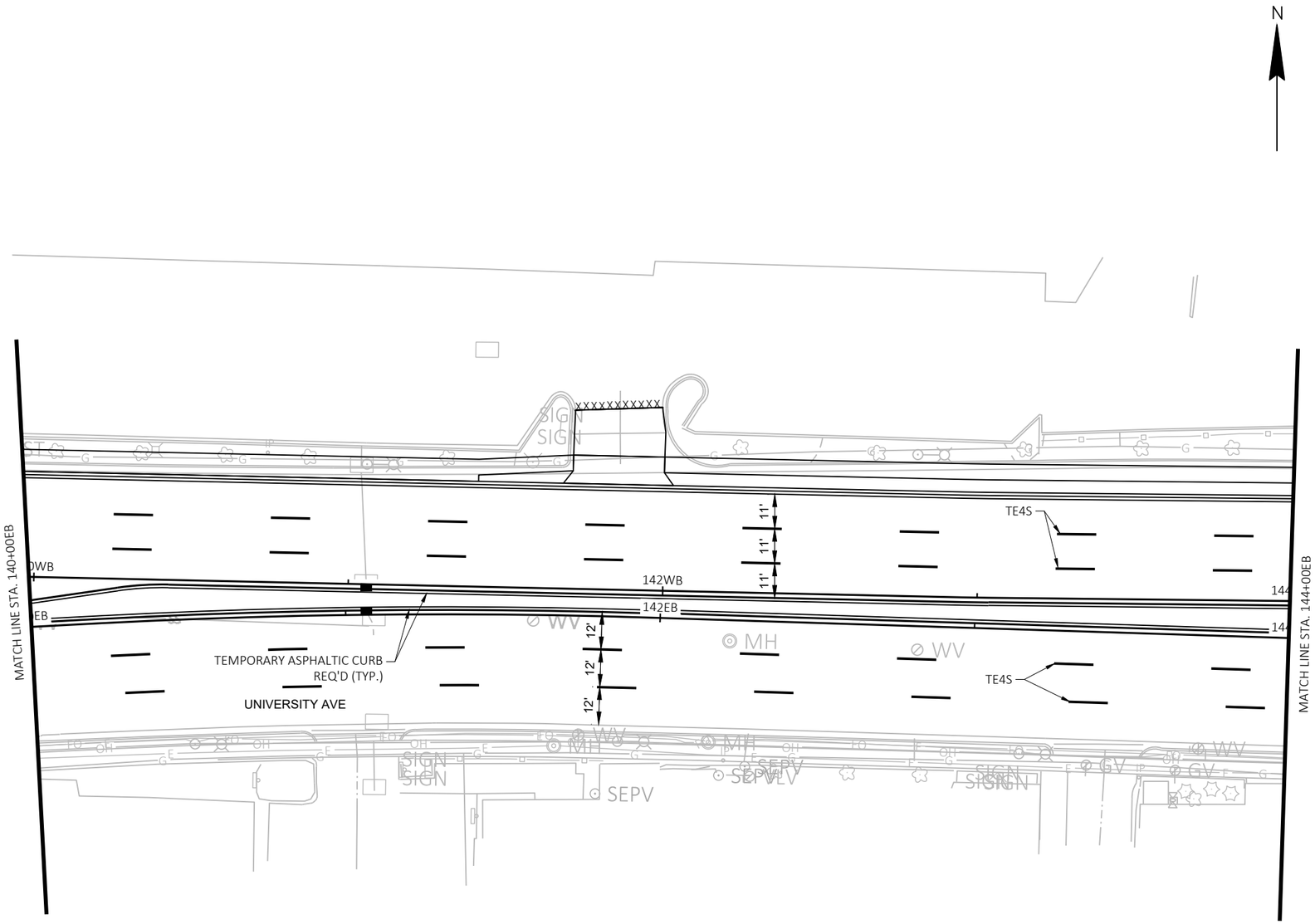
ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD
TES - TEMPORARY MARKING SYMBOL (PAID FOR AS "MARKING SYMBOL EPOXY" AND "MARKING REMOVAL SPECIAL MARKING")

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 277	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3A.DWG
LAYOUT NAME - Sheet - (1)
PLOT DATE : 1/4/2022 9:23 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



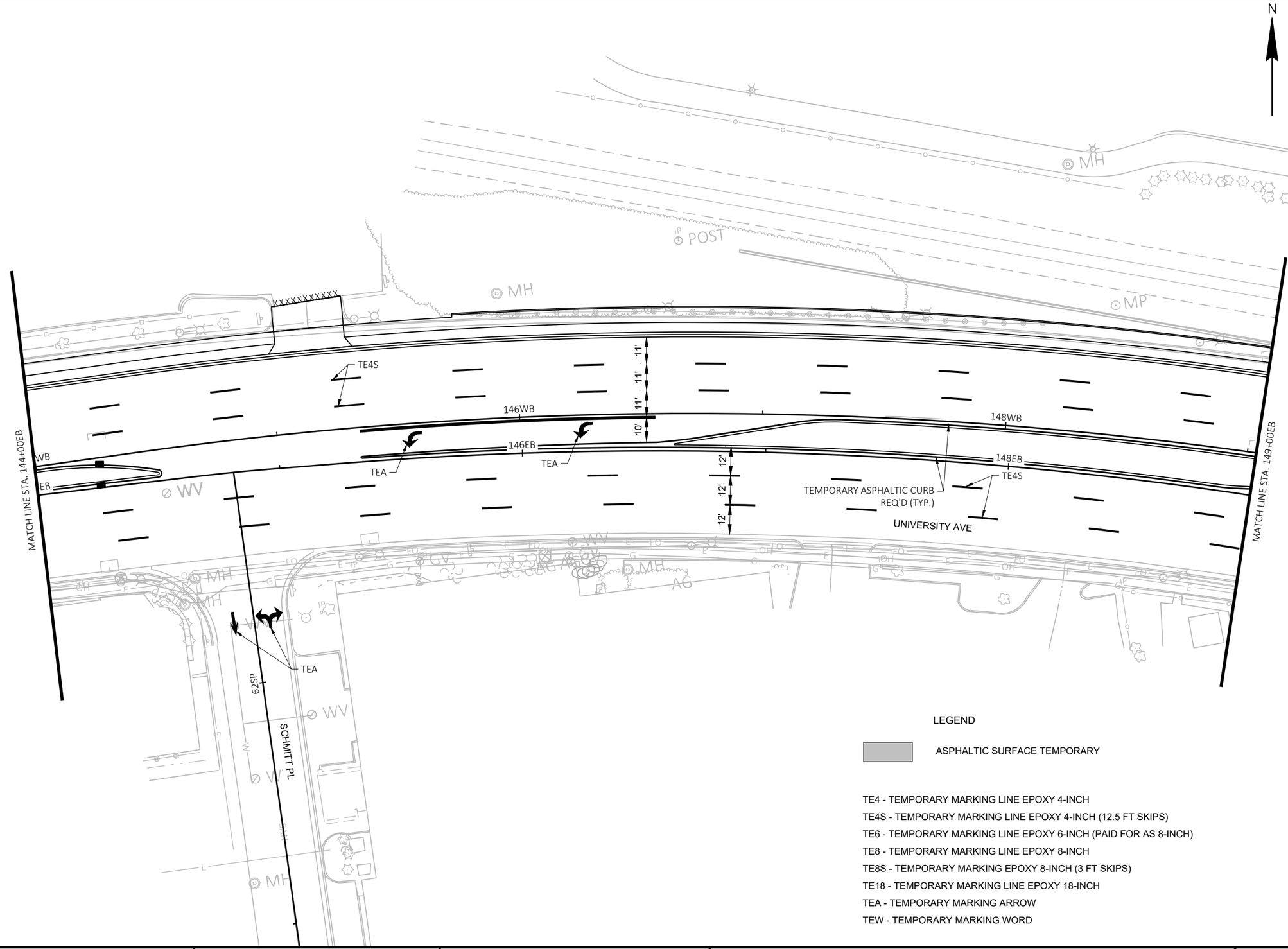
LEGEND

ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 278	E

2



LEGEND

ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 279	E

2

N

MARSHALL COURT

TEA

MOVE EXISTING METRO BUS STOP SIGN DURING STAGING

TEMPORARY ASPHALTIC CURB REQ'D (TYP.)

TE4S

TE18

TP4S

TE8

TPA

11'

11'

11'

150WB

150EB

152WB

152EB

154W

10'

12'

12'

12'

12'

12'

UNIVERSITY AVE

TEMPORARY PEDESTRIAN CURB RAMP REQ'D

MATCH LINE STA. 149+00EB

MATCH LINE STA. 154+00EB

42RS

RIDGE STREET

MOVE EXISTING METRO BUS STOP SIGN DURING STAGING

LEGEND

ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH

TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)

TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)

TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH

TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)

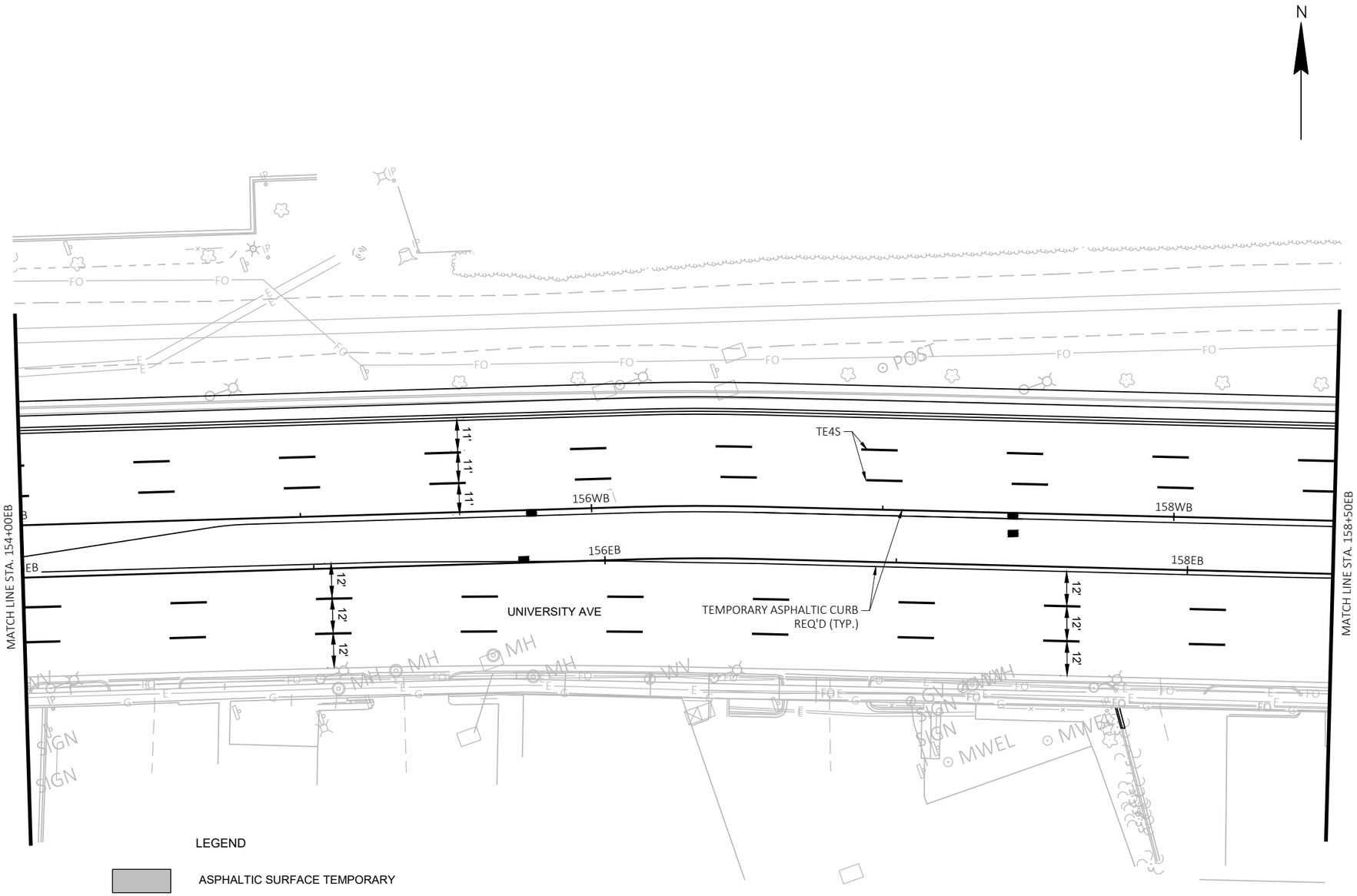
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH

TEA - TEMPORARY MARKING ARROW

TEW - TEMPORARY MARKING WORD

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 280	E

2



LEGEND

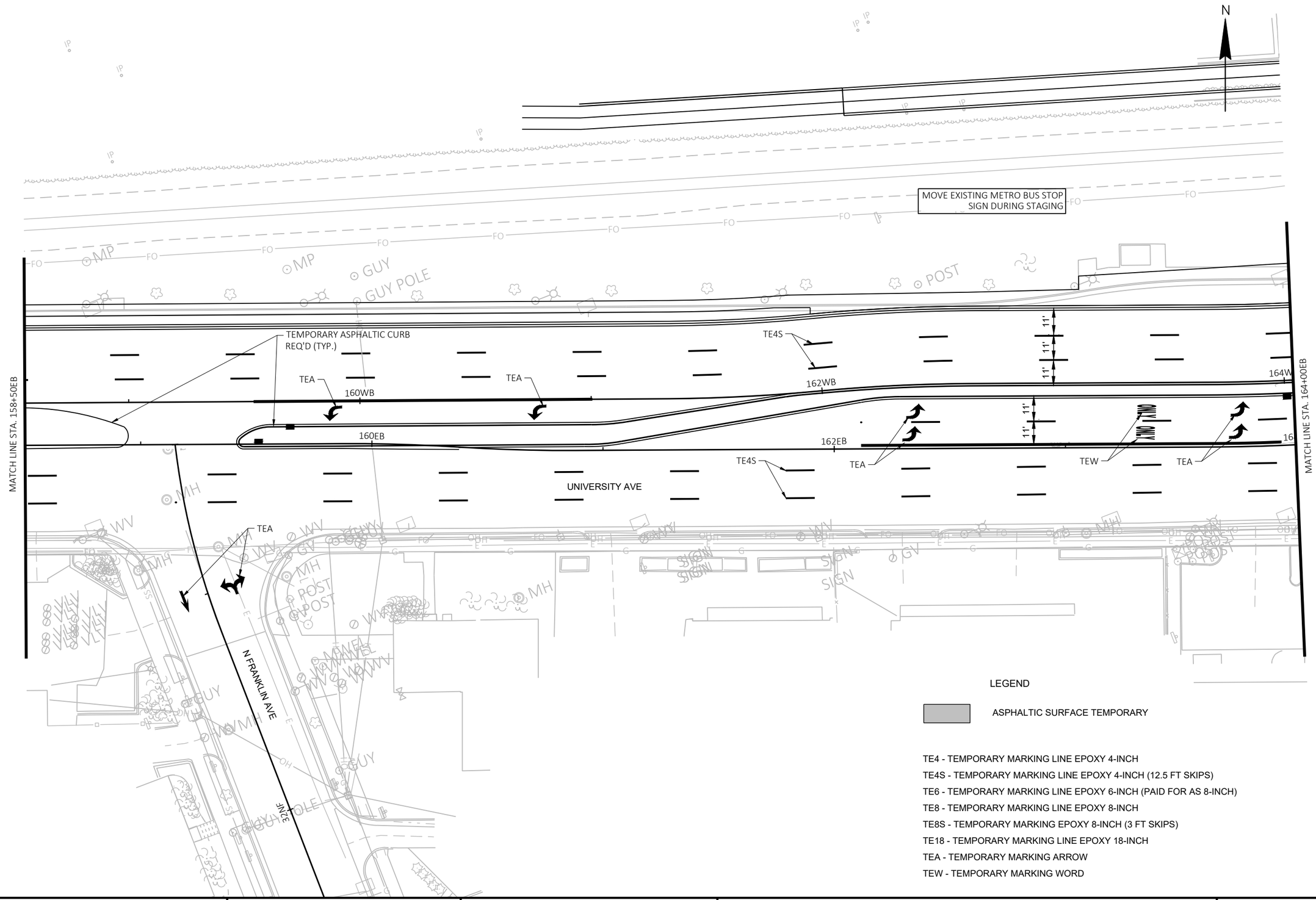
ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 281	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3A.DWG
LAYOUT NAME - Sheet - (5)
PLOT DATE : 1/4/2022 9:23 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2



LEGEND

ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 282	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3A.DWG
LAYOUT NAME - Sheet - (6)
PLOT DATE : 1/4/2022 9:23 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

MATCH LINE STA. 21+50BD

UNIVERSITY BAY DR

TE4
TE4S
TE4
TE4Y(DOUBLE)
TE4
TE8
TEA
TE4
TE4
TEA
TE8
TE18
TE4Y(DOUBLE)
TE8
TE18
TE18
TE18
TE4S
TE18
TE18
166WB
TEMPORARY ASPHALTIC CURB
REQ'D (TYP.)
166EB
168EB
168WB
TEA
TEW
TEA
TE8
TEW
TEA
TEA
TEW
TEA
TE8
TEA
TE4S
UNIVERSITY AVE
TEA
TEA
FARLEY AVE
11'
11'
11'
10'
10'
12'
12'
12'
MATCH LINE STA. 140+00EB
MATCH LINE STA. 169+00EB
N

LEGEND

ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 283	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3A.DWG
LAYOUT NAME - Sheet - (7)
PLOT DATE : 1/4/2022 9:24 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

N

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR EB AND WB MEDIAN LANE CLOSURE PRIOR TO STAGE 4

SEE SDD "TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER"

UNIVERSITY AVE

MATCH LINE STA. 169+00EB

TE4S

TEW

TEA

TE8

170WB

172WB

TEMPORARY ASPHALTIC CURB REQ'D (TYP.)

170EB

172EB

174EB

12'

12'

TE4

72UA

LEGEND

ASPHALTIC SURFACE TEMPORARY

TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD

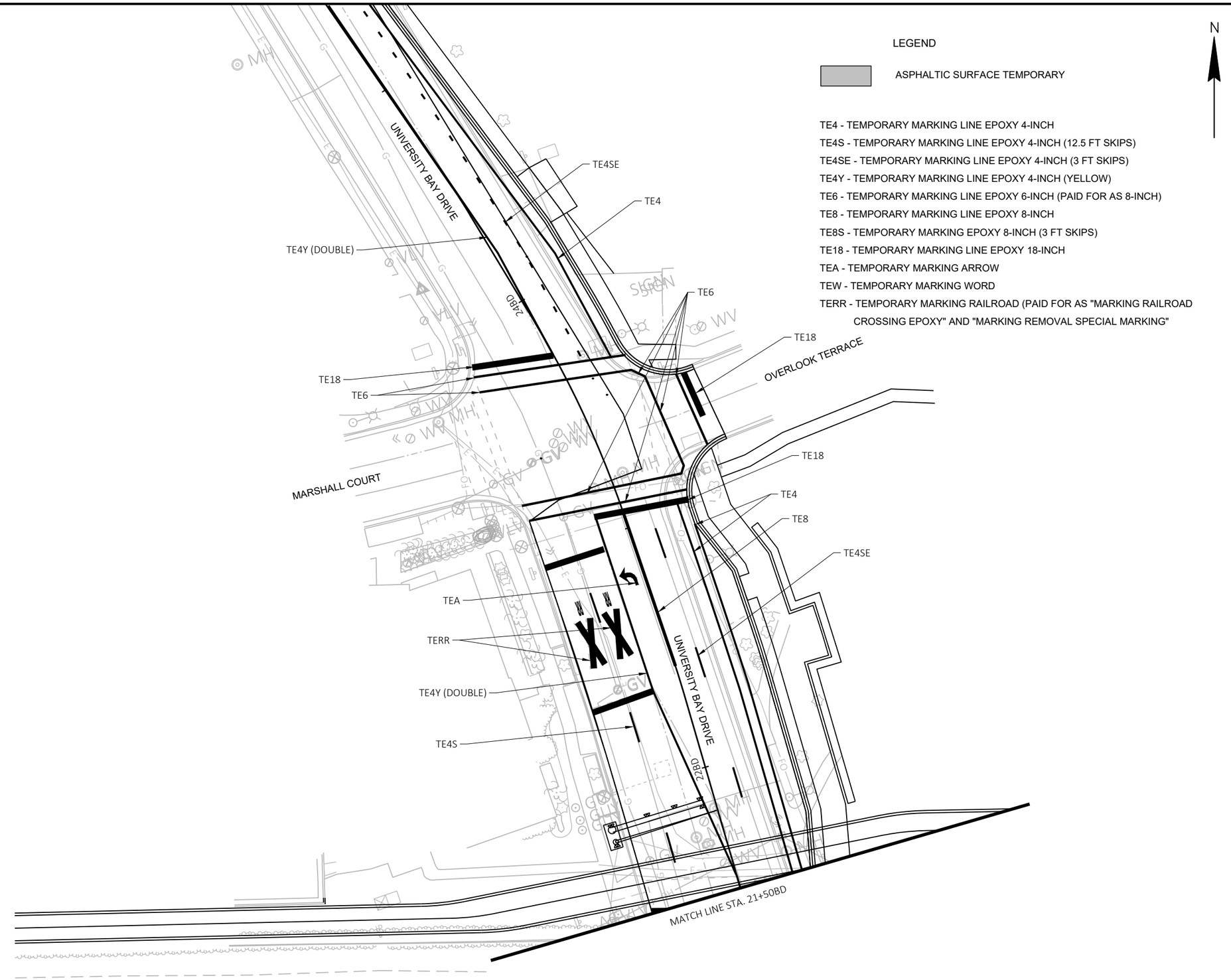
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 284	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3A.DWG
LAYOUT NAME - Sheet - (8)

PLOT DATE : 1/4/2022 9:24 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

ASPHALTIC SURFACE TEMPORARY

N

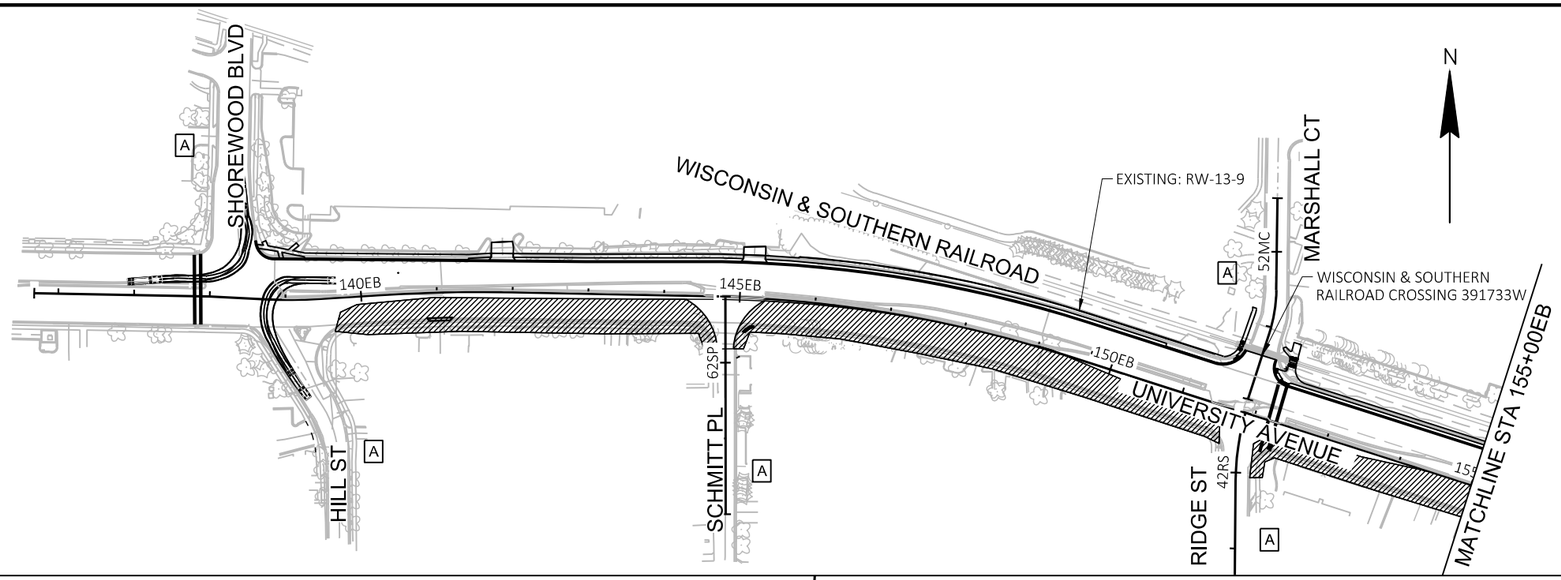
TE4 - TEMPORARY MARKING LINE EPOXY 4-INCH
TE4S - TEMPORARY MARKING LINE EPOXY 4-INCH (12.5 FT SKIPS)
TE4SE - TEMPORARY MARKING LINE EPOXY 4-INCH (3 FT SKIPS)
TE4Y - TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW)
TE6 - TEMPORARY MARKING LINE EPOXY 6-INCH (PAID FOR AS 8-INCH)
TE8 - TEMPORARY MARKING LINE EPOXY 8-INCH
TE8S - TEMPORARY MARKING EPOXY 8-INCH (3 FT SKIPS)
TE18 - TEMPORARY MARKING LINE EPOXY 18-INCH
TEA - TEMPORARY MARKING ARROW
TEW - TEMPORARY MARKING WORD
TERR - TEMPORARY MARKING RAILROAD (PAID FOR AS "MARKING RAILROAD CROSSING EPOXY" AND "MARKING REMOVAL SPECIAL MARKING"

2

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 3A	SHEET 285	E

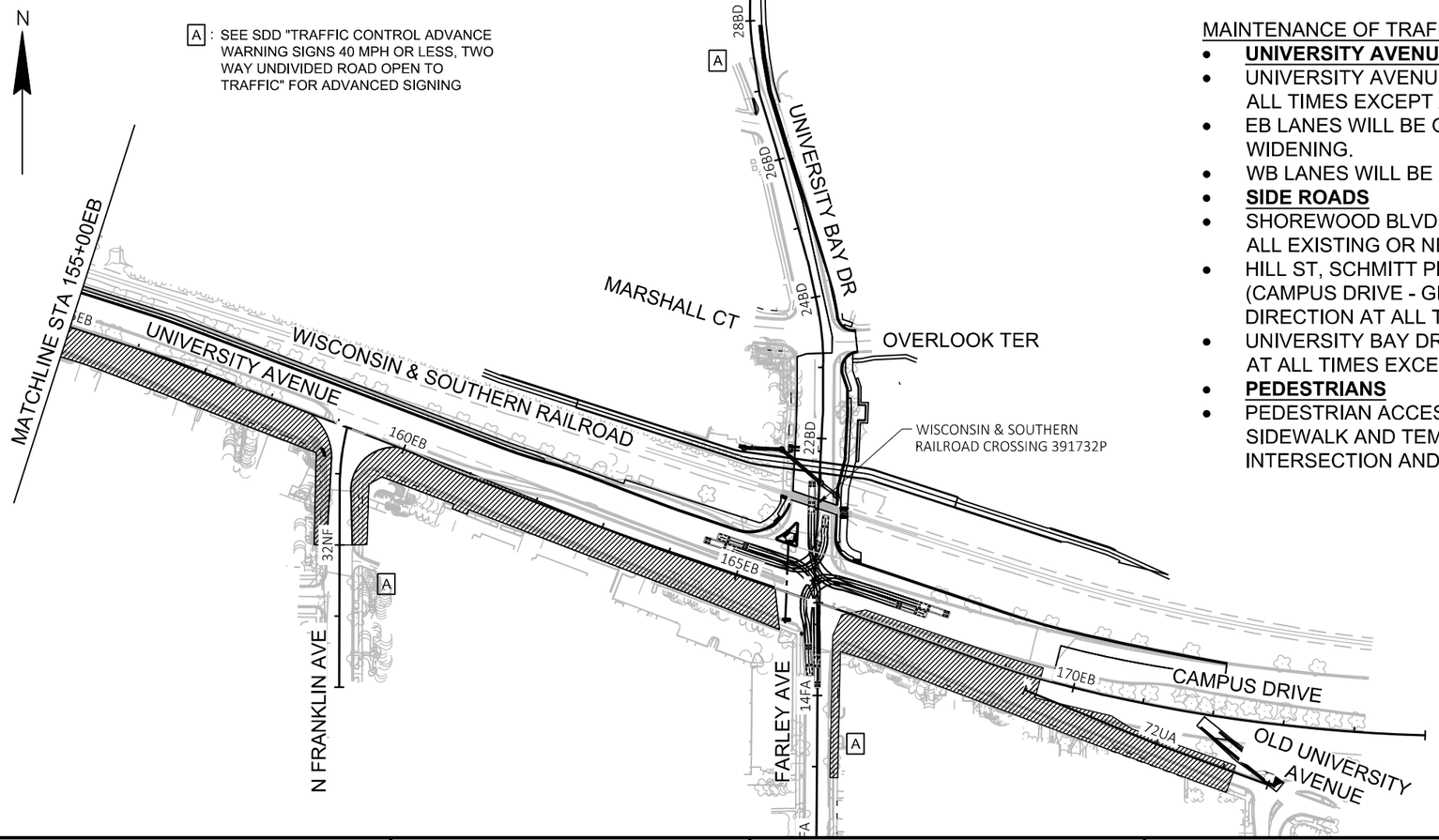
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 3A.DWG
LAYOUT NAME - Sheet - (9)
PLOT DATE : 1/4/2022 9:24 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- RECONSTRUCT THE EASTBOUND DIRECTION, AND SANITARY AND WATER REPLACEMENT IN EASTBOUND LANES.
- **SIDE ROADS**
- RECONSTRUCT THE SOUTH HALF OF THE SCHMITT PI, RIDGE ST, FRANKLEN AVE, AND FARLY AVE INTERSECTIONS.
- RECONSTRUCT UNIVERSITY AVENUE FROM CAMPUS DRIVE TO GRAND AVENUE.



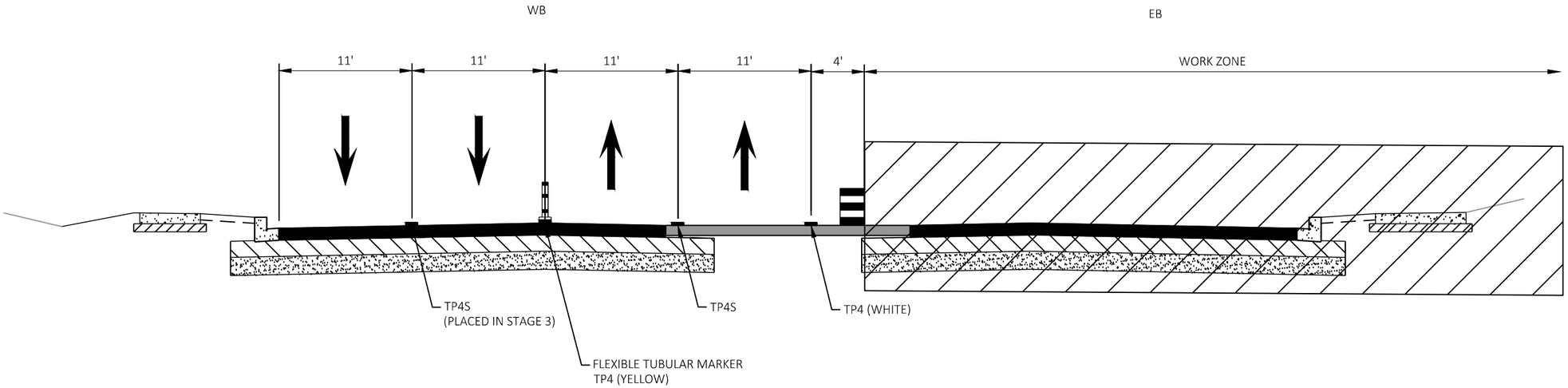
MAINTENANCE OF TRAFFIC

- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 2 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- EB LANES WILL BE ON THE NEWLY CONSTRUCTED WB INSIDE LANE AND MEDIAN WIDENING.
- WB LANES WILL BE ON THE NEWLY CONSTRUCTED WB OUTSIDE LANES.
- **SIDE ROADS**
- SHOREWOOD BLVD, MARSHALL CT AND UNIVERSITY BAY DRIVE WILL REMAIN OPEN TO ALL EXISTING OR NEWLY CONSTRUCTED LANES AT ALL TIMES.
- HILL ST, SCHMITT PI, RIDGE ST, FRANKLIN AVE, FARLEY AVE AND UNIVERSITY AVE (CAMPUS DRIVE - GRAND AVE) WILL REMAIN OPEN TO ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- UNIVERSITY BAY DRIVE WILL REMAIN OPEN TO ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS ON UNIVERSITY AVE WILL BE MAINTAINED ON THE NORTH SIDEWALK AND TEMPORARY CROSSINGS AT THE MARSHALL COURT/RIDGE STREET INTERSECTION AND THE UNIVERSITY BAY DRIVE/FARLEY AVENUE INTERSECTION.

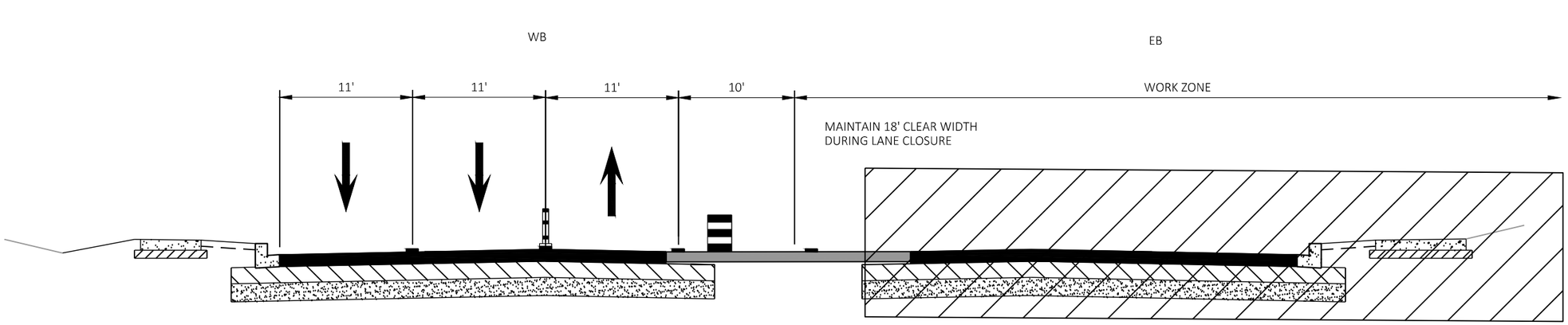
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 4 OVERVIEW	SHEET 286	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 4.DWG
LAYOUT NAME - OVERVIEW
PLOT DATE : 7/27/2021 6:39 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42

2



STAGE 4
UNIVERSITY AVENUE



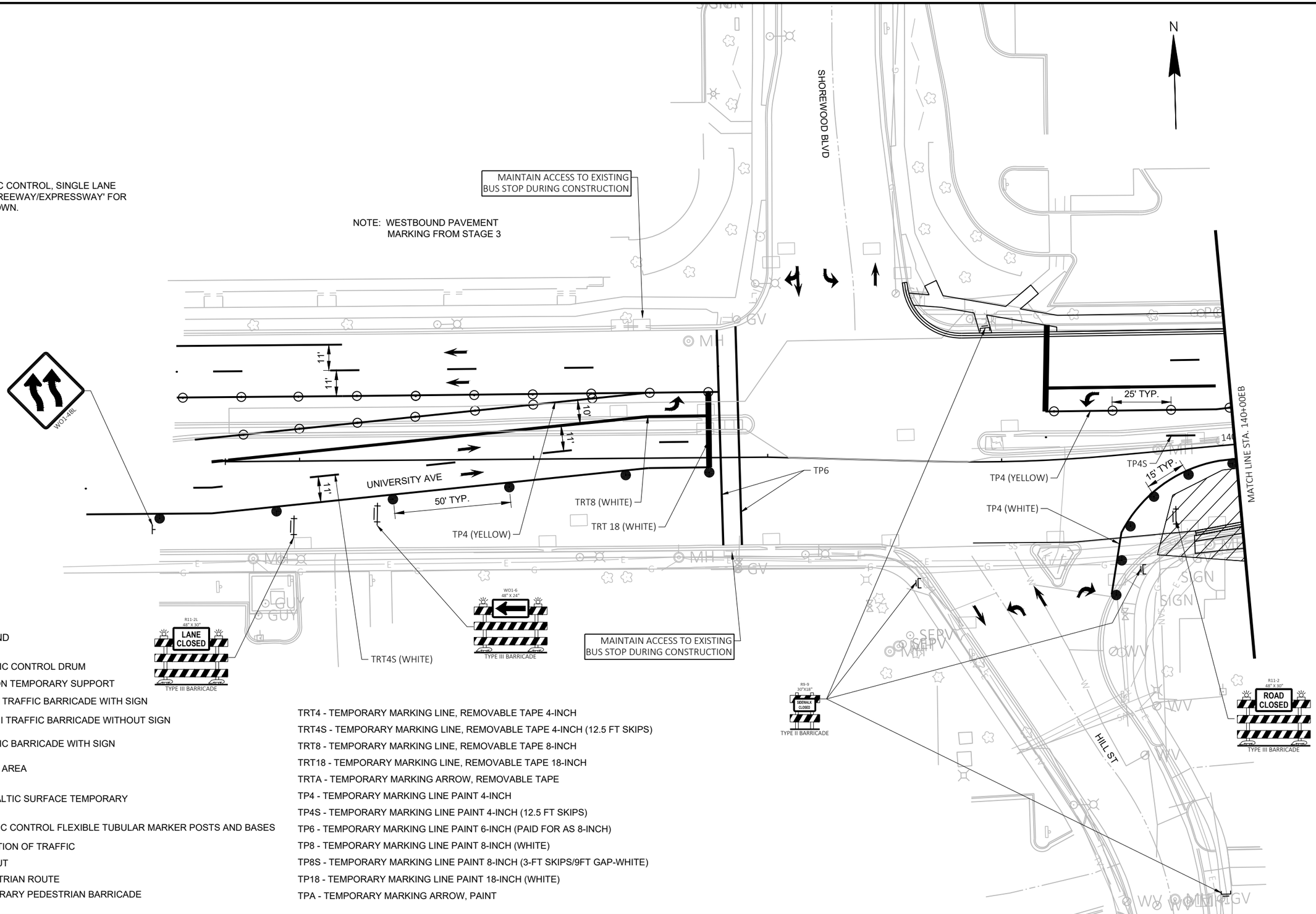
STAGE 4
UNIVERSITY AVENUE
OFF - PEAK HOURS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 4)	SHEET 287	E

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY" FOR DETAILS NOT SHOWN.

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

NOTE: WESTBOUND PAVEMENT MARKING FROM STAGE 3



LEGEND

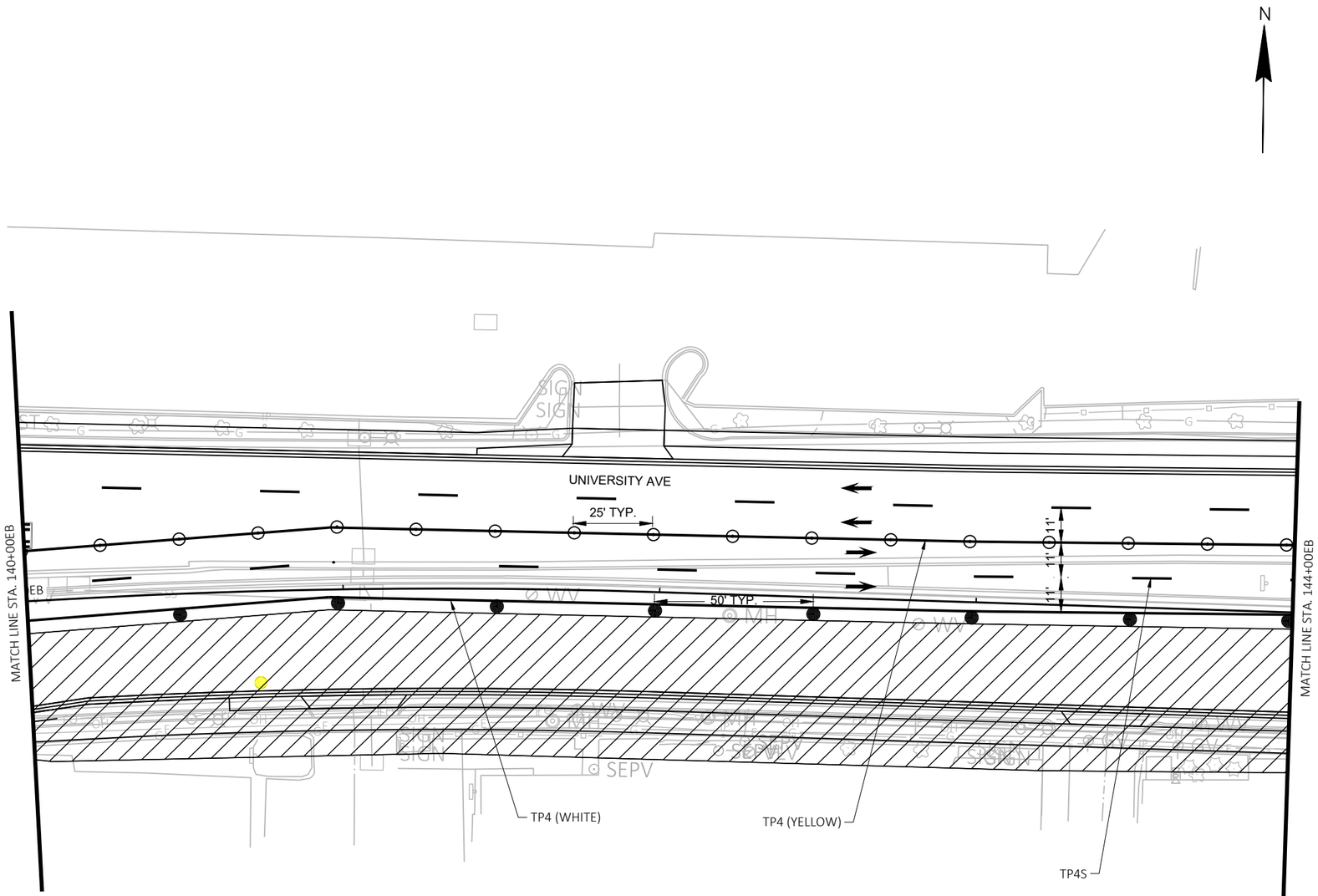
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE II TRAFFIC BARRICADE WITH SIGN
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 1	288	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 4.DWG
LAYOUT NAME - Sheet - (1)
PLOT DATE : 1/4/2022 9:29 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2



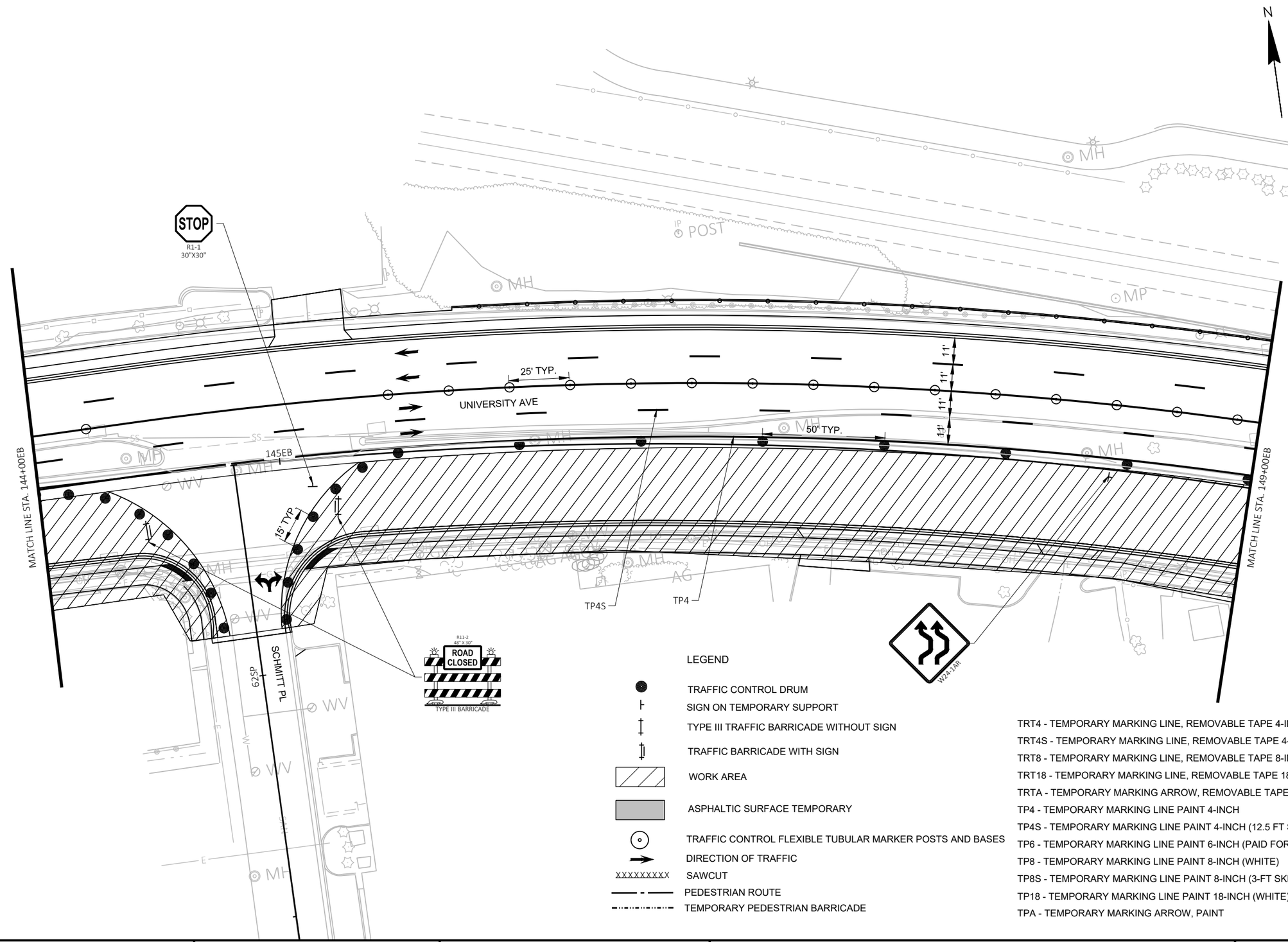
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 289	E

2



LEGEND

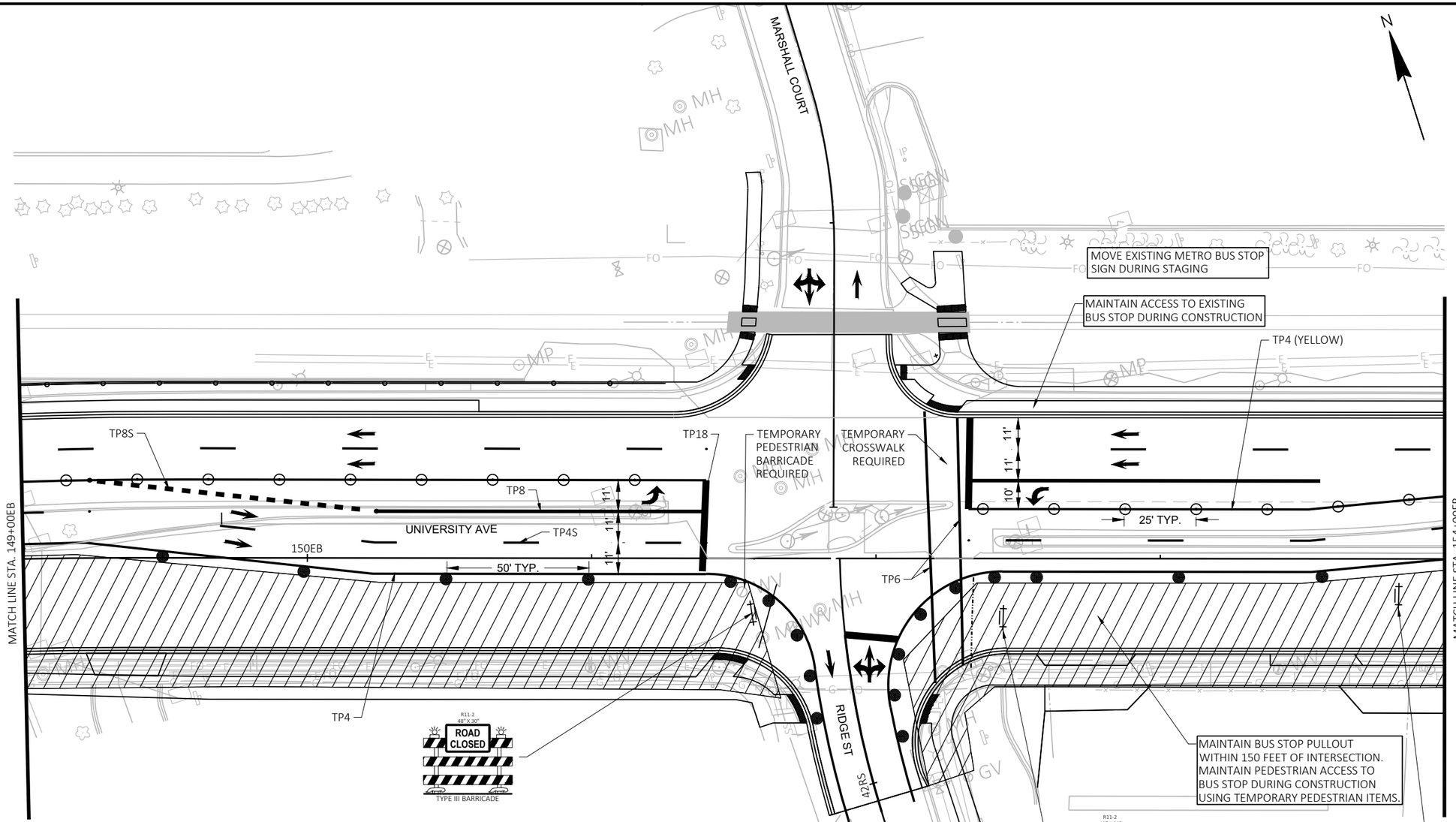
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 290	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 4.DWG
LAYOUT NAME - Sheet - (3)
PLOT DATE : 1/4/2022 9:30 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

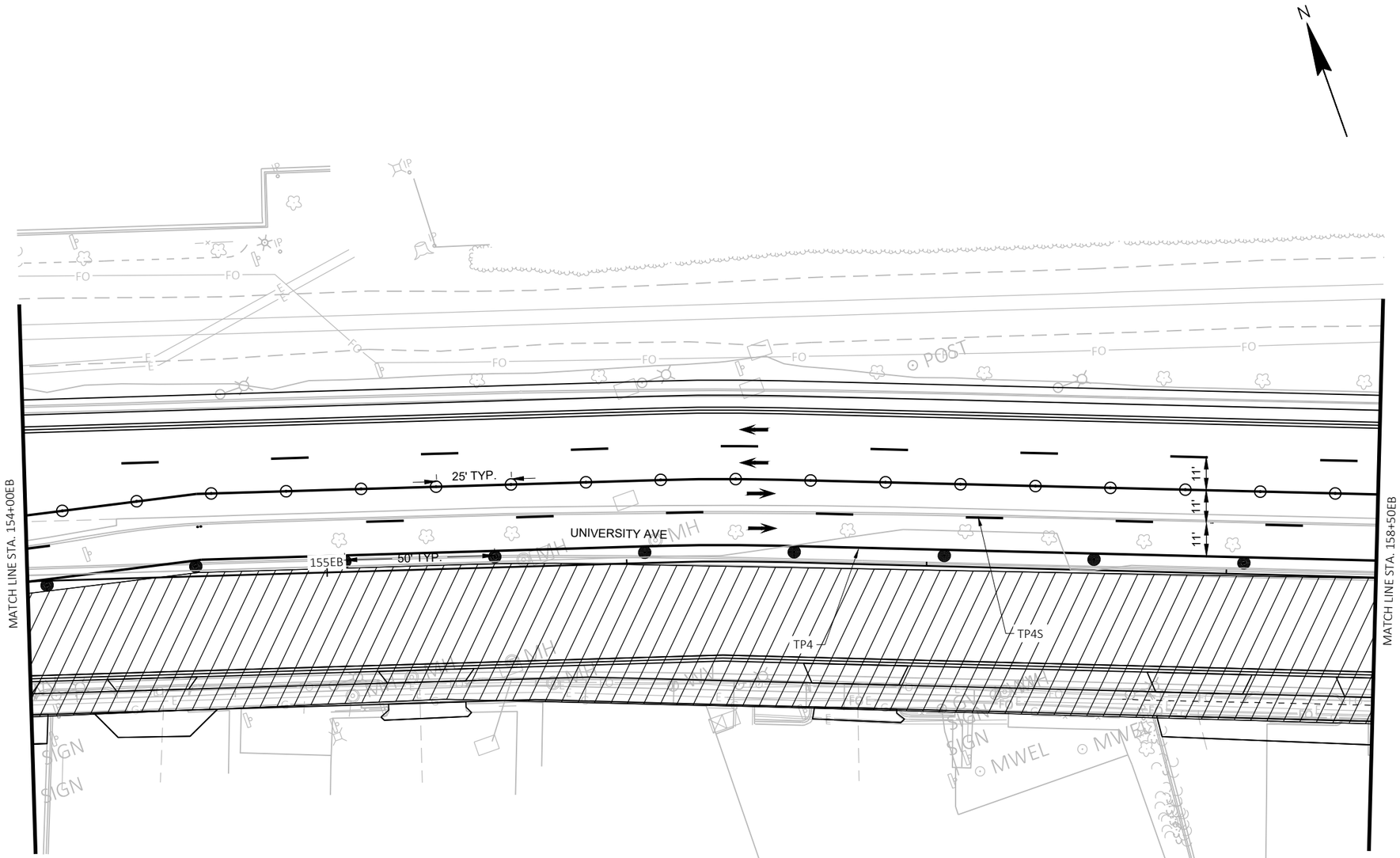
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 291	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 4.DWG
LAYOUT NAME - Sheet - (4)
PLOT DATE : 1/5/2022 11:18 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2


N
MATCH LINE STA. 154+00EB
MATCH LINE STA. 158+50EB
UNIVERSITY AVE
155EB
25' TYP.
50' TYP.
11'
11'
11'
TP4
TP4S
POST
MWEL
MWEL
SIGN
SIGN
SIGN
SIGN
FO
FO
FO
FO
FO
FO
FO
E
E
E

2

STOP
R1-1
30"X30"

MOVE EXISTING METRO BUS STOP SIGN DURING STAGING

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

TP4S

TP4 (YELLOW)

TP8S

TPA

25' TYP.

11'

50' TYP.

160EB

UNIVERSITY AVE

MATCH LINE STA. 158+50EB

MATCH LINE STA. 164+00EB

45' TYP.

TP4

N FRANKLIN AVE

MOVE EXISTING METRO BUS STOP SIGN DURING STAGING

MAINTAIN ACCESS TO BUS STOP DURING CONSTRUCTION EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

R9-11
24"X12"

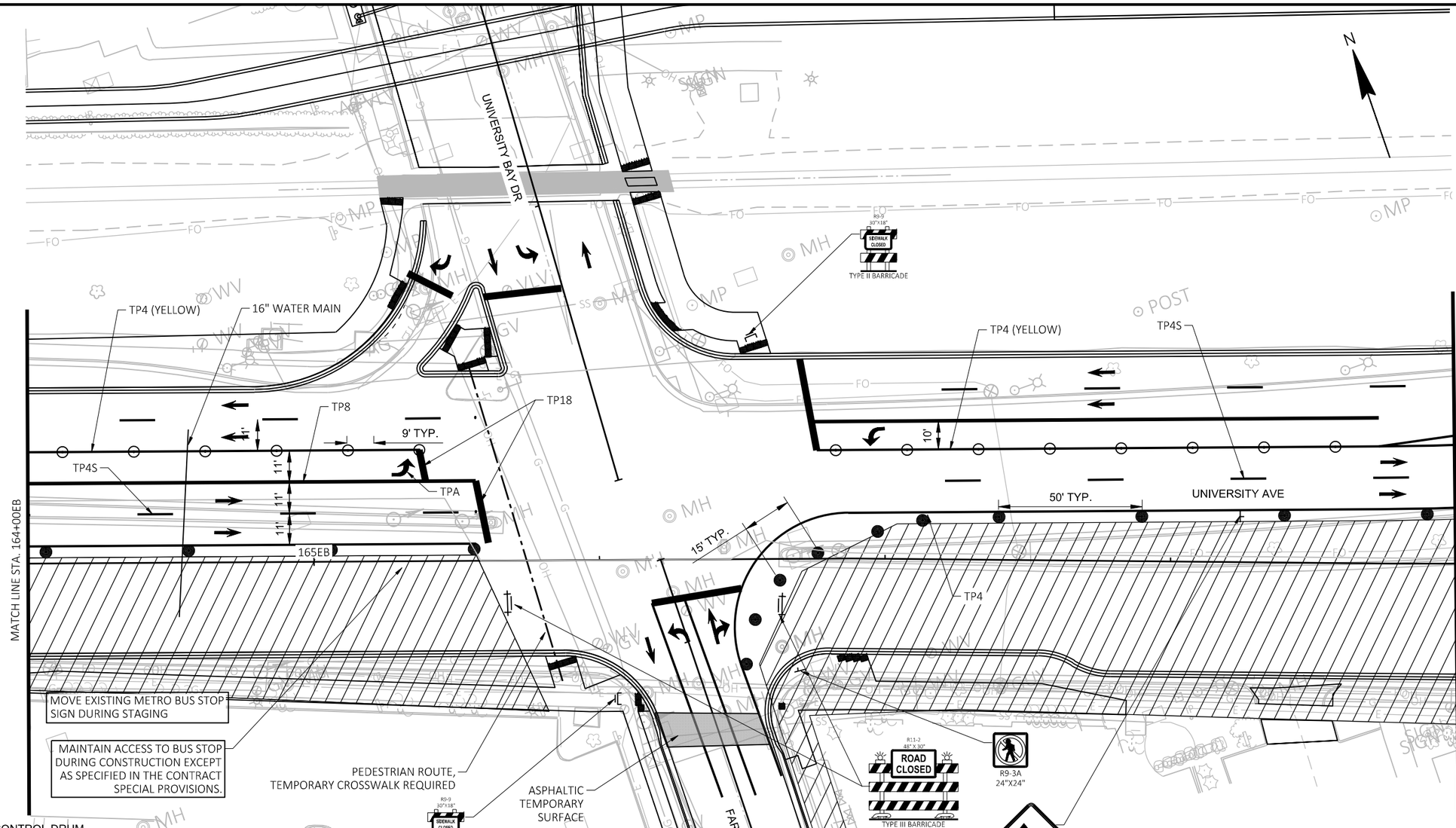
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 293	E

2



LEGEND

- TRAFFIC CONTROL DRUM
- TYPE II TRAFFIC BARRICADE WITH SIGN
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 294	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 4.DWG
LAYOUT NAME - Sheet - (7)
PLOT DATE : 1/4/2022 4:11 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

BEGIN LEFT TURN LANE
R3-20L
24"X36"

500'
W03-2
125'
ROAD WORK AHEAD
W20-1A

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

YIELD
R1-2
48"X42"

W21-6
48" X 24"
TYPE III BARRICADE

W04-1R

TP8

W04-4BR

350'

11'

TP4 (YELLOW)

TP4S

TP8S

UNIVERSITY AVE

11' - 11'

170EB

SEE SDD "TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER"

MATCH LINE STA. 169+00EB

50' TYP.

TP4 (WHITE)

72UA

TEMPORARY ACCESS ROAD

R9-11
24"X12"

TO UNIVERSITY AVENUE

STOP
R1-1
30"X30"

SIDEWALK CLOSED
R9-9

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

LEGEND

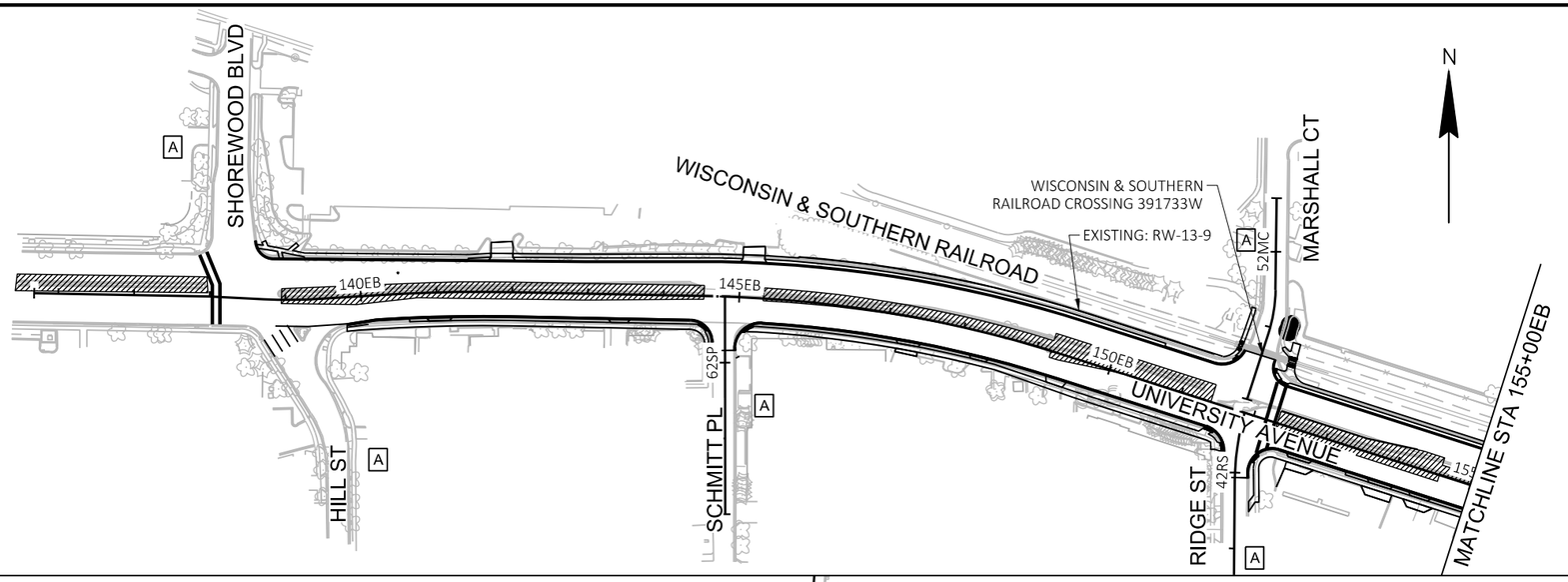
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
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TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
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TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 4	SHEET 295	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 4.DWG
LAYOUT NAME - Sheet - (8)
PLOT DATE : 8/18/2021 2:22 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

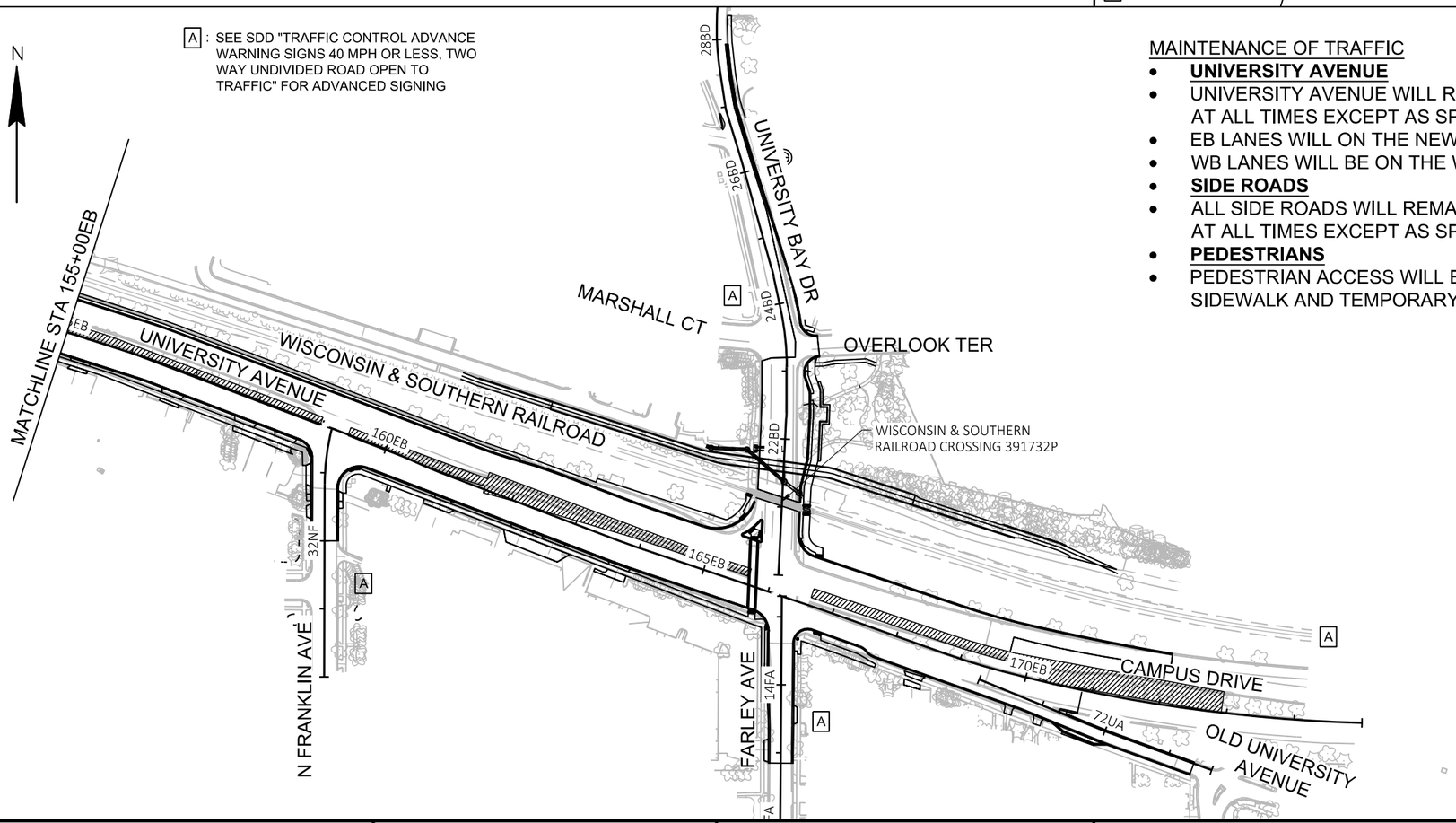
2



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- CONSTRUCT MEDIAN
- **SIDE ROADS**
- NONE

A : SEE SDD "TRAFFIC CONTROL ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED SIGNING

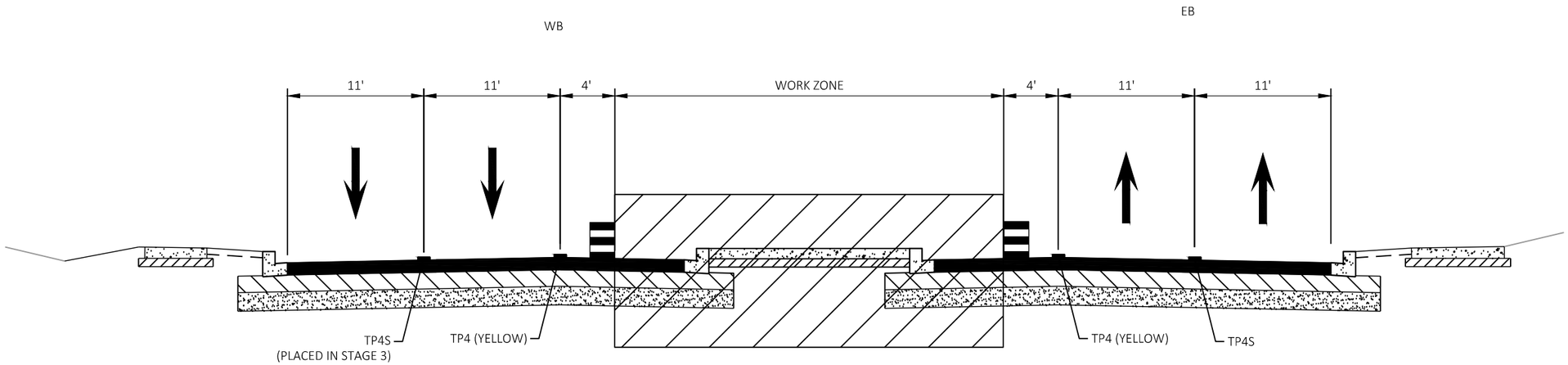


MAINTENANCE OF TRAFFIC

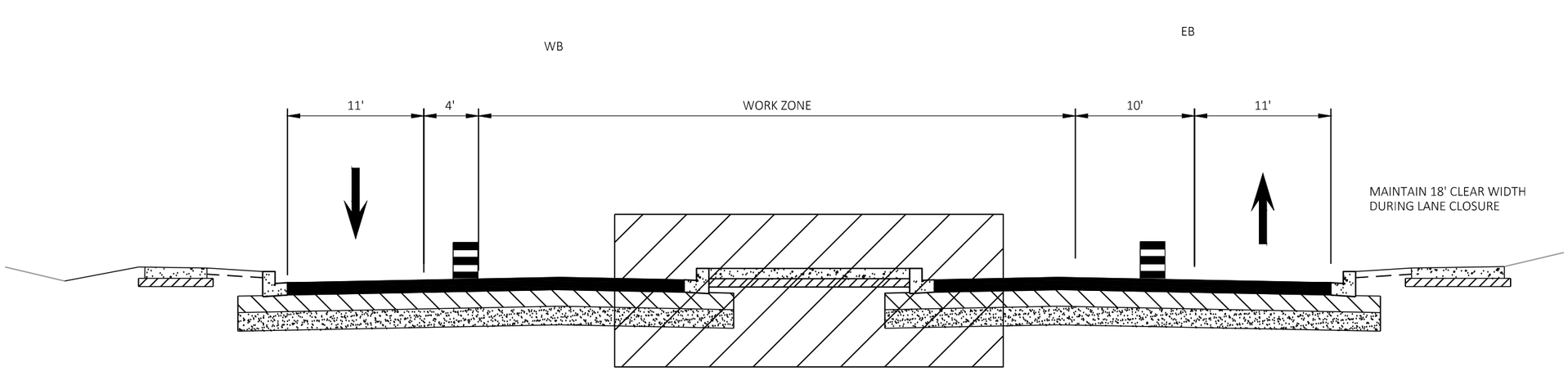
- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO TWO LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- EB LANES WILL ON THE NEWLY CONSTRUCTED EB TWO OUTSIDE LANES.
- WB LANES WILL BE ON THE WB TWO OUTSIDE LANES.
- **SIDE ROADS**
- ALL SIDE ROADS WILL REMAIN OPEN TO ALL EXISTING OR NEWLY CONSTRUCTED LANES AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS WILL BE MAINTAINED ON THE EXISTING AND NEWLY CONSTRUCTED SIDEWALK AND TEMPORARY CROSSINGS AT INTERSECTIONS.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 5 OVERVIEW	SHEET 296	E

2



STAGE 5
UNIVERSITY AVENUE



STAGE 5
UNIVERSITY AVENUE
OFF - PEAK HOURS

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS (STAGE 5)	SHEET 297	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC_TYP SECTIONS.DWG
LAYOUT NAME - Typ Section S5-6
PLOT DATE : 7/26/2021 3:44 PM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

N

SHOREWOOD BLVD

NOTE: WESTBOUND PAVEMENT MARKING FROM STAGE 3

R11-2L 48" X 30" LANE CLOSED
TYPE III BARRICADE

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

PAVEMENT MARKINGS WEST OF INTERSECTION TO BE REMOVABLE TAPE

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY' FOR DETAILS NOT SHOWN.

TP6

R9-9 30"X18" SIDEWALK CLOSED
TYPE II BARRICADE

50' TYP.

BEGIN LEFT TURN LANE
R3-20L 24"X36"

25' TYP.

11'

11'

TEMPORARY CROSSWALK REQUIRED

TRT4 (YELLOW)

TRT4S (WHITE)

MATCH LINE STA. 140+00EB

TRT4 (WHITE)

TRT4 (YELLOW)

TRT8 (WHITE)

TRT4S (WHITE)

TRT18 (WHITE)

R9-9 30"X18" SIDEWALK CLOSED
TYPE II BARRICADE

R11-2L 48" X 30" ROAD CLOSED
TYPE III BARRICADE

HILL ST

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

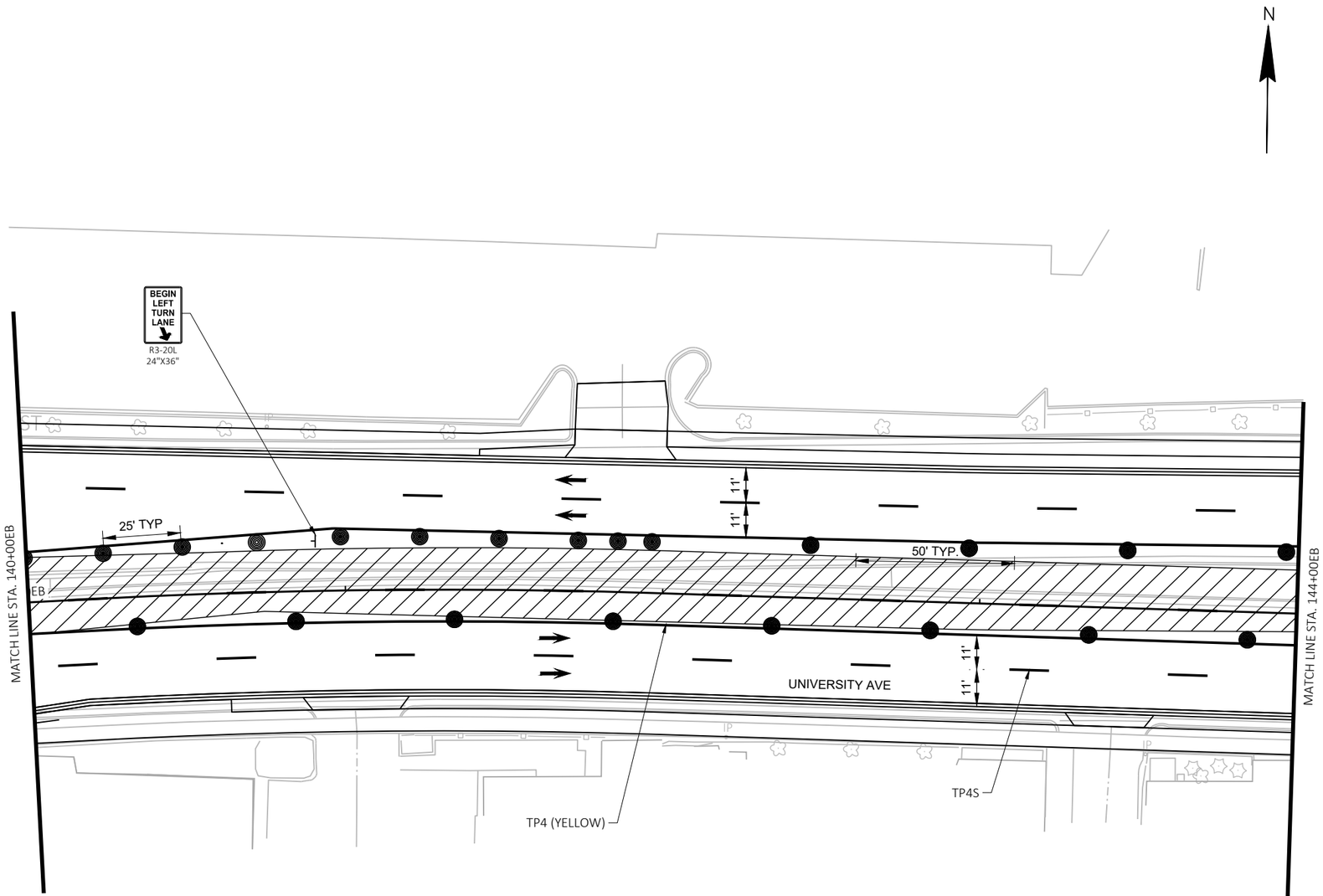
LEGEND

- TYPE II TRAFFIC BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
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TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 298	E

2



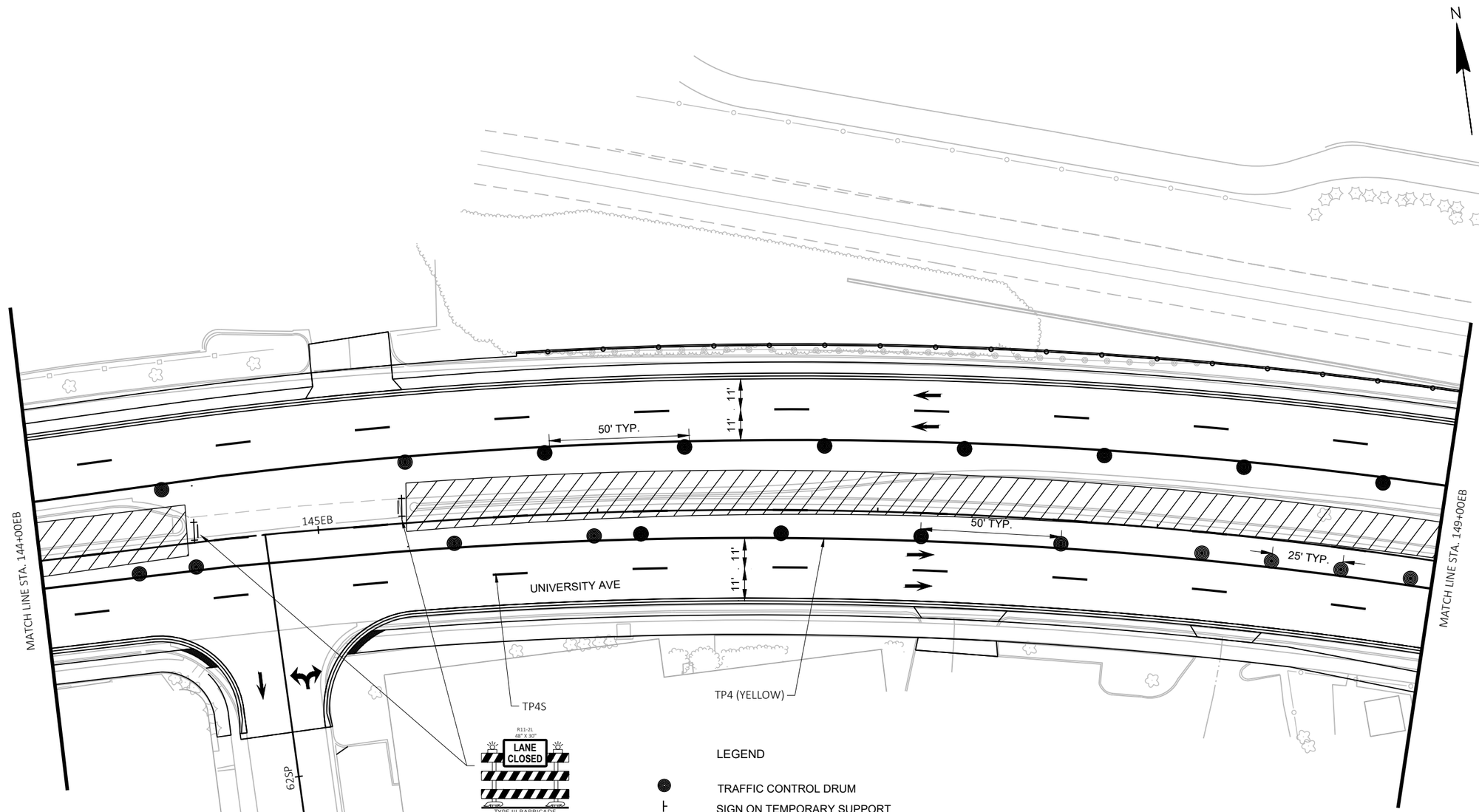
LEGEND

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TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 299	E

2



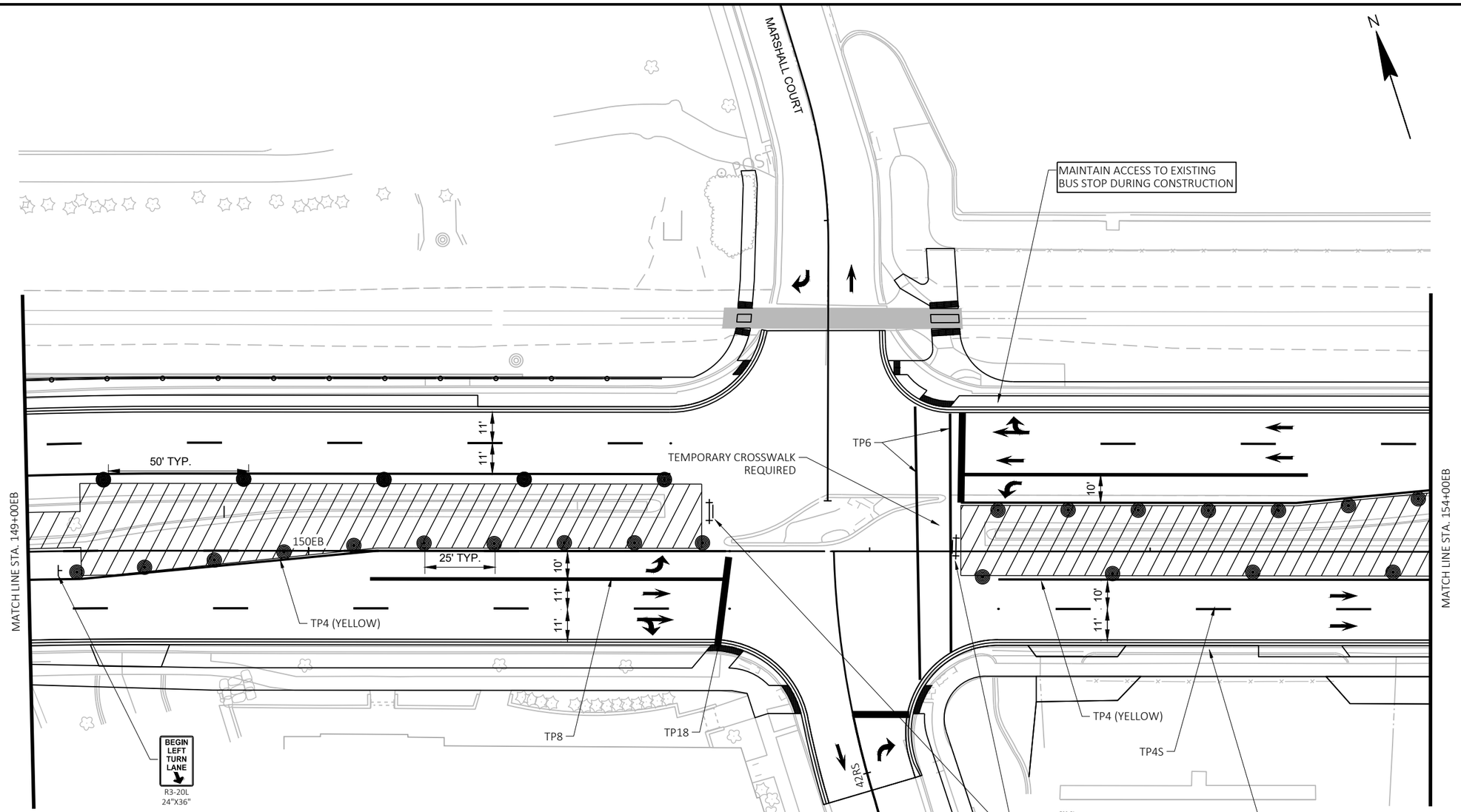
LEGEND

- TRAFFIC CONTROL DRUM
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TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 300	E

2



LEGEND

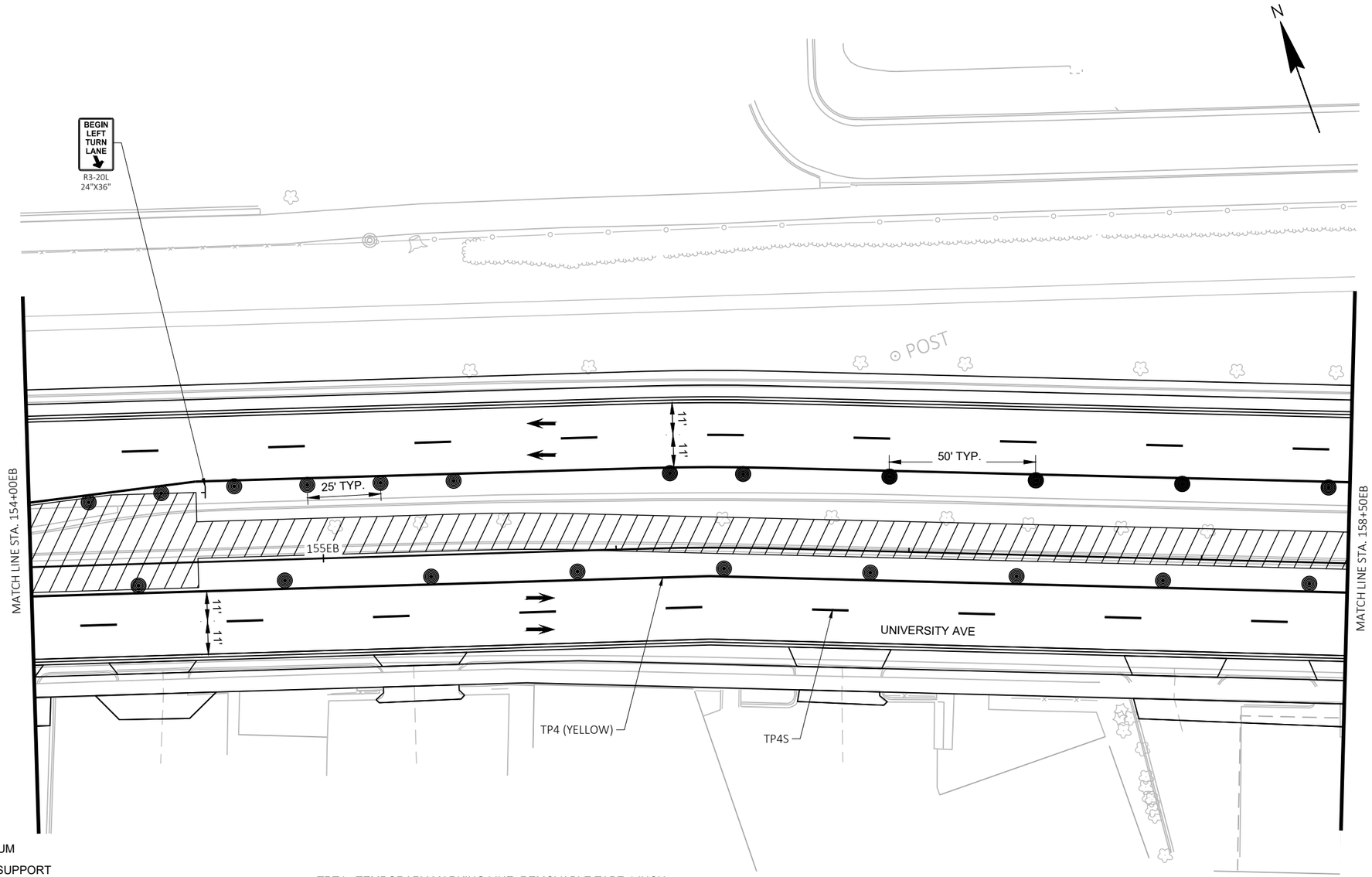
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
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- ASPHALTIC SURFACE TEMPORARY
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 301	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 5.DWG
LAYOUT NAME - Sheet - (4)
PLOT DATE : 1/4/2022 9:46 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



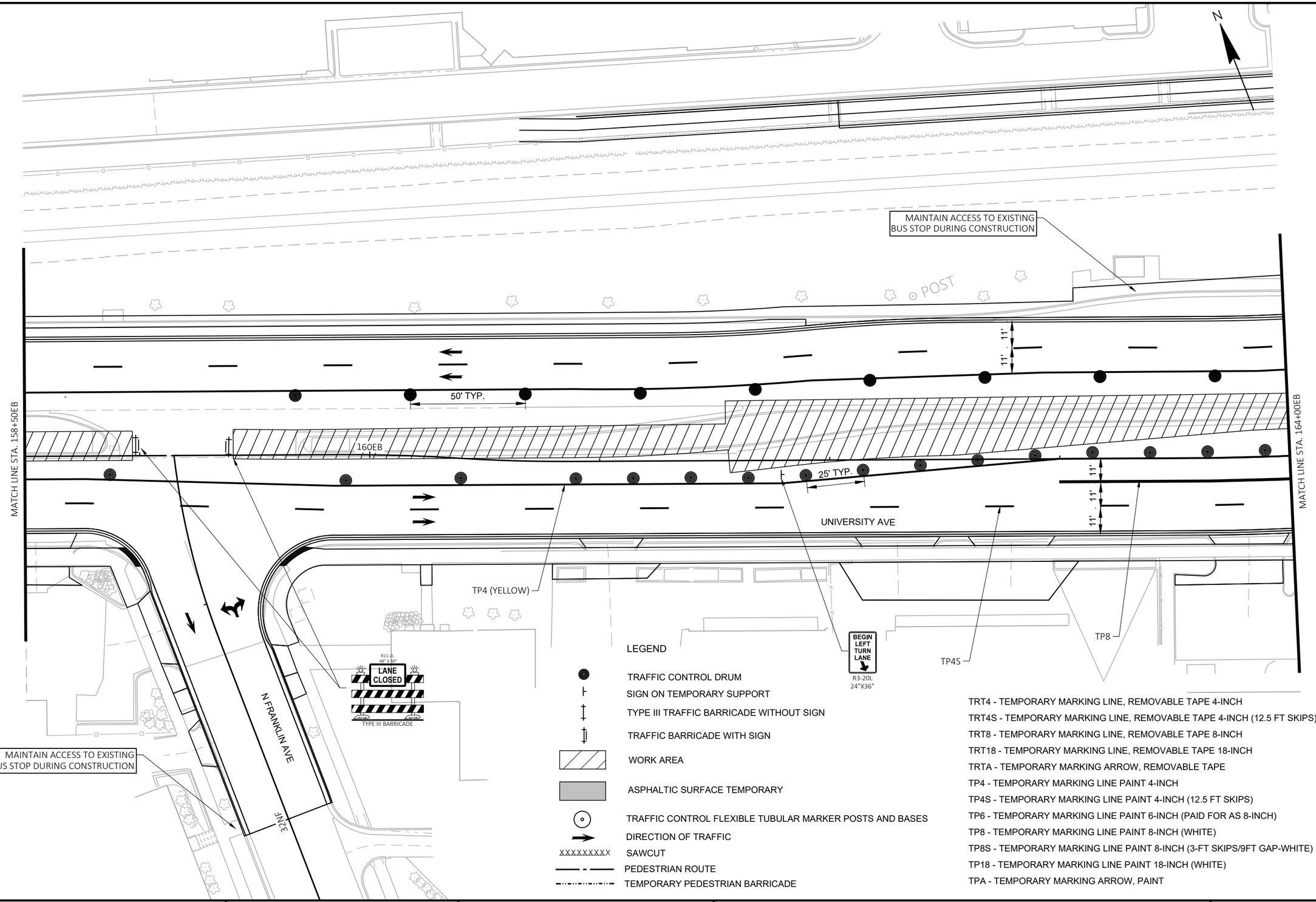
LEGEND

- TRAFFIC CONTROL DRUM
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TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 302	E

2



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
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TPA - TEMPORARY MARKING ARROW, PAINT

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 303	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 5.DWG
LAYOUT NAME - Sheet - (6)
PLOT DATE : 1/4/2022 9:46 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

UNIVERSITY BAY DR

POST

11'
11'

50' TYP.

25' TYP.

165EB

10'
11'
11'

MATCH LINE STA. 164+00EB

MATCH LINE STA. 169+00EB

TEMPORARY CROSSWALK REQUIRED

TP6

UNIVERSITY AVE

TP8

TP4 (YELLOW)

TP4S

TPA

W11-2
48" X 48"

LANE CLOSED

TYPE III BARRICADE

MAINTAIN ACCESS TO EXISTING BUS STOP DURING CONSTRUCTION

FARLEY AVE

14FA

W10-48L

TO UNIVERSITY AVENUE

TP4

TP8S

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

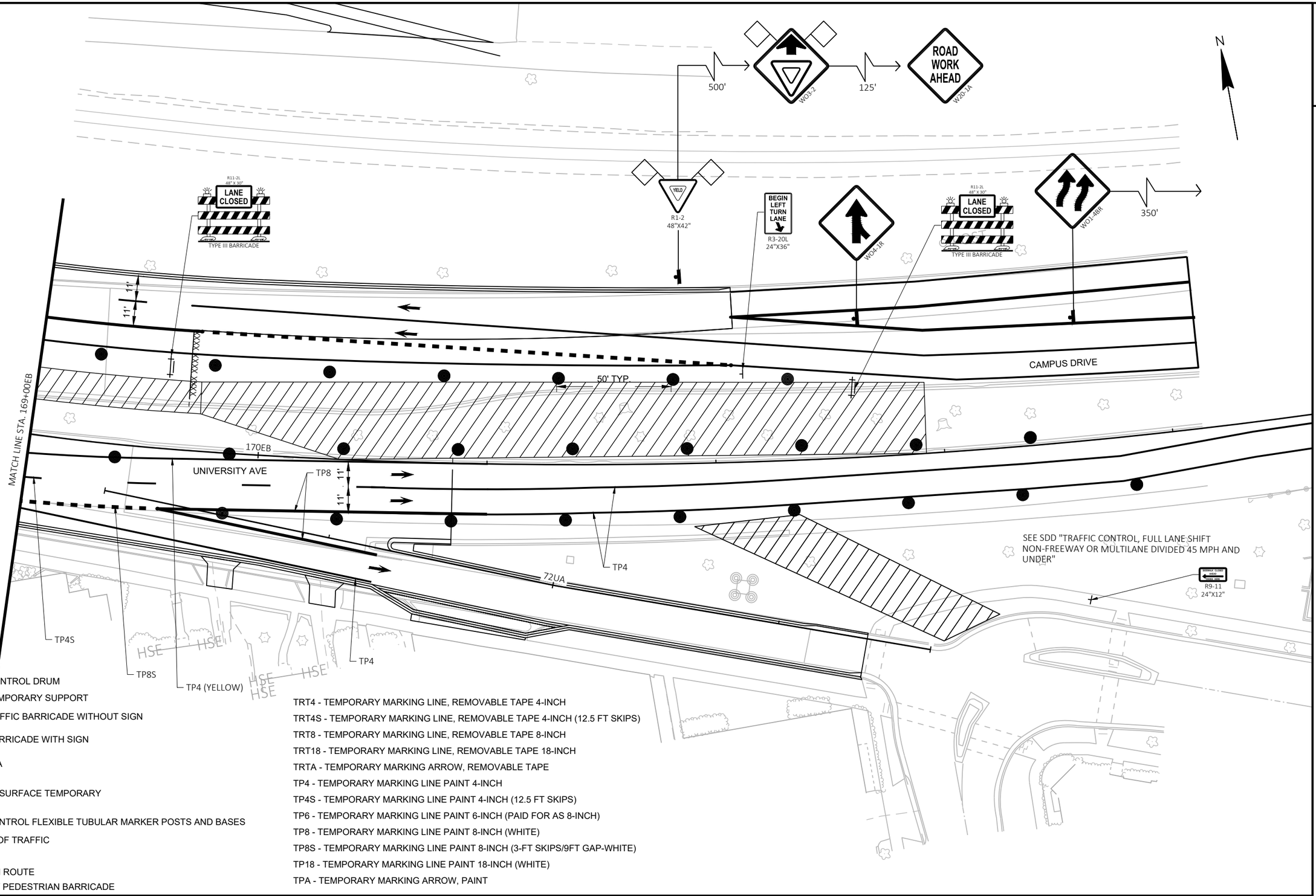
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 304	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 5.DWG
LAYOUT NAME - Sheet - (7)

PLOT DATE : 1/4/2022 9:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



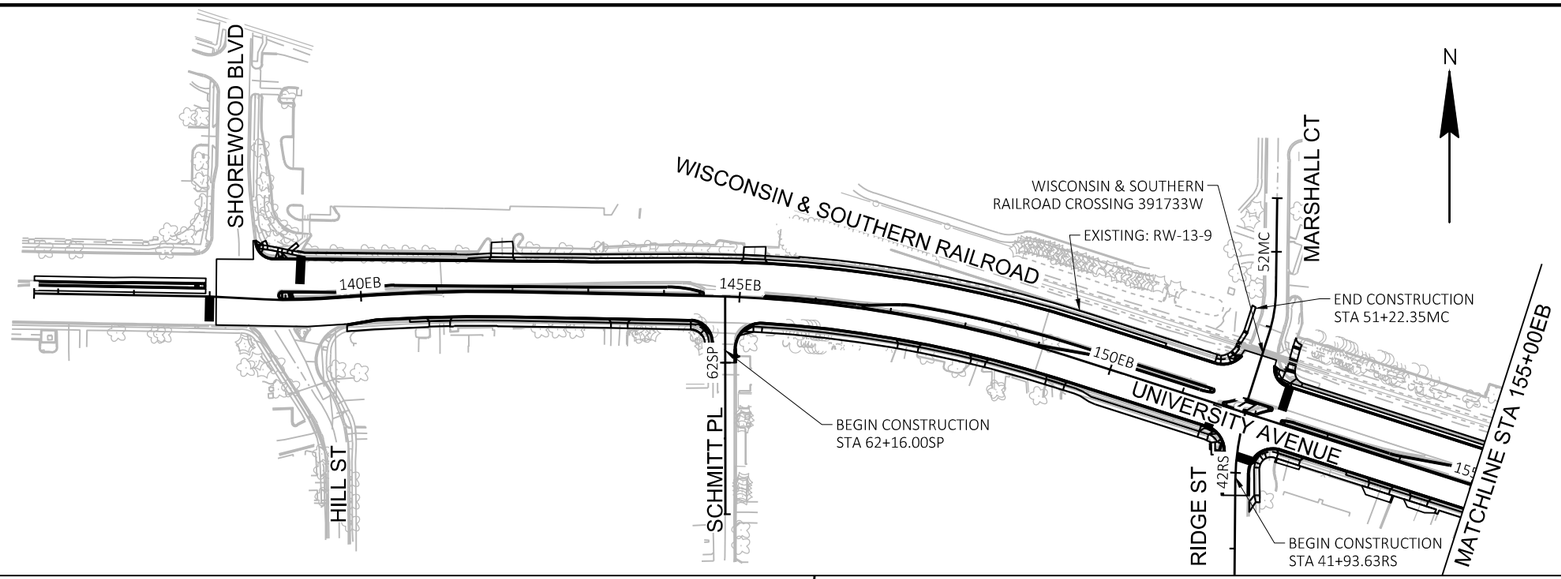
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III TRAFFIC BARRICADE WITHOUT SIGN
- TRAFFIC BARRICADE WITH SIGN
- WORK AREA
- ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- DIRECTION OF TRAFFIC
- XXXXXXXXX SAWCUT
- PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE

TRT4 - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH
TRT4S - TEMPORARY MARKING LINE, REMOVABLE TAPE 4-INCH (12.5 FT SKIPS)
TRT8 - TEMPORARY MARKING LINE, REMOVABLE TAPE 8-INCH
TRT18 - TEMPORARY MARKING LINE, REMOVABLE TAPE 18-INCH
TRTA - TEMPORARY MARKING ARROW, REMOVABLE TAPE
TP4 - TEMPORARY MARKING LINE PAINT 4-INCH
TP4S - TEMPORARY MARKING LINE PAINT 4-INCH (12.5 FT SKIPS)
TP6 - TEMPORARY MARKING LINE PAINT 6-INCH (PAID FOR AS 8-INCH)
TP8 - TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
TP8S - TEMPORARY MARKING LINE PAINT 8-INCH (3-FT SKIPS/9FT GAP-WHITE)
TP18 - TEMPORARY MARKING LINE PAINT 18-INCH (WHITE)
TPA - TEMPORARY MARKING ARROW, PAINT

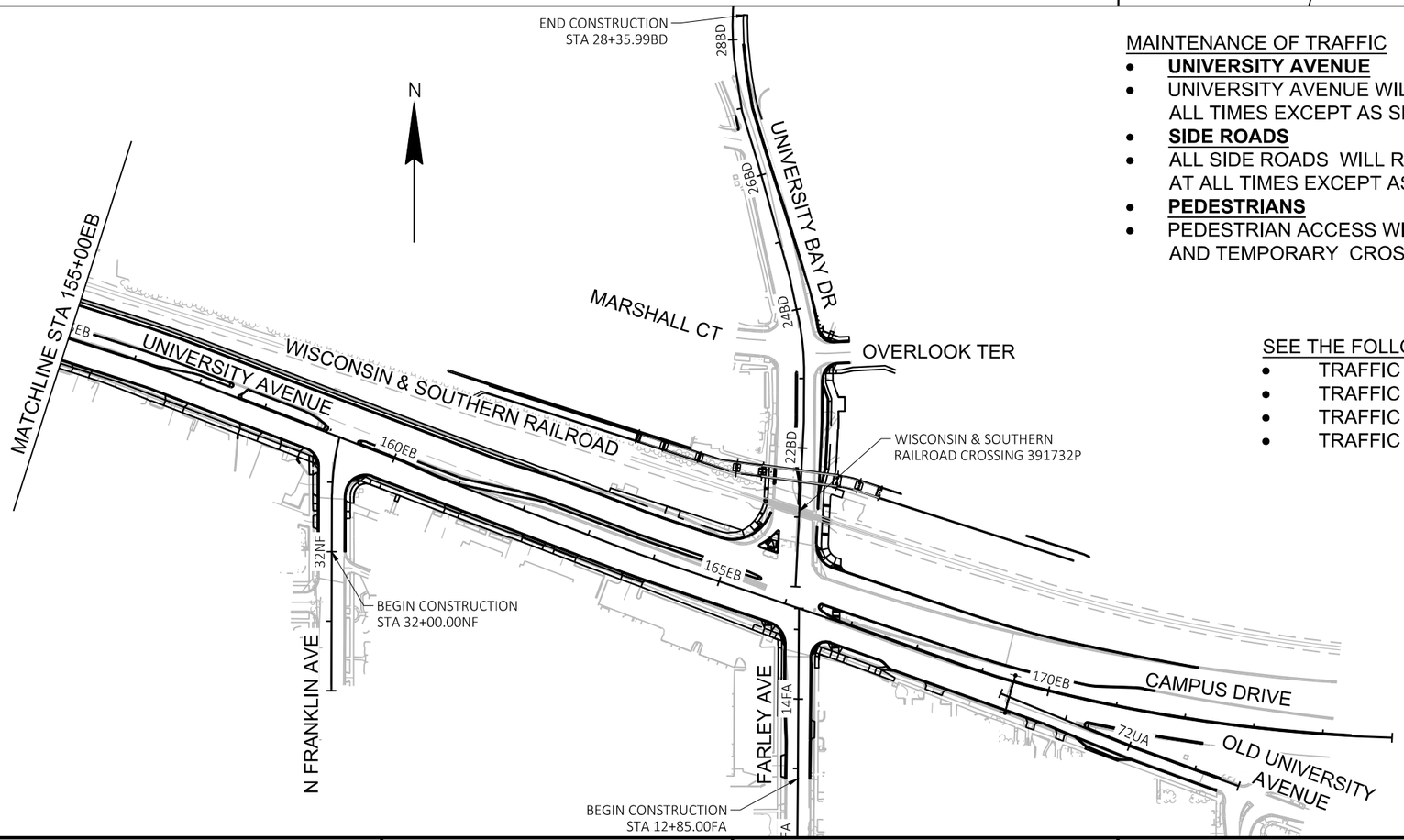
PROJECT NO: 5992-11-31	HWY: USH 14	COUNTY: DANE	TRAFFIC CONTROL STAGE 5	SHEET 305	E

2



CONSTRUCTION TO BE COMPLETED

- **UNIVERSITY AVENUE**
- PLACE UPPER HMA LAYER
- **SIDE ROADS**
- PLACE UPPER HMA LAYER



MAINTENANCE OF TRAFFIC

- **UNIVERSITY AVENUE**
- UNIVERSITY AVENUE WILL REMAIN OPEN TO 2 LANES OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **SIDE ROADS**
- ALL SIDE ROADS WILL REMAIN OPEN TO ALL EXISTING OR NEWLY CONSTRUCTED LANES AT ALL TIMES EXCEPT AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- **PEDESTRIANS**
- PEDESTRIAN ACCESS WILL BE MAINTAINED ON THE NEWLY CONSTRUCTED SIDEWALK AND TEMPORARY CROSSINGS AT INTERSECTION.

SEE THE FOLLOWING SDDS FOR DETAILS:

- TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
- TRAFFIC CONTROL, TWO LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE

PROJECT NO: 5992-11-XX	HWY: UNIVERSITY AVENUE	COUNTY: DANE	TRAFFIC CONTROL: STAGE 6 OVERVIEW	SHEET 306	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\026101-TC- STAGE 6 OVERVIEW.DWG
LAYOUT NAME - OVERVIEW
PLOT DATE : 7/27/2021 6:36 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42

2

2



LEGEND

- TYPE III BARRICADE TYPE III BARRICADE WITH ATTACHED SIGN
- WORK AREA
- DETOUR ROUTE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PATH DETOUR ROUTE	SHEET 307	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\027001-DT.DWG
LAYOUT NAME - PATH DETOUR

PLOT DATE : 5/10/2021 12:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

MARSHALL CT

ALTERNATE
MB4-1
24"X12"
D9-2
24"X24"
MB6-1R
21"X21"

MARSHALL CT

ALTERNATE
MB4-1
24"X12"
D9-2
24"X24"
MB5-1L
21"X21"

ALTERNATE
MB4-1
24"X12"
D9-2
24"X24"
MB6-1L
21"X21"

ALTERNATE
MB4-1
24"X12"
D9-2
24"X24"

RIDGE STREET

UNIVERSITY AVE

UNIVERSITY AVE

WISCONSIN & SOUTHERN RAILROAD

OVERLOOK TERRACE

UNIVERSITY BAY DR

HARVEY STREET

FRANKLIN CT.

SHEPARD TERRACE

BARLOW STREET

N. FRANKLIN AVE

LYNN TERRACE

FARLEY AVE

CAMPUS DR

LEGEND

TYPE III BARRICADE TYPE III BARRICADE WITH ATTACHED SIGN

WORK AREA

ALTERNATE ROUTE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	HOSPITAL EASTBOUND ALTERNATE ROUTE	SHEET 308	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\027001-DT.DWG
LAYOUT NAME - HOSPITAL EB ALT ROUTE

PLOT DATE : 7/13/2021 7:02 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

UNIVERSITY AVE

UNIVERSITY AVE

UNIVERSITY BAY DR

WISCONSIN & SOUTHERN RAILROAD

CAMPUS DR

LYNN TERRACE

FARLEY AVE

R9-11
24"X12"

R9-11A
24"X12"

DETOUR AHEAD
M4-9BA
30"X24"

DETOUR
M4-9BR
30"X24"

UNIVERSITY AVE

STEVENS ST

STEVENS ST

GRAND AVE

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

KENDALL AVE

KENDALL AVE

LEGEND

TYPE III BARRICADE TYPE III BARRICADE WITH ATTACHED SIGN

WORK AREA

DETOUR ROUTE

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SIDEWALK DETOUR ROUTE	SHEET 309	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\06 TRAFFIC CONTROL\027001-DT.DWG
LAYOUT NAME - PED DETOUR(2)

PLOT DATE : 7/12/2021 6:57 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

LCL- University Avenue-Campus Drive WB
PI STA = 135+68.26WB
Y = 483038.4560
X = 804975.8664

LCL- University Avenue-Campus Drive WB
PI STA = 136+72.64WB
Y = 483036.5120
X = 805080.2310

LCL- University Avenue-Campus Drive WB
PI STA = 136+98.08WB
Y = 483036.9350
X = 805105.6650

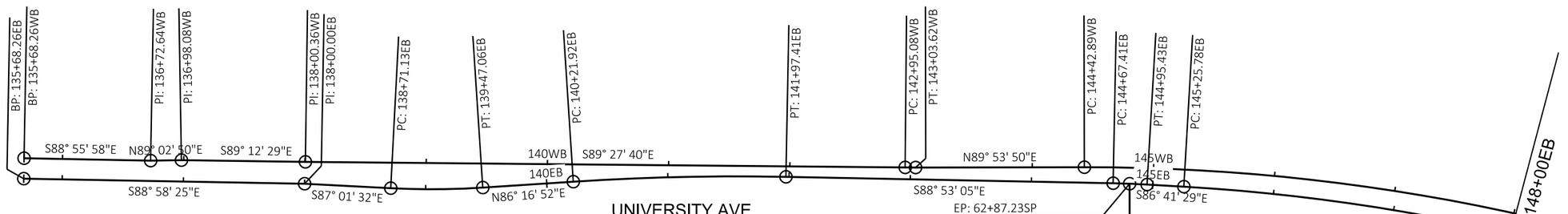
LCL- University Avenue-Campus Drive WB
PI STA = 138+00.36WB
Y = 483035.5214
X = 805207.9383

LCL- University Avenue-Campus Drive WB
PI STA = 138+13.55WB
Y = 483035.3974
X = 805221.1224

PI STA = 142+99.35WB
Y = 483030.829
X = 805706.904
DELTA = 0°38'29"
D = 7°31'09"
T = 4.27'
L = 8.53'
R = 762.00'
PC STA = 142+95.08WB
Y = 483030.869
X = 805702.638
PT STA = 143+03.62WB
Y = 483030.836
X = 805711.170
BK = S89°27'40.2"E
AH = N89°53'50.3"E

PI STA = 144+81.42EB
Y = 483017.647
X = 805888.241
DELTA = 2°11'36"
D = 7°49'38"
T = 14.01'
L = 28.02'
R = 732.00'
PC STA = 144+67.41EB
Y = 483017.920
X = 805874.230
PT STA = 144+95.43EB
Y = 483016.838
X = 805902.231
BK = S88°53'05.5"E
AH = S86°41'29.1"E

PI STA = 147+01.77WB
Y = 483031.550
X = 806109.323
DELTA = 17°50'02"
D = 3°28'21"
T = 258.88'
L = 513.58'
R = 1650.00'
PC STA = 144+42.89WB
Y = 483031.086
X = 805850.441
PT STA = 149+56.47WB
Y = 482952.708
X = 806355.907
BK = N89°53'50.3"E
AH = S72°16'08.1"E



LCL- University Avenue-Campus Drive EB
PI STA = 135+68.26EB
Y = 483021.6816
X = 804975.5659

LCL- University Avenue-Campus Drive EB
PI STA = 138+00.00EB
Y = 483017.5305
X = 805207.2687

PI STA = 139+09.13EB
Y = 483011.868
X = 805316.256
DELTA = 6°41'35"
D = 8°48'53"
T = 38.01'
L = 75.93'
R = 650.00'
PC STA = 138+71.13EB
Y = 483013.840
X = 805278.299
PT STA = 139+47.06EB
Y = 483014.333
X = 805354.185
BK = S87°01'32.2"E
AH = N86°16'52.5"E

PI STA = 141+09.72EB
Y = 483024.883
X = 805516.505
DELTA = 4°50'02"
D = 2°45'17"
T = 87.79'
L = 175.48'
R = 2080.00'
PC STA = 140+21.92EB
Y = 483019.189
X = 805428.895
PT STA = 141+97.41EB
Y = 483023.174
X = 805604.282
BK = N86°16'52.5"E
AH = S88°53'05.5"E

LCL- Schmitt Place
PI STA = 62+87.23SP
Y = 483017.5305
X = 805887.7745

LCL- Schmitt Place
PI STA = 60+00.00SP
Y = 482730.3004
X = 805888.0435

PI STA = 147+32.66EB
Y = 483003.147
X = 806139.069
DELTA = 14°25'22"
D = 3°30'16"
T = 206.88'
L = 411.57'
R = 1635.00'
PC STA = 145+25.78EB
Y = 483015.086
X = 805932.534
PT STA = 149+37.36EB
Y = 482940.140
X = 806336.120
BK = S86°41'29.1"E
AH = S72°16'06.9"E

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ALIGNMENT DIAGRAM	SHEET PRE204	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - OVERVIEW (2)
PLOT DATE : 5/17/2021 3:59 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

PI STA = 51+20.36MC
Y = 482996.422
X = 806614.393
DELTA = 17°04'17"
D = 28°56'14"
T = 29.72'
L = 58.99'
R = 198.00'
PC STA = 50+90.64MC
Y = 482968.134
X = 806605.286
PT STA = 51+49.64MC
Y = 483026.136
X = 806614.795
BK = N17°50'43.2"E
AH = N00°46'26.3"E

LCL- Marshall Court
PI STA = 52+70.73MC
Y = 483147.2153
X = 806616.4304

EP: 52+70.73MC

N00° 46' 26"E

MARSHALL CT

PT: 51+49.64MC

PC: 50+90.64MC

N17° 50' 43"E

LCL- Marshall Court
PI STA = 50+00.00MC
Y = 482881.8524
X = 806577.5092

MATCHLINE STA 148+00EB

PT: 149+37.36EB

PT: 149+56.47WB

150WB

150EB

BP: 50+00.00MC

S72° 16' 08"E

EP: 42+80.19RS

S72° 16' 07"E

UNIVERSITY AVE

PC: 156+15.09WB

PC: 156+11.56EB

PT: 156+55.89WB

PT: 156+52.45EB

155WB

155EB

S69° 09' 07"E

S69° 04' 05"E

EP: 33+66.15NF

160WB

160EB

S69° 04' 05"E

PI STA = 156+35.49WB
Y = 482745.910
X = 807002.676
DELTA = 3°07'01"
D = 7°38'22"
T = 20.41'
L = 40.80'
R = 750.00'
PC STA = 156+15.09WB
Y = 482752.125
X = 806983.240
PT STA = 156+55.89WB
Y = 482738.648
X = 807021.746
BK = S72°16'08.1"E
AH = S69°09'06.9"E

PI STA = 161+65.89WB
Y = 482557.142
X = 807498.358
DELTA = 5°02'00"
D = 7°49'38"
T = 32.17'
L = 64.30'
R = 732.00'
PC STA = 161+33.72WB
Y = 482568.592
X = 807468.292
PT STA = 161+98.02WB
Y = 482548.374
X = 807529.312
BK = S69°09'06.9"E
AH = S74°11'06.5"E

PI STA = 162+30.73WB
Y = 482539.460
X = 807560.783
DELTA = 5°07'01"
D = 7°49'38"
T = 32.71'
L = 65.37'
R = 732.00'
PC STA = 161+98.02WB
Y = 482548.374
X = 807529.312
PT STA = 162+63.39WB
Y = 482527.775
X = 807591.333
BK = S74°11'06.5"E
AH = S69°04'05.4"E

N

LCL- University Bay Overpass 4
PI STA = 50+00.00OS
Y = 482720.1925
X = 807405.7342

LCL- University Bay Overpass 4
PI STA = 50+49.78OS
Y = 482705.1642
X = 807453.1892

LCL- University Bay Overpass 4
PI STA = 50+74.85OS
Y = 482695.7441
X = 807476.4248

BP: 50+00.00OS

PI: 50+49.78OS

PI: 50+74.85OS

S67° 55' 54"E

S72° 25' 40"E

S72° 16' 07"E

PC: 159+86.96EB

PRC: 160+37.59EB

PT: 160+88.22EB

PC: 161+33.72WB

PC: 161+98.02WB

PT: 162+63.39WB

MATCHLINE STA 52+50OS

MATCHLINE STA 163+00EB

LCL- Ridge Street
PI STA = 42+80.19RS
Y = 482864.0381
X = 806574.1290

PC: 41+89.56RS

N0° 28' 08"E

RIDGE ST

BP: 40+00.00RS

LCL- Ridge Street
PI STA = 40+00.00RS
Y = 482585.0720
X = 806559.5877

PI STA = 42+35.16RS
Y = 482820.221
X = 806561.513
DELTA = 15°35'38"
D = 17°12'21"
T = 45.60'
L = 90.63'
R = 333.00'
PC STA = 41+89.56RS
Y = 482774.625
X = 806561.139
PT STA = 42+80.19RS
Y = 482864.038
X = 806574.129
BK = N00°28'08.4"E
AH = N16°03'46.5"E

PI STA = 156+32.01EB
Y = 482728.579
X = 806997.776
DELTA = 3°12'01"
D = 7°49'38"
T = 20.45'
L = 40.89'
R = 732.00'
PC STA = 156+11.56EB
Y = 482734.807
X = 806978.299
PT STA = 156+52.45EB
Y = 482721.273
X = 807016.876
BK = S72°16'06.9"E
AH = S69°04'05.4"E

LCL- N Franklin Ave.
PI STA = 33+66.15NF
Y = 482627.5191
X = 807261.9856

PC: 32+82.62NF

N0° 07' 51"E

N FRANKLIN AVE

BP: 30+00.00NF

LCL- N Franklin Ave.
PI STA = 30+00.00NF
Y = 482262.2708
X = 807250.7258

PI STA = 33+24.60NF
Y = 482586.871
X = 807251.471
DELTA = 14°22'20"
D = 17°12'21"
T = 41.99'
L = 83.53'
R = 333.00'
PC STA = 32+82.62NF
Y = 482544.886
X = 807251.375
PT STA = 33+66.15NF
Y = 482627.519
X = 807261.986
BK = N00°07'51.1"E
AH = N14°30'10.9"E

PI STA = 160+12.29EB
Y = 482592.719
X = 807352.966
DELTA = 3°57'46"
D = 7°49'38"
T = 25.32'
L = 50.63'
R = 732.00'
PC STA = 159+86.96EB
Y = 482601.766
X = 807329.314
PT STA = 160+37.59EB
Y = 482582.059
X = 807375.936
BK = S69°04'05.4"E
AH = S65°06'19.8"E

PI STA = 160+62.91EB
Y = 482571.400
X = 807398.906
DELTA = 3°57'46"
D = 7°49'38"
T = 25.32'
L = 50.63'
R = 732.00'
PC STA = 160+37.59EB
Y = 482582.059
X = 807375.936
PT STA = 160+88.22EB
Y = 482562.353
X = 807422.558
BK = S65°06'19.8"E
AH = S69°04'05.4"E

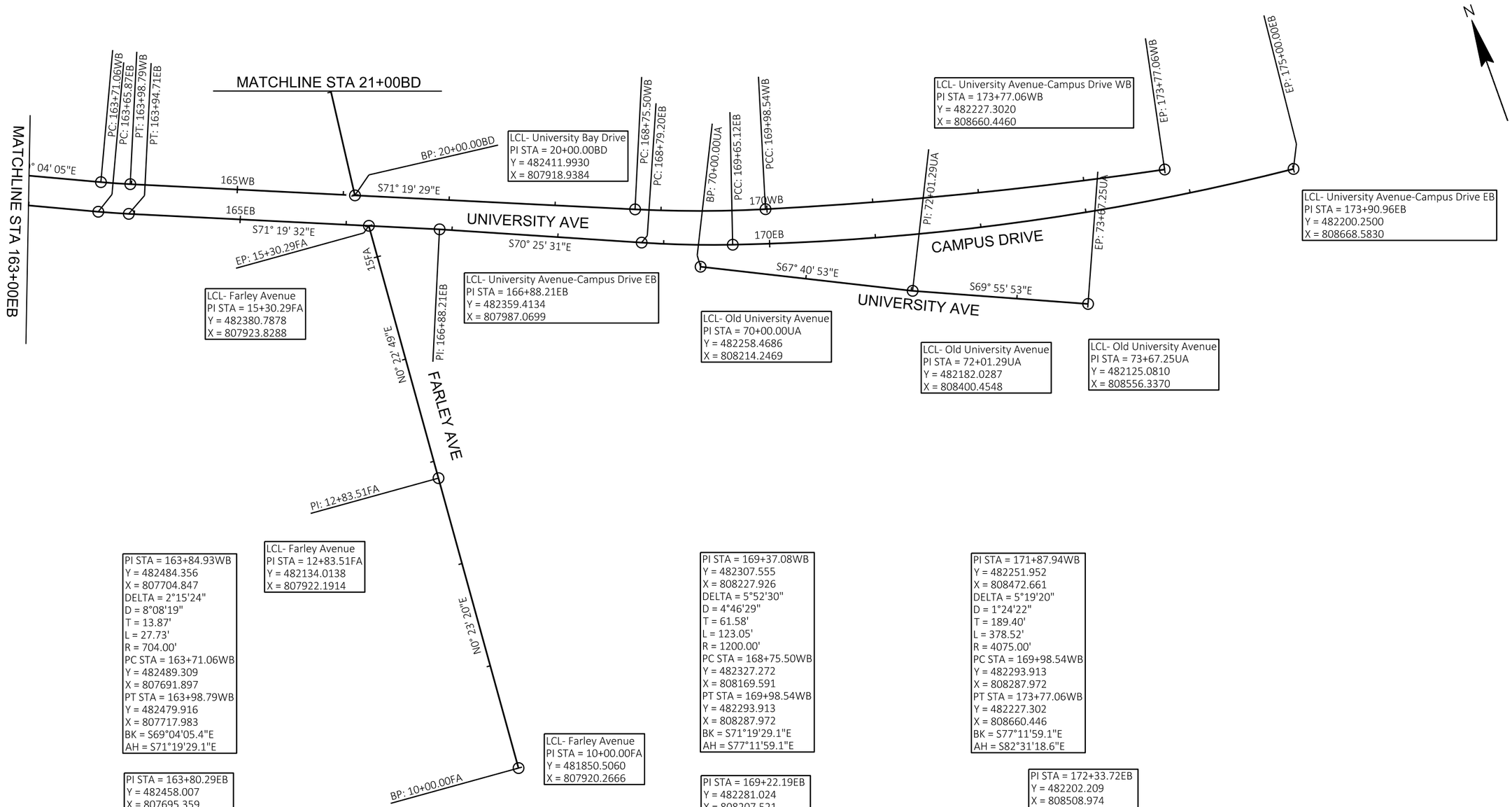
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ALIGNMENT DIAGRAM	SHEET PRE20S 311	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - OVERVIEW (3)

PLOT DATE : 5/17/2021 3:59 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

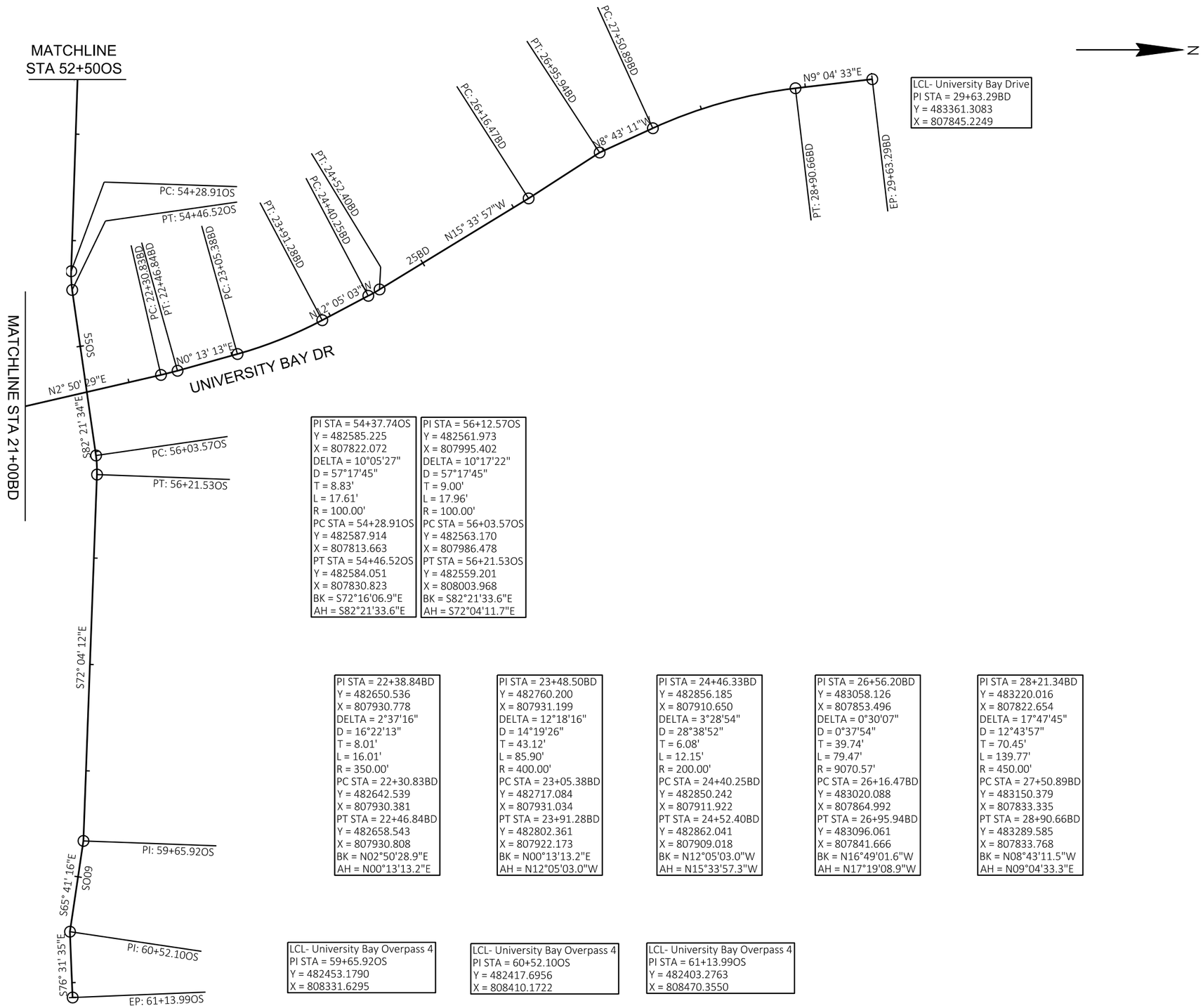
2



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ALIGNMENT DIAGRAM	SHEET PRE20 312	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - OVERVIEW (4)

PLOT DATE : 5/17/2021 3:59 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT



LCL- University Bay Drive
PI STA = 29+63.29BD
Y = 483361.3083
X = 807845.2249

PI STA = 54+37.74OS	PI STA = 56+12.57OS
Y = 482585.225	Y = 482561.973
X = 807822.072	X = 807995.402
DELTA = 10°05'27"	DELTA = 10°17'22"
D = 57°17'45"	D = 57°17'45"
T = 8.83'	T = 9.00'
L = 17.61'	L = 17.96'
R = 100.00'	R = 100.00'
PC STA = 54+28.91OS	PC STA = 56+03.57OS
Y = 482587.914	Y = 482563.170
X = 807813.663	X = 807986.478
PT STA = 54+46.52OS	PT STA = 56+21.53OS
Y = 482584.051	Y = 482559.201
X = 807830.823	X = 808003.968
BK = S72°16'06.9"E	BK = S82°21'33.6"E
AH = S82°21'33.6"E	AH = S72°04'11.7"E

PI STA = 22+38.84BD	PI STA = 23+48.50BD	PI STA = 24+46.33BD	PI STA = 26+56.20BD	PI STA = 28+21.34BD
Y = 482650.536	Y = 482760.200	Y = 482856.185	Y = 483058.126	Y = 483220.016
X = 807930.778	X = 807931.199	X = 807910.650	X = 807853.496	X = 807822.654
DELTA = 2°37'16"	DELTA = 12°18'16"	DELTA = 3°28'54"	DELTA = 0°30'07"	DELTA = 17°47'45"
D = 16°22'13"	D = 14°19'26"	D = 28°38'52"	D = 0°37'54"	D = 12°43'57"
T = 8.01'	T = 43.12'	T = 6.08'	T = 39.74'	T = 70.45'
L = 16.01'	L = 85.90'	L = 12.15'	L = 79.47'	L = 139.77'
R = 350.00'	R = 400.00'	R = 200.00'	R = 9070.57'	R = 450.00'
PC STA = 22+30.83BD	PC STA = 23+05.38BD	PC STA = 24+40.25BD	PC STA = 26+16.47BD	PC STA = 27+50.89BD
Y = 482642.539	Y = 482717.084	Y = 482850.242	Y = 483020.088	Y = 483150.379
X = 807930.381	X = 807931.034	X = 807911.922	X = 807864.992	X = 807833.335
PT STA = 22+46.84BD	PT STA = 23+91.28BD	PT STA = 24+52.40BD	PT STA = 26+95.94BD	PT STA = 28+90.66BD
Y = 482658.543	Y = 482802.361	Y = 482862.041	Y = 483096.061	Y = 483289.585
X = 807930.808	X = 807922.173	X = 807909.018	X = 807841.666	X = 807833.768
BK = N02°50'28.9"E	BK = N00°13'13.2"E	BK = N12°05'03.0"W	BK = N16°49'01.6"W	BK = N08°43'11.5"W
AH = N00°13'13.2"E	AH = N12°05'03.0"W	AH = N15°33'57.3"W	AH = N17°19'08.9"W	AH = N09°04'33.3"E

LCL- University Bay Overpass 4
PI STA = 59+65.92OS
Y = 482453.1790
X = 808331.6295

LCL- University Bay Overpass 4
PI STA = 60+52.10OS
Y = 482417.6956
X = 808410.1722

LCL- University Bay Overpass 4
PI STA = 61+13.99OS
Y = 482403.2763
X = 808470.3550

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	ALIGNMENT DIAGRAM	SHEET PRE20?313	E

UNIVERSITY AVENUE EASTBOUND (EB)
SUPERELEVATION TABLE

STATION	SLOPE LT - TURN LANE	SLOPE RT - INSIDE	SLOPE RT - MIDDLE	SLOPE RT - OUTSIDE	DESCRIPTION
138+09	X	2.00%	-2.00%	-2.00%	MATCH EXISTING
148+85	-2.00%	2.00%	-2.00%	-2.00%	BEGIN TURN LANE
151+40	-2.00%	2.00%	-2.00%	-2.00%	END TURN LANE
155+51	X	2.00%	-2.00%	-2.00%	END NC
156+25	-2.00%	-1.70%	-2.00%	-2.00%	BEGIN TURN LANE
156+30	-2.00%	-2.00%	-2.00%	-2.00%	BEGIN FULL SUPER
157+47	-2.00%	-2.00%	-2.00%	-2.00%	END TURN LANE
160+92	2.00%	-2.00%	-2.00%	-2.00%	BEGIN TURN LANE
164+89	2.00%	-2.00%	-2.00%	-2.00%	END FULL SUPER
165+50	-1.10%	1.10%	-2.00%	-2.00%	MATCH UNIVERSITY BAY DRIVE INTERSECTION
165+57	-1.10%	1.10%	-2.00%	-2.00%	END TURN LANE
167+00	X	1.10%	-2.00%	-2.00%	BEGIN TRANSITION TO NC
167+79	X	2.00%	-2.00%	-2.00%	BEGIN NC
169+00	X	2.00%	-2.00%	-2.00%	END NC
169+39	X	2.00%	0.00%	-2.00%	LEVEL CROWN RT - OUTSIDE
169+78	X	2.00%	2.00%	-2.00%	BEGIN FULL SUPER
173+00	X	2.00%	2.00%	-2.00%	BEGIN TRANSITION TO EXISTING
173+30	X	1.50%	1.50%	X	MATCH EXISTING

UNIVERSITY AVENUE WESTBOUND (WB)
SUPERELEVATION TABLE

STATION	SLOPE LT - TURN LANE	SLOPE LT - OUTSIDE	SLOPE LT - MIDDLE	SLOPE LT - INSIDE	SLOPE RT - TURN LANE	DESCRIPTION
138+09	X	-1.20%	-1.20%	2.00%	-2.00%	MATCH EXISTING
138+85	X	-1.20%	-1.20%	2.00%	-2.00%	END RT - TURN LANE
139+13	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN NC
140+44	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE
145+32	X	-2.00%	-2.00%	2.00%	2.90%	END RT - TURN LANE
146+23	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE NC
147+31	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE
151+00	X	-2.00%	-2.00%	2.00%	X	END NC
151+33	X	-1.00%	-1.00%	2.00%	X	BEGIN FULL SUPER
152+33	X	-1.00%	-1.00%	2.00%	2.30%	END FULL SUPER - END TURN LANE
152+50	X	-1.60%	-1.60%	2.00%	-2.00%	BEGIN TURN LANE NC
152+60	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN NC
154+77	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE
159+41	X	-2.00%	-2.00%	2.00%	-1.70%	END RT - TURN LANE
159+48	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE NC
161+84	X	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE
164+53	X	-2.00%	-2.00%	2.00%	X	END LANE WARPING TRANSITION
164+78	X	-3.00%	-3.00%	0.80%	X	END FULL LANE WARPING
165+25	X	-3.00%	-3.00%	0.80%	X	BEGIN FULL LANE WARPING
165+50	X	-2.00%	-2.00%	2.00%	X	BEGIN LANE WARPING TRANSITION
166+46	-2.00%	-2.00%	-2.00%	2.00%	1.10%	END LT AND RT TURN LANE
167+13	-2.00%	-2.00%	-2.00%	2.00%	-2.00%	BEGIN RT - TURN LANE NC
168+82	-2.00%	-2.00%	-2.00%	2.00%	-2.00%	BEGIN LT - TURN LANE
168+92	X	2.00%	2.00%	2.00%	-2.00%	END NC. BEGIN RT - TURN LANE AND LT-INSIDE TRANSITION
169+55	X	-2.00%	-2.00%	-1.20%	1.20%	BEGIN LT - OUTSIDE AND LT - MIDDLE TRANSITION
171+40	X	-2.00%	-2.00%	-2.00%	2.00%	END TRANSITION TO EXISTING
171+50	X	-1.90%	-1.90%	-1.90%	1.90%	MATCH EXISTING

MARSHALL COURT (MC)
SUPERELEVATION TABLE

STATION	SLOPE LT	SLOPE RT	DESCRIPTION
51+22	-2.00%	-2.00%	MATCH EXISTING

NORTH FRANKLIN AVENUE (NF)
SUPERELEVATION TABLE

STATION	SLOPE LT	SLOPE RT	DESCRIPTION
32+00	-2.00%	-2.00%	MATCH EXISTING

FARLEY AVENUE (FA)
SUPERELEVATION TABLE

STATION	SLOPE LT	SLOPE RT	DESCRIPTION
12+85	-2.00%	-2.00%	MATCH EXISTING

UNIVERSITY BAY DRIVE (BD)
SUPERELEVATION TABLE

STATION	SLOPE LT	SLOPE RT	DESCRIPTION
28+36	-2.00%	-2.00%	MATCH EXISTING

SCHMITT PLACE (SP)
SUPERELEVATION TABLE

STATION	SLOPE LT	SLOPE RT	DESCRIPTION
62+00	-2.00%	-2.00%	MATCH EXISTING

RIDGE STREET (RS)
SUPERELEVATION TABLE

STATION	SLOPE LT	SLOPE RT	DESCRIPTION
41+94	-2.00%	-2.00%	MATCH EXISTING

OLD UNIVERSITY AVENUE (UA)
SUPERELEVATION TABLE

STATION	SLOPE RT	DESCRIPTION
73+40	-2.00%	MATCH EXISTING

2

LEGEND

SOIL BORING

BENCHMARK

CONTROL POINT

BENCHMARKS AND CONTROL POINTS					
POINT NO.	TYPE	Y	X	ELEV.	DESCRIPTION
1	CP	482983.2	805554.3	882.32	CHIS X SW
2	CP	482967.9	806018.9	893.61	CHIS X SW
100	CP	482974.4	805251.7	879.96	CUT X IN CONC S/W
101	CP	483029.6	805757.4	889.29	5/8IN RB KL CAP
500	BM	482966.7	805270.5	879.99	CUT SQ N COR CONC BASE LP W/ TFS
501	BM	483027.6	805799	890.98	CUT SQ SE COR CONC BASE UW & VA HOSPITAL SIGN
502	BM	482992.6	806179.6	892.8	CUT SQ N SIDE CONC BASE UW & VA HOSPITAL SIGN
509	BM	482981.7	804896.3	880.26	CUT SQ NW COR CONC BASE LPM
513	BM	483094.9	804422.8	885.12	CUT X N FLANGE BOLT BETWEEN OPEN & ARROW HYD
514	BM	482990.1	804423.8	883.53	CUT SQ NE COR CONC BASE LPM
515	BM	483101.1	803850.9	884.81	CUT SQ SE COR CONC BASE LPM
516	BM	482996.1	803933.9	885.16	CUT SQ NW COR CONC BASE LPM
517	BM	482995.9	803529.3	885.82	CUT SQ NW COR CONC BASE LPM
518	BM	483120.6	803323.9	885.07	CUT SQ SW COR CONC BASE LPM W/ TFS

POINT NO. 513 IS LOCATED 825' FROM THE NORTH SIDE OF THE SHOREWOOD BOULEVARD / UNIVERSITY AVENUE INTERSECTION.
POINT NO. 514 IS LOCATED 825' FROM THE SOUTH SIDE OF THE SHOREWOOD BOULEVARD / UNIVERSITY AVENUE INTERSECTION.
POINT NO. 515 IS LOCATED 1400' FROM THE NORTH SIDE OF THE SHOREWOOD BOULEVARD / UNIVERSITY AVENUE INTERSECTION.
POINT NO. 516 IS LOCATED 1315' FROM THE SOUTH SIDE OF THE SHOREWOOD BOULEVARD / UNIVERSITY AVENUE INTERSECTION.
POINT NO. 517 IS LOCATED 1720' FROM THE SOUTH SIDE OF THE SHOREWOOD BOULEVARD / UNIVERSITY AVENUE INTERSECTION.
POINT NO. 518 IS LOCATED 1925' FROM THE NORTH SIDE OF THE SHOREWOOD BOULEVARD / UNIVERSITY AVENUE INTERSECTION.

N

2

SHOREWOOD BLVD

*B-12

*B-11

*B-10

101

501

140EB

145EB

UNIVERSITY AVENUE

502

MATCHLINE STA 148+00EB

509

100

500

1

2

HILL ST

625P

SCHMITT PL

NOTE:
* BORING LOCATIONS FROM 'SOIL BORING LOCATION MAP: UNIVERSITY AVENUE - SHOREWOOD TO GRAND

** BORING LOCATIONS FROM 'SOIL BORING LOCATION EXHIBIT: PROPOSED PEDESTRIAN OVERPASS - UNIVERSITY BAY DRIVE AT UNIVERSITY AVENUE'

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	BENCHMARKS, CONTROL POINTS AND BORING LOCATIONS	SHEET PRE200315	E

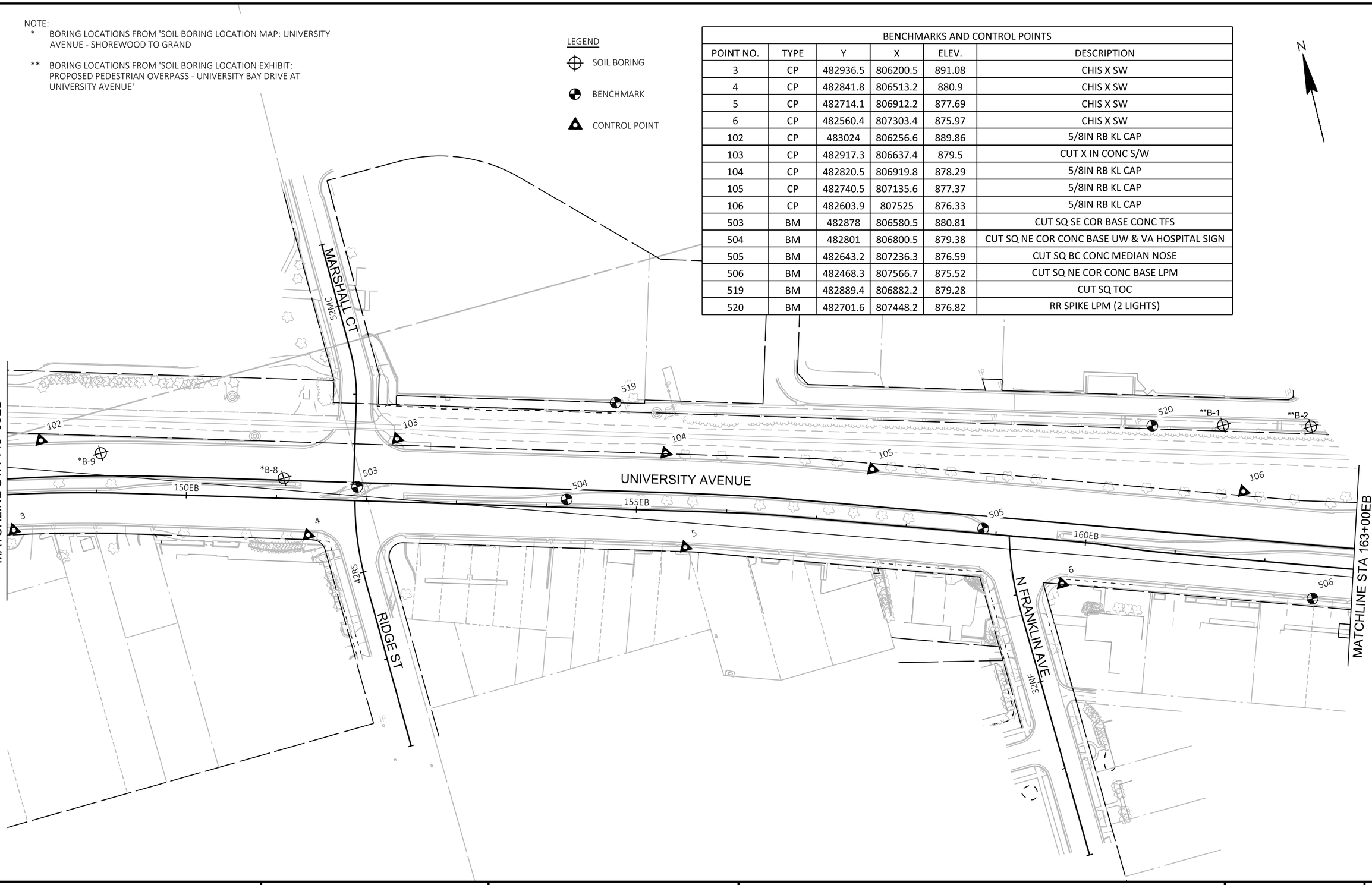
NOTE:
* BORING LOCATIONS FROM 'SOIL BORING LOCATION MAP: UNIVERSITY AVENUE - SHOREWOOD TO GRAND

** BORING LOCATIONS FROM 'SOIL BORING LOCATION EXHIBIT: PROPOSED PEDESTRIAN OVERPASS - UNIVERSITY BAY DRIVE AT UNIVERSITY AVENUE'

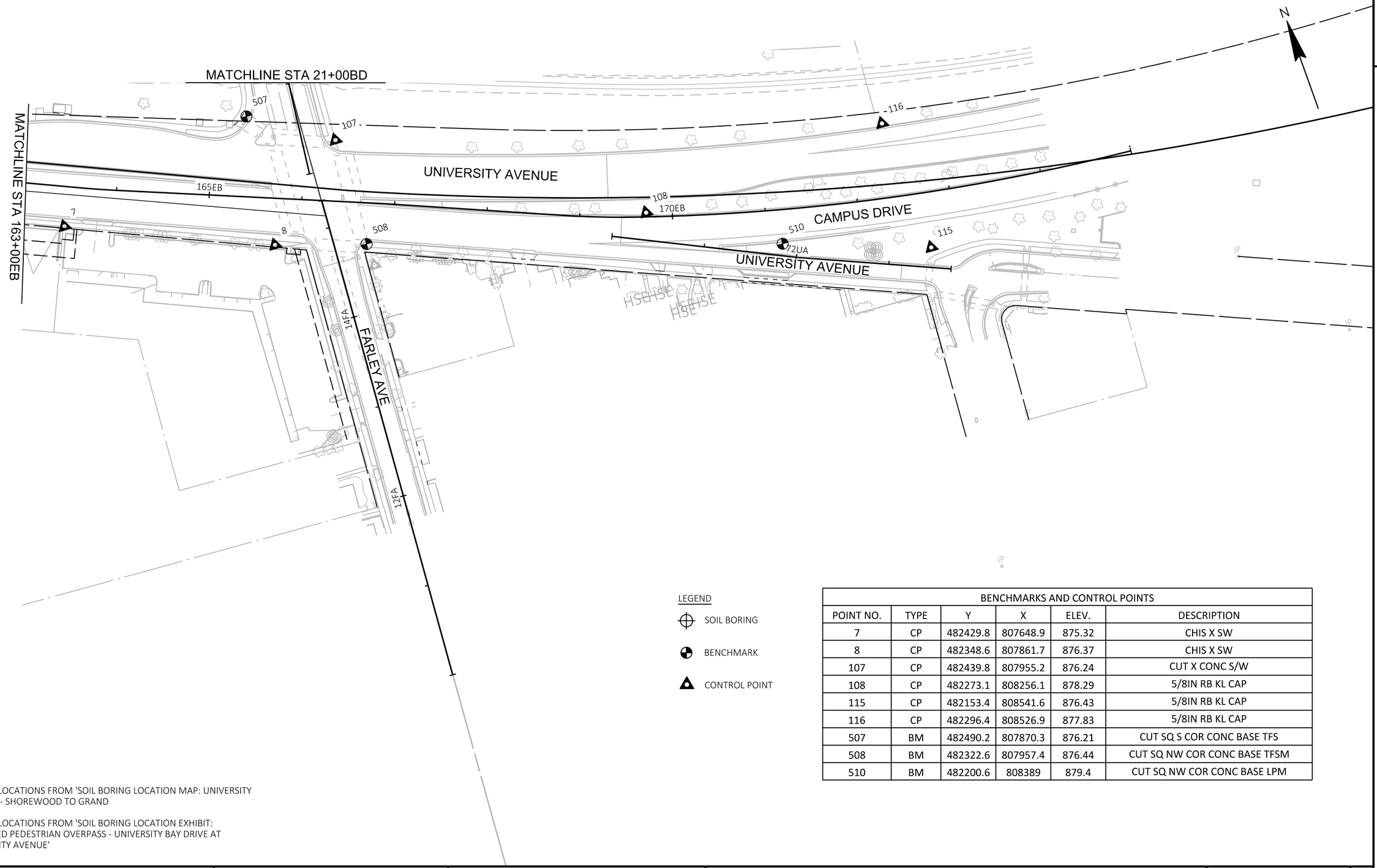
LEGEND

- SOIL BORING
- BENCHMARK
- CONTROL POINT

BENCHMARKS AND CONTROL POINTS					
POINT NO.	TYPE	Y	X	ELEV.	DESCRIPTION
3	CP	482936.5	806200.5	891.08	CHIS X SW
4	CP	482841.8	806513.2	880.9	CHIS X SW
5	CP	482714.1	806912.2	877.69	CHIS X SW
6	CP	482560.4	807303.4	875.97	CHIS X SW
102	CP	483024	806256.6	889.86	5/8IN RB KL CAP
103	CP	482917.3	806637.4	879.5	CUT X IN CONC S/W
104	CP	482820.5	806919.8	878.29	5/8IN RB KL CAP
105	CP	482740.5	807135.6	877.37	5/8IN RB KL CAP
106	CP	482603.9	807525	876.33	5/8IN RB KL CAP
503	BM	482878	806580.5	880.81	CUT SQ SE COR BASE CONC TFS
504	BM	482801	806800.5	879.38	CUT SQ NE COR CONC BASE UW & VA HOSPITAL SIGN
505	BM	482643.2	807236.3	876.59	CUT SQ BC CONC MEDIAN NOSE
506	BM	482468.3	807566.7	875.52	CUT SQ NE COR CONC BASE LPM
519	BM	482889.4	806882.2	879.28	CUT SQ TOC
520	BM	482701.6	807448.2	876.82	RR SPIKE LPM (2 LIGHTS)



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	BENCHMARKS, CONTROL POINTS AND BORING LOCATIONS	SHEET PRE300 316	E



LEGEND

- SOIL BORING
- BENCHMARK
- CONTROL POINT

BENCHMARKS AND CONTROL POINTS					
POINT NO.	TYPE	Y	X	ELEV.	DESCRIPTION
7	CP	482429.8	807648.9	875.32	CHIS X SW
8	CP	482348.6	807861.7	876.37	CHIS X SW
107	CP	482439.8	807955.2	876.24	CUT X CONC S/W
108	CP	482273.1	808256.1	878.29	5/8IN RB KL CAP
115	CP	482153.4	808541.6	876.43	5/8IN RB KL CAP
116	CP	482296.4	808526.9	877.83	5/8IN RB KL CAP
507	BM	482490.2	807870.3	876.21	CUT SQ S COR CONC BASE TFS
508	BM	482322.6	807957.4	876.44	CUT SQ NW COR CONC BASE TFSM
510	BM	482200.6	808389	879.4	CUT SQ NW COR CONC BASE LPM

NOTE:

* BORING LOCATIONS FROM 'SOIL BORING LOCATION MAP: UNIVERSITY AVENUE - SHOREWOOD TO GRAND

** BORING LOCATIONS FROM 'SOIL BORING LOCATION EXHIBIT: PROPOSED PEDESTRIAN OVERPASS - UNIVERSITY BAY DRIVE AT UNIVERSITY AVENUE'

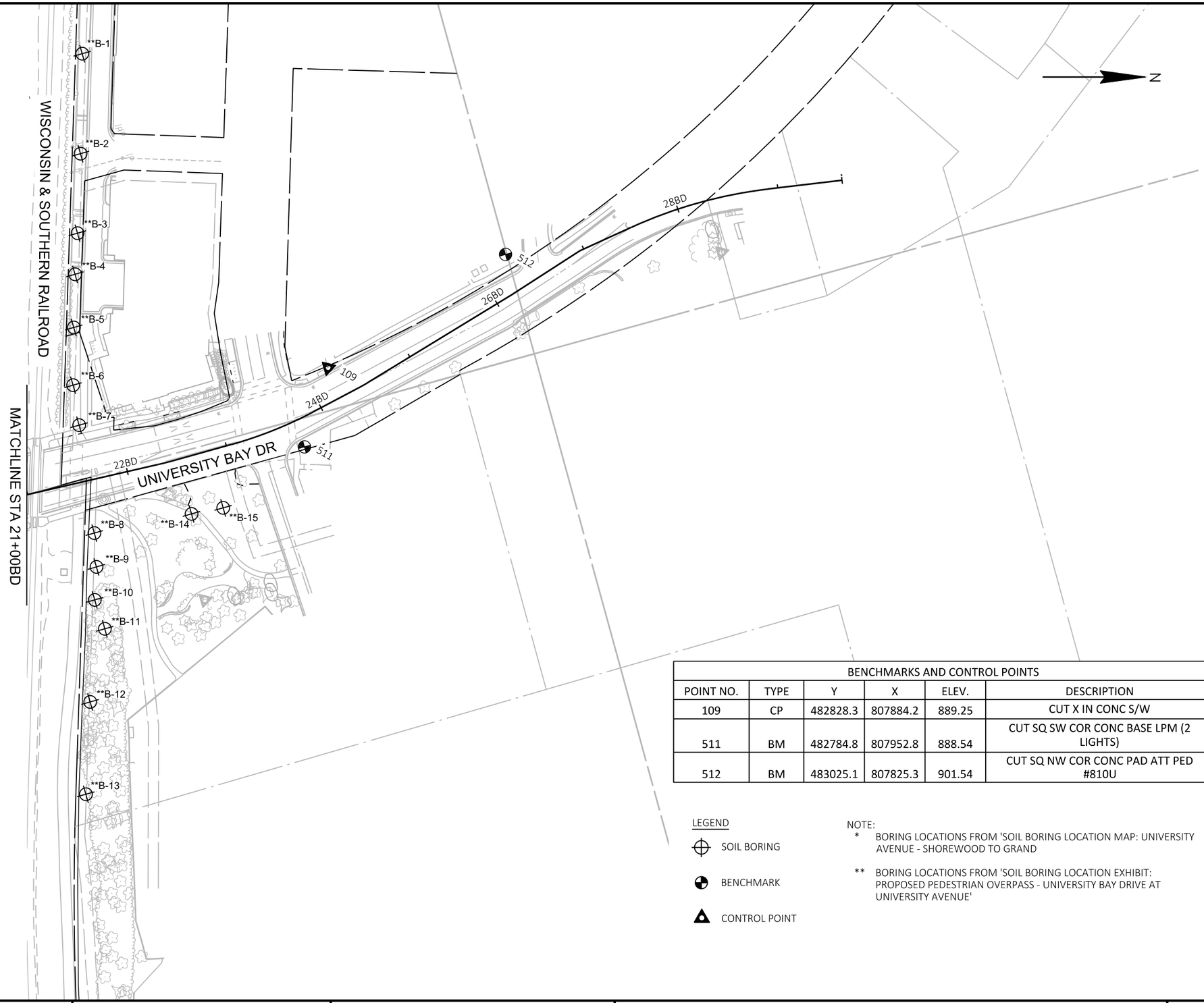
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	BENCHMARKS, CONTROL POINTS AND BORING LOCATIONS	SHEET PRE301 317	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\021003_CP.DWG
LAYOUT NAME - OVERVIEW (3)

PLOT DATE : 5/17/2021 4:05 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ############

WISDOT/CADDS SHEET 42

2



BENCHMARKS AND CONTROL POINTS					
POINT NO.	TYPE	Y	X	ELEV.	DESCRIPTION
109	CP	482828.3	807884.2	889.25	CUT X IN CONC S/W
511	BM	482784.8	807952.8	888.54	CUT SQ SW COR CONC BASE LPM (2 LIGHTS)
512	BM	483025.1	807825.3	901.54	CUT SQ NW COR CONC PAD ATT PED #810U

LEGEND

- SOIL BORING
- BENCHMARK
- CONTROL POINT

NOTE:

* BORING LOCATIONS FROM 'SOIL BORING LOCATION MAP: UNIVERSITY AVENUE - SHOREWOOD TO GRAND

** BORING LOCATIONS FROM 'SOIL BORING LOCATION EXHIBIT: PROPOSED PEDESTRIAN OVERPASS - UNIVERSITY BAY DRIVE AT UNIVERSITY AVENUE'

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	BENCHMARKS, CONTROL POINTS AND BORING LOCATIONS	SHEET PRE302 318	E

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	5992-11-31 Qty	5992-11-32 Qty	5992-11-33 Qty
0002	201.0105	Clearing	STA	19.000	19.000		
0004	201.0120	Clearing	ID	45.000	45.000		
0006	201.0205	Grubbing	STA	19.000	19.000		
0008	201.0220	Grubbing	ID	45.000	45.000		
0010	204.0100	Removing Concrete Pavement	SY	29,835.000	29,835.000		
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	8,660.000	8,660.000		
0014	204.0150	Removing Curb & Gutter	LF	9,560.000	9,560.000		
0016	204.0155	Removing Concrete Sidewalk	SY	3,370.000	3,370.000		
0018	204.0165	Removing Guardrail	LF	240.000	240.000		
0020	204.0195	Removing Concrete Bases	EACH	82.000	82.000		
0022	204.0210	Removing Manholes	EACH	2.000	1.000		1.000
0024	204.0220	Removing Inlets	EACH	72.000	72.000		
0026	204.0245	Removing Storm Sewer (size) 001. 12'X4' Box	LF	44.000	44.000		
0028	204.0245	Removing Storm Sewer (size) 002. 12-Inch	LF	1,360.000	1,360.000		
0030	204.0245	Removing Storm Sewer (size) 003. 15-Inch	LF	408.000	408.000		
0032	204.0245	Removing Storm Sewer (size) 004. 18-Inch	LF	172.000	138.000		34.000
0034	204.0245	Removing Storm Sewer (size) 005. 24-Inch	LF	111.000	111.000		
0036	204.0245	Removing Storm Sewer (size) 006. 30-Inch	LF	118.000	118.000		
0038	204.0246	Removing Ancillary Structure (structure) 001. Sta 147+70	EACH	1.000	1.000		
0040	204.0246	Removing Ancillary Structure (structure) 002. Sta 154+20	EACH	1.000	1.000		
0042	204.0246	Removing Ancillary Structure (structure) 003. Sta 161+20	EACH	1.000	1.000		
0044	204.0246	Removing Ancillary Structure (structure) 004. Sta 169+55	EACH	1.000	1.000		
0046	204.9060.S	Removing (item description) 001. Removing Street Light Assembly	EACH	66.000	66.000		
0048	204.9060.S	Removing (item description) 002. Traffic Signal	EACH	49.000	49.000		
0050	204.9090.S	Removing (item description) 001. Railing	LF	425.000	425.000		
0052	205.0100	Excavation Common	CY	43,698.000	43,698.000		
0054	206.1000	Excavation for Structures Bridges (structure) 001. B-13-891	LS	1.000	1.000		
0056	213.0100	Finishing Roadway (project) 001. 5992-11-31	EACH	1.000	1.000		
0058	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,711.000	1,705.000	6.000	
0060	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	29,165.000	29,165.000		
0062	305.0130	Base Aggregate Dense 3-Inch	TON	20,100.000	20,100.000		
0064	310.0110	Base Aggregate Open-Graded	TON	56.000	56.000		
0066	312.0110	Select Crushed Material	TON	7,349.000	7,349.000		
0068	371.2000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	EACH	10.000	10.000		
0070	405.0100	Coloring Concrete WisDOT Red	CY	155.000	155.000		
0072	405.1000	Stamping Colored Concrete	CY	155.000	155.000		
0074	415.0090	Concrete Pavement 9-Inch	SY	120.000	120.000		
0076	416.0170	Concrete Driveway 7-Inch	SY	540.000	540.000		
0078	416.0270	Concrete Driveway HES 7-Inch	SY	320.000	320.000		
0080	455.0605	Tack Coat	GAL	4,749.000	4,749.000		
0082	460.2000	Incentive Density HMA Pavement	DOL	8,700.000	8,700.000		
0084	460.6223	HMA Pavement 3 MT 58-28 S	TON	9,891.000	9,891.000		
0086	460.6424	HMA Pavement 4 MT 58-28 H	TON	3,695.000	3,695.000		
0088	465.0105	Asphaltic Surface	TON	140.000	140.000		
0090	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	75.000	75.000		
0092	465.0125	Asphaltic Surface Temporary	TON	3,930.000	3,930.000		
0094	465.0315	Asphaltic Flumes	SY	18.000	18.000		
0096	502.0100	Concrete Masonry Bridges	CY	427.000	427.000		
0098	502.3101	Expansion Device	LF	28.000	28.000		

Line	Item	Item Description	Unit	Total	5992-11-31 Qty	5992-11-32 Qty	5992-11-33 Qty
0100	502.3200	Protective Surface Treatment	SY	629.000	629.000		
0102	504.2000.S	Precast Concrete Box Culvert (ft X ft) 001. 12 FT X 4 FT	LF	107.000	107.000		
0104	504.2000.S	Precast Concrete Box Culvert (ft X ft) 002. 12 FT X 6 FT	LF	50.000	50.000		
0106	505.0400	Bar Steel Reinforcement HS Structures	LB	6,580.000	6,580.000		
0108	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	64,720.000	64,720.000		
0110	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	3.000	3.000		
0112	506.8006.S	Prefabricated Steel Truss Pedestrian Bridge LRFD (structure) 001. B-13-891	EACH	1.000	1.000		
0114	511.1100	Temporary Shoring	SF	19,642.000	19,642.000		
0116	511.2300	Temp Shoring Left in Place (location) 001. Stage 2	SF	2,000.000	2,000.000		
0118	513.8016	Railing Steel Pedestrian Type C3	LF	1,182.000	1,182.000		
0120	516.0500	Rubberized Membrane Waterproofing	SY	7.000	7.000		
0122	517.1000	Painting Epoxy System Steel Truss (structure) 001. B-13-891	LS	1.000	1.000		
0124	517.1010.S	Concrete Staining (structure) 001. B-13-891	SF	3,072.000	3,072.000		
0126	517.1010.S	Concrete Staining (structure) 002. R-13-360	SF	1,142.000	1,142.000		
0128	517.1010.S	Concrete Staining (structure) 003. R-13-361	SF	849.000	849.000		
0130	517.1015.S	Concrete Staining Multi-Color (structure) 001. B-13-891	SF	829.000	829.000		
0132	517.1015.S	Concrete Staining Multi-Color (structure) 002. R-13-360	SF	2,470.000	2,470.000		
0134	517.1015.S	Concrete Staining Multi-Color (structure) 003. R-13-061	SF	2,680.000	2,680.000		
0136	517.1050.S	Architectural Surface Treatment (structure) 001. B-13-891	SF	1,521.000	1,521.000		
0138	517.1050.S	Architectural Surface Treatment (structure) 002. R-13-360	SF	2,470.000	2,470.000		
0140	517.1050.S	Architectural Surface Treatment (structure) 003. R-13-361	SF	2,680.000	2,680.000		
0142	520.8000	Concrete Collars for Pipe	EACH	19.000	17.000		2.000
0144	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000		
0146	531.2030	Drilling Shaft 30-Inch	LF	26.000	26.000		
0148	531.5220	Foundation Single-Shaft Type MF-II (structure) 001. S-13-586	EACH	2.000	2.000		
0150	532.5120	Monotube Cantilever Type II (structure) 001. Sta. 143+10	EACH	1.000	1.000		
0152	532.5120	Monotube Cantilever Type II (structure) 002. Sta. 142+63	EACH	1.000	1.000		
0154	532.5120	Monotube Cantilever Type II (structure) 003. Sta. 153+40	EACH	1.000	1.000		
0156	532.5120	Monotube Cantilever Type II (structure) 004. Sta. 154+06	EACH	1.000	1.000		
0158	532.5120	Monotube Cantilever Type II (structure) 005. Sta. 160+47	EACH	1.000	1.000		
0160	532.5220	Monotube Full Span Type II (structure) 001. S-13-856	EACH	1.000	1.000		
0162	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	2,070.000	2,070.000		
0164	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	360.000	360.000		
0166	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	160.000	160.000		
0168	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,200.000	1,200.000		
0170	601.0600	Concrete Curb Pedestrian	LF	445.000	445.000		
0172	602.0410	Concrete Sidewalk 5-Inch	SF	58,870.000	58,670.000	200.000	
0174	602.0415	Concrete Sidewalk 6-Inch	SF	2,010.000	2,010.000		
0176	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	455.000	455.000		
0178	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	275.000	275.000		
0180	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,800.000	1,800.000		
0182	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,100.000	2,100.000		
0184	604.0400	Slope Paving Concrete	SY	10.000	10.000		
0186	608.0005	Storm Sewer Rock Excavation	CY	150.000	150.000		
0188	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	1,100.000	1,100.000		
0190	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	22.000	22.000		
0192	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	97.000	63.000		34.000
0194	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	190.000	190.000		
0196	608.0396	Storm Sewer Pipe Reinforced Concrete Class III 96-Inch	LF	2,522.000	2,522.000		

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Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0198	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	768.000	768.000		
0200	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	562.000	562.000		
0202	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	134.000	134.000		
0204	608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	LF	112.000	112.000		
0206	608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	16.000	16.000		
0208	611.0420	Reconstructing Manholes	EACH	5.000	5.000		
0210	611.0430	Reconstructing Inlets	EACH	4.000	4.000		
0212	611.0530	Manhole Covers Type J	EACH	2.000			2.000
0214	611.0642	Inlet Covers Type MS	EACH	3.000	3.000		
0216	611.2004	Manholes 4-FT Diameter	EACH	3.000	3.000		
0218	611.2005	Manholes 5-FT Diameter	EACH	8.000	6.000		2.000
0220	611.2006	Manholes 6-FT Diameter	EACH	3.000	3.000		
0222	611.3004	Inlets 4-FT Diameter	EACH	8.000	8.000		
0224	611.3230	Inlets 2x3-FT	EACH	66.000	66.000		
0226	611.3901	Inlets Median 1 Grate	EACH	3.000	3.000		
0228	611.8110	Adjusting Manhole Covers	EACH	6.000		6.000	
0230	611.8115	Adjusting Inlet Covers	EACH	11.000	11.000		
0232	611.8120.S	Cover Plates Temporary	EACH	20.000	20.000		
0234	612.0106	Pipe Underdrain 6-Inch	LF	700.000	700.000		
0236	612.0108	Pipe Underdrain 8-Inch	LF	18.000	18.000		
0238	612.0110	Pipe Underdrain 10-Inch	LF	9.000	9.000		
0240	612.0112	Pipe Underdrain 12-Inch	LF	333.000	333.000		
0242	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	15.000	15.000		
0244	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	850.000	850.000		
0246	616.0700.S	Fence Safety	LF	5,000.000	5,000.000		
0248	618.0100	Maintenance And Repair of Haul Roads (project) 001. 5992-11-31	EACH	1.000	1.000		
0250	619.1000	Mobilization	EACH	1.000	0.820	0.100	0.080
0252	620.0200	Concrete Median Blunt Nose	SF	12.000	12.000		
0254	620.0300	Concrete Median Sloped Nose	SF	669.000	669.000		
0256	624.0100	Water	MGAL	1,475.000	1,475.000		
0258	625.0100	Topsoil	SY	5,780.000	5,780.000		
0260	628.1504	Silt Fence	LF	2,560.000	2,560.000		
0262	628.1520	Silt Fence Maintenance	LF	4,570.000	4,570.000		
0264	628.1905	Mobilizations Erosion Control	EACH	21.000	21.000		
0266	628.1910	Mobilizations Emergency Erosion Control	EACH	14.000	14.000		
0268	628.2008	Erosion Mat Urban Class I Type B	SY	5,780.000	5,780.000		
0270	628.7010	Inlet Protection Type B	EACH	61.000	61.000		
0272	628.7015	Inlet Protection Type C	EACH	149.000	149.000		
0274	629.0210	Fertilizer Type B	CWT	6.800	6.800		
0276	630.0140	Seeding Mixture No. 40	LB	104.000	104.000		
0278	630.0200	Seeding Temporary	LB	156.000	156.000		
0280	630.0500	Seed Water	MGAL	85.000	85.000		
0282	631.0300	Sod Water	MGAL	81.000	81.000		
0284	631.1000	Sod Lawn	SY	5,075.000	5,075.000		
0286	637.1220	Signs Type I Reflective SH	SF	410.000	410.000		
0288	637.2210	Signs Type II Reflective H	SF	810.050	810.050		
0290	637.2215	Signs Type II Reflective H Folding	SF	88.060	88.060		
0292	637.2230	Signs Type II Reflective F	SF	55.250	55.250		
0294	638.2102	Moving Signs Type II	EACH	20.000	20.000		

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Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0296	638.2601	Removing Signs Type I	EACH	2.000	2.000		
0298	638.2602	Removing Signs Type II	EACH	100.000	100.000		
0300	638.3000	Removing Small Sign Supports	EACH	26.000	26.000		
0302	638.4000	Moving Small Sign Supports	EACH	4.000	4.000		
0304	642.5201	Field Office Type C	EACH	1.000	0.820	0.100	0.080
0306	643.0300	Traffic Control Drums	DAY	43,400.000	43,400.000		
0308	643.0410	Traffic Control Barricades Type II	DAY	2,420.000	2,420.000		
0310	643.0420	Traffic Control Barricades Type III	DAY	5,440.000	5,440.000		
0312	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	280.000	280.000		
0314	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	280.000	280.000		
0316	643.0705	Traffic Control Warning Lights Type A	DAY	8,300.000	8,300.000		
0318	643.0715	Traffic Control Warning Lights Type C	DAY	3,230.000	3,230.000		
0320	643.0800	Traffic Control Arrow Boards	DAY	550.000	550.000		
0322	643.0900	Traffic Control Signs	DAY	20,300.000	20,300.000		
0324	643.1000	Traffic Control Signs Fixed Message	SF	34.500	34.500		
0326	643.1050	Traffic Control Signs PCMS	DAY	900.000	900.000		
0328	643.5000	Traffic Control	EACH	1.000	0.820	0.100	0.080
0330	644.1410	Temporary Pedestrian Surface Asphalt	SF	400.000	400.000		
0332	644.1601	Temporary Pedestrian Curb Ramp	DAY	1,195.000	1,195.000		
0334	644.1810	Temporary Pedestrian Barricade	LF	400.000	400.000		
0336	646.1020	Marking Line Epoxy 4-Inch	LF	6,625.000	6,625.000		
0338	646.3020	Marking Line Epoxy 8-Inch	LF	3,080.000	3,080.000		
0340	646.5020	Marking Arrow Epoxy	EACH	42.000	42.000		
0342	646.5120	Marking Word Epoxy	EACH	12.000	12.000		
0344	646.5220	Marking Symbol Epoxy	EACH	13.000	13.000		
0346	646.5320	Marking Railroad Crossings Epoxy	EACH	4.000	4.000		
0348	646.6120	Marking Stop Line Epoxy 18-Inch	LF	550.000	550.000		
0350	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	330.000	330.000		
0352	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	1,765.000	1,765.000		
0354	646.8120	Marking Curb Epoxy	LF	240.000	240.000		
0356	646.8220	Marking Island Nose Epoxy	EACH	13.000	13.000		
0358	646.9000	Marking Removal Line 4-Inch	LF	3,065.000	3,065.000		
0360	646.9100	Marking Removal Line 8-Inch	LF	790.000	790.000		
0362	646.9300	Marking Removal Special Marking	EACH	6.000	6.000		
0364	649.0105	Temporary Marking Line Paint 4-Inch	LF	23,855.000	23,855.000		
0366	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	5,950.000	5,950.000		
0368	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	7,675.000	7,675.000		
0370	649.0205	Temporary Marking Line Paint 8-Inch	LF	2,660.000	2,660.000		
0372	649.0220	Temporary Marking Line Epoxy 8-Inch	LF	3,610.000	3,610.000		
0374	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	1,060.000	1,060.000		
0376	649.0505	Temporary Marking Arrow Paint	EACH	14.000	14.000		
0378	649.0520	Temporary Marking Arrow Epoxy	EACH	52.000	52.000		
0380	649.0550	Temporary Marking Arrow Removable Tape	EACH	10.000	10.000		
0382	649.0620	Temporary Marking Word Epoxy	EACH	9.000	9.000		
0384	649.0805	Temporary Marking Stop Line Paint 18-Inch	LF	560.000	560.000		
0386	649.0820	Temporary Marking Stop Line Epoxy 18-Inch	LF	1,620.000	1,620.000		
0388	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	70.000	70.000		
0390	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	8,575.000	8,575.000		
0392	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	6,050.000	6,050.000		

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Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0394	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	3,140.000	3,140.000		
0396	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	2,850.000	2,850.000		
0398	652.0900	Loop Detector Slots	LF	70.000	70.000		
0400	653.0900	Adjusting Pull Boxes	EACH	1.000	1.000		
0402	653.0905	Removing Pull Boxes	EACH	24.000	24.000		
0404	654.0110	Concrete Bases Type 10	EACH	5.000	5.000		
0406	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,975.000	1,975.000		
0408	655.0240	Cable Traffic Signal 7-14 AWG	LF	4,615.000	4,615.000		
0410	655.0250	Cable Traffic Signal 9-14 AWG	LF	2,029.000	2,029.000		
0412	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,910.000	1,910.000		
0414	655.0615	Electrical Wire Lighting 10 AWG	LF	14,608.000	14,608.000		
0416	655.0620	Electrical Wire Lighting 8 AWG	LF	24,420.000	24,420.000		
0418	655.0630	Electrical Wire Lighting 4 AWG	LF	8,140.000	8,140.000		
0420	655.0800	Loop Detector Wire	LF	9,292.000	9,292.000		
0422	656.0200	Electrical Service Meter Breaker Pedestal (location) 001. Ridge & University	LS	1.000	1.000		
0424	656.0200	Electrical Service Meter Breaker Pedestal (location) 002. University Bay & University	LS	1.000	1.000		
0426	656.0200	Electrical Service Meter Breaker Pedestal (location) 003. University Bay & Marshall	LS	1.000	1.000		
0428	656.0200	Electrical Service Meter Breaker Pedestal (location) 004. Ridge & University	LS	1.000	1.000		
0430	656.0200	Electrical Service Meter Breaker Pedestal (location) 005. University Bay & University	LS	1.000	1.000		
0432	657.0100	Pedestal Bases	EACH	21.000	21.000		
0434	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	43.000	43.000		
0436	657.0346	Poles Type 9-Over Height	EACH	1.000	1.000		
0438	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	16.000	16.000		
0440	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000		
0442	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	5.000	5.000		
0444	657.0515	Monotube Arms 15-FT	EACH	2.000	2.000		
0446	658.0500	Pedestrian Push Buttons	EACH	29.000	29.000		
0448	658.5069	Signal Mounting Hardware (location) 001. Hill	LS	1.000	1.000		
0450	658.5069	Signal Mounting Hardware (location) 002. Ridge	LS	1.000	1.000		
0452	658.5069	Signal Mounting Hardware (location) 003. Farley	LS	1.000	1.000		
0454	658.5069	Signal Mounting Hardware (location) 004. Marshall	LS	1.000	1.000		
0456	690.0150	Sawing Asphalt	LF	9,615.000	9,615.000		
0458	690.0250	Sawing Concrete	LF	6,720.000	6,720.000		
0460	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000		
0462	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000		
0464	740.0440	Incentive IRI Ride	DOL	7,600.000	7,600.000		
0466	801.0117	Railroad Flagging Reimbursement	DOL	110,000.000	110,000.000		
0468	999.1001.S	Seismograph	EACH	1.000	1.000		
0470	999.1501.S	Crack and Damage Survey	EACH	1.000	1.000		
0472	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,100.000	2,100.000		
0474	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	6,480.000	6,480.000		
0476	SPV.0035	Special 001. Abandon Sanitary Sewer-Slurry	CY	22.860		22.860	
0478	SPV.0035	Special 002. Rock Excavation For Sanitary Sewer	CY	50.000		50.000	
0480	SPV.0035	Special 003. Rock Excavation For Water Main	CY	30.000		30.000	
0482	SPV.0060	Special 001. Settlement Monitoring	EACH	2.000	2.000		
0484	SPV.0060	Special 002. Locate and Reference Property Corners	EACH	27.000	27.000		
0486	SPV.0060	Special 003. Reset Property Corners	EACH	27.000	27.000		
0488	SPV.0060	Special 004. Precast Sign Post Base	EACH	46.000	46.000		
0490	SPV.0060	Special 005. Sign Post Base For Concrete Installation	EACH	7.000	7.000		

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Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0492	SPV.0060	Special 006. Project Dewatering	EACH	1.000	1.000		
0494	SPV.0060	Special 007. Wastewater Control	EACH	1.000		1.000	
0496	SPV.0060	Special 008. Construction Staking Sanitary Sewer	EACH	1.000		1.000	
0498	SPV.0060	Special 009. Construction Staking Water Main	EACH	1.000		1.000	
0500	SPV.0060	Special 010. Inlet Cover Type H Special	EACH	82.000	82.000		
0502	SPV.0060	Special 011. Inlet Cover Type H-S Special	EACH	12.000	12.000		
0504	SPV.0060	Special 012. Manhole Cover Type J Special	EACH	24.000	7.000	17.000	
0506	SPV.0060	Special 013. Temporary Inlet Cover	EACH	55.000	55.000		
0508	SPV.0060	Special 014. Storm Sewer Pipe 96-Inch Bend	EACH	9.000	9.000		
0510	SPV.0060	Special 015. Wastewater Control MMSD	EACH	1.000			1.000
0512	SPV.0060	Special 016. Inlet 2x3-Ft Special	EACH	9.000	9.000		
0514	SPV.0060	Special 017. Manhole Special	EACH	1.000	1.000		
0516	SPV.0060	Special 018. Storm Sewer Tap	EACH	27.000	27.000		
0518	SPV.0060	Special 019. MMSD Sanitary Sewer Bypassing	EACH	1.000			1.000
0520	SPV.0060	Special 020. Close Storm Sewer Connection	EACH	8.000	8.000		
0522	SPV.0060	Special 021. Construction Staking Project 5992-11-31	EACH	1.000	1.000		
0524	SPV.0060	Special 022. Construction Staking Project 5992-11-33	EACH	1.000			1.000
0526	SPV.0060	Special 023. Implement Tree Protection Plan	EACH	1.000			1.000
0528	SPV.0060	Special 024. Furnish and Install Fluorocarbon Gaskets, 6-Inch	EACH	5.000		5.000	
0530	SPV.0060	Special 025. Furnish and Install Fluorocarbon Gaskets, 8-Inch	EACH	5.000		5.000	
0532	SPV.0060	Special 026. Furnish and Install Fluorocarbon Gaskets, 12-Inch	EACH	12.000		12.000	
0534	SPV.0060	Special 027. Furnish and Install Fluorocarbon Gaskets, 16-Inch	EACH	20.000		20.000	
0536	SPV.0060	Special 028. MMSD Sanitary Sewer Manhole (6-Foot Diameter)	EACH	3.000	3.000		
0538	SPV.0060	Special 029. MMSD Sanitary Sewer Manhole (7-Foot Diameter)	EACH	1.000	1.000		
0540	SPV.0060	Special 030. Utility Line Opening (ULO)	EACH	42.000	31.000	5.000	6.000
0542	SPV.0060	Special 031. Sewer Electronic Markers	EACH	41.000		41.000	
0544	SPV.0060	Special 032. Sanitary Lateral Reconnect	EACH	21.000		21.000	
0546	SPV.0060	Special 033. Sanitary Sewer Tap	EACH	13.000		13.000	
0548	SPV.0060	Special 034. Sanitary Sewer Access Structure (4-Foot Diameter)	EACH	9.000		9.000	
0550	SPV.0060	Special 035. Sanitary Sewer Access Structure (5-Foot Diameter)	EACH	8.000		8.000	
0552	SPV.0060	Special 036. Sanitary Sewer Internal Chimney Seal	EACH	3.000		3.000	
0554	SPV.0060	Special 037. Remove Sanitary Sewer Access Structure	EACH	3.000	1.000	2.000	
0556	SPV.0060	Special 039. Abandon Sanitary Sewer Access Structure	EACH	9.000		9.000	
0558	SPV.0060	Special 040. Abandon Sanitary Sewer-Pipe Plug	EACH	14.000		14.000	
0560	SPV.0060	Special 041. Furnish & Install 6-Inch Water Valve, 6-Inch	EACH	15.000		15.000	
0562	SPV.0060	Special 042. Furnish & Install 8-Inch Water Valve, 8-Inch	EACH	9.000		9.000	
0564	SPV.0060	Special 043. Furnish & Install 12-Inch Water Valve, 12-Inch	EACH	4.000		4.000	
0566	SPV.0060	Special 044. Furnish & Install 16-Inch Water Valve, 16-Inch	EACH	17.000		17.000	
0568	SPV.0060	Special 045. Furnish And Install Hydrant / Salvage Existing Hydrant	EACH	6.000		6.000	
0570	SPV.0060	Special 045. Furnish And Install Hydrant/Salvage Existing Hydrant	EACH	1.000		1.000	
0572	SPV.0060	Special 046. Reconnect Water Service Lateral, 1-Inch	EACH	17.000		17.000	
0574	SPV.0060	Special 048. Reconnect Water Service Lateral, 2-Inch	EACH	2.000		2.000	
0576	SPV.0060	Special 049. Cut-In Or Connect-To Existing Water System	EACH	26.000		26.000	
0578	SPV.0060	Special 051. Abandon Water Valve Box	EACH	16.000		16.000	
0580	SPV.0060	Special 052. Abandon Water Valve Access Structure	EACH	2.000		2.000	
0582	SPV.0060	Special 053. Furnish and Install Insulation	EACH	11.000		11.000	
0584	SPV.0060	Special 054. Adjust Water Valve Box Sections	EACH	4.000		4.000	
0586	SPV.0060	Special 055. Furnish And Install Anode	EACH	1.000		1.000	
0588	SPV.0060	Special 056. Clay Trench Plug	EACH	5.000		5.000	

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Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0590	SPV.0060	Special 057. Interceptor Sewer Manhole, (6-Foot Diameter)	EACH	5.000			5.000
0592	SPV.0060	Special 058. Interceptor Manhole Lining System	EACH	5.000			5.000
0594	SPV.0060	Special 059. Adjust MMSD Special	EACH	2.000	2.000		
0596	SPV.0060	Special 060. MMSD Manhole 02-048 Flat Top Replacement	EACH	1.000			1.000
0598	SPV.0060	Special 061. Rock Excavation for Concrete Bases	EACH	6.000	6.000		
0600	SPV.0060	Special 062. Electrical Pull Box Type I	EACH	34.000	34.000		
0602	SPV.0060	Special 063. Electrical Pull Box Type III	EACH	5.000	5.000		
0604	SPV.0060	Special 064. Electrical Pull Box Type V	EACH	19.000	19.000		
0606	SPV.0060	Special 065. Electrical Pull Box Type VII	EACH	12.000	12.000		
0608	SPV.0060	Special 066. Concrete Bases Type G	EACH	16.000	16.000		
0610	SPV.0060	Special 067. Concrete Bases Type LB-3	EACH	39.000	39.000		
0612	SPV.0060	Special 068. Concrete Bases Type LB-8	EACH	15.000	15.000		
0614	SPV.0060	Special 069. Concrete Bases Type P	EACH	5.000	5.000		
0616	SPV.0060	Special 070. Concrete Bases Type G Spread Footing	EACH	1.000	1.000		
0618	SPV.0060	Special 071. Transformer Base 16-Inch Steel	EACH	13.000	13.000		
0620	SPV.0060	Special 072. Pole 20-Ft 7 Gauge	EACH	6.000	6.000		
0622	SPV.0060	Special 073. Pole 30-Foot, 7 Gauge Single Mount	EACH	2.000	2.000		
0624	SPV.0060	Special 074. Pole 30-Foot, 7 Gauge Twin Mount	EACH	3.000	3.000		
0626	SPV.0060	Special 075. Pole 30-Foot, 11 Gauge Single Mount	EACH	37.000	37.000		
0628	SPV.0060	Special 076. Pole 30-Foot, 11 Gauge Twin Mount	EACH	9.000	9.000		
0630	SPV.0060	Special 077. Monotube Pole, Type 9	EACH	4.000	4.000		
0632	SPV.0060	Special 079. LED Luminaire and Mounting Bracket Type V	EACH	5.000	5.000		
0634	SPV.0060	Special 080. Monotube Arm, 25-Foot	EACH	2.000	2.000		
0636	SPV.0060	Special 081. Monotube Arm, 30-Foot	EACH	2.000	2.000		
0638	SPV.0060	Special 082. LED Luminaire And Mounting Bracket Type I	EACH	17.000	17.000		
0640	SPV.0060	Special 083. LED Luminaire And Mounting Bracket Type II	EACH	24.000	24.000		
0642	SPV.0060	Special 084. LED Luminaire And Mounting Bracket Type III	EACH	8.000	8.000		
0644	SPV.0060	Special 085. LED Luminaire And Mounting Bracket Type IV	EACH	11.000	11.000		
0646	SPV.0060	Special 086. Traffic Signal Trombone Arm Aluminum 12-Foot	EACH	1.000	1.000		
0648	SPV.0060	Special 087. Traffic Signal Trombone Arm Aluminum 15-Foot	EACH	3.000	3.000		
0650	SPV.0060	Special 088. Traffic Signal Trombone Arm Aluminum 18-Foot	EACH	2.000	2.000		
0652	SPV.0060	Special 089. Traffic Signal Trombone Arm Aluminum 20-Foot	EACH	3.000	3.000		
0654	SPV.0060	Special 090. Traffic Signal Trombone Arm Aluminum 22-Foot	EACH	2.000	2.000		
0656	SPV.0060	Special 091. Traffic Signal Heads 12-Inch, 3-Section Vertical	EACH	71.000	71.000		
0658	SPV.0060	Special 092. Traffic Signal Heads 12-Inch, 4-Section Vertical	EACH	7.000	7.000		
0660	SPV.0060	Special 093. Traffic Signal Heads 12-Inch, 5-Section Vertical	EACH	2.000	2.000		
0662	SPV.0060	Special 094. Traffic Signal Heads 16-Inch Pedestrian with Countdown	EACH	39.000	39.000		
0664	SPV.0060	Special 095. Backplates Signal Face, 3-Section 12-Inch	EACH	71.000	71.000		
0666	SPV.0060	Special 096. Backplates Signal Face, 4-Section 12-Inch	EACH	7.000	7.000		
0668	SPV.0060	Special 097. Backplates Signal Face, 5-Section 12-Inch	EACH	2.000	2.000		
0670	SPV.0060	Special 098. NEMA TS2 Type 1 Traffic Signal Control Cabinet	EACH	4.000	4.000		
0672	SPV.0060	Special 099. Traffic Signal Controller	EACH	4.000	4.000		
0674	SPV.0060	Special 100. Optical Signal Preempt	EACH	4.000	4.000		
0676	SPV.0060	Special 101. Traffic Signal Ethernet Switch	EACH	4.000	4.000		
0678	SPV.0060	Special 102. Malfunction Management Unit (MMU)	EACH	4.000	4.000		
0680	SPV.0060	Special 103. Lighting Control Cabinet	EACH	2.000	2.000		
0682	SPV.0060	Special 104. Vehicular Detection System Programming Unit	EACH	4.000	4.000		
0684	SPV.0060	Special 105. No Right Turn Blank Out Signal	EACH	4.000	4.000		
0686	SPV.0060	Special 106. Temporary Traffic Signals (Hill)	EACH	1.000	1.000		

					5992-11-31	5992-11-32	5992-11-33
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0688	SPV.0060	Special 107. Temporary Traffic Signals (Ridge)	EACH	1.000	1.000		
0690	SPV.0060	Special 108. Temporary Traffic Signals (Farley)	EACH	1.000	1.000		
0692	SPV.0060	Special 109. Temporary Street Lighting System Maintenance and Operations	EACH	1.000	1.000		
0694	SPV.0060	Special 110. Temporary Wood Poles	EACH	37.000	37.000		
0696	SPV.0060	Special 111. Temporary Lighting Arms	EACH	18.000	18.000		
0698	SPV.0060	Special 112. Temporary Luminaires Utility	EACH	18.000	18.000		
0700	SPV.0060	Special 113. Reconstruct Bench And Flowlines	EACH	5.000		5.000	
0702	SPV.0060	Special 115. Salvage Hydrant	EACH	4.000		4.000	
0704	SPV.0090	Special 001. Concrete Curb And Gutter 24-Inch Type D Special	LF	14,010.000	14,010.000		
0706	SPV.0090	Special 002. Concrete Curb 24-Inch Type D Special	LF	205.000	205.000		
0708	SPV.0090	Special 003. Pedestrian Railing	LF	550.000	550.000		
0710	SPV.0090	Special 004. Sign Post	LF	276.000	276.000		
0712	SPV.0090	Special 005. Reflective Sign Post	LF	238.000	238.000		
0714	SPV.0090	Special 006. Loop Detector Lead-In Cable Special	LF	8,886.000	8,886.000		
0716	SPV.0090	Special 007. Concrete Curb and Gutter 24-Inch Type A Special	LF	240.000	240.000		
0718	SPV.0090	Special 008. Temporary Asphaltic Curb	LF	6,800.000	6,800.000		
0720	SPV.0090	Special 011. Storm Sewer Pipe Reinforced Concrete Class IV 96-Inch	LF	92.000	92.000		
0722	SPV.0090	Special 012. Storm Sewer Pipe Reinforced Concrete Class IV 96-Inch Rock Cut	LF	900.000	900.000		
0724	SPV.0090	Special 019. Remove Pipe Sanitary	LF	144.000		144.000	
0726	SPV.0090	Special 020. Sanitary Sewer Lateral	LF	423.000		423.000	
0728	SPV.0090	Special 021. Sanitary Sewer Pipe PVC, 8-Inch	LF	576.000		576.000	
0730	SPV.0090	Special 022. Sanitary Sewer Pipe PVC, 10-Inch	LF	1,079.000	20.000	1,059.000	
0732	SPV.0090	Special 023. Sanitary Sewer Pipe PVC, 12-Inch	LF	697.000		697.000	
0734	SPV.0090	Special 024. Select Fill for Sanitary Sewer	LF	2,755.000		2,755.000	
0736	SPV.0090	Special 025. Furnish And Install Watermain Pipe & Fittings, 6-Inch	LF	272.000		272.000	
0738	SPV.0090	Special 026. Furnish And Install Watermain Pipe & Fittings, 8-Inch	LF	340.000		340.000	
0740	SPV.0090	Special 027. Furnish And Install Watermain Pipe & Fittings, 12-Inch	LF	216.000		216.000	
0742	SPV.0090	Special 028. Furnish And Install Watermain Pipe & Fittings, 16-Inch	LF	2,268.000		2,268.000	
0744	SPV.0090	Special 029. Furnish And Install Watermain Pipe & Fittings, 10-Inch	LF	160.000		160.000	
0746	SPV.0090	Special 030. Select Fill For Water Main	LF	3,256.000		3,256.000	
0748	SPV.0090	Special 031. Interceptor Sewer, 30-Inch	LF	1,363.000			1,363.000
0750	SPV.0090	Special 032. Trenchless Casing Pipe, 48-Inch Steel Minimum	LF	45.000			45.000
0752	SPV.0090	Special 033. Fiber Optic Cable 12-Count	LF	3,867.000	3,867.000		
0754	SPV.0090	Special 034. Fiber Optic Cable 288-Count	LF	2,923.000	2,923.000		
0756	SPV.0090	Special 035. Electrical Wire Lighting, 14-3 Grounded	LF	2,079.000	2,079.000		
0758	SPV.0090	Special 036. Temporary Overhead Span Wire	LF	3,769.000	3,769.000		
0760	SPV.0090	Special 037. MMSD Sanitary Sewer, 36-Inch	LF	167.600	167.600		
0762	SPV.0090	Special 041. Railing Steel Pedestrian Ornamental	LF	311.000	311.000		
0764	SPV.0165	Special 001. Wall Concrete Panel Mechanically Stabilized Earth R-13-360	SF	3,810.000	3,810.000		
0766	SPV.0165	Special 002. Wall Concrete Panel Mechanically Stabilized Earth R-13-361	SF	3,610.000	3,610.000		
0768	SPV.0165	Special 003. Wall Modular Block Gravity Landscape	SF	435.000	435.000		
0770	SPV.0165	Special 004. High Friction Colored Surface - Bike Box Green	SF	710.000	710.000		
0772	SPV.0170	Special 001. Pavement Cleanup Project 5992-11-31	STA	82.000	82.000		
0774	SPV.0195	Special 001. Stabilization Clear Stone, 3-Inch	TON	100.000			100.000
0776	SPV.0195	Special 002. Granular Backfill, Interceptor Sewer	TON	4,000.000			4,000.000
0778	SPV.0195	Special 003. Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	4,250.000	4,250.000		
0780	SPV.0195	Special 004. Excavating, Loading, Hauling, and Landfill Disposal of Cinder-Cntmated Soil	TON	2,125.000	2,125.000		
0782	SPV.0200	Special 001. Construct Inside Drop 8-Inch	VF	2.300		2.300	

CLEARING AND GRUBBING

	LOCATION	STATION - STATION	201.0105 CLEARING (STA)	201.0120 CLEARING (ID)	201.0205 GRUBBING (STA)	201.0220 GRUBBING (ID)
5992-11-31						
CATEGORY 0010						
STAGE 1						
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	-	2	-	2
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	-	27	-	27
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	4	10	4	10
	STAGE 1 SUBTOTAL		4	39	4	39
STAGE 2						
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	3	-	3	-
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	2	-	2	-
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	-	6	-	6
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1	-	1	-
	PEDESTRIAN PATH	50+50 - 60+50	7	-	7	-
	STAGE 2 SUBTOTAL		13	6	13	6
STAGE 4						
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1	-	1	-
	STAGE 4 SUBTOTAL		1	0	1	0
	CATEGORY 0010 TOTAL		**18**	**45**	**18**	**45**
5992-11-31						
CATEGORY 0080						
STAGE 2						
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	1	-	1	-
	STAGE 2 SUBTOTAL		1	0	1	0
	CATEGORY 0080 TOTAL		**1**	**0**	**1**	**0**
	PROJECT 5992-11-31 TOTAL		**19**	**45**	**19**	**45**

EXCAVATION, LOADING, HAULING AND LANDFILL TREATMENT OF CONTAMINATED SOIL

STAGE	LOCATION	STATION - STATION	SPV.0195.003 PETROLEUM (TON)	SPV.0195.004 CINDER (TON)
5992-11-31				
CATEGORY 0010				
STAGE 1				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	700
	STAGE 1 SUBTOTAL		--	700
STAGE 2				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	85	---
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	2550	780
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	510	590
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	10
	STAGE 2 SUBTOTAL		3145	1380
STAGE 4				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	340	25
	UNIVERSITY AVE	70+00 'UA' - 73+40 'UA'	255	--
	STAGE 4 SUBTOTAL		595	25
	CATEGORY 0010 TOTAL		**3740**	**2105**
5992-11-31				
CATEGORY 0080				
STAGE 2				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	510	20
	STAGE 2 SUBTOTAL		510	20
	CATEGORY 0110 TOTAL		**510**	**20**
	PROJECT 5992-11-31 TOTAL		**4250**	**2125**

NOTE: CONTAMINATED SOIL CALCULATIONS ARE BASED ON 1.7 TONS/CY
CINDER QUANTITY ASSUMES 50% OF CINDERS CAN BE RE-USED ON SITE

REMOVING CONCRETE PAVEMENT

	LOCATION	STATION - STATION	204.0100 REMOVING CONCRETE PAVEMENT (SY)
5992-11-31			
CATEGORY 0010			
STAGE 1			
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	135
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	115
	STAGE 1 SUBTOTAL		250
STAGE 2			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	2490
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	3140
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	3130
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	2740
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1150
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	160
	STAGE 2 SUBTOTAL		12810
STAGE 3			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	810
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	480
	MARSAHLL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	250
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	920
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	670
	STAGE 3 SUBTOTAL		3130
STAGE 4			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	1850
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	2630
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	2900
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	2630
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1420
	SCHMITT PL	62+16 'SP' - 62+57'SP'	150
	RIDGE ST	41+94 'RS' - 42+48 'RS'	220
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	360
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	200
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	570
	STAGE 4 SUBTOTAL		12930
	CATEGORY 0010 TOTAL		**29120**
5992-11-31			
CATEGORY 0080			
STAGE 2			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	390
	STAGE 2 SUBTOTAL		390
STAGE 2A			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	325
	STAGE 2A SUBTOTAL		325
	CATEGORY 0080 TOTAL		**715**
	PROJECT 5992-11-31 TOTAL		**29835**

REMOVING GUARDRAIL

STAGE	LOCATION	STATION - STATION	204.0165 REMOVING GUARDRAIL (LF)
5992-11-31			
CATEGORY 0010			
STAGE 2			
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	240
	STAGE 2 SUBTOTAL		240
	CATEGORY 0010 TOTAL		**240**
	PROJECT 5992-11-31 TOTAL		**240**

REMOVING MANHOLES & INLETS

	STATION		OFFSET	204.0210 REMOVING MANHOLES (EACH)	204.0220 REMOVING INLETS (EACH)	SPV.0060.020 CLOSE STORM SEWER CONNECTION (EACH)
5992-11-31						
CATEGORY 0040						
STAGE 1A						
	171+35	EB	1' LT	--	1	--
	171+35	EB	18' LT	--	1	--
	171+51	EB	1' LT	--	1	--
	STAGE 1A SUBTOTAL			0	3	0
STAGE 1B						
	170+13	EB	0' RT	--	1	1
	170+14	EB	21' LT	--	1	--
	STAGE 1B SUBTOTAL			0	2	1
STAGE 2						
	139+02	WB	36' LT	--	1	--
	141+03	WB	36' LT	--	1	--
	149+04	WB	35' LT	--	1	--
	156+06	WB	39' LT	--	1	--
	158+85	WB	39' LT	--	1	--
	160+99	WB	39' LT	--	1	--
	164+01	WB	43' LT	--	1	--
	166+50	WB	25' LT	--	1	--
	170+15	WB	39' LT	--	1	--
	171+49	WB	41' LT	--	1	--
	50+50	MC	31' LT	--	1	--
	50+50	MC	47' LT	--	1	--
	50+50	MC	32' RT	--	1	--
	50+50	MC	11' RT	--	1	--
	STAGE 2 SUBTOTAL			0	14	0
STAGE 3						
	139+04	WB	4' RT	--	1	--
	139+75	EB	3' LT	--	1	--
	139+83	EB	3' LT	--	1	--
	140+16	EB	3' LT	--	1	--
	141+06	WB	2' RT	--	1	--
	141+09	EB	3' LT	--	1	--
	141+09	EB	3' RT	--	1	--
	144+27	WB	4' LT	--	1	--
	145+41	EB	7' LT	--	1	--
	149+05	WB	0' RT	--	1	--
	149+07	EB	4' LT	--	1	--
	151+09	WB	1' LT	--	1	--
	151+09	WB	5' RT	--	1	--
	152+55	EB	8' LT	--	1	--
	152+55	EB	3' LT	--	1	--
	155+72	EB	2' LT	--	1	--
	156+05	WB	0' RT	--	1	1
	158+80	EB	11' LT	--	1	--
	158+80	EB	0' LT	--	1	--
	160+15	EB	11' LT	--	1	--
	160+95	EB	13' LT	--	1	1
	161+46	EB	5' LT	--	1	1
	163+97	EB	12' LT	--	1	--
	164+01	WB	6' RT	--	1	--
	164+96	EB	12' LT	--	1	1
	166+71	EB	2' RT	--	1	1
	166+71	EB	5' LT	--	1	1
	STAGE 3 SUBTOTAL			0	27	6
	CATEGORY 0040 SUBTOTAL			0	46	7

REMOVING MANHOLES & INLETS

	STATION		OFFSET	204.0210 REMOVING MANHOLES (EACH)	204.0220 REMOVING INLETS (EACH)	SPV.0060.020 CLOSE STORM SEWER CONNECTION (EACH)
STAGE 4						
	141+09	EB	36' RT	--	1	--
	144+26	EB	36' RT	--	1	--
	145+35	EB	35' RT	--	1	--
	149+05	EB	35' RT	--	1	--
	149+14	EB	35' RT	--	1	--
	151+39	EB	36' RT	--	1	--
	160+17	EB	38' RT	--	1	--
	161+16	EB	35' RT	--	1	--
	163+20	EB	34' RT	--	1	--
	163+95	EB	34' RT	--	1	1
	62+38	SP	15' RT	--	1	--
	62+40	SP	24' LT	--	1	--
	42+35	RS	42' RT	--	1	--
	42+22	RS	19' LT	--	1	--
	42+55	RS	29' LT	1	--	--
	33+04	NF	33' RT	--	1	--
	33+35	NF	40' LT	--	1	--
	14+71	FA	20' LT	--	1	--
	14+55	FA	19' RT	--	1	--
	14+73	FA	41' RT	--	1	--
	STAGE 4 SUBTOTAL			1	19	1
	CATEGORY 0040 TOTAL			**1**	**65**	**8**
5992-11-31						
CATEGORY 0100						
STAGE 2						
	20+61	BD	22' RT	--	1	--
	23+69	BD	18' RT	--	1	--
	20+53	BD	63' RT	--	1	--
	23+48	BD	37' RT	--	1	--
	23+20	BD	35' RT	--	1	--
	STAGE 2 SUBTOTAL			0	5	0
STAGE 2A						
	20+71	BD	46' LT	--	1	--
	20+72	BD	51' LT	--	1	--
	STAGE 2A SUBTOTAL			0	2	0
	CATEGORY 0100 TOTAL			**0**	**7**	**0**
	PROJECT 5992-11-31 TOTAL			**1**	**72**	**8**

REMOVING CURB & GUTTER

	LOCATION	STATION - STATION	204.0150 REMOVING CURB & GUTTER (LF)
5992-11-31			
CATEGORY 0010			
STAGE 1			
	BEGIN PROJECT - SHOREWOOD BLVD	135+68 'EB' - 138+00 'EB'	450
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	1120
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	1200
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	1300
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	1280
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1820
	STAGE 1 SUBTOTAL		7170
STAGE 2			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	80
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	280
	CATAFALQUE CT	50+00 - 54+00	390
	STAGE 2 SUBTOTAL		750
STAGE 4			
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	190
	SCHMITT PL	62+16 'SP' - 62+57'SP'	20
	RIDGE ST	41+94 'RS' - 42+48 'RS'	50
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	160
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	360
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	50
	STAGE 4 SUBTOTAL		830
	CATEGORY 0010 TOTAL		**8750**
5992-11-31			
CATEGORY 0080			
STAGE 2			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	750
	STAGE 2 SUBTOTAL		750
STAGE 2A			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	60
	STAGE 2A SUBTOTAL		60
	CATEGORY 0080 TOTAL		**810**
	PROJECT 5992-11-31 TOTAL		**9560**

REMOVING ASPHALTIC SURFACE BUTT JOINTS

	LOCATION	STATION - STATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)
5992-11-31			
CATEGORY 0010			
STAGE 6			
	BEGIN PROJECT - SHOREWOOD BLVD	135+68 'EB' - 138+00 'EB'	300
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	1230
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	1007
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	1138
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	1175
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1070
	STAGE 6 SUBTOTAL		5920
	CATEGORY 0010 TOTAL		**5920**
5992-11-31			
CATEGORY 0080			
STAGE 6			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	2740
	STAGE 6 SUBTOTAL		2740
	CATEGORY 0080 TOTAL		**2740**
	PROJECT 5992-11-31 TOTAL		**8660**

REMOVING RAILING

STAGE	LOCATION	STATION - STATION	204.9090.S.001 REMOVING RAILING (LF)
5992-11-31			
CATEGORY 0010			
STAGE 2			
	CATAFALQUE COURT	50+75 - 55+00	425
	STAGE 2 SUBTOTAL		425
	CATEGORY 0010 TOTAL		**425**
	PROJECT 5992-11-31 TOTAL		**425**

REMOVING STORM SEWER

STA	RL	LOCATION	204.0245 .001 12'X4' BOX LF	204.0245 .002 12-INCH LF	204.0245 .003 15-INCH LF	204.0245 .004 18-INCH LF	204.0245 .005 24-INCH LF	204.0245 .006 30-INCH LF
5992-11-31								
CATEGORY 0040								
STAGE 1A								
171+35	EB	9' LT	--	17	--	--	--	--
171+37	EB	4' RT	--	11	--	--	--	--
171+43	EB	0' LT	--	16	--	--	--	--
STAGE 1A SUBTOTAL			0	44	0	0	0	0
STAGE 1B								
170+14	EB	10' LT	--	21	--	--	--	--
170+14	EB	27' LT	--	13	--	--	--	--
172+75	EB	33' RT	--	43	--	--	--	--
STAGE 1B SUBTOTAL			0	77	0	0	0	0
STAGE 2								
138+40	WB	10' LT	44	--	--	--	--	--
141+04	WB	16' LT	--	39	--	--	--	--
145+67	WB	21' LT	--	79	--	--	--	--
145+96	WB	62' LT	--	25	--	--	--	--
149+05	WB	17' LT	--	--	--	35	--	--
151+09	WB	11' LT	--	21	--	--	--	--
152+59	WB	2' LT	--	24	--	--	--	--
156+06	WB	19' LT	--	39	--	--	--	--
158+85	WB	16' LT	--	46	--	--	--	--
160+99	WB	14' LT	--	48	--	--	--	--
164+01	WB	18' LT	--	49	--	--	--	--
171+42	WB	41' LT	--	15	--	--	--	--
50+34	MC	10' RT	--	33	--	--	--	--
50+35	MC	47' LT	--	30	--	--	--	--
50+50	MC	21' RT	--	21	--	--	--	--
50+50	MC	39' LT	--	16	--	--	--	--
STAGE 2 SUBTOTAL			44	485	0	35	0	0
STAGE 3								
139+79	EB	2' LT	--	--	8	--	--	--
140+00	EB	2' LT	--	33	--	--	--	--
140+62	EB	0' RT	--	92	--	--	--	--
141+05	WB	4' RT	--	4	--	--	--	--
141+07	EB	0' RT	--	7	--	--	--	--
144+84	WB	2' RT	--	--	115	--	--	--
145+38	EB	14' RT	--	12	--	--	--	--
149+08	WB	6' RT	--	--	--	15	--	--
151+09	WB	1' RT	--	6	--	--	--	--
151+69	EB	4' LT	--	--	--	--	--	33
152+55	EB	5' LT	--	5	--	--	--	--
155+74	EB	9' LT	--	--	15	--	--	--
156+05	WB	1' RT	--	2	--	--	--	--
158+80	EB	5' LT	--	11	--	--	--	--
161+46	EB	8' LT	--	8	--	--	--	--
163+97	EB	16' LT	--	--	--	10	--	--
166+71	EB	1' LT	--	6	--	--	--	--
STAGE 3 SUBTOTAL			--	186	138	25	--	33

REMOVING STORM SEWER

STA	RL	LOCATION	204.0245 .001 12'X4' BOX LF	204.0245 .002 12-INCH LF	204.0245 .003 15-INCH LF	204.0245 .004 18-INCH LF	204.0245 .005 24-INCH LF	204.0245 .006 30-INCH LF
STAGE 4								
139+76	EB	16' RT	--	--	--	39	--	--
141+09	EB	19' RT	--	33	--	--	--	--
144+26	EB	9' RT	--	--	52	--	--	--
145+38	EB	14' RT	--	31	--	--	--	--
149+06	EB	15' RT	--	--	--	39	--	--
149+10	EB	35' RT	--	9	--	--	--	--
151+50	EB	31' RT	--	22	--	--	--	--
151+69	EB	4' LT	--	--	--	--	--	33
152+44	EB	17' RT	--	47	--	--	--	--
155+67	EB	14' RT	--	--	36	--	--	--
159+46	EB	6' RT	--	--	--	--	78	--
160+16	EB	18' RT	--	39	--	--	--	--
161+16	EB	10' RT	--	48	--	--	--	--
163+20	EB	10' RT	--	--	47	--	--	--
163+96	EB	11' RT	--	--	46	--	--	--
164+03	EB	49' RT	--	35	--	--	--	--
170+13	EB	3' RT	--	7	--	--	--	--
62+39	S	4' LT	--	39	--	--	--	--
62+46	S	39' LT	--	--	34	--	--	--
42+32	RS	43' RT	--	6	--	--	--	--
42+15	RS	18' LT	--	--	--	--	--	15
42+39	RS	23' LT	--	--	--	--	--	37
33+26	NF	32' LT	--	24	--	--	--	--
33+25	NF	13' RT	--	--	55	--	--	--
33+30	NF	16' LT	--	--	--	--	33	--
14+58	FA	21' RT	--	7	--	--	--	--
14+66	FA	1'RT	--	44	--	--	--	--
STAGE 4 SUBTOTAL			0	391	270	78	111	85
CATEGORY 0040 TOTAL			**44**	**1183**	**408**	**138**	**111**	**118**
5992-11-31								
CATEGORY 0100								
STAGE 2								
20+57	BD	42' RT	--	42	--	--	--	--
20+61	BD	16' RT	--	11	--	--	--	--
23+34	BD	36' RT	--	30	--	--	--	--
STAGE 2 SUBTOTAL			0	83	0	0	0	0
STAGE 2A								
20+72	BD	48' LT	--	5	--	--	--	--
20+66	BD	17' LT	--	64	--	--	--	--
20+78	BD	61' LT	--	25	--	--	--	--
STAGE 2A SUBTOTAL			0	94	0	0	0	0
CATEGORY 0100 TOTAL			**0**	**177**	**0**	**0**	**0**	**0**
PROJECT 5992-11-31 TOTAL			**44**	**1360**	**408**	**138**	**111**	**118**

REMOVING CONCRETE SIDEWALK

STAGE	LOCATION	STATION - STATION	204.0155 REMOVING CONCRETE SIDEWALK (SY)
5992-11-31			
CATEGORY 0010			
STAGE 1			
	BEGIN PROJECT - SHOREWOOD BLVD	135+68 'EB' - 138+00 'EB'	80
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	148
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	51
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	33
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	15
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	52
	STAGE 1 SUBTOTAL		379
STAGE 2A			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	49
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	40
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	155
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	0
	STAGE 2A SUBTOTAL		244
STAGE 2B			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	0
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	0
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	0
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	55
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	0
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	0
	STAGE 2B SUBTOTAL		55
STAGE 4			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	386
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	518
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	518
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	607
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	97
	RIDGE ST	41+94 'RS' - 42+48 'RS'	64
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	80
	STAGE 4 SUBTOTAL		2322
	CATEGORY 0010 TOTAL		**3000**
5992-11-31			
CATEGORY 0080			
STAGE 2			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	357
	STAGE 2 SUBTOTAL		357
STAGE 2A			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	13
	STAGE 2A SUBTOTAL		13
	CATEGORY 0080 TOTAL		**370**
	PROJECT 5992-11-31 TOTAL		**3370**

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EXCAVATION SUMMARY

5992-11-31 CATEGORY 0010		FROM / TO STATION	DIVISION	LOCATION	CONSTRUCTION STAGE	205.0100 EXCAVATION COMMON (1) (CY) CUT (2)	EBS EXCAVATION (3)	312.0110 SELECT CRUSHED MATERIAL (TON) (5)	UNEXPANDED FILL	MASS ORDINATE +/- (4)	COMMENT
	DIV. 1	136+10'EB' - 170+98'EB'	1-1	MAINLINE MEDIAN TEMPORARY WIDENING	STAGE 1	2,659	266	492	7	2,652	EXCESS MATERIAL AVAILABLE
				DIV 1 SUBTOTAL		2,659	266	492	7	2,652	
	DIV. 2	138+85'WB' - 172+05'WB'	2-1	MAINLINE WB RECONSTRUCTION	STAGE 2	12,595	1,259	2,330	376	12,219	EXCESS MATERIAL AVAILABLE. USED WITHIN DIVISION 2-3
		50+32'MC'-50+60'MC'	2-2	MARSHALL CT RECONSTRUCTION	STAGE 2	127	13	23	7	120	EXCESS MATERIAL AVAILABLE
		50+50 - 60+25	2-3	PEDESTRIAN OVERPASS CONSTRUCTION	STAGE 2	17	2	3	422	-404	
				DIV 2 SUBTOTAL		12,739	1,274	2,357	805	11,934	
	DIV. 3	138+88'WB' - 169+50'WB'	3-1	MAINLINE MEDIAN TEMPORARY WIDENING	STAGE 3	3,674	367	680	3	3,670	EXCESS MATERIAL AVAILABLE
				DIV 3 SUBTOTAL		3,674	367	680	3	3,670	
0010		138+86'EB'-170+85'EB'	4-1	MAINLINE EB RECONSTRUCTION	STAGE 4	11,361	1,136	2,102	49	11,312	EXCESS MATERIAL AVAILABLE
		62+16'SP'-62+54'SP'	4-2	SCHMITT PL RECONSTRUCTION	STAGE 4	175	18	32	0	175	EXCESS MATERIAL AVAILABLE
		41+94'RS'-42+49'RS'	4-3	RIDGE ST RECONSTRUCTION	STAGE 4	263	26	49	1	262	EXCESS MATERIAL AVAILABLE
	DIV. 4	32+00'NF'-33+32'NF'	4-4	N FRANKLIN AVE RECONSTRUCTION	STAGE 4	477	48	88	0	477	EXCESS MATERIAL AVAILABLE
		12+85'FA'-14+97'FA'	4-5	FARLEY AVE RECONSTRUCTION	STAGE 4	806	81	149	0	806	EXCESS MATERIAL AVAILABLE
		0+00-1+45	4-6	OLD UNIVERSITY AVE TEMPORARY ACCESS ROAD	STAGE 4	43	4	8	8	35	EXCESS MATERIAL AVAILABLE
		70+66'UA'-73+39'UA'	4-7	OLD UNIVERSITY RECONSTRUCTION	STAGE 4	585	59	108	2	584	EXCESS MATERIAL AVAILABLE
				DIV 4 SUBTOTAL		13,711	1,371	2,537	60	13,651	
	DIV. 5	135+68'EB'-169+50'EB'	5-1	MAINLINE MEDIAN CONSTRUCTION	STAGE 5	4,438	444	821	5	4,434	EXCESS MATERIAL AVAILABLE
				DIV 5 SUBTOTAL		4,438	444	821	5	4,434	
				SUBTOTALS		37,222	3,722	6,886	881	36,341	
				CATEGORY 0010 SUBTOTALS			**40,944**	**6,886**			
5992-11-31 CATEGORY 0080											
	DIV. 6	20+40'BD'-28+36'BD'	6-1	UNIVERSITY BAY DRIVE NB RECONSTRUCTION	STAGE 2	1,798	180	333	8	1,789	EXCESS MATERIAL AVAILABLE
				DIV 6 SUBTOTAL		1,798	180	333	8	1,789	
0080	DIV. 7	20+40'BD'-23+16'BD'	7-1	UNIVERSITY BAY DRIVE SB RECONSTRUCTION	STAGE 2A	706	71	131	0	706	EXCESS MATERIAL AVAILABLE
				DIV 7 SUBTOTAL		706	71	131	0	706	
				SUBTOTALS		2,504	250	463	8	2,495	
				CATEGORY 0080 SUBTOTALS			**2,754**	**463**			
				5992-11-31 PROJECT TOTALS			**43,698**	**7,349**			

Note 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
Note 2) Cut volume includes concrete and asphaltic surface material
Note 3) EBS Excavation to be backfilled with Select Crushed Material. All EBS material is to be wasted offsite
EBS quantity estimated using 10.0% of the cut volume
Note 4) The Mass Ordinate + or - Qty calculated for the Division.
Positive quantity indicates an excess of material within the Division.
Negative indicates a shortage of material within the Division
Mass Ordinate = Cut - Unexpanded Fill
The Mass Ordinate is for information purposes only as Common Excavation and Unexpanded Fill is not balanced for quantity purposes
and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.
Note 5) Select Borrow is to be used for EBS backfill

BASE AGGREGATE DENSE

STAGE	LOCATION	STATION - STATION	305.0110 BAD 3/4-INCH (TON)	305.0120* BAD 1 1/4-INCH (TON)	305.0130 BAD 3-INCH (TON)
5992-11-31					
CATEGORY 0010					
STAGE 1A					
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	-	565	515
	STAGE 1A SUBTOTAL		0	565	515
STAGE 1B					
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	-	330	300
	STAGE 1B SUBTOTAL		0	330	300
STAGE 2					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	107	1477	1343
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	136	1432	1302
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	117	1438	1307
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	176	1463	1330
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	23	1772	1611
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	19	103	82
	CATAFALQUE CT	50+10 - 53+80	-	308	420
	PEDESTRIAN PATH	50+10 - 53+05	-	156	-
	PEDESTRIAN PATH	56+56 - 60+50	-	276	-
	STAGE 2 SUBTOTAL		578	8426	7395
STAGE 4					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	110	1201	1092
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	144	1274	1158
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	150	1287	1170
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	170	1410	1282
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	42	876	796
	SCHMITT PL	62+16 'SP' - 62+57'SP'	2	137	109
	RIDGE ST	41+94 'RS' - 42+48 'RS'	12	209	166
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	6	359	286
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	16	515	409
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	31	448	357
	STAGE 4 SUBTOTAL		681	7715	6824
STAGE 5					
	BEGIN PROJECT - SHOREWOOD BLVD	135+50'EB' - 138+00'EB'	20	157	-
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	92	708	644
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	34	913	830
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	29	990	900
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	77	1201	1095
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	8	822	747
	STAGE 5 SUBTOTAL		240	4635	4216
	CATEGORY 0010 TOTAL		**1500**	**21340**	**18950**
5992-11-31					
CATEGORY 0080					
STAGE 2					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	185	865	757
	STAGE 2 SUBTOTAL		185	865	757
STAGE 2A					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	20	450	393
	STAGE 2A SUBTOTAL		20	450	393
	CATEGORY 0080 TOTAL		**205**	**1315**	**1150**
	PROJECT 5992-11-31 TOTAL		**1705**	**22655**	**20100**

* BID ITEMS LISTED ELSEWHERE SEE "CONCRETE DRIVEWAY, HMA ITEMS AND TEMPORARY PAVEMENT ITEMS"

CONCRETE PAVEMENT

STAGE	LOCATION	STATION - STATION	415.0090 CONCRETE PAVEMENT 9-INCH (SY)
5992-11-31			
CATEGORY 0010			
STAGE 4			
	UNIVERSITY AVE	70+00 'UA' - 73+40 'UA'	36
	STAGE 4 SUBTOTAL		36
	CATEGORY 0010 TOTAL		**36**
5992-11-31			
CATEGORY 0080			
STAGE 2			
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	84
	STAGE 2 SUBTOTAL		84
	CATEGORY 0080 TOTAL		**84**
	PROJECT 5992-11-31 TOTAL		**120**

CONCRETE DRIVEWAY

STAGE	LOCATION	STATION - STATION	305.0120* BAD 1 1/4-INCH (TON)	416.0170 7-INCH (SY)	416.0270 HES 7-INCH (SY)
5992-11-31					
CATEGORY 0010					
STAGE 2					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	10	30	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	10	30	--
	STAGE 2 SUBTOTAL		20	60	0
STAGE 4					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	25	--	64
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	30	60	31
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	95	223	65
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	46	139	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	20	--	61
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	15	37	9
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	11	21	14
	UNIVERSITY AVE	70+00 'UA' - 73+40 'UA'	20	--	61
	STAGE 4 SUBTOTAL		265	479	305
	CATEGORY 0010 TOTAL		**285**	**540**	**305**
5992-11-31					
CATEGORY 0080					
STAGE 2					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	5	--	15
	STAGE 2 SUBTOTAL		5	0	15
	CATEGORY 0110 TOTAL		**5**	**0**	**15**
	PROJECT 5992-11-31 TOTAL		**290**	**540**	**320**

* BID ITEMS LISTED ELSEWHERE SEE "BASE AGGREGATE, HMA ITEMS AND TEMPORARY PAVEMENT ITEMS"

TEMPORARY PAVEMENT ITEMS

STAGE	LOCATION	STATION - STATION	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH (TON)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)	SPV.0090.008 TEMPORARY ASPHALTIC CURB (LF)
5992-11-31					
CATEGORY 0010					
STAGE 1					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	1470	620	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	1260	530	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	860	360	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	480	205	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	445	185	--
	STAGE 1 SUBTOTAL		4515	1900	0
STAGE 1A					
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	85	--
	STAGE 1A SUBTOTAL		0	85	0
STAGE 1B					
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	440	185	--
	STAGE 1B SUBTOTAL		440	185	0
STAGE 2					
	PROJECT	138+00 'EB' - 172+00 'EB'	--	450	--
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	51	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	49	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	48	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	55	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	47	--
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	--	--	--
	STAGE 2 SUBTOTAL		0	700	0
STAGE 3					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	315	310	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	315	265	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	215	180	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	120	100	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	110	95	--
	STAGE 3 SUBTOTAL		1075	950	0
STAGE 3A					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	--	1599
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	--	1296
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	--	1406
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	--	1236
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	--	1263
	STAGE 3A SUBTOTAL		0	0	6800
	CATEGORY 0010 TOTAL		**6030**	**3820**	**6800**
5992-11-31					
CATEGORY 0080					
STAGE 2					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	70	--
	STAGE 2 SUBTOTAL		0	70	0
STAGE 2A					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	40	--
	STAGE 2A SUBTOTAL		0	40	0
	CATEGORY 0110 TOTAL		**0**	**110**	**0**
	PROJECT 5992-11-31 TOTAL		**6030**	**3930**	**6800**

* BID ITEMS LISTED ELSEWHERE SEE "BASE AGGREGATE DENSE"

HMA ITEMS

STAGE	LOCATION	STATION - STATION	455.0605 TACK COAT (GAL)	460.6223 3 MT 58-28S (TON)	460.6424 4 MT 58-28H (TON)	465.0105 ASPHALTIC SURFACE (TON)	305.0120* BAD 1 1/4-INCH (TON)	465.0120 ASPHALTIC SURFACE DRIVEWAYS (TON)
5992-11-31								
CATEGORY 0010								
STAGE 1A								
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	55	221	-	--	--	--
	STAGE 1A SUBTOTAL		55	221	0	0	0	0
STAGE 1B								
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	55	148	--	--		-
	STAGE 1B SUBTOTAL		55	148	0	0	0	0
STAGE 2								
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	168	673	--	--	21	8
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	162	647	--	--	16	6
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	161	646	--	--	--	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	168	674	--	--	--	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	203	811	--	--	--	--
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	12	49	--	--	--	--
	CATAFALQUE CT	50+10 - 53+80	49	136	--	--	--	--
	PEDESTRIAN PATH	50+10 - 53+05	--	--	--	54	--	--
	PEDESTRIAN PATH	56+56 - 60+50	--	--	--	86	--	--
	STAGE 2 SUBTOTAL		924	3636	0	140	37	14
STAGE 4								
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	172	687	--	--	2	1
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	143	573	--	--	1	1
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	144	577	--	--	81	32
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	161	642	--	--	57	22
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	173	692	--	--	--	--
	SCHMITT PL	62+16 'SP' - 62+57'SP'	16	47	28	--	--	--
	RIDGE ST	41+94 'RS' - 42+48 'RS'	24	71	43	--	--	--
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	71	214	128	--	--	--
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	58	175	105	--	--	--
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	42	125	75	--	--	--
	STAGE 4 SUBTOTAL		1004	3803	379	0	142	56
STAGE 5								
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	76	305	--	--	--	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	80	320	--	--	--	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	83	333	--	--	--	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	114	460	--	--	--	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	37	149	--	--	--	--
	STAGE 5 SUBTOTAL		391	1566	0	0	0	0
STAGE 6								
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	416	--	583	--	--	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	397	--	560	--	--	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	389	--	544	--	--	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	463	--	644	--	--	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	481	--	674	--	--	--
	STAGE 6 SUBTOTAL		2147	0	3005	0	0	0
	CATEGORY 0010 TOTAL		**4575**	**9375**	**3385**	**140**	**180**	**70**
5992-11-31								
CATEGORY 0080								
STAGE 2								
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	110	323	195	--	10	5
	STAGE 2 SUBTOTAL		110	323	195	0	10	5
STAGE 2A								
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	64	192	115	--	--	--
	STAGE 2A SUBTOTAL		64	192	115	0	0	0
	CATEGORY 0080 TOTAL		**174**	**516**	**310**	**0**	**10**	**5**
	PROJECT 5992-11-31 TOTAL		**4750**	**9890**	**3695**	**140**	**190**	**75**

* BID ITEMS LISTED ELSEWHERE SEE "BASE AGGREGATE, CONCRETE DRIVEWAY AND TEMPORARY PAVEMENT ITEMS"

TEMPORARY SHORING

STAGE	LOCATION	STATION	511.1100 TEMPORARY SHORING (SF)	511.2300 TEMPORARY SHORING LEFT IN PLACE (SF)
5992-11-31				
CATEGORY 0030				
STAGE 1A				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	2500	--
	STAGE 1A SUBTOTAL		2500	0
STAGE 1B				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	3000	--
	STAGE 1B SUBTOTAL		3000	0
STAGE 2				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	3250	2000
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	3000	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	6000	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	3750	--
	STAGE 2 SUBTOTAL		16000	2000
	CATEGORY 0030 TOTAL		**18500**	**2000**
5992-11-31				
CATEGORY 0070				
STAGE 2				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	200	--
	STAGE 2 SUBTOTAL		200	0
STAGE 2A				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	700	--
	STAGE 2A SUBTOTAL		700	0
	CATEGORY 0070 TOTAL		**900**	**0**
	PROJECT 5992-11-31 TOTAL		**19400**	**2000**

CONCRETE BARRIER TEMPORARY PRECAST

STAGE	LOCATION	STATION - STATION	603.8000 DELIVERED (LF)	603.8125 INSTALLED (LF)
5992-11-31				
CATEGORY 0010				
STAGE 1A				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	200	200
	STAGE 1A SUBTOTAL		200	200
STAGE 1B				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	200
	STAGE 1B SUBTOTAL		0	200
STAGE 2				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	600	600
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	300	300
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	600	600
	STAGE 2 SUBTOTAL		1500	1500
	CATEGORY 0010 TOTAL		**1700**	**1900**
5992-11-31				
CATEGORY 0080				
STAGE 2				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	100	100
	STAGE 2 SUBTOTAL		100	100
STAGE 2A				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	100
	STAGE 2A SUBTOTAL		0	100
	CATEGORY 0080 TOTAL		**100**	**200**
	PROJECT 5992-11-31 TOTAL		**1800**	**2100**

CONCRETE CURB & GUTTER

STAGE	LOCATION	STATION - STATION	LOCATION	601.0407 18-INCH TYPE D (LF)	601.0411 30-INCH TYPE D (LF)	601.0600 CURB PEDESTRIAN (LF)	SPV.0090.001 24-INCH TYPE D SPECIAL (LF)	SPV.0090.002 24-INCH CURB TYPE D SPECIAL (LF)	SPV.0090.007 24-INCH TYPE A (LF)
5992-11-31									
CATEGORY 0010									
STAGE 2									
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		--	5	200	633	-	-
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	--	702	-	-
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		--	--	--	723	-	-
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		--	--	--	746	-	-
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		--	5	--	591	-	-
	CATAFALQUE CT	50+10 - 53+80		--	369	--	-	-	-
	PEDESTRIAN PATH	58+80 - 59+75		97	--	--	-	-	-
	STAGE 2 SUBTOTAL			97	379	200	3395	0	0
STAGE 4									
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		--	--	20	507	--	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	--	708	--	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		33	--	--	739	--	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		--	--	16	727	--	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		--	168	19	308	--	--
	SCHMITT PL	62+16 'SP' - 62+57'SP'		--	20	--	--	--	--
	RIDGE ST	41+94 'RS' - 42+48 'RS'		--	48	--	31	--	--
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'		--	184	--	--	--	--
	FARLEY AVE	12+85 'FA' - 14+94 'FA'		--	353	--	--	--	--
	UNIVERSITY AVE	70+00 'UA' - 73+40 'UA'		--	23	--	530	--	85
	STAGE 4 SUBTOTAL			33	796	55	3550	0	85
STAGE 5									
	BEGIN PROJECT - SHOREWOOD BLVD	135+68 'EB' - 138+00 'EB'		--	--	--	454	--	--
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		--	--	--	1131	--	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	--	1291	--	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		--	--	--	1391	--	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		--	--	--	1233	--	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		--	--	--	1299	--	--
	STAGE 5 SUBTOTAL			0	0	0	6345	0	0
	CATEGORY 0010 TOTAL			**130**	**1175**	**255**	**13290**	**0**	**85**
5992-11-31									
CATEGORY 0080									
STAGE 2									
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'		--	-	190	720	--	155
	STAGE 2 SUBTOTAL			0	0	190	720	0	155
STAGE 2A									
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'		30	25	--	--	205	-
	STAGE 2A SUBTOTAL			30	25	0	0	205	0
	CATEGORY 0080 TOTAL			**30**	**25**	**190**	**720**	**205**	**155**
	PROJECT 5992-11-31 TOTAL			**160**	**1200**	**445**	**14010**	**205**	**240**

CONCRETE SIDEWALK & DETECTABLE WARNING FIELDS

STAGE	LOCATION	STATION - STATION	405.0100 COLORING CONCRETE WISDOT RED (CY)	405.1000 STAMPING COLORED CONCRETE (CY)	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	602.0415 CONCRETE SIDEWALK 6-INCH (SF)	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA (SF)	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA (SF)
5992-11-31								
CATEGORY 0010								
STAGE 2								
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	--	3608	--	20	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	--	4661	--	20	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	--	3849	--	30	23
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	--	4502	1820	90	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	--	562	--	20	29
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	--	--	624	--	30	--
	STAGE 2 SUBTOTAL		0	0	17806	1820	210	52
STAGE 4								
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	--	3833	--	--	24
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	--	5100	--	20	49
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	--	5723	--	--	43
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	--	6535	--	20	47
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	--	1506	--	40	--
	RIDGE ST	41+94 'RS' - 42+48 'RS'	--	--	398	--	--	--
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	--	--	549	--	--	--
	UNIVERSITY AVE	70+00 'UA' - 73+40 'UA'	--	--	98	--	--	--
	STAGE 4 SUBTOTAL		0	0	24022	0	80	163
STAGE 5								
	BEGIN PROJECT - SHOREWOOD BLVD	135+68 'EB' - 138+00 'EB'	11	11	721	-	-	-
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	55	55	3381	-	20	-
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	20	20	1316	-	55	-
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	17	17	1125	-	-	-
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	46	46	2987	-	-	-
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	5	5	302	-	40	-
	STAGE 5 SUBTOTAL		155	155	9832	0	115	0
	CATEGORY 0010 TOTAL		**155**	**155**	**51660**	**1820**	**405**	**215**
5992-11-31								
CATEGORY 0080								
STAGE 2								
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	--	6741	190	40	60
	STAGE 2 SUBTOTAL		0	0	6741	190	40	60
STAGE 2A								
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	--	269	--	10	--
	STAGE 2A SUBTOTAL		0	0	269	0	10	0
	CATEGORY 0080 TOTAL		**0**	**0**	**7010**	**190**	**50**	**60**
	PROJECT 5992-11-31 TOTAL		**155**	**155**	**58670**	**2010**	**455**	**275**

ASPHALTIC FLUMES

STAGE	LOCATION	STATION	OFFSET	465.0315 ASPHALTIC FLUMES (SY)
5992-11-31				
CATEGORY 0010				
STAGE 2				
	CATAFALQUE CT	50+70	RT	9
	PEDESTRIAN PATH	59+75	LT	9
	STAGE 2 SUBTOTAL			18
	CATEGORY 0010 TOTAL			**18**
	PROJECT 5992-11-31 TOTAL			**18**

HIGH FRICTION COLORED SURFACE - BIKE BOX GREEN

STAGE	LOCATION	STATION - STATION	SPV.0165.004 BIKE BOX GREEN (SF)
5992-11-31			
CATEGORY 0010			
STAGE 6			
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	230
	UNIVERSITY BAY DR	20+60'BD'	260
	FARLEY AVE	14+70'FA'	220
	STAGE 6 SUBTOTAL		710
	CATEGORY 0010 TOTAL		**710**
	PROJECT 5992-11-31 TOTAL		**710**

STORM SEWER PIPE

FROM	-	TO	608.0312 SSPRC CLASS III 12-INCH LF	608.0315 SSPRC CLASS III 15-INCH LF	608.0318 SSPRC CLASS III 18-INCH LF	608.0324 SSPRC CLASS III 24-INCH LF	608.0412 SSPRC CLASS IV 12-INCH LF	608.0415 SSPRC CLASS IV 15-INCH LF	608.0418 SSPRC CLASS IV 18-INCH LF	608.0430 SSPRC CLASS IV 30-INCH LF	612.0108 PIPE UNDERDRAIN 8-INCH LF	612.0110 PIPE UNDERDRAIN 10-INCH LF	612.0112 PIPE UNDERDRAIN 12-INCH LF	INLET ELEV	DISCHARGE ELEV	SLOPE FT/FT
5992-11-31																
CATEGORY 0040																
STAGE 1A																
72	-	74	16	--	--	--	--	--	--	--	--	--	--	871.50	871.10	0.0250
72	-	72A	11	--	--	--	--	--	--	--	--	--	--	871.07	871.07①	0.0000
73	-	72	15	--	--	--	--	--	--	--	--	--	--	872.49	872.34	0.0100
389	-	388	36	--	--	--	--	--	--	--	--	--	--	871.34①	870.22①	0.0311
91.1	-	91	12	--	--	--	--	--	--	--	--	--	--	870.60	870.50	0.0083
91	-	91A	20	--	--	--	--	--	--	--	--	--	--	870.50	870.06	0.0220
STAGE 1A SUBTOTAL			110	--	--	--	--	--	--	--	--	--	--			
STAGE 1B																
69A	-	69	20	--	--	--	--	--	--	--	--	--	--	873.50①	873.50	0.0000
69	-	69B	8	--	--	--	--	--	--	--	--	--	--	873.50	873.50①	0.0000
STAGE 1B SUBTOTAL			28	0	0	0	0	0	0	0	0	0	0			
STAGE 2																
B	-	BA	35	--	--	--	--	--	--	--	--	--	--	874.12	873.87①	0.0071
C	-	B	31	--	--	--	--	--	--	--	--	--	--	874.50	874.12	0.0123
141.1	-	141.1B	12	--	--	--	--	--	--	--	--	--	--	875.83	874.18	0.1375
141.1A	-	141.1	6	--	--	--	--	--	--	--	--	--	--	878.63①	875.80	0.4717
141.2	-	141.2A	10	--	--	--	--	--	--	--	--	--	--	875.11	874.07	0.1040
02	-	02A	19	--	--	--	--	--	--	--	--	--	--	884.60	875.00①	0.5053
03	-	02	--	--	--	--	--	62	--	--	--	--	--	886.32	884.95	0.0221
09	-	15	--	--	--	--	--	--	24	--	--	--	--	882.84	882.45	0.0162
16	-	16A	7	--	--	--	--	--	--	--	--	--	--	875.63	873.92①	0.2443
17	-	17A	22	--	--	--	--	--	--	--	--	--	--	876.62	873.73①	0.1314
26.1	-	26	--	--	--	--	44	--	--	--	--	--	--	875.77	875.30	0.0107
26	-	26A	--	--	--	--	34	--	--	--	--	--	--	875.30	873.79①	0.0444
23	-	23A	--	--	--	--	--	11	--	--	--	--	--	874.75	873.69①	0.0964
27	-	27A	--	--	--	--	28	--	--	--	--	--	--	874.38	873.12①	0.0450
32.1	-	32A	--	--	--	--	33	--	--	--	--	--	--	872.06	871.75①	0.0094
32.2	-	32.1	44	--	--	--	--	--	--	--	--	--	--	872.43	872.06	0.0084
41	-	41A	--	--	--	--	36	--	--	--	--	--	--	871.58	871.41①	0.0047
47	-	46	--	--	--	--	42	--	--	--	--	--	--	871.29	870.95	0.0081
500.1A	-	500.1	--	10	--	--	--	--	--	--	--	--	--	871.50①	871.30	0.0200
500.1	-	500.2	--	--	--	54	--	--	--	--	--	--	--	868.17	868.00	0.0031
500.2	-	500X	--	--	--	34	--	--	--	--	--	--	--	868.00	867.89	0.0031
70	-	70A	5	--	--	--	--	--	--	--	--	--	--	873.53	873.51	0.0040
71	-	70	21	--	--	--	--	--	--	--	--	--	--	874.00	873.53	0.0224
STAGE 2 SUBTOTAL			212	10	0	88	217	73	24	0	0	0	0			
STAGE 3																
E	-	D	7	--	--	--	--	--	--	--	--	--	--	875.20	875.00	0.0286
D	-	DA	23	--	--	--	--	--	--	--	--	--	--	875.00	873.70	0.0565
F	-	E	11	--	--	--	--	--	--	--	--	--	--	875.46	875.20	0.0236
141.2	-	141.3	8	--	--	--	--	--	--	--	--	--	--	876.62	875.84	0.0975
141.2	-	141.2A	7	--	--	--	--	--	--	--	--	--	--	875.84	875.11	0.1043
141.4	-	141.3	--	--	--	--	--	10	--	--	--	--	--	876.79	876.62	0.0170
02	-	02A	19	--	--	--	--	--	--	--	--	--	--	884.60	876.25	0.4395
03	-	02	--	--	--	--	--	15	--	--	--	--	--	884.95	884.60	0.0233
04	-	03	--	--	--	--	114	--	--	--	--	--	--	887.49	886.65	0.0074
05	-	04	9	--	--	--	--	--	--	--	--	--	--	887.57	887.49	0.0089
06	-	03	--	--	--	--	--	20	--	--	--	--	--	886.60	886.37	0.0115
09	-	15	--	--	--	--	--	--	10	--	--	--	--	883.00	882.84	0.0160
10	-	09	--	--	15	--	--	--	--	--	--	--	--	883.25	883.00	0.0167
11	-	10	--	--	--	--	--	--	10	--	--	--	--	883.42	883.25	0.0170
18	-	17	6	--	--	--	--	--	--	--	--	--	--	876.77	876.62	0.0250
100	-	100A	--	--	--	--	--	--	--	35	--	--	--	873.22	872.96	0.0074
20	-	20A	--	--	--	--	--	17	--	--	--	--	--	874.53	873.96①	0.0335
21	-	20	--	6	--	--	--	--	--	--	--	--	--	874.58	874.53	0.0083
22	-	21	--	--	--	--	--	10	--	--	--	--	--	874.62	874.57	0.0050
29	-	29A	--	--	8	--	--	--	--	--	--	--	--	871.50	871.43①	0.0088
30	-	29	--	--	10	--	--	--	--	--	--	--	--	871.55	871.50	0.0050
37	-	37A	--	--	--	20	--	--	--	--	--	--	--	869.63	869.49①	0.0070
40	-	40A	--	--	--	--	15	--	--	--	--	--	--	872.27	872.18①	0.0060
43	-	43A	--	--	--	--	10	--	--	--	--	--	--	871.63	871.60①	0.0030
48	-	48A	--	--	--	--	--	--	10	--	--	--	--	870.62	870.58①	0.0040
46	-	46A	8	--	--	--	--	--	--	--	--	--	--	870.95	870.80	0.0188
54	-	54A	6	--	--	--	--	--	--	--	--	--	--	871.90	871.58	0.0533
55	-	54	5	--	--	--	--	--	--	--	--	--	--	872.11	871.90	0.0420
56	-	56A	--	--	--	--	--	--	--	--	--	--	4	872.80	871.90	0.2250
500.2	-	500X	--	--	--	28	--	--	--	--	--	--	--	867.89	867.81①	0.0029
64	-	64A	--	--	--	--	12	--	--	--	--	--	--	873.99	871.21	0.2317
STAGE 3 SUBTOTAL			109	6	33	48	151	72	30	35	0	0	4			

STORM SEWER PIPE TRUNK LINE

FROM	-	TO	504.2000.S.001 PRECAST CONCRETE BOX CULVERT (12 FT X 4 FT) LF	504.2000.S.002 PRECAST CONCRETE BOX CULVERT (12 FT X 6 FT) LF	608.0005 STORM SEWER ROCK EXCAVATION CY	608.0436 SSPRC CLASS IV 36-INCH LF	608.0396 SSPRC CLASS III 96-INCH LF	SPV.0090.011 SSPRC CLASS IV 96-INCH LF	SPV.0090.012 SSPRC CLASS IV 96-INCH ROCK CUT LF	INLET ELEV	DISCHARGE ELEV	SLOPE FT/FT
5992-11-31												
CATEGORY 0030												
STAGE 1A												
171+00'EB'	-	909	--	--	--	--	141	--	--	859.20	859.20	0.000
909	-	910	--	--	--	--	117	--	--	859.20	859.20	0.000
910	-	911	--	--	--	--	74	--	--	859.20	859.20	0.000
STAGE 1A SUBTOTAL			0	0	0	0	332	0	0			
STAGE 1B												
169+00'EB'	-	171+00'EB'	--	--	--	--	201	--	--	859.20	859.20	0.000
STAGE 1B SUBTOTAL			0	0	--	0	201	0	0			
STAGE 2												
898	-	899	--	--	--	16	--	--	--	870.81	870.81	0.012
900E	-	900	107	--	--	--	--	--	--	*870.81	870.81	0.000
900	-	901	--	--	--	--	87	--	--	866.81	866.81	0.000
901	-	902	--	--	--	--	--	--	632	866.81	866.81	0.000
902	-	903	--	--	--	--	--	--	268	866.81	866.81	0.000
903	-	904	--	--	--	--	95	--	--	866.81	866.81	0.000
904	-	905	--	--	--	--	37	--	--	866.81	859.20	0.211
905	-	906	--	--	--	--	38	--	--	859.20	859.20	0.000
906	-	907	--	--	--	--	--	92	--	859.20	859.20	0.000
907	-	908	--	--	--	--	851	--	--	859.20	859.20	0.000
908	-	169+00'EB'	--	--	--	--	881	--	--	859.20	859.20	0.000
STAGE 2 SUBTOTAL			107	--	--	16	1989	92	900			
PROJECT			--	50	150	--	--	--	--			
PROJECT 5992-11-31 TOTAL			**107**	**50**	**150**	**16**	**2522**	**92**	**900**			

*MATCH EXISTING ELEVATION, FIELD VERIFY

STORM SEWER 96-INCH TRUNK LINE ITEMS

STRUCTURE	STATION	RL	OFFSET*	SPV.0060.014 STORM SEWER PIPE 96-INCH BEND EACH	SPV.0060.017 MANHOLE SPECIAL EACH	DESCRIPTION
5992-11-31						
CATEGORY 0030						
STAGE 1A						
909	172+39.10	EB	10.5' RT	1	--	11.25º HORIZ BEND
910	173+29.91	EB	51.7' RT	1	--	11.25º HORIZ BEND
STAGE 1A SUBTOTAL				2	0	
STAGE 2						
900	139+33.8	WB	3.1' LT**	--	1	SPECIAL CONNECT TO 12X4 BOX CULVERT
901	139+81.76	WB	19.4' LT	1	--	11.25º BEND
902	146+49.31	WB	19.4' LT	1	--	11.25º BEND
903	149+13.84	WB	15.2' LT	1	--	7.5º BEND
904	150+08.37	WB	10.8' LT	1	--	11.25º BEND
905	150+52.18	WB	9.0' LT	1	--	11.25º BEND
906	150+82.08	WB	7.8' LT	1	--	19.5º BEND
907	151+70.33	WB	35.1' LT	1	--	20.25º BEND
STAGE 2 SUBTOTAL				7	1	
CATEGORY 0030 SUBTOTAL				**9**	**1**	
PROJECT 5992-11-31 TOTAL				**9**	**1**	

* TO BEND JUNCTION
** TO CENTER OF STRUCTURE

STORM SEWER PIPE

			608.0312 SSPRC CLASS III	608.0315 SSPRC CLASS III	608.0318 SSPRC CLASS III	608.0324 SSPRC CLASS III	608.0412 SSPRC CLASS IV	608.0415 SSPRC CLASS IV	608.0418 SSPRC CLASS IV	608.0430 SSPRC CLASS IV	612.0108 PIPE UNDERDRAIN	612.0110 PIPE UNDERDRAIN	612.0112 PIPE UNDERDRAIN			
FROM	-	TO	12-INCH LF	15-INCH LF	18-INCH LF	24-INCH LF	12-INCH LF	15-INCH LF	18-INCH LF	30-INCH LF	8-INCH LF	10-INCH LF	12-INCH LF	INLET ELEV	DISCHARGE ELEV	SLOPE FT/FT
STAGE 4																
141.4	-	141.3	--	--	--	--	28	--	--	--	--	--	--	877.25	876.79	0.0164
141.4A	-	141.4	--	--	--	--	--	--	--	--	8	--	--	878.84①	878.75	0.0060
141.5	-	141.4	--	--	--	--	--	133	--	--	--	--	--	881.60	877.25	0.0327
06	-	03	--	--	--	--	--	23	--	--	--	--	--	886.90	886.60	0.0130
07	-	06	--	--	--	--	39	--	--	--	--	--	--	887.73	887.15	0.0149
7A	-	07	--	--	--	--	11	--	--	--	--	--	--	889.52①	888.20	0.1200
08	-	07	--	--	--	--	36	--	--	--	--	--	--	889.08	887.73	0.0375
11	-	10	--	--	--	--	--	--	25	--	--	--	--	883.84	883.42	0.0168
11A	-	11	--	--	--	--	--	--	--	--	10	--	--	884.73	884.70①	0.0030
12	-	11	19	--	--	--	--	--	--	--	--	--	--	885.04	884.39	0.0342
13	-	12	41	--	--	--	--	--	--	--	--	--	--	886.40	885.03	0.0334
14	-	13	139	--	--	--	--	--	--	--	--	--	--	889.46	886.49	0.0214
100	-	100A	--	--	--	--	--	--	--	28	--	--	--	873.43	873.22①	0.0075
19	-	100	--	--	--	--	25	--	--	--	--	--	--	876.24	876.12	0.0048
24A	-	24	--	--	--	--	--	--	--	12	--	--	--	875.55①	873.79	0.1467
24	-	100	--	--	--	--	--	--	--	37	--	--	--	873.79	873.43	0.0097
25	-	24	--	--	--	--	39	--	--	--	--	--	--	875.68	875.23	0.0115
22A	-	22	--	--	--	--	--	--	--	--	--	9	--	874.80①	874.80	0.0000
22	-	21	--	--	--	--	--	32	--	--	--	--	--	874.80	874.62	0.0056
30	-	29	--	--	25	--	--	--	--	--	--	--	--	871.68	871.55	0.0052
30	-	30A	--	6	--	--	--	--	--	--	--	--	--	871.68	871.68①	0.0000
37.1	-	39	--	--	--	--	--	33	--	--	--	--	--	870.77	870.26	0.0155
37.2	-	37.1	--	--	--	--	--	117	--	--	--	--	--	871.27	870.77	0.0043
37.3	-	37.2	104	--	--	--	--	--	--	--	--	--	--	872.12	871.52	0.0058
38.1	-	37	--	--	--	--	--	--	29	--	--	--	--	870.10	869.90	0.0069
39	-	38.1	--	--	5	--	--	--	--	--	--	--	--	871.50	870.10	0.2800
38.2	-	38.1	--	--	--	--	--	50	--	--	--	--	--	871.18	870.87	0.0062
37	-	37A	--	--	--	38	--	--	--	--	--	--	--	869.90	869.63	0.0070
40	-	40A	--	--	--	--	39	--	--	--	--	--	--	872.50	872.27	0.0059
43	-	43A	--	--	--	--	27	--	--	--	--	--	--	871.70	871.63	0.0026
48	-	48A	--	--	--	--	--	--	26	--	--	--	--	870.71	870.62	0.0035
49	-	48	56	--	--	--	--	--	--	--	--	--	--	871.26	871.00	0.0046
48B	-	48	7	--	--	--	--	--	--	--	--	--	--	872.00①	871.00	0.1429
60.1	-	60	9	--	--	--	--	--	--	--	--	--	--	872.83	872.43	0.0444
60.3	-	59	51	--	--	--	--	--	--	--	--	--	--	873.00	872.80	0.0039
58	-	600	7	--	--	--	--	--	--	--	--	--	--	872.33	871.97	0.0514
59	-	60	--	--	--	--	44	--	--	--	--	--	--	872.80	872.00	0.0182
59A	-	59	4	--	--	--	--	--	--	--	--	--	--	873.24①	872.87	0.0925
62	-	58	117	--	--	--	--	--	--	--	--	--	--	873.20	872.33	0.0074
67	-	68	--	--	--	--	18	--	--	--	--	--	--	871.30	870.72	0.0322
68	-	68A	22	--	--	--	--	--	--	--	--	--	--	870.72	869.83①	0.0405
STAGE 4 SUBTOTAL			576	6	30	38	306	388	80	77	18	9	0			
CATEGORY 0040 TOTAL			**1035**	**22**	**63**	**174**	**674**	**533**	**134**	**112**	**18**	**9**	**4**			
5992-11-31																
CATEGORY 0100																
STAGE 2																
500	-	500.1	--	--	--	16	--	--	--	--	--	--	--	868.48	868.17	0.0194
201	-	200	--	--	--	--	9	--	--	--	--	--	--	871.84	871.72①	0.0133
218	-	365	--	--	--	--	--	--	--	--	--	--	186	879.67	878.87	0.0043
365	-	366	--	--	--	--	--	--	--	--	--	--	77	878.87	875.32	0.0461
366	-	219	--	--	--	--	--	--	--	--	--	--	66	875.32	872.41	0.0441
213	-	214	--	--	--	--	33	--	--	--	--	--	--	882.85	882.69	0.0048
214	-	214A	18	--	--	--	--	--	--	--	--	--	--	882.69	882.64	0.0028
215	-	221	10	--	--	--	--	--	--	--	--	--	--	883.23	882.33①	0.0900
501	-	500	--	--	--	--	--	16	--	--	--	--	--	871.50	871.27	0.0144
STAGE 2 SUBTOTAL			28	0	0	16	42	16	0	0	0	0	329			
STAGE 2A																
501.1	-	501	--	--	--	--	37	--	--	--	--	--	--	871.85	871.69	0.0043
501.2	-	501.1	28	--	--	--	--	--	--	--	--	--	--	871.94	871.85	0.0032
501.3	-	501	--	--	--	--	15	--	--	--	--	--	--	871.68	871.64	0.0027
501.5	-	501.3	9	--	--	--	--	--	--	--	--	--	--	873.50	871.64	0.2067
501	-	500	--	--	--	--	--	13	--	--	--	--	--	871.69	871.50	0.0146
STAGE 2A SUBTOTAL			37	0	0	0	52	13	0	0	0	0	0			
CATEGORY 0100 TOTAL			**65**	**0**	**0**	**16**	**94**	**29**	**0**	**0**	**0**	**0**	**329**			
PROJECT 5992-11-31 TOTAL			**1100**	**22**	**63**	**190**	**768**	**562**	**134**	**112**	**18**	**9**	**333**			

① MATCH EXISTING PIPE ELEVATION

CONCRETE MEDIAN NOSE

STAGE	LOCATION	STATION - STATION	TYPE	620.0200 BLUNT NOSE (SF)	620.0300 SLOPED NOSE (SF)
5992-11-31					
CATEGORY 0010					
STAGE 4					
	UNIVERSITY AVE	71+33'UA'	1	--	62
	STAGE 4 SUBTOTAL			0	62
STAGE 5					
	SHOREWOOD BLVD	137+92'EB'	2	--	30
	SHOREWOOD BLVD	138+94'EB'	1	--	65
	SCHMITT PL	144+50'EB'	1	--	36
	SCHMITT PL	145+35'EB'	1	--	30
	MARSHALL CT	151+36'EB'	1	--	36
	RIDGE ST	151+57'EB'	1	--	37
	MARSHALL CT	152+16'EB'	1	--	37
	RIDGE ST	152+38'EB'	1	--	36
	UNIVERSITY AVE	157+45'EB'	1	--	45
	FRANKLIN AVE	158+93'EB'	1	--	56
	FRANKLIN AVE	159+45'EB'	1	--	37
	UNIVERSITY BAY DR	165+55'EB'	1	--	36
	UNIVERSITY BAY DR	166+50'EB'	1	--	55
	STAGE 5 SUBTOTAL			0	536
	CATEGORY 0010 TOTAL			**0**	**598**
5992-11-31					
CATEGORY 0080					
STAGE 2A					
	UNIVERSITY BAY DRIVE	20+45'BD'	2	--	15
	UNIVERSITY BAY DRIVE	20+53'BD'	--	12	--
	UNIVERSITY BAY DRIVE	20+73'BD'	1	--	36
	UNIVERSITY BAY DRIVE	21+20'BD'	1	--	10
	MARSHALL CT	23+06'BD'	1	--	10
	STAGE 2A SUBTOTAL			12	71
	CATEGORY 0080 TOTAL			**12**	**71**
	PROJECT 5992-11-31 TOTAL			**12**	**669**

PEDESTRIAN RAILING

STAGE	LOCATION	STATION - STATION	SPV.0090.003 PEDESTRIAN RAILING (LF)
5992-11-31			
CATEGORY 0010			
STAGE 2			
	SCHMITT PL - MARSHALL CT	145+75 'EB' - 151+25 'EB'	550
	STAGE 2 SUBTOTAL		550
	CATEGORY 0010 TOTAL		**550**
	PROJECT 5992-11-31 TOTAL		**550**

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	LOCATION	522.1012 AEW FOR CPRC 12-INCH EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	SPV.0060.012 MANHOLE COVERS TYPE J SPECIAL EACH	SPV.0060.010 INLET COVERS TYPE H EACH	SPV.0060.011 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	SPV.0060.016 INLETS 2X3-FT SPECIAL EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.018 STORM SEWER TAP EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
5992-11-31																							
CATEGORY 0040																							
STAGE 1A																							
72	171+34.59	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	877.73	871.07	5.83
73	171+49.75	1.2' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	878.00	872.49	4.68
74	171+34.60	16.8' RT	WB	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	876.01	871.50	4.70
72A	171+38.18	43.1' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
388	172+85.46	45.1' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
389	172+66.80	76.1' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
91	174+11.1	63.5' RT	EB	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
91.1	174+21.0	69.7' RT	EB	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--
91A	174+05.9	83.2' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
STAGE 1A SUBTOTAL				--	--	--	1	2	--	2	1	--	--	--	2	2	--	--	2	2			
STAGE 1B																							
69	170+15.00	12' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	877.30	873.50	2.97
69A	170+14.87	1.3' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	873.50 ①	--
69.1	170+13.23	1' LT	EB	--	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	877.30	--	--
69B	170+13.8	13.5' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	873.50 ①	--
STAGE 1B SUBTOTAL				0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	1			
STAGE 2																							
B	139+31.18	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	878.95	874.12	4.00
BA	138+96.55	36.5' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	-- ①	--
C	139+62.50	32.5' LT	WB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	879.07	874.50	3.74
DA	139+62.69	12.1' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	873.70	--
141.1	141+03.61	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.41	875.80	3.61
141.1A	141+03.32	38.9' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	878.50 ①	--
141.1B	141+04.35	20.9' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	875.42	--	--
141.2A	141+04.56	15.9' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	874.07	--
2	145+92.67	50.9' LT	WB	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	891.59	884.60	5.93
02A	145+96.89	67.5' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	877.49	--	--
15	149+04.31	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	886.67	--	9.65
16	151+36.01	32.6' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.63	875.63	4.17
16A	151+40.01	27.3' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
17A	151+09.04	14.8' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
26	50+55.14	19.6' RT	MC	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	879.53	875.30	3.39
26.1	50+54.11	24.4' LT	MC	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	879.77	875.77	3.17
26A	152+00.07	22.3' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
23	152+59.55	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	879.09	874.75	3.53
100A	151+79.52	10.1' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	872.96 ①	--
20A	152+59.03	6.3' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	873.96 ①	--
23A	152+59.41	21.4' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
27	156+06.07	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	877.36	874.38	2.15
27.1	156+41.39	56.1' LT	EB	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	877.93	--	--
32.1	158+84.98	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.97	872.06	3.08
32.2	159+29.33	32.5' LT	WB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	875.75	872.43	2.49
41	160+99.26	32.5' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	876.51	871.58	4.10
47	164+77.89	32.5' LT	WB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	874.47	871.06	2.35
500	20+61.42	11' RT	BD	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	875.37	--	--
500.1A	20+58.37	36.4' RT	BD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
500.1	20+60.39	26.6' RT	BD	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	874.92	868.17	5.92
500.2	166+69.32	43' LT	WB	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	875.61	869.16	6.78
600	14+81.52	23.1' RT	FA	--	--	--	--	1	--	--	1	--	--	--	--	--	--	--	--	--	875.91	871.43	3.49
70	170+15.01	43' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	876.40	873.53	2.04
71	170+36.22	42.9' LT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	876.42	874.00	1.58
76	171+33.85	43' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	877.02	--	--
77	171+49.04	43.1' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	877.62	--	--
70A	170+14.99	37.6' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
STAGE 2 SUBTOTAL				0	1	0	2	15	3	0	2	2	0	1	13	0	1	2	10	4			

3

STORM SEWER STRUCTURES

				522.1012 AEW	611.0420 RECONSTRUCTING	611.0430	SPV.0060.012 MANHOLE	SPV.0060.010 INLET COVERS	SPV.0060.011	611.0642	611.2004 MANHOLES	611.2005	611.2006	611.3004 INLETS	611.3230	611.3901	SPV.0060.016	611.8115	SPV.0060.018	520.8000			
STRUCTURE	STATION	OFFSET*	LOCATION	FOR CPRC 12-INCH EACH	MANHOLES EACH	INLETS EACH	COVERS TYPE J SPECIAL EACH	TYPE H SPECIAL EACH	TYPE H-S SPECIAL EACH	TYPE MS EACH	4-FT DIAMETER EACH	5-FT DIAMETER EACH	6-FT DIAMETER EACH	4-FT DIAMETER EACH	2X3-FT EACH	MEDIAN 1 GRATE EACH	2X3-FT SPECIAL EACH	ADJUSTING INLET COVERS EACH	STORM SEWER TAP EACH	CONCRETE COLLARS FOR PIPE EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
STAGE 3																							
D	139+63.85	10.9' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	879.11	875.00	3.28
E	139+64.56	1' LT	EB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	878.69	875.20	2.66
141.2	141+05.72	1' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.68	875.84	4.01
141.3	141+06.61	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.58	876.62	3.12
3	145+40.41	4.3' RT	WB	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--	892.51	886.37	5.09
4	144+26.09	2.6' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	890.60	887.49	2.28
5	144+26.30	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	890.80	887.57	2.40
9	149+05.18	1' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	886.88	883.00	3.09
10	149+06.69	2.8' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	887.46	883.25	3.42
17	151+25.00	1' RT	WB	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	880.87	876.62	3.41
18	151+20.82	11' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.37	876.77	2.77
20	152+58.80	11' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	879.12	874.53	3.78
21	152+53.89	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	878.88	874.57	3.50
28	155+79.32	1' RT	WB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	877.72	--	--
29	155+72.14	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	877.22	871.50	4.93
31.1	157+39.87	11' LT	EB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	876.16	--	--
31.2	157+44.69	1' RT	WB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	876.89	--	--
33.1	158+85.43	5.4' RT	WB	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	876.11	--	--
33.2	158+80.56	1' LT	EB	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	875.55	--	--
35	159+69.79	11' RT	WB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	875.98	--	--
36	159+51.00	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	1	--	--	--	875.90	--	--
27A	156+05.33	4.8' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
29A	155+77.77	9' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
32A	158+85.32	0' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
37A	159+62.87	1.2' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
40A	160+16.96	3.2' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
41A	160+99.79	3.8' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
43A	161+16.74	3.8' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
45	163+96.81	21' LT	EB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	875.45	--	--
48A	163+96.29	3.2' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	872.38	--	--
46	164+53.24	1' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	874.96	870.95	3.18
46A	164+48.94	19.3' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	872.03	--	--
54	165+42.80	21' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.84	871.90	3.11
54A	165+42.78	15' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	872.81	--	--
55	165+46.75	1.5' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.42	872.11	2.48
56	167+13.80	12' RT	WB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	875.95	872.80	2.16
500X	166+45.10	12.5' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
56A	167+14.80	16' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
57	166+87.91	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	876.47	--	--
64	169+01.28	12' RT	WB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	877.03	873.99	2.20
64A	168+99.13	7.6' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	871.21	--
65	169+00.00	1' LT	EB	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	877.49	--	--
STAGE 3 SUBTOTAL				0	0	2	1	26	2	0	0	0	1	1	18	0	8	0	13	0			

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	LOCATION	522.1012 AEW FOR CPRC 12-INCH EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	SPV.0060.012 MANHOLE COVERS TYPE J SPECIAL EACH	SPV.0060.010 INLET COVERS TYPE H SPECIAL EACH	SPV.0060.011 INLET COVERS TYPE H-S SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	SPV.0060.016 INLETS 2X3-FT SPECIAL EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.018 STORM SEWER TAP EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
STAGE 4																							
139	139+21.20	36.1' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	878.90	--	--
140	139+77.36	36.2' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	878.49	--	--
140.1	139+88.85	35.6' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	878.53	--	--
141.4	141+24.25	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.78	877.25	2.70
141.5	142+58.72	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	885.14	881.60	2.71
141.4A	141+10.0	38.8' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	880.16	--	--
6	145+35.40	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	892.44	886.90	4.73
7	62+34.68	17.2' RT	S	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	891.51	887.73	2.95
8	62+36.50	18.9' LT	S	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	891.53	889.08	1.62
7A	144+97.62	75.9' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
11	149+05.47	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	887.40	883.84	2.76
12	148+86.51	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	887.96	885.03	2.10
11A	149+14.88	35.4' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	884.73①	--
13	148+44.57	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	889.37	886.40	2.14
14	147+02.95	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	892.33	889.46	2.03
19	151+33.71	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	880.08	876.24	3.01
22	152+32.88	35.2' RT	EB	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	878.76	874.80	3.15
24	42+19.22	17.1' LT	RS	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	879.11	873.79	4.37
25	42+00.60	16.9' RT	RS	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	879.18	875.68	2.67
100	151+58.44	32.7' RT	EB	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	879.74	873.43	5.38
22A	152+36.11	43.1' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
24A	42+08.07	17.2' LT	RS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
30	155+60.83	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	876.98	871.68	4.51
37	159+10.67	24.2' RT	EB	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	875.29	--	--
37.1	158+74.80	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	874.95	870.52	3.70
37.2	157+58.08	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.62	871.27	3.53
37.3	156+54.53	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	876.21	872.12	3.26
38.1	33+18.51	21' LT	NF	--	--	--	--	--	1	--	--	1	--	--	--	--	--	--	--	--	874.68	870.10	3.59
38.2	33+03.32	26.6' RT	NF	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	874.80	871.18	2.81
39	33+17.21	25.8' LT	NF	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	875.85	--	--
30A	155+61.31	38.4' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
40	159+79.88	36' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.21	872.50	1.88
43	161+22.47	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.23	871.70	2.69
48	164+00.17	32.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	874.43	870.70	3.00
48B	16397.8	39.5' RT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
49	163+45.94	32.5' RT	EB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	874.22	871.26	2.13
58	166+65.30	38' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.68	872.33	2.51
59	14+75.00	19.5' LT	FA	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	875.87	872.80	2.24
59A	1471.4	20.6' LT	FA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
60	14+60.89	22.1' RT	FA	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	876.73	--	--
60.1	14+52.76	17.5' RT	FA	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	876.31	872.83	2.64
60.3	165+76.83	32.6' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.60	873.00	1.77
62	167+82.50	39.5' RT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	877.18	873.20	3.14
67	73+27.54	17' RT	UA	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	875.62	871.30	3.49
68	73+28.36	0.9' LT	UA	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	875.91	870.72	4.36
68A	172+61.70	87.4' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	871.06	--	--
STAGE 4 SUBTOTAL				0	3	0	1	27	4	0	0	1	2	5	23	0	0	3	1	8			
STAGE 5																							
137.1	137+36.42	1' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	879.04	--	--
137.2	137+73.98	1' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	879.18	--	--
137.3	137+73.67	11' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	879.49	--	--
150	139+03.61	11.4' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	879.11	876.38	1.90
F	139+75.24	1.0' LT	EB	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	878.69	875.46	2.40
75	171+34.27	1' RT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	877.90	--	--
80	174+20.8	1.0' LT	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	881.90	--	--
STAGE 5 SUBTOTAL				0	0	0	0	2	0	0	0	0	0	0	2	0	0	5	0	0			
CATEGORY 0040 TOTAL				**0**	**4**	**3**	**5**	**73**	**10**	**2**	**3**	**3**	**3**	**7**	**59**	**2**	**9**	**10**	**26**	**15**			

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	LOCATION	522.1012 AEW FOR CPRC 12-INCH EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	SPV.0060.012 MANHOLE COVERS TYPE J SPECIAL EACH	SPV.0060.010 INLET COVERS TYPE H SPECIAL EACH	SPV.0060.011 INLET COVERS TYPE H-S SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	SPV.0060.016 INLETS 2X3-FT SPECIAL EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.018 STORM SEWER TAP EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
5992-11-31																							
CATEGORY 0100																							
STAGE 2																							
365	167+12.96	179.1' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	879.93	879.93	--
200	21+12.3	20.8' RT	BD	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	875.50	--	--
201	21+15.12	26.6' RT	BD	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	875.25	871.84	2.72
218	169+03.07	177.4' LT	WB	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	881.75	879.67	2.09
219	21+67.52	6.5' RT	BD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	874.90	--	--
366	166+36.27	177.1' LT	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	876.38	876.38	--
213	23+48.33	42.4' RT	BD	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	885.66	882.85	1.82
214	23+19.82	51.10' RT	BD	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	885.45	882.69	1.58
215	23+68.04	24.9' RT	BD	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	886.27	883.23	2.20
216	25+99.87	25.3' RT	BD	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	902.79	--	--
217	26+08.92	16.3' RT	BD	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	902.71	894.88①	6.83①
221	23+69.29	15.1' RT	BD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
214A	23+20.14	33.4' RT	BD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
	51+87.5	10.0' RT		--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	876.54	871.37	4.17
	52+80	10.0' RT		--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	876.26	871.09	4.17
STAGE 2 SUBTOTAL				0	1	1	2	6	1	1	--	2	0	0	5	1	0	0	1	2			
STAGE 2A																							
501	20+74.01	14.6' LT	BD	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	875.38	871.69	2.62
501.1	20+91.26	47.7' LT	BD	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	874.64	871.85	1.95
501.2	165+26.32	50.8' LT	WB	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	874.37	871.94	1.60
501.3	20+66.61	27.5' LT	BD	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	874.83	871.75	2.25
501.5	20+80.3	71.5' LT	BD	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	874.83	874.67	--
200.1	21+27.02	28.4' LT	BD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	875.96	--	--
STAGE 2A SUBTOTAL				1	0	0	0	3	1	0	0	1	0	1	2	0	0	1	0	0			
CATEGORY 0100 TOTAL				**1**	**1**	**1**	**2**	**9**	**2**	**1**	**0**	**3**	**0**	**1**	**7**	**1**	**0**	**1**	**1**	**2**			
PROJECT 5992-11-31 TOTAL				**1**	**5**	**4**	**7**	**82**	**12**	**3**	**3**	**6**	**3**	**8**	**66**	**3**	**9**	**11**	**27**	**17**			

REMARKS
* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT -ADJUSTMENT RING HEIGHT
FOR 2X3-FT SPECIAL, INLET DEPTH IS ESTIMATED DEPTH TO TOP OF BOX STRUCTURE
① MATCH EXISTING ELEVATION

SANITARY SEWER PIPE SUMMARY

LOCATION (DOWNSTREAM)	LOCATION (UPSTREAM)	IE (DOWNSTREAM)	IE (UPSTREAM)	SLOPE (%)	SPV.0090.037 MMSD SANITARY SEWER 36-INCH (LF)	SPV.0090.022 SANITARY SEWER PVC 10-INCH (LF)
5992-11-31						
CATEGORY 0070						
MMSD 1	EX 36-IN RCP	866.31	--	0.07%	--	10
MMSD 2	MMSD 1	866.28	866.31	0.07%	52.8	--
MMSD 3	MMSD 2	866.23	866.28	0.06%	72.2	--
MMSD 4	MMSD 3	866.19	866.23	0.14%	27.6	--
EX SAS 36-IN RCP	MMSD 4	--	866.19	0.11%	--	10
MMSD 4	EX 10-IN PVC	870.07	--	1.33%	15	--
PROJECT 5992-11-31 TOTALS					**167.6**	**20**

SANITARY SEWER STRUCTURES SUMMARY

STRUCTURE NO.	STATION	LOCATION (OFFSET)	TOP OF STRUCTURE ELEV	BOTTOM OF STRUCTURE ELEV	IE	DEPTH	SPV.0060.028 SANITARY SEWER ACCESS STRUCTURE 6-FOOT DIAMETER (EACH)	SPV.0060.029 SANITARY SEWER ACCESS STRUCTURE 7-FOOT DIAMETER (EACH)	SPV.0060.037 REMOVE SANITARY SEWER ACCESS STRUCTURE (EACH)
5992-11-31									
CATEGORY 0070									
MMSD 1	54+32	12.4' LT	876.50	865.81	866.31	10.69	1	--	--
MMSD 2	54+86	18.0' LT	878.40	865.78	866.28	12.62	1	--	--
MMSD 3	55+47	21.6' RT	876.20	865.73	866.23	10.47	--	1	--
MMSD 4	55+71	35.3' RT	875.50	865.69	866.19	9.81	1	--	--
EX. STR NORTH OF MMSD 3	55+45	10.4' RT	876.80	867.23	872.88	9.57	--	--	1
PROJECT 5992-11-31 TOTALS							**3**	**1**	**1**

SILT FENCE

STAGE	LOCATION	STATION - STATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
5992-11-31				
CATEGORY 0010				
STAGE 1A				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	80	40
	STAGE 1A SUBTOTAL		80	40
STAGE 2				
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	200	400
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	660	1320
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	600	1200
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	550	1100
	STAGE 2 SUBTOTAL		2010	4020
	CATEGORY 0010 TOTAL		**2010**	**4020**
5992-11-31				
CATEGORY 0080				
STAGE 2				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	550	550
	STAGE 2 SUBTOTAL		550	550
	CATEGORY 0080 TOTAL		**550**	**550**
	PROJECT 5992-11-31 TOTAL		**2560**	**4570**

PIPE UNDERDRAIN 6-INCH

STAGE	LOCATION	STATION - STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH (LF)	310.0110 BASE AGGREGATE OPEN-GRADED (TON)	COMMENTS
5992-11-31						
CATEGORY 0040						
STAGE 1						
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		--	--	
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		--	--	
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		--	--	
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		100	8	PUT IN SAG SPOTS
	STAGE 1 SUBTOTAL			100	8	
STAGE 2						
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		50	4	PUT IN SAG SPOTS
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		50	4	PUT IN SAG SPOTS
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		50	4	PUT IN SAG SPOTS
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		50	4	PUT IN SAG SPOTS
	STAGE 2 SUBTOTAL			200	16	
STAGE 3						
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		100	8	PUT IN SAG SPOTS
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		100	8	PUT IN SAG SPOTS
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		100	8	PUT IN SAG SPOTS
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		--	--	
	STAGE 3 SUBTOTAL			300	24	
STAGE 4						
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'		--	--	
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'		--	--	
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'		50	4	PUT IN SAG SPOTS
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'		50	4	PUT IN SAG SPOTS
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'		--	--	
	STAGE 4 SUBTOTAL			100	8	
	CATEGORY 0040 TOTAL			**700**	**56**	
	PROJECT 5992-11-31 TOTAL			**700**	**56**	

INLET PROTECTION

STAGE	LOCATION	STATION - STATION	628.7010 TYPE B (EACH)	628.7015 TYPE C (EACH)
5992-11-31				
CATEGORY 0010				
STAGE 1				
	BEGIN PROJECT - SHOREWOOD BLVD	135+50'EB' - 138+00'EB'	3	4
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	6	8
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	3	6
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	4	4
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	5	6
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	4	7
	STAGE 1 SUBTOTAL		25	35
STAGE 1A				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	1	3
	STAGE 1A SUBTOTAL		1	3
STAGE 1B				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	4	--
	STAGE 1B SUBTOTAL		4	0
STAGE 2				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	7
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	3
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	5
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	2
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	5
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	--	2
	STAGE 2 SUBTOTAL		0	24
STAGE 3				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	8	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	4	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	8	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	7	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	3	--
	STAGE 3 SUBTOTAL		30	0
STAGE 4				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	5
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	6
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	5
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	5
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	2
	SCHMITT PL	62+16 'SP' - 62+57'SP'	--	2
	RIDGE ST	41+94 'RS' - 42+48 'RS'	--	2
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	--	6
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	--	2
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	--	2
	STAGE 4 SUBTOTAL		0	37
STAGE 5				
	BEGIN PROJECT - SHOREWOOD BLVD	135+50'EB' - 138+00'EB'	--	3
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	8
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	4
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	8
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	7
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	9
	STAGE 5 SUBTOTAL		0	39
	CATEGORY 0010 TOTAL		**60**	**138**
5992-11-31				
CATEGORY 0080				
STAGE 2				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	1	8
	STAGE 2 SUBTOTAL		1	8
STAGE 2A				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	3
	STAGE 2A SUBTOTAL		0	3
	CATEGORY 0080 TOTAL		**1**	**11**
	PROJECT 5992-11-31 TOTAL		**61**	**149**

UTILITY LINE OPENING (ULO)

	SPV.0060.030 (EACH)
5992-11-31	
CATEGORY 0010	5
CATEGORY 0020	2
CATEGORY 0030	5
CATEGORY 0040	2
CATEGORY 0050	5
CATEGORY 0070	2
CATEGORY 0080	2
CATEGORY 0100	2
CATEGORY 0110	2
CATEGORY 0120	2
CATEGORY 0130	2
PROJECT 5992-11-31 TOTAL	**31**
5992-11-32	
CATEGORY 0010	5
PROJECT 5992-11-32 TOTAL	**5**

MOBILIZATION EROSION CONTROL

STAGE	628.1905 (EACH)	628.1910 EMERGENCY (EACH)
5992-11-31		
CATEGORY 0010		
STAGE 1	3	2
STAGE 2	3	2
STAGE 3	3	1
STAGE 4	3	3
STAGE 5	3	2
CATEGORY 0010 TOTAL	**15**	**10**
5992-11-31		
CATEGORY 0080		
STAGE 2	3	2
STAGE 2A	3	2
CATEGORY 0080 TOTAL	**6**	**4**
PROJECT 5992-11-31 TOTAL	21	14

LANDSCAPING ITEMS

STAGE	LOCATION	STATION - STATION	625.0100 TOPSOIL (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)	631.0300 SOD WATER (MGAL)	630.0500 SEED WATER (MGAL)	631.1000 SOD LAWN (SY)
5992-11-31										
CATEGORY 0010										
STAGE 2										
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	348	348	0.3	6.3	9.4	3	6	164
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	772	772	0.6	13.9	20.8	4	15	260
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	627	627	0.6	11.3	16.9	6	11	331
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	568	568	0.5	10.2	15.3	3	10	150
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	71	71	0.3	1.3	1.9	12	1	454
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	52	52	0.1	0.9	1.4	1	1	89
	STAGE 2 SUBTOTAL		2438	2438	2.4	43.9	65.8	28	43	1447
STAGE 4										
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	-	-	0.1	-	-	2	-	140
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	310	310	0.4	5.6	8.4	5	5	316
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	33	33	0.2	0.6	0.9	4	1	213
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	208	208	0.2	3.7	5.6	2	3	129
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	50	50	0.2	0.9	1.4	7	1	335
	RIDGE ST	41+94 'RS' - 42+48 'RS'	60	60	0.1	1.1	1.6	2	1	100
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	-	-	0.1	-	-	2	-	95
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	80	80	0.1	1.4	2.2	3	1	153
	UNIVERSITY AVE	70+00 'UA' - 73+40 'UA'	-	-	0.2	-	-	5	-	324
	STAGE 4 SUBTOTAL		741	741	1.6	13.3	20.0	32	12	1817
STAGE 5										
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	-	-	0.2	-	-	4	-	363
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	-	-	0.4	-	-	6	-	578
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	-	-	0.5	-	-	8	-	725
	STAGE 5 SUBTOTAL				1.0			19		1665
	CATEGORY 0010 TOTAL		**3180**	**3180**	**5.0**	**57.2**	**85.8**	**79**	**55**	**4930**
5992-11-31										
CATEGORY 0080										
STAGE 2A										
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	2578	2578	1.7	46.4	69.6	1	30	127
	STAGE 2A SUBTOTAL		2578	2578	1.7	46.4	69.6	1	30	127
STAGE 2B										
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	22	22	0.1	0.4	0.6	1	0	18
	STAGE 2B SUBTOTAL		22	22	0.1	0.4	0.6	1	0	18
	CATEGORY 0080 TOTAL		**2600**	**2600**	**1.8**	**46.8**	**70.2**	**2**	**30**	**145**
	PROJECT 5992-11-31 TOTAL		**5780**	**5780**	**6.8**	**104.0**	**156.0**	**80**	**85**	**5075**

TEMPORARY INLET COVER

LOCATION	STATION	611.8120.S COVER PLATE TEMPORARY (EACH)	SPV.0060.013 TEMPORARY INLET COVER (EACH)
5992-11-31			
CATEGORY 0040			
STAGE 1			
BEGIN PROJECT - SHOREWOOD BLVD	135+50'EB' - 1138+00'EB'	--	3
SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	6
SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	3
MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	4
FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	5
UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	4
STAGE 1 SUBTOTAL		0	25
STAGE 3			
SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	7
SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	4
MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	6
FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	--	6
UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	--	7
STAGE 3 SUBTOTAL		0	30
PROJECT		20	0
CATEGORY 0040 TOTAL		**20**	**55**
PROJECT 5992-11-31 TOTAL		**20**	**55**

ADJUST MMSD SPECIAL

LOCATION	STATION - STATION	SPV.0060.059 ADJUST MMSD SPECIAL (EA)
5992-11-31		
CATEGORY 0010		
STAGE 2		
CATAFALQUE CT	50+00 - 54+00	2
STAGE 2 SUBTOTAL		2
CATEGORY 0010 TOTAL		**2**
PROJECT 5992-11-31 TOTAL		**2**

WATER

STAGE	LOCATION	STATION - STATION	624.0100 WATER BASE COMPACTION (MGAL)	624.0100 WATER DUST CONTROL (MGAL)
5992-11-31				
CATEGORY 0010				
STAGE 1				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	22	25
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	19	21
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	13	14
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	7	8
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	7	7
	STAGE 1 SUBTOTAL		68	76
STAGE 1A				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	16	18
	STAGE 1A SUBTOTAL		16	18
STAGE 1B				
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	16	18
	STAGE 1B SUBTOTAL		16	18
STAGE 2				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	44	50
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	43	49
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	43	48
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	45	50
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	51	57
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	3	3
	CATAFALQUE CT	50+10 - 53+80	11	12
	PEDESTRIAN PATH	50+10 - 53+05	2	3
	PEDESTRIAN PATH	56+56 - 60+50	4	5
	STAGE 2 SUBTOTAL		247	276
STAGE 3				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	5	5
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	5	5
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	3	4
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	2	2
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	2	2
	STAGE 3 SUBTOTAL		16	18
STAGE 4				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	36	41
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	39	44
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	42	47
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	44	50
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	26	29
	SCHMITT PL	62+16 'SP' - 62+57'SP'	4	4
	RIDGE ST	41+94 'RS' - 42+48 'RS'	6	6
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	10	11
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	14	16
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	13	14
	STAGE 4 SUBTOTAL		234	262
STAGE 5				
	BEGIN PROJECT - SHOREWOOD BLVD	135+50'EB' - 138+00'EB'	3	3
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	22	24
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	27	30
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	29	32
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	36	40
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	31	26
	STAGE 5 SUBTOTAL		146	156
	CATEGORY SUBTOTAL		660	730
	CATEGORY 0010 TOTAL			**1390**
5992-11-31				
CATEGORY 0080				
STAGE 2				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	27	31
	STAGE 2 SUBTOTAL		27	31
STAGE 2A				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	13	14
	STAGE 2A SUBTOTAL		13	14
	CATEGORY SUBTOTAL		40	45
	CATEGORY 0080 TOTAL			**85**
	PROJECT 5992-11-31 TOTAL			**1475**

TEMPORARY PEDESTRIAN ACCOMODATIONS

STAGE	LOCATION	STATION - STATION	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT (SF)	644.1601 TEMPORARY PEDESTRIAN CURB RAMP (DAY)	644.1810 TEMPORARY PEDESTRIAN BARRICADE (LF)
5992-11-31					
CATEGORY 0010					
STAGE 1					
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	45	--
	STAGE 1 SUBTOTAL		0	45	0
STAGE 2					
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	100	75	50
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	100	75	50
	STAGE 2 SUBTOTAL		200	150	100
STAGE 3A					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	360	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	180	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	--	180	--
	STAGE 3A SUBTOTAL		0	720	0
STAGE 4					
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	--	--	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	--	--	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	100	140	50
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	100	70	50
	STAGE 4 SUBTOTAL		200	210	100
	CATEGORY 0010 TOTAL		**400**	**1125**	**200**
5992-11-31					
CATEGORY 0080					
STAGE 2					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	40	150
	STAGE 2 SUBTOTAL		0	40	150
STAGE 2A					
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	--	30	50
	STAGE 2A SUBTOTAL		0	30	50
	CATEGORY 0080 TOTAL		**0**	**70**	**200**
	PROJECT 5992-11-31 TOTAL		**400**	**1195**	**400**

FIXED MESSAGE SIGNING

	SIGN SIZE W (IN)	X	SIGN SIZE H (IN)	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE (SF)	NOTES
5992-11-31					
CATEGORY 0010					
ROAD WORK	78	X	24	13.00	IN PLACE FOR PROJECT DURATION
BEGINS XX/XX	78	X	12	6.50	IN PLACE FOR PROJECT DURATION
TO UNIVERSITY AVE	60	X	36	15.00	IN PLACE FOR PROJECT DURATION
CATEGORY 0010 TOTAL				**34.50**	
PROJECT 5992-11-31 TOTAL				**34.50**	

TRAFFIC CONTROL ITEMS

STAGE	LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS (DAY)	643.0410 TRAFFIC CONTROL BARRICADES TYPE II (DAY)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAY)	643.0500 TRAFFIC CONTROL TUBULAR MARKERS POSTS (EACH)	643.0600 TRAFFIC CONTROL TUBULAR MARKERS BASES (EACH)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAY)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C (DAY)	643.0800 TRAFFIC CONTROL ARROW BOARDS (DAY)	643.0900 TRAFFIC CONTROL SIGNS (DAY)	643.1050 TRAFFIC CONTROL PCMS (DAY)
5992-11-31												
CATEGORY 0010												
	STAGE 1	14	3864	--	196	--	--	196	280	28	924	42
	STAGE 1A	16	1576	--	112	22	22	224	320	32	304	48
	STAGE 1B	12	1020	--	72	--	--	144	240	24	228	36
	STAGE 2	80	11399	645	2568	106	106	4,362	800	168	5600	252
	STAGE 2 PED DETOUR	75	--	300	--	--	--	--	--	--	1275	--
	STAGE 3	25	4400	75	400	12	12	800	250	50	1725	75
	STAGE 3A	14*	2436	--	112	--	--	224	140	28	280	42
	STAGE 4	70	9240	700	1120	115	115	630	700	140	5604	210
	STAGE 4 PED DETOUR	70	--	490	--	--	--	--	--	--	490	--
	STAGE 5	30	5640	60	390	--	--	780	300	60	1800	90
	STAGE 6	10	1700	--	120	--	--	240	200	20	640	30
	HOSPITAL ALT ROUTE	80	--	--	--	--	--	--	--	--	880	--
	CATEGORY 0010 TOTAL		**41275**	**2270**	**5090**	**255**	**255**	**7600**	**3230**	**550**	**19750**	**825**
5992-11-31												
CATEGORY 0080												
	STAGE 2	50	1650	100	250	14	14	500	--	--	400	50
	STAGE 2A	25	475	50	100	11	11	200	--	--	150	25
	CATEGORY 0080 TOTAL		**2125**	**150**	**350**	**25**	**25**	**700**	**0**	**0**	**550**	**75**
	PROJECT 5992-11-31 TOTAL		**43400**	**2420**	**5440**	**280**	**280**	**8300**	**3230**	**550**	**20300**	**900**

*14 DAYS TO BE USED TO COMPLETE WORK PRIOR TO STAGE 4

FENCE SAFETY

STAGE	LOCATION	STATION - STATION	616.0700.S FENCE SAFETY (LF)
5992-11-31			
CATEGORY 0010			
PROJECT			
	PROJECT	138+00 'EB' - 172+00 'EB'	5000
	PROJECT SUBTOTAL		5000
	CATEGORY 0010 TOTAL		**5000**
	PROJECT 5992-11-31 TOTAL		**5000**

SAWING

STAGE	LOCATION	STATION - STATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
5992-11-31				
CATEGORY 0010				
STAGE 1				
	BEGIN PROJECT - SHOREWOOD BLVD	135+68 'EB' - 138+00 'EB'	491	0
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	0	1158
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	0	1296
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	0	1428
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	0	1217
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	0	753
	STAGE 1 SUBTOTAL		491	5852
STAGE 2				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	225	14
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	57	0
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	20	6
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	33	0
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	306	0
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	0	5
	CATAFALQUE CT	50+10 - 53+80	180	5
	STAGE 2 SUBTOTAL		821	30
STAGE 3				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	1240	0
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	1465	0
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	1516	0
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	1474	0
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	845	0
	STAGE 3 SUBTOTAL		6540	0
STAGE 4				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	139	184
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	0	69
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	330	93
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	140	125
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	110	0
	SCHMITT PL	62+16 'SP' - 62+57'SP'	44	8
	RIDGE ST	41+94 'RS' - 42+48 'RS'	32	37
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	36	214
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	32	68
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	15	5
	STAGE 4 SUBTOTAL		878	803
STAGE 5				
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	0	--
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	0	--
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	0	--
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	0	--
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	0	--
	STAGE 5 SUBTOTAL		0	0
	CATEGORY 0010 TOTAL		**8730**	**6685**
5992-11-31				
CATEGORY 0080				
STAGE 2A				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	600	30
	STAGE 2A SUBTOTAL		600	30
STAGE 2B				
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	285	5
	STAGE 2B SUBTOTAL		285	5
	CATEGORY 0080 TOTAL		**885**	**35**
	PROJECT 5992-11-31 TOTAL		**9615**	**6720**

TEMPORARY PAVEMENT MARKING ITEMS

STAGE	LOCATION	646.5220* MARKING SYMBOL EPOXY (WHITE) (EACH)	646.5320* MARKING EPOXY RAILROAD CROSSING (WHITE) (EACH)	646.9000 MARKING REMOVAL LINE 4-INCH (LF)	646.9100 MARKING REMOVAL LINE 8-INCH (LF)	646.9300 MARKING REMOVAL SPECIAL MARKING (EACH)	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) (LF)	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (LF)	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW) (LF)	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH (WHITE) (LF)	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) (LF)	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (LF)	649.0205 TEMPORARY MARKING LINE 8-INCH PAINT (WHITE) (LF)	649.0220 TEMPORARY MARKING LINE 8-INCH EPOXY (WHITE) (LF)	649.0250 TEMPORARY MARKING LINE 8-INCH REMOVABLE TAPE (WHITE) (LF)	649.0505 TEMPORARY MARKING ARROW PAINT (WHITE) (EACH)	649.0520 TEMPORARY MARKING ARROW EPOXY (WHITE) (EACH)	649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (EACH)	649.0620 TEMPORARY MARKING LINE WORD EPOXY (WHITE) (EACH)	649.0805 TEMPORARY MARKING LINE STOP LINE 18-INCH PAINT (WHITE) (LF)	649.0820 TEMPORARY MARKING LINE STOP LINE 18-INCH EPOXY WHITE (LF)	649.0850 TEMPORARY MARKING LINE STOP LINE 18-INCH REMOVABLE TAPE (WHITE) (LF)
5992-11-31																						
CATEGORY 0010																						
	STAGE 1	--	--	2685	690	--	4960	1875	--	--	450	900	920	--	240	7	--	1	--	70	--	40
	STAGE 1A	--	--	--	--	--	--	--	--	--	710	1420	--	--	--	--	--	--	--	--	--	--
	STAGE 1B	--	--	--	--	--	--	--	--	--	710	1420	--	--	--	--	--	--	--	--	--	--
	STAGE 2	--	--	380	100	--	230	3930	--	--	--	240	480	--	160	4	--	--	--	145	--	--
	STAGE 3	--	--	--	--	--	3150	1015	--	--	--	--	585	--	--	3	--	--	--	105	--	--
	STAGE 3A	2	--	--	--	--	--	--	230	4275	--	--	--	3190	--	--	50	--	9	--	1492	--
	STAGE 4	--	--	--	--	2	640	3725	--	--	--	55	210	--	520	--	--	5	--	180	--	--
	STAGE 5	--	--	--	--	--	2990	740	--	--	--	60	420	--	140	--	--	4	--	35	--	--
	CATEGORY 0010 TOTAL	**2**	**0**	**3065**	**790**	**2**	**11970**	**11285**	**230**	**4275**	**1870**	**4095**	**2615**	**3190**	**1060**	**14**	**50**	**10**	**9**	**535**	**1492**	**40**
5992-11-31																						
CATEGORY 0080																						
	STAGE 2	--	--	--	--	2	300	300	720	651	290	340	45	250	--	--	--	--	--	25	57	--
	STAGE 2A	--	2	--	--	2	--	--	--	74	540	540	--	170	--	--	2	--	--	--	71	30
	CATEGORY 0080 TOTAL	**0**	**2**	**0**	**0**	**4**	**300**	**300**	**720**	**725**	**830**	**880**	**45**	**420**	**0**	**0**	**2**	**0**	**0**	**25**	**128**	**30**
	PROJECT 5992-11-31 TOTAL	**2**	**2**	**3065**	**790**	**6**	**23855**		**5950**		**7675**		**2660**	**3610**	**1060**	**14**	**52**	**10**	**9**	**560**	**1620**	**70**

* BID ITEMS LISTED ELSEWHERE SEE "PAVEMENT MARKING"

3

PAVEMENT MARKING

STAGE	LOCATION	STATION - STATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) (LF)	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) (LF)	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) (LF)	646.5020 MARKING EPOXY ARROW (WHITE) (EACH)	646.5120 MARKING EPOXY WORD (WHITE) (EACH)	646.5220* MARKING EPOXY SYMBOL (WHITE) (EACH)	646.5320* MARKING EPOXY RAILROAD CROSSING (WHITE) (EACH)	646.6120 MARKING STOP LINE EPOXY 18-INCH (WHITE) (LF)	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) (LF)	646.7520 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE) (LF)	646.8120 MARKING CURB EPOXY (WHITE) (LF)	646.8220 MARKING ISLAND NOSE EPOXY (WHITE) (EACH)
5992-11-31														
CATEGORY 0010														
	BEGIN PROJECT - SHOREWOOD BLVD	135+50'EB' - 138+00'EB'	770	--	200	4	2	3	--	48	--	210	10	1
	SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	565	140	55	1	--	--	--	43	--	120	70	2
	SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	660	--	340	4	1	--	--	43	--	120	20	2
	MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	685	--	295	3	1	--	--	43	--	105	70	3
	FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	635	--	490	8	4	--	--	53	--	275	20	2
	UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	565	--	1235	6	4	--	--	56	--	255	20	1
	SCHMITT PL	62+16 'SP' - 62+57'SP'	--	--	--	--	--	--	--	17	--	80	--	--
	MARSHALL CT	50+33 'MC' - 50+61 'MC'	--	--	--	--	--	--	--	16	--	65	--	--
	RIDGE ST	41+94 'RS' - 42+48 'RS'	--	50	--	--	--	--	--	18	--	90	--	--
	FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	--	50	--	--	--	--	--	31	--	130	--	--
	FARLEY AVE	12+85 'FA' - 14+94 'FA'	--	360	70	1	--	--	--	22	--	110	--	--
	UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	--	430	135	2	--	2	--	--	--	--	--	--
	SUBTOTAL		3880	1030	2820	29	12	5	0	390	0	1560	210	11
	CATEGORY 0010 TOTAL		**4910**		**2820**	**29**	**12**	**5**	**0**	**390**	**0**	**1560**	**210**	**11**
5992-11-31														
CATEGORY 0080														
	UNIVERSITY AVE - HIGHLAND AVE	20+30'BD' - 28+35'BD'	805	910	260	13	--	6	2	160	330	205	30	2
	SUBTOTAL		805	910	260	13	0	6	2	160	330	205	30	2
	CATEGORY 0080 TOTAL		**1715**		**260**	**13**	**0**	**6**	**2**	**160**	**330**	**205**	**30**	**2**
	PROJECT 5992-11-31 TOTAL		**6625**		**3080**	**42**	**12**	**11**	**2**	**550**	**330**	**1765**	**240**	**13**

* BID ITEMS LISTED ELSEWHERE SEE "TEMPORARY PAVEMENT MARKING"

PROPERTY CORNERS

LOCATION	STATION - STATION	SPV.0060.002 LOCATE AND REFERENCE PROPERTY CORNERS (EACH)	SPV.0060.003 RESET PROPERTY CORNERS (EACH)
5992-11-31			
CATEGORY 0010			
EASTBOUND			
SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	2	2
SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	1	1
MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	4	4
FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	4	4
UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 173+30 'EB'	4	4
CATEGORY 0010 TOTAL		**15**	**15**
5992-11-31			
CATEGORY 0080			
UNIVERSITY BAY DRIVE	20+30'BD' - 28+35'BD'	12	12
CATEGORY 0080 TOTAL		**12**	**12**
PROJECT 5992-11-31 TOTAL		27	27

PAVEMENT CLEANUP

LOCATION	STATION - STATION	SPV.0170.001 PAVEMENT CLEANUP (STA)
5992-11-31		
CATEGORY 0010		
EASTBOUND		
SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	7
SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	7
MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	7
FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	7
UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 173+30 'EB'	7
WESTBOUND		
SHOREWOOD BLVD - SCHMITT PL	138+00 'EB' - 144+80 'EB'	7
SCHMITT PL - MARSHALL CT	144+80 'EB' - 151+87 'EB'	7
MARSHALL CT - FRANKLIN AVE	151+87 'EB' - 159+15 'EB'	7
FRANKLIN AVE - UNIVERSITY BAY DR	159+15 'EB' - 166+21 'EB'	7
UNIVERSITY BAY DR - END PROJECT	166+21 'EB' - 172+00 'EB'	6
SCHMITT PL	62+16 'SP' - 62+57'SP'	1
RIDGE ST	41+94 'RS' - 42+48 'RS'	1
FRANKLIN AVE	32+00 'NF' - 33+34 'NF'	1
FARLEY AVE	12+85 'FA' - 14+94 'FA'	2
UNIVERSITY AVE	71+00 'UA' - 73+40 'UA'	2
CATEGORY 0010 TOTAL		**76**
5992-11-31		
CATEGORY 0080		
UNIVERSITY BAY DRIVE - NORTHBOUND	20+30'BD' - 28+35'BD'	3
UNIVERSITY BAY DRIVE - SOUTHBOUND	20+30'BD' - 28+35'BD'	3
CATEGORY 0080 TOTAL		**6**
PROJECT 5992-11-31 TOTAL		82

3

SIGNING REMOVALS

SIGN #	SIGN CODE	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	204.0246 REMOVING ANCILLARY STRUCTURE (STRUCTURE) EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON/SAME POST AS	REMARKS
5992-11-31									
CATEGORY 0010									
1M-01	R7-4D	1	---	---	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
1R-01	R4-7	---	---	1	---	---	---	---	KEEP RIGHT
1R-02	R3-4	---	---	1	---	---	---	---	NO U TURN SYMBOL
1R-03	R10-3IL	---	---	1	---	---	---	---	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT ARROW)
2R-01	R3-4	---	---	1	---	---	---	---	NO U TURN SYMBOL
	R10-3IL	---	---	1	---	---	---	2R-01	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT ARROW)
2R-02	R10-3IL	---	---	1	---	---	---	---	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT ARROW)
2R-04	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
2R-05	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
2R-06	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
2R-07	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
2R-08	CUSTOM	--	---	1	---	---	---	---	UW & VA HOSPITALS
3R-01	R3-18	---	---	1	---	---	---	3M-01	NO LEFT / U-TURN SYMBOL
3R-02		---	---	1	1	---	---	---	NO LEFT TURN
3R-03	R2-1	---	---	1	1	---	---	---	SPEED LIMIT 25 MPH
3R-04	R1-1	---	---	1	1	---	---	---	STOP SIGN
3R-05	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
3R-06	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
3R-07	CUSTOM	---	1	---	---	1	---	---	STA 147+70'EB' (UW & VA HOSPITALS)
3R-08	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
3M-01		2	---	---	---	---	1	3R-01	SCHMITT PL/UNIVERSITY AVE
4R-01	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4R-02	R10-50L	---	---	1	---	---	---	---	LEFT TURN YIELD ON FLASHING YELLOW ARROW
--	R10-3IL	---	---	1	---	---	---	---	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT ARROW)
4R-03	R10-50L	---	---	1	---	---	---	---	LEFT TURN YIELD ON FLASHING YELLOW ARROW
--	R10-3IL	---	---	1	---	---	---	---	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT ARROW)
4R-04	R6-2R	---	---	1	---	---	---	---	ONE WAY RIGHT ARROW
4R-05	R6-2R	---	---	1	---	---	---	---	ONE WAY RIGHT ARROW
4R-06	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4R-07	R6-2R	---	---	1	---	---	---	---	ONE WAY RIGHT ARROW
	R10-3IL	---	---	1	---	---	---	---	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT ARROW)
4R-08	CUSTOM	--	---	1	--	1	---	---	STA 154+20'EB' (UW & VA HOSPITALS)
4R-09	R6-2R	---	---	1	---	---	---	---	ONE WAY RIGHT ARROW
4R-10	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4R-11	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4R-12	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4R-13	CUSTOM	---	---	1	---	---	---	---	RIDGE STREET
4M-01	CUSTOM	2	---	---	---	---	---	---	RIDGE ST/UNIVERSITY AVE
5R-01	R2-1	---	---	1	---	---	---	---	SPEED LIMIT 35 MPH
5R-02	R2-1	---	---	1	1	---	---	---	SPEED LIMIT 35 MPH
5R-03	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
5R-04	R7-7L	---	---	1	1	---	---	---	NO PARKING BUS STOP (LEFT ARROW)
5R-05	R2-1	---	---	1	1	---	---	---	SPEED LIMIT 25 MPH
5R-06	R1-1	---	---	1	---	---	---	5M-02	STOP SIGN
5R-07	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
5R-08	CUSTOM	---	---	2	---	1	---	---	UNIV AVE EXIT ONLY
5R-09	R7-4D	---	---	1	---	---	---	5R-09	NO STOPPING OR STANDING(DOUBLE ARROW)
5R-11	R2-1	---	---	1	---	---		5M-03, 5M-04	SPEED LIMIT 35 MPH
5R-12	R2-1	---	---	1	---	---	---	---	SPEED LIMIT 35 MPH
5R-13	CUSTOM	---	---	1	2	---	---	---	SPEED LIMIT 35 MPH
5M-01	R1-1	---	---	1	2	---	1	---	STOP SIGN
5M-02	CUSTOM	2	---	---	---	---	1	---	FRANKLIN AVE/UNIVERSITY AVE
5M-03	CUSTOM	1	---	---	---	---	---	---	---
		8	1	48	10	3	3		

3

SIGNING REMOVALS

SIGN #	SIGN CODE	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	204.0246 REMOVING ANCILLARY STRUCTURE (STRUCTURE) EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON/SAME POST AS	REMARKS
6R-01	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
6R-02	W10-2	---	---	1	1	---	---	---	CROSS ROAD TRACKS LEFT/RIGHT SIDE
6R-03	CUSTOM	---	---	1	---	---	---	---	METRO
6R-04	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
6R-05	R1-5R	---	---	1	---	---	---	---	YIELD HERE TO PEDESTRIANS [RA]
6R-06	CUSTOM	---	---	1	1	---	---	---	METRO
6R-07	R3-4	---	---	1	---	---	---	---	NO U TURN SYMBOL
6R-08	CUSTOM	---	---	1	---	---	---	---	UNIVERSITY BAY DR
6R-09	CUSTOM	---	---	1	---	---	---	---	UNIVERSITY BAY DR
6R-10	R1-5R	---	---	1	---	---	---	---	YIELD HERE TO PEDESTRIANS [RA]
6R-12	R3-4	---	---	1	---	---	---	---	NO U TURN SYMBOL
	R4-7	---	---	1	---	---	---	---	KEEP RIGHT
6R-13	CUSTOM	---	---	1	---	---	---	---	FARLEY AVE
6R-14	CUSTOM	---	---	1	---	---	---	---	FARLEY AVE
6R-15	R7-1D	---	---	1	1	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
6R-16	W10-2	---	---	1	1	---	---	---	CROSS ROAD TRACKS LEFT/RIGHT SIDE
6R-17	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
6M-01	CUSTOM	1	---	---	---	---	---	---	---
	CUSTOM	1	---	---	---	---	---	---	---
	R1-1	1	---	---	---	---	---	---	STOP SIGN
6M-02	CUSTOM	2	---	---	---	---	---	---	FARLEY AVE/UNIVERSITY AVE
6M-03	CUSTOM	2	---	---	---	---	---	---	UNIVERSITY BAY DR/CAMPUS DR
7R-11	R2-1	---	---	1	1	---	---	---	SPEED LIMIT 25 MPH
7R-12	R7-51L	---	---	1	1	---	---	---	NO PARKING HERE TO CORNER (LEFT ARROW)
	R8-56	---	---	1	---	---	---	---	2 HOUR LIMIT SUPPLEMENTAL PLAQUE
	W16-5P	---	---	1	---	---	---	---	SCHOOL WARNING ASSEMBLIES LEFT ARROW
8R-01	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
8R-02	R2-1	---	---	1	---	---	---	---	SPEED LIMIT 25 MPH
8R-03	CUSTOM	---	1	---	---	1	---	---	STA 169+55'EB'
8R-04	CUSTOM	---	---	1	---	---	---	8R-03	---
8R-05	W12-1D	---	---	1	1	---	---	---	DOUBLE DOWN ARROW
8R-06	W6-3	---	---	1	---	---	---	---	TWO WAY TRAFFIC SYMBOL
	CUSTOM	---	---	1	---	---	---	---	TWO WAY TRAFFIC AHEAD
8R-07	W16-5P	---	---	2	1	---	---	---	SCHOOL WARNING ASSEMBLIES LEFT ARROW
8R-08	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
8R-09	CUSTOM	---	---	1	---	---	---	---	UW HOSPITAL
8R-10	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
8R-11	R3-1	---	---	2	1	---	---	---	NO RIGHT TURN SYMBOL
8R-12	R5-1	---	---	1	---	---	---	8R-11	DO NOT ENTER
8R-13	R3-1	---	---	2	1	---	---	---	NO RIGHT TURN SYMBOL
8R-14	R5-1	---	---	1	---	---	---	8R-13	DO NOT ENTER
8R-15	R7-4D	---	---	1	---	---	---	---	NO STOPPING OR STANDING(DOUBLE ARROW)
8M-01	CUSTOM	1	---	---	---	---	---	---	FIRST UNITARIAN SOCIETY
8M-02	CUSTOM	2	---	---	---	---	---	---	UW CAMPUS/DOWNTOWN
CATEGORY 0010 TOTAL		**18**	**2**	**87**	**20**	**4**	**3**		
5992-11-31									
CATEGORY 0080									
7R-01	R2-1	---	---	1	---	---	---	---	SPEED LIMIT 20 MPH
7R-02	CUSTOM	---	---	1	---	---	---	---	METRO
7R-03		---	---	2	---	---	---	---	METRO/NO PARKING
7R-04	W10-1	---	---	1	1	---	---	---	RAILROAD CROSSING
		---	---	1	---	---	---	---	NO PARKING
7R-05	R1-1	---	---	1	1	---	---	---	STOP SIGN
7R-06		---	---	2	1	---	---	---	METRO/NO PARKING
7R-07		---	---	1	1	---	---	---	NO PARKING
7R-09	R1-1	---	---	1	1	---	---	---	STOP SIGN
7R-10	W11-2	---	---	1	1	---	---	---	PEDESTRIAN CROSSING SYMBOL
	W16-7L	---	---	1	---	---	---	---	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)
7M-01	CUSTOM	2	---	---	---	---	1	---	OVERLOOK TERRACE/UNIVERSITY BAY DRIVE
CATEGORY 0080 TOTAL		**2**	**0**	**13**	**6**	**0**	**1**		
PROJECT 5992-11-31 TOTAL		**20**	**2**	**100**	**26**	**4**	**4**		

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH (SF)	637.2210 SIGNS TYPE II REFLECTIVE H FOLDING (SF)	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	654.0110 CONCRETE BASES TYPE 10 (EACH)	657.0346 POLES TYPE 9 OVER HEIGHT (EACH)	657.0515 MONOTUBE ARMS 15-FT (EACH)	SPV.0060.004 PRECAST SIGN POST BASE (EACH)	SPV.0060.005 SIGN POST BASE FOR CONCRETE INSTALLATION (EACH)	SPV.0090.004 SIGN POST (LF)	SPV.0090.005 REFLECTIVE SIGN POST (LF)	SIGN MOUNTED ON/SAME POST AS	REMARKS
5992-11-31																
CATEGORY 0010																
1-01	R3-17	2S	30X24	---	5.00	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE (BIKE SYMBOL)
1-02	R3-17B	2S	30X12	---	2.50	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE ENDS (PLAQUE)
1-03	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	KEEP RIGHT
1-04	R3-4	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO U TURN SYMBOL
1-05	R10-3IL	2S	9X15	---	.94	---	---	---	---	---	---	---	---	---	POLE	PED PUSH BUTTON INSTRUCTIONS CROSS TO MEDIAN (LEFT
2-01	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	DO NOT ENTER
2-02	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	KEEP RIGHT
2-03	R3-4	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO U TURN SYMBOL
2-04	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
2-05	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
2-06	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	---	1	---	10	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
	CUSTOM		18X24	---		---	---	---	---	---		---	---		---	METRO
2-07	CUSTOM	Custom	126x78	68.25	---	---	---	---	---	---	--	---	--	---	POLE ARM	UW & VA HOSPITALS
2-08	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
2-09	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	---	---	---	---	2-08	WRONG WAY
2-10	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	1	---	---	9	---	WRONG WAY
2-11	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	2-10	NO STOPPING OR STANDING(DOUBLE ARROW)
2-12	R2-1	2S	24X30	---	5.00	---	---	---	---	---	---	1	10	---	---	SPEED LIMIT 30 MPH
2-13	R2-1	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	2-12	SPEED LIMIT 30 MPH
2-14	R2-1	2S	24X30	---	5.00	---	---	---	---	---	1	---	10	---	---	SPEED LIMIT 30 MPH
2-15	R2-1	2S	24X30	---	5.00	---	---	---	---	---	1	---	10	---	---	SPEED LIMIT 30 MPH
2-16	R3-17	2S	30X24	---	5.00	---	---	---	---	---	1	---	9	---	---	BIKE LANE (BIKE SYMBOL)
2-17	R3-17A	2S	30X12	---	2.50	---	---	---	---	---	--	---	---	---	---	BIKE LANE AHEAD (PLAQUE)
2-18	CUSTOM	Custom	102X66	46.75	--	---	---	1	1	2	--	---	--	---	POLE ARM	UW & VA HOSPITALS
3-01	R3-4	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO U TURN SYMBOL
3-02	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	KEEP RIGHT
3-03	R3-4	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO U TURN SYMBOL
3-04	R5-1	2S	30X30	---	6.25	---	---	---	---	---	1	---	---	10	---	DO NOT ENTER
3-05	R6-2L	2S	24X30	---	5.00	---	---	---	---	---	1	---	---	10	---	ONE WAY LEFT ARROW
3-06	R5-1	2S	30X30	---	6.25	---	---	---	---	---	1	---	---	10	---	DO NOT ENTER
3-07	R2-1	2S	24X30	---	5.00	---	---	---	---	---	1	---	10	---	---	SPEED LIMIT 25 MPH
3-08	R1-1	2S	30X30	---	5.18	---	---	---	---	---	---	---	---	---	POLE	STOP SIGN
3-09	R6-2L	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY LEFT ARROW
3-10	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	POLE	NO STOPPING OR STANDING(DOUBLE ARROW)
3-11	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	POLE	NO STOPPING OR STANDING(DOUBLE ARROW)
3-12	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	1	---	---	10	---	WRONG WAY
3-13	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	1	---	---	10	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
3-15	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	1	---	---	10	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
3-16	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
3-17	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
3-18	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	---	---	---	---	3-17	WRONG WAY
4-01	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	POLE	NO STOPPING OR STANDING(DOUBLE ARROW)
4-02	M1-94H	Custom	90X18	---	11.25	---	---	---	---	---	---	---	---	---	POLE ARM	MARSHALL CT
4-03	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
4-04	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	--	--	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4-05	W12-1D	2S	24X24	---	4.00	---	---	---	---	---	---	1	5	---	---	DOUBLE DOWN ARROW
4-06	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
4-07	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	DO NOT ENTER
4-08	R10-50L	2S	30X36	---	7.50	---	---	---	---	---	---	---	---	---	POLE	LEFT TURN YIELD ON FLASHING YELLOW ARROW
4-09	R6-2R	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY RIGHT ARROW
4-10	R6-2R	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY RIGHT ARROW
4-11	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
4-12	R10-50L	2S	30X36	---	7.50	---	---	---	---	---	---	---	---	---	POLE	LEFT TURN YIELD ON FLASHING YELLOW ARROW
4-13	W12-1D	2S	24X24	---	4.00	---	---	---	---	---	---	1	5	---	---	DOUBLE DOWN ARROW
4-14	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	DO NOT ENTER
4-15	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
4-16	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
4-17	M1-94H	Custom	72X18	---	9.00	---	---	---	---	---	---	---	---	---	POLE ARM	RIDGE ST
4-18	M1-94H	Custom	72X18	---	9.00	---	---	---	---	---	---	---	---	---	POLE ARM	RIDGE ST
4-19	R6-2R	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY RIGHT ARROW
4-20	R6-2R	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY RIGHT ARROW
4-21	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
4-22	CUSTOM	Custom	126x78	68.25	---	---	---	---	---	---	--	---	--	---	POLE ARM	UW & VA HOSPITALS
4-23	CUSTOM	Custom	102X66	46.75	---	---	---	---	---	---	--	---	--	---	POLE ARM	UW & VA HOSPITALS
4-24	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
4-25	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	1	---	---	9	---	WRONG WAY
4-26	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	4-25	NO STOPPING OR STANDING(DOUBLE ARROW)
4-27	R2-1	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	SPEED LIMIT 30 MPH
4-28	R2-1	2S	24X30	---	5.00	---	---	---	---	---	1	---	10	--	---	SPEED LIMIT 30 MPH
4-29	R10-11B	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO TURN ON RED
				230.00	286.37	41.44	---	1	1	2	18	4	69	133		

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH (SF)	637.2210 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	654.0110 CONCRETE BASES TYPE 10 (EACH)	657.0346 POLES TYPE 9 OVER HEIGHT (EACH)	657.0515 MONOTUBE ARMS 15-FT (EACH)	SPV.0060.004 PRECAST SIGN POST BASE (EACH)	SPV.0060.005 SIGN POST BASE FOR CONCRETE INSTALLATION (EACH)	SPV.0090.004 SIGN POST (LF)	SPV.0090.005 REFLECTIVE SIGN POST (LF)	SIGN MOUNTED ON/SAME POST AS	REMARKS
4-30	M1-94H	Custom	90X18	---	11.25	---	---	---	---	---	---	---	---	---	POLE ARM	MARSHALL CT
5-01	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	1	---	---	10	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
5-02	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
5-03	R3-1	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO RIGHT TURN SYMBOL
5-04	R5-1	2S	30X30	---	6.25	---	---	---	---	---	1	---	---	10	---	DO NOT ENTER
5-05	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
5-06	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	---	---	---	---	5-05	WRONG WAY
5-07	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	DO NOT ENTER
5-08	R6-2L	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY LEFT ARROW
5-09	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	---	KEEP RIGHT
5-10	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	---	KEEP RIGHT
5-11	R5-1	2S	30X30	---	6.25	---	---	---	---	---	1	---	---	10	---	DO NOT ENTER
5-12	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	5-11	NO STOPPING OR STANDING(DOUBLE ARROW)
5-13	R7-7L	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO PARKING BUS STOP (LEFT ARROW)
5-14	R2-1	2S	24X30	---	5.00	---	---	---	---	---	1	---	10	---	---	SPEED LIMIT 25 MPH
5-15	R1-1	2S	30X30	---	5.18	---	---	---	---	---	1	---	10	---	---	STOP SIGN
5-16	CUSTOM	Custom	126X72	63.00	---	---	---	---	---	---	---	---	---	---	POLE ARM	UW & VA HOSPITALS
5-17	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	POLE	NO STOPPING OR STANDING(DOUBLE ARROW)
5-18	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	---	--	---	--	5-22	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
5-19	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	1	---	10	---	---	WRONG WAY
5-20	R2-1	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	5-19	SPEED LIMIT 30 MPH
5-21	R2-1	2S	24X30	---	5.00	---	---	---	---	---	---	1	10	---	---	SPEED LIMIT 30 MPH
5-22	CUSTOM	Custom	72x60	---	30.00	---	---	---	---	---	2	---	31	---	---	UW & VA HOSPITALS
5-23	CUSTOM	Custom	84X30	---	17.50	---	---	---	---	---	---	---	---	---	5-23	UNIVERSITY BAY DRIVE/FARLEY AVE
6-01	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	---	---	---	---	POLE	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
6-02	W10-2	2S	36X36	---	---	---	9.00	---	---	---	---	---	---	---	POLE	CROSS ROAD TRACKS LEFT/RIGHT SIDE
6-03	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	1	---	---	9	---	NO STOPPING OR STANDING(DOUBLE ARROW)
6-04	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	---	---	---	---	6-03	WRONG WAY
6-05	M1-94H	Custom	114x18	---	14.25	---	---	---	---	---	---	---	---	---	POLE ARM	UNIVERSITY BAY DR
6-06	M1-94H	Custom	114x18	---	14.25	---	---	---	---	---	---	---	---	---	POLE ARM	UNIVERSITY BAY DR
6-07	R10-11B	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO TURN ON RED
6-08	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-09	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-10	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	DO NOT ENTER
6-11	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	KEEP RIGHT
6-12	R3-4	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO U TURN SYMBOL
6-13	R6-2L	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY LEFT ARROW
6-14	R6-2R	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	ONE WAY RIGHT ARROW
6-15	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-16	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-17	R10-15R	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	TURNING VEHICLES YIELD TO PEDS (RIGHT ARROW)
6-18	W12-1D	2S	24X24	---	---	---	4.00	---	---	---	---	1	5	---	---	DOUBLE DOWN ARROW
6-19	R10-15R	2S	30X30	---	6.25	---	---	---	---	---	1	---	---	10	---	TURNING VEHICLES YIELD TO PEDS (RIGHT ARROW)
6-20	R10-11B	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO TURN ON RED
6-21	R2-1	2S	24X30	---	5.00	---	---	---	---	---	---	---	---	---	POLE	SPEED LIMIT 20 MPH
6-22	R3-17	2S	30X24	---	5.00	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE (BIKE SYMBOL)
6-23	R4-7	2S	30X30	---	6.25	---	---	---	---	---	---	1	---	10	---	KEEP RIGHT
6-24	R7-1D	2S	18X24	---	3.00	---	---	---	---	---	1	---	9	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
6-25	R1-1F	2S	30X30	---	5.18	---	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-26	R3-4	2S	24X24	---	4.00	---	---	---	---	---	---	---	---	---	POLE	NO U TURN SYMBOL
6-27	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-28	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
6-29	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	DO NOT ENTER
6-30	W10-2	2S	36X36	---	---	---	9.00	---	---	---	---	---	---	---	POLE	CROSS ROAD TRACKS LEFT/RIGHT SIDE
6-31	M1-94H	2S	84X18	---	10.50	---	---	---	---	---	---	---	---	---	POLE ARM	FARLEY AVE
6-32	M1-94H	2S	84X18	---	10.50	---	---	---	---	---	---	---	---	---	POLE ARM	FARLEY AVE
6-33	R3-17	2S	30X24	---	5.00	---	---	---	---	---	1	---	---	9	---	BIKE LANE (BIKE SYMBOL)
6-34	R3-17A	2S	30X12	---	2.50	---	---	---	---	---	---	---	---	---	6-33	BIKE LANE AHEAD (PLAQUE)
6-35	CUSTOM	Custom	84x60	---	35.00	---	---	---	---	---	2	---	24	---	---	UW & VA HOSPITALS
7-16	R2-1	2S	24X30	---	5.00	---	---	---	---	---	1	---	10	---	---	SPEED LIMIT 25 MPH
7-17	R7-51L	2S	18X24	---	3.00	---	---	---	---	---	1	---	10	---	---	NO PARKING HERE TO CORNER (LEFT ARROW)
7-18	R7-5R	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	7-17	[__] HOUR PARKING TIME TO TIME (RIGHT ARROW)
8-01	R5-1A	2S	36X24	---	6.00	---	---	---	---	---	---	---	---	---	POLE	WRONG WAY
8-02	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	POLE	NO STOPPING OR STANDING(DOUBLE ARROW)
8-03	CUSTOM	Custom	126X72	63.00	---	---	---	---	---	---	---	---	---	---	S-13-586	UW & VA HOSPITALS
8-04	CUSTOM	Custom	144X54	54.00	---	---	---	---	---	---	---	---	---	---	S-13-586	CAMPUS DRIVE
8-05	R3-17	2S	30X24	---	5.00	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE (BIKE SYMBOL)
8-06	W6-3	2S	36X36	---	---	---	9.00	---	---	---	---	---	---	---	POLE	TWO WAY TRAFFIC SYMBOL
8-07	W12-1D	2S	24X24	---	---	---	4.00	---	---	---	1	---	5	---	---	DOUBLE DOWN ARROW
8-08	R7-2R	2S	18X24	---	3.00	---	---	---	---	---	1	---	9	---	---	NO PARKING TIME TO TIME (RIGHT ARROW)
8-09	R3-7R	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	POLE	RIGHT LANE MUST TURN RIGHT
8-10	CUSTOM	Custom	84x60	---	35.00	---	---	---	---	---	2	---	24	---	---	UW & VA HOSPITALS
8-11	R3-8	2S	84X30	---	17.50	---	---	---	---	---	---	---	---	---	---	VARIOUS ONLYS
8-12	R3-20L	2S	24X36	---	6.00	---	---	---	---	---	1	---	---	10	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
8-13	R3-17	2S	30X24	---	5.00	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE (BIKE SYMBOL)
				410.00	730.98	72.52	35.00	1	1	2	42	7	236	238		

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH (SF)	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	654.0110 CONCRETE BASES TYPE 10 (EACH)	657.0346 POLES TYPE 9 OVER HEIGHT (EACH)	657.0515 MONOTUBE ARMS 15-FT (EACH)	SPV.0060.004 PRECAST SIGN POST BASE (EACH)	SPV.0060.005 SIGN POST BASE FOR CONCRETE INSTALLATION (EACH)	SPV.0090.004 SIGN POST (LF)	SPV.0090.005 REFLECTIVE SIGN POST (LF)	SIGN MOUNTED ON/SAME POST AS	REMARKS
8-14	R3-17B	2S	30X12	---	2.50	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE ENDS (PLAQUE)
8-15	R7-4D	2S	18X24	---	3.00	---	---	---	---	---	---	---	---	---	POLE	NO STOPPING OR STANDING(DOUBLE ARROW)
8-16	R3-1	2S	24X24	---	4.00	---	---	---	---	---	1	---	10	---	---	NO RIGHT TURN SYMBOL
8-17	R3-1	2S	24X24	---	4.00	---	---	---	---	---	1	---	10	---	---	NO RIGHT TURN SYMBOL
8-18	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	8-16	DO NOT ENTER
8-19	R5-1	2S	30X30	---	6.25	---	---	---	---	---	---	---	---	---	8-17	DO NOT ENTER
CATEGORY 0010 TOTAL				**410.00**	**751.48**	**72.52**	**35.00**	**1**	**1**	**2**	**44**	**7**	**256**	**238**		
5992-11-31 CATEGORY 0080																
7-01	W4-2R	2S	36X36	---	---	---	9.00	---	---	---	---	---	---	---	POLE	LANE REDUCTION TRANSITION SYMBOL (RIGHT)
7-03	R1-1F	2S	36X36	---	7.07	---	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
7-04	W10-1	2S	36X36	---	---	---	3.00	---	---	---	1	---	10	---	---	RAILROAD CROSSING
7-05	R7-1D	2S	18X24	---	---	---	---	---	---	---	---	---	---	---	7-04	NO PARKING ANY TIME (DOUBLE ARROW)
7-06	M1-94H	Custom	90X18	---	11.25	---	---	---	---	---	---	---	---	---	POLE ARM	MARSHALL CT
7-07	M1-94H	Custom	90X18	---	11.25	---	---	---	---	---	---	---	---	---	POLE ARM	MARSHALL CT
7-08	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
7-09	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
7-10	M1-94H	Custom	96X18	---	12.00	---	---	---	---	---	---	---	---	---	POLE ARM	OVERLOOK TER
7-11	M1-94H	Custom	96X18	---	12.00	---	---	---	---	---	---	---	---	---	POLE ARM	OVERLOOK TER
7-12	R3-17	2S	30X24	---	5.00	---	---	---	---	---	---	---	---	---	POLE	BIKE LANE (BIKE SYMBOL)
7-13	R1-1F	2S	30X30	---	---	5.18	---	---	---	---	---	---	---	---	POLE	STOP SIGN (FOLDING)
7-14	W11-2	2S	30X30	---	---	---	6.25	---	---	---	1	---	10	---	---	PEDESTRIAN CROSSING SYMBOL
7-15	W16-7L	2S	24X12	---	---	---	2.00	---	---	---	---	---	---	---	7-14	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)
CATEGORY 0080 TOTAL				**0**	**58.57**	**15.54**	**20.25**	**0**	**0**	**0**	**2**	**0**	**20**	**0**		
PROJECT 5992-11-31 TOTAL				**410.00**	**810.05**	**88.06**	**55.25**	**1**	**1**	**2**	**46**	**7**	**276**	**238**		

MONOTUBE CANTILEVER

STAGE	LOCATION	STATION	532.5120 MONOTUBE CANTILEVER TYPE II (EA)	WITH SIGN
5992-11-31 CATEGORY 0010				
	SHOREWOOD BLVD - SCHMITT PL	143+10'EB'	1	2-18
	CATEGORY 0010 TOTAL		**1**	
5992-11-31 CATEGORY 0060				
	SHOREWOOD BLVD - SCHMITT PL	142+63'WB'	1	2-13
	MARSHALL CT - FRANKLIN AVE	153+40'EB'	1	4-23
	MARSHALL CT - FRANKLIN AVE	154+05'EB'	1	4-22
	FRANKLIN AVE - UNIVERSITY BAY DR	160+47'EB'	1	5-16
	CATEGORY 0060 TOTAL		**4**	
	PROJECT 5992-11-31 TOTAL		**5**	

LIGHTING REMOVALS

ITEM	STATION	OFFSET	R/L	204.0195* REMOVING CONCRETE BASES (EACH)	204.9060.S.001 REMOVING STREET LIGHT ASSEMBLY (EACH)
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING					
TS1	138+65'EB'	47.9'	RT	--	1
TS2	138+17'EB'	39.7'	RT	--	1
TS5	137+78'WB'	42.9'	LT	--	1
TS6	137+96'WB'	56.2'	LT	--	1
TS11	139+25'EB'	38.9'	RT	--	1
SL1355	138+87'WB'	39.6'	LT	1	1
SL1354	139+86'WB'	40.4'	LT	1	1
SL1353	140+50'EB'	39.1'	RT	1	1
SL1352	141+06'WB'	39.6'	LT	1	1
SL1351	141+89'EB'	39.0'	RT	1	1
SL1350	142+80'WB'	45.0'	LT	1	1
SL1349	143+15'EB'	39.0'	RT	1	1
SL1348	144+66'WB'	46.4'	LT	1	1
SL1347	144+30'EB'	39.5'	RT	1	1
SL1346	145+35'WB'	45.0'	LT	1	1
SL1345	145+29'EB'	38.9'	RT	1	1
SL1344	146+53'WB'	42.7'	LT	1	1
SL1343	146+71'EB'	38.6'	RT	1	1
SL1342	147+57'WB'	42.5'	LT	1	1
SL1340	148+75'WB'	42.0'	LT	1	1
SL1339	148+69'EB'	38.2'	RT	1	1
SL1338	149+95'WB'	43.3'	LT	1	1
SL1337	150+38'EB'	38.3'	RT	1	1
TS1	151+44'EB'	37.5'	RT	1	1
TS3	151+11'WB'	43.8'	LT	1	1
TS5	152+39'WB'	43.8'	LT	1	1
TS7	152+40'EB'	38.6'	RT	1	1
TS9	151+64'EB'	47.4'	RT	1	1
SL1330	153+38'WB'	43.0'	LT	1	1
SL1329	154+08'EB'	38.4'	RT	1	1
SL1328	154+69.1'WB'	42.7'	LT	1	1
SL1327	155+00'EB'	38.4'	RT	1	1
SL1326	156+10'WB'	41.4'	LT	1	1
SL1325	156+38'EB'	42.3'	RT	1	1
SL1324	157+47'WB'	42.4'	LT	1	1
SL1323	157+68'EB'	40.3'	RT	1	1
SL1322	158+81'WB'	42.4'	LT	1	1
SL1321	158+73'EB'	40.8'	RT	1	1
SL1320	159+74'WB'	42.9'	LT	1	1
SL1319	159+80'EB'	41.0'	RT	1	1
SL1318	160+76'WB'	42.8'	LT	1	1
SL1317	161+20'EB'	38.1'	RT	1	1
SL1316	161+78'WB'	40.7'	LT	1	1
SL1315	162+56'EB'	37.2'	RT	1	1
SL1314	163+09'WB'	41.8'	LT	1	1
SL1313	163+55'EB'	35.0'	RT	1	1
SL1312	164+74'WB'	40.1'	LT	1	1
TS4	165+70'WB'	31.9'	LT	1	1
TS6	166+26'WB'	45.0'	LT	1	1
TS7	166+43'WB'	29.0'	LT	1	1
TS9	166+73'EB'	45.6'	RT	1	1
TS11	166+16'EB'	57.4'	RT	1	1
SL1309	165+85'EB'	41.1'	RT	1	1
SL1304	167+49'WB'	30.9'	LT	1	1
SL1303	168+10'EB'	45.6'	RT	1	1
SL1302	168+66'WB'	36.9'	LT	1	1
SL1301	169+45'EB'	47.3'	RT	1	1
SL1300	169+86'WB'	42.4'	LT	1	1
SL1299	170+44'EB'	59.3'	RT	1	1
SL1298	171+18'WB'	45.1'	LT	1	1
SL1296	171+86'EB'	83.8'	RT	1	1
SL1295	172+58'EB'	33.9'	RT	1	1
SUBTOTAL - MADISON				57	62

LIGHTING REMOVALS (CONTINUED)

ITEM	STATION	OFFSET	R/L	204.0195* REMOVING CONCRETE BASES (EACH)	204.9060.S.001 REMOVING STREET LIGHT ASSEMBLY (EACH)
CATEGORY 0090 - UNIVERSITY BAY DRIVE STREET LIGHTING					
SL1356	21+79'UBD'	28.7'	RT	1	1
SL1357	22+78'UBD'	26.5'	RT	1	1
SL1358	23+70'UBD'	27.9'	RT	1	2
SUBTOTAL - SHOREWOOD HILLS				3	4
PROJECT TOTAL				**60**	**66**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC SIGNAL REMOVALS

Item	204.0195* REMOVING CONCRETE BASES (EACH)	204.9060.S.002 REMOVING TRAFFIC SIGNAL (EACH)	653.0905* REMOVING PULL BOXES (EACH)
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS			
UNIVERSITY AVE & HILL - UNDISTRIBUTED	5	15	--
NIVERSITY AVE & RIDGE - UNDISTRIBUTED	9	17	--
IVERSITY AVE & FARLEY - UNDISTRIBUTED	8	17	--
PROJECT - UNDISTRIBUTED	--	--	24
SUBTOTAL - MADISON	22	49	24
PROJECT TOTAL	**22**	**49**	**24**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC SIGNAL CONDUIT

LOCATION	FROM	-	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0325* CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	COMMENTS
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS								
	EXISTING LIGHTING	-	HH1	35	--	--	--	--
	HH1	-	SL1362	20	--	--	--	--
	HH1	-	HH4	--	--	--	170	(1) -- 3"
	HH2	-	TS3	55	--	--	--	--
	HH2	-	TS4	20	--	--	--	--
	HH2	-	TS5	5	--	--	--	--
	HH2	-	HH4	--	--	--	55	(1) -- 2", (1) -- 3"
	HH4	-	SL1358	15	--	--	--	--
	HH4	-	EXISTING SIGNAL	--	--	45	--	MATCH EXISTING
	HH4	-	HH3	--	--	--	50	--
	HH4	-	HH5	230	--	--	--	--
	HH4	-	TS6	30	--	--	--	--
	HH3	-	HH7	--	1000	--	--	(2) -- 3"
	HH6	-	HH7	--	--	--	45	(1) -- 3"
	HH6	-	HH8	--	--	--	40	(1) -- 3"
	HH16	-	HH15	75	--	--	--	
	HH15	-	HH13	160	--	--	--	
	HH12	-	HH14	--	--	--	95	
	HH16	-	TS11	--	5	--	--	
	HH16	-	HH17	--	--	45	45	(1) -- 2", (1) -- 3"
	HH16	-	HH28	--	--	50	50	(1) -- 2", (1) -- 3"
	HH16	-	HH29	--	--	--	75	
	HH17	-	TS12	--	5	--	--	
	HH17	-	RR BUNGALOW	20	--	--	--	
	HH17	-	HH18	--	--	40	40	(1) -- 2", (1) -- 3"
	HH18	-	TS13	15	--	--	--	
	HH18	-	HH19	35	--	--	--	
	HH18	-	SL1347	--	25	--	--	
	HH18	-	HH20	--	--	55	55	(1) -- 2", (1) -- 3"
	HH20	-	HH21	45	45	--	--	(1) -- 2", (1) -- 3"
	HH21	-	TS14	25	--	--	--	
	HH21	-	SL1345	--	5	--	--	
	HH21	-	HH23	--	--	50	50	(1) -- 2", (1) -- 3"
	HH21	-	HH22	--	10	--	--	
	HH28	-	TS17	25	--	--	--	
	HH28	-	HH27	60	60	--	--	(1) -- 2", (1) -- 3"
	HH28	-	SL1348	--	5	--	--	
	HH27	-	TS16	25	--	--	--	
	HH27		HH26	--	--	45	45	(2) -- 3", (1) -- 2"
	HH26	-	TC1	10	20	--	--	(2) -- 3", (1) -- 2"
	HH26	-	HH25	55	55	--	--	(1) -- 2", (1) -- 3"
	HH26	-	HH29	--	--	--	80	
	HH29	-	TS18	--	20	--	--	
	HH29	-	TS19	--	5	--	--	
	HH29	-	HH23	--	--	--	55	
	TS15	-	HH24	--	10	--	--	
	HH23	-	HH30	80	--	--	--	
	HH23	-	HH25	--	--	40	40	(1) -- 2", (1) -- 3"
	HH22	-	HH35	--	1510	--	--	(2) -- 3"
	HH30	-	HH31	160	--	--	--	
	HH32	-	HH33	--	--	--	50	
	HH32	-	HH38	--	--	--	40	
	HH33	-	HH34	--	105	--		
	HH38	-	HH37	--	--	--	110	
	HH34	-	HH36	--	--	--	50	
	HH34	-	HH35		10	--	--	
	HH36	-	HH37	--	--	--	45	
	HH35	-	HH41	--	960	--	--	(2) -- 3"
	HH57	-	TS31	20	--	--	--	
	TS31	-	TS32	15	--	--	--	
	HH57	-	HH40	--	115	--	--	
	HH40	-	HH39	110	--	--	--	
	HH57	-	SL1330		10	--	--	
	HH57	-	HH56	--	--	65	130	(1) -- 2", (2) -- 3"
	HH57	-	HH43	--	--	45	90	(1) -- 2", (2) -- 3"
	SUBTOTAL			1345	3980	480	1505	

TRAFFIC SIGNAL CONDUIT (CONTINUED)

FROM	-	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0325* CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	COMMENTS
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS (CONTINUED)							
HH43	-	TS22	--	5	--	--	
HH43	-	TS23	20	--	--	--	
HH43	-	HH44	25	25	--	--	(1) -- 2", (1) -- 3"
HH43	-	HH42	--	--	--	35	
HH44	-	SL1329	--	5	--		
HH44	-	HH45	--	--	65	65	(1) -- 2", (1) -- 3"
HH45	-	TS20	5	--	--	--	
HH42	-	TS21	5	--	--	--	
HH42	-	HH41	75	--	--	--	
HH41	-	HH49	--	--	--	390	(2) -- 3"
HH56	-	SL1331		5	--	--	
HH56	-	BRT POWER	20	--	--	--	(2) -- 2"
HH56	-	TS30	40	--	--	--	
HH56	-	HH55	75	150	--	--	(1) -- 2", (2) -- 3"
HH55	-	SL1328	10		--	--	
HH55	-	TC2	20	20	--	--	(2) -- 2", (2) -- 3"
TC2	-	LC2	--	10	--	--	(2) -- 3"
HH55	-	HH53	--	--	50	100	(1) -- 2", (2) -- 3"
HH53	-	TS29	--	15	--	--	
HH53	-	TS28	20		--	--	
HH53	-	HH52	35	70	--	--	(1) -- 2", (2) -- 3"
HH52	-	TS27	--	25	--	--	
HH52	-	HH50	--	--	50	100	(1) -- 2", (2) -- 3"
HH52	-	HH58	75	--	--	--	
HH58	-	HH61		210	--	--	
HH50	-	HH51	20	20	--	--	(1) -- 2", (1) -- 3"
HH50	-	TS25	15	--	--	--	
HH51	-	TS26	--	15	--	--	
HH51	-	HH59	135	--	--	--	
HH59	-	HH60	140	--	--	--	
HH50	-	HH48	--	--	70	140	(1) -- 2", (2) -- 3"
HH48	-	TS24	5	--	--	--	
HH48	-	SL1327	25	--	--	--	
HH48	-	HH49	--	30	--	--	
HH48	-	HH47	30	--	--	--	
HH48	-	HH45	40	40	--	--	(1) -- 2", (1) -- 3"
HH49	-	HH46	125	125	--	--	(1) -- 2", (1) -- 3"
HH46	-	END	--	50	--	--	
HH49	-	HH62	--	580	--	--	
HH62	-	HH61	125	--	--	250	(2) -- 3"
HH61	-	HH63	--	200	--	--	(2) -- 3"
SUBTOTAL - MADISON			2430	5580	715	2585	
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS							
HH70	-	HH65	--	--	70	70	(1) -- 2", (1) -- 3"
HH70	-	HH69	--	--	60	60	(1) -- 2", (1) -- 3"
SL1315	-	TC3	--	10	--	--	
TC3	-	HH70	5	10	--	--	(1) -- 2", (2) -- 3"
TC3	-	HH71	--	10	--	--	(2) -- 3"
HH71	-	HH46	--	340	--	--	(2) -- 3"
HH69	-	SL1314	--	5	--	--	
HH69	-	TS35	30	--	--	--	
HH69	-	HH68	--	--	90	90	(1) -- 2", (1) -- 3"
HH68	-	SL1313	--	5	--	--	
HH68	-	HH72	165	--	--	--	
HH68	-	HH67	--	30	--	--	
HH67	-	TS34	10	--	--	--	
HH67	-	HH66	--	--	--	45	
HH66	-	SL1312	--	5	--	--	
HH66	-	HH65	--	25	--	--	
HH65	-	TS33	--	5	--	--	
SUBTOTAL - SHOREWOOD HILLS			210	445	220	265	
PROJECT TOTAL			**2640**	**6025**	**935**	**2850**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE
NOTE: TS1 NOT USED

TRAFFIC SIGNAL CABLE AND WIRE

LOCATION FROM	-	TO	655.0230* 5-14 AWG (LF)	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG (LF)	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG (LF)	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG (LF)	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG (LF)	SPV.0090.006 LOOP DETECTOR LEAD IN CABLE SPECIAL (LF)	SPV.0090.033 FIBER OPTIC CABLE 12-COUNT (LF)	SPV.0090.034 FIBER OPTIC CABLE 288-COUNT (LF)
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS										
UNIVERSITY AVE & HILL										
EX TC	-	SL1358	--	--	123	--	--	--	--	--
EX TC	-	SL1361		--		378	--	--	--	--
EX TC	-	SL1362	333	--	--	--	--	--	--	--
EX TC	-	TS2	--	--	353	--	--	--	--	--
EX TC	-	TS3	--	--	228	--	--	--	--	--
EX TC	-	TS4	193	--	--	--	--	--	--	--
EX TC	-	TS5	178	--	--	--	--	--	--	--
EX TC	-	TS6	133	--	--	--	--	--	--	--
EX TC	-	TS7	--	--	133	--	--	--	--	--
EX TC	-	TS8	--	23	--	--	--	--	--	--
EX TC	-	SL1359	--	--	73	--	--	--	--	--
EX TC	-	SL1360	--	128	--	--	--	--	--	--
EX TC	-	TS9	--	178	--	--	--	--	--	--
EX TC	-	TS10	--	248	--	--	--	--	--	--
EX TC	-	HH1	--		--	--	--	308	--	--
EX TC	-	HH2	--	--	--	--	--	168	--	--
EX TC	-	HH4	--	--	--	--	--	103	--	--
EX TC	-	HH5	--	--	--	--	--	343	--	--
HH2	-	HH3	--	--	--	--	--	--	--	150
HH4	-	HH3	--	--	--	--	--	--	--	80
HH3	-	HH7	--	--	--	--	--	--	--	530
HH7	-	HH12	--	--	--	--	--	--	--	520
HH12	-	HH14	--	--	--	--	--	--	125	--
HH4	-	EX HH	--	--	--	--	--	--	75	--
HH4	-	EX TC	--	--	--	--	--	--	68	--
SYSTEM GROUND			--	--	--	--	704	--	--	--
SYSTEM NEUTRAL			--	--	--	--	704	--	--	--
INTERSECTION SUBTOTAL			837	577	910	378	1408	922	268	1280
NOTE: TS1 NOT USED										
UNIVERSITY AVE & RIDGE										
HH12	-	HH22	--	--	--	--	--	--	385	385
TC1	-	SL1346	--	--	43	--	--	--	--	--
TC1	-	TS11	--	--	--	178	--	--	--	--
TC1	-	SL1345	--	--	228	--	--	--	--	--
TC1	-	TS12	--	298	--	--	--	--	--	--
TC1	-	TS15	--	--	--	163	--	--	--	--
TC1	-	TS14	--	248	--	--	--	--	--	--
TC1	-	TS13	--	358	--	--	--	--	--	--
TC1	-	SL1348	--	--	178	--	--	--	--	--
TC1	-	TS19	--	--	--	138	--	--	--	--
TC1		TS18	--	148	148	--	--	--	--	--
TC1		TS17	--	198	--	--	--	--	--	--
TC1		TS16	118	--	--	--	--	--	--	--
TC1	-	SL1347	--	373	--	--	--	--	--	--
HH31	-	HH26	--	--	--	--	--	--	--	405
HH26	-	TC1	--	--	--	--	--	--	--	23
TC1	-	HH27	--	--	--	--	--	88	--	--
TC1	-	HH28	--	--	--	--	--	153	--	--
TC1	-	HH16	--	--	--	--	--	233	--	--
TC1	-	HH15	--	--	--	--	--	318	--	--
TC1	-	HH13	--	--	--	--	--	488	--	--
TC1	-	HH17	--	--	--	--	--	288	--	--
TC1	-	HH18	--	--	--	--	--	341	--	--
TC1	-	HH19	--	--	393	--	--	393	--	--
HH19	-	RR	--	--	35	--	--	--	--	--
TC1	-	HH20	--	--	--	--	--	273	--	--
TC1	-	HH21	--	--	--	--	--	218	--	--
HH22	-	HH35	--	--	--	--	--	--	785	--
TC1	-	HH25	--	--	--	--	--	98	--	--
SUBTOTAL			118	1623	1025	479	0	2891	1170	813

TRAFFIC SIGNAL CABLE AND WIRE (CONTINUED)

LOCATION FROM	-	TO	655.0230* 5-14 AWG (LF)	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG (LF)	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG (LF)	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG (LF)	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG (LF)	SPV.0090.006 LOOP DETECTOR LEAD IN CABLE SPECIAL (LF)	SPV.0090.033 FIBER OPTIC CABLE 12-COUNT (LF)	SPV.0090.034 FIBER OPTIC CABLE 288-COUNT (LF)
UNIVERSITY AVE & RIDGE (CONTNUED)										
TC1	-	HH23	--	--	--	--	--	153	--	--
TC1	-	HH30	--	--	--	--	--	248	--	--
TC1	-	HH31	--	--	--	--	--	423	--	--
HH22	-	HH26	--	--	--	--	--	--	155	--
HH35	-	HH34	--	--	--	--	--	--	35	--
HH34	-	HH36	--	--	--	--	--	--	80	--
HH36	-	HH37	--	--	--	--	--	--	75	--
HH37	-	WELL END	--	--	--	--	--	--	60	--
HH22	-	HH34	--	--	--	--	--	--	780	--
TC1	-	RR END	--	--	--	--	--	--	413	--
SYSTEM GROUND			--	--	--	--	2312	--	--	--
SYSTEM NEUTRAL			--	--	--	--	2312	--	--	--
INTERSECTION SUBTOTAL			118	1623	1025	479	4624	3715	2768	813
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS										
UNIVERSITY AVE & FARLEY										
TC2	-	TS25	228	--	--	--	--	--	--	--
TC2	-	SL1328	--	--	113	--	--	--	--	--
TC2	-	TS24	298	--	--	--	--	--	--	--
TC2	-	TS23	--	278	--	--	--	--	--	--
TC2	-	SL1326	--	--	--	228	--	--	--	--
TC2	-	TS21	--	313	--	--	--	--	--	--
TC2	-	SL1327	--	313	--	--	--	--	--	--
TC2	-	TS20	--	348	--	--	--	--	--	--
TC2	-	SL1329	--	303	--	--	--	--	--	--
TC2	-	SL1330	--	--	--	208	--	--	--	--
TC2	-	TS27	--	168	--	--	--	--	--	--
TS23	-	TS28	118	--	--	--	--	--	--	--
TC2	-	SL1331	--	--	128	--	--	--	--	--
TC2	-	TS26	--	--	258	--	--	--	--	--
TC2	-	TS29	--	43	--	--	--	--	--	--
TC2	-	TS30	163	--	--	--	--	--	--	--
TC2	-	TS31	--	223	--	--	--	--	--	--
TS31	-	TS32	--	25	--	--	--	--	--	--
TC2	-	TS22	--	268	--	--	--	--	--	--
TC2	-	HH53	--	--	--	--	--	83	--	--
TC2	-	HH59	--	--	--	--	--	378	--	--
TC2	-	HH51	--	--	--	--	--	228	--	--
TC2	-	HH57	--	--	--	--	--	188	--	--
TC2	-	HH58	--	--	--	--	--	218	--	--
TC2	-	HH46	--	--	388	--	--	--	--	--
TC2	-	HH44	--	--	--	--	--	283	--	--
TC2	-	HH42	--	--	--	--	--	293	--	--
TC2	-	HH40	--	--	--	--	--	313	--	--
TC2	-	HH39	--	--	--	--	--	438	--	--
TC2	-	HH56	--	--	--	--	--	108	--	--
TC2	-	HH60	--	--	--	--	--	528	--	--
HH41	-	HH49	--	--	--	--	--	--	--	225
HH49	-	HH46	--	--	--	--	--	--	155	--
HH48	-	HH50	--	--	--	--	--	--	100	--
HH50	-	HH52	--	--	--	--	--	--	80	--
HH52	-	HH53	--	--	--	--	--	--	65	--
HH53	-	HH55	--	--	--	--	--	--	80	--
HH55	-	TC2	--	--	--	--	--	--	33	--
HH48	-	HH49	--	--	--	--	--	--	60	--
HH49	-	HH62	--	--	--	--	--	--	--	320
HH62	-	HH61	--	--	--	--	--	--	--	155
HH61	-	HH63	--	--	--	--	--	--	--	130
HH46	-	RR END	--	--	65	--	--	--	--	--
SYSTEM GROUND			--	--	--	--	3399	--	--	--
SYSTEM NEUTRAL			--	--	--	--	3399	--	--	--
INTERSECTION SUBTOTAL			807	2282	952	436	6798	3058	573	830
SUBTOTAL - MADISON			1,762	4,482	2,887	1,293	12,830	7,695	3,609	2,923

TRAFFIC SIGNAL CABLE AND WIRE (CONTINUED)

LOCATION	FROM	-	TO	655.0230* 5-14 AWG (LF)	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG (LF)	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG (LF)	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG (LF)	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG (LF)	SPV.0090.006 LOOP DETECTOR LEAD IN CABLE SPECIAL (LF)	SPV.0090.033 FIBER OPTIC CABLE 12-COUNT (LF)	SPV.0090.034 FIBER OPTIC CABLE 288-COUNT (LF)
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS											
UNIVERSITY AVE & HILL											
	TC3	-	HH71	--	--	--	--	--	--	28	--
	HH71	-	HH46	--	--	--	--	--	--	200	--
	TC3	-	SL1315	--	--	23	--	--	--	--	--
	TC3	-	SL1314	--	--	--	108	--	--	--	--
	TC3	-	TS35	--	133	--	--	--	--	--	--
	TC3	-	TS32	--	--	--	123	--	--	--	--
	TC3	-	SL1313	213	--	--	--	--	--	--	--
	TC3	-	TS34	--	--	--	223	--	--	--	--
	TC3	-	SL1312	--	--	--	163	--	--	--	--
	TC3	-	HH72	--	--	--	--	--	378	--	--
	TC3	-	HH70	--	--	--	--	--	28	--	--
	TC3	-	HH69	--	--	--	--	--	103	--	--
	TC3	-	HH68	--	--	--	--	--	203	--	--
	TC3	-	HH67	--	--	--	--	--	213	--	--
	TC3	-	HH66	--	--	--	--	--	153	--	--
	TC3	-	HH65	--	--	--	--	--	113	--	--
	SYSTEM GROUND			--	--	--	--	889	--	--	--
	SYSTEM NEUTRAL			--	--	--	--	889	--	--	--
SUBTOTAL - SHOREWOOD HILLS				213	133	23	617	1778	1191	228	0
PROJECT TOTAL				**1,975**	**4,615**	**2,910**	**1,910**	**14,608**	**8,886**	**3,837**	**2,923**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC SIGNAL LOOP DETECTORS

LOCATION / LOOP NO.	DISTANCE TO DOWNSTREAM STOPBAR	DOWNSTREAM SIGNAL	DESCRIPTION	STATION **	OFFSET	L/R	SIZE FT X FT	NO. OF TURNS	652.0900 LOOP DETECTOR SLOTS LF	655.0800 LOOP DETECTOR WIRE LF
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS										
UNIVERSITY AVE & HILL										
L1	3	HILL STREET	WB STOP BAR	139+06'WB'	26.5'	LT	6 X 6	3	-	84
L2	3	HILL STREET	WB STOP BAR	139+08'WB'	14.9'	LT	6 X 6	3	-	106
L3	3	HILL STREET	WB STOP BAR	139+11'WB'	4.8'	LT	6 X 6	3	-	112
L4	3	HILL STREET	WBLT STOP BAR	139+14'WB'	5.5'	RT	6 X 6	3	-	92
L5	30	HILL STREET	WBLT BACK	139+42'WB'	5.3'	RT	6 X 6	3	-	112
L6	240	HILL STREET	WB BACK	141+47'WB'	26.2'	LT	6 X 6	3	-	128
L7	240	HILL STREET	WB BACK	141+47'WB'	14.7'	LT	6 X 6	3	-	104
L8	240	HILL STREET	WB BACK	141+47'WB'	6.3'	LT	6 X 6	3	-	88
L9	992	RIDGE STREET	EB EXIT	141+52'EB'	5.0'	RT	6 X 6	3	-	88
L10	992	RIDGE STREET	EB EXIT	141+51'EB'	14.8'	RT	6 X 6	3	-	108
L11	992	RIDGE STREET	EB EXIT	141+52'EB'	25.1'	RT	6 X 6	3	-	132
INTERSECTION SUBTOTAL									0	1154
UNIVERSITY AVE & RIDGE										
L12	244	RIDGE STREET	EB BACK	148+93'EB'	4.4'	RT	6 X 6	3	-	82
L13	244	RIDGE STREET	EB BACK	148+93'EB'	15.7'	RT	6 X 6	3	-	104
L14	244	RIDGE STREET	EB BACK	148+93'EB'	27.1'	RT	6 X 6	3	-	128
L15	88	RIDGE STREET	EBLT BACK	150+49'EB'	5.1'	LT	6 X 6	3	-	84
L16	9	RIDGE STREET	EBLT STOP BAR	151+28'EB'	5.3'	LT	6 X 14	3	-	140
L17	8	RIDGE STREET	EB STOP BAR	151+28'EB'	5.4'	RT	6 X 6	3	-	126
L18	8	RIDGE STREET	EB STOP BAR	151+28'EB'	15.8'	RT	6 X 6	3	-	106
L19	8	RIDGE STREET	EB STOP BAR	151+28'EB'	26.0'	RT	6 X 6	3	-	86
L20	3	RIDGE STREET	NBRT STOP BAR	152+05'EB'	65.0'	RT	6 X 14	3	-	140
L21	1298	FARLEY AVE	EB EXIT	152+52'EB'	26.5'	RT	6 X 6	3	-	86
L22	1298	FARLEY AVE	EB EXIT	152+51'EB'	16.0'	RT	6 X 6	3	-	104
L23	1298	FARLEY AVE	EB EXIT	152+51'EB'	5.3'	RT	6 X 6	3	-	126
L24	244	RIDGE STREET	WB BACK	154+85'WB'	26.3'	LT	6 X 6	3	-	124
L25	244	RIDGE STREET	WB BACK	154+85'WB'	14.7'	LT	6 X 6	3	-	102
L26	244	RIDGE STREET	WB BACK	154+85'WB'	4.9'	LT	6 X 6	3	-	82
L27	82	RIDGE STREET	WBLT BACK	153+29'WB'	4.9'	RT	6 X 6	3	-	84
L28	3	RIDGE STREET	WBLT STOP BAR	152+43'WB'	6.2'	RT	6 X 14	3	-	138
L29	3	RIDGE STREET	WB STOP BAR	152+44'WB'	5.0'	LT	6 X 6	3	-	126
L30	3	RIDGE STREET	WB STOP BAR	152+44'WB'	15.2'	LT	6 X 6	3	-	106
L31	3	RIDGE STREET	WB STOP BAR	152+45'WB'	26.2'	LT	6 X 6	3	-	84
L32	0	RIDGE STREET	SB STOP BAR	50+84'MC'	9.2'	LT	6 X 14	3	-	138
L33	-31	RIDGE STREET	SB FORWARD	50+53'MC'	17.1'	LT	6 X 6	3	-	92
L34	1225	HILL STREET	WB EXIT	151+24'WB'	26.7'	LT	6 X 6	3	-	88
L35	1225	HILL STREET	WB EXIT	151+24'WB'	15.4'	LT	6 X 6	3	-	110
L36	1225	HILL STREET	WB EXIT	151+24'WB'	3.9'	LT	6 X 6	3	-	90
INTERSECTION SUBTOTAL									0	2676

LOCATION / LOOP NO.	DISTANCE TO DOWNSTREAM STOPBAR	DOWNSTREAM SIGNAL	DESCRIPTION	STATION **	OFFSET	L/R	SIZE FT X FT	NO. OF TURNS	652.0900 LOOP DETECTOR SLOTS LF	655.0800 LOOP DETECTOR WIRE LF
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS										
UNIVERSITY AVE & FARLEY										
L37	240	FARLEY AVE	EB BACK	163+19'EB'	4.2'	RT	6 X 6	3	-	122
L38	240	FARLEY AVE	EB BACK	163+19'EB'	14.6'	RT	6 X 6	3	-	142
L39	240	FARLEY AVE	EB BACK	163+19'EB'	261'	RT	6 X 6	3	-	166
L40	124	FARLEY AVE	EBLT BACK	164+29'EB'	9.6'	LT	6 X 14	3	-	134
L41	0	FARLEY AVE	EBLT STOP BAR	165+49'EB'	14.7'	LT	6 X 14	3	-	142
L42	0	FARLEY AVE	EBLT STOP BAR	165+52'EB'	4.4'	LT	6 X 14	3	-	166
L43	0	FARLEY AVE	EB STOP BAR	165+53'EB'	5.6'	RT	6 X 6	3	-	132
L44	0	FARLEY AVE	EB STOP BAR	165+55'EB'	15.1'	RT	6 X 6	3	-	112
L45	0	FARLEY AVE	EB STOP BAR	165+59'EB'	25.8'	RT	6 X 6	3	-	86
L46	6	FARLEY AVE	NBLT STOP BAR	14+53'FA'	0.0'	LT	6 X 20	3	-	200
L47	3	FARLEY AVE	NB STOP BAR	14+52'FA'	10.9'	RT	6 X 20	3	-	184
L48	-8	FARLEY AVE	NB BIKE	14+63'FA'	10.2'	RT	6 X 4	3	35	82
L49	N/A	N/A	EB EXIT	167+52'EB'	26.4'	RT	6 X 6	3	-	84
L50	N/A	N/A	EB EXIT	167+52'EB'	15.4'	RT	6 X 6	3	-	106
L51	N/A	N/A	EB EXIT	167+52'EB'	5.1'	RT	6 X 6	3	-	126
L52	278	FARLEY AVE	WB BACK	169+59'WB'	27.2'	LT	6 X 6	3	-	152
L53	278	FARLEY AVE	WB BACK	169+58'WB'	16.3'	LT	6 X 6	3	-	128
L54	278	FARLEY AVE	WB BACK	169+57'WB'	6.1'	LT	6 X 6	3	-	106
L55	128	FARLEY AVE	WBLT BACK	168+19'WB'	4.9'	RT	6 X 6	3	-	86
L56	0	FARLEY AVE	WBLT STOP BAR	166+87'WB'	5.3'	RT	6 X 14	3	-	134
L57	0	FARLEY AVE	WB STOP BAR	166+84'WB'	5.2'	LT	6 X 6	3	-	106
L58	0	FARLEY AVE	WB STOP BAR	166+81'WB'	15.1'	LT	6 X 6	3	-	128
L59	0	FARLEY AVE	WB STOP BAR	166+78'WB'	25.9'	LT	6 X 6	3	-	150
L60	0	FARLEY AVE	WBRT STOP BAR	166+75'WB'	37.1'	LT	6 X 6	3	-	86
L61	0	FARLEY AVE	SBLT STOP BAR	20+81'BD'	6.3'	LT	6 X 20	3	-	204
L62	0	FARLEY AVE	SB STOP BAR	20+83'BD'	17.3'	LT	6 X 20	3	-	190
L63	12	FARLEY AVE	SB BIKE	20+67'BD'	23.8'	LT	6 X 4	3	35	72
L64	5	FARLEY AVE	SBRT STOP BAR	20+86'BD'	38.9'	LT	6 X 6	3	-	96
L65	1185	RIDGE STREET	WB EXIT	164+26'WB'	26.0'	LT	6 X 6	3	-	128
L66	1185	RIDGE STREET	WB EXIT	164+25'WB'	15.1'	LT	6 X 6	3	-	106
L67	1185	RIDGE STREET	WB EXIT	164+25'WB'	5.1'	LT	6 X 6	3	-	86
			INTERSECTION SUBTOTAL						70	3942
			SUBTOTAL - MADISON						70	7,772
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS										
UNIVERSITY BAY DRIVE & MARSHALL COURT										
L68	5	MARSHALL CT.	NBLT STOP BAR	23+07'BD'	6.0'	LT	6 X 6	3	-	138
L69	5	MARSHALL CT.	NB STOP BAR	23+02'BD'	4.5'	RT	6 X 6	3	-	116
L70	5	MARSHALL CT.	NB STOP BAR	23+00'BD'	15.4'	RT	6 X 6	3	-	94
L71	3	MARSHALL CT.	WB STOP BAR	23+34'BD'	40.6'	RT	6 X 14	3	-	150
L72	3	MARSHALL CT.	WB STOP BAR	23+43'BD'	40.5'	RT	6 X 14	3	-	132
L73	3	MARSHALL CT.	SB STOP BAR	23+87'BD'	7.0'	LT	6 X 6	3	-	116
L74	3	MARSHALL CT.	SB STOP BAR	23+92'BD'	17.3'	LT	6 X 6	3	-	96
L75	165	MARSHALL CT.	SB BACK	25+54'BD'	16.5'	LT	6 X 6	3	-	82
L76	0	MARSHALL CT.	EB STOP BAR	23+43'BD'	52.3'	LT	6 X 14	3	-	134
L77	222	FARLEY AVE	SB EXIT	22+93'BD'	29.3'	LT	6 X 14	3	-	142
L78	222	FARLEY AVE	SB EXIT	22+93'BD'	17.2'	LT	6 X 14	3	-	164
L79	0	MARSHALL CT.	EB STOP BAR	23+55'BD'	51.5'	LT	6 X 14	3	-	156
			SUBTOTAL - SHOREWOOD HILLS						0	1520
			PROJECT TOTAL						**70**	**9,292**

TRAFFIC SIGNAL HANDHOLES

PULLBOX NUMBER	STATION	OFFSET	R/L	653.0900 ADJUSTING PULL BOXES (EACH)	SPV.0060.062* ELECTRICAL PULL BOX TYPE I (EACH)	SPV.0060.063 ELECTRICAL PULL BOX TYPE III (EACH)	SPV.0060.064 ELECTRICAL PULL BOX TYPE V (EACH)	SPV.0060.065 ELECTRICAL PULL BOX TYPE VII (EACH)	COMMENTS
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS									
HH2	139+07'WB'	35.0'	LT	--	1	--	--	--	--
HH3	139+21'WB'	34.7'	LT	--	1	--	--	--	--
HH4	139+27'EB'	7.5'	LT	--	--	--	--	1	--
HH5	141+52'WB'	3.3'	RT	--	--	1	--	--	--
HH6	144+20'EB'	5.3'	LT	--	1	--	--	--	--
HH7	144+20'WB'	35.1'	LT	--	1	--	--	--	--
HH8	144+20'EB'	34.7'	RT	--	1	--	--	--	--
HH9	145+41'EB'	34.7'	RT	--	1	--	--	--	--
HH12	148+97'WB'	34.4'	LT	--	1	--	--	--	--
HH13	148+93'EB'	3.1'	LT	--	--	1	--	--	--
HH14	148+65'EB'	35.8'	RT	--	--	--	1	--	--
HH15	150+53'WB'	4.6'	RT	--	1	--	--	--	--
HH16	151+24'WB'	3.9'	RT	--	--	--	1	--	--
HH17	151+32'WB'	36.8'	LT	--	1	--	--	--	--
HH18	151+60'WB'	53.9'	LT	--	1	--	--	--	--
HH19	151+69'WB'	84.3'	LT	--	1	--	--	--	--
HH20	152+12'WB'	53.4'	LT	--	1	--	--	--	--
HH21	152+42'WB'	35.5'	LT	--	--	--	1	--	--
HH22	152+48'WB'	34.9'	LT	--	--	--	--	1	--
HH23	152+42'EB'	3.4'	LT	--	--	--	1	--	--
HH25	152+48'EB'	34.9'	RT	--	--	--	1	--	--
HH26	152+17'EB'	66.7'	RT	--	--	--	--	1	--
HH27	151+75'EB'	64.8'	RT	--	--	--	1	--	--
HH28	151+31'EB'	34.8'	RT	--	--	--	1	--	--
HH29	151+93'EB'	7.3'	LT	--	--	--	1	--	--
HH30	153+24'EB'	4.3'	LT	--	1	--	--	--	--
HH31	154+85'WB'	3.1'	RT	--	--	1	--	--	--
HH32	158+80'EB'	3.2'	LT	--	1	--	--	--	--
HH33	158+99'WB'	34.7'	LT	--	1	--	--	--	--
HH34	159+94'WB'	34.9'	LT	--	1	--	--	--	--
HH35	159+99'WB'	35.0'	LT	--	--	--	--	1	--
HH36	159+88'EB'	3.0'	LT	--	1	--	--	--	--
HH37	159+90'EB'	38.3'	RT	--	1	--	--	--	--
HH38	158+80'EB'	35.8'	RT	--	1	--	--	--	--
HH39	163+23'WB'	5.0'	RT	--	--	1	--	--	--
HH40	164+32'WB'	4.7'	RT	--	1	--	--	--	--
HH41	164+81'WB'	34.8'	LT	--	--	--	1	--	--
HH42	165+36'WB'	72.7'	LT	--	1	--	--	--	--
HH43	165+48'WB'	40.4'	LT	--	--	--	--	1	--
HH44	165+62'WB'	59.2'	LT	--	--	--	1	--	--
HH45	166+22'WB'	69.5'	LT	--	--	--	--	1	--
HH46	21+30'BD'	30.9'	RT	--	1	--	--	--	--
HH47	166+37'WB'	73.6'	LT	1	--	--	--	--	EXISTING
HH48	166+46'WB'	47.4'	LT	--	--	--	--	1	--
HH49	166+73'WB'	46.0'	LT	--	--	--	--	1	--
HH50	166+66'EB'	12.9'	LT	--	--	--	--	1	--
HH51	166+87'WB'	14.3'	RT	--	1	--	--	--	--
HH52	166+77'EB'	35.7'	RT	--	--	--	--	1	--
HH53	166+64'EB'	57.6'	RT	--	--	--	1	--	--
HH55	166+17'EB'	59.4'	RT	--	--	--	1	--	--
HH56	165+59'EB'	35.4'	RT	--	--	--	--	1	--
HH57	165+43'WB'	3.9'	RT	--	--	--	--	1	--
HH58	167+51'EB'	34.9'	RT	--	1	--	--	--	--
HH59	168+20'WB'	14.0'	RT	--	1	--	--	--	--
HH60	169+58'WB'	13.6'	RT	--	--	1	--	--	--
HH61	169+55'EB'	45.3'	RT	--	--	--	1	--	--
HH62	169+64'WB'	46.2'	LT	--	--	--	1	--	--
HH63	170+50'EB'	56.8'	RT	--	--	--	1	--	--
	SUBTOTAL - MADISON			1	25	5	15	12	
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS									
HH65	23+13'UBD'	40.4'	LT	--	--	--	1	--	--
HH66	23+32'UBD'	54.7'	LT	--	1	--	--	--	--
HH67	23+80'UBD'	53.6'	LT	--	1	--	--	--	--
HH68	23+92'UBD'	31.3'	LT	--	1	--	--	--	--
HH69	23+50'UBD'	44.4'	RT	--	1	--	--	--	--
HH70	23+00'UBD'	28.8'	RT	--	--	--	1	--	--
HH71	22+92'UBD'	30.6'	RT	--	--	--	1	--	--
	SUBTOTAL - SHOREWOOD HILLS			0	4	0	3	0	
	PROJECT TOTAL			**1**	**29**	**5**	**18**	**12**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

TRAFFIC SIGNAL BASES

LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0110 CONCRETE BASES TYPE 10 (EACH)	657.0100 PEDESTAL BASES (EACH)	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE (EACH)	SPV.0060.061* ROCK EXCAVATION FOR CONCRETE BASES (EACH)	SPV.0060.066 CONCRETE BASES TYPE G (EACH)	SPV.0060.067* CONCRETE BASES TYPE LB-3 (EACH)	SPV.0060.68* CONCRETE BASES TYPE LB-8 (EACH)	SPV.0060.70 CONCRETE BASES TYPE G SPREAD FOOTING (EACH)	SPV.0060.071* TRANSFORMER BASE 16-INCH STEEL (EACH)	COMMENTS
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS													
UNIVERSITY AVE & HILL													
TS2	137+78'WB'	42.9'	LT	--	--	--	--	--	--	--	--	1	EXISTING CONCRETE BASE
TS3	138+64'WB'	56.6'	LT	--	--	--	--	--	--	1	--	--	--
TS4	138+87'WB'	40.9'	LT	--	1	--	--	1	--	--	--	--	--
TS5	139+02'WB'	36.5'	LT	--	1	--	--	1	--	--	--	--	--
TS6	139+56'EB'	5.4'	LT	--	1	--	--	1	--	--	--	--	VERIFY ANCHOR BOLT CIRCLE COMPATIBILITY
TS7	139+25'EB'	39.0'	RT	--	--	--	--	--	--	--	--	1	EXISTING CONCRETE BASE
TS8	139+51'EB'	56.0'	RT	--	--	1	--	--	--	--	--	--	EXISTING CONCRETE BASE
TS9	138+17'EB'	40.1'	RT	--	--	1	--	--	--	--	--	--	EXISTING CONCRETE BASE
TS10	137+75'WB'	58.5'	RT	--	1	--	--	--	--	--	--	--	EXISTING CONCRETE BASE
INTERSECTION SUBTOTAL				0	4	2	0	3	0	1	0	2	
NOTE: TS1 NOT USED													
UNIVERSITY AVE & RIDGE													
TS11	151+29'WB'	4.0'	RT	1	--	--	--	--	--	--	--	--	--
TS13	151+58'WB'	43.5'	LT	--	1	--	--	1	--	--	--	--	--
TS14	152+20'WB'	40.6'	LT	--	1	--	--	1	--	--	--	--	--
TS15	152+50'EB'	4.1'	LT	1	--	--	--	--	--	--	--	--	--
TS16	151+64'EB'	45.5'	RT	--	1	--	--	1	--	--	--	--	--
TS17	151+56'EB'	41.2'	RT	--	1	--	--	1	--	--	--	--	--
TS18	151+76'EB'	7.2'	LT	--	1	--	--	--	--	1	--	--	--
TS19	152+00'WB'	6.9'	RT	--	1	--	--	--	--	1	--	--	--
INTERSECTION SUBTOTAL				2	6	0	0	4	0	2	0	0	
UNIVERSITY AVE & FARLEY													
TS20	165+34'WB'	73.3'	LT	--	1	--	--	--	--	1	--	--	--
TS21	165+52'WB'	42.3'	LT	--	1	--	--	1	--	--	--	--	--
TS22	165+66'WB'	42.5'	LT	--	--	--	--	--	--	1	--	1	--
TS23	166+25'WB'	65.7'	LT	--	1	--	--	1	--	--	--	--	--
TS24	166+50'WB'	47.4'	LT	--	1	--	--	1	--	--	--	--	--
TS25	166+82'EB'	9.2'	LT	--	1	--	--	1	--	--	--	--	--
TS26	166+90'EB'	4.1'	LT	--	--	--	--	--	--	1	--	1	--
TS27	167+00'EB'	39.6'	RT	--	--	--	--	--	--	1	--	1	--
TS28	166+72'EB'	41.7'	RT	--	1	--	--	1	--	--	--	--	--
TS29	166+64'EB'	62.2'	RT	--	1	--	--	--	--	--	1	--	SPREAD FOOTING OPTIONAL
TS30	165+96'EB'	42.0'	RT	--	1	--	--	1	--	--	--	--	--
TS31	165+25'WB'	4.4'	RT	--	1	--	--	1	--	--	--	--	--
TS32	165+12'WB'	4.1'	RT	--	1	--	--	1	--	--	--	--	--
UNDISTRIBUTED				--	--	--	3	--	--	--	--	--	--
INTERSECTION SUBTOTAL				0	10	0	3	8	0	4	1	3	
SUBTOTAL -- MADISON				2	20	2	3	15	0	7	1	5	
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS													
UNIVERSITY BAY DRIVE & MARSHALL COURT													
TS33	23+13'BD'	43.6'	LT	1	--	--	--	--	--	--	--	--	--
TS34	23+82'BD'	45.9'	LT	--	1	--	--	1	--	--	--	--	--
TS35	23+69'BD'	34.5'	RT	1	--	--	--	--	--	--	--	--	--
SUBTOTAL -- SHOREWOOD HILLS				2	1	0	0	1	0	0	0	0	
PROJECT TOTAL				**4**	**21**	**2**	**3**	**16**	**0**	**7**	**1**	**5**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE
NOTE: TS1 AND TS12 NOT USED

3

TRAFFIC SIGNAL POLES & ARMS

LOCATION / BASE NUMBER	657.0420 ALUMINUM 13-FOOT (EACH)	657.0425 TRAFIC SIGNAL STANDARDS ALUMINUM 15-FOOT (EACH)	657.0430 ALUMINUM 10-FOOT (EACH)	SPV.0060.072 POLE 20-FOOT 7 GAUGE (EACH)	SPV.0060.075 POLE 30-FOOT 11 GUAGE (EACH)	SPV.0060.077 MONOTUBE POLE TYPE 9 (EACH)	SPV.0060.080 MONOTUBE ARM 25-FOOT (EACH)	SPV.0060.081 ARM 30-FOOT (EACH)	SPV.0060.086 TROMBONE ARM 12-FOOT (EACH)	SPV.0060.087 TROMBONE ARM 15-FOOT (EACH)	SPV.0060.088 TRAFFIC SIGNAL TROMBONE ARM 18-FOOT (EACH)	SPV.0060.089 TROMBONE ARM 20-FOOT (EACH)	SPV.0060.090 TROMBONE ARM 22-FOOT (EACH)
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS													
UNIVERSITY AVE & HILL													
SL1362	--	--	--	--	--	--	--	--	--	--	1	--	--
TS2	--	--	--	1	--	--	--	--	--	--	--	1	--
TS3	--	--	--	1	--	--	--	--	--	1	--	--	--
TS4	1	--	--	--	--	--	--	--	--	--	--	--	--
TS5	--	1	--	--	--	--	--	--	--	--	--	--	--
TS6	1	--	--	--	--	--	--	--	--	--	--	--	--
SL1358	--	--	--	--	--	--	--	--	1	--	--	--	--
TS7	--	--	--	1	--	--	--	--	--	--	--	--	1
TS8	1	--	--	--	--	--	--	--	--	--	--	--	--
TS9	--	--	--	--	1	--	--	--	--	--	--	--	--
TS10	1	--	--	--	--	--	--	--	--	--	--	--	--
INTERSECTION SUBTOTAL NOTE: TS1 NOT USED	4	1	0	3	1	0	0	0	1	1	1	1	1
UNIVERSITY AVE & RIDGE													
TS11	--	--	--	--	--	1	--	1	--	--	--	--	--
TS13	1	--	--	--	--	--	--	--	--	--	--	--	--
TS14	1	--	--	--	--	--	--	--	--	--	--	--	--
TS15	1	--	--	--	--	1	--	1	--	--	--	--	--
SL1346	--	--	--	--	--	--	--	--	--	1	--	--	--
TS16	--	--	1	--	--	--	--	--	--	--	--	--	--
TS17	1	--	--	--	--	--	--	--	--	--	--	--	--
TS18	1	--	--	--	--	--	--	--	--	--	--	--	--
TS19	1	--	--	--	--	--	--	--	--	--	--	--	--
SL1344	--	--	--	--	--	--	--	--	--	1	--	--	--
INTERSECTION SUBTOTAL NOTE: TS12 NOT USED	6	0	1	0	0	2	0	2	0	2	0	0	0
UNIVERSITY AVE & FARLEY													
TS20	1	--	--	--	--	--	--	--	--	--	--	--	--
TS21	--	--	--	1	--	--	--	--	--	--	1	--	--
TS22	1	--	--	--	--	--	--	--	--	--	--	--	--
TS23	1	--	--	--	--	--	--	--	--	--	--	--	--
TS24	--	--	1	--	--	--	--	--	--	--	--	--	--
TS25	--	--	1	--	--	--	--	--	--	--	--	--	--
TS26	--	--	--	1	--	--	--	--	--	--	--	1	--
TS27	--	--	--	1	--	--	--	--	--	--	--	1	--
TS28	--	--	1	--	--	--	--	--	--	--	--	--	--
TS29	--	1	--	--	--	--	--	--	--	--	--	--	--
TS30	--	--	1	--	--	--	--	--	--	--	--	--	--
SL1330	--	--	--	--	--	--	--	--	--	--	--	--	1
TS31	1	--	--	--	--	--	--	--	--	--	--	--	--
TS32	1	--	--	--	--	--	--	--	--	--	--	--	--
INTERSECTION SUBTOTAL	5	1	4	3	0	0	0	0	0	0	1	2	1
SUBTOTAL -- MADISON	15	2	5	6	1	2	0	2	1	3	2	3	2
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS													
UNIVERSITY BAY DRIVE & MARSHALL COURT													
TS33	--	--	--	--	--	1	1	--	--	--	--	--	--
TS34	1	--	--	--	--	--	--	--	--	--	--	--	--
TS35	--	--	--	--	--	1	1	--	--	--	--	--	--
SUBTOTAL -- SHOREWOOD HILLS	1	0	0	0	0	2	2	0	0	0	0	0	0
PROJECT TOTAL	**16**	**2**	**5**	**6**	**1**	**4**	**2**	**2**	**1**	**3**	**2**	**3**	**2**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE
NOTE: TS12 NOT USED

TRAFFIC SIGNAL EQUIPMENT

LOCATION / BASE NUMBER	SPV.0060.091 TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION (EACH)	SPV.0060.092 TRAFFIC SIGNAL HEADS 12-INCH 4-SECTION (EACH)	SPV.0060.093 TRAFFIC SIGNAL HEADS 12-INCH 5-SECTION (EACH)	SPV.0060.094 TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNTDOWN (EACH)	SPV.0060.095 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH (EACH)	SPV.0060.096 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH (EACH)	SPV.0060.097 BACKPLATES SIGNAL FACE 5-SECTION 12-INCH (EACH)	SPV.0060.105 NO RIGHT TURN BLANK OUT SIGN (EACH)	658.0500 PEDESTRIAN PUSH BUTTONS (EACH)	658.5069.001 SIGNAL MOUNTING HARDWARE (HILL) (EACH)	658.5069.002 SIGNAL MOUNTING HARDWARE (RIDGE) (EACH)	658.5069.003 SIGNAL MOUNTING HARDWARE (FARLEY) (EACH)	658.5069.004 SIGNAL MOUNTING HARDWARE (MARSHALL) (EACH)
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS													
UNIVERSITY AVE & HILL													
SL1362	3	1	--	--	3	1	--	--	1	--	--	--	--
TS2	1	--	--	1	1	--	--	--	1	--	--	--	--
SL1361	1	--	1	1	1	--	1	--	--	--	--	--	--
TS3	--	--	1	1	--	--	1	--	--	--	--	--	--
TS4	--	--	--	1	--	--	--	--	1	--	--	--	--
SL1358	2	1	--	2	2	1	--	--	1	--	--	--	--
TS5	1	1	--	--	1	1	--	--	--	--	--	--	--
TS6	1	--	--	--	1	--	--	--	--	--	--	--	--
TS7	2	--	--	2	2	--	--	--	1	--	--	--	--
SL1359	1	--	--	1	1	--	--	--	--	--	--	--	--
TS8	1	--	--	1	1	--	--	--	--	--	--	--	--
SL1360	1	--	--	--	1	--	--	--	--	--	--	--	--
TS9	2	--	--	1	2	--	--	--	--	--	--	--	--
TS10	1	--	--	1	1	--	--	--	1	--	--	--	--
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	1	--	--	--
INTERSECTION SUBTOTAL NOTE: TS1 NOT USED	17	3	2	12	17	3	2	0	6	1	0	0	0
UNIVERSITY AVE & RIDGE													
TS11	5	--	--	--	5	--	--	--	--	--	--	--	--
TS12	--	--	--	--	--	--	--	--	--	--	--	--	--
TS13	--	--	--	1	--	--	--	1	--	--	--	--	--
SL1347	1	--	--	--	1	--	--	--	--	--	--	--	--
TS14	1	--	--	1	1	--	--	--	--	--	--	--	--
SL1345	1	--	--	1	1	--	--	1	1	--	--	--	--
TS15	4	--	--	--	4	--	--	--	--	--	--	--	--
SL1346	2	--	--	1	2	--	--	--	--	--	--	--	--
TS16	--	--	--	1	--	--	--	--	--	--	--	--	--
TS17	1	--	--	--	1	--	--	--	1	--	--	--	--
SL1348	1	--	--	1	1	--	--	--	--	--	--	--	--
TS18	3	--	--	1	3	--	--	--	1	--	--	--	--
TS19	2	--	--	1	2	--	--	--	1	--	--	--	--
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	1	--	--
INTERSECTION SUBTOTAL	21	0	0	8	21	0	0	2	4	0	1	0	0
UNIVERSITY AVE & FARLEY													
TS20	1	--	--	1	1	--	--	--	1	--	--	--	--
TS21	1	--	--	2	1	--	--	1	1	--	--	--	--
TS22	1	--	--	1	1	--	--	--	2	--	--	--	--
TS23	1	--	--	1	1	--	--	--	1	--	--	--	--
SL1329	1	--	--	--	1	--	--	--	--	--	--	--	--
TS24	--	--	--	1	--	--	--	--	1	--	--	--	--
SL1327	2	--	--	--	2	--	--	1	--	--	--	--	--
SL1326	2	--	--	1	2	--	--	--	1	--	--	--	--
TS25	--	--	--	1	--	--	--	--	1	--	--	--	--
TS26	3	--	--	--	3	--	--	--	--	--	--	--	--
TS27	1	--	--	1	1	--	--	--	1	--	--	--	--
TS28	--	--	--	1	--	--	--	--	1	--	--	--	--
TS29	1	1	--	--	1	1	--	--	--	--	--	--	--
SL1328	--	1	--	--	--	1	--	--	1	--	--	--	--
TS30	--	--	--	2	--	--	--	--	1	--	--	--	--
SL1331	2	--	--	--	2	--	--	--	--	--	--	--	--
TS31	1	--	--	--	1	--	--	--	--	--	--	--	--
TS32	1	--	--	--	1	--	--	--	--	--	--	--	--
SL1330	4	--	--	--	4	--	--	--	--	--	--	--	--
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	--	1	--
INTERSECTION SUBTOTAL	22	2	0	12	22	2	0	2	12	0	0	1	0
SUBTOTAL - MADISON	60	5	2	32	60	5	2	4	22	1	1	1	0

TRAFFIC SIGNAL EQUIPMENT (CONTINUED)

LOCATION / BASE NUMBER	SPV.0060.091 TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION (EACH)	SPV.0060.092 TRAFFIC SIGNAL HEADS 12-INCH 4-SECTION (EACH)	SPV.0060.093 TRAFFIC SIGNAL HEADS 12-INCH 5-SECTION (EACH)	SPV.0060.094 TRAFFIC SIGNAL HEADS 16-INCH PEDESTRIAN WITH COUNDOWN (EACH)	SPV.0060.095 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH (EACH)	SPV.0060.096 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH (EACH)	SPV.0060.097 BACKPLATES SIGNAL FACE 5-SECTION 12-INCH (EACH)	SPV.0060.105 NO RIGHT TURN BLANK OUT SIGN (EACH)	658.0500 PEDESTRIAN PUSH BUTTONS (EACH)	658.5069.001 SIGNAL MOUNTING HARDWARE (HILL) (EACH)	658.5069.002 SIGNAL MOUNTING HARDWARE (RIDGE) (EACH)	658.5069.003 SIGNAL MOUNTING HARDWARE (FARLEY) (EACH)	658.5069.004 SIGNAL MOUNTING HARDWARE (MARSHALL) (EACH)
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS													
UNIVERSITY BAY DRIVE & MARSHALL COURT													
TS33	2	--	--	1	2	--	--	--	1	--	--	--	--
SL1312	2	--	--	1	2	--	--	--	1	--	--	--	--
TS34	1	--	--	2	1	--	--	--	2	--	--	--	--
SL1313	1	1	--	--	1	1	--	--	--	--	--	--	--
TS35	1	1	--	1	1	1	--	--	1	--	--	--	--
SL1314	2	--	--	--	2	--	--	--	1	--	--	--	--
SL1315	2	--	--	2	2	--	--	--	1	--	--	--	--
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	--	--	1
SUBTOTAL - SHOREWOOD HILLS	11	2	0	7	11	2	0	0	7	0	0	0	1
PROJECT TOTAL	**71**	**7**	**2**	**39**	**71**	**7**	**2**	**4**	**29**	**1**	**1**	**1**	**1**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC SIGNAL CONTROL

CABINET NUMBER	STATION	OFFSET	R/L	656.0200.001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (RIDGE & UNIVERSITY) (EACH)	656.0200.002 ELECTRICAL SERVICE METER BREAKER PEDESTAL (UNIVERSITY BAY & UNIVERSITY) (EACH)	656.0200.003 ELECTRICAL SERVICE METER BREAKER PEDESTAL (UNIVERSITY BAY & MARSHALL) (EACH)	SPV.0060.069* CONCRETE BASES TYPE P (EACH)	SPV.0060.098 NEMA TS2 TYPE 1 TRAFFIC SIGNAL CONTROL CABINET (EACH)	SPV.0060.099 TRAFFIC SIGNAL CONTROLLER (EACH)	SPV.0060.100 OPTICAL SIGNAL PREEMPT (EACH)	SPV.0060.101 TRAFFIC SIGNAL ETHERNET SWITCH (EACH)	SPV.0060.102 MALFUNCTION MANAGEMENT UNIT (MMU) (EACH)	SPV.0060.104 VEHICULAR DETECTION SYSTEM PROGRAMMING UNIT (EACH)
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS													
TC1	152+20'EB'	74.5'	RT	1	--	--	1	1	1	1	1	1	1
TC2	166+20'EB'	66.7'	RT	--	1	--	1	1	1	1	1	1	1
TC4	139+47'EB'	65.0'	RT	--	--	--	--	1	1	1	1	1	1
SUBTOTAL - MADISON				1	1	0	2	3	3	3	3	3	3
CATEGORY 0110 - UNIVERSITY BAY DRIVE TRAFFIC SIGNALS													
TC3	22+96'BD'	30.4'	RT	--	--	1	1	1	1	1	1	1	1
SUBTOTAL - SHOREWOOD HILLS				0	0	1	1	1	1	1	1	1	1
PROJECT TOTAL				**1**	**1**	**1**	**3**	**4**	**4**	**4**	**4**	**4**	**4**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

LIGHTING CONDUIT AND WIRE

FROM		TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0325* CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING						
EXISTING LIGHTING	-	HH2	50	--	150	50
HH2	-	HH4	--	55	165	55
HH4	-	EXISTING FIBER	--	45	135	45
HH4	-	SL1357	165	--	495	165
SL1357	-	SL1356	180	--	540	180
SL1356	-	HH6	160	--	480	160
HH6	-	SL1355	5	--	15	5
HH6	-	HH8	--	40	120	40
HH8	-	HH9	--	120	360	120
HH9	-	HH10	--	100	300	100
HH10	-	SL1353	10	--	30	10
HH9	-	SL1352	60	--	180	60
HH7	-	HH12	985	--	2955	985
SL1352	-	HH11	165	--	495	165
HH11	-	SL1351	--	50	150	50
SL1351	-	SL1350	170	--	510	170
SL1350	-	HH16	175	--	525	175
HH12	-	HH22	--	355	1065	355
HH16	-	HH28	--	50	150	50
HH16	-	HH17	--	45	135	45
HH16	-	HH29	--	75	225	75
HH17	-	SL1349	55	--	165	55
HH21	-	HH24	--	55	165	55
HH17	-	HH18	--	40	120	40
HH18	-	SL1347	25	--	75	25
HH21	-	SL1345	5	--	15	5
HH28	-	HH27	60	--	180	60
HH28	-	SL1348	5	--	15	5
HH27		HH26	--	45	135	45
HH26	-	LC1	40	--	120	40
HH26	-	SL1346	5	--	15	5
HH29	-	HH24	--	65	195	65
HH26	-	HH22	--	125	375	125
TS15	-	HH24	10	--	30	10
HH25	-	HH24	--	40	120	40
HH25	-	SL1344	95	--	285	95
HH24	-	SL1343	150	--	450	150
SL1343	-	SL1342	160	--	480	160
SL1342	-	HH32	325	--	975	325
HH32	-	HH36	--	110	330	110
HH33	-	SL1339	5	--	15	5
HH38	-	SL1340	5	--	15	5
HH37	-	SL1338	40	--	120	40
HH37	-	SL1337	55	--	165	55
HH34	-	SL1336	55	--	165	55
HH36	-	SL1335	235	--	705	235
SL1335	-	SL1333	165	--	495	165
SL1333	-	HH57	160	--	480	160
HH56	-	SL1332	100	--	300	100
SL1332	-	SL1334	155	--	465	155
HH56	-	HH54	80	--	240	80
HH54	-	LC2	30	--	90	30
HH55	-	TC2	20		60	20
HH55	-	SL1328	10		30	10
TC2	-	LC2	10	--	30	10
HH54	-	HH53	45	--	135	45
HH26	-	HH25	55	--	165	55
HH36	-	HH37	--	45	135	45
HH57	-	HH56	--	65	195	65
HH57	-	HH50	--	130	390	130
HH43	-	HH44	25	--	75	25
HH43	-	HH48	--	100	300	100
HH44	-	HH45	--	65	195	65
HH44	-	SL1329	5		15	5
HH53	-	HH52	35	--	105	35
SUBTOTAL			4350	1820	18510	6170

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LIGHTING CONDUIT AND WIRE (CONTINUED)

FROM		TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0325* CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING (CONTINUED)						
HH52	-	HH50	--	50	150	50
HH52	-	SL1324	135	--	405	135
SL1324	-	SL1322	135	--	405	135
SL1322	-	SL1320	115	--	345	115
SL1320	-	SL1318	145	--	435	145
SL1318	-	HH64	80	--	240	80
HH50	-	HH48	--	70	210	70
HH48	-	SL1327	25	--	75	25
HH48	-	HH45	40	--	120	40
HH45	-	SL1316	110	--	330	110
HH46	-	SL1325	150	--	450	150
SL1325	-	SL1323	110	--	330	110
SL1323	-	SL1321	110	--	330	110
SL1321	-	SL1319	120	--	360	120
SL1319	-	EXISTING LIGHTING	30	--	90	30
EXISTING LIGHTING	-	SL1317	40	--	120	40
SL1317	-	EXISTING LIGHTING	45	--	135	45
SUBTOTAL - MADISON			5740	1940	23040	7680
CATEGORY 0090 - UNIVERSITY BAY DRIVE STREET LIGHTING						
SL1316	-	HH70	135	--	405	135
HH70	-	HH65	--	70	210	70
HH70	-	HH69	--	60	180	60
TC3	-	HH70	5	--	15	5
HH69	-	HH68	--	90	270	90
HH68	-	HH67	30	--	90	30
HH67	-	HH66	--	45	135	45
HH66	-	HH65	25	--	75	25
SUBTOTAL - SHOREWOOD HILLS			195	265	1,380	460
PROJECT TOTAL			**5,935**	**2,205**	**24,420**	**8,140**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

STREET LIGHTS

LIGHT NUMBER	STATION	OFFSET	R/L	SPV.0060.067* CONCRETE BASES TYPE LB-3 (EACH)	SPV.0060.068* CONCRETE BASES TYPE LB-8 (EACH)	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE (EACH)	SPV.0060.061* ROCK EXCAVATION FOR CONCRETE BASES (EACH)	SPV.0060.071* TRANSFORMER BASE 16-INCH STEEL (EACH)	SPV.0060.073 POLE 30-FOOT 7 GUAGE (SINGLE MOUNT) (EACH)	SPV.0060.074 POLE 30-FOOT 7 GUAGE (TWIN MOUNT) (EACH)	SPV.0060.075 POLE 30-FOOT 11 GUAGE (SINGLE MOUNT) (EACH)	SPV.0060.076 POLE 30-FOOT 11 GUAGE (TWIN MOUNT) (EACH)	SPV.0060.078 LED LUMINAIRE AND MOUNTING BRACKET TYPE V (EACH)	SPV.0060.082 LED LUMINAIRE AND MOUNTING BRACKET TYPE I (EACH)	SPV.0060.083 LED LUMINAIRE AND MOUNTING BRACKET TYPE II (EACH)	SPV.0060.084 LED LUMINAIRE AND MOUNTING BRACKET TYPE III (EACH)	SPV.0060.085 LED LUMINAIRE AND MOUNTING BRACKET TYPE IV (EACH)	SPV.0090.035 ELECTRICAL WIRE LIGHTING 14-3 UF GROUNDED (LF)	COMMENTS
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING																				
SL1362	137+79'WB'	4.0'	RT	--	1	--	--	1	--	1	--	--	--	2	--	--	--	66	--
SL1361	137+95'WB'	56.2'	LT	--	--	1	--	--	--	--	1	--	--	--	--	--	1	33	EXISTING CONCRETE BASE
SL1360	138+65'EB'	47.9'	RT	--	--	1	--	--	--	--	1	--	--	--	--	--	1	33	EXISTING CONCRETE BASE
SL1359	139+22'EB'	49.0'	RT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
SL1358	139+12'EB'	5.9'	LT	--	1	--	--	1	--	1	--	--	--	2	--	--	--	66	--
SL1357	140+87'WB'	5.2'	RT	1	--	1	--	--	--	--	--	1	--	--	2	--	--	66	--
SL1356	142+63'WB'	4.7'	RT	--	--	--	--	--	--	--	--	--	2	--	--	--	--	66	--
SL1355	144+25'EB'	5.4'	LT	1	--	1	--	--	--	--	--	1	--	2	--	--	--	66	--
SL1354	145+05'EB'	52.0'	RT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
SL1353	146+01'WB'	36.4'	LT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1352	146+00'EB'	36.5'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1351	147+90'WB'	8.7'	RT	1	--	1	--	--	--	--	--	1	--	--	2	--	--	66	--
SL1350	140+54'WB'	5.3'	RT	1	--	1	--	--	--	--	--	1	--	--	2	--	--	66	--
SL1349	150+62'WB'	36.2'	LT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1348	151+36'EB'	37.5'	RT	1	--	1	--	--	--	--	1	--	--	1	--	--	--	33	--
SL1347	151+66'WB'	74.0''	LT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
SL1346	152+18'EB'	62.2'	RT	--	1	--	--	1	1	--	--	--	--	--	--	--	1	33	--
SL1345	152+38'WB'	36.3'	LT	1	--	1	--	--	--	--	1	--	--	1	--	--	--	33	--
SL1344	153+40'EB'	35.5'	RT	--	1	--	--	1	1	--	--	--	--	--	1	--	--	33	--
SL1343	154+06'EB'	4.9'	LT	--	--	--	--	--	--	--	--	--	2	--	--	--	--	66	--
SL1342	155+62'EB'	4.2'	LT	1	--	1	--	--	--	--	--	1	--	--	2	--	--	66	--
SL1341	157+69'WB'	42.5'	LT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1341A	157+48'EB'	40.1'	RT	1	--	1	--	--	--	--	1	--	--	--	--	1		33	--
SL1340	158+77'EB'	38.5'	RT	1	--	1	--	--	--	--	1	--	--	1	--	--	--	33	--
SL1339	158+83'WB'	34.9'	LT	1	--	1	--	--	--	--	1	--	--	1	--	--	--	33	--
SL1338	159+59'EB'	55.7'	RT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
SL1337	160+47'EB'	36.6'	RT	--	--	--	--	--	--	--	1	--	1	--	--	--	--	33	--
SL1336	160+43'WB'	34.3'	LT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1335	162+24'WB'	3.7'	RT	1	--	1	--	--	--	--	--	1	--	--	1	1	--	33	--
SL1334	163+08'EB'	35.7'	RT	1	--	1	--				1		--		1			33	--
SL1333	163+96'WB'	4.1'	RT	1	--	1	--	--	--	--	--	1	--	1	--	--	--	33	--
SL1332	164+62'EB'	36.5'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1331	165+65'EB'	37.0'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1330	165+50'WB'	4.4'	RT	--	1	--	--	1	--	1	--	--	--	2	--	--	--	66	--
SL1329	165+62'WB'	62.4'	LT	1	--	1	--	--	--	--	--	1	--	--	1	--	1	33	--
SL1328	166+15'EB'	54.0'	RT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
SL1327	166+67'WB'	47.3'	LT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1326	166+81'EB'	11.9'	LT	1	--	1	--	--	--	--	--	1	--	2	--	--	--	66	--
SL1325	167+57'WB'	47.0'	LT	--	1	--	--	1	--	--	1	--	--	--	--	1	--	33	--
SL1324	168+09'EB'	42.5'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1323	168+63'WB'	46.1'	LT	--	1	--	--	1	--	--	1	--	--	--	--	1	--	33	--
SL1322	169+41'EB'	45.0'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1321	169+71'WB'	46.8'	LT	--	1	--	--	1	--	--	1	--	--	--	--	1	--	33	--
SL1320	170+47'EB'	58.3'	RT	1	--	1	--	--	--	--	1	--	--	--	--	1	--	33	--
SL1319	170+90'WB'	46.9'	LT	1	--	1	--	--	--	--	1	--	--	--	--	1	--	33	--
SL1318	171+84'EB'	83.1'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
SL1317	172+58'EB'	34.0'	RT	1	--	1	--	--	--	--	1	--	--	--	1	--	--	33	--
	UNDISTRIBUTED			--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--
	SUBTOTAL - MADISON			34	8	36	3	8	2	3	31	9	5	15	24	7	9	1914	
CATEGORY 0090 - UNIVERSITY BAY DRIVE STREET LIGHTING																			
SL1316	21+72'BD'	37.7'	RT	1	--	1	--	--	--	--	1	--	--	--	--	1	--	33	--
SL1315	23+03'BD'	30.7'	RT	1	--	1	--	--	--	--	1	--	--	1	--	--	--	33	--
SL1314	23+52'BD'	41.1'	RT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
SL1313	23+96'BD'	30.4'	LT	1	--	1	--	--	--	--	1	--	--	1	--	--	--	33	--
SL1312	23+28'BD'	50.8'	LT	1	--	1	--	--	--	--	1	--	--	--	--	--	1	33	--
	SUBTOTAL - SHOREWOOD HILLS			5	0	5	0	0	0	0	5	0	0	2	0	1	2	165	
	PROJECT TOTAL			39	8	41	3	8	2	3	36	9	5	17	24	8	11	2079	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

LIGHTING HANDHOLES

PULLBOX NUMBER	STATION	OFFSET	R/L	SPV.0060.062* ELECTRICAL PULL BOX TYPE I (EACH)	COMMENTS
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING					
HH10	145+91'WB'	35.8'	LT	1	--
HH11	147+68'EB'	35.0'	RT	1	--
HH24	152+56'EB'	3.0'	LT	1	--
HH54	166+19'EB'	62.4'	RT	1	--
HH64	172+57'EB'	97.8'	RT	1	--
SUBTOTAL - MADISON				5	
PROJECT TOTAL				**5**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

TEMPORARY SIGNALS

ITEM	SPV.0060.106 TEMPORARY TRAFFIC SIGNALS (HILL) (EACH)	SPV.0060.107 TEMPORARY TRAFFIC SIGNALS (RIDGE) (EACH)	SPV.0060.108 TEMPORARY TRAFFIC SIGNALS (FARLEY) (EACH)
CATEGORY 0050 - UNIVERSITY AVENUE TRAFFIC SIGNALS			
UNIVERSITY AVE & HILL	1	--	--
UNIVERSITY AVE & RIDGE	--	1	--
UNIVERSITY AVE & FARLEY	--	--	1
SUBTOTAL - MADISON	1	1	1
PROJECT TOTAL	**1**	**1**	**1**

LIGHTING CONTROL

CABINET NUMBER	STATION	OFFSET	R/L	656.0200.004 ELECTRICAL SERVICE METER BREAKER PEDESTAL (RIDGE & UNIVERSITY) (EACH)	656.0200.005 ELECTRICAL SERVICE METER BREAKER PEDESTAL (UNIVERSITY BAY & UNIVERSITY) (EACH)	SPV.0060.069* CONCRETE BASES TYPE P (EACH)	SPV.0060.103 LIGHTING CONTROL CABINET (EACH)
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING							
LC1	152+22'EB'	81.0'	RT	1	--	1	1
LC2	166+21'EB'	71.2'	RT	--	1	1	1
SUBTOTAL - MADISON				1	1	2	2
PROJECT TOTAL				**1**	**1**	**2**	**2**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

TEMPORARY LIGHTING

ITEM	STATION	OFFSET	R/L	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH (LF)	SPV.0060.109 TEMPORARY STREET LIGHTING SYSTEM MAINTENANCE AND OPERATIONS (EACH)	SPV.0060.064* ELECTRICAL PULL BOX TYPE V (EACH)	SPV.0060.110 TEMPORARY WOOD POLES (EACH)	SPV.0060.111 TEMPORARY LIGHTING ARMS (EACH)	SPV.0060.112 TEMPORARY LUMINAIRES UTILITY (EACH)	SPV.0090.036 TEMPORARY OVERHEAD SPAN WIRE (LF)
CATEGORY 0060 - UNIVERSITY AVENUE STREET LIGHTING										
HH1	FIELD LOCATE			--	--	1	--	--	--	--
WP1	FIELD LOCATE			--	--	--	1	--	--	--
WP2	FIELD LOCATE			--	--	--	1	--	--	--
WP3	139+17'WB'	35.2'	LT	--	--	--	1	--	--	--
WP4	140+82'WB'	35.2'	LT	--	--	--	1	--	--	--
WP5	142+17'WB'	36.2'	LT	--	--	--	1	1	1	--
WP6	142+18'EB'	35.3'	RT	--	--	--	1	1	1	--
WP7	143+37'WB'	36.0'	LT	--	--	--	1	--	--	--
WP8	144+57'WB'	36.0'	LT	--	--	--	1	1	1	--
WP9	145+44'EB'	36.4'	RT	--	--	--	1	1	1	--
WP10	145+74'WB'	36.0'	LT	--	--	--	1	--	--	--
WP11	146+92'WB'	35.5'	LT	--	--	--	1	--	--	--
WP12	148+12'WB'	35.7'	LT	--	--	--	1	1	1	--
WP13	148+09'EB'	35.8'	RT	--	--	--	1	1	1	--
WP14	148+91'EB'	35.5'	RT	--	--	--	1	--	--	--
WP15	149+33'WB'	36.1'	LT	--	--	--	1	--	--	--
WP16	150+59'WB'	36.2'	LT	--	--	--	1	1	1	--
WP17	153+69'WB'	36.1'	LT	--	--	--	1	--	--	--
WP18	154+90'WB'	36.2'	LT	--	--	--	1	1	1	--
WP19	154+86'EB'	35.5'	RT	--	--	--	1	1	1	--
WP20	156+10'WB'	35.9'	LT	--	--	--	1	--	--	--
WP21	157+28'WB'	36.3'	LT	--	--	--	1	1	1	--
WP22	157+28'EB'	34.9'	RT	--	--	--	1	1	1	--
WP23	158+48'WB'	36.1'	LT	--	--	--	1	--	--	--
WP24	159+68'WB'	36.6'	LT	--	--	--	1	1	1	--
WP25	159+66'EB'	56.2'	RT	--	--	--	1	1	1	--
WP26	160+88'WB'	36.0'	LT	--	--	--	1	--	--	--
WP27	161+95'WB'	35.1'	LT	--	--	--	1	--	--	--
WP28	163+10'WB'	41.7'	LT	--	--	--	1	1	1	--
WP29	163+29'EB'	34.7'	RT	--	--	--	1	1	1	--
WP30	164+35'WB'	42.0'	LT	--	--	--	1	--	--	--
WP31	166+90'WB'	47.8'	LT	--	--	--	1	--	--	--
WP32	166+71'EB'	81.5'	RT	--	--	--	1	--	--	--
WP33	168+10'WB'	47.5'	LT	--	--	--	1	1	1	--
WP34	169+44'WB'	48.2'	LT	--	--	--	1	--	--	--
WP35	169+57'WB'	12.9'	RT	--	--	--	1	--	--	--
WP36	169+69'EB'	50.9'	RT	--	--	--	1	1	1	--
WP37	170+52'EB'	62.2'	RT	--	--	--	1	1	1	--
UNDISTRIBUTED				25	1	--	--	--	--	3769
SUBTOTAL - MADISON				25	1	1	37	18	18	3769
PROJECT TOTAL				**25**	**1**	**1**	**37**	**18**	**18**	**3769**

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

SANITARY SEWER STRUCTURES SUMMARY

STRUCTURE NO.	STATION	LOCATION (OFFSET)	RIM ELEV	EXISTING TOP OF CASTING	ESTIMATED BOTTOM OF STRUCTURE ELEV	IE	DEPTH	SPV.0060.033 SANITARY SEWER TAP (EACH)	SPV.0060.034 SANITARY SEWER ACCESS STRUCTURE 4-FT DIAMETER (EACH)	SPV.0060.035 SANITARY SEWER ACCESS STRUCTURE 5-FT DIAMETER (EACH)	SPV.0060.012 MANHOLE COVER TYPE J SPECIAL (EACH)	SPV.0060.036 SANITARY SEWER INTERNAL CHIMNEY SEAL (EACH)	SPV.0060.039 ABANDON SANITARY SEWER ACCESS STRUCTURE (EACH)	SPV.0060.040 ABANDON SANITARY SEWER PIPE PLUG (EACH)	SPV.0060.037 REMOVE SANITARY SEWER ACCESS STRUCTURE (EACH)	611.8110 ADJUSTING MANHOLE COVERS (EACH)	SPV.0060.113 RECONSTRUCT BENCH AND FLOWLINES (EACH)	SPV.0200.001 CONSTRUCT INSIDE DROP 8-INCH (VF)
5992-11-32																		
CATEGORY 0020																		
EX. SAS 3850-022	138+22.51	17.69' RT	--	879.51	871.53	872.03	7.98	1	--	--	--	--	--	--	--	1	1	--
EX. SAS 3859-005	138+21.83	2.78' LT	--	879.49	871.77	872.27	7.72	--	--	--	--	--	1	--	--	--	--	--
SAS 1A	138+95.33	55.14' RT	879.25	--	872.07	872.57	7.18	--	--	1	1	1	--	--	--	--	--	--
SAS 1	138+81.60	16.24' RT	879.36	--	871.89	872.39	7.47	--	--	1	1	1	--	--	--	--	--	--
SAS 2	139+65.75	20.70' RT	879.12	--	872.28	872.78	6.84	1	--	1	1	1	--	--	--	--	--	--
EX. SAS 3950-004	139+66.97	0.87' LT	--	878.99	872.38	872.88	6.61	--	--	--	--	--	1	--	--	--	--	--
SAS 3	142+00.36	27.07' RT	883.51	--	873.27	873.77	10.24	--	1	--	1	--	--	--	--	--	--	--
EX. SAS 3950-003	142+22.35	6.59' RT	--	884.29	873.52	874.02	10.77	--	--	--	--	--	1	--	--	--	--	--
EX. SAS 3950-002	144+81.88	2.41' RT	--	892.67	883.53	884.03	9.14	--	--	--	--	--	1	--	--	--	--	--
SAS 4	144+82.96	27.51' RT	892.13	--	882.15	882.65	9.98	--	1	--	1	--	--	1	--	--	--	--
EX. SAS 3950-001	146+05.14	2.22' LT	--	893.78	884.15	884.65	9.63	--	--	--	--	--	1	--	--	--	--	--
SAS 5	144+84.83	69.73' RT	892.70	--	883.20	883.70	9.50	1	1	--	1	--	--	--	--	--	--	--
SAS 6	146+08.14	27.01' RT	893.20	--	883.50	884.00	9.70	1	1	--	1	--	--	1	--	--	--	--
SAS 12	148+26.76	26.55' RT	890.26	--	878.50	879.00	11.76	1	1	--	1	--	--	1	--	--	--	--
EX. SAS 3950-012	148+31.80	5.69' LT	--	890.79	878.90	879.40	11.89	--	--	--	--	--	1	--	--	--	--	--
SAS 9	149+19.45	27.02' RT	887.24	--	875.50	876.00	11.74	--	1	--	1	--	--	--	--	--	--	--
EX. SAS 3950-013	149+80.99	7.71' RT	--	885.45	873.71	874.21	11.74	--	--	--	--	--	1	--	--	--	--	--
EX. SAS MH02-042	151+66.30	24.51' LT	--	880.27	867.60	868.10	12.67	--	--	--	--	--	--	--	--	1	--	--
EX. SAS 3950-014	151+80.29	17.99' RT	--	879.85	870.07	870.57	9.78	--	--	--	--	--	1	--	--	--	--	--
SAS 8	151+82.96	27.18' RT	879.88	--	869.00	869.50	10.88	--	1	--	1	--	--	1	--	--	--	--
SAS 10	152+01.51	86.48' RT	879.30	--	870.50	871.00	8.80	1	1	--	1	--	--	--	--	--	--	--
SAS 11	155+54.79	27.55' RT	877.35	--	866.75	867.25	10.60	--	--	1	1	--	--	--	--	--	--	--
EX. SAS 4050-001	155+27.12	35.78' RT	--	877.36	868.04	868.54	9.32	1	--	--	--	--	--	--	--	--	1	--
SAS 7	155+27.30	27.03' RT	877.52	--	866.89	867.39	10.63	--	--	1	1	--	--	--	--	--	--	--
EX. SAS 4050-002	157+27.09	41.31' RT	--	876.72	868.97	869.47	7.75	--	--	--	--	--	1	--	--	--	--	--
EX. MMSD MH02-041	155+65.59	2.26' LT	--	877.54	866.47	866.97	11.07	1	--	--	--	--	--	--	--	1	1	--
SAS 13	157+28.31	26.94' RT	876.44	--	867.95	868.45	8.49	--	--	1	1	--	--	--	--	--	--	--
SAS 14	33+15.03 'NF'	3.56' LT	875.15	--	868.35	868.85	6.80	--	--	1	1	--	--	--	--	--	--	--
EX MMSD MH02-040	159+11.76	1.92' RT	--	875.99	868.15	868.65	7.84	1	--	--	--	--	--	--	--	--	--	--
EX. MMSD MH02-039	162+95.88	2.18' LT	--	875.55	865.79	866.29	9.76	--	--	--	--	--	--	--	--	1	--	--
EX. MMSD MH02-038	166+25.65	11.43' RT	--	876.15	865.31	865.81	10.84	--	--	--	--	--	--	--	--	1	--	--
EX. SAS 4050-007	32+41.84 'NF'	12.50' LT	--	876.93	869.03	869.53	7.90	--	--	--	--	--	--	--	1	--	--	--
SAS 15	31+27.88 'NF'	0.83' LT	883.11	--	872.00	872.50	11.11	--	--	1	1	--	--	--	--	--	--	2.3
EX. SAS 4050-008	31+27.75 'NF'	16.15' LT	--	882.77	874.63	875.13	8.14	1	--	--	--	--	--	--	--	--	1	--
EX. SAS. 4051-001	12+86.00 'FA'	0.00' LT	--	881.99	873.60	874.10	8.39	--	--	--	--	--	--	--	1	--	--	--
EX SAS 4150-010	14+84.98 'FA'	1.29' LT	--	876.12	866.62	867.12	9.50	1	--	--	--	--	--	--	--	1	1	--
SAS 16	12+86.00 'FA'	0.00' LT	881.99	--	872.50	873.00	9.49	2	1	--	1	--	--	--	--	--	--	--
PROJECT 5992-11-32 TOTALS								**13**	**9**	**8**	**17**	**3**	**9**	**4**	**2**	**6**	**5**	**2.3**

SANITARY SEWER ABANDONMENT SUMMARY

5992-11-32
CATEGORY 0020

LOCATION (DOWNSTREAM)	LOCATION (UPSTREAM)	PIPE SIZE (INCH DIAMETER)	MATERIAL	PIPE LENGTH (FT)	SPV.0035.001 ABANDON SANITARY SEWER-SLURRY (CY)	SPV.0060.040 ABANDON SANITARY SEWER PIPE PLUG (EACH)
SAS 3850-022	SAS 3850-005	12	VP	21	0.61	--
SAS 3850-005	SAS 3950-004	12	VP	145	4.22	--
SAS 3950-004	SAS 3950-003	12	VP	256	7.45	--
SAS 3950-003	SAS 3950-002	6	VP	260	1.89	--
SAS 3950-002	SAS 3950-001	6	VP	125	0.91	--
SAS 14 (STA. 33+15.03, 3.56' LT)	SAS 4050-007	10	CI	74	1.49	--
SAS 4050-007	SAS 4050-008	8	VP	114	1.47	--
SAS 3950-002	SAS 4 (STA. 144+82.96, 27.51' RT)	6	VP	25	0.18	--
SAS 4050-001	STA 154+27, 35' RT	10	VP	104	2.10	--
SAS 3950-014	SAS 3950-013	6	VP	199	1.45	--
SAS 3950-013	SAS 3950-012	6	VP	150	1.09	--
STA. 139+66, 20.7' RT	--	10	VP	--	--	1
MISCELLANEOUS	--	--	--	--	--	9
PROJECT 5992-11-32 TOTALS					**22.86**	**10**

SANITARY SEWER PIPE SUMMARY

LOCATION (DOWNSTREAM)	LOCATION (UPSTREAM)	IE (DOWNSTREAM)	IE (UPSTREAM)	SLOPE (%)	SPV.0090.021 SANITARY SEWER PVC 8-INCH (LF)	SPV.0090.022 SANITARY SEWER PVC 10-INCH (LF)	SPV.0090.023 SANITARY SEWER PVC 12-INCH (LF)	SPV.0035.002 ROCK EXCAVATION FOR SANITARY SEWER (CY)	SPV.0090.024 SELECT FILL FOR SANITARY SEWER (LF)	NOTES
5992-11-32										
CATEGORY 0020										
EX. SAS 3850-022	SAS 1	872.15	872.39	0.40%	--	--	59	--	59	HILL STREET
SAS 1	SAS 1A	872.44	872.57	0.31%	--	42	--	--	42	
SAS 1	SAS 2	872.44	872.78	0.40%	--	86	--	--	86	
SAS 2	SAS 3	872.83	873.77	0.40%	--	233	--	--	233	
SAS 3	SAS 4	873.87	882.65	3.11%	--	282	--	40	282	
SAS 4	SAS 5	883.00	883.70	1.66%	42	--	--	--	42	SCHMITT PLACE
SAS 4	SAS 6	883.00	884.00	0.81%	123	--	--	10	123	
SAS 9	SAS 12	876.10	879.00	3.18%	--	91	--	--	91	
SAS 12	--	879.40	879.50	0.53%	18				18	
SAS 8	SAS 9	869.60	876.00	2.43%	--	263	--	--	263	
SAS 8	SAS 10	869.60	871.00	2.25%	--	62	--	--	62	RIDGE STREET
SAS 7	SAS 8	867.60	869.50	0.55%	--	--	344	--	344	
SAS 7	EX. SAS 4050-001	868.49	868.54	0.50%	9	--	--	--	9	
SAS 11	SAS 7	867.25	867.39	0.50%	--	--	27	--	27	
EX MMSD MH02-041	SAS 11	867.13	867.25	0.50%	--	--	30	--	30	2825 UNIVERSITY AVE
SAS 11	SAS 13	867.60	868.45	0.49%	172	--	--	--	172	
EX MH 02-040	SAS 14	868.65	868.85	0.40%	--	--	50	--	50	FRANKLIN AVE
SAS 14	SAS 15	868.94	872.50	1.90%	--	--	187	--	187	FRANKLIN AVE
SAS 15	EX. SAS 4050-008	875.29	875.55	2.00%	13	--	--	--	13	FRANKLIN AVE
EX SAS 4150-010	SAS 16	867.22	873.00	2.90%	199	--	--	--	199	FARLEY AVE
PROJECT 5992-11-32 TOTALS					**576**	**1059**	**697**	**50**	**2332**	

REMOVE SANITARY SEWER PIPE

5992-11-32
CATEGORY 0020

FROM STRUCTURE (DOWNSTREAM)	TO STRUCTURE (UPSTREAM)	LENGTH (FT)	PAID (Y/N)	SIZE (IN)	PIPE MATERIAL	SPV.0090.019 REMOVE PIPE SANITARY (LF)	NOTES
3950-014	SAS 8 (STA. 151+82.96, 27.18' RT)	9	Y	10	VP	9	RIDGE STREET
STA. 154+27, 35' RT	3950-14	245	Y	10	VP	135	REMOVE PIPE WITHIN 3' INCIDENTAL TO NEW
SAS 4 (STA. 144+82.96, 27.18' RT)	SAS 5 (STA 144+84.83, 69.73' RT)	42	N	6	VP	--	SCHMITT PL (SAME TRENCH PIPE REMOVAL)
MH 02-040	SAS 14 (STA. 33+15.03, 3.56' LT)	50	N	10	CI	--	FRANKLIN AVE. (SAME TRENCH PIPE REMOVAL)
4150-010	4051-001	199	N	8	VP	--	FARLEY AVE. (SAME TRENCH PIPE REMOVAL)
PROJECT 5992-11-32 TOTALS						**144**	

*ALL SANITARY SEWER PIPE REMOVALS CALLED OUT ABOVE THAT ARE NOT CALLED OUT FOR PAYMENT LOCATED WITHIN 3' OF THE PROPOSED SEWER ARE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE NEW SANITARY SEWER PIPE IN ACCORDANCE WITH ARTICLE 203.2 OF THE CITY'S STANDARD SPECIFICATIONS

SANITARY SEWER LATERALS

STATION	OFFSET AT MAIN CONNECTION	SPV.0060.031 SEWER ELECTRONIC MARKERS (EACH)	SPV.0060.032 SANITARY LATERAL RECONNECT (EACH)	SPV.0090.020 SANITARY SEWER LATERAL (LF)	SPV.0090.024 SELECT FILL FOR SANITARY SEWER (LF)	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	602.0410 CONCRETE SIDEWALK 5-INCH (SF)
5992-11-32							
CATEGORY 0020							
141+52.99	27.69' RT	2	1	13	13	--	--
141+78.49	27.45' RT	2	1	14	14	--	--
142+20.39	27.00' RT	2	1	14	14	--	--
142+28.17	27.07' RT	2	1	14	14	--	--
143+26.89	27.36' RT	2	1	14	14	--	--
143+60.09	27.44' RT	2	1	14	14	--	--
146+08.06	27.02' RT	2	1	19	19	--	--
149+51.55	27.13' RT	2	1	13	13	--	--
151+12.57	27.23' RT	2	1	19	19	--	--
153+42.78	27.21' RT	2	1	14	14	--	--
154+97.85	27.04' RT	2	1	13	13	--	--
156+19.90	29.31' RT	2	1	15	15	--	--
156+35.98	29.40' RT	2	1	14	14	--	--
157+23.98	27.13' RT	2	1	16	16	--	--
160+61.48	0.56' LT	2	1	41	41	--	--
161+27.22	1.36' LT	2	1	41	41	--	--
161+90.60	1.88' LT	2	1	41	41	--	--
163+59.14	1.17' LT	2	1	41	41	--	--
32+45.88 'NF'	1.41' LT	2	1	28	28	3	100
32+60.08 'NF'	1.41' LT	2	1	25	25	3	100
14+04'NF'	0.5' LT	1	1	--	--	--	--
PROJECT 5992-11-32 TOTALS		**41**	**21**	**423**	**423**	**6**	**200**

FURNISH AND INSTALL WATERMAIN PIPE & FITTINGS

STATION - STATION	SPV.0090.025 6-INCH (LF)	SPV.0090.026 8-INCH (LF)	SPV.0090.029 10-INCH (LF)	SPV.0090.027 12-INCH (LF)	SPV.0090.028 16-INCH (LF)	SPV.0090.030 SELECT FILL FOR WATER MAIN (LF)	SPV.0060.053 FURNISH AND INSTALL INSULATION (EACH)	SPV.0035.003 ROCK EXCAVATION FOR WATER MAIN (CY)	SPV.0060.056 CLAY TRENCH PLUG (EACH)	SPV.0060.024 FLUOROCARBON GASKET 6-INCH (EACH)	SPV.0060.025 FLUOROCARBON GASKET 8-INCH (EACH)	SPV.0060.026 FLUOROCARBON GASKET 12-INCH (EACH)	SPV.0060.027 FLUOROCARBON GASKET 16-INCH (EACH)
5992-11-32													
CATEGORY 0010													
UNIVERSITY AVENUE													
139+91'EB' - 144+83'EB'	95	--	--	--	492	587	--	30	2	1	--	4	13
144+83'EB' - 151+94'EB'	15	--	--	--	711	726	2	--	--	--	--	--	--
151+94'EB' - 159+34'EB'	--	--	--	--	740	740	1	--	--	--	--	--	--
159+34'EB' - 166+20'EB'	--	--	--	--	210	210	6	--	--	--	--	--	--
166+20'EB' - 173+30'EB'	30	--	--	--	--	30	--	--	--	--	--	--	--
SCHMITT PLACE	25	50	--	--	--	75	1	--	--	--	--	--	--
RIDGE STREET	55	65	--	--	--	120	--	--	--	--	--	--	--
FRANKLIN AVE	--	--	--	191	--	191	1	0	--	--	--	--	--
FARLEY AVE	30	225	--	--	--	255	--	--	--	--	--	--	--
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	3	--	--
CATEGORY 0010 TOTAL	**250**	**340**	**0**	**191**	**2153**	**2934**	**11**	**30**	**2**	**1**	**3**	**4**	**13**
CATEGORY 0030													
UNIVERSITY BAY DRIVE	22	--	160	25	115	322	--	--	3	4	--	8	7
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	2	--	--
CATEGORY 0030 TOTAL	**22**	**0**	**160**	**25**	**115**	**322**	**0**	**0**	**3**	**4**	**2**	**8**	**7**
PROJECT 5992-11-32 TOTALS	**272**	**340**	**160**	**216**	**2268**	**3256**	**11**	**30**	**5**	**5**	**5**	**12**	**20**

WATER MAIN

STATION	SPV.0060.049 CUT-IN OR CONNECT-TO EXISTING WATER SYSTEM (EACH)	SPV.0060.046 RECONNECT WATER SERVICE LATERAL 1-INCH (EACH)	SPV.0060.048 RECONNECT WATER SERVICE LATERAL 2-INCH (EACH)	SPV.0060.052 ABANDON WATER VALVE ACCESS STRUCTURE (EACH)
5992-11-32				
CATEGORY 0010				
139+91'EB' - 144+83'EB'	7	2	--	--
144+83'EB' - 151+94'EB'	--	1	1	--
151+94'EB' - 159+34'EB'	--	4	--	--
159+34'EB' - 166+20'EB'	5	2	--	--
166+20'EB' - 173+30'EB'	1	--	1	1
SCHMITT PLACE	1	--	--	--
RIDGE STREET	1	--	--	--
FRANKLIN AVE	2	2	--	--
FARLEY	2	1	--	1
OLD UNIVERSITY AVE	1	5	--	--
CATEGORY 0010 TOTAL	**20**	**17**	**2**	**2**
CATEGORY 0030				
UNIVERSITY BAY DRIVE	6	--	--	--
CATEGORY 0030 TOTAL	**6**	**--**	**--**	**--**
PROJECT 5992-11-32 TOTALS	**26**	**17**	**2**	**2**

CONSTUCTION STAKING

STATION	SPV.0060.008 SANITARY SEWER (EACH)	SPV.0060.009 WATER MAIN (EACH)
5992-11-32		
CATEGORY 0010		
UNDISTRIBUTED	--	1
CATEGORY 0010 TOTAL	**0**	**1**
CATEGORY 0020		
UNDISTRIBUTED	1	--
CATEGORY 0020 TOTAL	**1**	**--**
PROJECT 5992-11-32 TOTALS	**1**	**1**

FURNISH & INSTALL WATER VALVE

STATION	OFFSET	SPV.0060.041 6-INCH VALVE (EACH)	SPV.0060.042 8-INCH VALVE (EACH)	SPV.0060.043 12-INCH VALVE (EACH)	SPV.0060.044 16-INCH VALVE (EACH)	SPV.0060.055 ANODE (EACH)	SPV.0060.054 ADJUST WATER VALVE BOX SECTIONS (EACH)	SPV.0060.051 ABANDON WATER VALVE BOX (EACH)
5992-11-32								
CATEGORY 0010								
138+50'EB' - 144+83'EB'		3	--	--	3	--	1	4
144+83'EB' - 151+94'EB'		1	2	--	3	--	--	2
151+94'EB' - 159+34'EB'		1	4	--	2	--	--	--
159+34'EB' - 166+20'EB'		1	2	--	7	--	1	1
166+20'EB' - 173+30'EB'		1	--	--	1	--	1	3
SCHMITT PLACE		2	--	--	--	--	--	1
RIDGE STREET		2	--	--	--	--	--	1
FRANKLIN AVE		1	--	2	--	--	--	2
FARLEY		2	1	--	--	1	1	1
OLD UNIVERSITY AVE		--	--	--	--	--	--	1
CATEGORY 0010 TOTAL		**14**	**9**	**2**	**16**	**1**	**4**	**16**
CATGEORY 0030								
UNIVERSITY BAY DRIVE		1	--	2	1	--	--	--
CATEGORY 0030 TOTAL		**1**	**0**	**2**	**1**	**0**	**0**	**0**
PROJECT 5992-11-32 TOTALS		**15**	**9**	**4**	**17**	**1**	**4**	**16**

FURNISH & INSTALL HYDRANT/SALVAGE EXISTING HYDRANT

STATION	OFFSET	SPV.0060.045 HYDRANT (EACH)	SPV.0060.115 ABANDON HYDRANT (EACH)
5992-11-32			
CATEGORY 0010			
141+59 'EB'	LT	--	--
141+64 'EB'	LT	1	1
146+95 'EB'	RT	1	--
156+24 'EB'	RT	1	--
167+02 'EB'	RT	1	--
167+16 'EB'	RT	--	1
SCHMITT PLACE	RT	1	1
RIDGE STREET	LT	1	1
CATEGORY 0010 TOTAL		**6**	**4**
CATEGORY 0030			
UNIVERSITY BAY DRIVE	LT	1	--
CATEGORY 0030 TOTAL		**1**	**--**
PROJECT 5992-11-32 TOTALS		**7**	**4**

3

3

UTILITY LINE OPENING (ULO)

CATEGORY	LOCATION	SPV.0060.030 EACH
0010	UNDISTRIBUTED	6

CONSTRUCTION STAKING

CATEGORY	LOCATION	SPV.0060.022 EACH
0010	5992-11-33	1

STABILIZATION CLEAR STONE, 3-INCH

CATEGORY	LOCATION	SPV.0195.001 TON
0010	UNDISTRIBUTED	100

TRENCHLESS CASING PIPE SUMMARY

CATEGORY	FROM STA.	TO STA.	SPV.0090.032 TRENCHLESS CASING PIPE, 48-INCH STEEL MINIMUM LF
0010	171+26 WI	171+71 WI	45

GRANULAR BACKFILL, INTERCEPTOR SEWER

CATEGORY	LOCATION	SPV.0195.002 TON
0010	UNDISTRIBUTED	4,000

IMPLEMENT TREE PROTECTION PLAN

CATEGORY	PROJECT	SPV.0060.023 EACH
0010	5992-11-33	1

INTERCEPTOR SEWER MANHOLE SUMMARY

CATEGORY	STRUCTURE	STATION	OFFSET	SPV.0060.057 INTERCEPTOR SEWER MANHOLE, 6-FOOT DIA EACH	SPV.0060.058 INTERCEPTOR MANHOLE LINING SYSTEM EACH
0010	MH 08-308	175+78.92 WI	0.0'LT	1	1
	MH 08-307	178+42.32 WI	0.0'LT	1	1
	MH 08-306	183+54.66 WI	0.0'LT	1	1
	MH 08-305	186+66.25 WI	0.0'LT	1	1
	MH 08-304	188+82.91 WI	0.0'LT	1	1
	TOTAL			5	5

INTERCEPTOR SEWER MAIN SUMMARY

CATEGORY	FROM STRUCTURE	TO STRUCTURE	SPV.0090.031 INTERCEPTOR SEWER, 30-INCH LF
0010	STUB	MH 08-304	5
	MH 08-304	MH 08-305	218
	MH 08-305	MH 08-306	324
	MH 08-306	MH 08-307	500
	MH 08-307	MH 08-308	263
	MH 08-308	END CASING	53
	TOTALS		1,363

MANHOLE MMSD MH02-048 FLAT TOP REPLACEMENT

CATEGORY	PROJECT	SPV0060.060 EACH
0010	5992-11-33	1

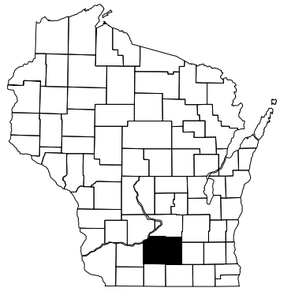
STORM SEWER MANHOLE SUMMARY

CATEGORY	STRUCTURE	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.0530 MANHOLE COVERS TYPE J EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH
0010	MH A	187+78.8 WI	20.5'LT	1	1	1	1
	MH B	187+87.0 WI	12.3'RT	-	1	1	1
	TOTAL			1	2	2	2

STORM SEWER PIPE SUMMARY

CATEGORY	FROM STRUCTURE	TO STRUCTURE	204.0245 REMOVING STORM SEWER (18-INCH) LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF
0010	MH A	MH B	34	34
	TOTALS		34	34

PROJECT NO: 5992-11-33	HWY: UNIVERSITY AVENUE	COUNTY: DANE	MMSD INTERCEPTOR MISCELLANEOUS QUANTITIES	SHEET 367	E



TRANSPORTATION PROJECT PLAT TITLE SHEET

5992-11-30

CITY OF MADISON, UNIVERSITY AVENUE

(SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE)

LOCAL STREET

DANE COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE, PERMIT, OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

PARCEL NUMBER 25 — UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

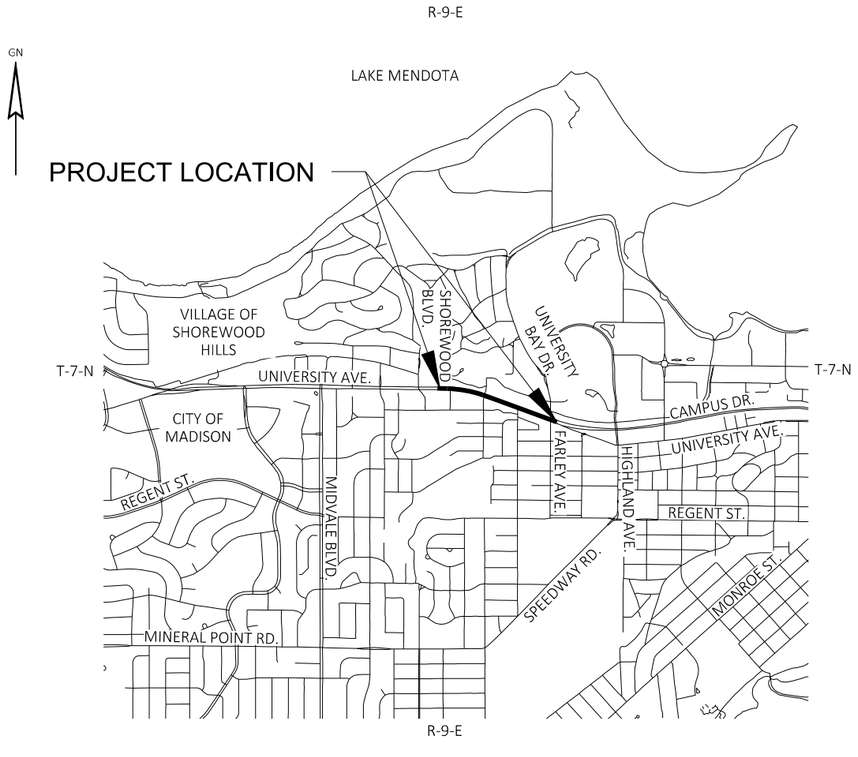
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

W	WATER
G	GAS
T	TELEPHONE
OH	OVERHEAD TRANSMISSION LINES
E	ELECTRIC
TV	CABLE TELEVISION
FO	FIBER OPTIC
SAN	SANITARY SEWER
SS	STORM SEWER



LAYOUT
SCALE 0 0.5 MI.

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5992-11-30.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A TEMPORARY STREET CONSTRUCTION PERMIT (TSCP) CONVEYS A CROSSING PERMIT FOR THE LIMITED PURPOSE OF WIDENING A CITY STREET, GRADING AND UTILITY ADJUSTMENTS. PERMIT CONVEYS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE VILLAGE OF SHOREWOOD HILLS OR THE CITY OF MADISON.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 5992-11-30 - 4.01
SHEET 2 OF 3
AMENDMENT NO:

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP-TITLE SHEET.DWG
LAYOUT NAME: TPP Title 34x22

PLOT DATE : 9/16/2015 3:04 PM PLOT BY : TIMOTHY HELD PLOT NAME : _____

APPRAISAL PLAT DATE : 03/12/2021

5992-11-30 4.01

4

Document # 5707210

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.01

THAT PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 16, AND PART OF THE NW 1/4 OF THE NW 1/4 OF SECTION 21, ALL IN T 7 N, R 9 E, VILLAGE OF SHOREWOOD HILLS, DANE COUNTY, WISCONSIN.

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE VILLAGE OF SHOREWOOD HILLS DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE-NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 61.34 (3), (3M) AND 61.36, WISCONSIN STATUTES, THE VILLAGE OF SHOREWOOD HILLS HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE-NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE OF SHOREWOOD HILLS FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE OF SHOREWOOD HILLS, PURSUANT TO THE PROVISIONS OF SUBSECTION 61.34 (3), (3M) AND 61.36, WISCONSIN STATUTES.

PI STA = 139+09.13EB
Y = 483011.868
X = 805316.256
DELTA = 6°41'35" LT
D = 8°48'53"
T = 38.01'
L = 75.93'
R = 650.00'
PC STA = 138+71.13EB
PT STA = 139+47.06EB

PI STA = 141+09.72EB
Y = 483024.883
X = 805516.505
DELTA = 4°50'02" RT
D = 2°45'17"
T = 87.79'
L = 175.48'
R = 2080.00'
PC STA = 140+21.92EB
PT STA = 141+97.41EB

PI STA = 144+81.42EB
Y = 483017.647
X = 805888.241
DELTA = 2°11'36" RT
D = 7°49'38"
T = 14.01'
L = 28.02'
R = 732.00'
PC STA = 144+67.41EB
PT STA = 144+95.43EB

PI STA = 147+32.66EB
Y = 483003.147
X = 806139.069
DELTA = 14°25'22" RT
D = 3°30'16"
T = 206.88'
L = 411.57'
R = 1635.00'
PC STA = 145+25.78EB
PT STA = 149+37.36EB

LOCATION SKETCH

NOT TO SCALE

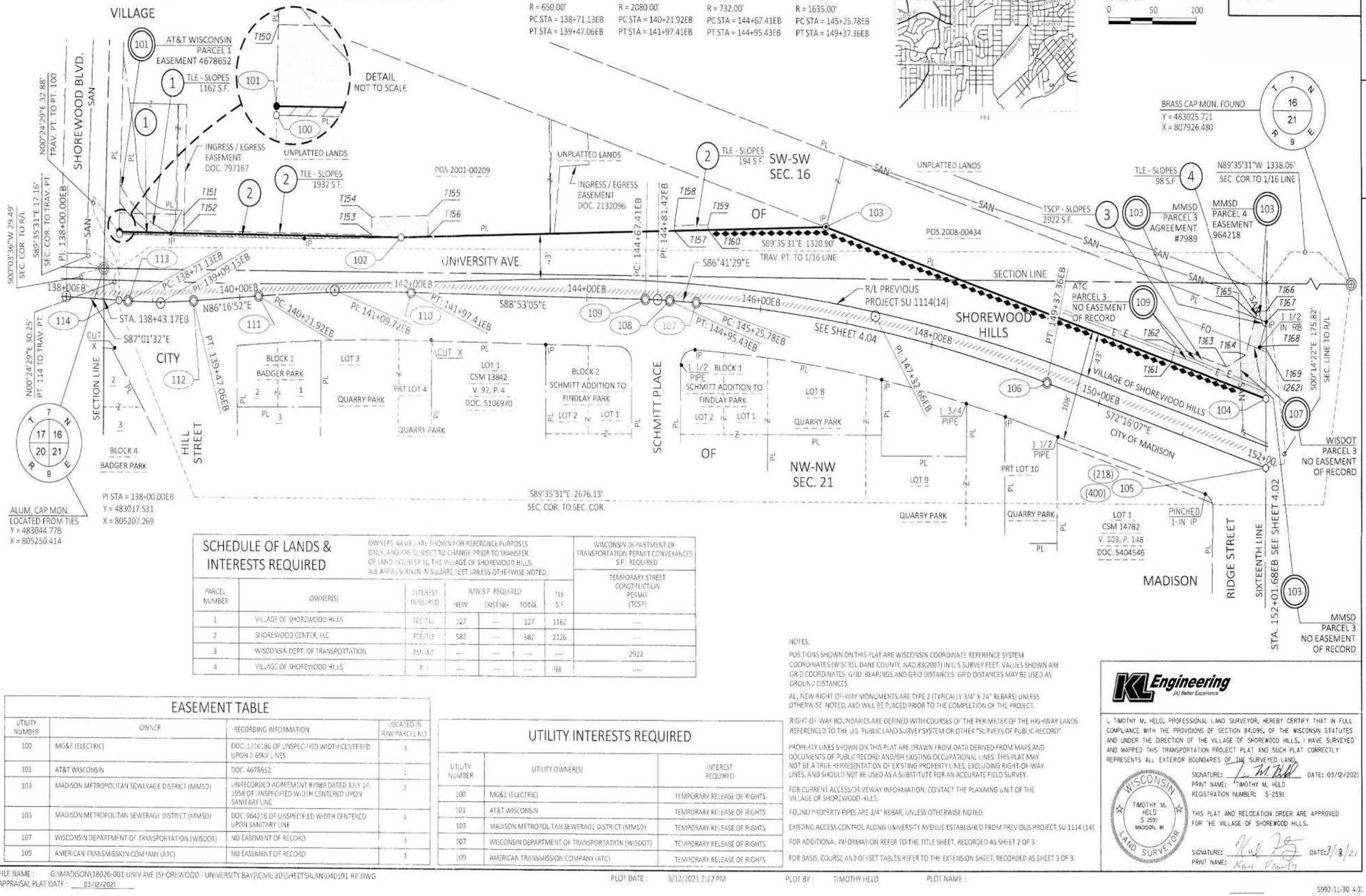


GN

SCALE, FEET
0 50 100

Office of Register of Deeds
Dane County, Wisconsin
Received for Record 3/19
2021 at 1:57 o'clock P M
and recorded in vol. 61-042B
of Plats on page 238-240
Kristi Chlebowski by B. Richardson Deputy
Register

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5992-11-30 - 4.01
SHEET 1 OF 3



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE VILLAGE OF SHOREWOOD HILLS. ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.	WISCONSIN DEPARTMENT OF TRANSPORTATION PERMIT CONVEYANCES S.F. REQUIRED TEMPORARY STREET CONSTRUCTION PERMIT (TCSP)
1	VILLAGE OF SHOREWOOD HILLS	FEE/TLE	127	—	127	1162	—
2	SHOREWOOD CENTER, LLC	FEE/TLE	582	—	582	2126	—
3	WISCONSIN DEPT. OF TRANSPORTATION	PERMIT	—	—	—	—	2922
4	VILLAGE OF SHOREWOOD HILLS	T.L.E.	—	—	—	98	—

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	MG&E (ELECTRIC)	DOC. 1716186 OF UNSPECIFIED WIDTH CENTERED UPON 2-69kV LINES	3
101	AT&T WISCONSIN	DOC. 4678652	1
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	UNRECORDED AGREEMENT #7989 DATED JULY 14, 1958 OF UNSPECIFIED WIDTH CENTERED UPON SANITARY LINE	3
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	DOC. 964218 OF UNSPECIFIED WIDTH CENTERED UPON SANITARY LINE	4
107	WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT)	NO EASEMENT OF RECORD	3
109	AMERICAN TRANSMISSION COMPANY (ATC)	NO EASEMENT OF RECORD	3

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	MG&E (ELECTRIC)	TEMPORARY RELEASE OF RIGHTS
101	AT&T WISCONSIN	TEMPORARY RELEASE OF RIGHTS
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	TEMPORARY RELEASE OF RIGHTS
107	WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT)	TEMPORARY RELEASE OF RIGHTS
109	AMERICAN TRANSMISSION COMPANY (ATC)	TEMPORARY RELEASE OF RIGHTS

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE VILLAGE OF SHOREWOOD HILLS.

FOUND PROPERTY PIPES ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL ALONG UNIVERSITY AVENUE ESTABLISHED FROM PREVIOUS PROJECT SU 1114 (14).

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3.

FOR BASIS, COURSE AND OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 3 OF 3.

KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095, OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF SHOREWOOD HILLS, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 03/12/2021
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF SHOREWOOD HILLS.

SIGNATURE: _____ DATE: 7/8/21
PRINT NAME: Karl Frantz

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101 RP.DWG
APPRAISAL PLAT DATE : 03/12/2021
PLOT DATE : 3/12/2021 2:22 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :

5992-11-30 4.01

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.01
EXTENSION SHEET

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME X OF TRANSPORTATION PROJECT PLATS, PAGE X, AS DOCUMENT NO. XXXXXXX.

SHEET 3 OF 3: BASIS, COURSE, AND OFFSET TABLES

HIGHWAY	BASIS
UNIVERSITY AVENUE	PREVIOUS R/W PROJECT SU 1114(14), CSM 13842, CSM 14782, POS 2008-00434 POS 2001-00209
SHOREWOOD BLVD.	PREVIOUS R/W PROJECT SU 1114(14), POS 2001-00209

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
100	101	N01° 44' 25"E	2.00'
101	102	S89° 19' 24"E	324.96'
102	103	N88° 36' 17"E	489.10'
103	104	S72° 16' 09"E	531.58'
104	105	S00° 10' 56"W	66.08'
105	106	N72° 16' 07"W	264.33'
106	107	SEE CURVE NOTE	
107	108	N86° 41' 28"W	30.35'
108	109	SEE CURVE NOTE	
109	110	N88° 53' 06"W	270.00'
110	111	SEE CURVE NOTE	
111	112	S86° 16' 52"W	74.87'
112	113	SEE CURVE NOTE	
113	114	N87° 01' 32"W	10.95'
114	100	N00° 24' 29"E	63.13'

106-107
R=1635.00'
LCH=410.49'
LCB=N79°28'48"W
L=411.57'

108-109
R=732.03'
LCH=28.02'
LCB=N87°47'17"W
L=28.02'

110-111
R=2080.00'
LCH=175.43'
LCB=S88°41'53"W
L=175.48'

112-113
R=650.00'
LCH=75.89'
LCB=S89°37'40"W
L=75.93'

R/W Station & Offset Table				
Point No.	Station	Offset	Y	X
100	138+57.35 EB	63.07'	483077.537	805267.810
101	138+57.30 EB	65.06'	483079.534	805267.871
102	141+85.22 EB	52.32'	483075.696	805592.809
103	146+63.42 EB	87.11'	483087.605	806081.768
104	151+81.76 EB	63.00'	482925.713	806588.100
105	152+01.68 EB	0.00'	482859.638	806587.890
106	149+37.36 EB	0.00'	482940.140	806336.120
107	145+25.78 EB	0.00'	483015.086	805932.534
108	144+95.43 EB	0.00'	483016.838	805902.231
109	144+67.41 EB	0.00'	483017.920	805874.230
110	141+97.41 EB	0.00'	483023.174	805604.282
111	140+21.92 EB	0.00'	483019.189	805428.895
112	139+47.06 EB	0.00'	483014.333	805354.185
113	138+71.13 EB	0.00'	483013.840	805278.299
114	138+60.17 EB	0.00'	483014.408	805267.361

TLE Station & Offset Table		
Point No.	Station	Offset
T150	138+56.92 EB	83.06'
T151	139+40.99 EB	82.47'
T152	139+39.79 EB	67.51'
T153	141+52.38 EB	54.26'
T154	141+52.11 EB	71.41'
T155	142+14.99 EB	73.63'
T156	142+15.86 EB	53.64'
T157	144+97.06 EB	66.73'
T158	144+96.65 EB	71.72'
T159	145+34.83 EB	74.92'
T160	145+35.25 EB	69.94'
T161	150+67.01 EB	63.00'
T162	150+67.01 EB	78.00'
T163	151+29.33 EB	78.00'
T164	151+46.77 EB	95.43'
T165	151+46.77 EB	139.17'
T166	151+56.74 EB	142.32'
T167	151+59.80 EB	132.50'
T168	151+59.80 EB	108.00'
T169	151+67.53 EB	108.00'

4

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3.

TPP NUMBER 5992-11-30 - 4.01
SHEET 3 OF 3

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : 03/12/2021

PLOT DATE : 3/12/2021 2:26 PM PLOT BY : TIMOTHY HELD PLOT NAME : PLOT SCALE : ##########

5992-11-30 4.01

Document No. 5711233

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.02

THAT PART OF LOT 1, CERTIFIED SURVEY MAP NUMBER 13968 (RECORDED IN V. 93, P. 137 AS DOC. 5152223, LOCATED IN AND INCLUDING PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 21, T 7 N, R 9 E, VILLAGE OF SHOREWOOD HILLS, DANE COUNTY, WISCONSIN.

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE VILLAGE OF SHOREWOOD HILLS DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE-NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 61.34 (3), (3M) AND 61.36, WISCONSIN STATUTES, THE VILLAGE OF SHOREWOOD HILLS HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE-NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE OF SHOREWOOD HILLS FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE OF SHOREWOOD HILLS, PURSUANT TO THE PROVISIONS OF SUBSECTION 61.34 (3), (3M) AND 61.36, WISCONSIN STATUTES.

Office of Register of Deeds
Dane County, Wisconsin
Received for Record 30 March
20 21 at 01:29 o'clock P M
and recorded in vol. 61-043B
of Plats on pages 245-246

Kristi Chlebowski, Reg Register
Cheryl Ann Meyer, Deputy

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5992-11-30 - 4.02
SHEET 1 OF 2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME 61-0428 OF TRANSPORTATION PROJECT PLATS, PAGE 239, AS DOCUMENT NO. 5707210.
FOR SHEET NOTES, CURVE DATA, BASIS, COURSE, EASEMENT, AND OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 2 OF 2.

S89°35'31"E 1338.07'
SEC. COR. TO 1/16 LINE
ALUM. CAP MON.
LOCATED FROM TIES
Y = 483044.778
X = 805250.414
BRASS CAP MON. FOUND
Y = 483025.721
X = 807926.480
S89°35'31"E 1338.07'
1/16 LINE TO SEC. COR.
S00°10'54"E 109.54'
SEC. LINE TO R/W
SIXTEENTH LINE
S00°10'54"E 66.08'
R/W TO R/L
SEE SHEET 4.01
MARSHALL COURT
VILLAGE
SECTION LINE
RIDGE STREET
STA. 152+01.68EB
CITY
BLOCK 1
FINDLAY PARK
LOT 1
LOT 2
LOT 3
BLOCK 1
SHEPARD PARK
PRT LOT 34
LAKELAND
N. FRANKLIN AVE.
OF
NE-NW
SEC. 21
UNIVERSITY AVE.
OF
S72°16'07"E
S69°04'05"E
S71°19'32"E
VILLAGE OF SHOREWOOD HILLS
CITY OF MADISON
SEE SHEET 4.04
SHOREWOOD HILLS
MADISON
FARLEY AVE.
UNIVERSITY BAY DRIVE
SEE SHEET 4.03
QUARTER LINE
STA. 166+20.72EB
PART OF LOT 33
LAKELAND
LOT A
REPLAT OF LOT 33 LAKELAND
LOT 1
CSM 14978
V. 105, P. 245
DOC. 5454288
LOT 2
CSM 14978
V. 105, P. 245
DOC. 5454288
LOT 3
CSM 14978
V. 105, P. 245
DOC. 5454288
LOT 1
CSM 15043
V. 106, P. 163
DOC. 5469489
LOT 1
CSM 13365
V. 86, P. 269
DOC. 4914123
LOT 1
CSM 13968
V. 93, P. 137
DOC. 5152223
POS 2011-00364
POS 2008-00434
R/L PREVIOUS
PROJECT SU 1114(14)
WISDOT
PARCEL 3
NO EASEMENT
OF RECORD
107
TSCP - SLOPES
5272 S.F.
3
MG&E (ELECTRIC)
PARCEL 3
EASEMENT 1716186
100
AT&T
DISTRIBUTION
PARCEL 6
EASEMENT 2104591
108
MMSD
PARCELS 6, 7
EASEMENTS 984043 & 984044
103
MMSD
PARCEL 3
AGREEMENT #7989
103
MMSD
PARCEL 6
103
MMSD
PARCEL 7
103
CHARTER COMMUNICATIONS
PARCELS 6, 7
EASEMENT 5196374
104
TLE - SLOPES
9177 S.F.
6
ATC
PARCEL 6
NO EASEMENT
OF RECORD
109
ATC
PARCEL 7
NO EASEMENT
OF RECORD
109
TLE - SLOPES
2905 S.F.
7
TSCP - SLOPES
16607 S.F.
3
MG&E (GAS)
PARCEL 3
NO EASEMENT
OF RECORD
102
MAG NAIL
BUILDING
SCALE, FEET
0 50 100
BRASS CAP MON. FOUND
Y = 483025.721
X = 807926.480
STEM OF MON. FOUND
Y = 480379.276
X = 807912.730
N89°42'08"W 139.35'
TRAV. PT. TO PT. 219
S00°17'52"W 436.08'
SEC. COR. TO TRAV. PT.
S00°17'52"W 43.83'
TRAV. PT. TO R/W
S00°17'52"W 78.09'
R/W TO R/W
S00°17'52"W 86.71'
R/W TO R/L
S00°17'52"W 2646.48'
SEC. COR. TO SEC. COR.
N00°17'52"E 2001.77'
SEC. COR. TO R/L
PC: 156+11.56EB
PI: 156+32.01EB
PT: 156+52.45EB
PC: 159+86.96EB
PI: 160+12.29EB
PRC: 160+37.59EB
PI: 160+62.91EB
PT: 160+88.22EB
PC: 163+65.87EB
PI: 163+80.29EB
PT: 163+94.71EB
156+00EB
158+00EB
160+00EB
162+00EB
164+00EB
166+00EB
T250 T251 T252 T253 T254 T255 T256 T257 T258 T259 T260 T261 T262 T263 T264 T265
(T169)
200 (104) 218 (105) (400) 201 (402) 216 (401) 217 214 (404) 215 (403) 213 (405) 202 212 (406) 211 (407) 209 210 (408) (320) 220 221 222 219

LOCATION SKETCH

NOT TO SCALE
SHEET LOCATION

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	MG&E (ELECTRIC)	PERMANENT & TEMPORARY RELEASE OF RIGHTS
102	MG&E (GAS)	TEMPORARY RELEASE OF RIGHTS
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	PERMANENT & TEMPORARY RELEASE OF RIGHTS
104	CHARTER COMMUNICATIONS	PERMANENT & TEMPORARY RELEASE OF RIGHTS
107	WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT)	TEMPORARY RELEASE OF RIGHTS
108	AT&T DISTRIBUTION	TEMPORARY RELEASE OF RIGHTS
109	AMERICAN TRANSMISSION COMPANY (ATC)	TEMPORARY RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE VILLAGE OF SHOREWOOD HILLS. ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.	WISCONSIN DEPARTMENT OF TRANSPORTATION PERMIT CONVEYANCES S.F. REQUIRED TEMPORARY STREET CONSTRUCTION PERMIT (TCSP)
3	WISCONSIN DEPT. OF TRANSPORTATION	PERMIT	----	----	----	----	21879
6	VILLAGE OF SHOREWOOD HILLS	TLE	----	----	----	9177	----
7	700 UNIVERSITY BAY DRIVE LLC	FEE/TLE	458	----	458	2905	----

KL Engineering
All Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095, OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF SHOREWOOD HILLS, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: DATE: 03/26/2021
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF SHOREWOOD HILLS.

SIGNATURE: DATE: 3-29-21
PRINT NAME: Karla Endres

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : 03/26/2021
PLOT DATE : 3/26/2021 9:59 AM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

5992-11-30 4.02

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.02
EXTENSION SHEET

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

SHEET 2 OF 2: SHEET NOTES, CURVE DATA, BASIS, COURSE, EASEMENT, AND OFFSET TABLES

4

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE VILLAGE OF SHOREWOOD HILLS.

FOUND PROPERTY PIPES ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL ALONG UNIVERSITY AVENUE ESTABLISHED FROM PREVIOUS PROJECT SU 1114 (14).

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME 61-042B OF TRANSPORTATION PROJECT PLATS, PAGE 239, AS DOCUMENT NO. 5707210.

PI STA = 156+32.01EB
Y = 482728.579
X = 806997.776
DELTA = 3°12'01"RT
D = 7°49'38"
T = 20.45'
L = 40.89'
R = 732.00'
PC STA = 156+11.56EB
PT STA = 156+52.45EB

PI STA = 160+12.29EB
Y = 482592.719
X = 807352.966
DELTA = 3°57'46"RT
D = 7°49'38"
T = 25.32'
L = 50.63'
R = 732.00'
PC STA = 159+86.96EB
PRC STA = 160+37.59EB

PI STA = 160+62.91EB
Y = 482571.400
X = 807398.906
DELTA = 3°57'46"LT
D = 7°49'38"
T = 25.32'
L = 50.63'
R = 732.00'
PRC STA = 160+37.59EB
PT STA = 160+88.22EB

PI STA = 163+80.29EB
Y = 482458.007
X = 807695.359
DELTA = 2°15'27"LT
D = 7°49'38"
T = 14.42'
L = 28.84'
R = 732.00'
PC STA = 163+65.87EB
PT STA = 163+94.71EB

HIGHWAY	BASIS
UNIVERSITY AVENUE	PREVIOUS R/W PROJECT SU 1114(14), POS 2008-00434
MARSHALL COURT	CSM 14978
UNIVERSITY BAY DR.	CSM 13968

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	MG&E (ELECTRIC)	DOC. 1716186 OF UNSPECIFIED WIDTH CENTERED UPON 2 - 69kV LINES	3
100	MG&E (ELECTRIC)	DOC. 5203813 - 10' WIDE EASEMENT	7
102	MG&E (GAS)	NO EASEMENT OF RECORD	3
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	UNRECORDED AGREEMENT #7989 DATED JULY 14, 1958 OF UNSPECIFIED WIDTH CENTERED UPON SANITARY LINE	3
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	DOC. 984043 & DOC. 984044 OF UNSPECIFIED WIDTH CENTERED UPON SANITARY LINE	6, 7
104	CHARTER COMMUNICATIONS	DOC. 5196374 - BLANKET EASEMENT	6, 7
107	WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT)	NO EASEMENT OF RECORD	3
108	AT&T DISTRIBUTION	NO EASEMENT OF RECORD	7
108	AT&T DISTRIBUTION	DOC. 2104591 - 10' WIDE EASEMENT	6
109	AMERICAN TRANSMISSION COMPANY (ATC)	NO EASEMENT OF RECORD	3, 6, 7

R/W COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
200	201	S72° 16' 07"E	515.25'
201	202	S69° 09' 07"E	542.59'
202	209	S72° 16' 07"E	354.49'
209	210	S00° 17' 52"W	86.71'
210	211	N71° 19' 32"W	226.01'
211	212	SEE CURVE NOTE	
212	213	N69° 04' 05"W	277.65'
213	214	SEE CURVE NOTE	
214	215	SEE CURVE NOTE	
215	216	N69° 04' 05"W	334.51'
216	217	SEE CURVE NOTE	
217	218	N72° 16' 07"W	409.88'
218	200	N00° 10' 54"E	66.08'
219	220	N72° 19' 30"W	159.98'
220	221	N41° 35' 21"E	17.59'
221	222	S72° 16' 07"E	157.18'
222	219	S32° 51' 43"W	16.50'

211-212
R=732.00'
LCH=28.84'
LCB=N70°11'49"W
L=28.84'

213-214
R=732.00'
LCH=50.62'
LCB=N67°05'13"W
L=50.63'

214-215
R=732.00'
LCH=50.62'
LCB=N67°05'13"W
L=50.63'

216-217
R=732.00'
LCH=40.88'
LCB=N70°40'06"W
L=40.89'

R/W Station & Offset Table

Point No.	Station	Offset	Y	X
200	151+81.76 EB	63.00'	482925.713	806588.100
201	156+93.38 EB	66.53'	482768.792	807078.870
202	162+36.05 EB	70.82'	482575.689	807585.935
209	165+93.38 EB	82.28'	482467.728	807923.581
210	166+20.72 EB	0.00'	482381.024	807923.130
211	163+94.71 EB	0.00'	482453.389	807709.022
212	163+65.87 EB	0.00'	482463.159	807681.889
213	160+88.22 EB	0.00'	482562.353	807422.558
214	160+37.59 EB	0.00'	482582.059	807375.936
215	159+86.96 EB	0.00'	482601.766	807329.314
216	156+52.45 EB	0.00'	482721.273	807016.876
217	156+11.56 EB	0.00'	482734.807	806978.299
218	152+01.68 EB	0.00'	482859.638	806587.890
219	164+22.70 EB	154.06'	482590.372	807784.864
220	162+56.88 EB	146.52'	482638.946	807632.432
221	162+63.08 EB	162.98'	482652.102	807644.108
222	164+26.74 EB	170.05'	482604.233	807793.818

TLE Station & Offset Table

Point No.	Station	Offset
T250	152+46.14 EB	108.00'
T251	152+46.09 EB	68.00'
T252	156+53.35 EB	69.30'
T253	156+53.63 EB	64.31'
T254	161+53.72 EB	70.70'
T255	161+53.70 EB	85.70'
T256	162+35.62 EB	85.82'
T257	165+06.58 EB	95.86'
T258	165+05.78 EB	142.85'
T259	160+31.08 EB	119.91'
T260	160+26.86 EB	164.13'
T261	164+70.10 EB	186.77'
T262	151+67.53 EB	108.00'
T263	162+64.19 EB	160.03'
T264	164+18.62 EB	166.92'
T265	165+68.77 EB	156.39'

4

Document No.
5711234

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.03

THAT PART OF THE SE 1/4 OF THE SW 1/4 OF SECTION 16 AND PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 21, ALL IN T 7 N, R 9 E, VILLAGE OF SHOREWOOD HILLS, DANE COUNTY, WISCONSIN.

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE VILLAGE OF SHOREWOOD HILLS DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE-NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 61.34 (3), (3M) AND 61.36, WISCONSIN STATUTES, THE VILLAGE OF SHOREWOOD HILLS HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE-NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE OF SHOREWOOD HILLS FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE OF SHOREWOOD HILLS, PURSUANT TO THE PROVISIONS OF SUBSECTION 61.34 (3), (3M) AND 61.36, WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE VILLAGE OF SHOREWOOD HILLS.

FOUND PROPERTY PIPES ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL ALONG UNIVERSITY AVENUE ESTABLISHED FROM PREVIOUS PROJECT SU 1114 (7).

GN

SCALE, FEET
0 50 100

Office of Register of Deeds
Dane County, Wisconsin
Received for Record 30, March
20 21 at 01:29 o'clock P M
and recorded in vol. 61-043B
of Plats on page 247-248
Kristin Chlebowski, Register
Cheryl Ann Meyer, Deputy

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5992-11-30 - 4.03
SHEET 1 OF 2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME 61-0428 OF TRANSPORTATION PROJECT PLATS, PAGE 239, AS DOCUMENT NO. 5707210.

FOR BASIS, COURSE AND OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 2 OF 2.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE VILLAGE OF SHOREWOOD HILLS.
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

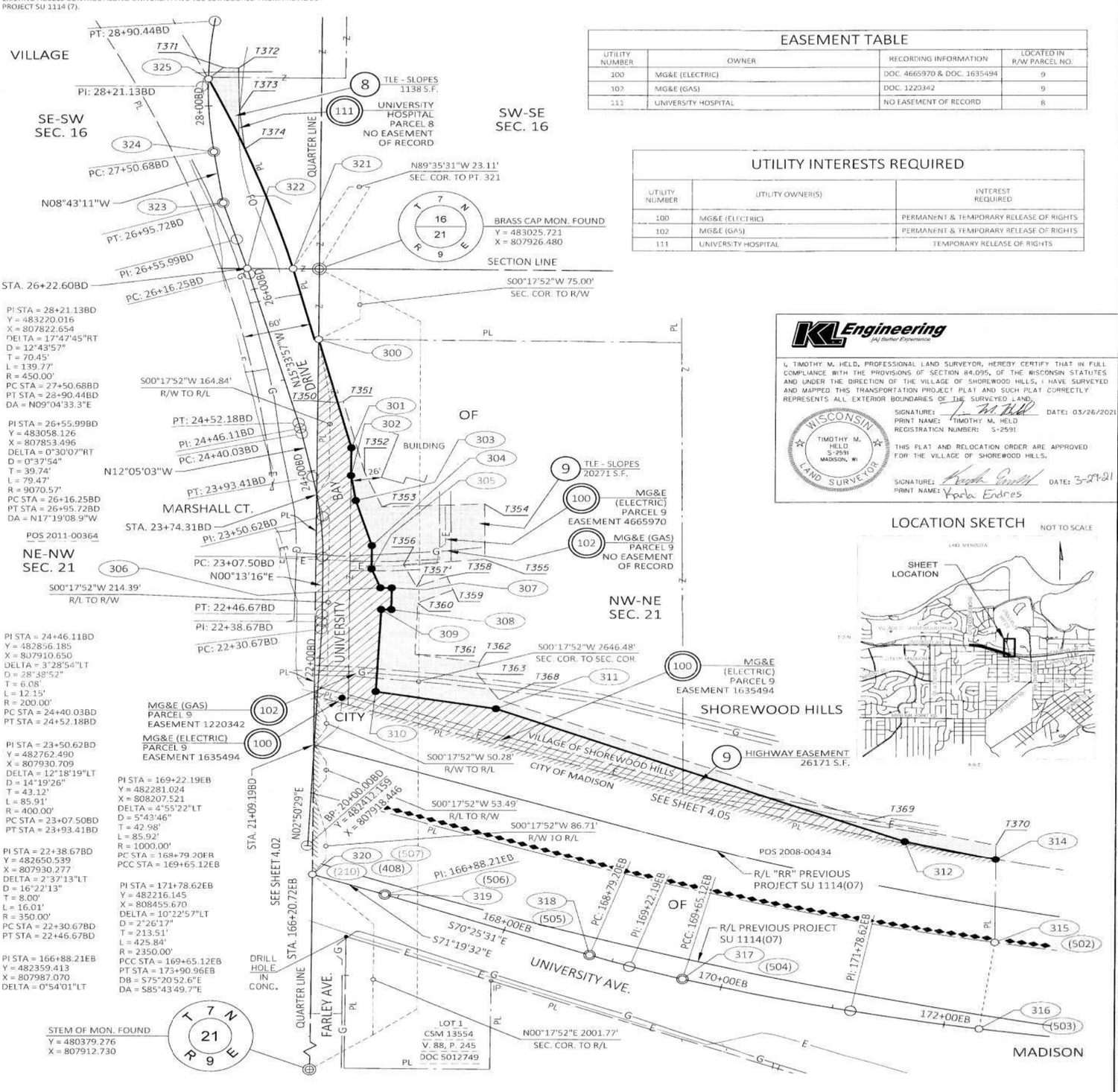
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	HE S.F.	TLE S.F.
8	REGENTS OF THE UNIVERSITY OF WISCONSIN	TLE	----	----	----	----	1138
9	UNITED STATES OF AMERICA	HE/TLE	----	----	----	26171	20271

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	MG&E (ELECTRIC)	DOC. 4665970 & DOC. 1635494	9
102	MG&E (GAS)	DOC. 1220342	9
111	UNIVERSITY HOSPITAL	NO EASEMENT OF RECORD	8

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	MG&E (ELECTRIC)	PERMANENT & TEMPORARY RELEASE OF RIGHTS
102	MG&E (GAS)	PERMANENT & TEMPORARY RELEASE OF RIGHTS
111	UNIVERSITY HOSPITAL	TEMPORARY RELEASE OF RIGHTS



KL Engineering

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095, OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF SHOREWOOD HILLS, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

SIGNATURE: DATE: 03/26/2021
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF SHOREWOOD HILLS.

SIGNATURE: DATE: 3-29-21
PRINT NAME: Karla Endres

LOCATION SKETCH NOT TO SCALE

4

5992-11-30 4.03
1 IN:100 FT
PLOT SCALE:
PLOT NAME:
Timothy Held
PLOT BY:
3/26/2021 11:06 AM
PLOT DATE:
PLOT DATE:
FILE NAME: G:\MADISON\18016-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETS\PLAN\040101-RP.DWG
APPRAISAL PLAT DATE: 03/26/2021

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.03
EXTENSION SHEET

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME 61-042B OF TRANSPORTATION PROJECT PLATS, PAGE 239, AS DOCUMENT NO. 5707210.

SHEET 2 OF 2: BASIS, COURSE, AND OFFSET TABLES

HIGHWAY	BASIS
UNIVERSITY AVENUE	PREVIOUS R/W PROJECT SU 1114(07), CSM 13554, POS 2008-00434
UNIVERSITY BAY DR.	POS 2011-00364

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
300	301	S14° 17' 08"E	119.15'
301	302	S00° 17' 51"W	29.50'
302	303	S09° 19' 29"E	26.98'
303	304	S16° 32' 30"E	50.02'
304	305	S00° 17' 52"W	24.72'
305	306	S21° 16' 01"E	21.77'
306	307	S89° 42' 08"E	10.00'
307	308	S00° 17' 52"W	23.00'
308	309	N89° 42' 08"W	9.00'
309	310	S02° 55' 23"W	87.33'
310	311	S80° 12' 49"E	107.70'
311	312	S68° 35' 49"E	385.43'
312	314	S76° 32' 26"E	82.35'
314	315	S00° 17' 52"W	88.45'
315	316	S08° 10' 11"W	92.75'
316	317	N78° 35' 20"W	265.73'
317	318	SEE CURVE NOTE	
318	319	SEE CURVE NOTE	
319	320	N71° 19' 32"W	67.49'
320	300	N00° 17' 51"E	569.71'
321	322	N89° 35' 31"W	40.22'
322	323	SEE CURVE NOTE	
323	324	N08° 43' 11"W	54.95'
324	325	SEE CURVE NOTE	
325	321	SEE CURVE NOTE	

316-317
R=2350.00'
LCH=265.73'
LCB=N78°35'21"W
L=265.87'

317-318
R=1000.00'
LCH=85.89'
LCB=N72°53'12"W
L=85.92'

322-323
R=9070.57'
LCH=73.12'
LCB=N17°05'18"W
L=73.12'

324-325
R=450.00'
LCH=77.79'
LCB=N03°45'41"W
L=77.89'

325-321
R=1353.45'
LCH=215.63'
LCB=S20°23'32"E
L=215.86'

R/W Station & Offset Table				
Point No.	Station	Offset	Y	X
300	25+33.03 BD	40.24'	482950.722	807926.090
301	24+16.26 BD	39.47'	482835.258	807955.491
302	23+87.90 BD	33.18'	482805.762	807955.338
314	172+17.87 EB	180.33'	482397.837	808523.224
315	172+30.99 EB	92.75'	482309.388	808522.765
316	172+30.99 EB	0.00'	482217.578	808509.584
317	169+65.12 EB	0.00'	482270.150	808249.111
318	168+79.20 EB	0.00'	482295.425	808167.020
319	166+88.21 EB	0.00'	482359.413	807987.070
320	166+20.72 EB	0.00'	482381.024	807923.130
321	26+11.54 BD	38.52'	483025.886	807903.367
322	26+22.60 BD	0.00'	483026.172	807863.151
323	26+95.72 BD	0.00'	483096.061	807841.666
324	27+50.68 BD	0.00'	483150.379	807833.335
325	28+28.56 BD	0.00'	483228.001	807828.232

HE Station & Offset Table				
Point No.	Station	Offset	Y	X
303	23+62.99 BD	33.09'	482779.140	807959.709
304	23+18.31 BD	43.52'	482731.190	807973.950
305	22+94.77 BD	43.33'	482706.469	807973.822
306	22+74.52 BD	51.30'	482686.186	807981.717
307	22+74.50 BD	61.30'	482686.134	807991.716
308	22+51.50 BD	61.27'	482663.134	807991.597
309	22+51.51 BD	52.27'	482663.181	807982.597
310	21+66.56 BD	51.50'	482575.966	807978.144
311	21+53.54 BD	158.42'	482557.660	808084.279
312	171+28.75 EB	185.91'	482417.005	808443.132

TLE Station & Offset Table		
Point No.	Station	Offset
T350	24+63.52 BD	38.69'
T351	24+63.40 BD	43.69'
T352	23+89.13 BD	45.56'
T353	23+54.45 BD	55.20'
T354	23+49.03 BD	145.49'
T355	23+05.37 BD	143.19'
T356	22+99.48 BD	71.61'
T357	22+75.79 BD	83.11'
T358	22+86.87 BD	110.13'
T359	22+72.66 BD	115.72'
T360	22+58.52 BD	84.33'
T361	22+07.78 BD	83.83'
T362	22+02.37 BD	141.47'
T363	21+90.19 BD	139.57'
T368	21+63.35 BD	160.64'
T369	170+91.14 EB	202.33'
T370	172+15.48 EB	195.55'
T371	28+41.13 BD	12.57'
T372	28+41.30 BD	26.08'
T373	27+94.19 BD	26.78'
T374	27+49.36 BD	27.13'

5992-11-30 4.03

PLOT SCALE : ##########

PLOT NAME : Timothy Held

PLOT BY : 3/26/2021 10:04 AM

PLOT DATE :

PLOT DATE :

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : 03/26/2021

TPP NUMBER 5992-11-30 - 4.03
SHEET 2 OF 2

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.04

THAT PART OF LOTS 1, 2, 3, 4, 5, 6, 7, 8 AND 9, BLOCK 1, OF FINDLAY PARK, PART OF LOT 33 AND LOT 34 LAKELAND AND PART OF OUTLOT 76, ASSESSOR'S PLAT NO. 1, LOCATED IN THE NE 1/4 OF THE NW 1/4 OF SECTION 21, T 7 N, R 9 E, CITY OF MADISON, DANE COUNTY, WISCONSIN.

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF MADISON DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE-NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 62.22, WISCONSIN STATUTES, THE CITY OF MADISON HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE-NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY OF MADISON FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MADISON, PURSUANT TO THE PROVISIONS OF SUBSECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME 61-042B OF PLATS, PAGES 238-240, AS DOCUMENT NO. 5707210

FOR SHEET NOTES, CURVE DATA, BASIS, COURSE, EASEMENT, AND OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 2 OF 2.

Office of Register of Deeds
Dane County, Wisconsin
Received for Record 24th March
20 21 at 12:46 o'clock P M
and recorded in vol. 61-043A
of Plats on page 241-242
Kristich Labrasky By
Deputy Register
Doc # 5708749

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5992-11-30 - 4.04
SHEET 1 OF 2

S89°35'31"E 1338.07'
SEC. COR. TO 1/16 LINE

ALUM. CAP MON.
LOCATED FROM TIES
Y = 483044.778
X = 805250.414

S89°35'31"E 1338.07'
1/16 LINE TO SEC. COR.

BRASS CAP MON. FOUND
Y = 483025.721
X = 807926.480

SECTION LINE

S00°10'54"E 109.54'
SEC. LINE TO R/W
SIXTEENTH LINE

S00°10'54"E 66.08'
R/W TO R/L
SEE SHEET 4.01

MARSHALL COURT

1 1/2 IN RB

VILLAGE OF SHOREWOOD HILLS

102 MG&E (GAS) PARCEL 11
NO EASEMENT OF RECORD

LOT 1 CSM 14978 V. 105, P. 245 DOC. 5454288

LOT 2 CSM 14978 V. 105, P. 245 DOC. 5454288

LOT 3 CSM 14978 V. 105, P. 245 DOC. 5454288

LOT 1 CSM 15043 V. 106, P. 163 DOC. 5469489

LOT 1 CSM 13365 V. 86, P. 269 DOC. 4914123

1 IN IR

1 1/4 IN RB

5/8 IN RB

(218) (105) 400

11 TLE - SLOPES 4055 S.F.

416 415 417 418

T465 T466 T463 T464 T462 T461 T460 T459 T458 T457 T456 T455 T454 T453 T452 T451 T450

RIDGE STREET
STA. 152+01.68EB

572°16'07"E

154+00EB

156+00EB

PC: 156+11.56EB
PI: 156+32.01EB
PT: 156+52.45EB

CITY OF MADISON
BLOCK 1
FINDLAY PARK

(217) 401 402 (218) 414

UNIVERSITY AVE.
VILLAGE OF SHOREWOOD HILLS
SEE SHEET 4.02
CITY OF MADISON

158+00EB

S69°04'05"E

(215) 403 413

NE-NW
SEC. 21

PC: 159+86.96EB
PI: 160+12.29EB

160+00EB

PRC: 160+37.59EB
PI: 160+62.91EB
PT: 160+88.22EB

R/L PREVIOUS PROJECT
SU 1114(14)

POS 2008-00434

404 (214) 405 (213) 412

162+00EB

S69°04'05"E

406 (212)

PC: 163+65.87EB
PI: 163+80.29EB
PT: 163+94.71EB

164+00EB

407 (211) 320 (210) 408

S71°19'32"E

166+00EB
STA. 166+20.72EB

LOT 1 CSM 13968 V. 93, P. 137 DOC. 5152223

CHIS. "X"

MAG NAIL

MH

LOT 1
LOT 2
LOT 3
BLOCK 1
SHEPARD PARK

12 TLE - SLOPES 1201 S.F.

13 TLE - SLOPES 1202 S.F.

PRT LOT 34
LAKELAND

MG&E (ELECTRIC)
PARCEL 13
6' EASEMENT 1935113
100

N. FRANKLIN AVE.

PART OF LOT 33
LAKELAND

LOT A
REPLAT OF LOT 33 LAKELAND

JEFFA, LLC
PARCEL 14
EASEMENT 1971020
106

PART OF LOT 33
LAKELAND

14 TLE - SLOPES 2666 S.F.

CITY OF MADISON
PARCEL 14
EASEMENT 1493104
105

411

100 MG&E (ELECTRIC)
PARCEL 14
12' EASEMENT 2018926

PART OF OUTLOT 76
ASSESSOR'S PLAT NO. 1

410 409

MADISON

SCALE, FEET
0 50 100

GN

BRASS CAP MON. FOUND
Y = 483025.721
X = 807926.480

UNIVERSITY BAY DRIVE
22+00BD

S00°17'52"W 479.91'
SEC. COR. TO R/W

S00°17'52"W 78.09'
R/W TO R/W

S00°17'52"W 86.71'
R/W TO R/L

S00°17'52"W 2646.48'
SEC. COR. TO SEC. COR.

N00°17'52"E 2001.77'
SEC. COR. TO R/L

SHOREWOOD HILLS

FARLEY AVE.

QUARTER LINE

SEE SHEET 4.03

STEM OF MON. FOUND
Y = 480379.276
X = 807912.730

375

LOCATION SKETCH

NOT TO SCALE

SHEET LOCATION

LAKE MENDOTA

VILLAGE OF SHOREWOOD HILLS

UNIVERSITY AVE

CITY OF MADISON

SHOREWOOD BLVD

UNIVERSITY BAY DR

FARLEY AVE

MEDICAL CIRCLE RD

T-7-N

R-9-E

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	MG&E (ELECTRIC)	TEMPORARY RELEASE OF RIGHTS
102	MG&E (GAS)	TEMPORARY RELEASE OF RIGHTS
105	CITY OF MADISON (BUS SHELTER)	TEMPORARY RELEASE OF RIGHTS
106	JEFFA, LLC (PRIVATE SANITARY SEWER AND WATERMAIN)	TEMPORARY RELEASE OF RIGHTS

KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095, OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF MADISON, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

SIGNATURE: DATE: 3/19/2021
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

APPROVED FOR THE CITY OF MADISON

RELOCATION ORDER APPROVED BY THE COMMON COUNCIL RES-20-00750 FILE ID 62112
DATE: 11/17/2020
EFFECTIVE: 3/11/2021
CITY CLERK

RELOCATION ORDER APPROVED BY THE PLANNING COMMISSION
DATE: 10/19/2020
EXECUTIVE SECRETARY

RELOCATION ORDER APPROVED BY THE BOARD OF PUBLIC WORKS
DATE: 10/21/2020
EXECUTIVE SECRETARY

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE CITY OF MADISON
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
11	KLINKE CAMPUS, LLC	TLE	----	----	----	4055
12	TERRY BUCHLI	TLE	----	----	----	1201
13	CAMPUS 24 LIMITED LIABILITY COMPANY	TLE	----	----	----	1202
14	TWENTIETH CENTURY MARKETS INCORPORATED	TLE	----	----	----	2666

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : 3/19/2021
PLOT DATE : 2/3/2021 1:34 PM
PLOT BY : JENNIFER LAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.04
EXTENSION SHEET

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

4

SHEET 2 OF 2: SHEET NOTES, CURVE DATA, BASIS, COURSE, EASEMENT, AND OFFSET TABLES

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE CITY OF MADISON.

FOUND PROPERTY PIPES ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL ALONG UNIVERSITY AVENUE ESTABLISHED FROM PREVIOUS PROJECT SU 1114 (14).

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME OF PLATS, PAGE , AS DOCUMENT NO.

HIGHWAY	BASIS
UNIVERSITY AVENUE	PREVIOUS R/W PROJECT SU 1114(14), POS 2008-00434
FRANKLIN AVENUE	REPLAT OF PART OF LOT 33 LAKELAND
FARLEY AVENUE	REPLAT OF PART OF LOT 33 LAKELAND
RIDGE STREET	FINDLAY PARK

EASEMENT TABLE			
UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	MG&E (ELECTRIC)	DOC. 1935113	13
100	MG&E (ELECTRIC)	DOC. 2018926	14
102	MG&E (GAS)	NO EASEMENT OF RECORD	11
105	CITY OF MADISON	DOC. 1493104	14
106	JEFFA, LLC	DOC. 1971020	14

PI STA = 156+32.01EB
Y = 482728.579
X = 806997.776
DELTA = 3°12'01"RT
D = 7°49'38"
T = 20.45'
L = 40.89'
R = 732.00'
PC STA = 156+11.56EB
PT STA = 156+52.45EB

PI STA = 160+12.29EB
Y = 482592.719
X = 807352.966
DELTA = 3°57'46"RT
D = 7°49'38"
T = 25.32'
L = 50.63'
R = 732.00'
PC STA = 159+86.96EB
PRC STA = 160+37.59EB

PI STA = 160+62.91EB
Y = 482571.400
X = 807398.906
DELTA = 3°57'46"LT
D = 7°49'38"
T = 25.32'
L = 50.63'
R = 732.00'
PRC STA = 160+37.59EB
PT STA = 160+88.22EB

PI STA = 163+80.29EB
Y = 482458.007
X = 807695.359
DELTA = 2°15'27"LT
D = 7°49'38"
T = 14.42'
L = 28.84'
R = 732.00'
PC STA = 163+65.87EB
PT STA = 163+94.71EB

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
400	401	S72° 16' 07"E	409.88'
401	402	SEE CURVE NOTE	
402	403	S69° 04' 05"E	334.51'
403	404	SEE CURVE NOTE	
404	405	SEE CURVE NOTE	
405	406	S69° 04' 05"E	277.65'
406	407	SEE CURVE NOTE	
407	408	S71° 19' 32"E	226.01'
408	409	S00° 17' 52"W	172.41'
409	410	N89° 42' 08"W	29.87'
410	411	N00° 26' 17"E	125.34'
411	412	N69° 04' 05"W	652.50'
412	413	N69° 04' 05"W	70.55'
413	414	N69° 04' 05"W	315.66'
414	415	N72° 16' 07"W	325.89'
415	416	SEE CURVE NOTE	
416	417	S00° 17' 51"W	58.85'
417	418	N89° 49' 03"W	5.40'
418	400	N00° 10' 54"E	128.23'

401-402
R=732.00'
LCH=40.88'
LCB=S70°40'06"E
L=40.89'

403-404
R=732.00'
LCH=50.62'
LCB=S67°05'13"E
L=50.63'

404-405
R=732.00'
LCH=50.62'
LCB=S67°05'13"E
L=50.63'

406-407
R=732.00'
LCH=28.84'
LCB=S70°11'49"E
L=28.84'

415-416
R=15.00'
LCH=24.18'
LCB=S54°00'52"W
L=28.13'

R/W Station & Offset Table				
Point No.	Station	Offset	Y	X
400	152+01.68 EB	0.00'	482859.638	806587.890
401	156+11.56 EB	0.00'	482734.807	806978.299
402	156+52.45 EB	0.00'	482721.273	807016.876
403	159+86.96 EB	0.00'	482601.766	807329.314
404	160+37.59 EB	0.00'	482582.059	807375.936
405	160+88.22 EB	0.00'	482562.353	807422.558
406	163+65.87 EB	0.00'	482463.159	807681.889
407	163+94.71 EB	0.00'	482453.389	807709.022
408	166+20.72 EB	0.00'	482381.024	807923.130
409	166+75.07 EB	163.62'	482208.618	807922.235
410	166+46.73 EB	173.03'	482208.773	807892.367
411	166+07.51 EB	53.99'	482334.105	807893.325
412	159+56.88 EB	48.50'	482567.217	807283.883
413	158+86.33 EB	48.50'	482592.420	807217.991
414	155+68.06 EB	45.00'	482705.193	806923.160
415	152+42.18 EB	45.00'	482804.444	806612.754
416	152+27.86 EB	64.49'	482790.234	806593.186
417	152+45.50 EB	120.64'	482731.387	806592.880
418	152+40.35 EB	122.27'	482731.404	806587.484

TLE Station & Offset Table		
Point No.	Station	Offset
T450	166+41.98 EB	174.60'
T451	166+05.51 EB	63.92'
T452	165+82.64 EB	63.02'
T453	165+82.84 EB	58.02'
T454	164+07.10 EB	51.10'
T455	164+06.71 EB	61.09'
T456	163+46.12 EB	60.00'
T457	163+46.11 EB	45.00'
T458	158+90.10 EB	58.50'
T459	157+70.00 EB	58.50'
T460	157+66.22 EB	48.50'
T461	154+99.45 EB	45.00'
T462	154+98.93 EB	55.00'
T463	154+68.93 EB	55.00'
T464	154+68.66 EB	60.00'
T465	152+67.62 EB	60.00'
T466	152+50.27 EB	119.14'

TPP NUMBER 5992-11-30 - 4.04
SHEET 2 OF 2
376

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.05

THAT PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 21, T 7 N, R 9 E, CITY OF MADISON, DANE COUNTY, WISCONSIN.

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF MADISON DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE-NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 62.22, WISCONSIN STATUTES, THE CITY OF MADISON HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE-NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY OF MADISON FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MADISON, PURSUANT TO THE PROVISIONS OF SUBSECTION 62.22, WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFFRENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE CITY OF MADISON.

FOUND PROPERTY PIPES ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL ALONG UNIVERSITY AVENUE ESTABLISHED FROM PREVIOUS PROJECT SU 1114 (7).

GN

SCALE, FEET
0 50 100

Office of Register of Deeds
Dane County, Wisconsin
Received for Record 24th May
20 21 at 12:46 o'clock P M
and recorded in vol. 61-043A
of Plats on page 243-244
Kristi Chlebowski by
Deputy Register
Doc # 5708750

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5992-11-30 - 4.05
SHEET 1 OF 2

238-240

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME 61-042B OF PLATS, PAGES 9, AS DOCUMENT NO. 5707210

FOR BASIS, COURSE AND OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 2 OF 2.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE CITY OF MADISON.
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	WISCONSIN DEPARTMENT OF TRANSPORTATION PERMIT CONVEYANCES S.F. REQUIRED: TEMPORARY STREET CONSTRUCTION PERMIT (TCSP)
3	WISCONSIN DEPARTMENT OF TRANSPORTATION	PERMIT	---	---	---	---	18062

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	MG&E (ELECTRIC)	TEMPORARY RELEASE OF RIGHTS
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	TEMPORARY RELEASE OF RIGHTS
107	WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT)	TEMPORARY RELEASE OF RIGHTS
109	AMERICAN TRANSMISSION COMPANY (ATC)	TEMPORARY RELEASE OF RIGHTS

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	MG&E (ELECTRIC)	NO EASEMENT OF RECORD	3
103	MADISON METROPOLITAN SEWERAGE DISTRICT (MMSD)	UNRECORDED AGREEMENT #7989 DATED JULY 14, 1958 OF UNSPECIFIED WIDTH CENTERED UPON SANITARY LINE	3
107	WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT)	NO EASEMENT OF RECORD	3
109	AMERICAN TRANSMISSION COMPANY (ATC)	NO EASEMENT OF RECORD	3

APPROVED FOR THE CITY OF MADISON

RELOCATION ORDER APPROVED BY THE COMMON COUNCIL RES-20-00950 FILE ID: 62412
DATE: 11/17/2020
EFFECTIVE: 3/11/2021 CITY CLERK

RELOCATION ORDER APPROVED BY THE PLANNING COMMISSION
DATE: 12/9/2020 FOR EXECUTIVE SECRETARY

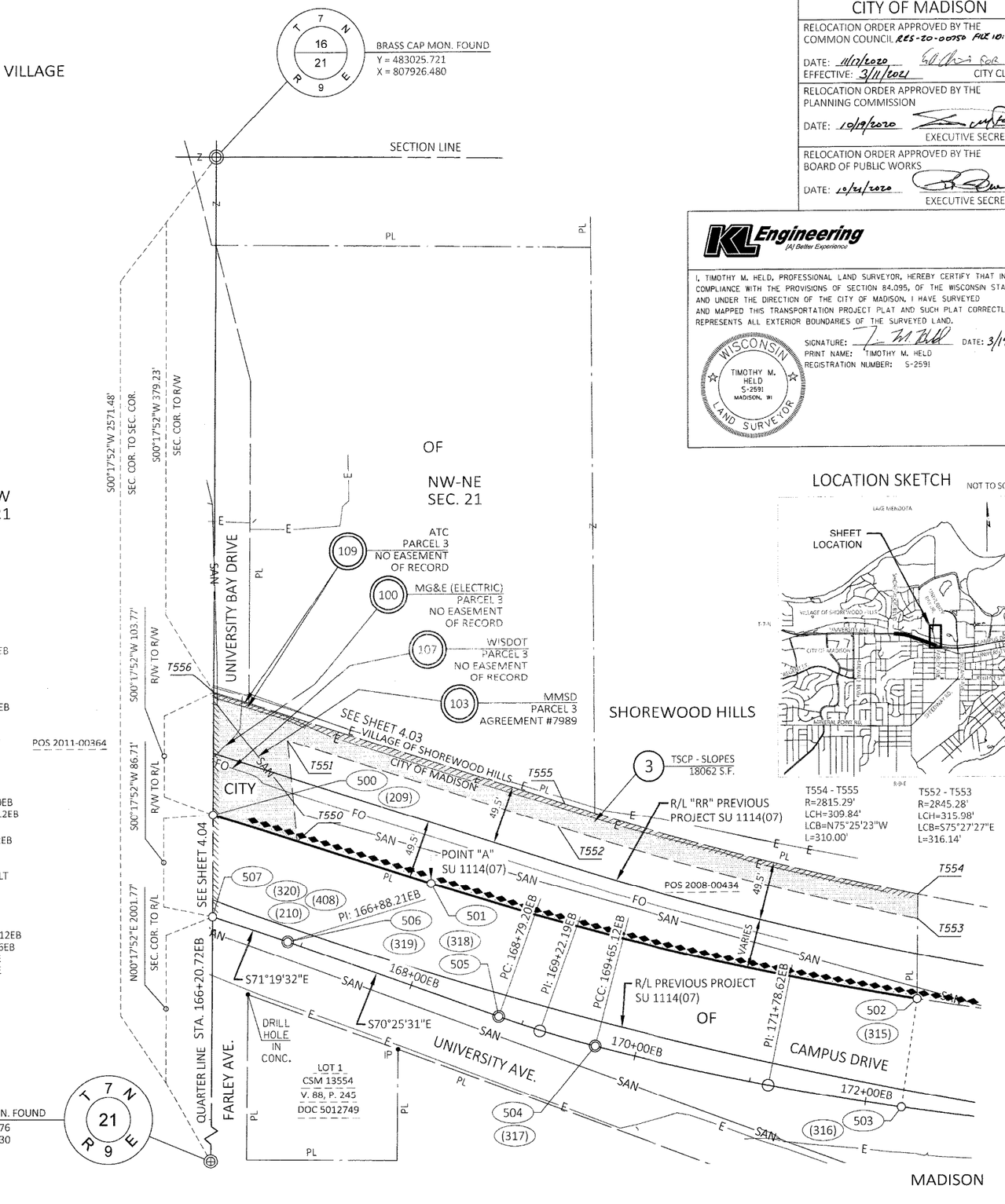
RELOCATION ORDER APPROVED BY THE BOARD OF PUBLIC WORKS
DATE: 12/21/2020 EXECUTIVE SECRETARY

KL Engineering
[A] Better Experience

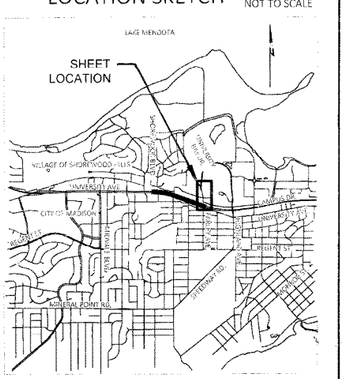
I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095, OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF MADISON, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: DATE: 3/19/2021
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR



LOCATION SKETCH NOT TO SCALE



T554 - T555
R=2815.29'
LCH=309.84'
LCB=N75°25'23"W
L=310.00'

T552 - T553
R=2845.28'
LCH=315.98'
LCB=S75°27'27"E
L=316.14'

5992-11-30 4.05
1 IN:100 FT
PLOT SCALE :
PLOT NAME :
Jennifer Lauer
PLOT BY :
2/2/2021 9:39 AM
PLOT DATE :
PLOT DATE :
PLOT DATE :
G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
FILE NAME :
APPRAISAL PLAT DATE : 3/19/2021

TRANSPORTATION PROJECT PLAT NO: 5992-11-30 - 4.05
EXTENSION SHEET

RELOCATION ORDER UNIVERSITY AVENUE, SHOREWOOD BLVD. - UNIVERSITY BAY DRIVE, DANE COUNTY.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD 83(2007) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, IN VOLUME OF PLATS, PAGE , AS DOCUMENT NO.

SHEET 2 OF 2: BASIS, COURSE AND OFFSET TABLES

HIGHWAY	BASIS
UNIVERSITY AVENUE	PREVIOUS R/W PROJECT SU 1114(07), POS 2008-00434
UNIVERSITY BAY DR.	POS 2011-00364
FARLEY AVENUE	CSM 13554

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
500	501	S72° 16' 07"E	195.12'
501	502	SEE CURVE NOTE	
502	503	S08° 10' 11"W	92.75'
503	504	SEE CURVE NOTE	
504	505	SEE CURVE NOTE	
505	506	N70° 25' 31"W	190.99'
506	507	N71° 19' 32"W	67.49'
507	500	N00° 17' 52"E	86.71'

501-502
R=2864.79'
LCH=425.00'
LCB=S76°32'30"E
L=425.39'

503-504
R=2350.00'
LCH=265.73'
LCB=N78°35'21"W
L=265.87'

504-505
R=1000.00'
LCH=85.89'
LCB=N72°53'12"W
L=85.92'

R/W Station & Offset Table				
Point No.	Station	Offset	Y	X
500	165+93.38 EB	82.28'	482467.728	807923.581
501	167+87.13 EB	87.06'	482408.302	808109.436
502	172+30.99 EB	92.75'	482309.388	808522.765
503	172+30.99 EB	0.00'	482217.578	808509.584
504	169+65.12 EB	0.00'	482270.151	808249.108
505	168+79.20 EB	0.00'	482295.425	808167.020
506	166+88.21 EB	0.00'	482359.413	807987.070
507	166+20.72 EB	0.00'	482381.024	807923.130

TLE Station & Offset Table		
Point No.	Station	Offset
T550	166+68.50 EB	83.52'
T551	166+33.46 EB	161.96'
T552	168+72.48 EB	168.85'
T553	172+20.99 EB	160.13'
T554	172+17.87 EB	180.33'
T555	168+71.84 EB	188.84'
T556	165+60.67 EB	180.76'

TPP NUMBER 5992-11-30 - 4.05
SHEET 2 OF 2

378
5992-11-30 4.05
PLOT SCALE : ##########
PLOT NAME :
PLOT BY : Jennifer Lauer
PLOT DATE : 2/3/2021 1:40 PM
PLOT DATE :
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE :

UTILITY LEGEND

1. AT&T WISCONSIN
5. TDS METROCOM/TELECOM
8. MADISON GAS & ELECTRIC (ELECTRIC)
9. MADISON GAS & ELECTRIC (GAS)
10. MADISON METROPOLITAN SEWERAGE DISTRICT
11. CITY OF MADISON (WATER)

N

SHOREWOOD BLVD

R/W

P.L.

CAUTION

BEGIN CONSTRUCTION
STA 138+53.24EB
MATCH EXISTING
SAW CUT REQ'D

EXISTING R/W
PROP R/W

RETAINING WALL
(SEE DETAIL)

TLE

CLEARING AND GRUBBING
REQ'D. (TYP.)

SHOREWOOD CENTER
3260 UNIVERSITY AVE

138+00WB
138+00EB
139+00WB
139+00EB
140+00WB
140+00EB
141+00WB
141+00EB
142+00WB
142+00EB
143+00WB
143+00EB
144+00WB
144+00EB
145+00WB
145+00EB

STA 141+84WB
RECONSTRUCT C.E.

SLOPE INTERCEPT (TYP.)

SHOREWOOD CENTER
3230 UNIVERSITY AVE

STA 145+18WB
RECONSTRUCT C.E.

EXISTING R/W

BEGIN PROJECT ID 5992-11-31
STA 138+08.81EB
MATCH EXISTING
SAW CUT REQ'D

CENTURY HOUSE REAL ESTATE
3033 UNIVERSITY AVE

CENTURY HOUSE REAL ESTATE
3029 UNIVERSITY AVE

STA 141+00EB
RECONSTRUCT C.E.

UNIVERSITY AVENUE

STA 143+41EB
RECONSTRUCT C.E.

SHOREWOOD HOUSE
3009 UNIVERSITY AVE

SMOKY'S CLUB
3005 UNIVERSITY AVE

BEGIN CONSTRUCTION
STA 62+00.00SP
MATCH EXISTING
SAW CUT REQ'D

SCHMITT PL

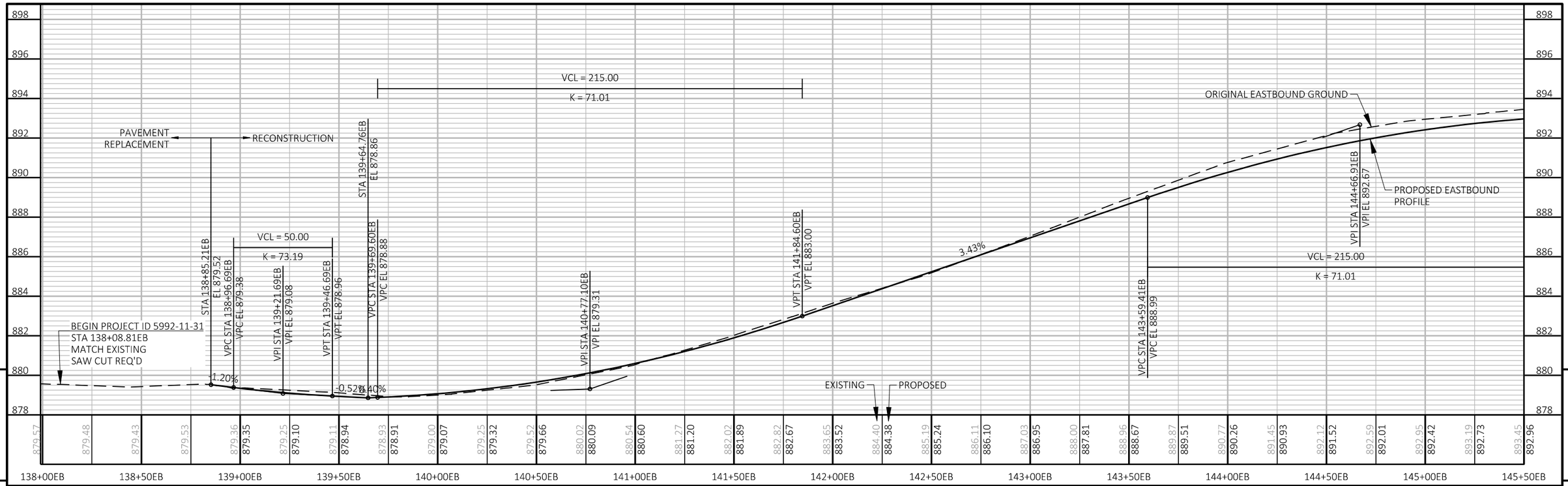
MATCHLINE STA 145+50EB

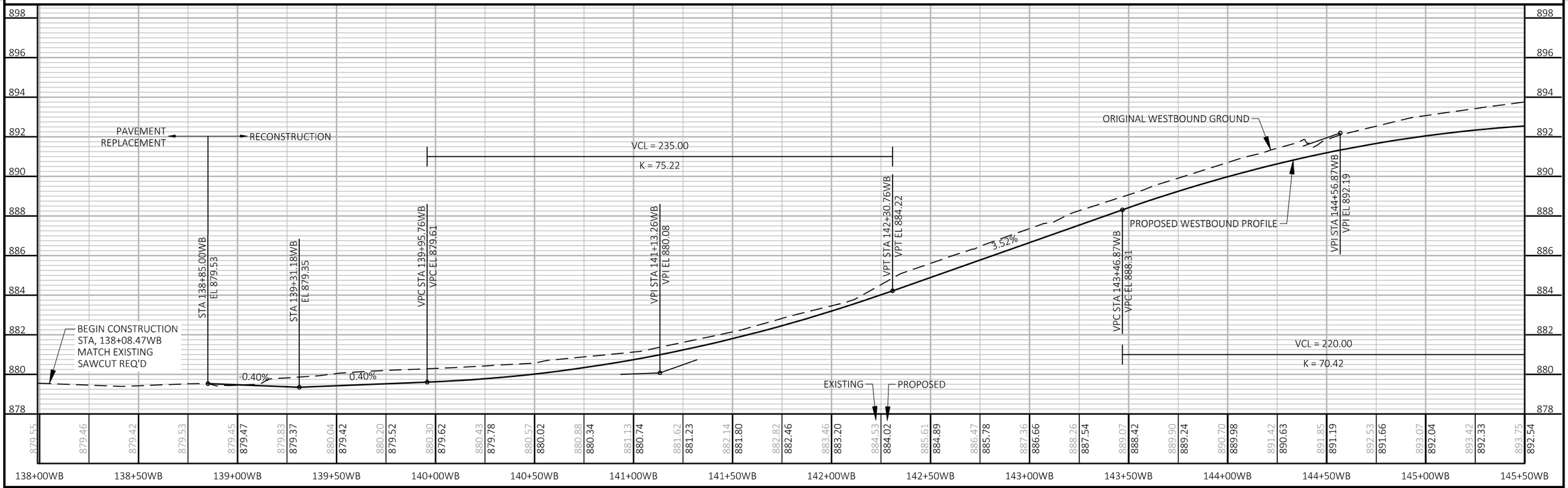
HILL ST

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 379	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (1)
PLOT DATE : 8/17/2021 2:54 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 380	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (1) Profile

PLOT DATE : 8/17/2021 2:54 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

UTILITY LEGEND

1. AT&T WISCONSIN
8. MADISON GAS & ELECTRIC (ELECTRIC)
9. MADISON GAS & ELECTRIC (GAS)
10. MADISON METROPOLITAN SEWERAGE DISTRICT
11. CITY OF MADISON (WATER)

N

UNIVERSITY STATION

MARSHALL CT

52+00MC

51+00MC

R/W

END CONSTRUCTION
STA 50+60.70MC
MATCH EXISTING
SAW CUT REQ'D

WISCONSIN & SOUTHERN RAILROAD

EXISTING R/W

EXISTING RETAINING WALL TO REMAIN

TLE

XXXX XXXX XXXX

UNIVERSITY AVENUE

146+00WB
146+00EB
147+00WB
147+00EB
148+00WB
148+00EB
149+00WB
149+00EB
150+00WB
150+00EB
151+00WB
151+00EB
152+00WB
152+00EB
153+00

MATCHLINE STA 145+50EB

STA 147+63EB
REMOVE OVERHEAD SIGN
SUPPORT CANTILEVER

STA 147+30EB
RECONSTRUCT C.E.

STA 148+28EB
RECONSTRUCT C.E.

STA 149+36EB
RECONSTRUCT C.E.

STA 152+64EB
RECONSTRUCT C.E.

MATCHLINE STA 153+00EB

XXXX

BAGELS FOREVER
701 SCHMITT PLACE

SMOKY'S CLUB
2943 UNIVERSITY AVE

2919 UNIVERSITY AVE

P.L.

CAUTION

SLOPE INTERCEPT (TYP.)

KLINKE CLEANERS
2875 UNIVERSITY AVE

42+00RS

41+00RS

RIDGE ST

UNIVERSITY QUARRY
710 RIDGE STREET

BEGIN CONSTRUCTION
STA 41+70.00RS
MATCH EXISTING
SAW CUT REQ'D

EXISTING R/W

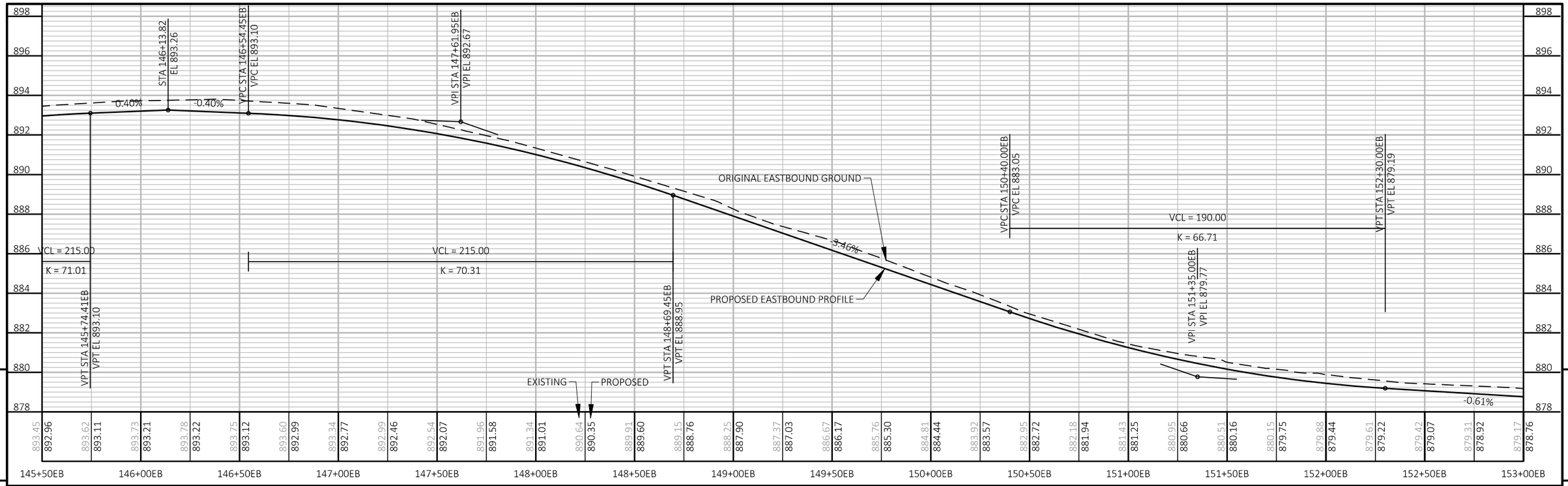
P.L.

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 381	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (2)

PLOT DATE : 12/17/2021 9:43 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 382	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (2) Profile

PLOT DATE : 8/17/2021 2:54 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

N

UNIVERSITY STATION

MARSHAL COURT INVESTORS
2801 MARSHAL COURT

2727 MARSHALL COURT

2725 MARSHALL COURT

2715 MARSHALL COURT

P.L.

EXISTING R/W

CLEARING AND GRUBBING
REQ'D. (TYP.)

PROPOSED MMSD
SEE DETAILS

WISCONSIN & SOUTHERN RAILROAD

SLOPE INTERCEPT (TYP.)

MATCHLINE STA 153+00EB

MATCHLINE STA 160+50EB

154+00WB
155+00WB
156+00WB
157+00WB
158+00WB
159+00WB
160+00WB

154+00EB
155+00EB
156+00EB
157+00EB
158+00EB
159+00EB
160+00EB

UNIVERSITY AVENUE

EXIST R/W

TLE

STA 153+86EB
RECONSTRUCT C.E.

STA 154+40EB
RECONSTRUCT C.E.

STA 155+32EB
RECONSTRUCT C.E.

STA 156+77EB
RECONSTRUCT C.E.

STA 157+92EB
RECONSTRUCT C.E.

STA 158+55EB
RECONSTRUCT C.E.

STA 33+00NF
STA 32+96NF
RECONSTRUCT C.E.

STA 32+64NF
RECONSTRUCT C.E.

STA 32+43NF
RECONSTRUCT C.E.

32+00NF

N. FRANKLIN AVE.

CAUTION

KLINKE CLEANERS
2875 UNIVERSITY AVE

RED DOG HOLDINGS
2865 UNIVERSITY AVE

IHOP
2825 UNIVERSITY AVE

FINDLAY PARTNERSHIP
2805 UNIVERSITY AVE

SPIRIT MART
2801 UNIVERSITY AVE

CITY OF MADISON WATER
2757 UNIVERSITY AVE

BEGIN CONSTRUCTION
STA 30+93.97NF
MATCH EXISTING
SAW CUT REQ'D

UTILITY LEGEND

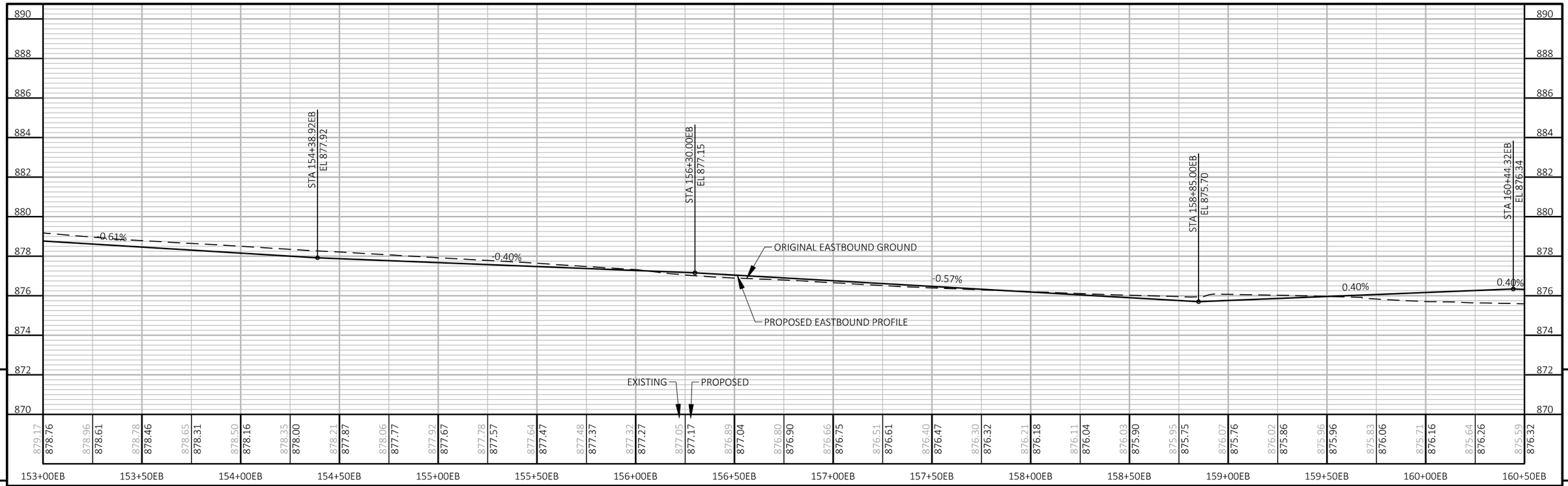
1. AT&T WISCONSIN
3. CHARTER COMMUNICATIONS
8. MADISON GAS & ELECTRIC (ELECTRIC)
9. MADISON GAS & ELECTRIC (GAS)
10. MADISON METROPOLITAN SEWERAGE DISTRICT
11. CITY OF MADISON (WATER)

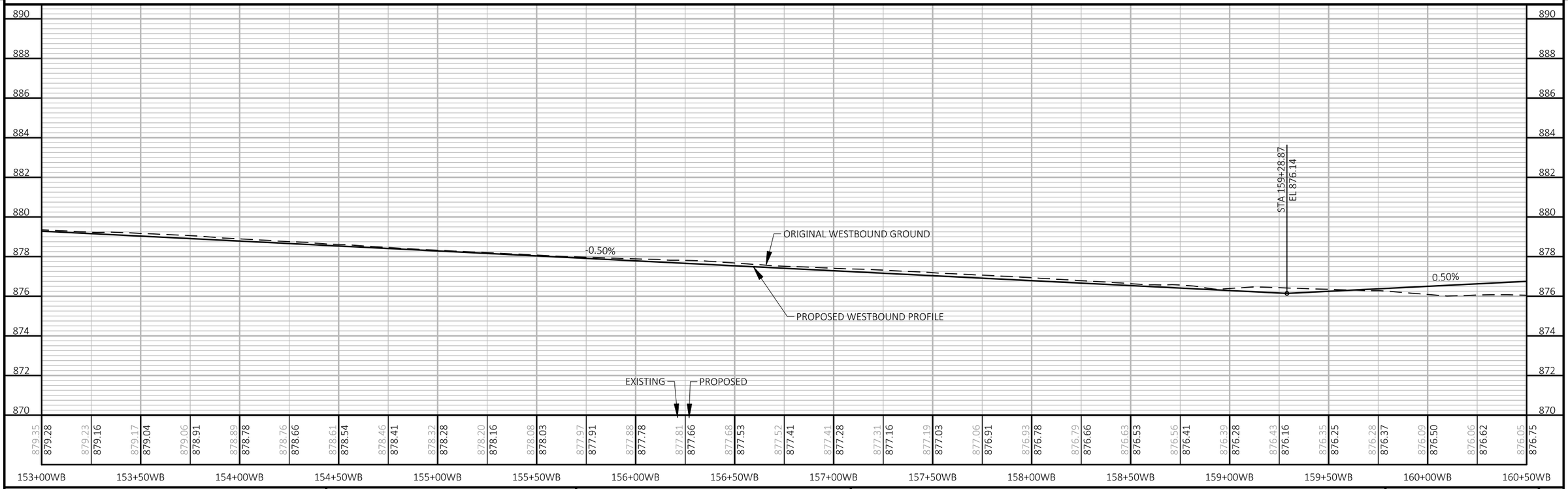
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 383	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (3)

PLOT DATE : 12/17/2021 9:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 384	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (3) Profile

PLOT DATE : 8/17/2021 2:55 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2715 MARSHALL COURT

700 UNIVERSITY BAY DRIVE

B-13-891
(SEE STRUCTURE PLANS)

UNIVERSITY BAY DR.

WISCONSIN & SOUTHERN RAILROAD

R-13-361
(SEE STRUCTURE PLANS)

R-13-361
(SEE STRUCTURE PLANS)

P.L.

R/W

TLE

SLOPE INTERCEPT (TYP.)

PROPOSED MMSD
SEE DETAILS

EXISTING R/W

EXISTING R/W

MATCHLINE STA 160+50EB

MATCHLINE STA 167+50EB

161+00WB

162+00WB

163+00WB

164+00WB

165+00WB

166+00WB

167+00WB

161+00EB

162+00EB

163+00EB

164+00EB

165+00EB

166+00EB

167+00EB

STA 161+04EB
RECONSTRUCT C.E.

STA 162+29EB
RECONSTRUCT C.E.

STA 162+78EB
RECONSTRUCT C.E.

STA 163+82EB
RECONSTRUCT C.E.

UNIVERSITY AVENUE

BP: 349+69.90 51 (7)

PC: 350+02.80 5U

22+00BD

21+00BD

15+00FA

14+00FA

13+00FA

STA 13+56FA
RECONSTRUCT C.E.

STA 13+03FA
RECONSTRUCT C.E.

CAUTION

EXISTING R/W

TLE

2741 UNIVERSITY AVE

CAR CARE CLINIC
2733 UNIVERSITY AVE

20TH CENTURY MARKETS
2701 UNIVERSITY AVE

2639 UNIVERSITY AVE

FARLEY AVE.

CLEARING AND
GRUBBING REQ'D.
(TYP.)

P.L.

UTILITY LEGEND

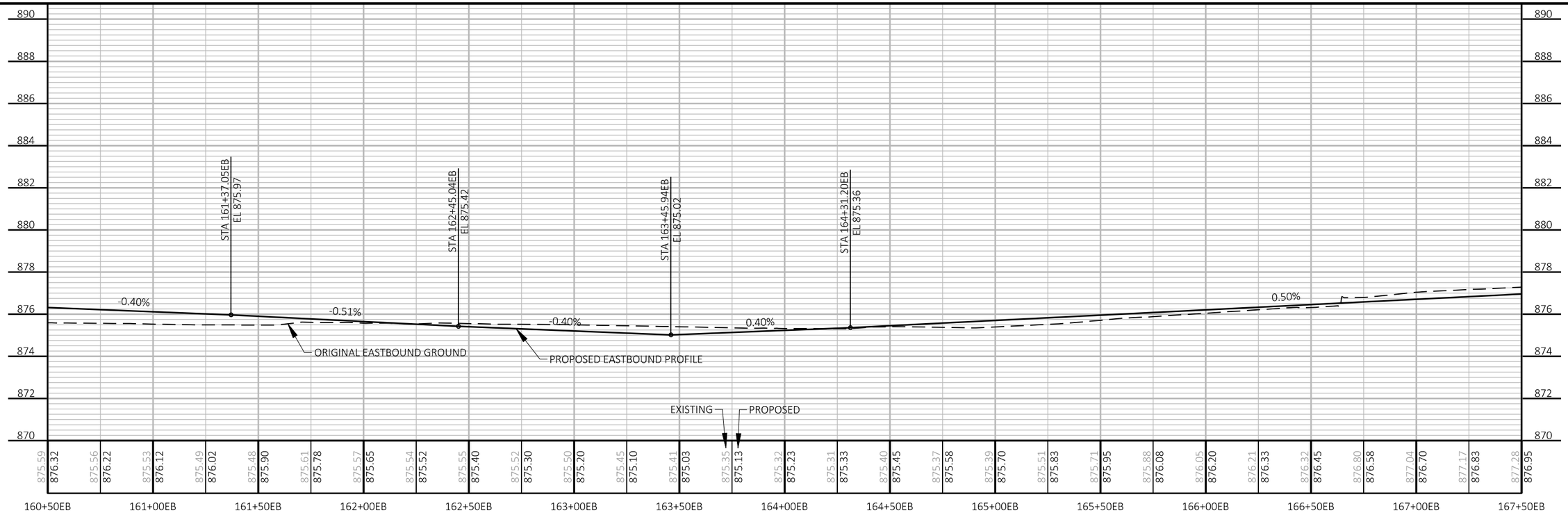
1. AT&T WISCONSIN
3. CHARTER COMMUNICATIONS
8. MADISON GAS & ELECTRIC (ELECTRIC)
9. MADISON GAS & ELECTRIC (GAS)
10. MADISON METROPOLITAN SEWERAGE DISTRICT
11. CITY OF MADISON (WATER)

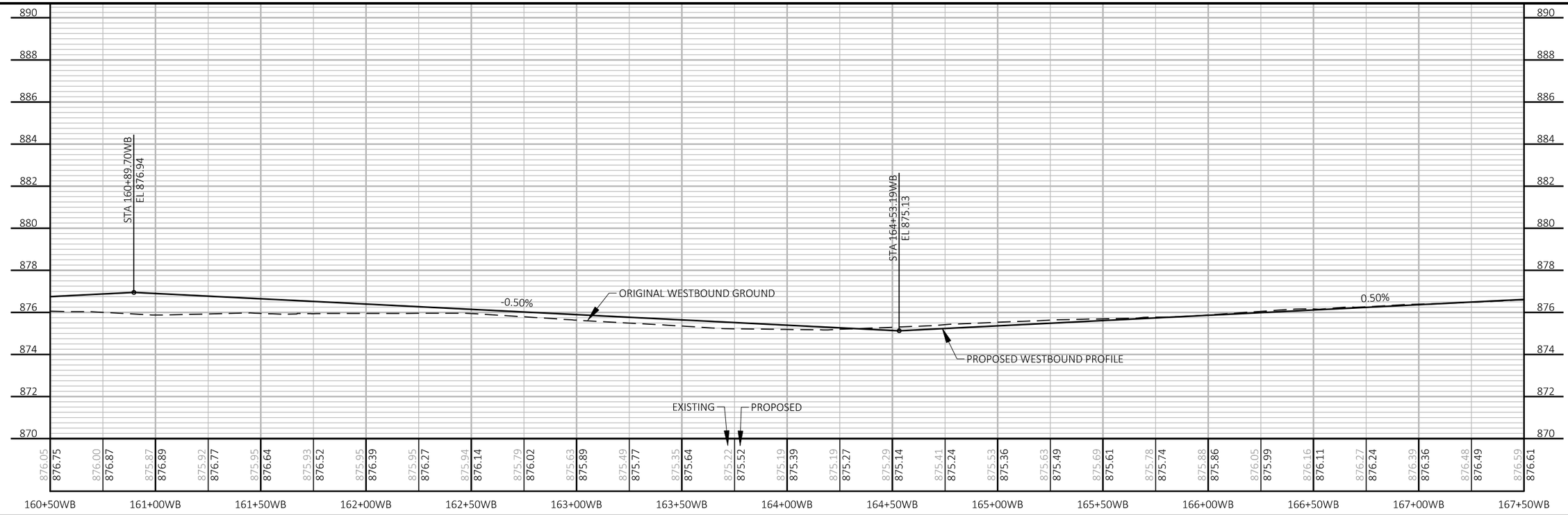
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 385	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (4)

PLOT DATE : 12/17/2021 9:59 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

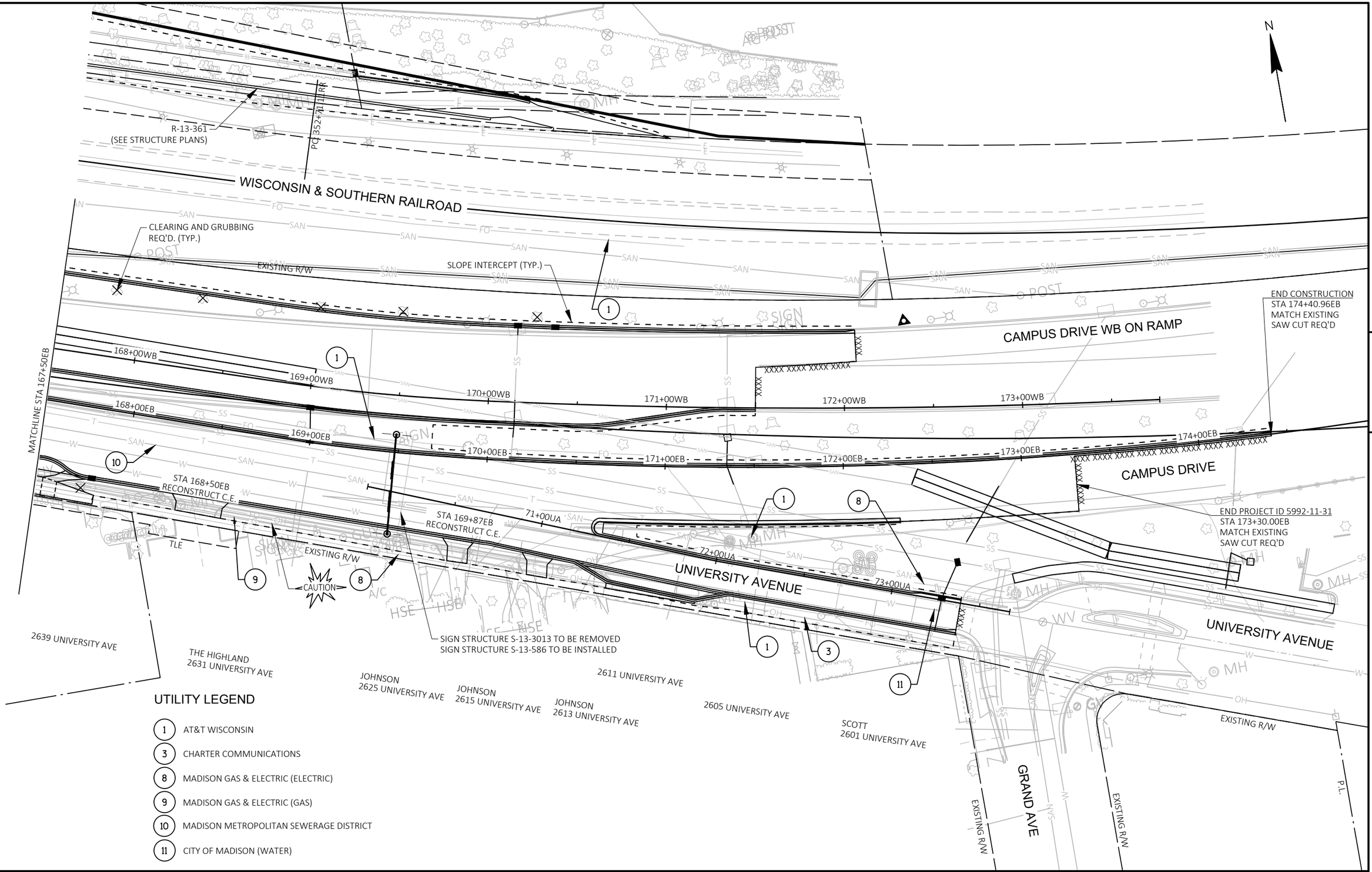
WISDOT/CADDS SHEET 42





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 386	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (4) Profile
PLOT DATE : 8/17/2021 2:55 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

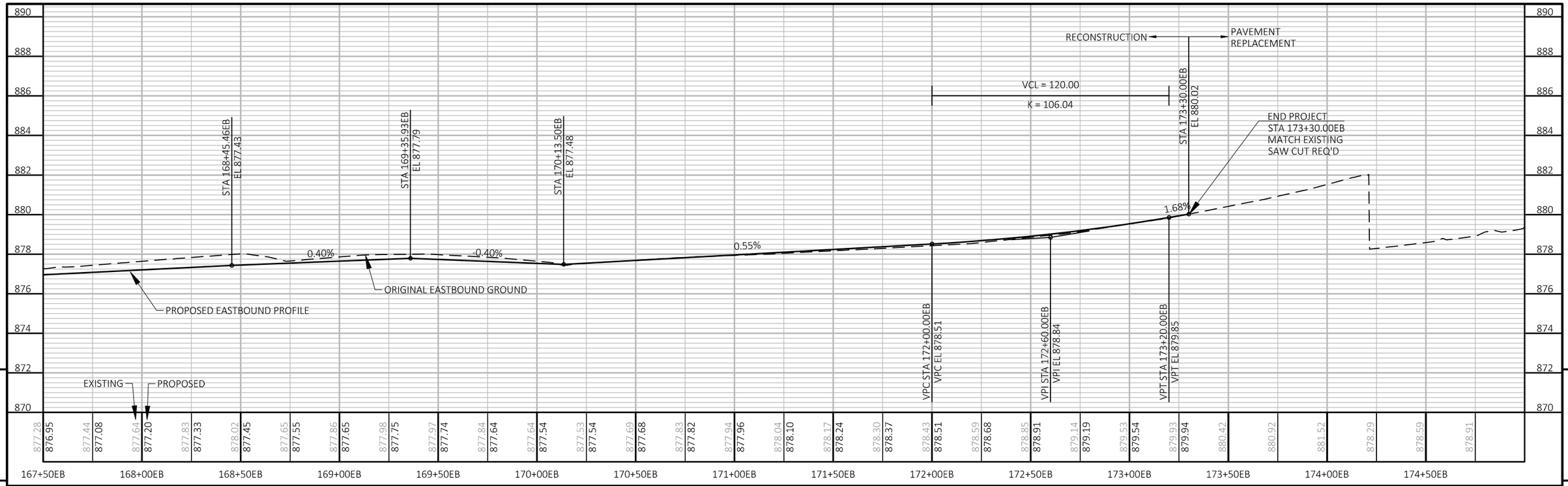


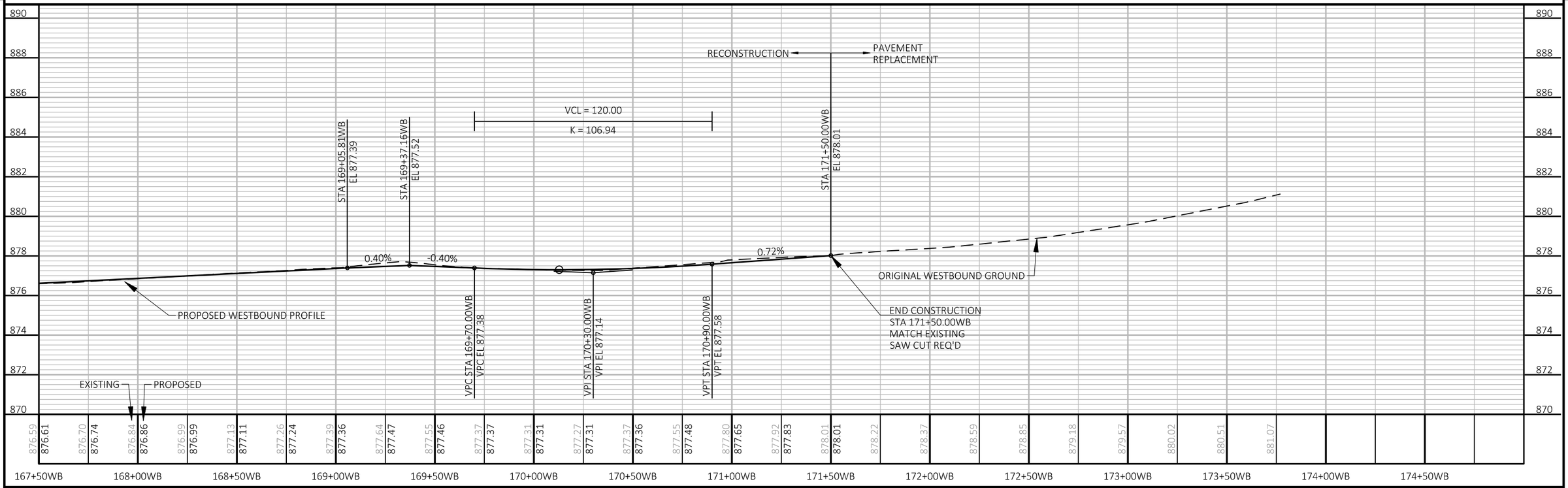
5

5

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 387	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (5)
PLOT DATE : 12/17/2021 10:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

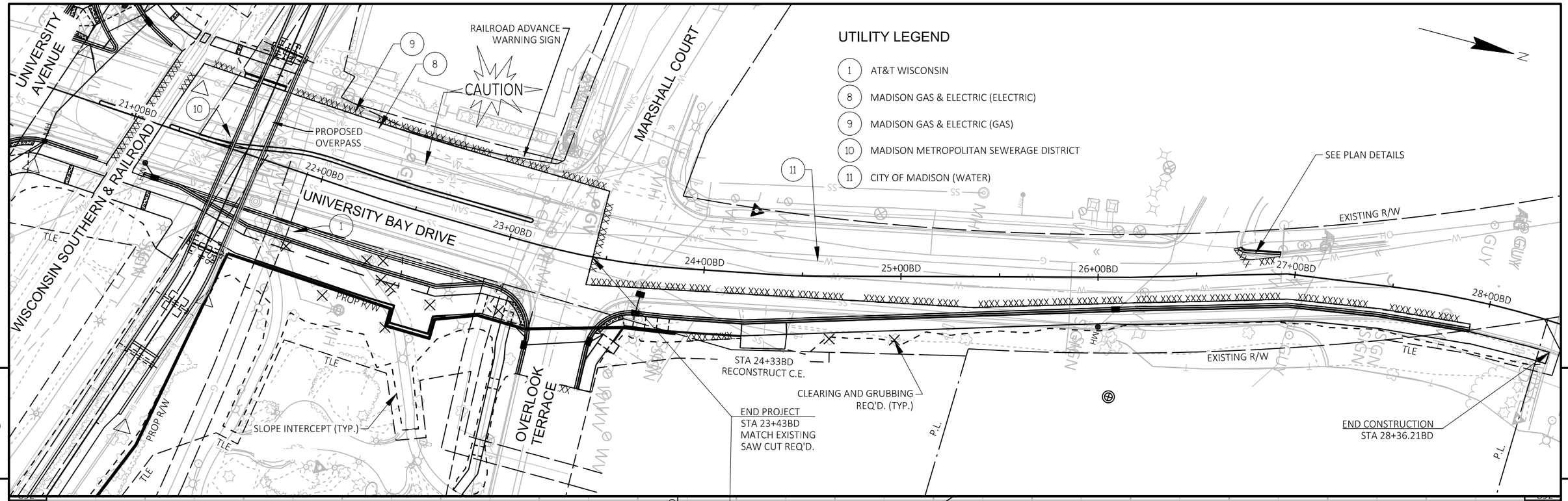




PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 388	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050101-PP-UNIVERSITY AVE EB.DWG
LAYOUT NAME - PP - (5) Profile

PLOT DATE : 8/17/2021 2:56 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: UNIVERSITY BAY DRIVE	SHEET 389 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050102-PP-UNIVERSITY BAY.DWG PLOT DATE : 8/17/2021 4:01 PM PLOT BY : KL ENGINEERING PLOT NAME :
WISDOT/CADDS SHEET 44

N

UTILITY LEGEND

1. AT&T WISCONSIN
8. MADISON GAS & ELECTRIC (ELECTRIC)
9. MADISON GAS & ELECTRIC (GAS)
10. MADISON METROPOLITAN SEWERAGE DISTRICT
11. CITY OF MADISON (WATER)

506 FARLEY AVE

20TH CENTURY MARKETS
2701 UNIVERSITY AVE

ANDERSON
2640 STEVENS ST

SUGOWATY
513 FARLEY AVE

2639 UNIVERSITY AVE

FARLEY AVENUE

UNIVERSITY AVENUE

UNIVERSITY BAY DRIVE

UNIVERSITY AVENUE/
CAMPUS DRIVE

STA 13+03FA
RECONSTRUCT C.E.

STA 13+56FA
RECONSTRUCT C.E.

SLOPE INTERCEPT (TYP.)

CLEARING AND GRUBBING
REQ'D. (TYP.)

CAUTION

BEGIN CONSTRUCTION
STA 12+85.00
MATCH EXISTING
SAW CUT REQ'D

EXISTING R/W

TLE

P.L.

11+00FA
12+00FA
13+00FA
14+00FA
15+00FA
16+00FA
16+00WB
16+00EB
16+50EB
16+50WB
16+75EB
16+75WB
16+75EB
16+75WB
21+00E

5

5

892
890
888
886
884
882
880
878
876
874

STA 12+85.00FA
EL 882.01

VPI STA 13+25.00
VPI EL 880.89

VPT STA 13+62.50
VPT EL 879.66

VCL = 75.00
K = 58.48

VPC STA 13+96.98
VPC EL 878.53

VPI STA 14+34.48
VPI EL 877.30

VPT STA 14+71.98
VPT EL 876.55

STA 14+97.17FA
EL 876.04

-3.81%

-3.28%

-2.00%

ORIGINAL GROUND

PROPOSED PROFILE

VPC STA 12+87.50
VPC EL 881.94

VCL = 75.00
K = 157.49

EXISTING
PROPOSED

UNIVERSITY AVE. PROPOSED SURFACE

889.61 888.66 887.75 886.90 885.97 885.29 884.93 884.89 884.26 883.59 882.93 882.26 881.64 881.59 880.92 880.85 880.25 880.06 879.51 879.25 878.79 878.43 878.05 877.67 877.18 877.03 876.39 876.49 876.09 876.17

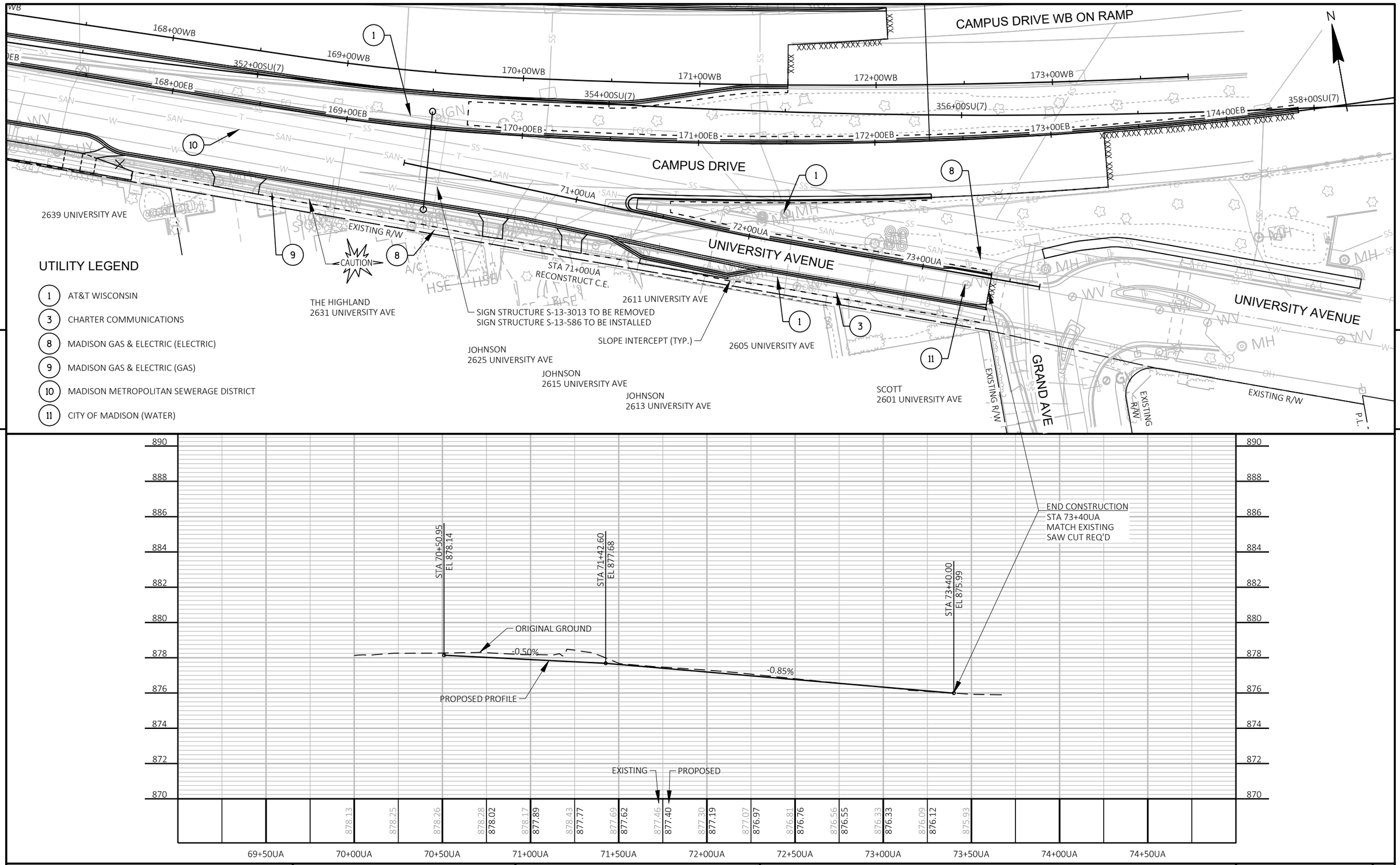
9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: FARLEY AVENUE	SHEET 390	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050103-PP-FARLEY.DWG
LAYOUT NAME - FA PP - 1

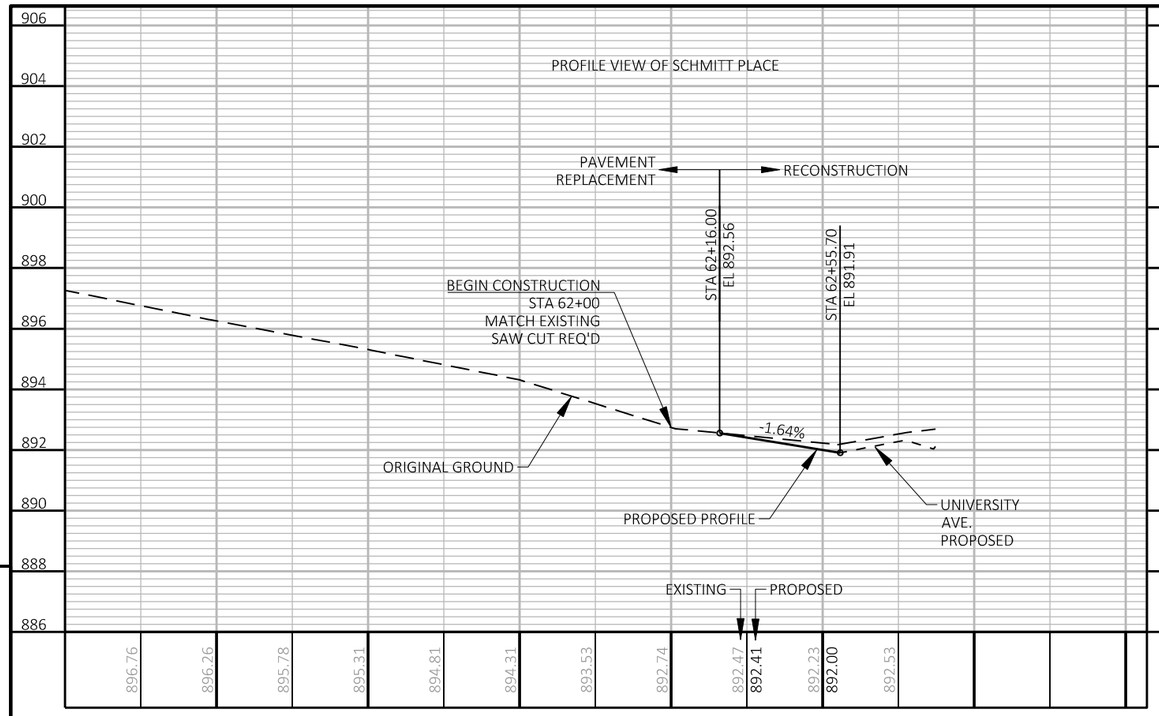
PLOT DATE : 8/17/2021 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

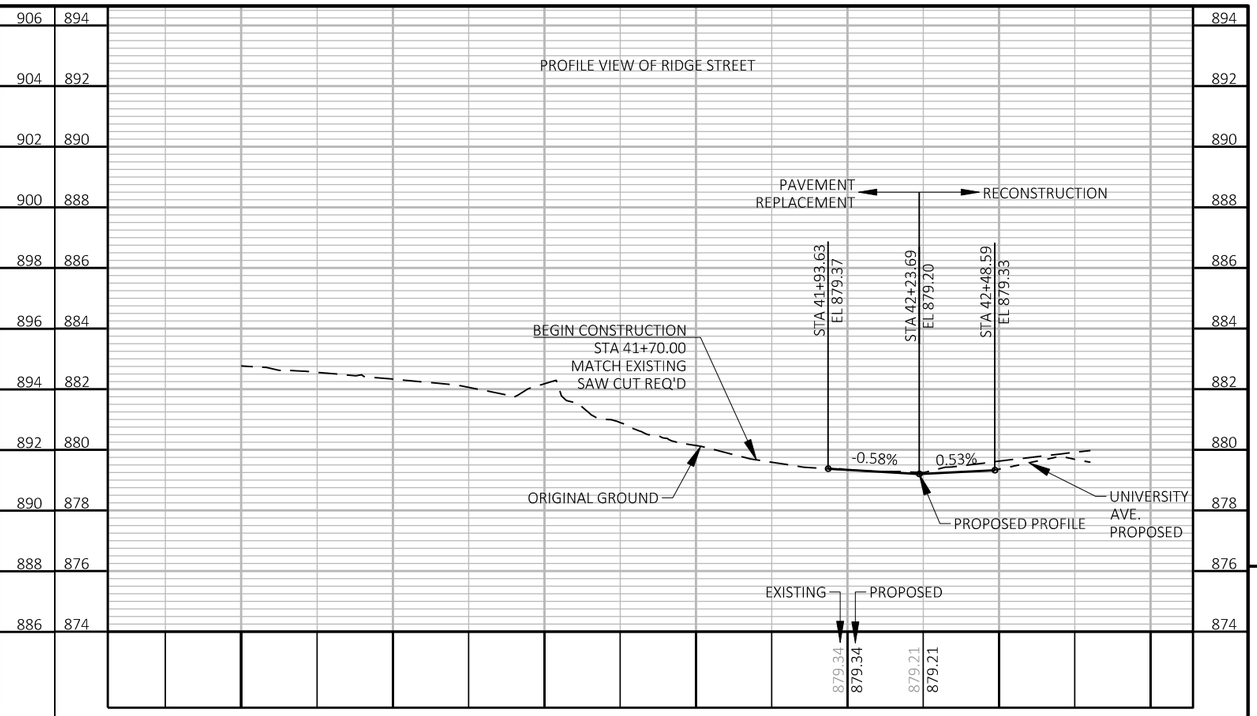
WISDOT/CADDS SHEET 44

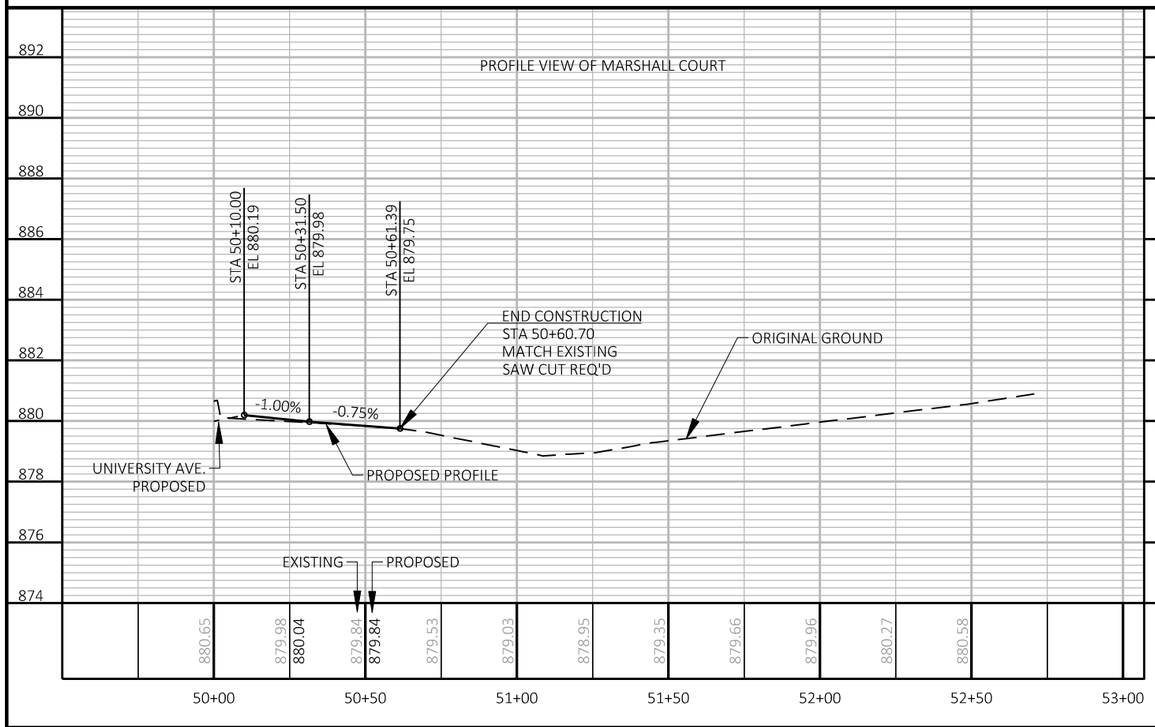


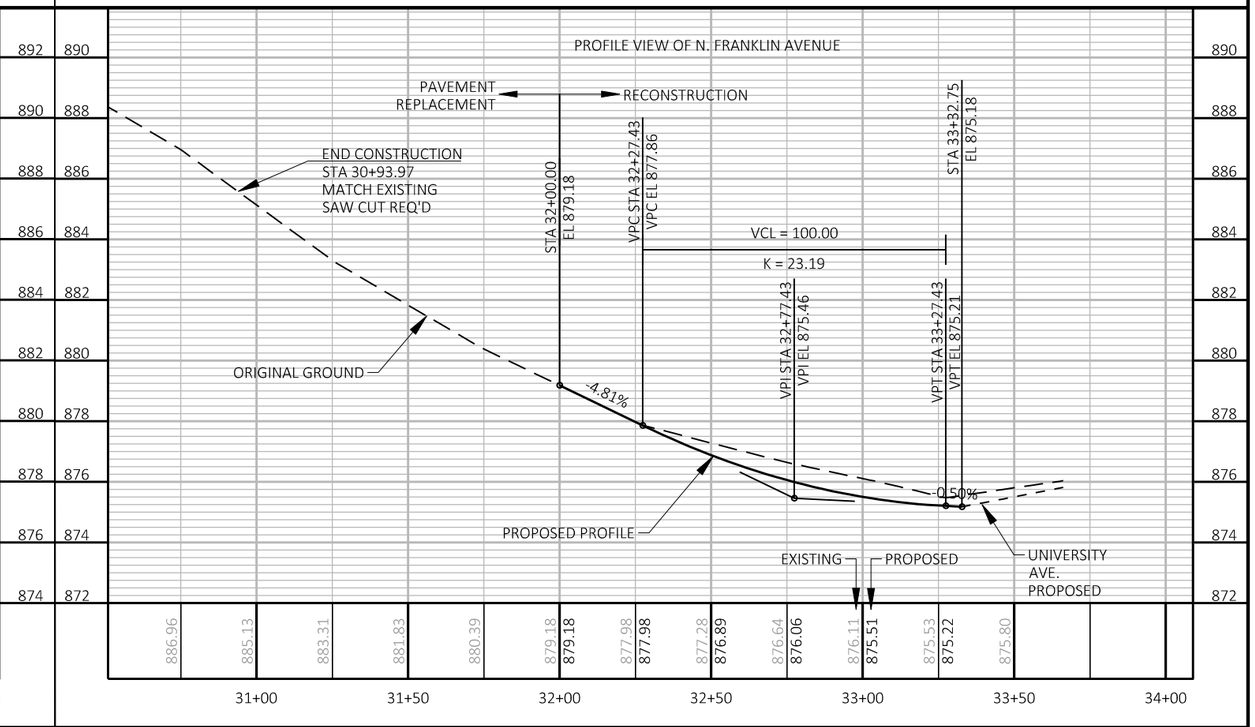
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE - UNIVERSITY AVENUE	SHEET 391	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050105-PP-OLD UNIVERSITY AVE.DWG
LAYOUT NAME - 1
PLOT DATE : 12/17/2021 10:31 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

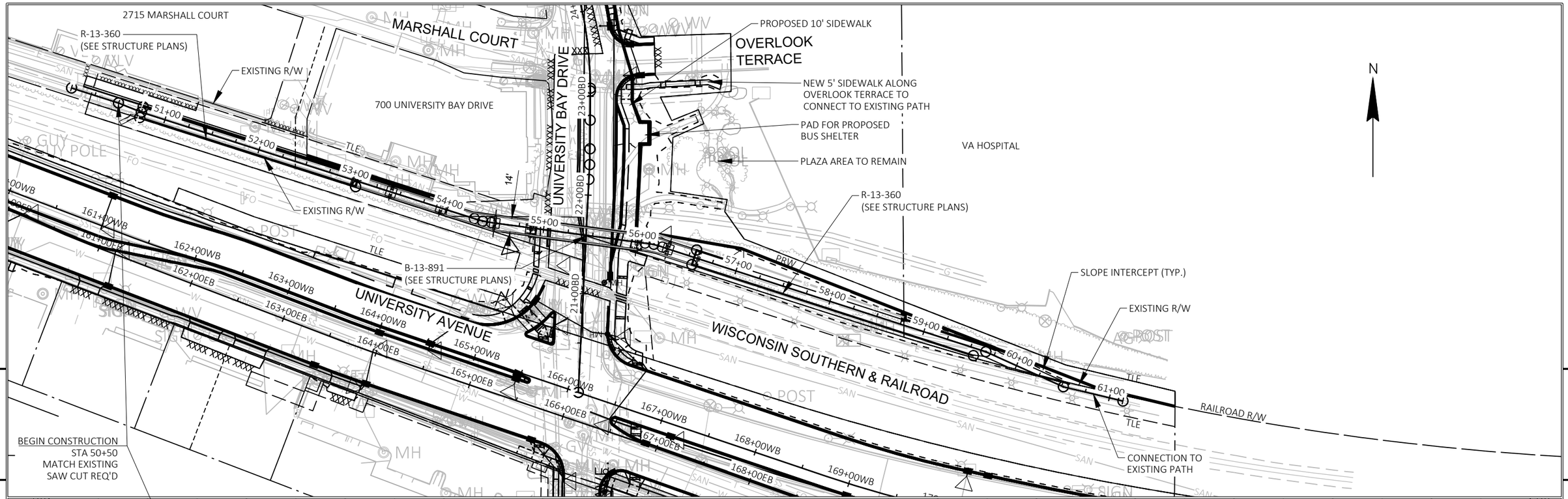






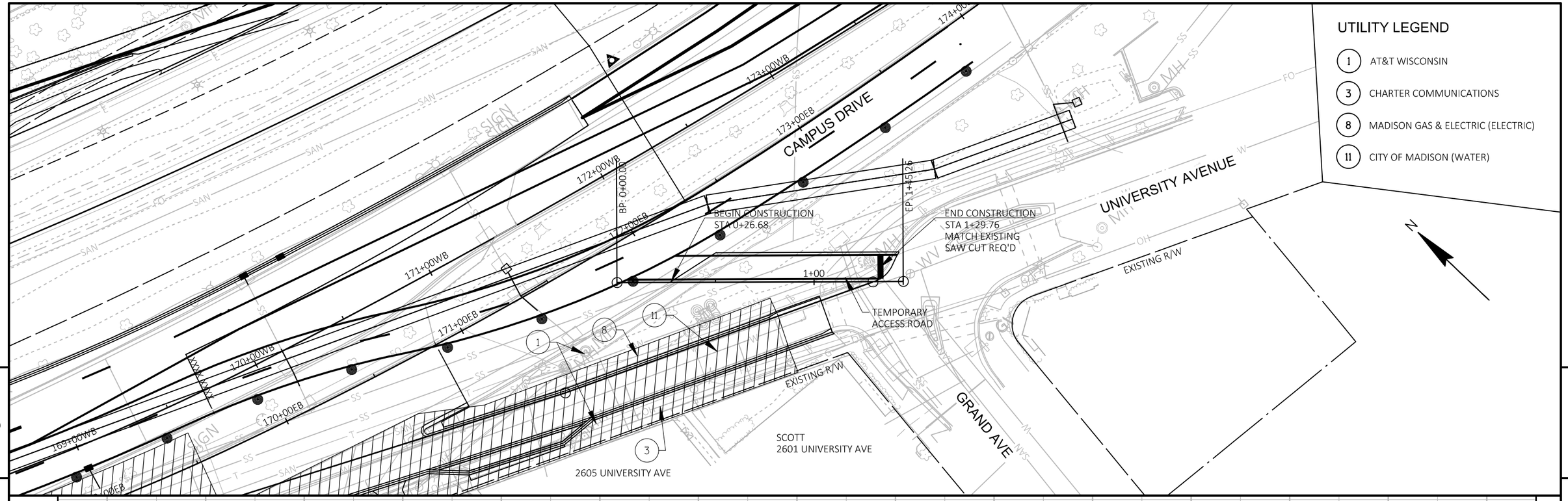


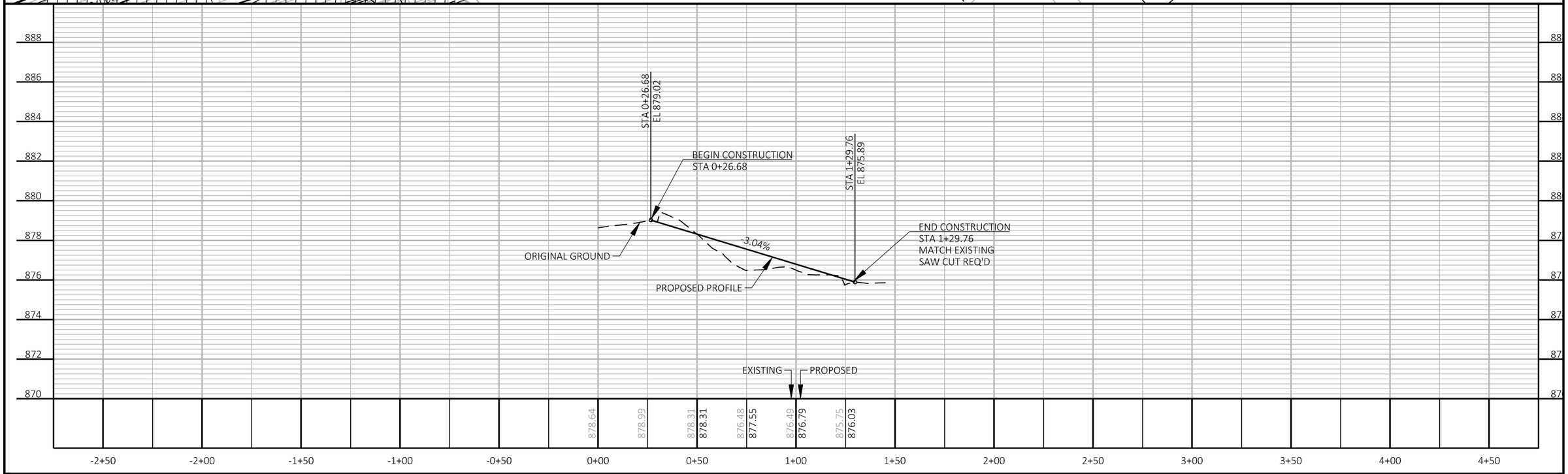
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PROFILE: SIDEROADS	SHEET 392 E



PROJECT NO:	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: PEDESTRIAN OVERPASS	SHEET 393 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050105-PP-UNIVERSITY BAY OVERPASS ALTERNATIVE 4A.DWG PLOT DATE : 1/4/2022 10:14 AM PLOT BY : KL ENGINEERING PLOT NAME :





PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN AND PROFILE: TEMP ACCESS	SHEET 394	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\08 PLAN AND PROFILES\050106-PP-TEMP ACCESS.DWG
LAYOUT NAME - Temp Access PP - 1
PLOT DATE : 8/17/2021 2:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

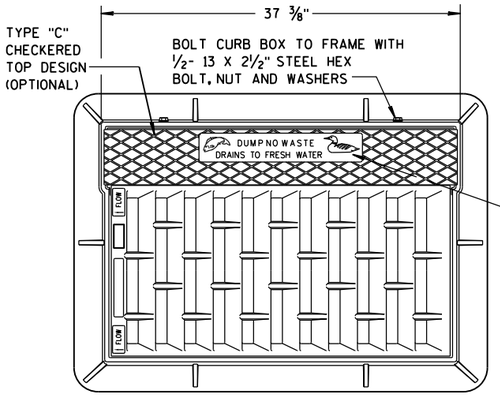
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-11	PULL BOX
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-09J	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C19-03	HMA LONGITUDINAL JOINTS
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS

6

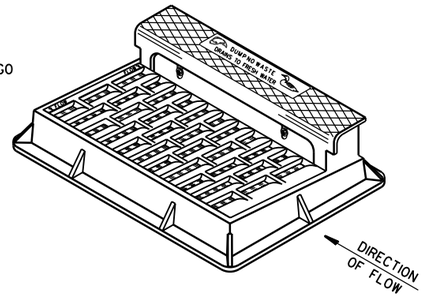
Standard Detail Drawing List

15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C09-12A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-05C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C29-07A	BICYCLE LANE MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-04	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D23-07A	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D23-07B	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-02A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-02C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

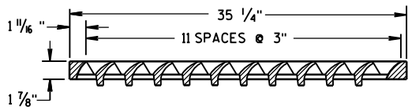
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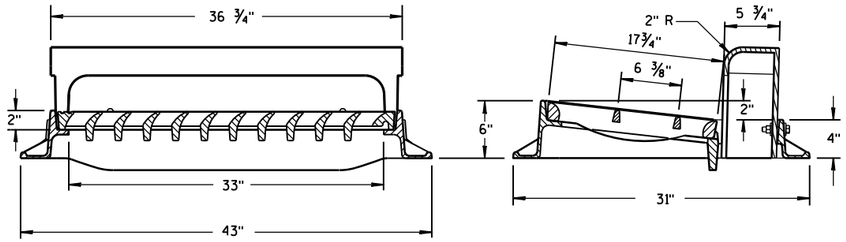


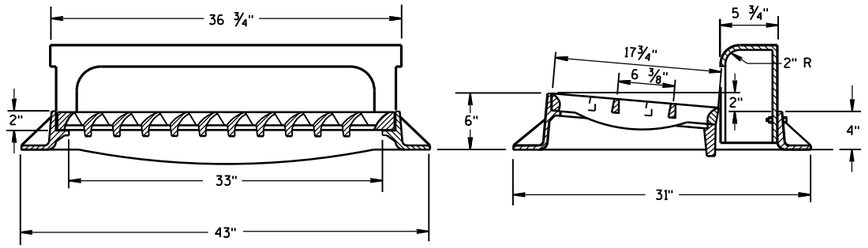
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

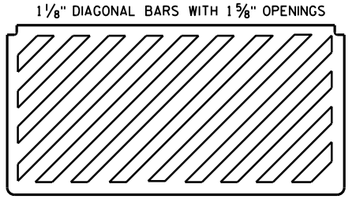






TYPE "H"

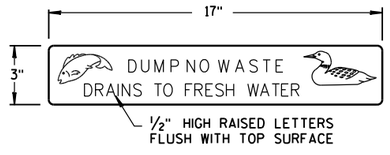
NOTE: EITHER CASTING IS ACCEPTABLE



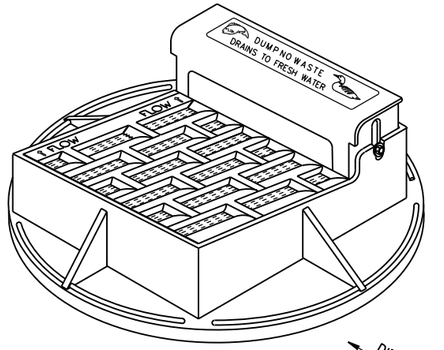
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

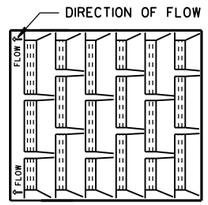
NOTE:
GRATE IS REVERSIBLE.

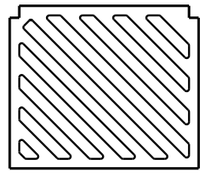
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

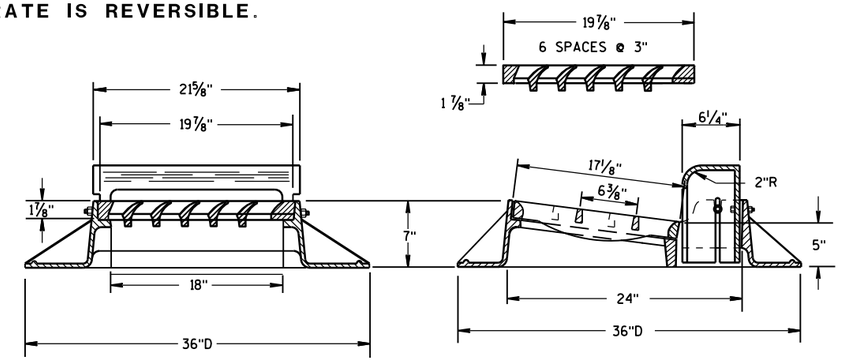




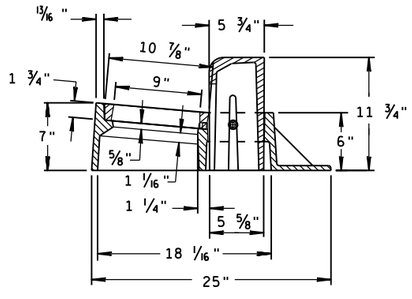
SPECIAL GRATE FOR TYPE "A" COVER

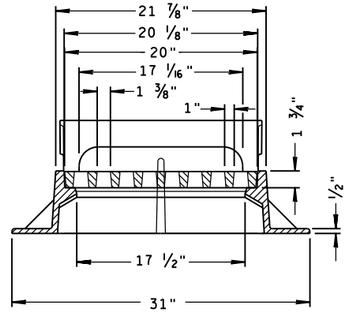
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

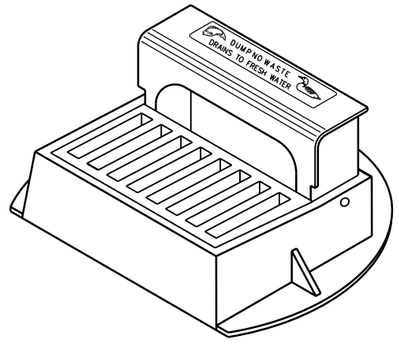


TYPE "A"





TYPE "Z"



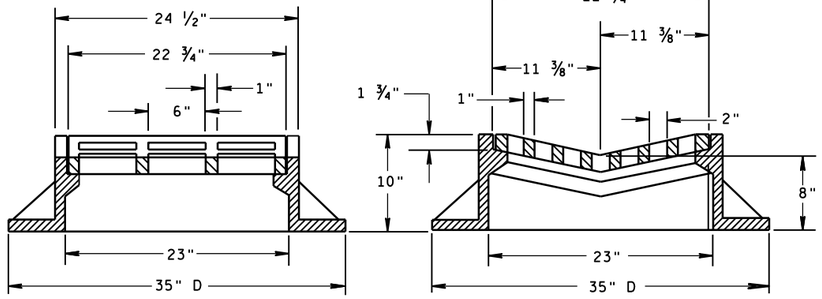
INLET COVERS
TYPE A, H, A-S, H-S & Z

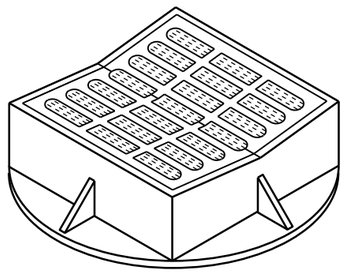
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

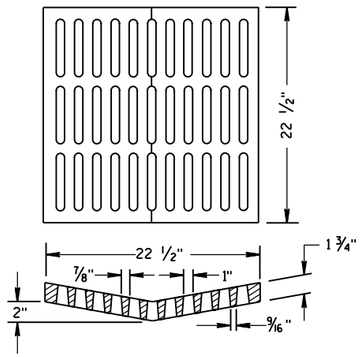
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S.D.D. 8 A 5-19a



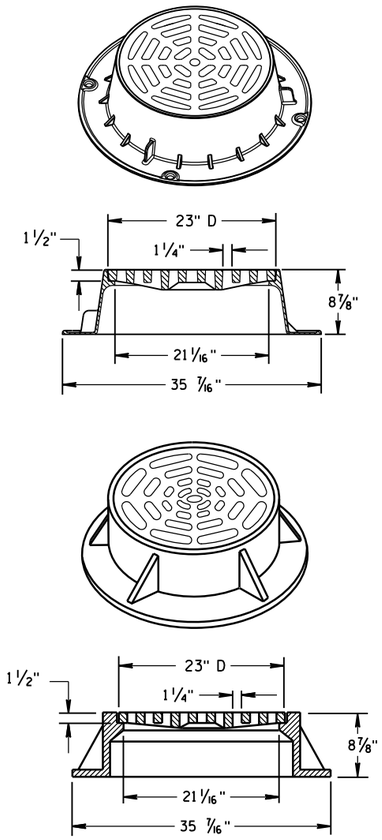


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

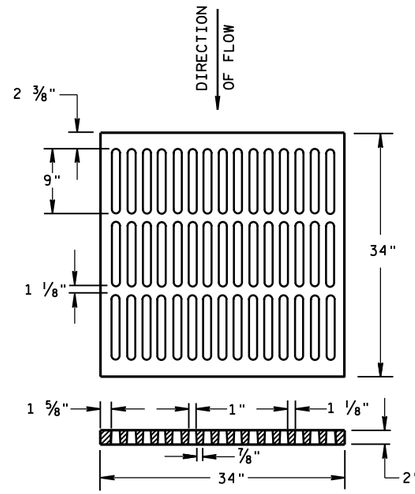
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

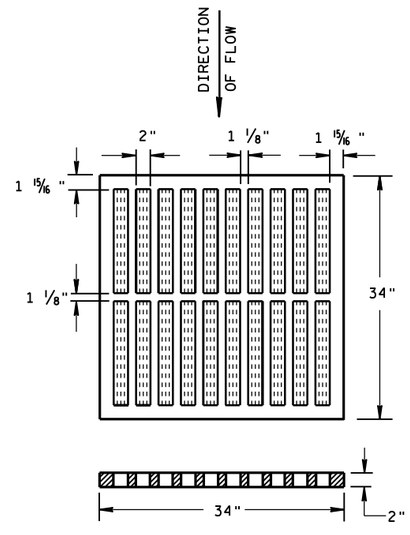
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



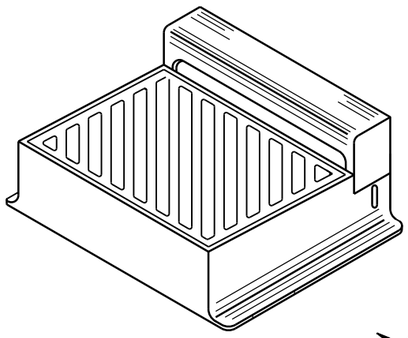
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



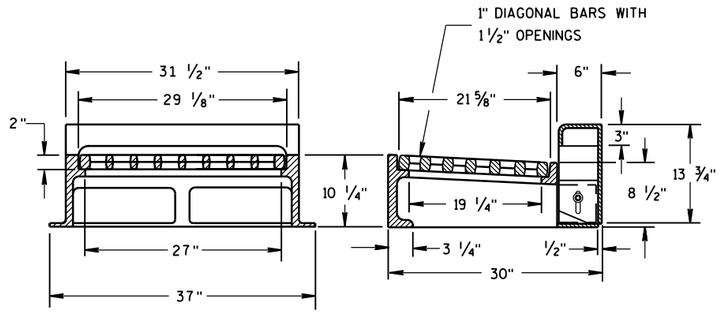
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

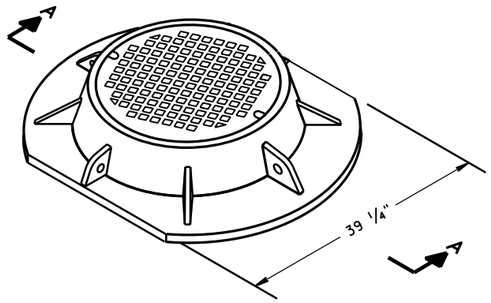
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

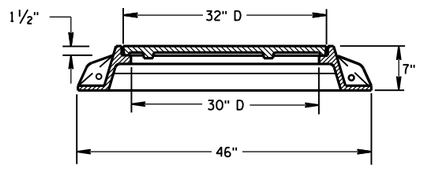
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

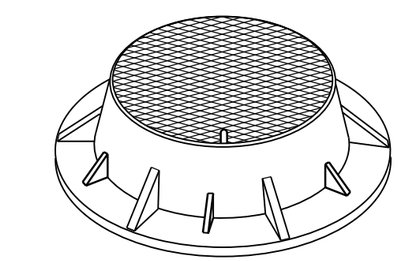
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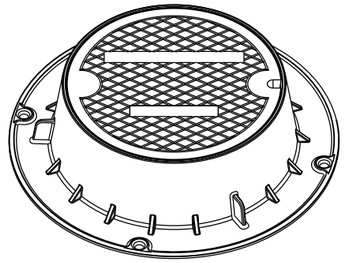
S.D.D. 8 A 5-19b

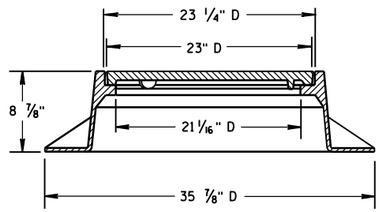


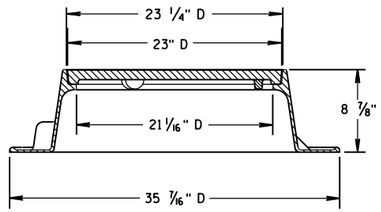


SECTION A-A
TYPE "K"









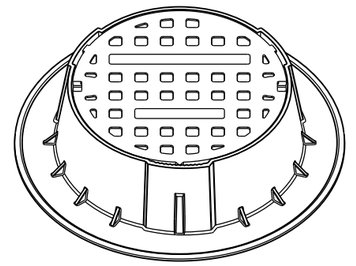
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

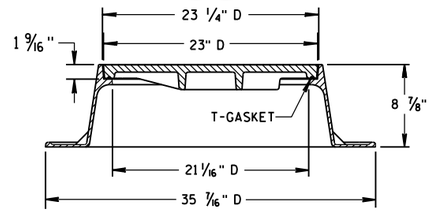
GENERAL NOTES

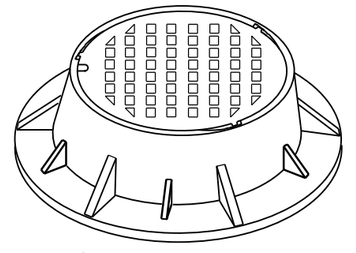
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

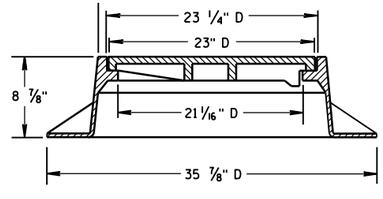
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

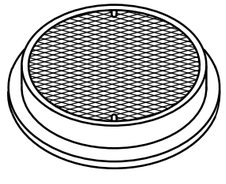


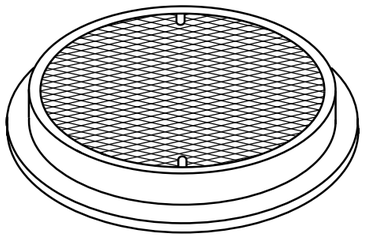


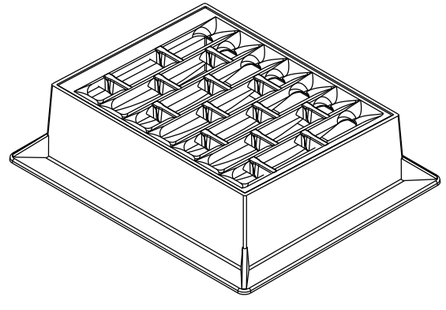


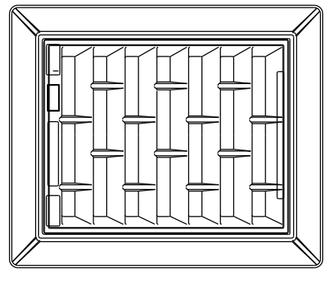


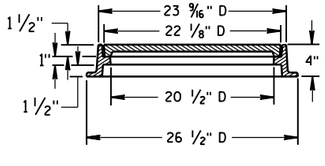
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



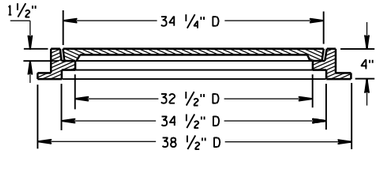




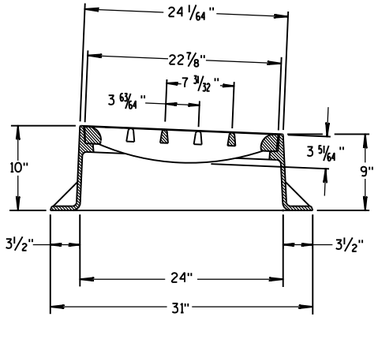


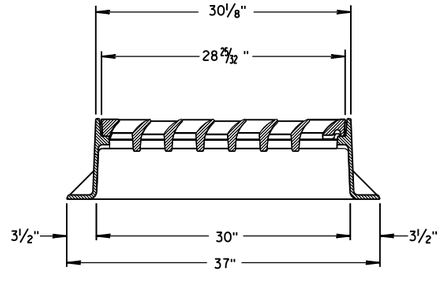


TYPE "L"



TYPE "M"





INLET COVER TYPE "BW"

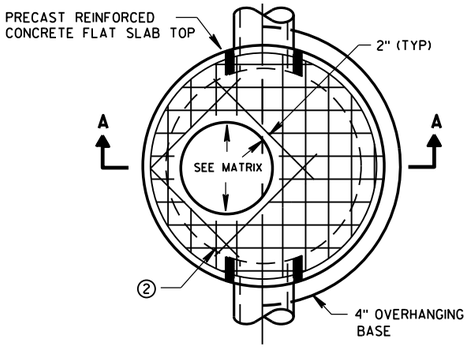
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

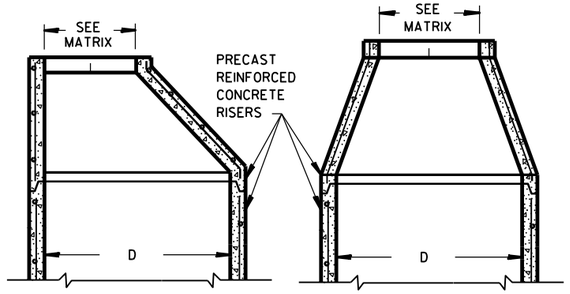
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 A 5-19d

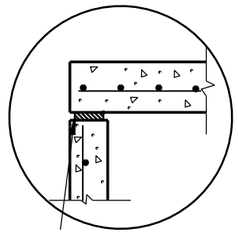


PLAN VIEW CIRCULAR OPENING

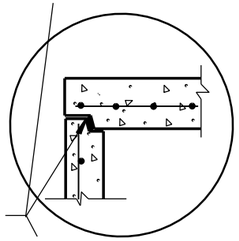


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

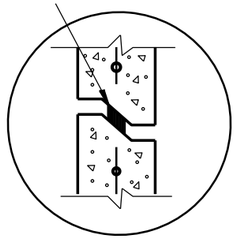


TOP WITH PLAIN END JOINT



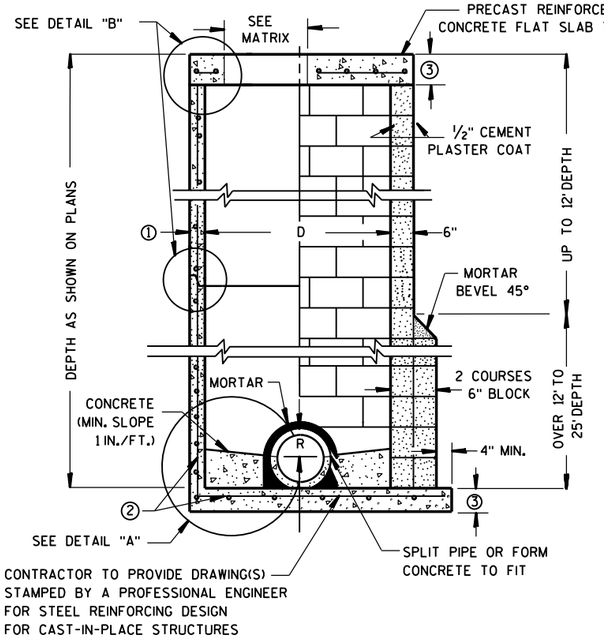
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



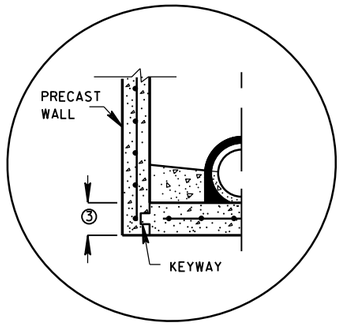
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

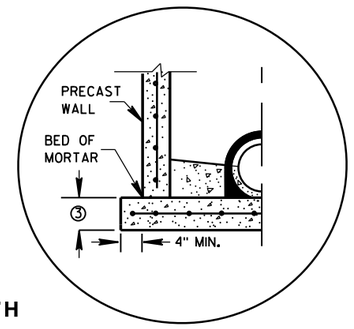


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

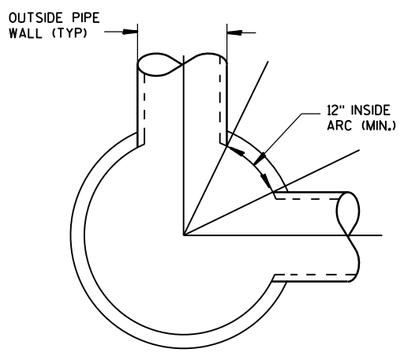


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

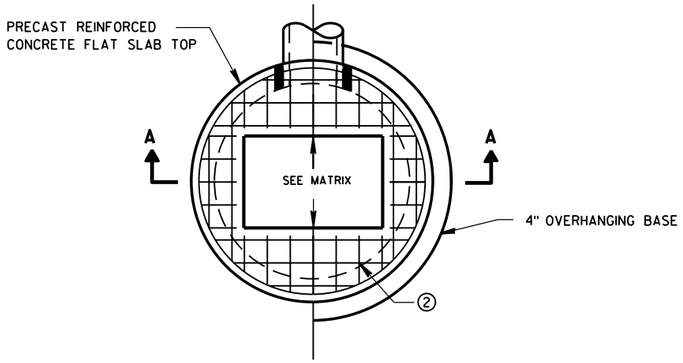
APPROVED

Sept., 2016
DATE

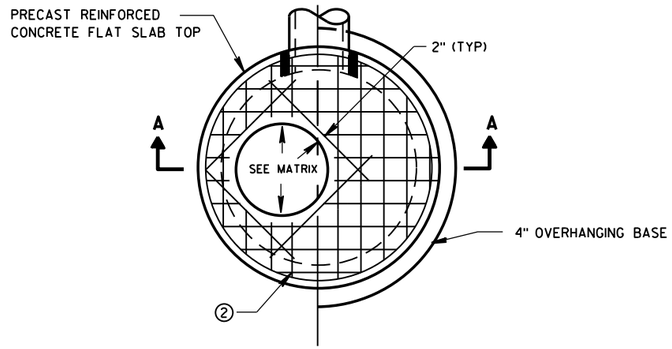
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV 400

FHWA

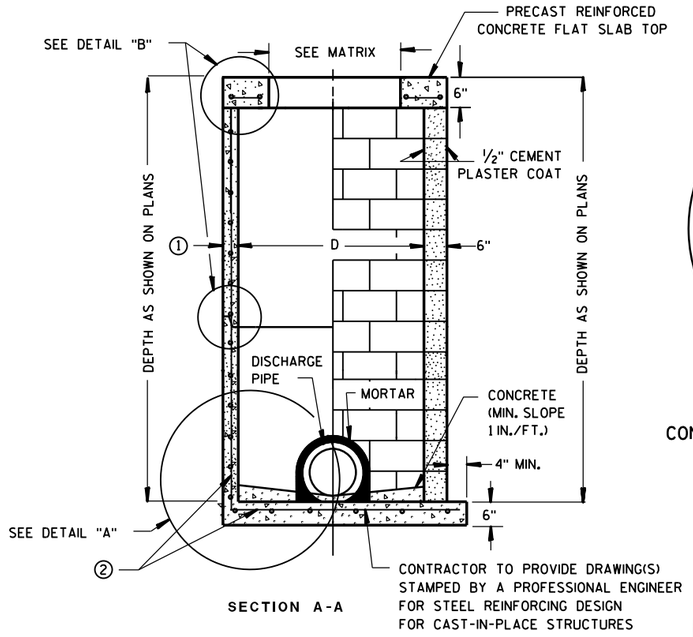
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

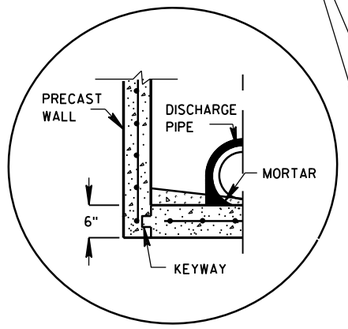


SECTION A-A

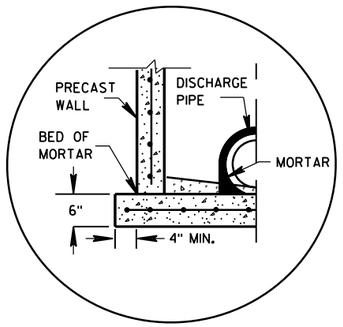
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

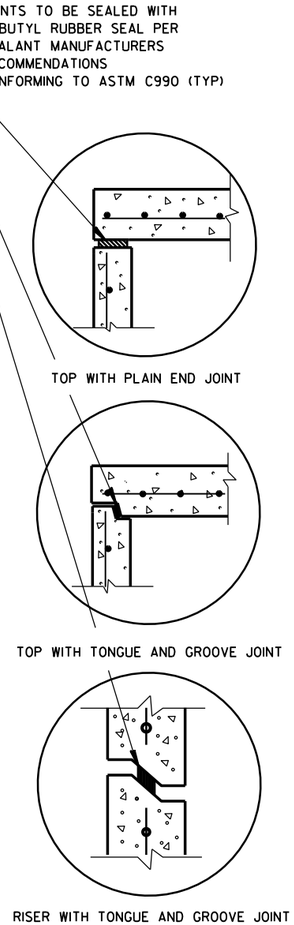


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

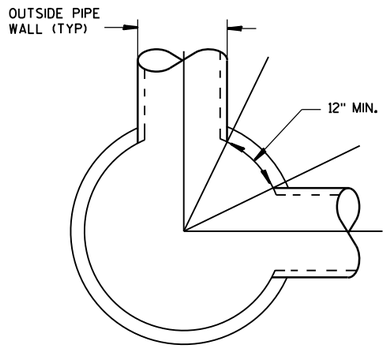
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

INLETS 3-FT
AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

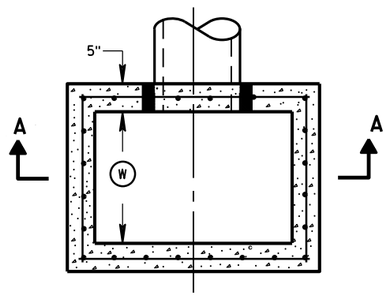
APPROVED
Sept.. 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS | ENT
UNIT SUPERVI
FHWA

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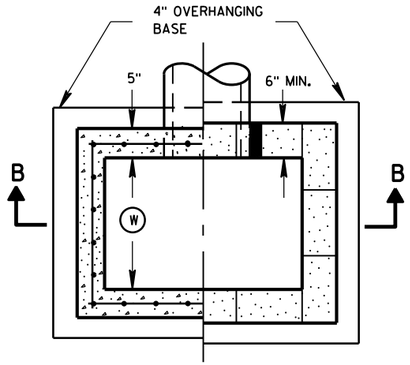
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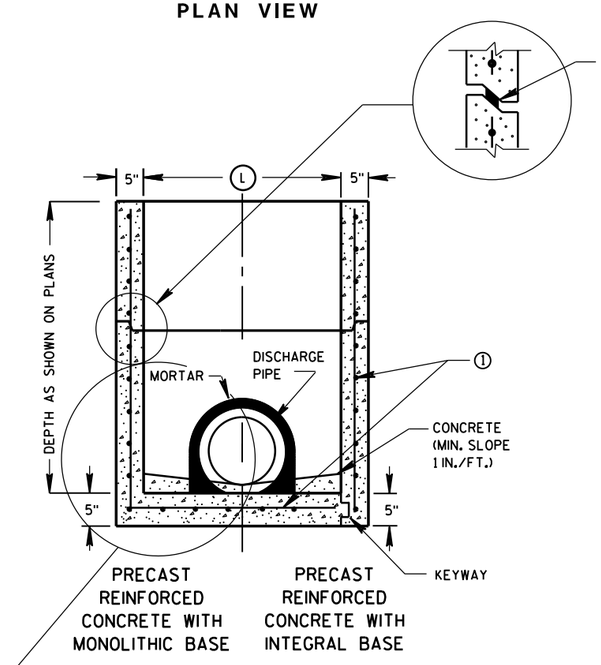
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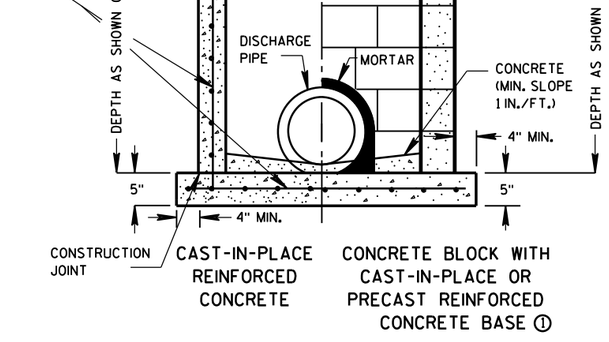
PLAN VIEW



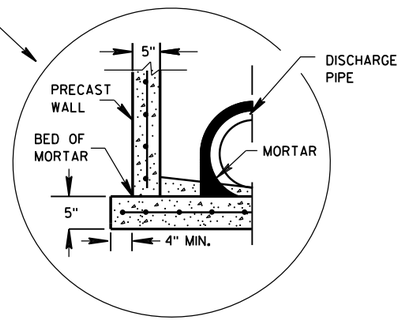
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

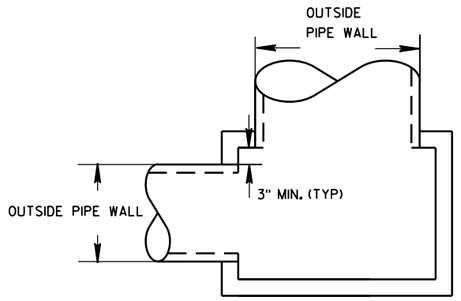
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



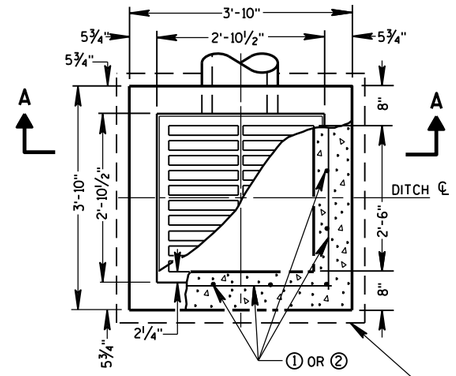
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

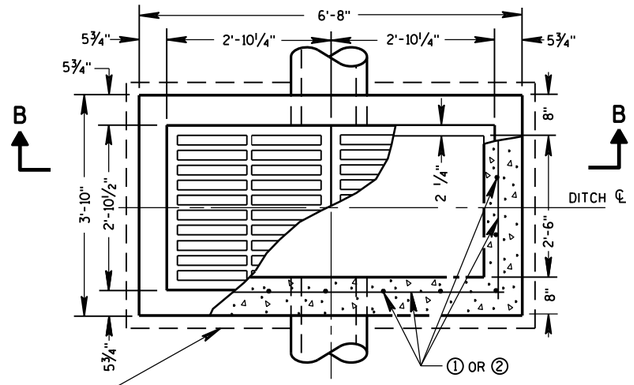
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT UNIT SUPERVIS
FHWA

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

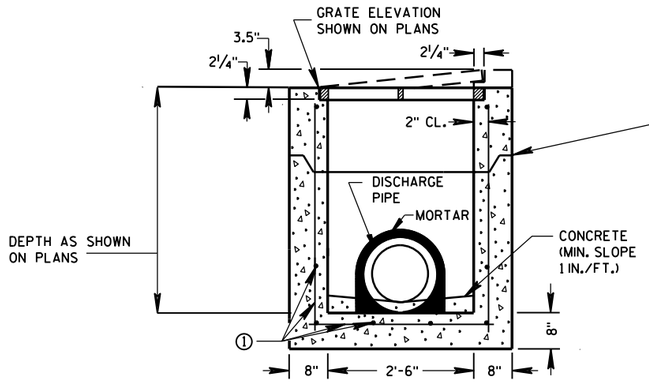


PLAN VIEW

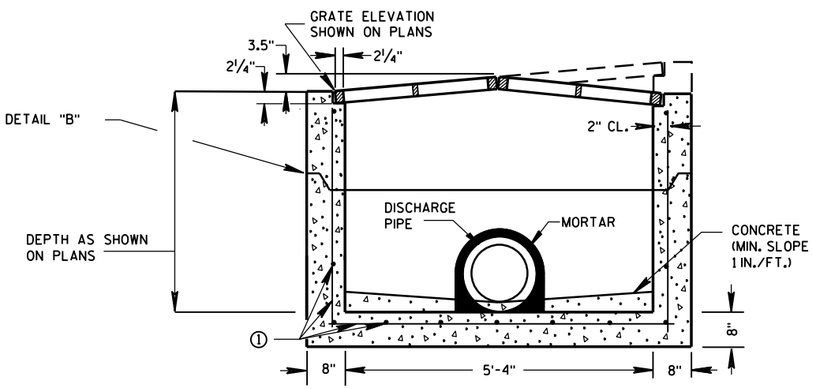


PLAN VIEW

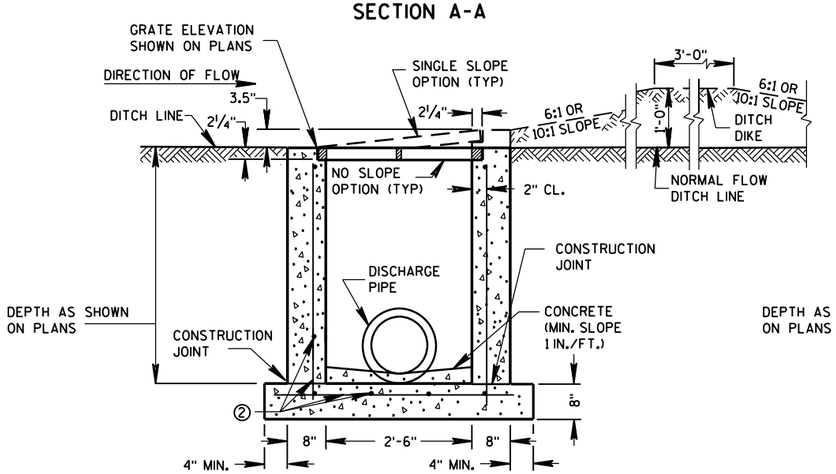
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

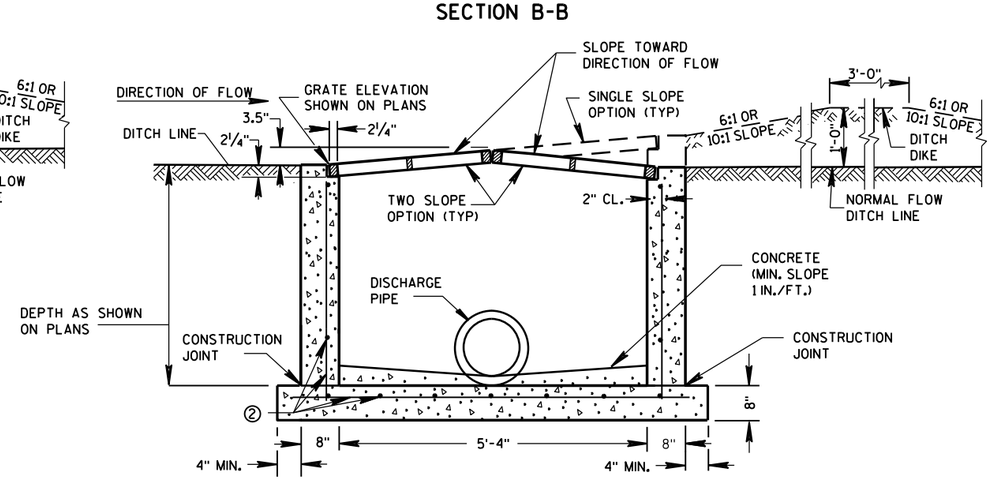


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

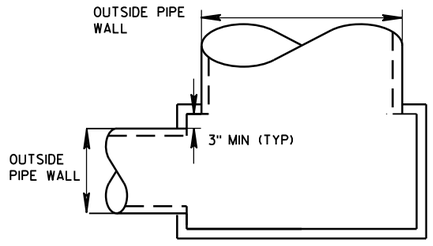
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

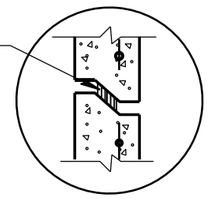
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



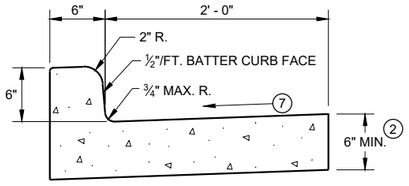
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

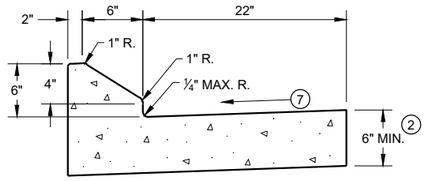
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA

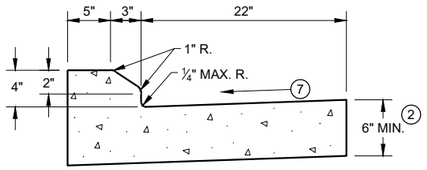
6
S.D.D. 8 C 8-2



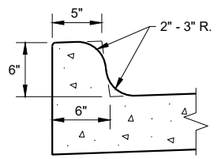
TYPES A (1) & D



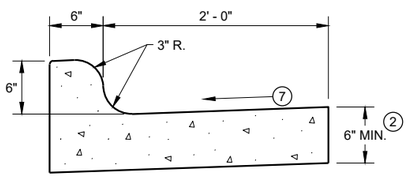
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

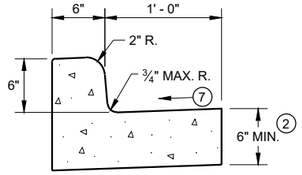


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



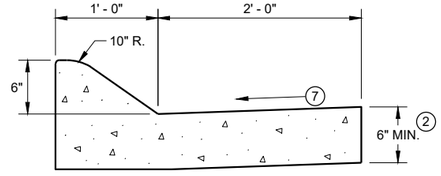
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

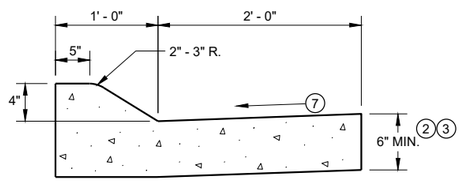


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

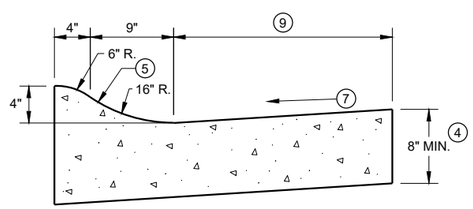


6" SLOPED CURB TYPES A (1) & D



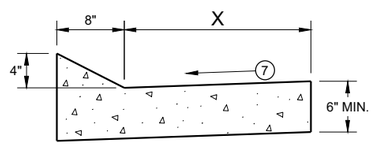
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

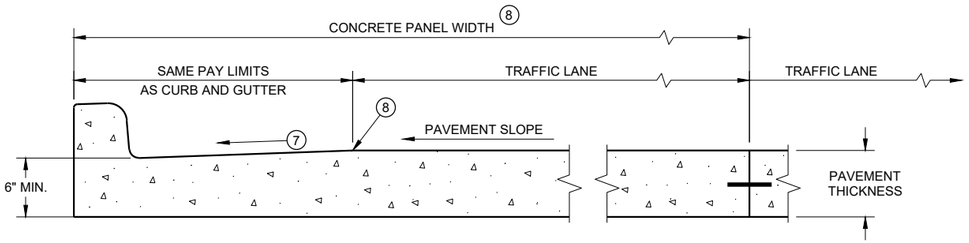


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

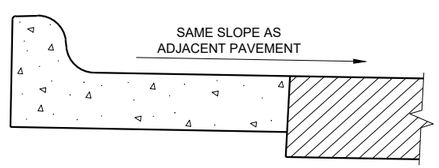
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

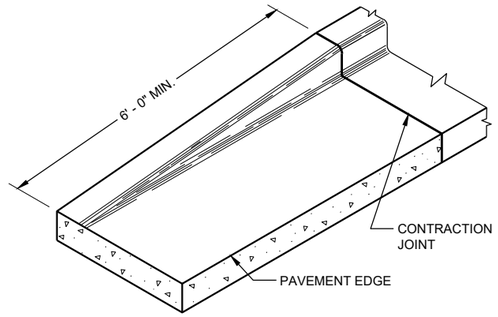
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

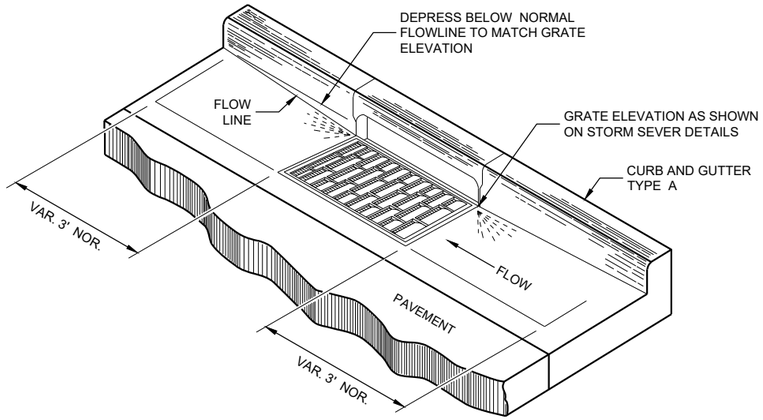
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

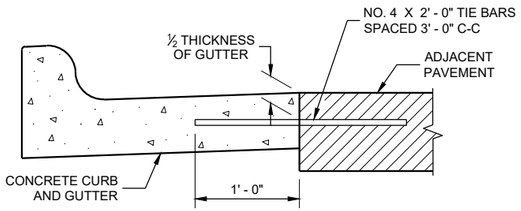
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

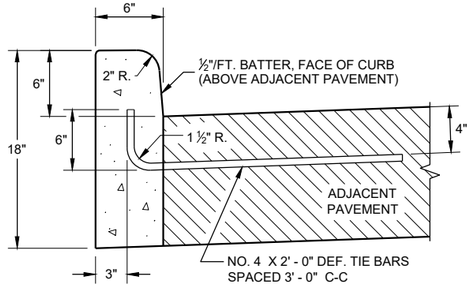
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

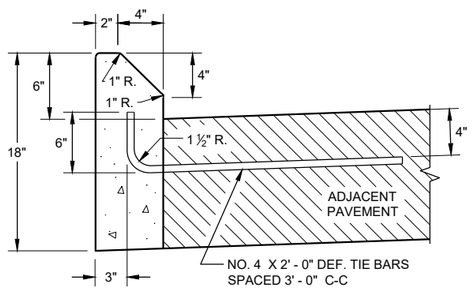
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

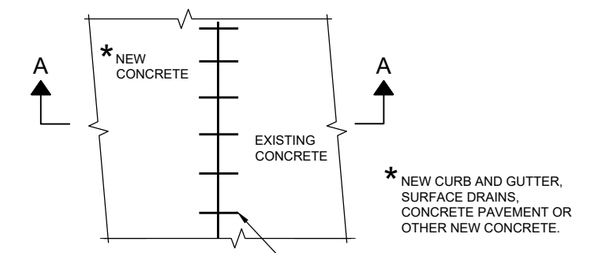


TYPES A (1) & D

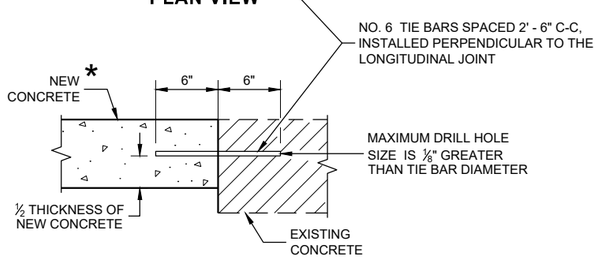


TYPES G (1) & J

CONCRETE CURB

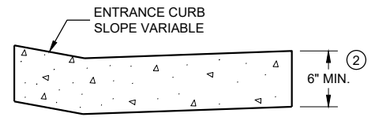


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

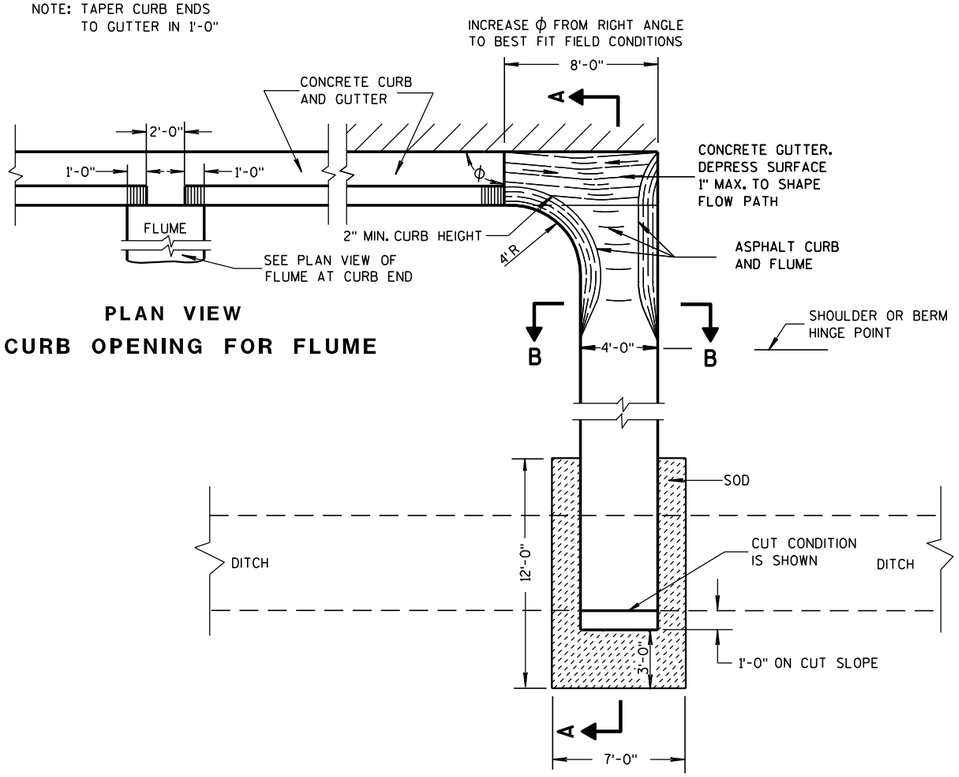
APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

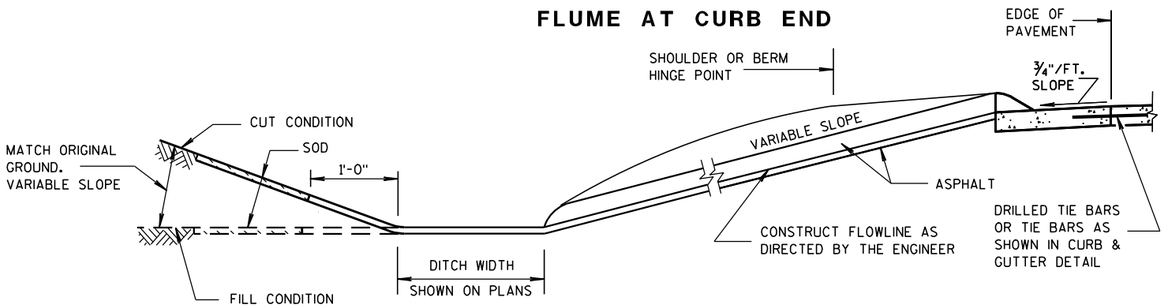
SDD08D01 - 22b

ASPHALTIC FLUME

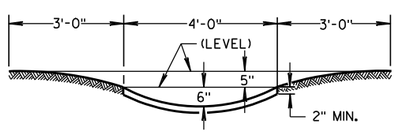


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

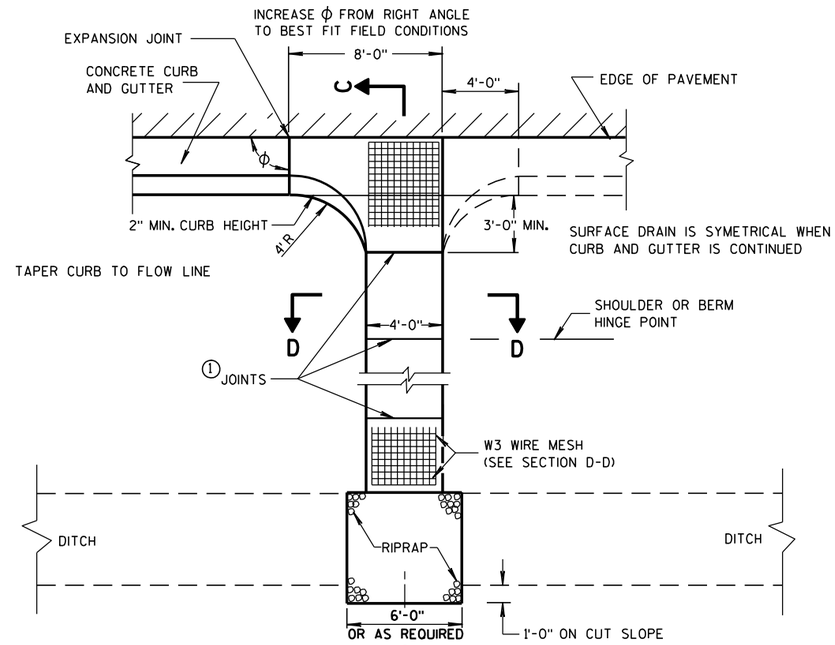
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

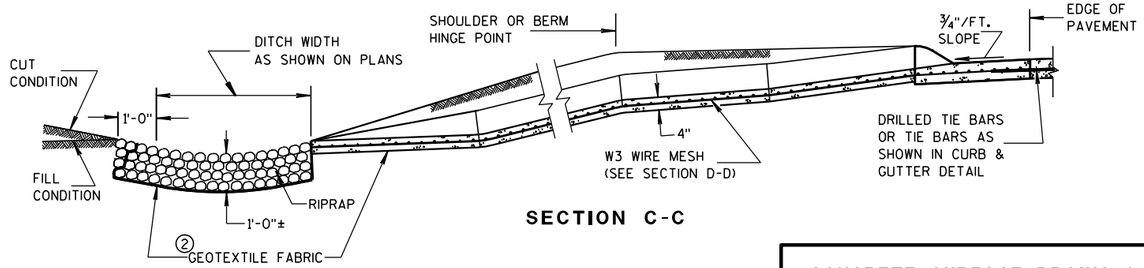
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

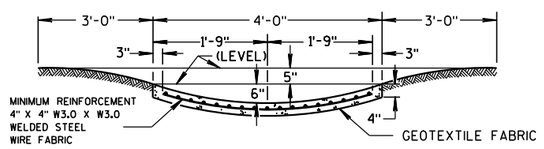
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

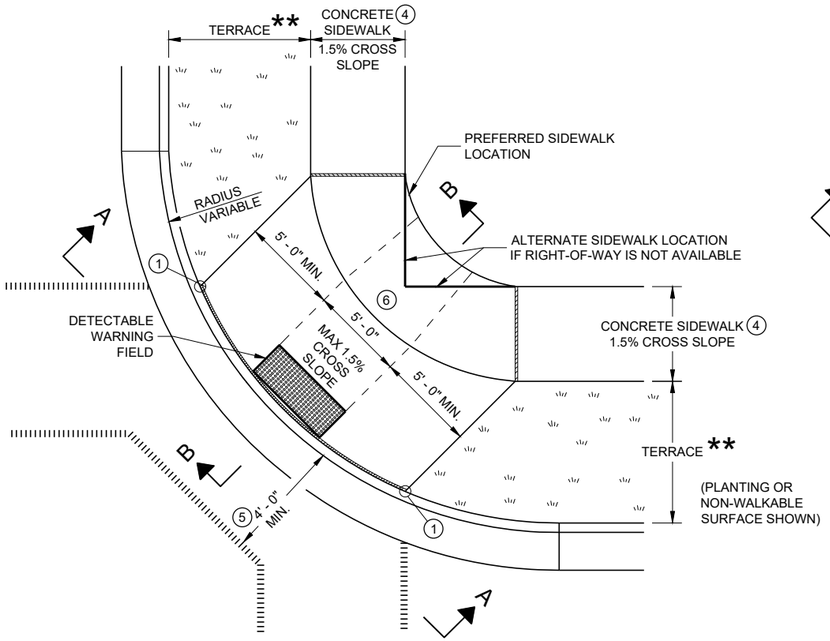
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
406
MENT
FHWA

6

S.D.D. 8 D 4-5

6

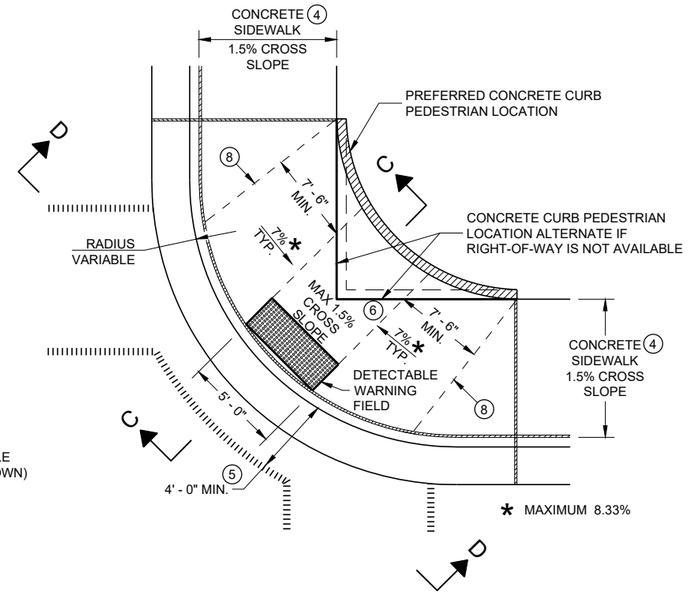
S.D.D. 8 D 4-5



PLAN VIEW

CURB RAMP TYPE 1

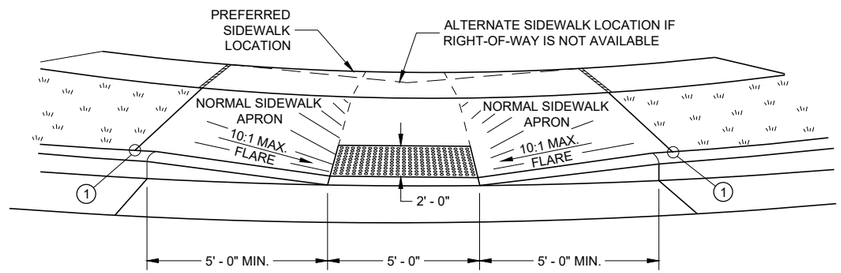
(CENTER OF CORNER RADIUS)



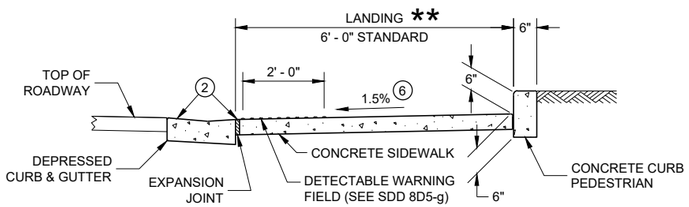
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

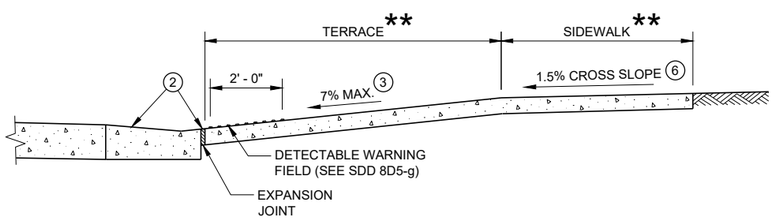


VIEW A - A FOR TYPE 1

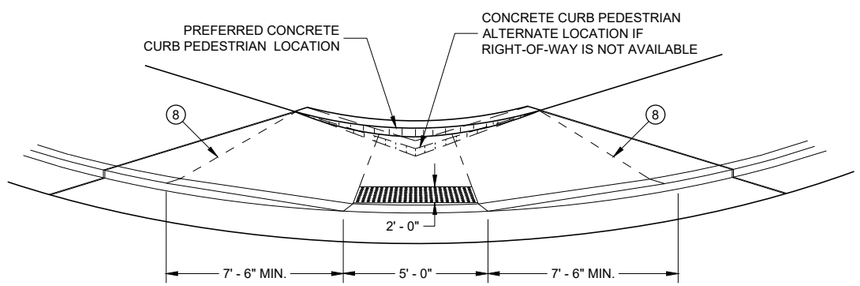


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

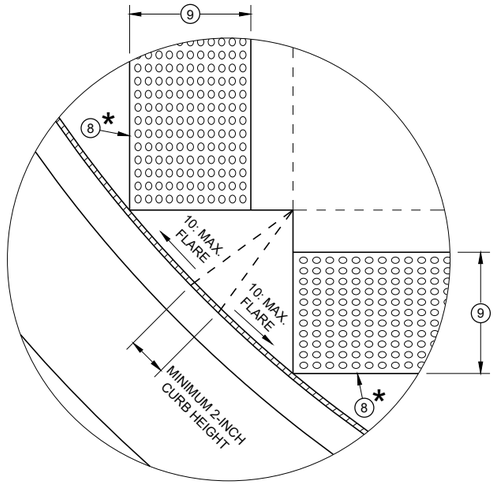
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

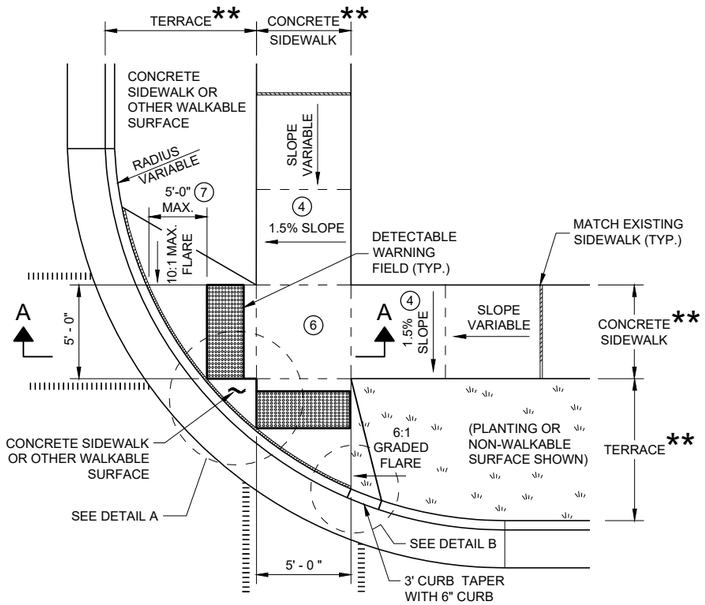
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

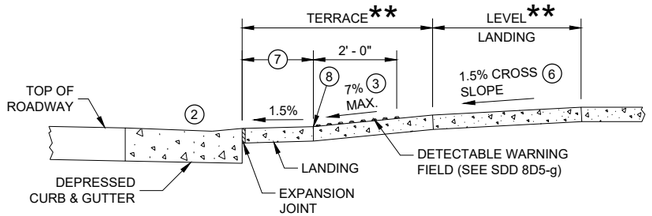
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

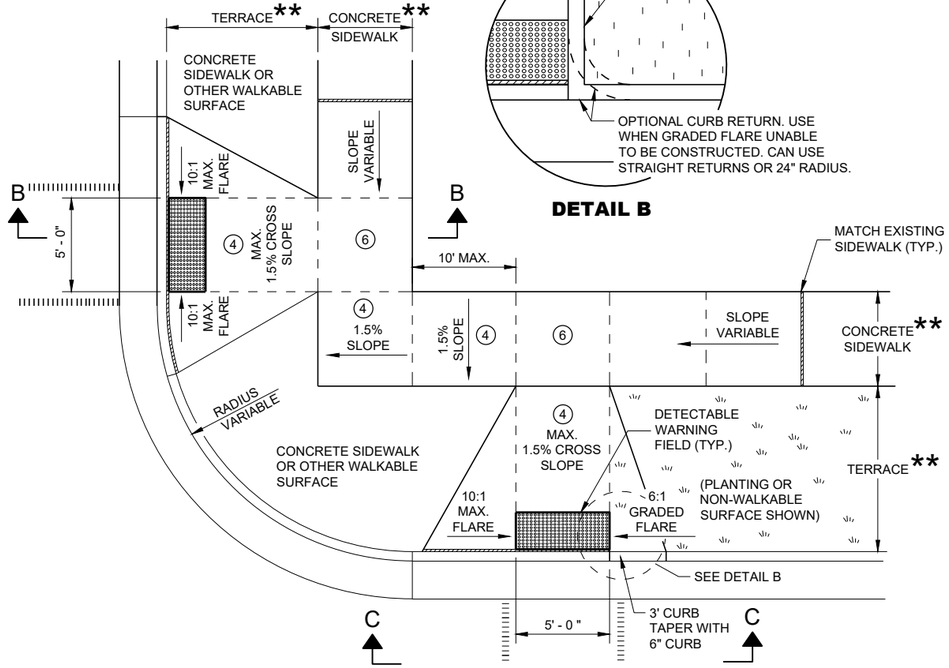
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

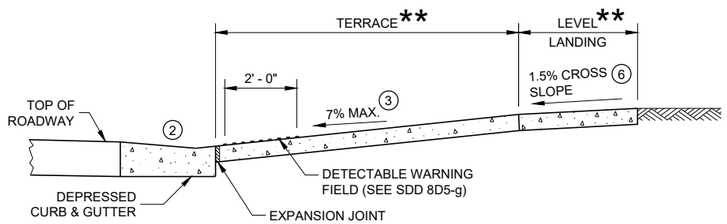
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

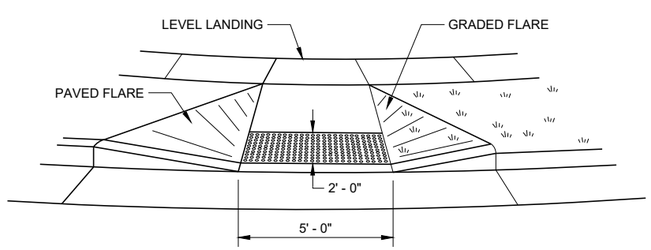


DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

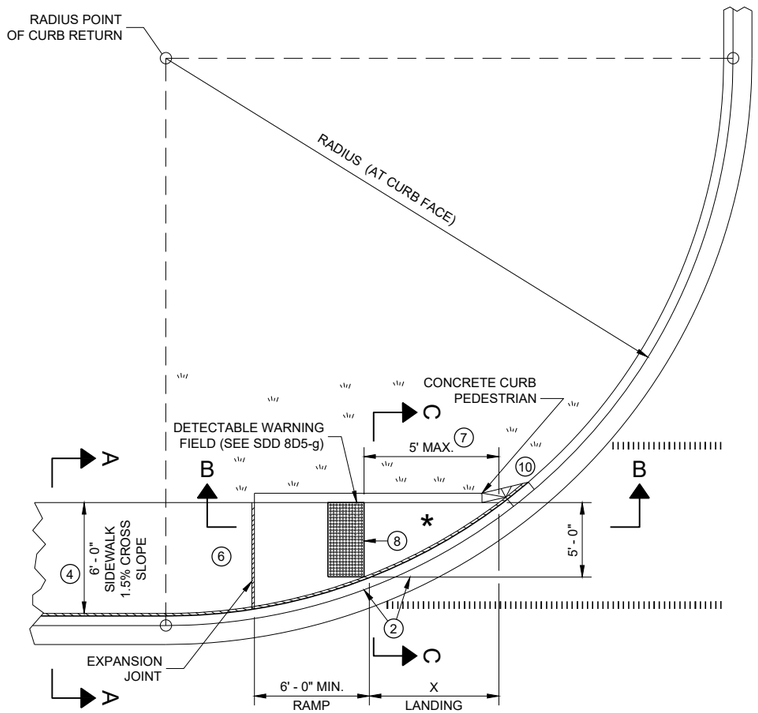
STATE OF WISCONSIN
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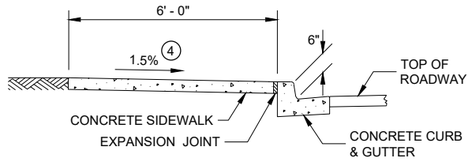


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

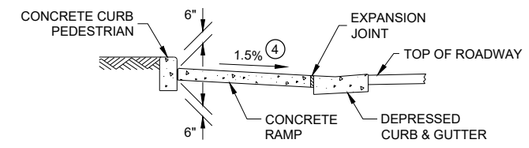
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

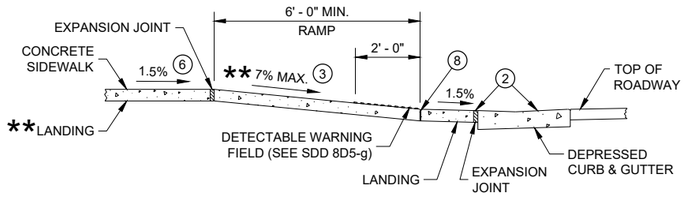
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



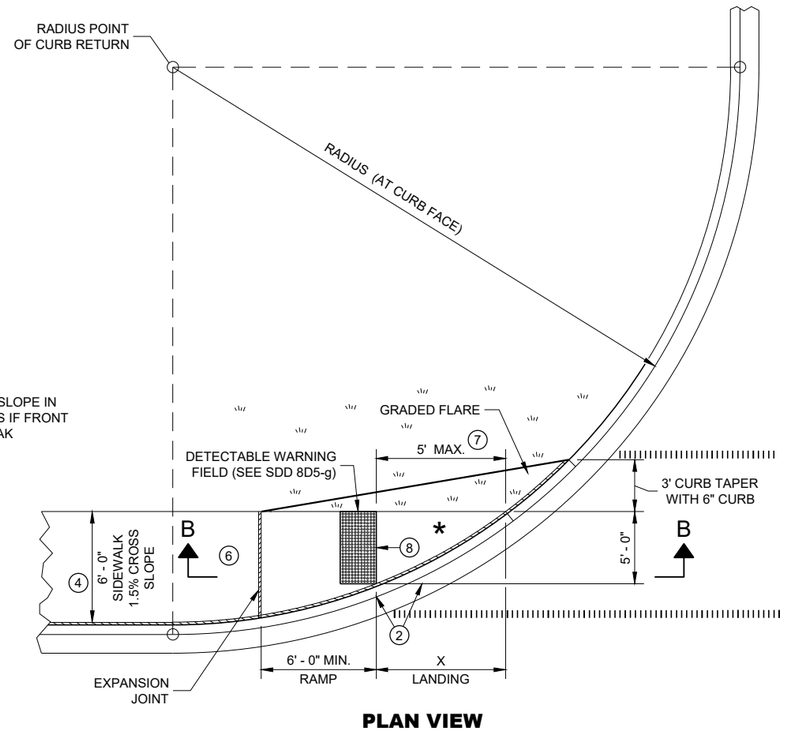
SECTION C - C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

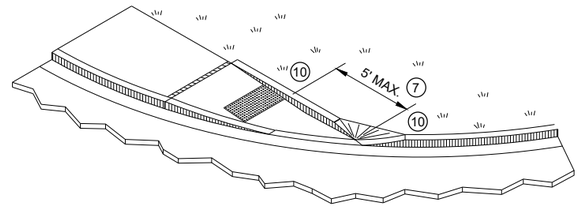
SECTION B - B FOR TYPE 4A AND TYPE 4A1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

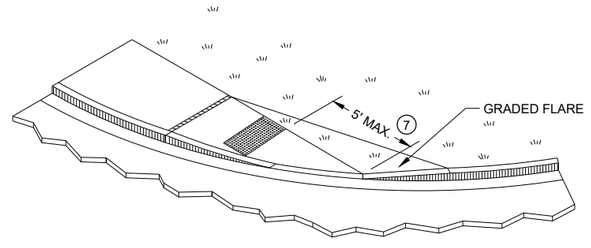


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



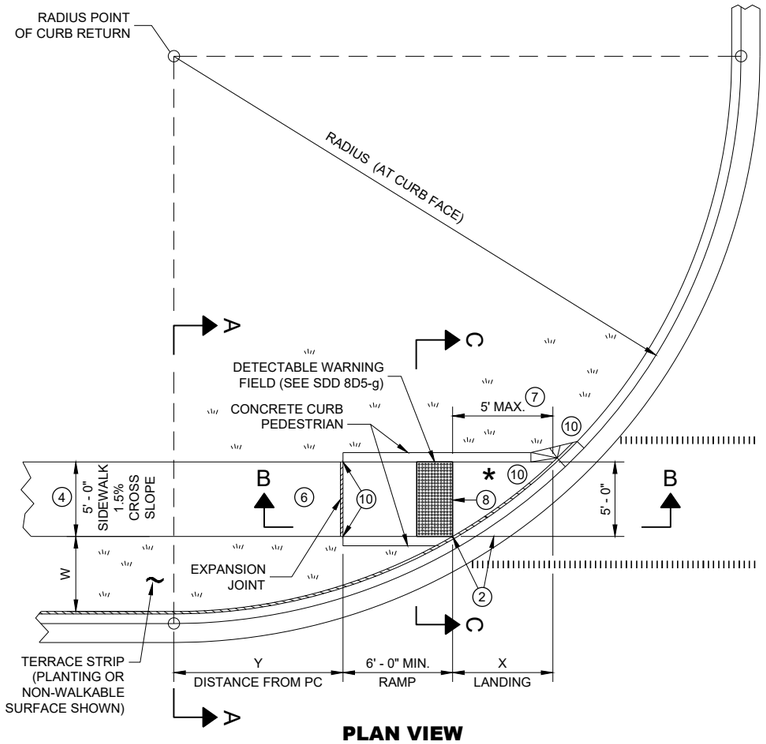
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
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PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

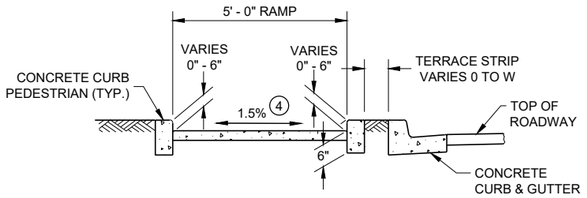
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

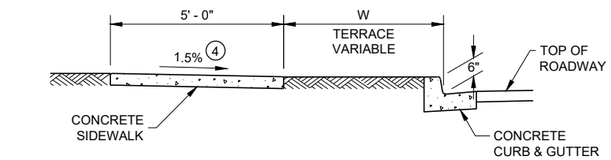
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

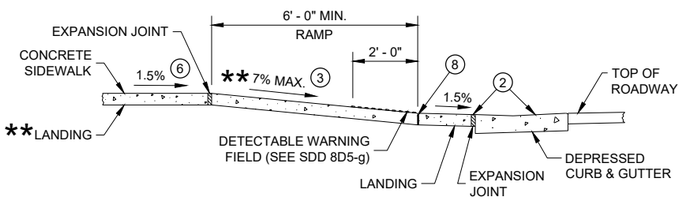
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



SECTION C - C FOR TYPE 4B



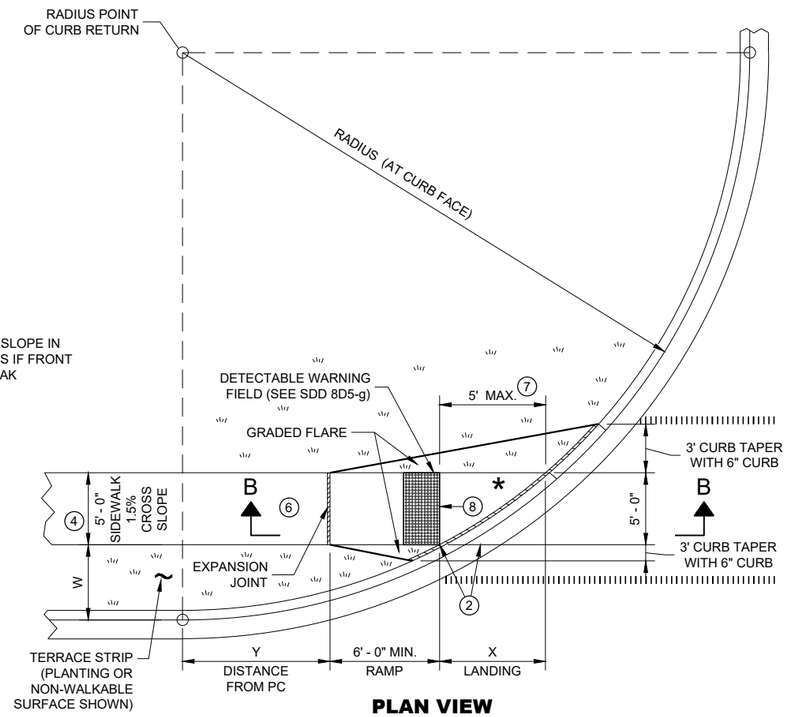
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

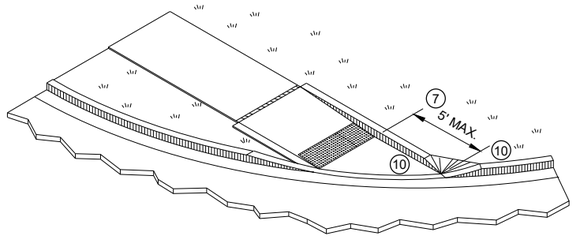
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

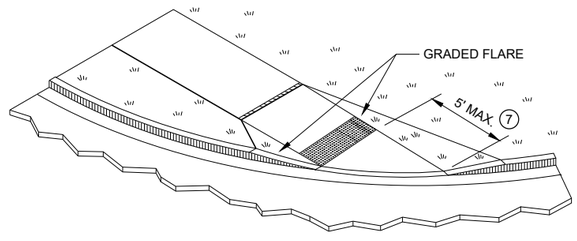


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



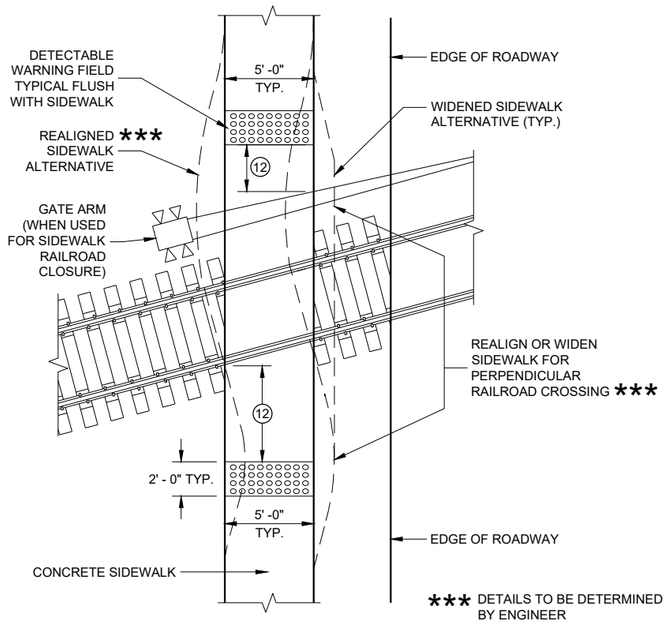
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

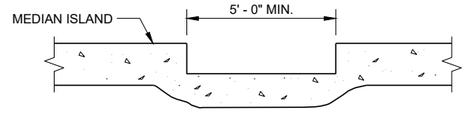
6

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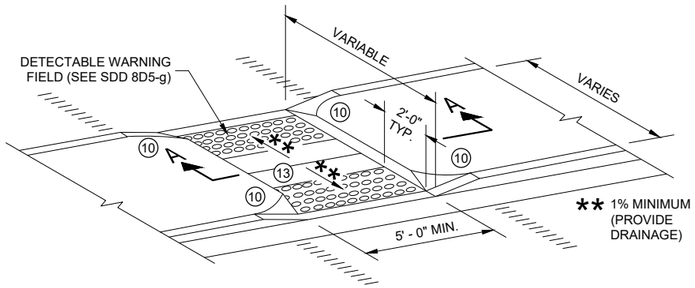


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

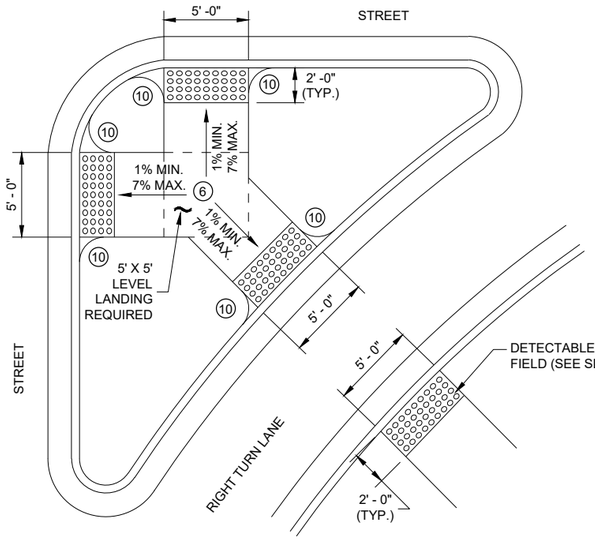
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

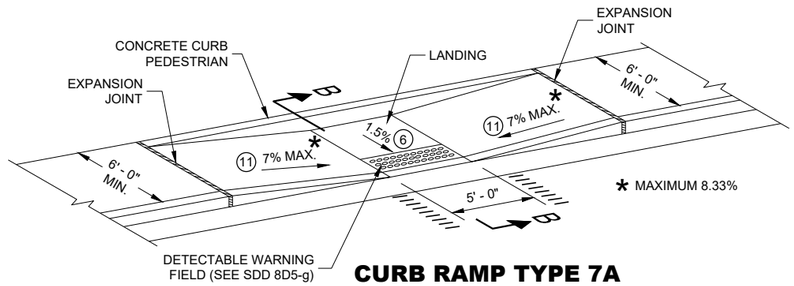
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

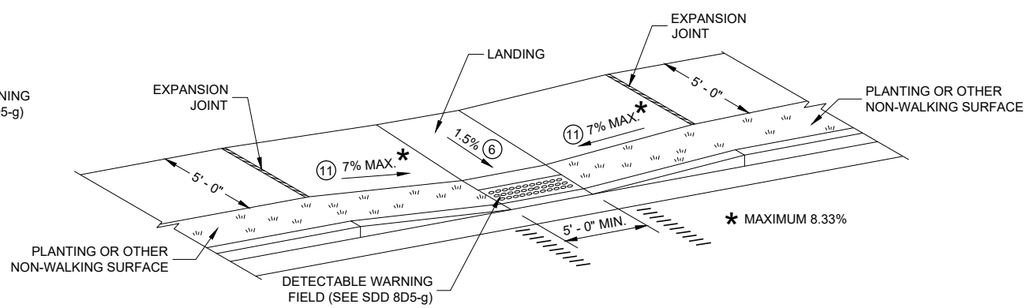
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

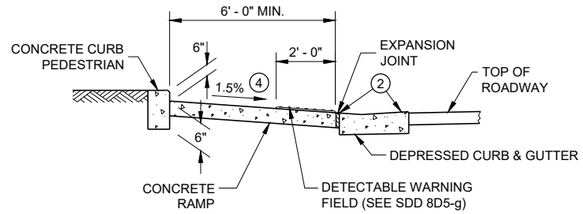
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

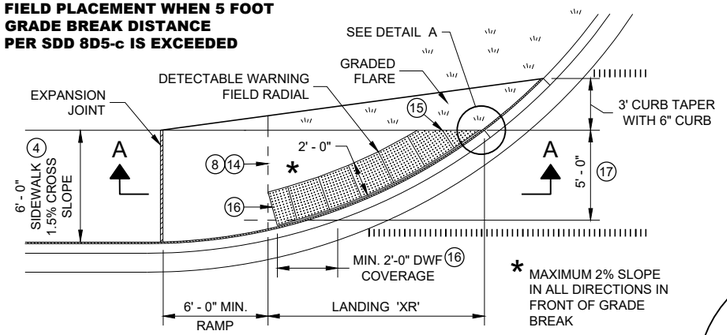
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e

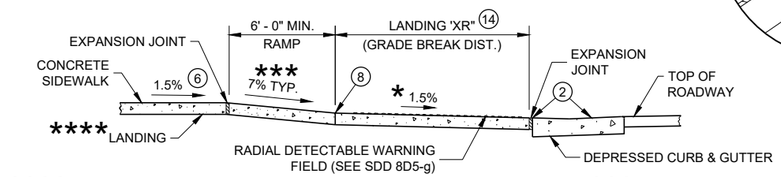
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

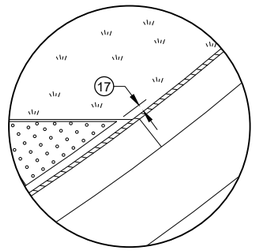
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

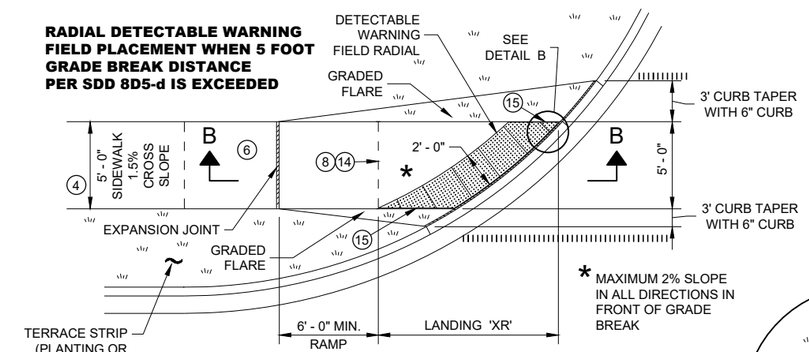
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

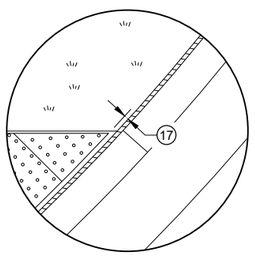
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



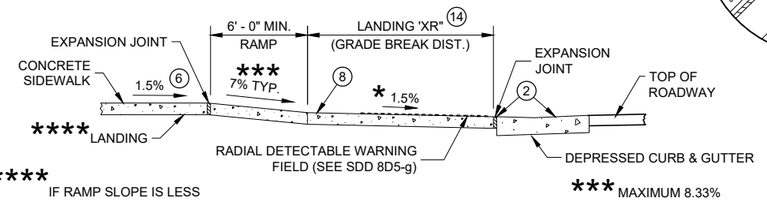
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

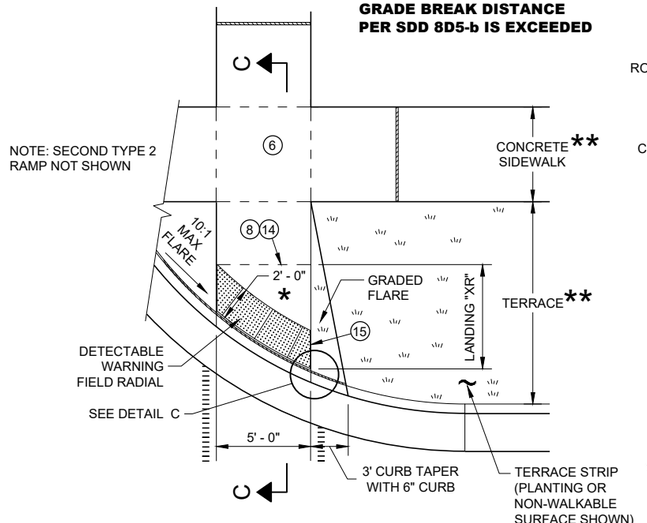


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

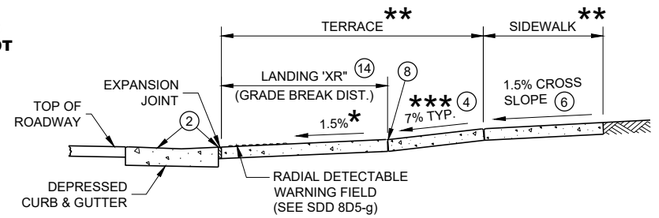


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

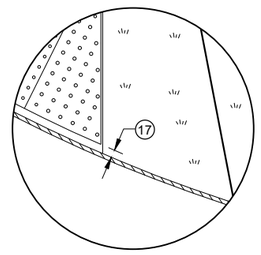


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

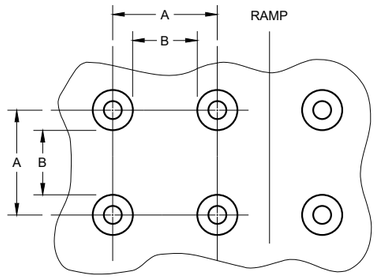
CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

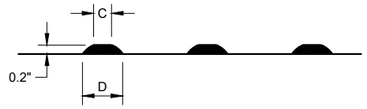
SDD 08D05 - 20f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

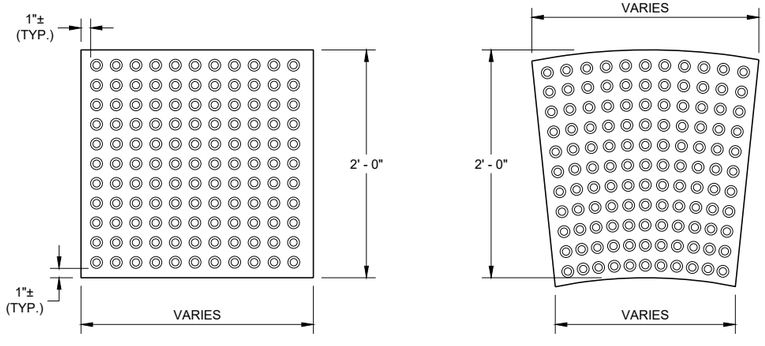


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

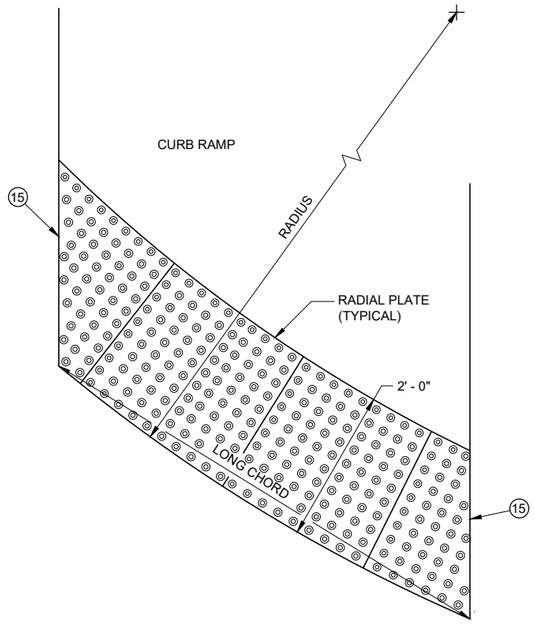
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

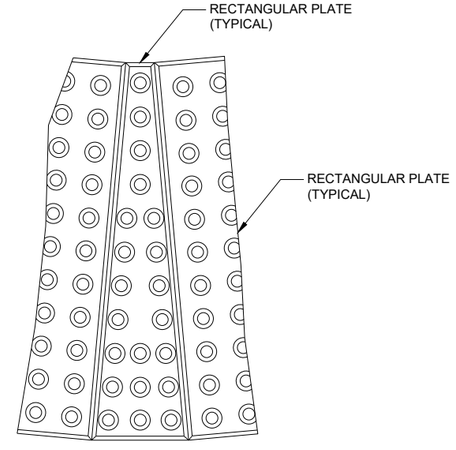
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

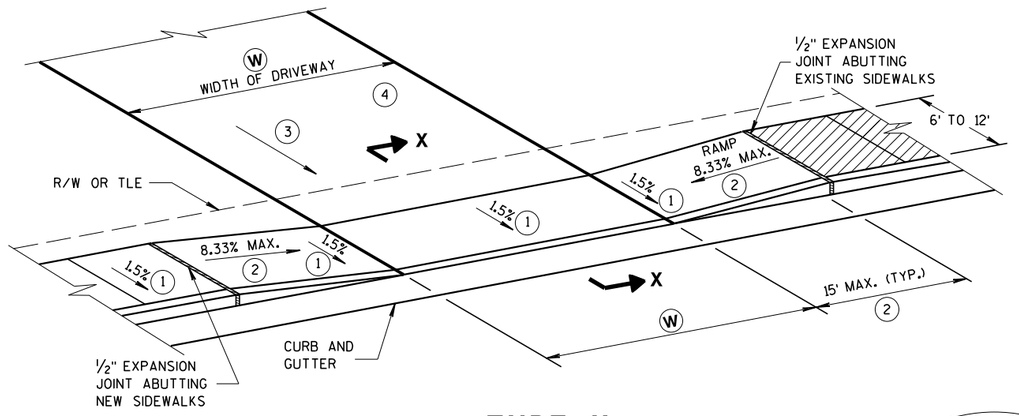
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

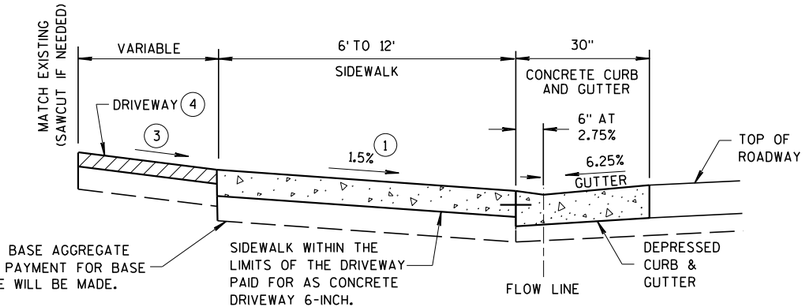
APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

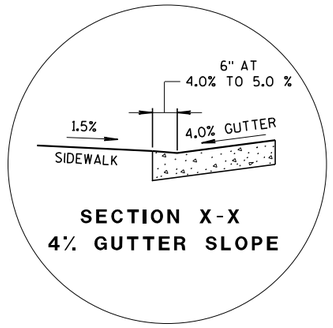
6
SDD 08D05 - 20g



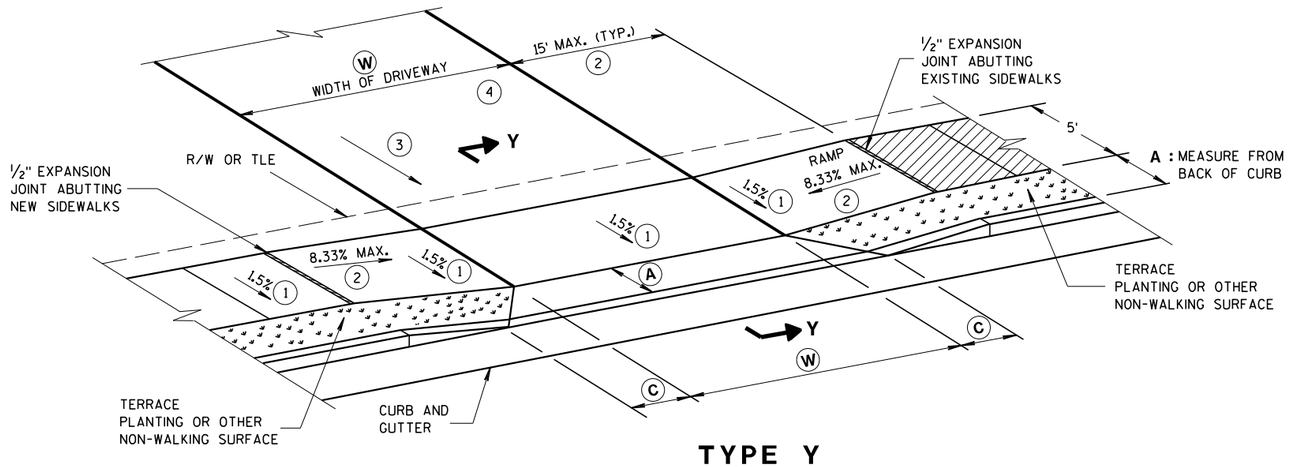
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

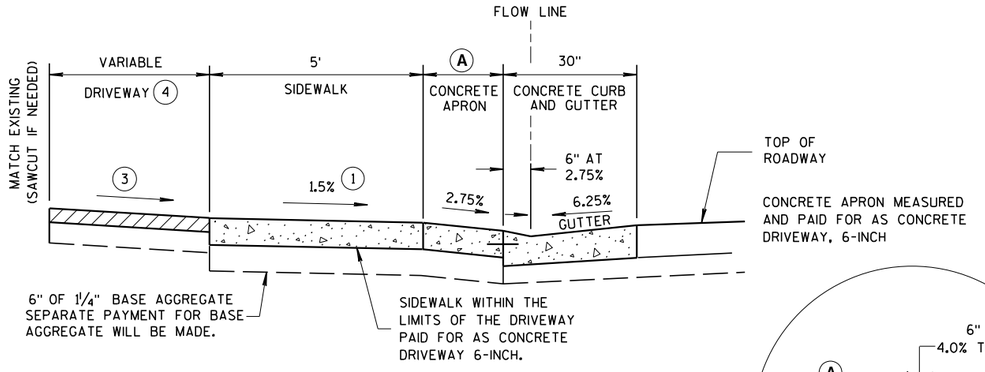
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

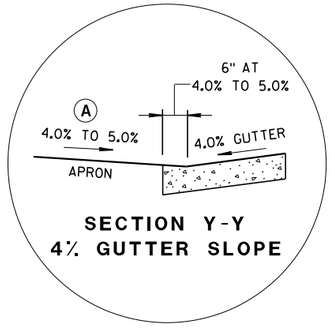
(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)



SECTION Y-Y
4% GUTTER SLOPE

TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

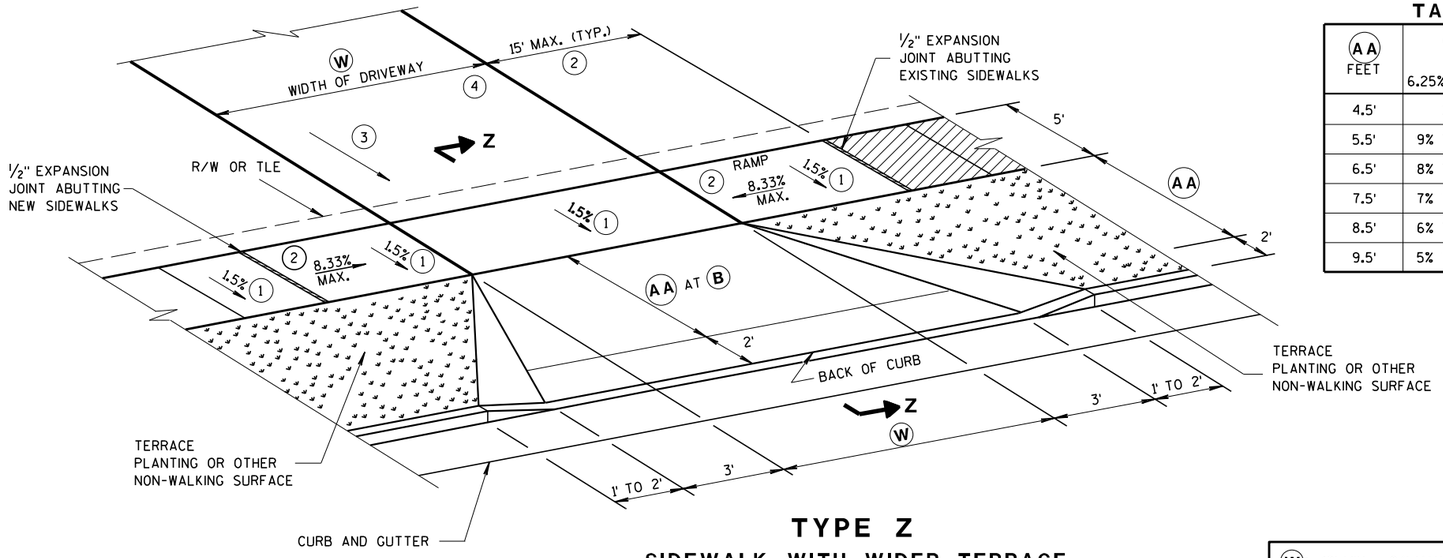
NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

6
S.D.D. 8 D 18-2



TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM

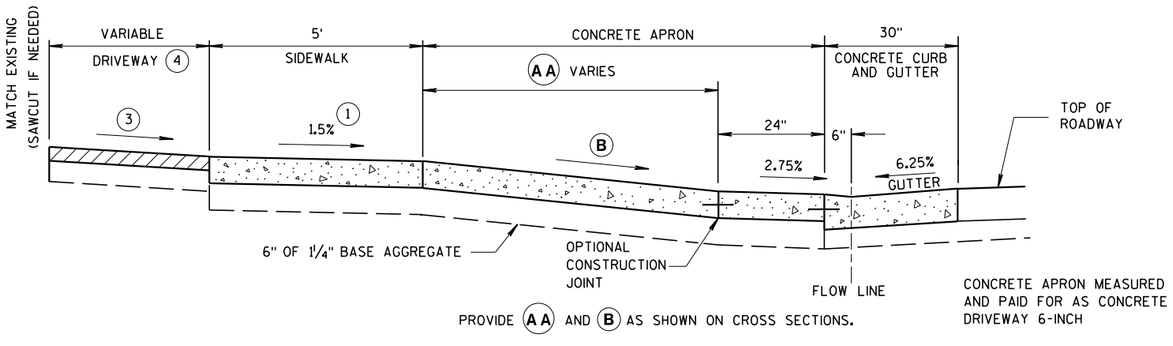
10.5% UP AWAY FROM SIDEWALK (SAG)

8.5% DOWN AWAY FROM SIDEWALK (CREST)

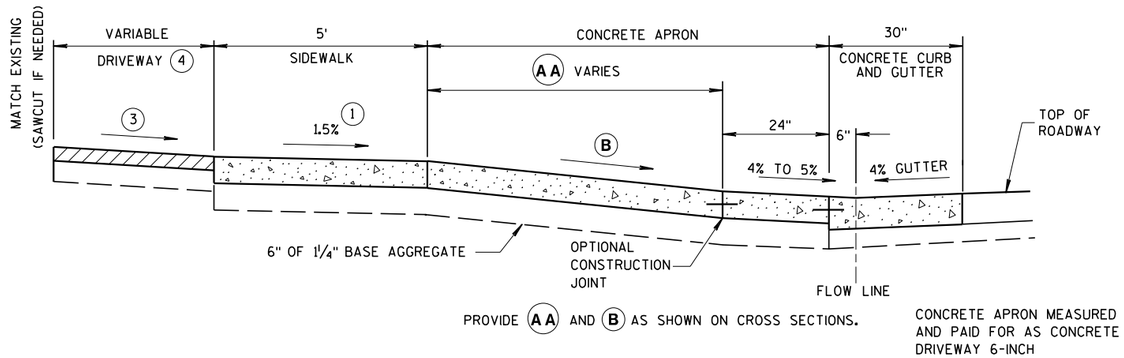
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES

- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

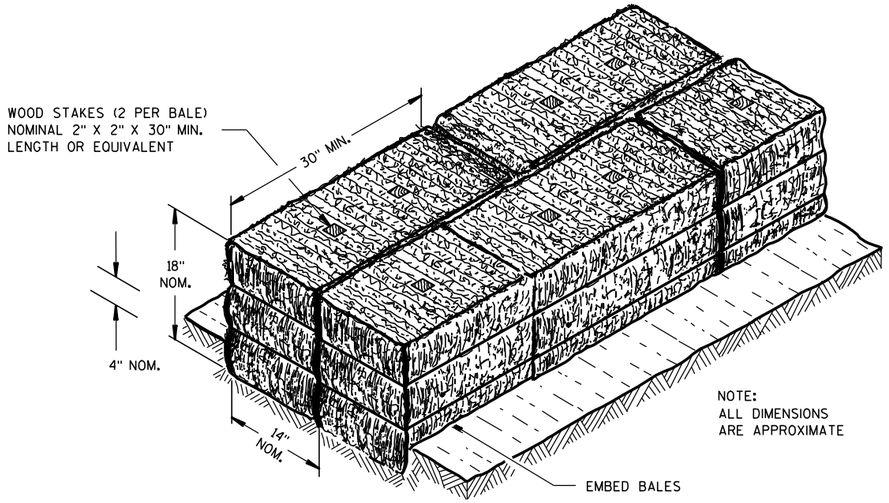
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6

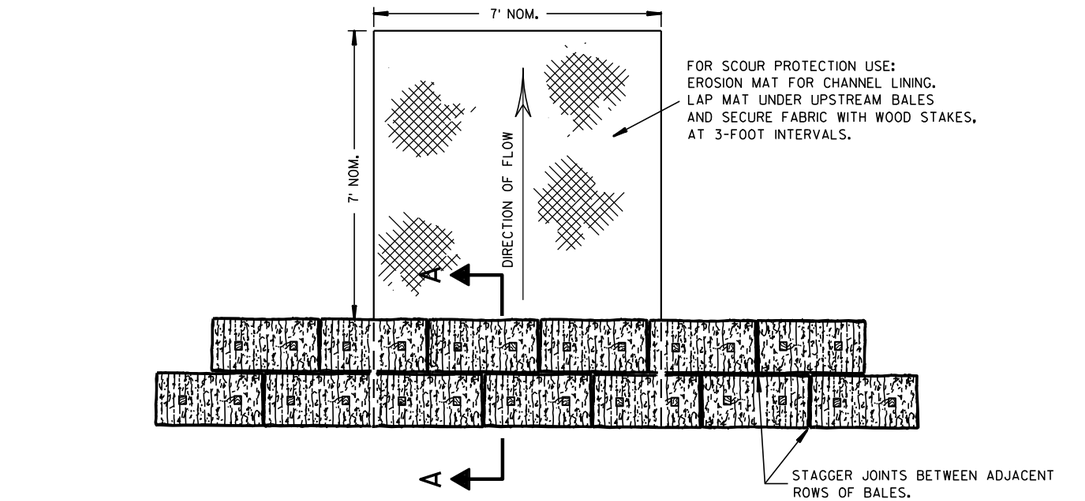
S.D.D. 8 D 19-2

6

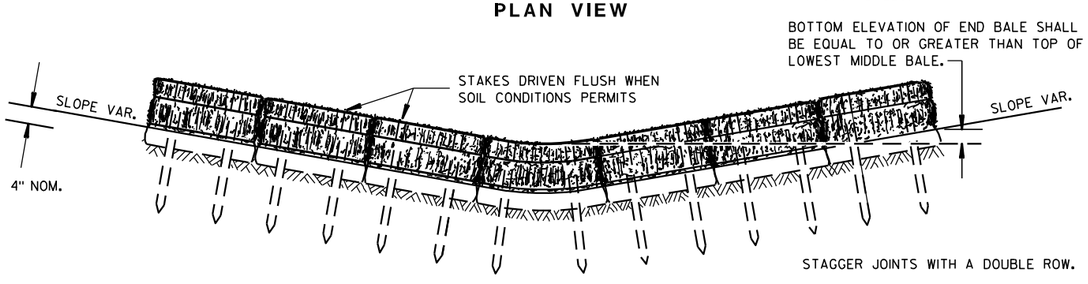
S.D.D. 8 D 19-2



SECTION A-A



PLAN VIEW



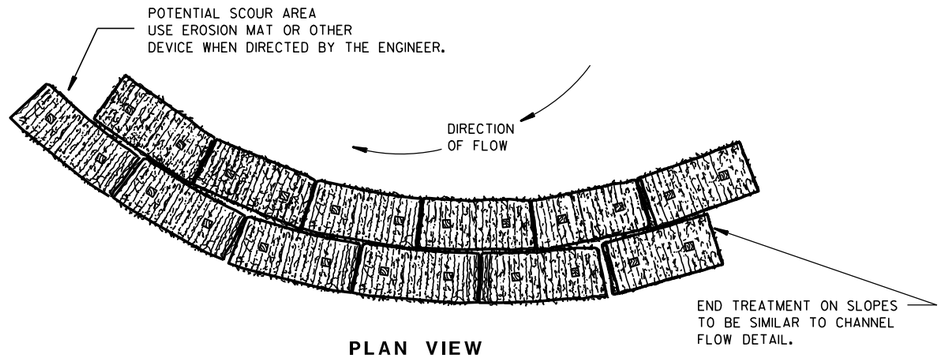
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

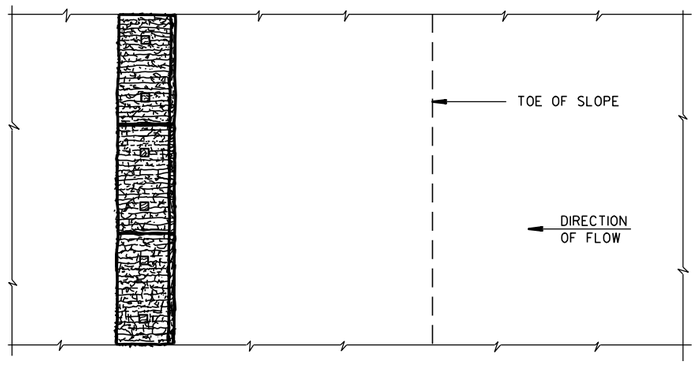
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

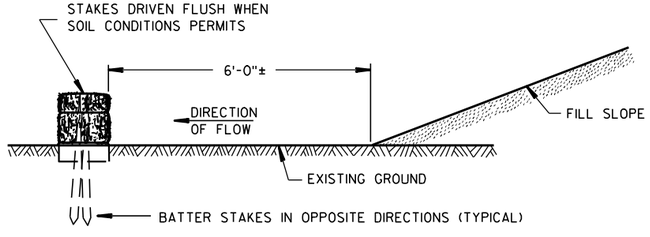


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

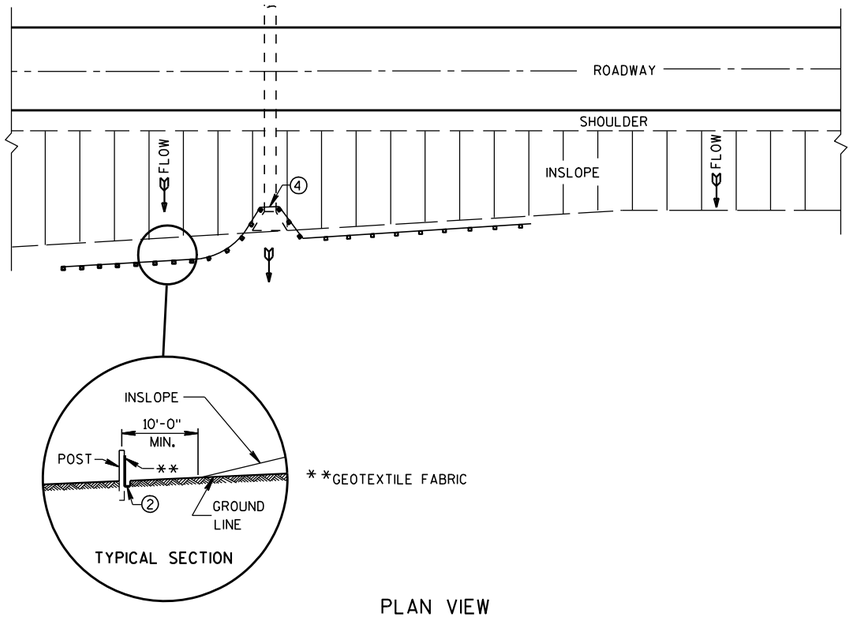
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

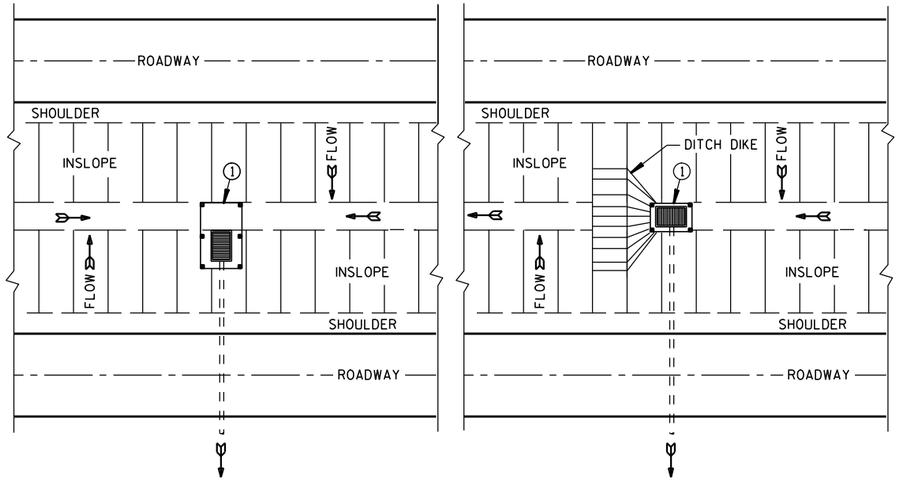
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

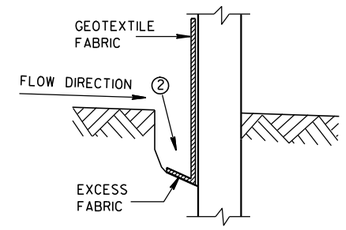
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

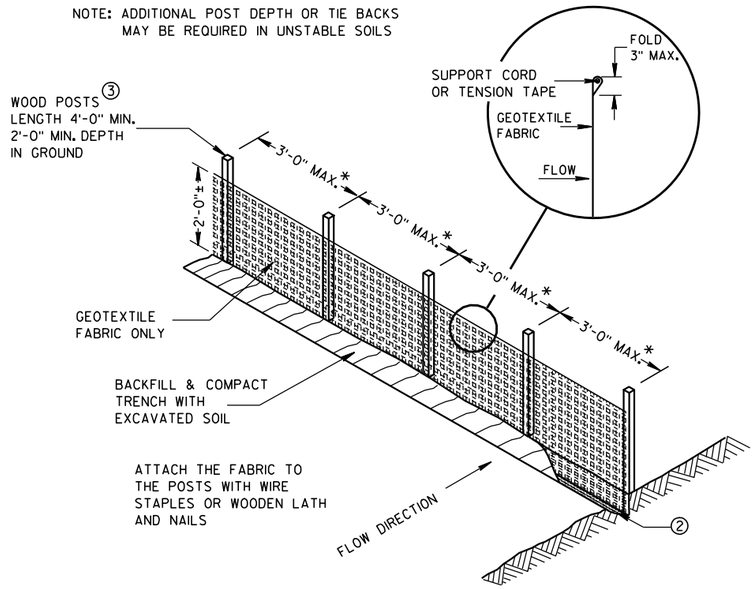
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

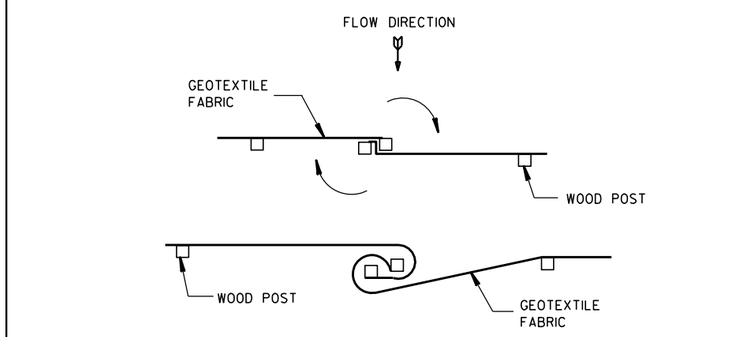
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



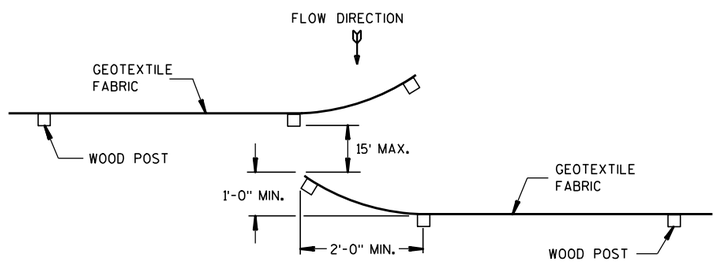
TRENCH DETAIL



SILT FENCE

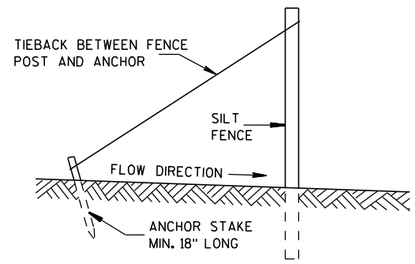


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

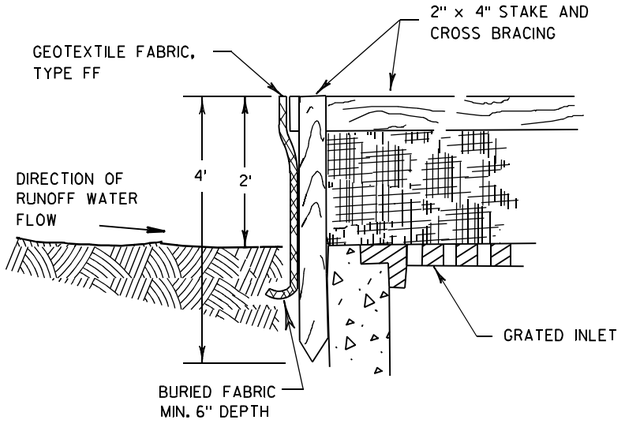
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

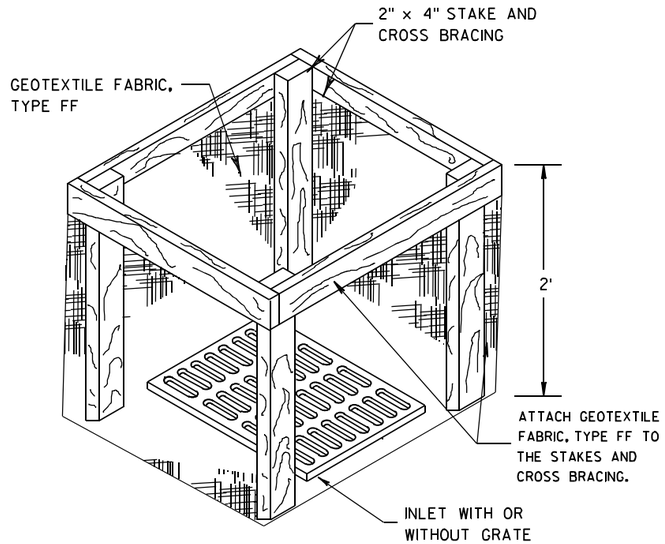
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S.D.D. 8 E 9-6

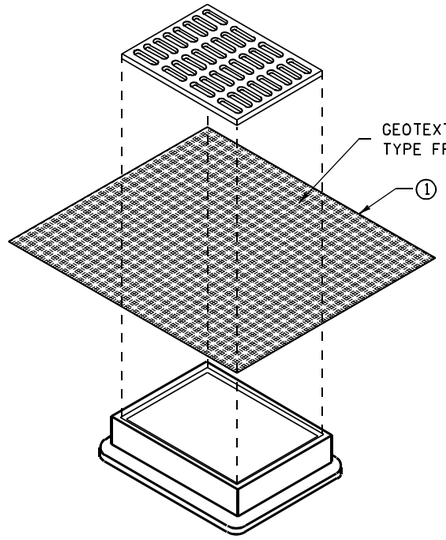
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S.D.D. 8 E 9-6



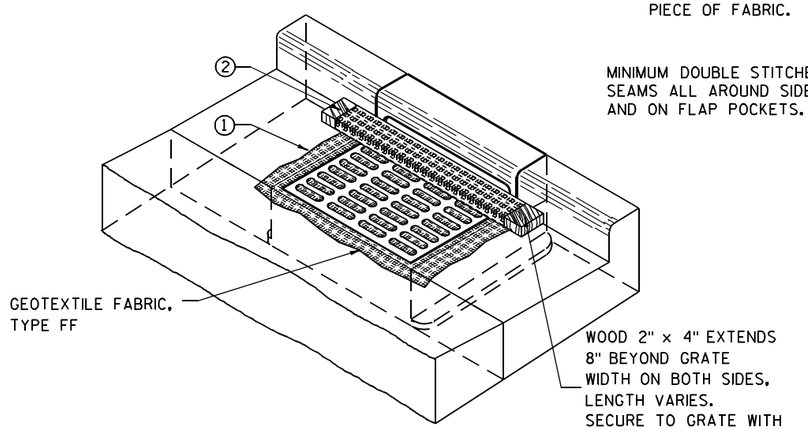


INLET PROTECTION, TYPE A

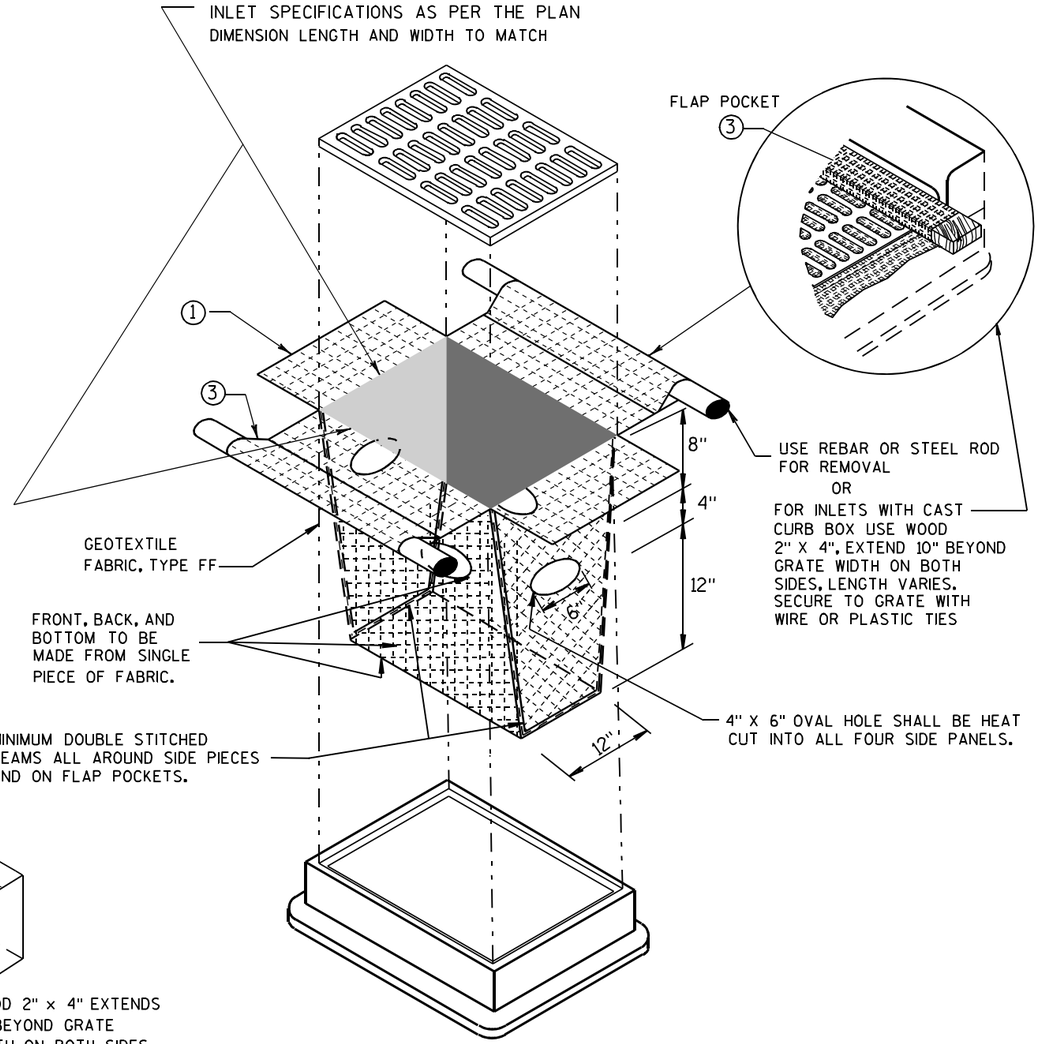


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

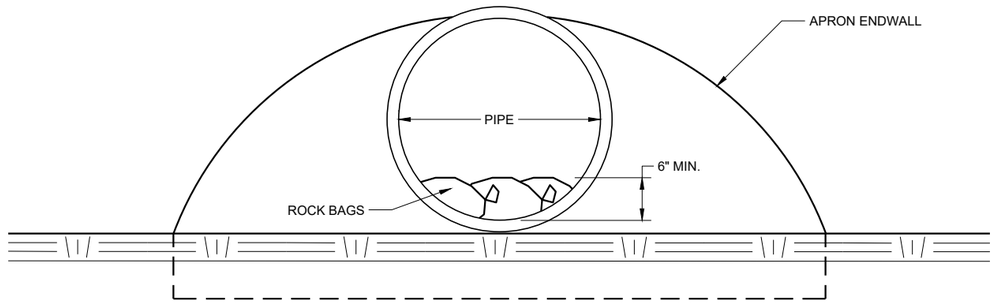
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

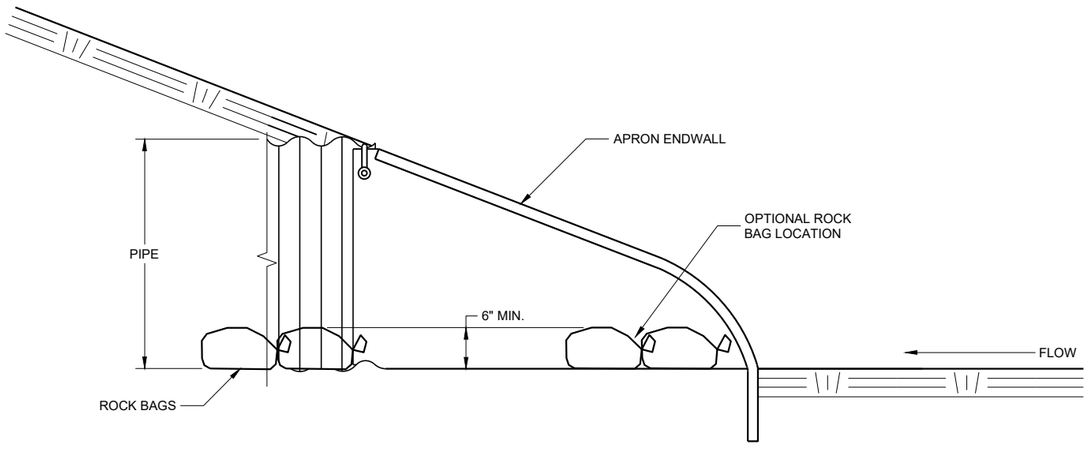
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Daniel Schave
EROSION CONTROL ENGI
FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

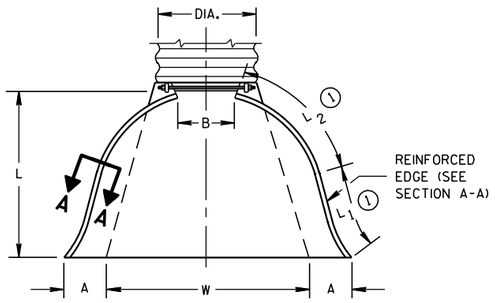
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

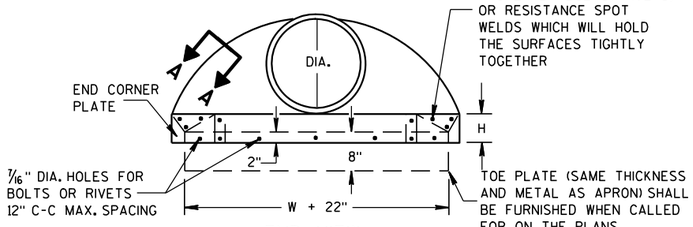
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

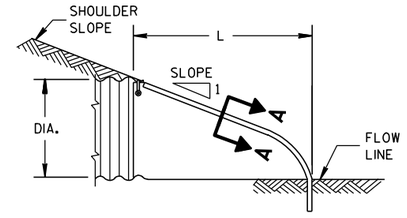
*MINIMUM
**MAXIMUM



PLAN VIEW

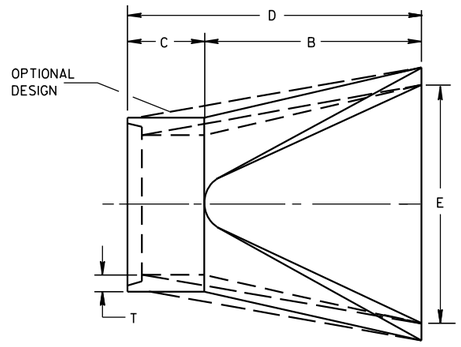


END VIEW

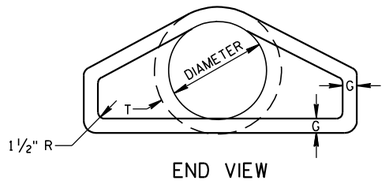


SIDE ELEVATION

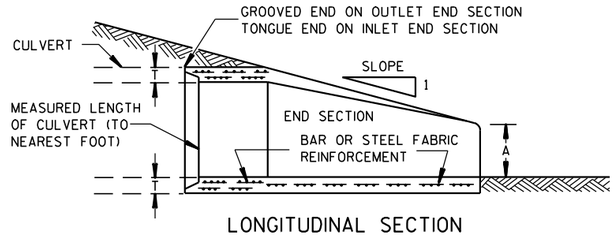
METAL ENDWALLS



PLAN

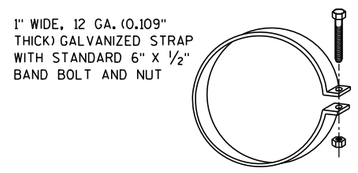


END VIEW



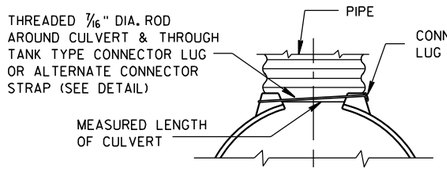
LONGITUDINAL SECTION

CONCRETE ENDWALLS

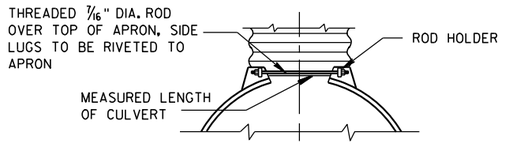


ALTERNATE FOR TYPE 1 CONNECTION

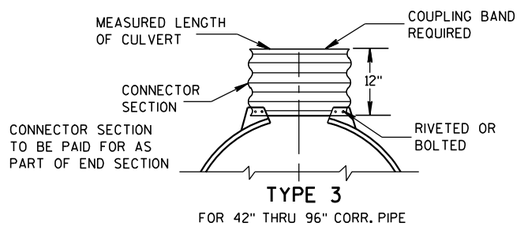
END SECTION CONNECTOR STRAP



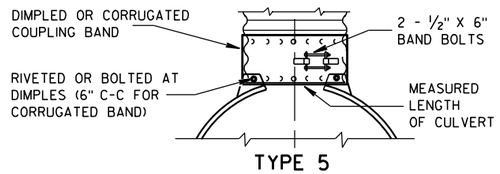
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

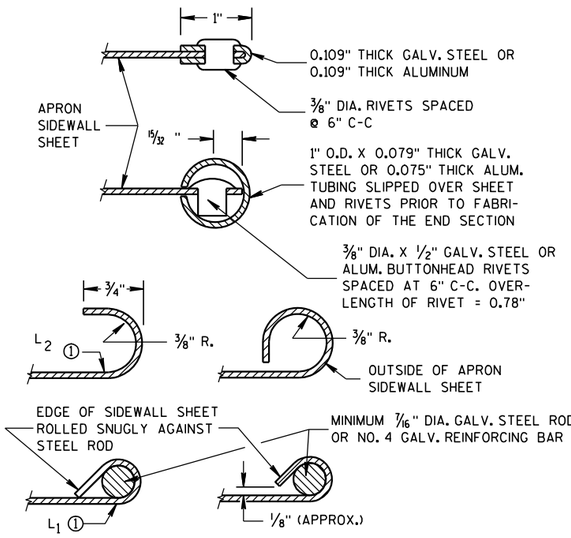
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

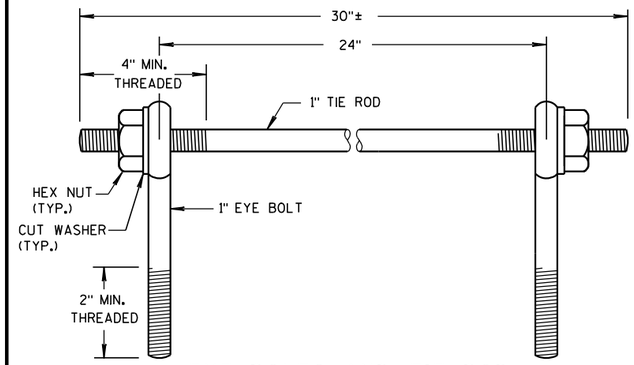
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

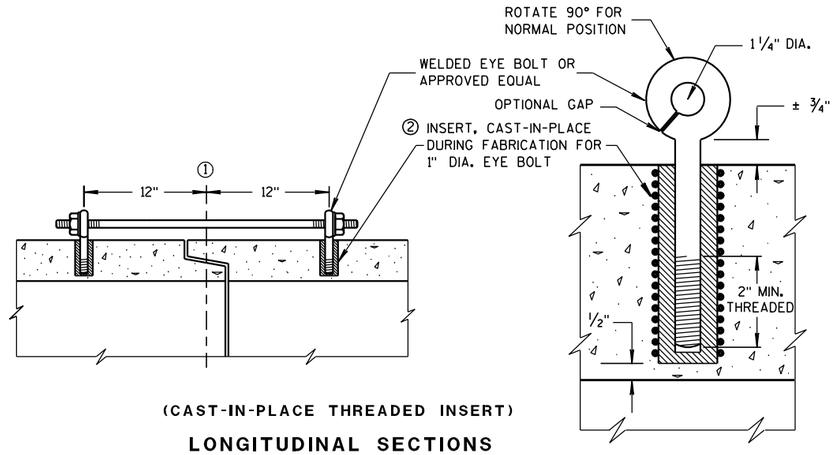
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP 420 NEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

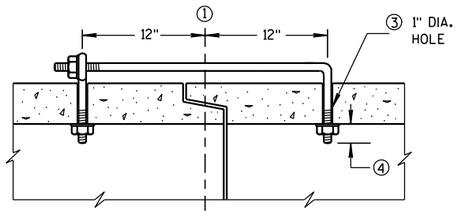
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

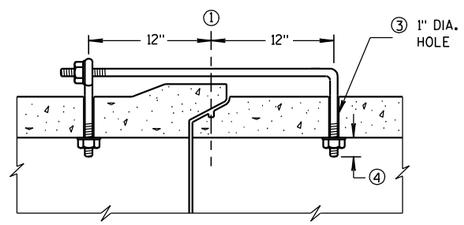
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

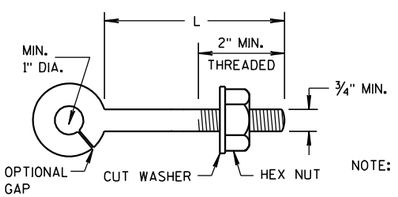


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

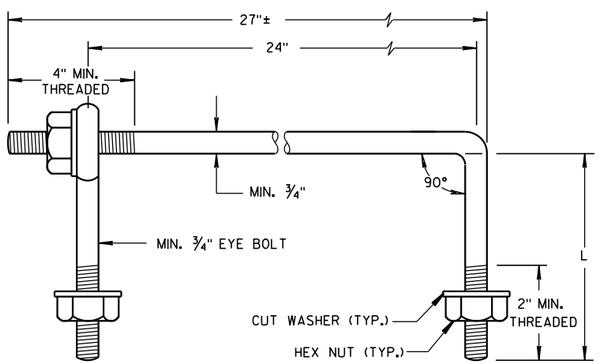
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

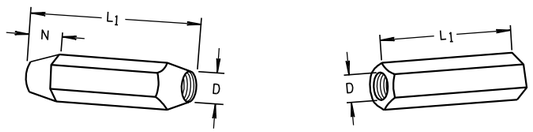
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

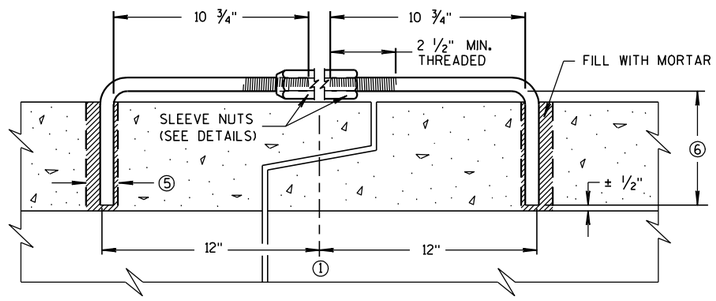
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

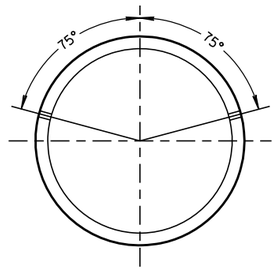
SLEEVE NUTS



LONGITUDINAL SECTION

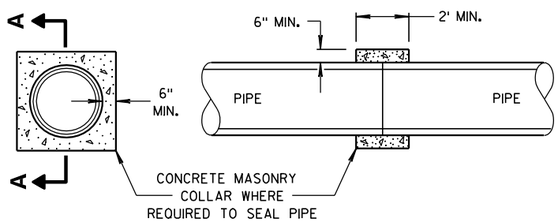
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

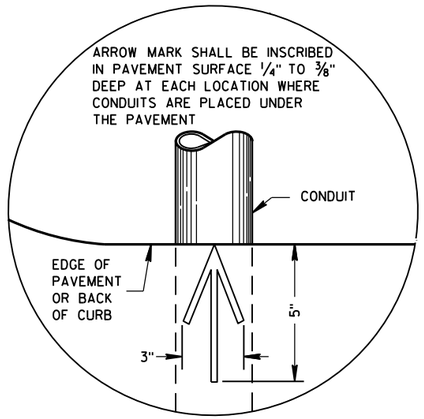
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
421
FHWA

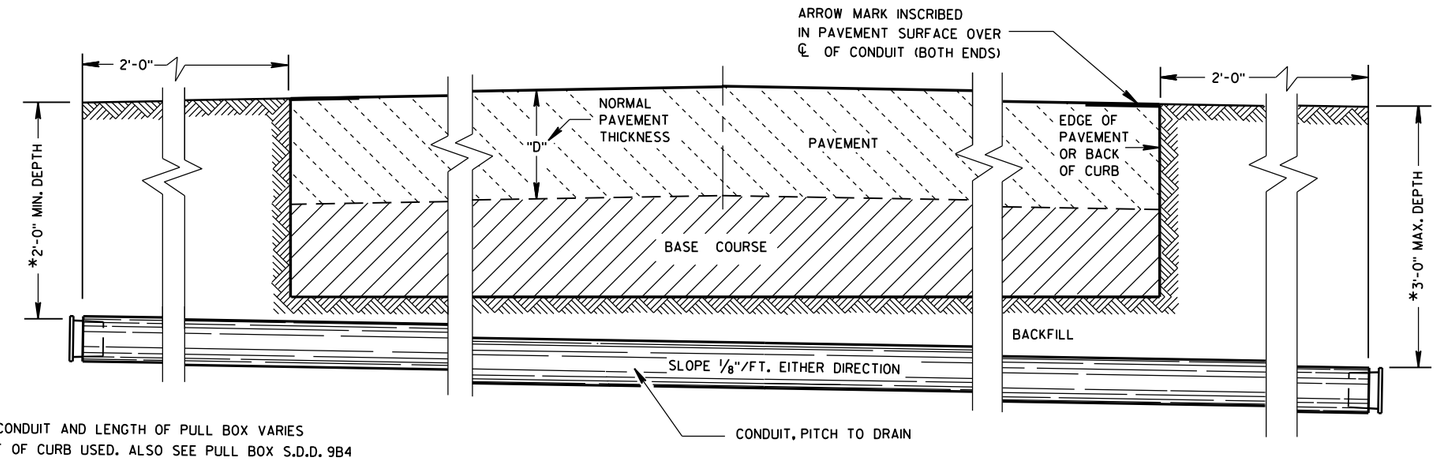
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S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

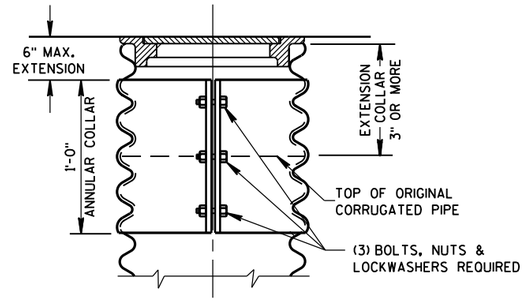
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

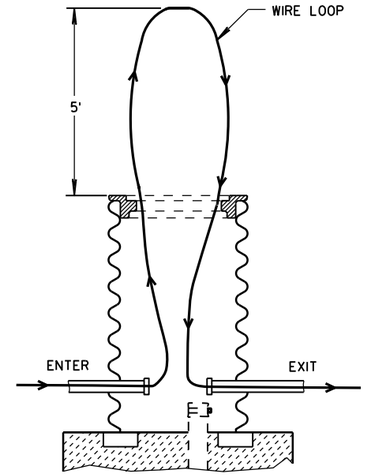
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

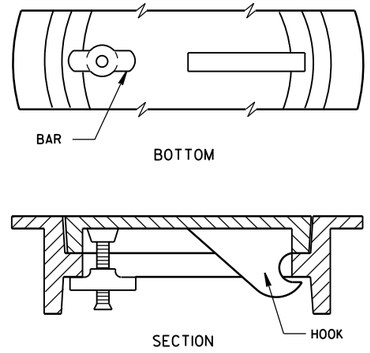
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

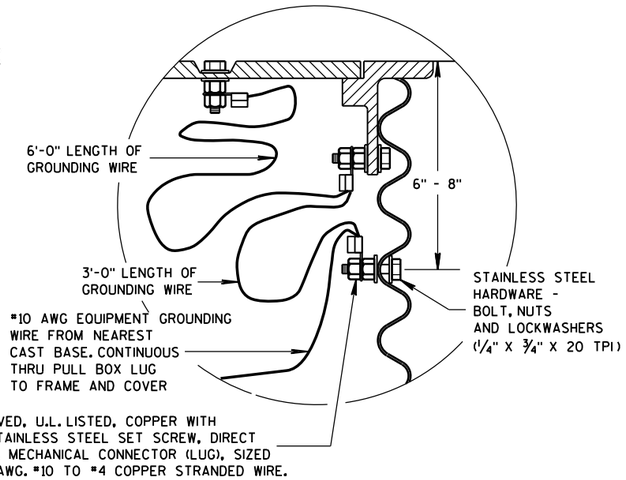


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

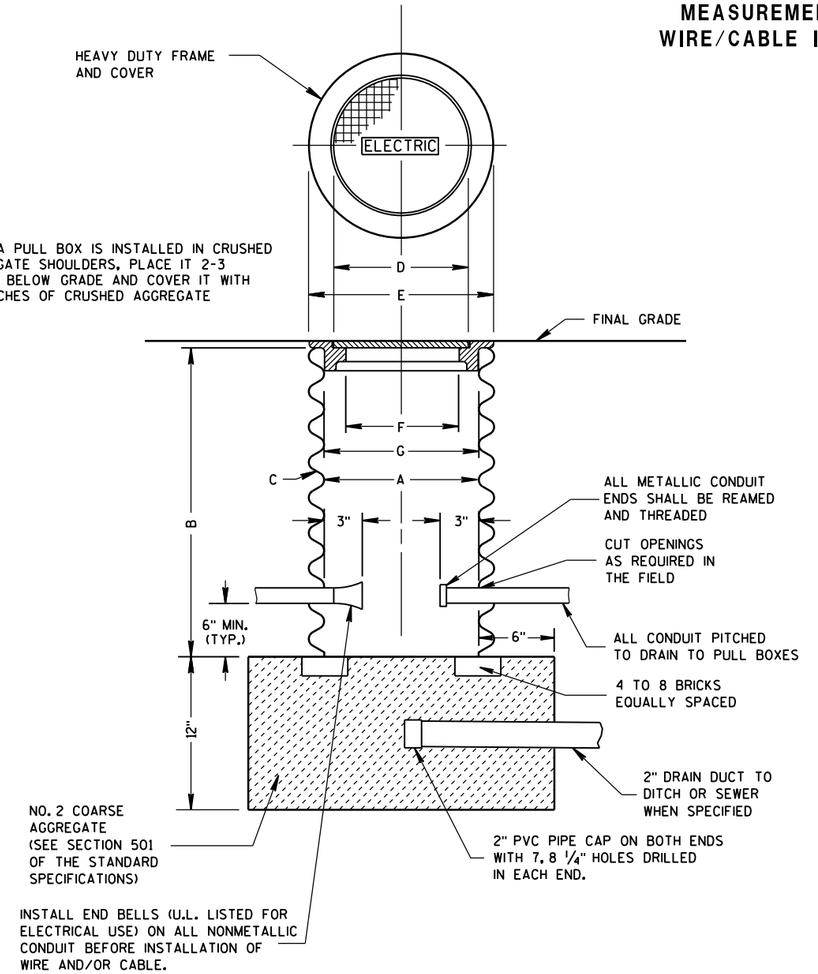


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

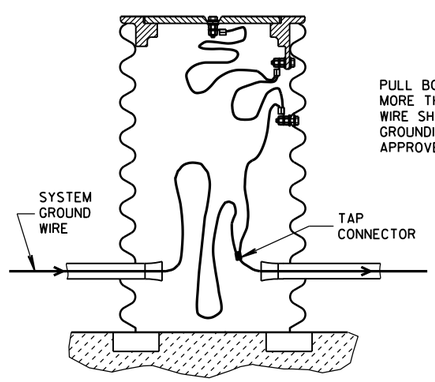
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

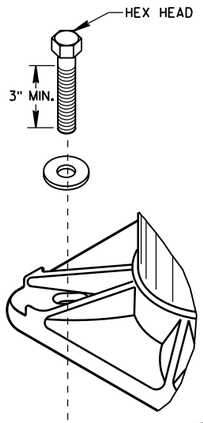
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

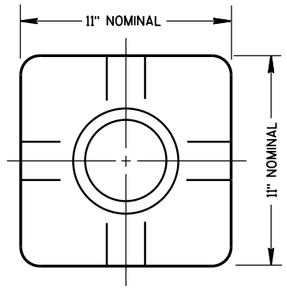
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

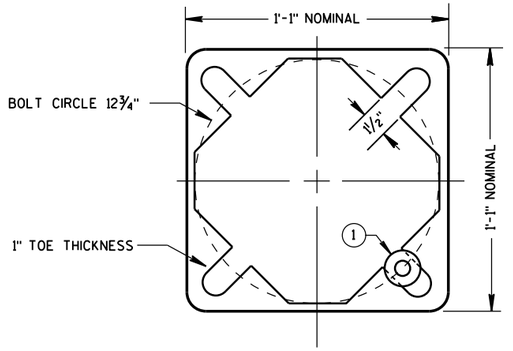
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

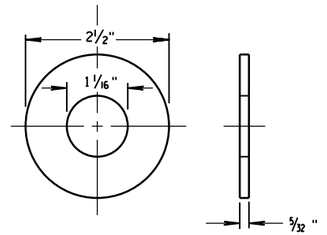




TOP VIEW
(PEDESTAL BASE)

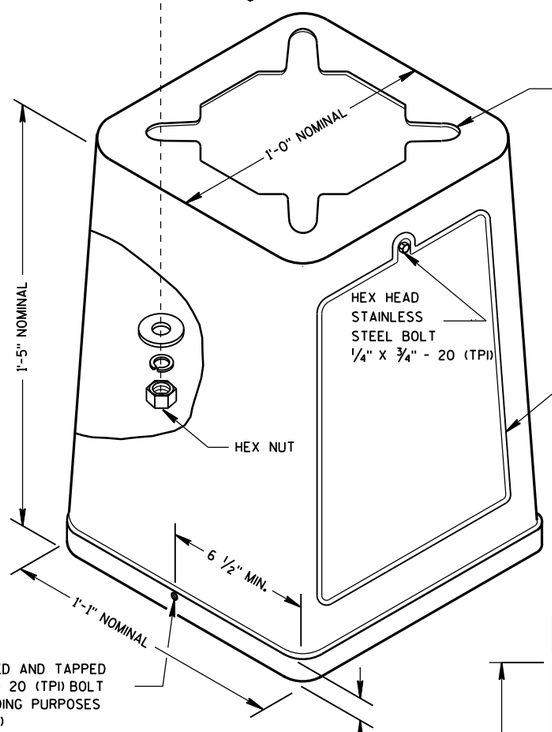


BOTTOM VIEW
(PEDESTAL BASE)

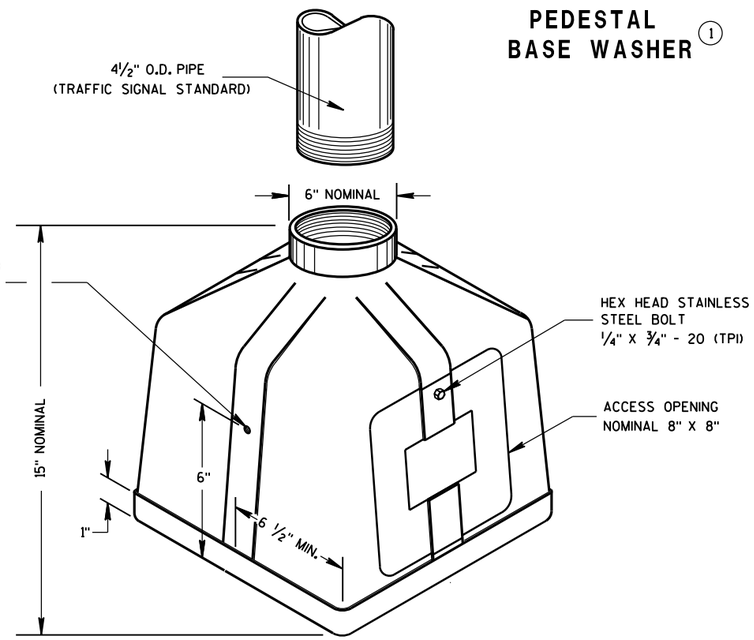


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

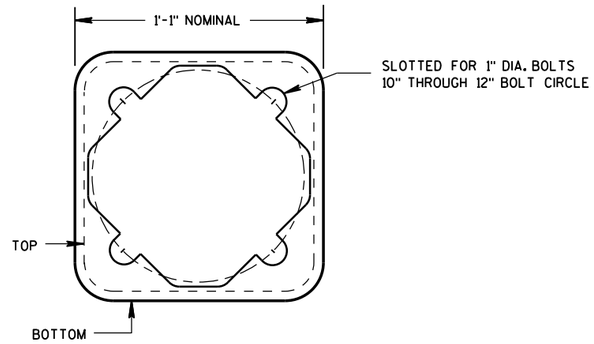


ISOMETRIC VIEW

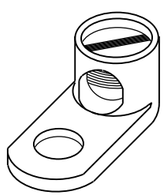


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

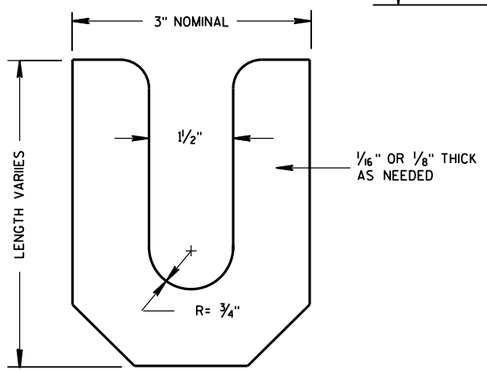


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 3-4

6

S.D.D. 9 C 3-4

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

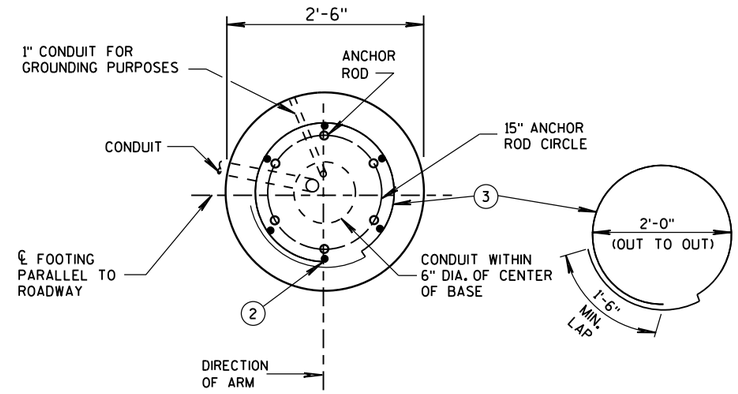
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

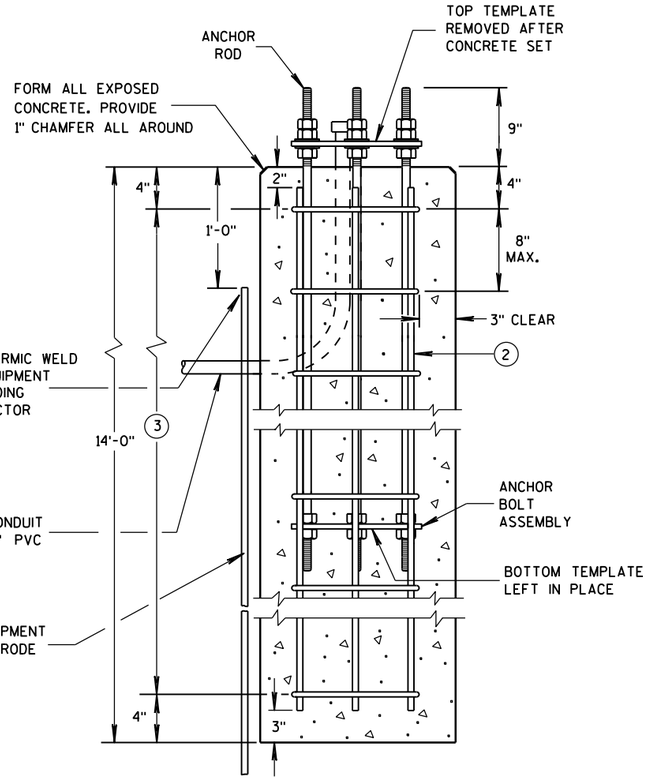
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

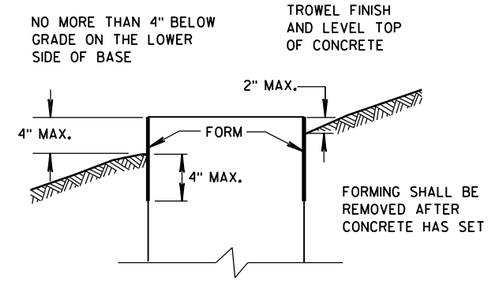




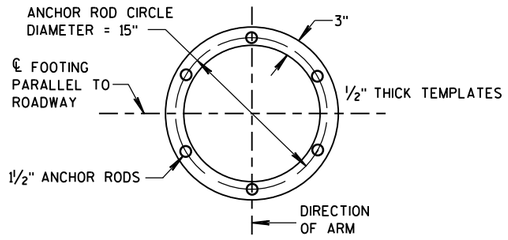
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

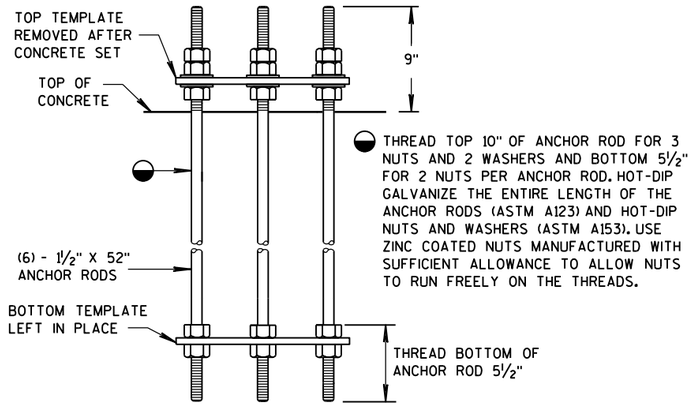
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

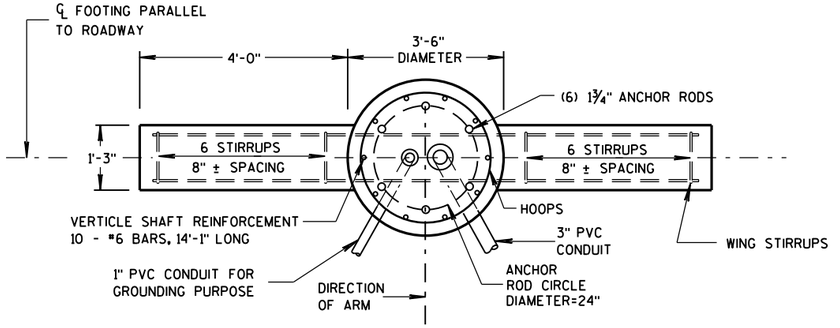
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

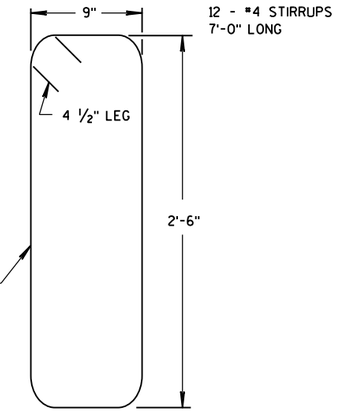
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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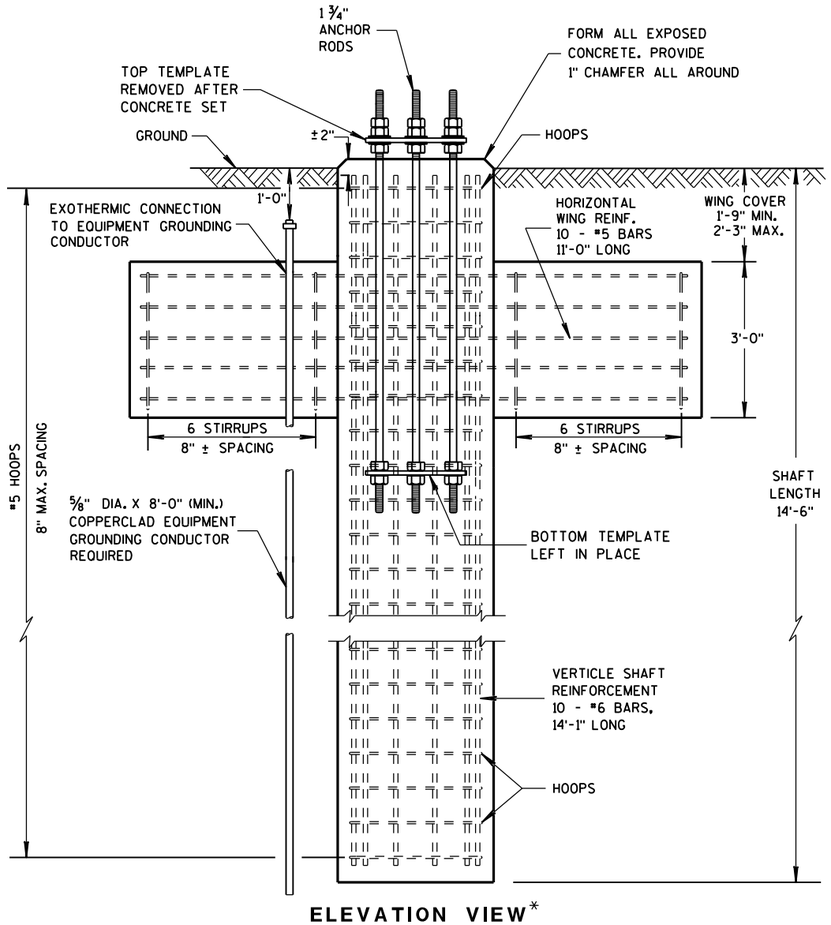
S.D.D. 9 C 11-10



PLAN VIEW

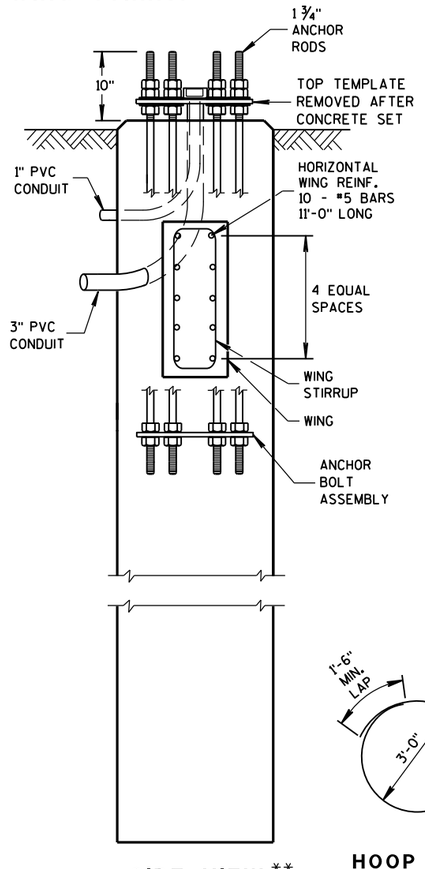


WING STIRRUP



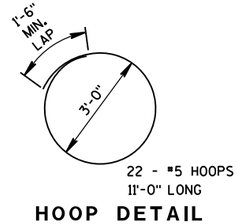
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

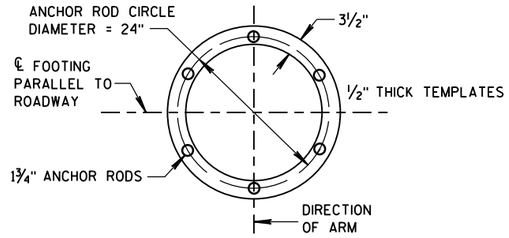
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

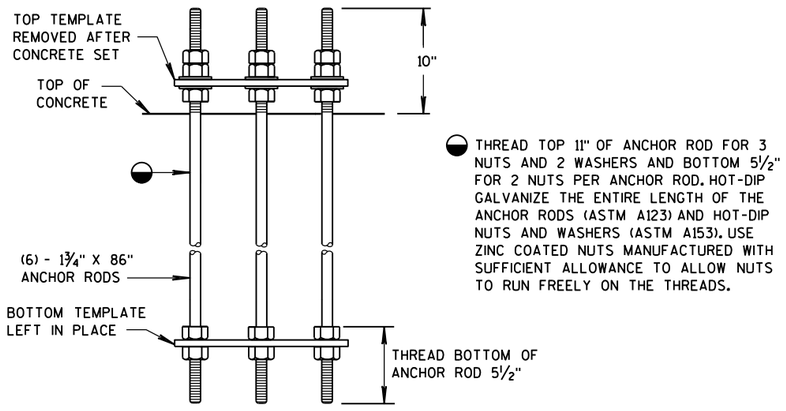
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-9a

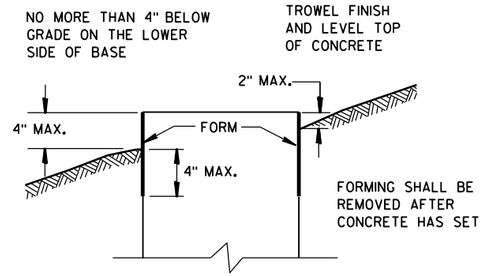


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

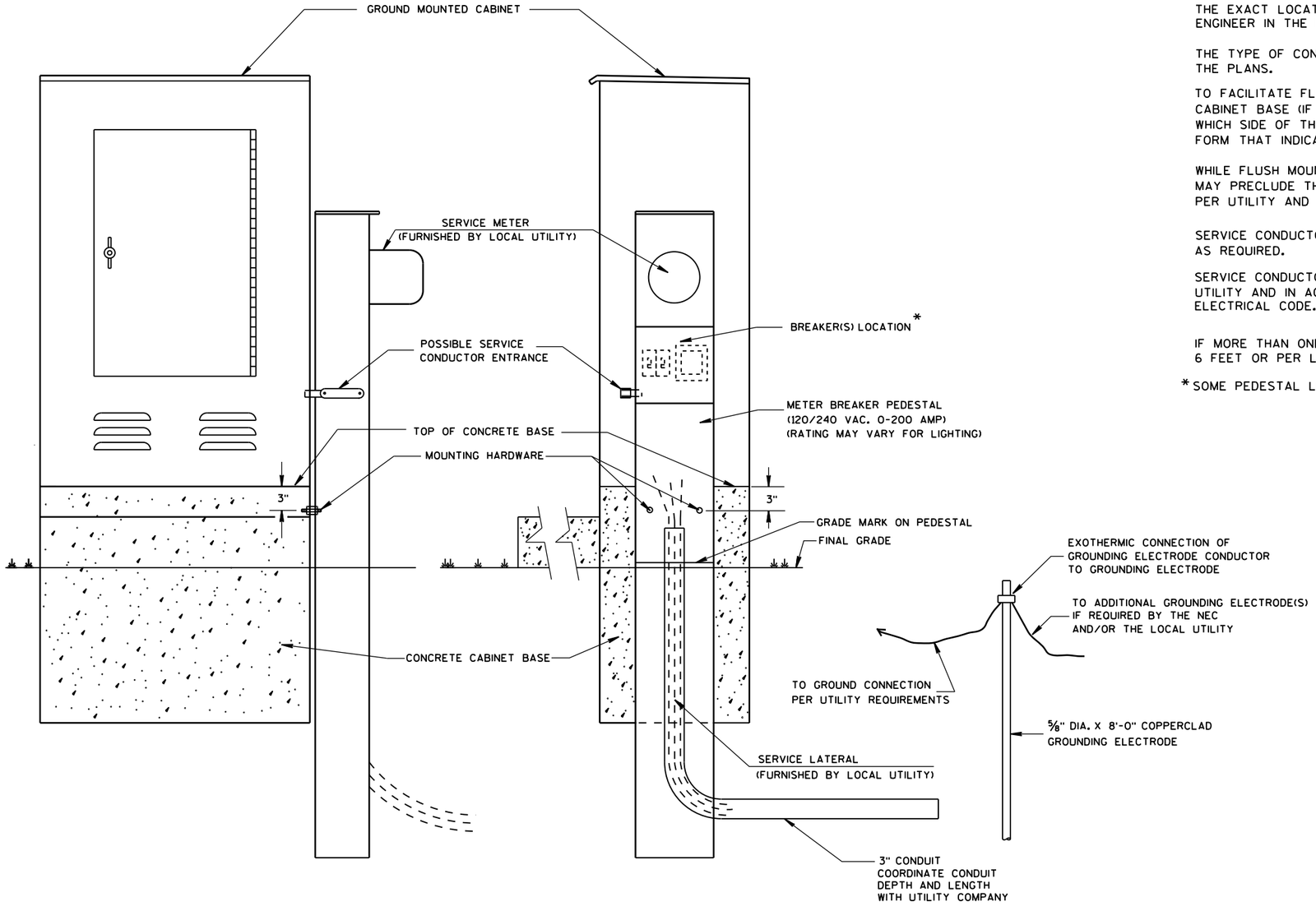
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CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

S.D.D. 9 C 12-9b



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

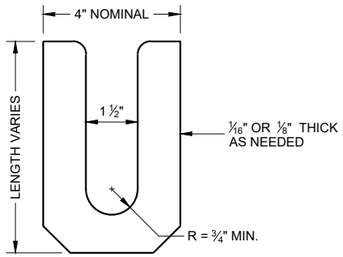
SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

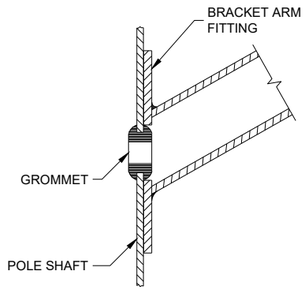
*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

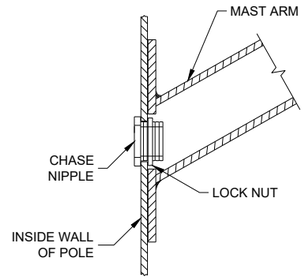
6
S.D.D. 9 D 1-5



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

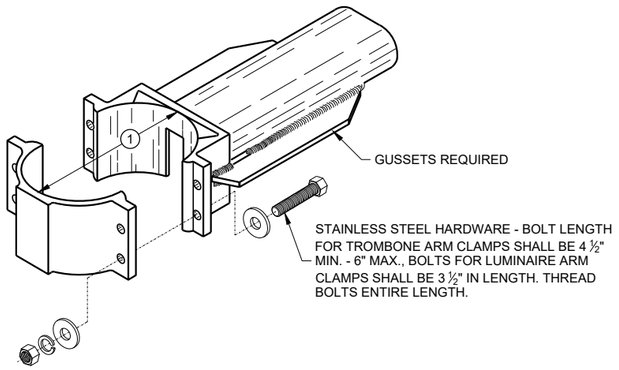
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

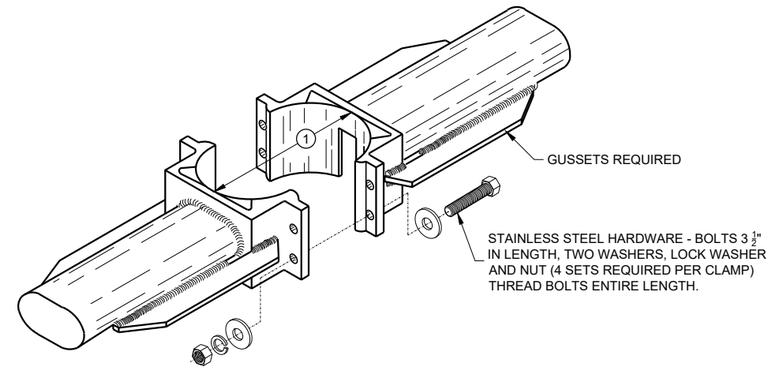
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

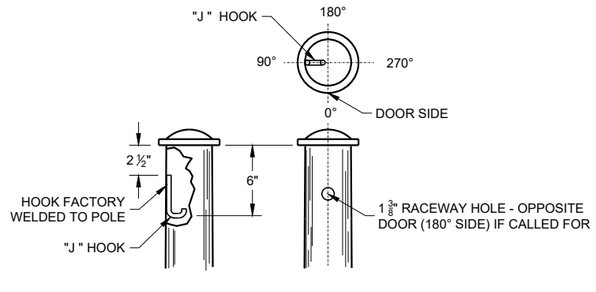
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



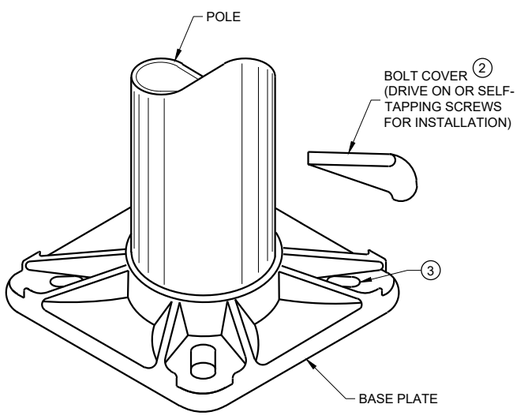
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



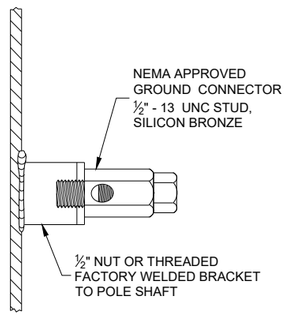
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

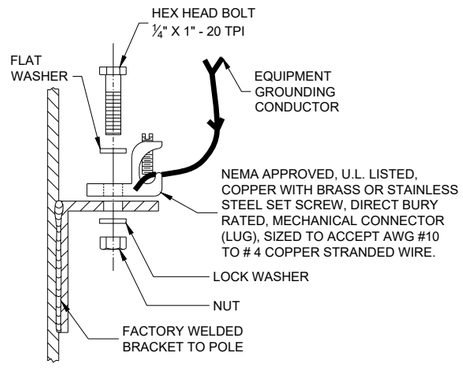


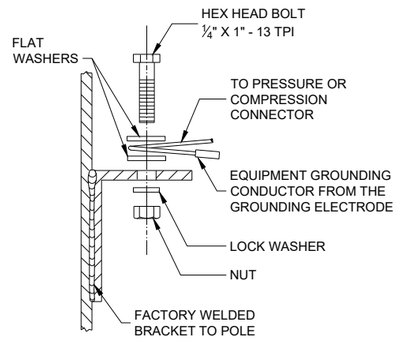
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 429

FHWA

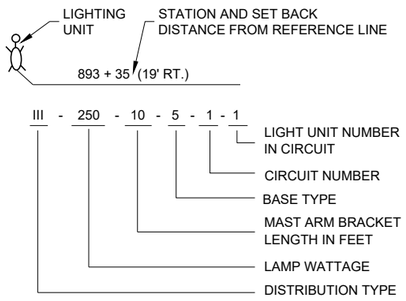
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SDD 09A01 - 15g

GENERAL NOTES

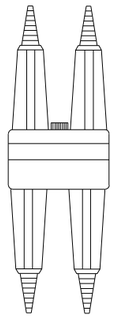
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

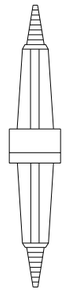
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



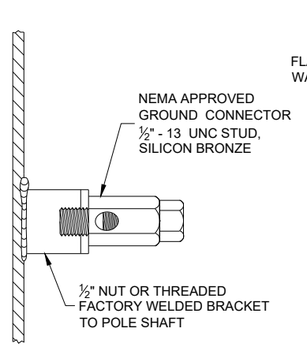
LIGHTING UNIT CODE
(TYPICAL)



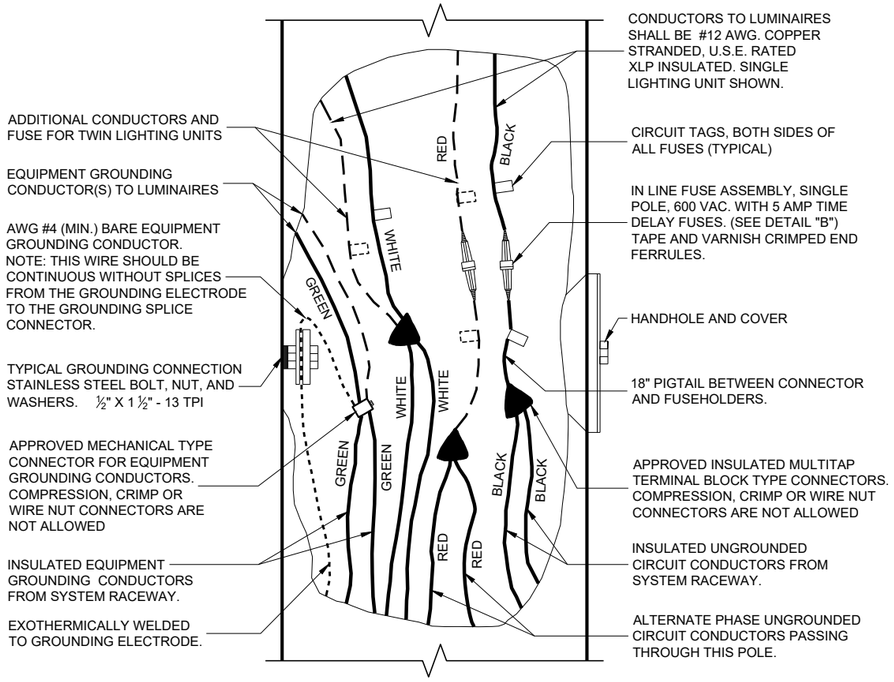
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



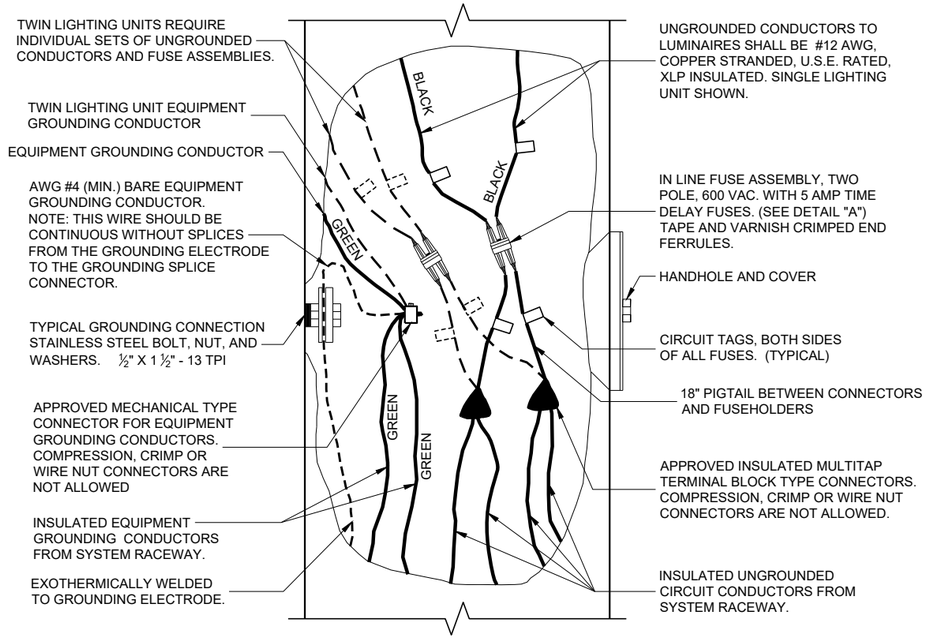
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

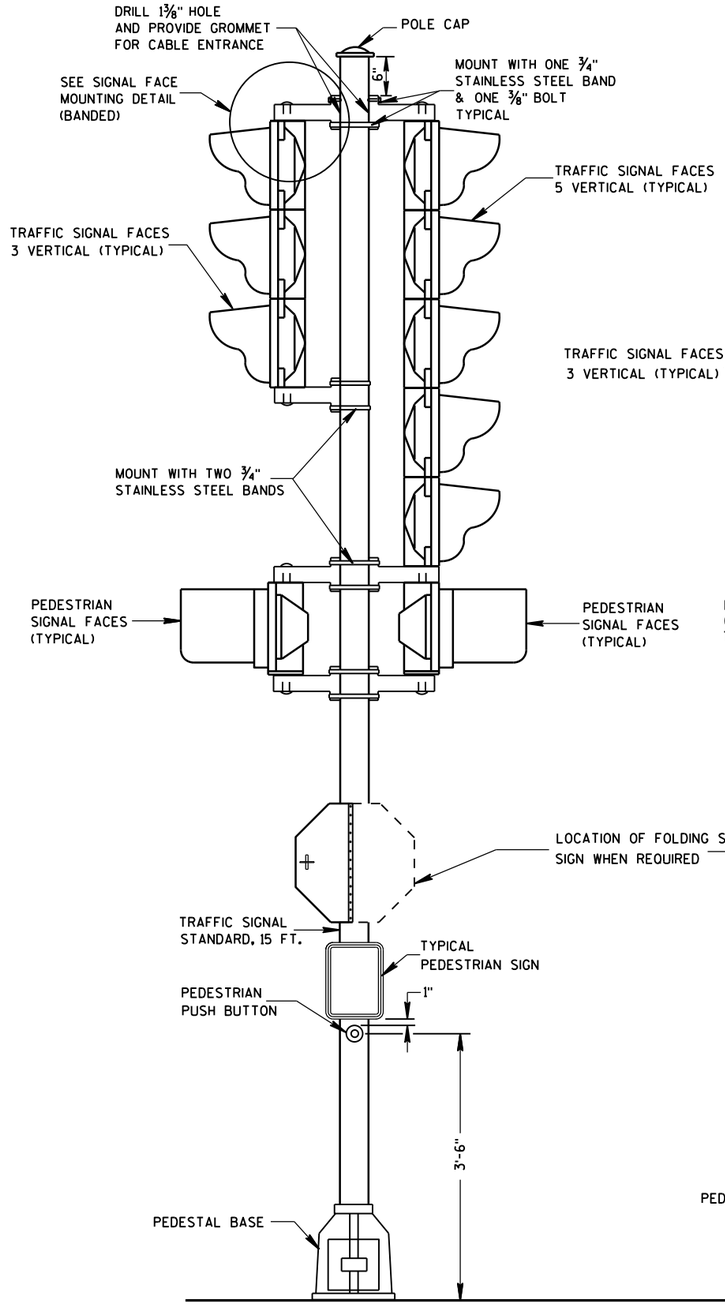
NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

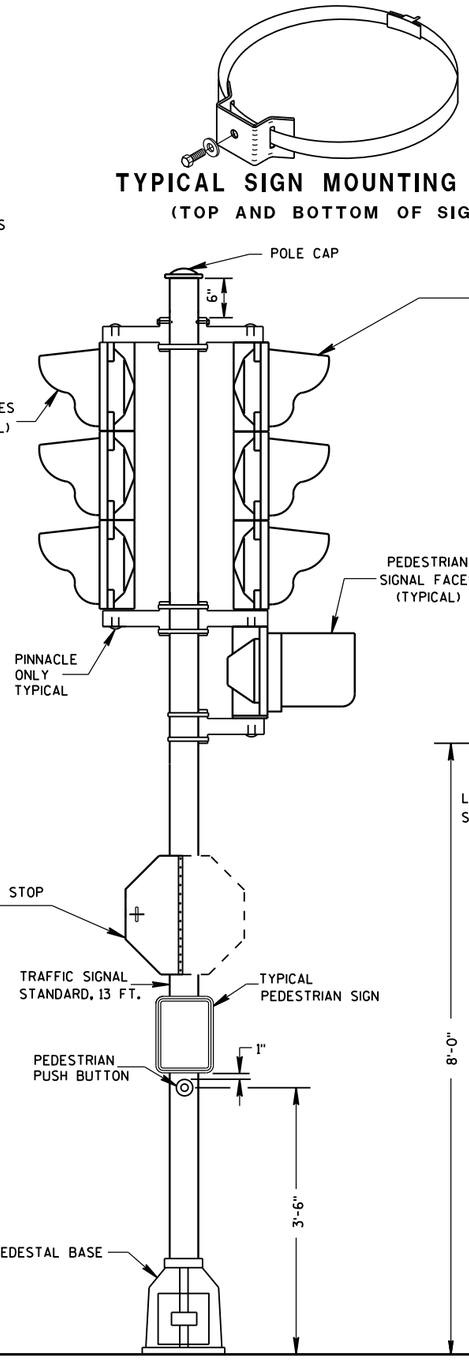
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November 2018
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SDD 09E03 - 06

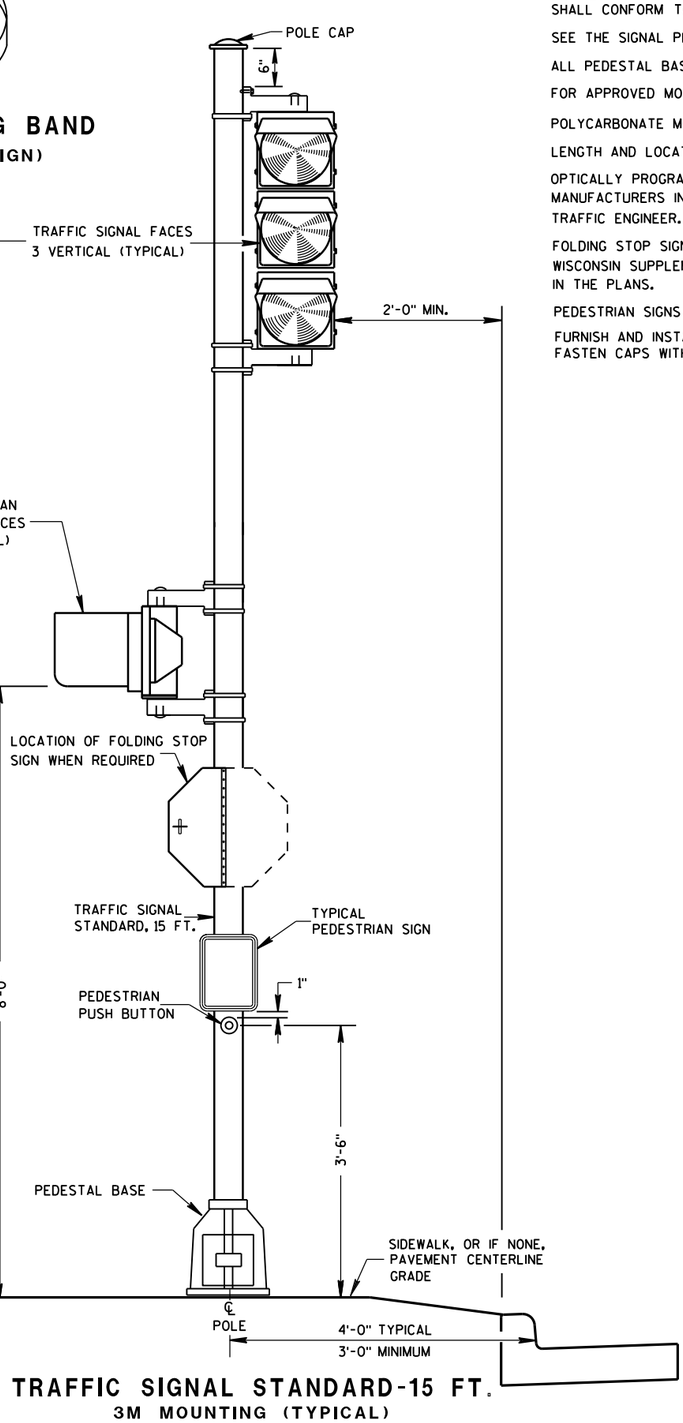


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

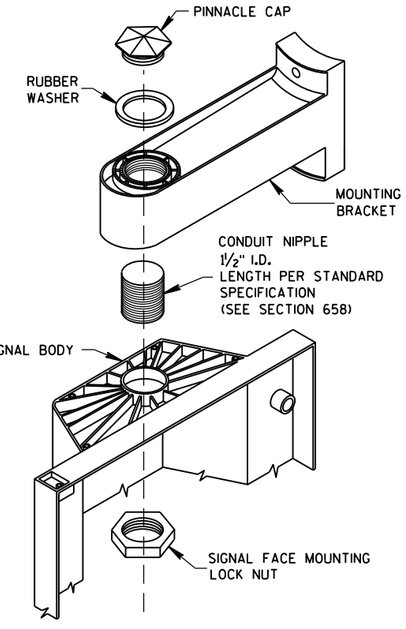
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

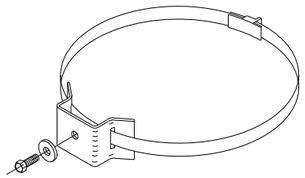
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

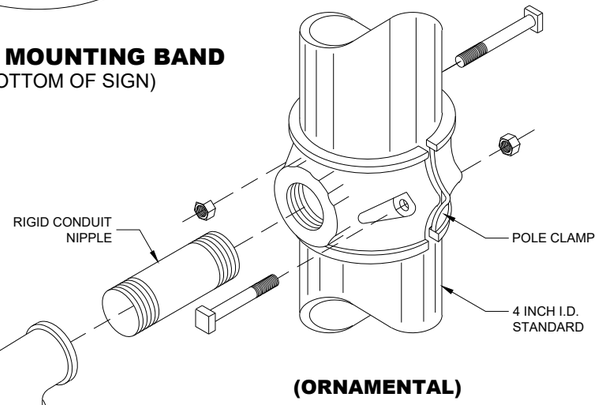
APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

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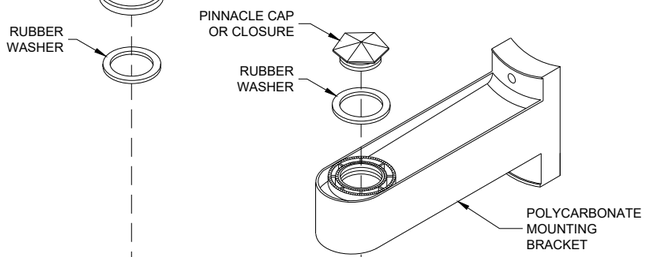
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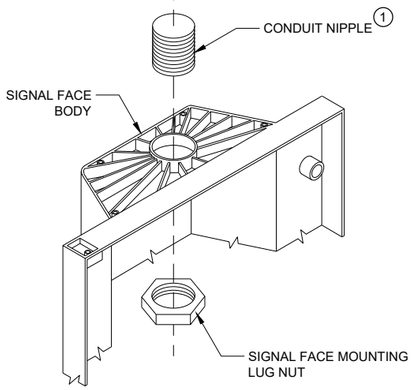
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



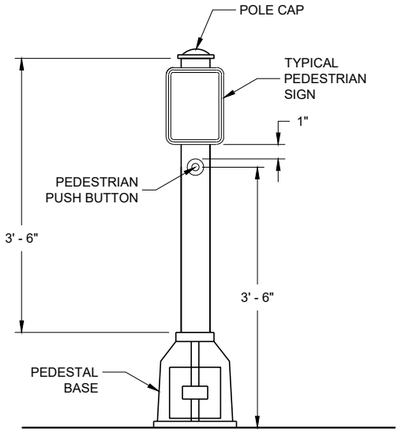
(ORNAMENTAL)



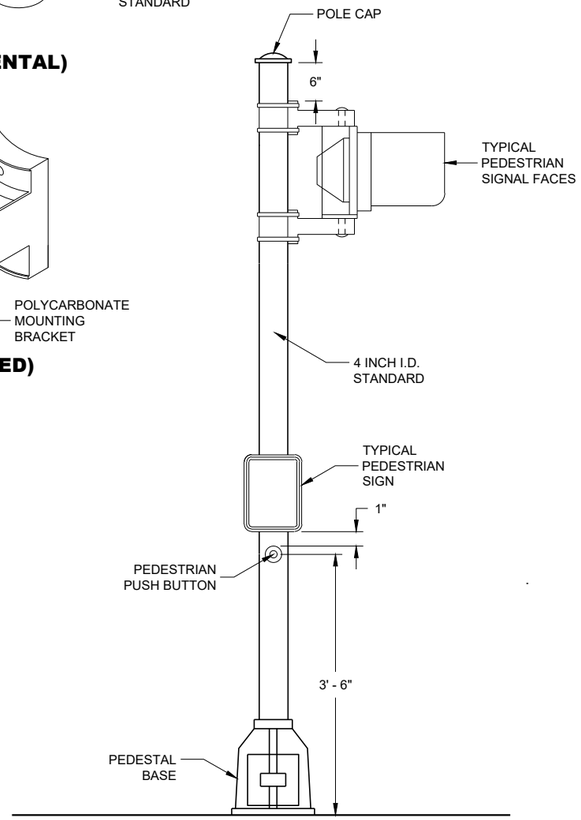
(BANDED)



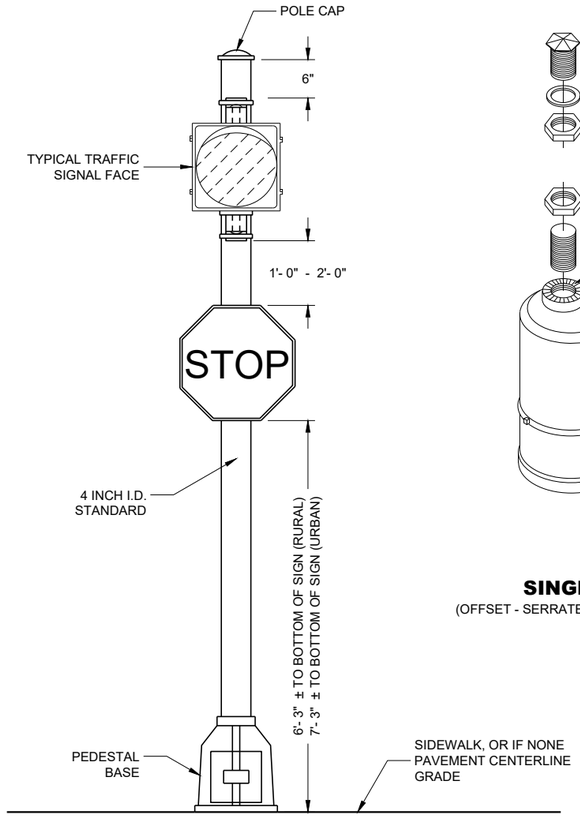
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

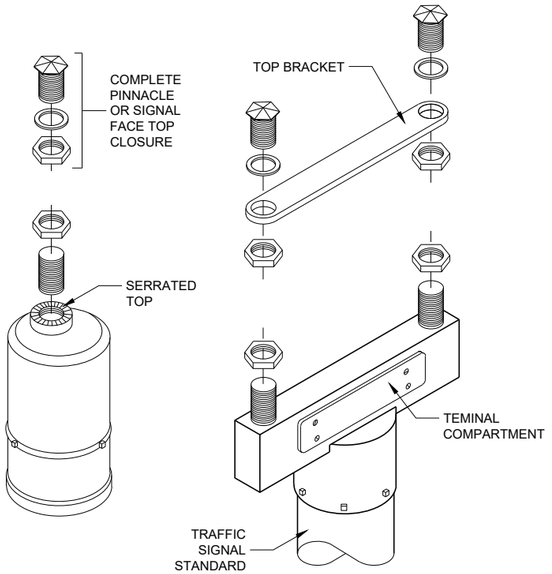
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

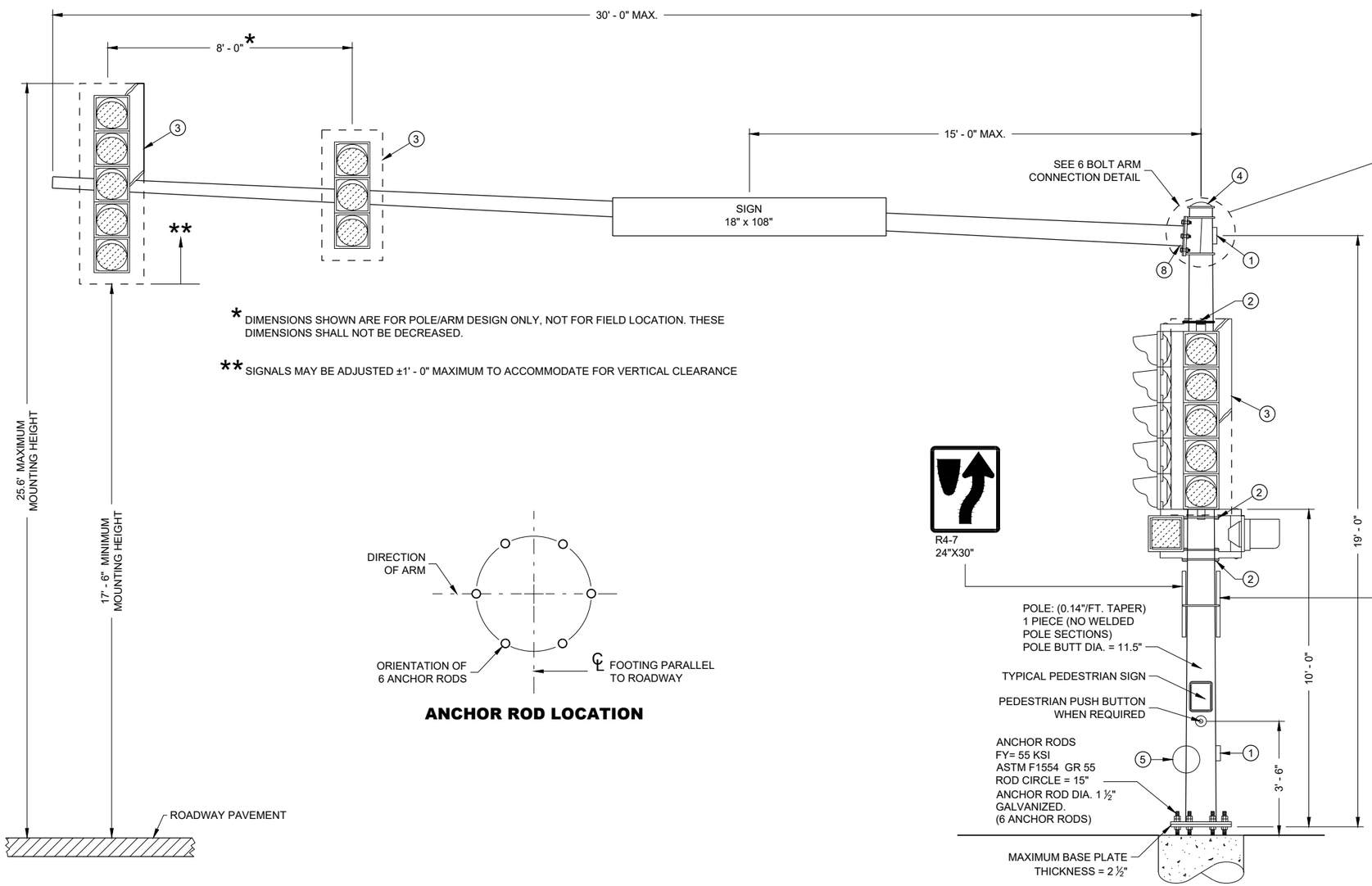
APPROVED
November 2018
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/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 432

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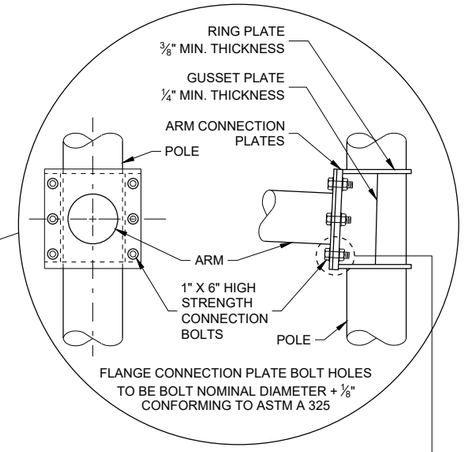
SDD 09E07 - 06



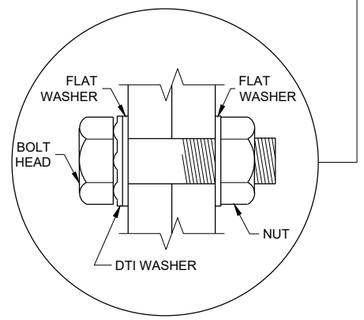
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 9 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

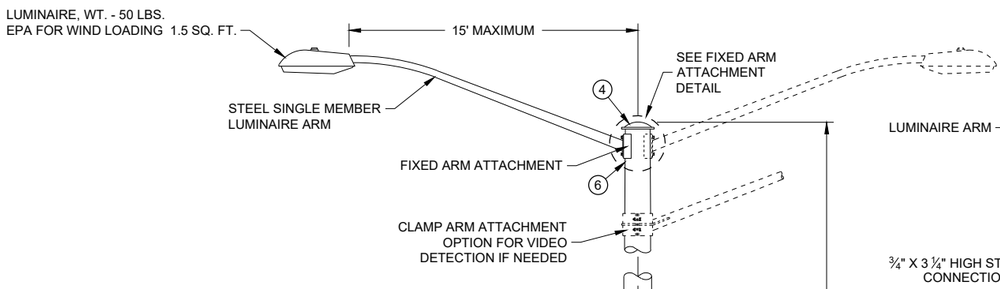
TYPE 9 POLE **15' - 30' MONOTUBE ARM**	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGI
FHWA	433

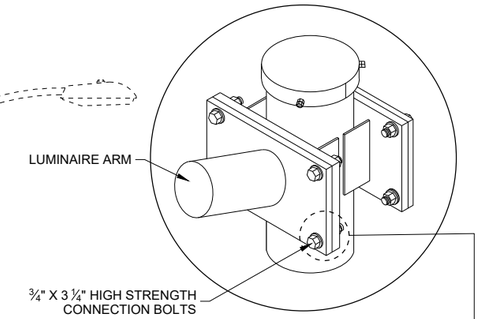
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SDD 09E08 - 09a

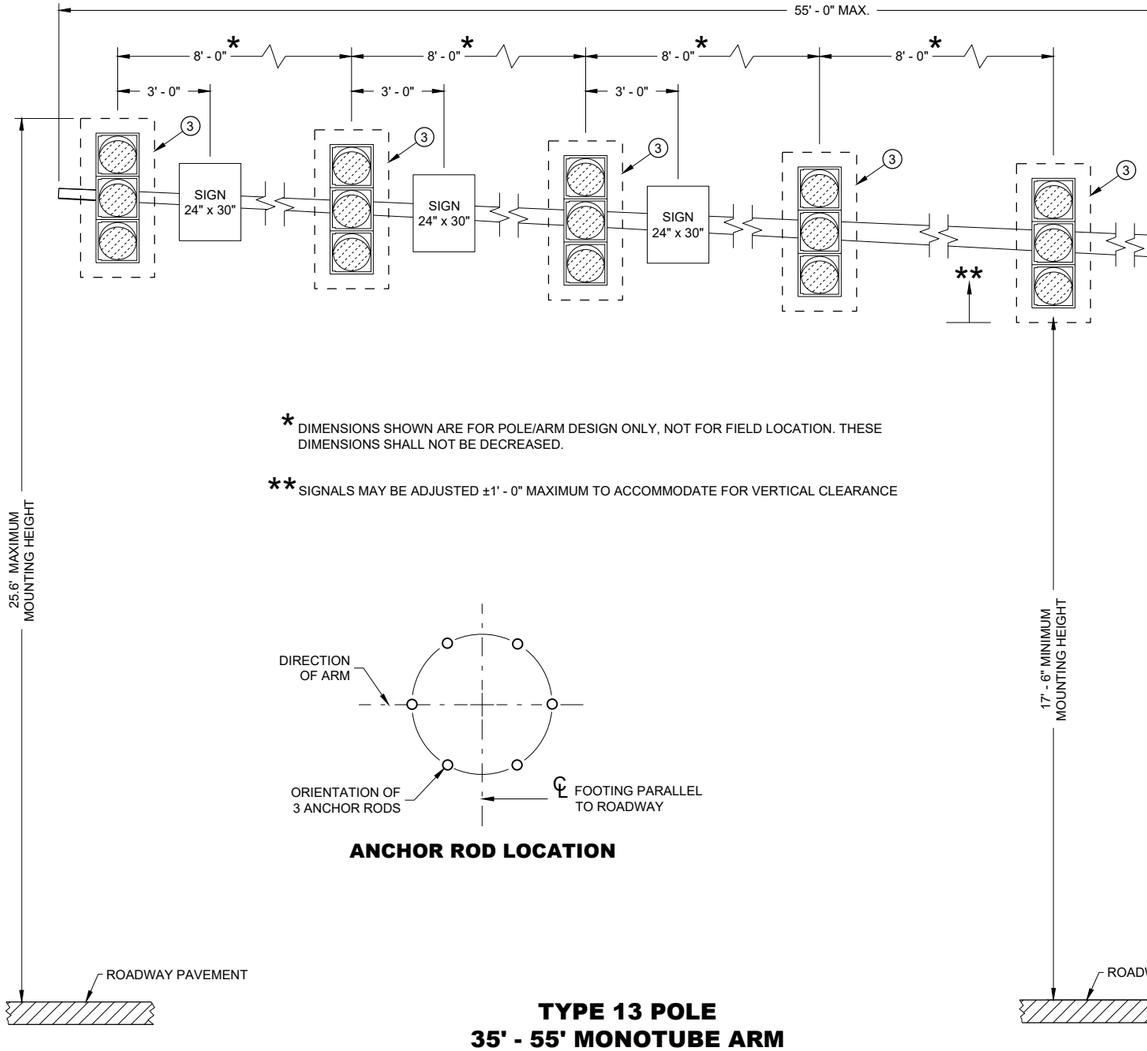
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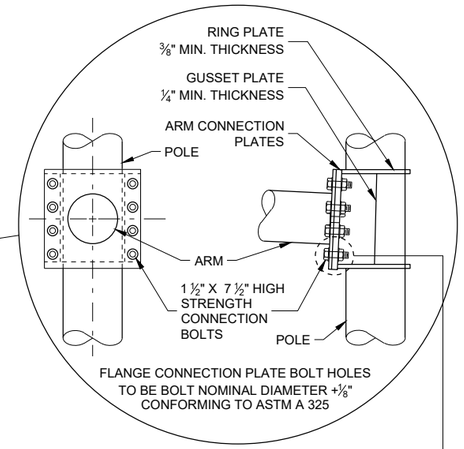
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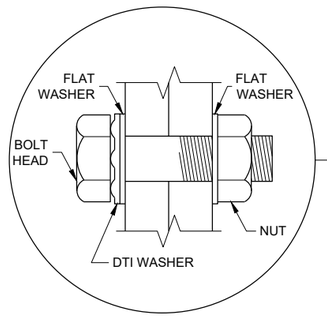


FIXED ARM ATTACHMENT DETAIL





8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION

TYPE 13 POLE
35' - 55' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 434

FHWA

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SDD 09E08 - 09j

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

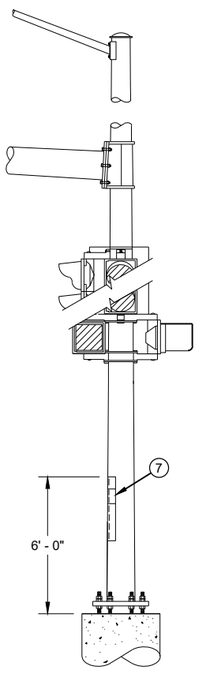
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

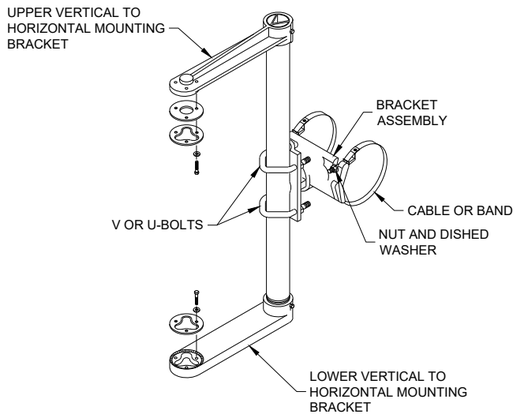
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

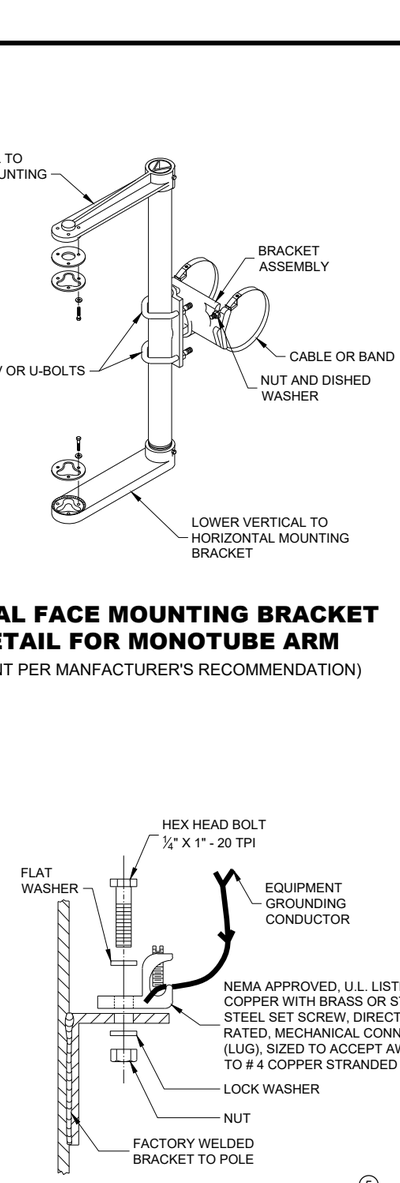


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



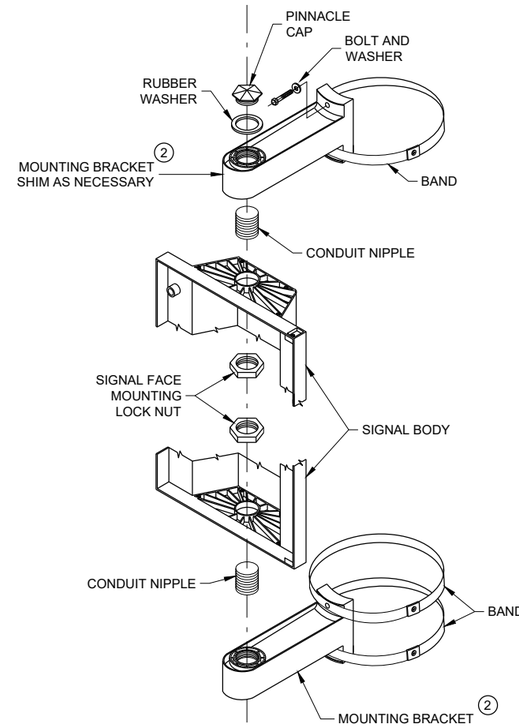
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANFACTURER'S RECOMMENDATION)

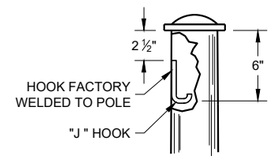


TYPICAL GROUNDING (5) CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK (6) WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

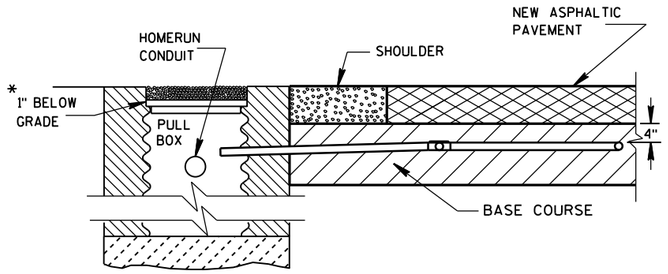
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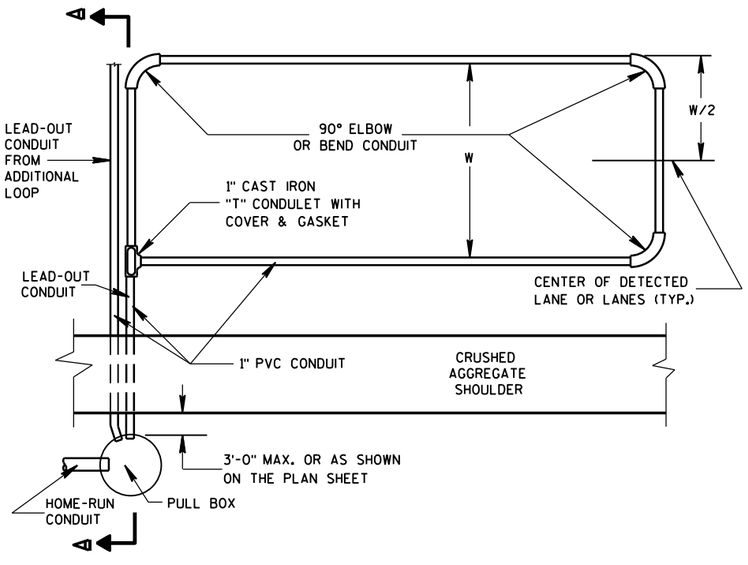
SDD 09E08 - 09k



SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

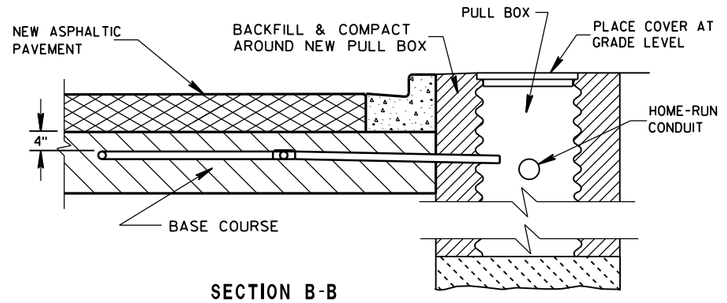
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

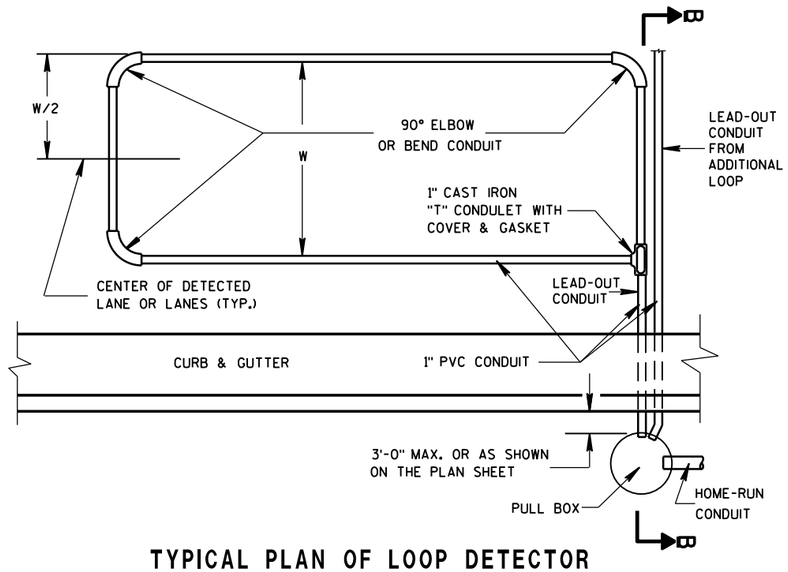
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

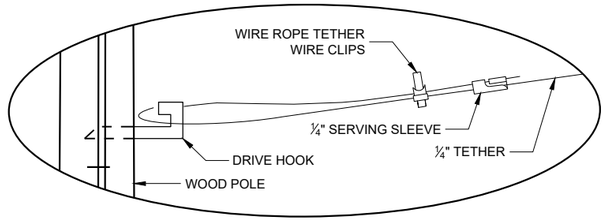
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Sept. 2014 — DATE
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S.D.D. 9 F 8-4

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

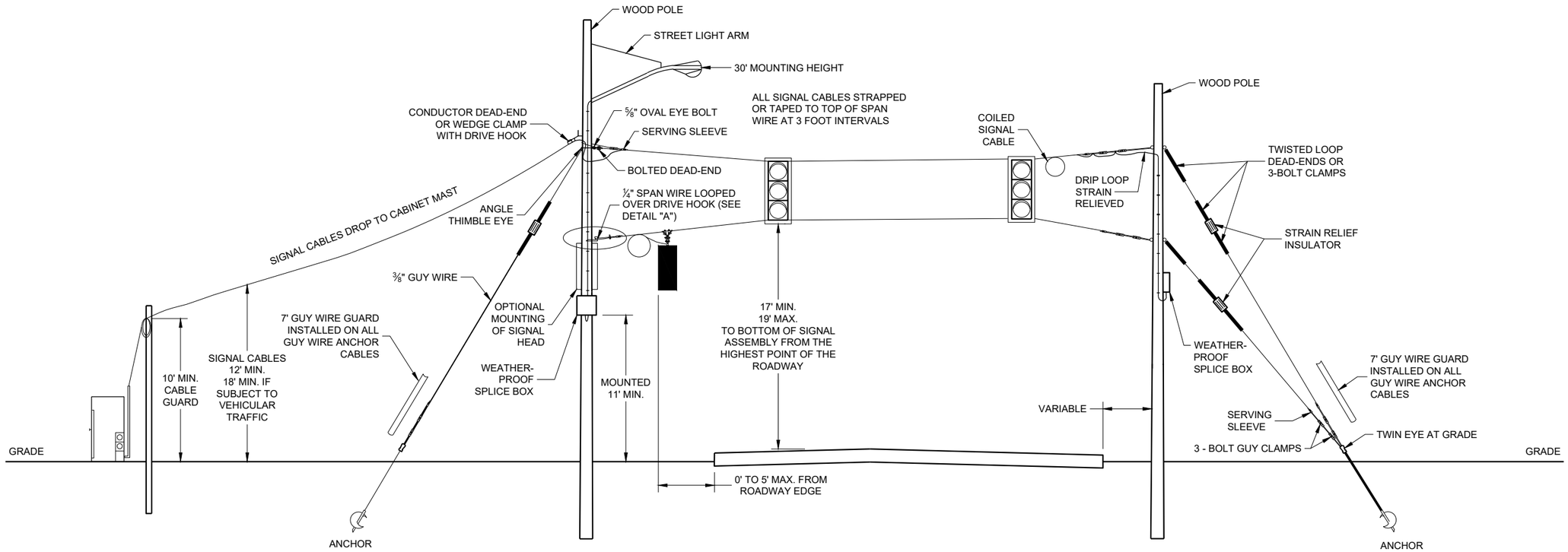


DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

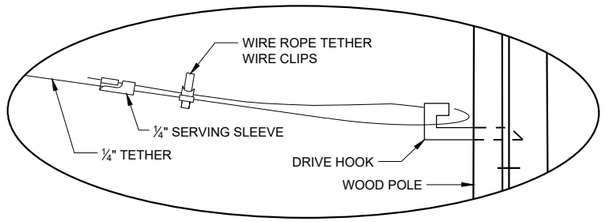
APPROVED
June 2015
DATE

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STATE ELECTRICAL ENGI 437

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SDD09G01 - 04a

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

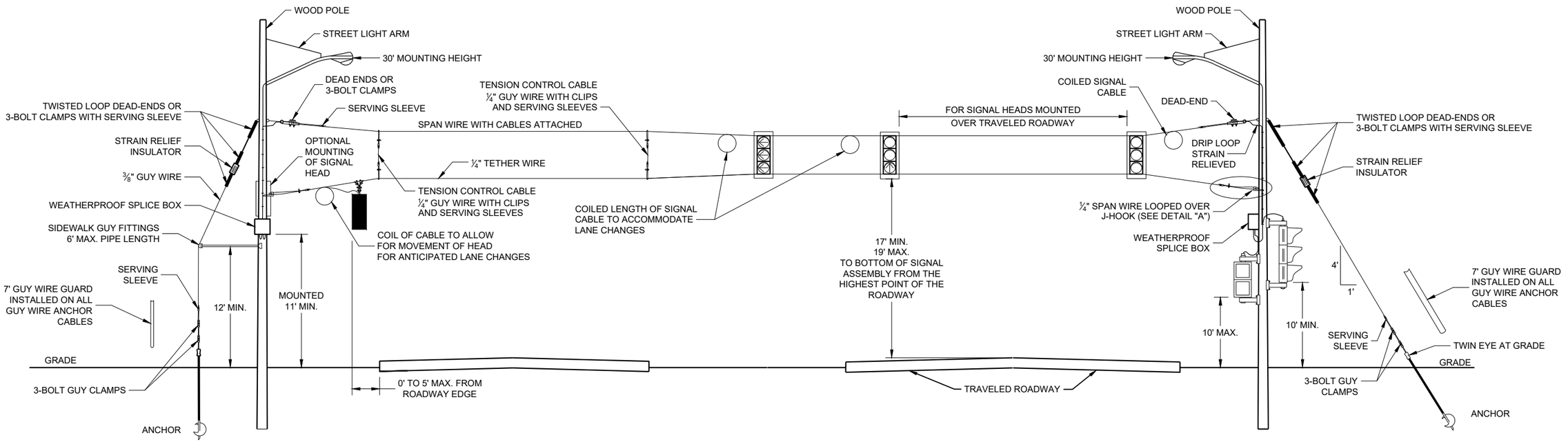


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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE
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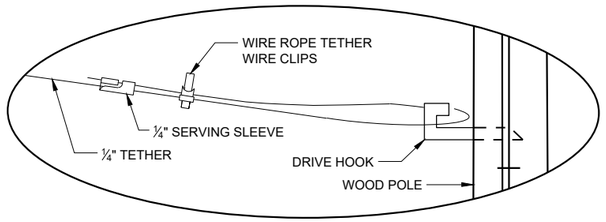
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SDD09G01 - 04b

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

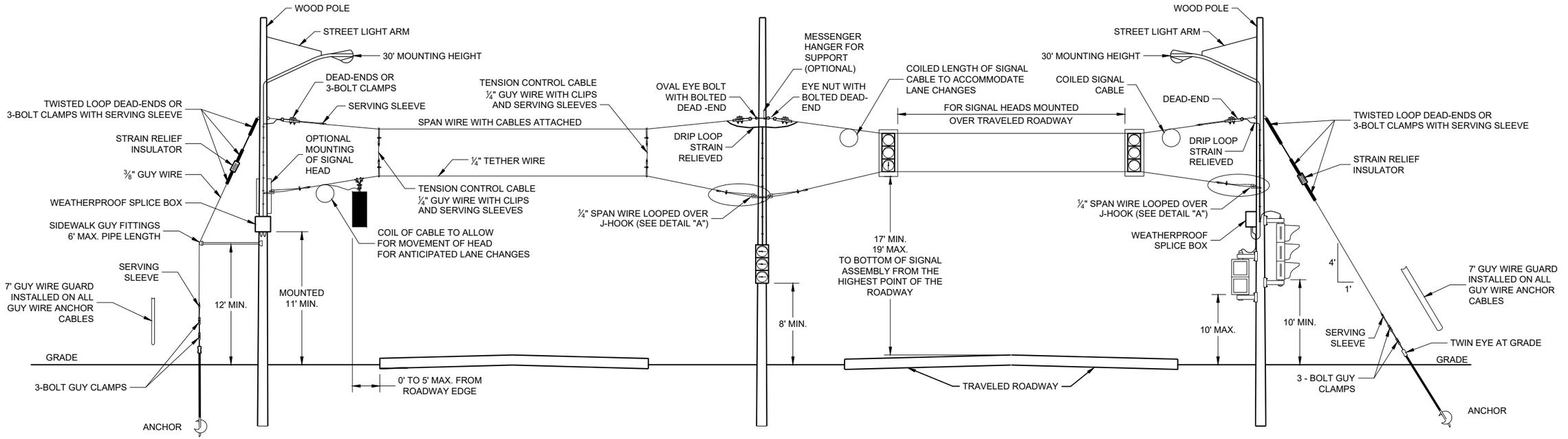


DETAIL "A"

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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

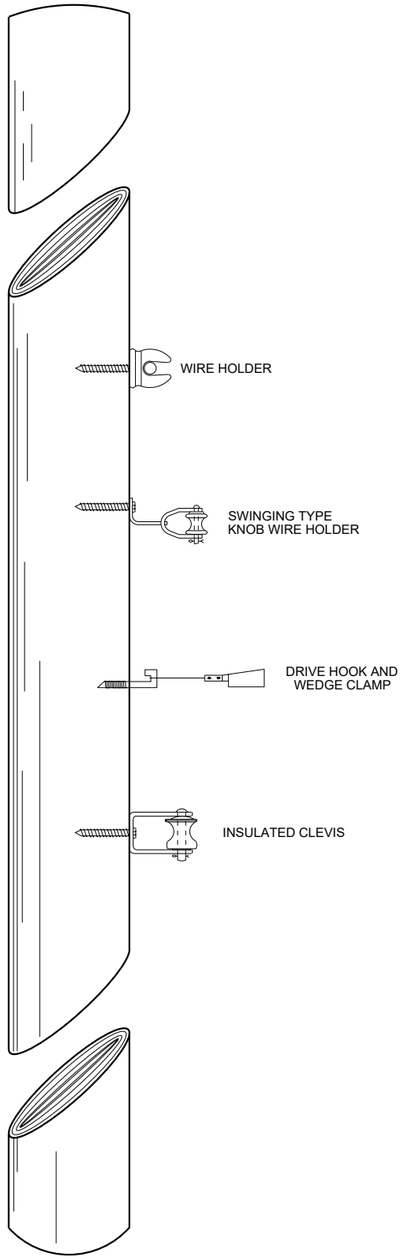
APPROVED
June 2015
DATE

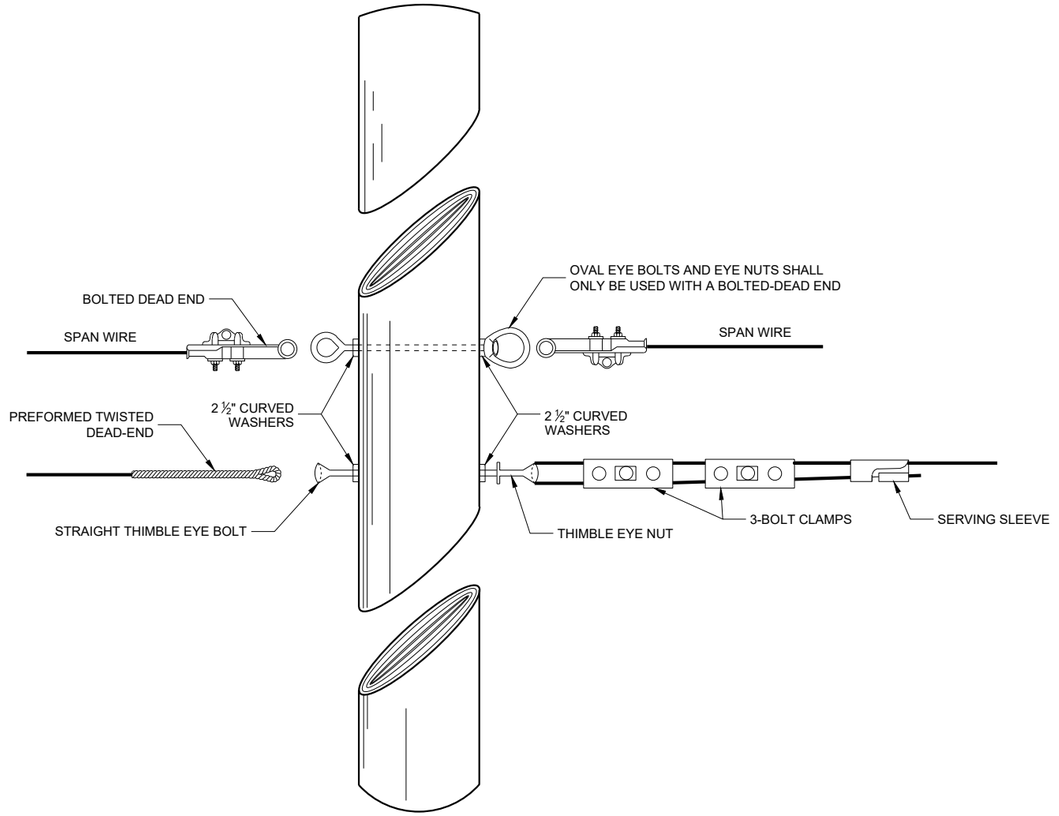
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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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ROADWAY STANDARDS DEVE ENGINEER

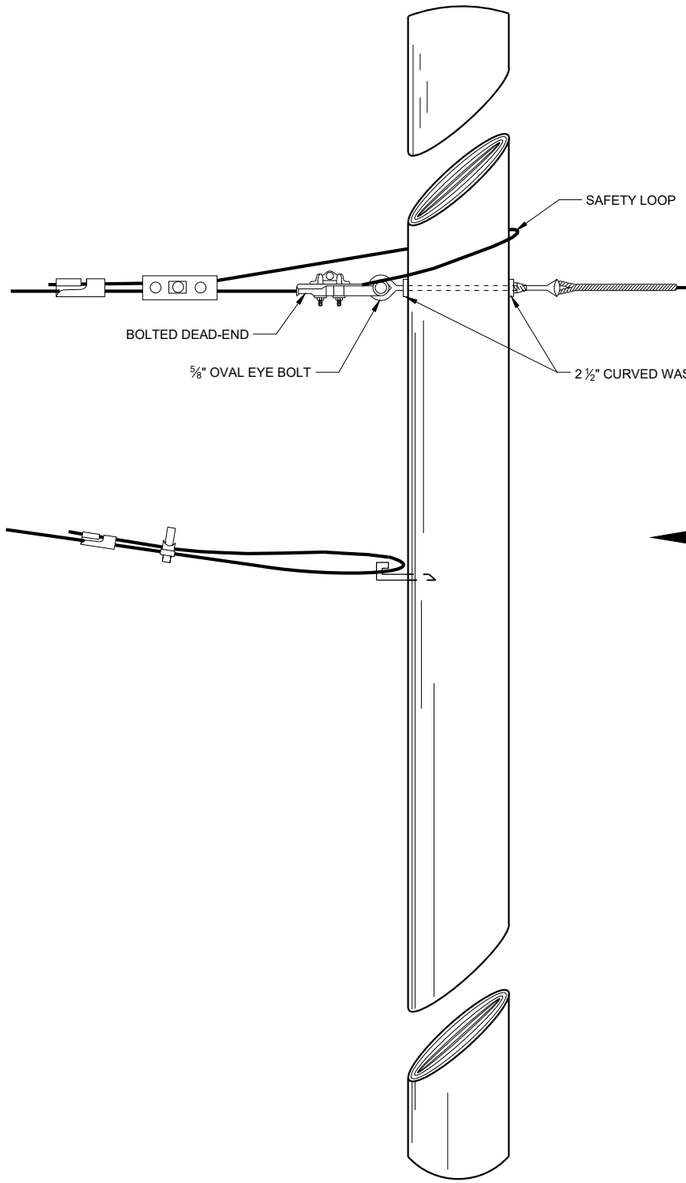
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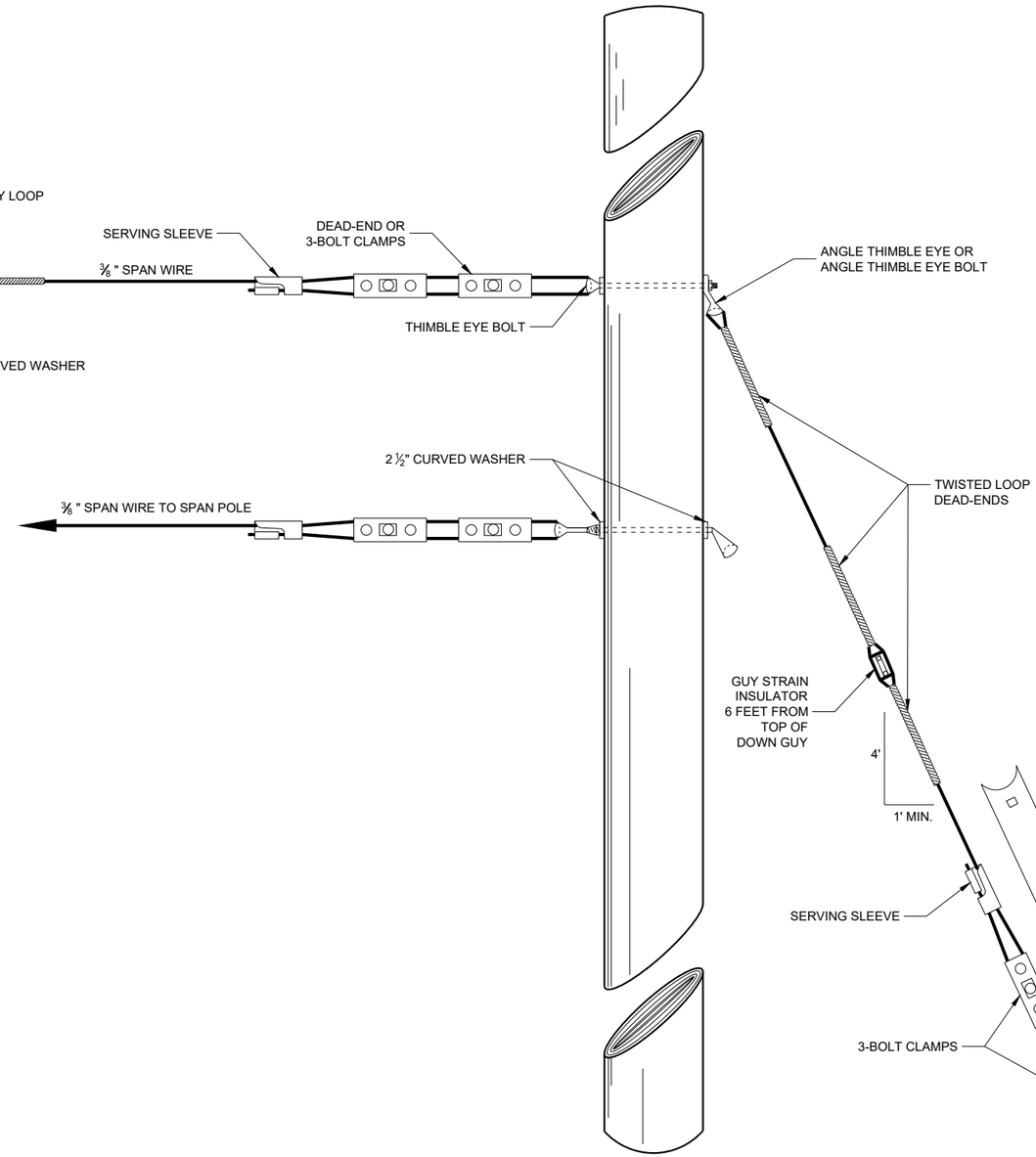
SDD 09G01 - 4d

GENERAL NOTES

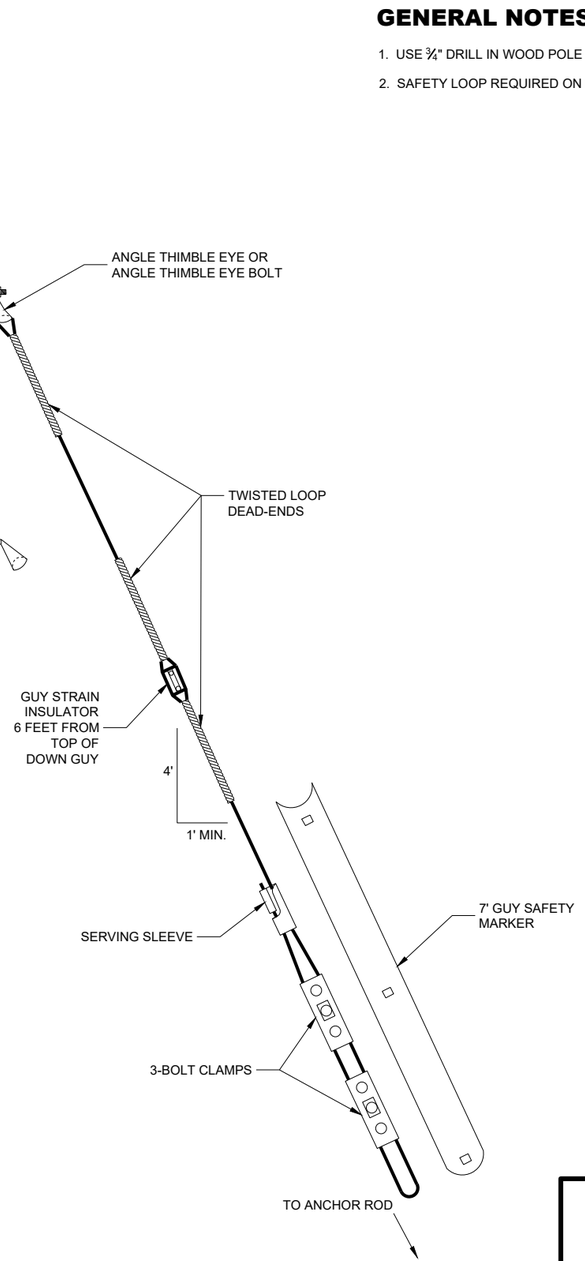
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

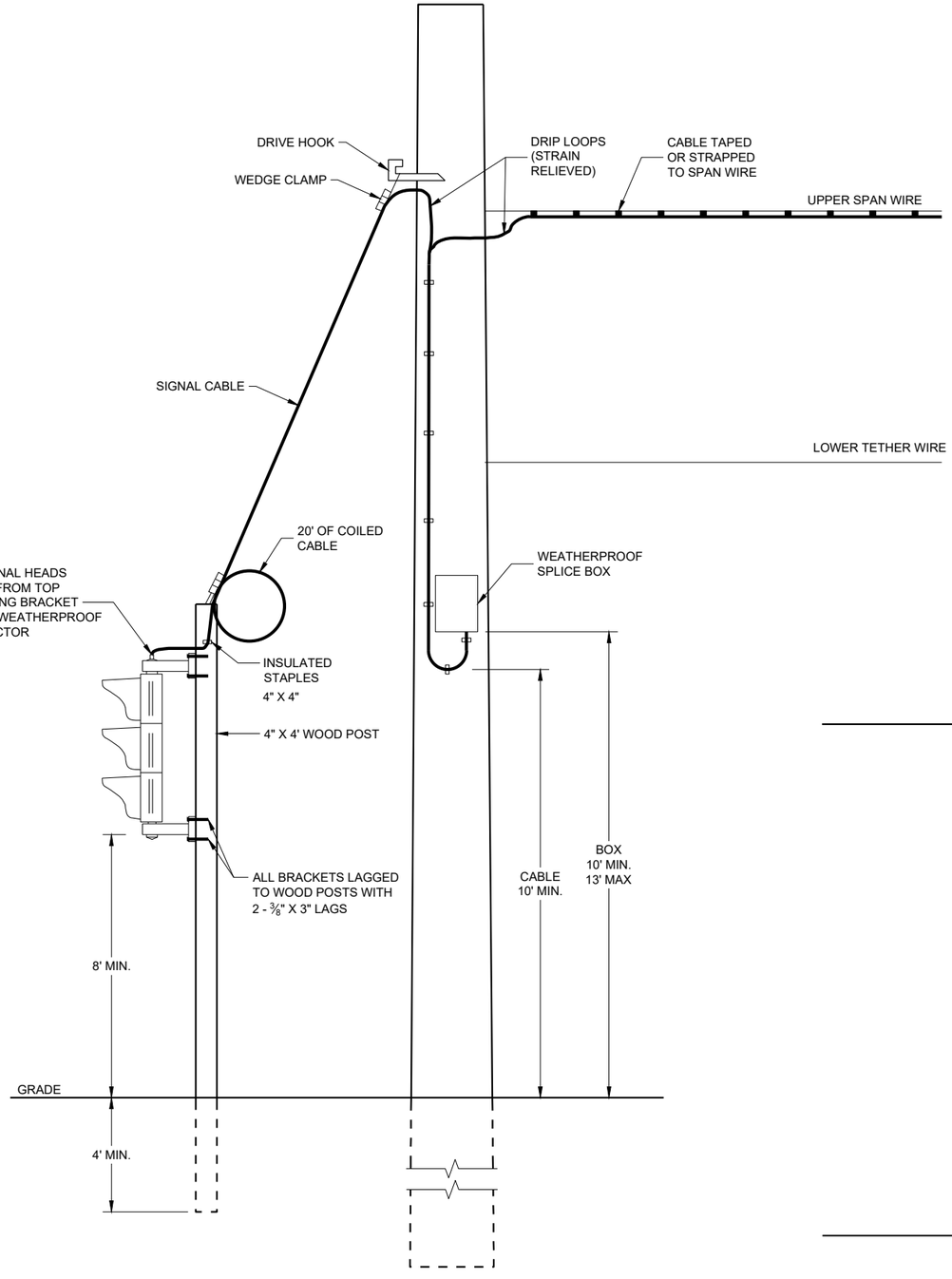
STATE OF WISCONSIN
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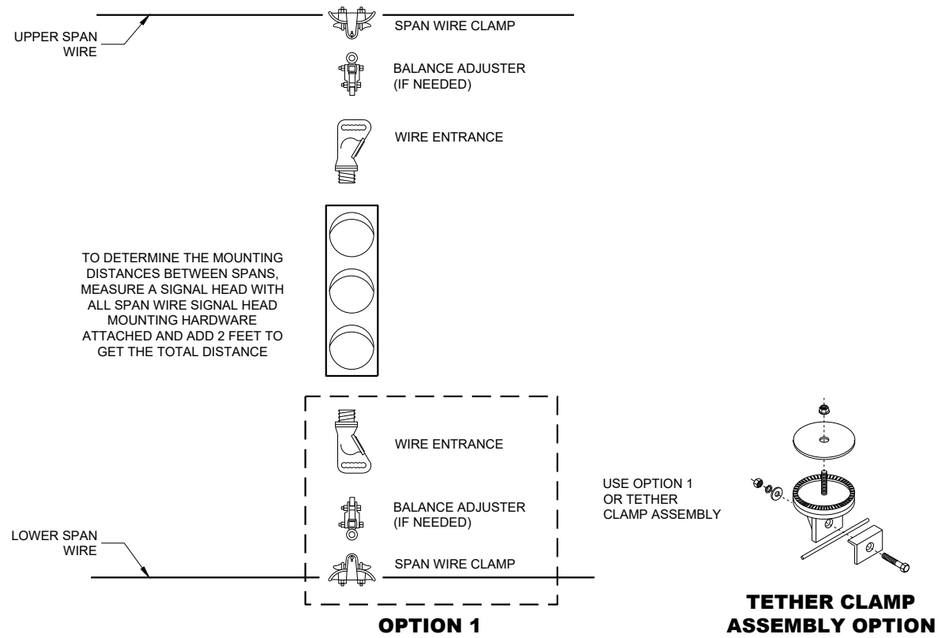
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

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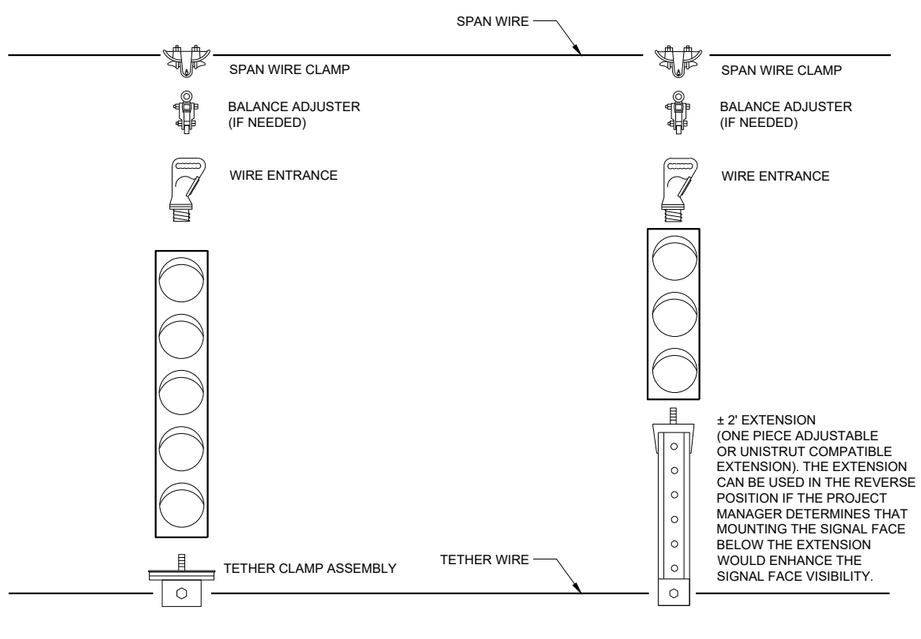
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SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

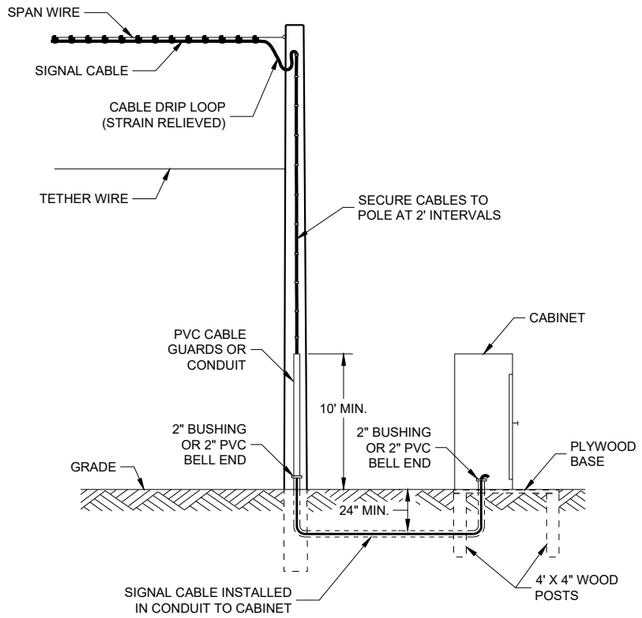
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

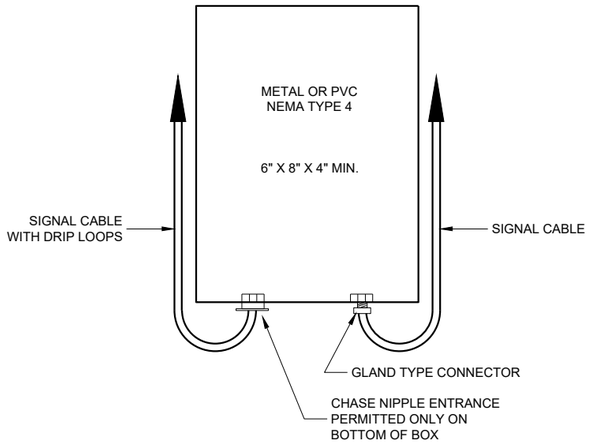
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2015 — DATE
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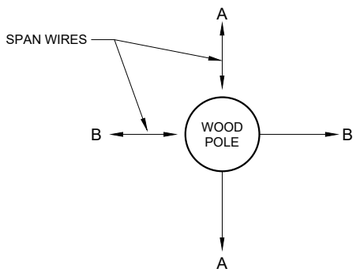
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SDD 09G01 - 4f





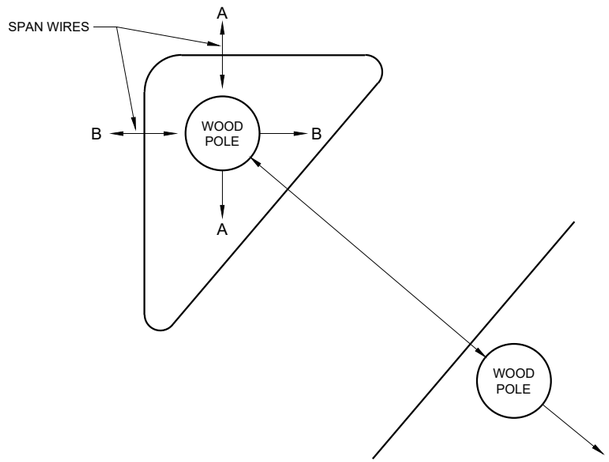
SPLICE BOX

TYPICAL SKID TYPE TEMPORARY

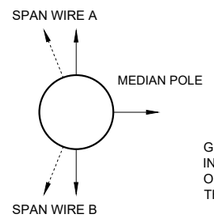


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

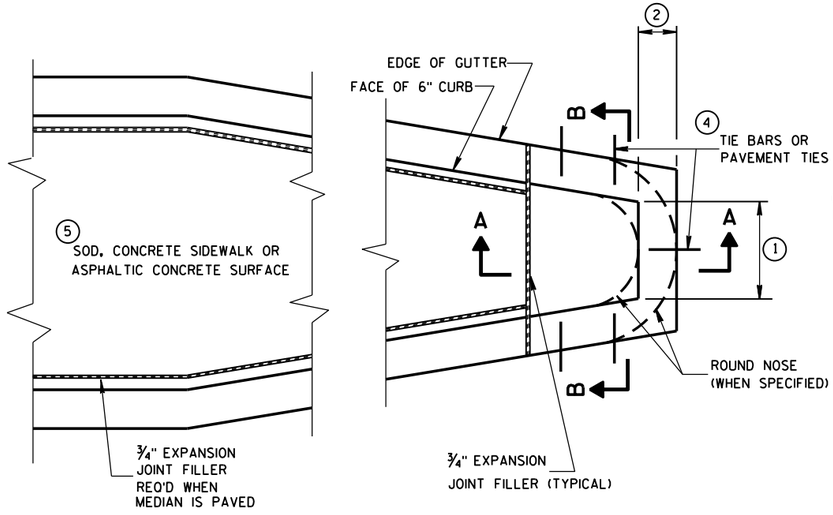
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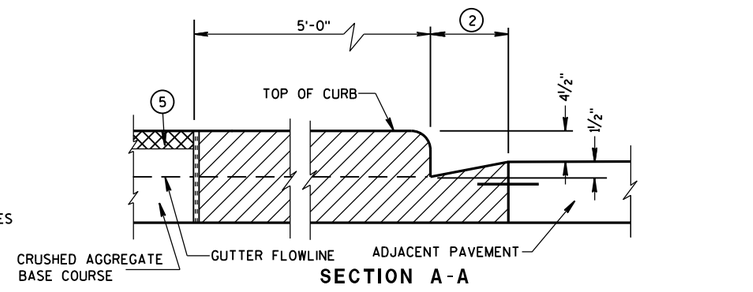
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

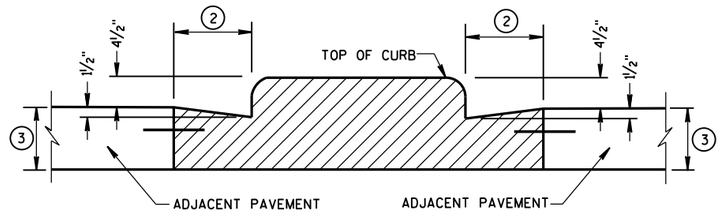
SDD 09G01 - 4g

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SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

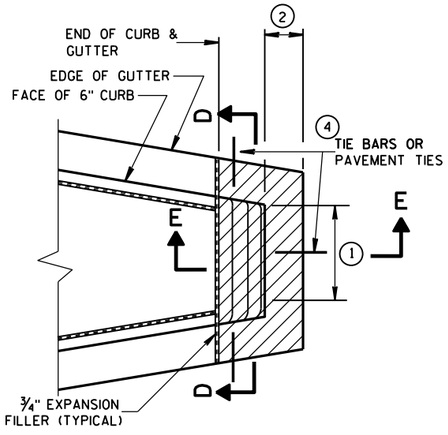
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

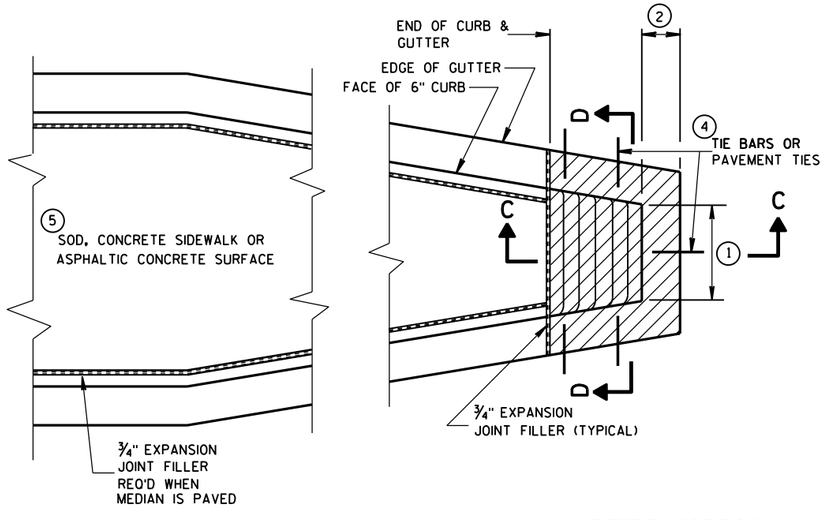
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

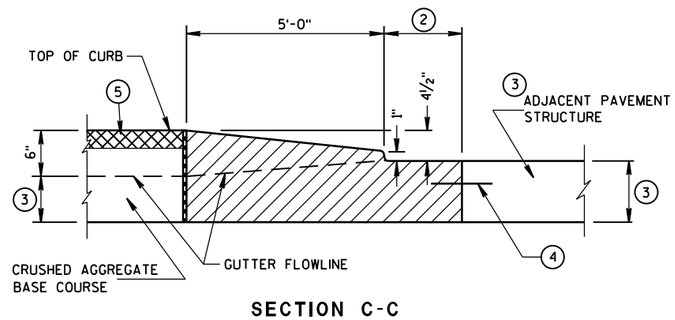
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

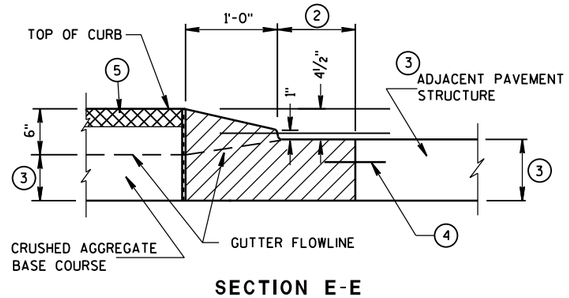




CONCRETE MEDIAN SLOPED NOSE TYPE 1

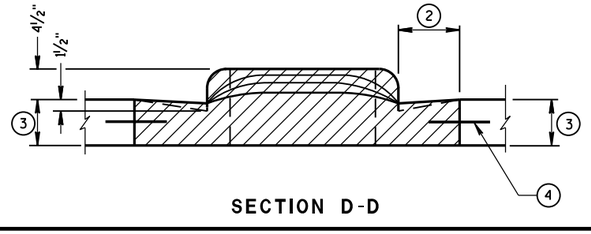


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

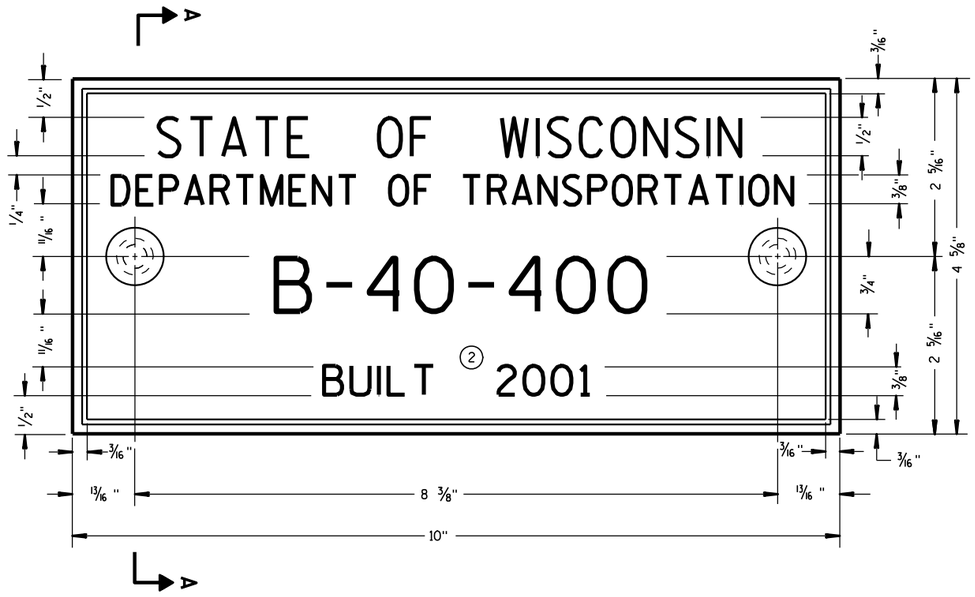
CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

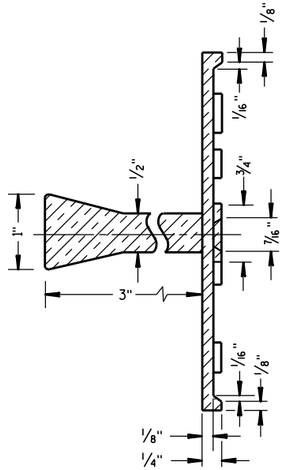
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

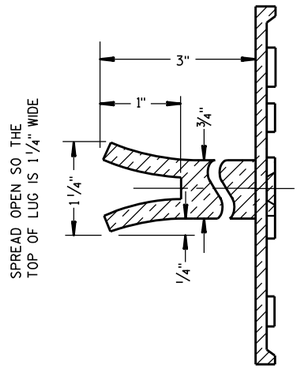
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

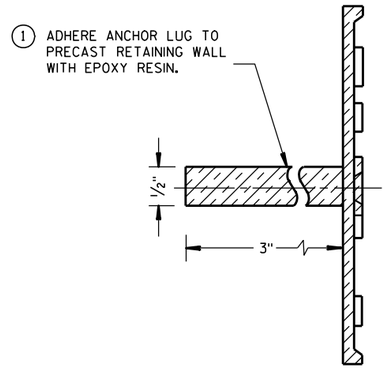
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

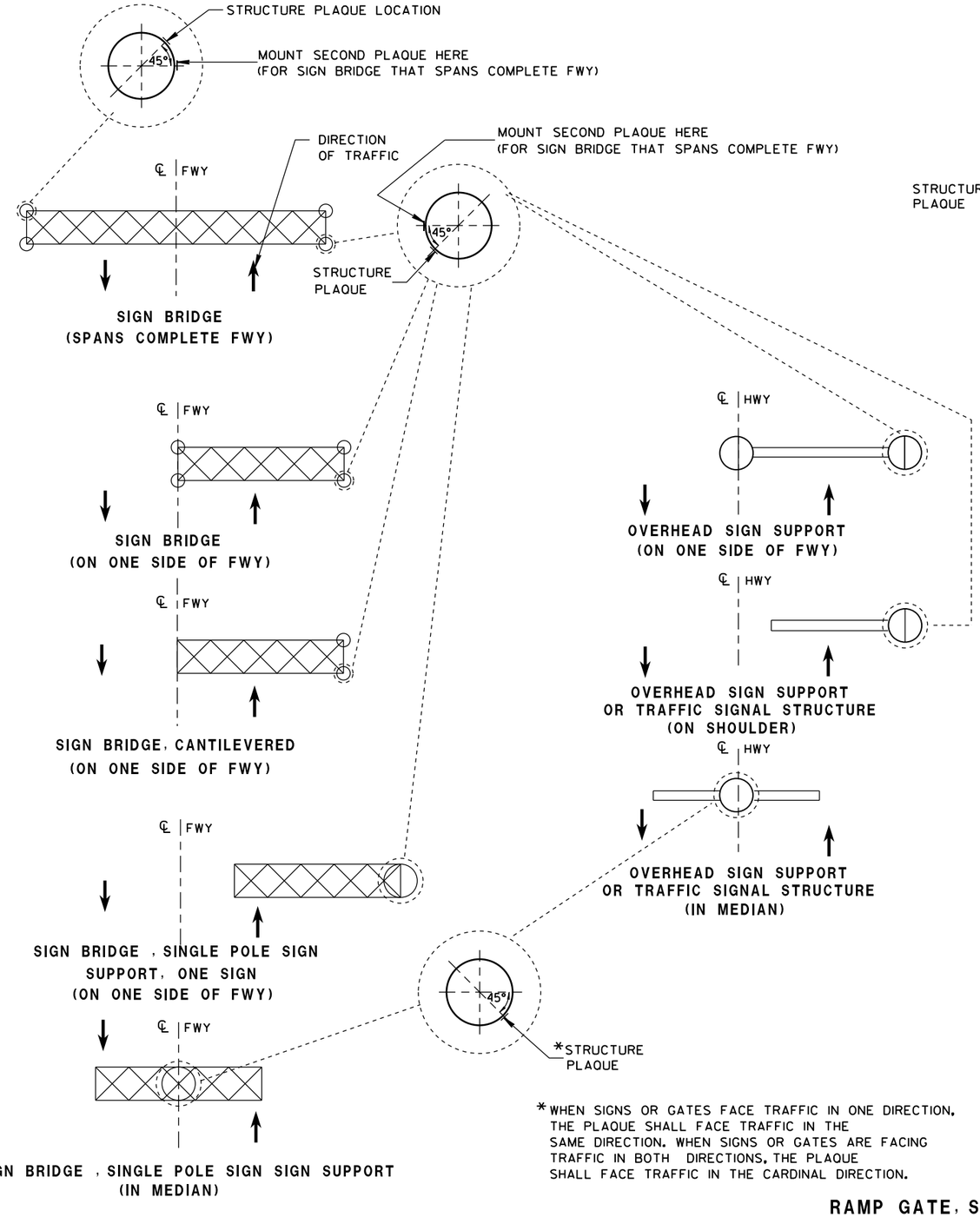
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

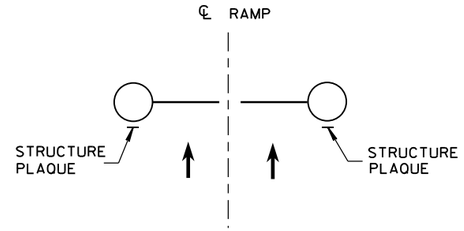
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S.D.D. 12 A 3-10

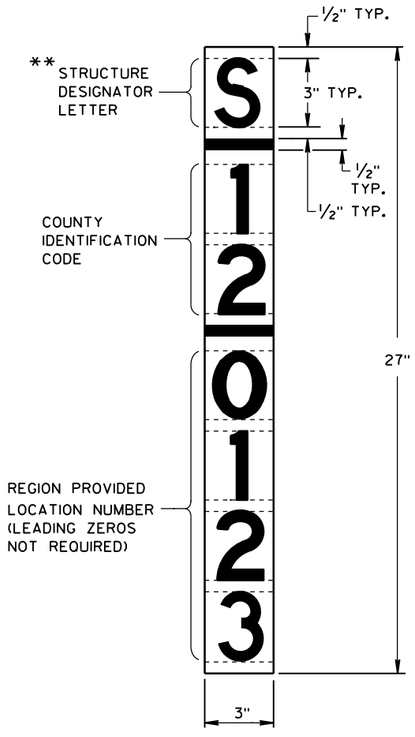


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

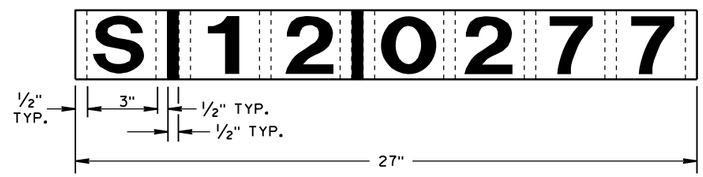
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

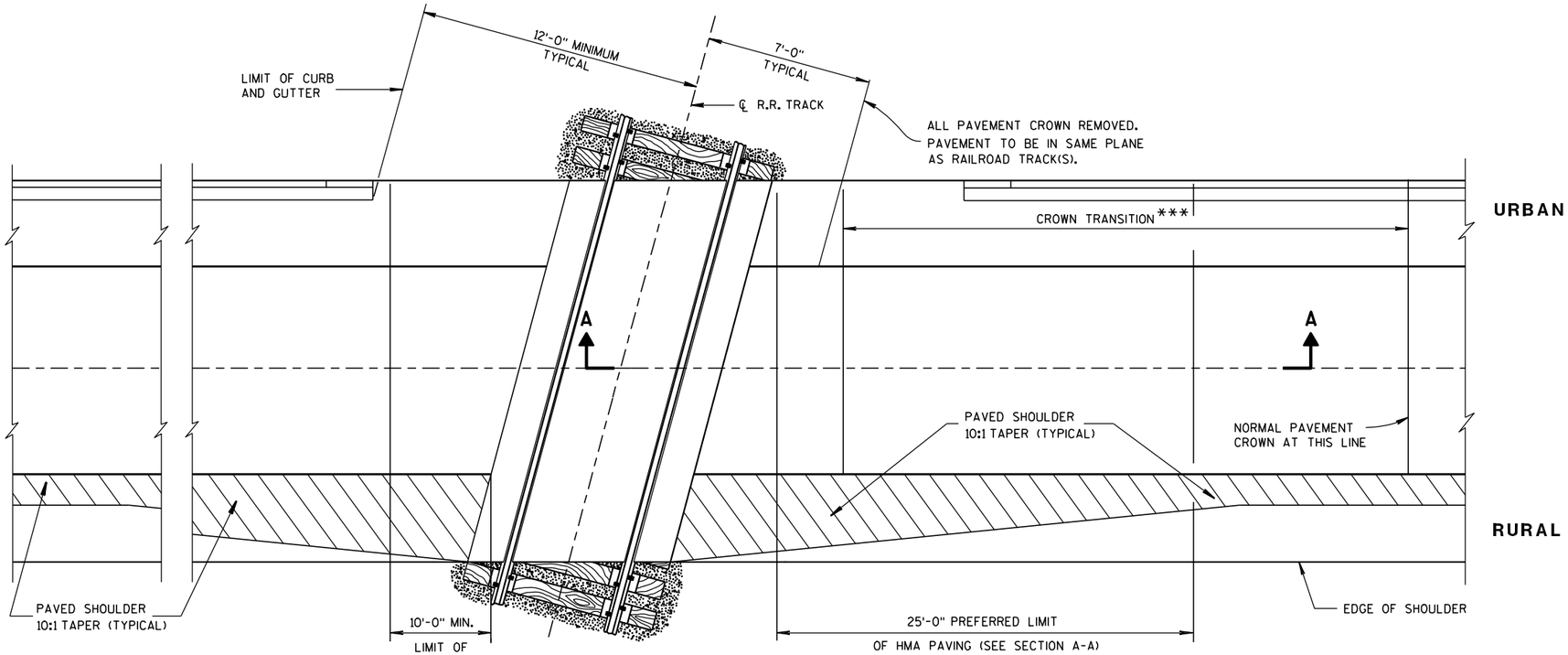
FHWA

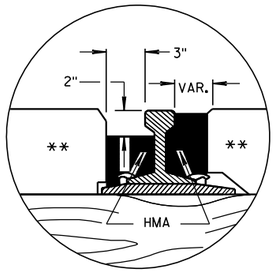
6

S.D.D. 12 A 4-3

6

S.D.D. 12 A 4-3





DETAIL B

HMA FLANGEWAY AND FIELD FILLERS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

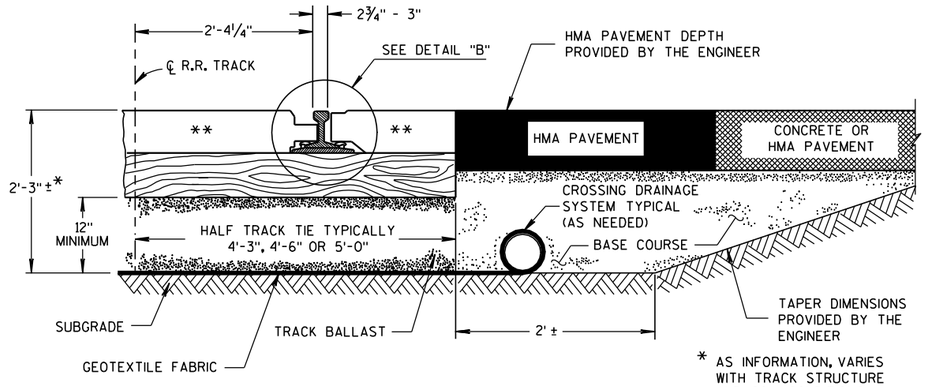
HMA PAVEMENT APPROACHES AND HMA PAVEMET CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

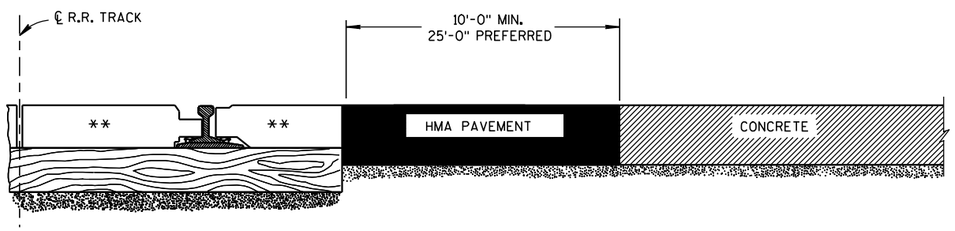
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.



TYPICAL HALF SECTION



SECTION A-A

CONCRETE PAVEMENT APPROACH



SECTION A-A

HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

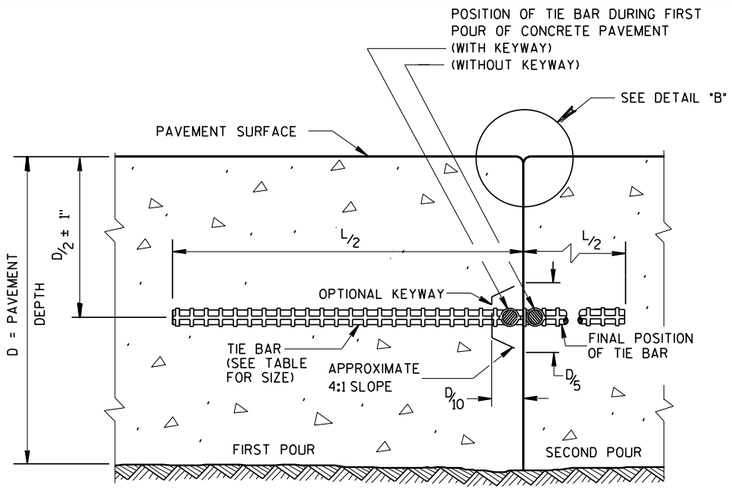
APPROVED
8-28-09 DATE
/S/ Ronald E. Adams
CHIEF, RAILROADS & HAI 447 CTION
FHWA

6

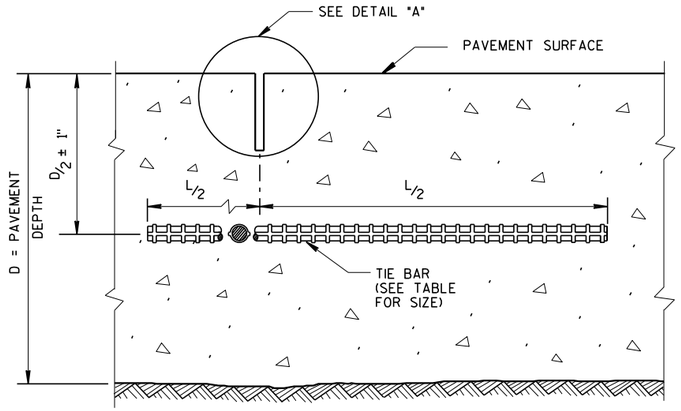
S.D.D. 13 B 1-10

6

S.D.D. 13 B 1-10



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

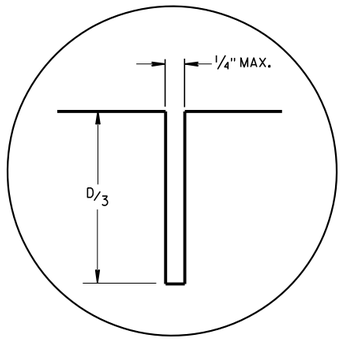
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

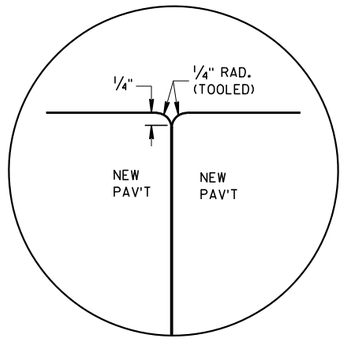
PLAN VIEW

SECTION A-A

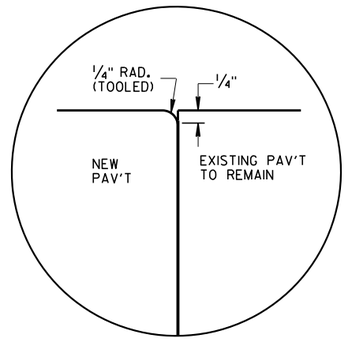
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



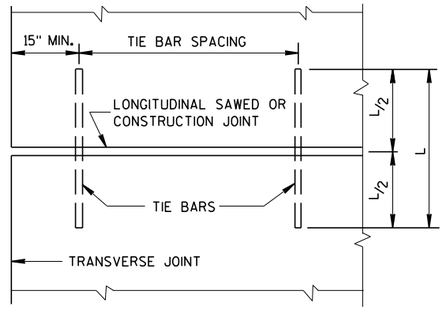
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



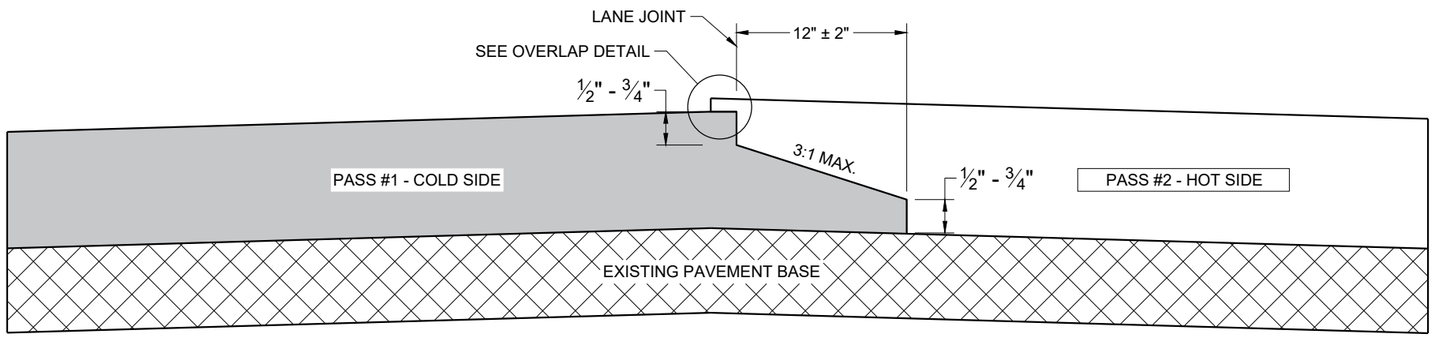
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

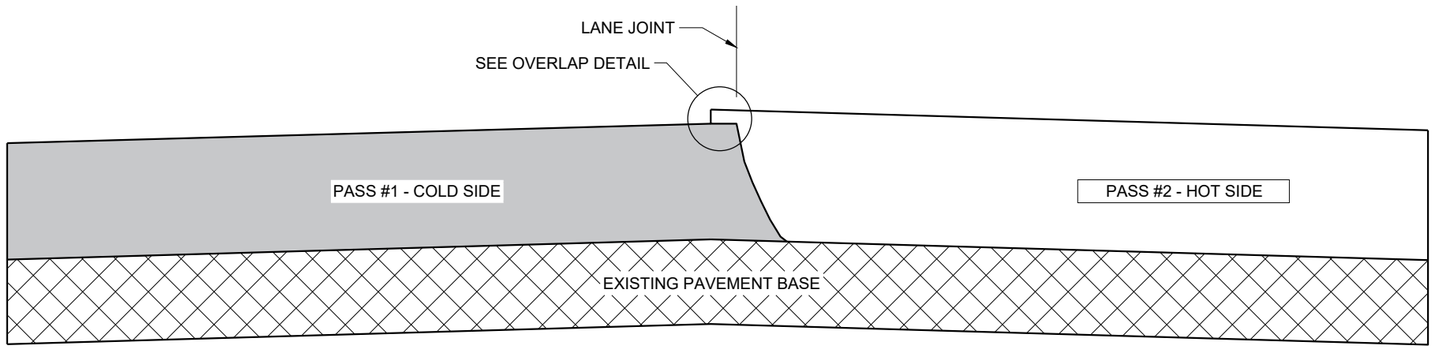
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

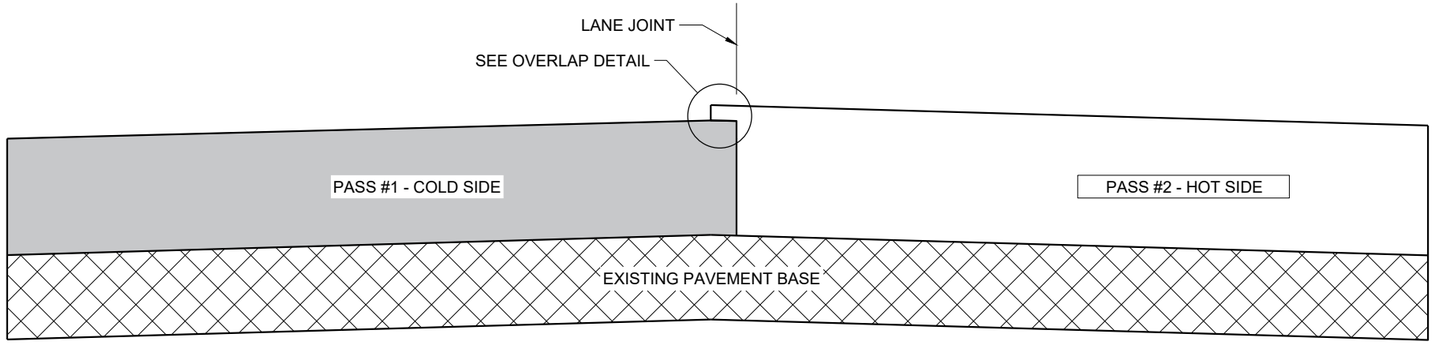
6
S.D.D. 13 C 1-19



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

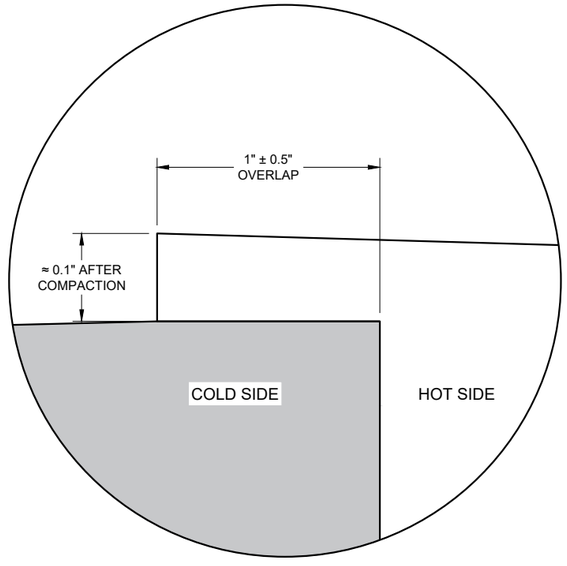
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

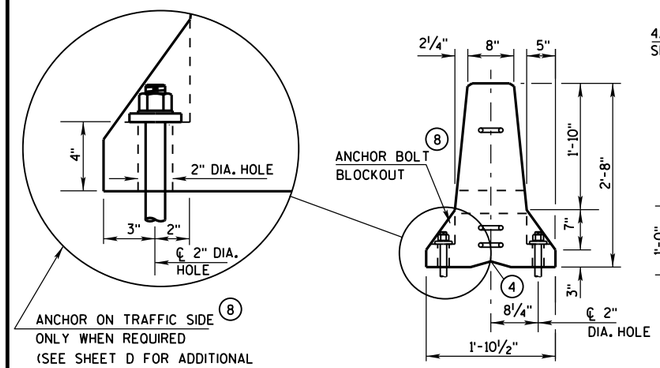
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

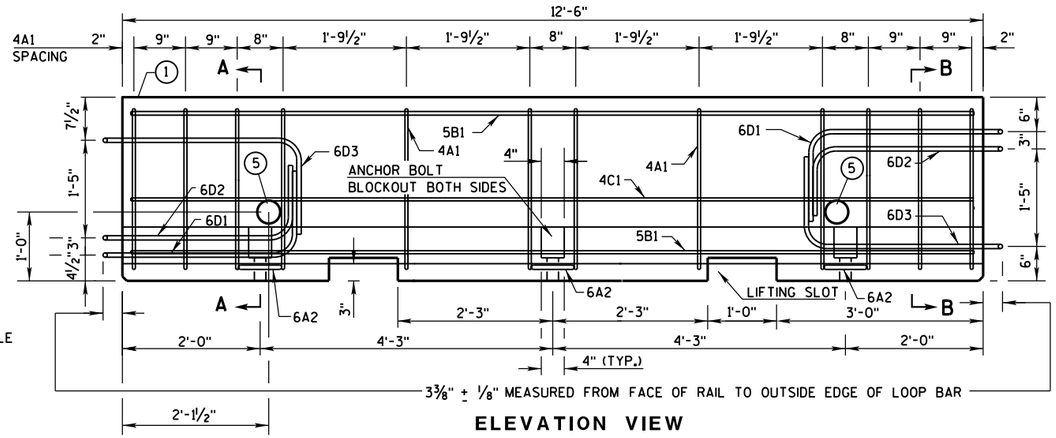
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

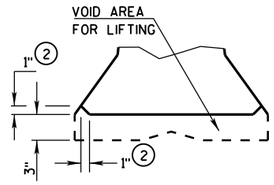
FHWA



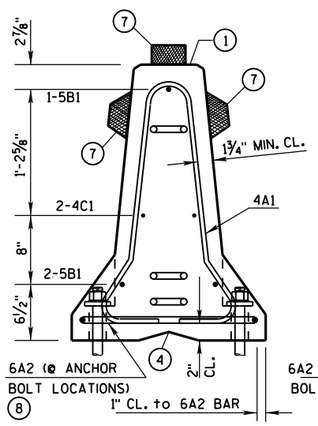
END VIEW



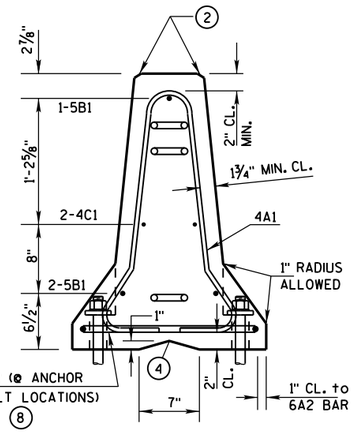
ELEVATION VIEW



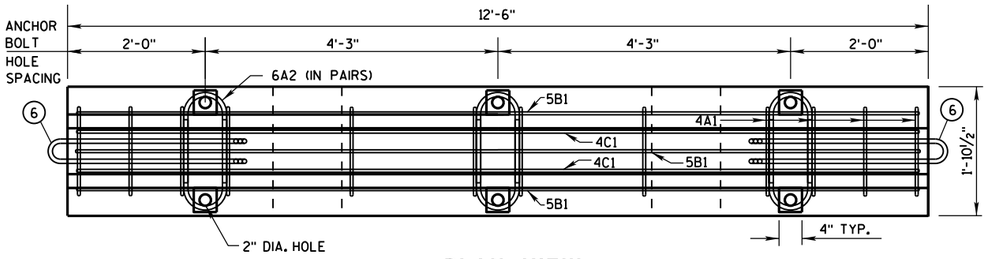
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

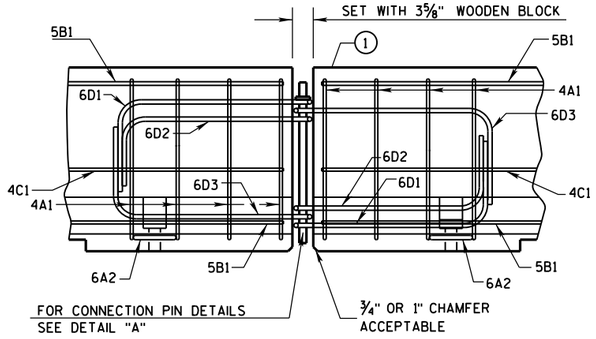


SECTION B-B
(STIRRUP PLACEMENT)

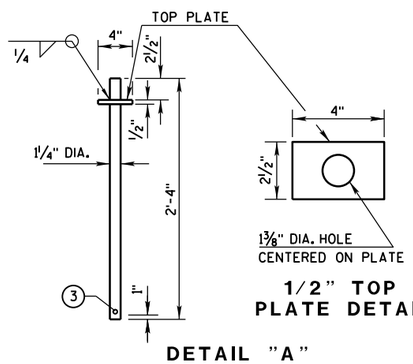


PLAN VIEW

DETAILS OF BARRIER SECTION

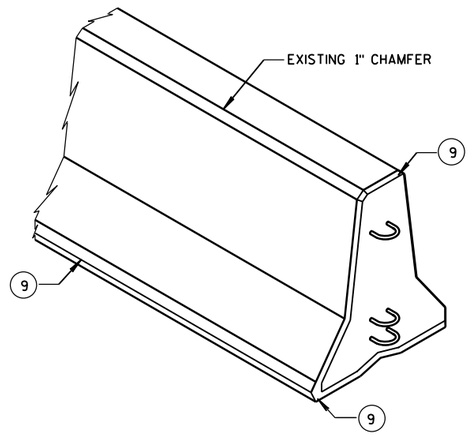


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

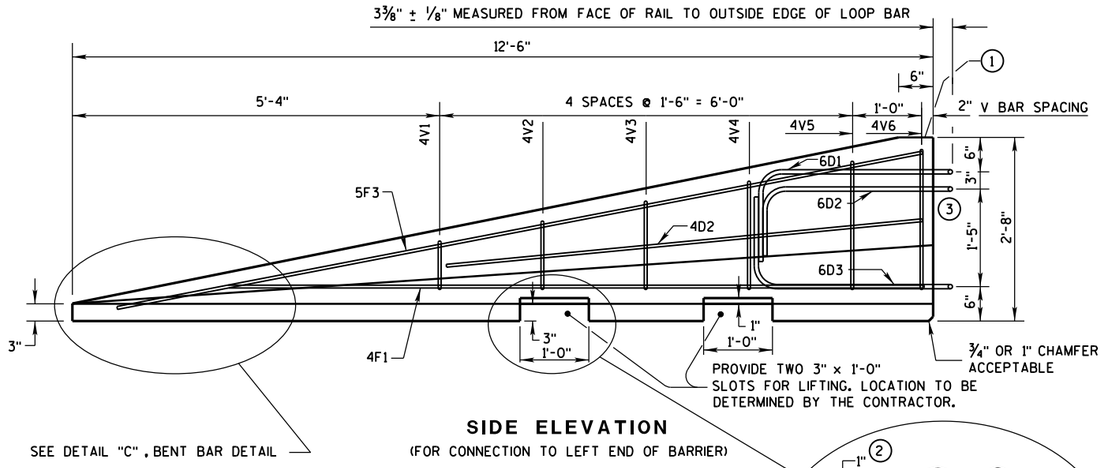
(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

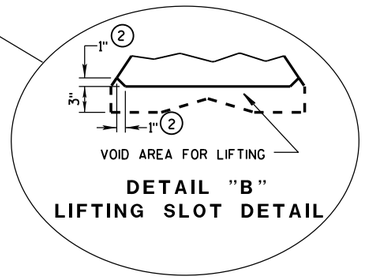
f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

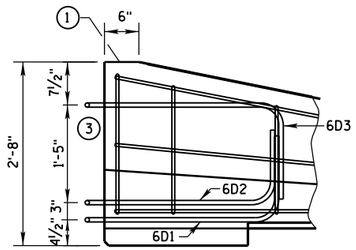
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 450



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



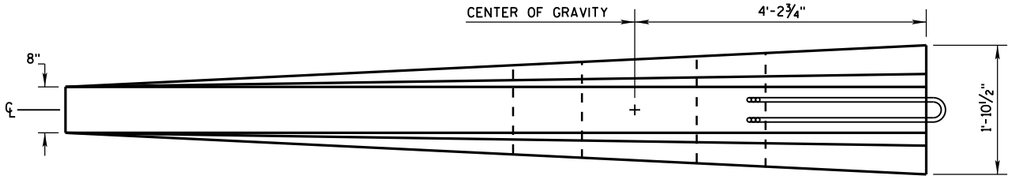
DETAIL "B"
LIFTING SLOT DETAIL



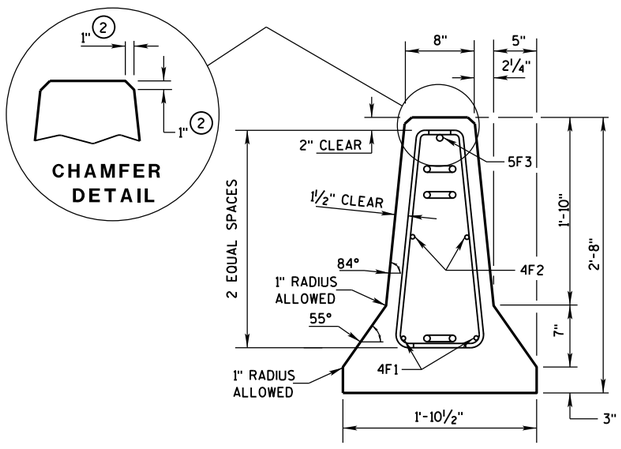
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

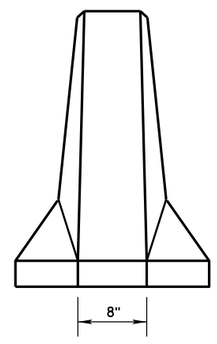
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



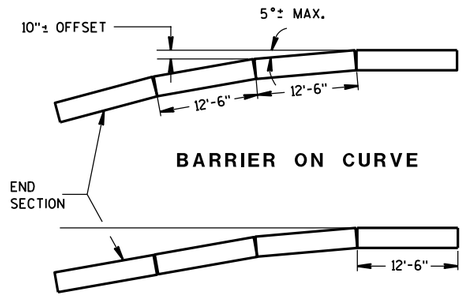
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

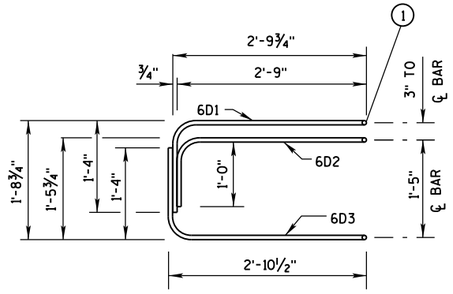
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15b

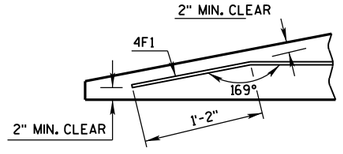
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

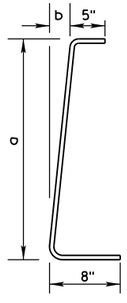
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

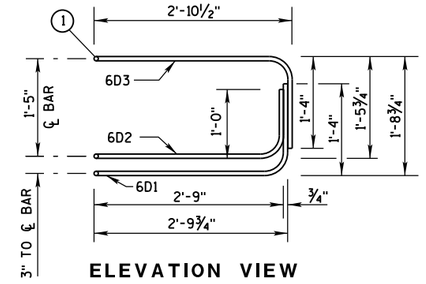
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

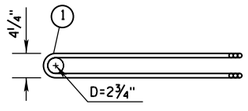
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

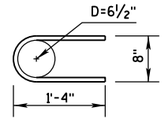
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



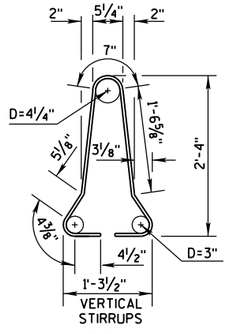
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

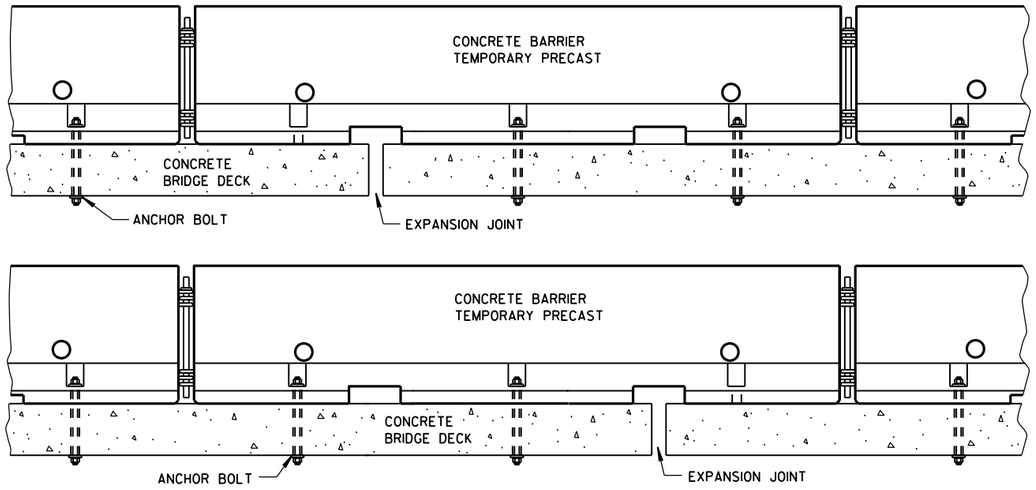
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
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S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

GENERAL NOTES

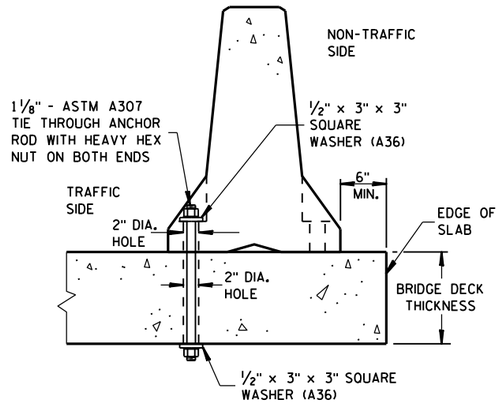
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

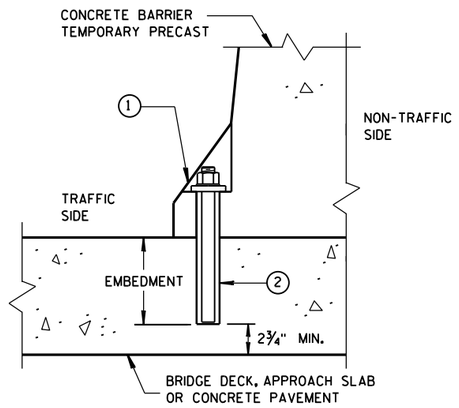
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



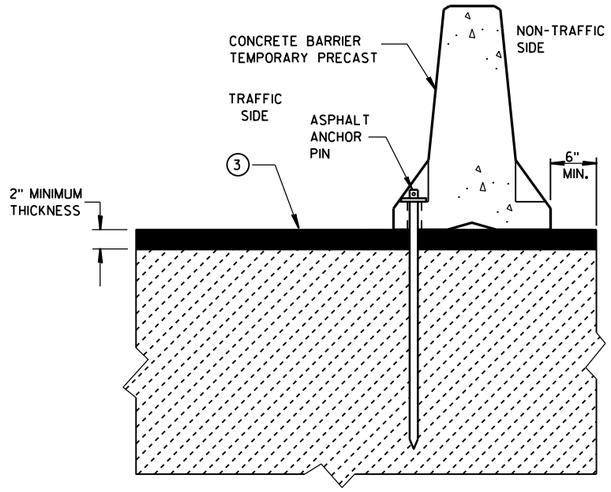
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

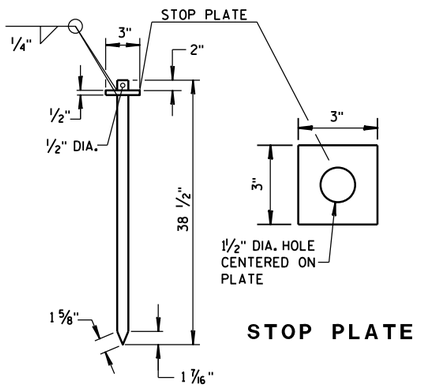


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



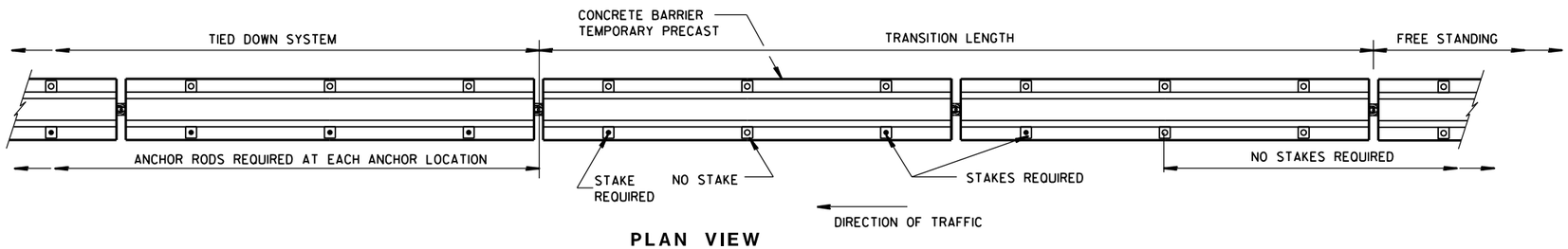
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

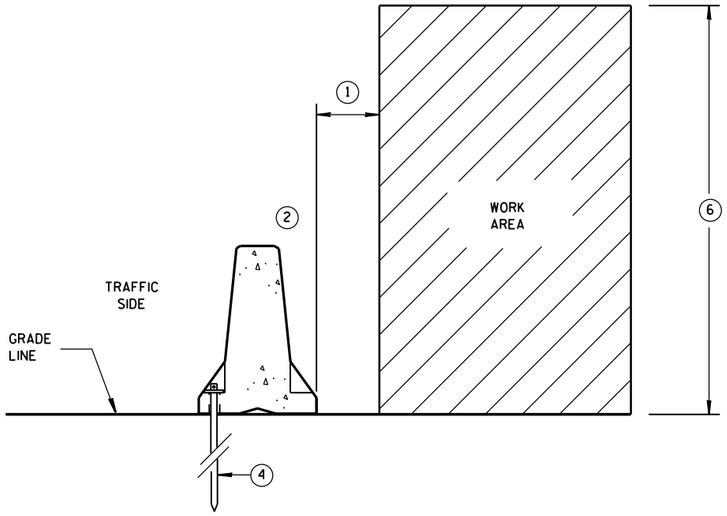
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

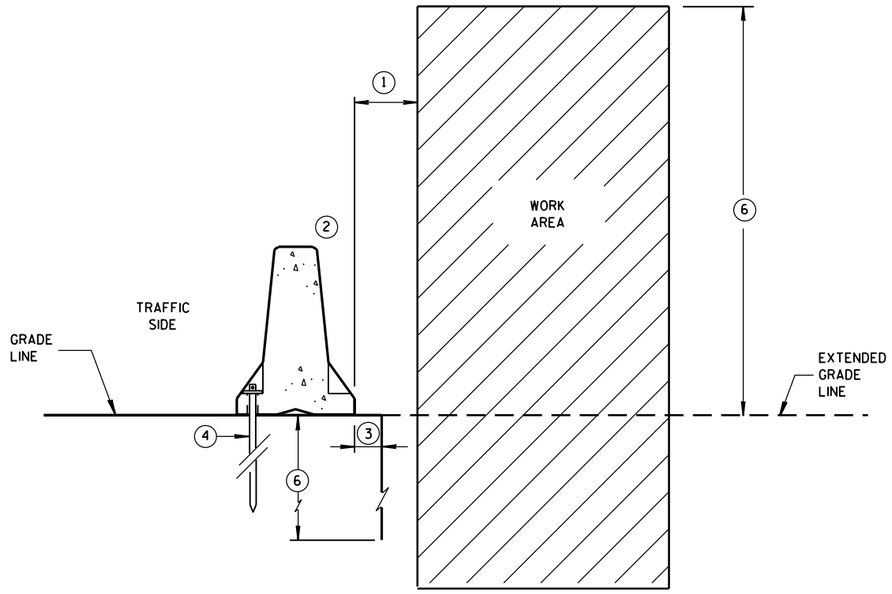
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

6

S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

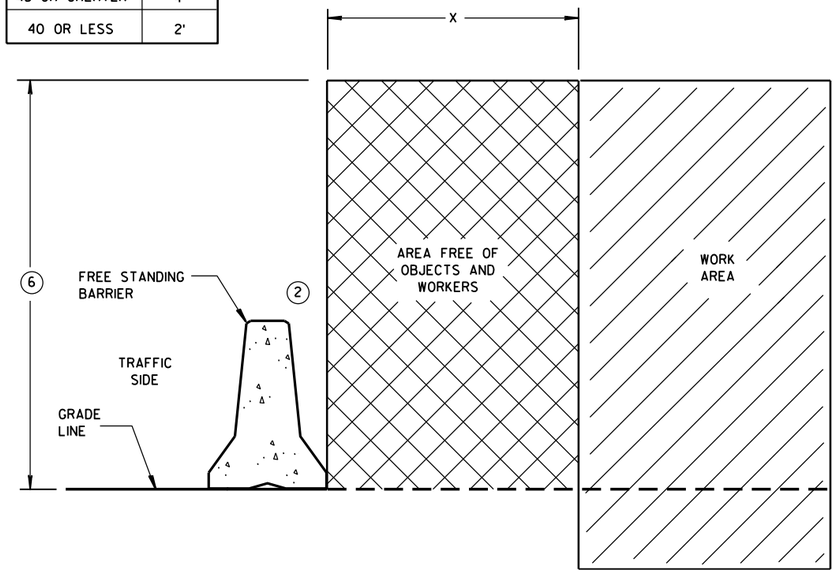


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

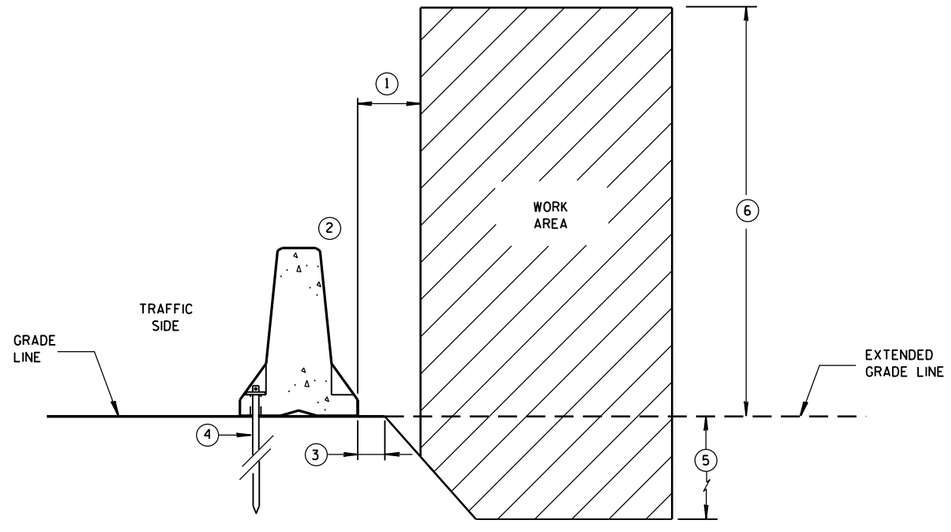
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

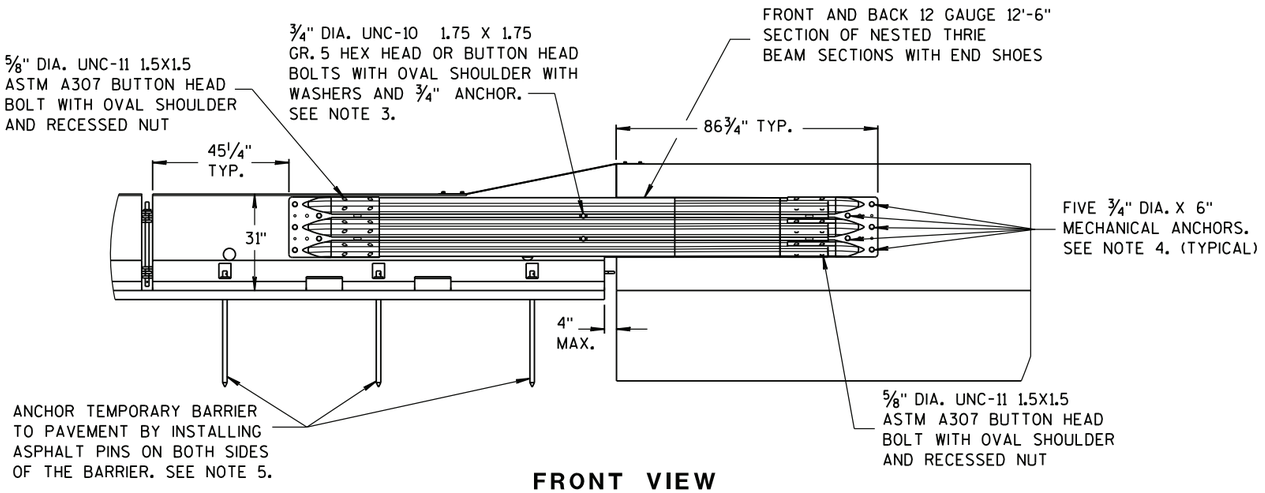
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 454

6

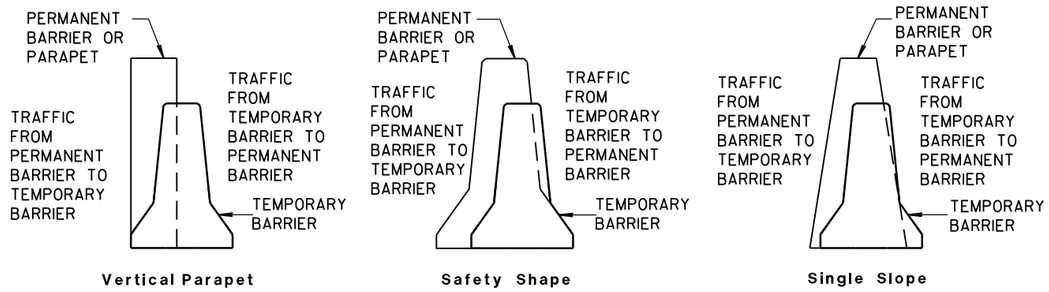
S.D.D. 14 B 7-15e

6

S.D.D. 14 B 7-15e



FRONT VIEW

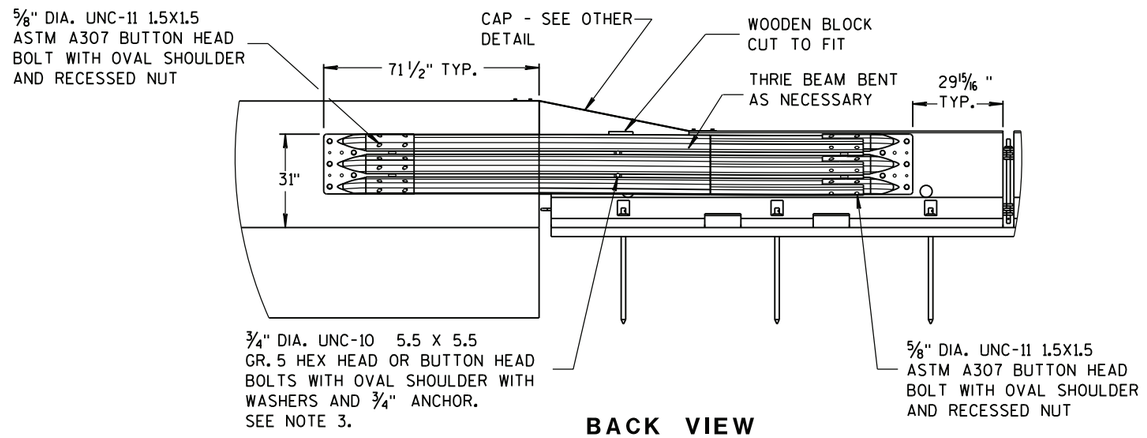


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

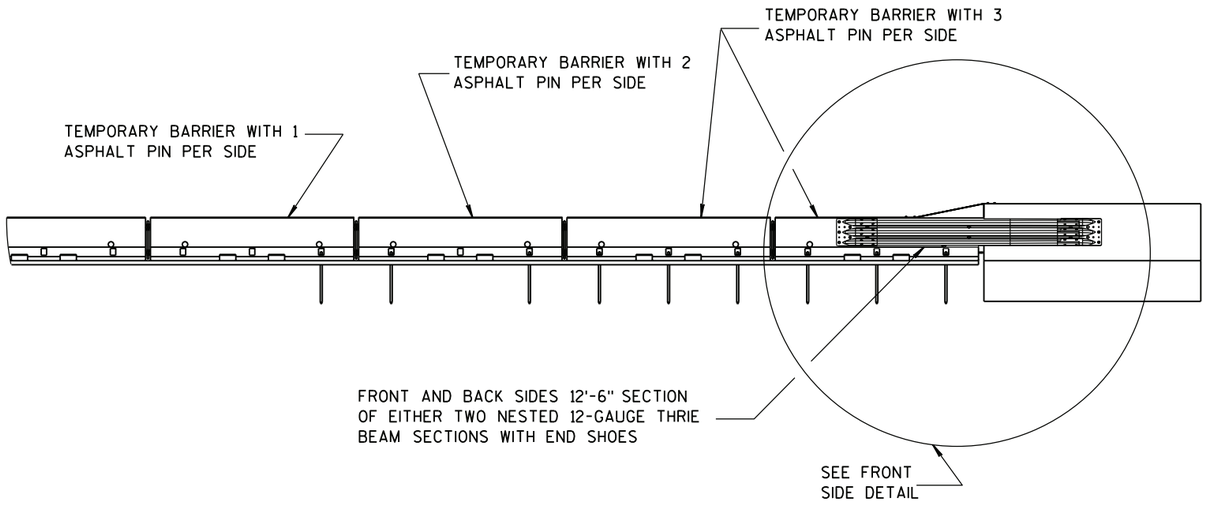
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

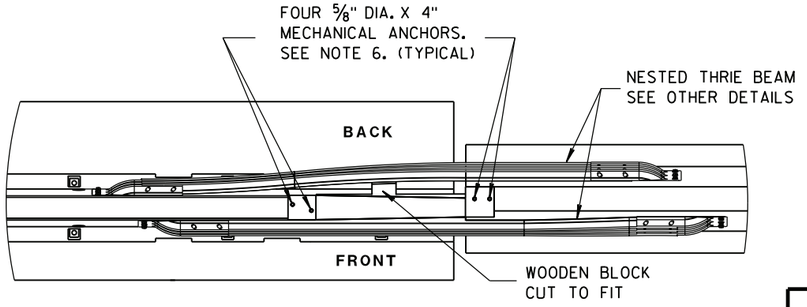
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



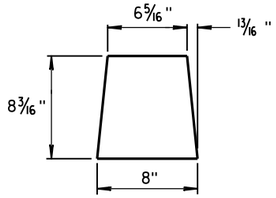
PLAN VIEW

TRANSITION TO TIED DOWN SYSTEM

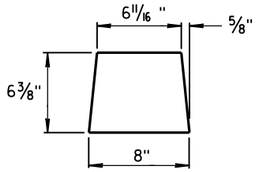
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

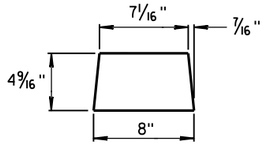
6
S.D.D. 14 B 7-15f



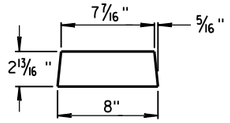
GUSSET 1



GUSSET 2

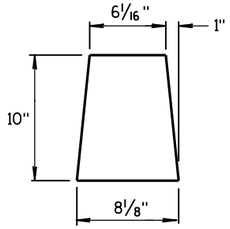


GUSSET 3

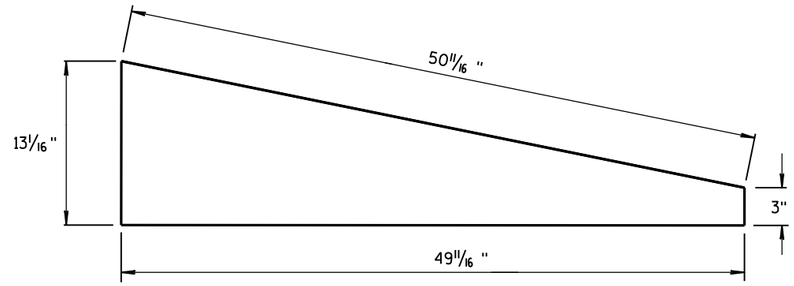


GUSSET 4

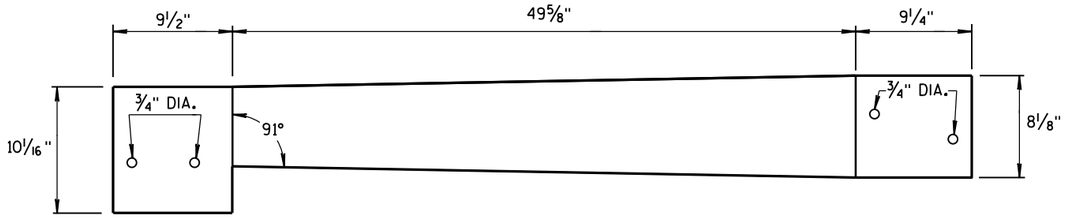
GUSSETS

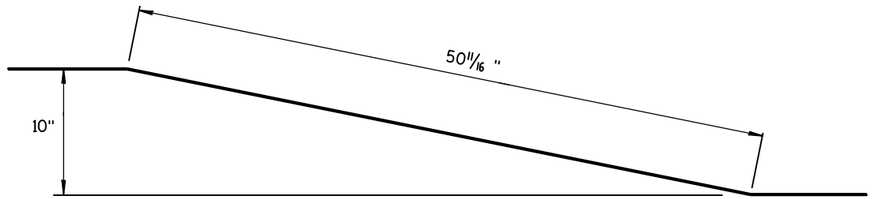


END PLATE



SIDE PLATE

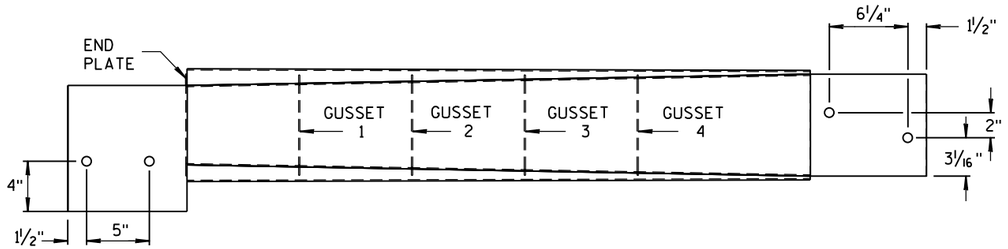


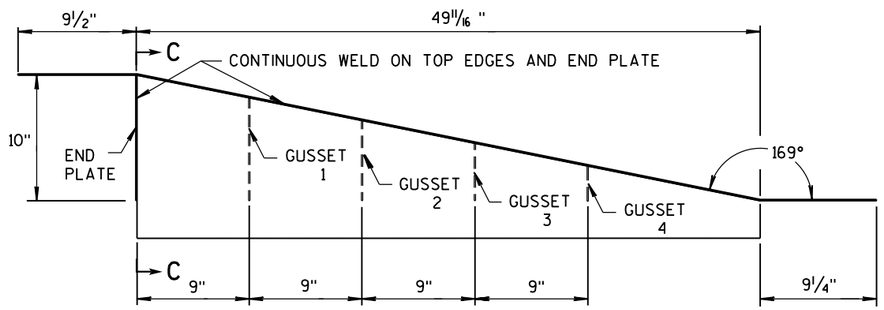


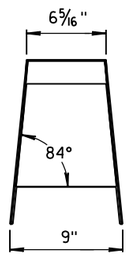
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

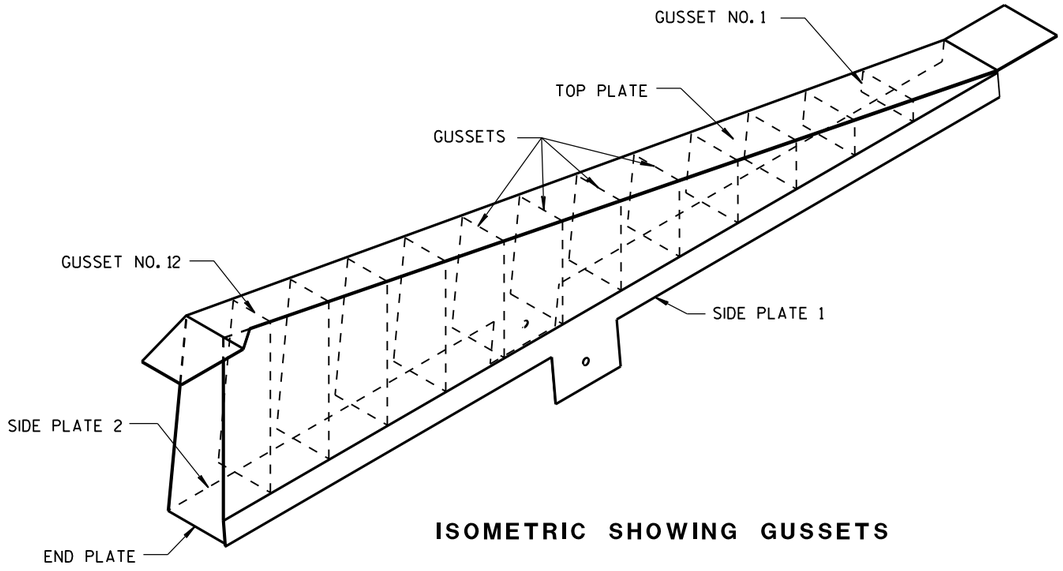
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

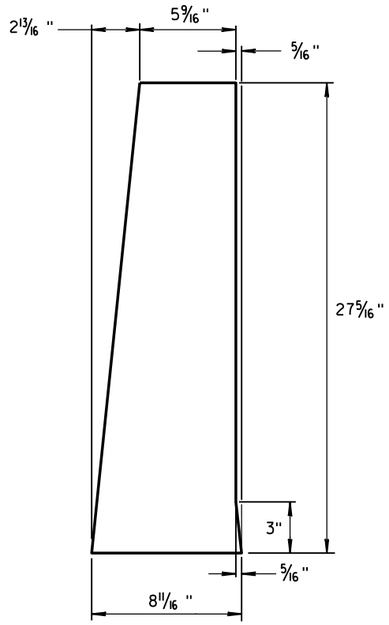
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15g

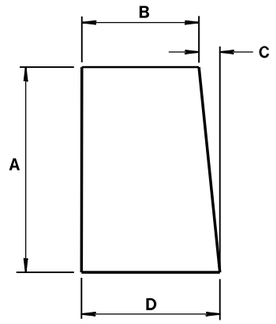


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



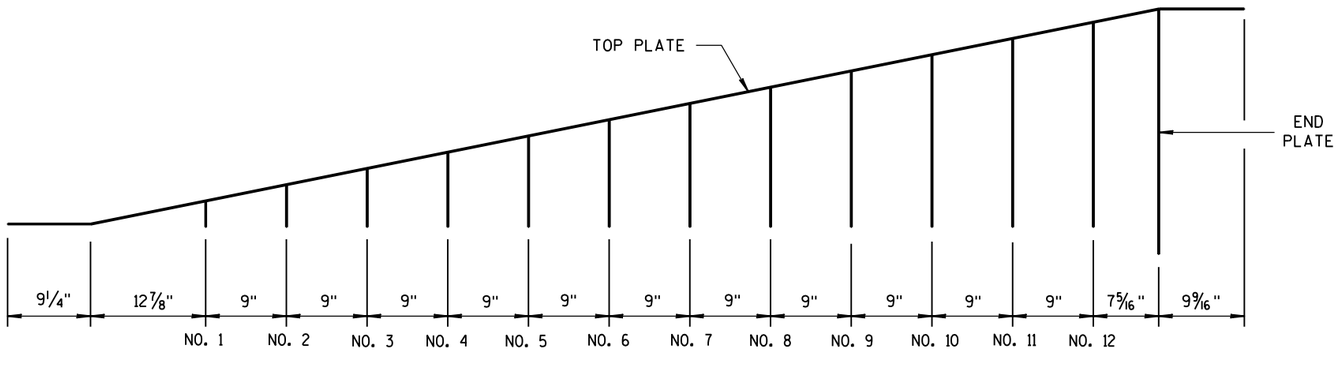
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

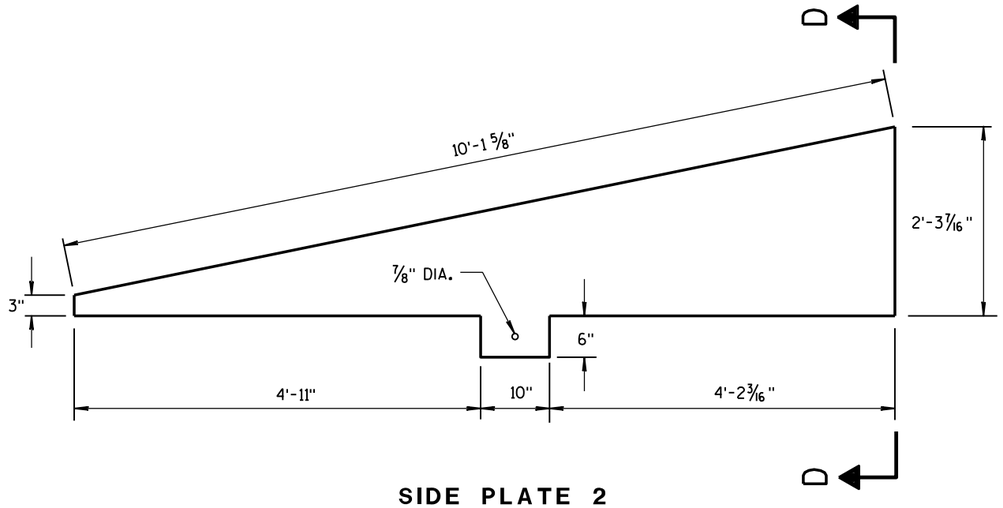
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

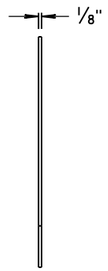
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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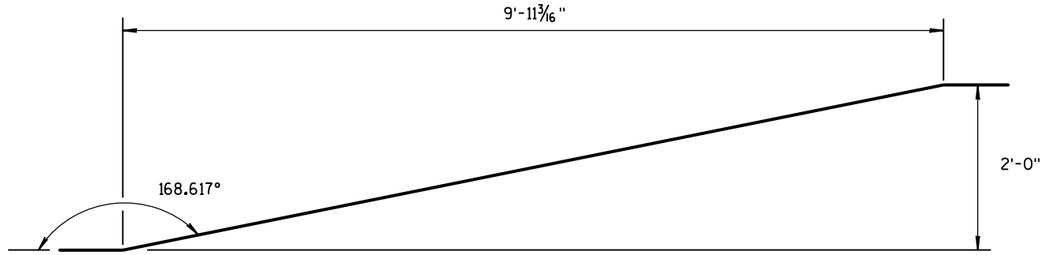
S.D.D. 14 B 7-15h



SIDE PLATE 2

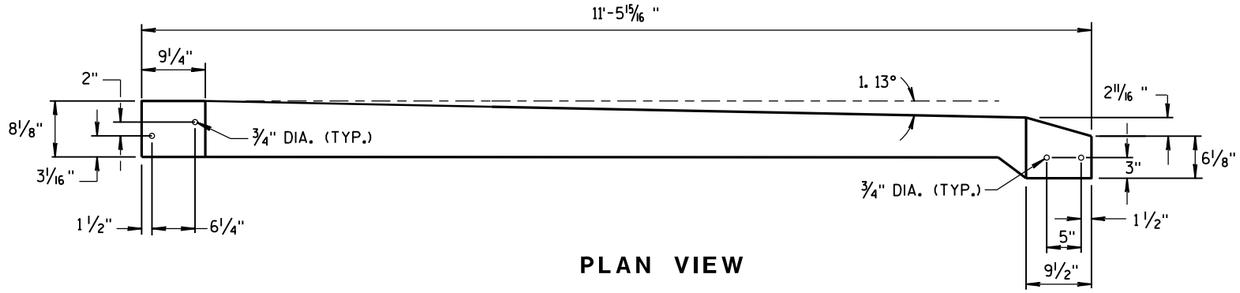


END VIEW



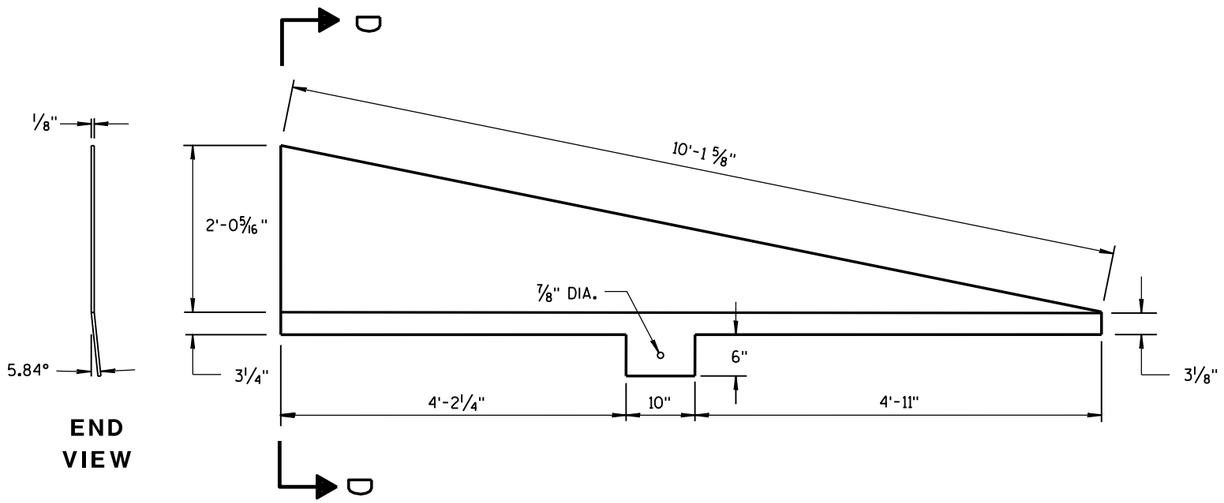
SIDE VIEW

TOP PLATE



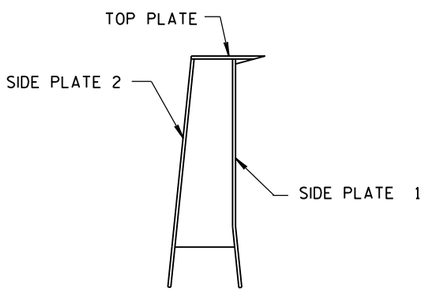
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

458

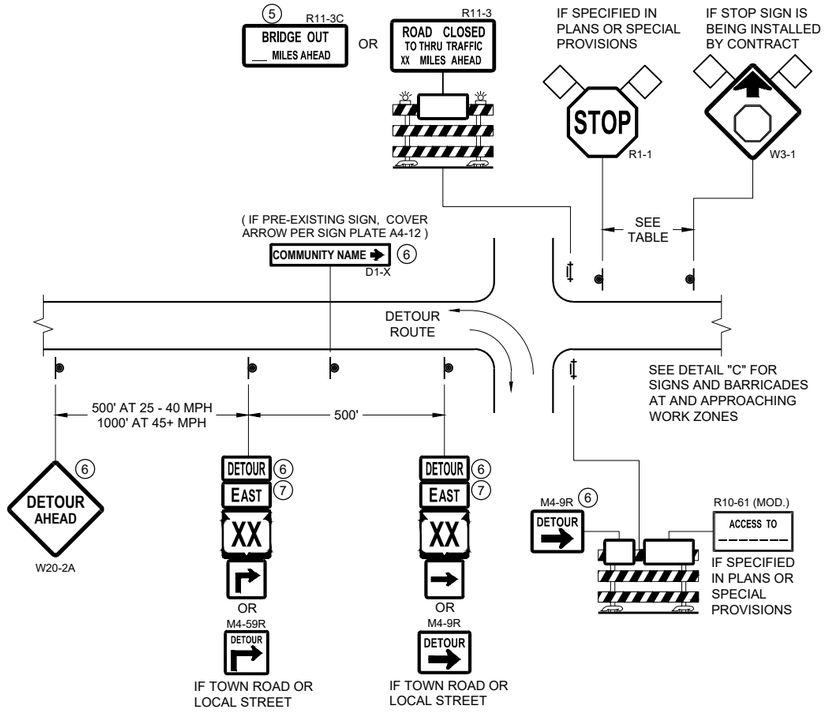
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S.D.D. 14 B 7-15i

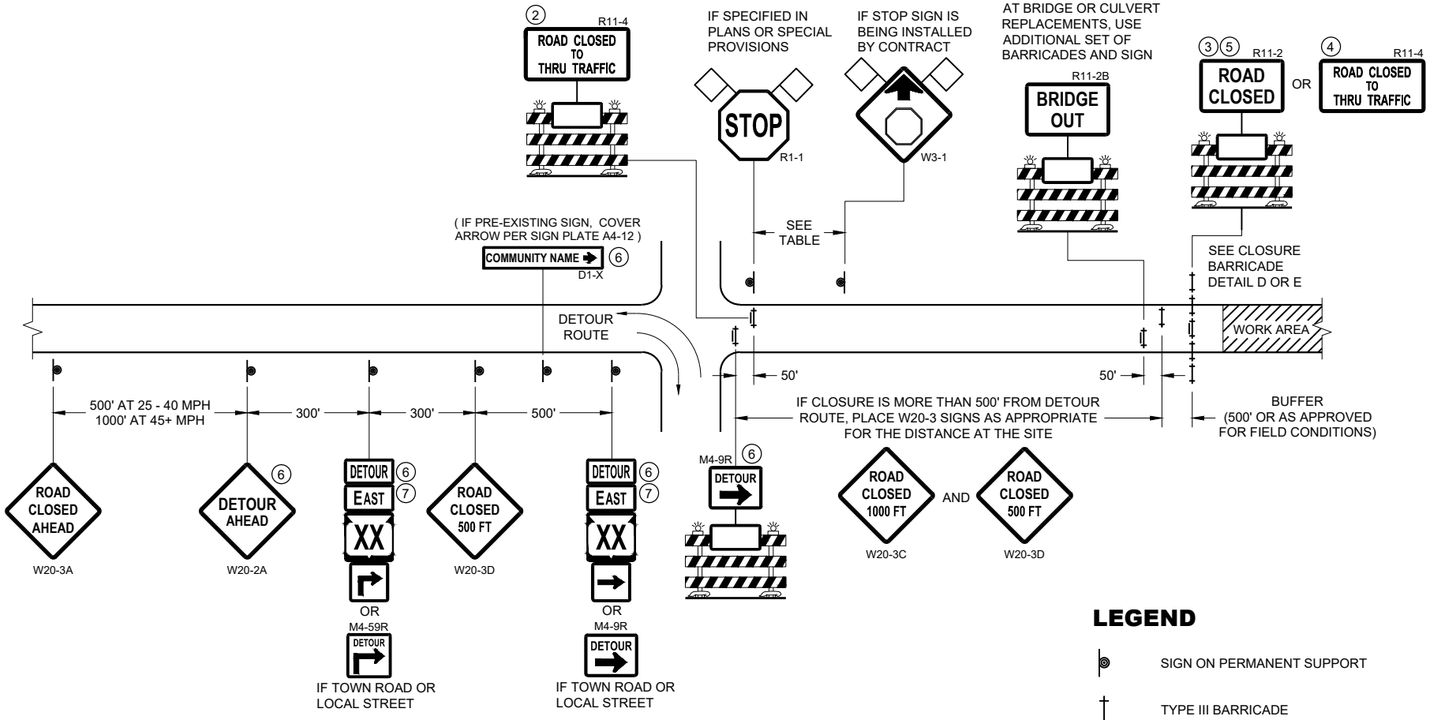
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S.D.D. 14 B 7-15i



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

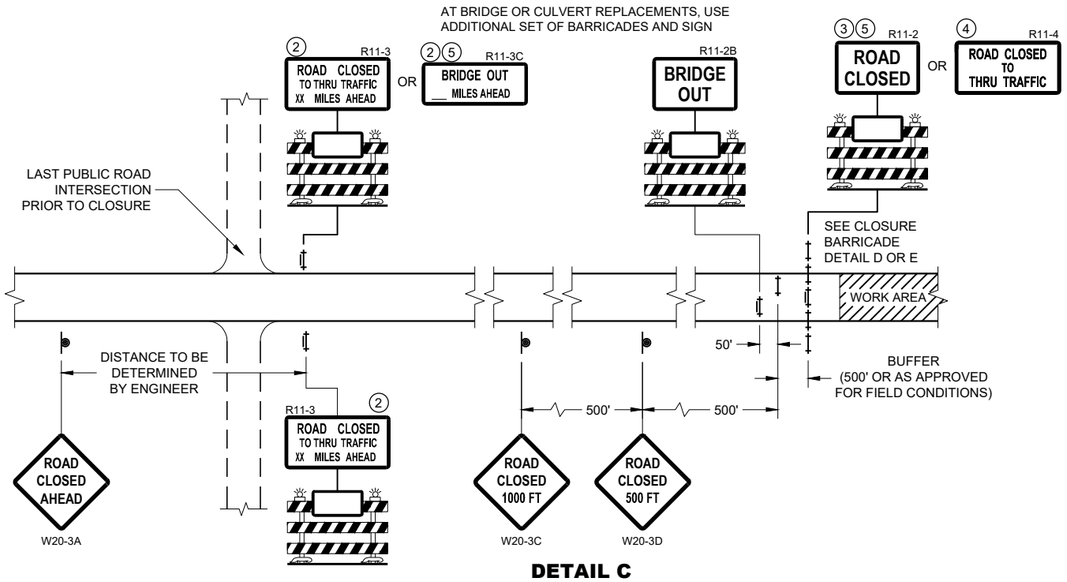
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8

EAST M3 - X

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

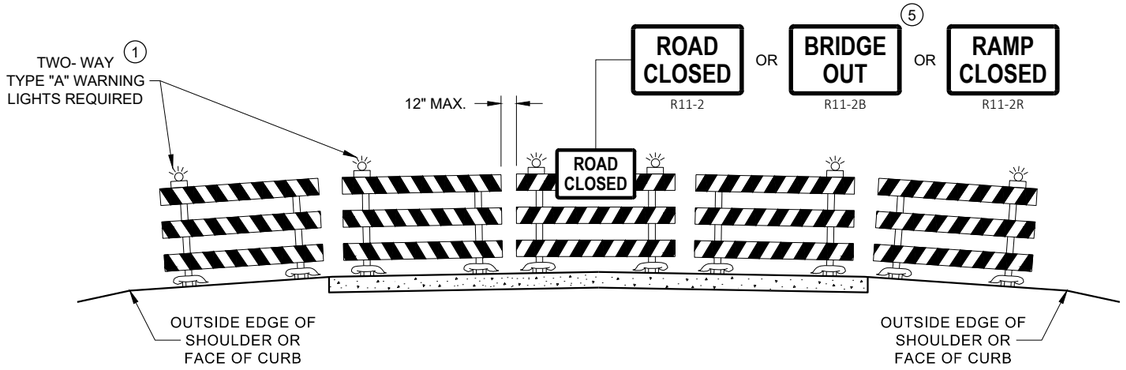
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

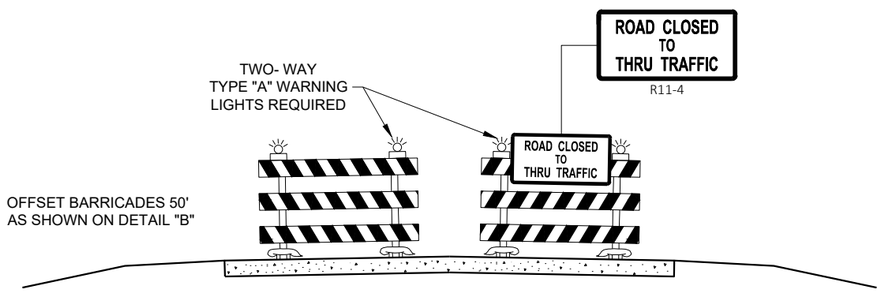
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SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

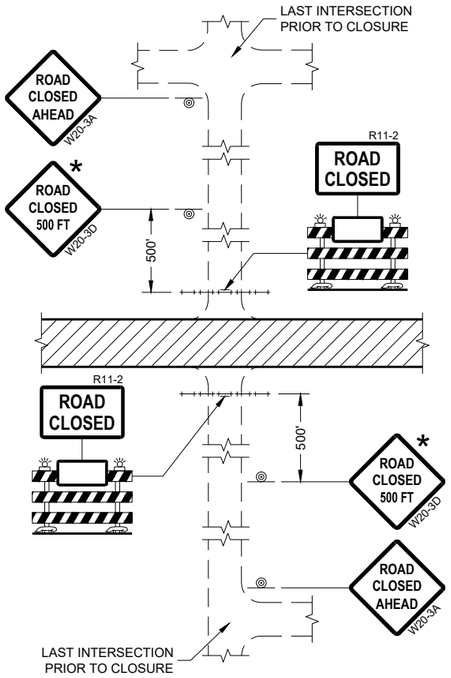
BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

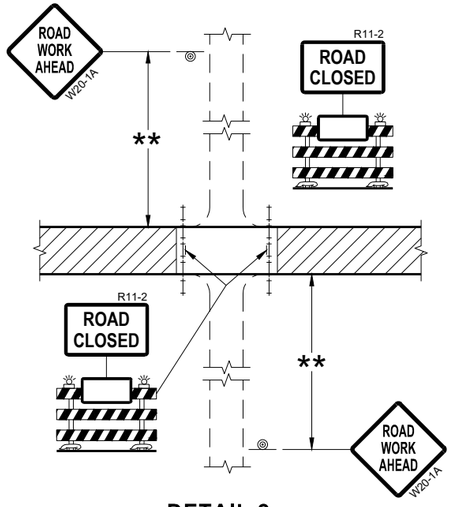
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

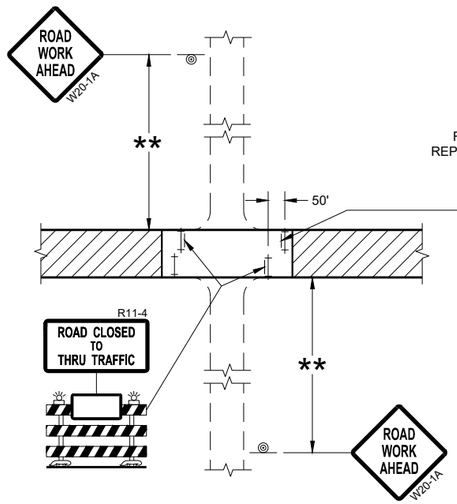
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

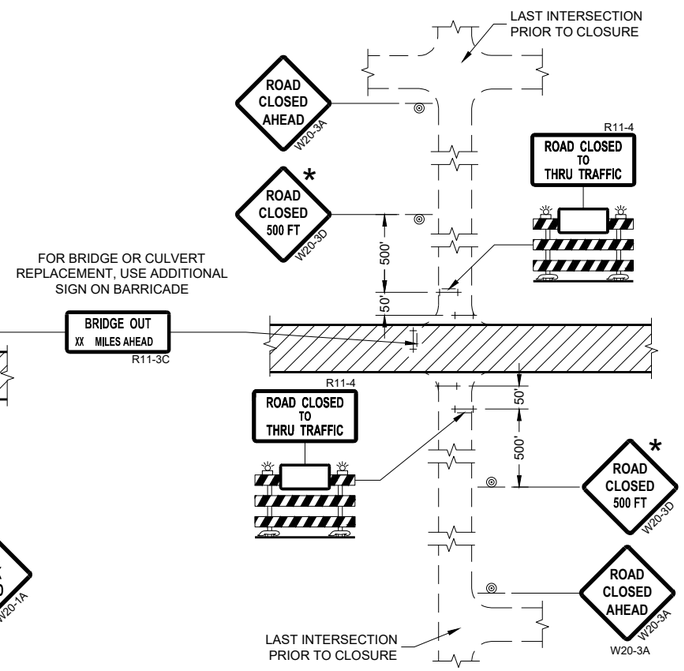
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

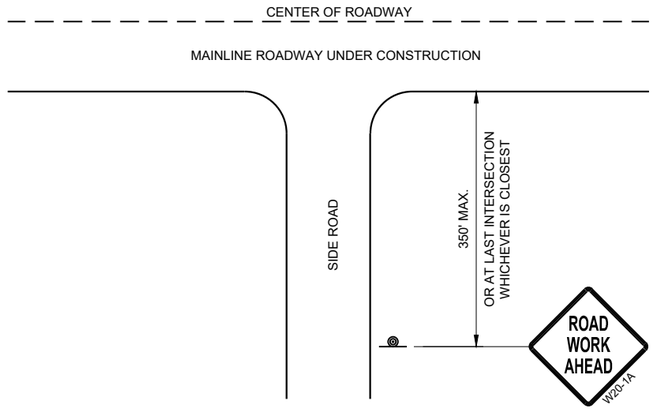
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



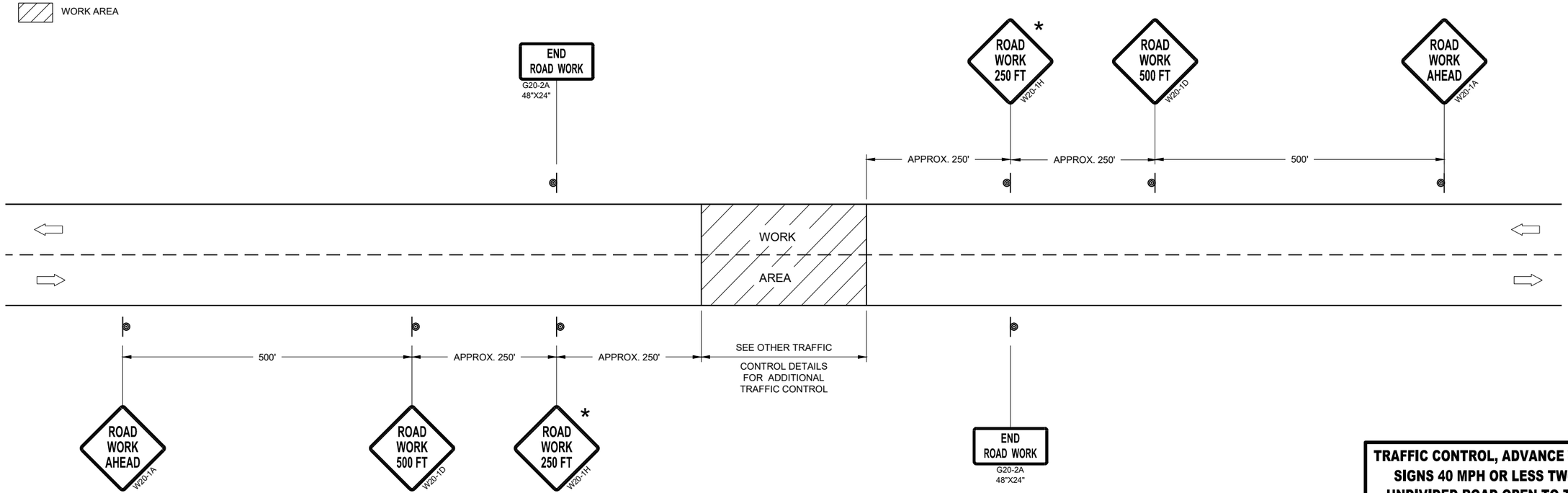
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

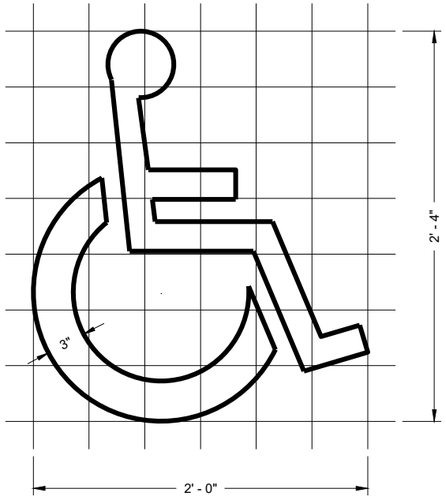
FHWA

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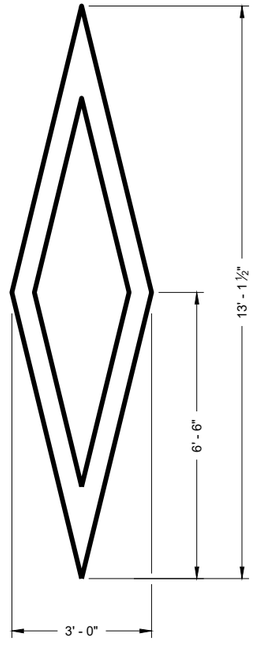
SDD 15C05 - 05

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

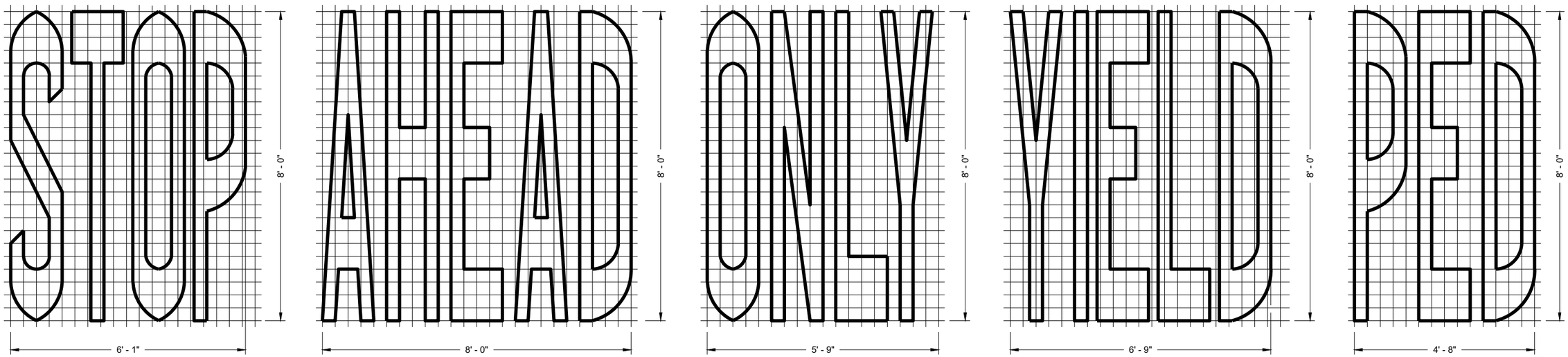
PAVEMENT MARKING SYMBOLS

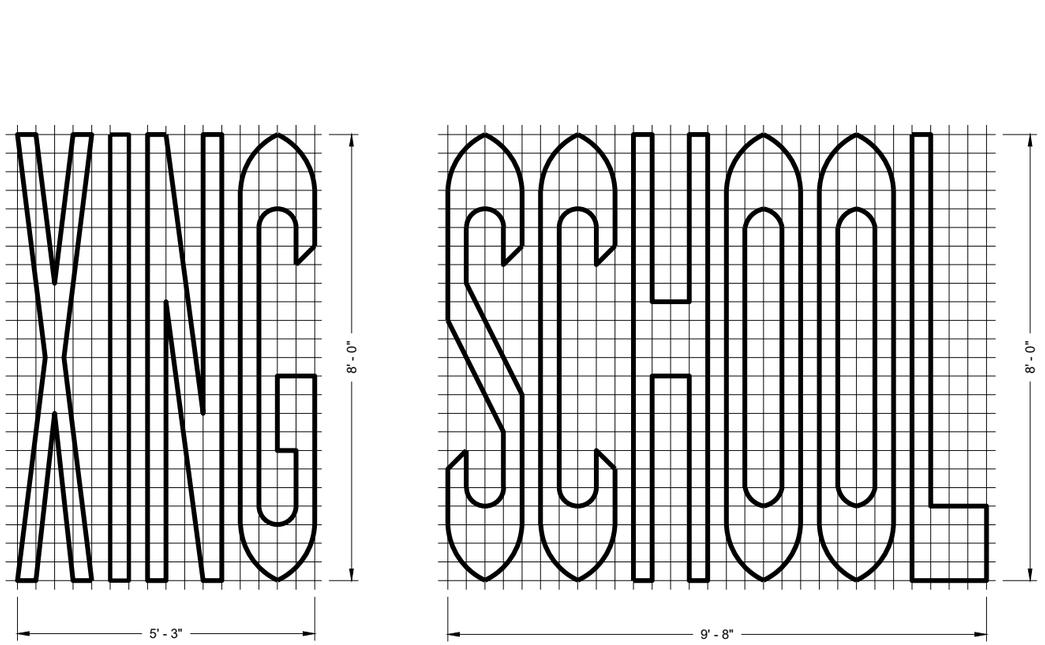
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

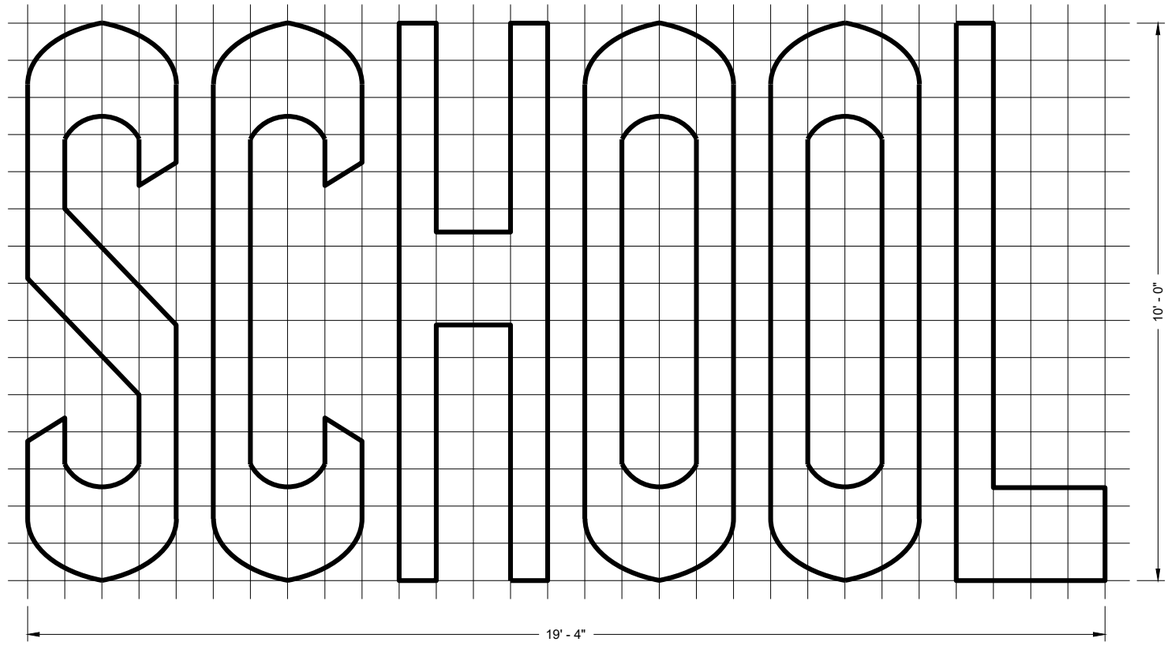
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA





SINGLE LANE



TWO - LANE

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

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STATE SIGNING AND MAF ENGINEER

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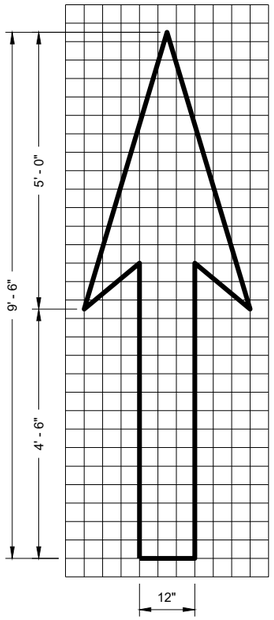
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SDD 15C07 - 15b

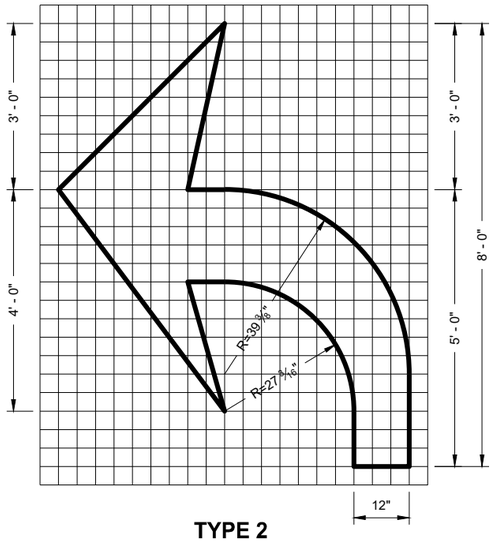
SDD 15C07 - 15b

GENERAL NOTES

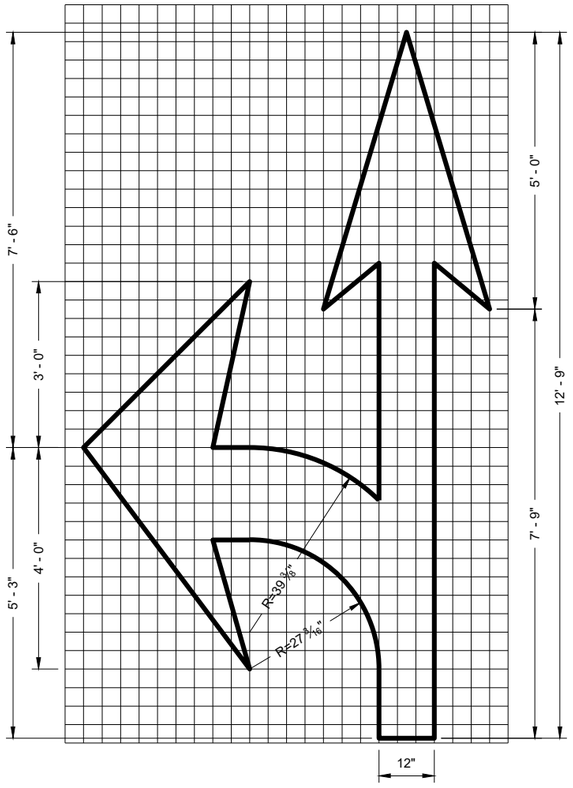
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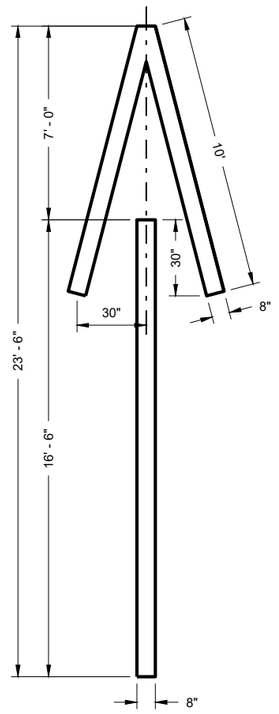
TYPE 1



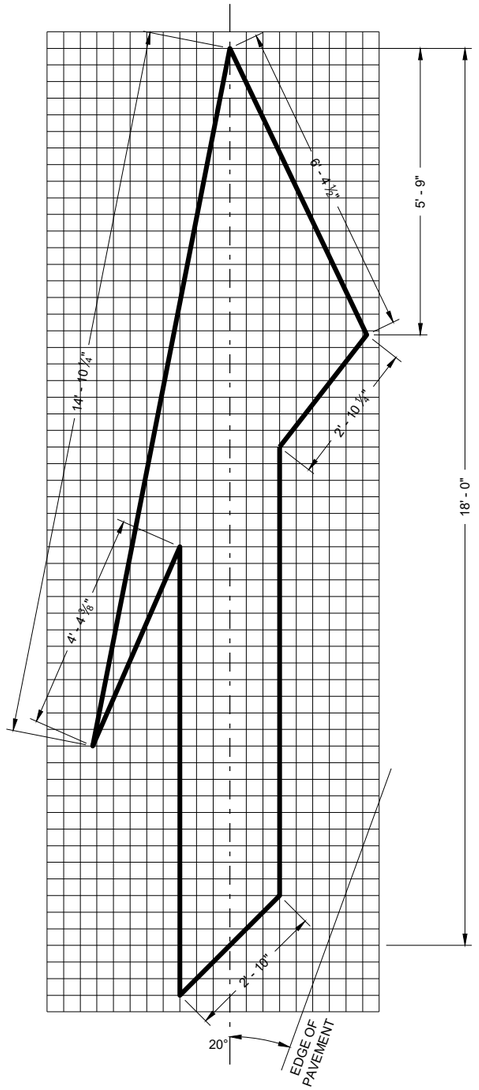
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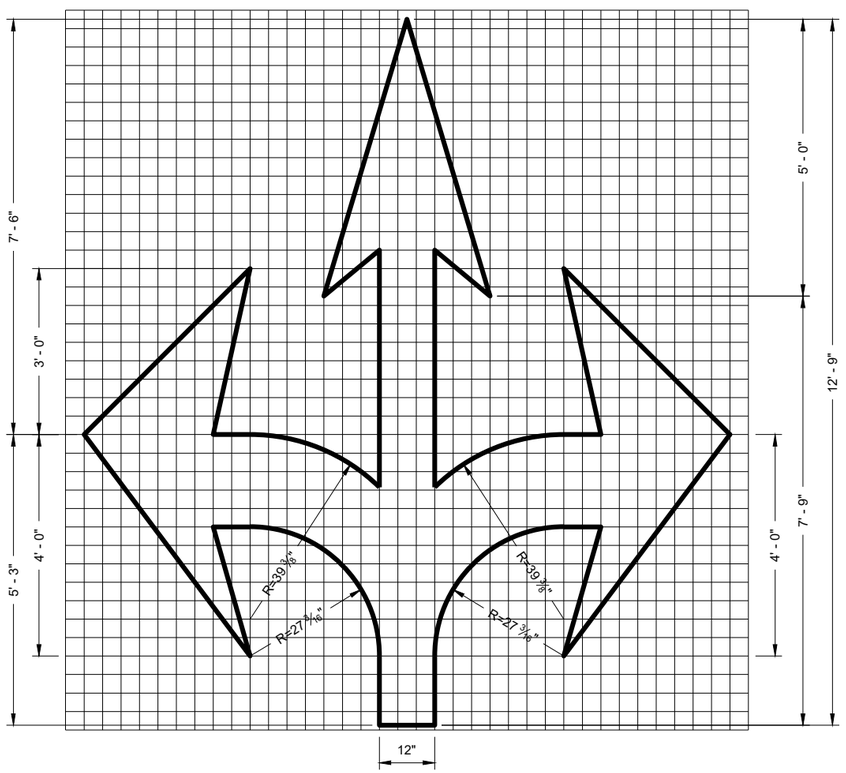
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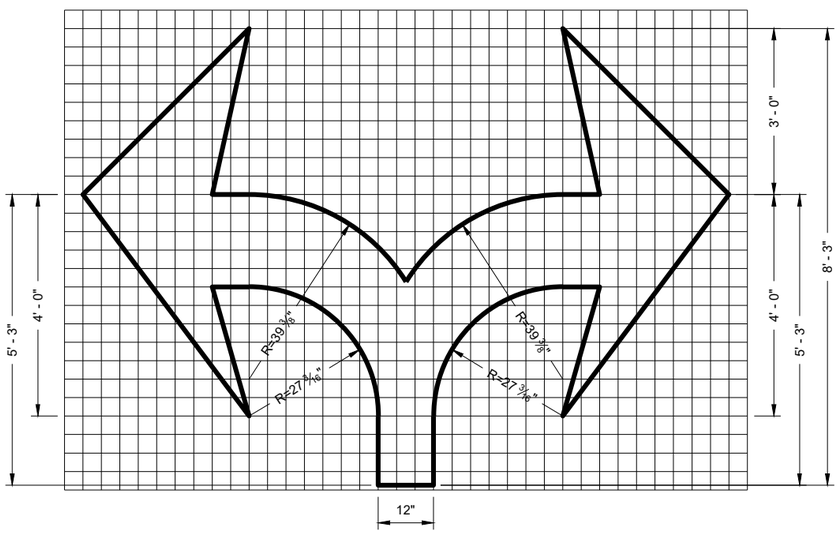
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

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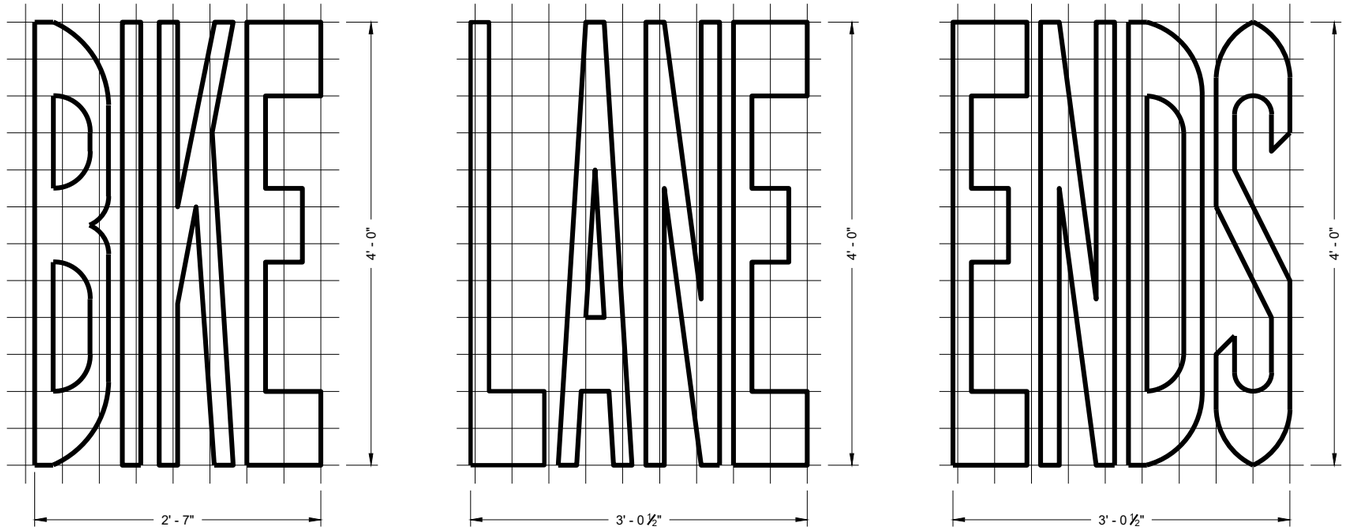
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SDD 15C07 - 15c

6

SDD 15C07 - 15c

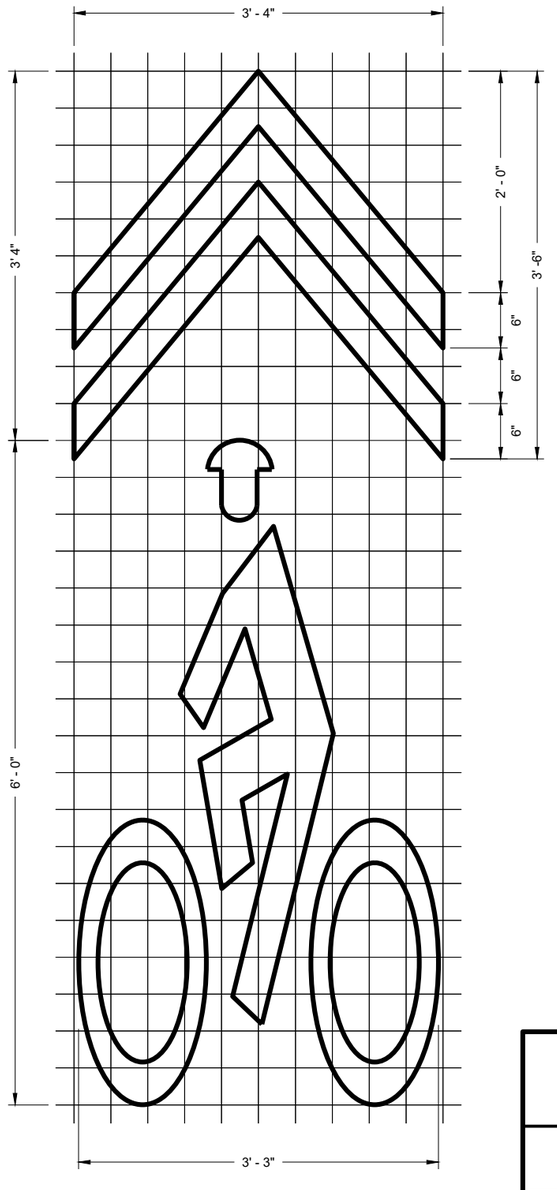
SDD 15C7-e Pavement Marking For Bike Lanes

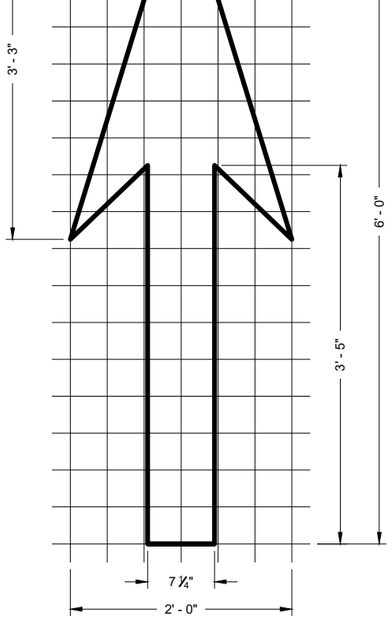


BIKE LANE WORDS

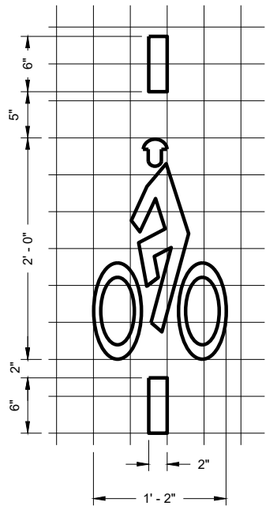
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

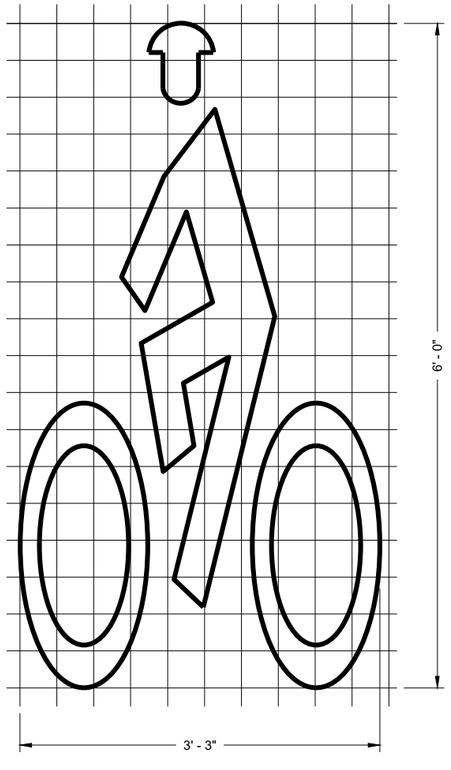




BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

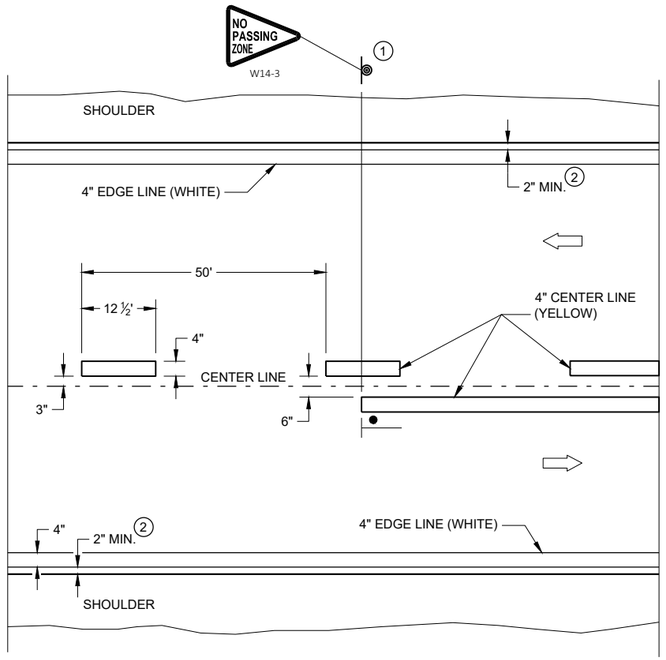
APPROVED
November 2019
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STATE SIGNING AND MAF ENGINEER

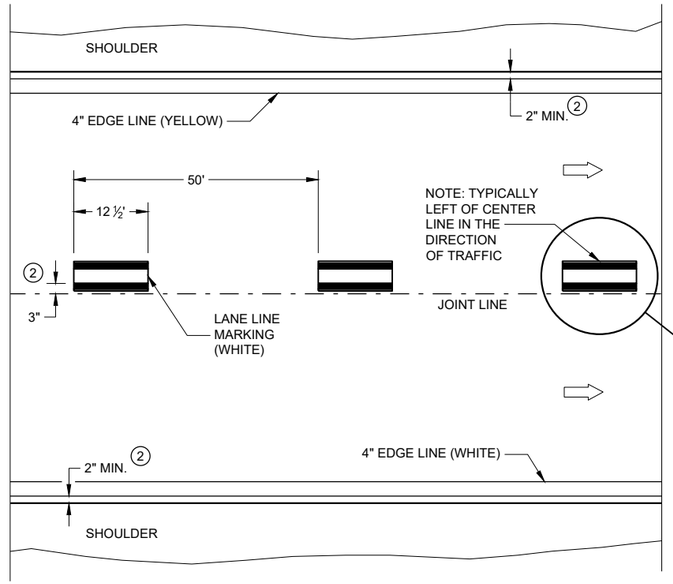
FHWA

6

SDD 15C07 - 15e

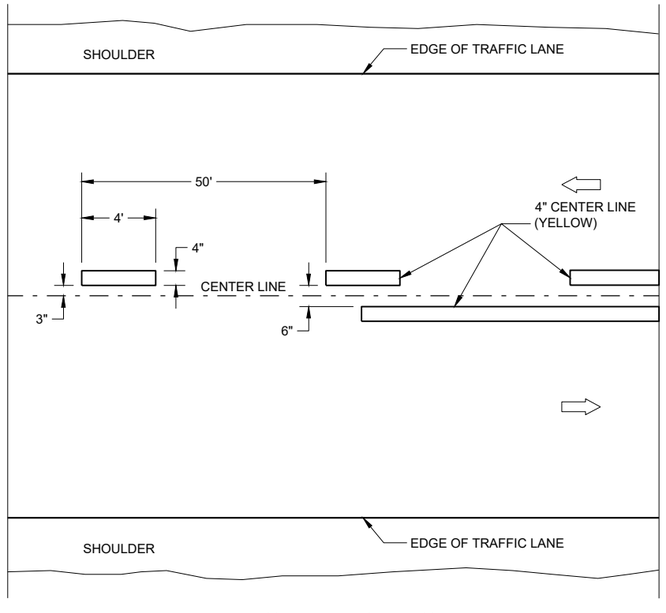


TWO WAY TRAFFIC

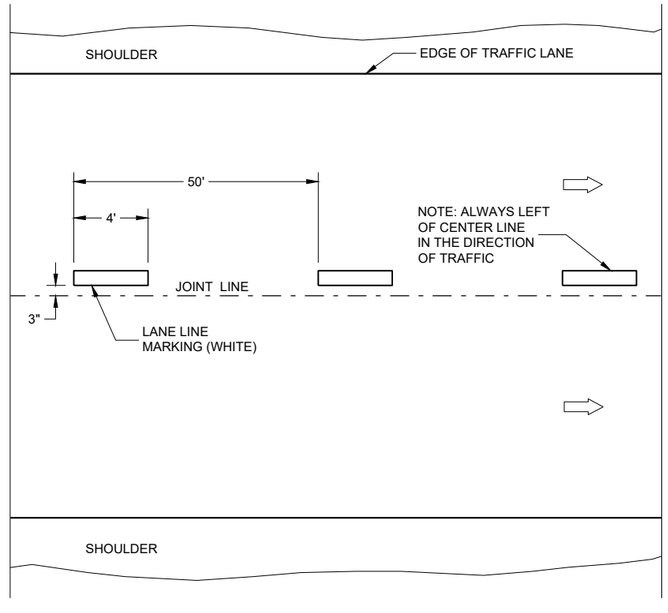


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

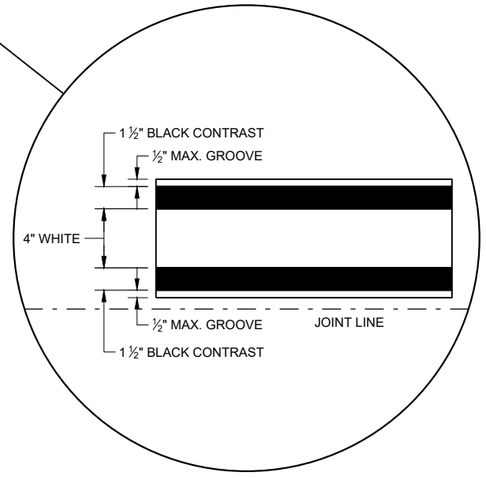
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Matthew Rauch
STATEWIDE SIGNING AND M ENGINEER

FHWA

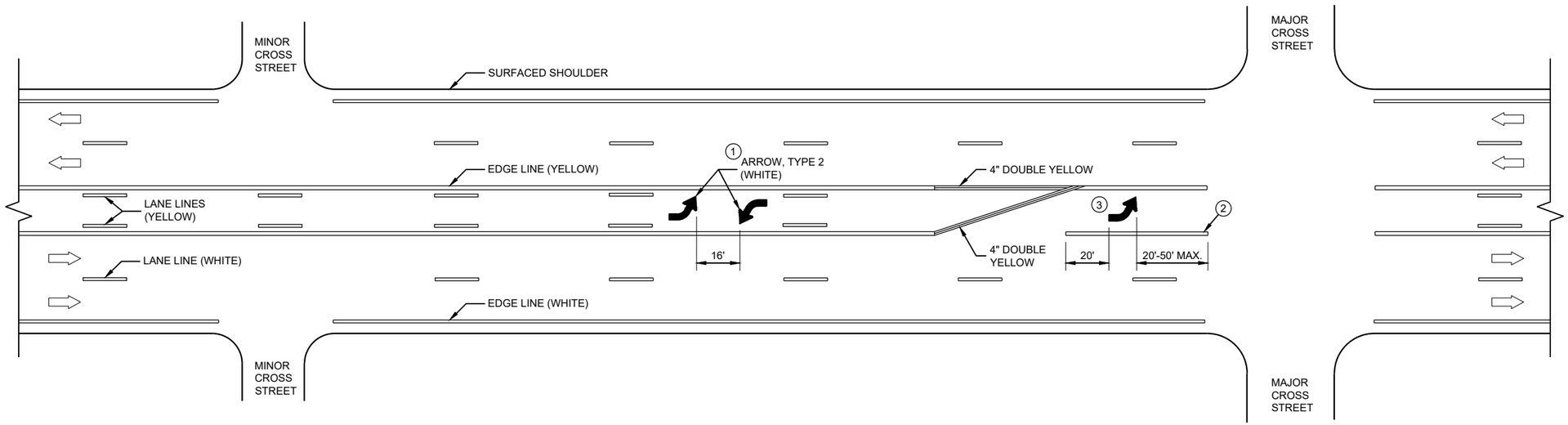
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

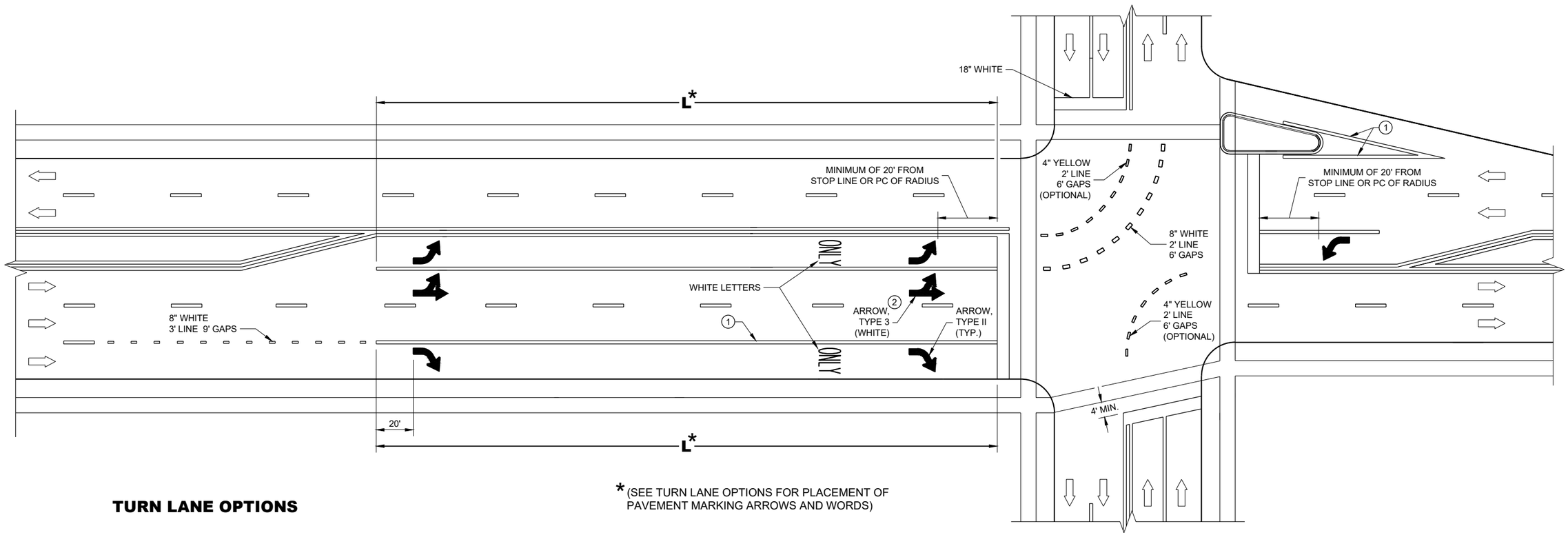
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SDD 15C08 - 20b

SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

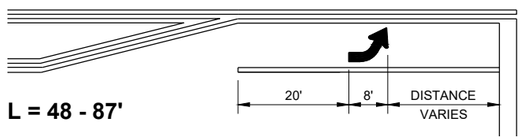
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



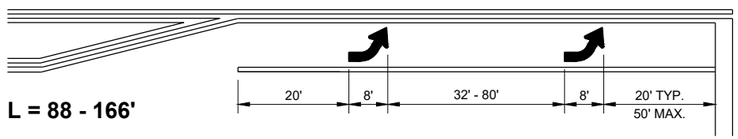
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

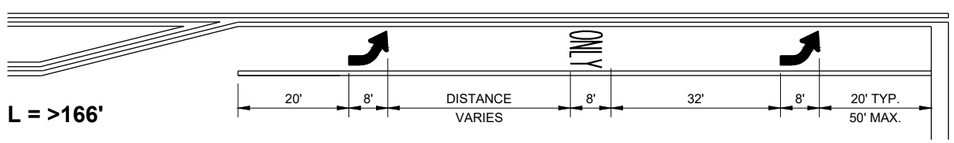
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

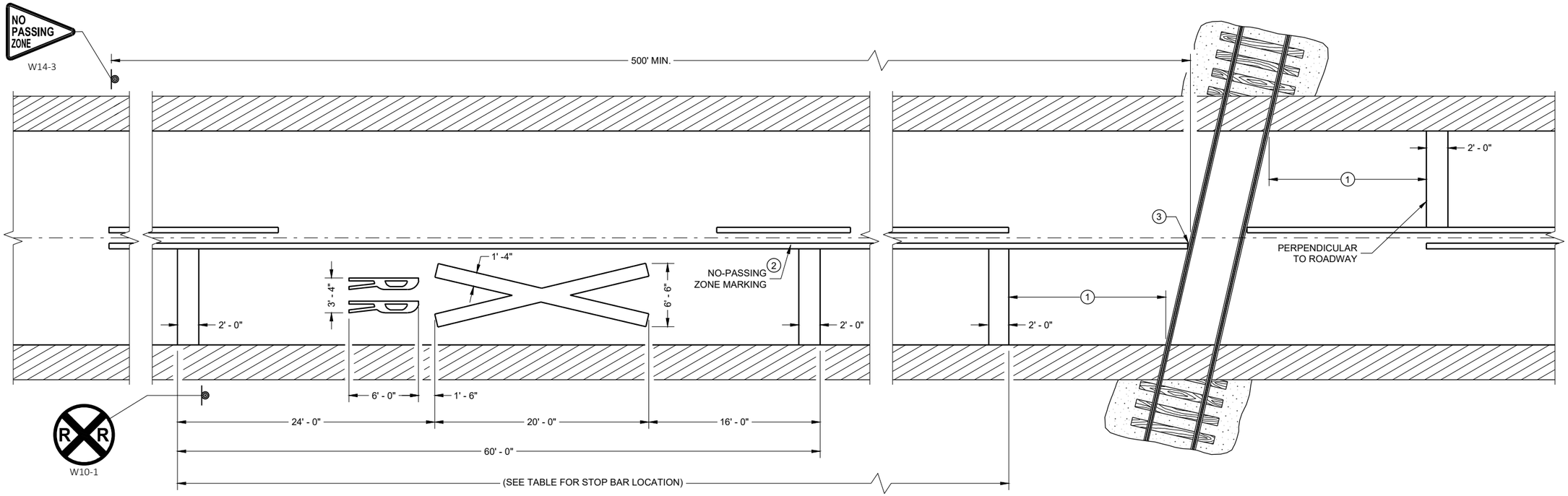
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

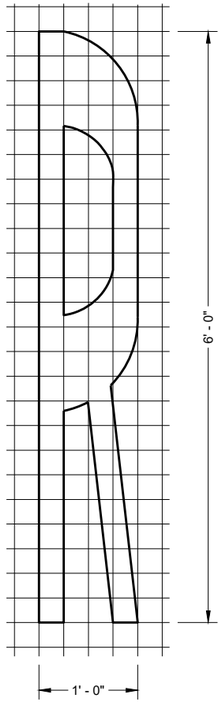
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 20c



PAVEMENT MARKING



LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNAL , GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

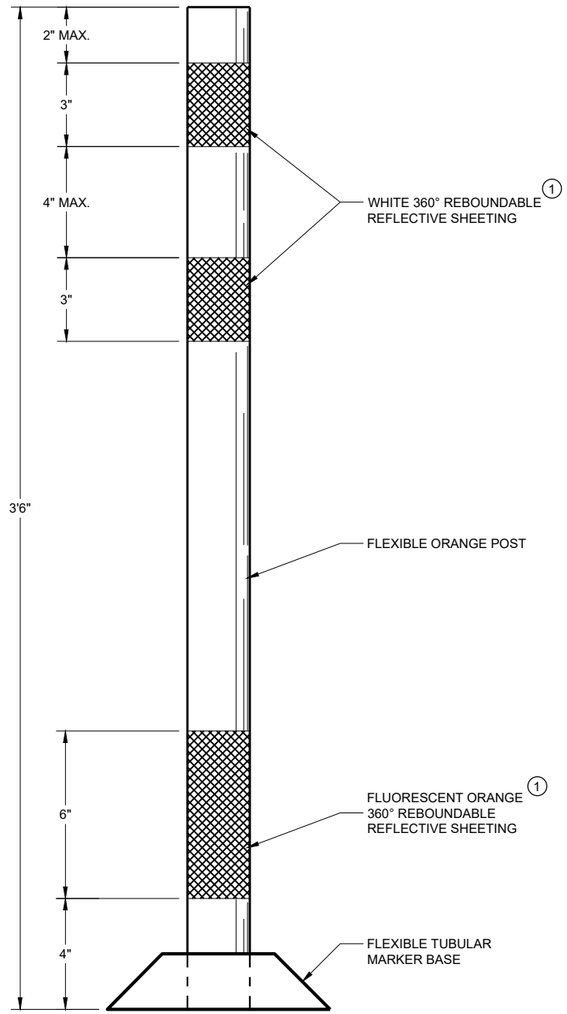
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C09 - 12a

SDD 15C09 - 12a



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

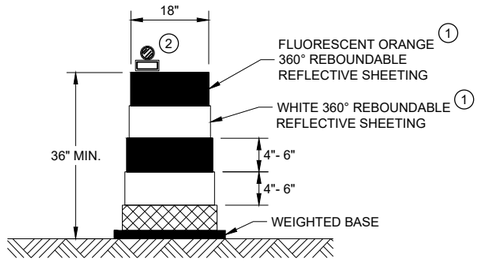
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

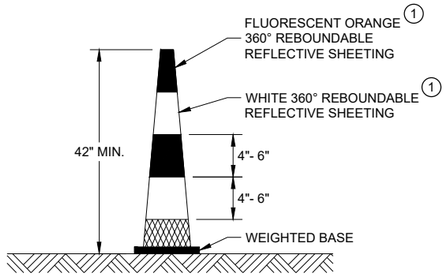
SDD 15C11 - 09a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

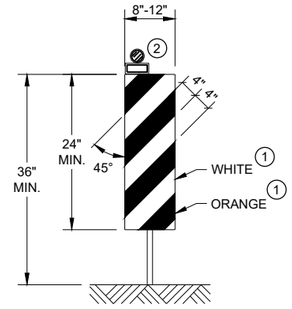


DRUM



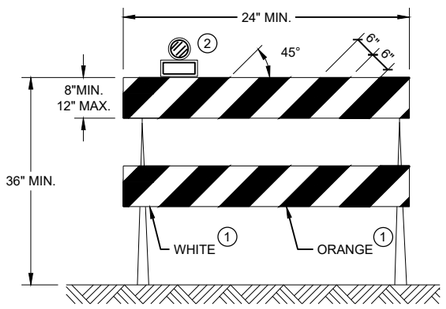
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



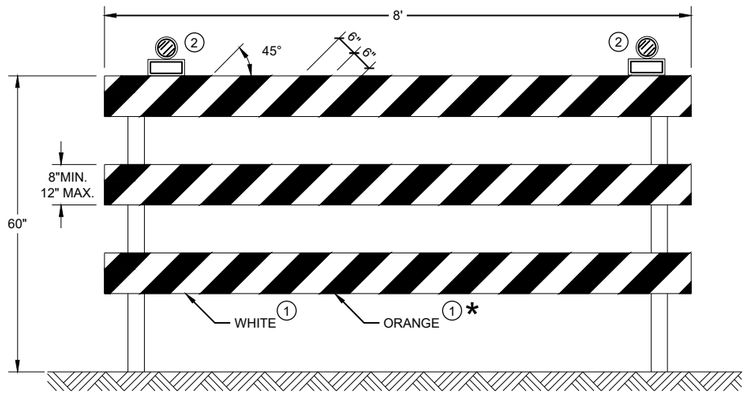
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C11 - 09b

6

SDD 15C11 - 09b

LEGEND

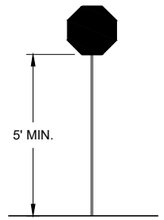
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

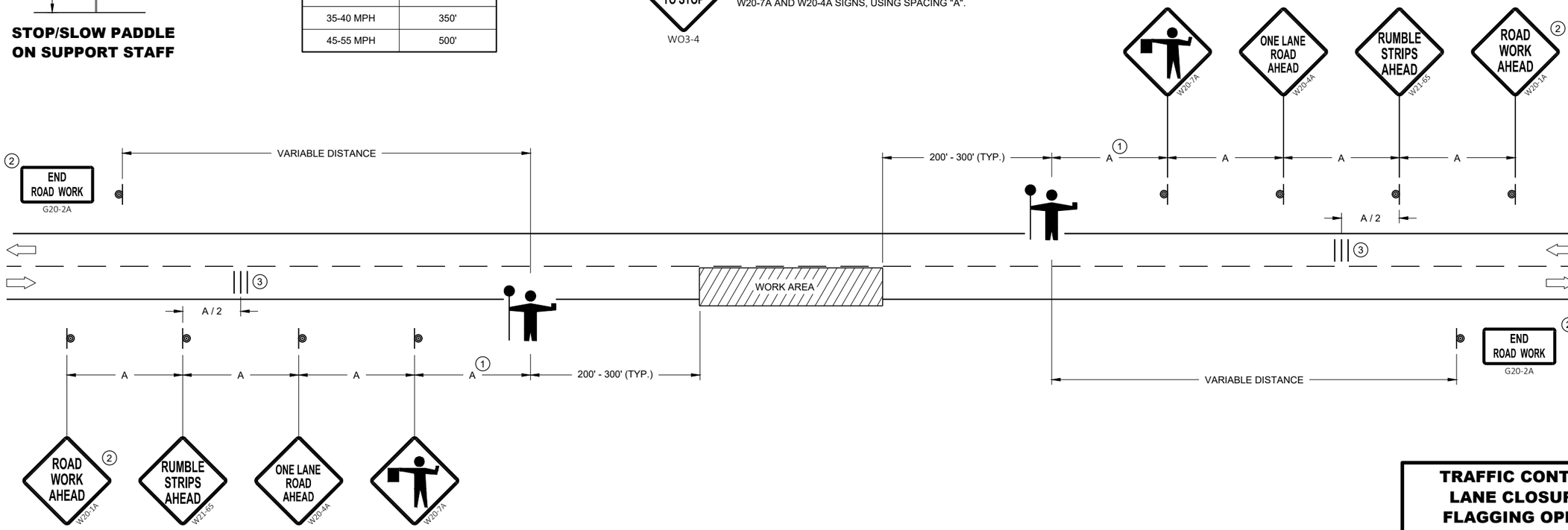
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

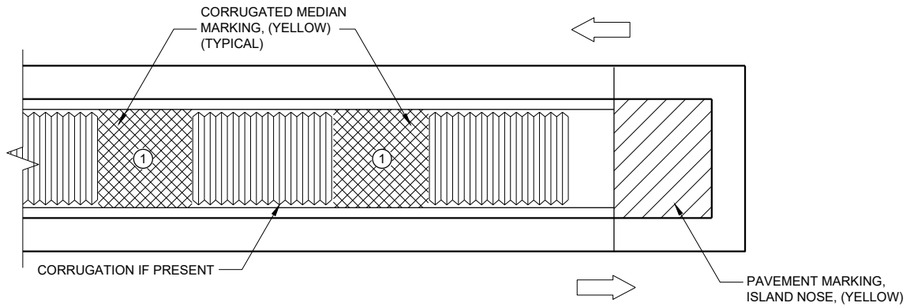
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

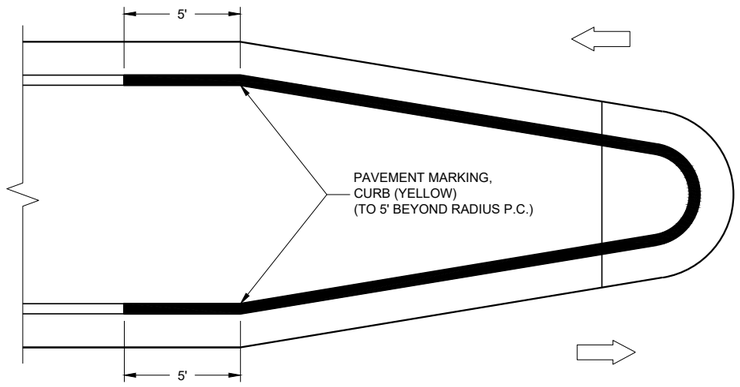
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SDD 15C12 - 07

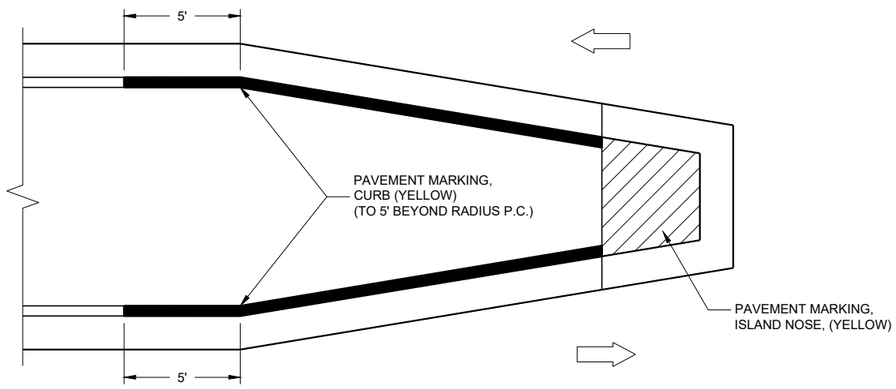
SDD 15C12 - 07



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

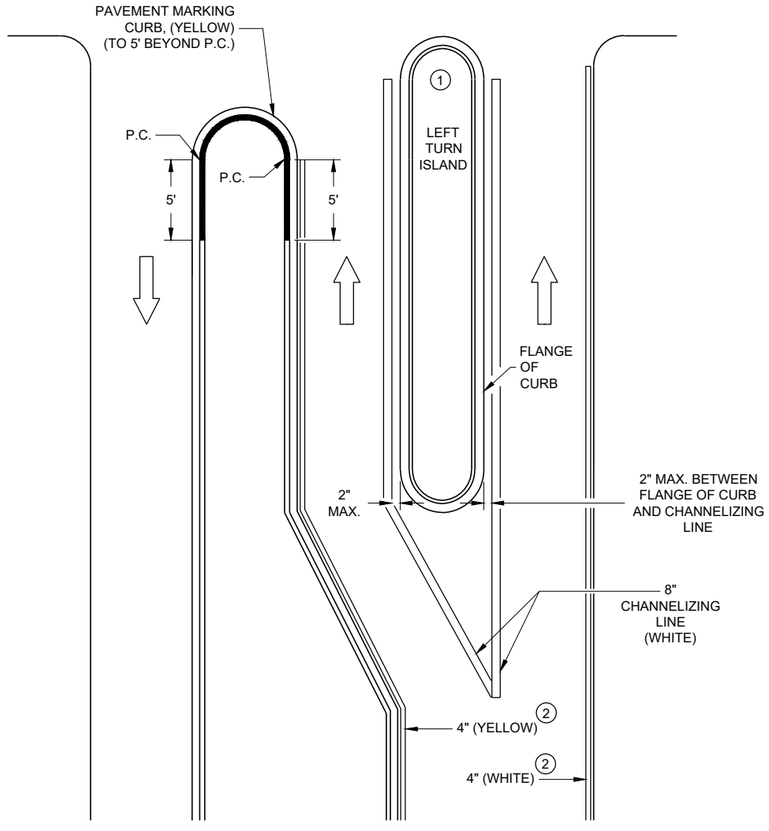
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SDD 15C18 - 05b

6

SDD15C18 - 05b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

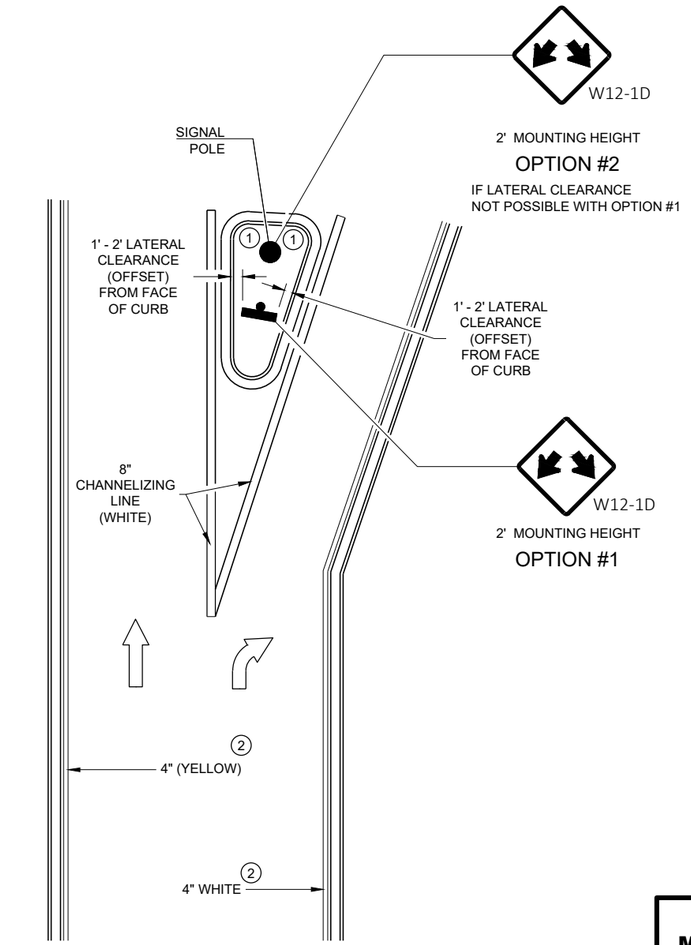
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

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FHWA

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SDD 15C18 - 05c

6

SDD 15C18 - 05c

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

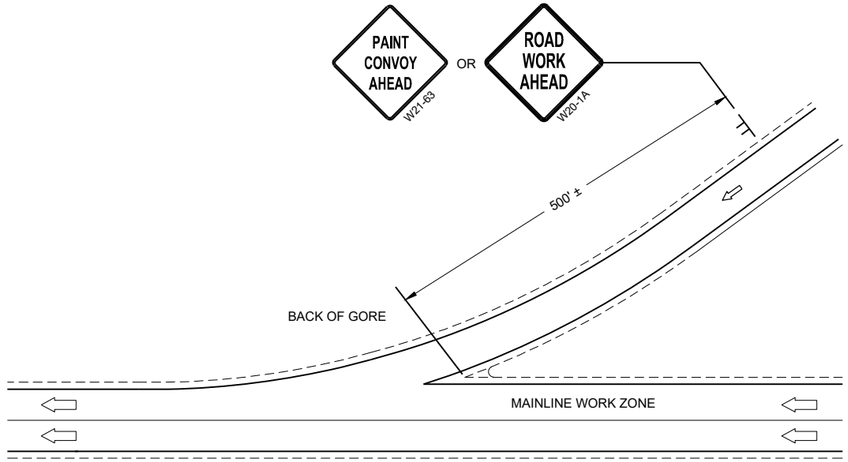
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

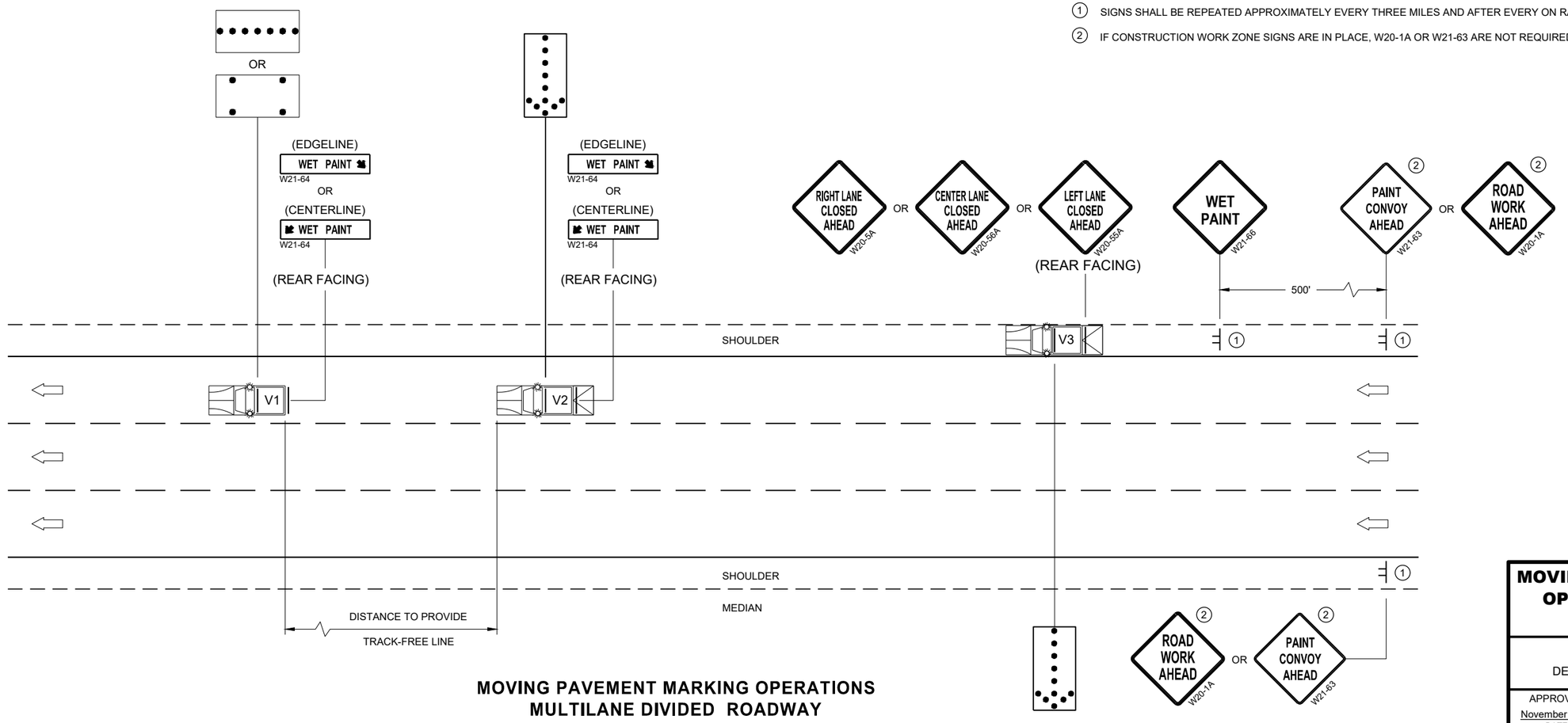
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

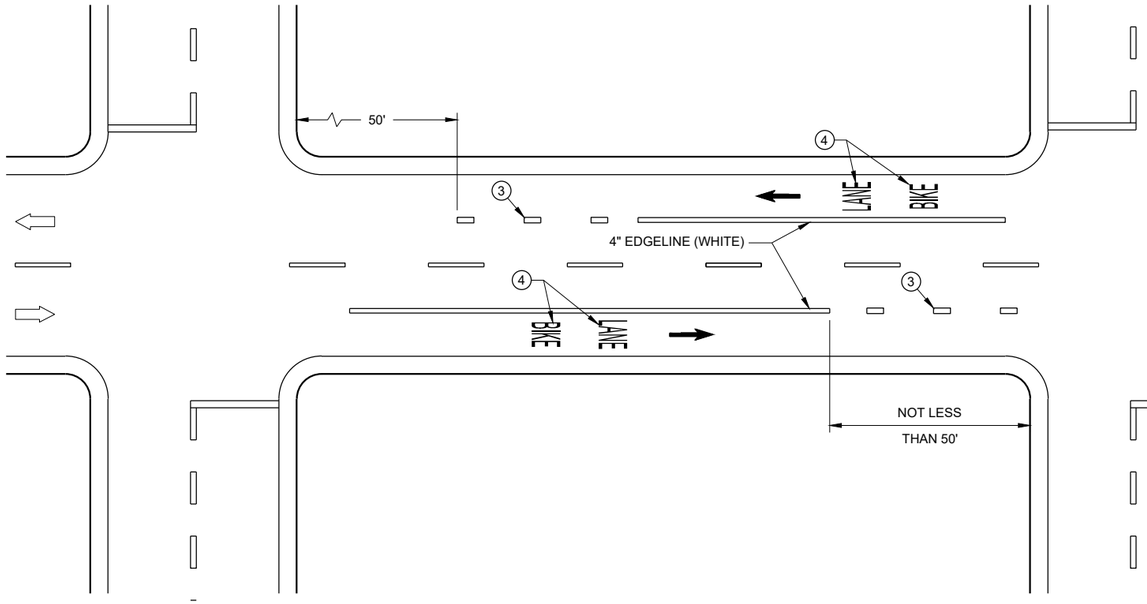
FHWA

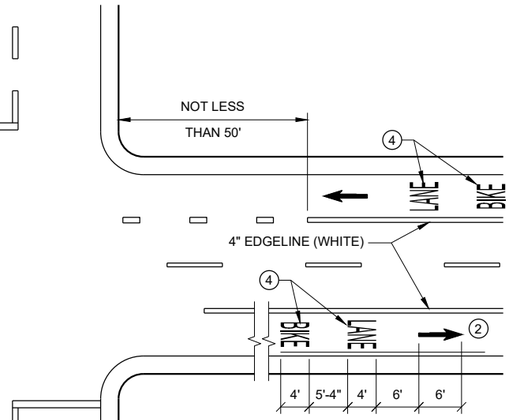
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SDD 15C19 - 06c

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SDD 15C19 - 06c



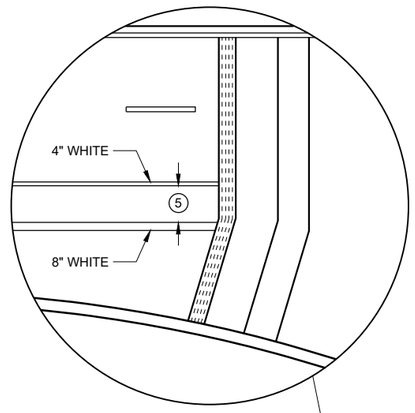


GENERAL NOTES

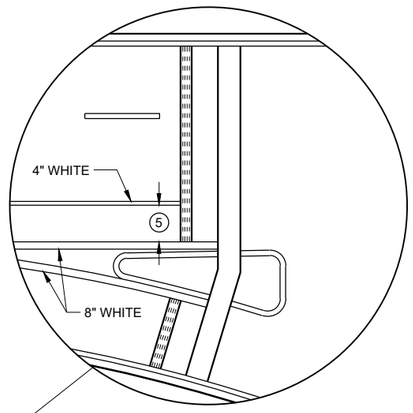
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

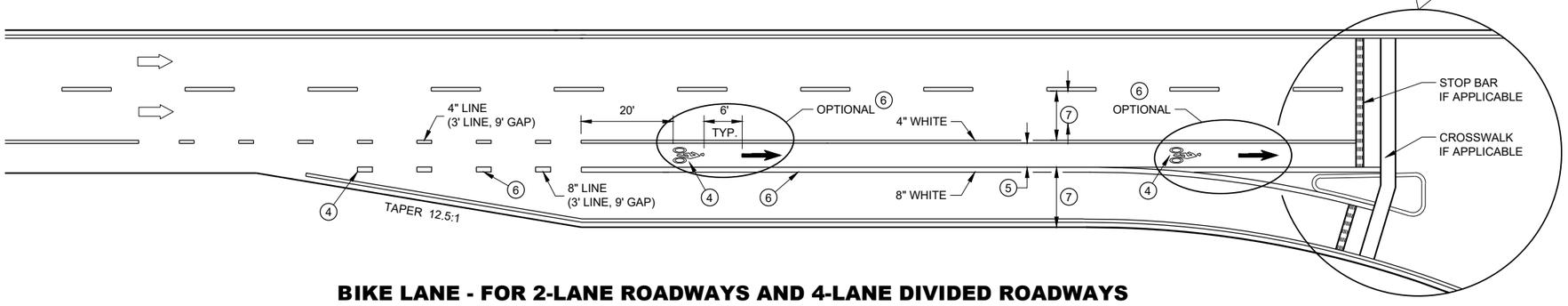
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BIKE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2020
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C29 - 07a

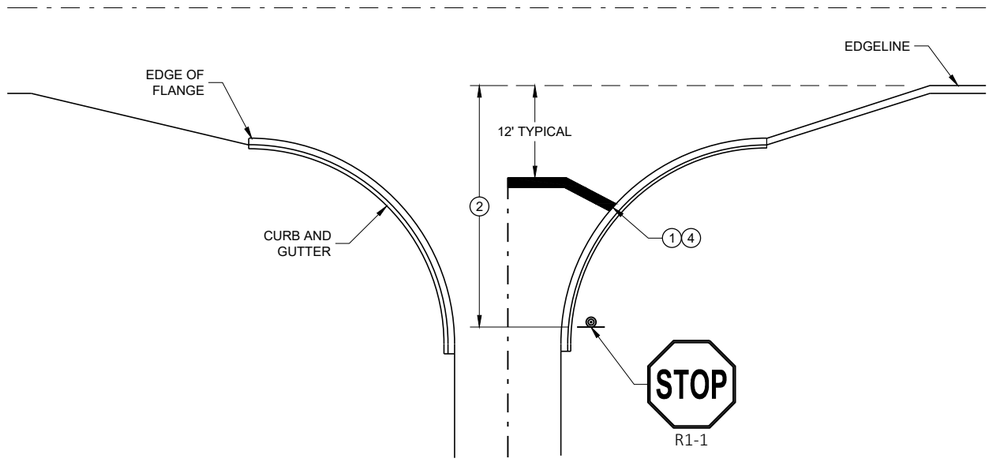
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SDD 15C29 - 07a

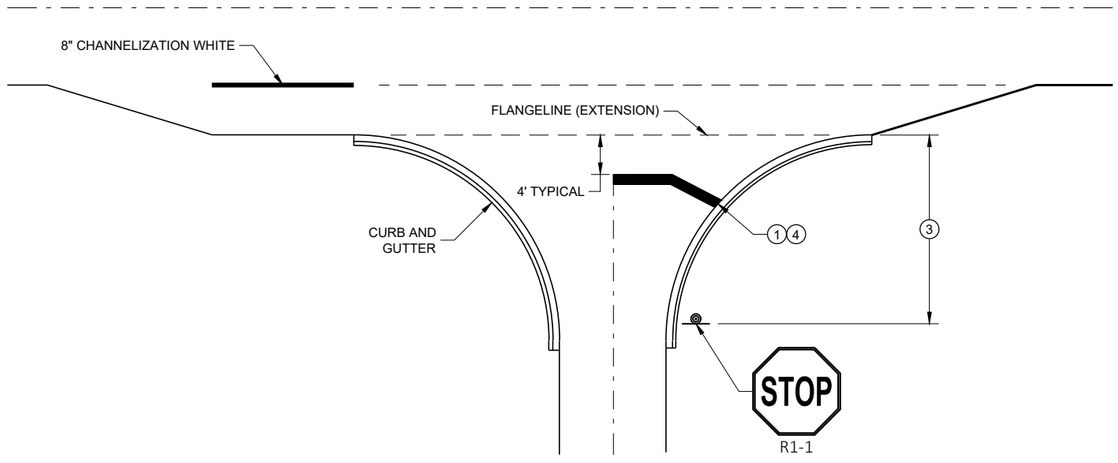
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

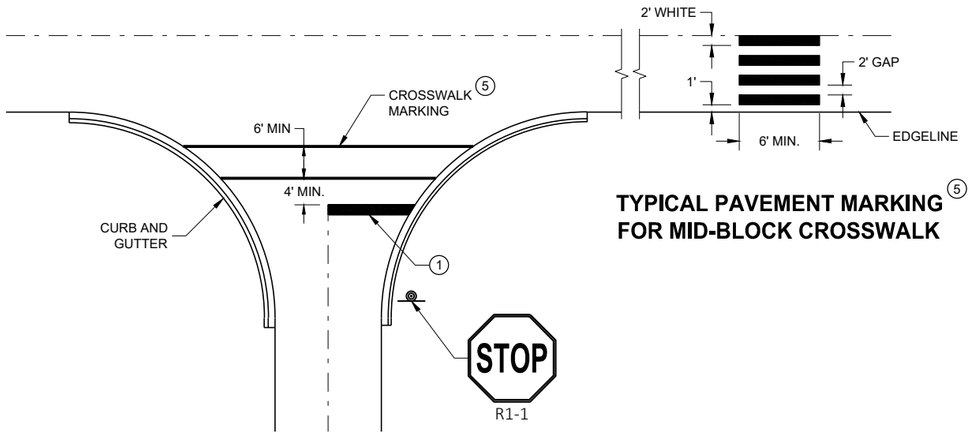
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

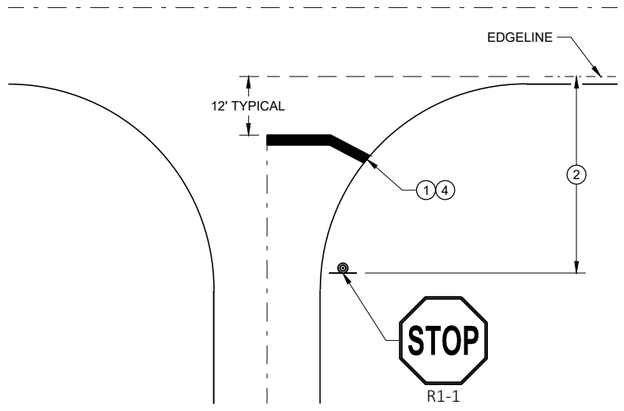


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C33 - 04

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

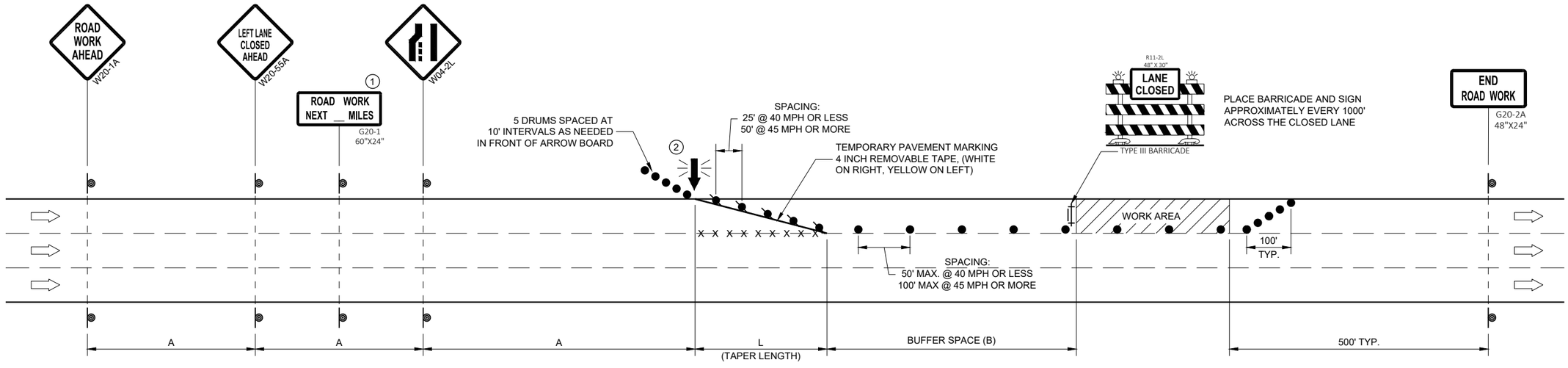
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

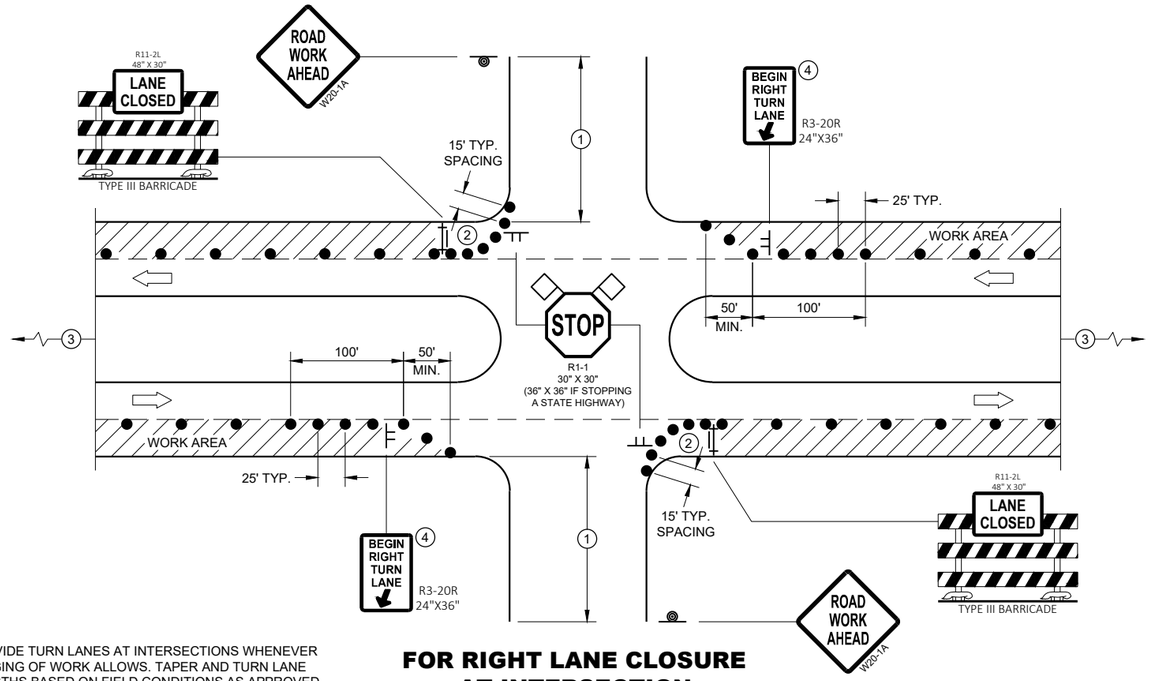
FHWA

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SDD 15D20 - 05a

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SDD15D20 - 05a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

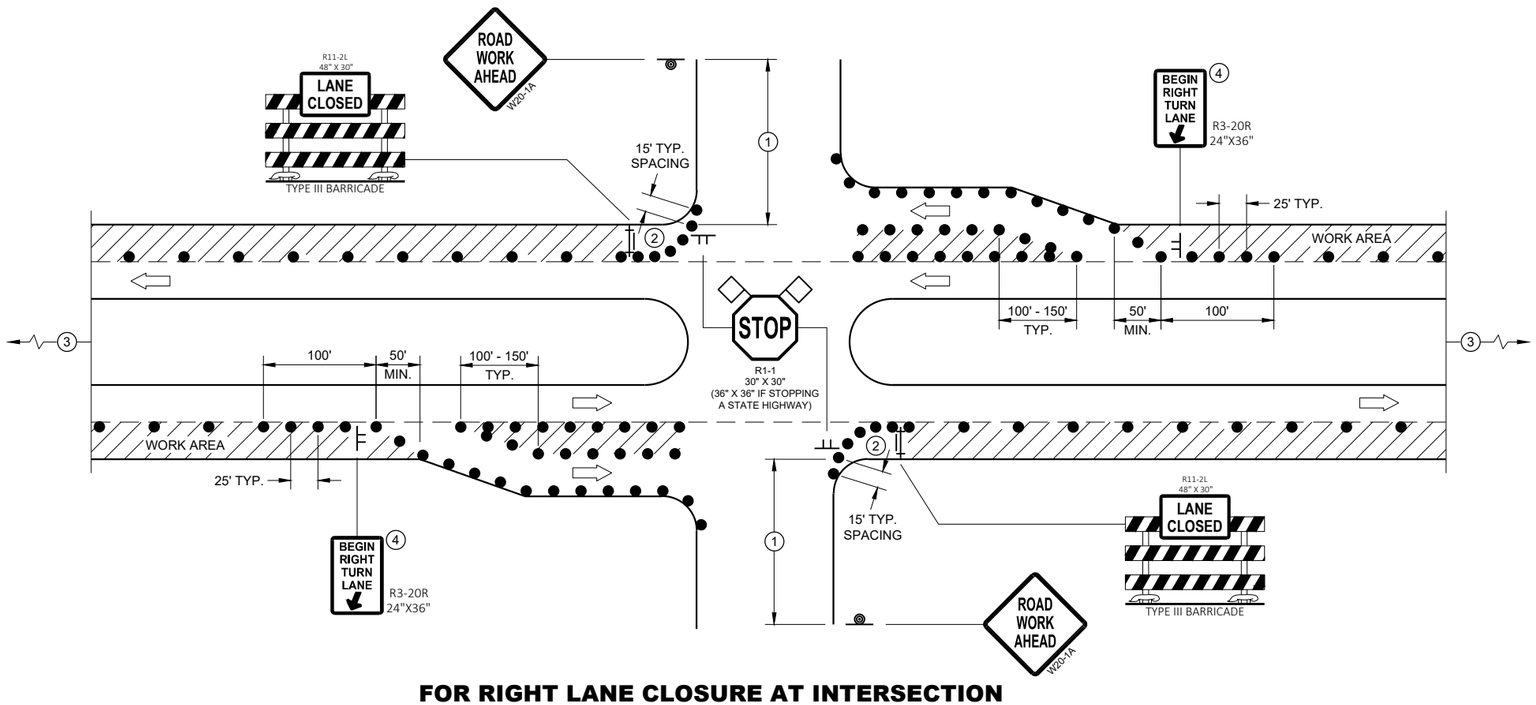
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

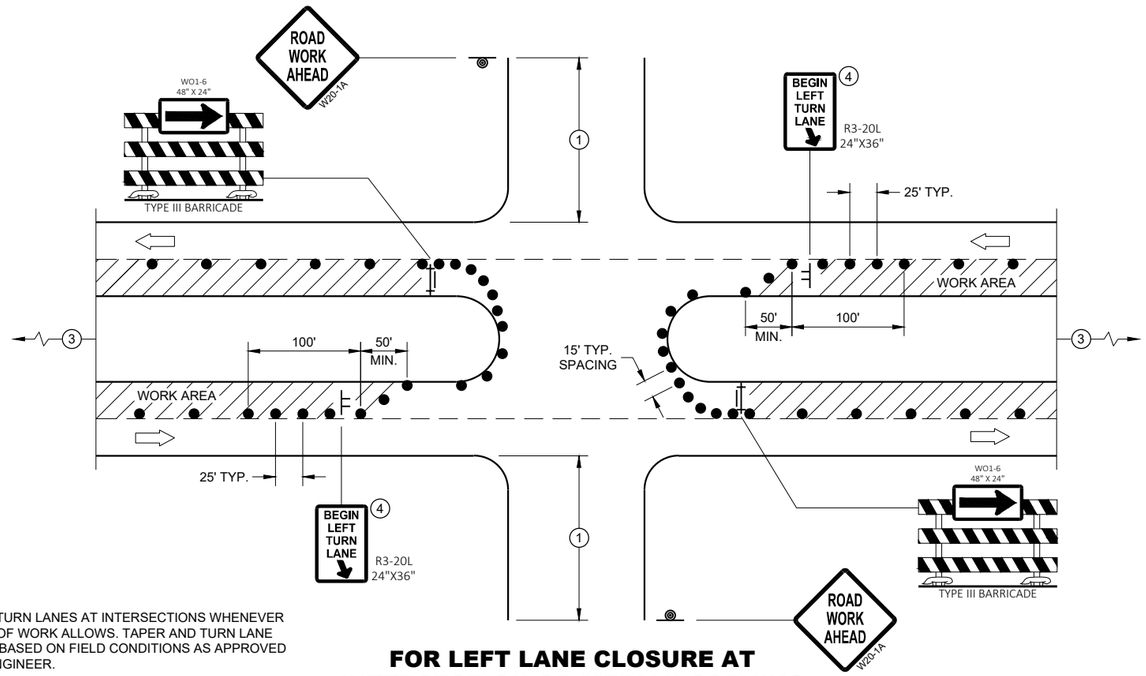
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

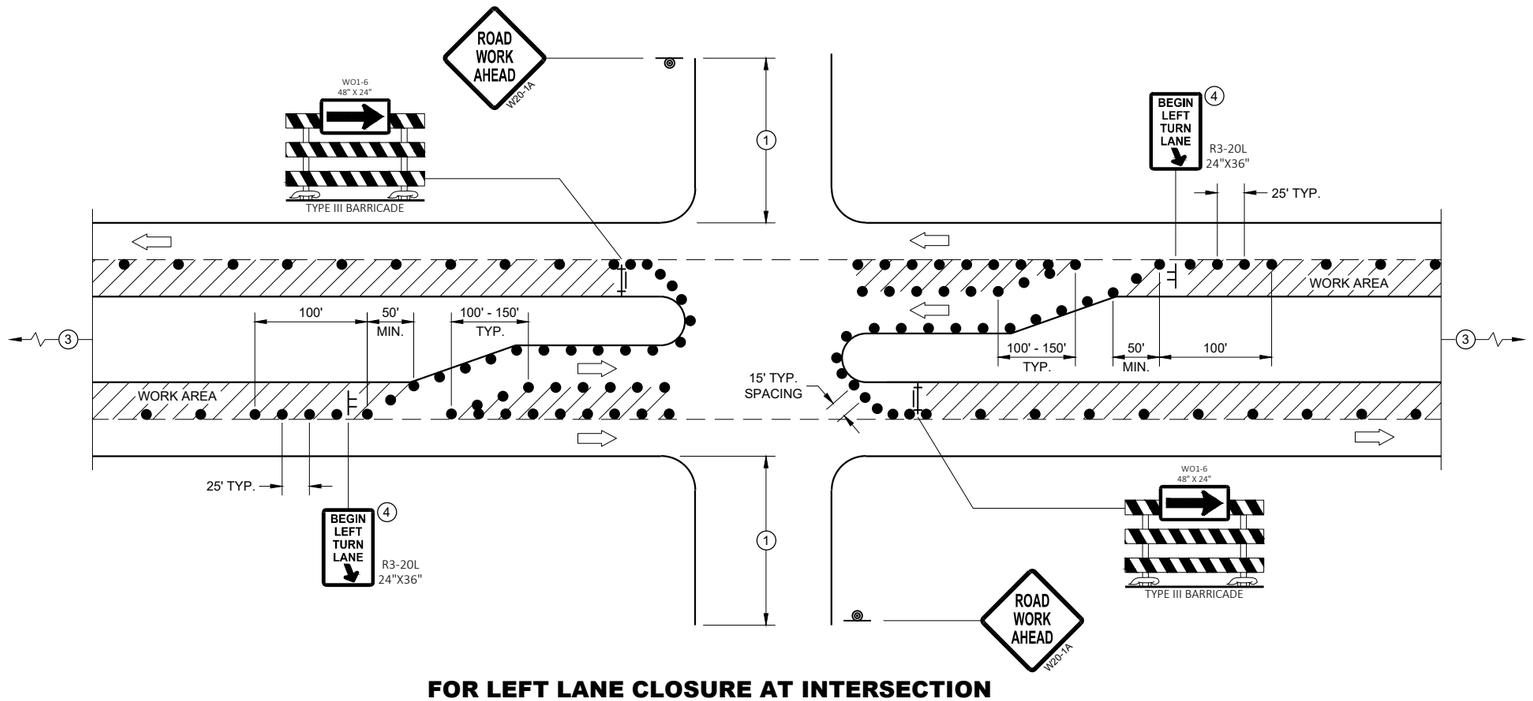
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45 MPH, USE SDD 15D14.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES.
FOR CLOSING LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

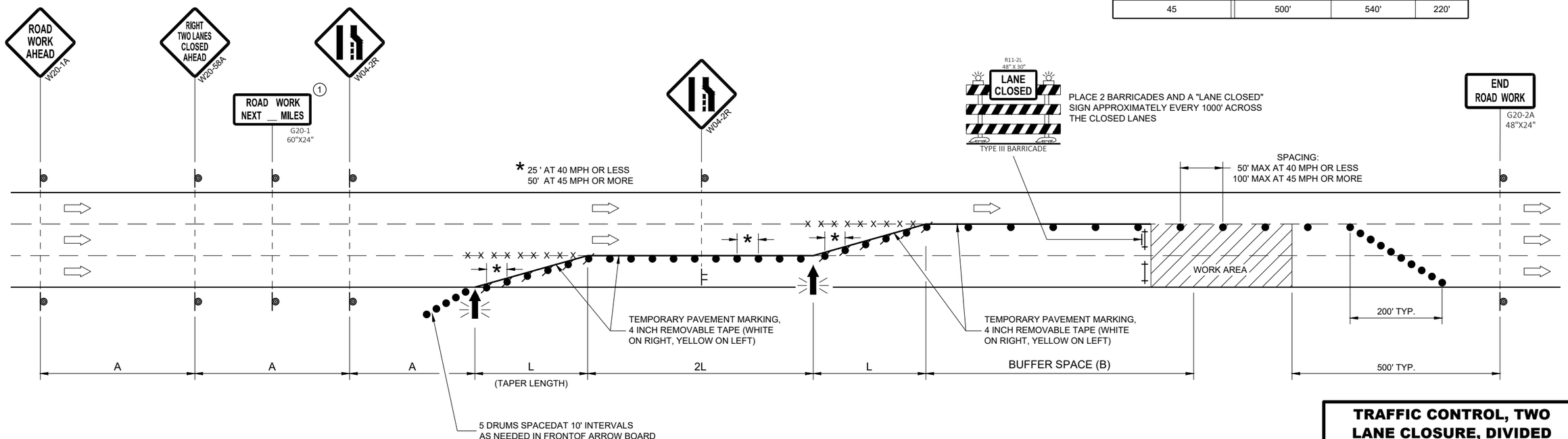
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'



TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

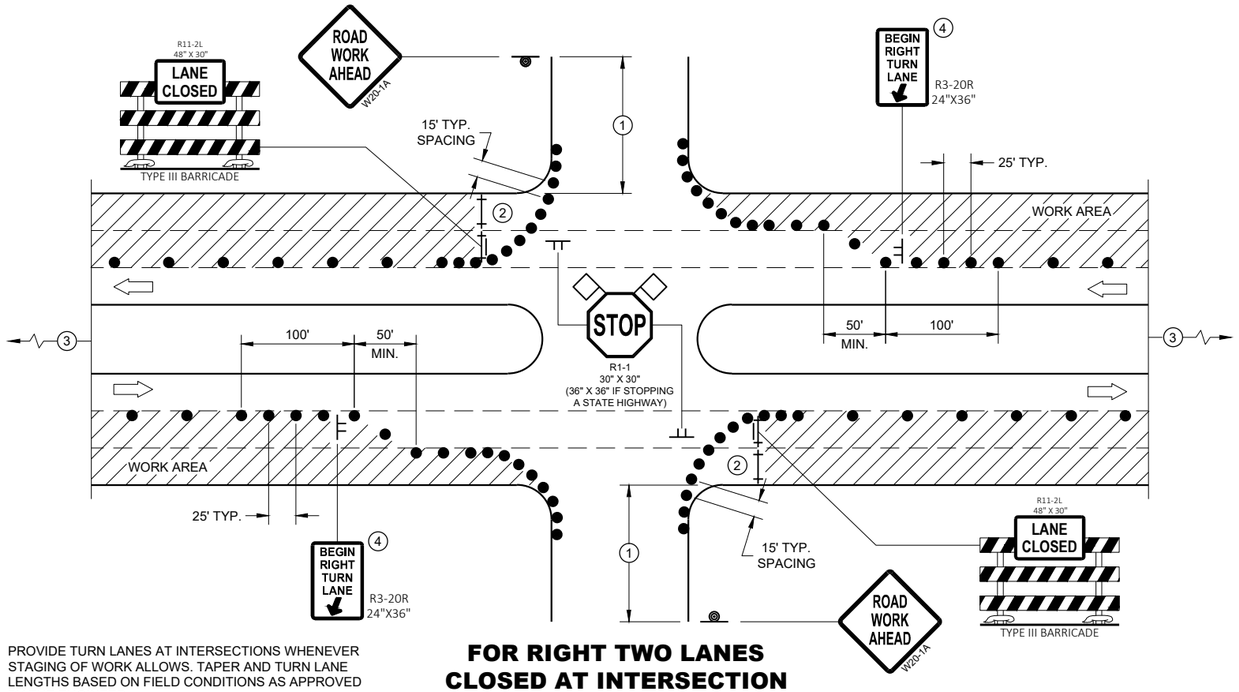
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

6

SDD 15D22 - 04



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT TWO LANES CLOSED AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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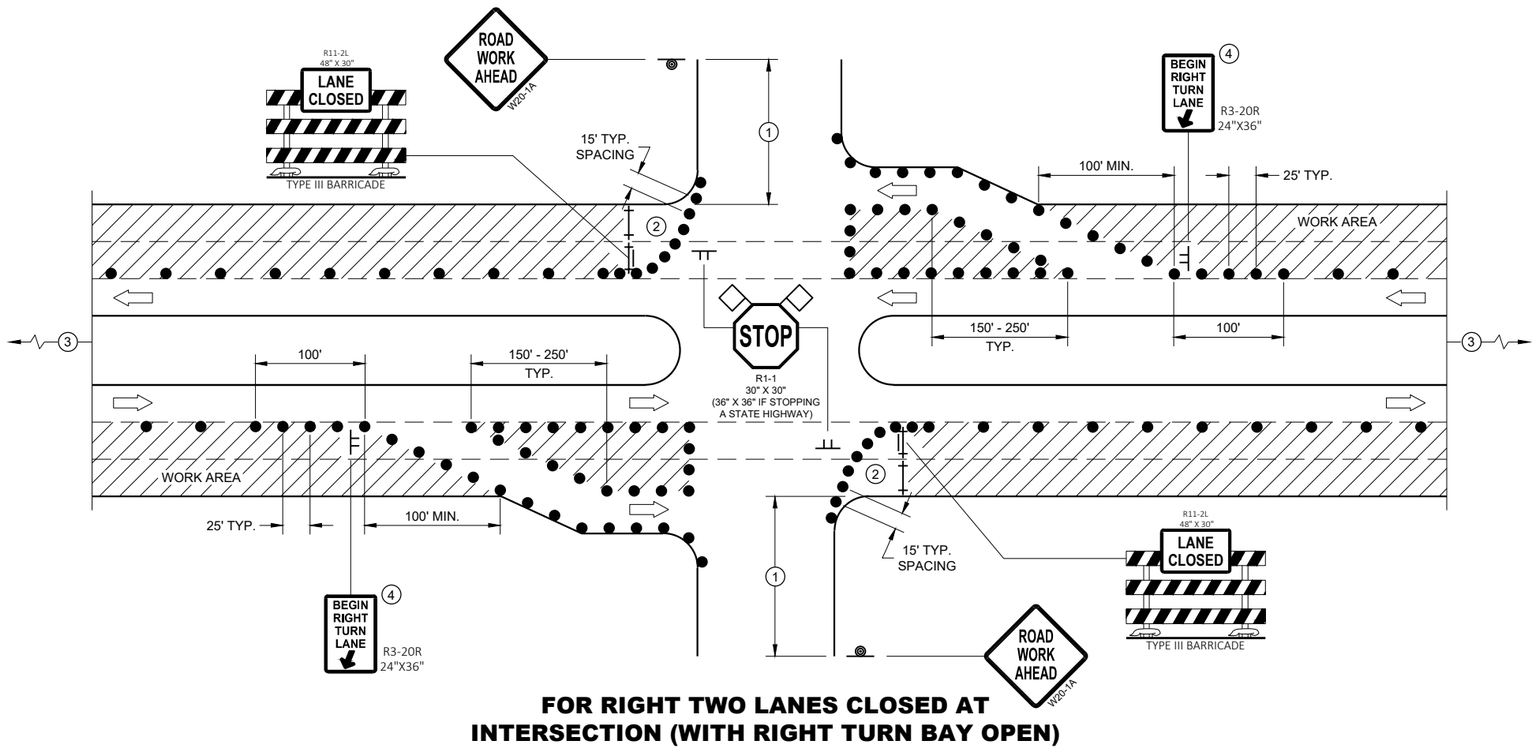
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT TWO LANES CLOSED AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

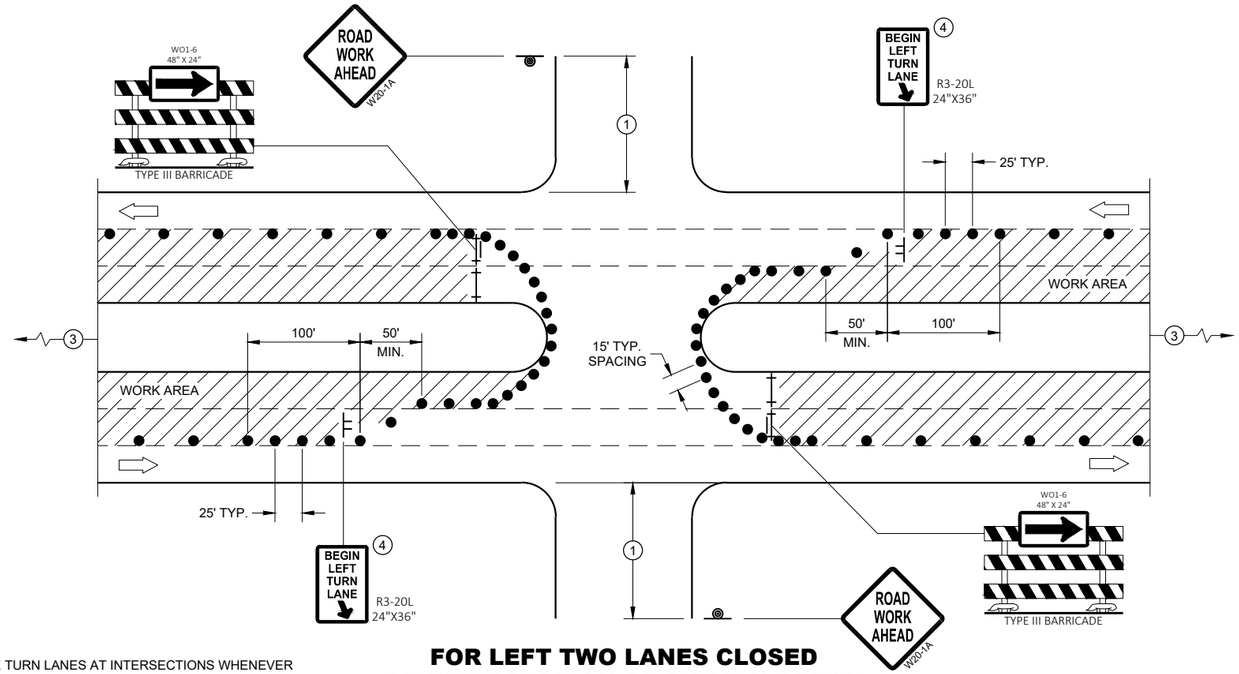
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN TWO RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D23 - 07a
SDD 15D23 - 07a



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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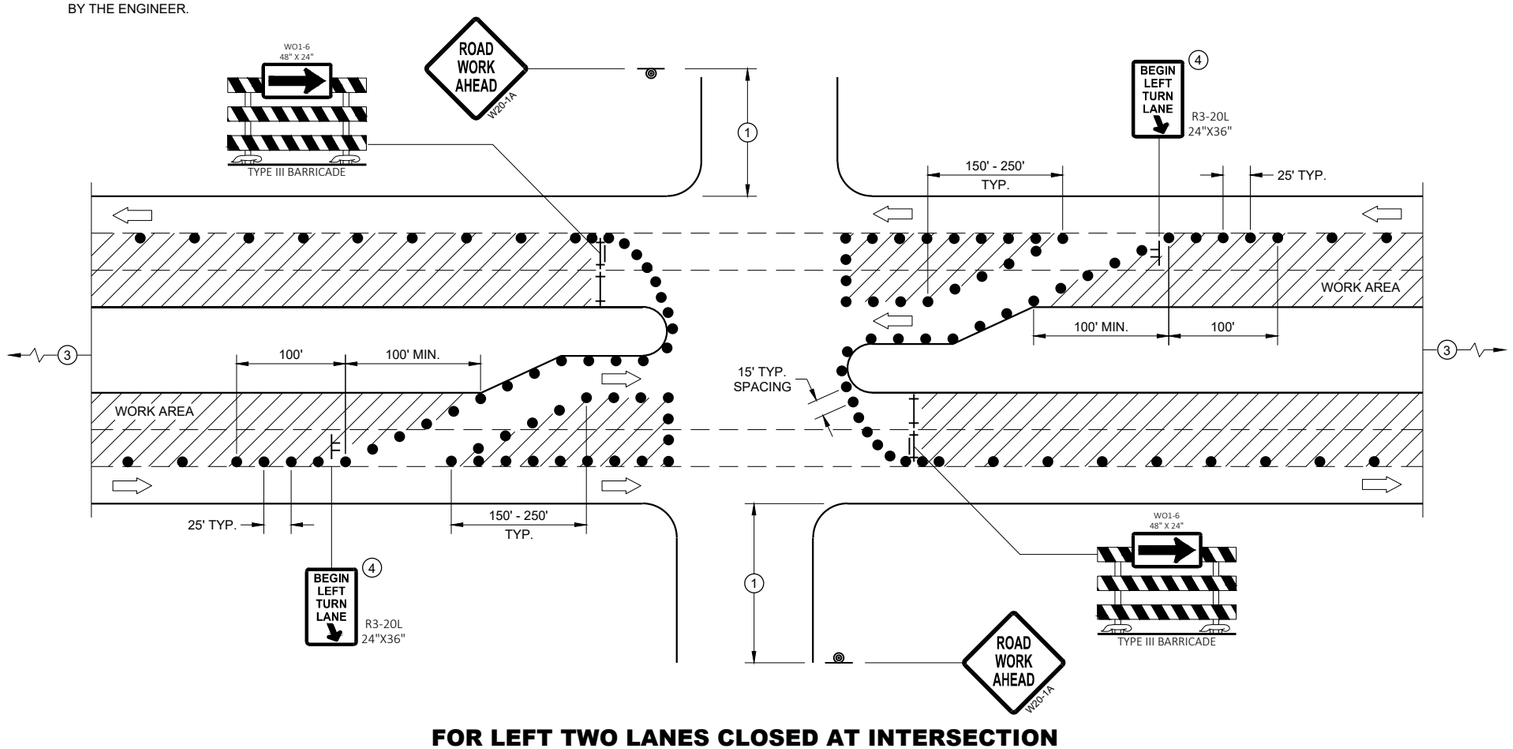
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(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN TWO LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE

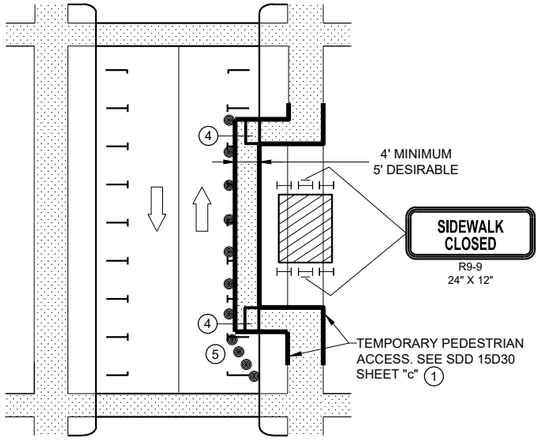
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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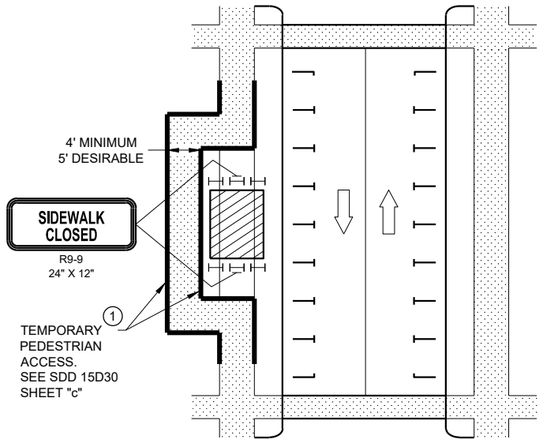
SDD15D23 - 07b

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

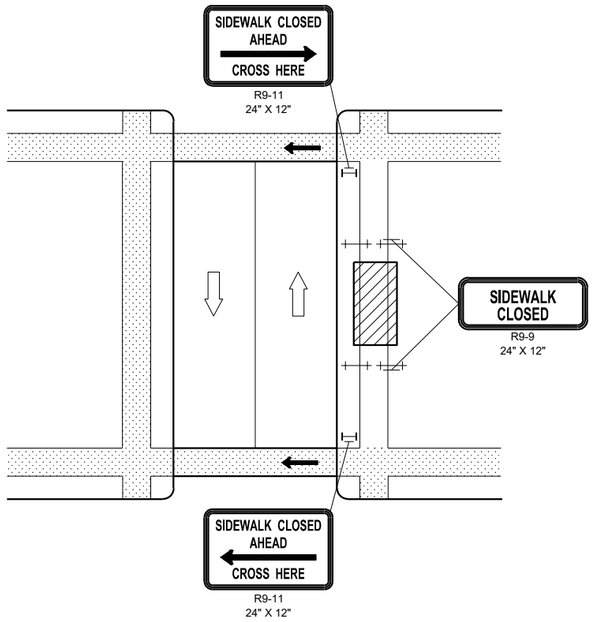


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

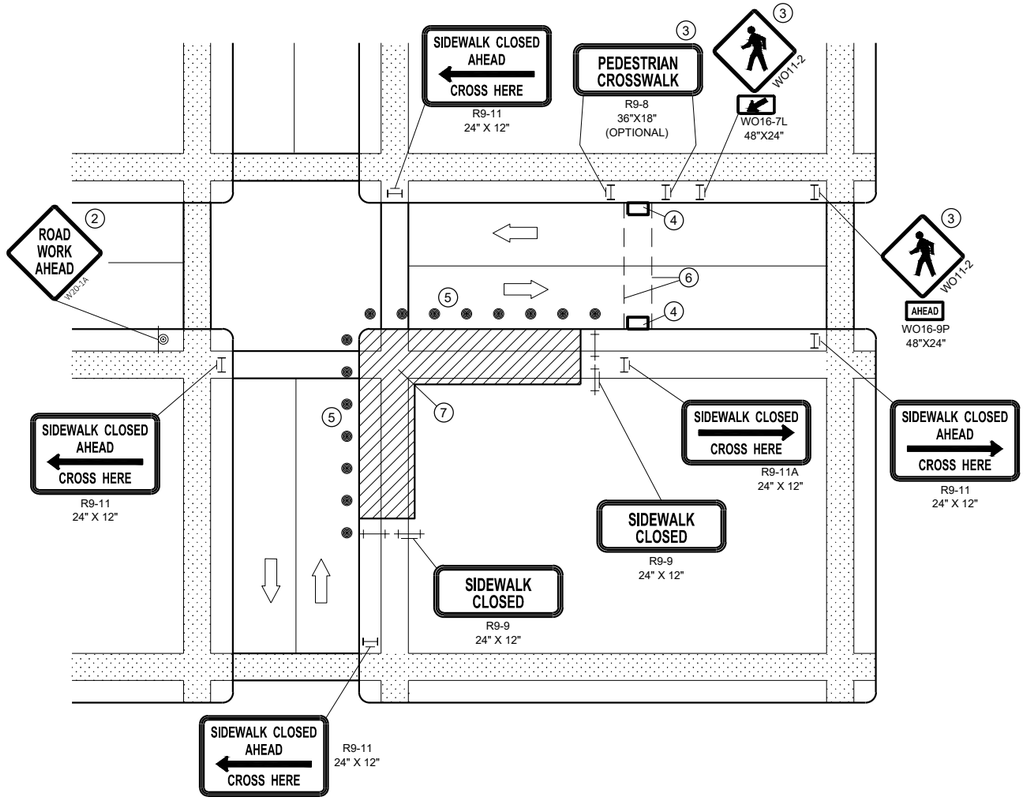
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

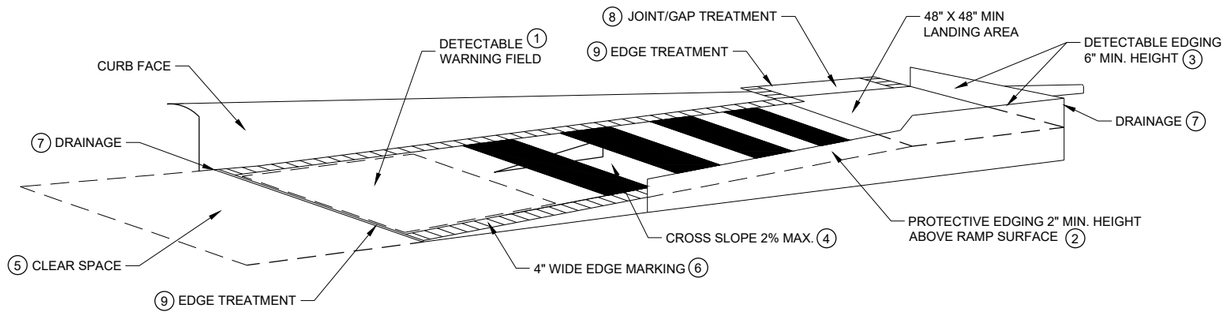
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

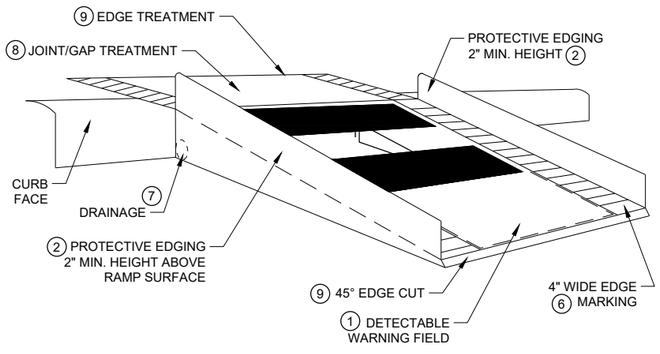
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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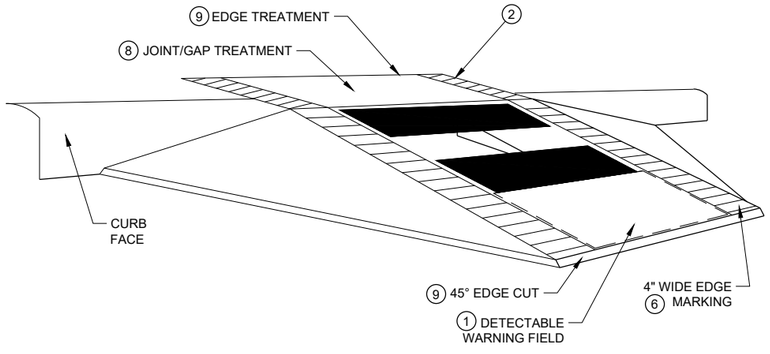
SDD15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

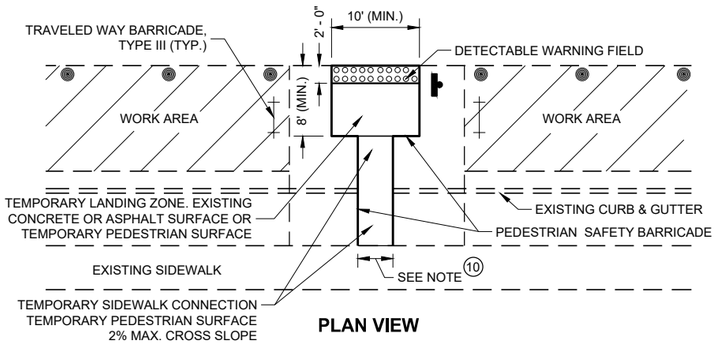
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

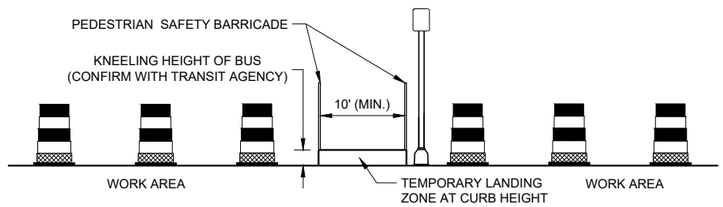
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

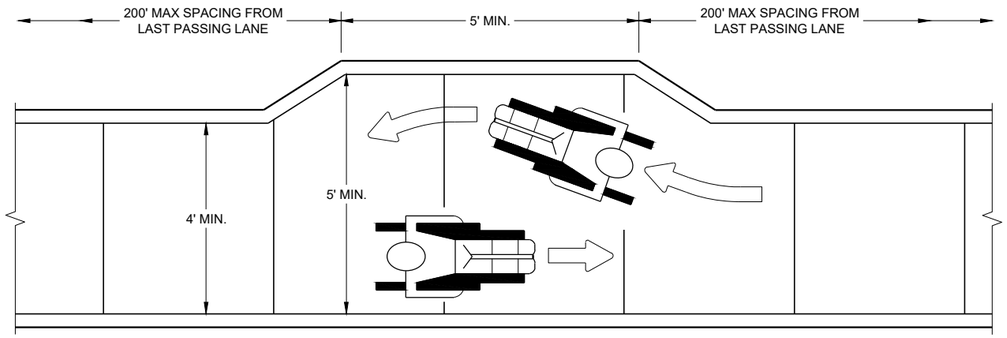
LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

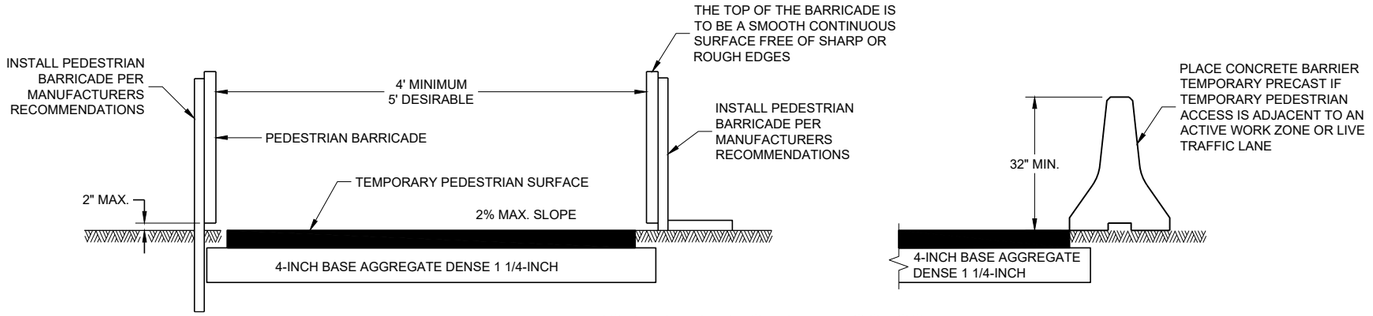
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

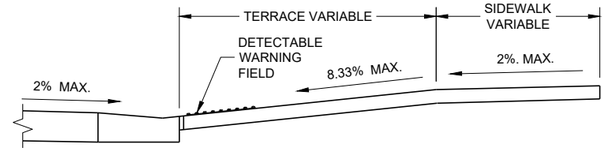
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SDD 15D30 - 06b



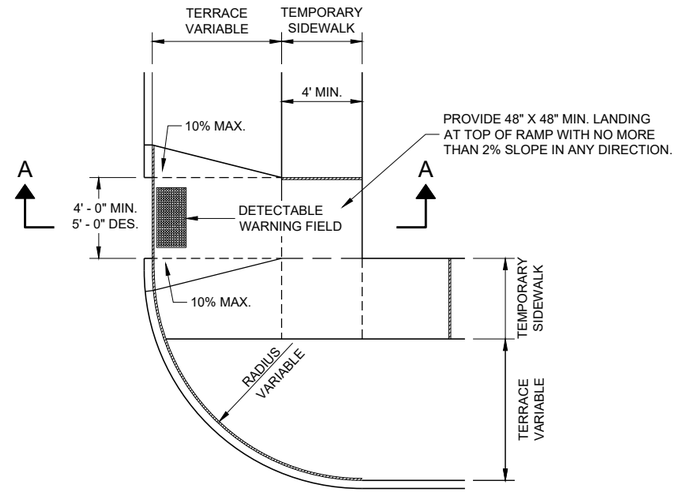
NARROW SIDEWALK PASSING DETAIL



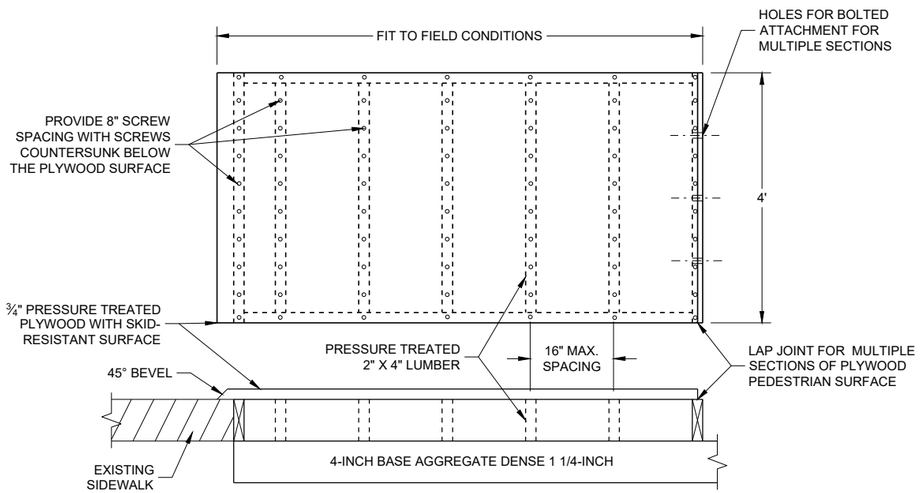
TEMPORARY PEDESTRIAN ACCESS



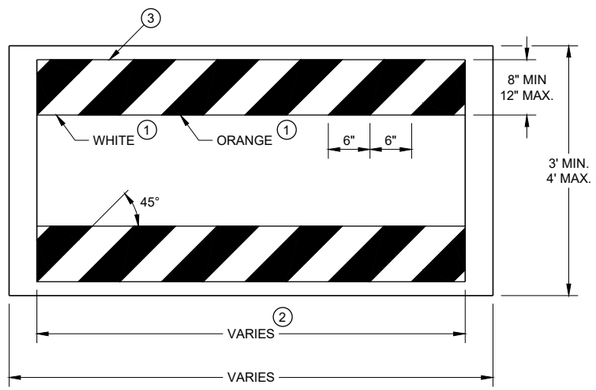
SECTION A - A



PLAN VIEW
TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D30 - 06c

6

SDD 15D30 - 06c

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

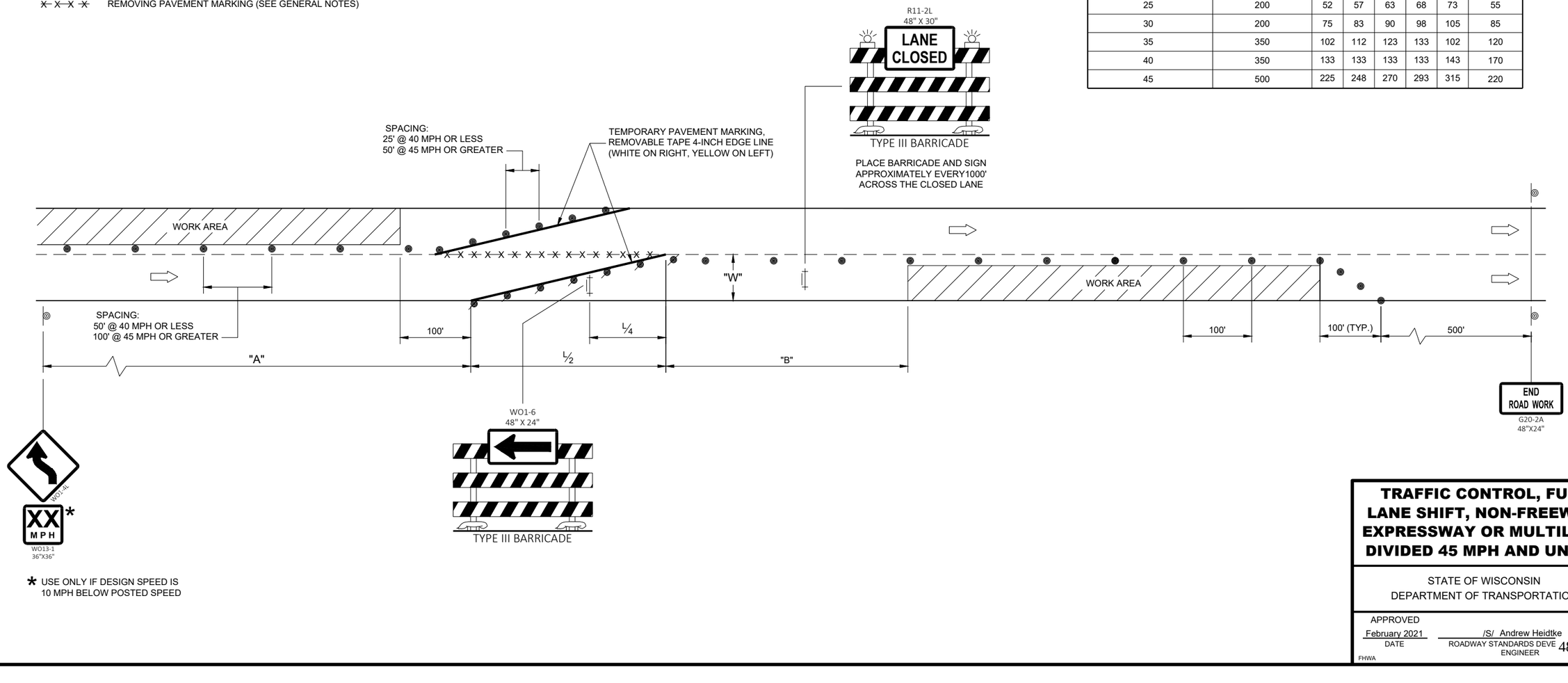
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L 1/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	102	120
40	350	133	133	133	133	143	170
45	500	225	248	270	293	315	220



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D40 - 02a

6

SDD 15D40 - 02a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVE PAVEMENT MARKING

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

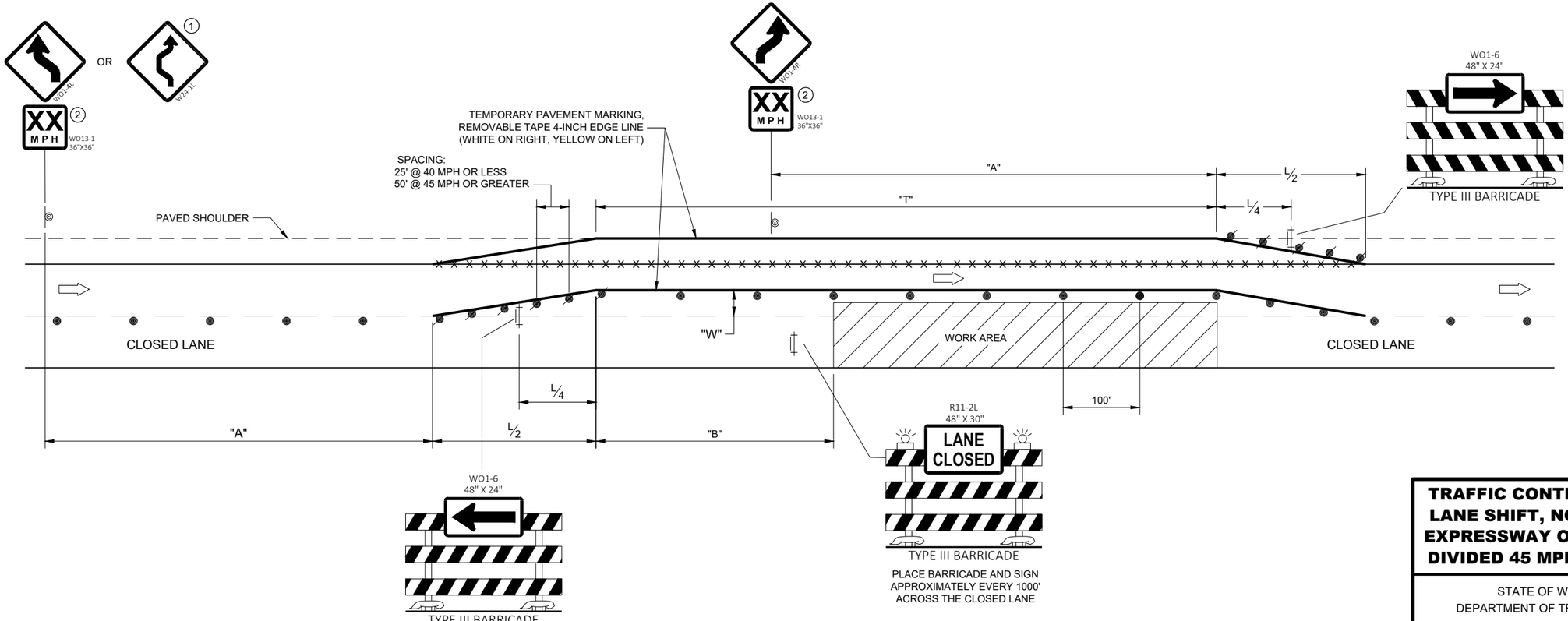
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY WHEN T<600', OMIT WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

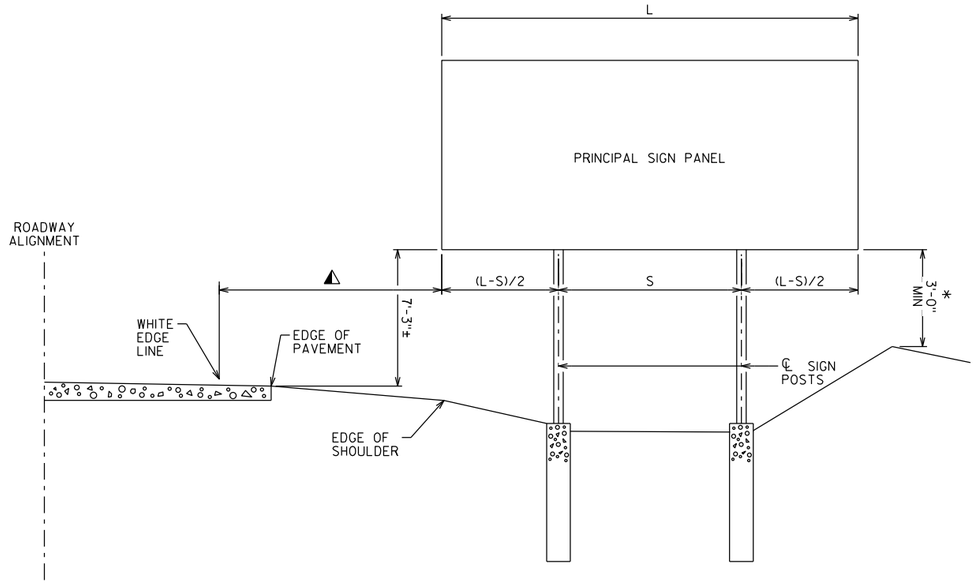
APPROVED
February 2021
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

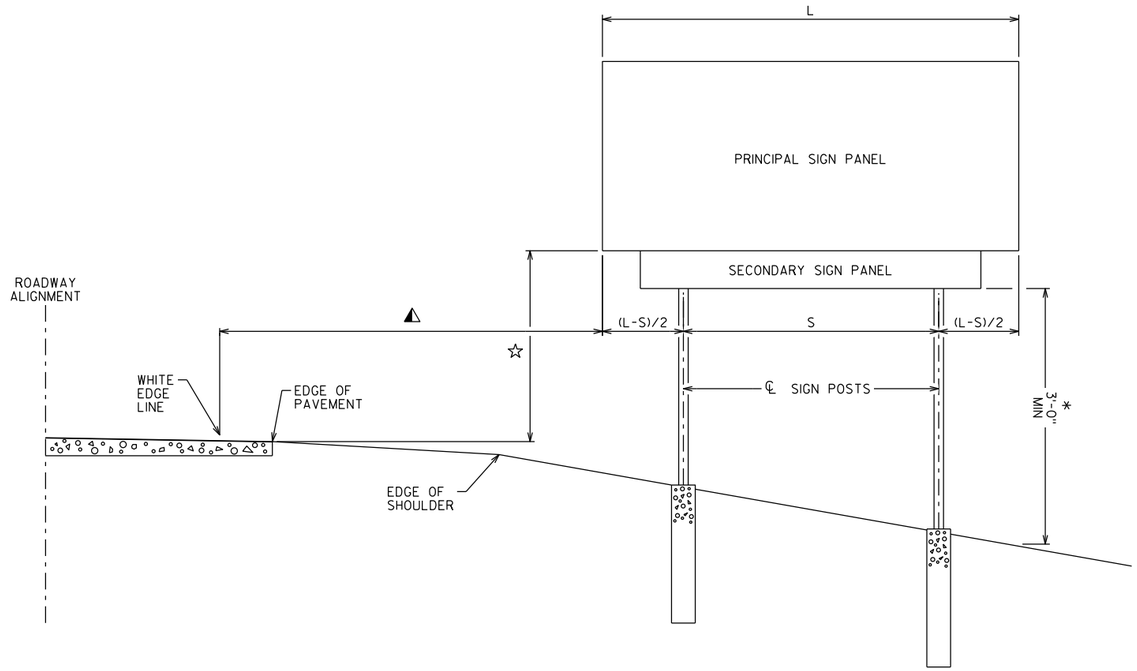
FHWA

SDD 15D40 - 02c

SDD 15D40 - 02c



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

⚠ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

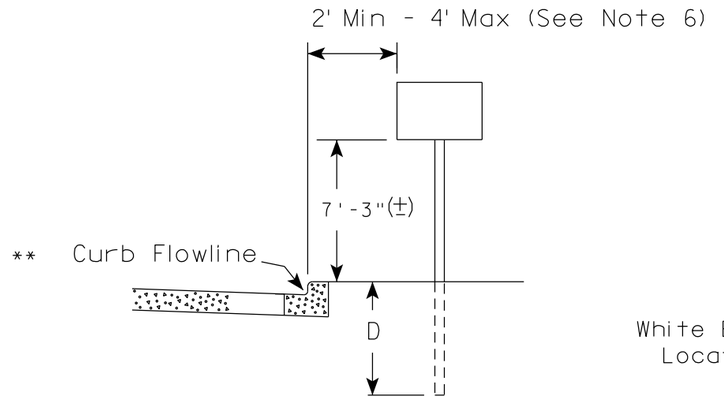
DRAWN BY | PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

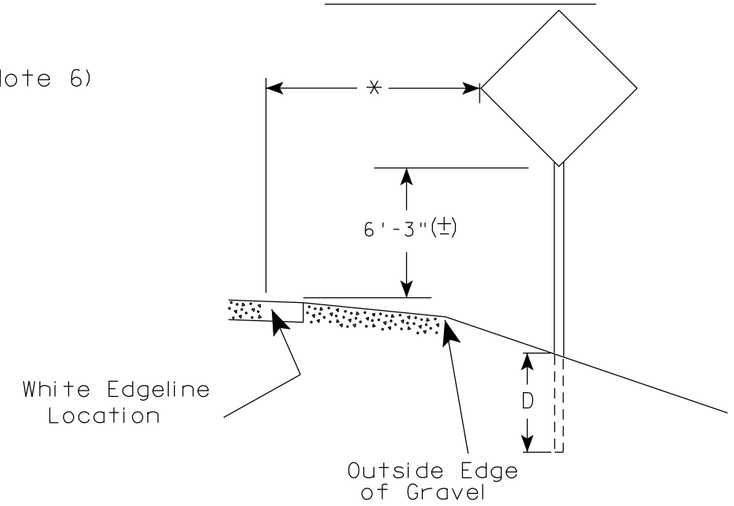
SHEET A4-1.10

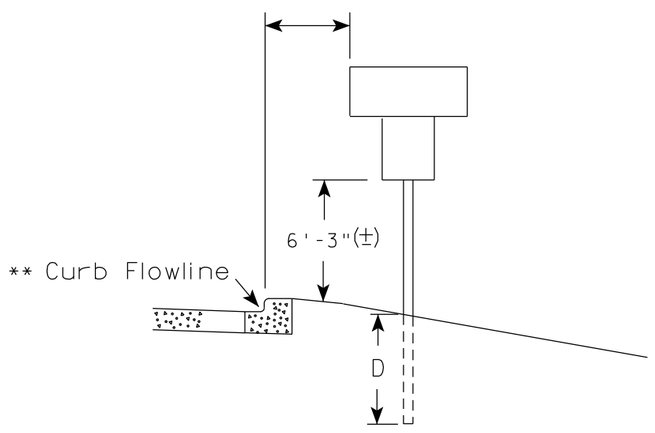
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 490 | E

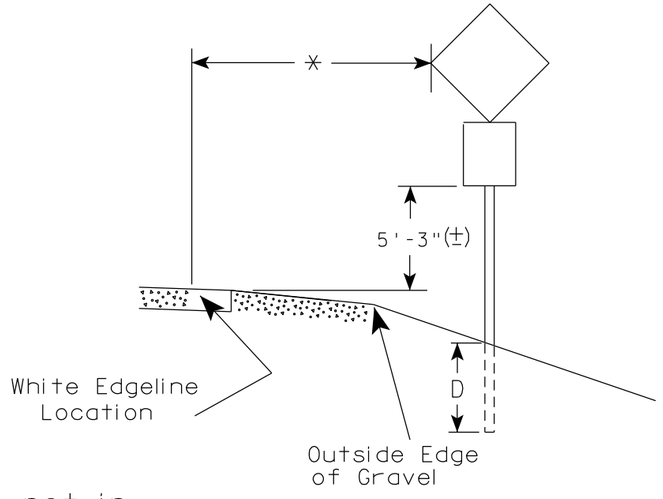
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

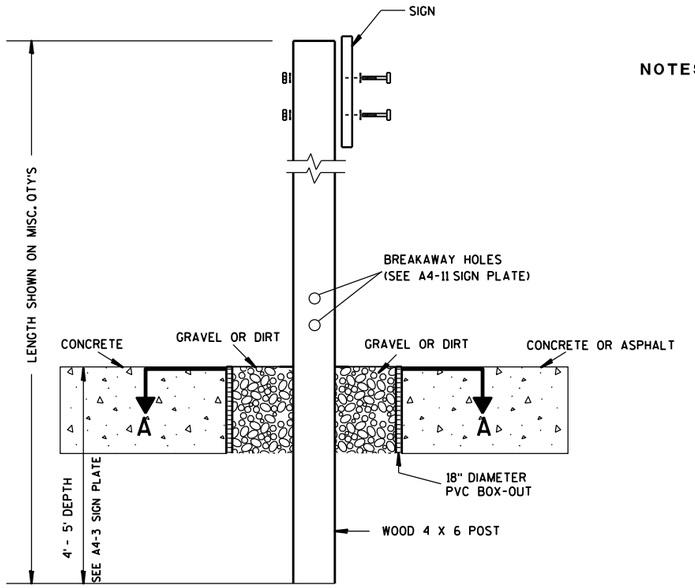
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

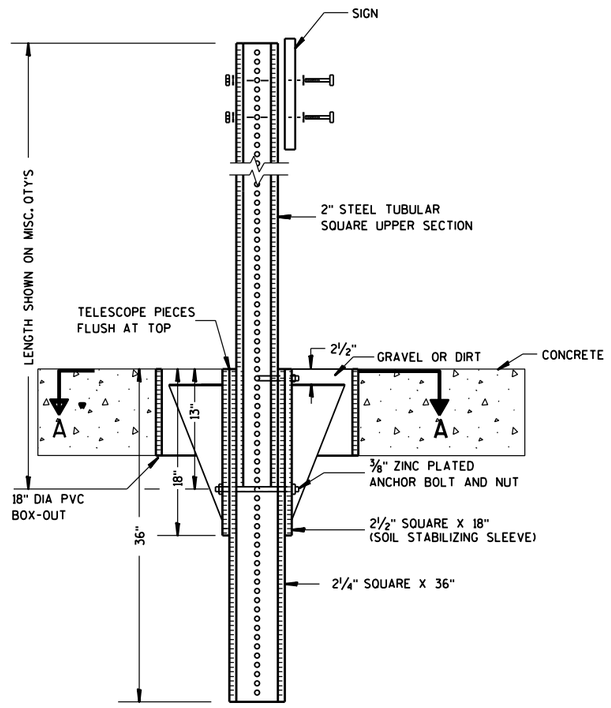
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 491	E



ELEVATION VIEW

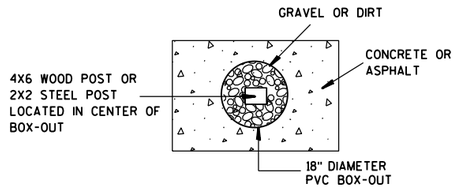
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

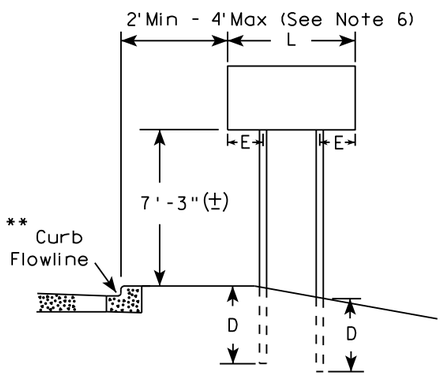
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

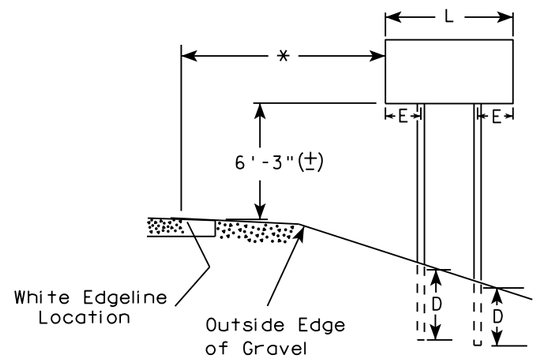
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

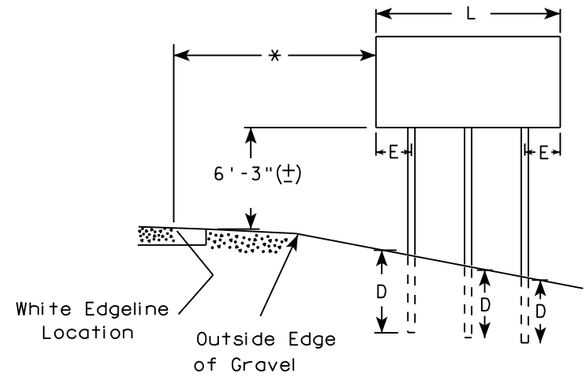
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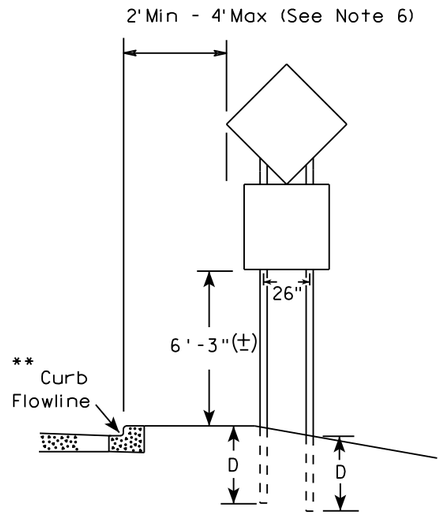
URBAN AREA



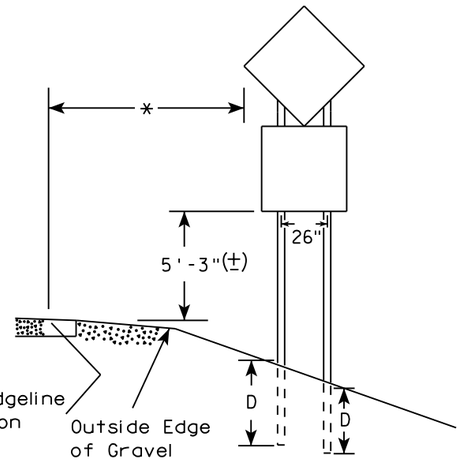
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

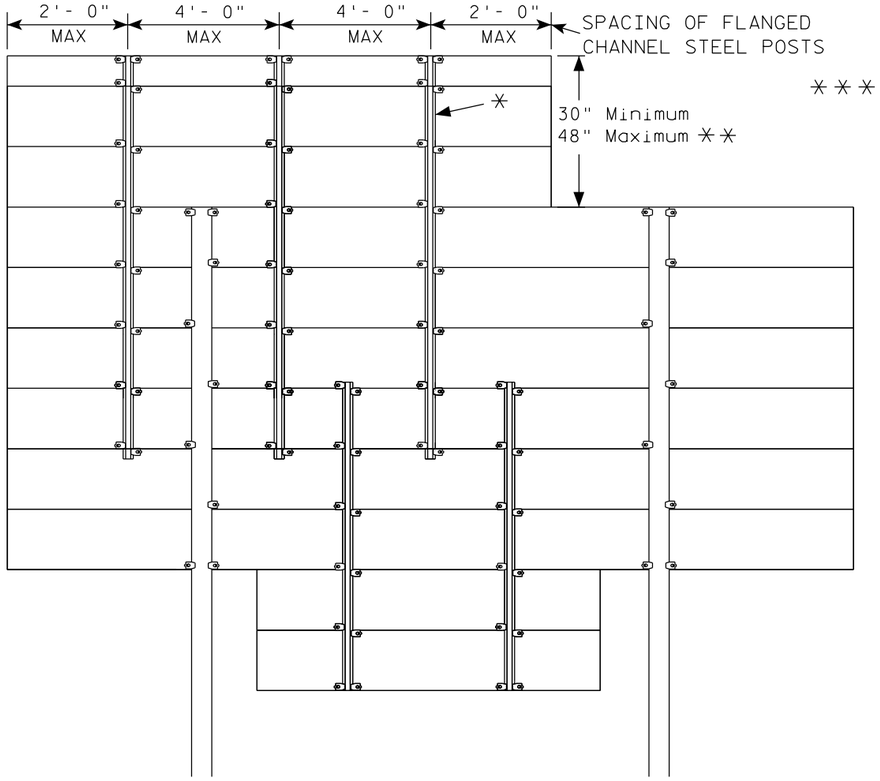
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 493	E

GROUND MOUNTED SIGN



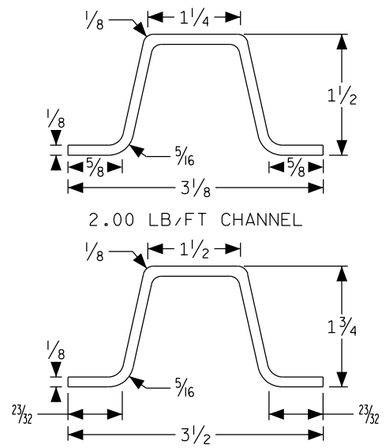
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

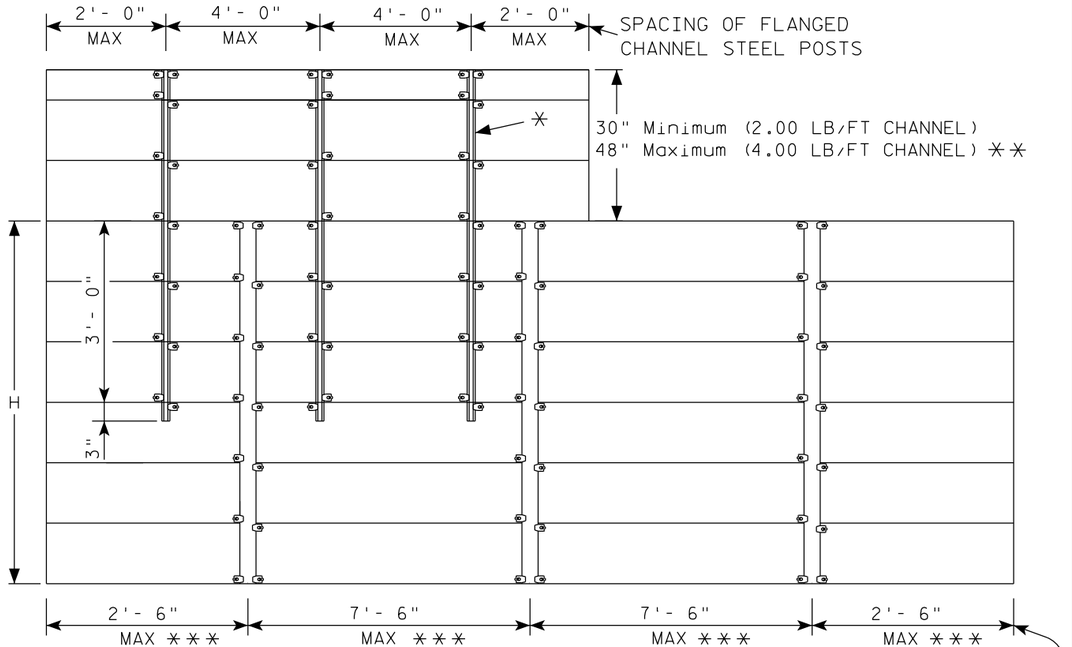
NOT TO SCALE



2.00 LB/FT CHANNEL

4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS
5" X 3.5" X 3.7 LBS./ft.

GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

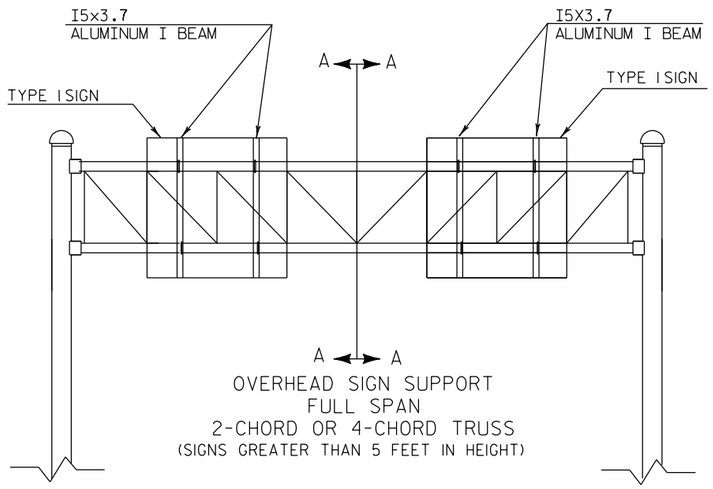
   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

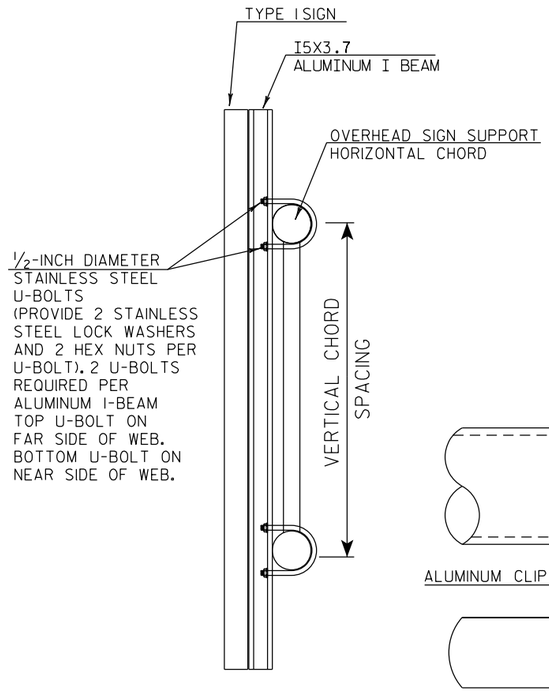
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

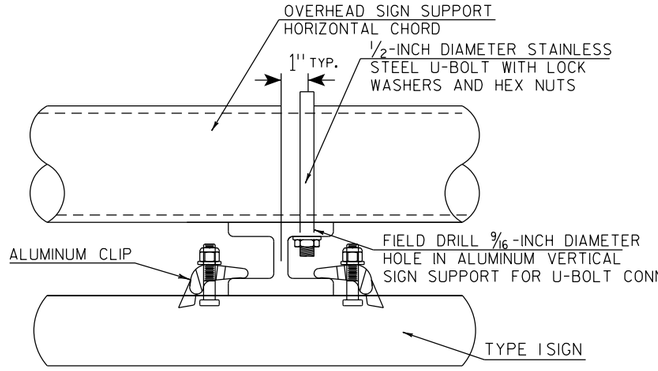
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



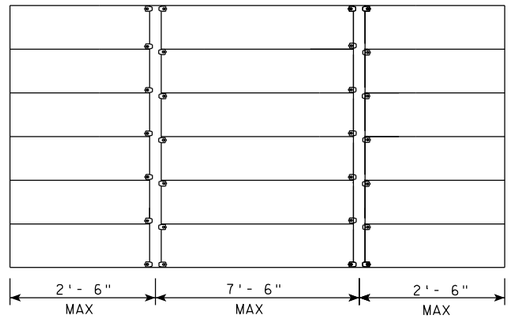
CUT SECTION A-A



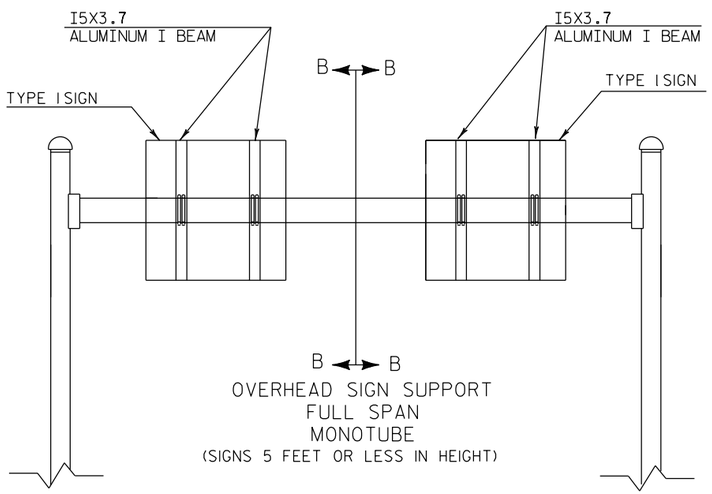
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

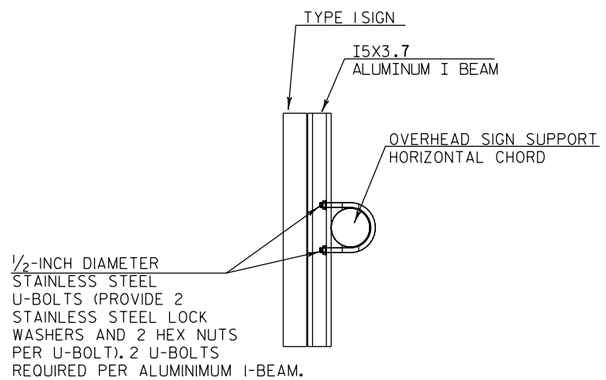
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



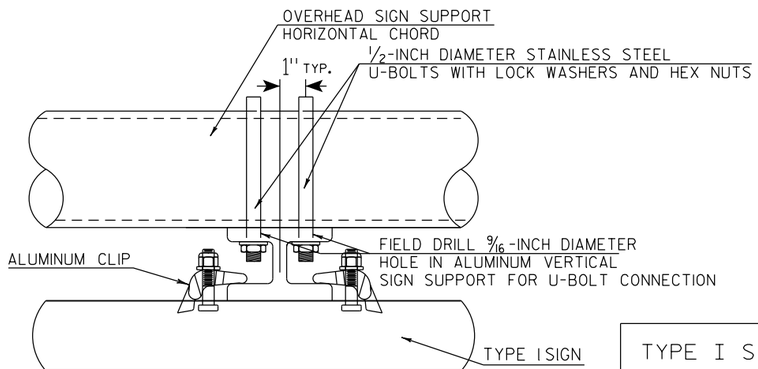
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

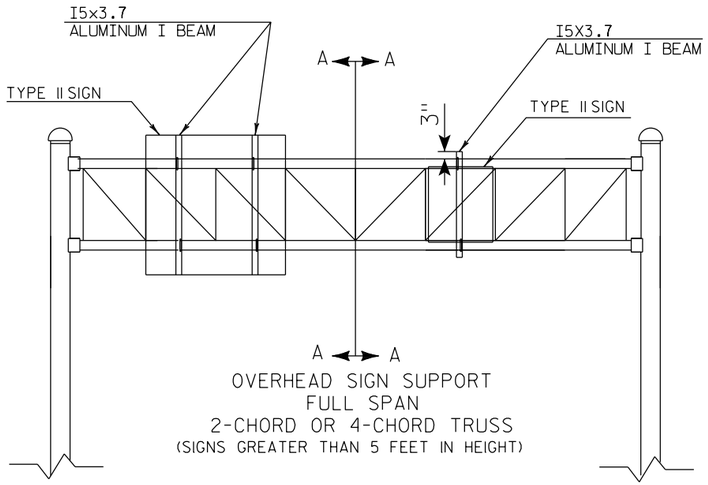
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

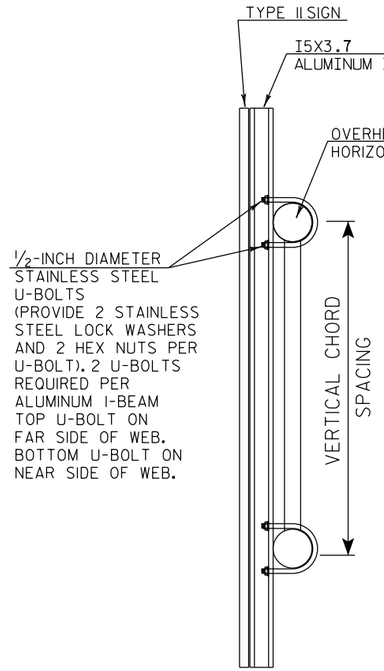
APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

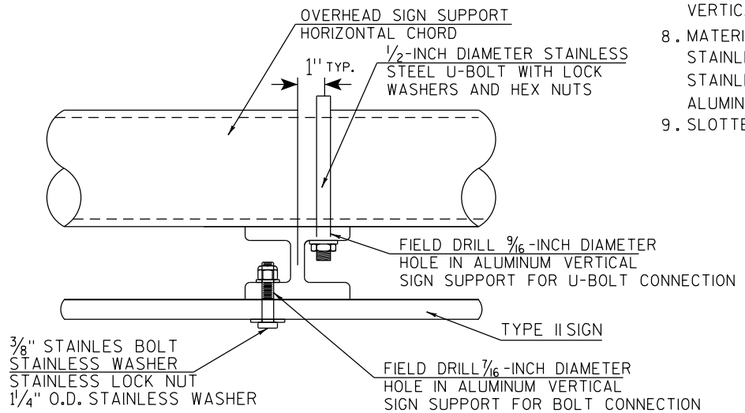
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 495	E



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



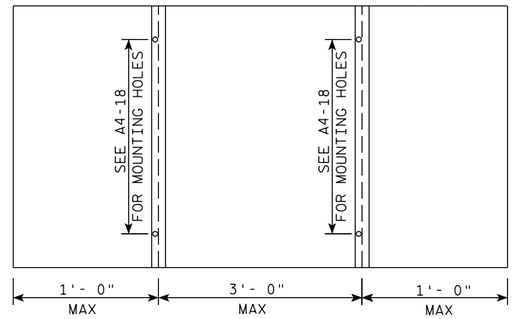
CUT SECTION A-A



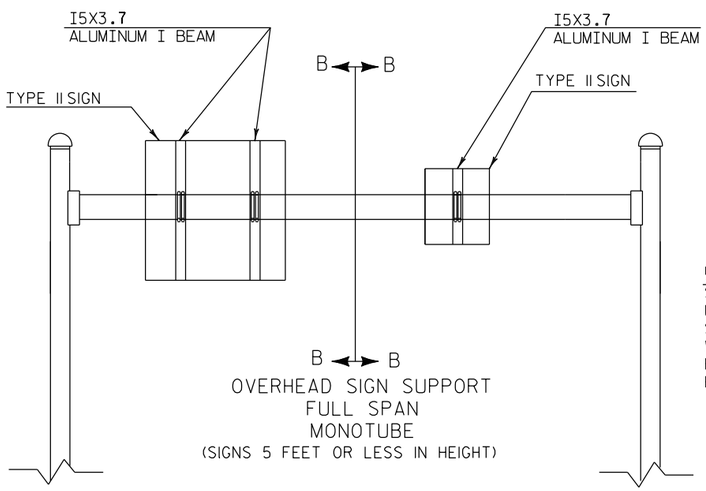
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

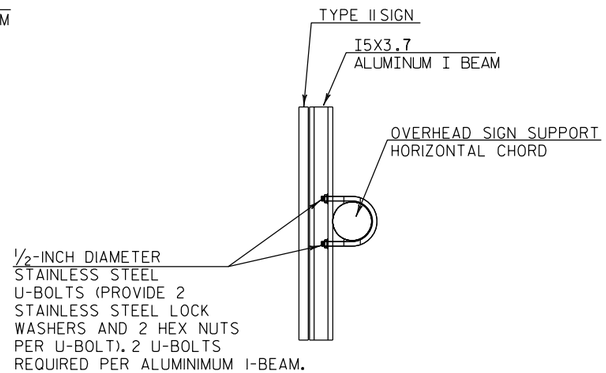
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



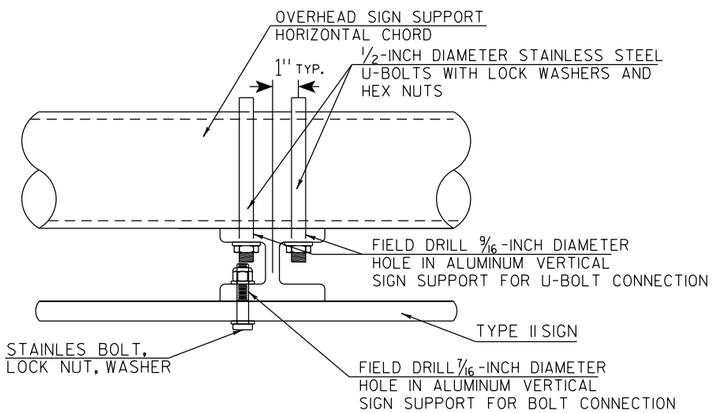
SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



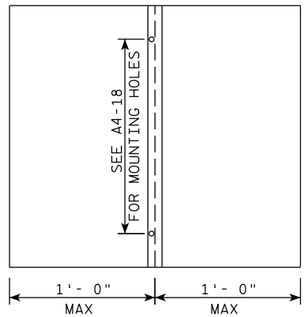
OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

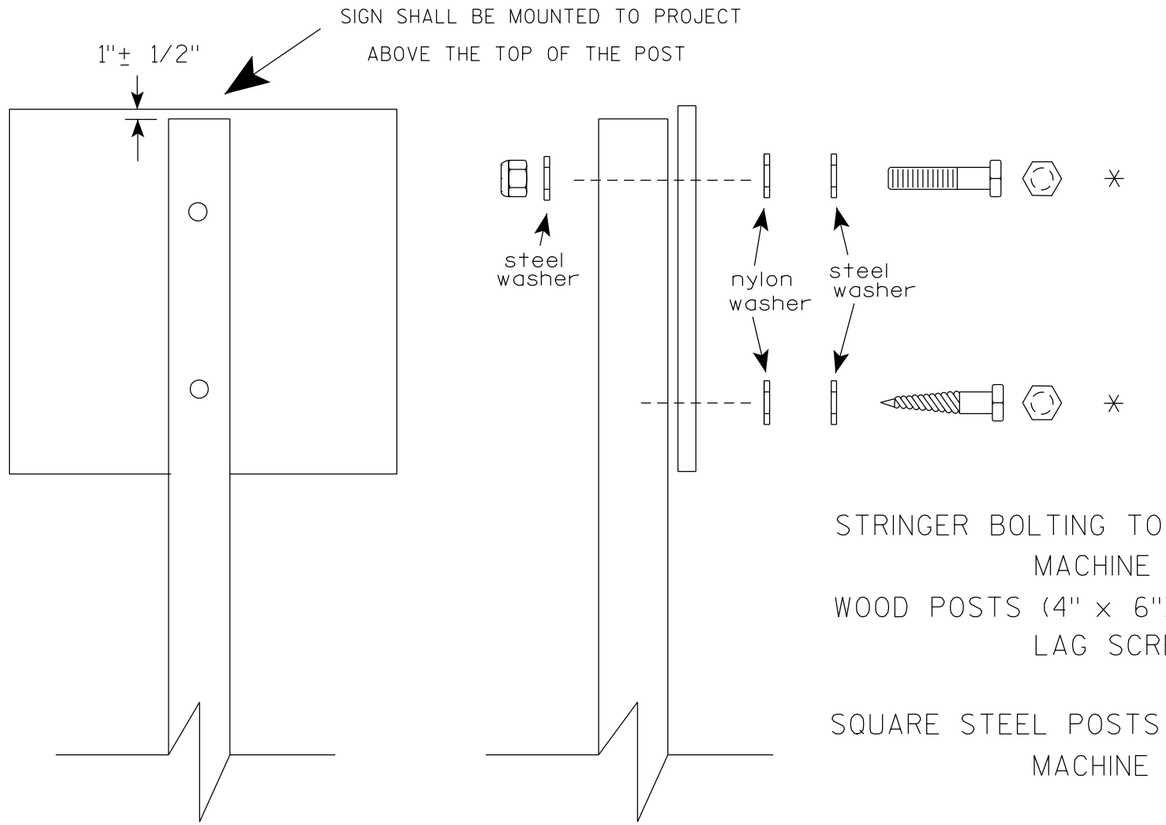
TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 496	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

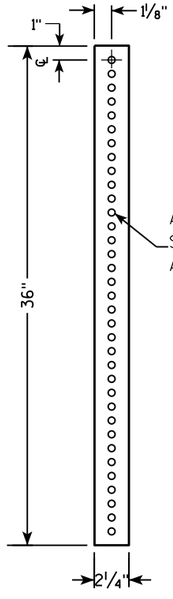
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

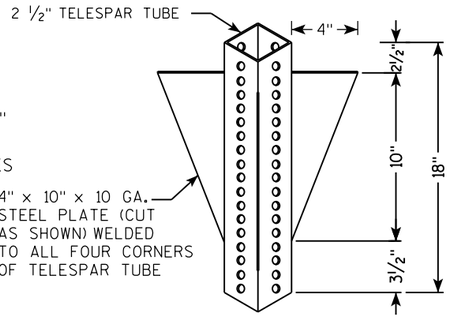
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

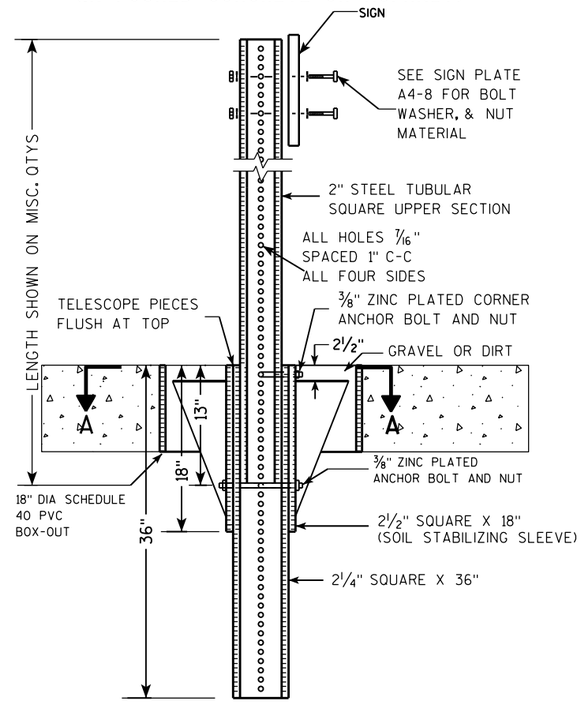
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



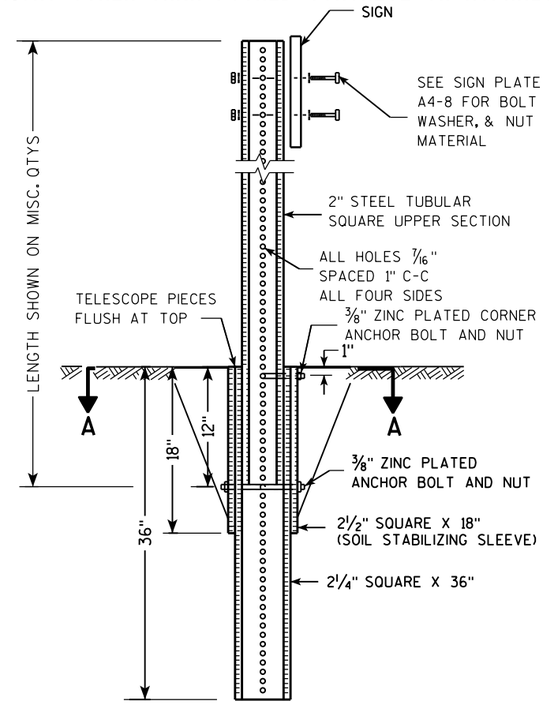
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

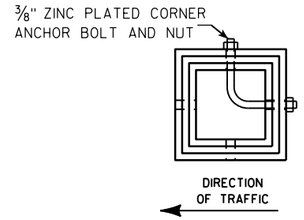


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

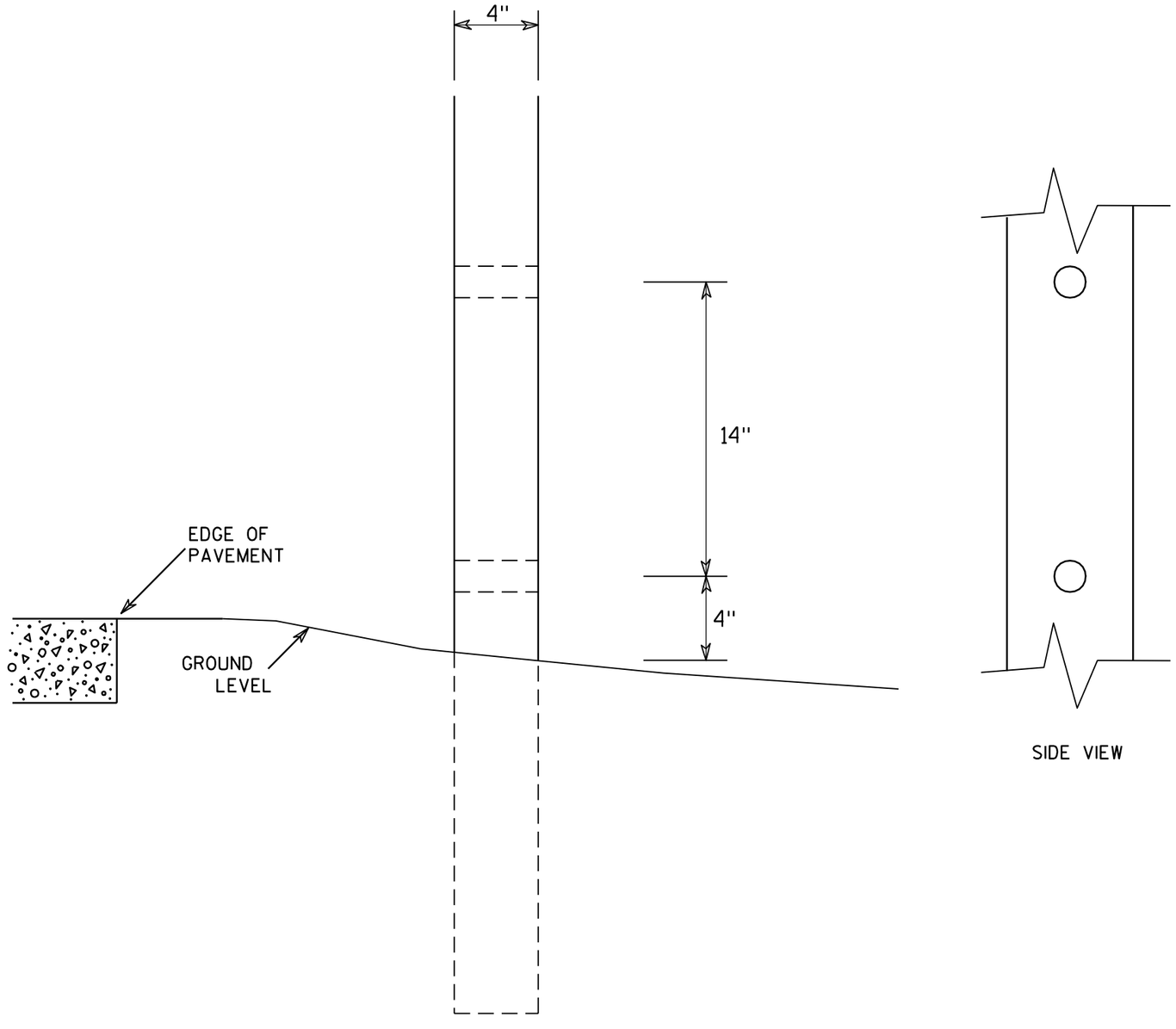
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 498 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

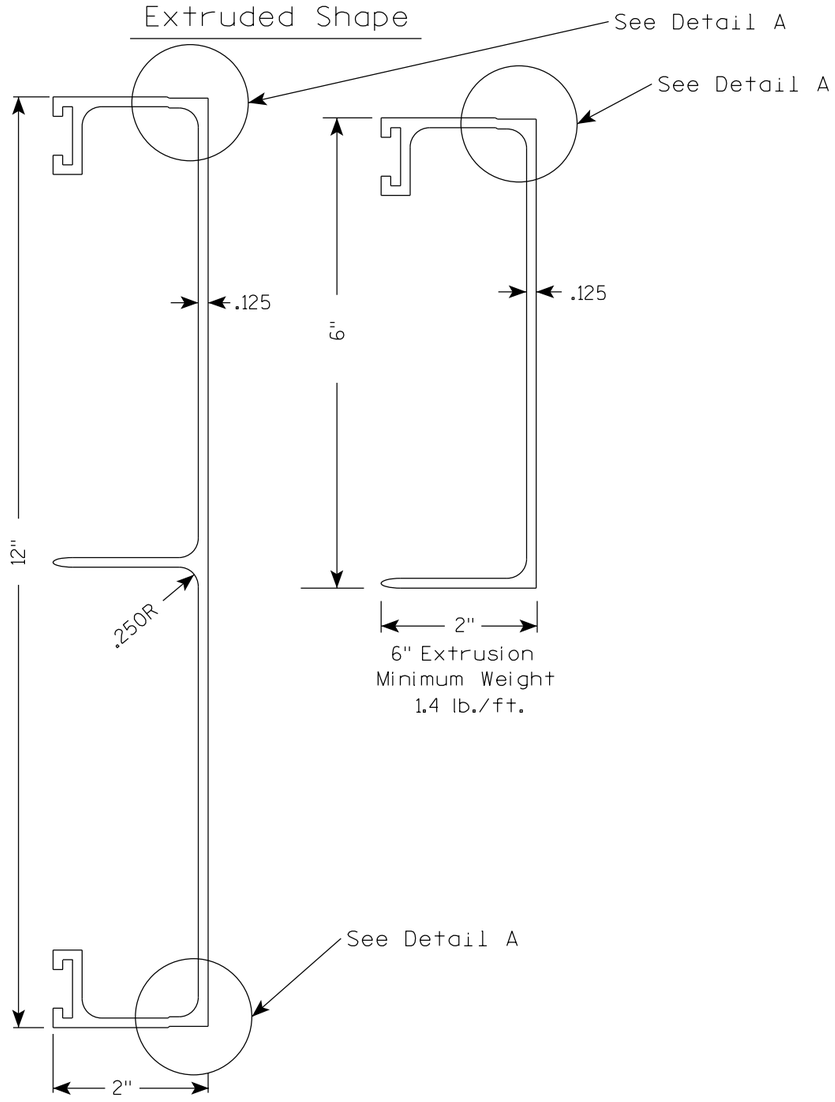
WISCONSIN DEPT OF TRANSPORTATION

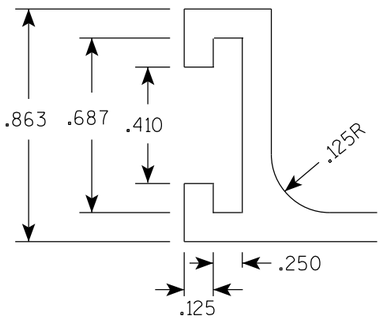
APPROVED Chester J Spang for State Traffic Engineer

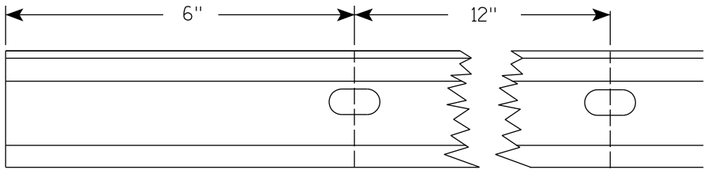
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 499	E

Extruded Shape







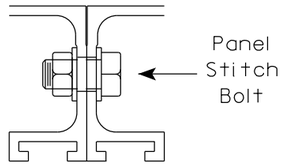
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

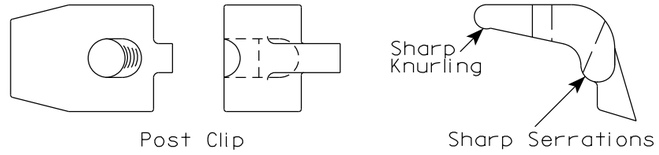
The hardware includes:

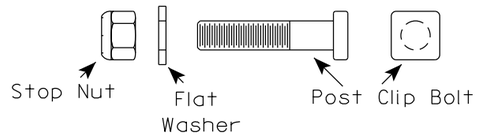
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

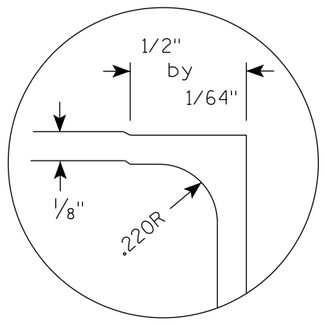
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

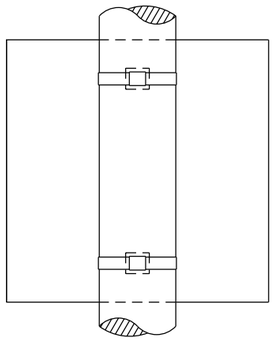
DATE 1/07/20 PLATE NO. A5-2.10

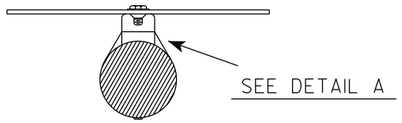
PROJECT NO:

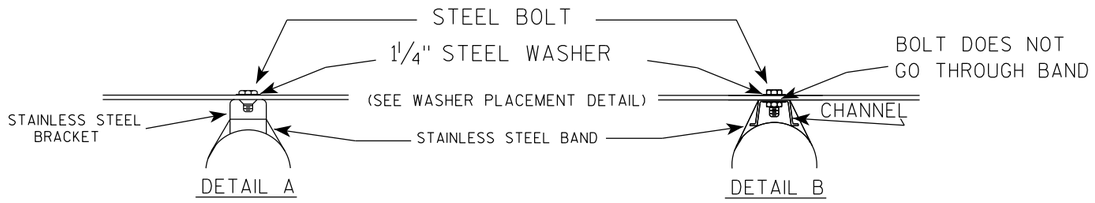
SHEET NO: 500 E

BANDING

SINGLE SIGN



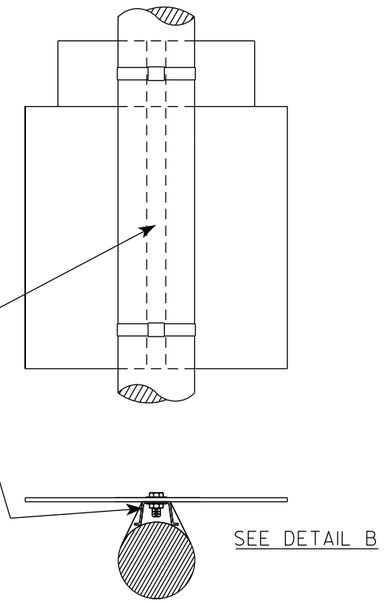




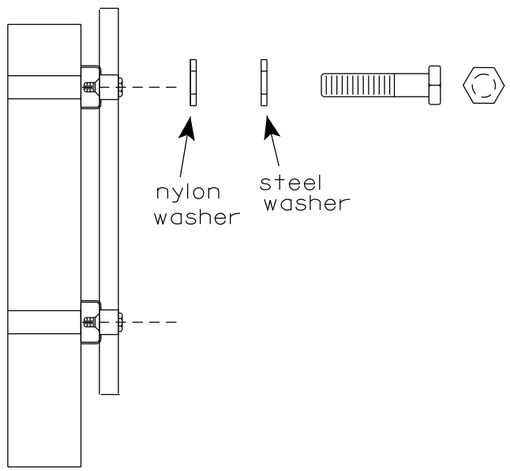
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

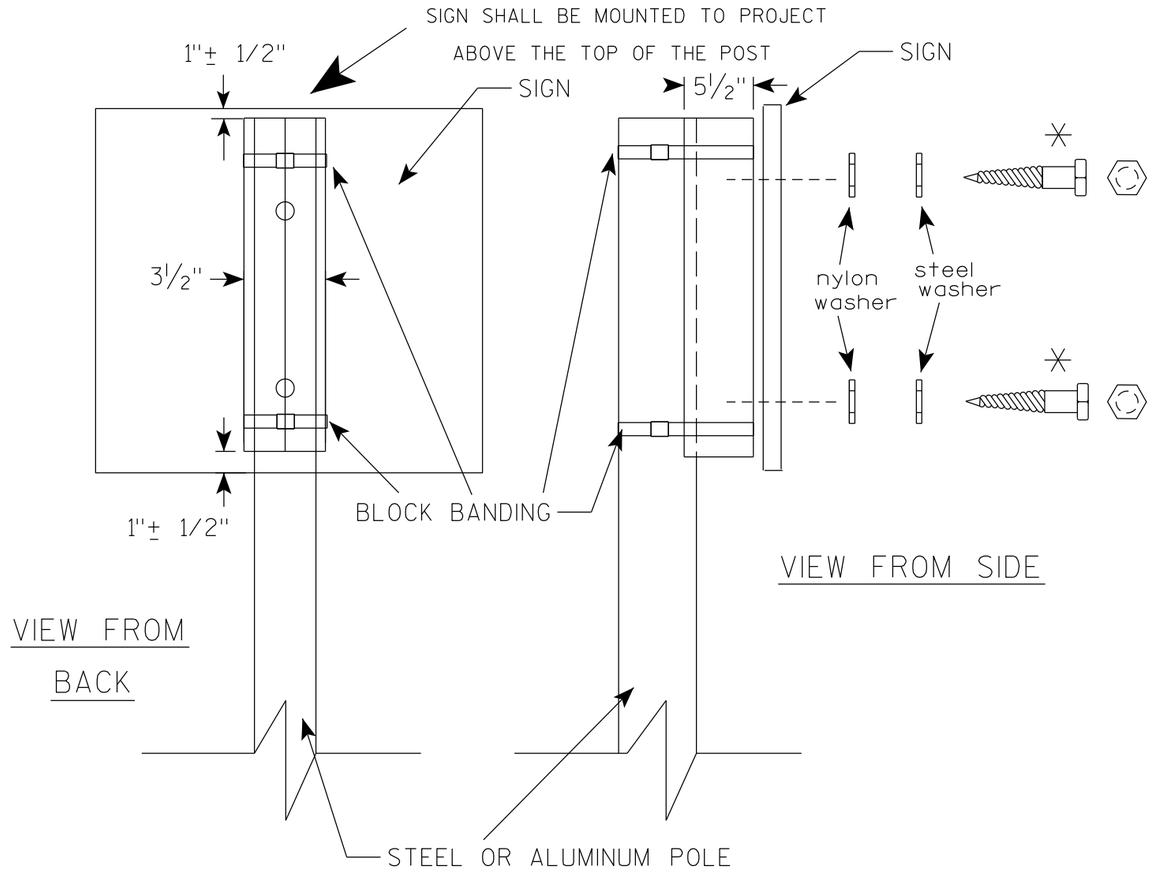
WISCONSIN DEPT OF TRANSPORTATION

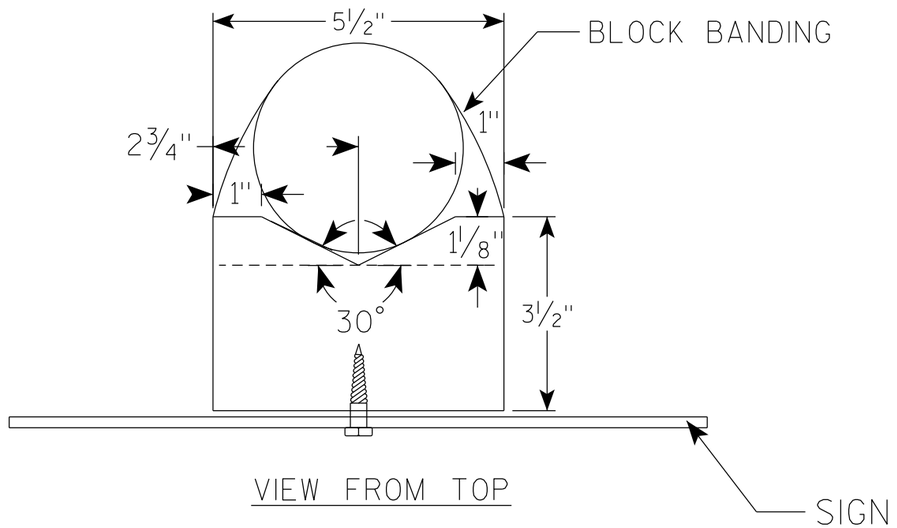
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 501	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

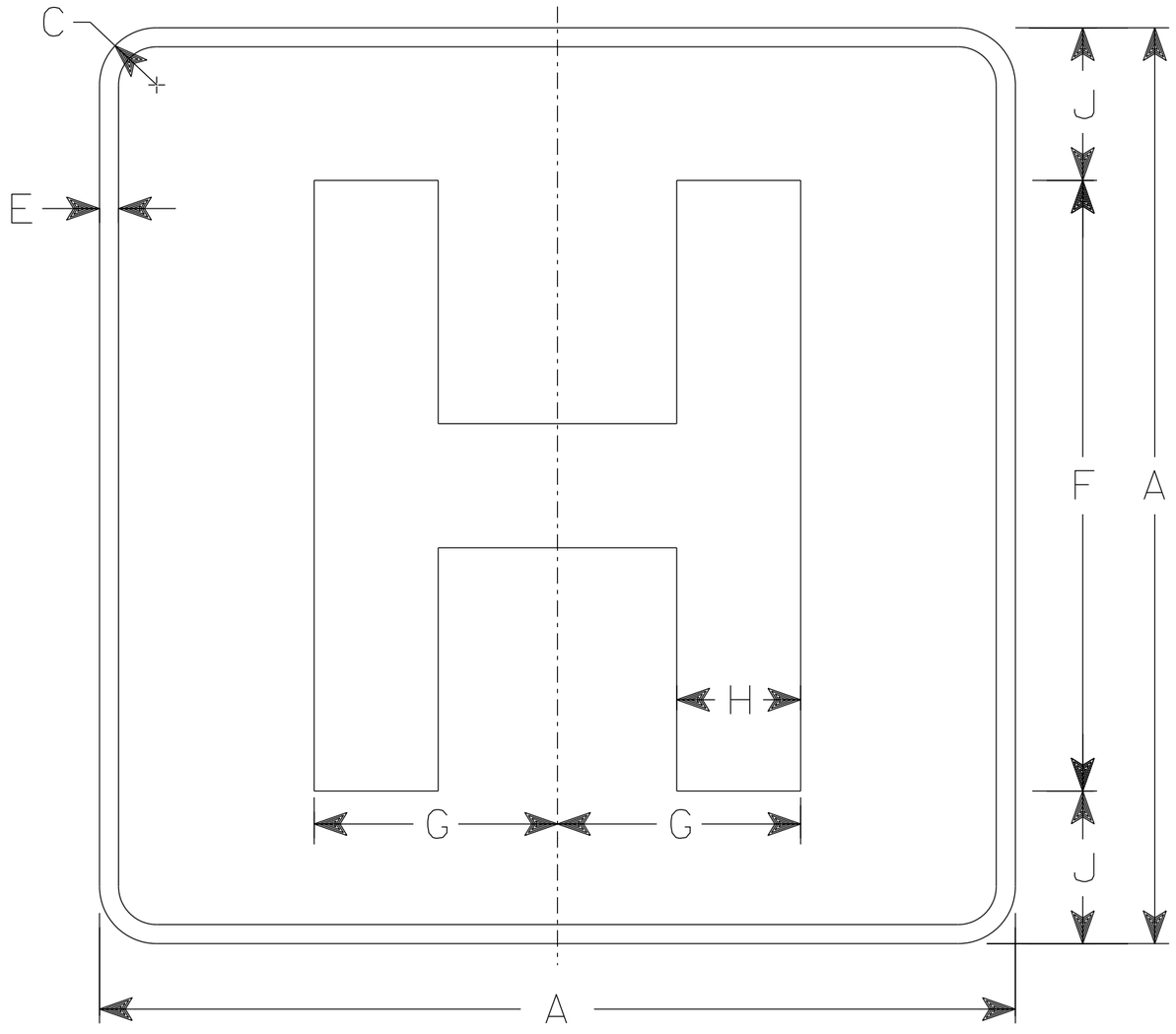
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:				SHEET NO: 502	E



D9-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	2.25
2S	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
2M	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

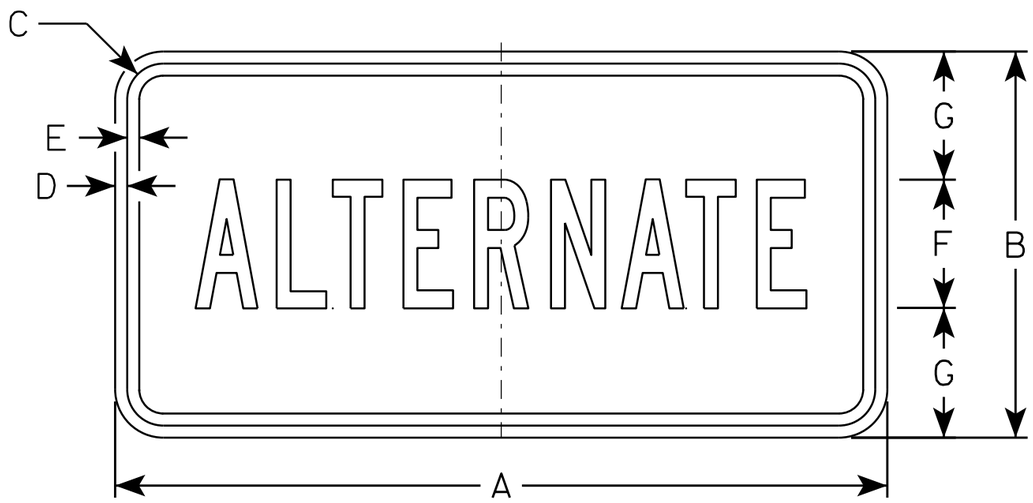
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

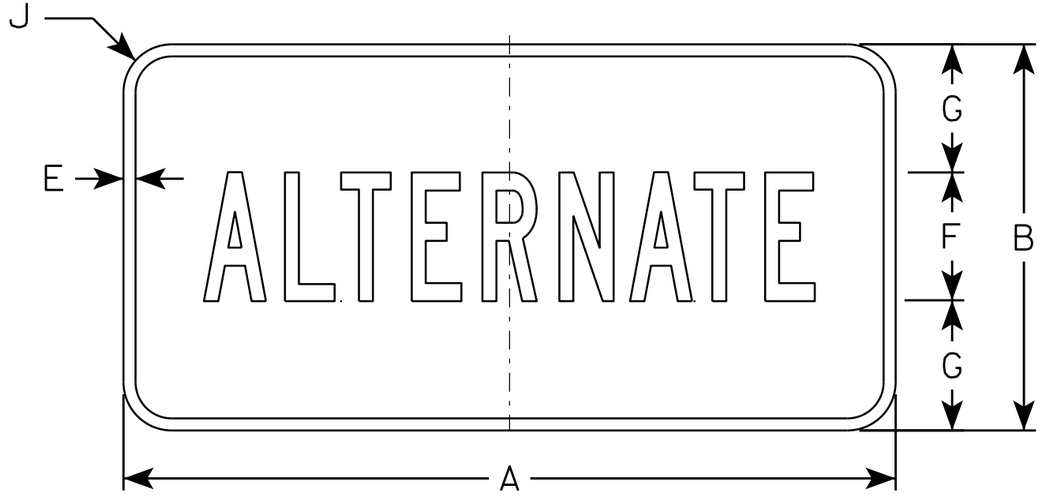
DATE 1/28/21 PLATE NO. D9-2.5

PROJECT NO:

SHEET NO: 503 E



M4-1
MO4-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   MO4-1 Background - Orange - Type F
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

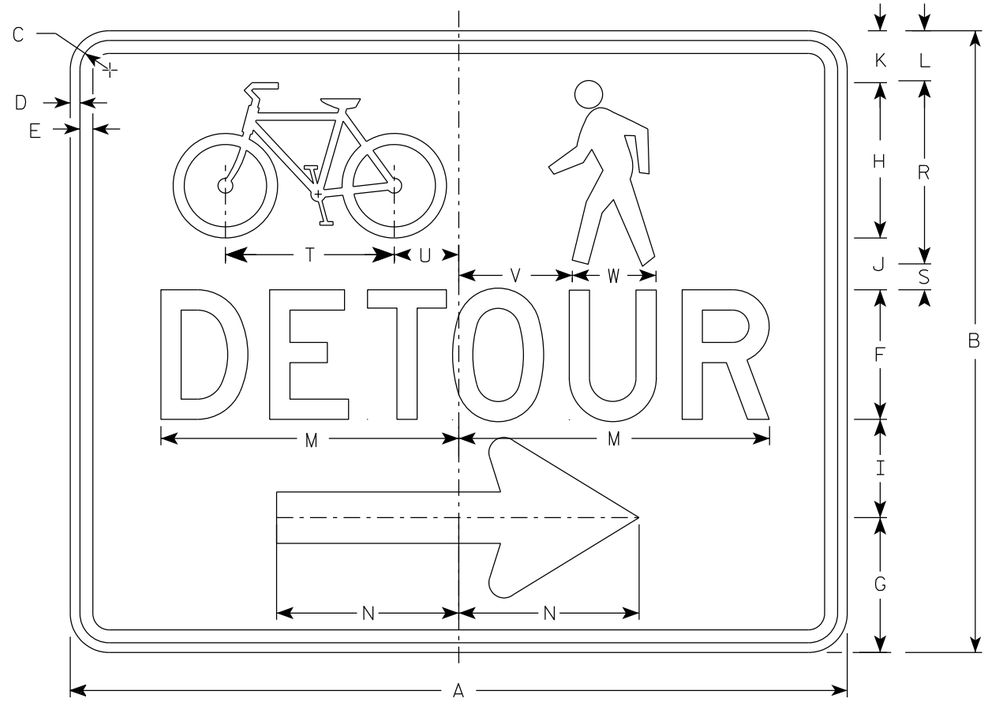
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 14-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

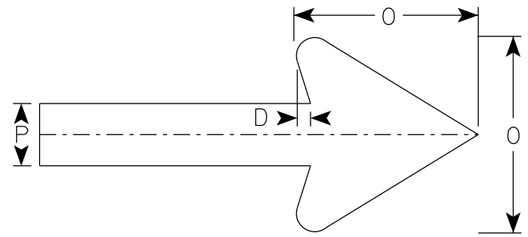
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000 WISDOT/CADDS SHEET 42



M4-9AR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9AL is the same as M4-9AR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	6	3 3/4	2	2	1 7/8	11 3/4	7	6	2		7 1/8	1	6 1/2	2 1/2	4 3/8	3 1/4				5.00
3																											
4																											
5																											

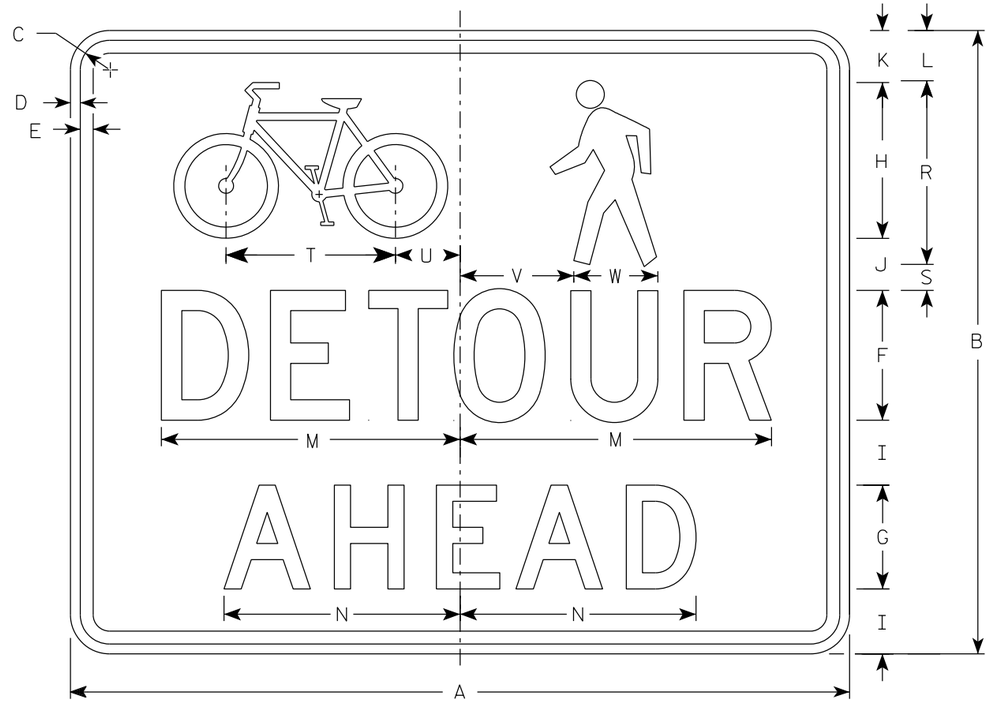
STANDARD SIGN
M4-9A L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/2/19 PLATE NO. M4-9A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 505 | E



M4-9AA

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	6	2 1/2	2	2	1 7/8	11 3/4	9 1/8				7 1/8	1	6 1/2	2 1/2	4 3/8	3 1/4				5.00
3																											
4																											
5																											

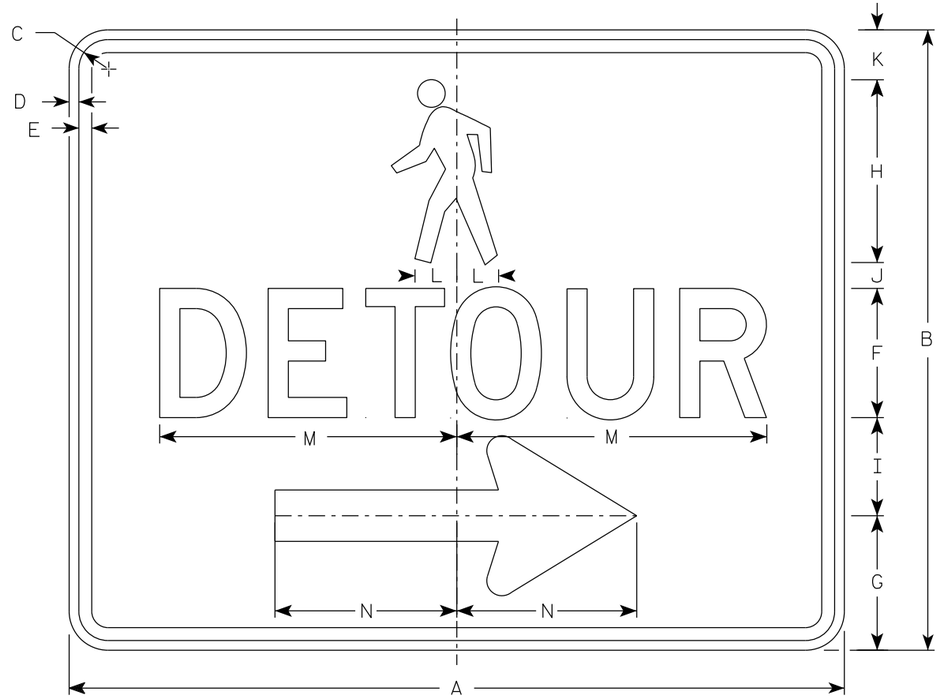
STANDARD SIGN
M4-9AA

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/7/2020 PLATE NO. M4-9AA.1

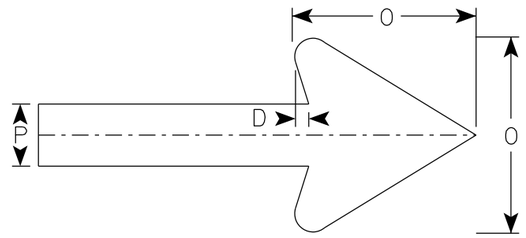
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 506	E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

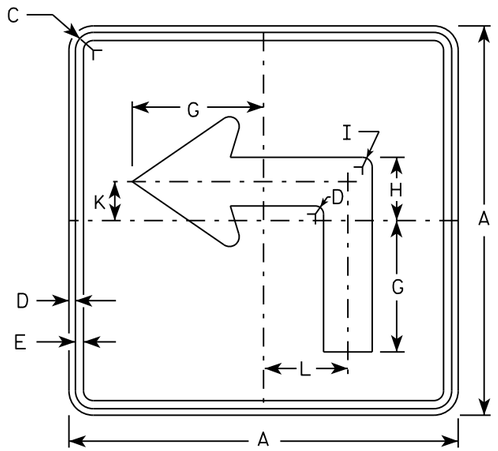
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

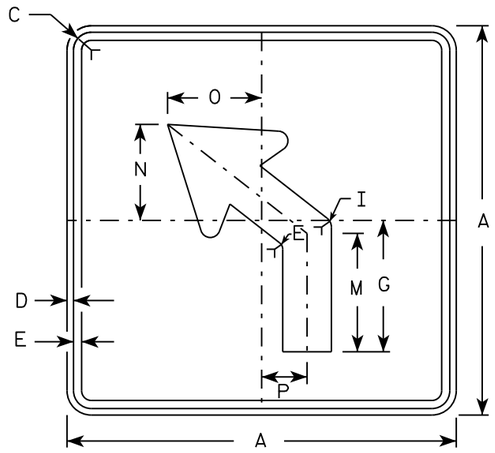
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

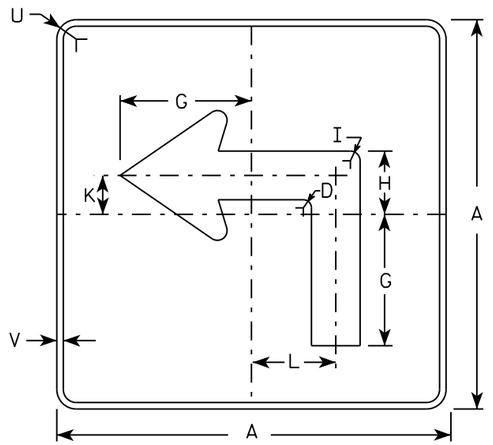
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 507 | E



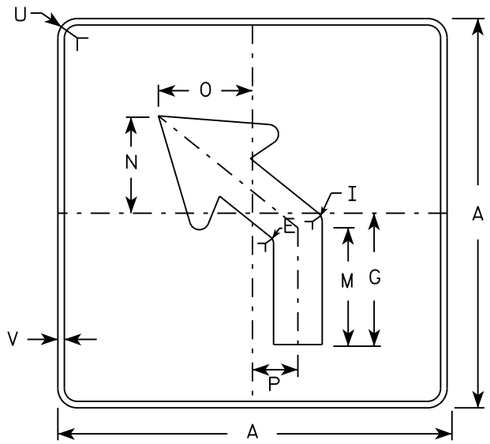
M5-1L
MM5-1L
MO5-1L
MP5-1L



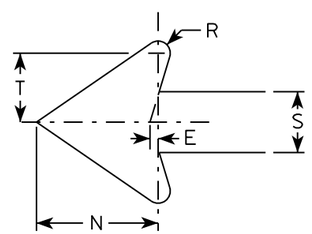
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

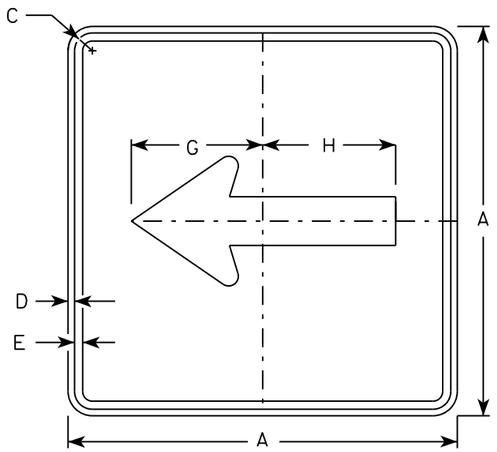
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

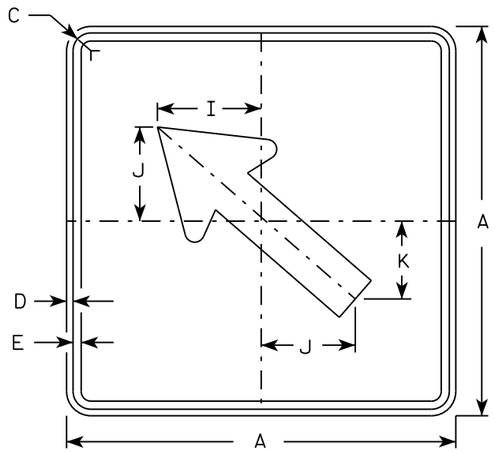
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



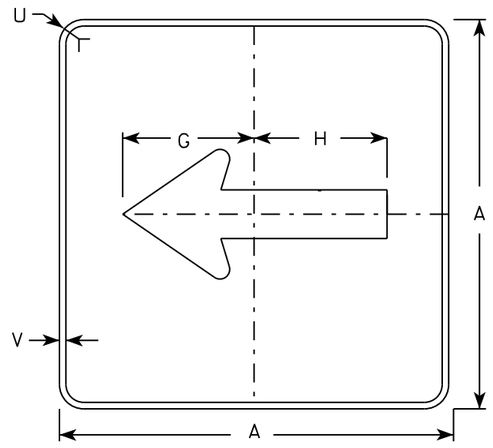
M6-1
MM6-1
MO6-1
MP6-1



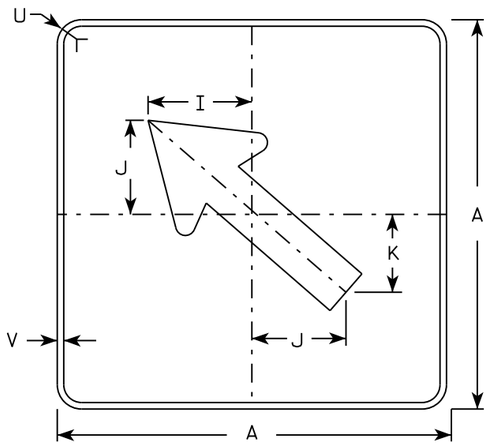
M6-2
MM6-2
MO6-2
MP6-2

NOTES

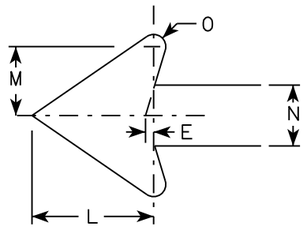
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

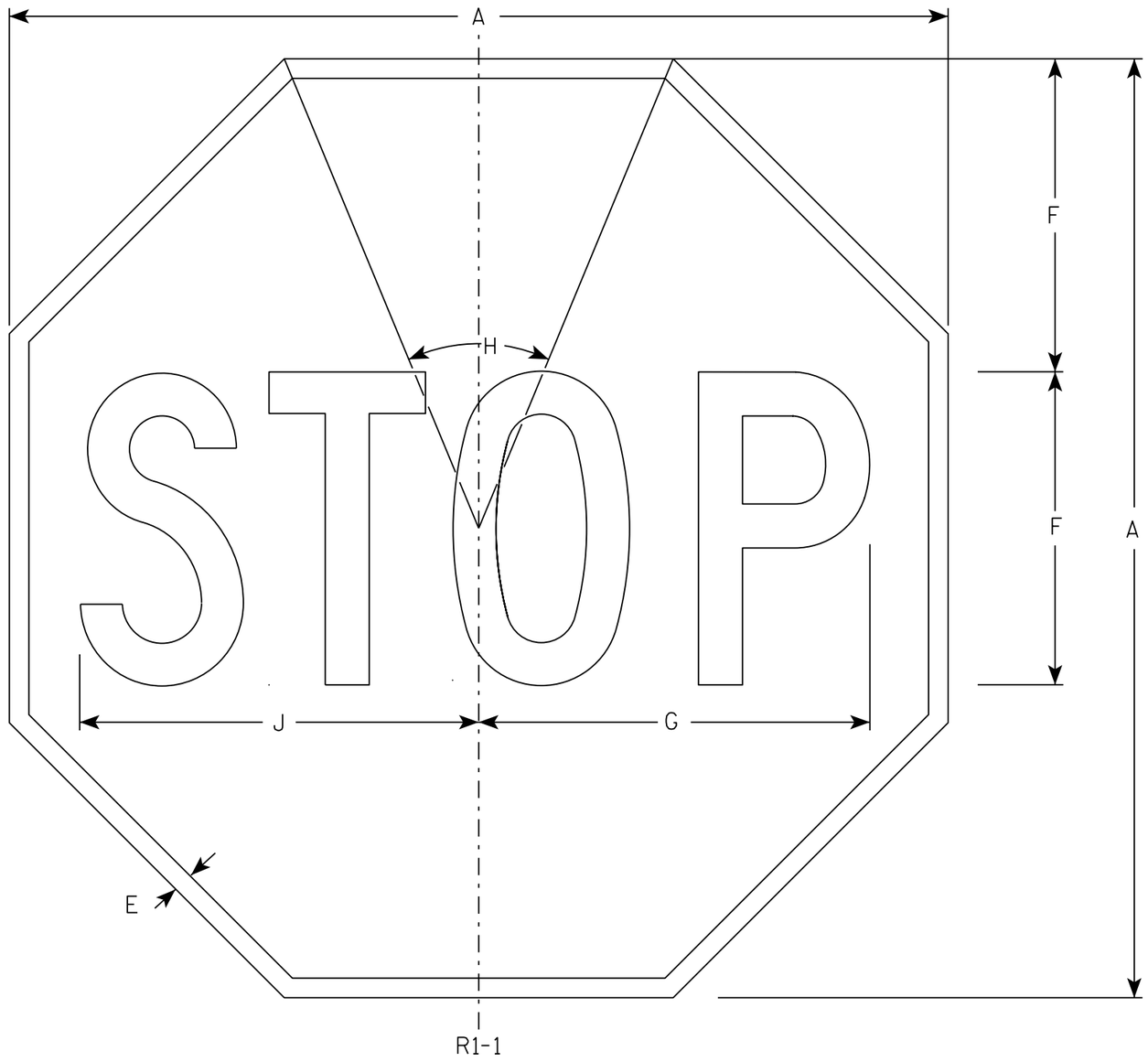
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 509 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN

R1-1

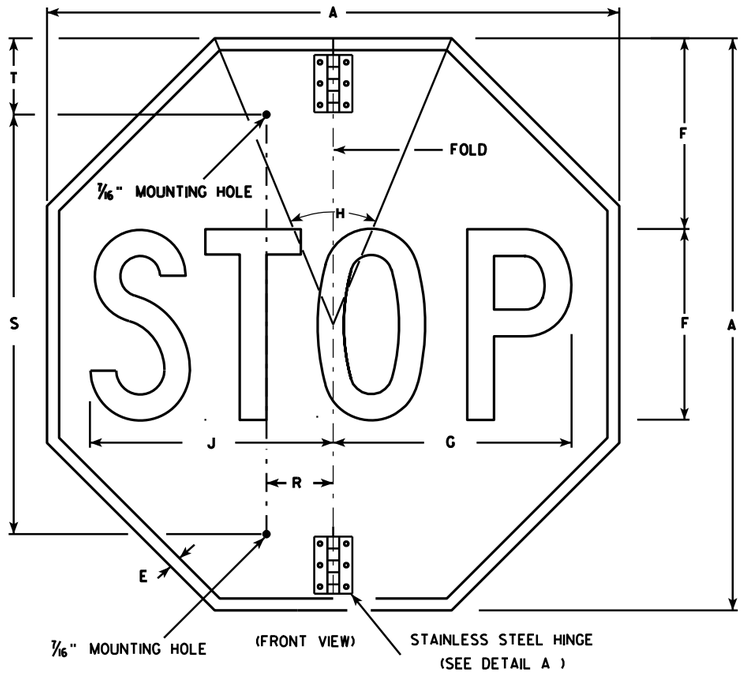
WISCONSIN DEPT OF TRANSPORTATION

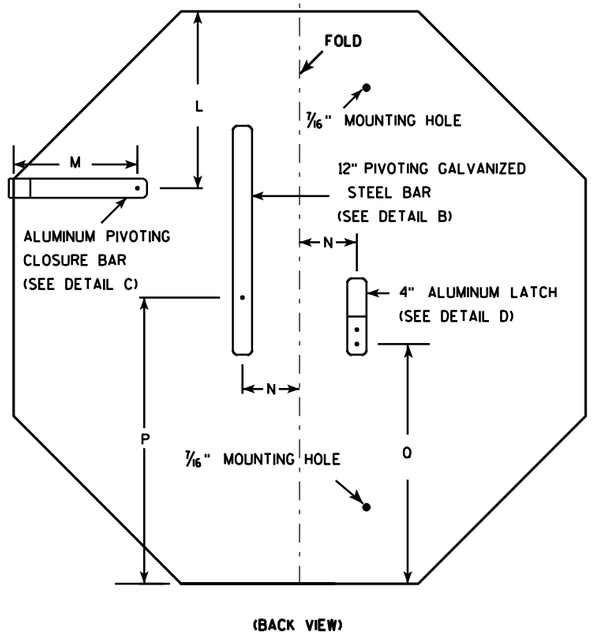
APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

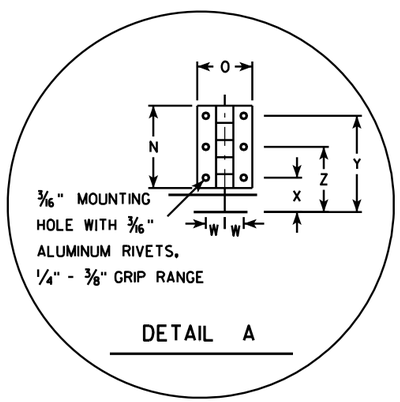
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 510	E



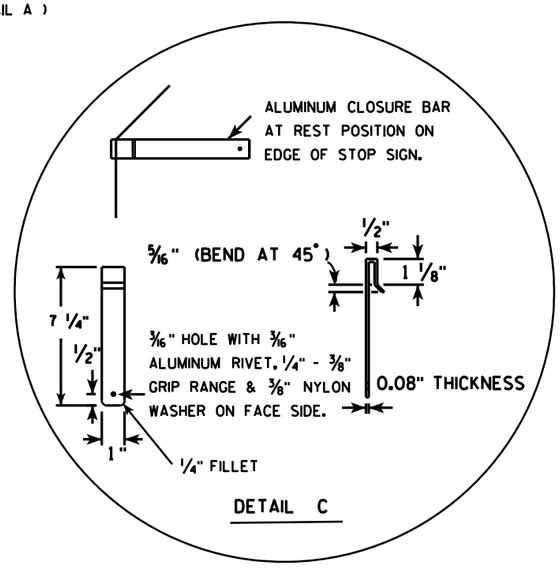


NOTES

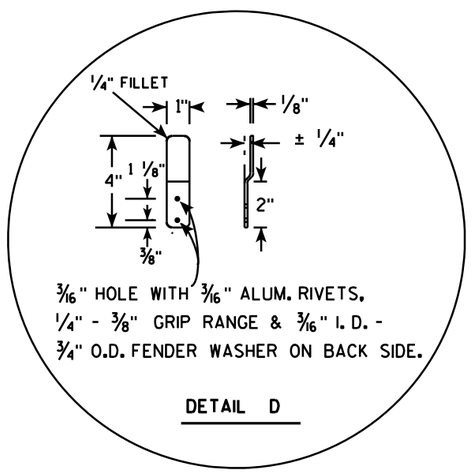
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



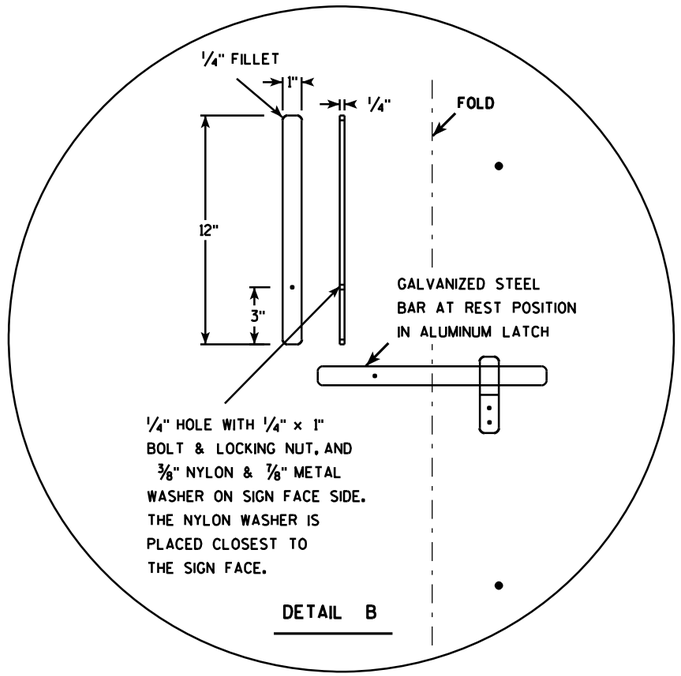
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

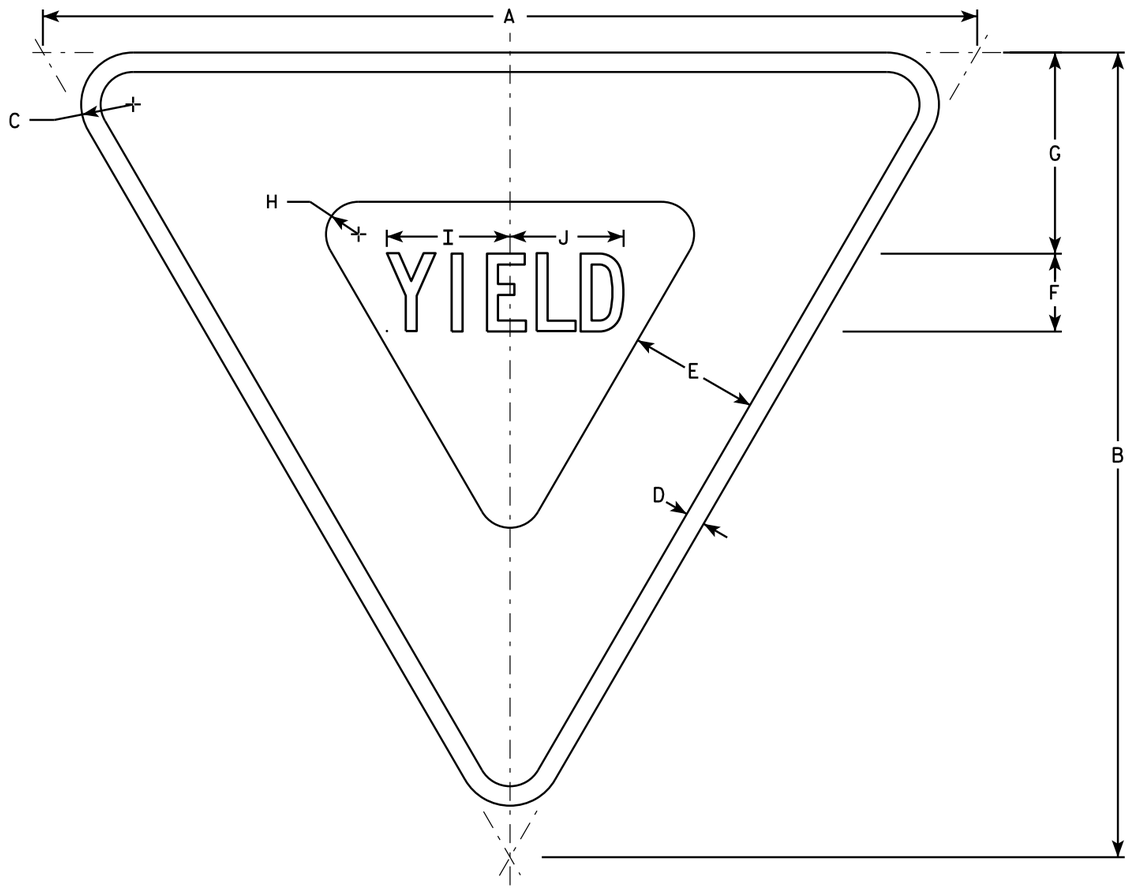
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 511 | E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

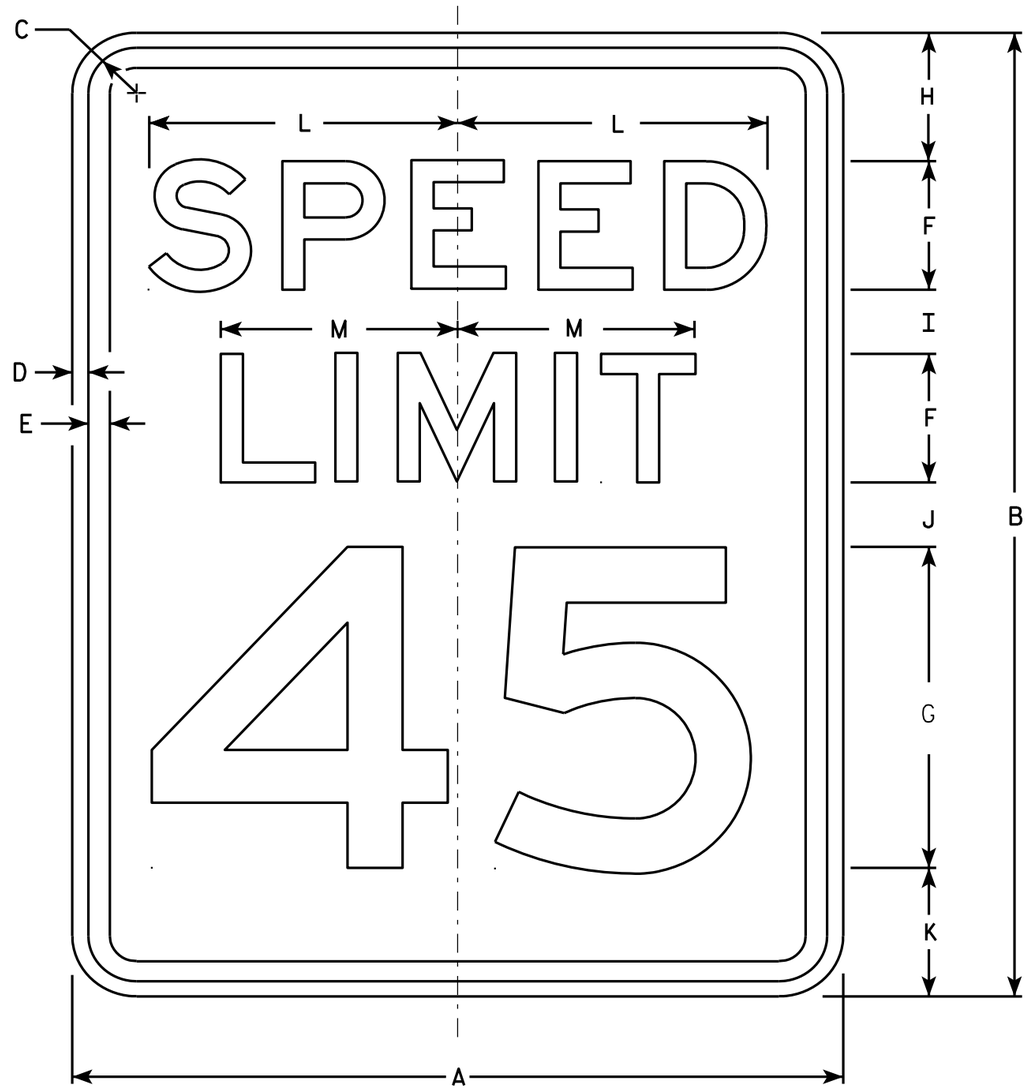
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

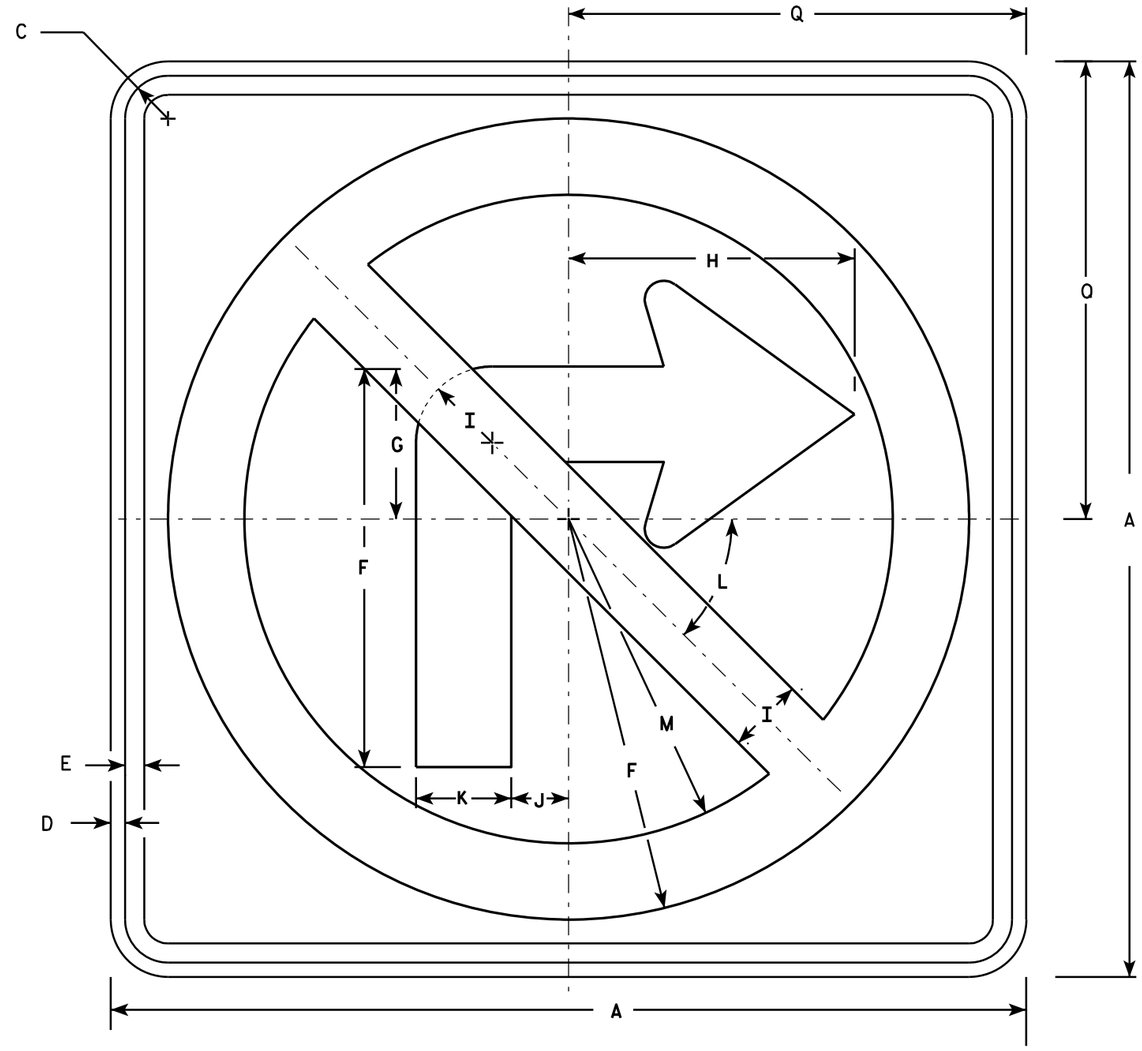
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

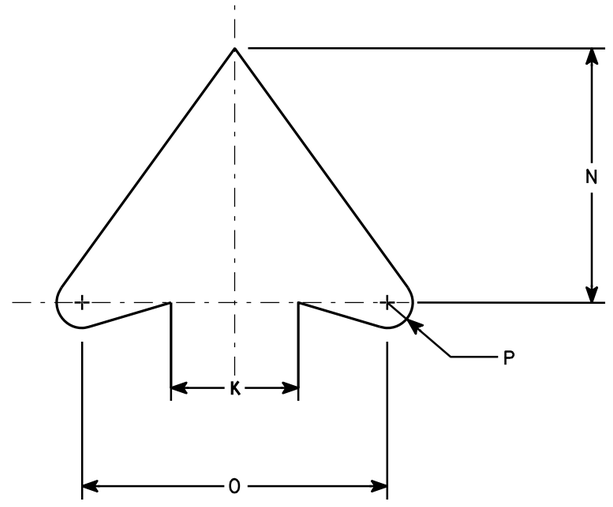
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 513 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

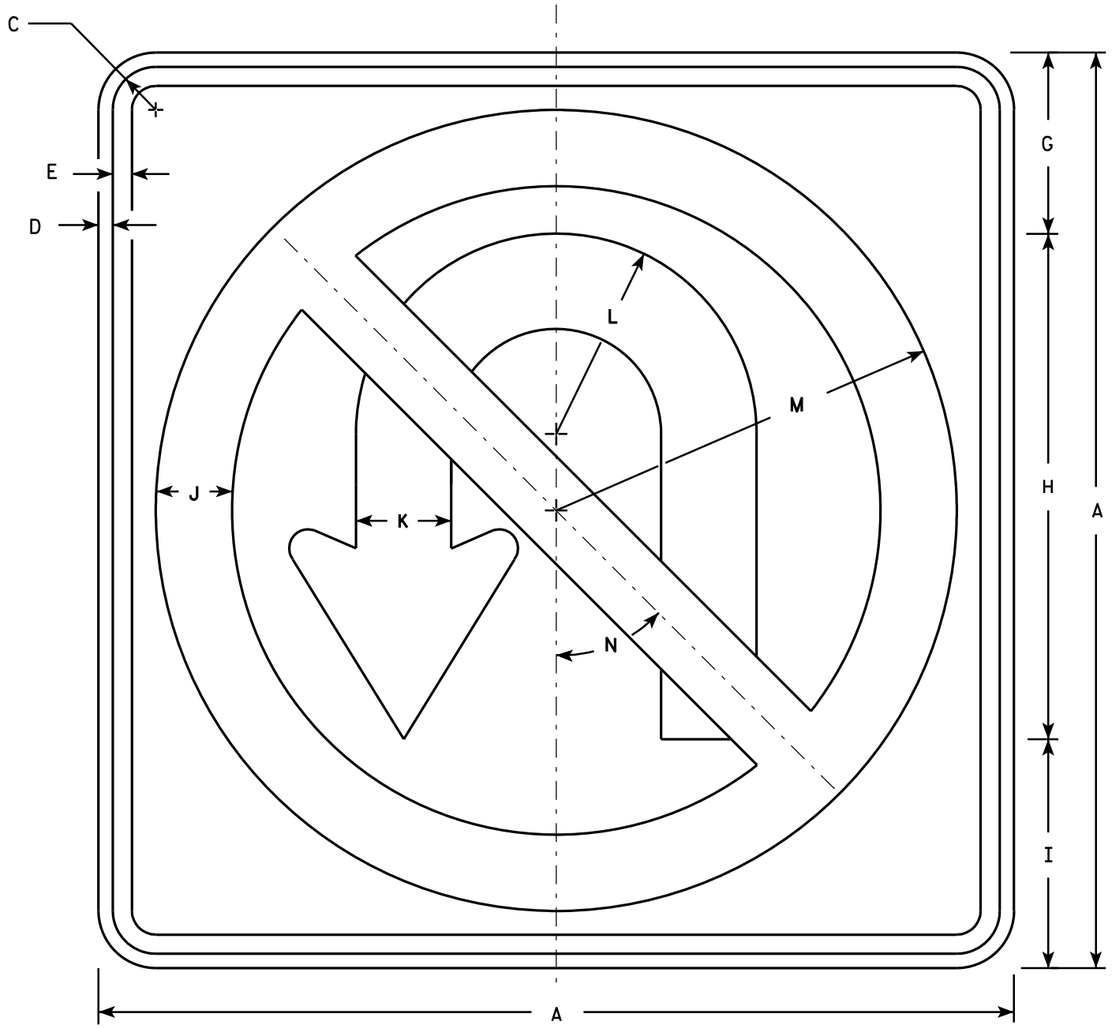
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

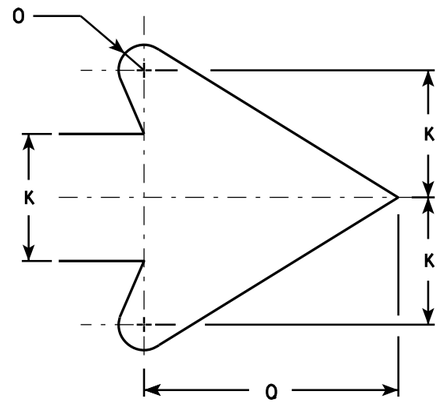
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 514	E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

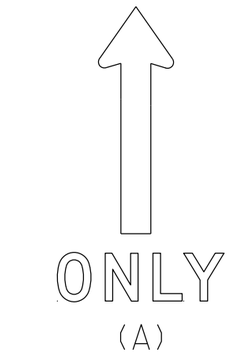
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

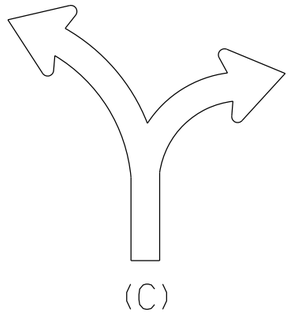
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 515	E

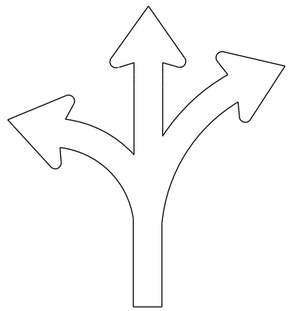


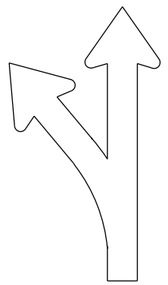
(A)

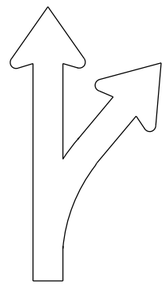


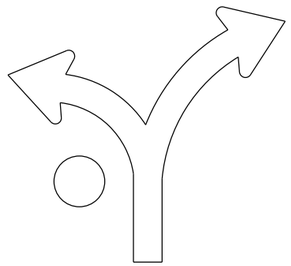
(B)

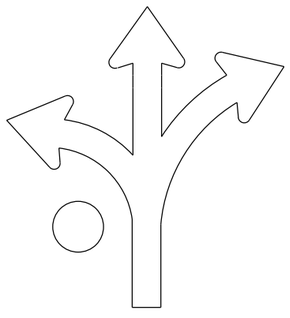

(C)

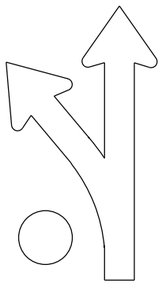

(D)


(E)


(F)

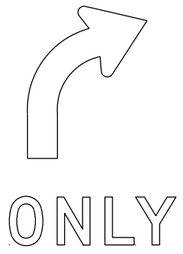

(G)


(H)

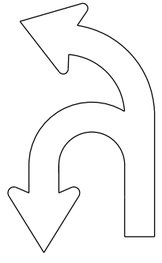

(I)



(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

7

PROJECT NO:

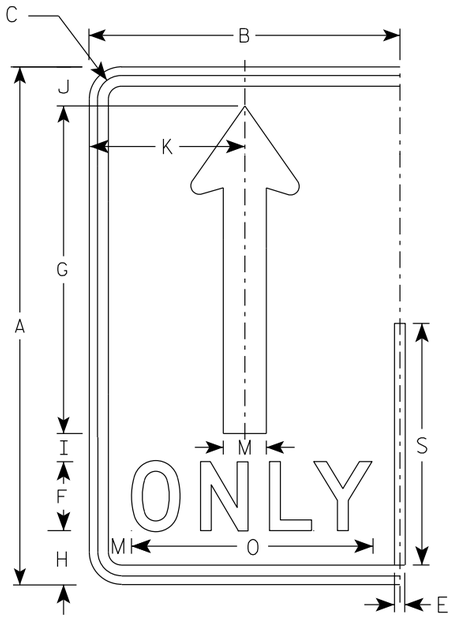
SHEET NO: 516 E

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:37 PLOT BY : mscj9h PLOT NAME :

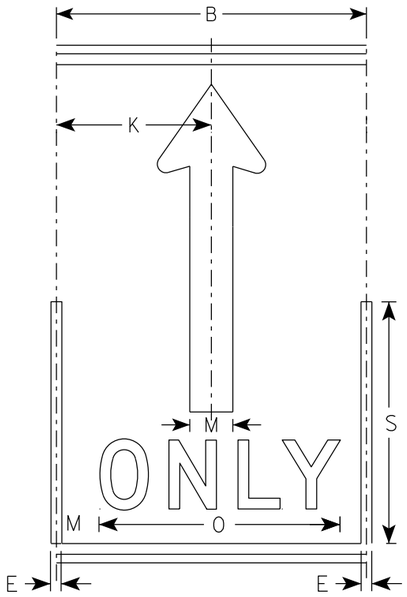
WISDOT/CADDS SHEET 42

NOTES

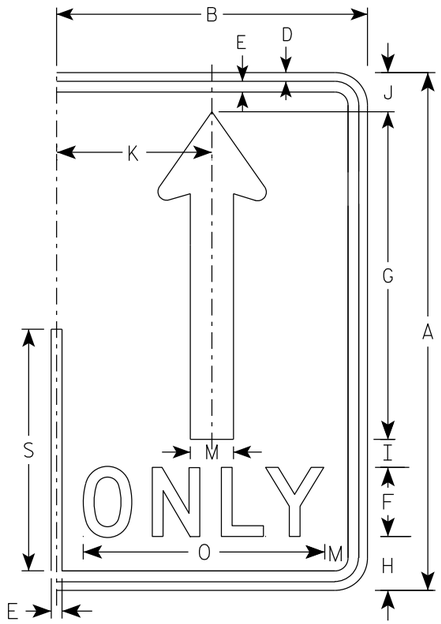
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



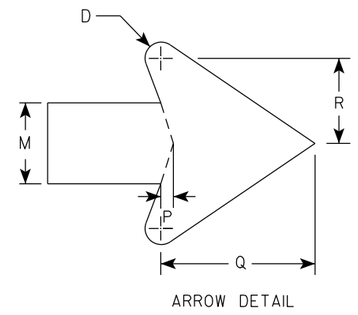
(A)



(A)



(A)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

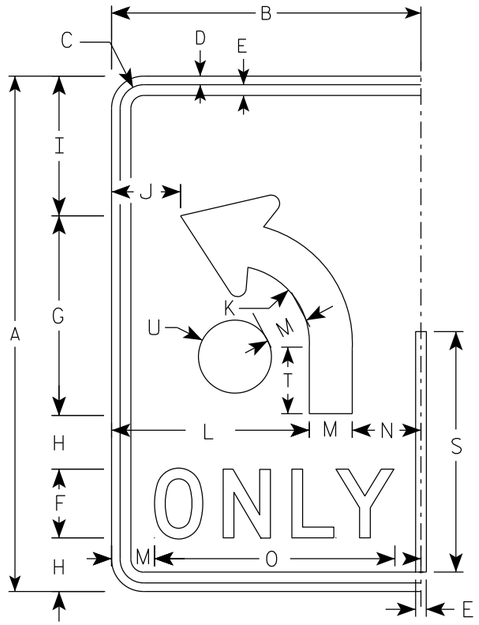
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

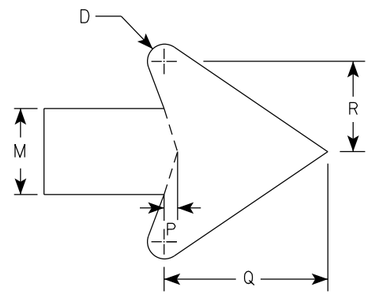
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 517 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

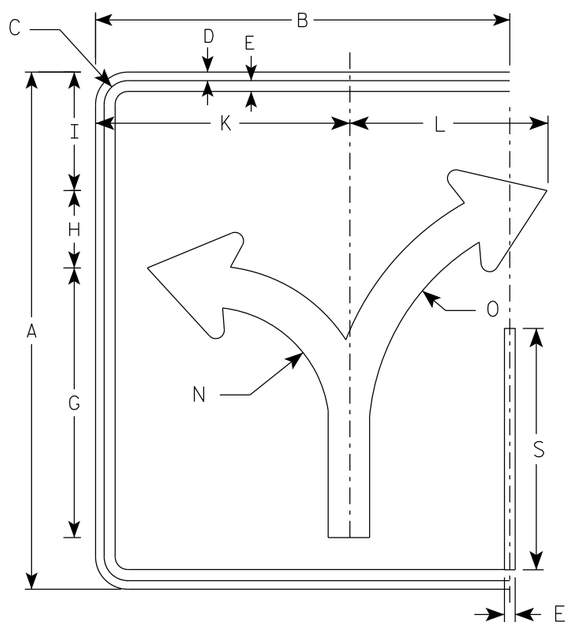
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

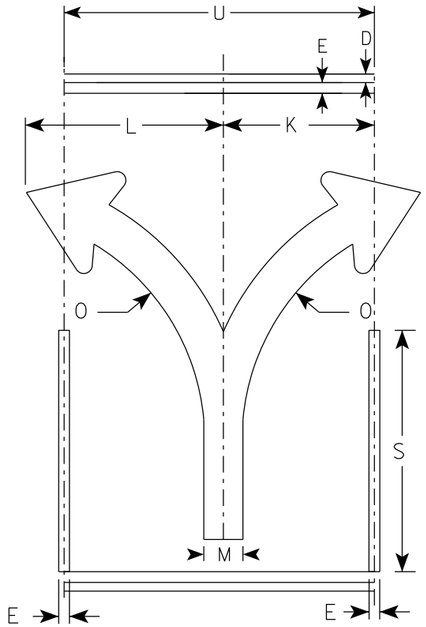
SHEET NO: 518 E

NOTES

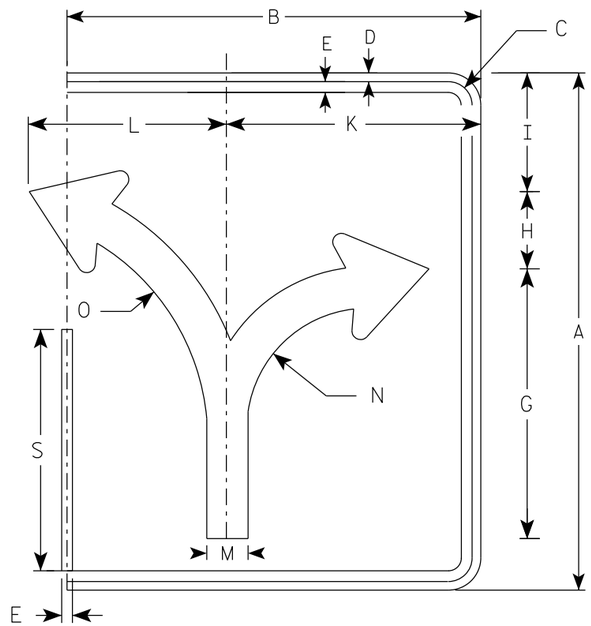
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



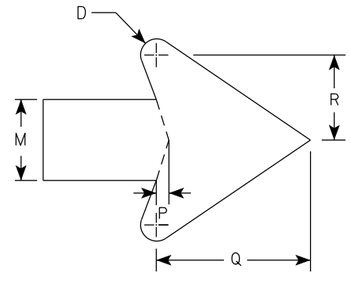
(C)



(C)



(C)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

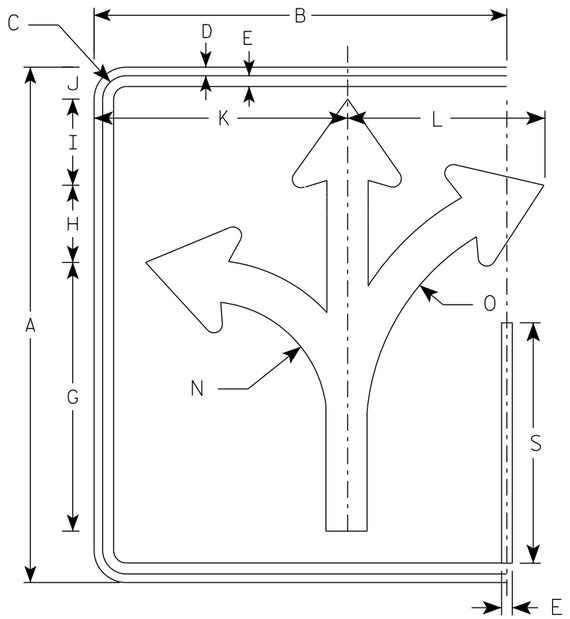
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

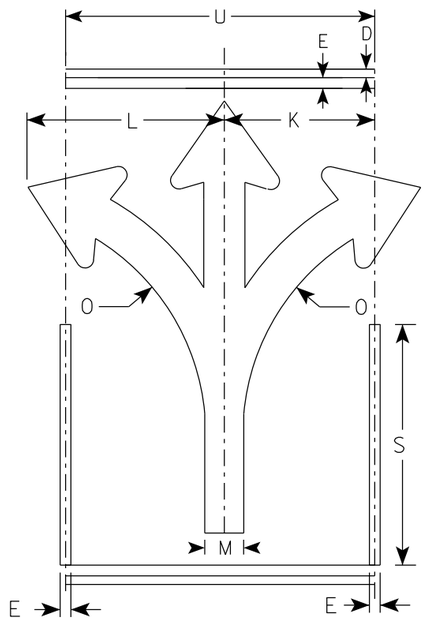
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 519 | E

NOTES

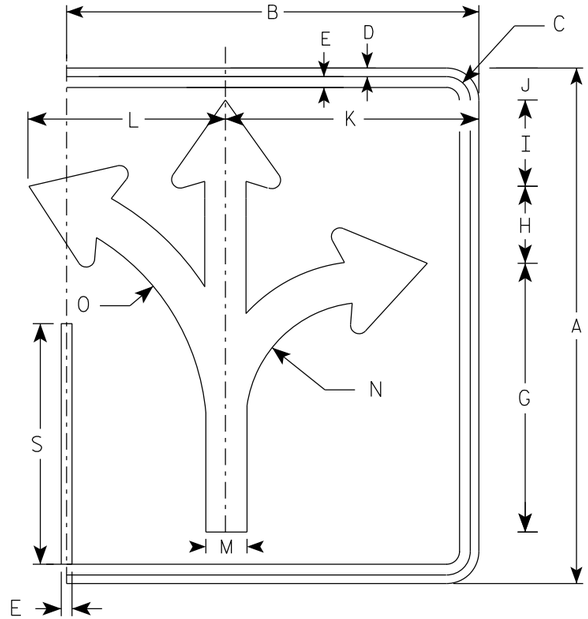
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



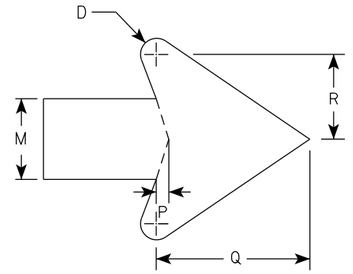
(D)



(D)



(D)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

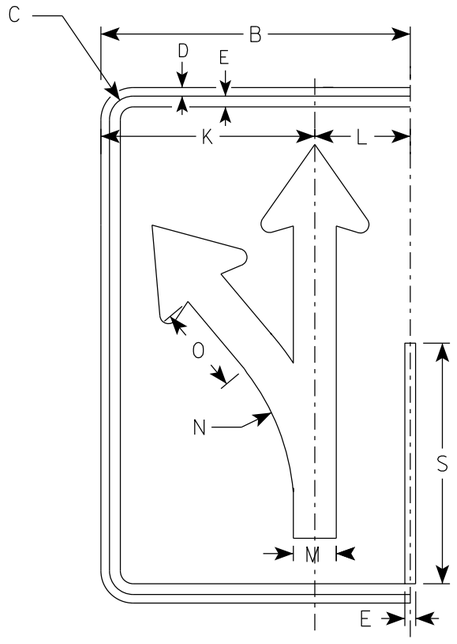
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

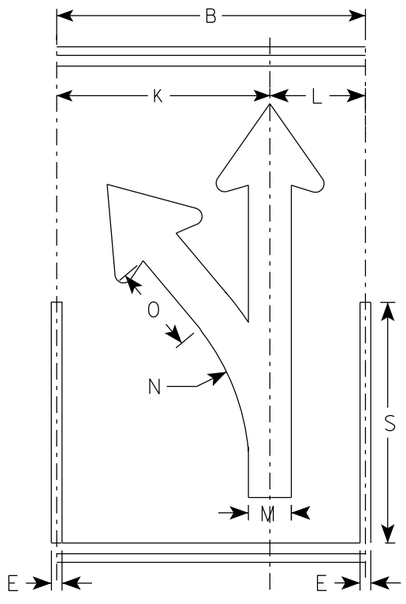
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 520 | E

NOTES

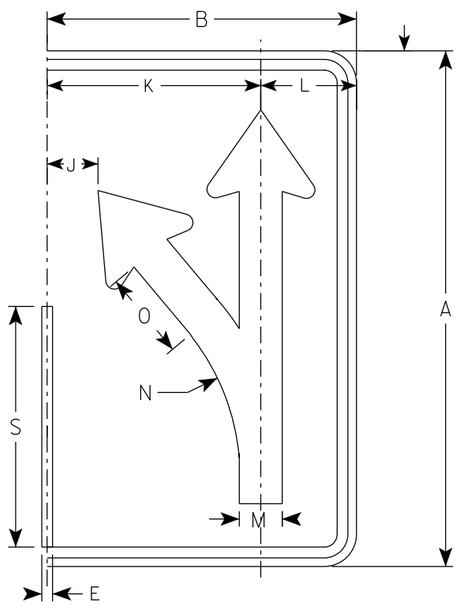
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



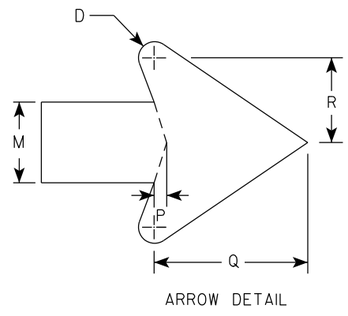
(E)



(E)



(E)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

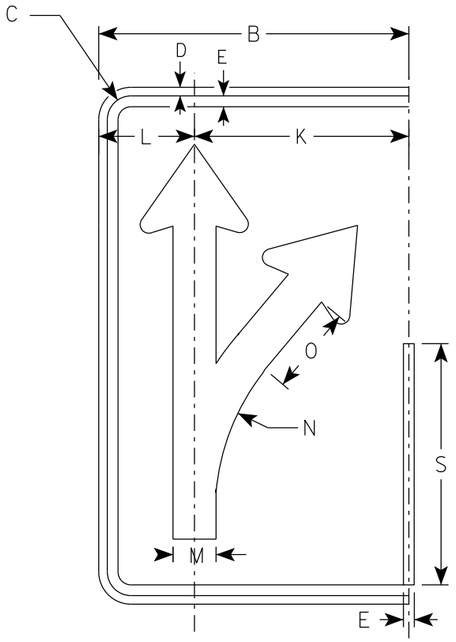
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

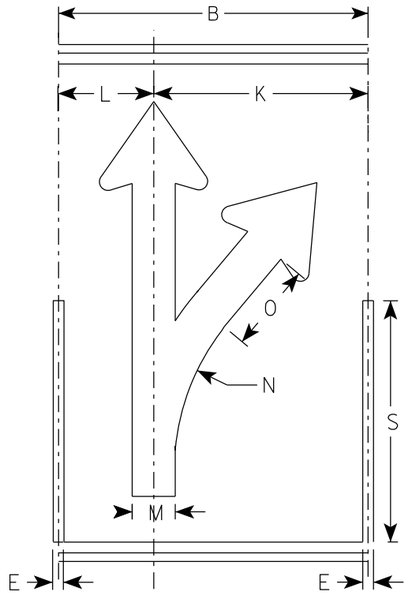
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 521 | E

NOTES

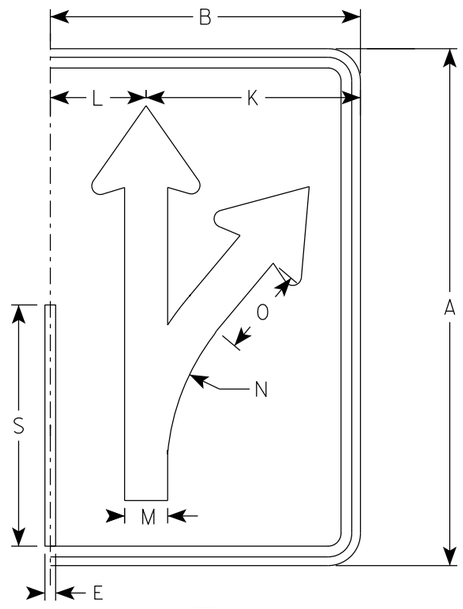
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



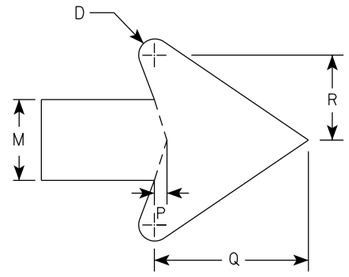
(F)



(F)



(F)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

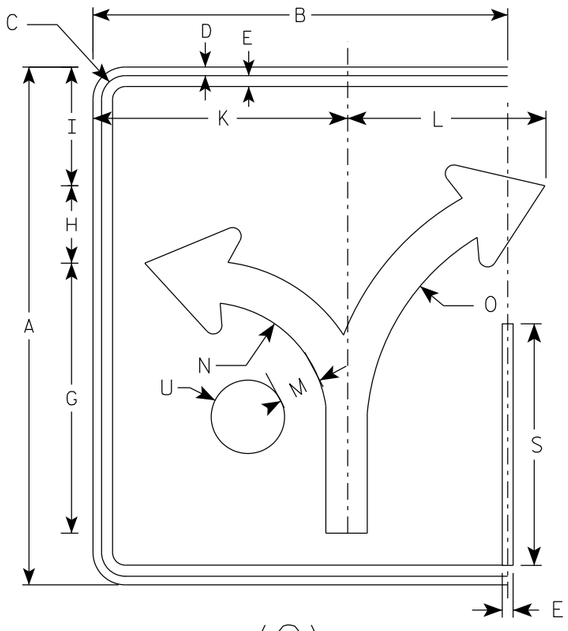
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

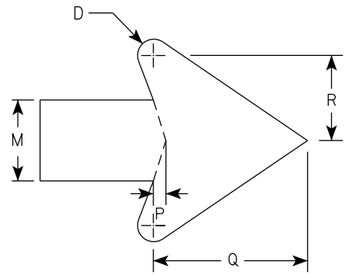
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 522 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

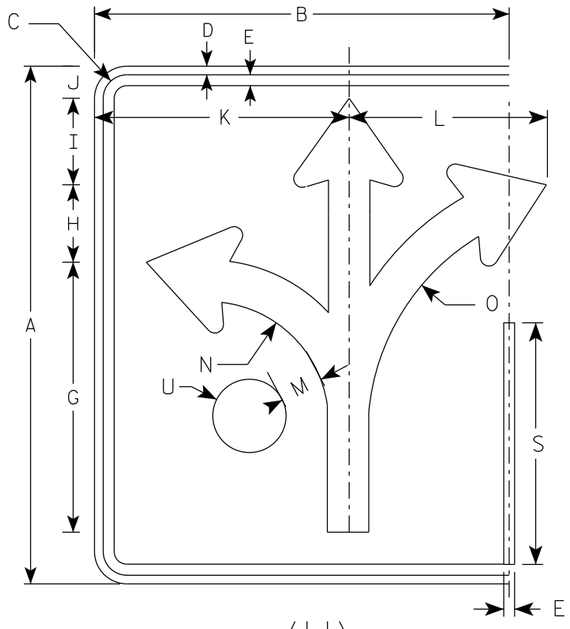
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

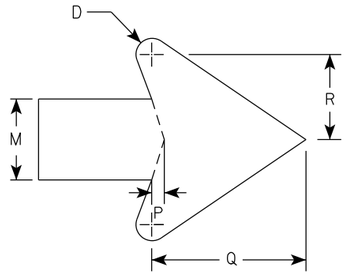
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 523 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

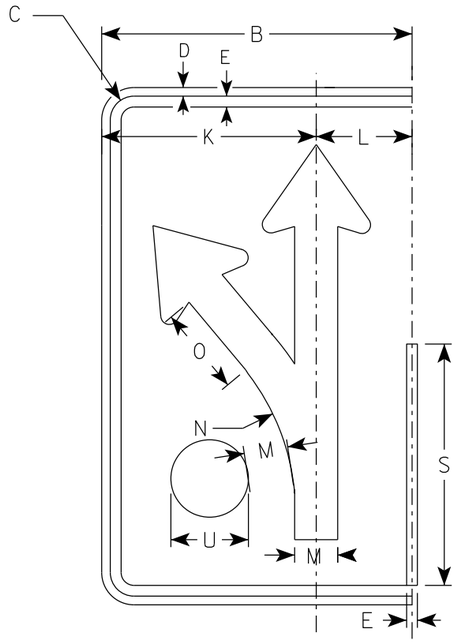
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

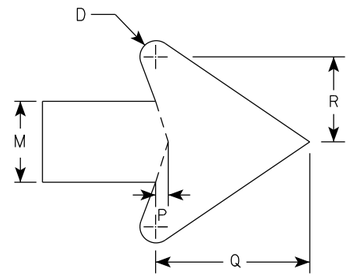
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 524	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

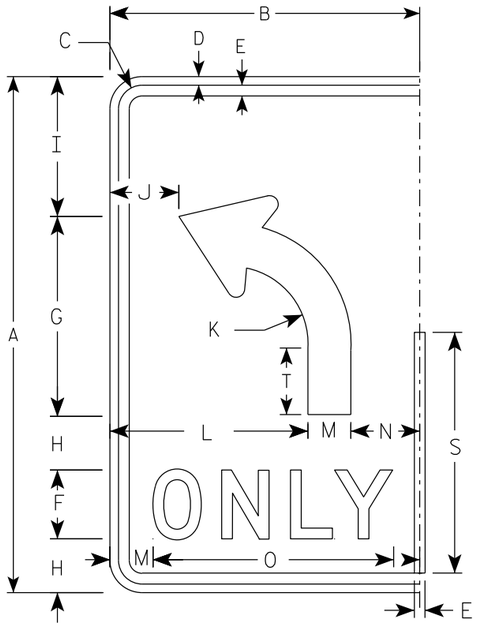
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

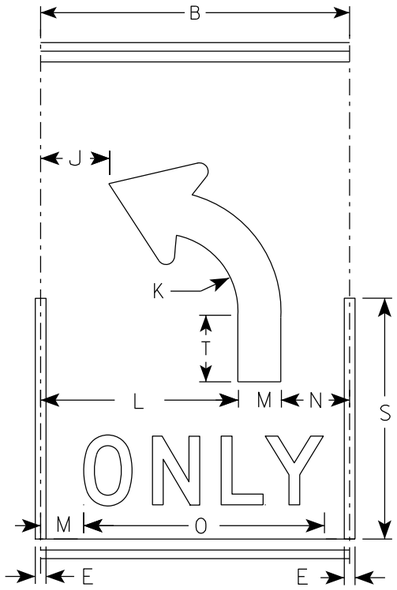
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 525 | E

NOTES

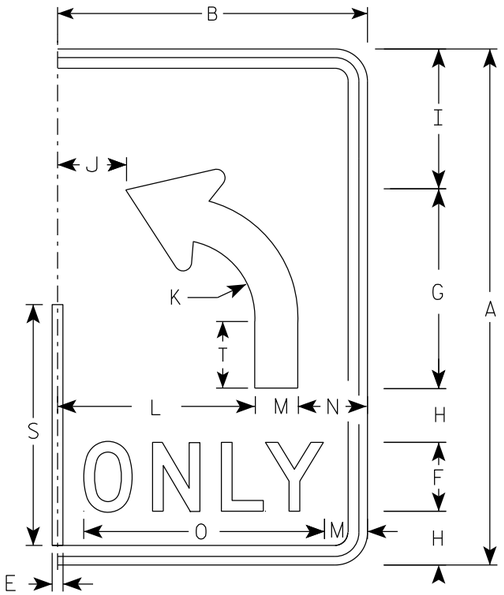
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



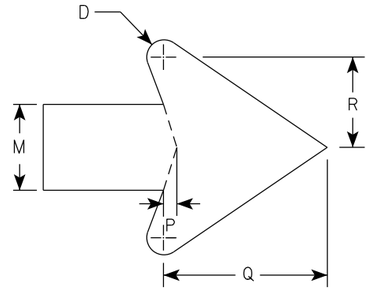
(L)



(L)



(L)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

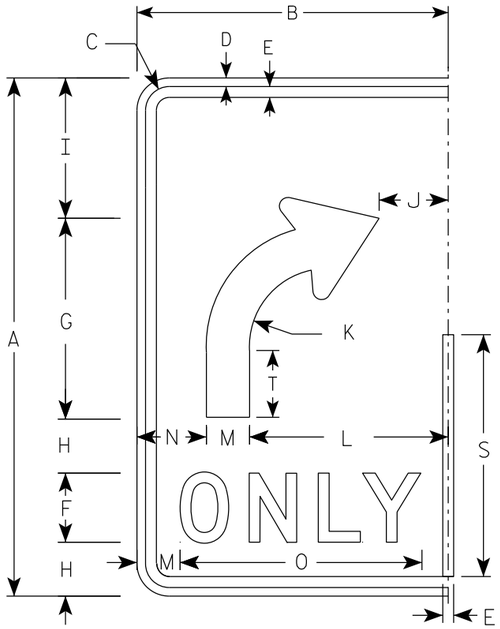
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

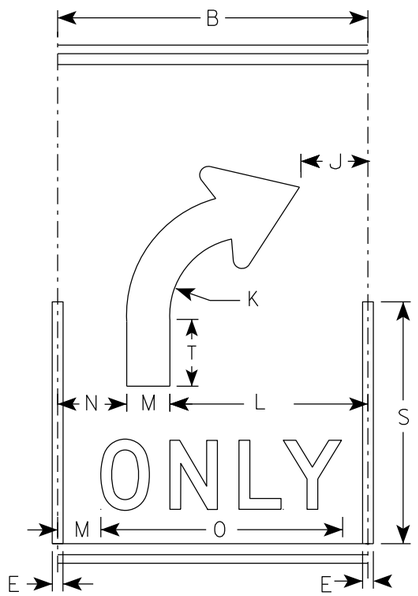
SHEET NO: 526 E

NOTES

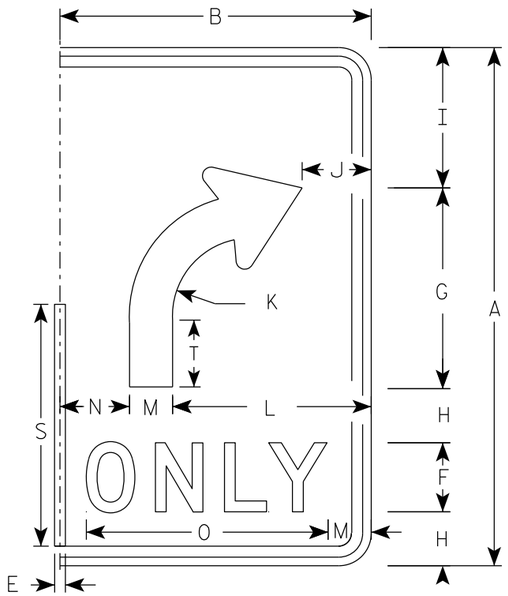
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



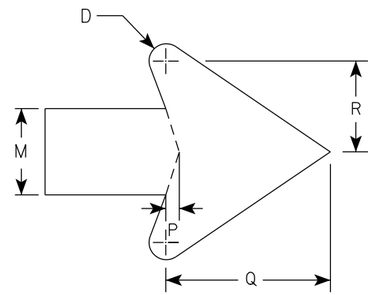
(R)



(R)



(R)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

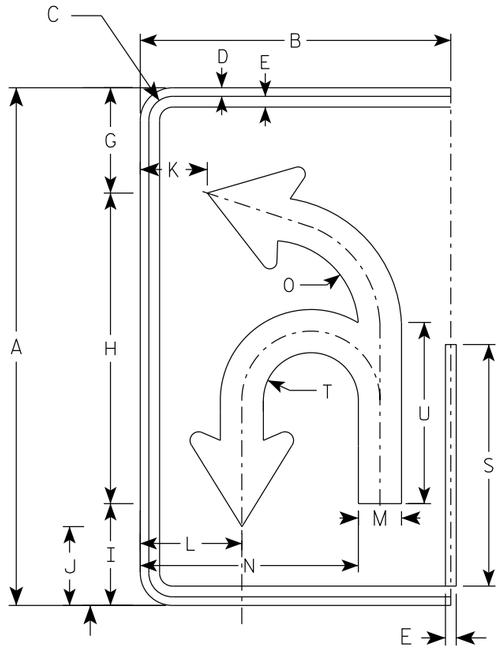
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

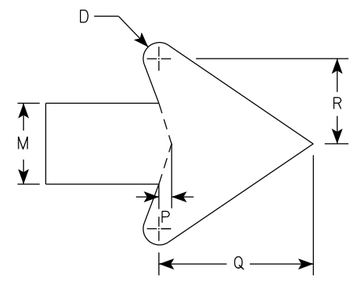
SHEET NO: 527 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

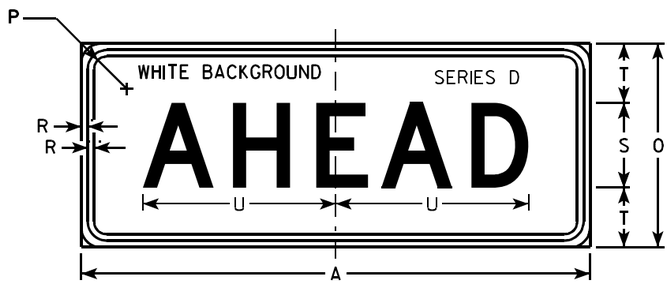
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 528 | E



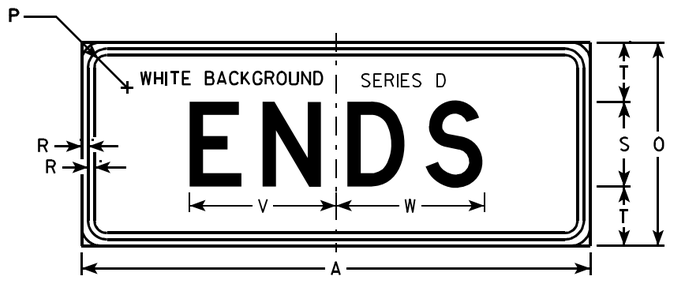
R3-17

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted on the Signs.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

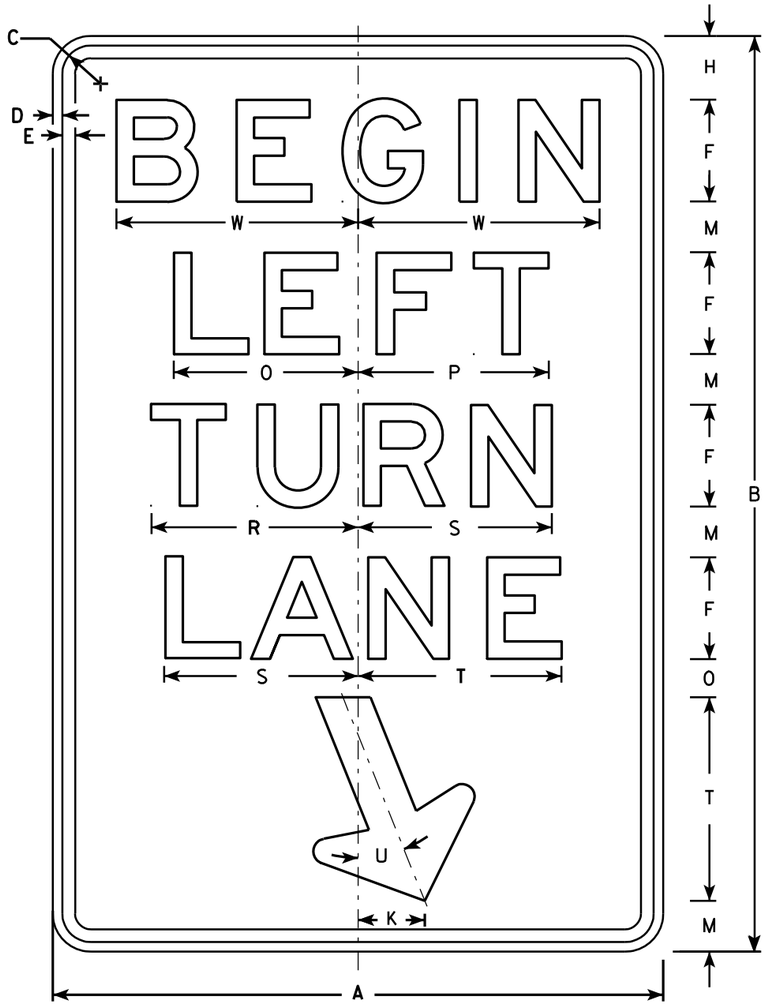
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

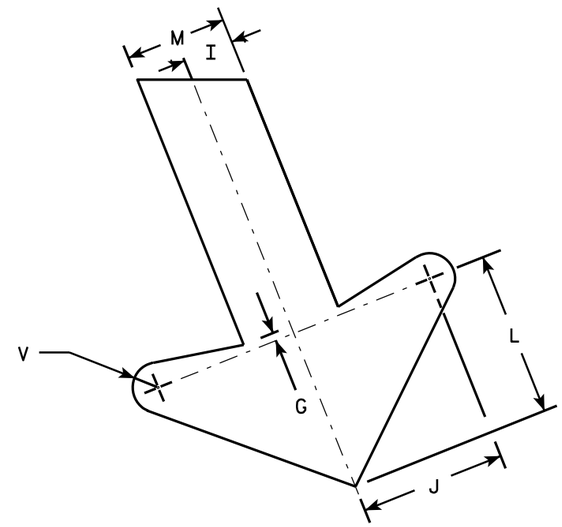
SHEET NO: 529 E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

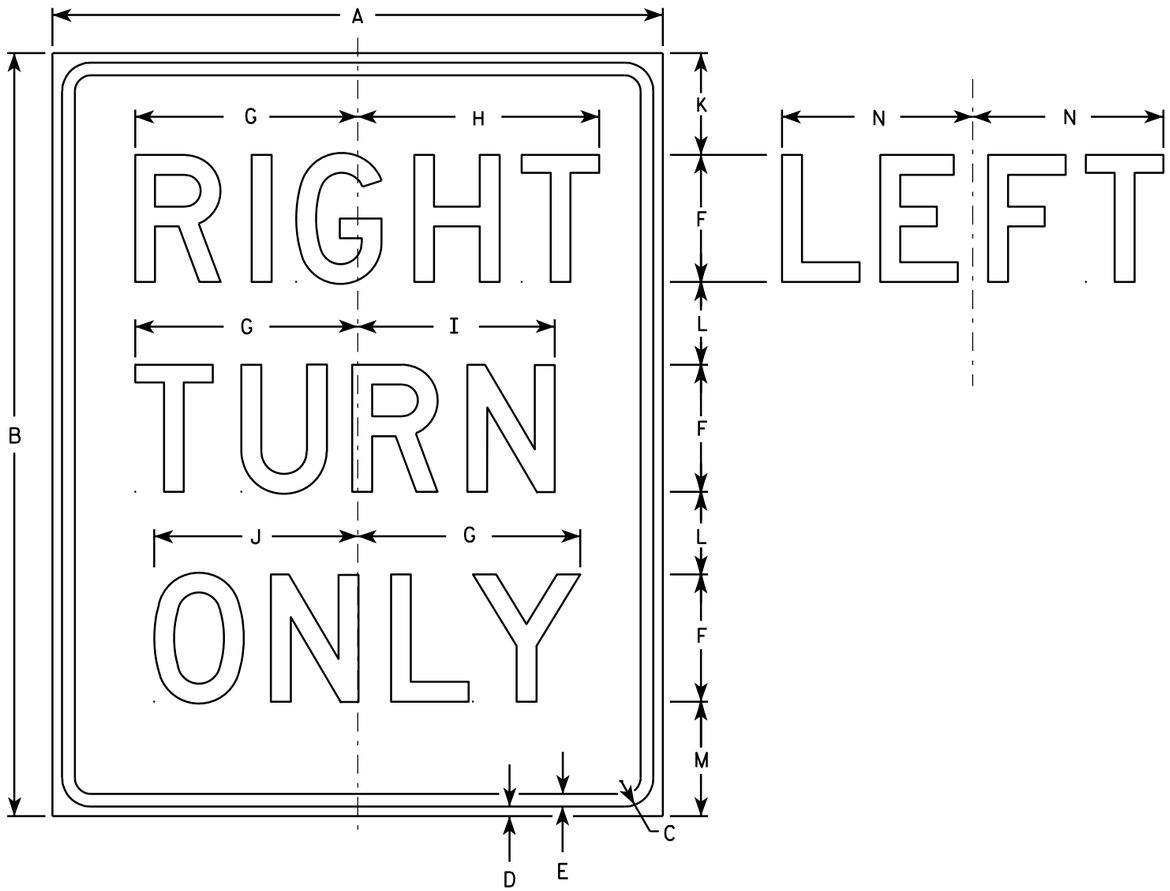
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 530 | E



R3-53R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-53L same as R3-53R except LEFT is substituted for RIGHT.

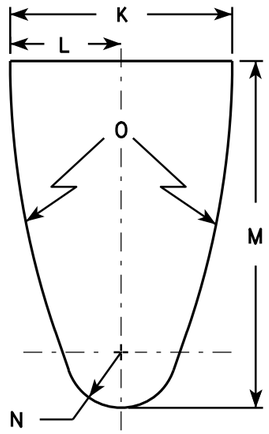
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

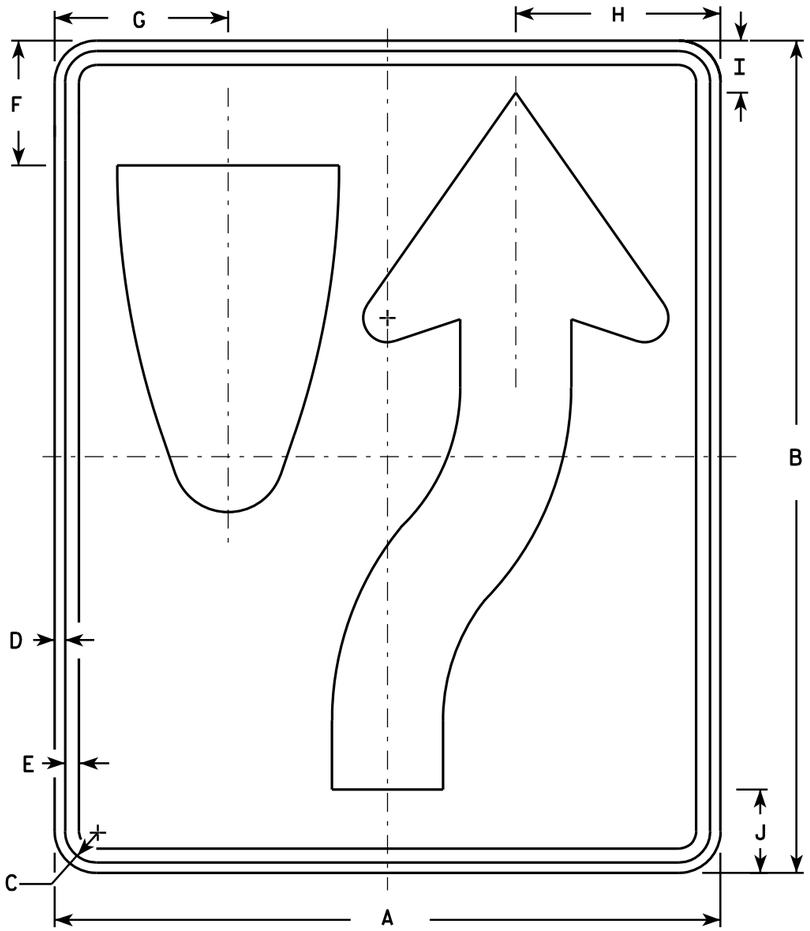
STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 531	E

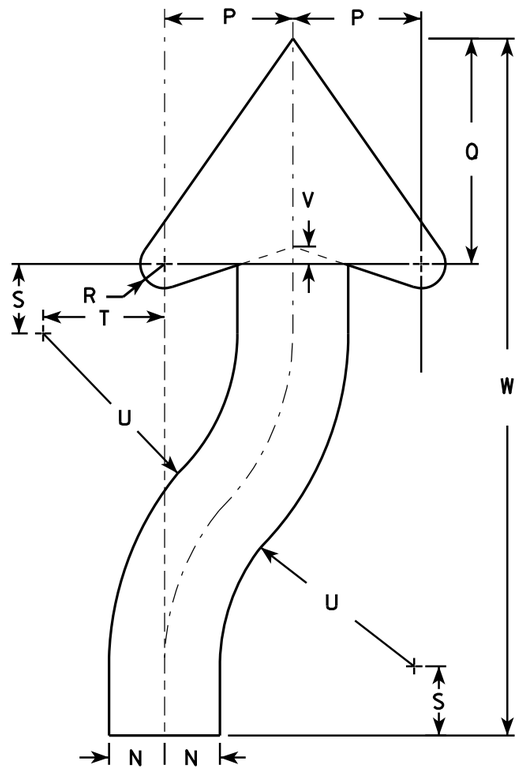




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

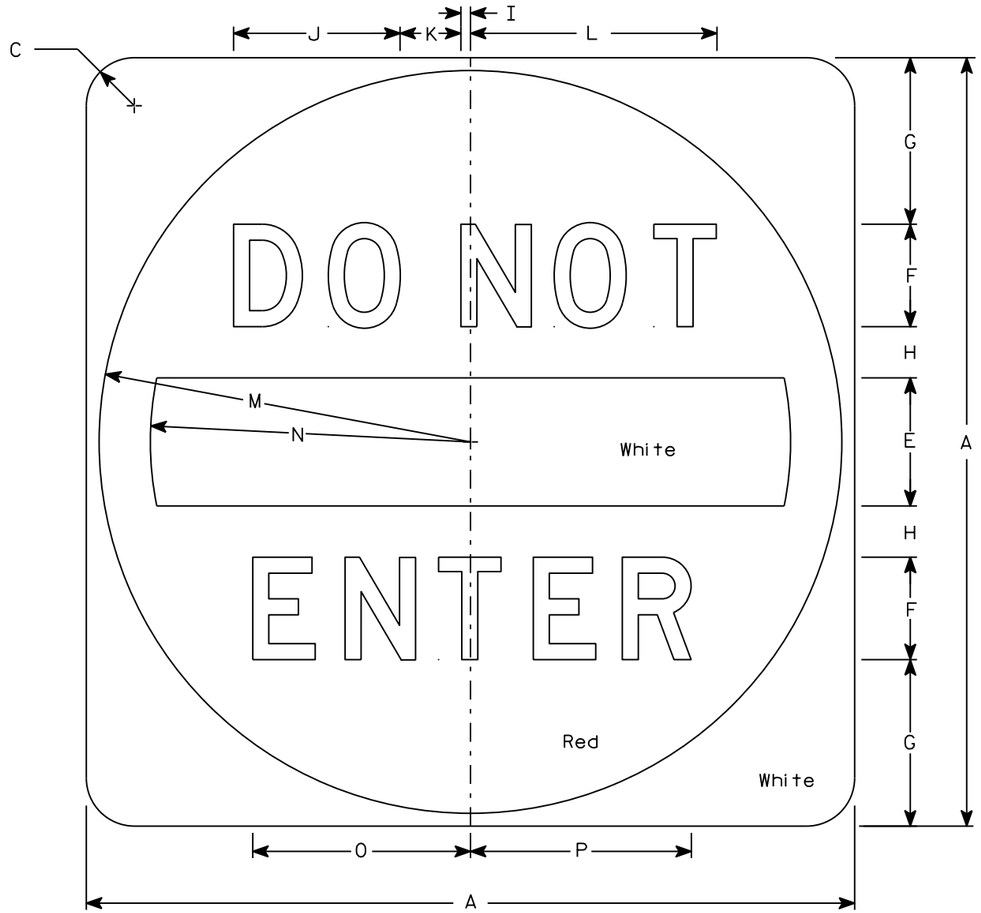
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 532	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

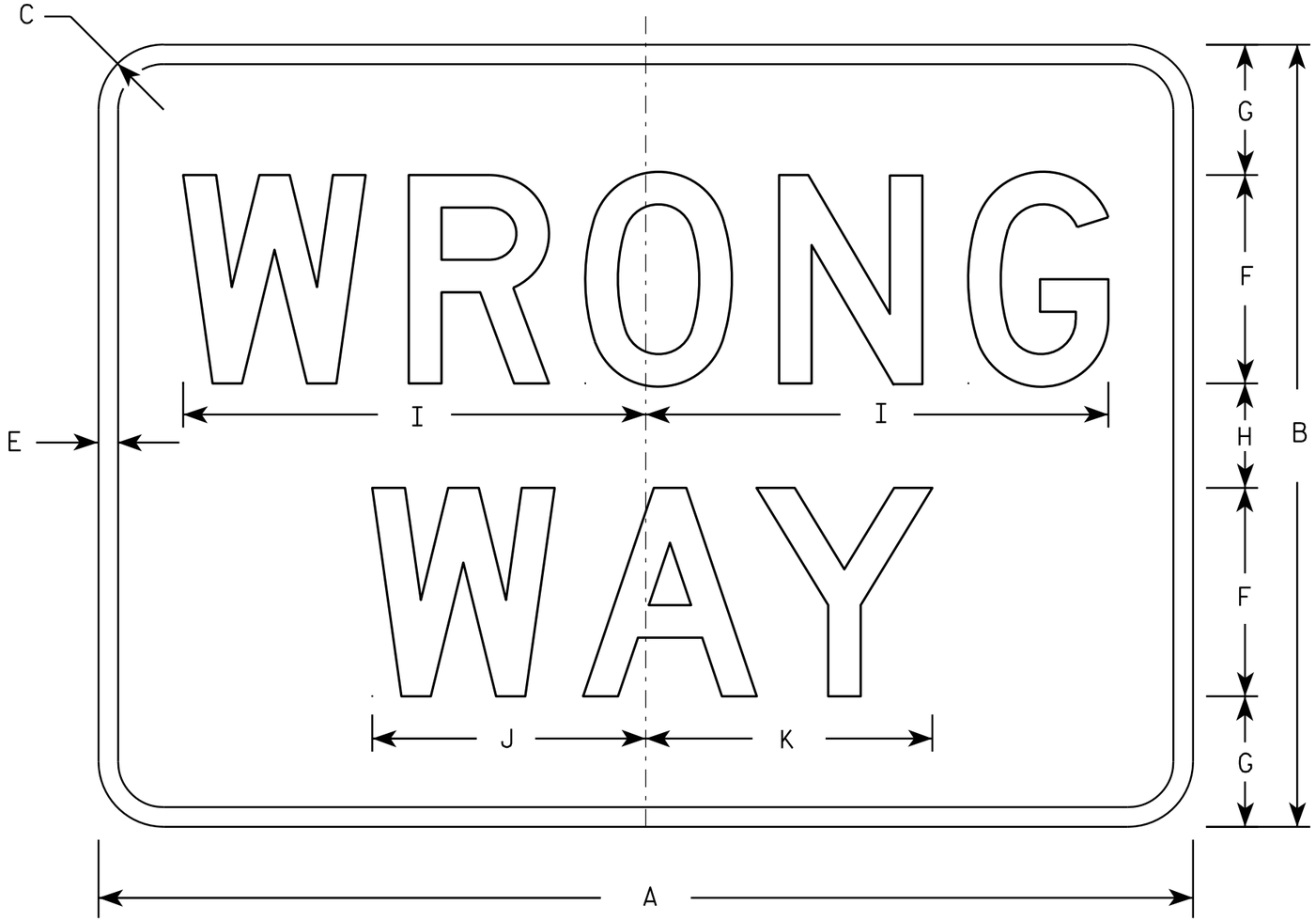
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 533 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

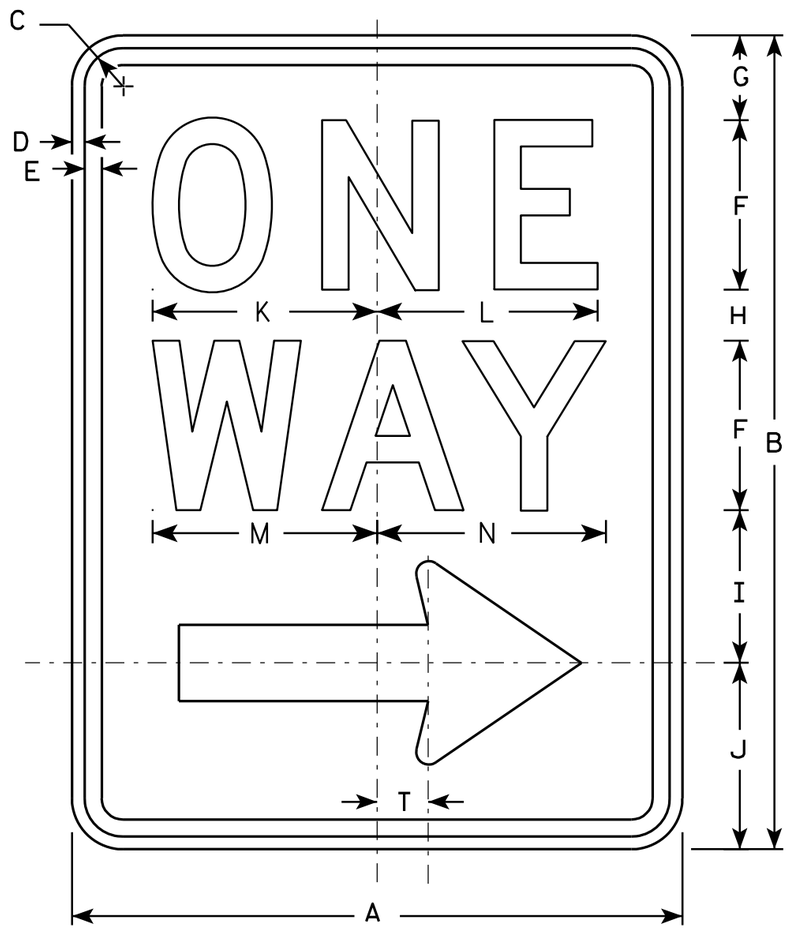
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 534	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R51A.DGN PLOT DATE : 17-DEC-2010 12:42 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.462457:1.000000

WISDOT/CADDS SHEET 42

7

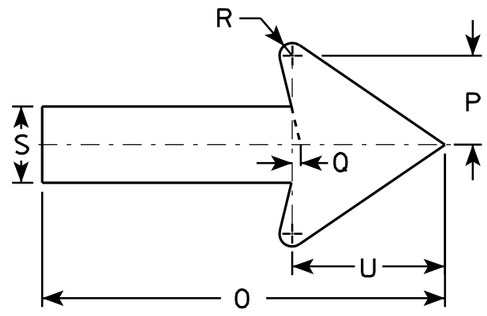
7



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 535	E

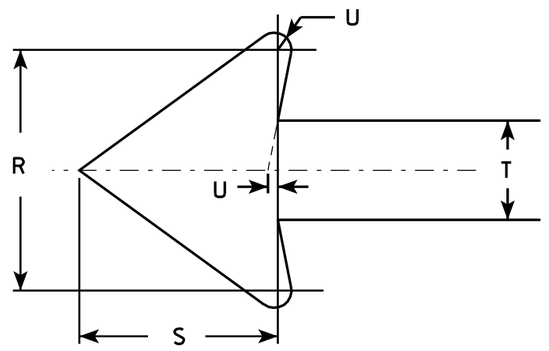


R7-2

*- See Note 5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 7
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
6. R7-2D (double arrow)
   R7-2L (left arrow)
   R7-2R (right arrow)
7. Lines 1, 3 and 4 are series C, line 2 is series B.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	3 7/8	1 3/4	1 1/2	3/4	1/8						1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 7/8	2 5/8	2 1/4	1 1/8	1/4						3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
4																											
5																											

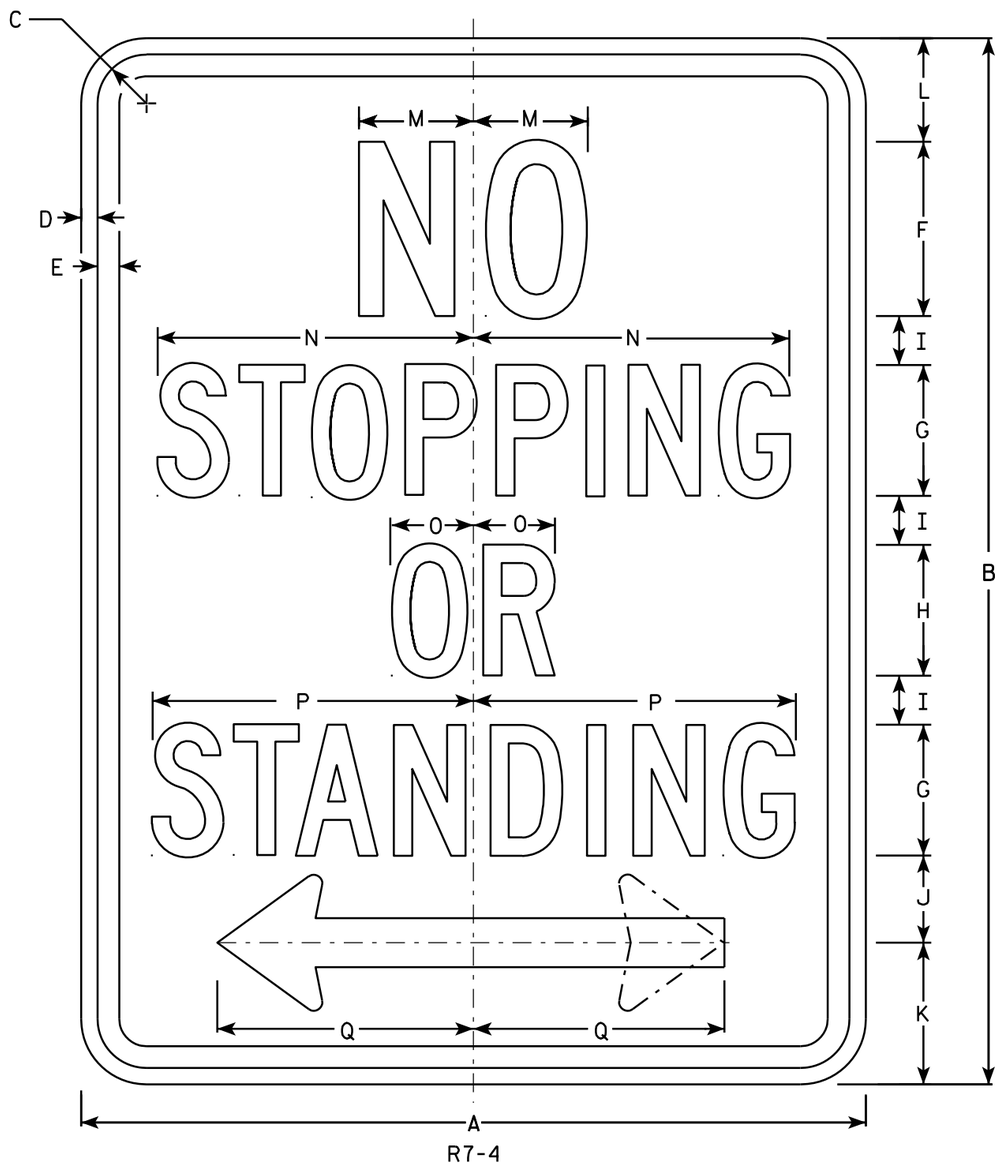
STANDARD SIGN
R7-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-2.9

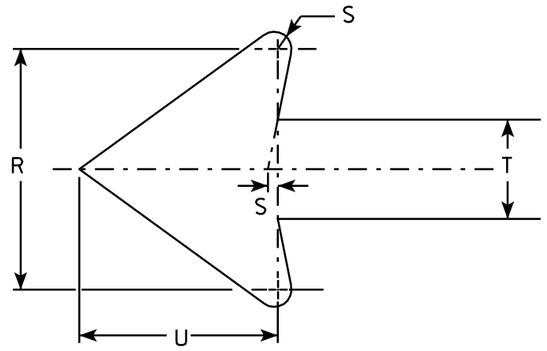
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 536	E



R7-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-4L (left arrow)
   R7-4R (right arrow)
   R7-4D (double arrow)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	2	2	1	1 1/2	2 1/2	2	2	4 7/8	1 1/4	4 7/8	3 7/8	1 3/4	1/8	3/4	1 1/2						1.5
2S	18	24	1 1/8	3/8	1/2	4	3	3	1 1/8	2	3 1/4	2 3/8	2 5/8	7 1/4	1 1/8	7 3/8	5 7/8	2 5/8	1/4	1 1/8	2 1/4						3.0
2M	24	30	1 1/8	3/8	1/2	5	4	3	1 1/2	3	4	2 1/2	3 3/8	10	2 1/2	10 1/4	7 3/4	3 1/2	1/4	1 1/2	3						5.0
3	24	30	1 1/8	3/8	1/2	5	4	3	1 1/2	3	4	2 1/2	3 3/8	10	2 1/2	10 1/4	7 3/4	3 1/2	1/4	1 1/2	3						5.0
4																											
5																											

STANDARD SIGN
R7-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-4.8

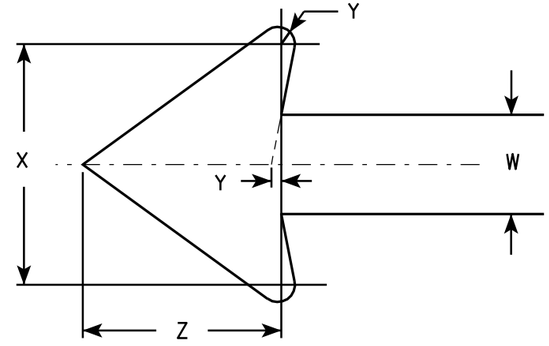
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 537	E



R7-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-51D (double arrow)
   R7-51R (right arrow)
   R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 7/8	5/8	1 3/4	2 1/2	4 3/8	3 7/8	3/4	1 3/4	1/8	1 1/2	1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 3/4	1 1/8	1 1/2	3 1/8	5 1/2	5 7/8	1 1/8	2 5/8	1/4	2 1/4	3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
4																											
5																											

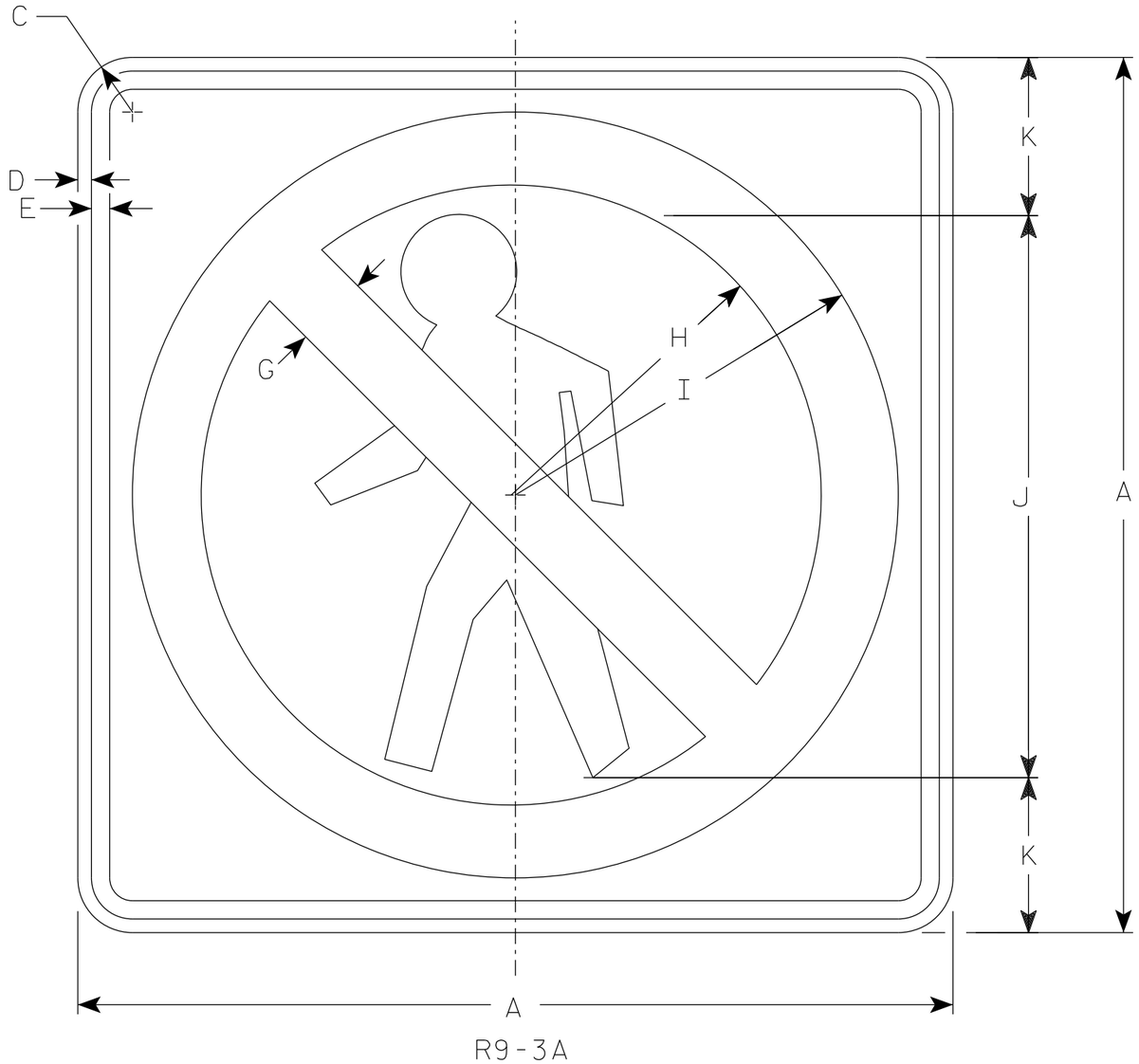
STANDARD SIGN
R7-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-51.6

PROJECT NO:	HWY:	COUNTY:			SHEET NO: 538	E



R9-3A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Pedestrian are non-reflective black.
   Circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8		1 1/2	6 1/4	7 7/8	12	3																2.25
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	15	4																4.00
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	15	4																4.00
3																											
4																											
5																											

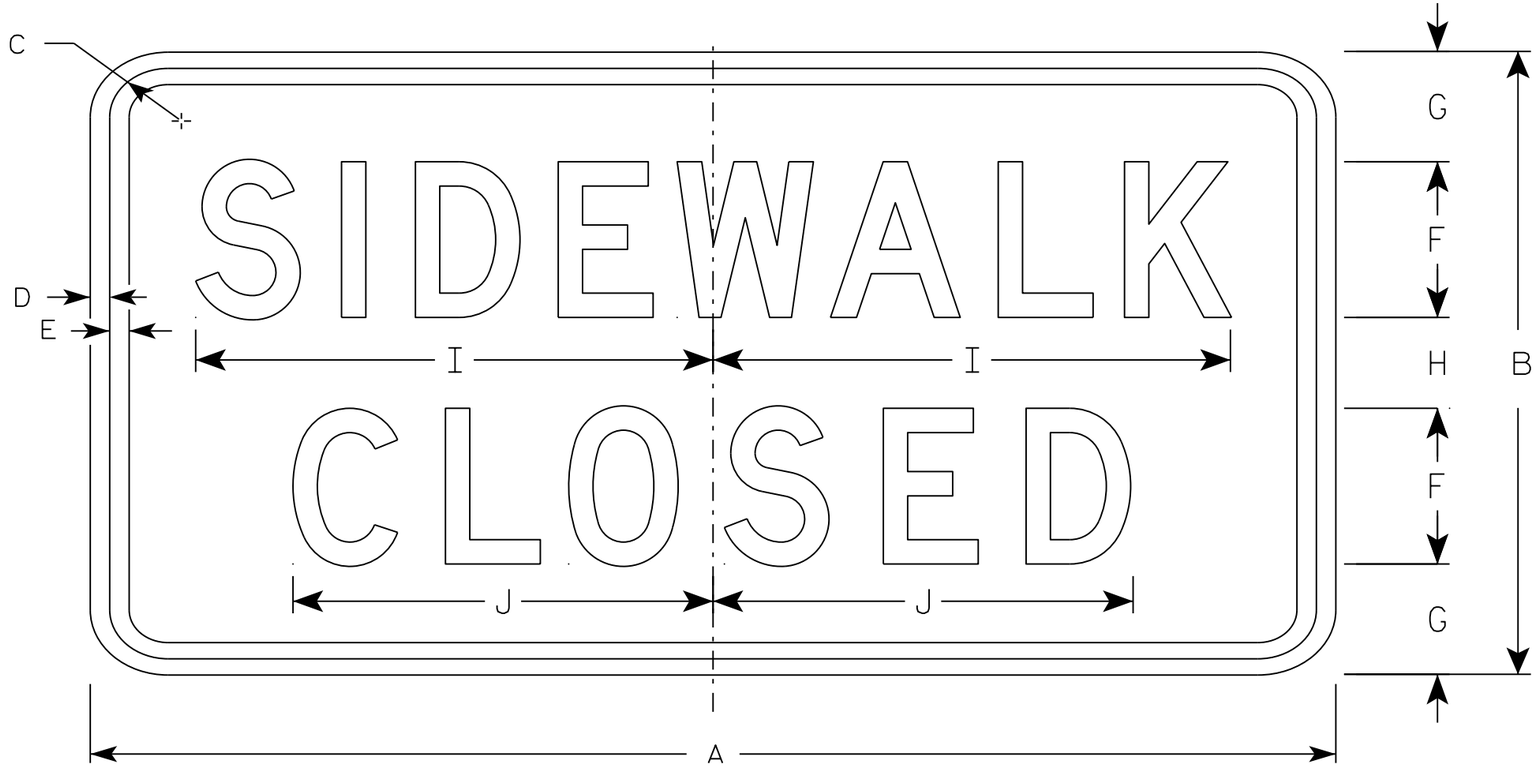
STANDARD SIGN
R9-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/22/21 PLATE NO. R9-3A.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

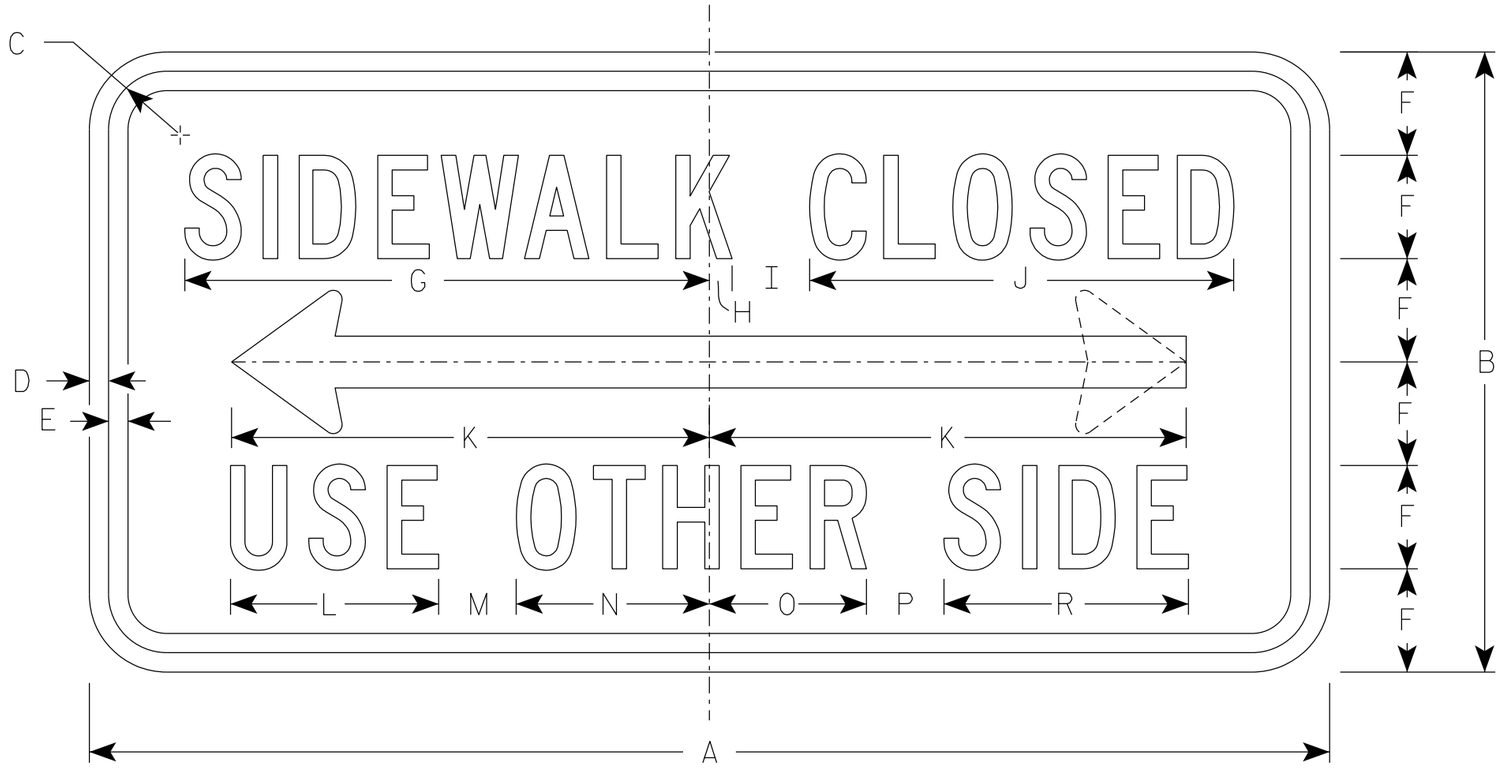
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 540 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

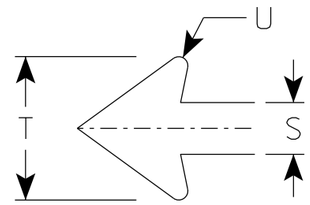
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-10

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for sidewalks. Use Size 3 for paths and trails.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/8	1/2	1 1/2	8 1/4	9 1/4	4	1 1/2	3 3/4	3	1 1/2		4 3/4	1	2 3/4	1/8						2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/8	1/2	1 1/2	8 1/4	9 1/4	4	1 1/2	3 3/4	3	1 1/2		4 3/4	1	2 3/4	1/8						2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	5	2	4 5/8	3 3/4	2		5 7/8	1 1/4	3 5/8	1/4						3.125
4																											
5																											

STANDARD SIGN
R9-10

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/7/2020 PLATE NO. R9-10.7

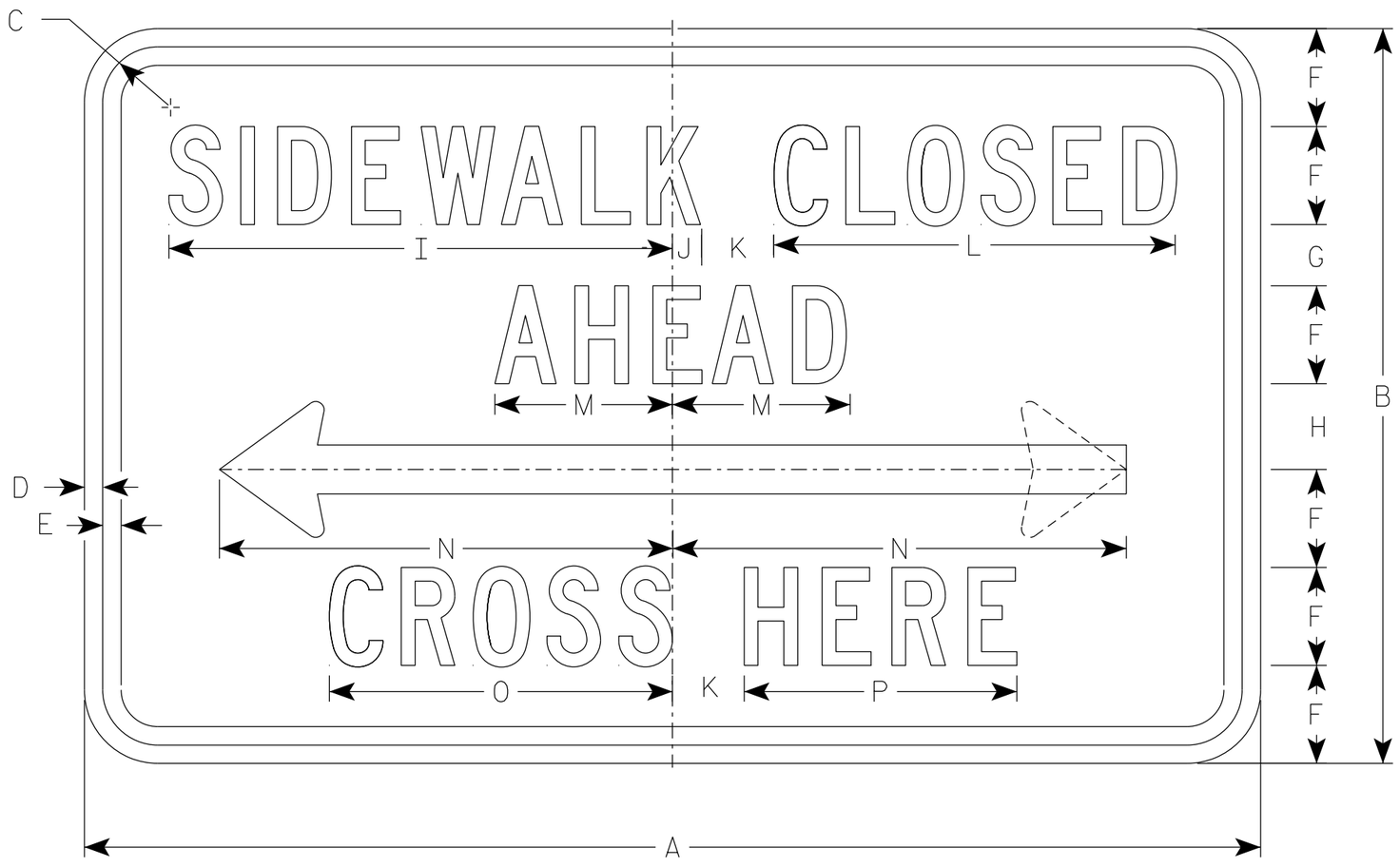
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 541	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R910.dgn PLOT DATE : 07-APRIL-2020 PLOT BY : dotc4c PLOT NAME : PLOT SCALE :

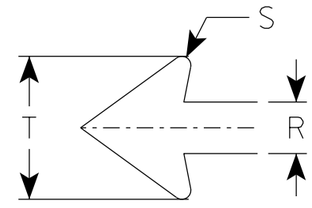
WISDOT/CADDS SHEET 42

7

7



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.
6. R9-11 D (double arrow)
   R9-11 L (left arrow)
   R9-11 R (right arrow)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

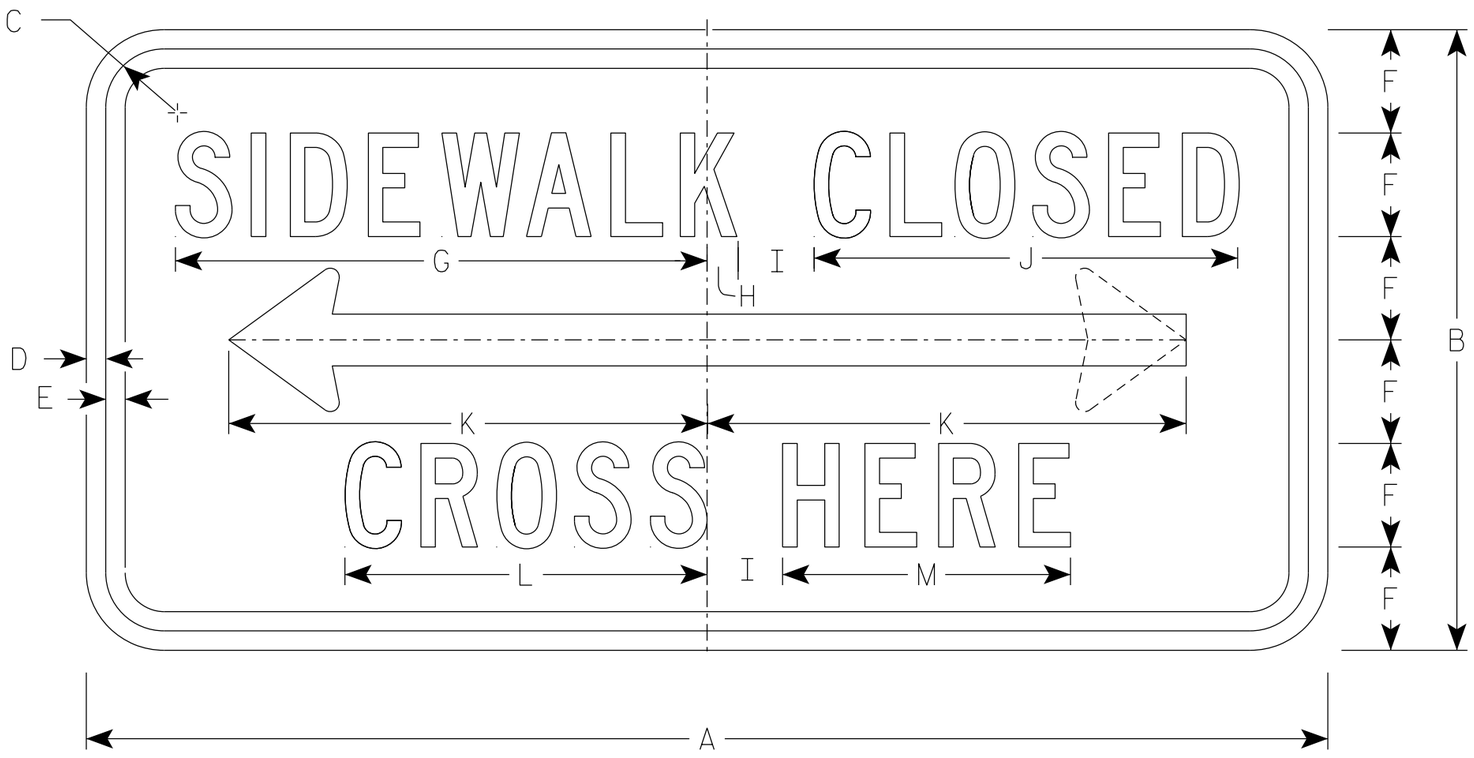
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/30/2021 PLATE NO. R9-11.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 542 | E

7

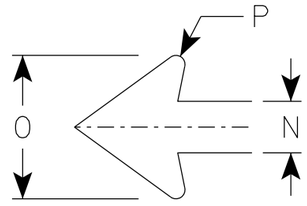
7



R9-11A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
6. R9-11AD (double arrow)
   R9-11AL (left arrow)
   R9-11AR (right arrow)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

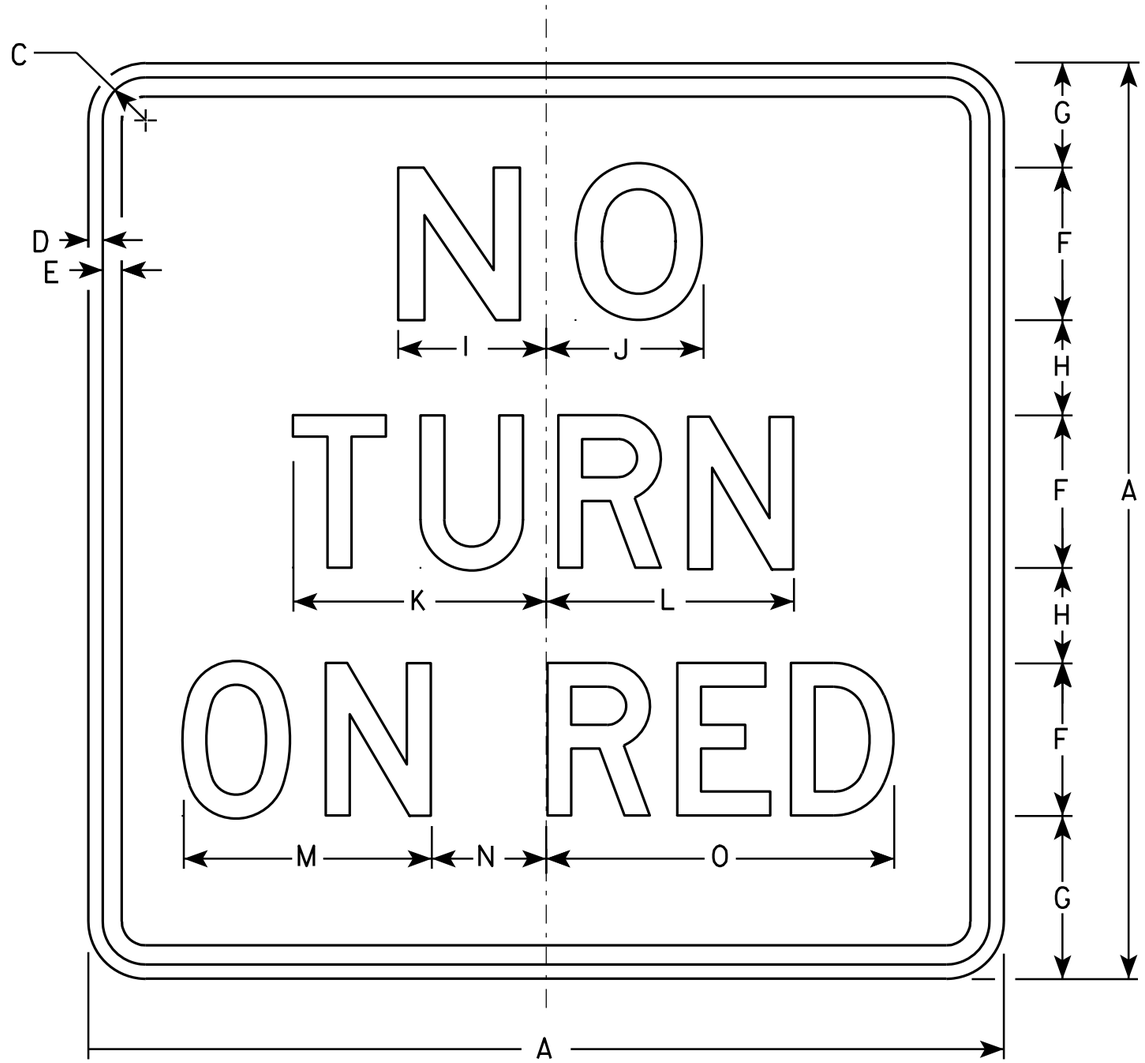
STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R9-11A.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 543 | E



R10-11B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
   Lines 2 and 3 are Series D.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	3	2 3/4	1 3/4	3	3 1/8	5	4 7/8	5 1/4	1 7/8	7 1/8												2.25
2S	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
3	30		1 3/8	1/2	5/8	5	4 1/2	3	4 7/8	5 1/4	8 1/4	8 1/8	7 3/4	4 1/8	11 7/8												6.25
4																											
5																											

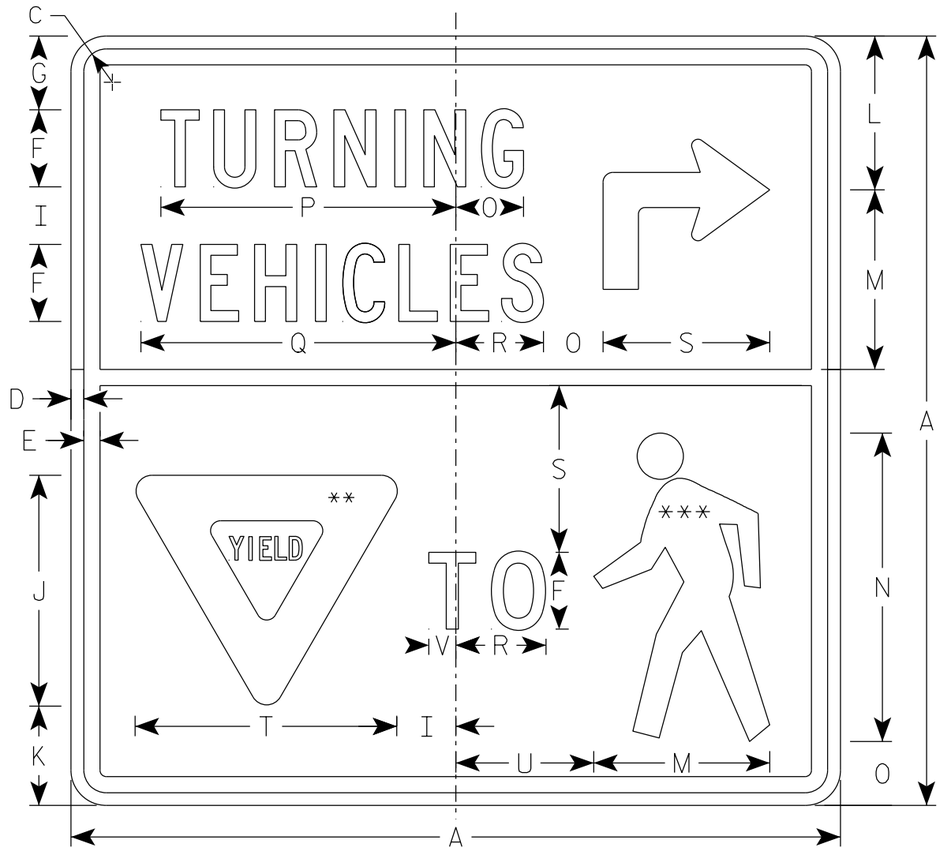
STANDARD SIGN
R10-11B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11B.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 544 | E



R10-15R

NOTES

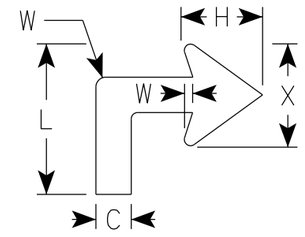
1. Sign is Type II - See Note 2 for Sheeting Type

2. Color:
   Background - Top Half - Yellow (Type F Reflective)
   Bottom Half - White (Type SH Reflective)
   Message - Black
   Yield Symbol - Red on White (Type SH Reflective)
   Ped Symbol - Black on White (Type SH Reflective)

3. Message Series - C except "TO" Series D

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

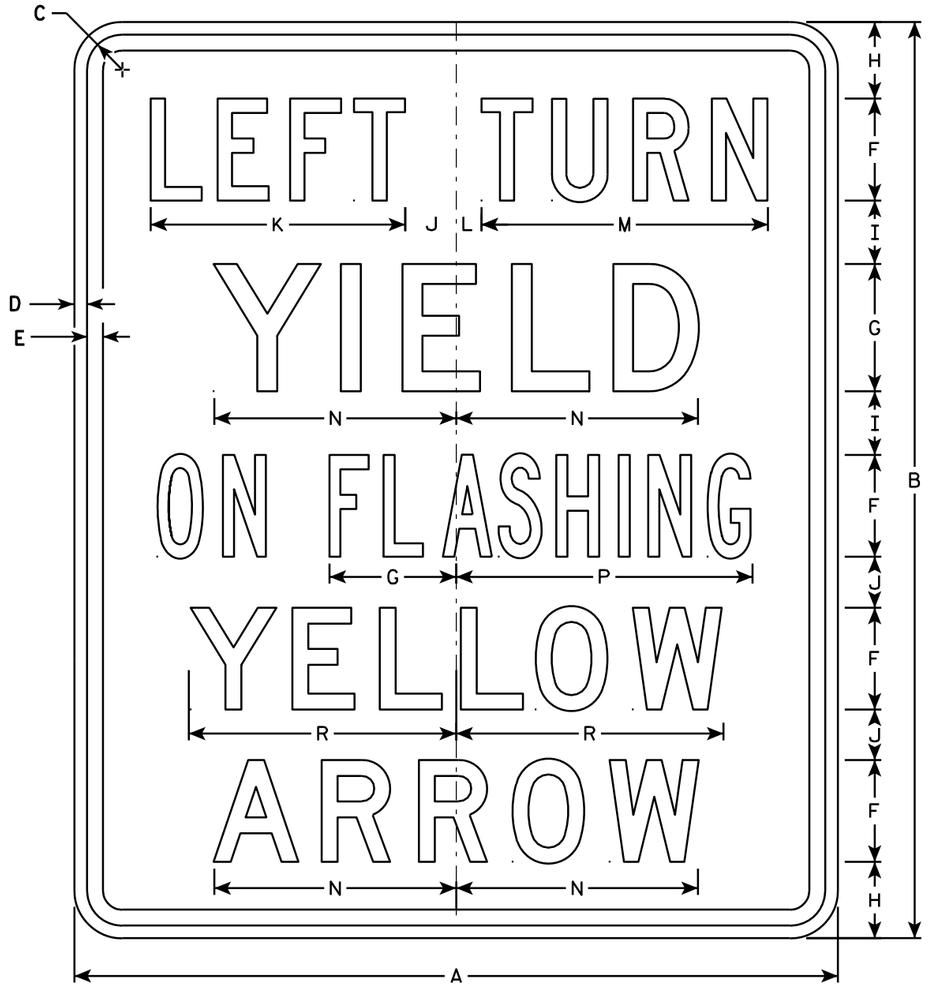
STANDARD SIGN
R10-15R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/2020 PLATE NO. R10-15R.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

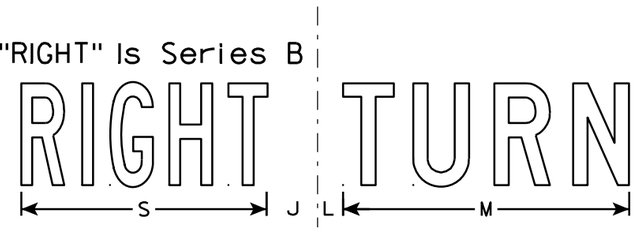


R10-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C.
   Lines 2, 4 and 5 are Series D.
   Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
2M	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
3																											
4																											
5																											

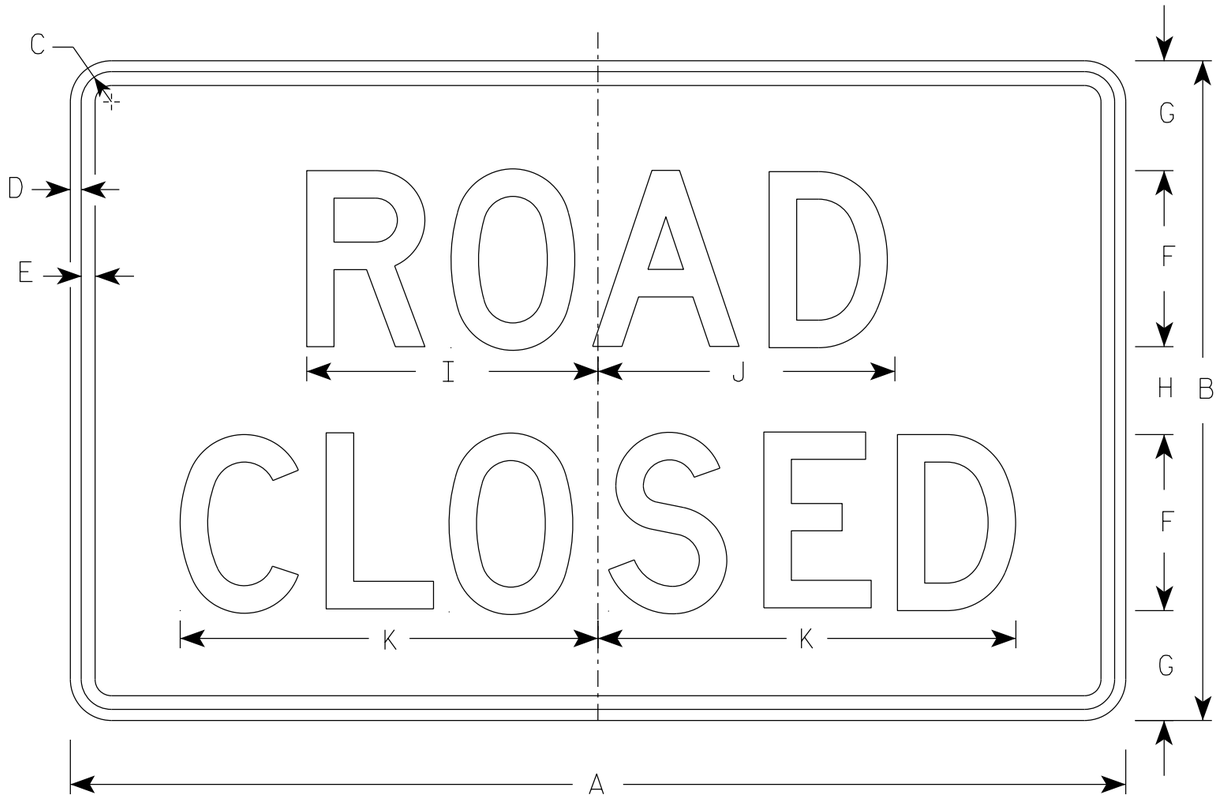
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/13 PLATE NO. R10-50.2

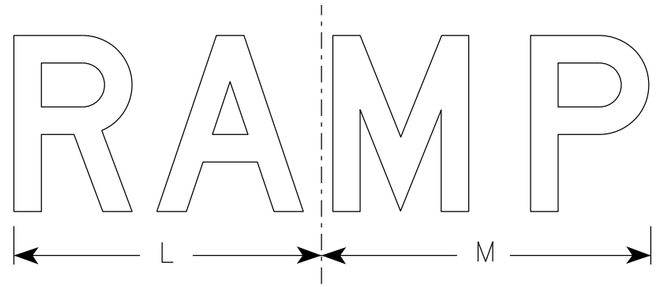
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 546	E



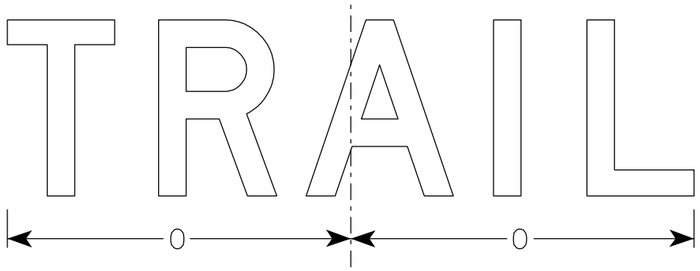
R11-2

NOTES

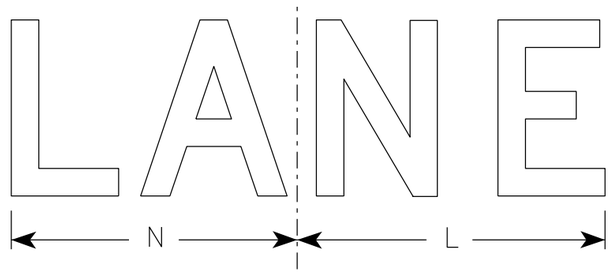
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

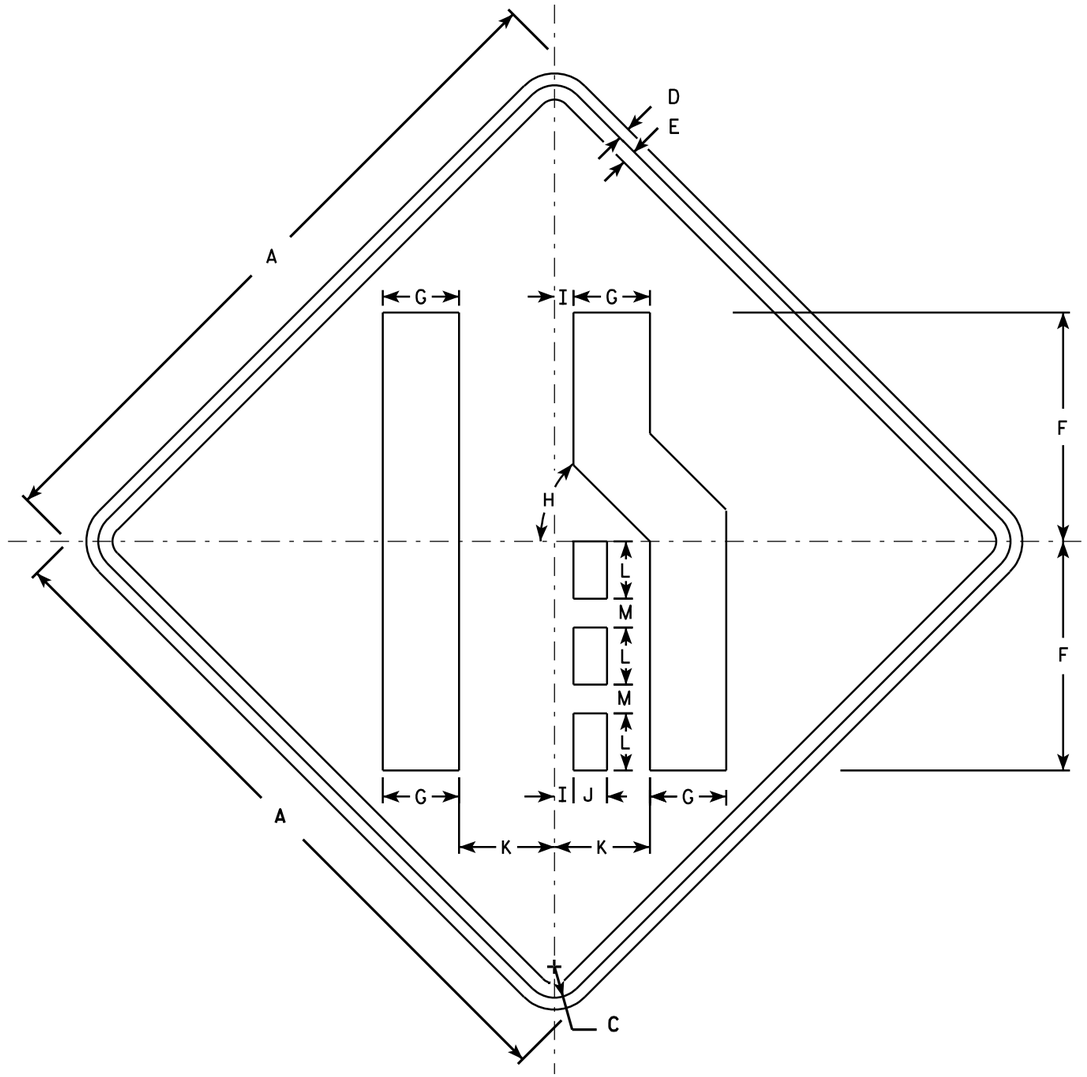
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 547	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

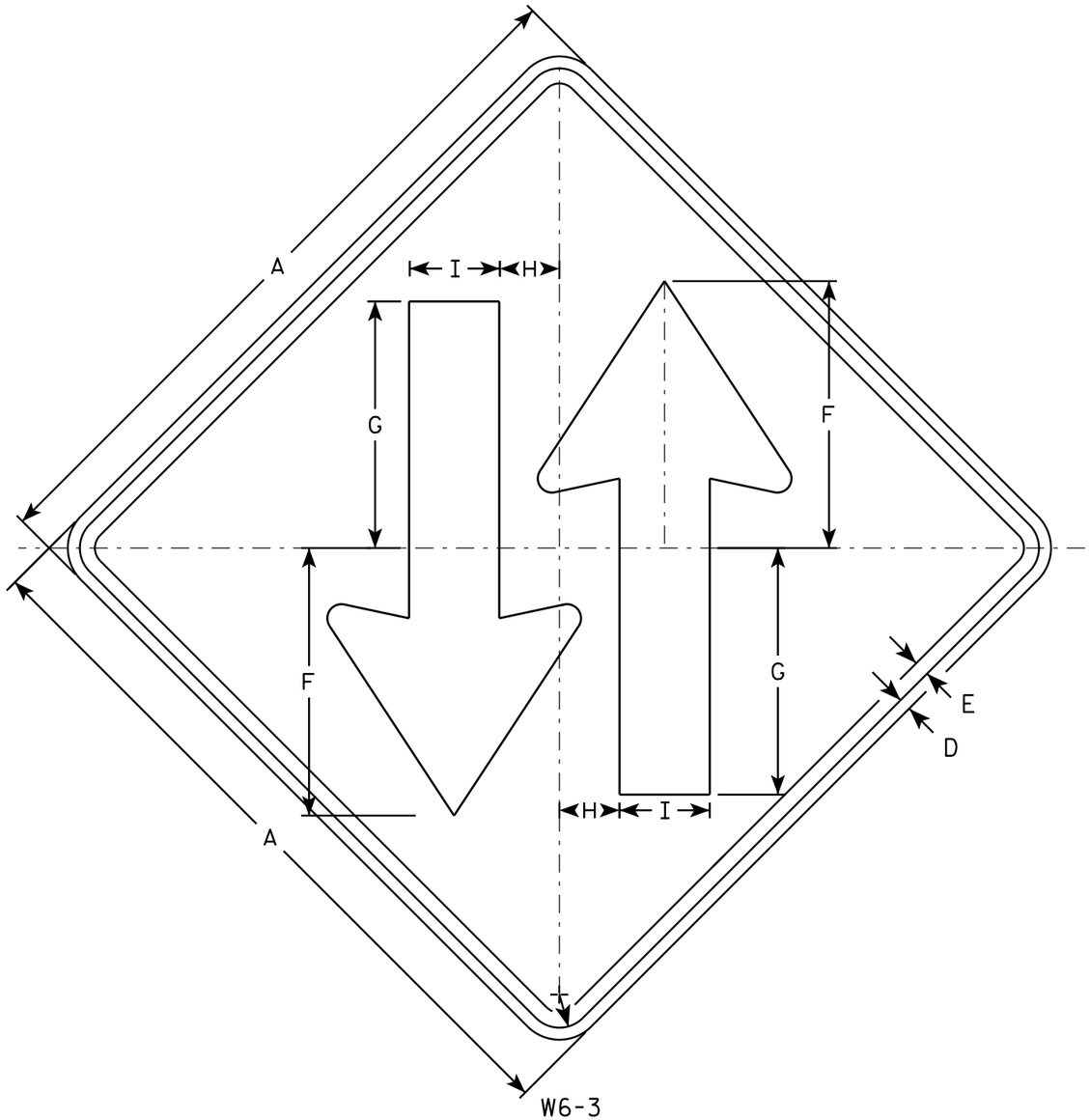
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

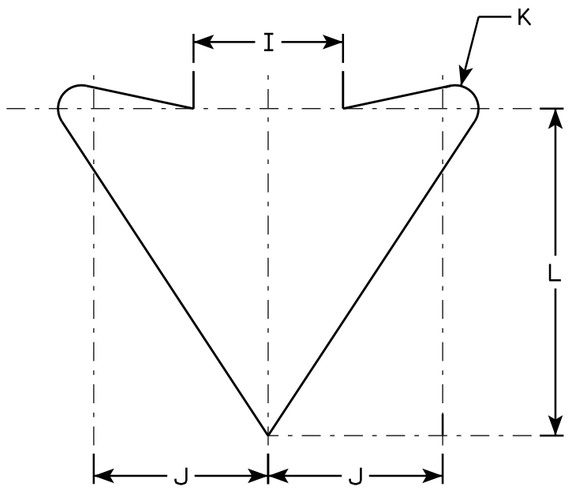
SHEET NO: 548 E



W6-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

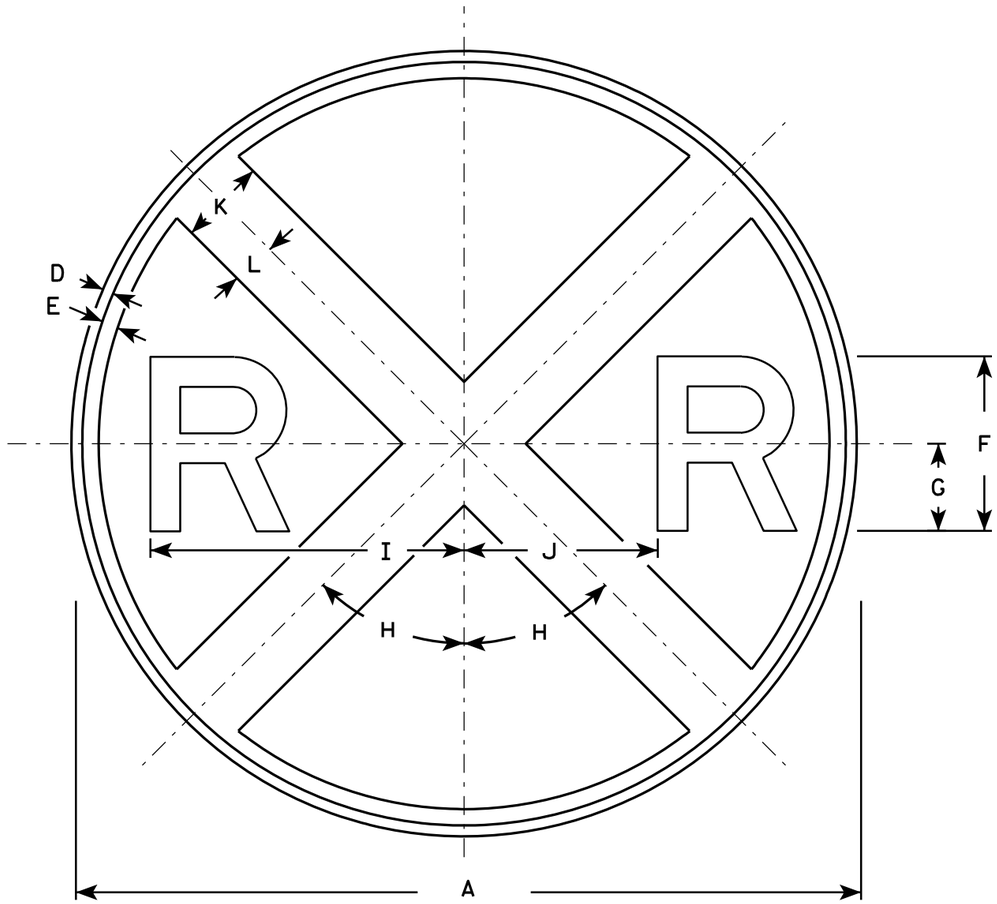
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W10-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

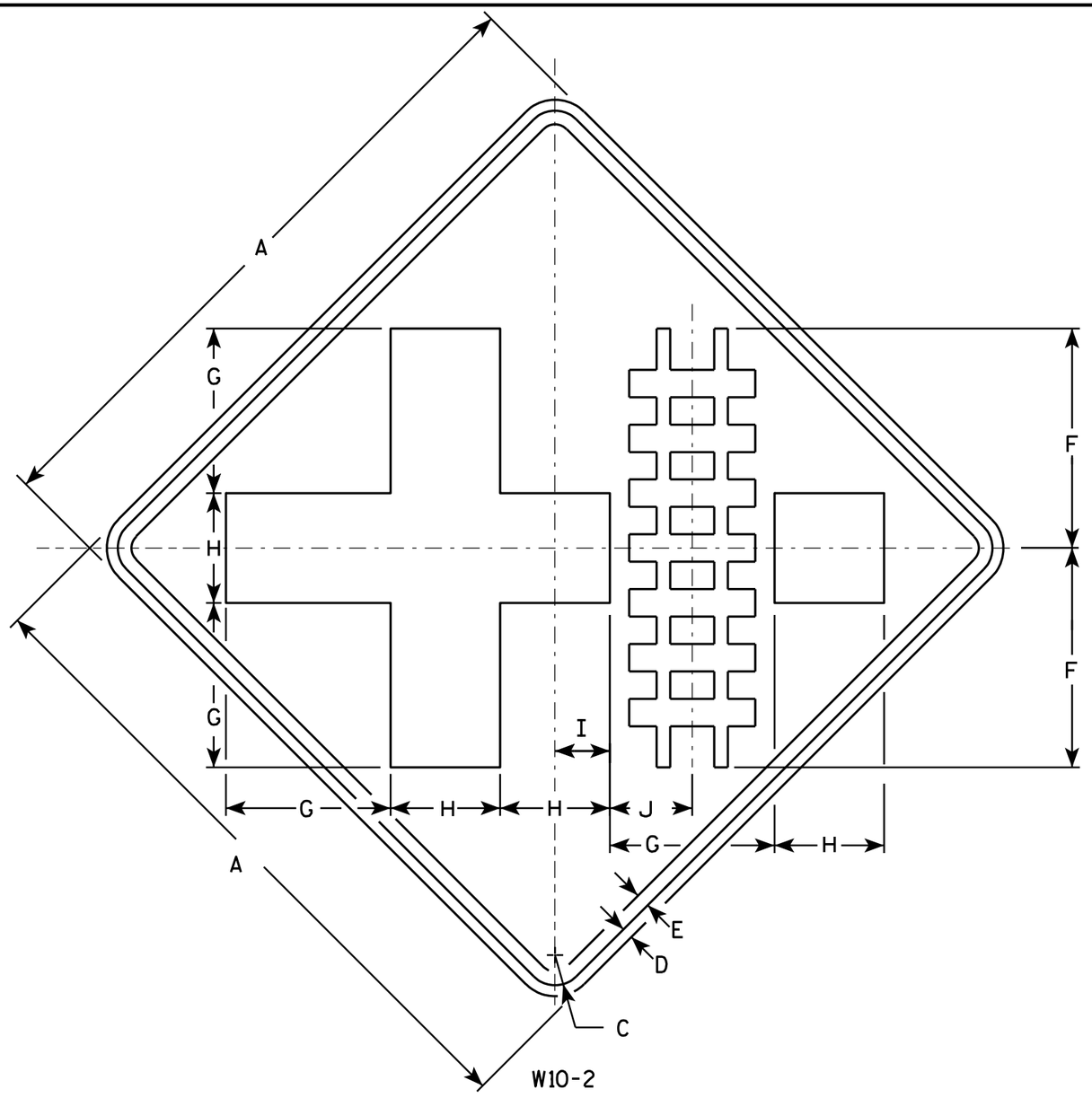
STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

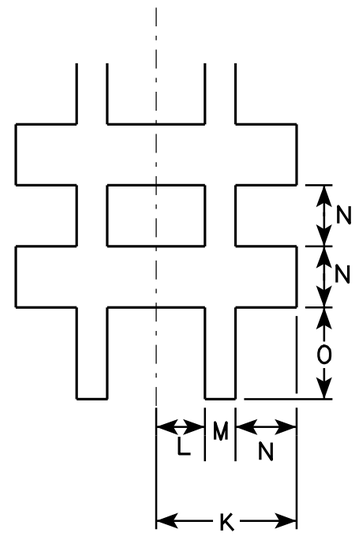
DATE 3/13/13 PLATE NO. W10-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 550	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

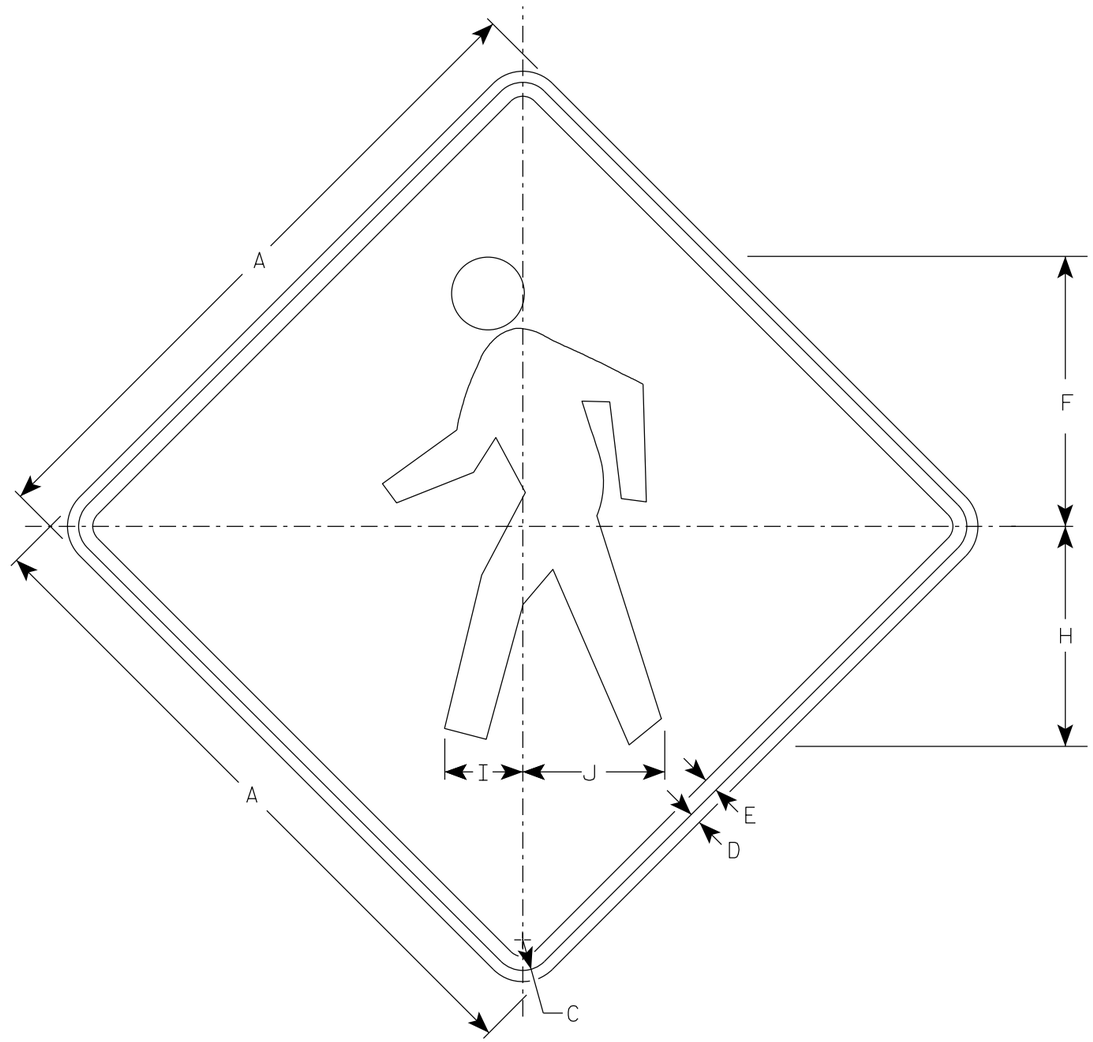
STANDARD SIGN
W10-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-2.8

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 551 | E



W11-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

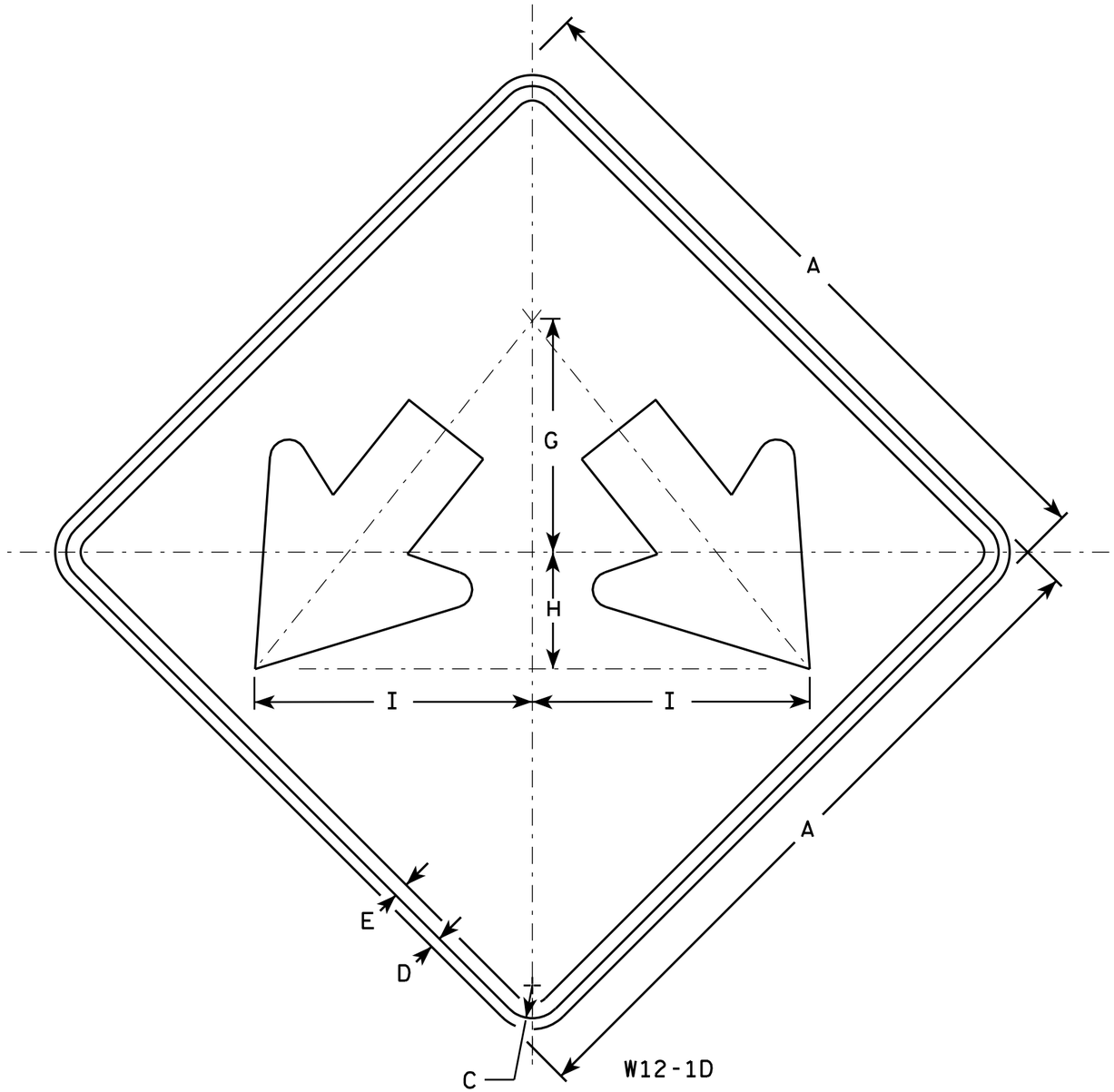
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

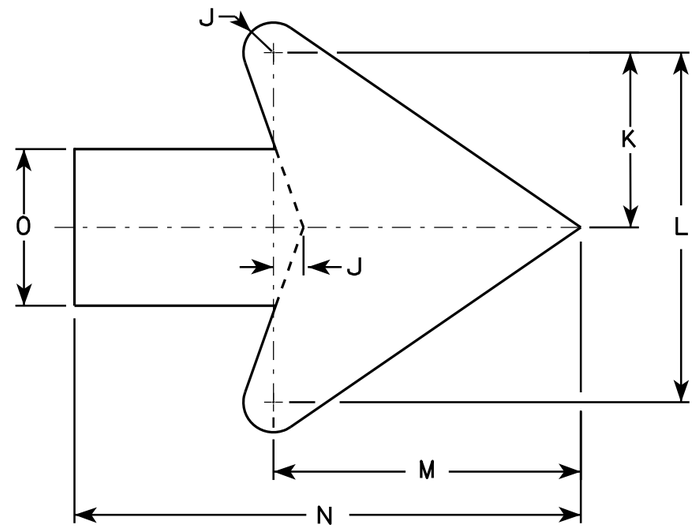
DATE 4/8/2020 PLATE NO. W11-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 552	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

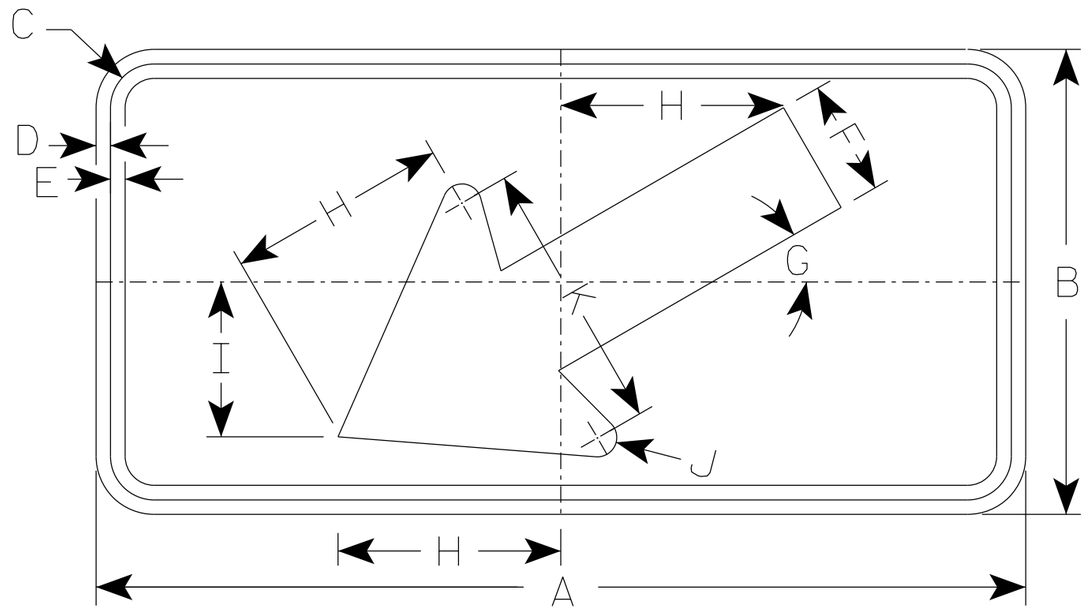
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 553	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

7



W16-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W16-7R is the same as W16-7L except the arrow is reversed along the vertical centerline.

* For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
* 2M	30	18	1 1/8	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 3	30	18	1 1/8	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 4	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

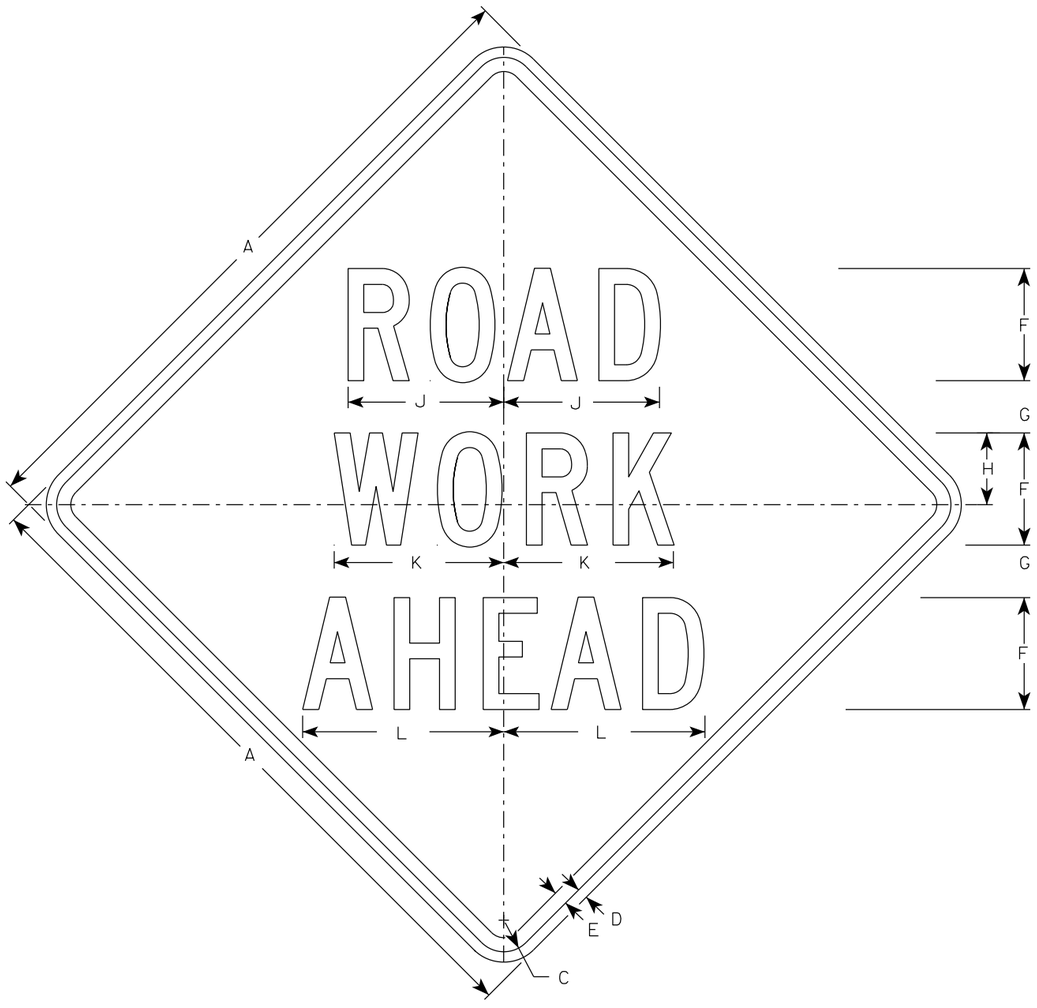
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/2021 PLATE NO. W16-7.8

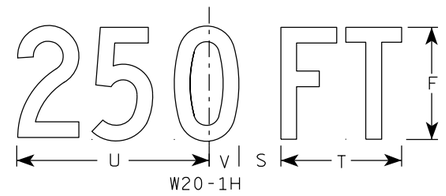
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 554	E

NOTES

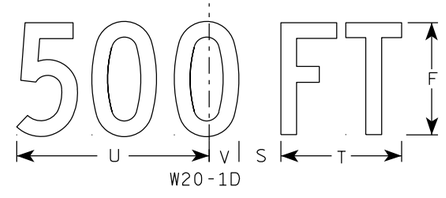
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



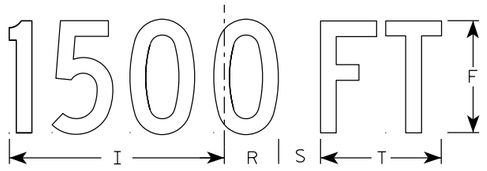
W20-1H



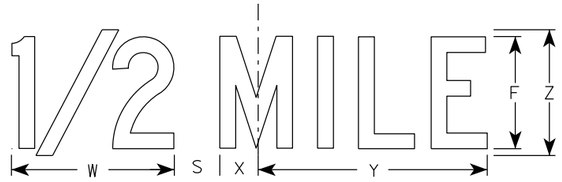
W20-1D



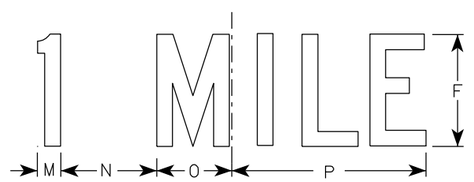
W20-1C



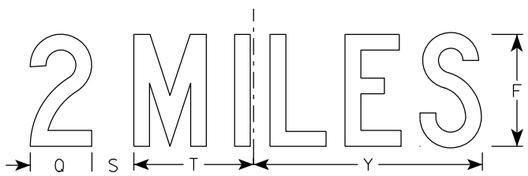
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

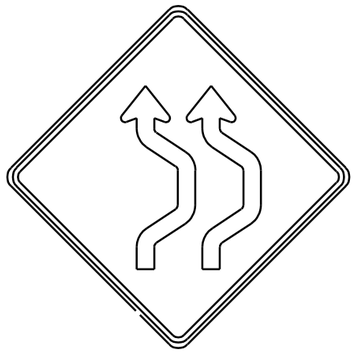
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

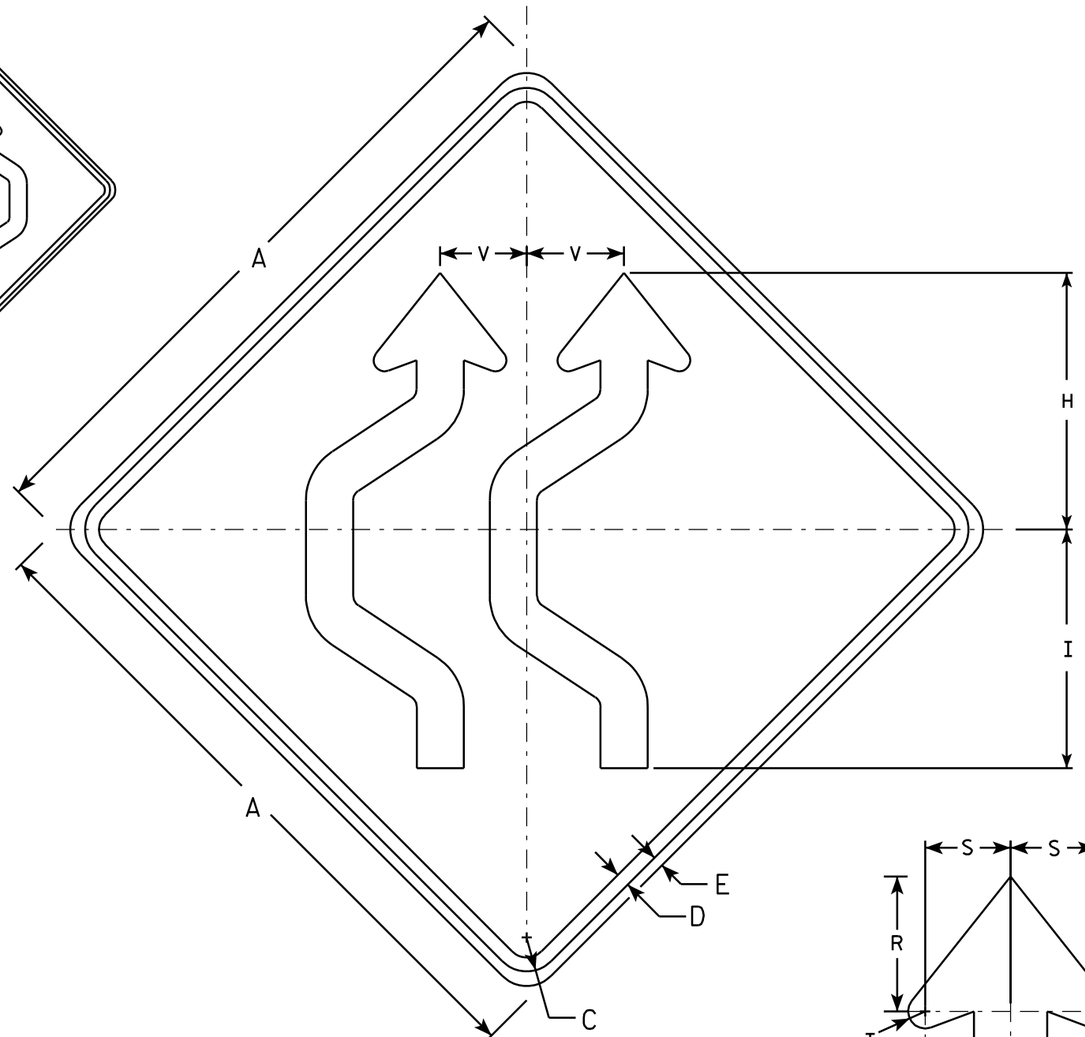
WISDOT/CADDS SHEET 42

7

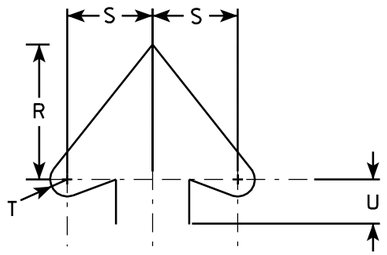
7



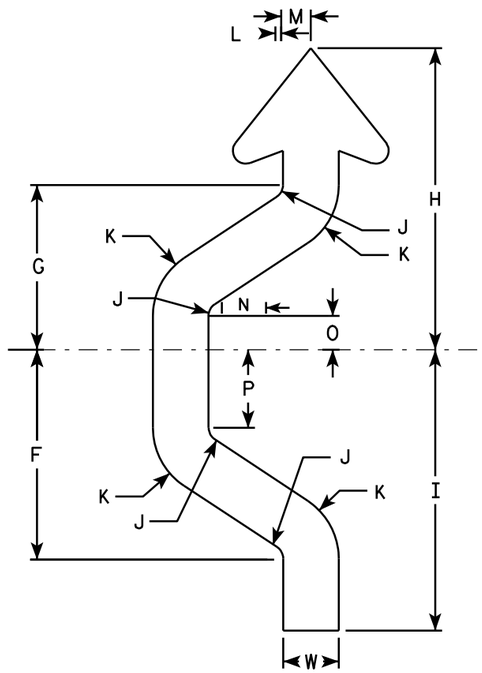
W24-1AR



W24-1AL



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W24-1R is the same as W24-1L except reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	5/8	1/2	9 1/2	7 1/2	13 3/4	12 3/4	5/8	3 1/8	3/8	1 5/8	2 3/8	1 1/2	3 1/2		4 5/8	3	5/8	1 1/2	4 3/4	2 1/2				9
2S	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
2M	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
3	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
4	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
5	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16

STANDARD SIGN
W24-1AL

WISCONSIN DEPT OF TRANSPORTATION

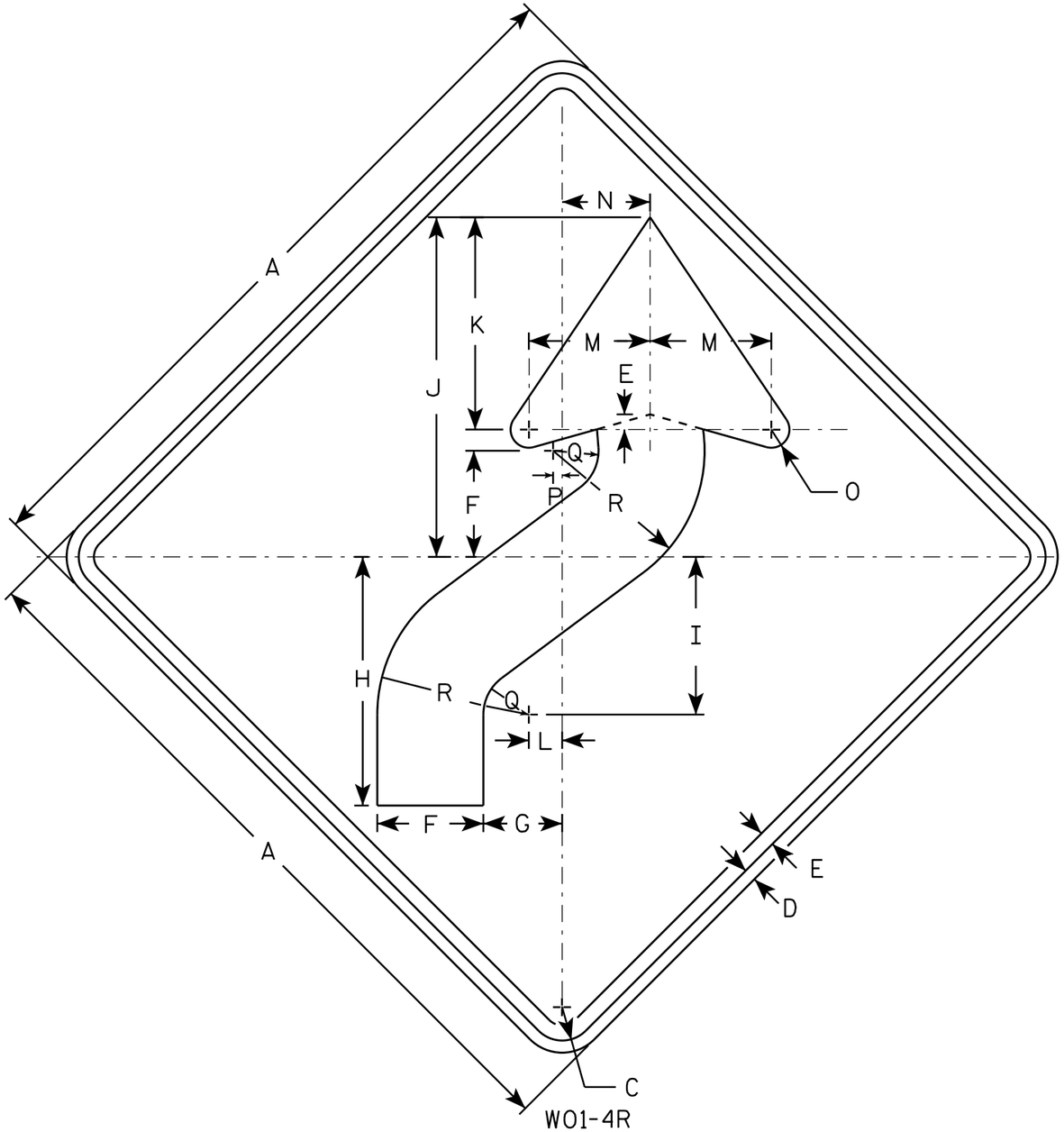
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W24-1AL.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 556 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W241AL.DGN PLOT DATE : 21-MAR-2011 13:22 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 10.924915:1.000000

WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

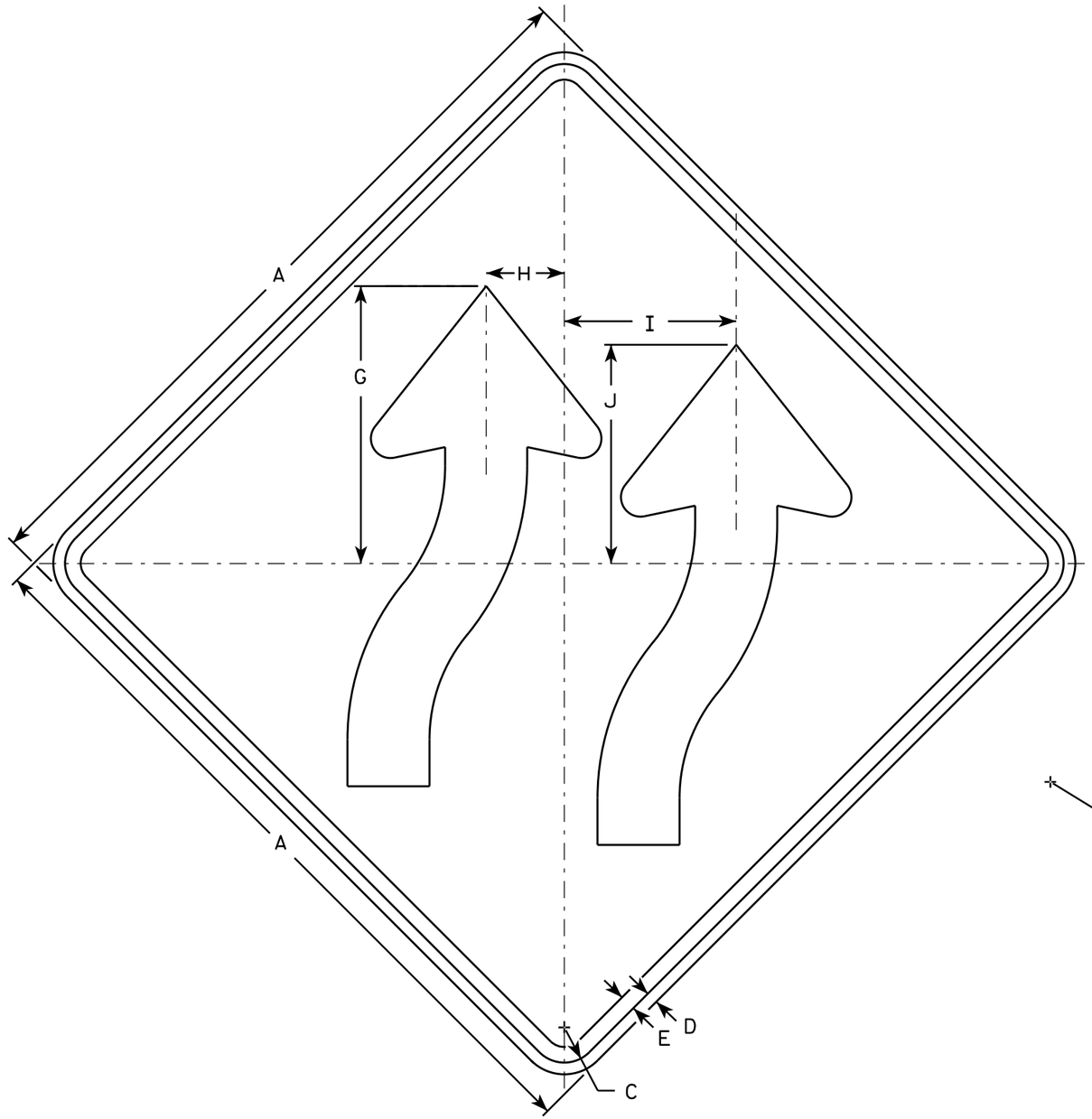
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

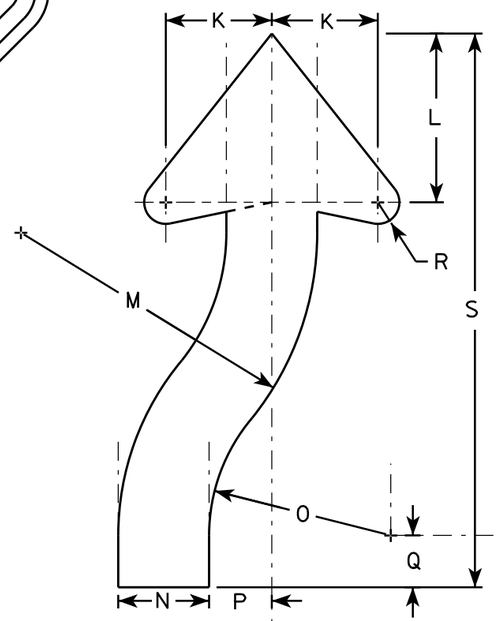
DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

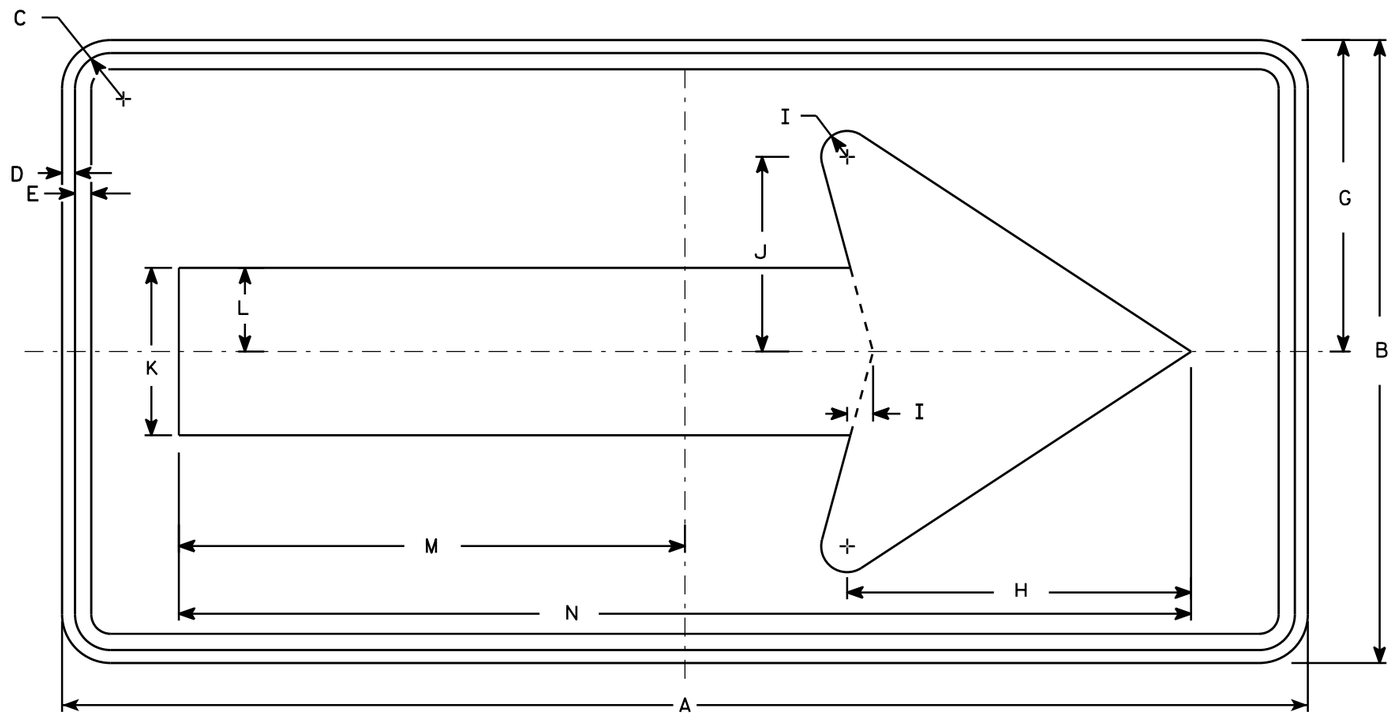
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

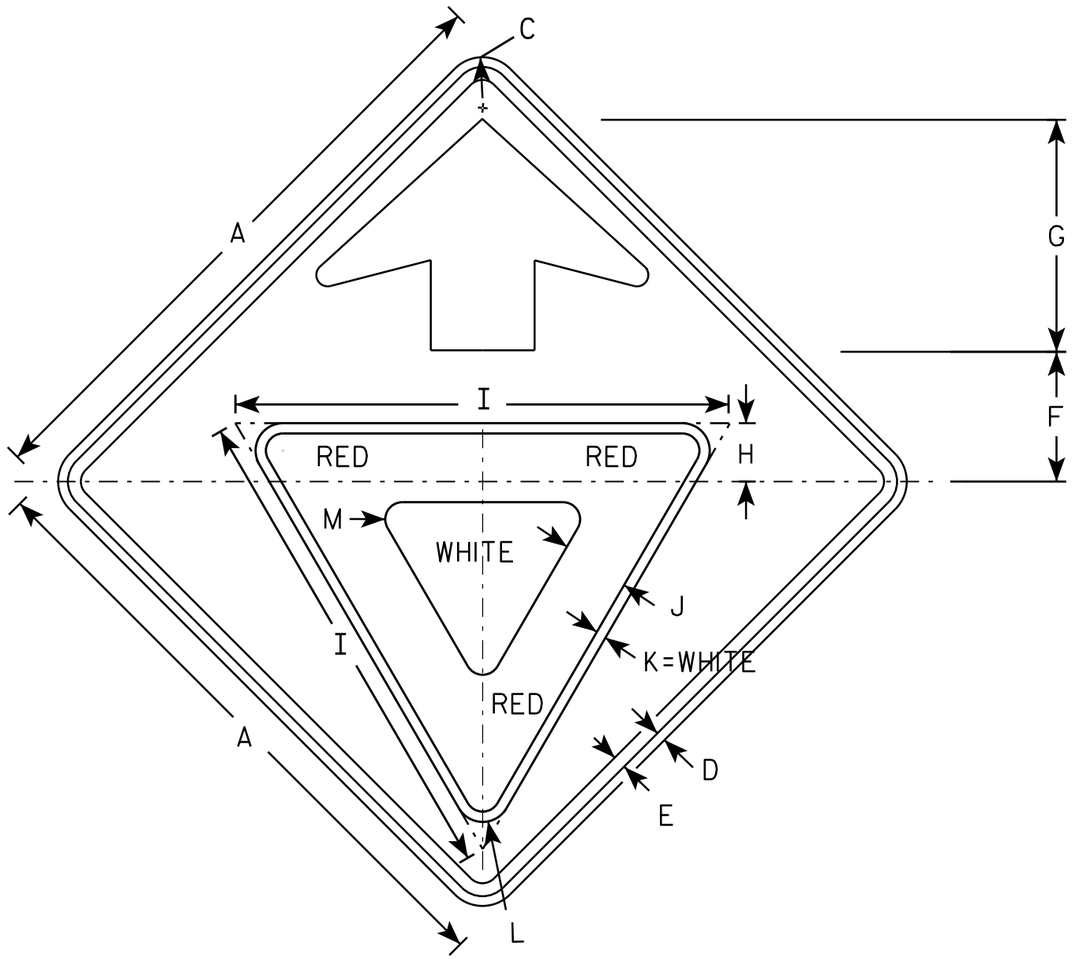
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

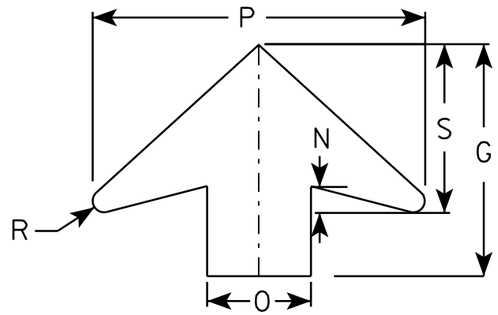
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

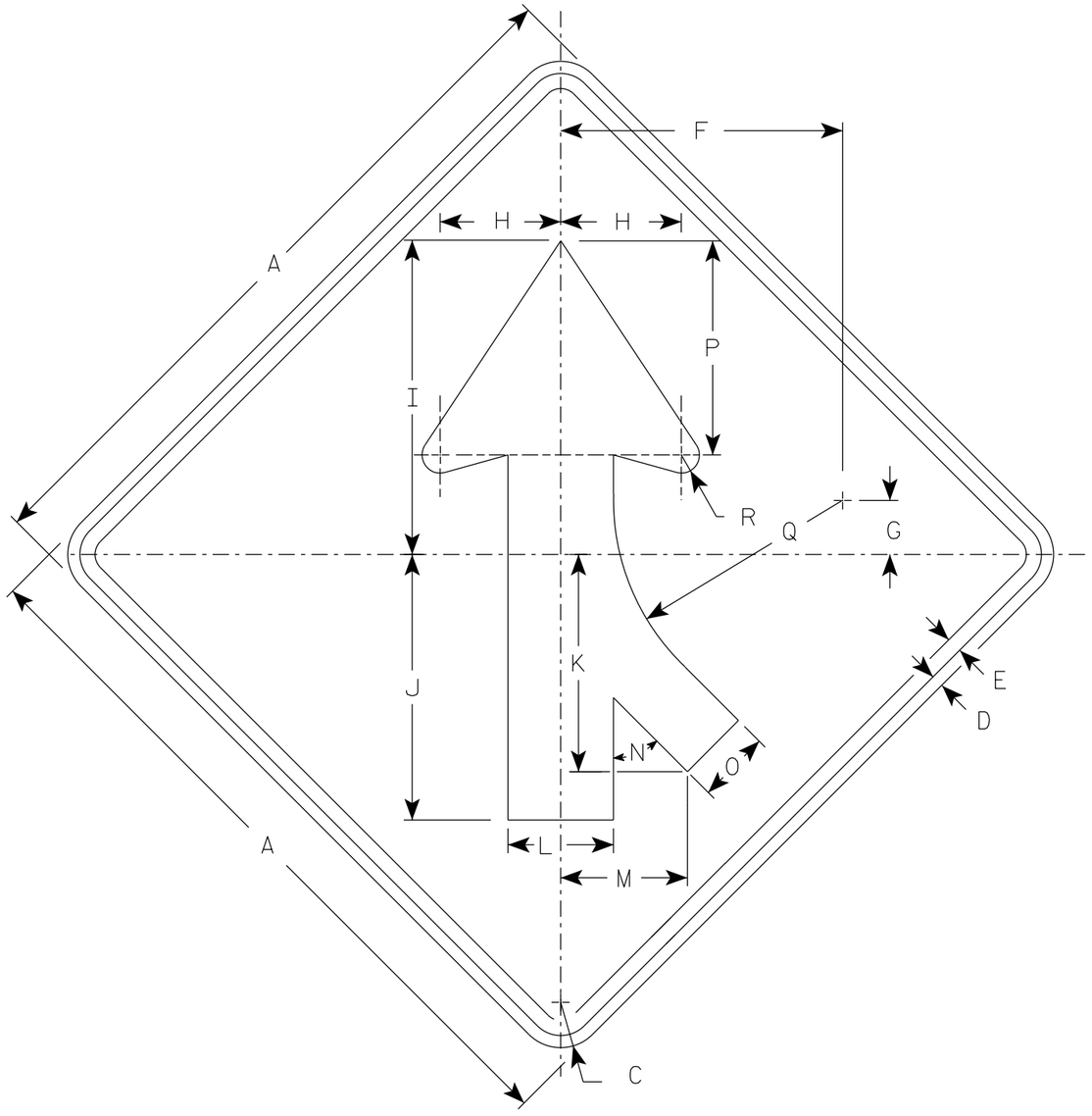
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E



W04-1R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-1L is the same as W04-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. W04-1.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

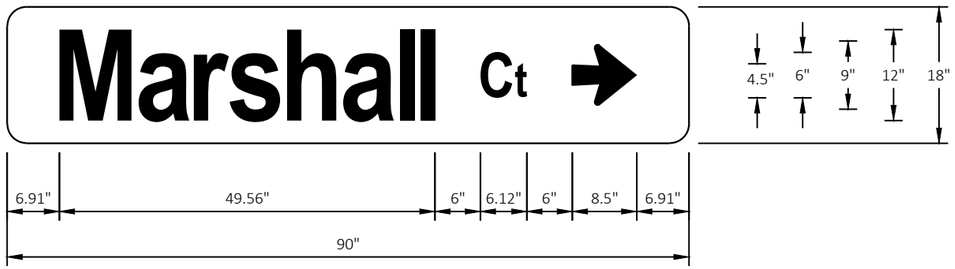
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W041.dgn PLOT DATE : 30-MAR 2021 8:25 PLOT BY : dotc4c PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

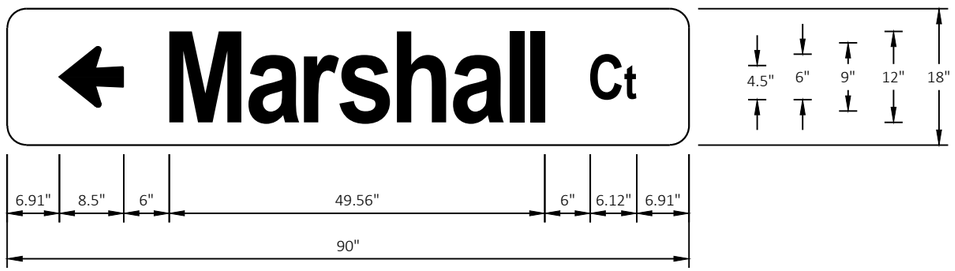
7

7

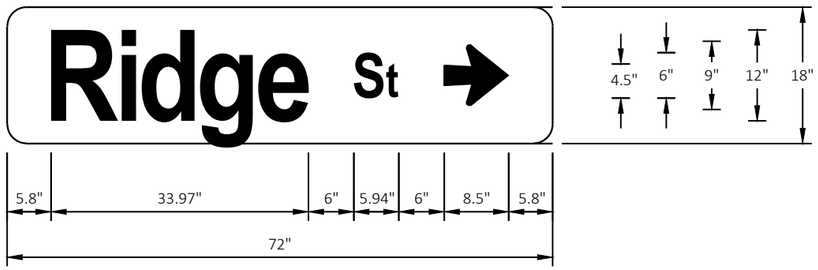
4-02 7-07



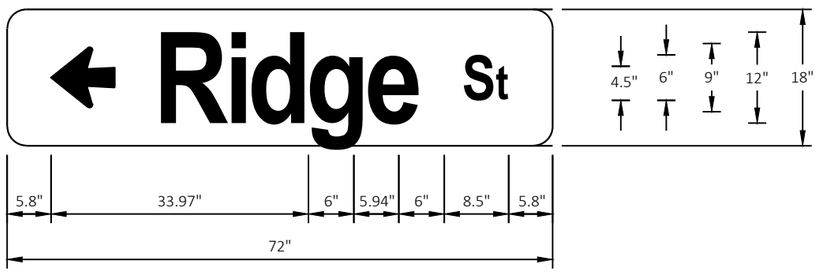
4-30 7-06



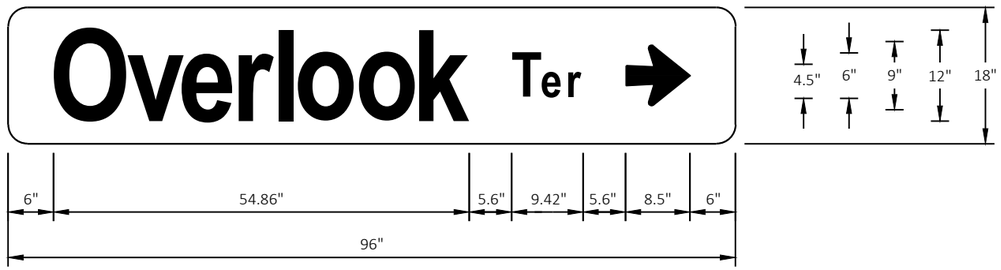
4-17



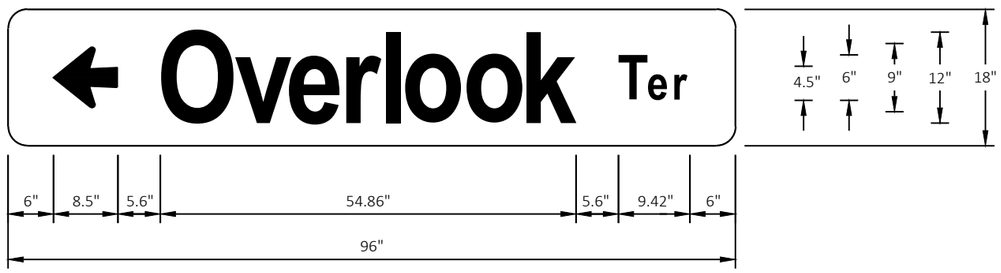
4-18



7-11



7-10



NOTES:

1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
2. COLOR:
   BACKGROUND - GREEN
   MESSAGE - WHITE
3. MESSAGE SERIES - C EXCEPT AS NOTED

7

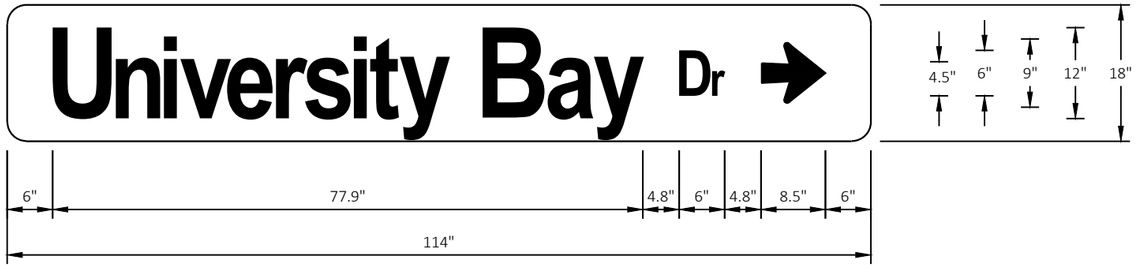
7

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 562	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\070102-SD.DWG
LAYOUT NAME - SD 2
PLOT DATE : 10/27/2021 10:25 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

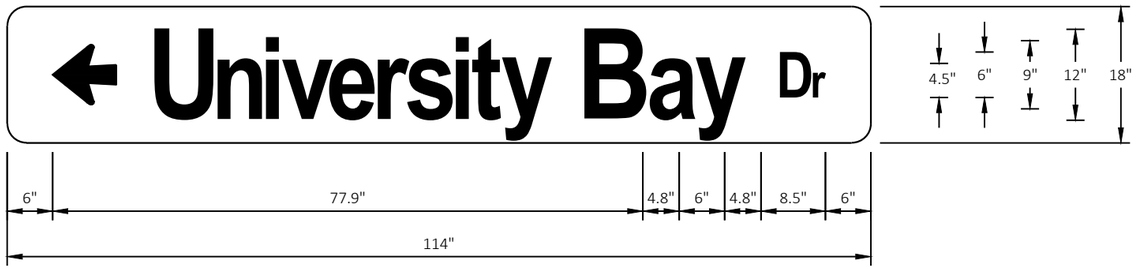
6-05

* MESSAGE SERIES B

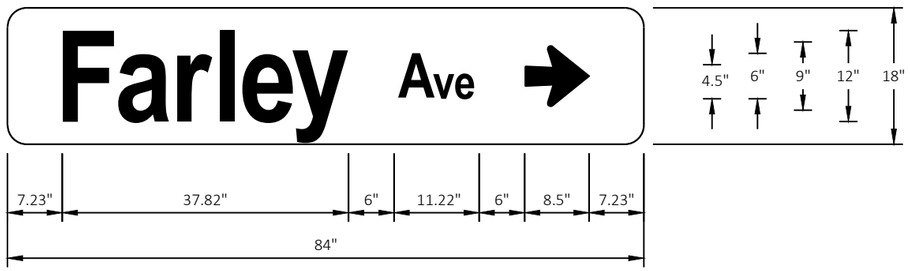


6-06

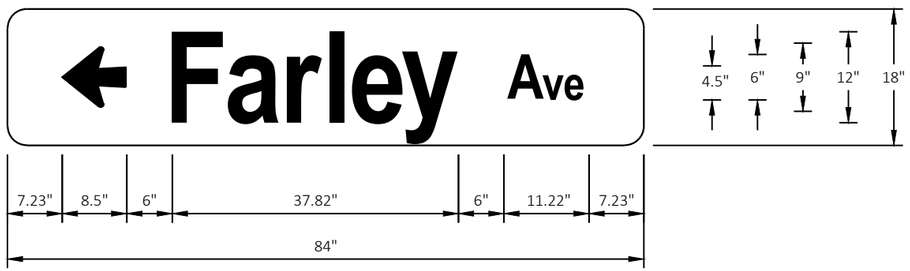
* MESSAGE SERIES B



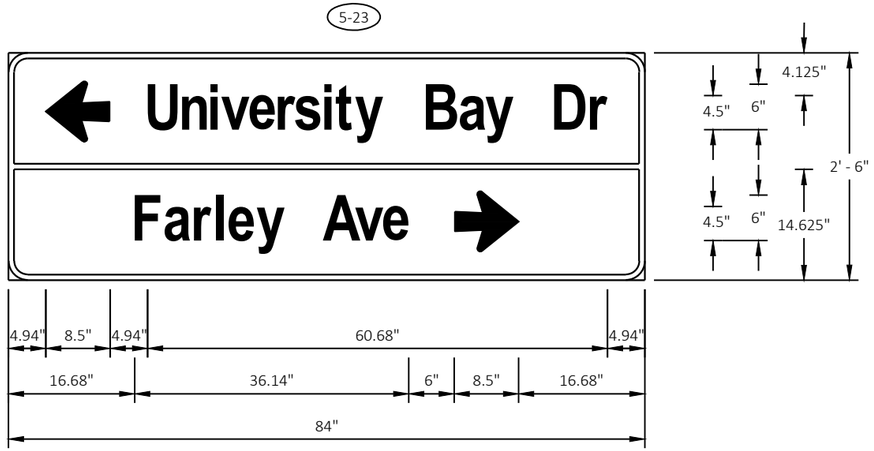
6-32



6-31



5-23



NOTES:

1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
2. COLOR:
   BACKGROUND - GREEN
   MESSAGE - WHITE
3. MESSAGE SERIES - C EXCEPT AS NOTED

7

7

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 563	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\070102-SD.DWG
LAYOUT NAME - SD 3

PLOT DATE : 10/27/2021 10:19 AM PLOT BY : JENNIFER LAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT

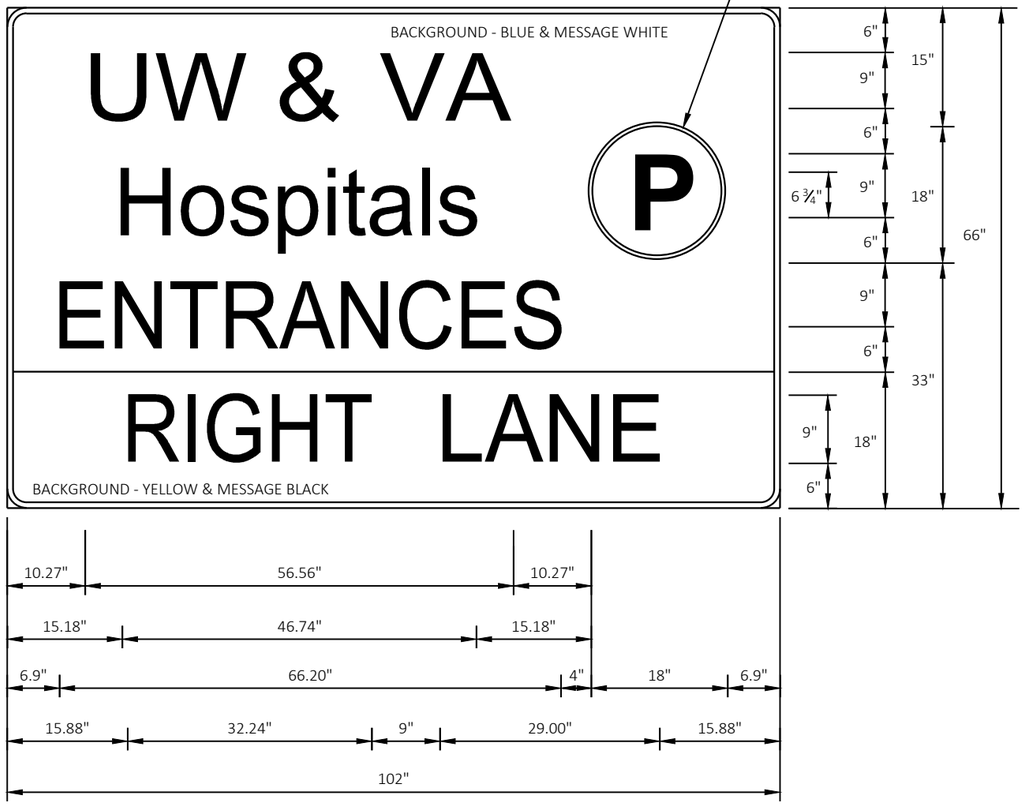
WISDOT/CADDS SHEET 42

NOTES:

1. ALL SIGNS TYPE I - TYPE SH REFLECTIVE
2. COLOR:
   BACKGROUND - AS NOTED
   MESSAGE - AS NOTED
3. MESSAGE SERIES - D

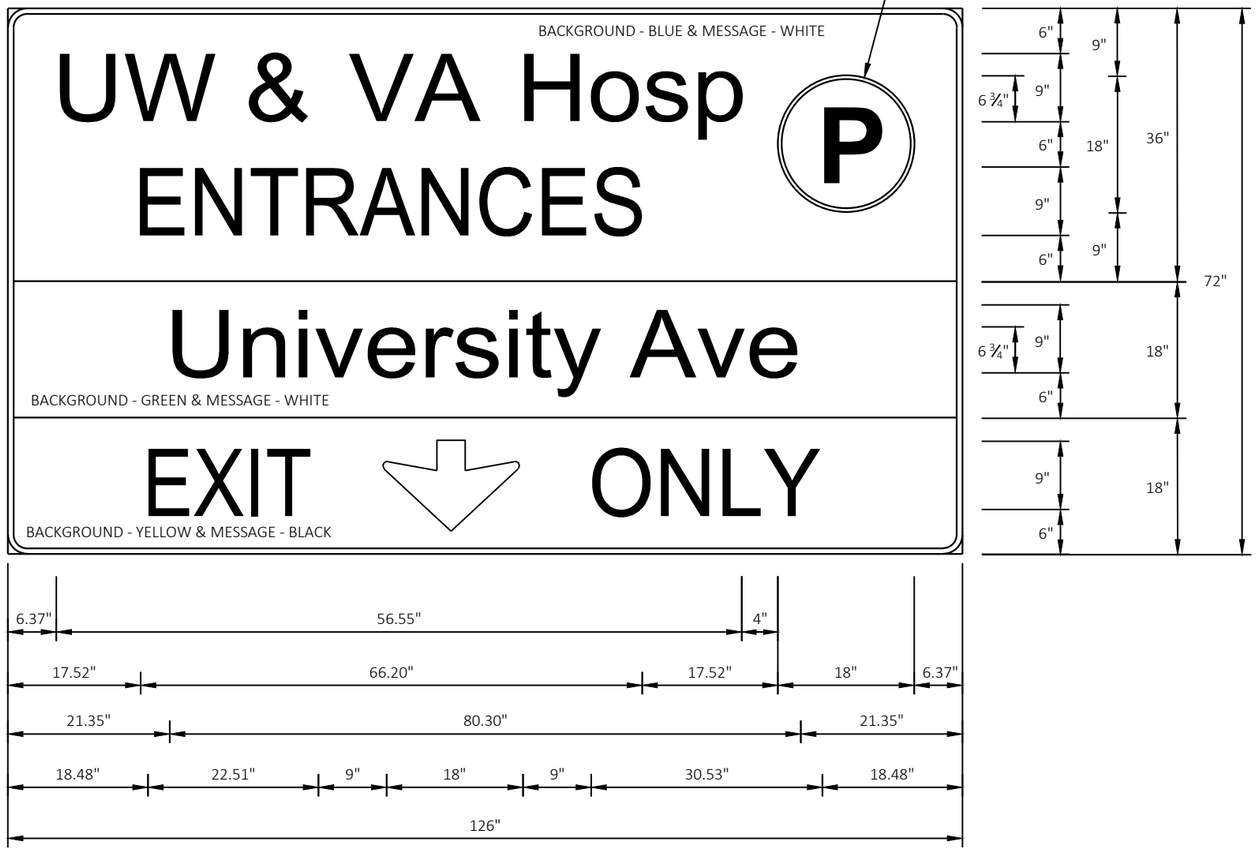
2-18 4-23

PARKING SYMBOL
1/2 - INCH WHITE BORDER
"P" IS 10-INCH SERIES E MODIFIED
GREEN BACKGROUND
18-INCH OUTSIDE DIAMETER



5-16 8-03

PARKING SYMBOL
1/2 - INCH WHITE BORDER
"P" IS 10-INCH SERIES E MODIFIED
GREEN BACKGROUND
18-INCH OUTSIDE DIAMETER



7

7

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 564	E

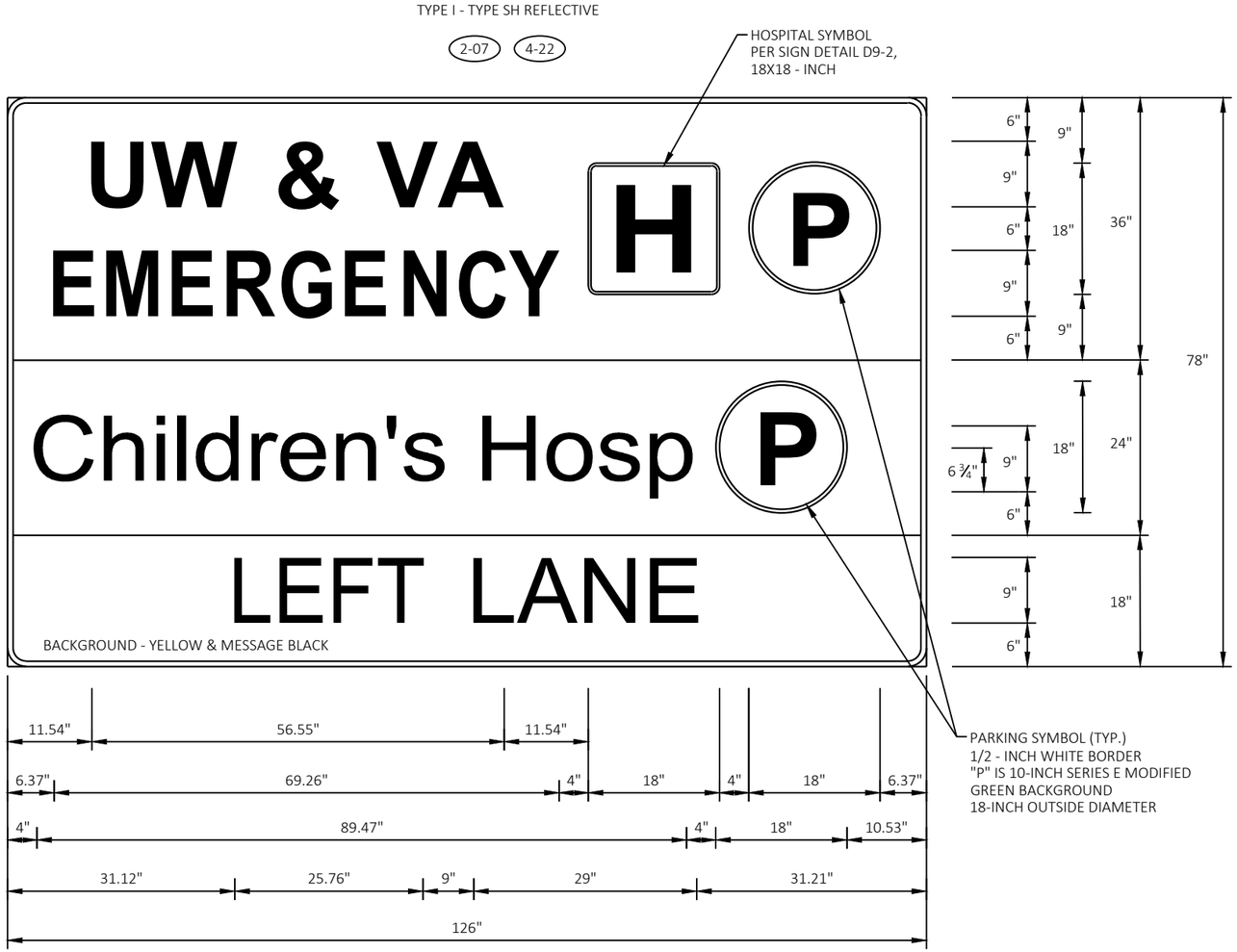
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\070102-SD.DWG
LAYOUT NAME - SD 4

PLOT DATE : 1/4/2022 10:21 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

TYPE I - TYPE SH REFLECTIVE

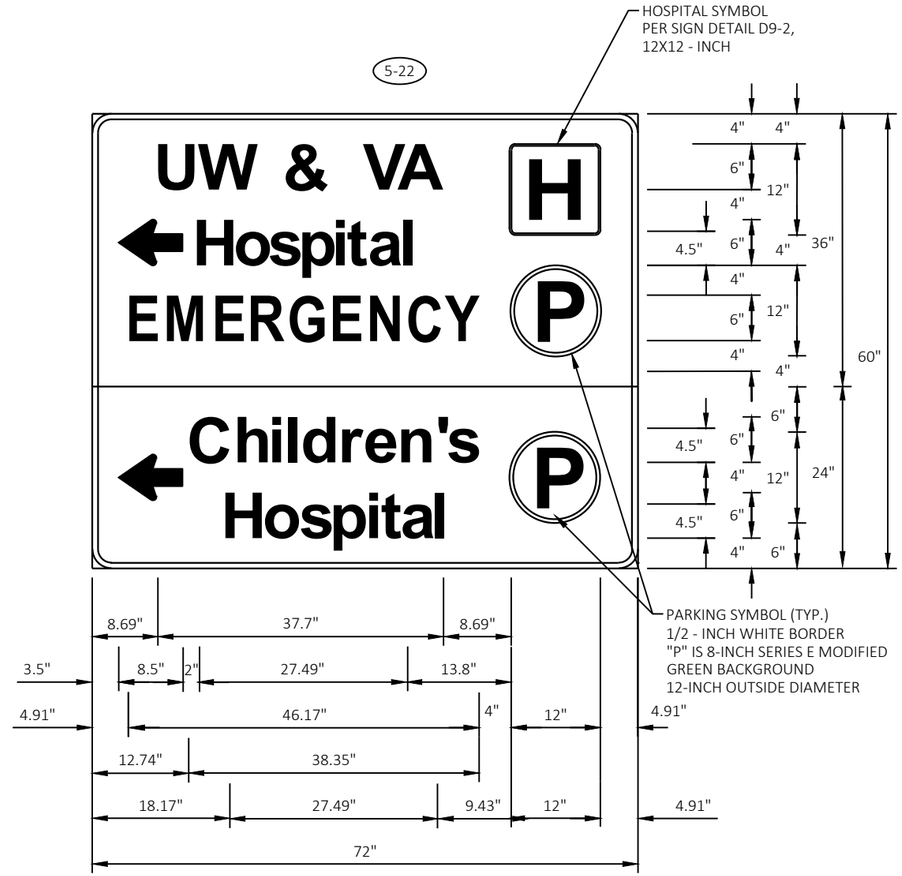
2-07 4-22



NOTES:

1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
2. COLOR:
   BACKGROUND - BLUE
   MESSAGE - WHITE
3. MESSAGE SERIES - D EXCEPT AS NOTED

5-22



7

7

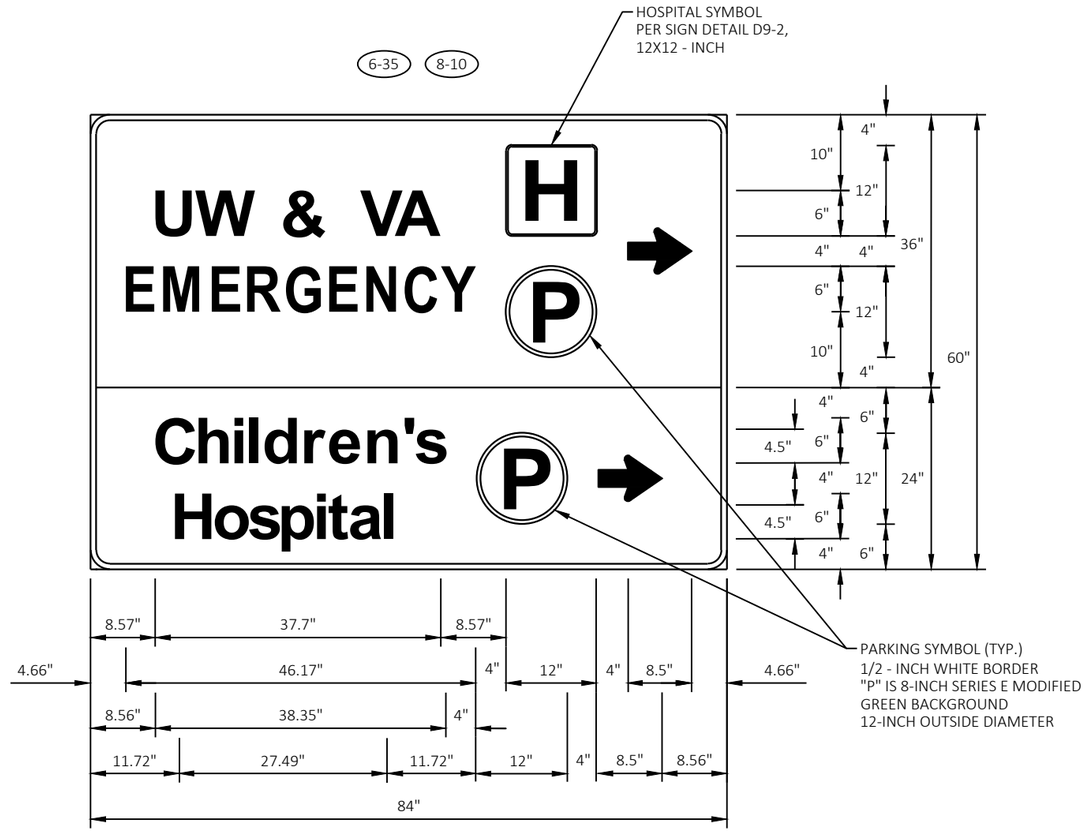
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 565	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\070102-SD.DWG
LAYOUT NAME - SD 5

PLOT DATE : 12/17/2021 8:05 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:20 FT

NOTES:

1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
2. COLOR:
   BACKGROUND - BLUE
   MESSAGE - WHITE
3. MESSAGE SERIES - D



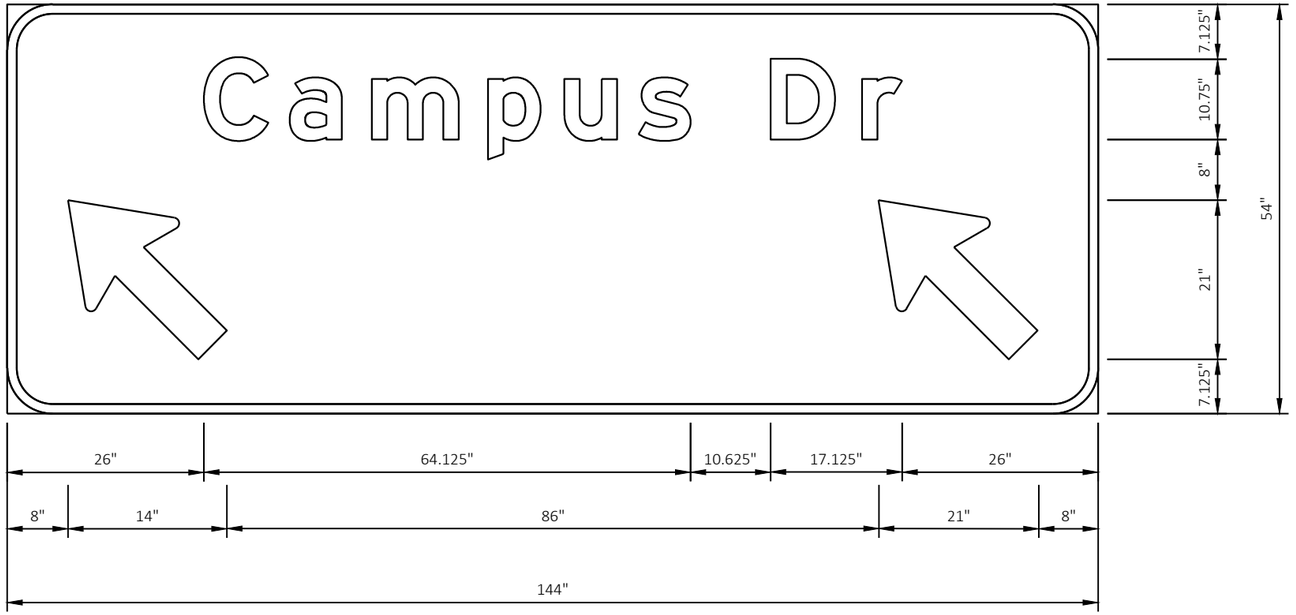
7

7

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 566	E

NOTES:

1. ALL SIGNS TYPE I - TYPE SH REFLECTIVE
2. COLOR:
   BACKGROUND - GREEN EXCEPT AS NOTED
   MESSAGE - WHITE
3. MESSAGE SERIES - E EXCEPT AS NOTED
4. EXIT ONLY PANEL IS ON YELLOW TYPE F REFLECTIVE SHEETING WITH BLACK NON REFLECTIVE MESSAGE



6.000" RADIUS, 1.250" BORDER, WHITE ON GREEN

7

7

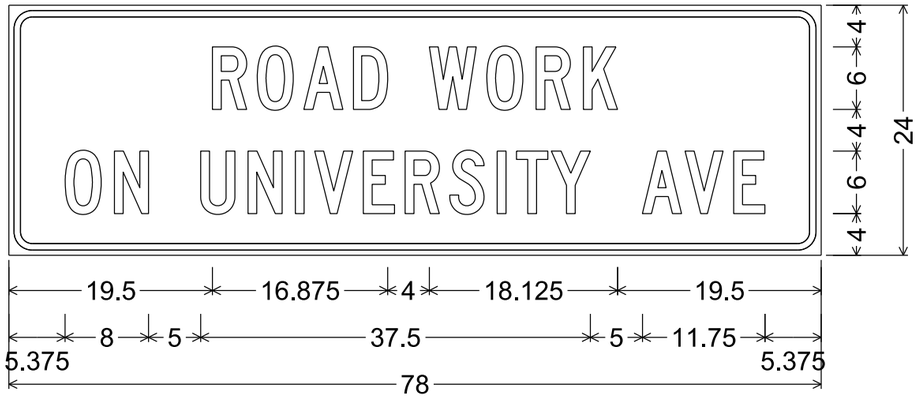
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	SPECIAL SIGN DETAILS	SHEET 567	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\05 PLAN DETAILS\070102-SD.DWG
LAYOUT NAME - SD 1

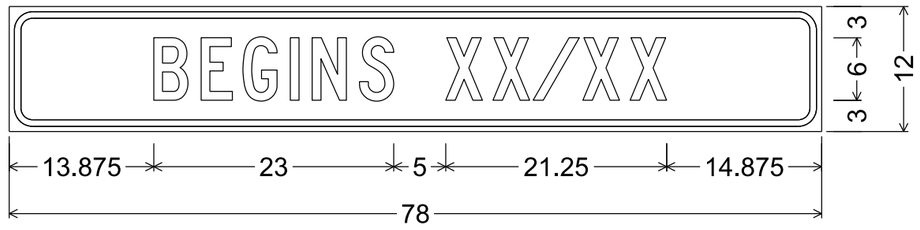
PLOT DATE : 12/17/2021 7:57 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE : 1 IN:20 FT

NOTES

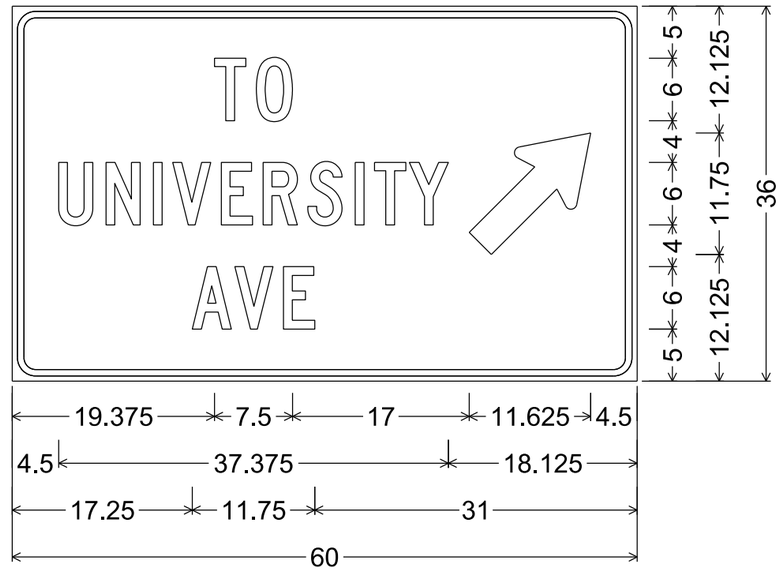
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent

7

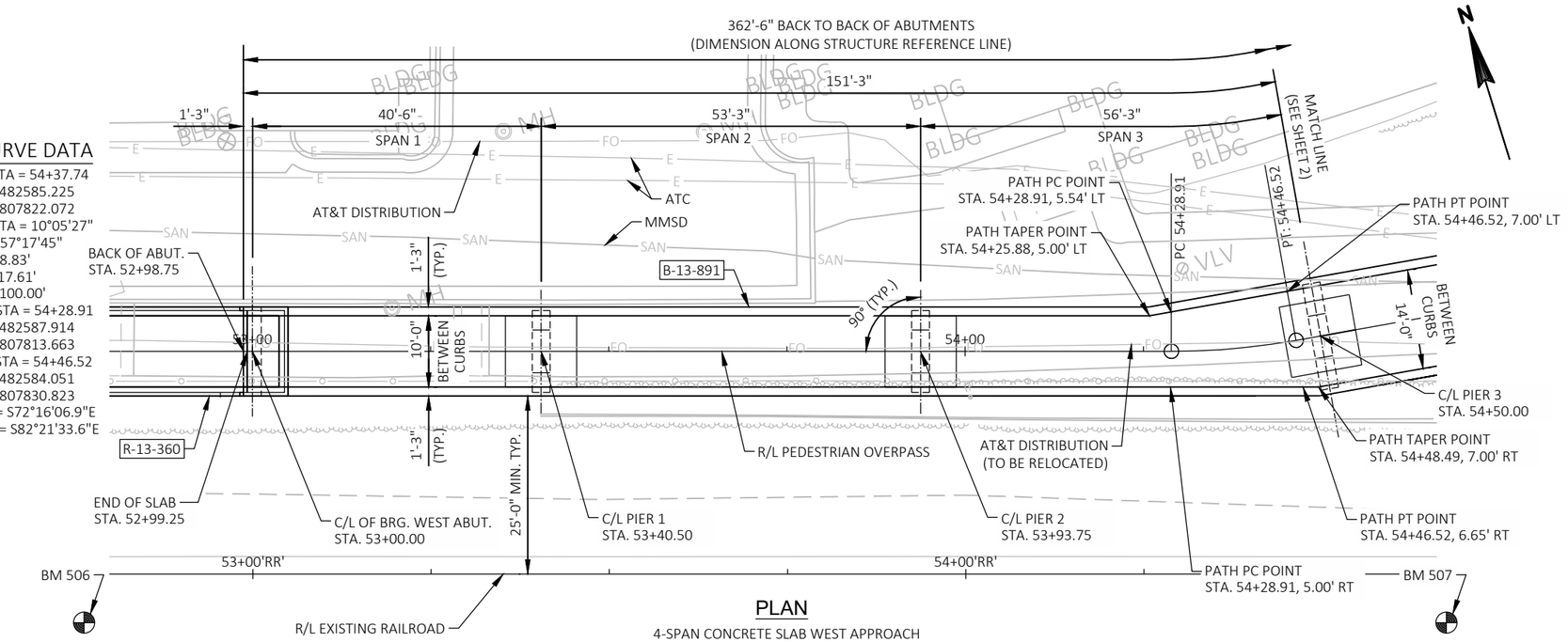
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STATE PROJECT NUMBER

5992–11–31

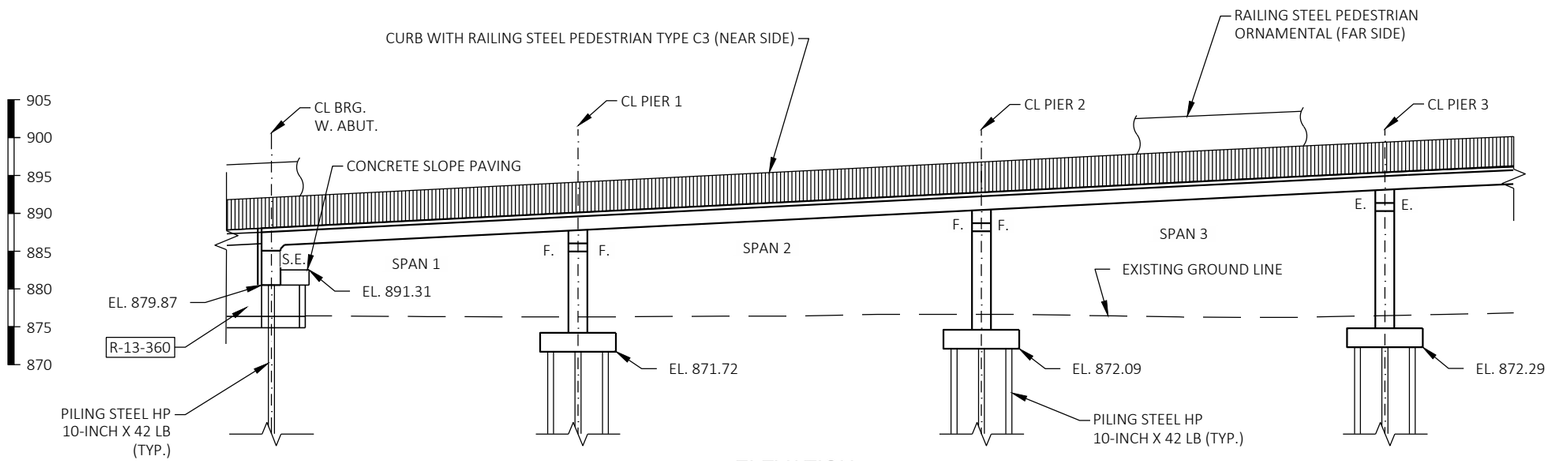
CURVE DATA

PI STA = 54+37.74
Y = 482585.225
X = 807822.072
DELTA = 10°05'27"
D = 57°17'45"
T = 8.83'
L = 17.61'
R = 100.00'
PC STA = 54+28.91
Y = 482587.914
X = 807813.663
PT STA = 54+46.52
Y = 482584.051
X = 807830.823
BK = S72°16'06.9"E
AH = S82°21'33.6"E



PLAN

4-SPAN CONCRETE SLAB WEST APPROACH
SINGLE SPAN PREFABRICATED PEDESTRIAN TRUSS
2-SPAN CONCRETE SLAB EAST APPROACH



ELEVATION

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN 1
2. GENERAL PLAN 2
3. CROSS SECTIONS & PROFILE
4. QUANTITIES & GENERAL NOTES
5. SUBSURFACE EXPLORATION 1
6. SUBSURFACE EXPLORATION 2
7. WEST ABUTMENT
8. WEST ABUTMENT DETAILS
9. EAST ABUTMENT
10. EAST ABUTMENT DETAILS
11. EAST & WEST ABUTMENT DETAILS
12. PIER 1
13. PIER 1 DETAILS
14. PIER 2
15. PIER 2 DETAILS
16. PIER 3
17. PIER 3 DETAILS
18. PIER 4
19. PIER 4 DETAILS
20. PIER 5
21. PIER 5 DETAILS
22. PIER 6
23. PIER 6 DETAILS
24. AESTHETIC DETAILS
25. SUPERSTR PLAN SPAN 1-2
26. TYPICAL SECTIONS SPAN 1-2
27. SUPERSTR PLAN SPAN 3-4
28. TYPICAL SECTIONS SPAN 3-4
29. SUPERSTR DETAILS-1 SPAN 1-4
30. SUPERSTR DETAILS-2 SPAN 1-4
31. SUPERSTR PLAN SPAN 6-7
32. TYPICAL SECTIONS SPAN 6-7
33. SUPERSTR DETAILS-1 SPAN 6-7
34. SUPERSTR DETAILS-2 SPAN 6-7
35. SUPERSTR ELEVATIONS
36. EXPANSION DEVICE PIERS 4 & 5
37. RAILING STEEL LAYOUT-1
38. RAILING STEEL LAYOUT-2
39. RAILING STEEL PEDESTRIAN TYPE C3
40. RAILING STEEL PEDESTRIAN ORNAMENTAL
41. PROTECTIVE SCREENING

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY BRIDGES, SUPERSTRUCTURE.....f'c = 4,000 P.S.I.
CONCRETE MASONRY BRIDGES, ALL OTHERS.....f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT HIGH STRENGTH , GRADE 60.....fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL ASTM A847, ASTM A588,
ASTM A606 OR ASTM A242.....fy = 50 K.S.I.
STRUCTURAL CARBON STEEL ASTM A36.....fy = 36 K.S.I.

STRUCTURE DESIGNED FOR A FUTURE WEARING SURFACE LOAD OF 20 PSF.

LIVE LOAD

90 PSF PEDESTRIAN LOAD
20,000 LB. VEHICLE LOAD (H-10)

WIND LOAD

35 PSF SUPERSTRUCTURE
20 PSF UPLIFT SUPERSTRUCTURE

WIND LOADS FOR SPAN 5 PREFABRICATED TRUSS PER AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

WIND LOADS FOR THE APPROACH SLAB SPANS PER WISDOT BRIDGE MANUAL.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH 42 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 45' LONG AT THE WEST ABUTMENT AND 45' LONG AT THE EAST ABUTMENT.

PIERS 1, 2, 3, 5 AND 6 TO BE SUPPORTED ON PILING STEEL HP 10-INCH 42 LB. DRIVEN TO A REQUIRED DRIVING RE RESISTANCE OF 120 TONS AT PIER 1, 160 TONS AT PIER 2, 150 TONS AT PIER 3, 150 TONS AT PIER 5 AND 80 TONS AT PIER 6 PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40' LONG AT PIER 1, 45' LONG AT PIER 2, 45' LONG AT PIER 3, 35' LONG AT PIER 5 AND 35' LONG AT PIER 6.

PIER 4 TO BE SUPPORTED ON A PILING STEEL HP 12-INCH X 53 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES FORMULA. ESTIMATED 40' LONG AT PIER 4.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

UNIVERSITY BAY DRIVE
A.A.D.T. = 13,100 (2021)
A.A.D.T. = 13,600 (2041)
RDS = 25 MPH
TRUCK % = 4.0%

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

WISCONSIN
CHAD D. HALVERSON
E-34364
MADISON, WI
PROFESSIONAL ENGINEER

November 15, 2021

NO.	DATE	REVISION	BY

KL Engineering
[A] Better Experience

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/06/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–13–891

MULTI–USE TRAIL OVER UNIVERSITY BAY DRIVE

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
DANE	MADISON

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

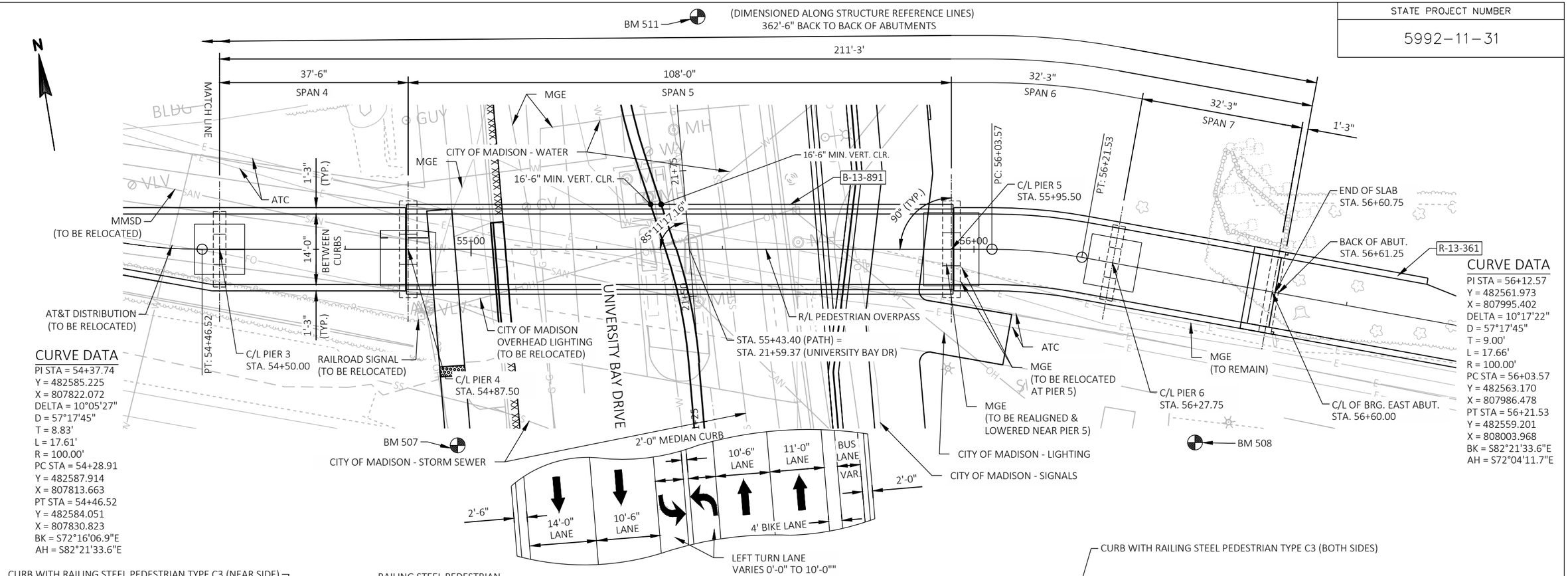
DESIGNED BY	CDH	DESIGN CK'D.	CAH	DRAWN BY	STD	PLANS CK'D.	CAH

GENERAL PLAN 1

SHEET 1 OF 41
569

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\STRUCTURE CAD\080101-GP.DWG PLOT DATE : 11/15/2021 6:27 AM PLOT BY : KL ENGINEERING

STATE PROJECT NUMBER
5992–11–31



CURVE DATA

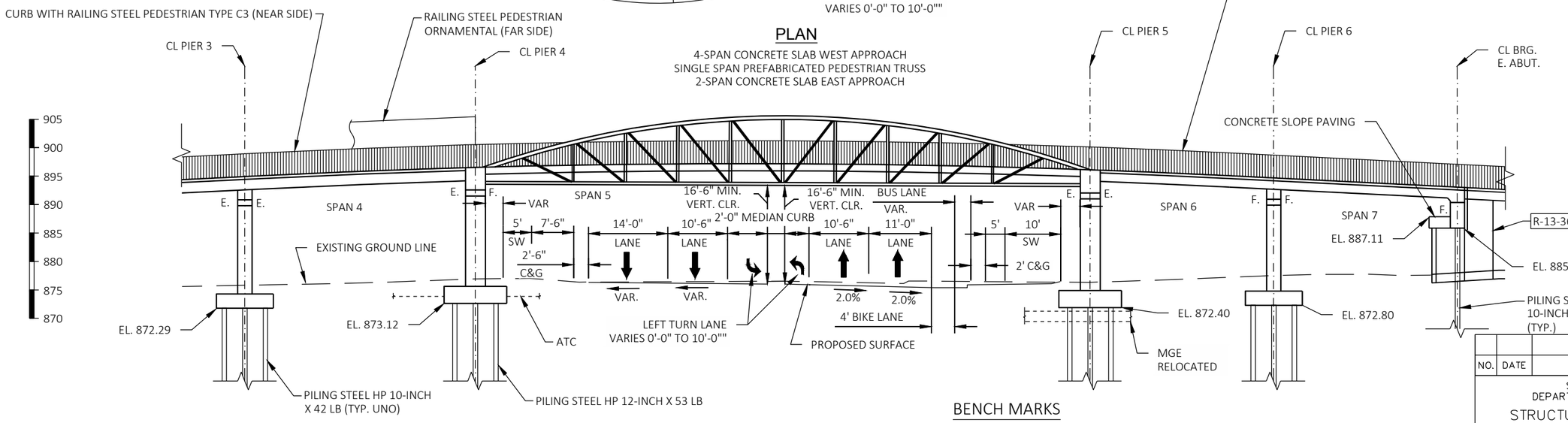
PI STA = 54+37.74
Y = 482585.225
X = 807822.072
DELTA = 10°05'27"
D = 57°17'45"
T = 8.83'
L = 17.61'
R = 100.00'
PC STA = 54+28.91
Y = 482587.914
X = 807813.663
PT STA = 54+46.52
Y = 482584.051
X = 807830.823
BK = S72°16'06.9"E
AH = S82°21'33.6"E

CURVE DATA

PI STA = 56+12.57
Y = 482561.973
X = 807995.402
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D = 57°17'45"
T = 9.00'
L = 17.66'
R = 100.00'
PC STA = 56+03.57
Y = 482563.170
X = 807986.478
PT STA = 56+21.53
Y = 482559.201
X = 808003.968
BK = S82°21'33.6"E
AH = S72°04'11.7"E

PLAN

4-SPAN CONCRETE SLAB WEST APPROACH
SINGLE SPAN PREFABRICATED PEDESTRIAN TRUSS
2-SPAN CONCRETE SLAB EAST APPROACH



BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
506	52+30	189' RT	CUT SQ. NE COR. CONCRETE BASE LPM	875.52
507	54+98	88' RT	CUT SQ. S COR. CONCRETE BASE TFS	876.21
508	56+50	239' RT	CUT SQ. NW COR. CONCRETE BASE TFSM	876.44
511	55+41	215' LT	CUT SQ. SW COR. CONCRETE BASE LPM (2 LIGHTS)	888.54

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

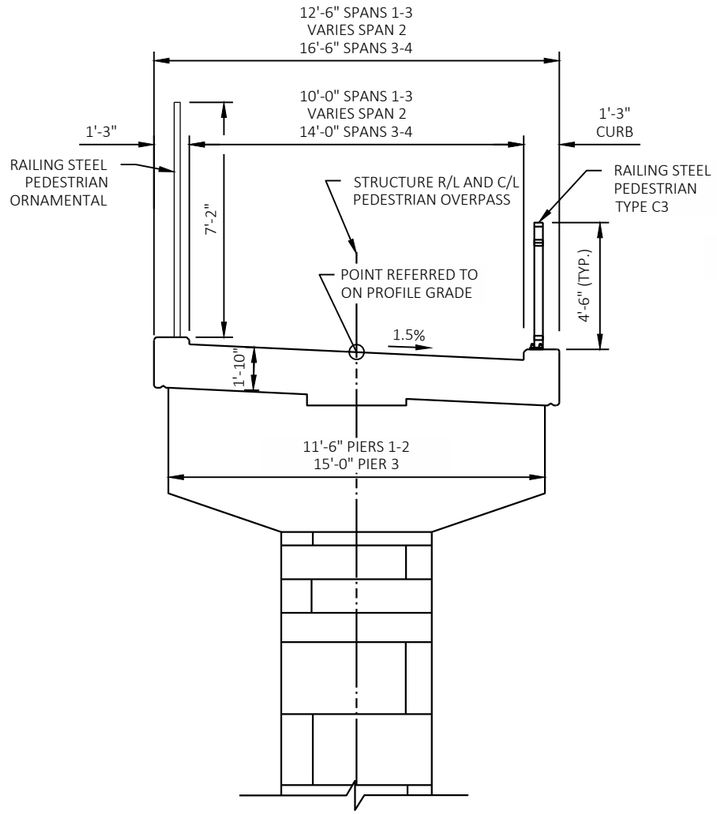
DRAWN BY STD | PLANS CK'D. CAH

GENERAL PLAN 2

SHEET 2 OF 41
570

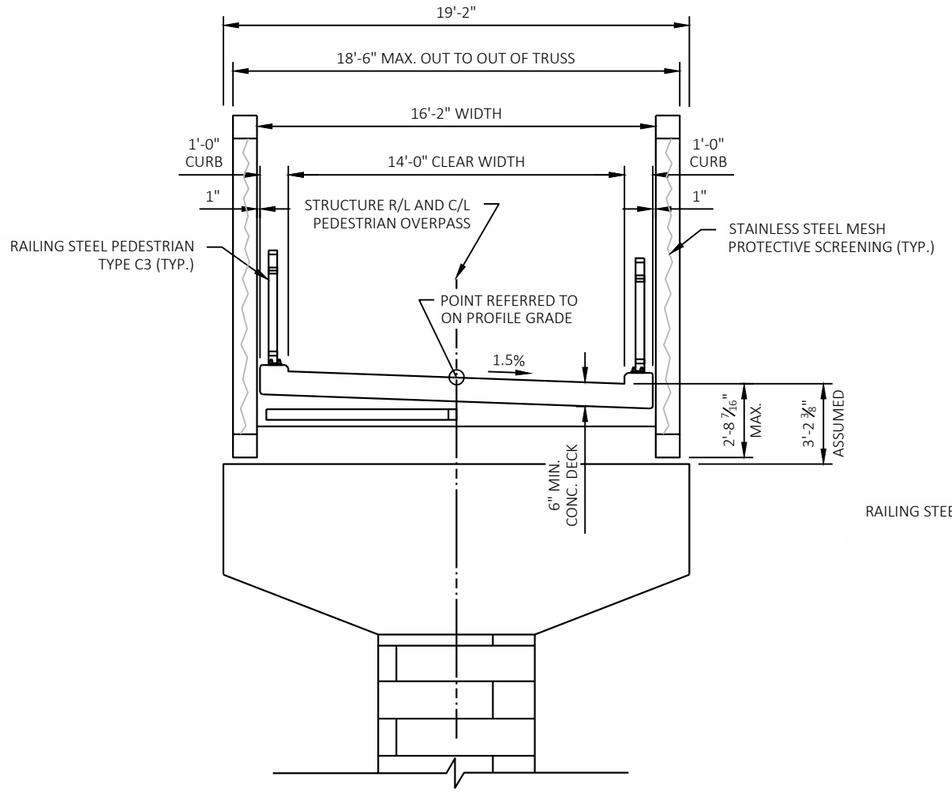
STATE PROJECT NUMBER

5992-11-31



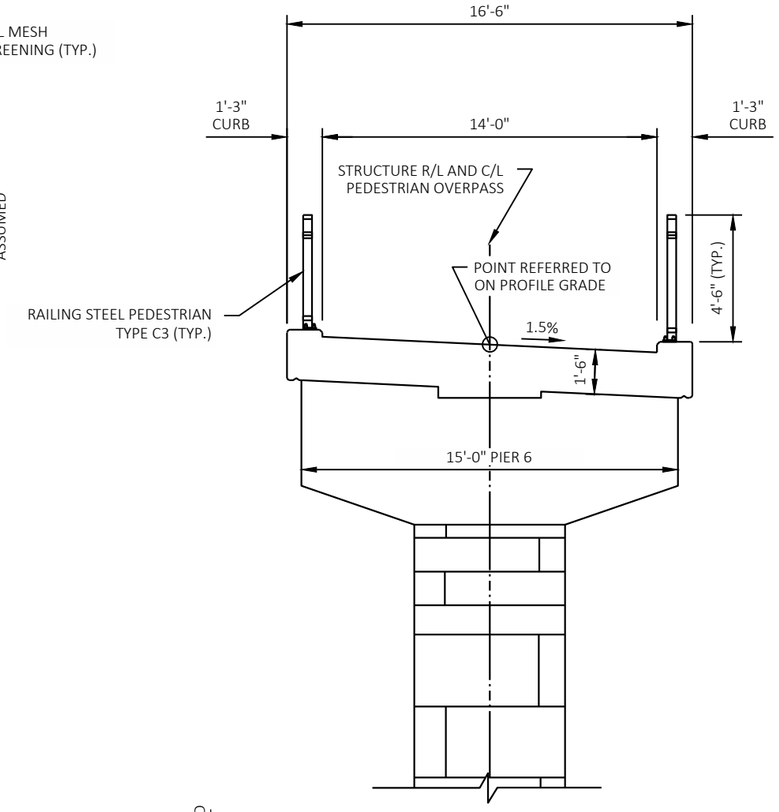
CROSS SECTION THRU SLAB STRUCTURE

(LOOKING EAST THRU SPANS 1-4)



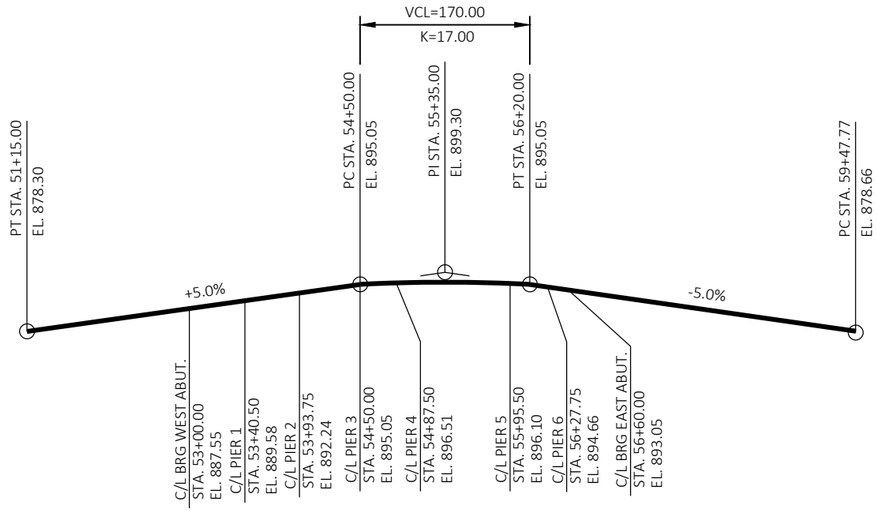
CROSS SECTION THRU TRUSS STRUCTURE

(LOOKING EAST THRU SPAN 5)

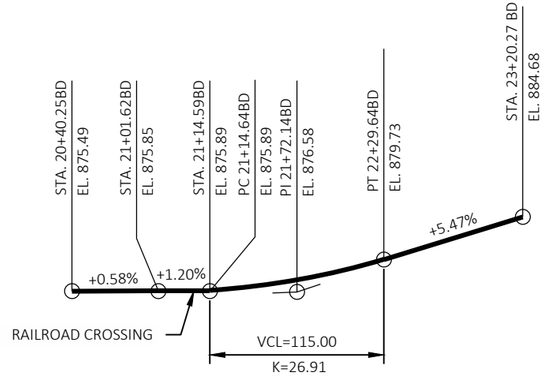


CROSS SECTION THRU SLAB STRUCTURE

(LOOKING EAST THRU SPAN 6-7)



PROFILE GRADE LINE
PEDESTRIAN OVERPASS



PROFILE GRADE LINE UNIVERSITY BAY DRIVE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-891

DRAWN BY STD | PLANS CK'D. CAH

CROSS SECTIONS & PROFILE

SHEET 3 OF 41
571

STATE PROJECT NUMBER

5992–11–31

TOTAL ESTIMATED QUANITITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	E. ABUT	SPANS 1-4	SPAN 5	SPANS 6-7	TOTAL
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-891	LS	---	---	---	---	---	---	---	---	---	---	---	1
502.0100	CONCRETE MASONRY BRIDGES	CY	6.0	19.1	20.4	22.9	36.4	41.9	22.7	8.0	184.0	---	65.4	427
502.3101	EXPANSION DEVICE	LF	---	---	---	---	---	---	---	---	---	28	---	28
502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	---	---	---	---	---	---	296	206	127	629
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	800	550	720	720	940	1,110	720	1,020	---	---	---	6,580
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	---	2,320	2,520	2,950	5,240	5,300	2,900	40	34,510	---	8,940	64,720
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	---	---	---	1	1	1	---	---	---	---	---	3
506.8006.S	PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-13-891 LRFD	LS	---	---	---	---	---	---	---	---	---	1	---	1
513.8016	RAILING STEEL PEDESTRIAN TYPE C3	LF	---	---	---	---	---	---	---	---	190	218	132	540
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3	---	---	---	---	---	---	4	---	---	---	7
517.1000	PAINTING EPOXY SYSTEM STEEL TRUSS B-13-891	LS	---	---	---	---	---	---	---	---	---	1	---	1
☆ 517.1010.S	CONCRETE STAINING B-13-891	SF	92	198	214	241	308	308	245	111	877	217	261	3,072
☆ 517.1015.S	CONCRETE STAINING MULTI-COLOR B-13-891	SF	---	87	110	154	164	170	144	---	---	---	---	829
☆ 517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-13-891	SF	---	189	228	272	282	288	262	---	---	---	---	1,521
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	135	360	405	405	---	315	315	135	---	---	---	2,070
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	---	---	---	---	360	---	---	---	---	---	---	360
604.0400	SLOPE PAVING CONCRETE	SY	4	---	---	---	---	---	---	6	---	---	---	10
☆ SPV.0090.41	RAILING STEEL PEDESTRIAN ORNAMENTAL	LF	---	---	---	---	---	---	---	---	188	---	---	188
	NON-BID ITEMS													
	BRIDGE SEAT PROTECTION						X	X						
	FILLER		3/4"	3/4"	3/4"	3/4"	3/4" & 1-1/2"	3/4" & 1-1/2"	3/4"	3/4"				
	EXPANDED POLYSTYRENE		1"							1"				
	CORK FILLER		3/4"			3/4"	3/4"	3/4"						

☆ NON-PARTICIPATING ITEMS (100% CITY FUNDED)

ESTIMATED STEEL TRUSS BRIDGE REACTIONS
(SERVICE / UNFACTORED)

REACTIONS @ EACH BASE PLATE (4 TOTAL)			
	"P (LBS)"	"H (LBS)"	"L (LBS)"
DEAD	64,700		
LIVE	34,020		
VEHICLE	13,300		
WIND		23,300	15,600
WINDWARD	-25,100		
LEEWARD	7,800		
THERMAL			12,900

BRIDGE LENGTH = 108'-0"
BRIDGE CLEAR WIDTH = 14'-0"
DECK TYPE = CONCRETE
RAIL HEIGHT = 54" RAIL HEIGHT W/ STAINLESS STEEL PROTECTIVE SCREENING
LOADINGS = 90 PSF, H10

P = VERTICAL LOAD AT EACH BASE PLATE (4 PER BRIDGE)
H = HORIZONTAL LOAD AT EACH SPAN END (2 PER BRIDGE)
L = LONGITUDINAL LOAD AT FIXED BEARING (4 PER BRIDGE)

NOTES:

1. VALUES IN THIS TABLE ARE ESTIMATES. ACTUAL VALUES SHALL BE PROVIDED BY PREFABRICATED BRIDGE MANUFACTURER.
2. "+" INDICATES DOWNWARD LOAD
   "-" INDICATES UPWARD LOAD
3. ESTIMATED BRIDGE LIFTING WEIGHT = 54,400 LBS
4. NOTIFY DESIGNER IF FINAL LOADS DIFFER FROM ESTIMATED LOADS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGE OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

EXCAVATION REQUIRED UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-13-891" IS NOT USED TO BALANCE THE EARTHWORK.

TRUSS SPANS SHALL BE ANCHORED TO THE PIER IN A MANNER TO:

- ALLOW THERMAL MOVEMENTS OF THE SUPERSTRUCTURE ALONG C/L OF THE BIKE PATH.
- PREVENT HORIZONTAL TRANSLATION OF THE SUPERSTRUCTURE PERPENDICULAR TO THE C/L OF THE BIKE PATH.

THE TRUSS SHALL BE CAMBERED TO OFFSET THE CALCULATED DEAD LOAD DEFELECTION PLUS AN AMOUNT EQUAL TO THE PROFILE GRADE LINE.

PROTECTIVE SCREENING, CONCRETE DECK AND REINFORCEMENT, CURBS, BEARINGS AND ANCHOR BOLTS ARE INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-13-891 LRFD".

IN ADDITION TO VERTICAL DESIGN LOADS INDICATED, DECK AND CURBS ON THE PREFABRICATED TRUSS SHALL BE DESIGNED FOR PEDESTRIAN RAILING LIVE LOADS PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THE PAINT COLOR FOR THE STEEL TRUSS, RAILING AND PROTECTIVE SCREENINGS SHALL BE AMS STD. COLOR NO. 24260 (GREEN).

TRUSS AND CONCRETE DECK SHALL BE DESIGNED TO ACCOMMODATE A 1 3/4-INCH STRIP SEAL JOINT AT PIERS 4 AND 5. THEREFORE THE TRUSS FABRICATOR SHALL COORDINATE WITH THE JOINT MANUFACTURER TO OBTAIN NECESSARY JOINT AND ANCHORAGE DETAILS. SEE SHEET 36 FOR GENERAL JOINT INFORMATION.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE TOP AND FRONT FACE OF THE CURB.

WALLS R-13-360 AND R-13-361 WILL BE CONSTRUCTED CONCURRENTLY WITH BRIDGE B-13-891. CONSTRUCTION SEQUENCE FOR THE MSE WALL AND SOIL REINFORCEMENT MUST BE COORDINATED WITH ABUTMENT CONSTRUCTION.

SLAB FALSE WORK FOR SPANS 1, 2, 3, 4, 6 AND 7 SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATORS M153 TYPES I, II OR III OR AASHTO DESIGNATOR M213.

BRIDGE SEAT PROTECTION TO BE APPLIED TO THE SPAN 5 BEAM SEATS OF PIER 4 AND PIER 5.

NO.	DATE	REVISION	BY

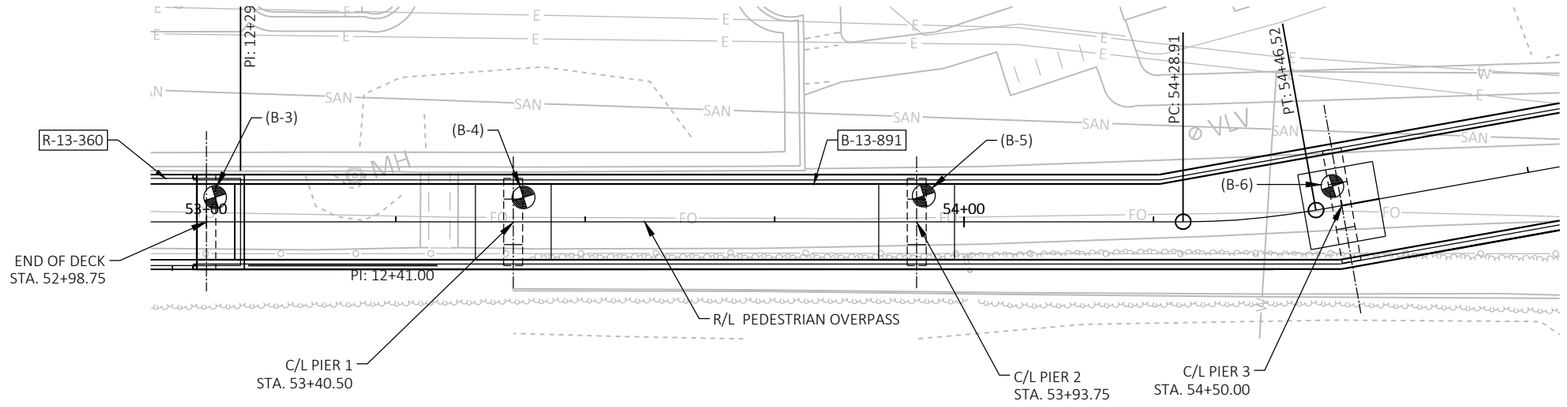
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE B–13–891

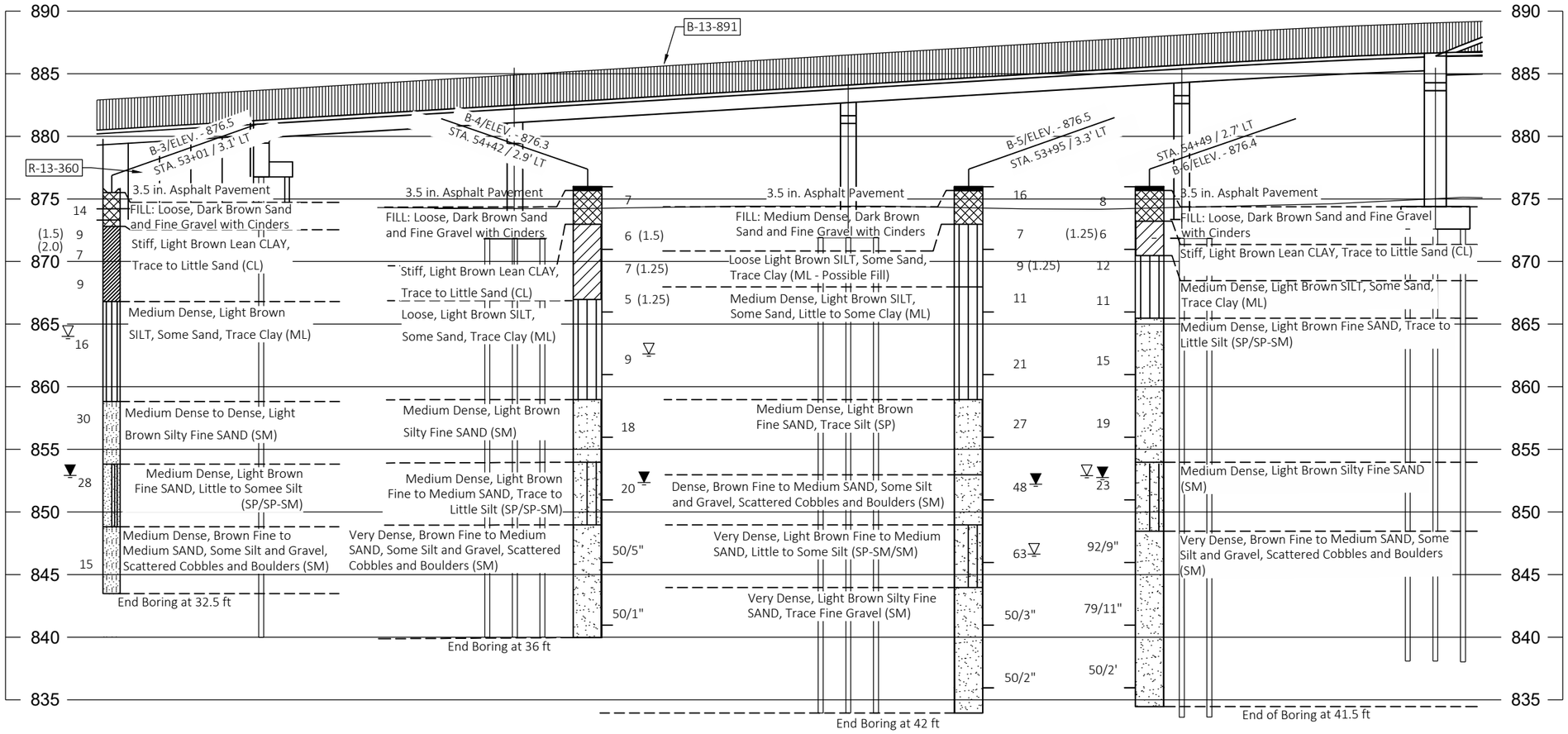
DRAWN BY STD PLANS CK'D. CAH

QUANTITIES & GENERAL NOTES

SHEET 4 OF 41
572

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-3	10/13/2020	482629.87	807692.92
B-4	10/13/2020	482617.50	807731.70
B-5	10/14/2020	482601.61	807782.11
B-6	10/14/2020	482586.39	807833.86
BORINGS COMPLETED BY: CGC, INC.			
REPORT COMPLETED BY: CGC, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD DANE COUNTY			





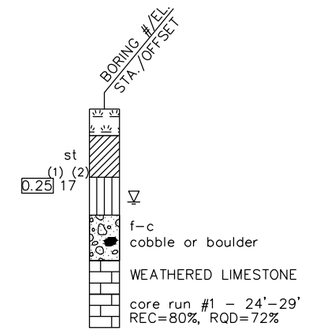
STATE PROJECT NUMBER

5992-11-31

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
boulders or cobbles	LIMESTONE	BEDROCK (unknown)
shale	SANDSTONE	IGNEOUS/ meta

LEGEND OF BORING



(1) Unconfined STRENGTH, as determined by a pocket penetrometer (tsf)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'n' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'n' vaLUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

ground water elevation

- at time of drilling
- end of drilling
- after drilling

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

Borings were completed at points approximately as indicated on this drawing to obtain information concerning the character of subsurface materials found at the site. Because the investigated depths are limited and the area of the borings is very small in relation to the entire site, the Wisconsin Department of Transportation does not warrant similar subsurface conditions below, between, or beyond these borings. Variations in soil conditions should be expected and fluctuations in groundwater levels may occur.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

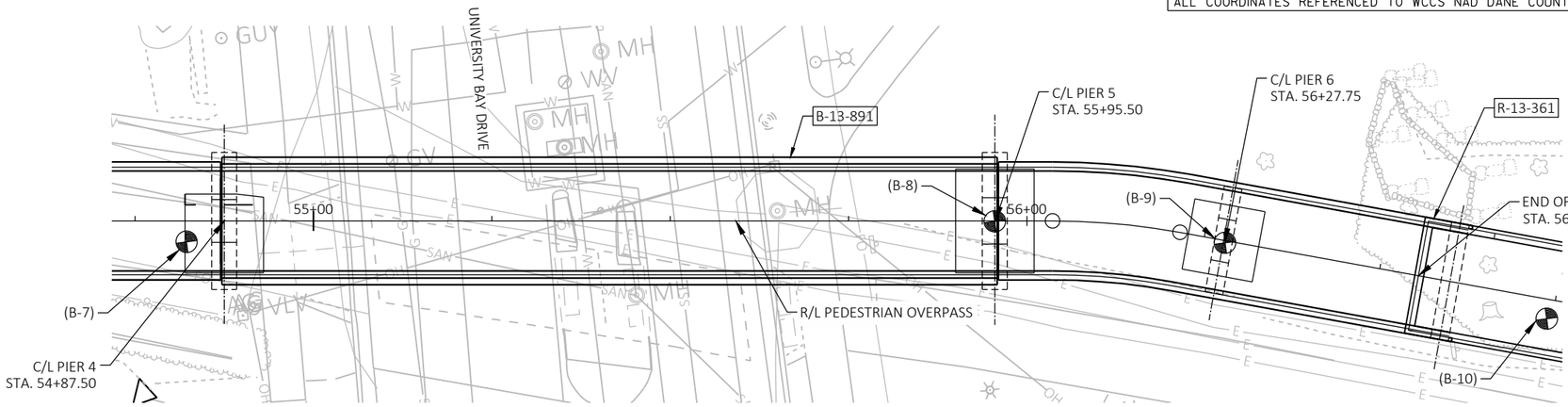
STRUCTURE B-13-891

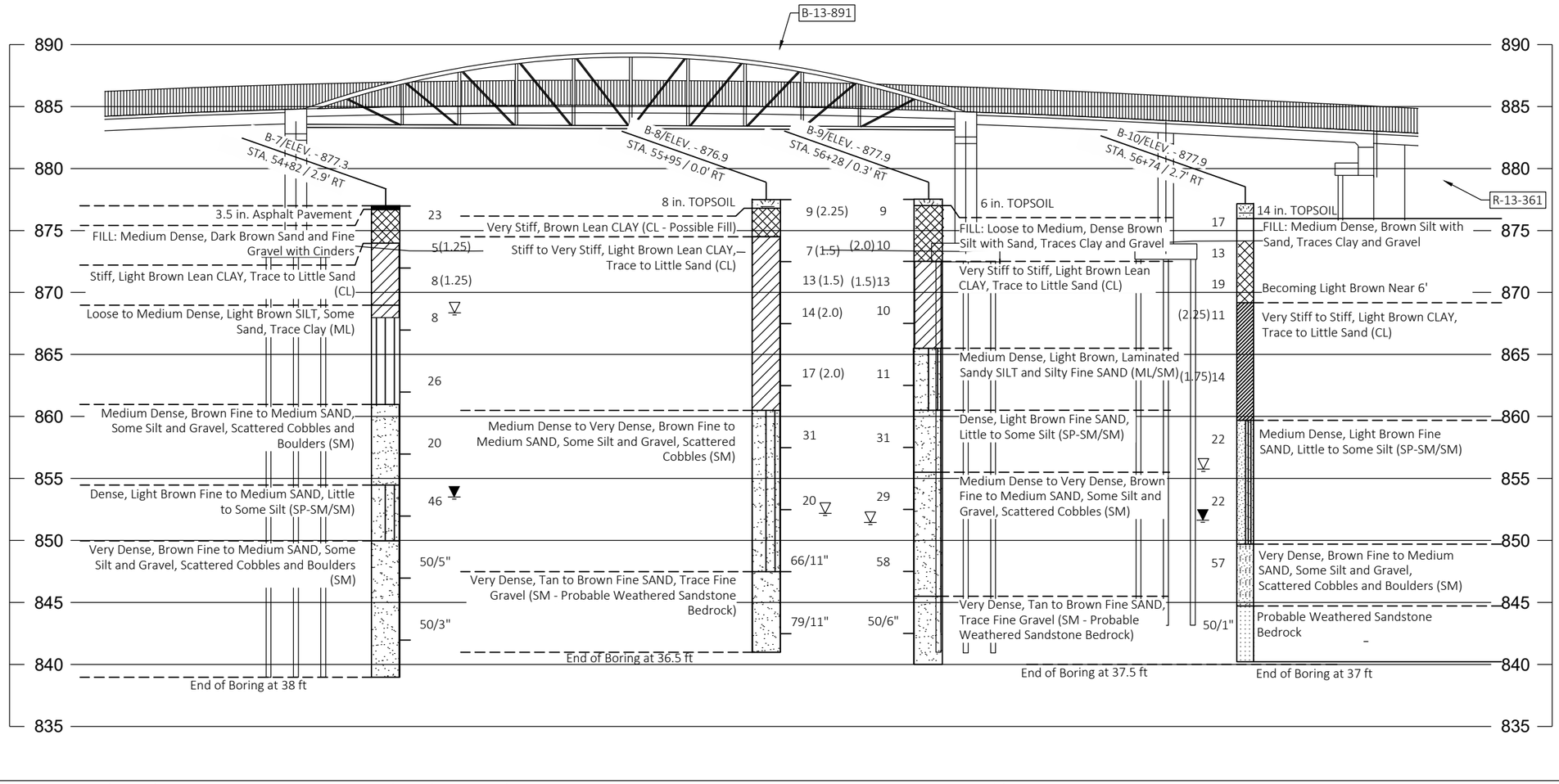
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SUBSURFACE EXPLORATION 1

SHEET 5 OF 41
573

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-7	10/14/2020	482576.39	807865.81
B-8	10/08/2020	482564.17	807978.45
B-9	10/08/2020	482556.91	808010.03
B-10	10/08/2020	482540.43	808053.29
BORINGS COMPLETED BY: CGC, INC.			
REPORT COMPLETED BY: CGC, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD DANE COUNTY			





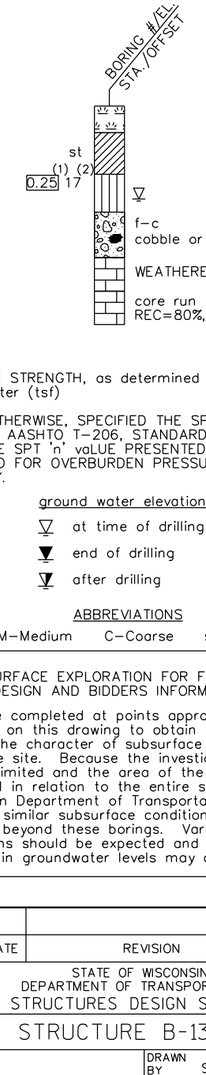
STATE PROJECT NUMBER

5992-11-31

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
boulders or cobbles	LIMESTONE	BEDROCK (unknown)
shale	SANDSTONE	IGNEOUS/ meta

LEGEND OF BORING



(1) Unconfined STRENGTH, as determined by a pocket penetrometer (tsf)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'n' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'n' vaLUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

ground water elevation

- ▽ at time of drilling
- ▼ end of drilling
- ▼ after drilling

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

Borings were completed at points approximately as indicated on this drawing to obtain information concerning the character of subsurface materials found at the site. Because the investigated depths are limited and the area of the borings is very small in relation to the entire site, the Wisconsin Department of Transportation does not warrant similar subsurface conditions below, between, or beyond these borings. Variations in soil conditions should be expected and fluctuations in groundwater levels may occur.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-891

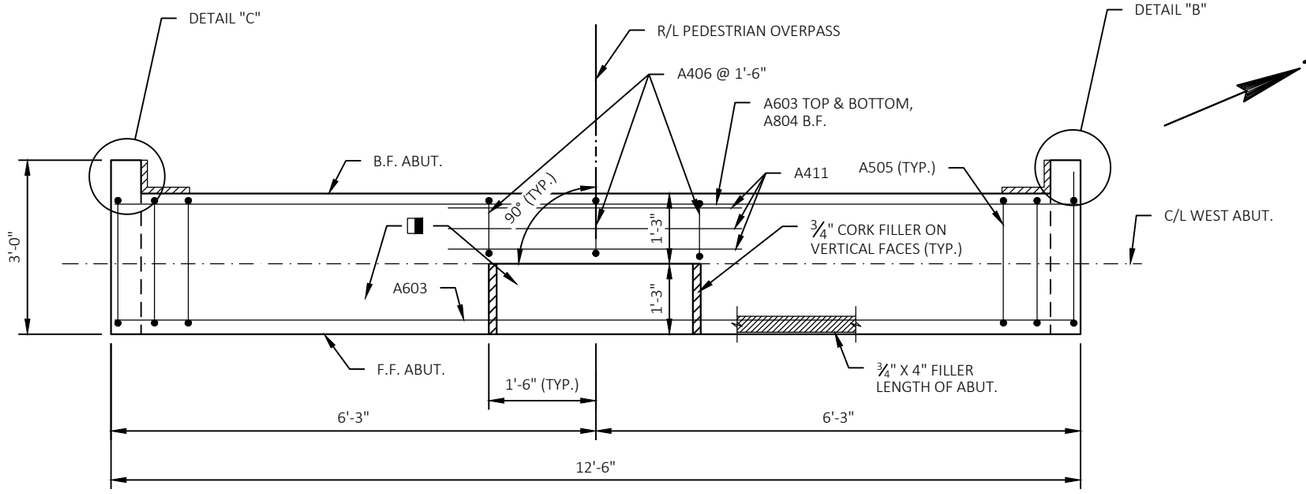
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SUBSURFACE EXPLORATION 2

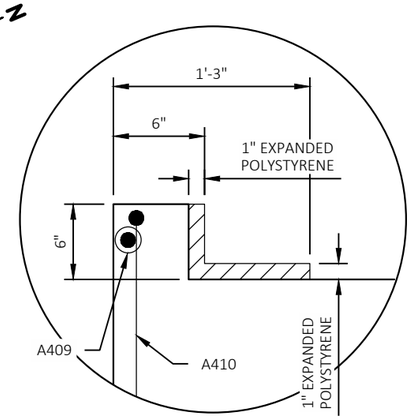
SHEET 6 OF 41
574

STATE PROJECT NUMBER

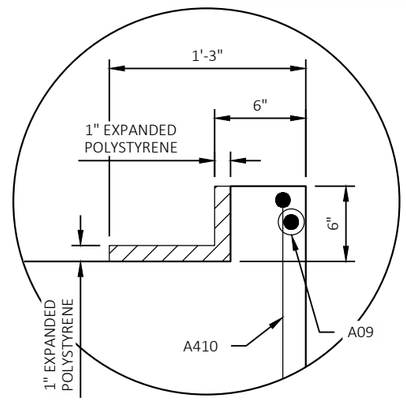
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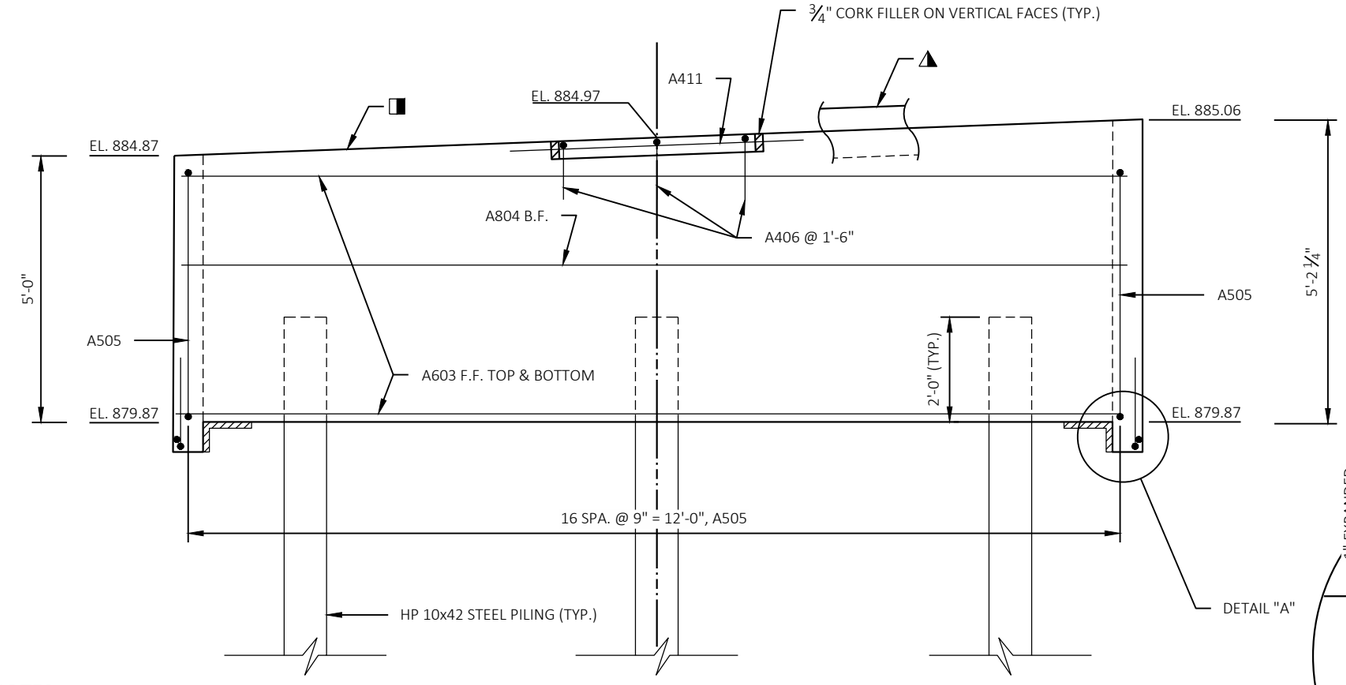
PLAN



DETAIL "C"

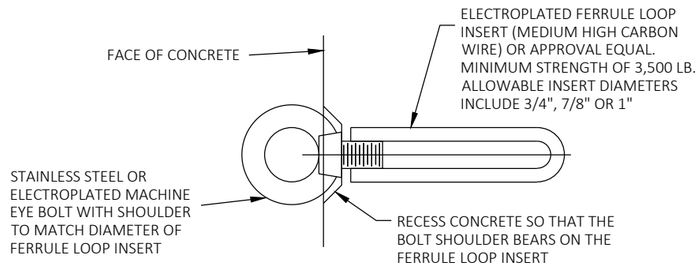


DETAIL "B"



ELEVATION

(LOOKING WEST)



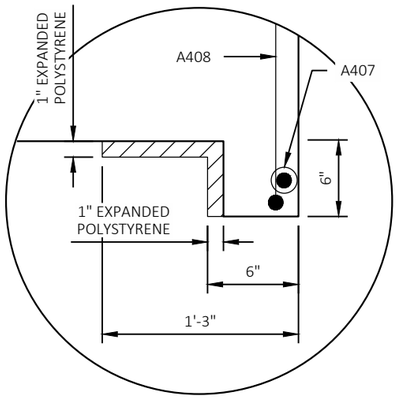
EYE BOLT DETAIL

COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES"

LEGEND

▲ 18' RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

◨ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



DETAIL "A"

NOTES

SEE SHEET 11 FOR PILE SPLICE DETAILS.

SEE SHEET 8 FOR REINFORCING DETAILS.

ADJUST A505 BARS TO AVOID PILE INTERFERENCE.

PROVIDE EYE BOLT FALL PROTECTION AT EACH ABUTMENT. LOCATE EYE BOLTS 1' BELOW THE SLAB AND SPACE AT 6' MAX. ACROSS THE FACE OF ABUTMENT.

ABUTMENT TO BE SUPPORTED ON HP10X42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS PER PILE. ESTIMATED PILE LENGTH IS 45 FEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE B-13-891

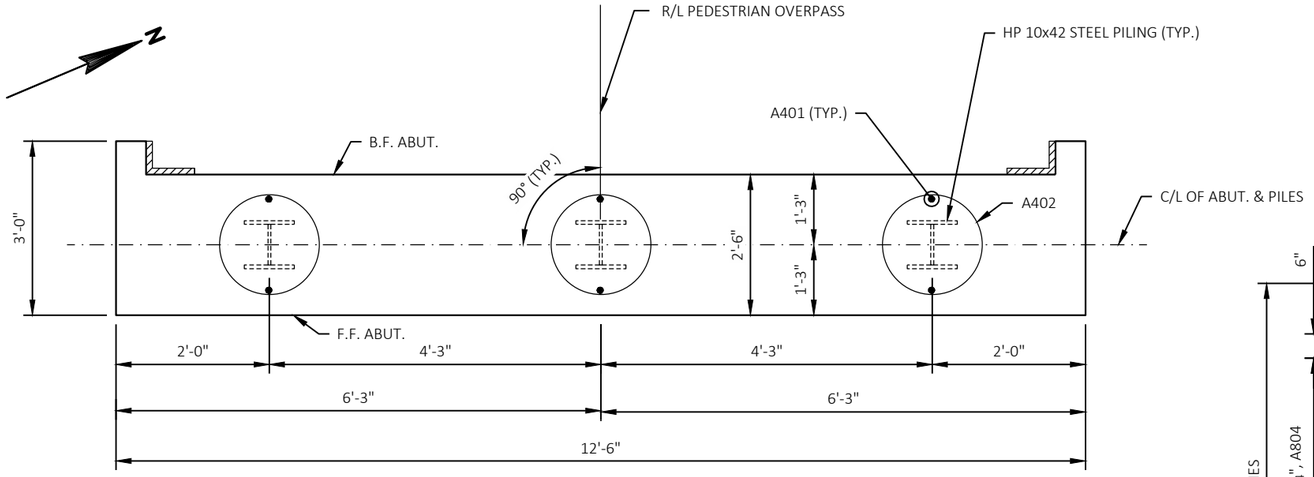
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WEST ABUTMENT

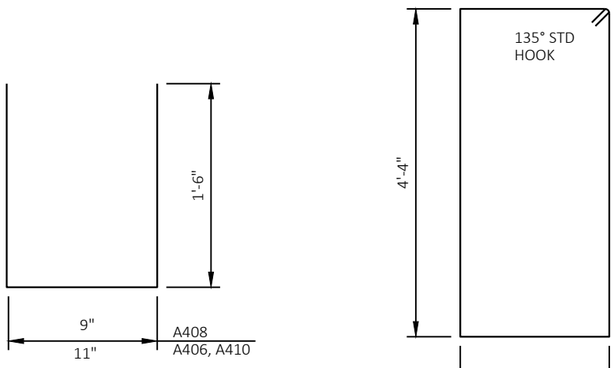
SHEET 7 OF 41

575

STATE PROJECT NUMBER
5992–11–31

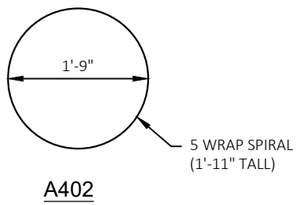


PILE PLAN



A406, A408, A410

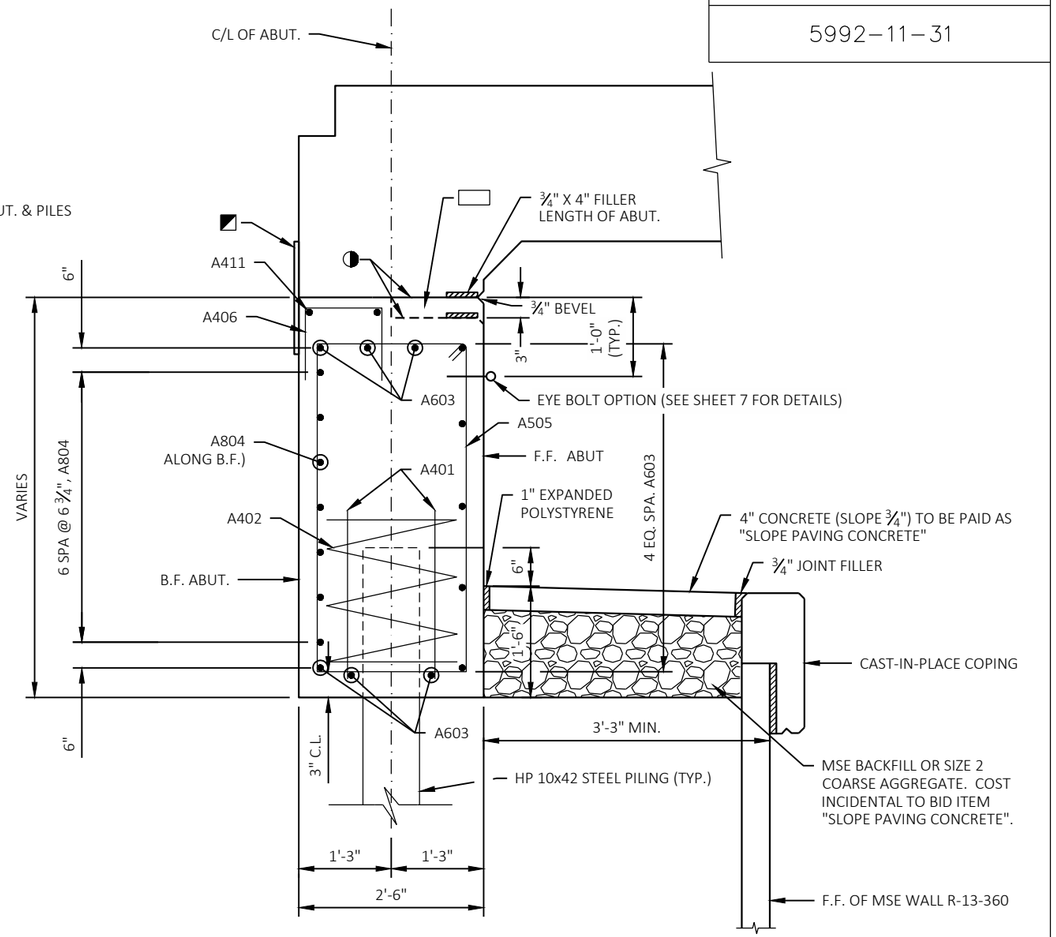
A505



A402

NOTE

ABUTMENT TO BE SUPPORTED ON HP 10X42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS PER PILE.
ESTIMATED PILE LENGTH IS 45 FEET.



TYPICAL SECTION THRU BODY

LEGEND

- 18' RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB (TYP.)

BILL OF BARS

UNCOATED TOAL = 800 LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION
A401	6	2'-3"			PILES - VERT.
A402	3	28'-0"		X	PILES - HORIZ.
A603	11	12'-2"			BODY - BTM, F.F., TOP - HORIZ.
A804	7	12'-2"			BODY - B.F. - HORIZ.
A505	17	13'-8"		X	BODY - STIRRUPS - VERT.
A406	3	3'-9"		X	KEYWAY - VERT.
A407	2	2'-2"			ABUTMENT ENDS - HORIZ.
A408	6	3'-7"		X	ABUTMENT ENDS - VERT.
A409	2	4'-6"			ABUTMENT ENDS - VERT.
A410	8	3'-9"		X	ABUTMENT ENDS - HORIZ.
A411	3	5'-0"			KEYWAY - HORIZ.

NOTE: THE FIRST ONE OR TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. DIMENSION FOR BENDING ARE OUT TO OUT OF BAR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

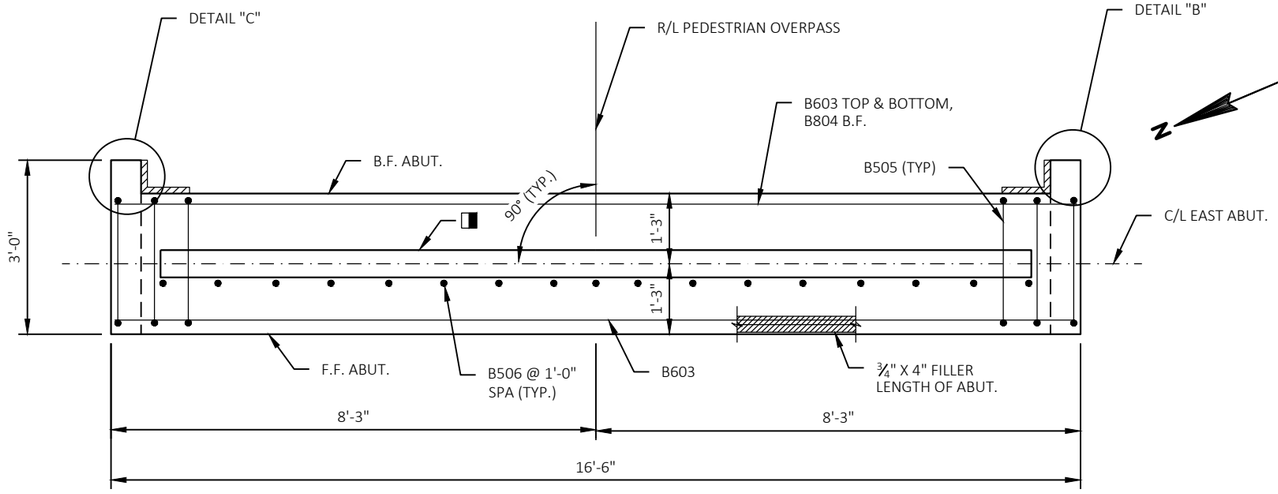
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WEST ABUTMENT DETAILS

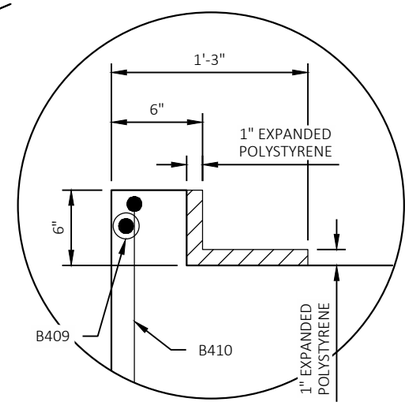
SHEET 8 OF 41
576

STATE PROJECT NUMBER

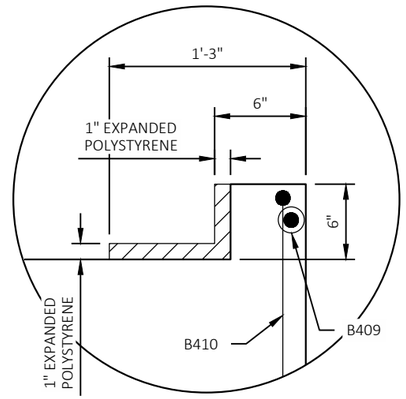
5992-11-31



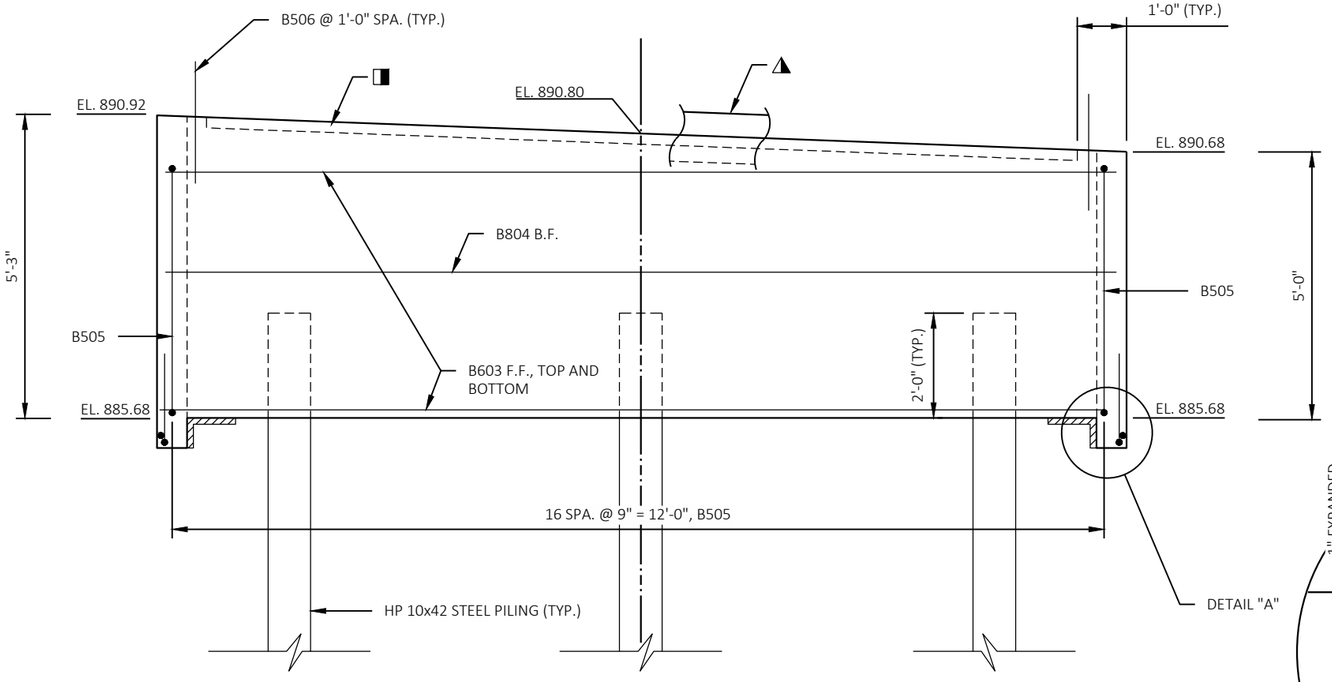
PLAN



DETAIL "C"

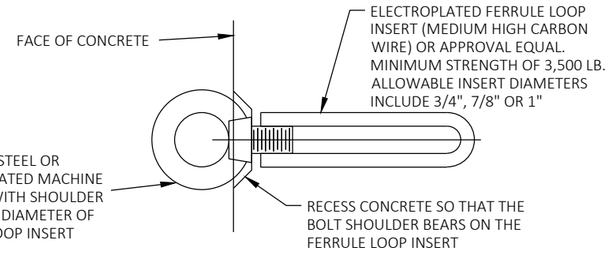


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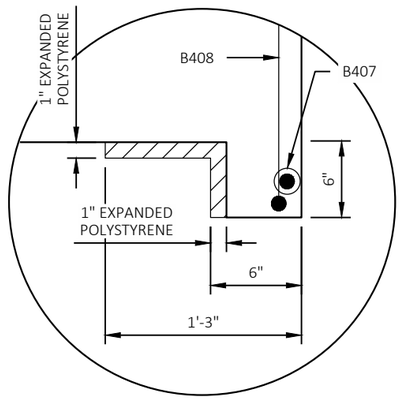
ELEVATION

(LOOKING EAST)



EYE BOLT DETAIL

COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES"



DETAIL "A"

NOTES

SEE SHEET 11 FOR PILE SPLICE DETAILS.

SEE SHEET 10 FOR REINFORCING DETAILS.

ADJUST B505 BARS TO AVOID PILE INTERFERENCE.

PROVIDE EYE BOLT FALL PROTECTION AT EACH ABUTMENT. LOCATE EYE BOLTS 1' BELOW THE SLAB AND SPACE AT 6' MAX. ACROSS THE FACE OF ABUTMENT.

ABUTMENT TO BE SUPPORTED ON HP10X42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS PER PILE. ESTIMATED PILE LENGTH IS 45 FEET.

LEGEND

◭ 18' RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

◨ HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" x 6".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE B-13-891

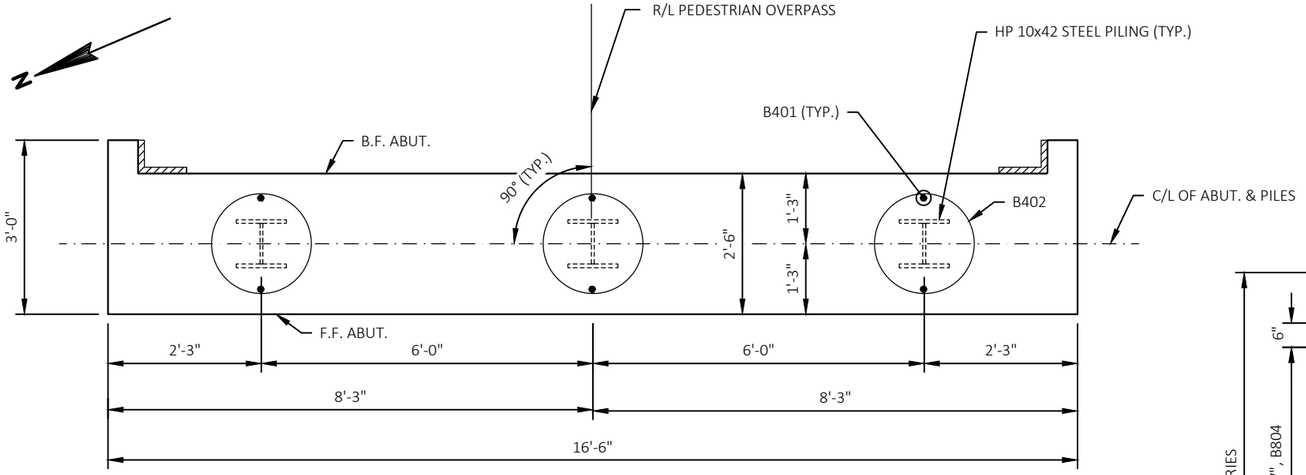
DRAWN BY	STD	PLANS CK'D.	CAH

EAST ABUTMENT

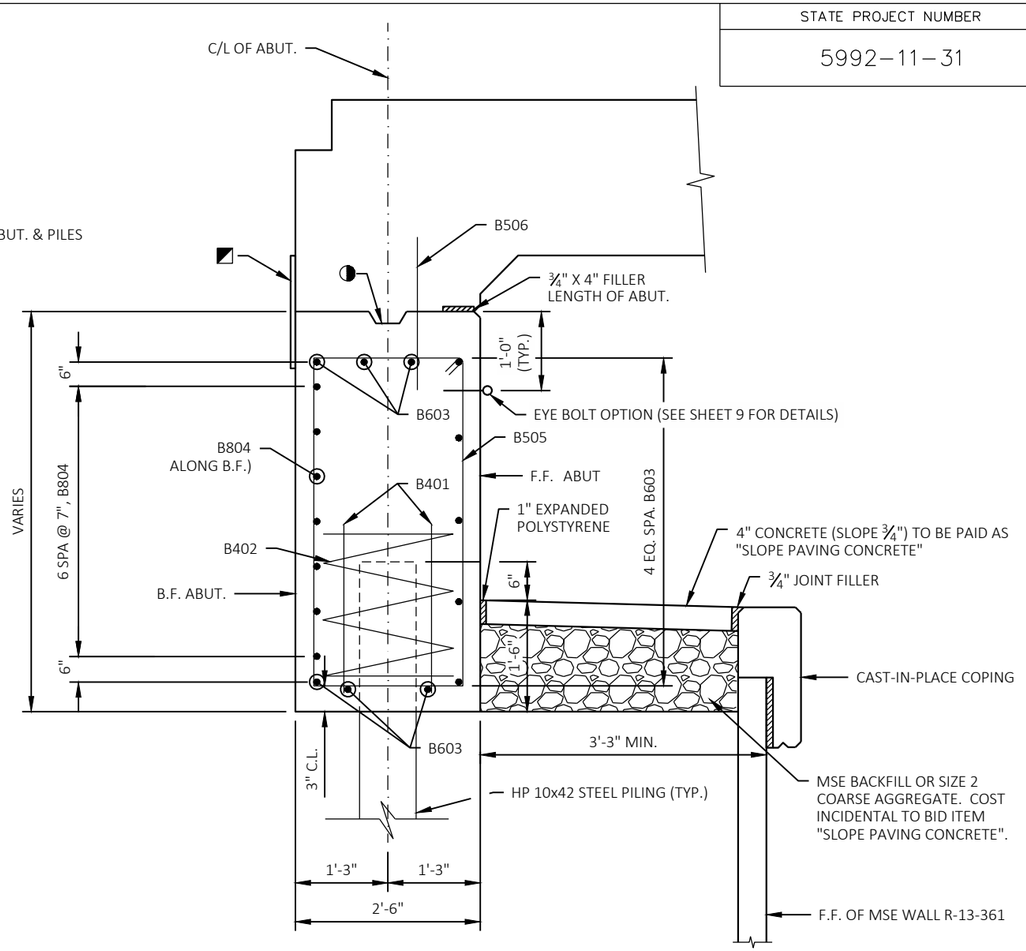
SHEET 9 OF 41

577

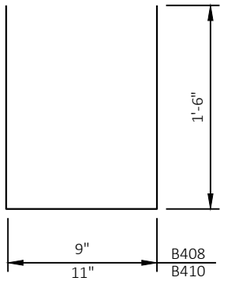
STATE PROJECT NUMBER
5992-11-31



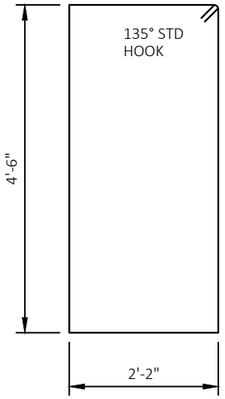
PILE PLAN



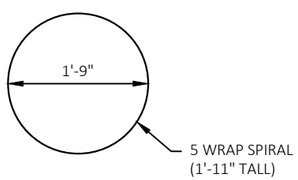
TYPICAL SECTION THRU BODY



B408, B410



B505



B402

BILL OF BARS

COATED TOTAL = 40 LBS
UNCOATED TOAL = 1,020 LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION
B401	6	2'-3"			PILES - VERT.
B402	3	28'-0"		X	PILES - HORIZ.
B603	11	16'-2"			BODY - BTM, F.F., TOP - HORIZ.
B804	7	16'-2"			BODY - B.F. - HORIZ.
B505	23	14'-0"		X	BODY - STIRRUPS - VERT.
B506	17	2'-0"	X		BODY - DOWELS - VERT.
B407	2	2'-2"			ABUTMENT ENDS - HORIZ.
B408	6	3'-7"		X	ABUTMENT ENDS - VERT.
B409	2	4'-6"			ABUTMENT ENDS - VERT.
B410	8	3'-9"		X	ABUTMENT ENDS - HORIZ.

NOTE: THE FIRST ONE OR TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. DIMENSION FOR BENDING ARE OUT TO OUT OF BAR.

LEGEND

◪ 18' RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

◑ HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" x 6".

NOTE

ABUTMENT TO BE SUPPORTED ON HP 10X42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS PER PILE.
ESTIMATED PILE LENGTH IS 45 FEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-891

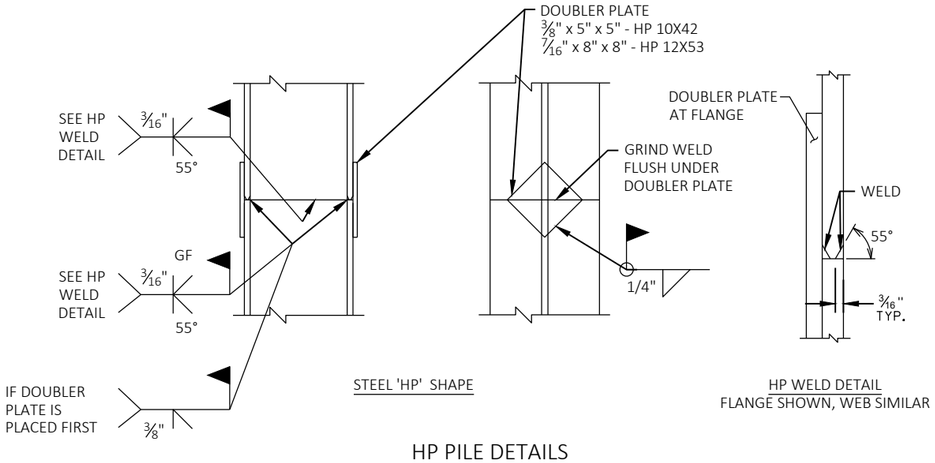
DRAWN BY STD | PLANS CK'D. CAH

EAST ABUTMENT DETAILS

SHEET 10 OF 41
578

STATE PROJECT NUMBER

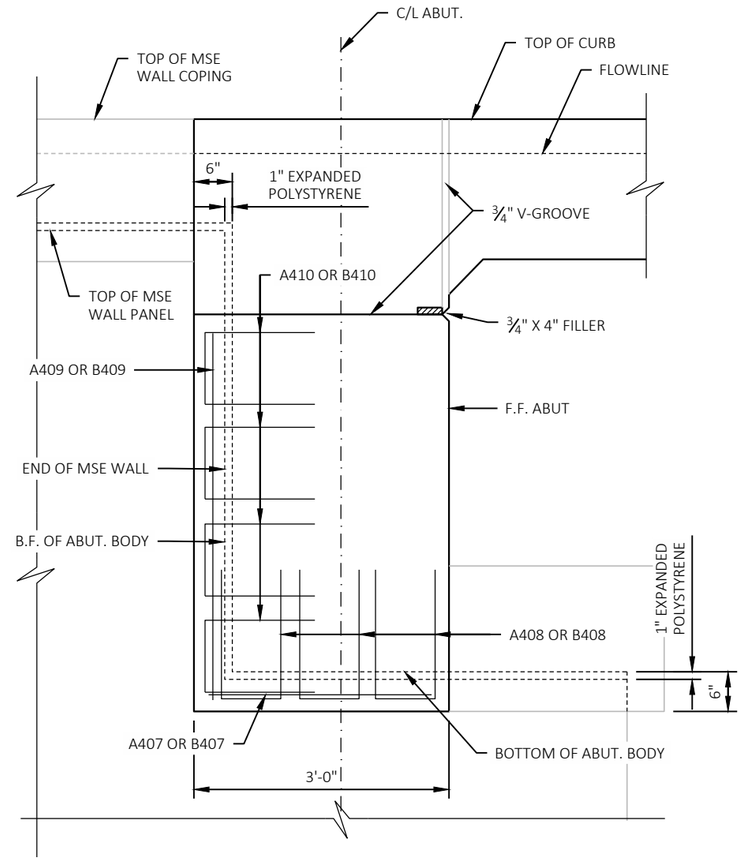
5992-11-31



STEEL 'HP' SHAPE

HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

HP PILE DETAILS



ABUTMENT END VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

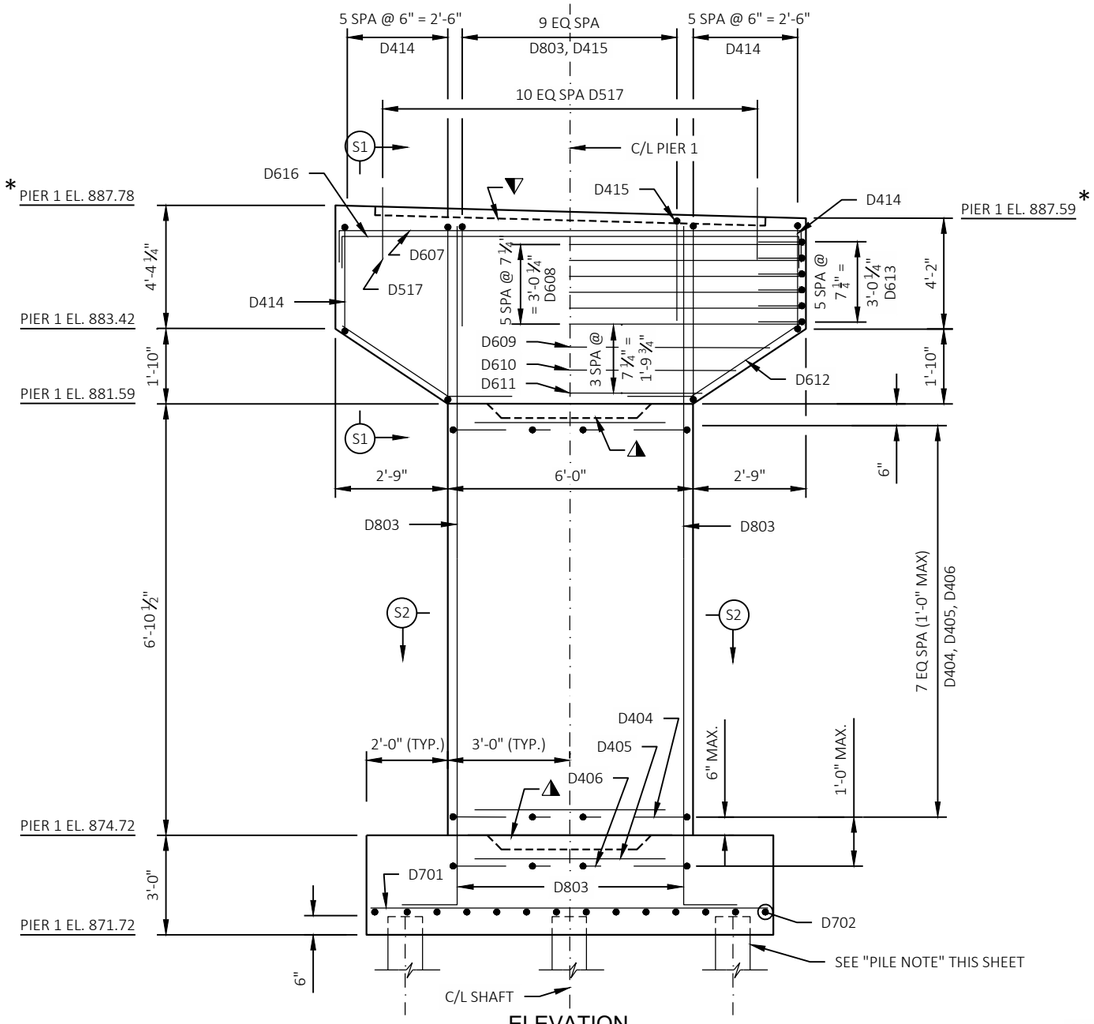
STRUCTURE B-13-891

DRAWN BY	STD	PLANS CK'D.	CAH

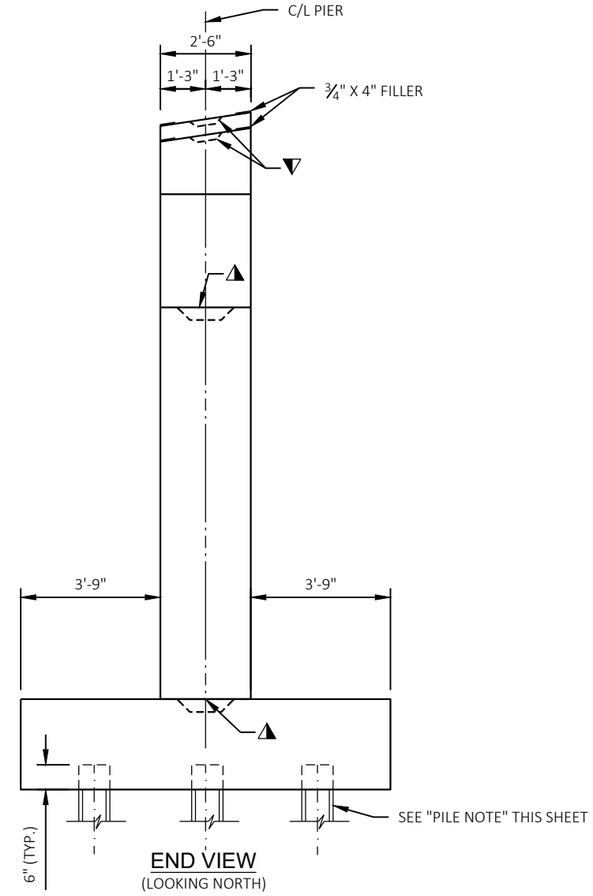
EAST & WEST ABUTMENT DETAILS

SHEET 11 OF 41
579

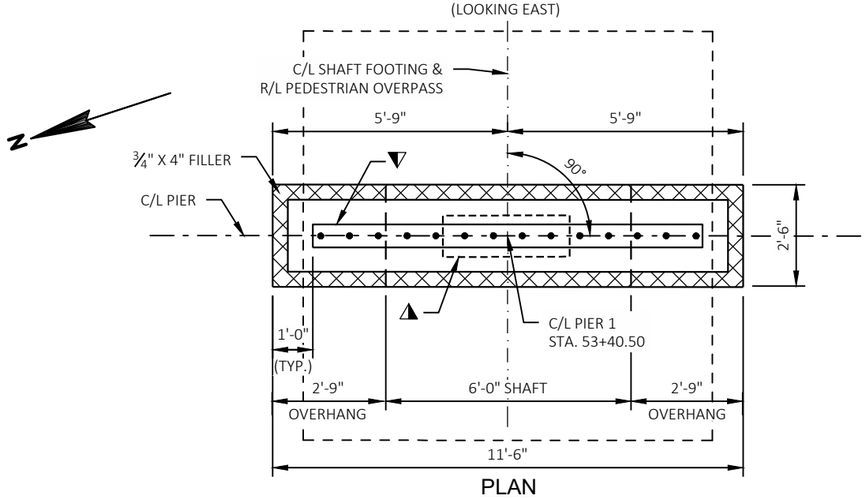
STATE PROJECT NUMBER
5992–11–31



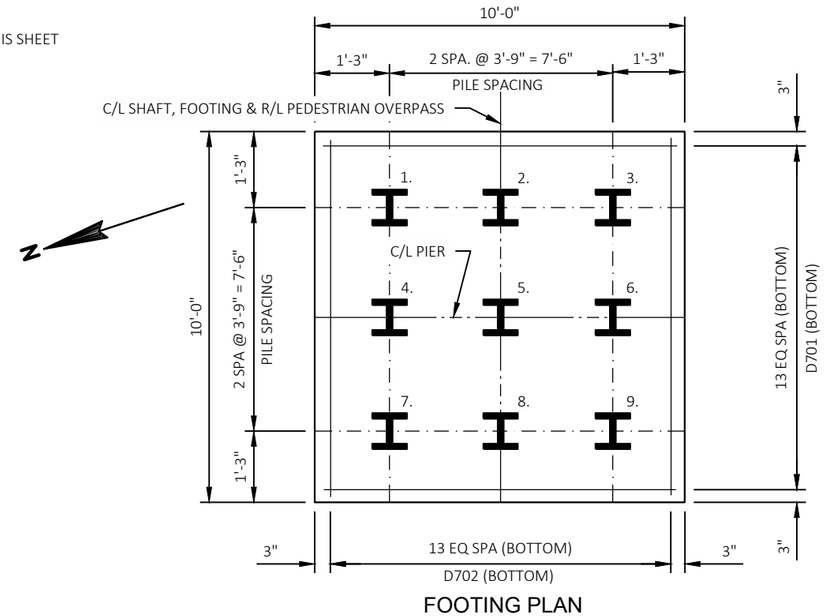
ELEVATION
(LOOKING EAST)



END VIEW
(LOOKING NORTH)



PLAN



FOOTING PLAN

LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 4"x1'-0"x3'-6".
- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"x6".
- * ELEVATIONS GIVEN AT C/L PIER CAP

PILE NOTES

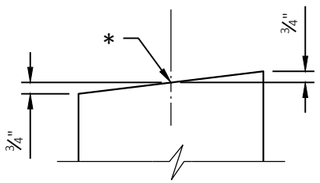
PIER TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE. ESTIMATED 40 FT LONG.

NOTES

SEE SHEET 13 FOR REINFORCING DETAILS.

ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY, SEE SHEET 24 FOR REQUIREMENTS.

SEE SHEET 13 FOR SECTIONS S1 AND S2.



SLOPED BEAM SEAT DETAIL
(LOOKING NORTH)

NO.	DATE	REVISION	BY

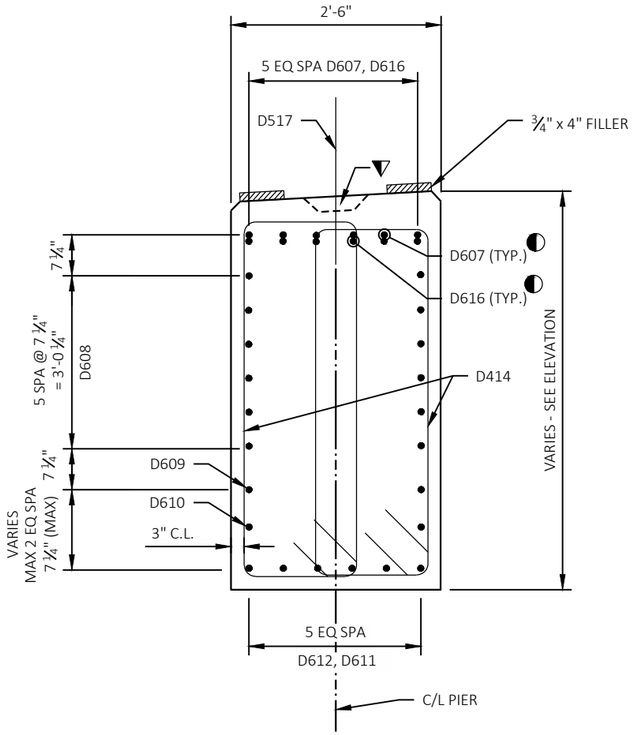
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

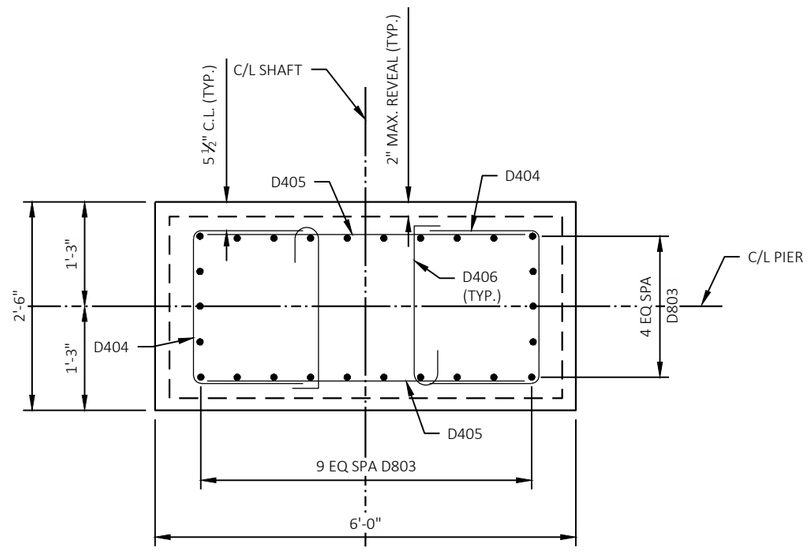
PIER 1

SHEET 12 OF 41
580



SECTION S1

SECTION THRU CAP



SECTION S2

SECTION THRU SHAFT

PIER 1

BILL OF BARS

UNCOATED: 550 LBS

COATED: 2,320 LBS

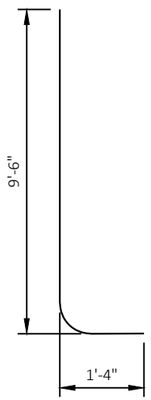
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
D701	14	9'-6"				FOOTING - HORIZ.
D702	14	9'-6"				FOOTING - HORIZ.
D803	26	15'-11"	X	X		FOOTING AND SHAFT - VERT.
D404	18	6'-1"	X	X		SHAFT - HORIZ. - ENDS
D405	18	5'-0"	X			SHAFT - HORIZ.
D406	18	2'-5"	X	X		SHAFT - HORIZ. - TIES
D607	6	13'-4"	X	X		CAP - HORIZ. - TOP
D608	12	11'-0"	X			CAP - HORIZ. - SIDES
D609	2	10'-1"	X			CAP - HORIZ. - SIDES
D610	2	8'-3"	X			CAP - HORIZ. - SIDES
D611	6	6'-1"	X			CAP - HORIZ. - SIDES AND BOTTOM
D612	12	4'-3"	X	X		CAP - HORIZ. - SIDES AND BOTTOM
D613	12	8'-8"	X	X		CAP - HORIZ. - ENDS
D414	24	12'-2"	X	X	X	CAP - STIRRUP - VERT.
D415	10	7'-8"	X	X		CAP - STIRRUP - VERT. - TOP
D616	6	13'-2"	X	X		CAP - HORIZ. - TOP
D517	11	2'-0"	X			CAP - VERT. - DOWELS

NOTES:

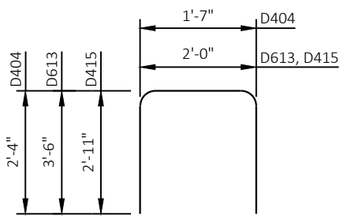
THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

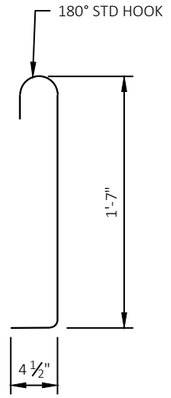
LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



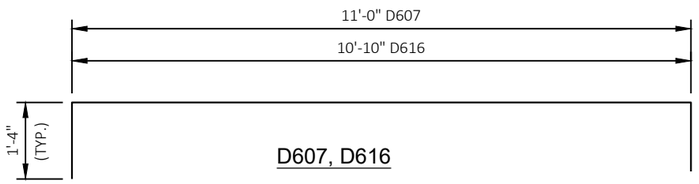
D803



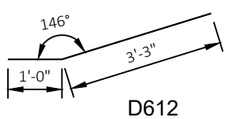
D404, D613, D415



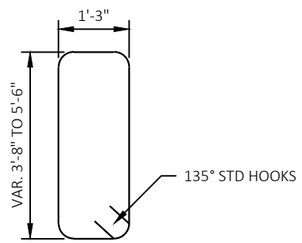
D406



D607, D616



D612



D414

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
D414	4 SERIES OF 6	10'-4" TO 14'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

▼ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".

◐ BUNDLE D607 AND D616 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

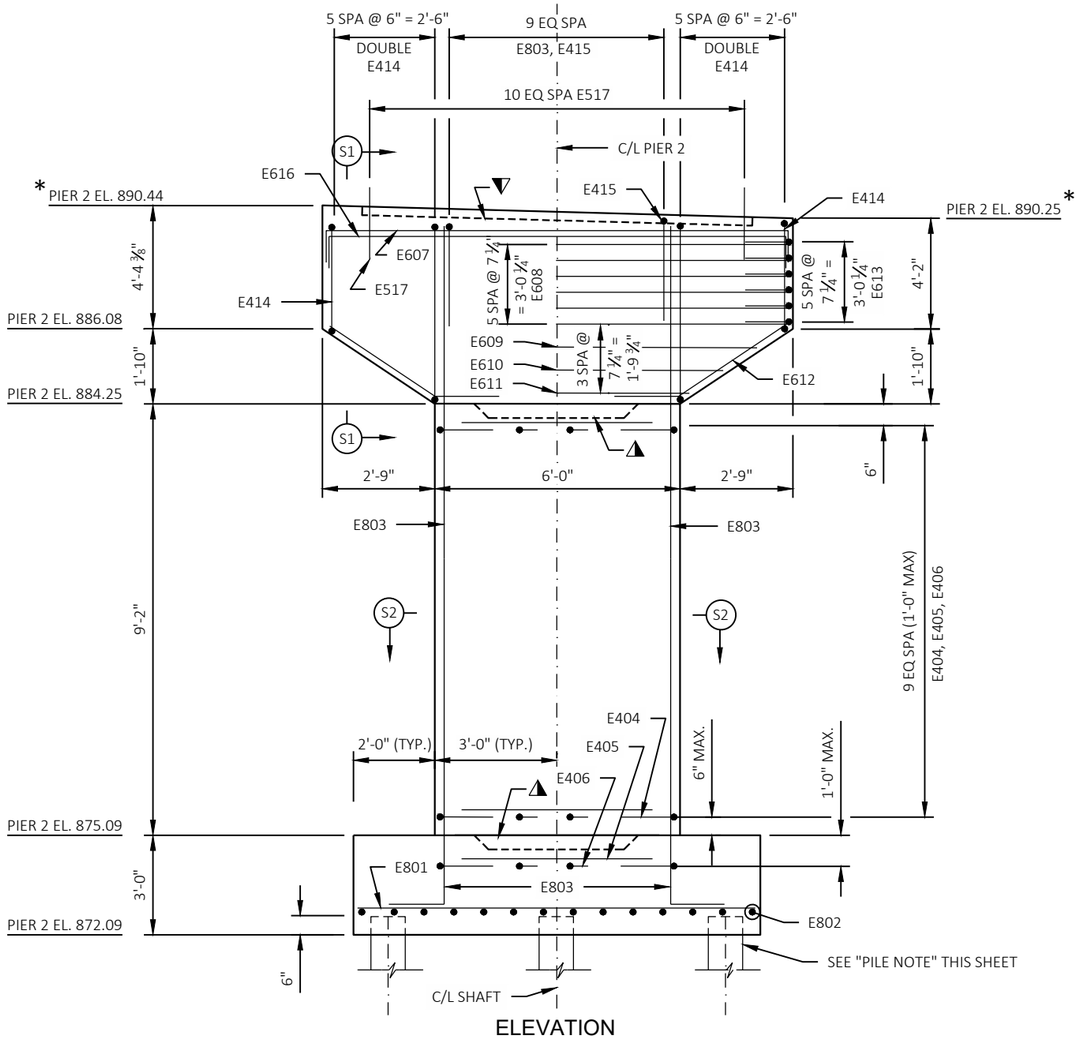
STRUCTURE B-13-891

DRAWN BY STD | PLANS CK'D. CAH

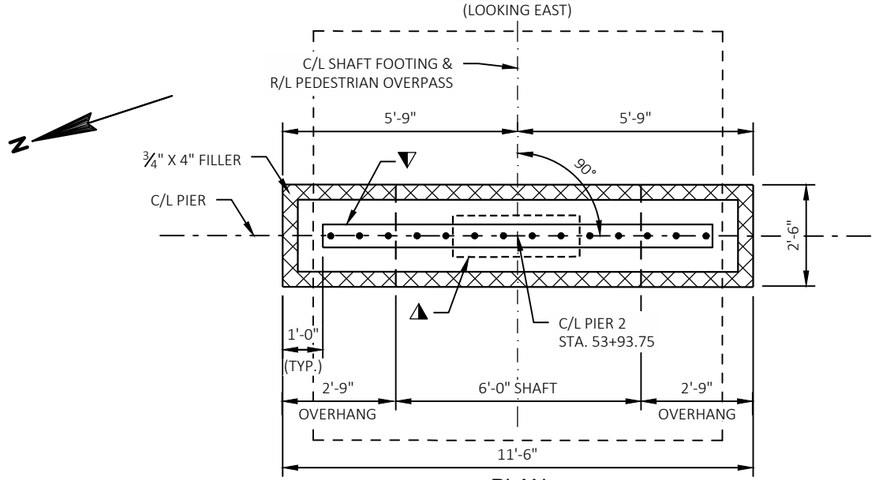
PIER 1 DETAILS

SHEET 13 OF 41
581

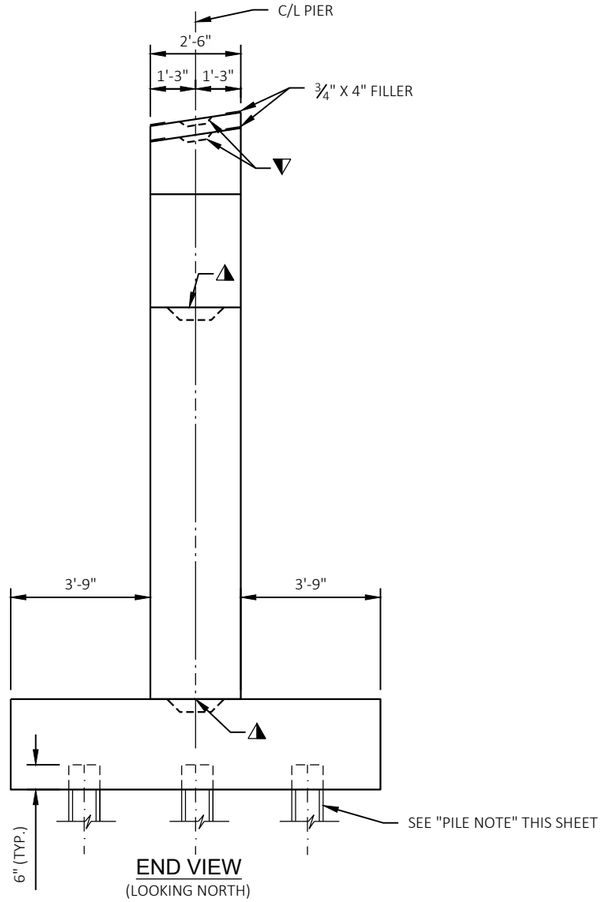
STATE PROJECT NUMBER
5992–11–31



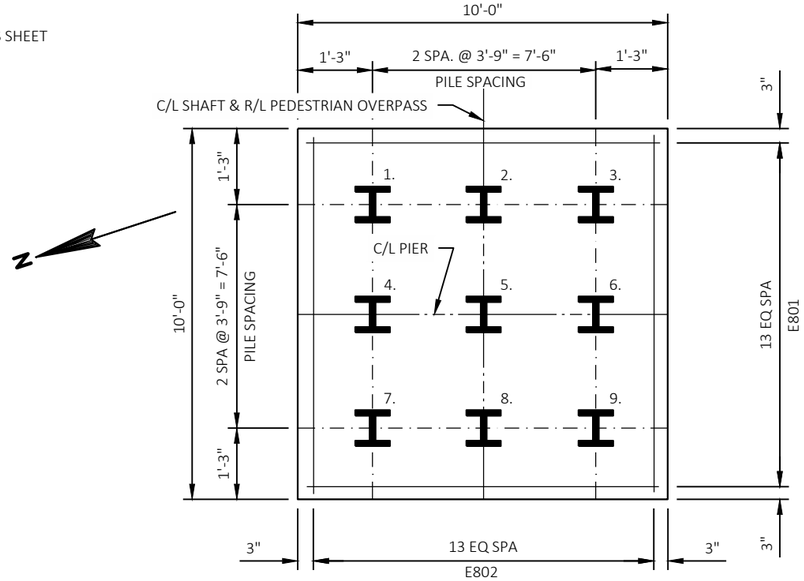
ELEVATION
(LOOKING EAST)



PLAN



END VIEW
(LOOKING NORTH)



FOOTING PLAN

LEGEND

- ◭ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 4"x1'-0"x3'-6".
- ▼ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"x6".
- * ELEVATIONS GIVEN AT C/L PIER CAP

PILE NOTES

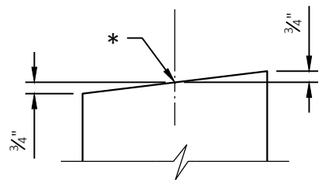
PIER TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE. ESTIMATED 45 FT LONG.

NOTES

SEE SHEET 15 FOR REINFORCING DETAILS.

ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY, SEE SHEET 24 FOR REQUIREMENTS.

SEE SHEET 15 FOR SECTIONS S1 AND S2.



SLOPED BEAM SEAT DETAIL
(LOOKING NORTH)

NO.	DATE	REVISION	BY

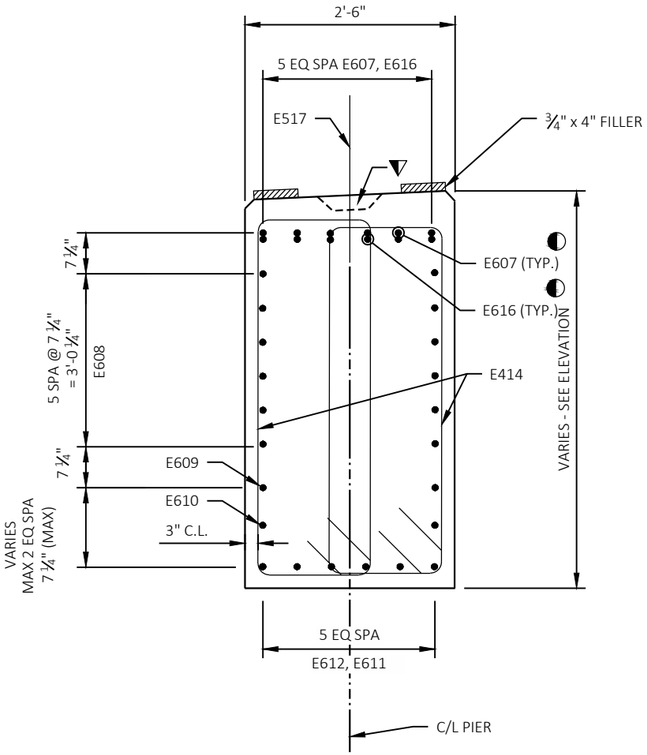
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY STD | PLANS CK'D. CAH

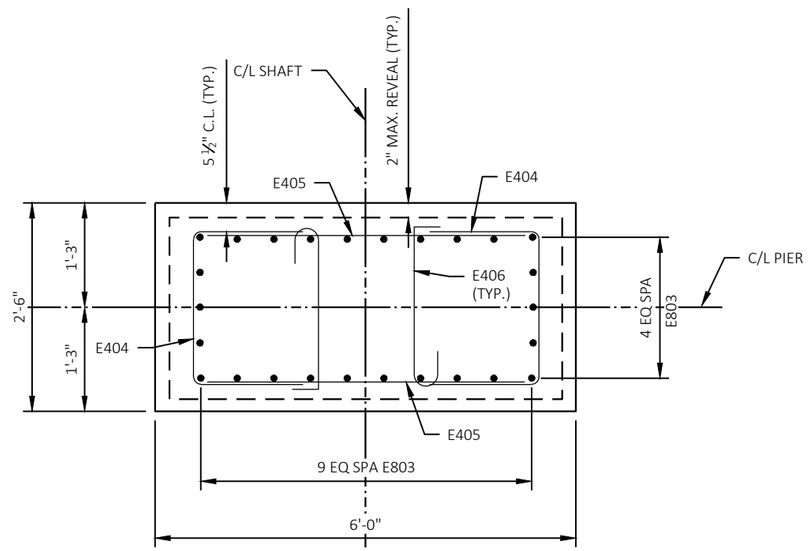
PIER 2

SHEET 14 OF 41
582



SECTION S1

SECTION THRU CAP



SECTION S2

SECTION THRU SHAFT

PIER 2

BILL OF BARS

UNCOATED: 720 LBS

COATED: 2,520 LBS

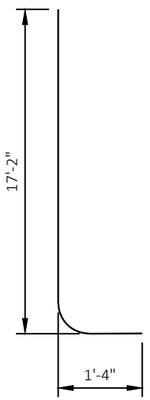
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
E801	14	9'-6"				FOOTING - HORIZ.
E802	14	9'-6"				FOOTING - HORIZ.
E803	26	18'-3"	X	X		FOOTING AND SHAFT - VERT.
E404	22	6'-1"	X	X		SHAFT - HORIZ. - ENDS
E405	22	5'-0"	X			SHAFT - HORIZ.
E406	22	2'-5"	X	X		SHAFT - HORIZ. - TIES
E607	6	13'-4"	X	X		CAP - HORIZ. - TOP
E608	12	11'-0"	X			CAP - HORIZ. - SIDES
E609	2	10'-1"	X			CAP - HORIZ. - SIDES
E610	2	8'-3"	X			CAP - HORIZ. - SIDES
E611	6	6'-1"	X			CAP - HORIZ. - SIDES AND BOTTOM
E612	12	4'-3"	X	X		CAP - HORIZ. - SIDES AND BOTTOM
E613	12	8'-8"	X	X		CAP - HORIZ. - ENDS
E414	24	12'-2"	X	X	X	CAP - STIRRUP - VERT.
E415	10	7'-8"	X	X		CAP - STIRRUP - VERT. - TOP
E616	6	13'-2"	X	X		CAP - HORIZ. - TOP
E517	11	2'-0"	X			SHAFT - HORIZ. - DOWEL

NOTES:

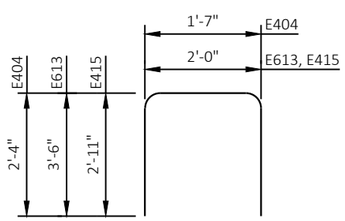
THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

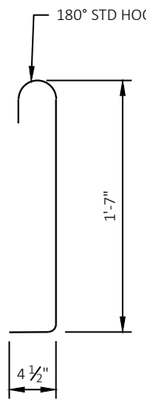
LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



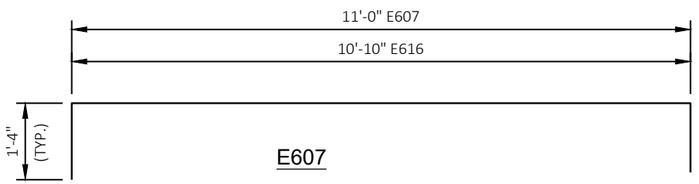
E803



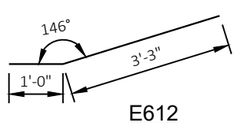
E404, E613, E415



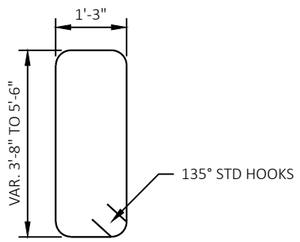
E406



E607



E612



E414

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
E414	4 SERIES OF 6	10'-4" TO 14'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

▼ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".

◐ BUNDLE E607 AND E616 BARS

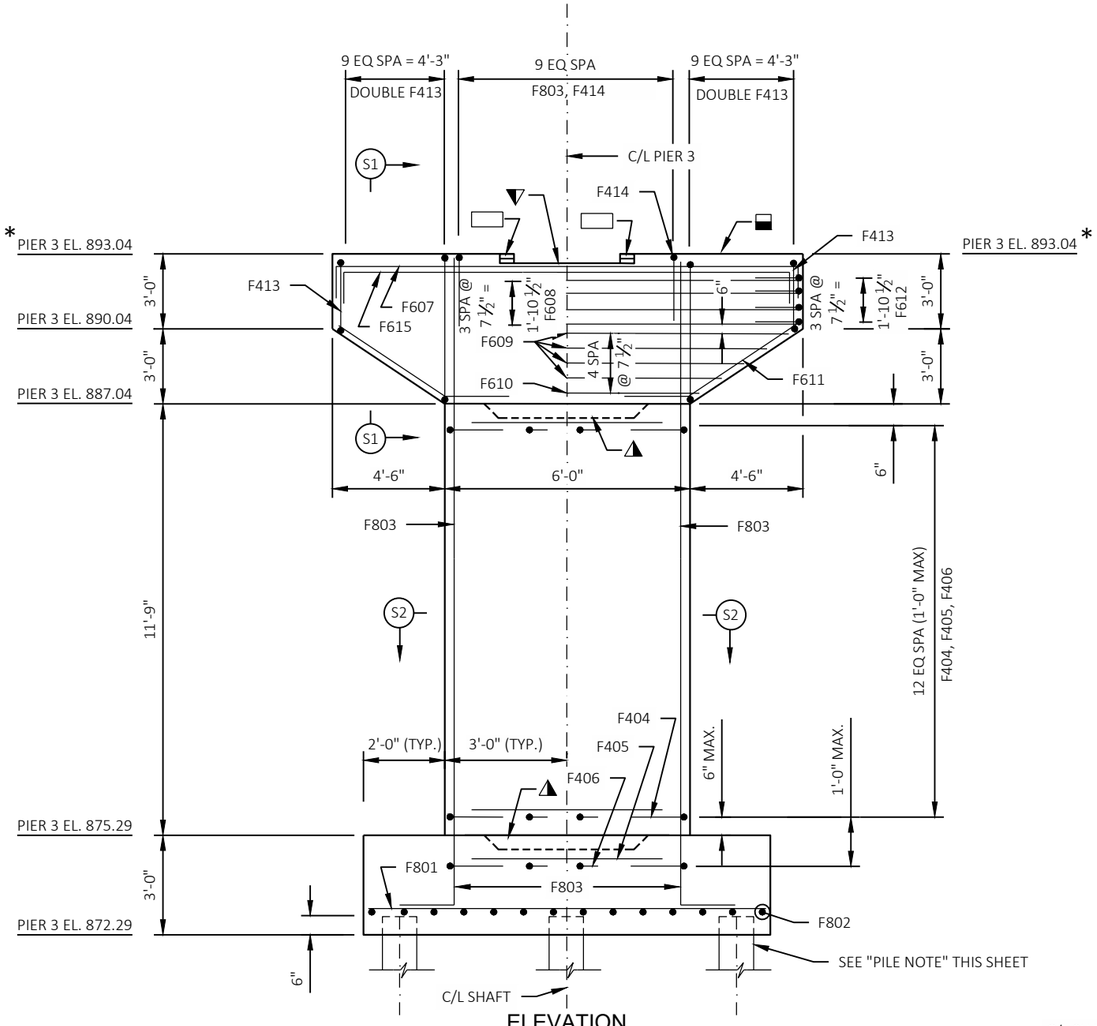
NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE B–13–891

DRAWN BY STD | PLANS CK'D. CAH

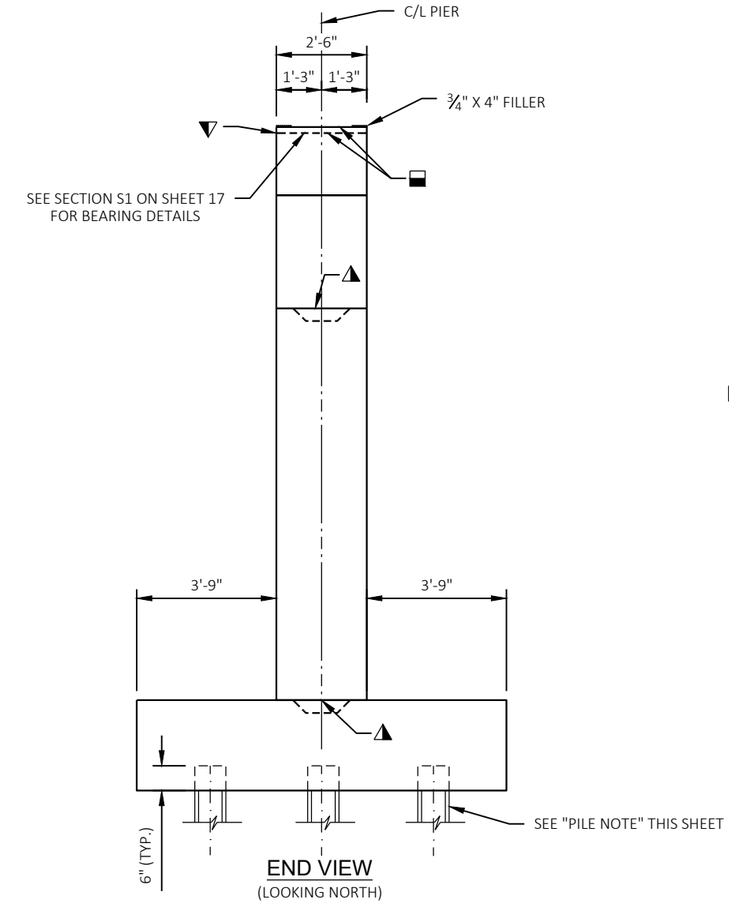
PIER 2 DETAILS

SHEET 15 OF 41
583

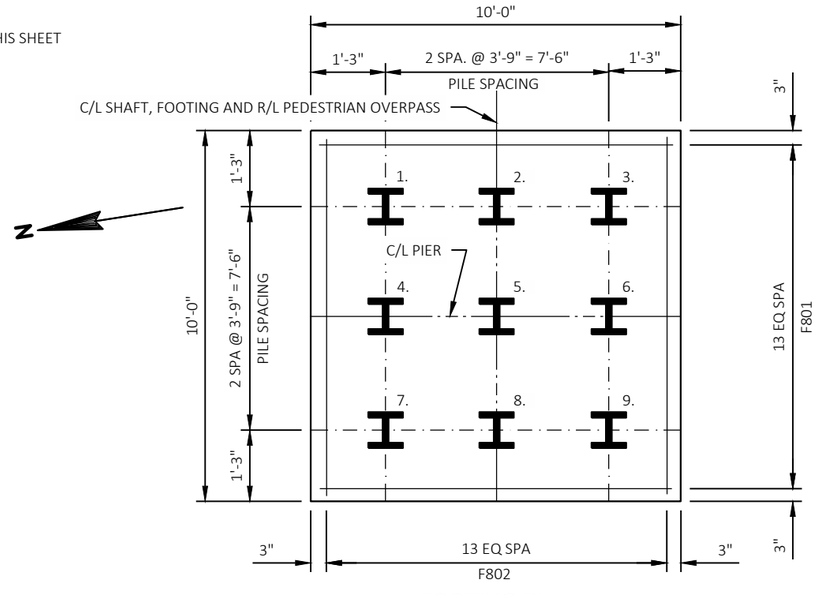


ELEVATION
(LOOKING EAST)

PLAN



END VIEW
(LOOKING NORTH)



FOOTING PLAN

STATE PROJECT NUMBER

5992–11–31

LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 4"x1'-0"x3'-6".
- 3'-0" X3" KEYWAY, ORIENT AS SHOWN IN PLAN VIEW.
- * ELEVATIONS GIVEN AT C/L PIER CAP
- ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING PADS AND SUPERSTRUCTURE TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB (TYP.)

PILE NOTES

PIER TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE. ESTIMATED 45 FT LONG.

NOTES

SEE SHEET 17 FOR REINFORCING DETAILS.

ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY, SEE SHEET 24 FOR REQUIREMENTS.

SEE SHEET 17 FOR SECTIONS S1 AND S2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

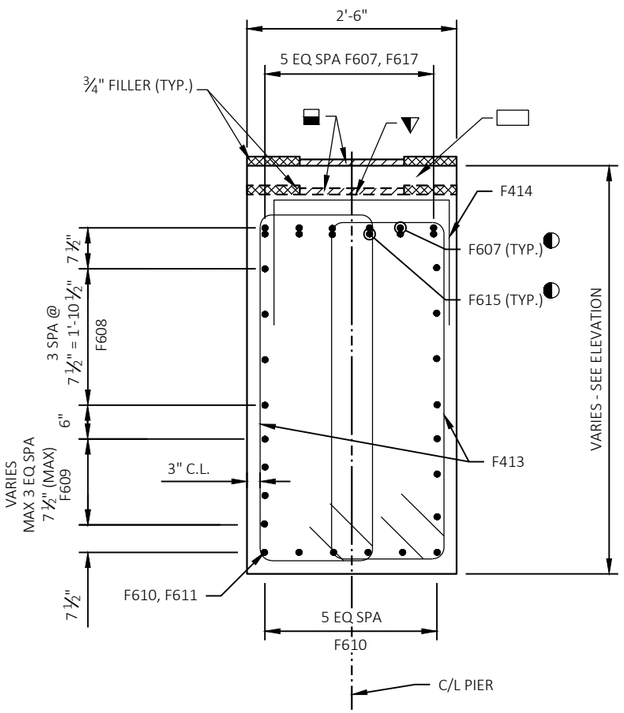
PIER 3

SHEET 16 OF 41
584

8

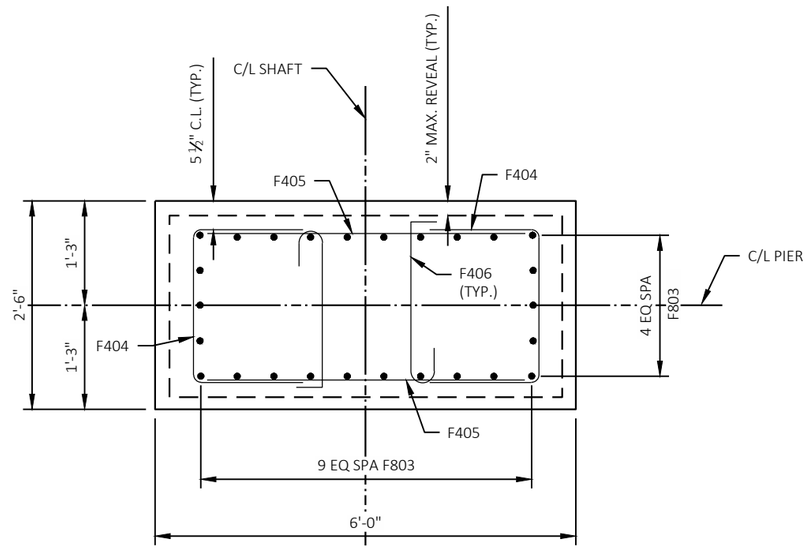
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PLOT DATE : 11/11/2021 8:49 AM
PLOT BY : KL ENGINEERING

STATE PROJECT NUMBER
5992–11–31



SECTION S1

SECTION THRU CAP



SECTION S2

SECTION THRU SHAFT

PIER 3

BILL OF BARS

UNCOATED: 720 LBS

COATED: 2,950 LBS

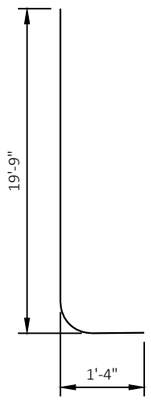
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
F801	14	9'-6"				FOOTING - HORIZ.
F802	14	9'-6"				FOOTING - HORIZ.
F803	26	20'-10"	X	X		FOOTING AND SHAFT - VERT.
F404	28	6'-1"	X	X		SHAFT - HORIZ. - ENDS
F405	28	5'-0"	X			SHAFT - HORIZ.
F406	28	2'-5"	X	X		SHAFT - HORIZ. - TIES
F607	6	16'-10"	X	X		CAP - HORIZ. - TOP
F608	8	14'-6"	X			CAP - HORIZ. - SIDES
F609	8	10'-10"	X		X	CAP - HORIZ. - SIDES
F610	6	6'-3"	X			CAP - HORIZ. - SIDES AND BOTTOM
F611	12	6'-4"	X	X		CAP - HORIZ. - SIDES AND BOTTOM
F612	8	8'-8"	X	X		CAP - HORIZ. - ENDS
F413	40	10'-8"	X	X	X	CAP - STIRRUP - VERT.
F414	15	7'-8"	X	X		CAP - STIRRUP - VERT. - TOP
F615	6	16'-8"	X			CAP - HORIZ. - TOP

NOTES:

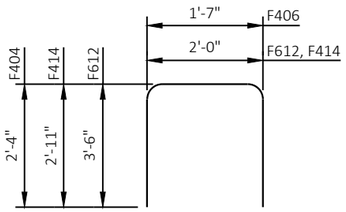
THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

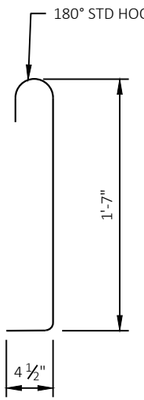
LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



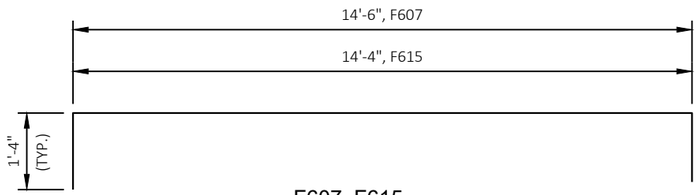
F803



F404, F612, F414



F406

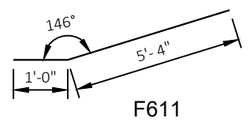


F607, F615

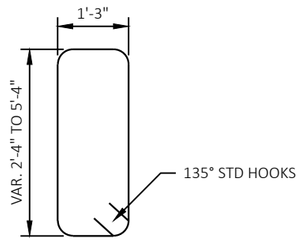
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
F609	2 SERIES OF 4	8'-0" TO 13'-7"
F413	4 SERIES OF 10	7'-8" TO 13'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY



F611



F413

LEGEND

½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING PADS AND SUPERSTRUCTURE TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

3'-0" X 3" KEYWAY, ORIENT AS SHOWN IN PLAN VIEW ON SHEET 16. EXTEND FULL WIDTH OF CAP.

BUNDLE F607 AND F617 BARS

¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB (TYP.)

NO.	DATE	REVISION	BY

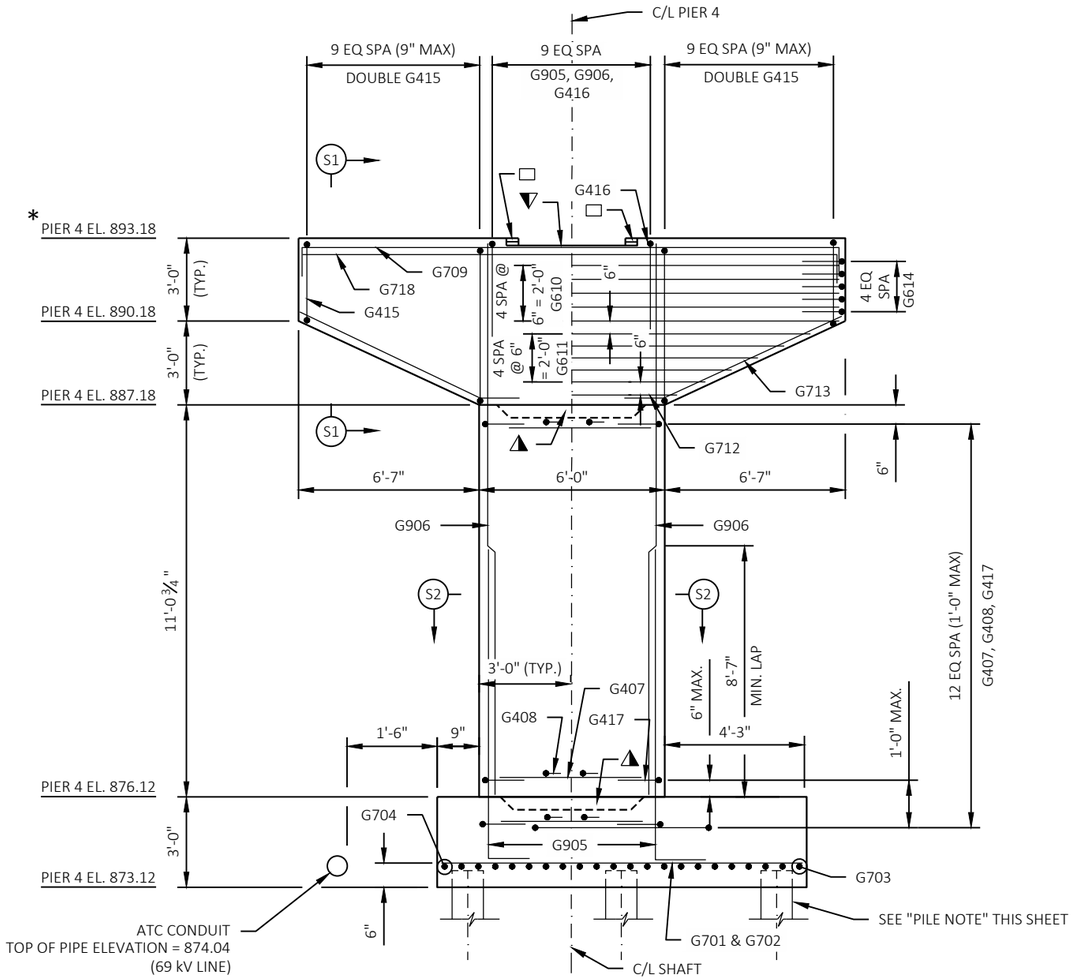
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

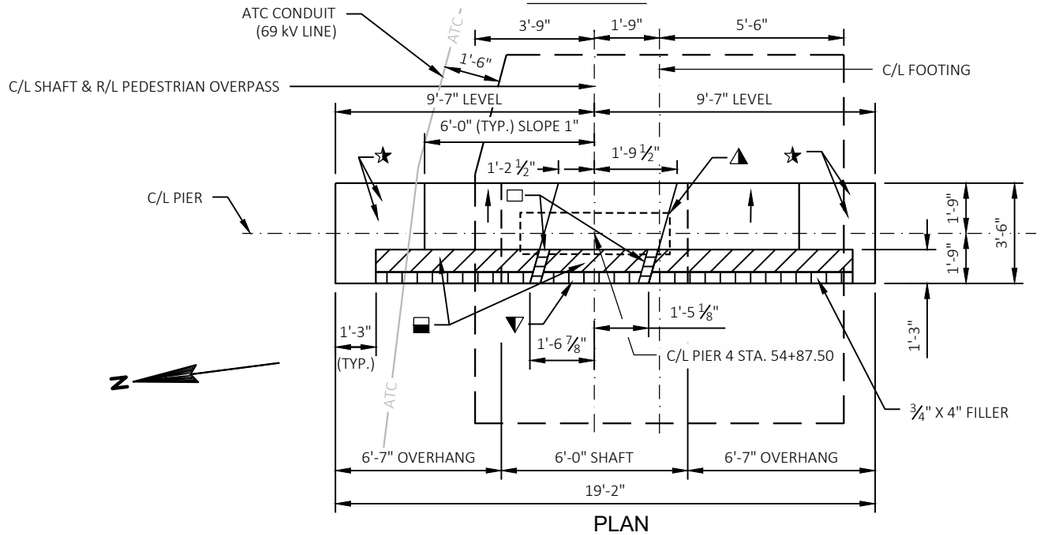
DRAWN BY STD | PLANS CK'D. CAH

PIER 3 DETAILS

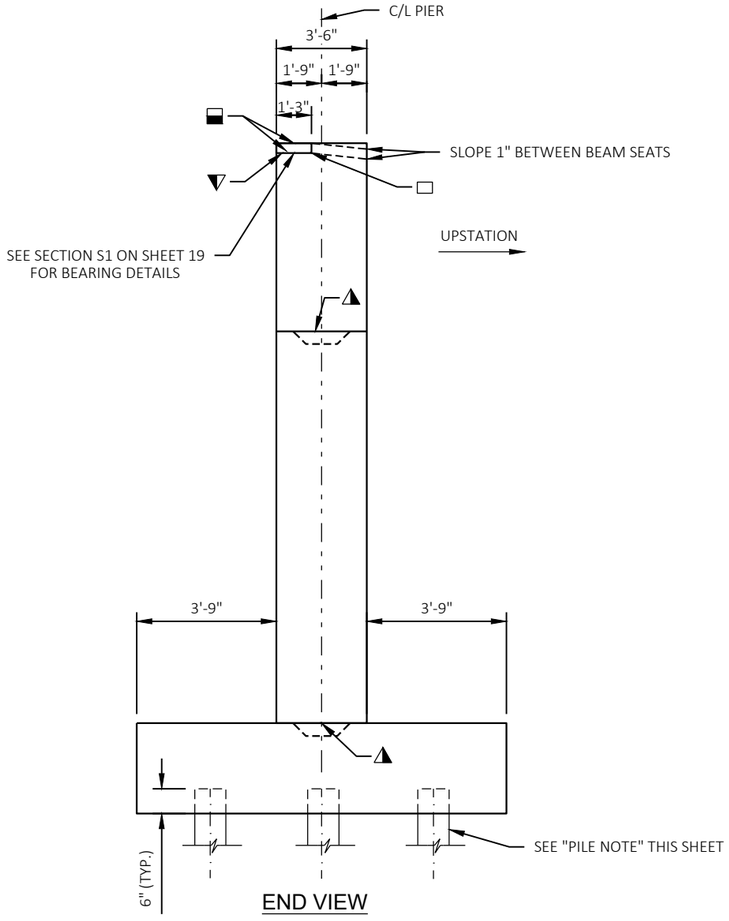
SHEET 17 OF 41
585



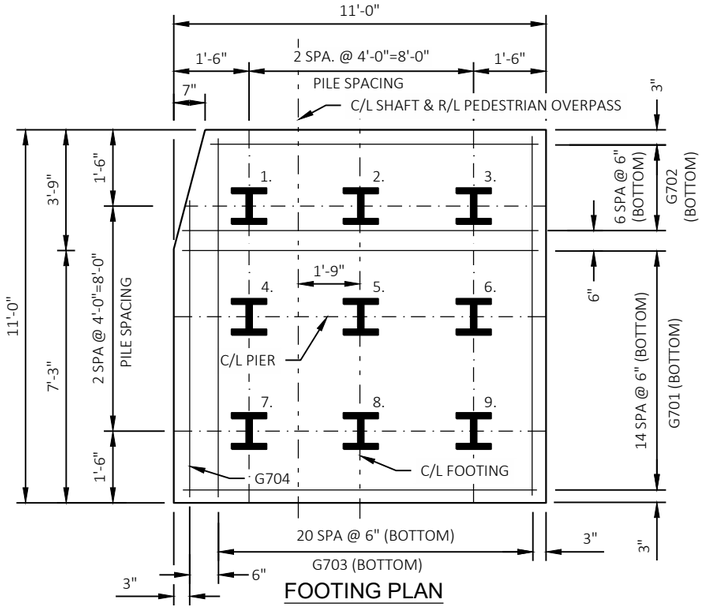
ELEVATION



PLAN



END VIEW



FOOTING PLAN

STATE PROJECT NUMBER

5992–11–31

LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 4"x1'-0"x3'-6".
- 3'-0" x 3" KEYWAY, ORIENT AS SHOWN IN THE PLAN VIEW.
- ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING AREA BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB (TYP.)
- PREFABRICATED BRIDGE ANCHOR BOLTS. COORDINATE ANCHOR BOLT REQUIREMENTS WITH PREFABRICATED BRIDGE MANUFACTURER.
- * ELEVATIONS GIVEN AT C/L PIER CAP

PILE NOTES

PIER TO BE SUPPORTED ON HP 12 x 53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. ESTIMATED 40 FT LONG.

NOTES

SEE SHEET 19 FOR REINFORCING DETAILS.

SEE SHEET 19 FOR SECTIONS S1 AND S2.

ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY, SEE SHEET 24 FOR REQUIREMENTS.

NO.	DATE	REVISION	BY

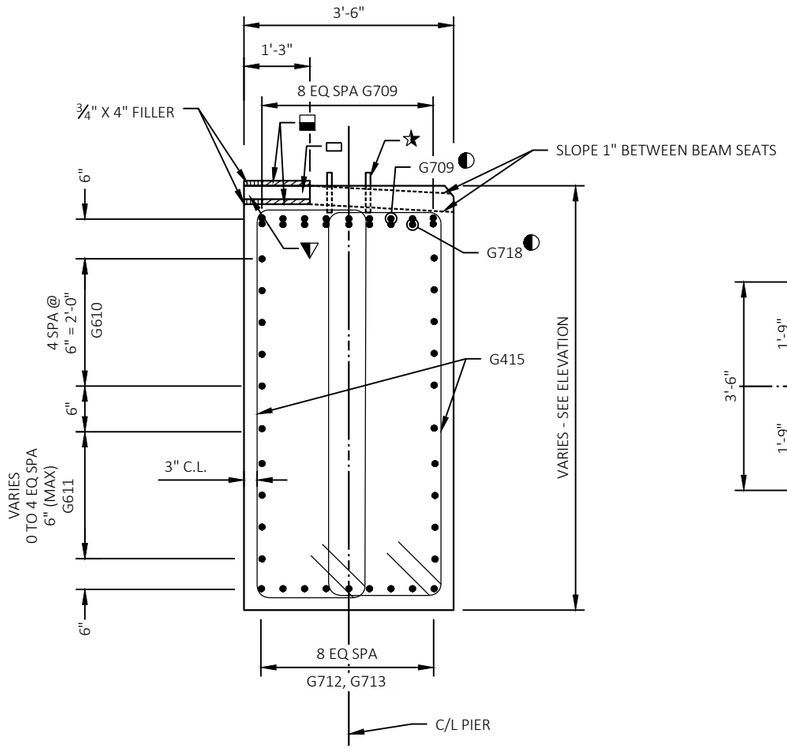
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

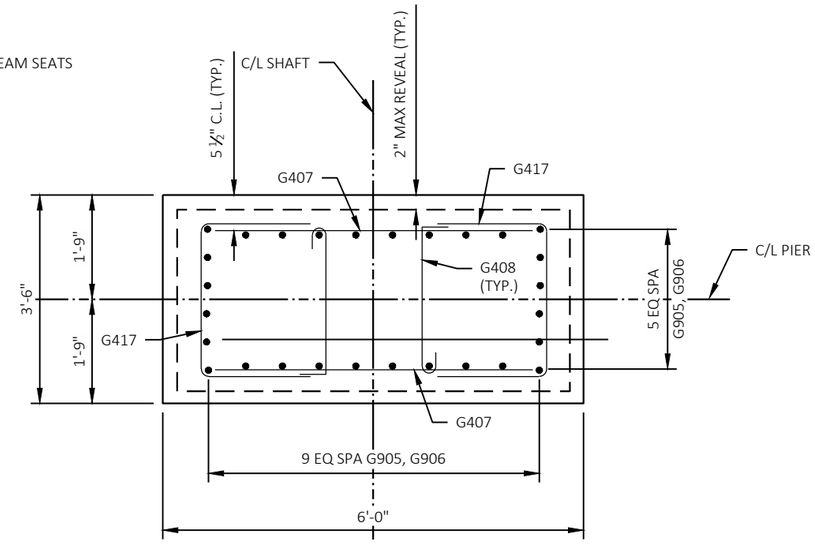
PIER 4

SHEET 18 OF 41
586



SECTION S1

SECTION THRU CAP



SECTION S2

SECTION THRU SHAFT

PIER 4

BILL OF BARS

UNCOATED: 940 LBS

COATED: 5,240 LBS

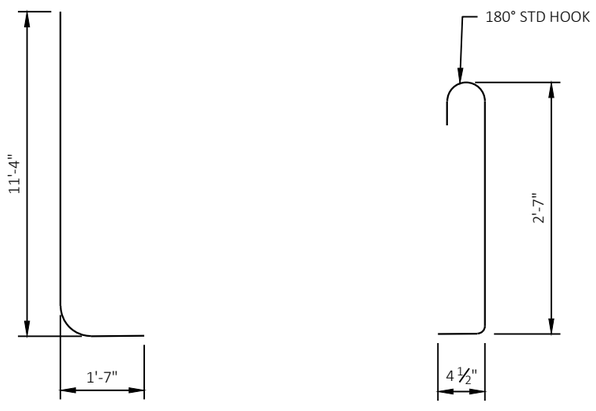
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
G701	15	10'-6"				FOOTING - HORIZ.
G702	7	10'-2"			X	FOOTING - HORIZ.
G703	21	10'-6"				FOOTING - HORIZ.
G704	1	8'-4"				FOOTING - HORIZ.
G905	28	12'-8"	X	X		FOOTING AND SHAFT - VERT.
G906	28	16'-3"	X			SHAFT - VERT.
G407	26	5'-1"	X			SHAFT - HORIZ.
G408	26	3'-5"	X	X		SHAFT - HORIZ. - TIES
G709	9	21'-6"	X	X		CAP - HORIZ. - TOP
G610	10	18'-8"	X			CAP - HORIZ. - SIDES
G611	10	13'-1"	X		X	CAP - HORIZ. - SIDES
G712	9	6'-7"	X			CAP - HORIZ. - SIDES AND BOTTOM
G713	18	8'-0"	X	X		CAP - HORIZ. - SIDES AND BOTTOM
G614	10	9'-8"	X	X		CAP - HORIZ. - ENDS
G415	40	12'-2"	X	X	X	CAP - STIRRUP - VERT.
G416	10	8'-8"	X	X		CAP - VERT. - TOP
G417	26	7'-0"	X	X		SHAFT - HORIZ. - ENDS
G718	9	21'-4"	X	X		CAP - HORIZ. - TOP

NOTES:

THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

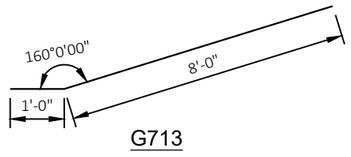
DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

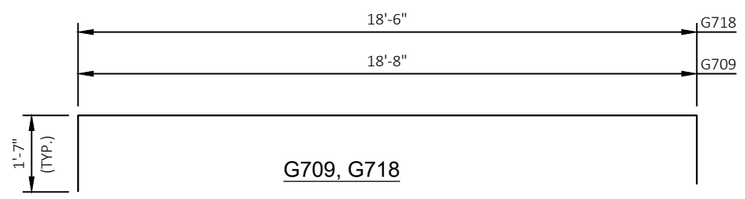


G905

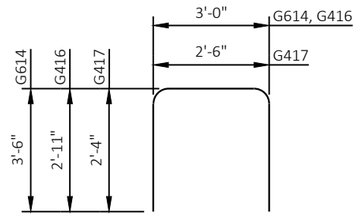
G408



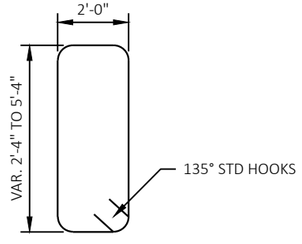
G713



G709, G718



G614, G416, G417



G415

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
G702	1 SERIES OF 7	9'-11" TO 10'-5"
G611	2 SERIES OF 5	8'-9" TO 17'-5"
G415	4 SERIES OF 10	9'-2" TO 15'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

- ▼ 3'-0" x 3" KEYWAY, ORIENT AS SHOWN IN PLAN VIEW ON SHEET 18.
- ▬ ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING AREA BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ★ PREFABRICATED BRIDGE ANCHOR BOLTS. COORDINATE ANCHOR BOLT REQUIREMENTS WITH PREFABRICATED BRIDGE MANUFACTURER.
- ▭ ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB (TYP.)
- ◐ BUNDLE G709 AND G718 BARS

NO.	DATE	REVISION	BY

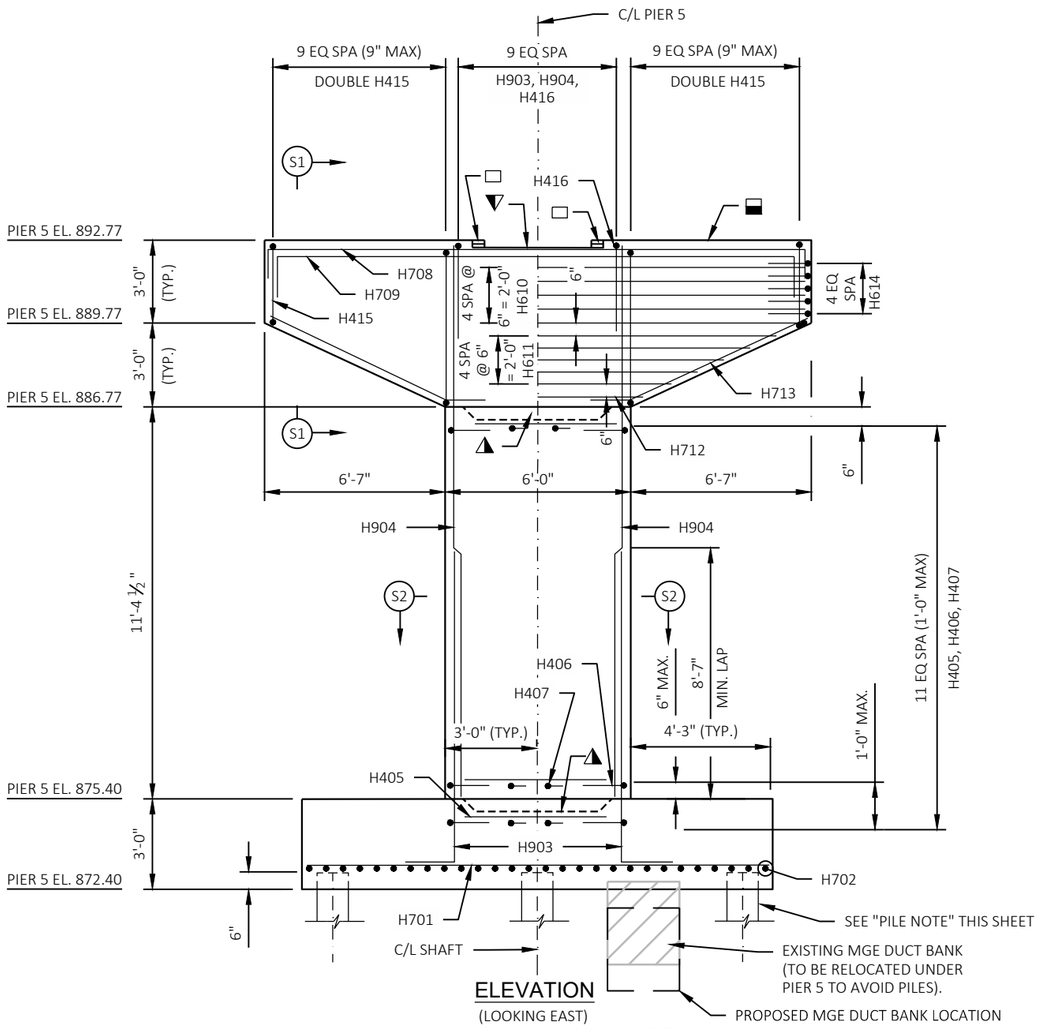
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-891

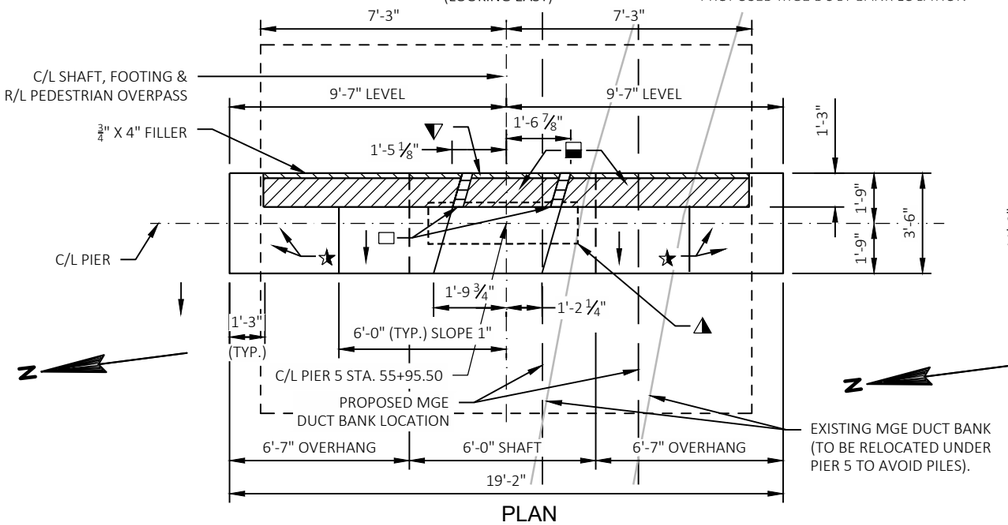
DRAWN BY STD | PLANS CK'D. CAH

PIER 4 DETAILS

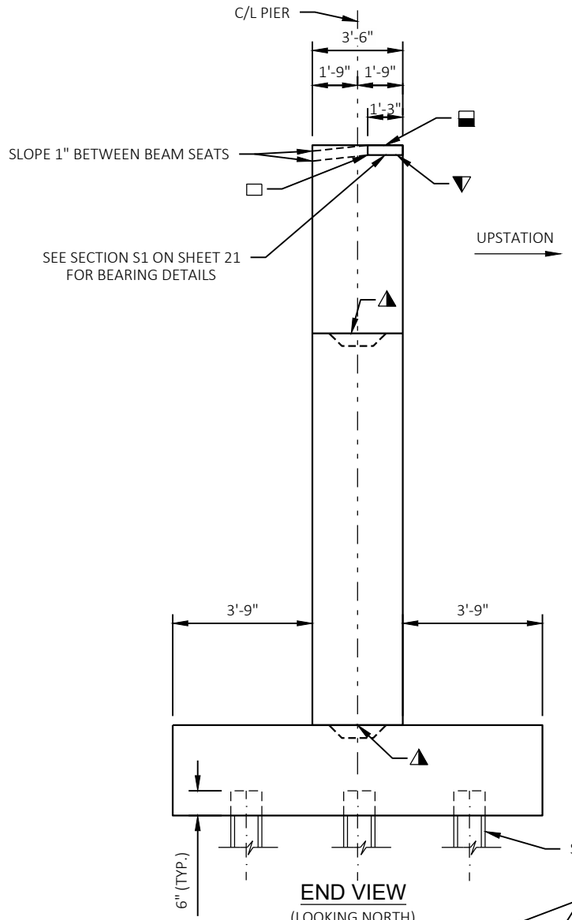
SHEET 19 OF 41
587



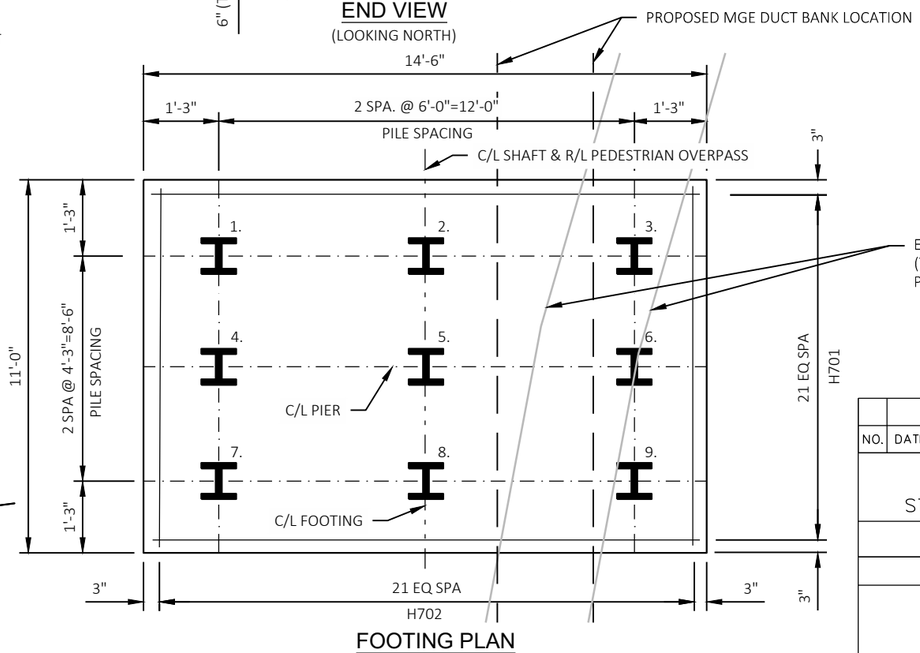
ELEVATION
(LOOKING EAST)



PLAN



END VIEW
(LOOKING NORTH)



FOOTING PLAN

STATE PROJECT NUMBER

5992-11-31

LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 4"x1'-0"x3'-6".
- 3-0" x 3" KEYWAY, ORIENT AS SHOWN IN PLAN VIEW.
- ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING AREA BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB
- PREFABRICATED BRIDGE ANCHOR BOLTS. COORDINATE ANCHOR BOLT REQUIREMENTS WITH PREFABRICATED BRIDGE MANUFACTURER.

PILE NOTES

PIER TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE. ESTIMATED 35 FT LONG.

NOTES

SEE SHEET 21 FOR REINFORCING DETAILS.

ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY, SEE SHEET 24 FOR REQUIREMENTS.

SEE SHEET 21 FOR SECTIONS S1 AND S2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE B-13-891

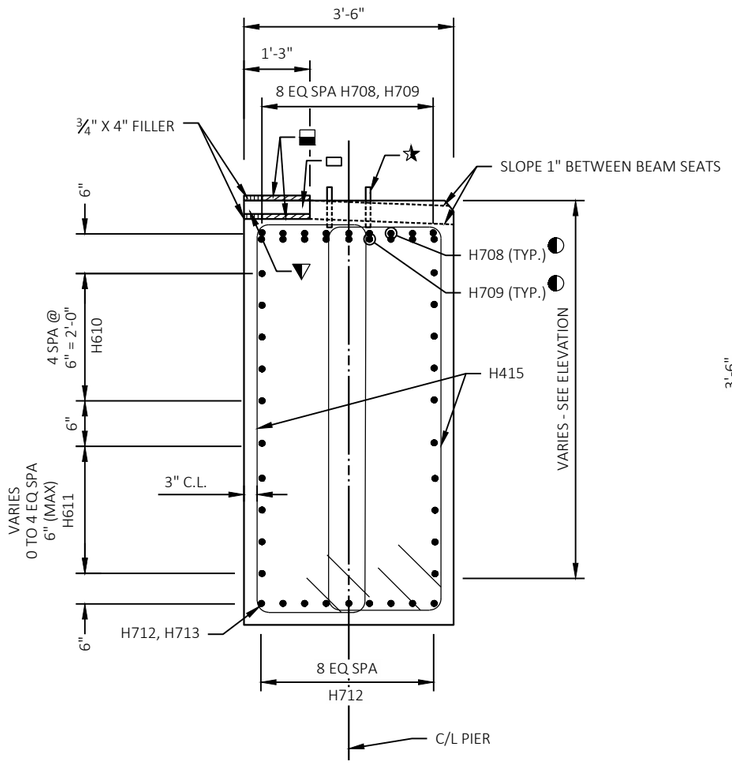
DRAWN BY STD | PLANS CK'D. CAH

PIER 5

SHEET 20 OF 41
588

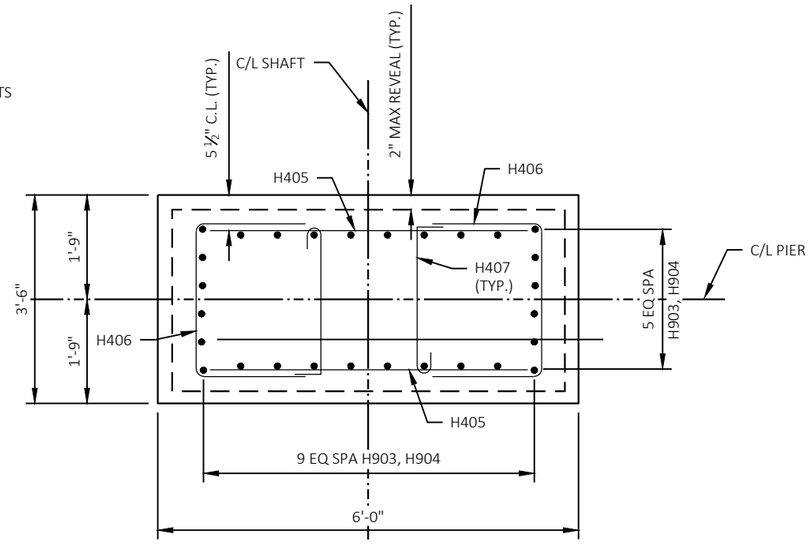
STATE PROJECT NUMBER

5992-11-31



SECTION S1

SECTION THRU CAP



SECTION S2

SECTION THRU SHAFT

PIER 5

BILL OF BARS

UNCOATED: 1,110 LBS

COATED: 5,300 LBS

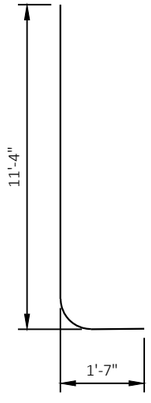
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
H701	22	14'-0"				FOOTING - HORIZ.
H702	22	10'-6"				FOOTING - HORIZ.
H903	28	12'-8"	X	X		FOOTING AND SHAFT - VERT.
H904	28	16'-10"	X			SHAFT - VERT.
H405	26	5'-1"	X			SHAFT - HORIZ.
H406	26	7'-0"	X	X		SHAFT - HORIZ. - ENDS
H407	26	3'-5"	X	X		SHAFT - HORIZ. - TIES
H708	9	21'-6"	X	X		CAP - HORIZ. - TOP
H709	9	21'-4"	X	X		CAP - HORIZ. - TOP
H610	10	18'-8"	X			CAP - HORIZ. - SIDES
H611	10	13'-1"	X		X	CAP - HORIZ. - SIDES
H712	9	6'-7"	X			CAP - HORIZ. - SIDES AND BOTTOM
H713	18	8'-3"	X	X		CAP - HORIZ. - SIDES AND BOTTOM
H614	10	9'-8"	X	X		CAP - HORIZ. - ENDS
H415	40	12'-2"	X	X	X	CAP - STIRRUP - VERT.
H416	10	8'-8"	X	X		CAP - STIRRUP - VERT. - TOP

NOTES:

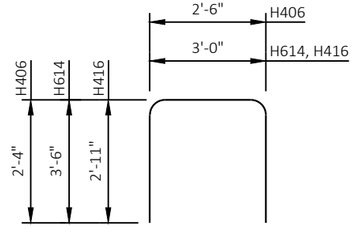
THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

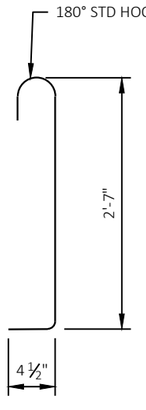
LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



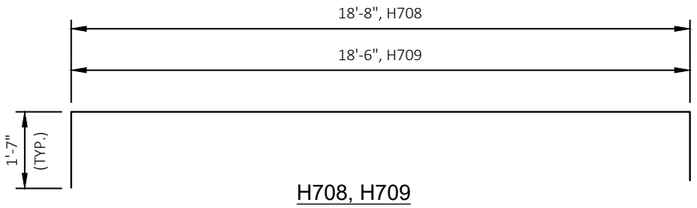
H903



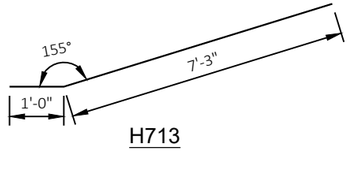
H406, H614, H416



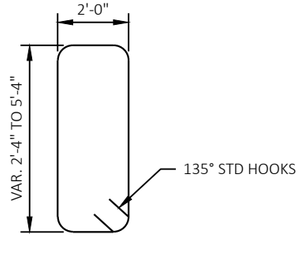
H407



H708, H709



H713



H415

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
H611	2 SERIES OF 5	8'-9" TO 17'-5"
H415	4 SERIES OF 10	9'-6" TO 15'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

- 3'-0" x 3" KEYWAY, ORIENT AS SHOWN IN THE PLAN VIEW ON SHEET 20.
- ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING AREA BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- PREFABRICATED BRIDGE ANCHOR BOLTS. COORDINATE ANCHOR BOLT REQUIREMENTS WITH PREFABRICATED BRIDGE MANUFACTURER.
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB.
- BUNDLE H708 AND H709 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

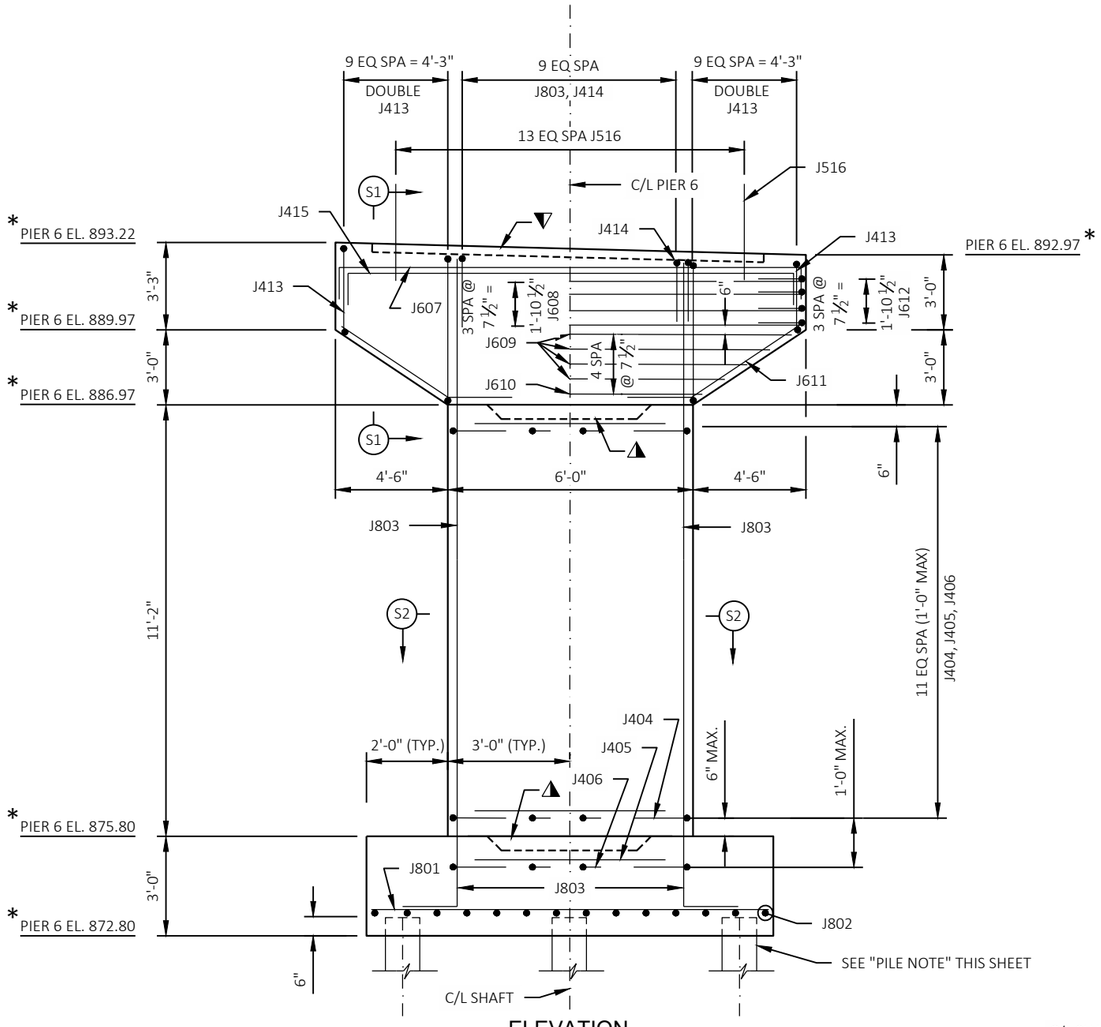
STRUCTURE B-13-891

DRAWN BY STD | PLANS CK'D. CAH

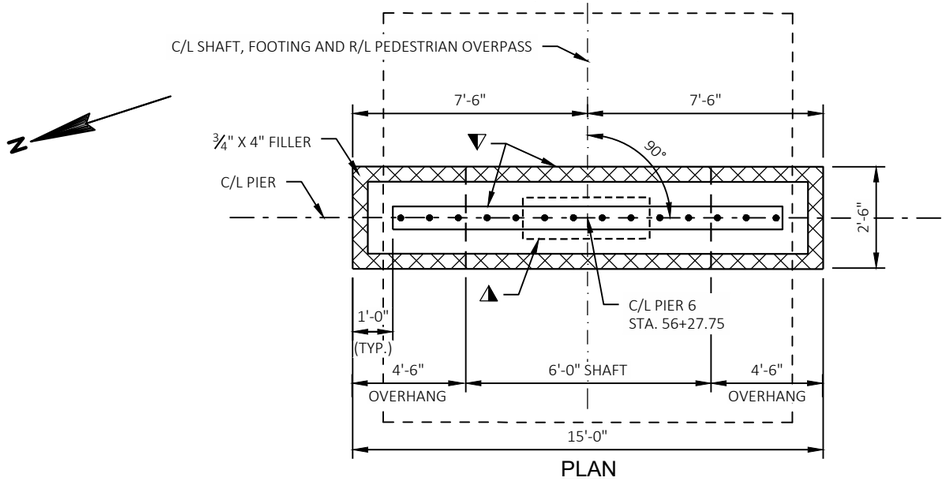
PIER 5 DETAILS

SHEET 21 OF 41

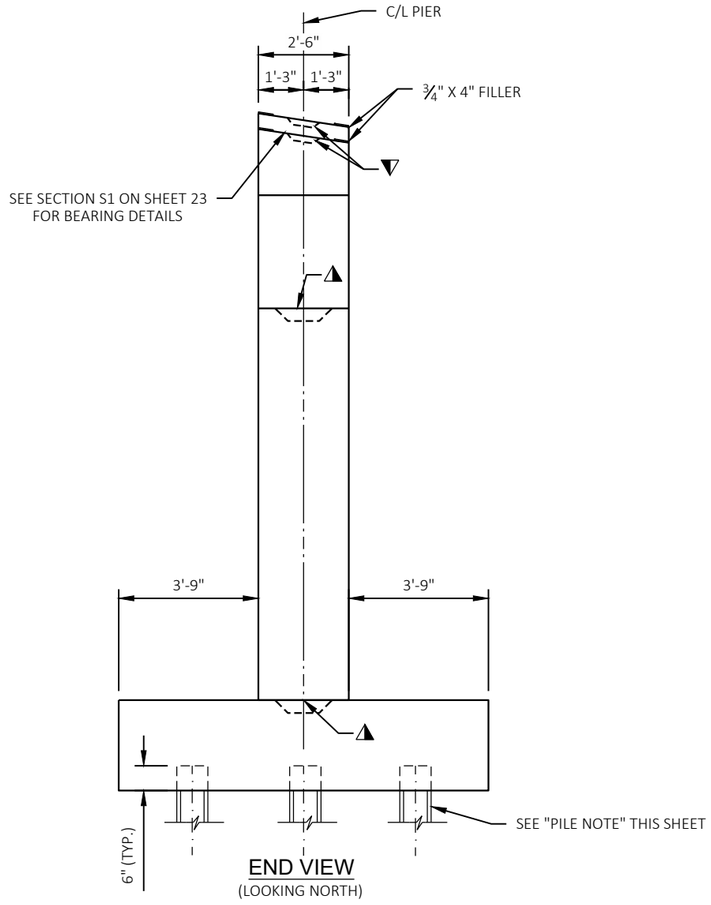
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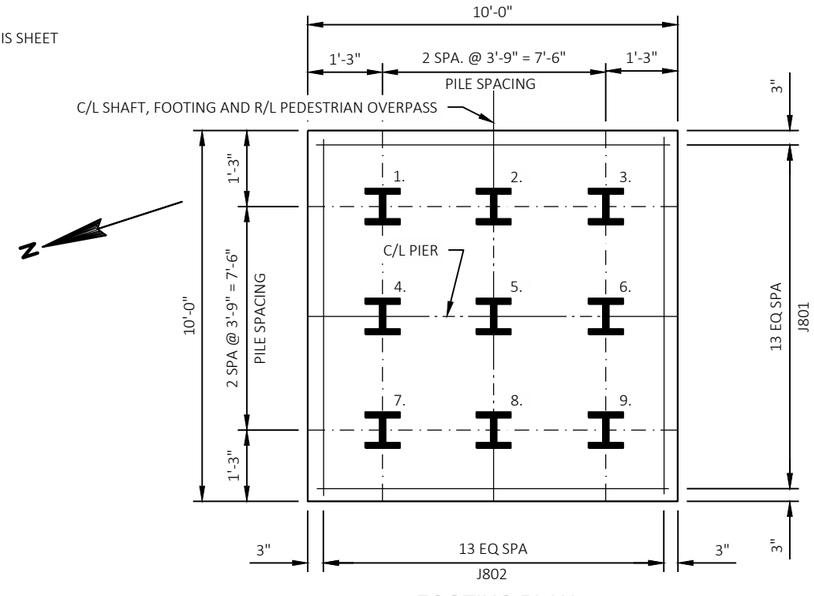
ELEVATION
(LOOKING EAST)



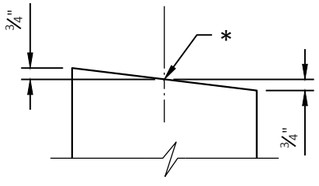
PLAN



END VIEW
(LOOKING NORTH)



FOOTING PLAN



SLOPED BEAM SEAT DETAIL
(LOOKING NORTH)

STATE PROJECT NUMBER

5992–11–31

LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 4"x1'-0"x3'-6".
- KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"X6".
- * ELEVATIONS GIVEN AT C/L PIER CAP

PILE NOTES

PIER TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS PER PILE. ESTIMATED 35 FT LONG.

NOTES

SEE SHEET 23 FOR REINFORCING DETAILS.

ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY, SEE SHEET 24 FOR REQUIREMENTS.

SEE SHEET 23 FOR SECTIONS S1 AND S2.

NO.	DATE	REVISION	BY

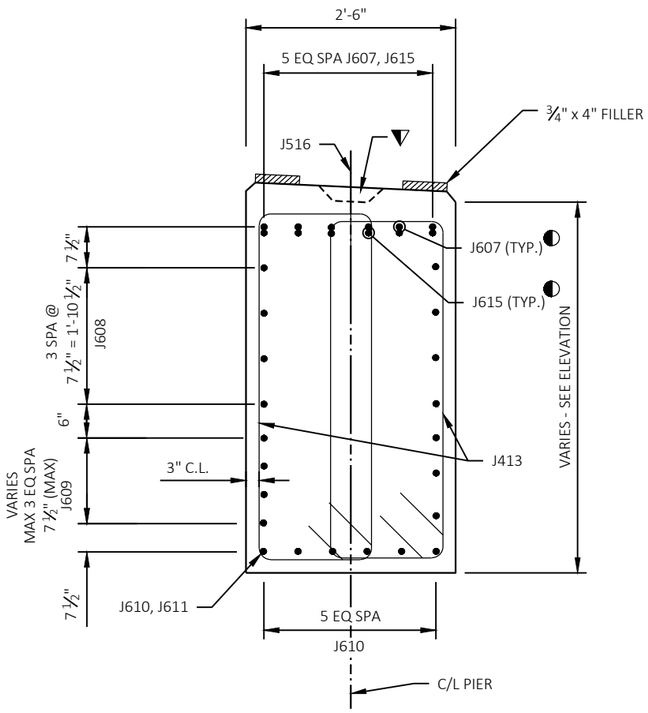
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY STD | PLANS CK'D. CAH

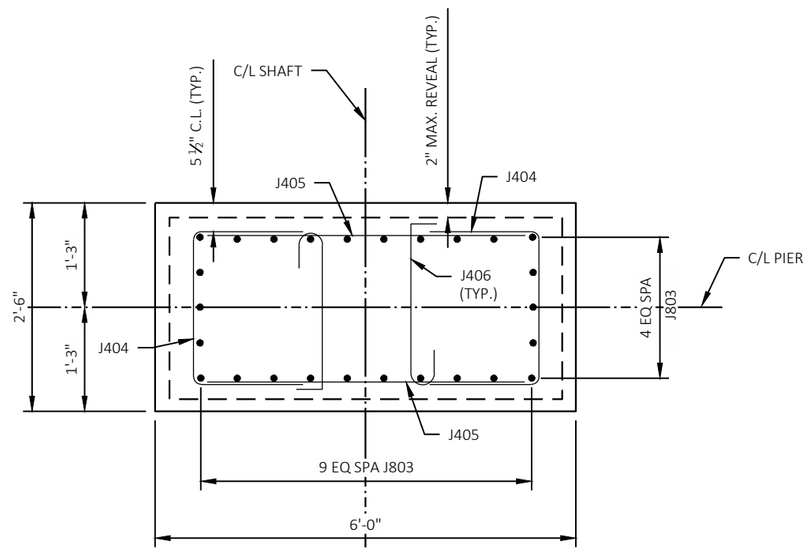
PIER 6

SHEET 22 OF 41
590



SECTION S1

SECTION THRU CAP



SECTION S2

SECTION THRU SHAFT

PIER 6

BILL OF BARS

UNCOATED: 720 LBS

COATED: 2,900 LBS

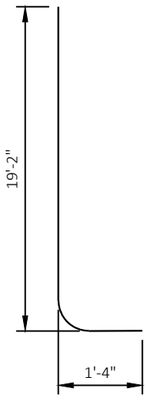
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
J801	14	9'-6"				FOOTING - HORIZ.
J802	14	9'-6"				FOOTING - HORIZ.
J803	26	20'-3"	X	X		FOOTING AND SHAFT - VERT.
J404	26	6'-1"	X	X		SHAFT - HORIZ. - ENDS
J405	26	5'-0"	X			SHAFT - HORIZ.
J406	26	2'-5"	X	X		SHAFT - HORIZ. - TIES
J607	6	16'-10"	X	X		CAP - HORIZ. - TOP
J608	8	14'-6"	X			CAP - HORIZ. - SIDES
J609	8	10'-10"	X		X	CAP - HORIZ. - SIDES
J610	6	6'-3"	X			CAP - HORIZ. - SIDES AND BOTTOM
J611	12	6'-4"	X	X		CAP - HORIZ. - SIDES AND BOTTOM
J612	8	8'-8"	X	X		CAP - HORIZ. - ENDS
J413	40	11'-0"	X	X	X	CAP - STIRRUP - VERT.
J414	10	7'-8"	X	X		CAP - STIRRUP - VERT. - TOP
J615	6	16'-8"	X	X		CAP - HORIZ. - TOP
J516	14	2'-0"	X			CAP - VERT. - DOWELS

NOTES:

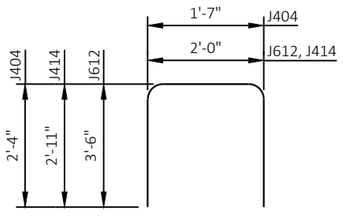
THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

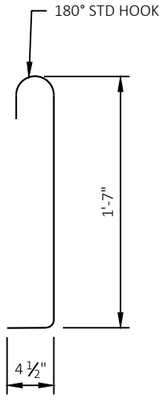
LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



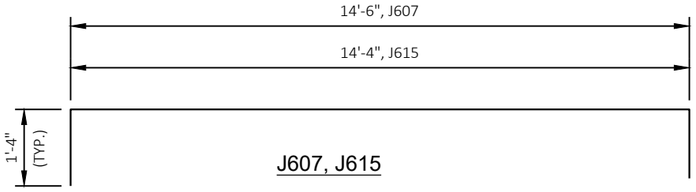
J803



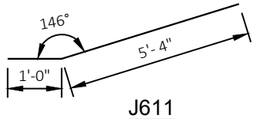
J404, J612, J414



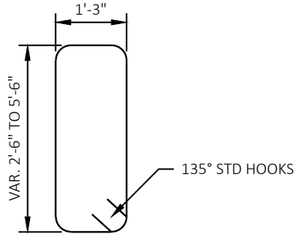
J406



J607, J615



J611



J413

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
J609	2 SERIES OF 4	8'-0" TO 13'-7"
J413	4 SERIES OF 10	8'-0" TO 14'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

▼ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6".

◐ BUNDLE J607 AND J615 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

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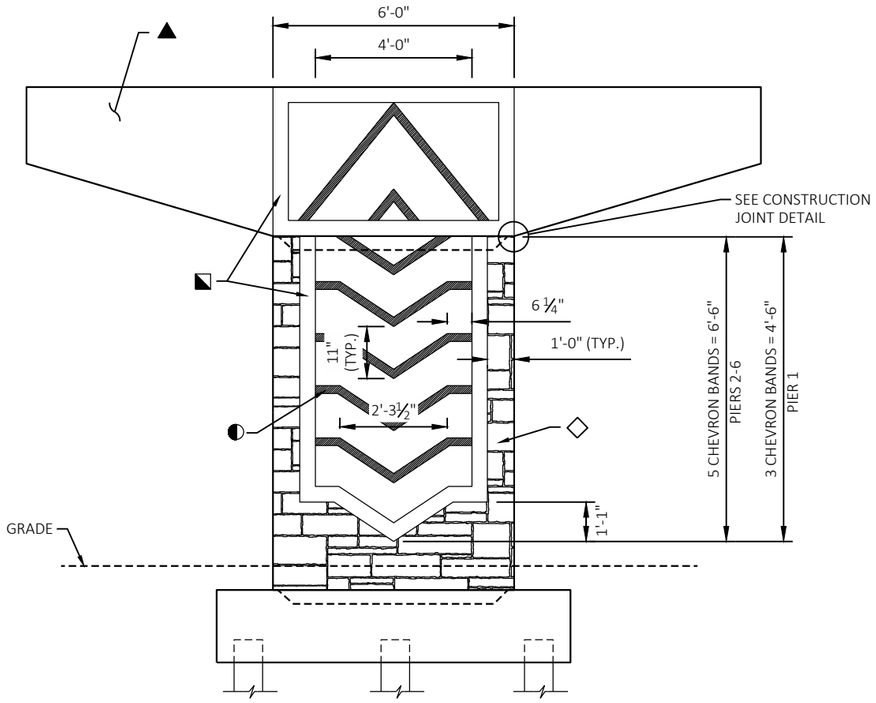
PIER 6 DETAILS

SHEET 23 OF 41

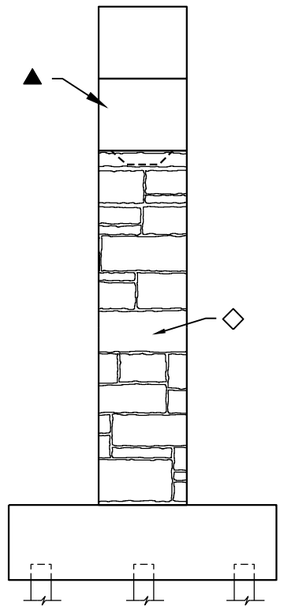
591

STATE PROJECT NUMBER

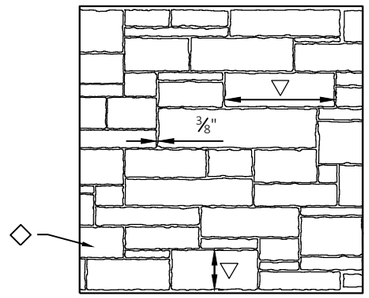
5992–11–31



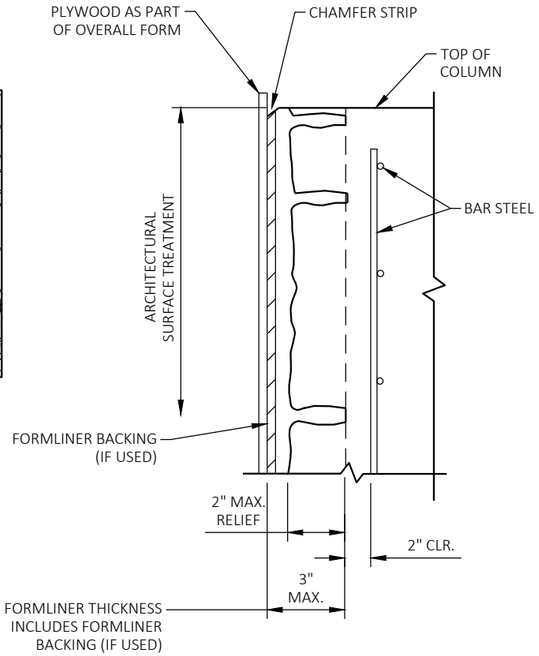
FRONT FACE ELEVATION
PIERS 1-6
AESTHETIC DETAILS
(BACK FACE SIMILAR)



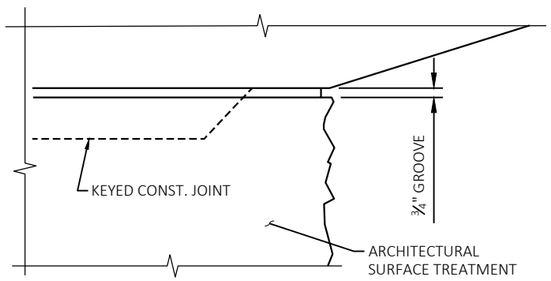
SIDE ELEVATION
PIERS 1-6



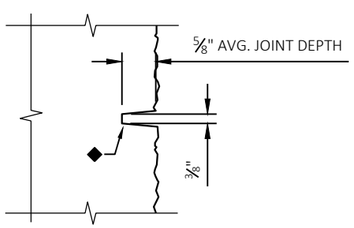
FORMLINER DETAIL



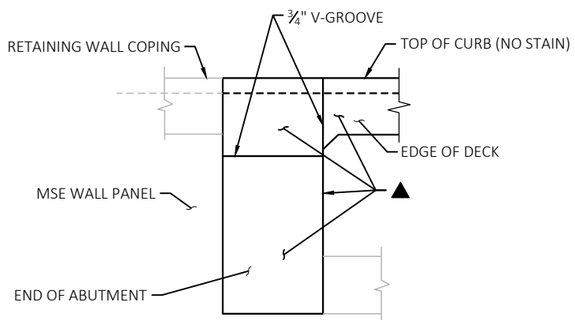
SECTION THRU FORMLINER



CONSTRUCTION JOINT DETAIL



"MORTAR JOINT" DETAIL
APPLIES TO HORIZONTAL & VERTICAL JOINTS



ABUTMENT DETAIL

NOTES

FORMLINER PATTERN SHALL BE LEVEL AND CONTINUOUS AROUND ALL CORNERS.

THE COST OF FORMLINER TREATMENTS IS PAID FOR UNDER SPECIAL PROVISONS "ARCHITECTURAL SURFACE TREATMENT". MAX. ALLOWED FORMLINER THICKNESS IS 3". MAX. RELIEF IS 2".

ARCHITECTURAL SURFACE TREATMENT AND STAIN SHALL EXTEND TO TOP OF FOOTING.

CONTRACTOR TO PROVIDE FULL HEIGHT MOCK-UP FOR REVIEW OF AESTHETIC DETAILS AND CONCRETE COLOR STAINING SELECTION BY WISDOT PROJECT REPRESENTATIVE.

LEGEND

- ▲ CIP CONCRETE, RUBBED FINISH ON ALL SIDES EXCEPT TOP, TYP. STAIN COLOR NUMBER AMS-STD 23448.
- ◪ 4" WIDE BORDER, 3/4" PROJECTION FROM VERTICAL FACE, TYP. STAIN COLOR NUMBER AMS-STD 10115.
- ◐ 2" WIDE BORDER 3/4" REVEAL, TYP. STAIN COLOR NUMBER AMS-STD 10115.
- ◇ CUSTOM-ROCK FORMLINER NUMBER #12010 "MINNEHAHA BLEND" OR APPROVED EQUAL. SPLIT FACE FINISH ALL EXPOSED SURFACES AND EDGES UNLESS NOTED OTHERWISE. MULTI-COLOR STAIN NUMBERS AMS-STD 20400, 23564 AND 23722.
- ▽ STONE SIZE VARIES FROM 4" TO 30".
- ◆ MORTAR STAIN COLOR NUMBER AMS-STD 23564.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

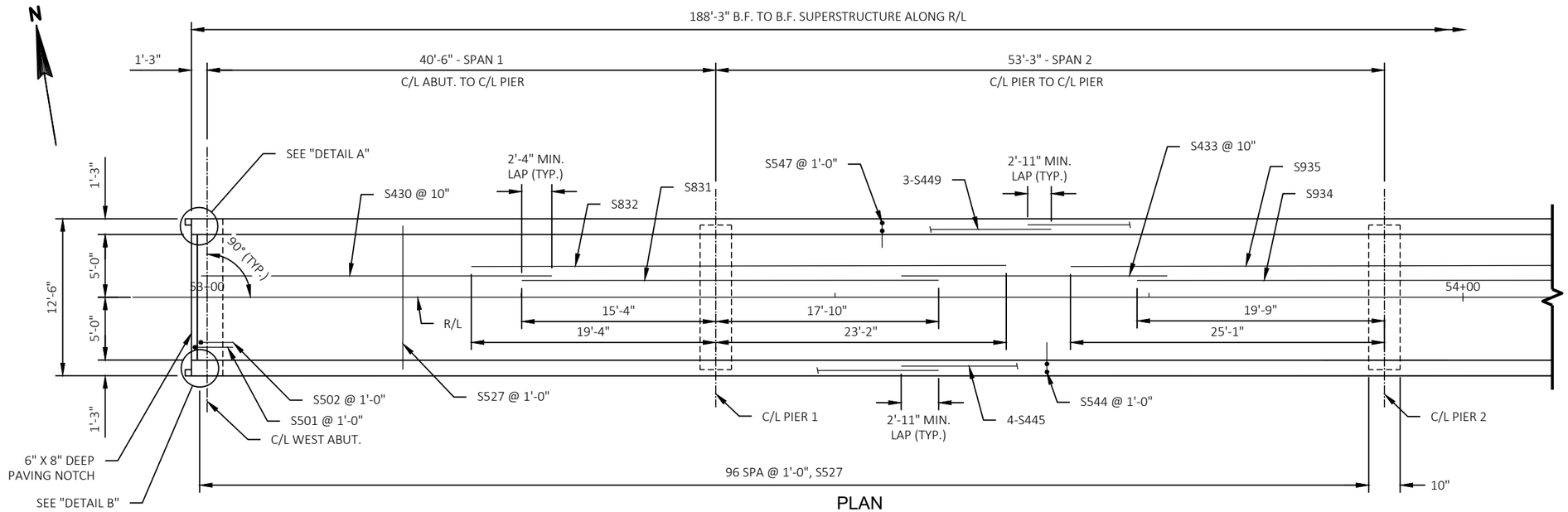
STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

AESTHETIC DETAILS

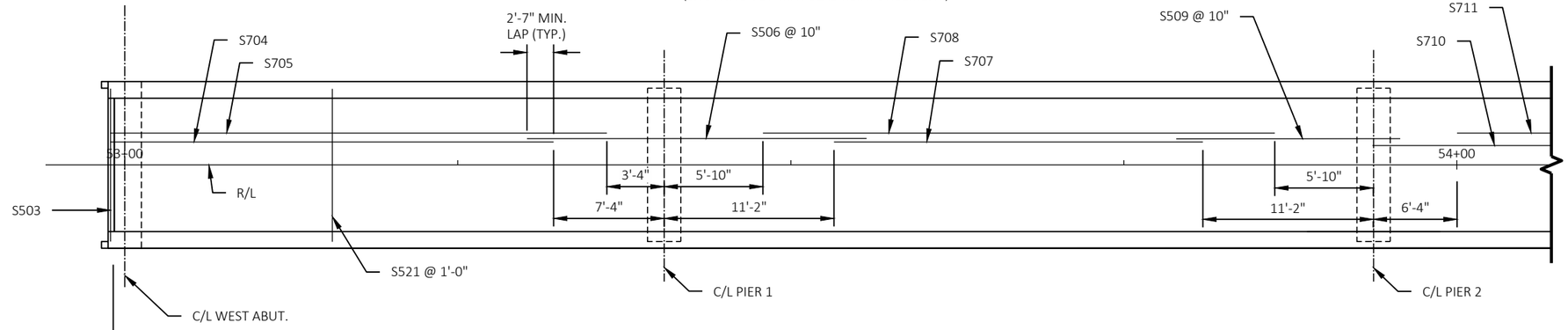
SHEET 24 OF 41
592

STATE PROJECT NUMBER
5992–11–31



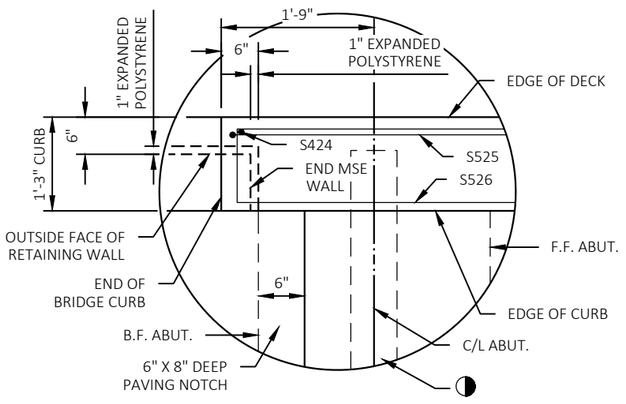
PLAN

(SHOWING TOP MAT SLAB REINFORCEMENT)



PLAN

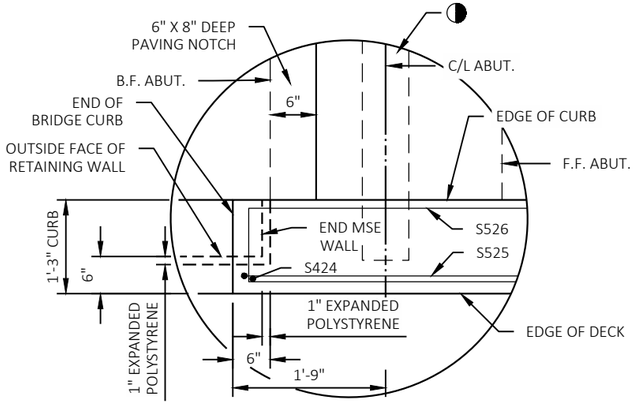
(SHOWING BOTTOM MAT SLAB REINFORCEMENT)



DETAIL 'A'

LEGEND

◑ HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" X 6".



DETAIL 'B'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

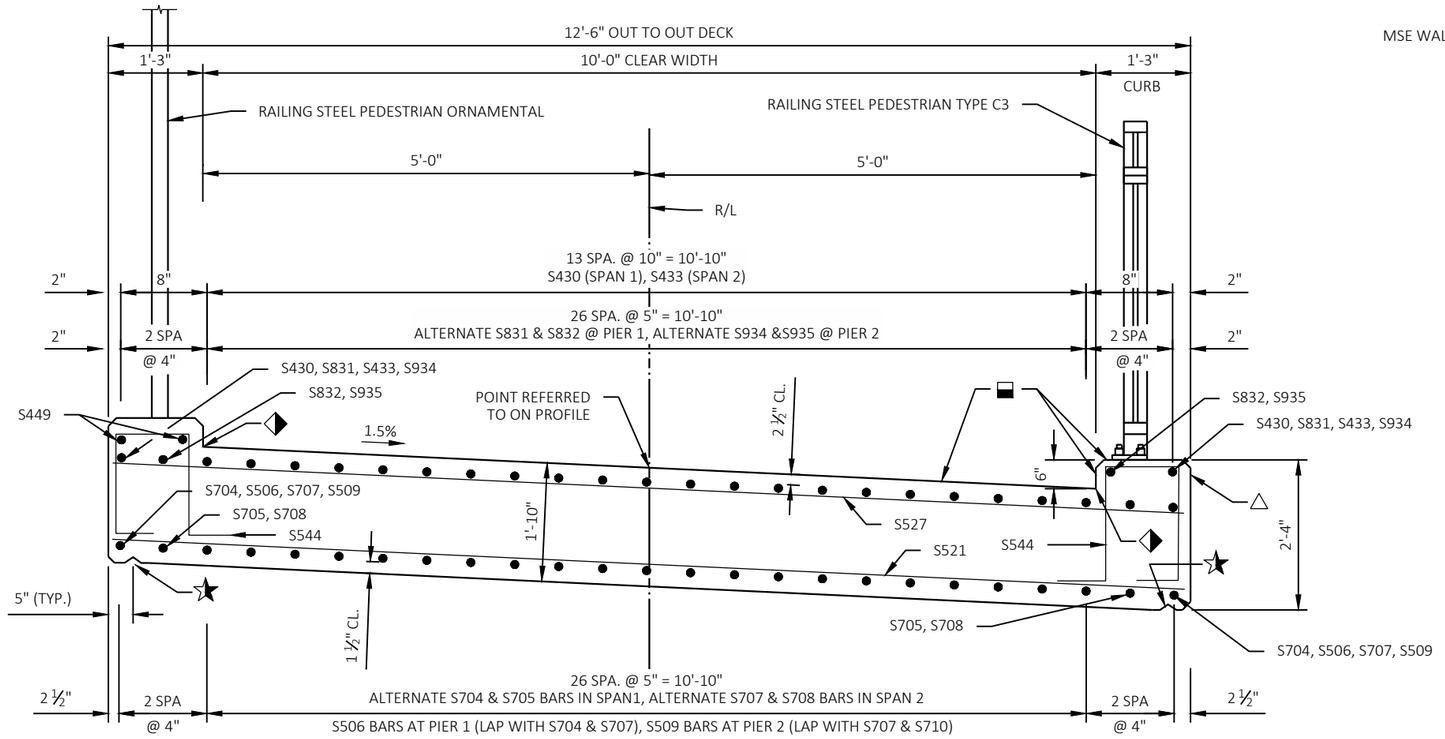
STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

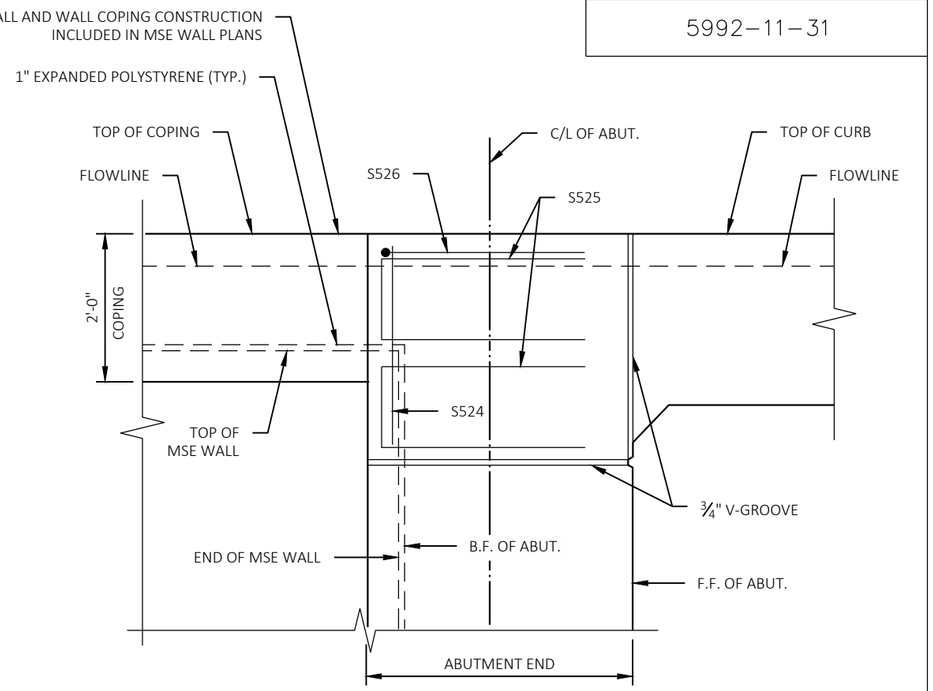
SUPERSTR PLAN
SPAN 1–2

SHEET 25 OF 41
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STATE PROJECT NUMBER
5992–11–31



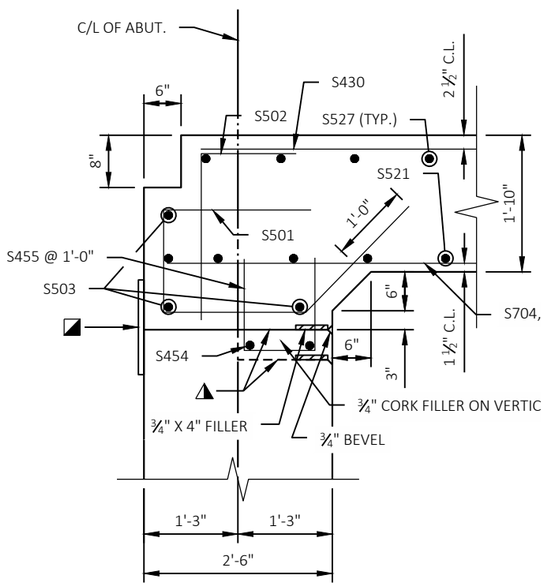
TYPICAL SECTION THRU DECK - SPANS 1 & 2



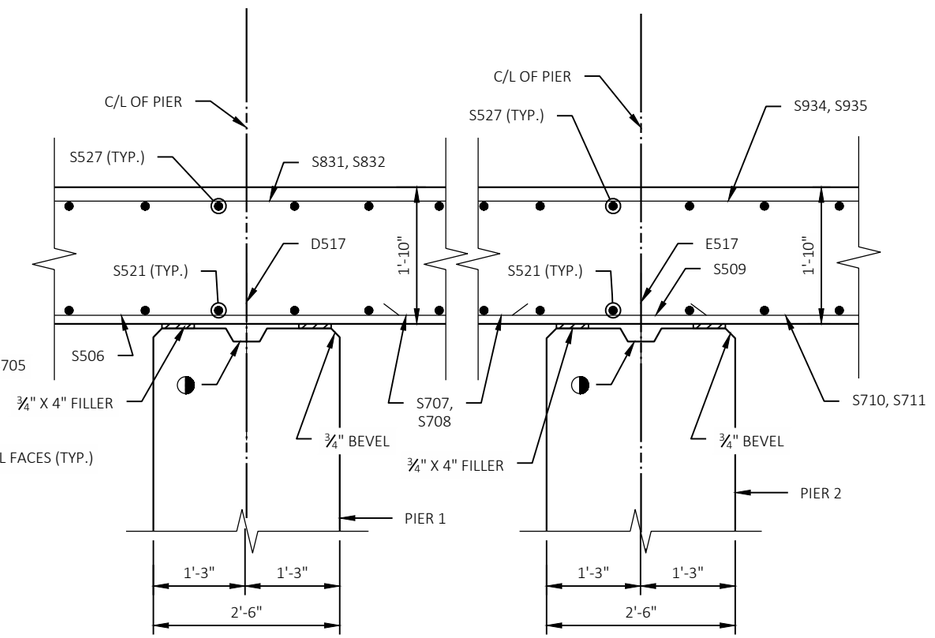
TYPICAL END VIEW AT ABUTMENT

LEGEND

- EDGE OF DECK ELEVATIONS ARE TO THIS LOCATION SEE TABLE ON SHEET 35.
- ¾" V-GROOVE. EXTEND V-GROOVE TO 3" FROM FRONT FACE OF ABUTMENT.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" X 6".
- COAT WITH "PROTECTIVE SURFACE TREATMENT"
- STAIN COLOR NUMBER AMS-STD 23448. SEE SHEET 24 FOR DETAILS.
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



TYPICAL SECTION
THRU WEST ABUT.
(SECTION CUT NORMAL TO ABUT.)



TYPICAL SECTION
THRU PIER 1
(SECTION CUT NORMAL TO PIER)

TYPICAL SECTION
THRU PIER 2
(SECTION CUT NORMAL TO PIER)

NOTE

SEE SHEET 29 FOR REINFORCING DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

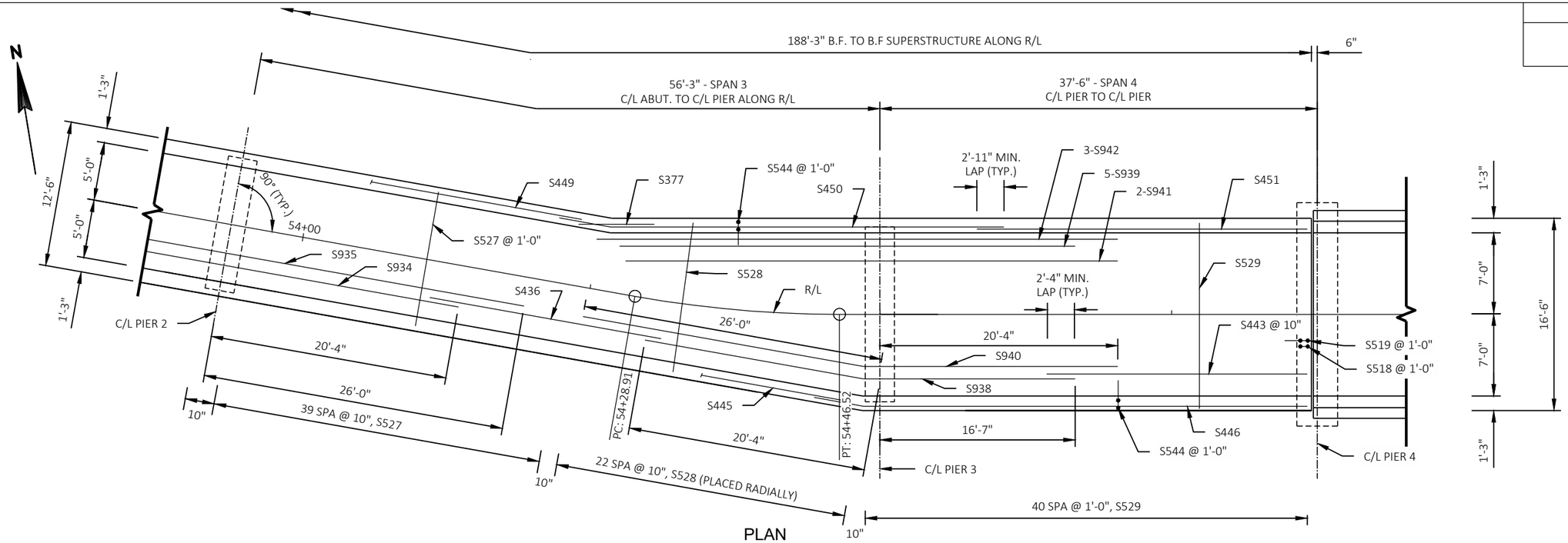
DRAWN BY	STD	PLANS CK'D.	CAH

TYPICAL SECTIONS
SPAN 1 & 2

SHEET 26 OF 41
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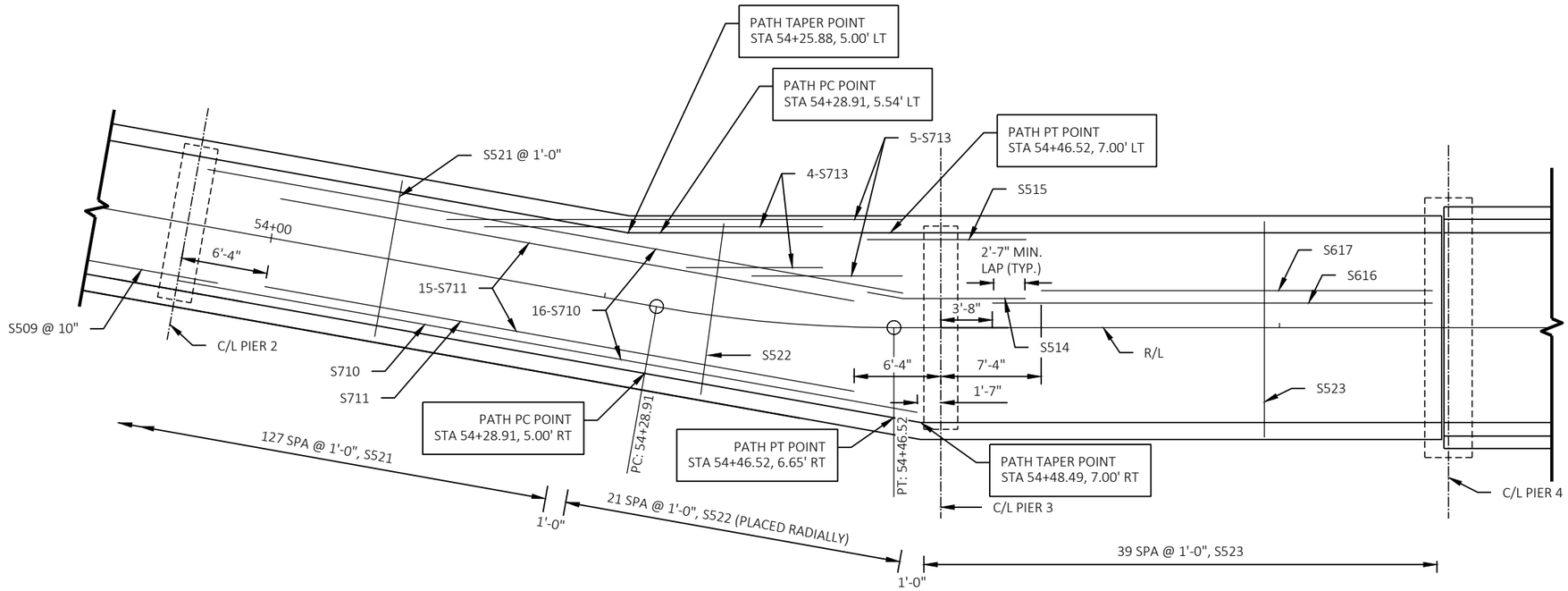
STATE PROJECT NUMBER

5992–11–31



PLAN

(SHOWING TOP MAT SLAB REINFORCEMENT)



PLAN

(SHOWING BOTTOM MAT SLAB REINFORCEMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

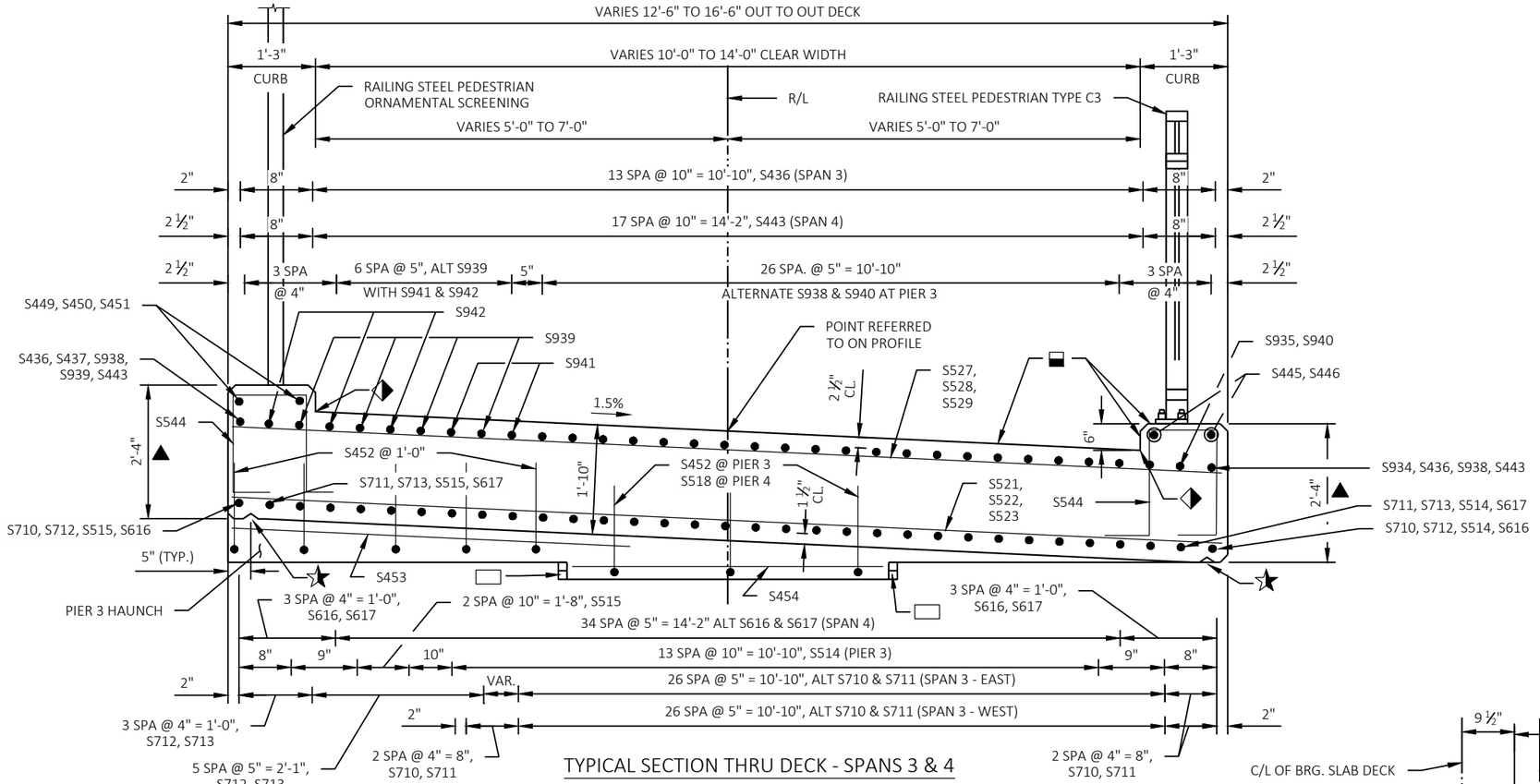
DRAWN BY STD | PLANS CK'D. CAH

SUPERSTR PLAN
SPAN 3–4

SHEET 27 OF 41

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STATE PROJECT NUMBER
5992–11–31



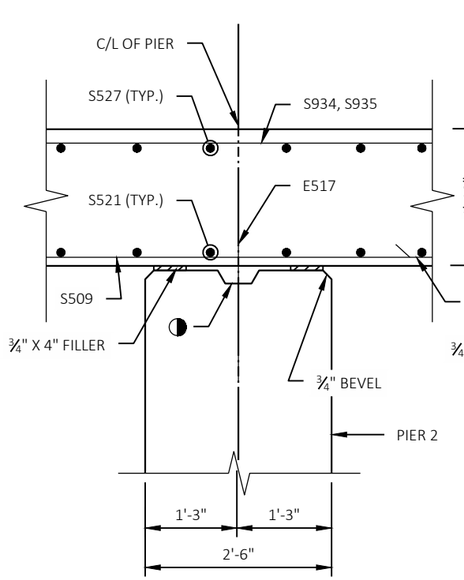
TYPICAL SECTION THRU DECK - SPANS 3 & 4

LEGEND

- EDGE OF DECK ELEVATIONS ARE TO THIS LOCATION SEE TABLE ON SHEET 35.
- ¾" V-GROOVE. EXTEND V-GROOVE TO 3" FROM FRONT FACE OF ABUTMENT.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" X 6".
- COAT WITH "PROTECTIVE SURFACE TREATMENT"
- ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING AREA BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- DIMENSION TO BE VERIFIED BY CONTRACTOR IN ACCORDANCE WITH PREFABRICATED BRIDGE REQUIREMENTS.
- STAIN COLOR NUMBER AMS-STD 23448. SEE SHEET 24 FOR DETAILS.
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB.

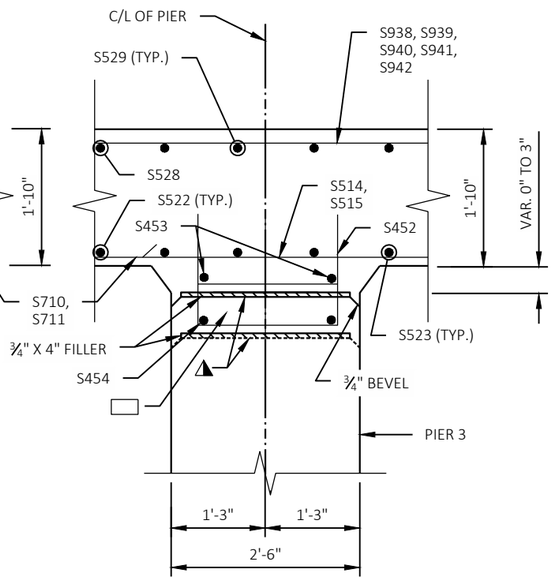
NOTE

SEE SHEET 29 FOR REINFORCING DETAILS



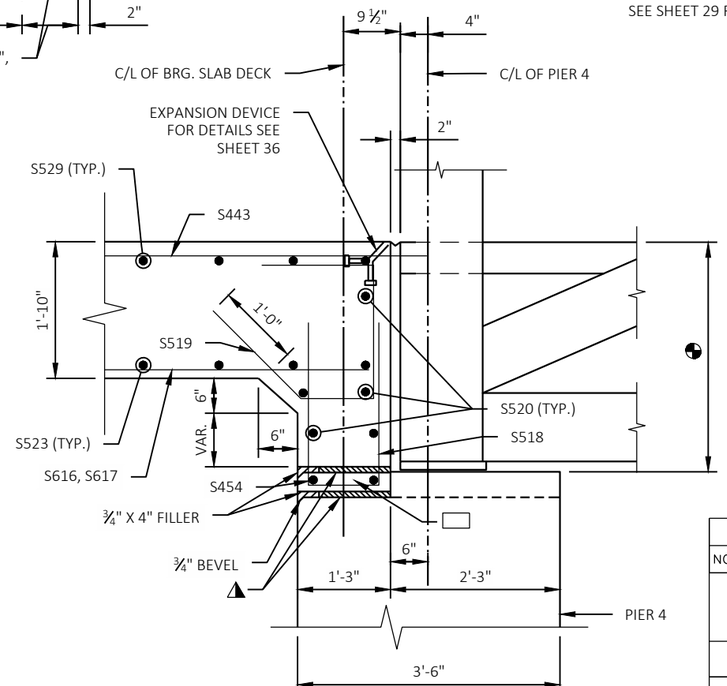
TYPICAL SECTION THRU PIER 2

(SECTION CUT NORMAL TO PIER)



TYPICAL SECTION THRU PIER 3

(SECTION CUT NORMAL TO PIER)



TYPICAL SECTION THRU PIER 4

(SECTION CUT NORMAL TO PIER)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

TYPICAL SECTIONS SPAN 3 & 4

SHEET 28 OF 41
596

STATE PROJECT NUMBER

5992–11–31

SUPERSTRUCTURE: SPANS 1-4

BILL OF BARS

COATED = 34,510 LBS

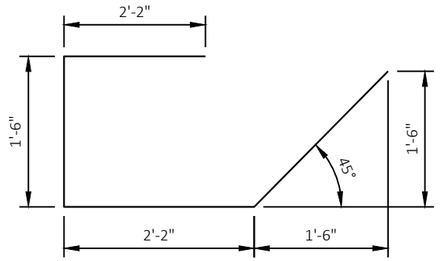
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR SERIES	LOCATION
S501	13	7'-8"	X	X		ABUT DIAPH - VERT.
S502	13	3'-6"	X	X		ABUT DIAPH - VERT.
S503	3	12'-2"	X			ABUT DIAPH - HORIZ.
S704	16	34'-3"	X			SLAB - LONGIT. - BOTTOM - SPAN 1
S705	15	38'-3"	X			SLAB - LONGIT. - BOTTOM - SPAN 1
S506	16	23'-8"	X			SLAB - LONGIT. - BOTTOM - PIER 1
S707	16	30'-11"	X			SLAB - LONGIT. - BOTTOM - SPAN 2
S708	15	41'-7"	X			SLAB - LONGIT. - BOTTOM - SPAN 2
S509	16	16'-4"	X			SLAB - LONGIT. - BOTTOM - PIER 2
S710	16	54'-10"	X		X	SLAB - LONGIT. - BOTTOM - SPAN 3
S711	15	43'-7"	X			SLAB - LONGIT. - BOTTOM - SPAN 3
S712	5	18'-4"	X		X	SLAB - LONGIT. - BOTTOM - SPAN 3 TAPER
S713	4	14'-9"	X		X	SLAB - LONGIT. - BOTTOM - SPAN 3 TAPER
S514	16	10'-5"	X	X		SLAB - LONGIT. - BOTTOM - PIER 3
S515	5	10'-5"	X			SLAB - LONGIT. - BOTTOM - PIER 3
S616	21	33'-2"	X			SLAB - LONGIT. - BOTTOM - SPAN 4
S617	20	29'-6"	X			SLAB - LONGIT. - BOTTOM - SPAN 4
S518	17	5'-8"	X	X		PIER 4 - VERT.
S519	17	5'-9"	X	X		PIER 4 - VERT.
S520	5	16'-2"	X			PIER 4 - LONGIT.
S521	128	12'-2"	X			SLAB - TRANS. - BOTTOM - SPAN 1, 2 & 3
S522	21	14'-2"	X		X	SLAB - TRANS. - BOTTOM - SPAN 3 TAPER
S523	39	16'-2"	X			SLAB - TRANS. - BOTTOM - SPAN 4
S424	2	2'-11"	X			ABUT DIAPH - CORNERS - VERT.
S525	4	6'-0"	X	X		ABUT DIAPH - CORNERS - VERT.
S526	2	6'-0"	X	X		ABUT DIAPH - CORNERS - HORIZ.
S527	135	12'-2"	X			SLAB - TRANS. - TOP - SPAN 1,2 & 3
S528	23	14'-2"	X		X	SLAB - TRANS. - TOP - SPAN 3 TAPER
S529	40	16'-2"	X			SLAB - TRANS. - TOP - SPAN 4
S430	16	28'-1"	X			SLAB - LONGIT. - TOP - SPAN 1
S831	16	33'-2"	X			SLAB - LONGIT. - TOP - PIER 1
S832	15	42'-6"	X			SLAB - LONGIT. - TOP - PIER 1
S433	16	20'-4"	X			SLAB - LONGIT. - TOP - SPAN 2
S934	16	40'-1"	X			SLAB - LONGIT. - TOP - PIER 2
S935	15	51'-4"	X			SLAB - LONGIT. - TOP - PIER 2
S436	16	20'-3"	X			SLAB - LONGIT. - TOP - SPAN 3
S437	1	8'-4"	X			SLAB - LONGIT. - TOP - SPAN 3 - TAPER
S938	16	38'-4"	X	X		SLAB - LONGIT. - TOP - PIER 3
S939	5	36'-3"	X			SLAB - LONGIT. - TOP - PIER 3
S940	15	47'-7"	X	X		SLAB - LONGIT. - TOP - PIER 3
S941	2	40'-5"	X			SLAB - LONGIT. - TOP - PIER 3
S942	3	45'-4"	X			SLAB - LONGIT. - TOP - PIER 3
S443	21	22'-7"	X			SLAB - LONGIT. - TOP - SPAN 4
S544	380	6'-1"	X	X		CURB - VERT.
S445	8	40'-0"	X			CURB - HORIZ.
S446	2	41'-3"	X	X		CURB - HORIZ.
S449	6	44'-5"	X			CURB - HORIZ.
S450	2	32'-0"	X	X		CURB - HORIZ.
S451	2	33'-0"	X			CURB - HORIZ.
S452	8	5'-0"	X	X		HAUNCH - VERT. - PIER 3
S453	2	6'-8"	X			HAUNCH - HORIZ. - PIER 3
S454	6	2'-6"	X			KEYWAY - HORIZ. - W. ABUT, PIER 3 &4
S455	3	3'-2"	X	X		KEYWAY - VERT. - W. ABUT

NOTES:

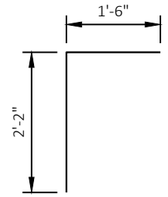
THE FIRST OR TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR BAR SIZE.

DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

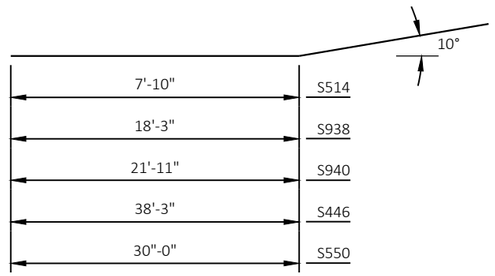
LENGTH SHOWN FOR ANY BAR IN BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGHTS.



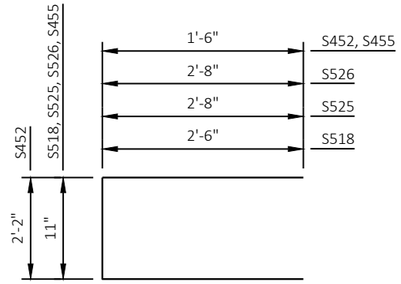
S501



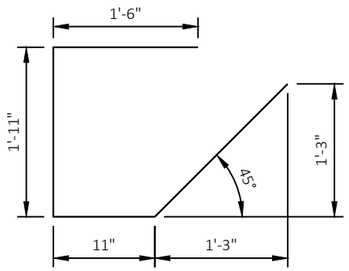
S502



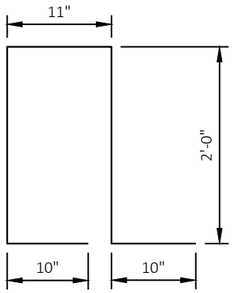
S514, S938, S940, S446, S550



S518, S525, S526, S452, S455



S519



S544

BAR SERIES

MARK	NO. REQ'D.	LENGTH
S710	1 SERIES OF 16	53'-9" TO 56'-0"
S712	1 SERIES OF 5	10'-6" TO 26'-2"
S713	1 SERIES OF 4	8'-5" TO 21'-1"
S522	1 SERIES OF 21	12'-2" TO 16'-2"
S528	1 SERIES OF 23	12'-2" TO 16'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

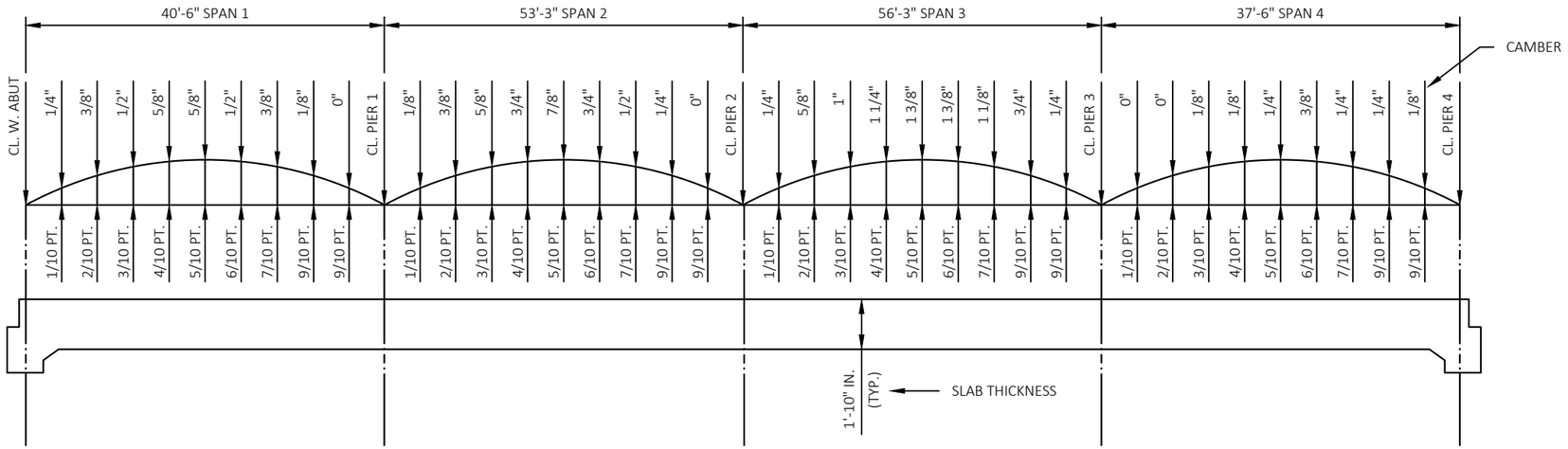
DRAWN BY STD | PLANS CK'D. CAH

SUPERSTR DETAILS–1 SPAN 1–4

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STATE PROJECT NUMBER
5992–11–31



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

SURVEY TOP OF SLAB ELEVATIONS

	ABUTMENT	5/10 PT.	PIER 1	5/10 PT.	PIER 2	5/10 PT.	PIER 3	5/10 PT.	PIER 4
NORTH GUTTER									
R/L									
SOUTH GUTTER									

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, THE C/L OF PIERS AND THE 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR R/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE (+).

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STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

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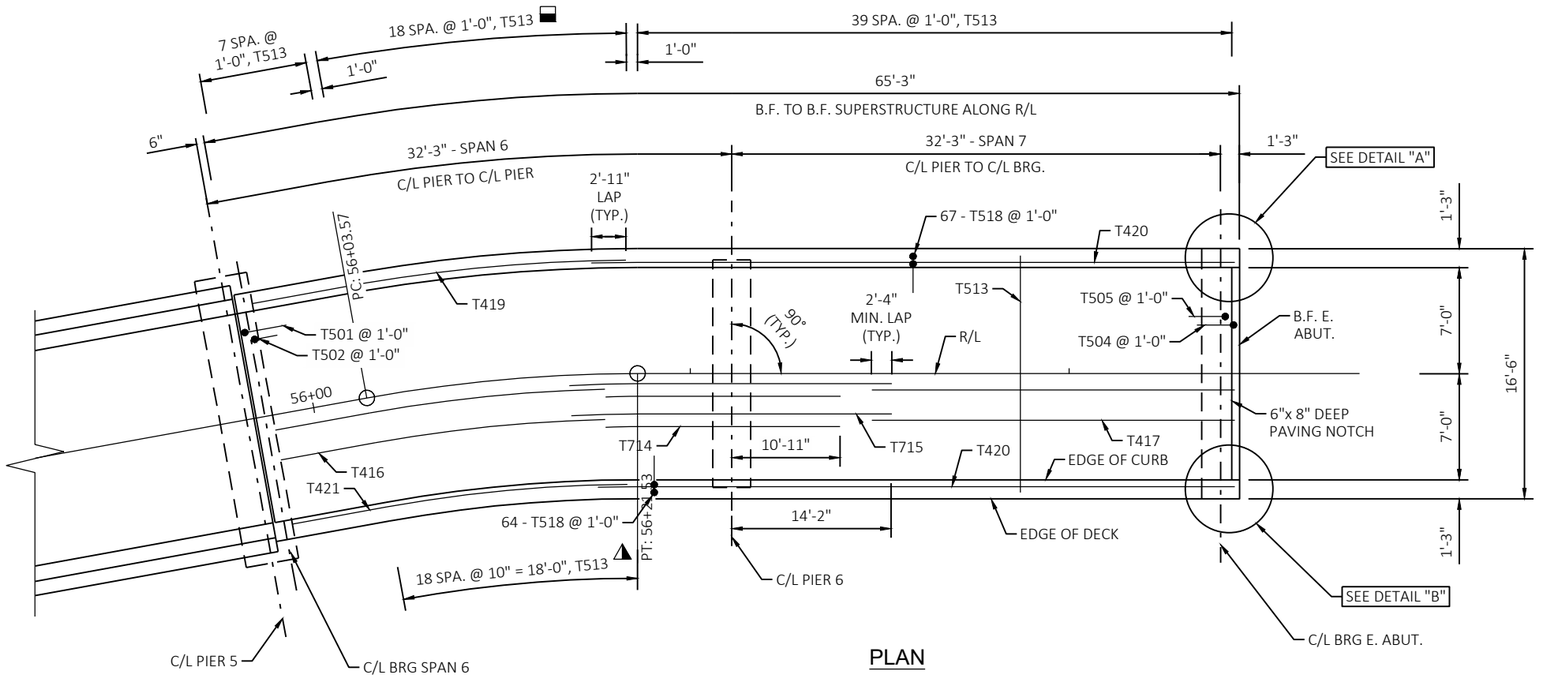
SUPERSTR DETAILS–2 SPAN 1–4

SHEET 30 OF 41

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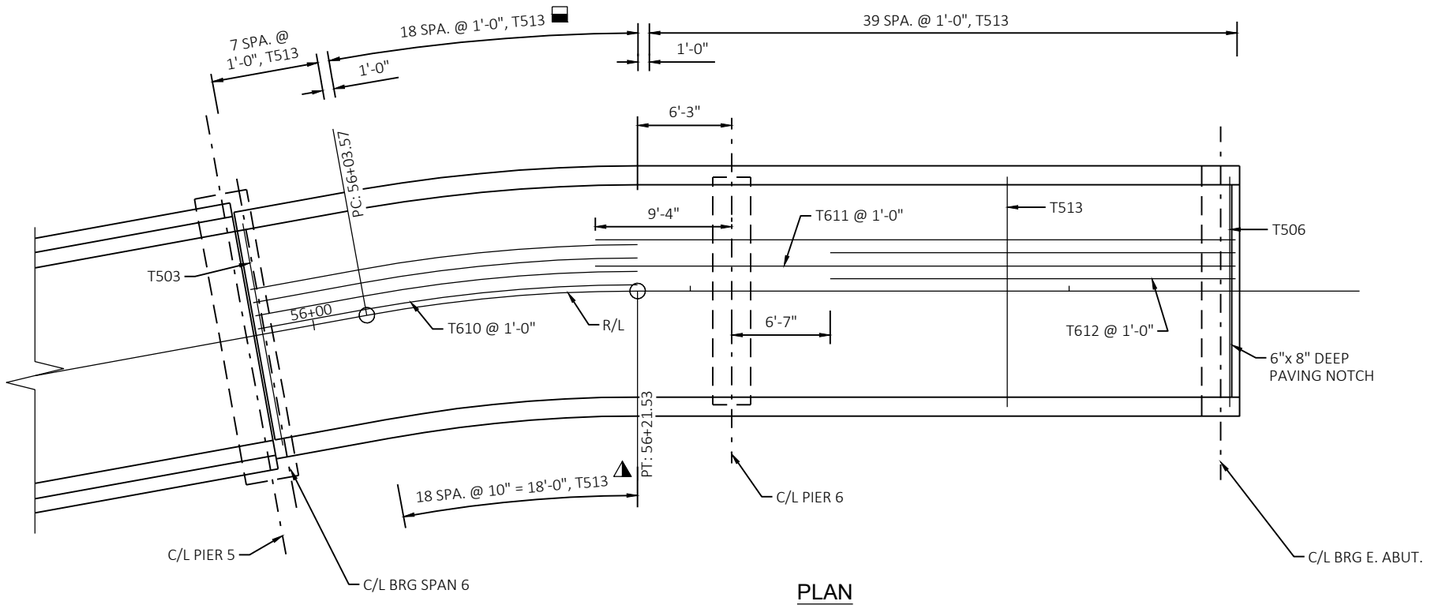
STATE PROJECT NUMBER

5992-11-31



PLAN

(SHOWING TOP MAT SLAB REINFORCEMENT)



PLAN

(SHOWING BOTTOM MAT SLAB REINFORCEMENT)

LEGEND

- DIMENSION SHOWN AT NORTH EDGE OF DECK
- DIMENSION SHOWN AT SOUTH EDGE OF DECK

NOTE

SEE SHEET 34 FOR "DETAIL A" AND "DETAIL B".

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STRUCTURE B-13-891

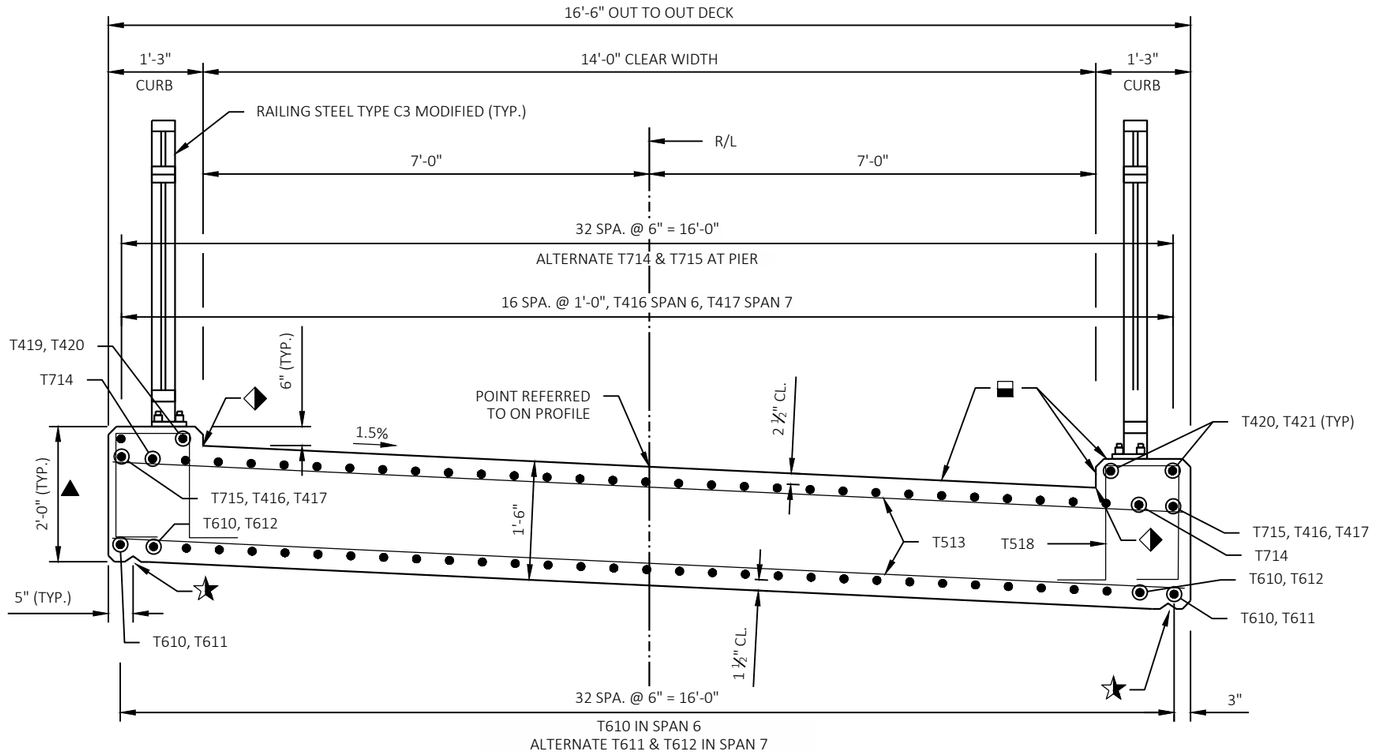
DRAWN BY STD | PLANS CK'D. CAH

SUPERSTR PLAN
SPAN 6-7

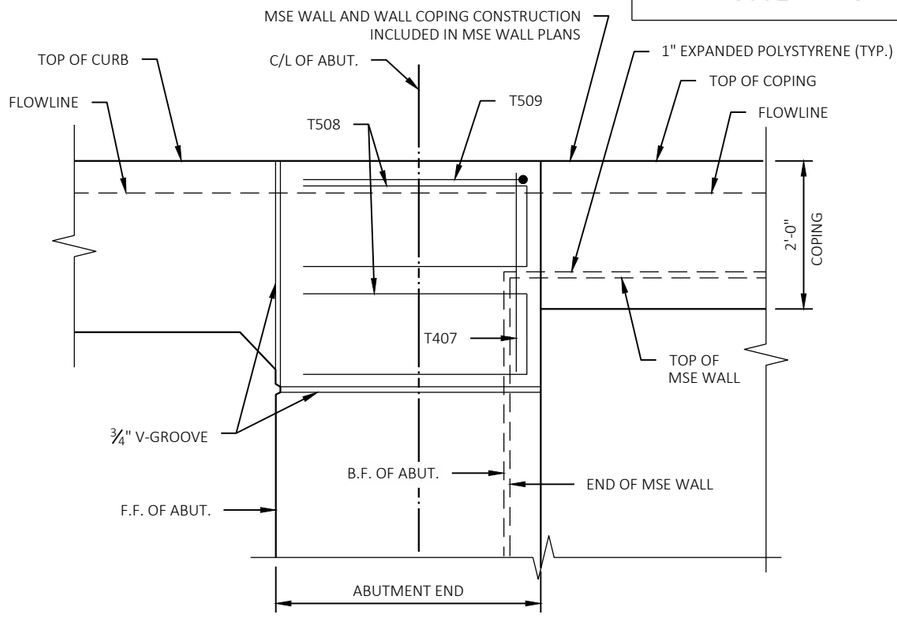
SHEET 31 OF 41

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TYPICAL SECTION THRU DECK - SPANS 6 & 7



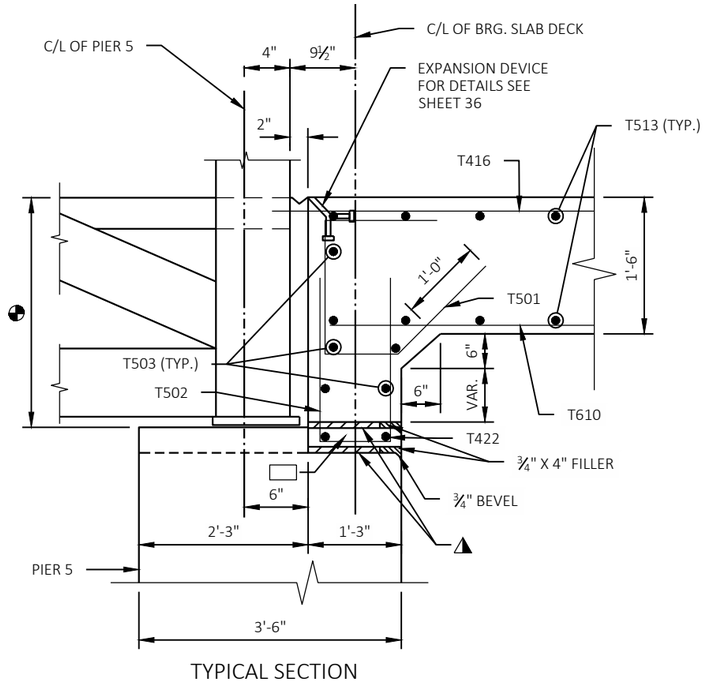
TYPICAL END VIEW AT ABUTMENT

NOTE

SEE SHEET 33 FOR REINFORCING DETAILS

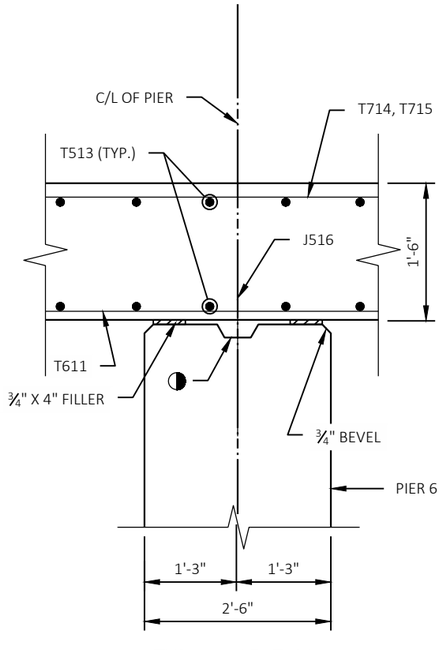
LEGEND

- EDGE OF DECK ELEVATIONS ARE TO THIS LOCATION SEE TABLE ON SHEET 35.
- ¾" V-GROOVE. EXTEND V-GROOVE TO 3" FROM FRONT FACE OF ABUTMENT.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" X 6".
- COAT WITH "PROTECTIVE SURFACE TREATMENT"
- ½" NON-LAMINATED ELASTOMERIC BEARING PAD, STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE SLAB BEARING AREA BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- DIMENSION TO BE VERIFIED BY CONTRACTOR IN ACCORDANCE WITH PREFABRICATED BRIDGE REQUIREMENTS.
- STAIN COLOR NUMBER AMS-STD 23448. SEE SHEET 24 FOR DETAILS.
- ¾" CORK FILLER ON VERTICAL FACES OF KEYWAY UNDER CONCRETE SLAB.



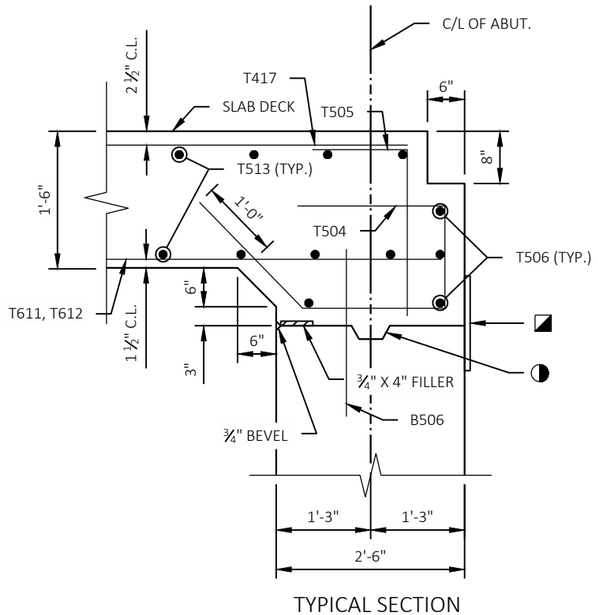
TYPICAL SECTION THRU PIER 5

(SECTION CUT NORMAL TO ABUT.)



TYPICAL SECTION THRU PIER 6

(SECTION CUT NORMAL TO PIER)



TYPICAL SECTION THRU EAST ABUT.

(SECTION CUT NORMAL TO ABUT.)

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

TYPICAL SECTIONS SPAN 6–7

SHEET 32 OF 41
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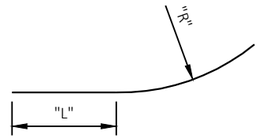
SUPERSTRUCTURE: SPANS 6-7

BILL OF BARS

COATED = 8,940 LBS

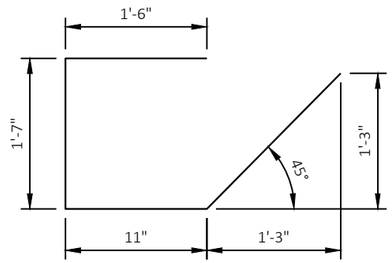
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	SERIES	LOCATION
T501	17	5'-4"	X	X		PIER 5 DIAPH - VERT.
T502	17	5'-8"	X	X		PIER 5 DIAPH - VERT.
T503	5	16'-2"	X			PIER 5 DIAPH - HORIZ.
T504	17	6'-5"	X	X		ABUT DIAPH - VERT.
T505	17	3'-2"	X	X		ABUT DIAPH - VERT.
T506	3	16'-2"	X			ABUT DIAPH - HORIZ.
T407	2	1'-10"	X			ABUT DIAPH - CORNERS - VERT.
T508	4	5'-10"	X	X		ABUT DIAPH - CORNERS - VERT.
T509	2	6'-0"	X	X		ABUT DIAPH - CORNERS - HORIZ.
T610	33	25'-4"	X	X	X	SLAB - LONGIT. - BOTTOM - SPAN 6
T611	17	42'-7"	X	X		SLAB - LONGIT. - BOTTOM - SPAN 6 & 7
T612	16	26'-9"	X			SLAB - LONGIT. - BOTTOM - SPAN 7
T513	134	16'-2"	X			SLAB - TRANS. - TOP & BOTTOM
T714	16	22'-0"	X	X		SLAB - LONGIT - TOP - PIER 6
T715	17	28'-10"	X	X		SLAB - LONGIT - TOP - PIER 6
T416	17	19'-9"	X	X	X	SLAB - LONGIT - TOP - SPAN 6
T417	17	22'-11"	X			SLAB - LONGIT - TOP - SPAN 7
T518	131	5'-7"	X	X		CURB - VERT
T419	2	26'-10"	X	X		NORTH CURB - HORIZ.
T420	4	42'-6"	X			NORTH AND SOUTH CURB - HORIZ.
T421	2	23'-10"	X	X		SOUTH CURB - HORIZ.
T422	2	2'-6"	X			KEYWAY - HORIZ.

NOTE: THE FIRST OR TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR BAR SIZE. DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

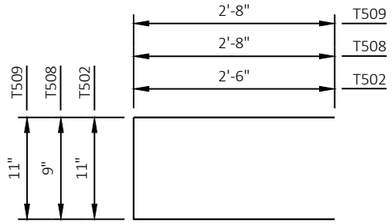


MARK	"L"	"R"
T610	7'-5"	91'-9" TO 108'-2"
T611	39'-6"	100'-0"
T714	17'-1"	100'-0"
T715	20'-4"	100'-0"
T416	7'-5"	91'-9" TO 108'-2"
T420	7'-5"	108'-0"
T421	7'-5"	92'-0"

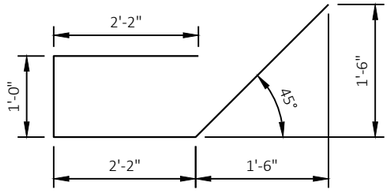
T610, T611, T714, T715, T416, T420, T421



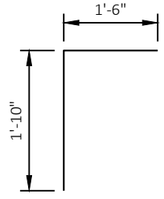
T501



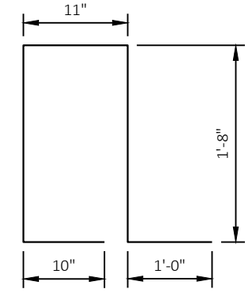
T502, T508, T509



T504



T505



T518

BAR SERIES

MARK	NO. REQ'D.	LENGTH
T610	1 SERIES OF 33	23'-10" TO 26'-10"
T416	1 SERIES OF 17	18'-10" TO 20'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY.

SHORTEST BAR IN EACH SERIES CORRESPONDS TO SHORTEST RADIUS IN SERIES AND LONGEST BAR IN EACH SERIES CORRESPONDS TO LONGEST RADIUS IN SERIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

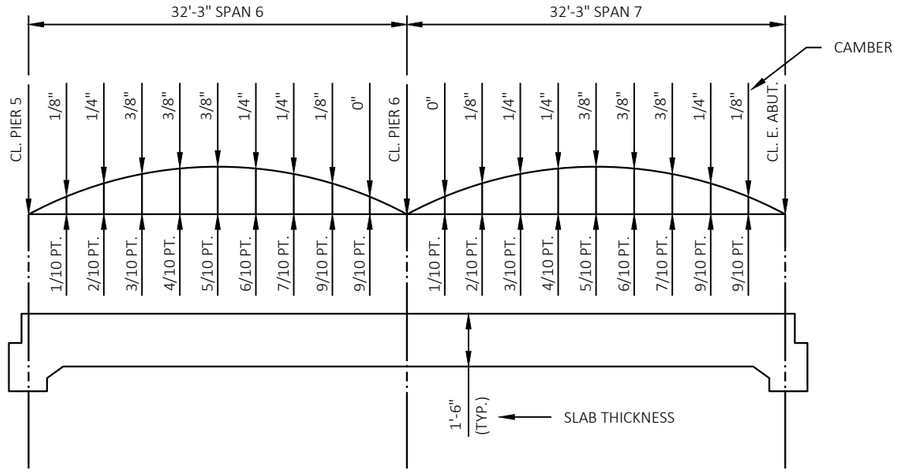
DRAWN BY STD | PLANS CK'D. CAH

SUPERSTR DETAILS–1 SPAN 6–7

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STATE PROJECT NUMBER
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CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

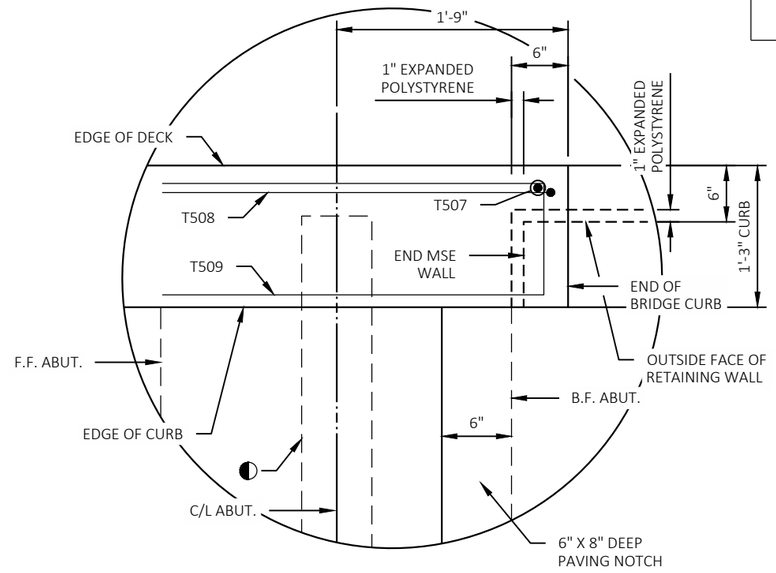
LEGEND

◐ HORIZONTAL CONSTRUCTION JOINT KEYWAY FORMED BY A BEVELED 2" X 6".

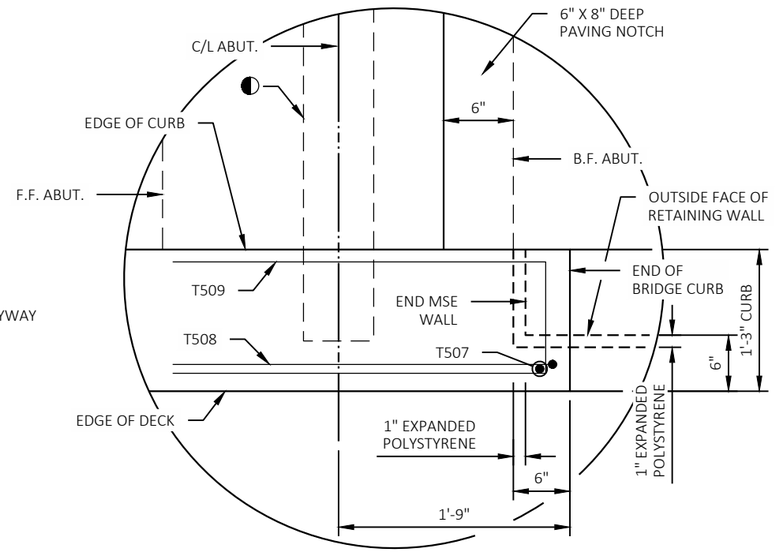
SURVEY TOP OF SLAB ELEVATIONS

	PIER 5	5/10 PT.	PIER 6	5/10 PT.	ABUTMENT
NORTH GUTTER					
R/L					
SOUTH GUTTER					

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, THE C/L OF PIERS AND THE 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR R/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



DETAIL 'A'



DETAIL 'B'

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE (+).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

SUPERSTR DETAILS–2 SPAN 6–7

SHEET 34 OF 41
602

STATE PROJECT NUMBER
5992–11–31

SUPERSTRUCTURE ELEVATIONS

LOCATION	STATION	LT (FT)	NORTH EDGE DECK	RL	SOUTH EDGE DECK	RT (FT)
W. ABUT	53+00.00	5.00	887.63	887.55	887.48	5.00
0.1	53+04.05	5.00	887.83	887.75	887.68	5.00
0.2	53+08.10	5.00	888.04	887.96	887.89	5.00
0.3	53+12.15	5.00	888.24	888.16	888.09	5.00
0.4	53+16.20	5.00	888.44	888.36	888.29	5.00
0.5	53+20.25	5.00	888.64	888.56	888.49	5.00
0.6	53+24.30	5.00	888.85	888.77	888.70	5.00
0.7	53+28.35	5.00	889.05	888.97	888.90	5.00
0.8	53+32.40	5.00	889.25	889.17	889.10	5.00
0.9	53+36.45	5.00	889.45	889.37	889.30	5.00
PIER 1	53+40.50	5.00	889.66	889.58	889.51	5.00
0.1	53+45.83	5.00	889.92	889.84	889.77	5.00
0.2	53+51.15	5.00	890.19	890.11	890.04	5.00
0.3	53+56.48	5.00	890.45	890.37	890.30	5.00
0.4	53+61.80	5.00	890.72	890.64	890.57	5.00
0.5	53+67.13	5.00	890.99	890.91	890.84	5.00
0.6	53+72.45	5.00	891.25	891.17	891.10	5.00
0.7	53+77.78	5.00	891.52	891.44	891.37	5.00
0.8	53+83.10	5.00	891.79	891.71	891.64	5.00
0.9	53+88.43	5.00	892.05	891.97	891.90	5.00
PIER 2	53+93.75	5.00	892.32	892.24	892.17	5.00
0.1	53+99.38	5.00	892.60	892.52	892.45	5.00
0.2	54+05.00	5.00	892.88	892.80	892.73	5.00
0.3	54+10.63	5.00	893.16	893.08	893.01	5.00
0.4	54+16.25	5.00	893.44	893.36	893.29	5.00
0.5	54+21.88	5.00	893.72	893.64	893.57	5.00
TAPER	54+25.88	5.00	893.92	893.84	893.77	5.00
0.6	54+27.50	5.29	894.01	893.93	893.86	5.00
PC	54+28.91	5.54	894.08	894.00	893.93	5.00
0.7	54+33.13	6.16	894.30	894.21	894.13	5.09
0.8	54+38.75	6.72	894.59	894.49	894.41	5.51
0.9	54+44.38	6.98	894.87	894.77	894.68	6.27
PT	54+46.52	7.00	894.99	894.88	894.78	6.65
TAPER	54+48.49	7.00	895.08	894.97	894.87	7.00
PIER 3	54+50.00	7.00	895.16	895.05	894.95	7.00
0.1	54+53.75	7.00	895.34	895.23	895.13	7.00
0.2	54+57.50	7.00	895.52	895.41	895.31	7.00
0.3	54+61.25	7.00	895.69	895.58	895.48	7.00
0.4	54+65.00	7.00	895.84	895.73	895.63	7.00
0.5	54+68.75	7.00	895.99	895.88	895.78	7.00
0.6	54+72.50	7.00	896.14	896.03	895.93	7.00
0.7	54+76.25	7.00	896.27	896.16	896.06	7.00
0.8	54+80.00	7.00	896.40	896.29	896.19	7.00
0.9	54+83.75	7.00	896.51	896.40	896.30	7.00
PIER 4	54+87.50	7.00	896.62	896.51	896.41	7.00

LOCATION	STATION	LT (FT)	NORTH EDGE DECK	RL	SOUTH EDGE DECK	RT (FT)
PIER 5	55+95.50	7.00	896.21	896.10	896.00	7.00
0.1	55+98.73	7.00	896.09	895.98	895.88	7.00
0.2	56+01.95	7.00	895.97	895.86	895.76	7.00
PC	56+03.57	7.00	895.90	895.79	895.69	7.00
0.3	56+05.18	7.00	895.84	895.73	895.63	7.00
0.4	56+08.40	7.00	895.70	895.59	895.49	7.00
0.5	56+11.63	7.00	895.56	895.45	895.35	7.00
0.6	56+14.85	7.00	895.41	895.30	895.20	7.00
0.7	56+18.08	7.00	895.26	895.15	895.05	7.00
0.8	56+21.30	7.00	895.09	894.98	894.88	7.00
PT	56+21.53	7.00	895.08	894.97	894.87	7.00
0.9	56+24.53	7.00	894.93	894.82	894.72	7.00
PIER 6	56+27.75	7.00	894.77	894.66	894.56	7.00
0.1	56+30.98	7.00	894.61	894.50	894.40	7.00
0.2	56+34.20	7.00	894.45	894.34	894.24	7.00
0.3	56+37.43	7.00	894.29	894.18	894.08	7.00
0.4	56+40.65	7.00	894.13	894.02	893.92	7.00
0.5	56+43.88	7.00	893.97	893.86	893.76	7.00
0.6	56+47.10	7.00	893.80	893.69	893.59	7.00
0.7	56+50.33	7.00	893.64	893.53	893.43	7.00
0.8	56+53.55	7.00	893.48	893.37	893.27	7.00
0.9	56+56.78	7.00	893.32	893.21	893.11	7.00
E. ABUT	56+60.00	7.00	893.16	893.05	892.95	7.00

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

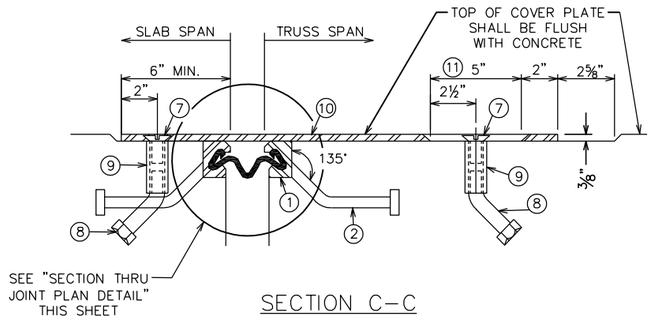
STRUCTURE B–13–891

DRAWN BY	STD	PLANS CK'D.	CAH

SUPERSTR ELEVATIONS

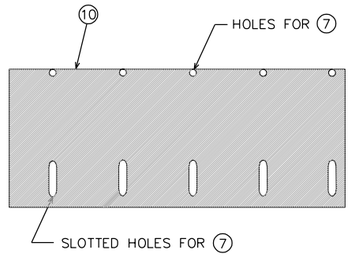
SHEET 35 OF 41
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SECTION C–C

SECTION THRU JOINT



PLAN OF COVER PLATE WITH SLIP–RESISTANT SURFACE

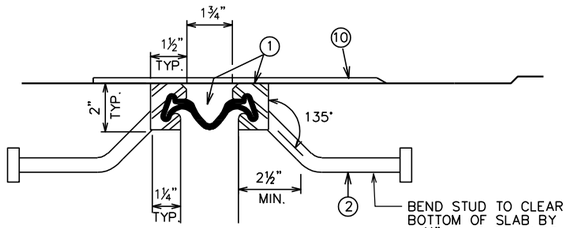
PLACE SLIP–RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

APPROVED SLIP–RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1–800–SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1–800–345–8170

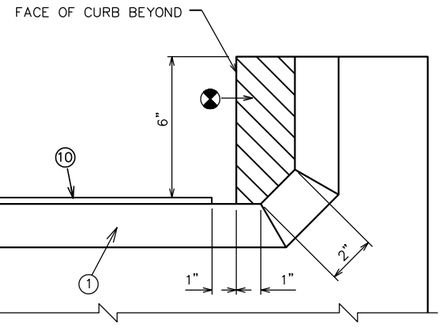
LEGEND

1. NEOPRENE STRIP SEAL (4 – INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8" DIA. X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
7. 3/4" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI–SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" DIA. X 2¼" GALVANIZED THREADED COUPLING.
10. GALVANIZED PLATE ⅜" X 2'–0" X LIMITS SHOWN, WITH HOLES FOR #7.
11. 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.



SECTION THRU JOINT



SECTION D–D

SECTION THRU JOINT AT CURB

GENERAL NOTES

NO SPLICE PERMITTED IN STEEL EXTRUSIONS.

NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

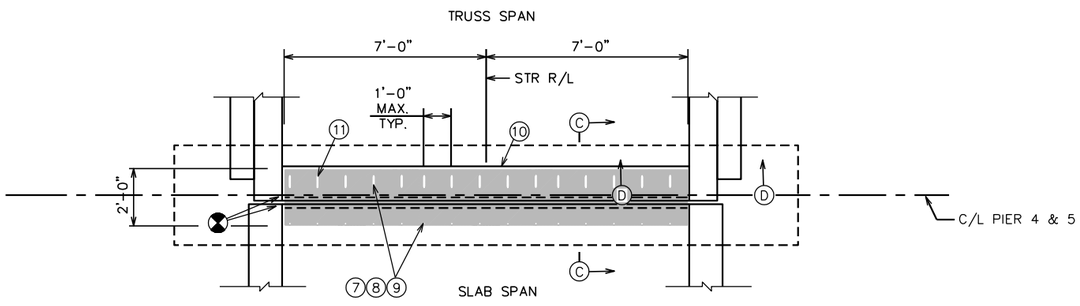
ANCHOR SYSTEM No. 8 AND No. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

THE EXPANSION DEVICE MANUFACTURER SHALL PROVIDE A MECHANISM TO SUPPORT THE JOINT PLACE DURING THE CONCRETE POUR.

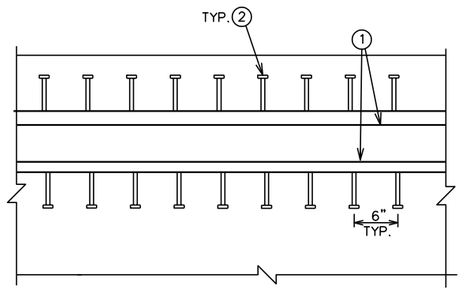
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B–13–891".

COVER PLATE SHALL BE FABRICATED FROM TWO PLATES, JOINTED ALONG THE REFERENCE LINE, AND SHOP WELDED PRIOR TO GALVANIZING.

PLACE SLIP RESISTANT SURFACE ON TOP FOR WALKING SURFACE. SEE DETAIL THIS SHEET.



PIER PLAN



PART PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE B–13–891

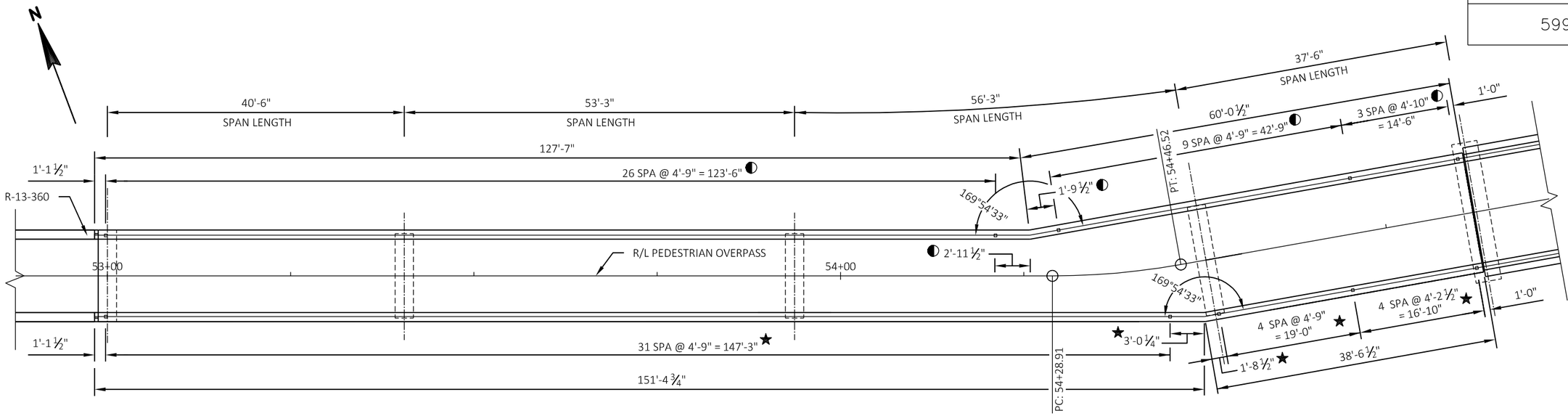
DRAWN BY STD | PLANS CK'D. CAH

EXPANSION DEVICE PIERS 4 & 5

SHEET 36 OF 41

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RAILING PLAN LAYOUT

NOTES

RAILINGS FOR SPANS 1, 2, 4, 5, 6, AND 7 SHALL BE PARALLEL TO THE STRUCTURE REFERENCE LINE.

RAILINGS FOR SPAN 3 SHALL BE TANGENT SEGMENTS ALONG THE CURB.

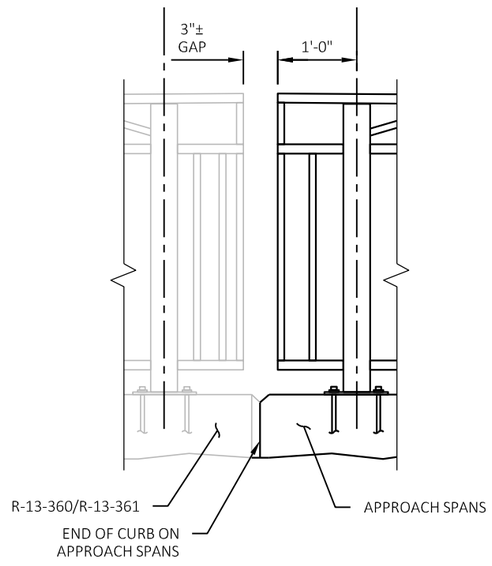
ALL DIMENSIONS, EXCEPT SPAN LENGTHS, TAKEN ABOUT CENTERLINE OF RAILING POST.

SEE RAILING END DETAILS ON THIS SHEET.

LEGEND

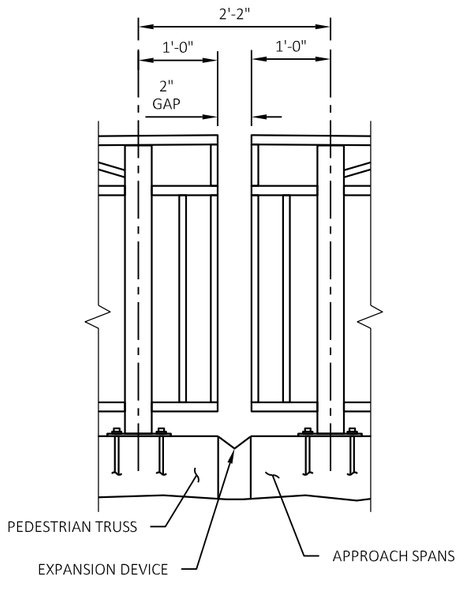
★ RAILING STEEL PEDESTRIAN TYPE C3. SEE DETAILS SHEET 39.

◐ RAILING STEEL PEDESTRIAN ORNAMENTAL. SEE DETAIL SHEET 40.



END OF RAILING AT ABUTMENTS

(LOOKING NORMAL TO RAILING, TYPICAL FOR ALL ENDS)
TYPE C3 RAILING SHOWN, ORNAMENTAL RAILING SIMILAR



END OF RAILING AT PEDESTRIAN TRUSS

(LOOKING NORMAL TO RAILING, TYPICAL FOR ALL ENDS)
TYPE C3 RAILING SHOWN, ORNAMENTAL RAILING SIMILAR

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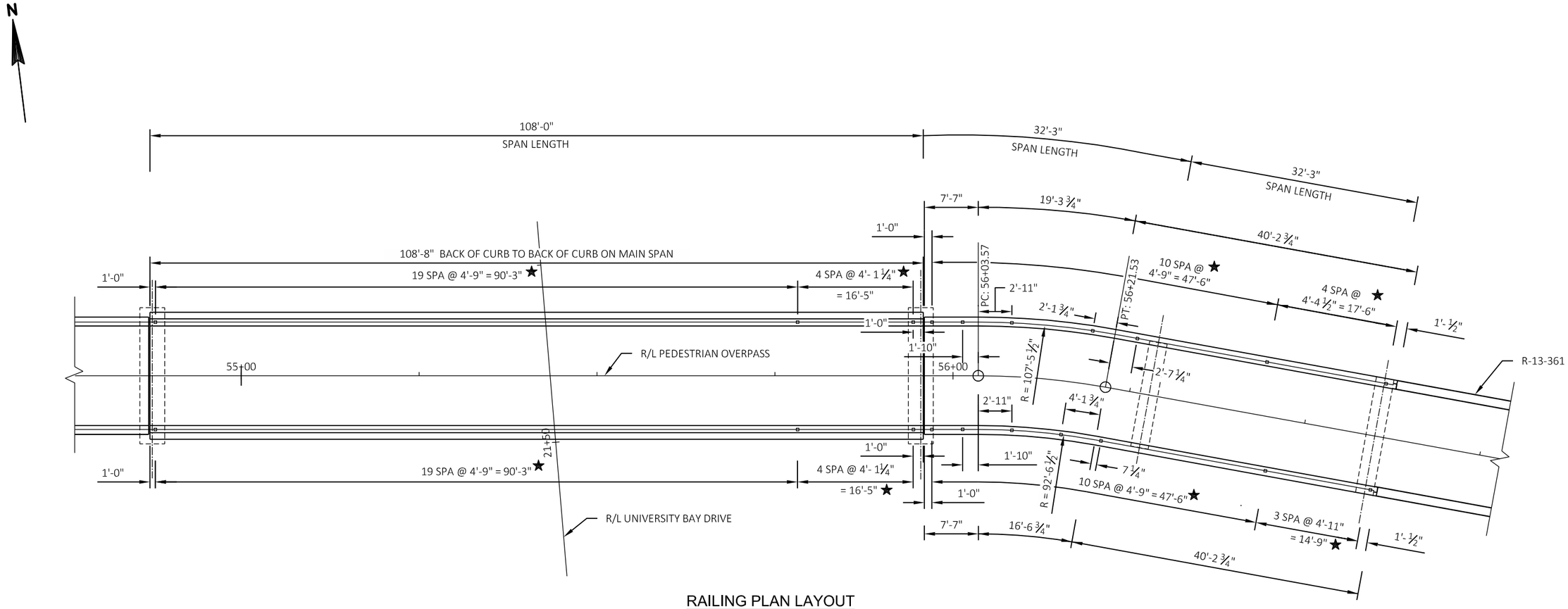
STRUCTURE B–13–891

DRAWN BY STD | PLANS CK'D. CAH

RAILING STEEL LAYOUT – 1

SHEET 37 OF 41
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RAILING PLAN LAYOUT

NOTES

RAILINGS FOR SPANS 1, 2, 4, 5, 6, AND 7 SHALL BE PARALLEL TO THE STRUCTURE REFERENCE LINE.

RAILINGS FOR SPAN 3 SHALL BE TANGENT ALONG THE CURB.

ALL DIMENSIONS, EXCEPT SPAN LENGTHS, TAKEN ABOUT CENTERLINE OF RAILING POST.

SEE RAILING END DETAILS ON SHEET 37.

LEGEND

★ RAILING STEEL PEDESTRIAN TYPE C3. SEE DETAILS SHEET 39.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

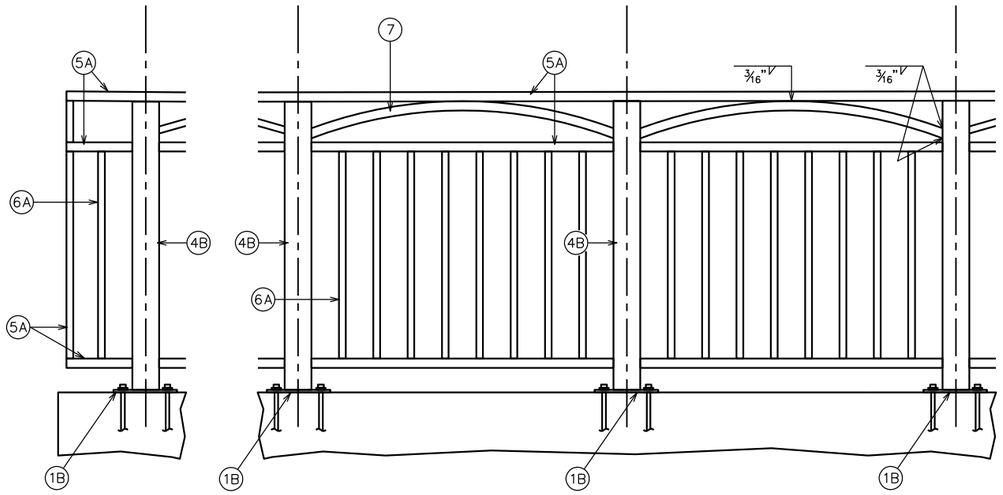
STRUCTURE B–13–891

DRAWN BY STD | PLANS CK'D. CAH

RAILING STEEL LAYOUT – 2

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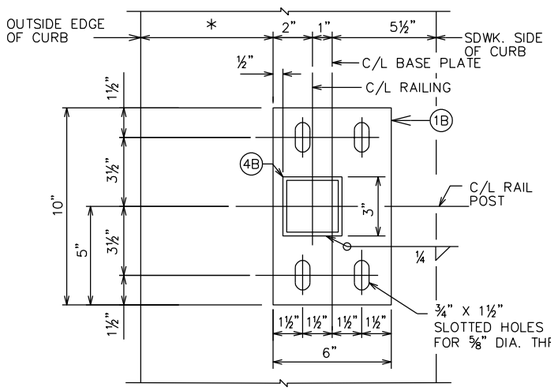


ELEVATION TYPE C3

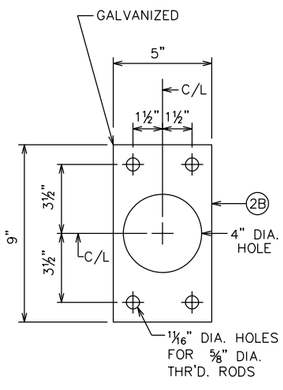
LEGEND

- (1B) BASE PLATE ⅜" X 6" X 10" WITH ¾" X 1½" SLOTTED HOLES
- (2B) ¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 1⅛" DIA. HOLES FOR THR'D. RODS NO. 3.
- (3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE RAIL POST ANCHORAGE – 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝"DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POST.
- (4B) STRUCTURAL TUBING 3" X 3" X 3/16" POSTS, PLACE VERTICAL. WELD TO NO. 1 & 5
- (5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
- (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5 PLACE VERTICAL.
- (7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)

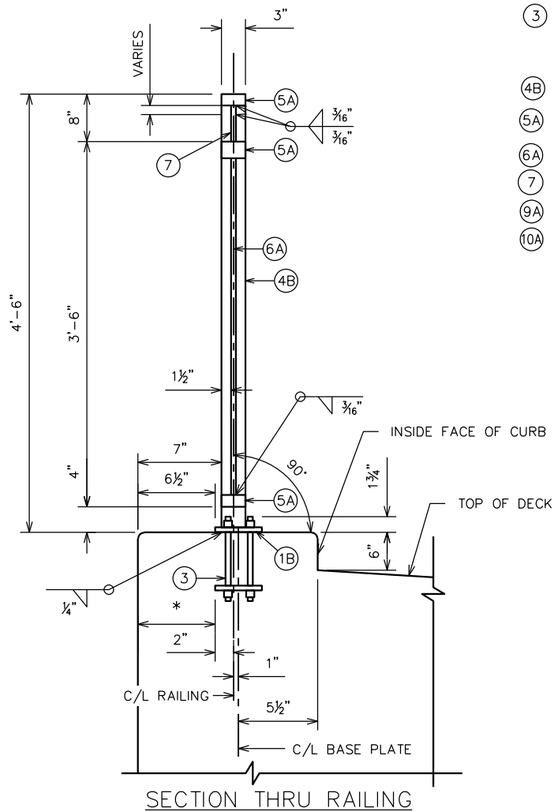
* 6½" SLAB SPANS
3½" TRUSS SPANS



TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE



SECTION THRU RAILING

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN TYPE C3", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, BARS AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

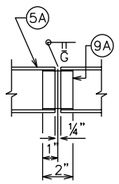
◪ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING STEEL SHALL BE PAINTED ASM-STD. COLOR NO. 24260, (GREEN SEMI-GLOSS, INTENDED FOR HIGH VOLUME EXTERIOR APPLICATIONS.).

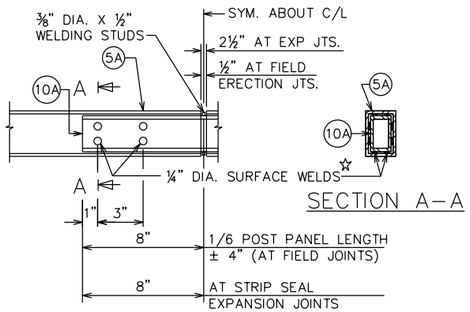
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



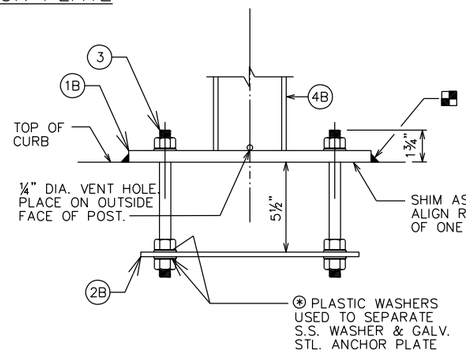
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



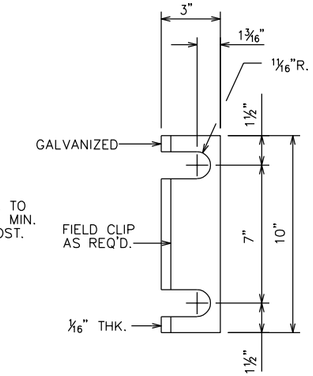
SECTION A-A

FIELD ERECTION JOINT DETAIL

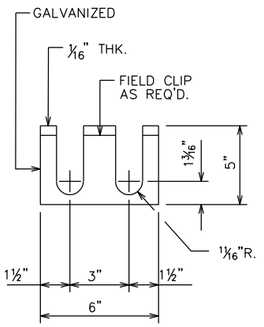
☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



ANCHORAGE FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



RAIL POST SHIM DETAIL
(2 SETS PER POST)



NO.	DATE	REVISION	BY

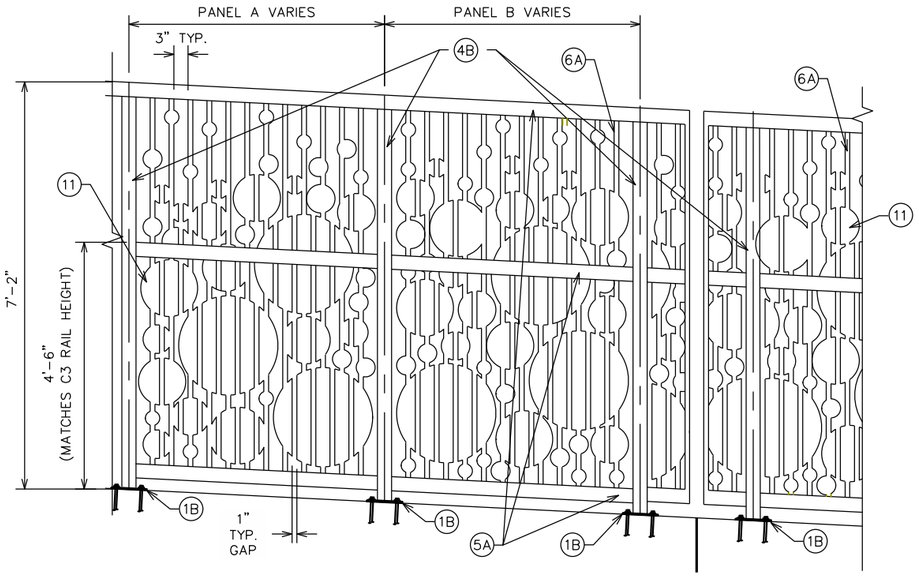
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE B-13-891

DRAWN BY	STD	PLANS CK'D.	CAH

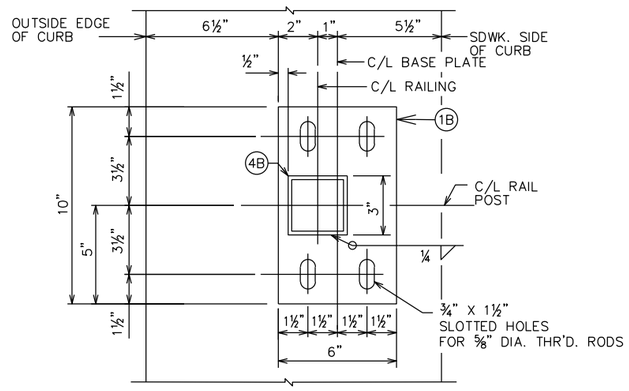
RAILING STEEL PEDESTRIAN TYPE C3

SHEET 39 OF 41
607

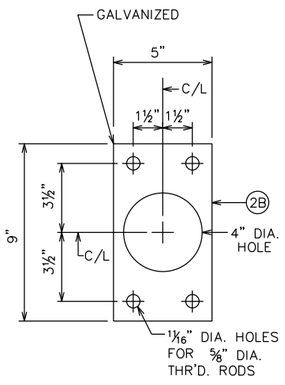
STATE PROJECT NUMBER
5992-11-31



ELEVATION ORNAMENTAL



TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE

ORNAMENTAL RAILING NOTES

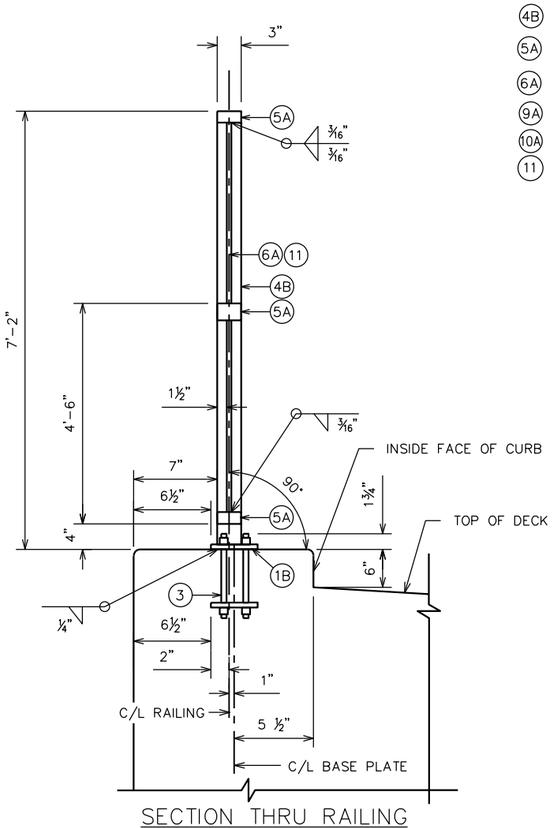
SUBMIT PLAN VIEW, SECTION AND ELEVATION SHOP DRAWINGS TO CONFIRM ELEVATIONS, PANEL LAYOUT, DIMENSIONS, MATERIALS, FASTENERS AND FINISHES.

PROVIDE ORNAMENTAL RAILING WHERE SHOWN ON PLANS.

SLOPE OF ORNAMENTAL RAILING SHALL FOLLOW SLOPE OF CONCRETE BRIDGE DECK.

PROVIDE EXPOSED FASTENERS WITH FINISH MATCHING APPEARANCE, INCLUDING COLOR AND TEXTURE OF RAILINGS.

ARTWORK AVAILABLE UPON REQUEST.



SECTION THRU RAILING

LEGEND

1B	BASE PLATE ⅝" X 6" X 10" WITH ¾" X 1½" SLOTTED HOLES
2B	¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 1⁄16" DIA. HOLES FOR THR'D. RODS NO. 3.
3	⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE RAIL POST ANCHORAGE – 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝"DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POST.
4B	STRUCTURAL TUBING 3" X 3" X 3⁄16" POSTS, PLACE VERTICAL. WELD TO NO. 1 & 5
5A	STRUCTURAL TUBING 3" X 1½" X 3⁄16" RAILS. WELD TO NO. 1 & 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
6A	BAR 1" X 1" PICKETS. WELD TO NO. 5 PLACE VERTICAL.
9A	RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. PROVIDE "SLIDING FIT".
10A	RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. (1'-4" @ FIELD ERECTION JTS.)
11	1" STEEL PLATE, WELDED TO NO. 6 (TYP.). BUILD UP SHAPES USING 1" THICK STOCK MATERIAL.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN ORNAMENTAL", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, BARS AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

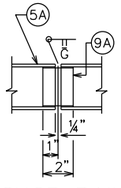
■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING STEEL SHALL BE PAINTED ASM-STD. COLOR NO. 24260, (GREEN SEMI-GLOSS, INTENDED FOR HIGH VOLUME EXTERIOR APPLICATIONS).

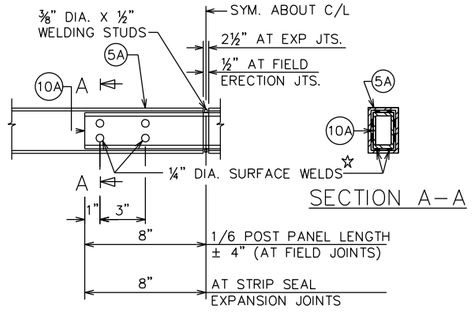
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



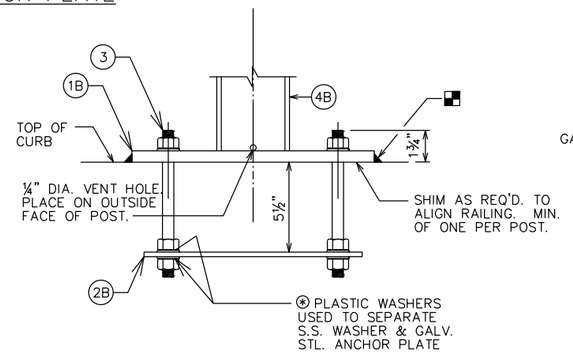
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



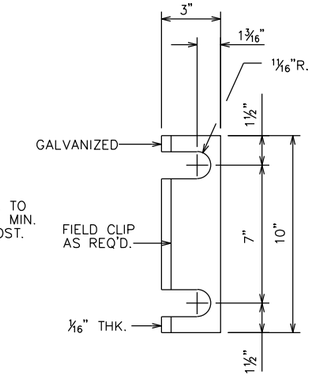
SECTION A-A

FIELD ERECTION JOINT DETAIL

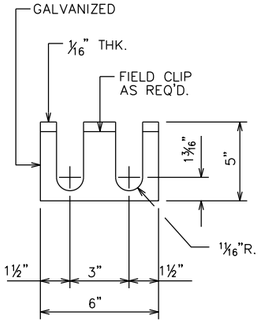
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ANCHORAGE FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



RAIL POST SHIM DETAIL
(2 SETS PER POST)



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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

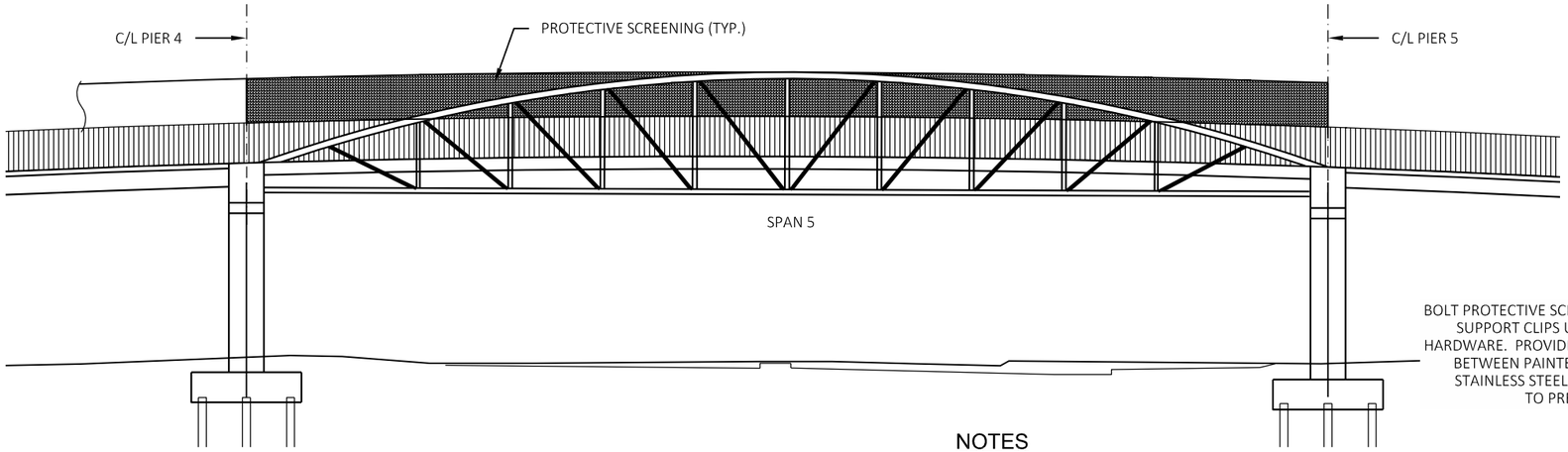
STRUCTURE B-13-891

DRAWN BY	STD	PLANS CK'D.	CAH

RAILING STEEL PEDESTRIAN ORNAMENTAL

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608

STATE PROJECT NUMBER
5992–11–31



ELEVATION

NOTES

PROTECTIVE SCREENING SHALL BE PROVIDED BY THE PREFABRICATED BRIDGE MANUFACTURER. ALL WORK ASSOCIATED WITH PROTECTIVE SCREENING SHALL BE INCIDENTAL TO BID ITEM "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE".

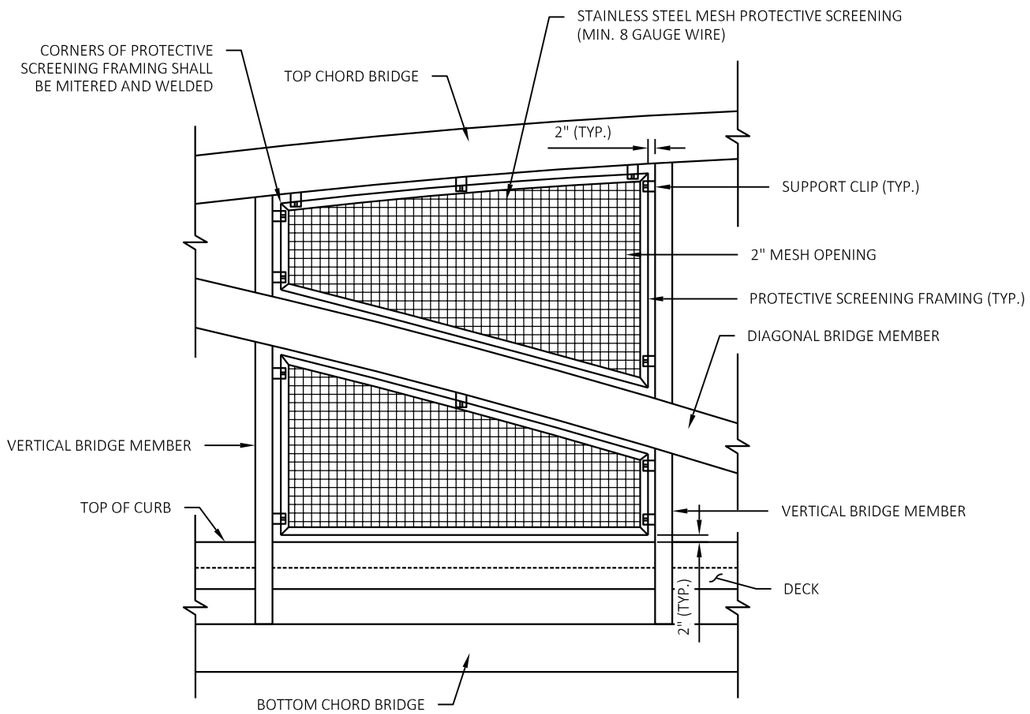
STAINLESS STEEL MESH SHALL BE ORIENTED VERTICALLY/HORIZONTALLY ACROSS THE FULL LENGTH OF THE BRIDGE.

ALL MATERIALS FOR THE PROTECTIVE SCREENING, INCLUDING HARDWARE, SHALL BE STAINLESS STEEL.

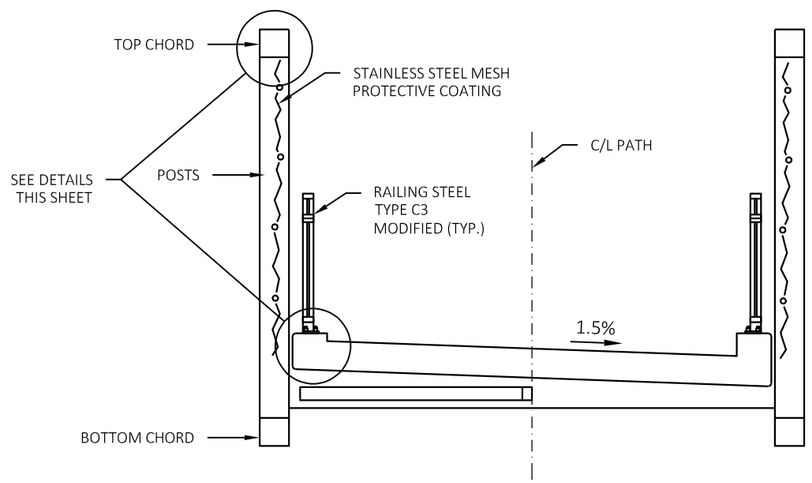
ALTERNATE DETAILS FOR THE PROTECTIVE SCREENING MAY BE PROPOSED BY THE PREFABRICATED BRIDGE MANUFACTURER, BUT MUST BE APPROVED BY THE ENGINEER.

PROTECTIVE SCREENING SHALL BE PROVIDED ON BOTH SIDE OF THE STEEL TRUSS PEDESTRIAN BRIDGE FROM THE TOP OF THE CURB TO THE TOP OF THE BRIDGE AS SHOWN FOR THE FULL LENGTH OF THE TRUSS BRIDGE.

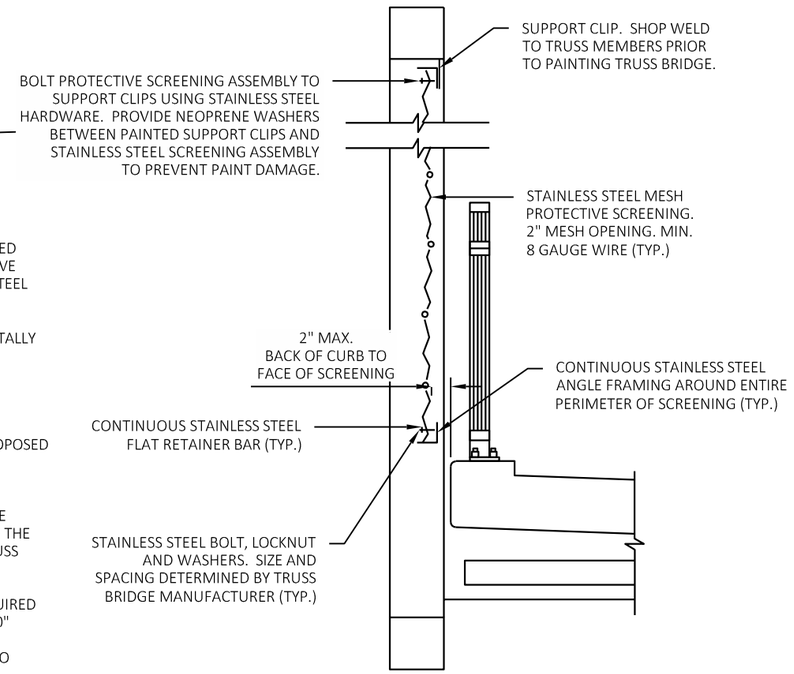
PROVIDE PROTECTIVE SCREENING ABOVE THE TOP CHORD AS REQUIRED IN ORDER TO MAINTAIN A MINIMUM VERTICAL DIMENSION OF 8'-0" FROM THE TOP OF DECK TO TOP OF TRUSS OR TOP OF SCREENING. PROVIDE ADDITIONAL FRAMING ABOVE THE TRUSS AS REQUIRED TO SUPPORT THE PROTECTIVE SCREENING.



PROTECTIVE SCREENING
(INSIDE ELEVATION)



CROSS SECTION THRU TRUSS BRIDGE



PROTECTIVE SCREENING DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

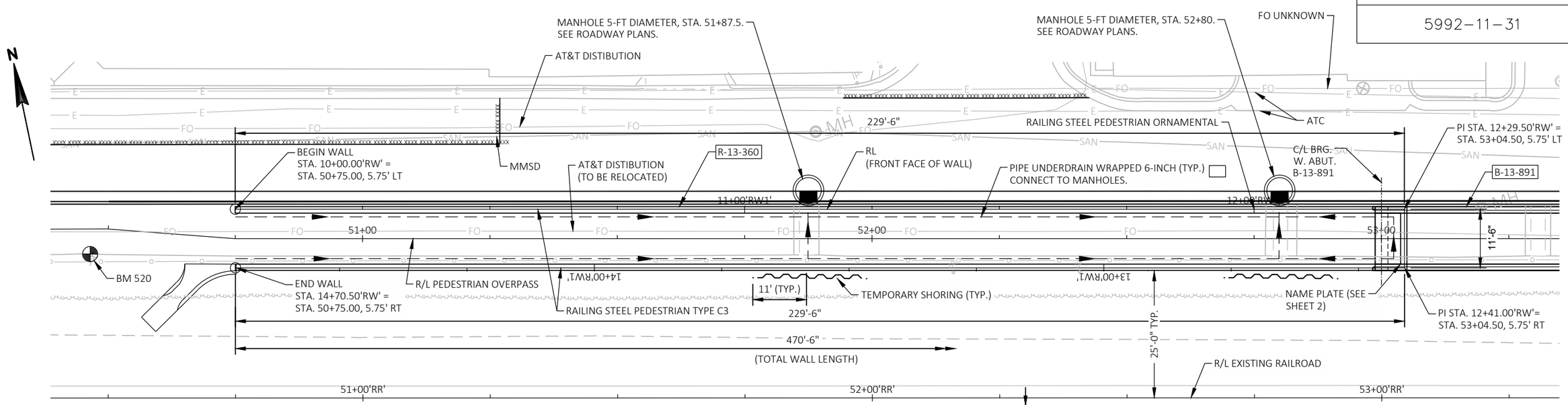
STRUCTURE B–13–891

DRAWN BY STD | PLANS CK'D. CAH

PROTECTIVE SCREENING

SHEET 41 OF 41
609

STATE PROJECT NUMBER
5992–11–31



PLAN
(WALL CONCRETE PANEL MSE, LRFD)

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHINCAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-360".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THIS PLAN.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

CONCRETE MASONRY, COPING.....f'c = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....f'y = 60,000 PSI

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

LOCATION OF RETAINING WALL REINFORCEMENT STRAPS SHALL BE COODINATED WITH B-13-891 ABUTMENT PILE LOCATIONS.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT TO RESIST THE FORCE FROM HORIZONTAL EARTH PRESSURES ACTING ON THE BACK LOWER 2.5 FEET OF THE ABUTMENT. THIS FORCE MAY BE DISTRIBUTED OVER THE DISTANCE FROM THE BACK OF THE ABUTMENT TO THE BACK PANELS IN FRONT OF THE ABUTMENT.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD.

LEGEND

☐ PIPE UNDERDRAIN TO BE TIED INTO PROPOSED MANHOLES AT STA. 51+87.5 & STA. 52+80.00. UNDERDRAIN HOLES SHALL BE CAST INTO THE MSE WALL PANEL.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE PLAN QUANTITY FOR THE BID ITEM WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP WALL TO A CONSTANT DEPTH OF 1.5 FT BELOW FINISHED GRADE, EXCEPT IN THE AREAS AT THE MANHOLES. SEE DETAILS.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

WALL PANEL SHALL BE 2'-0" THICK TO HEIGHT SHOWN ON DETAILS FROM STA. 10+00'RW' TO STA. 12+41'RW'.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE STANDARD WALL COPING IN FRONT OF THE ABUTMENT AND AT THE TOP OF WALLS ALONG THE PATH IS INCLUDED WITH THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-360".

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED OR SHOWN.

BEVEL EXPOSED EDGES OF CONCRETE 3/4-INCH, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS, STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL, UNLESS OTHERWISE SHOWN. THE 'RW1' STATIONING IS AT THE FRONT FACE OF THE WALL.

EBS EXCAVATION AS REQUIRED IS INCLUDED WITH THE ROADWAY PLANS. THE FINAL WALL FOUNDATION SUBGRADE SHALL BE APPROVED BY THE REGIONAL GEOTECHNICAL ENGINEER.

A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS STRUCTURE AND IS AVAILABLE UPON REQUEST FROM WISDOT'S SW REGION OFFICE.

TOTAL ESTIMATED QUANTITIES

	ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL
	511.1100	TEMPORARY SHORING	SF	242
	513.8016	RAILING STEEL PEDESTRIAN TYPE C3	LF	321
★	517.1010.S.02	CONCRETE STAINING R-13-360	SF	1142
★	517.1015.S.02	CONCRETE STAINING MULTI-COLOR R-13-360	SF	2470
★	517.1050.S.02	ARCHITECTURAL SURFACE TREATMENT R-13-360	SF	2470
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	500
★	SPV.0090.41	RAILING STEEL PEDESTRIAN ORNAMENTAL	LF	123
	SPV.0165.01	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-360	SF	3810

★ NON-PARTICIPATING ITEMS (100% CITY FUNDED)

ALIGNMENT DATA

PI = 10+00.00'RW1'
Y = 482,701.1756
X = 807,478.3186

PI = 12+29.50'RW1'
Y = 482,631.2784
X = 807,696.9200

PI = 12+41.00'RW1'
Y = 482,620.3248
X = 807,693.4177

PI = 14+70.50'RW1'
Y = 482,690.2214
X = 807,474.8161

WISCONSIN
CHAD D. HALVERSON
E-34364
MADISON, WI
PROFESSIONAL ENGINEER

October 27, 2021

BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
BM506	52+30	189' RT	CUT SQ. NE COR. CONCRETE BASE LPM	875.52
BM520	50+46	5' RT	RR SPIKE LPM (2 LIGHTS)	876.82

LIST OF DRAWINGS

1. GENERAL PLAN
2. ELEVATION VIEW / RAILING LAYOUT
3. DESIGN TABLES
4. TYPICAL SECTIONS
5. DETAILS
6. RAILING STEEL PEDESTRIAN TYPE C3 DETAILS
7. RAILING STEEL PEDESTRIAN ORNAMENTAL
8. AESTHETIC DETAILS
9. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

NO.	DATE	REVISION	BY

KL Engineering
[A] Better Experience

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/02/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R–13–360

MULTI–USE TRAIL AT UNIVERSITY BAY DRIVE

COUNTY	TOWN/CITY/VILLAGE
DANE	MADISON

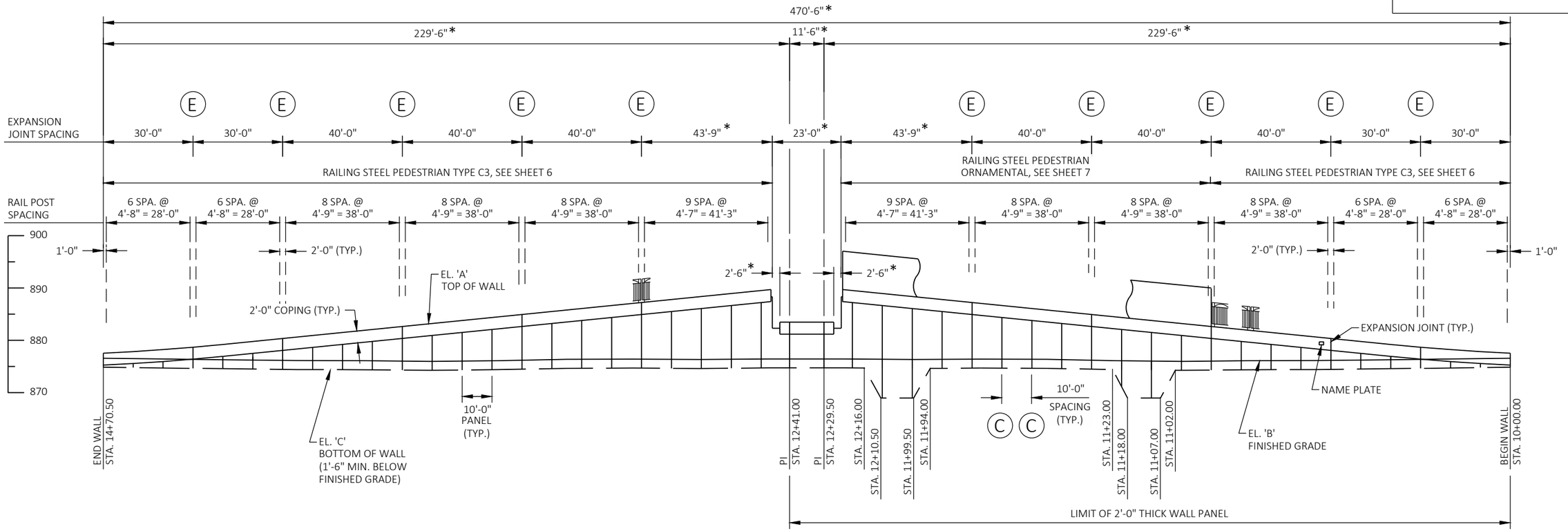
DESIGN SPEC.
AASHTO LRFD DESIGN SPEC.

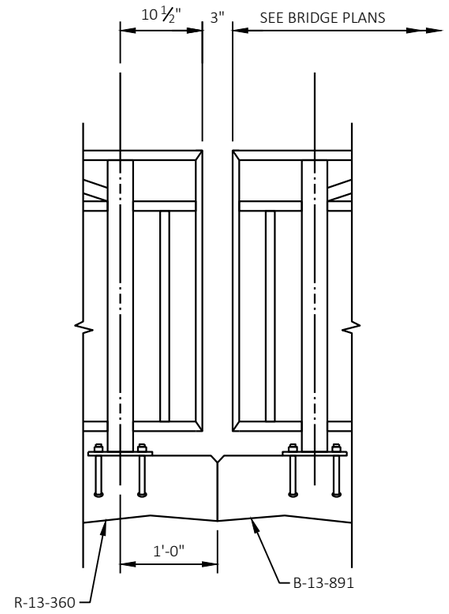
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CDH	CAH	STD	CAH

GENERAL PLAN

SHEET 1 OF 9
610

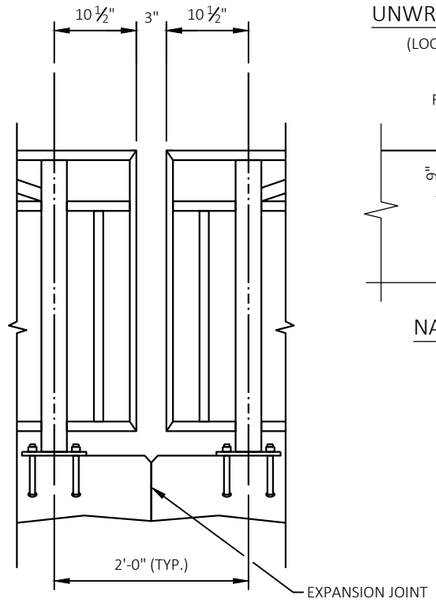
STATE PROJECT NUMBER
5992–11–31





RAILING ENDS AT BRIDGE JOINT

(BOTH SIDES OF RETAINING WALL HAVE SAME RAILING EXTENSION AT JOINT)
(TYPE C3 RAILING SHOWN. ORNAMENTAL RAILING SIMILAR)

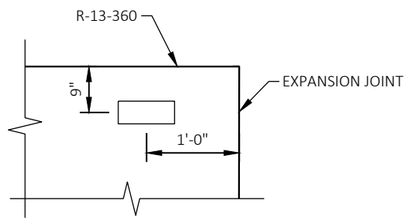


TYPICAL RAILING DETAIL AT EXPANSION JOINT

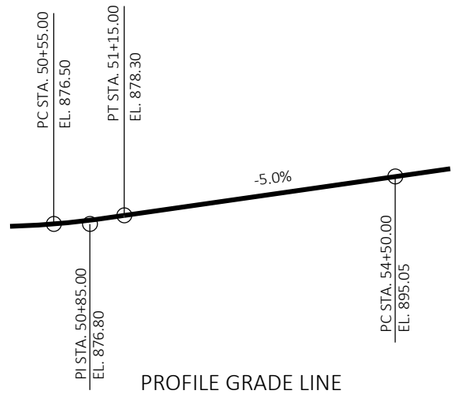
(TYPE C3 RAILING SHOWN. ORNAMENTAL RAILING SIMILAR)

UNWRAPPED ELEVATION VIEW

(LOOKING AT FRONT FACE OF WALL)



NAME PLATE DETAIL



PROFILE GRADE LINE PEDESTRIAN OVERPASS

NOTES

SEE SHEET 3 FOR GEOMETRY TABLE.

HORIZONTAL WALL PANEL JOINTS NOT SHOWN.

LEGEND

(E) EXPANSION JOINT IN C.I.P. CONCRETE COPING

(C) CONTRACTION JOINT IN C.I.P. CONCRETE COPING

* DIMENSIONS ARE MEASURED TO END OF WALL PANEL (NOT COPING)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-360

DRAWN BY STD | PLANS CK'D. CAH

ELEVATION VIEW / RAILING LAYOUT

SHEET 2 OF 9
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STATE PROJECT NUMBER
5992–11–31

WALL EXTERNAL & OVERALL STABILITY EVALUATION

LOCATION		STA. 53+04.49
WALL		R-13-360 WEST ABUTMENT
WALL GEOMETRY		
APPROXIMATE TOP OF WALL ELEVATION (FT)		882.3
APPROXIMATE BOTTOM OF WALL ELEVATION (FT)		874.5
APPROXIMATE FINISH GRADE IN FRONT OF WALL (FT)		876.0
APPROXIMATE TOTAL WALL HEIGHT (FT)		7.8
APPROXIMATE EXPOSED WALL HEIGHT (FT)		6.3
APPROXIMATE EMBEDMENT DEPTH (FT)		1.5
APPROXIMATE BATTER (DEG)		0.0
APPROXIMATE LENGTH OF REINFORCED ZONE (FT) *		14 (1)
LRFD STABILITY CRITERIA		
e/L (< 0.25)		0.11
ECCENTRICITY - OVERTURNING CDR (≥ 1.0)		2.37
SLIDING CDR (≥ 1.0)		1.00
REQUIRED BEARING RESISTANCE (PSF)		2,064
BEARING RESISTANCE CDR (≥1.0) (3)		1.96
GLOBAL STABILITY	MINIMUM FACTOR OF SAFETY (FS ≥ 1.54 FOR ϕ = 0.65) (4)	2.83
	CDR (≥ 1.0)	1.84
ESTIMATED SETTLEMENT (IN.) (5)		1.4 (0.8) (6)

NOTES:

MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 2000 PSF (AS MEASURED ON SITE WITH A SPRING PENETROMETER) IS REQUIRED FOR THE SUBGRADE.

* MINIMUM LENGTH APPLIES ONLY AT CORRESPONDING WALL STATIONS. FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESPONSIBILITY OF THE CONTRACTORS WALL DESIGNER.

(1) ESTIMATED BASE ON PRELIMINARY ANALYSIS WITH MSEW.

(2) CONTROLLED BY BEARING CAPACITY

(3) GENERALLY CONTROLLED BY LONG-TERM LOADING CONDITIONS/SOIL PARAMETERS.

(4) WE RECOMMED USING NOMINAL/UNFACTORED BEARING RESISTANCE OF 9.0 KSF BETWEEN BEGINING OF WALL R-13-360 AND STA. 52+50.

(5) ASSUME A MINIMUM OF 2-FT EBS/UNDERCUT BELOW BOTTOM OF WALL AND REINFORCED ZONE.

(6) ESTIMATED SETTLEMENT AT FACE OF ABUTMENT WALL.

GEOMETRY TABLE

MAINLINE STATION	WALL STATION	ELEV. A TOP OF WALL	ELEV B FINISHED GRADE	ELEV C BOTTOM OF WALL
50+75.00	10+00.00	877.41	876.15	874.65
50+85.00	10+10.00	877.68	876.25	874.75
50+95.00	10+20.00	878.01	876.48	874.98
51+05.00	10+30.00	878.41	876.43	874.93
51+15.00	10+40.00	878.88	876.38	874.88
51+25.00	10+50.00	879.38	876.34	874.84
51+35.00	10+60.00	879.88	876.29	874.79
51+45.00	10+70.00	880.38	876.23	874.73
51+55.00	10+80.00	880.88	876.16	874.66
51+65.00	10+90.00	881.38	876.11	874.61
51+75.00	11+00.00	881.88	876.09	874.59
51+77.00	11+02.00	881.98	876.09	874.59
51+80.00	11+05.00	882.13	876.10	871.76
51+82.00	11+07.00	882.23	876.11	869.87
51+87.50	11+12.50	882.51	876.12	869.87
51+93.00	11+18.00	882.78	876.14	869.87
51+95.00	11+20.00	882.88	876.15	871.78
51+98.00	11+23.00	883.03	876.16	874.66
52+05.00	11+30.00	883.38	876.16	874.66
52+15.00	11+40.00	883.88	876.19	874.69
52+25.00	11+50.00	884.38	876.28	874.78
52+35.00	11+60.00	884.88	876.46	874.96
52+45.00	11+70.00	885.38	876.55	875.05
52+55.00	11+80.00	885.88	876.51	875.01
52+65.00	11+90.00	886.38	876.45	874.95
52+69.00	11+94.00	886.58	876.45	874.95
52+70.00	11+95.00	886.63	876.45	873.97
52+74.50	11+99.50	886.86	876.46	869.59
52+80.00	12+05.00	887.13	876.47	869.59
52+85.50	12+10.50	887.41	876.48	869.59
52+90.00	12+15.00	887.63	876.48	874.00
52+91.00	12+16.00	887.68	876.49	874.99
52+95.00	12+20.00	887.88	876.49	874.99
52+98.67	12+23.67	888.06	876.53	875.03
52+98.67	12+23.67	879.79	876.53	875.03
53+01.33	12+26.33	879.79	876.55	875.05
53+01.33	12+26.33	881.37	876.55	875.05
53+04.50	12+29.50	881.31	876.59	875.09
53+04.50	12+41.00	881.31	875.94	874.44
53+01.33	12+44.17	881.37	875.90	874.40
53+01.33	12+44.17	879.79	875.90	874.40
52+98.67	12+46.83	879.79	875.88	874.38
52+98.67	12+46.83	887.91	875.88	874.38
52+95.00	12+50.50	887.73	875.85	874.35
52+85.00	12+60.50	887.23	875.91	874.41
52+75.00	12+70.50	886.73	876.04	874.54
52+65.00	12+80.50	886.23	876.01	874.51
52+55.00	12+90.50	885.73	875.93	874.43
52+45.00	13+00.50	885.23	875.87	874.37
52+35.00	13+10.50	884.73	875.91	874.41
52+25.00	13+20.50	884.23	875.97	874.47
52+15.00	13+30.50	883.73	875.88	874.38
52+05.00	13+40.50	883.23	875.72	874.22
51+95.00	13+50.50	882.73	875.64	874.14
51+85.00	13+60.50	882.23	875.73	874.23
51+75.00	13+70.50	881.73	875.89	874.39
51+65.00	13+80.50	881.23	875.86	874.36
51+55.00	13+90.50	880.73	875.78	874.28

SOIL PARAMETERS

SOIL DESCRIPTION (1)	APPROXIMATE DEPTH BELOW EXISTING GRADE	FRICTION ANGLE	COHESION (PCF)	MOIST UNIT WEIGHT (PCF)	SATURATED UNIT WEIGHT (PCF)
WALL BACKFILL (REINFORCED ZONE)	--	30	0	120	130
OTHER BACKFILL/UNREINFORCED EMBANKMENT FILL/RETAINED SOIL (2)	--	30	0	120	130
EBS BACKFILL: 3-IN. DENSE GRADED BASE	--	35	0	130	140
BORING 1 (NEAR STA. 51+40)					
EXISTING, MEDIUM DENSE FILL	0 TO 3 FT	30	0	120	130
LOOSE TO MEDIUM DENSE SILT	3 TO 14 FT	29	0	115	125
MEDIUM TO DENSE SAND AND SILT	14 TO 30 FT (3)	32	0	120	130
BORING 2 (NEAR STA. 52+20)					
EXISTING, MEDIUM STIFF FILL	0 TO 3 FT	0 (4) / 25 (5)	750 (4) / 75 (5)	115	120
STIFF LEAN CLAY	3 TO 8 FT	0 (4) / 25 (5)	1000 (4) / 100 (5)	120	125
VERY LOOSE SILT	8 TO 13 FT	27	0	110	120
MEDIUM DENSE TO DENSE SAND AND SILTY SAND	13 TO 30 FT (3)	35	0	125	135
BORING 3 (NEAR STA. 53+00)					
EXISTING, MEDIUM DENSE FILL	0 TO 3 FT	30	0	120	130
STIFF LEAN CLAY	3 TO 12 FT	0 (4) / 25 (5)	1750 (4) / 175 (5)	120	125
MEDUIM DENSE SILT	12 TO 18 FT	30	0	120	130
MEDIUM DENSE SAND AND SILTY SAND	18 TO 32 FT	32	0	120	130

NOTES:

(1) SOIL PROFILES ARE GENERALIZED TO SOME DEGREE: SEE BORING LOG FOR ADDITIONAL DETAILS.

(2) VALUES FOR BACKFILL OTHER THAN REINFORCED ZONE AND EXISTING SOILS.

(3) END BORING

(4) FOR SHORT-TERM (UNDRAINED) LOADING CONDITIONS.

(5) FOR LONG-TERM (DRAINED) LOADING CONDITIONS.

GEOMETRY TABLE

MAINLINE STATION	WALL STATION	ELEV. A TOP OF WALL	ELEV B FINISHED GRADE	ELEV C BOTTOM OF WALL
51+45.00	14+00.50	880.23	875.78	874.28
51+35.00	14+10.50	879.73	875.80	874.30
51+25.00	14+20.50	879.23	875.84	874.34
51+15.00	14+30.50	878.73	875.99	874.49
51+05.00	14+40.50	878.26	876.04	874.54
50+95.00	14+50.50	877.86	875.99	874.49
50+85.00	14+60.50	877.53	876.00	874.50
50+75.00	14+70.50	877.26	876.08	874.58

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

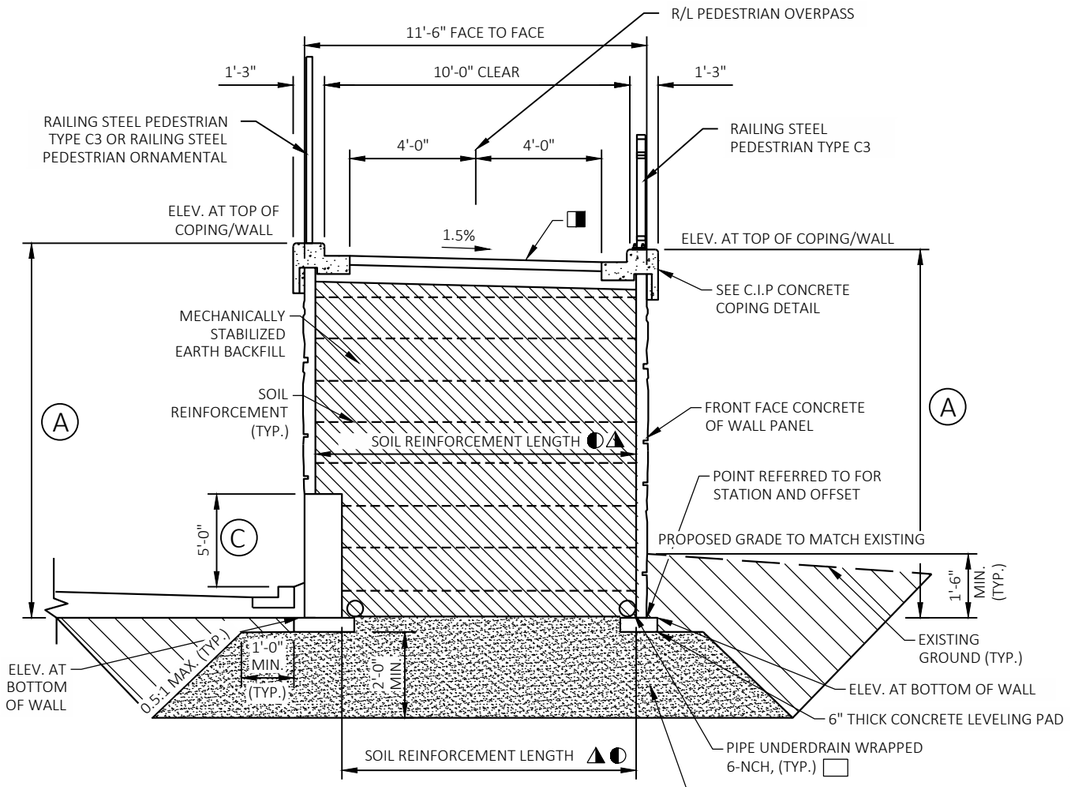
STRUCTURE R-13-360

DRAWN BY STD | PLANS CK'D. CAH

DESIGN TABLES

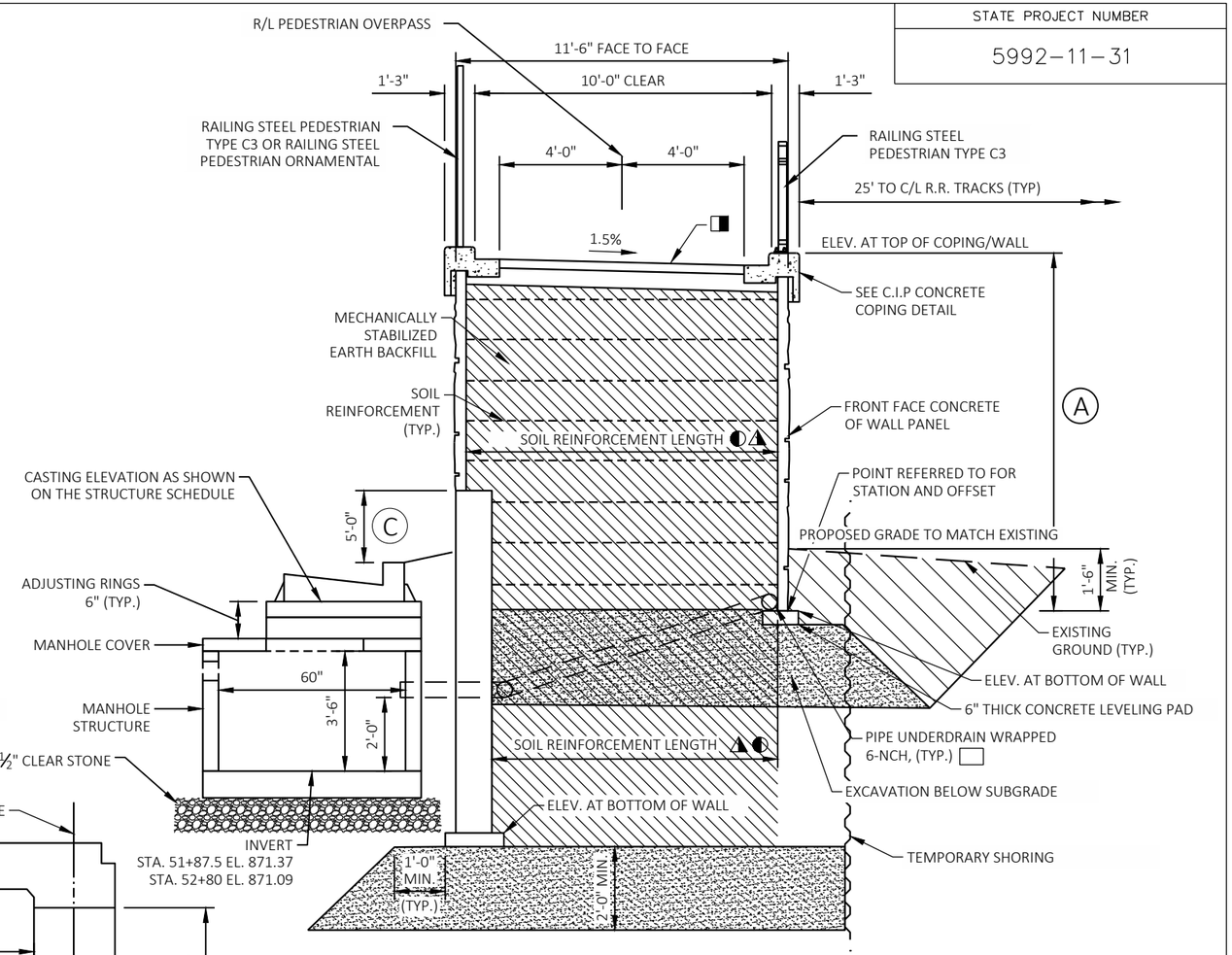
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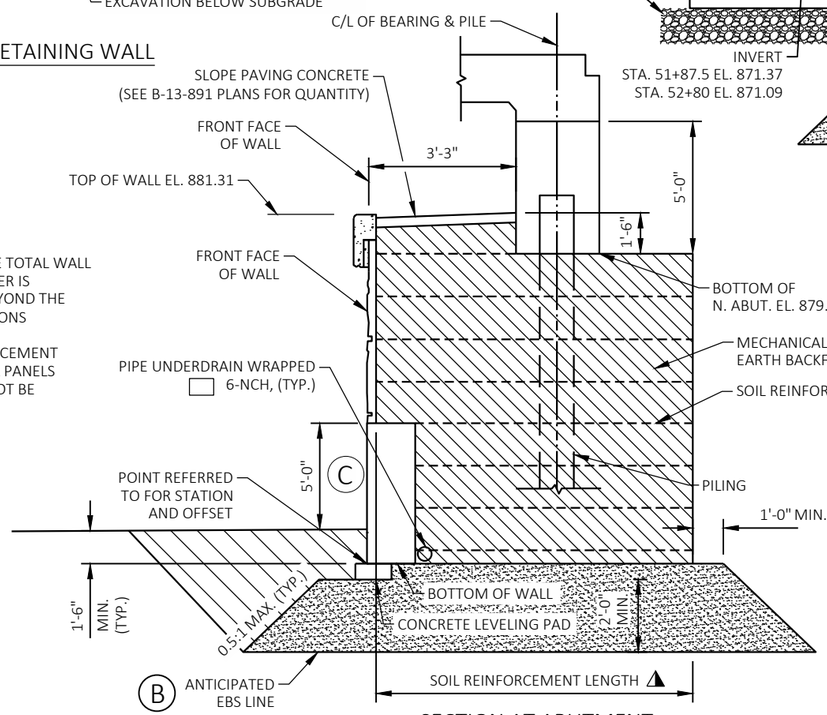
TYPICAL SECTION THRU MSE RETAINING WALL

(LOOKING EAST)



TYPICAL SECTION THRU MSE RETAINING WALL WITH MANHOLE AT STA. 51+87.50 AND STA 52+80

(LOOKING EAST)



SECTION AT ABUTMENT

NOTES

- MINIMUM LENGTH OF MSE WALL REINFORCEMENT STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS
- IN AREAS OF BACK TO BACK MSE RETAINING WALLS, THE MAXIMUM REINFORCEMENT LENGTH SHALL BE THE DISTANCE BETWEEN THE WALLS. BACK TO BACK WALL PANELS SHALL BE TIED TOGETHER IF THE MINIMUM REINFORCEMENT LENGTH CANNOT BE ACHIEVED.
- SEE ROADWAY TYPICAL SECTION FOR PAVEMENT STRUCTURE
- PIPE UNDERDRAIN TO BE TIED INTO PROPOSED MAHHOLES
- (A) PAY LIMTS FOR BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"
- (B) ALL WALL FOUNDATION SUBGRADE SHALL BE APPROVED BY THE REGIONAL GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF BACKFILL GRANULAR
- (C) LIMITS OF 2'-0" THICK PANEL

LEGEND

- EARTHWORK INCLUDED WITH EXCAVATION COMMON AND 3-INCH DENSE GRADED BASE BID ITEMS IN ROADWAY PLANS
- FILL INCLUDED WITH EXCAVATION COMMON AND BORROW BID ITEMS IN ROADWAY PLANS
- FILL INCLUDED WITH BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

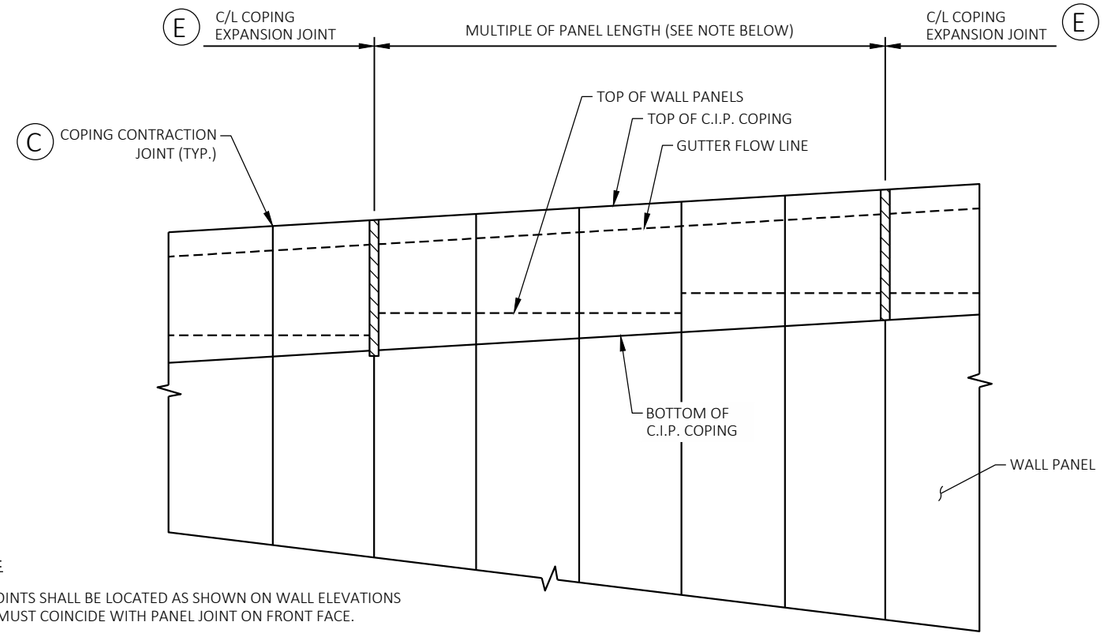
STRUCTURE R-13-360

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TYPICAL SECTIONS

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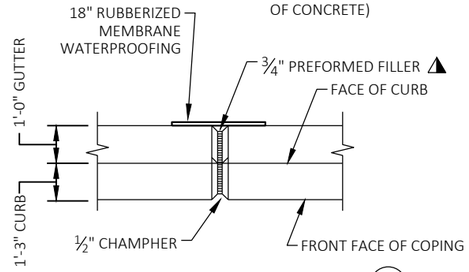
NOTE:

ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P COPING PARTIAL ELEVATION

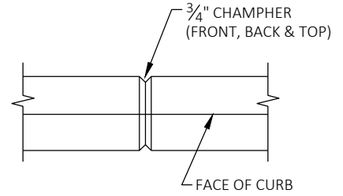
LEGEND

⚠ SEAL ALL EXPOSED HORZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)



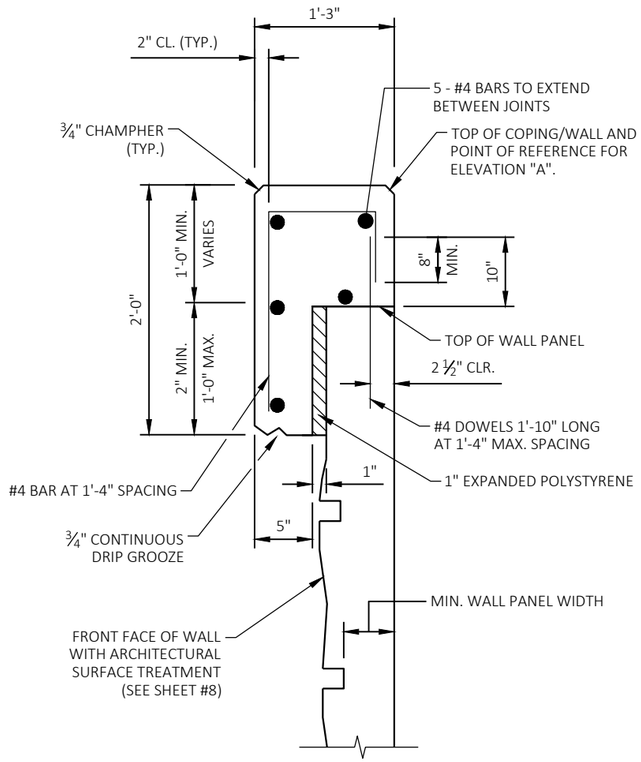
COPING EXPANSION JOINT (E)

DO NOT RUN BAR STEEL THRU JOINTS.
MAX. SPACING OF JOINT = 50'-0"
CENTER FILLER AND JOINT AT C/L OF PANEL JOINTS.
PLACE JOINTS VERTICAL.



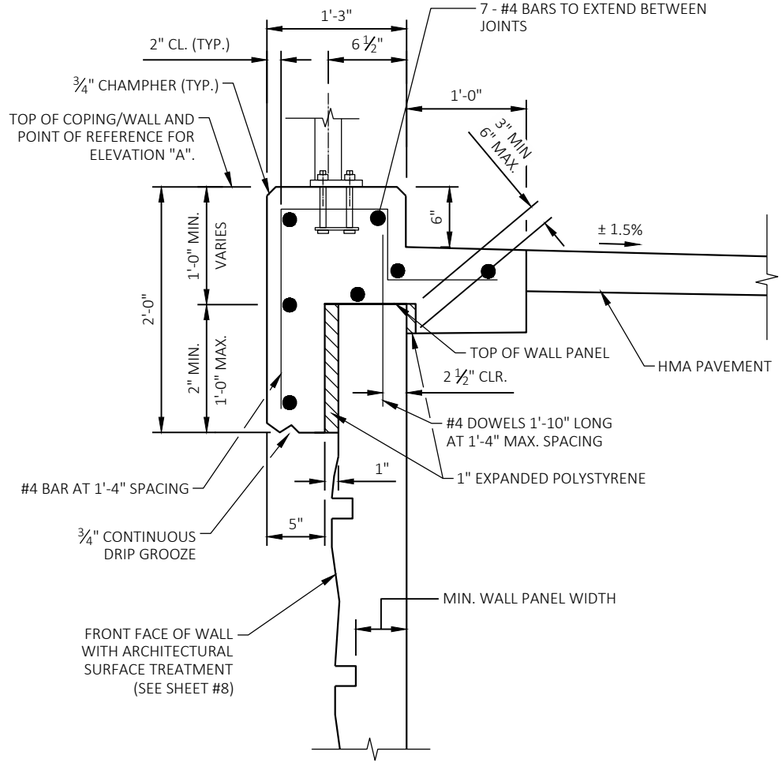
COPING CONTRACTION JOINT (C)

DO NOT RUN BAR STEEL THRU JOINTS.
SPACING OF JOINT = 10'-0"
CENTER JOINTS ON PANEL JOINTS.
PLACE JOINTS VERTICAL.



C.I.P. COPING IN FRONT OF ABUTMENT

(CAST IN PLACE CONCRETE AND STEEL REINFORCEMENT FOR COPING INCLUDED WITH THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-360")



TYPICAL C.I.P. CONCRETE COPING DETAIL

(CAST IN PLACE CONCRETE AND STEEL REINFORCEMENT FOR COPING INCLUDED WITH THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-360")

NOTES:

CONCRETE, REINFORCEMENT AND RUBBERIZED MEMBRANE WATERPROOFING ARE INCLUDED IN BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-360".

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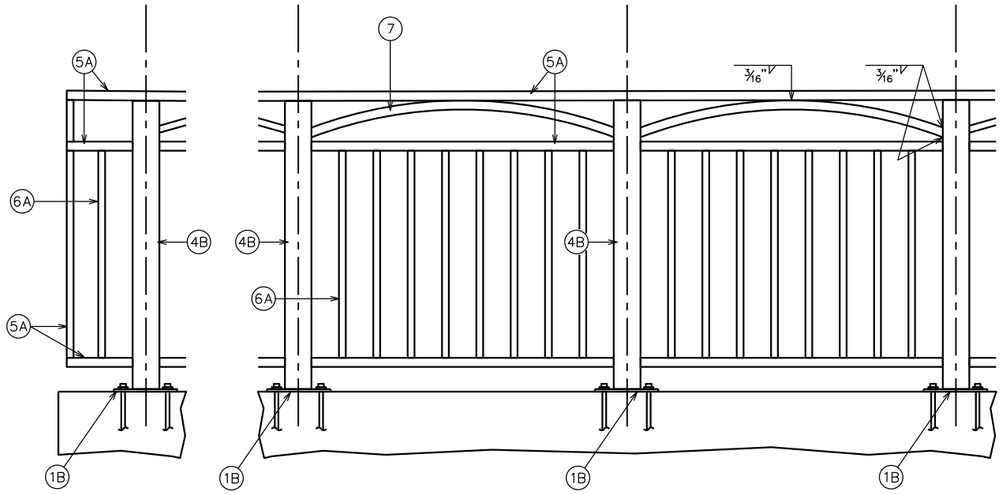
STRUCTURE R-13-360

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DETAILS

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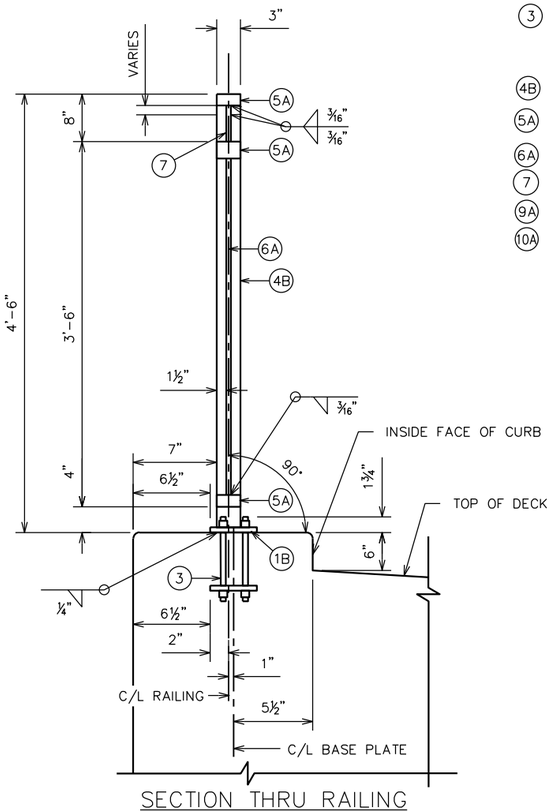
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ELEVATION TYPE C3

LEGEND

- (1B) BASE PLATE ⅜" X 6" X 10" WITH ¾" X 1½" SLOTTED HOLES
- (2B) ¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 1⅛" DIA. HOLES FOR THR'D. RODS NO. 3.
- (3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE RAIL POST ANCHORAGE – 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝"DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POST.
- (4B) STRUCTURAL TUBING 3" X 3" X 3/16" POSTS, PLACE VERTICAL. WELD TO NO. 1 & 5
- (5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
- (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5 PLACE VERTICAL.
- (7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)



SECTION THRU RAILING

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN TYPE C3", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, BARS AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

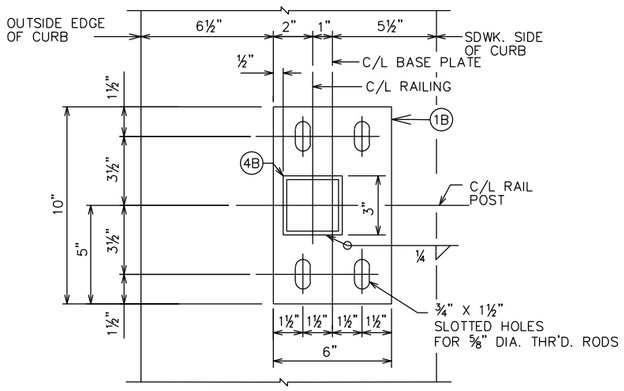
■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING STEEL SHALL BE PAINTED ASM-STD. COLOR NO. 24260, (GREEN).

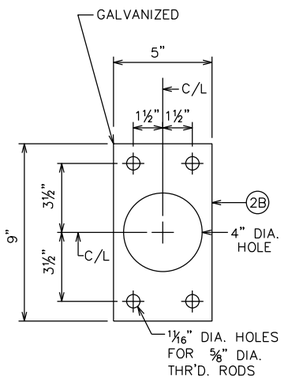
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

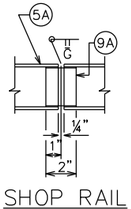
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



TYPICAL RAIL POST BASE PLATE

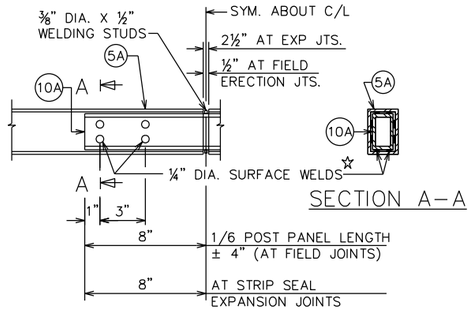


ANCHOR PLATE



SHOP RAIL SPLICE DETAIL

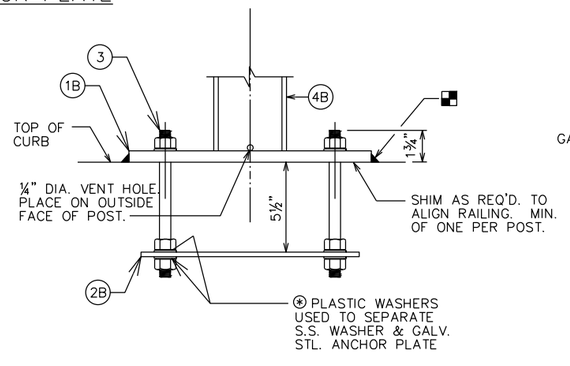
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

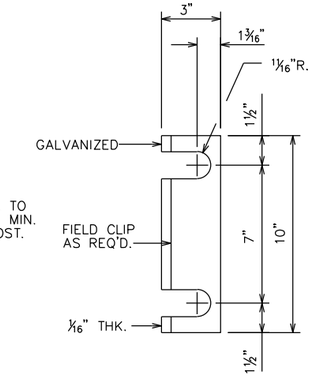
FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



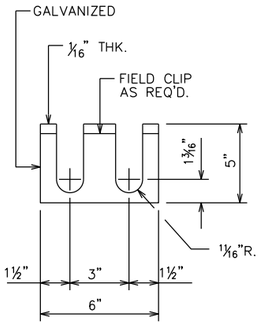
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



RAIL POST SHIM DETAIL

(2 SETS PER POST)



NO.	DATE	REVISION	BY

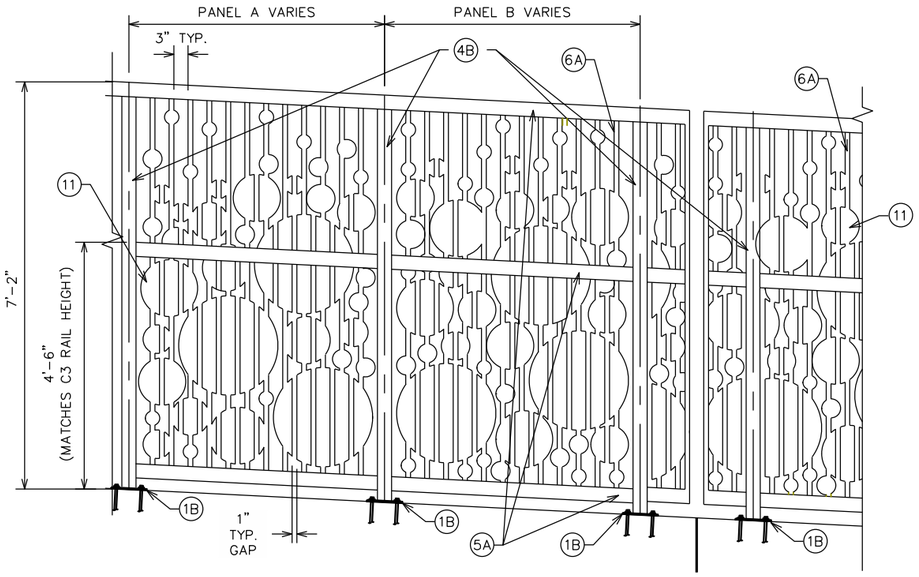
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE R-13-360

DRAWN BY	STD	PLANS CK'D.	CAH

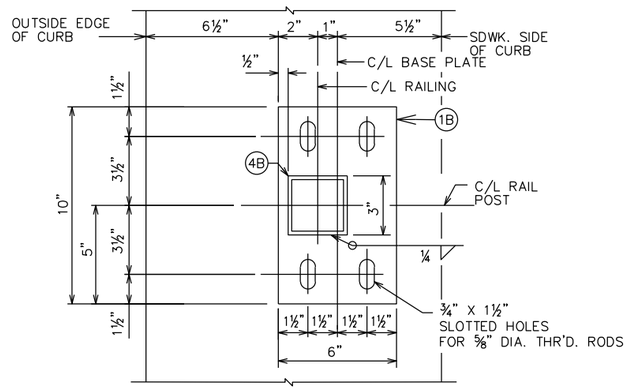
RAILING STEEL PEDESTRIAN TYPE C3

SHEET 6 OF 9
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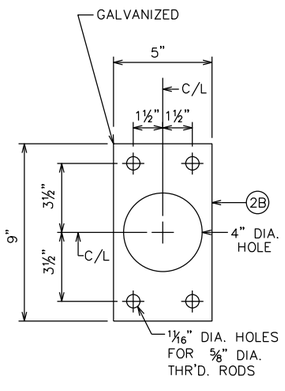
STATE PROJECT NUMBER
5992-11-31



ELEVATION ORNAMENTAL



TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE

ORNAMENTAL RAILING NOTES

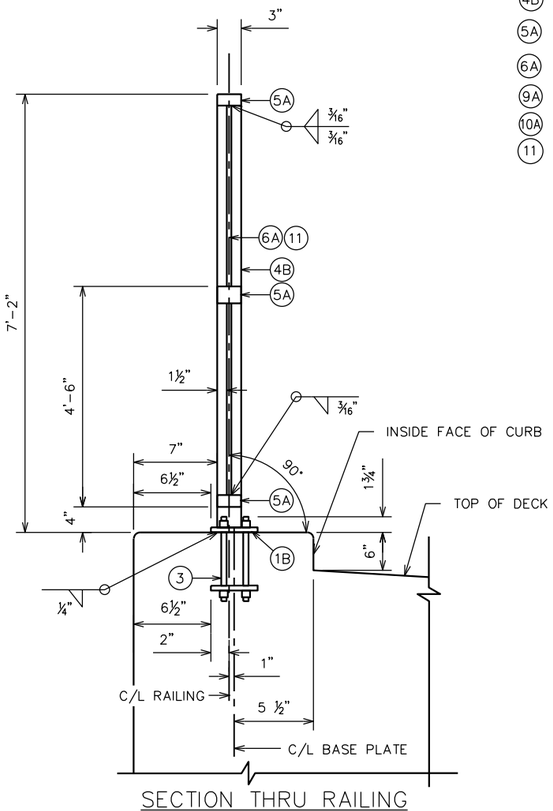
SUBMIT PLAN VIEW, SECTION AND ELEVATION SHOP DRAWINGS TO CONFIRM ELEVATIONS, PANEL LAYOUT, DIMENSIONS, MATERIALS, FASTENERS AND FINISHES.

PROVIDE ORNAMENTAL RAILING WHERE SHOWN ON PLANS.

SLOPE OF ORNAMENTAL RAILING SHALL FOLLOW SLOPE OF CONCRETE BRIDGE DECK.

PROVIDE EXPOSED FASTENERS WITH FINISH MATCHING APPEARANCE, INCLUDING COLOR AND TEXTURE OF RAILINGS.

ARTWORK AVAILABLE UPON REQUEST.



SECTION THRU RAILING

LEGEND

1B	BASE PLATE ⅝" X 6" X 10" WITH ¾" X 1½" SLOTTED HOLES
2B	¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 1⁄16" DIA. HOLES FOR THR'D. RODS NO. 3.
3	⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE RAIL POST ANCHORAGE – 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝"DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POST.
4B	STRUCTURAL TUBING 3" X 3" X 3⁄16" POSTS, PLACE VERTICAL. WELD TO NO. 1 & 5
5A	STRUCTURAL TUBING 3" X 1½" X 3⁄16" RAILS. WELD TO NO. 1 & 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
6A	BAR 1" X 1" PICKETS. WELD TO NO. 5 PLACE VERTICAL.
9A	RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. PROVIDE "SLIDING FIT".
10A	RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. (1'-4" @ FIELD ERECTION JTS.)
11	1" STEEL PLATE, WELDED TO NO. 6 (TYP.). BUILD UP SHAPES USING 1" THICK STOCK MATERIAL.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN ORNAMENTAL", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, BARS AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

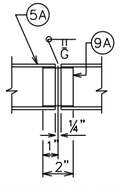
■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING STEEL SHALL BE PAINTED ASM-STD. COLOR NO. 24260, (GREEN SEMI-GLOSS, INTENDED FOR HIGH VOLUME EXTERIOR APPLICATIONS).

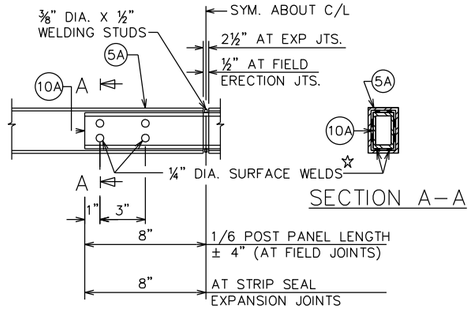
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



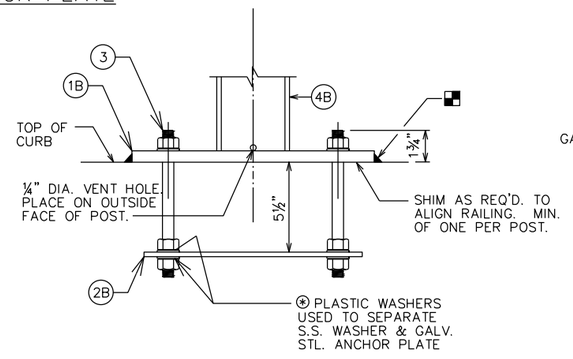
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



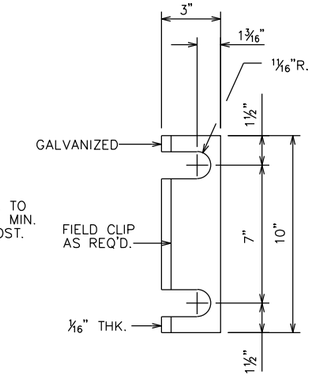
SECTION A-A

FIELD ERECTION JOINT DETAIL

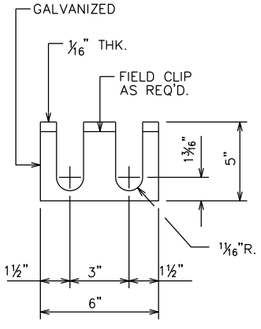
☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



ANCHORAGE FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



RAIL POST SHIM DETAIL
(2 SETS PER POST)



NO.	DATE	REVISION	BY

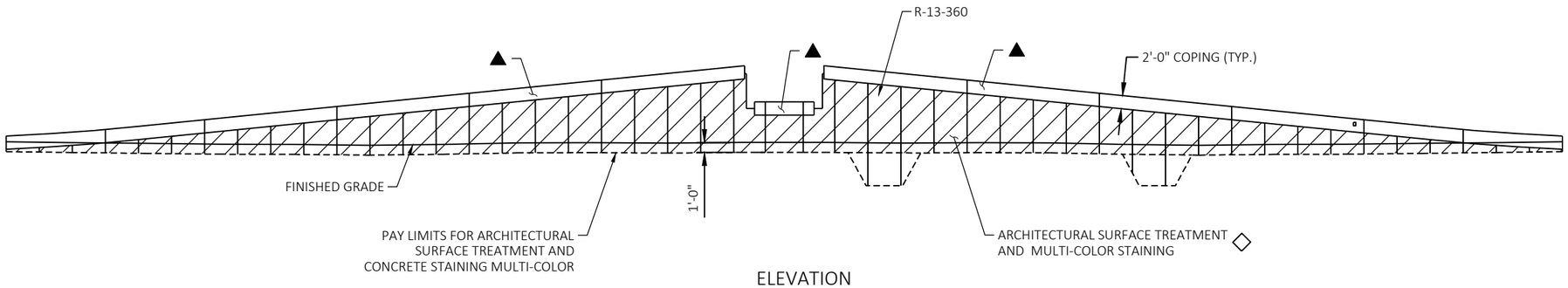
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE R-13-360

DRAWN BY	STD	PLANS CK'D.	CAH

RAILING STEEL PEDESTRIAN ORNAMENTAL

SHEET 7 OF 9
616

STATE PROJECT NUMBER
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ELEVATION

LEGEND

- ▲ CIP CONCRETE, RUBBER FINISH ON ALL SIDES EXCEPT TOP, TYP. STAIN COLOR NUMBER AMS-STD 23448.
- ◇ CUSTOM-ROCK FORMLINER NUMBER #2411 "RANDOM CUT STONE (12" COURSING)" OR APPROVED EQUAL. SPLIT FACE FINISH ALL EXPOSED SURFACES AND EDGES UNLESS NOTED OTHERWISE. MULTI-STAIN COLOR NUMBERS AMS-STD 20400, 23564 AND 23722.
- ▽ COURSE HEIGHT TO BE 1'.
- ◆ MORTAR STAIN COLOR NUMBER AMS-STD 23564.

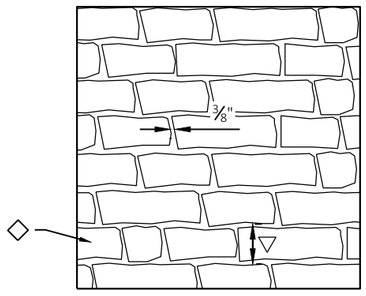
NOTES

FORMLINER PATTERN SHALL BE LEVEL AND CONTINUOUS AROUND ALL CORNERS.

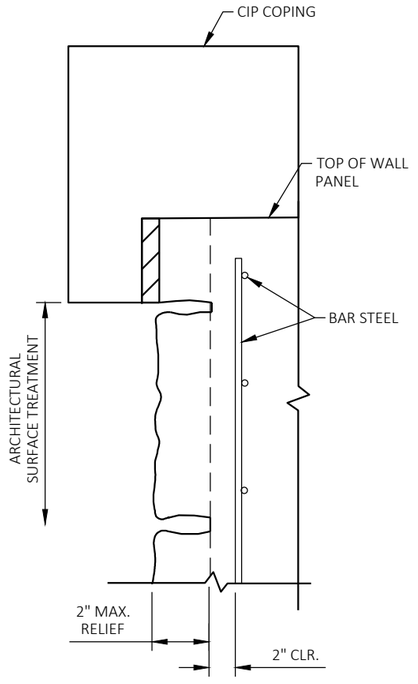
THE COST OF FORMLINER TREATMENTS IS PAID FOR UNDER SPECIAL PROVISIONS "ARCHITECTURAL SURFACE TREATMENT". MAX. ALLOWED RELIEF IS 2".

ARCHITECTURAL SURFACE TREATMENT AND STAIN SHALL EXTEND 1'-0" BELOW FINISHED GRADE.

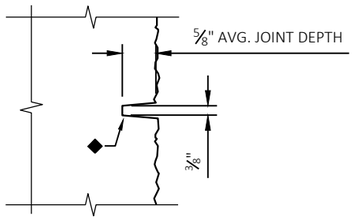
CONTRACTOR TO PROVIDE FULL HEIGHT MOCK-UP FOR REVIEW OF AESTHETIC DETAILS AND CONCRETE COLOR STAINING SELECTION.



FORMLINER DETAIL



SECTION THRU FORMLINER



"MORTAR JOINT" DETAIL

APPLIES TO HORIZONTAL & VERTICAL JOINTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

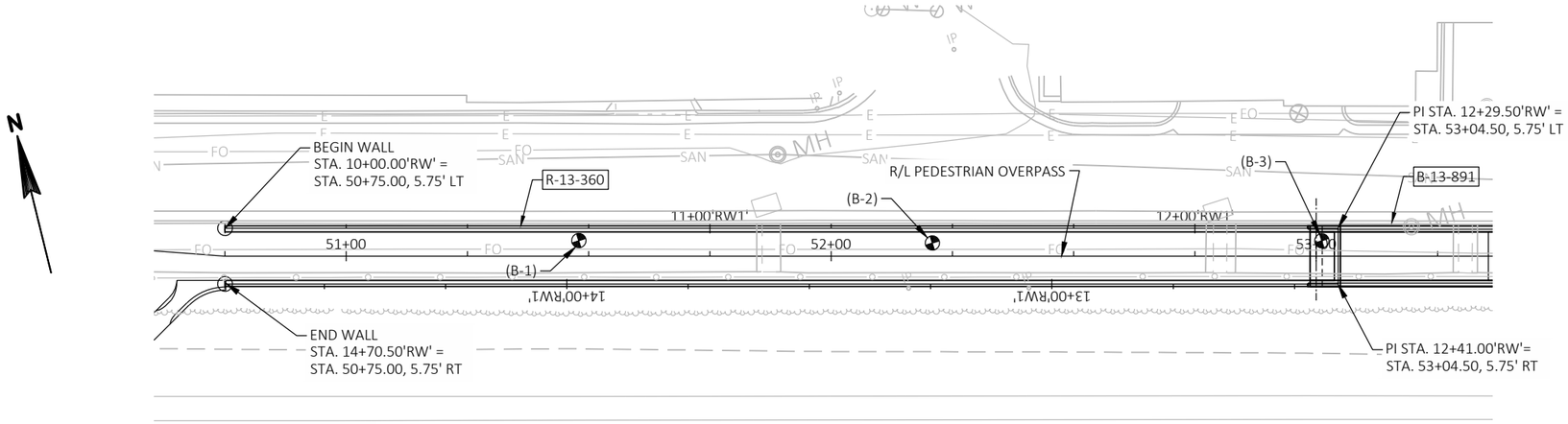
STRUCTURE R–13–360

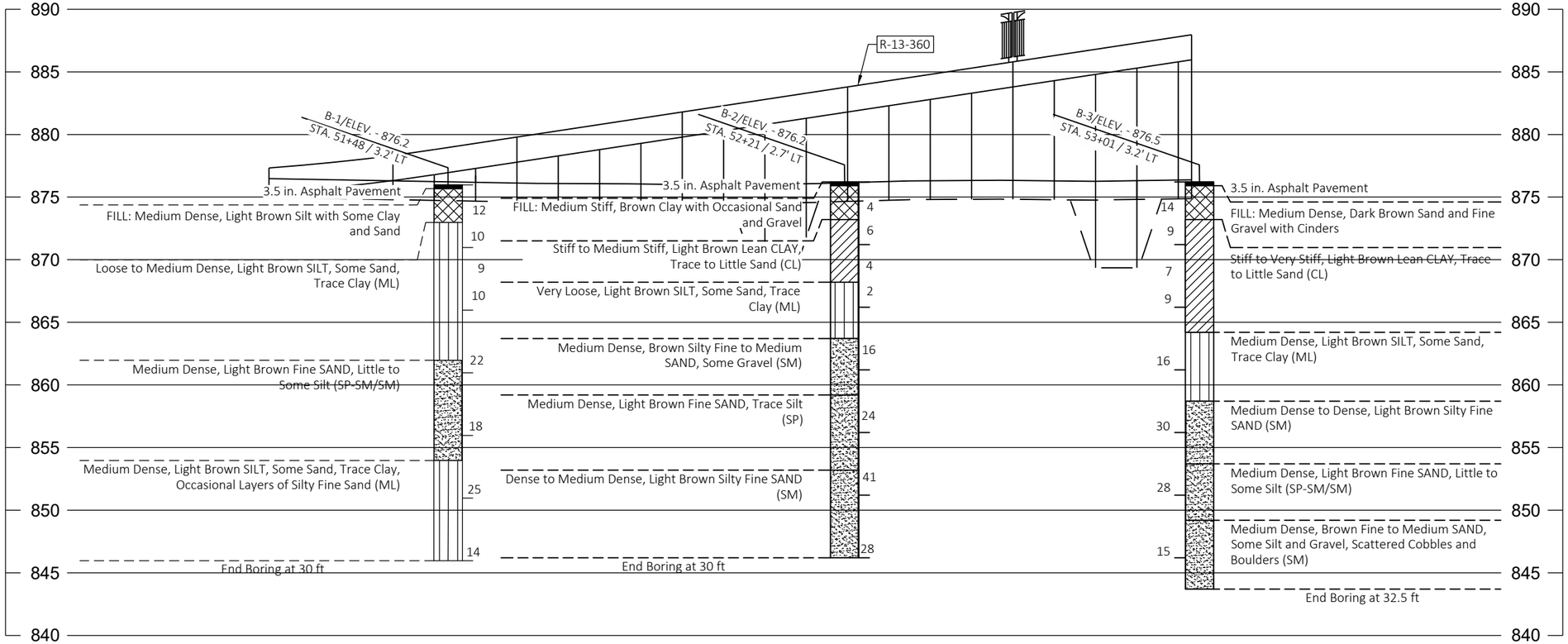
DRAWN BY STD | PLANS CK'D. CAH

AESTHETIC DETAILS

SHEET 8 OF 9
617

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	10/12/2020	482676.53	807547.01
B-2	10/12/2020	482653.86	807616.30
B-3	10/13/2020	482629.87	807692.82
BORINGS COMPLETED BY: CGC, INC.			
REPORT COMPLETED BY: CGC, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD DANE COUNTY			





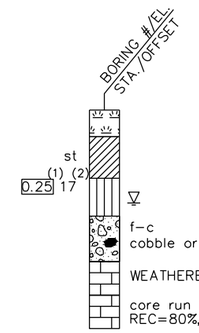
STATE PROJECT NUMBER

5992-11-31

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
boulders or cobbles	LIMESTONE	BEDROCK (unknown)
shale	SANDSTONE	IGNEOUS/ meta

LEGEND OF BORING



(1) Unconfined STRENGTH, as determined by a pocket penetrometer (tsf)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'n' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'n' vaLUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

ground water elevation

- at time of drilling
- end of drilling
- after drilling

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

Borings were completed at points approximately as indicated on this drawing to obtain information concerning the character of subsurface materials found at the site. Because the investigated depths are limited and the area of the borings is very small in relation to the entire site, the Wisconsin Department of Transportation does not warrant similar subsurface conditions below, between, or beyond these borings. Variations in soil conditions should be expected and fluctuations in groundwater levels may occur.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-360

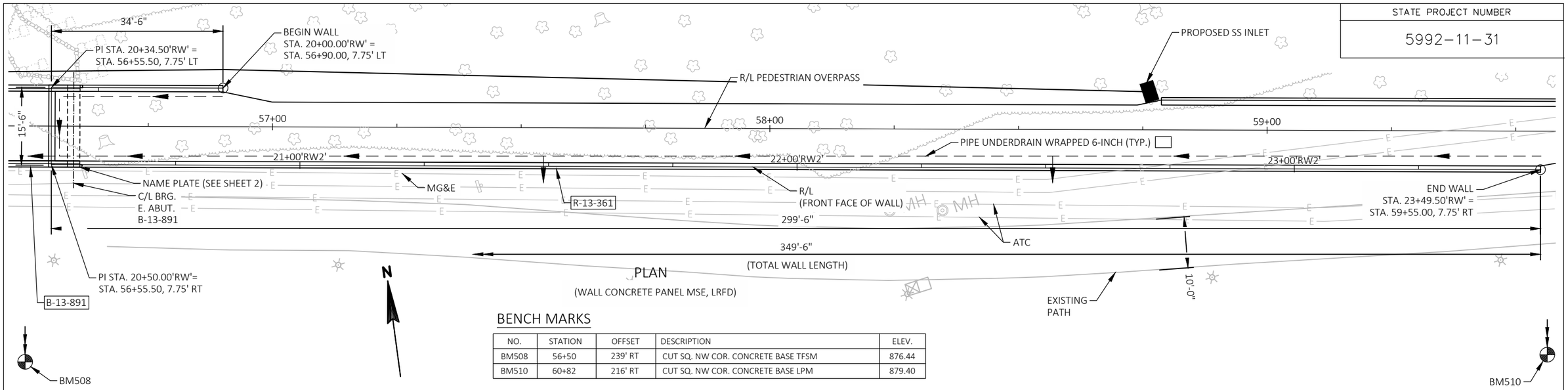
DRAWN BY STD | PLANS CK'D. CAH

SUBSURFACE EXPLORATION

SHEET 9 OF 9
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STATE PROJECT NUMBER

5992-11-31



PLAN

(WALL CONCRETE PANEL MSE, LRFD)

BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
BM508	56+50	239' RT	CUT SQ. NW COR. CONCRETE BASE TFSM	876.44
BM510	60+82	216' RT	CUT SQ. NW COR. CONCRETE BASE LPM	879.40

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHINCAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUEDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THIS PLAN.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

CONCRETE MASONRY, COPING.....f'c = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....f'y = 60,000 PSI

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

LOCATION OF RETAINING WALL REINFORCEMENT STRAPS SHALL BE COODINATED WITH B-13-891 ABUTMENT PILE LOCATIONS.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT TO RESIST THE FORCE FROM HORIZONTAL EARTH PRESSURES ACTING ON THE BACK LOWER 2.5 FEET OF THE ABUTMENT. THIS FORCE MAY BE DISTRIBUTED OVER THE DISTANCE FROM THE BACK OF THE ABUTMENT TO THE BACK PANELS IN FRONT OF THE ABUTMENT.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD.

LEGEND

UNDERDRAIN TO OUTLET ALONG F.F. OF WALL.
UNDERDRAIN HOLES SHALL BE CAST INTO THE MSE WALL PANEL.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE PLAN QUANTITY FOR THE BID ITEM WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP WALL TO A CONSTANT DEPTH OF 1.5 FT BELOW FINISHED GRADE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE STANDARD WALL COPING IN FRONT OF THE ABUTMENT AND AT THE TOP OF WALL ALONG THE PATH IS INCLUDED WITH THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD R-13-361".

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED OR SHOWN.

BEVEL EXPOSED EDGES OF CONCRETE 3/4-INCH, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS, STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL, UNLESS OTHERWISE SHOWN. THE 'RW2' STATIONING IS AT THE FRONT FACE OF THE WALL.

EBS EXCAVATION AS REQUIRED IS INCLUDED WITH THE ROADWAY PLANS. THE FINAL WALL FOUNDATION SUBGRADE SHALL BE APPROVED BY THE REGIONAL GEOTECHNICAL ENGINEER.

A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS STRUCTURE AND IS AVAILABLE UPON REQUEST FROM WISDOT'S SW REGION OFFICE.

TOTAL ESTIMATED QUANTITIES

	ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL
	513.8016	RAILING STEEL PEDESTRIAN TYPE C3	LF	321
★	517.1010.S.03	CONCRETE STAINING R-13-361	SF	849
★	517.1015.S.03	CONCRETE STAINING MULTI-COLOR R-13-361	SF	2680
★	517.1050.S.03	ARCHITECTURAL SURFACE TREATMENT R-13-361	SF	2680
	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	15
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	350
	SPV.0165.02	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-361	SF	3610

★ NON-PARTICIPATING ITEMS (100% CITY FUNDED)

ALIGNMENT DATA

PI = 20+00.00'RW2'
Y = 482,545.494
X = 808,071.504

PI = 20+34.50'RW2'
Y = 482,556.115
X = 808,038.680

PI = 20+50.00'RW2'
Y = 482,541.368
X = 808,033.908

PI = 23+49.50'RW2'
Y = 482,449.166
X = 808,318.858

LIST OF DRAWINGS

1. GENERAL PLAN
2. ELEVATION VIEW / RAILING LAYOUT
3. DESIGN TABLES
4. TYPICAL SECTIONS
5. DETAILS
6. RAILING DETAILS
7. AESTHETIC DETAILS
8. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

WISCONSIN
CHAD D. HALVERSON
E-34364
MADISON, WI
PROFESSIONAL ENGINEER

October 27, 2021

NO.	DATE	REVISION	BY

KL Engineering
A Better Experience

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/02/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-13-361

MULTI-USE TRAIL AT UNIVERSITY BAY DRIVE

COUNTY		~~TOWN~~/CITY/~~VILLAGE~~	
	DANE		MADISON

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC.

DESIGNED BY	CDH	DESIGN CK'D.	CAH	DRAWN BY	STD	PLANS CK'D.	CAH

GENERAL PLAN

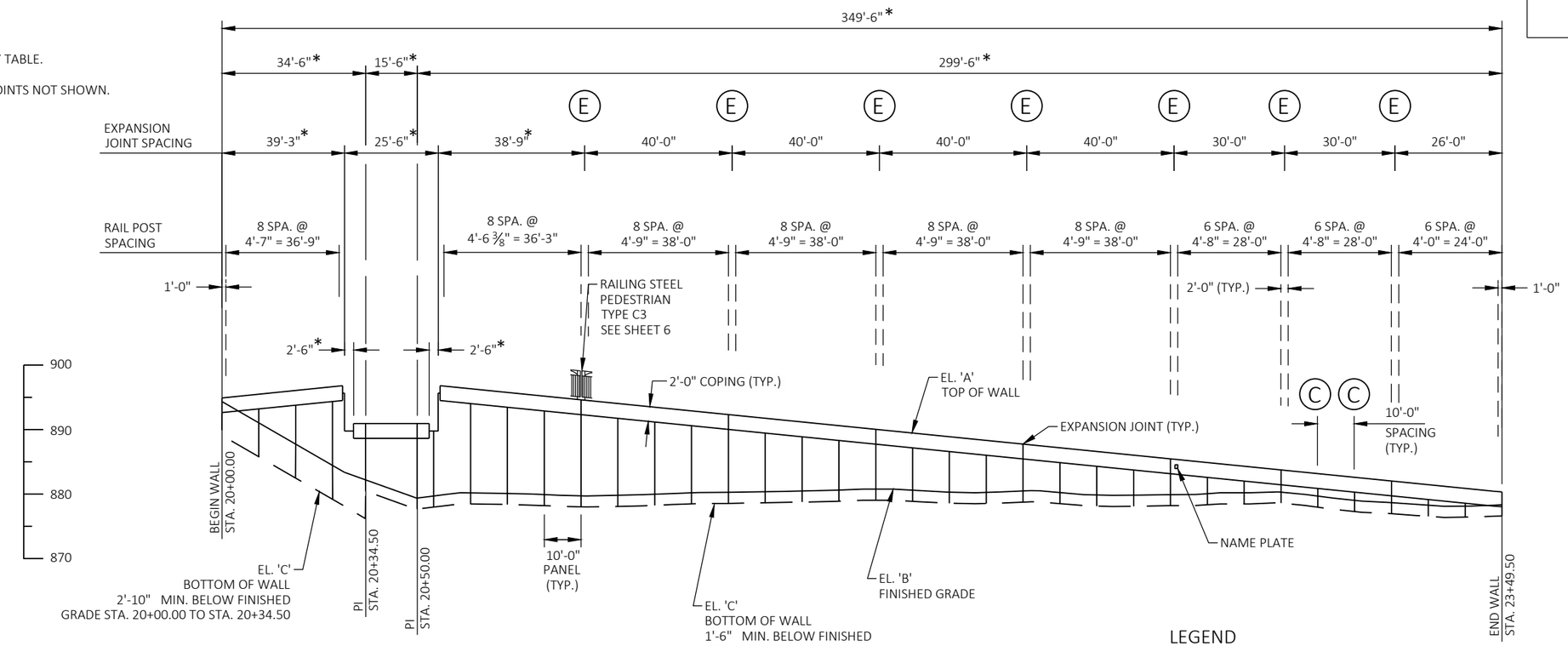
SHEET 1 OF 8
619

STATE PROJECT NUMBER
5992–11–31

NOTES

SEE SHEET 3 FOR GEOMETRY TABLE.

HORIZONTAL WALL PANEL JOINTS NOT SHOWN.

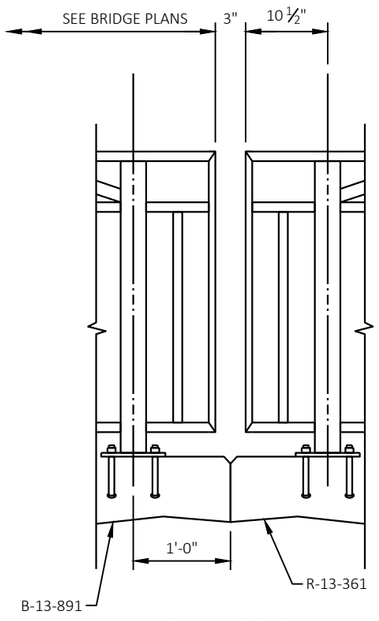


UNWRAPPED ELEVATION VIEW

(LOOKING AT FRONT FACE OF WALL)

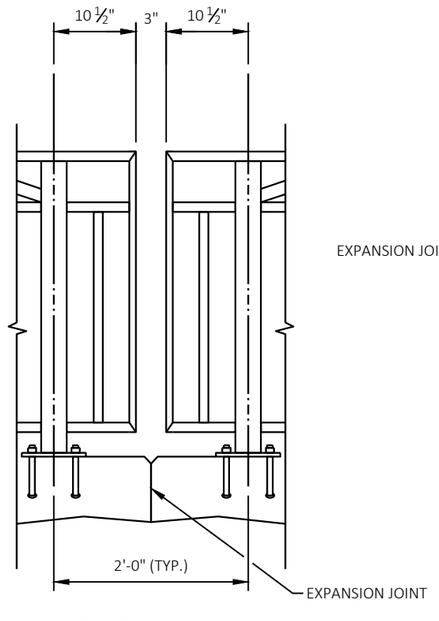
LEGEND

E	EXPANSION JOINT IN C.I.P. CONCRETE COPING
C	CONTRACTION JOINT IN C.I.P. CONCRETE COPING
*	DIMENSIONS ARE MEASURED TO END OF WALL PANEL (NOT COPING)

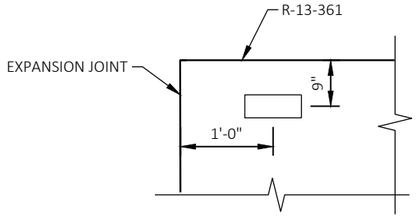


RAILING END AT BRIDGE JOINT

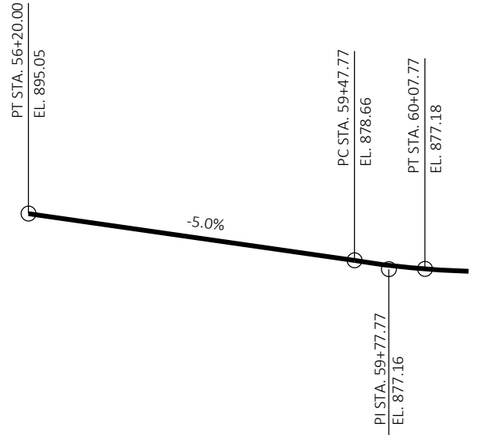
(BOTH SIDES OF RETAINING WALL HAVE SAME RAILING EXTENSION AT JOINT)



TYPICAL RAILING DETAIL AT EXPANSION JOINT



NAME PLATE DETAIL



PROFILE GRADE LINE PEDESTRIAN OVERPASS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-361

DRAWN BY STD | PLANS CK'D. CAH

ELEVATION VIEW / RAILING LAYOUT

SHEET 2 OF 8
620

STATE PROJECT NUMBER
5992–11–31

SOIL PARAMETERS

SOIL DESCRIPTION [1]	APPROXIMATE DEPTH BELOW EXISTING GRADE	FRICTION ANGLE	COHESION (PCF)	MOIST UNIT WEIGHT (PCF)	SATURATED UNIT WEIGHT (PCF)
BORING 10 (NEAR STA. 56+60)					
EXISTING, MEDIUM DENSE FILL	0 TO 8 FT	31	0	120	130
STIFF TO VERY STIFF LEAN CLAY	8 TO 18 FT	0 [4] / 25 [5]	2000 [4] / 200 [5]	120	125
MEDIUM DENSE TO VERY DENSE SAND AND SILTY SAND	18 TO 33 FT	33	0	120	130
VERY DENSE, PROBABLE WEATHERED SANDSTONE BEDROCK	33 TO 37 FT	40	0	135	145
BORING 11 (NEAR STA. 56+75)					
EXISTING, VERY STIFF FILL	0 TO 3 FT	0 [4] / 25 [5]	3500 [4] / 350 [5]	125	135
STIFF LEAN CLAY	3 TO 6 FT	0 [4] / 25 [5]	1250 [4] / 125 [5]	120	125
LOOSE SILT	6 TO 13 FT	29	0	115	125
MEDIUM DENSE SAND AND SILTY SAND	13 TO 28 FT	33	0	120	130
DENSE, PROBABLE WEATHERED SANDSTONE BEDROCK	28 TO 30 FT [3]	38	0	130	140
BORING 12 (NEAR STA. 57+30)					
EXISTING, MIXED FILL	0 TO 8 FT	28	0	115	125
STIFF LEAN CLAY	8 TO 18 FT	0 [4] / 25 [5]	1250 [4] / 125 [5]	120	125
MEDUIM DENSE SAND	18 TO 27 FT	34	0	120	130
DENSE, PROBABLE WEATHERED SANDSTONE BEDROCK	27 TO 30 FT [3]	38	0	130	140
BORING 13 (NEAR STA. 58+25)					
EXISTING, COHESIVE FILL	0 TO 6 FT	0 [4] / 25 [5]	1000 [4] / 100 [5]	115	125
VERY STILL LEAN CLAY	6 TO 8 FT	0 [4] / 25 [5]	2500 [4] / 250 [5]	125	135
LOOSE SAND AND SILT	8 TO 18 FT	29	0	115	125
MEDIUM DENSE SAND	18 TO 30 FT [3]	31	0	120	130

NOTES:

[1] SOIL PROFILES ARE GENERALIZED TO SOME DEGREE: SEE BORING LOG FOR ADDITIONAL DETAILS.

[2] VALUES FOR BACKFILL OTHER THAN REINFORCED ZONE AND EXISTING SOILS.

[3] END BORING

[4] FOR SHORT-TERM (UNDRAINED) LOADING CONDITIONS.

[5] FOR LONG-TERM (DRAINED) LOADING CONDITIONS.

WALL EXTERNAL & OVERALL STABILITY EVALUATION

LOCATION		STA. 56+55.49	STA. 56+90	STA. 57+20	STA. 58+20
WALL		R-13-361 EAST ABUT.	R-13-361	R-13-361	R-13-361
WALL GEOMETRY					
APPROXIMATE TOP OF WALL ELEVATION (FT)		887.8	891.5	890.0	885.0
APPROXIMATE BOTTOM OF WALL ELEVATION (FT)		875.5	875.2	875.2	875.3
APPROXIMATE FINISH GRADE IN FRONT OF WALL (FT)		877.0	876.7	876.7	876.8
APPROXIMATE TOTAL WALL HEIGHT (FT)		12.3	16.3	14.8	9.7
APPROXIMATE EXPOSED WALL HEIGHT (FT)		10.8	14.8	13.3	8.2
APPROXIMATE EMBEDMENT DEPTH (FT)		1.5	1.5	1.5	1.5
APPROXIMATE BATTER (DEG)		0.0	0.0	0.0	0.0
APPROXIMATE LENGTH OF REINFORCED ZONE (FT) *		16 [1]	14 [2]	15 [2]	11 [1]
LRFD STABILITY CRITERIA					
e/L (< 0.25)		0.14	0.16	0.12	0.11
ECCENTRICITY - OVERTURNING CDR (≥ 1.0)		1.83	1.55	2.09	2.32
SLIDING CDR (≥ 1.0)		1.00	1.08	1.25	1.00
REQUIRED BEARING RESISTANCE (PSF)		3,173	3,857	3,317	2,636
BEARING RESISTANCE CDR (≥1.0) [3]		1.28	1.05	1.02	1.28
GLOBAL STABILITY	MINIMUM FACTOR OF SAFETY (FS ≥ 1.54 FOR ϕ = 0.65) (4)	2.71	2.12	1.98	2.27
	CDR (≥ 1.0)	1.76	1.38	1.29	1.47
ESTIMATED SETTLEMENT (IN.) [5]		1.7 (1.3) [6]	2.0	2.0	2.0

NOTES:

MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 2000 PSF (AS MEASURED ON SITE WITH A SPRING PENETROMETER) IS REQUIRED FOR THE SUBGRADE.

* MINIMUM LENGTH APPLIES ONLY AT CORRESPONDING WALL STATIONS. FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESPONSIBILITY OF THE CONTRACTORS WALL DESIGNER.

[1] ESTIMATED BASE ON PRELIMINARY ANALYSIS WITH MSEW.

[2] CONTROLLED BY BEARING CAPACITY

[3] GENERALLY CONTROLLED BY LONG-TERM LOADING CONDITIONS/SOIL PARAMETERS.

[4] WE RECOMMED USING NOMINAL/UNFACTORED BEARING RESISTANCE OF 7.5 KSF FOR STA. 57+00 TO END OF WALL R-13-361.

[5] ASSUME A MINIMUM OF 2-FT EBS/UNDERCUT BELOW BOTTOM OF WALL AND REINFORCED ZONE.

[6] ESTIMATED SETTLEMENT AT FACE OF ABUTMENT WALL.

GEOMETRY TABLE

MAINLINE STATION	WALL STATION	ELEV. A TOP OF WALL	ELEV B FINISHED GRADE	ELEV C BOTTOM OF WALL
56+90.00	20+00.00	892.16	891.66	888.83
56+80.00	20+10.00	892.66	888.66	885.83
56+70.00	20+20.00	893.16	885.33	882.50
56+61.33	20+28.67	893.59	883.48	880.65
56+61.33	20+28.67	885.59	883.48	880.65
56+58.67	20+31.33	885.59	882.91	880.07
56+58.67	20+31.33	887.18	882.91	880.07
56+55.50	20+34.50	887.11	882.21	879.38
56+55.50	20+50.00	887.11	876.87	875.37
56+58.67	20+53.17	887.18	876.79	875.29
56+58.67	20+53.17	885.59	876.79	875.29
56+61.33	20+55.83	885.59	876.75	875.25
56+61.33	20+55.83	893.38	876.75	875.25
56+70.00	20+64.50	892.95	876.70	875.20
56+80.00	20+74.50	892.45	876.70	875.20
56+90.00	20+84.50	891.95	876.71	875.21
57+00.00	20+94.50	891.45	876.70	875.20
57+10.00	21+04.50	890.95	876.69	875.19
57+20.00	21+14.50	890.45	876.72	875.22
57+30.00	21+24.50	889.95	876.80	875.30
57+40.00	21+34.50	889.45	876.82	875.32
57+50.00	21+44.50	888.95	876.88	875.38
57+60.00	21+54.50	888.45	876.93	875.43
57+70.00	21+64.50	887.95	876.90	875.40
57+80.00	21+74.50	887.45	876.88	875.38
57+90.00	21+84.50	886.95	876.81	875.31
58+00.00	21+94.50	886.45	876.70	875.20
58+10.00	22+04.50	885.95	876.73	875.23
58+20.00	22+14.50	885.45	876.87	875.37
58+30.00	22+24.50	884.95	876.90	875.40
58+40.00	22+34.50	884.45	876.96	875.46
58+50.00	22+44.50	883.95	877.04	875.54
58+60.00	22+54.50	883.45	877.26	875.76
58+70.00	22+64.50	882.95	877.37	875.87
58+80.00	22+74.50	882.45	877.25	875.75
58+90.00	22+84.50	881.95	877.16	875.66
59+00.00	22+94.50	881.45	877.14	875.64
59+10.00	23+04.50	880.95	877.20	875.70
59+20.00	23+14.50	880.45	877.20	875.70
59+30.00	23+24.50	879.95	877.05	875.55
59+40.00	23+34.50	879.45	876.88	875.38
59+50.00	23+44.50	878.95	876.92	875.42
59+55.00	23+49.50	878.72	877.23	875.73

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

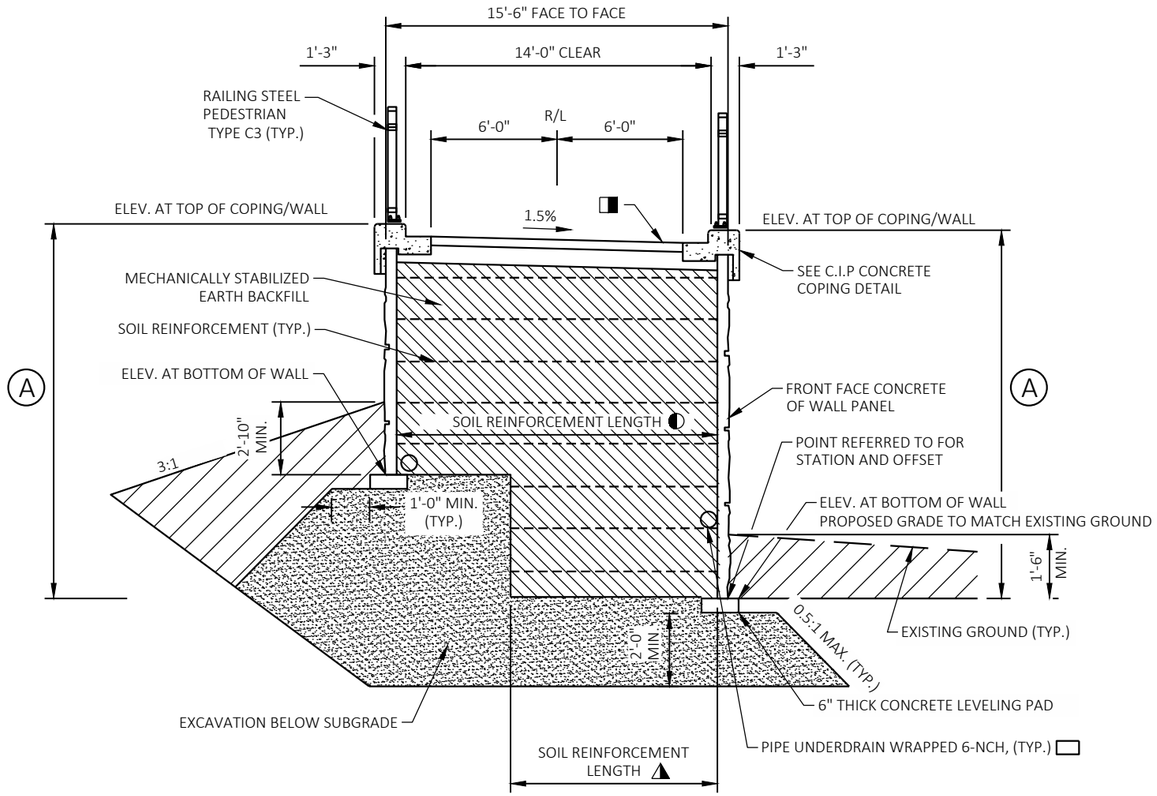
STRUCTURE R-13-361

DRAWN BY STD | PLANS CK'D. CAH

DESIGN TABLES

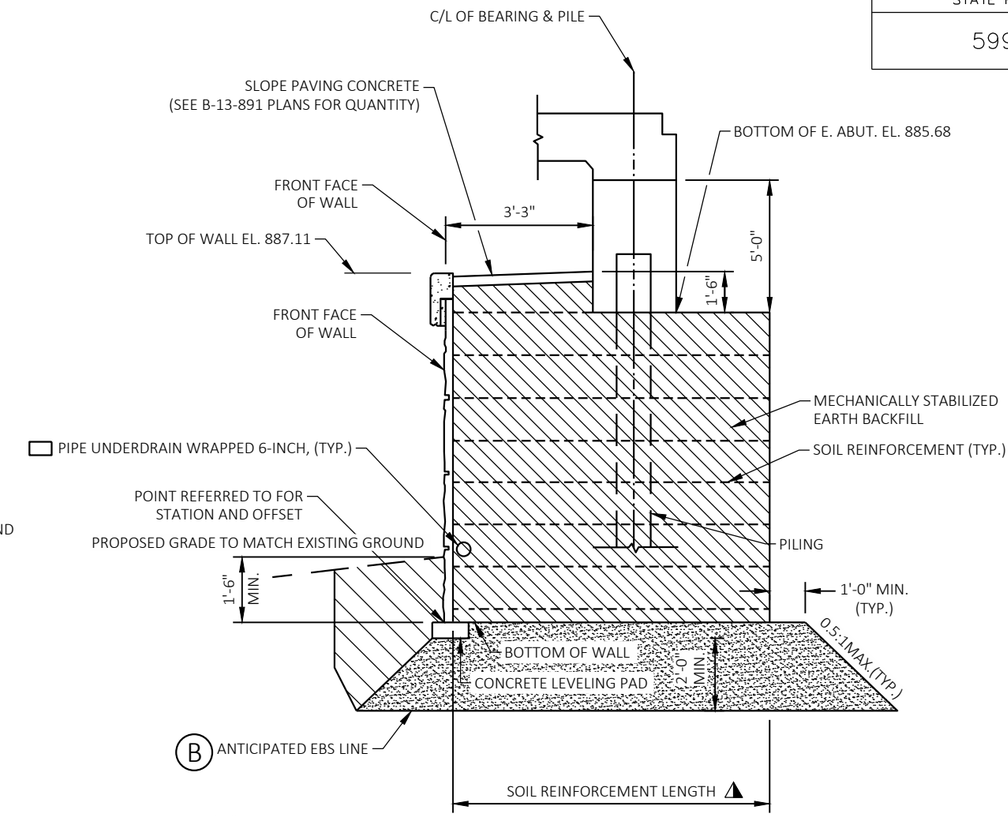
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TYPICAL SECTION THRU MSE RETAINING WALL

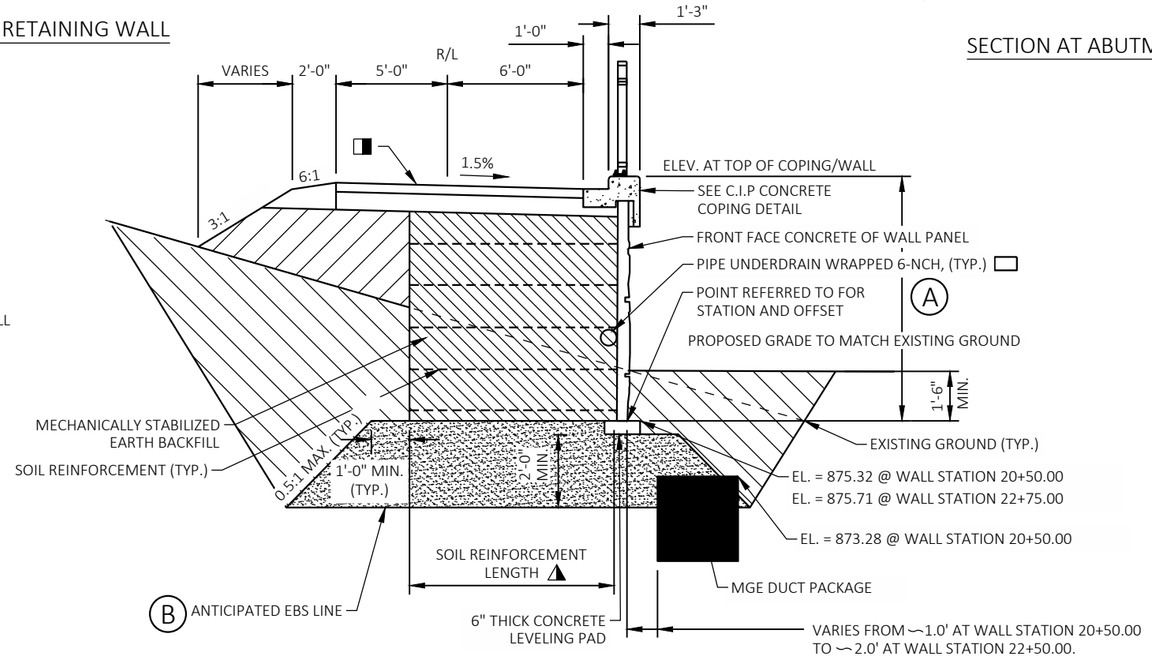
(LOOKING EAST)



SECTION AT ABUTMENT

NOTES

- MINIMUM LENGTH OF MSE WALL REINFORCEMENT STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS
- IN AREAS OF BACK TO BACK MSE RETAINING WALLS, THE MAXIMUM REINFORCEMENT LENGTH SHALL BE THE DISTANCE BETWEEN THE WALLS. BACK TO BACK WALL PANELS SHALL BE TIED TOGETHER IF THE MINIMUM REINFORCEMENT LENGTH CANNOT BE ACHIEVED.
- SEE ROADWAY TYPICAL SECTION FOR PAVEMENT STRUCTURE
- UNDERDRAIN TO OUTLET ALONG F.F. OF WALL
- (A) PAY LIMTS FOR BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"
- (B) ALL WALL FOUNDATION SUBGRADE SHALL BE APPROVED BY THE REGIONAL GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF 3-INCH DENSE GRADED BASE.



TYPICAL SECTION THRU MSE RETAINING WALL

(LOOKING EAST)

LEGEND

- EARTHWORK INCLUDED WITH EXCAVATION COMMON AND 3-INCH DENSE GRADED BASE BID ITEMS IN ROADWAY PLANS
- FILL INCLUDED WITH EXCAVATION COMMON AND BORROW BID ITEMS IN ROADWAY PLANS
- FILL INCLUDED WITH BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"

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TYPICAL SECTIONS

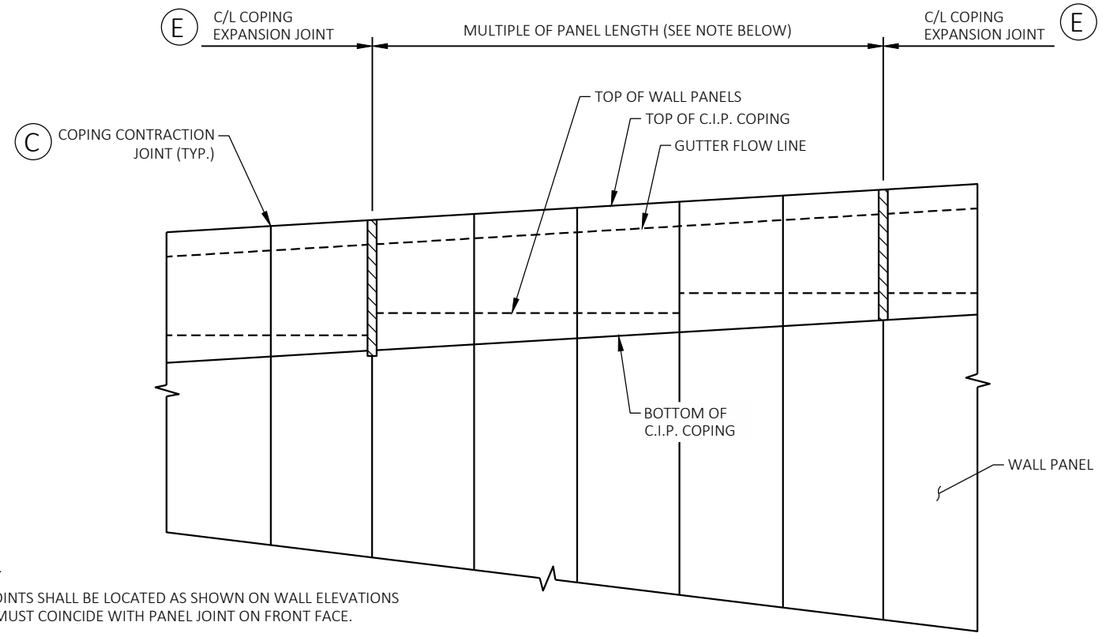
SHEET 4 OF 8
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8

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\STRUCTURE CAD\R-13-361\080304-TS.DWG PLOT DATE : 10/26/2021 12:34 PM PLOT BY : KL ENGINEERING

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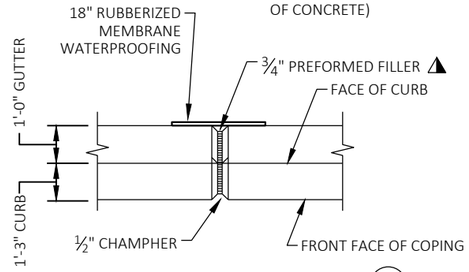
NOTE:

ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P COPING PARTIAL ELEVATION

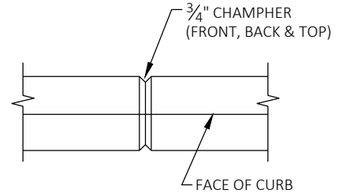
LEGEND

⚠ SEAL ALL EXPOSED HORZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)



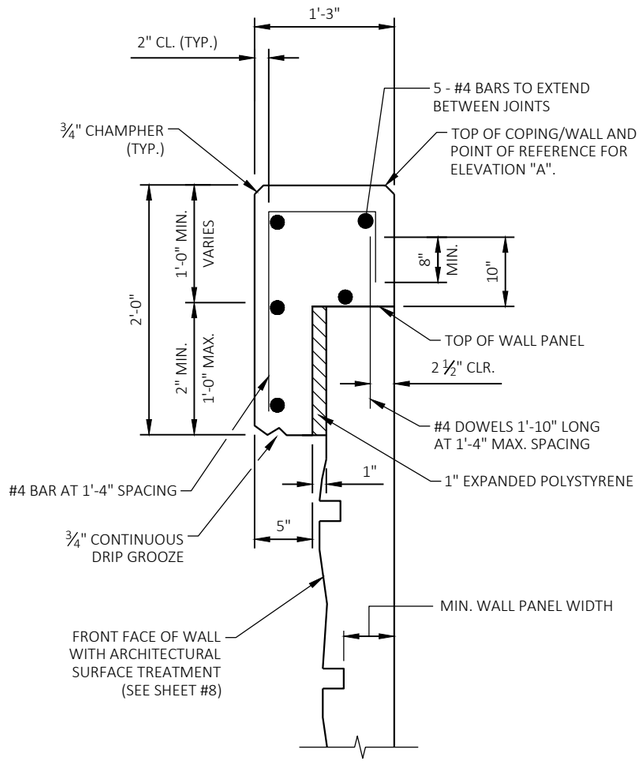
COPING EXPANSION JOINT (E)

DO NOT RUN BAR STEEL THRU JOINTS.
MAX. SPACING OF JOINT = 50'-0"
CENTER FILLER AND JOINT AT C/L OF PANEL JOINTS.
PLACE JOINTS VERTICAL.



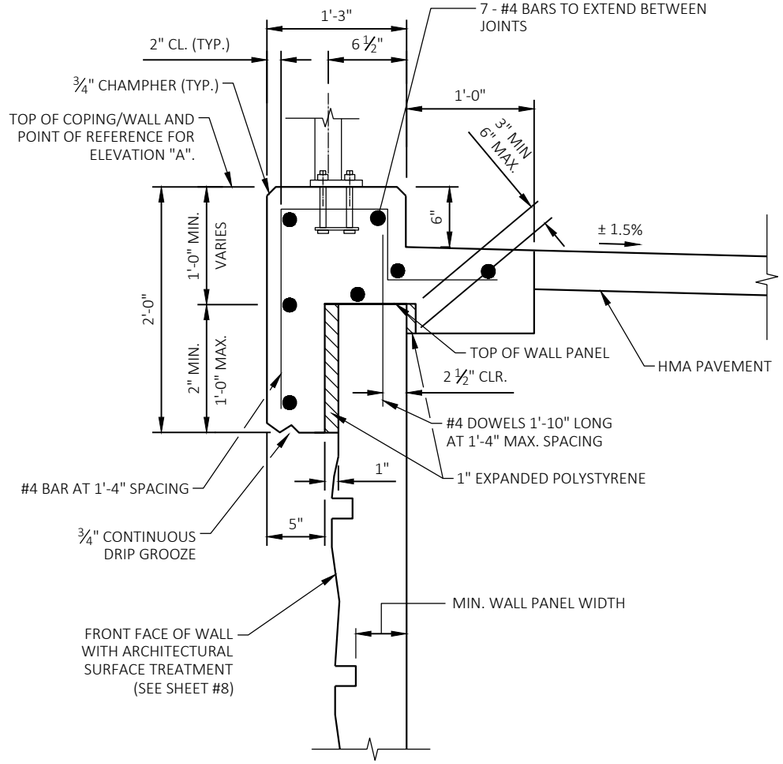
COPING CONTRACTION JOINT (C)

DO NOT RUN BAR STEEL THRU JOINTS.
SPACING OF JOINT = 10'-0"
CENTER JOINTS ON PANEL JOINTS.
PLACE JOINTS VERTICAL.



C.I.P. COPING IN FRONT OF ABUTMENT

(CAST IN PLACE CONCRETE AND STEEL REINFORCEMENT FOR COPING INCLUDED WITH THE ITEM WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-361)



TYPICAL C.I.P. CONCRETE COPING DETAIL

(CAST IN PLACE CONCRETE AND STEEL REINFORCEMENT FOR COPING INCLUDED WITH THE ITEM WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-361)

NOTES:

CONCRETE, REINFORCEMENT AND RUBBERIZED MEMBRANE WATERPROOFING ARE INCLUDED IN BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD, R-13-361".

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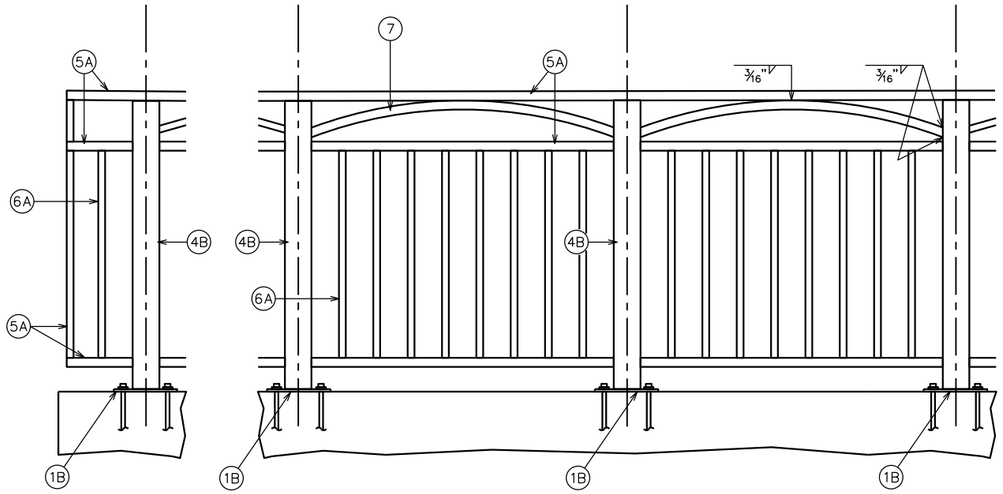
STRUCTURE R-13-361

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DETAILS

SHEET 5 OF 8
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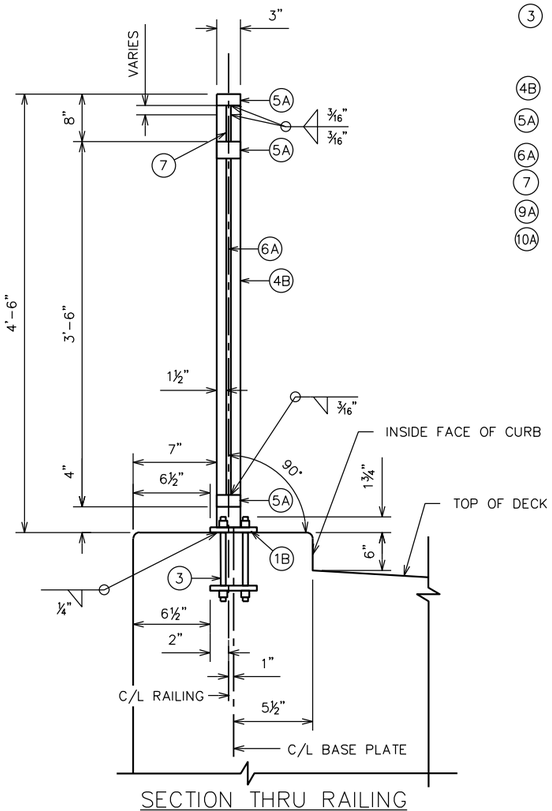
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ELEVATION TYPE C3

LEGEND

- (1B) BASE PLATE ⅜" X 6" X 10" WITH ¾" X 1½" SLOTTED HOLES
- (2B) ¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 1⅛" DIA. HOLES FOR THR'D. RODS NO. 3.
- (3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE RAIL POST ANCHORAGE – 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝"DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POST.
- (4B) STRUCTURAL TUBING 3" X 3" X 3/16" POSTS, PLACE VERTICAL. WELD TO NO. 1 & 5
- (5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
- (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5 PLACE VERTICAL.
- (7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)



SECTION THRU RAILING

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN TYPE C3", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, BARS AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

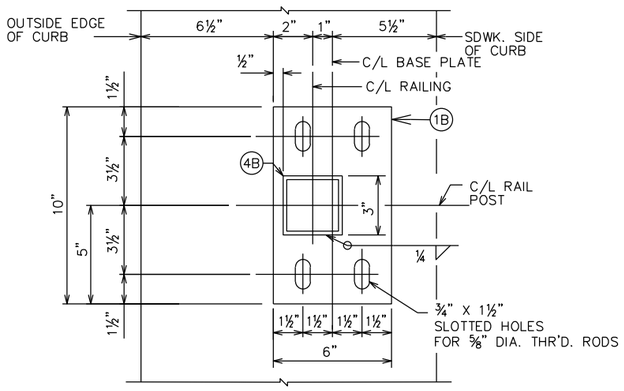
CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING STEEL SHALL BE PAINTED ASM-STD. COLOR NO. 24260, (GREEN).

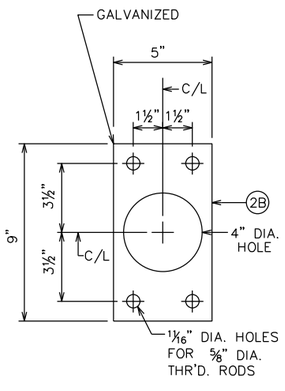
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

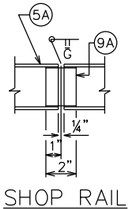
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



TYPICAL RAIL POST BASE PLATE

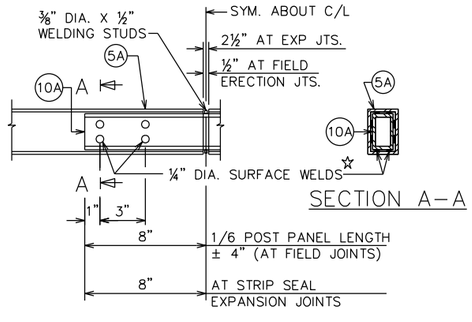


ANCHOR PLATE



SHOP RAIL SPLICE DETAIL

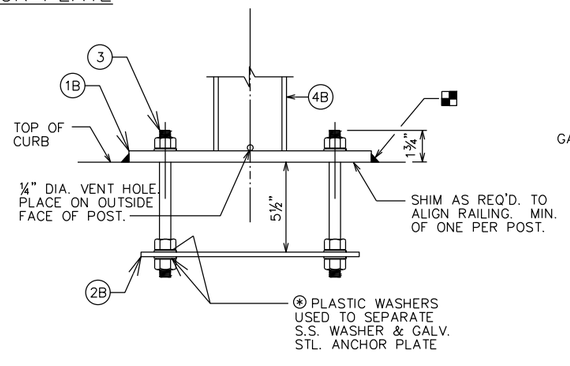
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

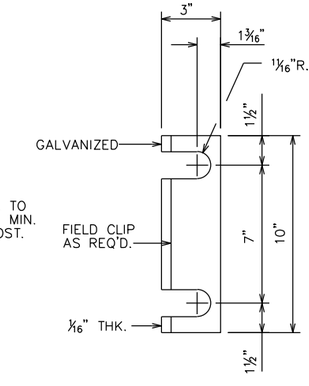
FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



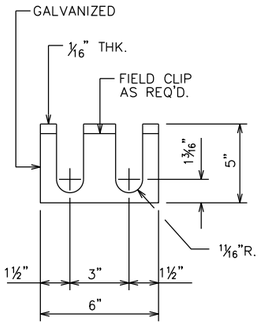
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



RAIL POST SHIM DETAIL

(2 SETS PER POST)



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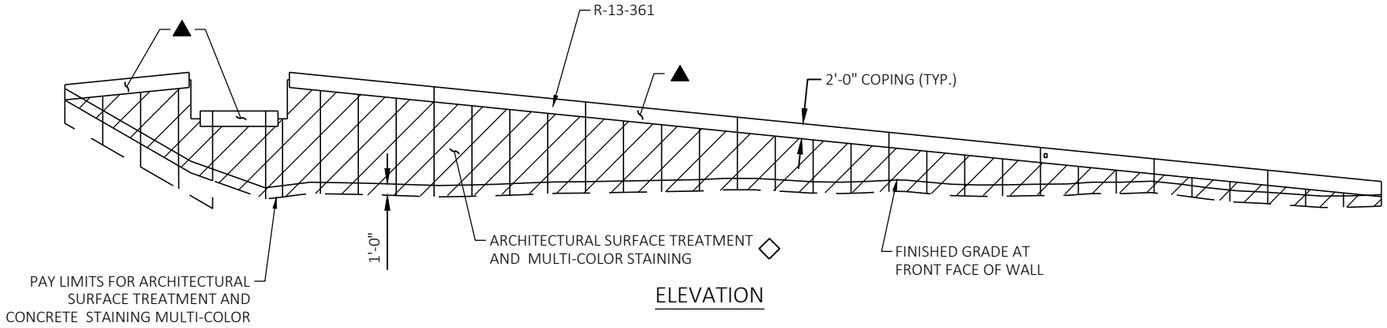
STRUCTURE R-13-361

DRAWN BY	STD	PLANS CK'D.	CAH

RAILING STEEL PEDESTRIAN TYPE C3

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ELEVATION

LEGEND

- ▲ CIP CONCRETE, RUBBER FINISH ON ALL SIDES EXCEPT TOP, TYP. STAIN COLOR NUMBER AMS-STD 23448.
- ◇ CUSTOM-ROCK FORMLINER NUMBER #2411 "RANDOM CUT STONE (12" COURSING)" OR APPROVED EQUAL. SPLIT FACE FINISH ALL EXPOSED SURFACES AND EDGES UNLESS NOTED OTHERWISE. MULTI-STAIN COLOR NUMBERS AMS-STD 20400, 23564 AND 23722.
- ▽ COURSE HEIGHT TO BE 1'.
- ◆ MORTAR STAIN COLOR NUMBER AMS-STD 23564.

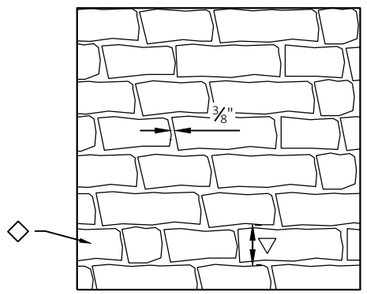
NOTES

FORMLINER PATTERN SHALL BE LEVEL AND CONTINUOUS AROUND ALL CORNERS.

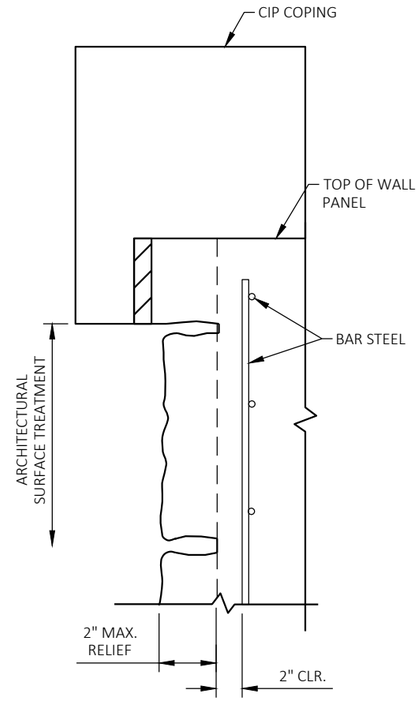
THE COST OF FORMLINER TREATMENTS IS PAID FOR UNDER SPECIAL PROVISIONS "ARCHITECTURAL SURFACE TREATMENT". MAX. ALLOWED RELIEF IS 2".

ARCHITECTURAL SURFACE TREATMENT AND STAIN SHALL EXTEND TO 1'-0" BELOW FINISHED GRADE.

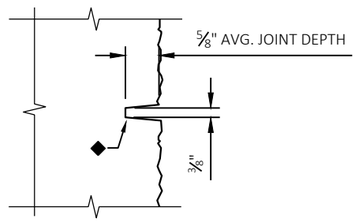
CONTRACTOR TO PROVIDE FULL HEIGHT MOCK-UP FOR REVIEW OF AESTHETIC DETAILS AND CONCRETE COLOR STAINING SELECTION.



FORMLINER DETAIL



SECTION THRU FORMLINER



"MORTAR JOINT" DETAIL

APPLIES TO HORIZONTAL & VERTICAL JOINTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE R–13–361

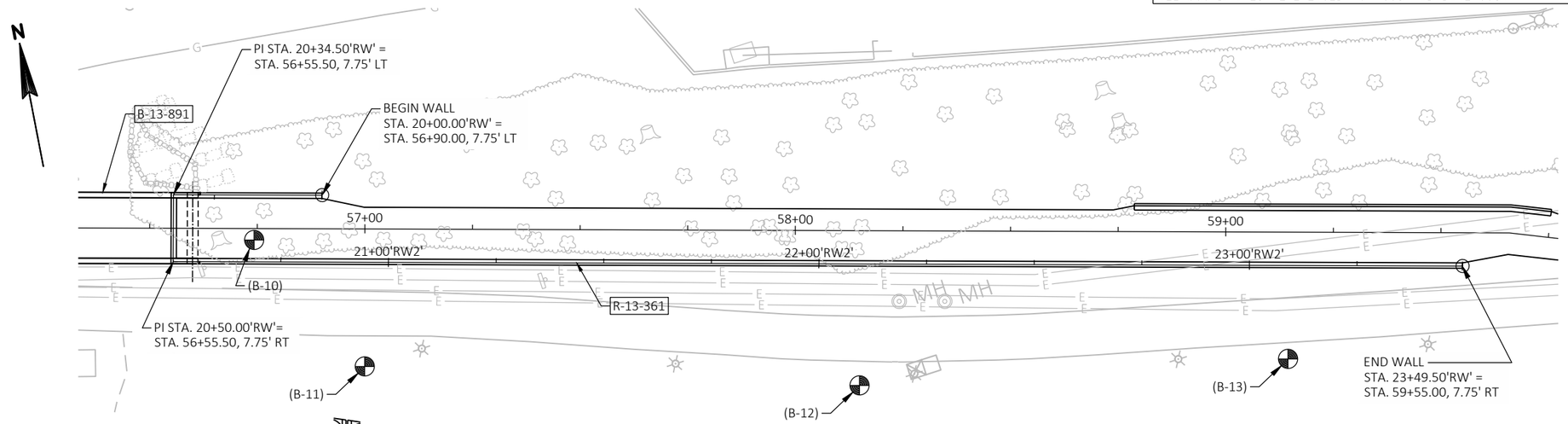
DRAWN BY STD | PLANS CK'D. CAH

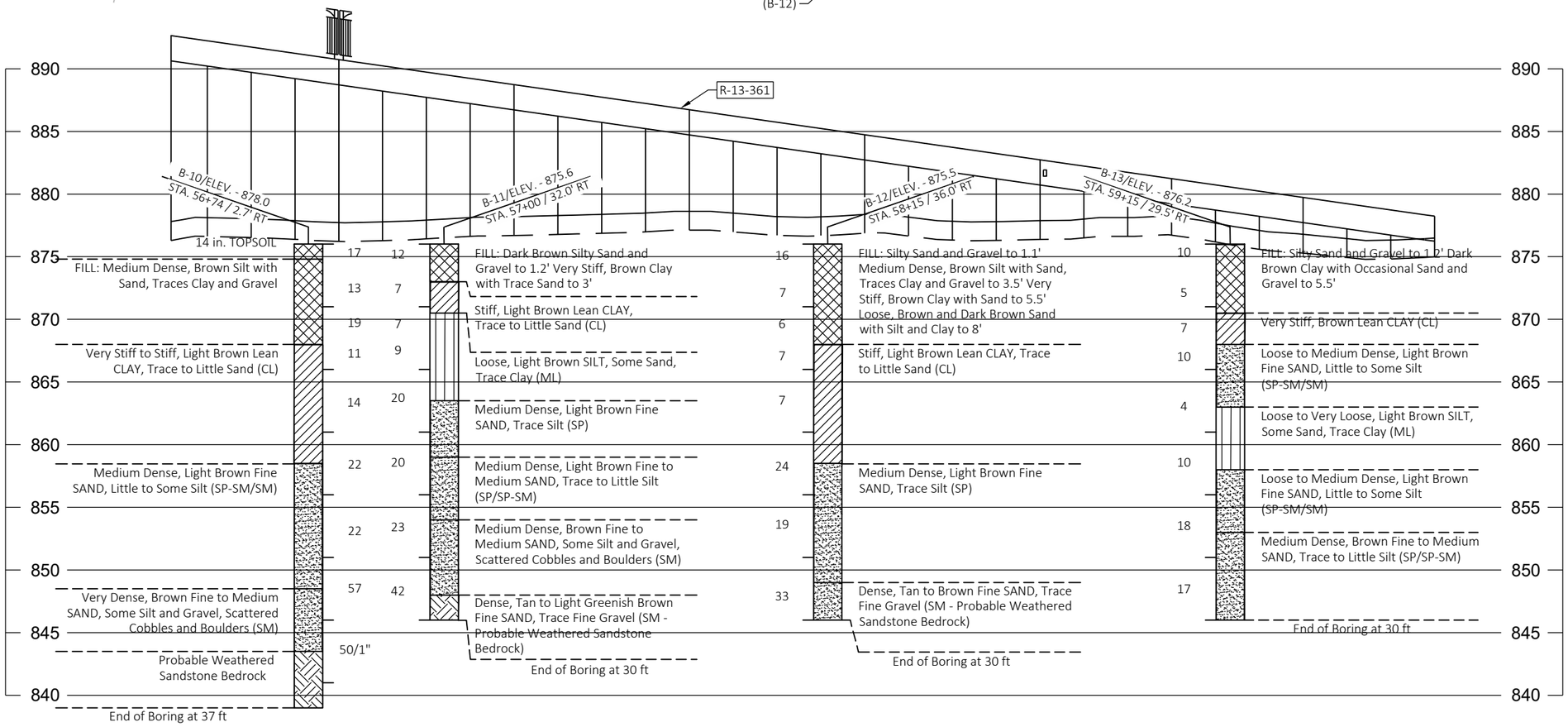
AESTHETIC DETAILS

SHEET 7 OF 8

625

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-10	10/08/2020	482540.43	808053.29
B-11	10/08/2020	482504.62	808068.86
B-12	10/08/2020	482465.41	808177.01
B-13	10/08/2020	482440.94	808273.71
BORINGS COMPLETED BY: CGC, INC.			
REPORT COMPLETED BY: CGC, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD DANE COUNTY			





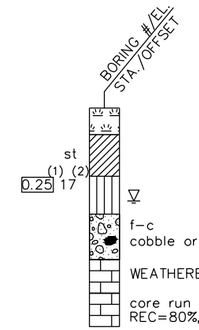
STATE PROJECT NUMBER

5992-11-31

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
boulders or cobbles	LIMESTONE	BEDROCK (unknown)
shale	SANDSTONE	IGNEOUS/ meta

LEGEND OF BORING



(1) Unconfined STRENGTH, as determined by a pocket penetrometer (tsf)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'n' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'n' vaLUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

ground water elevation

- at time of drilling
- end of drilling
- after drilling

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

Borings were completed at points approximately as indicated on this drawing to obtain information concerning the character of subsurface materials found at the site. Because the investigated depths are limited and the area of the borings is very small in relation to the entire site, the Wisconsin Department of Transportation does not warrant similar subsurface conditions below, between, or beyond these borings. Variations in soil conditions should be expected and fluctuations in groundwater levels may occur.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-361

DRAWN BY STD | PLANS CK'D. CAH

SUBSURFACE EXPLORATION

SHEET 8 OF 8
626

8

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\STRUCTURE CAD\R-13-361\080308-SE.DWG PLOT DATE : 10/26/2021 1:17 PM PLOT BY : KL ENGINEERING

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

STANDARD FOUNDATIONS DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION) 1.0 GVW (GALLOPING - CANTILEVER ONLY)

MATERIAL PROPERTIES

CONCRETE MASONRY ..... f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ..... fy = 60,000 psi

HIGH STRENGTH BOLTS - A325 ..... fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ..... fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-13-586
531.2030	DRILLING SHAFT 30-INCH	LF	26
531.5220	FOUNDATION SINGLE-SHAFT MF-II S-13-586	EA	2
532.5220	MONOTUBE FULL SPAN TYPE-II S-13-586	EA	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DANE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (1991).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE truss or monotube BID ITEMs FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. a4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING shaft (dia.)".

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-13-586	135 SF	5'-0"	MF II

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-13-586

LIST OF OSS STANDARD DESIGN DRAWINGS

3. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
4. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
5. III. 2-CHORD TRUSS STANDARD ELECTRICAL DETAILS
6. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATION DETAILS

STATE PROJECT NUMBER

5992–11–31

TRAFFIC VOLUME

A.D.T. (2042) = 54,765
R.D.S. = 40 MPH

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261
CHAD HALVERSON (608) 663-1218

NO.	DATE	REVISION	BY

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

WISCONSIN
CHAD D. HALVERSON
E-34364
MADISON, WI
PROFESSIONAL ENGINEER

June 9, 2021

KL Engineering
(A) Better Experience

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/06/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

MONOTUBE AND 2–CHORD TRUSS PLANS

Description

COUNTY	CITY
DANE	MADISON

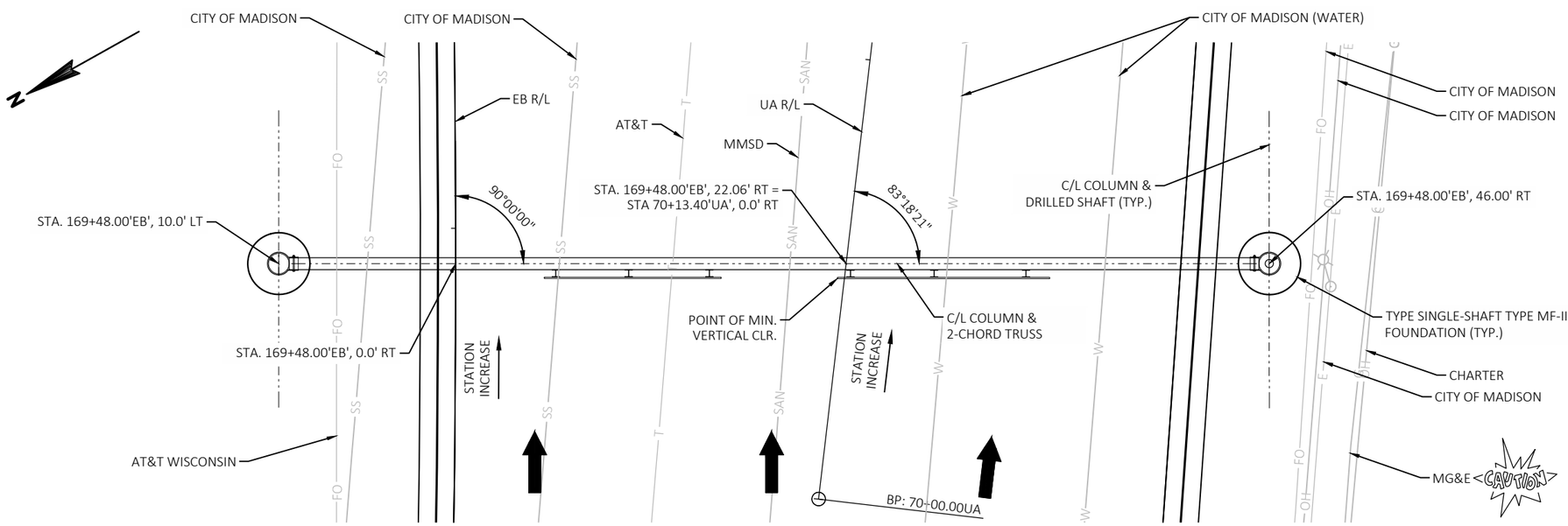
DESIGN SPEC.

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	STD	BOS

GENERAL NOTES & DESIGN DATA

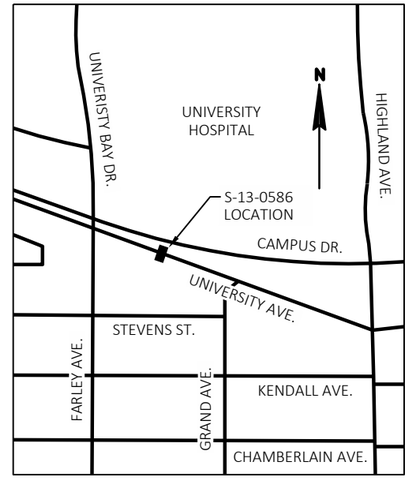
SHEET 1 OF 6
627

STATE PROJECT NUMBER
5992–11–31

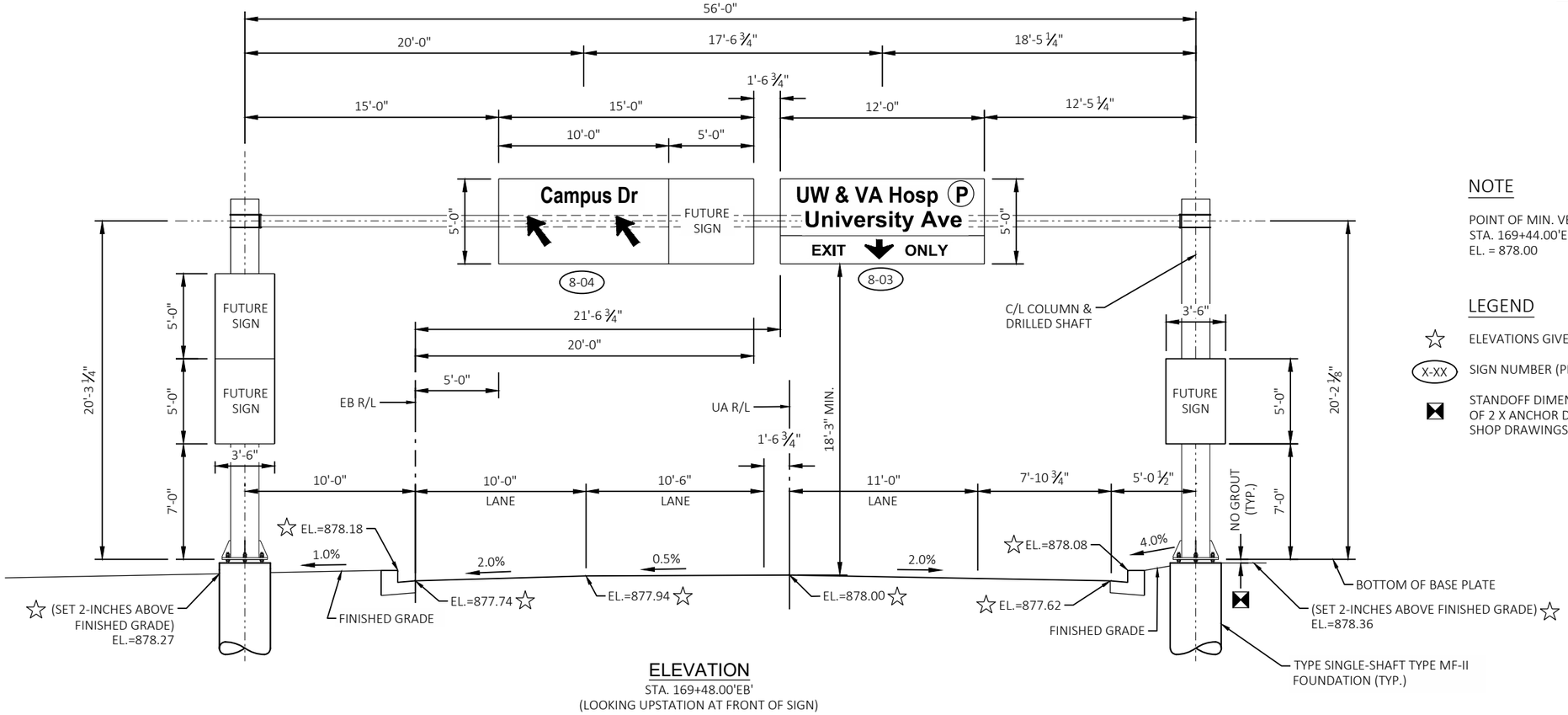


PLAN

FULL SPAN MONOTUBE OVERHEAD SIGN STRUCTURE



LOCATION MAP



ELEVATION

STA. 169+48.00'EB'
(LOOKING UPSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 169+44.00'EB', 22.06' RT
EL. = 878.00

LEGEND

- ☆ ELEVATIONS GIVEN ALONG C/L MONOTUBE CHORD.
- (X-XX) SIGN NUMBER (PERMANENT SIGNING PLAN)
- ⧓ STANDOFF DIMENSION IS ASSUMED TO BE 2 ½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STRUCTURE S–13–586

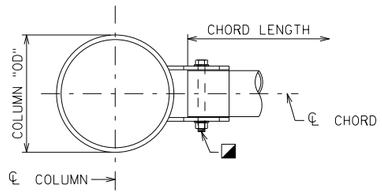
DRAWN BY	STD	PLANS CK'D.	CAH

GENERAL LAYOUT
S–13–586

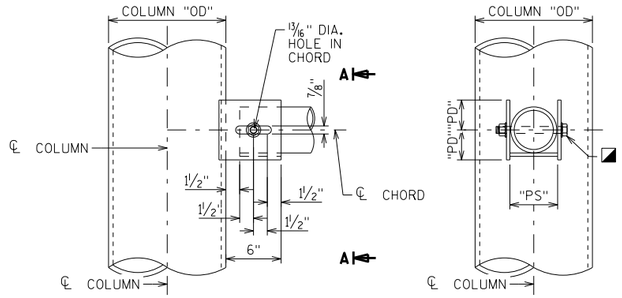
SHEET 2 OF 6
628

STATE PROJECT NUMBER

STANDARD



PLAN



ELEVATION SECTION A-A

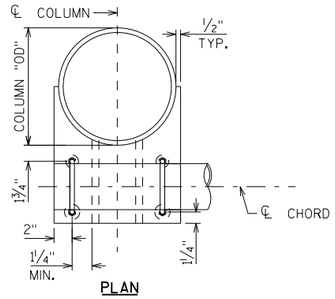
FULL SPAN SADDLE CONNECTION

PREFERRED

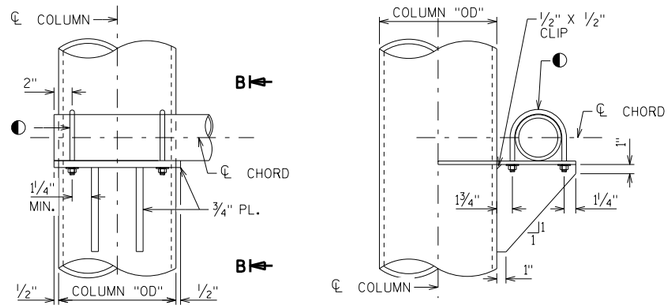
3/4" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT, WASHER

"PD" = (CHORD "OD")/2 + 3/4"

"PS" = CHORD "OD" + 3/16"



PLAN

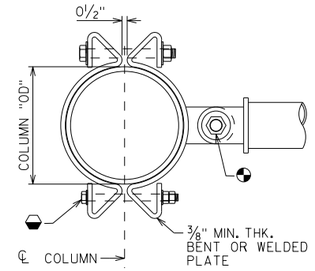


ELEVATION SECTION B-B

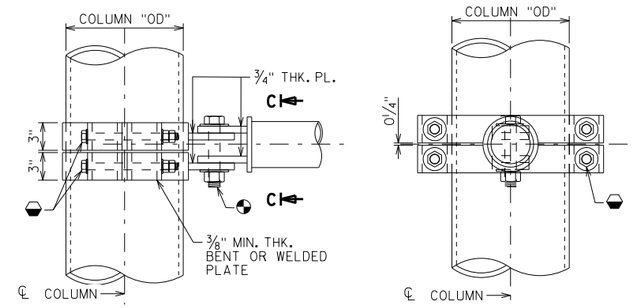
FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

◐ (2) - 1/2" MIN. GALVANIZED U-BOLT, NUT, WASHER AND LOCK WASHER



PLAN



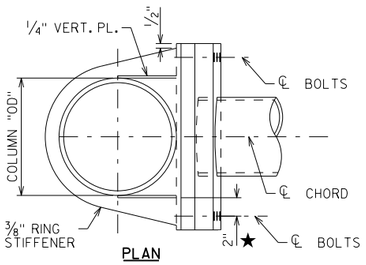
ELEVATION SECTION C-C

FULL SPAN CLAMP CONNECTION

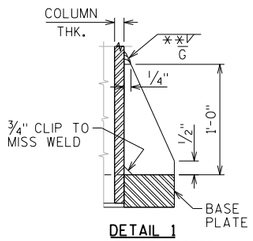
ALTERNATE 2 - TAPERED COLUMNS ONLY

1 1/4" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

1" GALVANIZED A449 HEAVY HEX BOLT, NUT AND WASHER

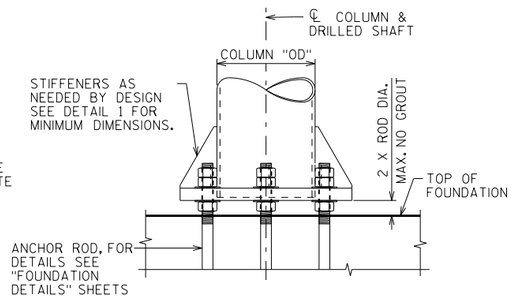


PLAN



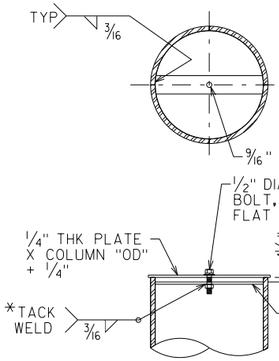
DETAIL 1

** SIZE AS NEEDED



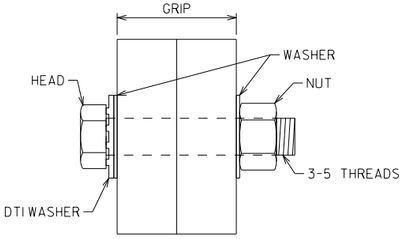
BASE PLATE & COLUMN DETAIL

LOOKING AT FRONT FACE OF STRUCTURE



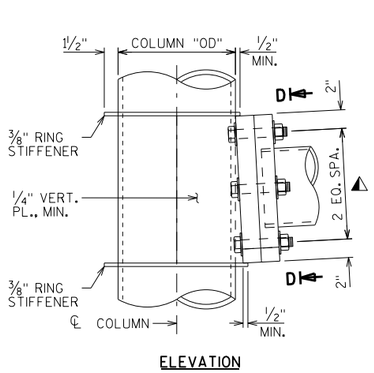
COLUMN/CHORD CAP DETAIL

* PLACE TACK EVERY OTHER FLAT TO SECURE NUT OR USE 1/2" THICK PLATE AND TAP HOLE FOR BOLT THREADS

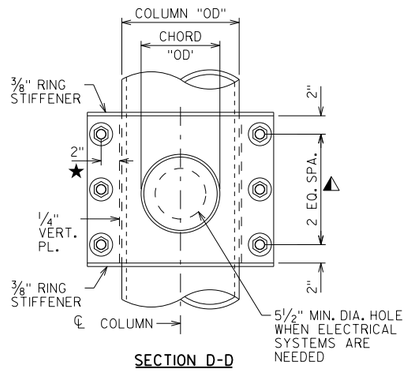


RECOMMENDED BOLT DETAIL WITH DTI

NUT IS THE TURNED ELEMENT



ELEVATION

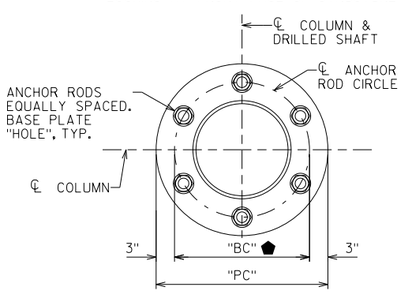


SECTION D-D

CANTILEVER POST TO CHORD CONNECTION

⚠ MIN. CONNECTION = (6) - 1" GALVANIZED F3125 GRADE A325 BOLTS, NUT, WASHER AND DTI

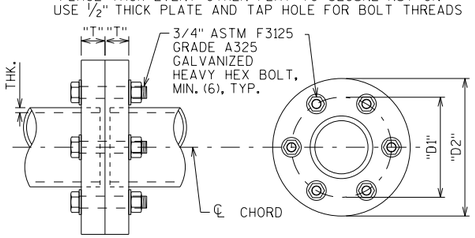
★ MIN. DIMENSION MEASURED FROM EXT. FACE OF VERT. PLATE



BASE PLATE

PLAN

⬟ "BC" = POLE OD + 6"



CHORD SPLICE DETAIL

"D1" = CHORD "OD" + 3"

"D2" = CHORD "OD" + 6"

"T" = BY DESIGN

NOTES:

MINIMUM VALUES SHOWN

ALL CONNETIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURE LOADS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: DEC. 2020

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 1

SHEET 1 OF IV

629

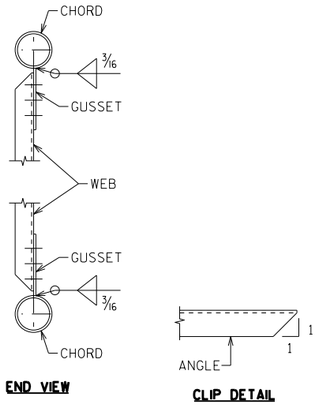
8

8

SCALE = 1.00

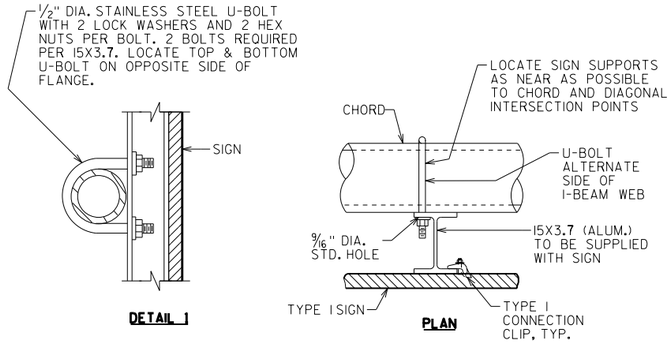
STATE PROJECT NUMBER

STANDARD



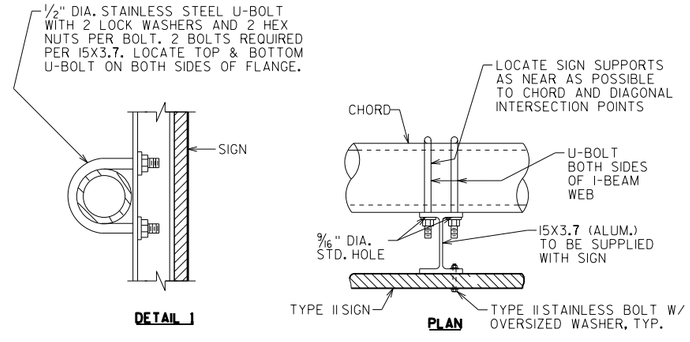
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR



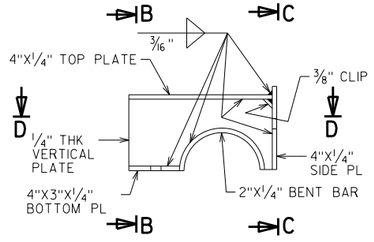
2-CHORD TRUSS SIGN CONNECTION

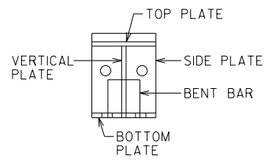
SEE SIGN PLATE MANUAL A4-7A FOR DETAILS

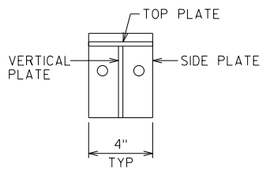


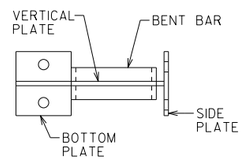
MONOTUBE SIGN CONNECTION

SEE SIGN PLATE MANUAL A4-7B FOR DETAILS



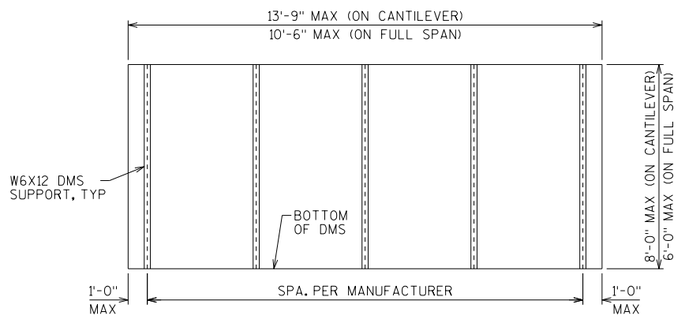






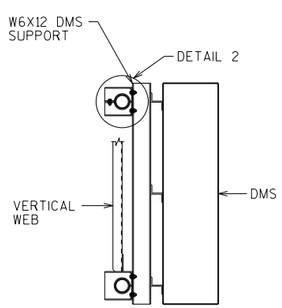
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILIAR



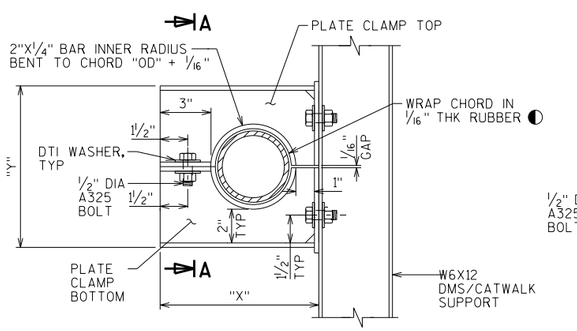
DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.

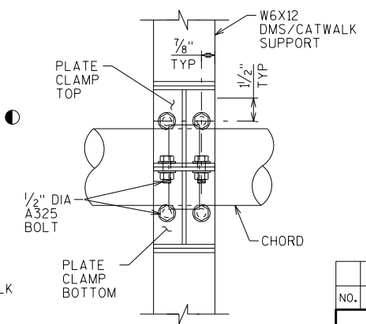


SECTION THRU TRUSS

FOR DMS CONNECTION

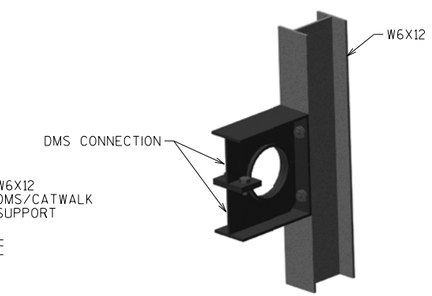


CHORD OUTER DIA	"X"	"Y"
"OD"	"OD"+4 13/16"	"OD"+5 1/16"



TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: DEC. 2020

DRAWN BY: BOS | PLANS CK'D.: BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 2

SHEET 11 OF IV

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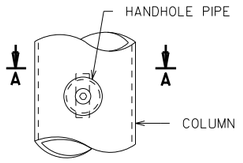
SCALE = 2.00

8

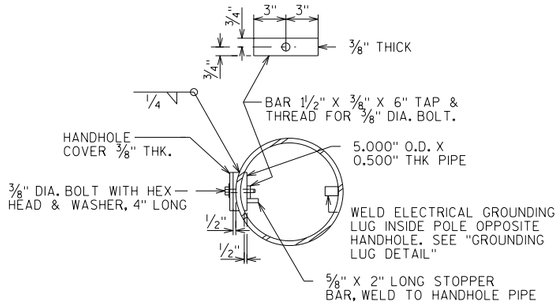
8

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

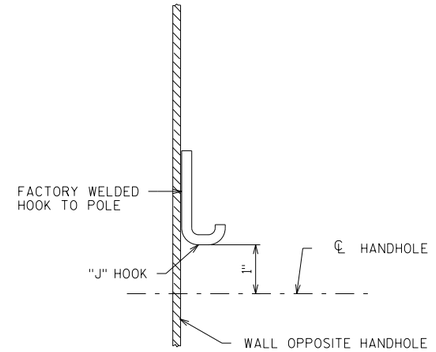


SECTION A-A

HANDHOLE NOTES

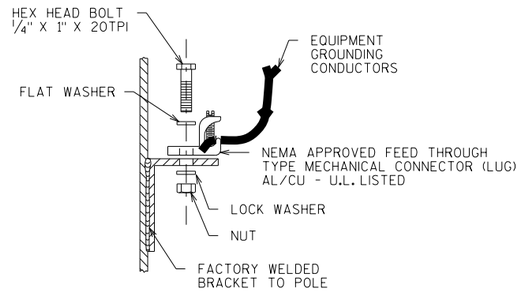
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



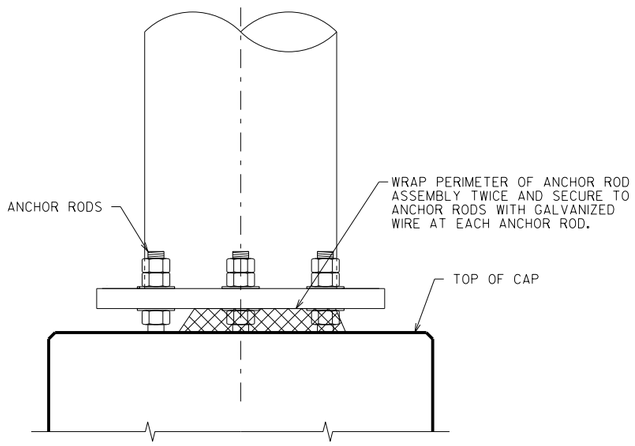
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: DEC. 2020

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MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS

SHEET III OF IV

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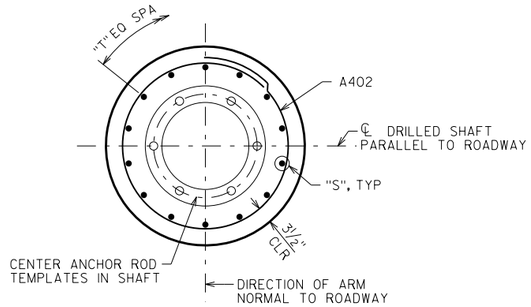
SCALE = 1.00

STATE PROJECT NUMBER

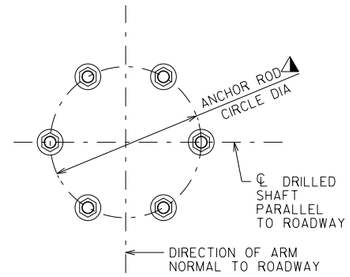
STANDARD

FOUNDATION & REINFORCING DATA

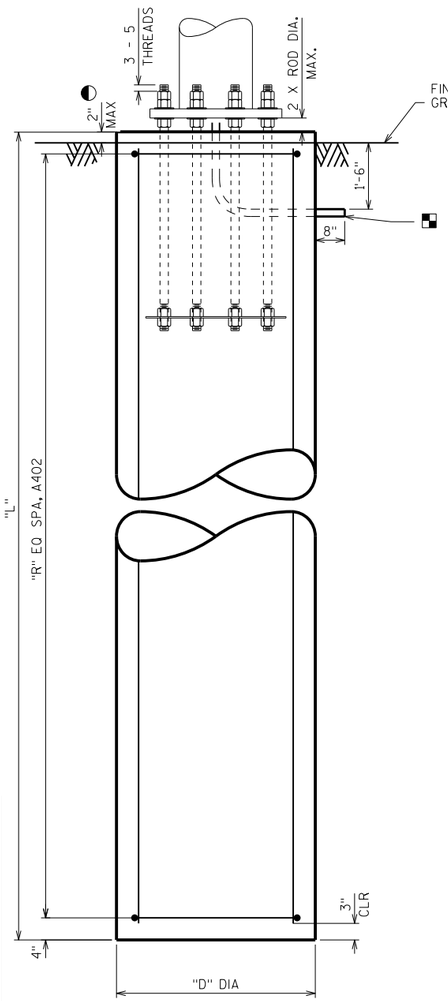
STANDARD FOUNDATION TYPE	SHAFT VARIABLES					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX
MFI	2'-0"	12'-0"	12	A801	6	12"
MFII	2'-6"	13'-0"	13	A801	10	17"
MCI/MCII/TFI	2'-6"	17'-0"	17	A801	10	17"
TCI	3'-0"	18'-0"	18	A801	14	22"
TFII	3'-0"	20'-0"	20	A801	14	22"
MCIII/TCII/TFIII	3'-6"	18'-0"	18	A901	14	28"
MCIV/TFIV	3'-6"	23'-0"	23	A901	14	28"
TCIII	4'-0"	23'-0"	23	A1001	14	34"
TCIV	4'-0"	28'-0"	28	A1001	14	34"



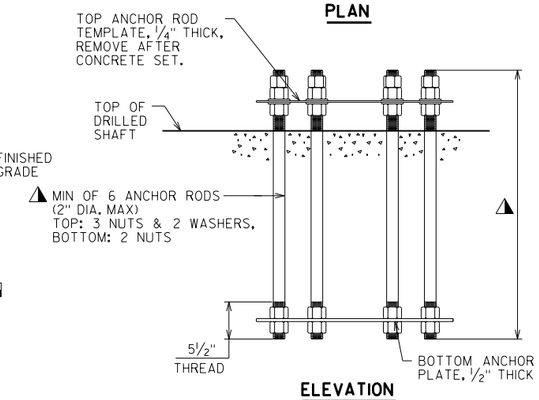
PLAN



PLAN



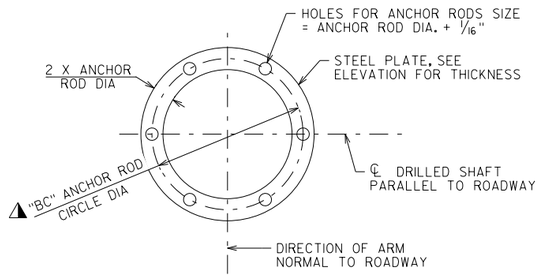
ELEVATION



ELEVATION

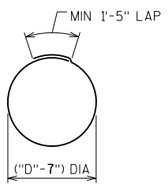
ANCHOR ROD ASSEMBLY DETAILS

△ ANCHOR ROD NUMBER, DIAMETER, LENGTH & ORIENTATION AS SHOWN ON FABRICATION DRAWING.



ANCHOR PLATE/TOP TEMPLATE

PLAN



A402

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS - STANDARD FOUNDATIONS

STANDARD FOUNDATION MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		6	11'-7"			DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	12'-7"			DRILLED SHAFT - VERTICAL
A402		14	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-7"			DRILLED SHAFT - VERTICAL
A402		18	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-7"			DRILLED SHAFT - VERTICAL
A402		21	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-7"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

ESTIMATED QUANTITIES - FOUNDATIONS

STANDARD FOUNDATION TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	FOUNDATION DRILLING (LF)				
			24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.
MFI	2	240	12				
MFII	3	410		13			
MCI/MCII/TFI	4	540		17			
TCI	5	780			18		
TFII	6	860			20		
MCIII/TCII/TFIII	7	970				18	
MCIV/TFIV	9	1,250				23	
TCIII	11	1,560					23
TCIV	13	1,900					28

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS

NOTES

CENTER ANCHOR ROD ASSEMBLY ON DRILLED SHAFT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

◐ FOR OVERHEAD SIGN STRUCTURES THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE SHAFT SHALL BE POURED FLUSH WITH THE FINISHED GRADE.

◪ 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: DEC. 2020

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MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV OF IV

632

SCALE = 1.67

8

8

DIVISION 1-1/CAT. 0010 (STA 136+10'EB'-170+98'EB'): STAGE 1 CONSTRUCTION - (MAINLINE MEDIAN TEMPORARY WIDENING)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
135+75		17.7	0.0	1.8							
136+00	25	17.2	0.0	1.7	16	0	2	16	0	2	16
136+50	50	16.6	0.0	1.7	31	0	3	47	0	5	47
137+00	50	17.5	0.0	1.8	32	0	3	79	0	8	79
137+50	50	19.2	0.0	1.9	34	0	3	113	0	11	113
137+96	46	12.5	0.0	1.2	27	0	3	140	0	14	140
138+97		16.9	0.0	1.7							
139+00	3	19.7	0.0	2.0	2	0	0	142	0	14	142
139+50	50	54.3	0.0	5.4	68	0	7	211	0	21	211
140+00	50	54.8	0.0	5.5	101	0	10	311	0	31	311
140+50	50	39.2	0.0	3.9	87	0	9	398	0	40	398
141+00	50	24.4	0.0	2.4	59	0	6	457	0	46	457
141+50	50	15.5	0.0	1.6	37	0	4	494	0	49	494
142+00	50	16.3	0.0	1.6	29	0	3	524	0	52	524
142+50	50	19.2	0.0	1.9	33	0	3	557	0	56	557
143+00	50	22.1	0.0	2.2	38	0	4	595	0	59	595
143+50	50	24.9	0.0	2.5	43	0	4	638	0	64	638
144+00	50	26.8	0.0	2.7	48	0	5	686	0	69	686
144+50	50	20.8	0.0	2.1	44	0	4	730	0	73	730
144+55	5	18.8	0.0	1.9	3	0	0	734	0	73	734
145+25		11.8	0.0	1.2							
145+50	25	10.4	0.0	1.0	10	0	1	744	0	74	744
146+00	50	8.9	0.0	0.9	18	0	2	762	0	76	762
146+50	50	9.0	0.0	0.9	17	0	2	778	0	78	778
147+00	50	16.5	0.0	1.7	24	0	2	802	0	80	802
147+50	50	16.4	1.1	1.6	30	1	3	832	1	83	831
148+00	50	16.4	1.4	1.6	30	2	3	863	3	86	859
148+50	50	16.4	1.3	1.6	30	2	3	893	6	89	887
149+00	50	18.9	0.0	1.9	33	1	3	926	7	93	919
149+50	50	35.3	0.0	3.5	50	0	5	976	7	98	969
150+00	50	35.3	0.0	3.5	65	0	7	1,041	7	104	1,034
150+50	50	32.0	0.0	3.2	62	0	6	1,104	7	110	1,097
151+00	50	29.6	0.0	3.0	57	0	6	1,161	7	116	1,154
151+28	28	28.6	0.0	2.9	30	0	3	1,191	7	119	1,184
151+48		26.3	0.0	2.6							
151+50	2	27.3	0.0	2.7	2	0	0	1,193	7	119	1,186
152+00	50	27.3	0.0	2.7	51	0	5	1,244	7	124	1,237
152+27	27	25.9	0.0	2.6	27	0	3	1,270	7	127	1,263

DIVISION 1-1/CAT. 0010 (STA 136+10'EB'-170+98'EB'): STAGE 1 CONSTRUCTION - (MAINLINE MEDIAN TEMPORARY WIDENING) (CONTINUED)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
152+38	11	12.2	0.0	1.2							
152+50	12	12.4	0.0	1.2	6	0	1	1,276	7	128	1,269
153+00	50	12.6	0.0	1.3	23	0	2	1,299	7	130	1,292
153+50	50	13.0	0.0	1.3	24	0	2	1,323	7	132	1,316
154+00	50	18.8	0.0	1.9	29	0	3	1,352	7	135	1,345
154+50	50	22.1	0.0	2.2	38	0	4	1,390	7	139	1,383
155+00	50	24.1	0.0	2.4	43	0	4	1,433	7	143	1,426
155+50	50	22.2	0.0	2.2	43	0	4	1,476	7	148	1,469
156+00	50	23.3	0.0	2.3	42	0	4	1,518	7	152	1,511
156+50	50	21.5	0.0	2.2	41	0	4	1,559	7	156	1,552
157+00	50	21.3	0.0	2.1	40	0	4	1,599	7	160	1,592
157+50	50	21.0	0.0	2.1	39	0	4	1,638	7	164	1,631
158+00	50	20.8	0.0	2.1	39	0	4	1,677	7	168	1,670
158+50	50	20.4	0.0	2.0	38	0	4	1,715	7	172	1,708
158+93	43	17.5	0.0	1.8	30	0	3	1,745	7	174	1,738
159+67		15.9	0.0	1.6							
160+00	33	18.8	0.0	1.9	21	0	2	1,766	7	177	1,759
160+50	50	19.6	0.0	2.0	36	0	4	1,801	7	180	1,794
161+00	50	22.1	0.0	2.2	39	0	4	1,840	7	184	1,833
161+50	50	31.2	0.0	3.1	49	0	5	1,889	7	189	1,882
162+00	50	25.5	0.0	2.5	52	0	5	1,942	7	194	1,935
162+50	50	17.2	0.0	1.7	40	0	4	1,981	7	198	1,974
163+00	50	16.6	0.0	1.7	31	0	3	2,013	7	201	2,006
163+50	50	15.6	0.0	1.6	30	0	3	2,042	7	204	2,035
164+00	50	14.3	0.0	1.4	28	0	3	2,070	7	207	2,063
164+50	50	13.9	0.0	1.4	26	0	3	2,096	7	210	2,089
165+00	50	12.7	0.0	1.3	25	0	2	2,121	7	212	2,114
165+50	50	11.6	0.0	1.2	22	0	2	2,143	7	214	2,136
165+67	17	10.8	0.0	1.1	7	0	1	2,150	7	215	2,143
166+62		12.2	0.0	1.2							
167+00	38	17.5	0.0	1.7	21	0	2	2,171	7	217	2,164
167+50	50	22.0	0.0	2.2	37	0	4	2,207	7	221	2,200
168+00	50	26.8	0.0	2.7	45	0	5	2,253	7	225	2,246
168+50	50	32.5	0.0	3.2	55	0	5	2,308	7	231	2,301
169+00	50	35.7	0.0	3.6	63	0	6	2,371	7	237	2,364
169+50	50	38.4	0.0	3.8	69	0	7	2,439	7	244	2,432
170+00	50	37.6	0.0	3.8	70	0	7	2,510	7	251	2,503
170+50	50	40.3	0.0	4.0	72	0	7	2,582	7	258	2,575
170+98	48	46.6	0.0	4.7	78	0	8	2,659	7	266	2,652
				Column totals	2,659	7	266				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 2-1/CAT. 0010 (STA 138+85'WB'-172+05'WB'): STAGE 2 CONSTRUCTION - (MAINLINE WB RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
138+85		83.2	3.4	8.3							
139+00	15	107.8	2.7	10.8	53	2	5	53	2	5	51
139+50	50	124.4	1.2	12.4	215	4	21	268	5	27	262
140+00	50	118.2	2.5	11.8	225	3	22	492	9	49	483
140+50	50	107.9	3.5	10.8	209	6	21	702	14	70	687
141+00	50	98.5	1.8	9.8	191	5	19	893	19	89	874
141+50	50	91.2	0.8	9.1	176	2	18	1,068	21	107	1,047
141+84	34	97.8	1.1	9.8	119	1	12	1,187	23	119	1,165
142+00	16	98.3	1.2	9.8	58	1	6	1,245	23	125	1,222
142+50	50	94.3	1.4	9.4	178	2	18	1,424	26	142	1,398
143+00	50	91.4	1.2	9.1	172	2	17	1,596	28	160	1,568
143+50	50	90.9	1.2	9.1	169	2	17	1,765	30	176	1,734
144+00	50	98.2	0.0	9.8	175	1	18	1,940	31	194	1,908
144+50	50	144.4	0.0	14.4	225	0	22	2,164	31	216	2,133
145+00	50	171.6	0.0	17.2	293	0	29	2,457	31	246	2,426
145+18	18	185.0	0.0	18.5	119	0	12	2,576	31	258	2,544
145+50	32	190.2	0.0	19.0	222	0	22	2,798	31	280	2,767
146+00	50	199.1	0.0	19.9	360	0	36	3,159	31	316	3,127
146+50	50	192.4	0.0	19.2	363	0	36	3,521	31	352	3,490
147+00	50	154.0	0.0	15.4	321	0	32	3,842	31	384	3,810
147+50	50	122.9	11.0	12.3	256	10	26	4,098	42	410	4,057
148+00	50	106.7	4.9	10.7	213	15	21	4,311	56	431	4,255
148+50	50	103.7	0.1	10.4	195	5	19	4,506	61	451	4,445
149+00	50	97.3	0.3	9.7	186	0	19	4,692	61	469	4,631
149+50	50	95.5	1.0	9.6	179	1	18	4,870	62	487	4,808
150+00	50	85.7	1.1	8.6	168	2	17	5,038	64	504	4,974
150+50	50	78.1	1.4	7.8	152	2	15	5,190	67	519	5,123
151+00	50	77.6	11.1	7.8	144	12	14	5,334	78	533	5,256
151+50	50	99.6	0.0	10.0	164	10	16	5,498	89	550	5,409
152+00	50	72.3	1.5	7.2	159	1	16	5,657	90	566	5,567
152+50	50	105.9	1.2	10.6	165	3	16	5,822	93	582	5,730
153+00	50	105.7	1.8	10.6	196	3	20	6,018	95	602	5,923
153+50	50	107.5	1.7	10.8	197	3	20	6,215	99	622	6,117
154+00	50	105.2	2.3	10.5	197	4	20	6,412	102	641	6,310
154+50	50	92.1	3.6	9.2	183	5	18	6,595	108	660	6,487
155+00	50	88.7	5.0	8.9	167	8	17	6,763	116	676	6,647
155+50	50	87.8	6.2	8.8	163	10	16	6,926	126	693	6,800
156+00	50	85.8	7.2	8.6	161	12	16	7,087	138	709	6,948
156+50	50	83.4	6.7	8.3	157	13	16	7,243	151	724	7,092
157+00	50	89.4	0.8	8.9	160	7	16	7,403	158	740	7,245
157+50	50	91.9	0.7	9.2	168	1	17	7,571	159	757	7,412
158+00	50	92.2	3.0	9.2	170	3	17	7,742	163	774	7,579
158+50	50	91.2	2.2	9.1	170	5	17	7,911	167	791	7,744
159+00	50	106.7	1.3	10.7	183	3	18	8,095	171	809	7,924
159+50	50	106.8	1.4	10.7	198	3	20	8,292	173	829	8,119
160+00	50	80.0	7.0	8.0	173	8	17	8,465	181	847	8,284
160+50	50	58.7	16.9	5.9	128	22	13	8,594	203	859	8,390
161+00	50	44.4	21.4	4.4	95	35	10	8,689	239	869	8,450
161+50	50	51.9	14.0	5.2	89	33	9	8,778	271	878	8,507
162+00	50	61.5	3.5	6.2	105	16	10	8,883	288	888	8,596
162+50	50	70.4	1.4	7.0	122	5	12	9,005	292	901	8,713
163+00	50	68.9	1.3	6.9	129	3	13	9,134	295	913	8,840
163+50	50	65.7	3.1	6.6	125	4	12	9,259	299	926	8,960
164+00	50	68.2	3.6	6.8	124	6	12	9,383	305	938	9,078
164+50	50	90.9	1.6	9.1	147	5	15	9,530	310	953	9,221
165+00	50	85.4	1.5	8.5	163	3	16	9,693	313	969	9,381
165+26	26	90.0	1.2	9.0	85	1	9	9,779	314	978	9,465

DIVISION 2-1/CAT. 0010 (STA 138+85'WB'-172+05'WB'): STAGE 2 CONSTRUCTION - (MAINLINE WB RECONSTRUCTION) (CONTINUED)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
165+88		135.6	0.0	13.6							
166+00	12	135.8	0.0	13.6	62	0	6	9,841	314	984	9,527
166+50	50	150.3	0.0	15.0	265	0	26	10,106	314	1,011	9,792
167+00	50	131.4	3.7	13.1	261	3	26	10,367	317	1,037	10,049
167+50	50	128.0	3.9	12.8	240	7	24	10,607	324	1,061	10,283
168+00	50	125.3	3.7	12.5	235	7	23	10,841	331	1,084	10,510
168+50	50	125.8	3.1	12.6	233	6	23	11,074	338	1,107	10,736
169+00	50	127.8	2.3	12.8	235	5	23	11,309	343	1,131	10,966
169+50	50	134.3	4.0	13.4	243	6	24	11,551	348	1,155	11,203
170+00	50	130.8	5.9	13.1	245	9	25	11,797	357	1,180	11,439
170+50	50	128.7	7.2	12.9	240	12	24	12,037	370	1,204	11,667
171+00	50	119.7	0.1	12.0	230	7	23	12,267	376	1,227	11,891
171+50	50	93.7	0.0	9.4	198	0	20	12,465	376	1,246	12,088
172+00	50	42.9	0.0	4.3	126	0	13	12,591	376	1,259	12,215
172+05	5	0.0	0.0	0.0	4	0	0	12,595	376	1,259	12,219
				Column totals	12,595	376	1,259				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 2-2/CAT. 0010 (STA 50+32'MC'-50+60'MC'): STAGE 2 CONSTRUCTION - (MARSHALL CT RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
50+32		167.6	0.0	16.8							
50+50	18	106.9	7.3	10.7	94	2	9	94	2	9	91
50+60	10	68.1	18.4	6.8	33	5	3	127	7	13	120
				Column totals	127	7	13				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 2-3/CAT. 0010 (STA 50+50 - 60+25): STAGE 2 CONSTRUCTION - (PEDESTRIAN OVERPASS CONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
50+50		5.0	0.0	0.5							
50+95	45	0.0	9.0	0.0	4	8	0	4	8	0	-3
56+60		0.0	1.1	0.0							
57+00	40	0.0	109.3	0.0	0	82	0	4	89	0	-85
57+50	50	0.0	63.6	0.0	0	160	0	4	249	0	-245
58+00	50	0.0	38.2	0.0	0	94	0	4	344	0	-340
58+50	50	0.0	19.1	0.0	0	53	0	4	397	0	-393
59+00	50	0.4	2.5	0.0	0	20	0	5	417	0	-412
59+50	50	0.7	1.5	0.1	1	4	0	6	420	0	-415
60+00	50	7.0	0.0	0.7	7	1	1	13	422	1	-409
60+25	25	3.2	0.0	0.3	5	0	0	17	422	1	-404
				Column totals	17	422	2				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 3-1/CAT. 0010 (STA 138+88'WB'-169+50'WB'): STAGE 3 CONSTRUCTION - (MAINLINE MEDIAN TEMPORARY WIDENING)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
138+88		25.3	0.0	2.5							
139+00	13	29.5	0.0	2.9	13	0	1	13	0	1	13
139+50	50	26.3	0.0	2.6	52	0	5	64	0	6	64
140+00	50	25.2	0.0	2.5	48	0	5	112	0	11	112
140+50	50	20.9	0.0	2.1	43	0	4	155	0	15	155
141+00	50	16.0	0.0	1.6	34	0	3	189	0	19	189
141+50	50	19.0	0.0	1.9	32	0	3	221	0	22	221
142+00	50	23.8	0.0	2.4	40	0	4	261	0	26	261
142+50	50	24.5	0.0	2.5	45	0	4	306	0	31	306
143+00	50	24.9	0.0	2.5	46	0	5	351	0	35	351
143+50	50	26.2	0.0	2.6	47	0	5	399	0	40	399
144+00	50	35.2	0.0	3.5	57	0	6	456	0	46	456
144+50	50	34.6	0.0	3.5	65	0	6	520	0	52	520
144+53	3	30.0	0.0	3.0	3	0	0	523	0	52	523
145+34		34.2	0.0	3.4							
145+50	16	31.9	0.0	3.2	20	0	2	543	0	54	543
146+00	50	23.9	0.0	2.4	52	0	5	595	0	59	595
146+50	50	23.6	0.1	2.4	44	0	4	639	0	64	639
147+00	50	27.5	0.1	2.7	47	0	5	686	0	69	686
147+50	50	33.2	0.0	3.3	56	0	6	742	0	74	742
148+00	50	31.5	0.0	3.2	60	0	6	802	0	80	802
148+50	50	33.1	0.0	3.3	60	0	6	862	0	86	862
149+00	50	32.2	0.0	3.2	60	0	6	922	0	92	922
149+50	50	33.6	0.0	3.4	61	0	6	983	0	98	983
150+00	50	32.4	0.0	3.2	61	0	6	1,045	0	104	1,044
150+50	50	30.5	0.0	3.0	58	0	6	1,103	0	110	1,102
151+00	50	28.1	0.0	2.8	54	0	5	1,157	0	116	1,157
151+44	44	23.7	0.0	2.4	42	0	4	1,199	0	120	1,199
152+42		23.0	0.0	2.3							
152+50	8	23.6	0.0	2.4	7	0	1	1,206	0	121	1,206
153+00	50	23.6	0.0	2.4	44	0	4	1,250	0	125	1,250
153+50	50	24.9	0.0	2.5	45	0	4	1,295	0	129	1,295
154+00	50	25.3	0.0	2.5	46	0	5	1,341	0	134	1,341
154+50	50	27.5	0.0	2.7	49	0	5	1,390	0	139	1,390
155+00	50	29.1	0.0	2.9	52	0	5	1,442	0	144	1,442
155+50	50	29.8	0.0	3.0	55	0	5	1,497	0	150	1,497
156+00	50	34.6	0.0	3.5	60	0	6	1,557	0	156	1,556
156+50	50	36.6	0.0	3.7	66	0	7	1,623	0	162	1,622
157+00	50	31.5	0.0	3.2	63	0	6	1,686	0	169	1,685
157+50	50	35.0	0.0	3.5	62	0	6	1,747	0	175	1,747
158+00	50	36.3	0.0	3.6	66	0	7	1,813	0	181	1,813
158+50	50	35.2	0.0	3.5	66	0	7	1,879	0	188	1,879
159+00	50	31.9	0.0	3.2	62	0	6	1,941	0	194	1,941
159+50	50	30.6	0.0	3.1	58	0	6	1,999	0	200	1,999
160+00	50	31.6	0.3	3.2	58	0	6	2,057	1	206	2,056
160+50	50	33.2	0.9	3.3	60	1	6	2,117	2	212	2,115
161+00	50	36.4	0.0	3.6	64	1	6	2,181	2	218	2,179
161+50	50	32.6	0.4	3.3	64	0	6	2,245	3	225	2,242
162+00	50	36.6	0.0	3.7	64	0	6	2,309	3	231	2,306
162+50	50	43.6	0.0	4.4	74	0	7	2,384	3	238	2,380
163+00	50	48.7	0.0	4.9	85	0	9	2,469	3	247	2,466
163+50	50	51.1	0.0	5.1	92	0	9	2,562	3	256	2,558
164+00	50	50.6	0.0	5.1	94	0	9	2,656	3	266	2,652
164+50	50	47.3	0.0	4.7	91	0	9	2,746	3	275	2,743
165+00	50	48.9	0.0	4.9	89	0	9	2,835	3	284	2,832
165+50	50	48.8	0.0	4.9	91	0	9	2,926	3	293	2,923
166+00	50	45.5	0.0	4.6	87	0	9	3,013	3	301	3,010
166+50	50	47.1	0.0	4.7	86	0	9	3,099	3	310	3,096
167+00	50	52.6	0.0	5.3	92	0	9	3,191	3	319	3,188
167+50	50	53.2	0.0	5.3	98	0	10	3,289	3	329	3,286
168+00	50	54.2	0.0	5.4	99	0	10	3,389	3	339	3,385
168+50	50	51.9	0.0	5.2	98	0	10	3,487	3	349	3,484
169+00	50	48.7	0.0	4.9	93	0	9	3,580	3	358	3,577
169+50	50	52.3	0.0	5.2	94	0	9	3,674	3	367	3,670
				Column totals	3,674	3	367				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-1/CAT. 0010 (STA 138+86'EB'-170+85'EB'): STAGE 4 CONSTRUCTION - (MAINLINE EB RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
138+86		66.9	0.0	6.7							
139+00	14	84.8	0.0	8.5	40	0	4	40	0	4	40
139+50	50	86.3	0.0	8.6	158	0	16	199	0	20	199
140+00	50	73.4	0.0	7.3	148	0	15	347	0	35	347
140+50	50	81.5	0.6	8.1	143	1	14	490	1	49	489
141+00	50	81.7	0.0	8.2	151	1	15	641	1	64	640
141+50	50	86.9	0.8	8.7	156	1	16	797	2	80	795
142+00	50	85.7	0.9	8.6	160	2	16	957	3	96	953
142+50	50	80.7	0.8	8.1	154	2	15	1,111	5	111	1,106
143+00	50	84.4	0.7	8.4	153	1	15	1,264	6	126	1,257
143+41	41	90.4	0.0	9.0	133	1	13	1,397	7	140	1,390
143+50	9	91.4	0.0	9.1	30	0	3	1,427	7	143	1,420
144+00	50	97.3	0.5	9.7	175	0	17	1,602	7	160	1,594
144+50	50	83.3	0.0	8.3	167	0	17	1,769	8	177	1,761
145+00	50	63.4	0.0	6.3	136	0	14	1,905	8	190	1,897
145+50	50	84.3	0.5	8.4	137	0	14	2,041	8	204	2,033
146+00	50	93.0	0.4	9.3	164	1	16	2,206	9	221	2,197
146+50	50	95.2	0.3	9.5	174	1	17	2,380	10	238	2,370
147+00	50	94.7	0.2	9.5	176	0	18	2,556	10	256	2,545
147+30	30	91.8	0.0	9.2	104	0	10	2,659	10	266	2,649
147+50	20	91.6	0.1	9.2	68	0	7	2,727	10	273	2,717
148+00	50	87.6	0.4	8.8	166	0	17	2,893	11	289	2,882
148+28	28	85.8	0.0	8.6	90	0	9	2,983	11	298	2,972
148+50	22	85.3	0.6	8.5	70	0	7	3,053	11	305	3,041
149+00	50	92.7	0.4	9.3	165	1	16	3,217	12	322	3,205
149+36	36	103.5	0.0	10.4	131	0	13	3,348	12	335	3,336
149+50	14	104.7	0.5	10.5	54	0	5	3,402	13	340	3,390
150+00	50	117.2	0.5	11.7	205	1	21	3,608	13	361	3,594
150+50	50	118.0	0.2	11.8	218	1	22	3,825	14	383	3,811
151+00	50	118.0	0.3	11.8	219	0	22	4,044	15	404	4,029
151+50	50	65.1	0.0	6.5	170	0	17	4,213	15	421	4,199
152+00	50	82.6	0.0	8.3	137	0	14	4,350	15	435	4,335
152+50	50	100.3	0.0	10.0	169	0	17	4,520	15	452	4,505
152+74	24	100.5	0.0	10.0	89	0	9	4,609	15	461	4,594
153+00	26	97.0	0.6	9.7	95	0	10	4,704	15	470	4,689
153+50	50	96.2	0.5	9.6	179	1	18	4,883	16	488	4,867
153+86	36	101.0	0.0	10.1	131	0	13	5,014	16	501	4,998
154+00	14	101.3	0.0	10.1	52	0	5	5,067	16	507	5,050
154+40	40	102.6	0.0	10.3	151	0	15	5,218	16	522	5,201
154+50	10	101.6	0.0	10.2	38	0	4	5,256	16	526	5,239
155+00	50	91.4	0.7	9.1	179	1	18	5,434	17	543	5,417
155+32	32	90.6	0.0	9.1	108	0	11	5,542	18	554	5,525
155+50	18	87.0	0.9	8.7	59	0	6	5,601	18	560	5,583
156+00	50	91.8	0.9	9.2	166	2	17	5,767	20	577	5,747
156+50	50	102.2	1.0	10.2	180	2	18	5,947	21	595	5,925
156+77	27	115.2	0.0	11.5	109	0	11	6,055	22	606	6,033
157+00	23	119.9	1.2	12.0	100	1	10	6,155	22	616	6,133
157+50	50	87.3	1.3	8.7	192	2	19	6,347	25	635	6,323
157+92	42	105.8	0.0	10.6	150	1	15	6,497	26	650	6,472
158+00	8	105.7	0.0	10.6	31	0	3	6,529	26	653	6,503
158+50	50	108.1	0.0	10.8	198	0	20	6,727	26	673	6,701

DIVISION 4-1/CAT. 0010 (STA 138+86'EB'-170+85'EB'): STAGE 4 CONSTRUCTION - (MAINLINE EB RECONSTRUCTION) (CONTINUED)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
159+00	50	78.9	0.0	7.9	173	0	17	6,900	26	690	6,874
159+50	50	80.8	0.0	8.1	148	0	15	7,048	26	705	7,022
160+00	50	82.5	0.9	8.2	151	1	15	7,199	26	720	7,172
160+50	50	68.8	1.1	6.9	140	2	14	7,339	28	734	7,311
161+00	50	69.8	0.0	7.0	128	1	13	7,467	29	747	7,438
161+04	4	70.7	0.0	7.1	10	0	1	7,478	29	748	7,448
161+50	46	93.6	0.4	9.4	140	0	14	7,618	30	762	7,588
162+00	50	118.5	0.2	11.9	196	1	20	7,814	30	781	7,784
162+29	29	133.8	0.0	13.4	135	0	14	7,949	30	795	7,919
162+50	21	137.9	0.0	13.8	106	0	11	8,055	30	806	8,025
162+78	28	140.3	0.0	14.0	144	0	14	8,199	30	820	8,169
163+00	22	138.3	0.1	13.8	114	0	11	8,313	30	831	8,283
163+50	50	140.4	0.0	14.0	258	0	26	8,571	30	857	8,541
163+82	32	133.0	0.0	13.3	162	0	16	8,733	30	873	8,703
164+00	18	128.6	0.0	12.9	87	0	9	8,820	30	882	8,790
164+50	50	123.8	0.0	12.4	234	0	23	9,054	30	905	9,024
165+00	50	112.3	0.0	11.2	219	0	22	9,272	30	927	9,242
165+50	50	113.9	0.0	11.4	209	0	21	9,482	30	948	9,452
166+00	50	93.0	0.0	9.3	192	0	19	9,673	30	967	9,643
166+50	50	81.8	0.0	8.2	162	0	16	9,835	30	984	9,805
167+00	50	80.7	3.7	8.1	150	3	15	9,986	34	999	9,952
167+50	50	80.9	4.7	8.1	150	8	15	10,135	41	1,014	10,094
168+00	50	93.5	0.5	9.4	161	5	16	10,297	46	1,030	10,251
168+50	50	104.5	0.0	10.5	183	0	18	10,480	47	1,048	10,434
169+00	50	106.5	0.5	10.6	195	0	20	10,676	47	1,068	10,628
169+50	50	115.8	0.6	11.6	206	1	21	10,881	48	1,088	10,833
169+87	37	128.8	0.0	12.9	168	0	17	11,049	48	1,105	11,000
170+00	13	74.7	0.0	7.5	49	0	5	11,098	48	1,110	11,049
170+50	50	90.4	0.0	9.0	153	0	15	11,251	48	1,125	11,202
170+85	35	79.6	0.7	8.0	110	0	11	11,361	49	1,136	11,312
				Column totals	11,361	49	1,136				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-2/CAT. 0010 (STA 62+16'SP'-62+54'SP'): STAGE 4 CONSTRUCTION - (SCHMITT PL RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
62+16		75.8	0.0	7.6							
62+50	34	165.4	0.0	16.5	152	0	15	152	0	15	152
62+54	4	168.5	0.0	16.8	24	0	2	175	0	18	175
				Column totals	175	0	18				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-3/CAT. 0010 (STA 41+94'RS'-42+49'RS'): STAGE 4 CONSTRUCTION - (RIDGE ST RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
41+94		88.8	0.9	8.9							
42+00	6	89.5	0.7	9.0	21	0	2	21	0	2	21
42+49	49	180.2	0.0	18.0	242	1	24	263	1	26	262
				Column totals	263	1	26				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-4/CAT. 0010 (STA 32+00'NF'-33+32'NF'): STAGE 4 CONSTRUCTION - (N FRANKLIN AVE RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
32+00		71.8	0.1	7.2							
32+43	43	75.2	0.2	7.5	117	0	12	117	0	12	117
32+50	7	77.5	0.2	7.8	20	0	2	137	0	14	137
32+64	14	83.0	0.0	8.3	42	0	4	178	0	18	178
32+96	32	102.7	0.0	10.3	110	0	11	289	0	29	288
33+00	4	107.1	0.0	10.7	16	0	2	304	0	30	304
33+32	32	180.6	0.0	18.1	173	0	17	477	0	48	477
				Column totals	477	0	48				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-5/CAT. 0010 (STA 12+85'FA'-14+97'FA'): STAGE 4 CONSTRUCTION - (FARLEY AVE RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
12+85		41.6	0.2	4.2							
13+00	15	87.1	0.0	8.7	36	0	4	36	0	4	36
13+03	3	87.9	0.0	8.8	10	0	1	45	0	5	45
13+50	47	89.9	0.1	9.0	155	0	15	200	0	20	200
13+56	6	91.7	0.1	9.2	20	0	2	220	0	22	220
14+00	44	113.0	0.0	11.3	167	0	17	387	0	39	387
14+50	50	104.1	0.0	10.4	201	0	20	588	0	59	588
14+97	47	146.0	0.0	14.6	218	0	22	806	0	81	806
				Column totals	806	0	81				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-6/CAT. 0010 (STA 0+00-1+45): STAGE 4 CONSTRUCTION - (OLD UNIVERSITY AVE TEMPORARY ACCESS ROAD)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
0+00		8.5	1.3	0.8							
0+50	50	8.0	0.0	0.8	15	1	2	15	1	2	14
1+00	50	7.4	3.5	0.7	14	3	1	29	4	3	25
1+45	45	8.8	0.9	0.9	14	4	1	43	8	4	35
				Column totals	43	8	4				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 4-7/CAT. 0010 (STA 70+66'UA'-73+39'UA'): STAGE 4 CONSTRUCTION - (OLD UNIVERSITY RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
70+66		50.4	0.8	5.0							
71+00	34	56.8	0.0	5.7	68	1	7	68	1	7	68
71+50	50	71.6	0.0	7.2	119	0	12	187	1	19	187
72+00	50	63.1	0.0	6.3	125	0	12	312	1	31	312
72+50	50	51.5	0.3	5.2	106	0	11	418	1	42	417
73+00	50	50.8	0.2	5.1	95	0	9	513	1	51	512
73+39	39	49.2	0.4	4.9	72	0	7	585	2	59	584
				Column totals	585	2	59				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 5-1/CAT. 0010 (STA 135+68'EB'-169+50'EB'): STAGE 5 CONSTRUCTION - (MAINLINE MEDIAN CONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
135+68		0.0	0.0	0.0							
136+00	32	18.4	0.0	1.8	11	0	1	11	0	1	11
136+50	50	18.6	0.0	1.9	34	0	3	45	0	5	45
137+00	50	19.6	0.0	2.0	35	0	4	80	0	8	80
137+50	50	24.1	0.0	2.4	40	0	4	121	0	12	121
137+95	45	18.4	0.0	1.8	35	0	4	156	0	16	156
138+95		23.7	0.1	2.4							
139+00	5	38.0	0.1	3.8	6	0	1	161	0	16	161
139+50	50	45.9	0.0	4.6	78	0	8	239	0	24	239
140+00	50	46.5	0.2	4.6	86	0	9	325	0	32	324
140+50	50	39.8	0.1	4.0	80	0	8	404	1	40	404
141+00	50	39.9	0.0	4.0	74	0	7	478	1	48	478
141+50	50	44.7	0.0	4.5	78	0	8	557	1	56	556
142+00	50	47.4	0.0	4.7	85	0	9	642	1	64	641
142+50	50	46.4	0.0	4.6	87	0	9	729	1	73	728
143+00	50	45.2	0.0	4.5	85	0	8	813	1	81	813
143+41	41	42.4	0.0	4.2	66	0	7	880	1	88	879
143+50	9	41.6	0.0	4.2	14	0	1	894	1	89	893
144+00	50	37.9	0.1	3.8	74	0	7	968	1	97	967
144+50	50	40.0	0.0	4.0	72	0	7	1,040	1	104	1,039
144+53	3	39.8	0.0	4.0	4	0	0	1,044	1	104	1,043
145+32		39.1	0.0	3.9							
145+50	18	37.7	0.0	3.8	25	0	2	1,069	1	107	1,068
146+00	50	38.2	0.0	3.8	70	0	7	1,139	1	114	1,138
146+50	50	40.5	0.0	4.1	73	0	7	1,212	1	121	1,211
147+00	50	30.2	0.0	3.0	65	0	7	1,277	1	128	1,277
147+30	30	24.3	0.2	2.4	30	0	3	1,308	1	131	1,307
147+50	20	25.1	0.2	2.5	18	0	2	1,326	1	133	1,325
148+00	50	20.2	0.2	2.0	42	0	4	1,368	1	137	1,366
148+28	28	20.0	0.2	2.0	21	0	2	1,389	2	139	1,387
148+50	22	20.6	0.2	2.1	17	0	2	1,405	2	141	1,404
149+00	50	20.7	0.2	2.1	38	0	4	1,444	2	144	1,441
149+36	36	63.3	0.1	6.3	56	0	6	1,500	2	150	1,497
149+50	14	62.0	0.0	6.2	32	0	3	1,532	2	153	1,530
150+00	50	54.1	0.0	5.4	107	0	11	1,639	2	164	1,637
150+50	50	49.2	0.0	4.9	96	0	10	1,735	2	174	1,733
151+00	50	49.4	0.0	4.9	91	0	9	1,826	2	183	1,824
151+40	40	47.8	0.0	4.8	72	0	7	1,899	2	190	1,896

DIVISION 5-1/CAT. 0010 (STA 135+68'EB'-169+50'EB'): STAGE 5 CONSTRUCTION - (MAINLINE MEDIAN CONSTRUCTION) (CONTINUED)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
152+33		56.1	0.0	5.6							
152+50	17	53.8	0.0	5.4	36	0	4	1,934	2	193	1,932
152+74	24	54.0	0.0	5.4	48	0	5	1,982	2	198	1,980
153+00	26	54.2	0.0	5.4	52	0	5	2,034	2	203	2,032
153+50	50	54.0	0.0	5.4	100	0	10	2,134	2	213	2,132
153+86	36	60.6	0.0	6.1	76	0	8	2,211	2	221	2,209
154+00	14	61.4	0.0	6.1	32	0	3	2,242	2	224	2,240
154+40	40	61.4	0.2	6.1	91	0	9	2,333	2	233	2,331
154+50	10	60.3	0.3	6.0	23	0	2	2,356	3	236	2,353
155+00	50	17.8	0.3	1.8	72	1	7	2,428	3	243	2,425
155+32	32	17.7	0.3	1.8	21	0	2	2,449	3	245	2,446
155+50	18	17.9	0.3	1.8	12	0	1	2,461	4	246	2,458
156+00	50	21.3	0.0	2.1	36	0	4	2,497	4	250	2,494
156+50	50	26.3	0.0	2.6	44	0	4	2,542	4	254	2,538
156+77	27	26.6	0.0	2.7	26	0	3	2,568	4	257	2,564
157+00	23	25.8	0.0	2.6	22	0	2	2,590	4	259	2,586
157+50	50	25.8	0.0	2.6	48	0	5	2,638	4	264	2,634
157+92	42	24.4	0.0	2.4	39	0	4	2,677	4	268	2,673
158+00	8	24.4	0.0	2.4	7	0	1	2,684	4	268	2,681
158+50	50	24.3	0.0	2.4	45	0	5	2,729	4	273	2,726
158+97	47	19.9	0.0	2.0	38	0	4	2,768	4	277	2,764
159+41		30.3	0.0	3.0							
159+50	9	29.9	0.0	3.0	10	0	1	2,778	4	278	2,774
160+00	50	29.3	0.0	2.9	55	0	5	2,833	4	283	2,829
160+50	50	27.3	0.0	2.7	52	0	5	2,885	4	289	2,881
161+00	50	21.1	0.3	2.1	45	0	4	2,930	4	293	2,926
161+04	4	21.1	0.3	2.1	3	0	0	2,933	4	293	2,929
161+50	46	21.8	0.1	2.2	37	0	4	2,970	5	297	2,965
162+00	50	57.8	0.0	5.8	74	0	7	3,043	5	304	3,039
162+29	29	55.4	0.0	5.5	61	0	6	3,104	5	310	3,099
162+50	21	53.0	0.0	5.3	42	0	4	3,146	5	315	3,142
162+78	28	49.4	0.0	4.9	53	0	5	3,199	5	320	3,195
163+00	22	46.2	0.0	4.6	39	0	4	3,238	5	324	3,234
163+50	50	38.7	0.0	3.9	79	0	8	3,317	5	332	3,312
163+82	32	33.7	0.0	3.4	43	0	4	3,360	5	336	3,355
164+00	18	32.7	0.0	3.3	22	0	2	3,382	5	338	3,377
164+50	50	29.0	0.0	2.9	57	0	6	3,439	5	344	3,434
165+00	50	26.0	0.0	2.6	51	0	5	3,490	5	349	3,485
165+50	50	25.8	0.0	2.6	48	0	5	3,538	5	354	3,533
165+57	7	26.2	0.0	2.6	7	0	1	3,545	5	354	3,540
165+66	9	27.0	0.0	2.7	9	0	1	3,554	5	355	3,549
166+63		30.2	0.0	3.0							
167+00	37	31.0	0.0	3.1	42	0	4	3,595	5	360	3,591
167+50	50	31.1	0.0	3.1	57	0	6	3,653	5	365	3,648
168+00	50	31.0	0.0	3.1	57	0	6	3,710	5	371	3,706
168+50	50	30.9	0.0	3.1	57	0	6	3,768	5	377	3,763
169+00	50	31.4	0.0	3.1	58	0	6	3,825	5	383	3,821
169+50	50	29.7	0.0	3.0	57	0	6	3,882	5	388	3,877
169+87	37	31.4	0.0	3.1	42	0	4	3,924	5	392	3,919
170+00	13	36.8	0.0	3.7	16	0	2	3,940	5	394	3,936
170+50	50	56.4	0.0	5.6	86	0	9	4,026	5	403	4,022
171+00	50	49.2	0.0	4.9	98	0	10	4,124	5	412	4,120
171+50	50	50.5	0.0	5.1	92	0	9	4,217	5	422	4,212
172+00	50	61.6	0.0	6.2	104	0	10	4,320	5	432	4,316
172+50	50	65.9	0.0	6.6	118	0	12	4,438	5	444	4,434
				Column totals	4,438	5	444				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 6-1/CAT. 0080 (STA 20+40'BD'-28+36'BD'): STAGE 2 CONSTRUCTION - (UNIVERSITY BAY DRIVE NB RECONSTRUCTION)

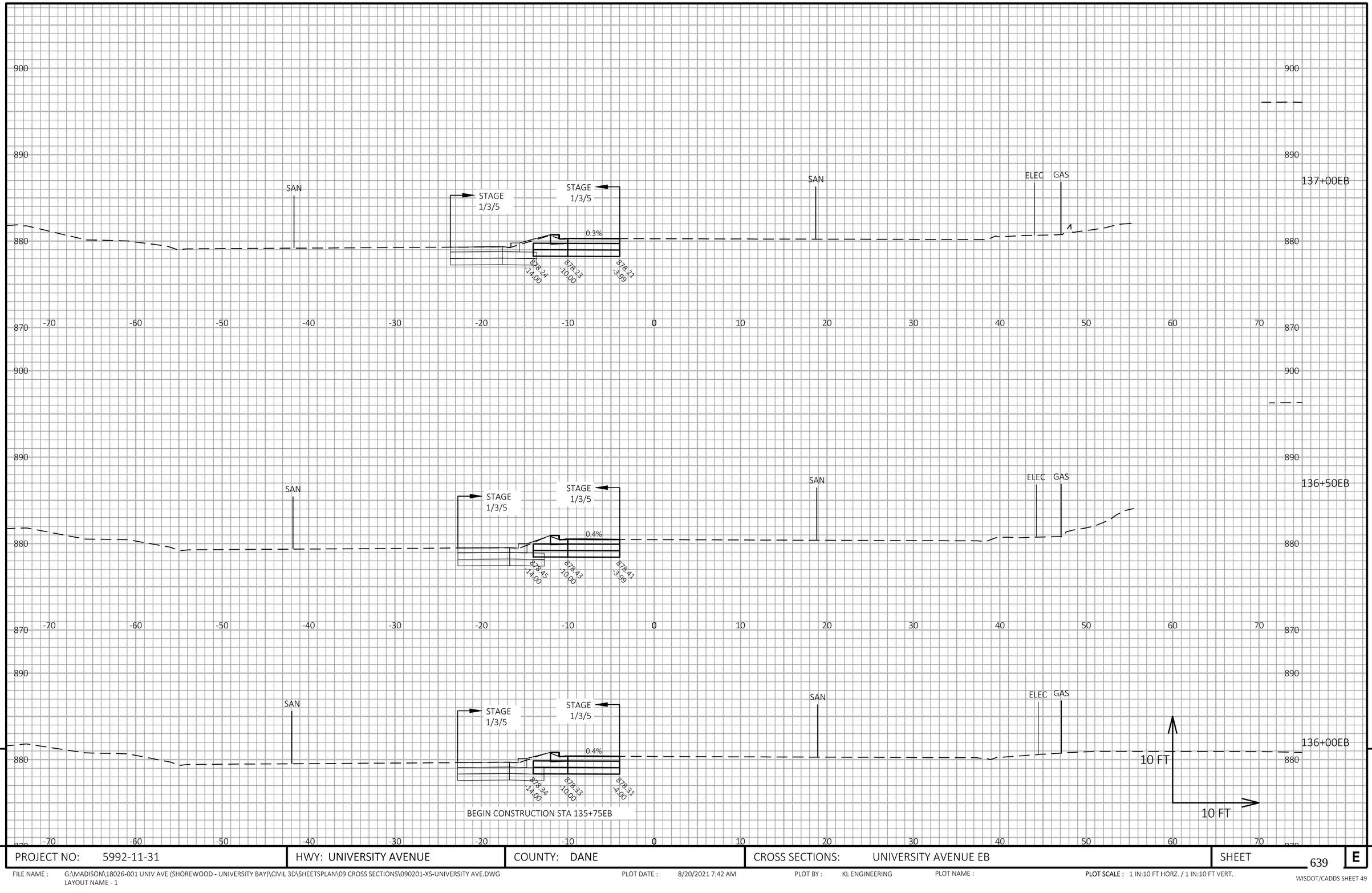
STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
20+40		126.6	0.0	12.7							
20+50	10	138.0	0.0	13.8	49	0	5	49	0	5	49
20+98	48	91.1	0.0	9.1	204	0	20	253	0	25	253
21+15		73.5	1.6	7.3							
21+50	35	98.7	0.0	9.9	112	1	11	365	1	36	364
22+00	50	191.6	0.0	19.2	269	0	27	633	1	63	632
22+50	50	153.5	1.2	15.4	320	1	32	953	2	95	951
23+00	50	117.5	0.0	11.8	251	1	25	1,204	3	120	1,201
23+50	50	71.0	0.0	7.1	175	0	17	1,378	3	138	1,375
24+00	50	53.3	0.0	5.3	115	0	12	1,494	3	149	1,490
24+33	33	31.7	0.0	3.2	52	0	5	1,545	3	155	1,542
24+50	17	36.8	0.0	3.7	22	0	2	1,567	3	157	1,564
25+00	50	28.9	0.0	2.9	61	0	6	1,628	3	163	1,625
25+50	50	13.8	0.3	1.4	40	0	4	1,668	4	167	1,664
26+00	50	11.9	1.9	1.2	24	2	2	1,691	6	169	1,686
26+50	50	12.0	0.0	1.2	22	2	2	1,714	7	171	1,706
27+00	50	11.9	0.6	1.2	22	1	2	1,736	8	174	1,728
27+50	50	18.4	0.0	1.8	28	1	3	1,764	8	176	1,755
28+00	50	9.0	0.0	0.9	25	0	3	1,789	8	179	1,781
28+36	36	4.2	0.0	0.4	9	0	1	1,798	8	180	1,789
				Column totals	1,798	8	180				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)

DIVISION 7-1/CAT. 0080 (STA 20+40'BD'-23+16'BD'): STAGE 2A CONSTRUCTION - (UNIVERSITY BAY DRIVE SB RECONSTRUCTION)

STATION	Distance	Area			Incremental Volume			Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Fill (SF)	EBS (SF)	Cut Note 1 (CY)	Fill Note 2 (CY)	EBS Note 3 (CY)	Cut 1.00 Note 4	Fill 1.00 Note 5	EBS 1.00	Note 6
20+40		221.1	0.0	22.1							
20+50	10	175.6	0.0	17.6	73	0	7	73	0	7	73
20+98	48	88.9	0.0	8.9	235	0	24	308	0	31	308
21+15		60.4	0.0	6.0							
21+50	35	59.2	0.0	5.9	78	0	8	386	0	39	386
22+00	50	60.6	0.0	6.1	111	0	11	497	0	50	497
22+50	50	40.7	0.0	4.1	94	0	9	591	0	59	591
23+00	50	50.8	0.0	5.1	85	0	8	676	0	68	676
23+16	16	51.1	0.0	5.1	30	0	3	706	0	71	706
				Column totals	706	0	71				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - EBS:
- EBS volumes are estimated using 10.0% of the cut volume
4 - Cut: Cut includes Salvaged/Unusable Pavement Material
5 - Fill: Does not include Unusable Pavement Excavation volume
6 - Mass Ordinate: [Cut - Fill] (Not Fill Factor Adjusted)



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 639 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 1

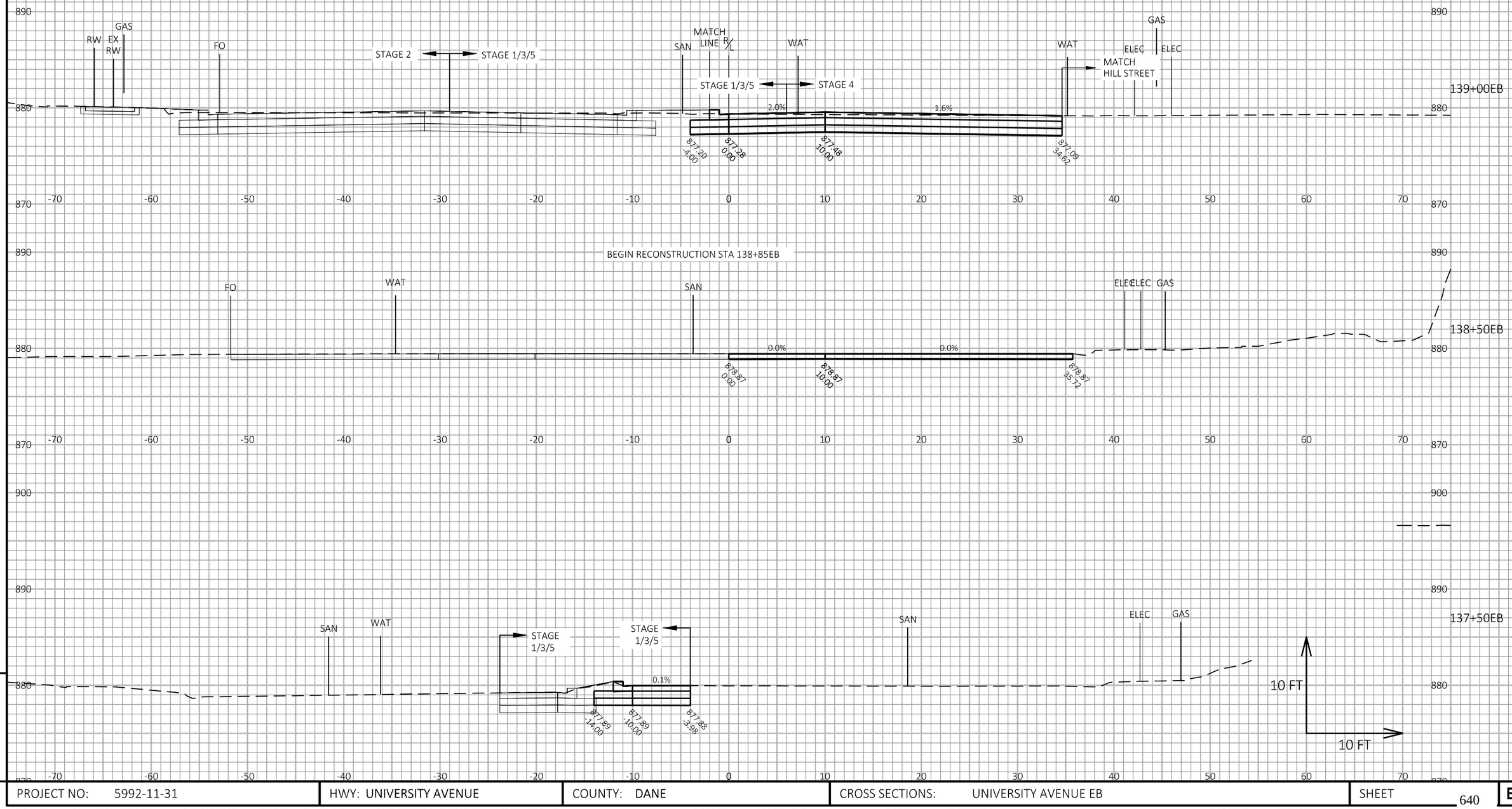
PLOT DATE : 8/20/2021 7:42 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

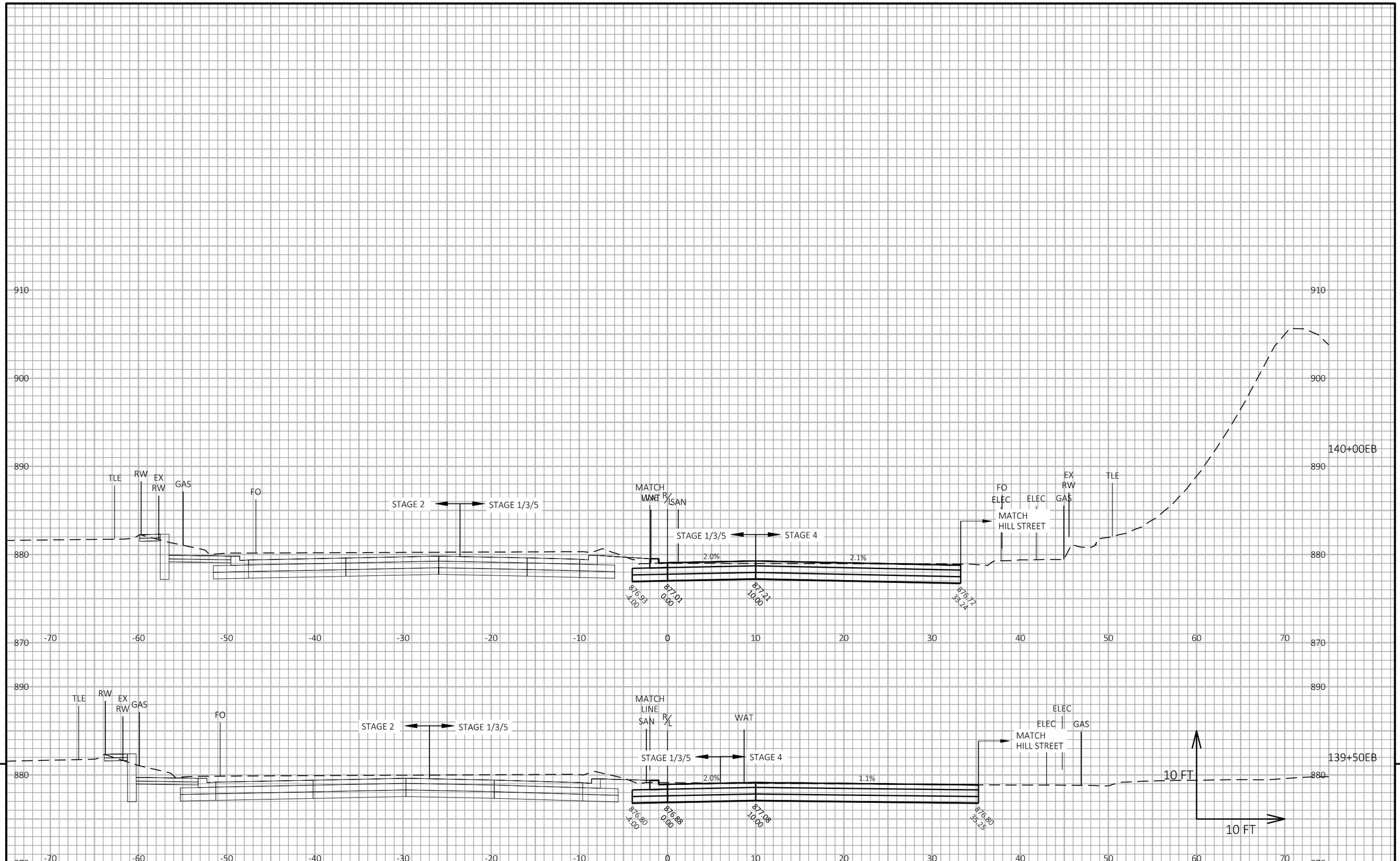


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 640 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 2

PLOT DATE : 8/20/2021 7:42 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 641	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 3

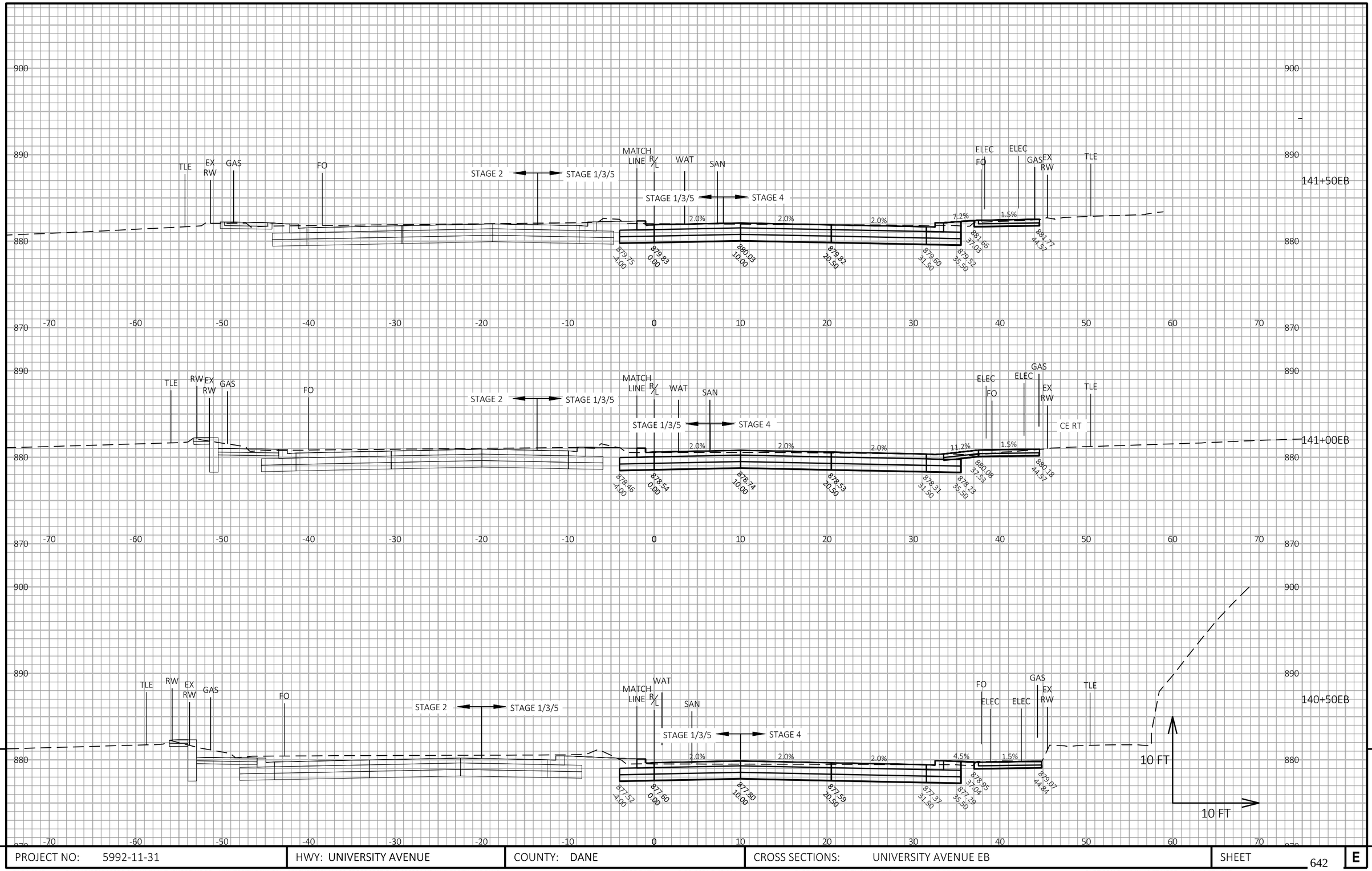
PLOT DATE : 8/20/2021 7:42 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 642	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 4

PLOT DATE : 8/20/2021 7:42 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

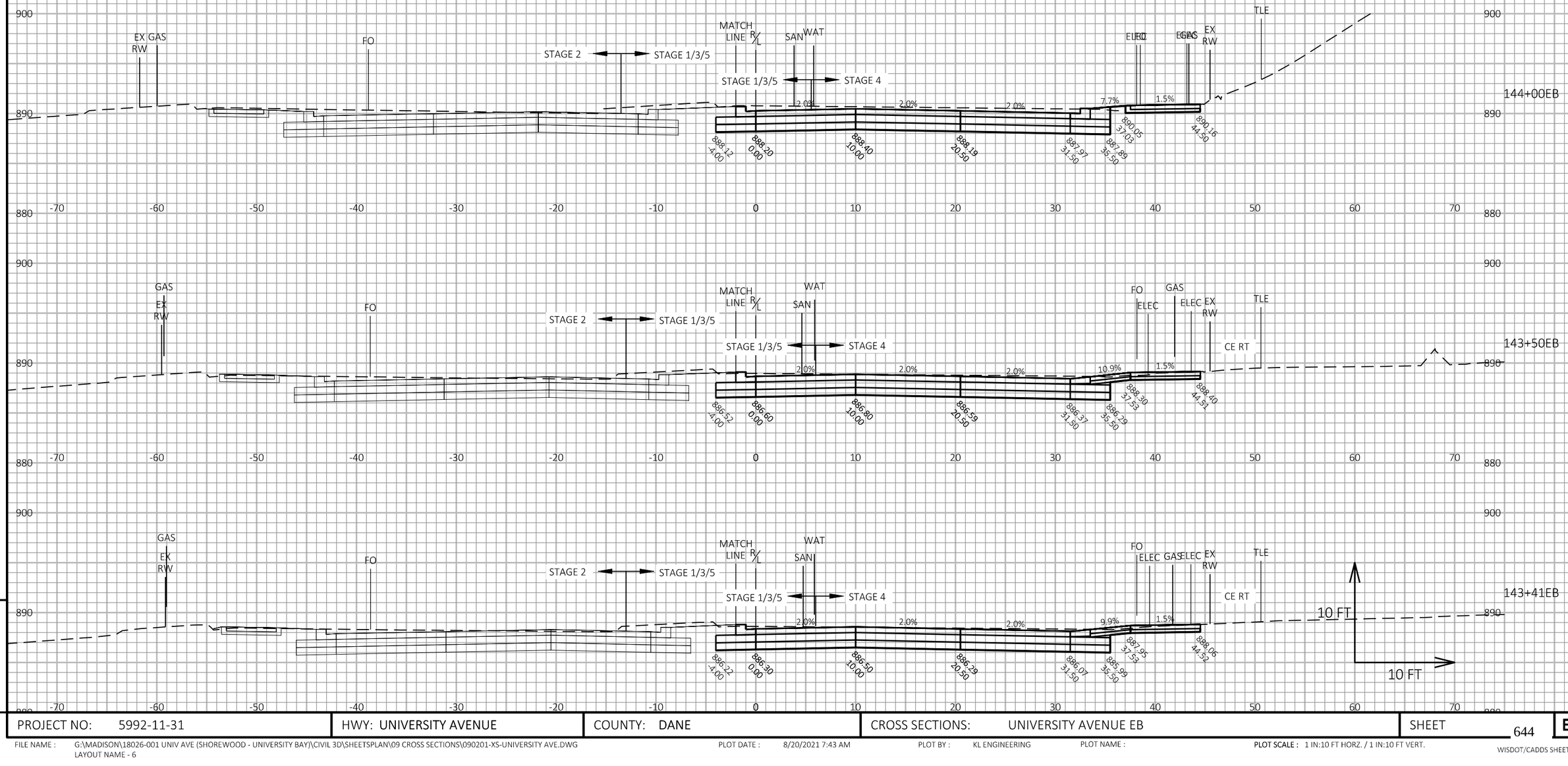
WISDOT/CADDS SHEET 49

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 643	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 5

PLOT DATE : 8/20/2021 7:42 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 644	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 6

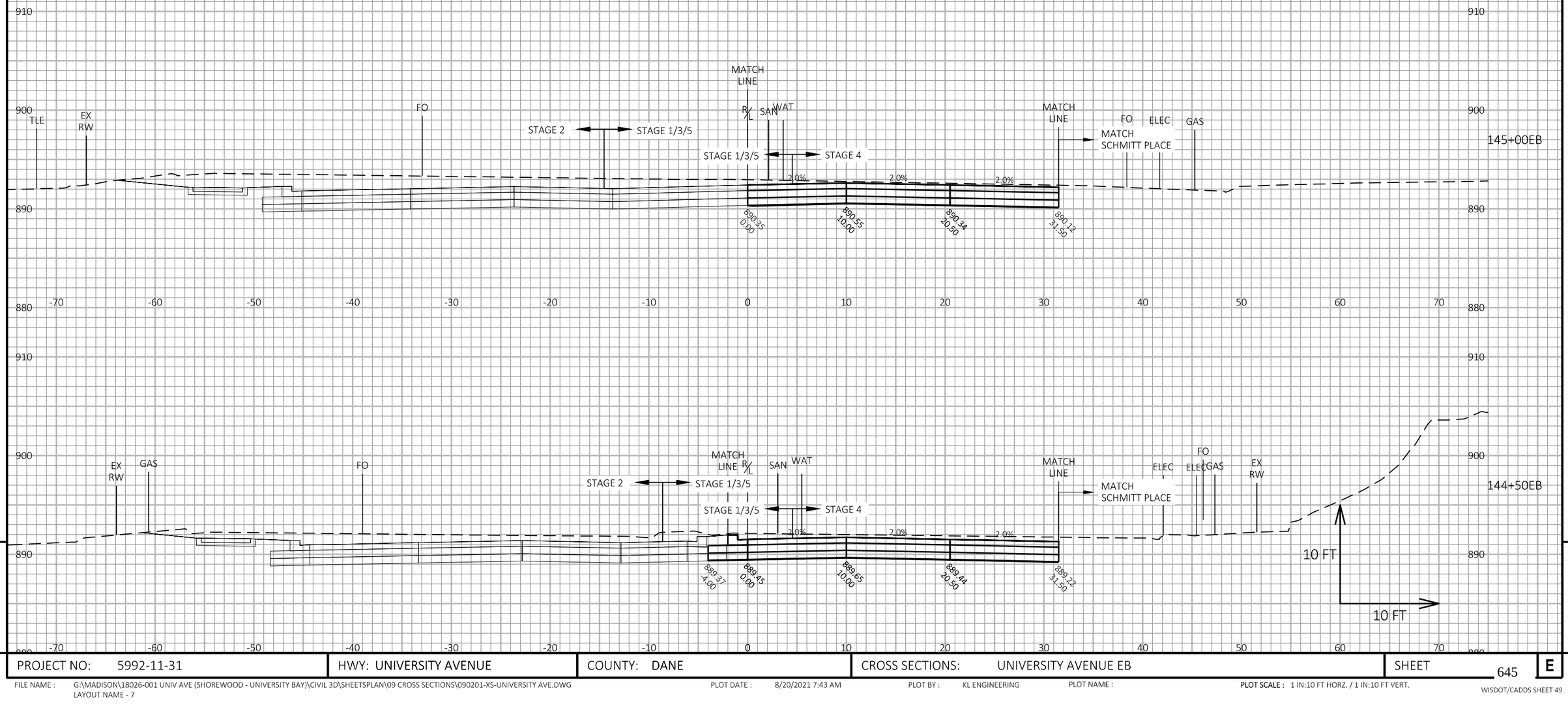
PLOT DATE : 8/20/2021 7:43 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

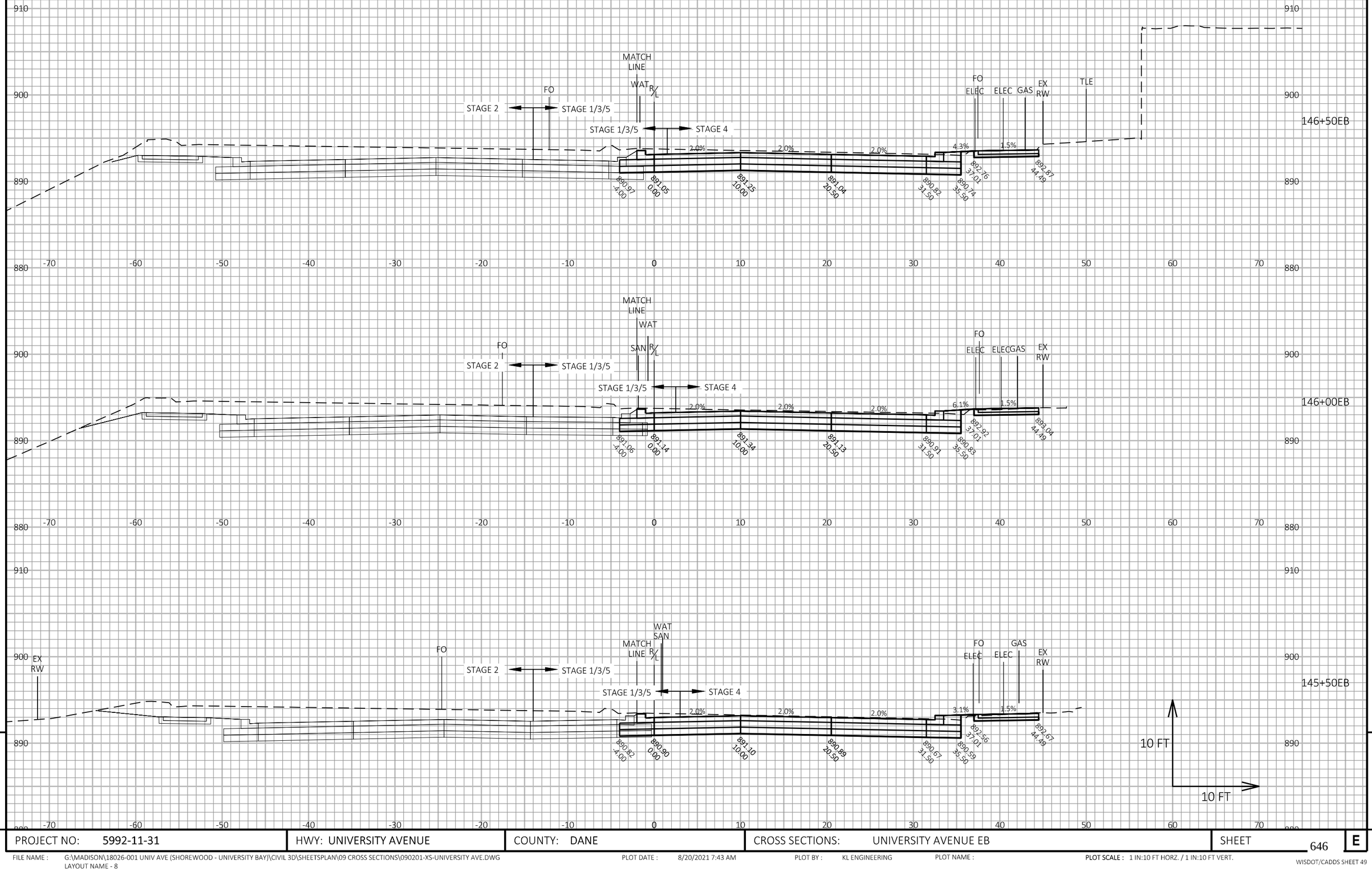
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 645	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 7

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

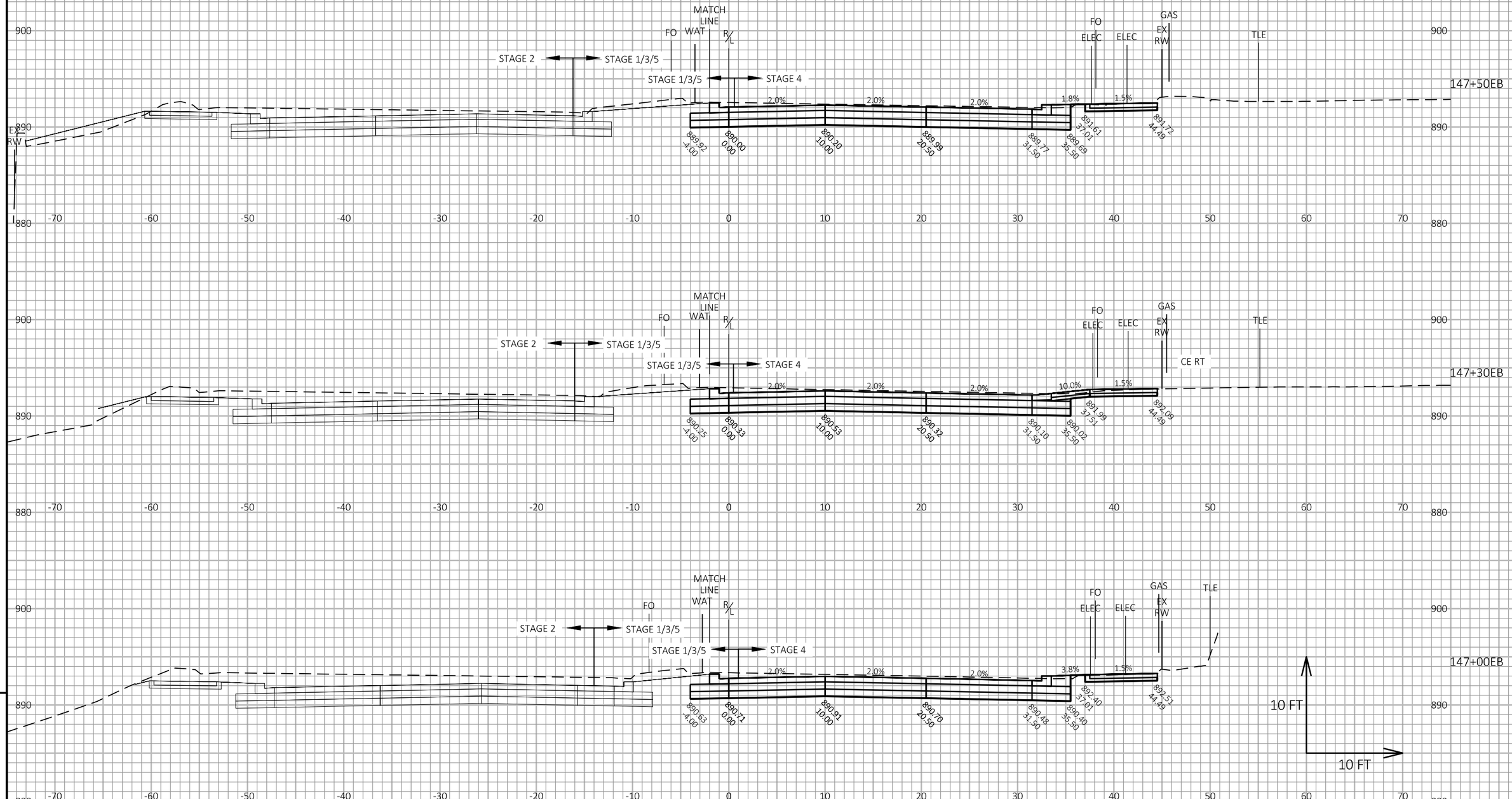


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 646	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 8

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 647	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 9

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

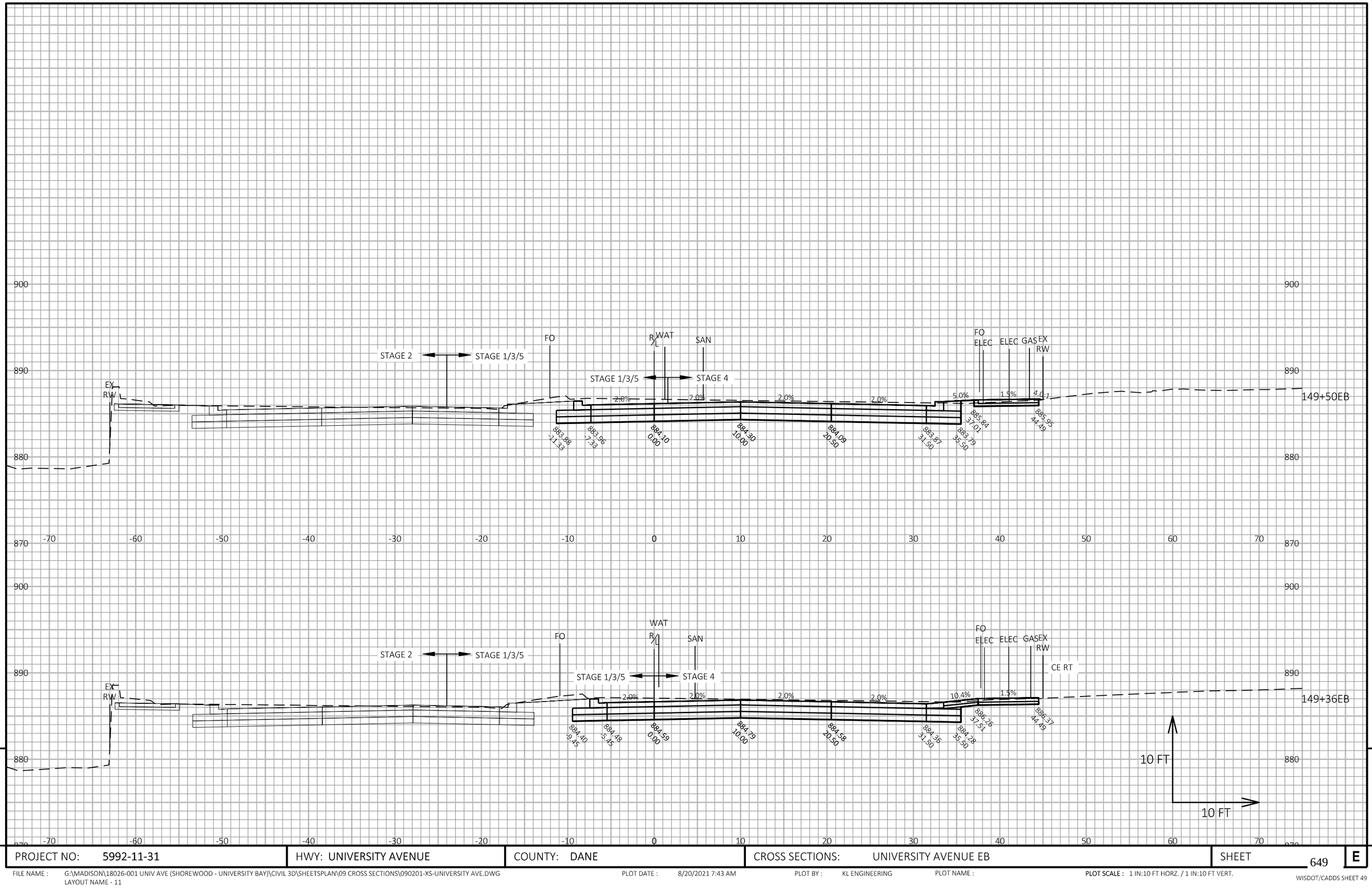
WISDOT/CADDS SHEET 49

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 648 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 10

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

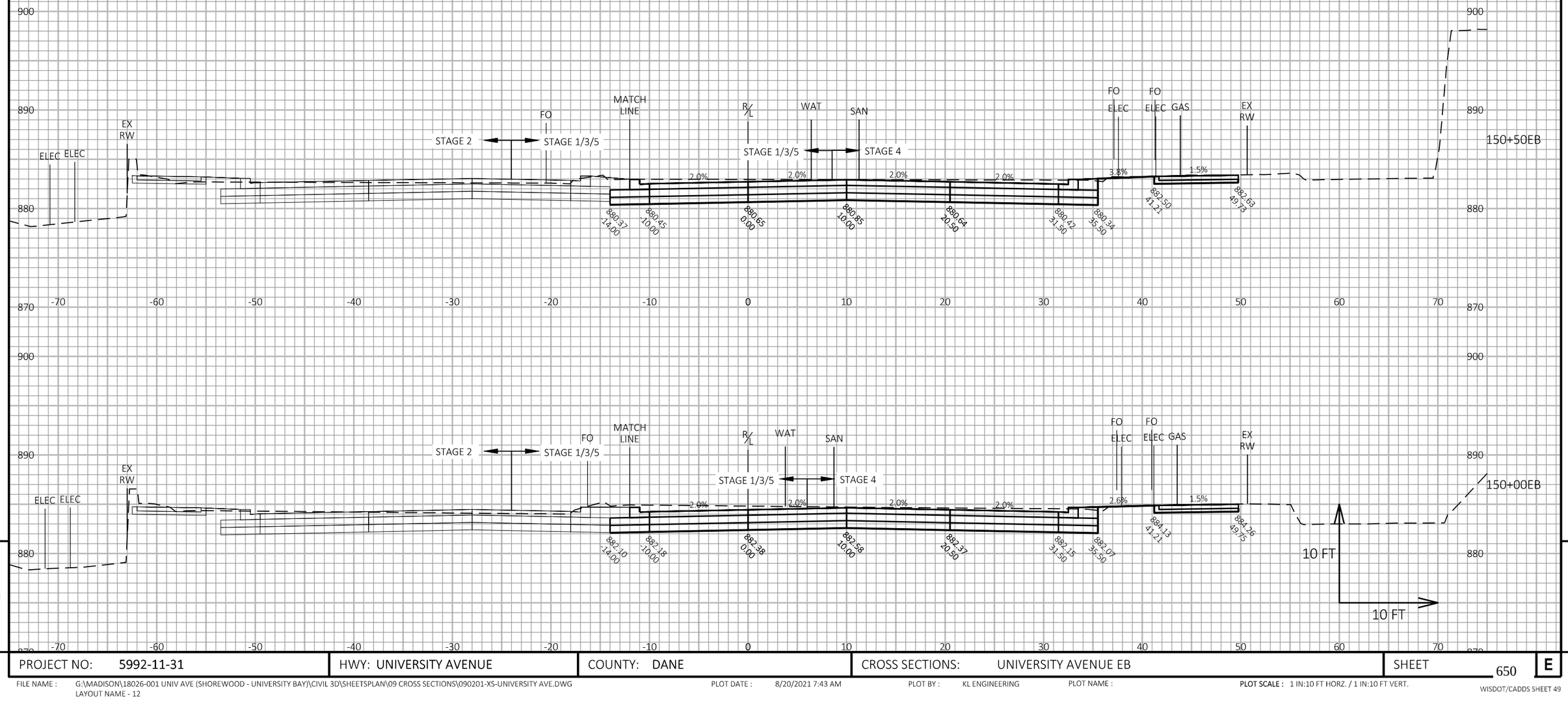


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 649	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 11

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

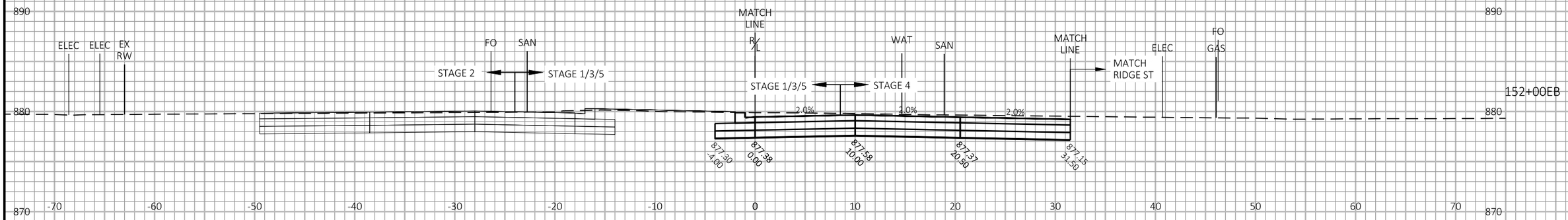
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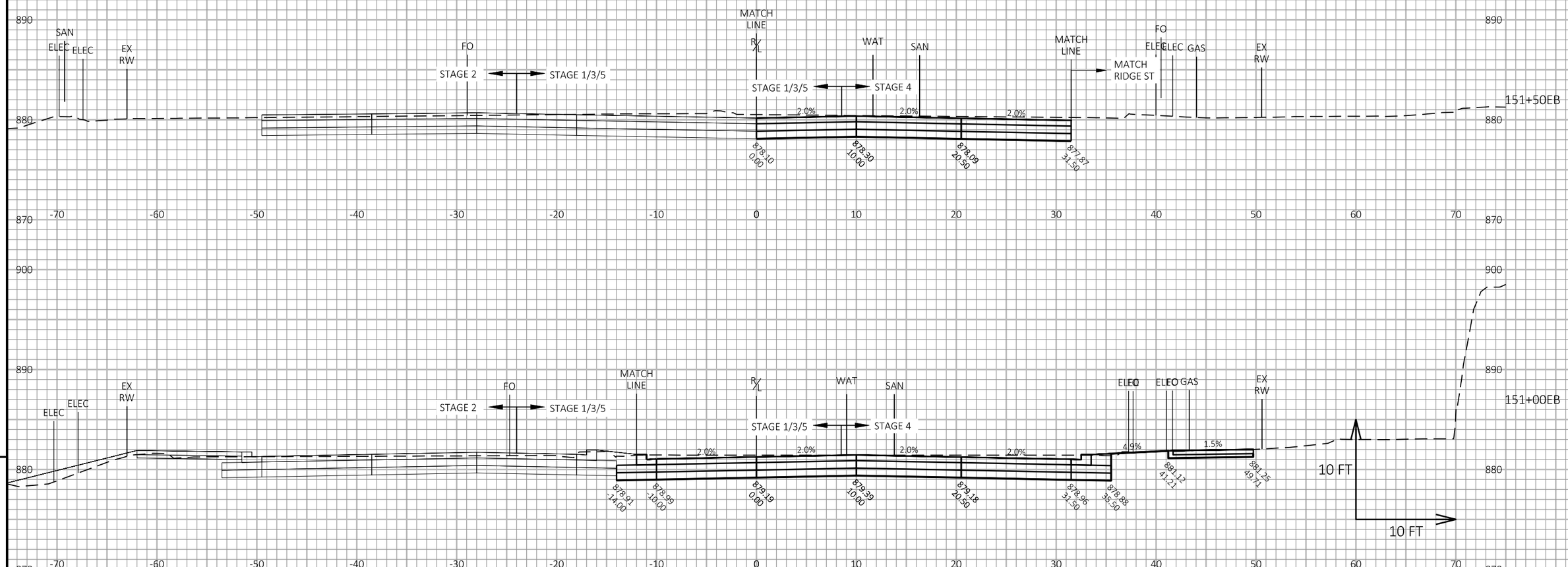
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 650	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 12

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 651	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 13

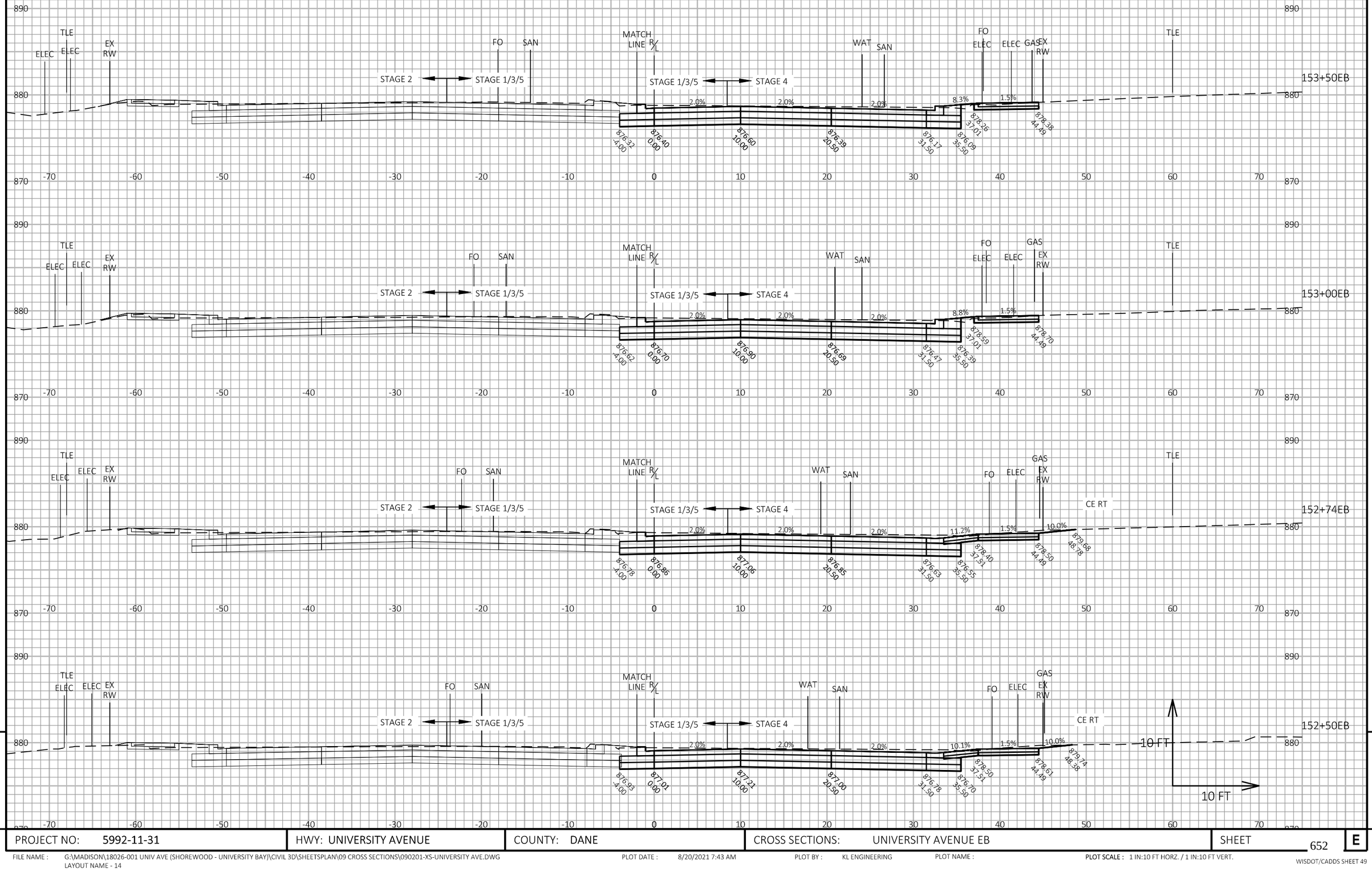
PLOT DATE : 8/20/2021 7:43 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 652 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 14

PLOT DATE : 8/20/2021 7:43 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 653	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 15

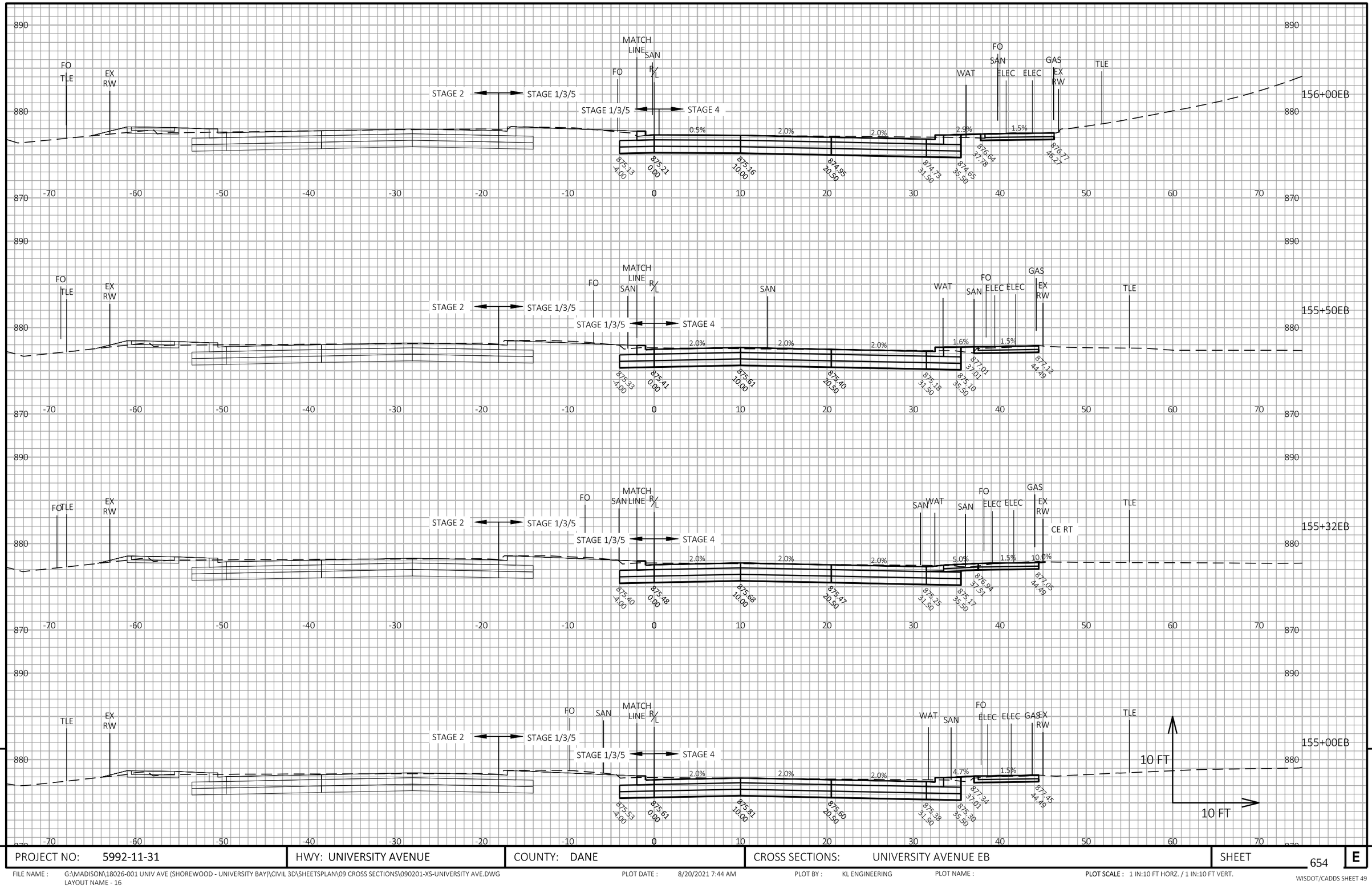
PLOT DATE : 8/20/2021 7:44 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 654	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 16

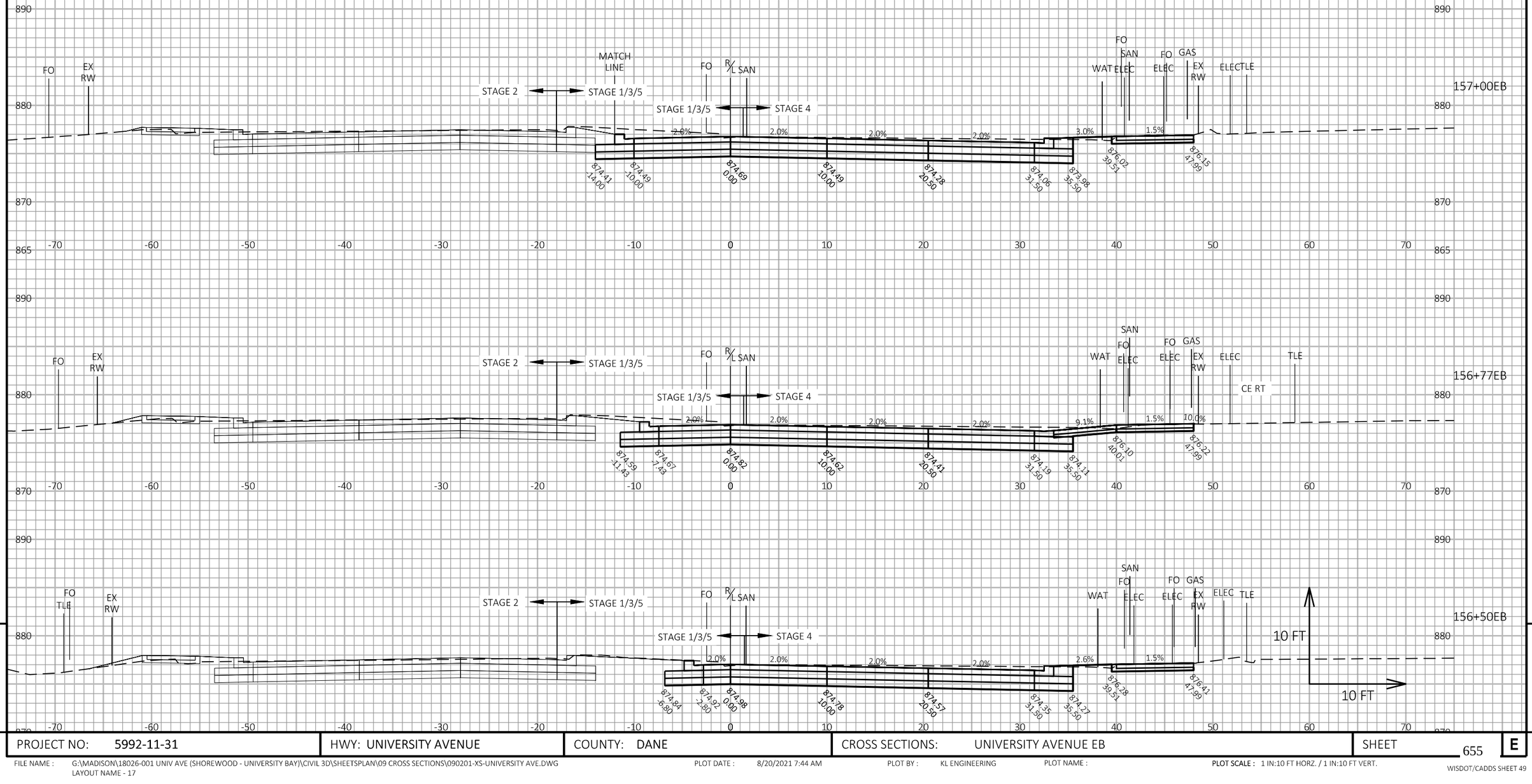
PLOT DATE : 8/20/2021 7:44 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 655 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 17

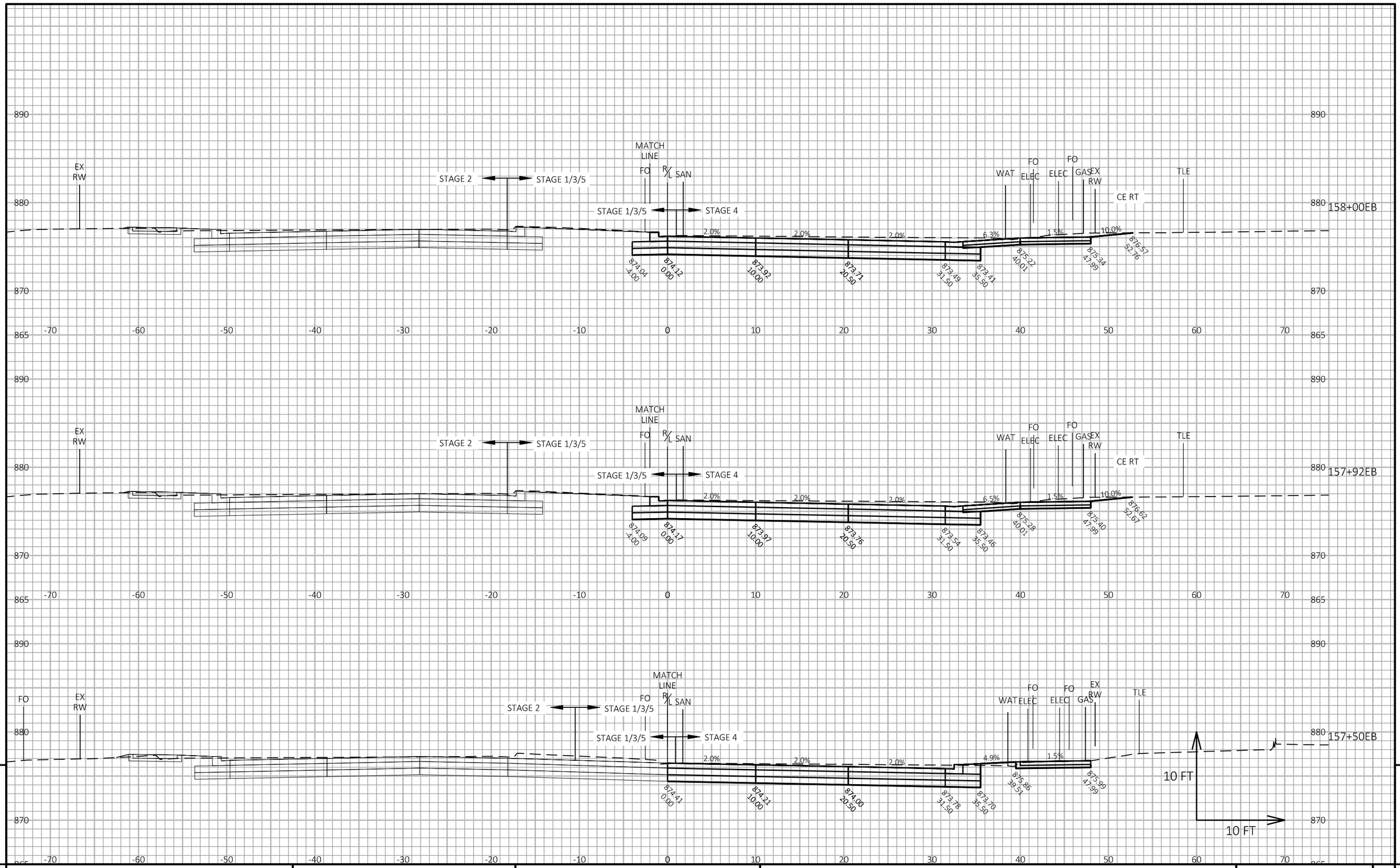
PLOT DATE : 8/20/2021 7:44 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

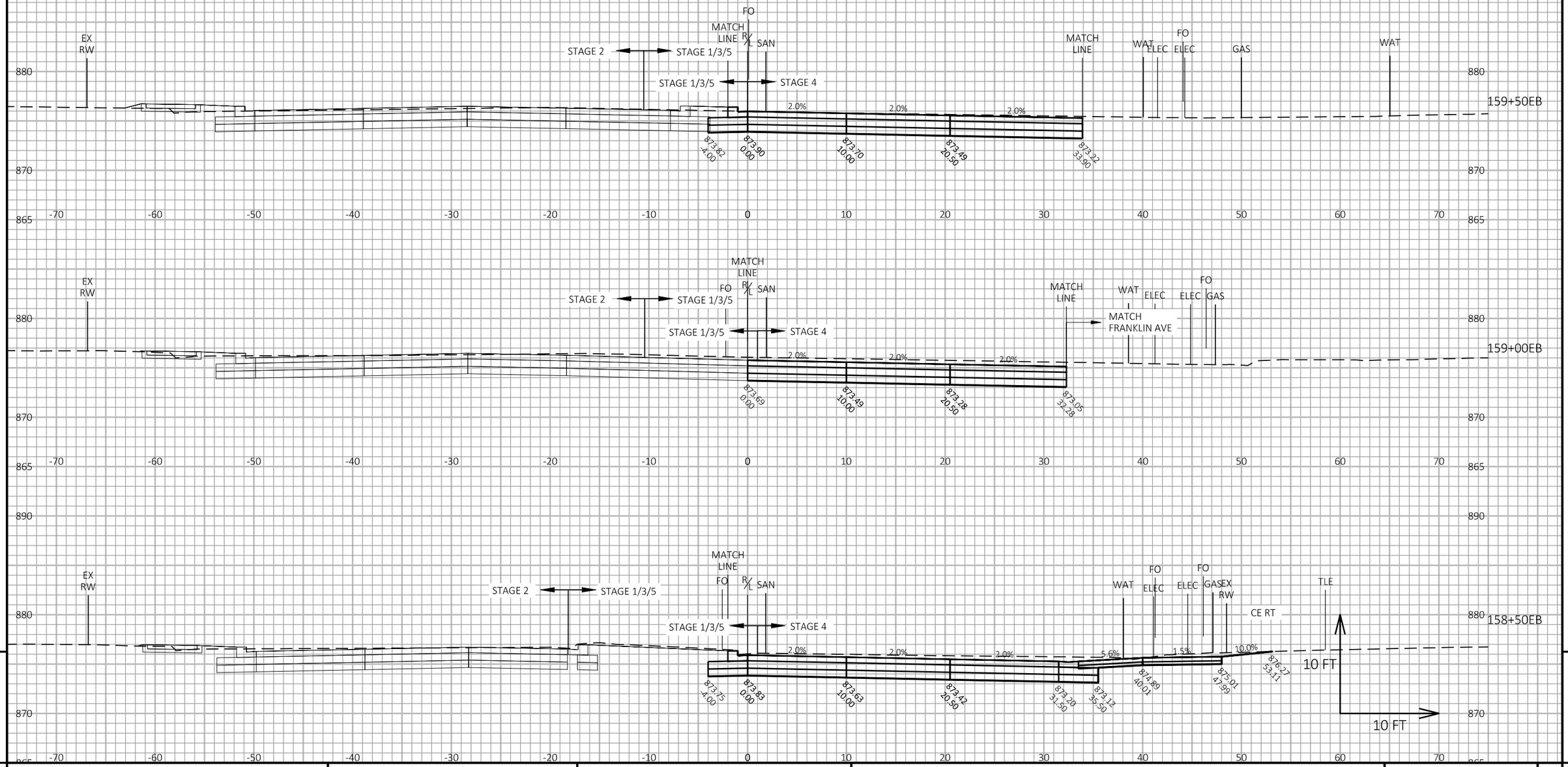
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 656	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 18

PLOT DATE : 8/20/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

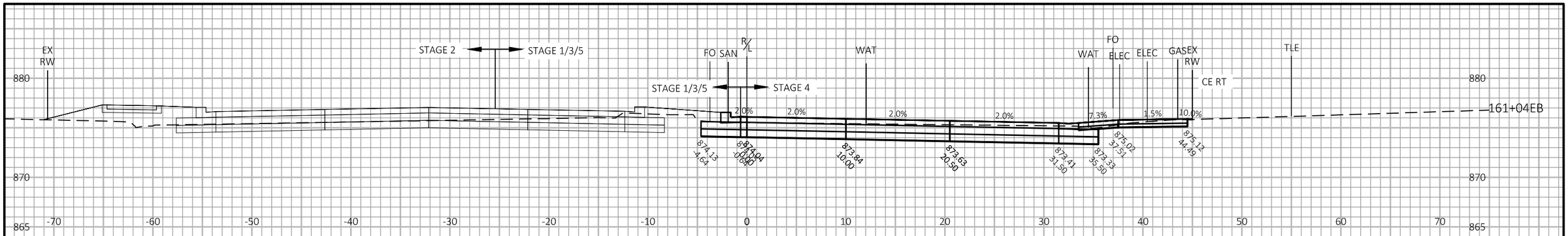
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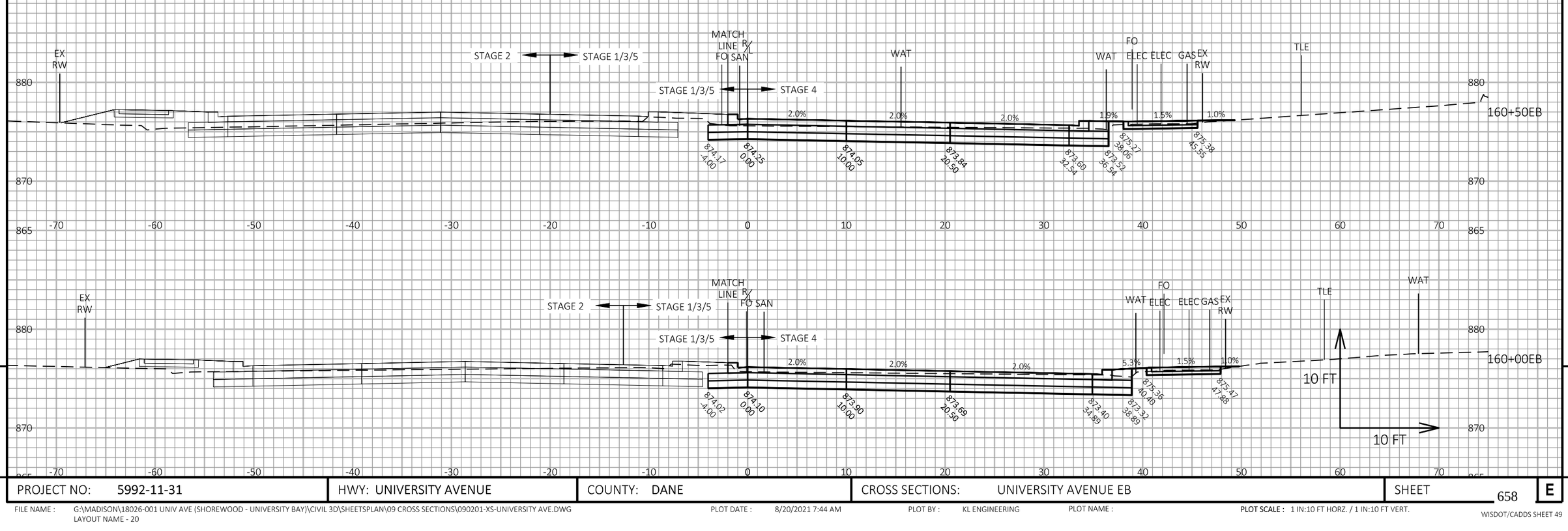
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 657	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 19

PLOT DATE : 8/20/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 658	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 20

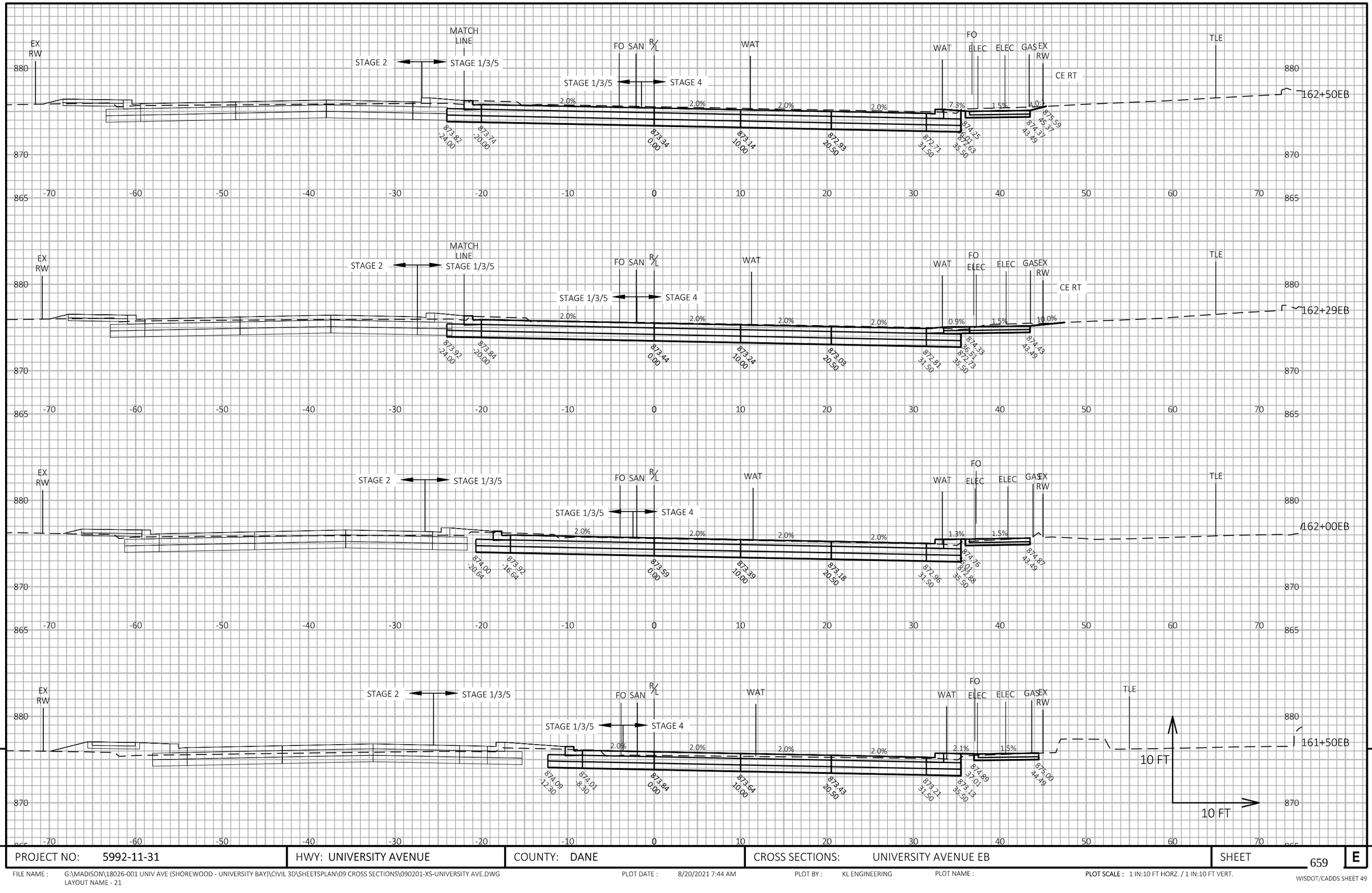
PLOT DATE : 8/20/2021 7:44 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 659	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 21

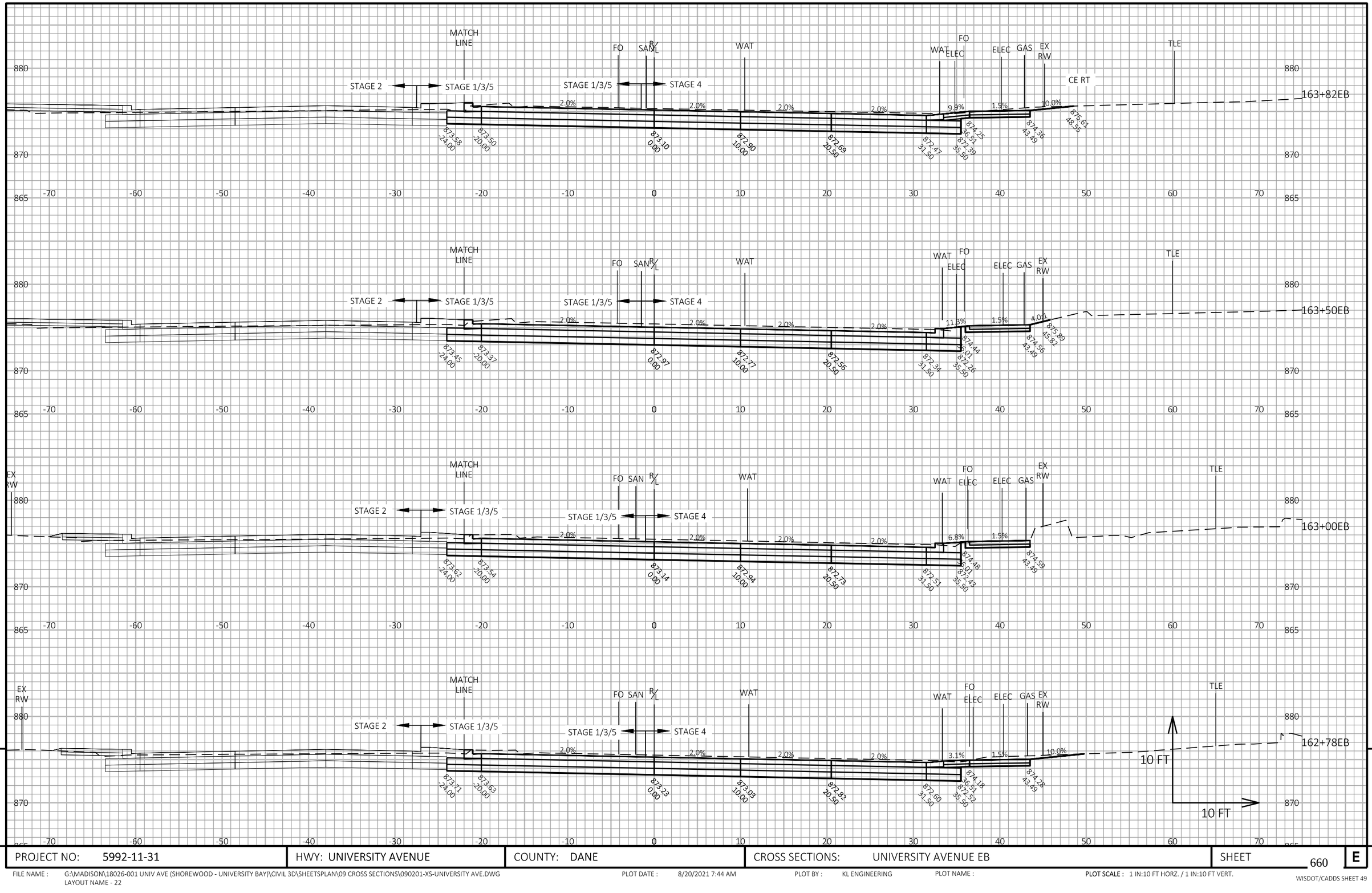
PLOT DATE : 8/20/2021 7:44 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

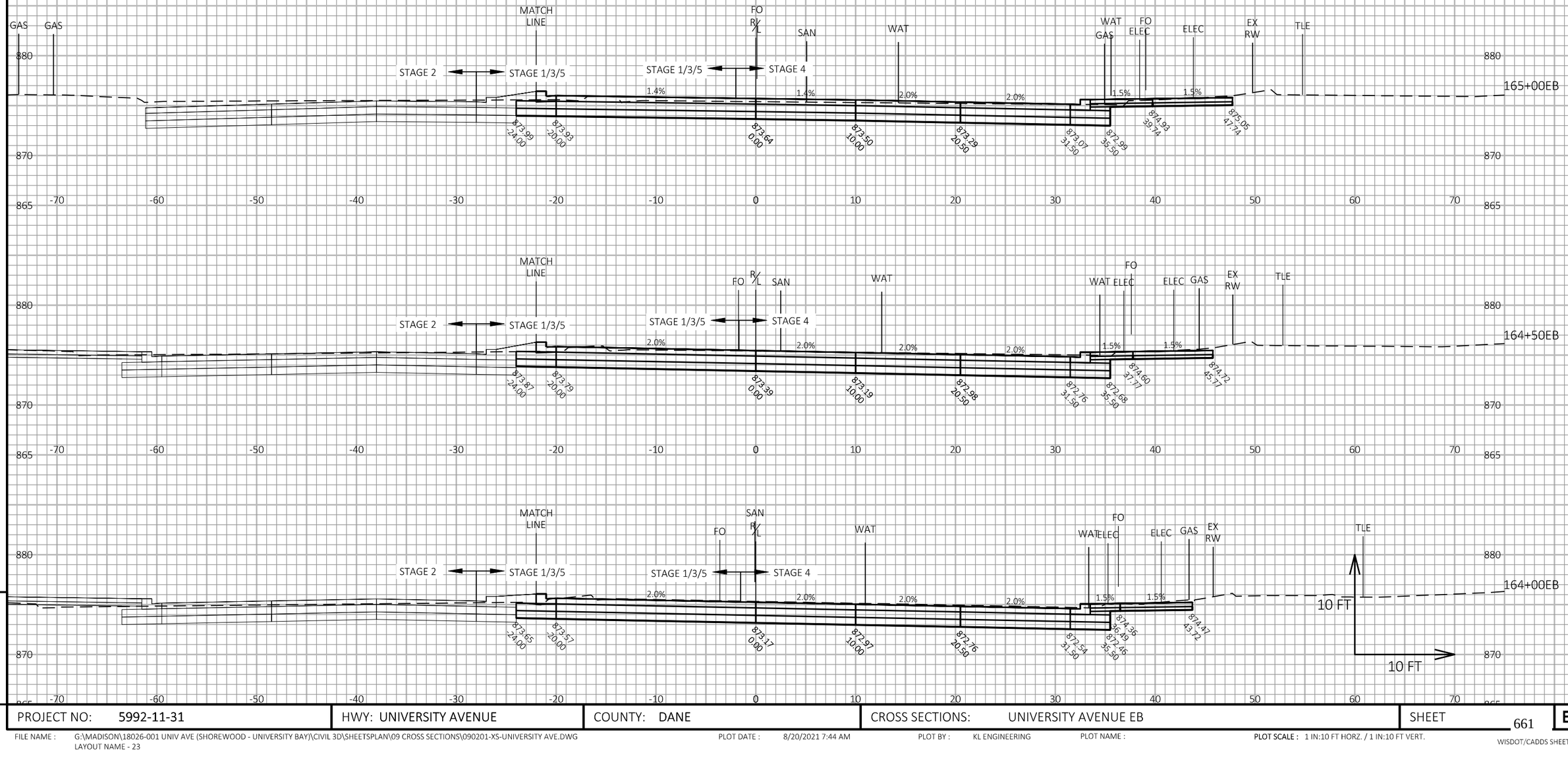
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 660	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 22

PLOT DATE : 8/20/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 661	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 23

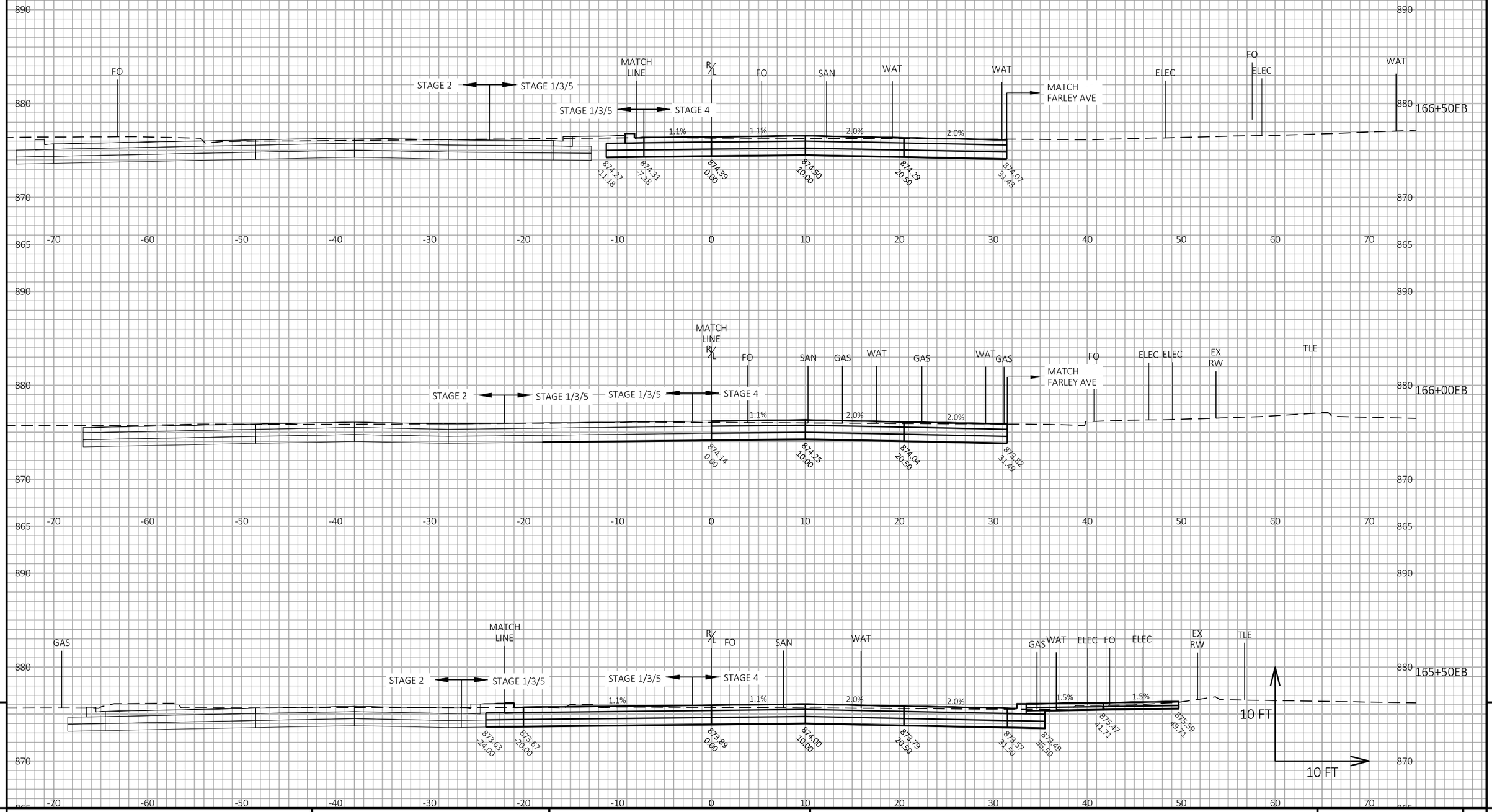
PLOT DATE : 8/20/2021 7:44 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

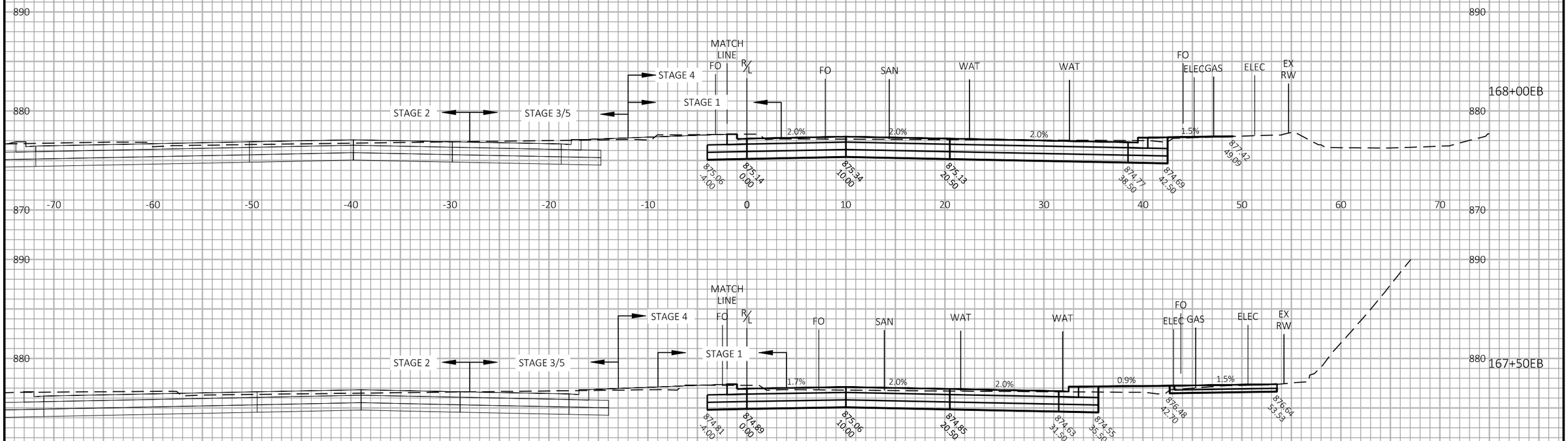
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 662	E

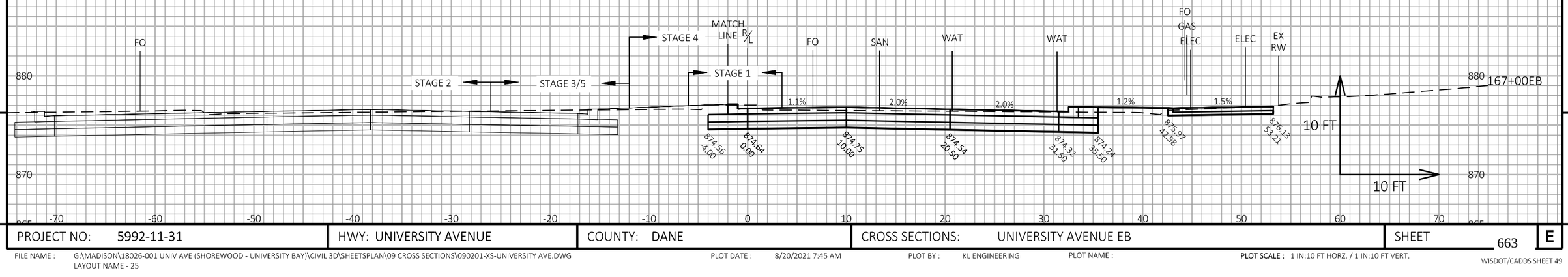
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 24

PLOT DATE : 8/20/2021 7:45 AM PLOT BY : KL ENGINEERING PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 663	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 25

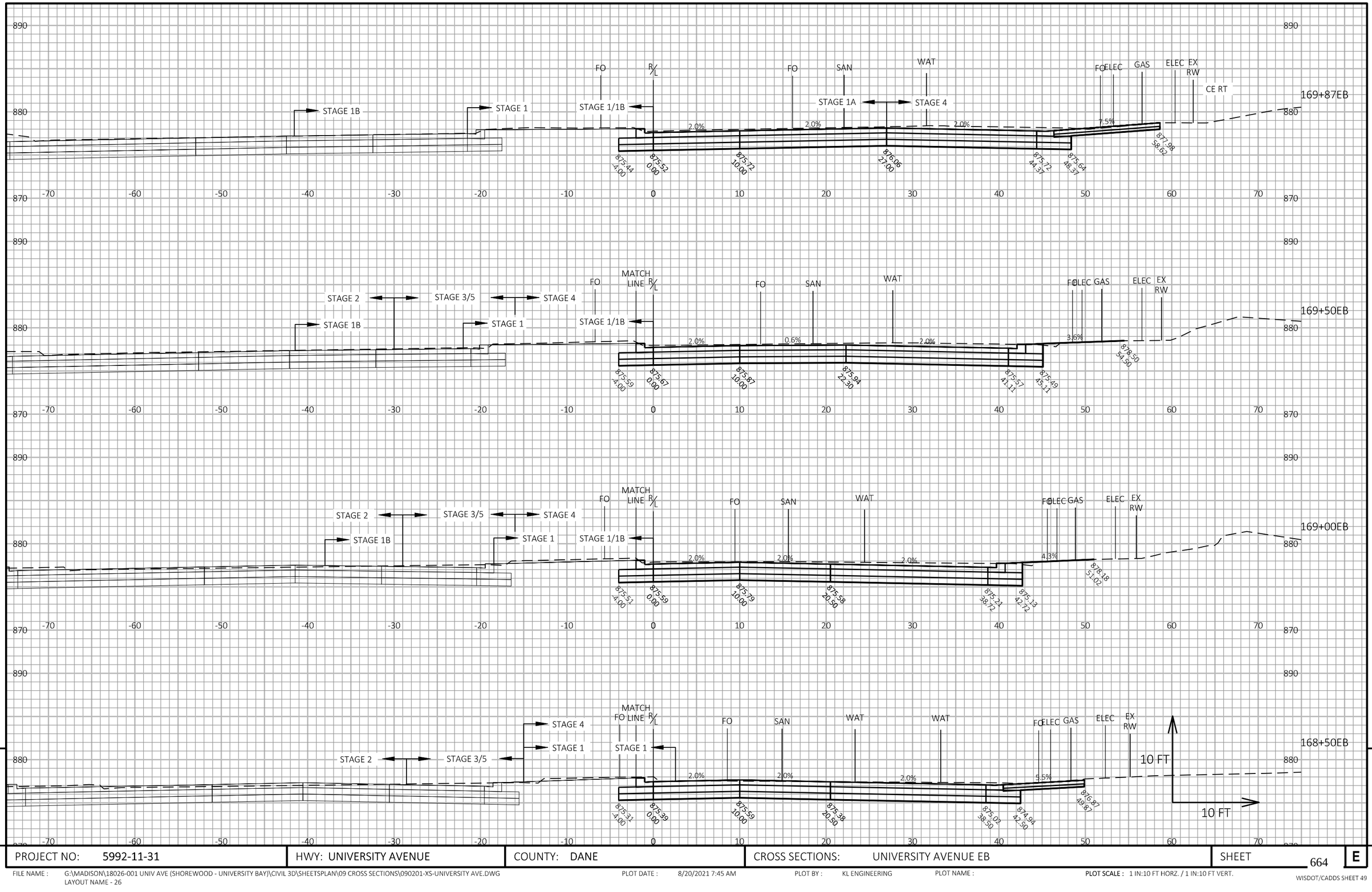
PLOT DATE : 8/20/2021 7:45 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

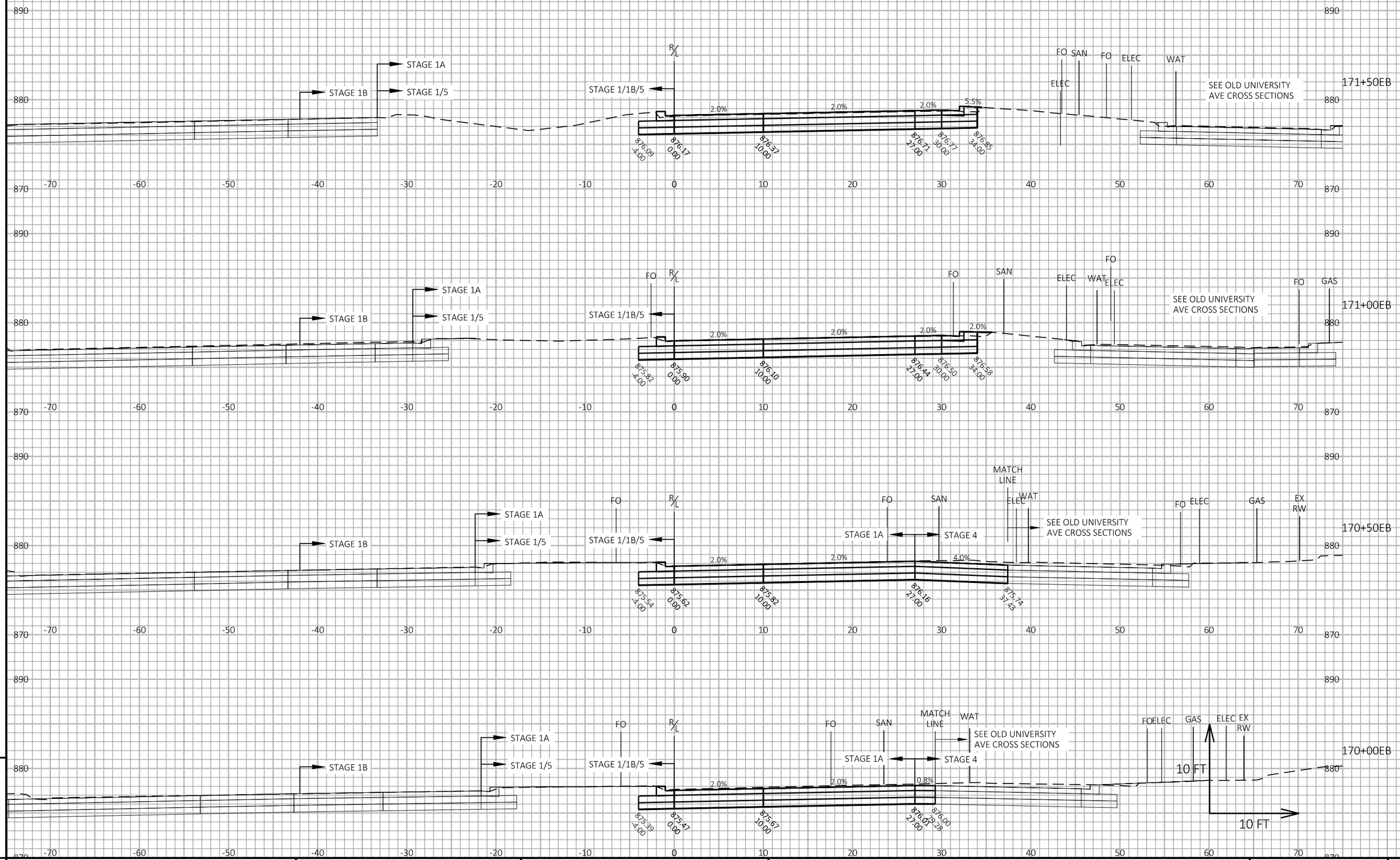
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 664	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 26

PLOT DATE : 8/20/2021 7:45 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

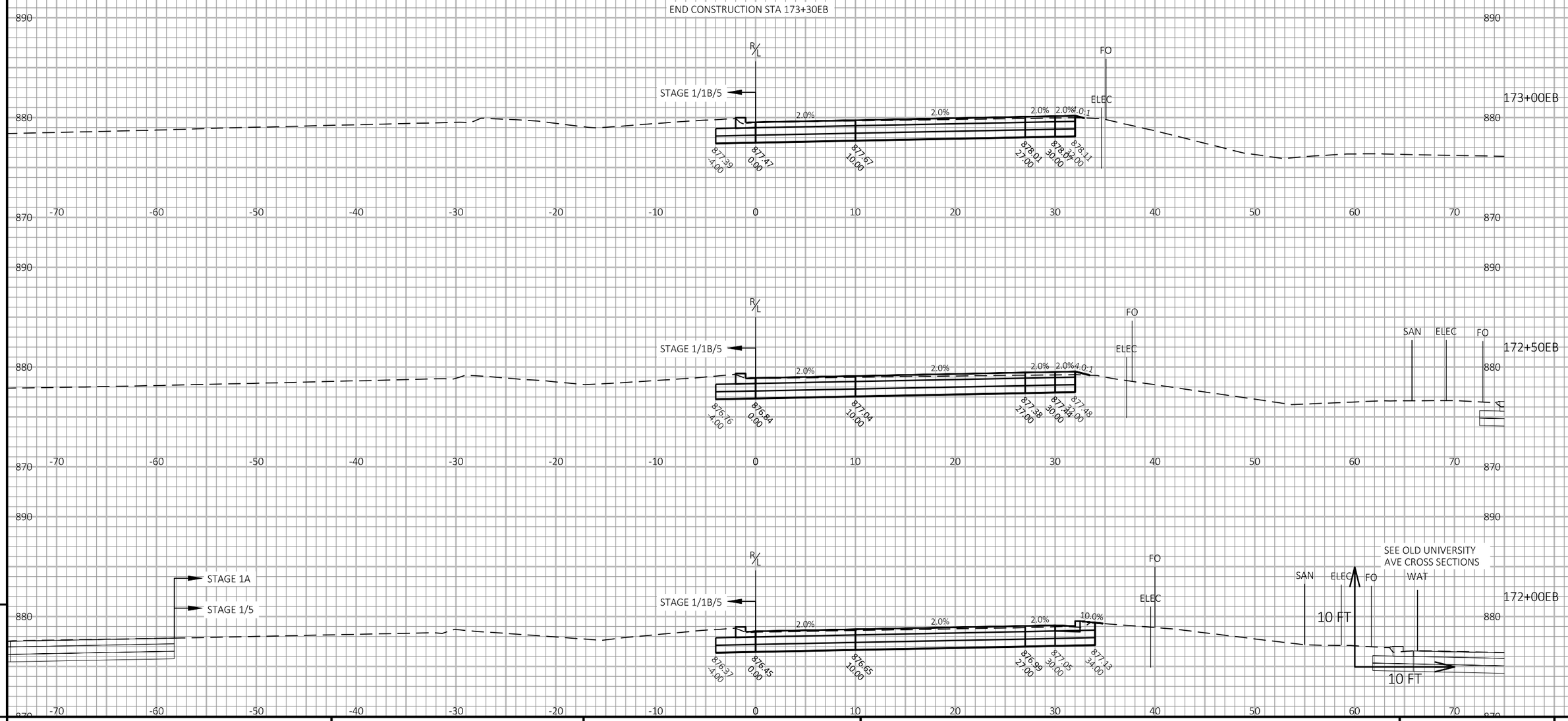
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 665	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 27

PLOT DATE : 8/20/2021 7:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA 173+30EB

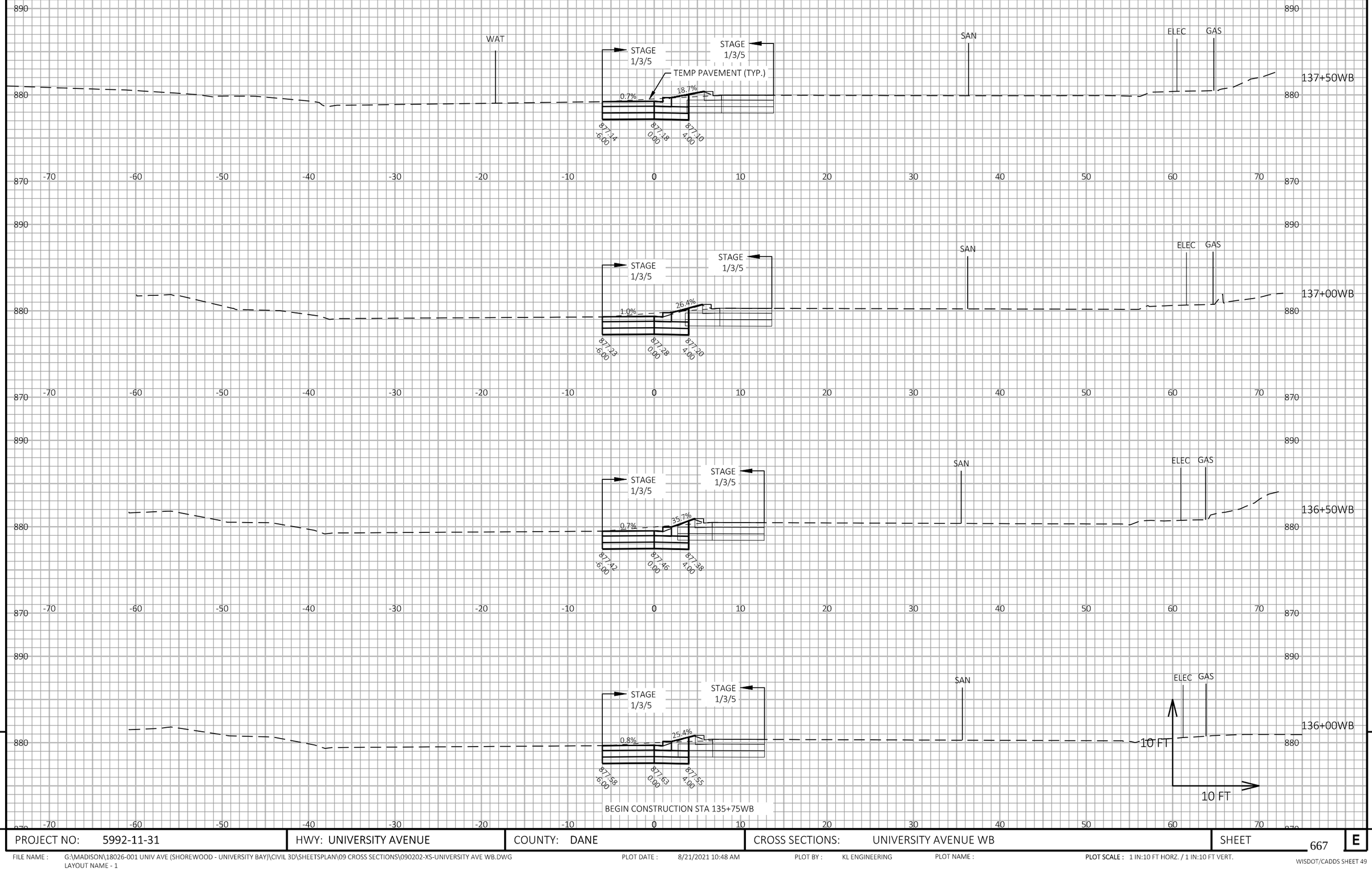


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE EB	SHEET 666	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090201-XS-UNIVERSITY AVE.DWG
LAYOUT NAME - 28

PLOT DATE : 8/20/2021 7:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

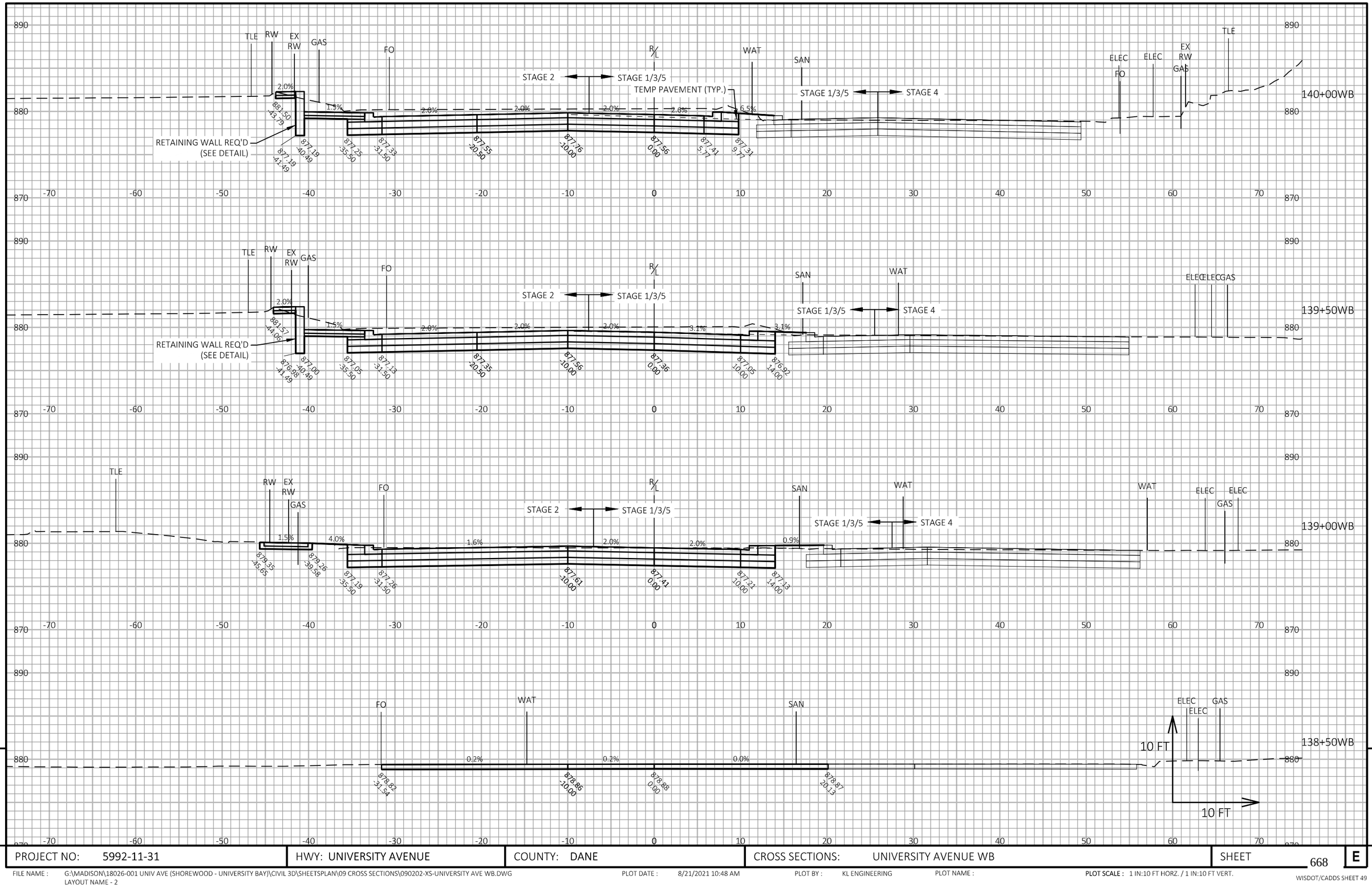
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 667	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 1

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

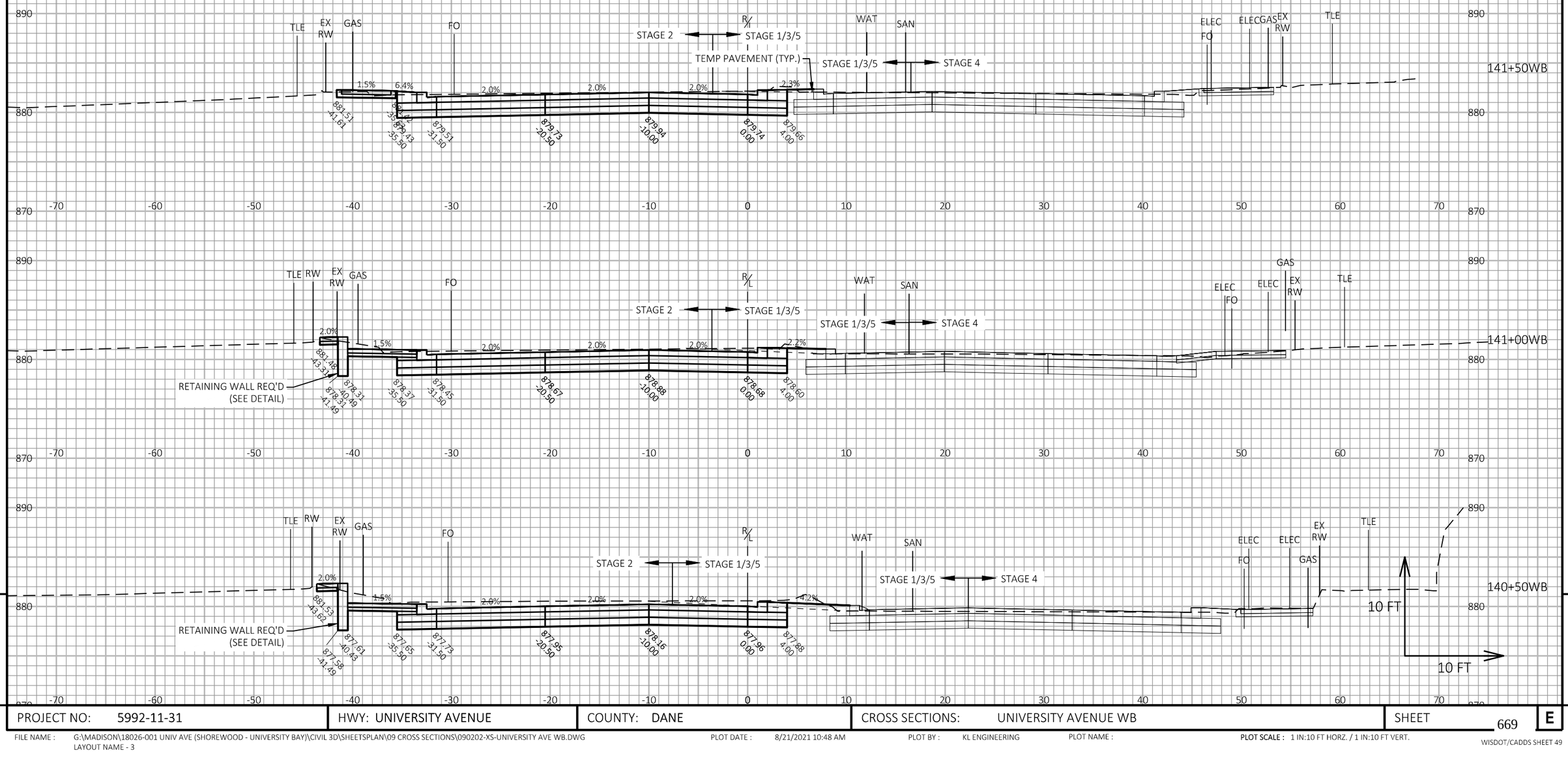


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 668	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 2

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

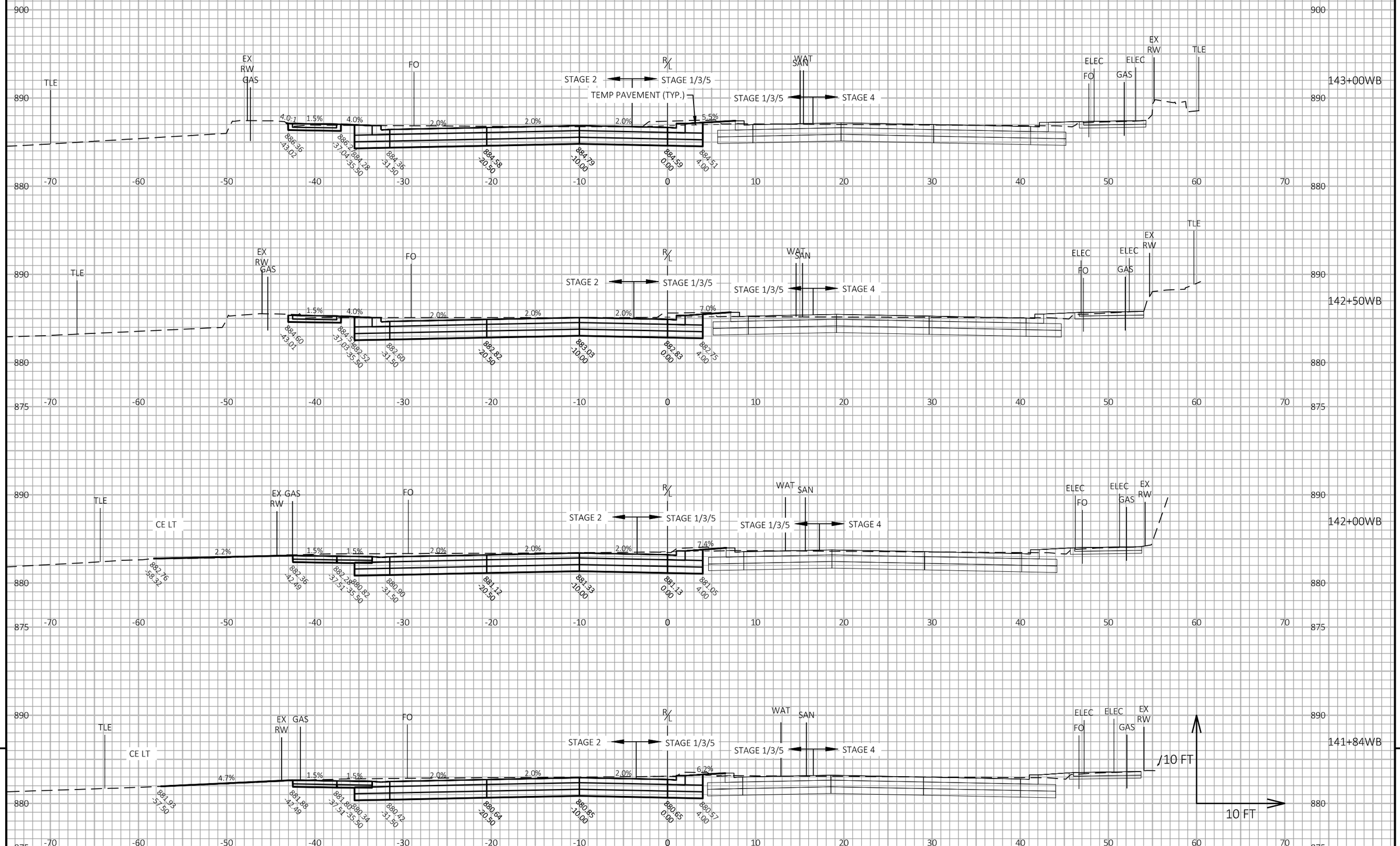


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 669	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 3

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

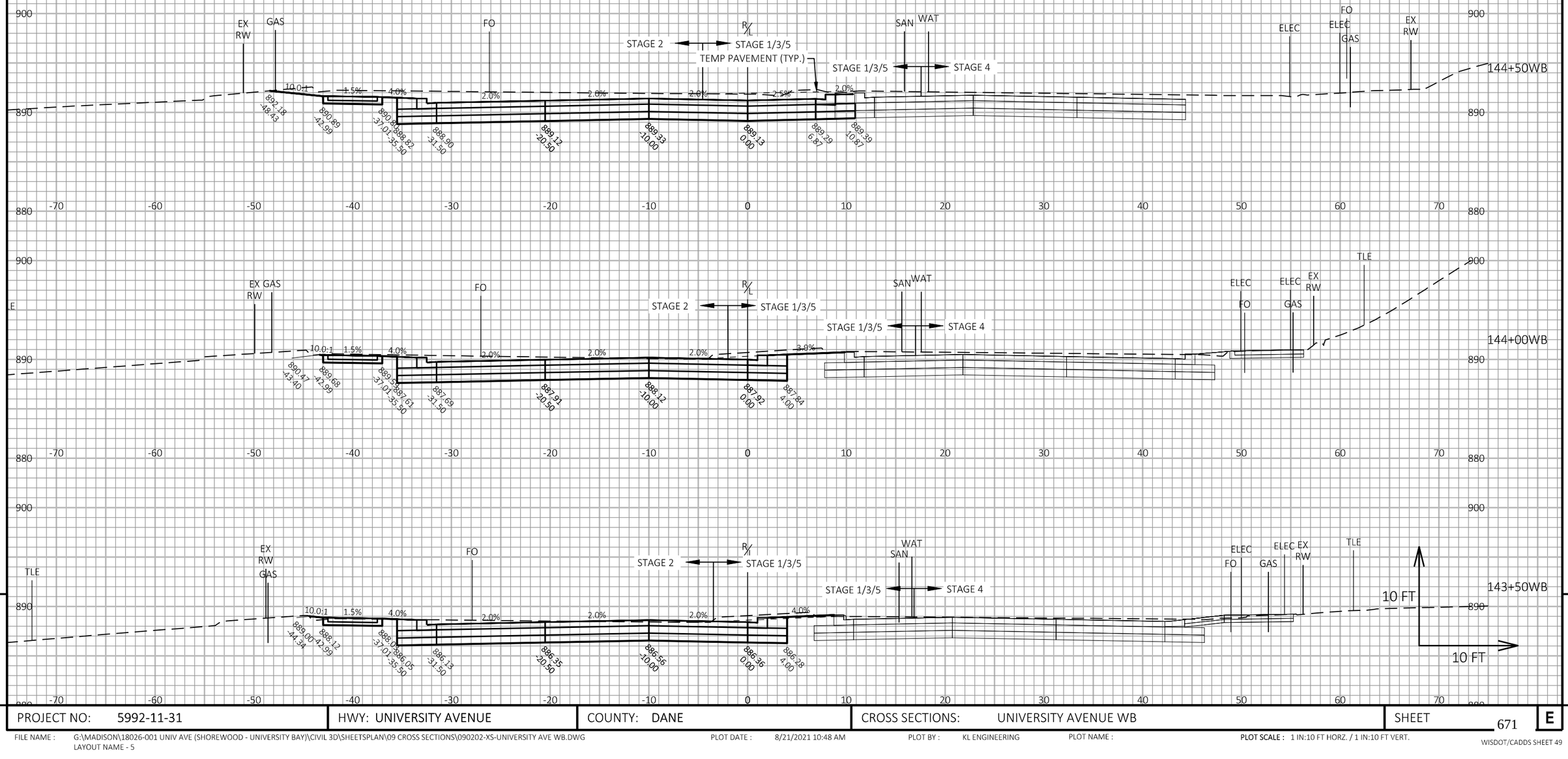
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 670	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 4

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

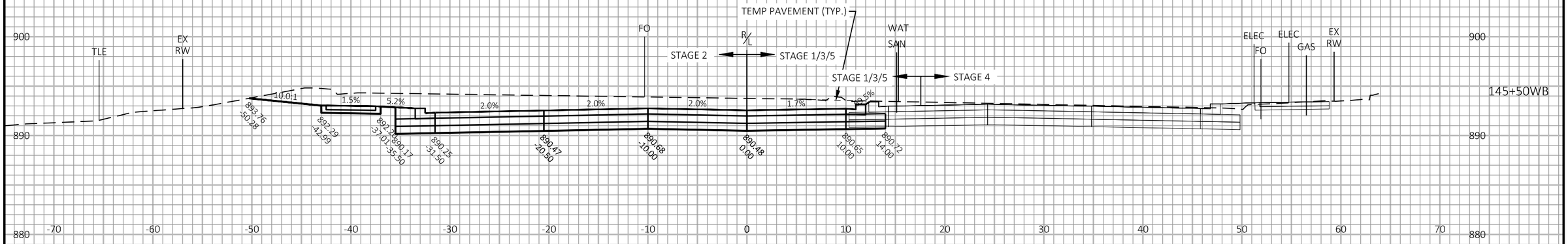
9

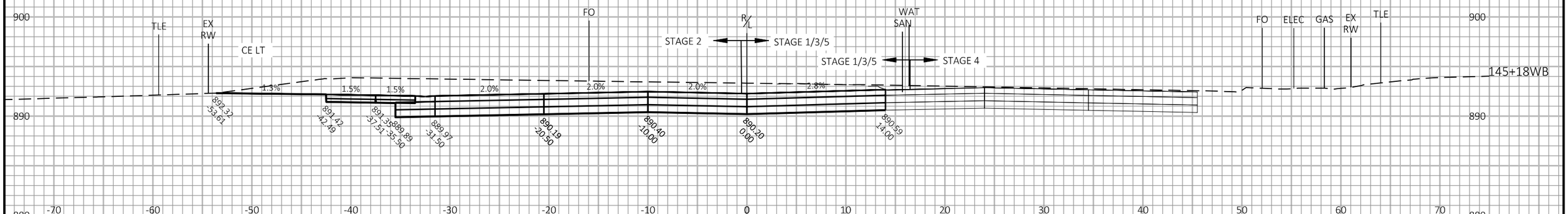
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 671	E

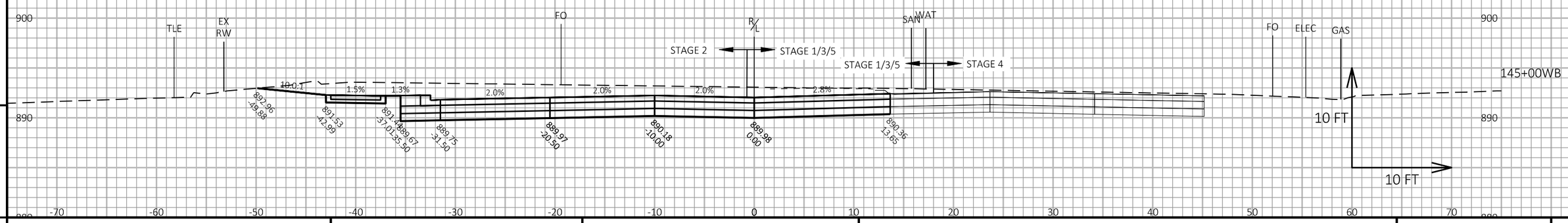
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 5

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

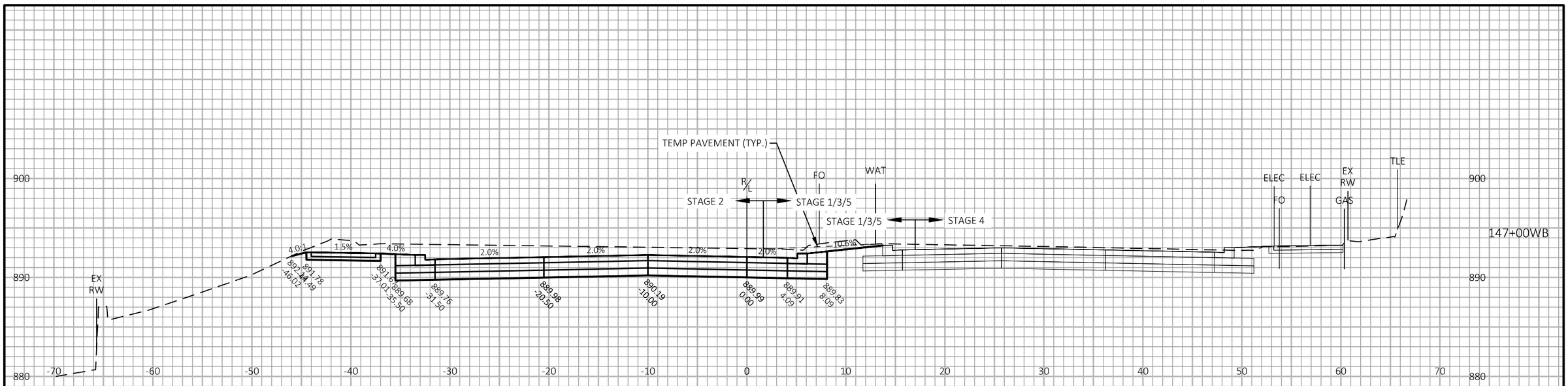
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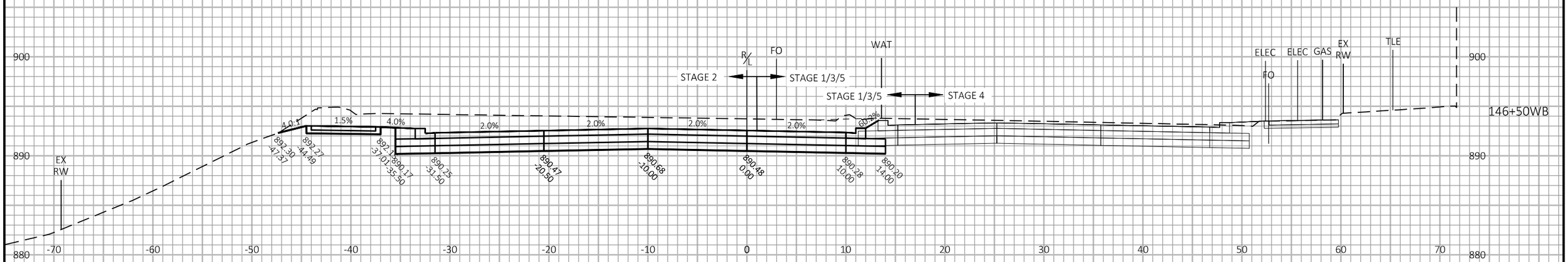
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 672	E

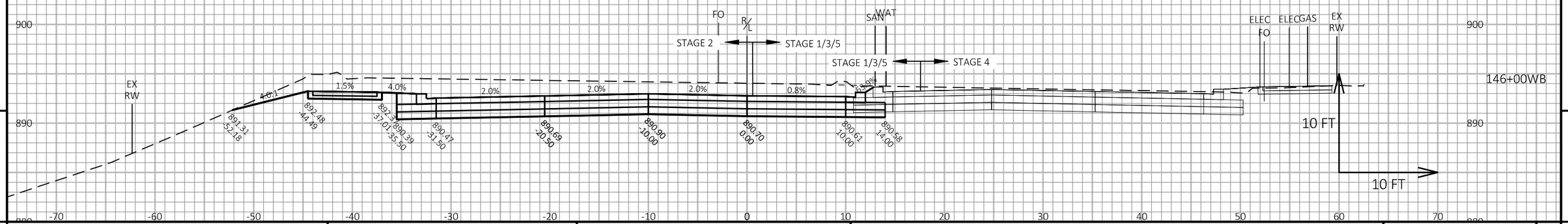
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 6

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

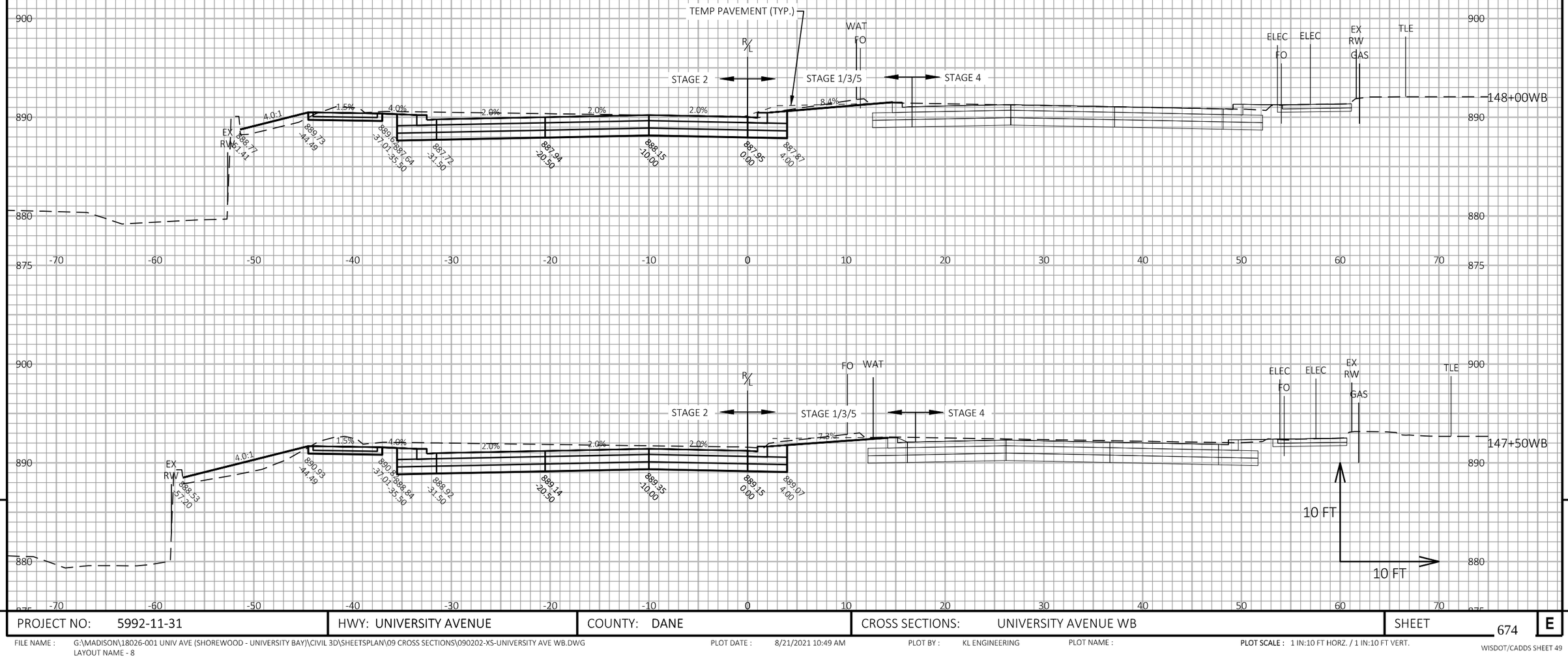
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 673	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 7

PLOT DATE : 8/21/2021 10:48 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

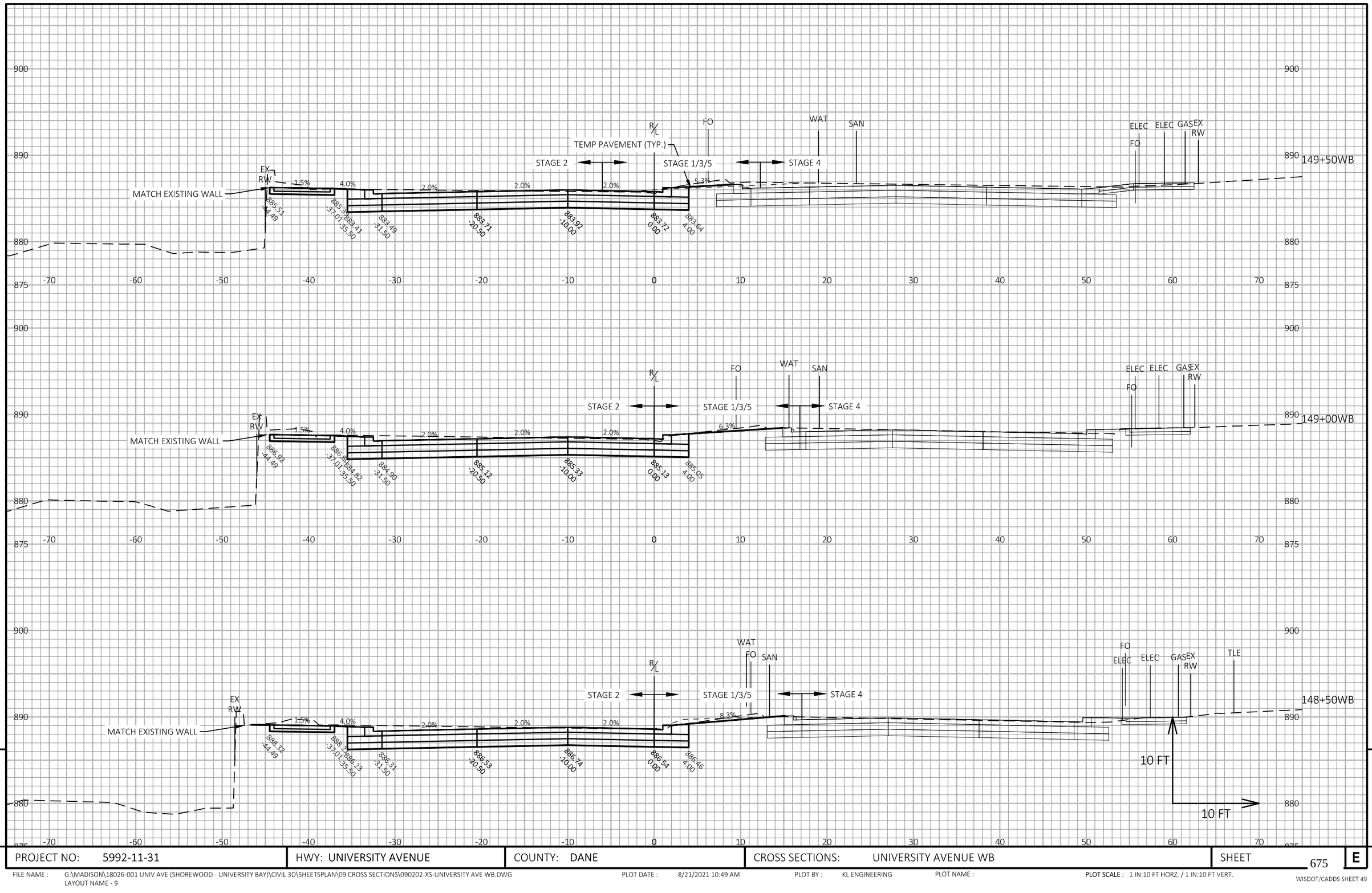
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 674	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 8

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

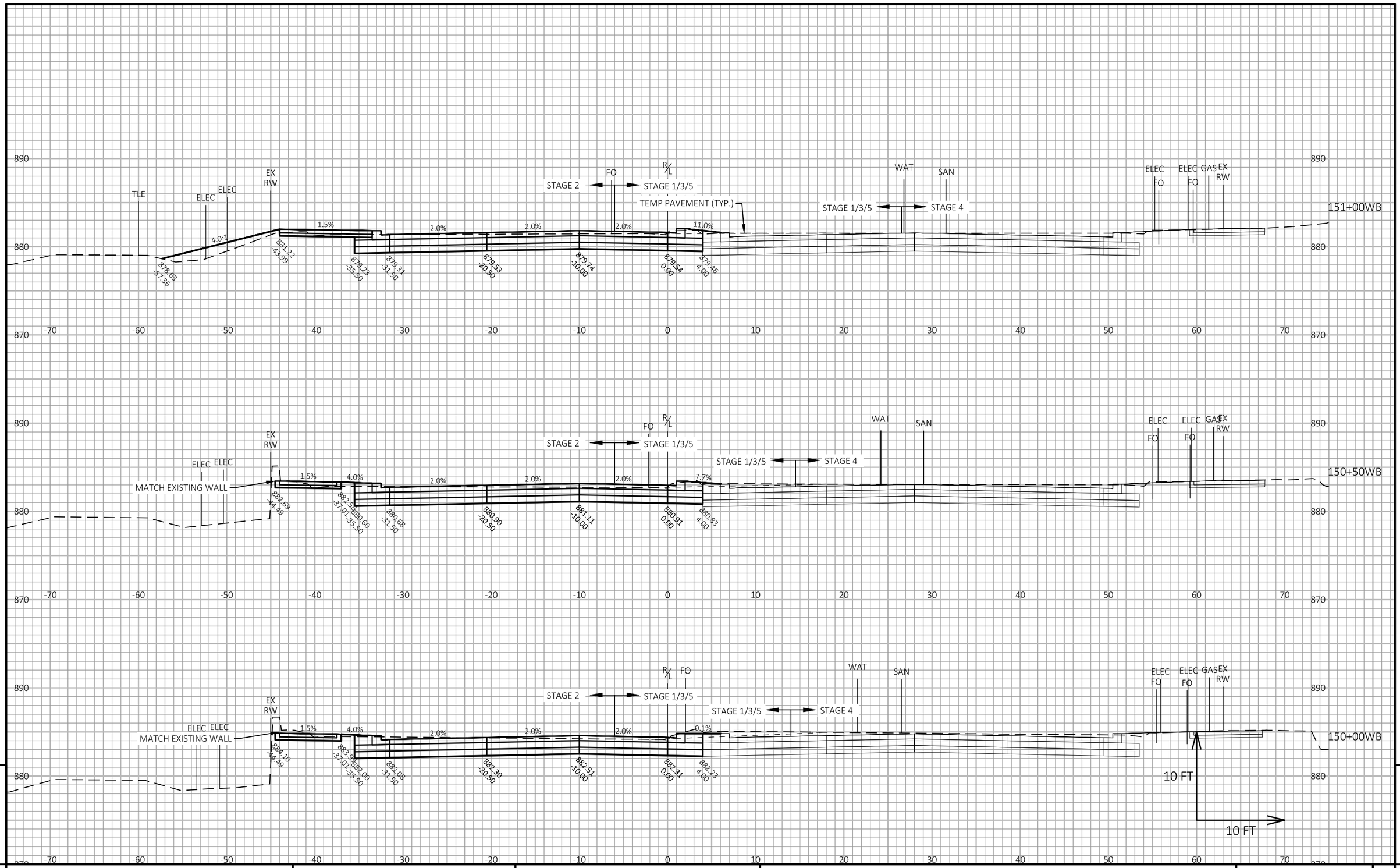


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 675 E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 9

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

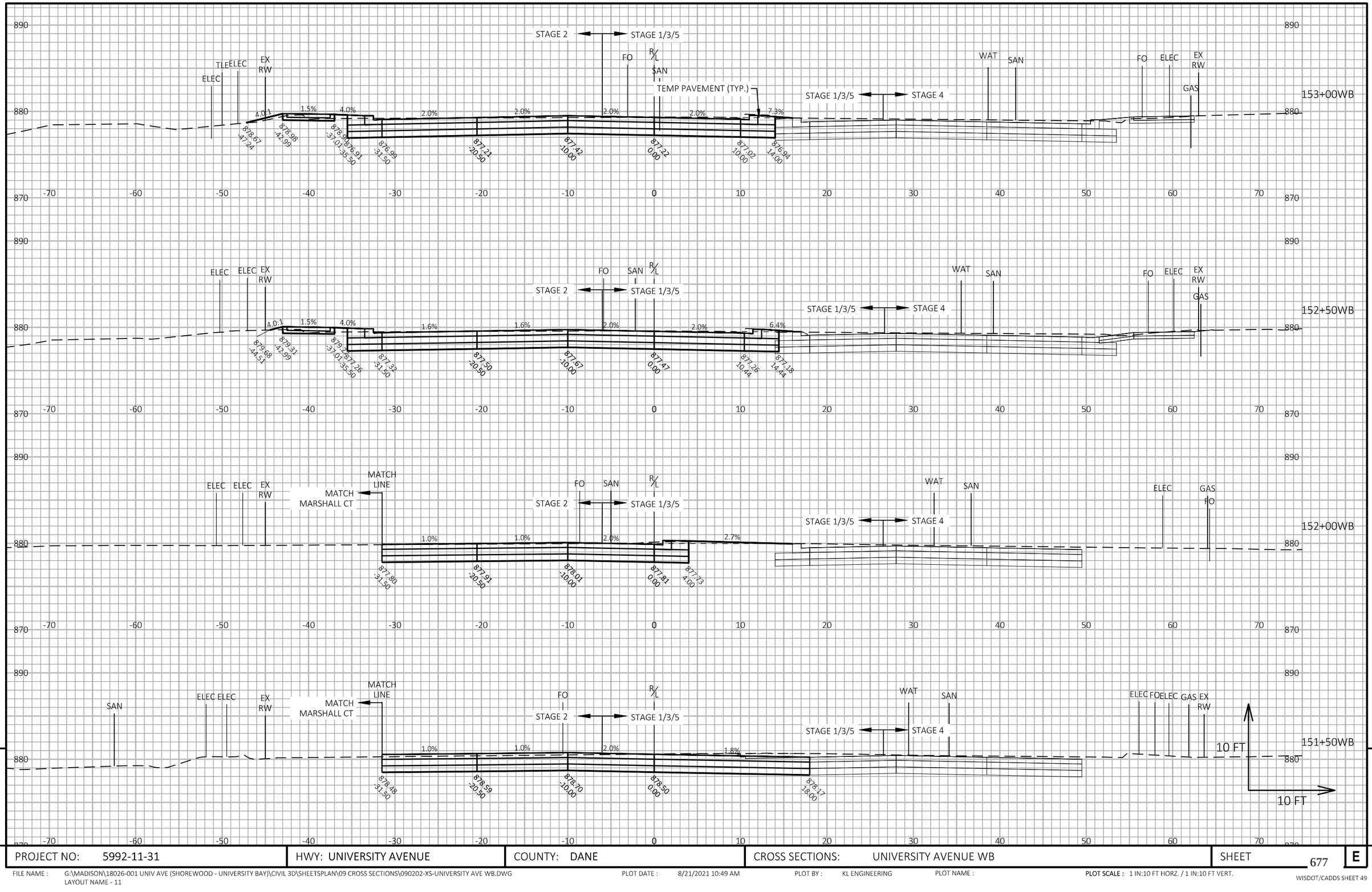
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 676	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 10

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 677	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 11

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

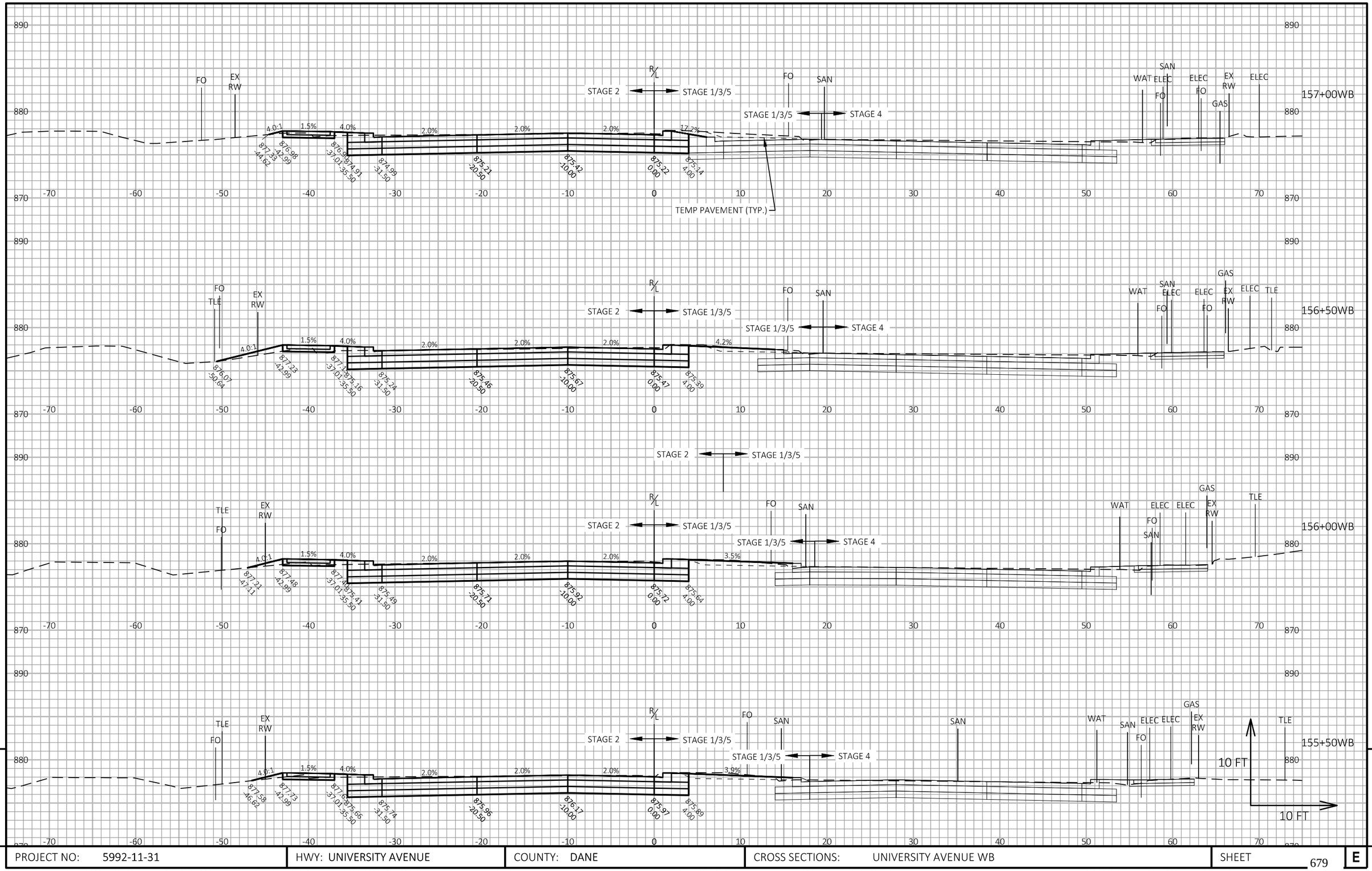
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 678	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 12

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

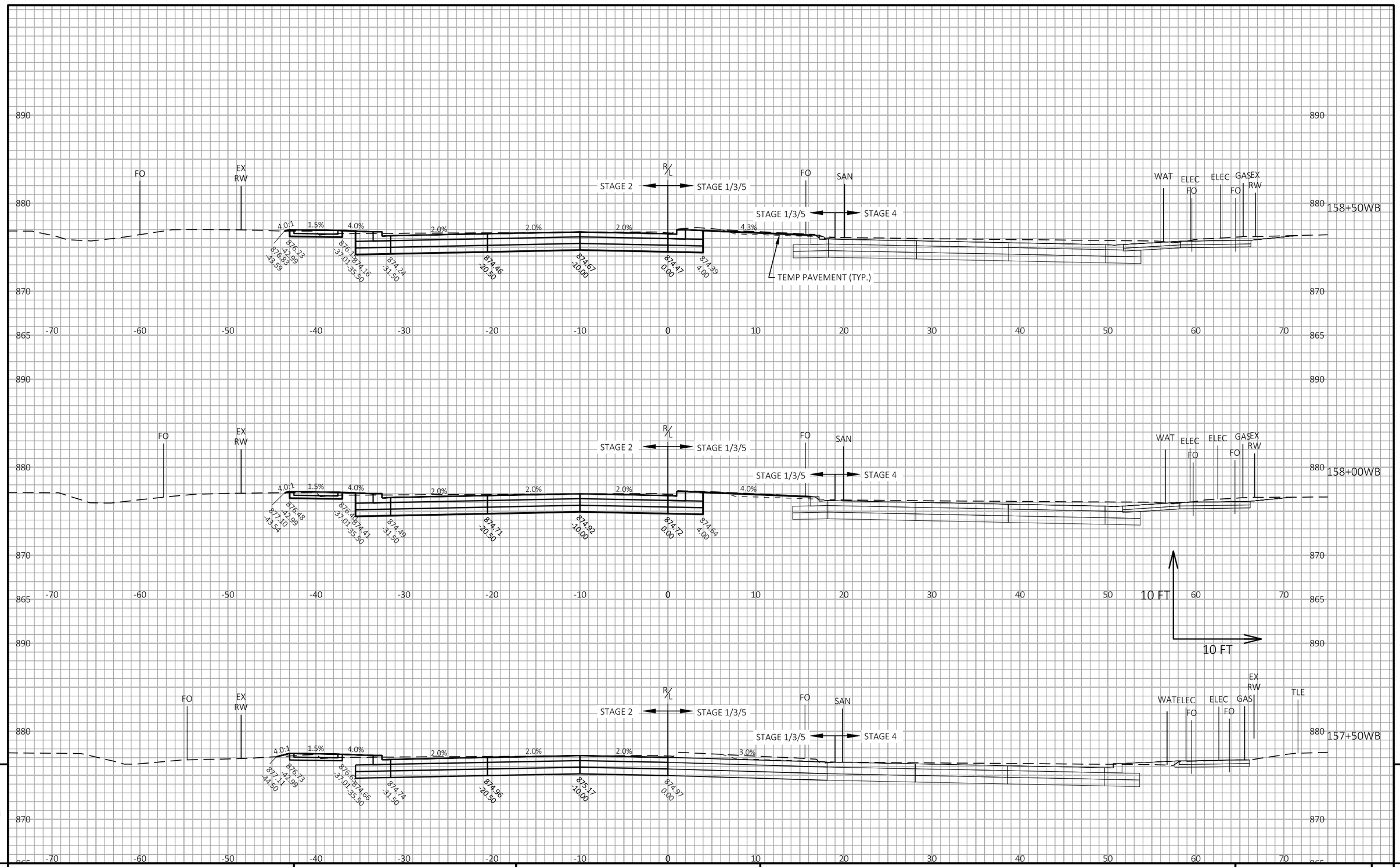


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 679	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 13

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

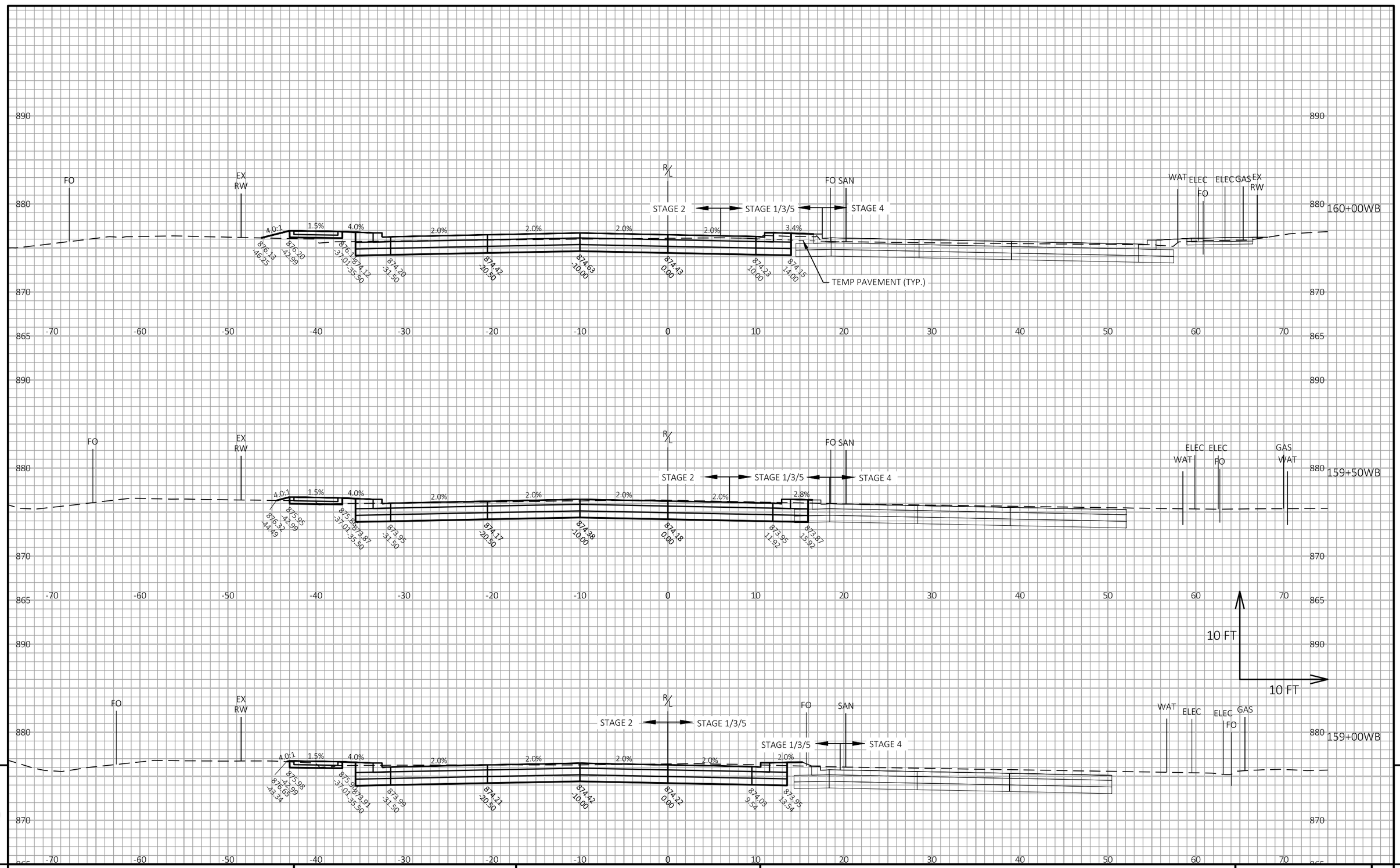
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 680	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 14

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

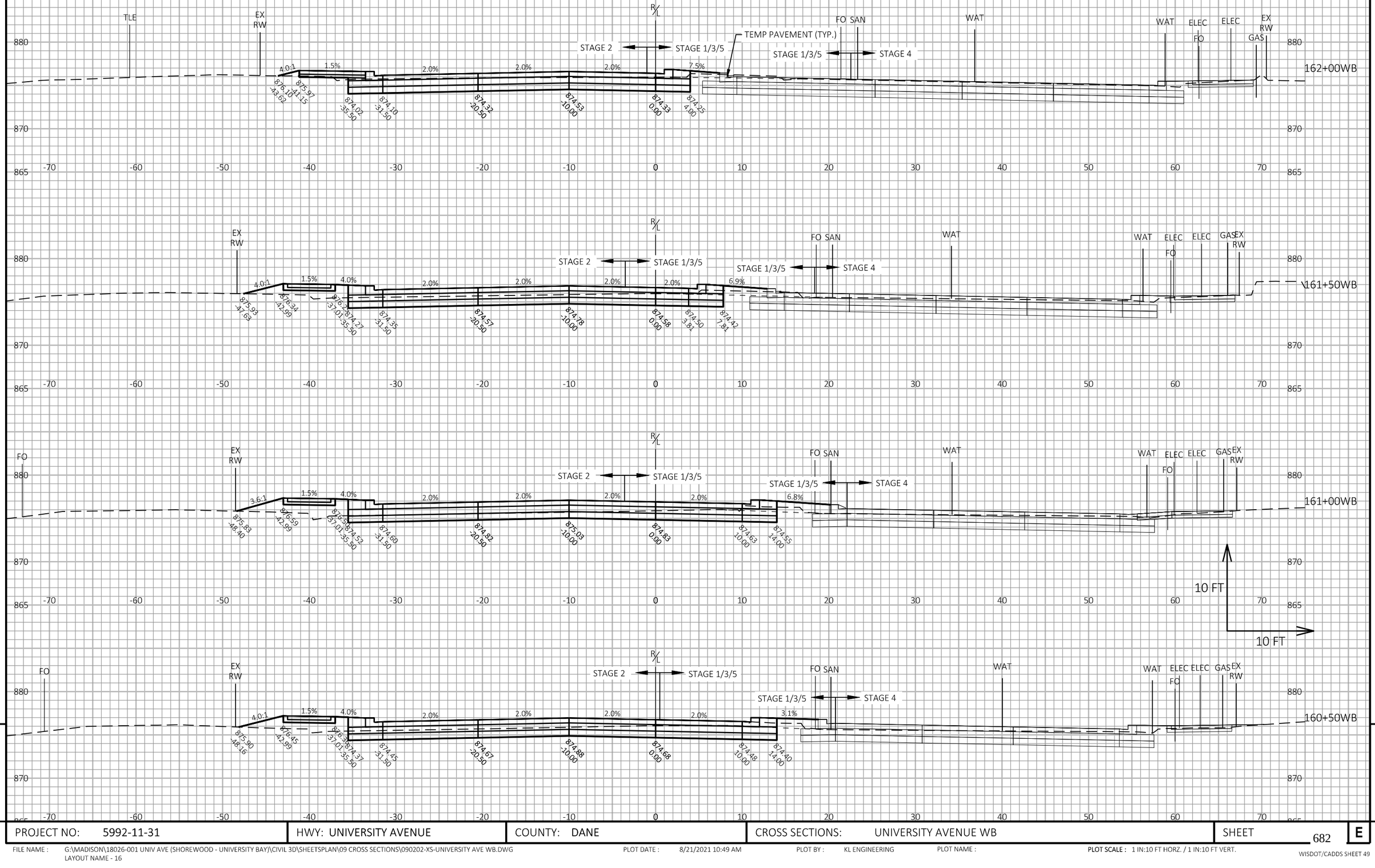
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 681	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 15

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

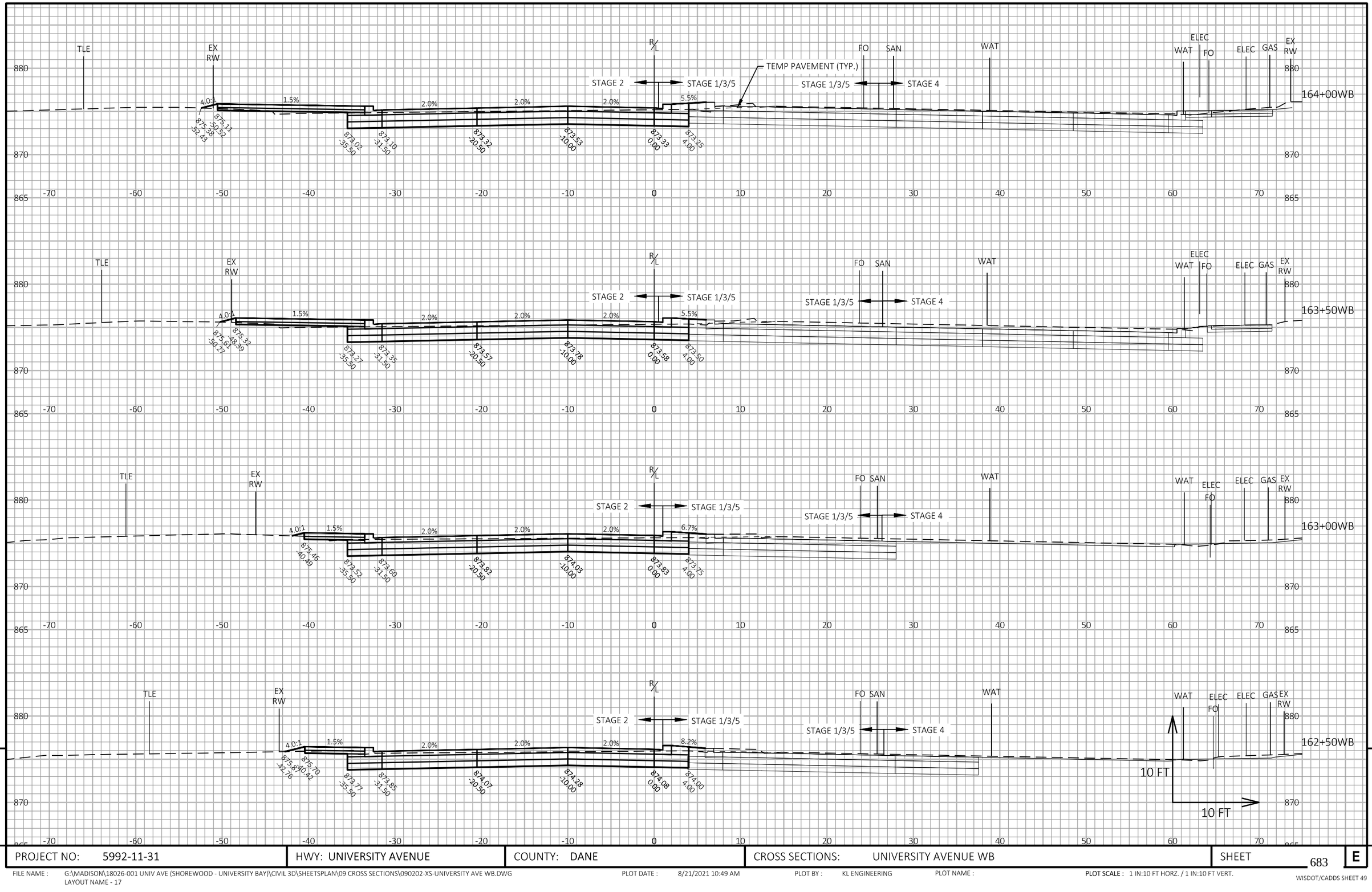
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 682	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 16

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

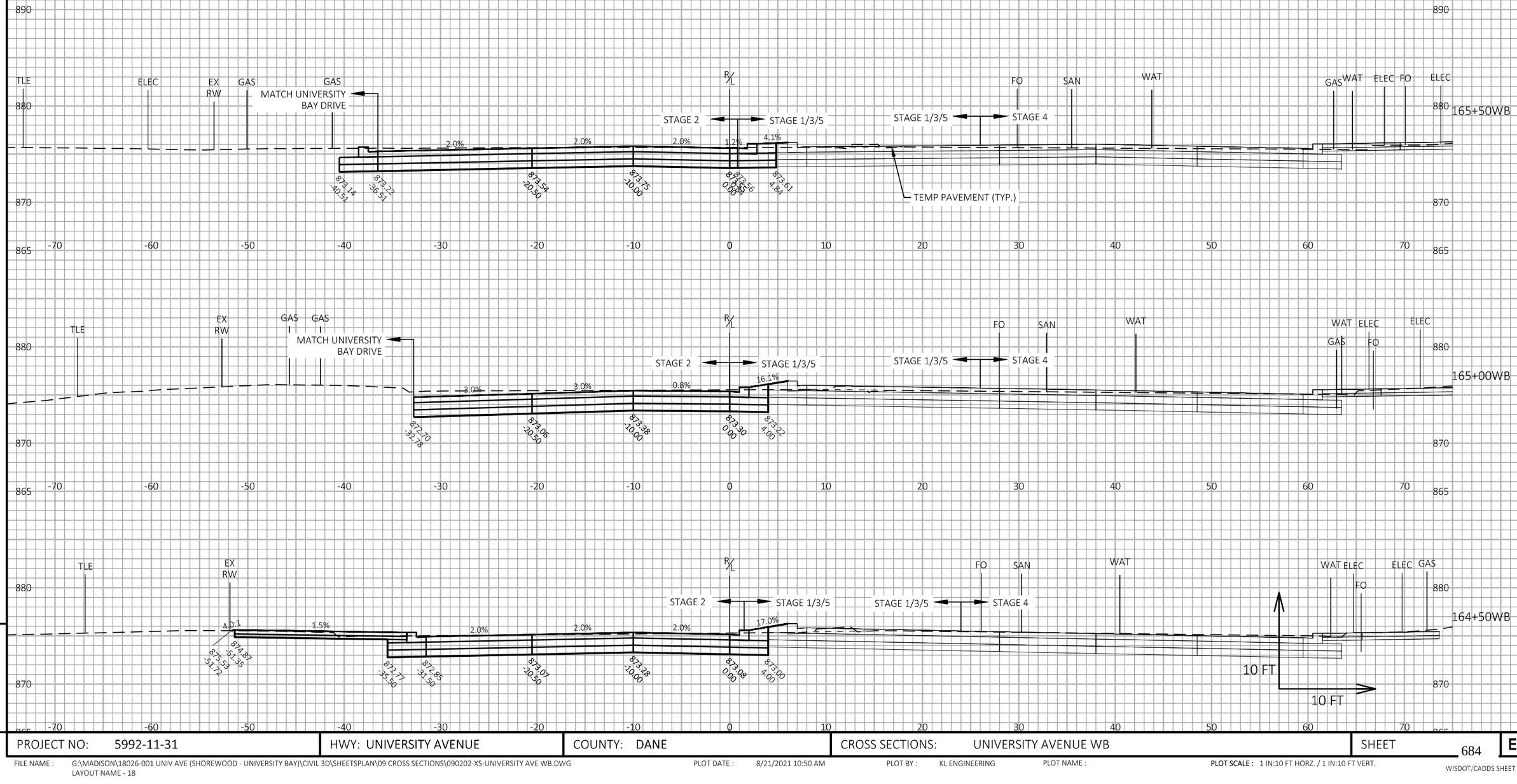
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 683	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 17

PLOT DATE : 8/21/2021 10:49 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

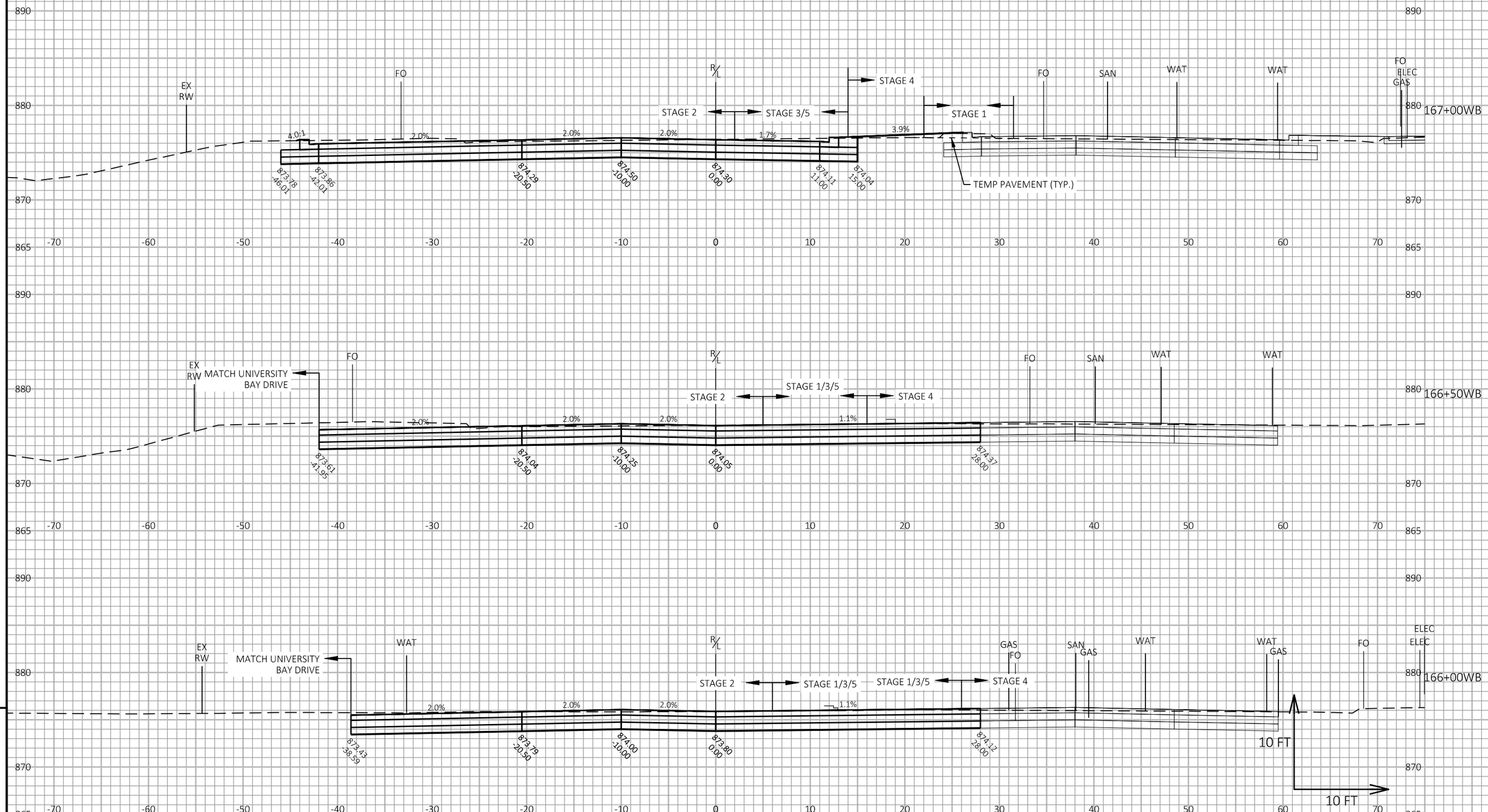


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 684	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 18

PLOT DATE : 8/21/2021 10:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

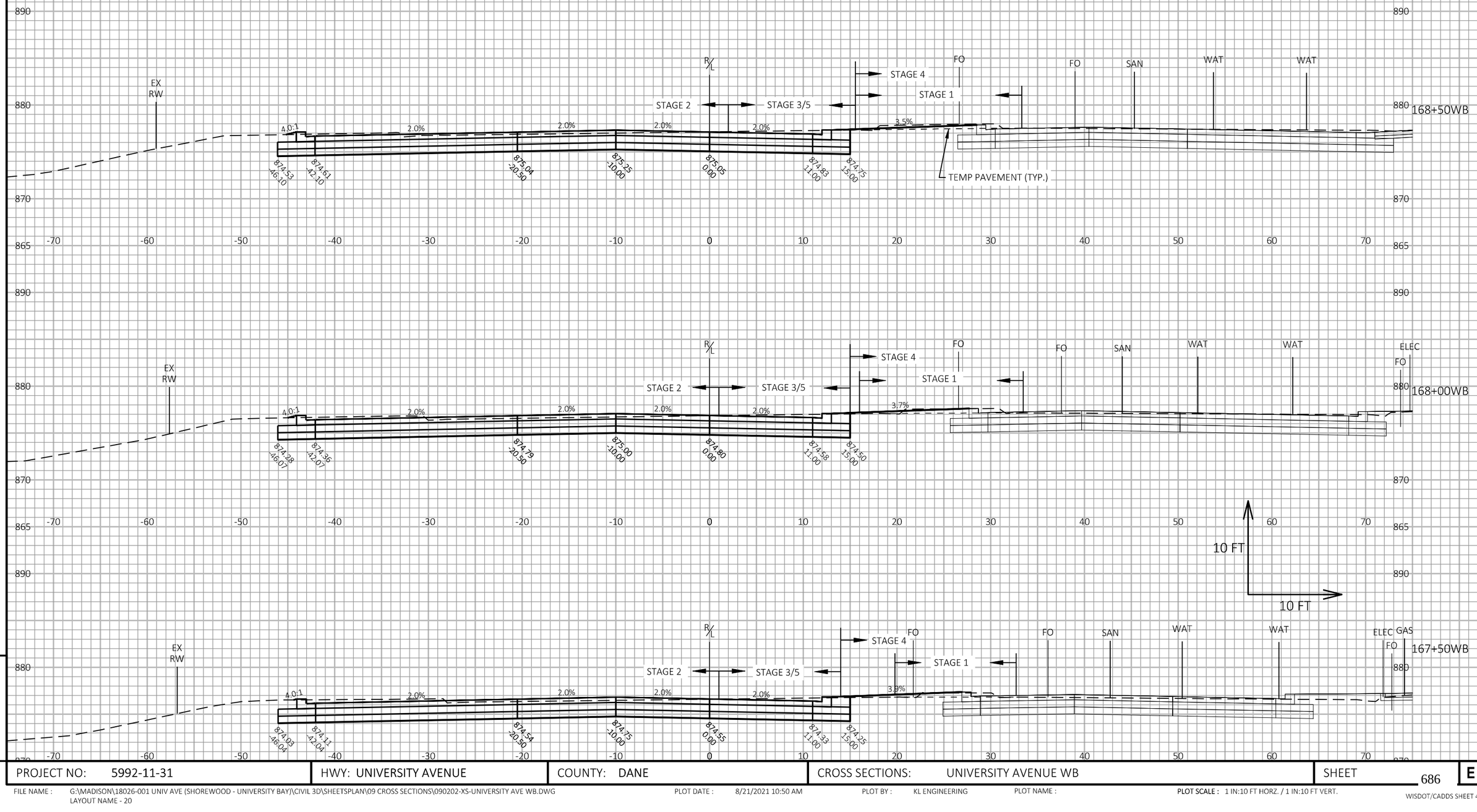
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 685	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 19

PLOT DATE : 8/21/2021 10:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

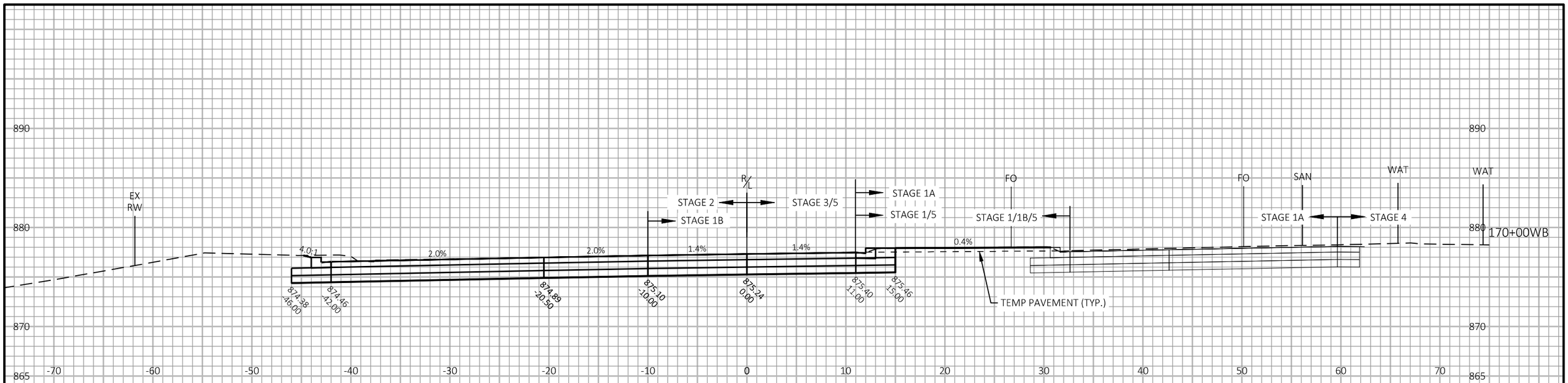


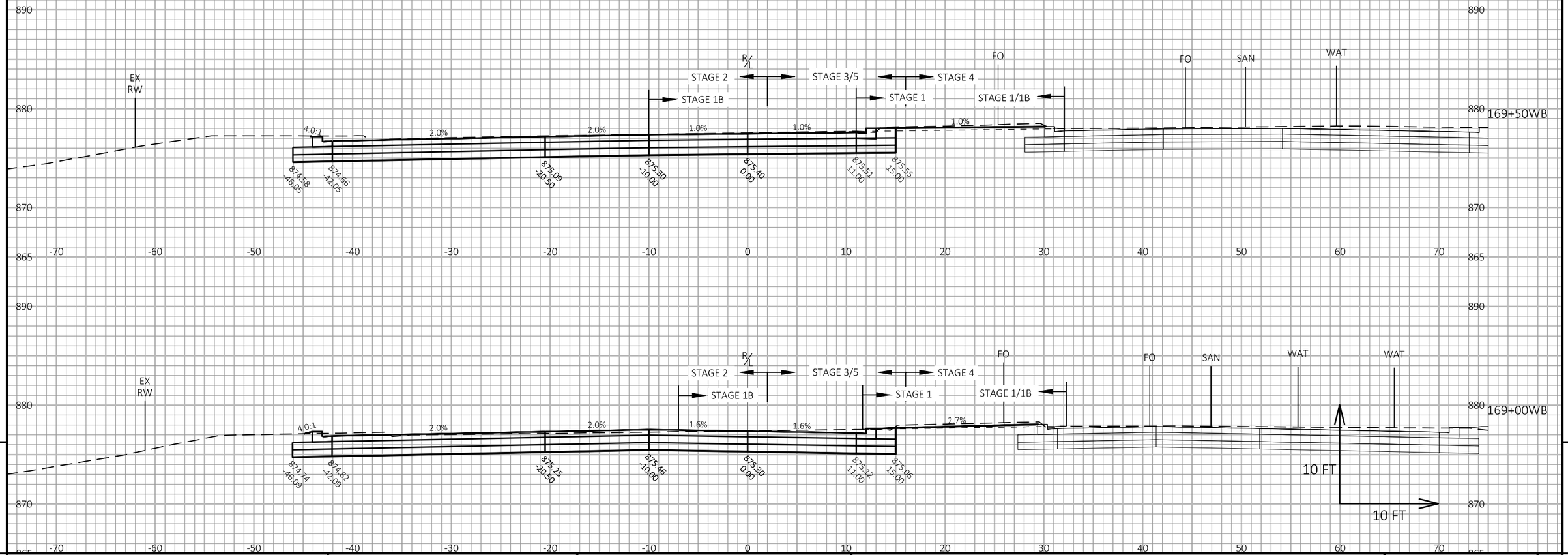
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 686	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 20

PLOT DATE : 8/21/2021 10:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

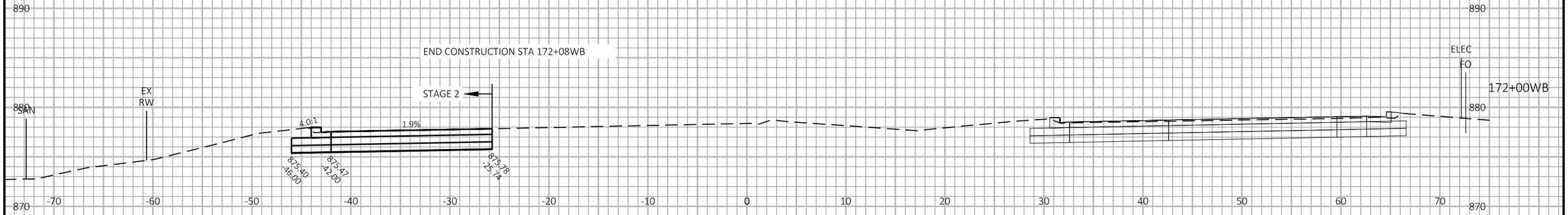
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 687	E

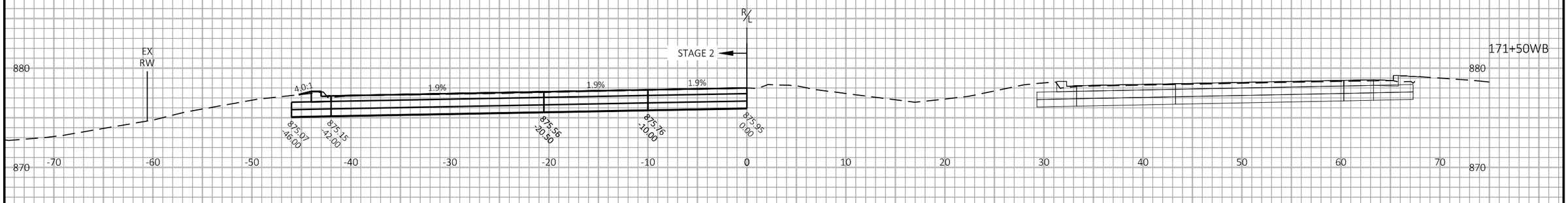
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 21

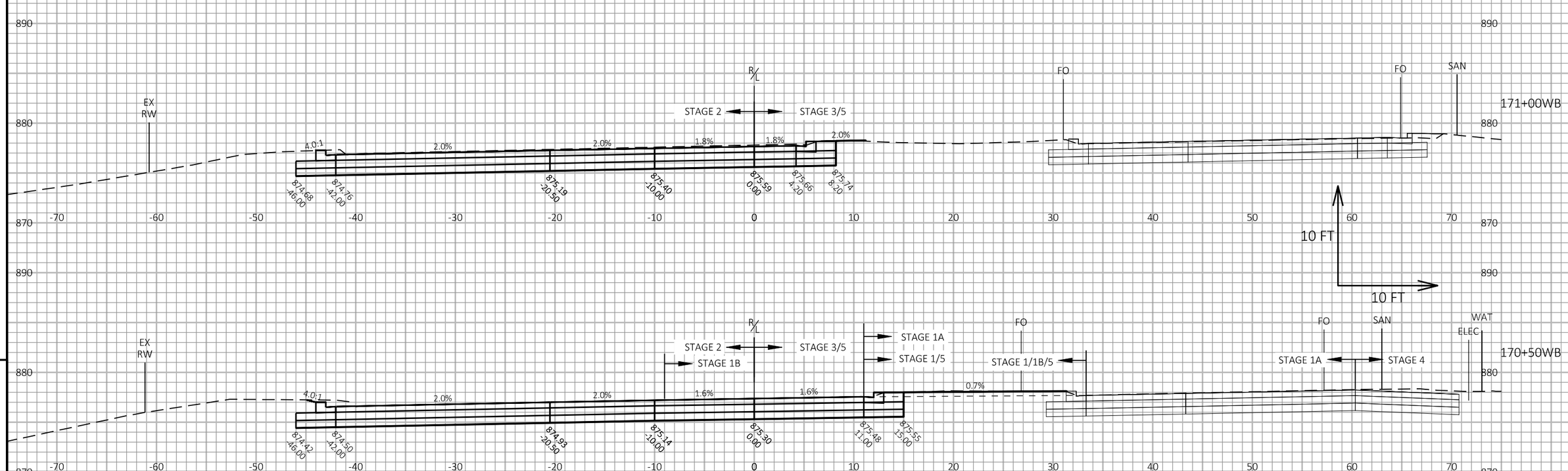
PLOT DATE : 8/21/2021 10:50 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA 172+08WB







9

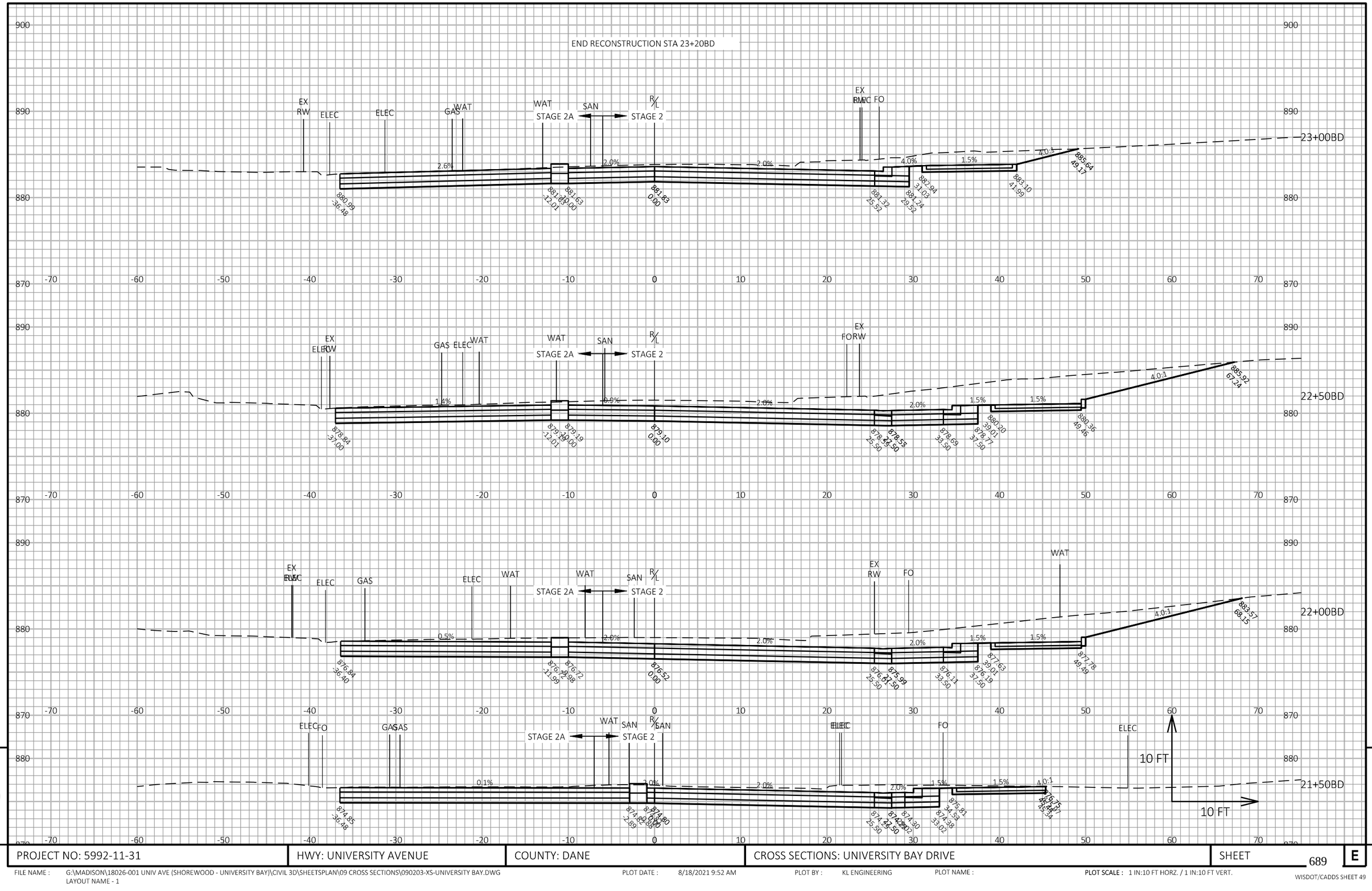
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE WB	SHEET 688	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090202-XS-UNIVERSITY AVE WB.DWG
LAYOUT NAME - 22

PLOT DATE : 8/21/2021 10:50 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

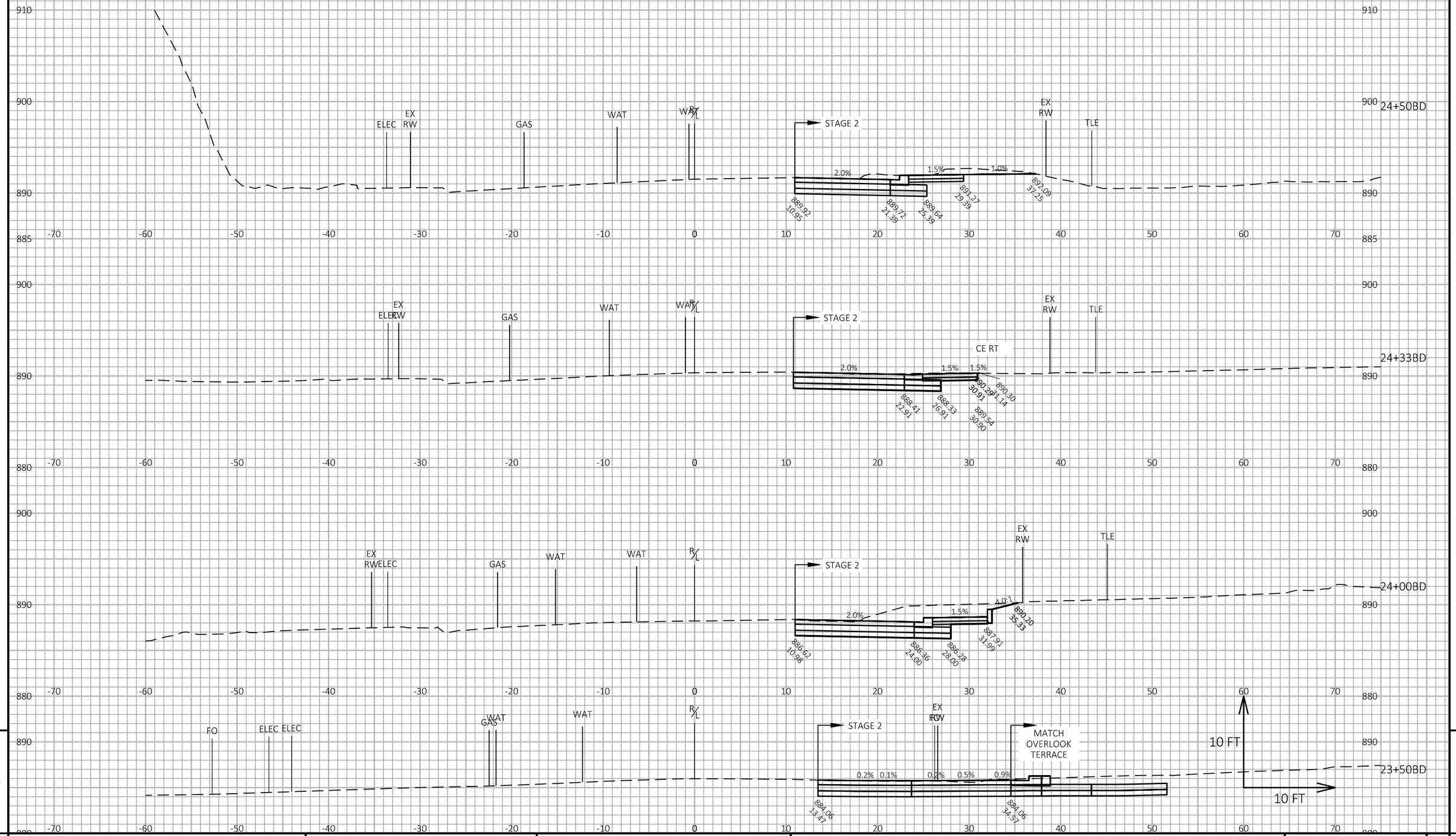


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY BAY DRIVE	SHEET 689	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090203-XS-UNIVERSITY BAY.DWG
LAYOUT NAME - 1

PLOT DATE : 8/18/2021 9:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY BAY DRIVE	SHEET 690	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090203-XS-UNIVERSITY BAY.DWG
LAYOUT NAME - 2

PLOT DATE : 8/18/2021 9:52 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

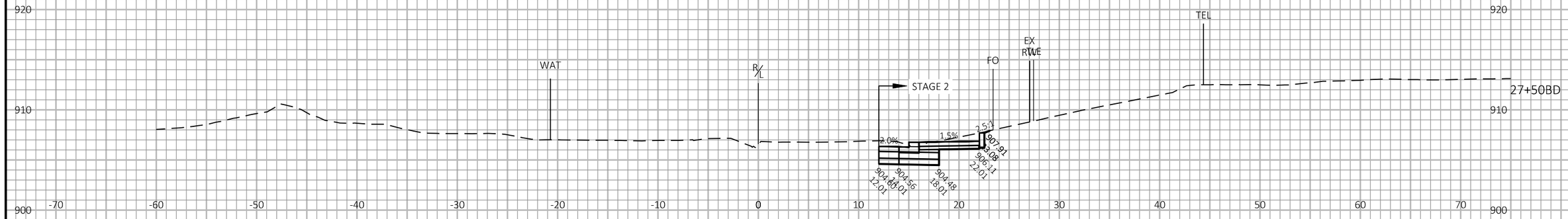


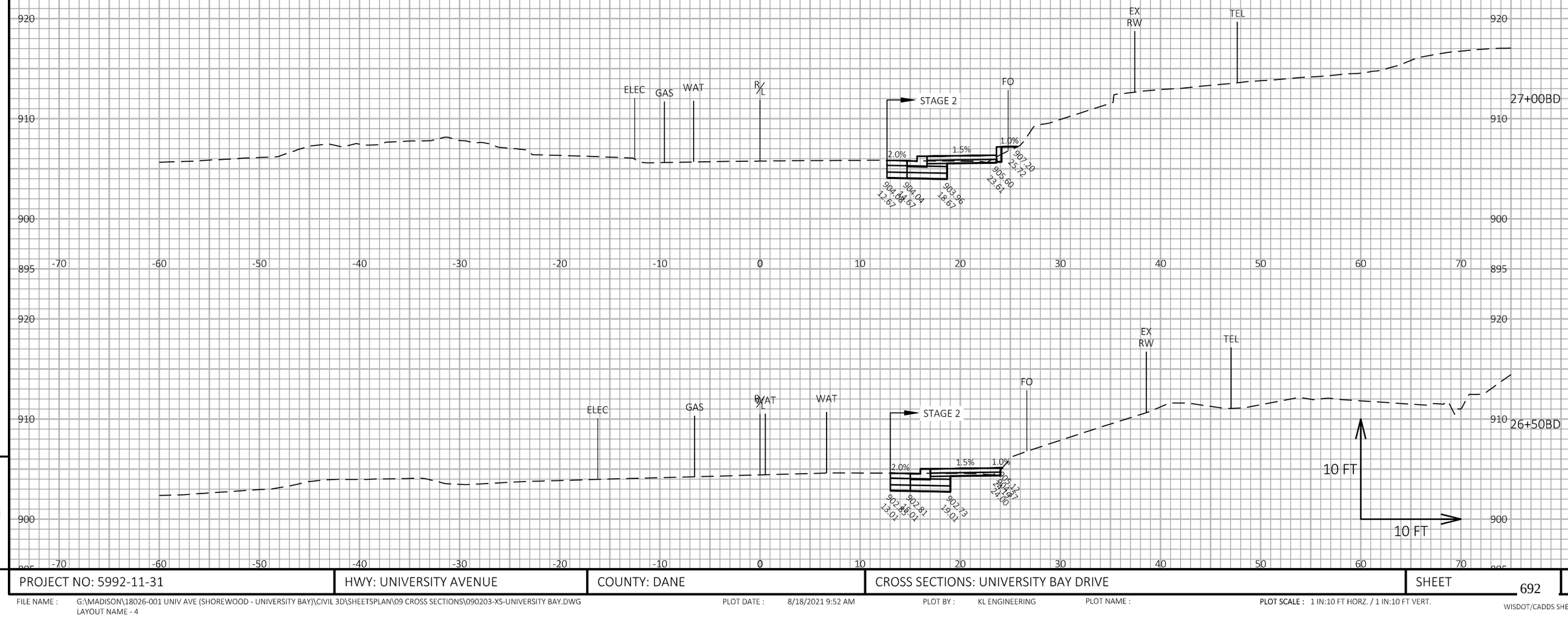
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY BAY DRIVE	SHEET 691	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090203-XS-UNIVERSITY BAY.DWG
LAYOUT NAME - 3

PLOT DATE : 8/18/2021 9:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY BAY DRIVE	SHEET 692	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090203-XS-UNIVERSITY BAY.DWG
LAYOUT NAME - 4

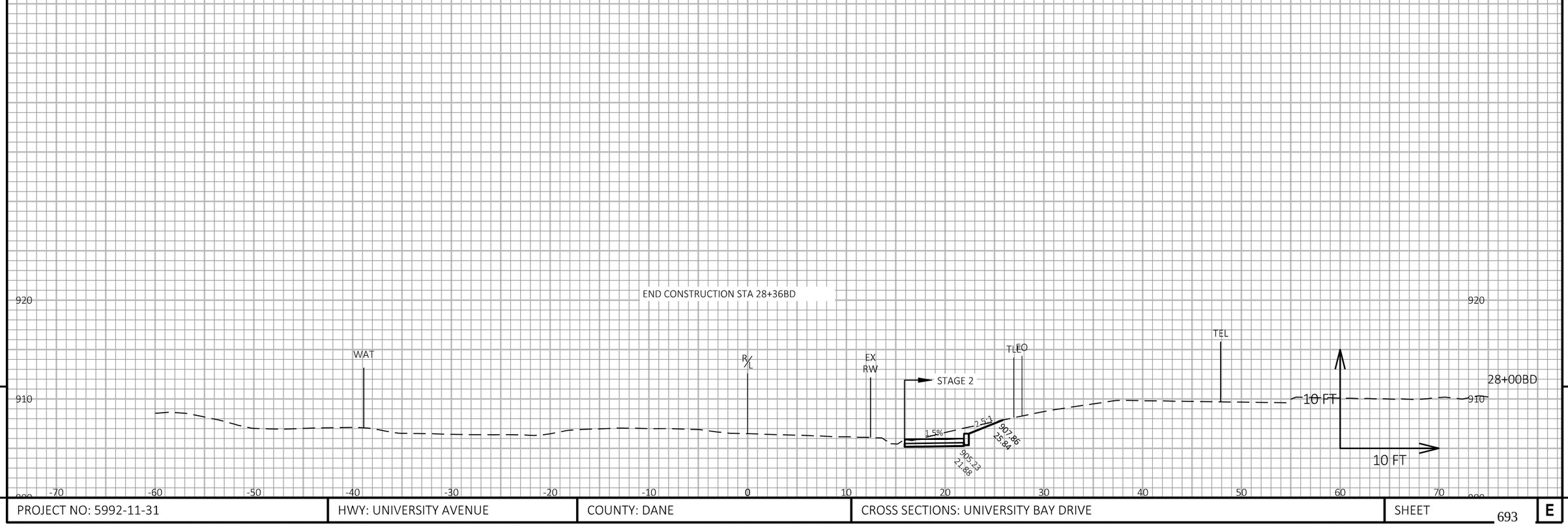
PLOT DATE : 8/18/2021 9:52 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

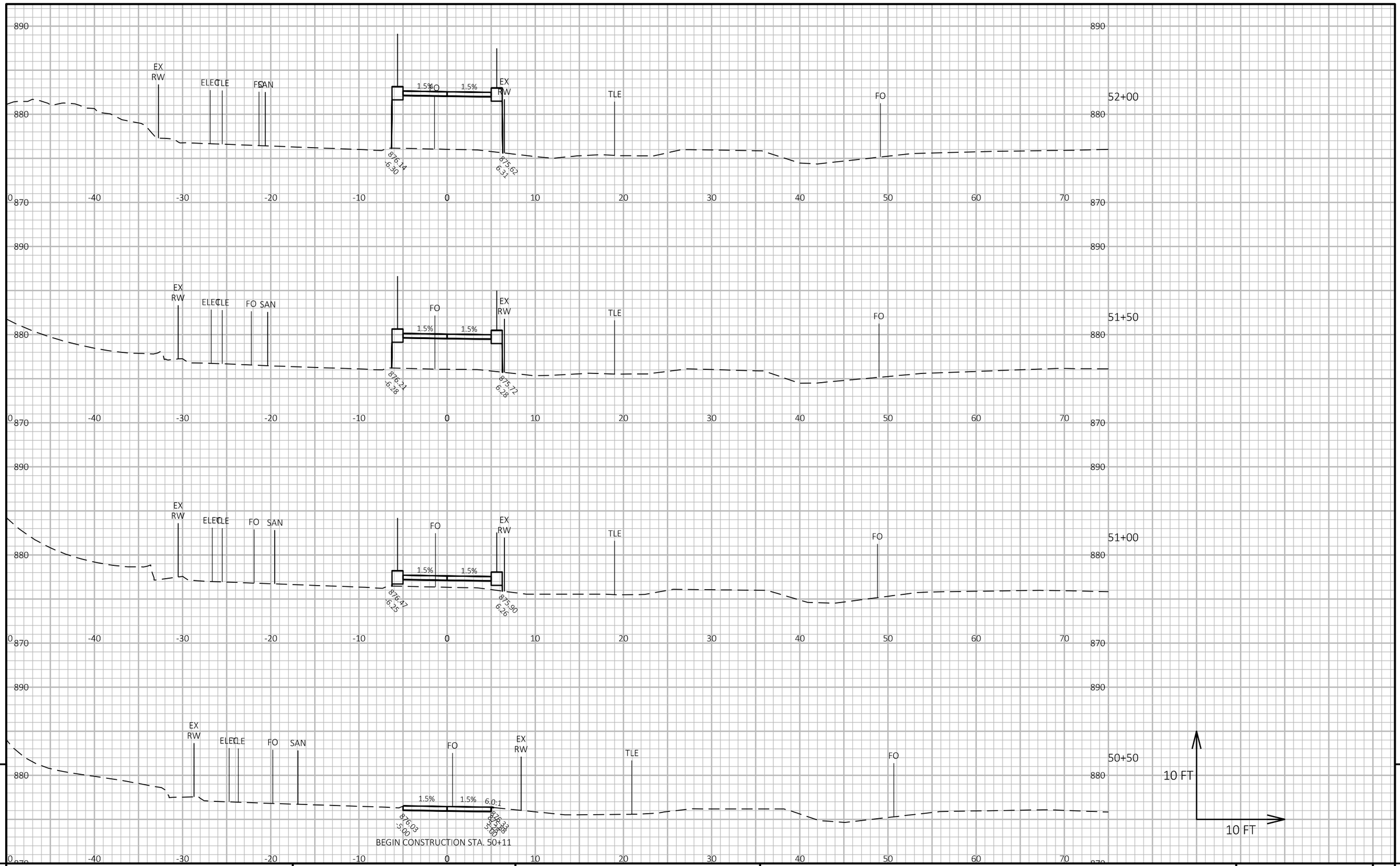
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY BAY DRIVE	SHEET 693	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090203-XS-UNIVERSITY BAY.DWG
LAYOUT NAME - 5

PLOT DATE : 8/18/2021 9:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

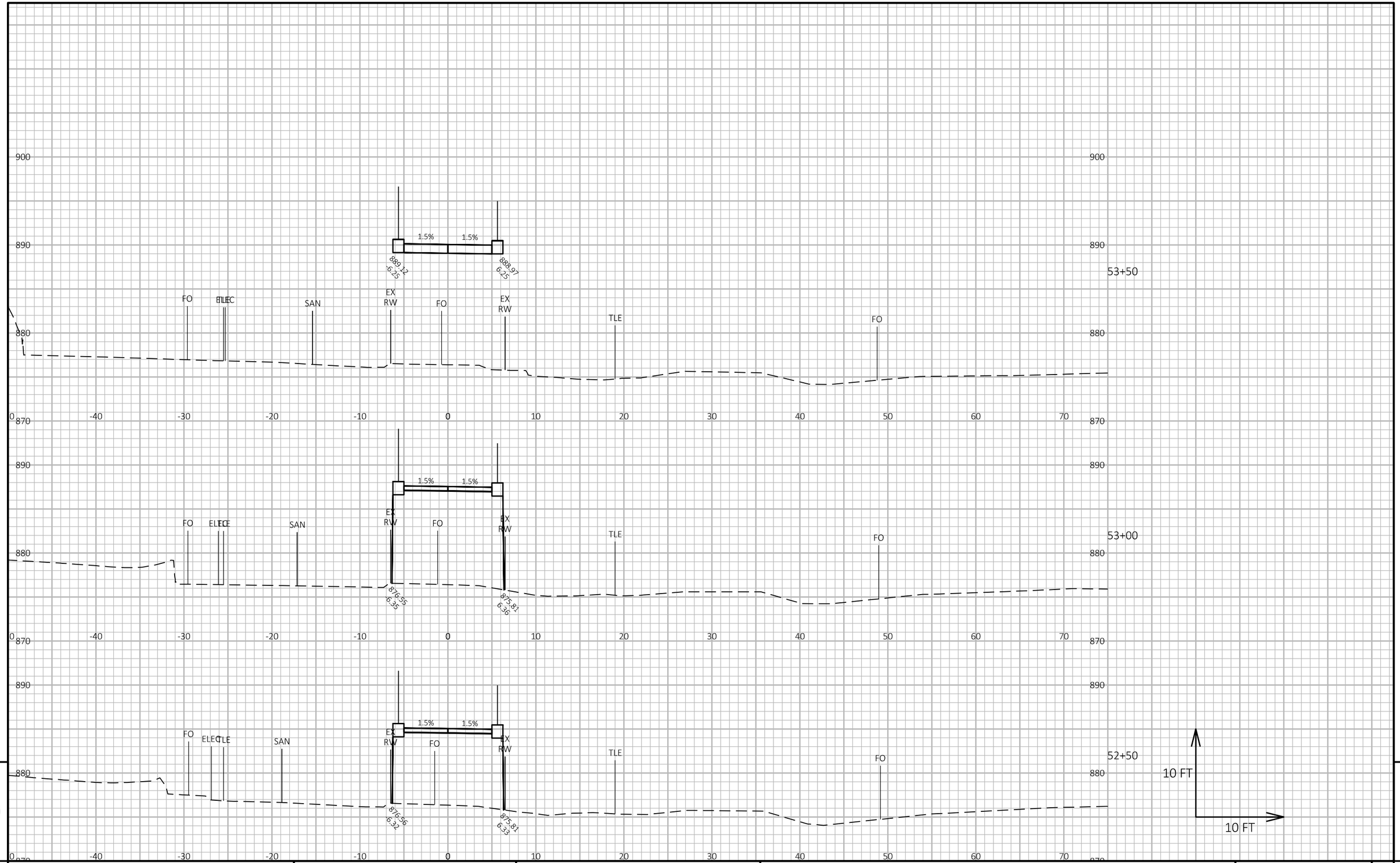
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 694	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 1

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

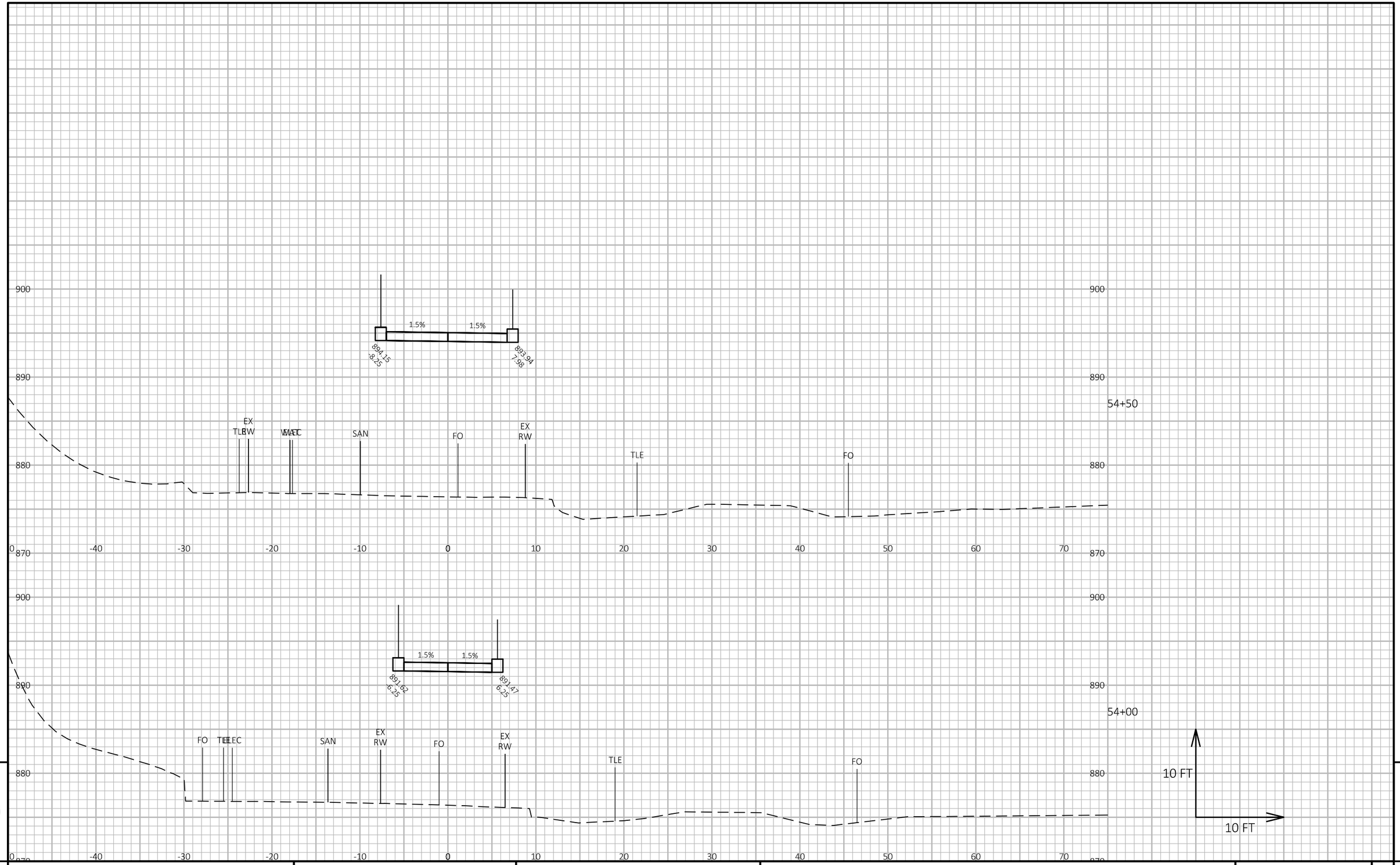


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 695	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 2

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

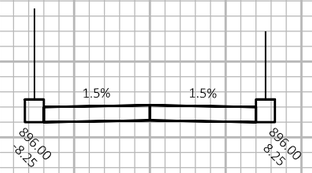
PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 696	E

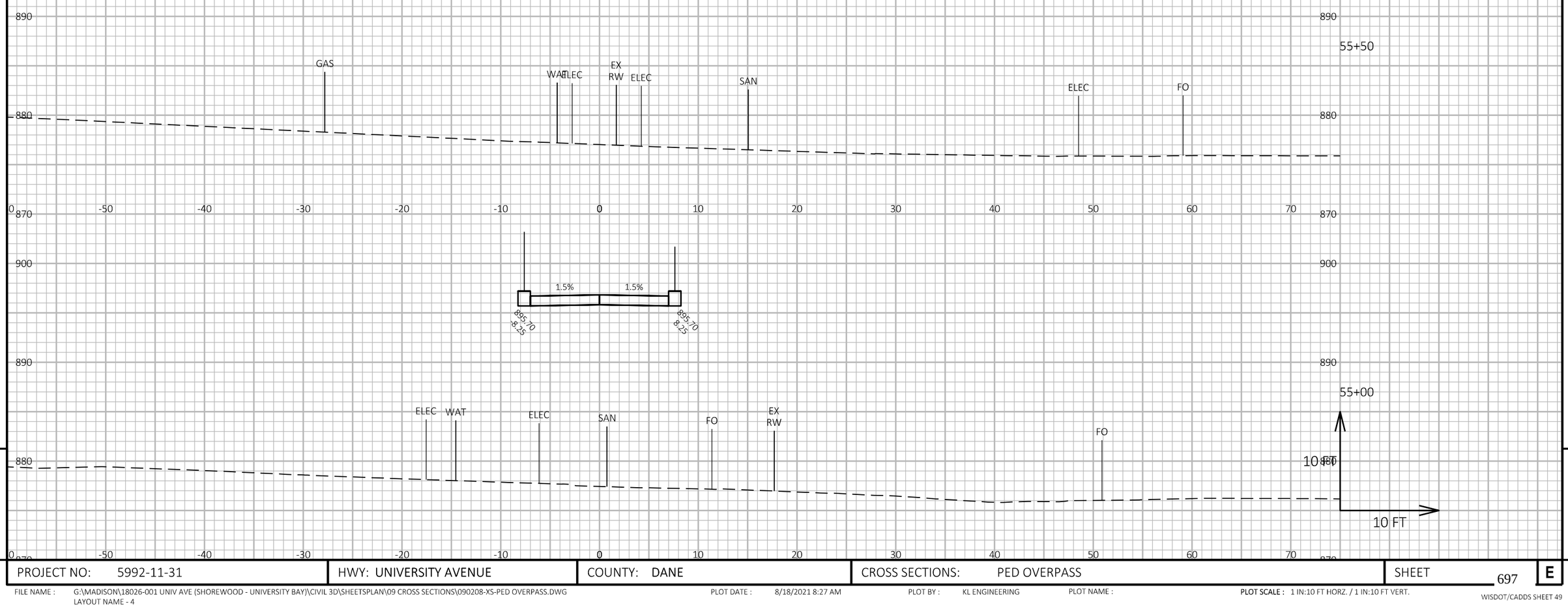
FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 3

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

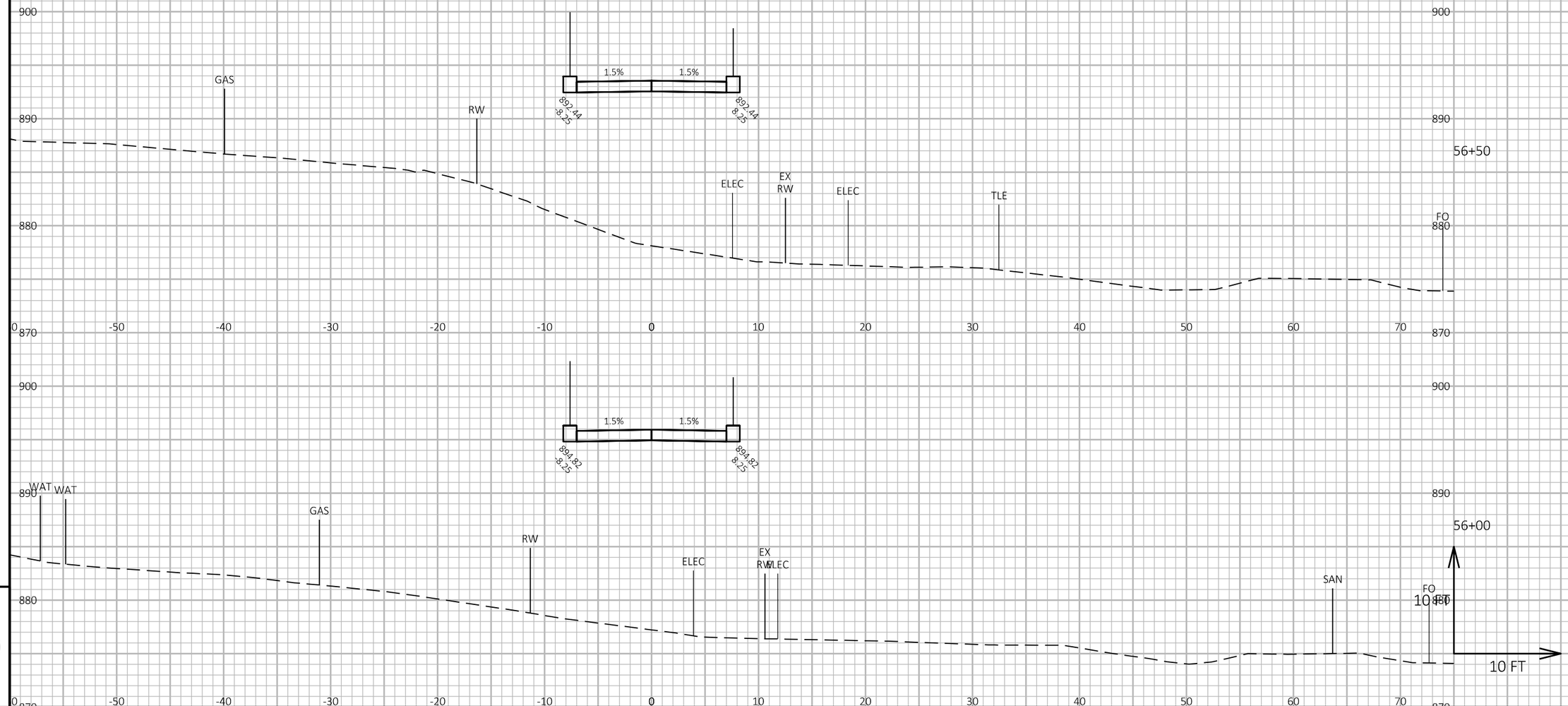
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 697	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 4

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

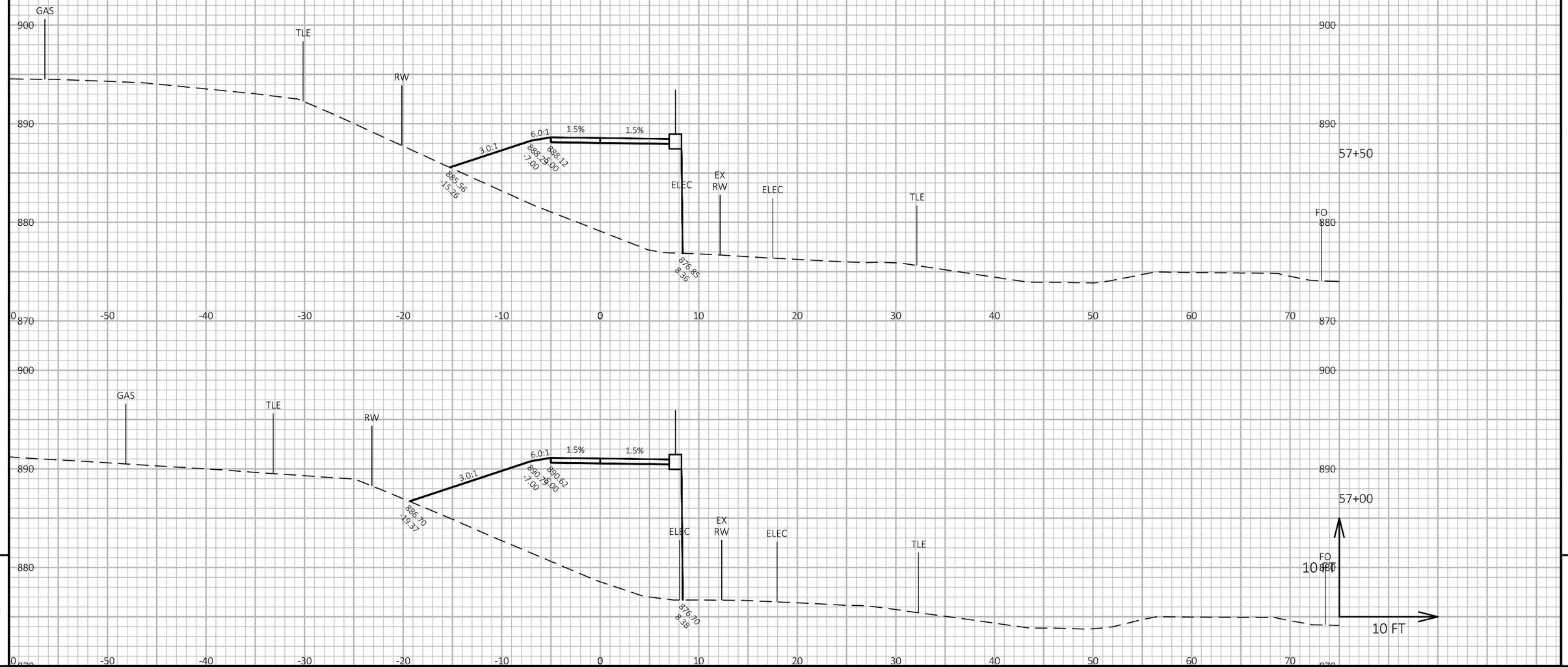
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 698	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 5

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 699	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 6

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

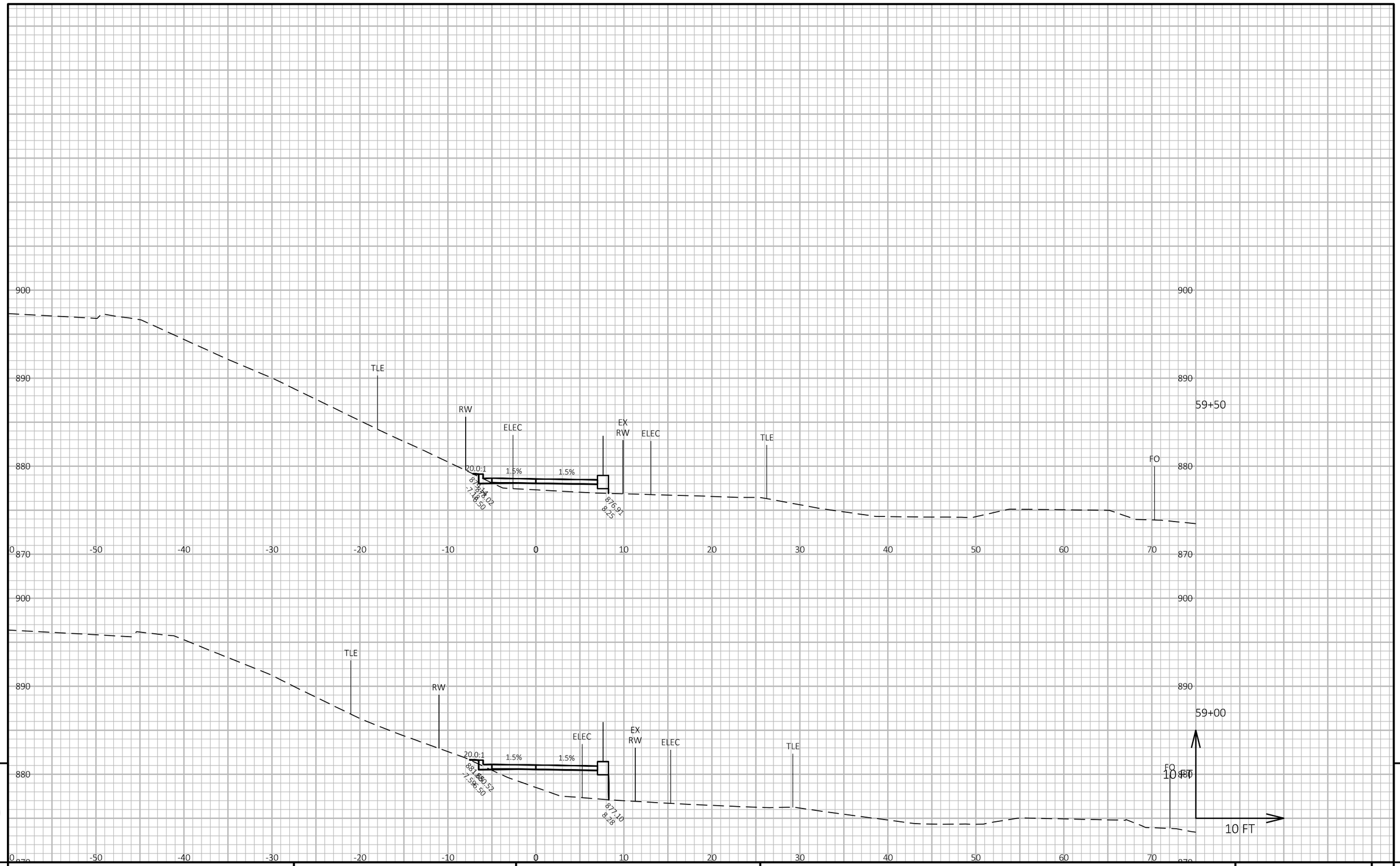
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 700	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 7

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

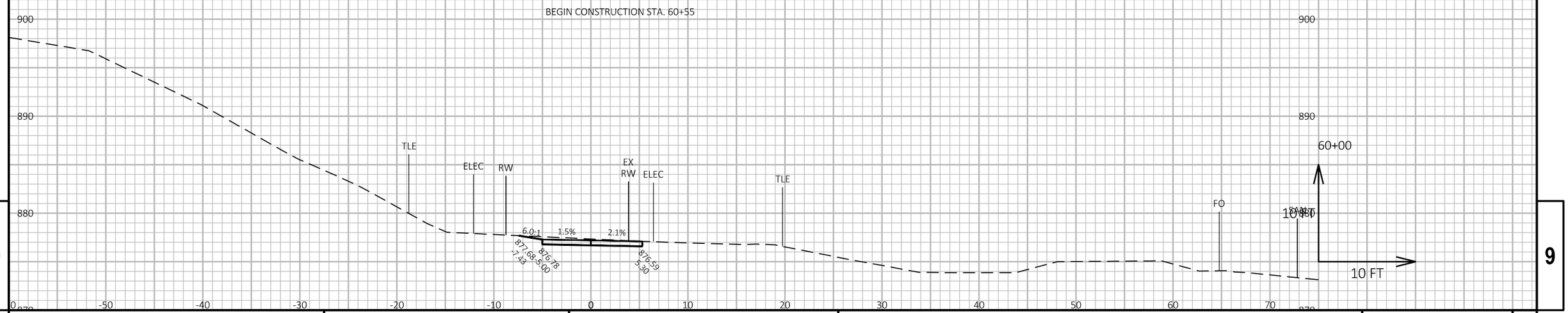


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 701	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 8

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

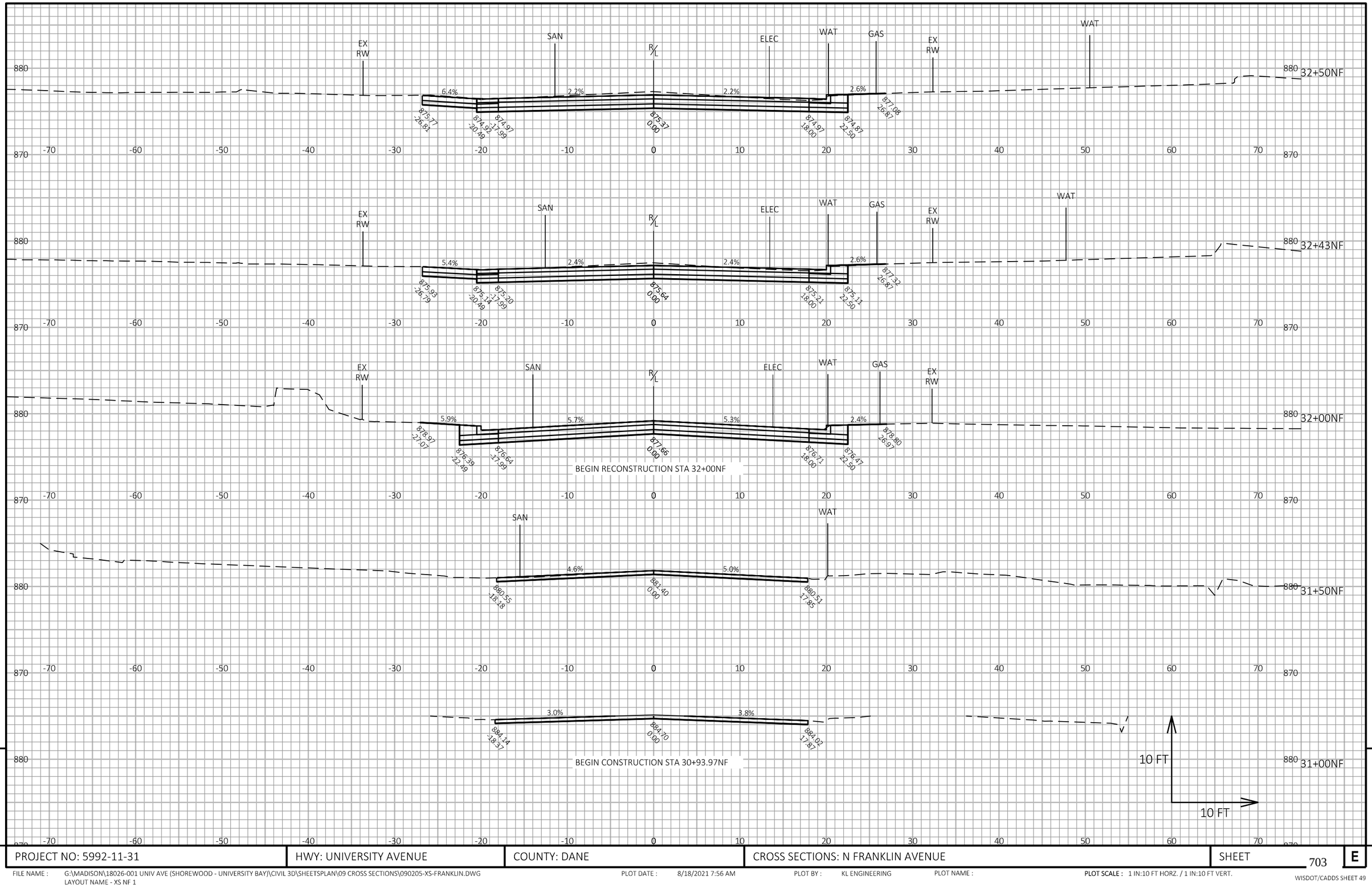
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: PED OVERPASS	SHEET 702	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090208-XS-PED OVERPASS.DWG
LAYOUT NAME - 9

PLOT DATE : 8/18/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

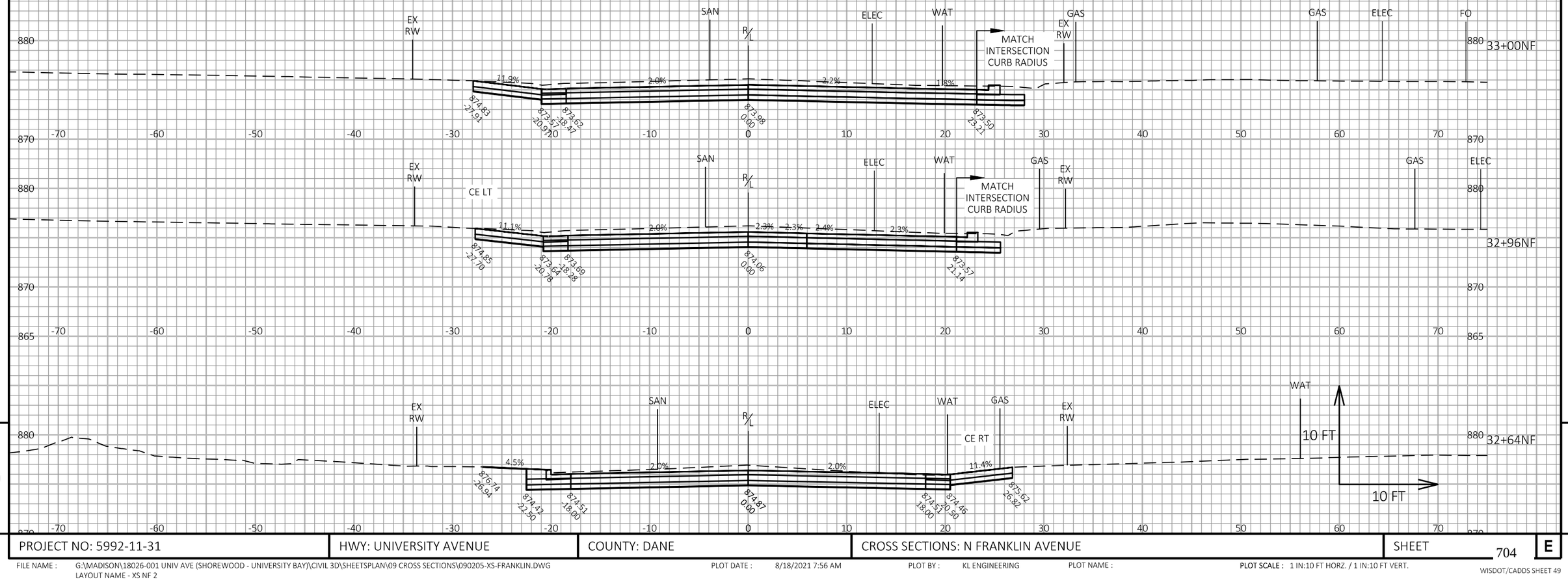
9

PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: N FRANKLIN AVENUE	SHEET 703	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090205-XS-FRANKLIN.DWG
LAYOUT NAME - XS NF 1

PLOT DATE : 8/18/2021 7:56 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

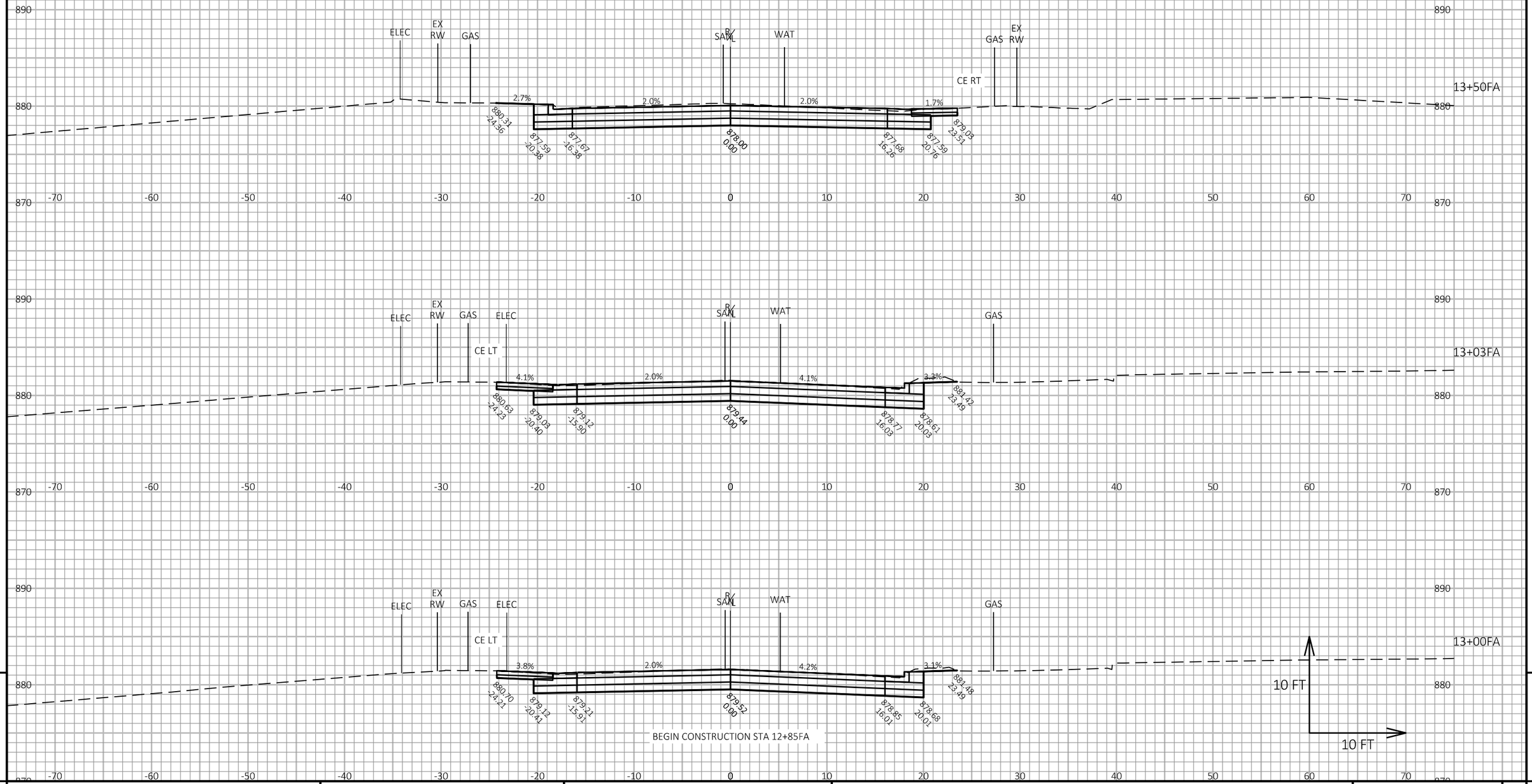
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: N FRANKLIN AVENUE	SHEET 704	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090205-XS-FRANKLIN.DWG
LAYOUT NAME - XS NF 2

PLOT DATE : 8/18/2021 7:56 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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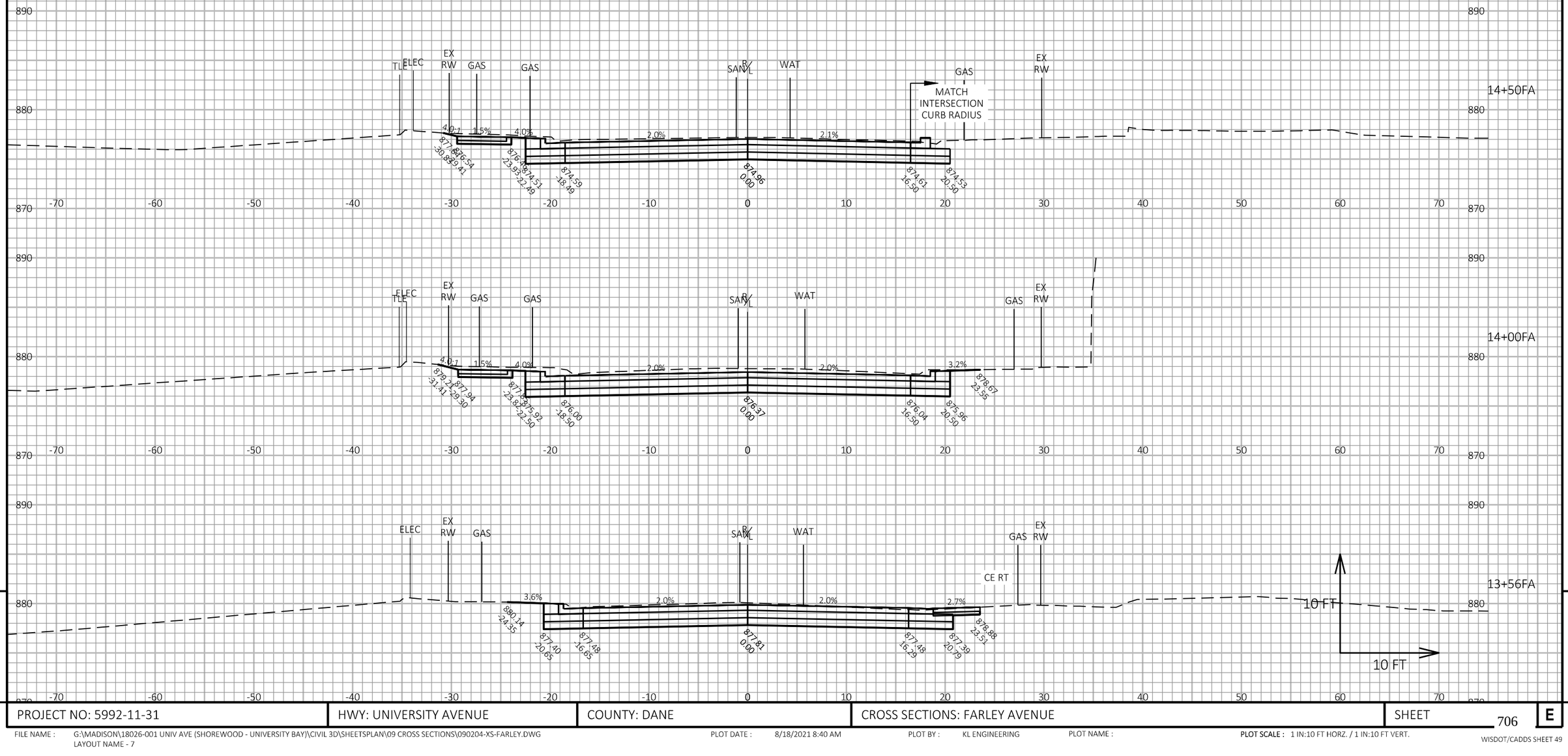
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FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090204-XS-FARLEY.DWG
LAYOUT NAME - 6

PLOT DATE : 8/18/2021 8:40 AM PLOT BY : KL ENGINEERING PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

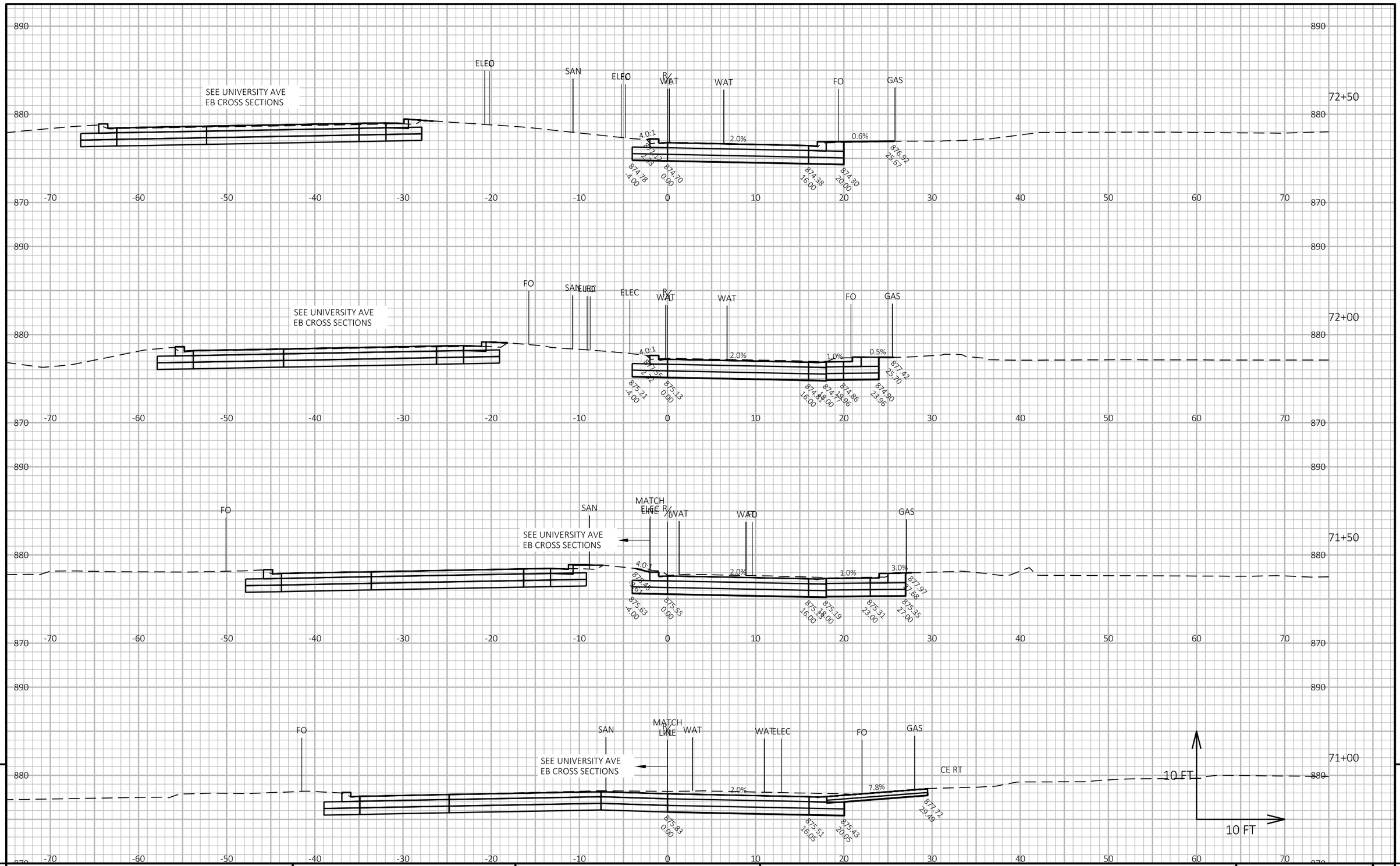


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: FARLEY AVENUE	SHEET 706	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090204-XS-FARLEY.DWG
LAYOUT NAME - 7

PLOT DATE : 8/18/2021 8:40 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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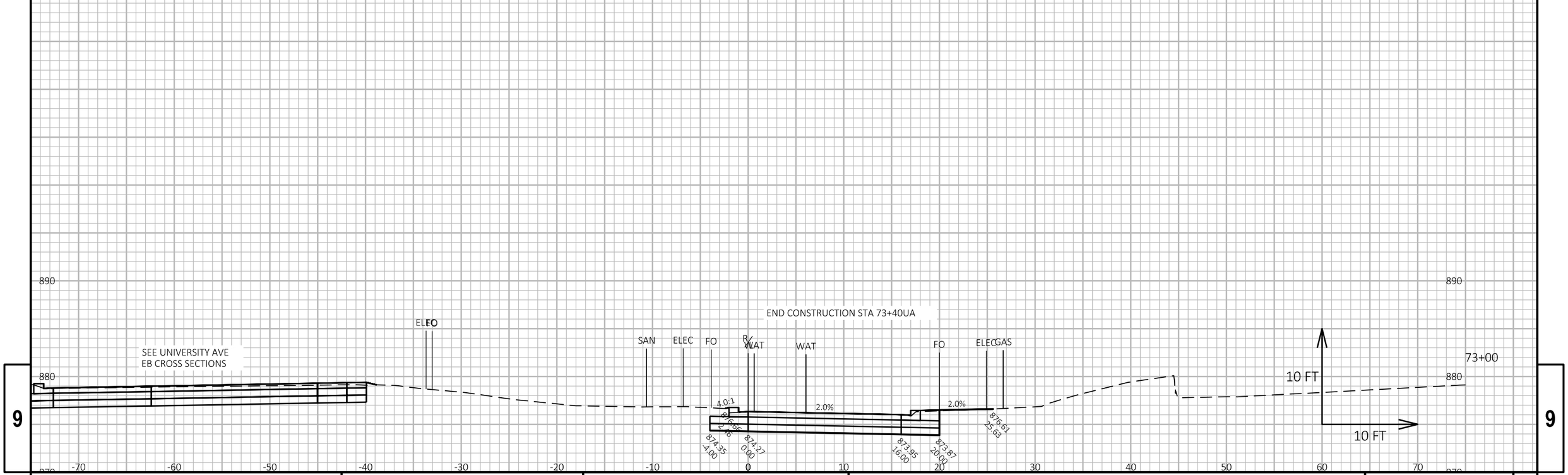
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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE	SHEET 707	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090206-XS-OLD UNIVERSITY AVE.DWG
LAYOUT NAME - 1

PLOT DATE : 8/18/2021 7:41 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	CROSS SECTIONS: UNIVERSITY AVENUE	SHEET 708	E

FILE NAME : G:\MADISON\18026-001 UNIV AVE (SHOREWOOD - UNIVERSITY BAY)\CIVIL 3D\SHEETSPLAN\09 CROSS SECTIONS\090206-XS-OLD UNIVERSITY AVE.DWG
LAYOUT NAME - 2

PLOT DATE : 8/18/2021 7:41 AM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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