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November 2024

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
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 = 470

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WHITEWATER TO ELKHORN

CTH P TO STH 20/67

USH 12

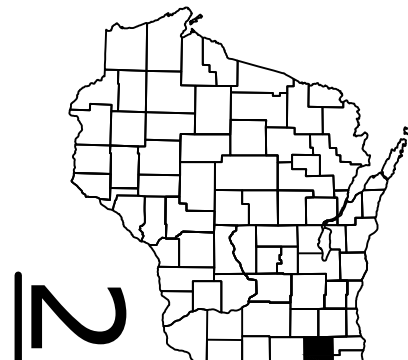
WALWORTH COUNTY

STATE PROJECT NUMBER
3130-03-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3130-03-71	wisc 2025035	1

PROJECT ID: 3130-03-71

COUNTY: WALWORTH



21

DESIGN DESIGNATION

A.A.D.T.	2025	=	8,500
A.A.D.T.	2045	=	9,300
D.H.V.		=	1,110
D.D.		=	55/45
T.		=	8.9%
DESIGN SPEED		=	60 MPH
ESALS		=	2,300,000

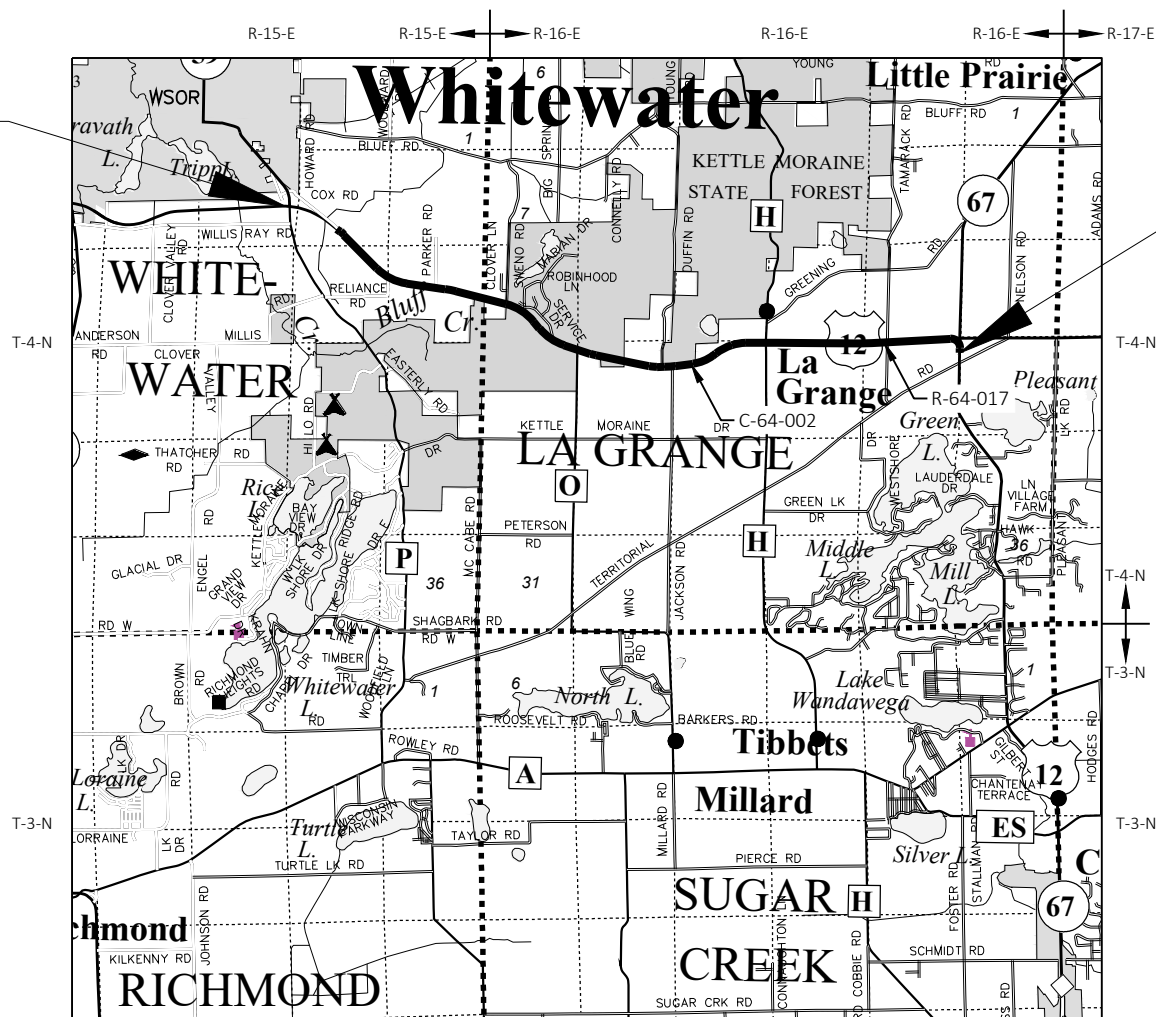
CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BEGIN PROJECT
STA 333+00
Y : 419306.5607
X : 720283.6100

END PROJECT
STA 737+50



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 7.652 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WALWORTH COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (2012).

ORIGINAL PLANS PREPARED BY
Lakeside
ENGINEERS



7/30/24 (Date)
Anthony Bublitz (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	DAAR ENGINEERING
Designer	LAKESIDE ENGINEERS
Project Manager	JON ENGERSON
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	JANET CANNON, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 7/30/24
Jonathan Engerson (Signature)

E

ORDER OF SECTION 2 SHEETS

- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- CURB RAMP DETAILS
- PAVEMENT MARKING
- TRAFFIC STAGING
- DETOURS
- ALIGNMENT
- CONTROL SURVEY

ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CB	CATCH BASIN
C&G	CURB AND GUTTER
C-C	CENTER TO CENTER
CONC	CONCRETE
CSD	CONCRETE SURFACE DRAIN
CTR	CENTER
CWT	HUNDREDWEIGHT
CY	CUBIC YARD
D	DEGREE OF CURVE
A	DELTA
DD	DIRECTIONAL DISTRIBUTION
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
E	EAST
EB	EASTBOUND
EL OR ELEV	ELEVATION
EXIST	EXISTING
FS	FULL SUPERELEVATION
FT	FOOT
HE	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
INCID	INCIDENTAL
INL	INLET
L	LENGTH OF CURVE
LF	LINEAR FOOT
LONG	LONGITUDINAL
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
ML OR M/L	MATCH LINE
N	NORTH
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
REQD	REQUIRED
R/L	REFERENCE LINE
RO	RUN OFF LENGTH
RT	RIGHT
RW OR R/W	RIGHT-OF-WAY
S	SOUTH
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SHT	SHEET
SI	SLOPE INTERCEPT
SS	STORM SEWER
STA	STATION
SY	SQUARE YARD
SYM	SYMMETRICAL
T	TANGENT LENGTH
TEMP	TEMPORARY
TYP	TYPICAL
V	VELOCITY OR DESIGN SPEED
VAR	VARIABLE OR VARIES
W	WEST
WB	WESTBOUND
YD	YARD

AT&T Wisconsin - Communication Line

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mv5616@att.com

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We-Utility-relocations@we-energies.com

We Energies - Gas/Petroleum

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We-Utility-relocations@we-energies.com

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Wisconsin Department of Natural Resources

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Andy Traeger
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DESIGNER

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GENERAL NOTES

DO NOT REMOVE ANY TREES OR SHRUBS WITHOUT APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH DIGGERS HOTLINE AND AFFECTED UTILITIES TO FIELD LOCATE UTILITIES PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE SEPARATELY.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 6-INCH TYPICAL DEPTH.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITH IN THOSE AREAS. SEED, FERTILIZE, AND EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FOUR (4) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND EROSION MAT WITHIN FOUR (4) DAYS OF THE INITIAL AND ANY NEW DISTURBANCES.

WETLAND AND STREAM BANK AREAS, AS DESIGNATED BY THE ENGINEER, SHALL BE RESTORED WITHIN 48 HOURS OF ANY DISTURBANCE.

STOCKPILE EXCESS MATERIAL OR SOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOOD PLAINS, AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND EROSION MAT.

EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMPs SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

THE EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) WILL BE DETERMINED BY THE ENGINEER.

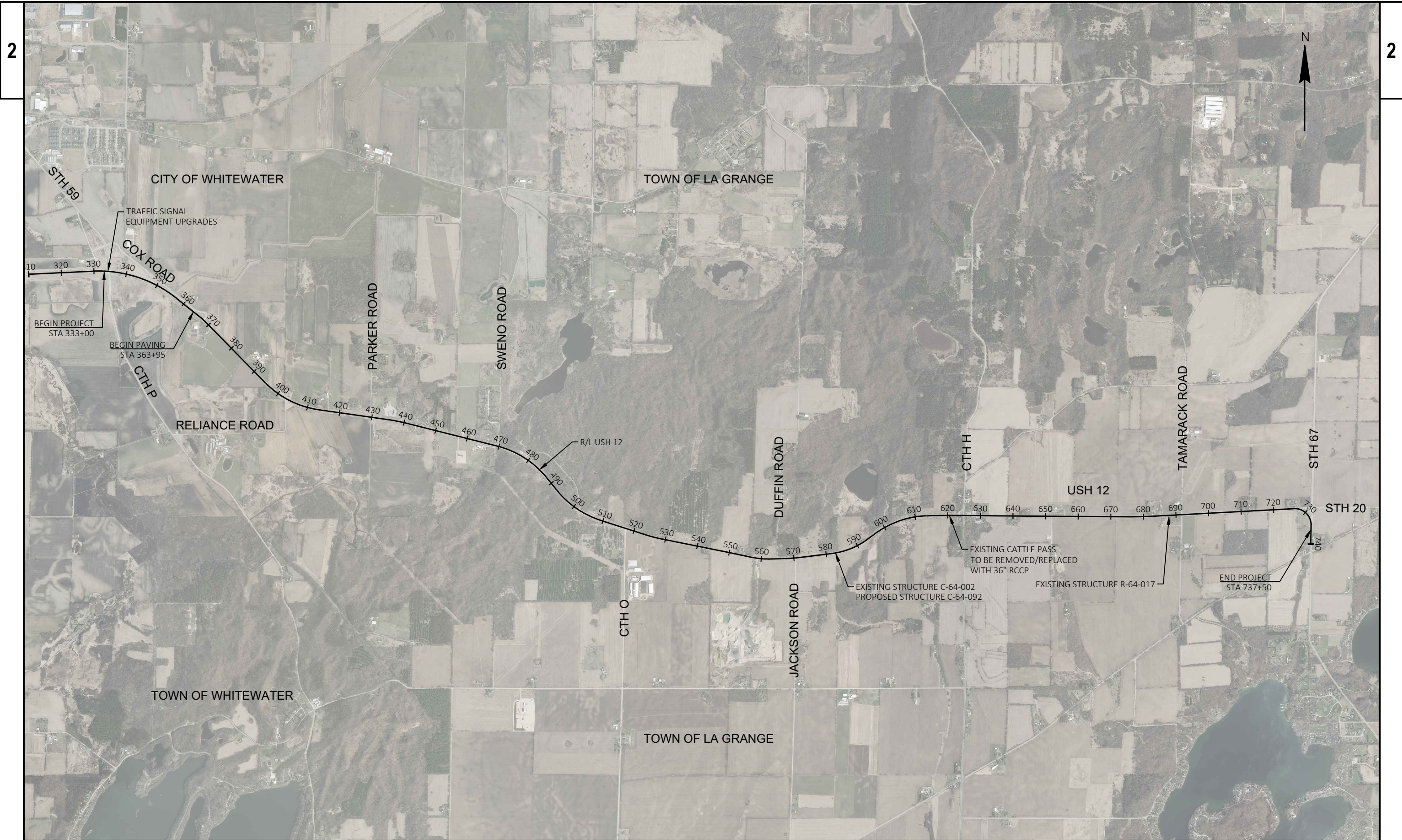
SQUEEGEE ALL SAWCUT SLURRY TO THE AGGREGATE SHOULDER AND/OR REMOVE INCIDENTAL TO SAWCUTTING.

CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC), AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

RUMBLE STRIPS SHALL NOT BE PLACED ON SHOULDERS WITH LESS THAN 5' OF PAVED WIDTH.

ALL TYPES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLWING LAYERS AND GRADATIONS:

PAVEMENT APPLICATION	PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYER
RESURFACING USH 12	4 MT 58-28 S	1 ¾"	UPPER
	3 MT 58-28 S	2 ¼"	LOWER
RESURFACING USH 12 AT CTH H	4 MT 58-28 S	1 ¾"	UPPER
	3 MT 58-28 S	3 ¼"	LOWER
FULL DEPTH PAVEMENT REPLACEMENT	ASPHALTIC SURFACE	6 ¾"	--



PROJECT NO: 3130-03-71

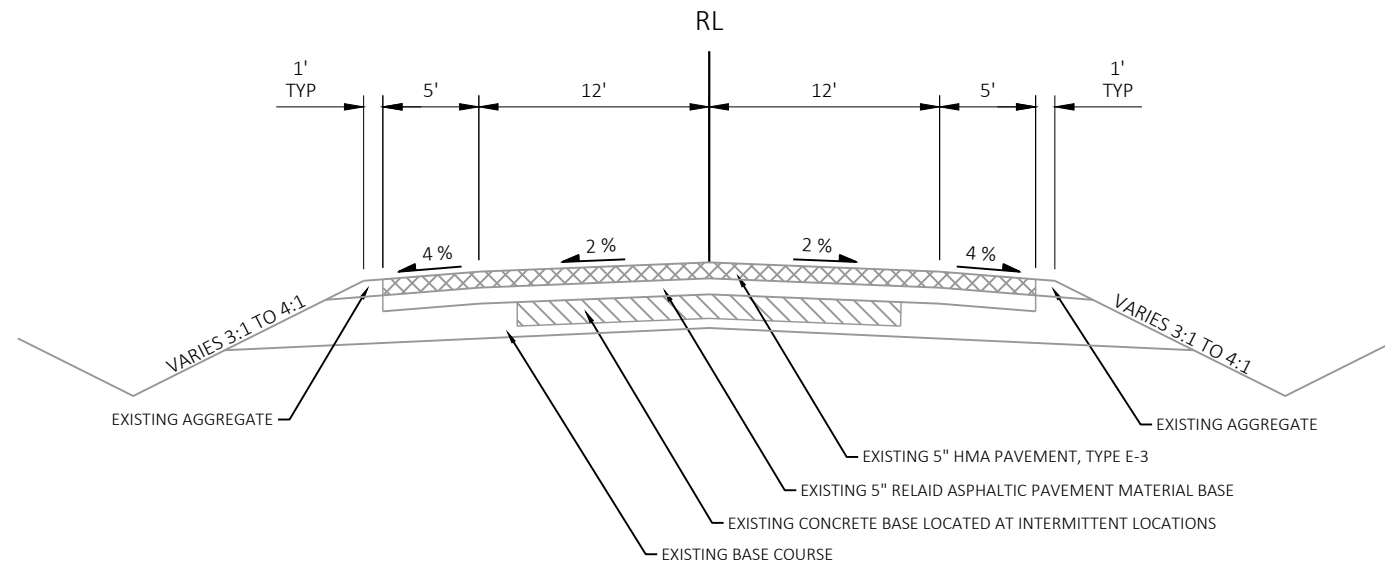
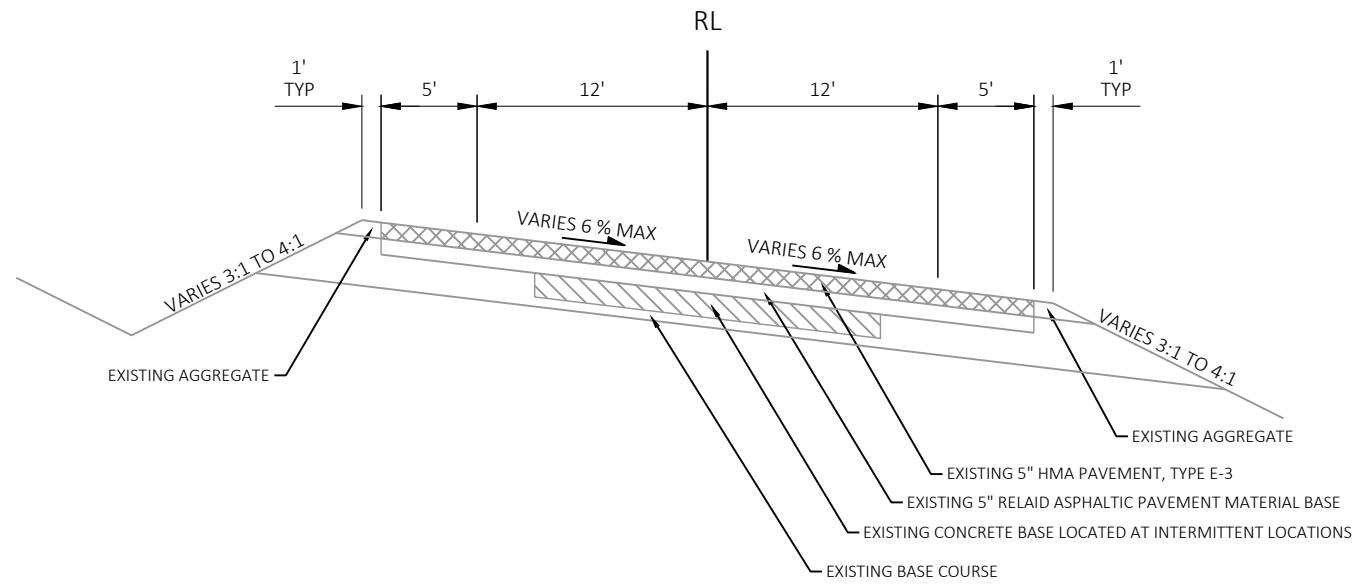
HWY: USH 12

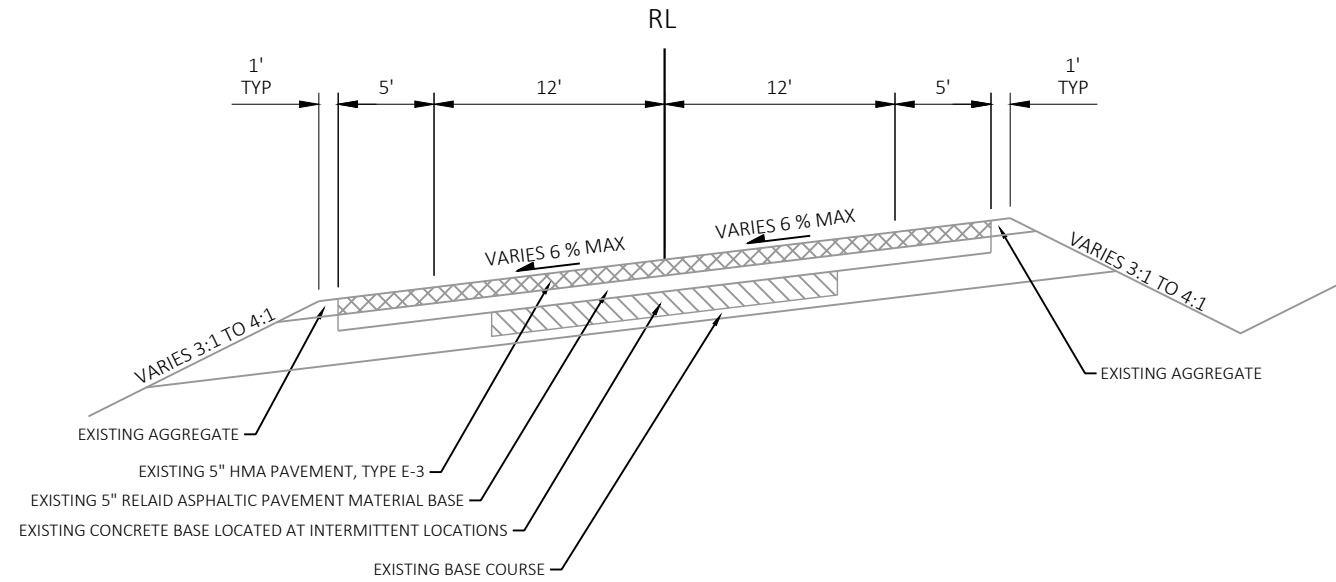
COUNTY: WALWORTH

PROJECT OVERVIEW

SHEET

E

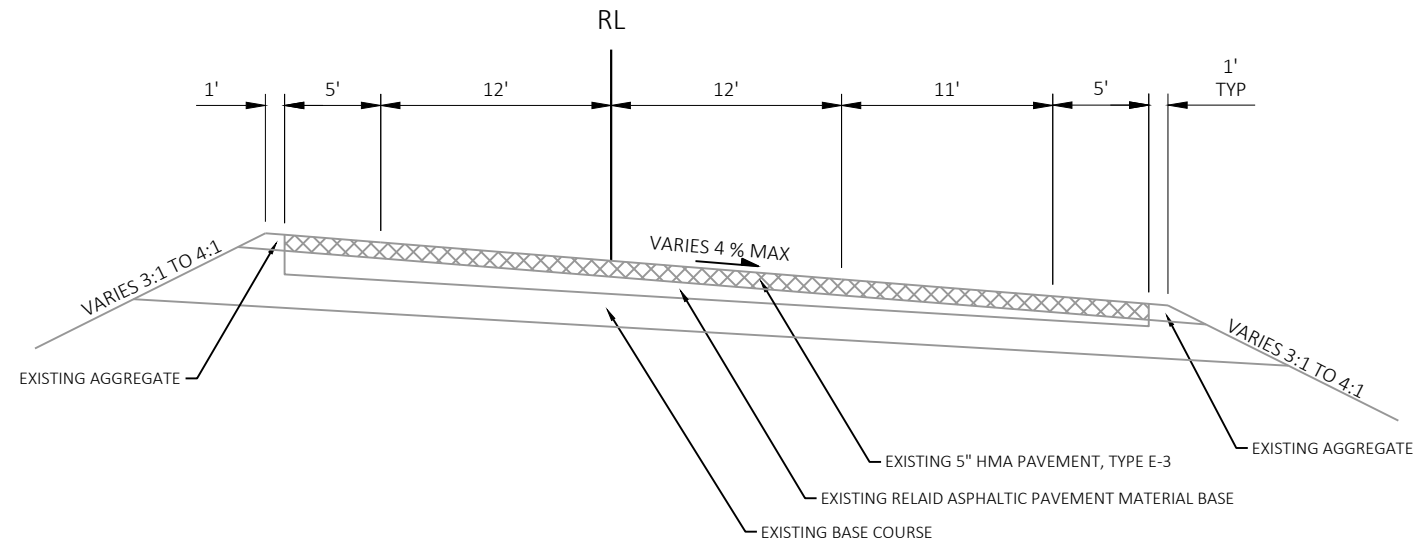




EXISTING TYPICAL SECTION - SUPERELEVATED - LEFT - USH 12

STA 393+20 - 415+36
 STA 509+33 - 510+93
 STA 522+71 - 531+07
 STA 557+15 - 576+82
 STA 582+54 - 593+96
 STA 679+47 - 684+15

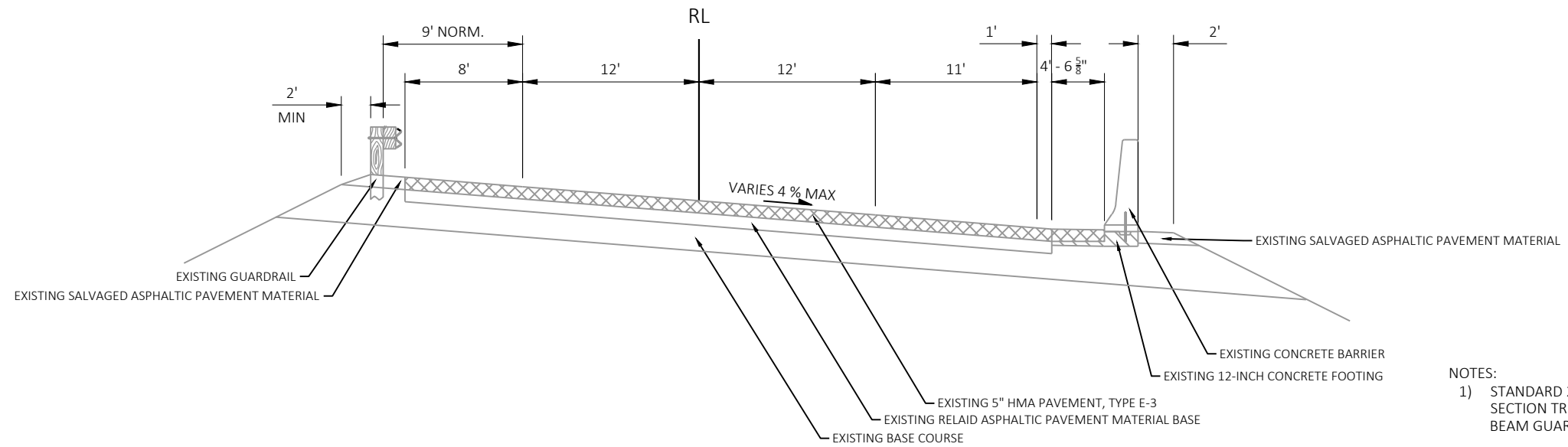
NOTE:
 1) EXISTING ASPHALTIC SWALE ALONG SHOULDER FROM STA 573+59 LT TO STA 581+75 LT



EXISTING TYPICAL SECTION - USH 12

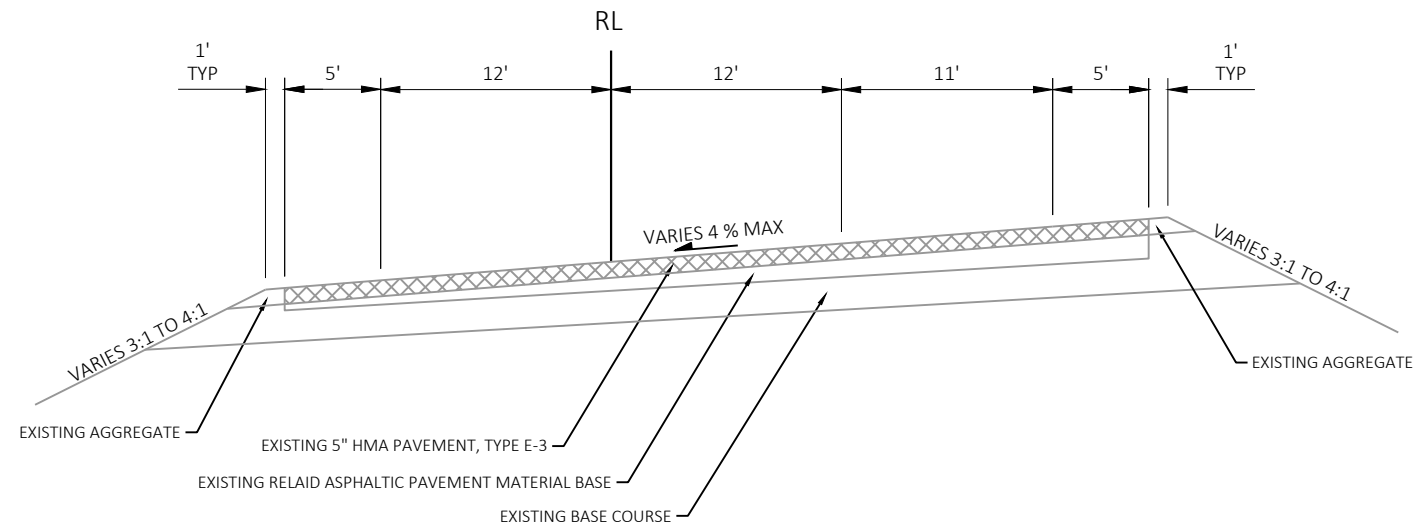
WITH TRUCK CLIMBING LANE
 STA 467+23 - 480+04

NOTE:
 1) 2 LANE RURAL TRANSITIONS TO 3 LANE SECTION STA 463+09 TO STA 467+23



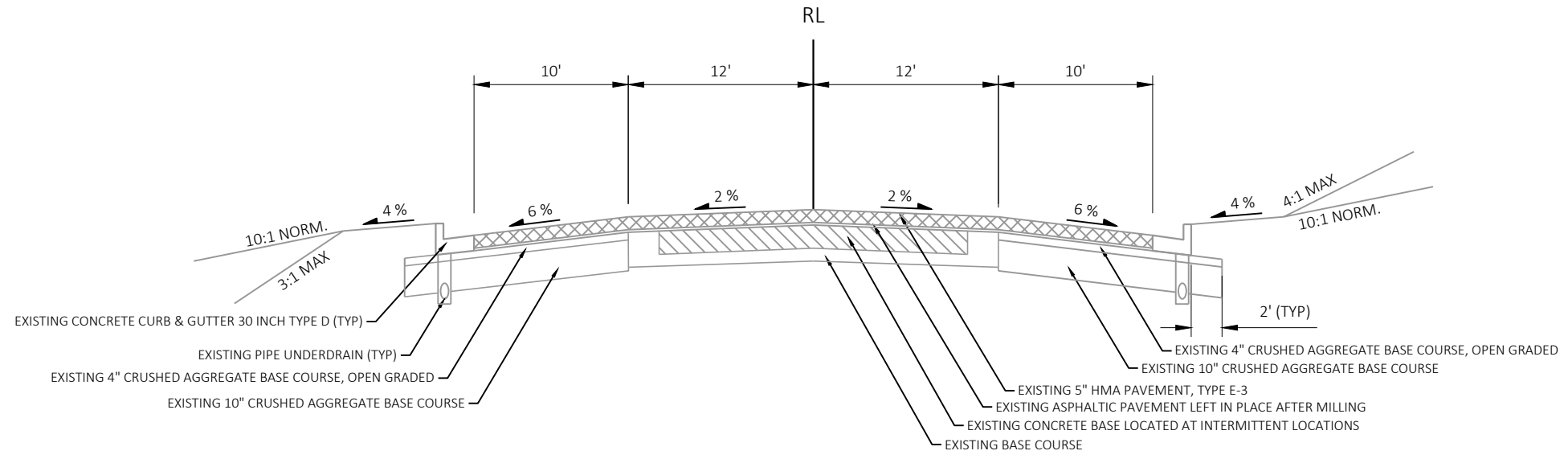
NOTES:
 1) STANDARD 2% CROSS SLOPE FOR TYPICAL SECTION TRUCK CLIMBING LANE WITH BEAM GUARD STA 488+62 TO STA 492+14

EXISTING TYPICAL SECTION - USH 12
 TRUCK CLIMBING LANE WITH BARRIER WALL
 STA 480+04 - 492+14



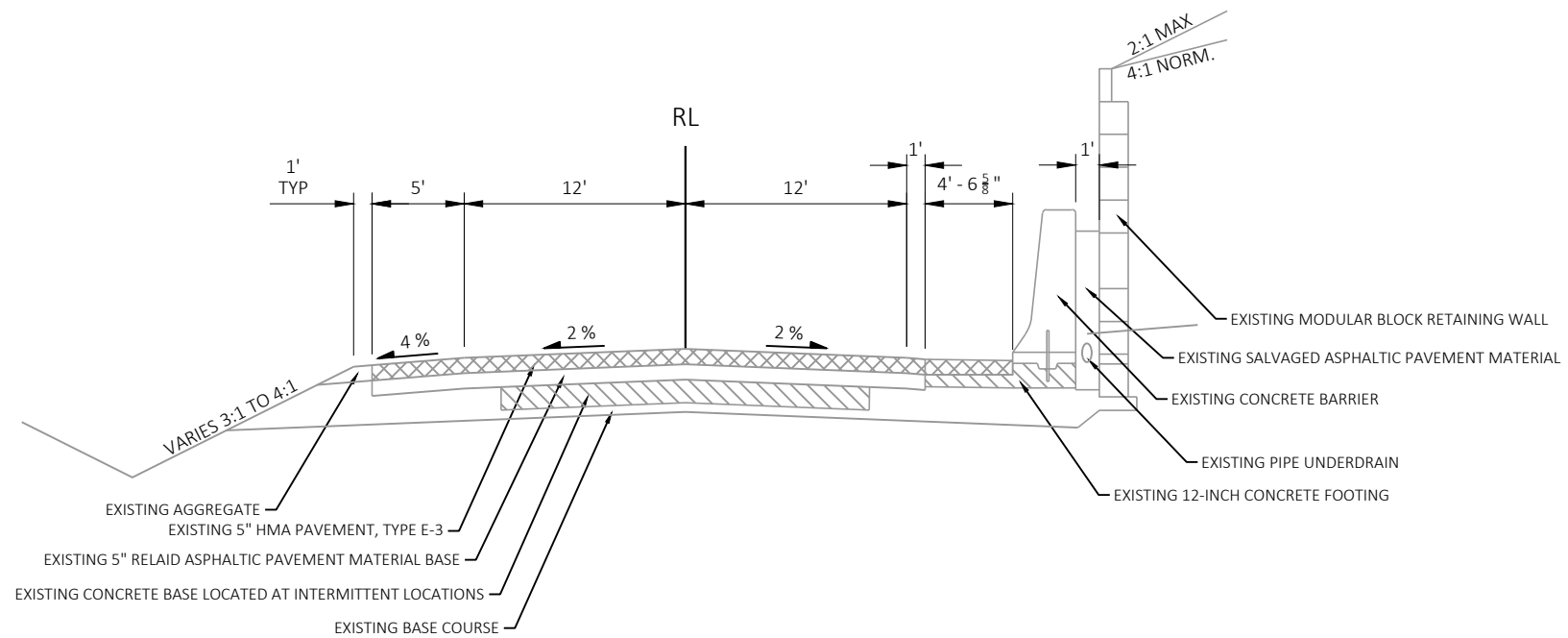
NOTE:
 1) 3 LANE SECTION TRANSITIONS TO 2 LANE RURAL SECTION STA 505+84 TO STA 509+33

EXISTING TYPICAL SECTION - USH 12
 WITH TRUCK CLIMBING LANE
 STA 492+14 - 509+33



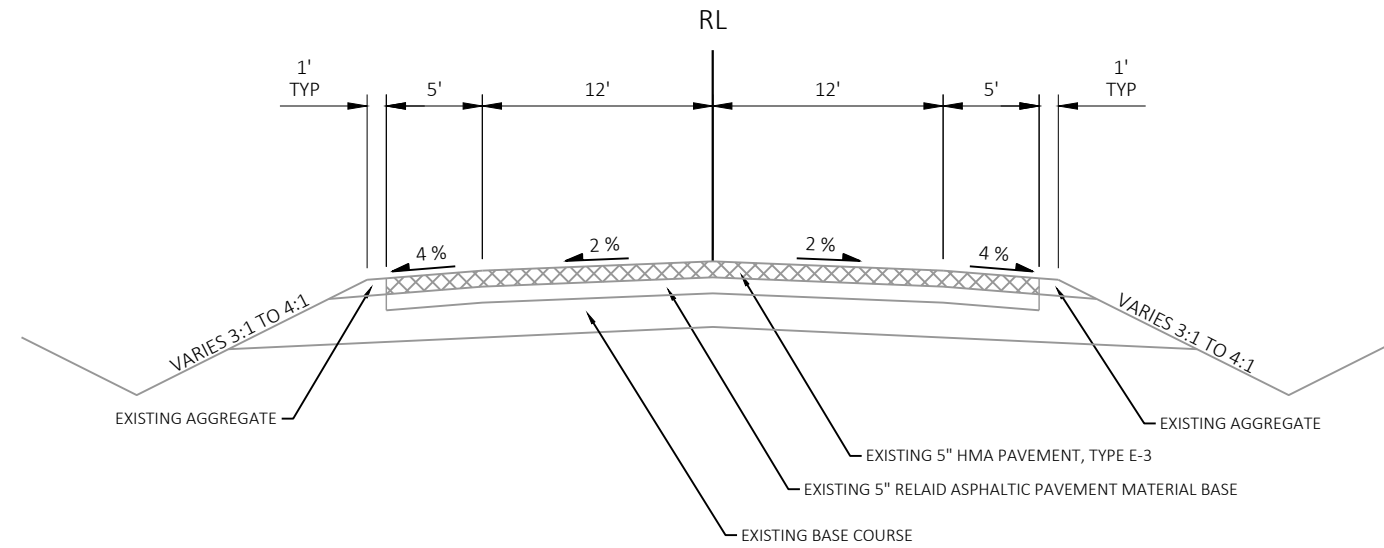
EXISTING TYPICAL SECTION - USH 12

URBAN SECTION
STA 621+46 - 627+07 LT
STA 621+46 - 631+97 RT



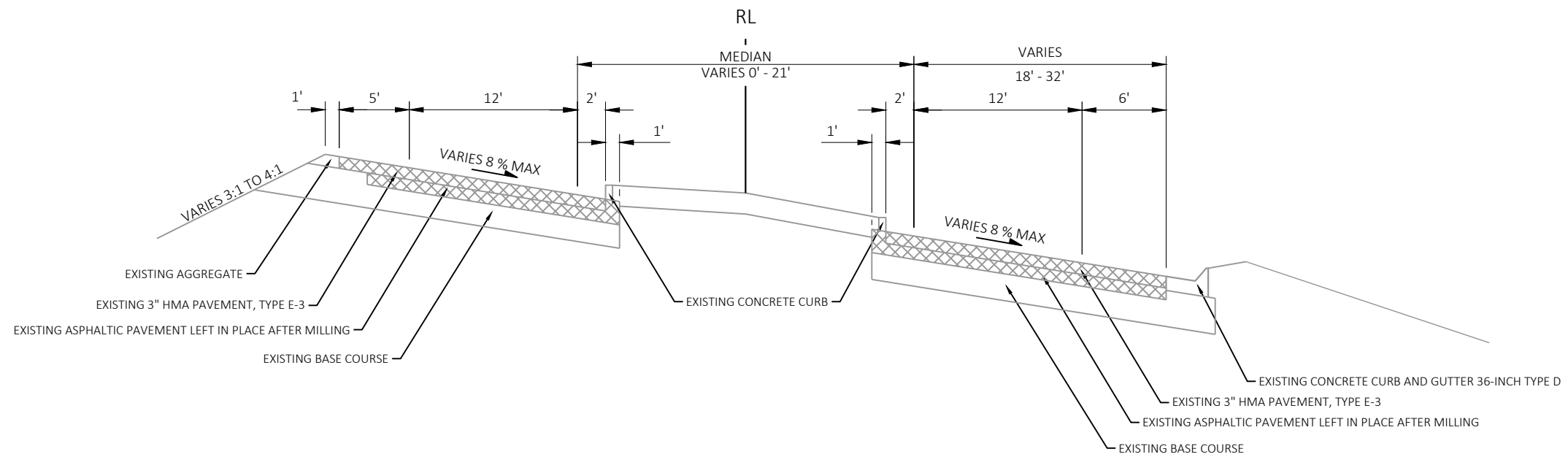
EXISTING TYPICAL SECTION - USH 12

STA 686+29 - 689+58



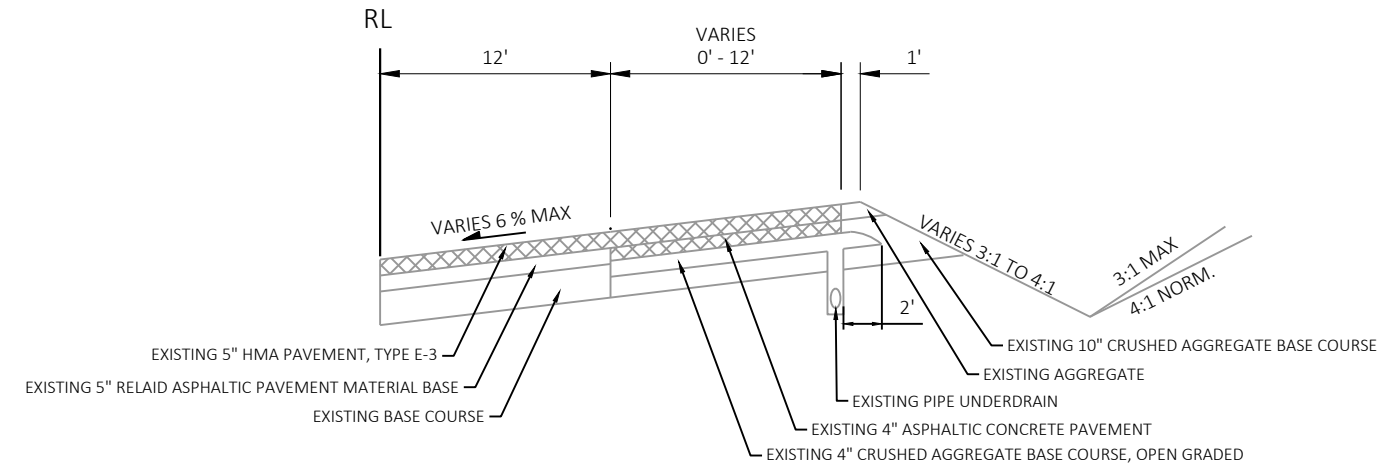
EXISTING TYPICAL SECTION - USH 12

STA 721+00 - 724+80
STA 731+25 - 737+00



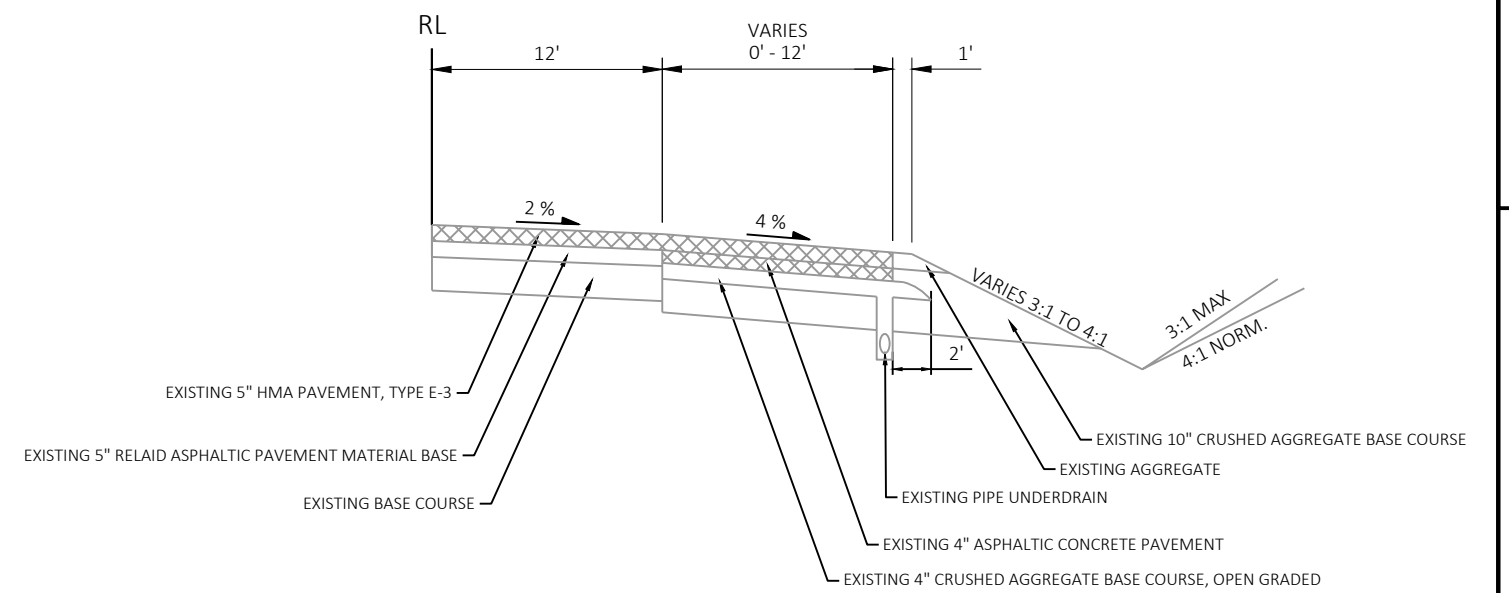
EXISTING TYPICAL SECTION - USH 12

STA 724+80 - 731+25



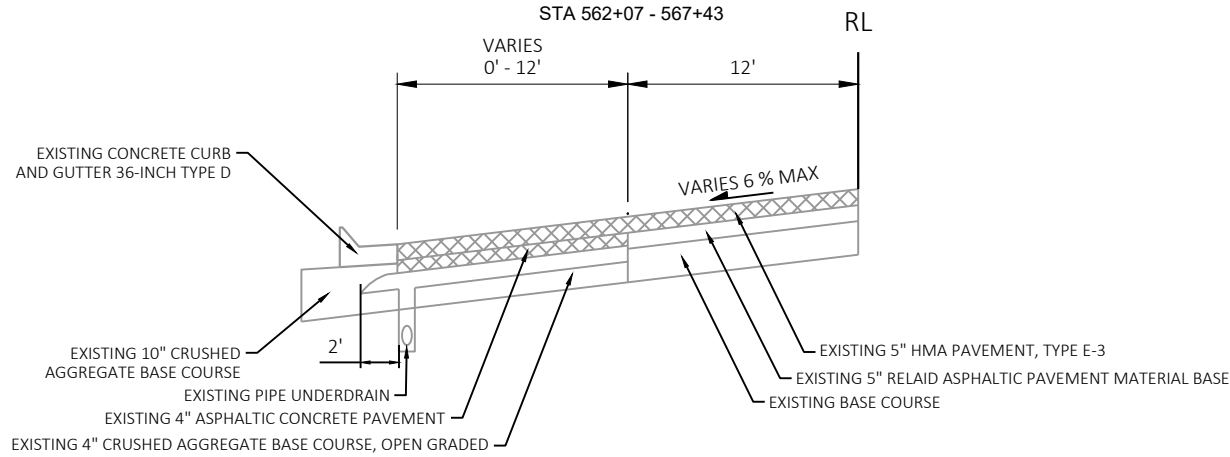
EXISTING TYPICAL SECTION - USH 12

AUXILIARY PASSING LANE/ RIGHT TURN LANE
STA 364+95 - 371+42
STA 556+70 - 560+79
STA 562+07 - 567+43



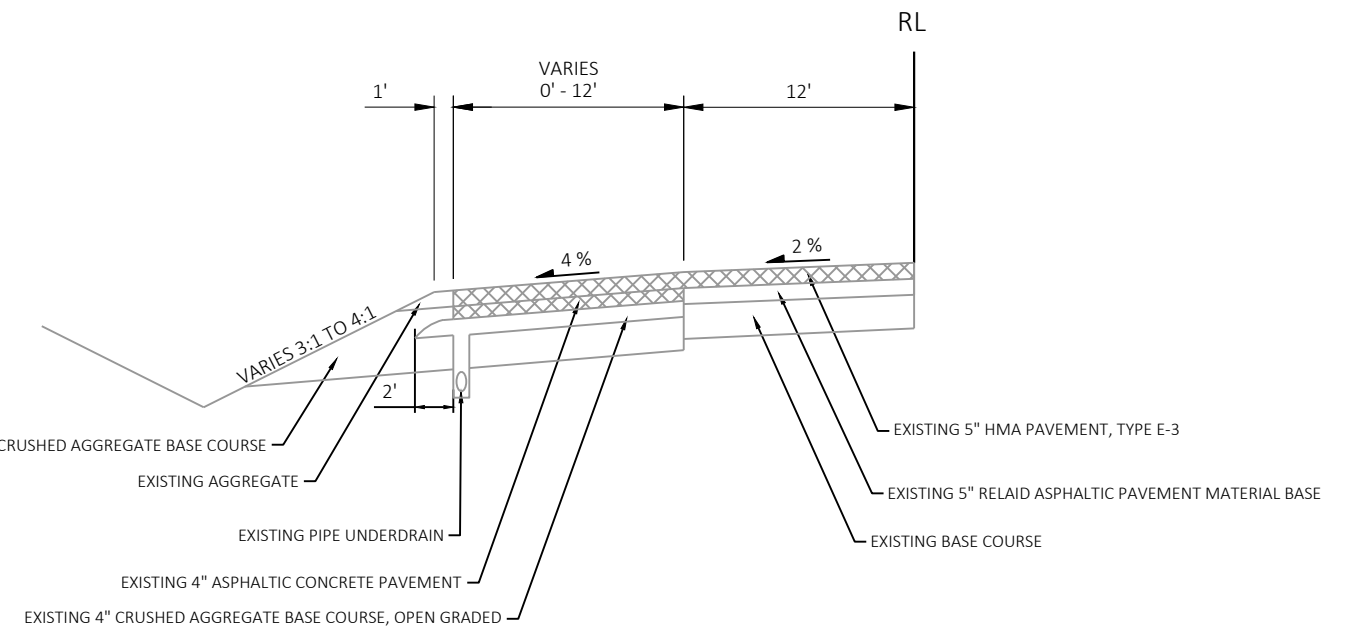
EXISTING TYPICAL SECTION - USH 12

AUXILIARY PASSING LANE/ RIGHT TURN LANE
STA 426+22 - 433+92
STA 507+08 - 520+53



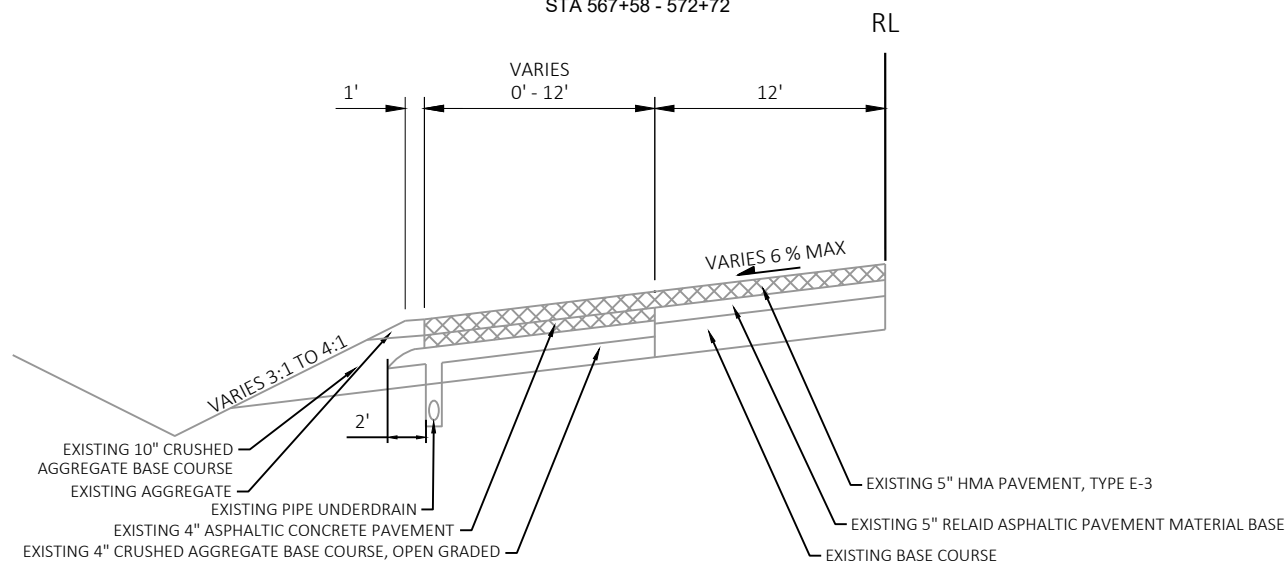
EXISTING TYPICAL SECTION - USH 12

AUXILIARY PASSING LANE
STA 567+58 - 572+72



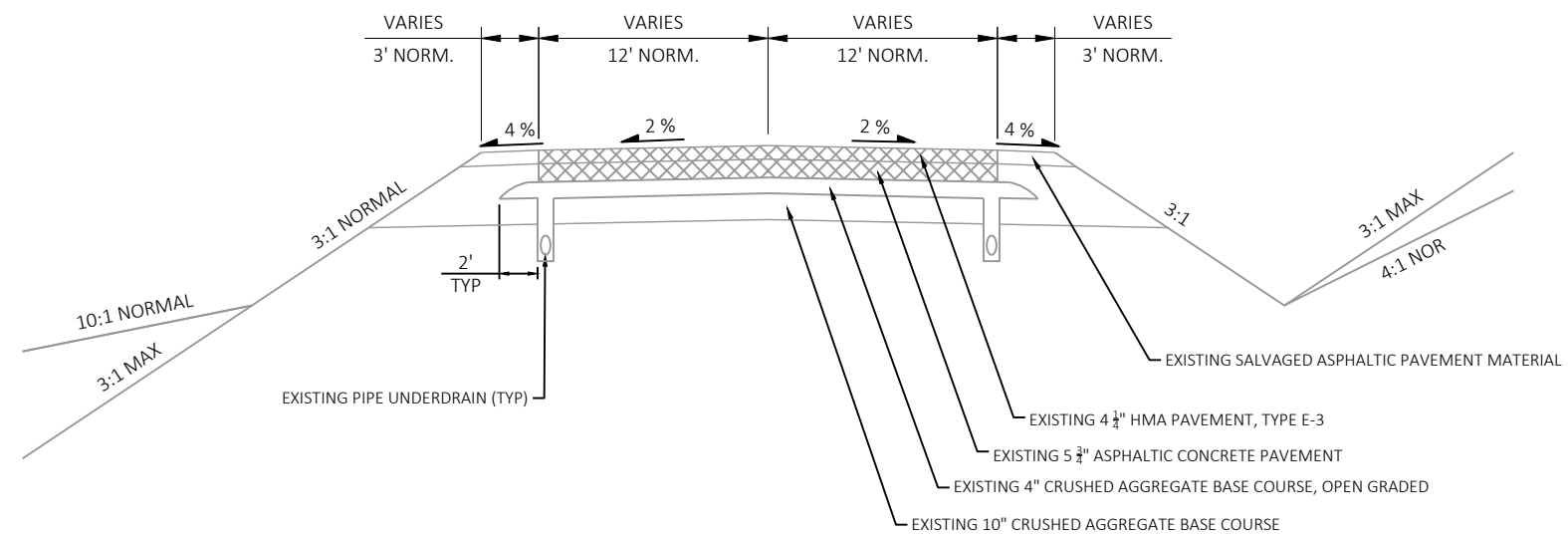
EXISTING TYPICAL SECTION - USH 12

AUXILIARY PASSING LANE/ RIGHT TURN LANE
STA 430+24 - 433+59
STA 513+45 - 516+78

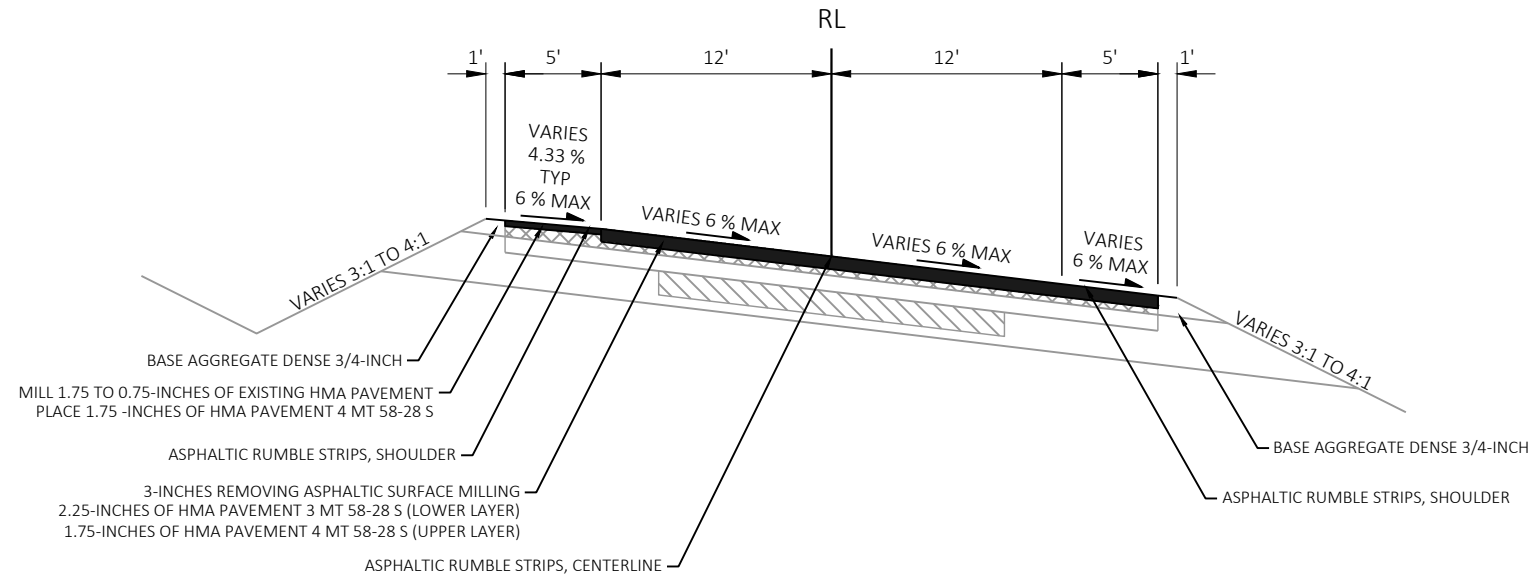


EXISTING TYPICAL SECTION - USH 12

AUXILIARY PASSING LANE/ RIGHT TURN LANE
STA 394+75 - 406+37
STA 555+40 - 564+35

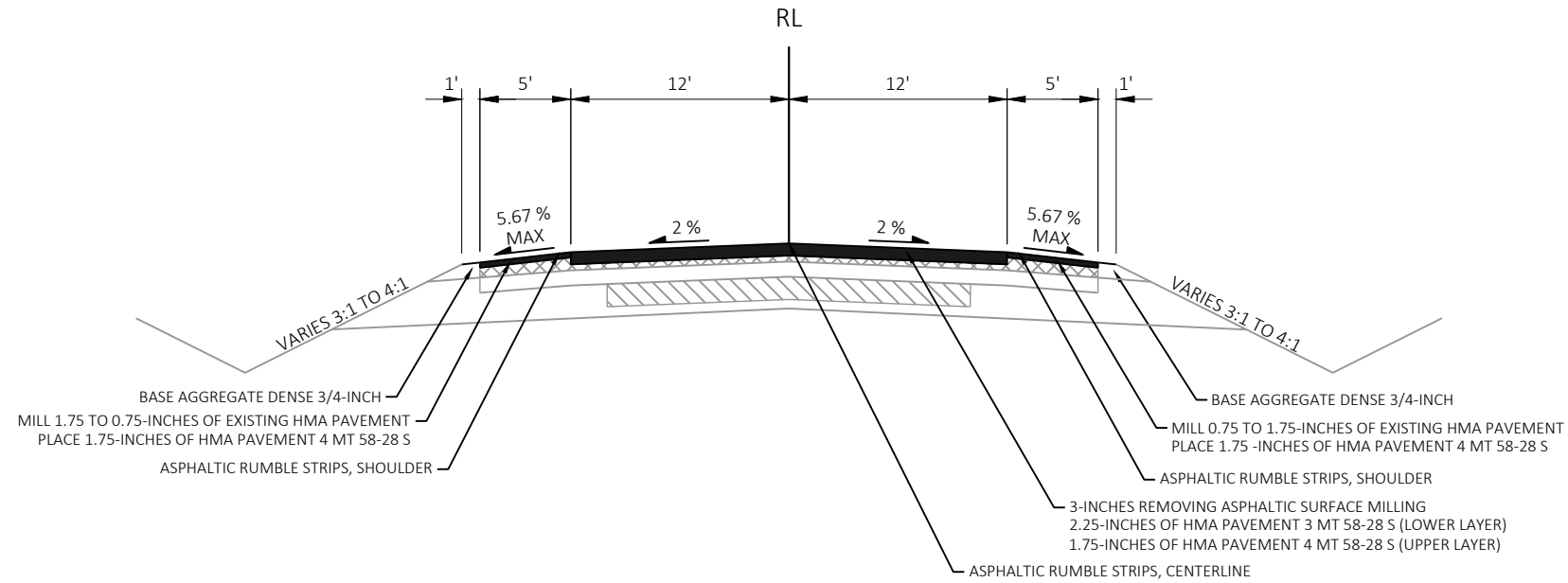


EXISTING TYPICAL SECTION - SIDE ROAD



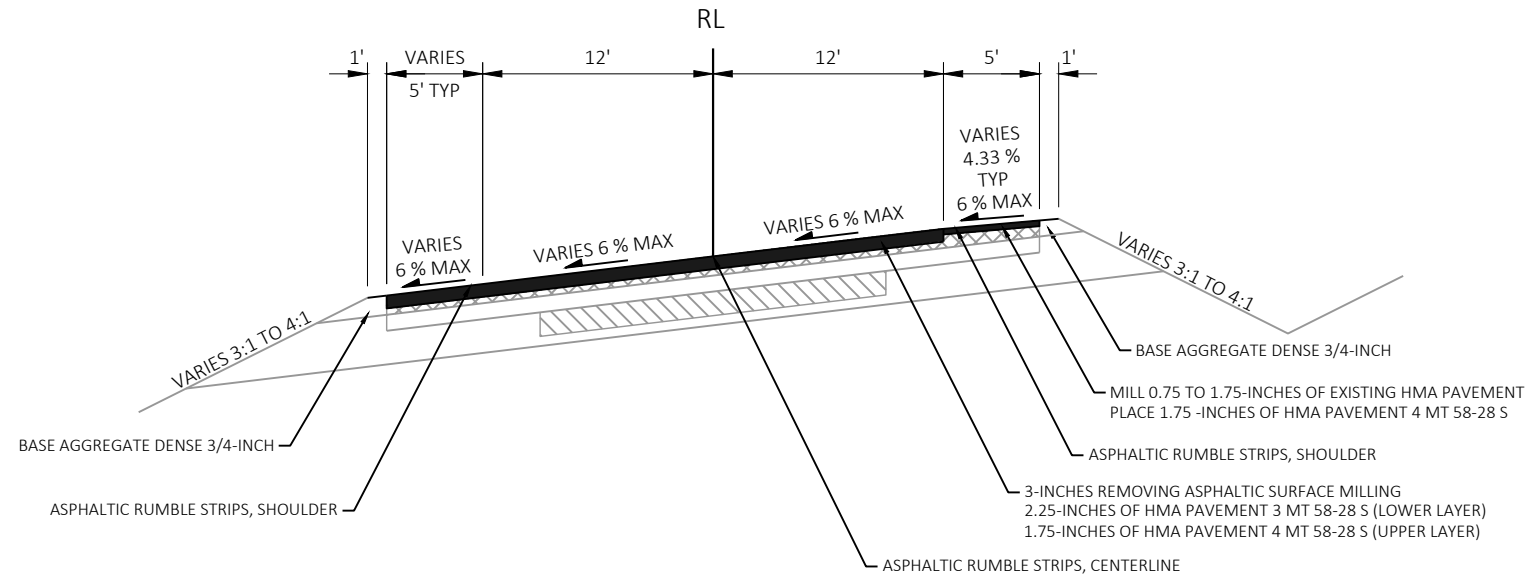
PROPOSED TYPICAL SECTION - SUPERELEVATED - RIGHT - USH 12

STA 363+95 - 364+70
STA 431+83 - 445+52
STA 595+52 - 616+62



PROPOSED TYPICAL SECTION - USH 12

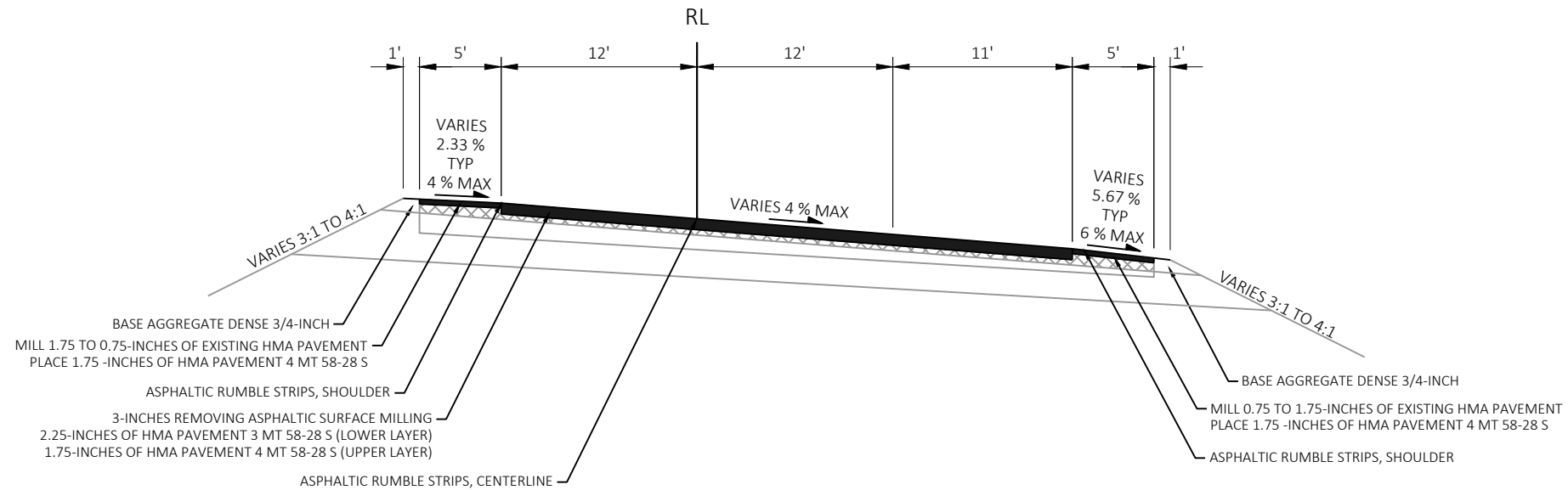
STA 364+70 - 393+20
STA 415+36 - 431+83
STA 445+52 - 467+23
STA 510+93 - 522+71
STA 531+07 - 557+15
STA 576+82 - 582+54
STA 593+96 - 595+52
STA 616+62 - 621+46
STA 631+97 - 679+47
STA 684+15 - 686+29
STA 689+58 - 721+00



PROPOSED TYPICAL SECTION - SUPERELEVATED - LEFT - USH 12

STA 393+20 - 415+36
 STA 509+33 - 510+93
 STA 522+71 - 531+07
 STA 557+15 - 576+82
 STA 582+54 - 593+96
 STA 679+47 - 684+15

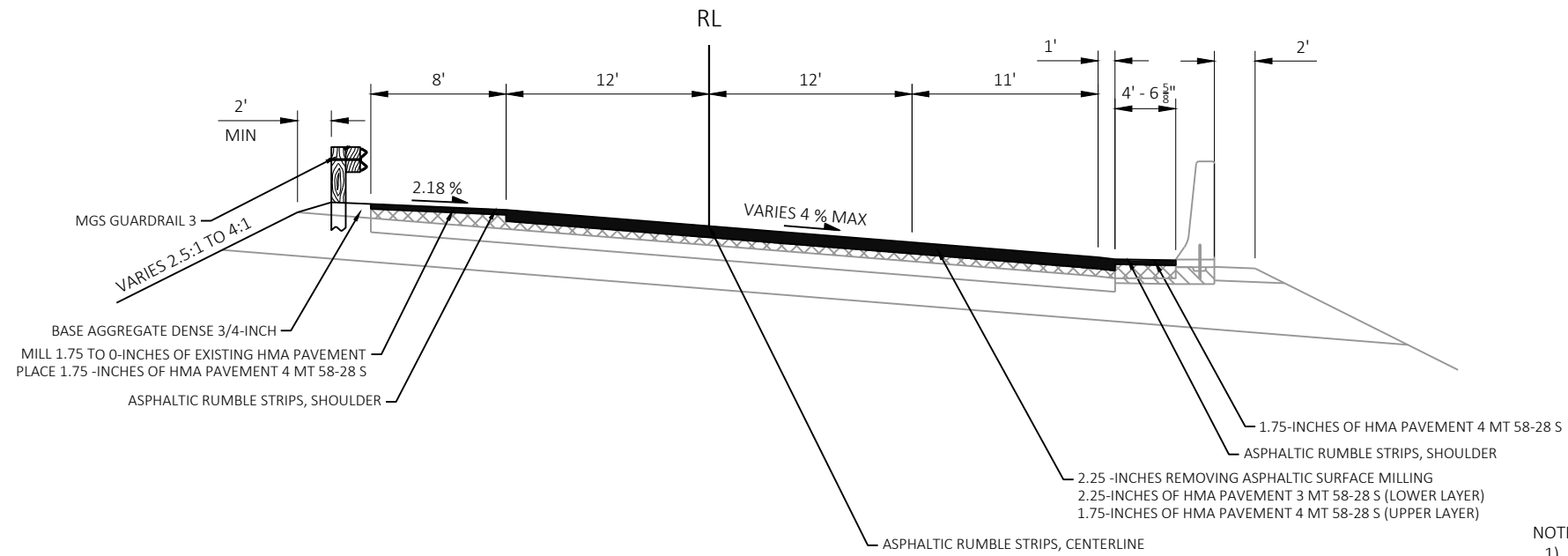
NOTE:
 1) EXISTING ASPHALTIC SWALE ALONG SHOULDER FROM STA 573+59 LT TO STA 581+75 LT



PROPOSED TYPICAL SECTION - USH 12

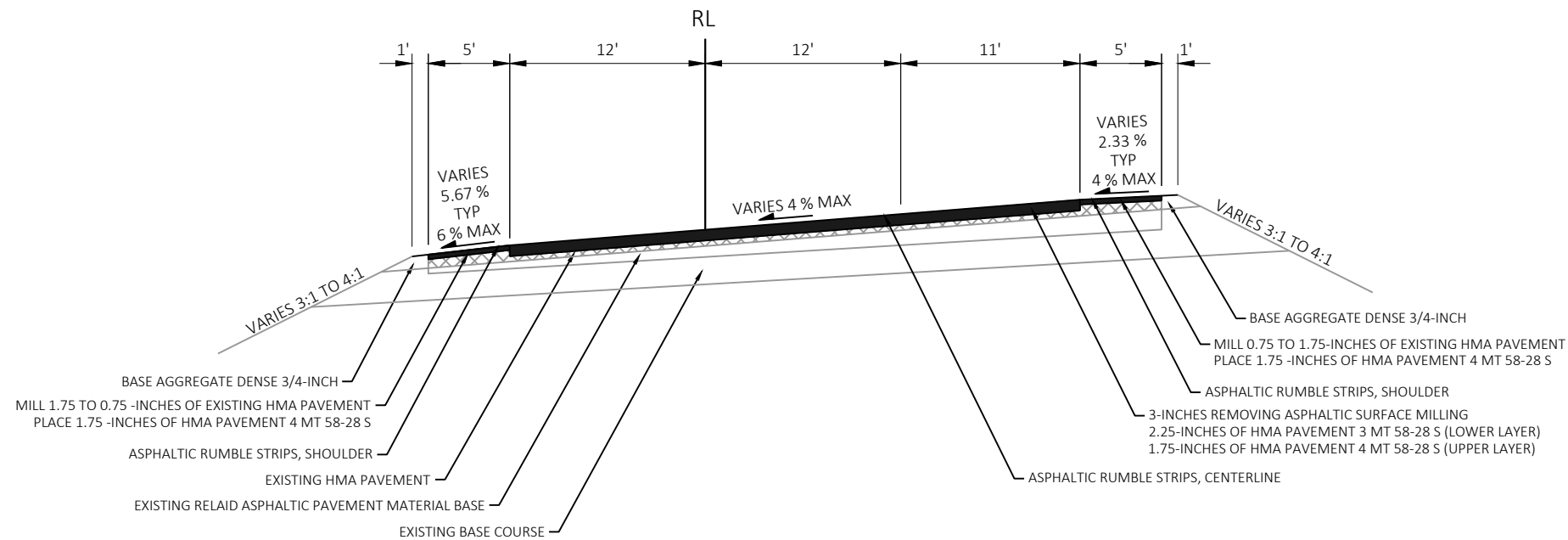
WITH TRUCK CLIMBING LANE
 STA 467+73 - 480+04

NOTE:
 1) 2 LANE RURAL TRANSITIONS TO 3 LANE SECTION STA 464+79 TO STA 467+73



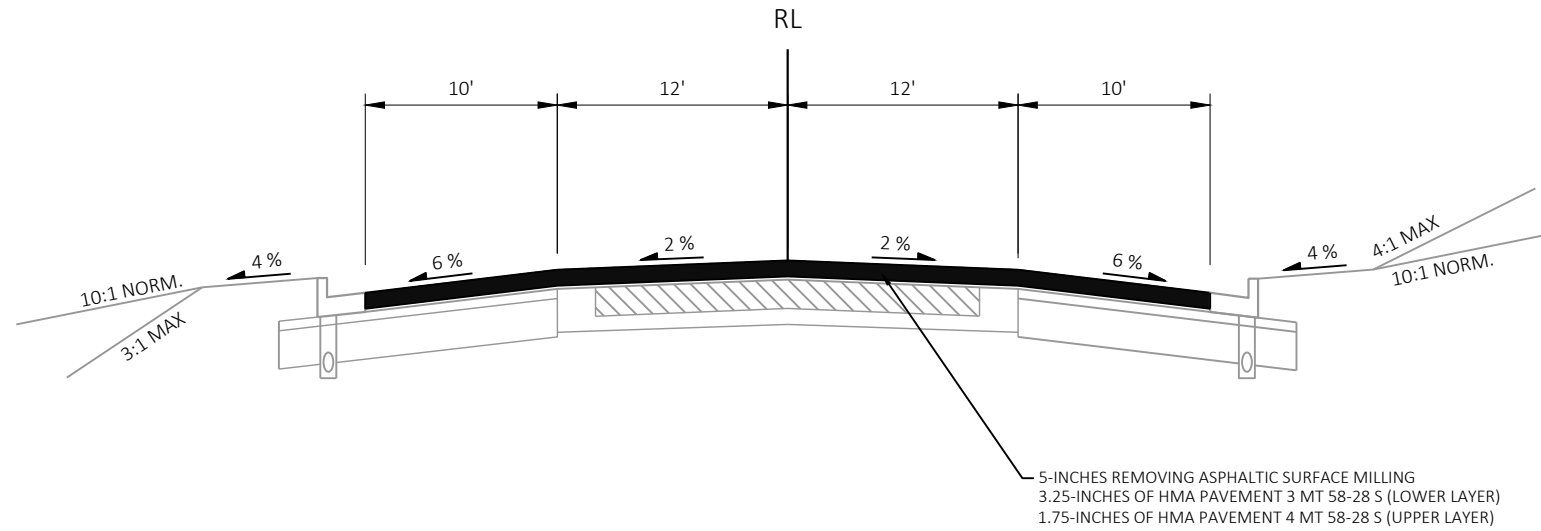
PROPOSED TYPICAL SECTION - USH 12
 TRUCK CLIMBING LANE WITH BARRIER WALL
 STA 480+04 - 492+14

NOTES:
 1) STANDARD 2% CROSS SLOPE FOR TYPICAL SECTION TRUCK CLIMBING LANE WITH BEAM GUARD STA 488+62 TO STA 492+14



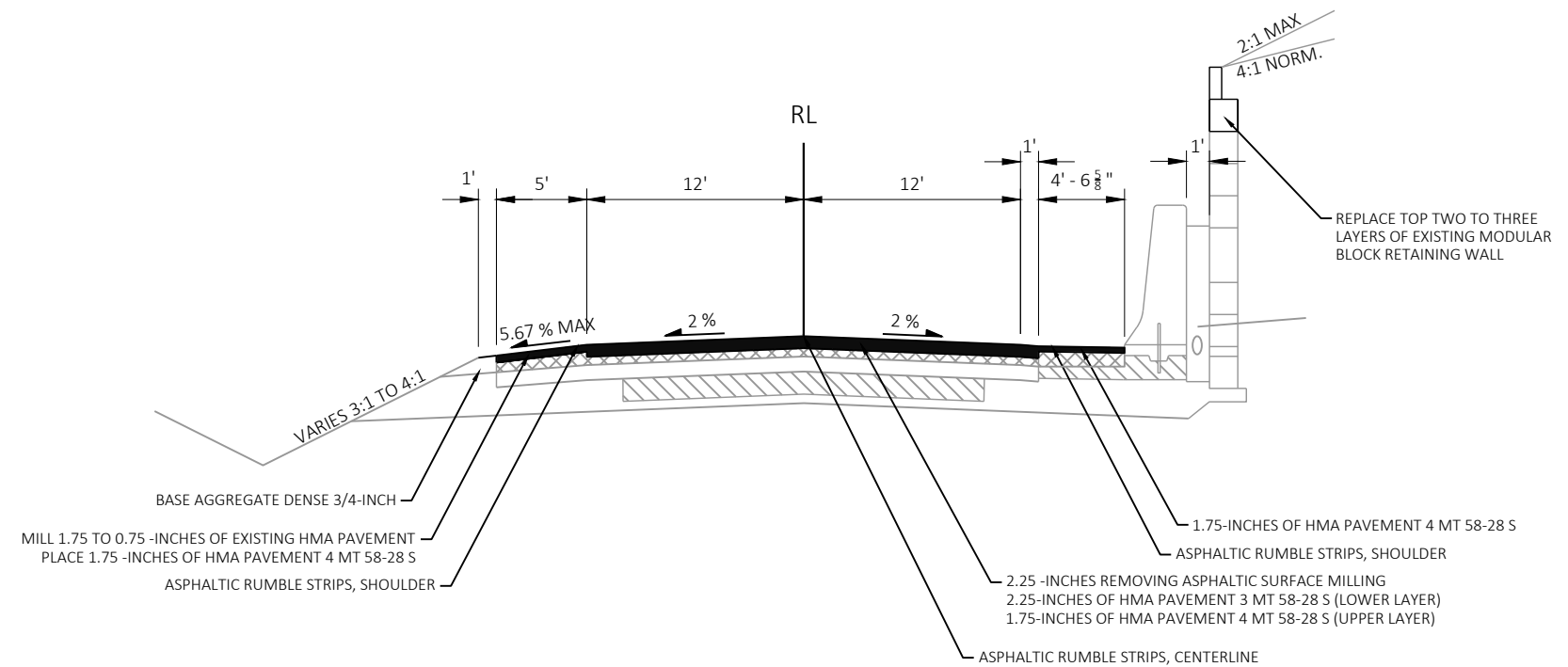
PROPOSED TYPICAL SECTION - USH 12
 WITH TRUCK CLIMBING LANE
 STA 492+14 - 509+33

NOTE:
 1) 3 LANE SECTION TRANSITIONS TO 2 LANE RURAL SECTION STA 505+84 TO STA 509+33



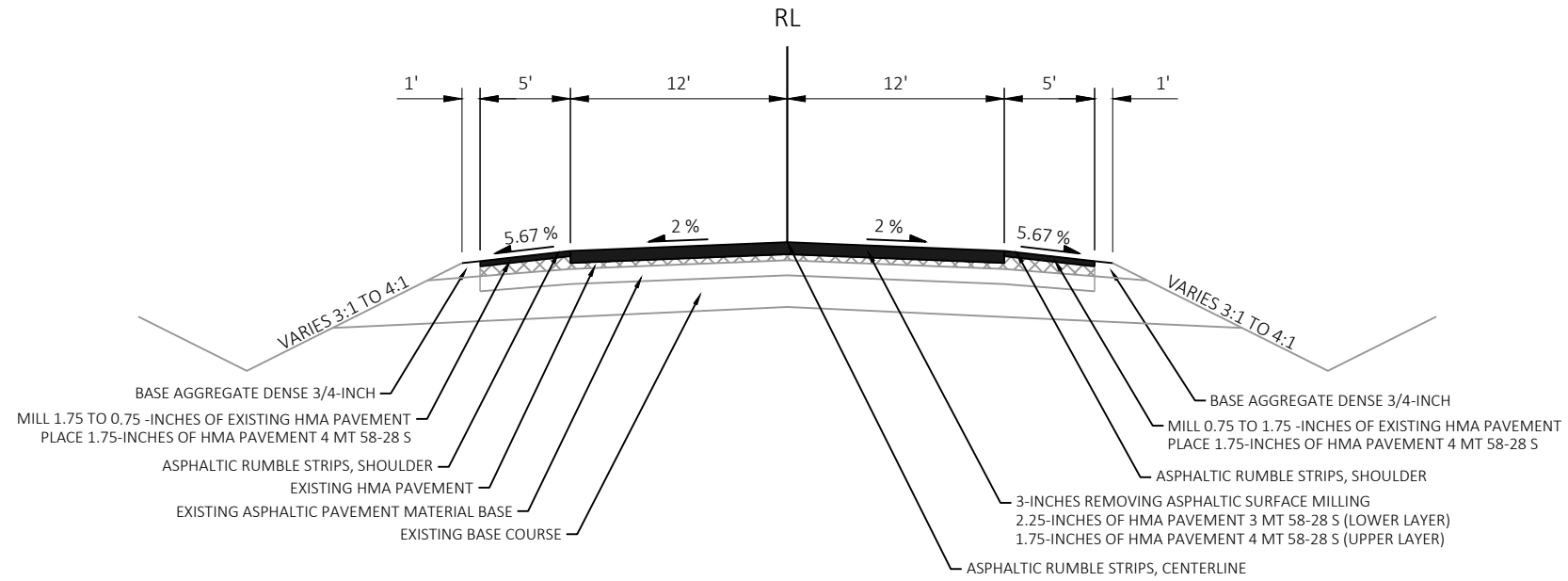
PROPOSED TYPICAL SECTION - USH 12

URBAN SECTION
 STA 622+38 - 628+66 LT
 STA 622+38 - 631+59 RT



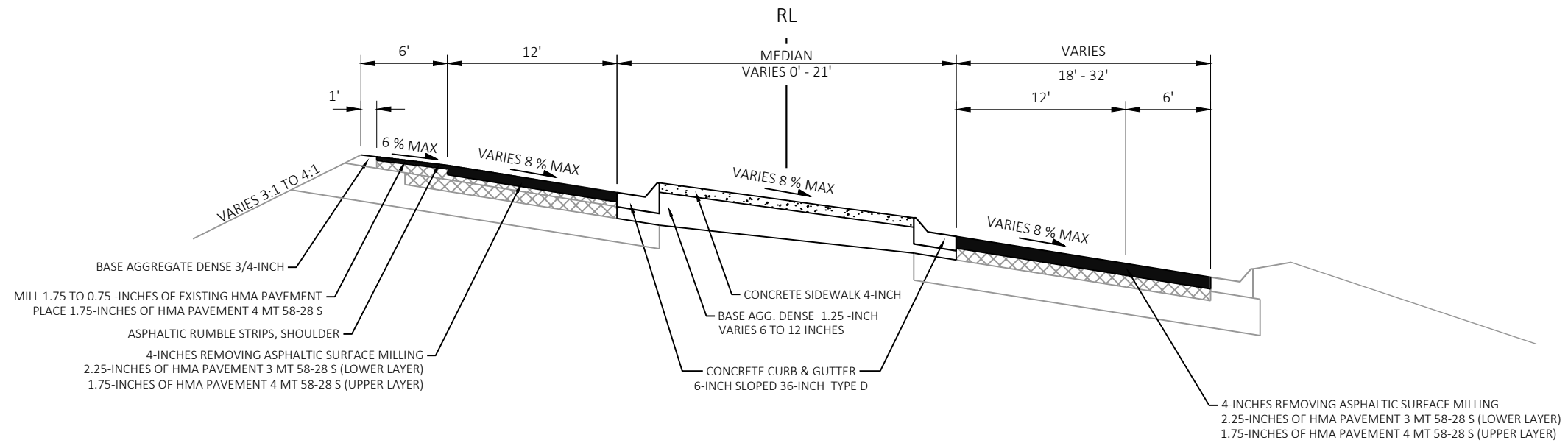
PROPOSED TYPICAL SECTION - USH 12

STA 686+29 - 689+58



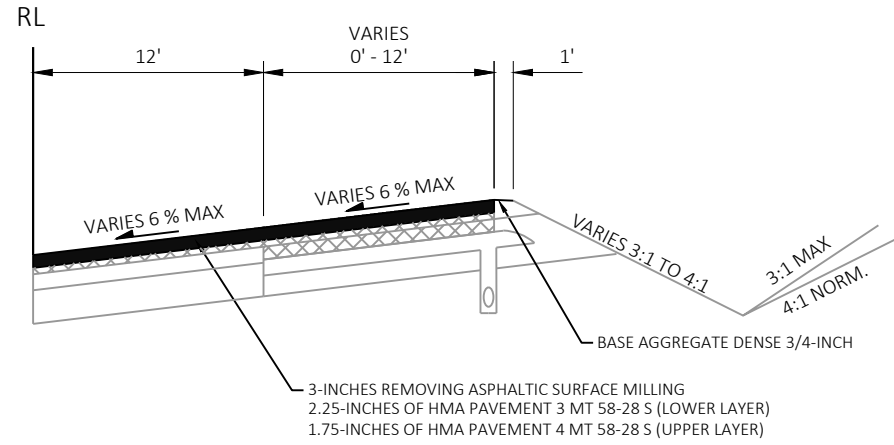
PROPOSED TYPICAL SECTION - USH 12

STA 721+00 - 724+80
STA 731+25 - 737+00

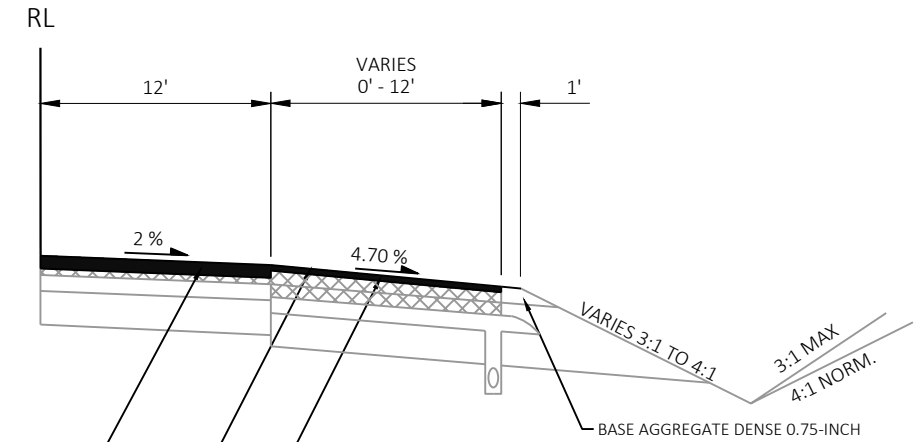


PROPOSED TYPICAL SECTION - USH 12

STA 724+80 - 731+25

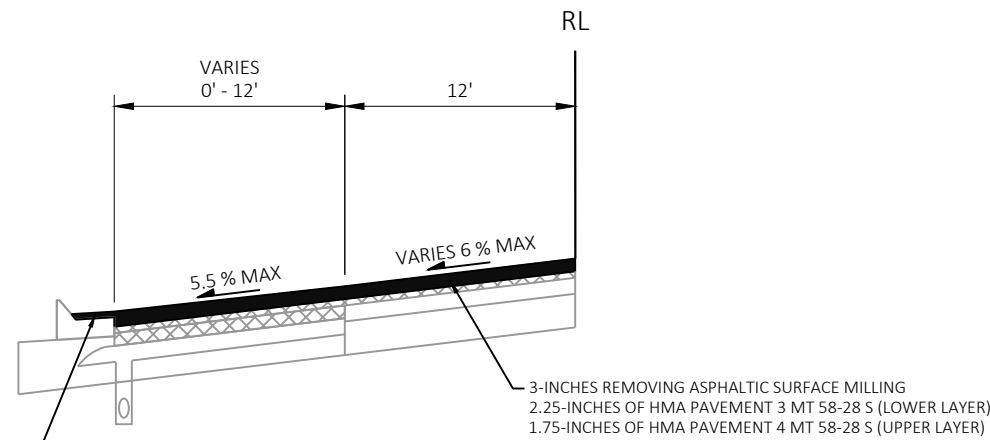


PROPOSED TYPICAL SECTION - USH 12
 AUXILIARY PASSING LANE/ RIGHT TURN LANE
 STA 364+95 - 371+42
 STA 556+70 - 560+79
 STA 562+07 - 567+43



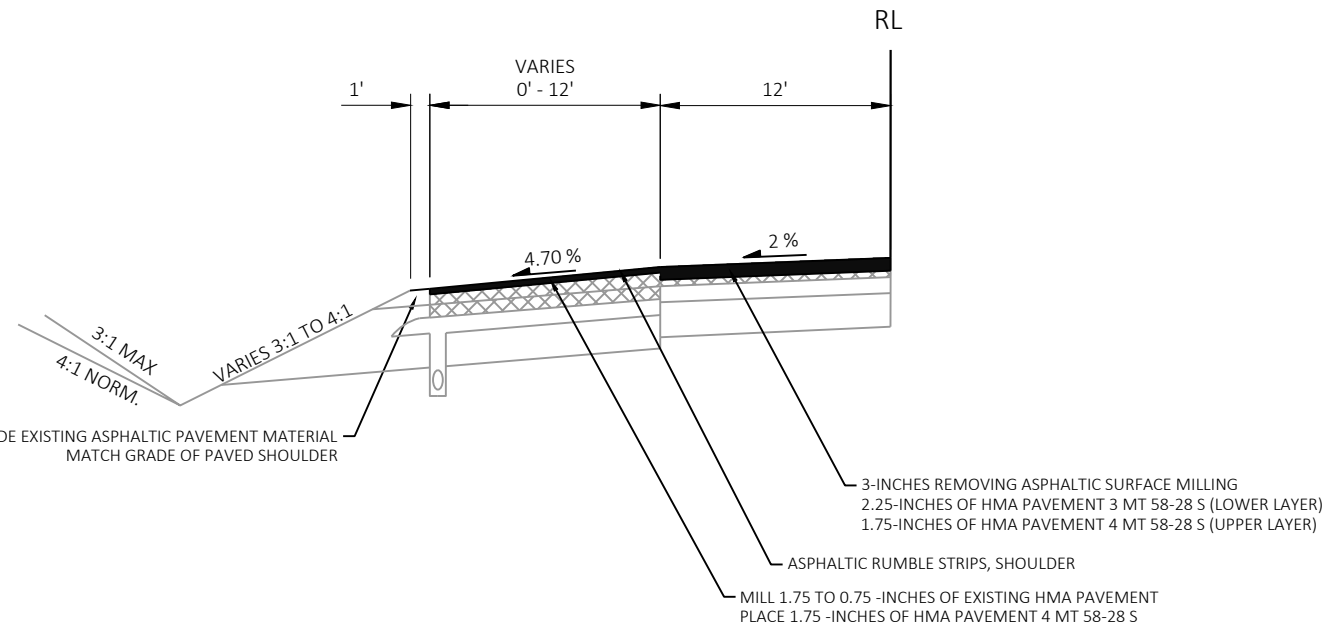
3-INCHES REMOVING ASPHALTIC SURFACE MILLING
 2.25-INCHES OF HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)
 1.75-INCHES OF HMA PAVEMENT 4 MT 58-28 S (UPPER LAYER)
 ASPHALTIC RUMBLE STRIPS, SHOULDER
 MILL 0.75 TO 1.75 -INCHES OF EXISTING HMA PAVEMENT
 PLACE 1.75 -INCHES OF HMA PAVEMENT 4 MT 58-28 S

PROPOSED TYPICAL SECTION - USH 12
 AUXILIARY PASSING LANE/ RIGHT TURN LANE
 STA 426+22 - 433+92
 STA 507+08 - 520+53



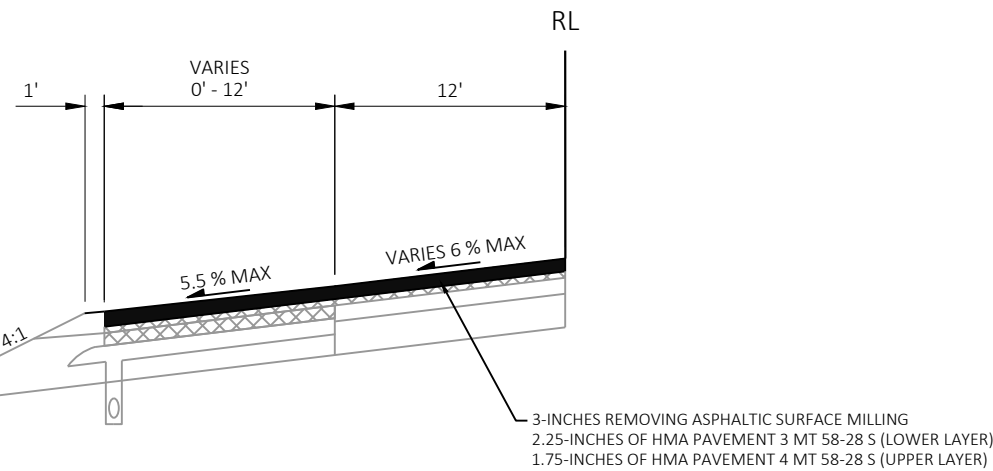
1.75-INCHES OF HMA PAVEMENT 4 MT 58-28 S

PROPOSED TYPICAL SECTION - USH 12
 AUXILIARY PASSING LANE
 STA 567+58 - 572+72

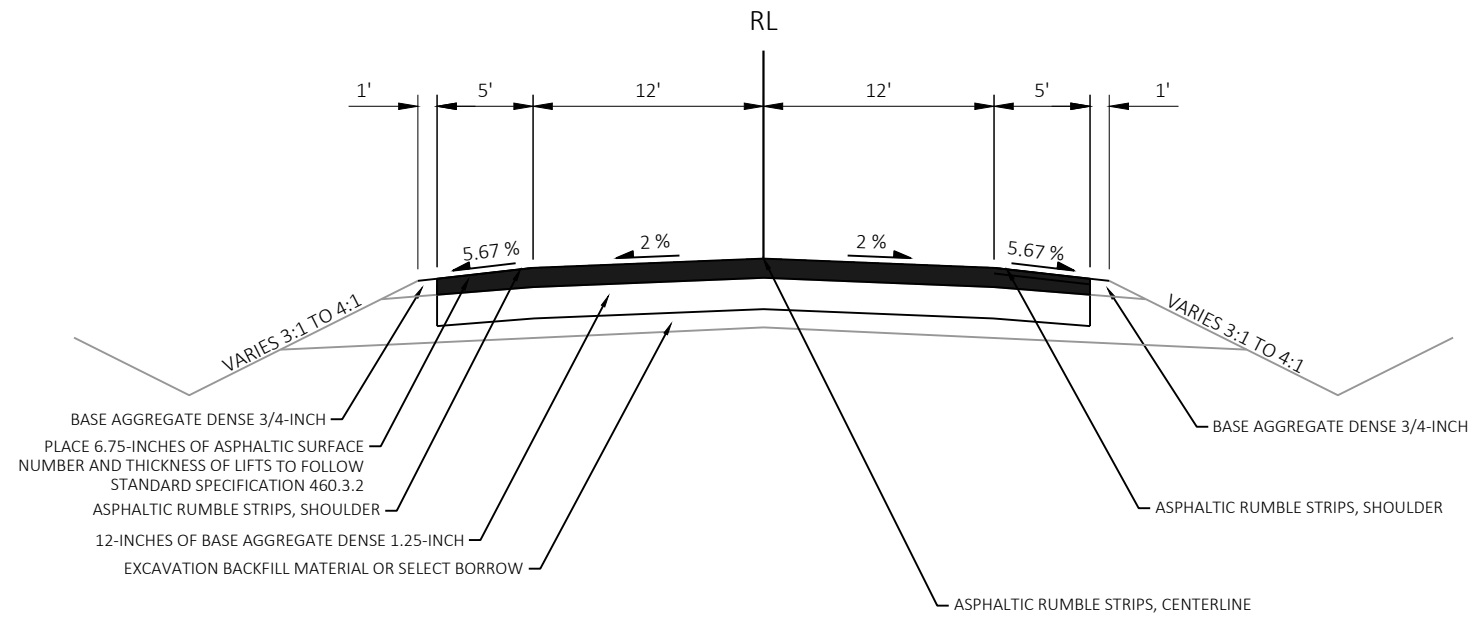


REGRADE EXISTING ASPHALTIC PAVEMENT MATERIAL
 MATCH GRADE OF PAVED SHOULDER

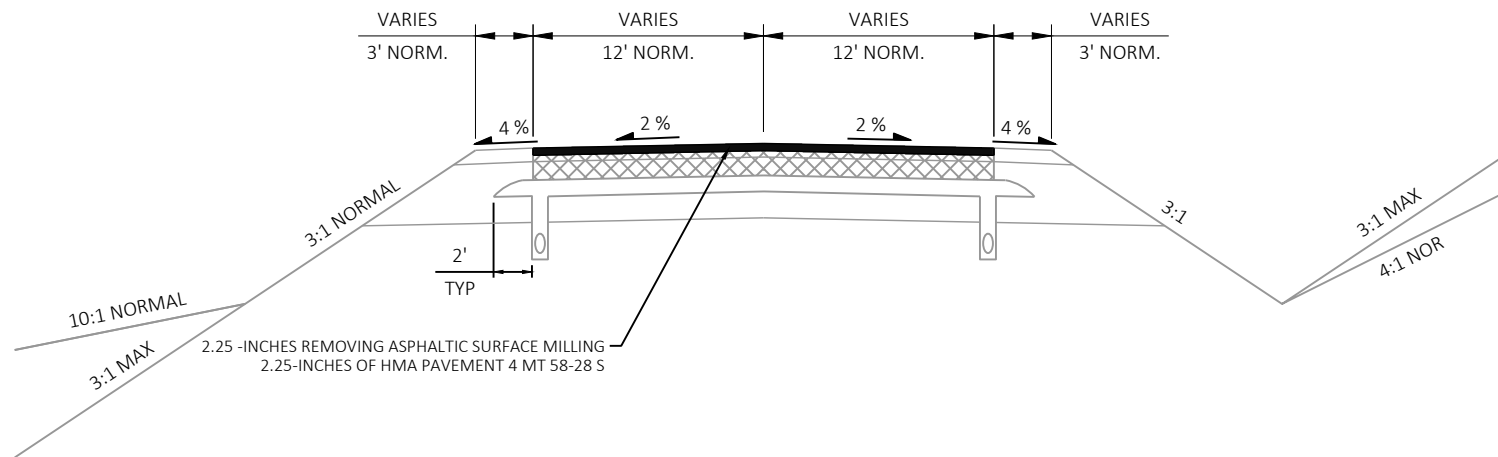
PROPOSED TYPICAL SECTION - USH 12
 AUXILIARY PASSING LANE/ RIGHT TURN LANE
 STA 430+24 - 433+59
 STA 513+45 - 516+78



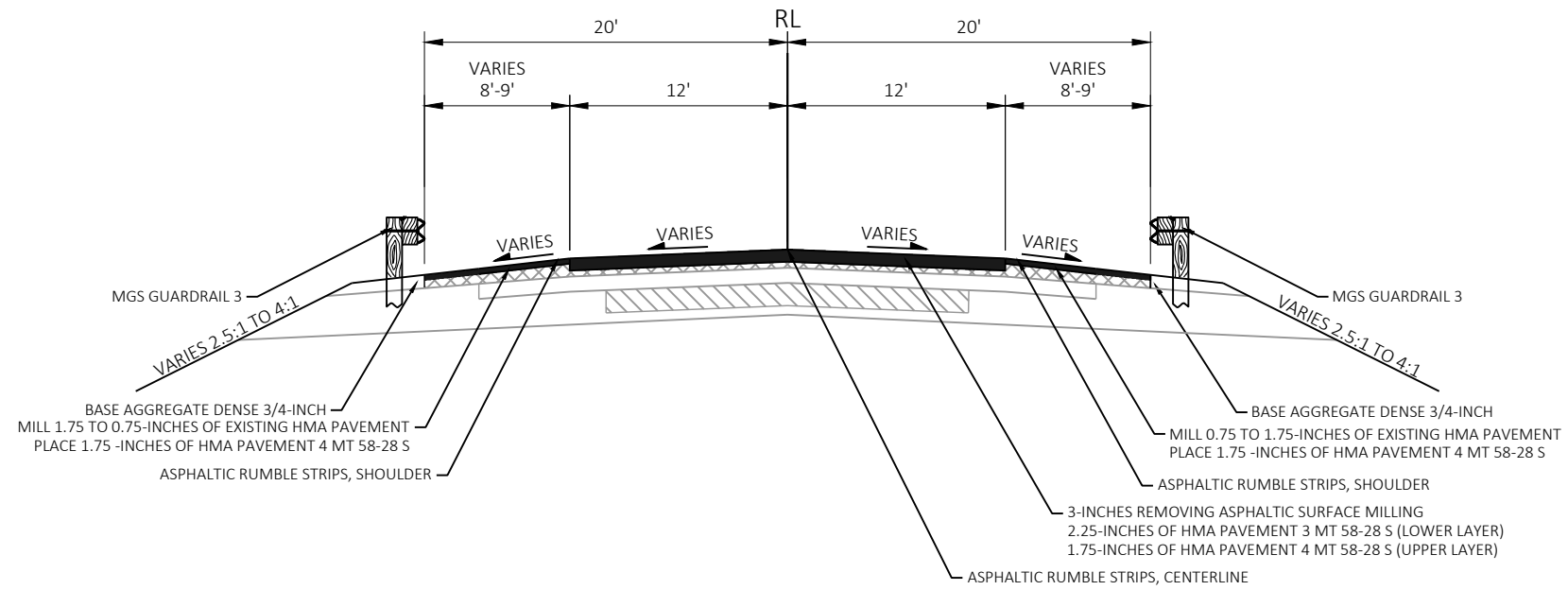
PROPOSED TYPICAL SECTION - USH 12
 AUXILIARY PASSING LANE/ RIGHT TURN LANE
 STA 394+75 - 406+37
 STA 555+40 - 564+35



PROPOSED TYPICAL SECTION - USH 12
 FULL PAVEMENT REPLACEMENT
 AT CROSS CULVERT REPLACEMENTS AND NEW CURB & GUTTER

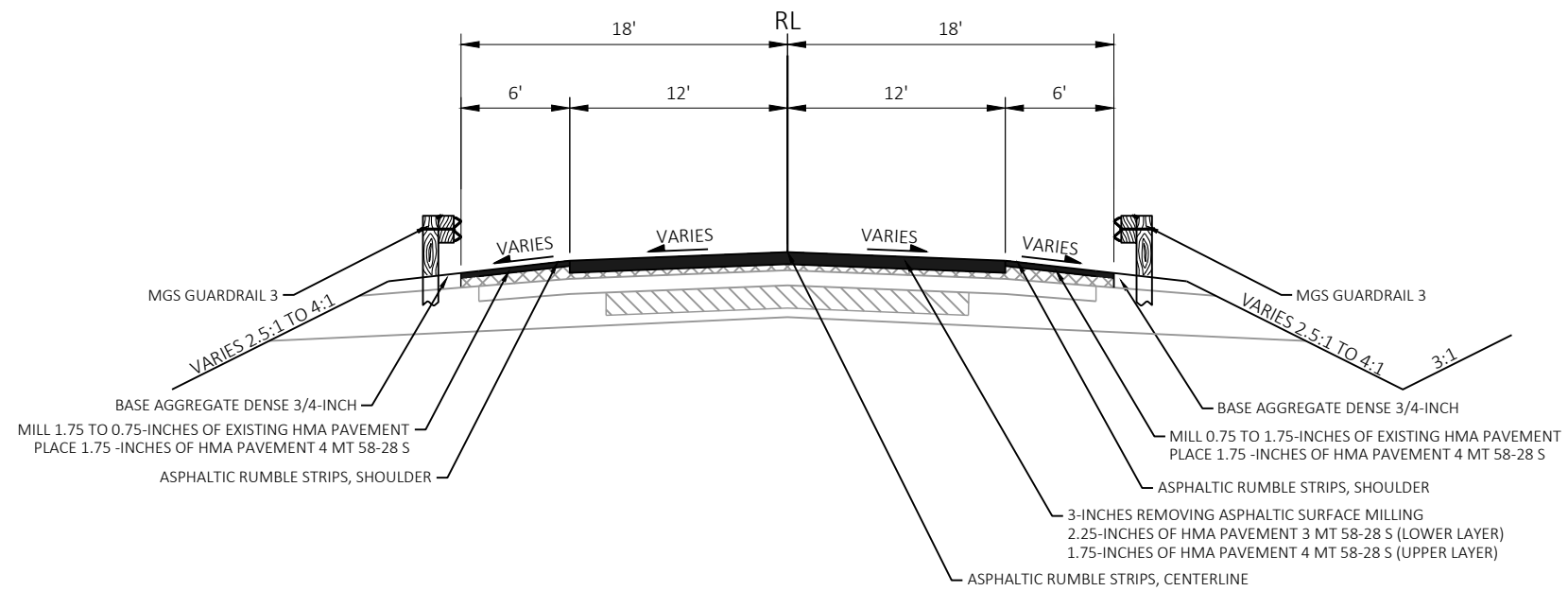


PROPOSED TYPICAL SECTION - SIDE ROAD



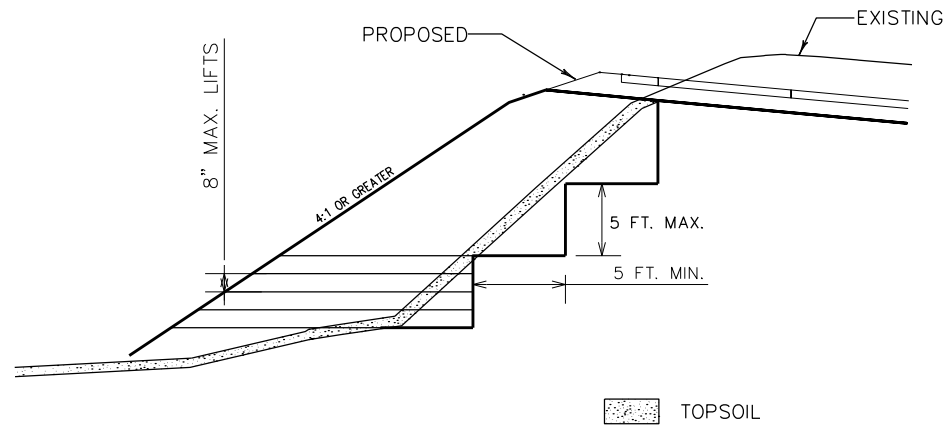
PROPOSED TYPICAL SECTION - USH 12 GUARDRAIL

STA 505+72 - 512+40
 MGS 3K STA 508+44 - 511+44 RT
 STA 581+55 - 584+77
 STA 588+72 - 595+25

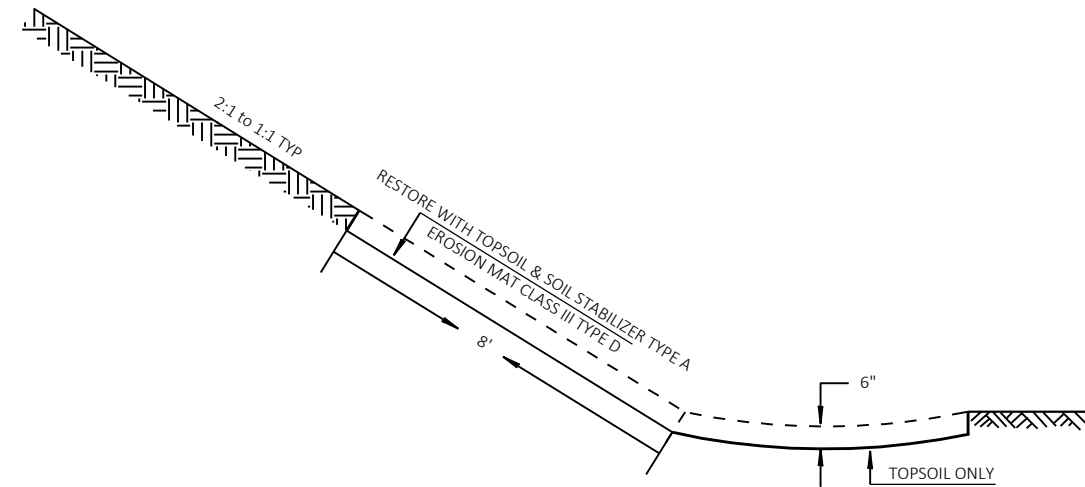


PROPOSED TYPICAL SECTION - USH 12 GUARDRAIL

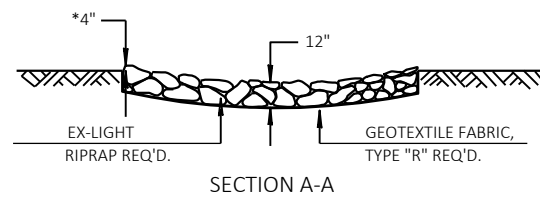
STA 526+30 - 531+20
 MGS 3K STA 527+05 - 528+04 RT
 MGS 3K STA 527+80 - 529+30 LT



BENCH CONSTRUCTION
 (APPLICABLE TO EXISTING SLOPES STEEPER THAN 3:1 AND HIGHER THAN 10 FEET.)



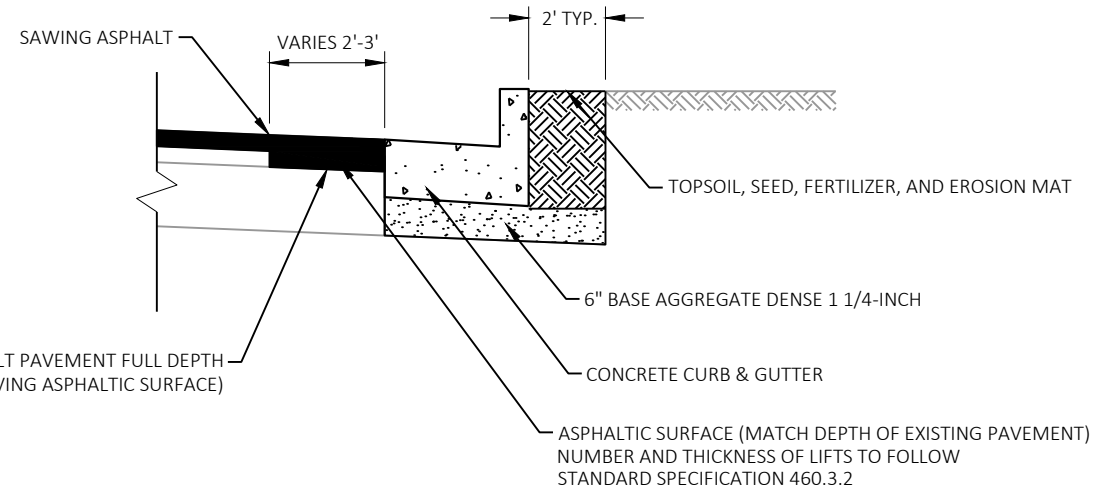
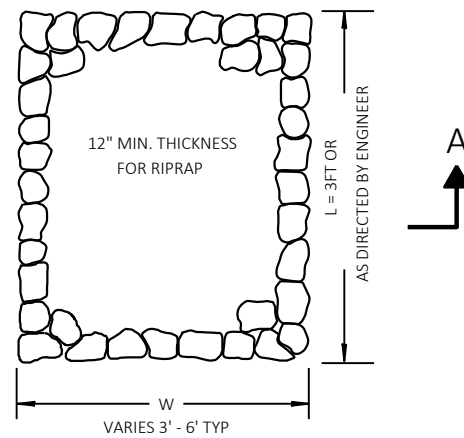
EROSION MAT CLASS III TYPE D
 STA. 687+45 TO 690+00 LT



* RIPRAP TO NOT EXCEED 4" ABOVE ADJACENT GROUND

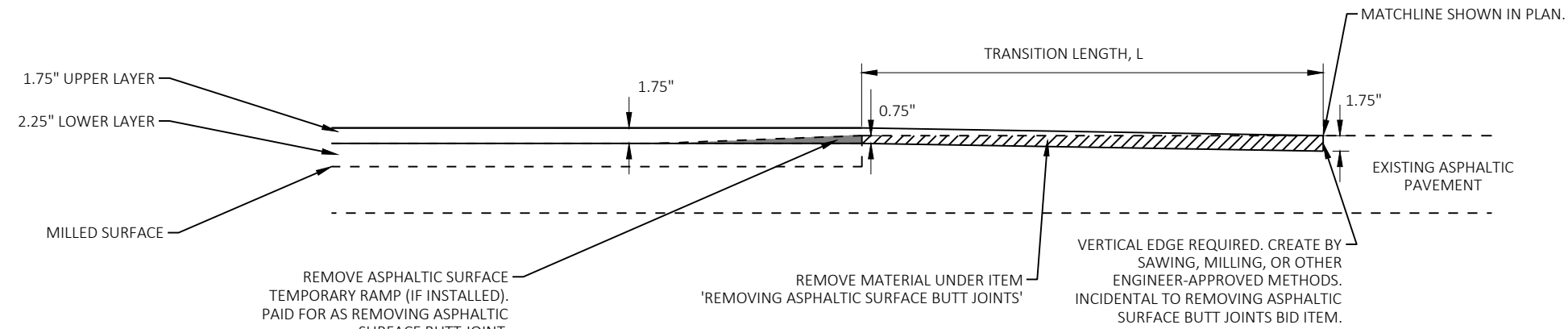
RIPRAP DITCH CHECK

STA. 687+45 TO 690+00 LT
 PLACE EVERY 25 FT



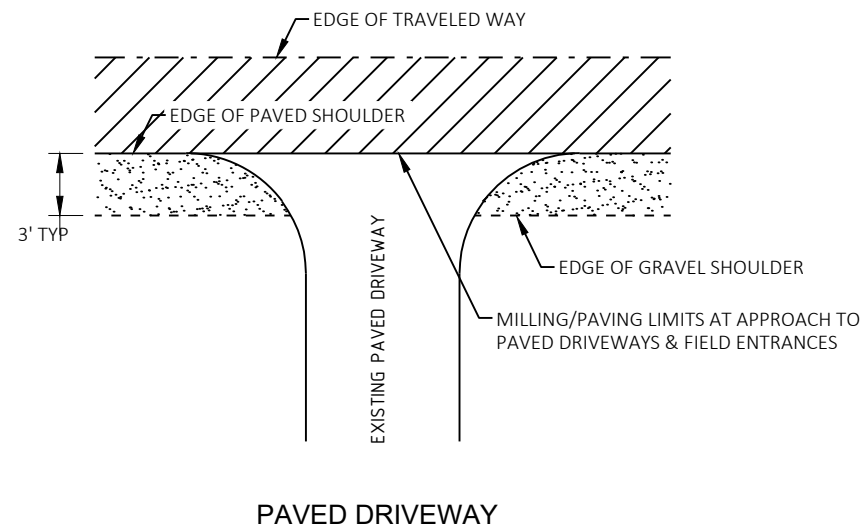
CURB & GUTTER REPLACEMENT DETAILS

NOTES: EXCAVATION/REMOVAL OF EXISTING BASE AGGREGATE IS INCIDENTAL TO CONCRETE CURB & GUTTER 30-INCH TYPE D AND CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
 WORK TO BE COMPLETED PRIOR TO MILL AND OVERLAY OPERATIONS





NOTE: SEE MISCELLANEOUS QUANTITIES FOR EACH LOCATION AND TRANSITION LENGTH, L

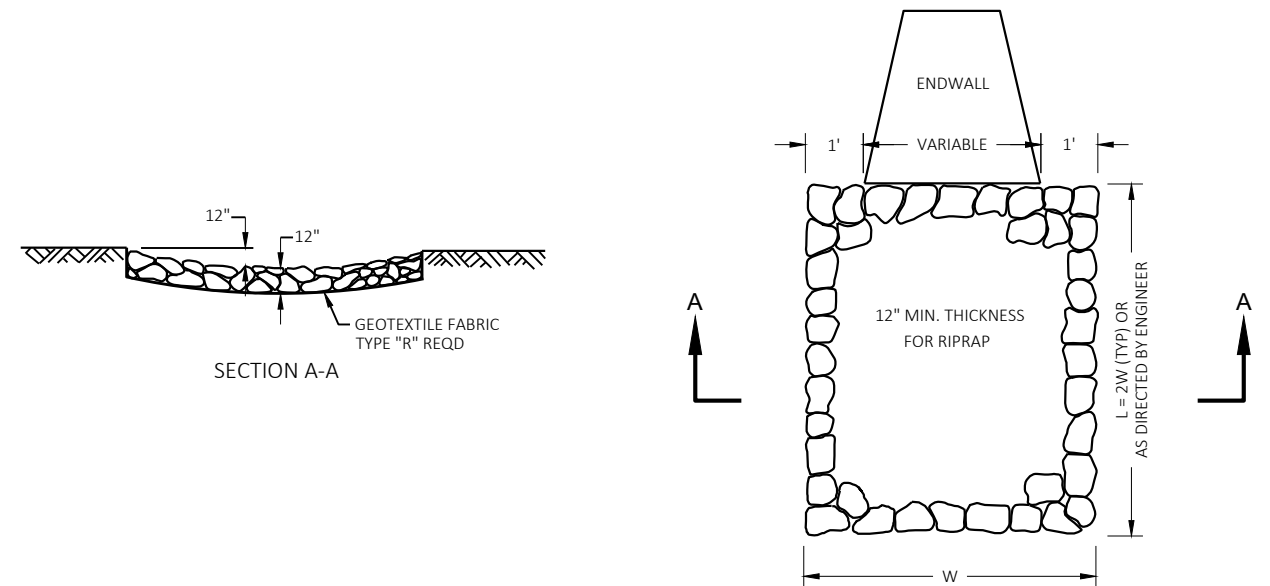
MILLING BUTT JOINT AND PAVING UPPER LAYER



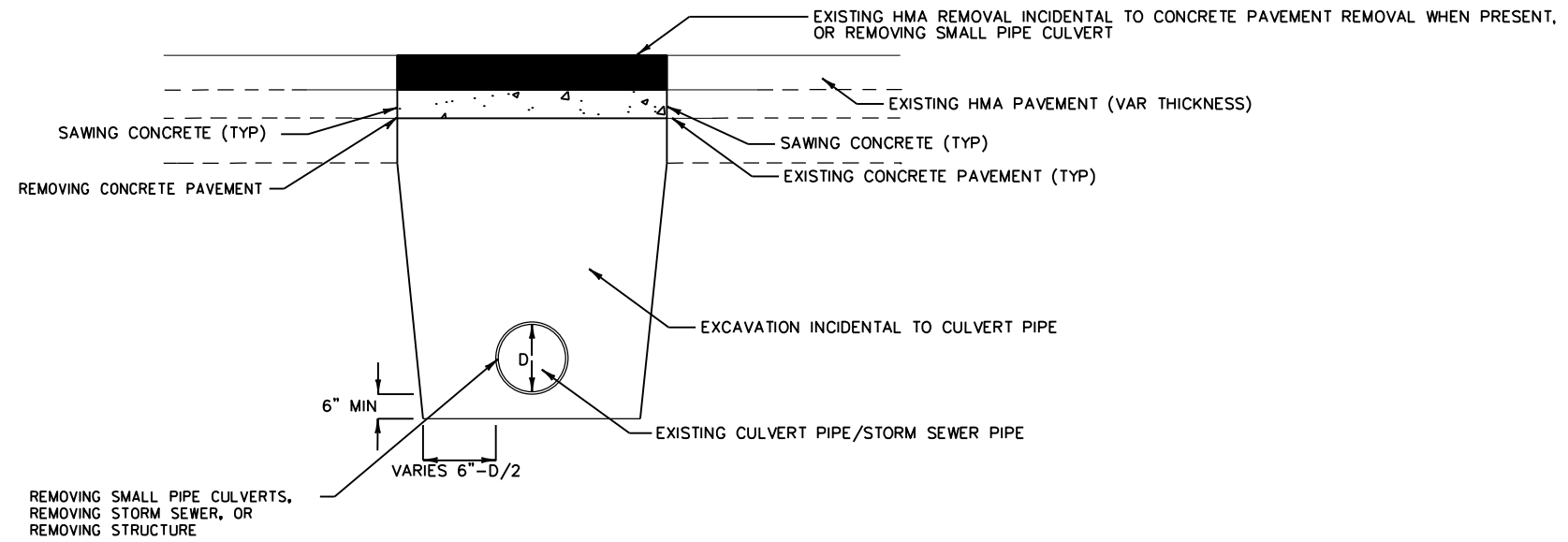
RURAL DRIVEWAY PAVING LIMITS

-  HMA PAVEMENT
-  BASE AGGREGATE DENSE 3/4-INCH

*PERPETUATE EXISTING DRIVEWAY APPROACH MATERIAL. DO NOT ADD PAVED APPROACH IF IT DOES NOT EXIST.

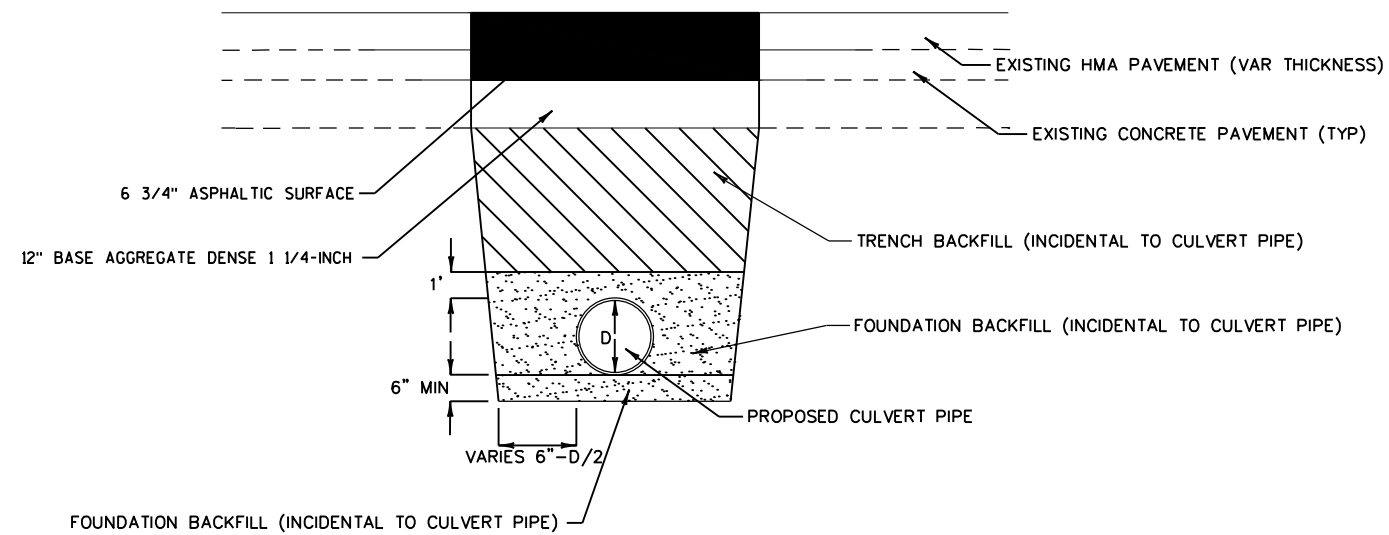


RIPRAP TREATMENT AT CULVERTS



DETAIL FOR EXCAVATION OF PIPES

STA. 374+60, STA. 426+66
 STA. 528+47*, STA. 556+96*
 STA. 620+55, STA. 716+80
 STA. 732+00, STA. 737+08



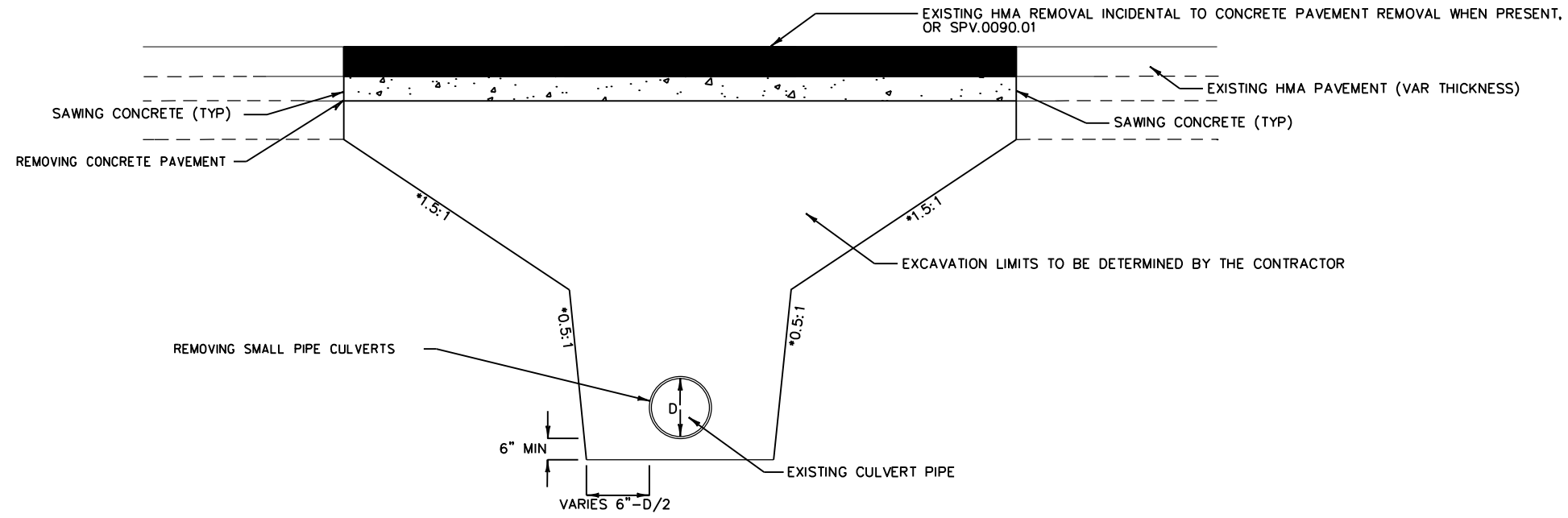
DETAIL FOR INSTALLATION OF CULVERT PIPES

STA. 374+60, STA. 426+66
 STA. 528+47*, STA. 556+96*
 STA. 620+55, STA. 716+80
 STA. 732+00, STA. 737+08

NOTE:

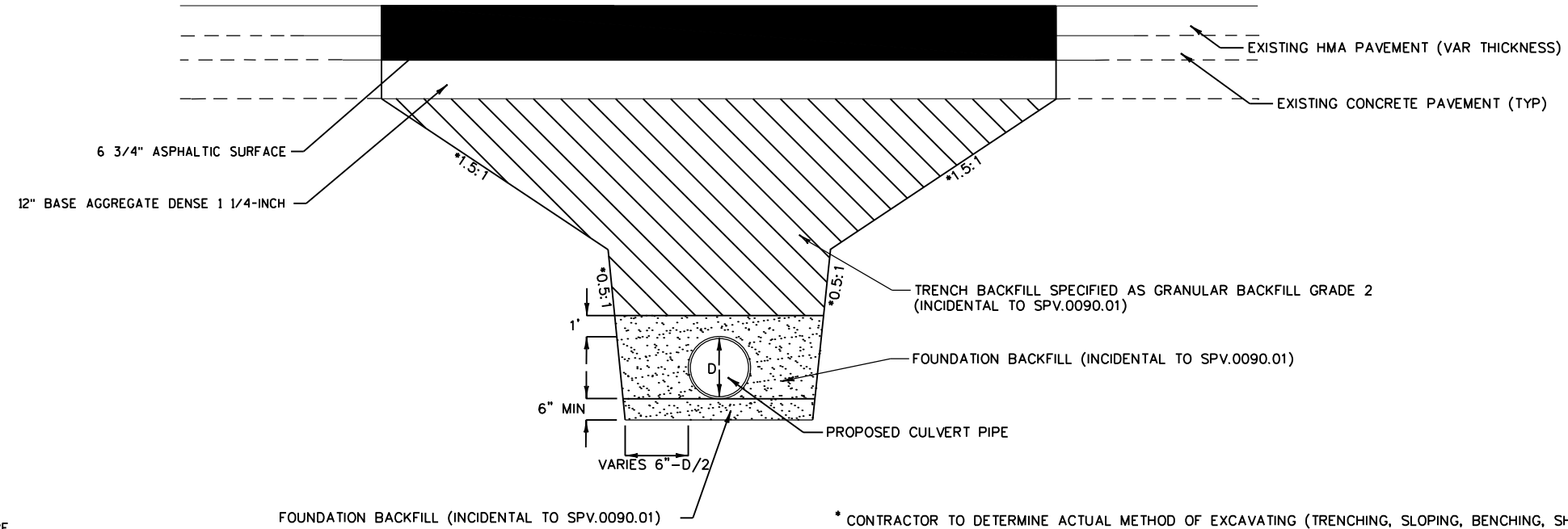
REVISIONS TO THE EXISTING SLOPES ARE PAID AS COMMON EXCAVATION OR BORROW. SEE EARTHWORK TABLES FOR DETAILS.

*IF PIPE MATERIAL OTHER THAN CONCRETE IS CHOSEN, FOLLOW STANDARD SPEC FOR PIPE INSTALLATION AND TRENCH SIZE



* CONTRACTOR TO DETERMINE ACTUAL METHOD OF EXCAVATING (TRENCHING, SLOPING, BENCHING, SHORING, OR A COMBINATION OF), BUT MUST CONFORM TO 29 CFR PART 1926, OSHA SUBPART P.

DETAIL FOR EXCAVATION OF PIPES
STA. 509+30



* CONTRACTOR TO DETERMINE ACTUAL METHOD OF EXCAVATING (TRENCHING, SLOPING, BENCHING, SHORING, OR A COMBINATION OF), BUT MUST CONFORM TO 29 CFR PART 1926, OSHA SUBPART P.

NOTE:
REVISIONS TO THE EXISTING SLOPES ARE PAID AS COMMON EXCAVATION OR BORROW. SEE EARTHWORK TABLES FOR DETAILS.

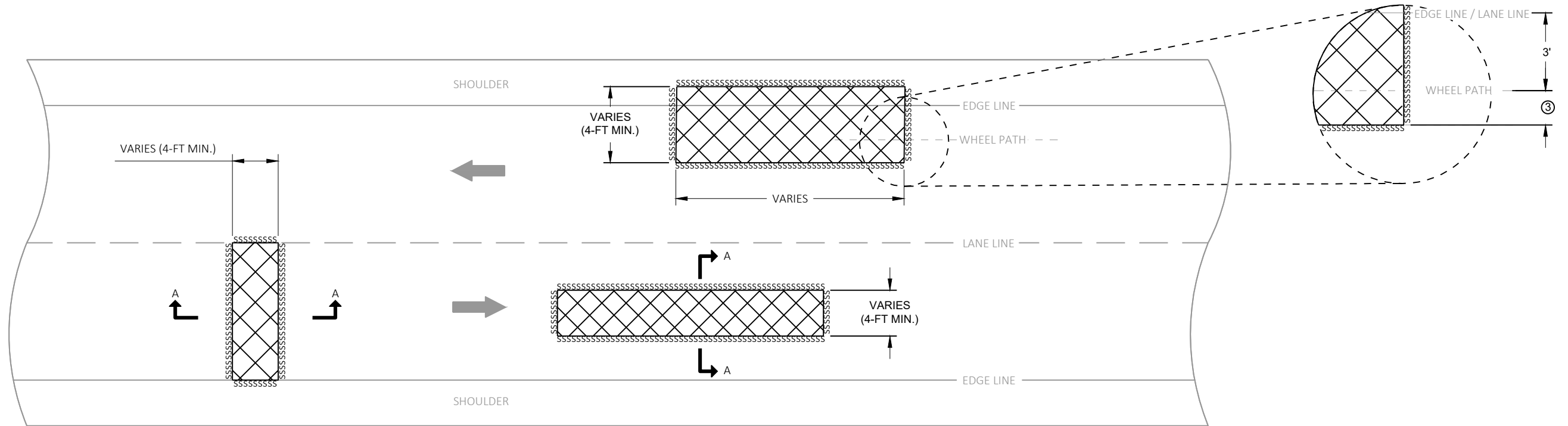
DETAIL FOR INSTALLATION OF CULVERT PIPE
STA. 509+30

LEGEND

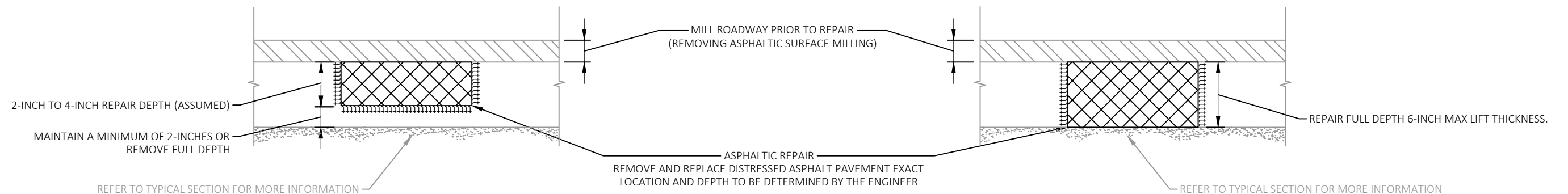
-  ASPHALTIC REPAIR
-  VERTICAL MILLED EDGE
SAW CUTTING AT THE CONTRACTORS DISCRETION
-  TACK COAT

GENERAL NOTES

- ① EXACT LOCATION, DEPTH AND SIZE OF REPAIR TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
- ② MILL PAVEMENT PER PLAN PRIOR TO MAKING ASPHALTIC REPAIR.
- ③ LOCATE LONGITUDINAL REPAIR JOINTS OUTSIDE OF WHEEL PATH. 12-INCH MINIMUM (24-INCH RECOMMENDED) FROM THE CENTER OF THE WHEEL PATH.
- ④ ASPHALTIC REPAIR PAVING TO BE DONE ON THE SAME DAY AS REMOVAL.

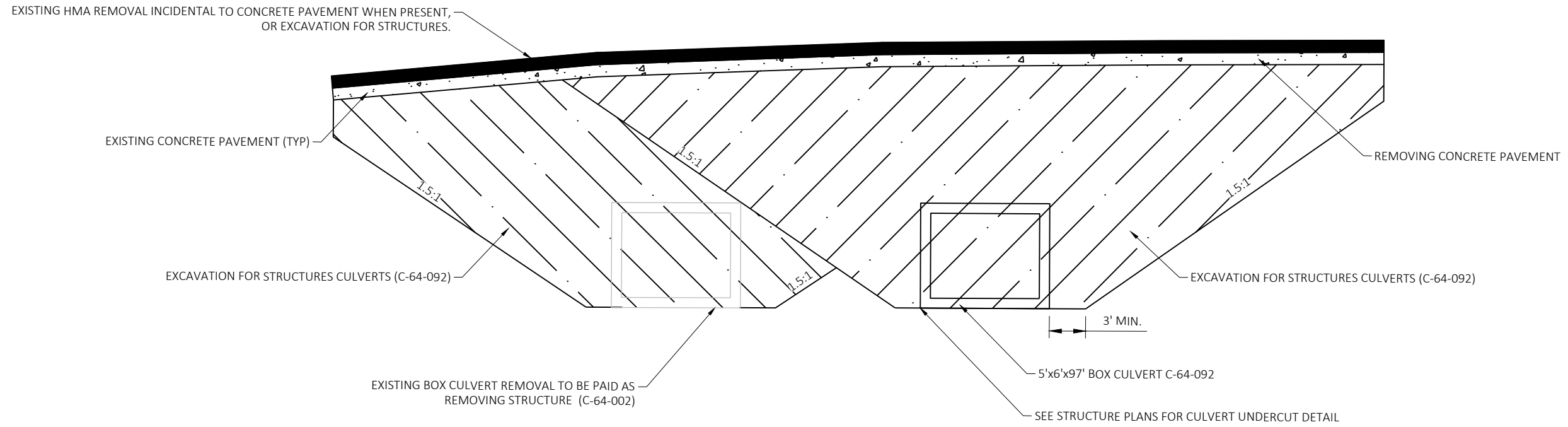


PLAN VIEW

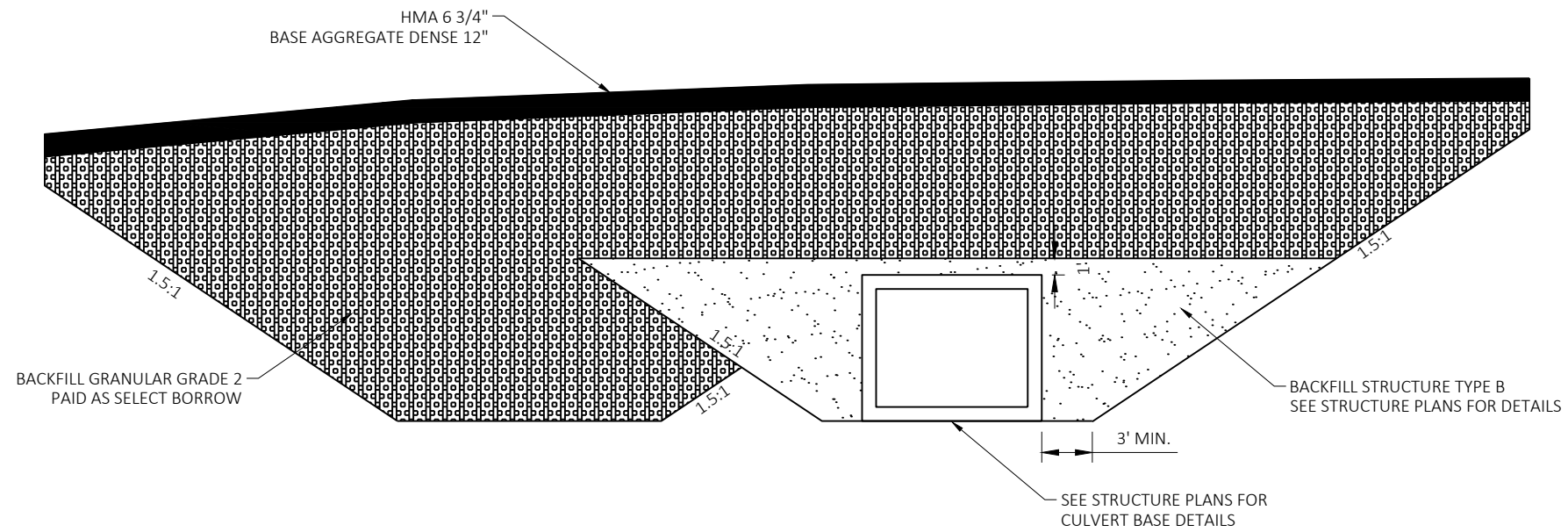


SECTION A-A

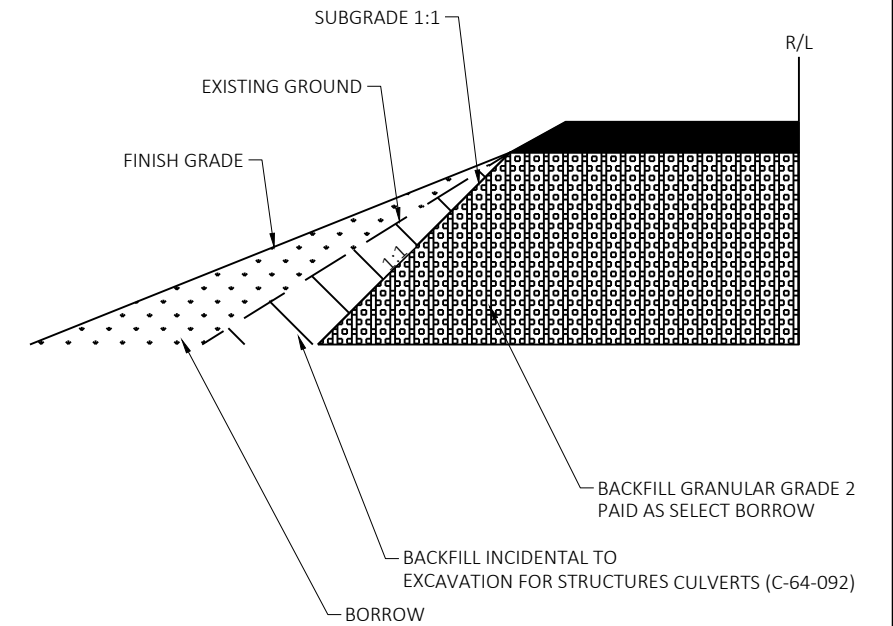
ASPHALTIC REPAIR



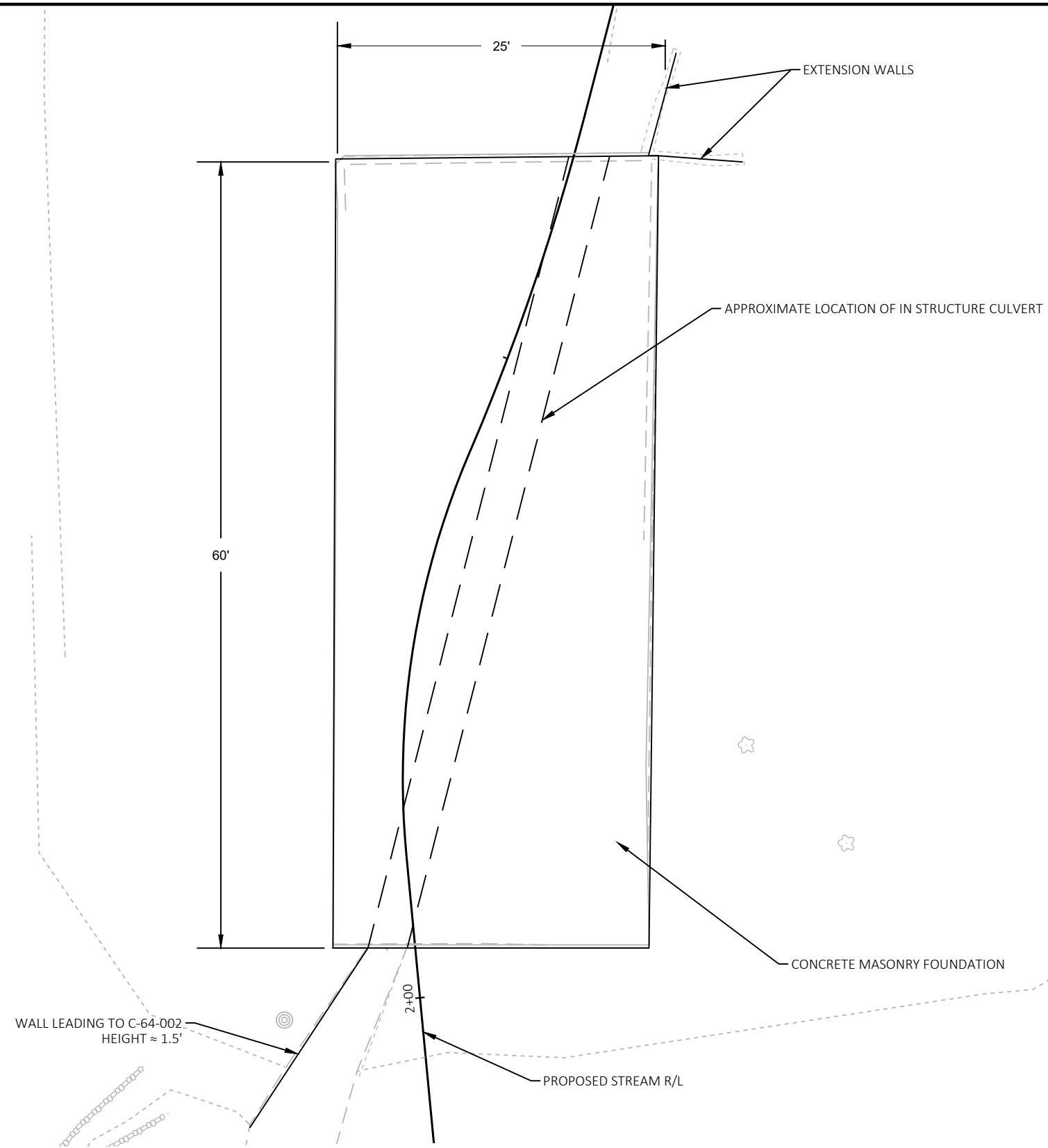
EXCAVATION TYPICAL SECTION
NORMAL TO BOX CULVERT



BACKFILL TYPICAL SECTION
NORMAL TO BOX CULVERT

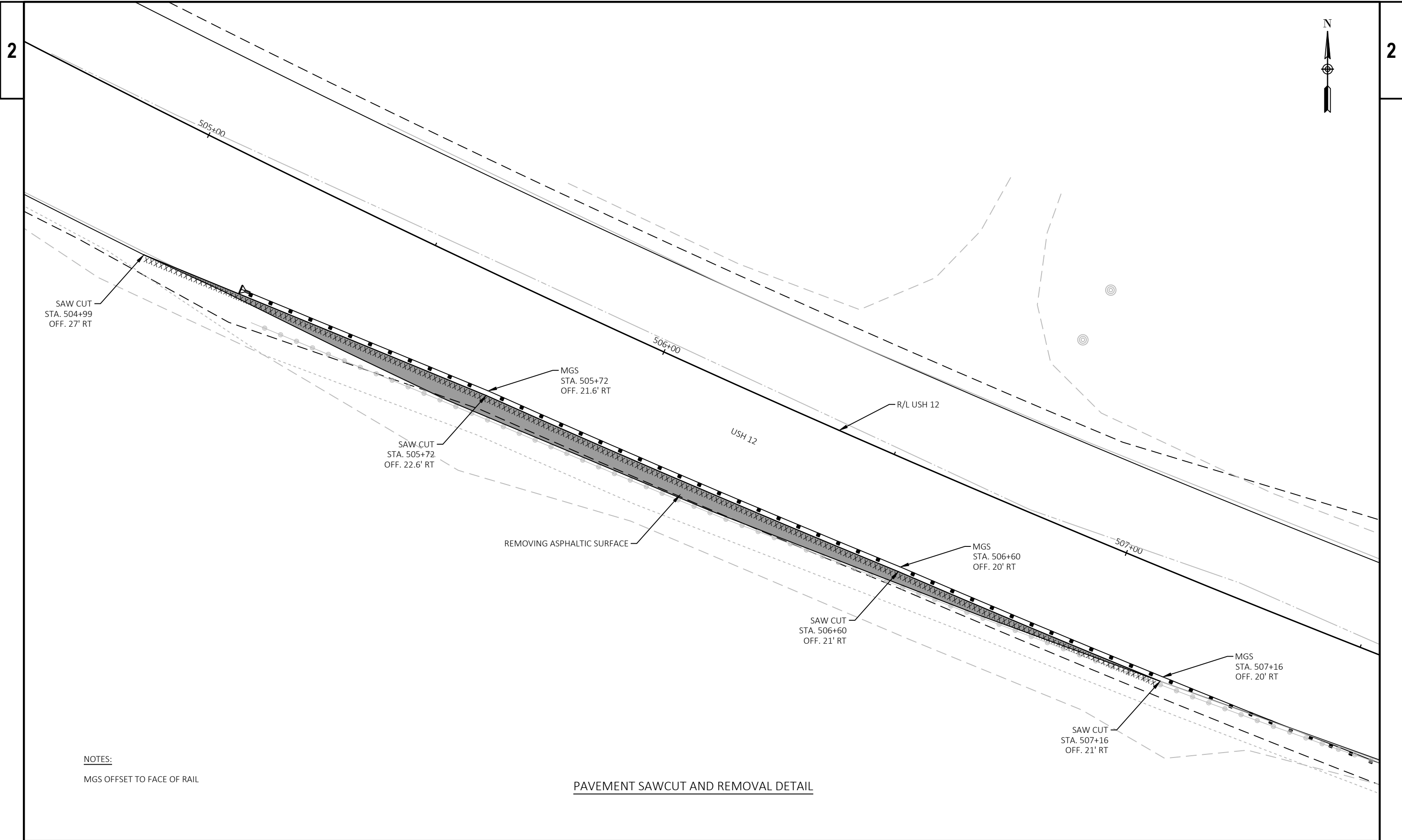


BACKFILL TYPICAL SECTION
NORMAL TO ROADWAY



NOTES:
 HEIGHT UNKNOWN
 VISIBLE PORTIONS MEASURED AT ≈ 4' TO 6'

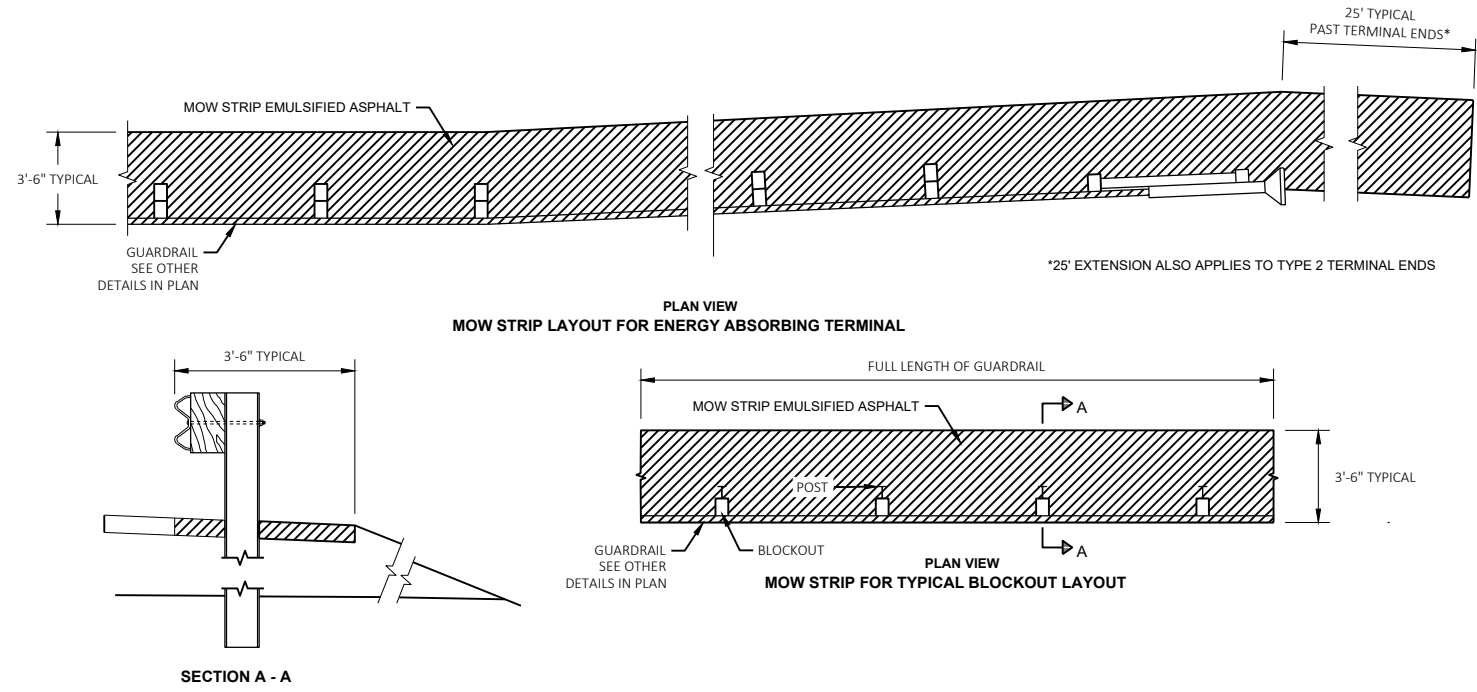
CONCRETE FOUNDATION REMOVAL DETAIL
 STA 583+25 LT
 204.9060.S.03



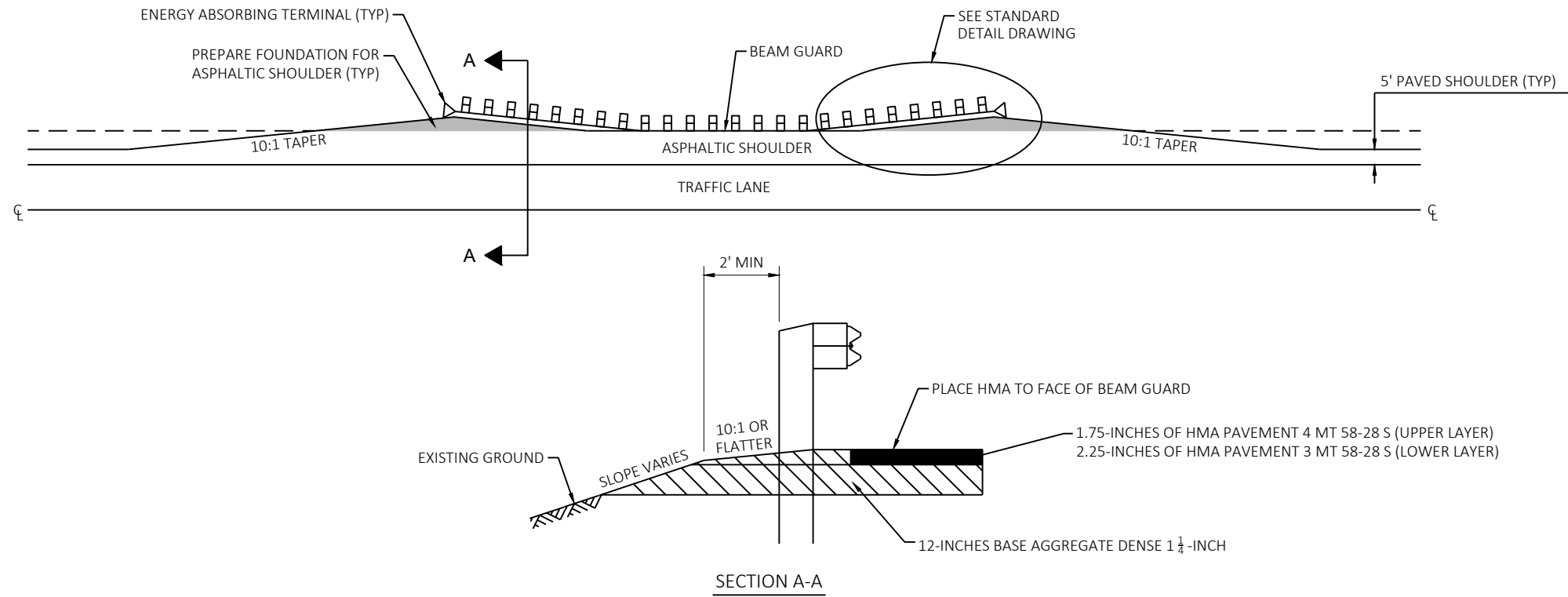
NOTES:
MGS OFFSET TO FACE OF RAIL

PAVEMENT SAWCUT AND REMOVAL DETAIL

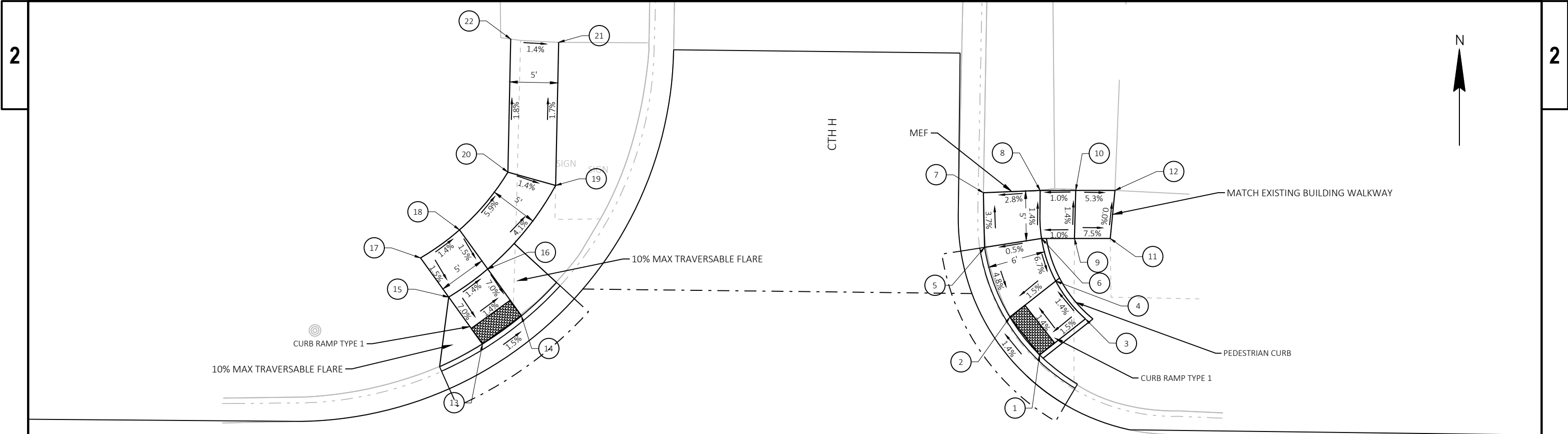
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAILS	SHEET	E
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GUARDRAIL MOW STRIP EMULSIFIED ASPHALT DETAIL



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

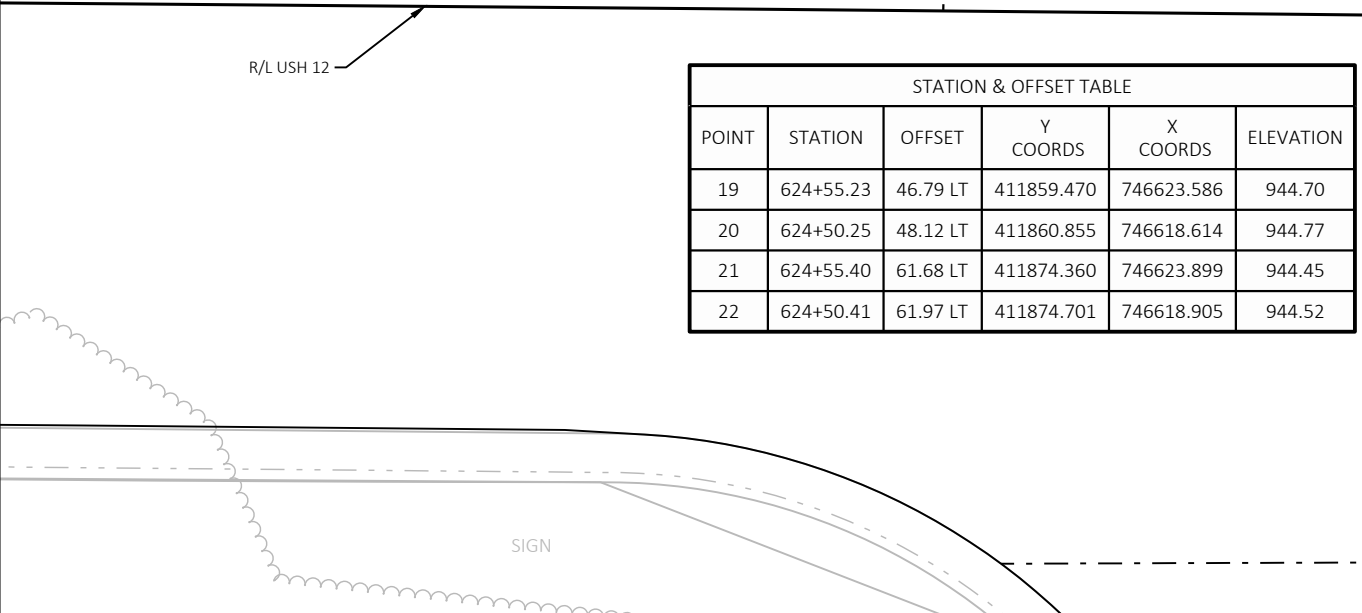


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
13	624+47.78	30.22 LT	411842.973	746615.970	944.82
14	624+51.80	33.18 LT	411845.894	746620.028	944.74
15	624+44.22	35.07 LT	411847.855	746612.455	945.23
16	624+48.25	38.03 LT	411850.777	746616.512	945.16
17	624+41.26	39.11 LT	411851.929	746609.522	945.30
18	624+45.28	42.07 LT	411854.851	746613.579	945.23

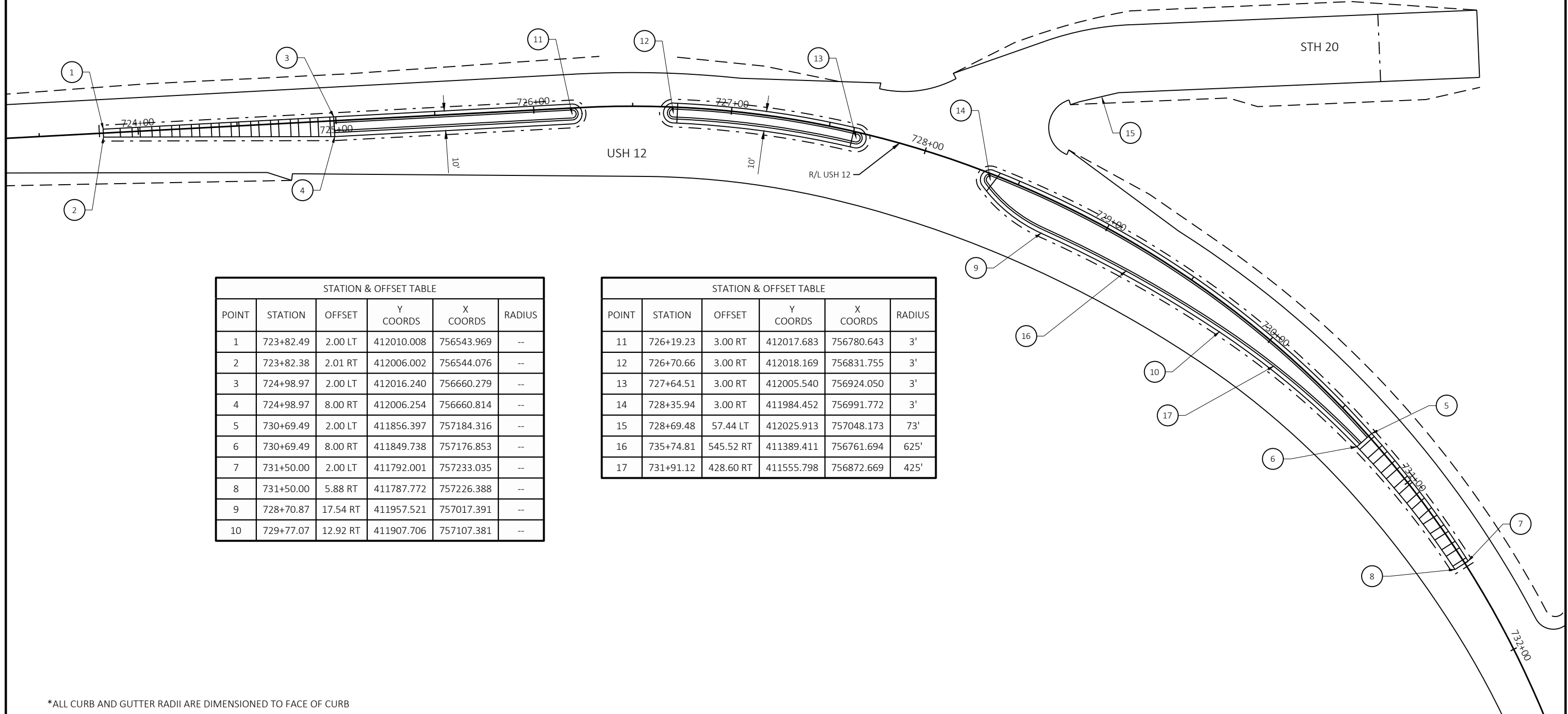
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
1	625+05.70	29.68 LT	411841.841	746673.941	944.15
2	625+02.56	33.58 LT	411845.771	746670.850	944.08
3	625+10.42	33.49 LT	411845.592	746678.710	944.24
4	625+07.28	37.38 LT	411849.522	746675.619	944.17
5	624+99.85	40.81 LT	411853.028	746668.216	944.45
6	625+05.76	41.80 LT	411853.952	746674.145	944.48

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
19	624+55.23	46.79 LT	411859.470	746623.586	944.70
20	624+50.25	48.12 LT	411860.855	746618.614	944.77
21	624+55.40	61.68 LT	411874.360	746623.899	944.45
22	624+50.41	61.97 LT	411874.701	746618.905	944.52

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
7	624+99.67	46.49 LT	411858.716	746668.095	944.24
8	625+05.57	46.80 LT	411858.958	746674.009	944.41
9	625+09.18	41.84 LT	411853.955	746677.570	944.51
10	625+09.25	46.84 LT	411858.955	746677.701	944.44
11	625+12.90	41.88 LT	411853.958	746681.294	944.23
12	625+13.34	46.89 LT	411858.958	746681.790	944.23



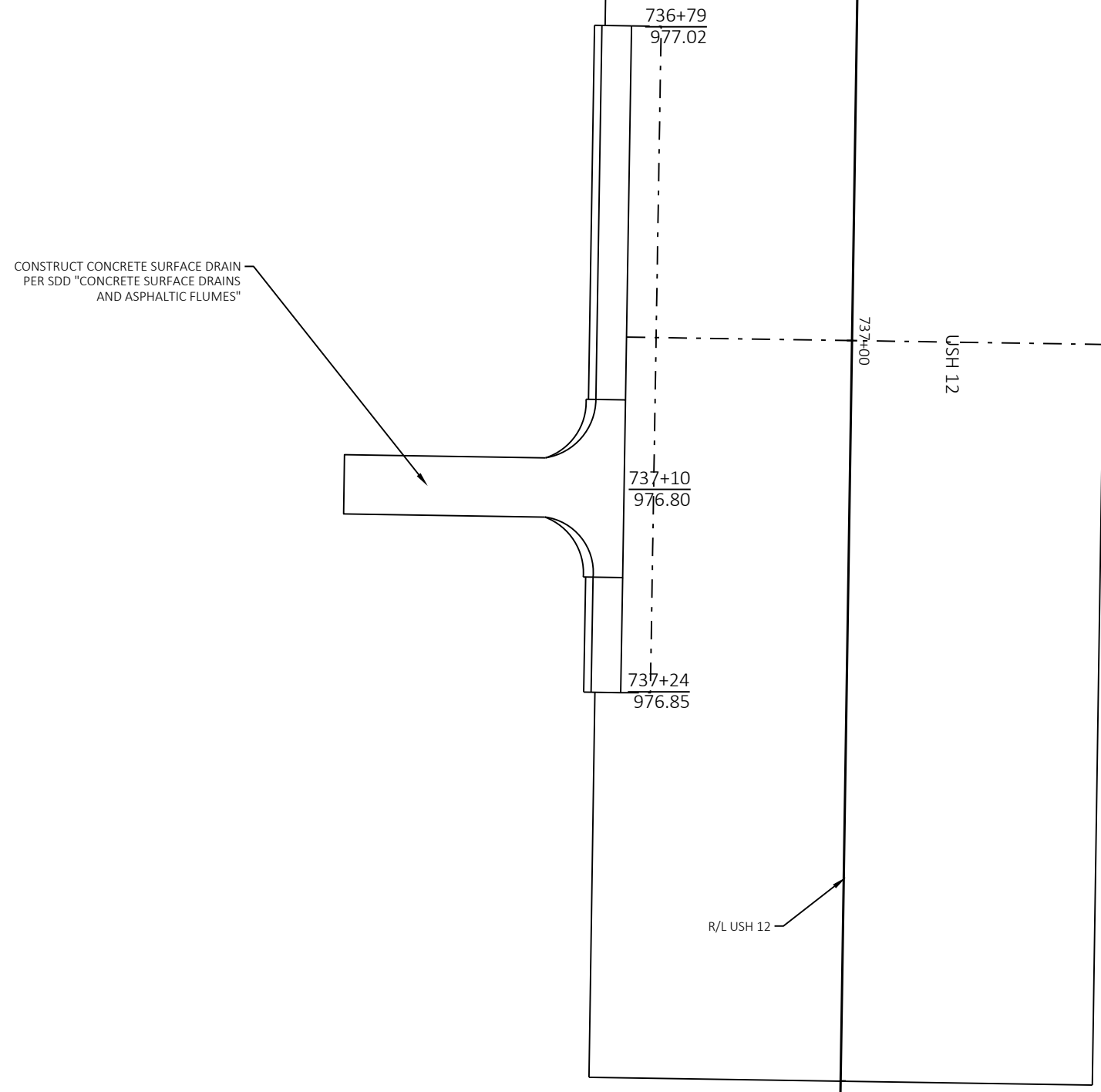
USH 12



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
1	723+82.49	2.00 LT	412010.008	756543.969	--
2	723+82.38	2.01 RT	412006.002	756544.076	--
3	724+98.97	2.00 LT	412016.240	756660.279	--
4	724+98.97	8.00 RT	412006.254	756660.814	--
5	730+69.49	2.00 LT	411856.397	757184.316	--
6	730+69.49	8.00 RT	411849.738	757176.853	--
7	731+50.00	2.00 LT	411792.001	757233.035	--
8	731+50.00	5.88 RT	411787.772	757226.388	--
9	728+70.87	17.54 RT	411957.521	757017.391	--
10	729+77.07	12.92 RT	411907.706	757107.381	--

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
11	726+19.23	3.00 RT	412017.683	756780.643	3'
12	726+70.66	3.00 RT	412018.169	756831.755	3'
13	727+64.51	3.00 RT	412005.540	756924.050	3'
14	728+35.94	3.00 RT	411984.452	756991.772	3'
15	728+69.48	57.44 LT	412025.913	757048.173	73'
16	735+74.81	545.52 RT	411389.411	756761.694	625'
17	731+91.12	428.60 RT	411555.798	756872.669	425'

*ALL CURB AND GUTTER RADII ARE DIMENSIONED TO FACE OF CURB



*ALL CURB AND GUTTER RADII ARE DIMENSIONED TO FACE OF CURB

PROJECT NO: 3130-01-71

HWY: USH 12

COUNTY: WALWORTH

INTERSECTION DETAILS

SHEET

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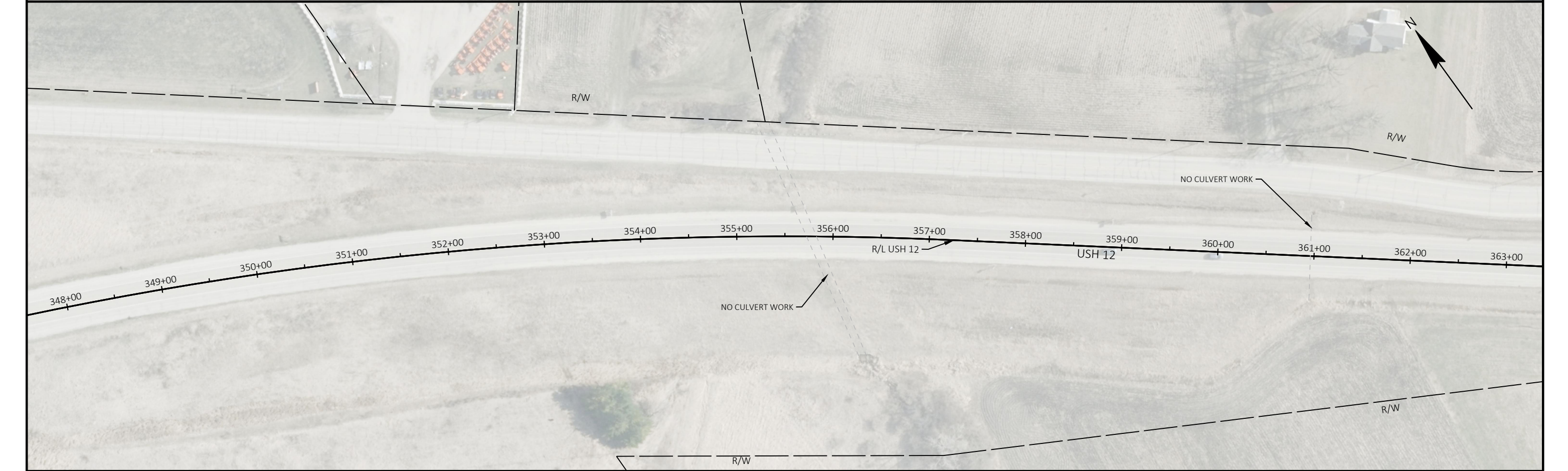
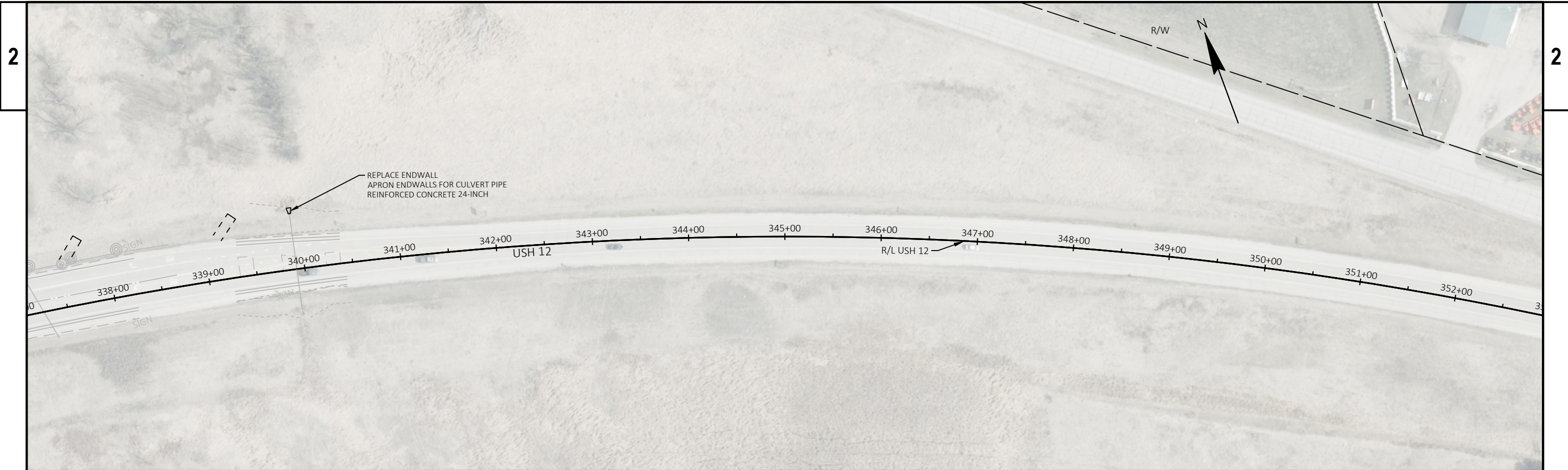
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2

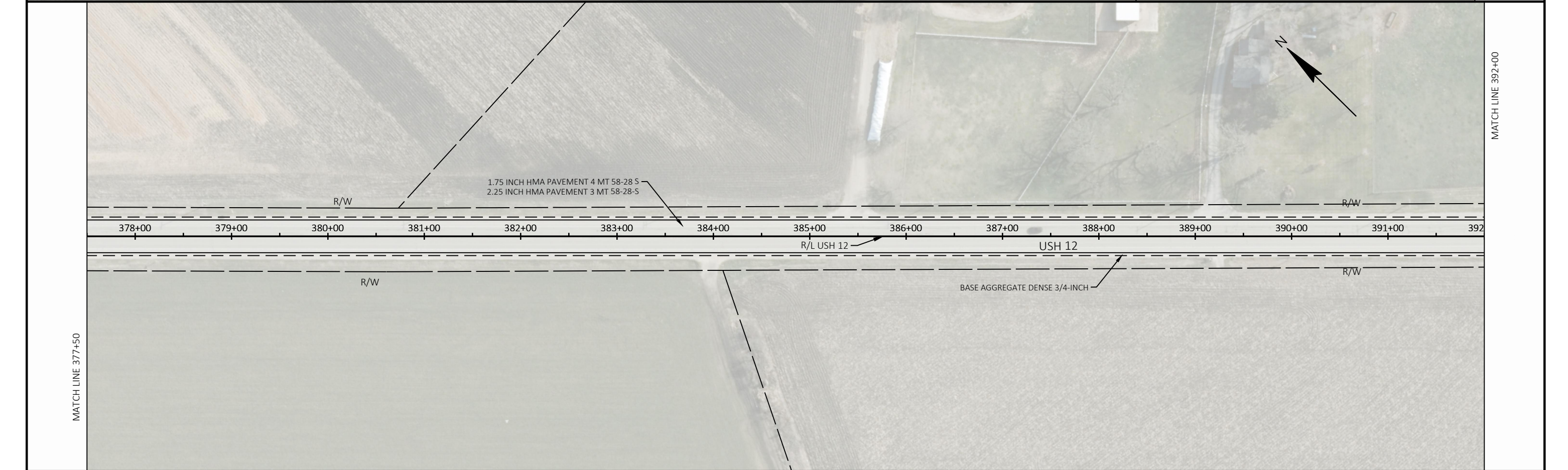
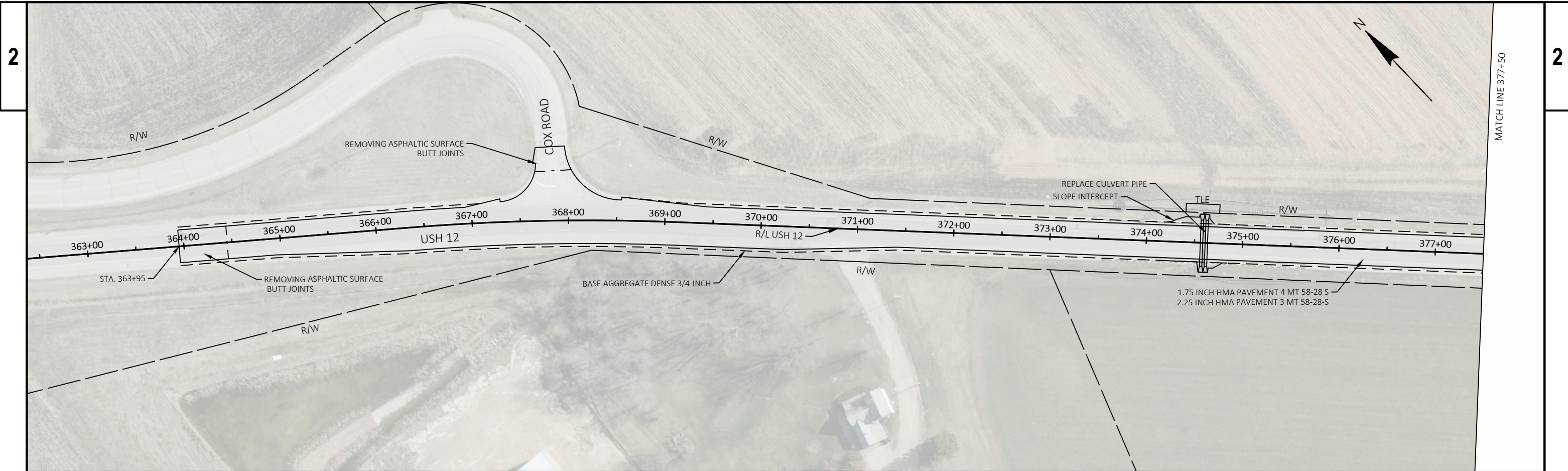
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAILS	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\021201_PD.DWG PLOT DATE : 7/26/2024 11:10 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT WISDOT/CADD SHEET 42

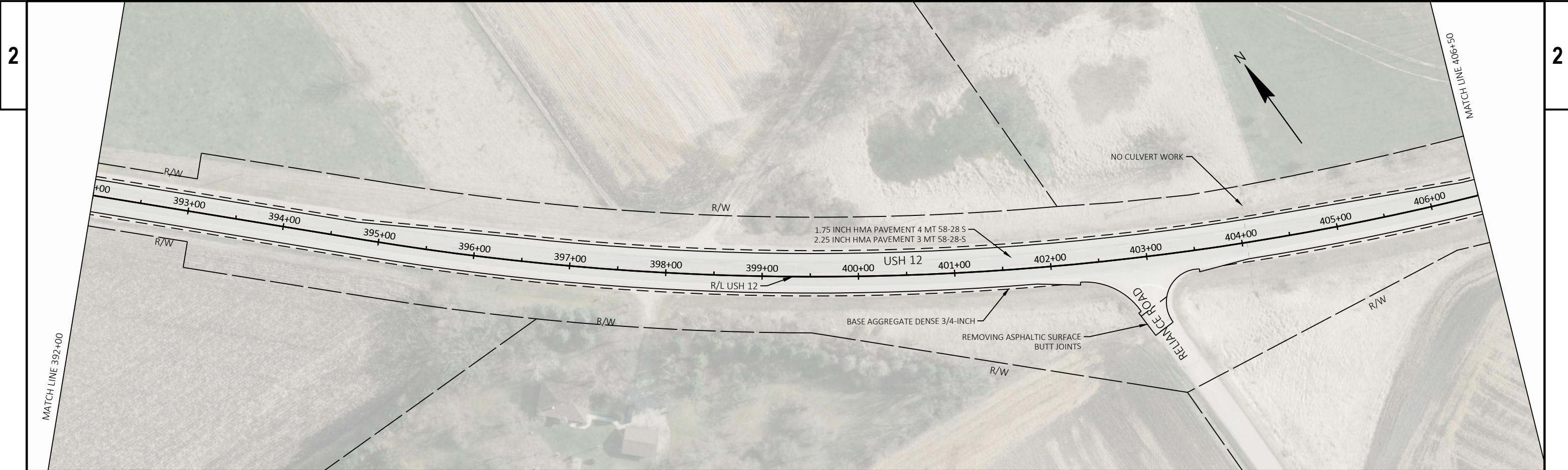
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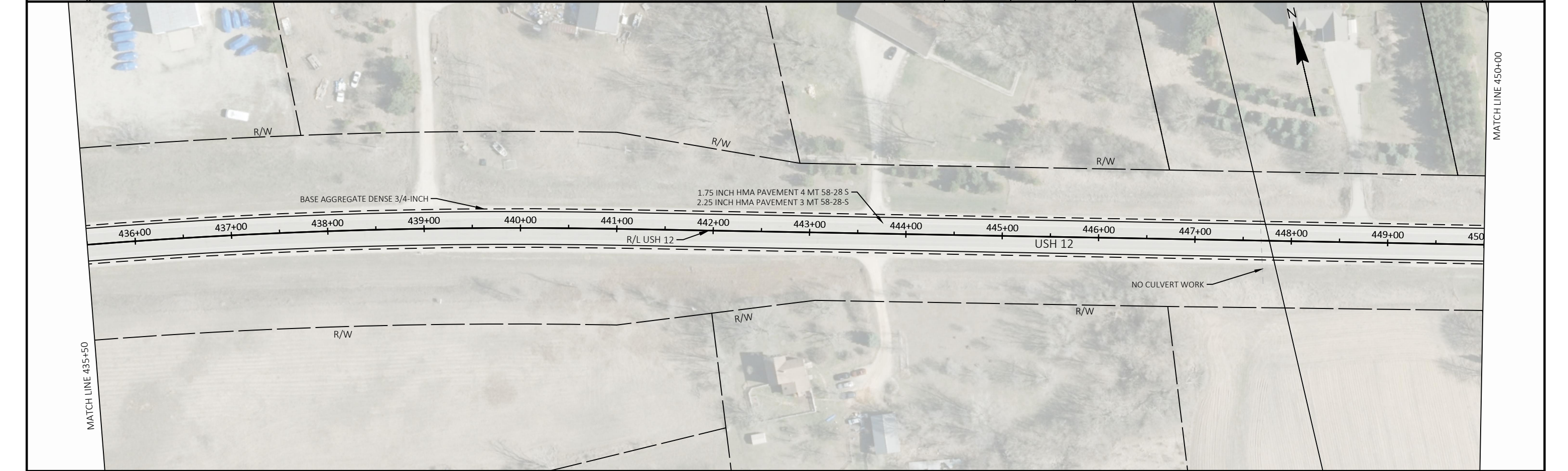
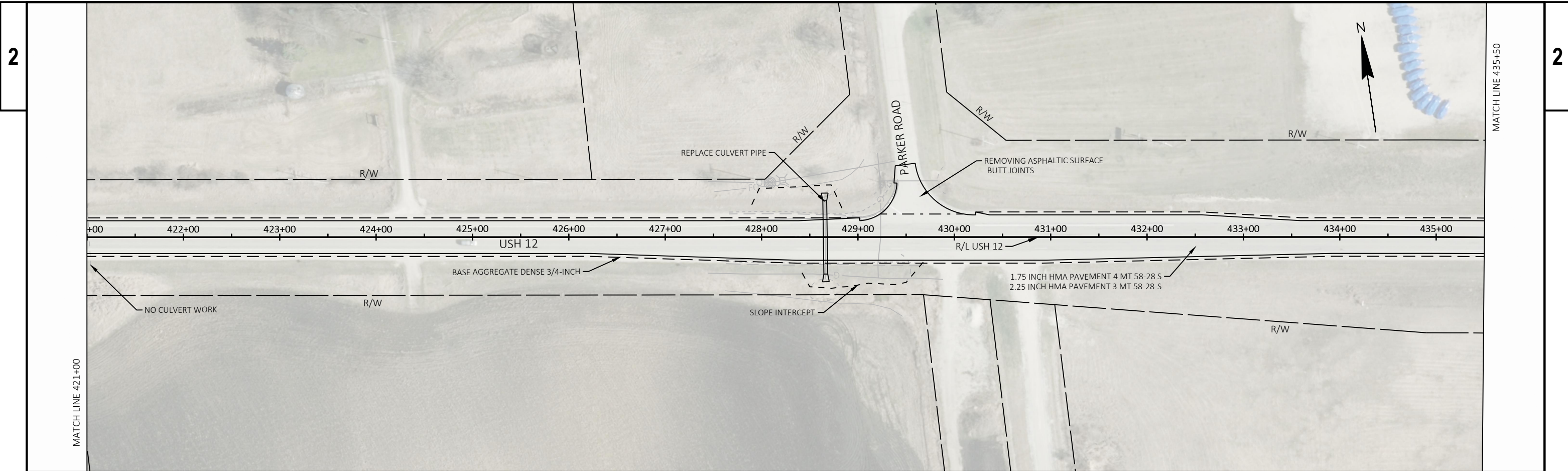
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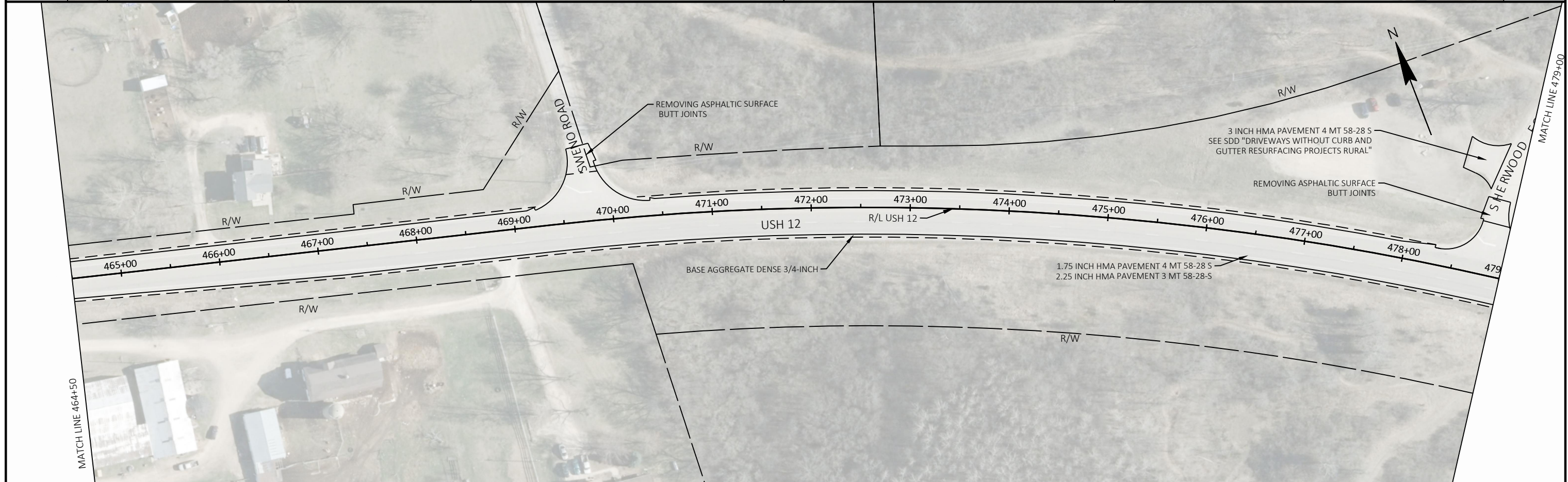
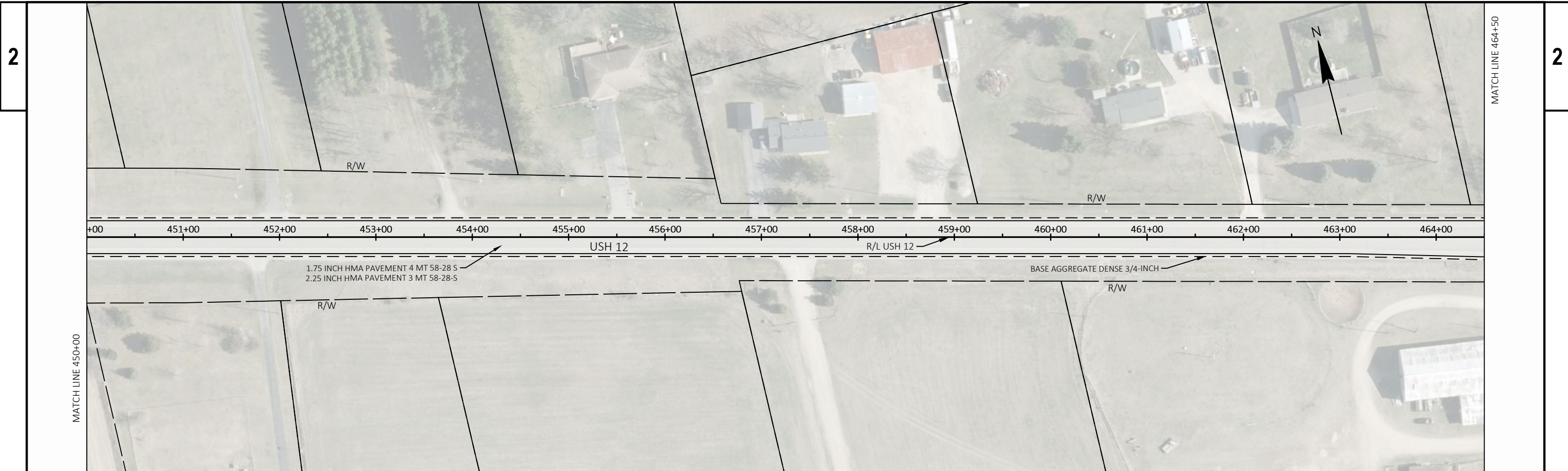
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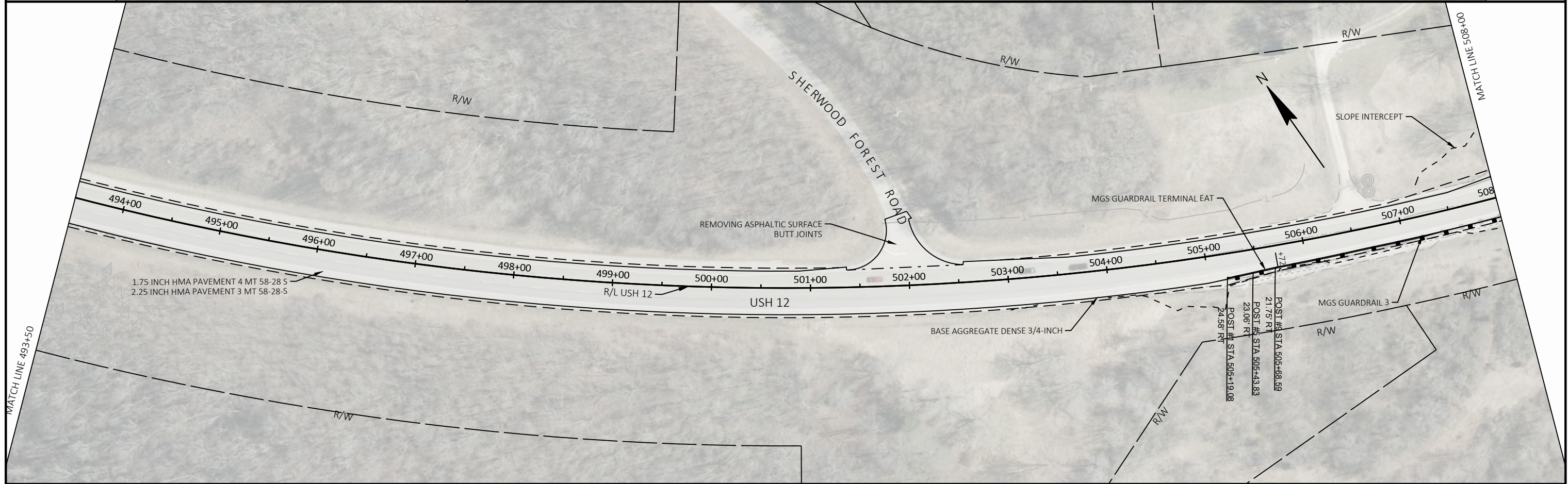
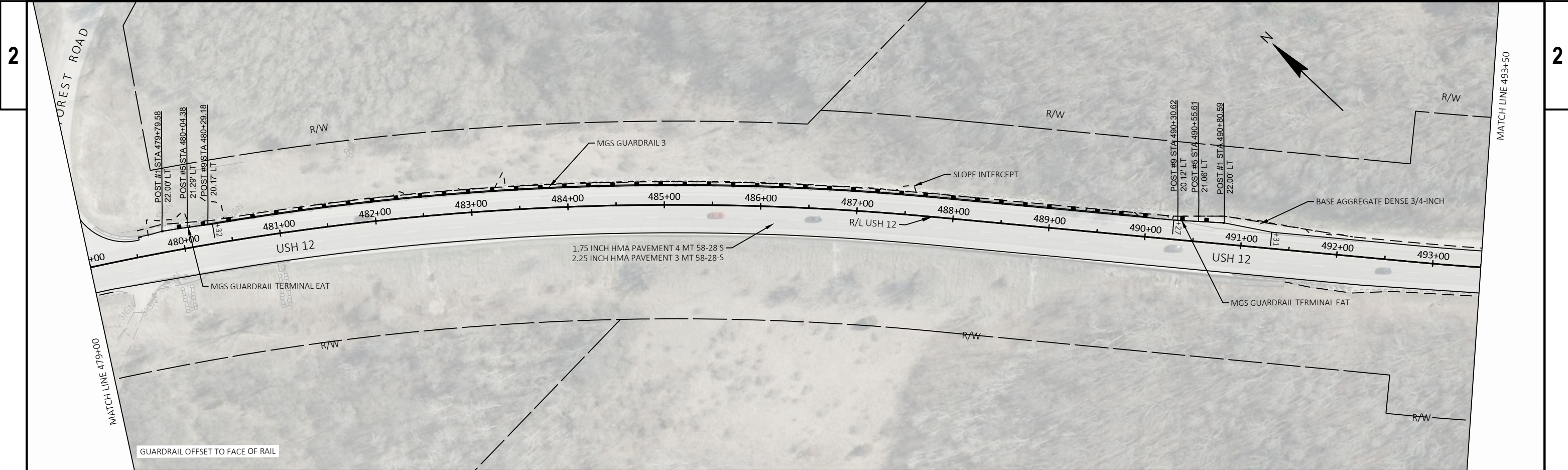
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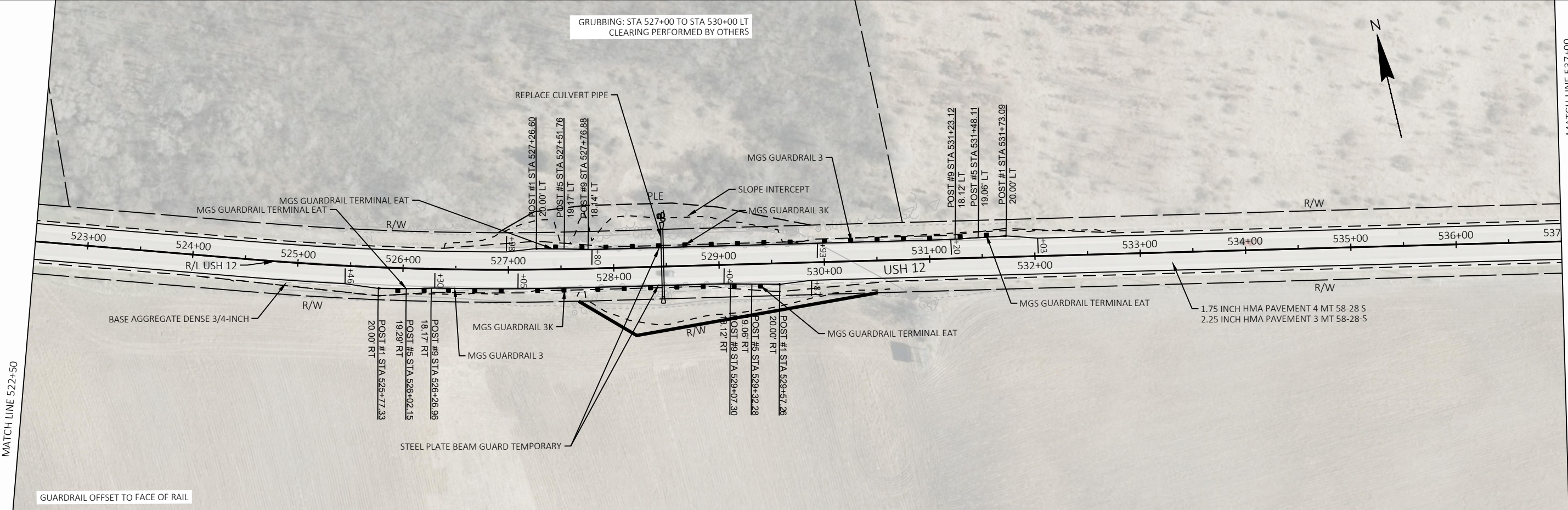
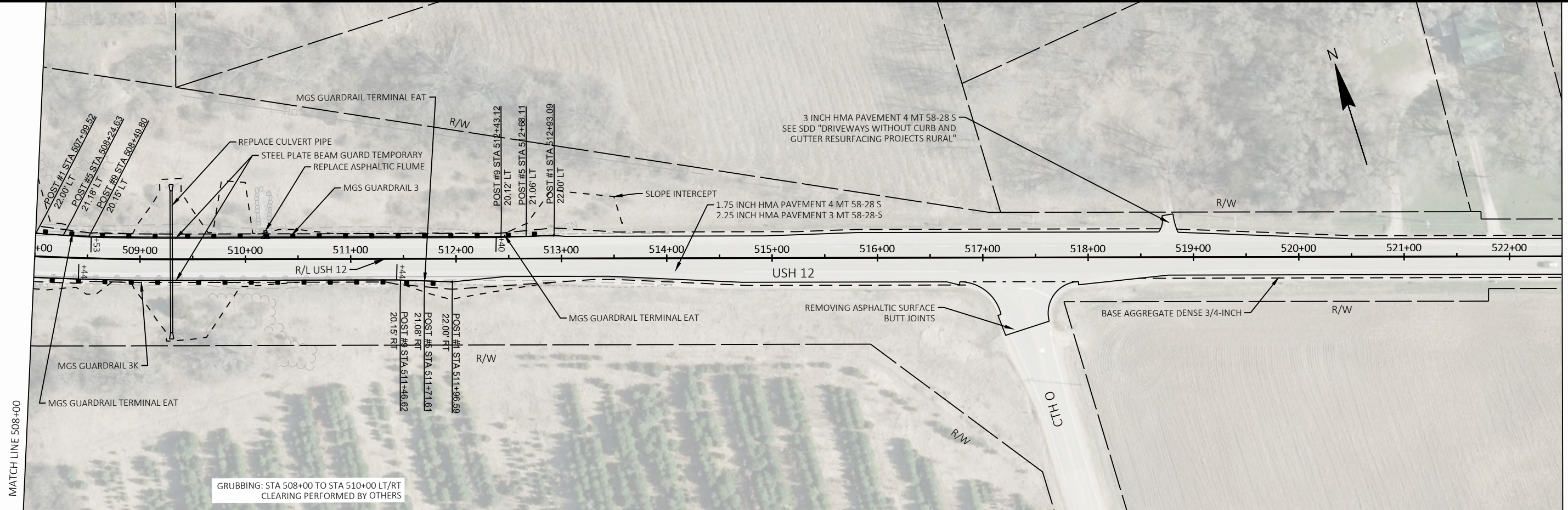
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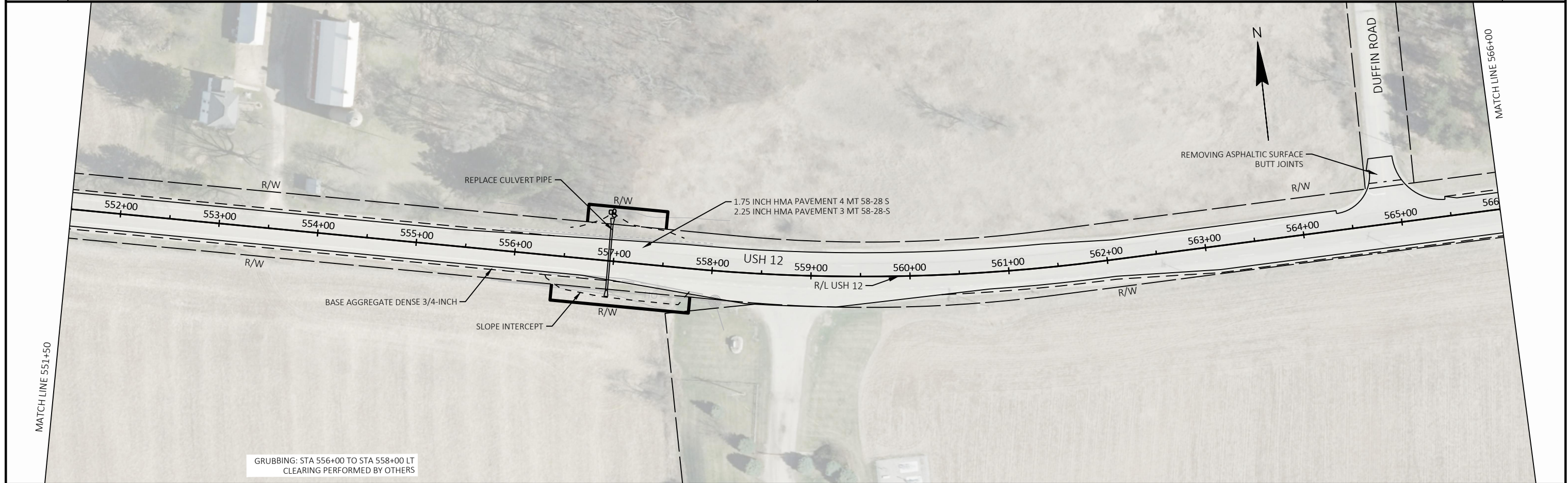
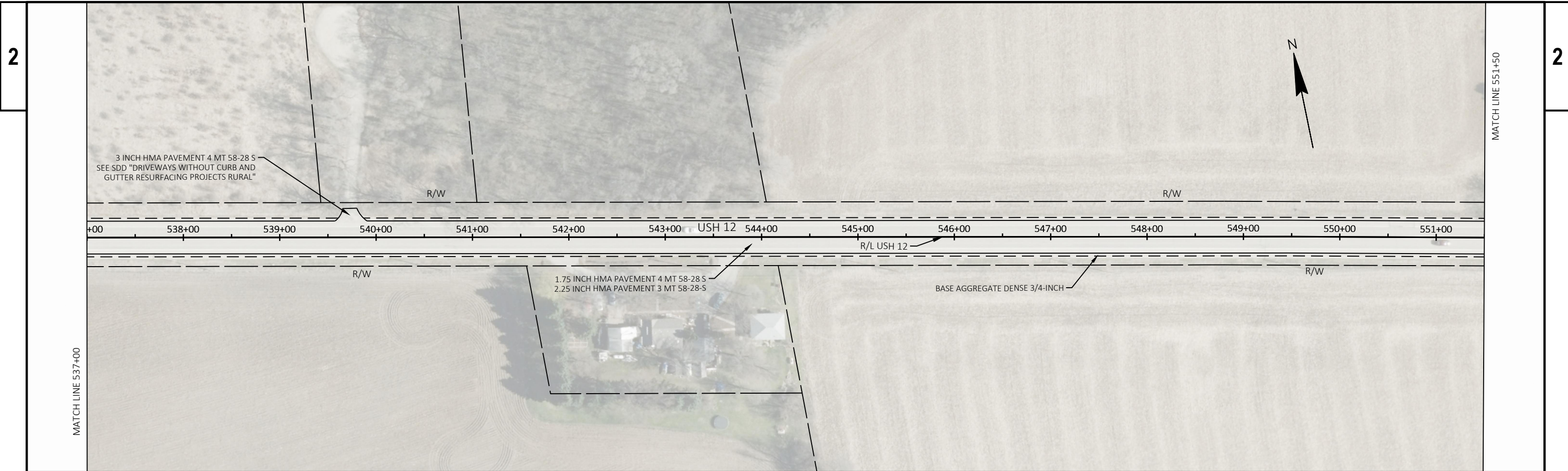


PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAILS	SHEET	E
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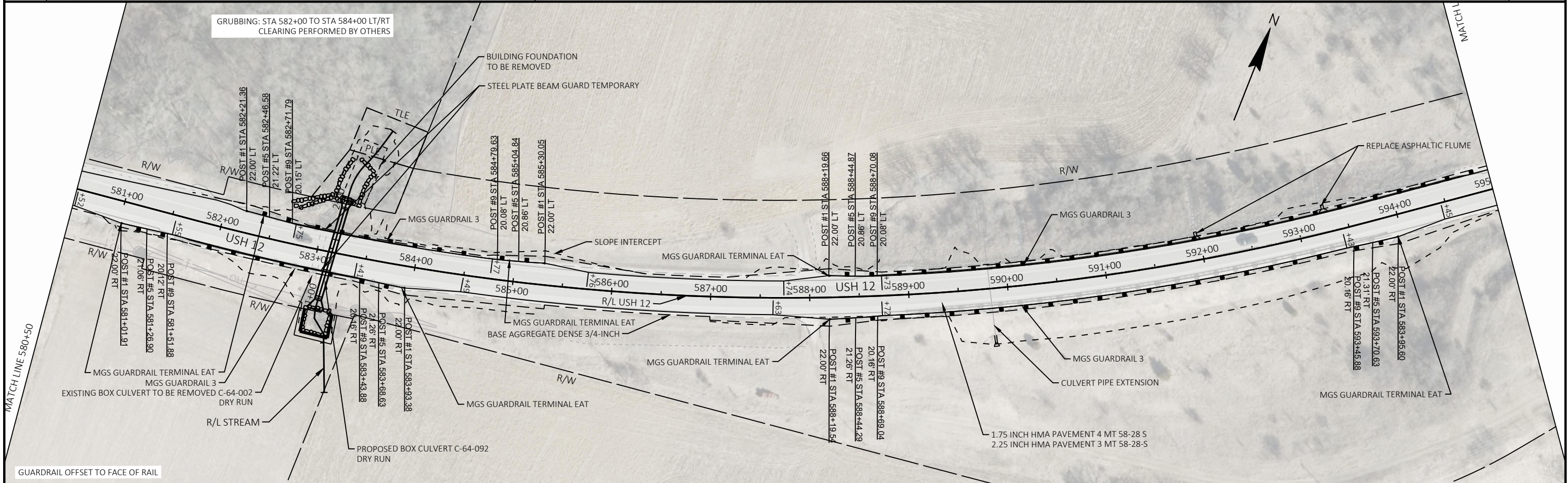
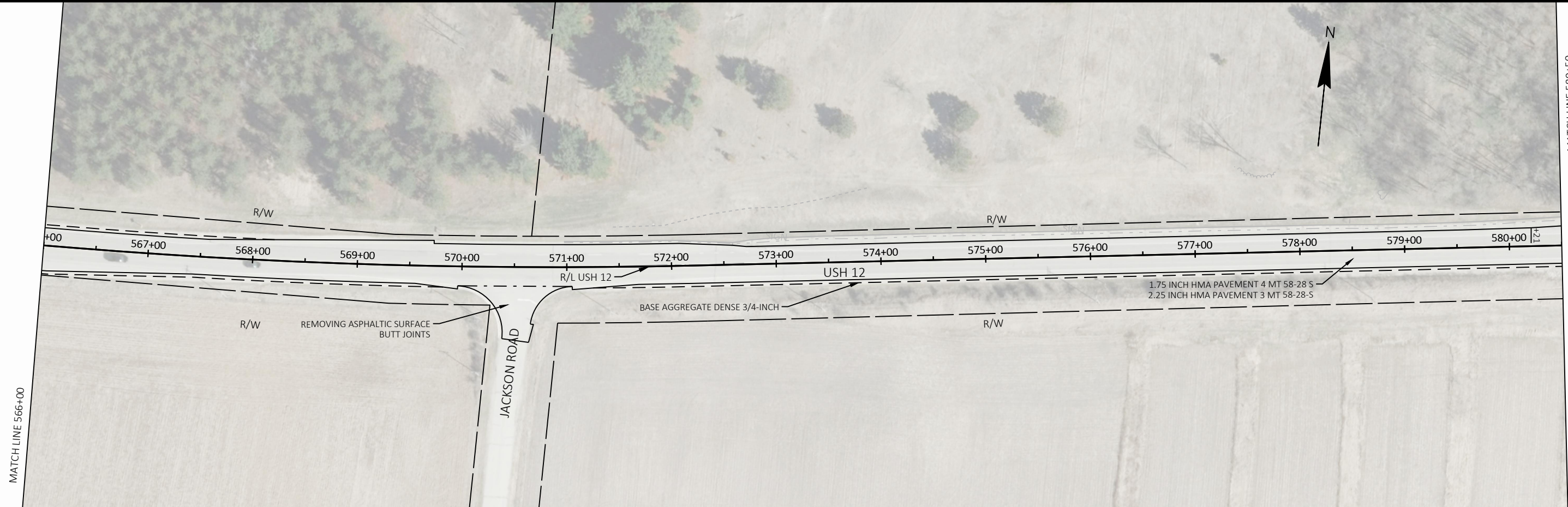
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAILS	SHEET	E
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GRUBBING: STA 556+00 TO STA 558+00 LT
CLEARING PERFORMED BY OTHERS

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAILS	SHEET	E
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PROJECT NO: 3130-03-71

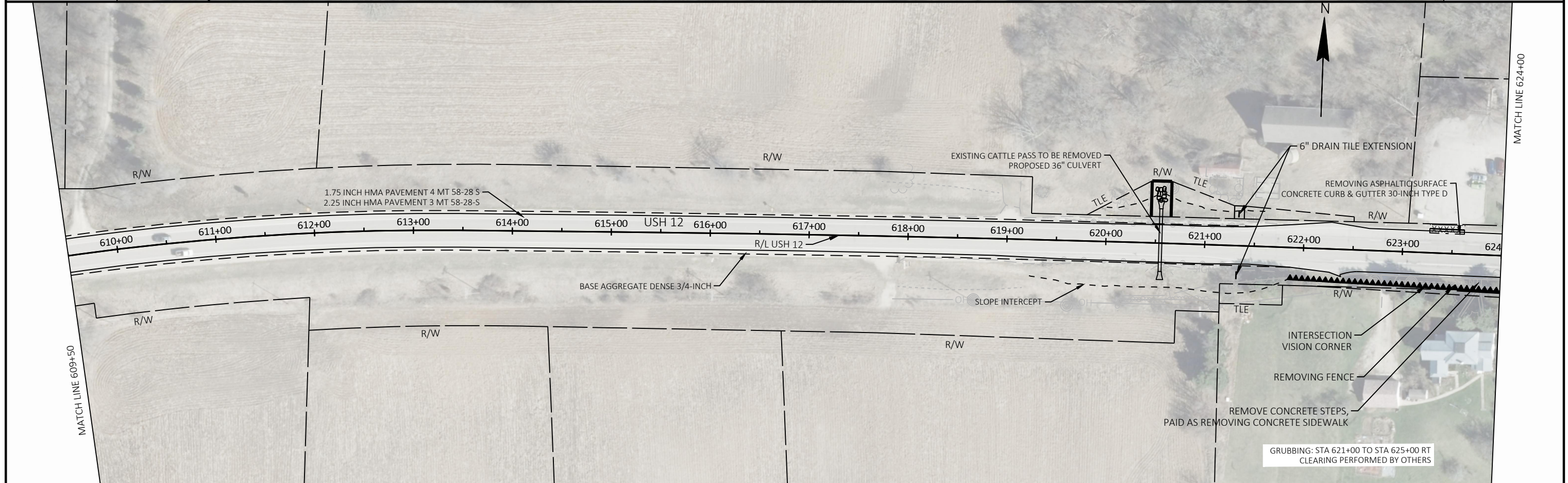
HWY: USH 12

COUNTY: WALWORTH

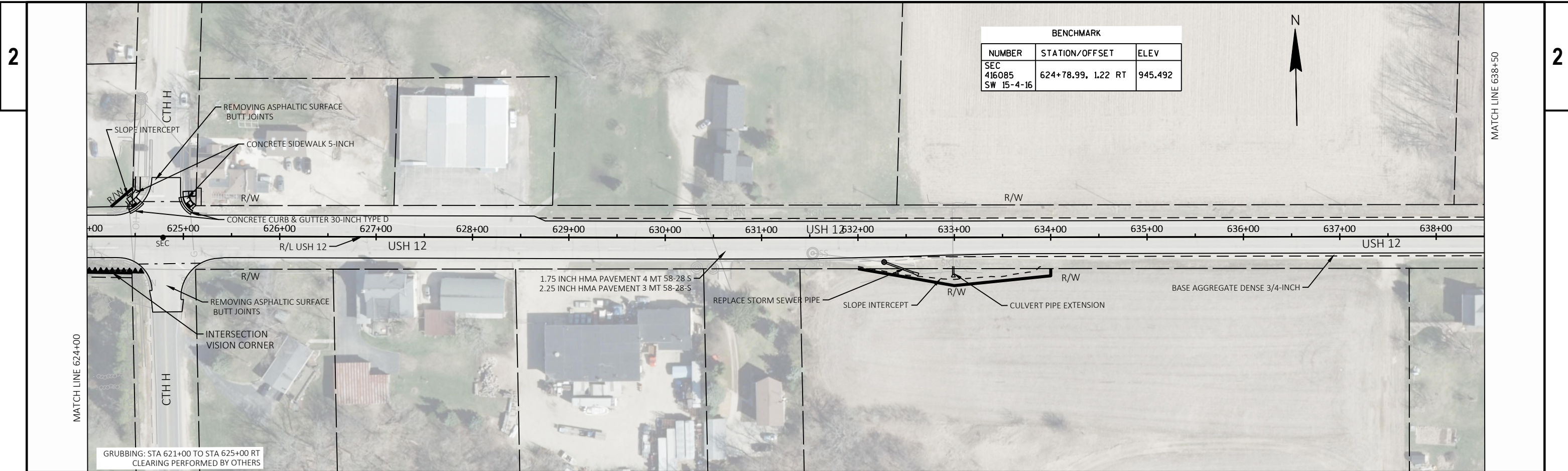
PLAN DETAILS

SHEET

E



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAILS	SHEET	E
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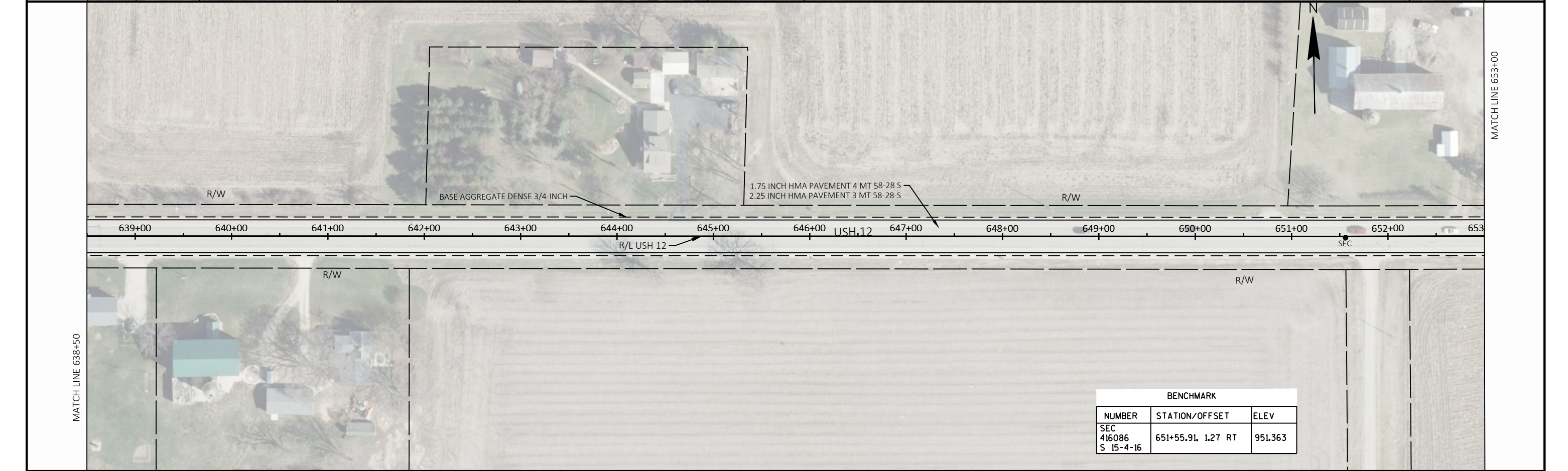


MATCH LINE 624+00

MATCH LINE 638+50

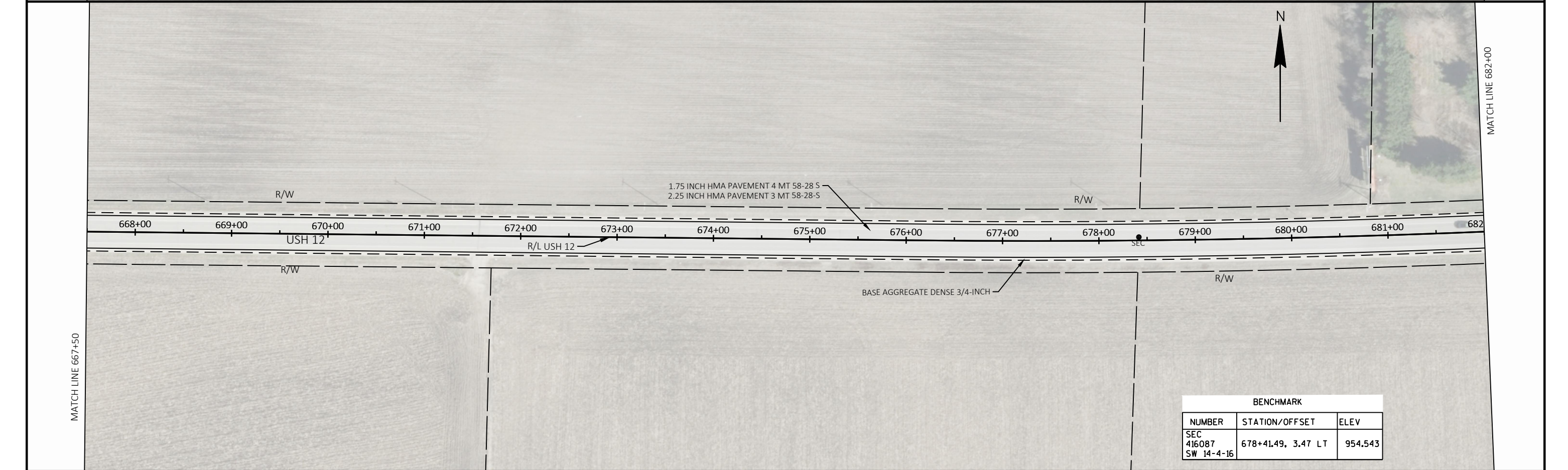
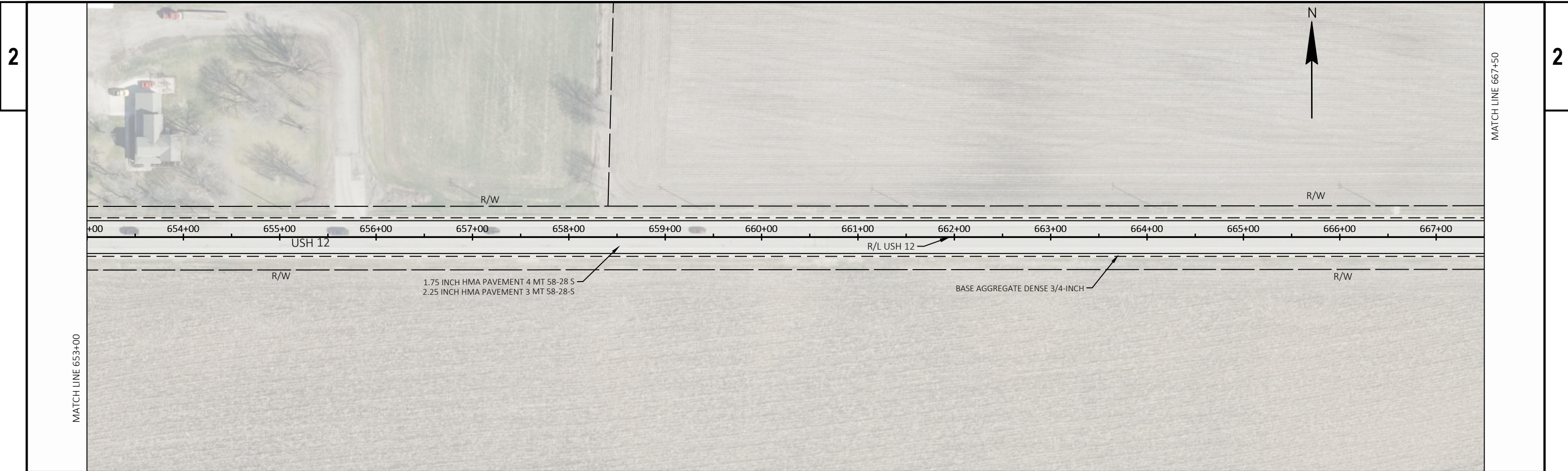
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2

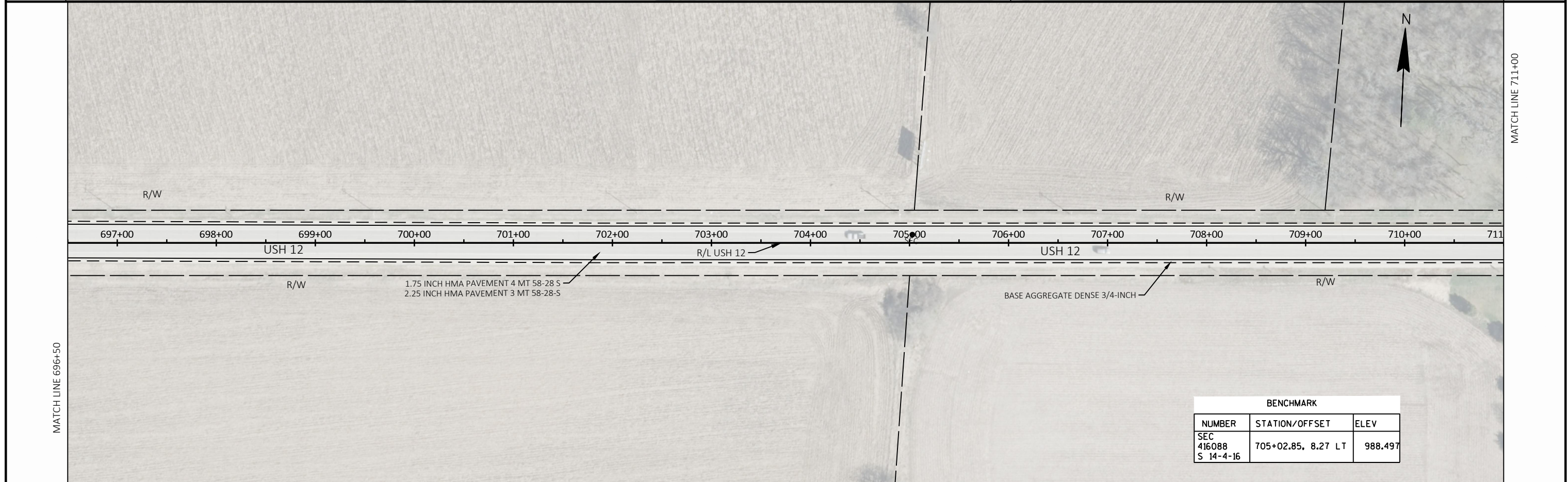
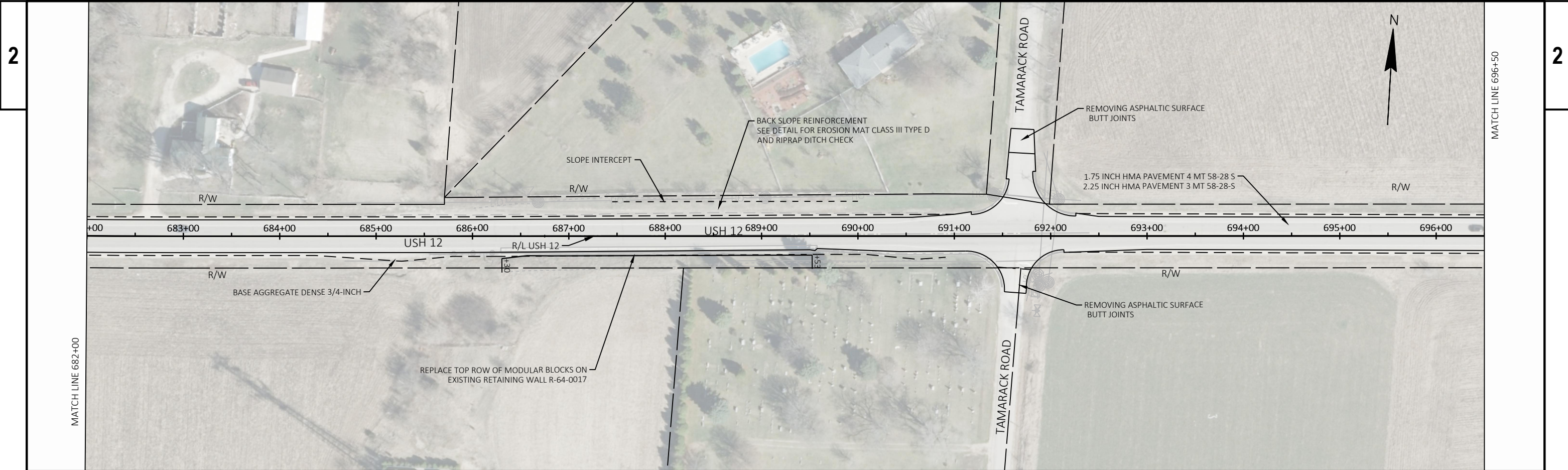


MATCH LINE 638+50

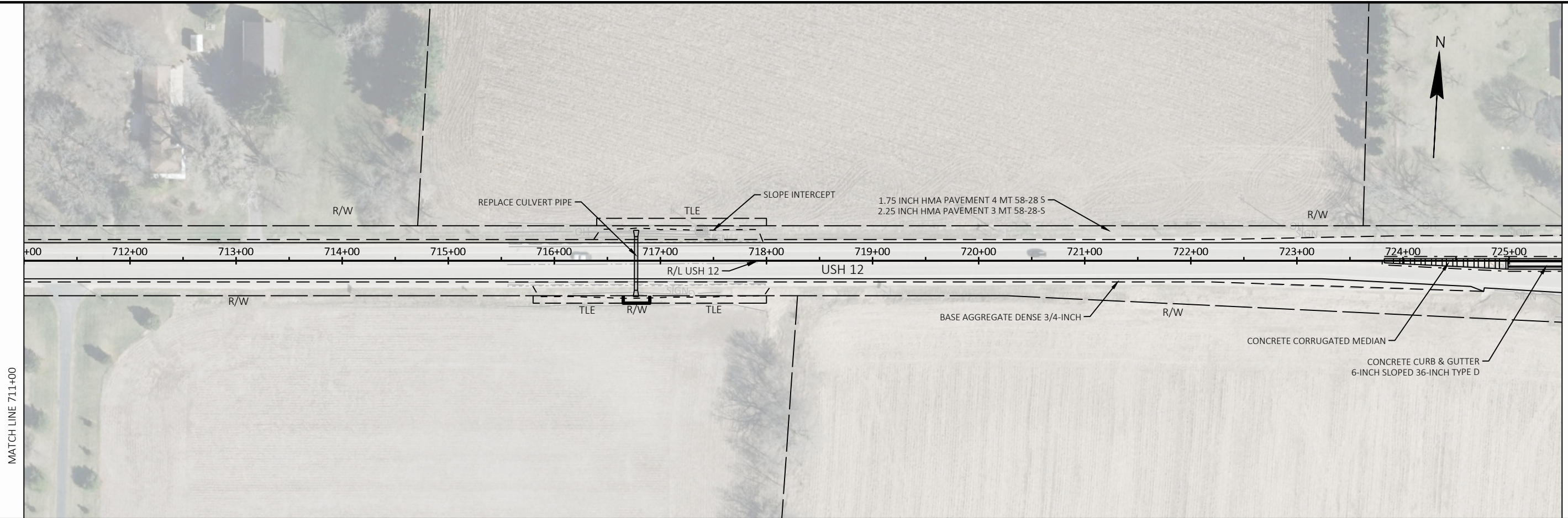
MATCH LINE 653+00



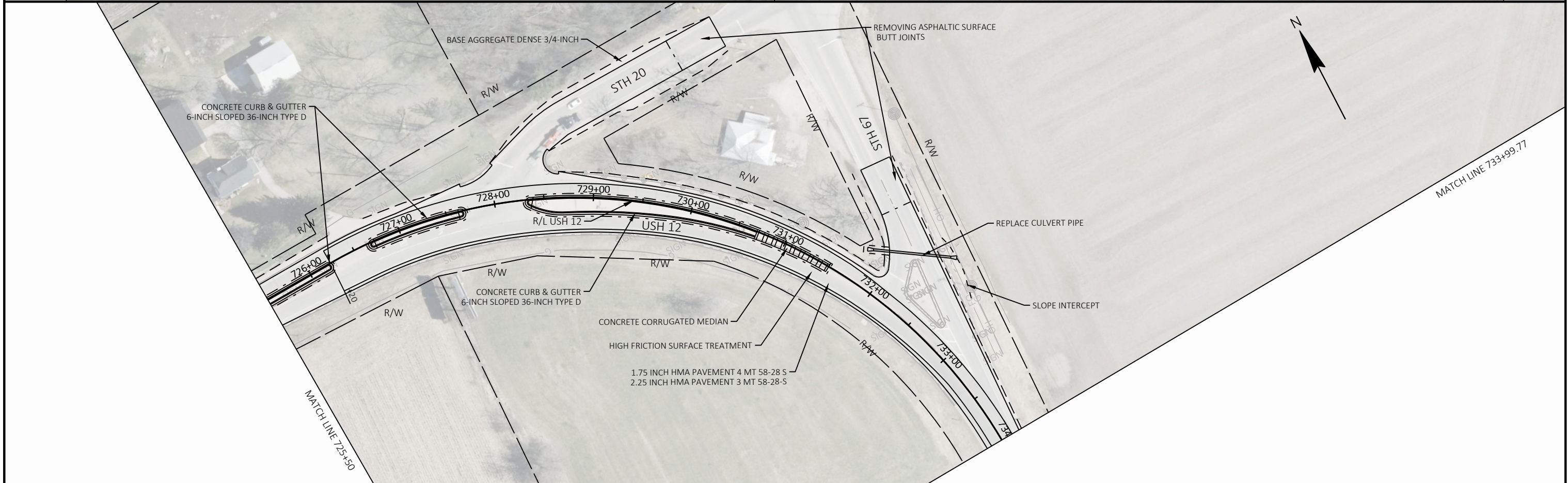
BENCHMARK		
NUMBER	STATION/OFFSET	ELEV
SEC 416087 SW 14-4-16	678+41.49, 3.47 LT	954.543



PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH PLAN DETAILS SHEET E

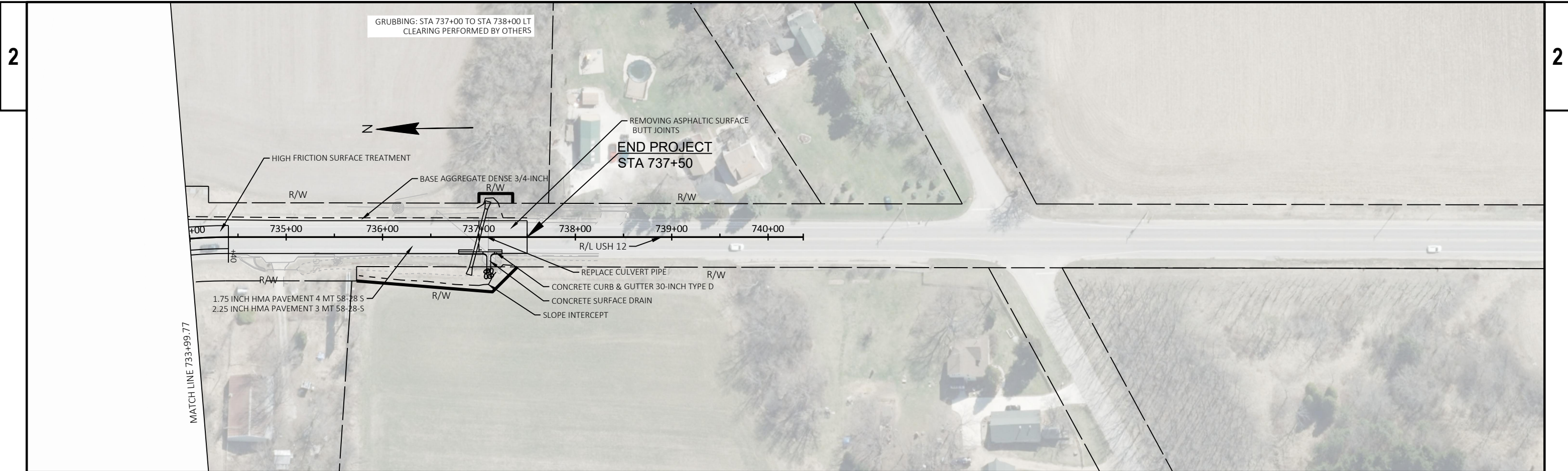












MATCH LINE 711+00

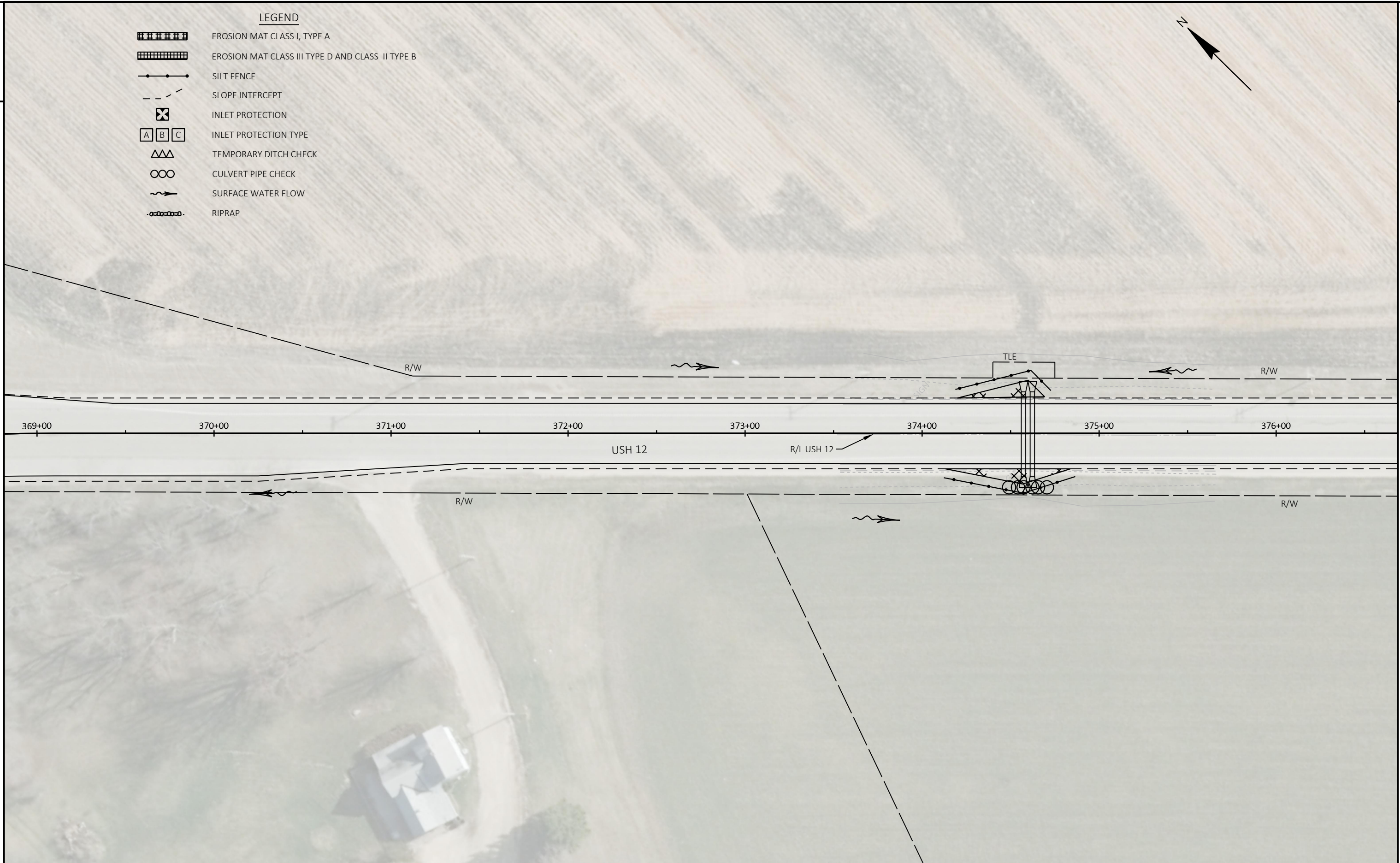
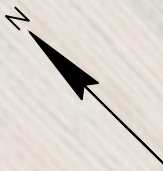


MATCH LINE 733+99.77

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAILS	SHEET	E
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- LEGEND**
-  EROSION MAT CLASS I, TYPE A
 -  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
 -  SILT FENCE
 -  SLOPE INTERCEPT
 -  INLET PROTECTION
 -  INLET PROTECTION TYPE
 -  TEMPORARY DITCH CHECK
 -  CULVERT PIPE CHECK
 -  SURFACE WATER FLOW
 -  RIPRAP

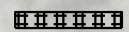

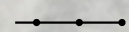
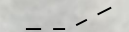

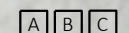
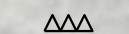
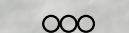
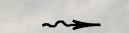
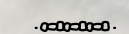


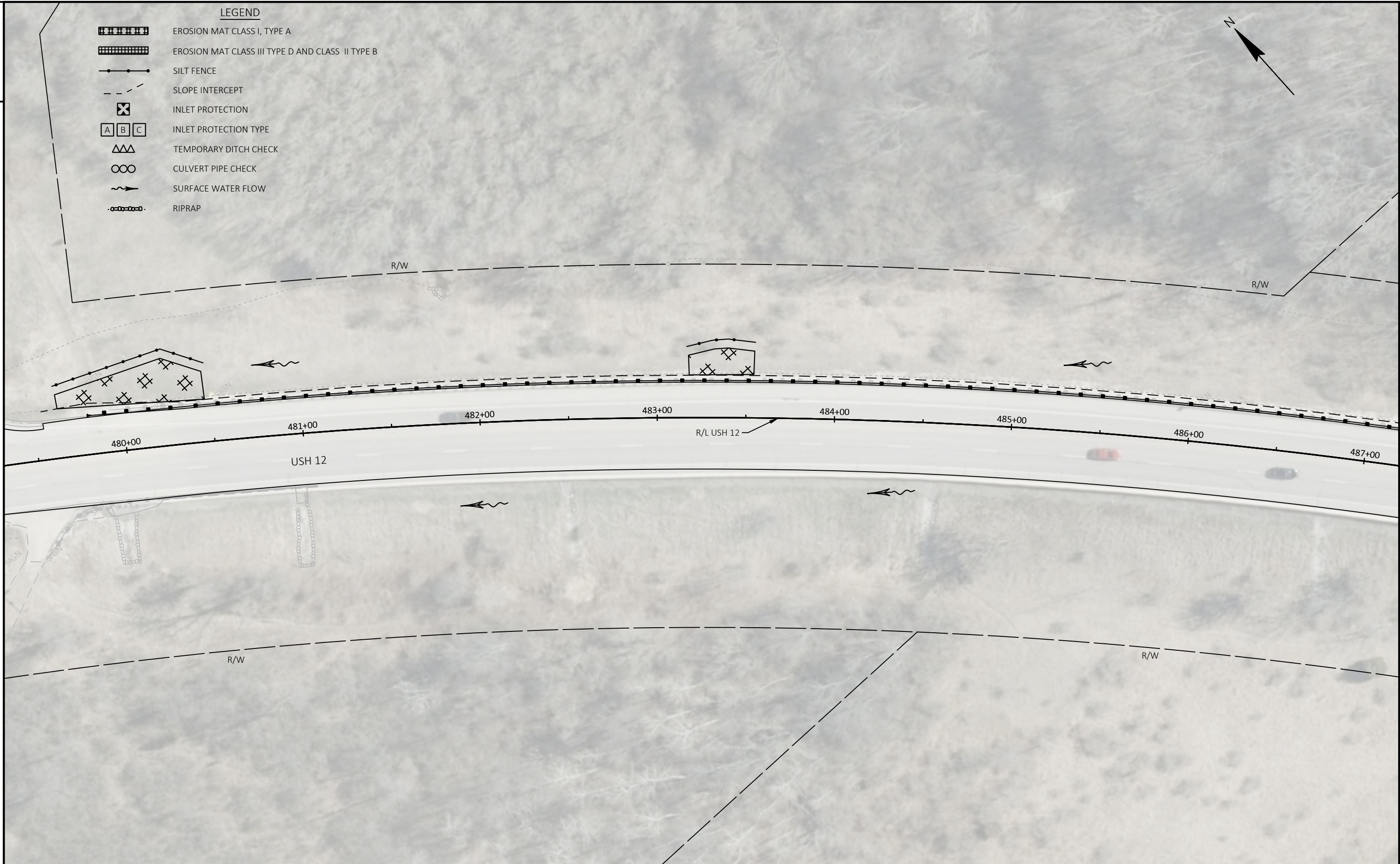
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET	E
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH EROSION CONTROL SHEET E

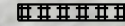

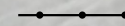


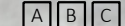
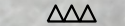

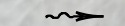
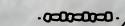
LEGEND

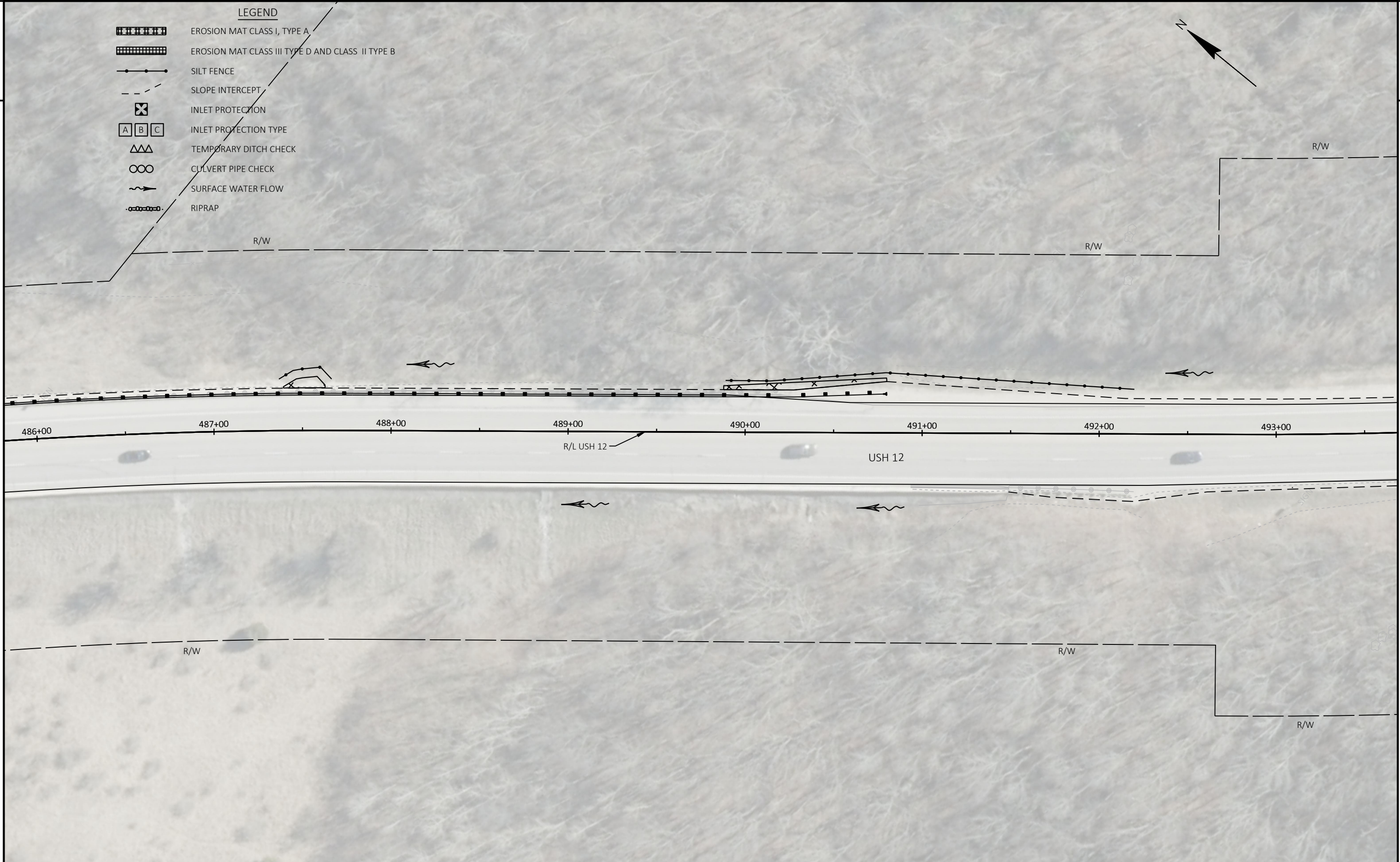
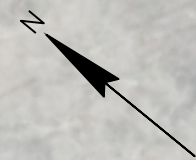
-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET	E
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LEGEND

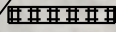


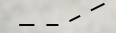


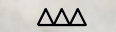
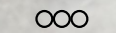
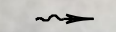
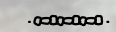
-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP

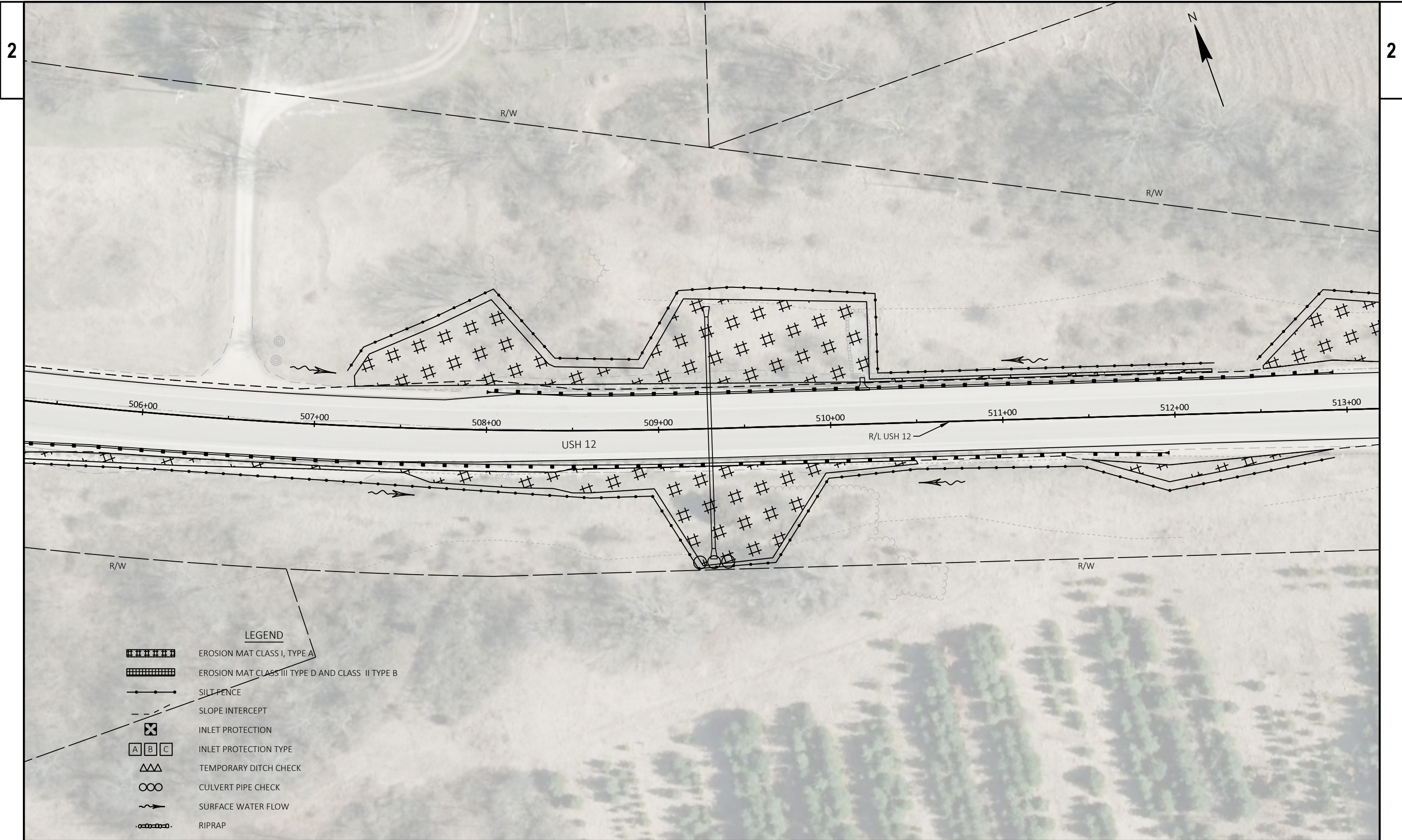


PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET	E
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LEGEND

-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP



PROJECT NO: 3130-03-71



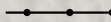
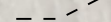

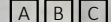




HWY: USH 12

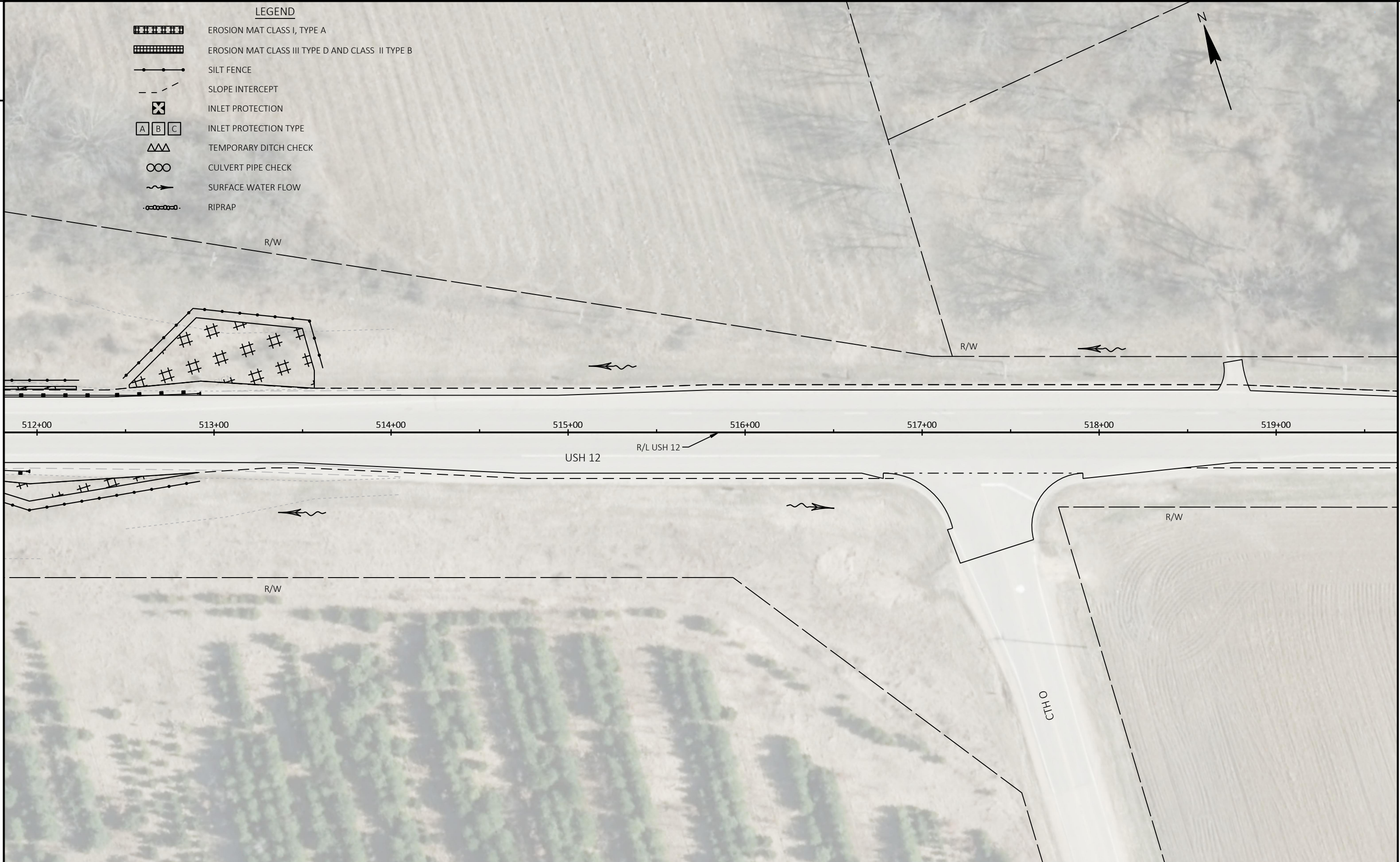
COUNTY: WALWORTH

EROSION CONTROL

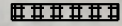

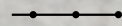


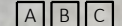

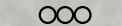
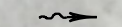
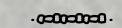
SHEET

E

- LEGEND**
-  EROSION MAT CLASS I, TYPE A
 -  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
 -  SILT FENCE
 -  SLOPE INTERCEPT
 -  INLET PROTECTION
 -  INLET PROTECTION TYPE
 -  TEMPORARY DITCH CHECK
 -  CULVERT PIPE CHECK
 -  SURFACE WATER FLOW
 -  RIPRAP



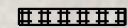

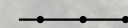


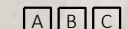


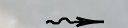

LEGEND

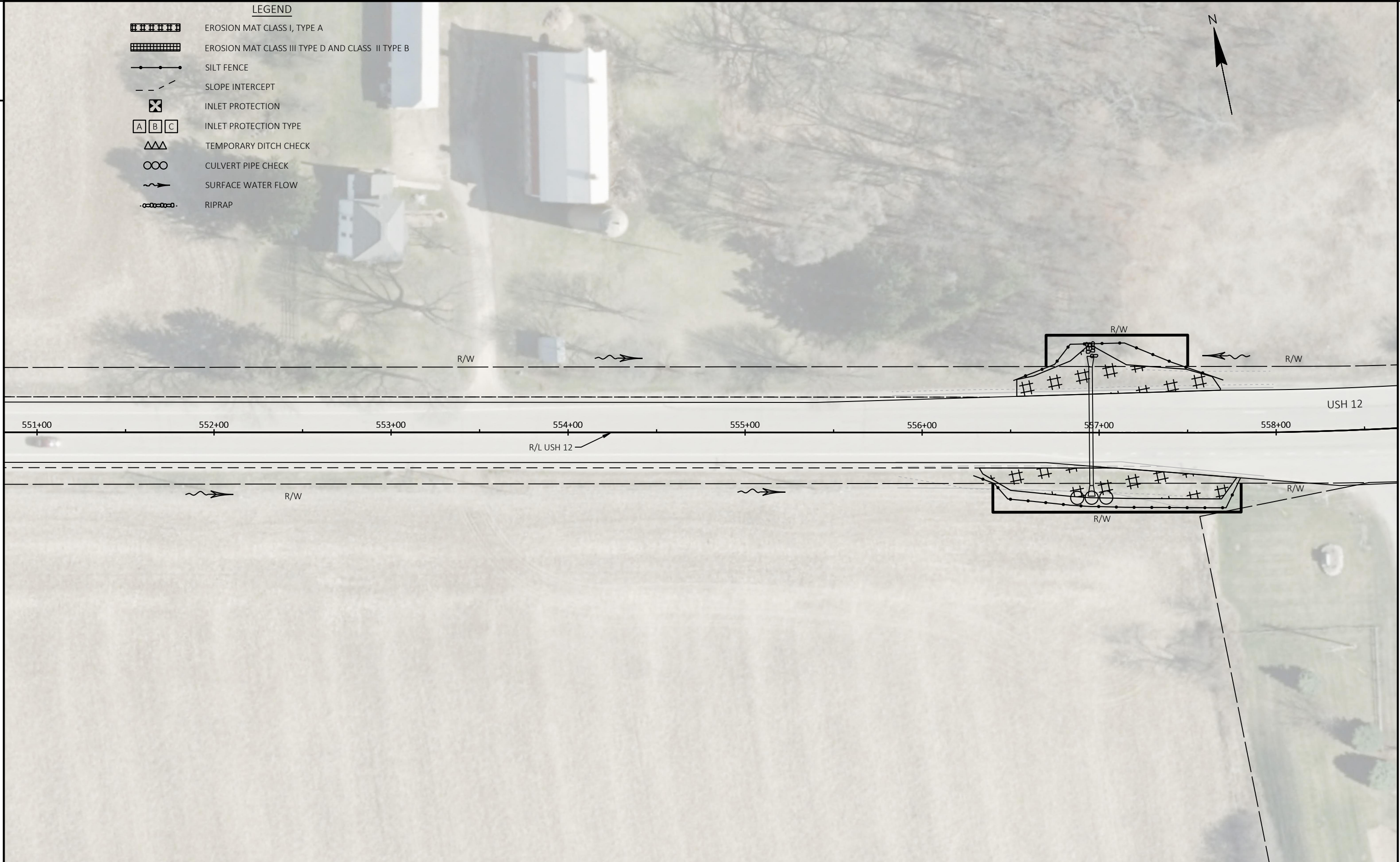
-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET	E
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LEGEND

-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP



PROJECT NO: 3130-03-71

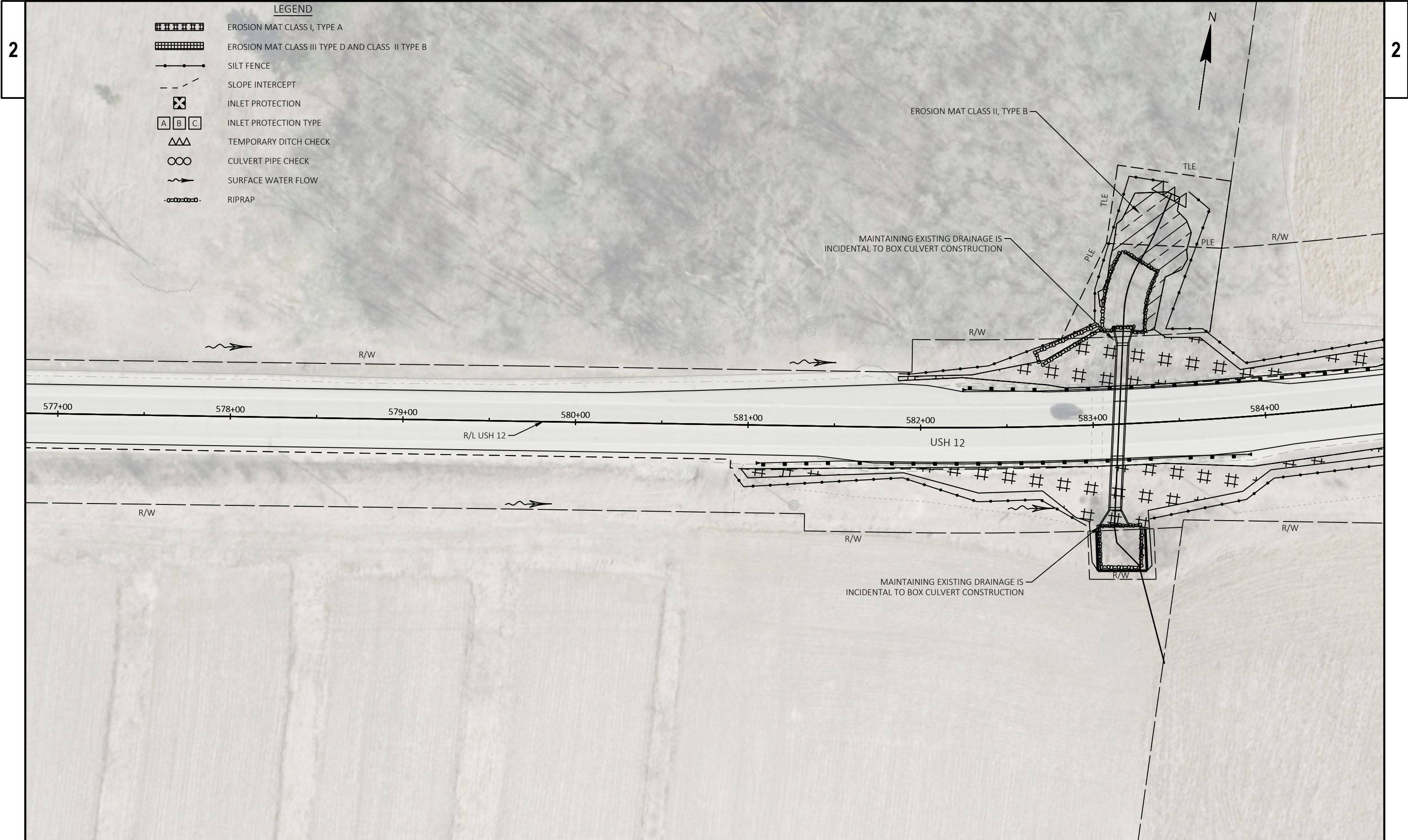
HWY: USH 12

COUNTY: WALWORTH

EROSION CONTROL

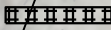
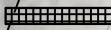
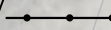
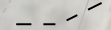

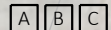


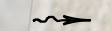
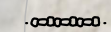

SHEET

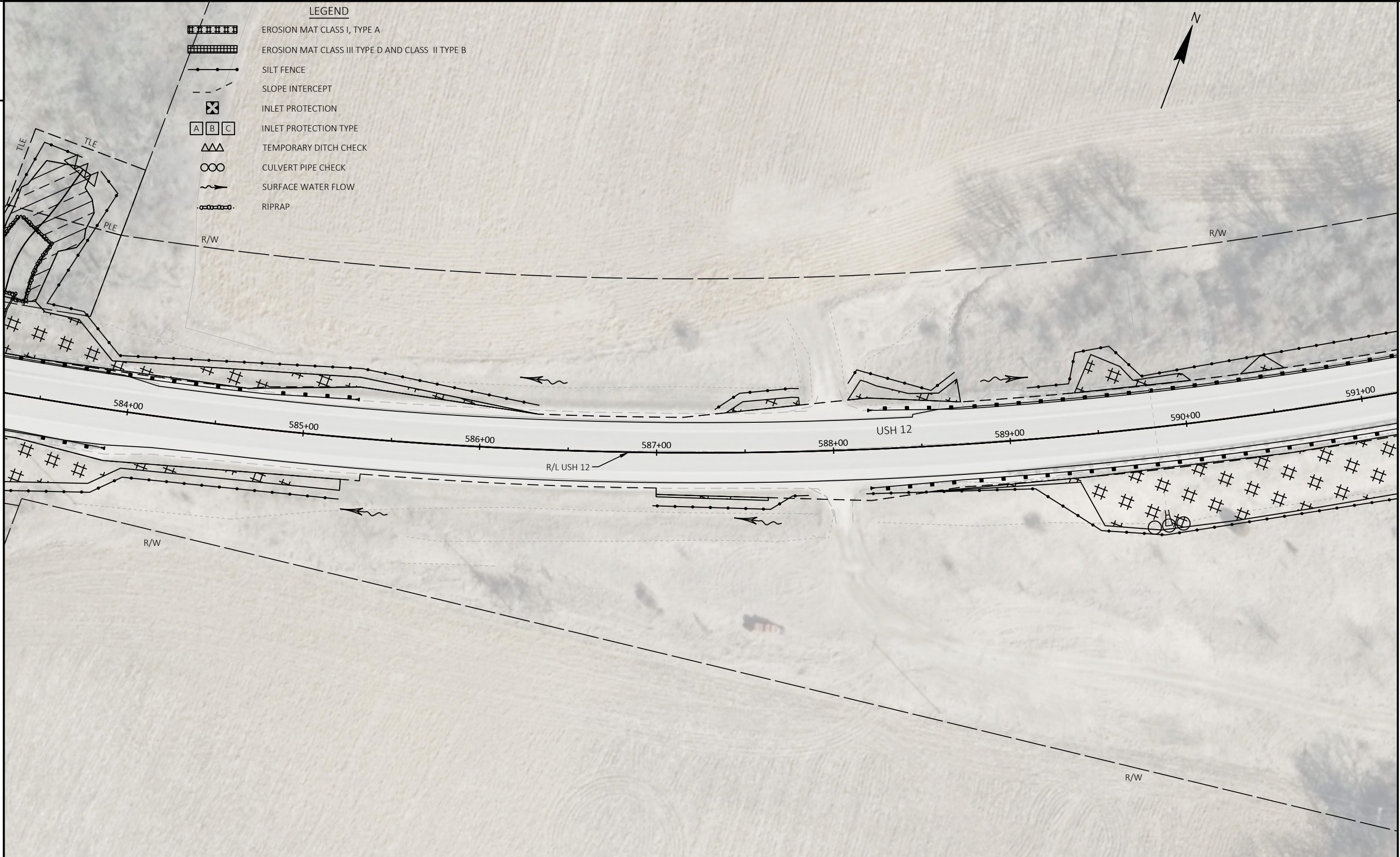
E



2

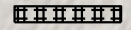

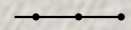
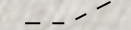

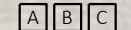




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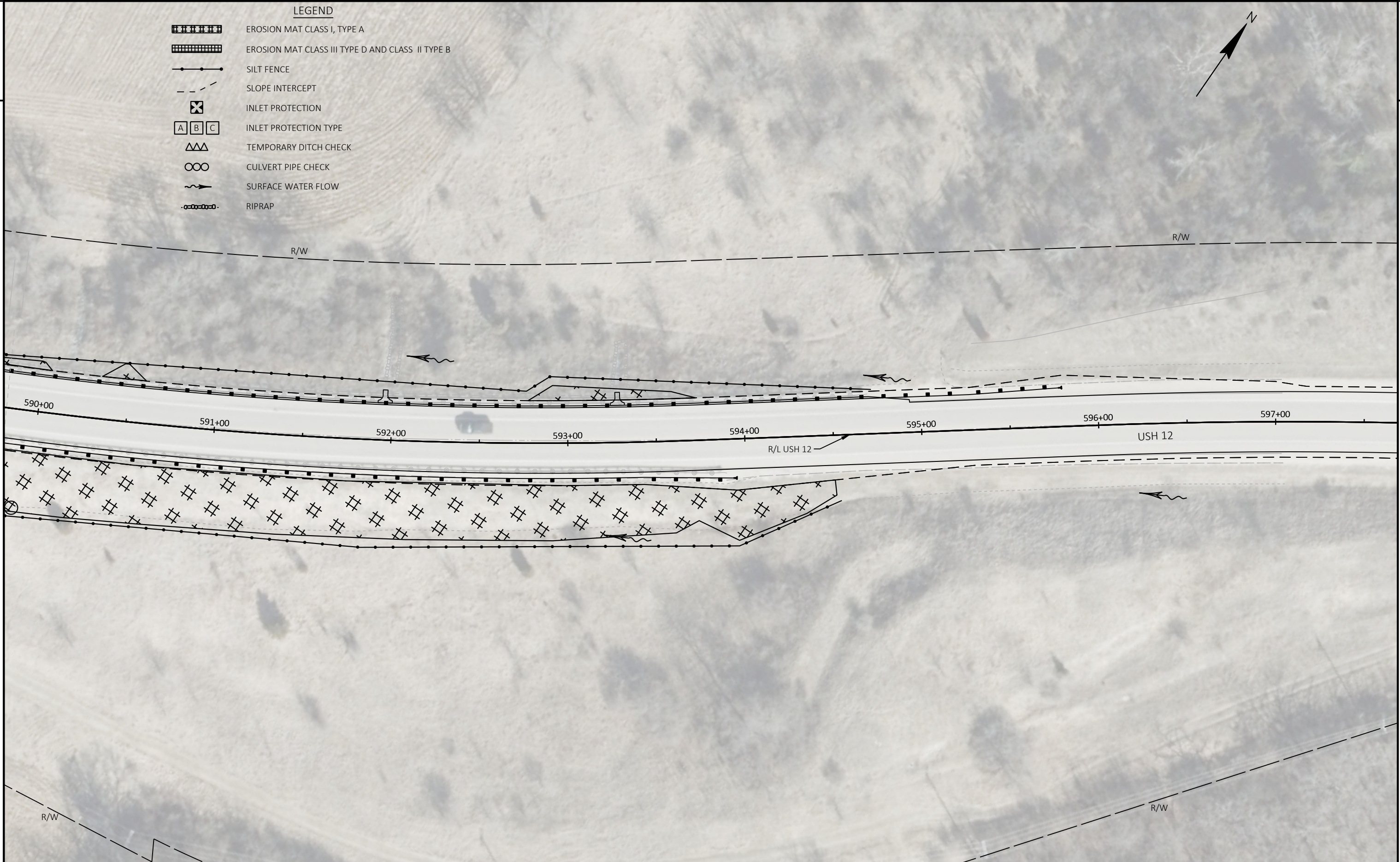
- LEGEND**
-  EROSION MAT CLASS I, TYPE A
 -  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
 -  SILT FENCE
 -  SLOPE INTERCEPT
 -  INLET PROTECTION
 -  INLET PROTECTION TYPE
 -  TEMPORARY DITCH CHECK
 -  CULVERT PIPE CHECK
 -  SURFACE WATER FLOW
 -  RIPRAP
 -  R/W



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET	E
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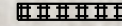

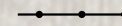


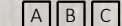
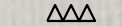

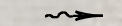
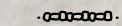
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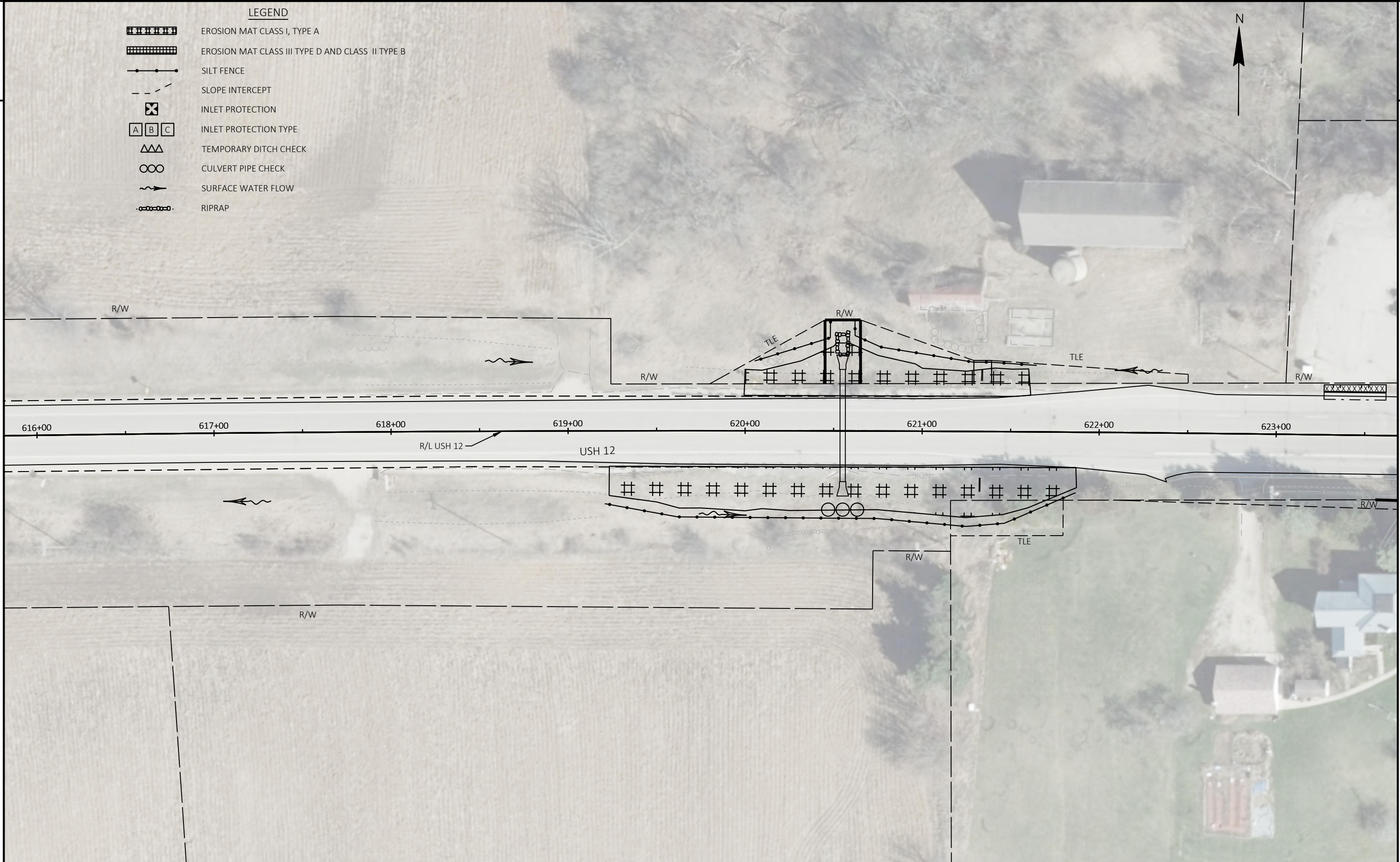
-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP

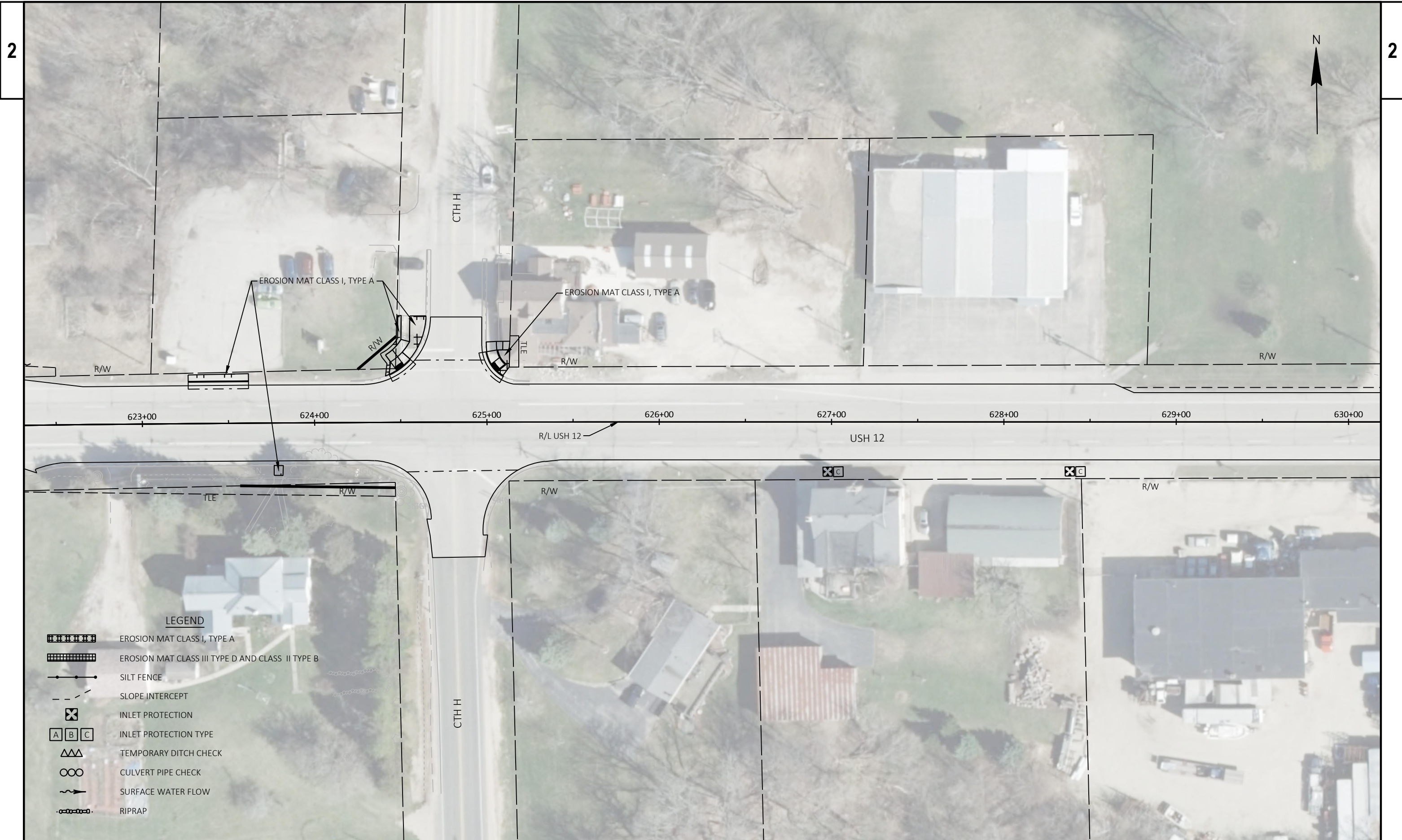


PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET	E
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LEGEND

-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP



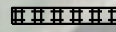


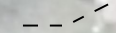

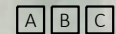
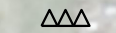
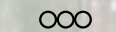
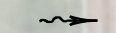
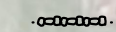


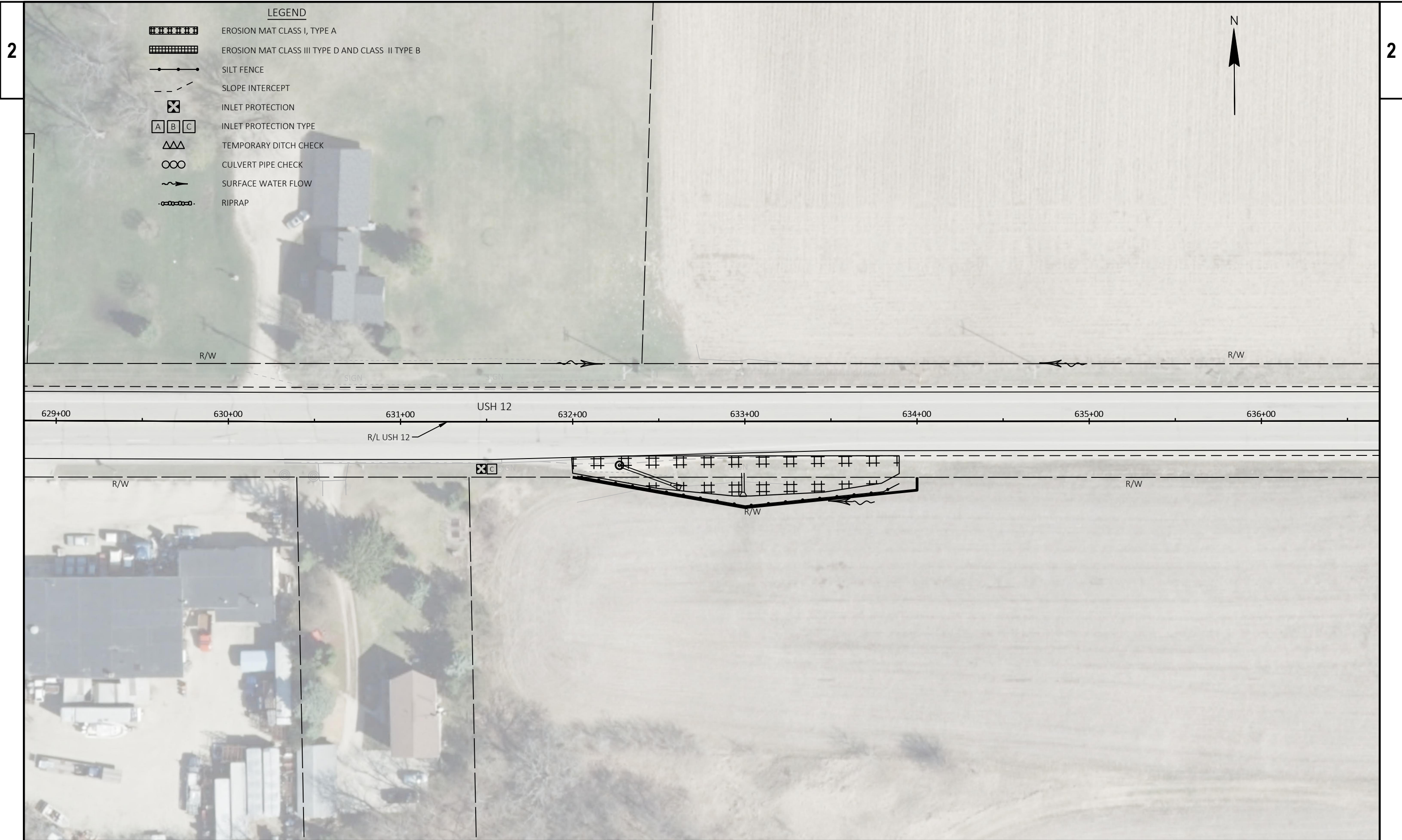
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2



LEGEND

-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP

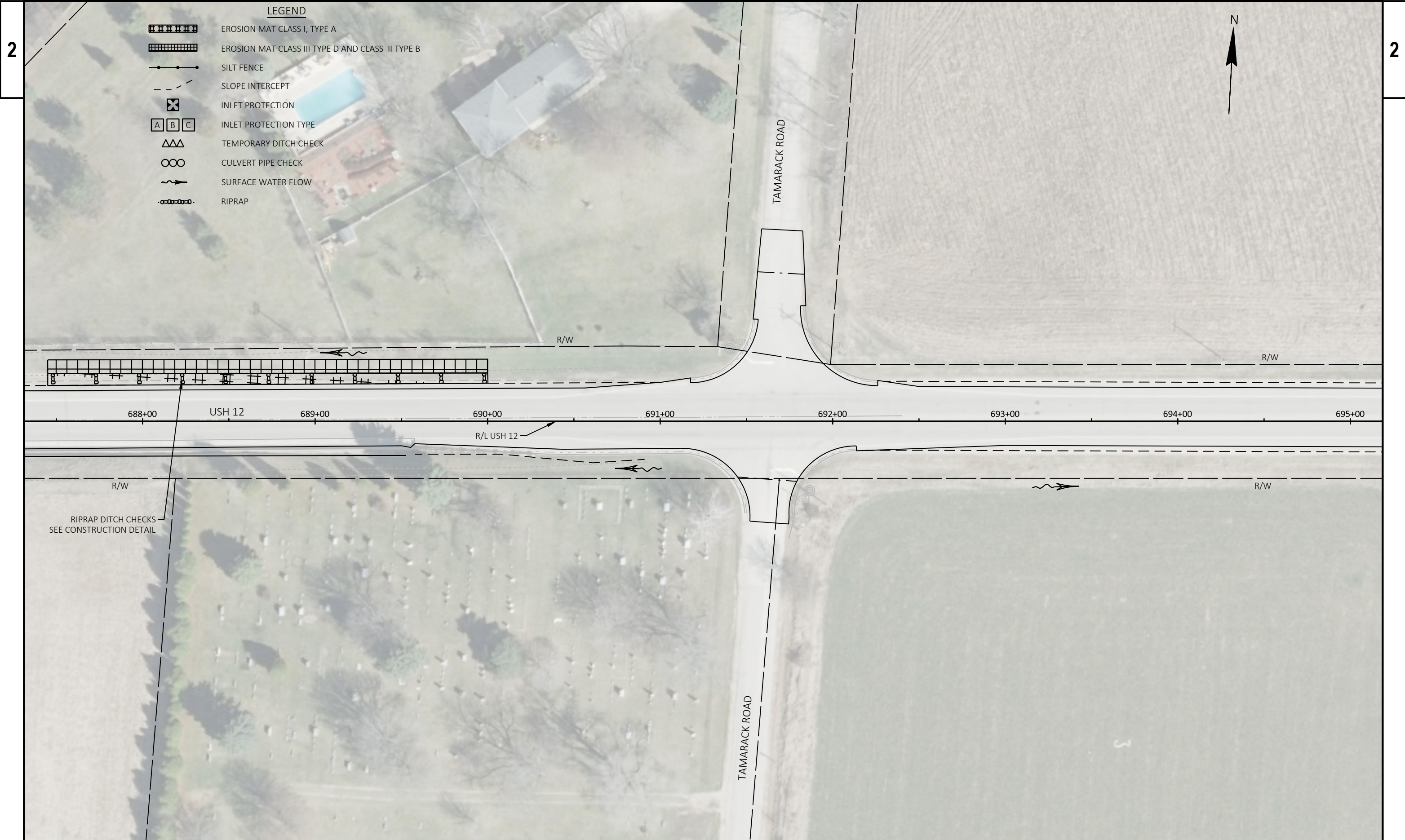


- LEGEND**
- EROSION MAT CLASS I, TYPE A
 - EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
 - SILT FENCE
 - SLOPE INTERCEPT
 - INLET PROTECTION
 - INLET PROTECTION TYPE
 - TEMPORARY DITCH CHECK
 - CULVERT PIPE CHECK
 - SURFACE WATER FLOW
 - RIPRAP



629+00 630+00 631+00 USH 12 632+00 633+00 634+00 635+00 636+00

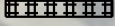

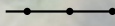
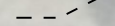

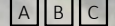


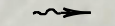
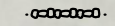
R/L USH 12

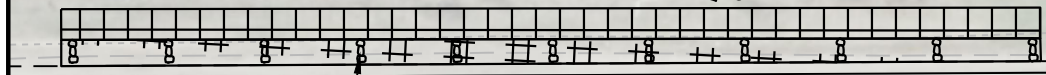


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2

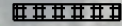







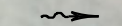
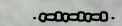
LEGEND

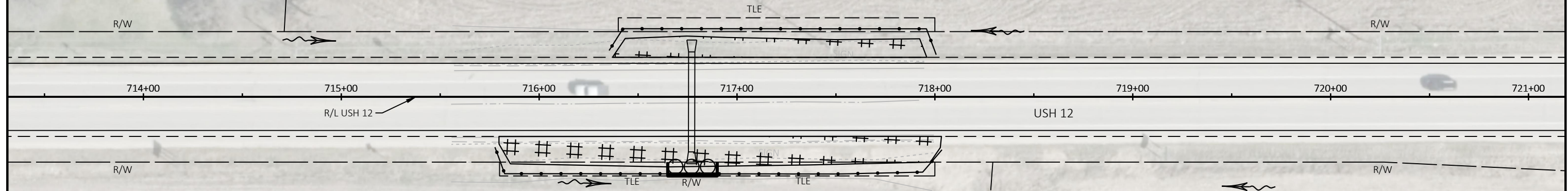
-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP



688+00 USH 12 689+00 690+00 691+00 692+00 693+00 694+00 695+00



- LEGEND**
-  EROSION MAT CLASS I, TYPE A
 -  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
 -  SILT FENCE
 -  SLOPE INTERCEPT
 -  INLET PROTECTION
 -  INLET PROTECTION TYPE
 -  TEMPORARY DITCH CHECK
 -  CULVERT PIPE CHECK
 -  SURFACE WATER FLOW
 -  RIPRAP





2

2

PROJECT NO: 3130-03-71

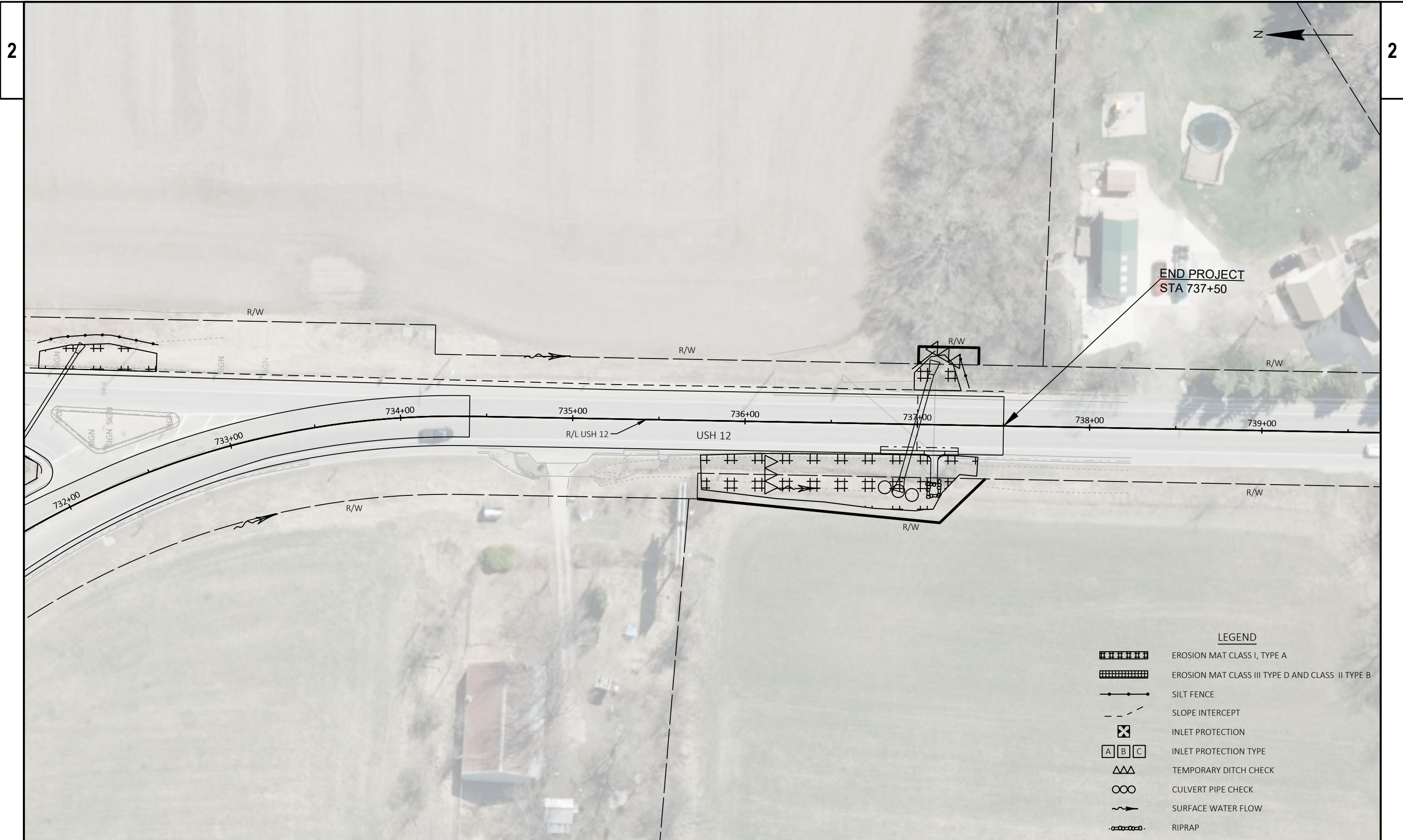
HWY: USH 12

COUNTY: WALWORTH

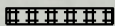
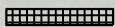

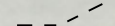

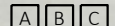



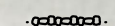
EROSION CONTROL

SHEET

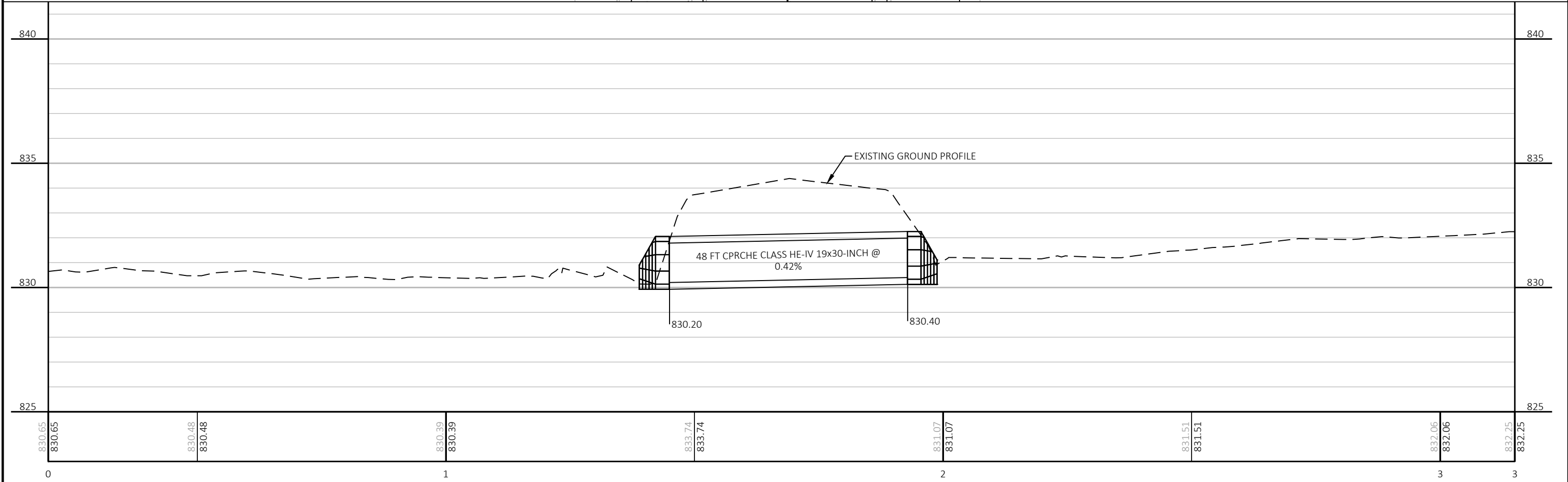
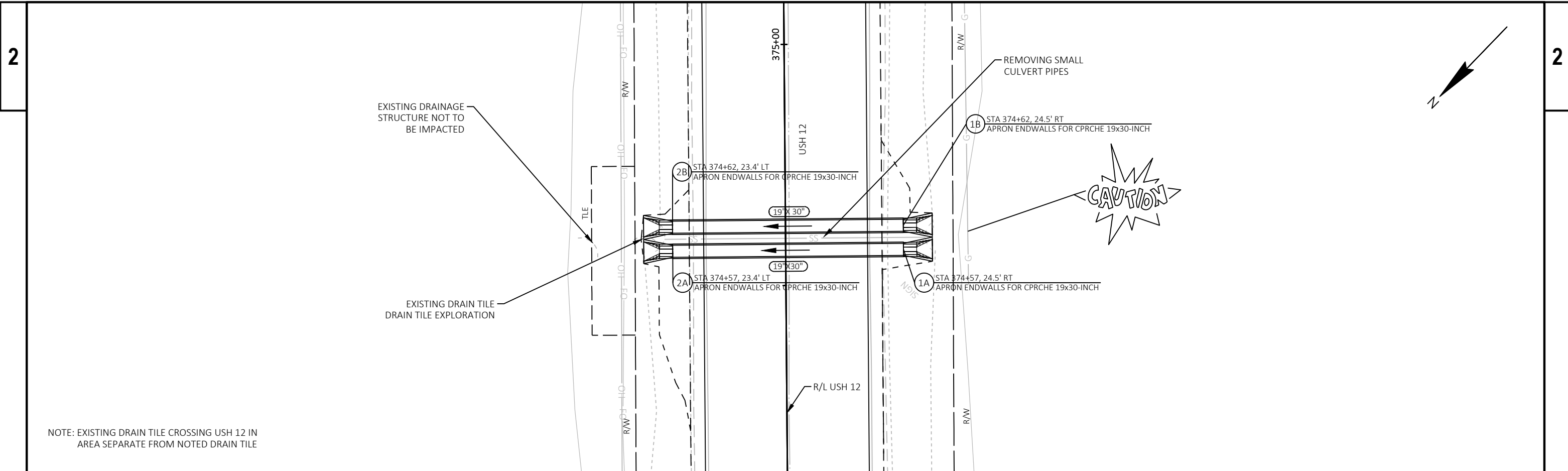
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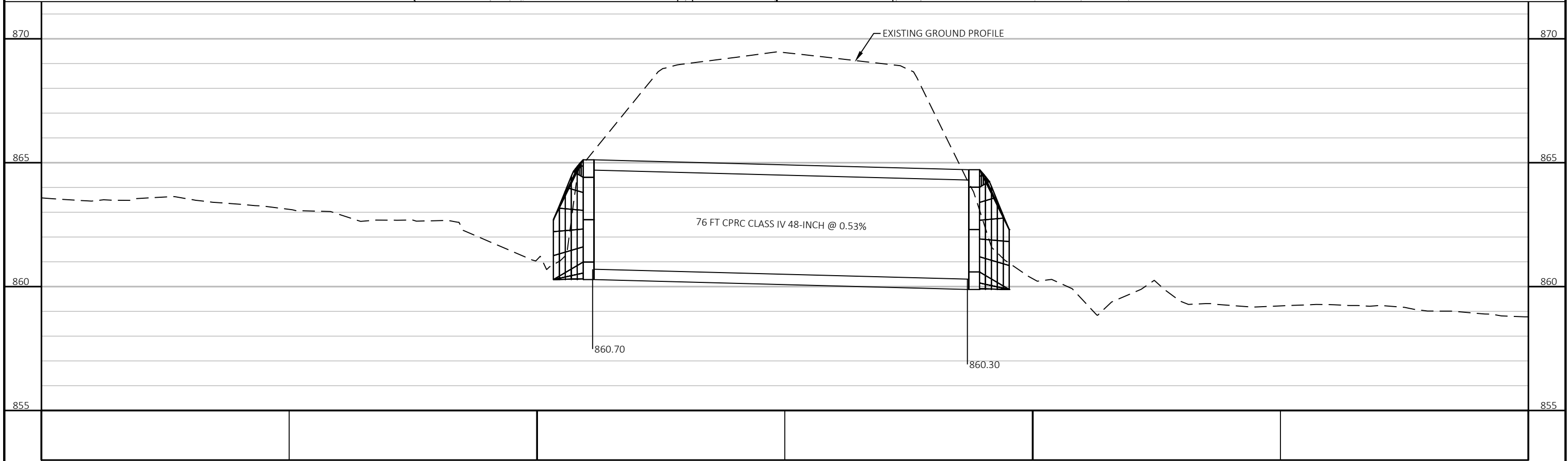
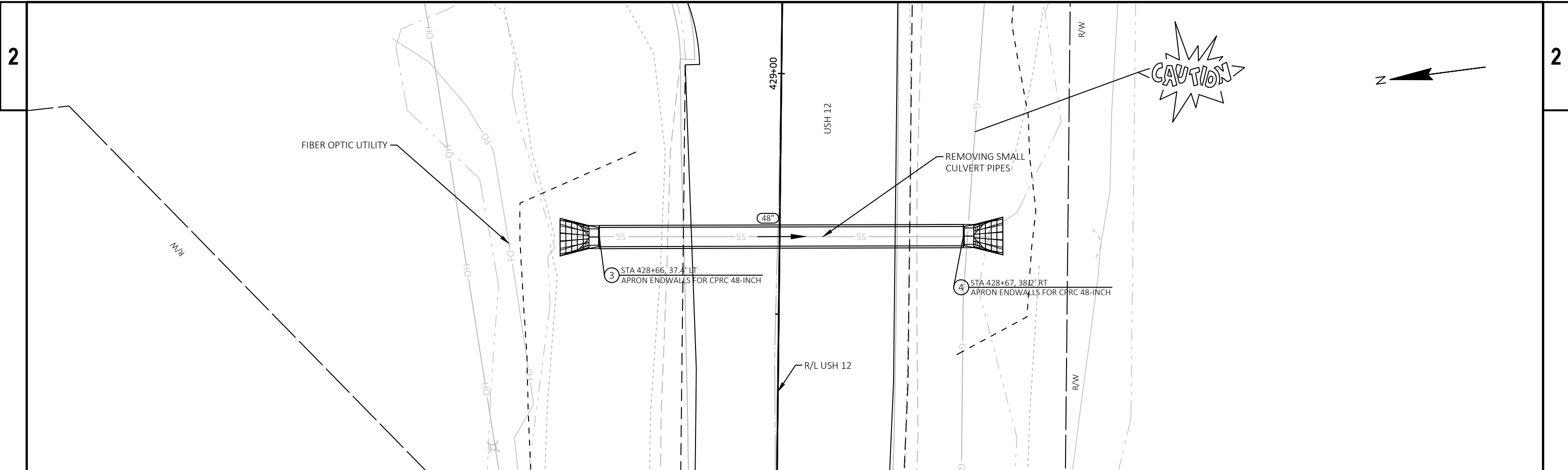
LEGEND

-  EROSION MAT CLASS I, TYPE A
-  EROSION MAT CLASS III TYPE D AND CLASS II TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  RIPRAP

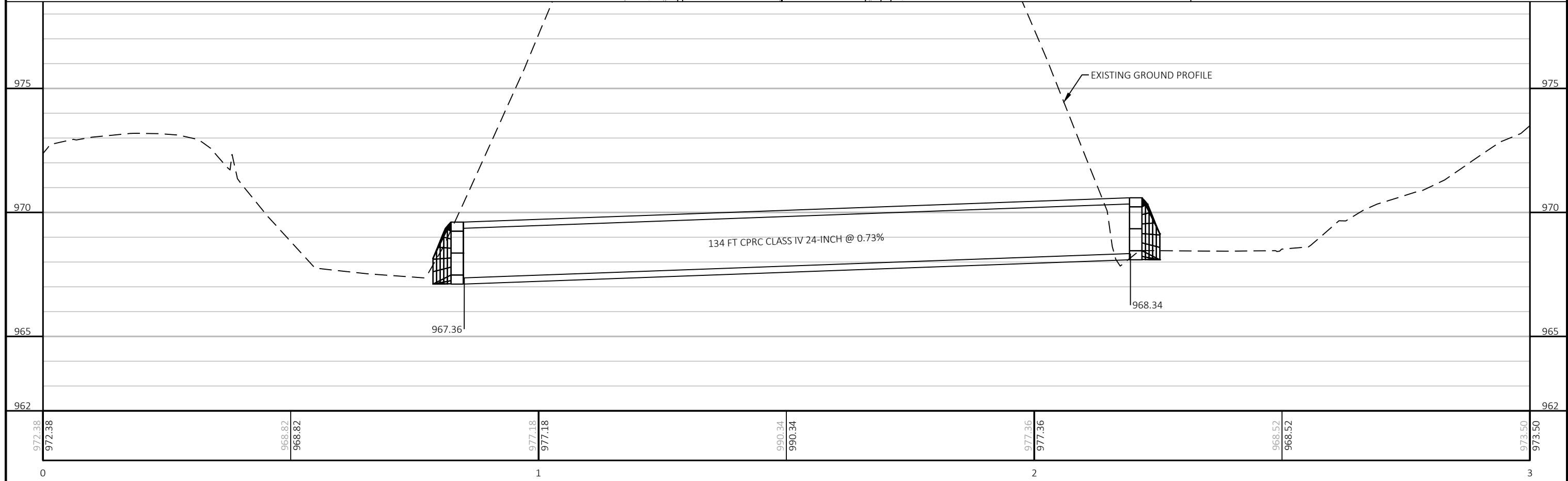
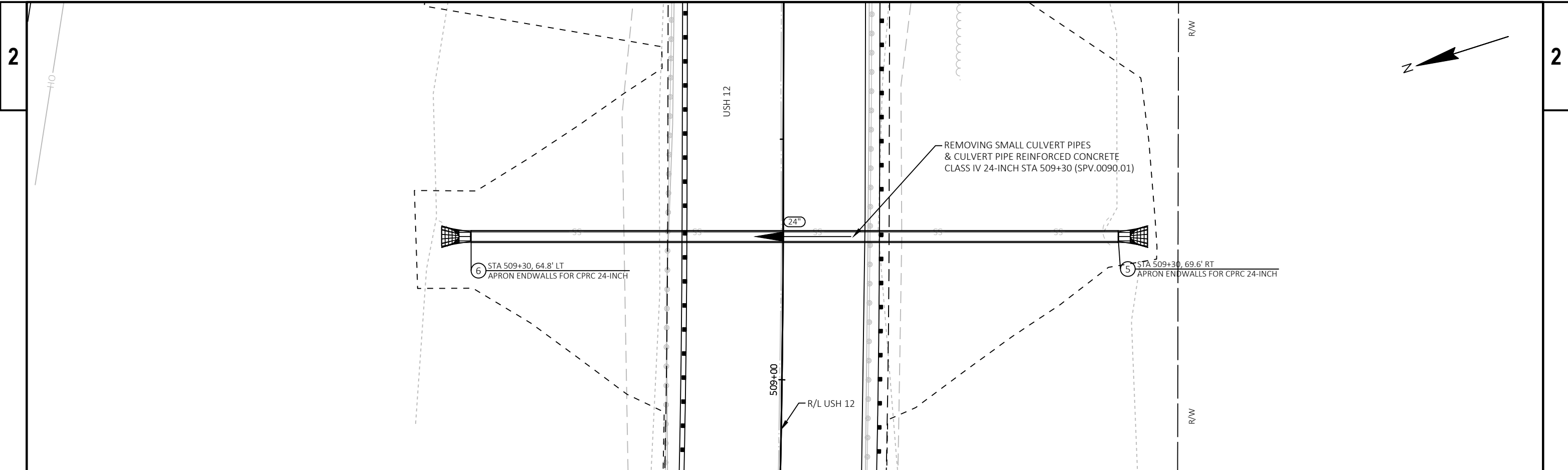
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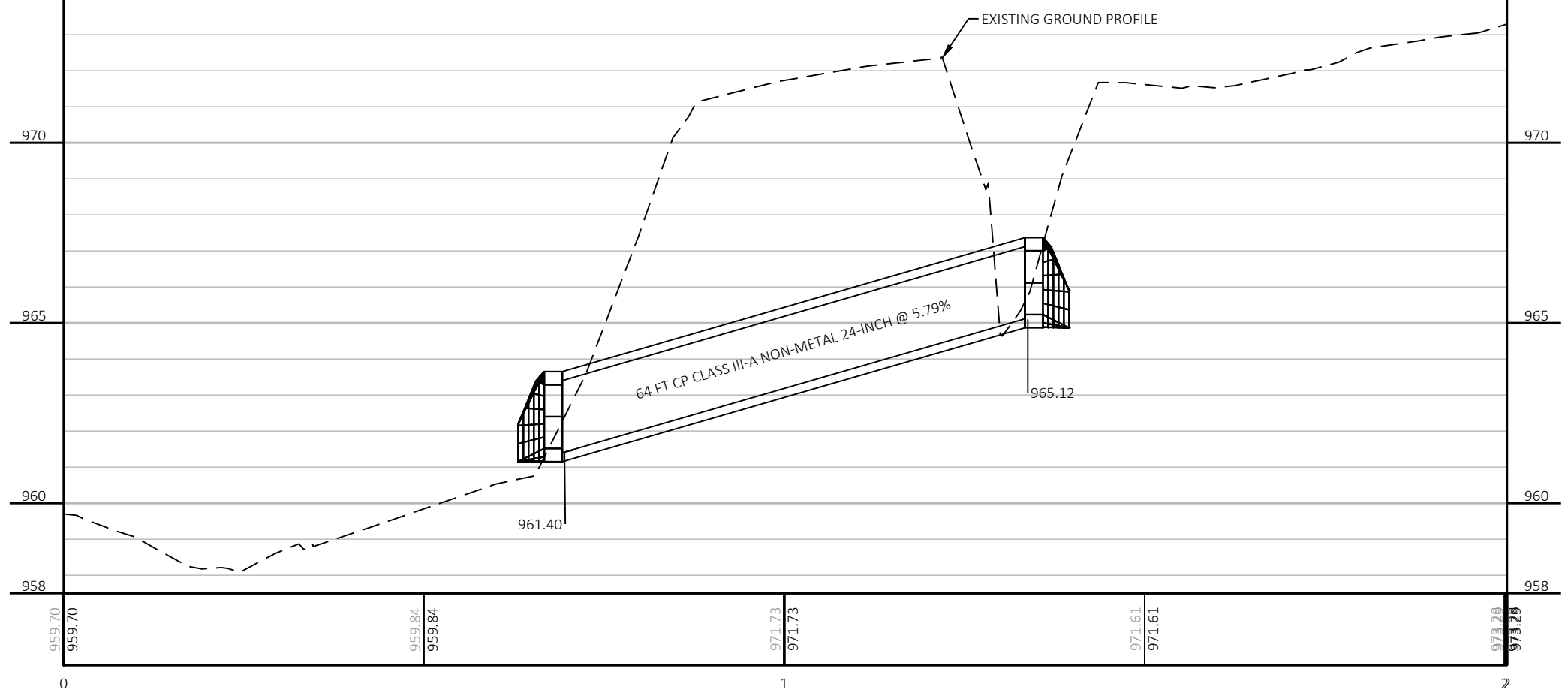
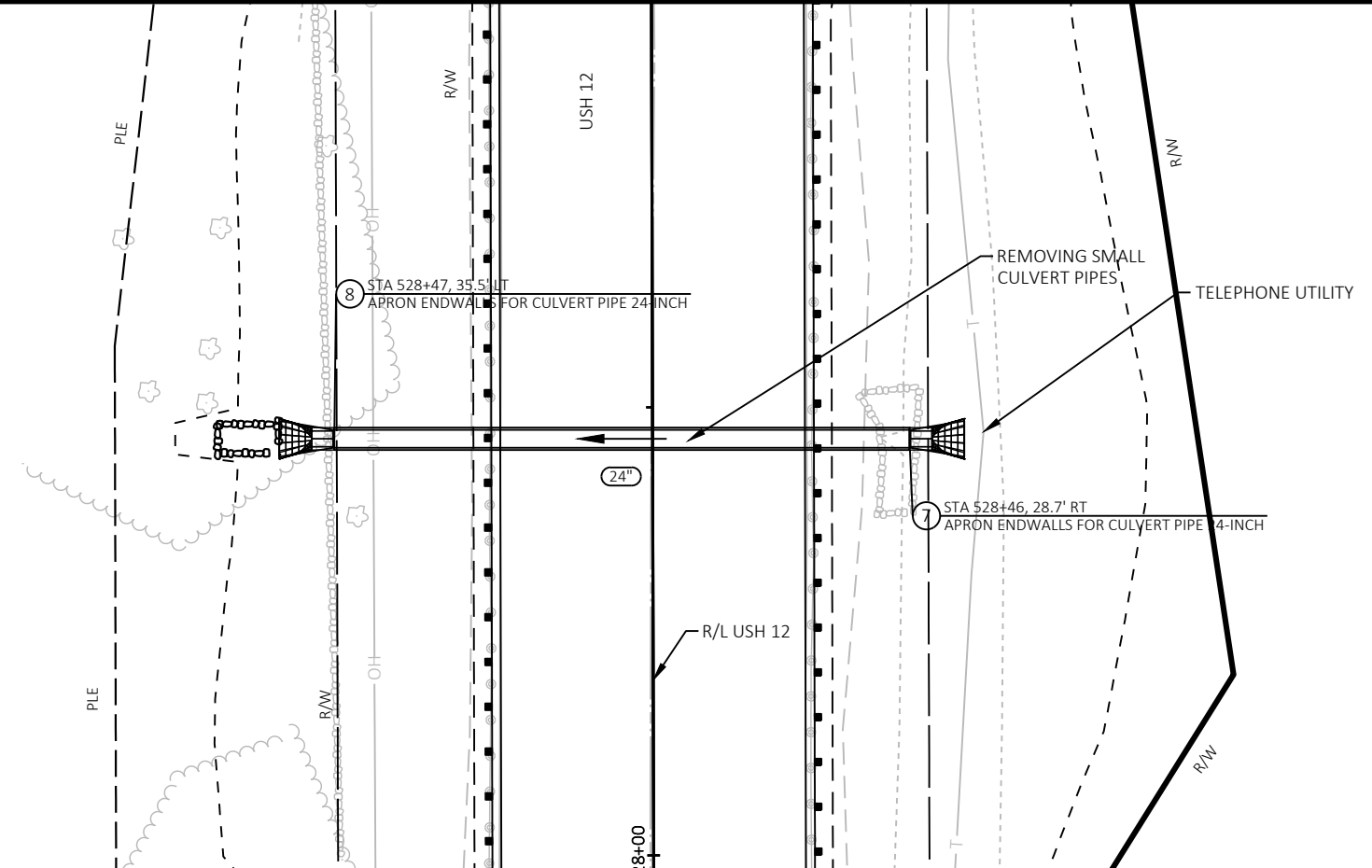
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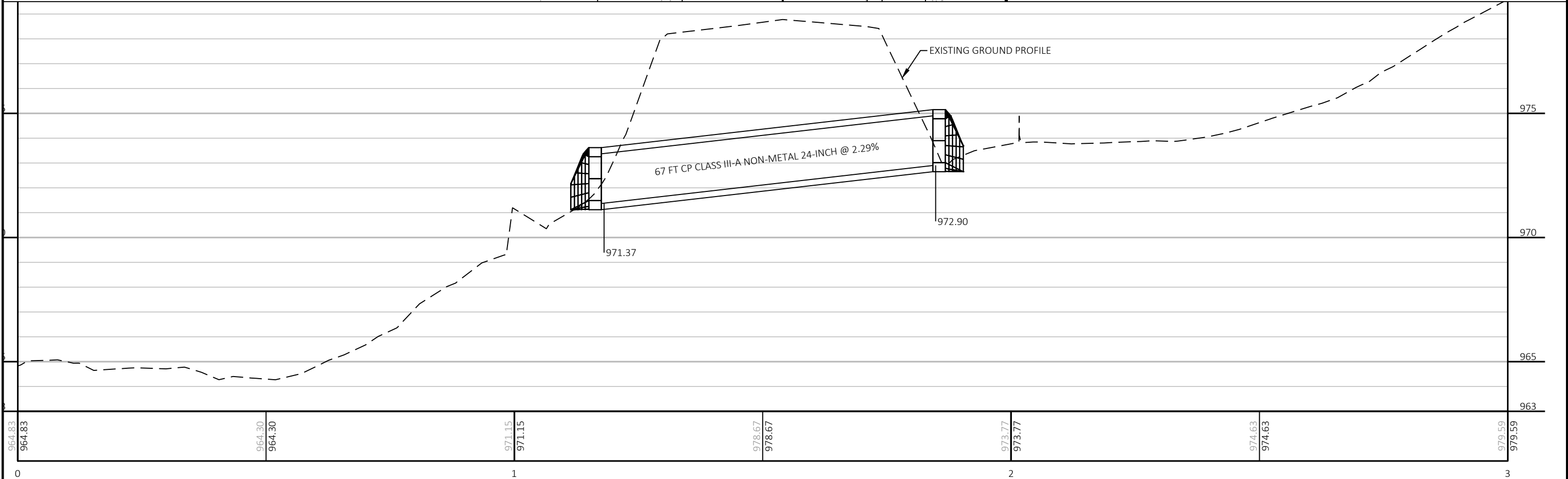
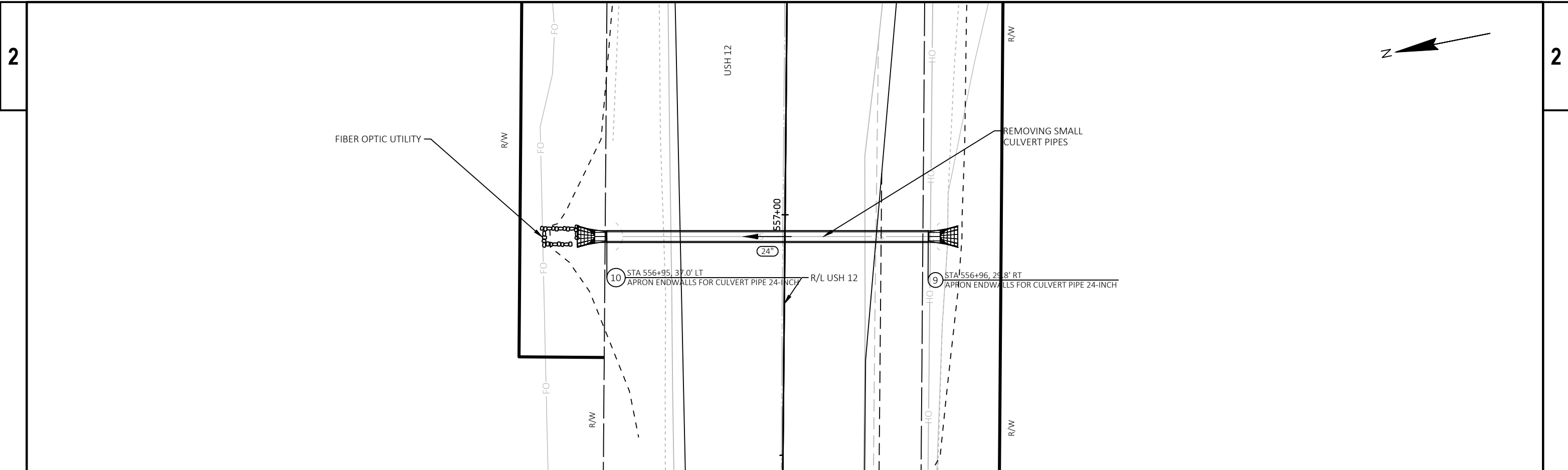
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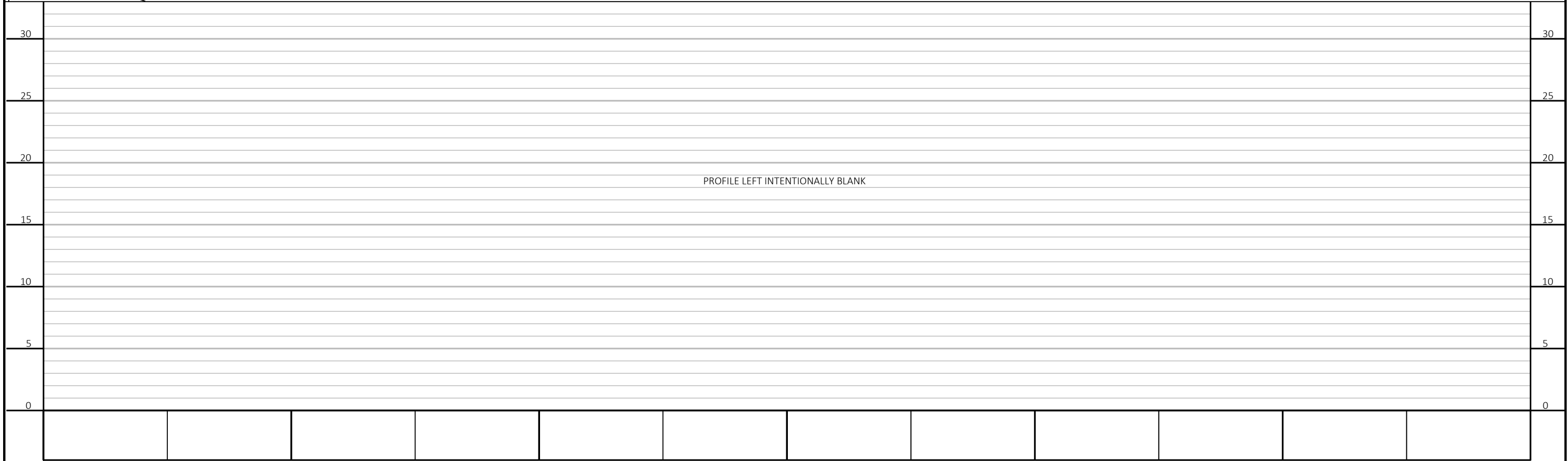
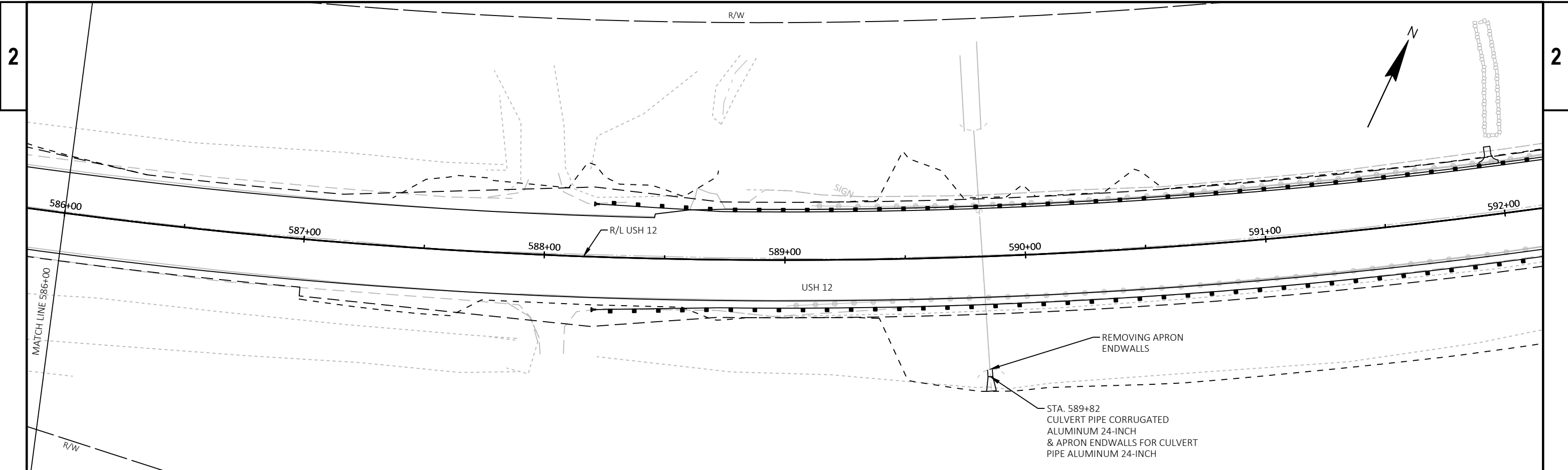
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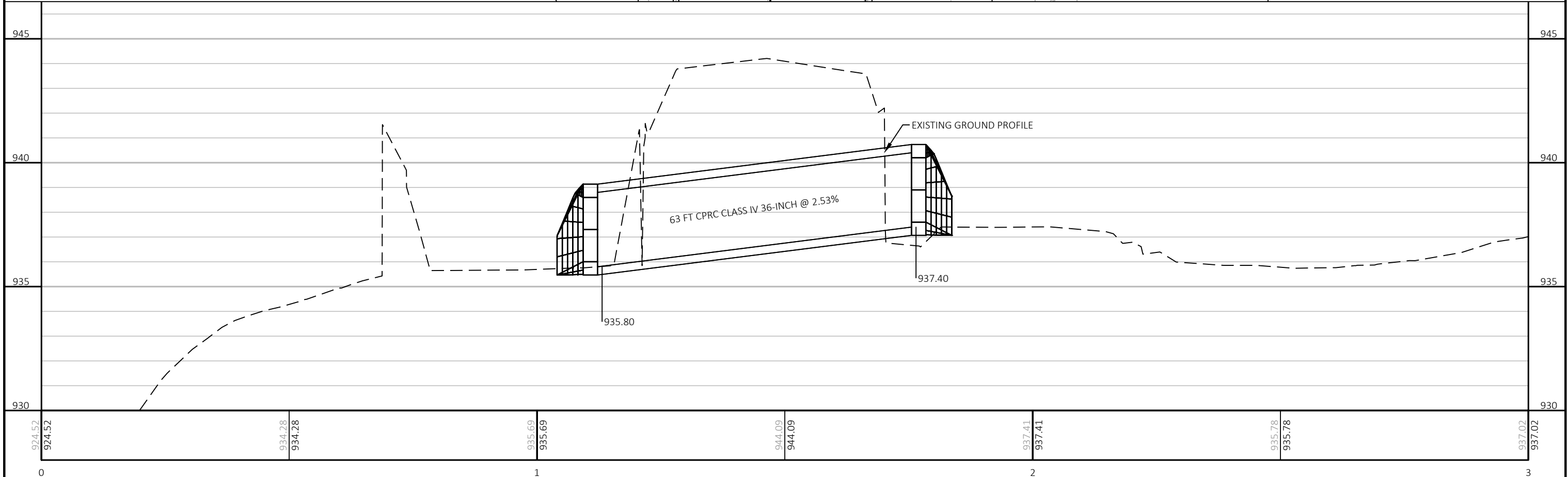
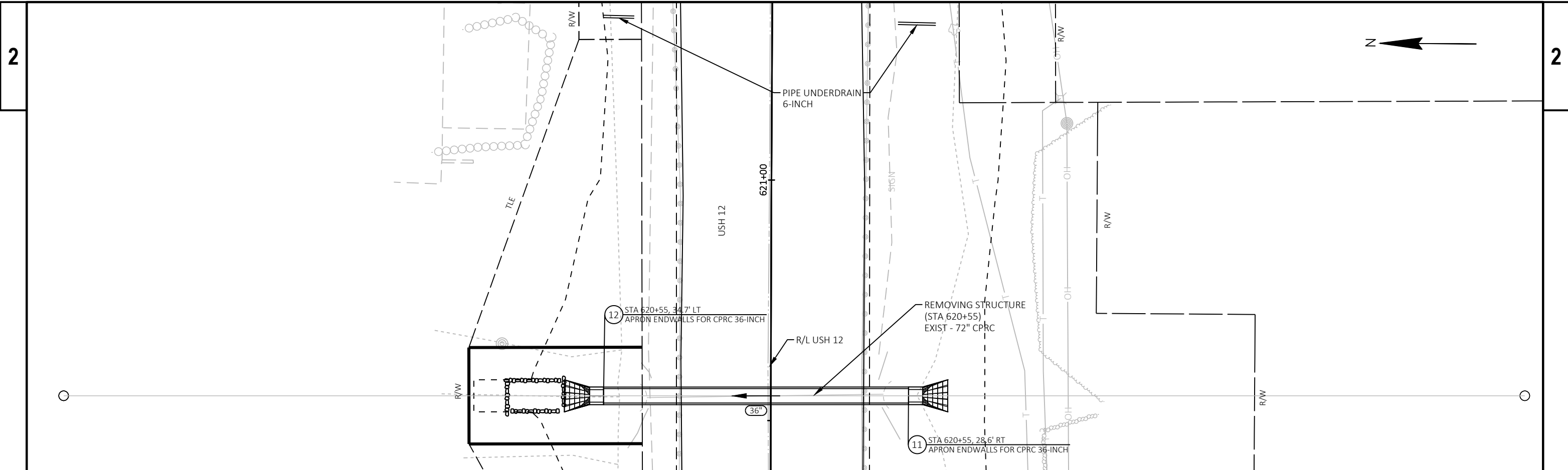
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET	E
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET	E
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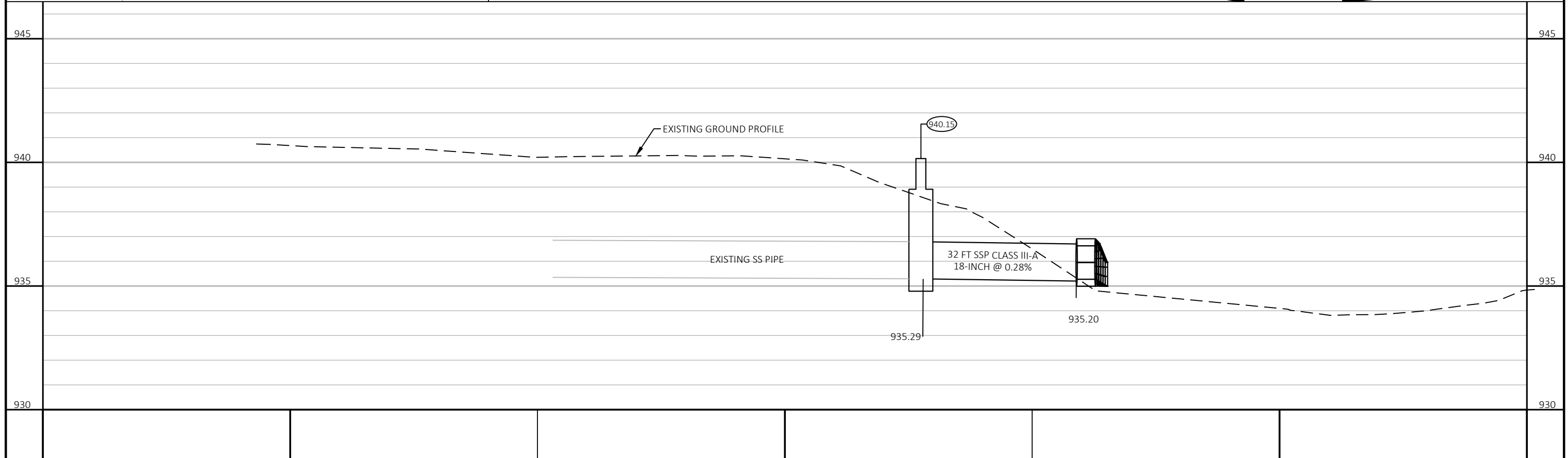
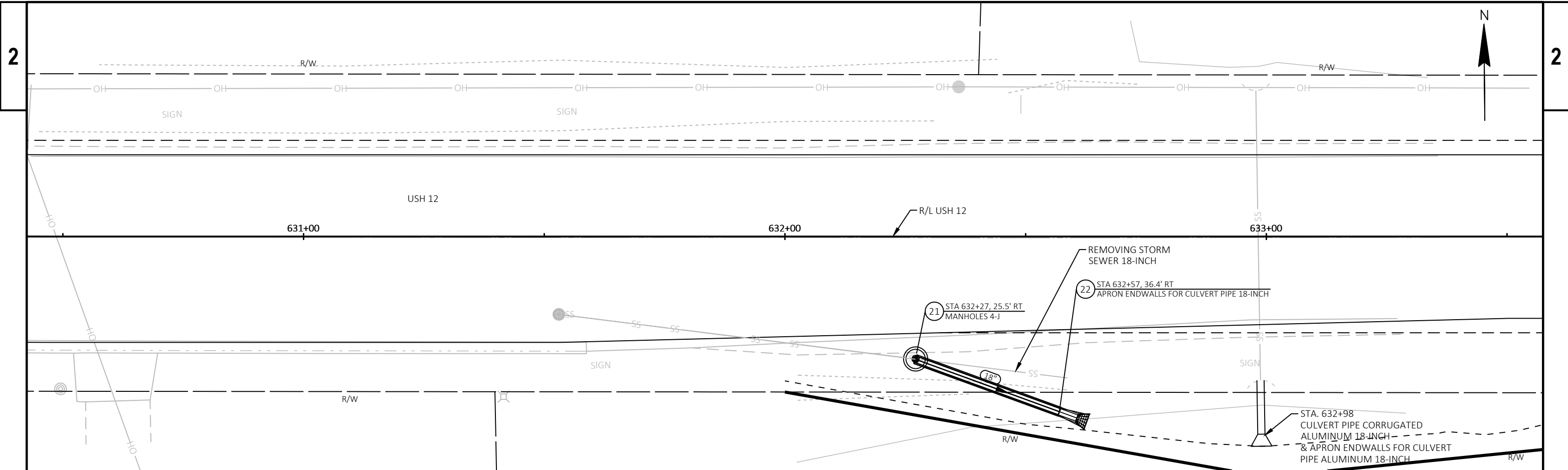


PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET	E
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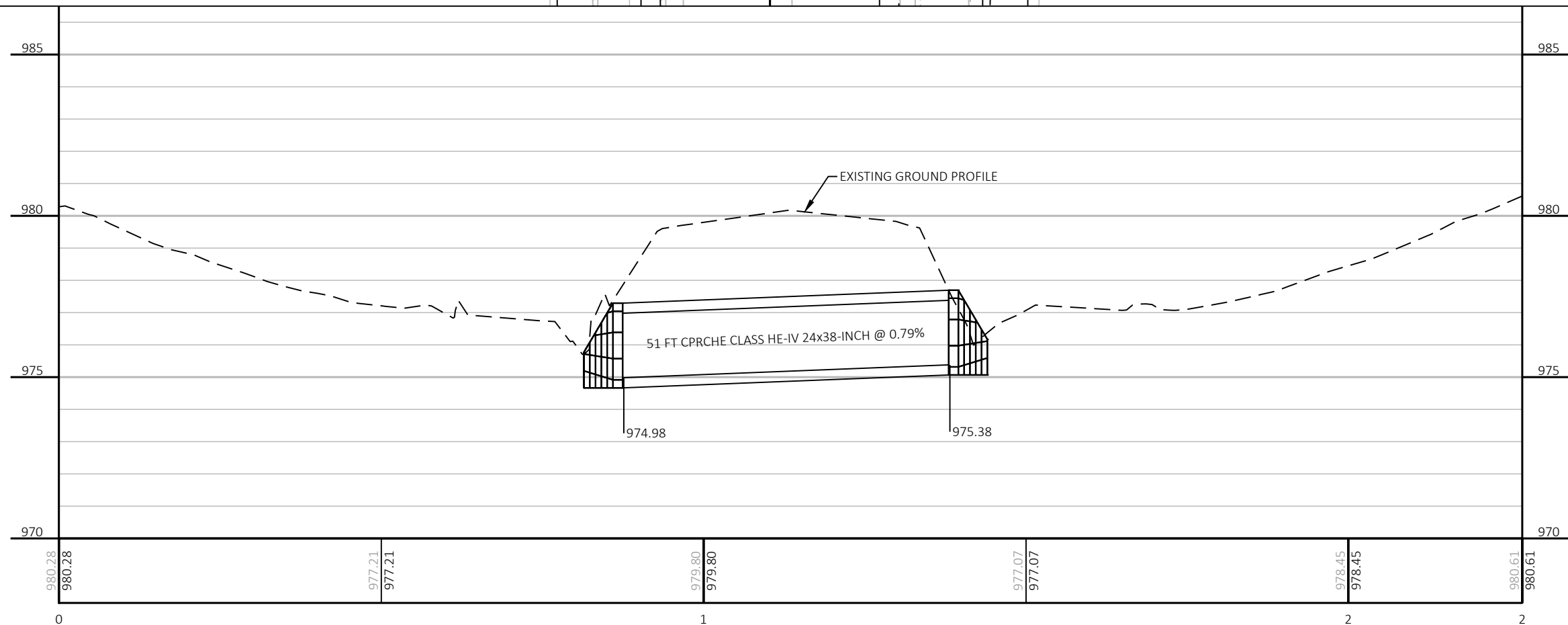
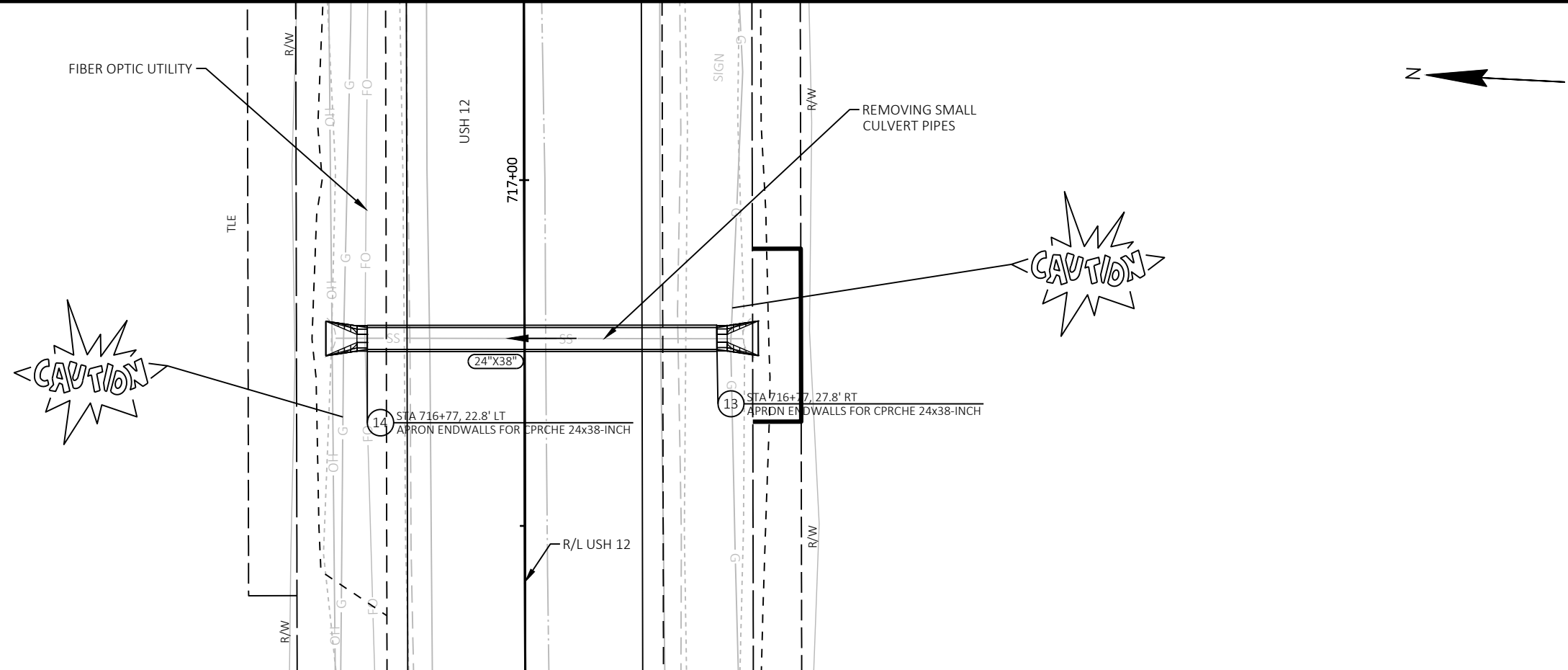


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924.52	934.28	935.69	944.09	937.41	935.78	937.02
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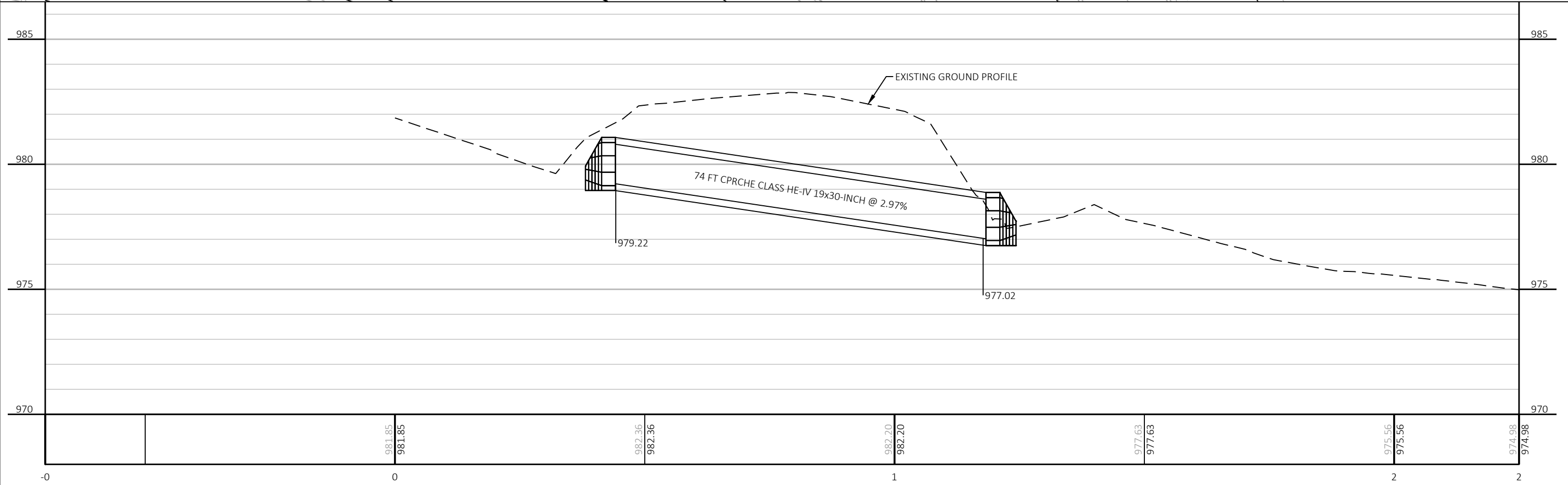
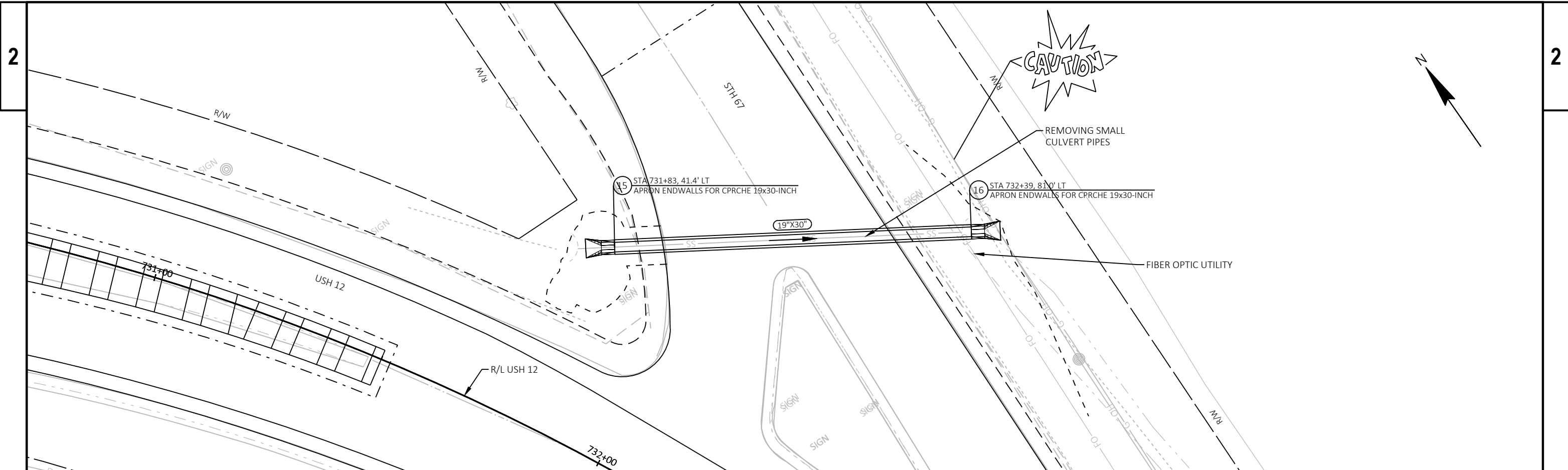
PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH STORM SEWER SHEET E



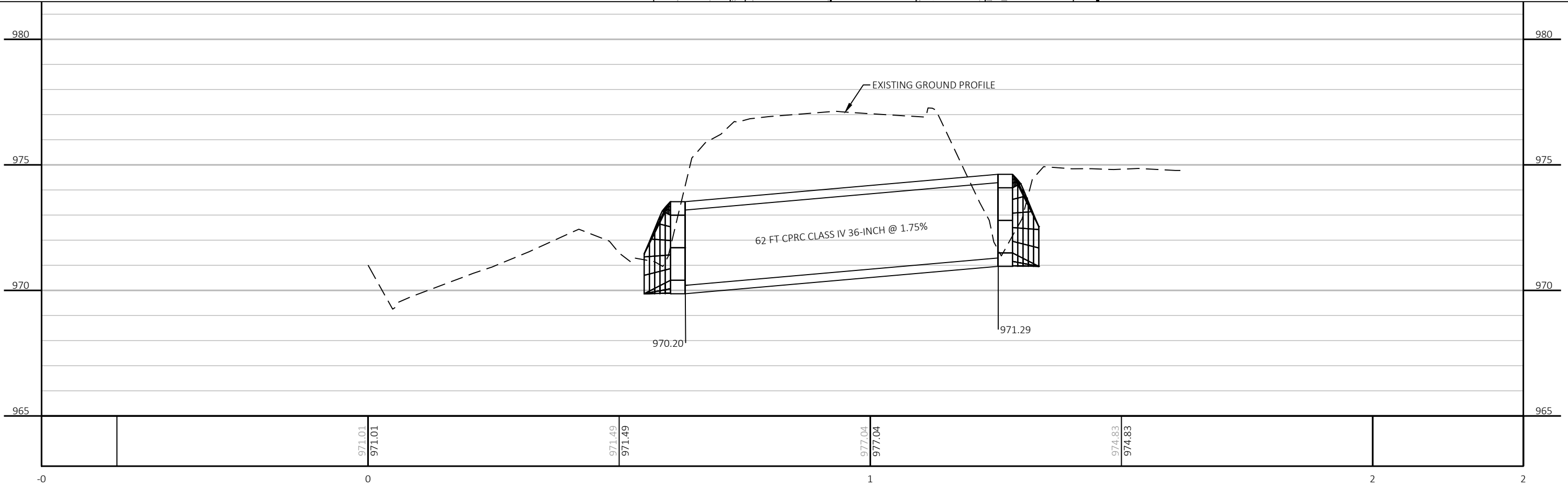
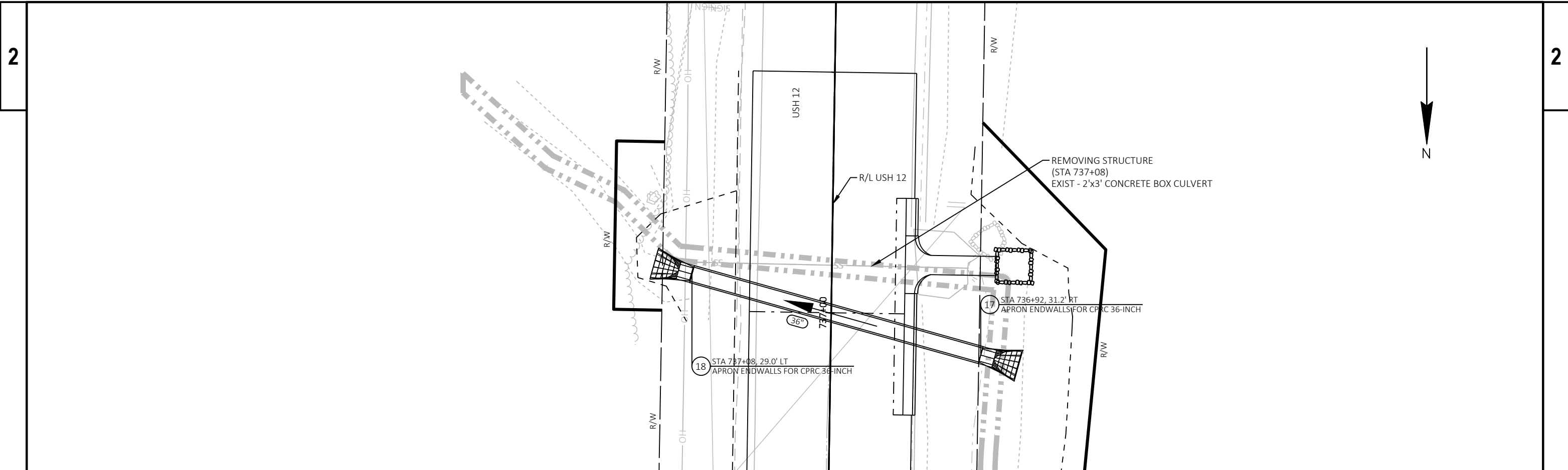
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET	E
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET	E
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET	E
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2

2

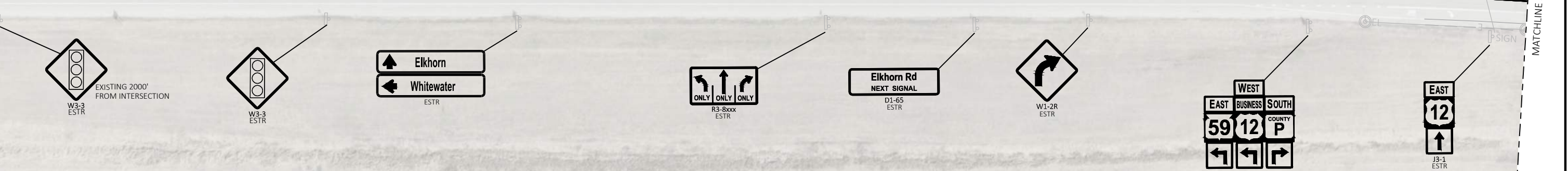
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- YEAR OF SIGN



317+00 318+00 319+00 320+00 321+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00 331+00 332+00

USH 12/STH 59



TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTIES	PHONE #
JENNY BUCKETT	MILWAUKEE, KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
CHUCK SALDIVAR	RACINE, WALWORTH, WAUKESHA	414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LOCATE NO PASSING PENNANTS BASED ON ESTABLISHING NO PASSING ZONES PAY ITEM. PLACE SIGNS BASED ON WHERE THE PAVEMENT MARKING FOR NO PASSING ZONES BEGIN.

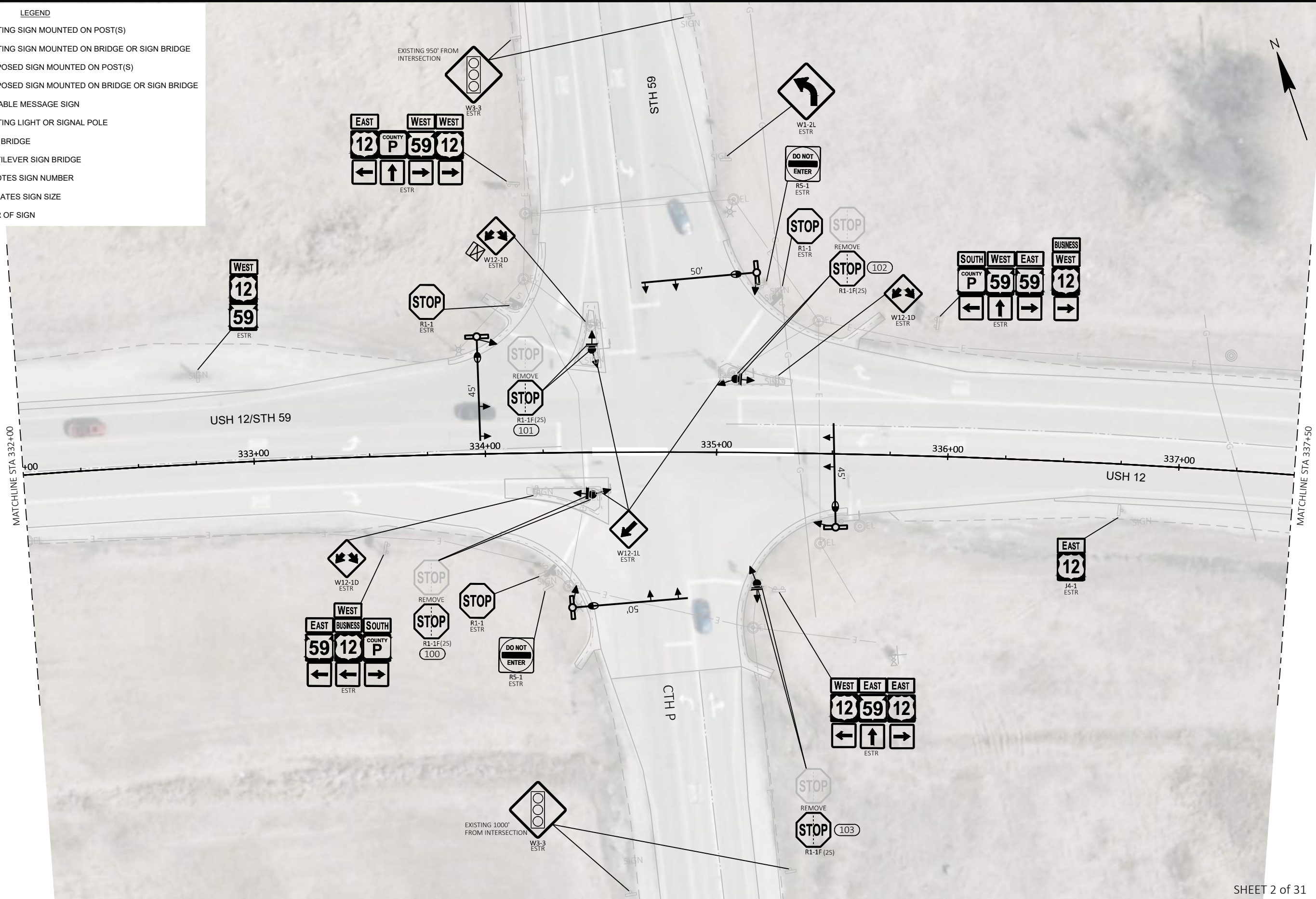
BOX OUT OR CORING OF CONCRETE SIGN POSTS IS INCIDENTAL TO THE POST

MATCHLINE STA 332+00

SHEET 1 of 31

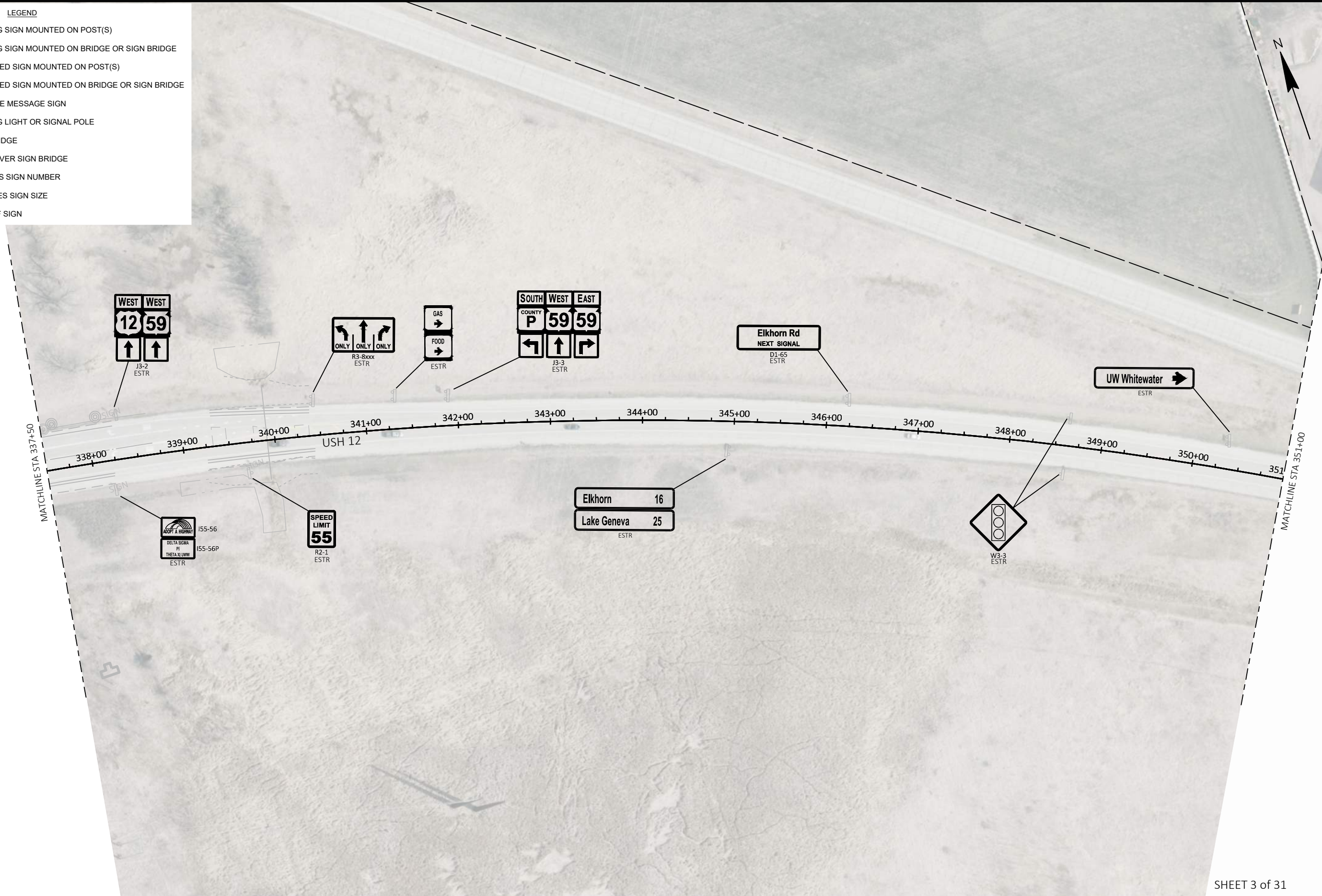
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET	E
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- LEGEND**
- EXISTING SIGN MOUNTED ON POST(S)
 - EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
 - PROPOSED SIGN MOUNTED ON POST(S)
 - PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
 - VARIABLE MESSAGE SIGN
 - EXISTING LIGHT OR SIGNAL POLE
 - SIGN BRIDGE
 - CANTILEVER SIGN BRIDGE
 - DENOTES SIGN NUMBER
 - INDICATES SIGN SIZE
 - (20XX) YEAR OF SIGN



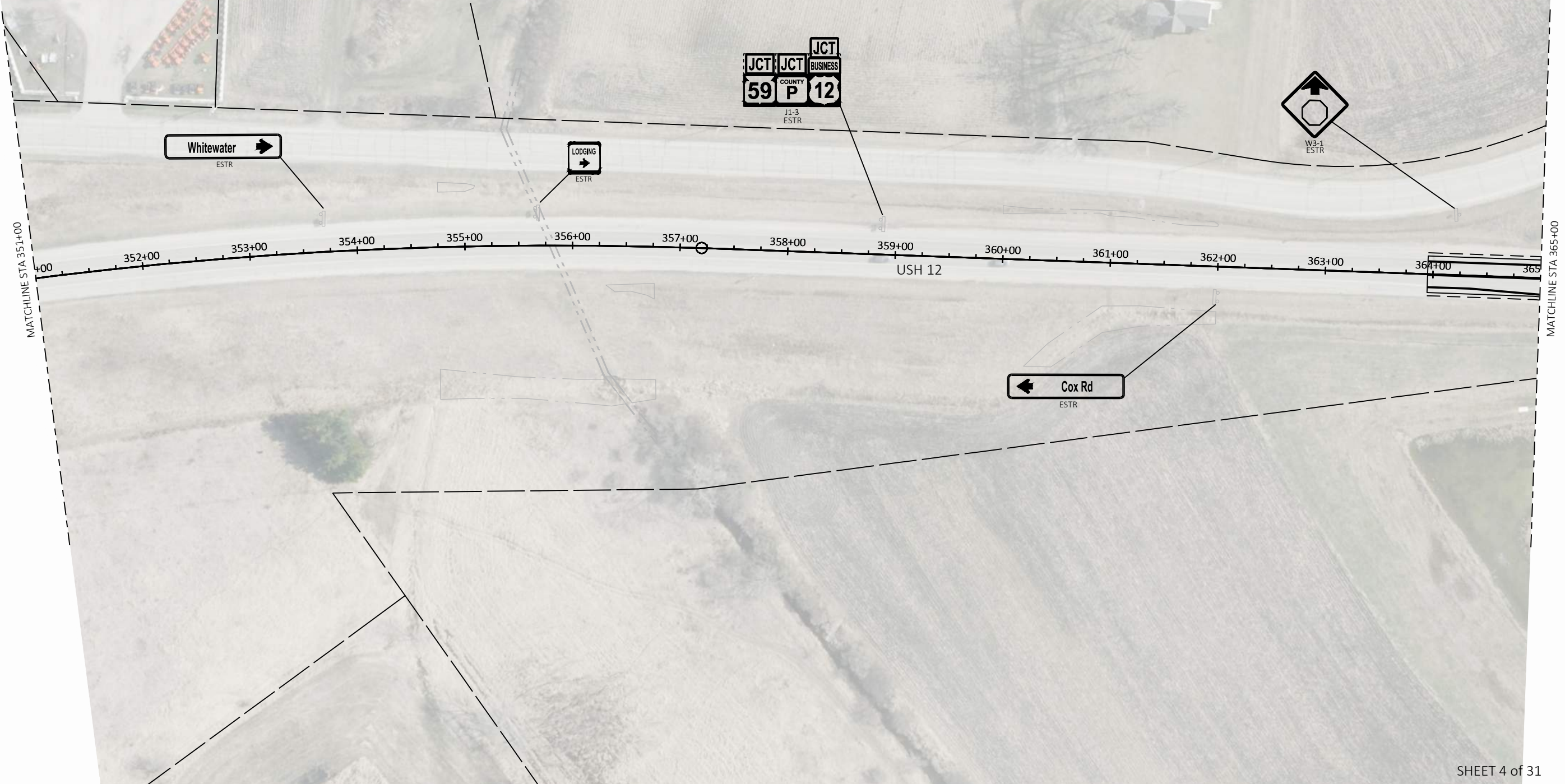
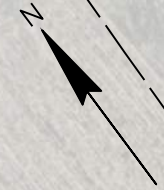
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN



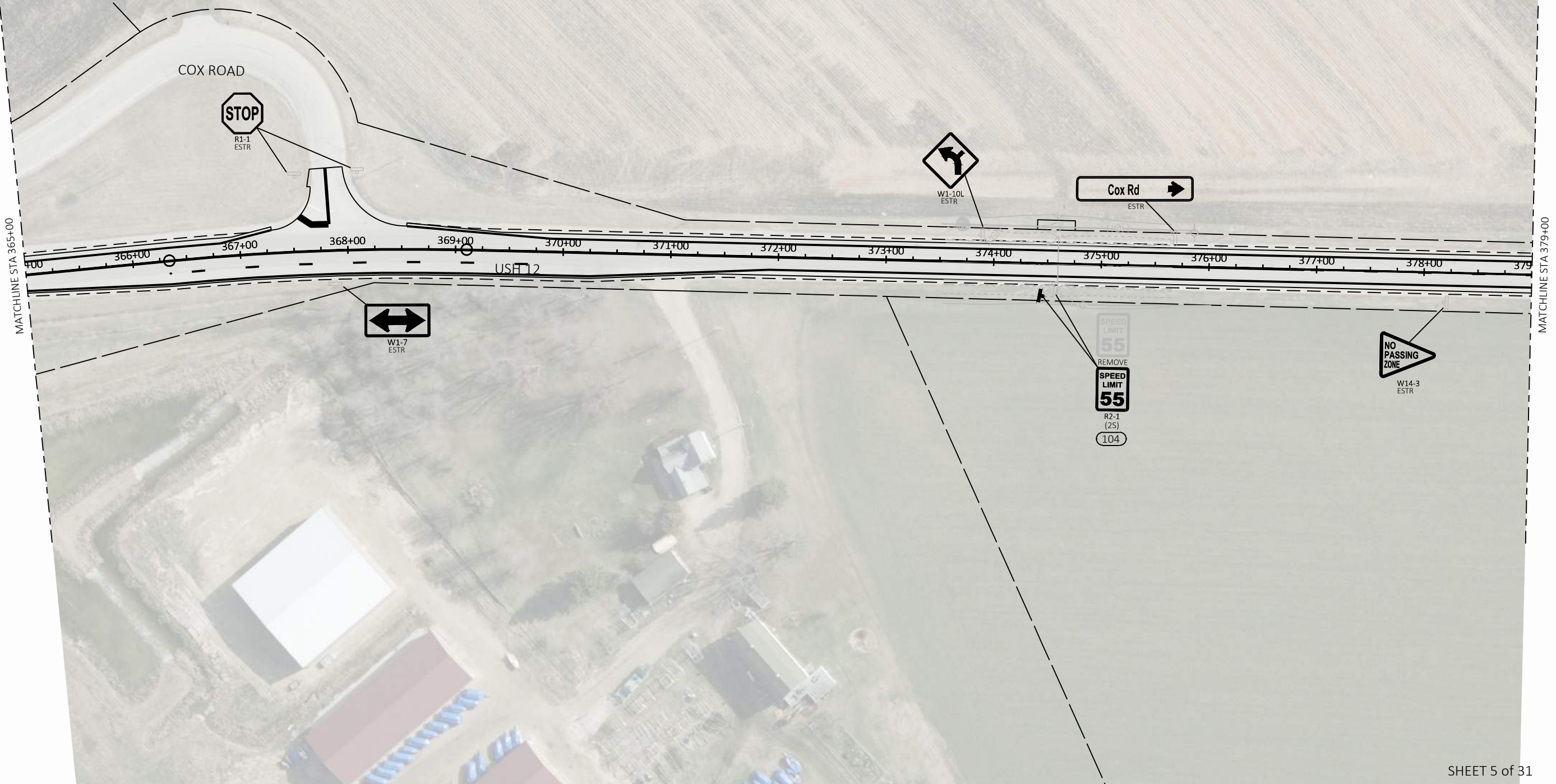
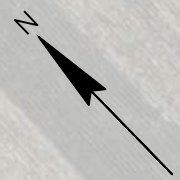
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN














PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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- LEGEND**
- EXISTING SIGN MOUNTED ON POST(S)
 - EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
 - PROPOSED SIGN MOUNTED ON POST(S)
 - PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
 - VARIABLE MESSAGE SIGN
 - EXISTING LIGHT OR SIGNAL POLE
 - SIGN BRIDGE
 - CANTILEVER SIGN BRIDGE
 - DENOTES SIGN NUMBER
 - INDICATES SIGN SIZE
 - YEAR OF SIGN



SHEET 5 of 31












LEGEND

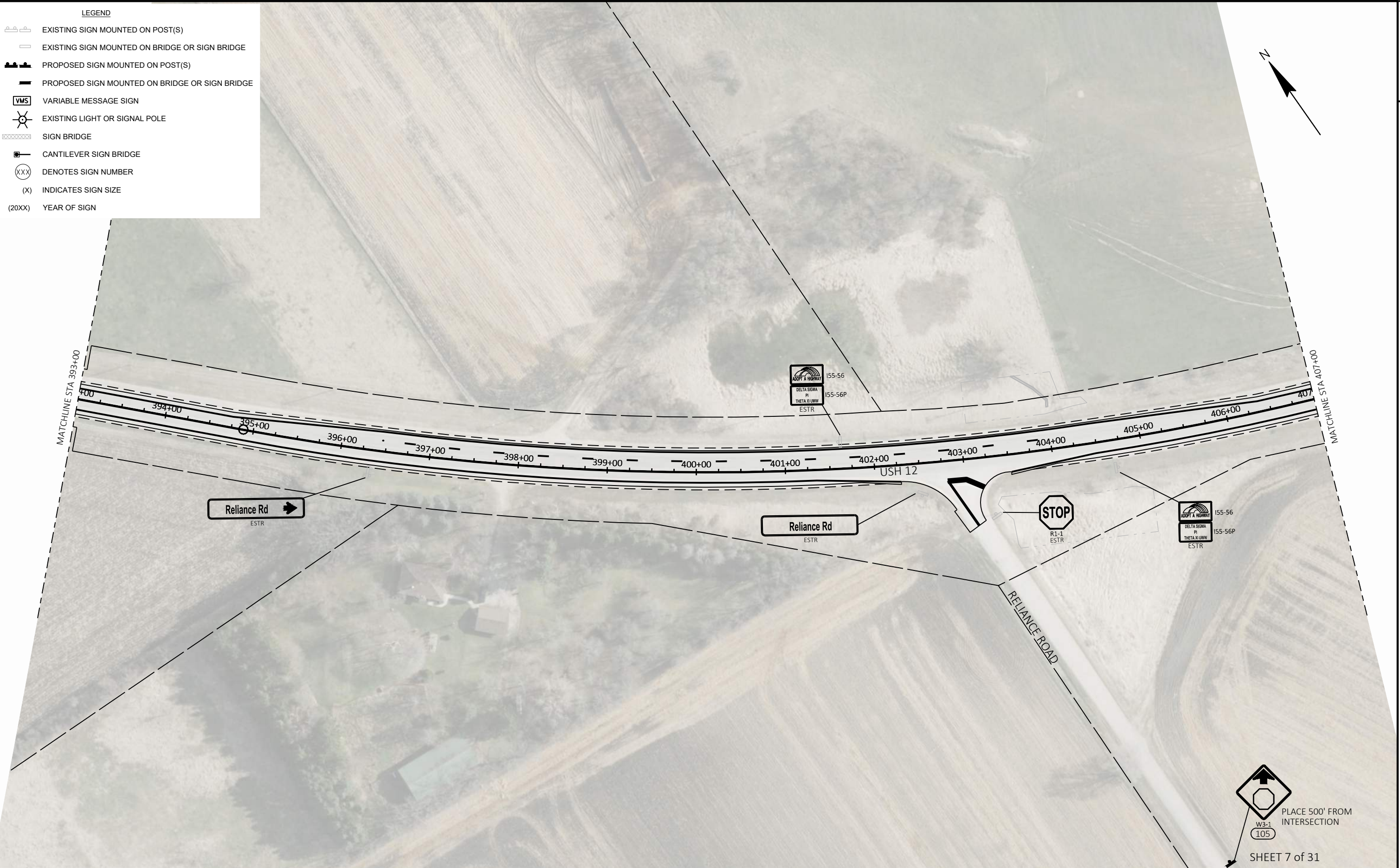
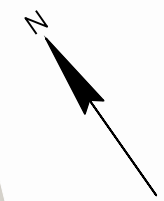
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-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  YEAR OF SIGN



SHEET 6 of 31












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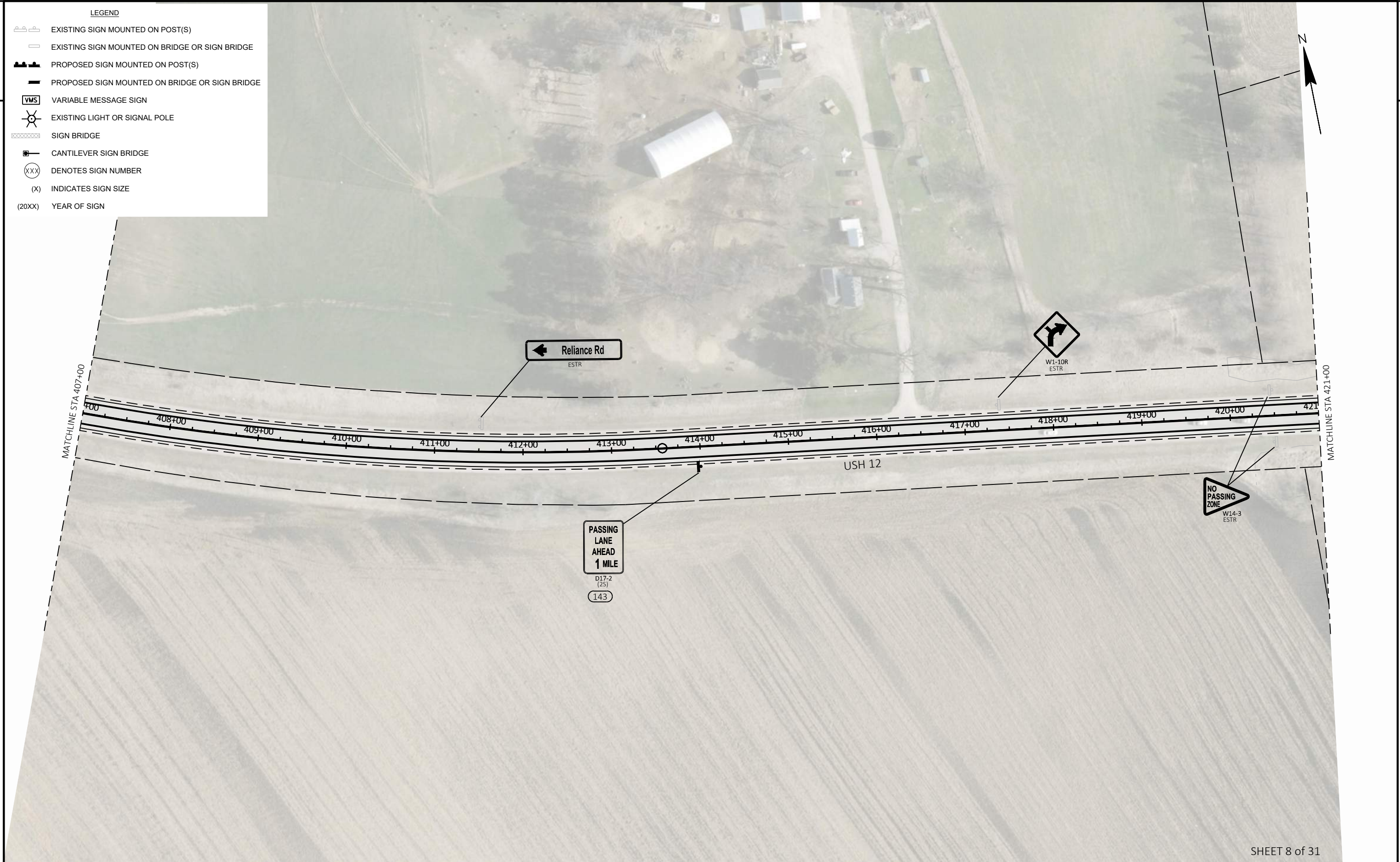
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-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  YEAR OF SIGN



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN














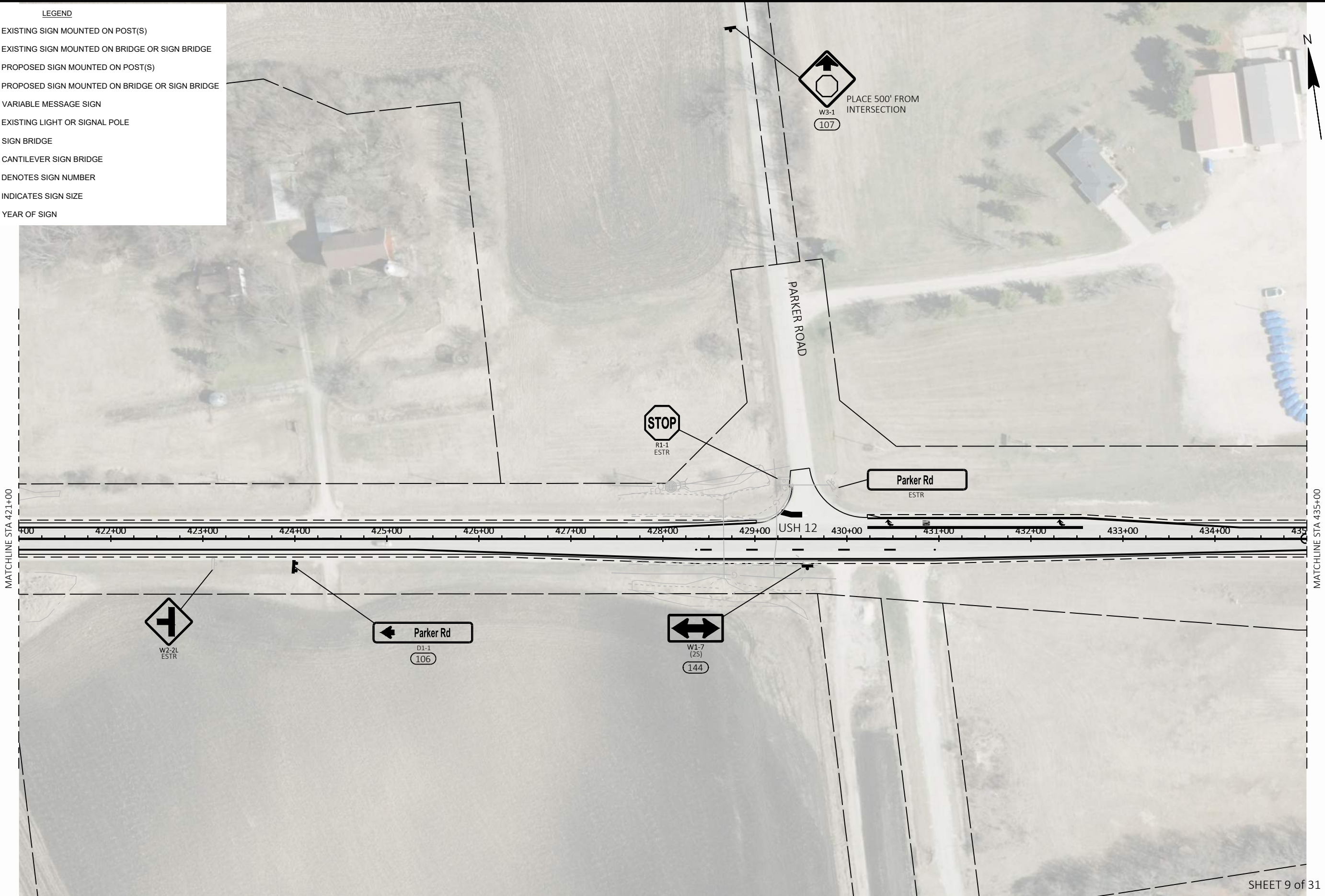
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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2

2

LEGEND












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-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN

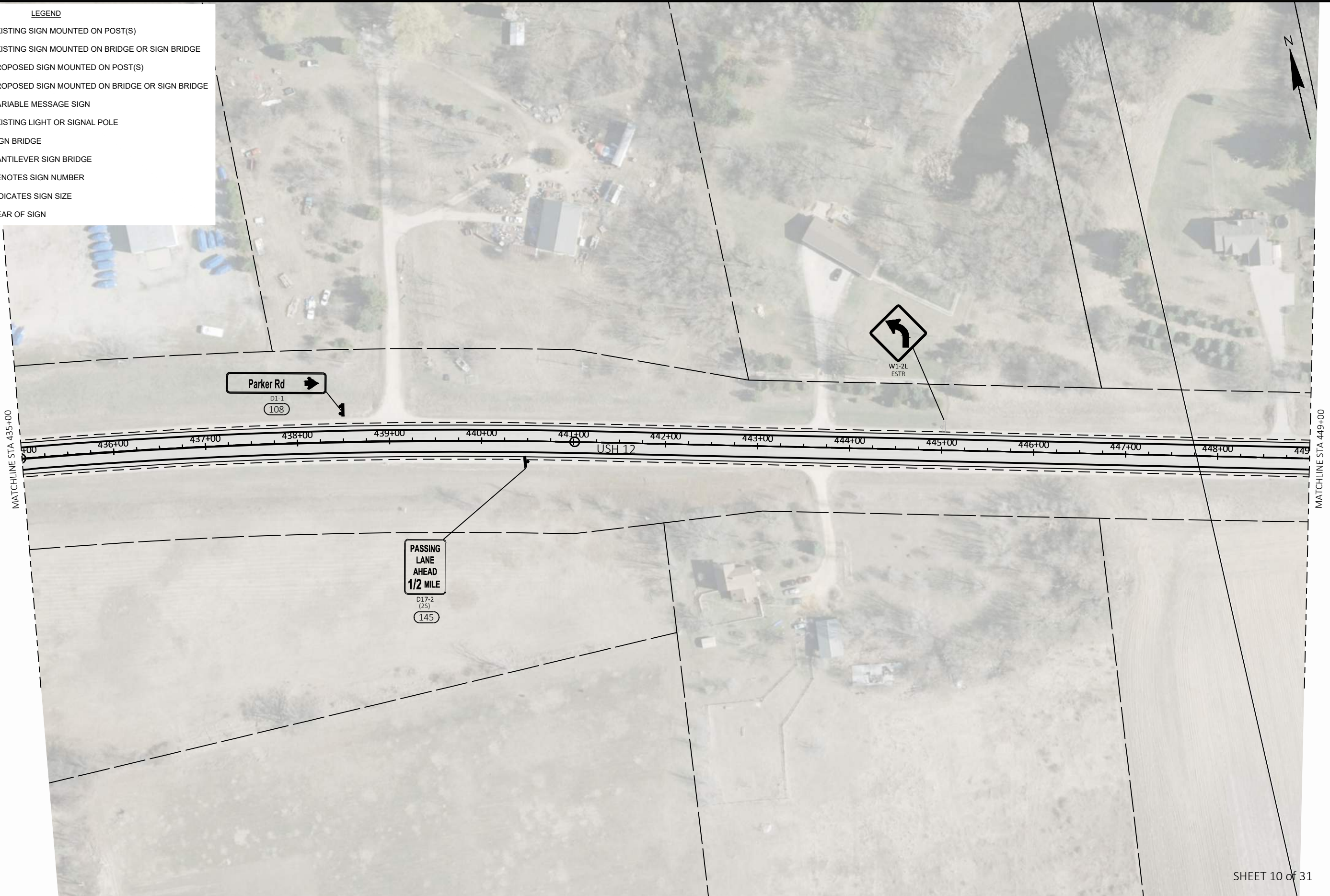


SHEET 9 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND












-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



SHEET 10 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



MATCHLINE STA 449+00

MATCHLINE STA 463+00

400 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00 458+00 459+00 460+00 461+00 462+00 463

USH 12

NO
PASSING
ZONE












W14-3
ESTR

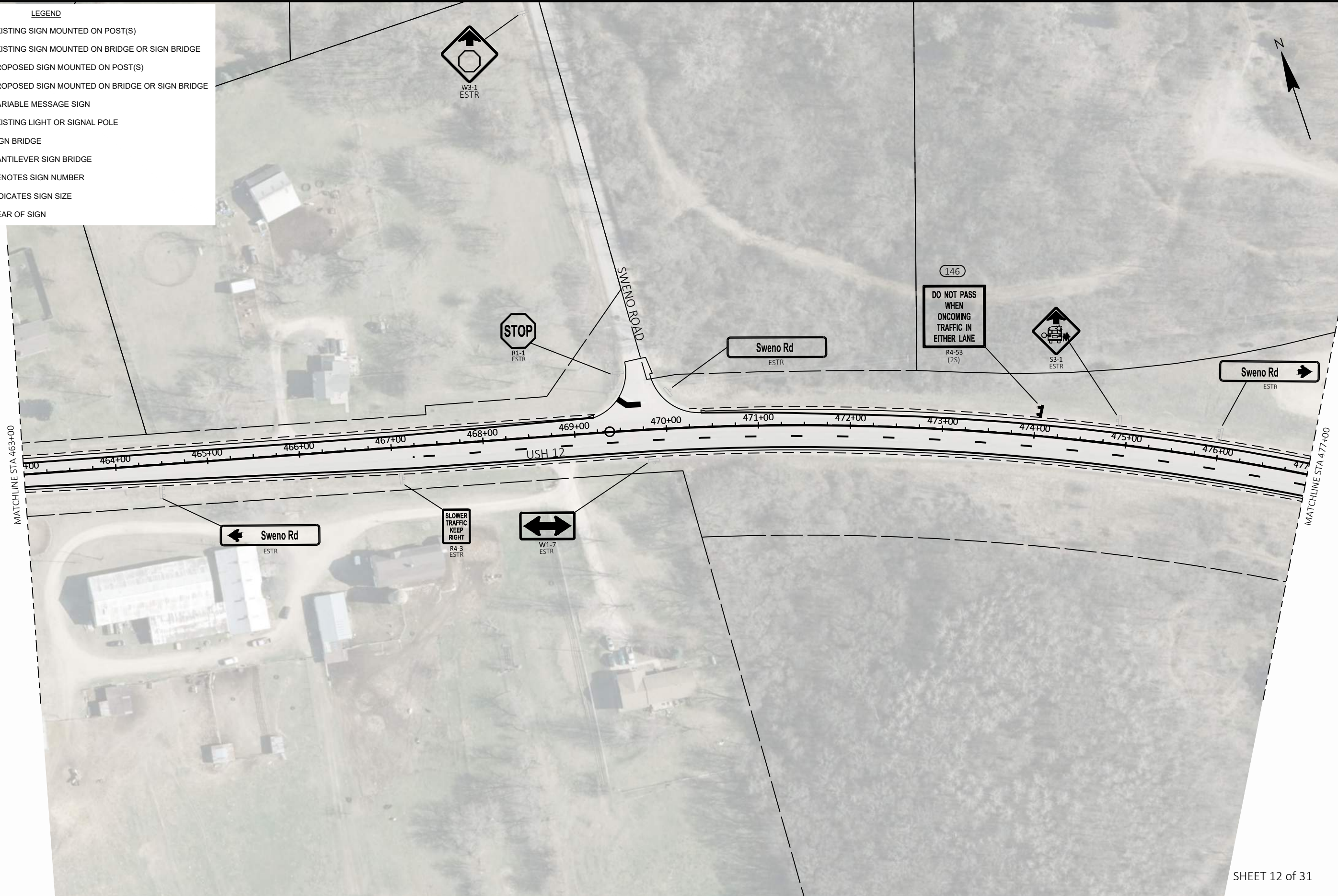


W1-4R
ESTR

SHEET 11 of 31

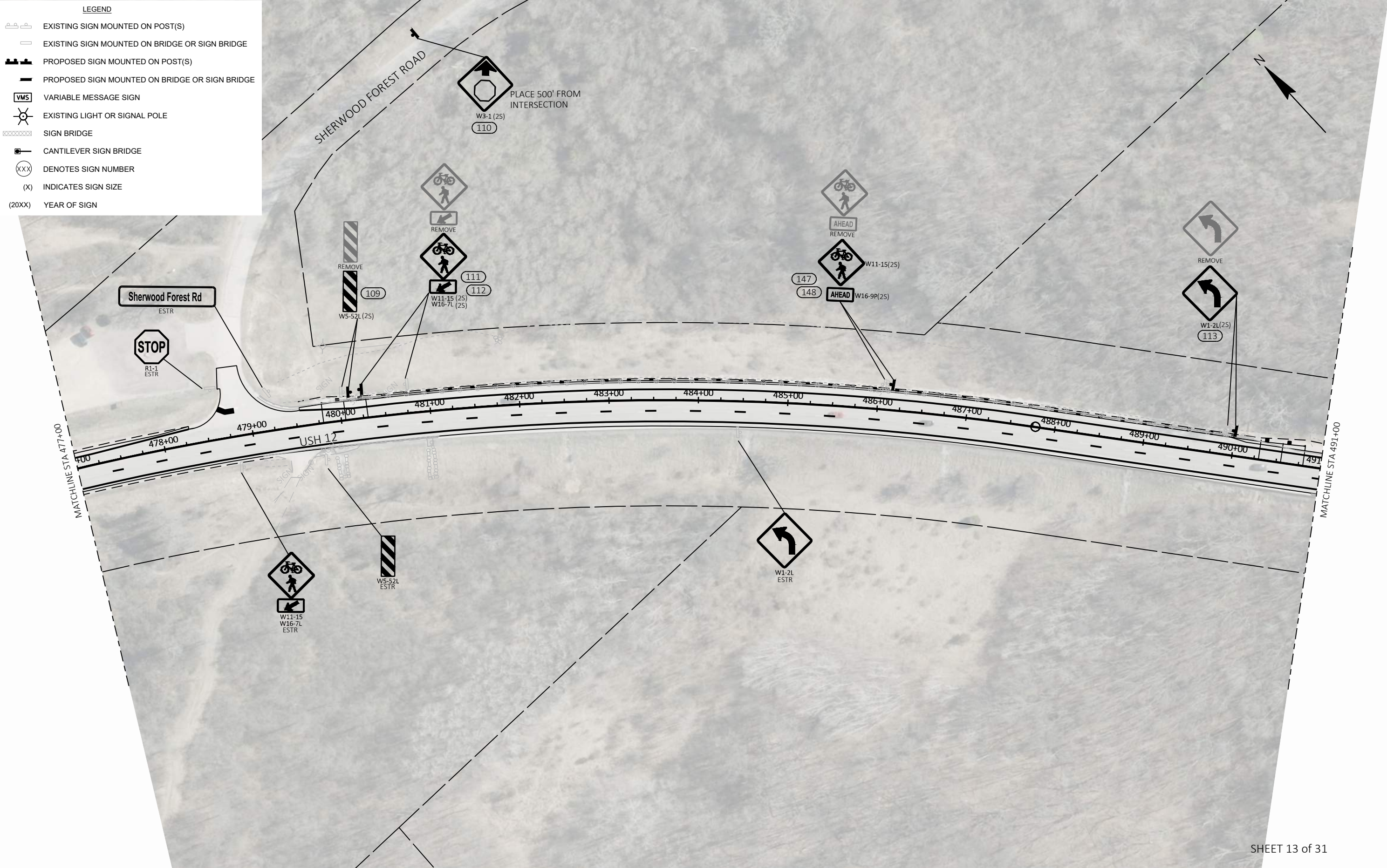
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-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



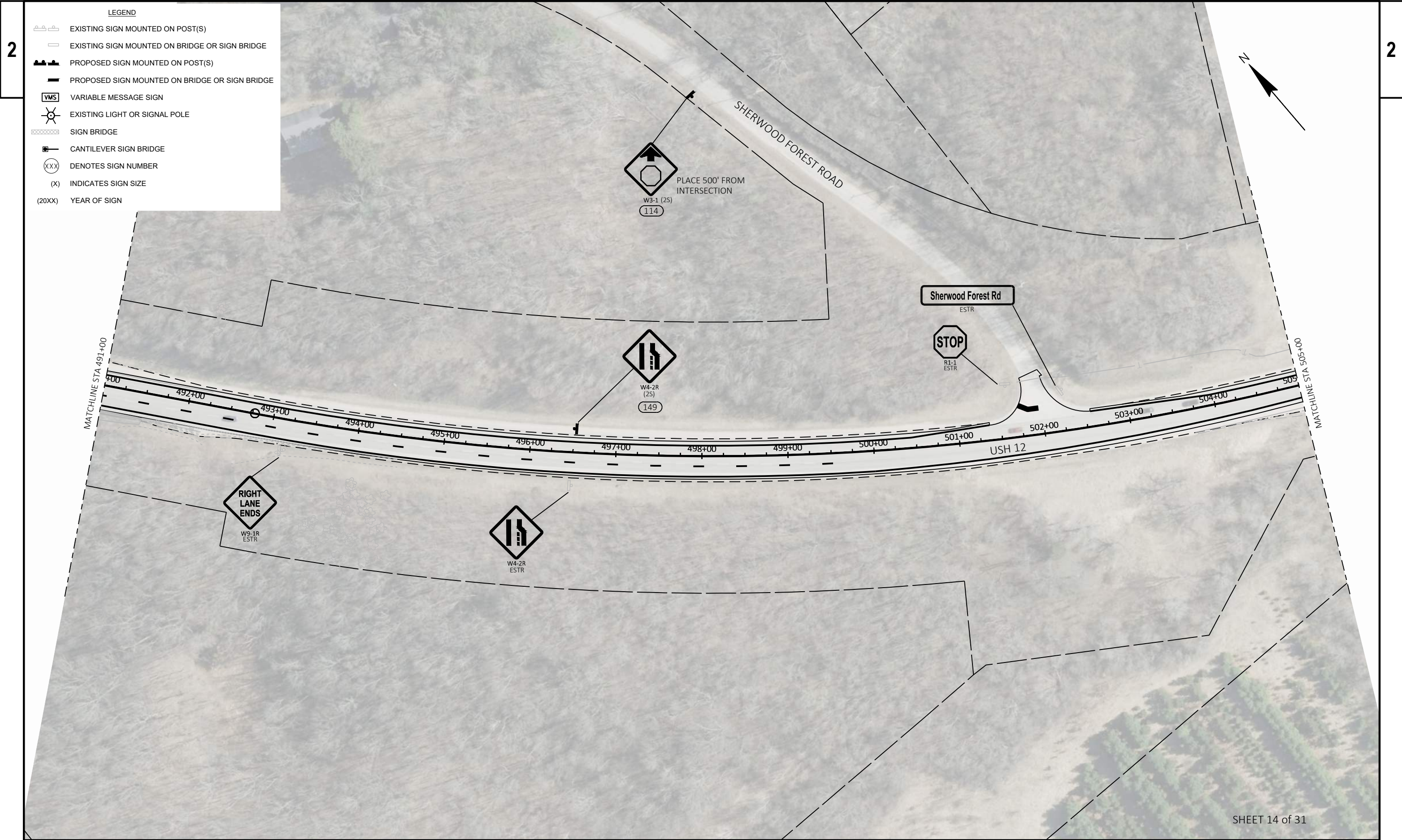
LEGEND

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- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN



LEGEND

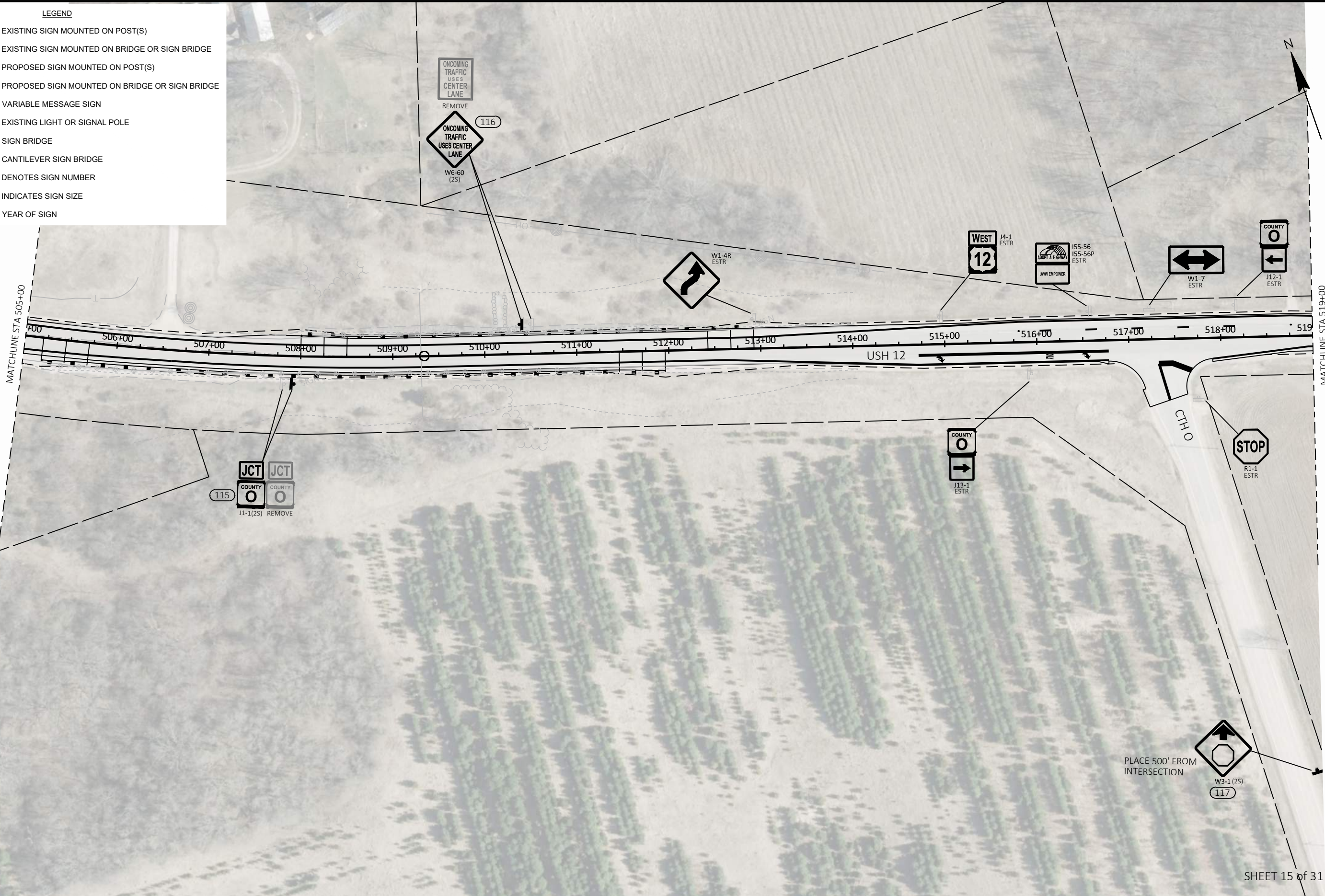
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- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN



SHEET 14 of 31

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN














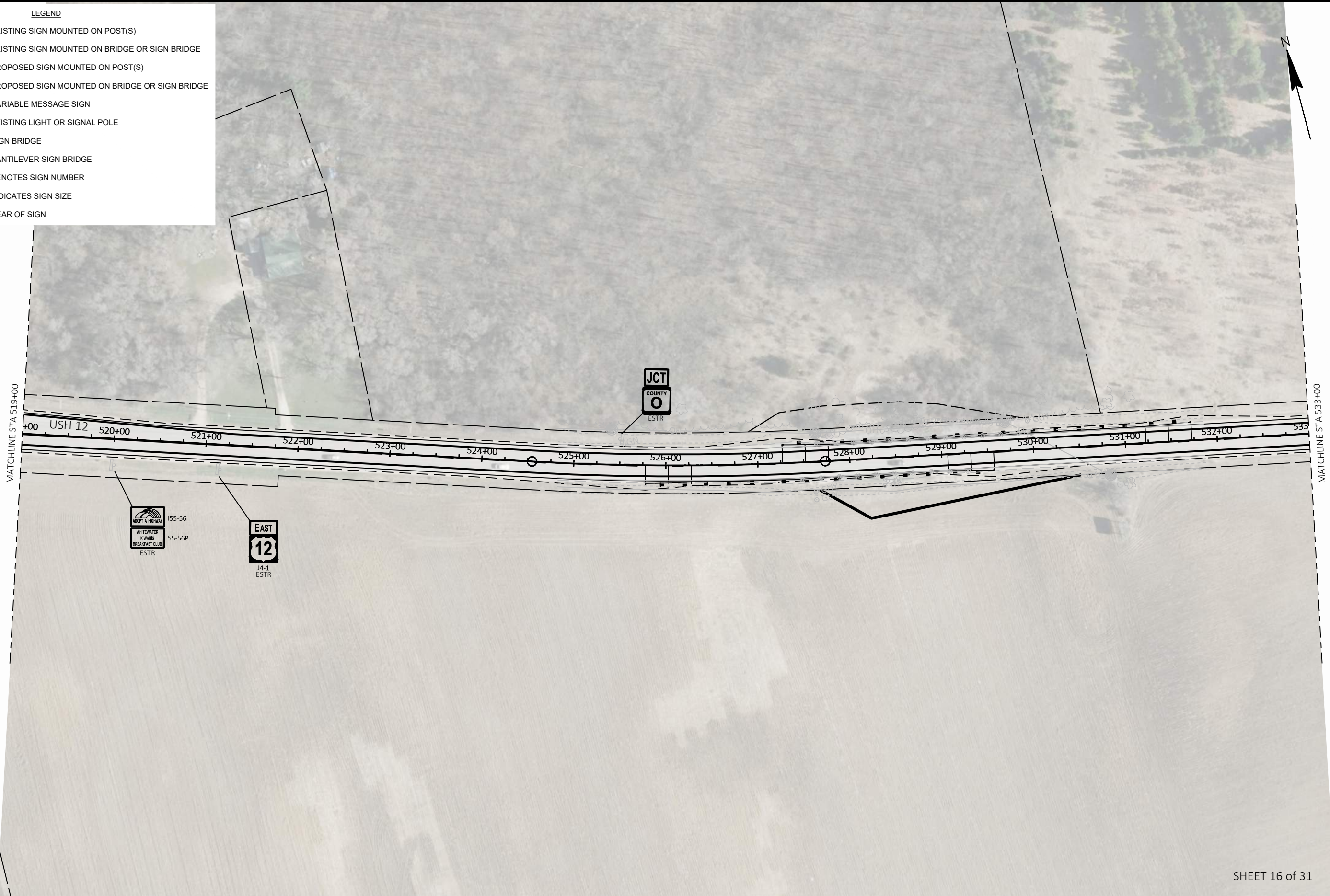
SHEET 15 of 31

2

2

LEGEND












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-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



SHEET 16 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  YEAR OF SIGN



MATCHLINE STA 533+00

MATCHLINE STA 547+00

534+00 535+00 536+00 537+00 538+00 539+00 540+00 541+00 542+00 543+00 544+00 545+00 546+00 547+00

USH 12














W1-2R
ESTR



W14-3
ESTR

SHEET 17 of 31

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



MATCHLINE STA 547+00

MATCHLINE STA 561+00

400 548+00 549+00 550+00 551+00 552+00 553+00 554+00 555+00 556+00 557+00 558+00 559+00 560+00 561

NO PASSING ZONE

W14-3
ESTR

USH 12

STOP

R1-1
ESTR












Duffin Rd
ESTR

SHEET 18 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET	E
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LEGEND












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-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



SHEET 19 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



MATCHLINE STA 575+00

MATCHLINE STA 589+00



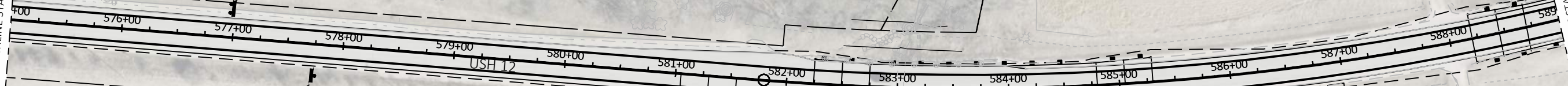
W2-7L
ESTR

← Jackson Rd

D1-1
119














W1-4L
(2S)
150



SHEET 20 of 31

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



SHEET 21 of 31

PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

PERMANENT SIGNING

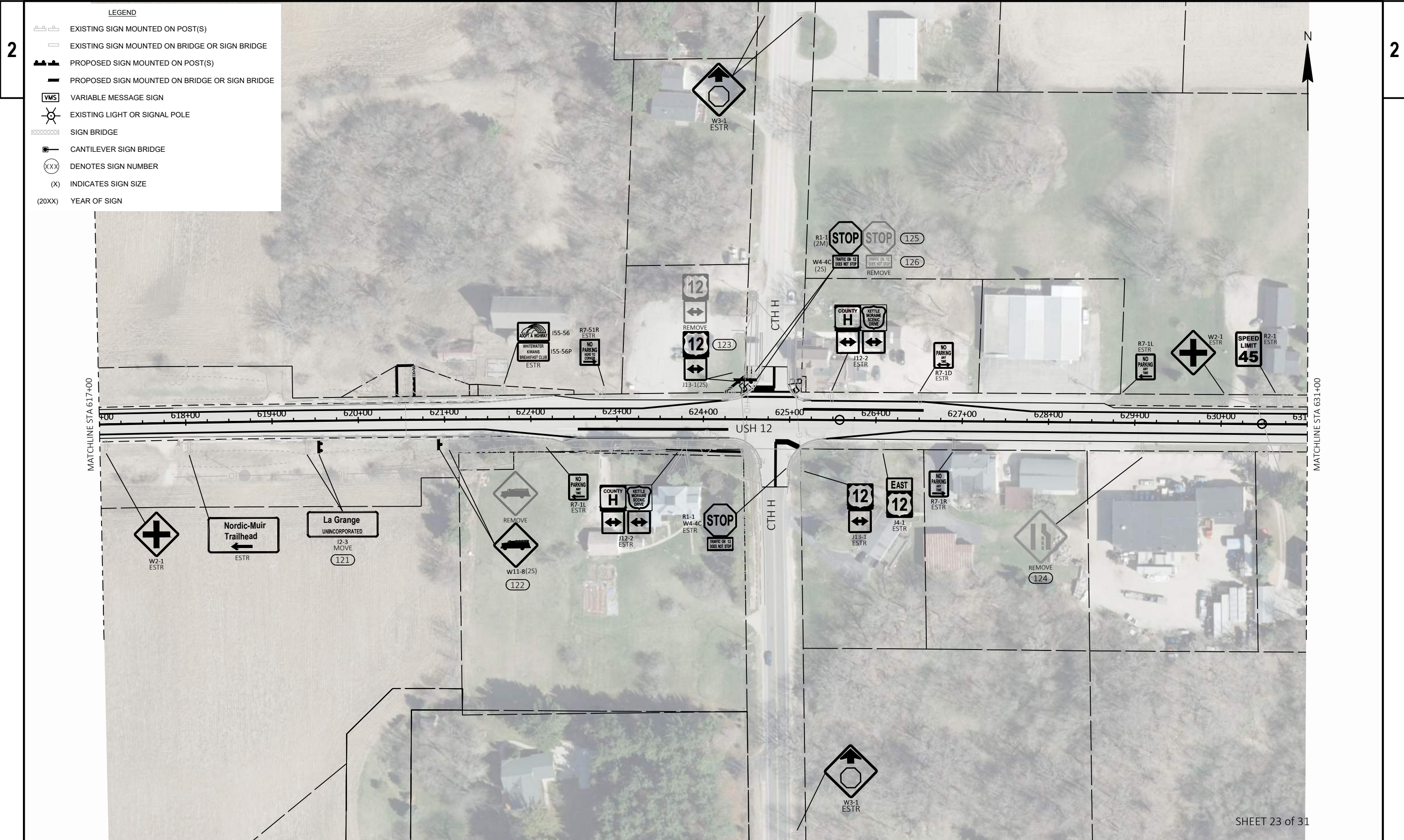
SHEET

E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- YEAR OF SIGN







LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
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- INDICATES SIGN SIZE
- YEAR OF SIGN

MATCHLINE STA 631+00

MATCHLINE STA 645+00

631+00 632+00 633+00 634+00 635+00 636+00 637+00 638+00 639+00 640+00 641+00 642+00 643+00 644+00 645+00

USH 12

JCT
COUNTY
H
ESTR

JCT
KETTLE
MORAINNE
SCENIC
DRIVE
ESTR

**Nordic-Muir
Trailhead**
ESTR

W11-8
ESTR












La Grange
UNINCORPORATED
ESTR

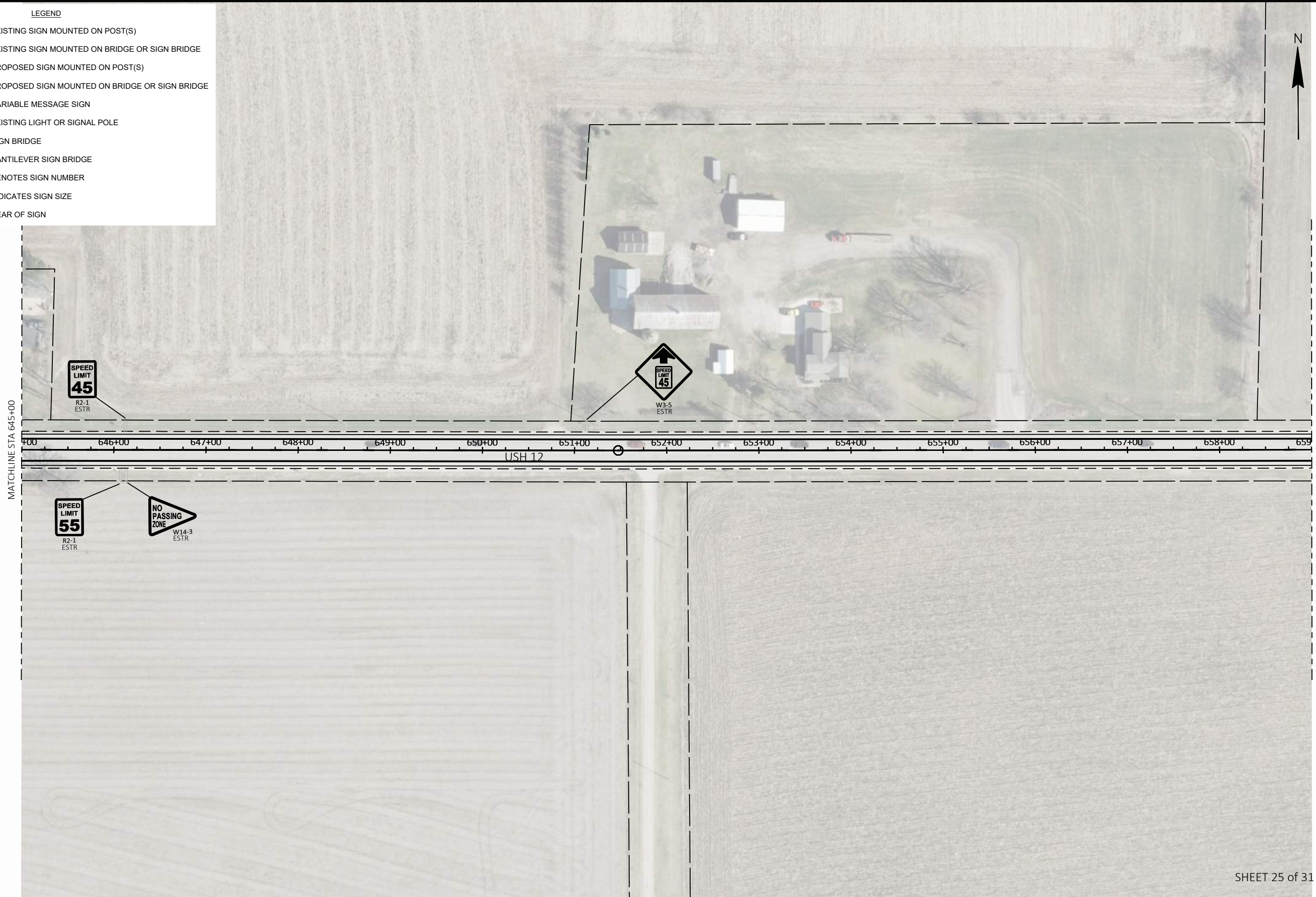
STOP
SCHOOL BUS
FLASHING
RED LIGHTS
R59-51
ESTR

IS5-56
ALPHA PI ALPHA
ZETA PI TA
CHAPTER
ESTR

**SPEED
LIMIT
45**
REMOVE
**SPEED
LIMIT
45**
R2-1(25)
(127)

LEGEND












-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  (20XX) YEAR OF SIGN



SHEET 25 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET	E
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LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  YEAR OF SIGN



MATCHLINE STA 659+00

MATCHLINE STA 673+00

660+00 661+00 662+00 663+00 664+00 665+00 666+00 667+00 668+00 669+00 670+00 671+00 672+00 673

USH 12

SHEET 26 of 31

PROJECT NO: 3130-03-71

HWY: USH 12



COUNTY: WALWORTH

PERMANENT SIGNING

SHEET

E

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  YEAR OF SIGN

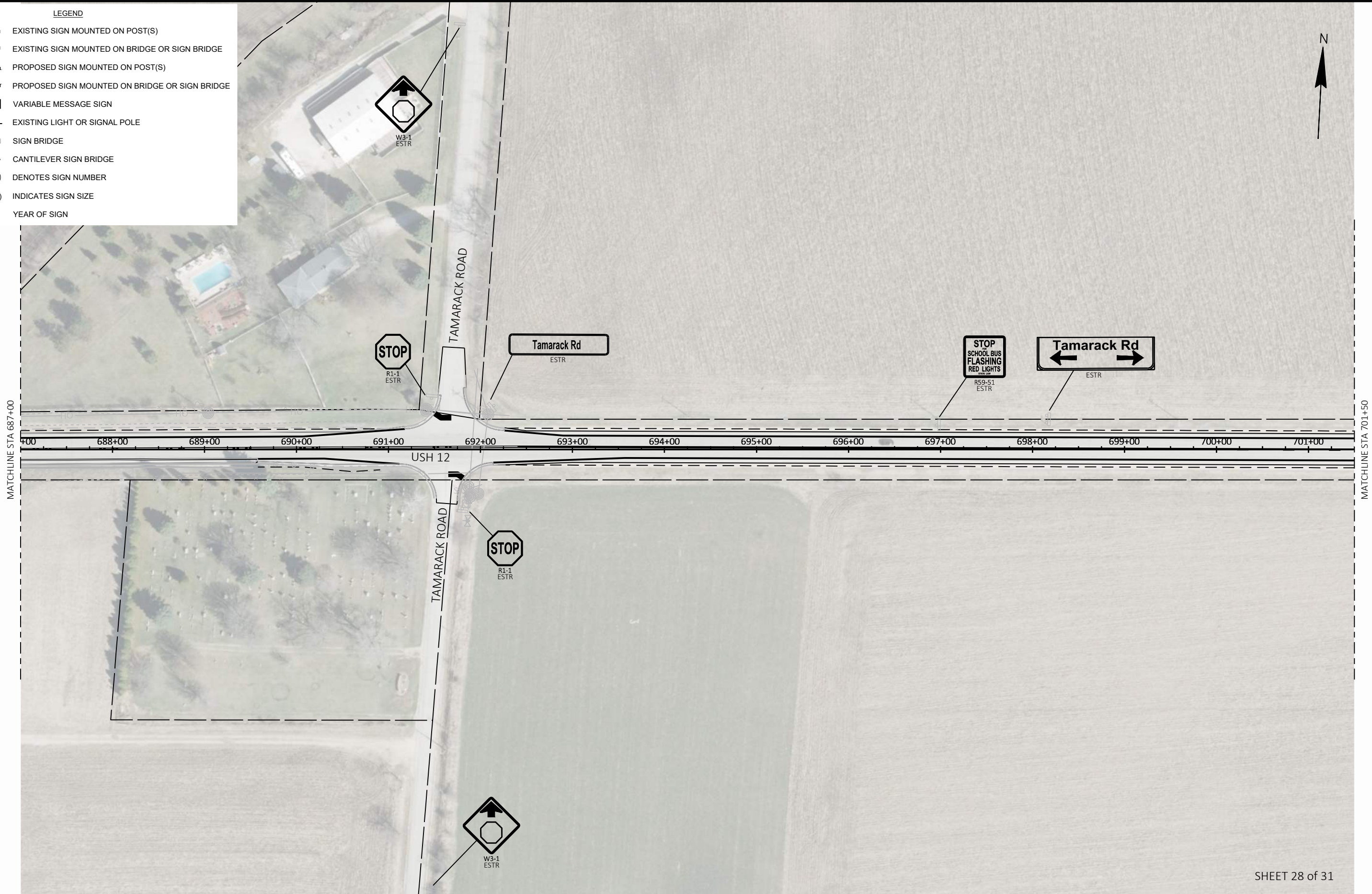


SHEET 27 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN



SHEET 28 of 31












PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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2

2

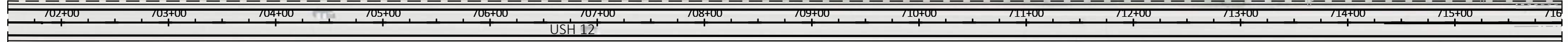


LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
-  YEAR OF SIGN

MATCHLINE STA 701+50

MATCHLINE STA 716+00



SHEET 29 of 31

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- YEAR OF SIGN

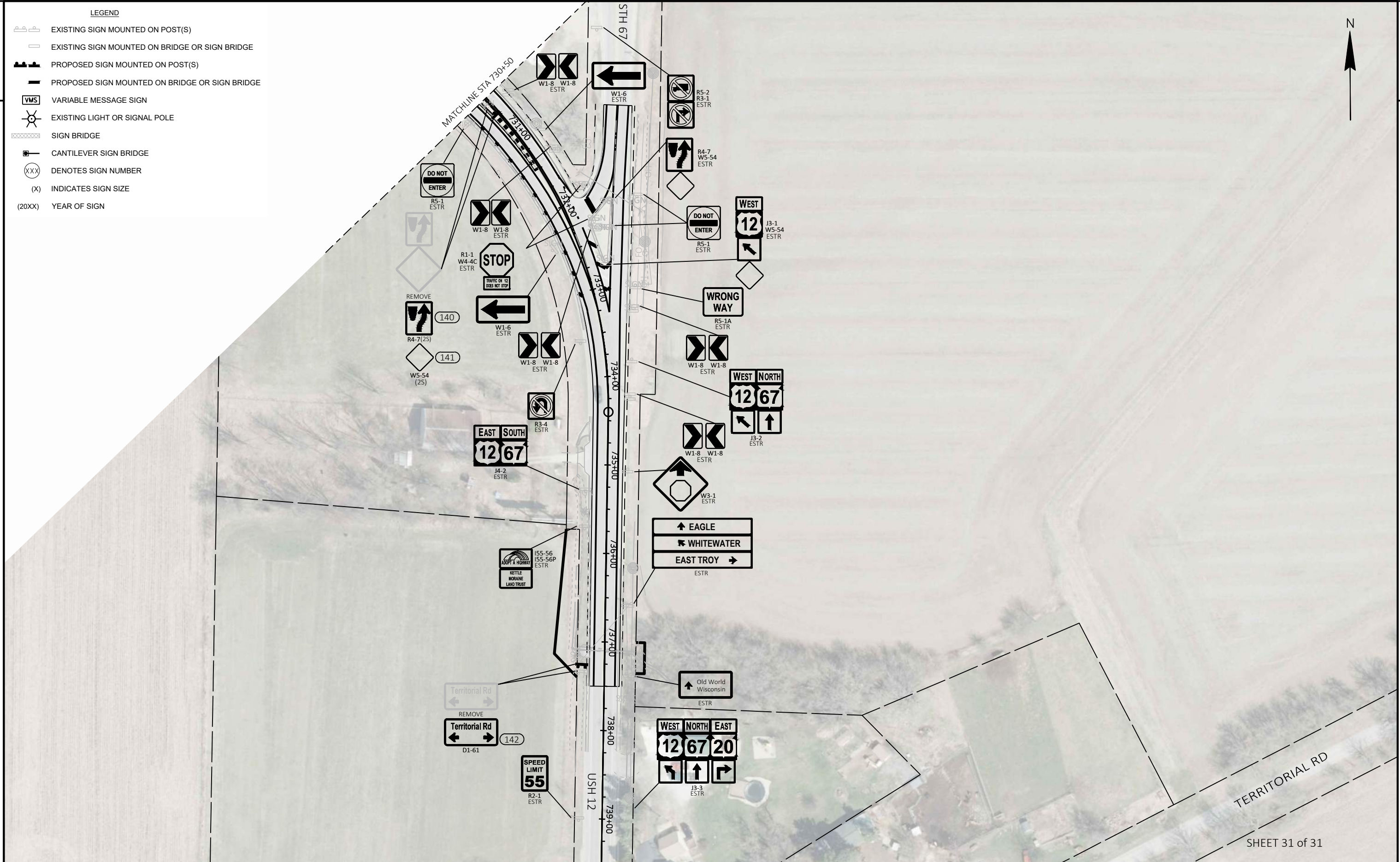


SHEET 30 of 31

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET E
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LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- (20XX) YEAR OF SIGN



LEGEND

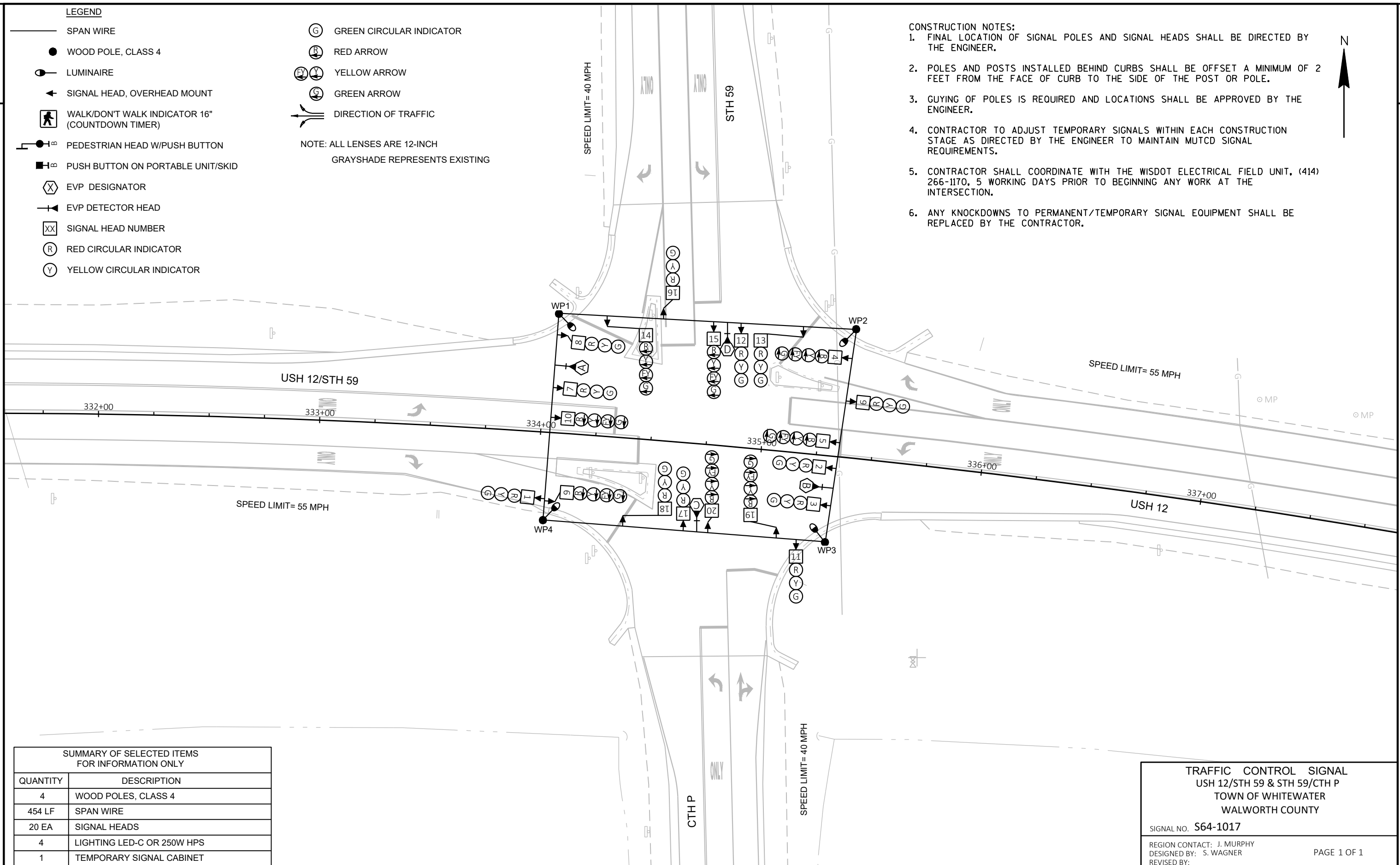
- SPAN WIRE
- WOOD POLE, CLASS 4
- LUMINAIRE
- ← SIGNAL HEAD, OVERHEAD MOUNT
- 🚶 WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- ♿ PEDESTRIAN HEAD W/PUSH BUTTON
- PUSH BUTTON ON PORTABLE UNIT/SKID
- ⊗ EVP DESIGNATOR
- ➡ EVP DETECTOR HEAD
- XX SIGNAL HEAD NUMBER
- Ⓡ RED CIRCULAR INDICATOR
- Ⓢ YELLOW CIRCULAR INDICATOR

- Ⓢ GREEN CIRCULAR INDICATOR
- ➡ RED ARROW
- Ⓢ YELLOW ARROW
- Ⓢ GREEN ARROW
- ➡ DIRECTION OF TRAFFIC

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH THE WISDOT ELECTRICAL FIELD UNIT, (414) 266-1170, 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.



SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
4	WOOD POLES, CLASS 4
454 LF	SPAN WIRE
20 EA	SIGNAL HEADS
4	LIGHTING LED-C OR 250W HPS
1	TEMPORARY SIGNAL CABINET

TRAFFIC CONTROL SIGNAL
 USH 12/STH 59 & STH 59/CTH P
 TOWN OF WHITEWATER
 WALWORTH COUNTY

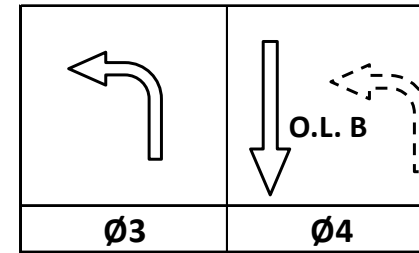
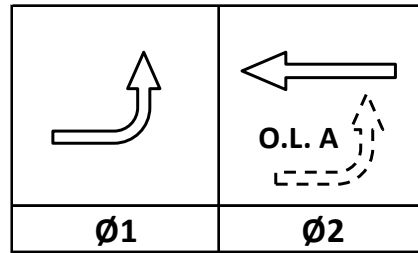
SIGNAL NO. **S64-1017**

REGION CONTACT: J. MURPHY
 DESIGNED BY: S. WAGNER
 REVISED BY:

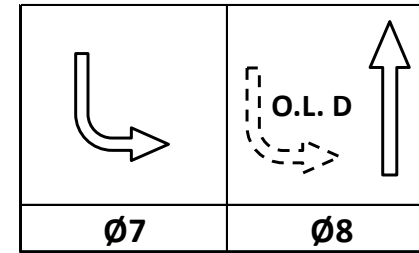
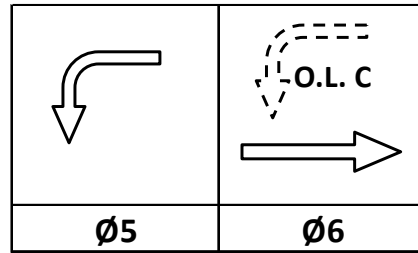
PAGE 1 OF 1

	HEAD NUMBERS	FLASH
Ø1	4,5	-
Ø2	6,7,8	R
Ø3	14,15	-
Ø4	16,17,18	R
Ø5	9,10	-
Ø6	1,2,3	R
Ø7	19,20	-
Ø8	11,12,13	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	4,5	R
OLB	14,15	R
OLC	9,10	R
OLD	19,20	R

RING 1



RING 2



BARRIER

N



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1	X	6	MAX	X
2	X	6	MAX	X
3	X	8	MAX	X
4	X	8	MAX	X
5	X	2	MAX	X
6	X	2	MAX	X
7	X	4	MAX	X
8	X	4	MAX	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
 AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

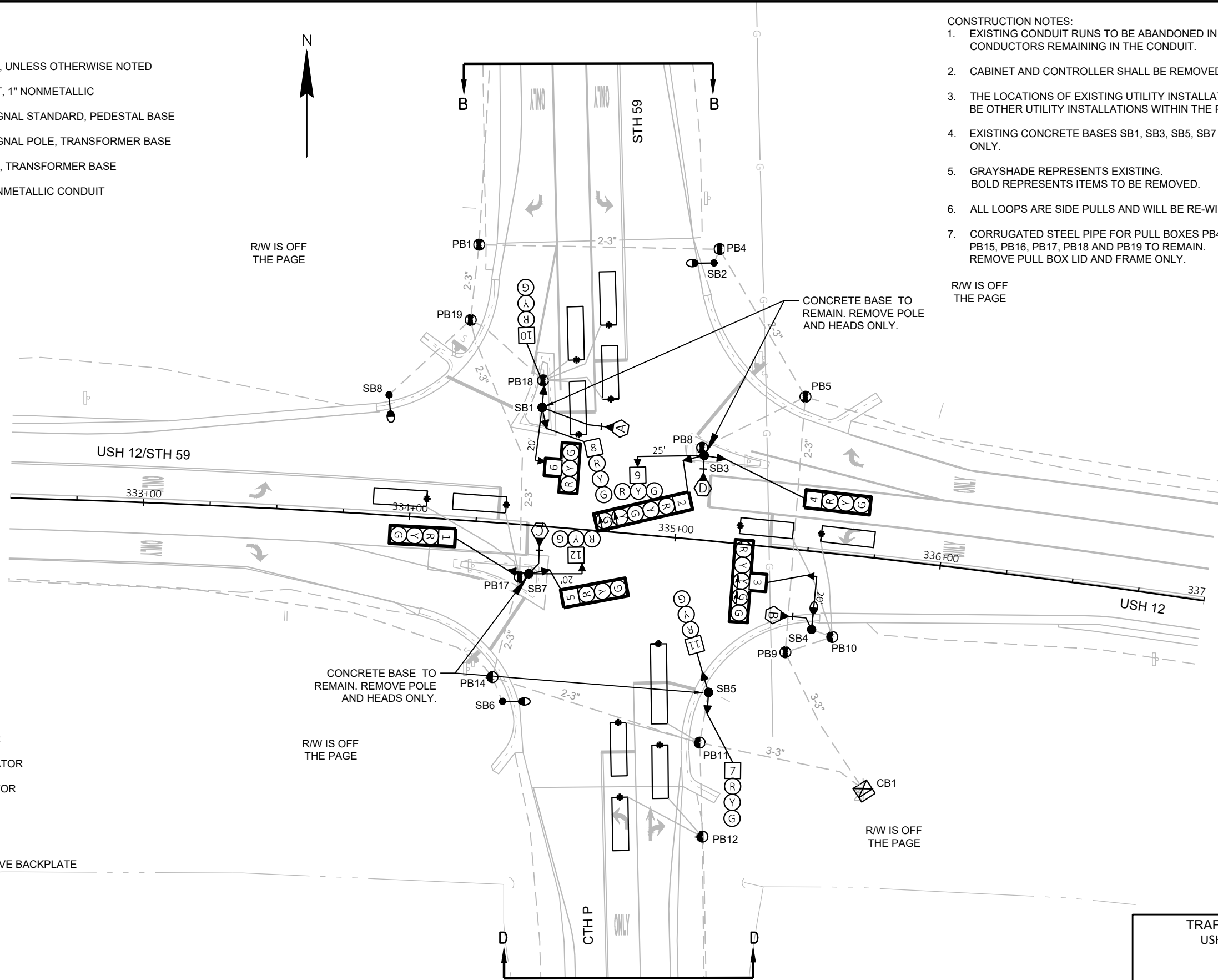
USH 12/STH 59 & STH 59/CTH P	
TOWN OF WHITEWATER	
WALWORTH COUNTY	
SIGNAL NO: T64-1017	CABINET TYPE: TEMP
CONTROLLER TYPE: ECONOLITE	
DATE: 8/2024	PAGE NUMBER: 2 OF 2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 48"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. EXISTING CONCRETE BASES SB1, SB3, SB5, SB7 TO REMAIN. REMOVE POLE AND HEADS ONLY.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
6. ALL LOOPS ARE SIDE PULLS AND WILL BE RE-WIRED.
7. CORRUGATED STEEL PIPE FOR PULL BOXES PB4, PB5, PB8, PB9, PB10, PB12, PB13, PB14, PB15, PB16, PB17, PB18 AND PB19 TO REMAIN. REMOVE PULL BOX LID AND FRAME ONLY.



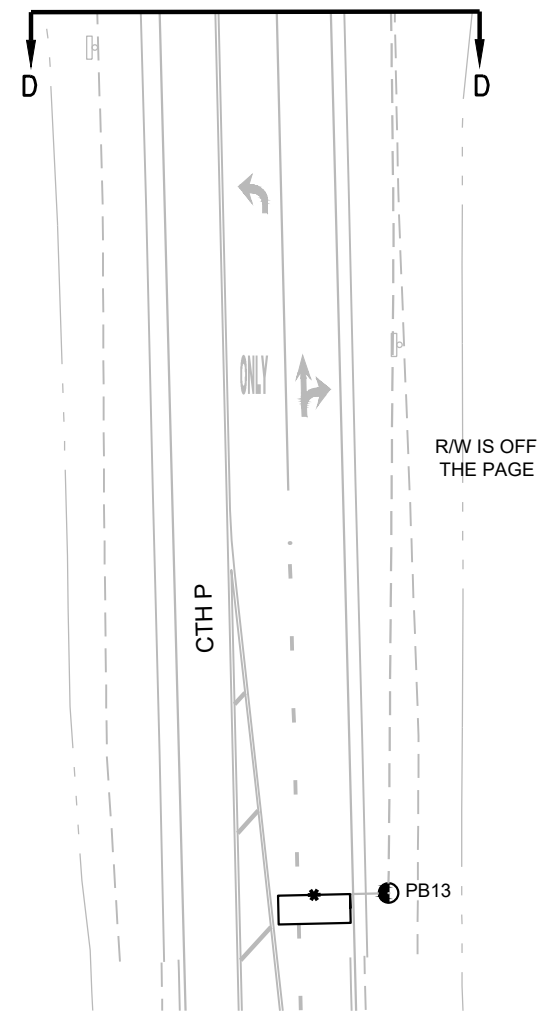
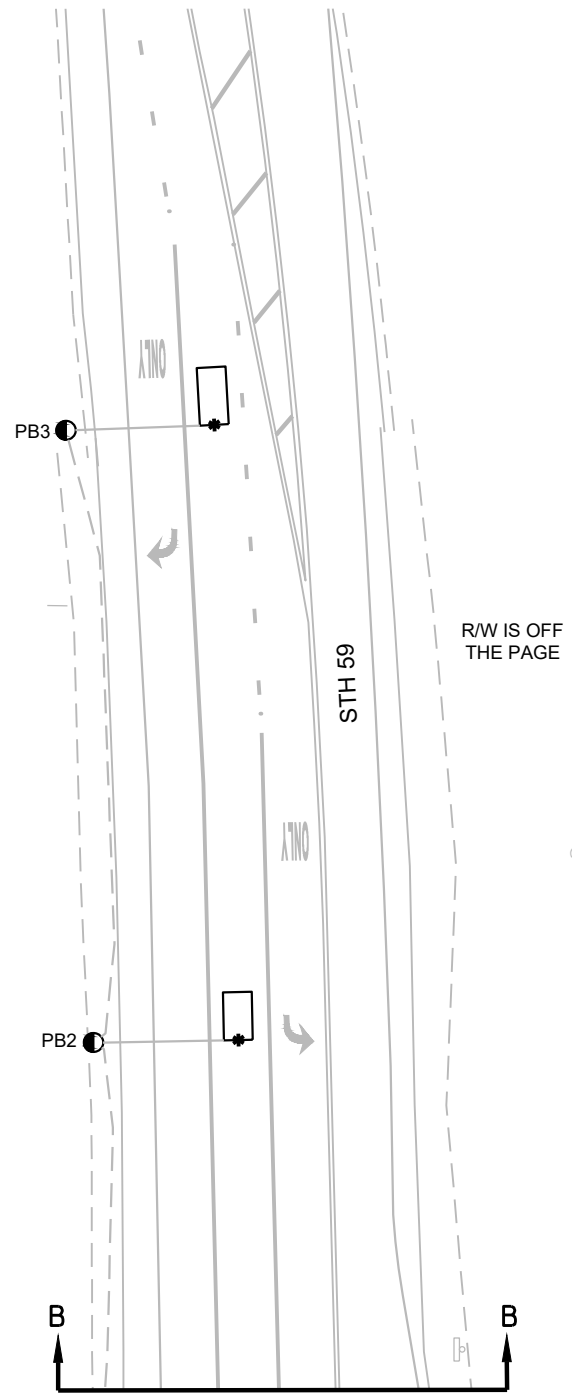
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD W/REFLECTIVE BACKPLATE
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- STOP SIGN

TRAFFIC CONTROL SIGNAL
 USH 12/STH 59 & STH 59/CTH P
 TOWN OF WHITEWATER
 WALWORTH COUNTY

SIGNAL NO. **S64-1017**

REGION CONTACT: J. MURPHY
 DESIGNED BY: S. WAGNER
 REVISED BY: S. WAGNER

PAGE 1 OF 3

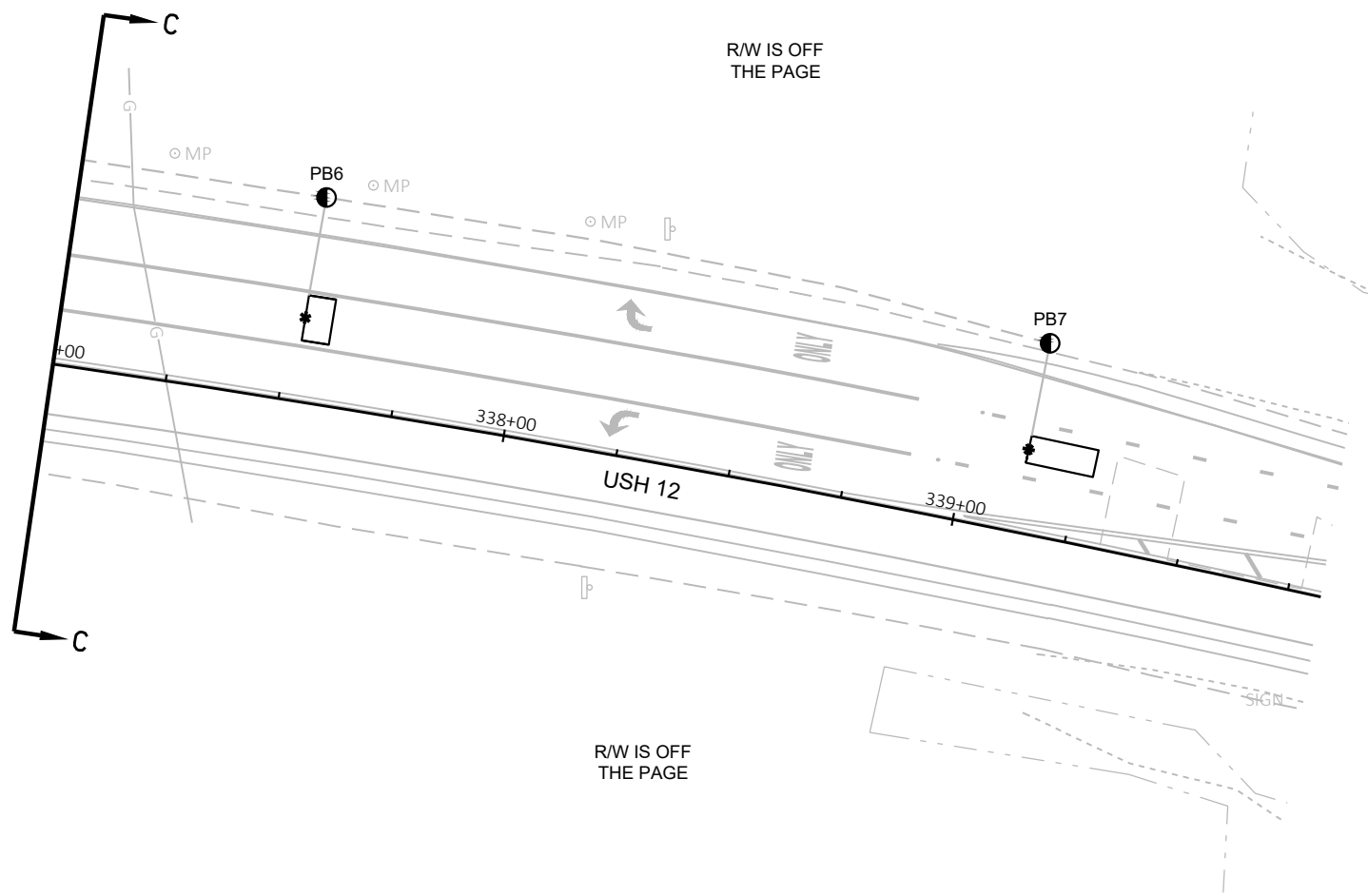
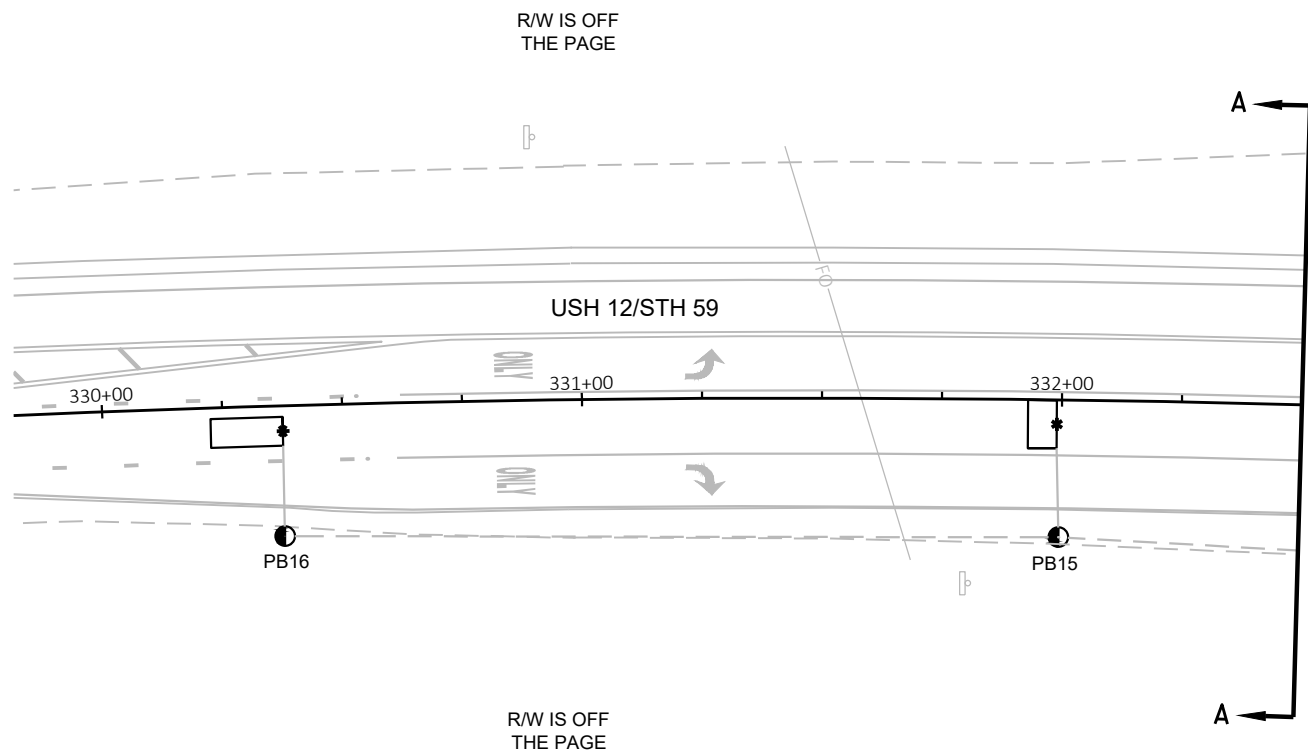


TRAFFIC CONTROL SIGNAL
 USH 12/STH 59 & STH 59/CTH P
 TOWN OF WHITEWATER
 WALWORTH COUNTY

SIGNAL NO. S64-1017

REGION CONTACT: J. MURPHY
 DESIGNED BY:
 REVISED BY: S. WAGNER

PAGE 2 OF 3



TRAFFIC CONTROL SIGNAL
 USH 12/STH 59 & STH 59/CTH P
 TOWN OF WHITEWATER
 WALWORTH COUNTY

SIGNAL NO. S64-1017

REGION CONTACT: J. MURPHY
 DESIGNED BY:
 REVISED BY: S. WAGNER

PAGE 3 OF 3

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 50'-55' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RADAR DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 48"

INSTALL CONDUIT TOWARDS THE BOTTOM OF THE PULL BOX AND CAP THE CONDUIT WITH 7.8 1/4" HOLES DRILLED IN EACH END FOR DRAINAGE.

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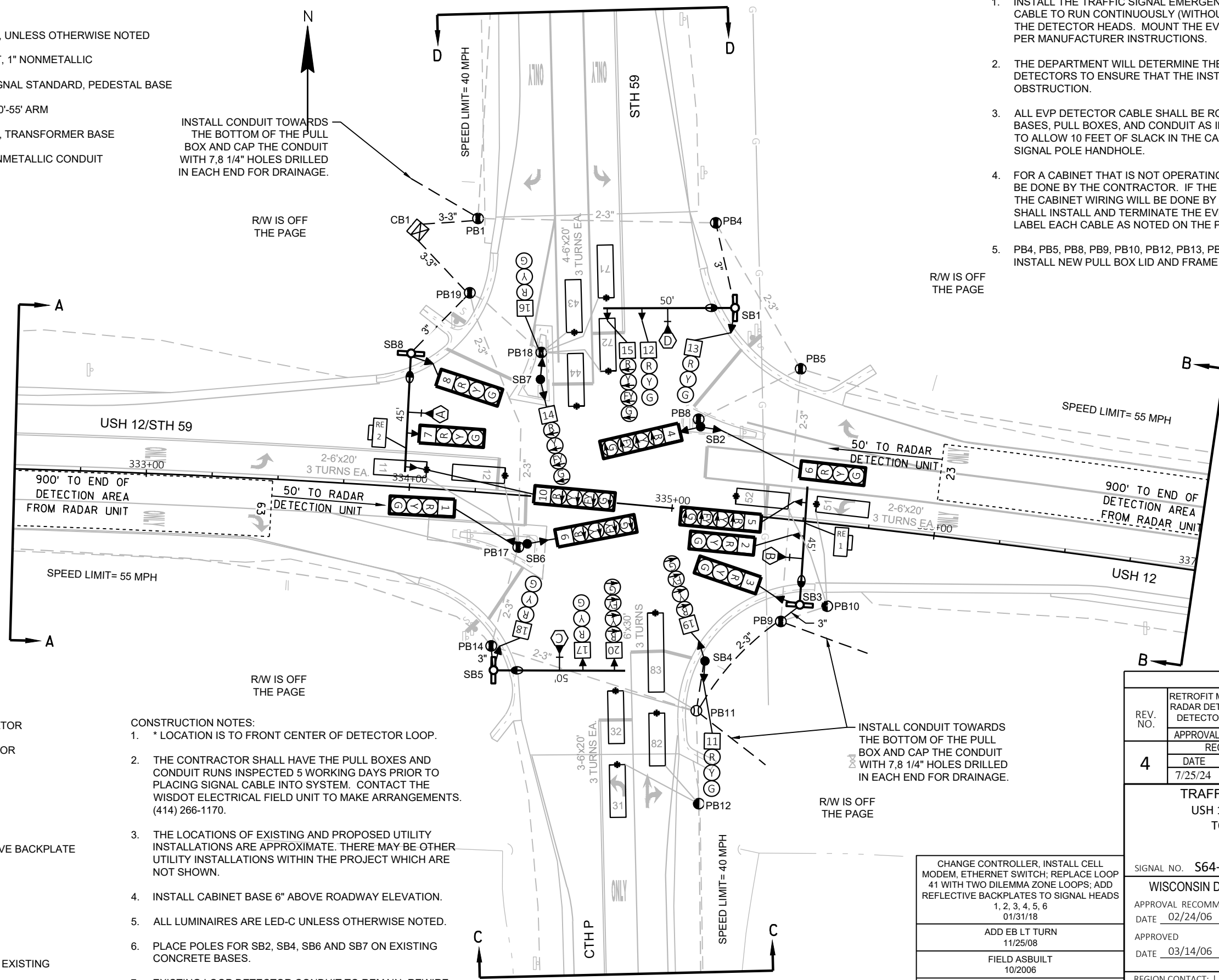
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EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR. IF THE CABINET IS OPERATING THE SIGNAL, THE CABINET WIRING WILL BE DONE BY THE DEPARTMENT. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).
5. PB4, PB5, PB8, PB9, PB10, PB12, PB13, PB14, PB15, PB16, PB17, PB18 AND PB19 INSTALL NEW PULL BOX LID AND FRAME ONLY.



MONOTUBE STRUCTURE NUMBERS	
SB1	= S-64-2017-1
SB3	= S-64-2017-2 (OH)
SB5	= S-64-2017-3
SB8	= S-64-2017-4 (OH)

- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD W/REFLECTIVE BACKPLATE
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- STOP SIGN

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

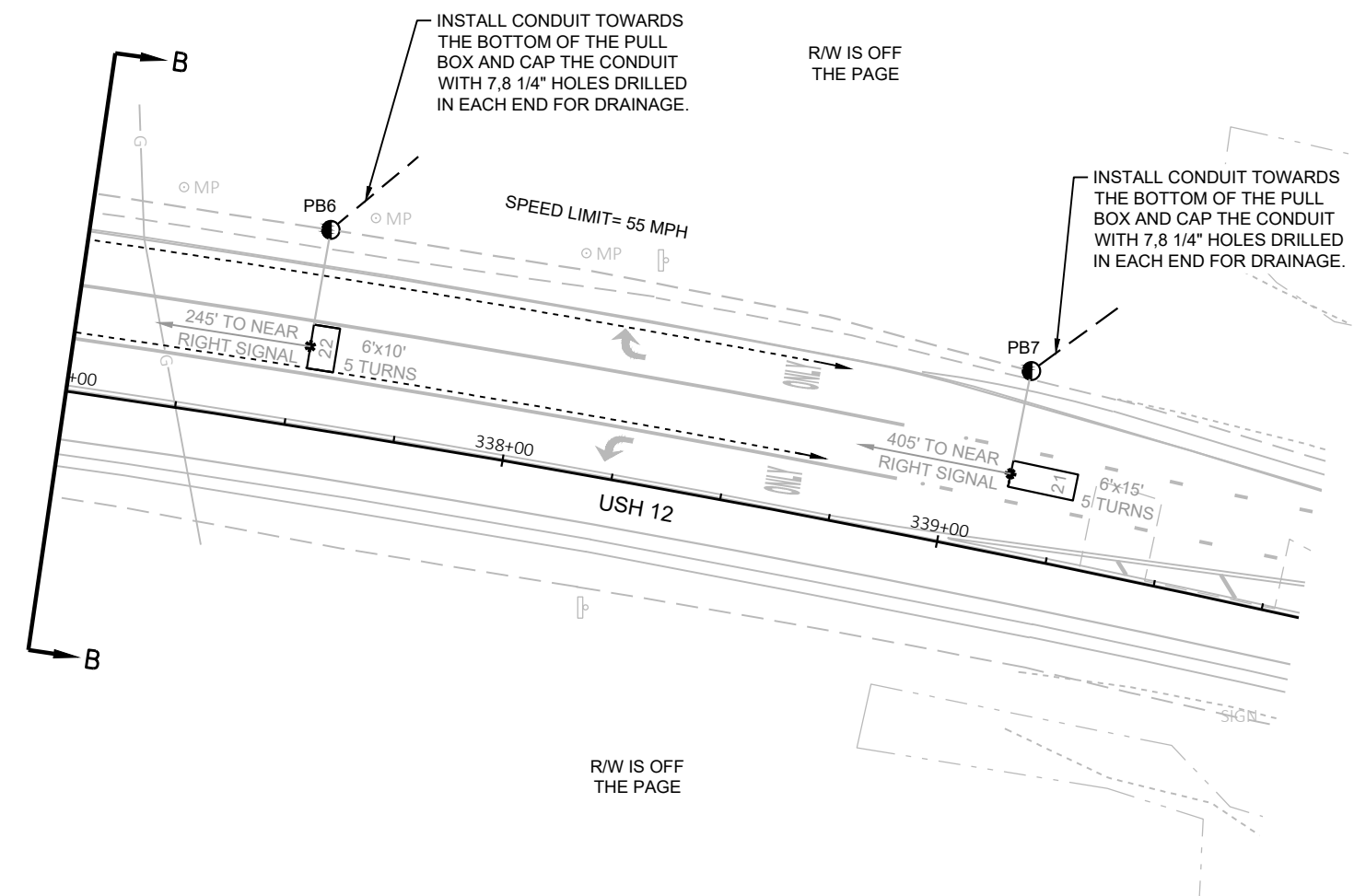
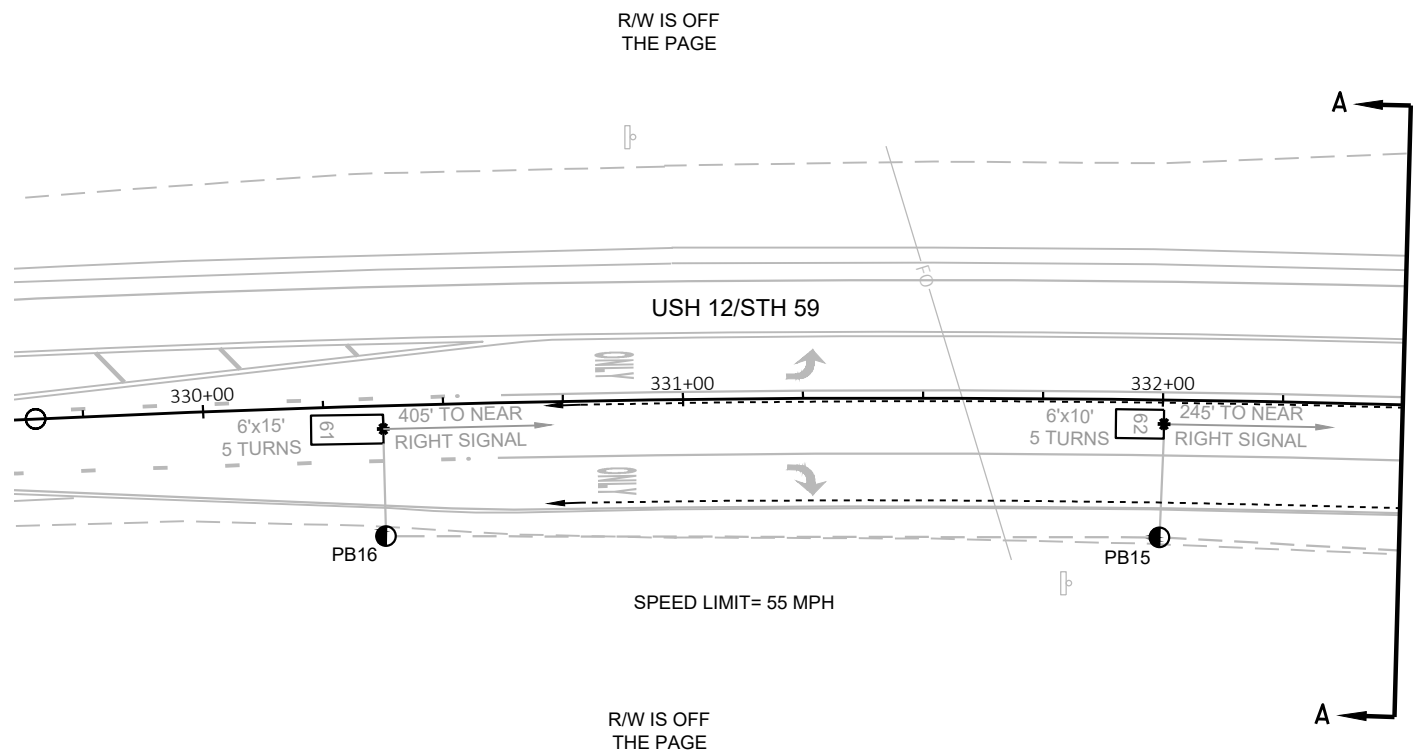
CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
6. PLACE POLES FOR SB2, SB4, SB6 AND SB7 ON EXISTING CONCRETE BASES.
7. EXISTING LOOP DETECTOR CONDUIT TO REMAIN, REWIRE LOOP DETECTORS IN EXISTING CONDUIT.

INSTALL CONDUIT TOWARDS THE BOTTOM OF THE PULL BOX AND CAP THE CONDUIT WITH 7.8 1/4" HOLES DRILLED IN EACH END FOR DRAINAGE.

CHANGE CONTROLLER, INSTALL CELL MODEM, ETHERNET SWITCH; REPLACE LOOP 41 WITH TWO DILEMMA ZONE LOOPS; ADD REFLECTIVE BACKPLATES TO SIGNAL HEADS 1, 2, 3, 4, 5, 6 01/31/18
ADD EB LT TURN 11/25/08
FIELD ASBUILT 10/2006
INITIAL INSTALLATION 2006

REVISION			
REV. NO.	RETROFIT MONOTUBES; REPLACE PB6, PB7, PB11; INSTALL RADAR DETECTION; INSTALL FYA; REWIRE EXISTING LOOP DETECTORS; REPLACE CABINET; UPDATE CELL MODEM		
4	APPROVAL RECOMMENDED	APPROVED	
	REGION	CENTRAL OFFICE	
	DATE	BY	DATE
	7/25/24	JMM	7/30/24
TRAFFIC CONTROL SIGNAL USH 12/STH 59 & STH 59/CTH P TOWN OF WHITEWATER WALWORTH COUNTY			
SIGNAL NO. S64-1017		CABINET TYPE: TS2 CONTROLLER TYPE: ECONOLITE	
WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVAL RECOMMENDED		APPROVED	
DATE	02/24/06	MITZI M. DOBERSEK REGION TRAFFIC ENGINEER	
DATE	03/14/06	WILLIAM C. GILDING STATE TRAFFIC ENGINEER	
REGION CONTACT: J. MURPHY		PAGE 1 OF 4	
DESIGNED BY:		REVISED BY: S. WAGNER	

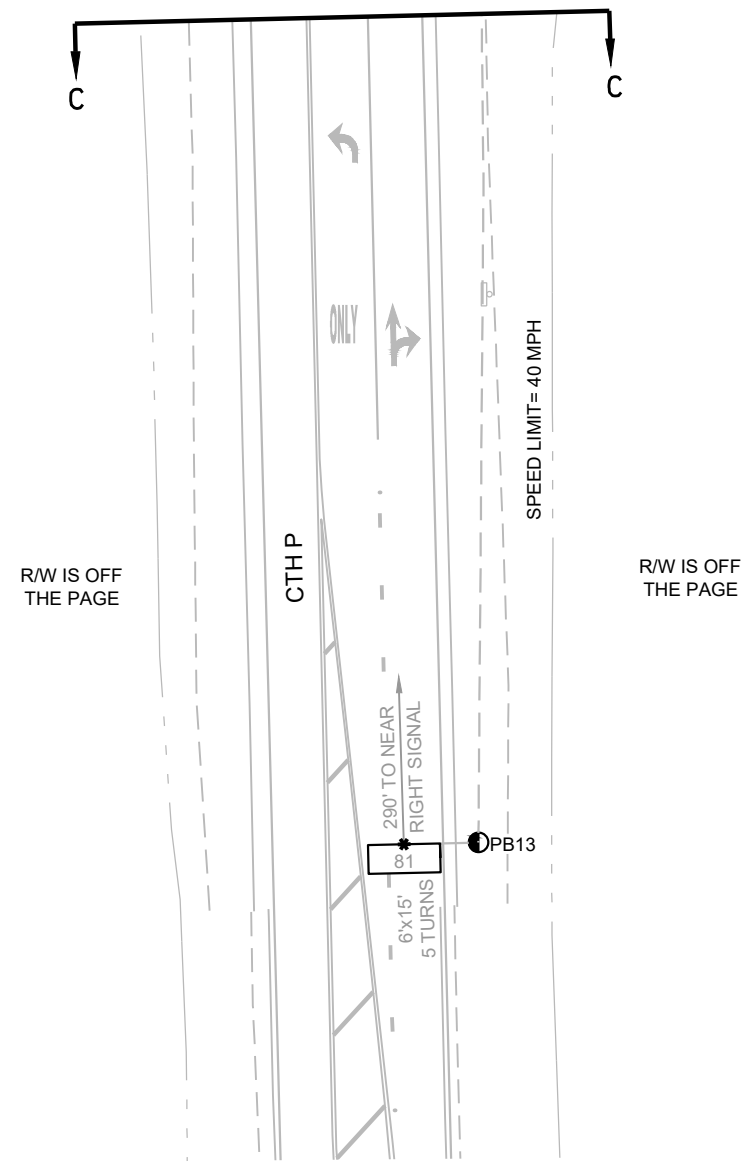


TRAFFIC CONTROL SIGNAL
 USH 12/STH 59 & STH 59/CTH P
 TOWN OF WHITEWATER
 WALWORTH COUNTY

SIGNAL NO. S64-1017

REGION CONTACT: J. MURPHY
 DESIGNED BY:
 REVISED BY: S. WAGNER

PAGE 2 OF 4



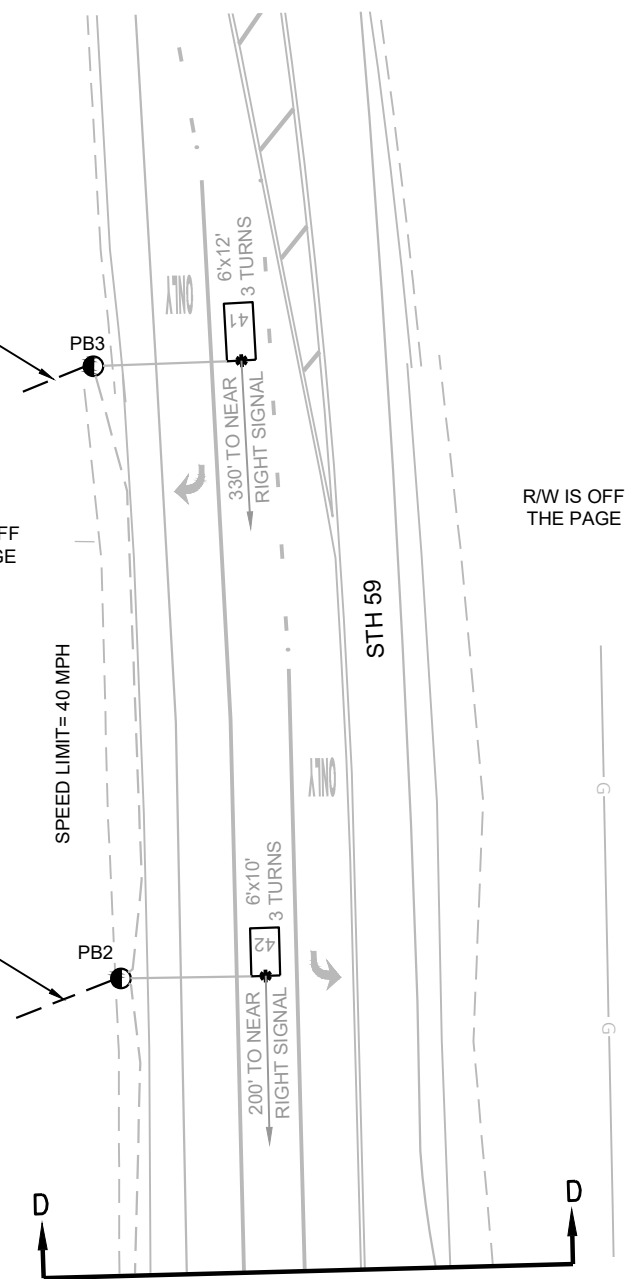
INSTALL CONDUIT TOWARDS THE BOTTOM OF THE PULL BOX AND CAP THE CONDUIT WITH 7,8 1/4" HOLES DRILLED IN EACH END FOR DRAINAGE.

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SPEED LIMIT= 40 MPH

INSTALL CONDUIT TOWARDS THE BOTTOM OF THE PULL BOX AND CAP THE CONDUIT WITH 7,8 1/4" HOLES DRILLED IN EACH END FOR DRAINAGE.

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TRAFFIC CONTROL SIGNAL
 USH 12/STH 59 & STH 59/CTH P
 TOWN OF WHITEWATER
 WALWORTH COUNTY

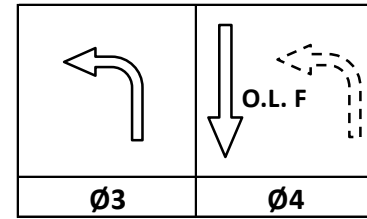
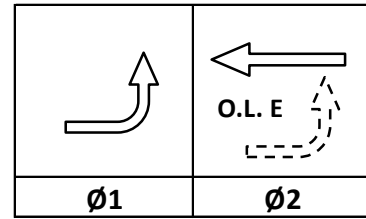
SIGNAL NO. S64-1017

REGION CONTACT: J. MURPHY
 DESIGNED BY: S. WAGNER
 REVISED BY: S. WAGNER

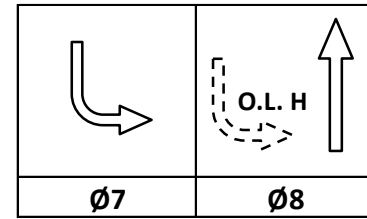
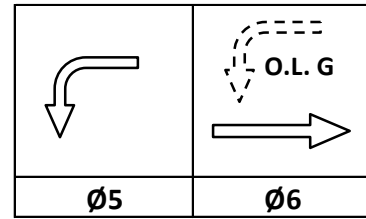
PAGE 3 OF 4

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3	14,15	R
Ø4	16,17,18	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7	19,20	R
Ø8	11,12,13	
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLE	4,5	-
OLF	14,15	-
OLG	9,10	-
OLH	19,20	-

RING 1



RING 2



BARRIER

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		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
 AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	31	41	43	51	61	71
CALLED PHASE	1	2	3	4	4	5	6	7
CALL OPTION	X	X	X		X	X	X	X
DELAY TIME								
EXTENSION OPTION	X	X	X	X	X	X	X	X
EXTEND TIME				X				
USE ADDED INITIAL		X					X	
CROSS SWITCH PHASE	2		4			6		8

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	81	83						
CALLED PHASE	8	8						
CALL OPTION		X						
DELAY TIME		X						
EXTENSION OPTION	X	X						
EXTEND TIME	X							
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	35	33	39	37	43	41	47	45
PLAN LOOP DETECTOR*(S)	23							
CALLED PHASE	2							
CALL OPTION	X							
DELAY TIME								
EXTENSION OPTION	X							
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	12	22	32	42	44	52	62	72
CALLED PHASE	1	2	3	4	4	5	6	7
CALL OPTION	X	X	X		X	X	X	X
DELAY TIME	X		X			X		X
EXTENSION OPTION	X	X	X	X	X		X	X
EXTEND TIME				X				
USE ADDED INITIAL		X					X	
CROSS SWITCH PHASE	2		4			6		8

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)	82							
CALLED PHASE	8							
CALL OPTION	X							
DELAY TIME	X							
EXTENSION OPTION	X							
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	36	34	40	38	44	42	48	46
PLAN LOOP DETECTOR*(S)	63							
CALLED PHASE	6							
CALL OPTION	X							
DELAY TIME								
EXTENSION OPTION	X							
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	



USH 12/STH 59 & STH 59/CTH P	
TOWN OF WHITEWATER	
WALWORTH COUNTY	
SIGNAL NO: S64-1017	CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE	
DATE: 08/2024	PAGE NUMBER: 4 OF 4

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY XXXX
S64-1017

3

3

PROJECT ID:	3130-03-71
INTERSECTION:	USH 12/STH 59 & STH 59/CTH P

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR								D/WALK	WALK	PED NEUTRAL	PED INPUT
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>					
SB1	12	12	Red	Orange	Green									
		13	Red	Orange	Green									
		15				Red/Black	Orange/Black	Green/Black	Black/White					
SB2	12	4				Red	Orange	Green	Black/White					
		6	Red/black	Orange/Black	Green/Black									
SB3	12	2	Red	Orange	Green									
		3	Red	Orange	Green									
		5				Red/Black	Orange/Black	Green/Black	Black/White					
SB4	12	11	Red	Orange	Green									
		19				Red/Black	Orange/Black	Green/Black	Black/White					
SB5	12	17	Red	Orange	Green									
		18	Red	Orange	Green									
		20				Red/Black	Orange/Black	Green/Black	Black/White					
SB6	12	1	Red	Orange	Green									
		9				Red/Black	Orange/Black	Green/Black	Black/White					
SB7	12	14				Red	Orange	Green	Black/White					
		16	Red/Black	Orange/Black	Green/Black									
SB8	12	7	Red	Orange	Green									
		8	Red	Orange	Green									
		10				Red/Black	Orange/Black	Green/Black	Black/White					

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY XXXX
S64-1017

3

3

Equipment Grounding Conductor 10 AWG Green XLP	
From	To
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

Pull Box Bonding Jumper 10 AWG Green XLP	
From	To
PB1	CB1
PB4	SB1
PB5	SB2
PB8	SB2
PB9	SB3
PB11	SB4
PB14	SB5
PB17	SB6
PB18	SB7
PB19	SB8
PB19	CB1

Lighting UF 2-10 AWG Grounded	
From	To
CB1	SB1
SB1	SB3
CB1	SB5
SB5	SB8

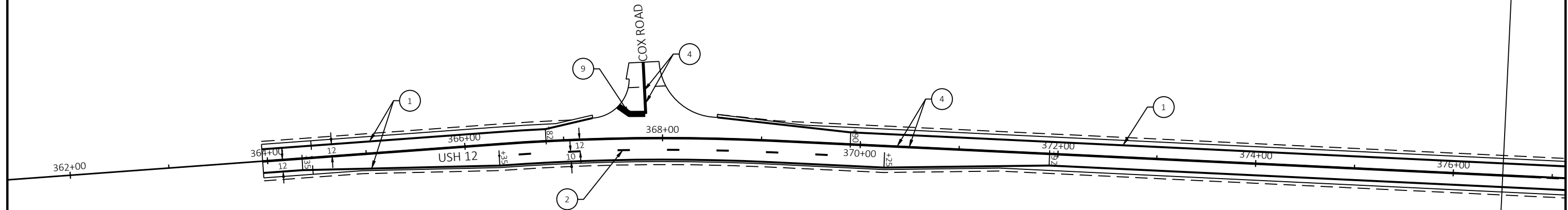
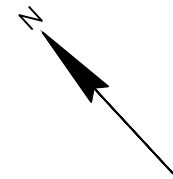
Emergency Vehicle Preemption	
From	To
CB1	SB8 (HEAD A)
CB1	SB3 (HEAD B)
CB1	SB5 (HEAD C)
CB1	SB1 (HEAD D)

Radar Detection Cable	
From	To
CB1	SB3 (RA1)
CB1	SB8 (RA2)

- *Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
- *Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
- *At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounder
- *Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
- ③ MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (3' LINE, 9' GAP)
- ④ MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW
- ⑤ MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW (12.5' LINE, 37.5' GAP)
- ⑥ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE
- ⑦ MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
- ⑧ MARKING DIAGONAL EPOXY 12-INCH
- ⑨ MARKING STOP LINE EPOXY 18-INCH
- ⑩ MARKING ARROW EPOXY
- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY

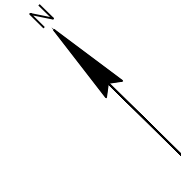


NOTES:

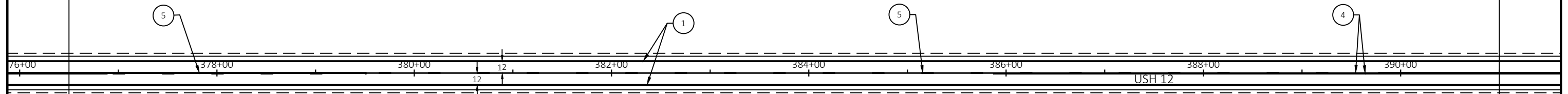
- 1) SEE SDD "STOPLINE AND CROSSWALK PAVEMENT MARKING" FOR POSITIONING OF STOP BARS
- 2) ESTABLISH NO PASSING ZONES AND MOVE NO PASSING PENNANTS AS NECESSARY PER SIGNING PLAN IF ZONE MOVES
- 3) USE 0.21 FOR THE SPEC FOR DISTANCE FOR NO PASSING ZONES

LEGEND

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- ⑪ MARKING WORD EPOXY
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 391+00

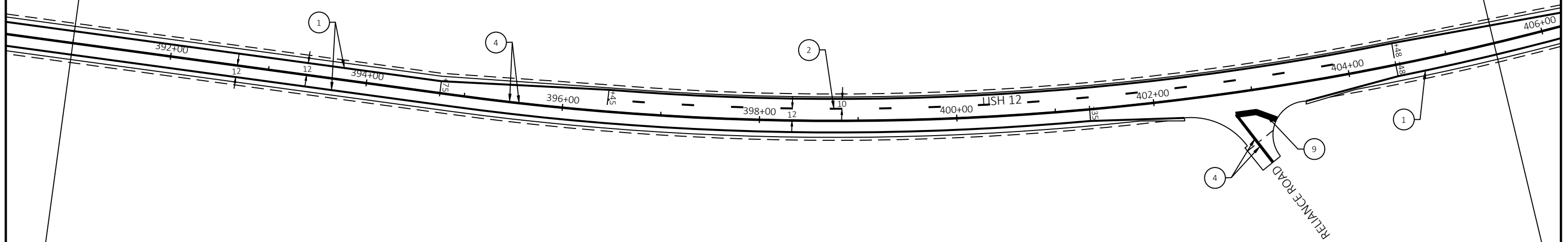
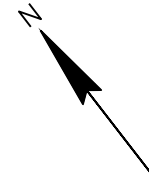


MATCH LINE 376+50

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET	E
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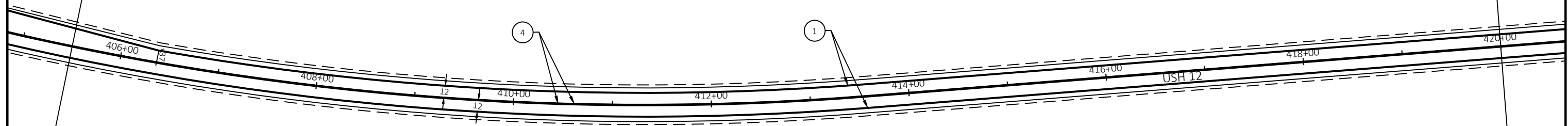
LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
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- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



LEGEND

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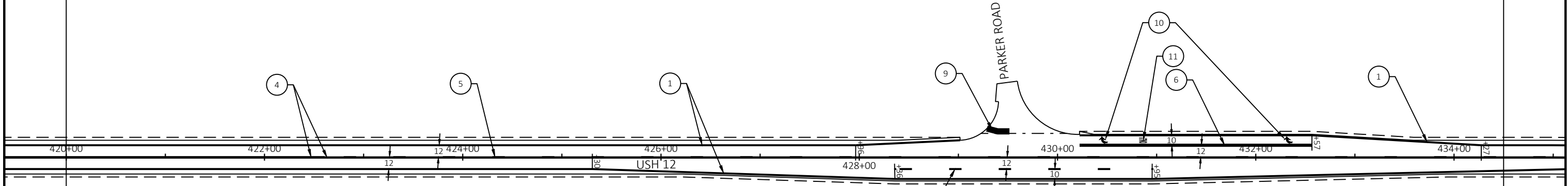
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- ⑧ MARKING DIAGONAL EPOXY 12-INCH
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- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 434+50



MATCH LINE 420+00

PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

PAVEMENT MARKING

SHEET

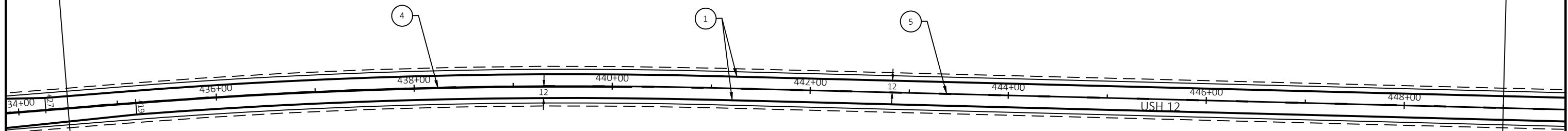
E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
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MATCH LINE 449+00

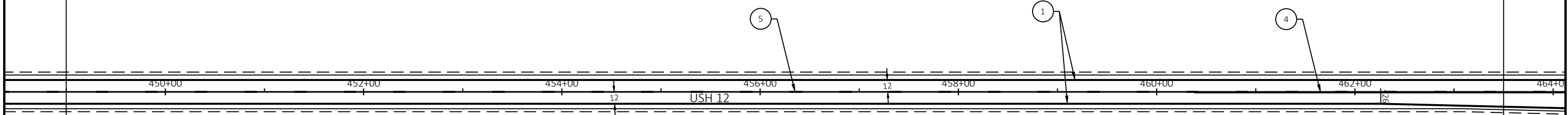


LEGEND

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MATCH LINE 463+50

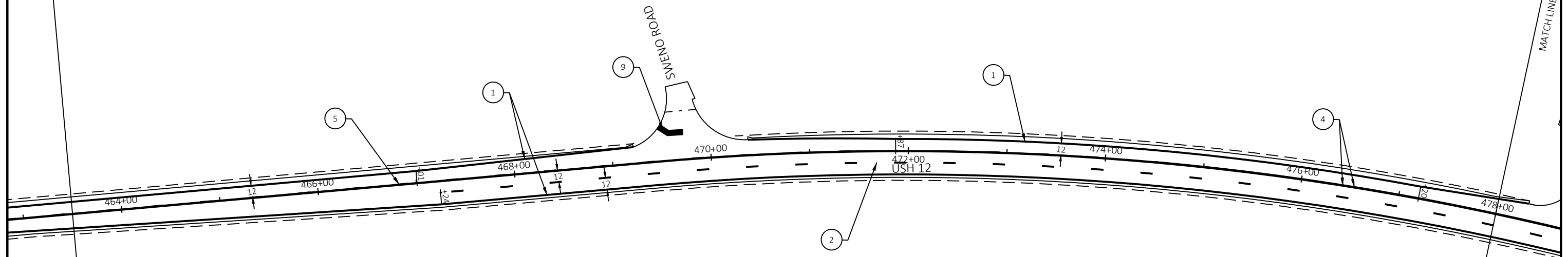


MATCH LINE 449+00

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET	E
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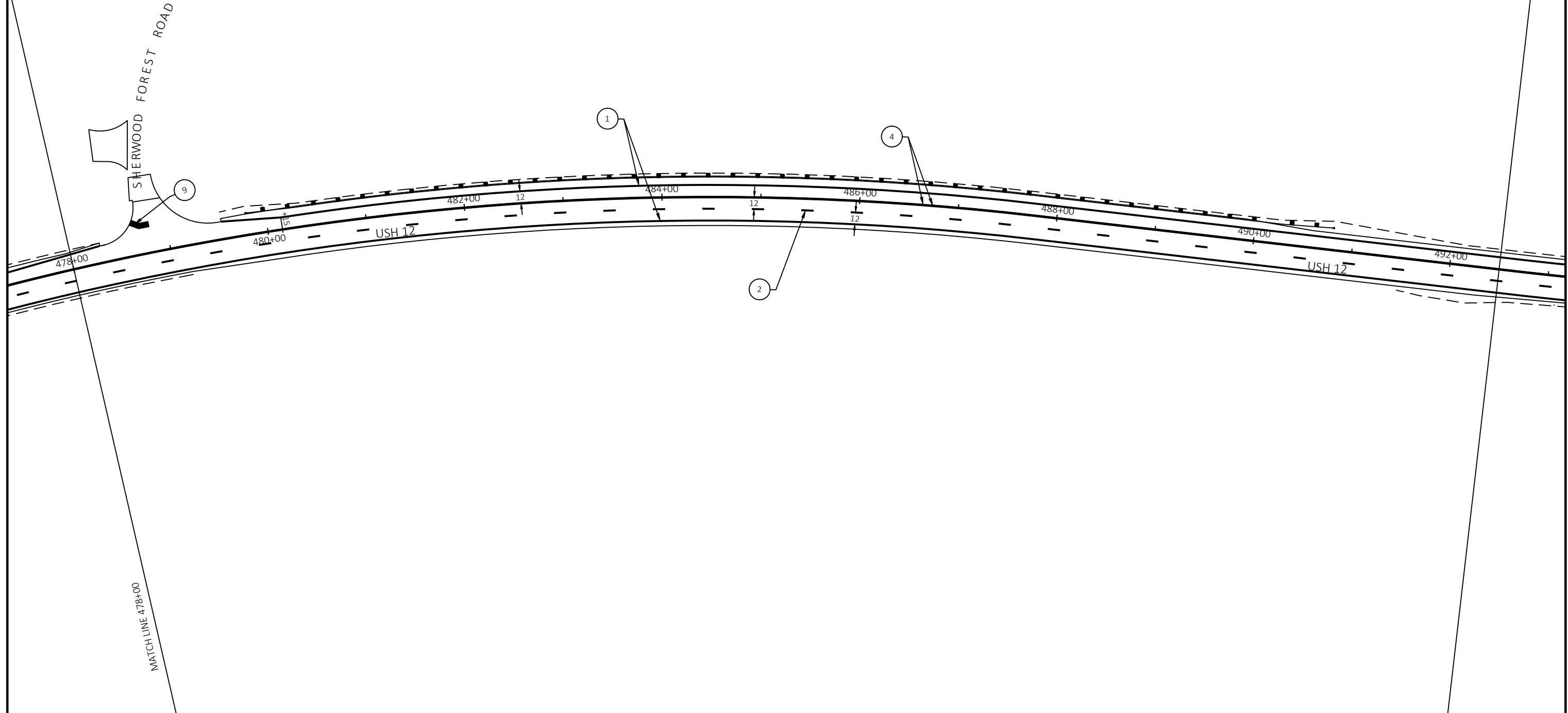
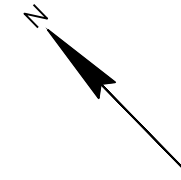
LEGEND

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PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

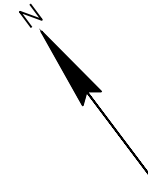
PAVEMENT MARKING

SHEET

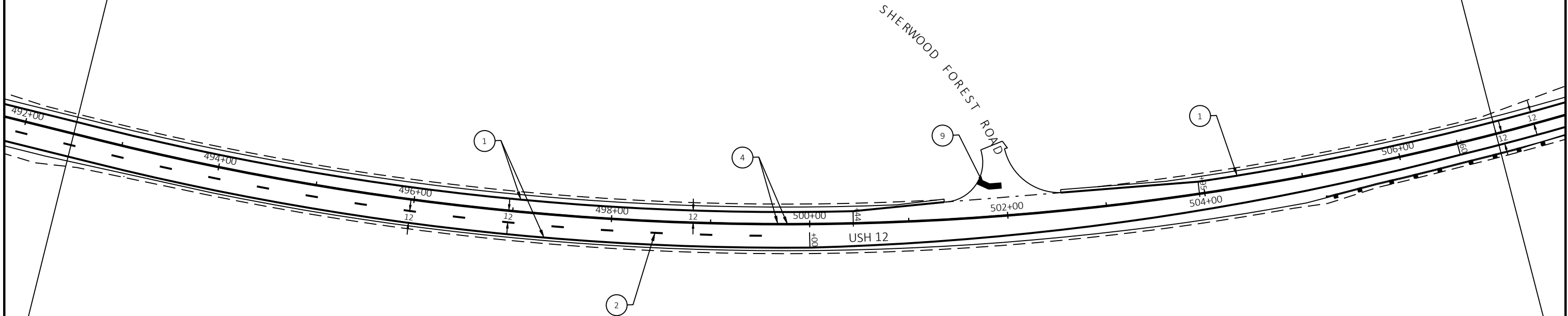
E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
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- ④ MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW
- ⑤ MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW (12.5' LINE, 37.5' GAP)
- ⑥ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE
- ⑦ MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
- ⑧ MARKING DIAGONAL EPOXY 12-INCH
- ⑨ MARKING STOP LINE EPOXY 18-INCH
- ⑩ MARKING ARROW EPOXY
- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 507+00

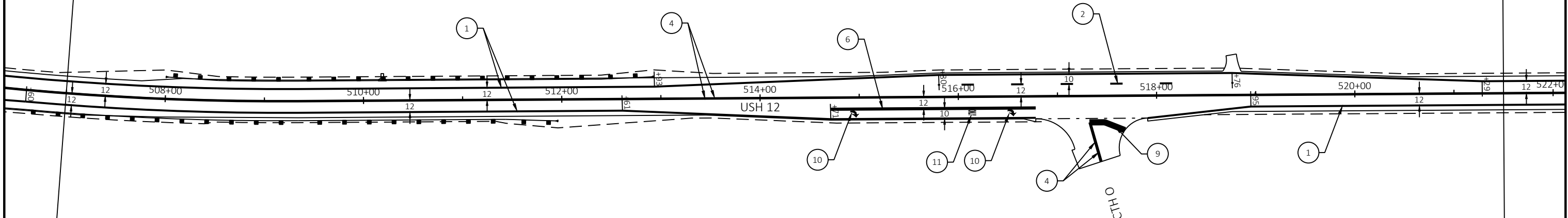


LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑩ MARKING ARROW EPOXY
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- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



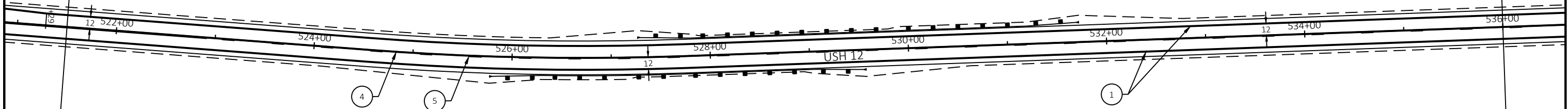
MATCH LINE 521+50



LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
- ③ MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (3' LINE, 9' GAP)
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- ⑨ MARKING STOP LINE EPOXY 18-INCH

- ⑩ MARKING ARROW EPOXY
- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY

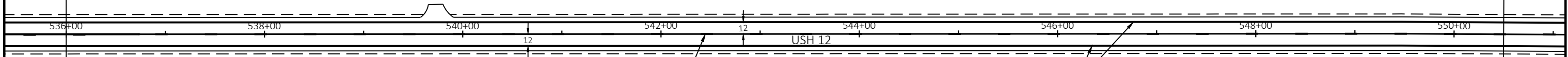


LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 550+50



5

1

MATCH LINE 536+00

PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

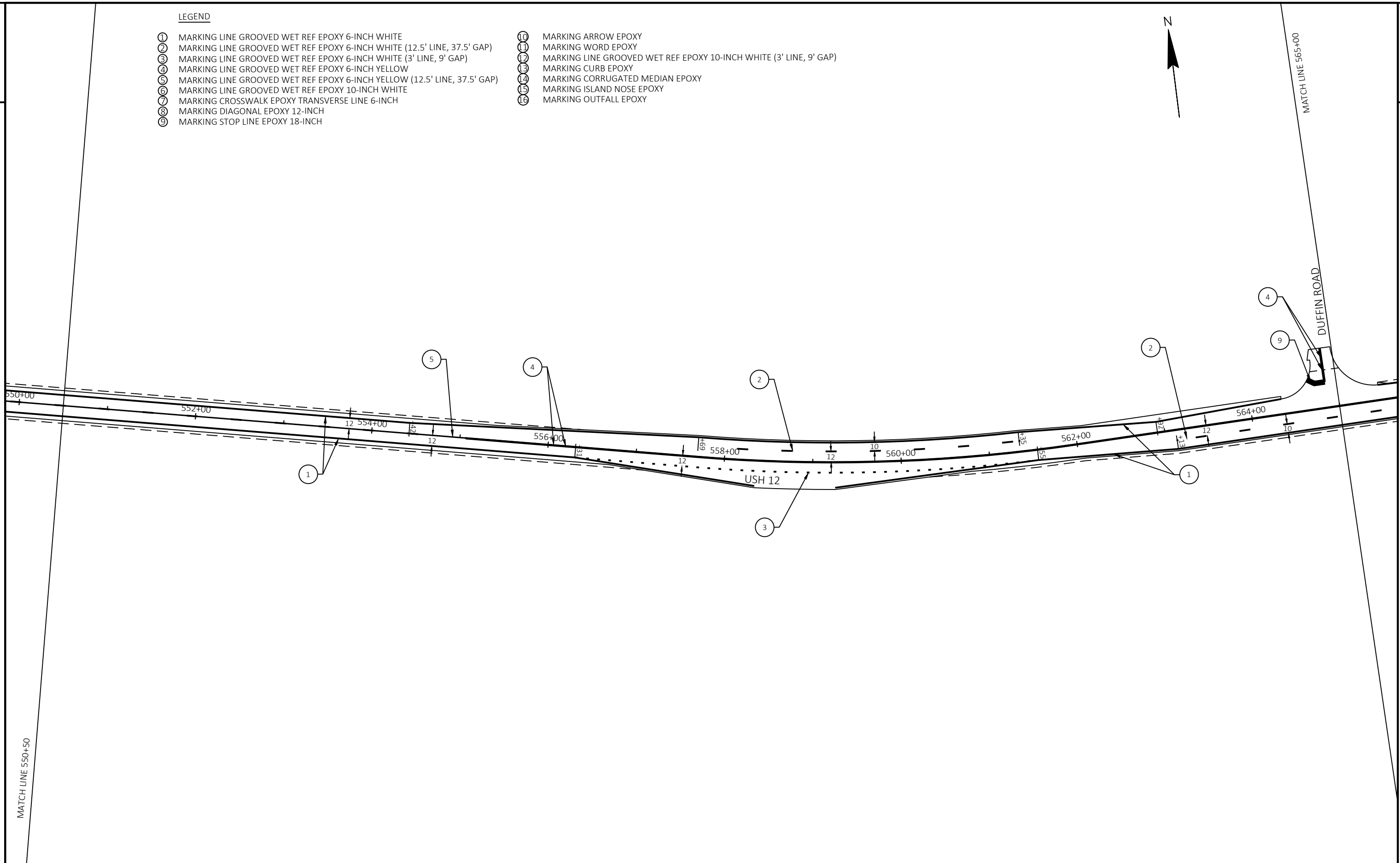
PAVEMENT MARKING

SHEET

E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑪ MARKING WORD EPOXY
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

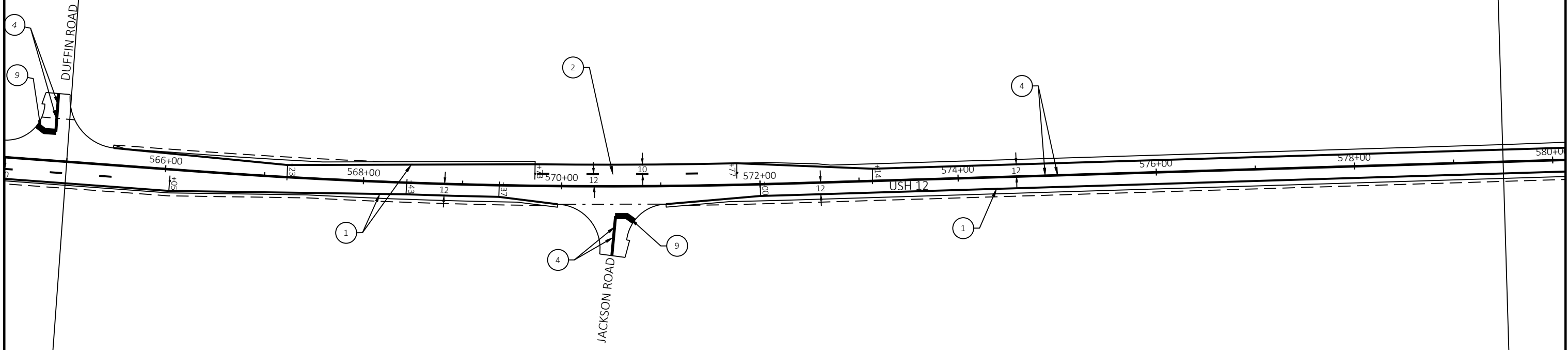
PAVEMENT MARKING

SHEET

E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY

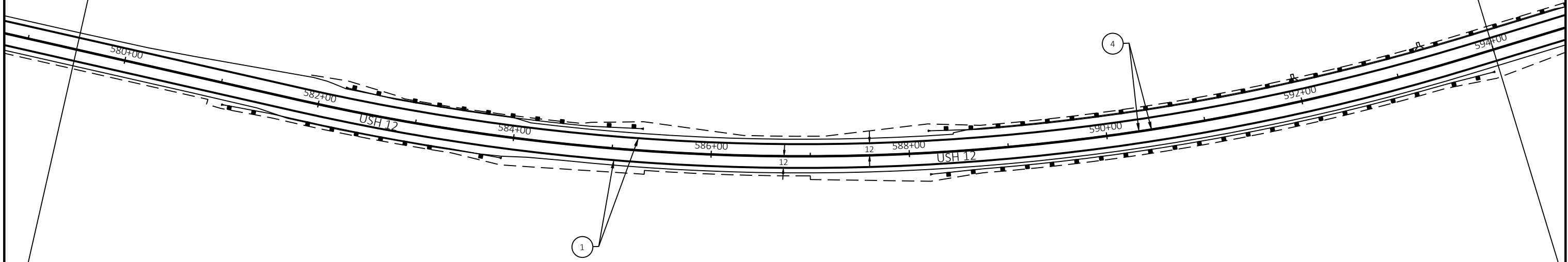


LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑯ MARKING OUTFALL EPOXY

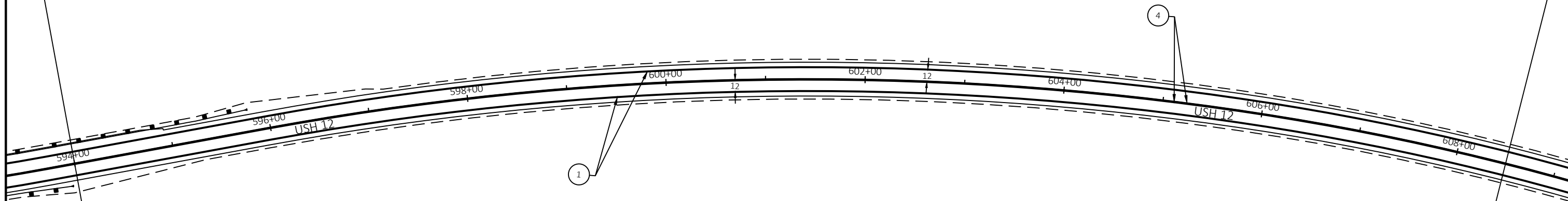


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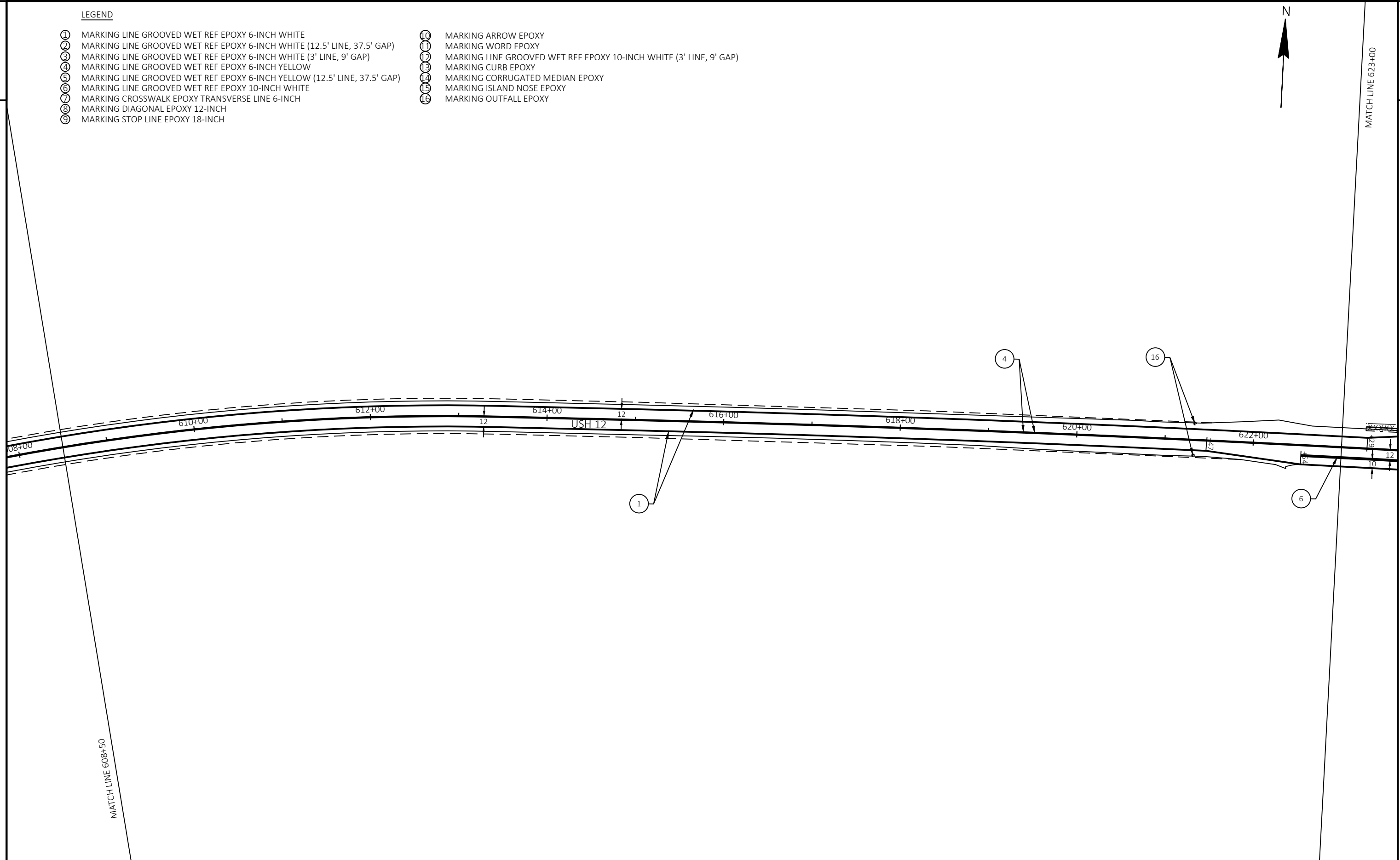
LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
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- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

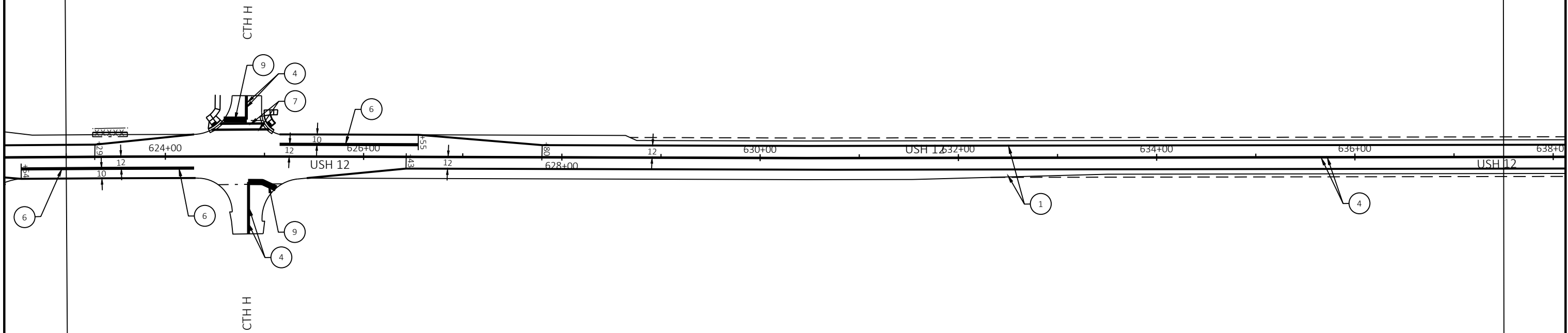
PAVEMENT MARKING

SHEET

E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY

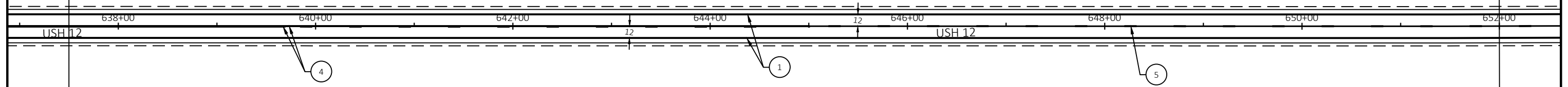


LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑪ MARKING WORD EPOXY
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 652+00



MATCH LINE 637+50

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET	E
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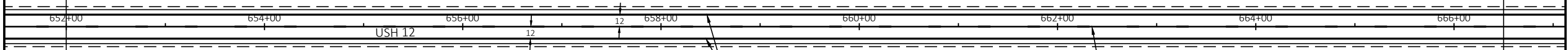
LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑩ MARKING ARROW EPOXY
- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY

N



MATCH LINE 666+50



MATCH LINE 652+00

PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

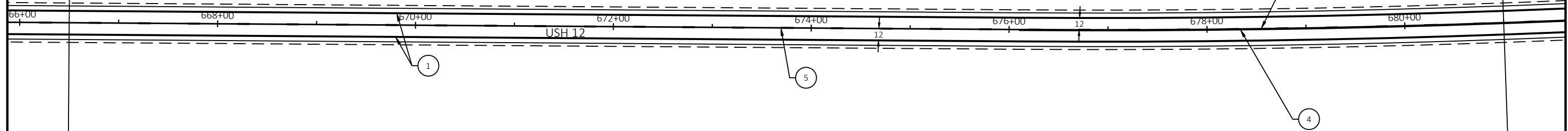
PAVEMENT MARKING

SHEET

E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
- ③ MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (3' LINE, 9' GAP)
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- ⑩ MARKING ARROW EPOXY
- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 666+50

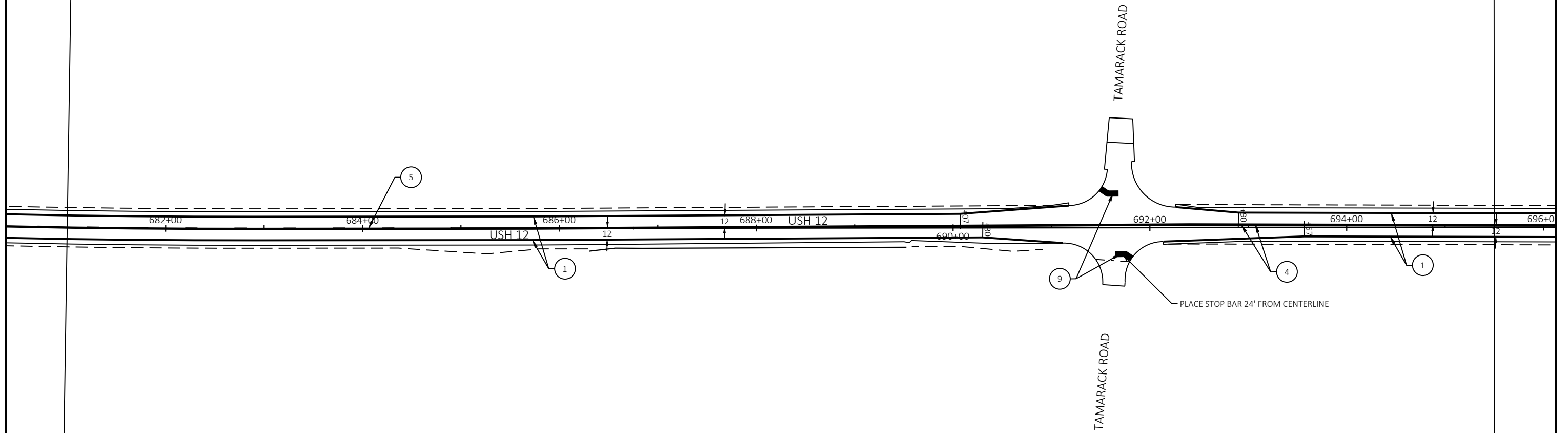
MATCH LINE 681+00

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
- ③ MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (3' LINE, 9' GAP)
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- ⑨ MARKING STOP LINE EPOXY 18-INCH
- ⑩ MARKING ARROW EPOXY
- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 695+50

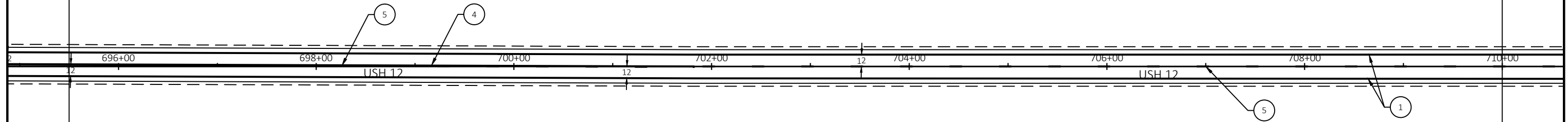


LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑪ MARKING WORD EPOXY
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 710+00



PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

PAVEMENT MARKING

SHEET

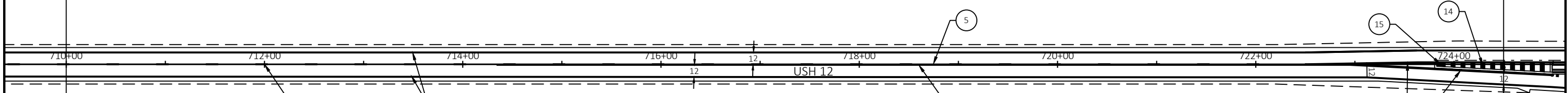
E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
- ② MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE (12.5' LINE, 37.5' GAP)
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- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



MATCH LINE 724+50



MATCH LINE 710+00

PROJECT NO: 3130-03-71

HWY: USH 12

COUNTY: WALWORTH

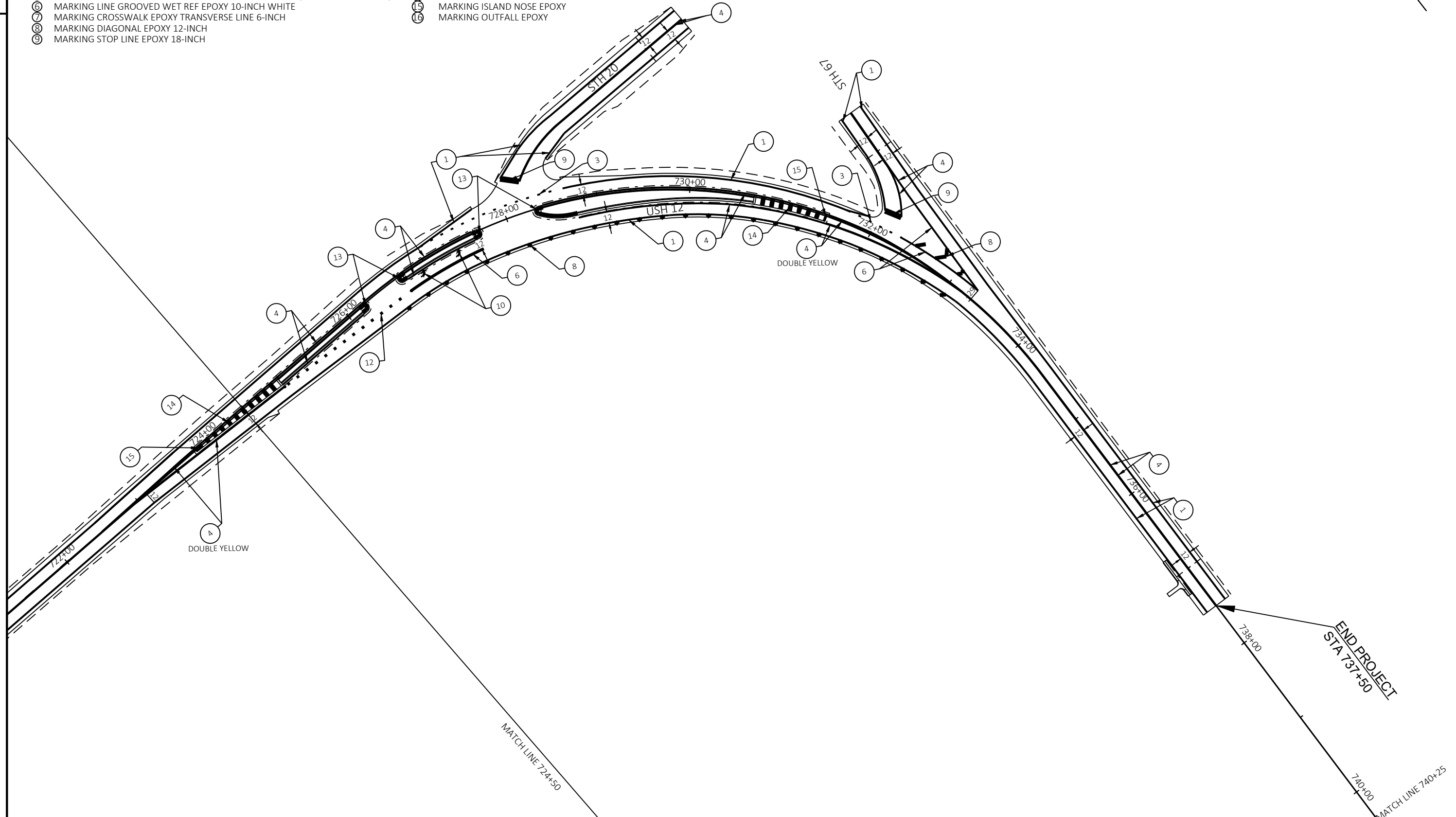
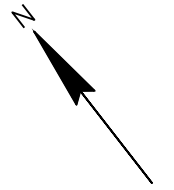
PAVEMENT MARKING

SHEET

E

LEGEND

- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE
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- ⑪ MARKING WORD EPOXY
- ⑫ MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE (3' LINE, 9' GAP)
- ⑬ MARKING CURB EPOXY
- ⑭ MARKING CORRUGATED MEDIAN EPOXY
- ⑮ MARKING ISLAND NOSE EPOXY
- ⑯ MARKING OUTFALL EPOXY



PROJECT NO: 3130-03-71

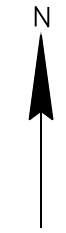
HWY: USH 12

COUNTY: WALWORTH

PAVEMENT MARKING

SHEET

E



FULL CLOSURE WITH LOCAL ACCESS AND DETOUR. SEE SDD FOR "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B. FLAGGING DURING CONSTRUCTION OPERATIONS FOR LOCAL TRAFFIC.

SEE SDD FOR "DETOUR SIGNING FOR MAINLINE CLOSURES" DETAIL F.

FLAGGING AND SHOULDER CLOSURES DURING CONSTRUCTION OPERATIONS FOR TRAFFIC SIGNAL WORK. SEE SDD FOR "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY".

FULL CLOSURE WITH NO ACCESS. SEE SDD FOR "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL C. CULVERT REPLACEMENT WORK TO BE STAGGERED TO MAINTAIN LOCAL ACCESS TO PROPERTIES BETWEEN THE CULVERTS.

SEE SDD FOR "DETOUR SIGNING FOR MAINLINE CLOSURES" DETAIL F.

USH 12 & STH 20/67 INTERSECTIONS TO BE STAGED. SEE ADDITIONAL SHEET(S) FOR DETAIL.

FULL CLOSURE WITH LOCAL ACCESS AND DETOUR. SEE SDD FOR "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A. FLAGGING DURING CONSTRUCTION OPERATIONS FOR LOCAL TRAFFIC.



INSTALL M3-4 AND M1-4 OVER ALL W20-3A

ALL SIDEROADS OTHER THAN CTH H TO BE CLOSED AT US 12 IN ACCORDANCE WITH SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4.

SEE SDD FOR "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 3.

SEE SDD FOR "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR STORM SEWER WORK.

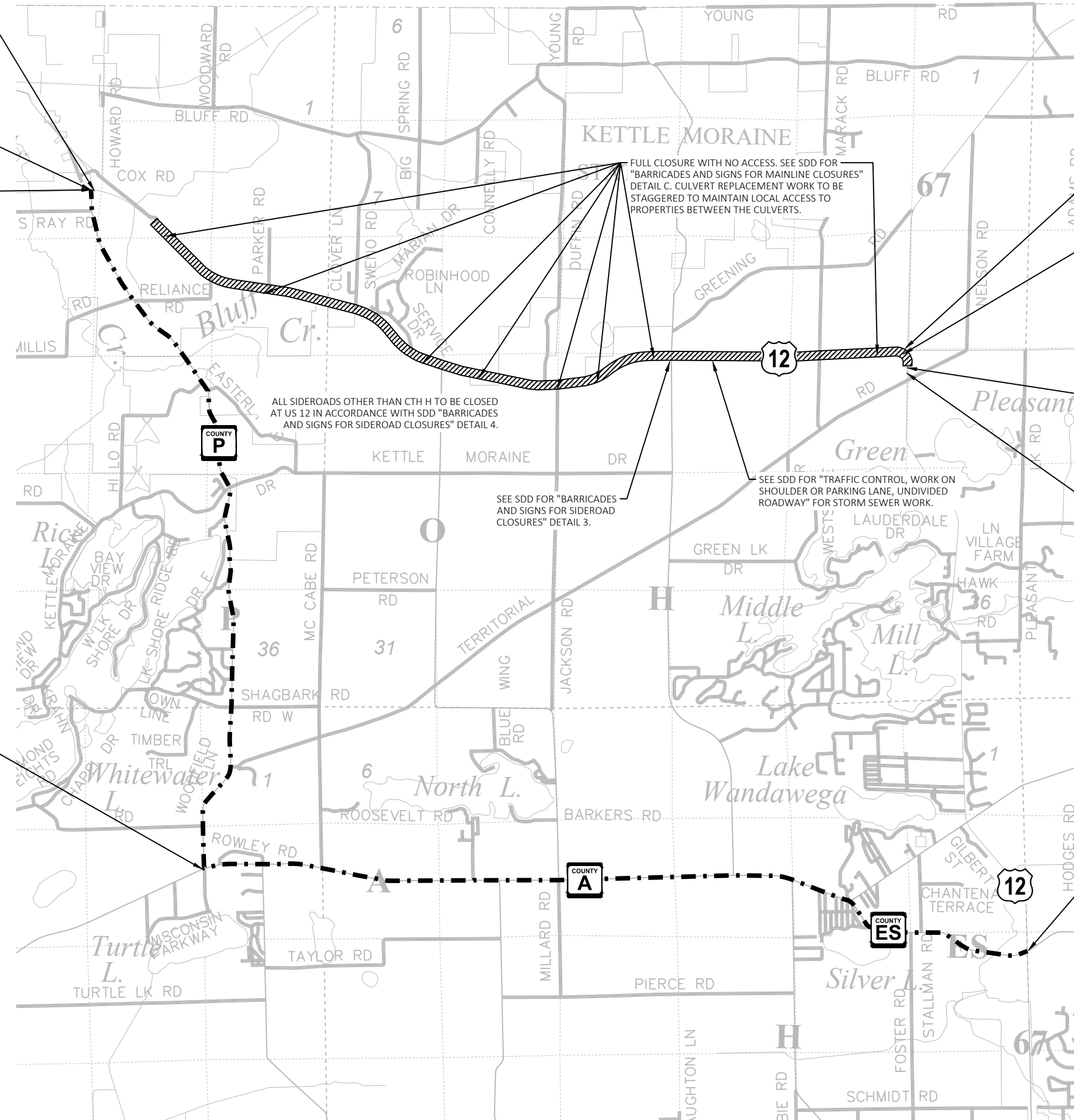
SEE SDD FOR "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" AND SDD FOR "ADVANCED WIDTH RESTRICTION SIGNING".

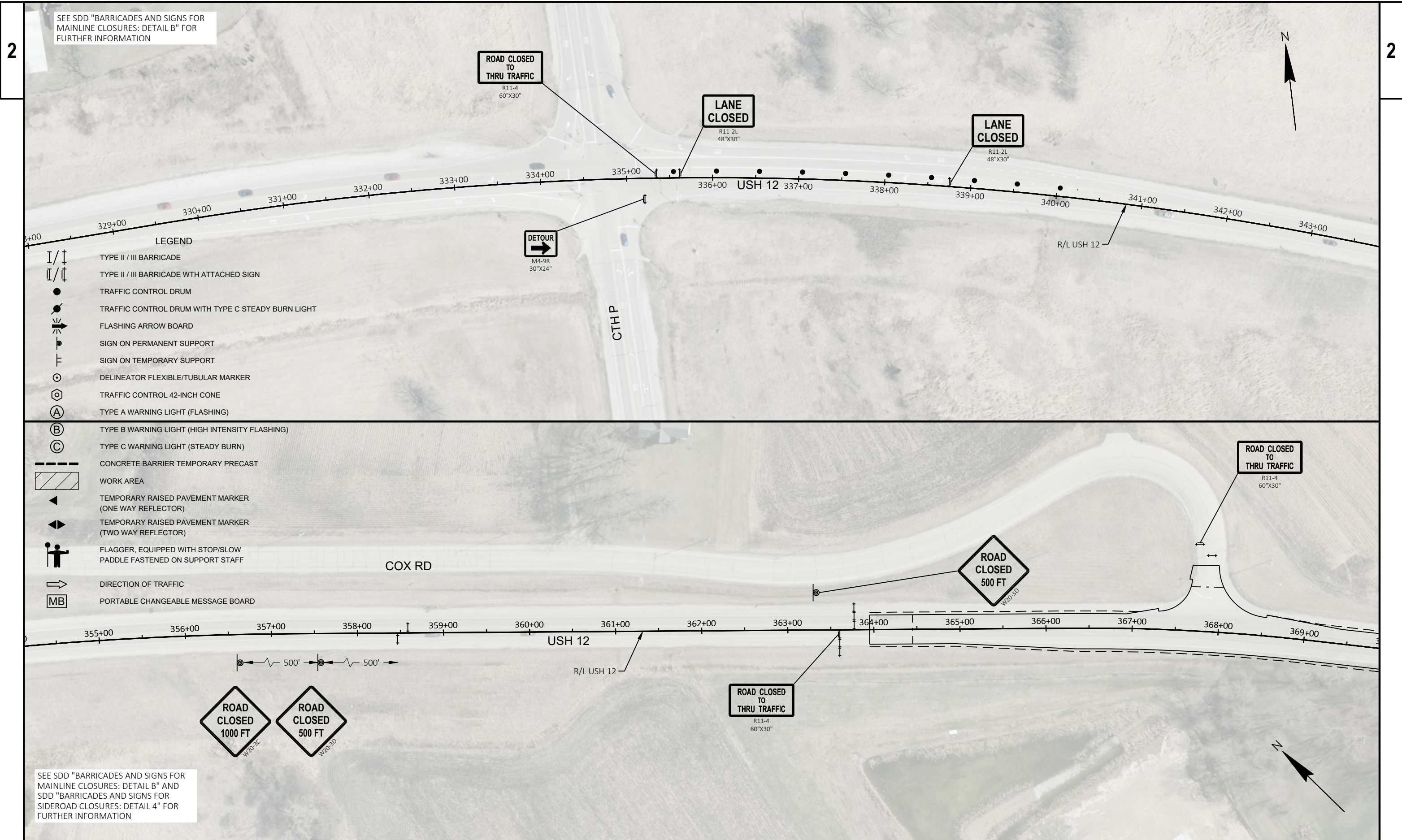
SEE SDD FOR "DETOUR SIGNING FOR MAINLINE CLOSURES" DETAIL F.

TRAFFIC CONTROL NOTES

1. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
2. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
4. ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.
5. 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.
6. AT ALL BEAM GUARD LOCATIONS, SEE SDD FOR "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR BOTH SIDES AND "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION".

SEE SDD FOR "DETOUR SIGNING FOR MAINLINE CLOSURES" DETAIL F.

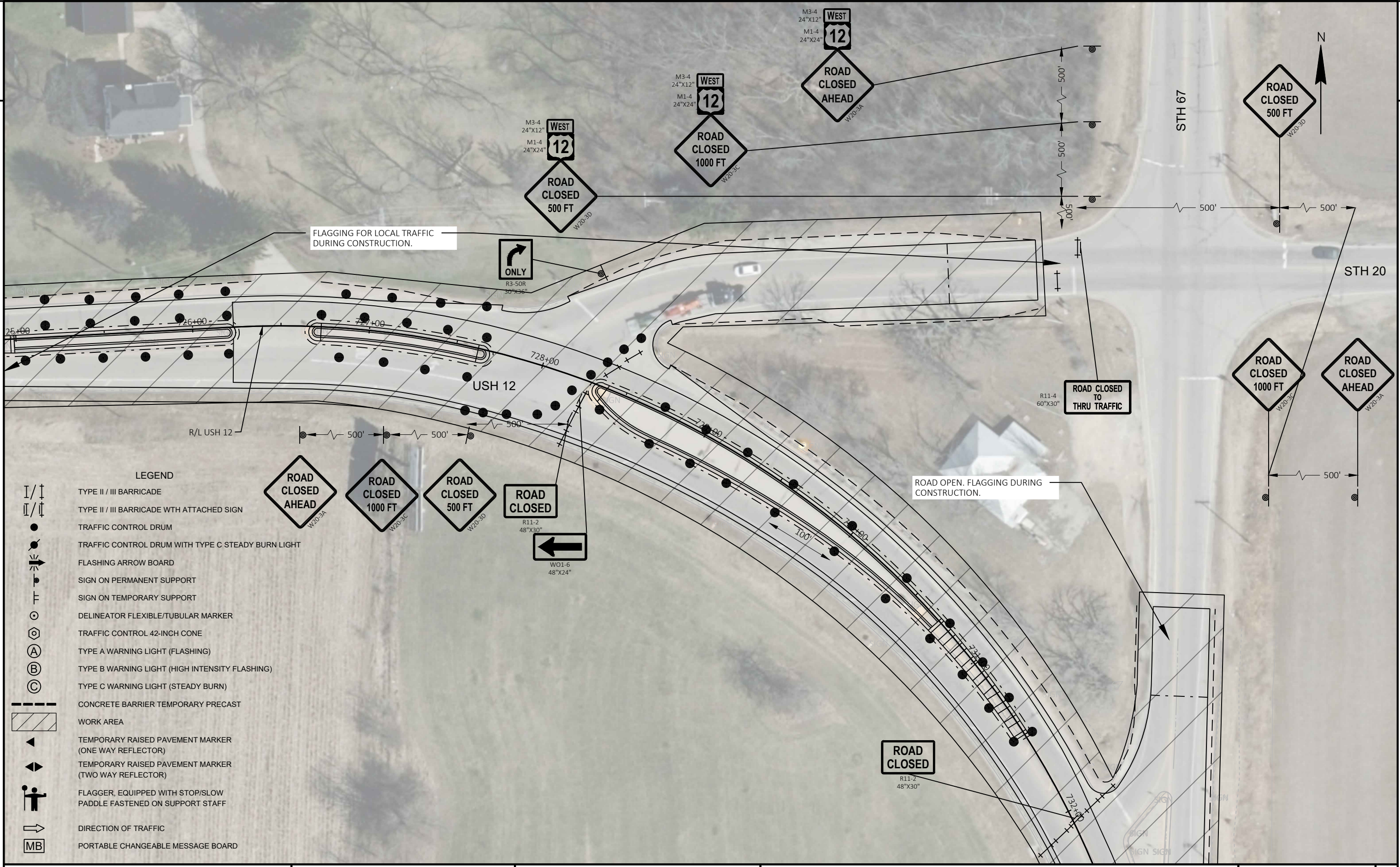




SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES: DETAIL B" FOR FURTHER INFORMATION

- LEGEND**
- TYPE II / III BARRICADE
 - TYPE II / III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - SIGN ON TEMPORARY SUPPORT
 - DELINEATOR FLEXIBLE/TUBULAR MARKER
 - TRAFFIC CONTROL 42-INCH CONE
 - TYPE A WARNING LIGHT (FLASHING)
 - TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
 - TYPE C WARNING LIGHT (STEADY BURN)
 - CONCRETE BARRIER TEMPORARY PRECAST
 - WORK AREA
 - TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
 - TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
 - FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
 - DIRECTION OF TRAFFIC
 - PORTABLE CHANGEABLE MESSAGE BOARD

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES: DETAIL B" AND SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES: DETAIL 4" FOR FURTHER INFORMATION





LEGEND

- I/I TYPE II / III BARRICADE
- I/I/I TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ⊥ SIGN ON PERMANENT SUPPORT
- ⊥ SIGN ON TEMPORARY SUPPORT
- ⊙ DELINEATOR FLEXIBLE/TUBULAR MARKER
- ⊙ TRAFFIC CONTROL 42-INCH CONE
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- ▨ WORK AREA
- ▲ TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- ◄► TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- 🚧 FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- ➡ DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD



LEGEND

-  TYPE II / III BARRICADE
-  TYPE II / III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  DELINEATOR FLEXIBLE/TUBULAR MARKER
-  TRAFFIC CONTROL 42-INCH CONE
-  TYPE A WARNING LIGHT (FLASHING)
-  TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
-  TYPE C WARNING LIGHT (STEADY BURN)
-  CONCRETE BARRIER TEMPORARY PRECAST
-  WORK AREA
-  TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
-  TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
-  DIRECTION OF TRAFFIC
-  PORTABLE CHANGEABLE MESSAGE BOARD

FLAGGING FOR LOCAL TRAFFIC DURING CONSTRUCTION.

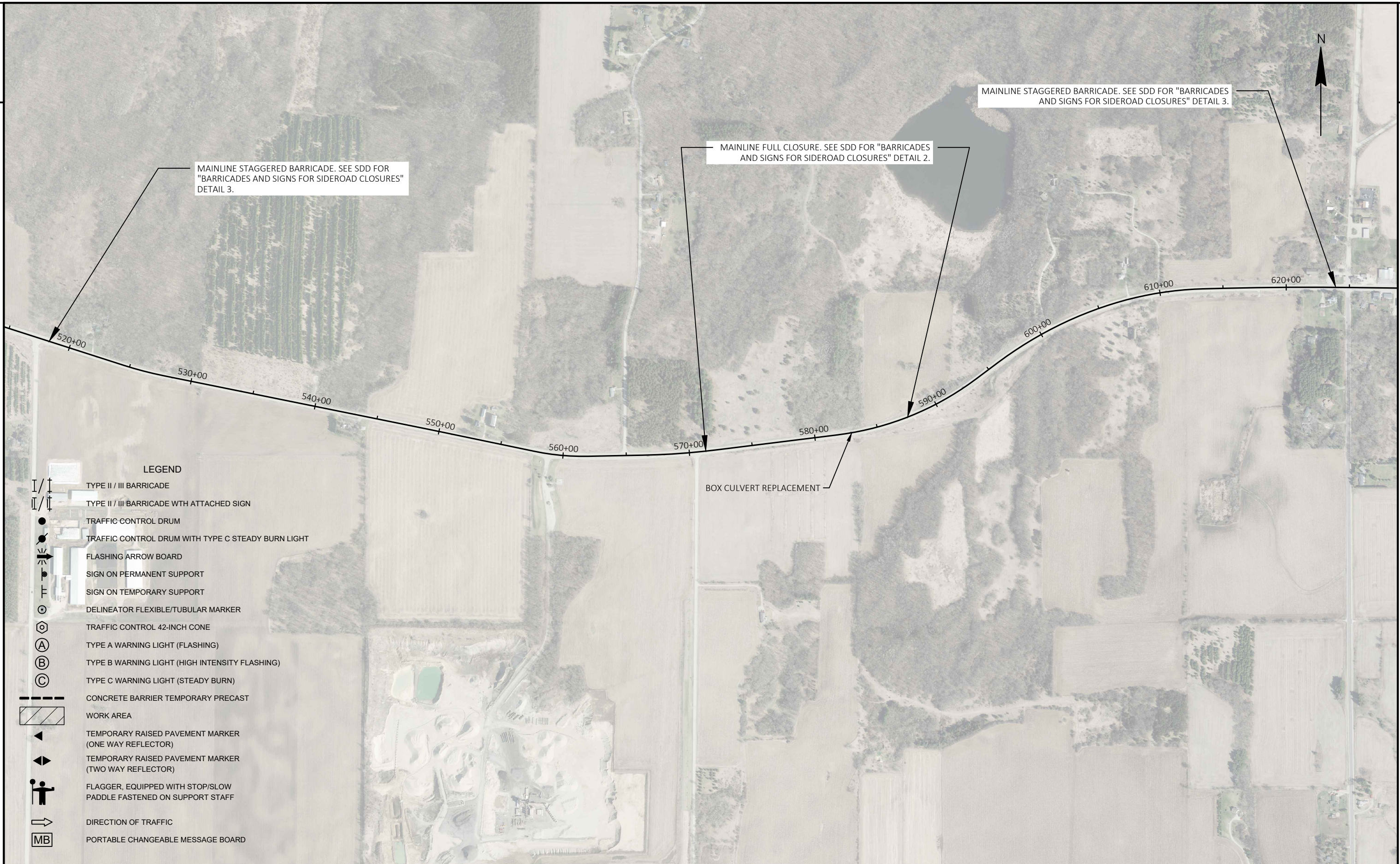
LANE CLOSED
R11-2L
48"X30"

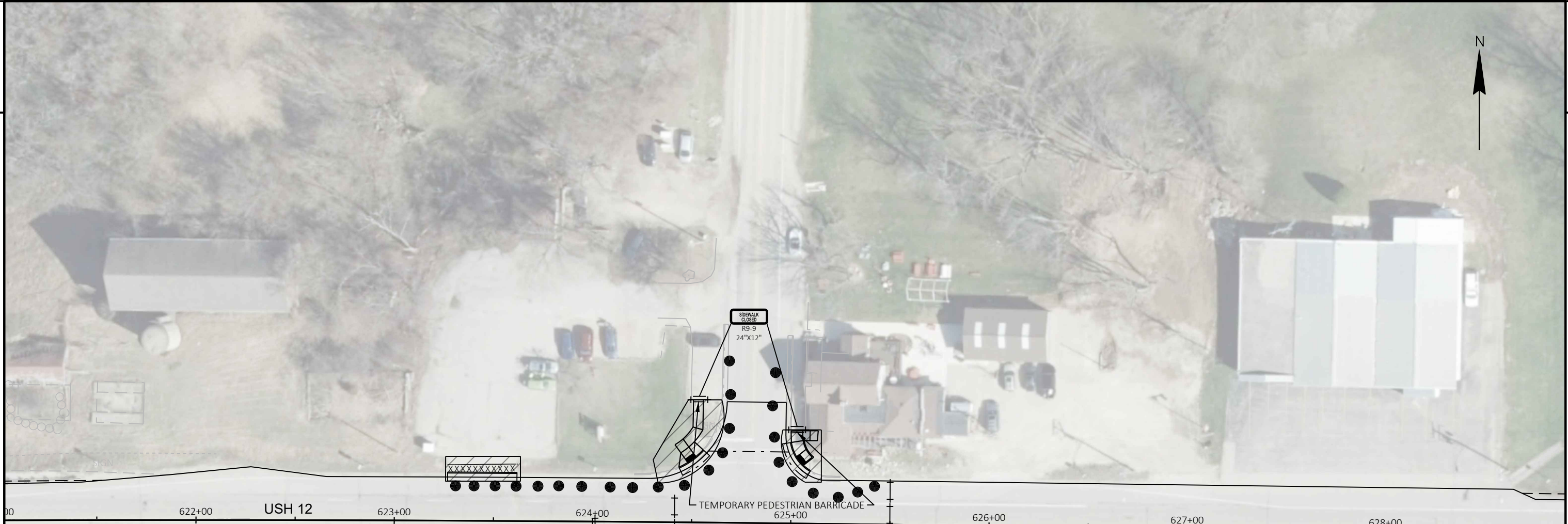
ROAD CLOSED
R11-2
48"X30"

M3-4
24"X12"
WEST
12
ROAD CLOSED
500 FT
W20-3D

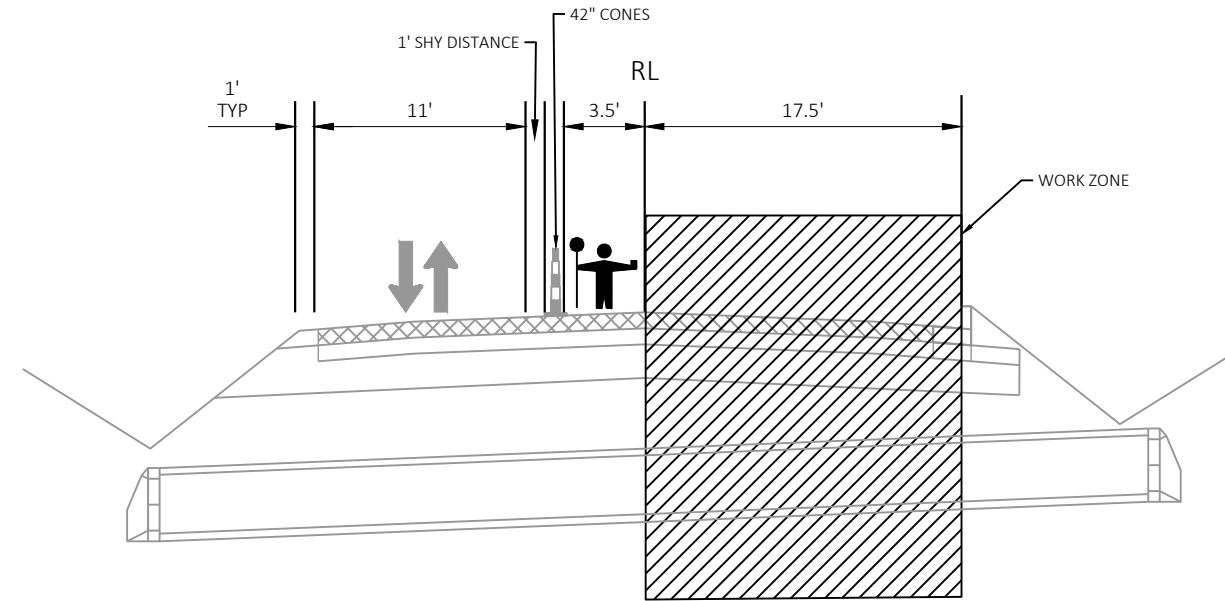
M3-4
24"X12"
WEST
12
ROAD CLOSED
1000 FT
W20-3C

M3-4
24"X12"
WEST
12
ROAD CLOSED
AHEAD
W20-3A

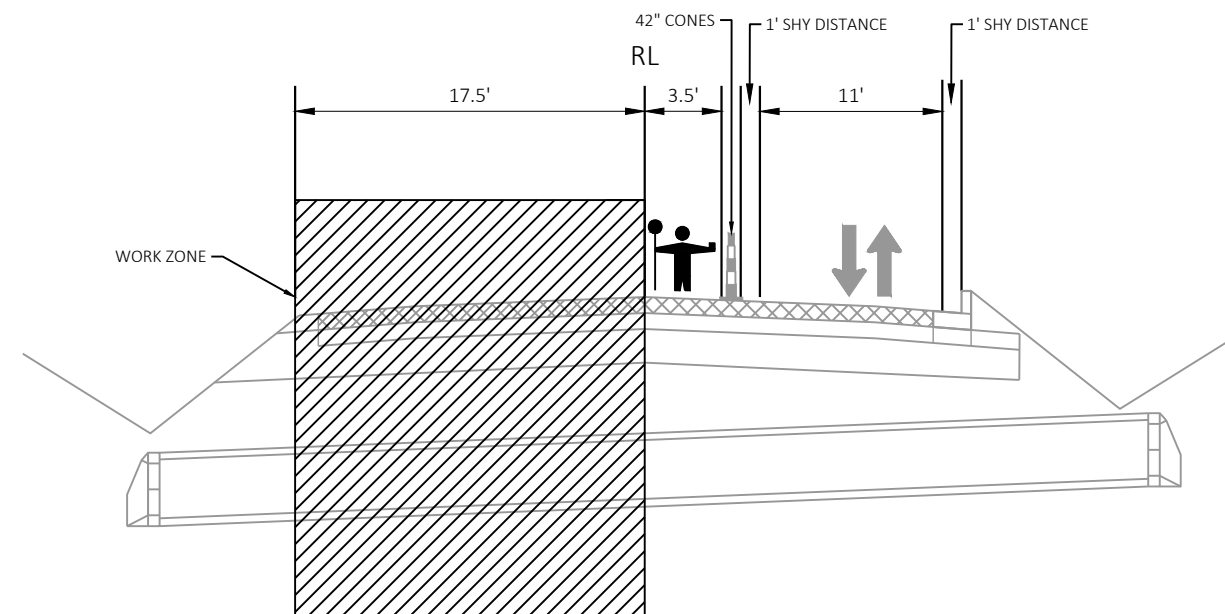




PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	TRAFFIC CONTROL DETAIL: CTH H INTERSECTION	SHEET	E
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STAGE 1






















STAGE 2

NOTE: SEE SDD "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES" AND "ADVANCED WIDTH RESTRICTION SIGNING"



LEGEND

-  TYPE II / III BARRICADE
-  TYPE II / III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  DELINEATOR FLEXIBLE/TUBULAR MARKER
-  TRAFFIC CONTROL 42-INCH CONE
-  TYPE A WARNING LIGHT (FLASHING)
-  TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
-  TYPE C WARNING LIGHT (STEADY BURN)
-  CONCRETE BARRIER TEMPORARY PRECAST
-  WORK AREA
-  TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
-  TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
-  DIRECTION OF TRAFFIC
-  PORTABLE CHANGEABLE MESSAGE BOARD



SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

LANE TO REMAIN OPEN AT ALL TIMES. WORK TO BE COMPLETED FROM BEHIND CURB AND GUTTER. FLAGGING REQUIRED FOR RIGHT TURN TRAFFIC

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"x30"

LANE TO BE CLOSED FOR CONSTRUCTION ACCESS DURING LIVE WORK.

LANE CLOSED
R11-2L
48"x30"

LANE CLOSED
R11-2L
48"x30"

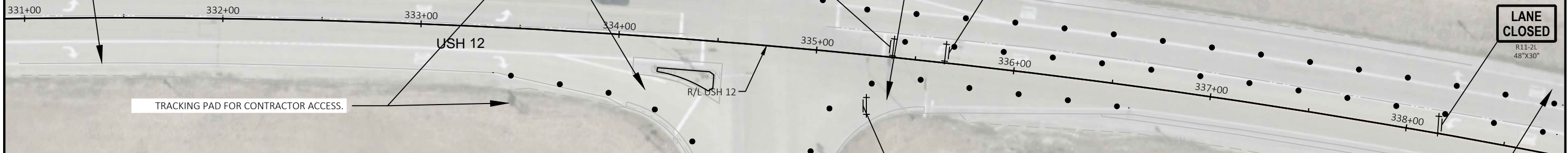
TRACKING PAD FOR CONTRACTOR ACCESS.

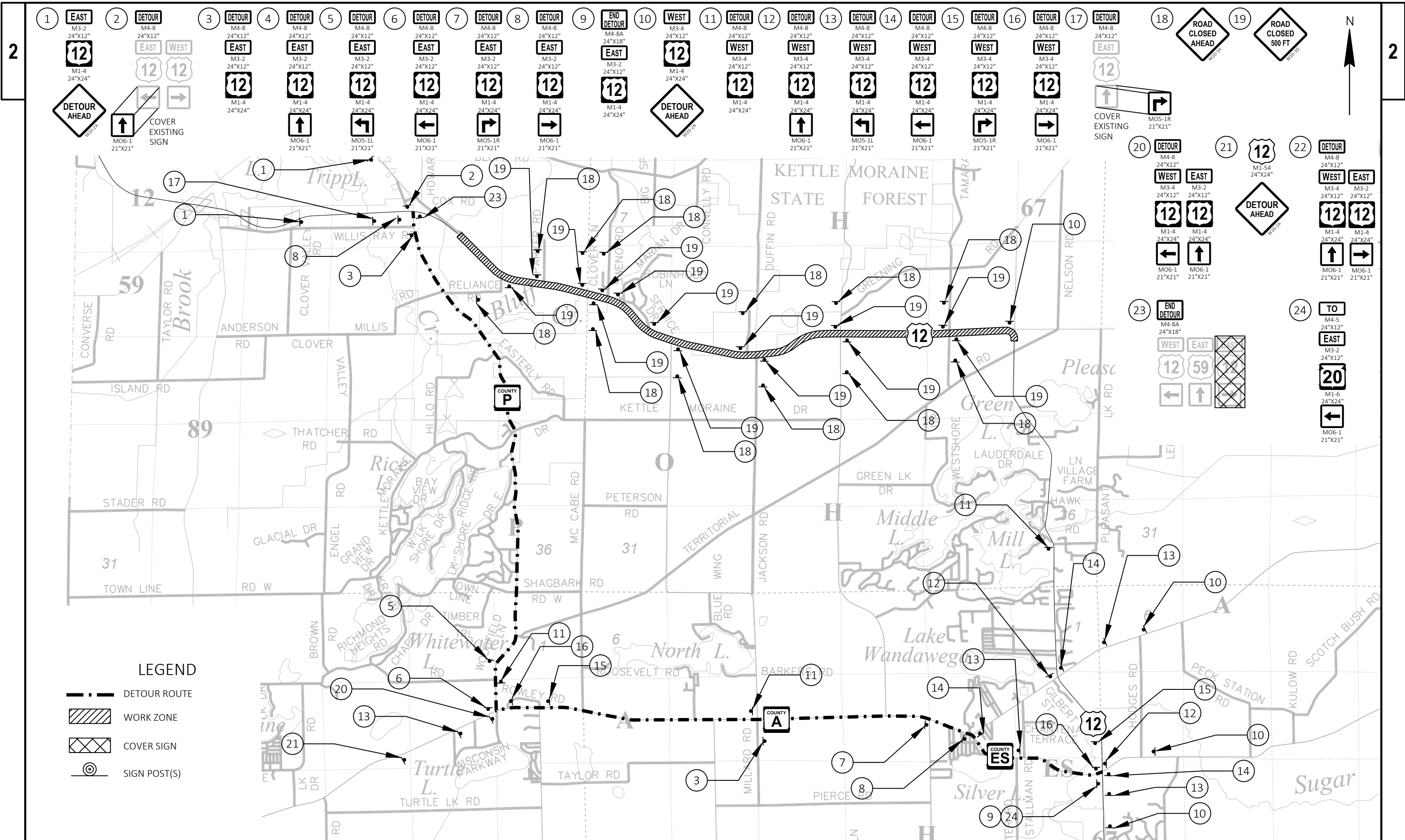
DETOUR
M4-9R
30"x24"

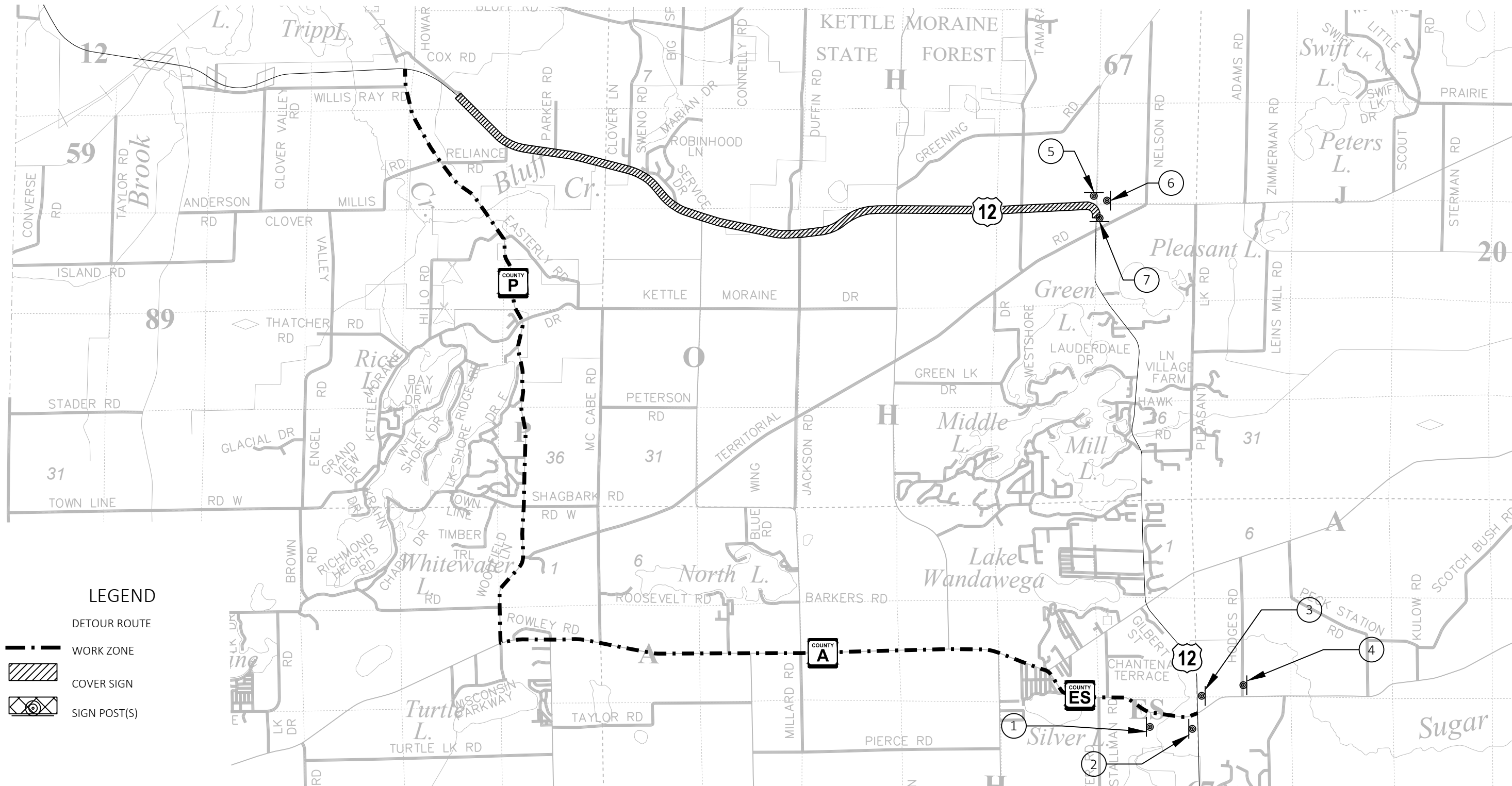
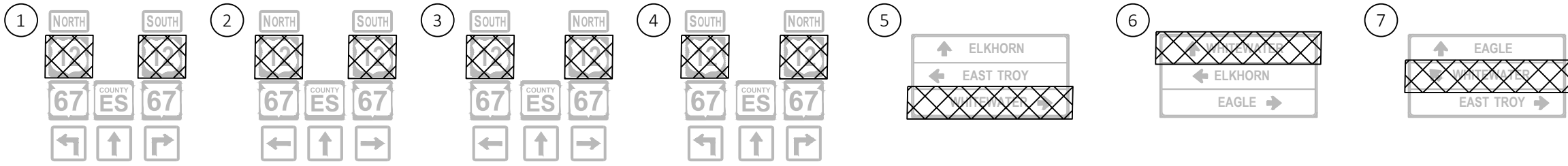
SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

LEGEND

- I/I TYPE II / III BARRICADE
- I/I TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ➔ FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- ┆ SIGN ON TEMPORARY SUPPORT
- ⊙ DELINEATOR FLEXIBLE/TUBULAR MARKER
- ⊙ TRAFFIC CONTROL 42-INCH CONE
- (A) TYPE A WARNING LIGHT (FLASHING)
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- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- ▨ WORK AREA
- ◀ TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- ◄ TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- 🚧 FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- ➔ DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD





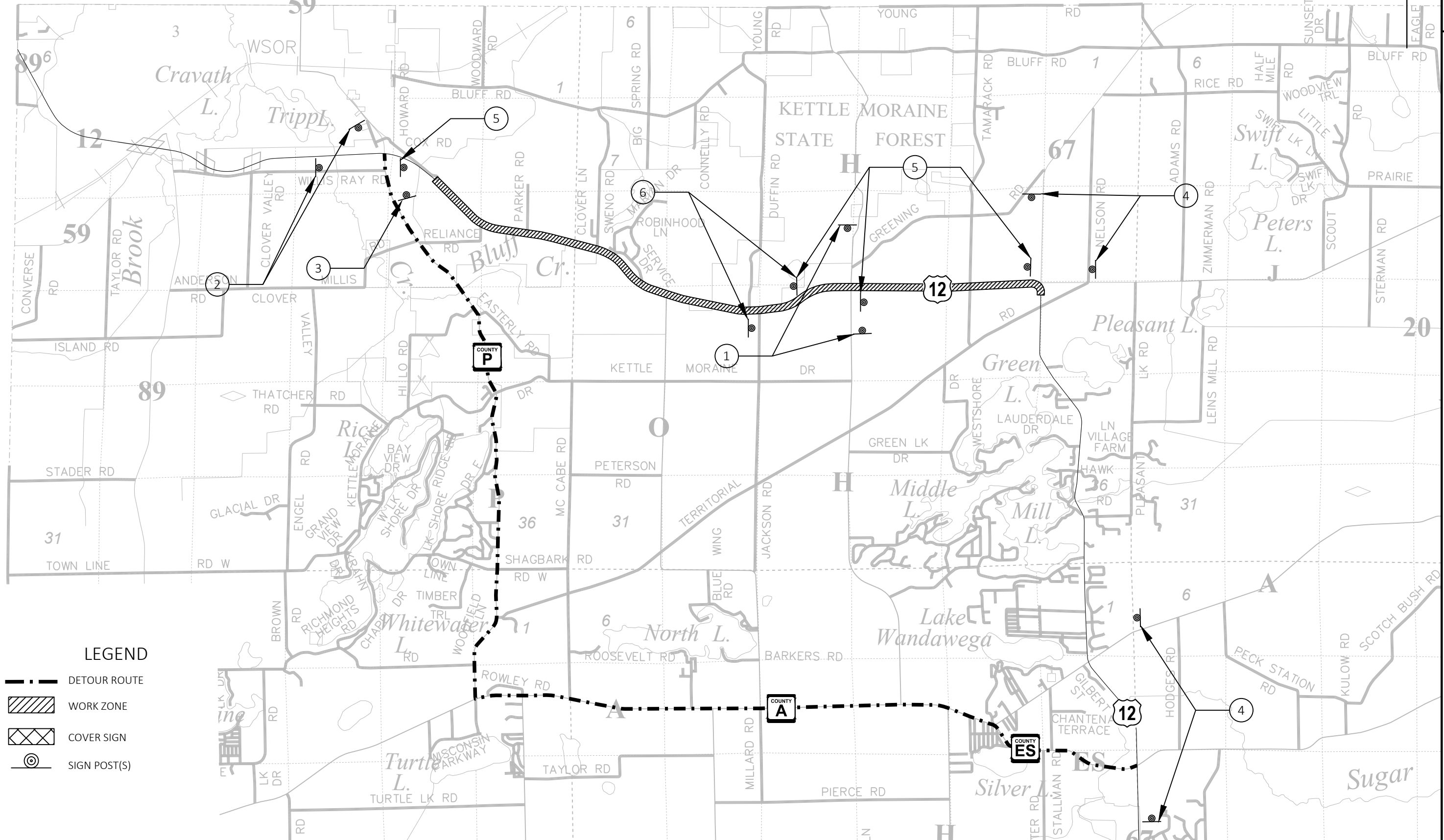


LEGEND

- DETOUR ROUTE
- WORK ZONE
- COVER SIGN
- SIGN POST(S)

1 FMS HWY 12 CLOSED AHEAD USE ALT ROUTE
 2 FMS HWY 12 EAST CLOSED AHEAD FOLLOW DETOUR
 3 FMS HWY 12 EAST CLOSED AHEAD USE ALT ROUTE
 4 FMS HWY 12 WEST CLOSED AHEAD FOLLOW DETOUR
 5 PCMS HWY 12 TO CLOSE LONGTERM DAY TIME
 6 PCMS HWY 12 NO ACCESS DAY TIME

NOTE: 7 DAYS ADVANCE NOTICE

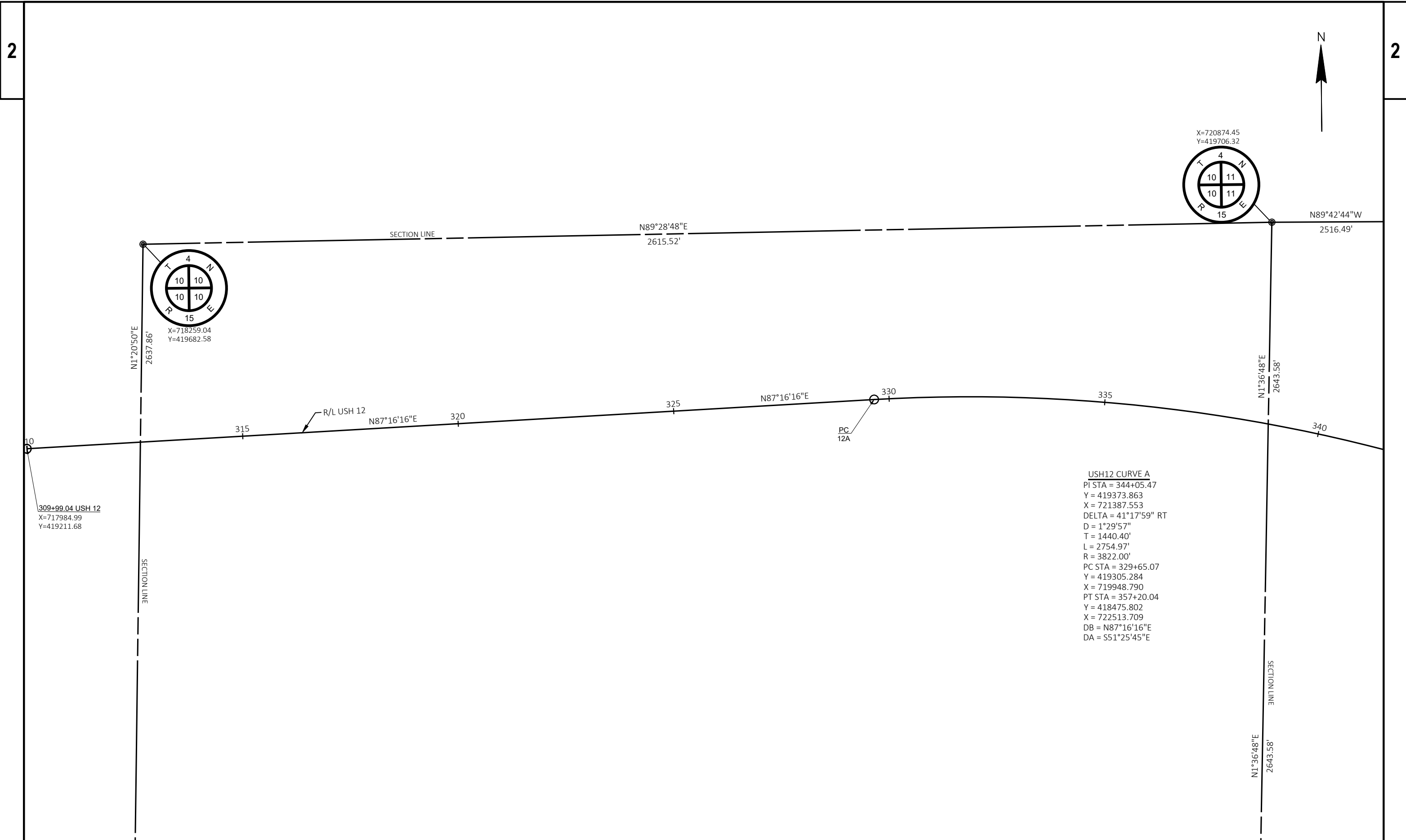


LEGEND

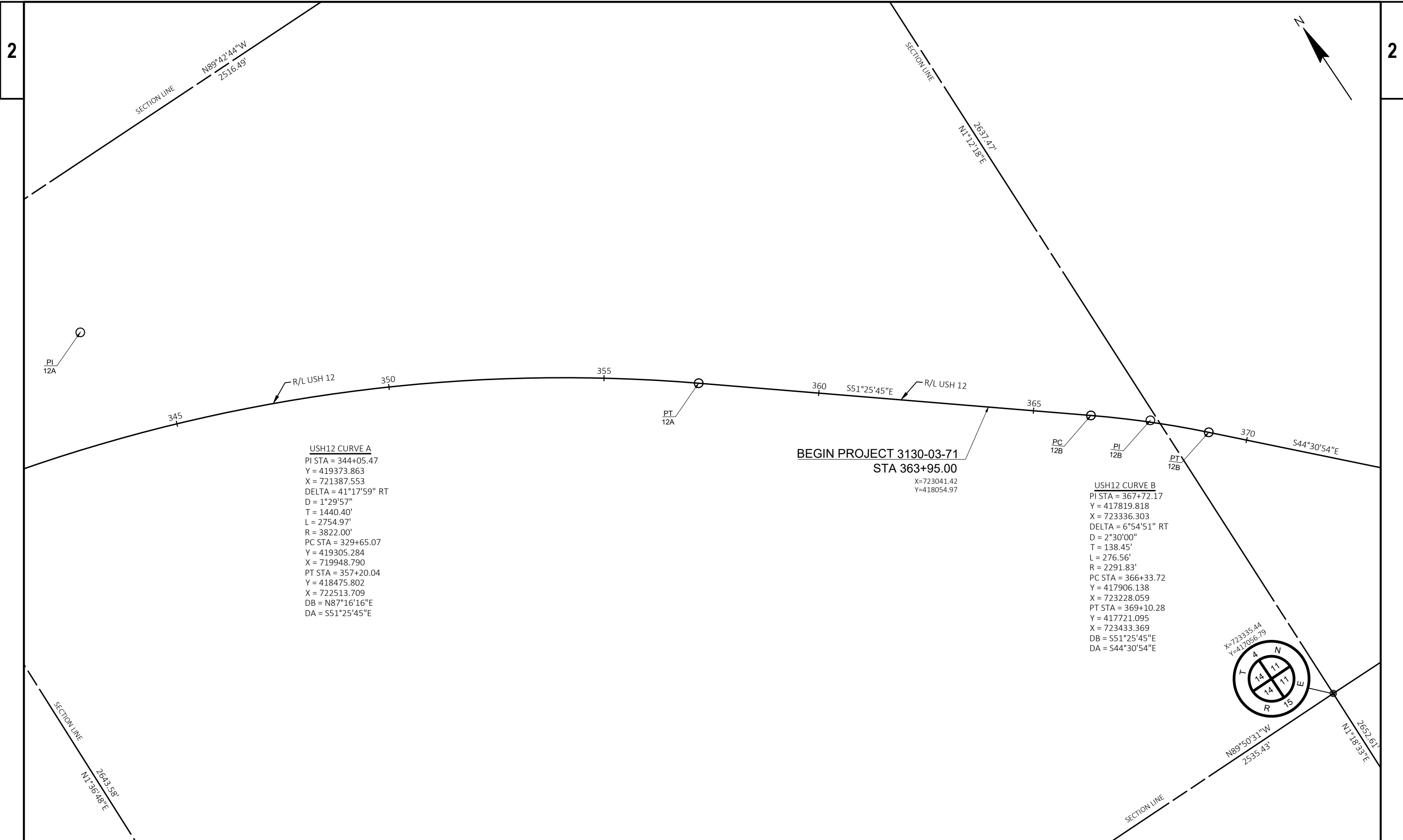
- DETOUR ROUTE
- WORK ZONE
- COVER SIGN
- SIGN POST(S)

PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH DETOUR PLAN: FMS AND PCMS SHEET: **E**

FILE NAME: L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\027003_DT.DWG PLOT DATE: 6/28/2024 11:04 AM PLOT BY: TONY BUBLITZ PLOT NAME: PLOT SCALE: 1 IN=1 MI WISDOT/CADD SHEET 42



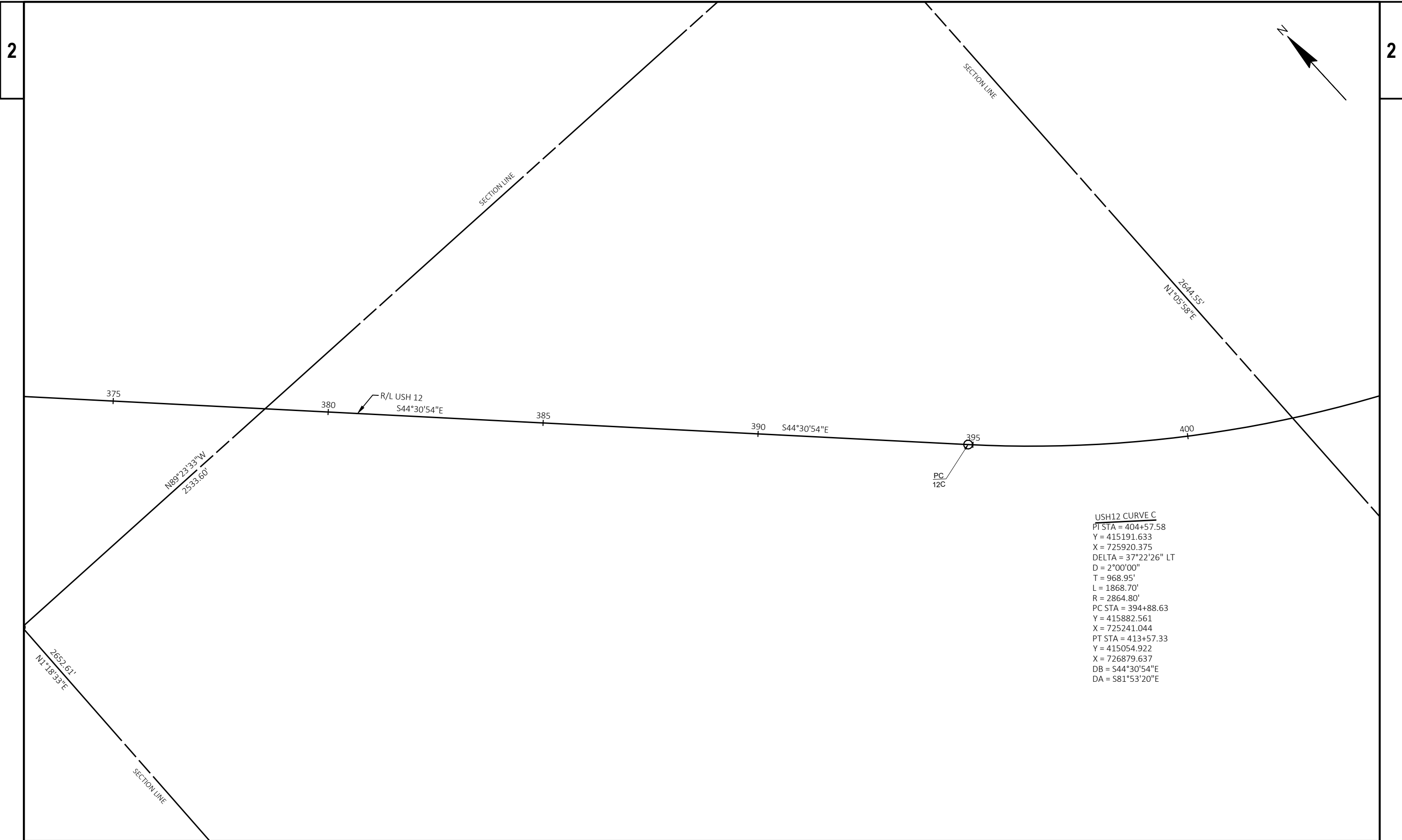
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	ALIGNMENT LAYOUT	SHEET	E
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USH12 CURVE A
 PI STA = 344+05.47
 Y = 419373.863
 X = 721387.553
 DELTA = 41°17'59" RT
 D = 1°29'57"
 T = 1440.40'
 L = 2754.97'
 R = 3822.00'
 PC STA = 329+65.07
 Y = 419305.284
 X = 719948.790
 PT STA = 357+20.04
 Y = 418475.802
 X = 722513.709
 DB = N87°16'16"E
 DA = S51°25'45"E

BEGIN PROJECT 3130-03-71
STA 363+95.00
 X=723041.42
 Y=418054.97

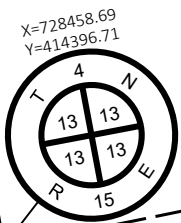
USH12 CURVE B
 PI STA = 367+72.17
 Y = 417819.818
 X = 723336.303
 DELTA = 6°54'51" RT
 D = 2°30'00"
 T = 138.45'
 L = 276.56'
 R = 2291.83'
 PC STA = 366+33.72
 Y = 417906.138
 X = 723228.059
 PT STA = 369+10.28
 Y = 417721.095
 X = 723433.369
 DB = S51°25'45"E
 DA = S44°30'54"E

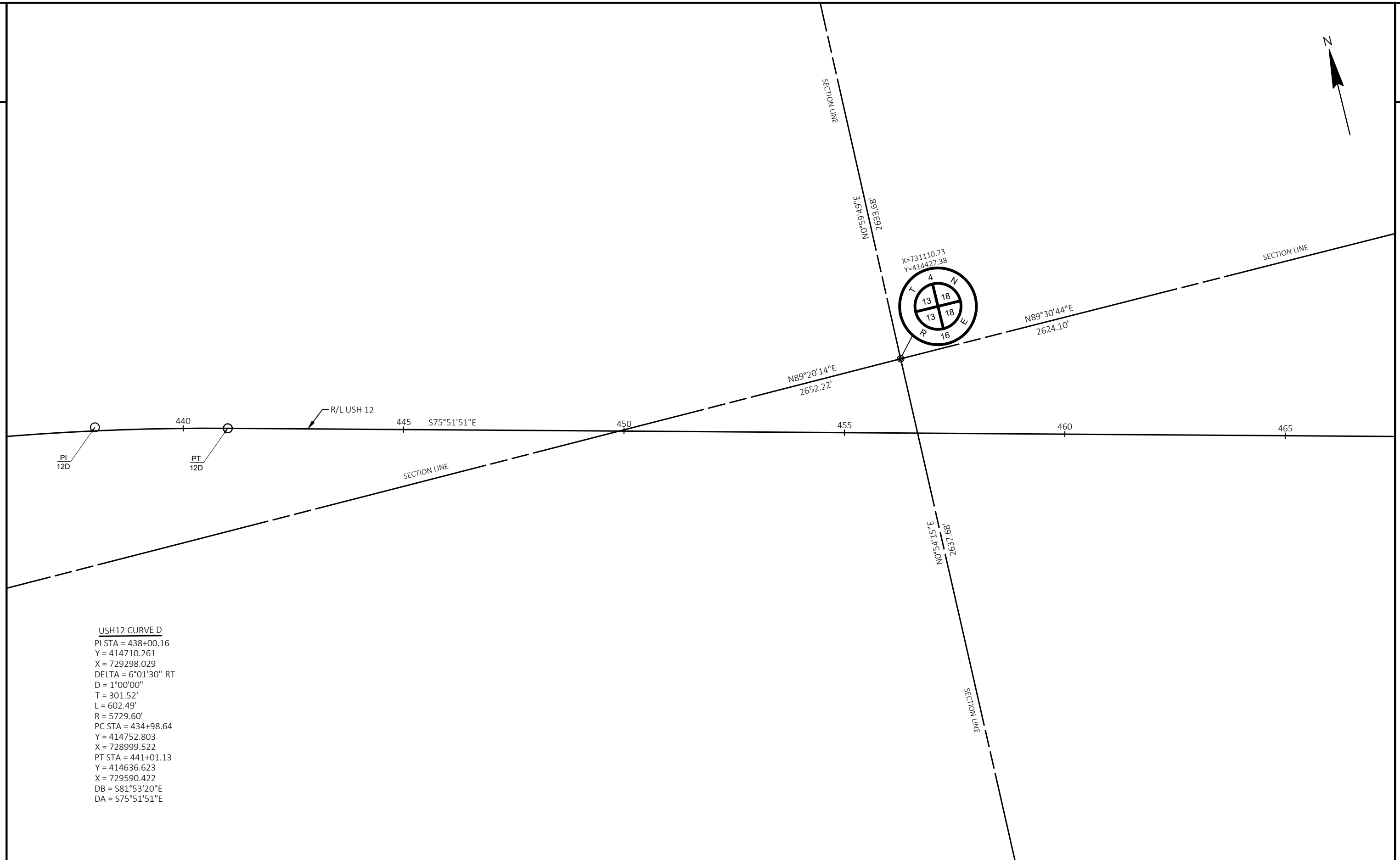


USH12 CURVE C
 PT STA = 404+57.58
 Y = 415191.633
 X = 725920.375
 DELTA = 37°22'26" LT
 D = 2°00'00"
 T = 968.95'
 L = 1868.70'
 R = 2864.80'
 PC STA = 394+88.63
 Y = 415882.561
 X = 725241.044
 PT STA = 413+57.33
 Y = 415054.922
 X = 726879.637
 DB = S44°30'54"E
 DA = S81°53'20"E



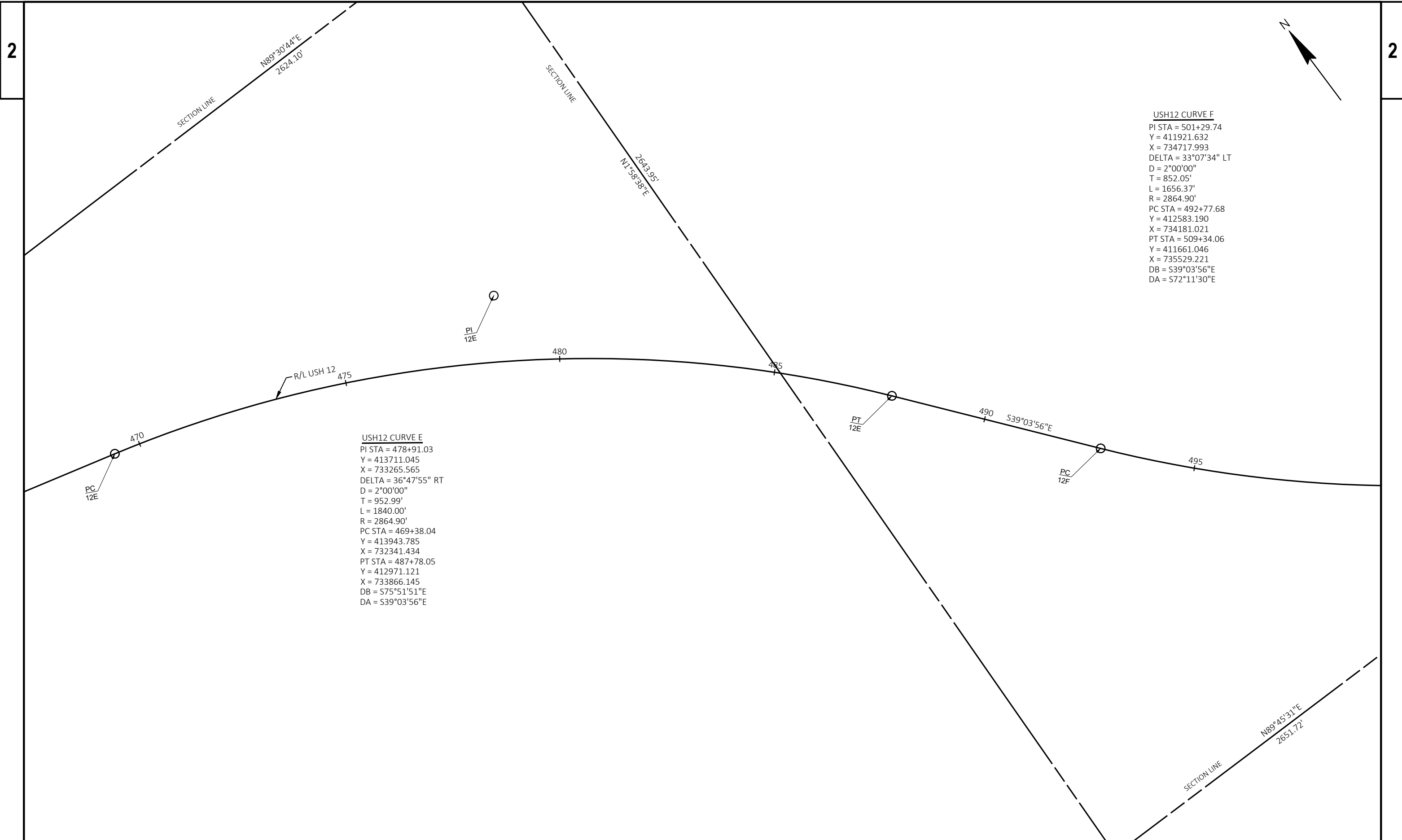
USH12 CURVE C
 PT STA = 404+57.58
 Y = 415191.633
 X = 725920.375
 DELTA = 37°22'26" LT
 D = 2°00'00"
 T = 968.95'
 L = 1868.70'
 R = 2864.80'
 PC STA = 394+88.63
 Y = 415882.561
 X = 725241.044
 PT STA = 413+57.33
 Y = 415054.922
 X = 726879.637
 DB = S44°30'54"E
 DA = S81°53'20"E





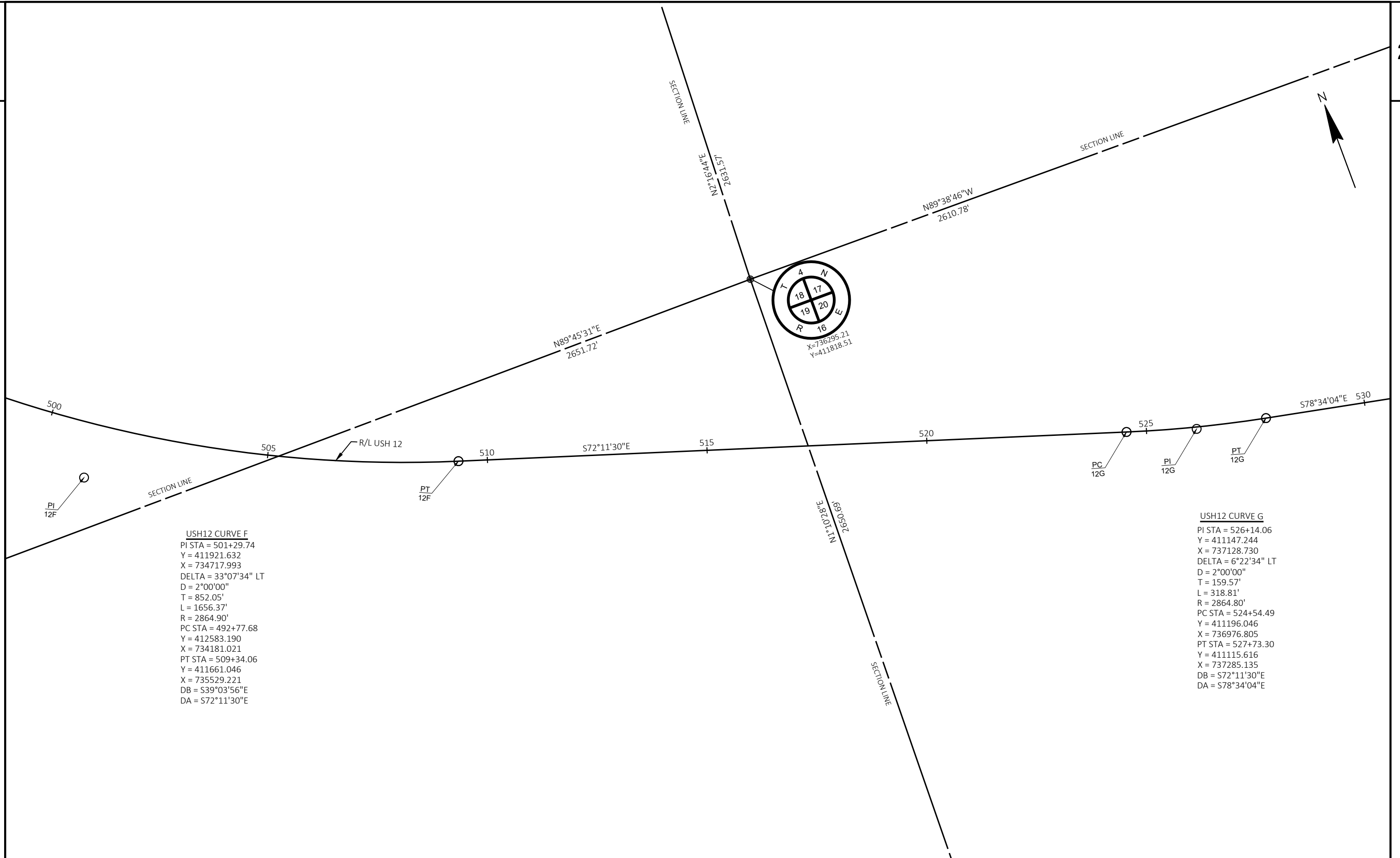
USH12 CURVE D

PI STA = 438+00.16
 Y = 414710.261
 X = 729298.029
 DELTA = 6°01'30" RT
 D = 1°00'00"
 T = 301.52'
 L = 602.49'
 R = 5729.60'
 PC STA = 434+98.64
 Y = 414752.803
 X = 728999.522
 PT STA = 441+01.13
 Y = 414636.623
 X = 729590.422
 DB = S81°53'20"E
 DA = S75°51'51"E



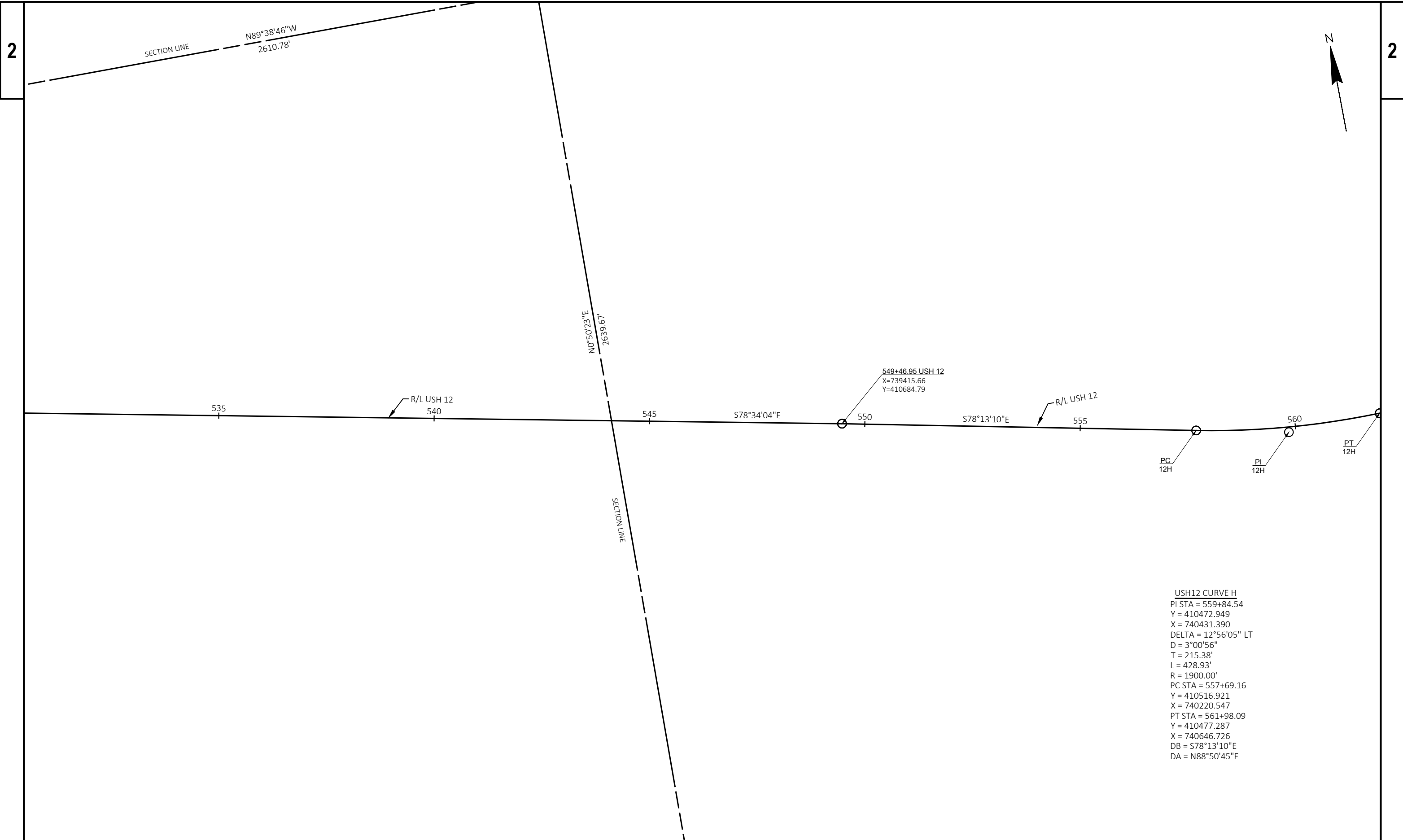
USH12 CURVE F
 PI STA = 501+29.74
 Y = 411921.632
 X = 734717.993
 DELTA = 33°07'34" LT
 D = 2°00'00"
 T = 852.05'
 L = 1656.37'
 R = 2864.90'
 PC STA = 492+77.68
 Y = 412583.190
 X = 734181.021
 PT STA = 509+34.06
 Y = 411661.046
 X = 735529.221
 DB = S39°03'56"E
 DA = S72°11'30"E

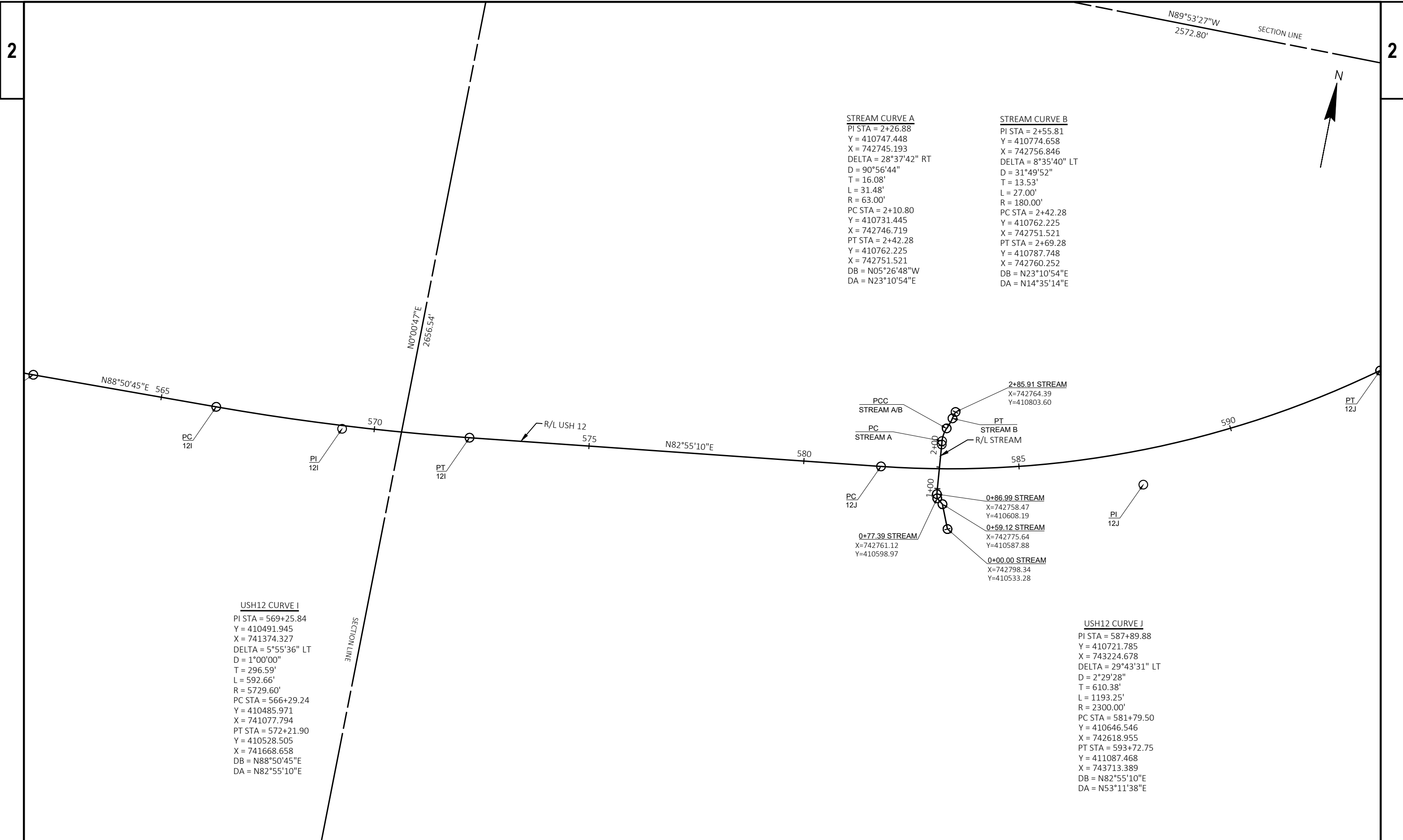
USH12 CURVE E
 PI STA = 478+91.03
 Y = 413711.045
 X = 733265.565
 DELTA = 36°47'55" RT
 D = 2°00'00"
 T = 952.99'
 L = 1840.00'
 R = 2864.90'
 PC STA = 469+38.04
 Y = 413943.785
 X = 732341.434
 PT STA = 487+78.05
 Y = 412971.121
 X = 733866.145
 DB = S75°51'51"E
 DA = S39°03'56"E



USH12 CURVE F
 PI STA = 501+29.74
 Y = 411921.632
 X = 734717.993
 DELTA = 33°07'34" LT
 D = 2°00'00"
 T = 852.05'
 L = 1656.37'
 R = 2864.90'
 PC STA = 492+77.68
 Y = 412583.190
 X = 734181.021
 PT STA = 509+34.06
 Y = 411661.046
 X = 735529.221
 DB = S39°03'56"E
 DA = S72°11'30"E

USH12 CURVE G
 PI STA = 526+14.06
 Y = 411147.244
 X = 737128.730
 DELTA = 6°22'34" LT
 D = 2°00'00"
 T = 159.57'
 L = 318.81'
 R = 2864.80'
 PC STA = 524+54.49
 Y = 411196.046
 X = 736976.805
 PT STA = 527+73.30
 Y = 411115.616
 X = 737285.135
 DB = S72°11'30"E
 DA = S78°34'04"E



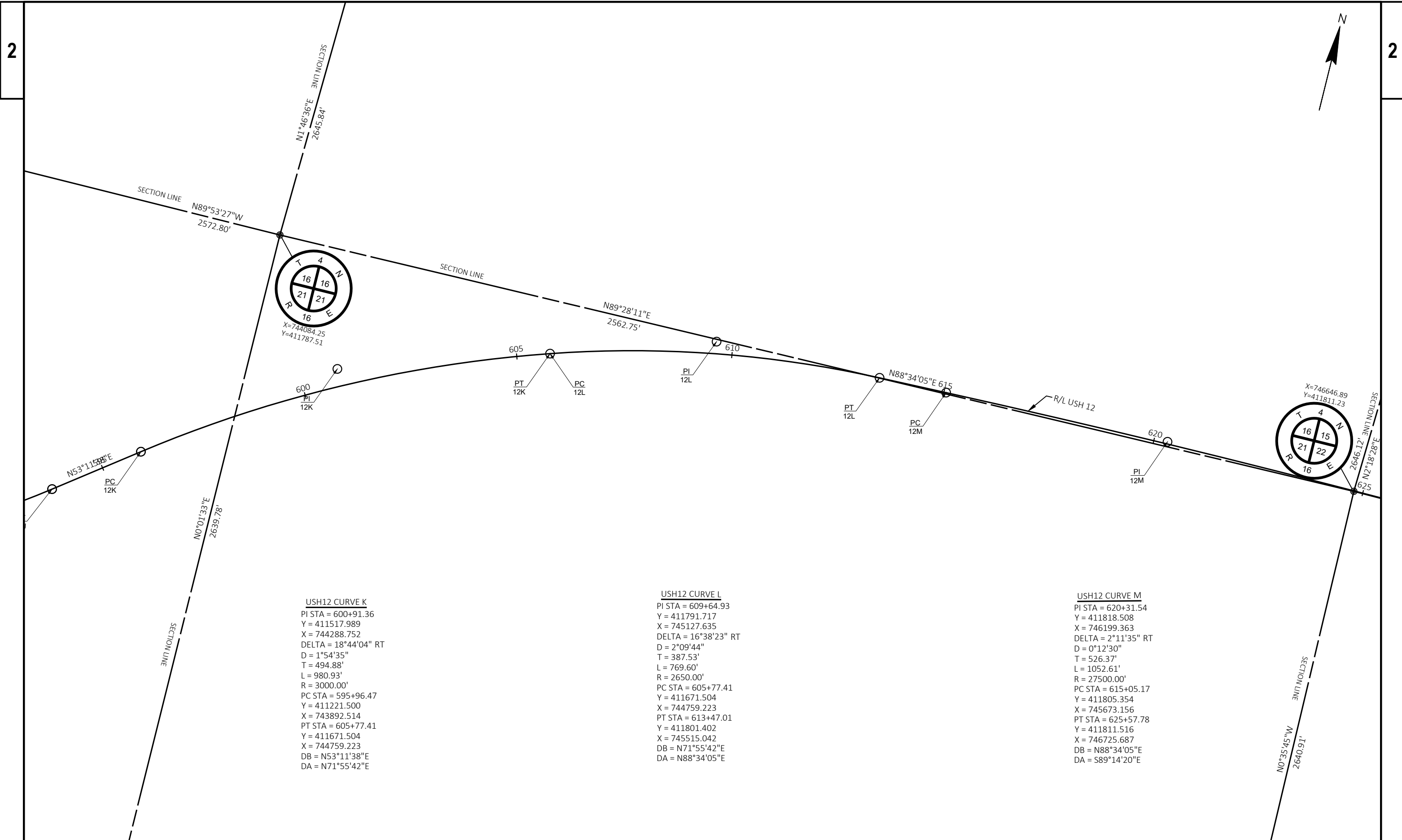


STREAM CURVE A
 PI STA = 2+26.88
 Y = 410747.448
 X = 742745.193
 DELTA = 28°37'42" RT
 D = 90°56'44"
 T = 16.08'
 L = 31.48'
 R = 63.00'
 PC STA = 2+10.80
 Y = 410731.445
 X = 742746.719
 PT STA = 2+42.28
 Y = 410762.225
 X = 742751.521
 DB = N05°26'48"W
 DA = N23°10'54"E

STREAM CURVE B
 PI STA = 2+55.81
 Y = 410774.658
 X = 742756.846
 DELTA = 8°35'40" LT
 D = 31°49'52"
 T = 13.53'
 L = 27.00'
 R = 180.00'
 PC STA = 2+42.28
 Y = 410762.225
 X = 742751.521
 PT STA = 2+69.28
 Y = 410787.748
 X = 742760.252
 DB = N23°10'54"E
 DA = N14°35'14"E

USH12 CURVE I
 PI STA = 569+25.84
 Y = 410491.945
 X = 741374.327
 DELTA = 5°55'36" LT
 D = 1°00'00"
 T = 296.59'
 L = 592.66'
 R = 5729.60'
 PC STA = 566+29.24
 Y = 410485.971
 X = 741077.794
 PT STA = 572+21.90
 Y = 410528.505
 X = 741668.658
 DB = N88°50'45"E
 DA = N82°55'10"E

USH12 CURVE J
 PI STA = 587+89.88
 Y = 410721.785
 X = 743224.678
 DELTA = 29°43'31" LT
 D = 2°29'28"
 T = 610.38'
 L = 1193.25'
 R = 2300.00'
 PC STA = 581+79.50
 Y = 410646.546
 X = 742618.955
 PT STA = 593+72.75
 Y = 411087.468
 X = 743713.389
 DB = N82°55'10"E
 DA = N53°11'38"E



PROJECT NO: 3130-03-71

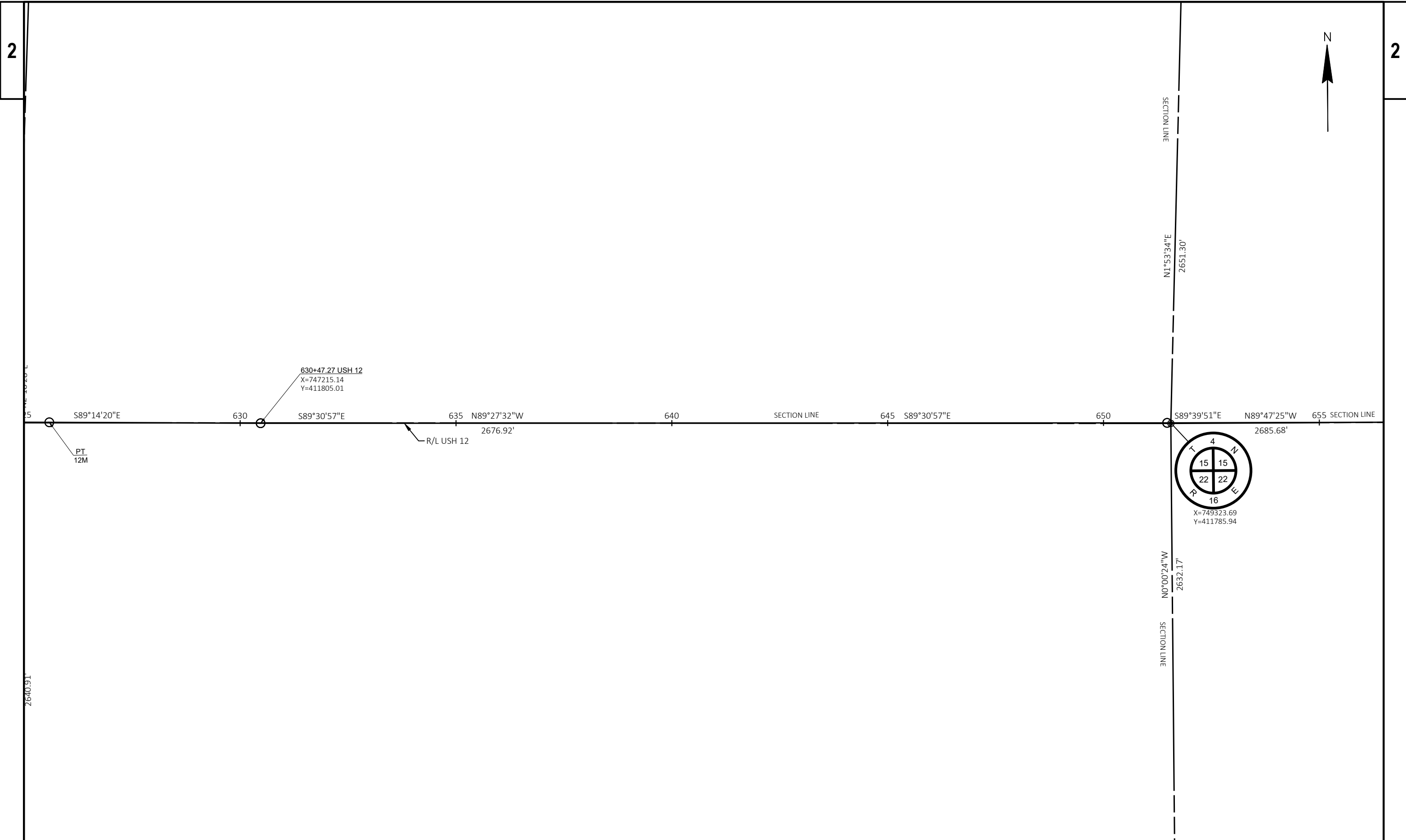
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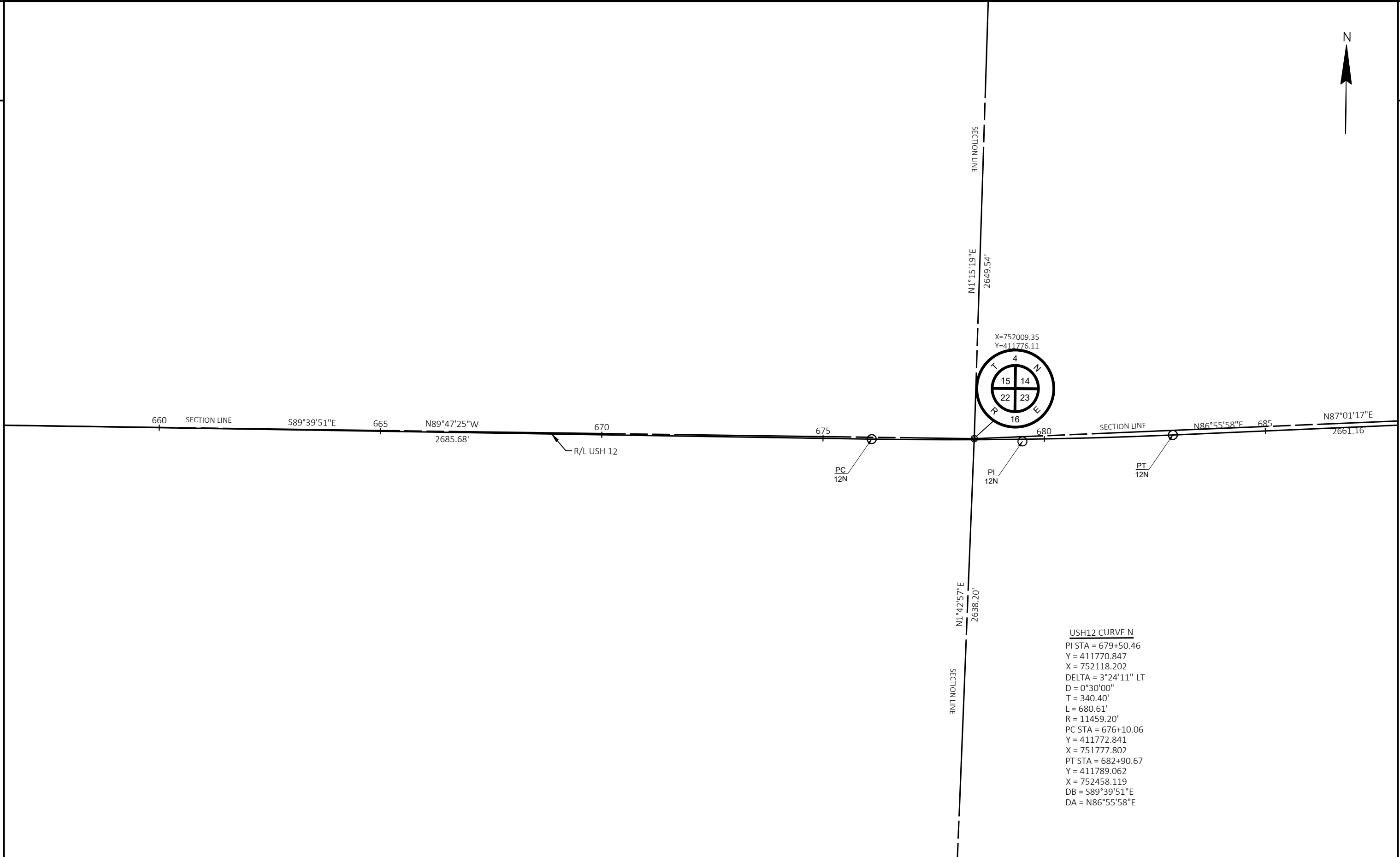
COUNTY: WALWORTH

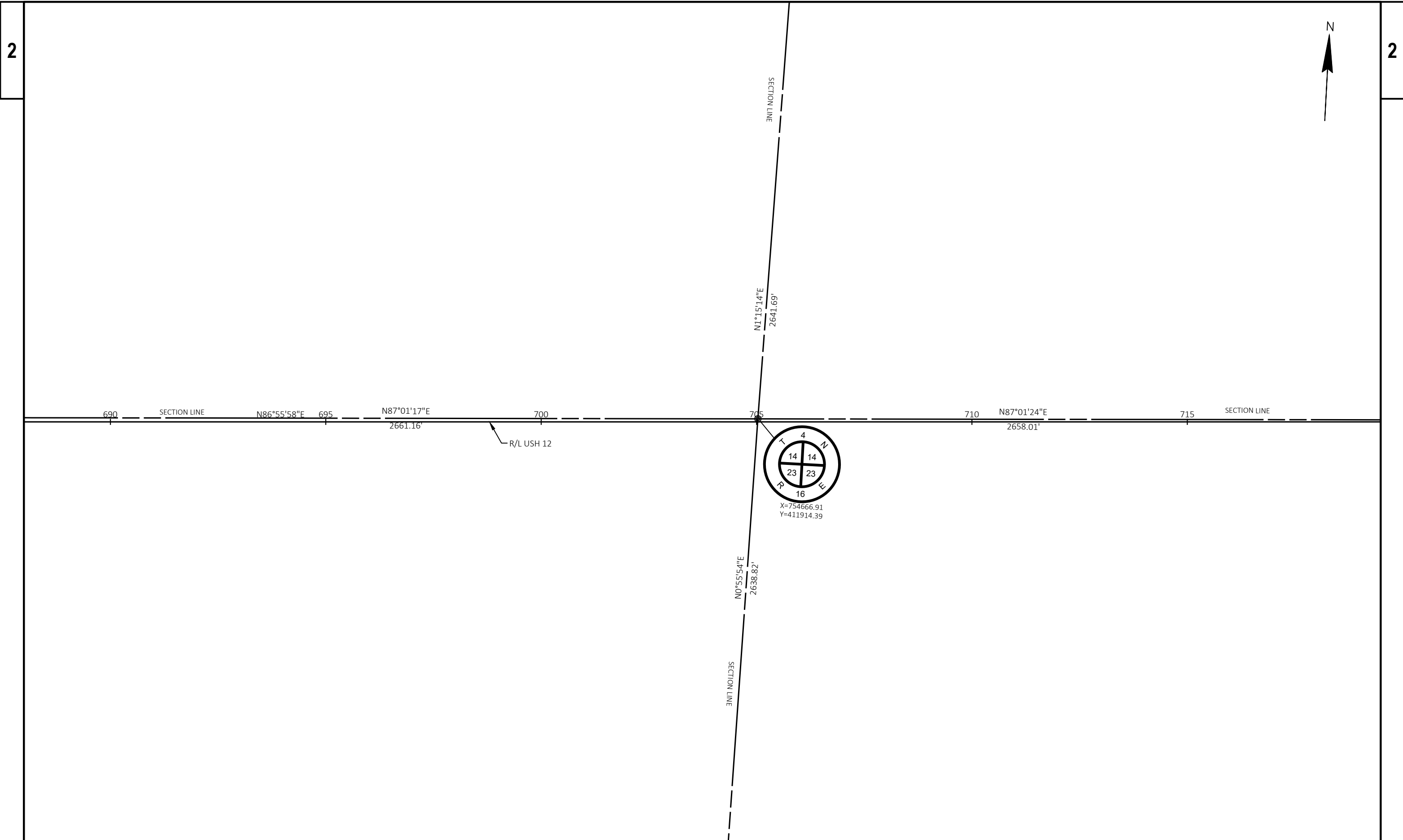
ALIGNMENT LAYOUT

SHEET

2



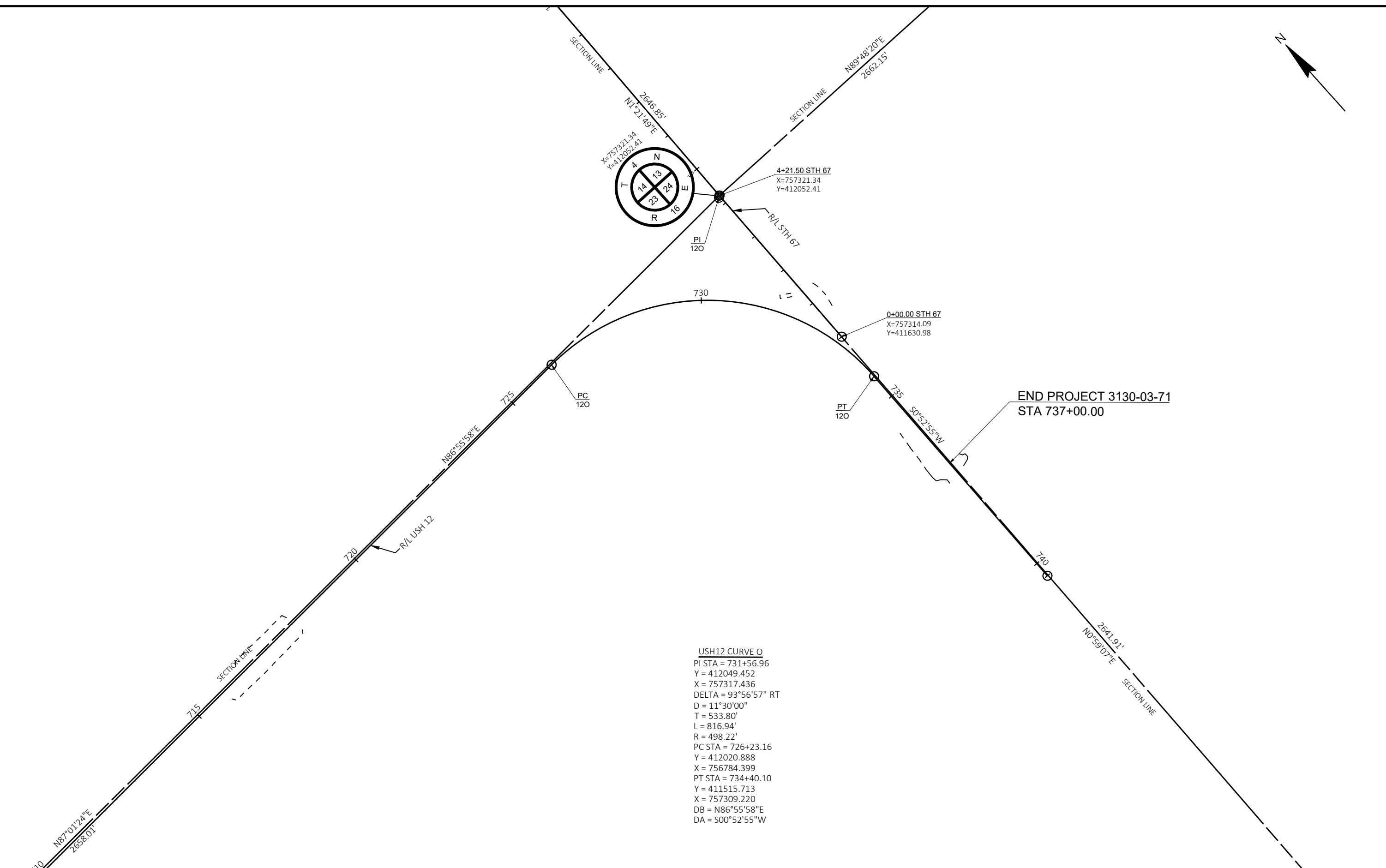
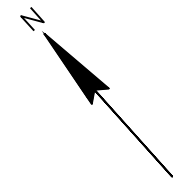




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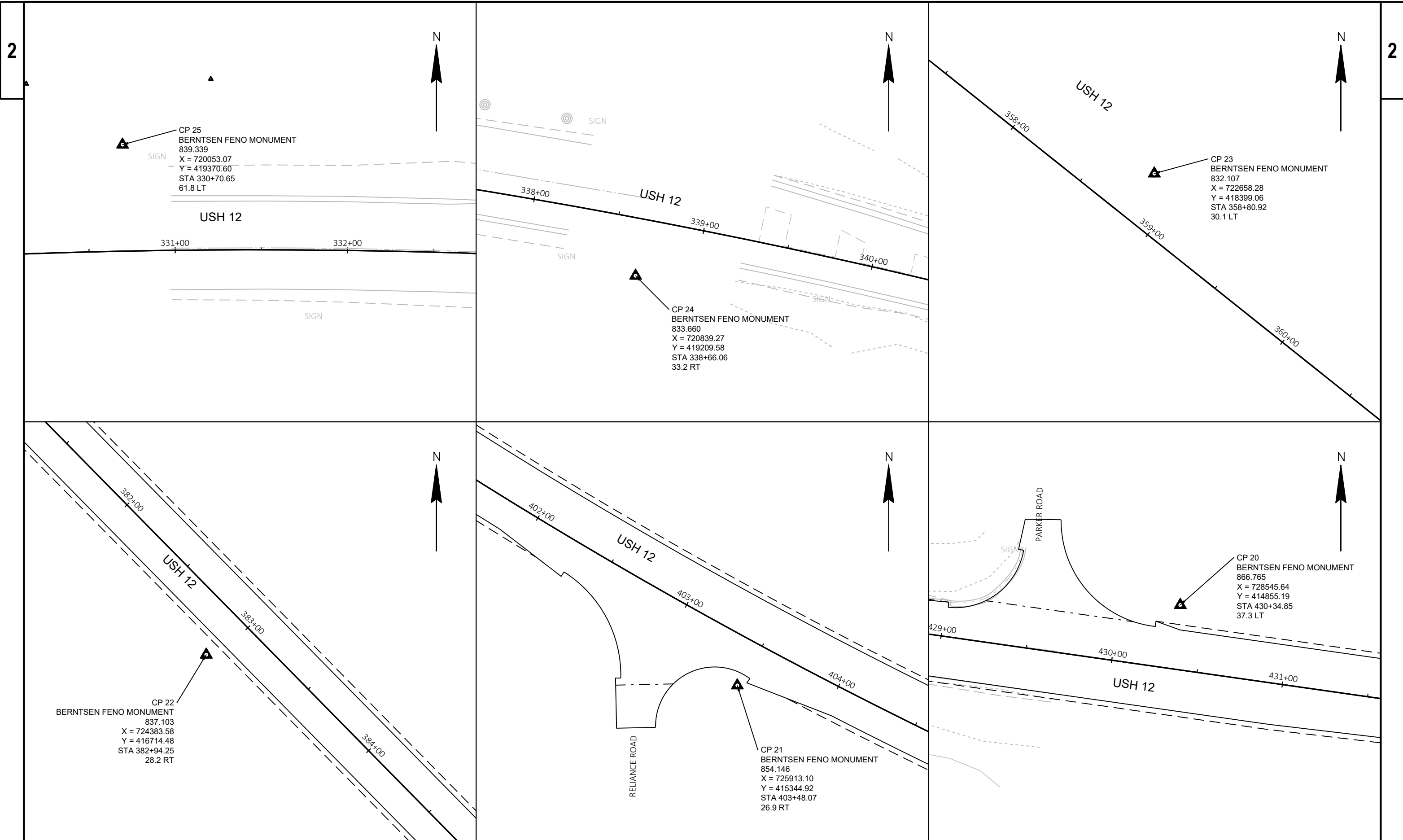
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	ALIGNMENT LAYOUT	SHEET	E
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USH12 CURVE O
 PI STA = 731+56.96
 Y = 412049.452
 X = 757317.436
 DELTA = 93°56'57" RT
 D = 11°30'00"
 T = 533.80'
 L = 816.94'
 R = 498.22'
 PC STA = 726+23.16
 Y = 412020.888
 X = 756784.399
 PT STA = 734+40.10
 Y = 411515.713
 X = 757309.220
 DB = N86°55'58"E
 DA = S00°52'55"W

PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	ALIGNMENT LAYOUT	SHEET	E
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PROJECT NO: 3130-03-71

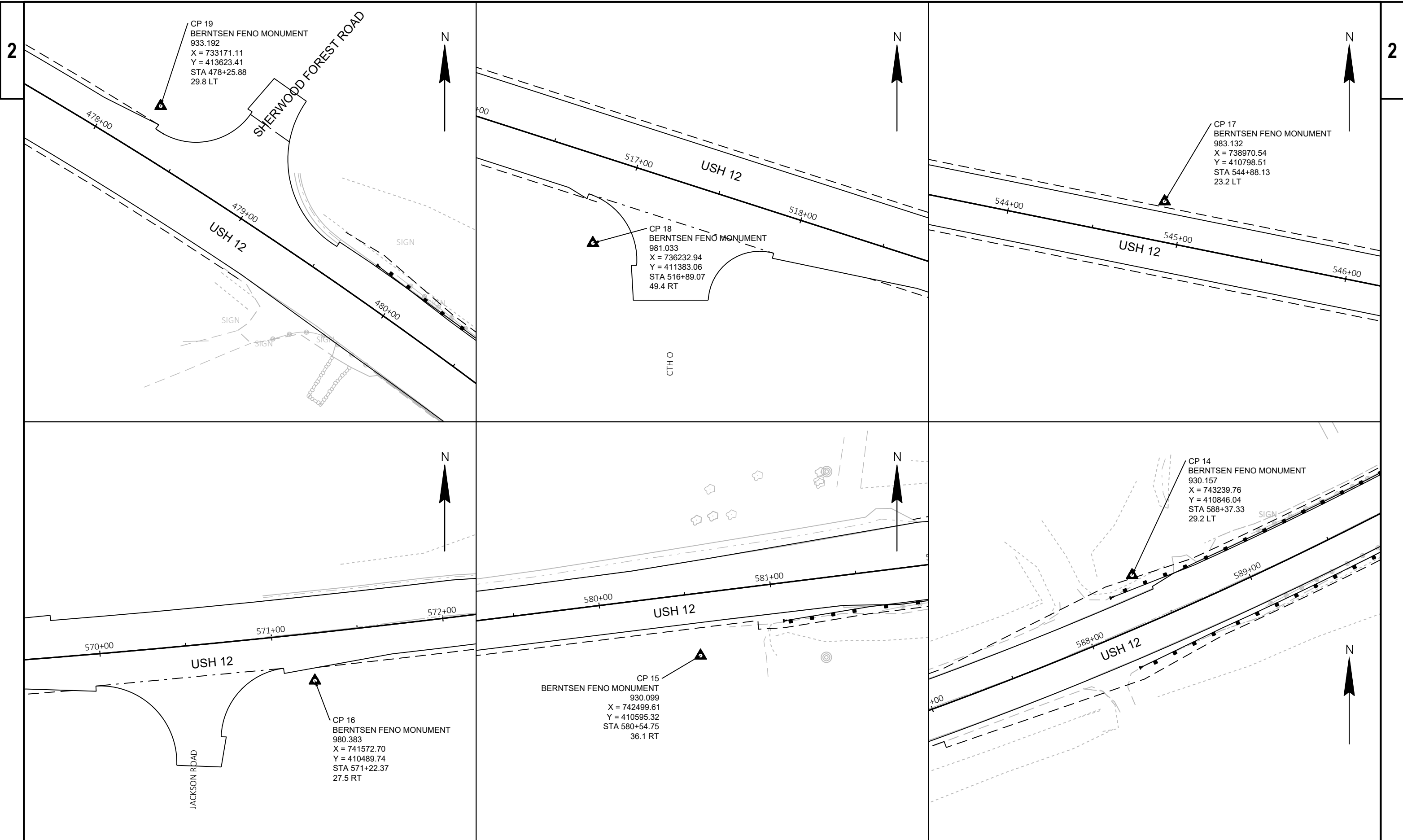
HWY: USH 12

COUNTY: WALWORTH

ALIGNMENT LAYOUT - SURVEY CONTROL

SHEET

E



PROJECT NO: 3130-03-71

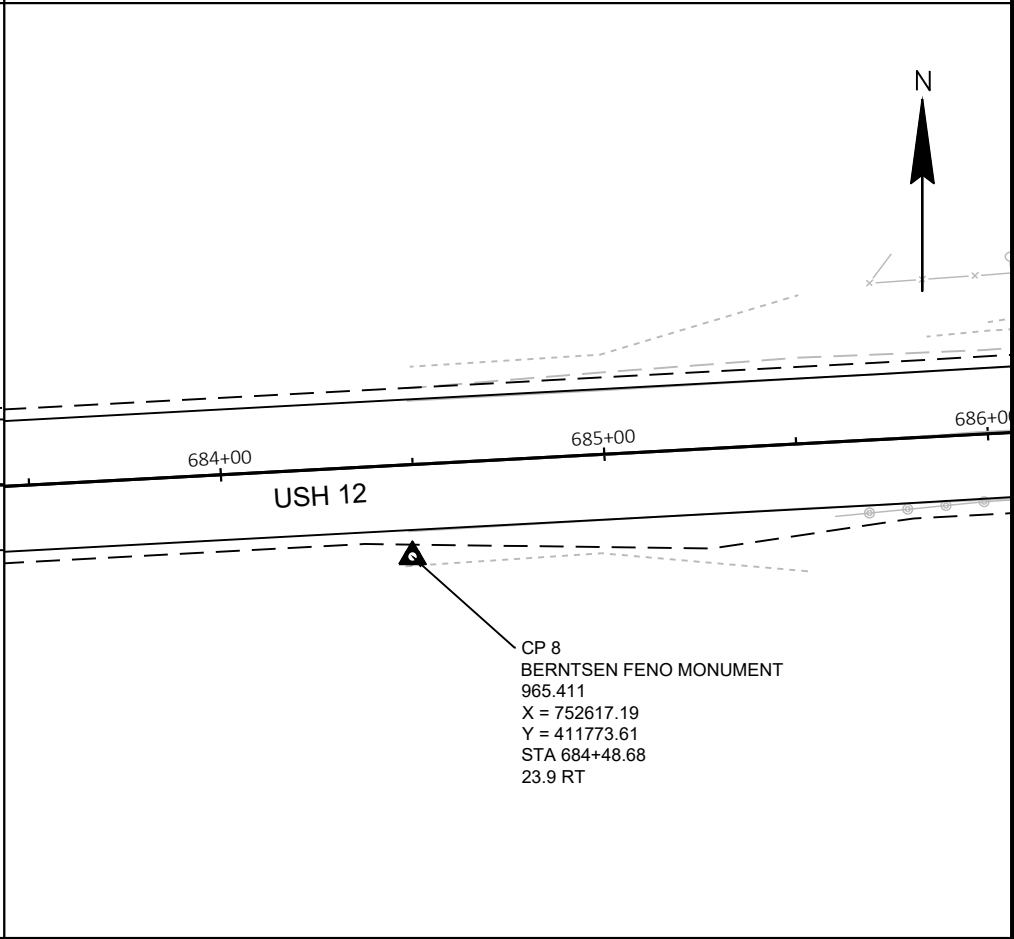
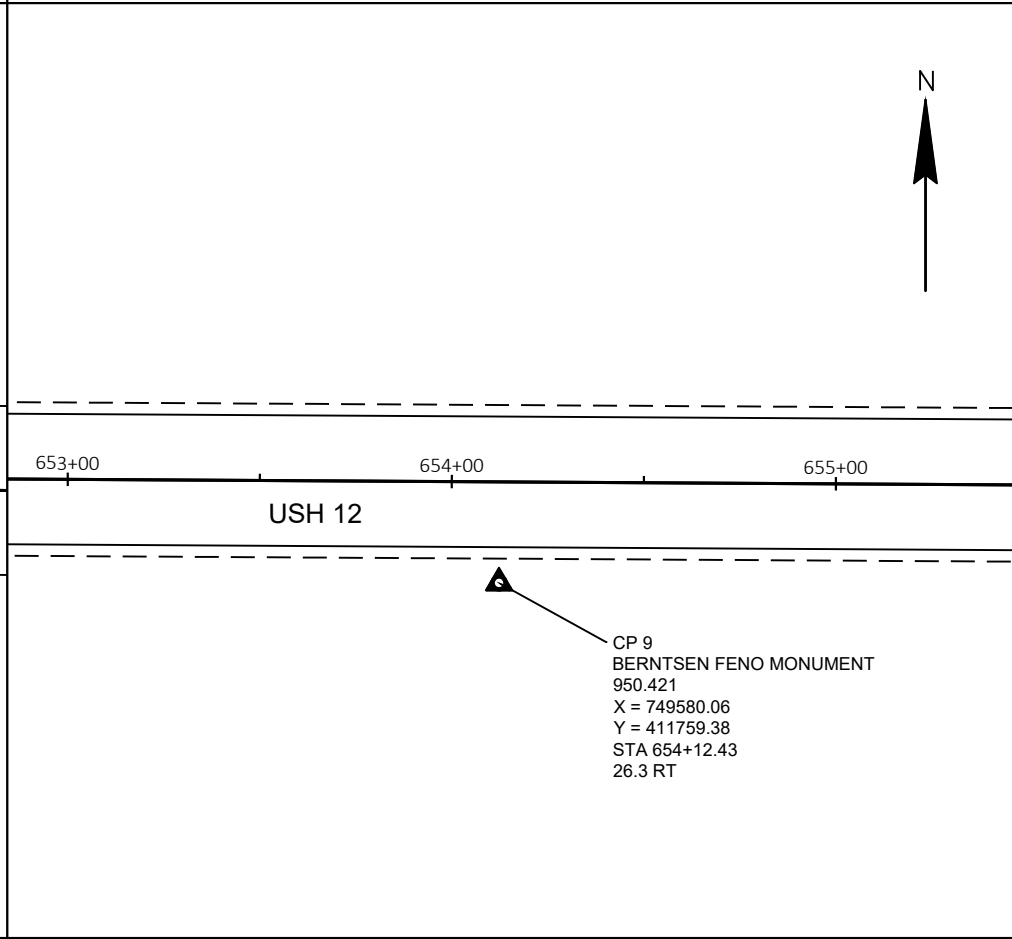
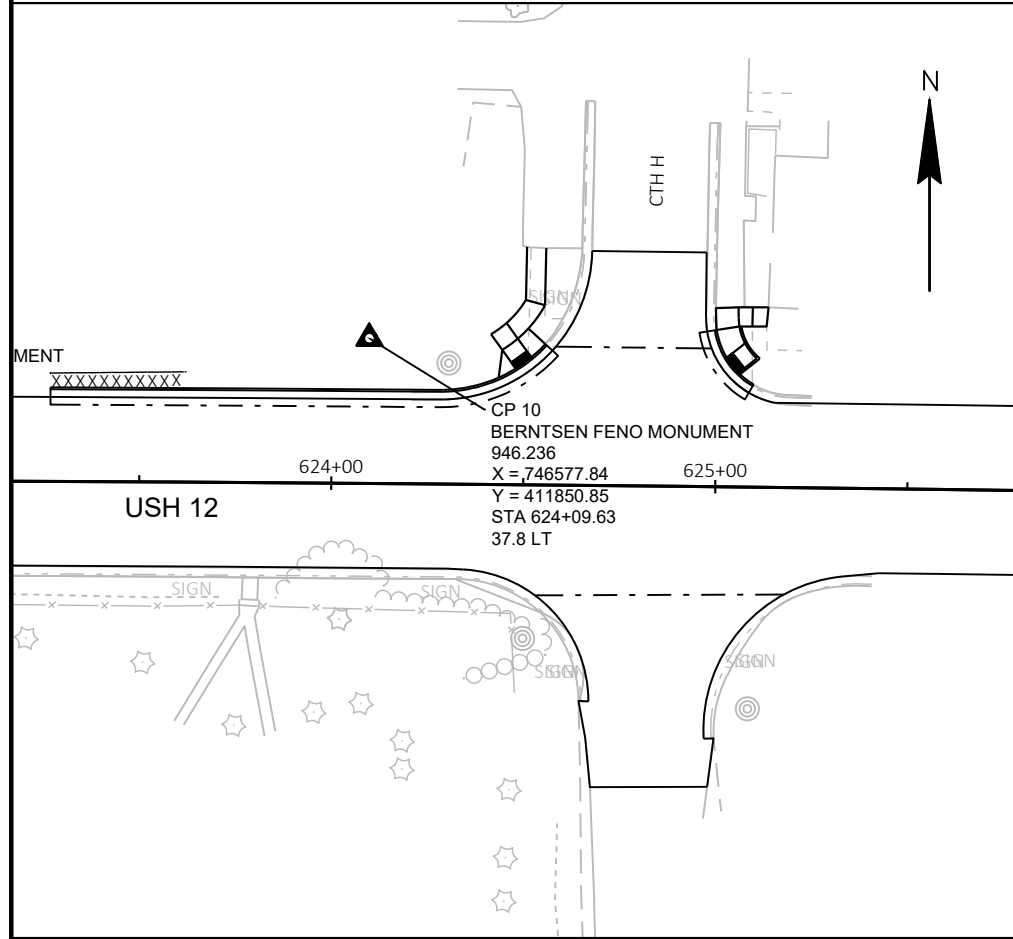
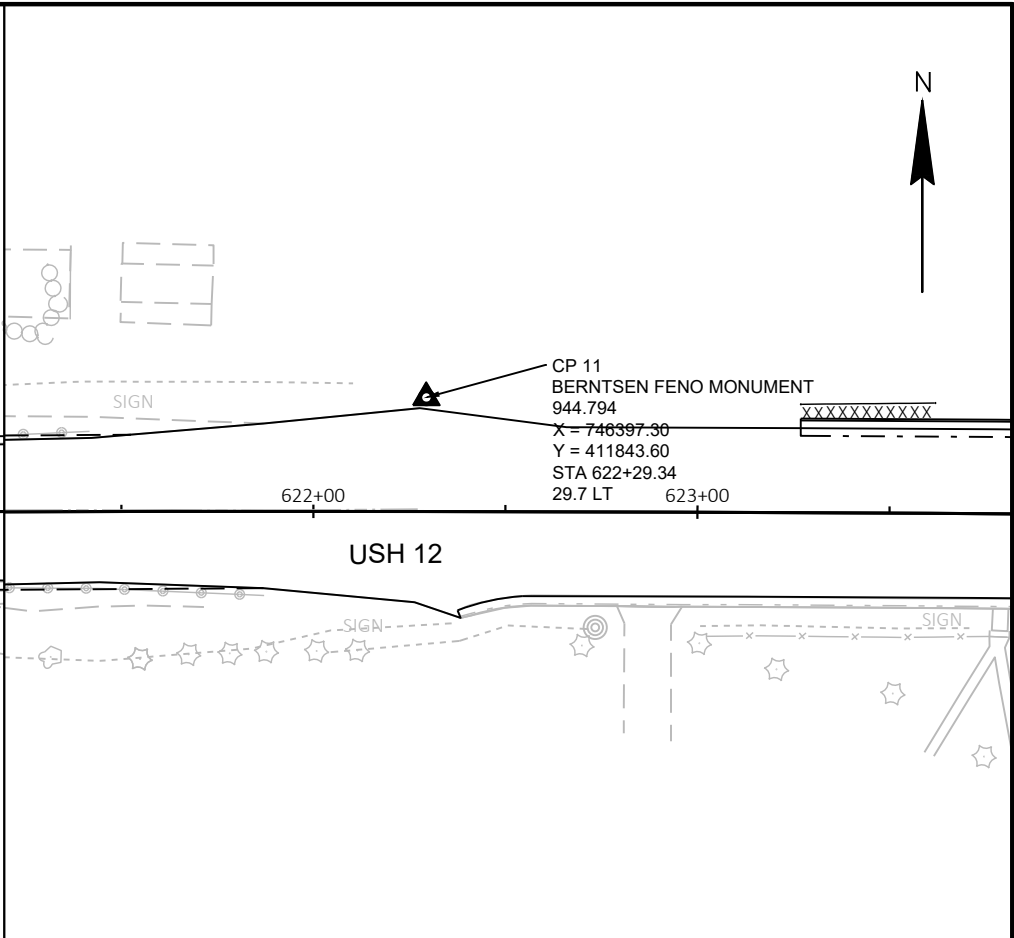
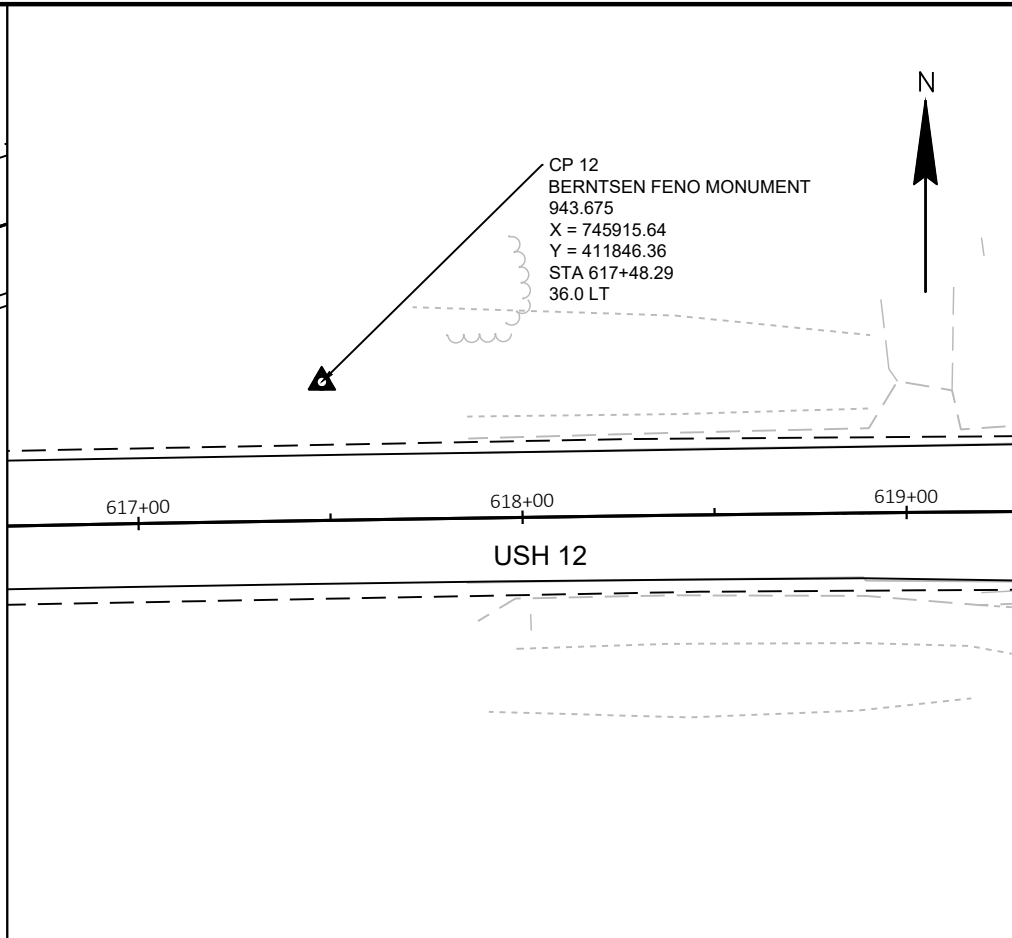
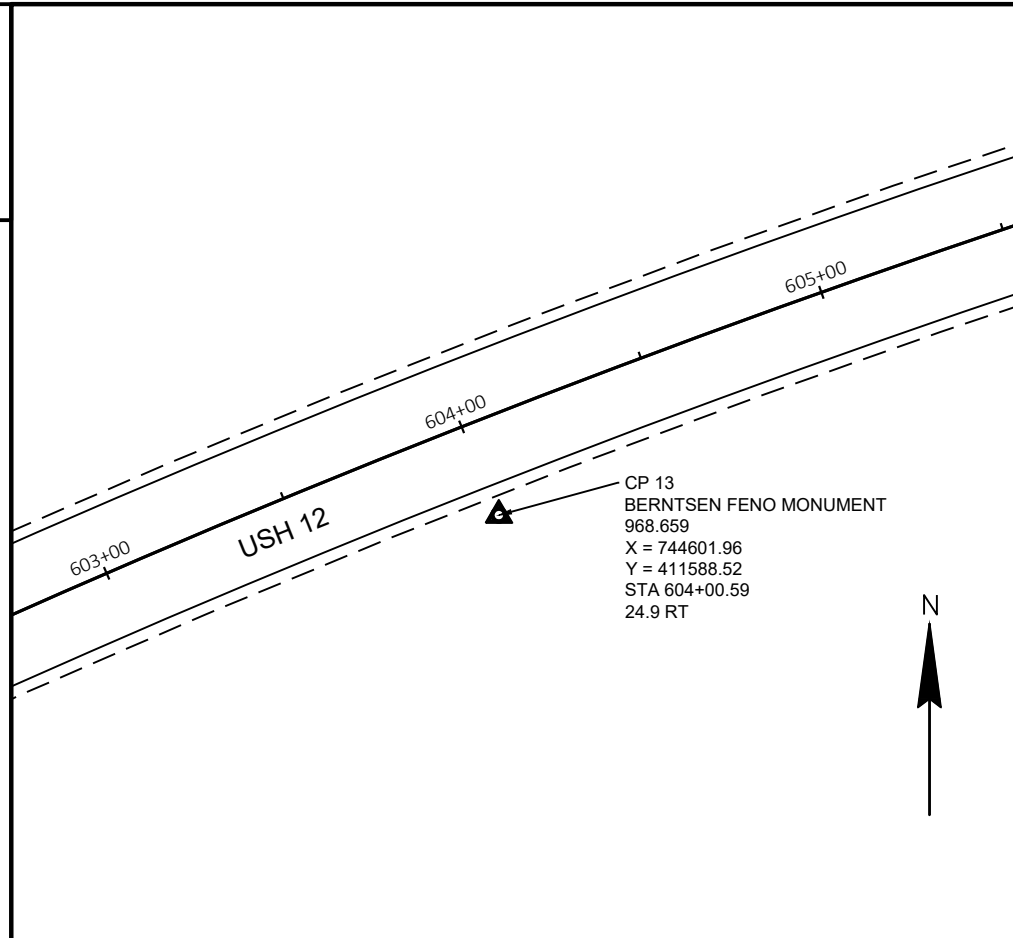
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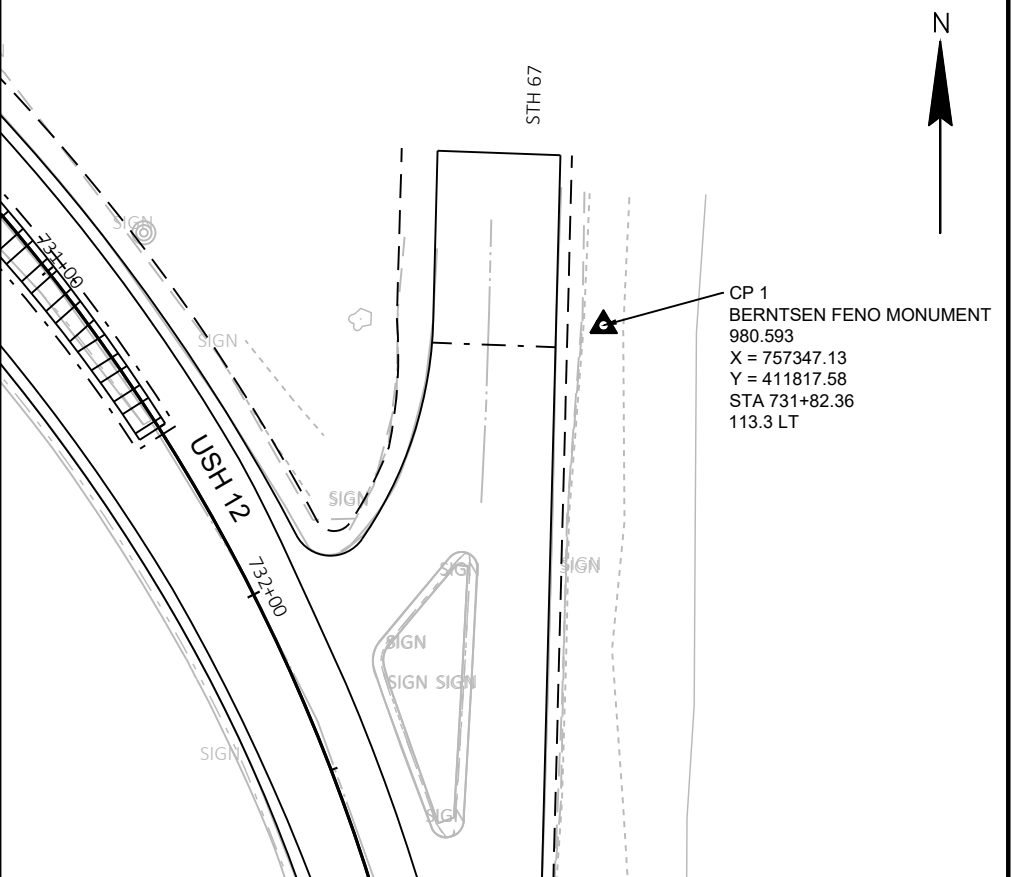
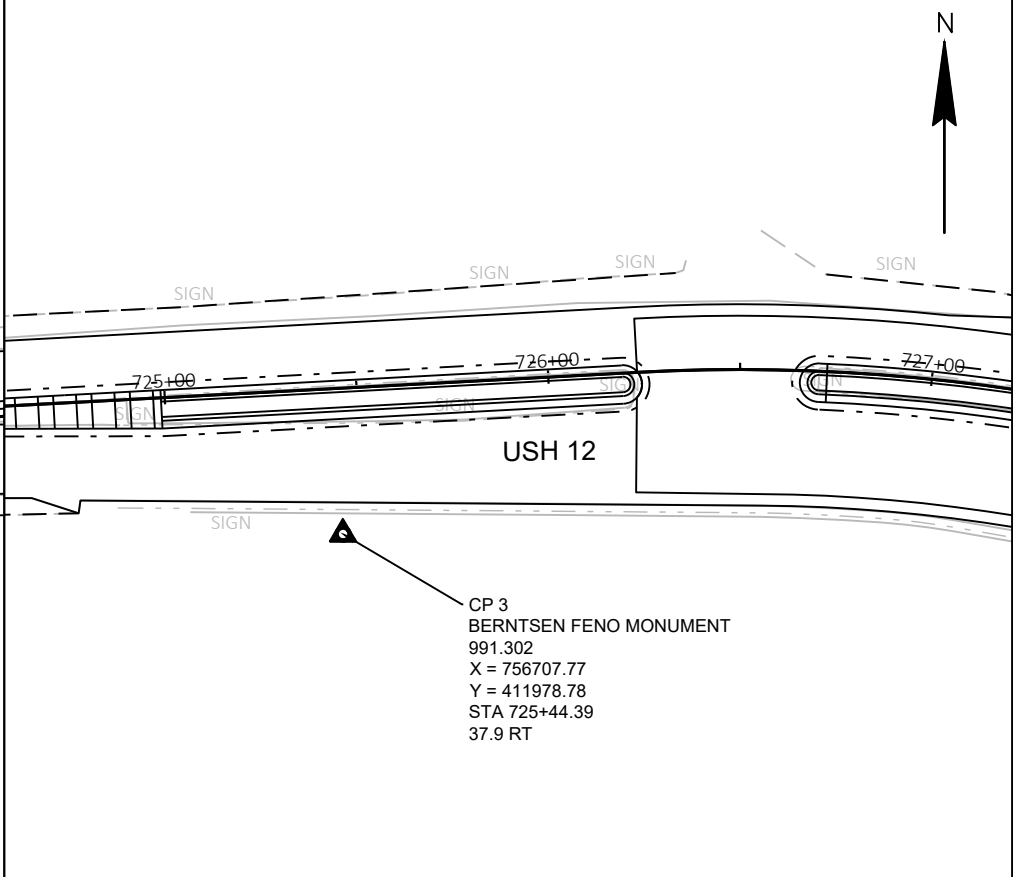
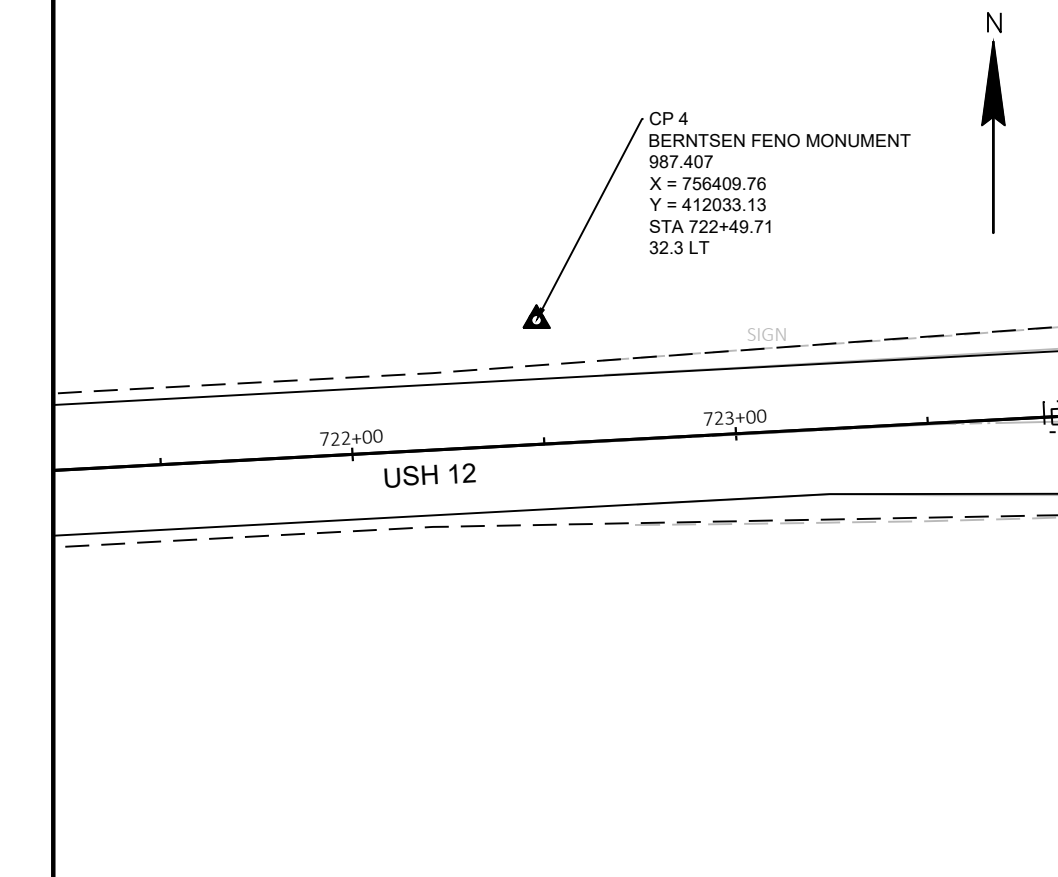
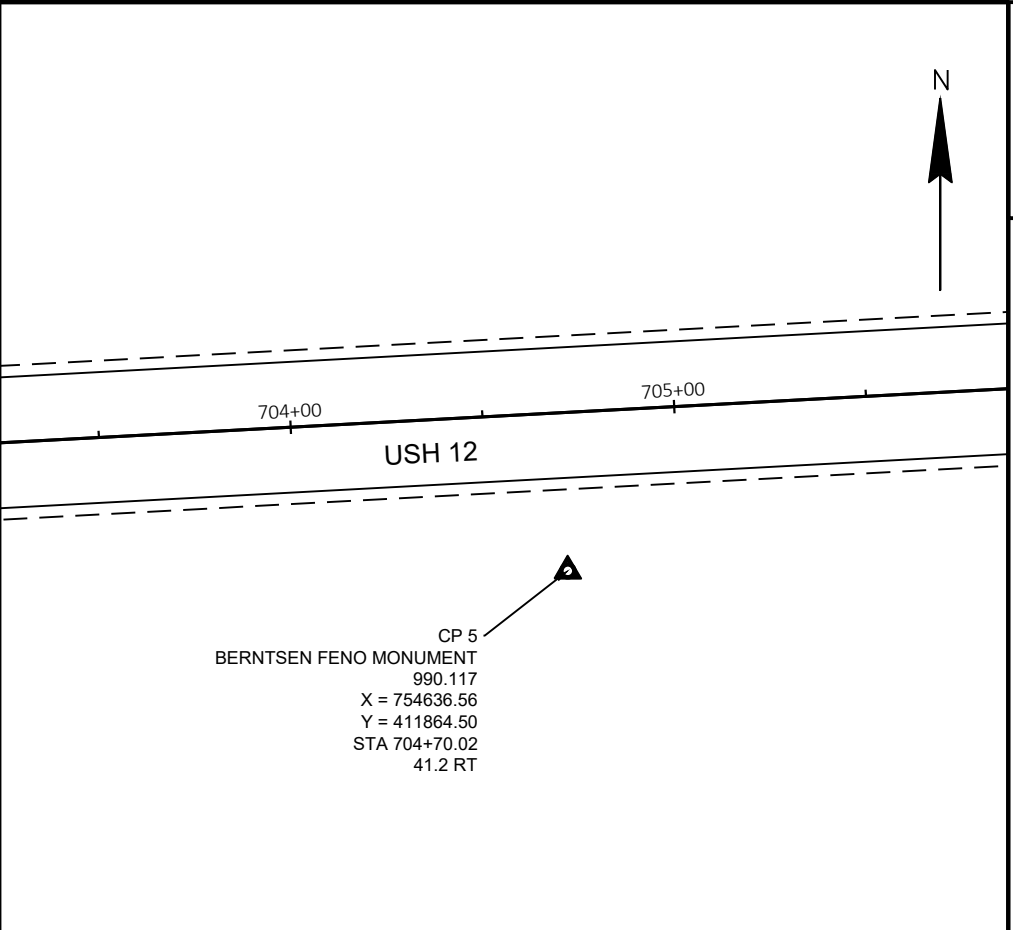
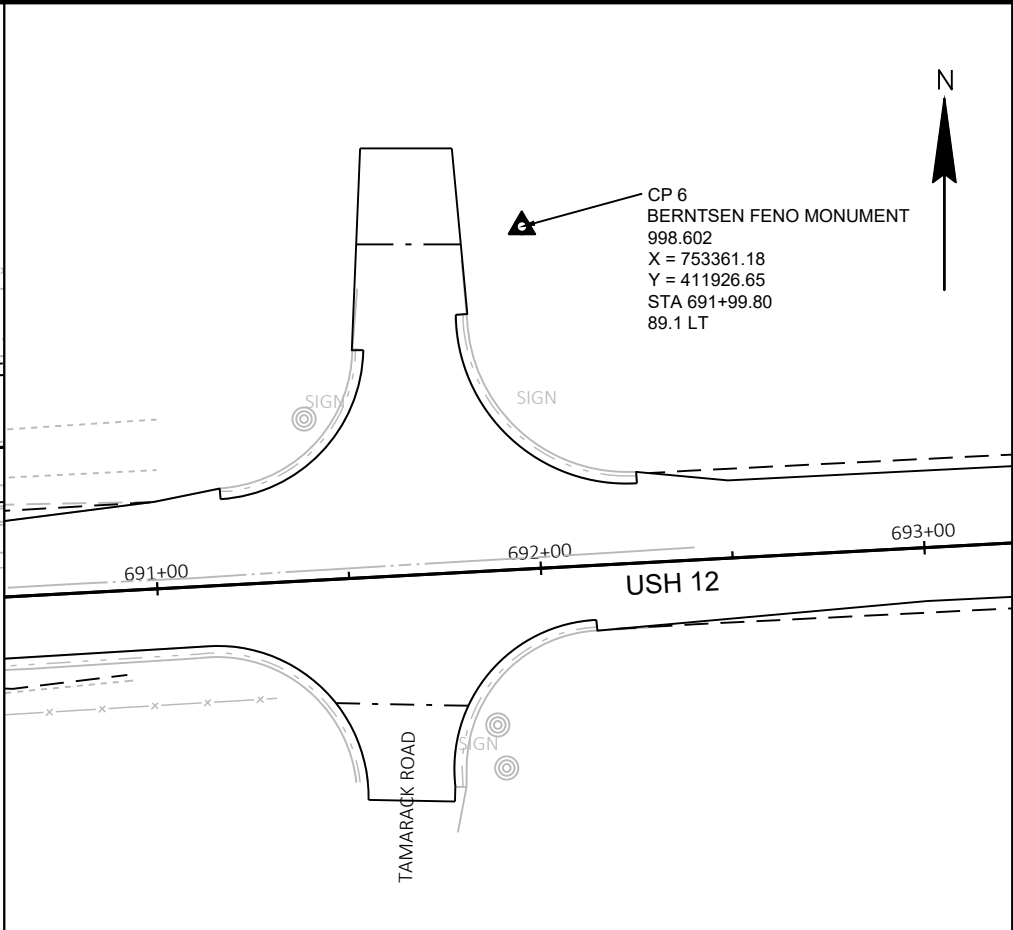
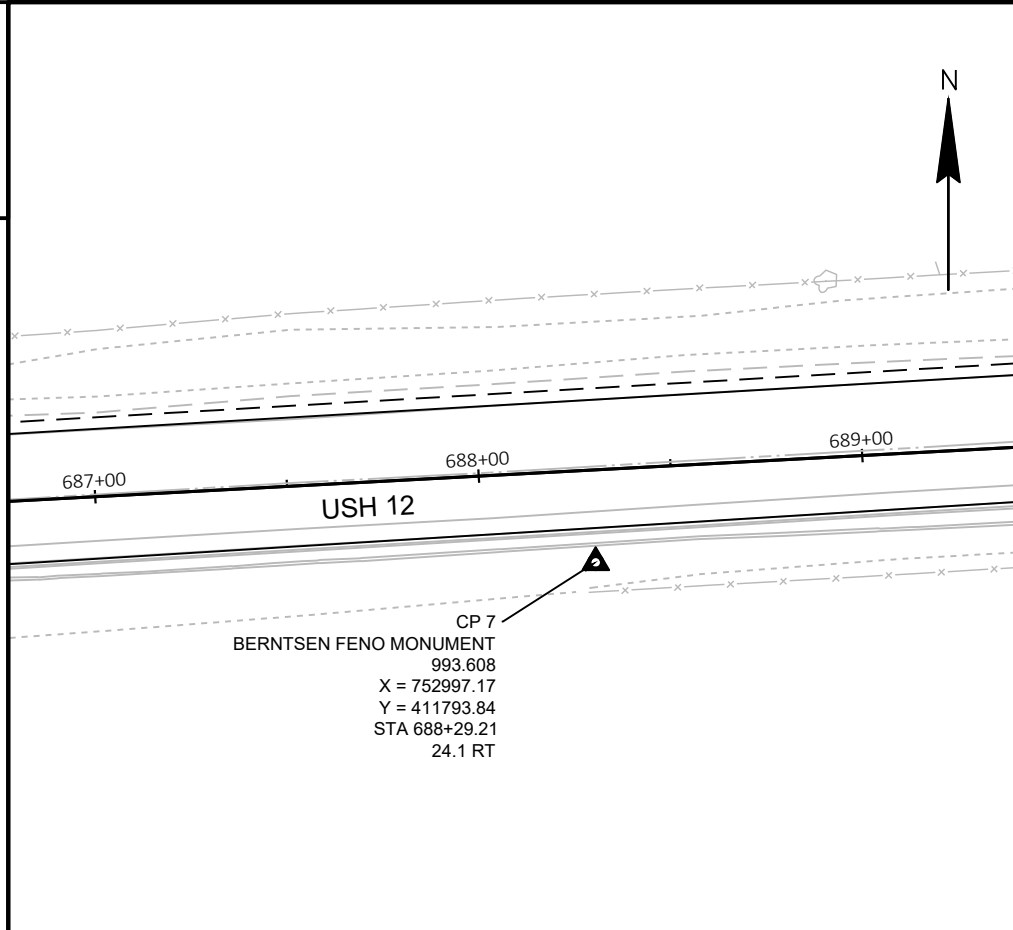
COUNTY: WALWORTH

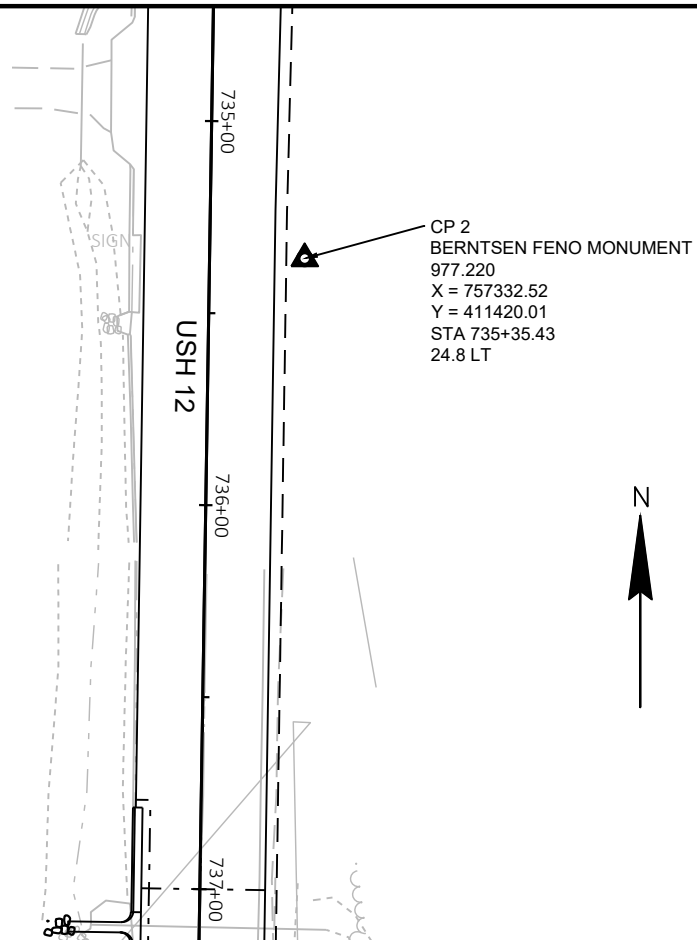
ALIGNMENT LAYOUT - SURVEY CONTROL

SHEET

E







Estimate Of Quantities

3130-03-71

Line	Item	Item Description	Unit	Total	Qty
0002	108.4400	CPM Progress Schedule	EACH	1.000	1.000
0004	201.0205	Grubbing	STA	14.000	14.000
0006	203.0100	Removing Small Pipe Culverts	EACH	7.000	7.000
0008	203.0220	Removing Structure (structure) 01. 620+55	EACH	1.000	1.000
0010	203.0220	Removing Structure (structure) 02. 737+08	EACH	1.000	1.000
0012	203.0220	Removing Structure (structure) 03. C-64-002	EACH	1.000	1.000
0014	204.0100	Removing Concrete Pavement	SY	505.000	505.000
0016	204.0110	Removing Asphaltic Surface	SY	1,087.000	1,087.000
0018	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,564.000	2,564.000
0020	204.0120	Removing Asphaltic Surface Milling	SY	160,393.000	160,393.000
0022	204.0130	Removing Curb	LF	892.000	892.000
0024	204.0150	Removing Curb & Gutter	LF	96.000	96.000
0026	204.0155	Removing Concrete Sidewalk	SY	33.000	33.000
0028	204.0165	Removing Guardrail	LF	4,373.000	4,373.000
0030	204.0170	Removing Fence	LF	165.000	165.000
0032	204.0195	Removing Concrete Bases	EACH	5.000	5.000
0034	204.0245	Removing Storm Sewer (size) 01. 18-INCH	LF	36.000	36.000
0036	204.9060.S	Removing (item description) 01. Removing Traffic Signals USH 12/STH 59 & STH 59/CTH P	EACH	1.000	1.000
0038	204.9060.S	Removing (item description) 02. Removing Loop Detector Wire & Lead-In Cable	EACH	1.000	1.000
0040	204.9060.S	Removing (item description) 03. Removing Concrete Foundation	EACH	1.000	1.000
0042	204.9060.S	Removing (item description) 04. Removing Endwalls	EACH	3.000	3.000
0044	205.0100	Excavation Common	CY	1,754.000	1,754.000
0046	206.2001	Excavation for Structures Culverts (structure) 01. C-64-092	EACH	1.000	1.000
0048	206.2001	Excavation for Structures Culverts (structure) 02. 620+55	EACH	1.000	1.000
0050	206.2001	Excavation for Structures Culverts (structure) 03. 737+08	EACH	1.000	1.000
0052	208.0100	Borrow	CY	2,305.000	2,305.000
0054	208.1100	Select Borrow	CY	850.000	850.000
0056	210.2500	Backfill Structure Type B	TON	1,510.000	1,510.000
0058	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 3130-01-71	EACH	1.000	1.000
0060	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	32.000	32.000
0062	213.0100	Finishing Roadway (project) 01. 3130-03-71	EACH	1.000	1.000
0064	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,820.000	2,820.000
0066	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,576.000	2,576.000
0068	311.0115	Breaker Run	CY	70.000	70.000
0070	455.0605	Tack Coat	GAL	2,702.000	2,702.000
0072	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0074	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0076	460.2000	Incentive Density HMA Pavement	DOL	5,850.000	5,850.000
0078	460.2005	Incentive Density PWL HMA Pavement	DOL	28,698.000	28,698.000
0080	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	8,890.000	8,890.000
0082	460.2010	Incentive Air Voids HMA Pavement	DOL	28,698.000	28,698.000
0084	460.6223	HMA Pavement 3 MT 58-28 S	TON	21,516.000	21,516.000
0086	460.6224	HMA Pavement 4 MT 58-28 S	TON	16,575.000	16,575.000
0088	465.0105	Asphaltic Surface	TON	524.000	524.000
0090	465.0115	Asphaltic Surface Detours	TON	236.000	236.000
0092	465.0315	Asphaltic Flumes	SY	9.000	9.000
0094	465.0520	Asphaltic Rumble Strips, Shoulder	LF	54,410.000	54,410.000
0096	465.0560	Asphaltic Rumble Strips, Centerline	LF	31,218.000	31,218.000

Estimate Of Quantities

3130-03-71

Line	Item	Item Description	Unit	Total	Qty
0098	504.0100	Concrete Masonry Culverts	CY	82.000	82.000
0100	505.0400	Bar Steel Reinforcement HS Structures	LB	7,750.000	7,750.000
0102	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,000.000	1,000.000
0104	516.0500	Rubberized Membrane Waterproofing	SY	11.000	11.000
0106	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	1.000	1.000
0108	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0110	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	131.000	131.000
0112	522.0436	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	125.000	125.000
0114	522.0448	Culvert Pipe Reinforced Concrete Class IV 48-Inch	LF	76.000	76.000
0116	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0118	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	4.000	4.000
0120	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0122	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	170.000	170.000
0124	522.2424	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	LF	51.000	51.000
0126	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	6.000	6.000
0128	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	2.000	2.000
0130	525.0118	Culvert Pipe Corrugated Aluminum 18-Inch	LF	9.000	9.000
0132	525.0124	Culvert Pipe Corrugated Aluminum 24-Inch	LF	8.000	8.000
0134	525.0318	Apron Endwalls for Culvert Pipe Aluminum 18-Inch	EACH	1.000	1.000
0136	525.0324	Apron Endwalls for Culvert Pipe Aluminum 24-Inch	EACH	1.000	1.000
0138	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	116.000	116.000
0140	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	954.000	954.000
0142	601.0600	Concrete Curb Pedestrian	LF	17.000	17.000
0144	602.0405	Concrete Sidewalk 4-Inch	SF	2,996.000	2,996.000
0146	602.0410	Concrete Sidewalk 5-Inch	SF	354.000	354.000
0148	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	20.000	20.000
0150	602.3010	Concrete Surface Drains	CY	1.000	1.000
0152	606.0050	Riprap Extra-Light	CY	7.000	7.000
0154	606.0200	Riprap Medium	CY	17.000	17.000
0156	606.0300	Riprap Heavy	CY	113.000	113.000
0158	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	32.000	32.000
0160	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0162	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0164	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	14.000	14.000
0166	612.0700	Drain Tile Exploration	LF	30.000	30.000
0168	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	2.000	2.000
0170	614.0360	Steel Plate Beam Guard Temporary	LF	450.000	450.000
0172	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	2,137.000	2,137.000
0174	614.2300	MGS Guardrail 3	LF	3,377.000	3,377.000
0176	614.2330	MGS Guardrail 3 K	LF	713.000	713.000
0178	614.2610	MGS Guardrail Terminal EAT	EACH	18.000	18.000
0180	618.0100	Maintenance and Repair of Haul Roads (project) 01. 3130-03-71	EACH	1.000	1.000
0182	619.1000	Mobilization	EACH	1.000	1.000
0184	620.0100	Concrete Corrugated Median	SF	1,518.000	1,518.000
0186	620.0300	Concrete Median Sloped Nose	SF	179.000	179.000
0188	624.0100	Water	MGAL	105.000	105.000
0190	625.0100	Topsoil	SY	2,008.000	2,008.000
0192	625.0500	Salvaged Topsoil	SY	10,146.000	10,146.000
0194	627.0200	Mulching	SY	2,319.000	2,319.000

Estimate Of Quantities

3130-03-71

Line	Item	Item Description	Unit	Total	Qty
0196	628.1104	Erosion Bales	EACH	10.000	10.000
0198	628.1504	Silt Fence	LF	7,220.000	7,220.000
0200	628.1520	Silt Fence Maintenance	LF	7,220.000	7,220.000
0202	628.1905	Mobilizations Erosion Control	EACH	28.000	28.000
0204	628.1910	Mobilizations Emergency Erosion Control	EACH	7.000	7.000
0206	628.2002	Erosion Mat Class I Type A	SY	11,668.000	11,668.000
0208	628.2023	Erosion Mat Class II Type B	SY	487.000	487.000
0210	628.2039	Erosion Mat Class III Type D	SY	277.000	277.000
0212	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0214	628.7504	Temporary Ditch Checks	LF	24.000	24.000
0216	628.7555	Culvert Pipe Checks	EACH	56.000	56.000
0218	628.7560	Tracking Pads	EACH	2.000	2.000
0220	628.7570	Rock Bags	EACH	10.000	10.000
0222	629.0205	Fertilizer Type A	CWT	8.000	8.000
0224	630.0140	Seeding Mixture No. 40	LB	164.000	164.000
0226	630.0200	Seeding Temporary	LB	63.000	63.000
0228	630.0500	Seed Water	MGAL	325.000	325.000
0230	633.5200	Markers Culvert End	EACH	22.000	22.000
0232	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	53.000	53.000
0234	637.2210	Signs Type II Reflective H	SF	181.960	181.960
0236	637.2215	Signs Type II Reflective H Folding	SF	20.720	20.720
0238	637.2230	Signs Type II Reflective F	SF	154.250	154.250
0240	638.2102	Moving Signs Type II	EACH	6.000	6.000
0242	638.2602	Removing Signs Type II	EACH	35.000	35.000
0244	638.3000	Removing Small Sign Supports	EACH	31.000	31.000
0246	643.0300	Traffic Control Drums	DAY	4,771.000	4,771.000
0248	643.0420	Traffic Control Barricades Type III	DAY	6,358.000	6,358.000
0250	643.0705	Traffic Control Warning Lights Type A	DAY	12,716.000	12,716.000
0252	643.0900	Traffic Control Signs	DAY	33,658.000	33,658.000
0254	643.0920	Traffic Control Covering Signs Type II	EACH	14.000	14.000
0256	643.1000	Traffic Control Signs Fixed Message	SF	176.000	176.000
0258	643.1050	Traffic Control Signs PCMS	DAY	70.000	70.000
0260	643.1070	Traffic Control Cones 42-Inch	DAY	70.000	70.000
0262	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	160.000	160.000
0264	643.3760	Temporary Marking Raised Pavement Marker Type I	EACH	5.000	5.000
0266	643.5000	Traffic Control	EACH	1.000	1.000
0268	644.1810	Temporary Pedestrian Barricade	LF	40.000	40.000
0270	645.0105	Geotextile Type C	SY	197.000	197.000
0272	645.0120	Geotextile Type HR	SY	170.000	170.000
0274	645.0130	Geotextile Type R	SY	72.000	72.000
0276	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	130,072.000	130,072.000
0278	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	1,059.000	1,059.000
0280	646.5020	Marking Arrow Epoxy	EACH	6.000	6.000
0282	646.5120	Marking Word Epoxy	EACH	2.000	2.000
0284	646.5520	Marking Outfall Epoxy	EACH	2.000	2.000
0286	646.6120	Marking Stop Line Epoxy 18-Inch	LF	388.000	388.000
0288	646.7120	Marking Diagonal Epoxy 12-Inch	LF	153.000	153.000
0290	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	103.000	103.000
0292	646.8020	Marking Corrugated Median Epoxy	SF	533.000	533.000

Estimate Of Quantities

3130-03-71

Line	Item	Item Description	Unit	Total	Qty
0294	646.8120	Marking Curb Epoxy	LF	108.000	108.000
0296	646.8220	Marking Island Nose Epoxy	EACH	2.000	2.000
0298	648.0100	Locating No-Passing Zones	MI	7.070	7.070
0300	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0302	650.4500	Construction Staking Subgrade	LF	73.000	73.000
0304	650.5000	Construction Staking Base	LF	233.000	233.000
0306	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,087.000	1,087.000
0308	650.6000	Construction Staking Pipe Culverts	EACH	10.000	10.000
0310	650.6501	Construction Staking Structure Layout (structure) 01. C-64-092	EACH	1.000	1.000
0312	650.8000	Construction Staking Resurfacing Reference	LF	40,403.000	40,403.000
0314	650.8501	Construction Staking Electrical Installations (project) 01. 3130-03-71	EACH	1.000	1.000
0316	650.9000	Construction Staking Curb Ramps	EACH	2.000	2.000
0318	650.9500	Construction Staking Sidewalk (project) 01. 3130-03-71	EACH	1.000	1.000
0320	650.9911	Construction Staking Supplemental Control (project) 01. 3130-03-71	EACH	1.000	1.000
0322	650.9920	Construction Staking Slope Stakes	LF	6,185.000	6,185.000
0324	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	223.000	223.000
0326	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	337.000	337.000
0328	653.0135	Pull Boxes Steel 24x36-Inch	EACH	4.000	4.000
0330	653.0140	Pull Boxes Steel 24x42-Inch	EACH	1.000	1.000
0332	653.0145	Pull Boxes Steel 24x48-Inch	EACH	1.000	1.000
0334	653.0905	Removing Pull Boxes	EACH	6.000	6.000
0336	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
0338	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0340	655.0230	Cable Traffic Signal 5-14 AWG	LF	491.000	491.000
0342	655.0240	Cable Traffic Signal 7-14 AWG	LF	415.000	415.000
0344	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,884.000	1,884.000
0346	655.0320	Cable Type UF 2-10 AWG Grounded	LF	907.000	907.000
0348	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,800.000	1,800.000
0350	655.0610	Electrical Wire Lighting 12 AWG	LF	576.000	576.000
0352	655.0700	Loop Detector Lead In Cable	LF	5,088.000	5,088.000
0354	655.0800	Loop Detector Wire	LF	6,252.000	6,252.000
0356	655.0900	Traffic Signal EVP Detector Cable	LF	1,100.000	1,100.000
0358	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. (USH 12/STH 59 & STH 59/CTH P)	EACH	1.000	1.000
0360	657.0100	Pedestal Bases	EACH	4.000	4.000
0362	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	4.000	4.000
0364	658.0173	Traffic Signal Face 3S 12-Inch	EACH	12.000	12.000
0366	658.0174	Traffic Signal Face 4S 12-Inch	EACH	8.000	8.000
0368	658.5070	Signal Mounting Hardware (location) 01. (USH 12/STH 59 & STH 59/CTH P)	EACH	1.000	1.000
0370	659.1125	Luminaires Utility LED C	EACH	4.000	4.000
0372	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	21.000	21.000
0374	661.0201	Temporary Traffic Signals for Intersections (location) 01. (USH 12/STH 59 & STH 59/CTH P)	EACH	1.000	1.000
0376	677.0200	Install Camera Assembly	EACH	1.000	1.000
0378	690.0150	Sawing Asphalt	LF	2,280.000	2,280.000
0380	690.0250	Sawing Concrete	LF	348.000	348.000
0382	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0384	740.0440	Incentive IRI Ride	DOL	35,000.000	35,000.000
0386	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,500.000	1,500.000

Estimate Of Quantities

3130-03-71

Line	Item	Item Description	Unit	Total	Qty
0388	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	3,000.000	3,000.000
0390	SPV.0060	Special 01. Section Corner Monuments	EACH	4.000	4.000
0392	SPV.0060	Special 02. Curb Ramp Grading, Shaping, and Finishing	EACH	2.000	2.000
0394	SPV.0060	Special 03. Field Office Type T	EACH	1.000	1.000
0396	SPV.0060	Special 04. Utility Line Opening (ULO)	EACH	4.000	4.000
0398	SPV.0060	Special 51. Pull Boxes Rims & Covers	EACH	13.000	13.000
0400	SPV.0060	Special 52. Install Poles Type 13	EACH	2.000	2.000
0402	SPV.0060	Special 53. Install Poles Type 13 Over Height	EACH	2.000	2.000
0404	SPV.0060	Special 54. Install Monotube Arms 45-FT Type 12/13 Pole	EACH	2.000	2.000
0406	SPV.0060	Special 55. Install Monotube Arms 50-FT	EACH	2.000	2.000
0408	SPV.0060	Special 56. Install Luminaire Arms Steel 15-FT	EACH	4.000	4.000
0410	SPV.0060	Special 57. TRNSPT and Install State Furn Traffic Signal Cabinet	EACH	1.000	1.000
0412	SPV.0060	Special 58. Temp Infrared EVP System	EACH	1.000	1.000
0414	SPV.0060	Special 59. TRNSPT & Install State Furn Radar Detect Sys	EACH	1.000	1.000
0416	SPV.0060	Special 60. TRNSPT Traffic Signal & Inter Lighting Materials	EACH	1.000	1.000
0418	SPV.0060	Special 61. TRNSPT & Install State Furn EVP Heads	EACH	1.000	1.000
0420	SPV.0090	Special 01. Culvert Pipe Reinforced Concrete Class IV 24-Inch STA 509+30	LF	134.000	134.000
0422	SPV.0165	Special 01. Retaining Wall Block Replacement (R-64-017)	SF	215.000	215.000
0424	SPV.0180	Special 01. Resin Binder High Friction Surface Treatment	SY	3,350.000	3,350.000
0426	SPV.0195	Special 01. Asphaltic Repair	TON	2,430.000	2,430.000

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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REMOVING STRUCTURES

ROADWAY	LOCATION	203.0220	203.0220	204.9060.S.03	206.2001.02	206.2001.03
		REMOVING STRUCTURE 620+55 EACH	REMOVING STRUCTURE 737+08 EACH	REMOVING CONCRETE FOUNDATION EACH	EXCAVATION FOR STRUCTURES CULVERTS 620+55 EACH	EXCAVATION FOR STRUCTURES CULVERTS 737+08 EACH
USH 12	583+25	--	--	1	--	--
	620+55	1	--	--	1	--
	737+08	--	1	--	--	1
PROJECT TOTALS		1	1	1	1	1

GRUBBING

ROADWAY	STATION	TO	STATION	OFFSET	201.0205 GRUBBING STA
USH 12	508+00		510+00	LT/RT	2
	527+00		530+00	LT	3
	556+00		558+00	LT	2
	582+00		584+00	LT/RT	2
	621+00		625+00	RT	4
	737+00		738+00	LT	1
PROJECT TOTALS					14

REMOVING PIPE

ROADWAY	STATION	TO	STATION	OFFSET	203.0100	204.0245.01	204.9060.S.04
					REMOVING SMALL PIPE CULVERTS EACH	REMOVING STORM SEWER 18" LF	REMOVING ENDWALLS EACH
USH 12	339+91		339+91	58' LT	--	--	1
	374+60		374+60	--	1	--	--
	428+67		428+67	--	1	--	--
	509+30		509+30	--	1	--	--
	528+46		528+46	--	1	--	--
	556+95		556+95	--	1	--	--
	589+82		589+82	47' RT	--	--	1
	632+25		632+59	27' RT	--	36	--
	632+98		632+98	30' RT	--	--	1
	716+77		716+77	--	1	--	--
	731+77		732+38	57' RT	1	--	--
PROJECT TOTALS					7	36	3

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ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING PAVEMENT

ROADWAY	STATION	TO	STATION	OFFSET	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY
USH 12	374+54		374+66	--	28	--
	428+62		428+70	--	19	--
	504+99		507+16	21'-27' RT	--	54
	509+33		509+70	--	90	--
	528+43		528+49	--	15	--
	556+92		556+98	--	15	--
	582+73		583+46	--	178	--
	620+49		620+61	--	29	--
	623+27		623+62	27' LT	--	15
	716+73		716+81	--	18	--
	723+80		726+26	--	--	152
	723+89		724+90	5' RT	48	--
	724+90		726+22	--	--	129
	726+64		727+72	--	--	88
	726+71		727+67	--	--	62
	728+29		731+52	--	--	306
	728+41		730+56	--	--	281
	726+67		726+67	5' RT	5	--
	728+35		728+35	5' RT	14	--
	730+56		731+50	5' RT	46	--
PROJECT TOTALS					505	1087

MILLING

ROADWAY	STATION	TO	STATION	OFFSET	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	BUTT JOINT LENGTH
USH 12	363+95		737+50	LT/RT	158753	377	50'
COX ROAD	367+30		368+55	54' LT	--	94	25'
RELIANCE ROAD	402+29		403+44	54' RT	--	72	25'
PARKER ROAD	429+02		430+22	47' LT	--	214	50'
SWENO ROAD	469+22		470+38	45' LT	--	82	25'
SHERWOOD FOREST ROAD (W)	478+30		479+55	51' LT	--	71	25'
DNR	478+41		478+82	114' LT	143	--	N/A
SHERWOOD FOREST ROAD (E)	501+37		502+55	50' LT	--	248	50'
CTH O	516+78		517+91	46' RT	--	278	50'
DNR	518+67		518+85	32' LT	23	--	N/A
DNR	539+56		539+91	23' LT	32	--	N/A
DUFFIN ROAD	564+35		565+46	42' LT	--	77	25'
JACKSON ROAD	569+96		571+05	47' RT	--	243	50'
CTH H	624+29		625+43	LT/RT	--	298	N 25'/S 50'
TAMARACK ROAD	691+12		692+26	LT/RT	--	143	25'
STH 20	727+70		728+66	110' RT	1055	189	50'
STH 67	731+98		732+20	82' LT	387	178	50'
PROJECT TOTALS					160393	2564	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING CURB & GUTTER

ROADWAY	STATION	TO STATION	OFFSET	204.0130	204.0150
				REMOVING CURB LF	REMOVING CURB & GUTTER LF
USH 12	623+27	623+62	22' LT	--	35
	624+44	624+57	30' LT	--	16
	624+97	625+09	31' LT	--	20
	724+90	726+22	5' RT	271	--
	726+70	727+67	3' RT	196	--
	728+40	730+56	13' RT	210	--
	728+41	730+56	0'	215	--
	736+79	737+04	18' RT	--	25
	PROJECT TOTALS				892

REMOVING SIDEWALK

ROADWAY	STATION	TO STATION	OFFSET	204.0155
				REMOVING CONCRETE SIDEWALK SY
USH 12	623+76	623+81	27' RT	3
	624+51	624+60	49' LT	14
	625+00	625+09	38' LT	16
PROJECT TOTALS				33

REMOVING GUARDRAIL

ROADWAY	STATION	TO STATION	OFFSET	204.0165
				REMOVING GUARDRAIL LF
USH 12	479+93	490+23	23' LT	1035
	505+24	511+26	20' RT	605
	508+10	511+92	20' LT	380
	527+30	529+35	18' RT	205
	527+52	530+08	19' LT	255
	581+62	583+90	21' RT	230
	582+25	583+94	21' LT	168
	589+01	593+89	17' RT	492
	589+11	594+70	22' LT	555
	619+19	621+87	20' RT	268
	619+62	621+42	19' LT	180
	PROJECT TOTALS			

REMOVING FENCE

ROADWAY	STATION	TO STATION	OFFSET	204.0170
				REMOVING FENCE LF
USH 12	623+03	624+48	32' RT	165
PROJECT TOTALS				165

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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Division	From/To Station	Location	205.0100 Common Excavation (1)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6) Factor 1.30	Mass Ordinate +/- (7)	Waste	Borrow (item #208.0100)
			Cut (2)	EBS (3)							
Undistributed	363+95 to 737+50	USH 12	0	150	0	0	0	0	0	150	150
Culvert 374+60	374+26 to 374+85	USH 12	0	0	0	0	4	5	-5	0	5
Culvert 428+66	427+50 to 430+00	USH 12	13	0	0	13	136	177	-164	0	164
Guardrail 1	479+66 to 492+00	USH 12	68	0	0	68	0	0	68	68	0
Guardrail 2	503+00 to 513+87	USH 12	206	0	0	206	494	642	-437	0	437
Guardrail 3	524+16 to 532+77	USH 12	460	0	0	460	353	459	1	1	0
Culvert 556+96	556+32 to 557+69	USH 12	2	0	0	2	103	134	-132	0	132
Guardrail 4	581+00 to 586+00	USH 12	109	0	0	109	280	364	-255	0	255
Guardrail 5	587+00 to 596+00	USH 12	323	0	0	323	639	831	-508	0	508
Culvert 620+55	619+25 to 621+87	USH 12	27	0	0	27	340	442	-415	0	415
Storm Sewer	632+00 to 634+17	USH 12	7	0	0	7	134	174	-167	0	167
Slope Stabilization	687+45 to 690+00	USH 12	76	0	0	76	0	0	76	76	0
Culvert 716+80	715+59 to 718+00	USH 12	4	0	0	4	59	77	-73	0	73
Culvert 732+00	732+19 to 732+75	STH 67	6	0	0	6	5	7	-1	0	1
Culvert 737+08	736+12 to 737+33	USH 12	93	0	0	93	68	88	5	5	0
C-64-092 South	0+56 to 0+86	C-64-092	34	0	0	34	0	0	34	34	0
C-64-092 North	50+79 to 52+57	C-64-092	176	0	0	176	3	4	172	172	0
Grand Total			1604	150	0	1604	2618	3403	-1800	506	2305
		Total Common Exc	1754								

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unusable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with borrow material.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusable Pavement Material
- 6) Expanded Fill. Factor = 1.3
- 7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

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BASE AGGREGATE

ROADWAY	STATION	TO	STATION	OFFSET	305.0110	305.0120	624.0100
					BASE AGGREGATE	BASE AGGREGATE	
					DENSE 3/4-INCH	DENSE 1 1/4-INCH	WATER
					TON	TON	MGAL
USH 12	363+95		367+09	18' LT	11	--	1
	363+95		402+12	18' RT	132	--	2
	369+55		429+01	18' LT	203	--	4
	374+54		374+66	--	--	29	1
	403+76		479+18	18' RT	257	--	4
	428+62		428+70	--	--	26	1
	430+22		469+23	18' LT	133	--	2
	470+15		478+30	18' LT	28	--	1
	479+55		501+29	18' LT	118	79	3
	491+49		516+84	18' RT	158	236	6
	502+93		556+38	18' LT	269	253	8
	504+99		507+16	21'-27' RT	16	--	1
	508+90		509+70	--	--	225	4
	518+48		557+09	18' RT	178	176	6
	528+43		528+49	--	--	16	1
	556+92		556+98	--	--	18	1
	560+31		569+82	18' RT	32	--	1
	556+46		568+20	18' LT	8	--	1
	571+25		621+87	18' RT	287	531	13
	581+87		621+53	18' LT	228	248	8
	582+73		583+46	--	--	224	4
	620+49		620+61	--	--	34	1
	623+27		623+62	22' LT	--	6	1
	624+43		624+56	45' LT	7	3	1
	624+99		625+14	40' LT	5	4	1
	628+69		691+00	18' LT	212	--	4
	632+32		686+30	18' RT	188	--	3
	692+19		724+75	18' RT	116	--	2
	692+30		726+34	18' LT	130	--	2
	716+73		716+81	--	--	18	1
	723+80		726+26	--	--	114	2
	726+64		727+72	--	--	54	1
	726+71		727+50	18' LT	6	--	1
	728+29		731+52	--	--	207	4
	735+50		737+50	18' RT	7	--	1
TABLE TOTALS					2729	2501	98

CONTINUED

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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BASE AGGREGATE

ROADWAY	STATION	TO	STATION	OFFSET	305.0110	305.0120	624.0100
					BASE AGGREGATE	BASE AGGREGATE	
					DENSE 3/4-INCH	DENSE 1 1/4-INCH	WATER
					TON	TON	MGAL
STH 20	728+02		729+80	113' LT	16	--	1
	728+58		729+97	113' LT	18	--	1
USH 12/STH 67	728+66		731+32	18' LT	34	--	1
	731+48		737+50	18' LT	23	--	1
	731+89		732+30	58' LT	--	22	1
	736+79		737+04	18' RT	--	8	1
	736+92		737+14	--	--	45	1
TABLE TOTALS					91	75	7
PROJECT TOTALS					2820	2576	105

SELECT BORROW

ROADWAY	STATION	TO	STATION	OFFSET	208.1100
					SELECT BORROW
					CY
USH 12	583+00		583+00	LT/RT	850
PROJECT TOTALS					850

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

FOUNDATION FOR ASPHALTIC PAVING

LOCATION	STATION TO STATION		211.0101	211.0400
			PREPARE	PREPARE
			FOUNDATION FOR ASPHALTIC PAVING	FOUNDATION FOR ASPHALTIC SHOULDERS
			EACH	STA
3130-03-71	363+95	737+50	1	--
USH 12	479+00	480+00	--	1
	490+00	492+00	--	2
	507+00	513+00	--	6
	525+00	532+00	--	7
	580+00	586+00	--	6
	587+00	597+00	--	10
PROJECT TOTALS			1	32

ASPHALT PAVEMENT

ROADWAY	STATION	TO	STATION	OFFSET	455.0605	460.6223	460.6224	465.0105	465.0115	SPV.0195.01
					TACK COAT	HMA PAVEMENT	HMA PAVEMENT	ASPHALTIC	ASPHALTIC	ASPHALTIC
					GAL	3 MT 58-28 S	4 MT 58-28 S	SURFACE	SURFACE DETOURS	REPAIR
						TON	TON	TON	TON	TON
USH 12	363+95		737+50	--	2676	21325	16391	511	--	2437
DNR	478+41		478+82	114' LT	--	--	25	--	--	--
	518+67		518+85	32' LT	--	--	4	--	--	--
	539+56		539+91	23' LT	--	--	6	--	--	--
STH 20	727+70		728+66	--	18	140	109	--	--	16
STH 67	731+98		732+20	--	8	51	40	13	--	6
DETOUR	--		--	--	--	--	--	--	236	--
PROJECT TOTALS					2702	21516	16575	524	236	2459

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QMP ITEMS		
LOCATION	HMA PWL TEST STRIP VOLUMETRICS EACH	HMA PWL TEST STRIP DENSITY EACH
PROJECT ID 3130-03-71	2	2
PROJECT TOTALS	2	2

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID TIEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANES	333+00 TO 737+50	LOWER LAYER	MILLED EXISTING HMA SURFACE OR EXISTING CONCRETE PAVEMENT	HMA PAVEMENT 3 MT 58-28 S	16264	2-1/4"	PWL Incentive Air Voids, HMA pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
SHOULDERS	333+00 TO 737+50	LOWER LAYER	MILLED EXISTING HMA SURFACE OR EXISTING CONCRETE PAVEMENT	HMA PAVEMENT 3 MT 58-28 S	5241	2-1/4"	QMP as per SS 460	Incentive Density HMA Pavement 460.2000
12 FOOT DRIVING LANES	333+00 TO 737+50	UPPER LAYER	HMA PAVEMENT 3 MT 58-28 S	HMA PAVEMENT 4 MT 58-28 S	12555	1-3/4"	PWL Incentive Air Voids, HMA pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
SHOULDERS & DRIVEWAYS	333+00 TO 737+50	UPPER LAYER	HMA PAVEMENT 3 MT 58-28 S OR EXISTING BASE AGGREGATE	HMA PAVEMENT 4 MT 58-28 S	4020	1-3/4" TO 3"	QMP as per SS 460	Incentive Density HMA Pavement 460.2000
VARIES	VARIES	VARIES	VARIES	ASPHALTIC SURFACE	524	VARIES	QMP as per SS 465	Acceptance by ordinary compaction

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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RUMBLE STRIPS

ROADWAY	465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
EB SHOULDER	27206	--
WB SHOULDER	27204	--
CENTERLINE	--	31218
PROJECT TOTALS	54410	31218

HIGH FRICTION SURFACE TREATMENT

ROADWAY	STATION	TO	STATION	SPV.0180.01 RESIN BINDER HIGH FRICTION SURFACE TREATMENT SY
USH 12	726+21		734+40	3350
PROJECT TOTALS				3350

FLUMES

ROADWAY	STATION	OFFSET	465.0315 ASPHALTIC FLUMES SY	602.3010 CONCRETE SURFACE DRAINS CY
USH 12	510+19	22' LT	3	--
	591+96	21' LT	3	--
	593+28	21' LT	3	--
	737+10	17' RT	--	1
PROJECT TOTALS			9	1

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CULVERT PIPE STRUCTURES

ROADWAY	STRUCTURE NO.	STATION	OFFSET (FT) *	LOCATION	FLOW ELEV	STRUCTURE TYPE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CALSS	PIPE SIZE (INCH)
USH 12	1A	374+57	24.5	RT	830.4	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	1A	2A	830.40	830.20	0.42	48.0	IV	19x30
USH 12	2A	374+57	23.4	LT	830.2	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	--	--	--	--	--	--	--	19x30
USH 12	1B	374+62	24.5	RT	830.4	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	1B	2B	830.40	830.20	0.42	48.0	IV	19x30
USH 12	2B	374+62	23.4	LT	830.2	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	--	--	--	--	--	--	--	19x30
USH 12	3	428+66	37.4	LT	860.7	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	3	4	860.70	860.30	0.53	76.0	IV	48
USH 12	4	428+67	38.2	RT	860.3	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	--	--	--	--	--	--	--	48
USH 12	5	509+30	69.6	RT	968.4	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	5	6	968.34	967.36	0.73	134.0	IV	24
USH 12	6	509+30	64.8	LT	967.4	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	--	--	--	--	--	--	--	24
USH 12	7	528+46	28.7	RT	965.1	APRON ENDWALLS FOR CULVERT PIPE	7	8	965.12	961.40	5.79	64.0	III-A	24
USH 12	8	528+47	35.5	LT	961.4	APRON ENDWALLS FOR CULVERT PIPE	--	--	--	--	--	--	--	24
USH 12	9	556+96	29.8	RT	972.9	APRON ENDWALLS FOR CULVERT PIPE	9	10	972.90	971.37	2.29	67.0	III-A	24
USH 12	10	556+95	37	LT	971.37	APRON ENDWALLS FOR CULVERT PIPE	--	--	--	--	--	--	--	24
USH 12	11	620+55	28.6	RT	937.4	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	11	12	937.40	935.80	2.53	63.0	IV	36
USH 12	12	620+55	34.7	LT	935.8	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	--	--	--	--	--	--	--	36
USH 12	13	716+77	27.8	RT	975.4	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	13	14	975.38	974.98	0.79	51.0	IV	24x38
USH 12	14	716+77	22.8	LT	975	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	--	--	--	--	--	--	--	24x38
USH 12	15	731+83	41.4	LT	979.22	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	15	16	979.22	977.02	2.97	74.0	IV	19x30
USH 12	16	732+39	81	LT	977.02	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	--	--	--	--	--	--	--	19x30
USH 12	17	736+92	31.2	RT	971.29	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	17	18	971.29	970.20	1.75	62.0	IV	36
USH 12	18	737+08	29	LT	970.2	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	--	--	--	--	--	--	--	36

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

*OFFSET TO END OF CULVERT PIPE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

			<u>CULVERT PIPES</u>							
			520.3424	522.0436	522.0448	522.2419	522.2424	525.0118	525.0124	SPV.0090.01
			CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE
			CLASS III-A	REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED
			NON-METAL	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS
			24-INCH	IV 36-INCH	IV 48-INCH	HE-IV 19X30-INCH	HE-IV 24X38-INCH	ALUMINUM 18-INCH	ALUMINUM 24-INCH	CLASS IV 24-INCH STA
ROADWAY	STATION	OFFSET	LF	LF	LF	LF	LF	LF	LF	LF
USH 12	374+60	--	--	--	--	96	--	--	--	--
	428+66	--	--	--	76	--	--	--	--	--
	509+30	--	--	--	--	--	--	--	--	134
	528+47	--	64	--	--	--	--	--	--	--
	556+96	--	67	--	--	--	--	--	--	--
	589+82	--	--	--	--	--	--	--	8	--
	620+55	--	--	63	--	--	--	--	--	--
	632+98	--	--	--	--	--	--	9	--	--
	716+80	--	--	--	--	--	51	--	--	--
	732+00	56' LT	--	--	--	74	--	--	--	--
	737+08	--	--	62	--	--	--	--	--	--
PROJECT TOTALS			131	125	76	170	51	9	8	134

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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3

CULVERT ENDWALLS

ROADWAY	STATION	OFFSET	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	522.2624 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH	525.0318 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 18-INCH	525.0324 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 24-INCH
			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
US 12	339+91	LT	--	1	--	--	--	--	--	--
	374+60	--	--	--	--	--	4	--	--	--
	428+66	--	--	--	--	2	--	--	--	--
	509+30	--	--	2	--	--	--	--	--	--
	528+47	--	2	--	--	--	--	--	--	--
	556+96	--	2	--	--	--	--	--	--	--
	589+82	RT	--	--	--	--	--	--	--	1
	620+55	--	--	--	2	--	--	--	--	--
	632+98	--	--	--	--	--	--	--	1	--
	716+80	--	--	--	--	--	--	2	--	--
	732+00	56' LT	--	--	--	--	2	--	--	--
	737+08	--	--	--	2	--	--	--	--	--
PROJECT TOTALS			4	3	4	2	6	2	1	1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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CULVERTS AND EDGEDRAIN MARKERS

633.5200

ROADWAY	STATION	OFFSET	MARKERS CULVERT END EACH
US 12	339+91	LT	1
	374+60	LT/RT	2
	428+66	LT/RT	2
	509+30	LT/RT	2
	528+47	LT/RT	2
	556+96	LT/RT	2
	589+84	RT	1
	620+55	LT/RT	2
	632+63	RT	1
	632+98	RT	1
	716+80	LT/RT	2
	731+78	LT	2
	737+08	LT/RT	2
	PROJECT TOTALS		

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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CURB AND GUTTER

601.0411 601.0557
 CONCRETE CONCRETE
 CURB & GUTTER CURB & GUTTER
 30-INCH TYPE D 6-INCH SLOPED
 36-INCH TYPE D 36-INCH TYPE D

ROADWAY	STATION	TO	STATION	OFFSET	LF	LF	COMMENT
US 12	623+27		623+62	30' LT	35	--	Driveway Removal
	624+44		624+57	30' LT	16		NW Quadrant
	624+97		625+09	31' LT	20	--	NE Quadrant
	724+99		726+24	3' RT	--	256	Island
	726+66		727+70	4' RT	--	218	Island
	728+31		731+50	6' RT	--	480	Island
	736+79		737+24	18' RT	45	--	SB Outside
PROJECT TOTALS					116	954	

PEDESTRIAN CURB

601.0600
 CONCRETE
 CURB
 PEDESTRIAN

ROADWAY	STATION	TO	STATION	OFFSET	LF
US 12	625+06		625+06	35' LT	17
PROJECT TOTALS					17

TRACKING PAD

628.7560
 TRACKING PADS

LOCATION	EACH
Project No. 3130-03-71	2
PROJECT TOTALS	2

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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MEDIAN NOSE

ROADWAY	STATION	TO	STATION	OFFSET	620.0100	620.0300
					CONCRETE CORRUGATED MEDIAN SF	CONCRETE MEDIAN SLOPED NOSE SF
US 12	723+82		724+99	2' RT	816	--
	726+66		726+73	3' RT	--	59
	727+62		727+70	3' RT	--	59
	728+31		728+38	3' RT	--	61
	730+69		731+50	3' RT	702	--
PROJECT TOTALS					1518	179

GUARDRAIL

ROADWAY	STATION	TO	STATION	OFFSET	614.0360	614.2300	614.2330	614.2610	614.0397	
					STEEL PLATE BEAM GUARD TEMPORARY LF	MGS GUARDRAIL 3 LF	MGS GUARDRAIL 3 K LF	MGS GUARDRAIL TERMINAL EAT EACH	GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	
US 12	480+32		490+27	20' LT	--	1000	--	2	450	
	505+72		508+44	20' RT	--	275	--	1	137	
	508+44		511+44	20' RT	100	--	300	1	147	
	508+52		512+40	20' LT	100	388	--	2	212	
	526+30		527+05	18' RT	25	75	--	2	90	
	527+05		529+04	18' RT	25	--	200	--	78	
	527+80		529+93	19' LT	--	--	213	2	144	
	529+93		531+20	19' LT	--	127	--	--	49	
	581+55		583+41	21' RT	100	187	--	2	133	
	582+75		584+77	21' LT	100	200	--	2	138	
	588+72		593+43	17' RT	--	475	--	2	245	
	588+73		595+28	22' LT	--	650	--	2	313	
	PROJECT TOTALS					450	3377	713	18	2137

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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SIDEWALK

ROADWAY	STATION	TO	STATION	OFFSET	602.0405	602.0410
					CONCRETE	CONCRETE
					SIDEWALK 4-INCH	SIDEWALK 5-INCH
					SF	SF
US 12	624+43		624+55	45' LT	--	217
	625+00		625+13	40' LT	--	137
	724+99		726+21	2' RT	487	--
	726+72		727+62	2' RT	357	--
	728+37		730+69	2' RT	2152	--
PROJECT TOTALS					2996	354

DETECTABLE WARNING FIELDS

ROADWAY	STATION	OFFSET	602.0505
			CURB RAMP DETECTABLE WARNING FIELD YELLOW
			SF
US 12	624+50	31' LT	10
	625+03	31' LT	10
PROJECT TOTALS			20

CURB RAMP GRADING

LOCATION	SPV.0060.02
	CURB RAMP GRADING, SHAPING AND FINISHING
	EACH
Project No. 3130-03-71	2
PROJECT TOTALS	2

3

FINISHING ROADWAY

213.0100
FINISHING
ROADWAY
3130-03-01

LOCATION	EACH
Project No. 3130-03-71	1
PROJECT TOTALS	1

FIELD OFFICE

SPV.0060.03
FIELD OFFICE
TYPE T

LOCATION	EACH
Project No. 3130-03-71	1
PROJECT TOTALS	1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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MOBILIZATION

619.1000
MOBILIZATION

LOCATION	EACH
Project No. 3130-03-71	1
PROJECT TOTALS	1

PROGRESS SCHEDULE

108.4300
CPM PROGRESS
SCHEDULE

LOCATION	EACH
Project No. 3130-03-71	1
PROJECT TOTALS	1

TRAFFIC CONTROL

643.5000
TRAFFIC
CONTROL

LOCATION	EACH
Project No. 3130-03-71	1
PROJECT TOTALS	1

HAUL ROAD MAINTENANCE

618.0100
MAINTENANCE AND
REPAIR OF HAUL ROADS
3130-03-71

LOCATION	EACH
Project No. 3130-03-71	1
PROJECT TOTALS	1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CONSTRUCTION STAKING

LOCATION	650.4000 CONSTRUCTION STAKING SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER & GUTTER LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT (C-64-092) EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.8501 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (3130-03-71) EACH	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500 CONSTRUCTION STAKING SIDEWALK (3130-03-71) EACH	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (3130-03-71) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
Project No. 3130-03-71	2	73	233	1087	10	1	40403	1	2	1	1	6185
PROJECT TOTALS	2	73	233	1087	10	1	40403	1	2	1	1	6185

LOCATING NO-PASSING ZONES

ROADWAY	STATION	TO	STATION	OFFSET	648.0100 LOCATING NO-PASSING ZONES MI
US 12	363+95		737+50	--	7.07
PROJECT TOTALS					7.07

SECTION CORNERS

SPV.0060.01
SECTION CORNER MONUMENTS

LOCATION	EACH
624+78.99, 1.22' RT	1
651+55.91, 1.27' RT	1
678+41.49, 3.47' LT	1
705+02.85, 8.27' LT	1
PROJECT TOTALS	4

UNDERDRAIN

ROADWAY	STATION	TO	STATION	OFFSET	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0700 DRAIN TILE EXPLORATION LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH
US 12	374+60		374+60	20' LT	--	10	--
	621+32		621+33	30' RT	8	10	1
	621+33		621+34	32' LT	6	10	1
PROJECT TOTALS					14	30	2

UTILITY LINE OPENING

SPV.0060.04
UTILITY LINE OPENING

LOCATION	EACH
Project No. 3130-03-71	4
PROJECT TOTALS	4

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SAWING

ROADWAY	STATION	TO	STATION	OFFSET	690.0150	690.0250
					SAWING ASPHALT	SAWING CONCRETE
					LF	LF
USH 12	374+54		374+54	LT/RT	12	22
	374+66		374+66	LT/RT	12	22
	428+62		428+62	LT/RT	20	22
	428+70		428+70	LT/RT	20	22
	478+73		478+83	112' LT	50	--
	504+99		507+16	21'-27' RT	219	--
	508+90#		508+90#	LT/RT	38	--
	509+70#		509+70#	LT/RT	16	22
	528+43		528+43	LT/RT	12	22
	528+49		528+49	LT/RT	12	22
	556+92		556+92	LT/RT	19	22
	556+98		556+98	LT/RT	19	22
	582+73#		582+73#	LT/RT	20	22
	583+46#		583+46#	LT/RT	20	22
	620+49		620+49	LT/RT	16	22
	620+61		620+61	LT/RT	16	22
	623+27		623+62	29' LT	35	--
	623+27		623+62	22' LT	39	6
	624+44		624+57	30' LT	21	6
	624+95		625+08	32' LT	26	--
	624+97		625+00	40' LT	--	3
	625+08		625+10	26' LT	--	3
	716+73		716+73	LT/RT	12	22
	716+81		716+81	LT/RT	12	22
	723+80		726+26	--	508	--
	726+64		727+72	--	231	--
	728+28		731+52	--	662	--
	736+79		737+24	13' LT	49	--
	736+92		737+01	--	35	--
	737+14		737+14	--	34	--
STH 67	731+89		732+24	60' LT	46	--
	731+93		732+30	56' LT	49	--
PROJECT TOTALS					2280	348

FINAL LOCATION TO BE DETERMINED BY THE CONTRACTOR

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ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STORM SEWER

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ROADWAY	STRUCTURE NO.	STATION	RIM OR FLOW OFFSET	ELEVATION	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH ¹ (FT)	STRUCTURE		ELEVATION		SLOPE %	608.3018	520.1018
								FROM	TO	INLET	DISCH		STORM SEWER PIPE CLASS III-A	APRON ENDWALLS FOR CULVERT PIPE
													18-INCH LF	18-INCH EACH
US 12	21	632+27	25.5' RT	940.15	MANHOLE	J	4.86	21	22	935.29	935.20	0.28	32	
	22	632+57	36.4' RT	935.20	APRON ENDWALL									1
PROJECT TOTALS													32	1

¹STRUCTURE DEPTH = RIM ELEVATION - INLET ELEVATION

INELTS AND MANHOLES

ROADWAY	STATION	OFFSET	611.2004	611.0530
			MANHOLES 4-FT DIAMETER EACH	MANHOLE COVERS TYPE J EACH
US 12	632+27	25.5' RT	1	1
PROJECT TOTALS			1	1

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ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SILT FENCE

628.1504 628.1520

SILT FENCE

SILT FENCE MAINTENANCE

ROADWAY	STATION TO	STATION	OFFSET	LF	LF
USH 12	374+12	375+87	25' RT	80	80
	374+19	374+73	28' LT	60	60
	427+86	428+87	49' LT	130	130
	428+38	429+70	47' RT	150	150
	479+62	480+48	46' LT	90	90
	483+16	438+56	34' LT	40	40
	487+36	487+67	34' LT	40	40
	489+86	492+20	25' LT	230	230
	502+98	503+28	33' RT	30	30
	503+96	512+92	39' RT	1000	1000
	507+18	508+29	47' LT	610	610
	512+48	513+62	49' LT	150	150
	526+33	529+81	30' LT	360	360
	556+35	557+74	24' RT	170	170
	556+51	557+71	32' LT	130	130
	580+92	585+24	60' RT	510	510
	581+60	586+33	76' LT	640	640
	586+98	587+85	26' RT	90	90
	587+33	587+81	29' LT	50	50
	588+09	588+71	37' LT	70	70
	588+17	594+54	51' RT	670	670
	589+12	594+72	25' LT	580	580
	619+20	621+87	43' RT	270	270
	620+05	621+64	46' RT	180	180
	632+03	633+90	42' RT	190	190
	715+77	718+04	34' RT	240	240
	716+35	718+01	31' LT	180	180
	732+21	732+78	84' LT	70	70
	735+71	737+35	44' RT	170	170
	736+96	737+10	30' LT	20	20
	737+24	737+30	30' LT	20	20
PROJECT TOTALS				7,220	7,220

EROSION CONTROL

628.7504 628.7555 628.7570 628.1104
CULVERT

TEMPORARY PIPE ROCK EROSION
DITCH CHECKS CHECKS BAGS BALES

ROADWAY	STATION TO	STATION	OFFSET	LF	EACH	EACH	EACH
USH 12	374+55	--	30' RT	--	10	--	--
	428+65	--	54' LT	--	10	--	--
	509+30	--	78' RT	--	3	--	--
	527+96	--	35' RT	6	--	--	--
	528+47	--	37' RT	--	3	--	--
	528+97	--	35' RT	6	--	--	--
	556+96	--	37' RT	--	3	--	--
	583+55	--	134' LT	6	--	--	--
	589+83	--	56' RT	--	3	--	--
	620+55	--	45' RT	--	7	--	--
	716+77	--	36' RT	--	7	--	--
	731+73	--	36' LT	--	3	--	--
	736+90	--	39' RT	--	7	--	--
	737+15	--	40' LT	6	--	--	--
	UNDISTRIBUTED	--	--	--	--	--	10
PROJECT TOTALS				24	56	10	10

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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					<u>RIPRAP</u>				
					606.0050	606.0200	606.0300	645.0120	645.0130
					RIPRAP EXTRA-LIGHT	RIPRAP MEDIUM	RIPRAP HEAVY	GEOTEXTILE TYPE HR	GEOTEXTILE TYPE R
ROADWAY	STATION	TO	STATION	OFFSET	CY	CY	CY	SY	SY
USH 12	528+47		528+47	50' LT	--	1	--	--	3
	556+95		556+95	46' LT	--	1	--	--	3
	582+68		583+07	50' LT	--	10	--	--	29
	583+01		583+24	70' RT	--	--	41	61	--
	583+07		583+42	77' LT	--	--	73	109	--
	620+55		620+55	56' LT	--	3	--	--	9
	687+45		690+00	25' LT	7	--	--	--	22
	737+10		737+10	39' RT	--	2	--	--	6
PROJECT TOTALS					7	17	113	170	72

INLET PROTECTION

					628.7015
					INLET PROTECTION TYPE C
ROADWAY	STATION	TO	STATION	OFFSET	EACH
USH 12	625+00		632+00	--	3
PROJECT TOTALS					3

MOBILIZATION

			628.1905	628.1910
			MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL
LOCATION	EACH	EACH		
Project No. 3130-03-01	28	7		
PROJECT TOTALS		28	7	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

ROADWAY	STATION TO	STATION	OFFSET	RESTORATION								
				628.2002	628.2023	628.2039	625.0100	625.0500	629.0205	630.0140	630.0500*	
				EROSION MAT	EROSION MAT	EROSION MAT	TOPSOIL	TOPSOIL	FERTILIZER	SEEDING	SEED	
				CLASS I TYPE A	CLASS II TYPE B	CLASS III TYPE D	TOPSOIL	TOPSOIL	TYPE A	NO. 40	WATER	
			SY	SY	SY	SY	SY	CWT	LB	MGAL		
US 12	374+13	374+84	24' RT	36	--	--	36	--	0.0	0	1	
	374+20	374+69	24' LT	27	--	--	27	--	0.0	0	1	
	427+90	428+83	34' LT	330	--	--	330	--	0.2	4	7	
	428+42	429+67	39' RT	296	--	--	--	296	0.2	4	7	
	479+64	480+46	34' LT	169	--	--	--	169	0.1	2	4	
	483+18	483+54	31' LT	60	--	--	60	--	0.0	1	1	
	487+39	487+63	27' LT	13	--	--	13	--	0.0	0	0	
	489+88	490+80	28' LT	35	--	--	35	--	0.0	0	1	
	503+00	512+91	34' RT	1176	--	--	--	1176	0.7	16	26	
	507+23	513+57	42' LT	1530	--	--	--	1530	1.0	21	34	
	526+39	529+76	35' LT	758	--	--	--	758	0.5	10	17	
	527+64	530+61	35' RT	666	--	--	--	666	0.4	9	15	
	556+32	557+78	28' RT	232	--	--	--	232	0.1	3	5	
	556+53	557+68	28' LT	207	--	--	--	207	0.1	3	5	
	580+96	585+23	37' RT	612	--	--	--	612	0.4	8	14	
	581+87	586+32	41' LT	525	210	--	150	585	0.5	10	17	
	587+00	594+50	39' RT	1833	--	--	--	1833	1.2	25	41	
	587+39	593+73	28' LT	187	--	--	187	--	0.1	3	4	
	619+23	621+87	34' RT	721	--	--	--	721	0.5	10	16	
	620+00	621+61	30' LT	357	--	--	--	357	0.2	5	8	
	623+27	625+13	LT	58	--	--	58	--	0.0	1	1	
	632+00	633+90	33' RT	417	--	--	--	417	0.3	6	9	
	687+45	690+00	28' LT	190	277	277	467	--	0.3	6	10	
	715+80	718+03	27' RT	370	--	--	370	--	0.2	5	8	
	716+37	717+96	24' LT	173	--	--	173	--	0.1	2	4	
	731+68	731+91	33' LT	55	--	--	55	--	0.0	1	1	
	732+17	732+74	72' LT	105	--	--	--	105	0.1	1	2	
	735+75	737+35	33' RT	482	--	--	--	482	0.3	7	11	
	736+98	737+25	28' LT	49	--	--	49	--	0.0	1	1	
PROJECT TOTALS				11668	487	277	2008	10146	8	164	273	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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3

LOCATION	TEMPORARY SEED	
	630.0200 SEEDING TEMPORARY LB	630.0500* SEED WATER MGAL
Project No. 3130-03-71	63	52
PROJECT TOTALS	63	52

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATION	MULCH
	627.0200 MULCHING SY
Project No. 3130-03-71	2319
PROJECT TOTALS	2319

TYPE II PERMANENT SIGNING

3130-03-71 USH 12

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			637.2210	637.2230	637.2215	638.2102	638.2602	638.3000	634.0618	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
				W [IN.]	x	H [IN.]	SIGNS TYPE II REFLC H [SF]	SIGNS TYPE II REFLC F [SF]	SIGNS TYPE II REFLC H FOLDING [SF]	MOVING SIGNS TYPE II [EA]	REMOVING SIGNS TYPE II [EA]	REMOVING SMALL SIGN SUPPORTS [EA]	POSTS WOOD 4"X6"X18' [EA]		
100	R1-1F(2S)	II	--	30	x	30	--	--	5.180	--	1	--	--	--	ON SIGNAL POLE
101	R1-1F(2S)	II	--	30	x	30	--	--	5.180	--	1	--	--	--	ON SIGNAL POLE
102	R1-1F(2S)	II	--	30	x	30	--	--	5.180	--	1	--	--	--	ON SIGNAL POLE
103	R1-1F(2S)	II	--	30	x	30	--	--	5.180	--	1	--	--	--	ON SIGNAL POLE
104	R2-1(2S)	II	55 MPH	24	x	30	5.000	--	--	--	1	1	1	--	--
105	W3-1(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	--
106	D1-1	II	PARKER RD	72	x	15	7.500	--	--	--	--	--	2	--	--
107	W3-1(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	--
108	D1-1	II	PARKER RD	72	x	15	7.500	--	--	--	--	--	2	--	--
109	W5-52L(2S)	II	--	12	x	36	--	3.000	--	--	1	1	1	--	--
110	W3-1(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	--
111	W11-15(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	--
112	W16-7L(2S)	II	--	24	x	12	--	2.000	--	--	1	--	--	111	--
113	W1-2L(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	--
114	W3-1(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	--
115	J1-1(2S)	II	--	24	x	39	6.500	--	--	--	1	1	1	--	--
	M2-1		--	21	x	15									
	M1-5A		COUNTY O	24	x	24									
116	W6-60(2S)	II	--	36	x	36	--	9.000	--	--	1	1	1	--	--
117	W3-1(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	--
118	D1-1	II	JACKSON RD	78	x	15	8.125	--	--	--	--	--	2	--	--
119	D1-1	II	JACKSON RD	78	x	15	8.125	--	--	--	--	--	2	--	--
120	W11-6(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	--
121	--	--	LA GRANGE	--	x	--	--	--	--	1	--	2	2	--	--
122	W11-8(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	--
123	J13-1(2S)	II	--	24	x	45	7.500	--	--	--	1	1	1	--	--
	M1-4		12	24	x	24									
	M6-4		--	21	x	21									
124	W4-2R	--	--	--	x	--	--	--	--	--	1	1	--	--	--
125	R1-1(2M)	II	--	36	x	36	7.460	--	--	--	1	1	1	--	--
126	W4-4C(2S)	II	12	24	x	12	--	2.000	--	--	1	--	--	125	MOUNT BELOW SIGN 125
127	R2-1(2S)	II	45 MPH	24	x	30	5.000	--	--	--	1	1	1	--	--
128	W1-2R(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	--
129	W13-1(2S)	II	40 MPH	18	x	18	--	2.250	--	--	1	--	--	128	MOUNT BELOW SIGN 128
130	W1-2R(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	--

TYPE II PERMANENT SIGNING

3130-03-71 USH 12

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			637.2210	637.2230	637.2215	638.2102	638.2602	638.3000	634.0618	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
				W [IN.]	x	H [IN.]	SIGNS TYPE II REFLC H [SF]	SIGNS TYPE II REFLC F [SF]	SIGNS TYPE II REFLC H FOLDING [SF]	MOVING SIGNS TYPE II [EA]	REMOVING SIGNS TYPE II [EA]	REMOVING SMALL SIGN SUPPORTS [EA]	POSTS WOOD 4"X6"X18' [EA]		
131	W13-1(2S)	II	40 MPH	18	x	18	--	2.250	--	--	1	--	--	130	MOUNT BELOW SIGN 129
132	R4-7(2S)	II	--	24	x	30	5.000	--	--	--	1	1	1	--	--
133	W5-54(2S)	II	--	18	x	18	--	2.250	--	--	1	--	--	132	MOUNT BELOW SIGN 132
134	R4-7(2S)	II	--	24	x	30	5.000	--	--	--	1	1	1	--	--
135	R3-20L(2S)	II	--	24	x	36	6.000	--	--	--	1	1	1	--	--
136	R4-7(2S)	II	--	24	x	30	5.000	--	--	--	1	1	1	--	--
137	R4-7(2S)	II	--	24	x	30	5.000	--	--	--	2	1	1	--	--
138	JV(2S)	II	--	48	x	93	31.000	--	--	--	1	1	2	--	--
	M3-2		--	24	x	12	--	--	--	--	--	--	--	--	--
	M3-2		--	24	x	12	--	--	--	--	--	--	--	--	--
	M1-6		20	24	x	24	--	--	--	--	--	--	--	--	--
	M1-4		12	24	x	24	--	--	--	--	--	--	--	--	--
	M3-1		--	24	x	12	--	--	--	--	--	--	--	--	--
	M3-3		--	24	x	12	--	--	--	--	--	--	--	--	--
	M1-6		67	24	x	24	--	--	--	--	--	--	--	--	--
	M1-6		67	24	x	24	--	--	--	--	--	--	--	--	--
	M6-2		--	21	x	21	--	--	--	--	--	--	--	--	--
	M6-2		--	21	x	21	--	--	--	--	--	--	--	--	--
139	W3-1(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	--
140	R4-7(2S)	II	--	24	x	30	5.000	--	--	--	1	1	1	--	--
141	W5-54(2S)	II	--	18	x	18	--	2.250	--	--	1	--	--	140	MOUNT BELOW SIGN 140
142	D1-61	II	TERRITORIAL RD	78	x	24	13.000	--	--	--	1	2	2	--	--
143	D17-2(2S)	II	1 MILE	36	x	48	12.000	--	--	--	--	--	1	--	SHEET 8
144	W1-7(2S)	II	--	48	x	24	--	8.000	--	--	--	--	1	--	SHEET 9
145	D17-2(2S)	II	1/2 MILE	36	x	48	12.000	--	--	--	--	--	1	--	SHEET 10
146	R4-53(2S)	II	--	54	x	54	20.250	--	--	--	--	--	2	--	SHEET 12
147	W11-15(2S)	II	--	30	x	30	--	6.250	--	--	1	1	1	--	SHEET 13
148	W16-9P(2S)	II	--	24	x	12	--	2.000	--	--	1	--	--	147	SHEET 13
149	W4-2R(2S)	II	--	36	x	36	--	9.000	--	--	--	--	1	--	SHEET 14
150	W1-4L(2S)	II	--	30	x	30	--	6.250	--	--	--	--	1	--	SHEET 20
151	W1-4L(2S)	II	--	30	x	30	--	6.250	--	--	--	--	1	--	SHEET 22
--	--	--	UNDISTRIBUTED	--	x	--	--	--	--	--	--	--	--	--	--
TOTALS							181.960	154.250	20.720	6	35	31	53		

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

*FOR PROJECT INFORMATION ONLY

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

NOTE: ALL COVERED SIGNS TO BE COVERED FOR DURATION OF WORK IN AREA, ONE CYCLE ONLY

ROADWAY	DURATION (CALENDAR DAYS)*	TRAFFIC CONTROL									
		643.0300		643.0420		643.0705		643.0900**		643.1070	
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL CONES 42-INCH	
		NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS
USH 12	138	--	--	38	5244	76	10488	81	11178	--	--
USH 12/CTH P SIGNALS	30	125	3750	4	120	8	240	8	240	--	--
STH 20/67 INTERSECTION	7	84	588	12	84	24	168	38	266	10	70
USH 12 CROSS CULVERTS	7	--	--	120	840	240	1680	40	280	--	--
USH 12 GUARDRAIL REPLACEMENT	3	86	258	--	--	--	--	--	--	--	--
CTH H INTERSECTION	7	25	175	10	70	20	140	4	28	--	--
PROJECT TOTALS			4771		6358		12716		11992		70

DETOUR TRAFFIC CONTROL

DETOUR PLAN	DURATION DAYS	643.0900* TRAFFIC CONTROL SIGNS		643.0920* TRAFFIC CONTROL COVERING SIGNS TYPE II	
		NO.**	DAYS	EA	
USH 12 CLOSURE	138	157	21666	14	
PROJECT TOTALS			21666	14	

TEMPORARY PEDESTRIAN ACCOMMODATION

ROADWAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
	LF
USH 12	40
PROJECT TOTALS	40

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

FIXED MESSAGE SIGNS

643.1000

LOCATION	SIGN NUMBER	NUMBER REQUIRED	SIGN SIZE		TRAFFIC CONTROL SIGNS		COMMENTS
			W	H	FIXED MESSAGE	SF	
USH 12	FMS 1	2	6.5	3.0		39	12 CLOSED USE ALT ROUTE
	FMS 2	2	6.5	3.0		39	12 E CLOSED FOLLOW DETOUR
	FMS 3	1	6.5	3.0		20	12 E CLOSED USE ALT ROUTE
	FMS 4	4	6.5	3.0		78	12 W CLOSED FOLLOW DETOUR
PROJECT TOTALS						176	

TEMPORARY PAVEMENT MARKING

643.3180

ROADWAY	TEMPORARY MARKING LINE REMOVABLE TAPE	
	YELLOW LF	WHITE LF
USH 12/STH 67	160	--
PROJECT TOTALS	160	

3

PORTABLE CHANGEABLE MESSAGE SIGNS

643.1050

ROADWAY	PCMS NUMBER	DURATION DAYS	TRAFFIC CONTROL SIGNS PCMS	
			NO.*	DAYS
USH 12	PCMS 5	14	4	56
	PCMS 6	7	2	14
PROJECT TOTALS			6	70

*FOR PROJECT INFORMATION ONLY

TEMPORARY RAISED PAVEMENT MARKERS

643.3760

ROADWAY	TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I	
	WHITE EACH	YELLOW EACH
USH 12/STH 67	--	5
PROJECT TOTALS		5

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PAVEMENT MARKING

ROADWAY	STATION	TO	STATION	646.2040										646.4040										646.5020										646.5120										646.5520										646.6120										646.7120										646.7420										646.8020										646.8120										646.8220									
				MARKING LINE GROOVED WET REF EPOXY										MARKING LINE GROOVED WET REF EPOXY										MARKING ARROW EPOXY										MARKING WORD EPOXY										MARKING OUTFALL EPOXY										MARKING STOP LINE EPOXY										MARKING DIAGONAL EPOXY										MARKING CROSSWALK EPOXY TRANVERSE LINE										MARKING CORRUGATED MEDIAN EPOXY										MARKING CURB EPOXY										MARKING ISLAND NOSE EPOXY									
				6-INCH					10-INCH					18-INCH					12-INCH					6-INCH																																																																																									
				WHITE LF	WHITE LF	WHITE LF	YELLOW LF	YELLOW LF	WHITE LF	WHITE LF	TYPE 2 EACH	EACH	EACH	WHITE LF	WHITE LF	LF	LF	LF	SF	LF	LF	EACH																																																																																											
US 12	363+95		737+50	72792	1469	190	49211	4189	947	43	6	2	2	--	140	--	533	108	2																																																																																														
COX ROAD	367+30		368+55	--	--	--	104	--	--	--	--	--	--	30	--	--	--	--	--																																																																																														
RELIANCE ROAD	402+29		403+52	--	--	--	122	--	--	--	--	--	--	43	--	--	--	--	--																																																																																														
PARKER ROAD	429+02		430+22	--	--	--	--	--	--	--	--	--	--	23	--	--	--	--	--																																																																																														
SWENO ROAD	469+22		470+38	--	--	--	--	--	--	--	--	--	--	27	--	--	--	--	--																																																																																														
SHERWOOD FOREST ROAD (W)	478+30		479+55	--	--	--	--	--	--	--	--	--	--	20	--	--	--	--	--																																																																																														
SHERWOOD FOREST ROAD (E)	501+37		502+55	--	--	--	--	--	--	--	--	--	--	25	--	--	--	--	--																																																																																														
CTH O	516+78		517+91	--	--	--	82	--	--	--	--	--	--	37	--	--	--	--	--																																																																																														
DUFFIN ROAD	564+35		565+46	--	--	--	78	--	--	--	--	--	--	21	--	--	--	--	--																																																																																														
JACKSON ROAD	569+96		571+05	--	--	--	80	--	--	--	--	--	--	31	--	--	--	--	--																																																																																														
CTH H	624+29		625+43	--	--	--	152	--	--	--	--	--	--	53	--	103	--	--	--																																																																																														
TAMARACK ROAD	691+12		692+26	--	--	--	--	--	--	--	--	--	--	38	--	--	--	--	--																																																																																														
STH 20	727+70		728+66	469	--	--	497	--	--	--	--	--	--	21	--	--	--	--	--																																																																																														
STH 67	731+92		733+32	344	--	--	293	--	69	--	--	--	--	19	13	--	--	--	--																																																																																														
TYPE TOTALS				73605	1469	190	50619	4189	1016	43	6	2	2	388	153	103	533	108	2																																																																																														
PROJECT TOTALS						130072			1059		6	2	2	388	153	103	533	108	2																																																																																														

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

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STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CABINET
1	CELLULAR MODEM
2	POLES TYPE 13
2	POLES TYPE 13 OVER HEIGHT
2	MONOTUBE ARMS 45-FT TYPE 12/13 POLE
2	MONOTUBE ARMS 50-FT
4	LUMINAIRE ARMS 15-FT
2	RADAR DETECTOR
4	EVP DETECTOR HEADS

STATE FURNISHED
FOR INFORMATION ONLY

SIGNAL BASE NO.	POLES TYPE 13 EACH	POLES TYPE 13 OVER HEIGHT EACH	MONOTUBE ARMS 45-FT TYPE 12/13 POLE EACH	MONOTUBE ARMS 50-FT EACH	LUMINAIRE ARMS STEEL 15-FT EACH	RADAR DETECTOR EACH	EVP DETECTOR HEADS EACH
SB1	1	--	--	1	1	--	1
SB3	--	1	1	--	1	1	1
SB5	1	--	--	1	1	--	1
SB8	--	1	1	--	1	1	1
TOTAL	2	2	2	2	4	2	4

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195 REMOVING CONCRETE BASES EACH
CB1	1
SB2	1
SB4	1
SB6	1
SB7	1
TOTAL	5

TRAFFIC SIGNAL REMOVALS

LOCATION	204.9060.S.01 REMOVING TRAFFIC SIGNALS EACH	204.9060.S.02 REMOVING LOOP DETECTOR WIRE & LEAD-IN CABLE EACH
USH 12/STH 59 & STH 59/CTH P	1	1
TOTAL	1	1

REMOVING PULL BOXES

PULL BOX NO.	653.0905 REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB6	1
PB7	1
PB11	1
TOTAL	6

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

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LAMP, BALLAST, LED, SWITCH DISPOSAL	
FIXTURE TYPE	EACH
TRAFFIC SIGNAL, THREE SECTION	10
TRAFFIC SIGNAL, FIVE SECTION	2
HIGH PRESSURE SODIUM LAMP	4
MERCURY SWITCHES	1
BALLASTS	4
TOTAL	21

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)					
SIGNAL BASE NO.	TRAFFIC SIGNAL, THREE SECTION EACH	TRAFFIC SIGNAL, FIVE SECTION EACH	HIGH PRESSURE SODIUM LAMP EACH	MERCURY SWITCHES EACH	BALLASTS EACH
CB1				1	
SB1	3				
SB2			1		1
SB3	2	1			
SB4		1	1		1
SB5	2				
SB6			1		1
SB7	3				
SB8			1		1
TOTAL	10	2	4	1	4

CONDUIT				
FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	
CB1	PB1	--	69	
PB4	SB1	--	33	
PB8	SB2	3	--	
PB9	SB3	--	10	
PB9	PB11	--	94	
PB11	SB4	19	--	
PB14	SB5	--	9	
PB17	SB6	4	--	
PB18	SB7	10	--	
PB19	SB8	--	32	
PB19	CB1	--	90	
PB1	OUTFALL	30	--	
PB2	OUTFALL	23	--	
PB3	OUTFALL	16	--	
PB6	OUTFALL	26	--	
PB7	OUTFALL	24	--	
PB9	OUTFALL	35	--	
PB11	OUTFALL	33	--	
TOTAL		223	337	

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

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TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** ^	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	EXISTING CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB17	334+06.1, 7.0' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	140	137	420
12	PB17	334+35.8, 6.9' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	137	306
21	PB7	339+13.3, 18.3' LT	6'X15'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	566	420
22	PB6	337+53.0, 18.4' LT	6'X10'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	405	380
31	PB12	334+87.9, 98.8' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	288	348
32	PB11	334+84.8, 71.0' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	110	253	330
41	PB3	334+25.7, 373.2' LT	6'X12'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	232	276
42	PB2	334+39.2, 245.7' LT	6'X10'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	86	102	258
43	PB18	334+57.7, 63.2' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	80	228
44	PB18	334+60.7, 35.4' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	80	216
51	PB10	335+54.4, 6.9' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	124	306	372
52	PB10	335+23.8, 6.8' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	132	306	396
61	PB16	330+37.4, 4.9' RT	6'X15'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	577	400
62	PB15	332+00.3, 5.0' RT	6'X10'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	416	370
71	PB18	334+68.4, 77.3' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	118	80	354
72	PB18	334+72, 49.7' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	80	318
81	PB13	335+29.6, 348.1' RT	6'X15'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	502	290
82	PB12	335+01.4, 78.0' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	288	270
83	PB11	334+97.4, 40.3' RT	6'X30'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	253	300
		***	***		***	1836***	5088	6252

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

*** EXISTING LOOP DETECTOR SIZE, LOCATION AND CONDUIT QUANTITY SHOWN FOR INFORMATION ONLY

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

3

PULL BOXES

PULL BOX NO.	LOCATION ^	653.0135	653.0140	653.0145	SPV.0060.51
		PULL BOXES STEEL 24x36-INCH EACH	PULL BOXES STEEL 24x42-INCH EACH	PULL BOXES STEEL 24x48-INCH EACH	PULL BOXES RIMS & COVERS EACH
PB1	334+18.8, 103.5' LT	--	--	1	--
PB2	334+10.9, 242.9' LT	1	--	--	--
PB3	333+97.7, 369.9' LT	1	--	--	--
PB4	335+06.4, 109.3' LT	--	--	--	1
PB5	335+43.1, 57.4' LT	--	--	--	1
PB6	337+53.4, 45.1' LT	1	--	--	--
PB7	339+13.2, 42.0' LT	1	--	--	--
PB8	335+06.9, 34.5' LT	--	--	--	1
PB9	335+45.5, 38.8' RT	--	--	--	1
PB10	335+62.6, 31.2' RT	--	--	--	1
PB11	335+16.6, 75.7' RT	--	1	--	--
PB12	335+21.0, 110.8' RT	--	--	--	1
PB13	335+46.6, 346.2' RT	--	--	--	1
PB14	334+35.5, 57.9' RT	--	--	--	1
PB15	331+99.6, 28.6' RT	--	--	--	1
PB16	330+37.3, 27.1' RT	--	--	--	1
PB17	334+42.9, 19.8' RT	--	--	--	1
PB18	334+45.9, 45.6' LT	--	--	--	1
PB19	334+17.6, 75.1' LT	--	--	--	1
TOTAL		4	1	1	13

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0260	655.0320
		CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	CABLE TYPE UF 2-10 AWG GROUNDED L.F.
CB1	SB1	189	--
CB1	SB2	298	--
CB1	SB3	358	--
CB1	SB4	430	--
CB1	SB5	230	--
CB1	SB6	171	--
CB1	SB7	119	--
CB1	SB8	89	--
CB1	SB1	--	189
SB1	SB3	--	259
CB1	SB5	--	230
SB5	SB8	--	229
TOTAL		1884	907

CONCRETE BASES

SIGNAL BASE NO.	LOCATION ^	654.0113	654.0217
		CONCRETE BASES TYPE 13 EACH	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	333+97.6, 96.9' LT	--	1
SB1	335+16.5, 77.8' LT	1	--
SB3	335+52.1, 31.8' RT	1	--
SB5	334+37.1, 67.0' RT	1	--
SB8	333+97.3, 50.7' LT	1	--
TOTAL		4	1

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC SIGNAL CABLE AND WIRE

655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG		
FROM	TO	L.F.
CB1	SB1	189
SB1	SB2	199
SB2	SB3	208
SB3	SB4	116
SB4	SB5	145
SB5	SB6	92
SB6	SB7	199
SB7	SB8	118
SB8	CB1	89
PB1	CB1	46
PB4	SB1	53
PB5	SB2	66
PB8	SB2	23
PB9	SB3	30
PB11	SB4	39
PB14	SB5	29
PB17	SB6	24
PB18	SB7	30
PB19	SB8	52
PB19	CB1	53
TOTAL		1800

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USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG
		L.F.	L.F.
SB6	HEAD 1	19	--
SB3	HEAD 2	66	--
SB3	HEAD 3	35	--
SB2	HEAD 4	--	22
SB3	HEAD 5	--	79
SB2	HEAD 6	19	--
SB8	HEAD 7	70	--
SB8	HEAD 8	35	--
SB6	HEAD 9	--	22
SB8	HEAD 10	--	83
SB4	HEAD 11	19	--
SB1	HEAD 12	70	--
SB1	HEAD 13	35	--
SB7	HEAD 14	--	22
SB1	HEAD 15	--	84
SB7	HEAD 16	19	--
SB5	HEAD 17	69	--
SB5	HEAD 18	35	--
SB4	HEAD 19	--	22
SB5	HEAD 20	--	81
TOTAL		491	415

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG
		L.F.
SB1	LUMIN	144
SB3	LUMIN	144
SB5	LUMIN	144
SB8	LUMIN	144
TOTAL		576

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE
		L.F.
CB1	SB8 (HEAD A)	147
CB1	SB3 (HEAD B)	411
CB1	SB5 (HEAD C)	291
CB1	SB1 (HEAD D)	251
TOTAL		1100

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION ^	656.0201.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL	
	EACH	
USH 12/STH 59 & STH 59/CTH P	1	
TOTAL		1

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	657.0100 PEDESTAL BASES	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT
	EACH	EACH
SB2	1	1
SB4	1	1
SB6	1	1
SB7	1	1
TOTAL		4

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

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POLES (STATE FURNISHED)

SIGNAL BASE NO.	SPV.0060.52	SPV.0060.53	SPV.0060.54	SPV.0060.55	SPV.0060.56	659.1125
	INSTALL POLES TYPE 13	INSTALL POLES TYPE 13 OVER HEIGHT	INSTALL MONOTUBE ARMS 45-FT TYPE 12/13 POLE	INSTALL MONOTUBE ARMS 50-FT	INSTALL LUMINAIRE ARMS STEEL 15-FT	LUMINAIRES UTILITY LED C
	EACH	EACH	EACH	EACH	EACH	EACH
SB1	1	--	--	1	1	1
SB3		1	1	--	1	1
SB5	1	--	--	1	1	1
SB8	--	1	1	--	1	1
TOTAL	2	2	2	2	4	4

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173	658.0174
		TRAFFIC SIGNAL FACE 3S 12-INCH	TRAFFIC SIGNAL FACE 4S 12-INCH
		EACH	EACH
1	SB6	1	--
2	SB3	1	--
3	SB3	1	--
4	SB2	--	1
5	SB3	--	1
6	SB2	1	--
7	SB8	1	--
8	SB8	1	--
9	SB6	--	1
10	SB8	--	1
11	SB4	1	--
12	SB1	1	--
13	SB1	1	--
14	SB7	--	1
15	SB1	--	1
16	SB7	1	--
17	SB5	1	--
18	SB5	1	--
19	SB4	--	1
20	SB5	--	1
TOTAL		12	8

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.01 SIGNAL MOUNTING HARDWARE EACH
USH12/STH 59 & STH 59/CTH P	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0201.01	677.0200.01
	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS EACH	INSTALL CAMERA ASSEMBLY TEMPORARY SIGNAL POLE EACH
USH 12/STH 59 & STH 59/CTH P	1	1
TOTAL	1	1

USH 12/STH 59 & STH 59/CTH P
WALWORTH COUNTY
CATEGORY 0120
S64-1017

3

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TRANSPORT AND INSTALL
STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0060.57 TRNSPT AND INSTALL STATE FURN TRAFFIC SIGNAL CABINET EACH
USH12/STH59 & STH 59/CTH P	1
TOTAL	1

TEMPORARY INFRARED EVP SYSTEM

LOCATION	SPV.0060.58 TEMP INFRARED EVP SYSTEM EACH
USH 12/STH 59 & STH 59/CTH P	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED
RADAR DETECTION SYSTEM

LOCATION	SPV.0060.59 TRNSPT & INSTALL STATE FURN RADAR DETECT SYS EACH
USH 12/STH 59 & STH 59/CTH P	1
TOTAL	1

TRANSPORT TRAFFIC SIGNAL
AND INTERSECTION LIGHTING MATERIALS

LOCATION	SPV.0060.60 TRNSPT TRAFFIC SIGNAL & INTER LIGHTING MATERIALS EACH
USH 12/STH 59 & STH 59/CTH P	1
TOTAL	1

EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0060.61 TRNSPT & INSTALL STATE FURN EVP HEADS EACH
USH 12/STH 59 & STH 59/CTH P	1
TOTAL	1

CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP ●
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		SIGN	
NEW R/W LINE	---	SIGN		OFF-PREMISE SIGN	
EXISTING R/W OR HE LINE	---	COMPENSABLE		NON-COMPENSABLE	
PROPERTY LINE	---	ELECTRIC POLE		TELEPHONE POLE	
LOT, TIE & OTHER MINOR LINES	---	PEDESTAL (LABEL TYPE)		(TV, TEL, ELEC, ETC.)	
SLOPE INTERCEPT	---	ACCESS RESTRICTED BY ACQUISITION		NO ACCESS (BY STATUTORY AUTHORITY)	
CORPORATE LIMITS	---	NO ACCESS (BY PREVIOUS PROJECT OR CONTROL)		NO ACCESS (NEW HIGHWAY)	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---	PARCEL NUMBER		UTILITY NUMBER	
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---	PARALLEL OFFSETS			
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING TO BE REMOVED					
BRIDGE					
CULVERT					

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
ELECTRIC TOWER	

CURVE DATA ABBREVIATIONS

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 ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS (100')	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM		
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED EASEMENT	TLE
GRID NORTH	GN		
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA ABBREVIATIONS

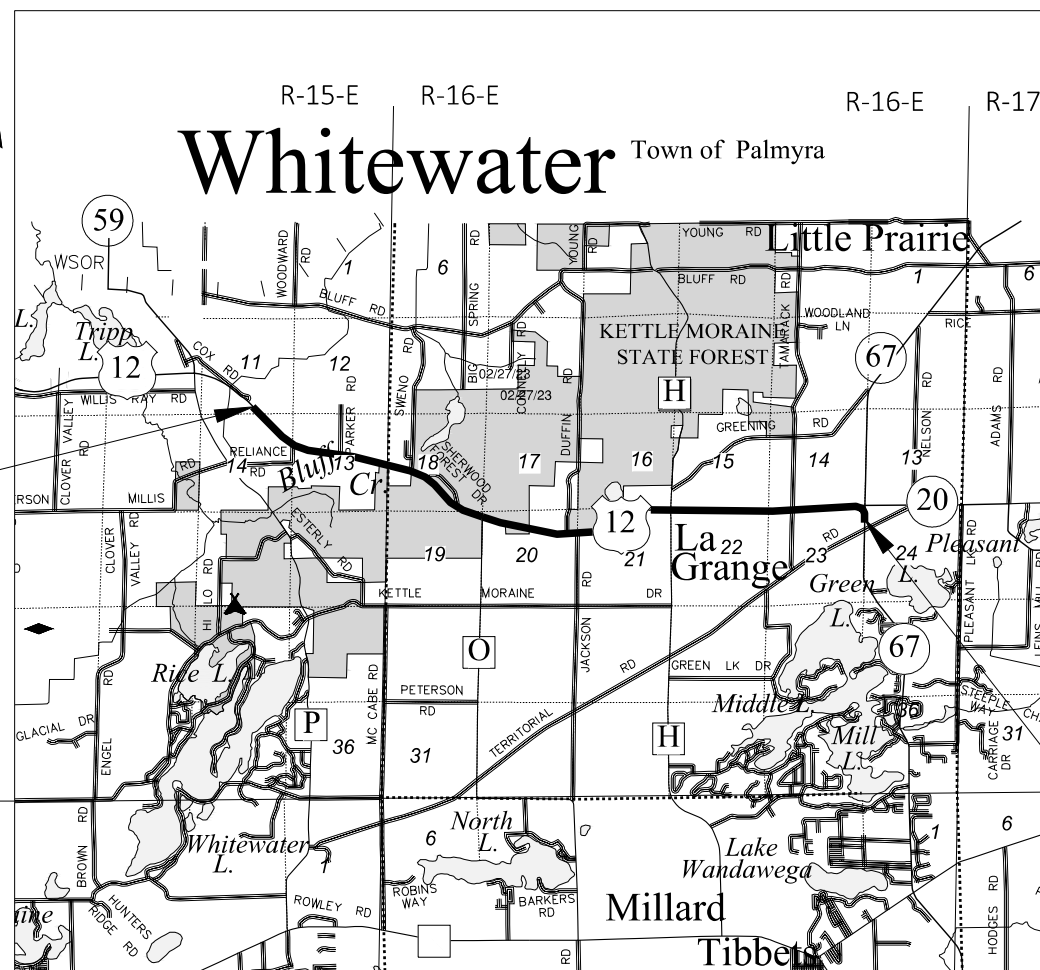
LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ / DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

BEGIN RELOCATION ORDER

STA 374+40
Y= 417343.37
X= 723804.76
2064.17' West &
312.74' North of the
Southeast Corner
Section 11

END RELOCATION ORDER

STA 737+40
Y= 411215.85
X= 757304.60
838.26' South & 16.50' West
of the Northeast Corner of Section 23



LAYOUT
SCALE 0 1 MI
TOTAL NET LENGTH OF CENTERLINE = 6.875 MI

R/W PROJECT NUMBER 3130-03-21	SHEET NUMBER 4.01	TOTAL SHEETS
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT OF WAY REQUIRED FOR WHITEWATER TO ELKHORN COX ROAD TO STH 20/67		
USH 12	WALWORTH COUNTY	
CONSTRUCTION PROJECT NUMBER 3130-03-71		

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WALWORTH COUNTY, NAD83 (2011) 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" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES. UNLESS OTHERWISE NOTED.

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.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE DETAIL PAGES.

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.

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, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A PERMANENT LIMITED EASEMENT(PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE 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 NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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.

DAAR ENGINEERING, INC.
www.daarcorp.com
Milwaukee, WI 53202
414-225-9817

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Eric E. Lindaas 02/27/2023

CAUTION:
THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

REVISION DATE RO 2: 05/22/2024	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
	APPROVED FOR THE DEPARTMENT DATE: 02/27/23 <i>Robert Duffeck</i> (Signature) ROBERT DUFFECK (PRINTED NAME)

SCHEDULE OF LANDS & INTERESTS REQUIRED

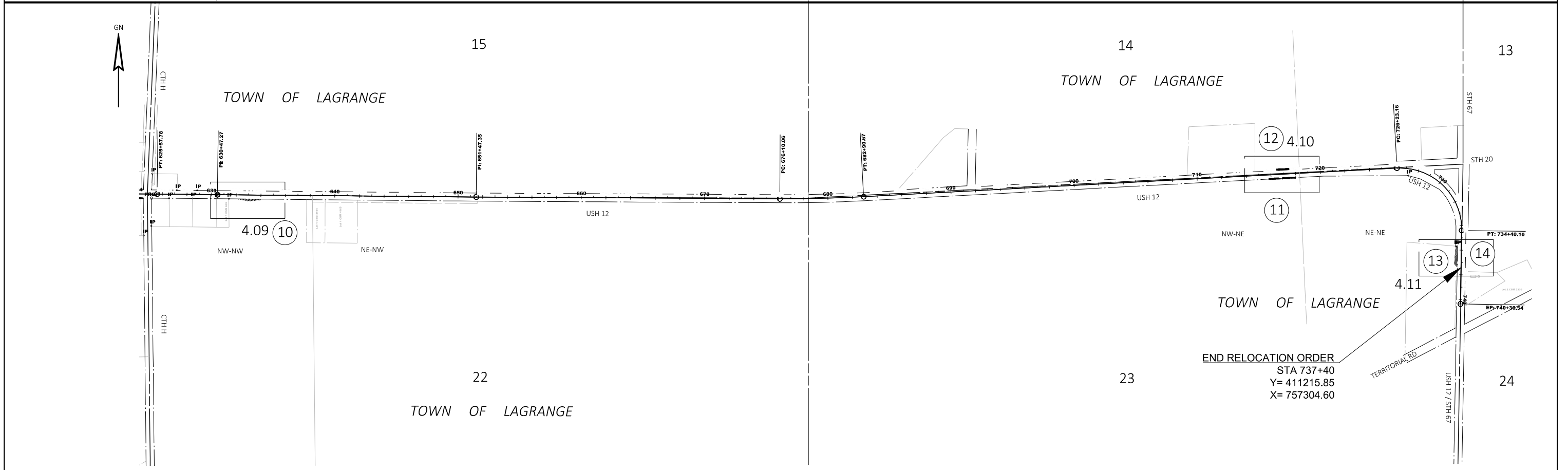
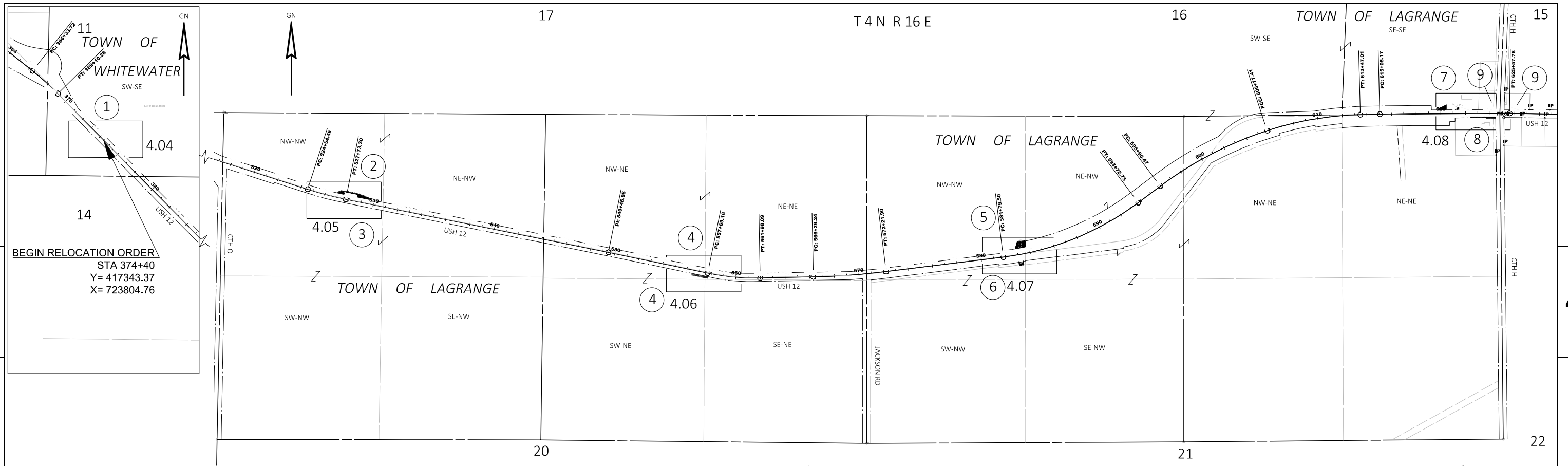
OWNERS NAME ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

4

4

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W REQUIRED (SF)			PLE (SF)	TLE (SF)
				NEW	EXISTING	TOTAL		
1	4.04	SUNSHINE GENETICS PROPERTIES, LLC	TLE	---	---	---	---	315
2	4.05	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	PLE	---	---	---	5,301	---
3	4.05	KATZMAN FARMS, INC	FEE	4,829	---	4,829	---	---
4	4.06	ARVEIG ACRES, LIMITED, A WISCONSIN CORPORATION	FEE	3,697	---	3,697	---	---
5	4.07	STATE OF WISCONSIN CONSERVATION COMMISSION	PLE, TLE	---	---	---	3,983	2,827
6	4.07	LAWRENCE R. MILLER & LINDA L. MILLER REVOCABLE TRUST	FEE, TLE	669	---	669	---	429
7	4.08	WAYNE R. BORCHARDT OR DARYL D. BORCHARDT, UNDER BORCHARDT FAMILY TRUST	FEE, PLE, TLE	722	---	722	130	3,741
8	4.08	ROBERTA MONAHAN	FEE, TLE	138	---	138	---	2,089
9	4.08	3 BEES INVESTING, LLC	FEE, TLE	207	---	207	---	96
10	4.09	ERIC J. & MICHELLE T. TAYLOR	FEE	2,135	---	2,135	---	---
11	4.10	JOSEPH ARDIS MAIWALD	FEE, TLE	175	---	175	---	1,365
12	4.10	TAYLOR'S ROUND PRAIRIE FARMS, LLC	TLE	---	---	---	---	1,120
13	4.11	CHRISTOPHER S. & TERESA M. ESSER	FEE	3,220	---	3,220	---	---
14	4.11	GERALD T. & CAROL K. PETERSEN	FEE	350	---	350	---	---

UTILITY NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED
100	4.04, 4.05, 4.06, 4.07, 4.08	BRIGHTSPEED OF WESTERN WISCONSIN, LLC	RELEASE OF RIGHTS
101	4.07 - ELIMINATED	NORTHERN NATURAL GAS COMPANY	RELEASE OF RIGHTS



REVISION DATE	RO 2: 05/22/2024 N.C.	DATE	RO 1: 02/27/2023	SCALE, FEET	0 200 400	HWY: USH 12	STATE R/W PROJECT NUMBER	3130-03-21	PLAT SHEET	4.03
		GRID FACTOR				COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER	3130-03-71	PS&E SHEET	

TOWN OF WHITEWATER

SW-SE

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS) WALWORTH COUNTY, NAD83 (2011) 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" X 24" IRON REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.



100 BRIGHTSPEED OF WESTERN WISCONSIN, LLC
NO RECORD OF EASEMENT
PARCEL 1

SUNSHINE GENETICS PROPERTIES, LLC

LOT 2 CSM 4560

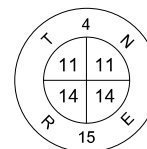
HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	CSM 4560	66'	2011
USH 12	T04-1(11)	66'	1954
USH 12	R/W PLAT 1080-00-22	66'	2007

POINT NAME	Y	X
T300	417365.344	723827.064
T301	417371.632	723833.502
T302	417346.593	723857.957
T303	417340.304	723851.518

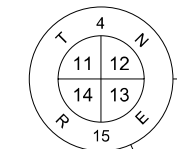
BEGIN RELOCATION ORDER
STA 374+40
Y= 417343.37
X= 723804.76

TOWN OF WHITEWATER

SW-SE



FOUND CONCRETE MONUMENT WITH BRASS CAP
Y = 417057.467
X = 723335.631



FOUND CONCRETE MONUMENT WITH BRASS CAP
Y = 417030.626
X = 725868.921

REVISION DATE	RO 2: 05/22/2024 N.C.

DATE	RO 1: 02/27/2023
GRID FACTOR	



HWY:	USH 12
COUNTY:	WALWORTH

STATE R/W PROJECT NUMBER	3130-03-21
CONSTRUCTION PROJECT NUMBER	3130-03-71

PLAT SHEET	4.04
PS&E SHEET	

TOWN OF LAGRANGE



NOTES:
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS) WALWORTH COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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100 BRIGHTSPEED OF WESTERN WISCONSIN, LLC
 16.5' EASEMENT FOR TELEPHONE LINES
 over N 1/2 NW 1/4 Sec 20
 DOC. 695293 & 695294 V.141 P.592-594
 AUG, 1975
 PARCELS 2,3

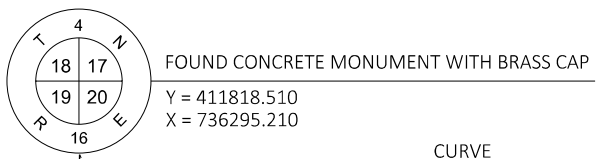
HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	T04-1(9)	66'	1952
USH 12	T04-1(11)	66'	1954

ALIGNMENT INFORMATION

CURVE
 PI = 526+14.06
 Y = 411147.244
 X = 737128.730
 PC = 524+54.49
 DELTA = 6°22'34" LT
 DB = N72°11'30"W
 DA = S78°34'04"E
 D = 2°00'00"
 T = 159.57'
 L = 318.81'
 R = 2864.80'

CURVE
 FROM PC 526+90 TO 527+66
 CHORD = S77°39'43"E 76.00'
 L = 76.00'
 R = 2864.80'
 DELTA = 1°31'12"

CURVE
 FROM PC 524+54.49 TO 526+90
 CHORD = S74°32'48"E 235.44'
 L = 235.51'
 R = 2864.80'
 DELTA = 4°42'36"



POINT NAME	Y	X
P200	411167.632	737211.720
P201	411179.306	737249.680
P202	411174.426	737297.027
P203	411157.837	737379.062
P204	411144.413	737420.218
P205	411107.716	737502.578
206	411030.780	737550.276
207	411042.881	737318.067
209	411086.906	737271.797

4

4

S1°10'28"W 2650.69'

REVISION DATE	RO 2: 05/22/2024 N.C.	DATE	RO 1: 02/27/2023	SCALE, FEET	0 20 40	HWY: USH 12	STATE R/W PROJECT NUMBER	3130-03-21	PLAT SHEET	4.05
GRID FACTOR						COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER	3130-03-71	PS&E SHEET	

TOWN OF LAGRANGE

NOTES:
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4
17
20
16

FOUND CONCRETE MONUMENT WITH BRASS CAP
 Y = 411803.179
 X = 738905.684

ALIGNMENT INFORMATION
 PI = 549+46.95
 Y = 410684.785
 X = 739415.659
 BACK = N78°34'04"W
 AHEAD = S78°13'10"E

UNPLATTED LANDS
 NE-NE

ALIGNMENT INFORMATION

CURVE
 PI = 559+83.62
 Y = 410472.949
 X = 740431.391
 PC = 557+69.16
 DELTA = 12°56'05" LT
 DB = N78°13'10"W
 DA = N88°50'45"E
 D = 3°00'56"
 T = 215.38'
 L = 428.93'
 R = 1900.00'

100 BRIGHTSPEED OF WESTERN WISCONSIN, LLC
 NO RECORD OF EASEMENT
 PARCEL 4

4

4

POINT NAME	Y	X
210	410573.680	740131.114
211	410591.007	740134.705
212	410574.774	740213.041
213	410557.447	740209.450
214	410486.706	740225.560
215	410470.778	740222.259
216	410499.239	740084.921
217	410515.167	740088.222

4
20
16

FOUND CONCRETE MONUMENT WITH BRASS CAP
 Y = 409163.809
 X = 738867.152

TOWN OF LAGRANGE

HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	T04-1(9)	66'	1952

REVISION DATE	RO 2: 05/22/2024 N.C.
DATE	RO 1: 02/27/2023
GRID FACTOR	

SCALE, FEET

HWY:	USH 12
COUNTY:	WALWORTH

STATE R/W PROJECT NUMBER	3130-03-21
CONSTRUCTION PROJECT NUMBER	3130-03-71

PLAT SHEET	4.06
PS&E SHEET	

TOWN OF LAGRANGE

NW-NW
UNPLATTED LANDS

NE-NW

FOUND CONCRETE MONUMENT WITH BRASS CAP
Y = 411792.413
X = 741511.457

POINT NAME	Y	X
P218	410711.574	742712.840
P219	410769.937	742730.980
P220	410776.432	742797.517
P221	410727.385	742797.501
222	410609.064	742776.332
223	410585.320	742780.750
224	410581.338	742752.504
225	410604.045	742748.546
T304	410815.733	742731.143
T305	410815.704	742797.530
T327	410609.989	742781.246
T328	410581.099	742786.622
T329	410575.711	742748.410
T330	410603.191	742743.619

STATE OF WISCONSIN
CONSERVATION COMMISSION

BLDG. FOUNDATION TO BE REMOVED

5 PLE, FOR DRAINAGE

CURVE
FROM PC 581+79.50 -
582+83
CHORD =
N81°37'49"E 103.49'

L = 103.50'
R = 2300.00'
DELTA = 2°34'42"

SLOPE INTERCEPTS (TYP.)

CURVE
FROM PC 581+79.50 - 583+00
CHORD =
N81°25'06"E 120.49'

L = 120.50'
R = 2300.00'
DELTA = 3°00'06"

LAWRENCE R. MILLER & LINDA L. MILLER
REVOCABLE TRUST

TOWN OF LAGRANGE

NE-NW

FOUND CONCRETE MONUMENT WITH BRASS CAP
Y = 409135.874
X = 741510.849

100 BRIGHTSPEED OF WESTERN WISCONSIN, LLC
20' EASEMENT FOR TELEPHONE LINES
DOC. 679947 V.116 P.788
JUNE 26, 1974
PARCEL 6

101 NORTHERN NATURAL GAS COMPANY
NON DESCRIPT 50' EASEMENT ACROSS PARCEL
DOC.160818 V.426 P.260-264
APRIL 14, 1988
PARCEL 6 - ELIMINATED

NOTES:
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HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	T04-1(9)	66'	1952

ALIGNMENT INFORMATION

CURVE
PI = 587+89.88
Y = 410721.785
X = 743224.678
PC = 581+79.50
DELTA = 29°43'31" LT
DB = S82°55'10"W
DA = N53°11'38"E
D = 2°29'28"
T = 610.38'
L = 1193.25'
R = 2300.00'

REVISION DATE	RO 2: 05/22/2024

DATE	RO 1: 02/27/2023

SCALE, FEET
0 20 40

HWY:	USH 12
COUNTY:	WALWORTH

STATE R/W PROJECT NUMBER	3130-03-21
CONSTRUCTION PROJECT NUMBER	3130-03-71

PLAT SHEET	4.07
PS&E SHEET	

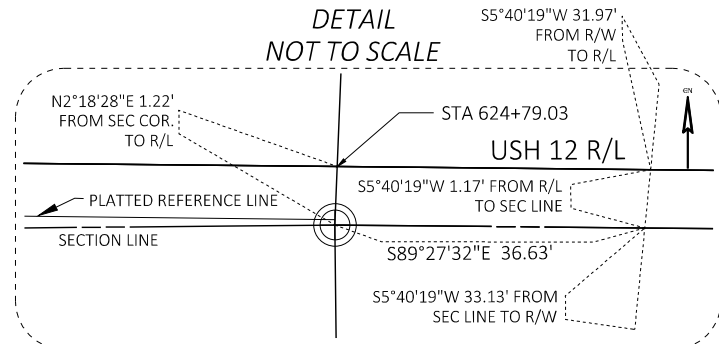
E

NOTES:
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WAYNE R. BORCHARDT OR DARYL D. BORCHARDT,
 UNDER BORCHARDT FAMILY TRUST

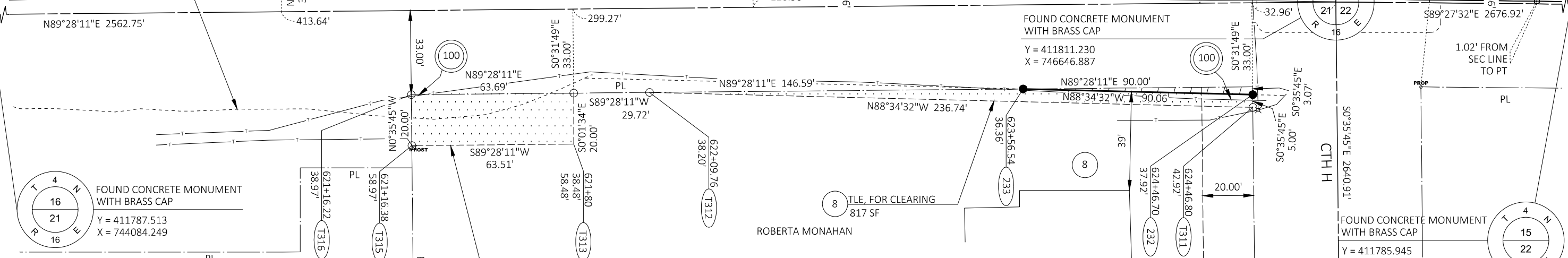
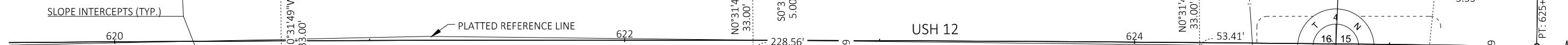
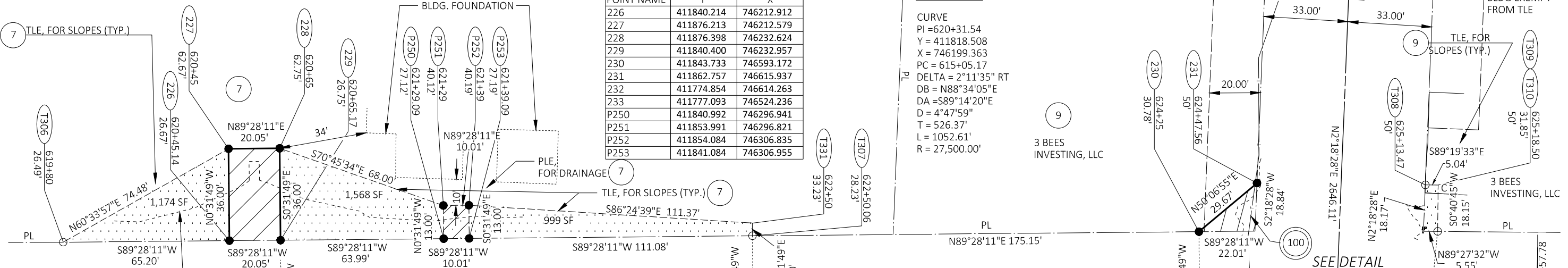


POINT NAME	Y	X
226	411840.214	746212.912
227	411876.213	746212.579
228	411876.398	746232.624
229	411840.400	746232.957
230	411843.733	746593.172
231	411862.757	746615.937
232	411774.854	746614.263
233	411777.093	746524.236
P250	411840.992	746296.941
P251	411853.991	746296.821
P252	411854.084	746306.835
P253	411841.084	746306.955

TOWN OF LAGRANGE

ALIGNMENT INFORMATION

CURVE
 PI = 620+31.54
 Y = 411818.508
 X = 746199.363
 PC = 615+05.17
 DELTA = 2°11'35" RT
 DB = N88°34'05"E
 DA = S89°14'20"E
 D = 4°47'59"
 T = 526.37'
 L = 1052.61'
 R = 27,500.00'



POINT NAME	Y	X
T306	411839.611	746147.712
T307	411842.112	746418.030
T331	411847.112	746417.9836
T308	411862.066	746681.962
T309	411862.007	746686.999
T310	411843.854	746686.784
T311	411769.851	746614.315
T312	411775.736	746377.650
T313	411775.461	746347.932
T314	411755.460	746347.941
T315	411754.872	746284.453
T316	411774.871	746284.245

HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	T04-1(9)	66'	1952
USH 12	T04-1(11)	66'	1954

REVISION DATE	RO 2: 05/22/2024 N.C.	DATE	RO 1: 02/27/2023	SCALE, FEET	0 20 40	HWY: USH 12	STATE R/W PROJECT NUMBER	3130-03-21	PLAT SHEET	4.08
		GRID FACTOR				COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER	3130-03-71	PS&E SHEET	

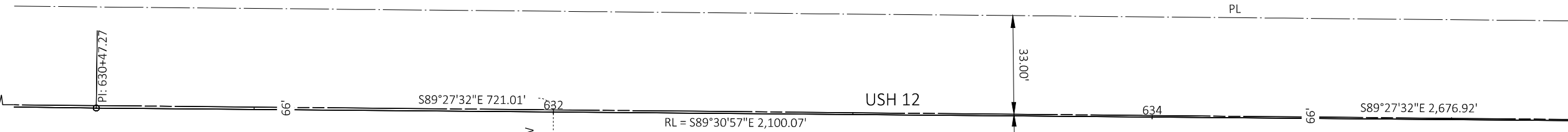
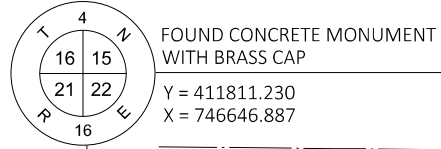
TOWN OF LAGRANGE

SW-SW

NOTES:
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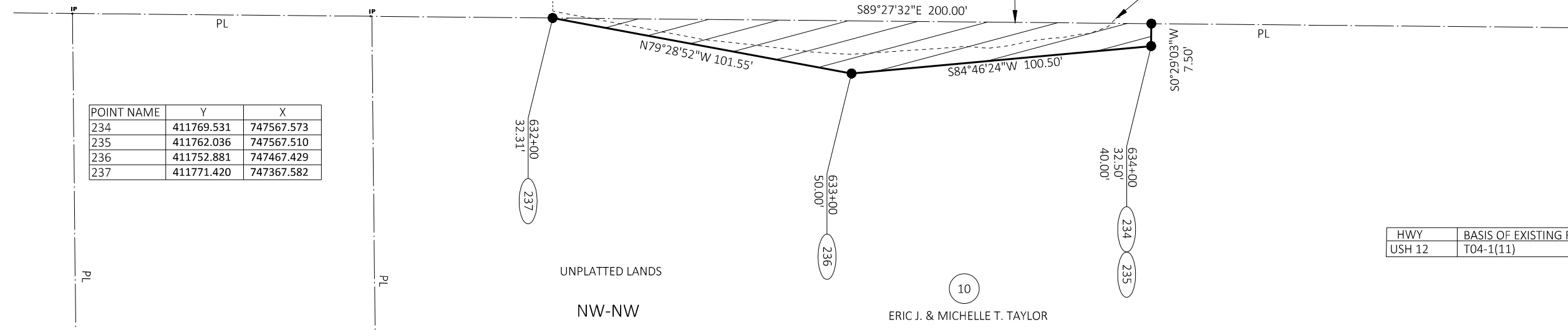
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POINT NAME	Y	X
234	411769.531	747567.573
235	411762.036	747567.510
236	411752.881	747467.429
237	411771.420	747367.582

HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	T04-1(11)	66'	1954



TOWN OF LAGRANGE

LOT 1 CSM 656

REVISION DATE	RO 2: 05/22/2024 N.C.	DATE	RO 1: 02/27/2023	SCALE, FEET	0 20 40	HWY: USH 12	STATE R/W PROJECT NUMBER	3130-03-21	PLAT SHEET	4.09
GRID FACTOR		COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER	3130-03-71	PS&E SHEET					E

TOWN OF LAGRANGE

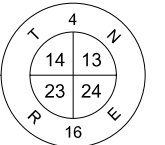


POINT NAME	Y	X
238	411938.003	755854.345
239	411931.013	755854.720
240	411929.676	755829.756
241	411936.666	755829.381

POINT NAME	Y	X
T317	411932.117	755744.503
T318	411925.128	755744.878
T319	411943.889	755964.188
T320	411936.899	755964.562
T321	412001.233	755800.886
T322	412008.223	755800.511
T323	412016.785	755960.282
T324	412009.795	755960.656

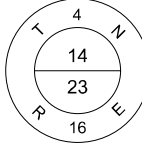
FOUND CONCRETE MONUMENT WITH ALUMINUM CAP

Y = 412053.856
X = 757321.103



FOUND CONCRETE MONUMENT WITH BRASS CAP

Y = 411915.697
X = 754666.691



HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	R/W PLAT 3120-03-20	VARIES	1984
USH 12	T04-1(11)	66'	1954

NOTES:
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TOWN OF LAGRANGE

REVISION DATE	RO 2: 05/22/2024 N.C.
DATE	RO 1: 02/27/2023
GRID FACTOR	



HWY:	USH 12
COUNTY:	WALWORTH

STATE R/W PROJECT NUMBER	3130-03-21
CONSTRUCTION PROJECT NUMBER	3130-03-71

PLAT SHEET	4.10
PS&E SHEET	

TOWN OF LAGRANGE

NE-NE
UNPLATTED LANDS

NW-NW

LOT 1 CSM 2330

GERALD T. & CAROL K. PETERSEN

TOWN OF LAGRANGE

FOUND CONCRETE MONUMENT
WITH ALUMINUM CAP
Y = 412053.856
X = 757321.103

FOUND CONCRETE MONUMENT
WITH BRASS CAP
Y = 411785.945
X = 749323.689

NOTES:
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POINT NAME	Y	X
242	411383.494	757261.696
243	411242.721	757248.168
245	411216.324	757273.719
246	411255.303	757340.398
247	411255.131	757350.396
248	411220.136	757349.795
249	411220.308	757339.797

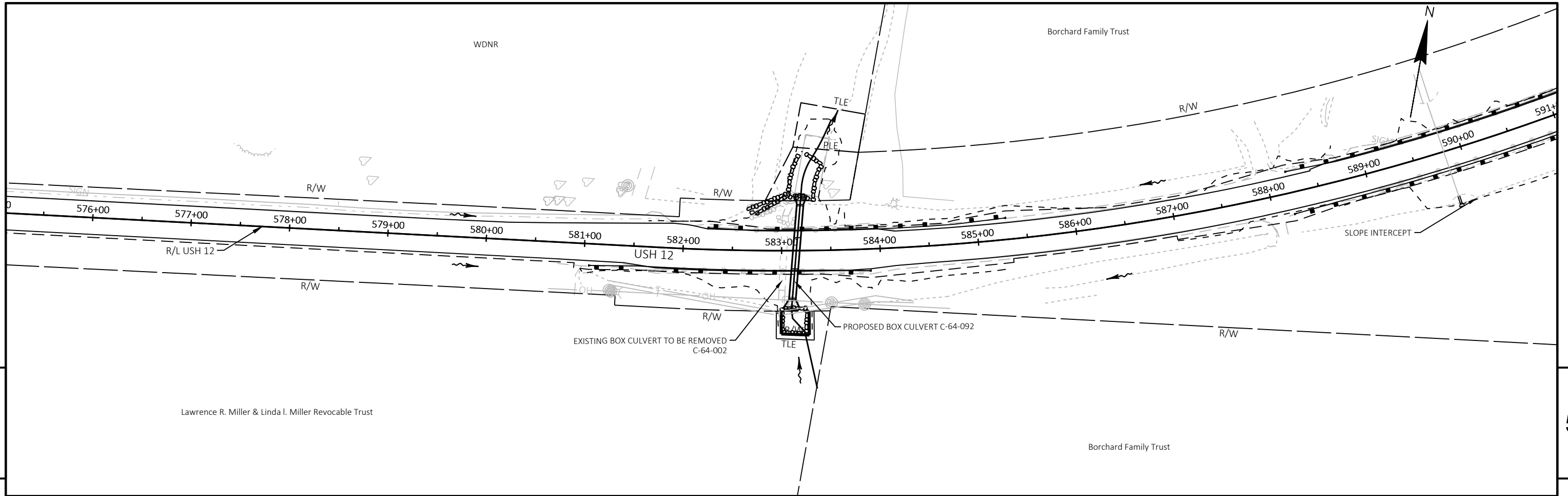
HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
USH 12	CSM 2330	66'	1993
USH 12	T04-1(11)	66'	1954

END RELOCATION ORDER
STA 737+40
Y= 411215.85
X= 757304.60

4

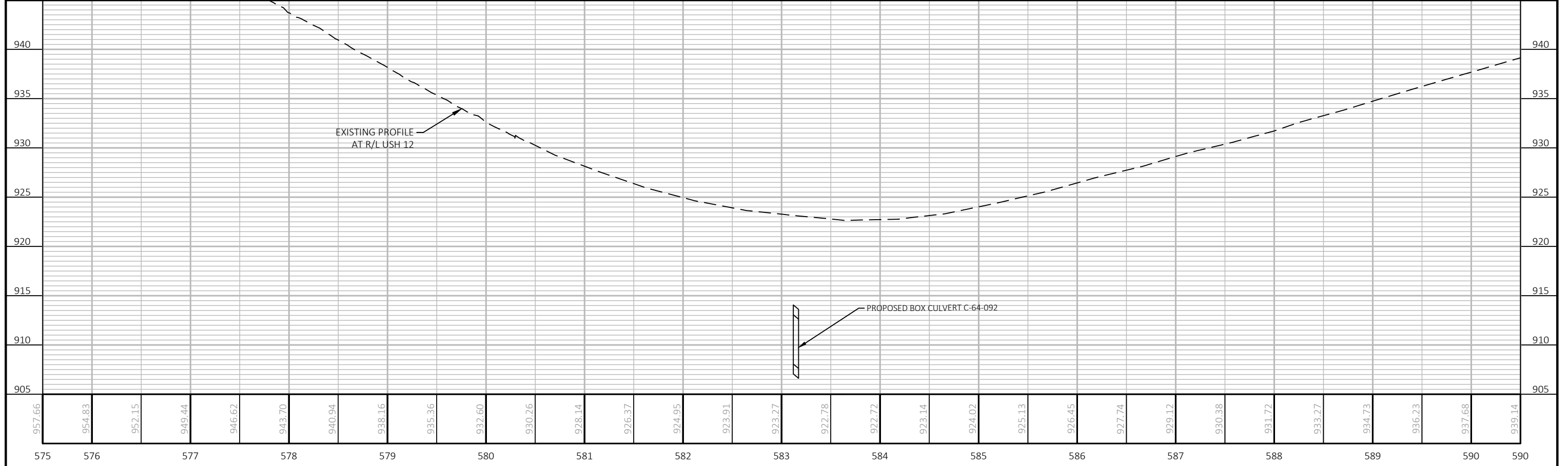
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REVISION DATE	RO 2: 05/22/2024 N.C.	DATE	RO 1: 02/27/2023	SCALE, FEET	0 20 40	HWY: USH 12	STATE R/W PROJECT NUMBER	3130-03-21	PLAT SHEET	4.11
GRID FACTOR		COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER	3130-03-71	PS&E SHEET					E



5

5

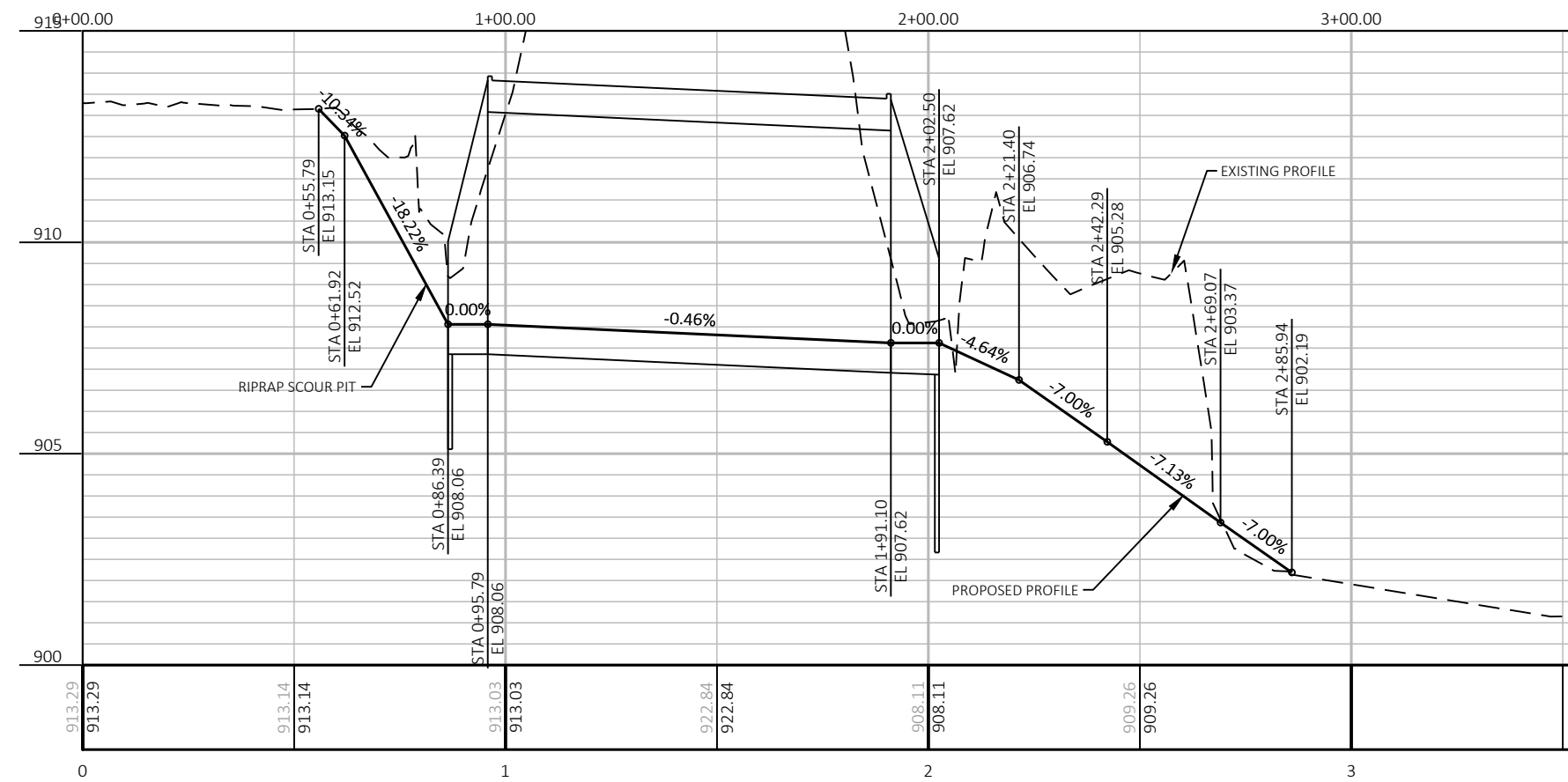
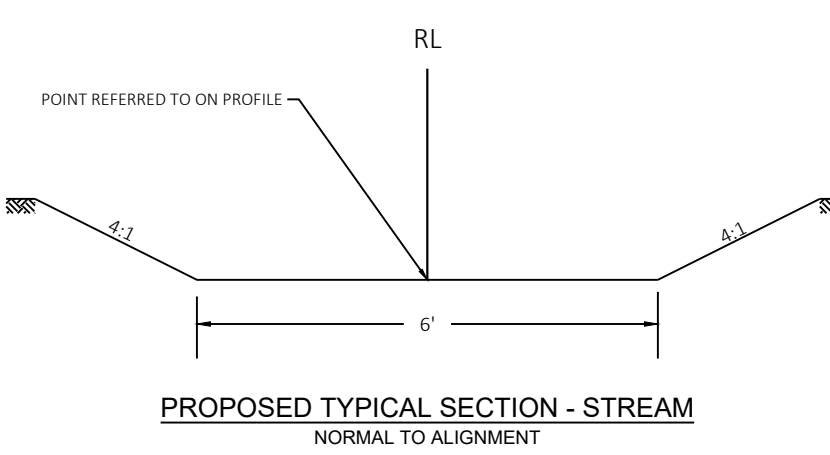
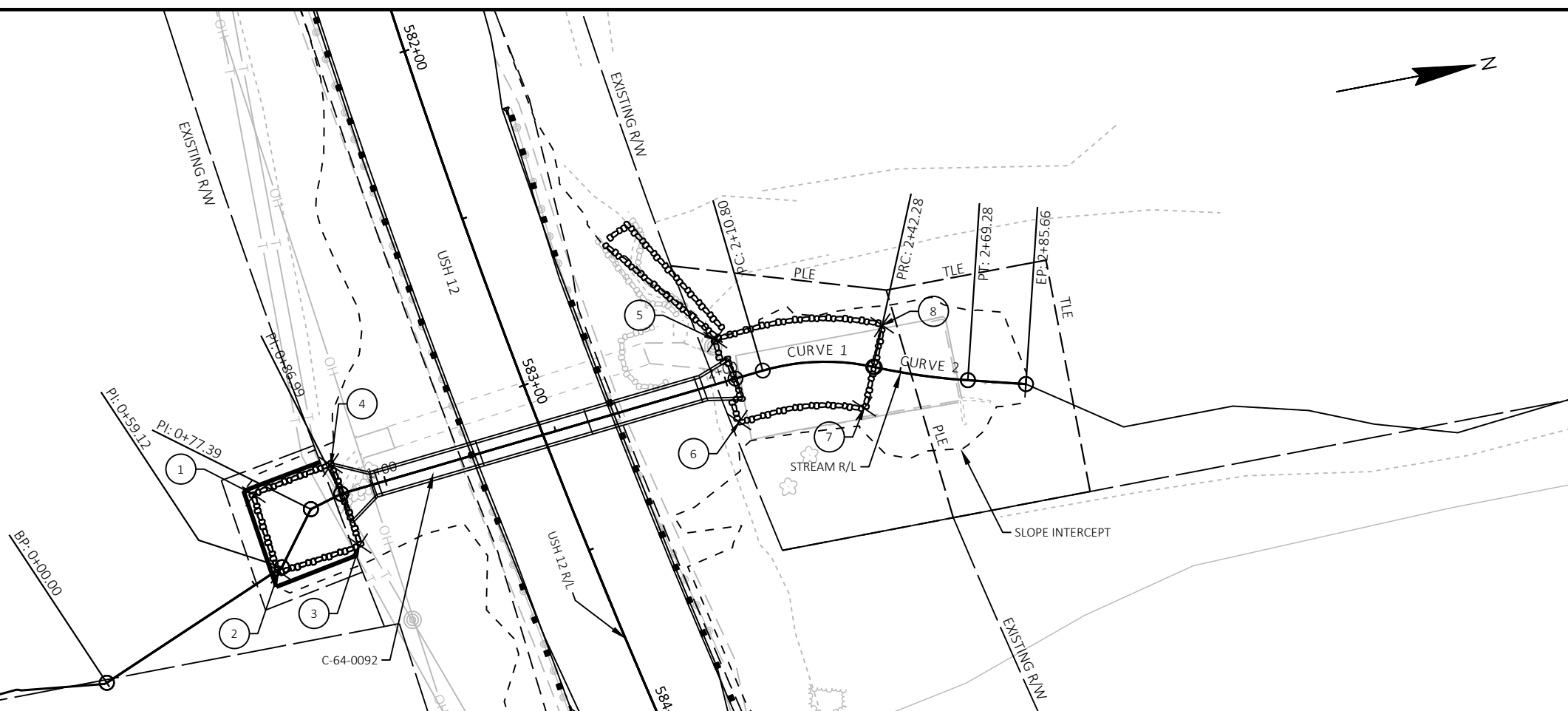


PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH PLAN AND PROFILE: USH 12 SHEET E

CURVE 1
 PI STA = 0+30.68
 Y = 410742.21
 X = 742742.94
 DELTA = 30°26'14"
 D = 71°37'11"
 T = 21.76'
 L = 42.50'
 R = 80.00'
 PC STA = 0+08.92
 Y = 410720.62
 X = 742745.68
 PT STA = 0+51.42
 Y = 410762.22
 X = 742751.52

CURVE 2
 PI STA = 0+64.95
 Y = 410774.65
 X = 742756.85
 DELTA = 08°35'40"
 D = 31°49'52"
 T = 13.53'
 L = 27.00'
 R = 180.00'
 PC STA = 0+51.42
 Y = 410762.22
 X = 742751.52
 PT STA = 0+78.42
 Y = 410787.74
 X = 742760.26

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y COORDS	X COORDS
1	0+73.90	16.22 LT	410583.958	742754.054
2	0+57.76	0.56 RT	410586.831	742776.687
3	0+85.08	15.27 RT	410610.570	742773.674
4	0+87.00	8.00 RT	410606.850	742749.941
5	2+00.44	12.00 LT	410719.989	742735.757
6	2+00.44	12.00 RT	410722.267	742759.649
7	2+42.29	12.00 RT	410757.526	742762.526
8	2+42.28	12.00 LT	410766.949	742740.490



Standard Detail Drawing List

08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09B02-10	CONDUIT
09B04-12	PULL BOX
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C12-09A	CONCRETE BASE TYPE 13
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-09J	TYPE 13 POLE 35'-55' MONOTUBE ARM
09E08-09K	GENERAL NOTES, HARDWARE DETAILS FOR TYPE 9/10, 9/10 SPECIAL, 12 & 13 POLES W/MONOTUBE ARMS
09E12-02J	OVER HEIGHT TYPE 13 POLE 35'-55' MONOTUBE ARM
09E12-02K	GENERAL NOTES AND HARDWARE FOR OVER HEIGHT TYPE 9, 10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

Standard Detail Drawing List

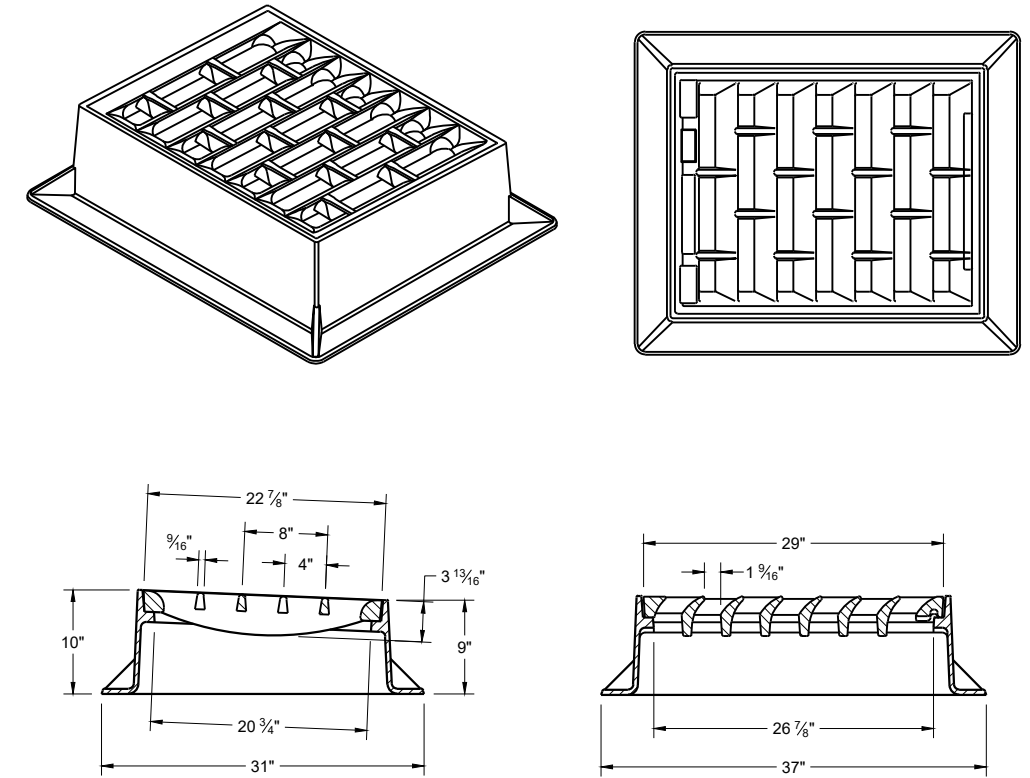
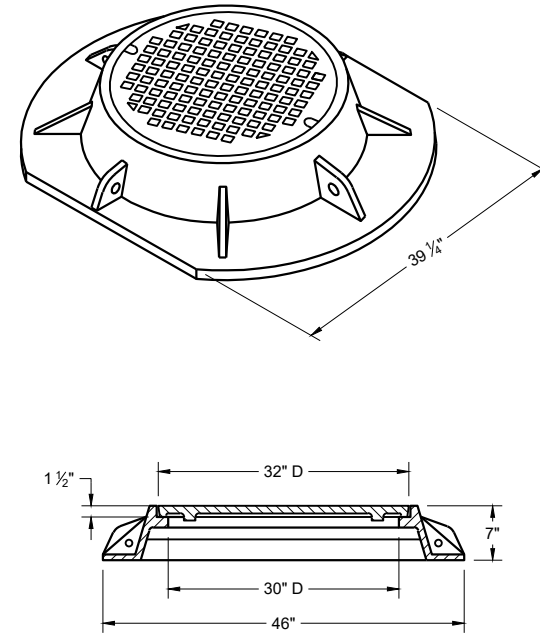
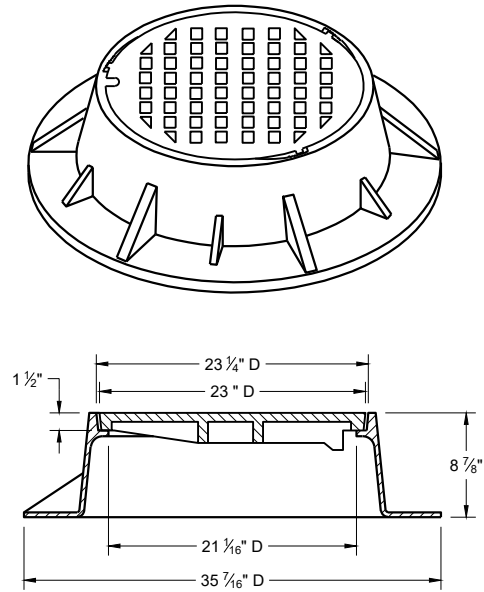
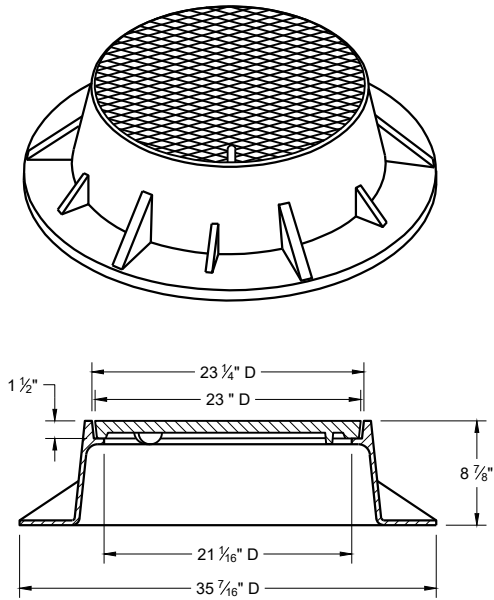
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C18-09C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-09A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C34-04	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C35-06B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-06C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

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.

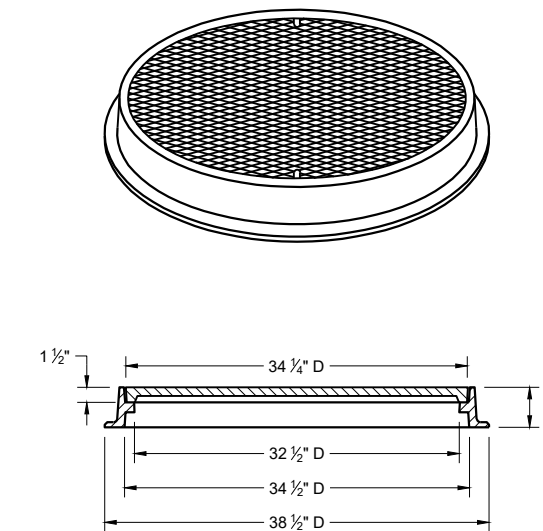
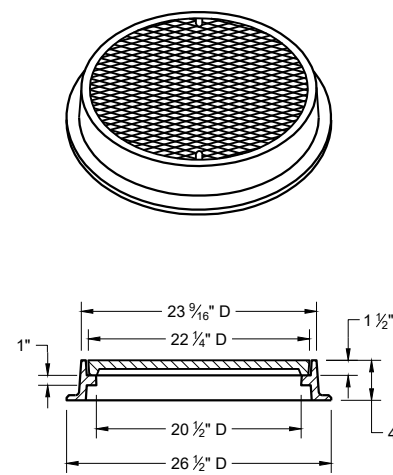
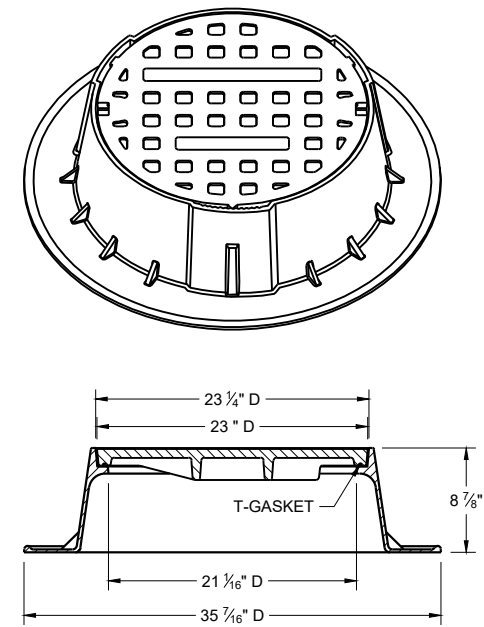
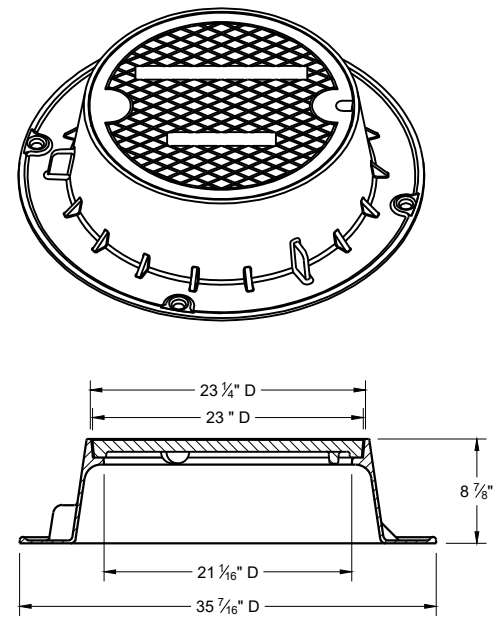
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



TYPE "K"

INLET COVER TYPE "BW"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID (NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

NOTE: EITHER CASTING IS ACCEPTABLE

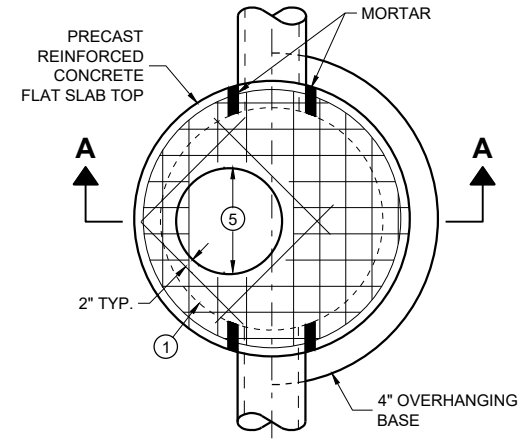
TYPE "L"

TYPE "M"

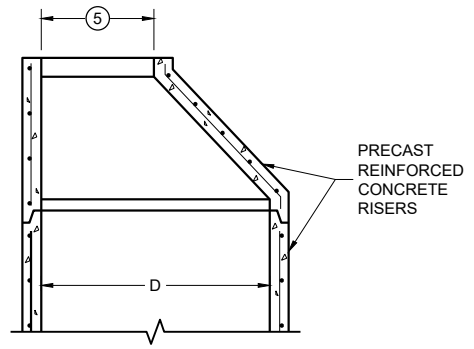
**INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M**

STATE OF WISCONSIN
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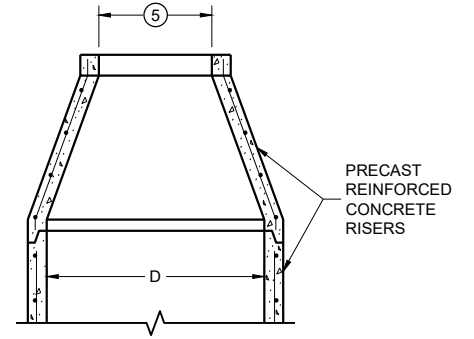
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



**PLAN VIEW
CIRCULAR OPENING**



**OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP**



**OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP**

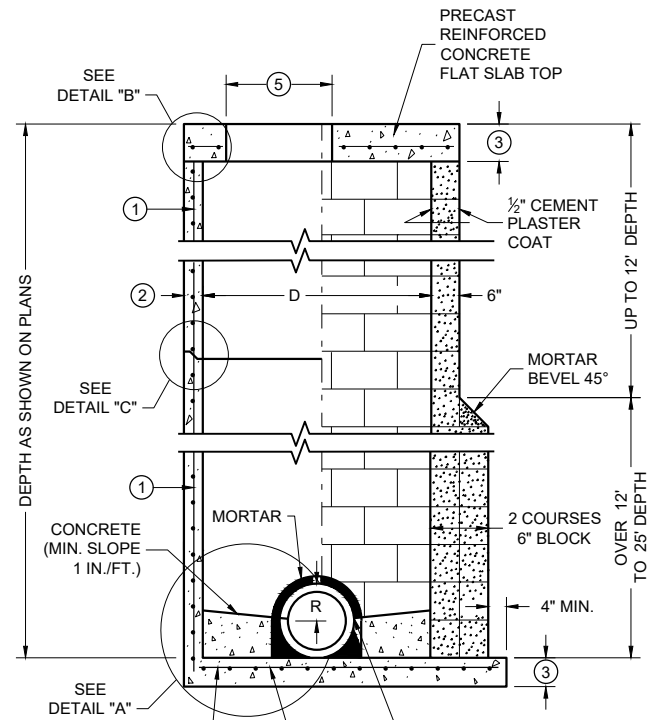
MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE OPENING SIZE (FT.)	C	ALL JS	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

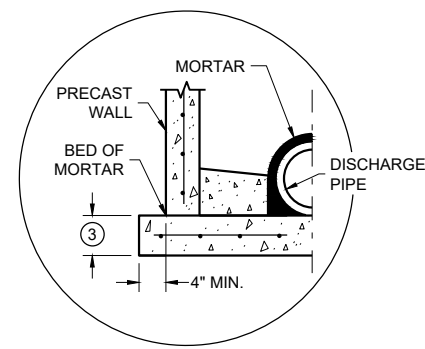
MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

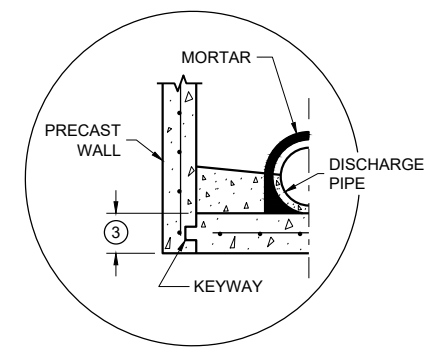


SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ①

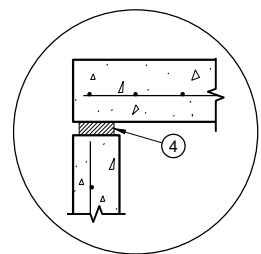


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

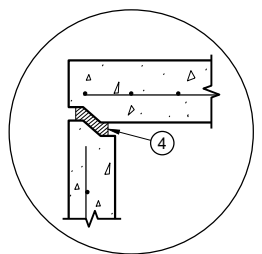


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

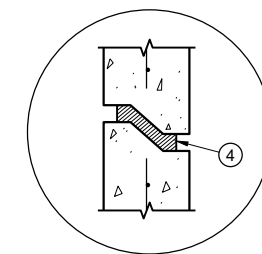
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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 CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. 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 1/2 INCH 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.

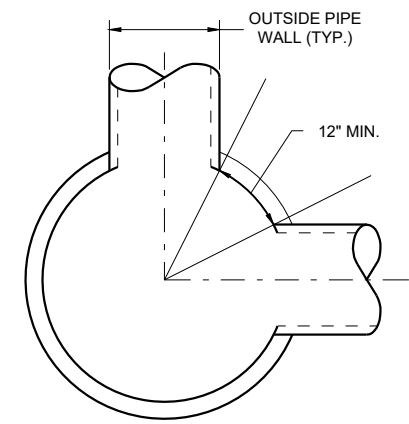
ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN. CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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 "D".

- ① FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ② SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- ③ SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- ④ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- ⑤ SEE MANHOLE COVER OPENING MATRIX.



**MINIMUM HORIZONTAL PIPE SEPARATION
DETAIL "D"**

**MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

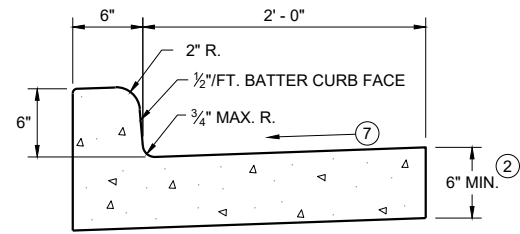
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6

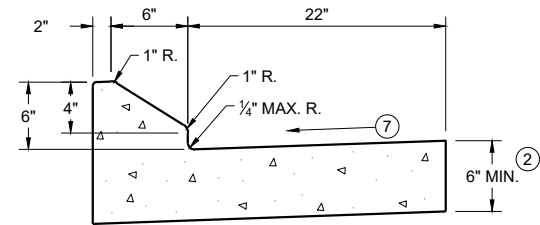
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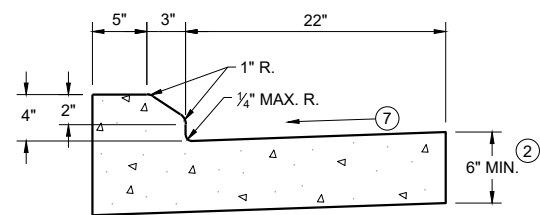
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER



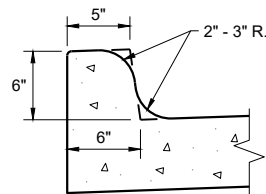
TYPES A¹ & D



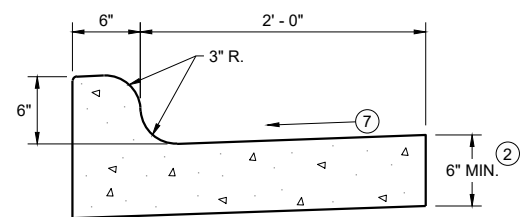
6" SLOPED CURB TYPES G¹ & J



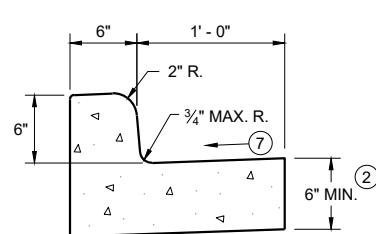
4" SLOPED CURB TYPES G¹ & J



TYPES K¹ & L
(OPTIONAL CURB SHAPE)

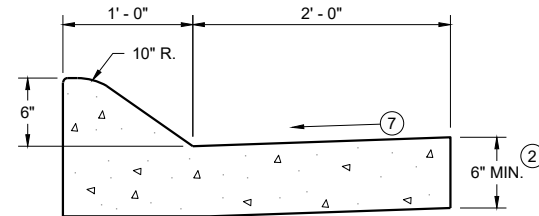


TYPES K¹ & L
CONCRETE CURB AND GUTTER 30"

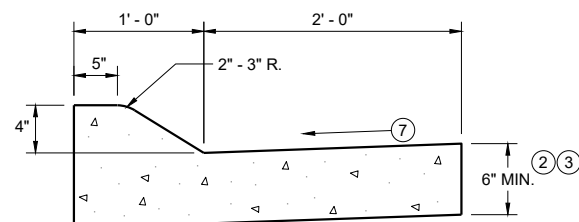


TYPES A¹ & D

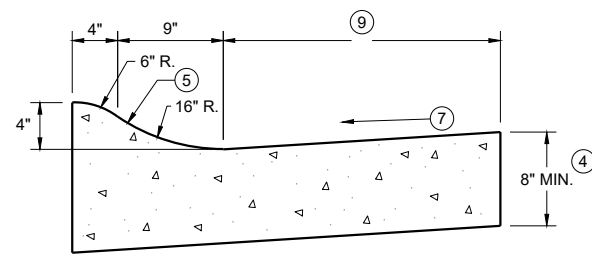
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A¹ & D

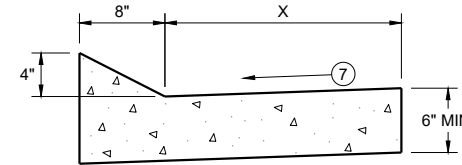


4" SLOPED CURB TYPES A¹ & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

TBT & TBTT	X
30"	22"
36"	28"

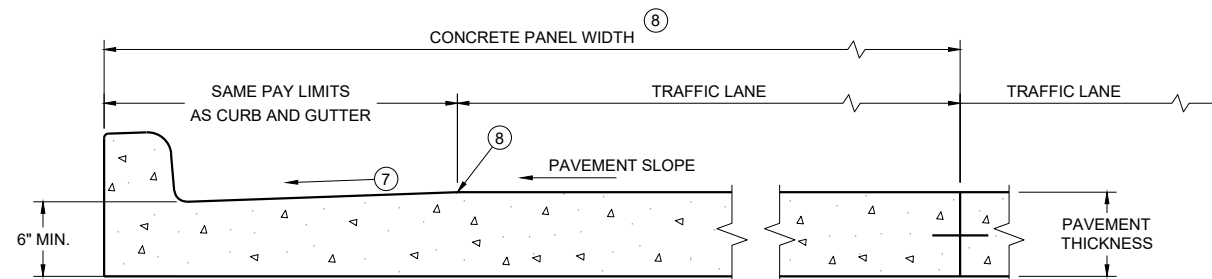


TYPES TBT & TBTT¹

CONCRETE CURB AND GUTTER

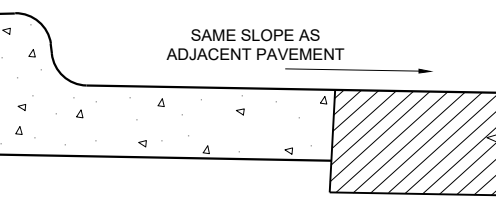
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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 GUTTER⁶
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

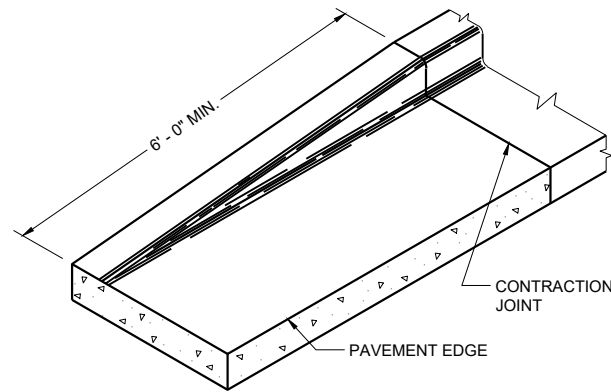
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

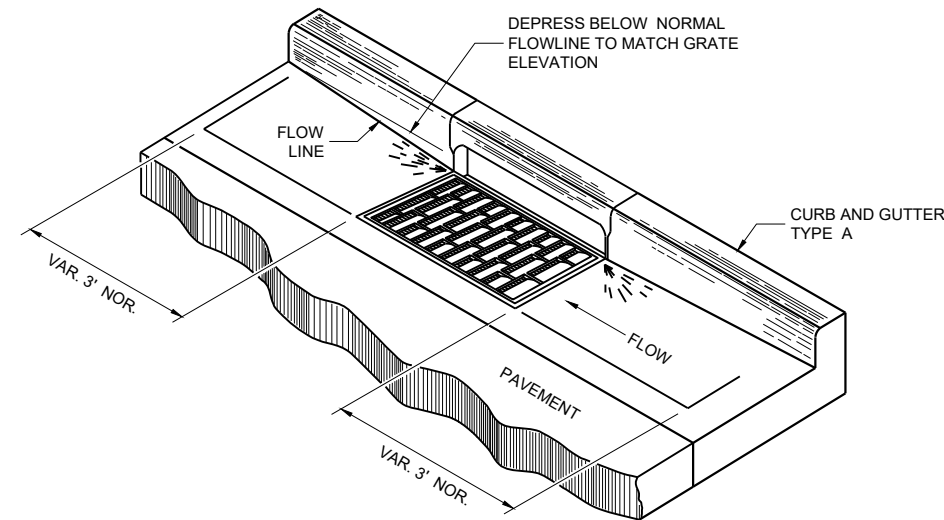
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

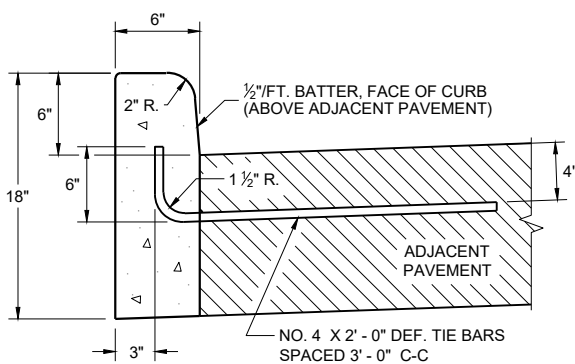
GENERAL NOTES

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

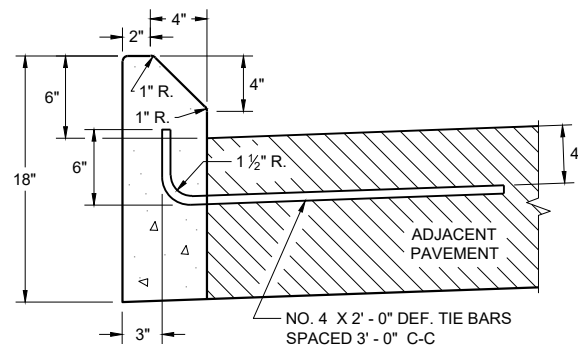
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

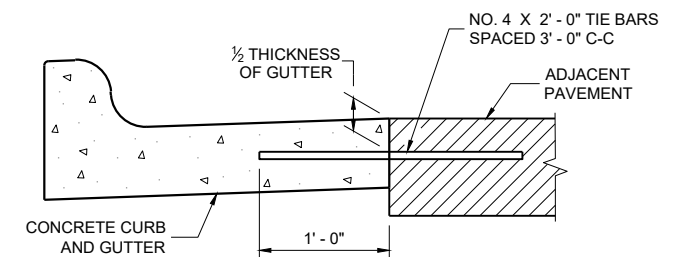
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



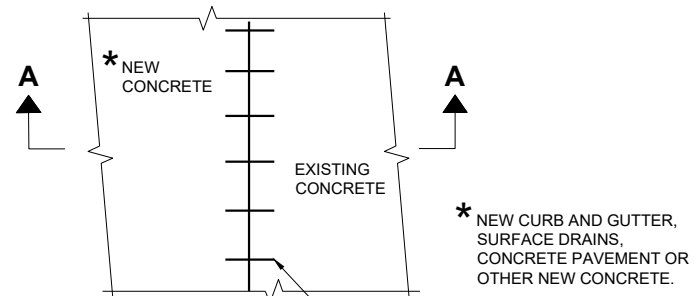
TYPES A ① & D



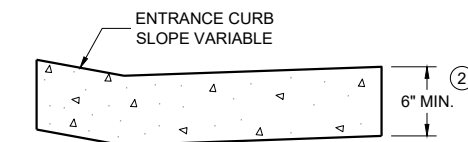
**TYPES G ① & J
CONCRETE CURB**



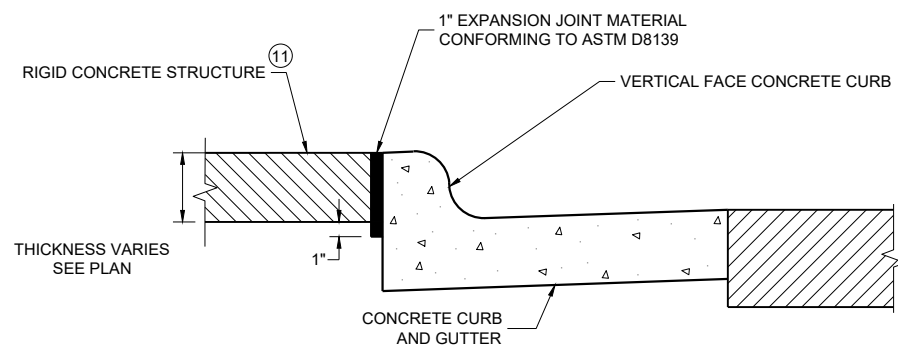
TYPICAL TIE BAR LOCATION ①



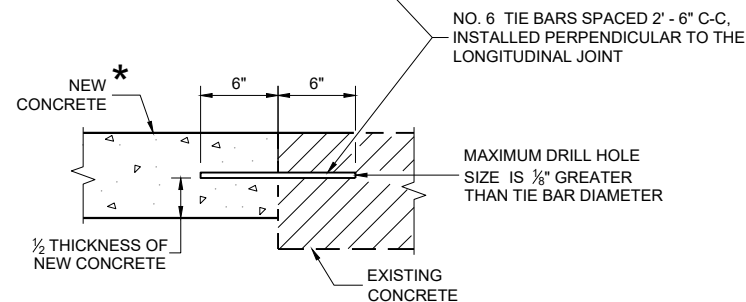
PLAN VIEW



**DRIVEWAY ENTRANCE CURB ⑩
(WHEN DIRECTED BY THE ENGINEER)**



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE ⑪



**SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT**

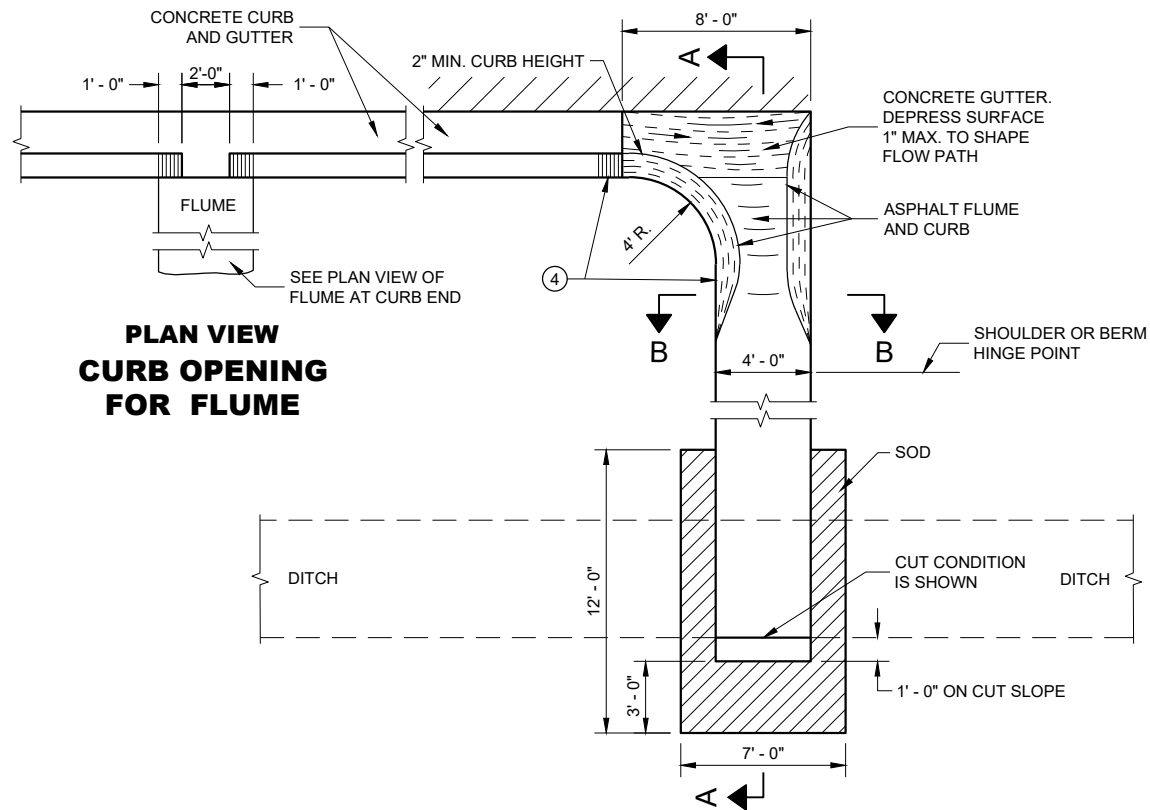
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



**PLAN VIEW
CURB OPENING
FOR FLUME**

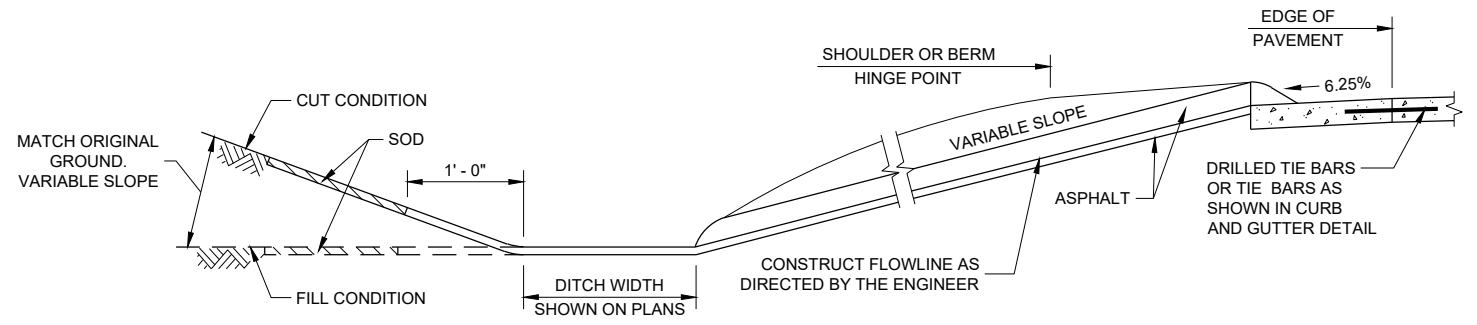
**PLAN VIEW
FLUME AT CURB END**

GENERAL NOTES

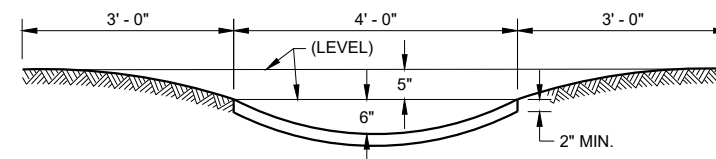
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

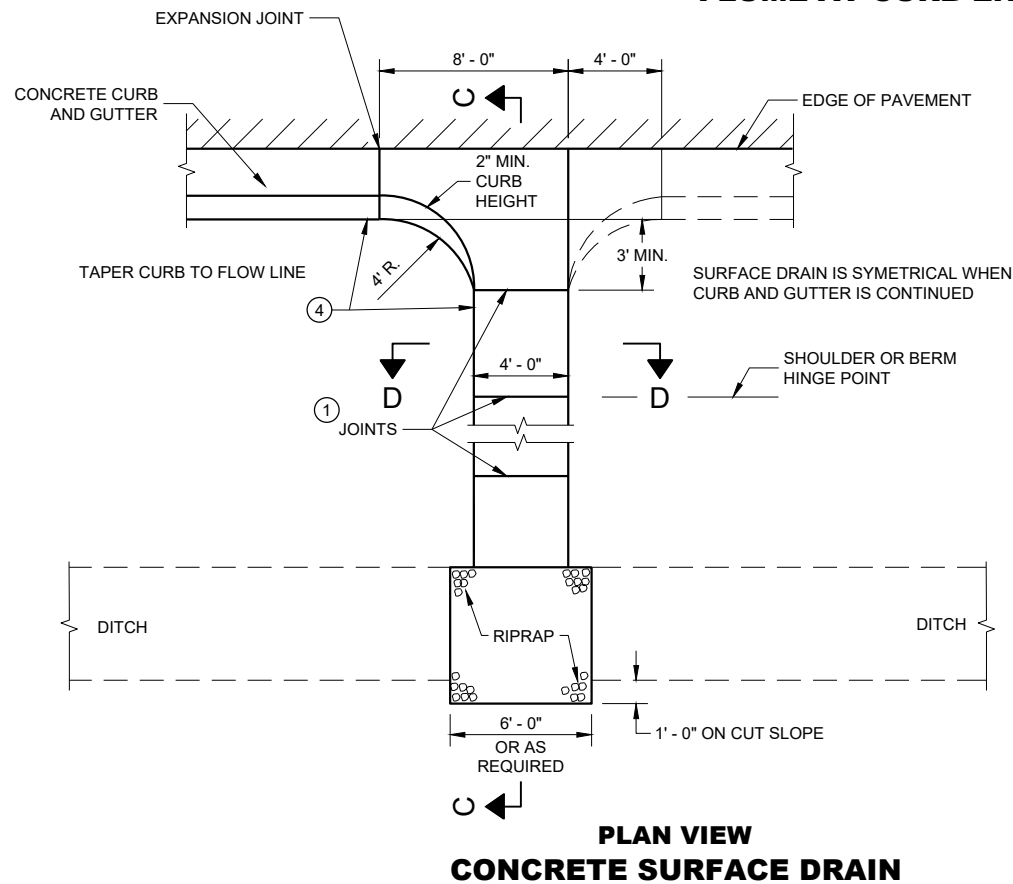
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



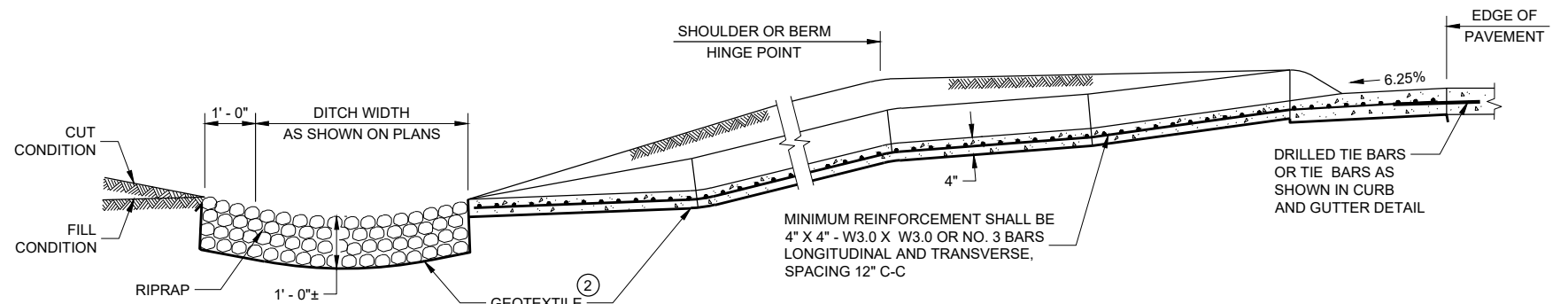
SECTION A - A



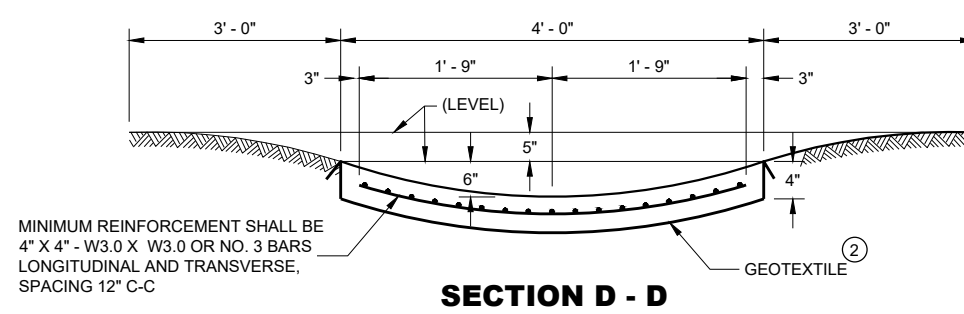
SECTION B - B



**PLAN VIEW
CONCRETE SURFACE DRAIN**



SECTION C - C



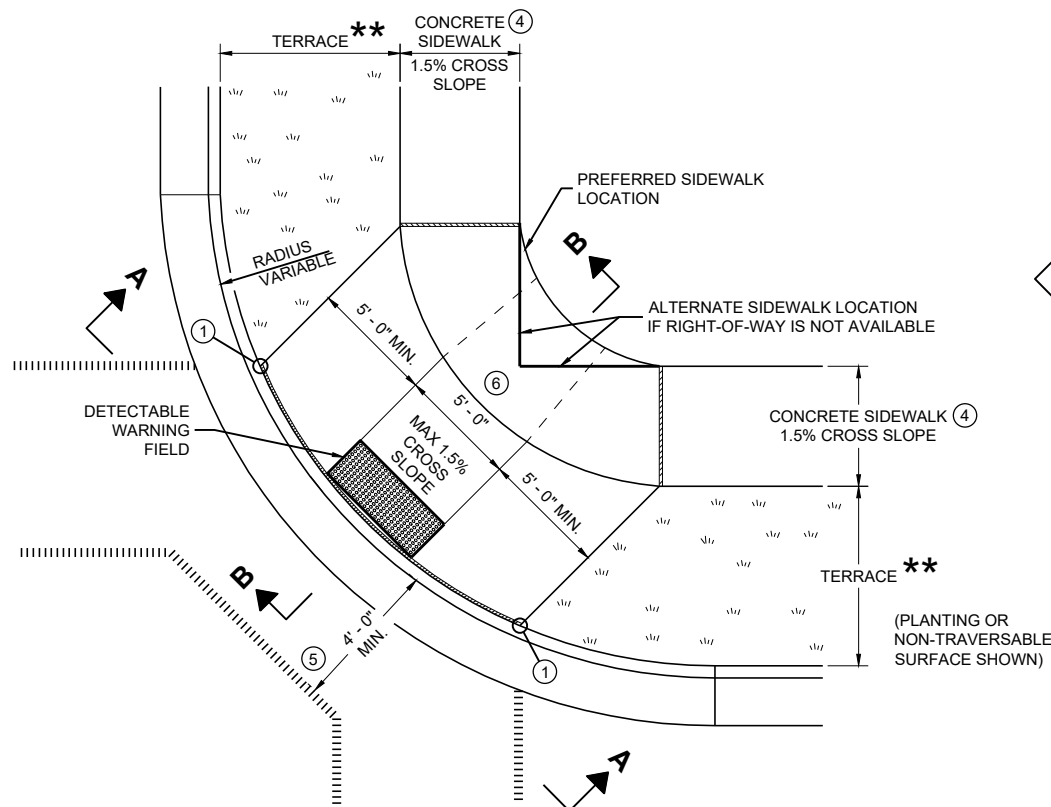
SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

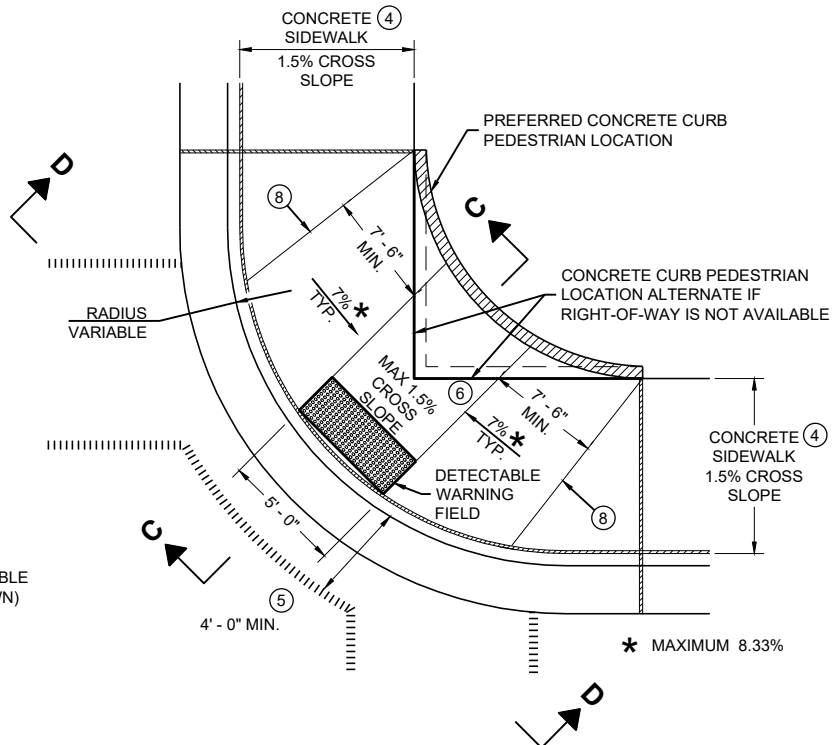
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

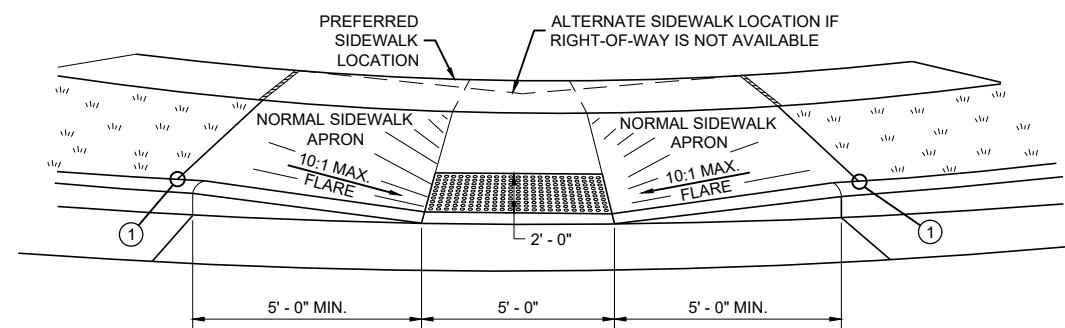
FHWA



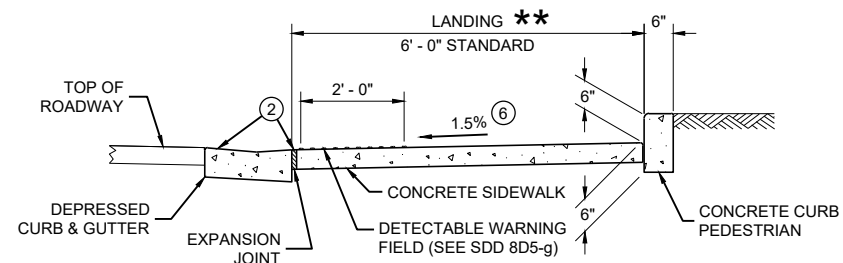
**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**



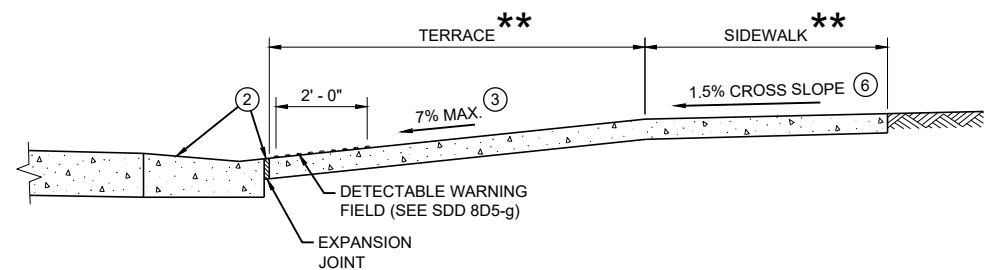
**PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)**



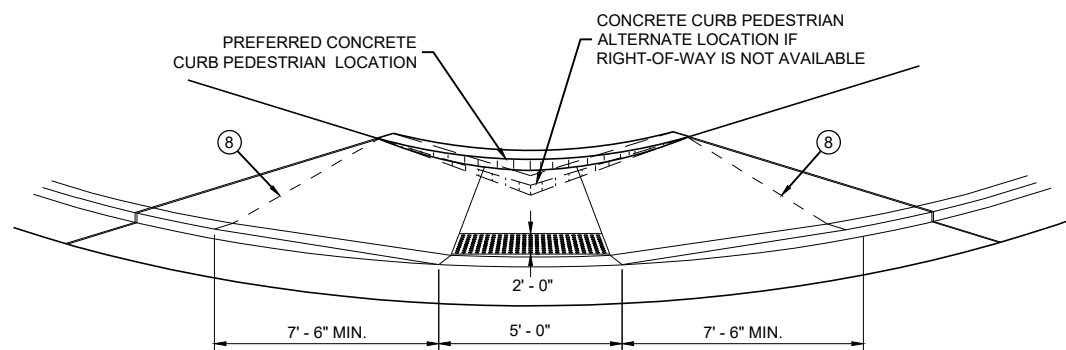
VIEW A - A FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



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 FIELD 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 1/4" 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. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE
- 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.

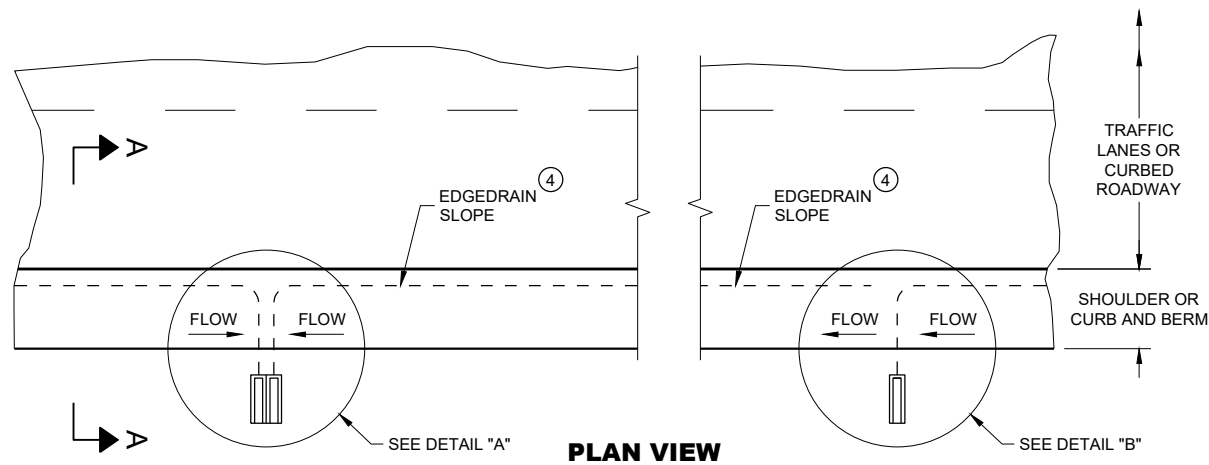
LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

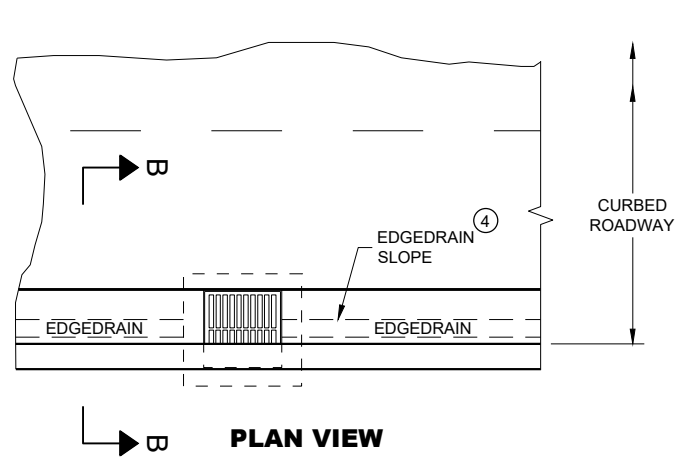
**CURB RAMPS
TYPE 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



**ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) ②**



**ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)**

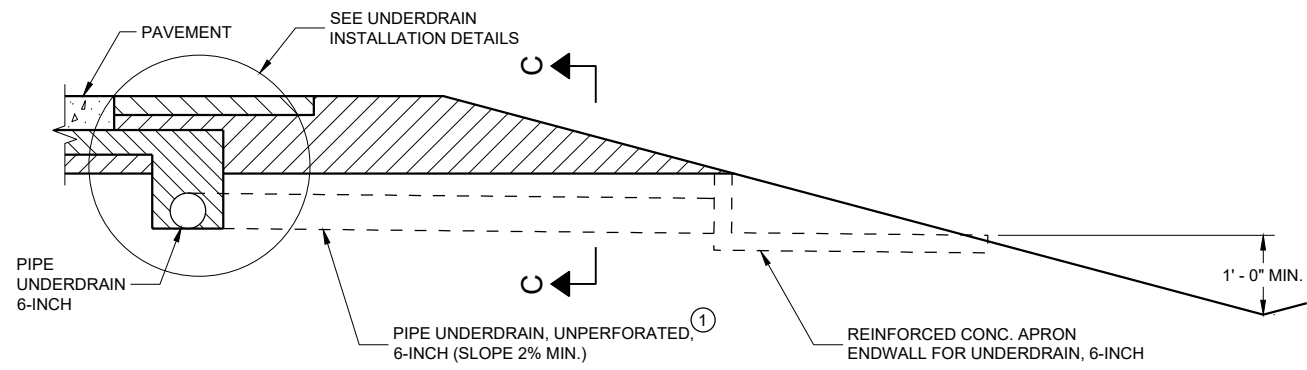
GENERAL NOTES

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.

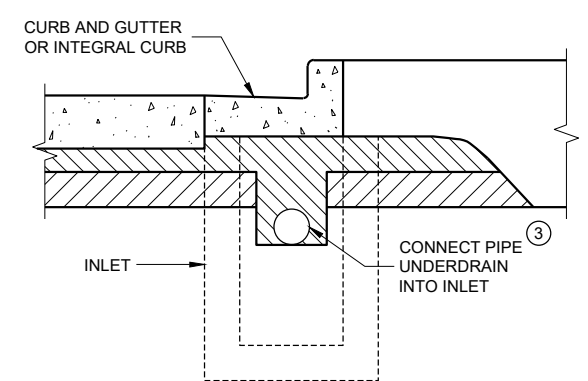
- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

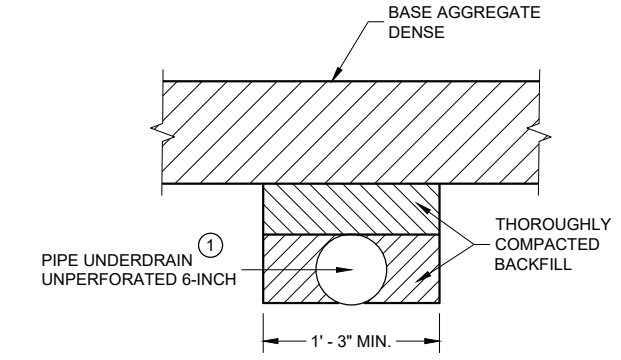
TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



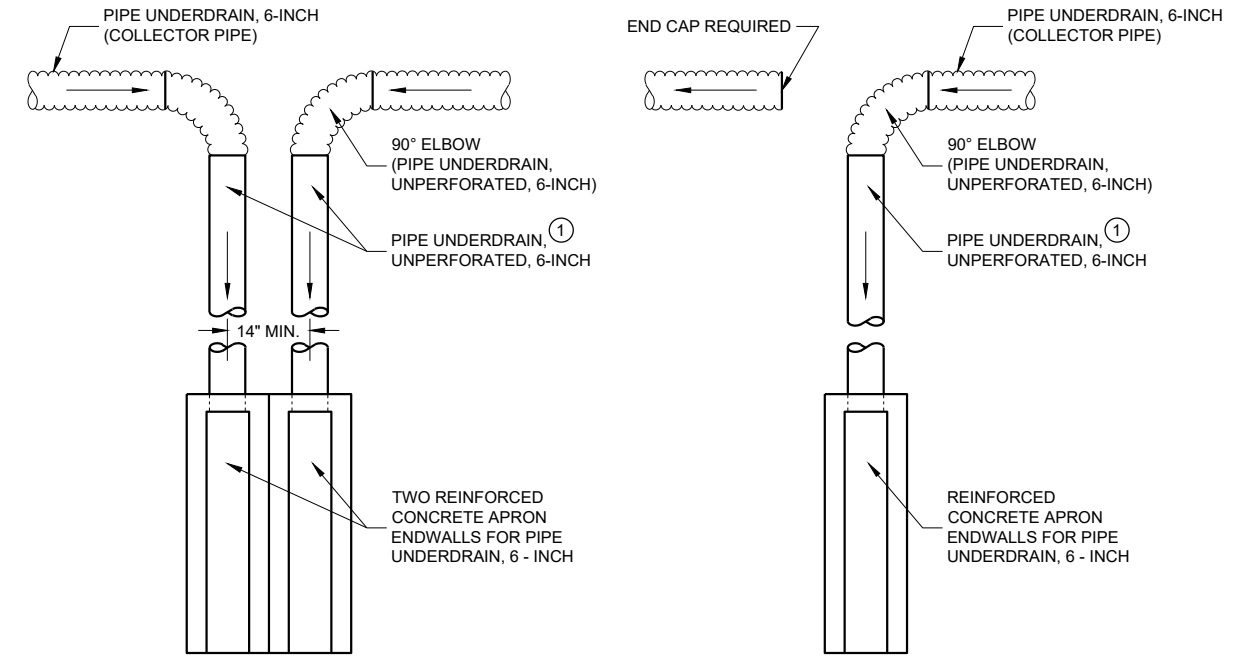
**SECTION A - A
RURAL CROSS SECTION**



**SECTION B - B
URBAN CROSS SECTION**



**SECTION C - C
TRENCH FOR OUTFALL PIPE**



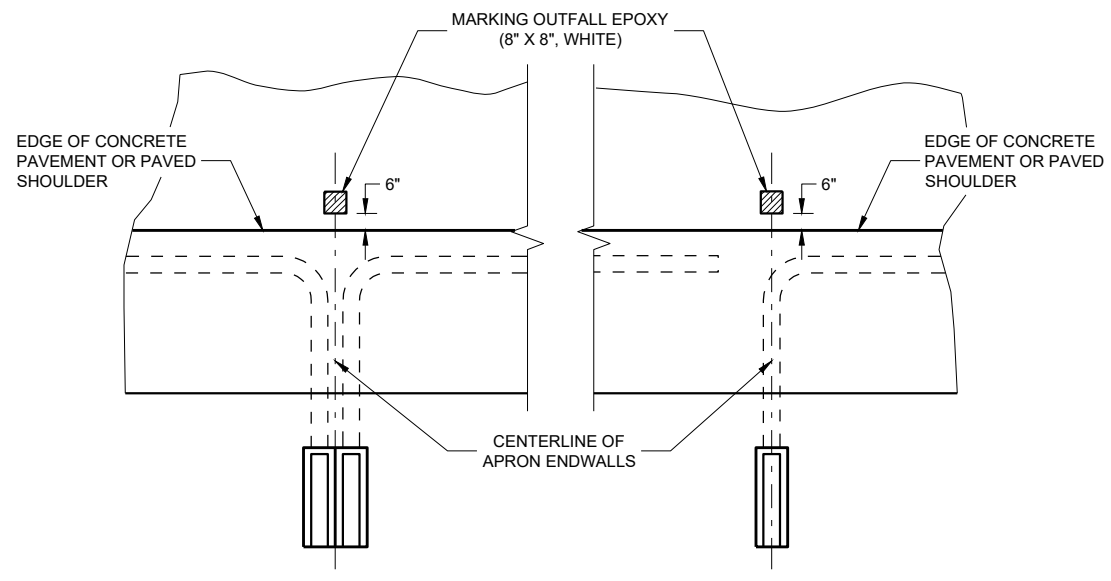
DETAIL "A"

TO BE USED AT LOW POINT LOCATIONS

DETAIL "B"

TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



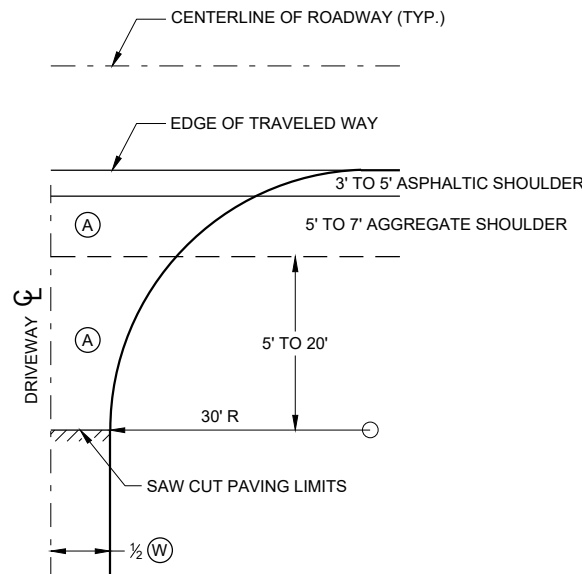
PAVEMENT MARKINGS FOR OUTFALL MARKERS

**EDGEDRAIN OUTLET
AND OUTFALL MARKERS**

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DEPARTMENT OF TRANSPORTATION

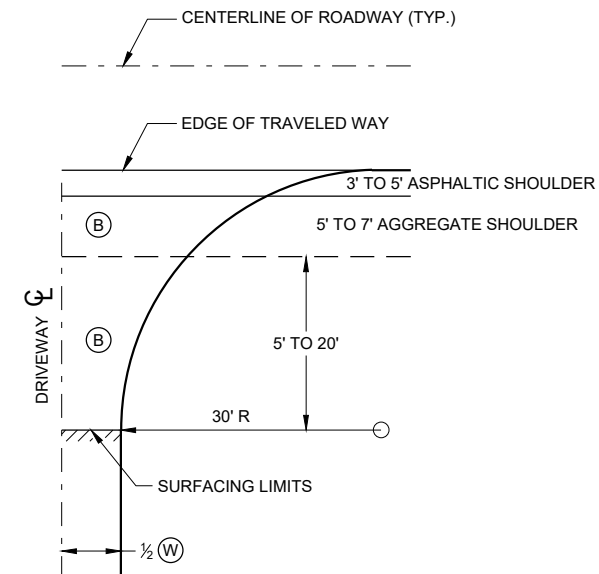
GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

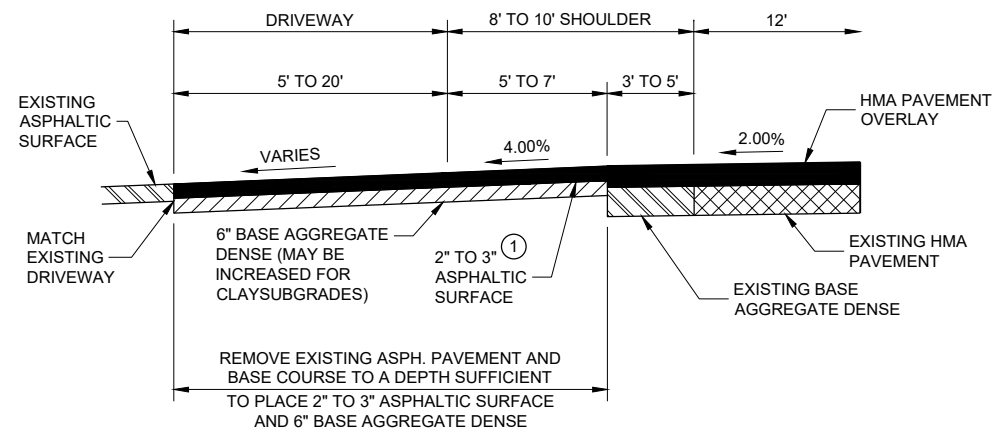


- Ⓐ : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- Ⓑ : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- ⒲ : DRIVEWAY WIDTH 16' MIN. - 24' MAX.

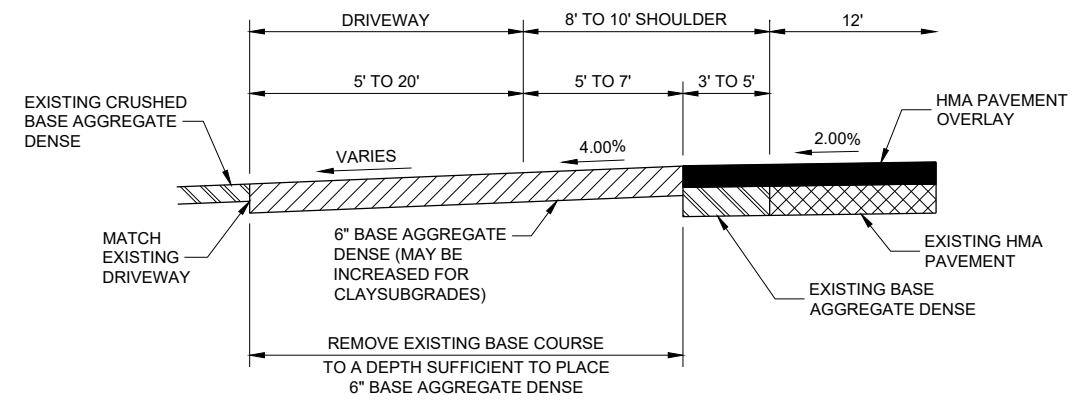
**PLAN VIEW
HALF SECTION**



**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

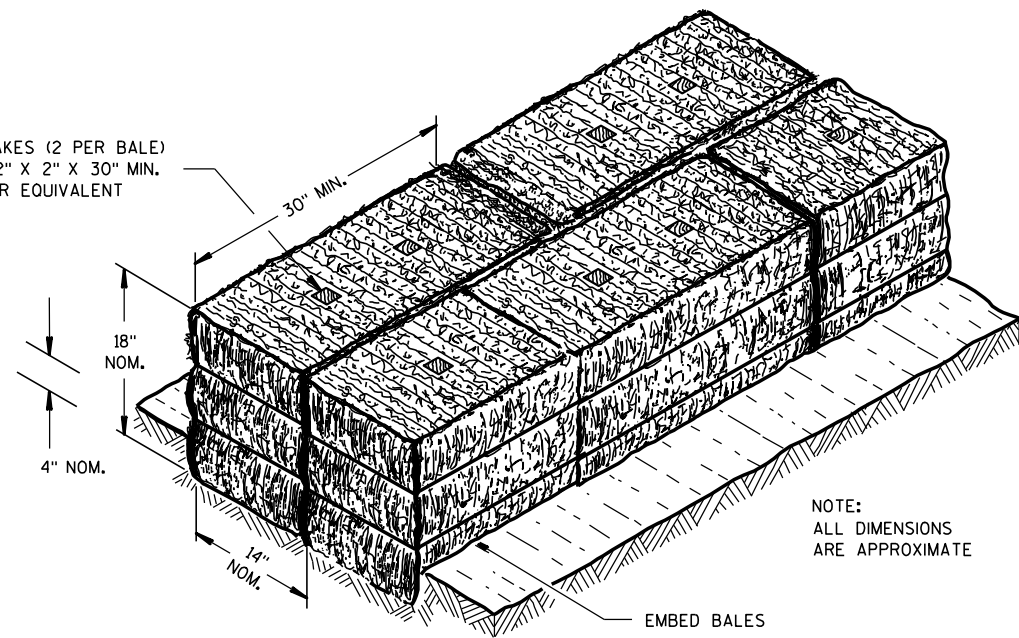
**DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

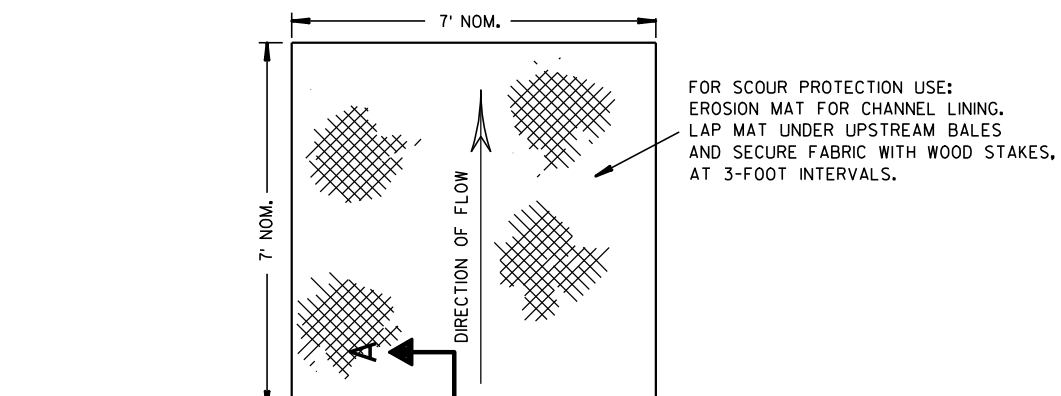
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



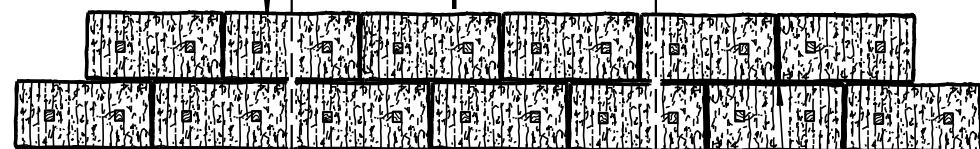
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A



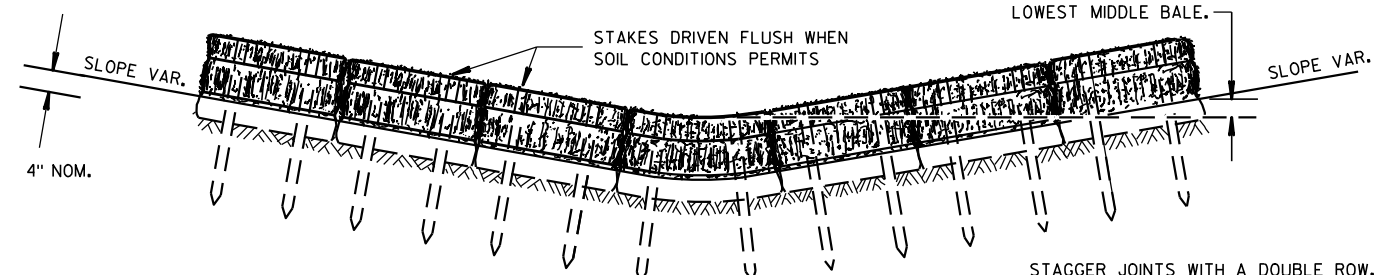
FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



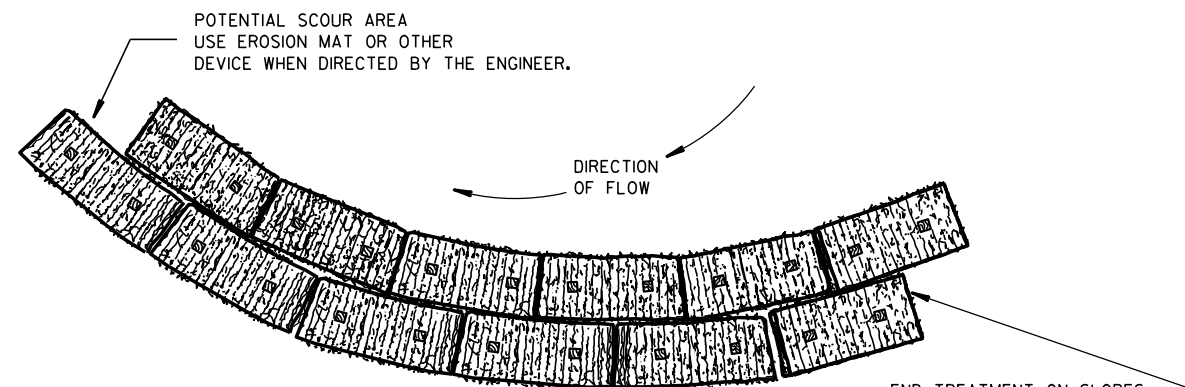
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

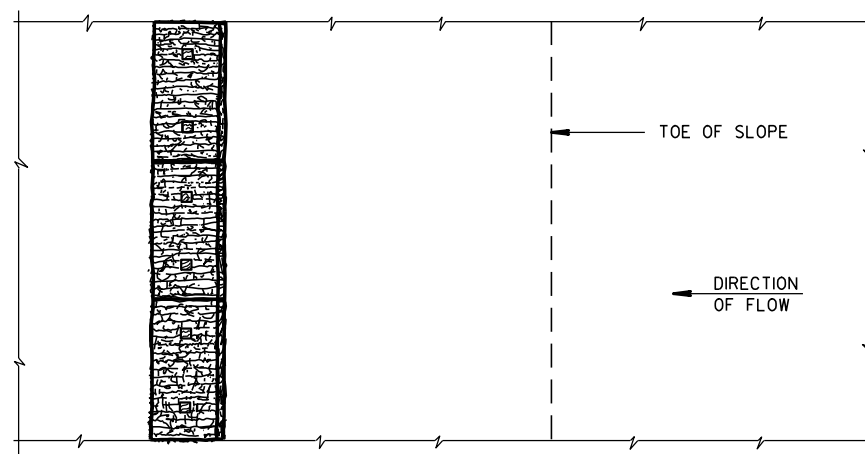
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

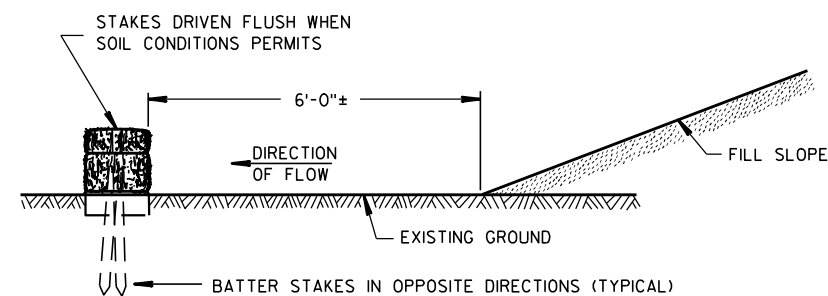


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

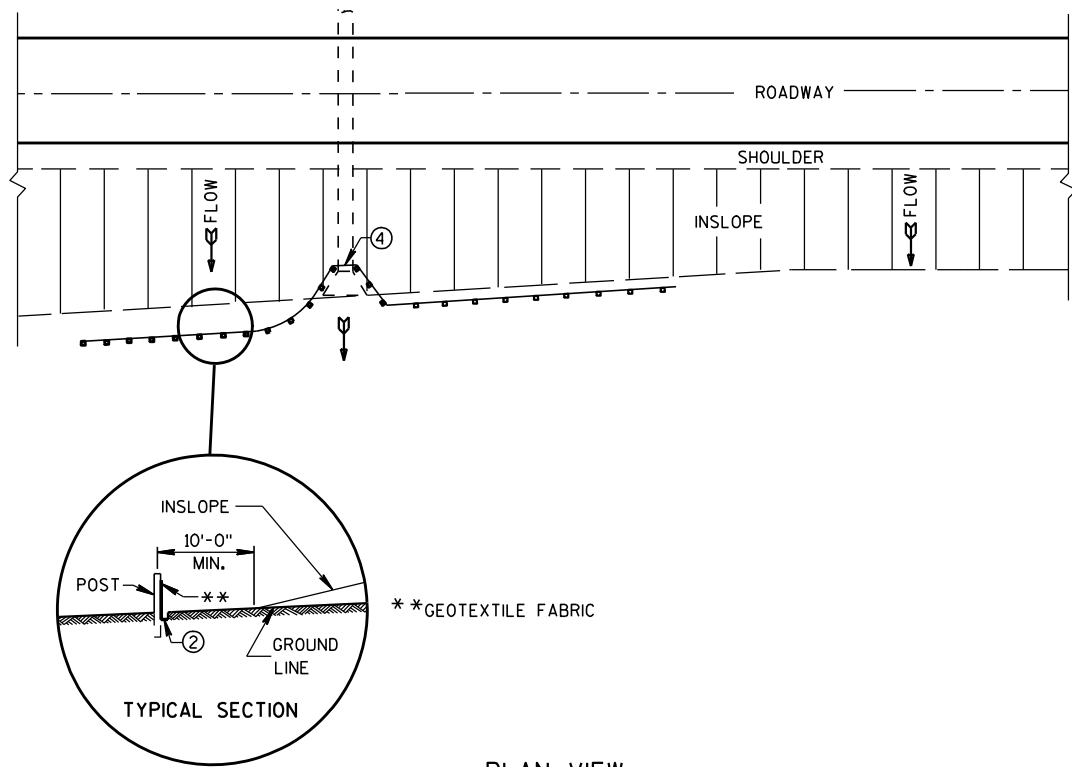
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

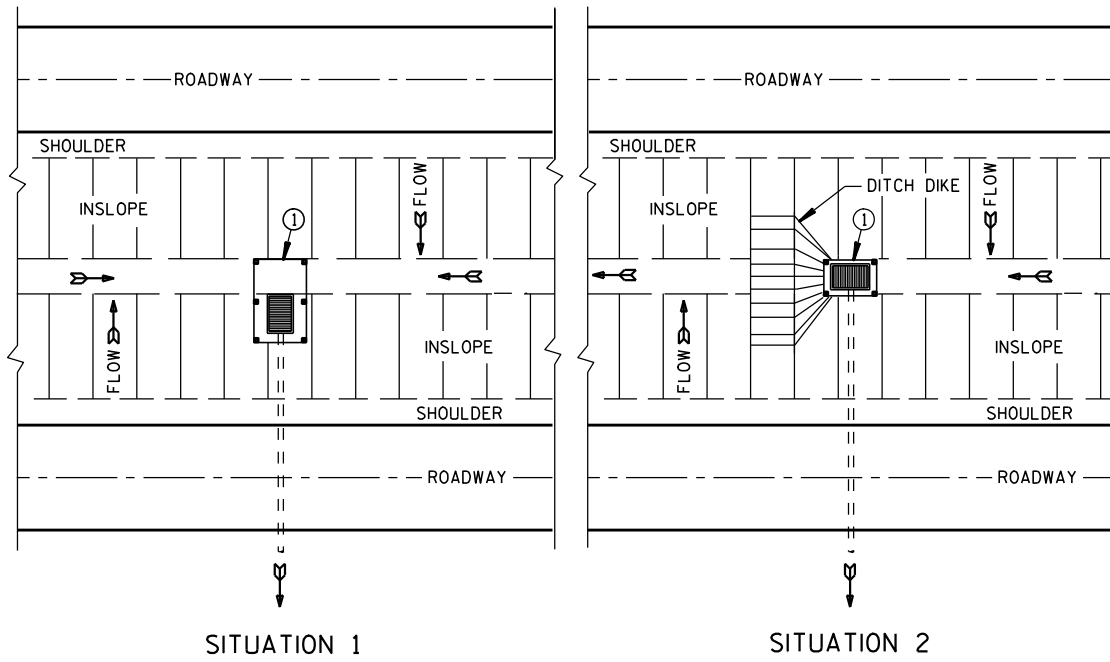
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 6/04/02 /S/ Beth Canestra
 DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
 FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

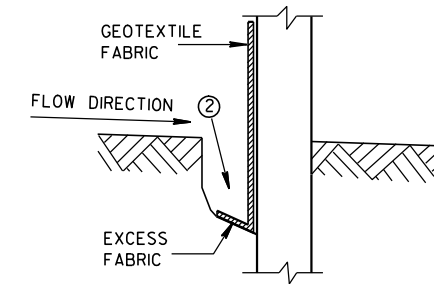


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

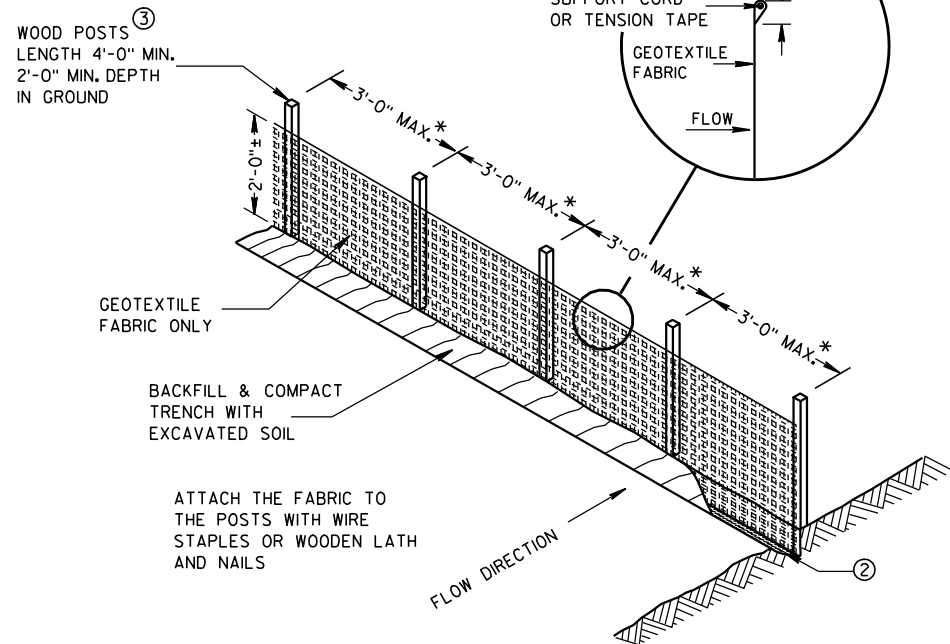
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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 1 1/8" X 1 1/8" 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.



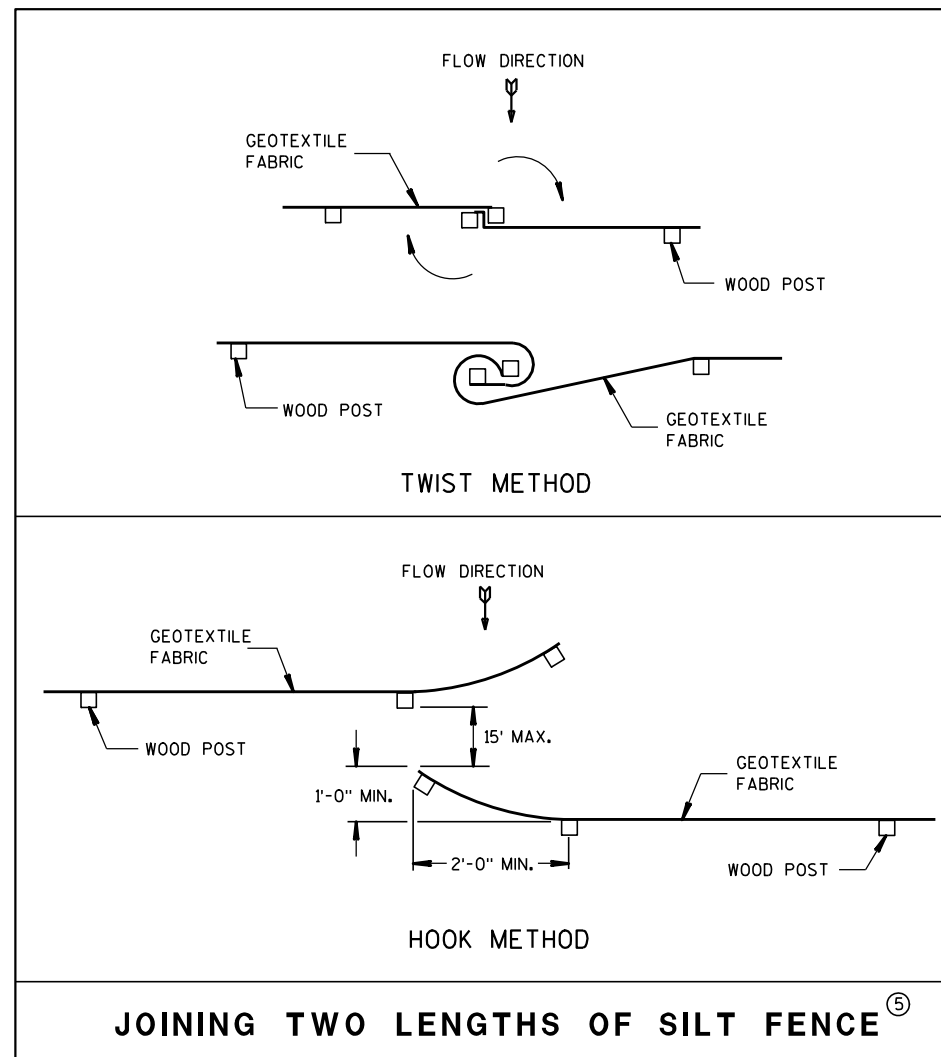
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

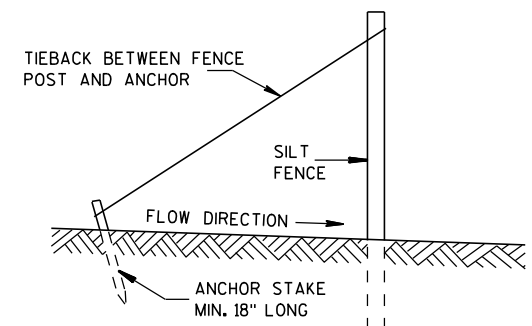


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

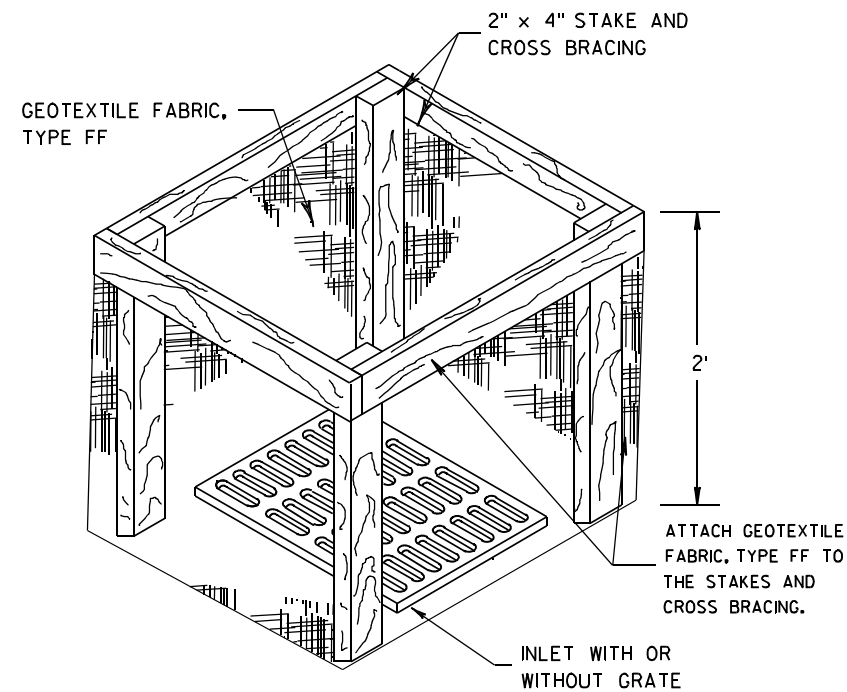
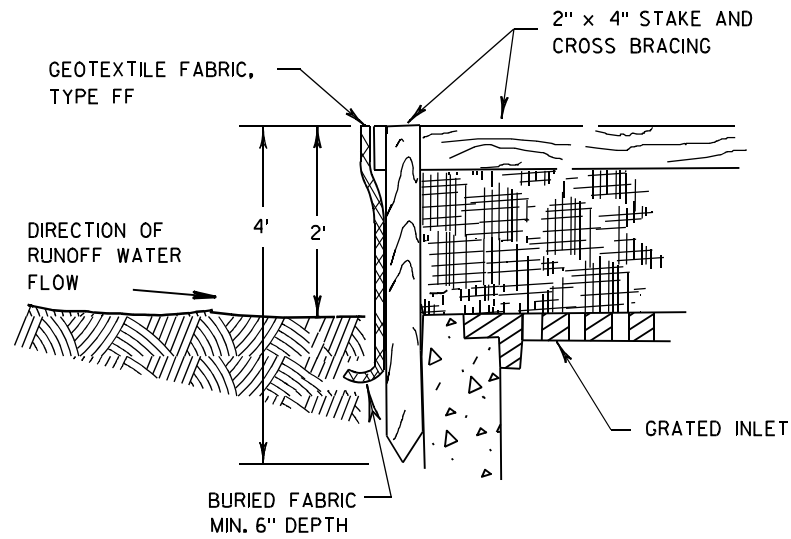


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
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APPROVED
4-29-05 /S/ Beth Canestra
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



INLET PROTECTION, TYPE A

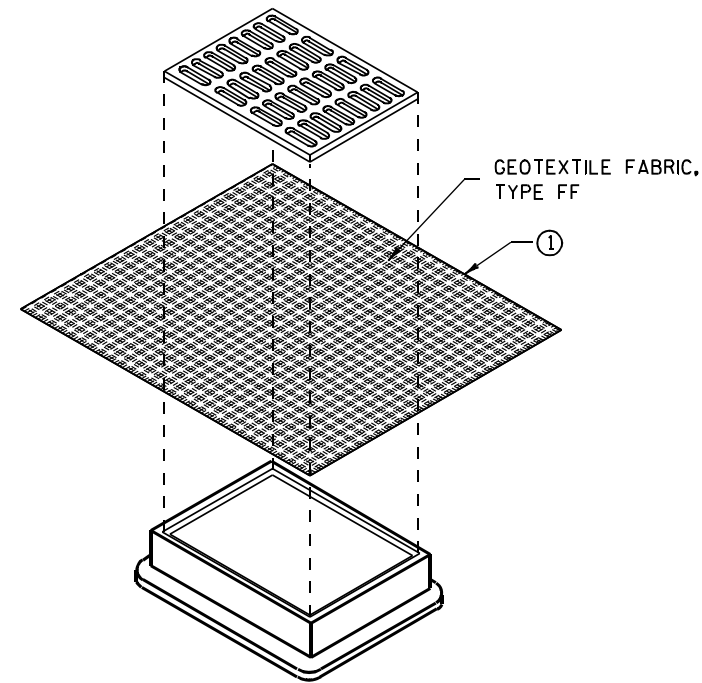
GENERAL NOTES

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.

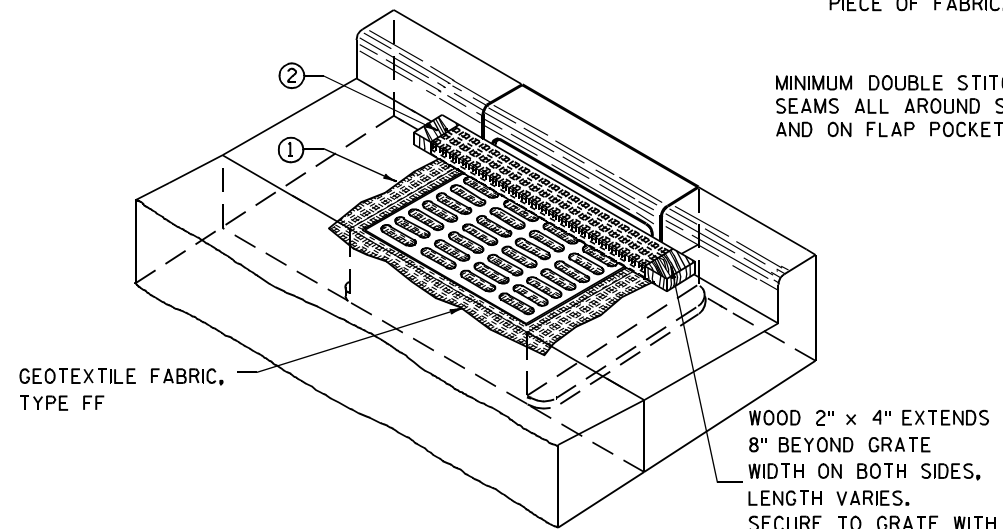
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

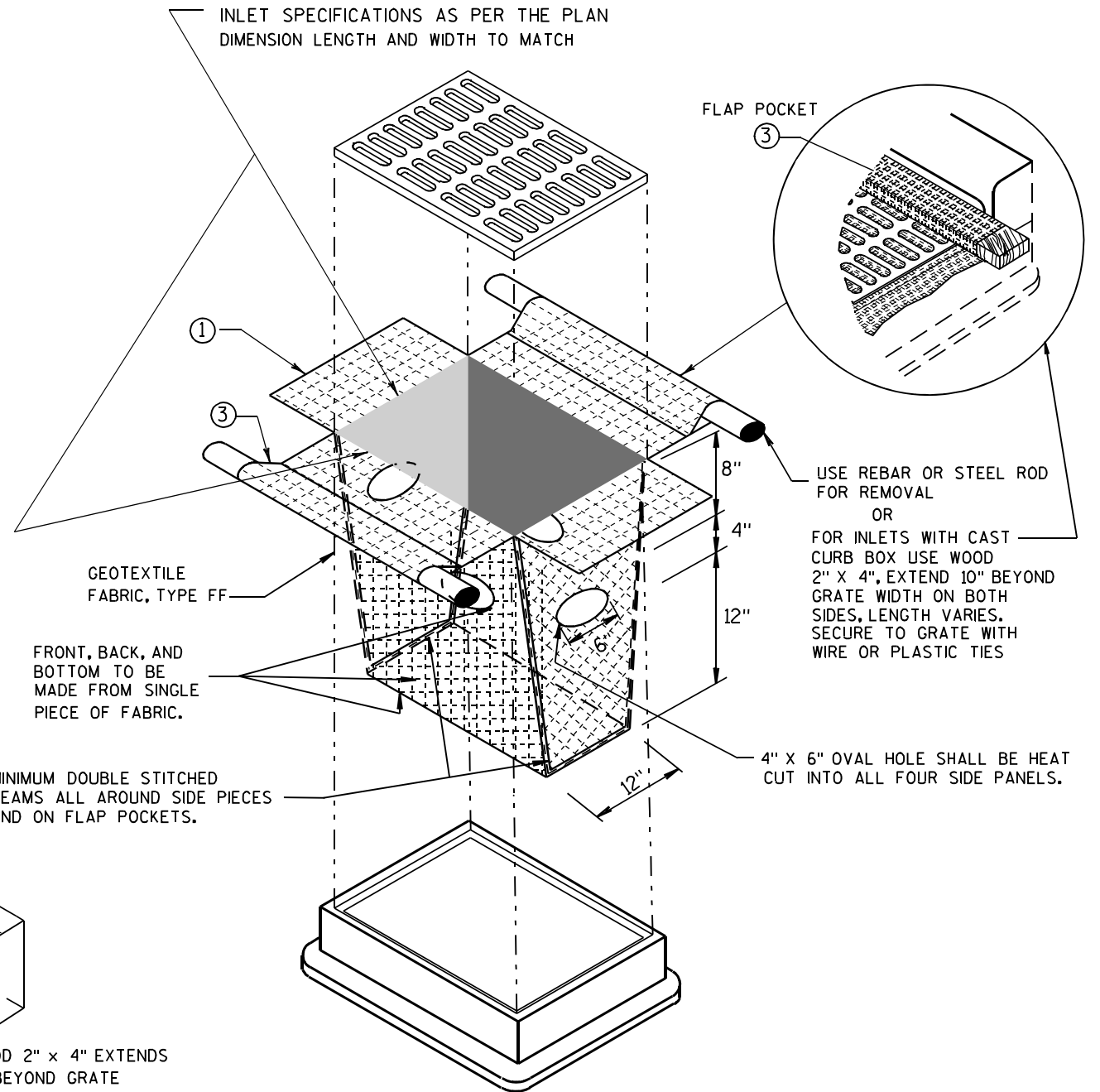
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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 D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connestra
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

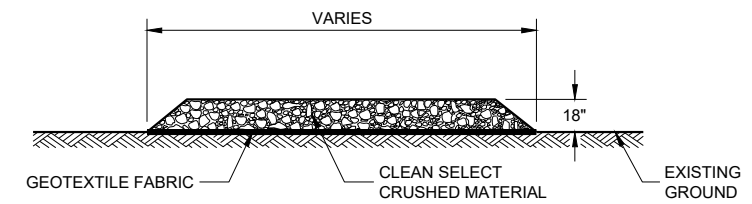
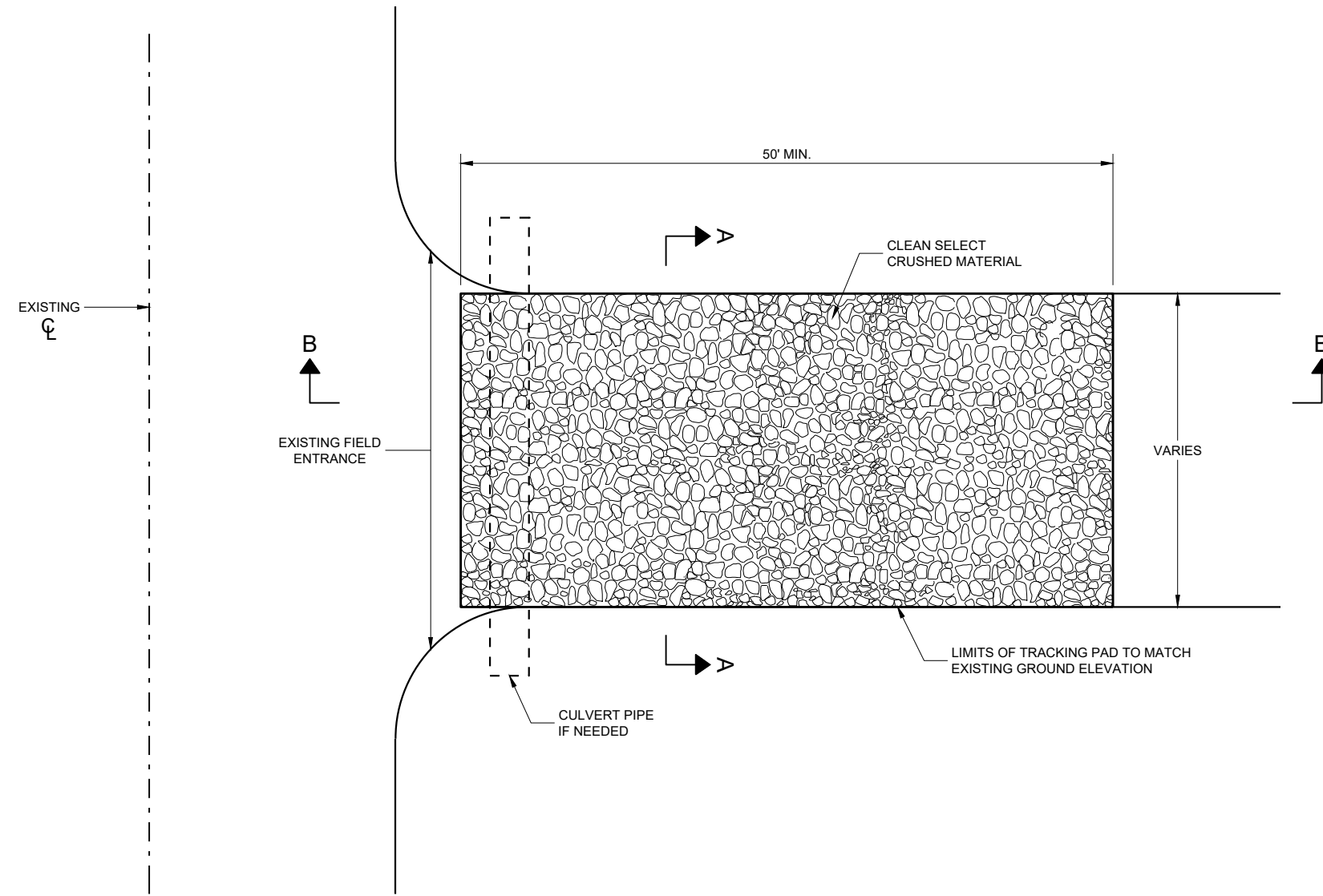
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

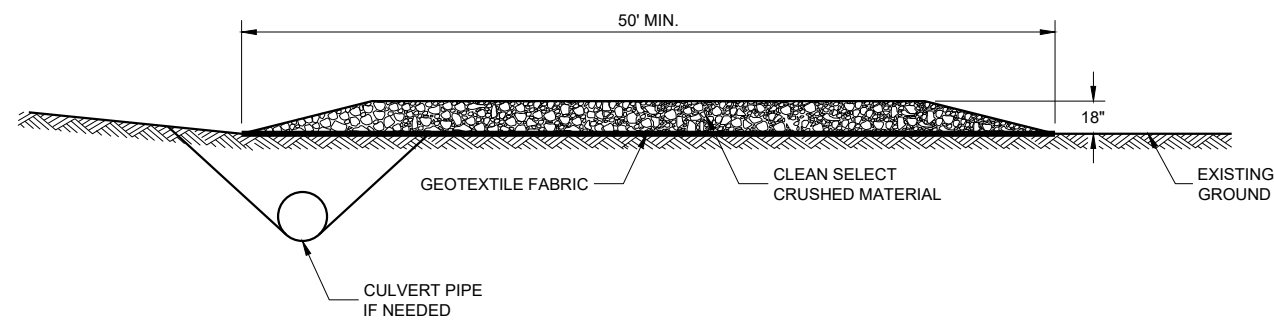
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A



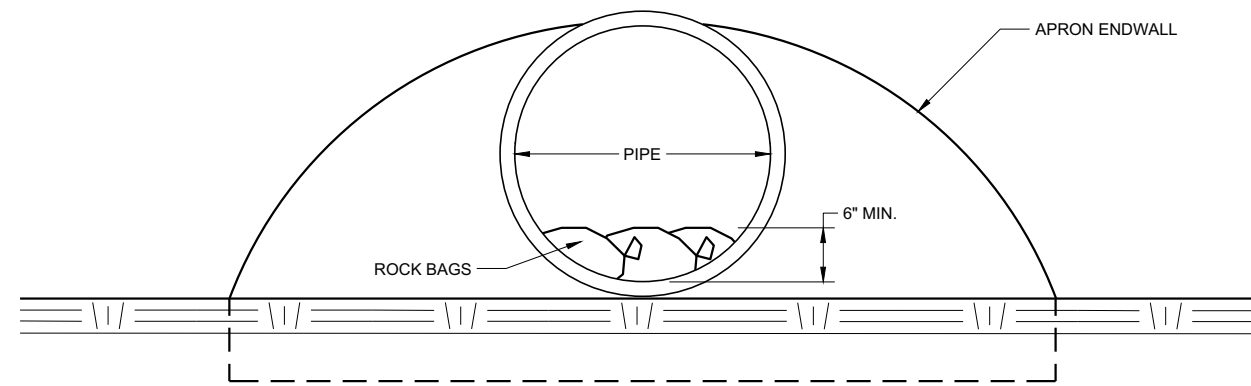
SECTION B - B

TRACKING PAD

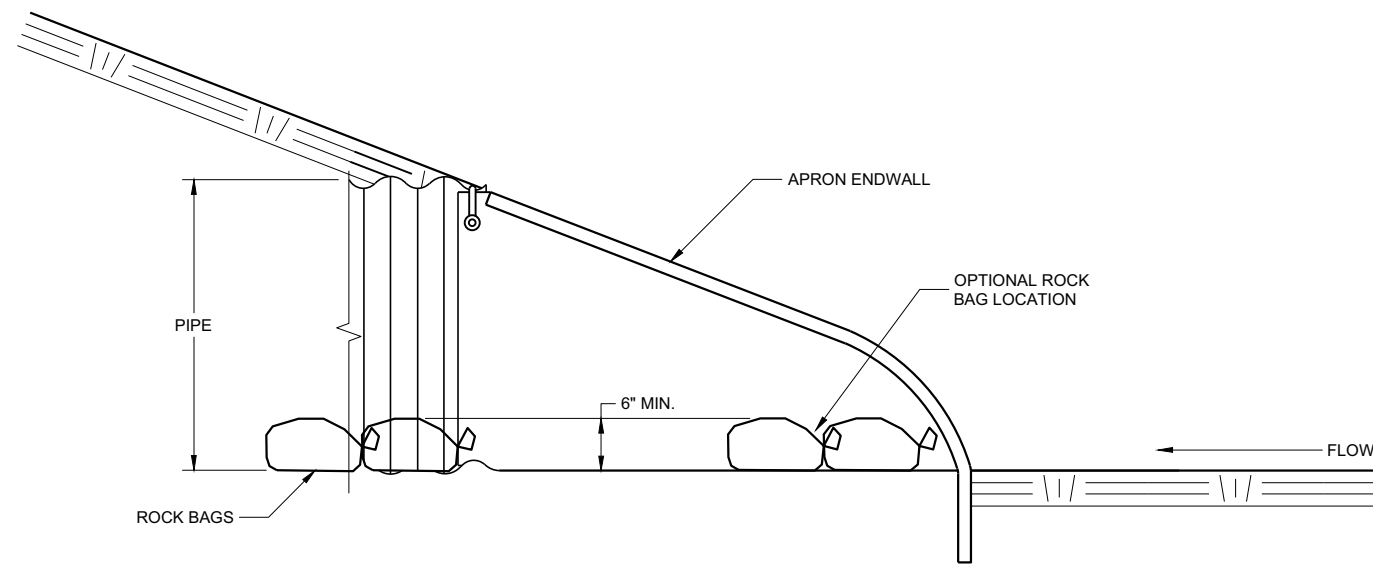
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

6

6

SDD 08E15 - 01

SDD 08E15 - 01

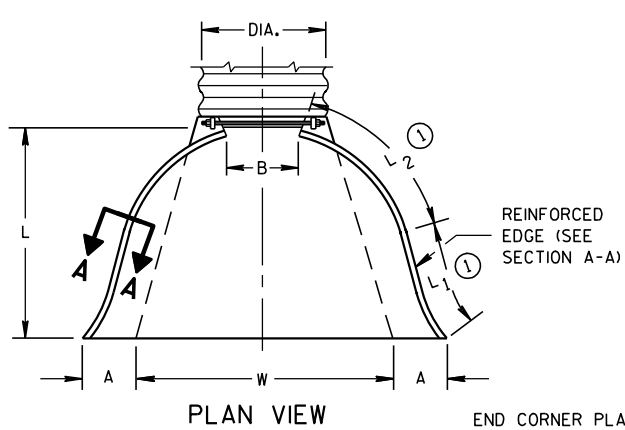
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
<small>FHWA</small>	

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	W (±2")			
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	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.	
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.	
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.	
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.	
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.	
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.	
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.	

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

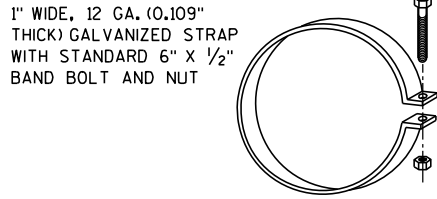
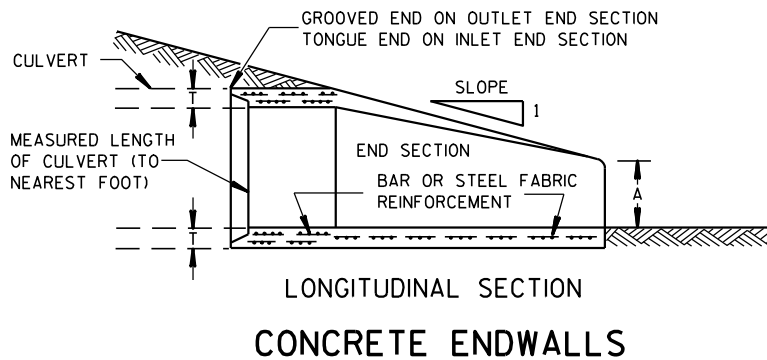
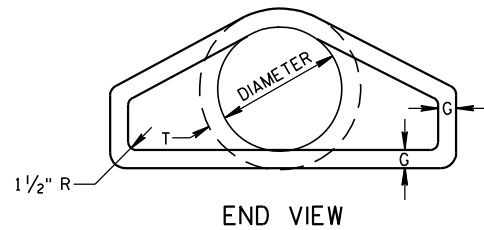
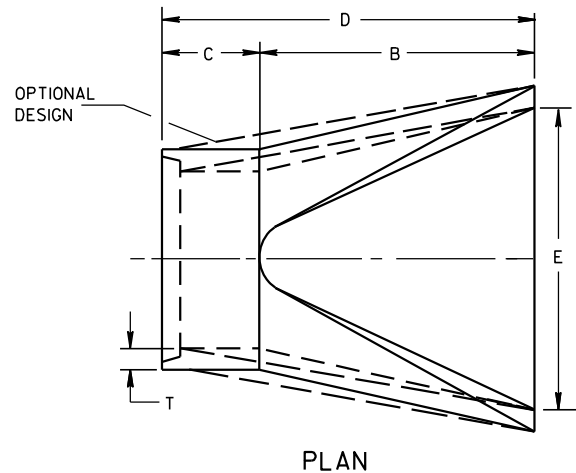
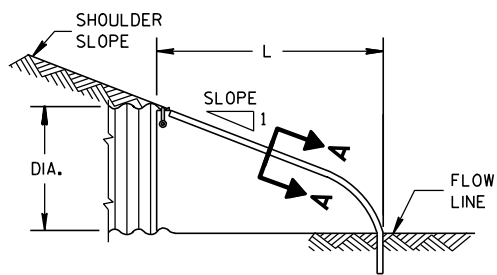
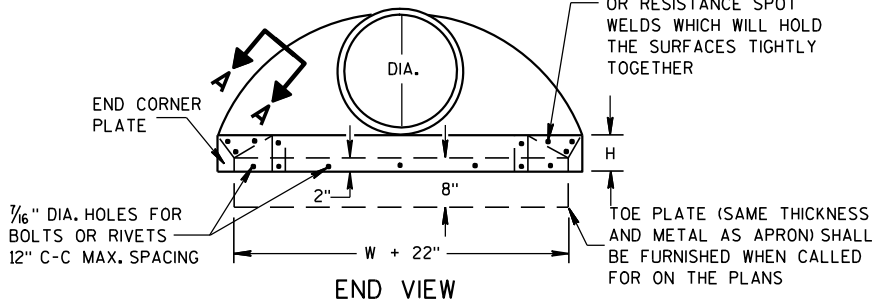
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 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 1/2 to 1
60	6	30-35	60	39	99	96	5	2 to 1
66	6 1/2	30-35	72-78	21-27	99	102	5 1/2	2 to 1
72	7	30-35	78	21	99	108	6	2 to 1
78	7 1/2	30-35	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

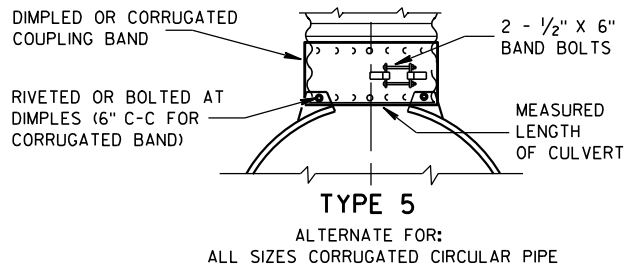
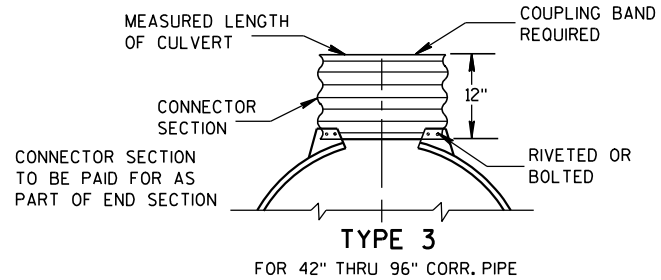
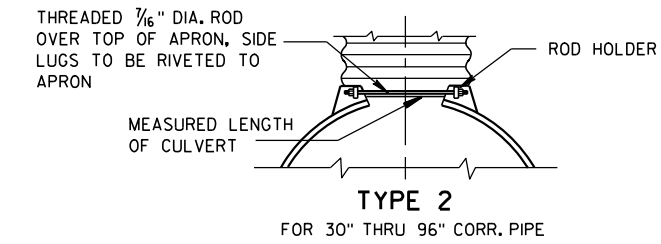
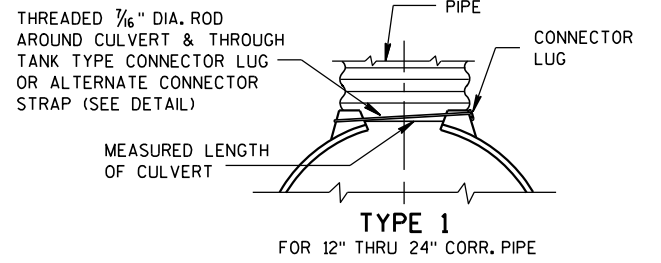


END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



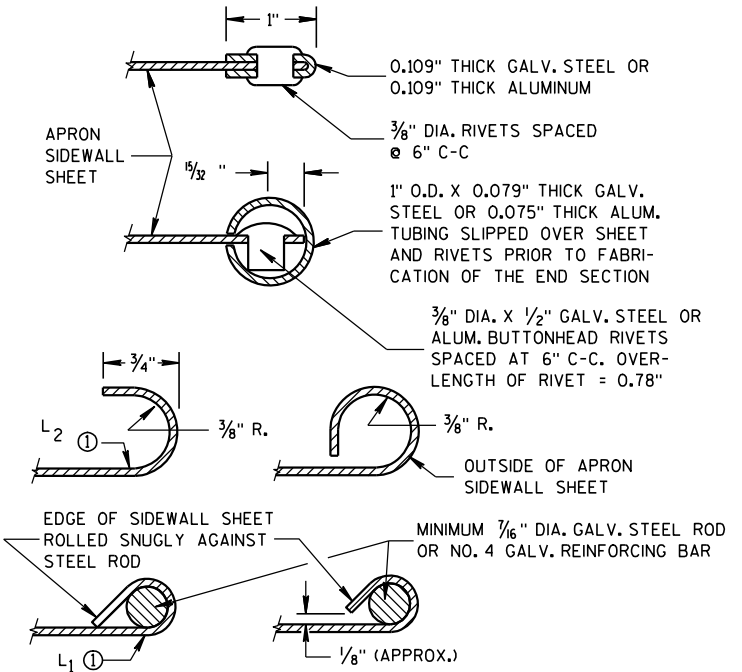
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE 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

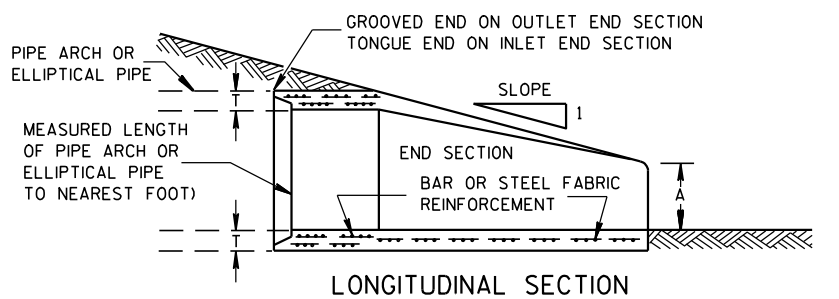
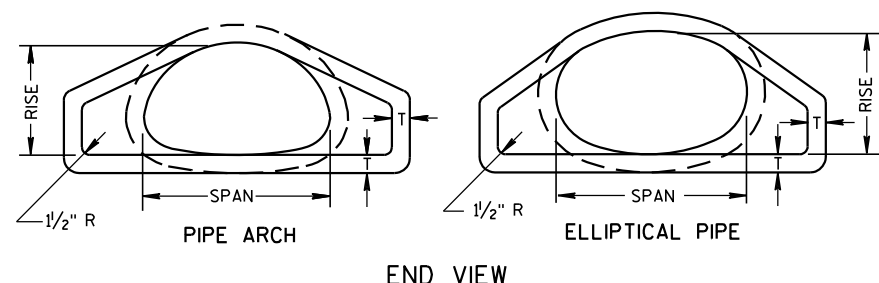
APPROVED

11/30/94

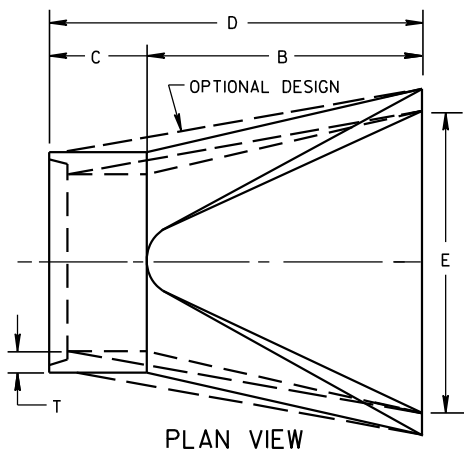
DATE

FHWA

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER



CONCRETE ENDWALLS



2- 2 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⓪)	L2 (⓪)	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⓪)	L2 (⓪)	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. * EXCEPT CENTER PANEL SEE GENERAL NOTES

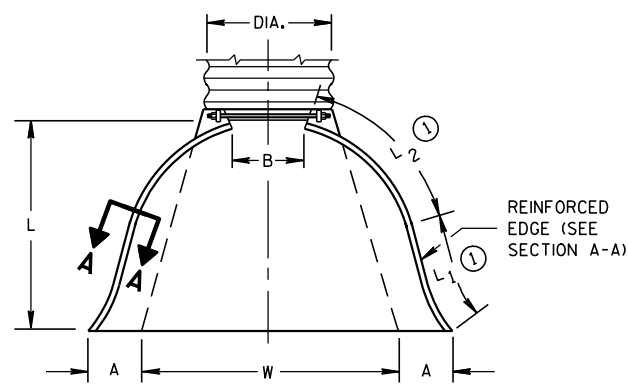
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 5/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

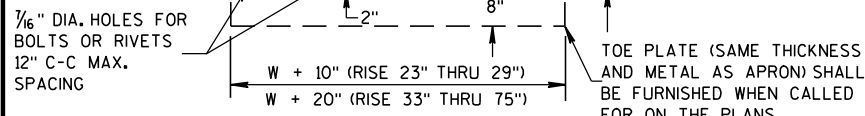
REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

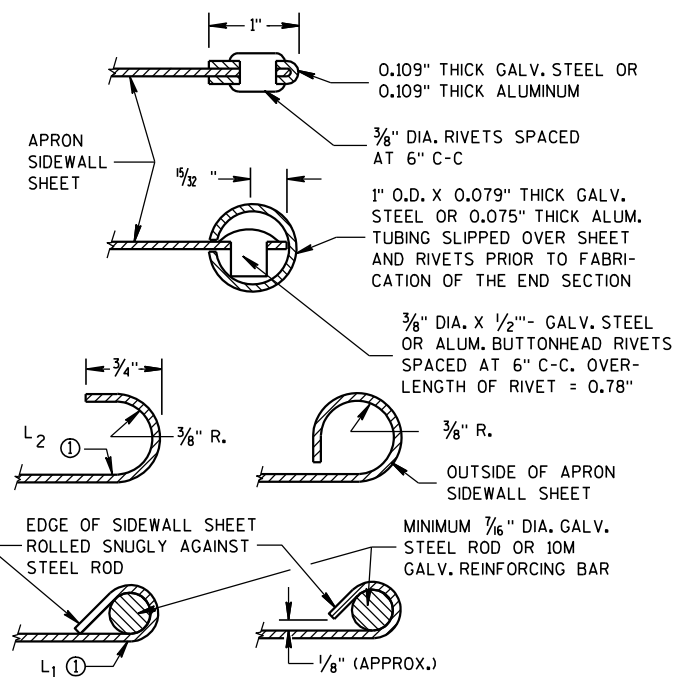
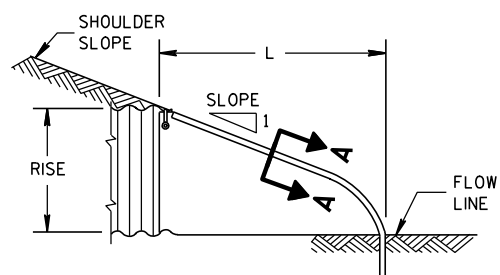
**NOMINAL SIZE



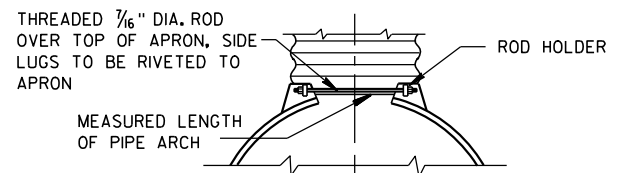
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



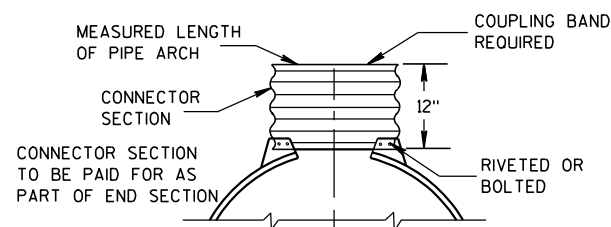
SIDE ELEVATION METAL ENDWALLS



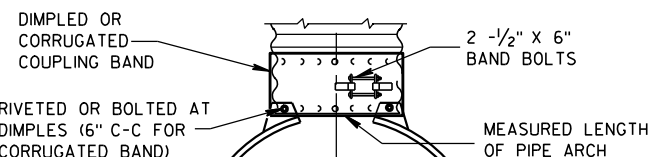
SECTION A-A



TYPE 2 FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3 FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5 ALTERNATE FOR: ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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 APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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.

⓪ FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

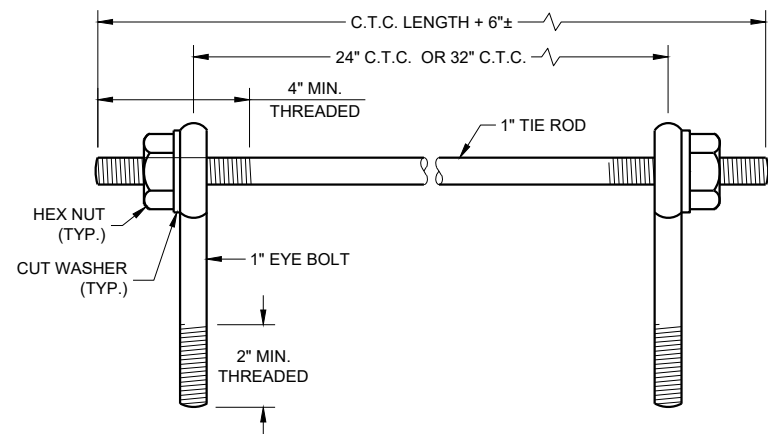
APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 /S/ Rory L. Rhinesmith DATE CHIEF ROADWAY DEVELOPMENT ENGINEER FHWA	

6

6

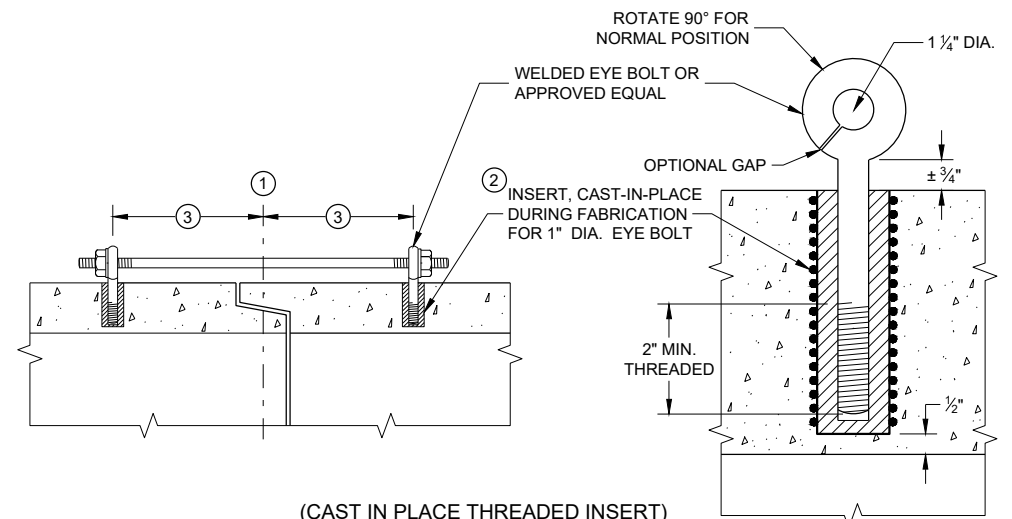
S.D.D. 8 F 2-1

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



LONGITUDINAL SECTIONS

GENERAL NOTES

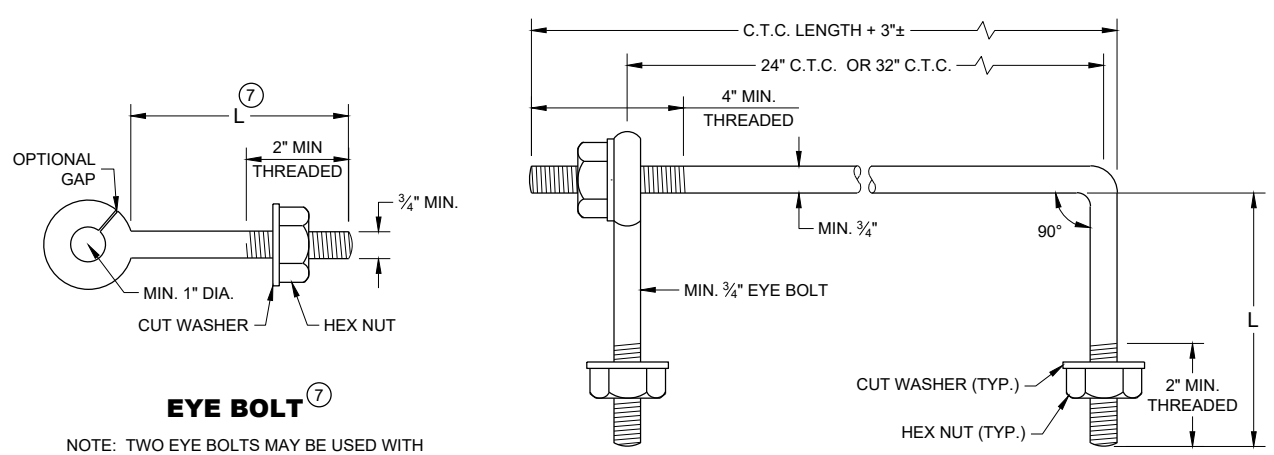
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

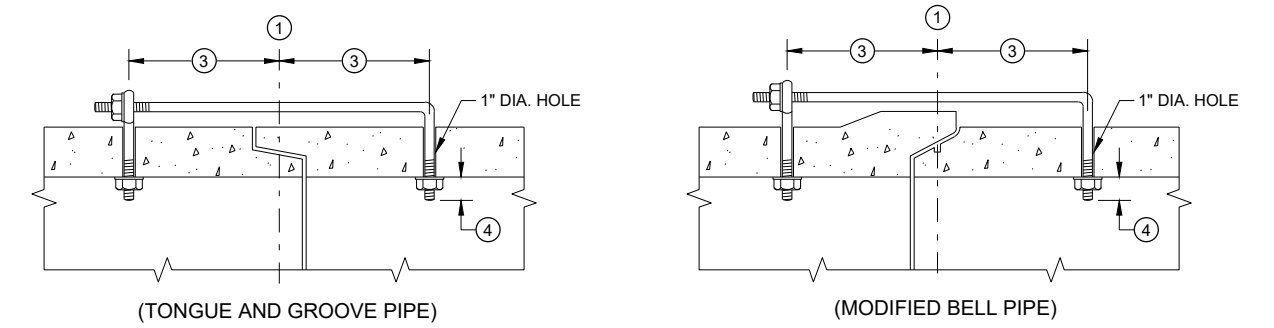
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION 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.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



EYE BOLT AND TIE ROD

EYE BOLT ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



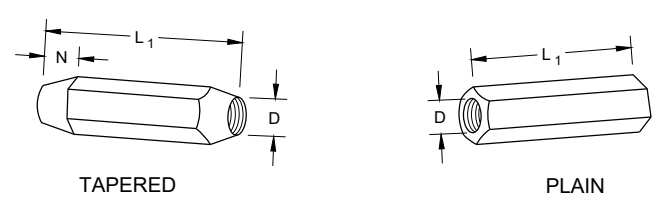
LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

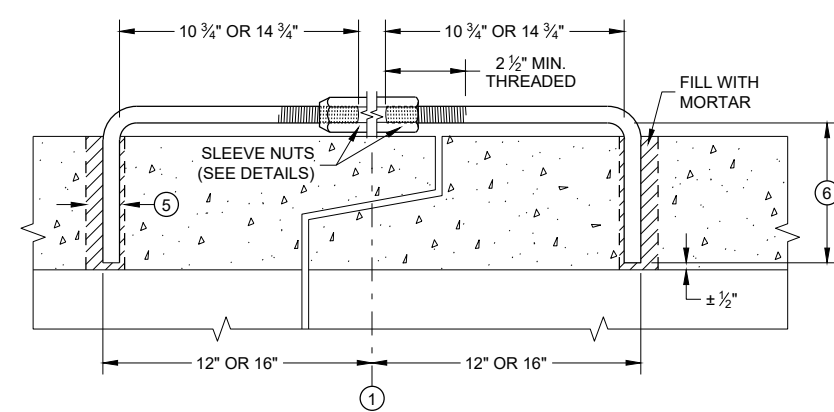
ADJUSTABLE TIE ROD TABLE

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 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

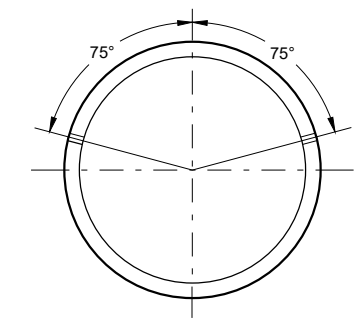


RIGHT AND LEFT THREADS SLEEVE NUTS



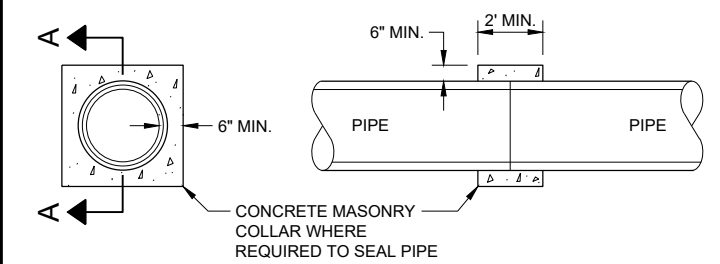
LONGITUDINAL SECTION

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

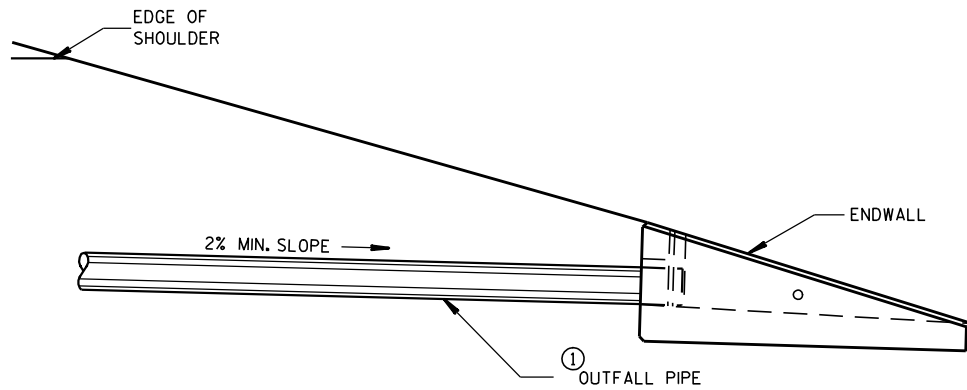
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

** APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

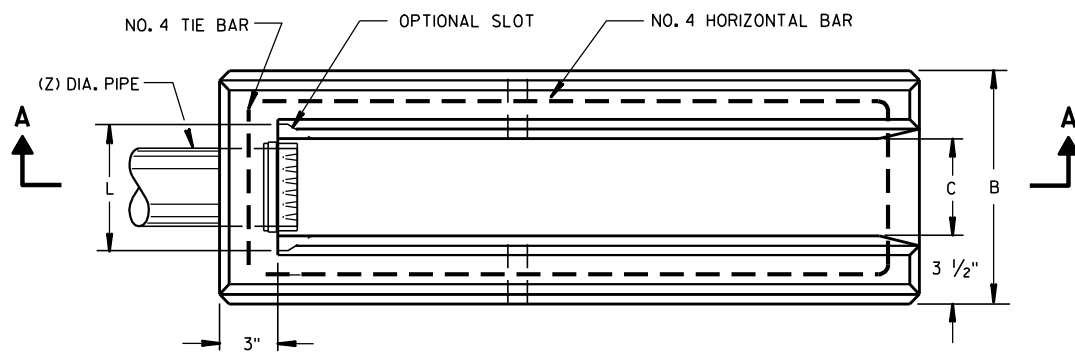
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

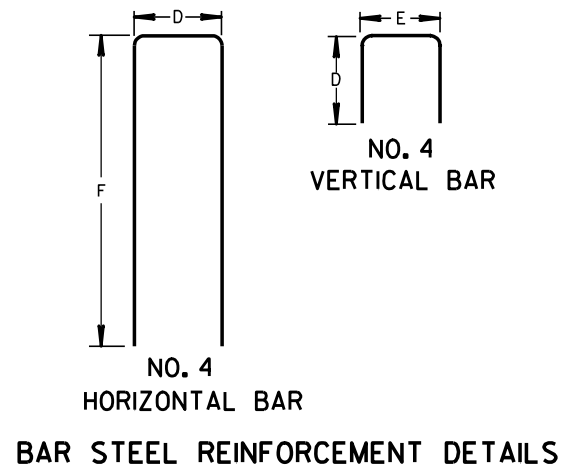
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

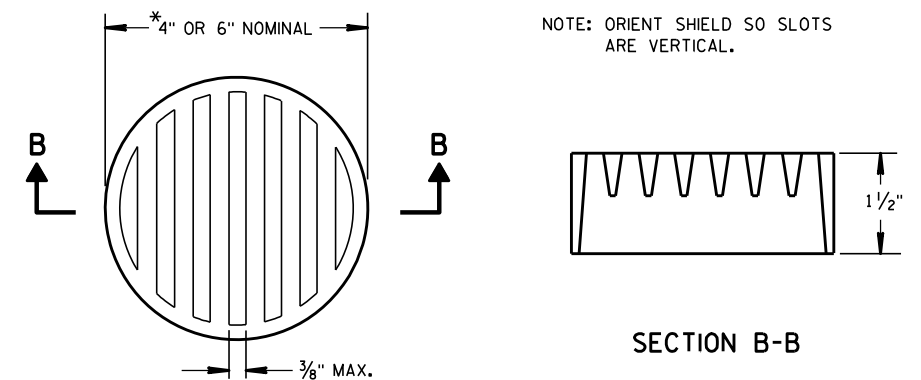
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



PLAN VIEW

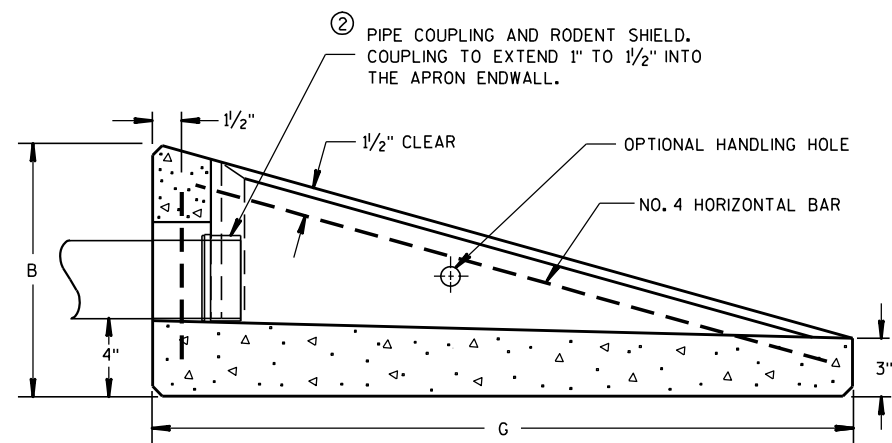


BAR STEEL REINFORCEMENT DETAILS



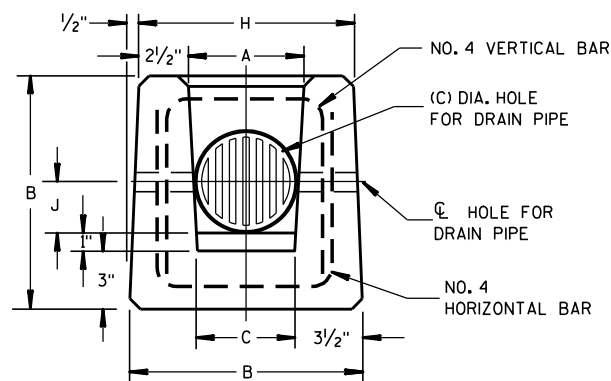
② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A

CONCRETE APRON ENDWALL FOR UNDERDRAIN



END VIEW

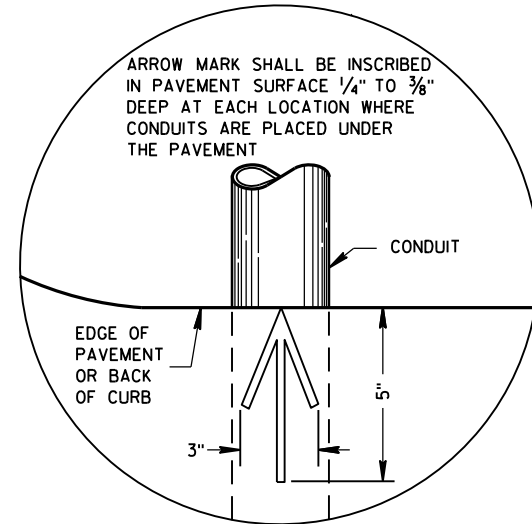
**REINFORCED
CONCRETE APRON ENDWALL
FOR PIPE UNDERDRAIN**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

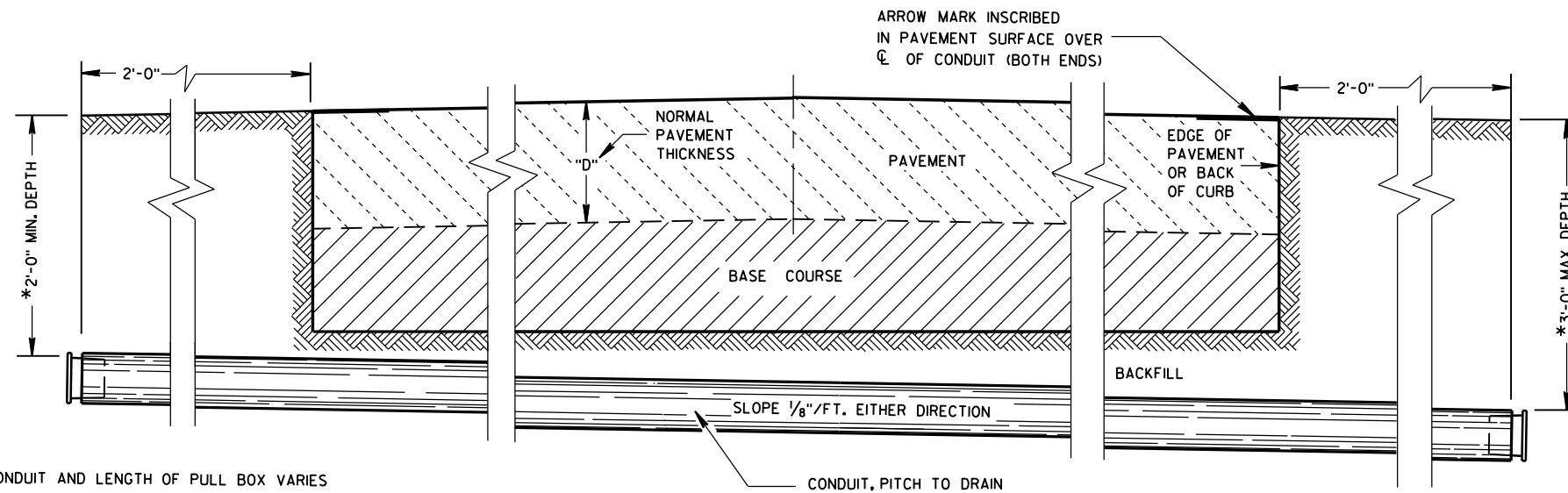
APPROVED

3/10/98 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



**PLAN VIEW
ARROW MARK**



**SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS**

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

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.

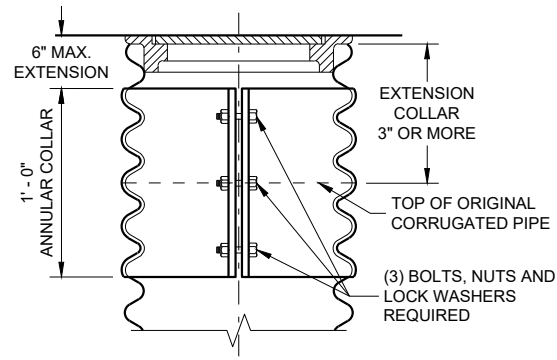
ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

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.).

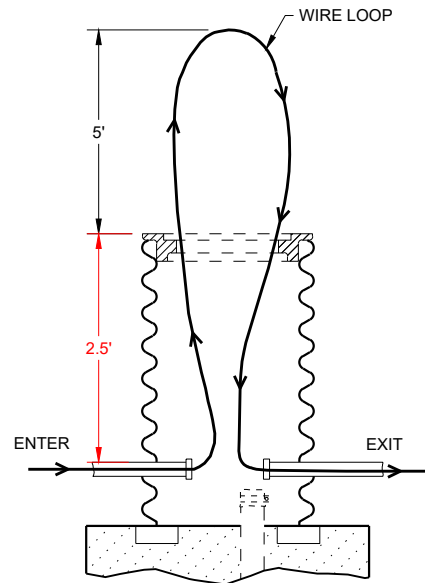
TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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.

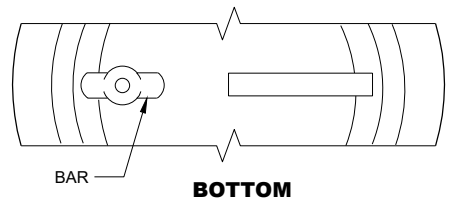
CONDUIT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March, 2017 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	



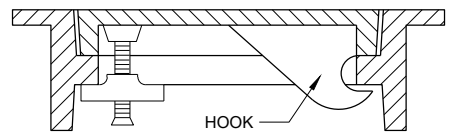
CORRUGATED PIPE EXTENDER



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



BOTTOM



SECTION

**ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE**

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.

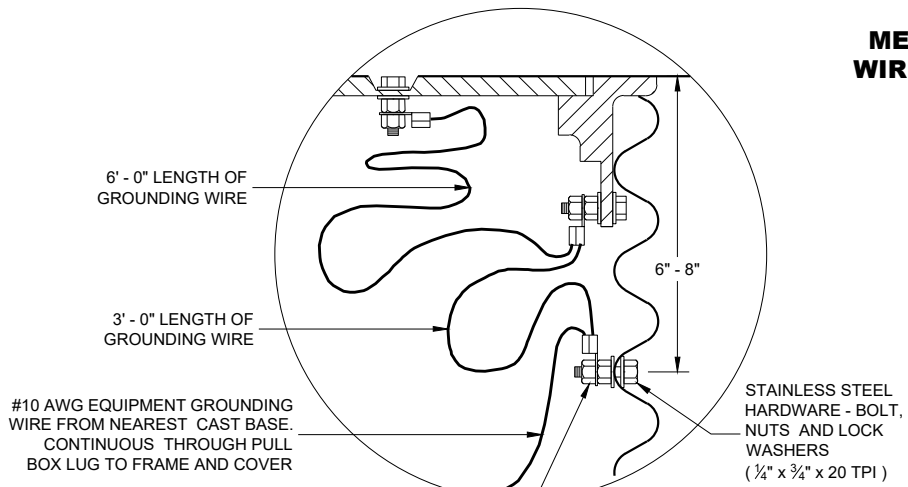
WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

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	

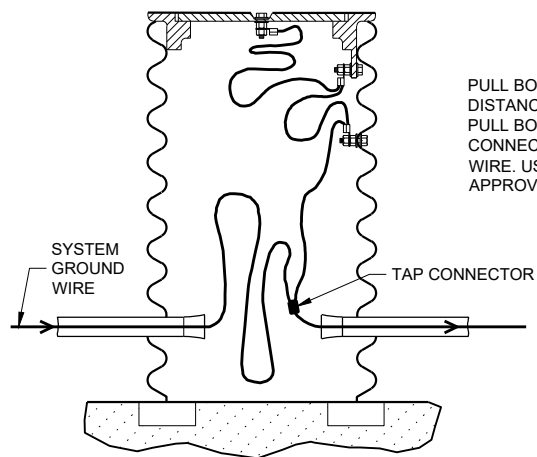
* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** 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.

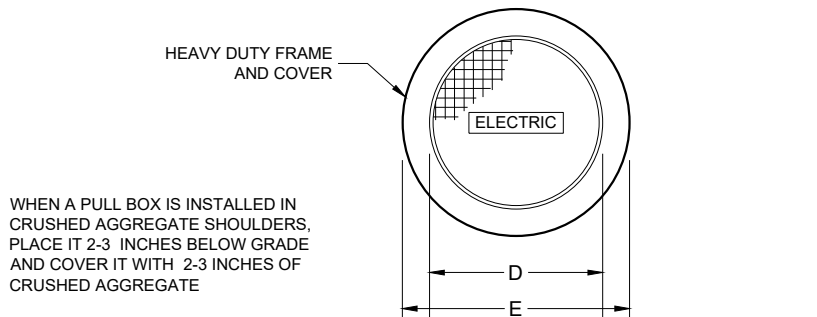


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

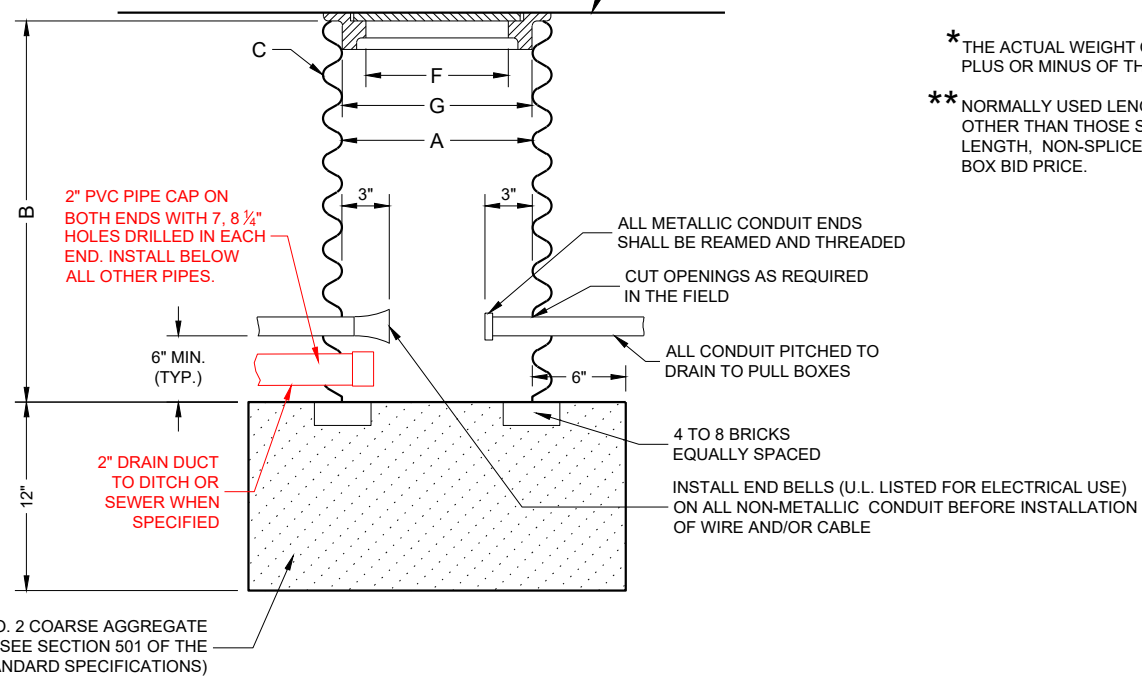
NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



PULL BOX

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER

FHWA

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.

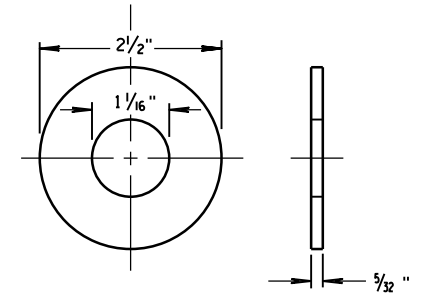
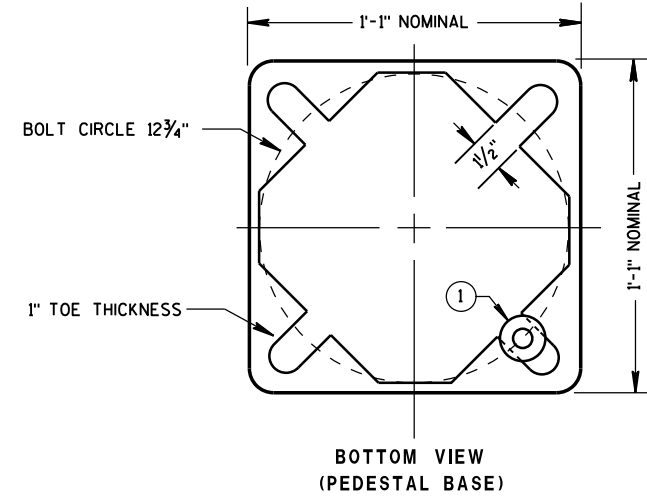
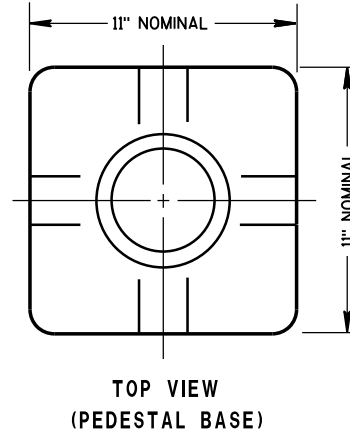
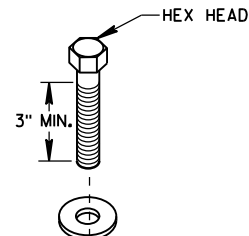
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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.

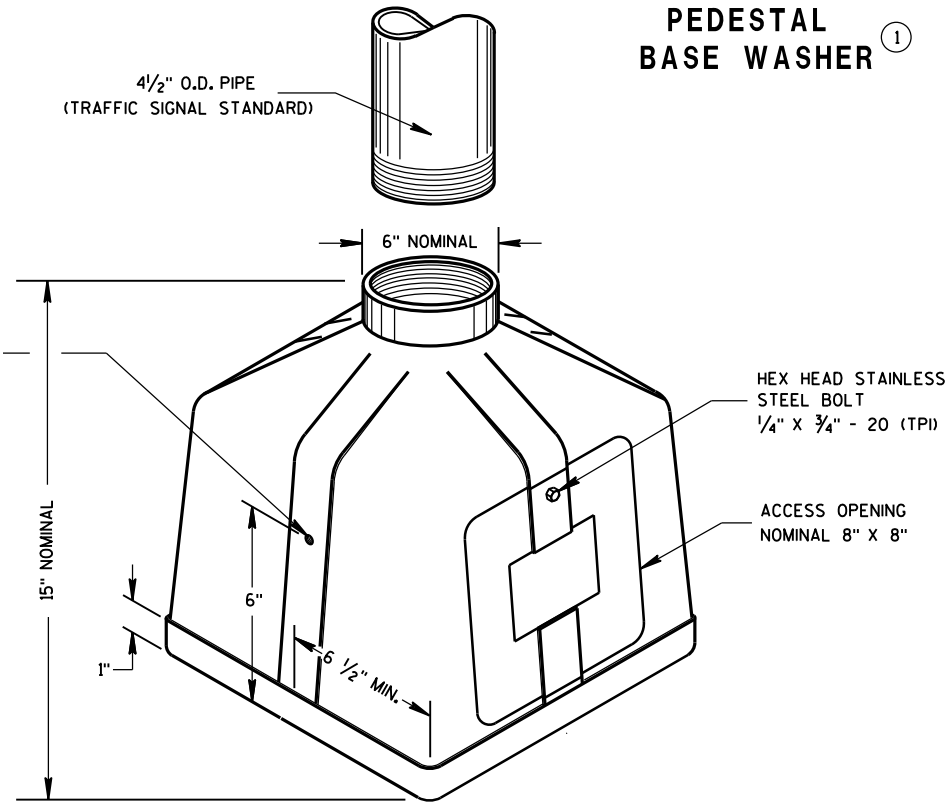
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

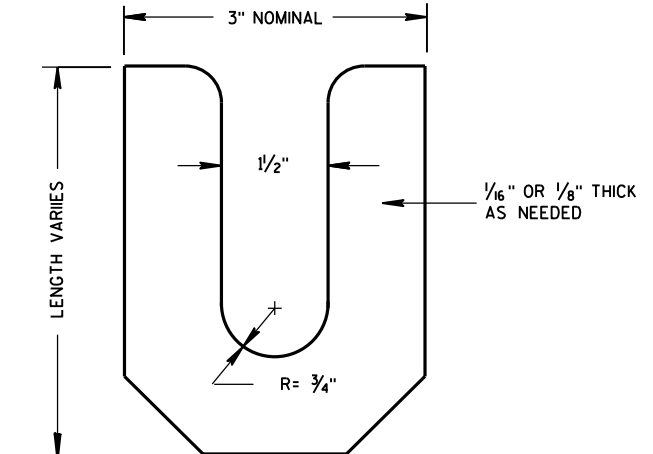
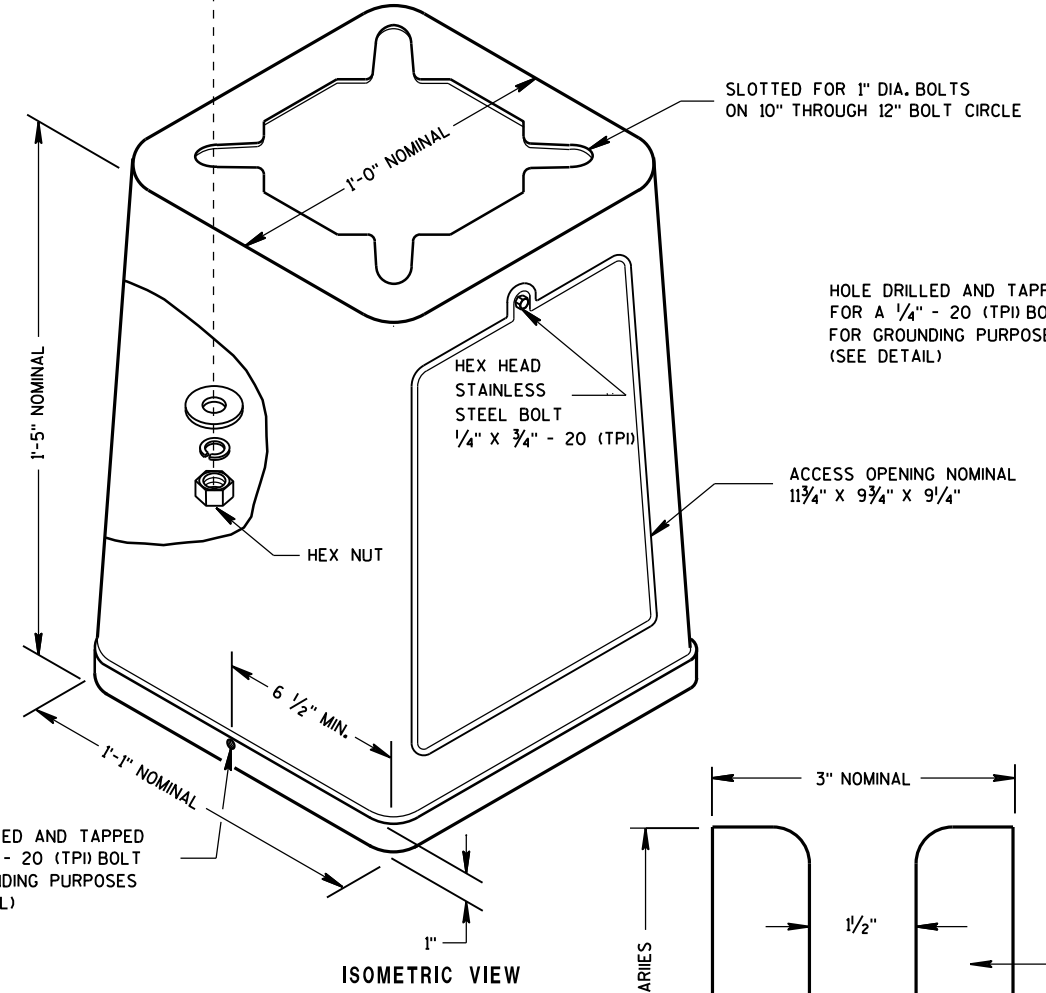
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



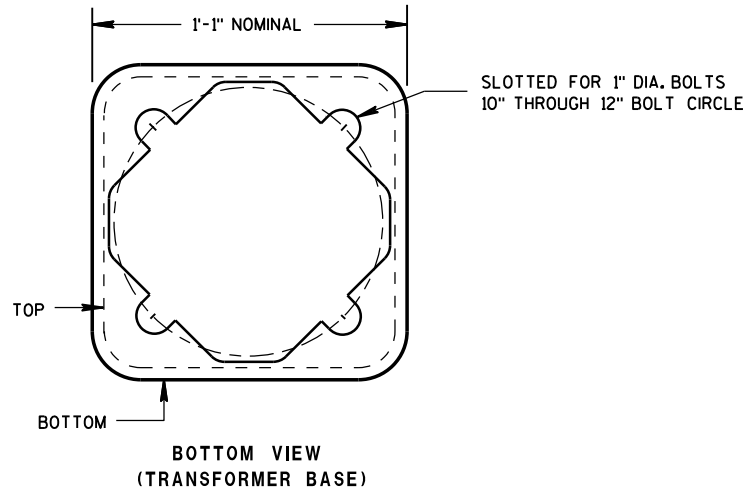
ZINC COATED STEEL WASHER TO BE PROVIDED BY THE CONTRACTOR
PEDESTAL BASE WASHER ①



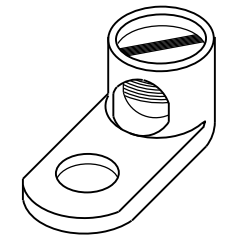
ISOMETRIC VIEW PEDESTAL BASE



LEVELING SHIM



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

TRANSFORMER/PEDESTAL BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

6

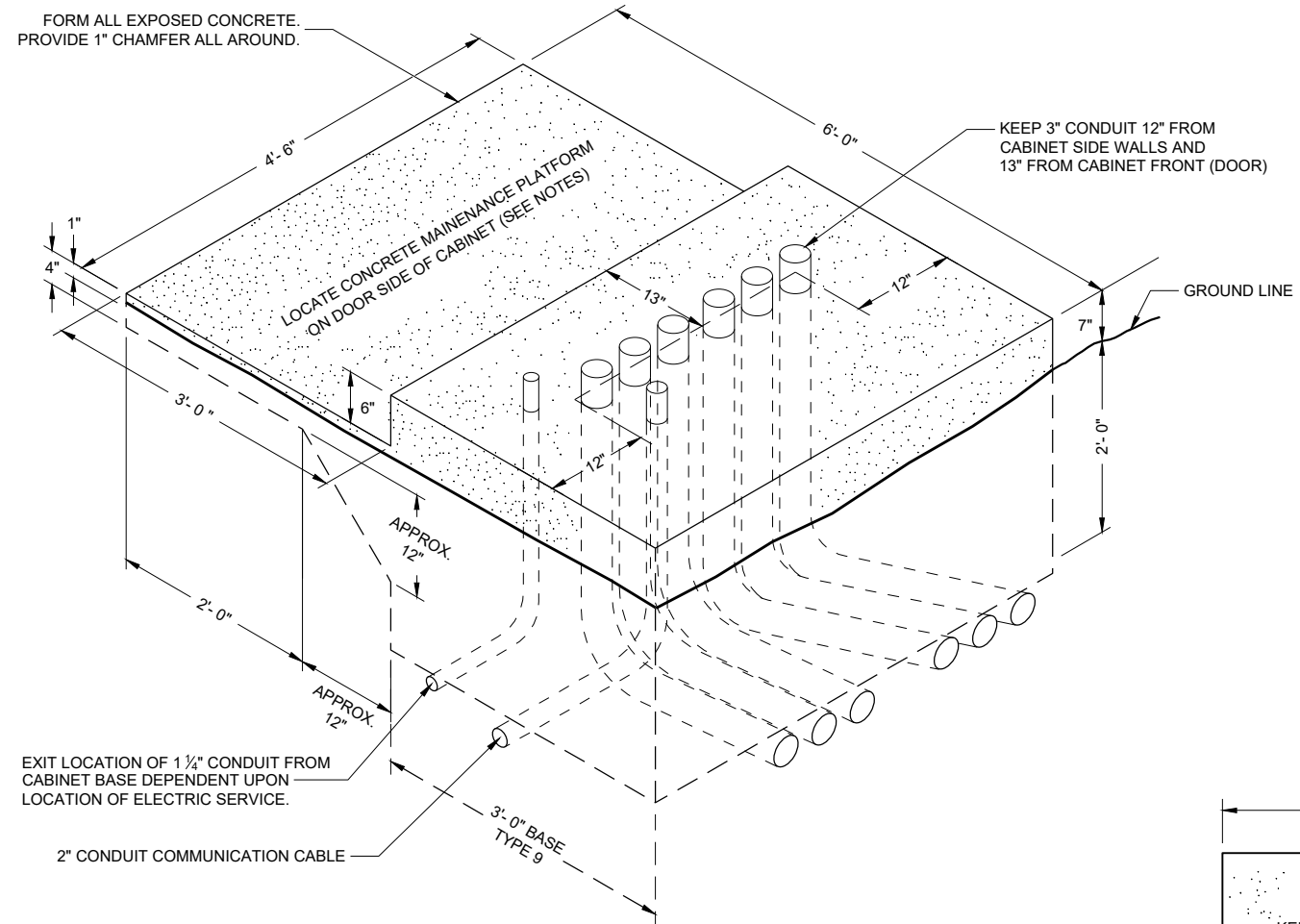
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S.D.D. 9 C 3-4

S.D.D. 9 C 3-4

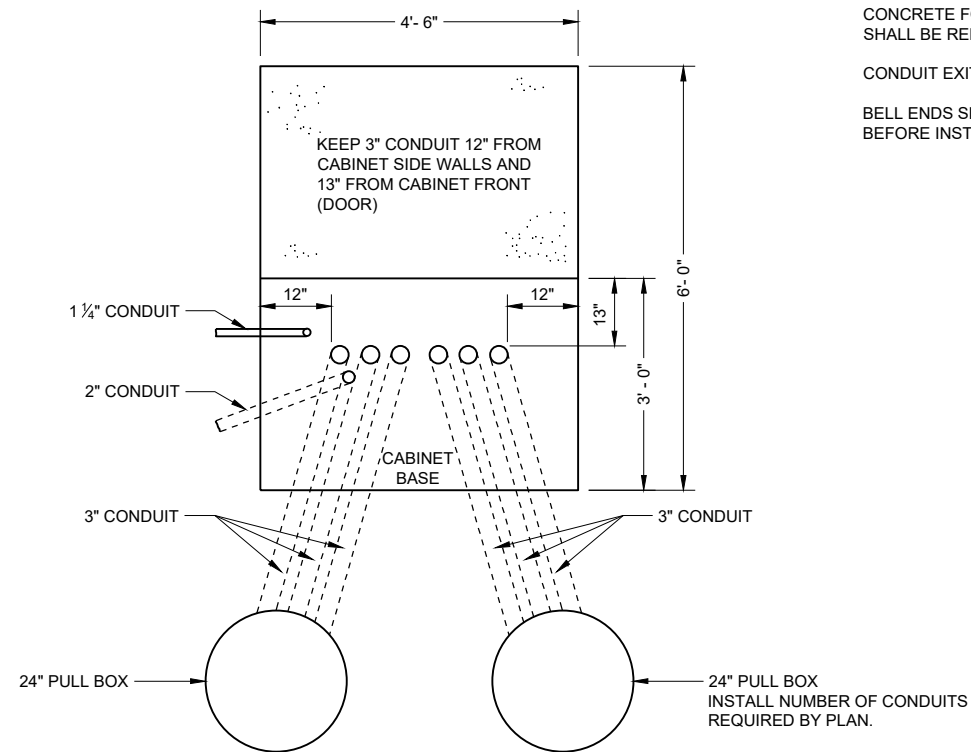


SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



ISOMETRIC VIEW TYPE 9 SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL

GENERAL NOTES

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

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC 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 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

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SDD 09C06 - 07

SDD 09C06 - 07

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGINEER
FHWA

GENERAL NOTES

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

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 AROUND 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.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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 4 1/2" 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 CONCRETE 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, U.L. 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.

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.

① 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.

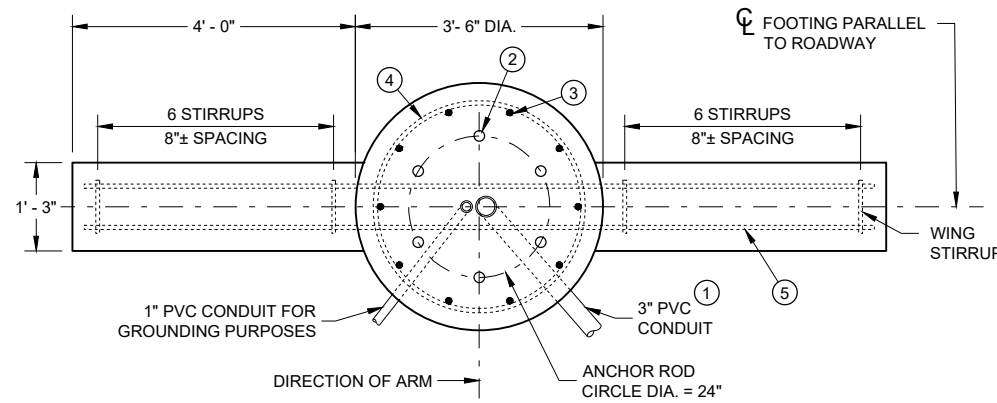
② (6) 1 3/4" DIA. X 7' - 2" ANCHOR RODS

③ (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

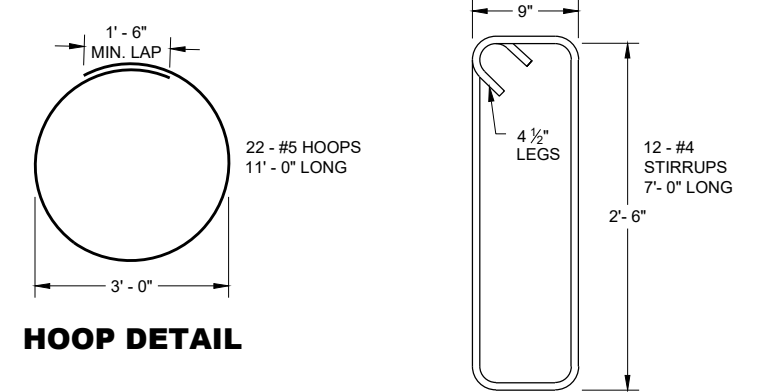
④ (22) NO. 5 X 11' - 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

⑤ (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

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.

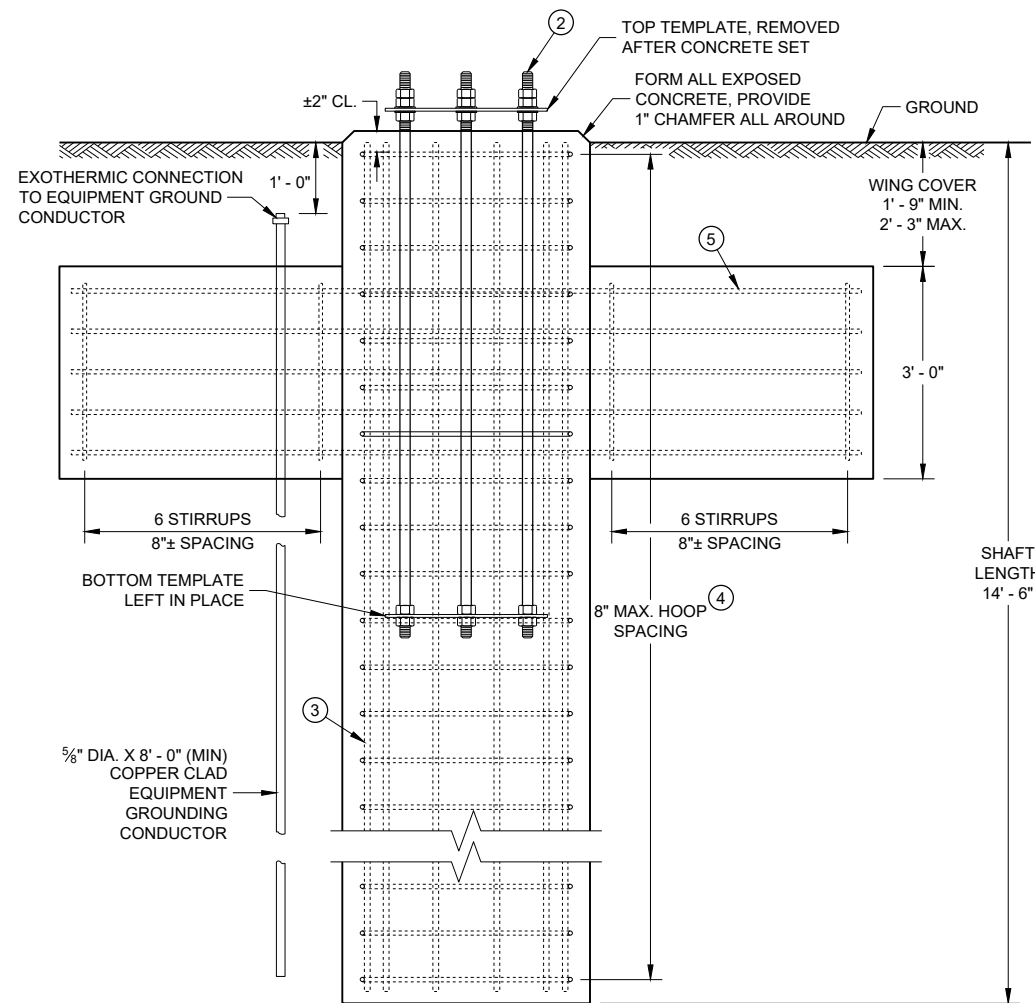


PLAN VIEW

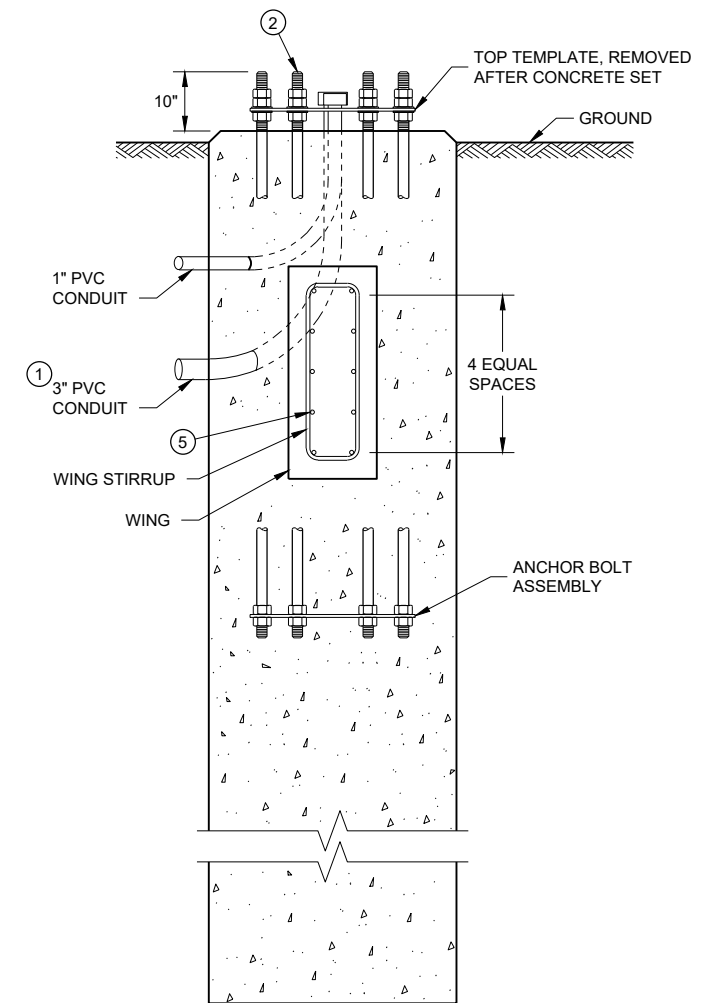


HOOP DETAIL

WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
 H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

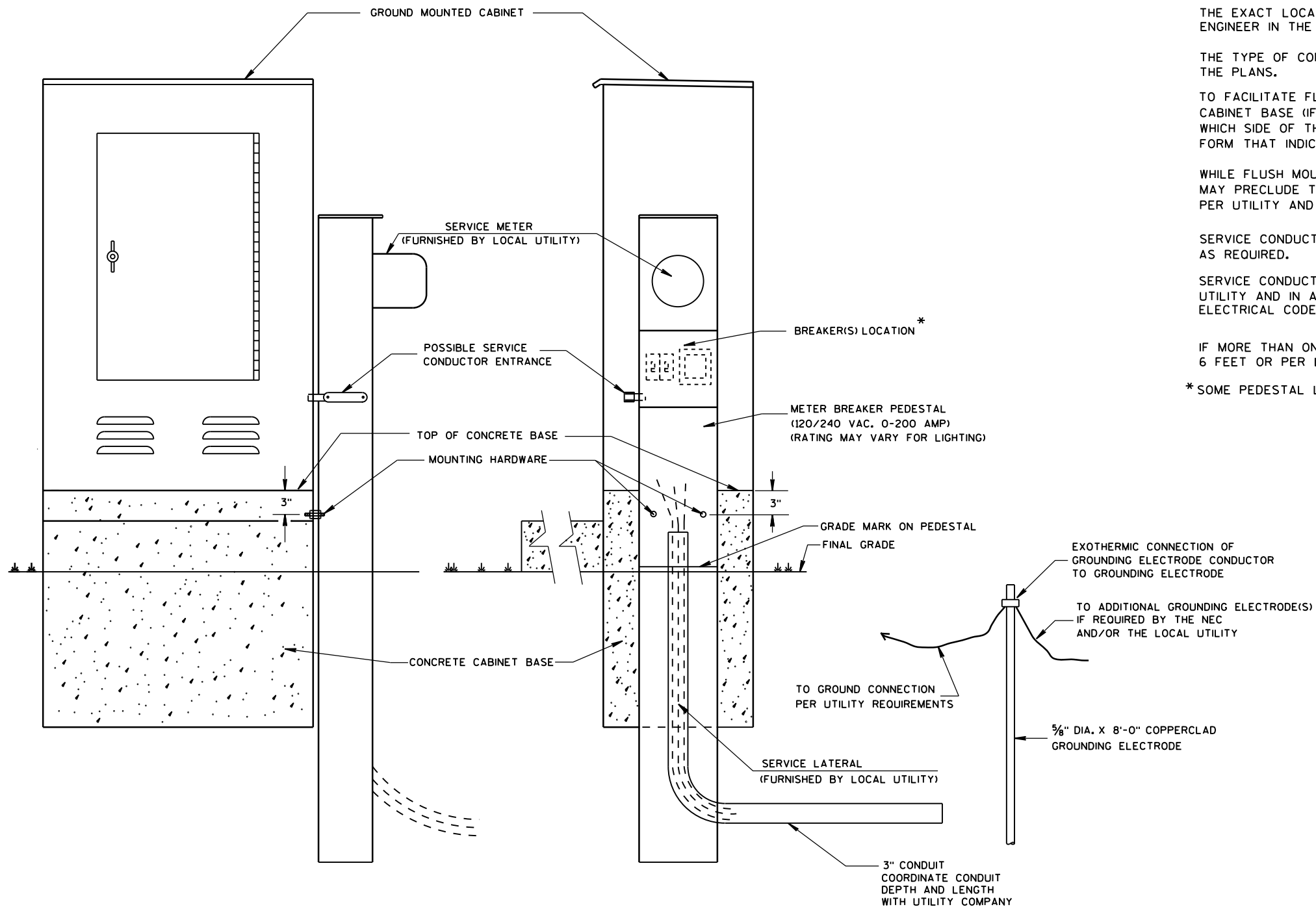
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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SDD 09C12 - 09a

SDD 09C12 - 09a



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.

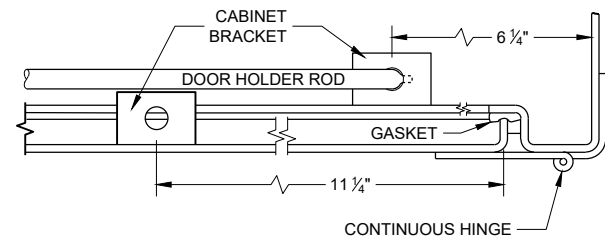
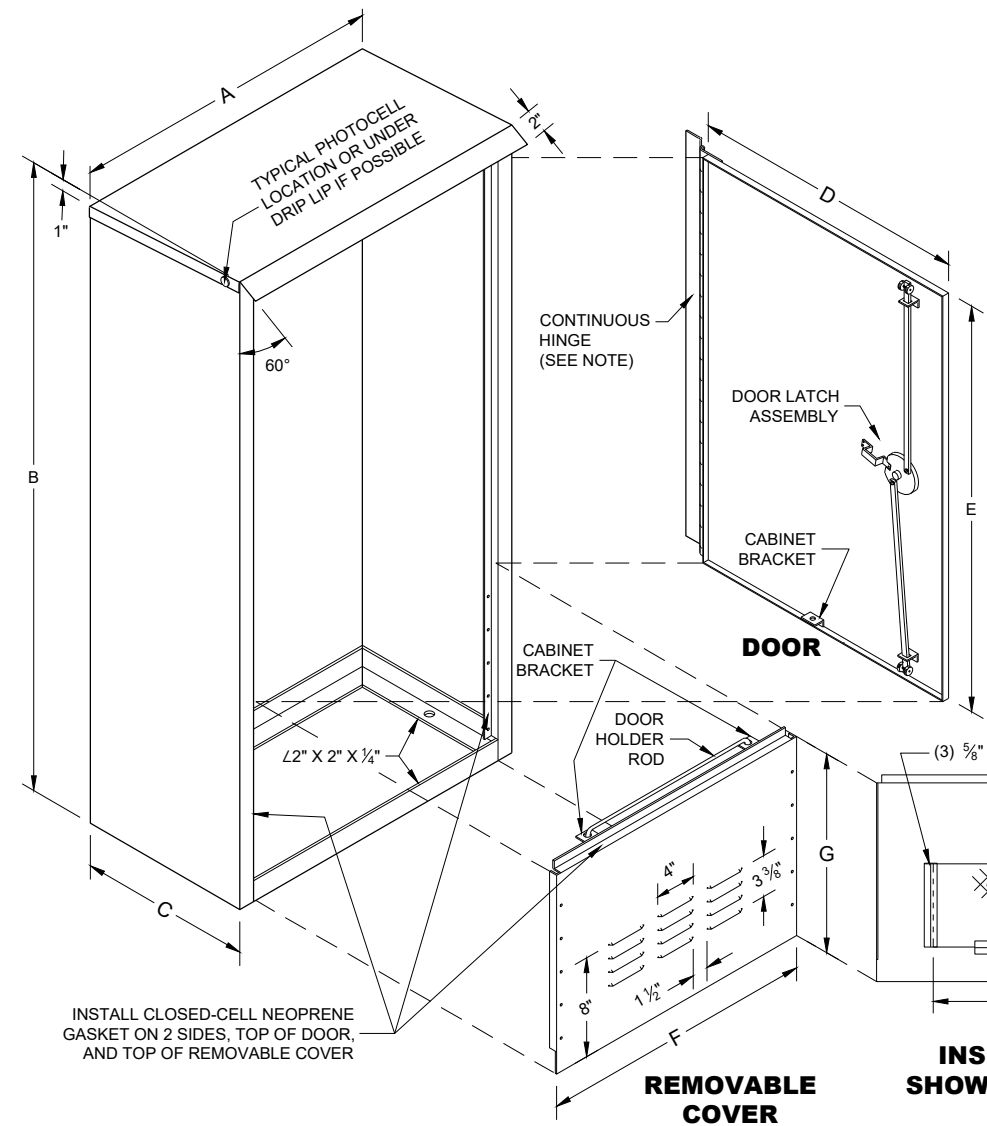
SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

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.

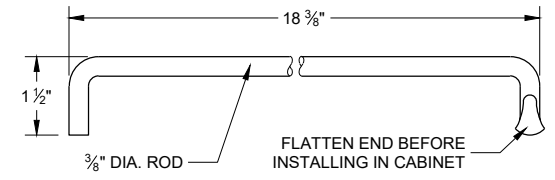
IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

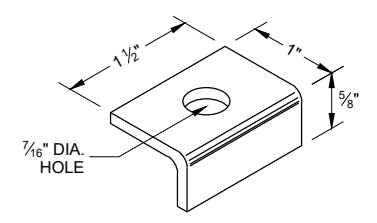
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	



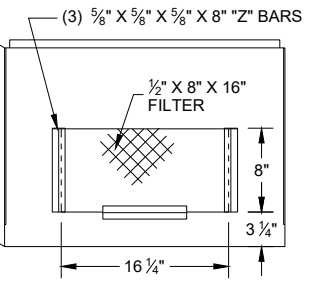
HINGE AND DOOR HOLDER



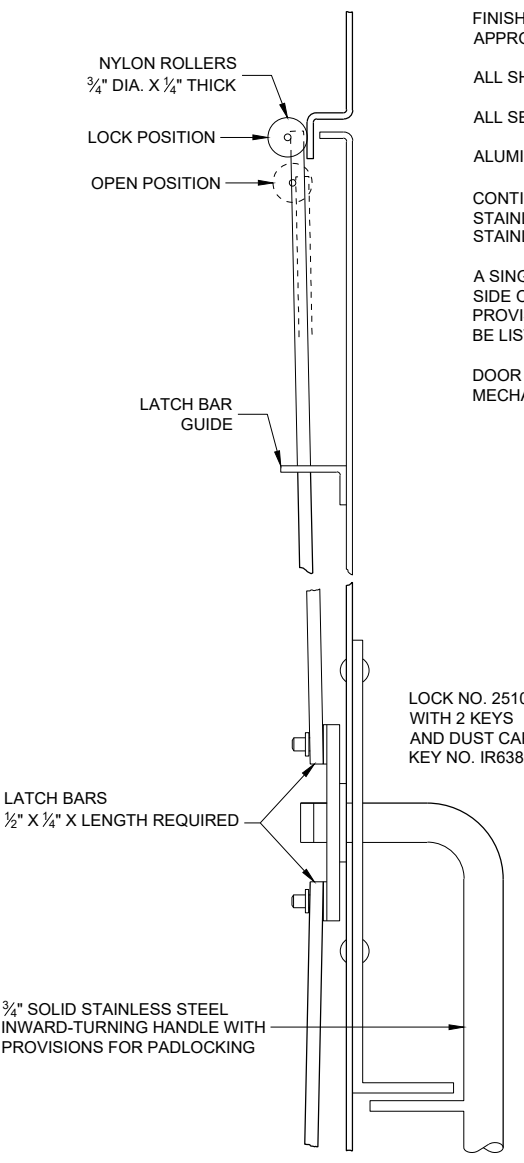
HOLDER ROD



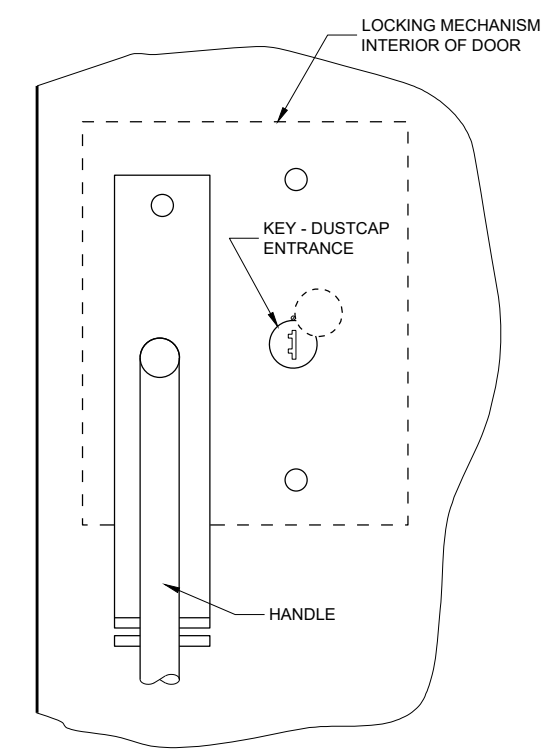
CABINET BRACKET



INSIDE VIEW SHOWING FILTER

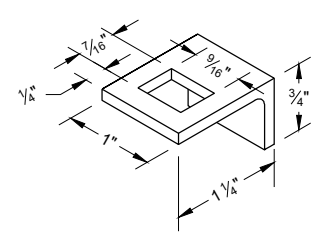


SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

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.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

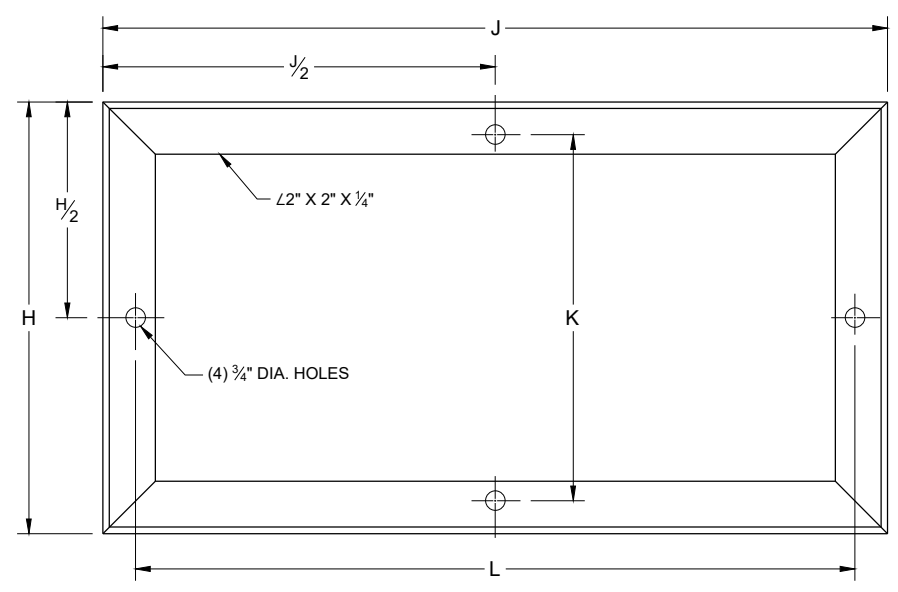
ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/2\"/>

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

INSTALL CLOSED-CELL NEOPRENE GASKET ON 2 SIDES, TOP OF DOOR, AND TOP OF REMOVABLE COVER



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 3/4	8 3/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

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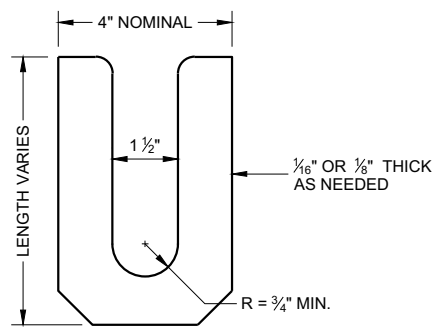
SDD 09D02 - 03

SDD 09D02 - 03

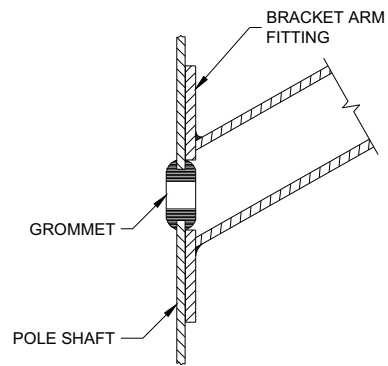
SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

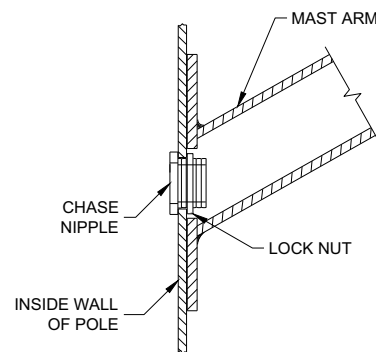
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LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



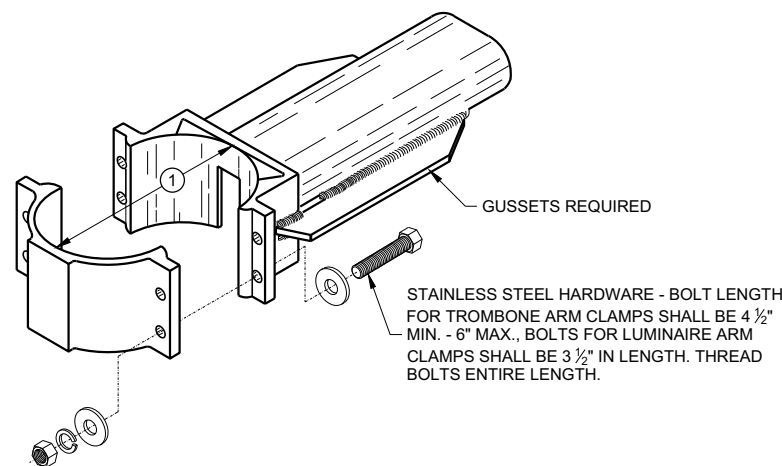
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

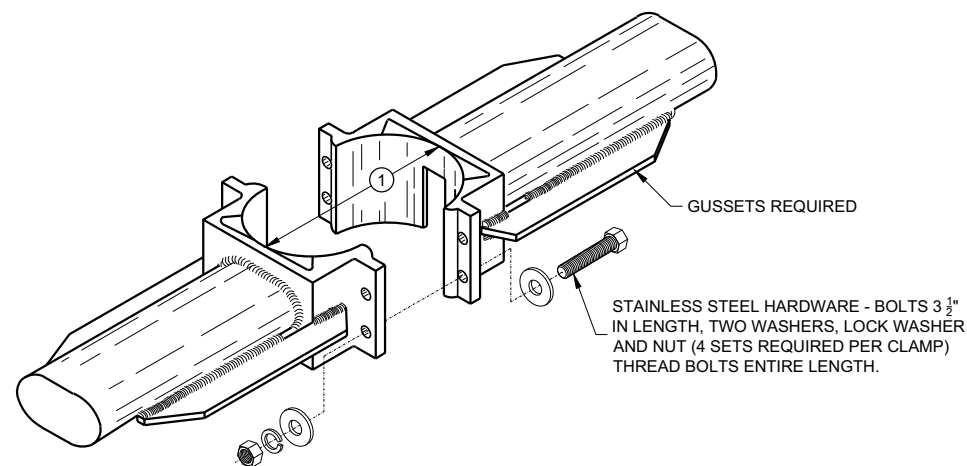
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- 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.

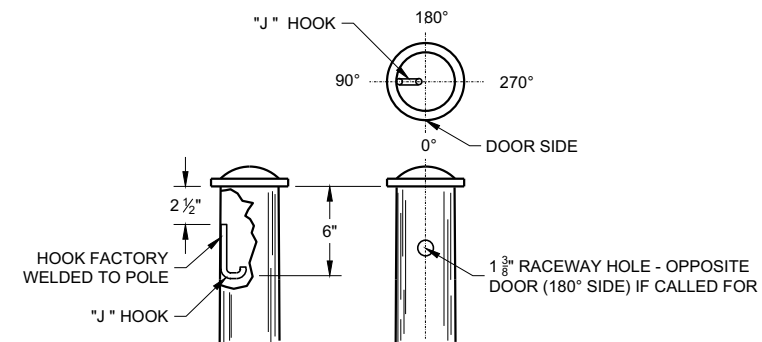
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



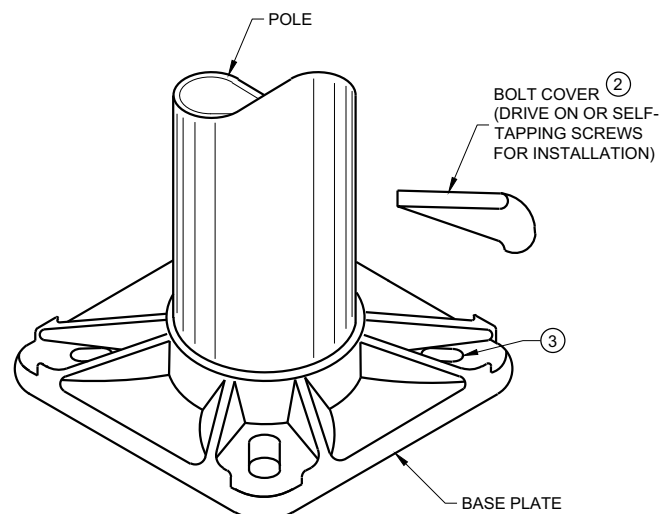
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



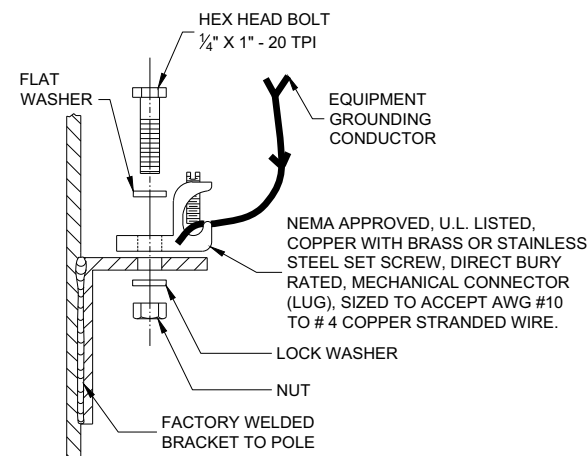
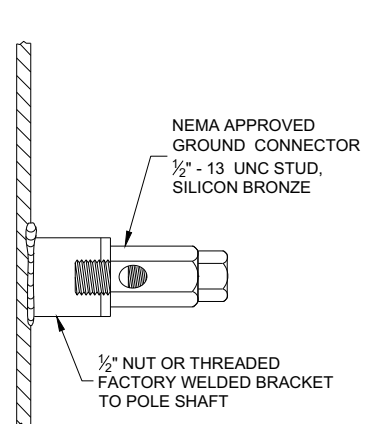
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



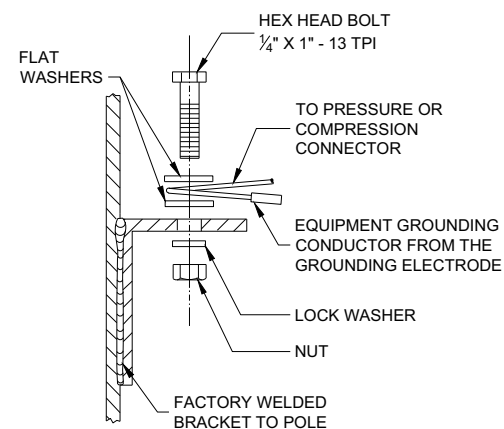
TYPICAL "J" HOOK LOCATION



BASE PLATE



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

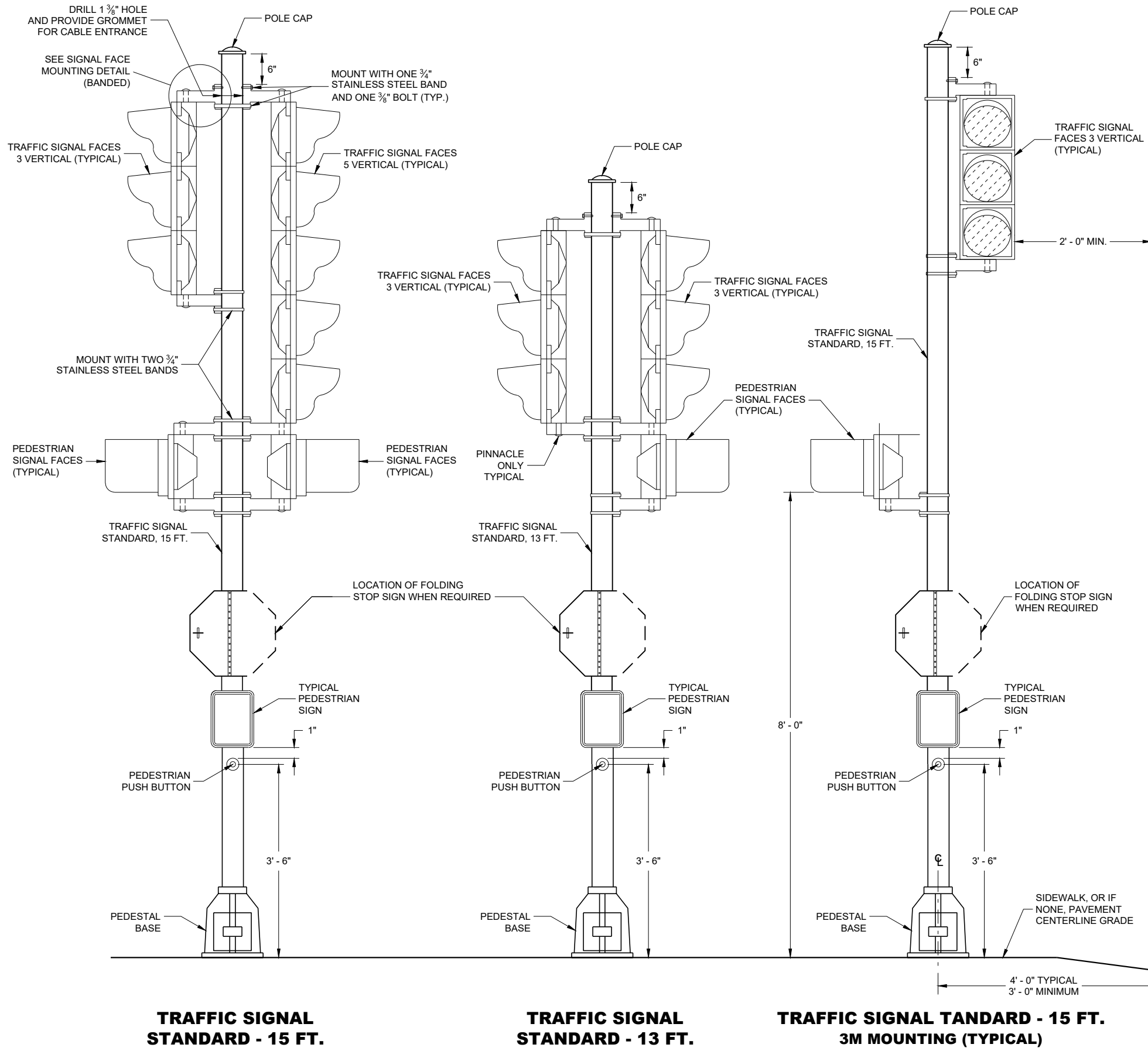


HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA



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.

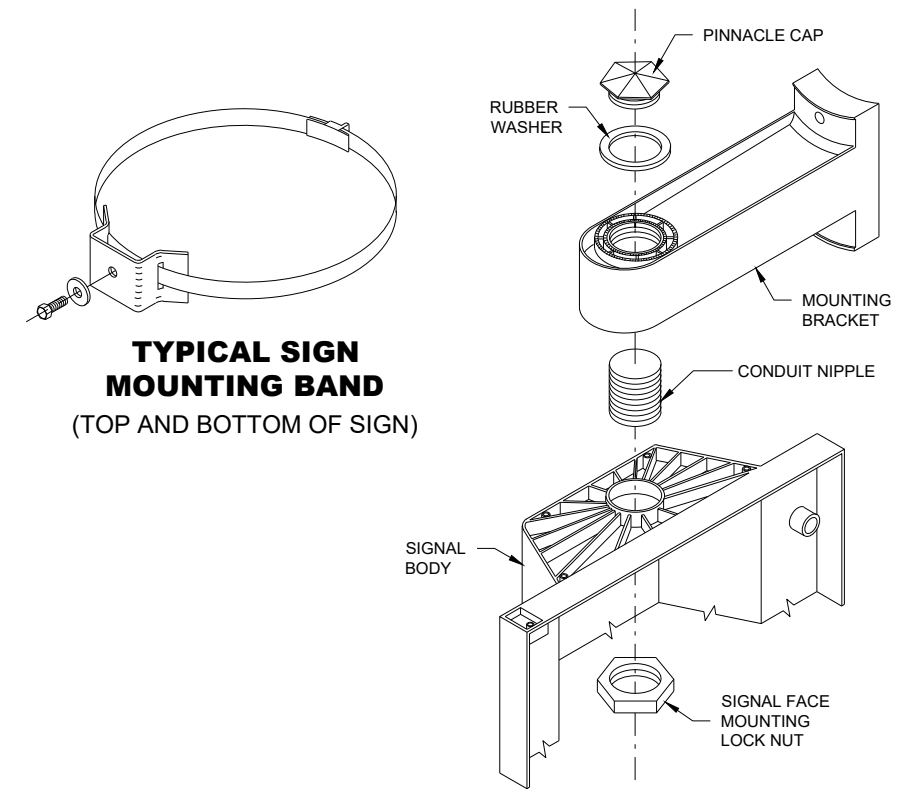
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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 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) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



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 Demirelek
STATE ELECTRICAL ENGINEER

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LUMINAIRE, WT. - 50 LBS.
EPA FOR WIND LOADING 1.5 SQ. FT.

STEEL SINGLE MEMBER
LUMINAIRE ARM

SEE FIXED ARM
ATTACHMENT
DETAIL

FIXED ARM ATTACHMENT

CLAMP ARM ATTACHMENT
OPTION FOR VIDEO
DETECTION IF NEEDED

LUMINAIRE ARM

3/4" X 3 1/2" HIGH STRENGTH
CONNECTION BOLTS

FIXED ARM ATTACHMENT DETAIL

RING PLATE
3/8" MIN. THICKNESS

GUSSET PLATE
1/4" MIN. THICKNESS

ARM CONNECTION
PLATES

POLE

ARM

1 1/2" X 7 1/2" HIGH
STRENGTH
CONNECTION
BOLTS

POLE

FLANGE CONNECTION PLATE BOLT HOLES
TO BE BOLT NOMINAL DIAMETER +1/8"
CONFORMING TO ASTM A 325

8 BOLT ARM CONNECTION DETAIL

FLAT WASHER

FLAT WASHER

BOLT
HEAD

DTI WASHER

NUT

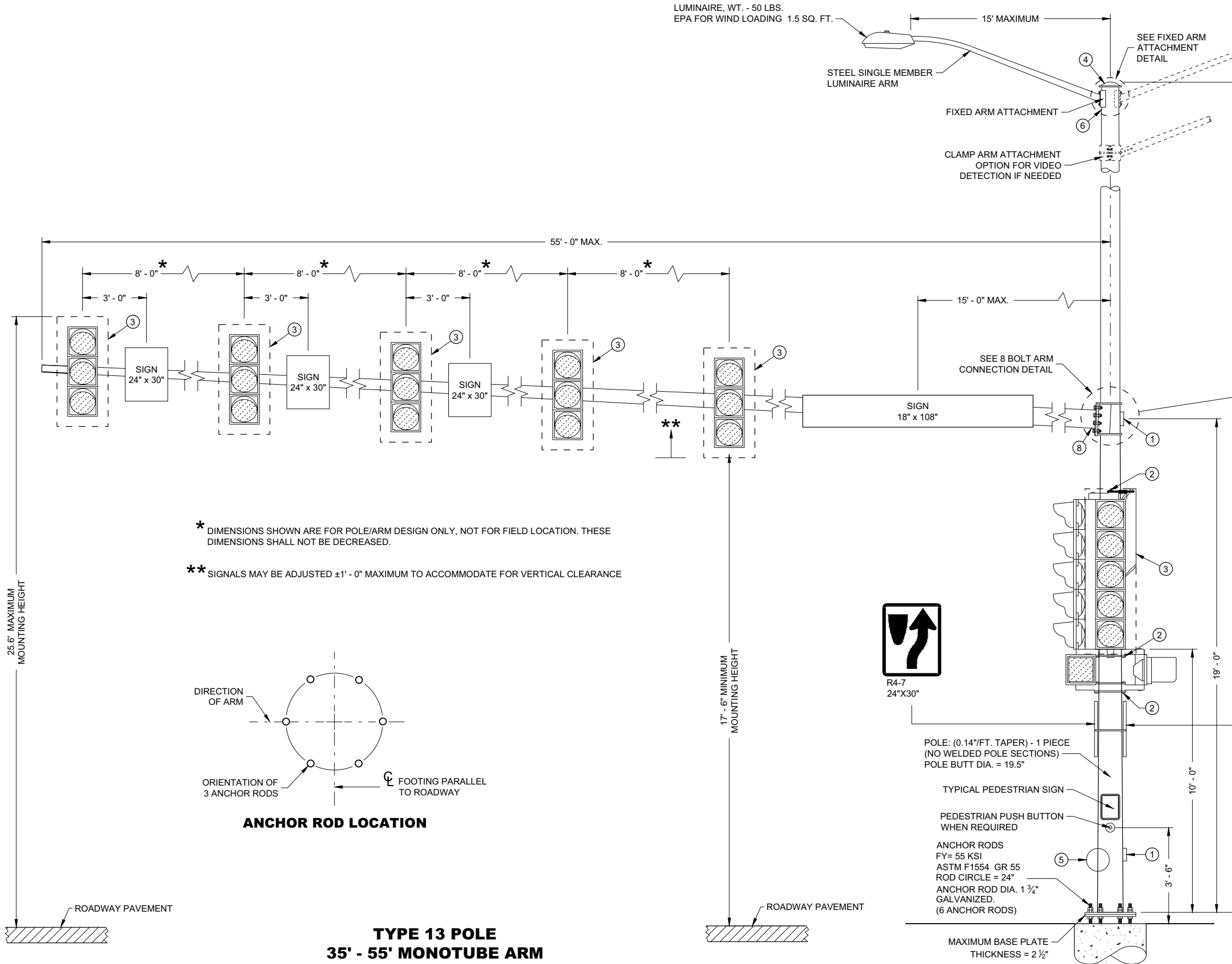
**RECOMMENDED BOLT
ASSEMBLY DETAIL**

**TYPE 13 POLE
35' - 55' MONOTUBE ARM**

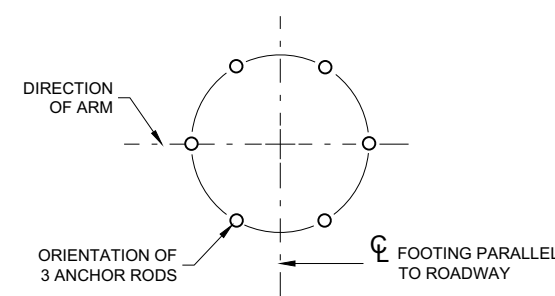
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA



* 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)**



R4-7
24"x30"

POLE: (0.14"/FT. TAPER) - 1 PIECE
(NO WELDED POLE SECTIONS)
POLE BUTT DIA. = 19.5"

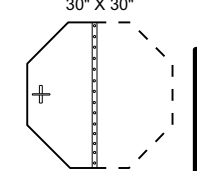
TYPICAL PEDESTRIAN SIGN

PEDESTRIAN PUSH BUTTON
WHEN REQUIRED

ANCHOR RODS
FY= 55 KSI
ASTM F1554 GR 55
ROD CIRCLE = 24"
ANCHOR ROD DIA. 1 3/4"
GALVANIZED.
(6 ANCHOR RODS)

MAXIMUM BASE PLATE
THICKNESS = 2 1/2"

FOLDING STOP SIGN
30" X 30"



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 LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 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 3/4" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL 1/2" 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 AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

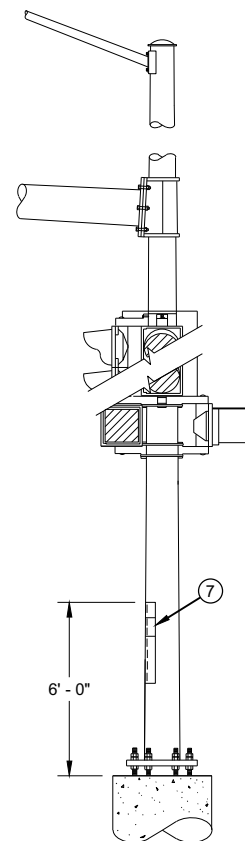
SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

- ① DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO 1/4" X 3/4" - 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 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
- ⑥ FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.
- ⑦ INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

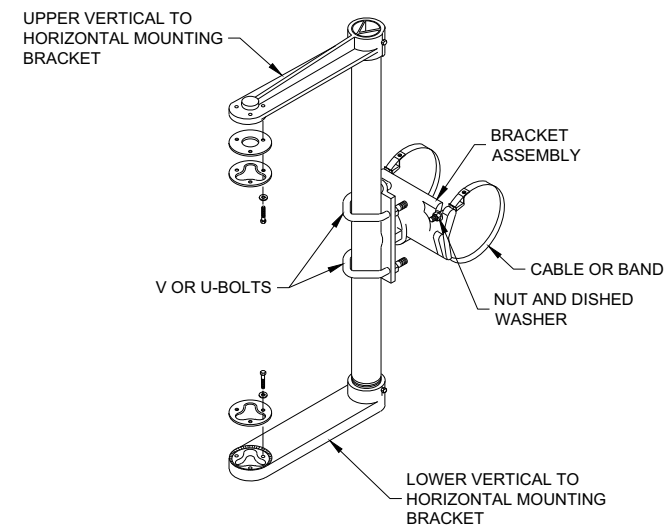
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

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 1/2" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

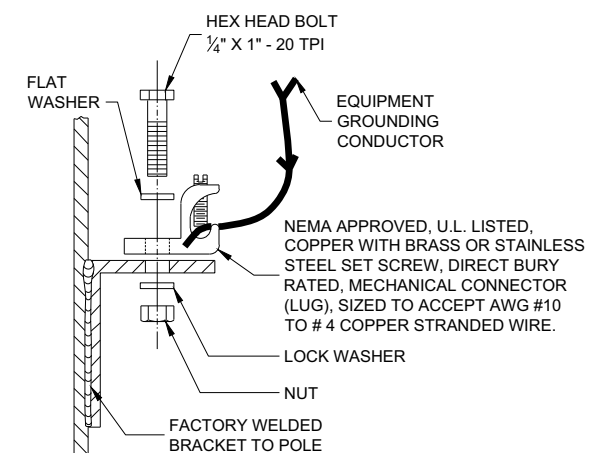


**STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT**



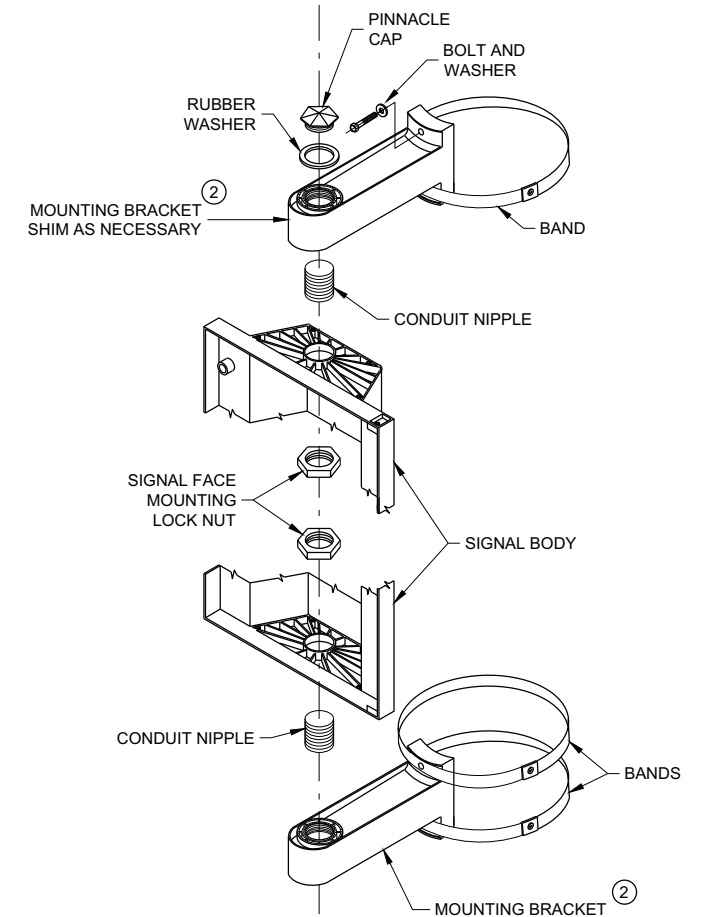
**SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM**

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

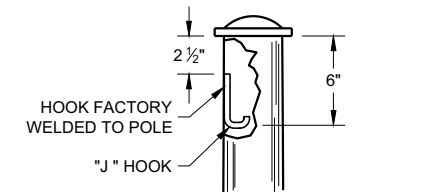


**TYPICAL GROUNDING
CONNECTIONS**

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



**SIGNAL FACE VERTICAL
MOUNTING DETAIL**



**TYPICAL "J" HOOK
WIRE SUPPORT**

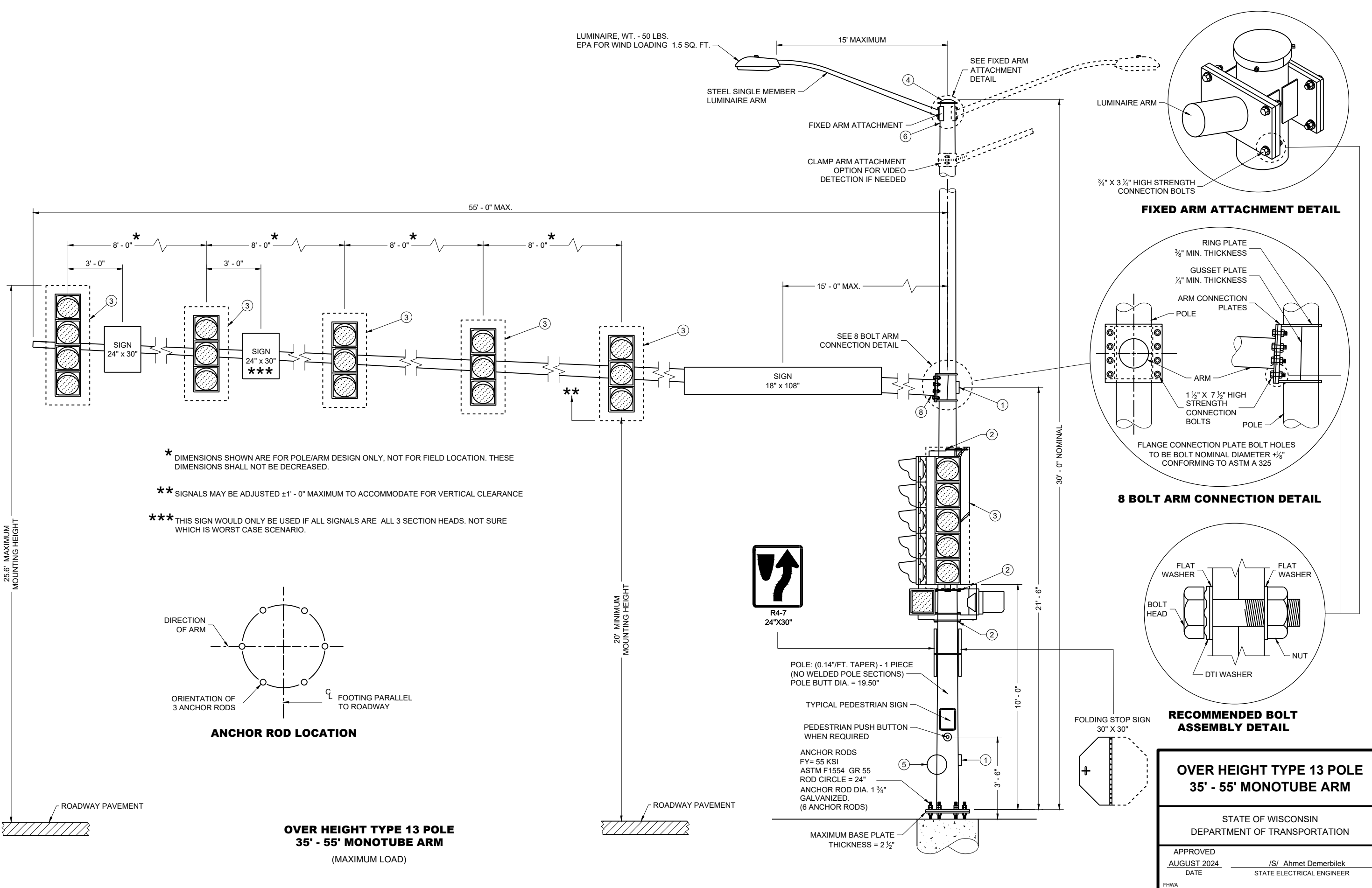
**GENERAL NOTES AND
HARDWARE FOR TYPES 9,10,
9/10 SPECIAL, 12 AND 13
POLES WITH MONOTUBE ARMS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

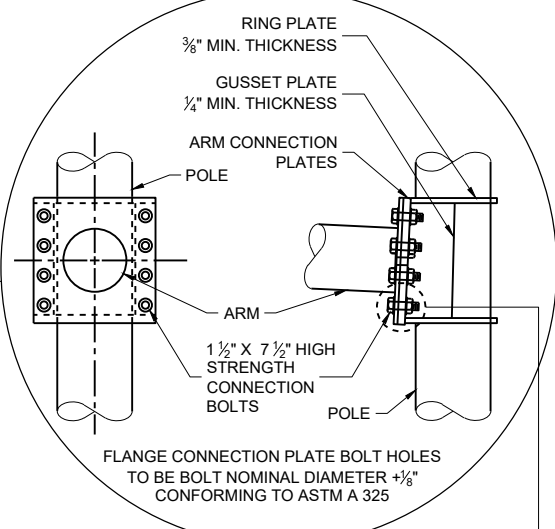
APPROVED
August 2020 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL
ENGINEER

FHWA

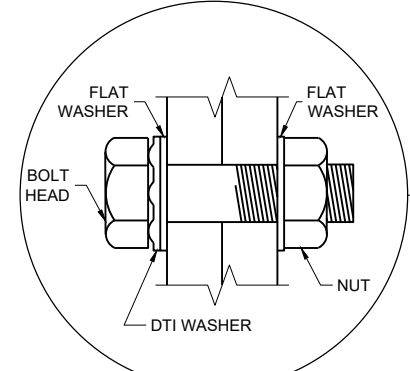
LUMINAIRE, WT. - 50 LBS.
EPA FOR WIND LOADING 1.5 SQ. FT.



FIXED ARM ATTACHMENT DETAIL

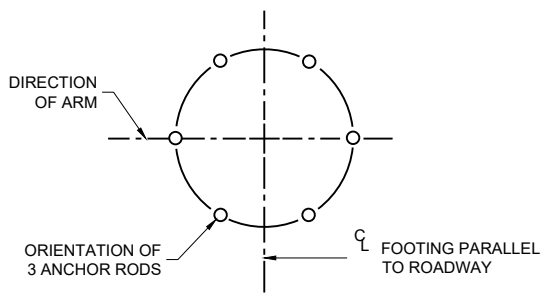


8 BOLT ARM CONNECTION DETAIL



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
- *** THIS SIGN WOULD ONLY BE USED IF ALL SIGNALS ARE ALL 3 SECTION HEADS. NOT SURE WHICH IS WORST CASE SCENARIO.



ANCHOR ROD LOCATION

**OVER HEIGHT TYPE 13 POLE
35' - 55' MONOTUBE ARM
(MAXIMUM LOAD)**



R4-7
24"x30"

POLE: (0.14"/FT. TAPER) - 1 PIECE
(NO WELDED POLE SECTIONS)
POLE BUTT DIA. = 19.50"

TYPICAL PEDESTRIAN SIGN
PEDESTRIAN PUSH BUTTON
WHEN REQUIRED
ANCHOR RODS
FY= 55 KSI
ASTM F1554 GR 55
ROD CIRCLE = 24"
ANCHOR ROD DIA. 1 3/4"
GALVANIZED.
(6 ANCHOR RODS)

MAXIMUM BASE PLATE
THICKNESS = 2 1/2"

**OVER HEIGHT TYPE 13 POLE
35' - 55' MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 DATE /S/ Ahmet Demerbilek
STATE ELECTRICAL ENGINEER

FHWA

GENERAL NOTES

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

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OVER HEIGHT POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT

OVER HEIGHT 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 (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

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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:

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115 MPH (700 YEAR MRI BASIC WIND SPEED).

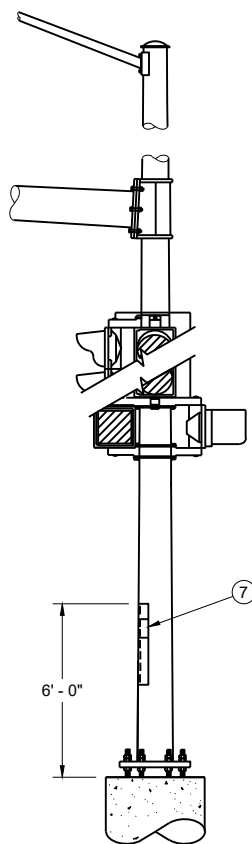
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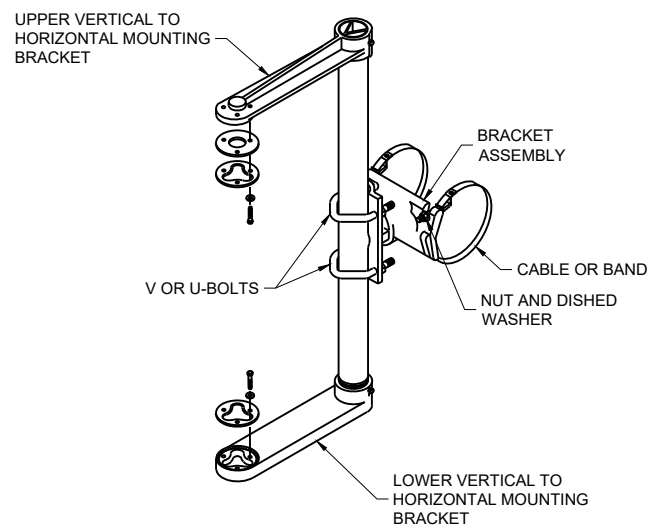
SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

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 - ② SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).
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- 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 1/2" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

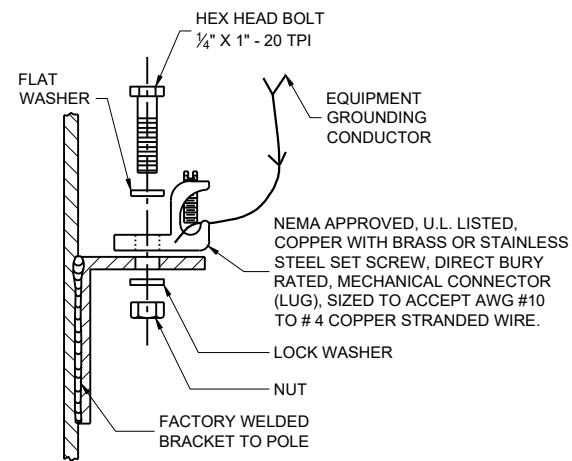


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



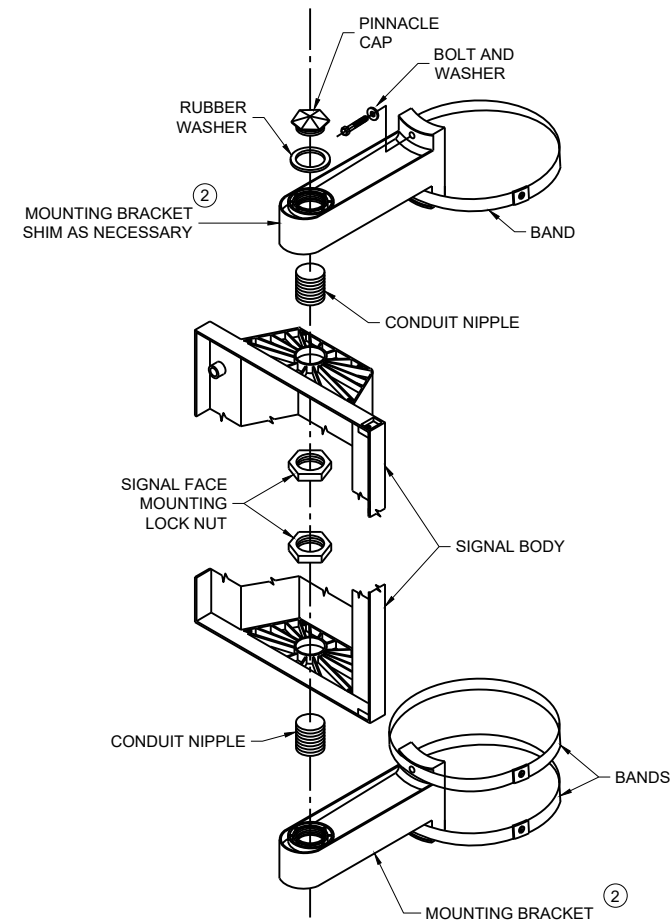
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

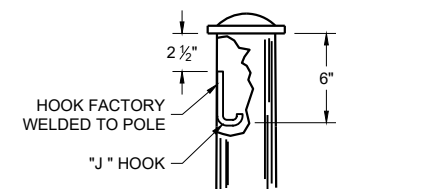


TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK WIRE SUPPORT

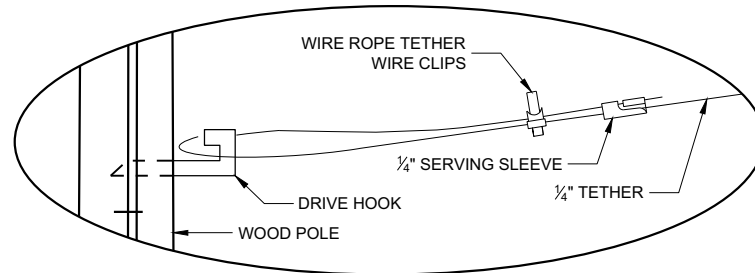
GENERAL NOTES AND HARDWARE FOR OVER HEIGHT TYPE 9, 10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER

FHWA

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

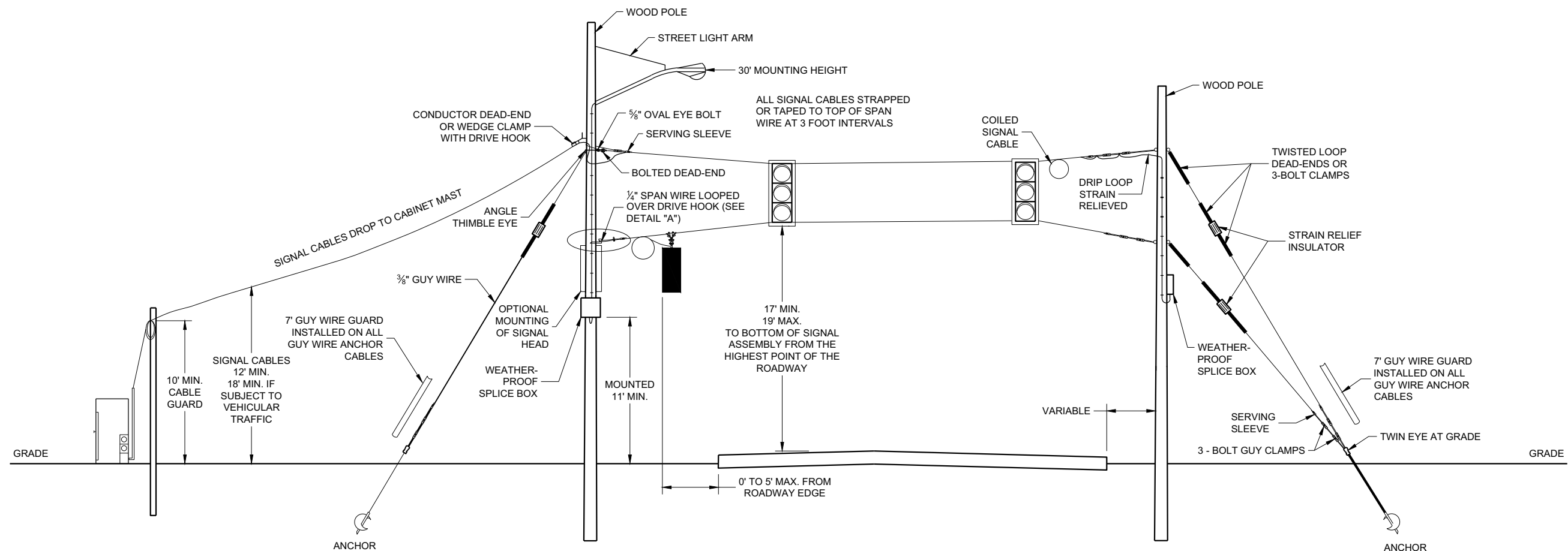


DETAIL "A"

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

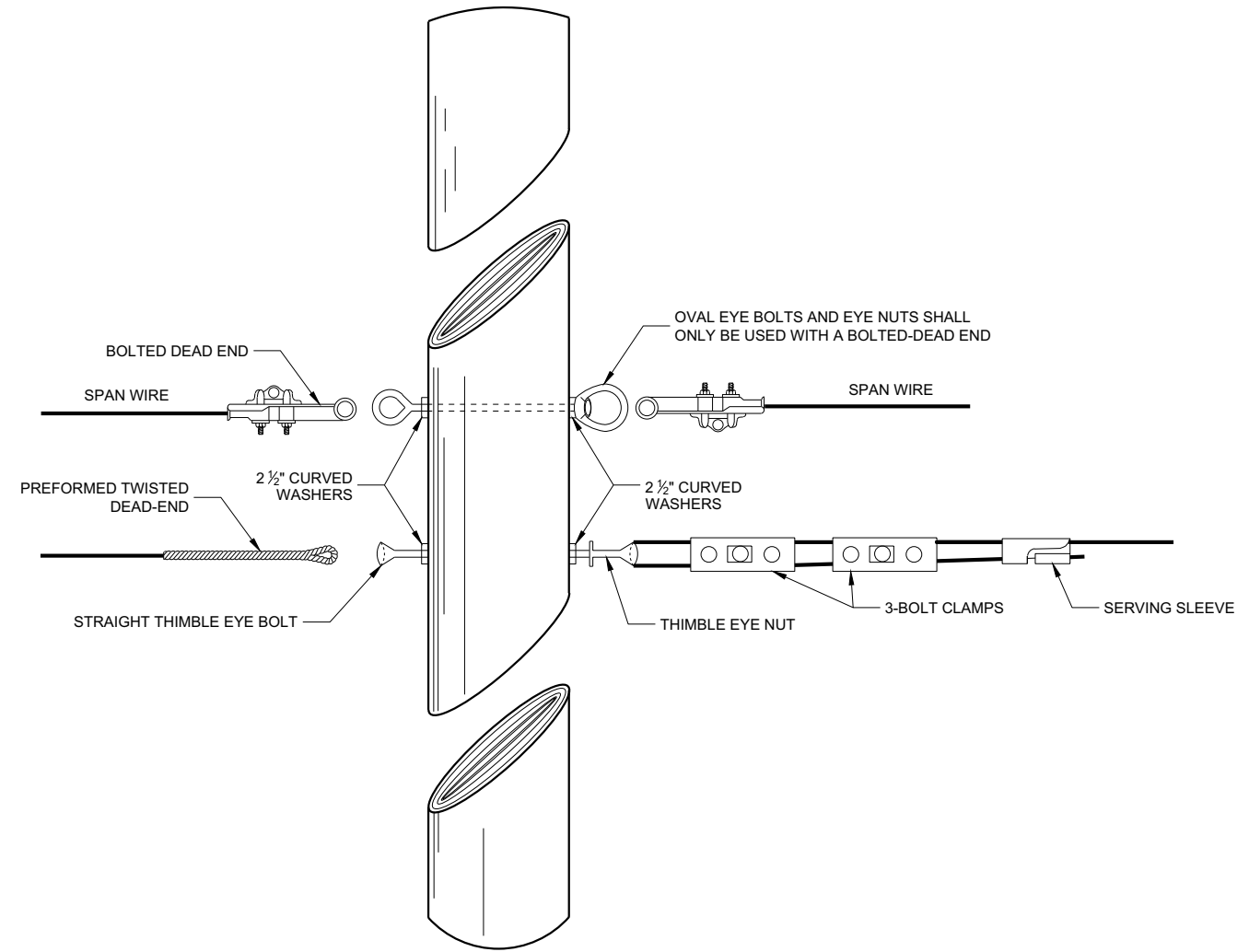
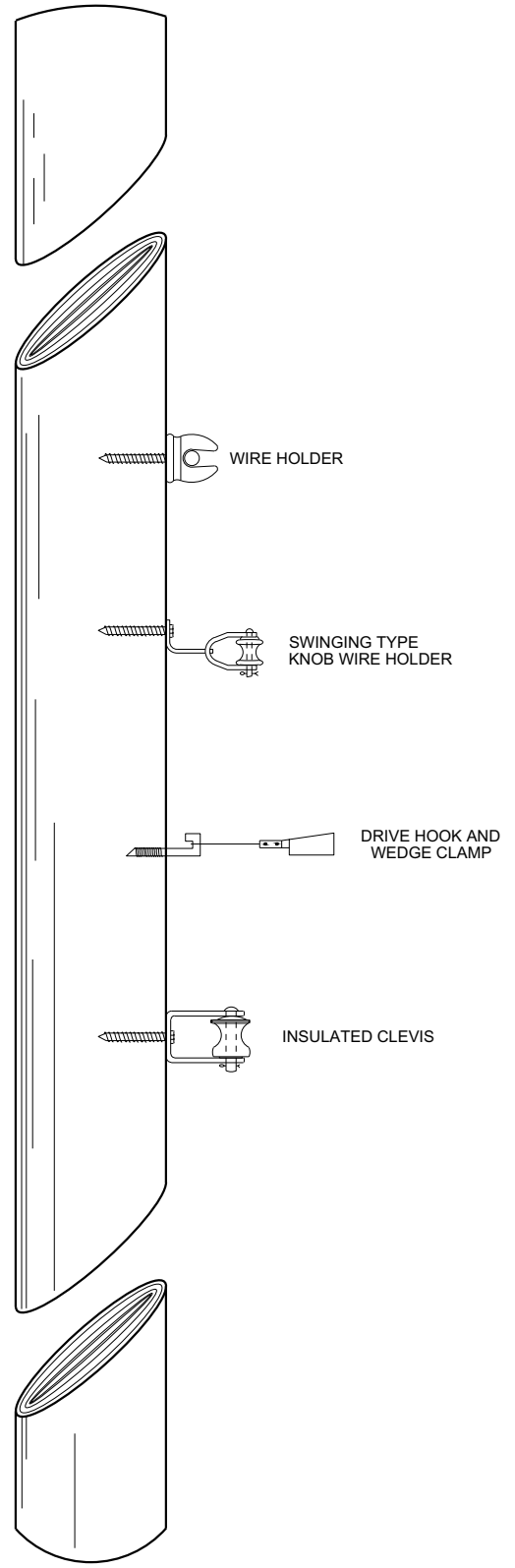
SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2015 DATE	/s/ Ahmet Demerbilek STATE ELECTRICAL ENGINEER
FHWA	

6

6

SDD09G01 - 04a

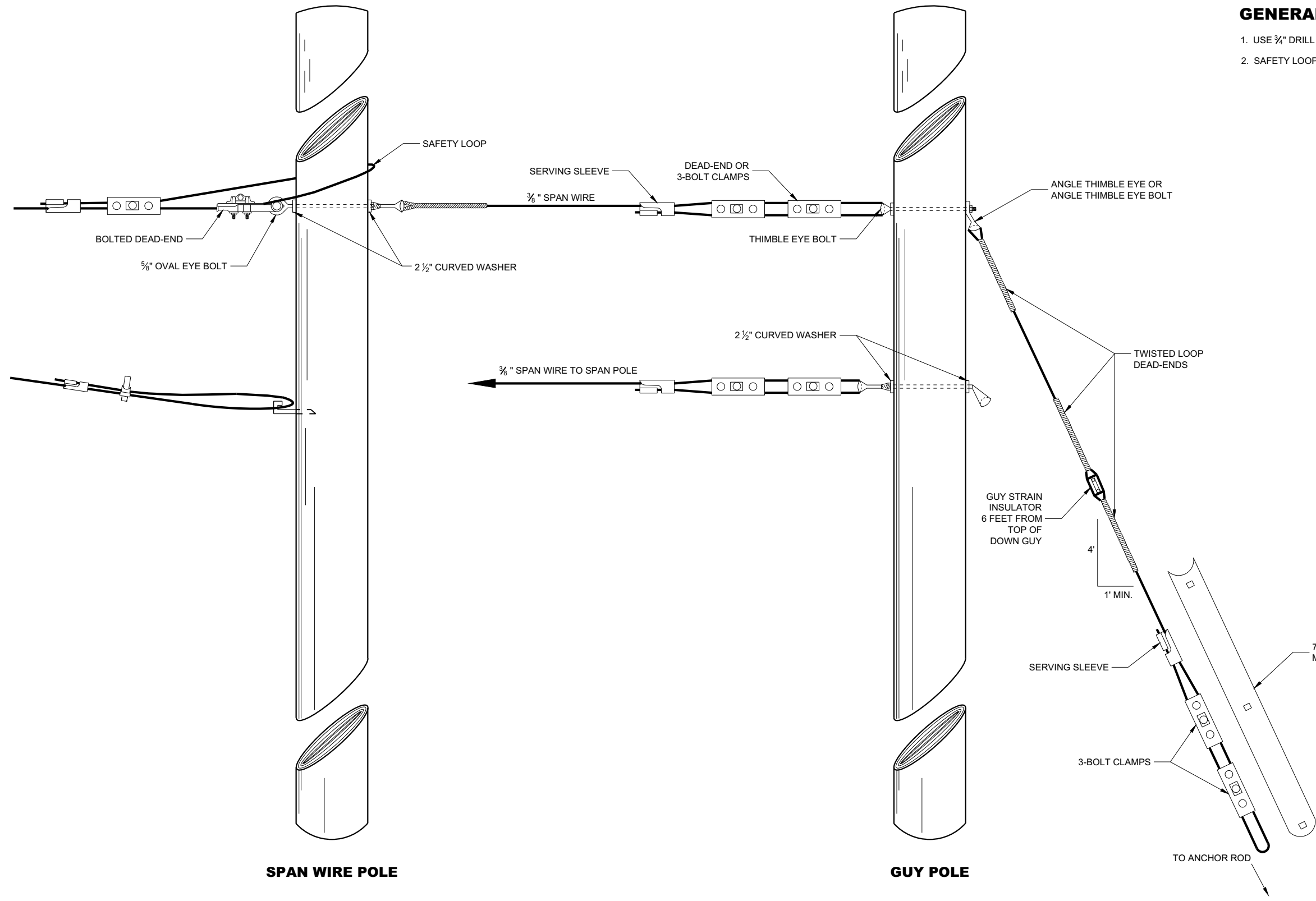
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**SPAN WIRE TEMPORARY
TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER



GENERAL NOTES

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE FOR 5/8" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.

SPAN WIRE POLE

GUY POLE

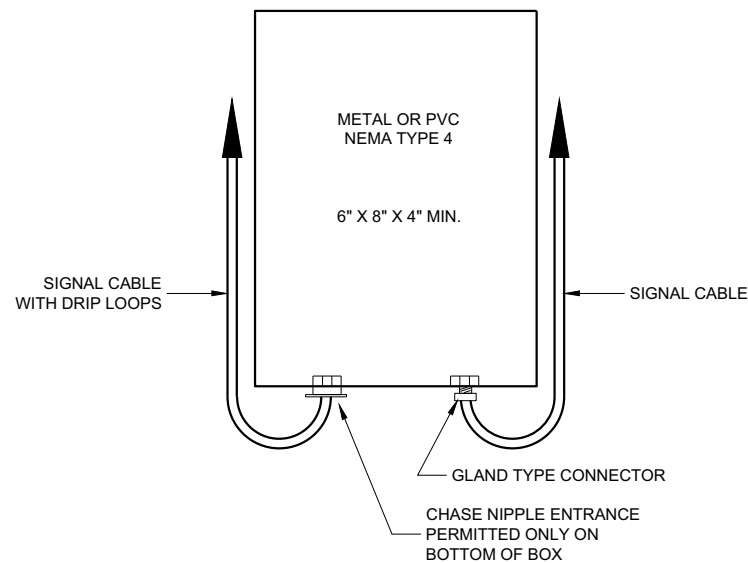
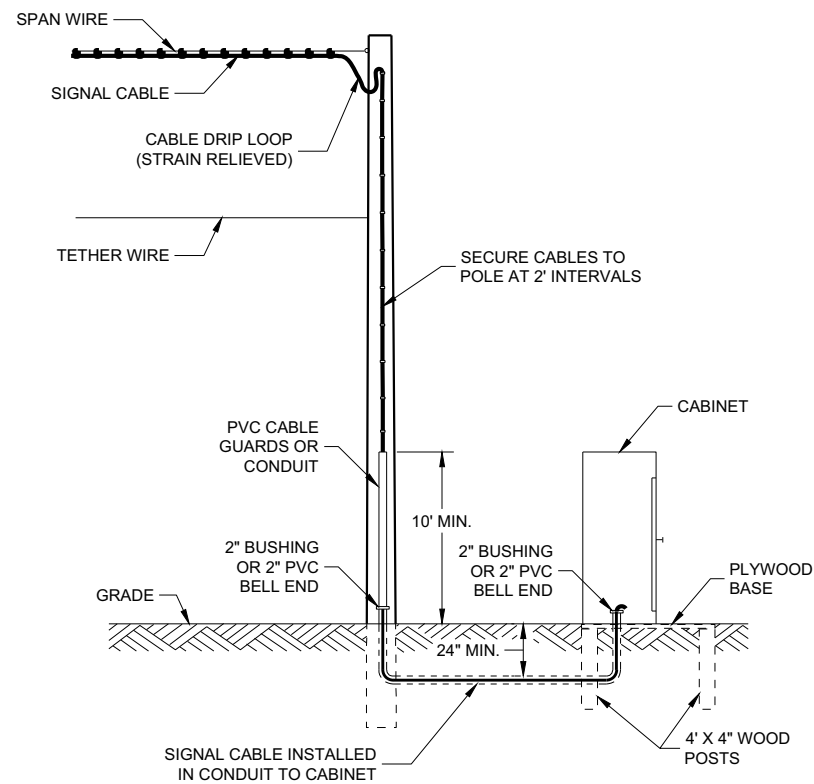
TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

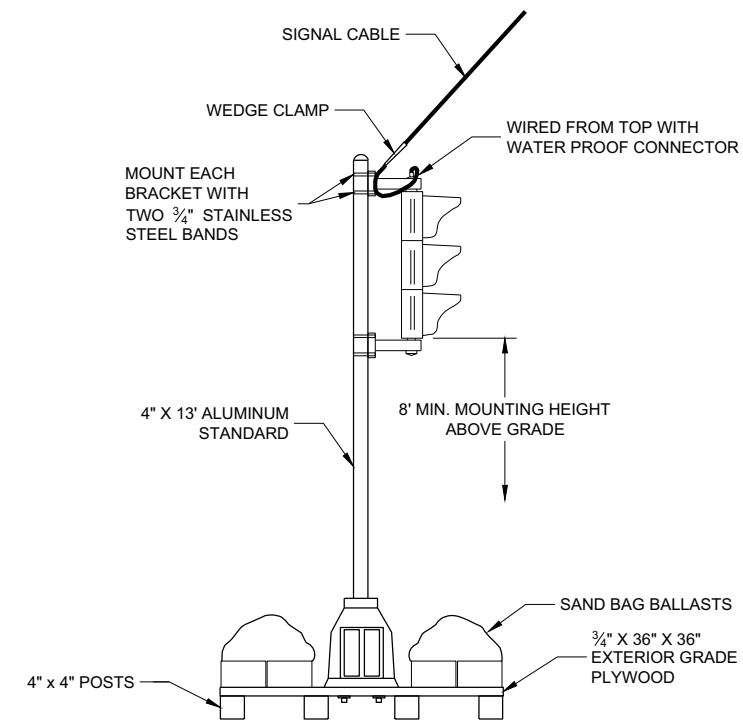
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

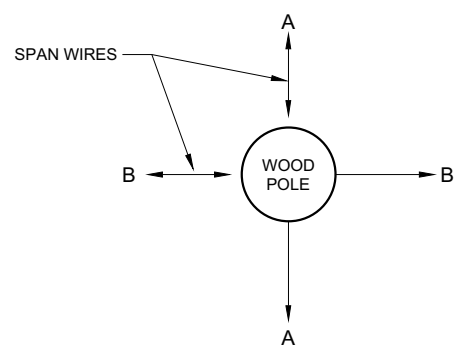
FHWA



SPLICE BOX

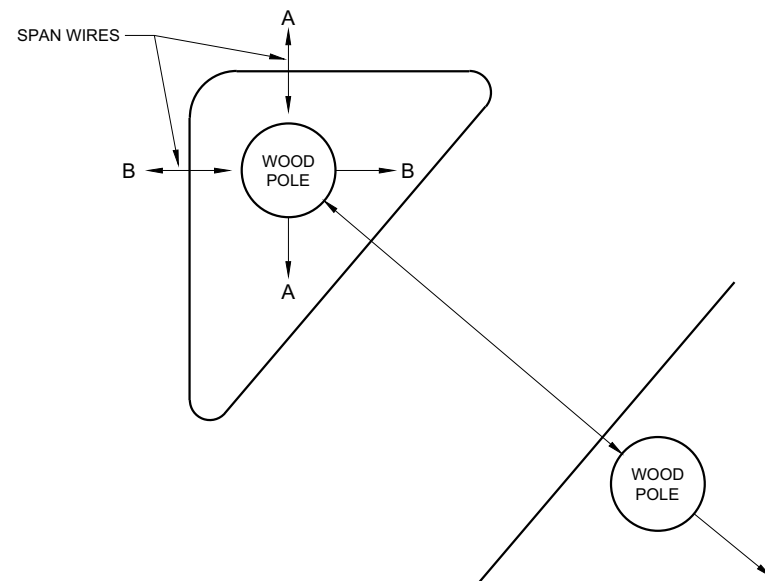


TYPICAL SKID TYPE TEMPORARY

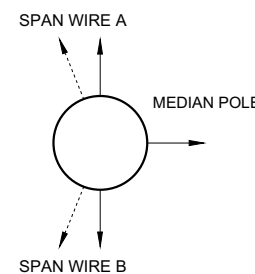


CORNER POLES

ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE



ISLAND POLES



MEDIAN POLES

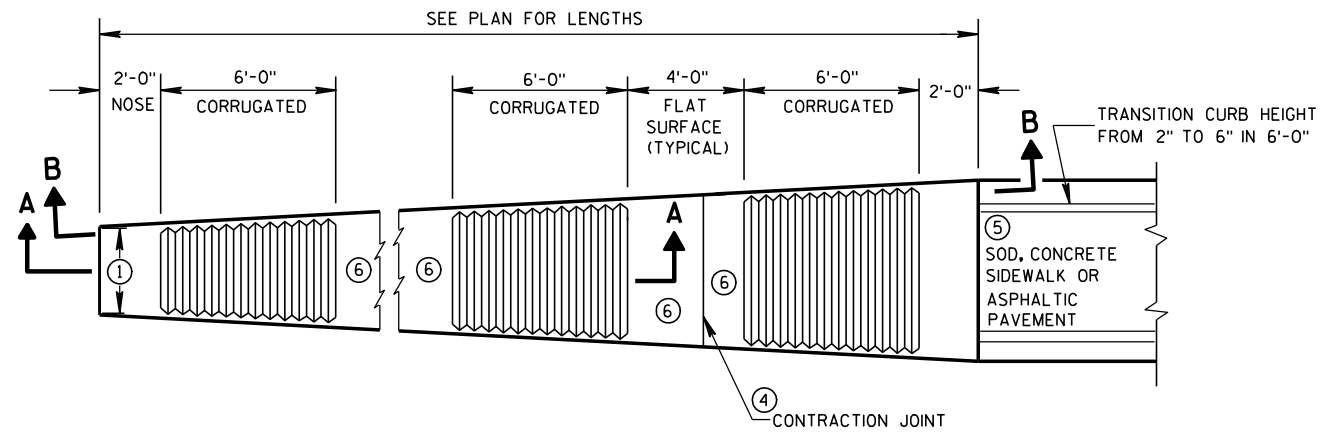
GUY AWAY FROM INTERSECTION OR IN OPPOSITE DIRECTION OF THE SPAN LOADING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

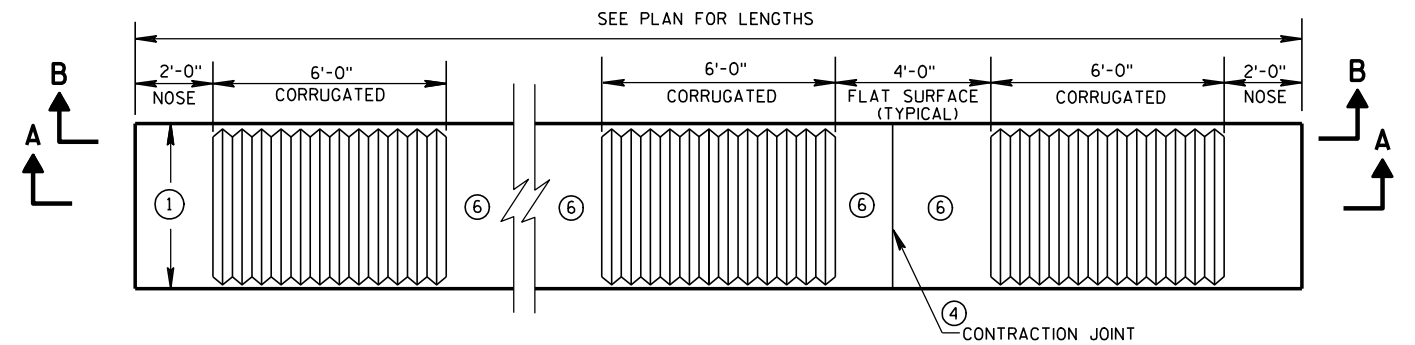
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 DATE /S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVELOPMENT ENGINEER

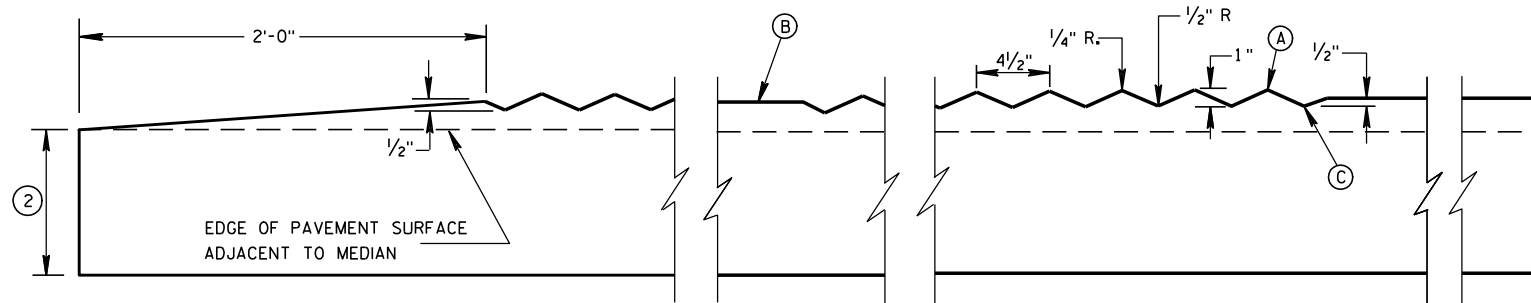
FHWA



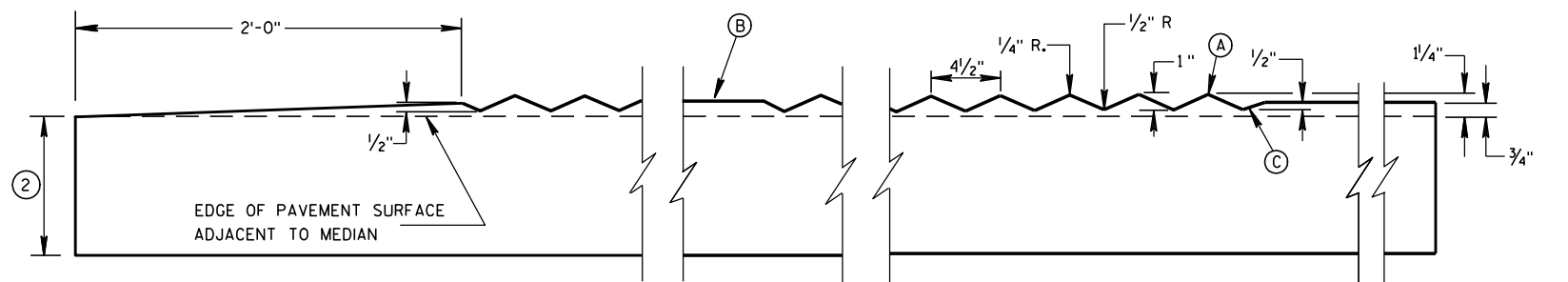
PLAN VIEW
VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW
UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



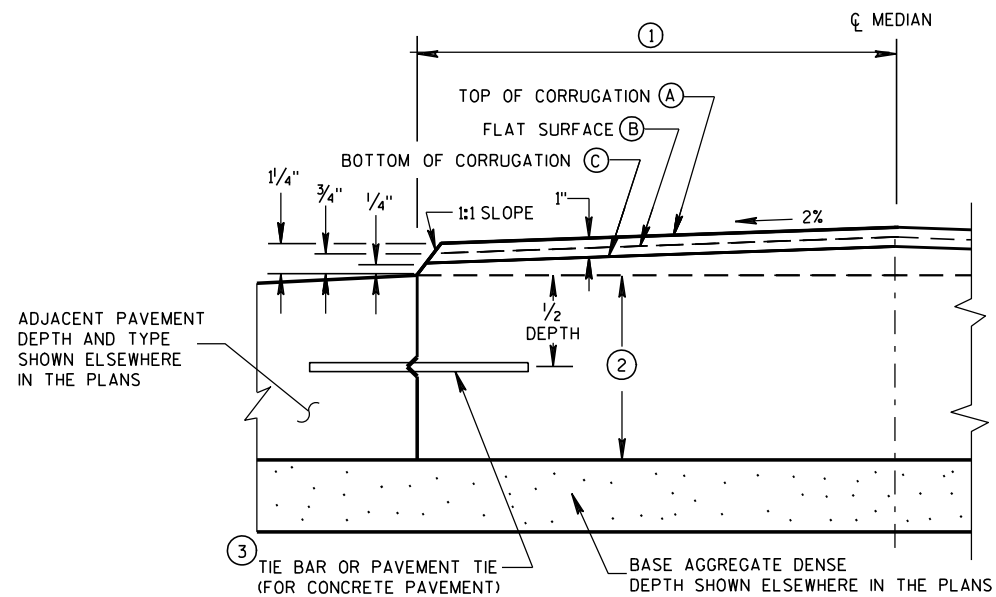
SECTION A-A
LONGITUDINAL SECTION



SECTION B-B
LONGITUDINAL SECTION

GENERAL NOTES

- ① SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.
- ② THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
 (1) NEW OR EXISTING CONCRETE PAVEMENT.
 (2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
 (3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.
- ③ 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. INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).
 PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR 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.
- ④ CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE, TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.
- ⑤ SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.
- ⑥ YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.

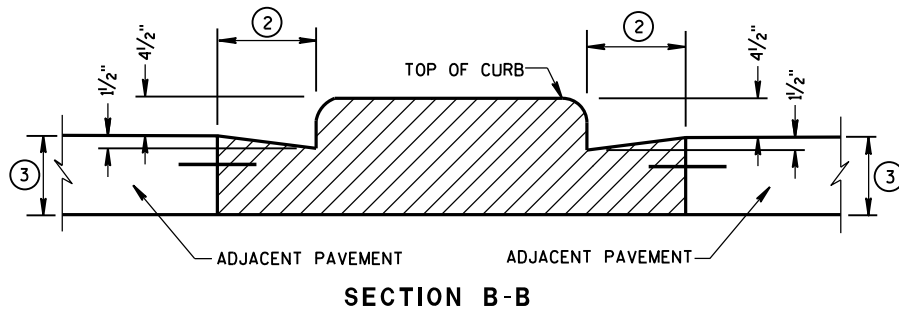
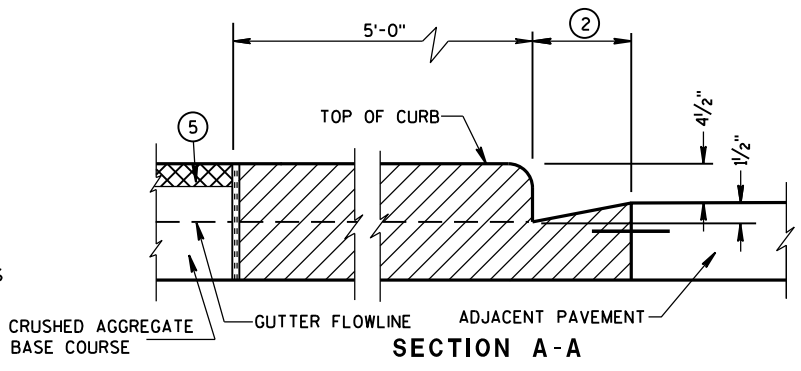
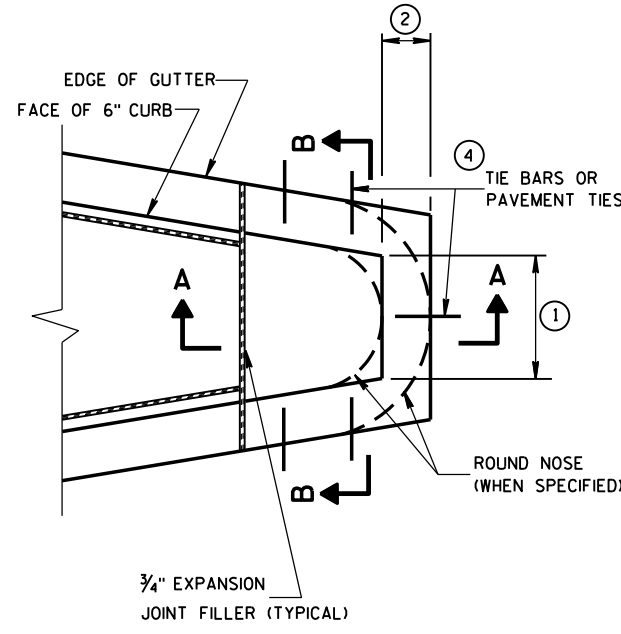
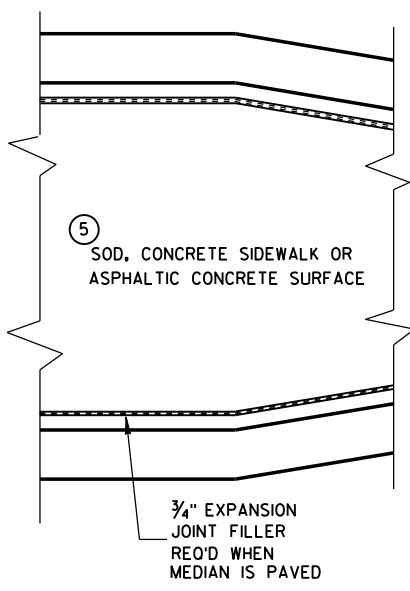


HALF CROSS SECTION
② CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/07 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

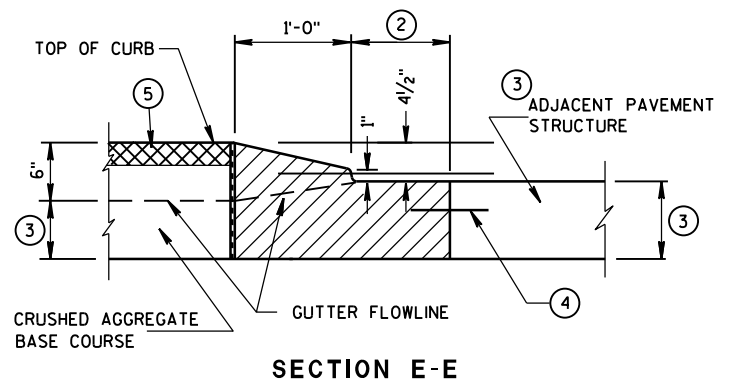
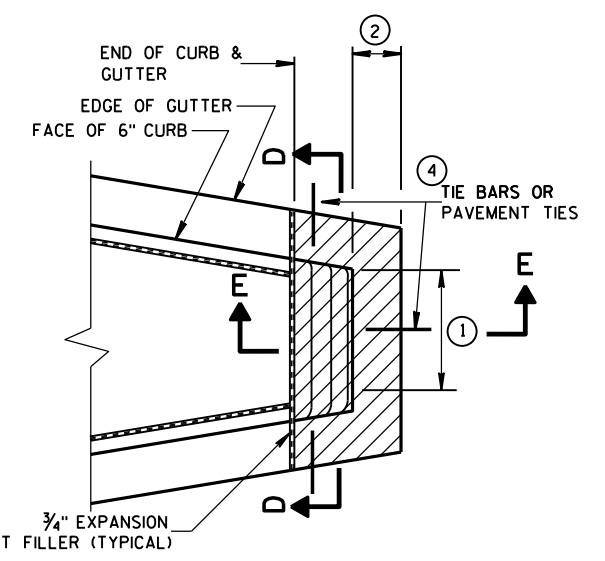


CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

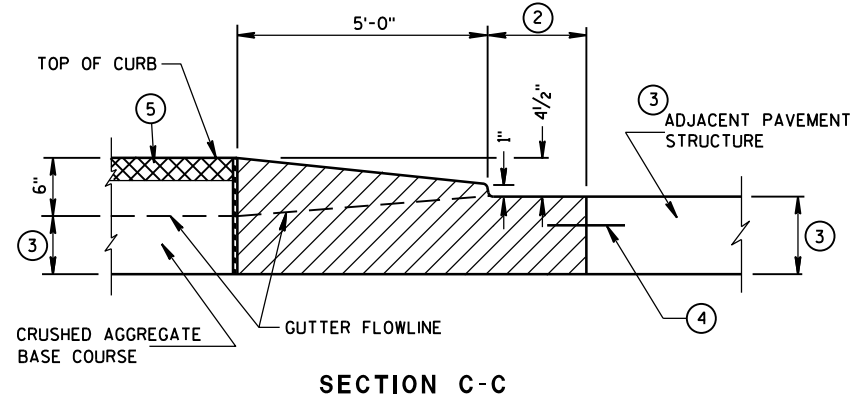
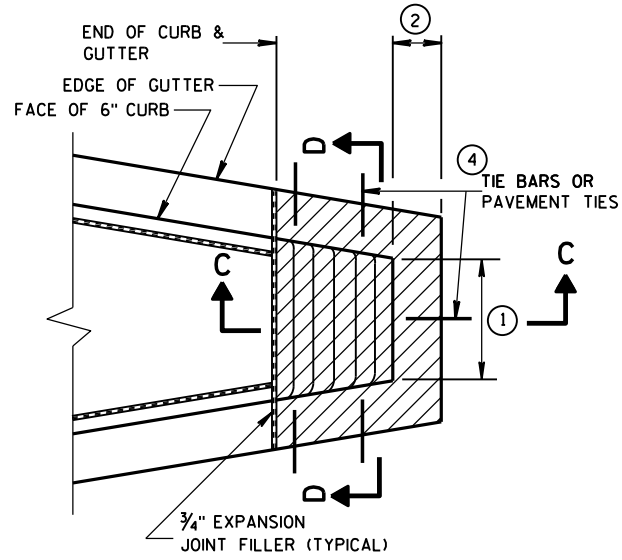
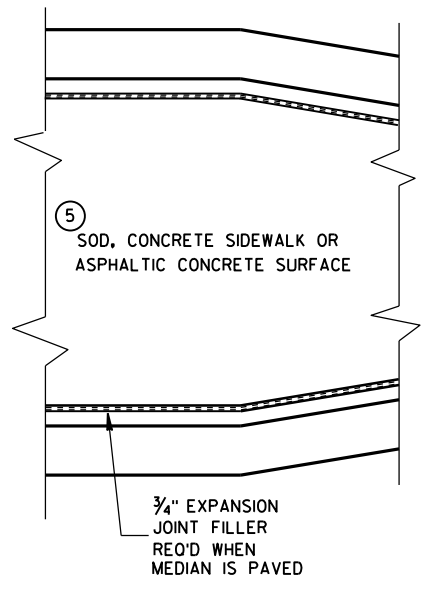
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

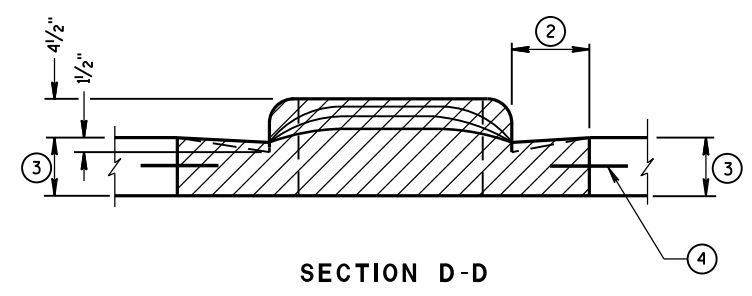


CONCRETE MEDIAN SLOPED NOSE TYPE 2

6



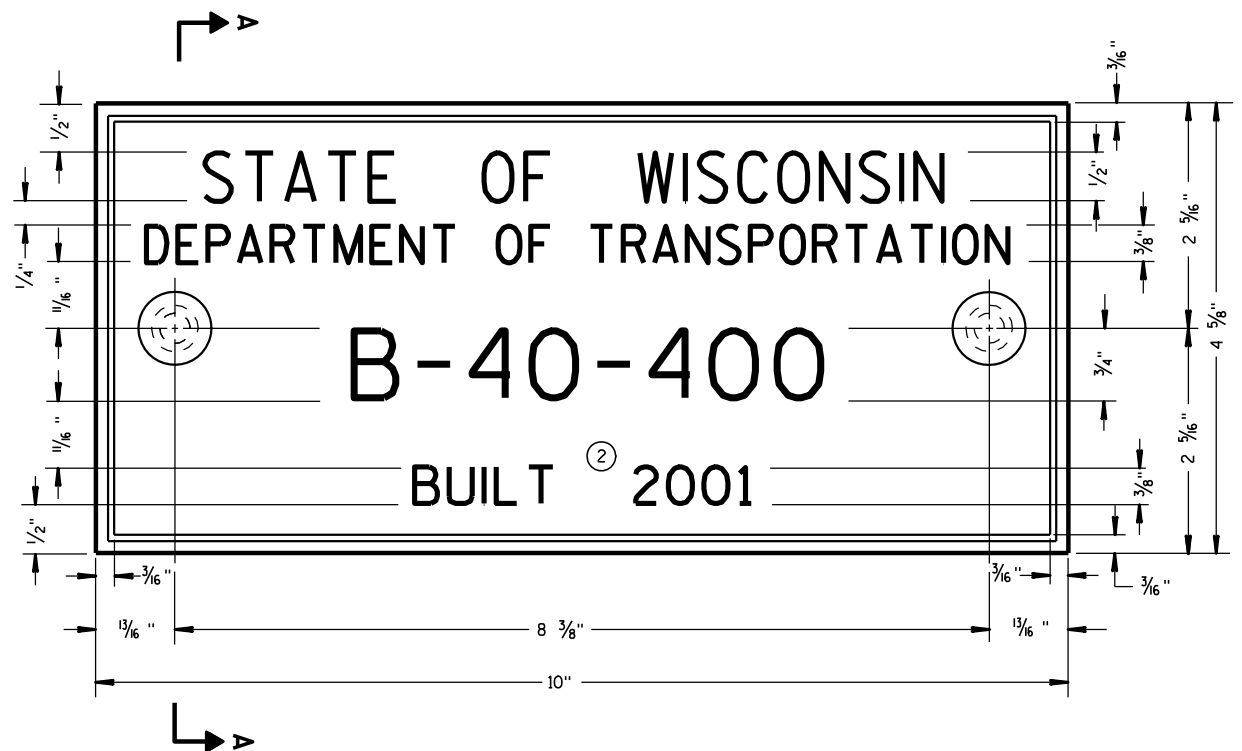
CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

S.D.D. 11 B 2-2

S.D.D. 11 B 2-2



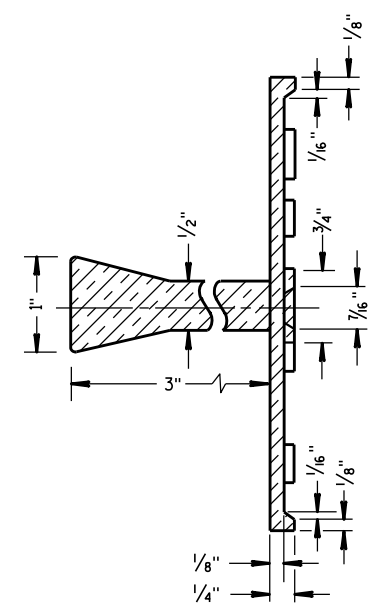
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

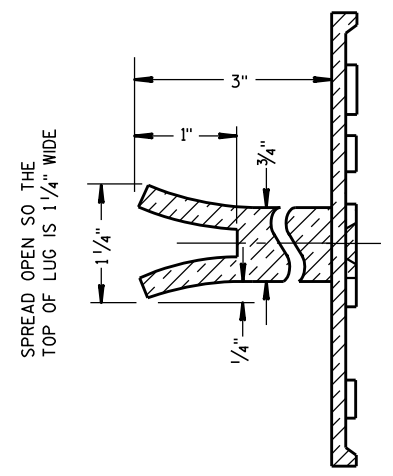
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.



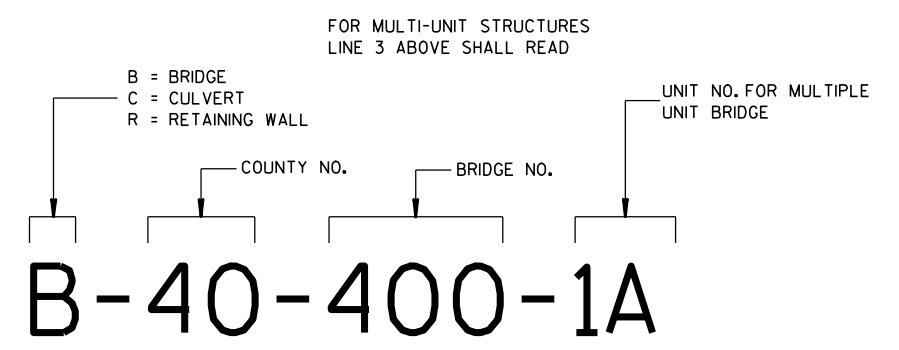
SECTION A-A



ALTERNATE LUG

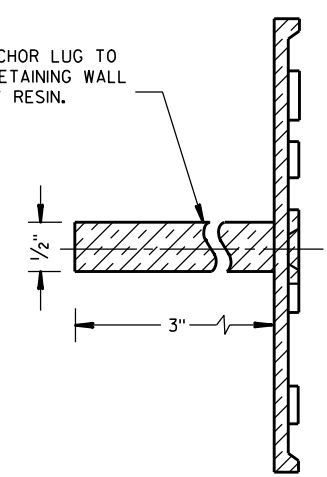
6

6



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

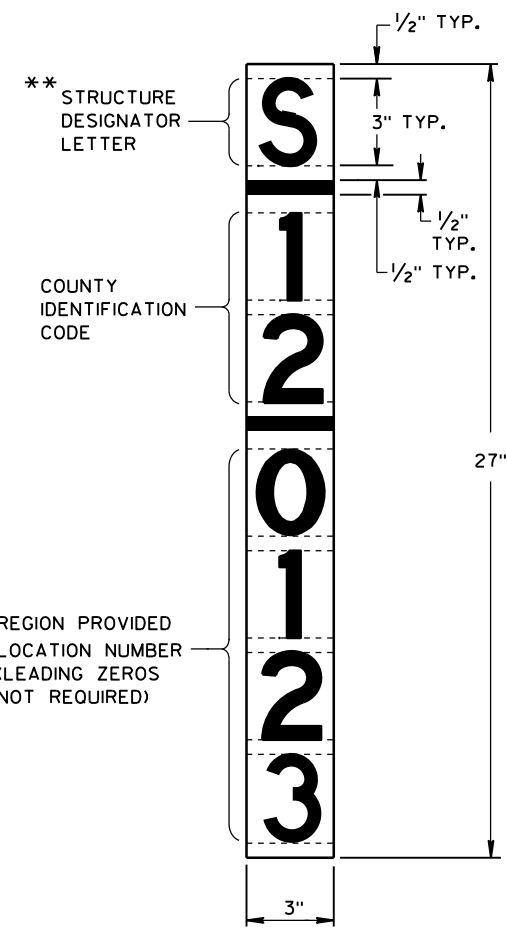
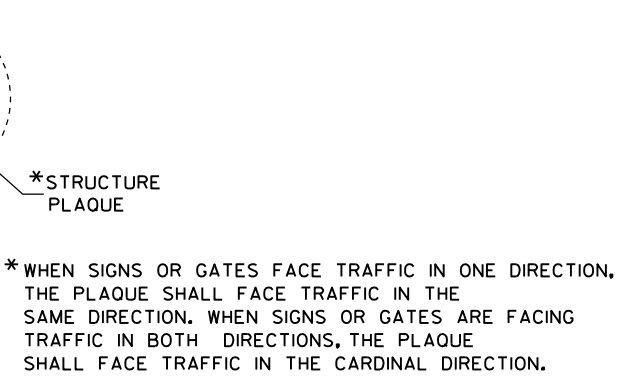
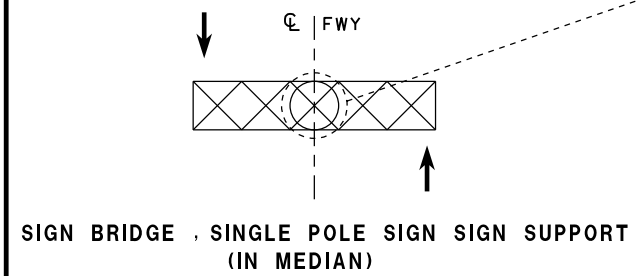
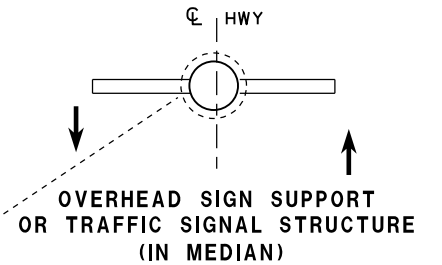
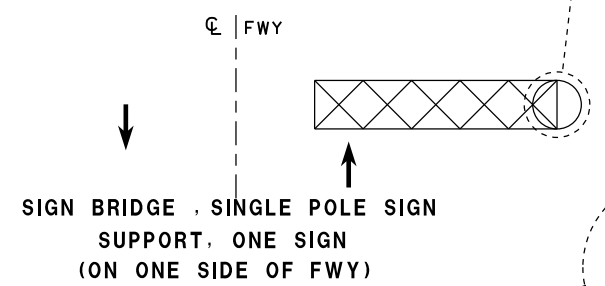
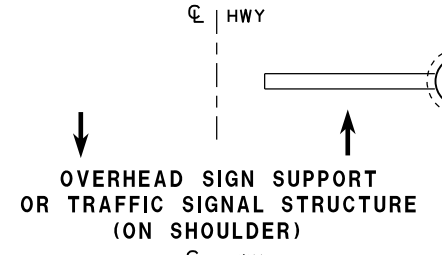
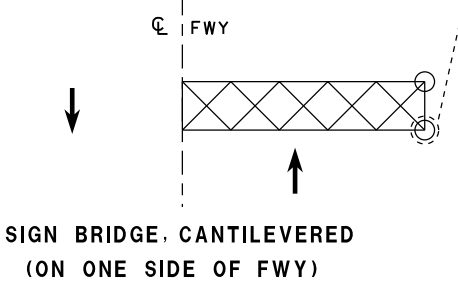
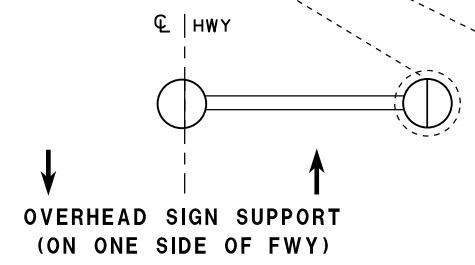
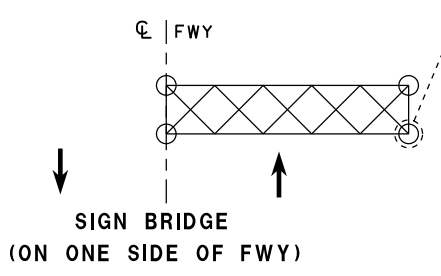
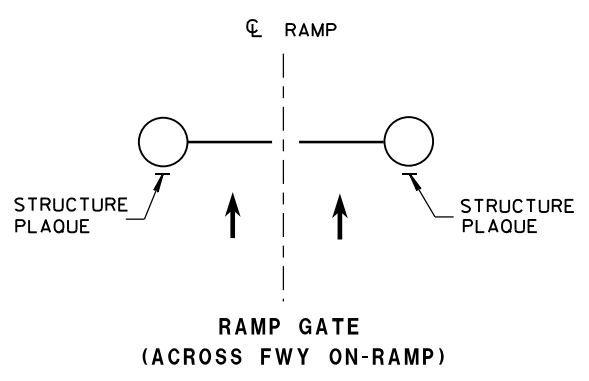
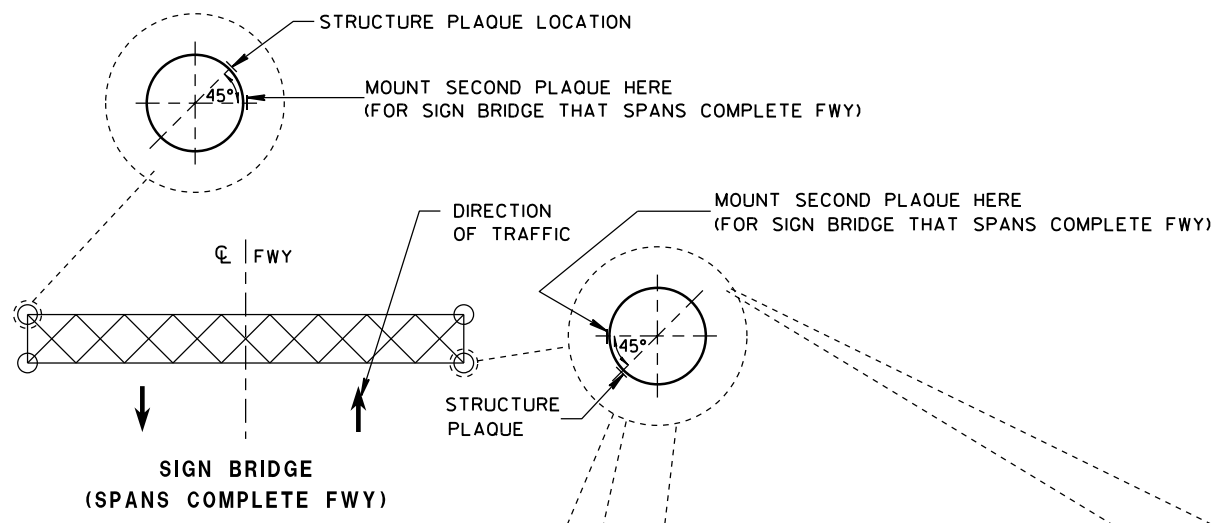


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



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

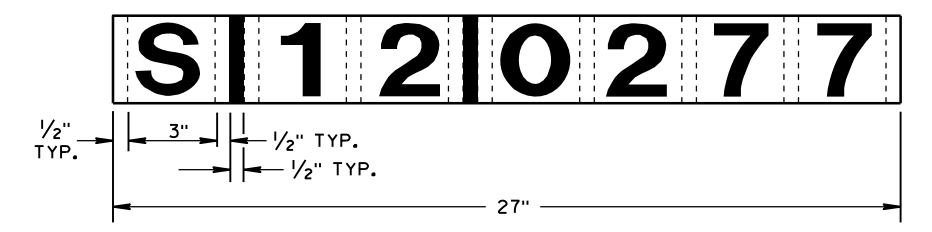
MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

- BASE - SHEET ALUMINUM, 0.060" THICK.
- FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE
- LINES - BLACK, 1/2" 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

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES

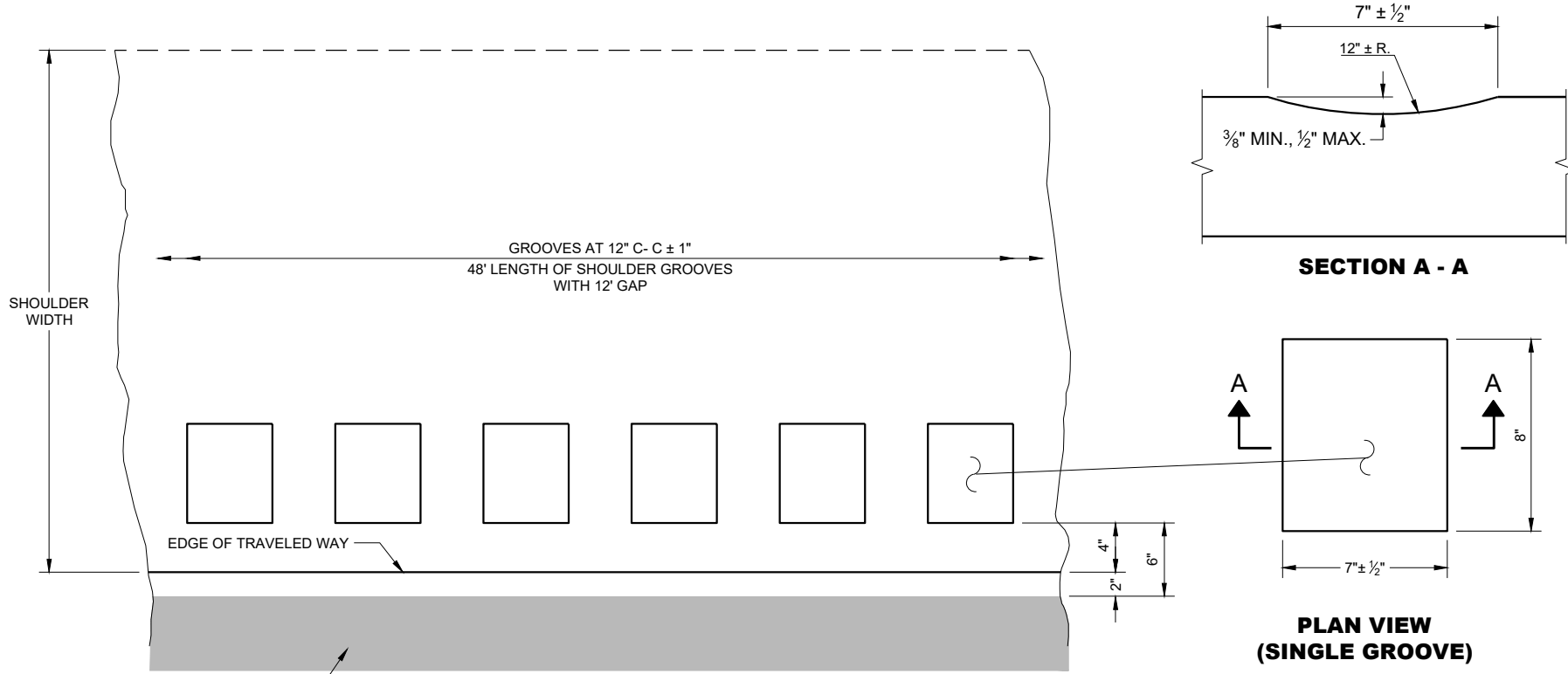
RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

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 OF DESIGN
FHWA	

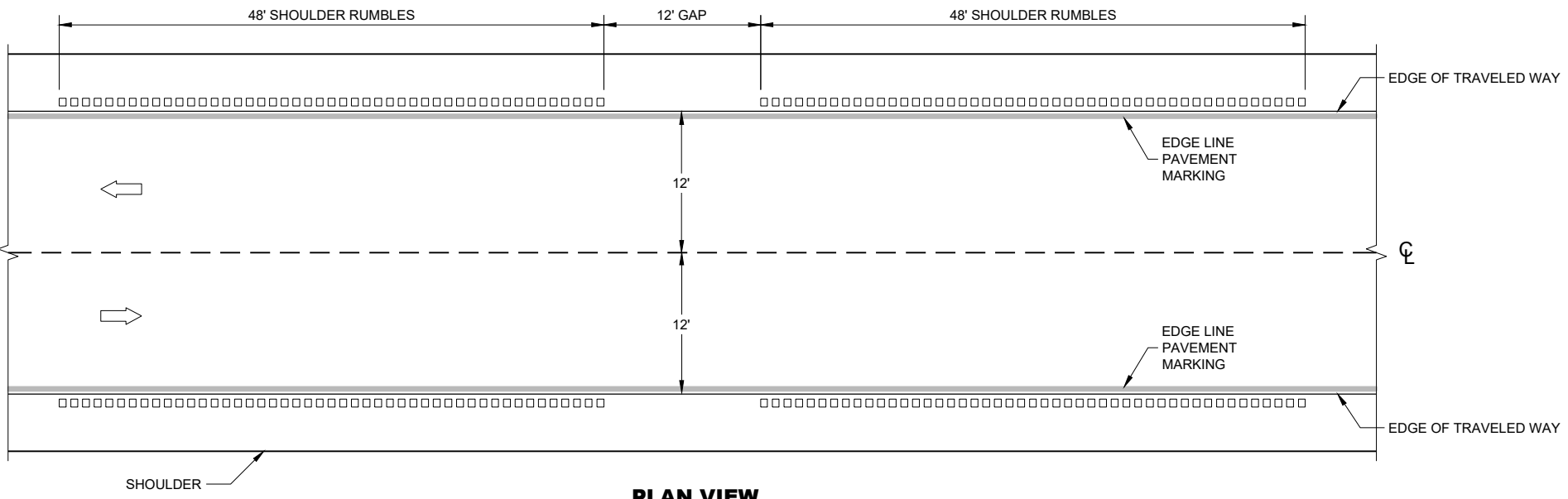
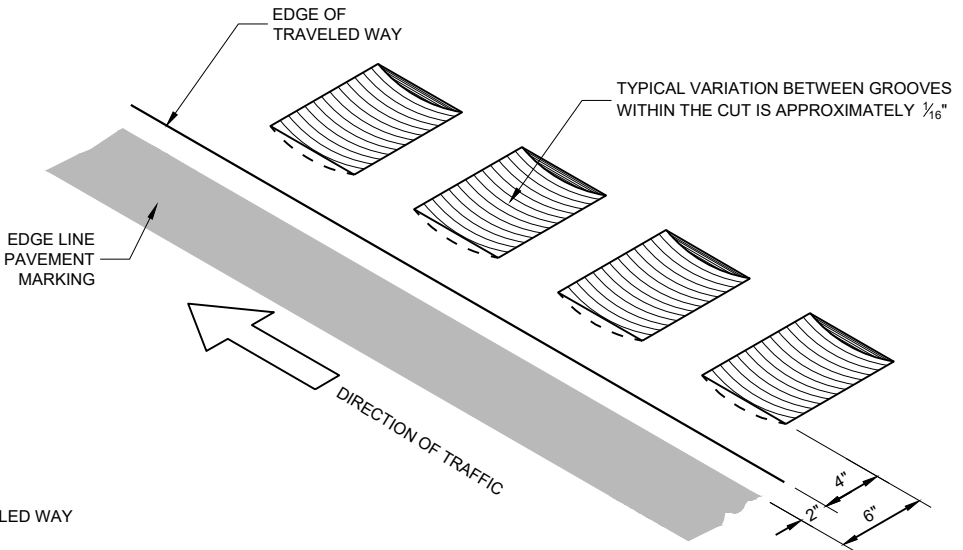
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

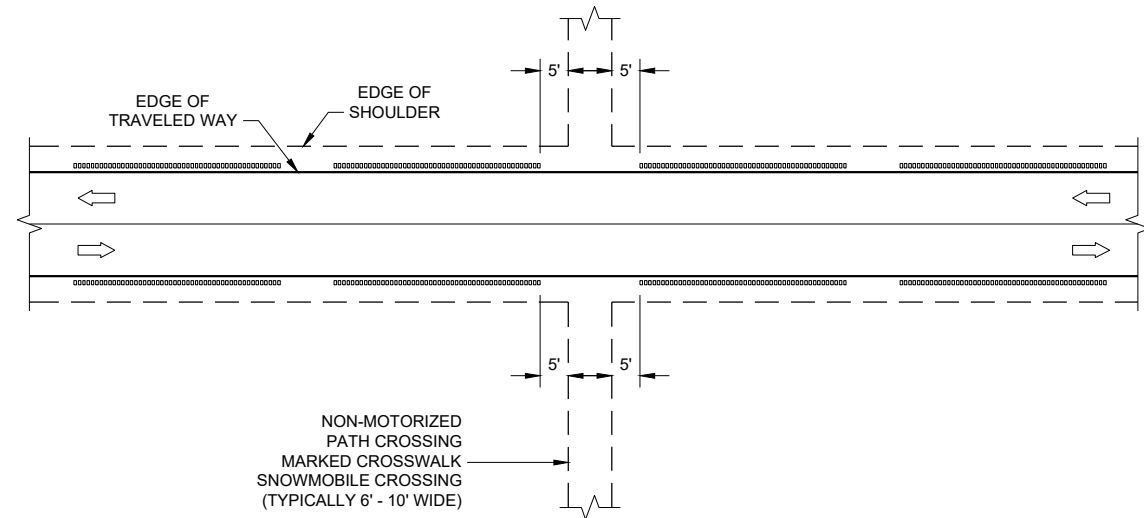


PLAN DETAIL VIEW SHOULDER WITH GROOVES

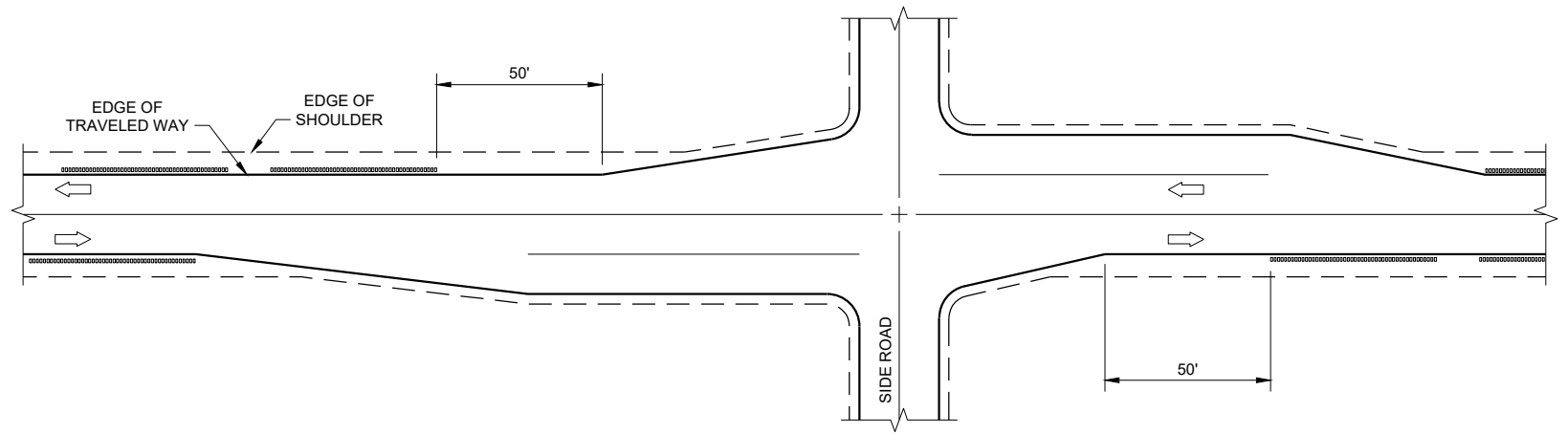


SHOULDER RUMBLE STRIPS - ASPHALT

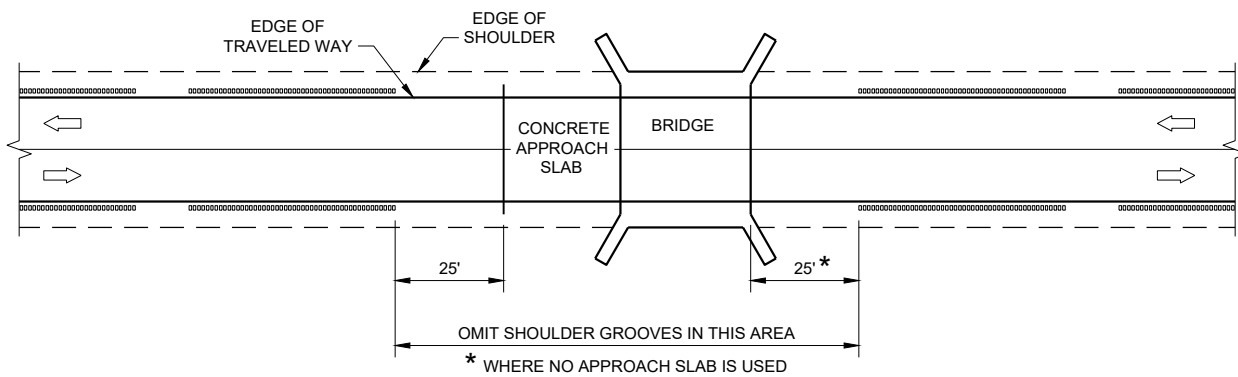
SHOULDER RUMBLE STRIPS ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



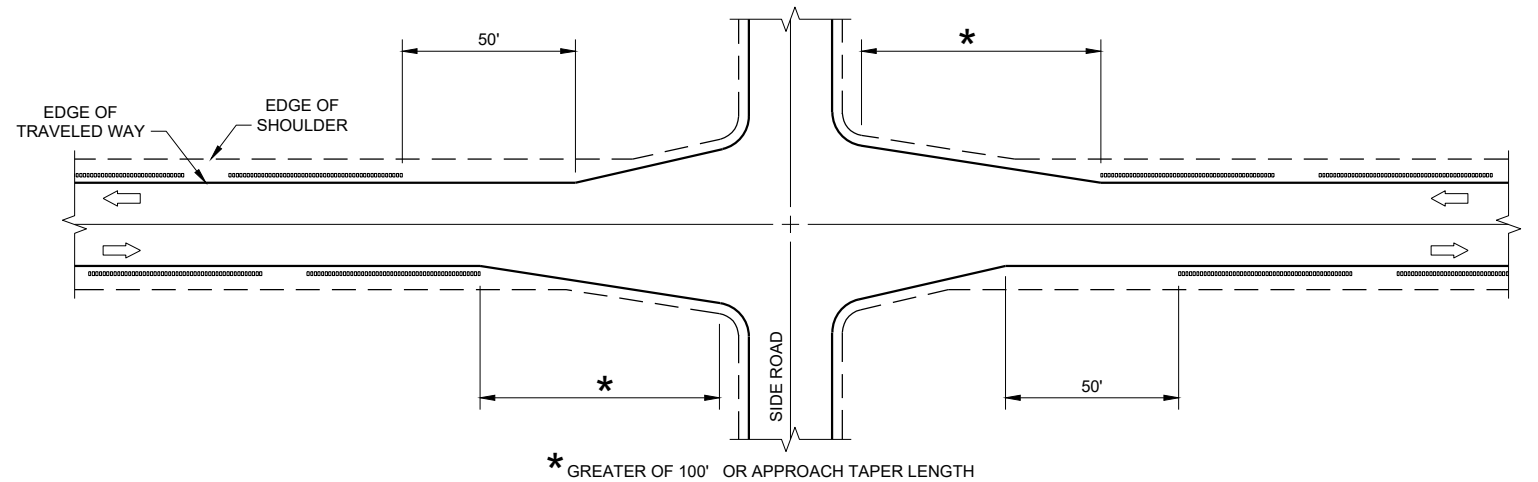
GROOVES AT MISCELLANEOUS CROSSINGS



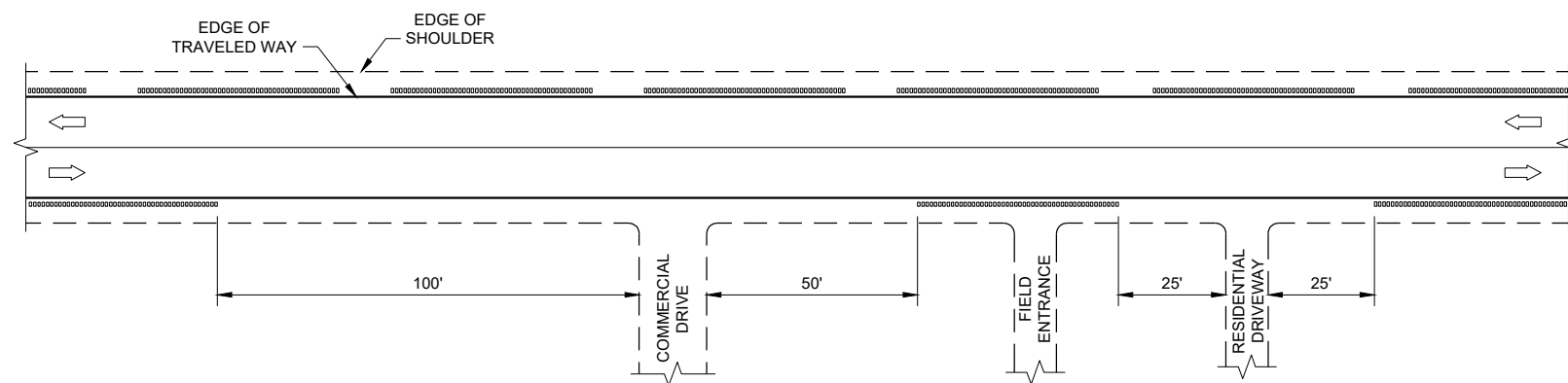
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



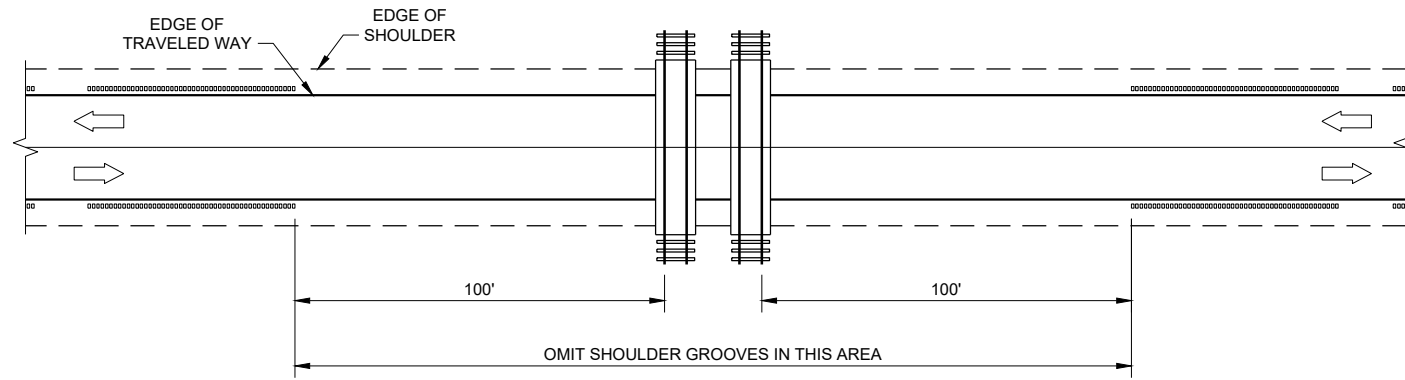
GROOVES AT DRIVEWAYS

GENERAL NOTES

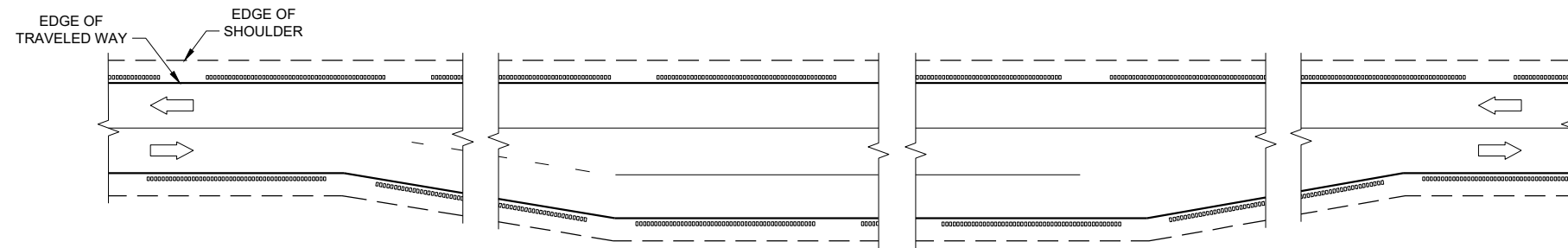
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

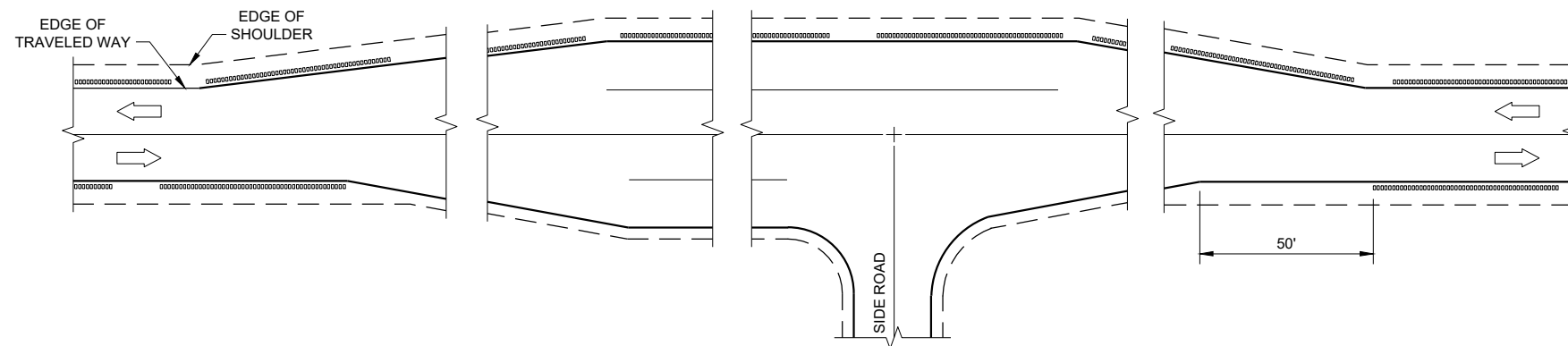
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



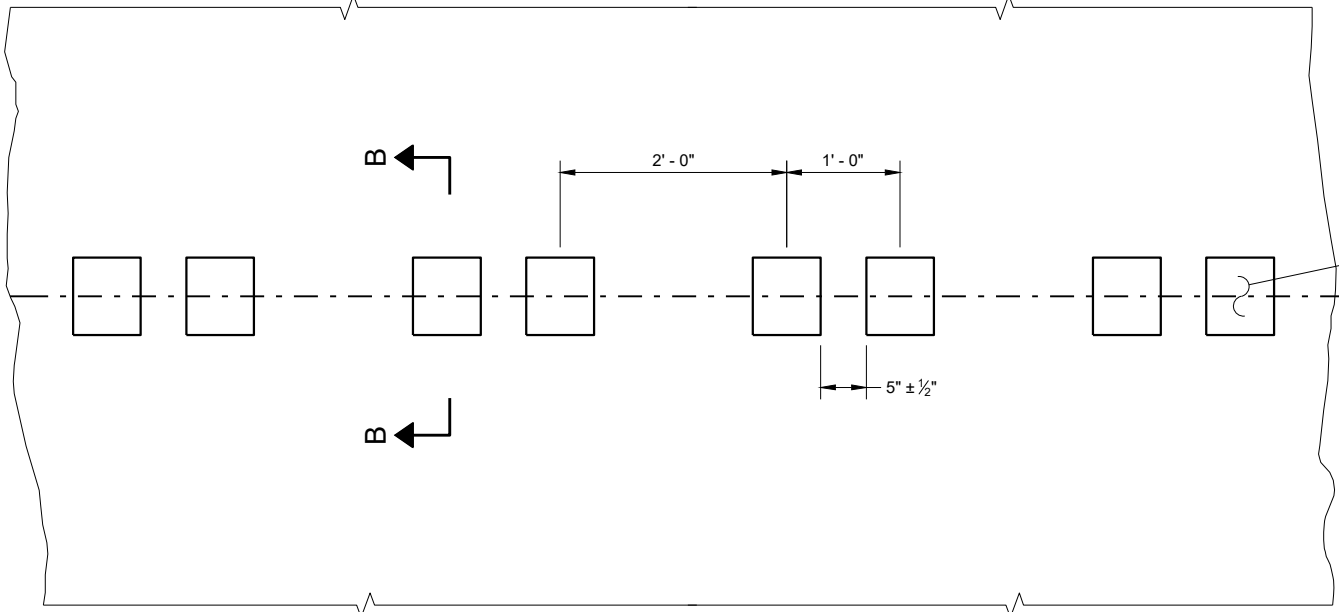
GROOVES AT BYPASS LANES

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
<small>FHWA</small>	

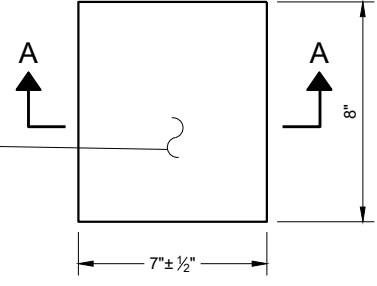
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

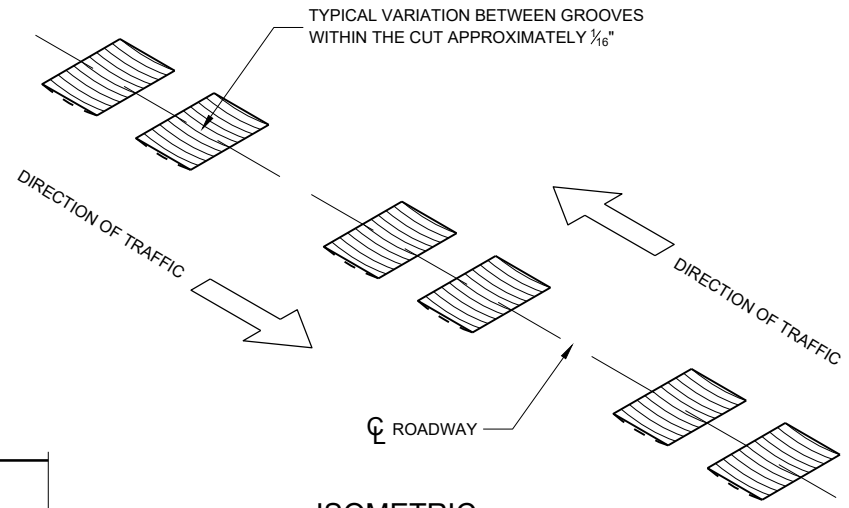
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



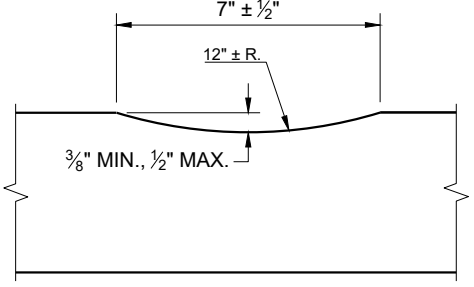
PLAN DETAIL VIEW



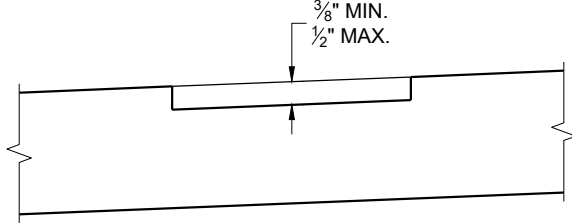
PLAN VIEW (SINGLE GROOVE)



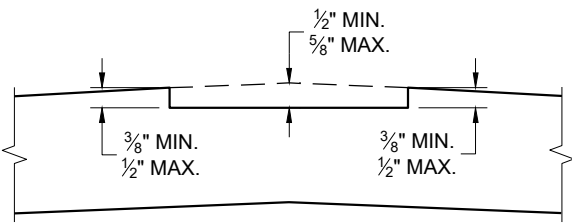
ISOMETRIC



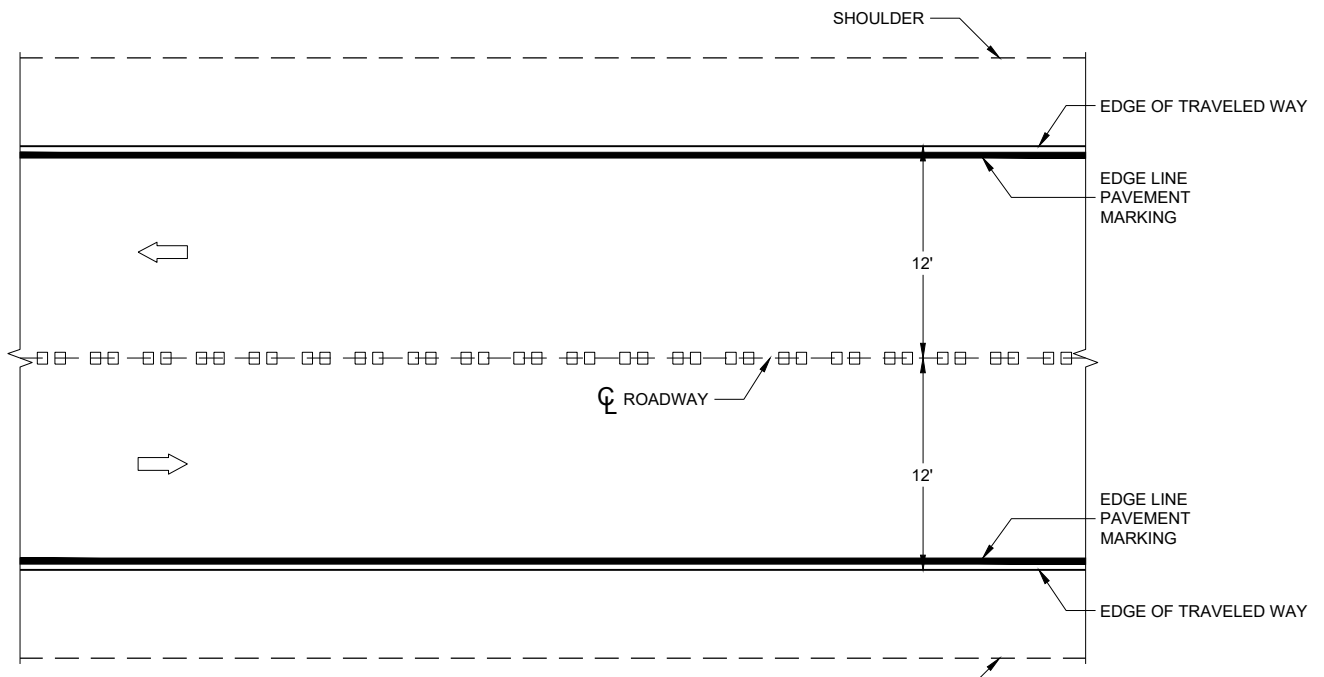
SECTION A - A



SECTION B - B SUPERELEVATED ROADWAY



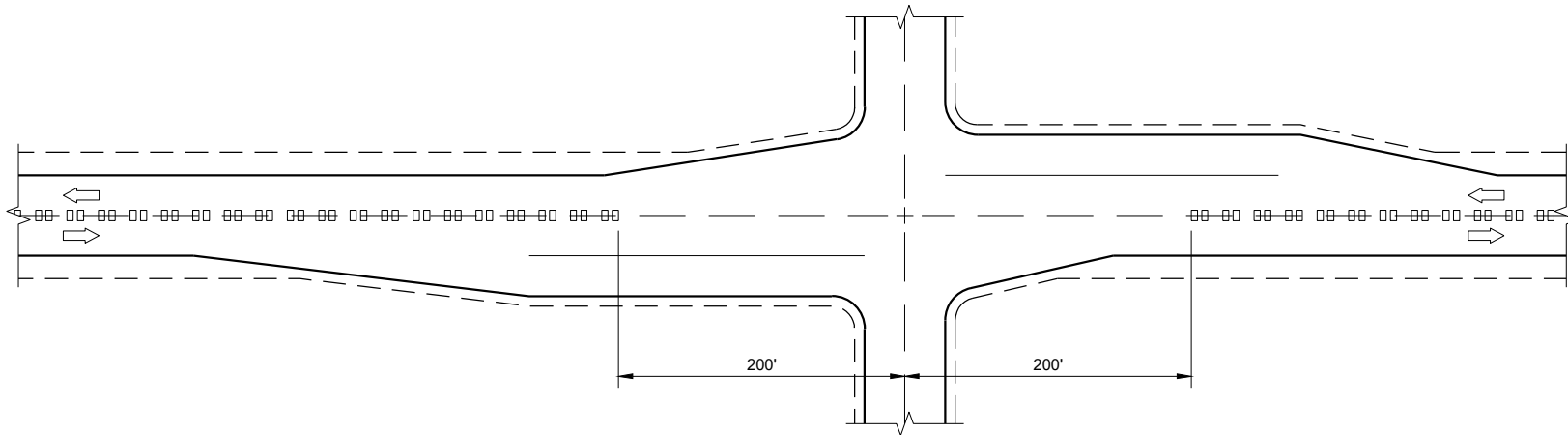
SECTION B - B CROWNED ROADWAY



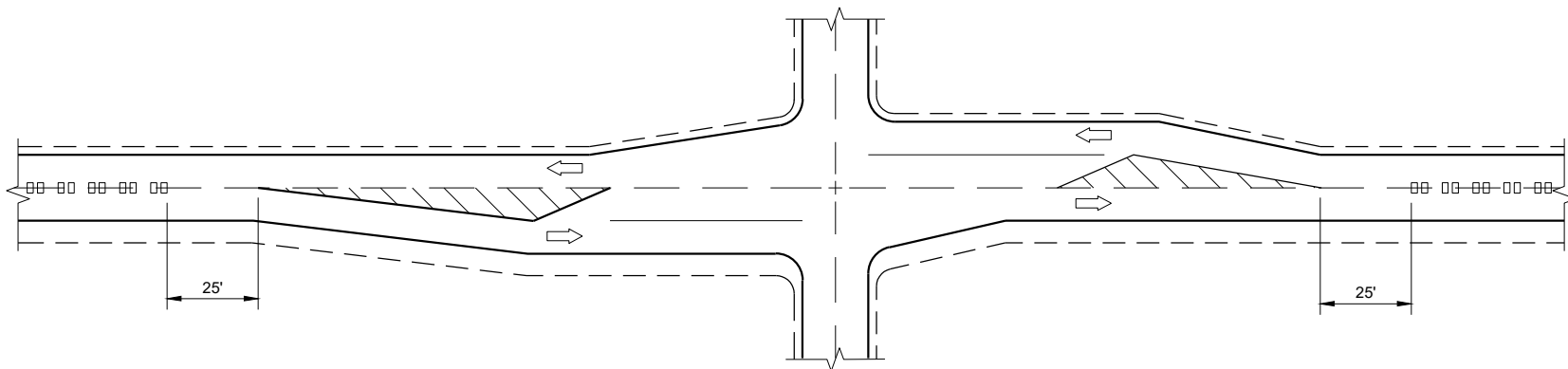
PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

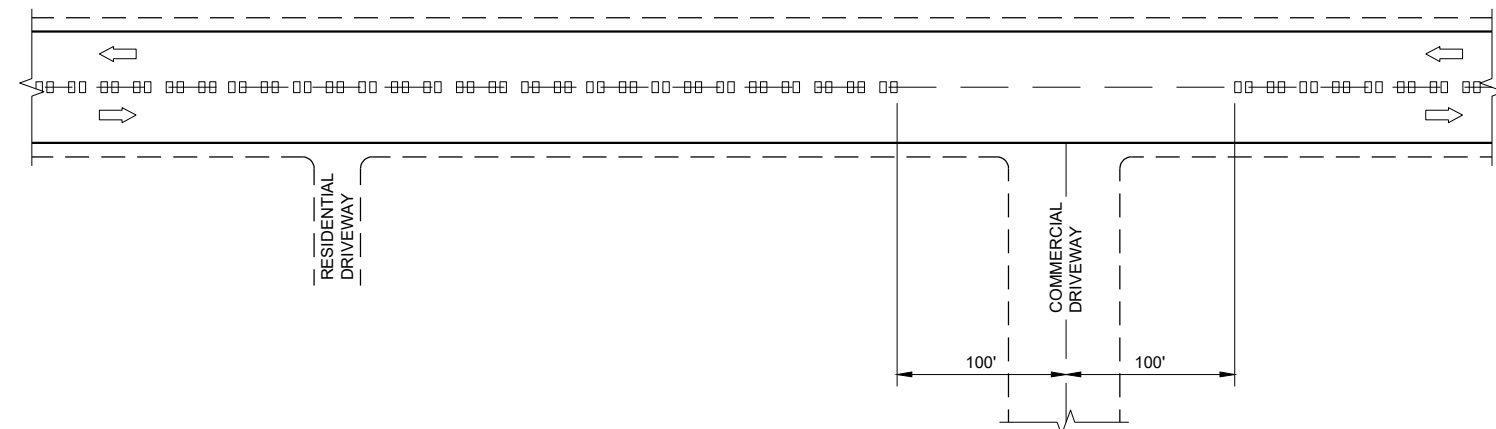
CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



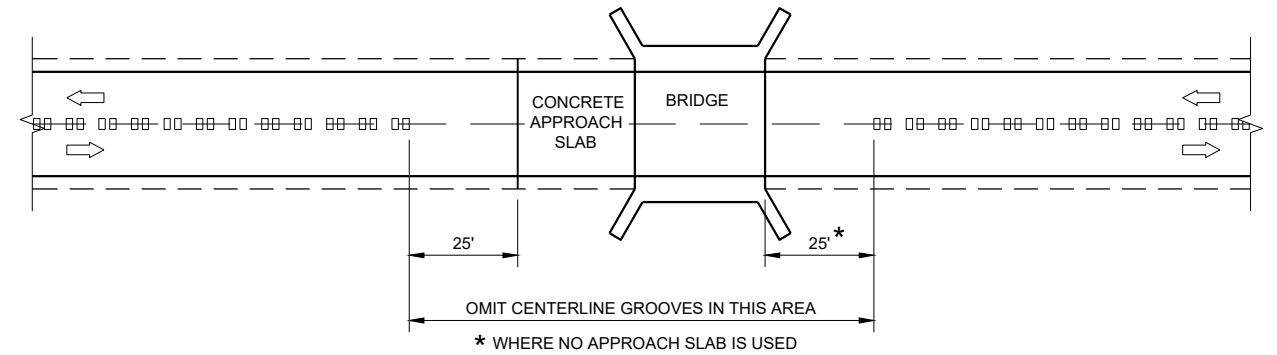
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



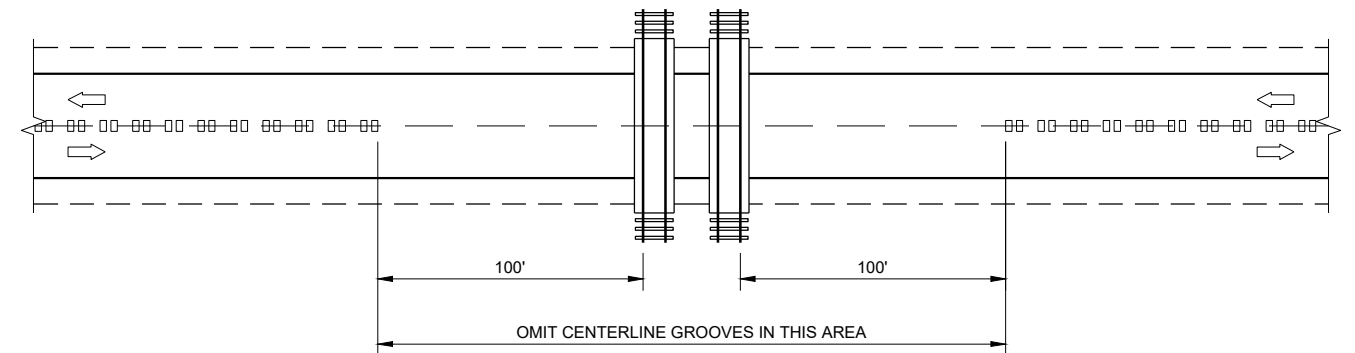
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

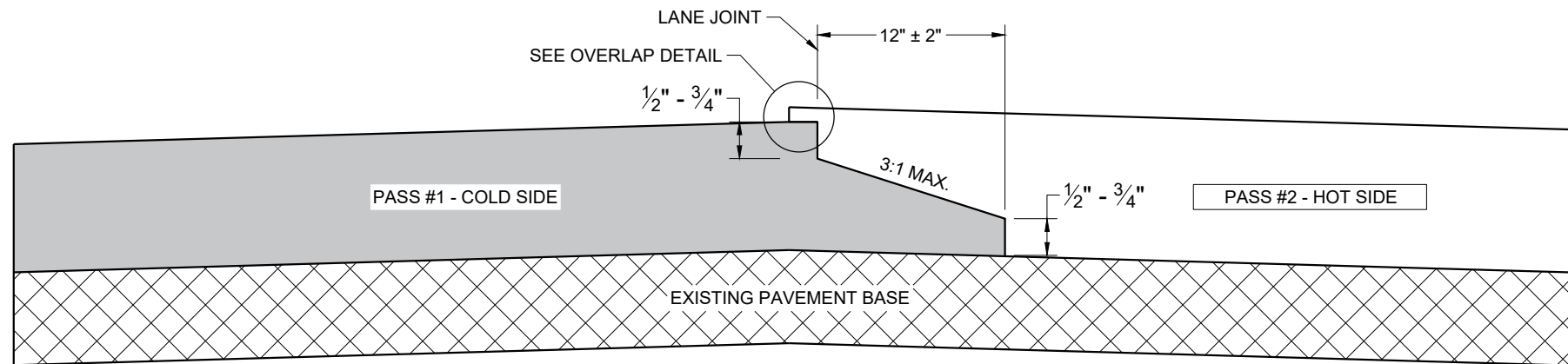
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6

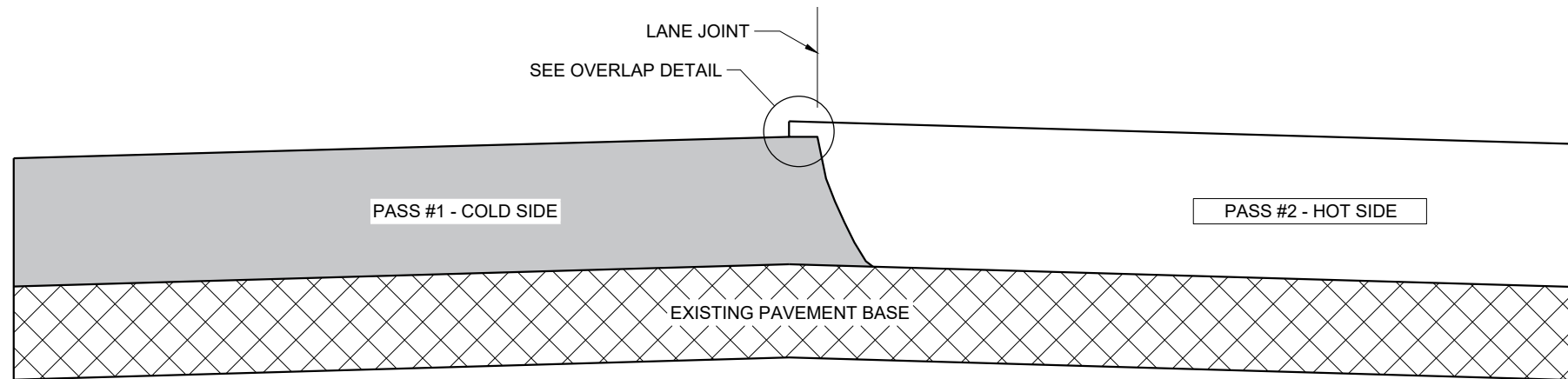
SDD 13A11 - 04d

SDD 13A11 - 04d

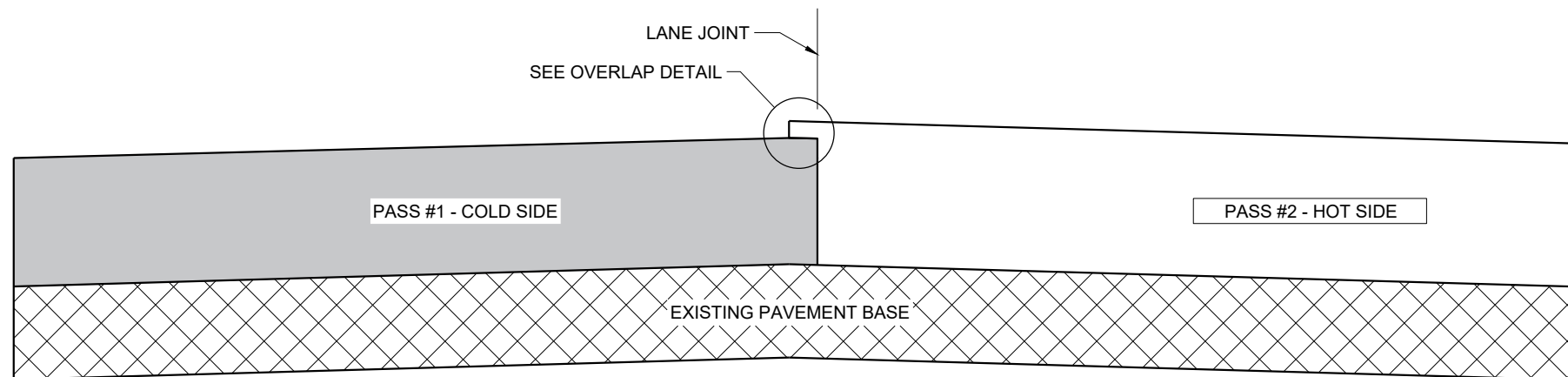
CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

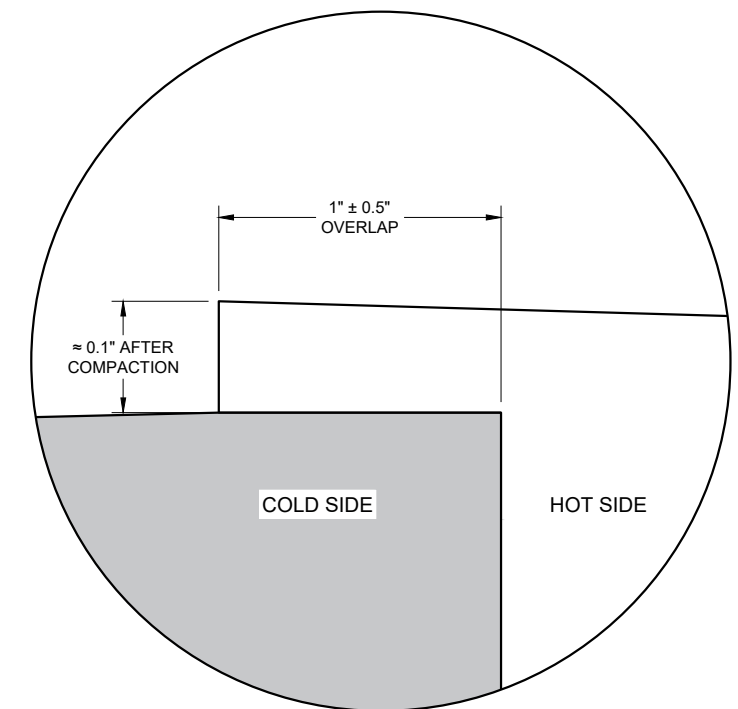
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ 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

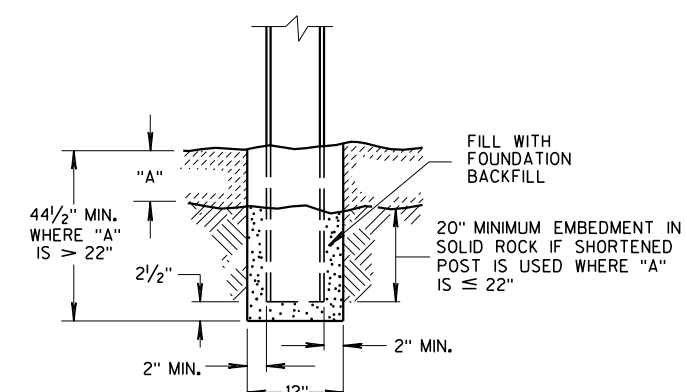
SDD 13C19 - 03

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	

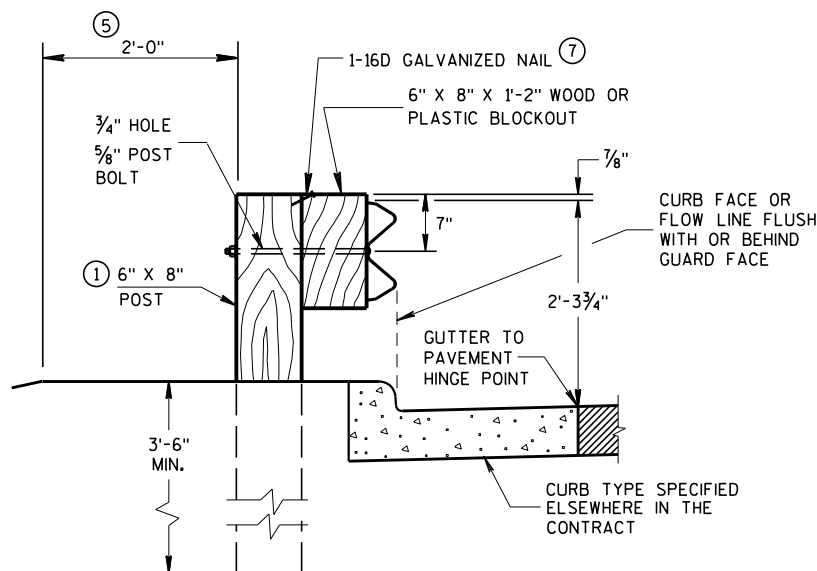
GENERAL NOTES

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.
- ⑦ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

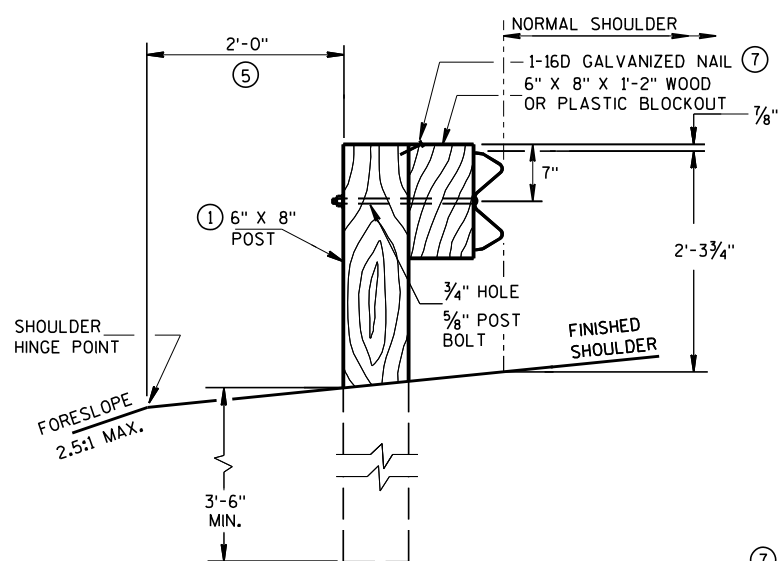
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



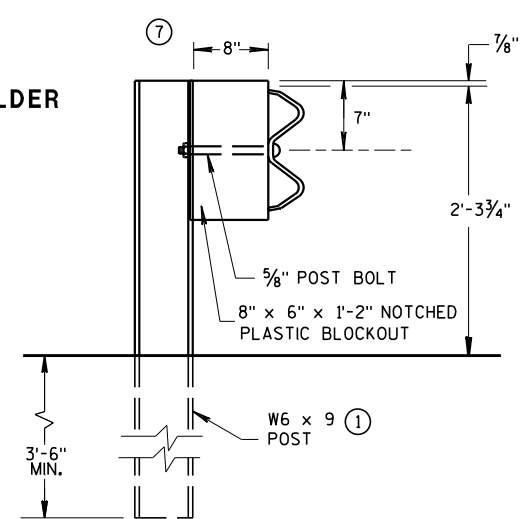
END VIEW SETTING STEEL OR WOOD POST IN ROCK ⑥



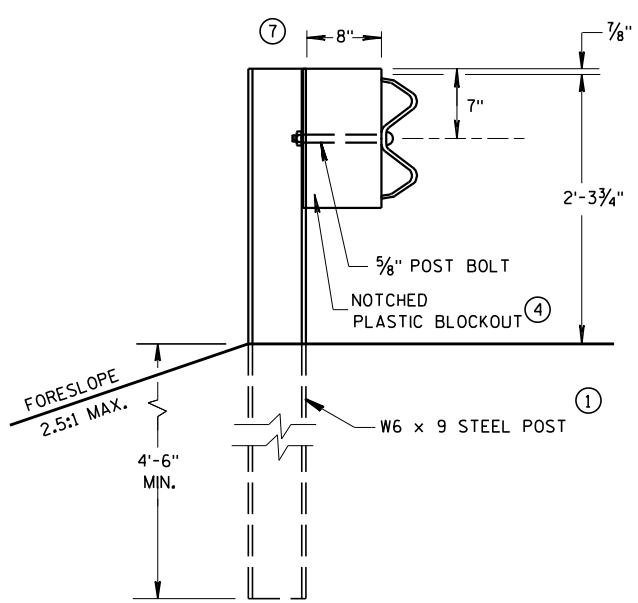
END VIEW LOCATED ALONG A CURBED ROADWAY



END VIEW LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION

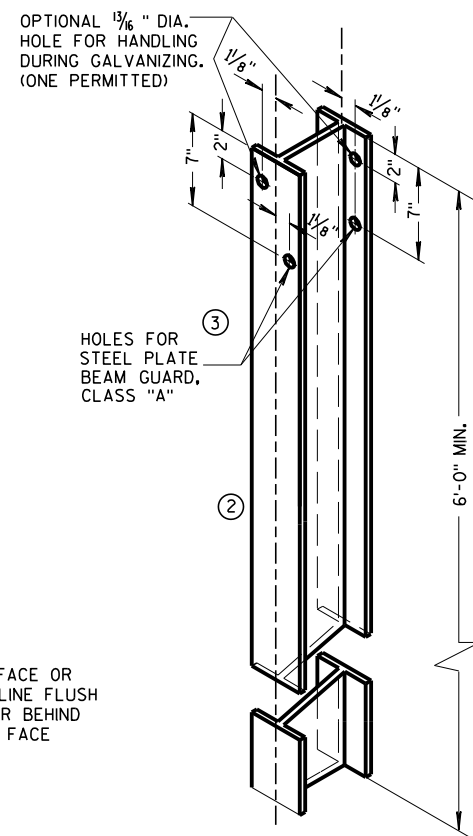


END VIEW STEEL POST & NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION

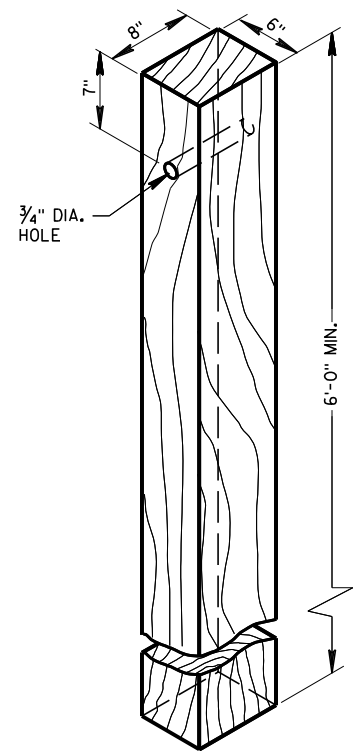


END VIEW LONGER POST AT HALF POST SPACING W BEAM (LHW)

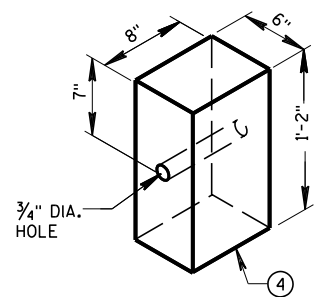
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD



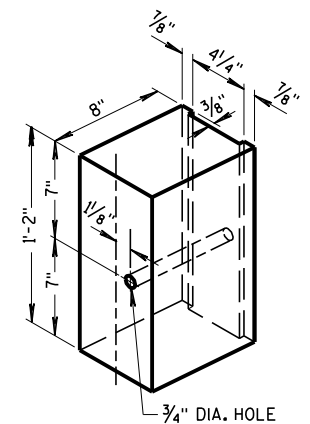
STEEL POST & HOLE PUNCHING DETAIL (W6 X 9) ①
ALL HOLES 3/8" DIAMETER EXCEPT AS NOTED



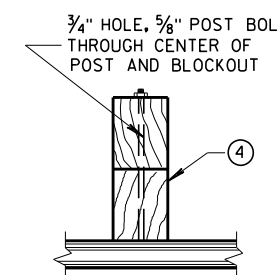
WOOD POST (6" X 8") NOMINAL



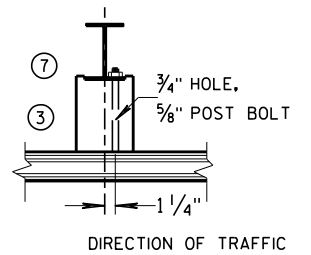
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS ①



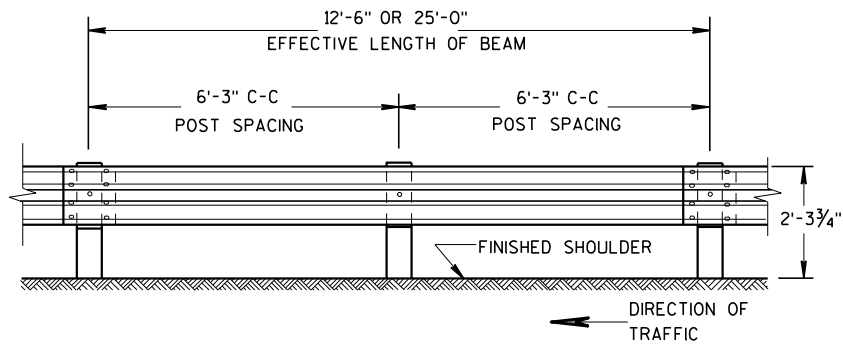
PLAN VIEW WOOD POST, BLOCKOUT & BEAM



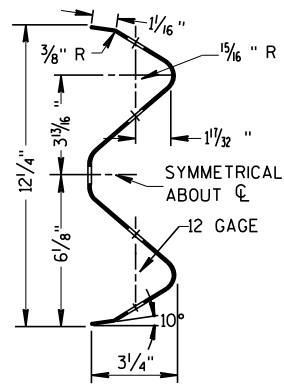
PLAN VIEW STEEL POST, NOTCHED PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS

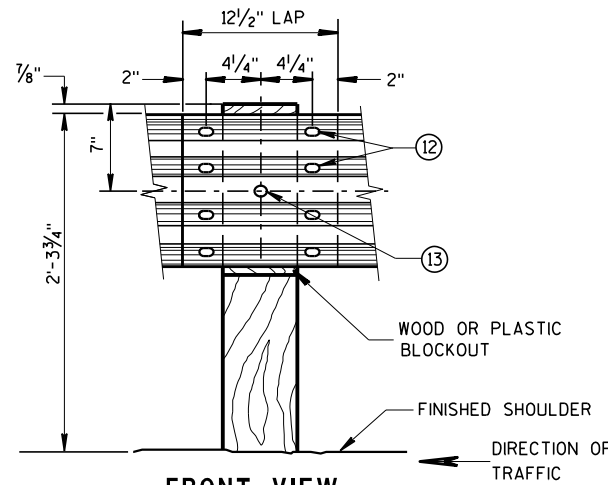
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



SECTION THRU W BEAM

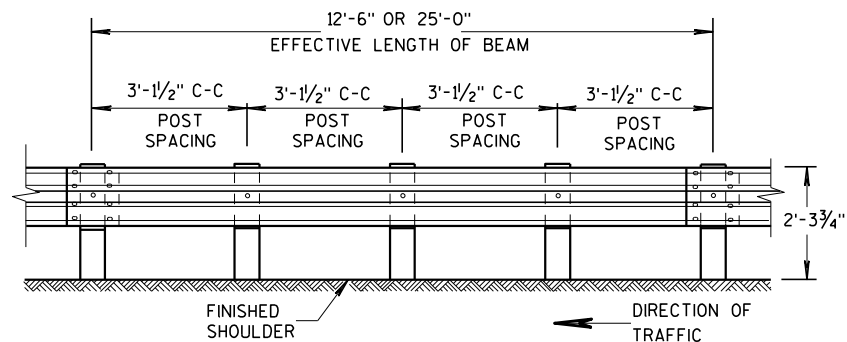


**FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL**

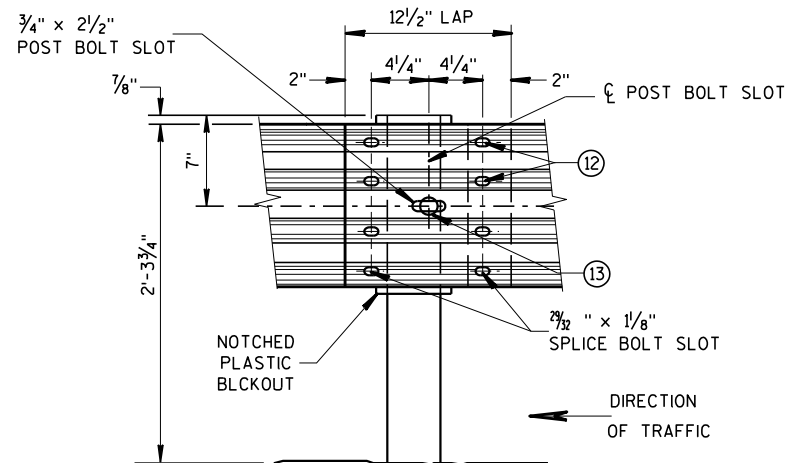
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

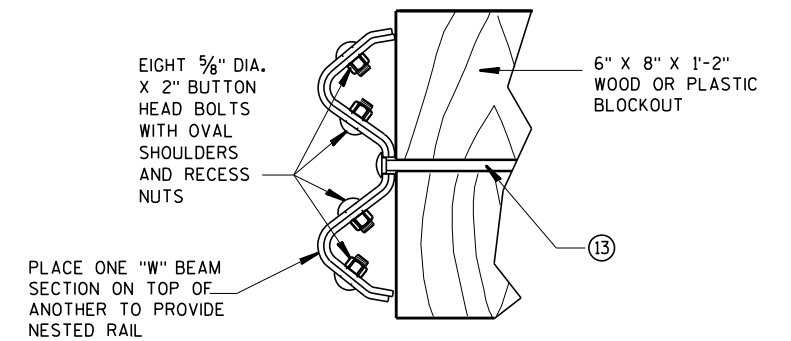
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



**FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)**

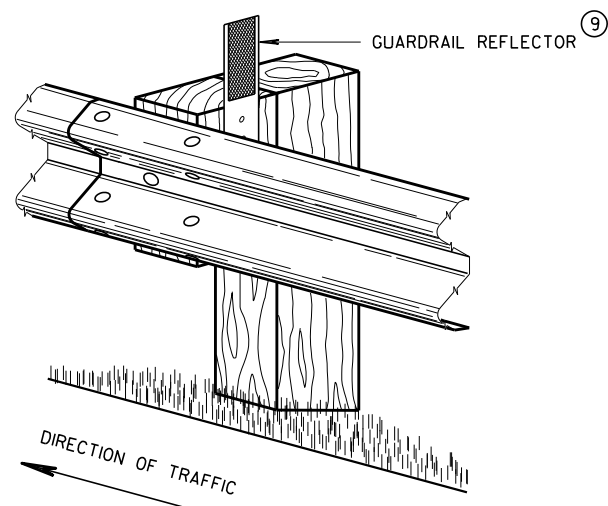


**FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPlicing DETAILS
OF STEEL PLATE BEAM GUARD**

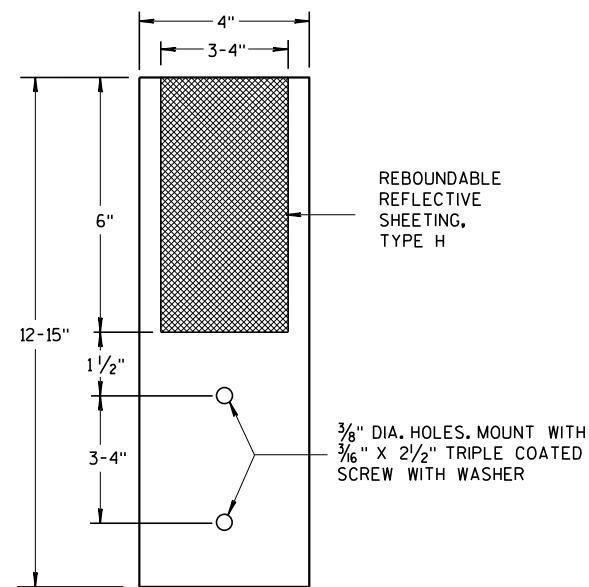


NESTED W BEAM (NW)
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUARDRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



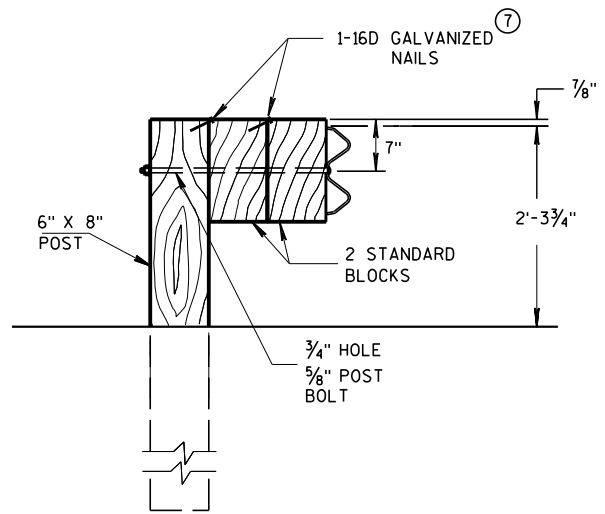
**4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION ***



4" x 12" GUARDRAIL REFLECTOR

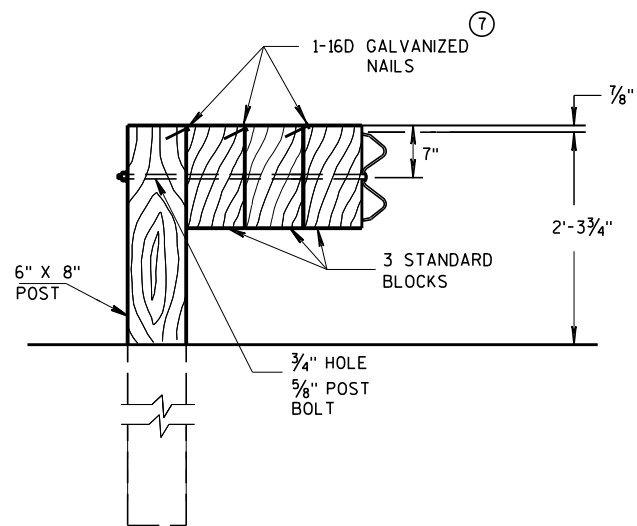
**STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

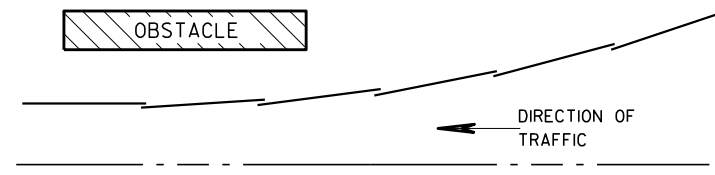


DETAIL FOR TRIPLE BLOCKS

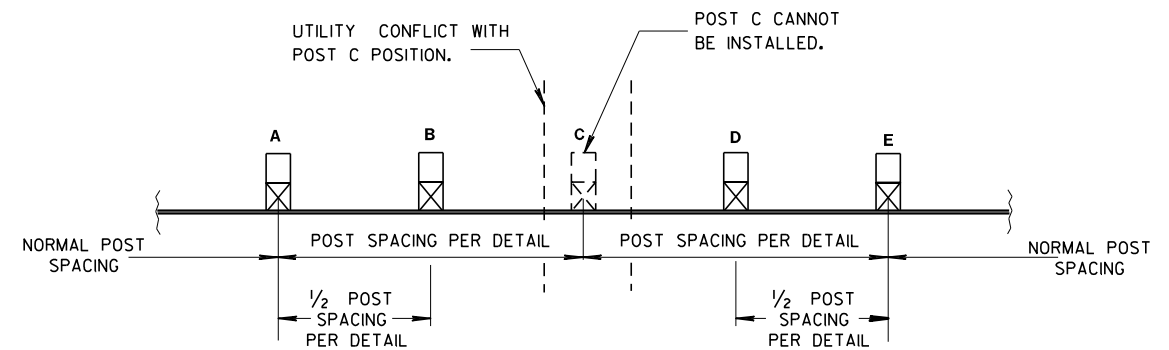
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

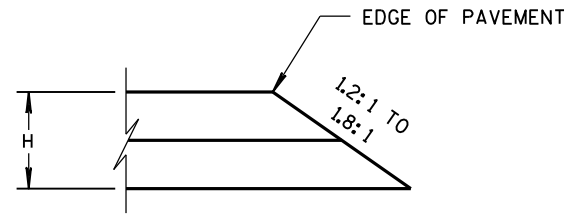


**PLAN VIEW
BEAM LAPPING DETAIL**

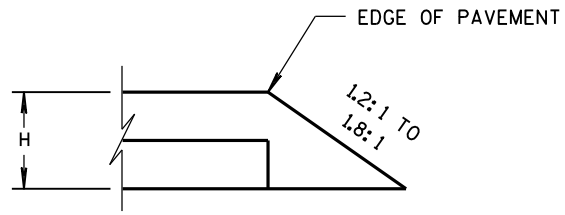


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

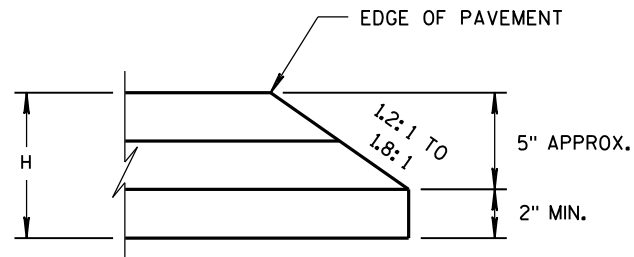
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017	/s/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



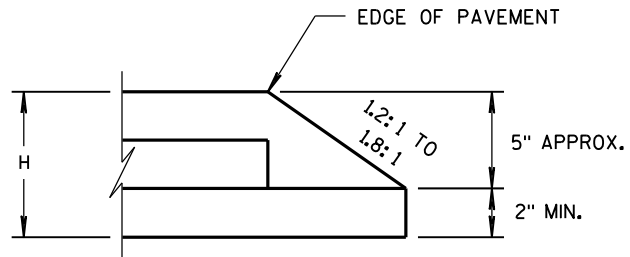
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

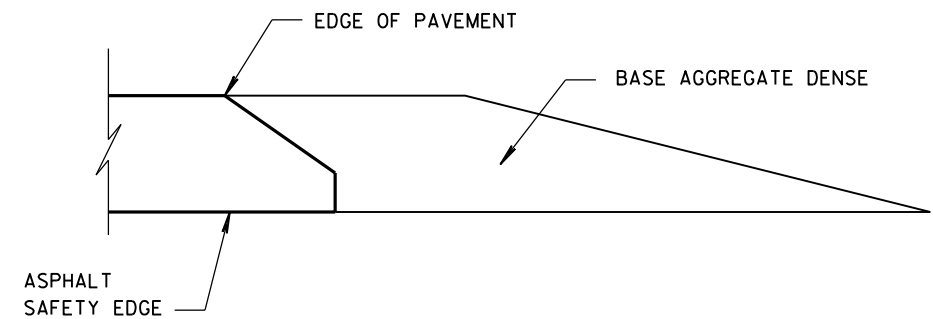


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

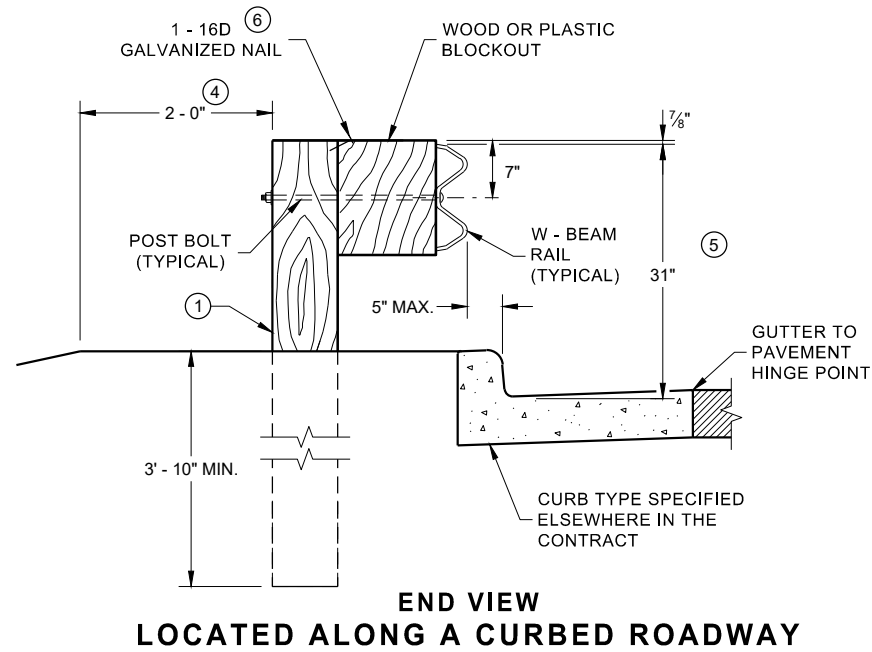
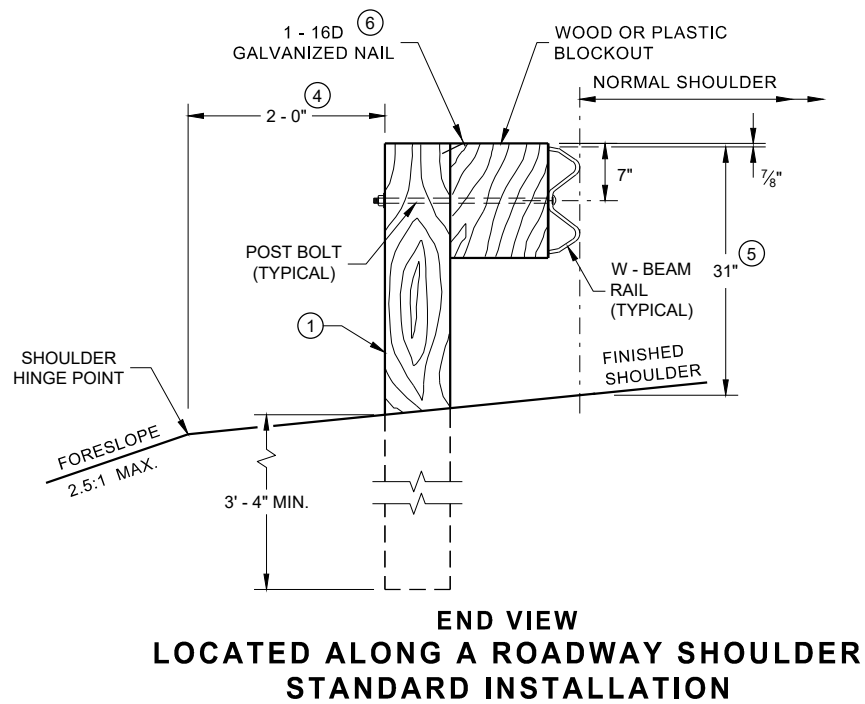
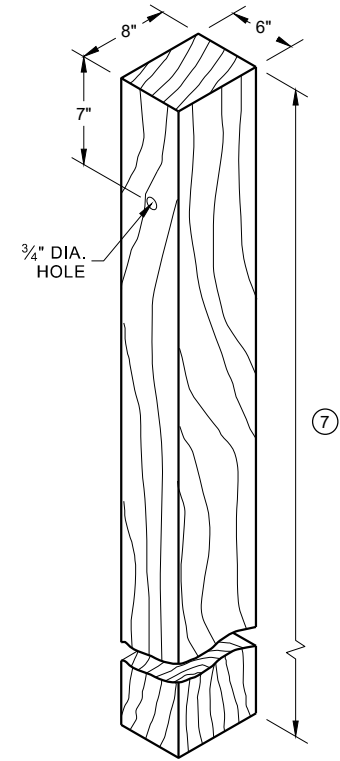
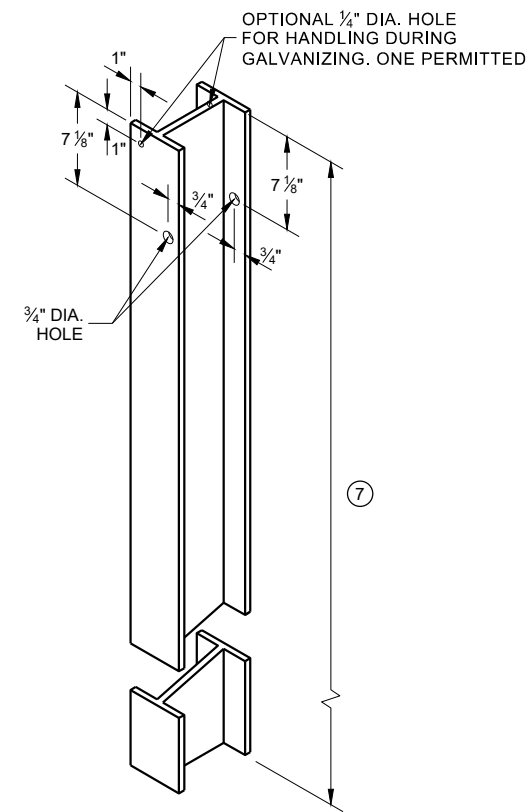
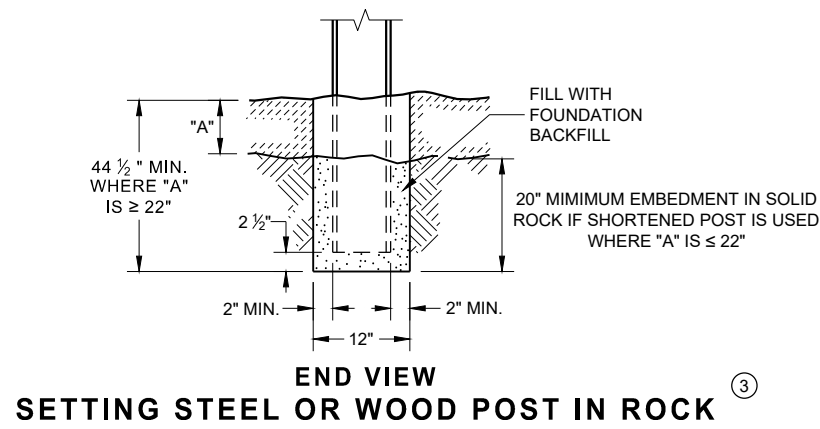
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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

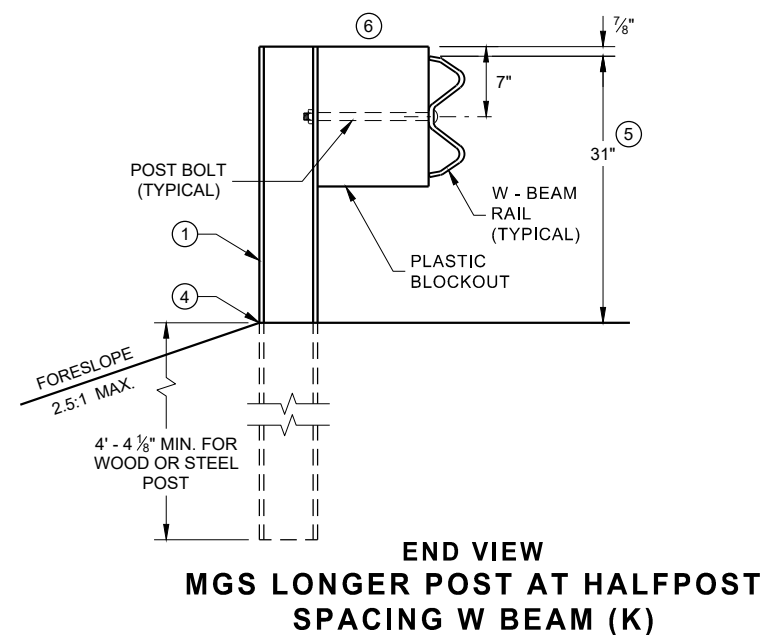
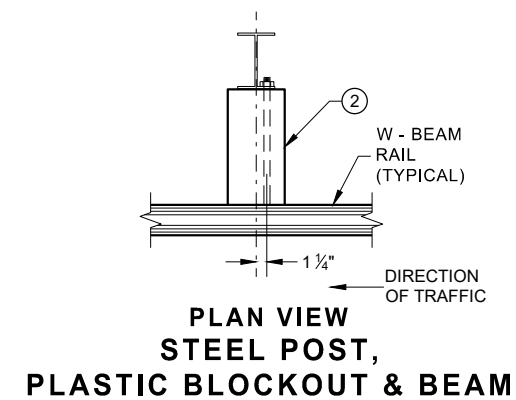
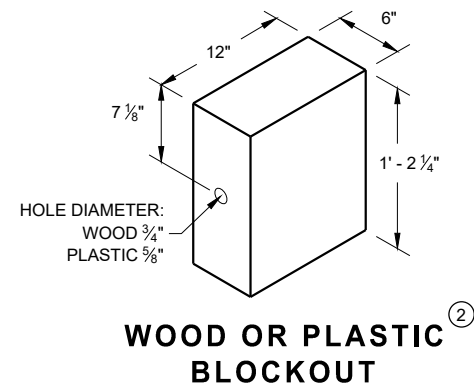
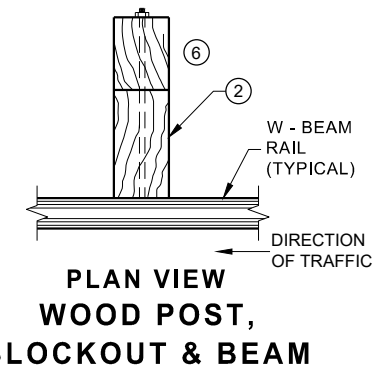
SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



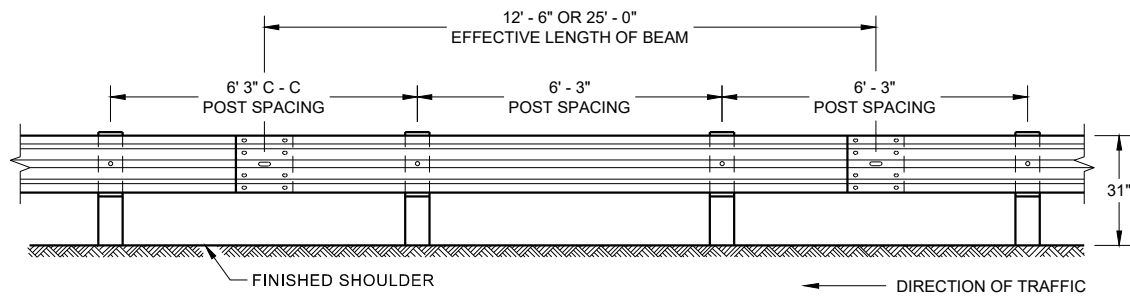
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)

WOOD POST (6" X 8") NOMINAL

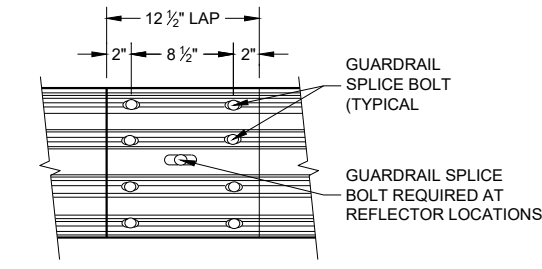


MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



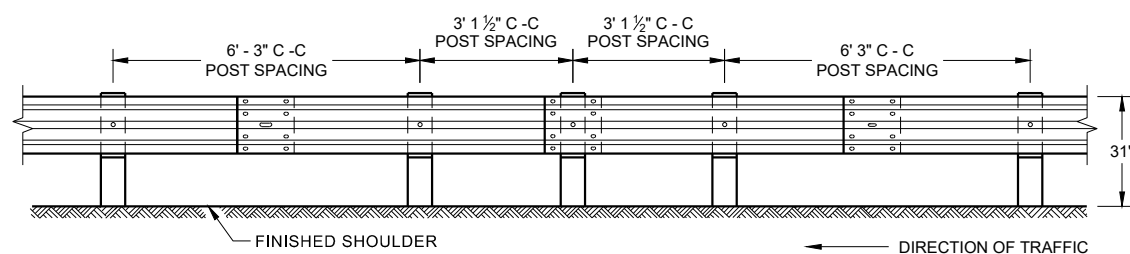
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



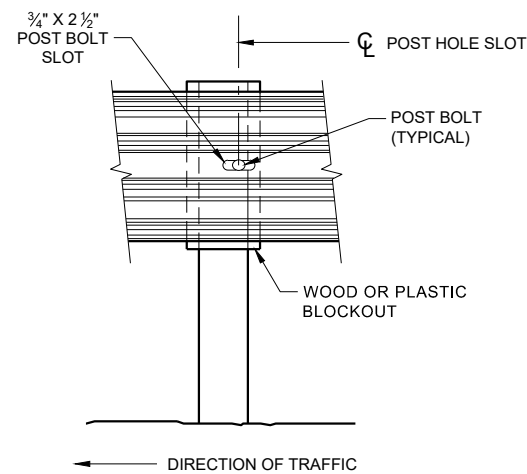
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

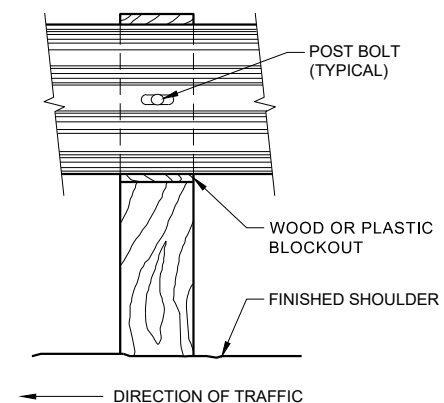
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



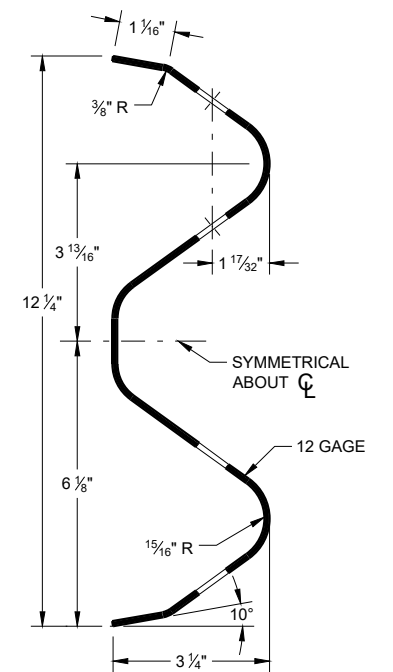
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



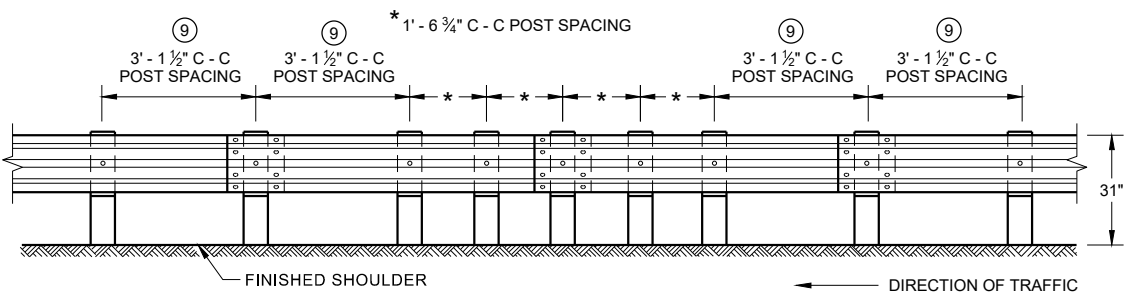
FRONT VIEW AT STEEL POST



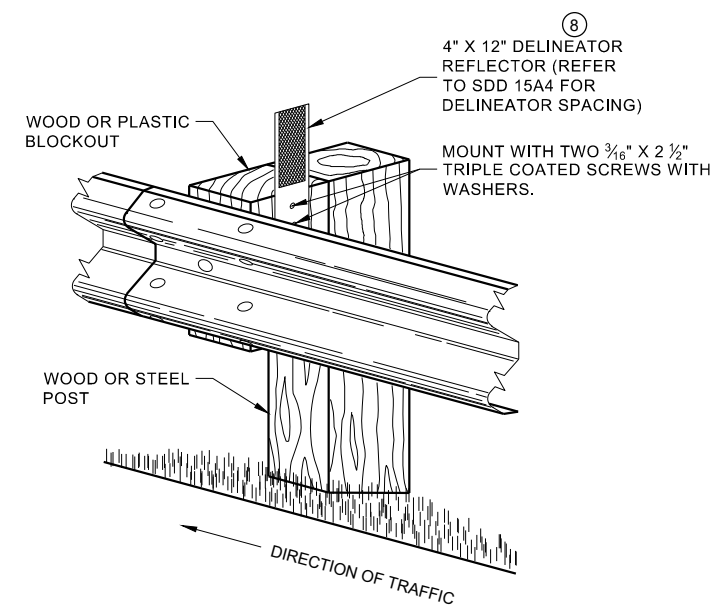
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



**FRONT VIEW
QUARTER POST SPACING (QS)**



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

6

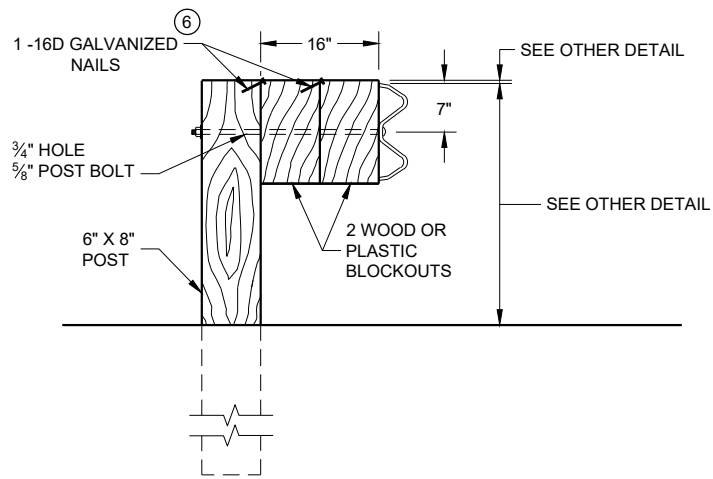
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SDD 14B42 - 07b

SDD 14B42 - 07b

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

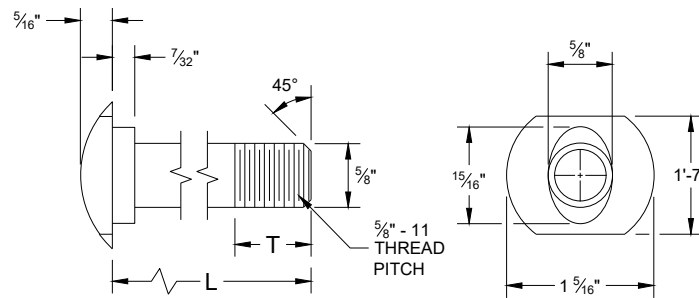


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

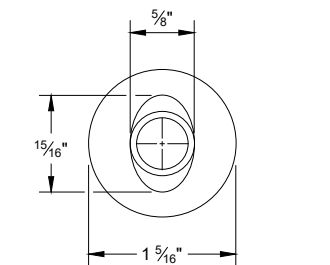
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

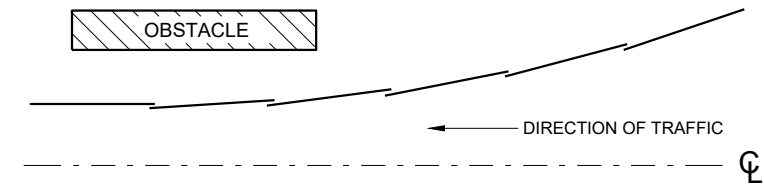


POST BOLT TABLE

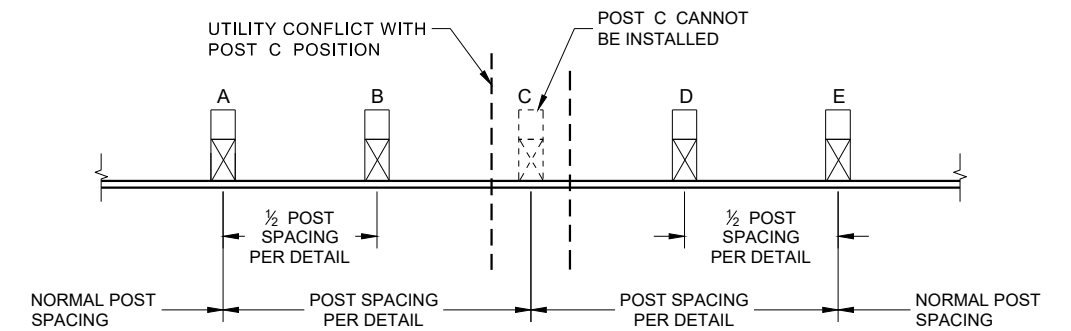
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



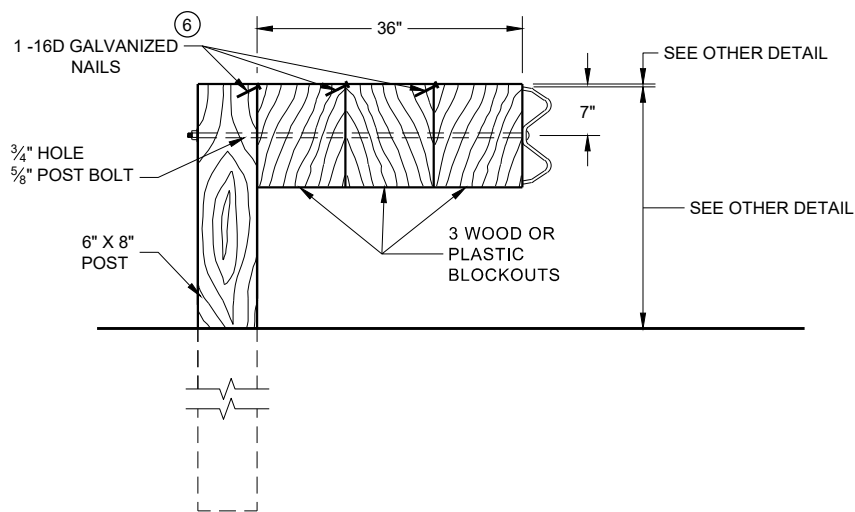
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

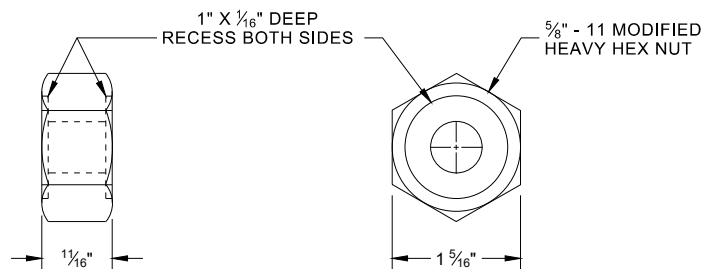


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

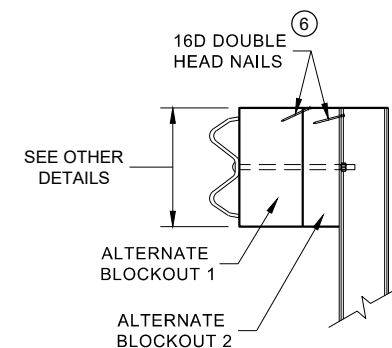


DETAIL FOR 36" BLOCKOUT DEPTH

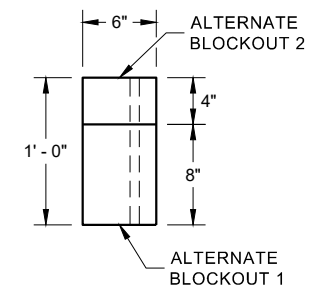
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**POST BOLT, SPLICE BOLT
AND RECESS NUT**



SIDE VIEW



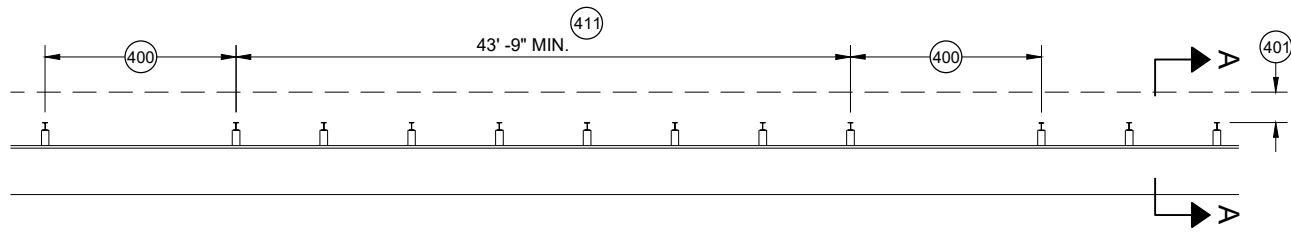
PLAN VIEW

**ALTERNATE WOOD
BLOCKOUT DETAIL**

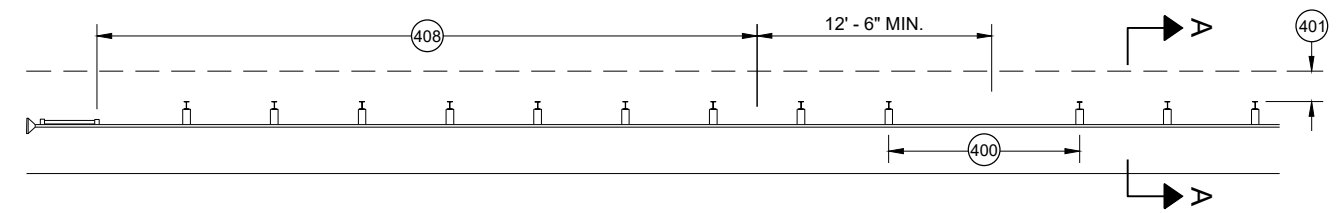
⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

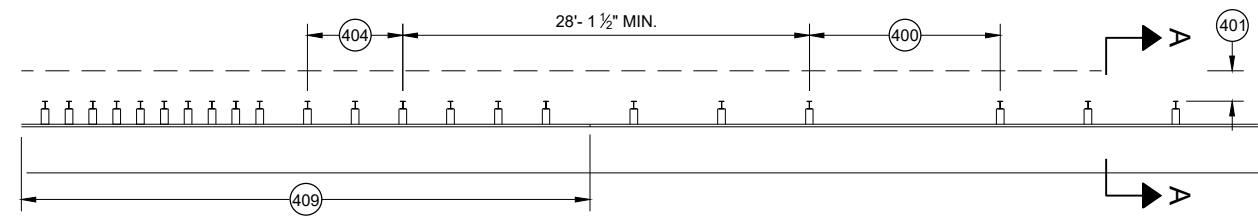
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



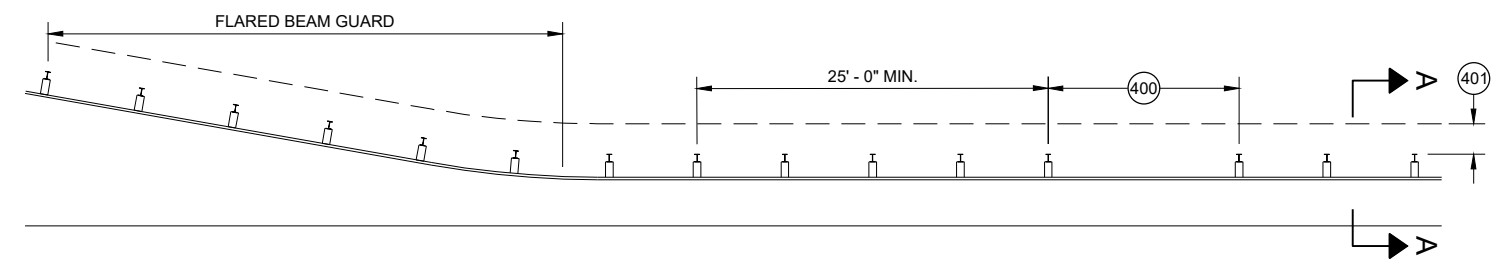
MISSING POST IN MGS GUARDRAIL



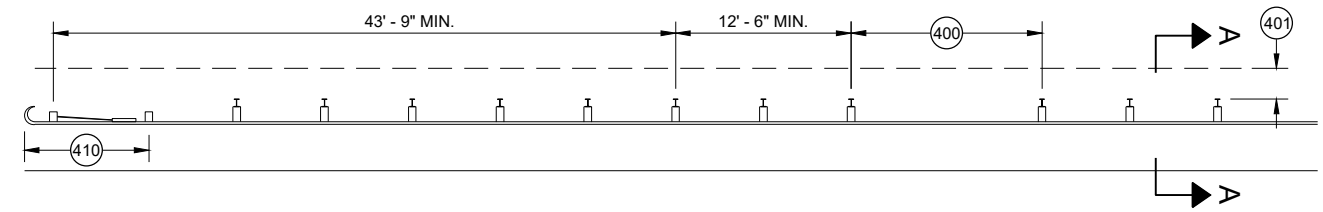
MISSING POST IN MGS GUARDRAIL NEAR EAT



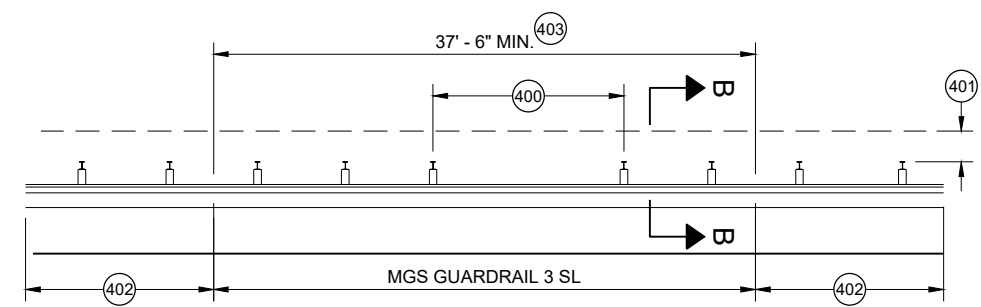
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

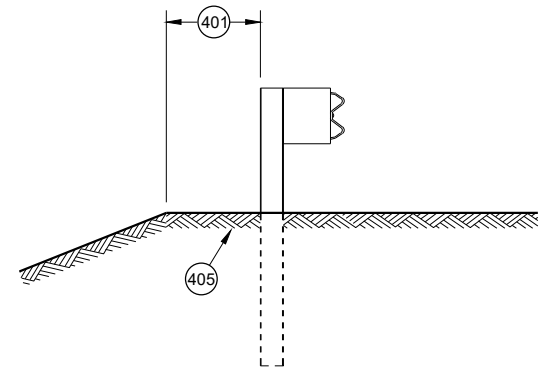


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

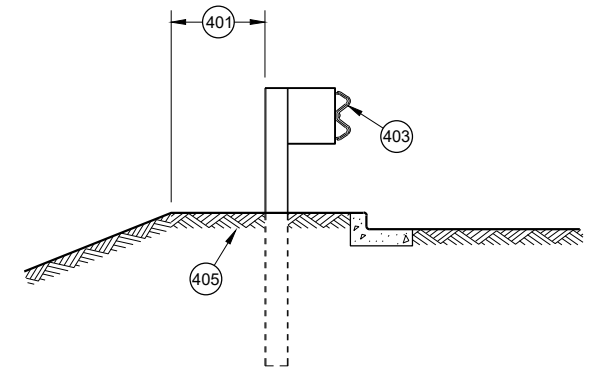


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- 400 MAX SPAN 12' - 6"
- 401 2' MIN.
- 402 MGS GUARDRAIL 3
- 403 NESTING BEAM GUARD
- 404 ASYMMETRIC TRANSITION
- 405 SOIL WELL DRAINED AND COMPACTED
- 406 SEE OTHER DRAWINGS IN THIS SDD
- 407 SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- 408 SEE SDD 14B44
- 409 SEE SDD 14B45
- 410 SEE SDD 14B47
- 411 MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A



SECTION B - B

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
 - (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
 - (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
 - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
 - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

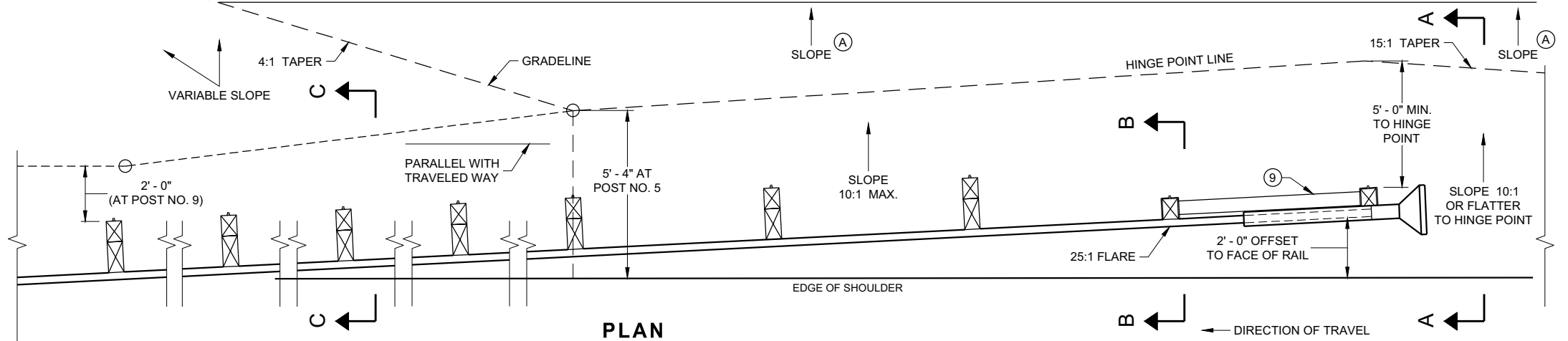
* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

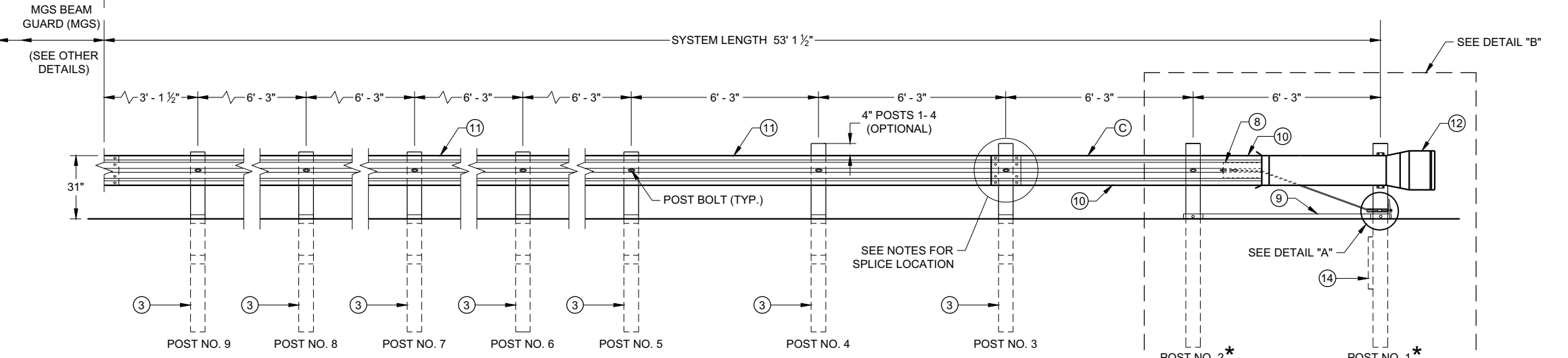
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

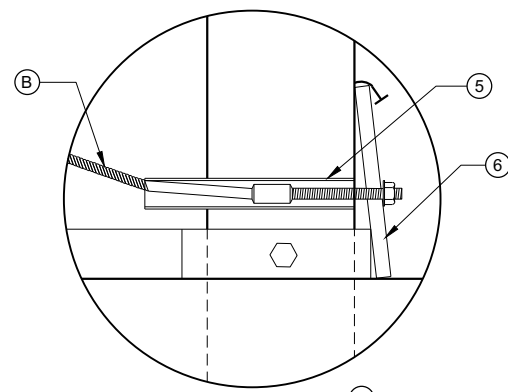
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



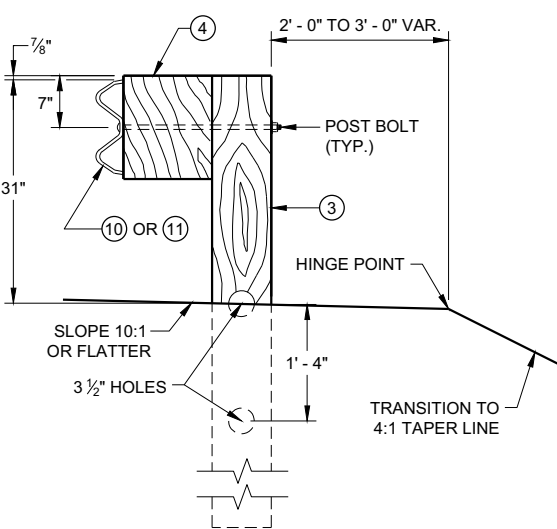
PLAN



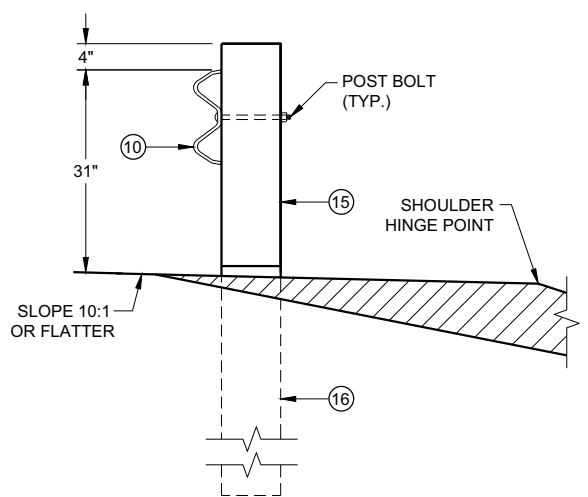
ELEVATION



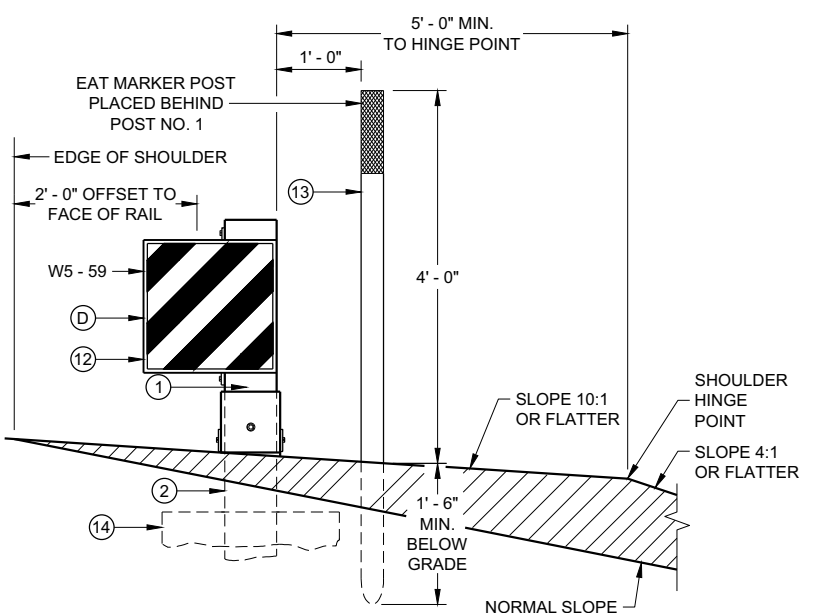
DETAIL "A"



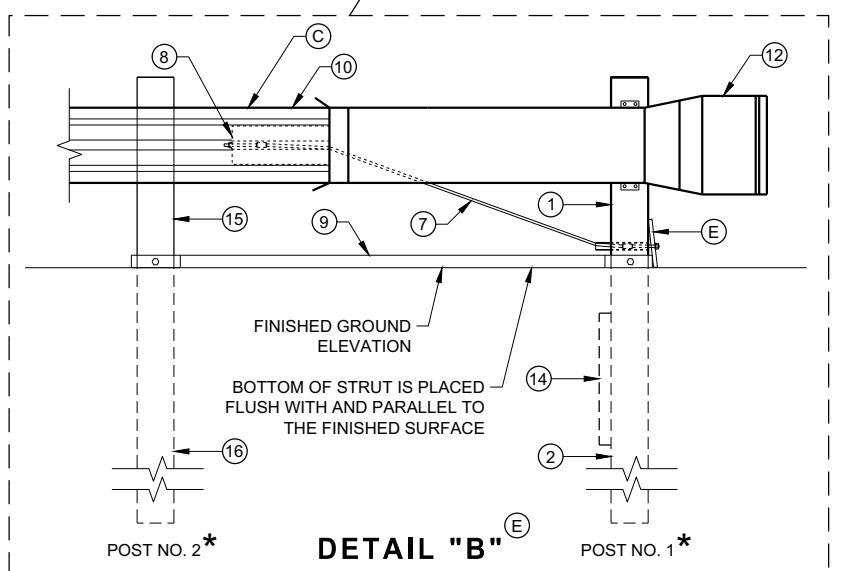
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B
TYPICAL AT POST NO. 2***



**SECTION A - A
TYPICAL AT POST NO. 1***



DETAIL "B"

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

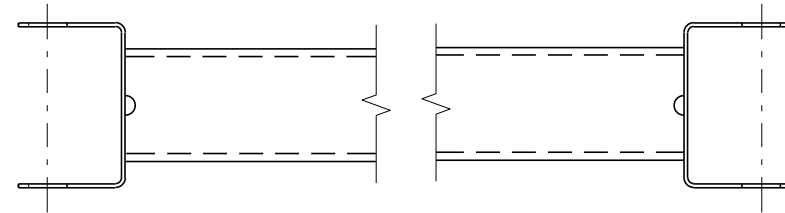
6

SDD 14B44 - 04a

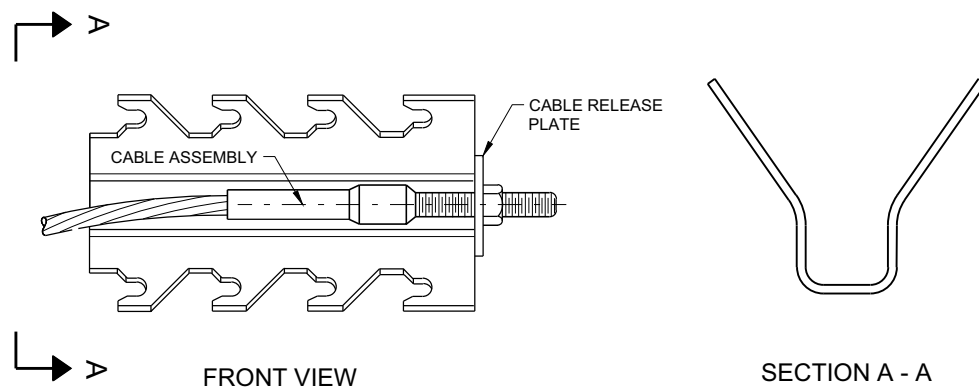
SDD 14B44 - 04a

BILL OF MATERIALS

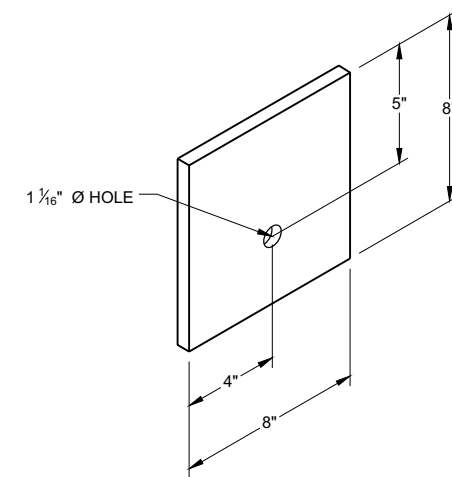
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC GROUND STRUT ⑨ ⑤



GENERIC ANCHOR CABLE BOX ⑨ ⑤



BEARING PLATE ⑥ ⑤

6

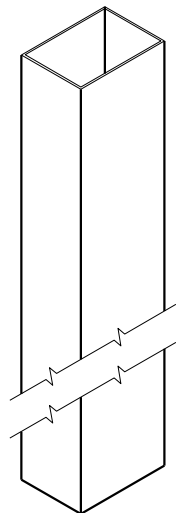
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SDD 14B44 - 04b

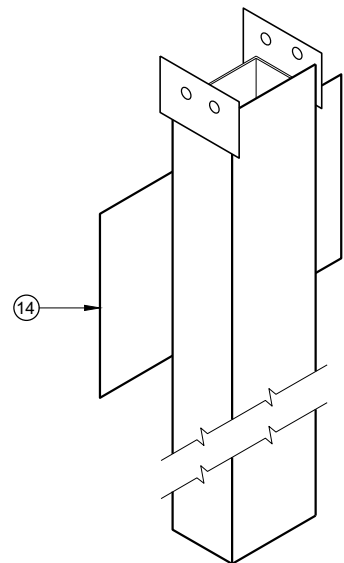
SDD 14B44 - 04b

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

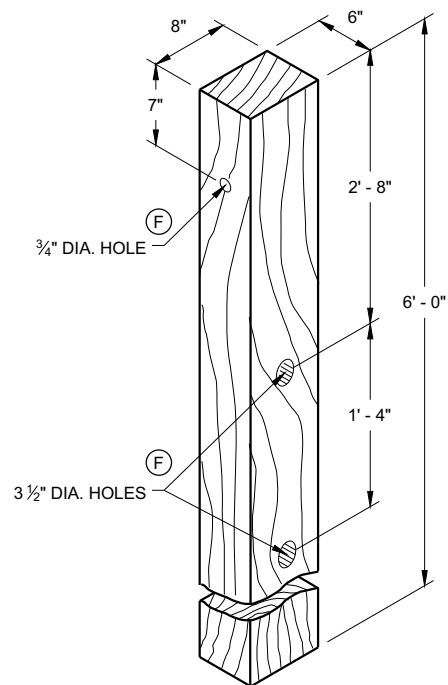
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



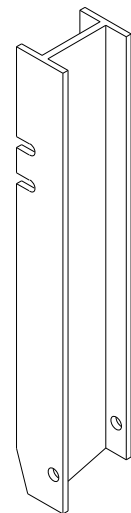
UPPER POST NO. 1 ⁽¹⁾ (E)



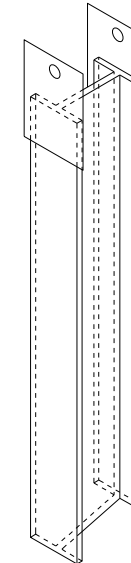
LOWER POST NO. 1 ⁽²⁾ (E)



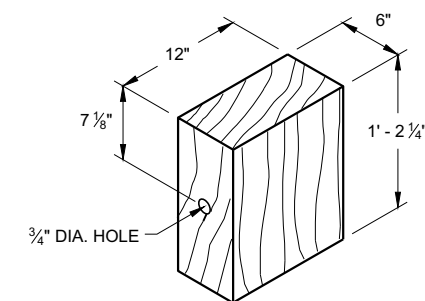
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

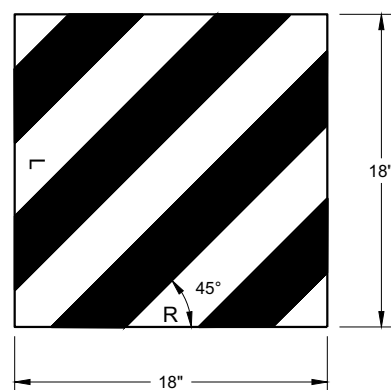


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

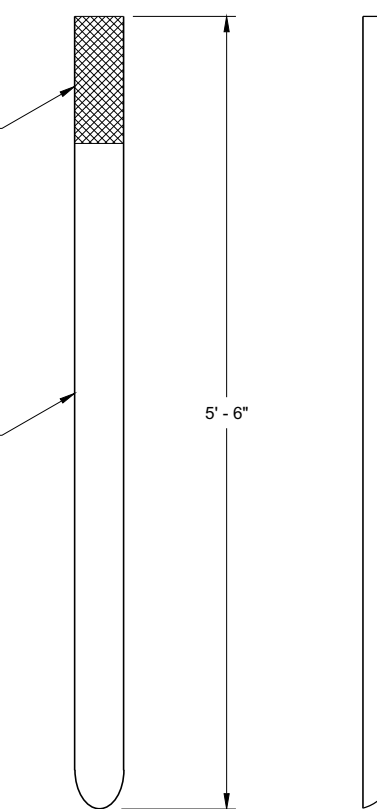
6



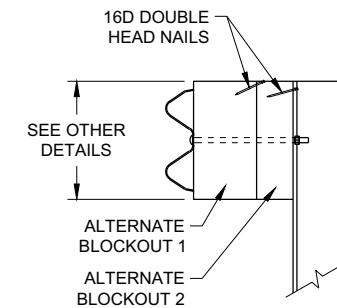
REFLECTIVE SHEETING DETAIL ^(E)

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

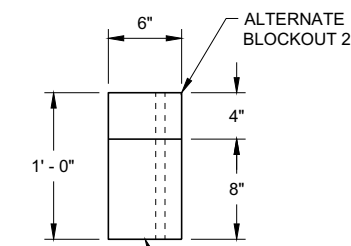
E.A.T. MARKER
POST (YELLOW)



FRONT VIEW SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

6

SDD 14B44 - 04c

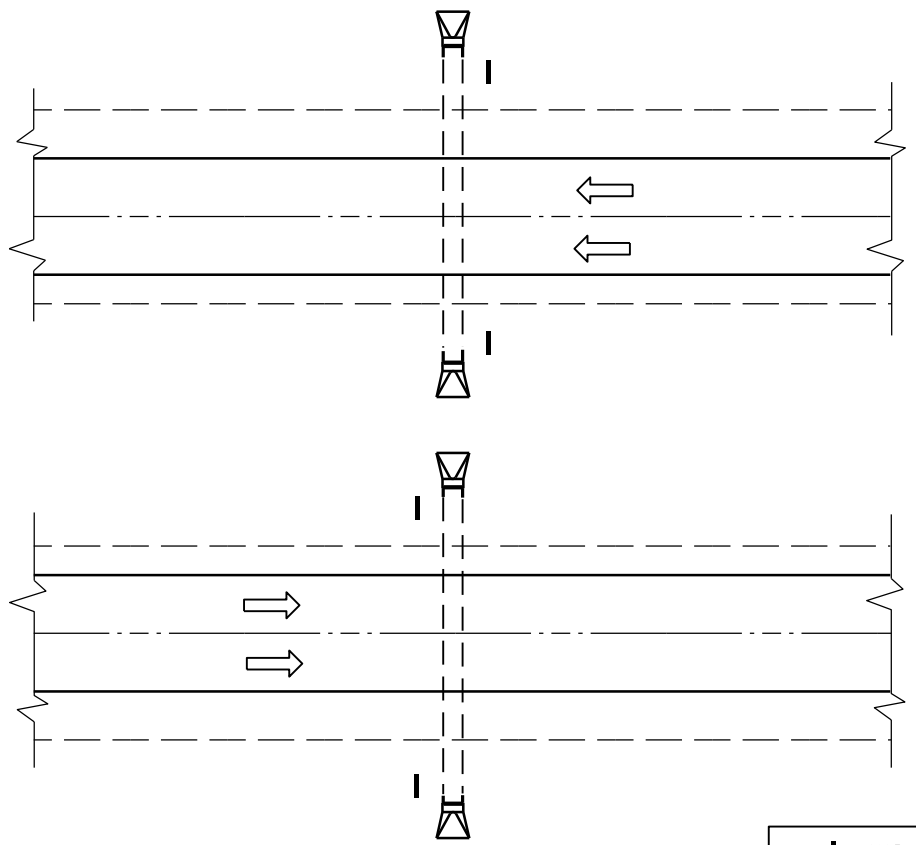
SDD 14B44 - 04c

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

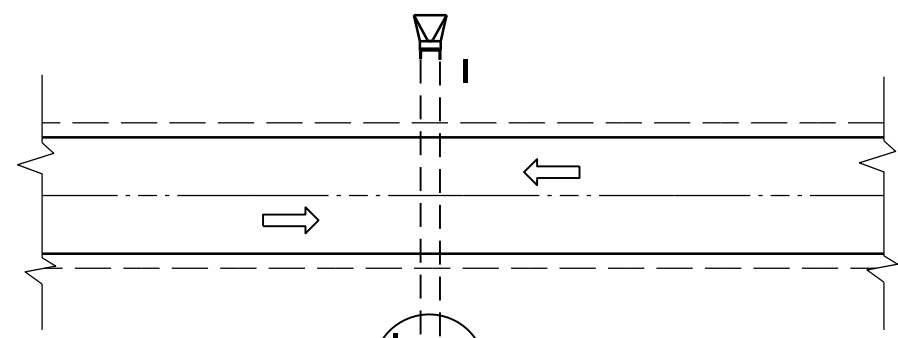
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

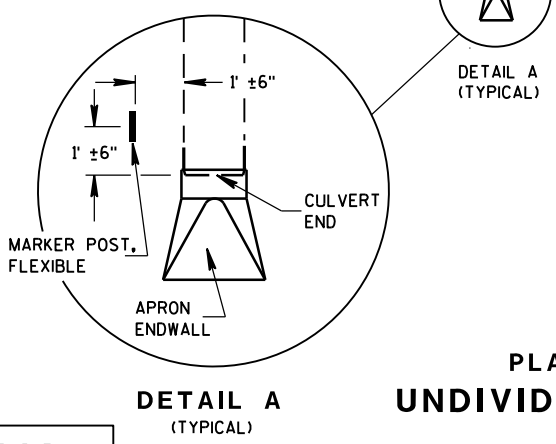
FHWA



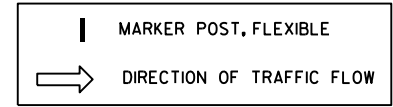
PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

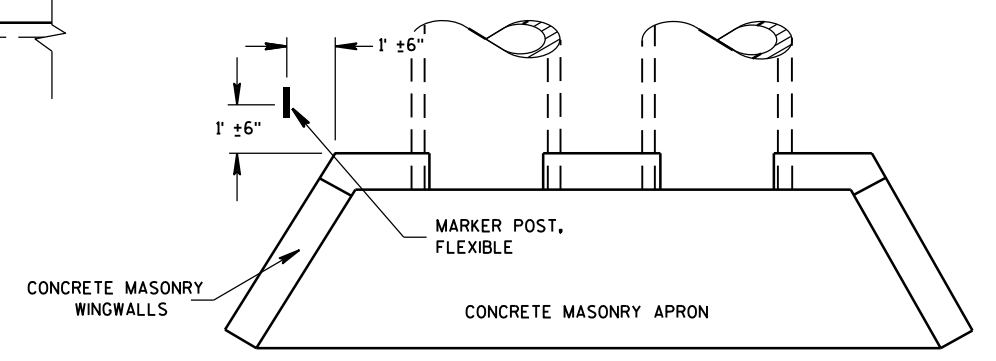


DETAIL A
(TYPICAL)



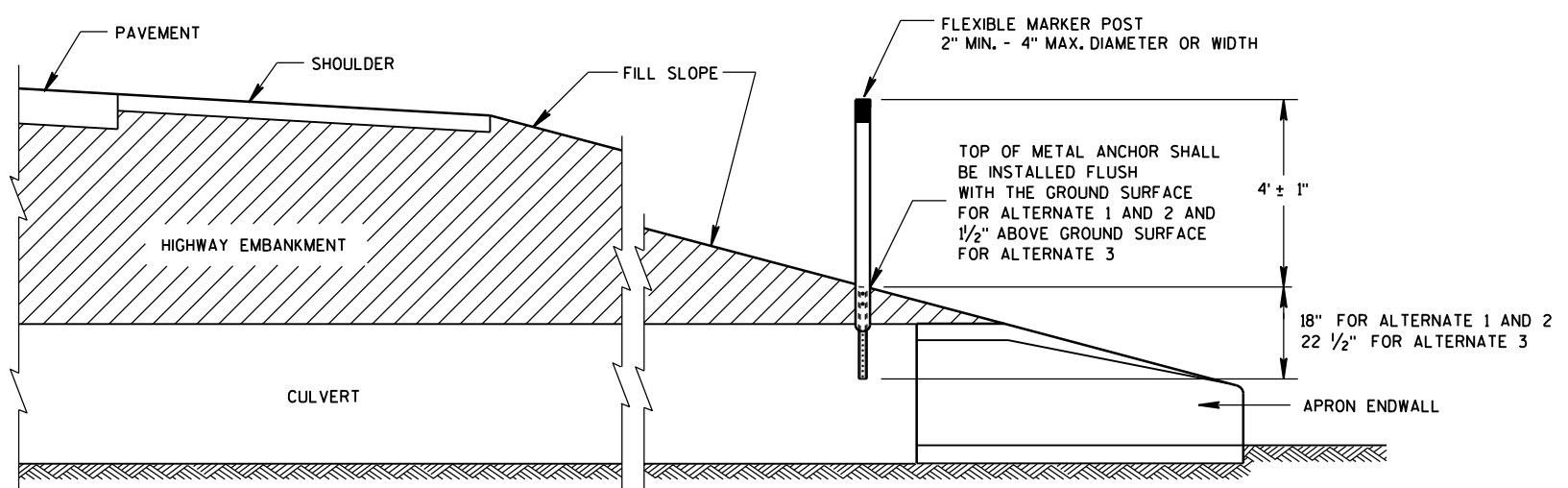
GENERAL NOTES

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.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

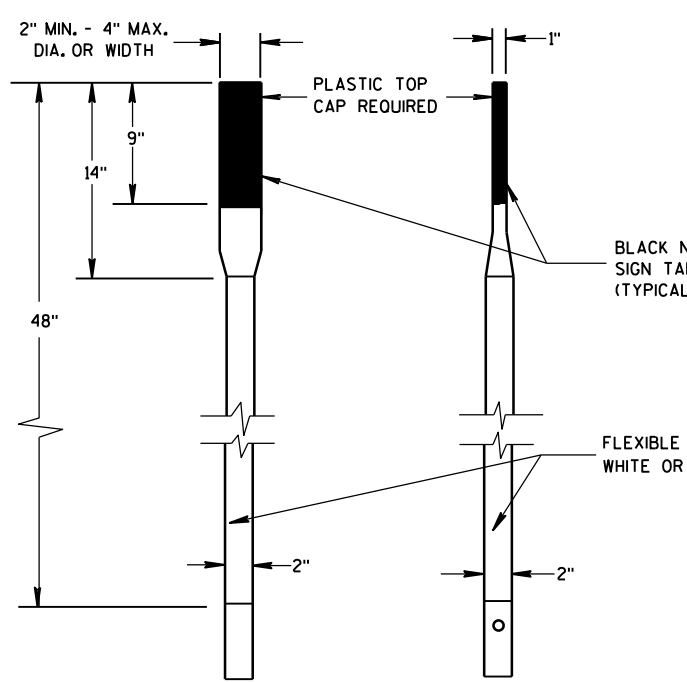
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

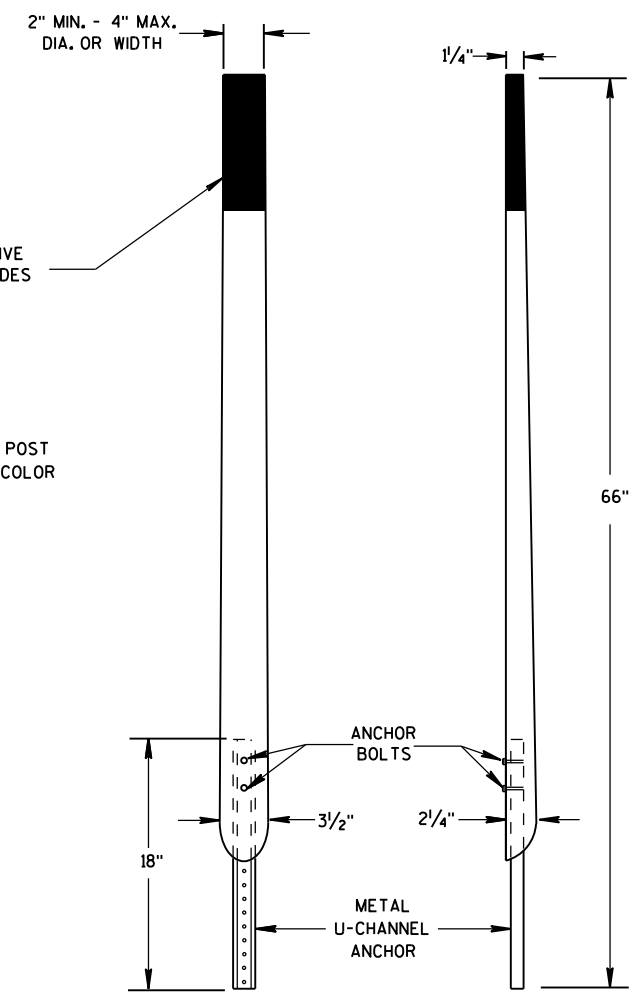
6

S.D.D. 15 A 3-2a

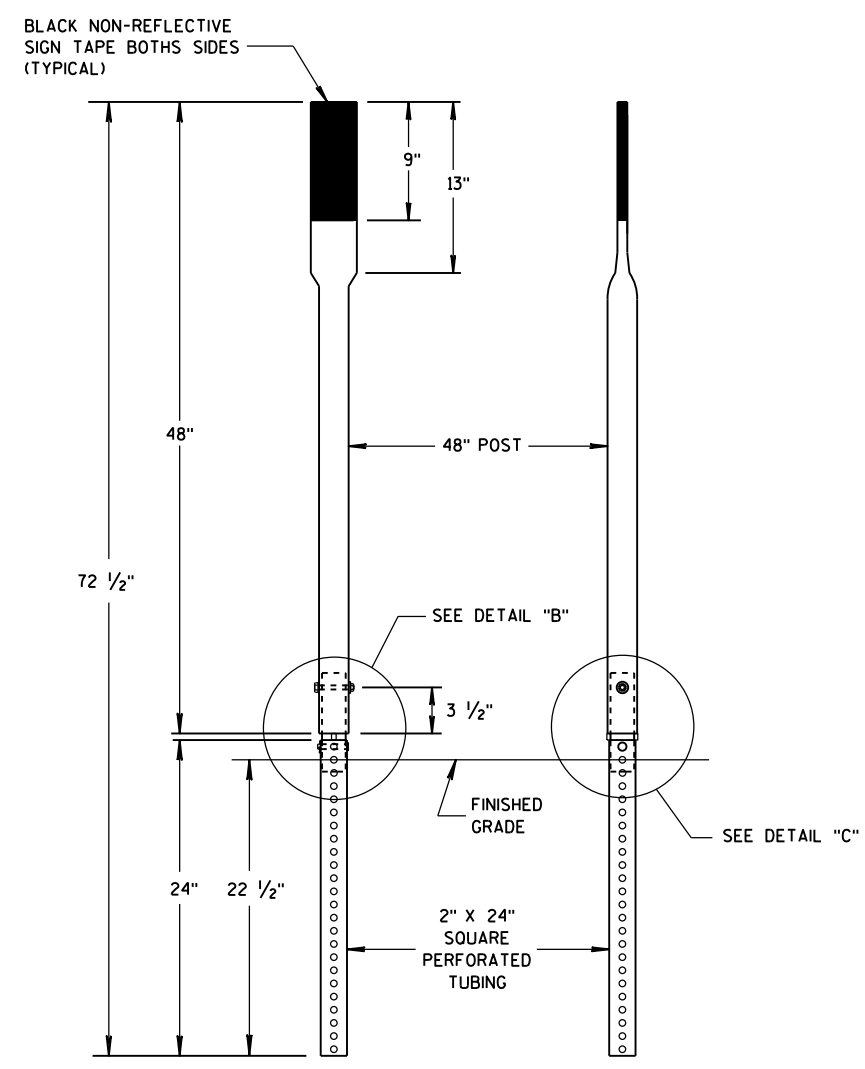
S.D.D. 15 A 3-2a



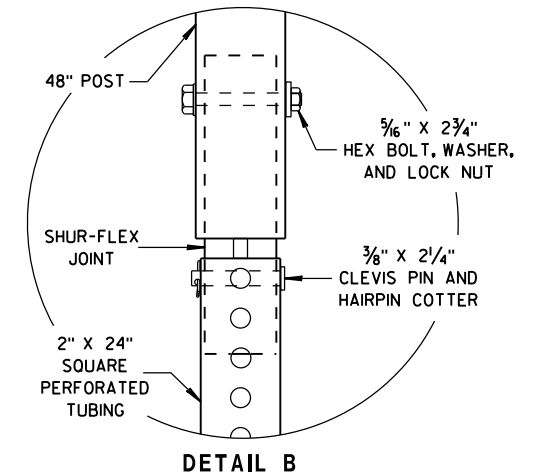
FRONT VIEW SIDE VIEW
ALTERNATE 1



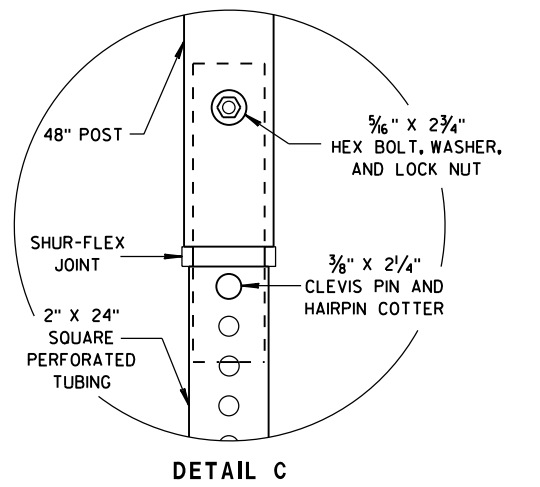
FRONT VIEW SIDE VIEW
ALTERNATE 2



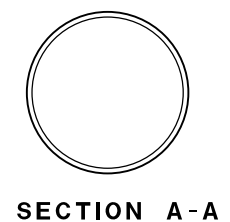
FRONT VIEW SIDE VIEW
ALTERNATE 3



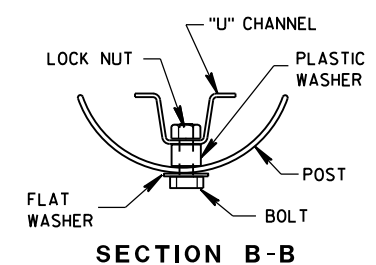
DETAIL B



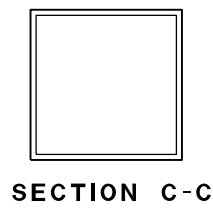
DETAIL C



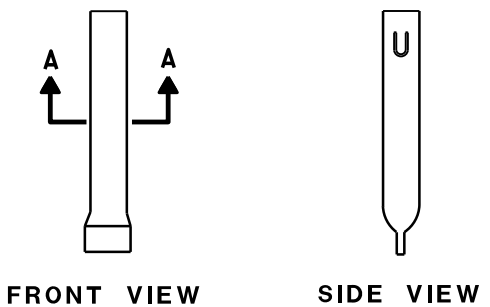
SECTION A-A



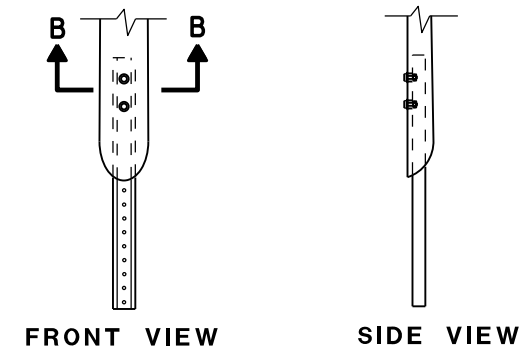
SECTION B-B



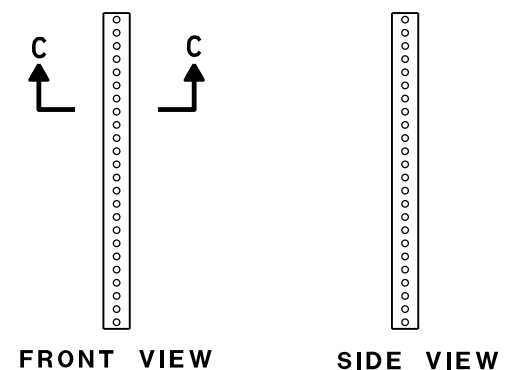
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



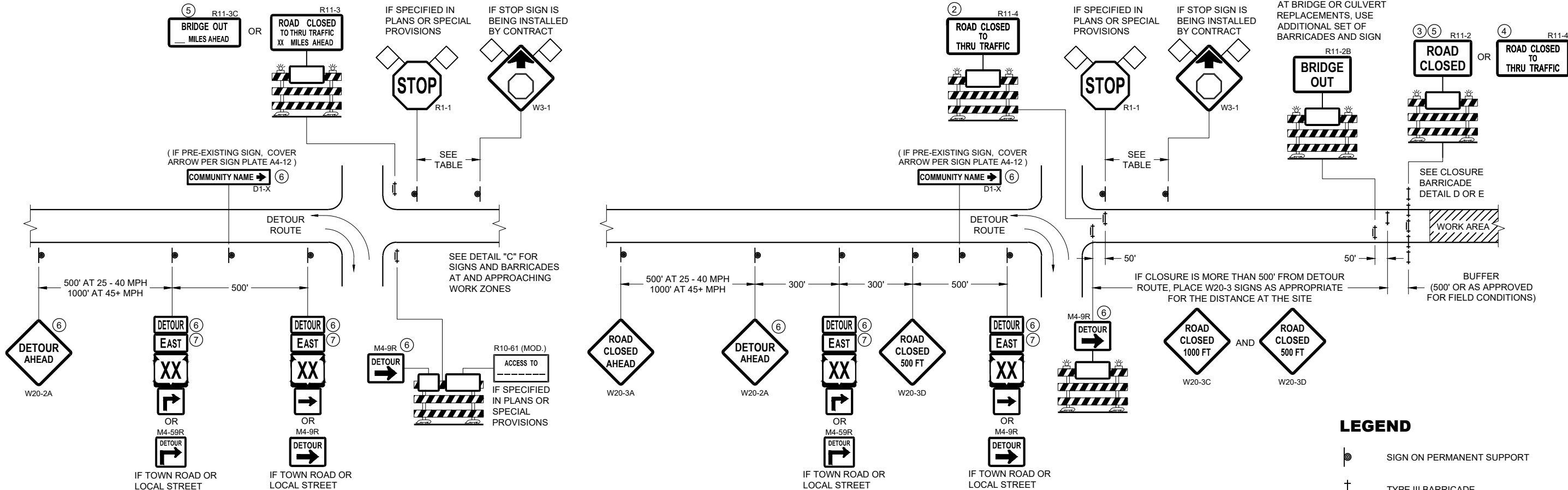
FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

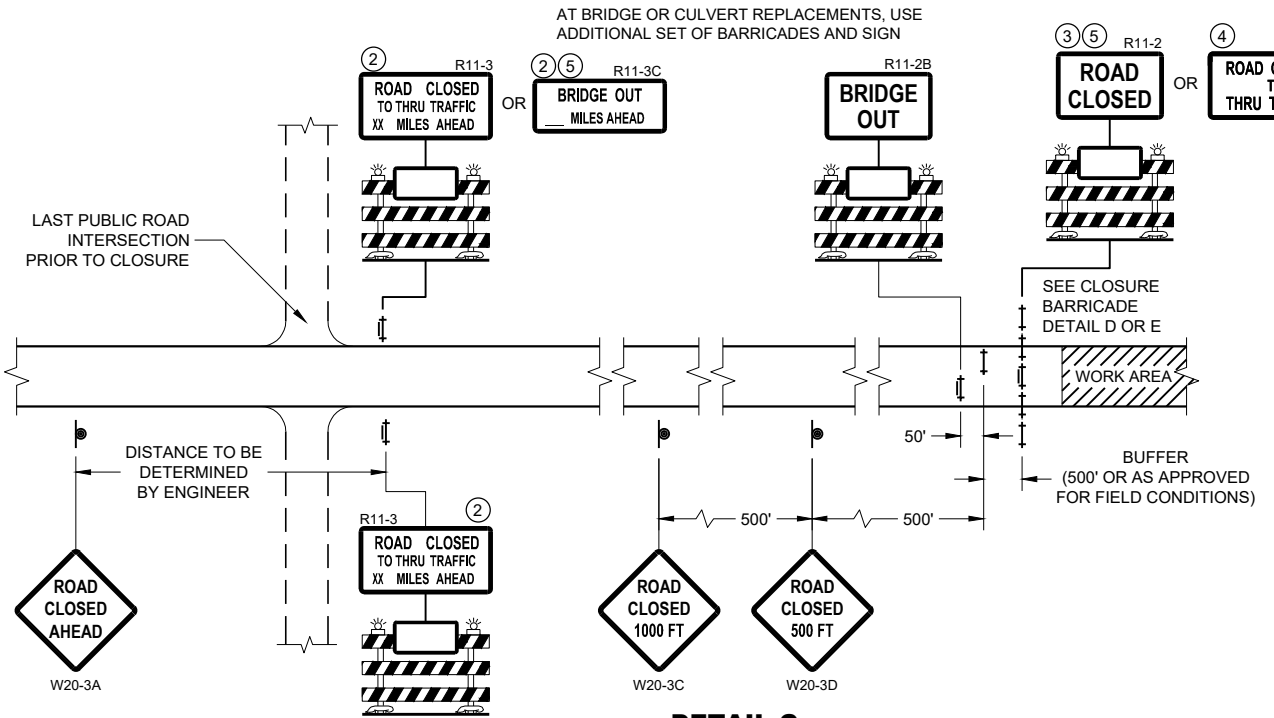
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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)
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1

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

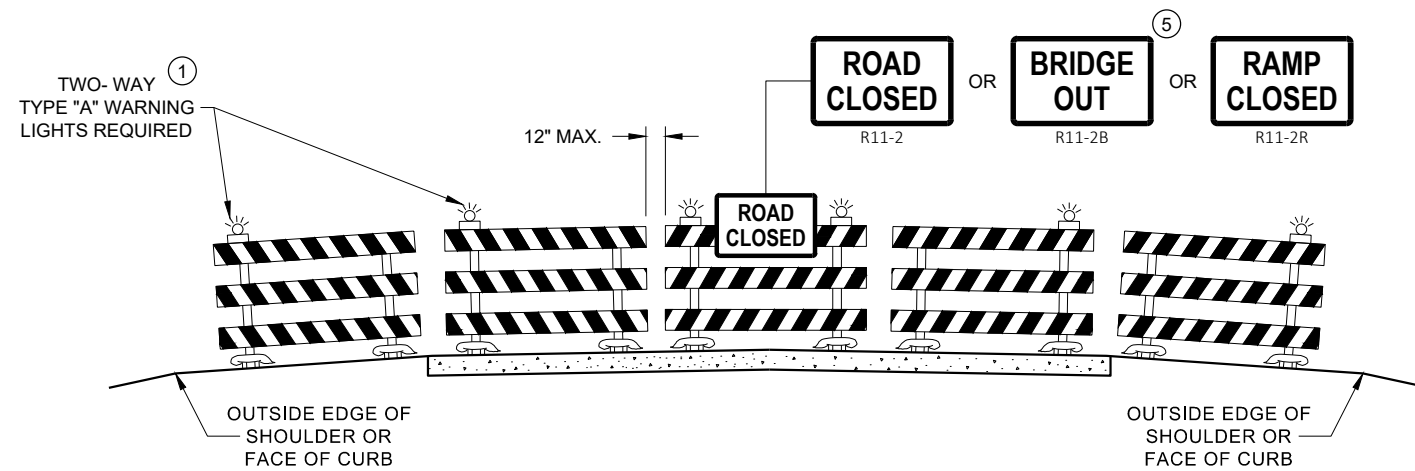


**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

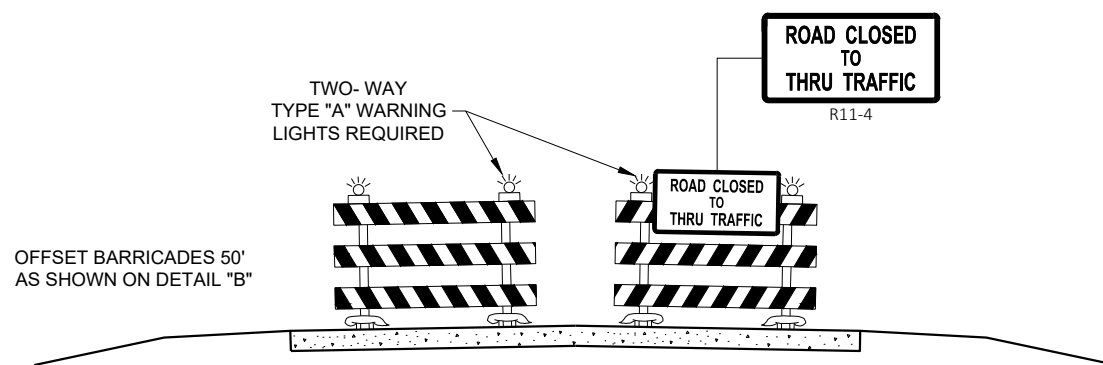
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER
FHWA



**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:

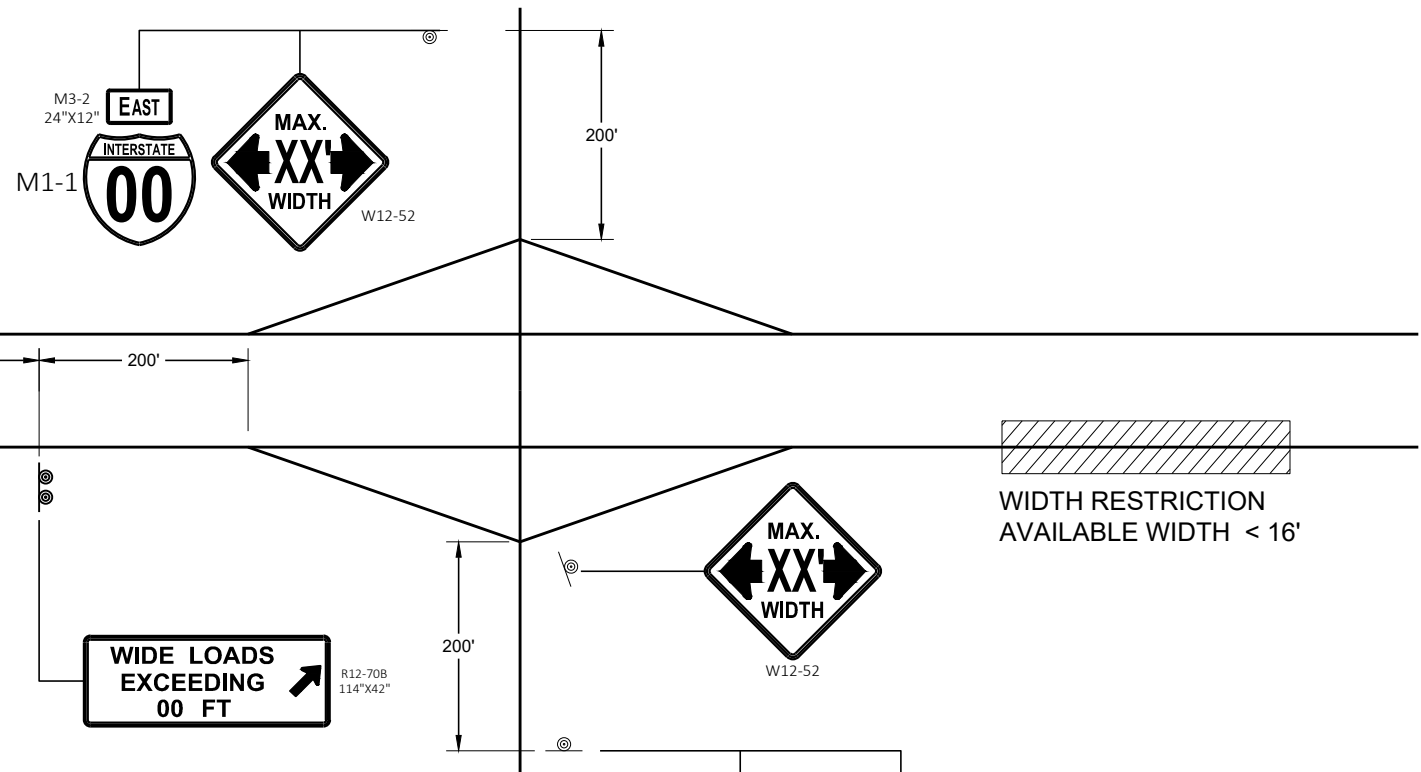
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" 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.

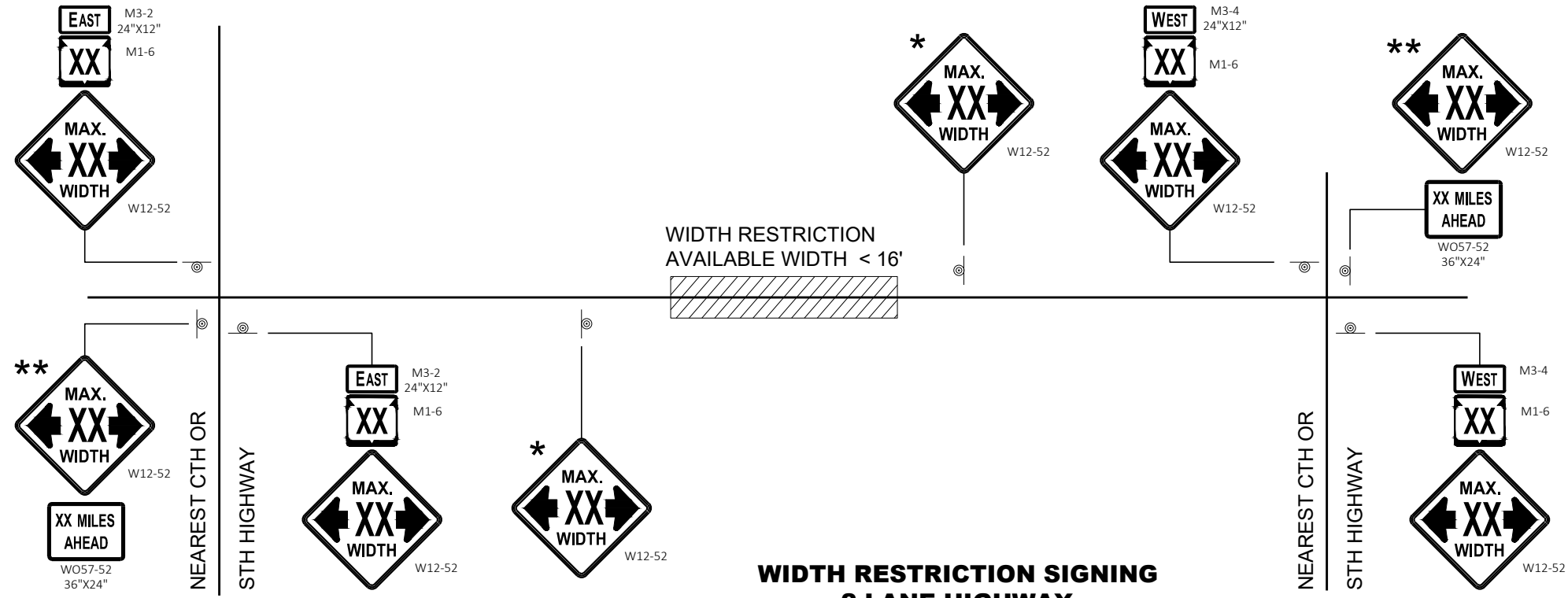
**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER



WIDTH RESTRICTION SIGNING



**WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY**

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

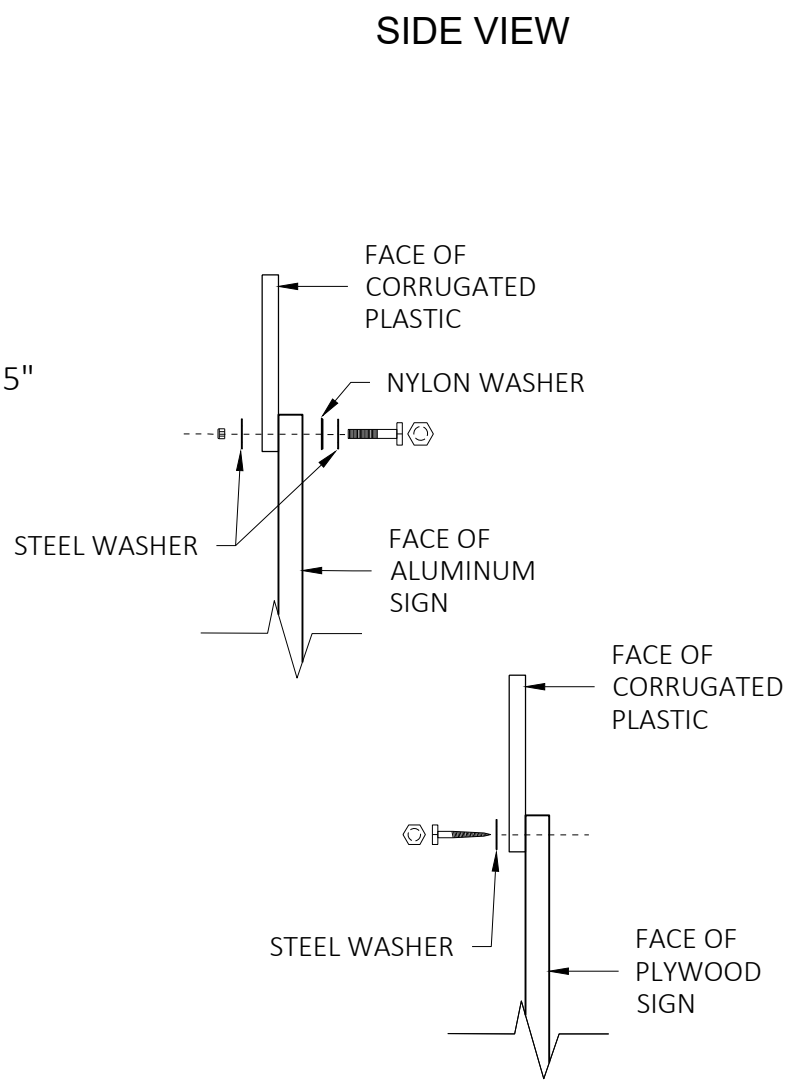
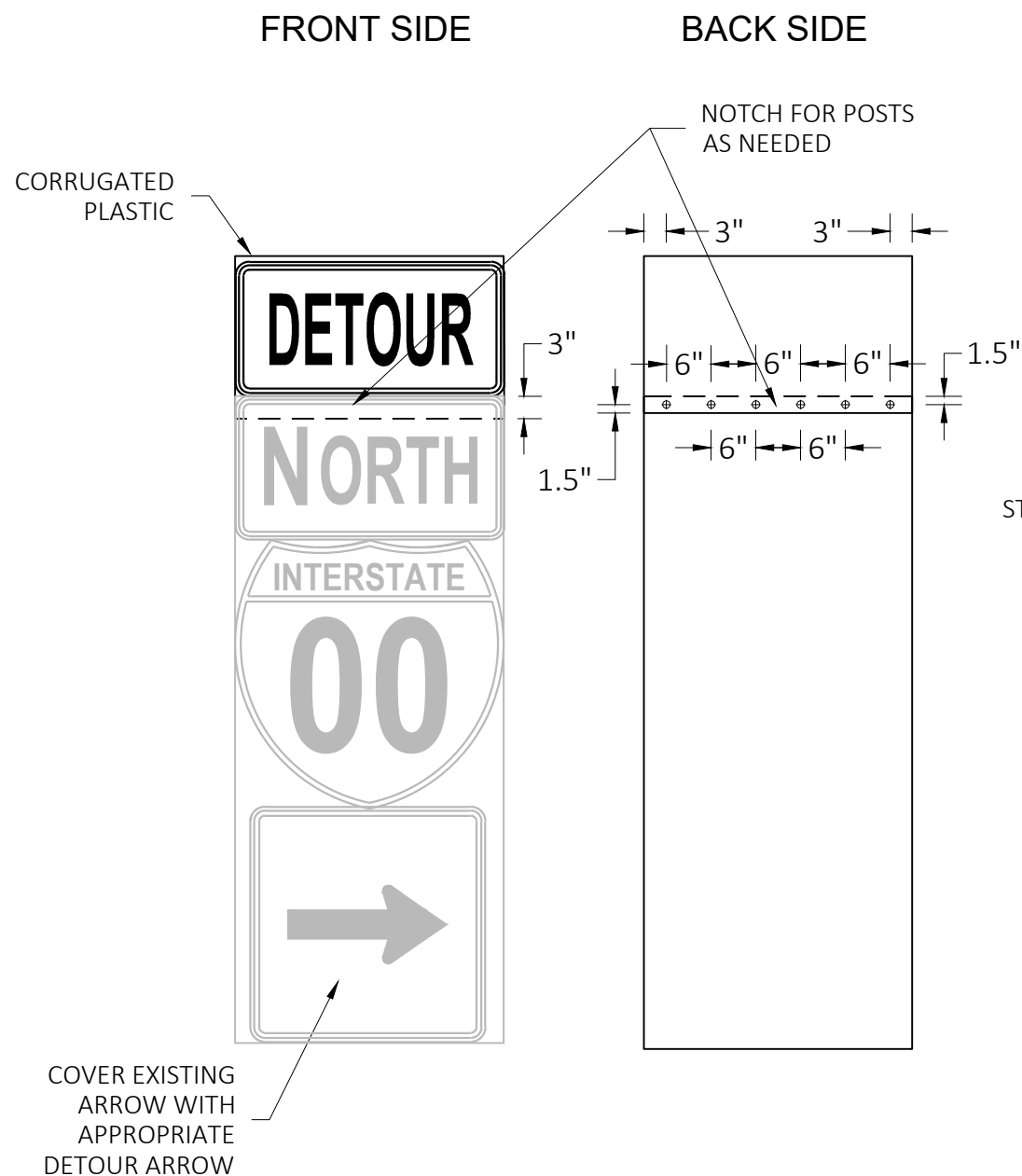


WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

**ADVANCED WIDTH
RESTRICTION SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Andrew Heidtke
DATE	May 2023
FHWA	WORK ZONE ENGINEER



GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:

LAG SCREWS - 5/16" x 1"

ALUMINUM SIGNS:

MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS

WASHERS:

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

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

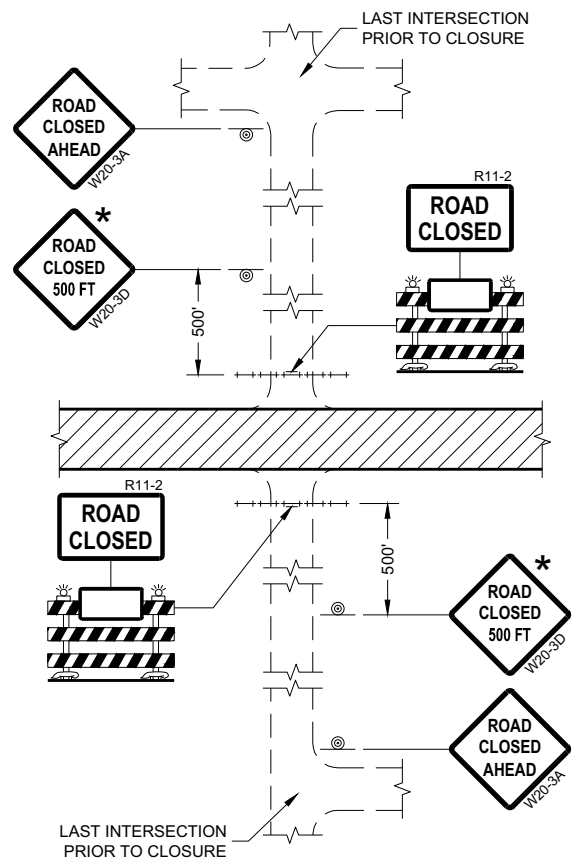
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

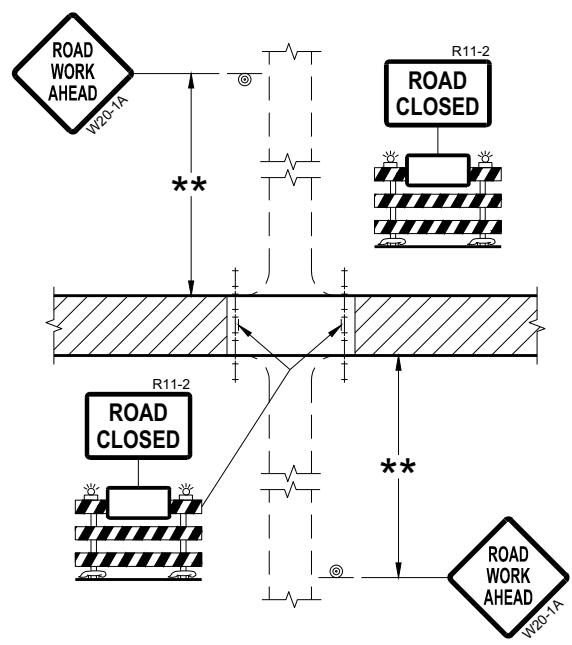
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

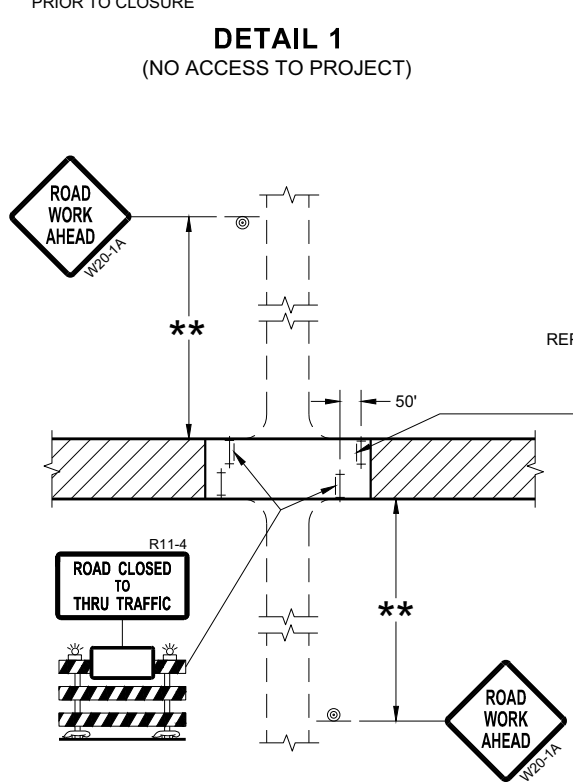
FHWA



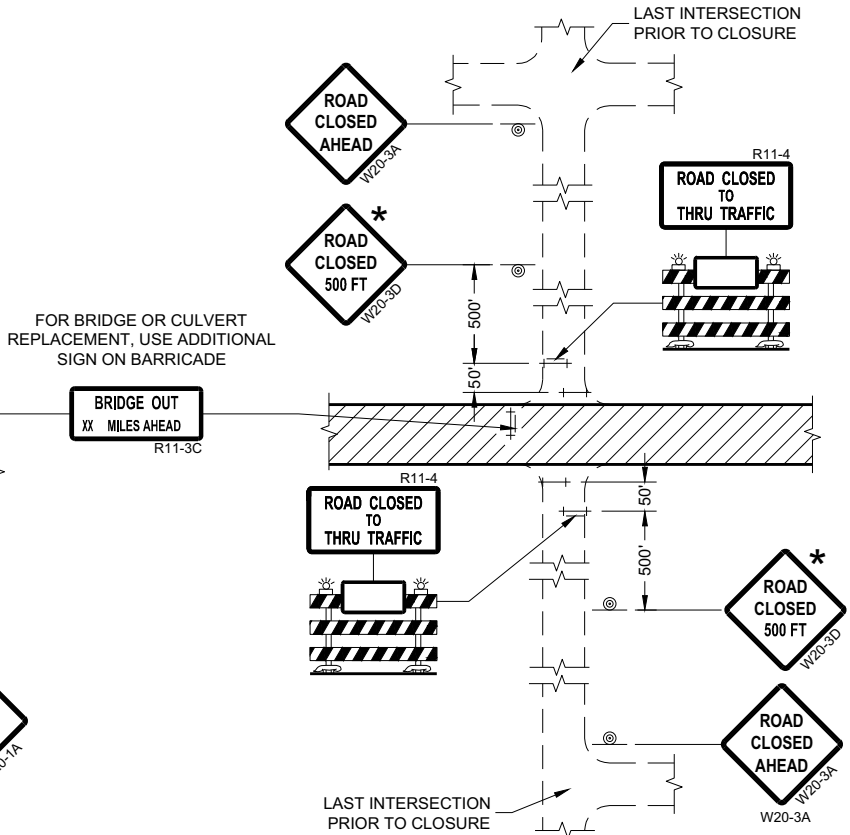
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT 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.

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 ENGINEER
FHWA	

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.

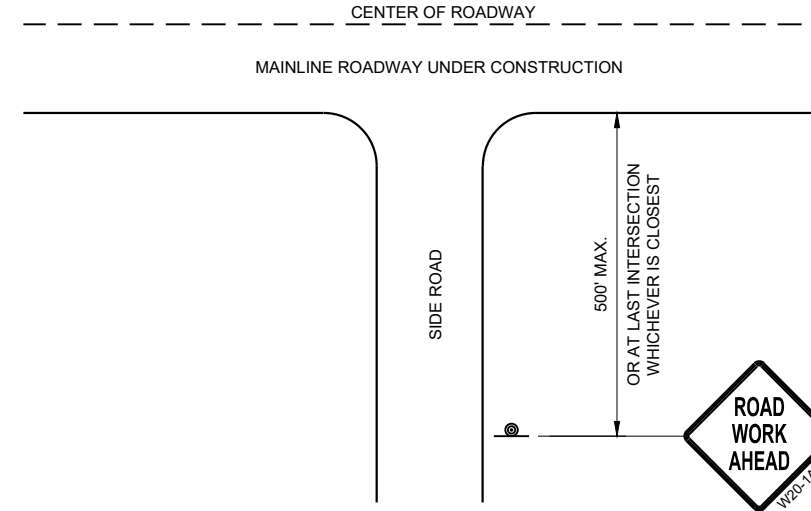
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

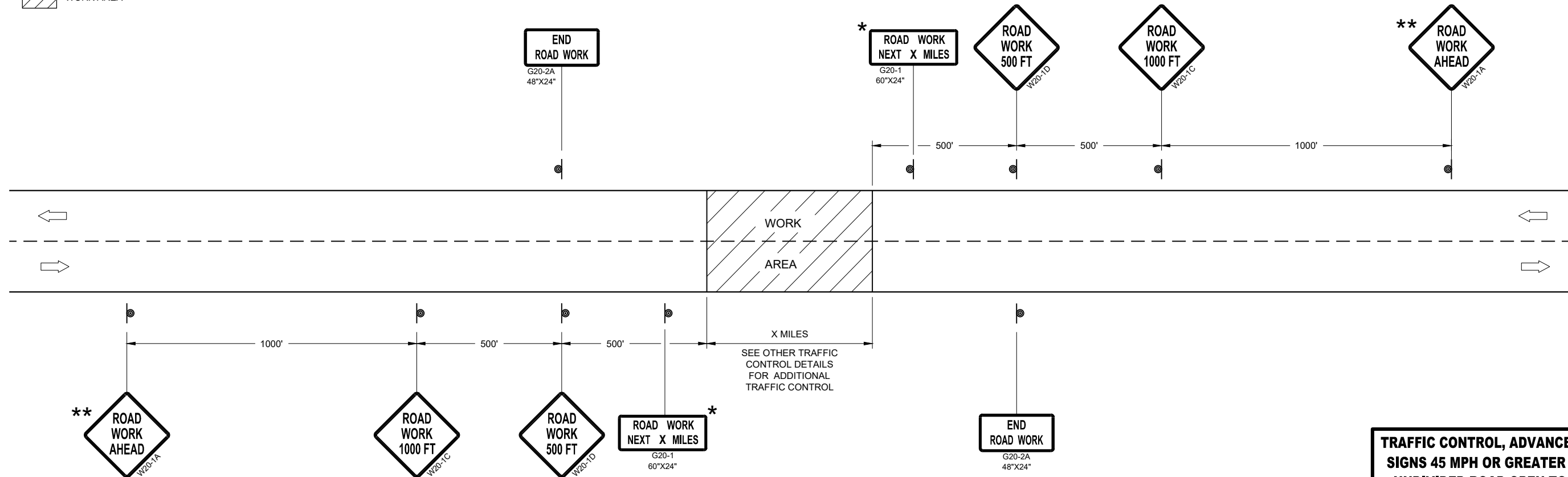
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



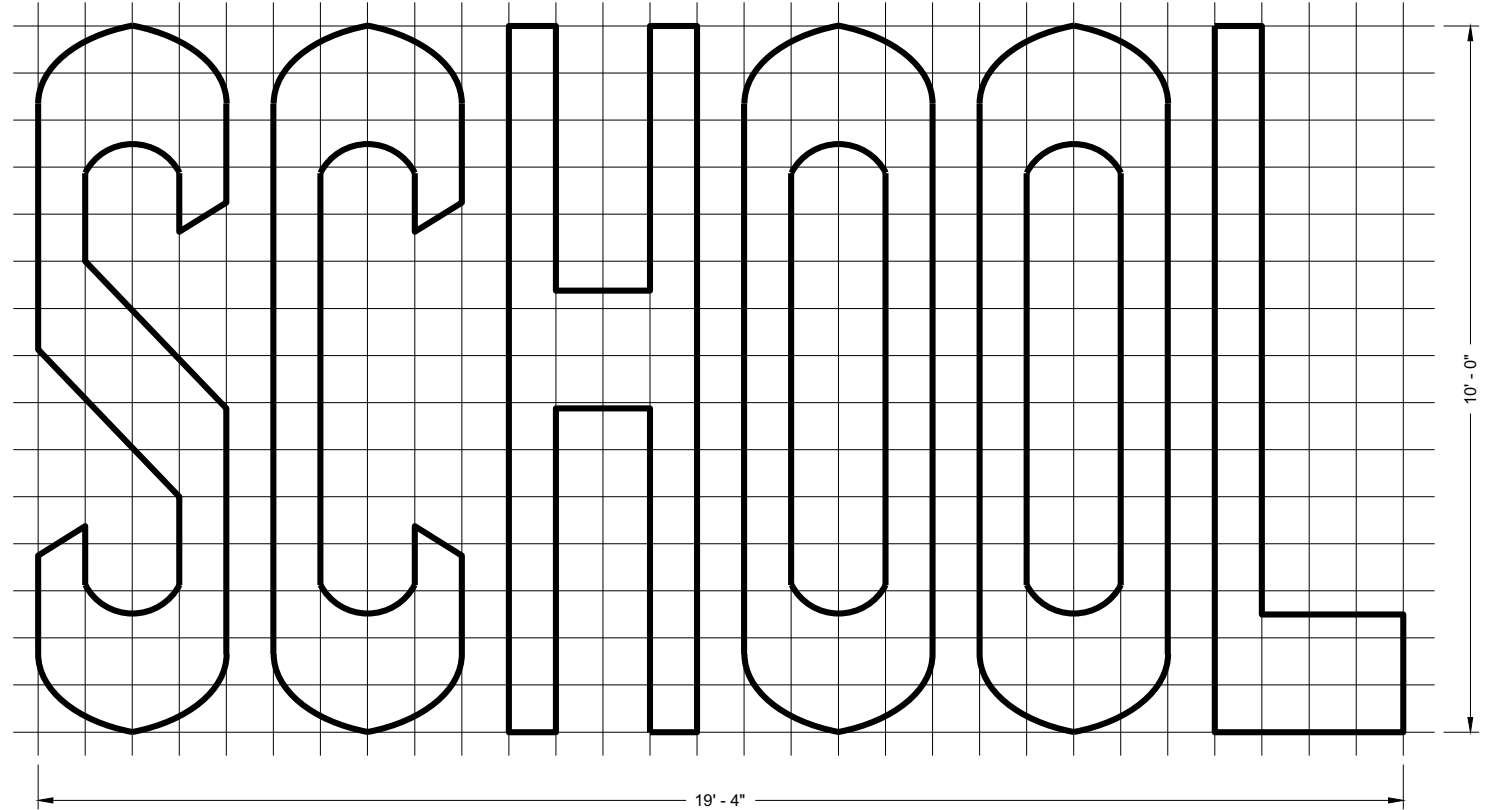
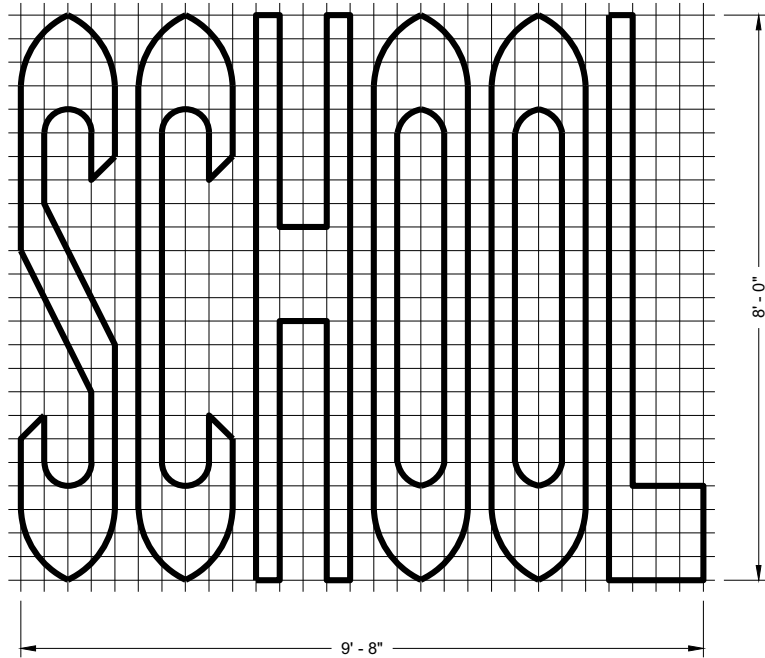
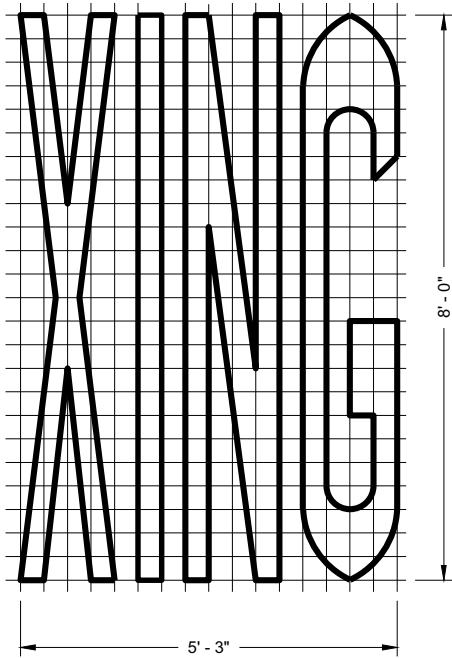
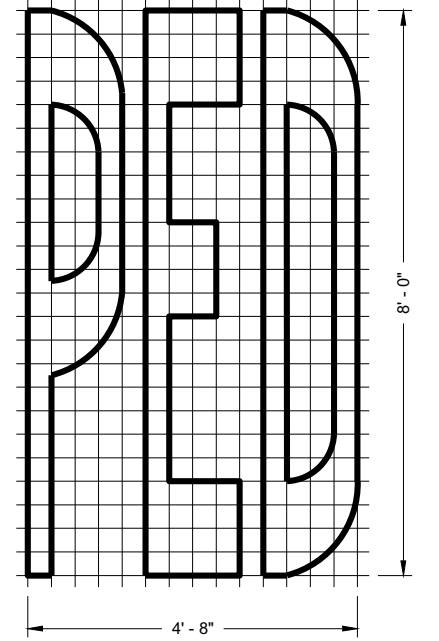
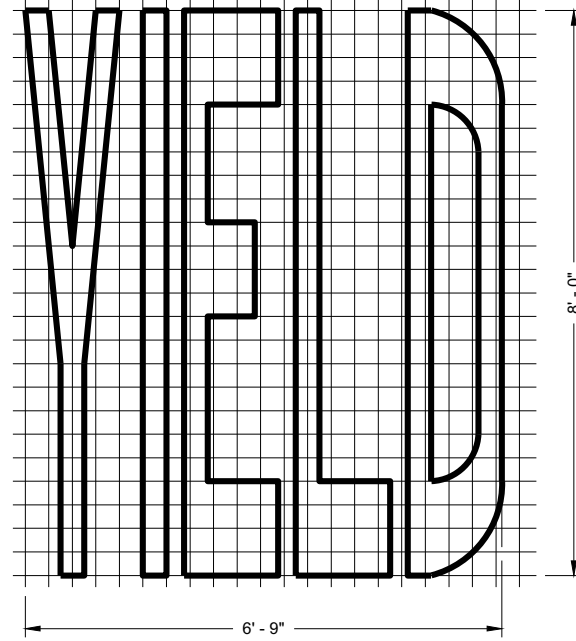
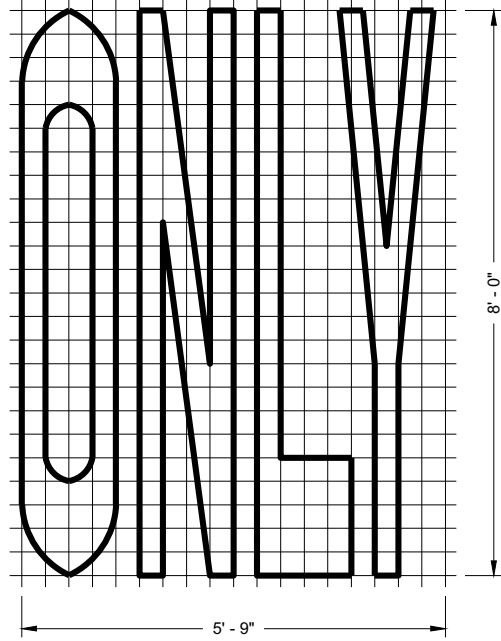
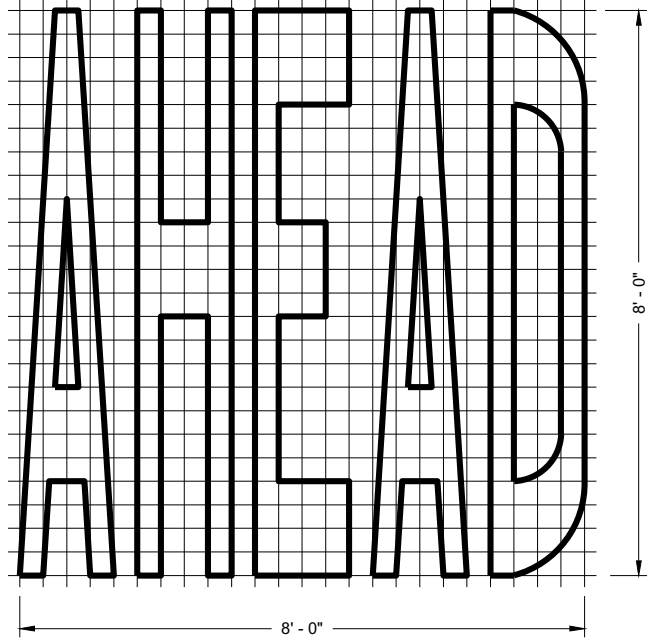
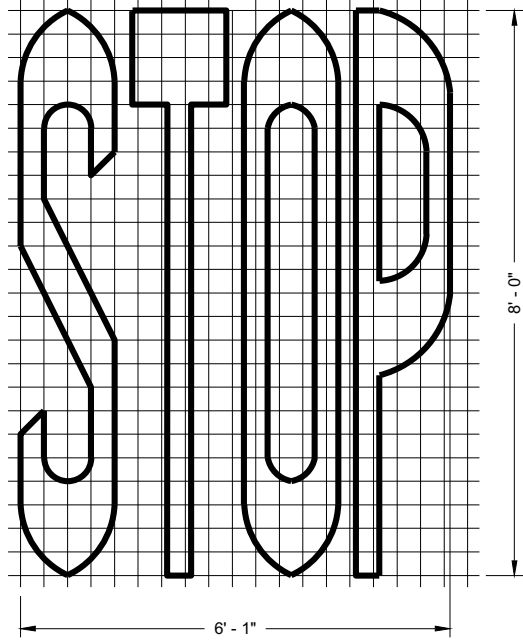
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ /S/ Andrew Heidtke
DATE July 2018 WORK ZONE ENGINEER

FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

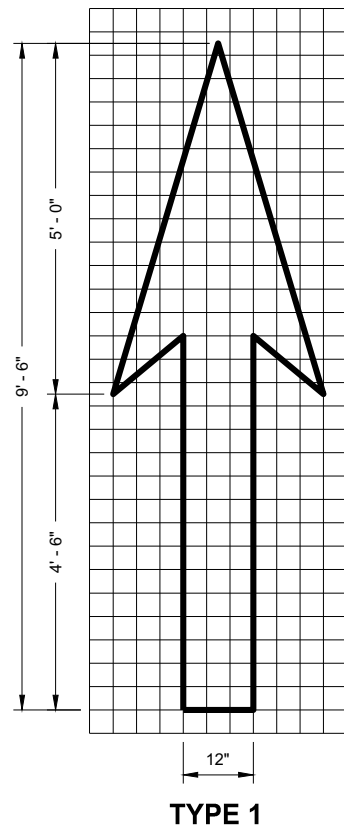
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

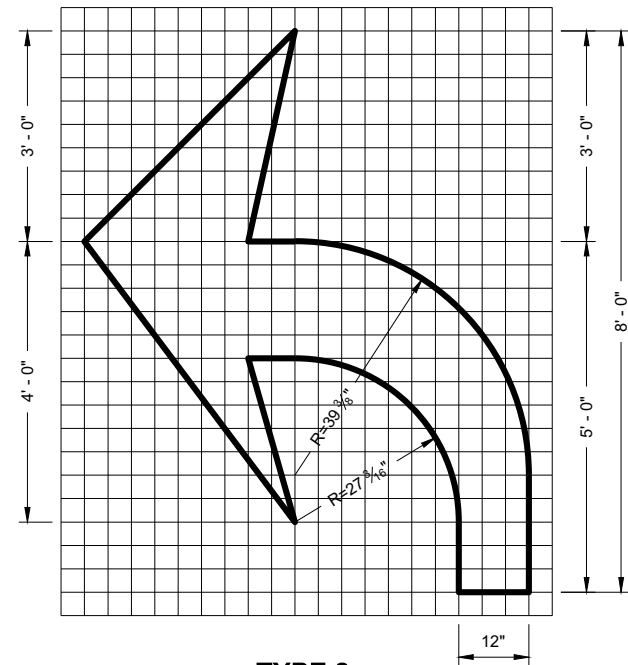
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

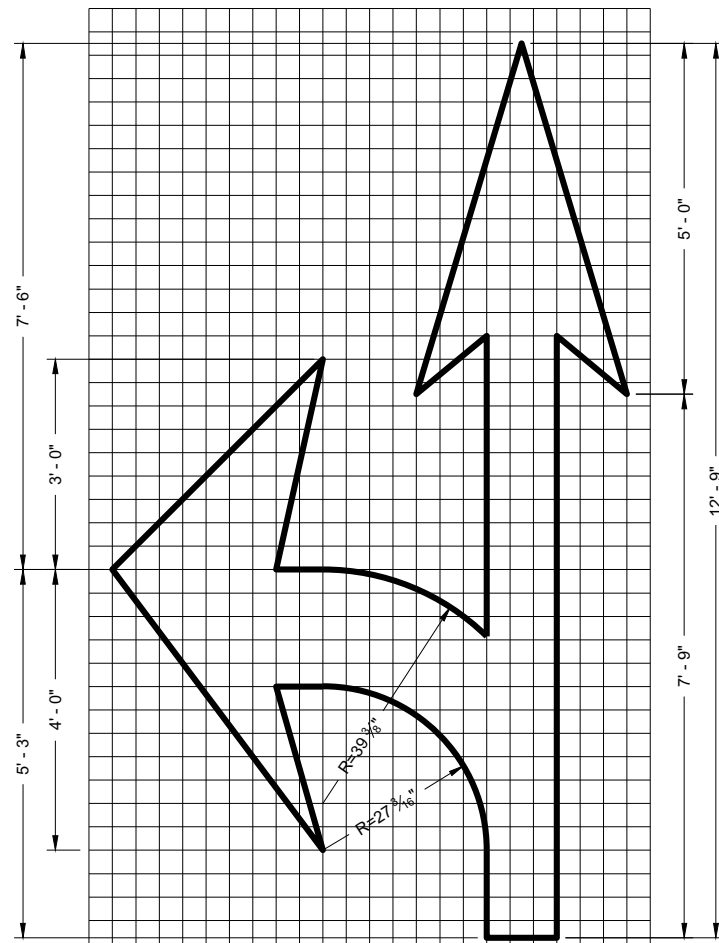
FHWA



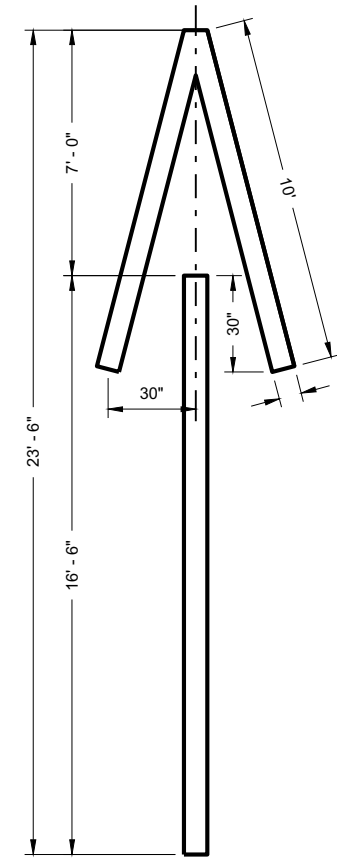
TYPE 1



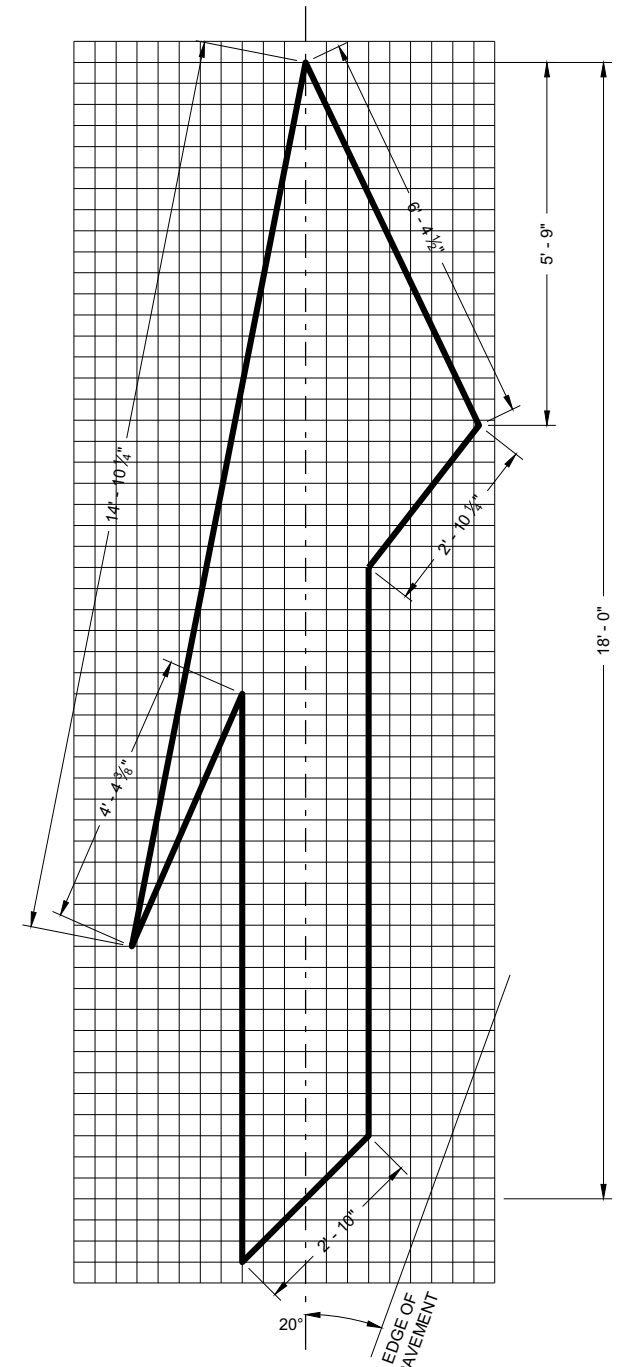
TYPE 2



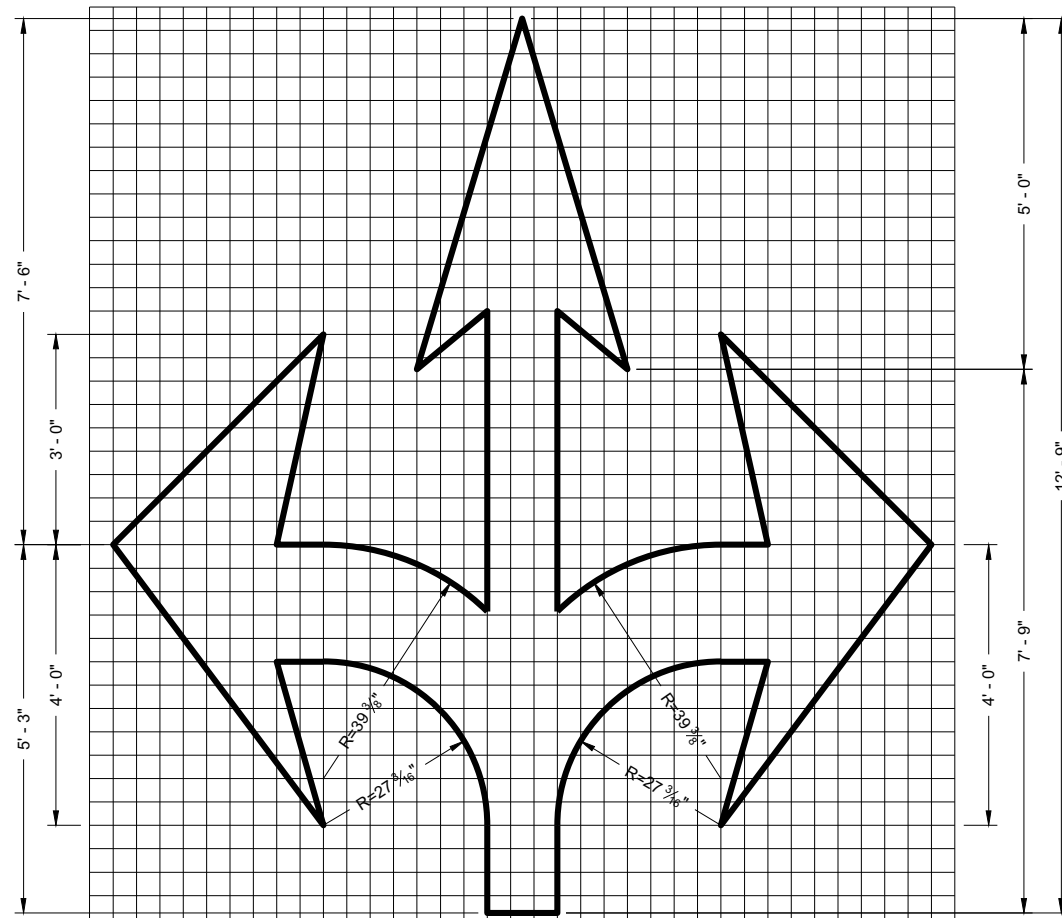
TYPE 3



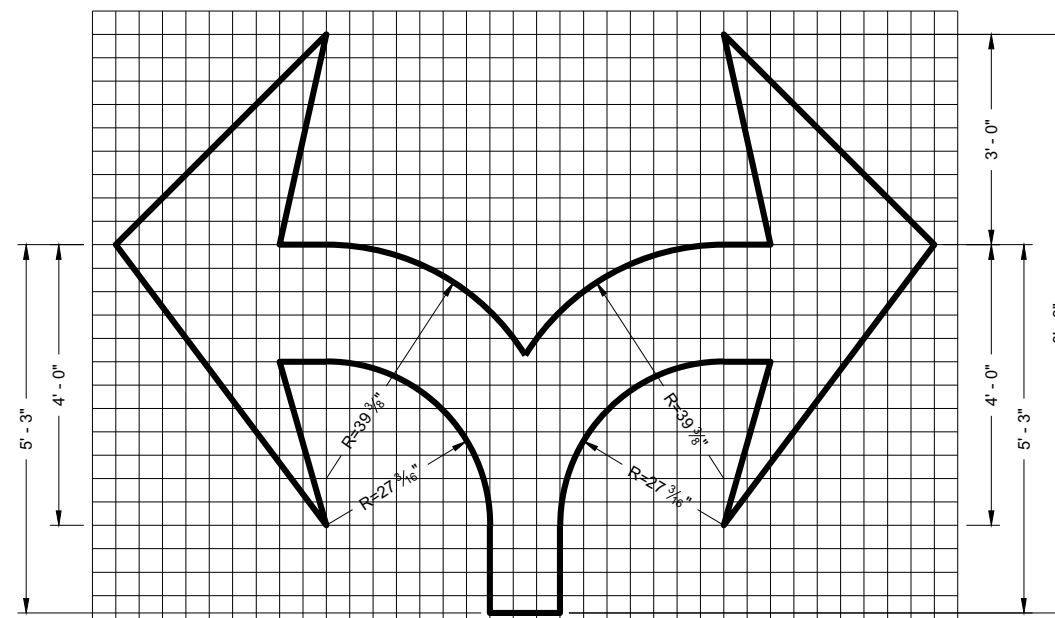
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

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 ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Matthew Rauch
November 2019	STATE SIGNING AND MARKING ENGINEER
DATE	




FHWA

GENERAL NOTES

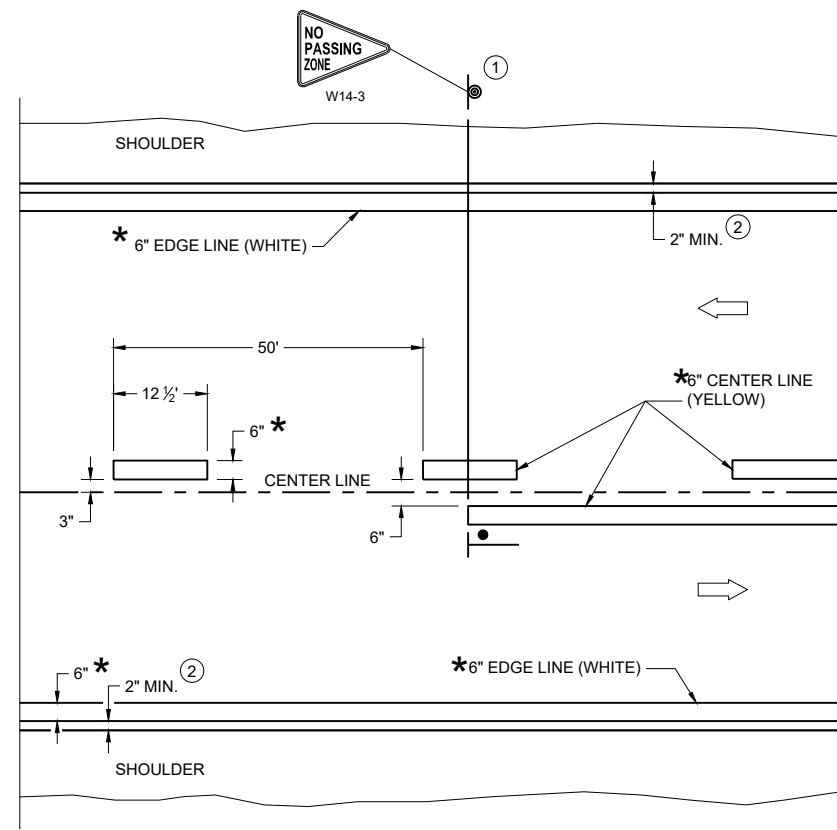
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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.

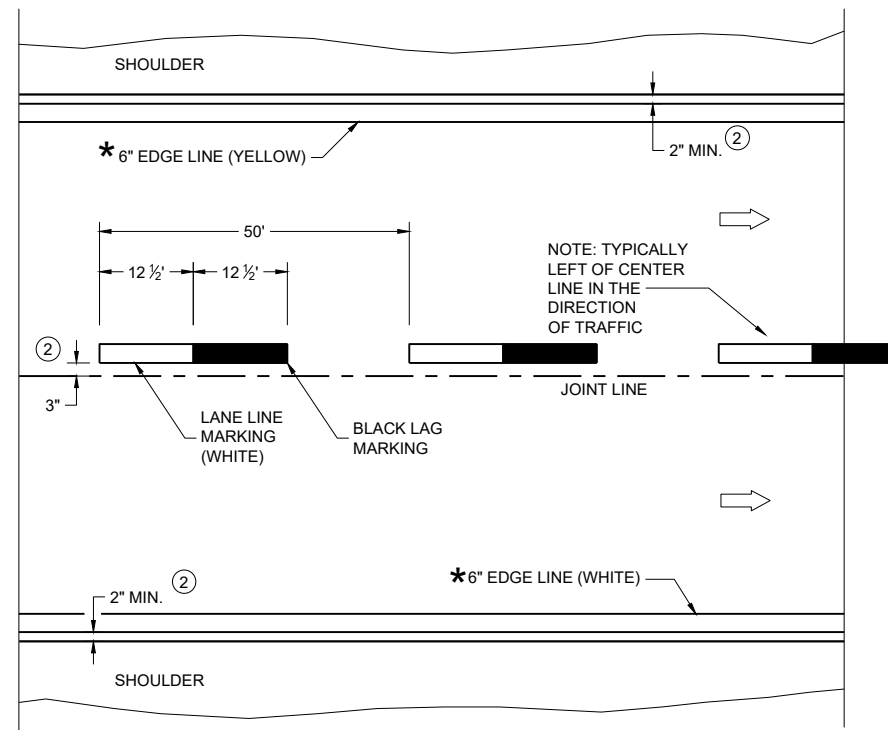
LEGEND

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

6

SDD 15C08-23a

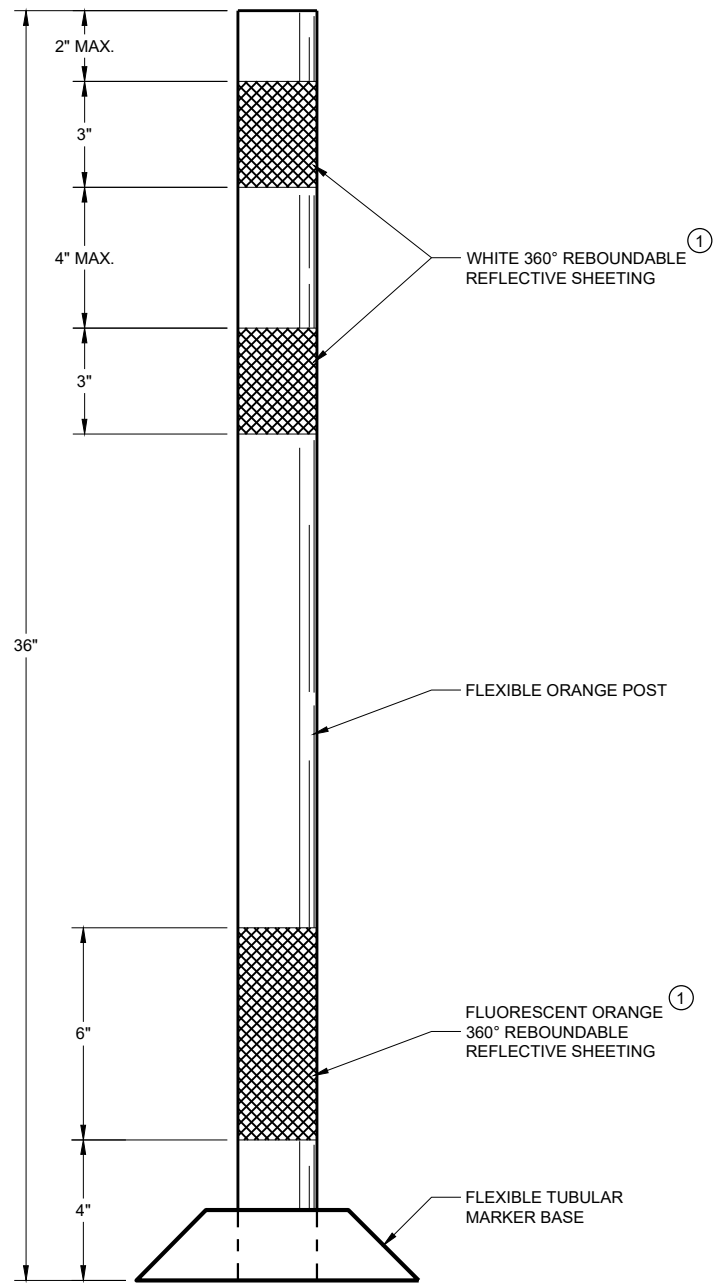
SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

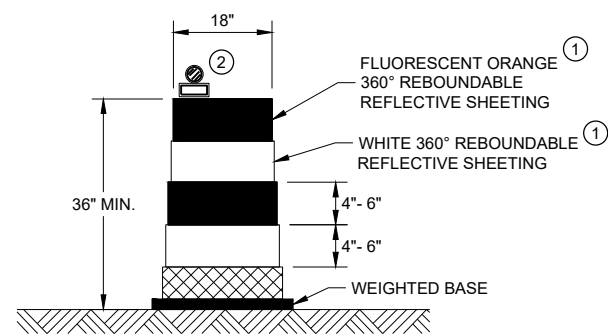
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

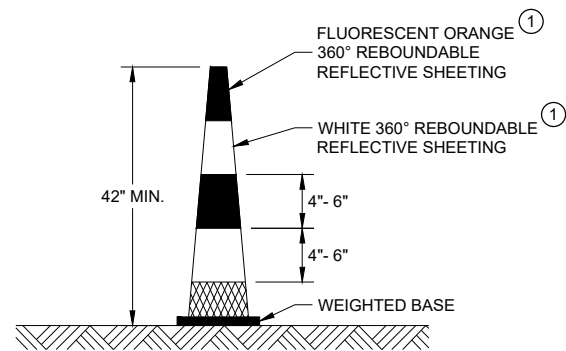
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



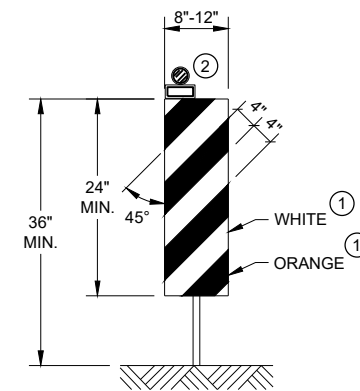
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

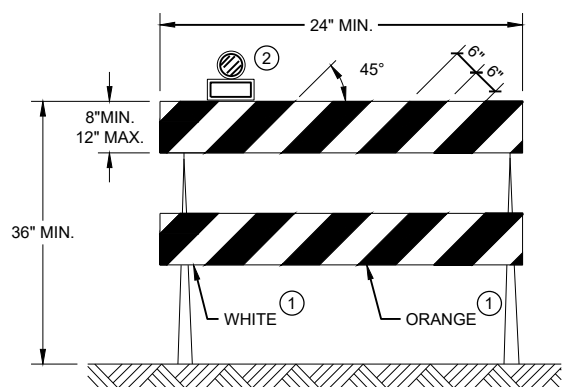


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.

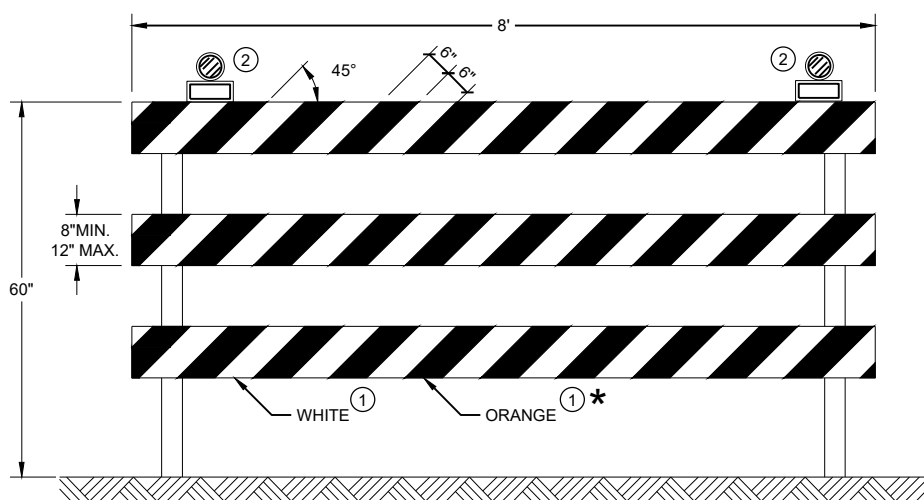
GENERAL NOTES

- 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.



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
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

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

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.

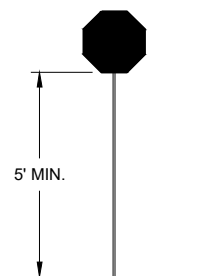
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM 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.



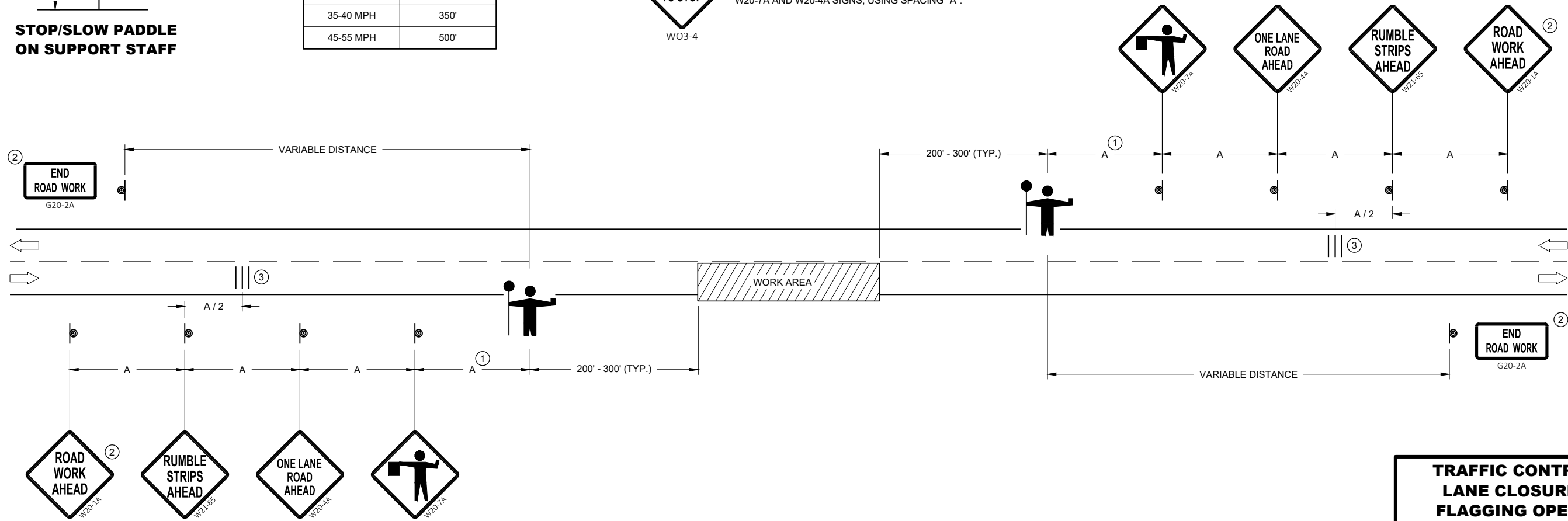
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



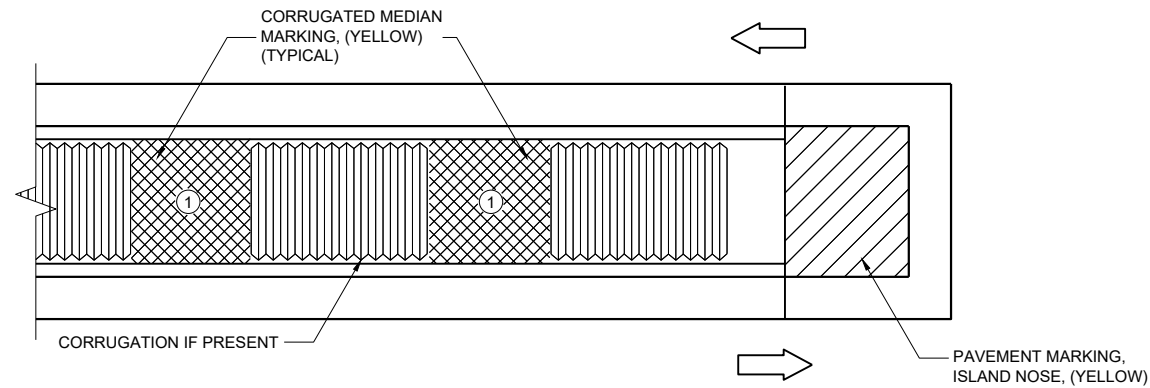
USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



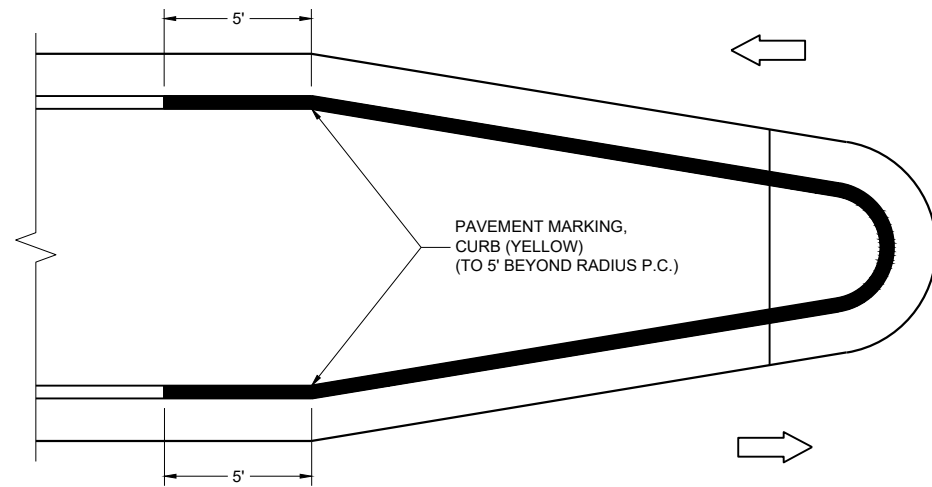
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

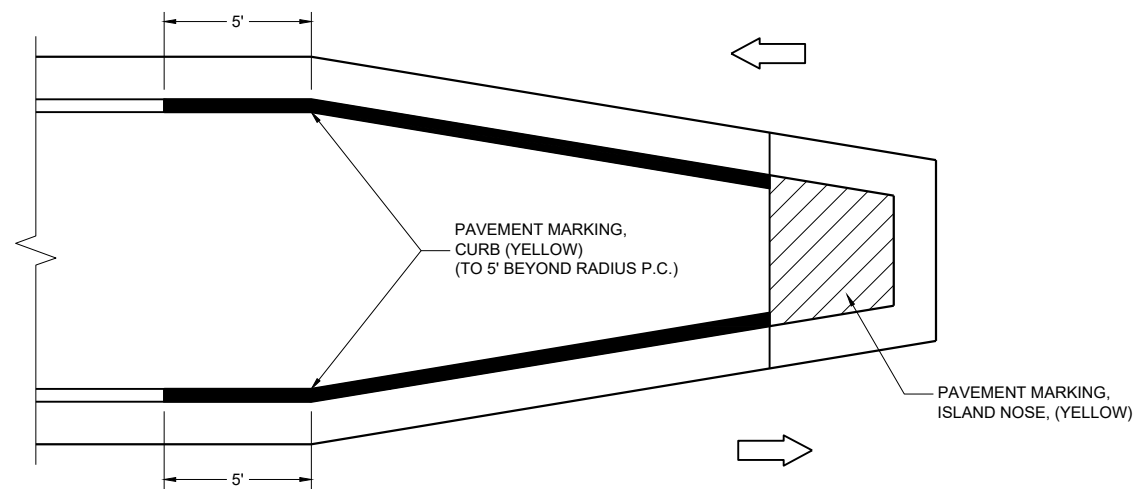
APPROVED
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



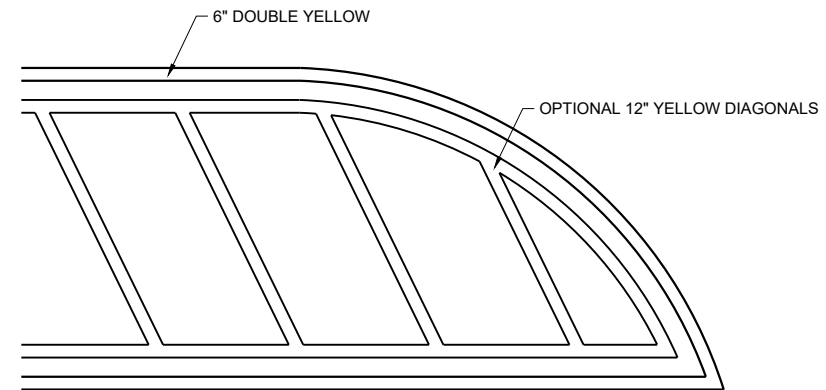
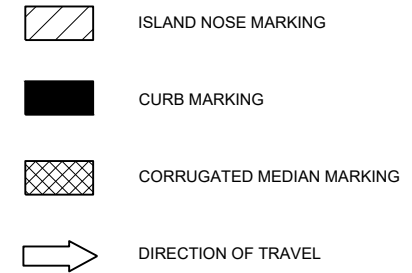
MEDIAN ISLAND WITH SLOPED NOSE

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.

- ① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.



FLUSH MEDIAN ISLAND NOSE

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA

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

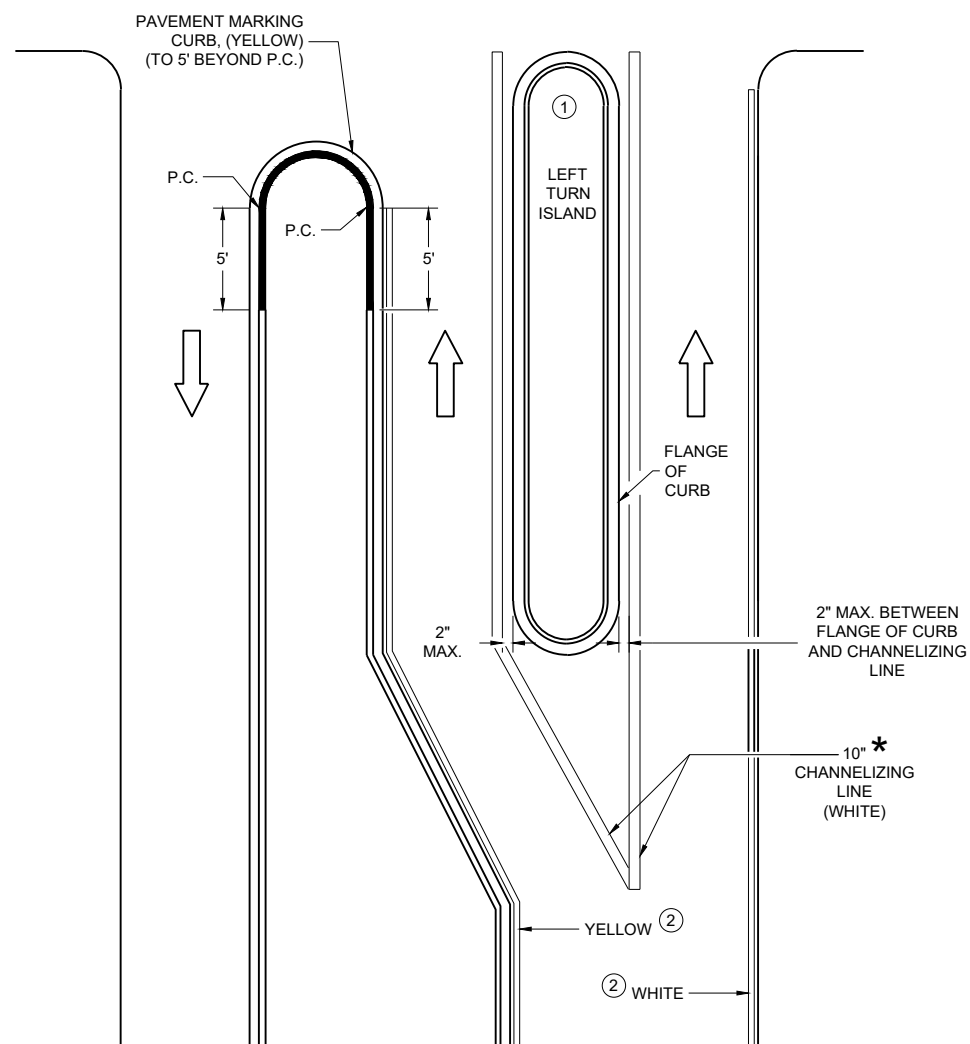
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

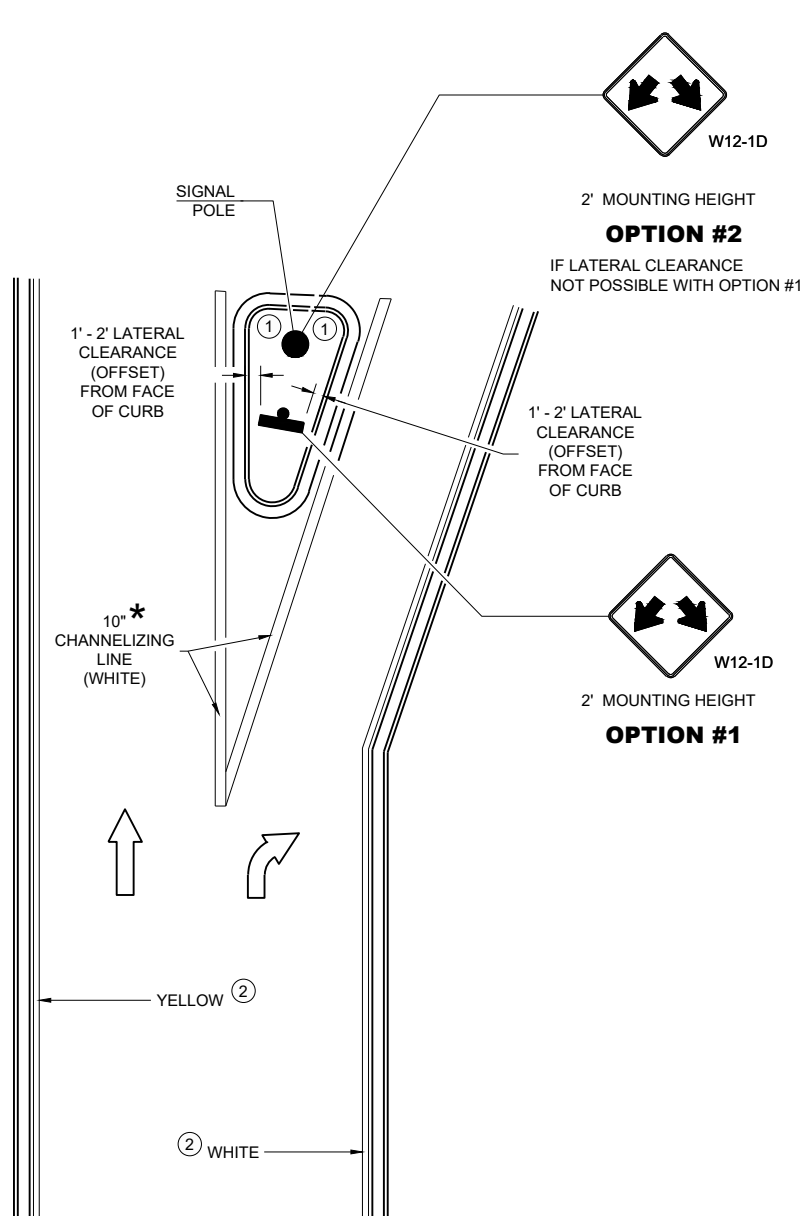
- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.
- ③ CHEVRON MAY BE OMITTED IF LESS THAN 4" WIDE

➔ DIRECTION OF TRAVEL

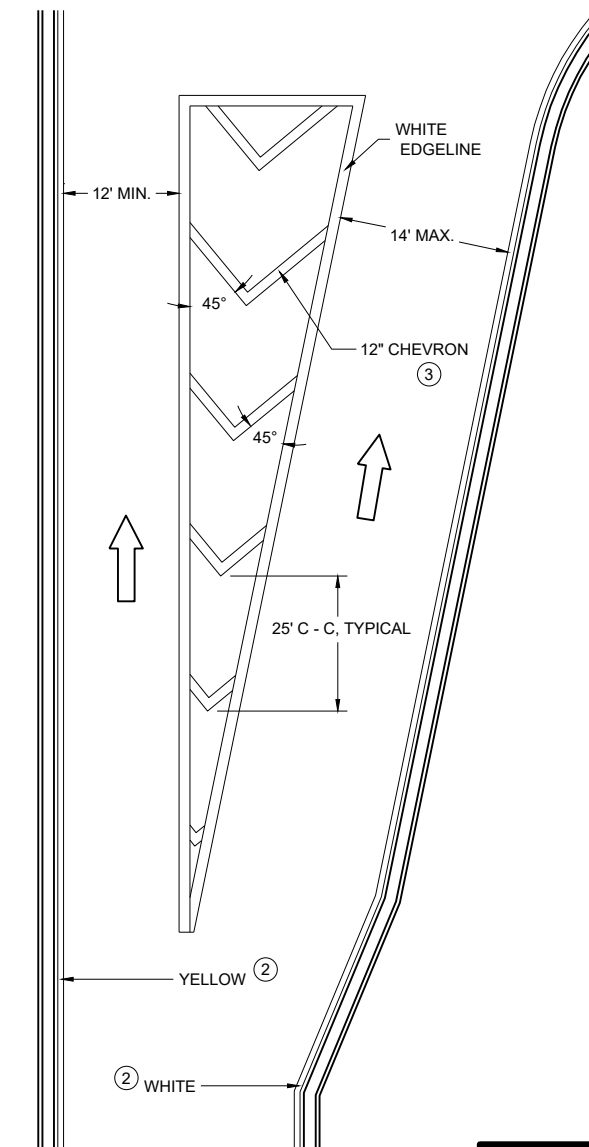
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



TURN LANE DETAIL




MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA

LEGEND

- V1** LEAD VEHICLE
- V2** MARKING VEHICLE
- V3** SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC

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 OPERATING IN CAUTION MODE. 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.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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.

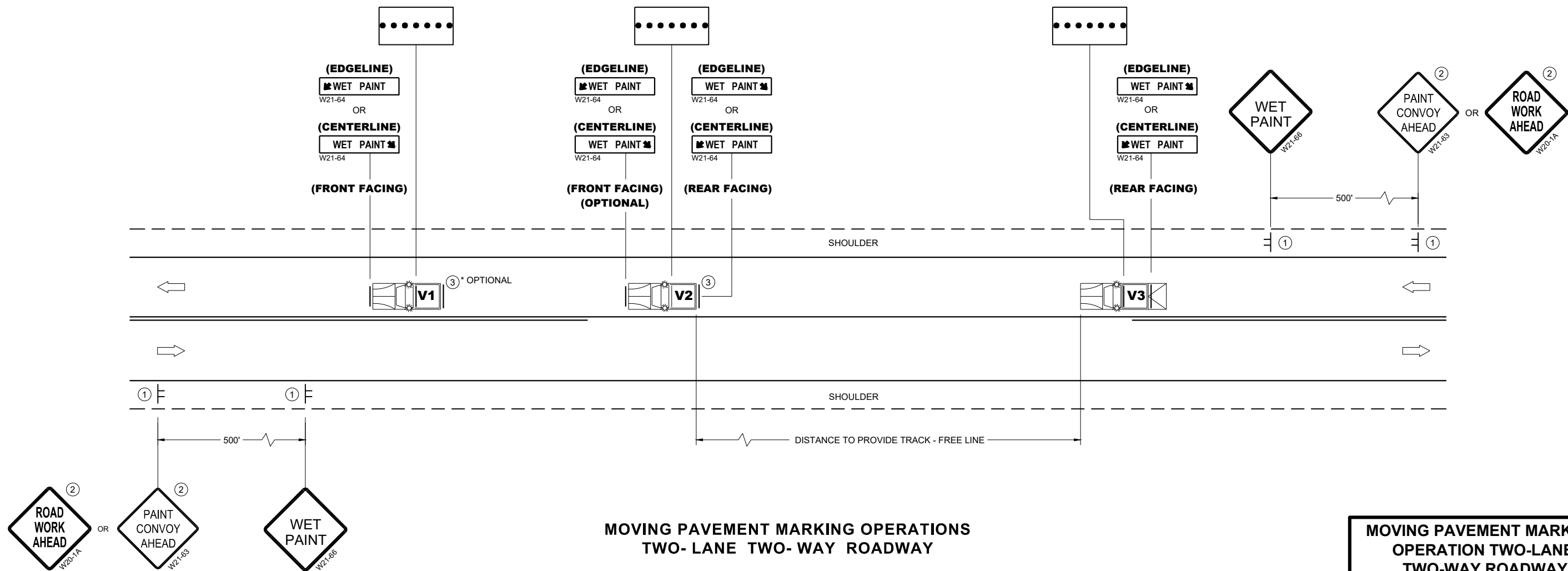
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

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**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-9a

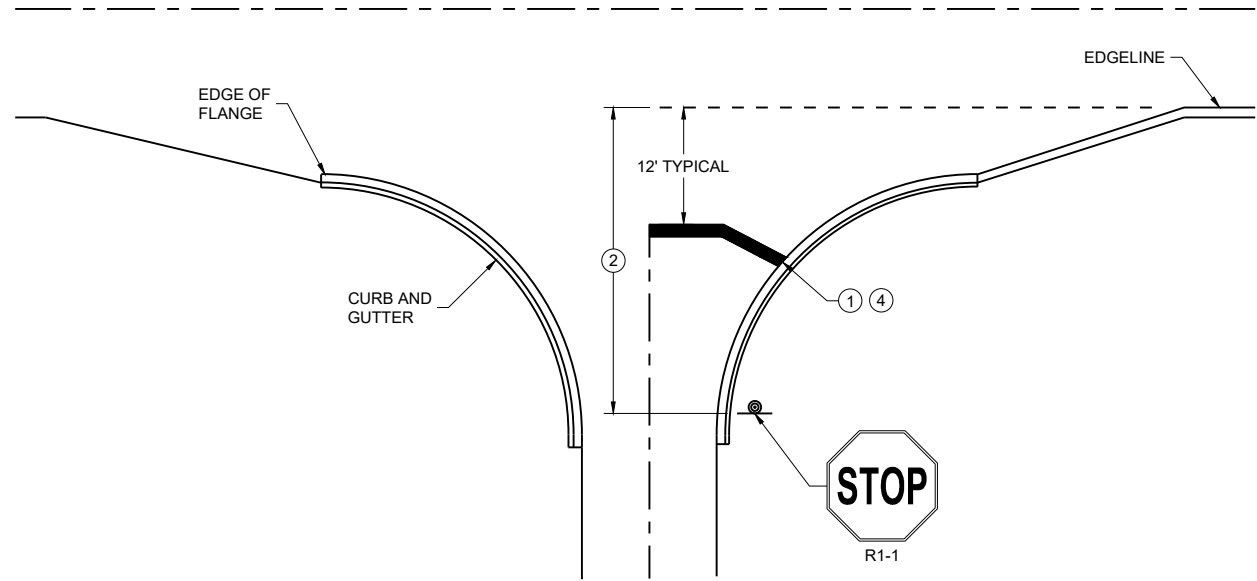
SDD 15C19-9a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2024 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

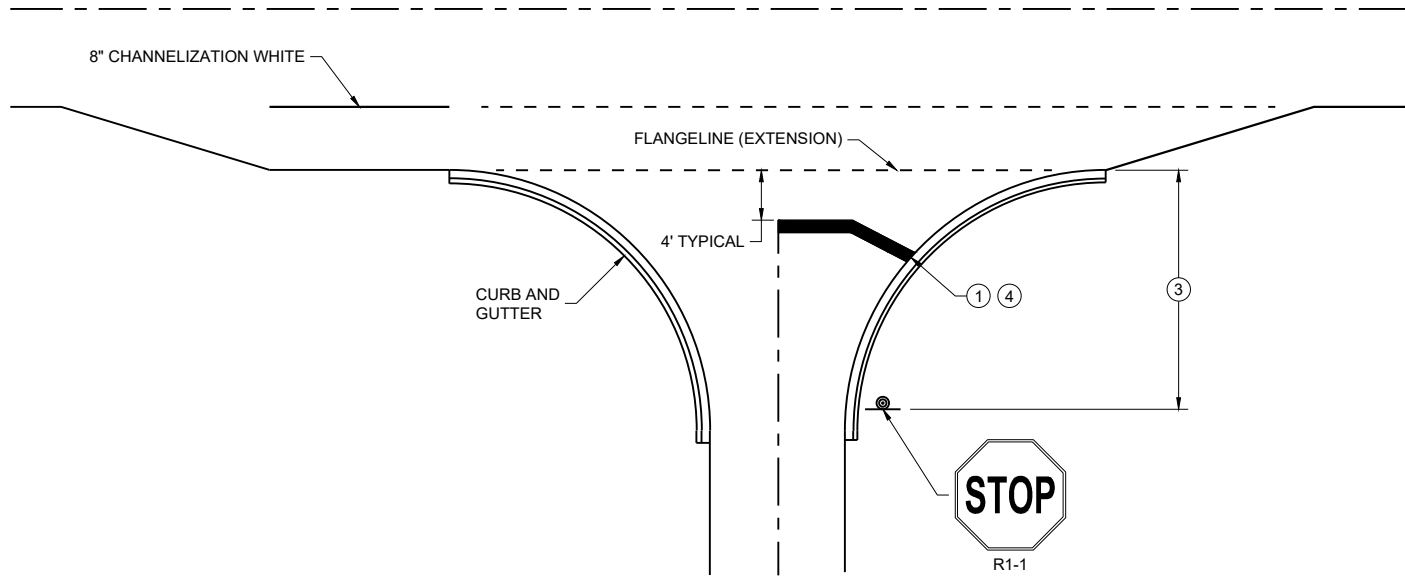
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

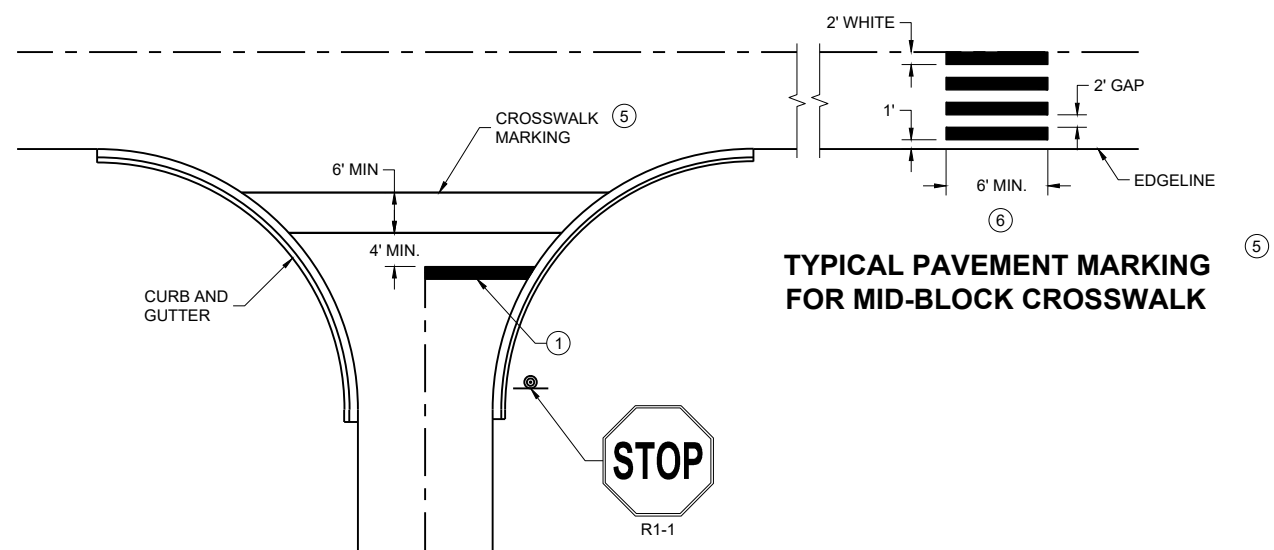
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

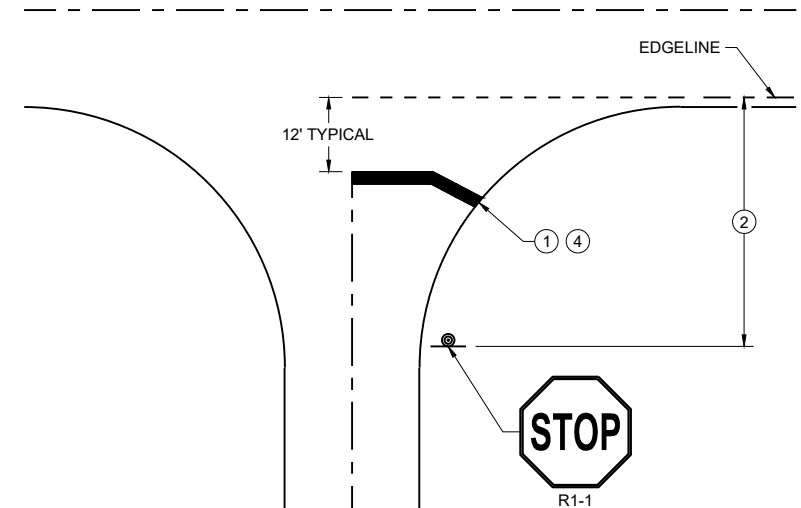


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

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SDD 15C33-05

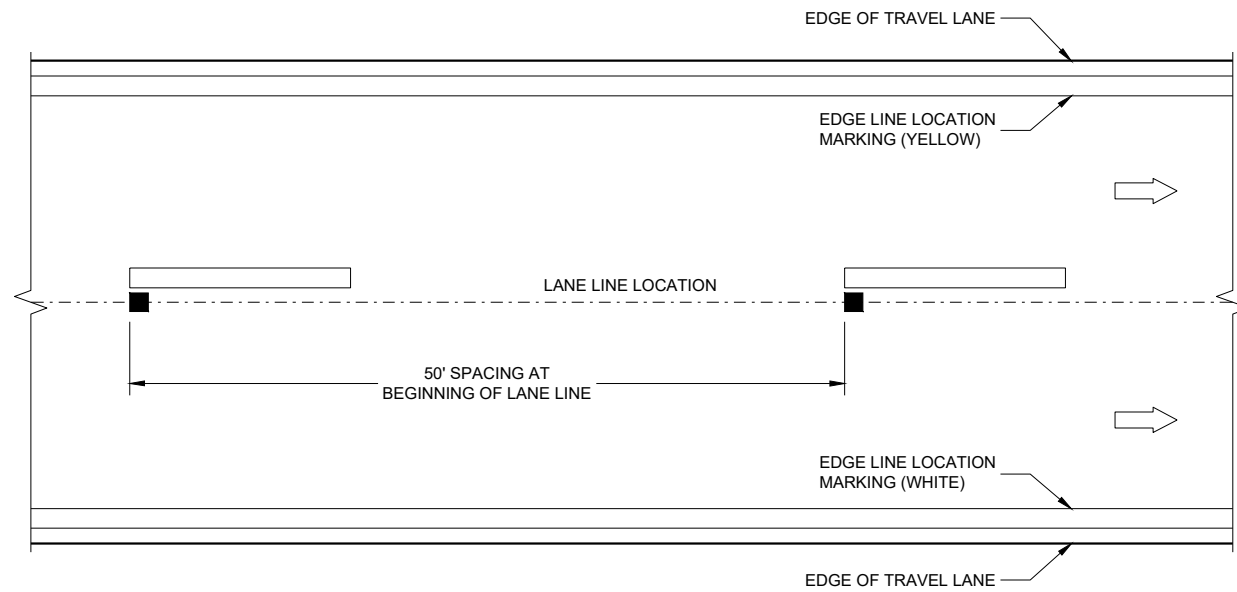
SDD 15C33-05

STOP LINE AND CROSSWALK PAVEMENT MARKING

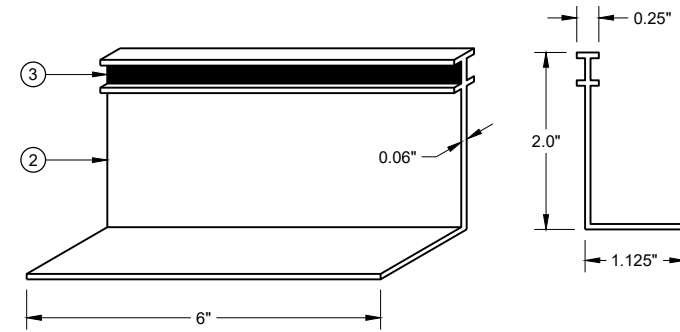
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

FHWA



LONGITUDINAL PLACEMENT 6 - INCH LANE LINE



ISOMETRIC VIEW SIDE VIEW

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II, SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES IS OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

MARK "T"s ON PAVEMENT FOR REESTABLISHING NO PASSING ZONES.

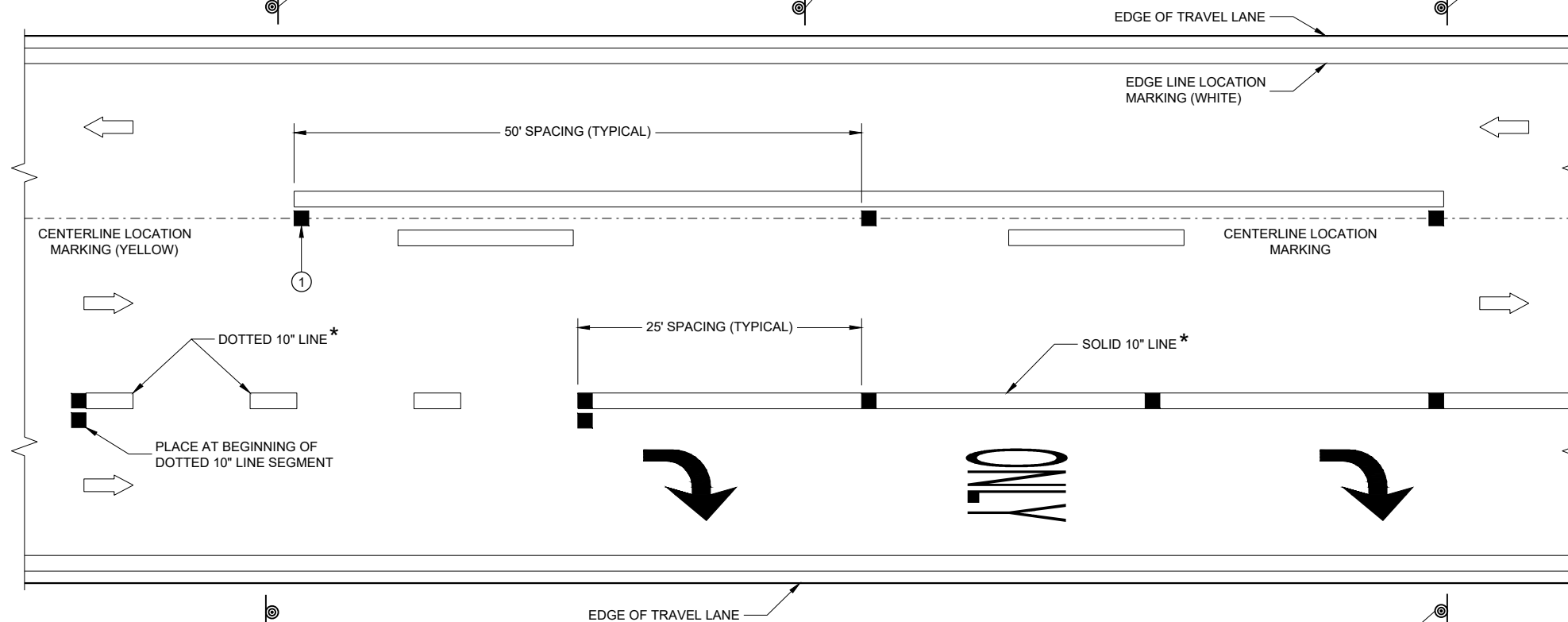
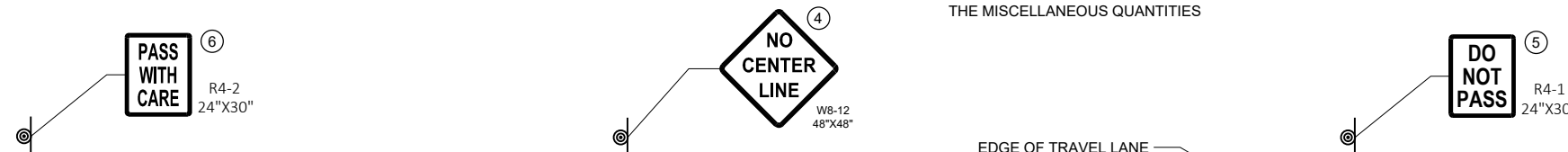
SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKING ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE "DO NOT PASS," "PASS WITH CARE" AND "NO CENTERLINE" SIGNS MAY BE OMITTED, PROVIDING A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



LONGITUDINAL PLACEMENT 6 - INCH LANE LINE AND 10 - INCH CHANNEL LINE

- ① FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.
- ② MARKERS SHALL BE OF POLYURETHANE MATERIAL.
- ③ MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 6-INCH WIDTH X 0.25 INCH HEIGHT.
- ④ "NO CENTER LINE" SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.
- ⑤ "DO NOT PASS" SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL "DO NOT PASS" SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.
- ⑥ "PASS WITH CARE" SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- ⊙ SIGN ON PORTABLE OR PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC.

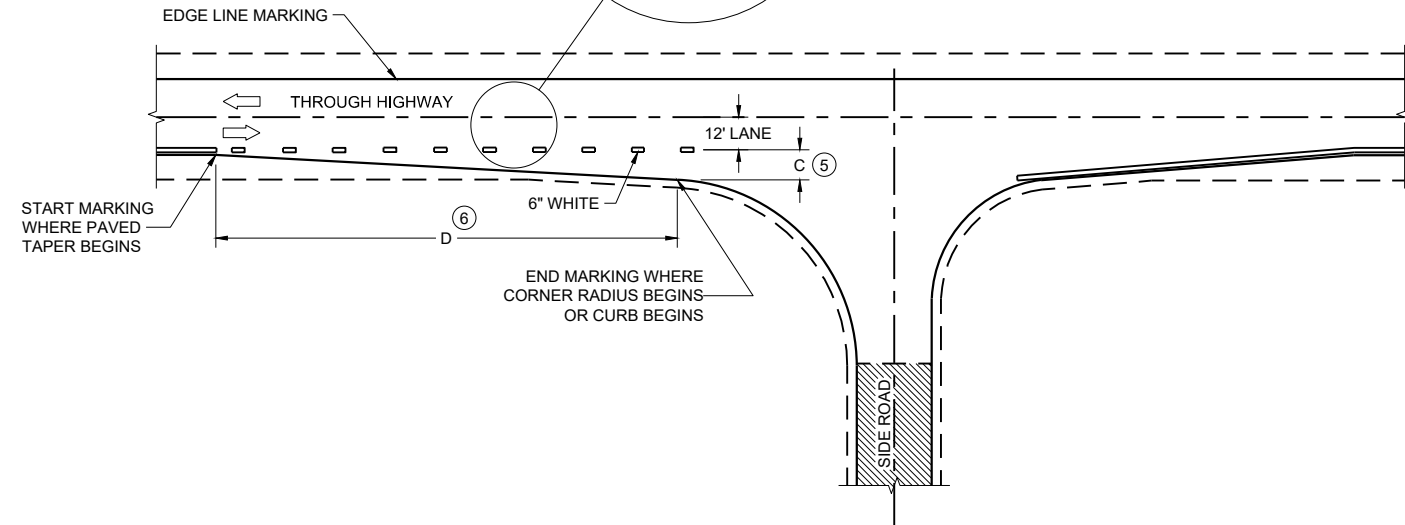
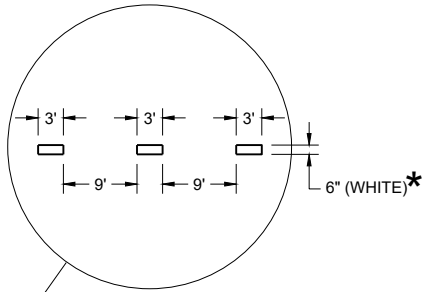
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SDD 15C34-04

SDD 15C34-04

STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
<small>FHWA</small>	



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

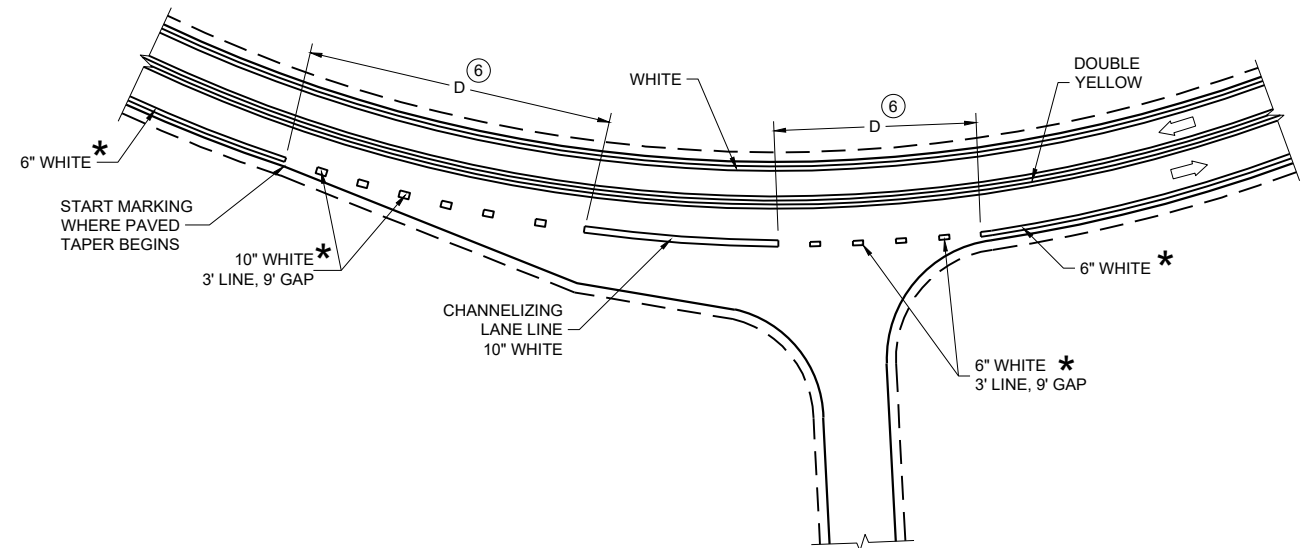
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

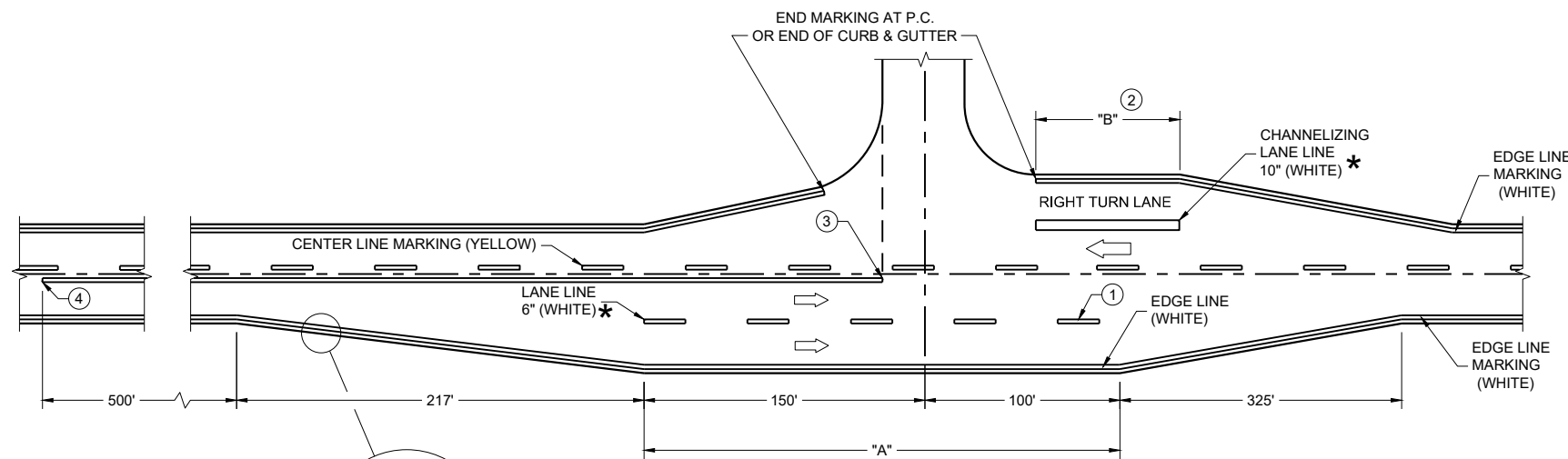
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

➔ DIRECTION OF TRAVEL

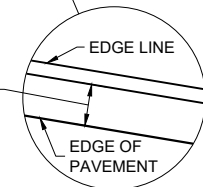


INTERSECTION ON OUTSIDE OF CURVE



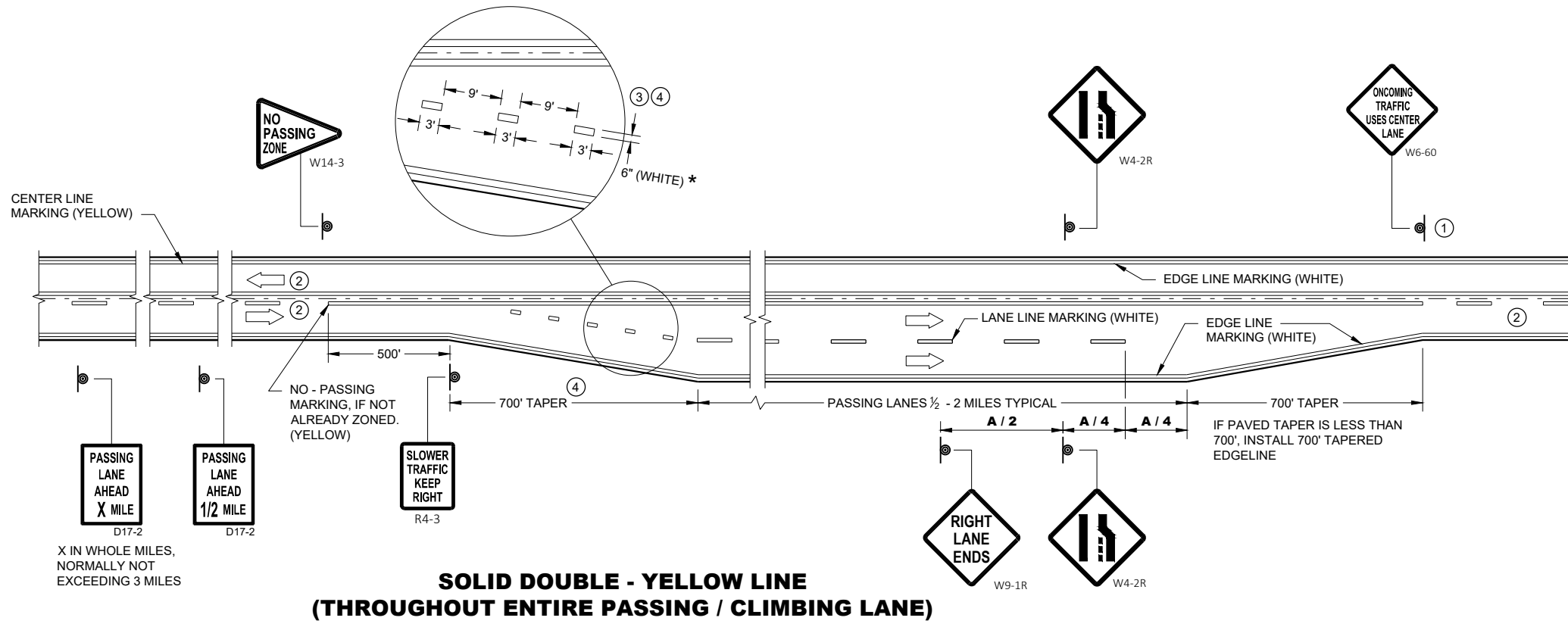
**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

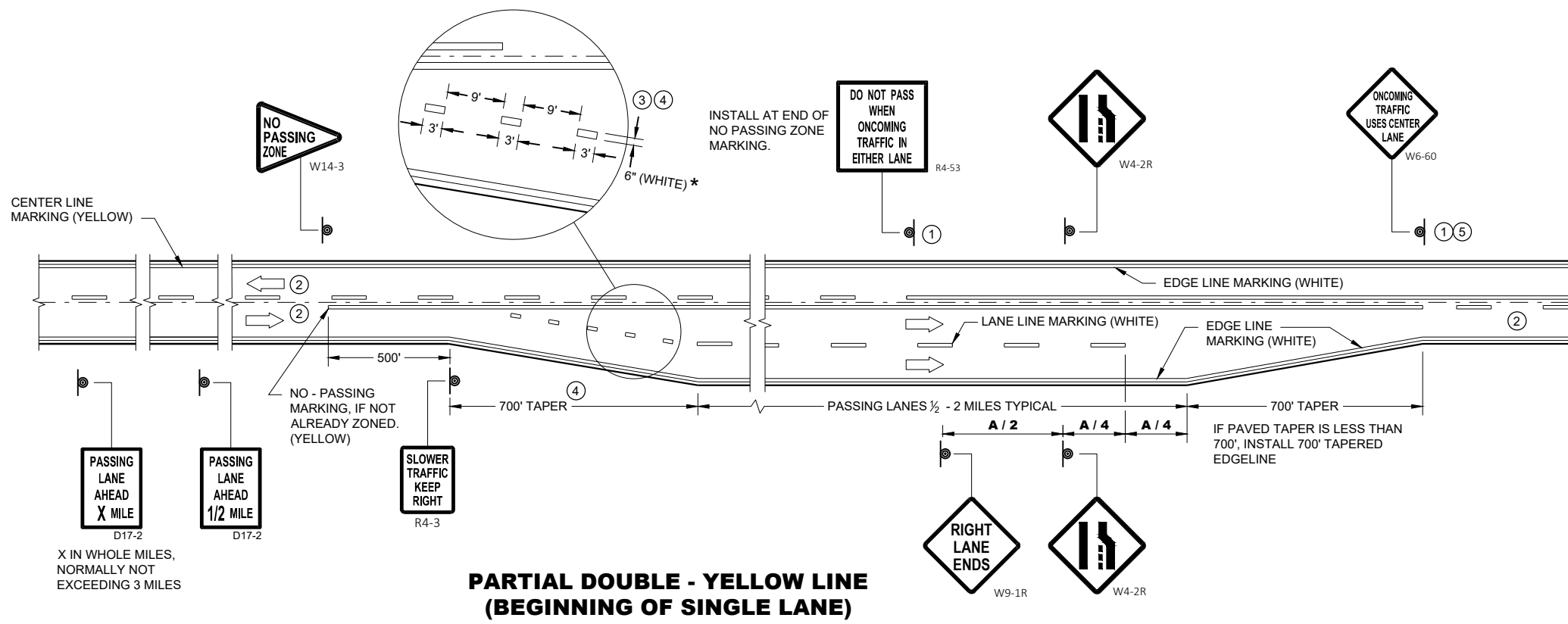
- 1 SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- 2 THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- 3 THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4 WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- 5 REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



6

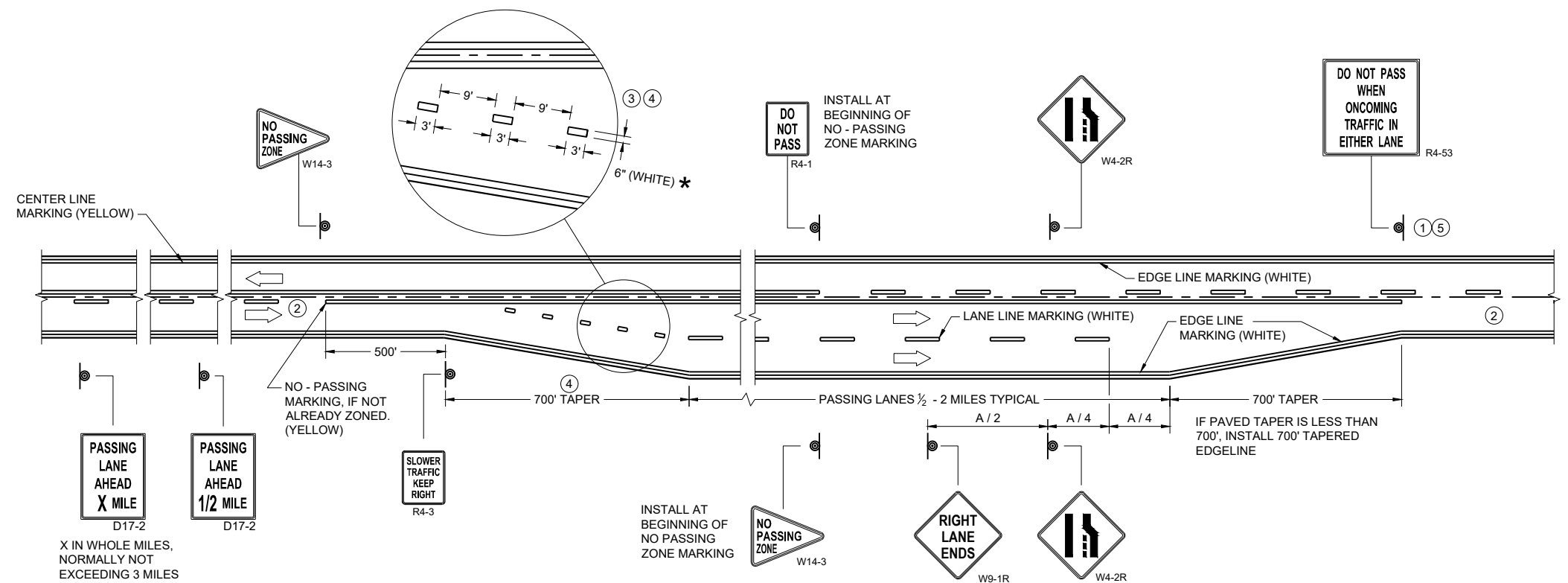
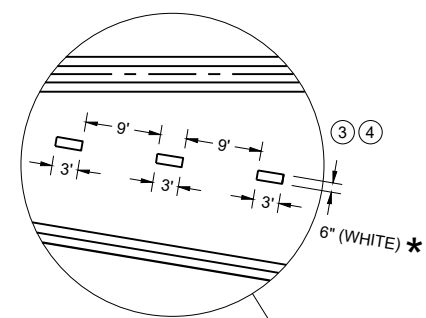
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SDD 15C35-06b

SDD 15C35-06b

**PAVEMENT MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)**

GENERAL NOTES

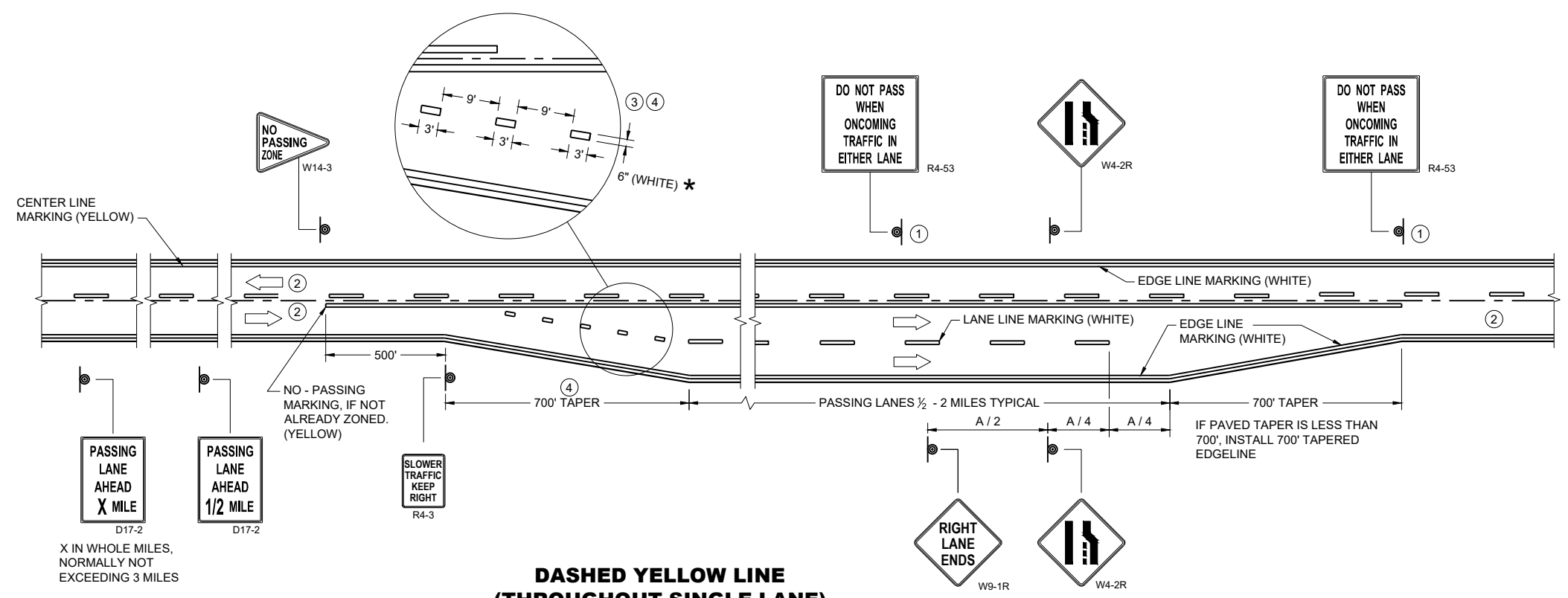
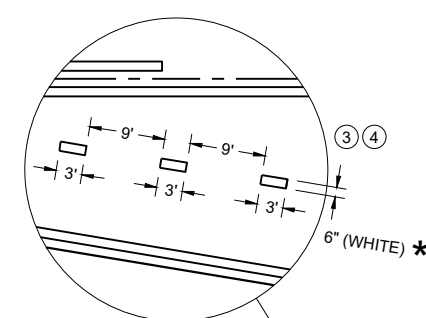
- ① SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- ③ THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ④ WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- ⑤ REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)**





**PAVEMENT MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

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 THE 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.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

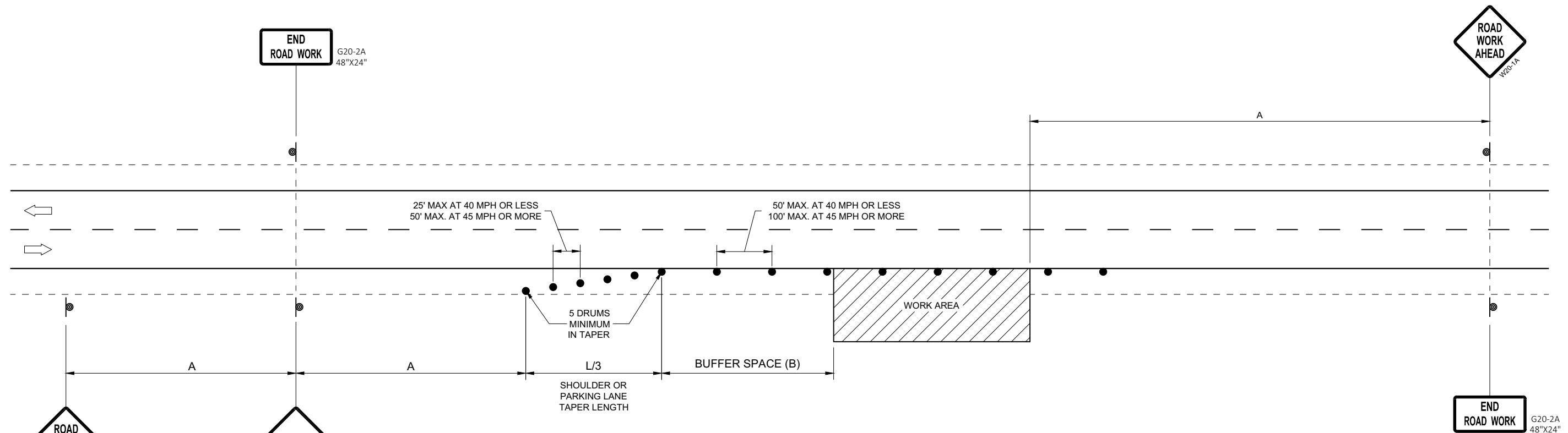
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

**TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY**

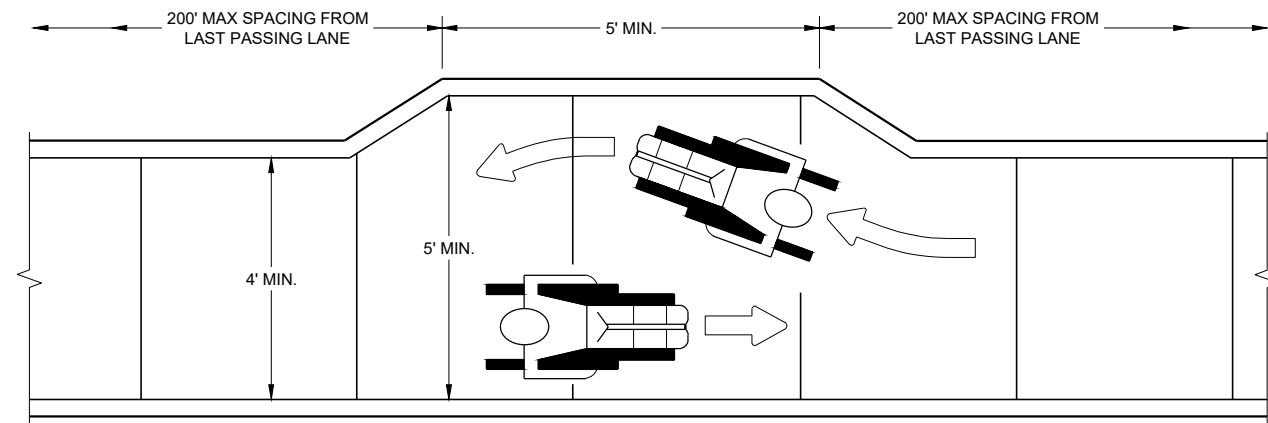
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

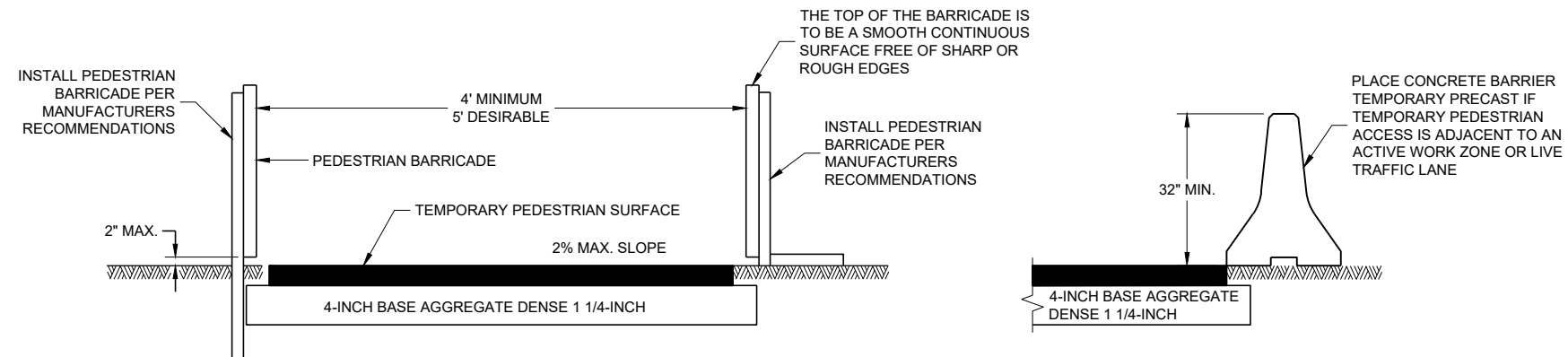
FHWA

SDD 15D28 - 04

SDD 15D28 - 04



NARROW SIDEWALK PASSING DETAIL



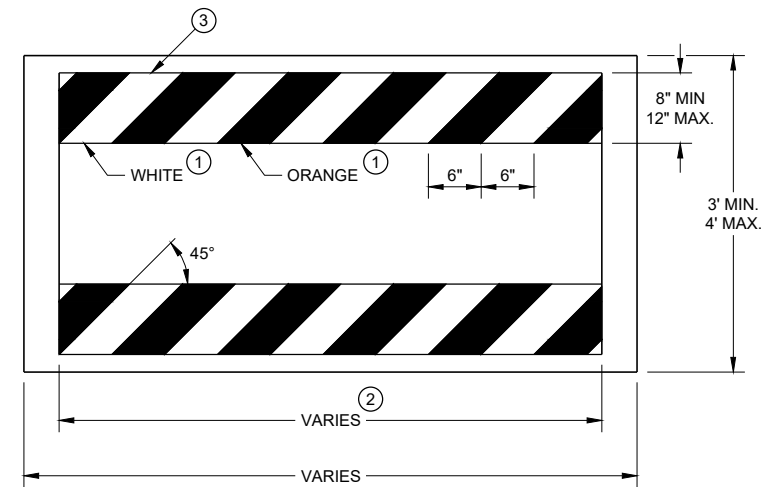
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

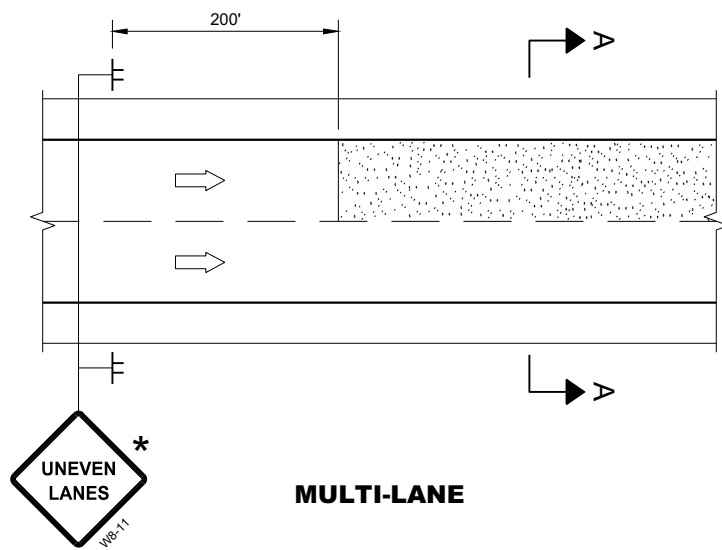
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- 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.

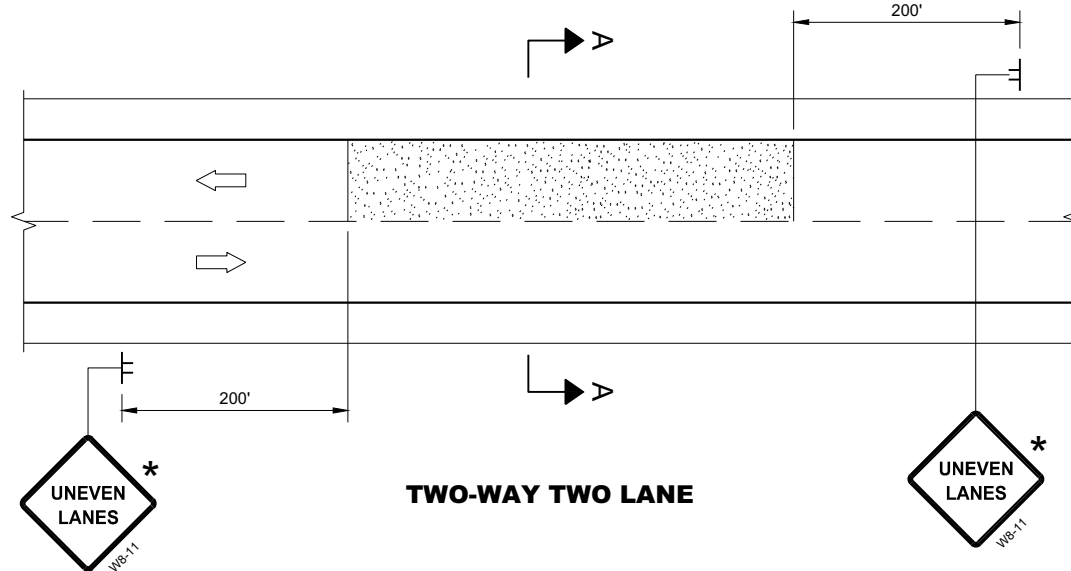
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



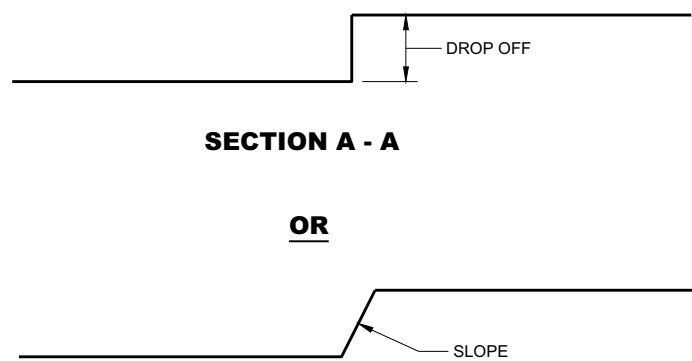
TEMPORARY PEDESTRIAN BARRICADE*



MULTI-LANE



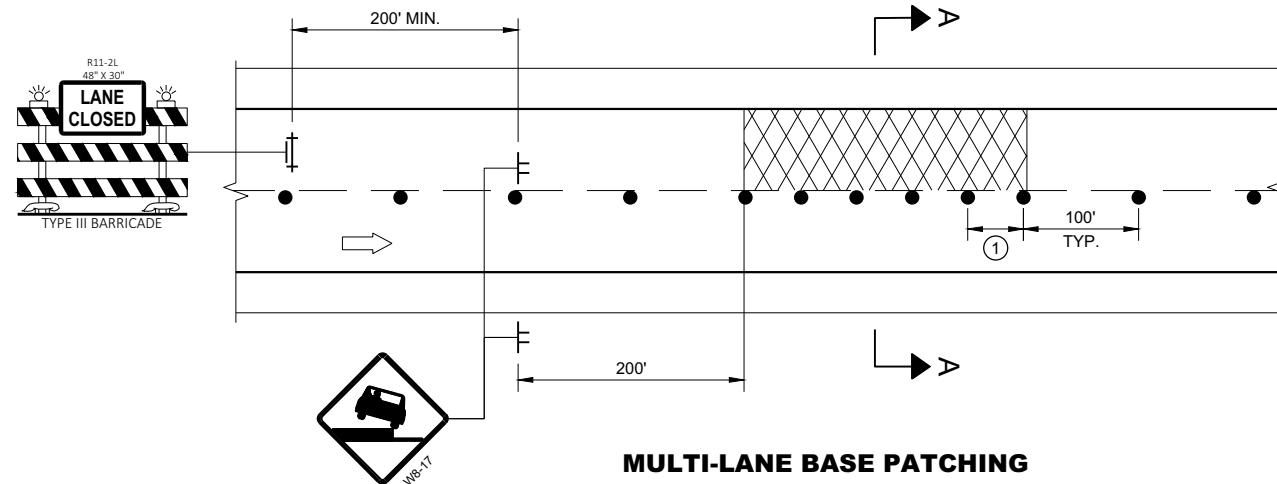
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

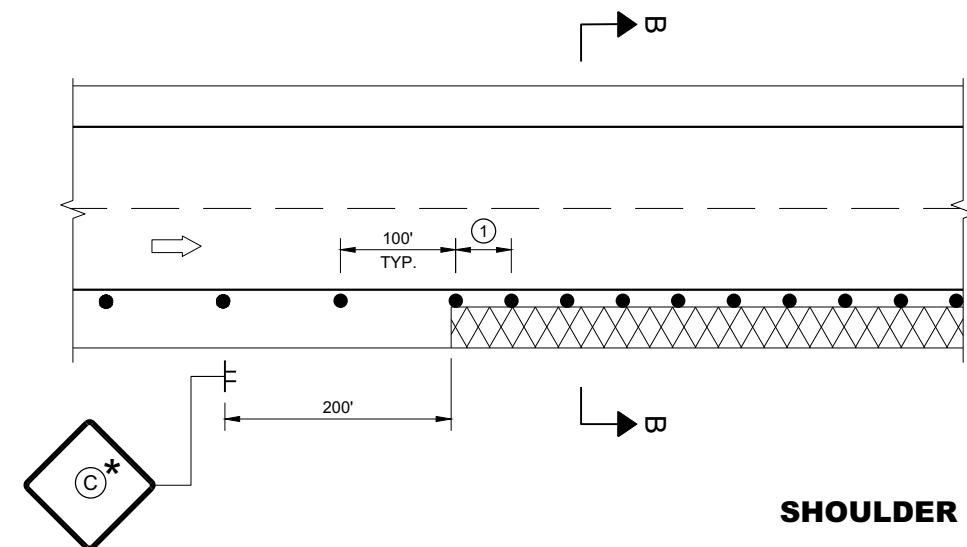
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

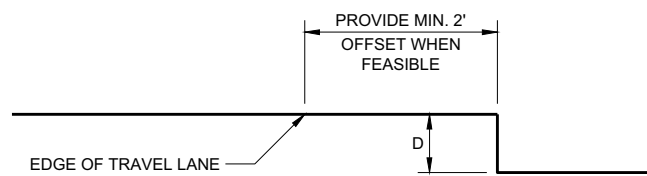
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	<p>LOW SHOULDER W08-9</p>
2" < 6" WITH A SLOPE STEEPER THAN 3:1	<p>SHOULDER DROP-OFF W8-9A</p> <p>PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT</p>

SDD 15D39 - 02

SDD 15D39 - 02





**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER

FHWA

LEGEND

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

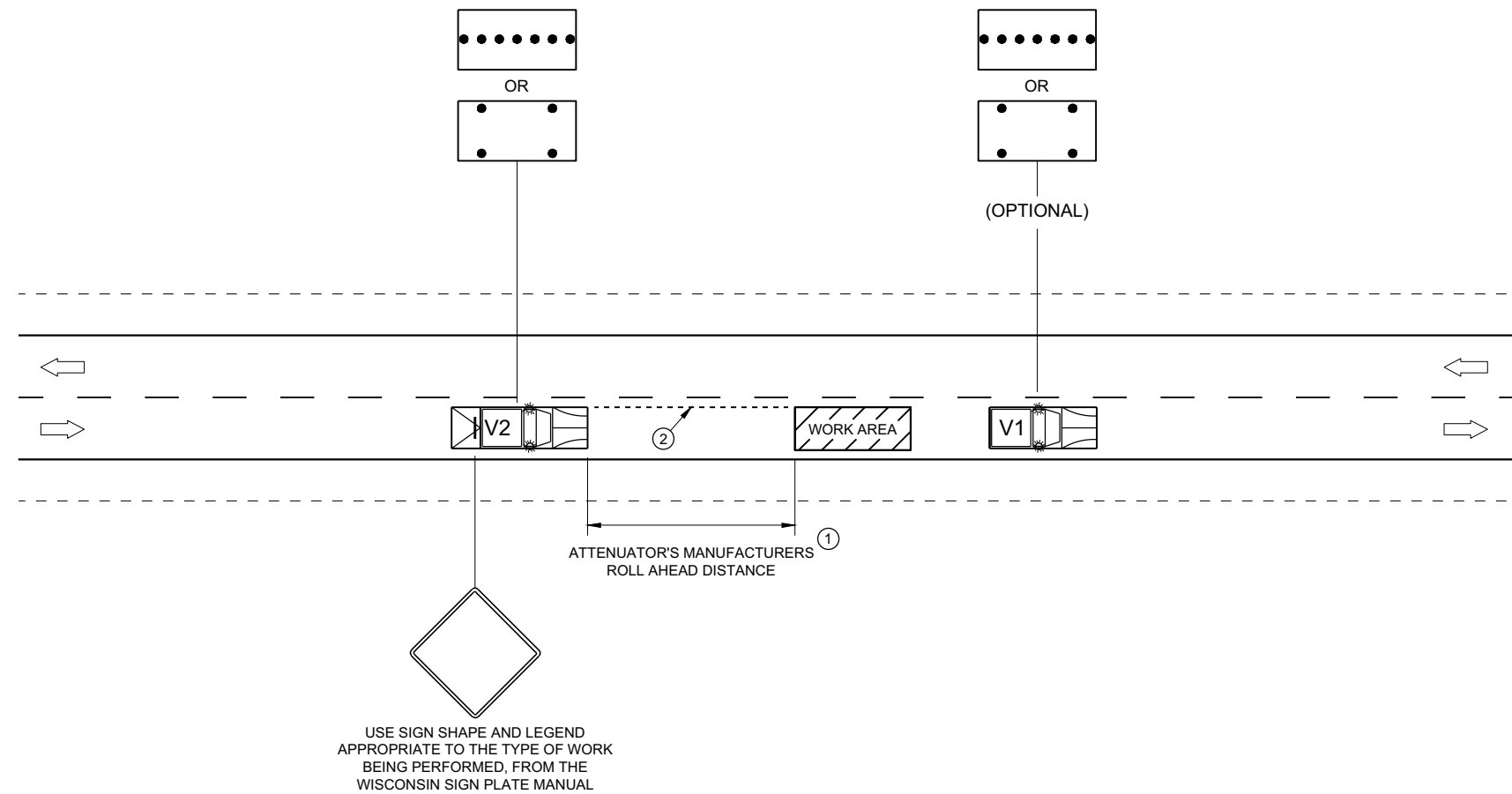
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

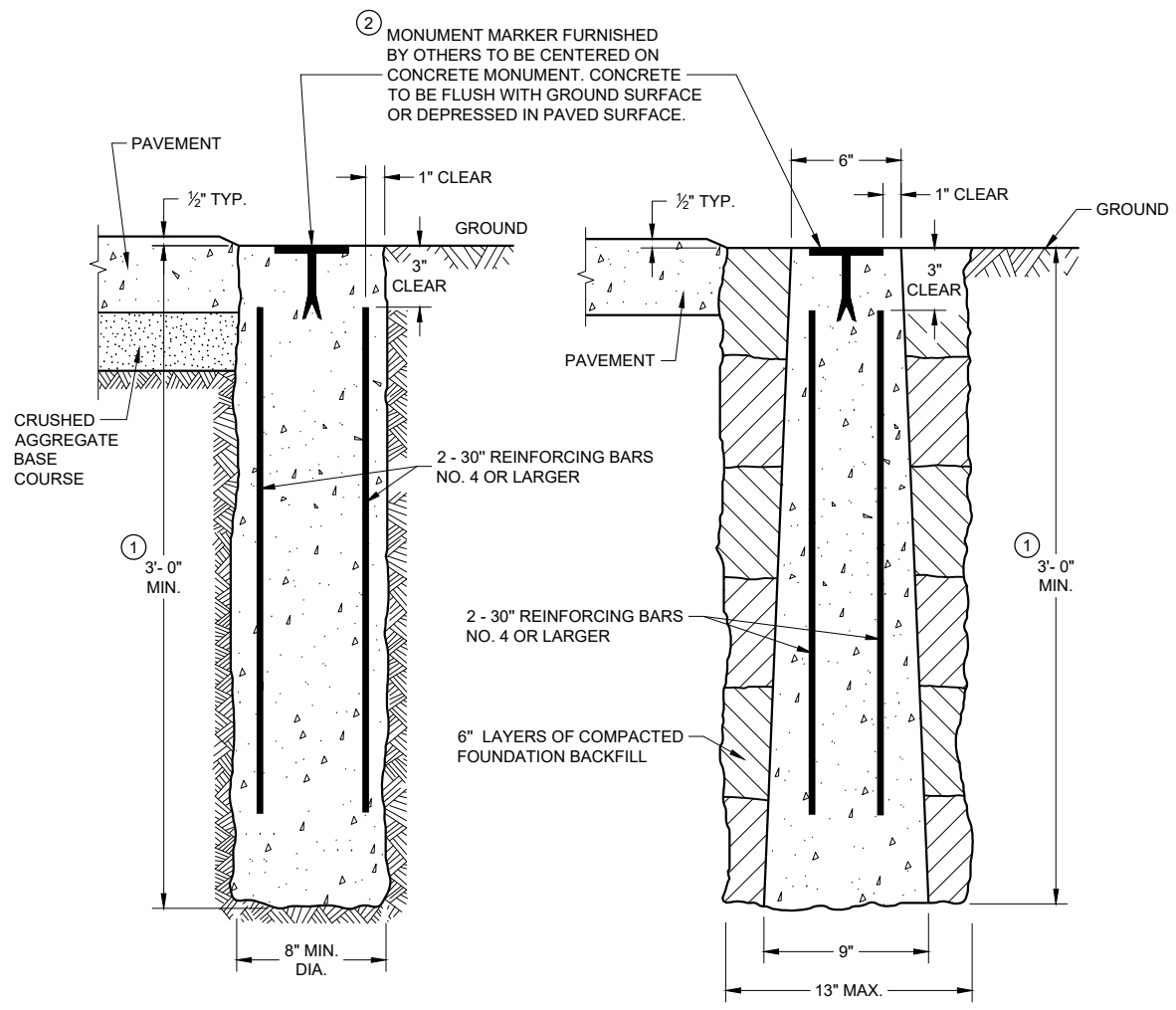
ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

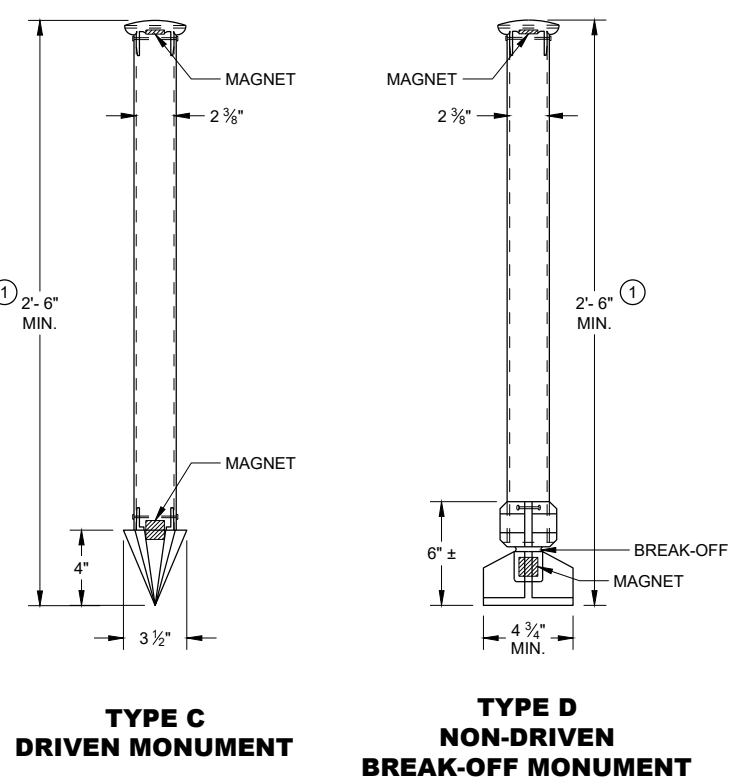
- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2021 DATE	/S/ Andrew Heidtke STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



**CAST-IN-PLACE
PRECAST
CONCRETE MONUMENTS
TYPE A**



**ALUMINUM MONUMENTS
(INCLUDES MARKER)**

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

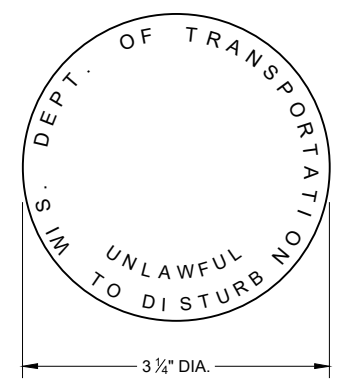
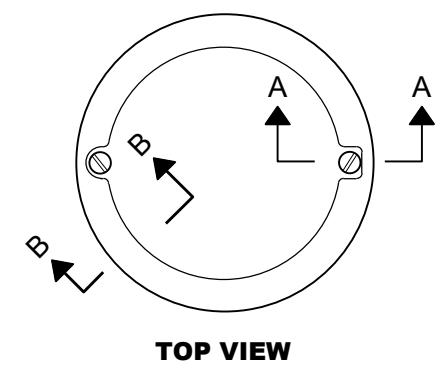
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

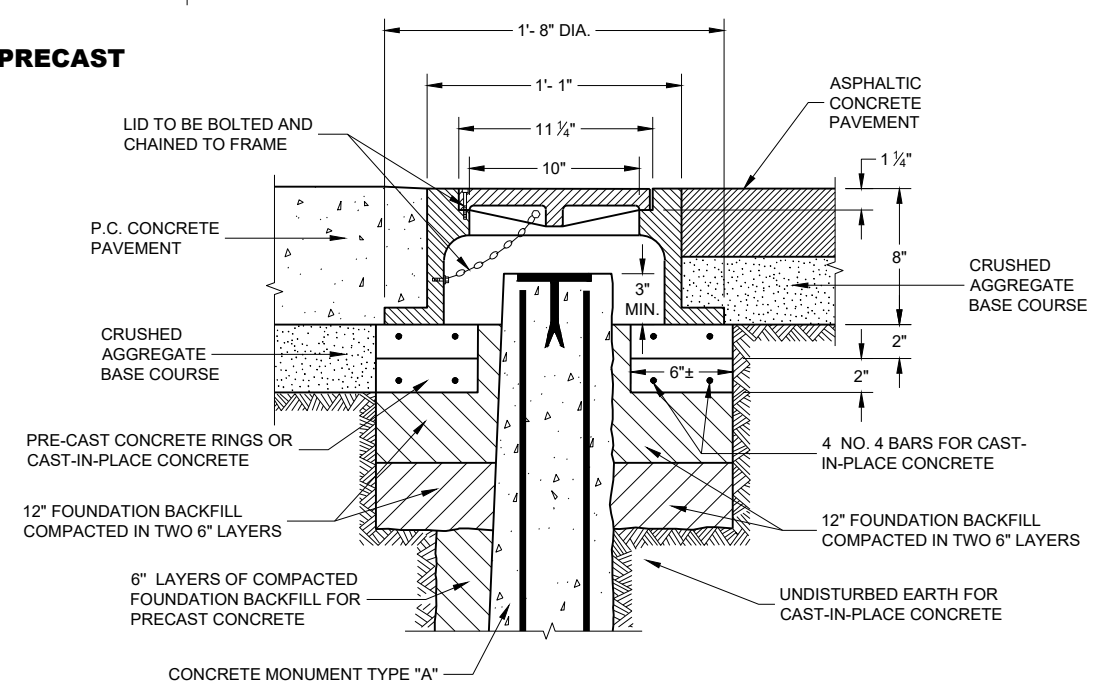
THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

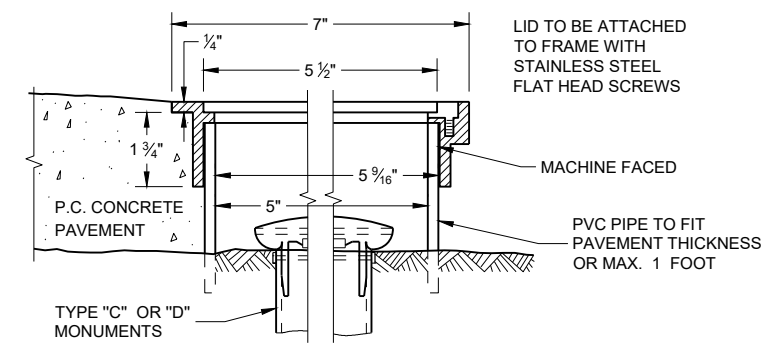
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



② **WIS DOT MONUMENT MARKER LOGO**
FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

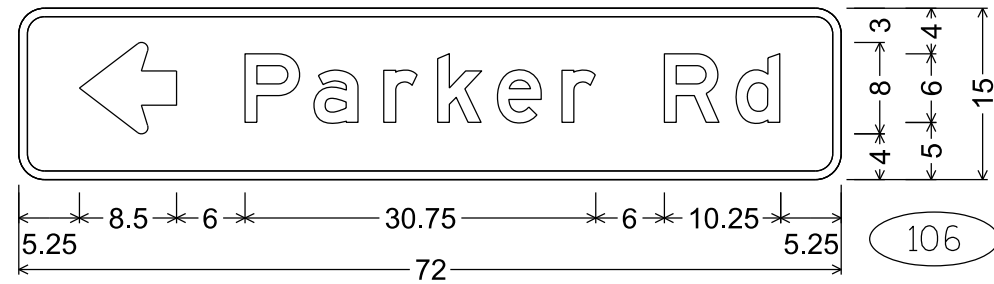


**SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER**
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

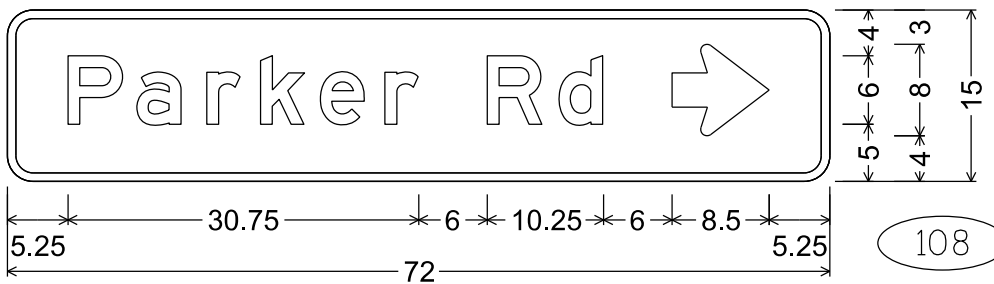
LANDMARK REFERENCE MONUMENTS AND COVERS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Raymond A. Kumapayil CHIEF SURVEYING AND MAPPING ENGINEER
FHWA	

NOTES

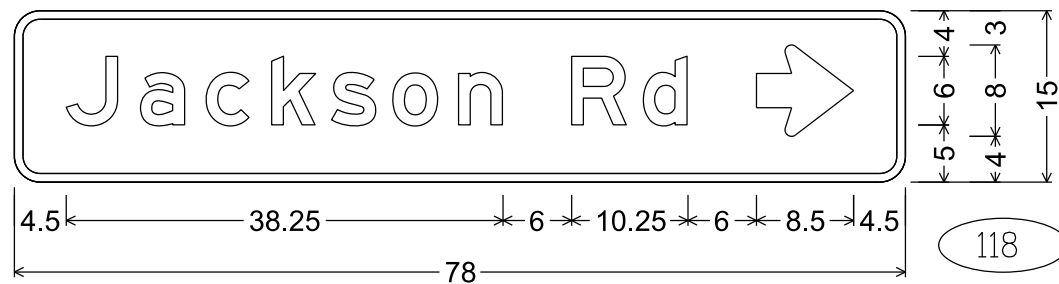
1. Signs are Type II - Type H Reflective
2. Color:
 - Background - Green
 - Message - White
3. Message Series - E



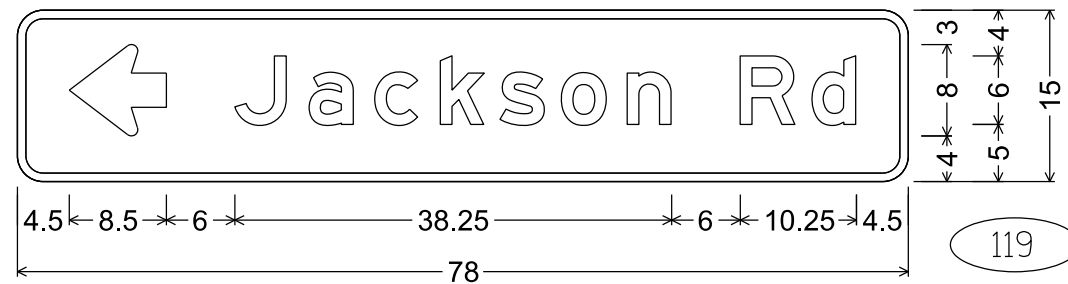
D1-1; 2.250" Radius, 0.750" Border



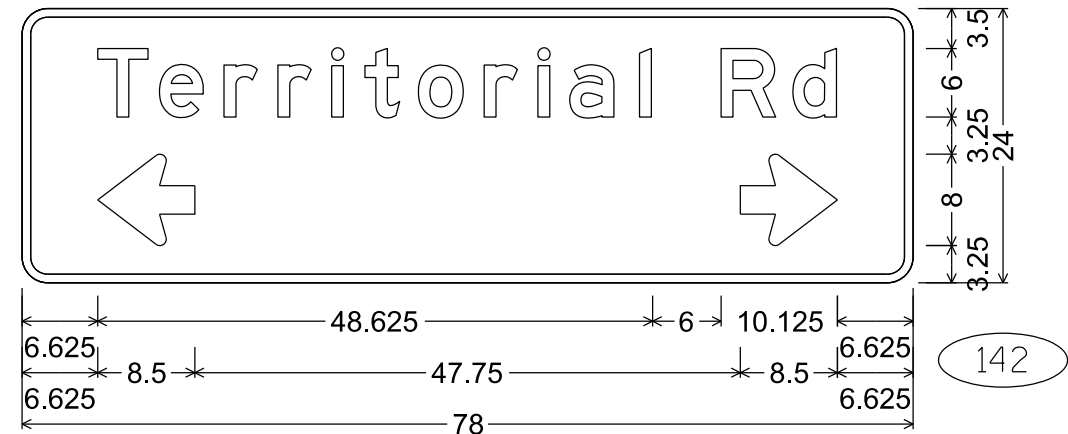
D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border



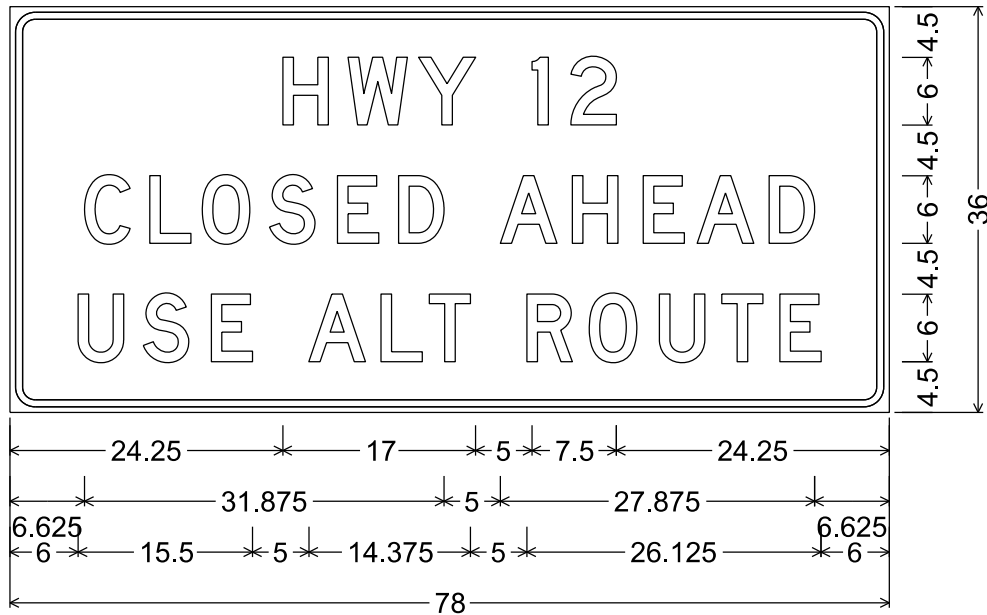
D1-61; 2.250" Radius, 0.750" Border

7

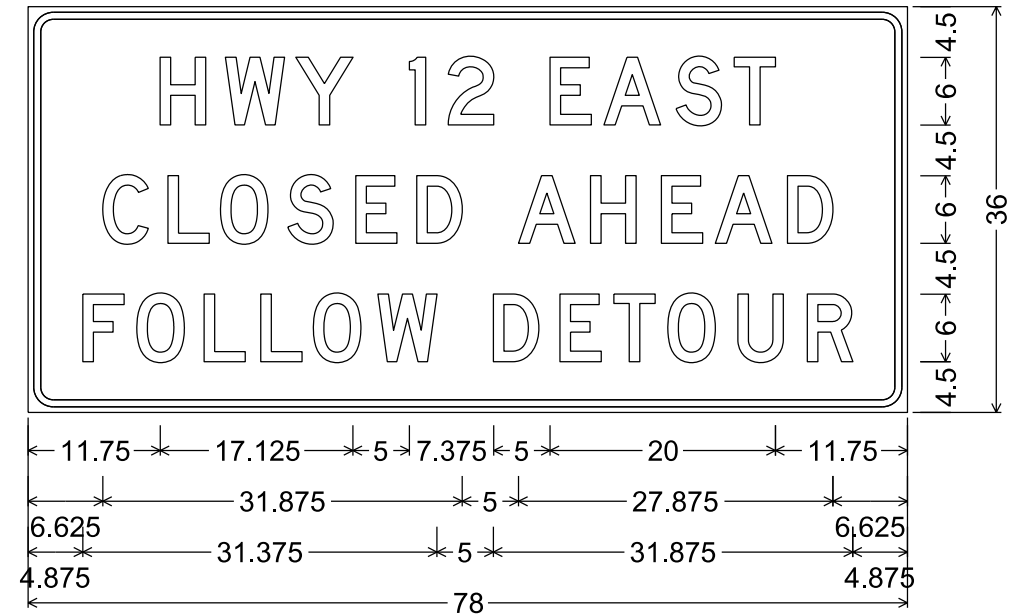
7

NOTES

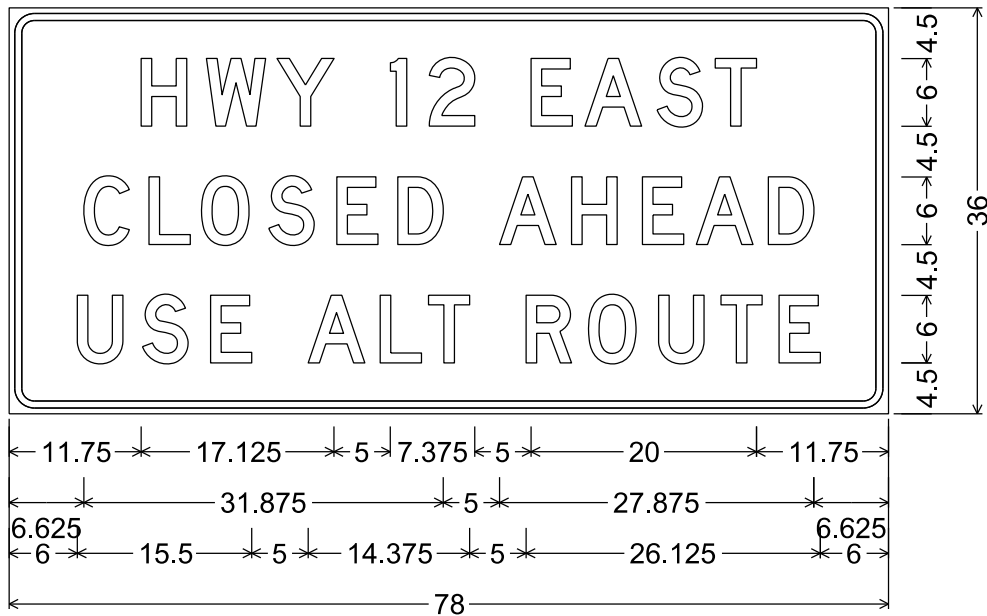
1. Fixed Message Signs Type II - Type F Reflective
2. Color:
 - Background - Orange
 - Message - Black
3. Message Series - D



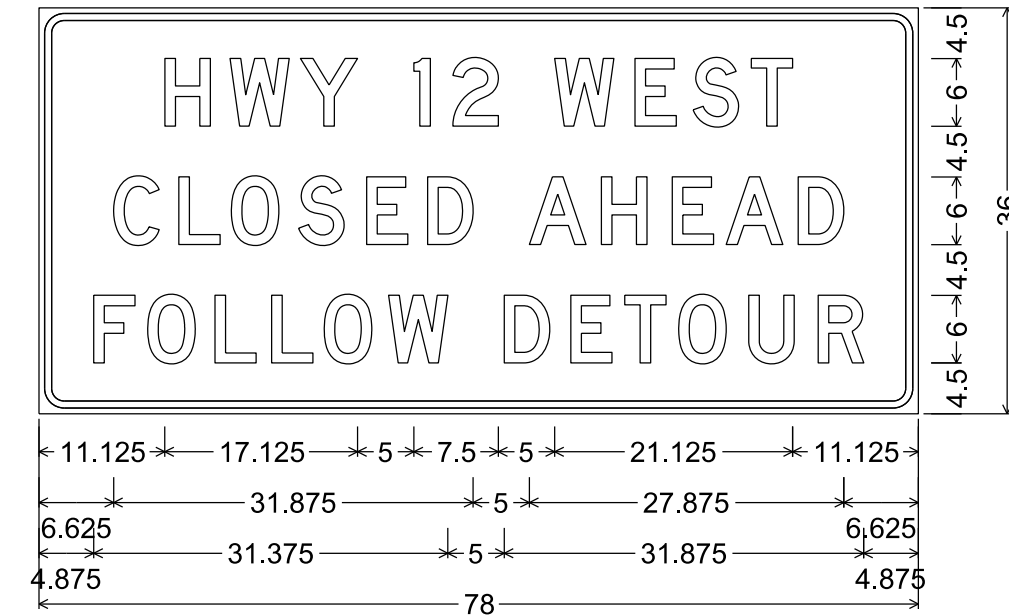
2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent

7

7

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.

STATIONS & ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE GEOTEXTILE TYPE C, AND BACKFILL WITH BREAKER RUN.

BACKFILL STRUCTURES TYPE B REQUIRED ON THE BOX CULVERT SIDES AND BEHIND WINGS.

WITHIN THE LENGTH OF THE BOX ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL TO THE TOP OF THE BOX.

LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN PROJECT AREA THAT ARE NOT SHOWN.

SEE ROADWAY PLANS FOR EXISTING & PROPOSED UTILITY LOCATION.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE TOTAL ESTIMATE QUANTITIES.

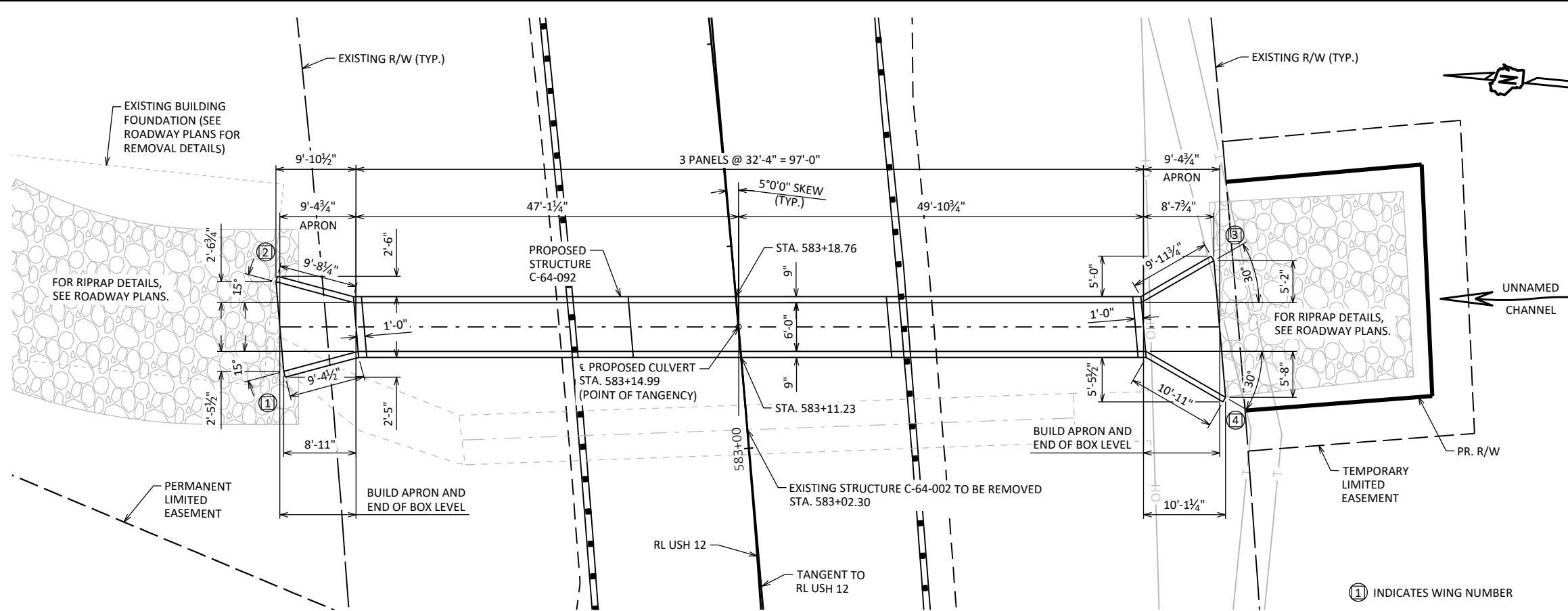
EXISTING 6-FEET WIDE BY 5-FEET HIGH CAST-IN-PLACE CONCRETE CULVERT TO BE REMOVED.

UTILIZE EXISTING CULVERT FOR CONDUCTING FLOW WHILE NEW CULVERT IS BEING CONSTRUCTED. PROVIDE EROSION CONTROL AND DIVERSION AS NECESSARY. AFTER NEW CULVERT IS COMPLETE, DIVERT FLOW TO NEW CULVERT, REMOVE EXISTING CULVERT, AND COMPLETE BACKFILL AND GRADING. SEE ROADWAY PLANS FOR EROSION CONTROL DETAILS.

LIST OF DRAWINGS:

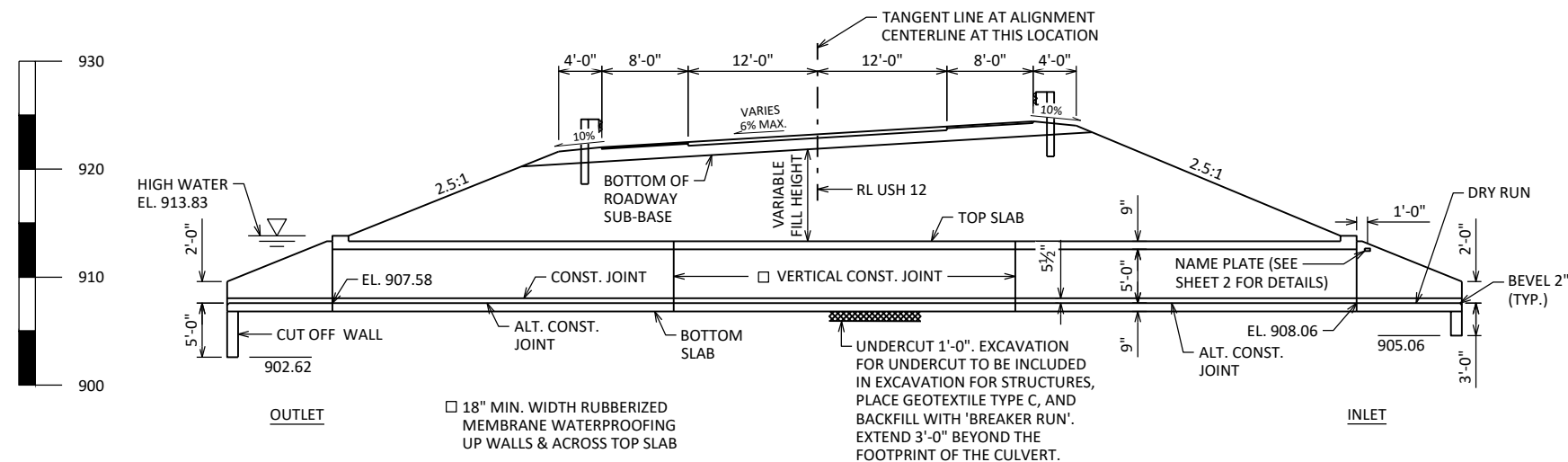
1. GENERAL PLAN & ELEVATION
2. QUANTITIES & BACKFILL DETAILS
3. SUBSURFACE EXPLORATION
4. BOX CULVERT DETAILS
5. APRON & WING DETAILS 1
6. APRON & WING DETAILS 2

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY: COLLINS ENGINEERS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>[Signature]</i>	SDR 07/30/24	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE C-64-092			
USH 12 OVER UNNAMED CHANNEL			
COUNTY	WALWORTH	TOWN/CITY/VILLAGE	LA GRANGE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	DESIGNED BY	DRAWN BY	PLANS CK'D BY
MJM	MJM	MDG	MJM
GENERAL PLAN & ELEVATION			SHEET 1 OF 6



PLAN

SINGLE CELL BOX CULVERT



ELEVATION

LOOKING UPSTATION

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
 INVENTORY RATING: RF = 1.00
 OPERATING RATING: RF = 1.30
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 (KIPS)
 DESIGNED FOR FILL HEIGHT RANGE OF 8.00 (WITH LIVE LOAD) TO 10.00 FEET (WITHOUT LIVE LOAD).

MATERIAL PROPERTIES:

CONCRETE MASONRY (CULVERT) $f_c = 3,500$ PSI
 BAR STEEL REINFORCEMENT $f_y = 60,000$ PSI

FOUNDATION DATA

ALLOWABLE SOIL BEARING = 3,000 PSF

HYDRAULIC DATA

100-YEAR FREQUENCY:

$Q_{100} = 207$ C.F.S.
 $V_{100} = 10.6$ F.P.S.
 $HW_{100} = EL. 913.83$
 WATERWAY AREA = 19.2 SQ. FT.
 DRAINAGE AREA = 0.28 SQ. MI.
 ROADWAY OVERTOPPING = N/A
 SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:

$Q_2 = 93.9$ C.F.S.
 $V_2 = 8.6$ F.P.S.
 $HW_2 = EL. 911.32$

TRAFFIC DATA

USH 12:

ADT = 8,500 (2025)
 ADT = 9,300 (2045)
 R.D.S. = 60 MPH



BUREAU OF STRUCTURES CONTACT:

AARON BONK 608-261-0261

CONSULTANT CONTACT:

MARK MUTZIGER 414-930-4534

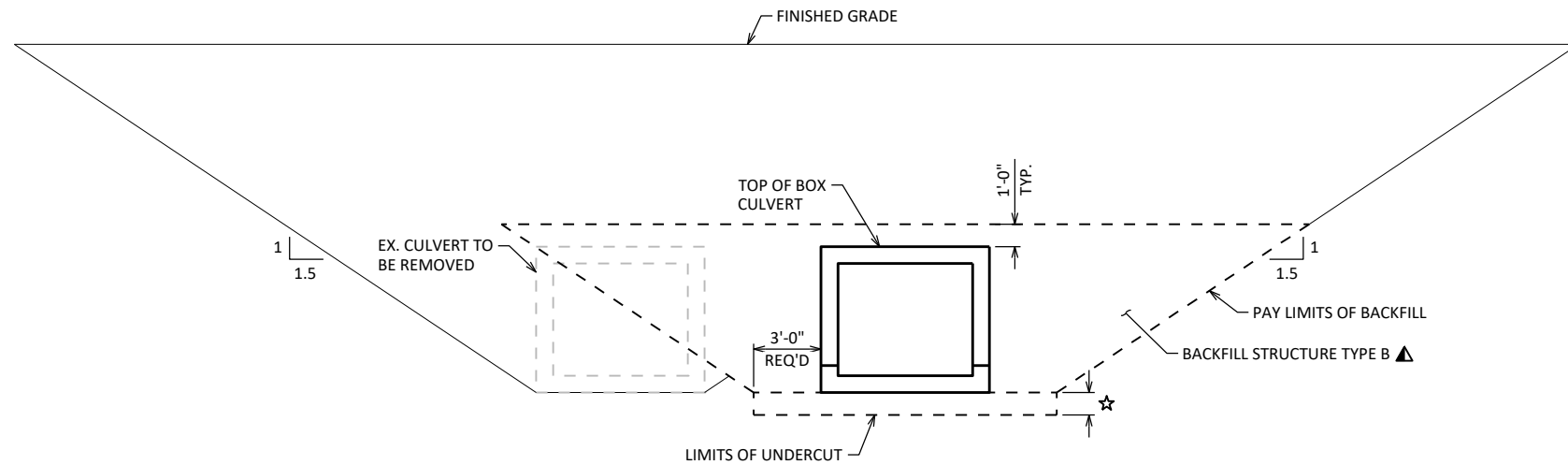
NOTES

LOCATE NAME PLATE ON NEAREST RIGHT WING TRAVELING UP STATION, FACE NAME PLATE UP STATION.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-64-092" SHALL BE THE EXISTING GROUNDLINE.

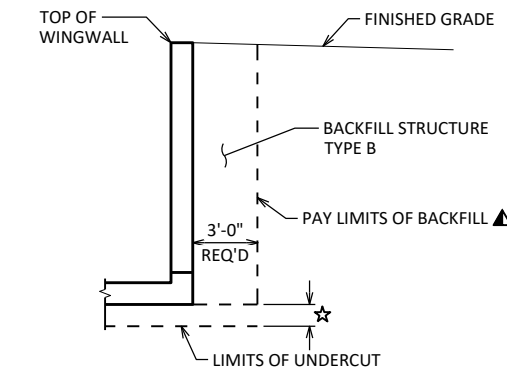
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES".

ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "BACKFILL STRUCTURES TYPE B" OF 6" MINIMUM DEPTH.

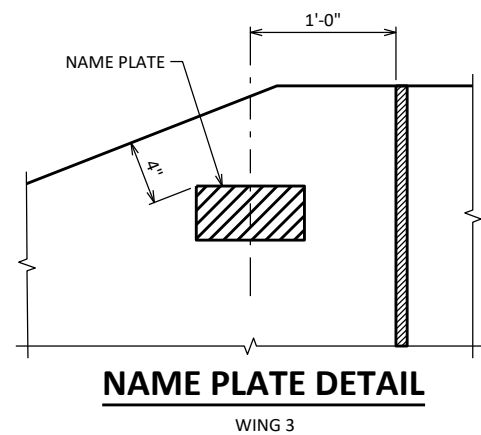


TYPICAL SECTION THRU BOX CULVERT

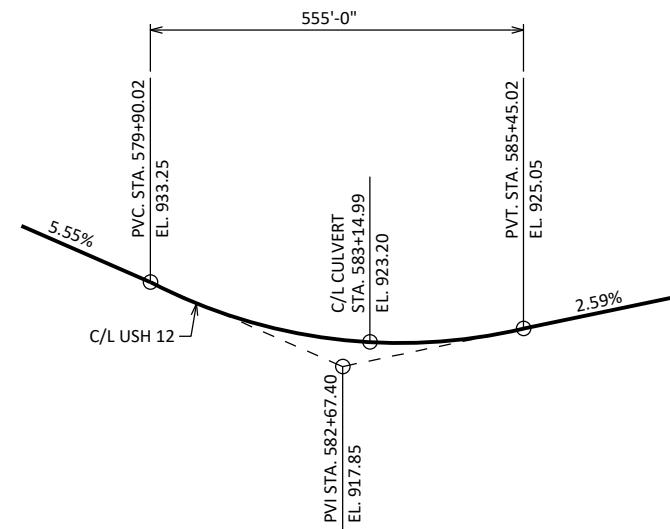
- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ☆ UNDERCUT 1'-0". EXCAVATION FOR UNDER CUT IS TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN"



TYPICAL SECTION THRU BOX CULVERT WINGWALL



NAME PLATE DETAIL



PROFILE GRADE LINE

CURVE DATA

HORIZONTAL CURVE

P.I. STA = 587+89.88
 Y = 410721.785
 X = 743224.678
 $\Delta = 29^\circ 43' 34''$ LT
 D = 2' 29' 28"
 T = 610.38'
 L = 1193.25'
 R = 2300.00'
 P.C. STA = 581+79.50
 Y = 410646.546
 X = 742618.955
 P.T. STA = 593+72.75
 Y = 411087.468
 X = 743713.389
 D.B. = N82°55'10"E
 D.A. = N53°11'38"E

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE (C-64-002)	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS (C-64-092)	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1510
311.0115	BREAKER RUN	CY	70
504.0100	CONCRETE MASONRY CULVERTS	CY	82
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	7750
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1000
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11
645.0105	GEOTEXTILE TYPE C	SY	197

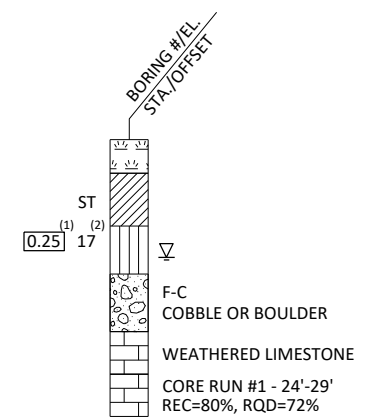
NOTE: ALL INLET AND OUTFALL RIPRAP AND GEOTEXTILE INCLUDED IN ROADWAY QUANTITIES.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-64-092			
DRAWN BY MDG		PLANS CK'D MJM	
QUANTITIES & BACKFILL DETAILS			SHEET 2 OF 6

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



NOTE:
 ● DENOTES SOIL BORING LOCATION
 THE SUBSURFACE INFORMATION PRESENTED
 HEREIN IS AN ABBREVIATED REPORT DATED
 10/27/2021 REVIEW APPROPRIATE GEOTECHNICAL
 REPORT AND SOIL BORING LOGS FOR ADDITIONAL
 SUBSURFACE INFORMATION.

SOIL BORING COMPLETED BY GESTRA
 ENGINEERING, INC. SOIL BORINGS TAKEN 7/8/2021.

(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
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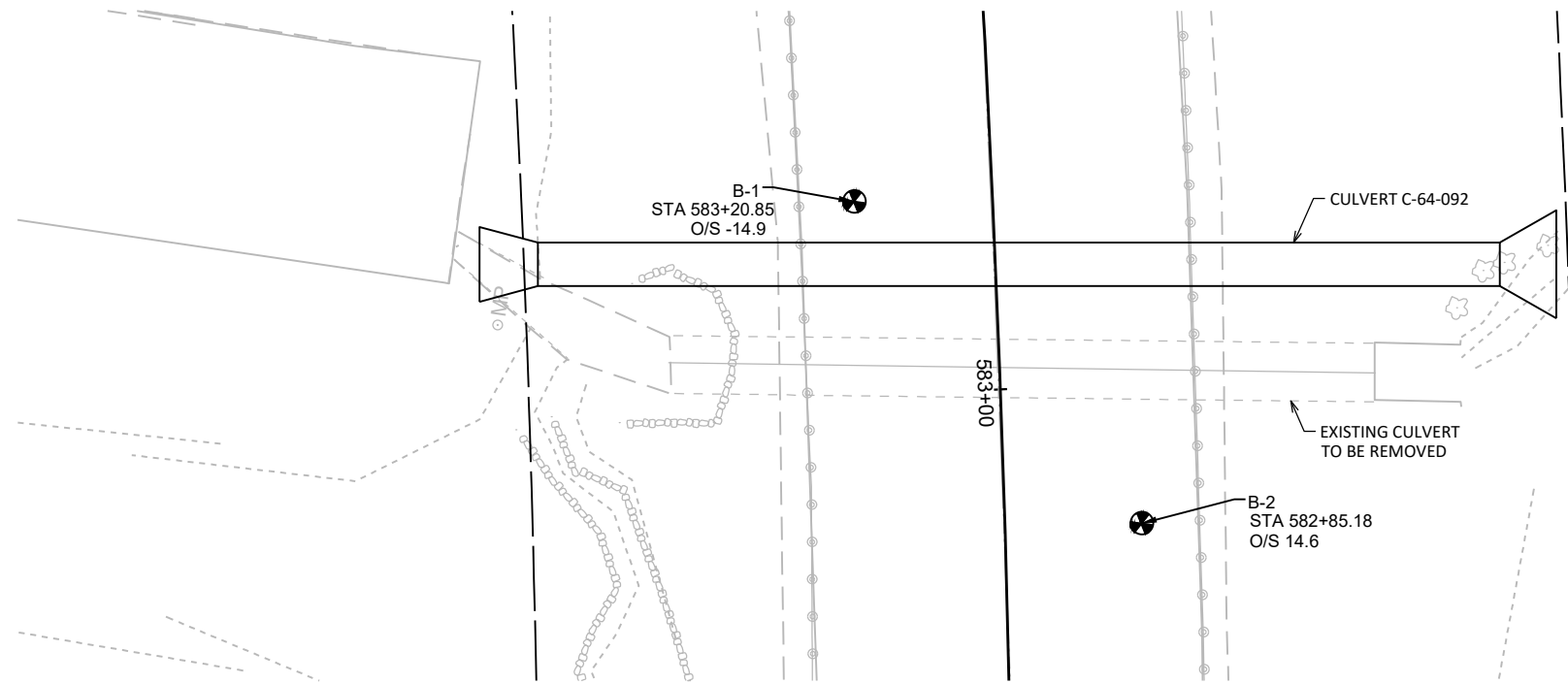
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

STRUCTURE C-64-092

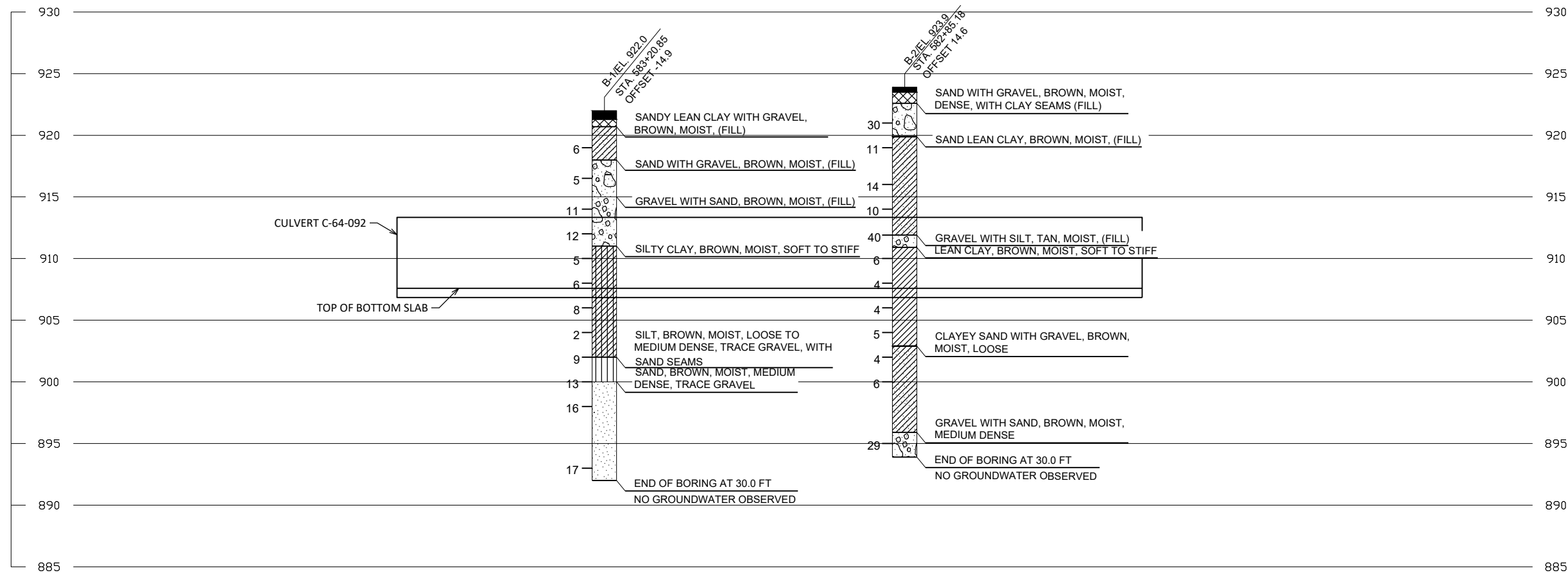
DRAWN BY	MDG	PLANS CK'D	MJM
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SUBSURFACE
 EXPLORATION

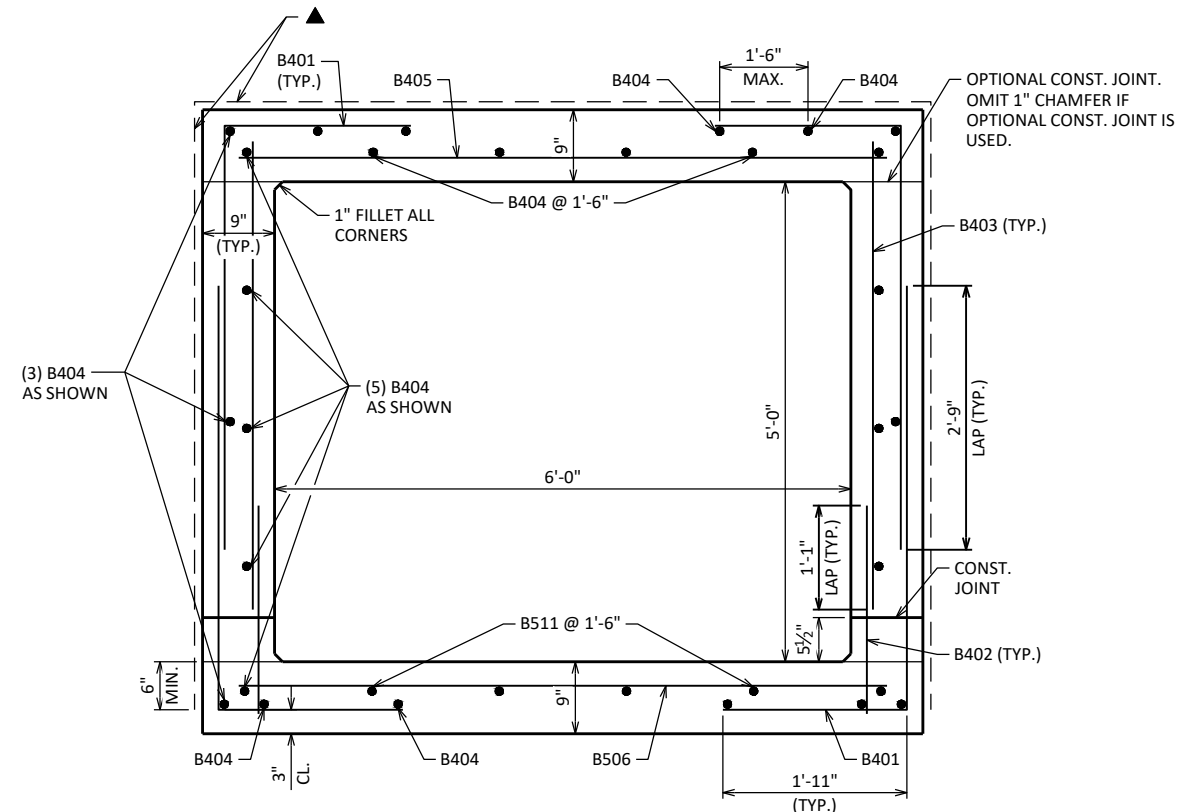
SHEET 3 OF 6



PLAN VIEW

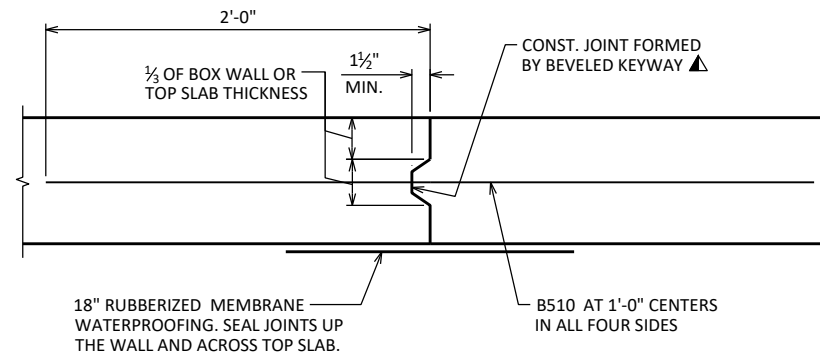


SOIL BORING LOG



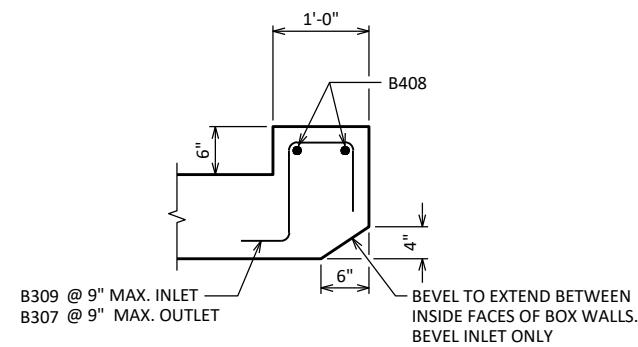
SECTION THRU BOX

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.



VERTICAL CONSTRUCTION JOINT

▲ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

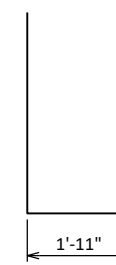


SECTION THRU HEADER

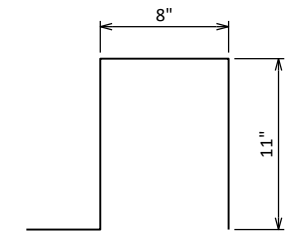
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

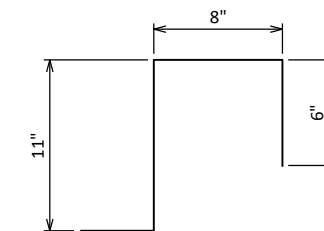
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		528	6'-3"	X		CORNERS
B402		198	2'-1"			WALLS - DOWELS VERT.
B403		198	5'-1"			WALLS - VERT.
B404		84	32'-0"			LONGITUDINAL WALL; TOP & BOTTOM
B405		132	7'-2"			TOP SLAB TRANSVERSE BOTTOM
B506		120	7'-2"			BOT. SLAB TRANSVERSE TOP
B307		11	2'-9"	X		OUTLET HEADER BENT
B408		4	7'-2"			HEADER LONGITUDINAL
B309		11	2'-4"	X		INLET HEADER BENT
B510		52	4'-0"			VERT. CONST. JOINT
B511		12	32'-0"			BOT. SLAB LONGITUDINAL BOTTOM



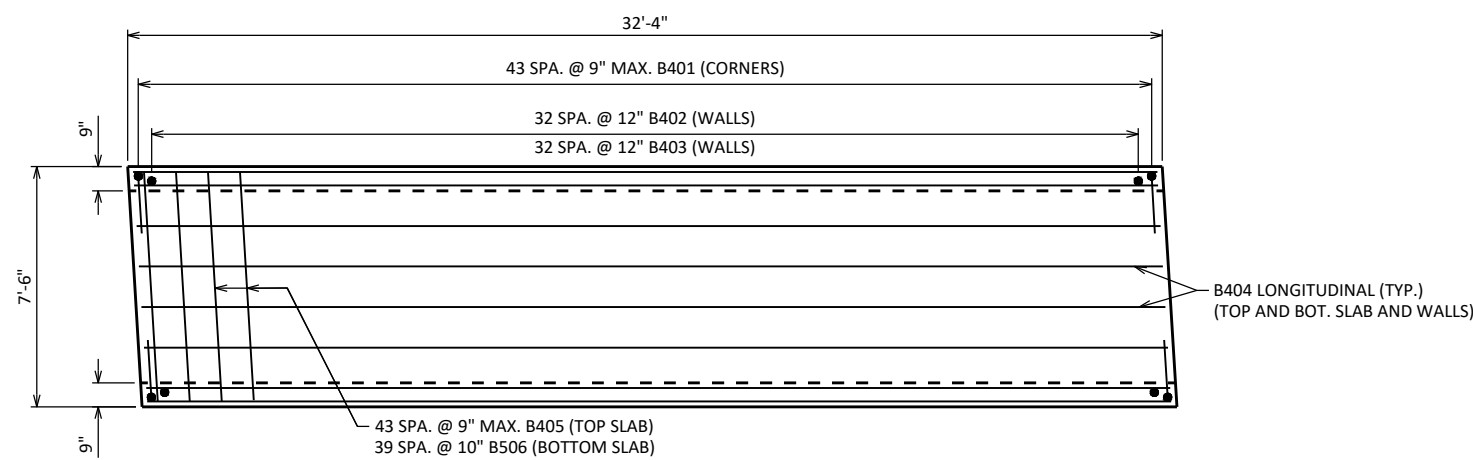
B401



B307

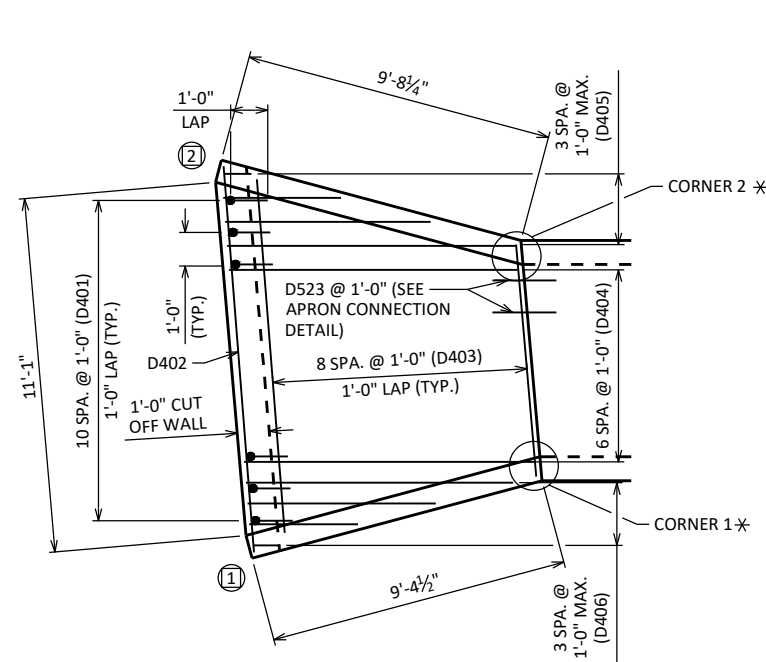


B309



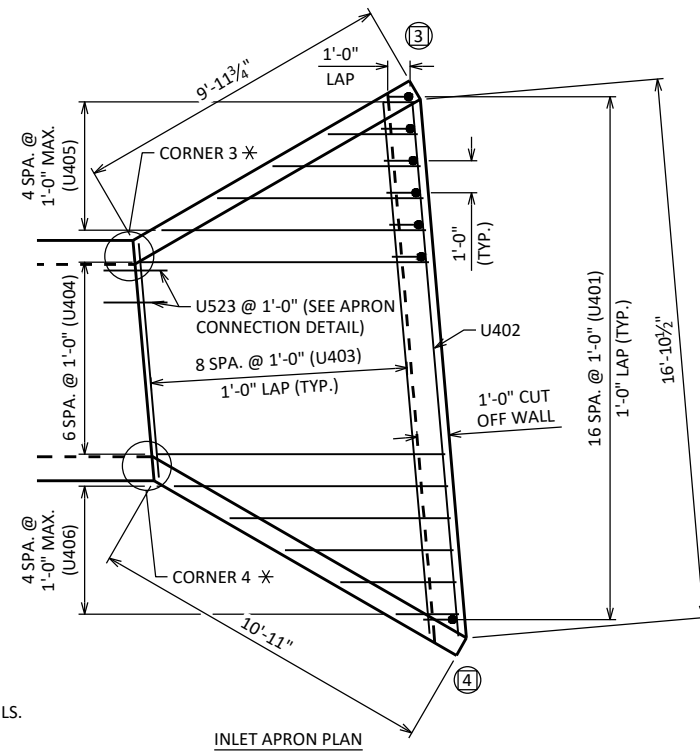
TYPICAL PLAN VIEW OF PANEL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-64-092			
DRAWN BY MDG		PLANS CK'D MJM	
BOX CULVERT DETAILS			SHEET 4 OF 6

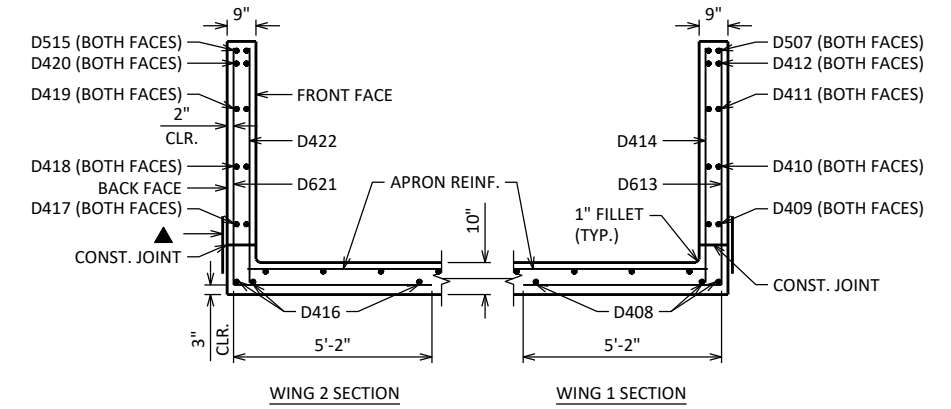


OUTLET APRON PLAN

* SEE SHEET 6 FOR CORNER DETAILS.



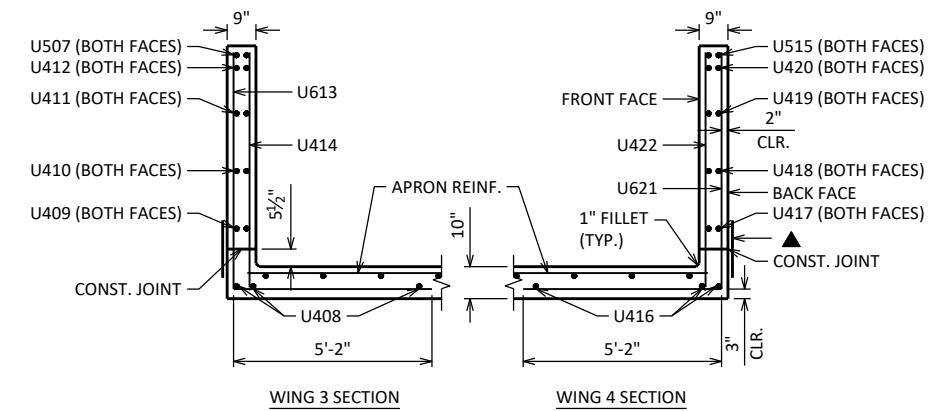
INLET APRON PLAN



WING 2 SECTION

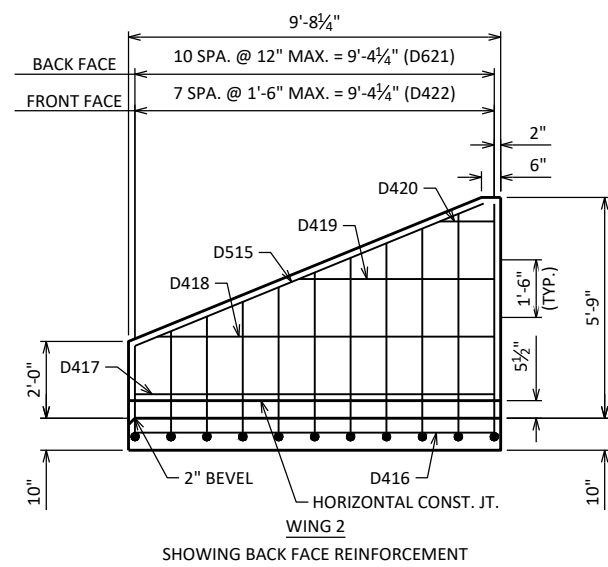
WING 1 SECTION

▲ 18" RUBBERIZE MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING (TYP.)

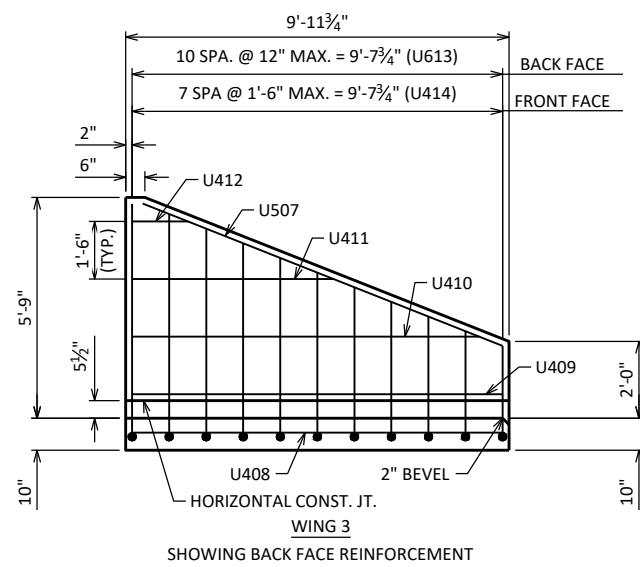


WING 3 SECTION

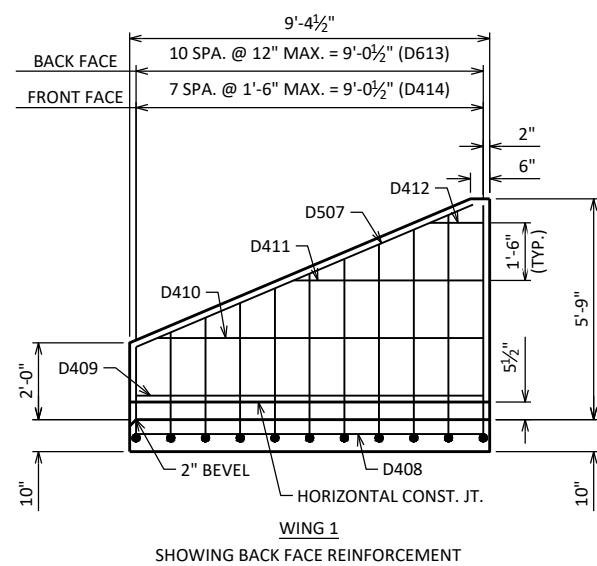
WING 4 SECTION



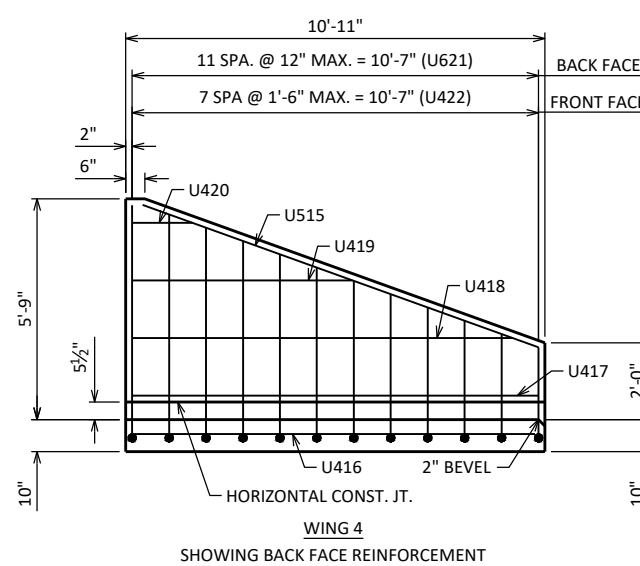
WING 2 SHOWING BACK FACE REINFORCEMENT



WING 3 SHOWING BACK FACE REINFORCEMENT



WING 1 SHOWING BACK FACE REINFORCEMENT



WING 4 SHOWING BACK FACE REINFORCEMENT

8

8

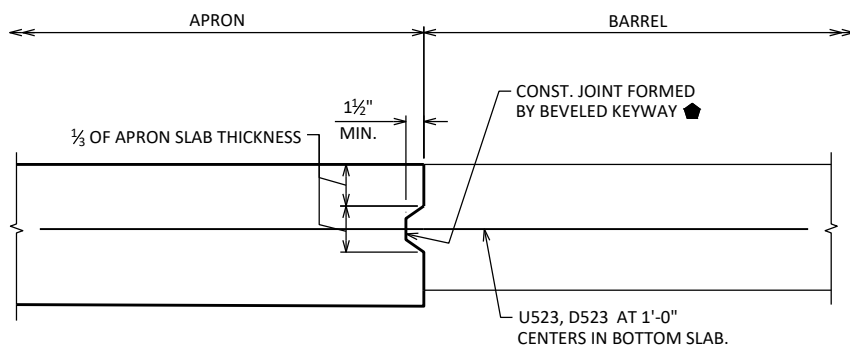
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-64-092			
DRAWN BY MDG		PLANS CK'D MJM	
APRON & WING DETAILS 1			SHEET 5 OF 6

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		17	3'-6"	X		INLET CUT OFF WALL VERT.
U402		4	16'-6"			INLET CUT OFF WALL HORIZ.
U403		9	11'-11"		Δ	INLET APRON SLAB TRANSVERSE
U404		7	9'-1"			INLET APRON SLAB HORIZ.
U405		5	4'-8"		Δ	INLET APRON SLAB HORIZ.
U406		5	5'-3"		Δ	INLET APRON SLAB HORIZ.
U507	X	2	10'-5"			WING 3 HORIZ. TOP BOTH FACES
U408	X	3	9'-9"			WING 3 HORIZ. APRON SLAB
U409	X	2	9'-9"			WING 3 HORIZ.
U410	X	2	9'-5"			WING 3 HORIZ.
U411	X	2	5'-3"			WING 3 HORIZ.
U412	X	2	1'-4"			WING 3 HORIZ.
U613	X	11	9'-3"	X	Δ	WING 3 VERTICAL BACK FACE
U414	X	8	4'-3"		Δ	WING 3 VERTICAL FRONT FACE
U515	X	2	11'-5"			WING 4 HORIZ. TOP BOTH FACES
U416	X	3	10'-5"			WING 4 HORIZ. APRON SLAB
U417	X	2	10'-5"			WING 4 HORIZ.
U418	X	2	10'-1"			WING 4 HORIZ.
U419	X	2	5'-9"			WING 4 HORIZ.
U420	X	2	1'-5"			WING 4 HORIZ.
U621	X	12	9'-3"	X	Δ	WING 4 VERTICAL BACK FACE
U422	X	8	4'-3"		Δ	WING 4 VERTICAL FRONT FACE
U523		8	4'-0"			INLET APRON CONNECTION
D401		11	5'-6"	X		OUTLET CUT OFF WALL VERT.
D402		6	10'-8"			OUTLET CUT OFF WALL HORIZ.
D403		9	9'-5"	X	Δ	OUTLET APRON SLAB TRANSVERSE
D404		7	9'-0"			OUTLET APRON SLAB HORIZ.
D405		4	6'-9"		Δ	OUTLET APRON SLAB HORIZ.
D406		4	5'-1"		Δ	OUTLET APRON SLAB HORIZ.
D507	X	2	9'-9"			WING 1 HORIZ. TOP BOTH FACES
D408	X	3	9'-1"			WING 1 HORIZ. APRON SLAB
D409	X	2	9'-1"			WING 1 HORIZ.
D410	X	2	8'-9"			WING 1 HORIZ.
D411	X	2	5'-0"			WING 1 HORIZ.
D412	X	2	1'-2"			WING 1 HORIZ.
D613	X	10	9'-3"	X	Δ	WING 1 VERTICAL BACK FACE
D414	X	7	4'-3"		Δ	WING 1 VERTICAL FRONT FACE
D515	X	2	10'-0"			WING 2 HORIZ. TOP BOTH FACES
D416	X	3	9'-3"			WING 2 HORIZ. APRON SLAB
D417	X	2	9'-3"			WING 2 HORIZ.
D418	X	2	9'-0"			WING 2 HORIZ.
D419	X	2	5'-1"			WING 2 HORIZ.
D420	X	2	1'-3"			WING 2 HORIZ.
D621	X	10	9'-3"	X	Δ	WING 2 VERTICAL BACK FACE
D422	X	8	4'-3"		Δ	WING 2 VERTICAL FRONT FACE
D523		8	4'-0"			OUTLET APRON CONNECTION

Δ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



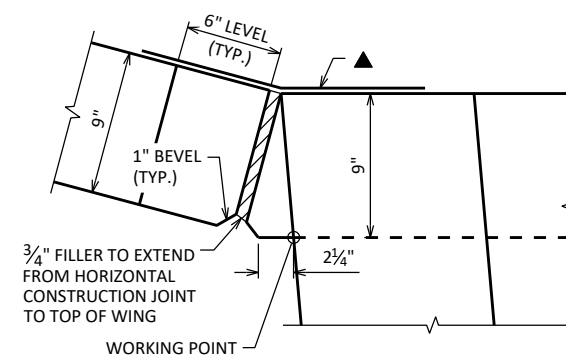
APRON CONNECTION DETAIL

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

BAR SERIES TABLE

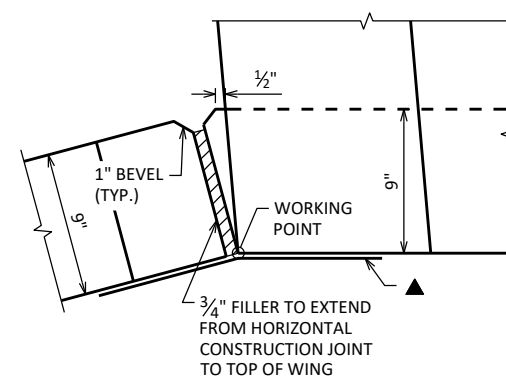
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 9	16'-7" TO 7'-3"
U405	1 SERIES OF 5	8'-3" TO 1'-1"
U406	1 SERIES OF 5	8'-7" TO 1'-11"
U613	1 SERIES OF 11	11'-1" TO 7'-4"
U414	1 SERIES OF 8	6'-1" TO 2'-4"
U621	1 SERIES OF 12	11'-1" TO 7'-4"
U422	1 SERIES OF 8	6'-1" TO 2'-4"
D403	1 SERIES OF 9	11'-7" TO 7'-3"
D405	1 SERIES OF 4	8'-11" TO 4'-7"
D406	1 SERIES OF 4	7'-0" TO 3'-2"
D613	1 SERIES OF 10	11'-1" TO 7'-4"
D414	1 SERIES OF 7	6'-1" TO 2'-4"
D621	1 SERIES OF 10	11'-1" TO 7'-4"
D422	1 SERIES OF 8	6'-1" TO 2'-4"

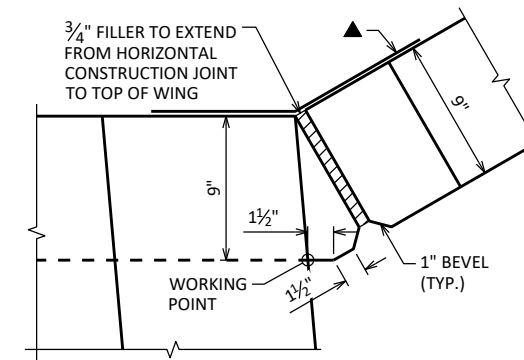


CORNER 2

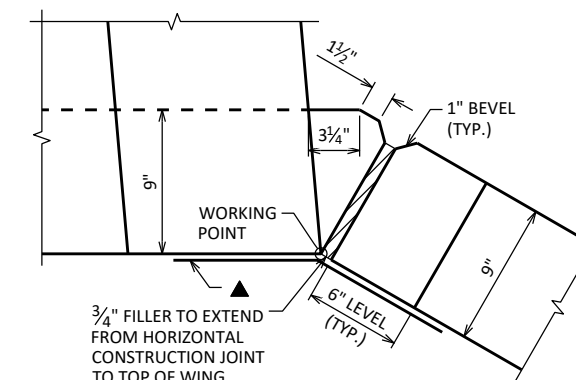
18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL. (FLUSH WITH CONCRETE)



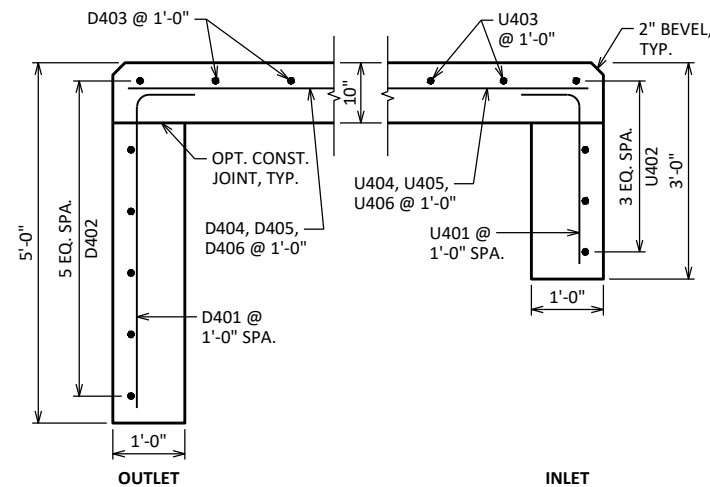
CORNER 1



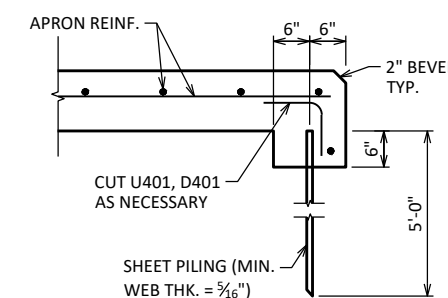
CORNER 3



CORNER 4



CUT-OFF WALLS



ALTERNATE CUT-OFF WALLS

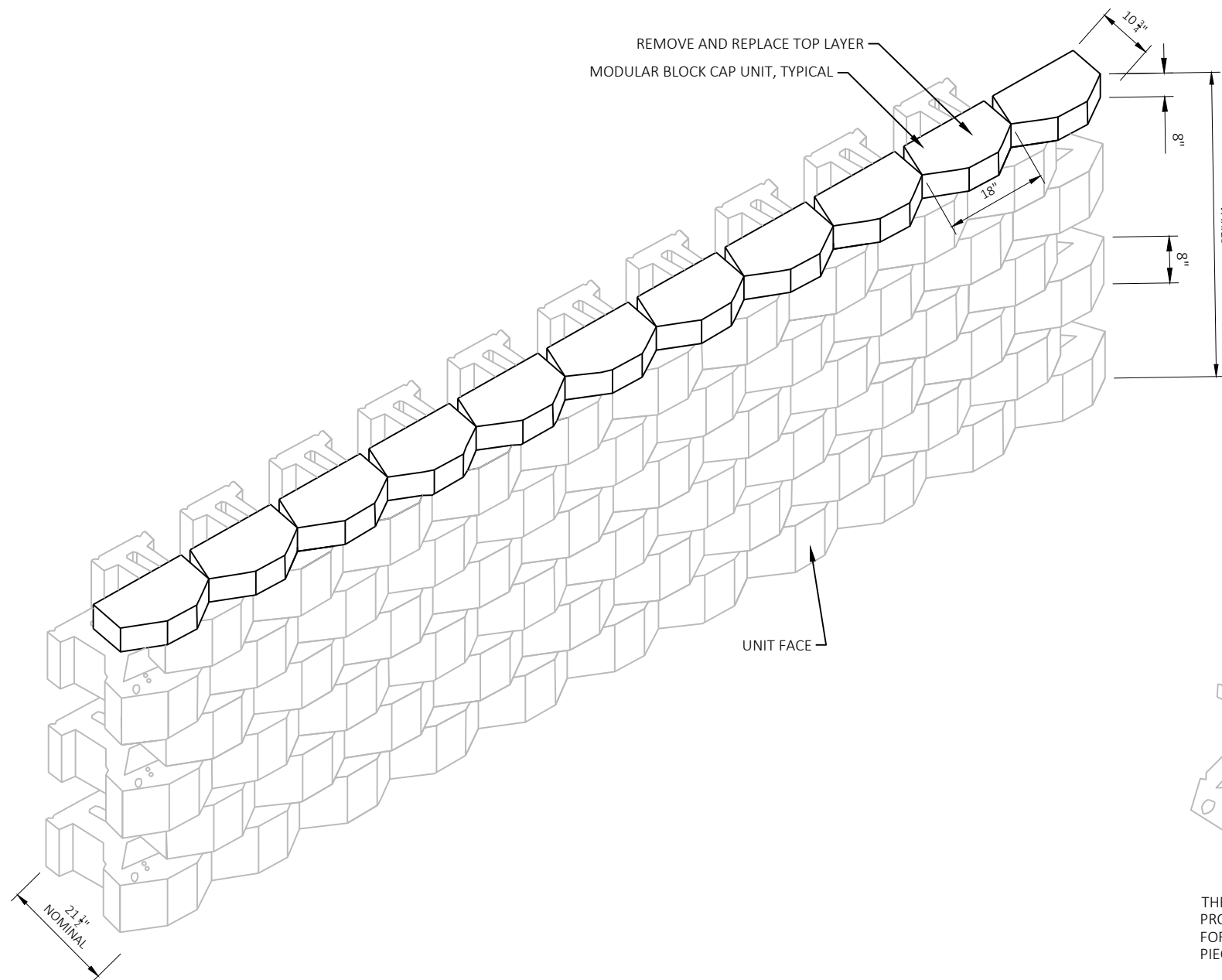
NOTES

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE "ALTERNATE CUT OFF WALL" DETAIL SHOWN ON THIS SHEET MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALLS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-64-092			
DRAWN BY		PLANS CK'D	
MDG		MJM	
APRON & WING DETAILS 2			SHEET 6 OF 6

MODULAR BLOCK WALL FACING UNITS
STA 686+30 TO STA 689+58



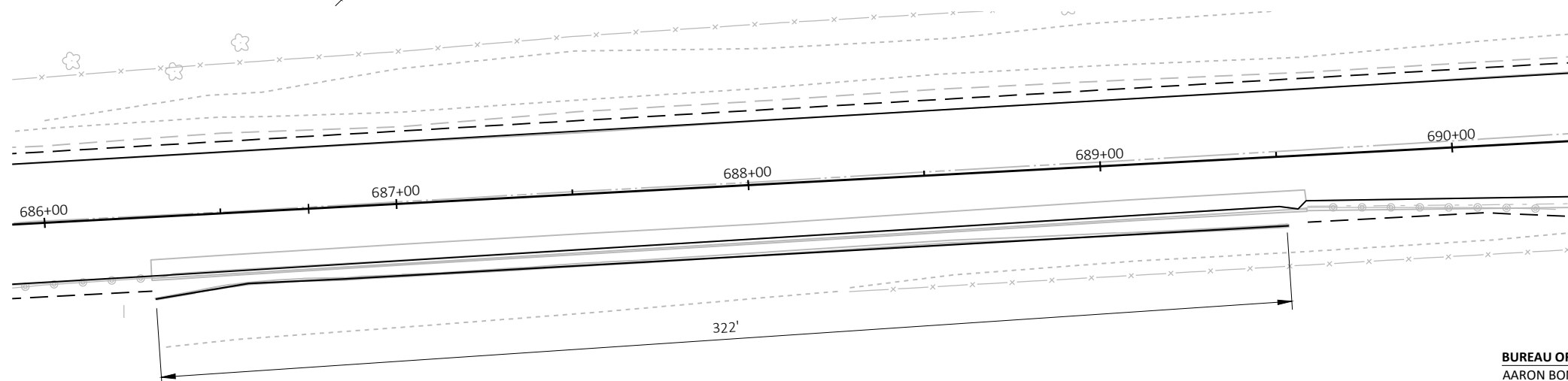
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
SPV.0165.01	RETAINING WALL BLOCK REPLACEMENT (R-64-017)	SF	215

NOTE: PAY LIMITS ARE MEASURED AS THE AREA OF THE FRONT FACE AND DOES NOT INCLUDE THE AREA OF THE TOP OF THE CAP.



THE ELONGATED TAIL SECTION PROVIDES ADDITIONAL STABILITY FOR STRAIGHT WALLS AS THE TAIL PIECE RESTS ON THE UNIT BELOW



BUREAU OF STRUCTURES CONTACT:
AARON BONK 608-261-0261

CONSULTANT CONTACT:
CHRIS QUESNELL 262-789-8200

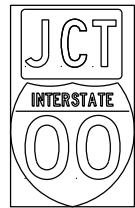
NO.	DATE	REVISION	BY
Lakeside ENGINEERS			
ACCEPTED	<i>Chris Quesnell</i>	SDR	08/06/24
		CHIEF STRUCTURES DESIGN ENGINEER	DATE
STRUCTURE R-64-017			
RETAINING WALL ON USH 12			
COUNTY	WALWORTH	TOWN	LA GRANGE
DESIGN SPEC.			
DESIGNED BY	TJB	DESIGNED CK'D	CMQ
DRAWN BY	CRS	PLANS CK'D	CMQ
GENERAL PLAN			SHEET 1 OF 1

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	THE MASS ORDINATE + OR - QTY CALCULATED FOR THE SEGMENT. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE SEGMENT. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE SEGMENT.

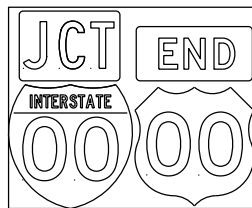
9

9

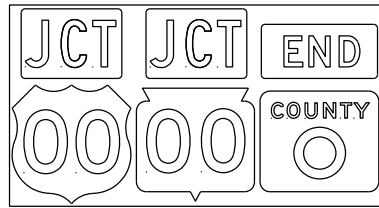
TYPICAL ASSEMBLIES



J1-1



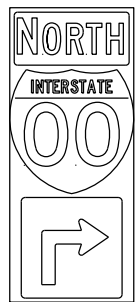
J1-2



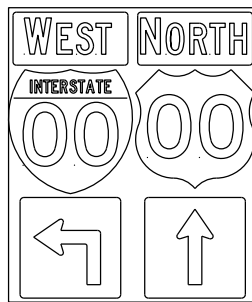
J1-3



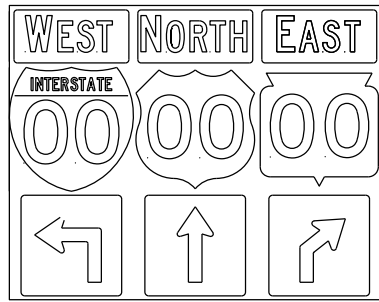
JR1-1



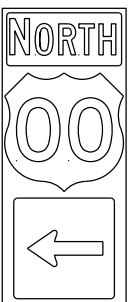
J2-1



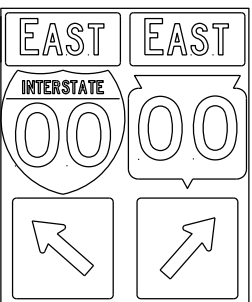
J2-2



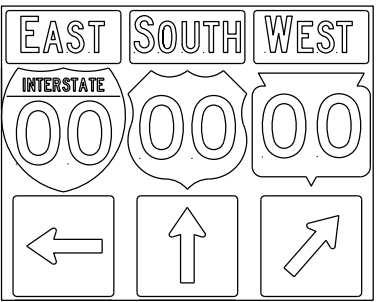
J2-3



J3-1



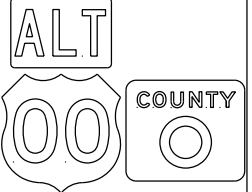
J3-2



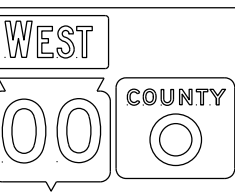
J3-3



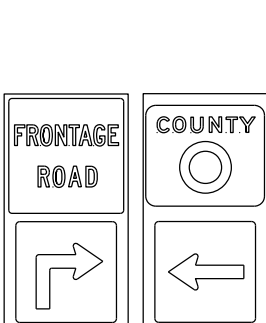
J4-1



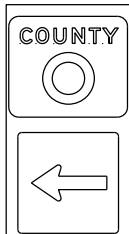
J4-2



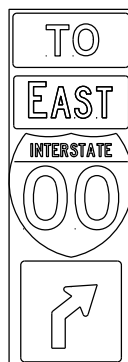
J4-2



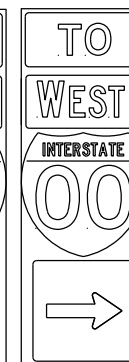
J12-1



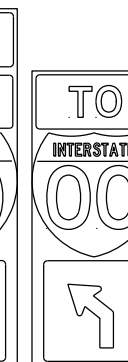
J13-1



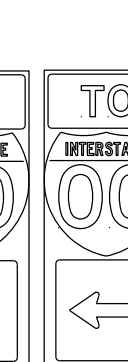
J32-1



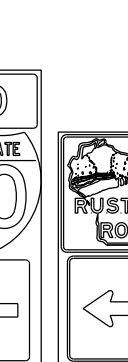
J33-1



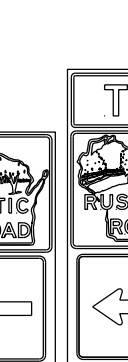
J22-1



J23-1



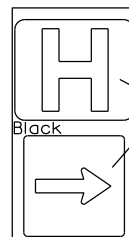
JR13-1



JR23-1



JR99-1

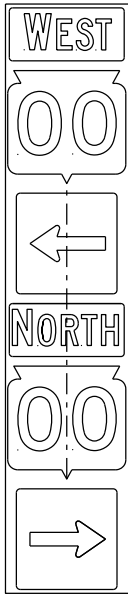
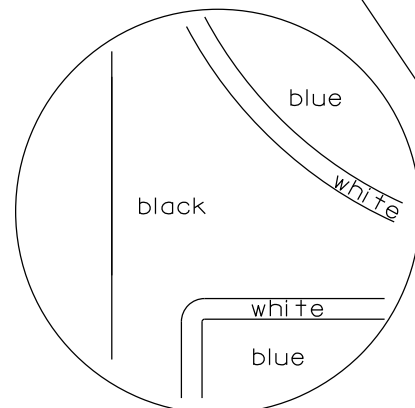


JH-1

Blue Background

Black

blue background with interstate

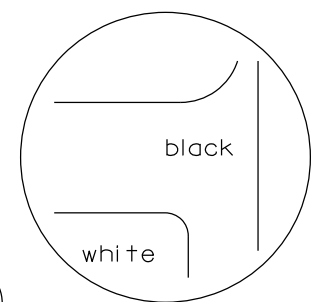
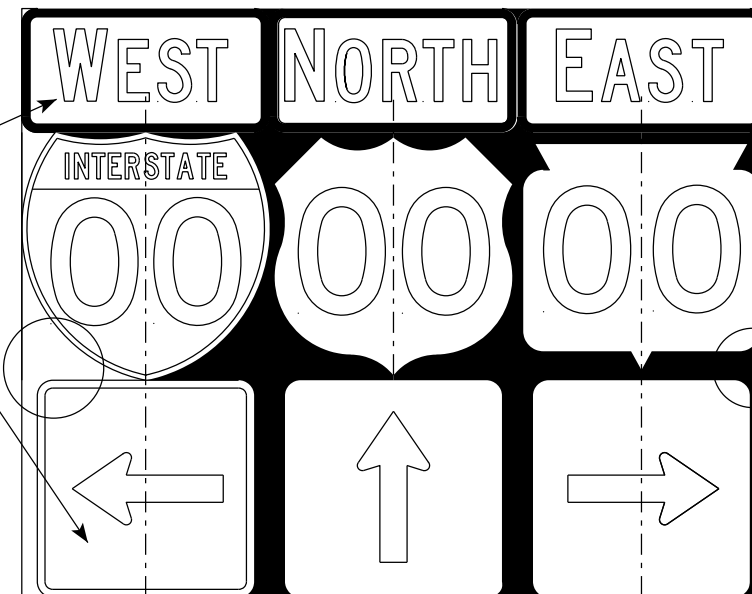


JV

(Typical Vertical J-Assembly See Note 10 and 11)

NOTES

- Signs are Type II - Type H Reflective
- Color:
 - Background - Black Non-reflective
 - Message - see Note 4
- Message Series - See Note 4
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
- For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.



black background

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
For State Traffic Engineer

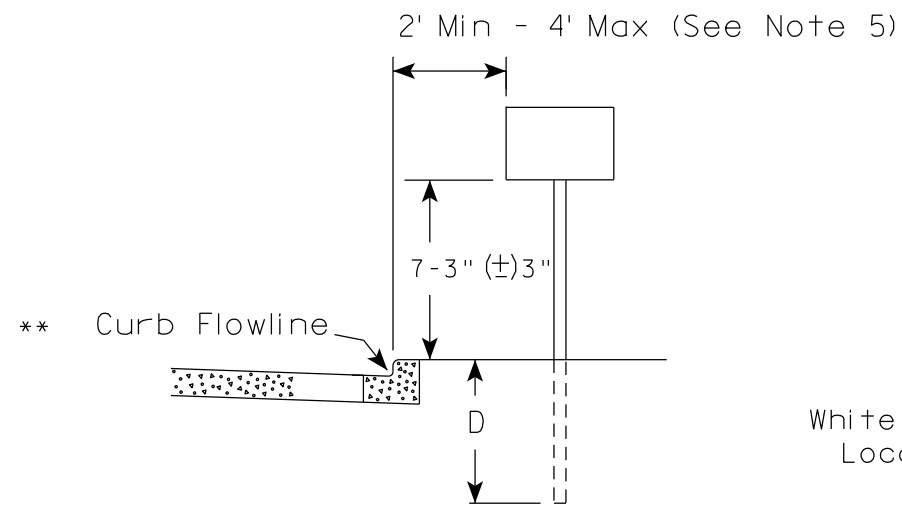
DATE 6/7/23 PLATE NO. A2-1S.10

7

7

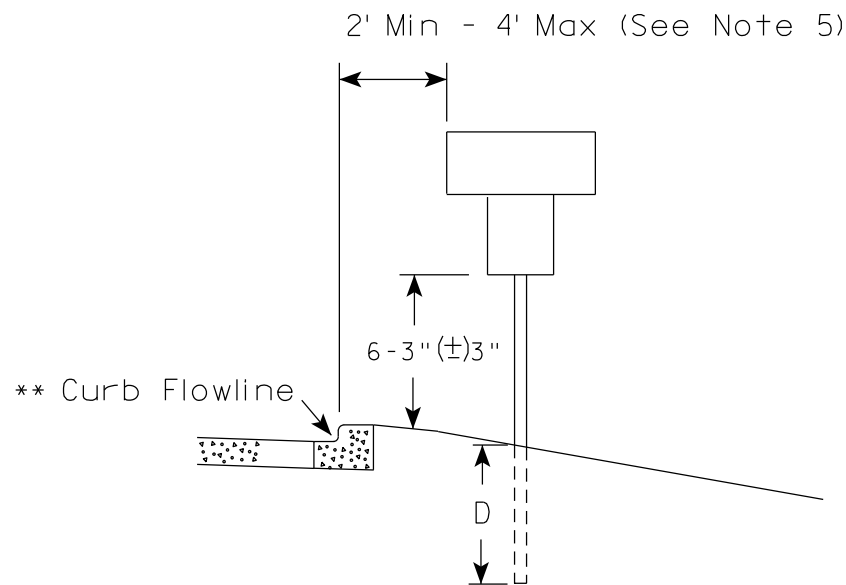
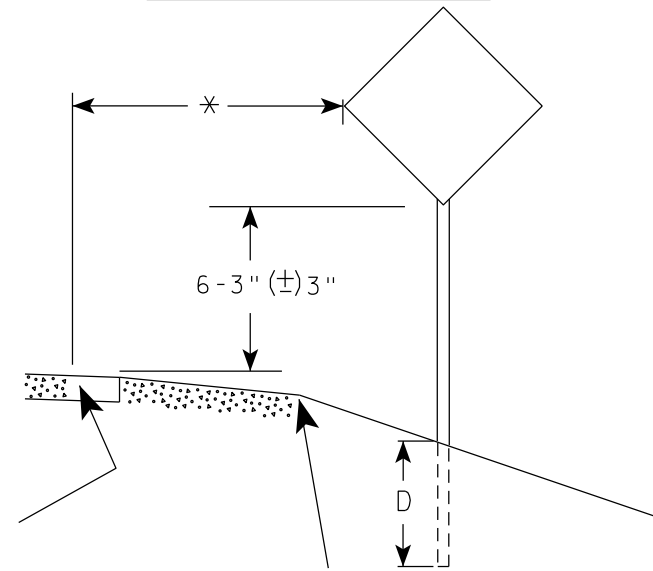
URBAN AREA

RURAL AREA (See Note 2)



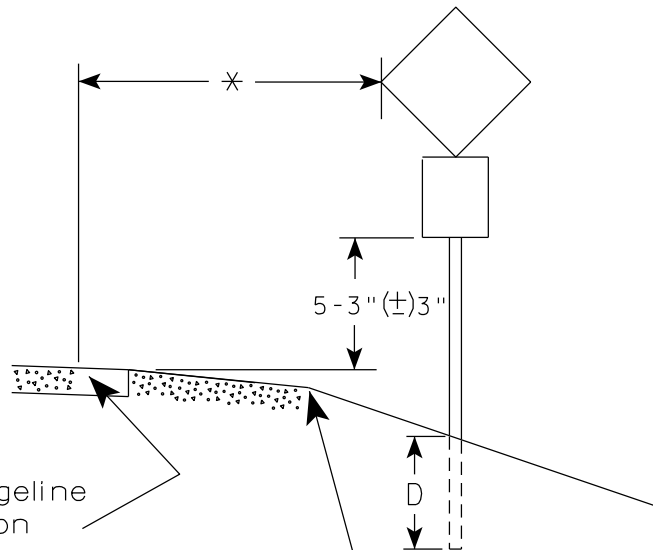
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the 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.

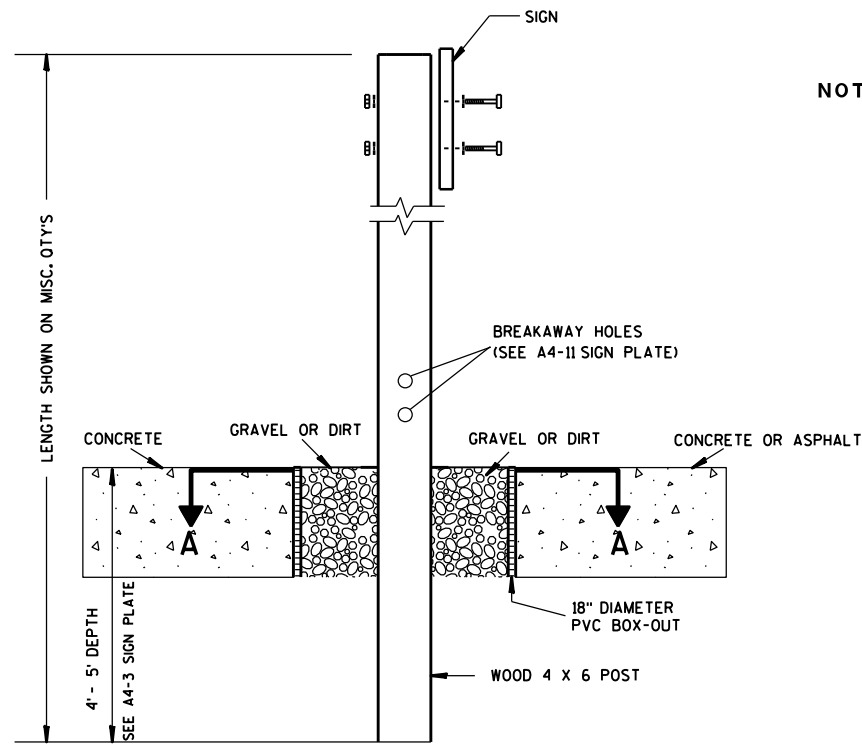
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Raub*
for State Traffic Engineer

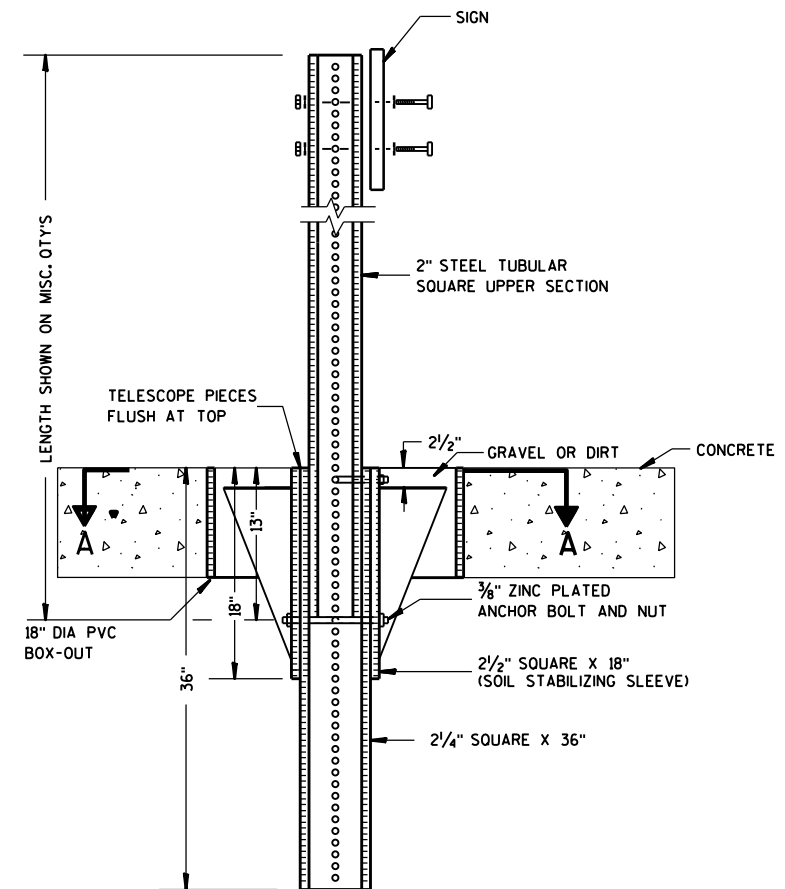
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

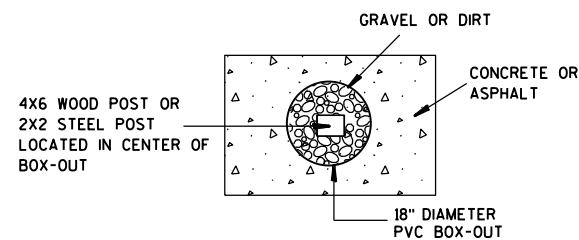
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

GENERAL NOTES

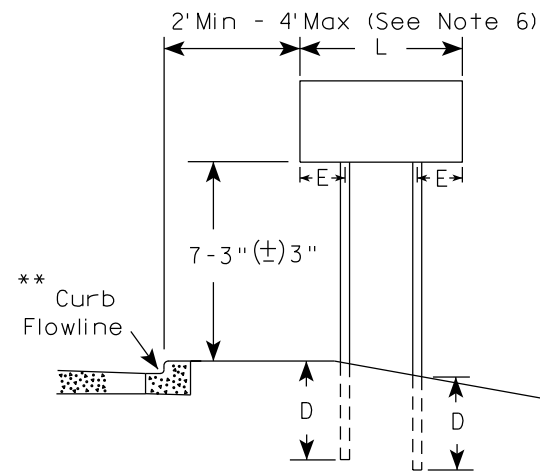
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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.

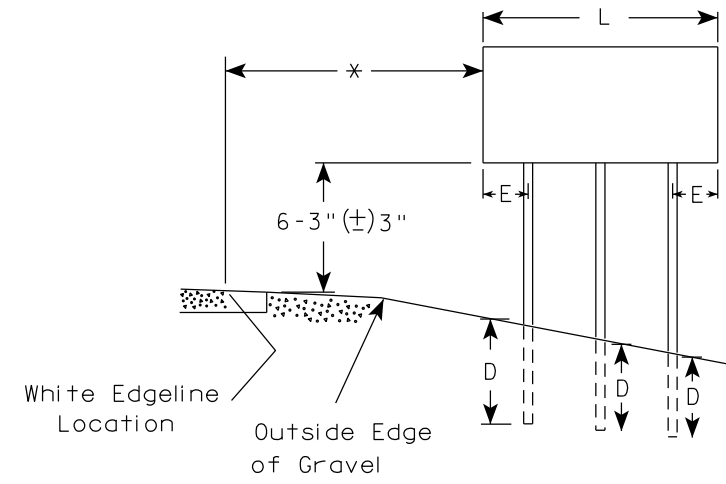
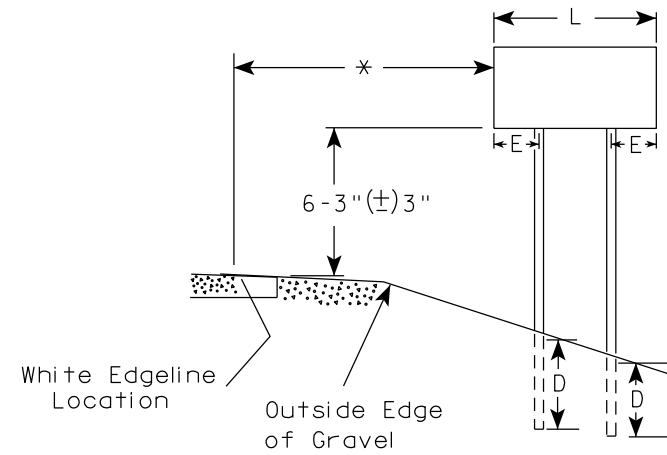
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs 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.

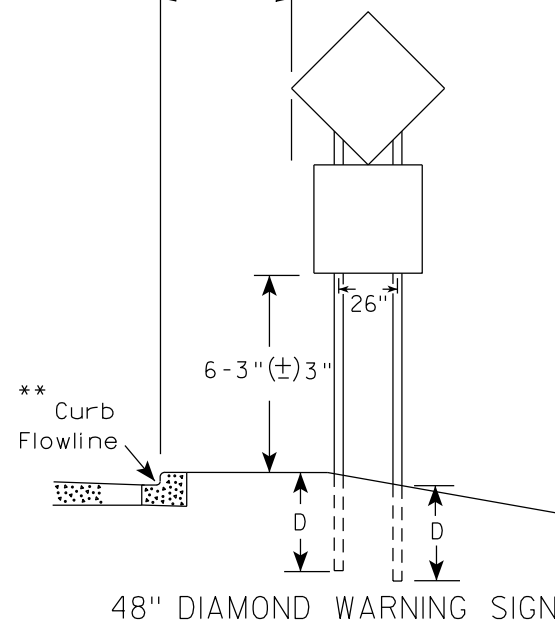
URBAN AREA



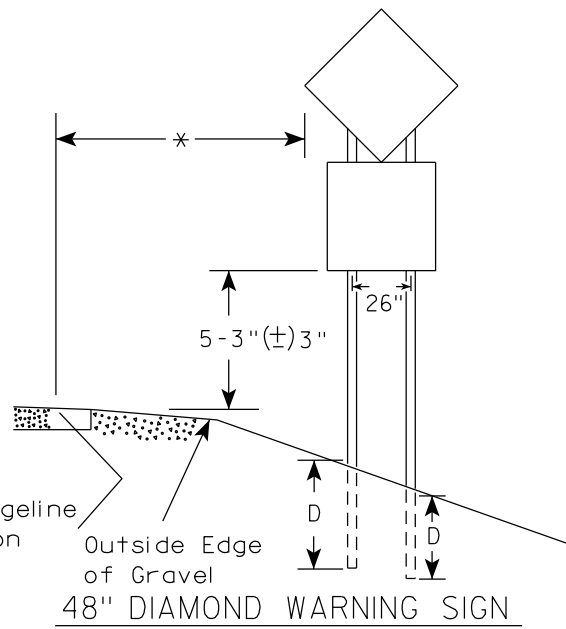
RURAL AREA (See Note 3)



URBAN AREA



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"

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 12/6/23 PLATE NO. A4-4.16

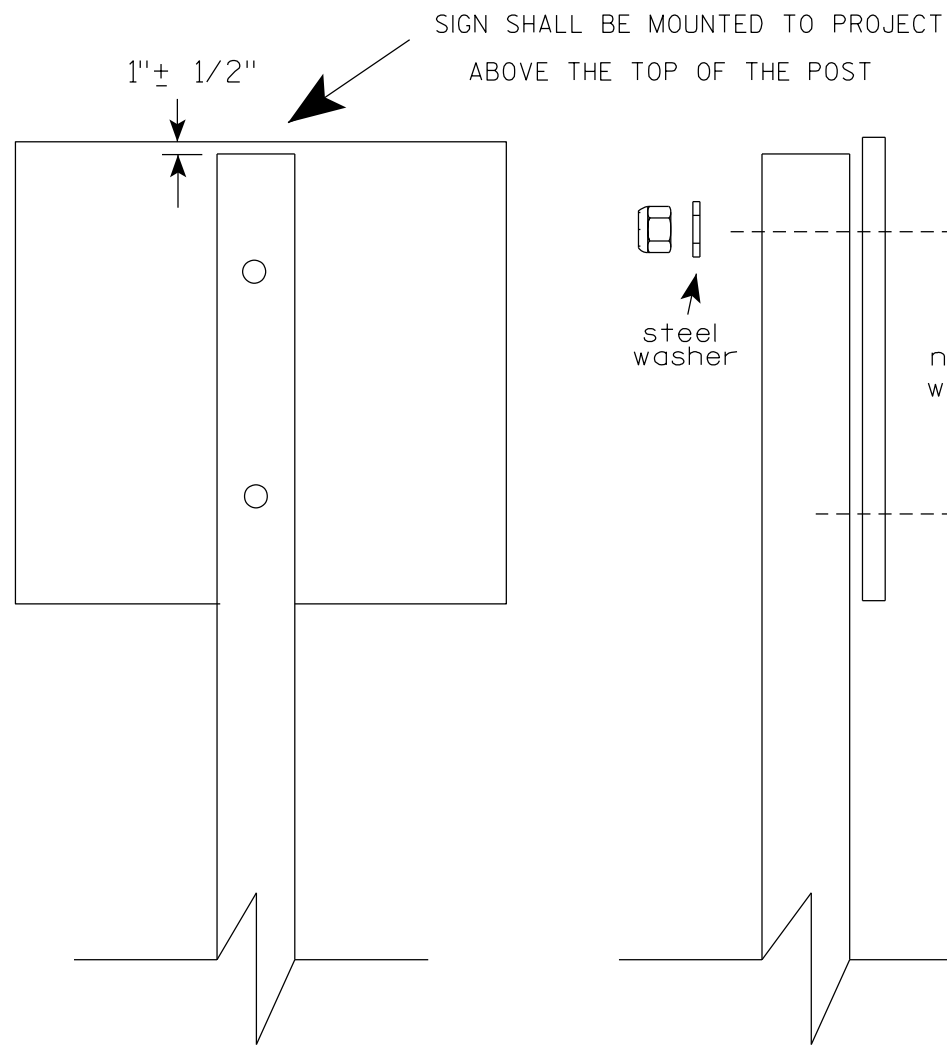
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

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

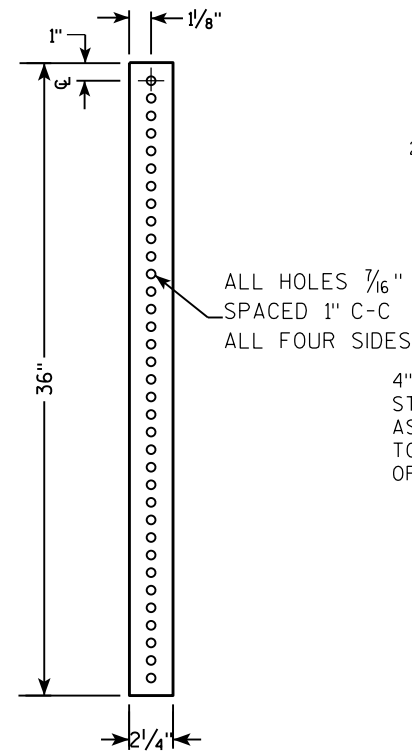
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

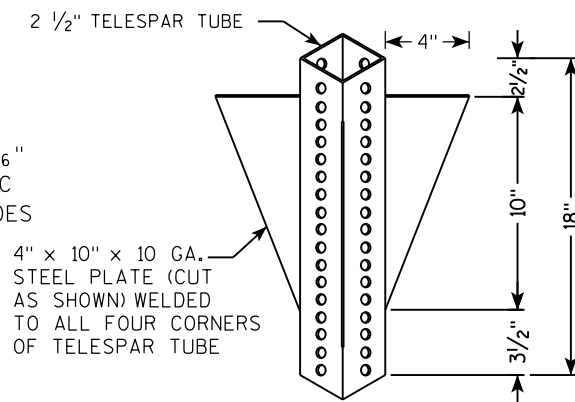
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

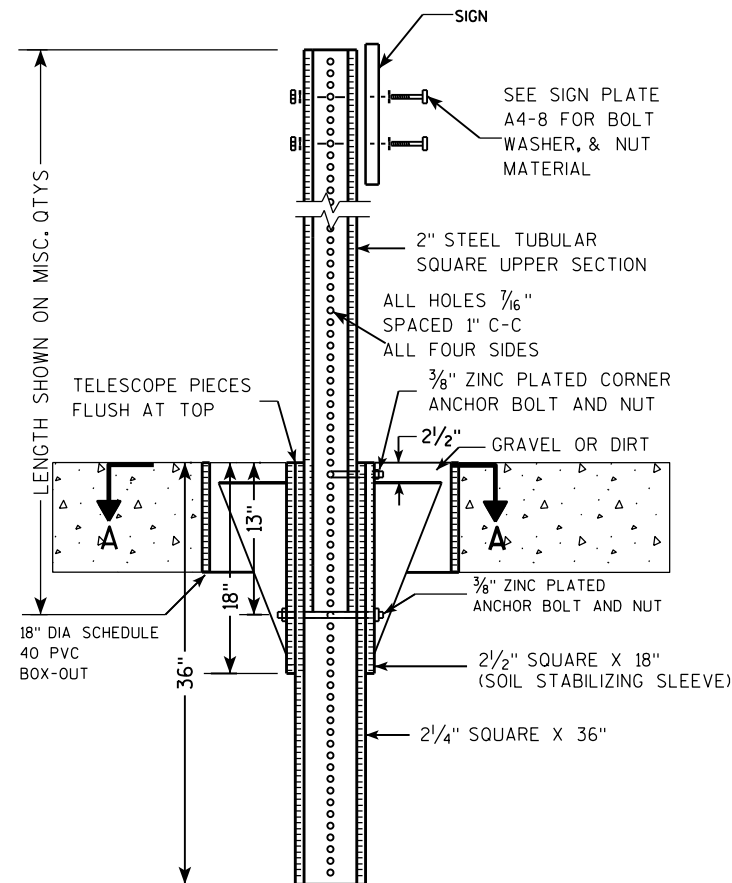
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



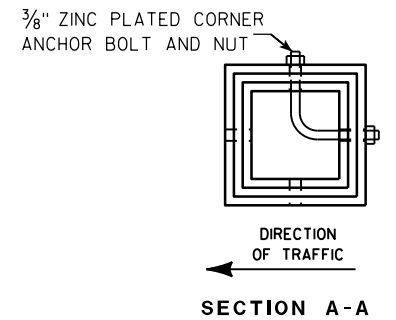
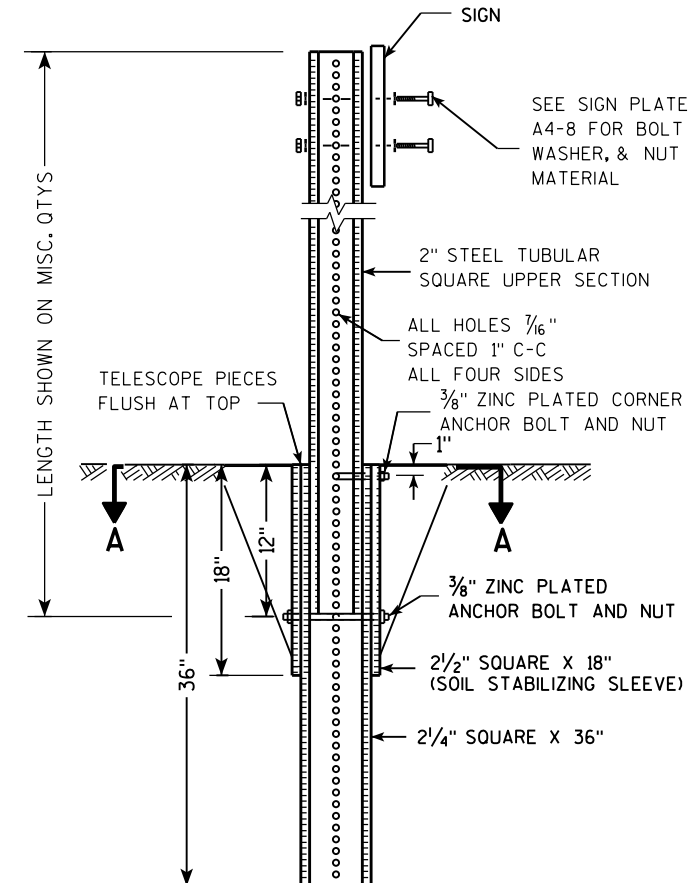
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**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)**



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

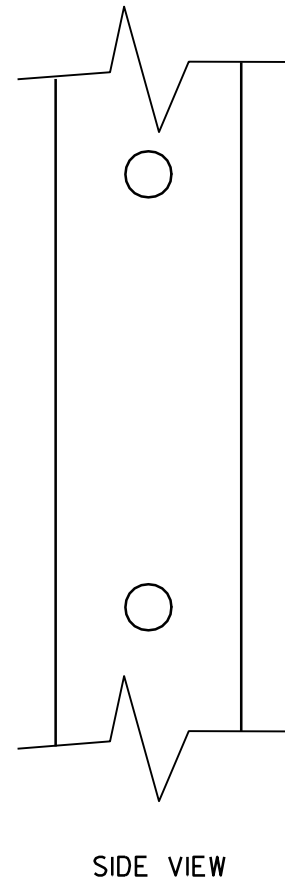
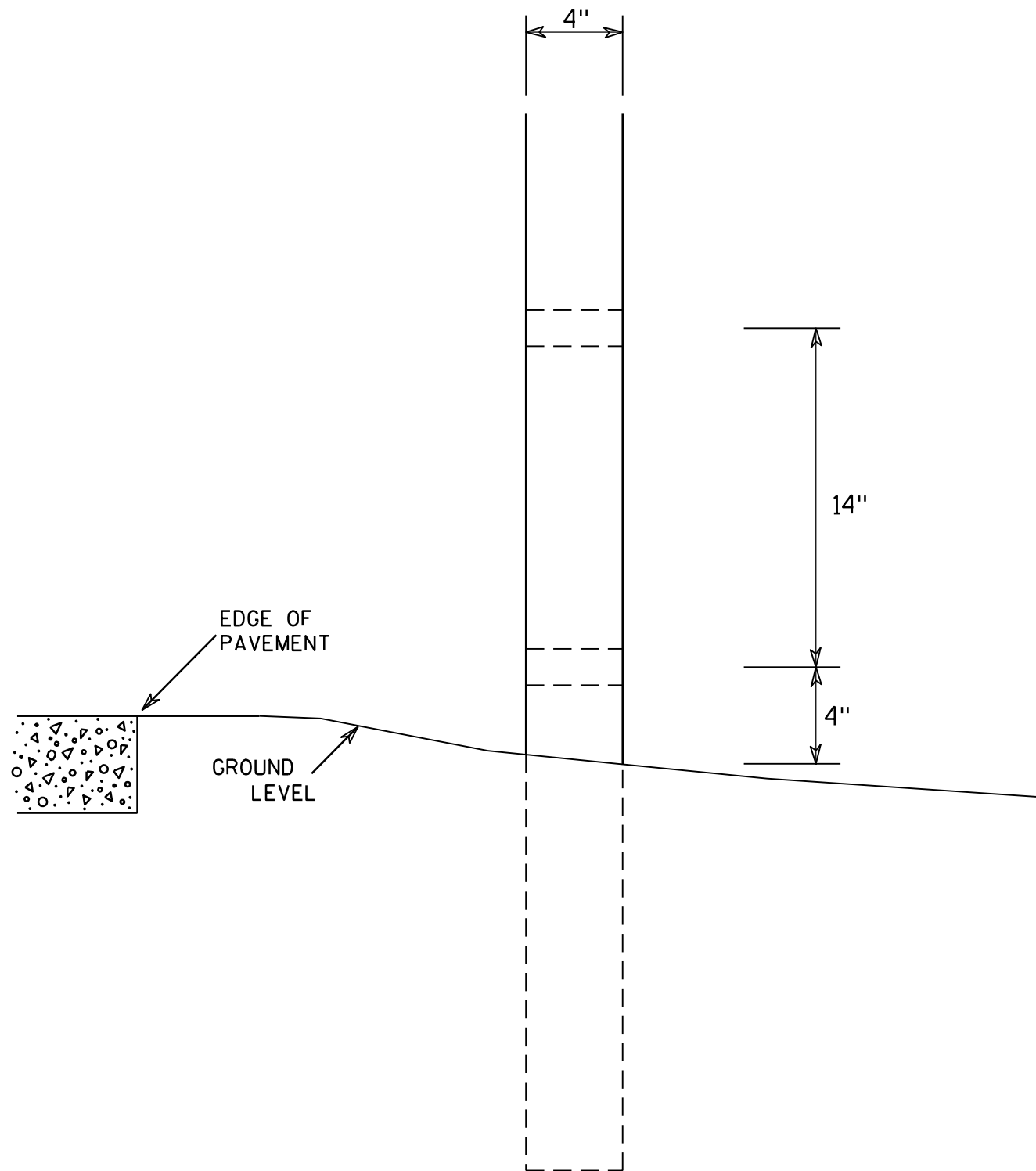
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9




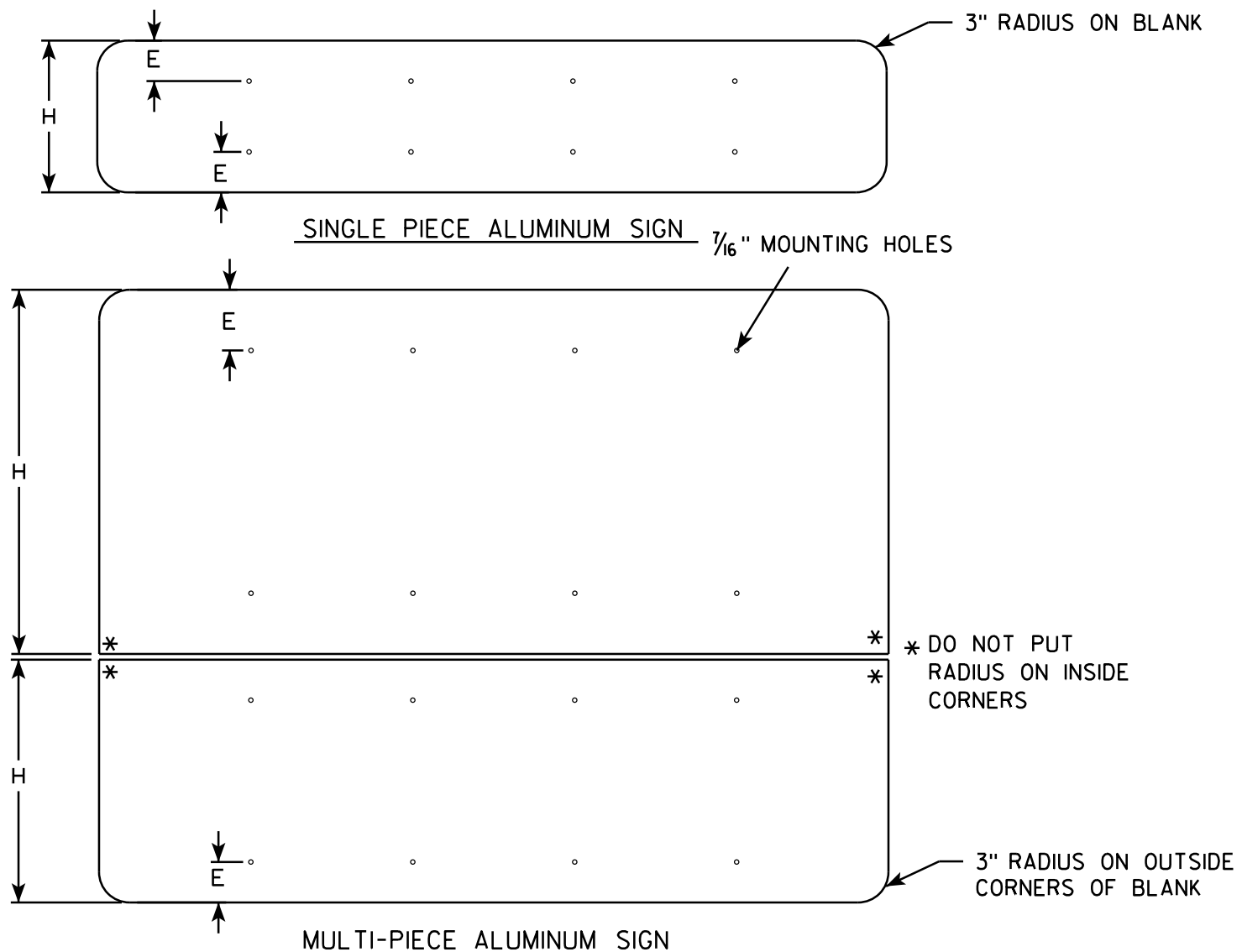
GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

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4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	 <small>for State Traffic Engineer</small>
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

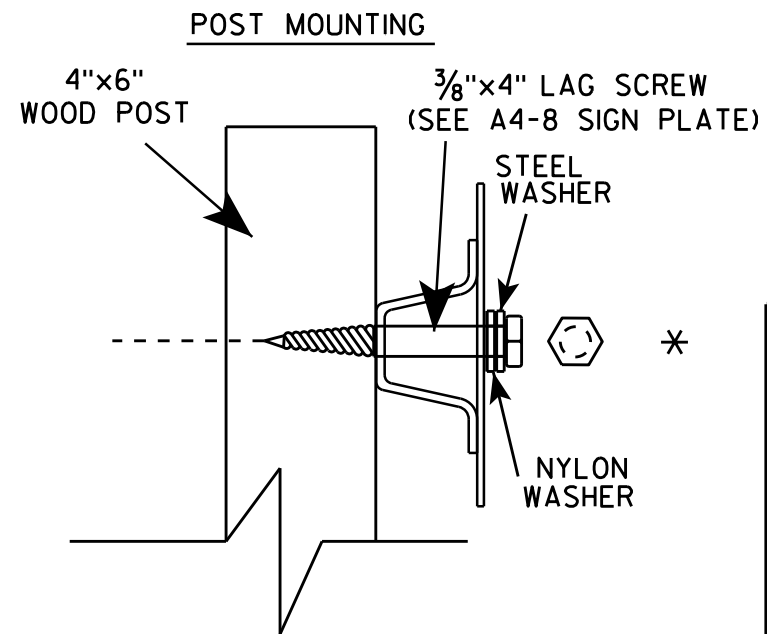
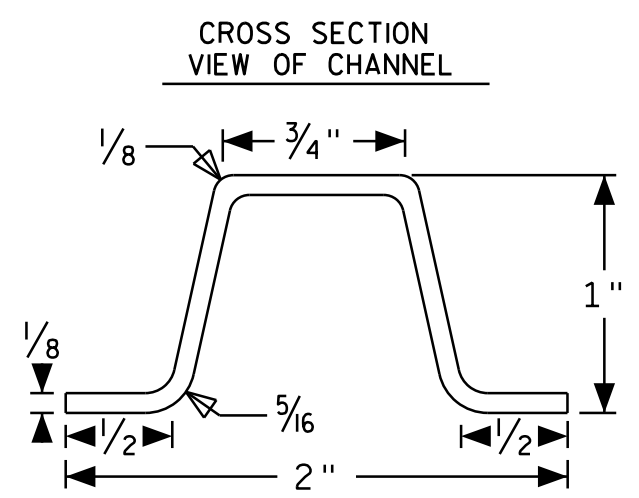
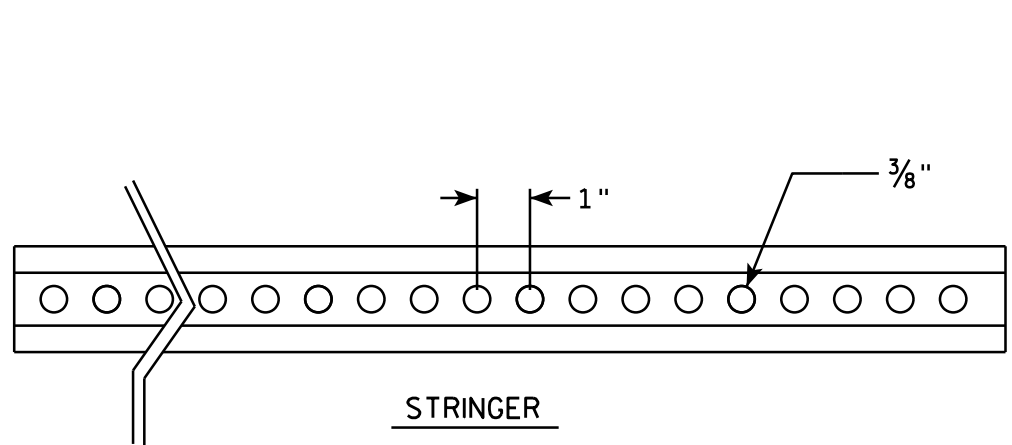


GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE $\frac{7}{16}$ " DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16 $\frac{1}{2}$ " 33 $\frac{1}{2}$ " 50 $\frac{1}{2}$ " 67 $\frac{1}{2}$ "
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19 $\frac{1}{2}$ " 38 $\frac{1}{2}$ " 57 $\frac{1}{2}$ " 76 $\frac{1}{2}$ "
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22 $\frac{1}{2}$ " 43 $\frac{1}{2}$ " 64 $\frac{1}{2}$ " 85 $\frac{1}{2}$ "
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

7



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SIGN STRINGER MOUNTING REQUIREMENTS

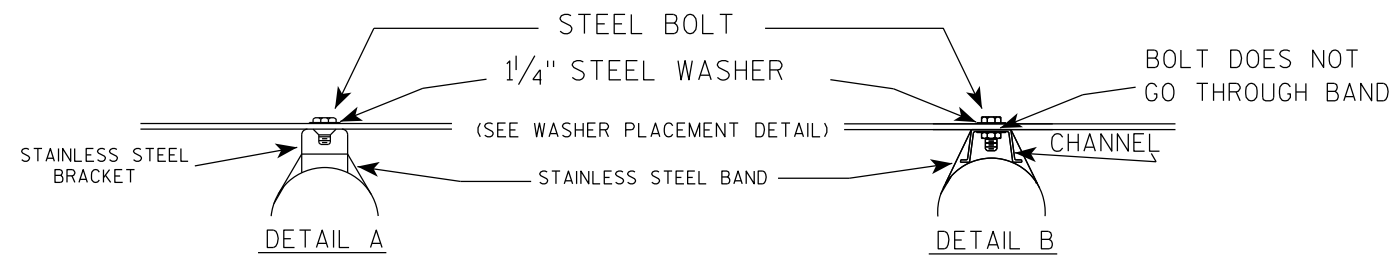
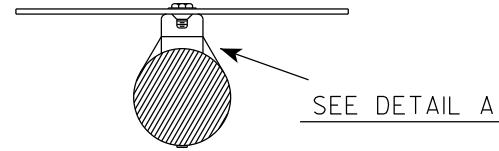
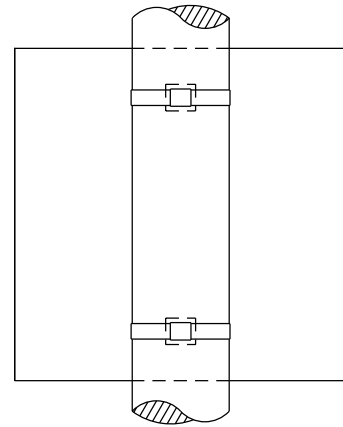
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

BANDING

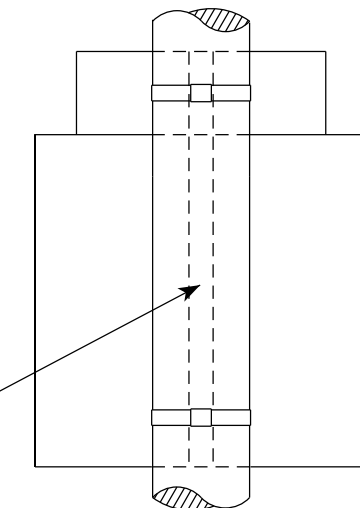
SINGLE SIGN



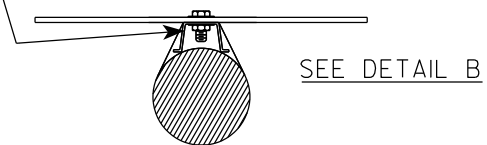
GENERAL NOTES

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 3/4" 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

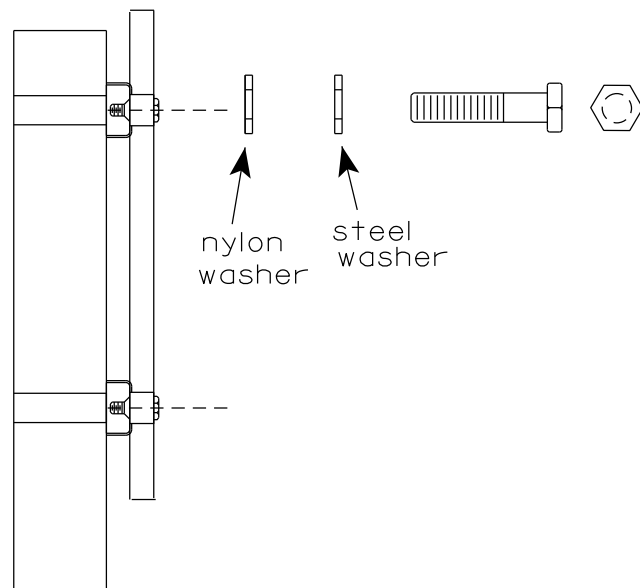
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



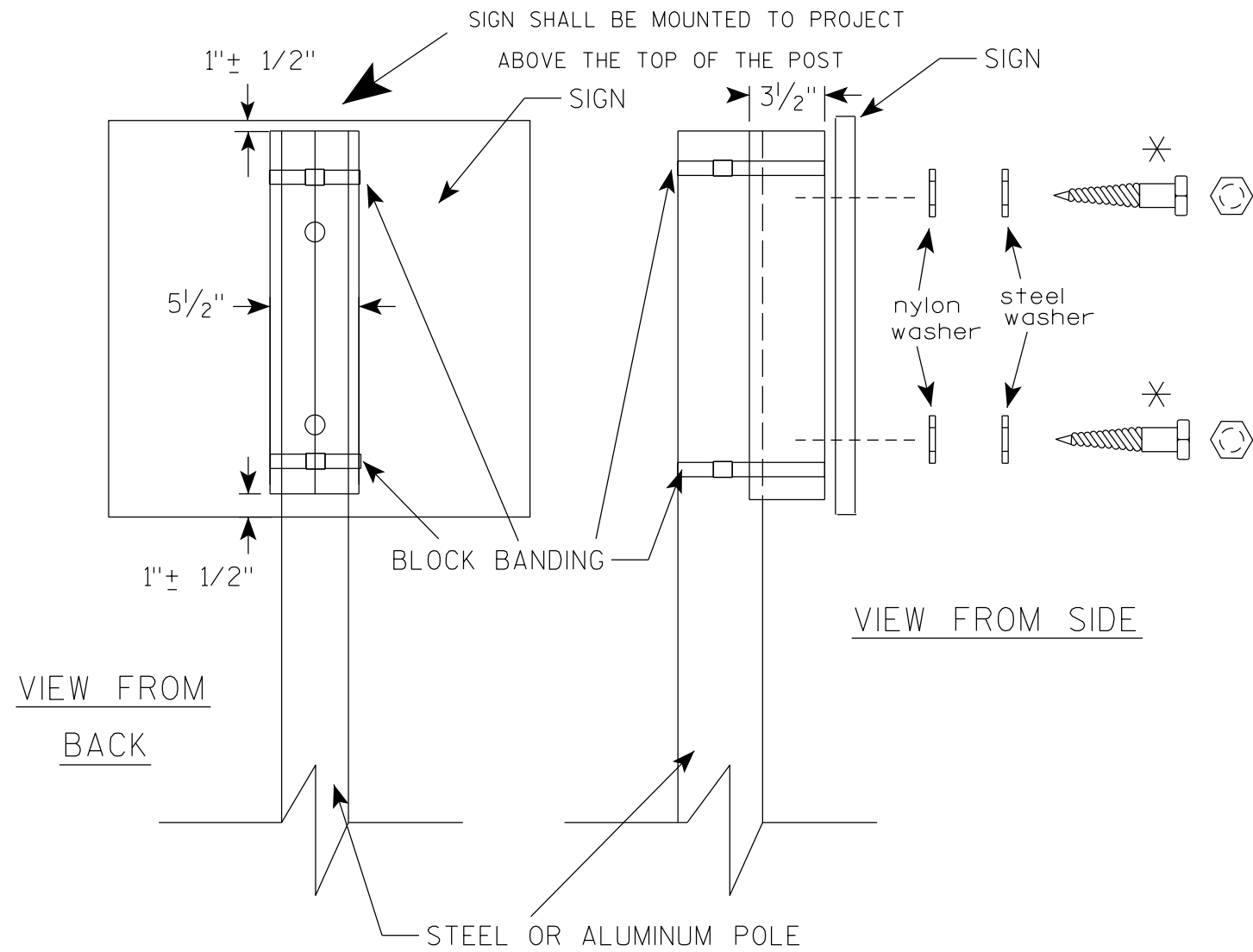
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

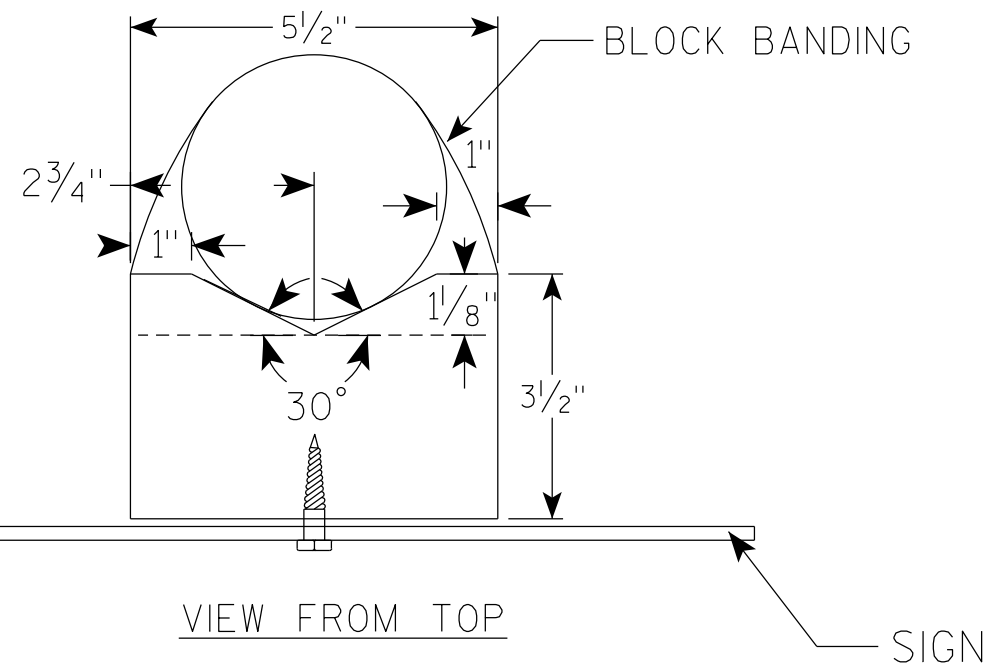
DATE 6/10/19 PLATE NO. A5-9.4



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, 3/4" 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 NORMALLY 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL
(V-BLOCK OPTION)

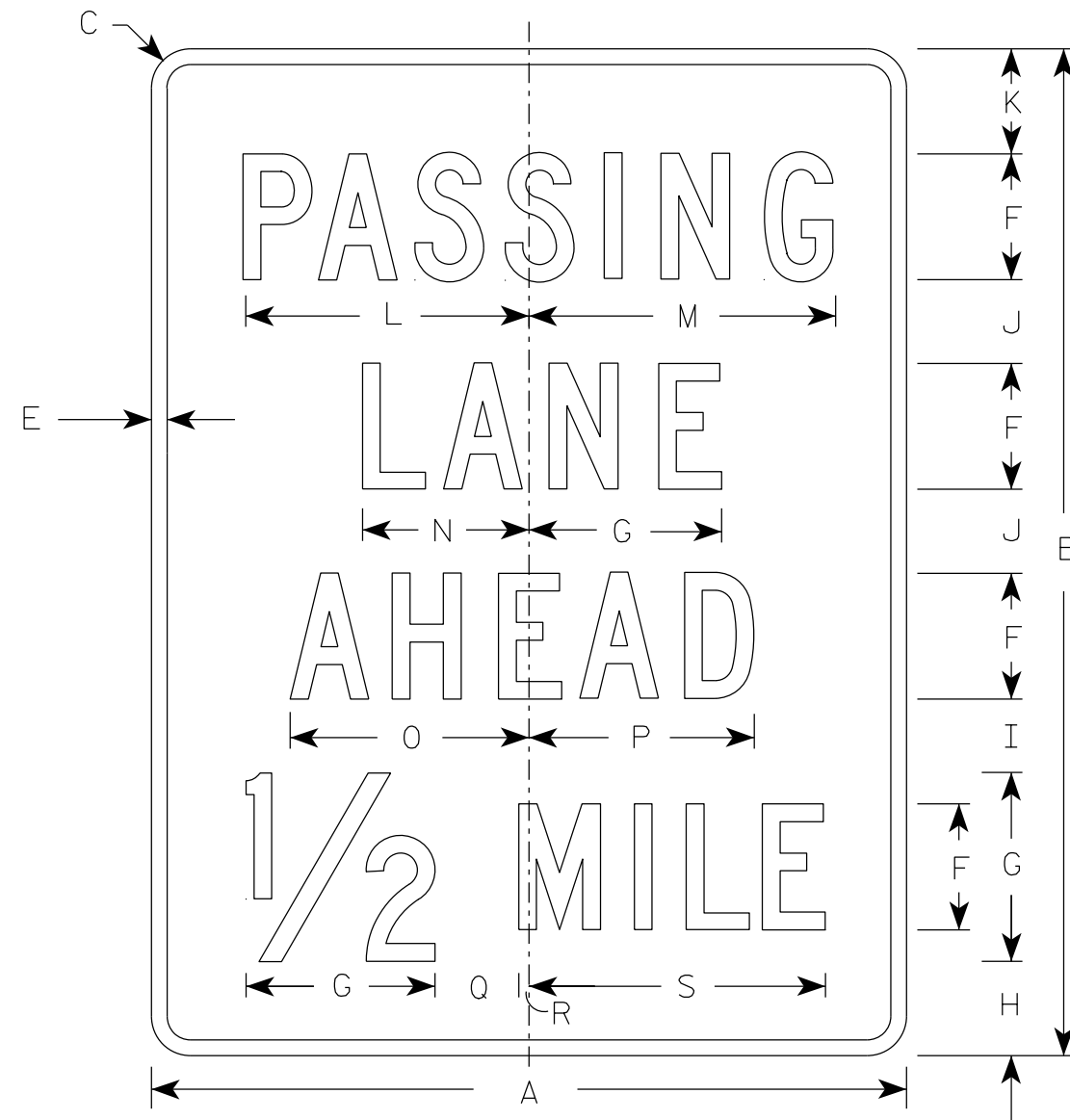
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - Green
Message - White
3. Message Series - C



D17-2

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																											
2S	36	48	1 7/8		3/4	6	9	4 1/2	3 1/2	4	5	13 5/8	14 1/2	8	11 3/8	10 3/4	4	1/2	14 1/8								12.0
2M	36	48	1 7/8		3/4	6	9	4 1/2	3 1/2	4	5	13 5/8	14 1/2	8	11 3/8	10 3/4	4	1/2	14 1/8								12.0
3																											
4																											
5																											

STANDARD SIGN
D17-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 1/25/2023 PLATE NO. D17-2.2

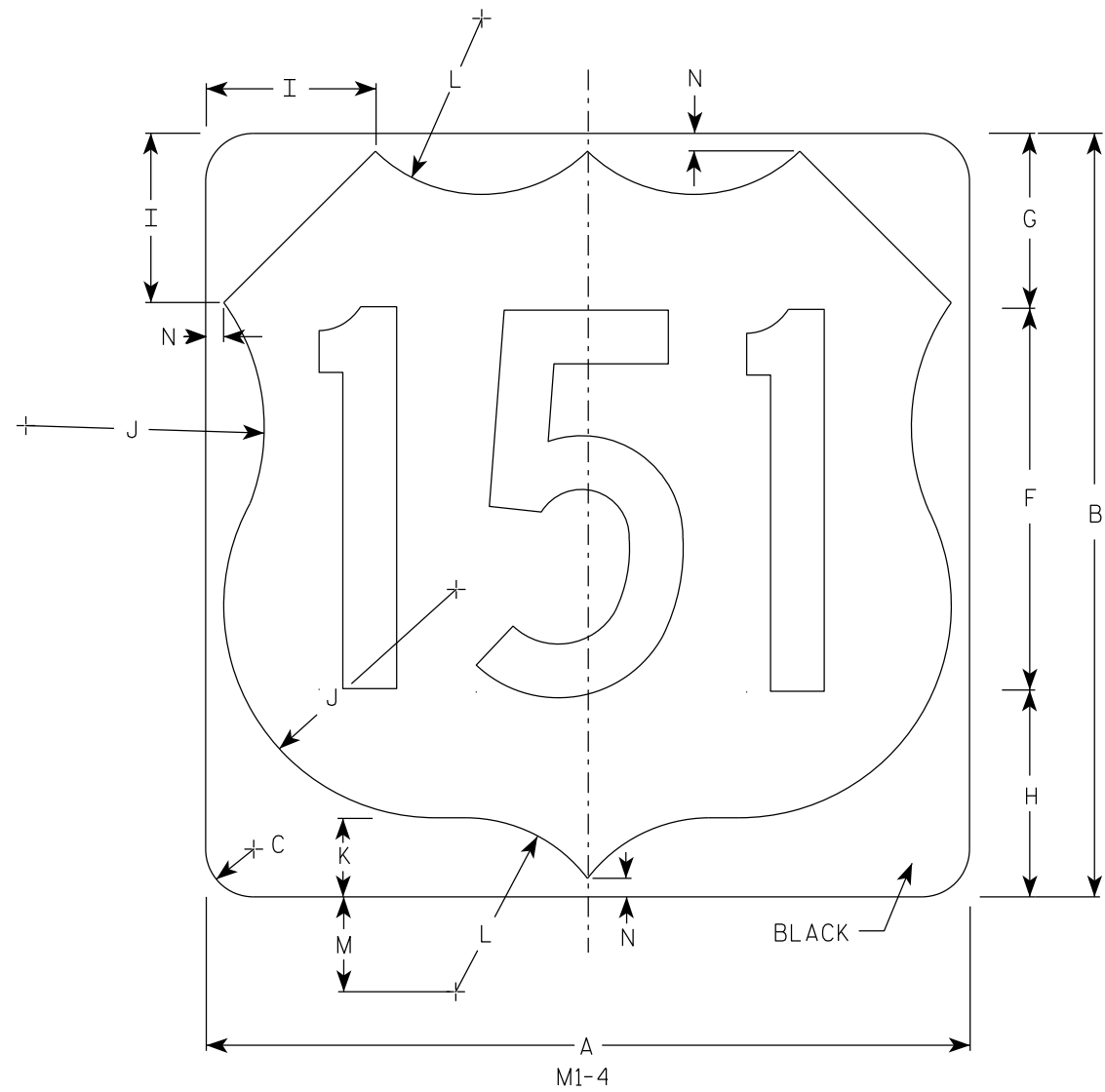
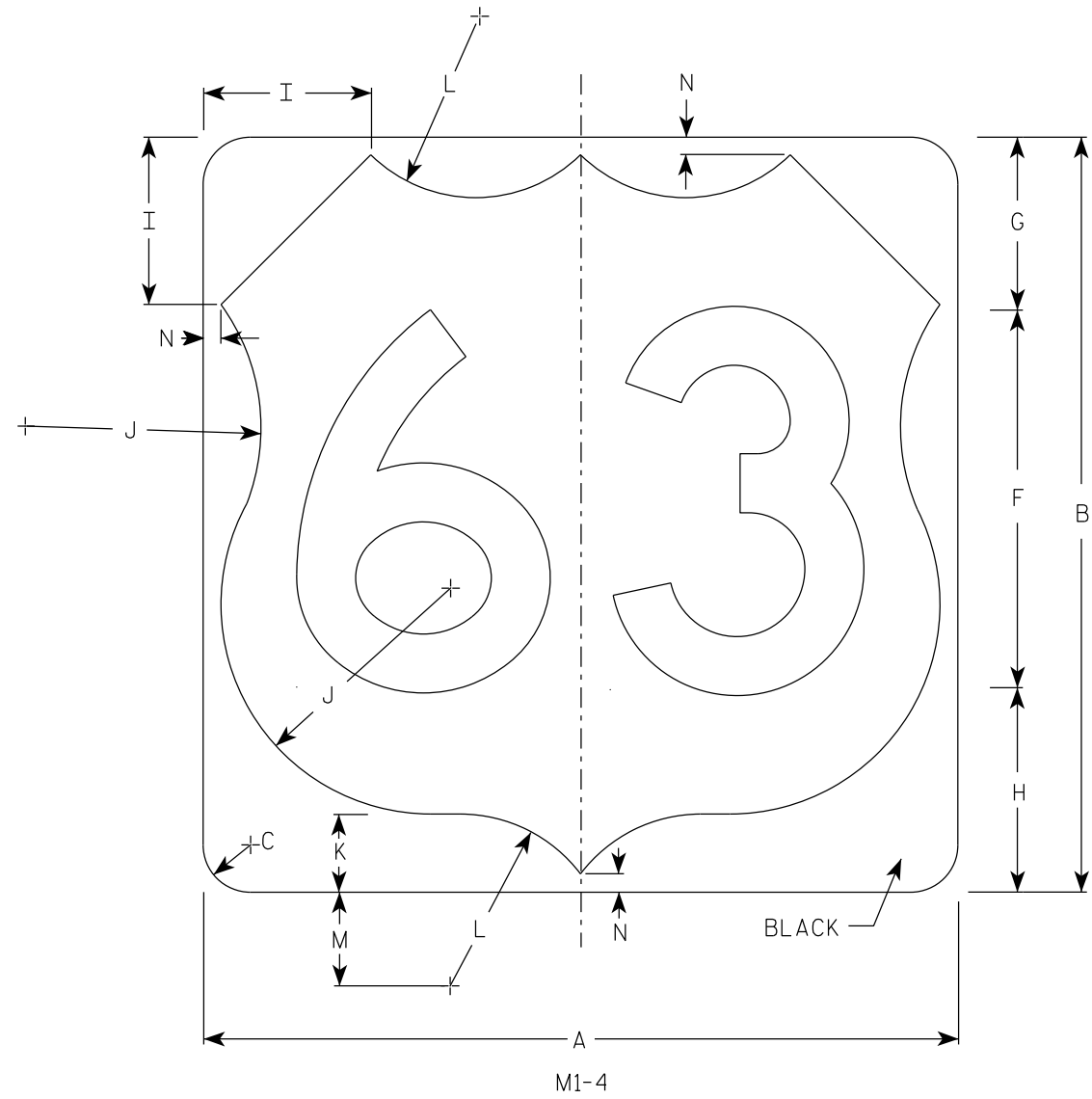
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs Series C



7

7

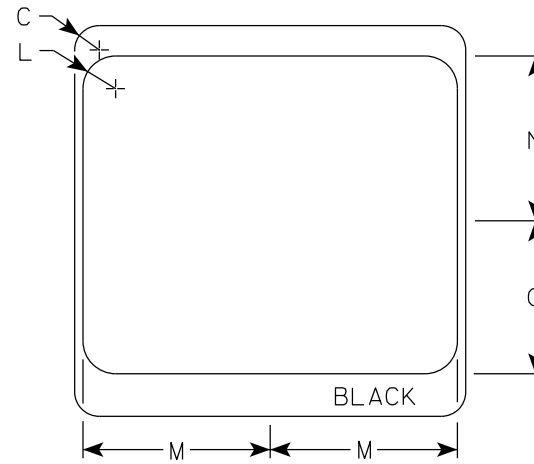
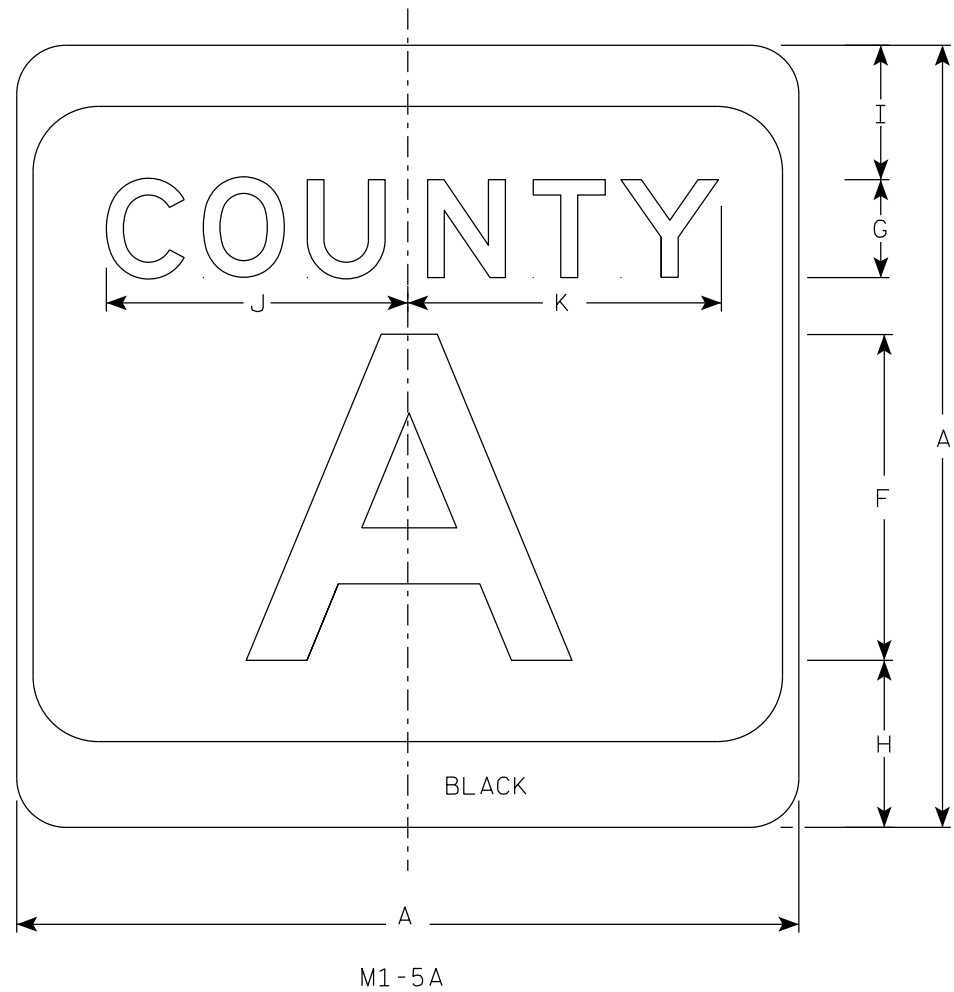
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
2M	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

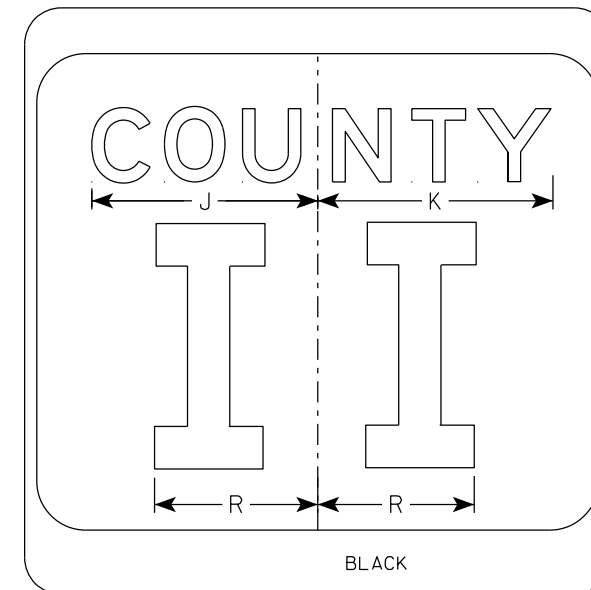
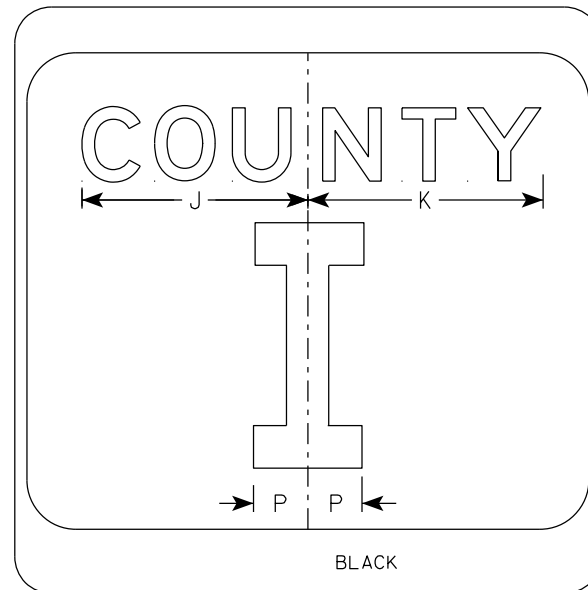
APPROVED *Matthew R Raub*
for State Traffic Engineer

DATE 12/20/22 PLATE NO. M1-4.11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White & Black
Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center 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																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 11/8/2022 PLATE NO. M1-5A.9

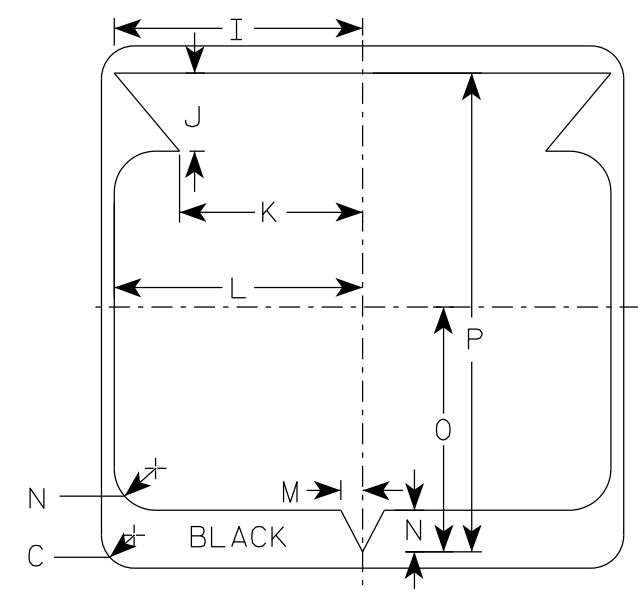
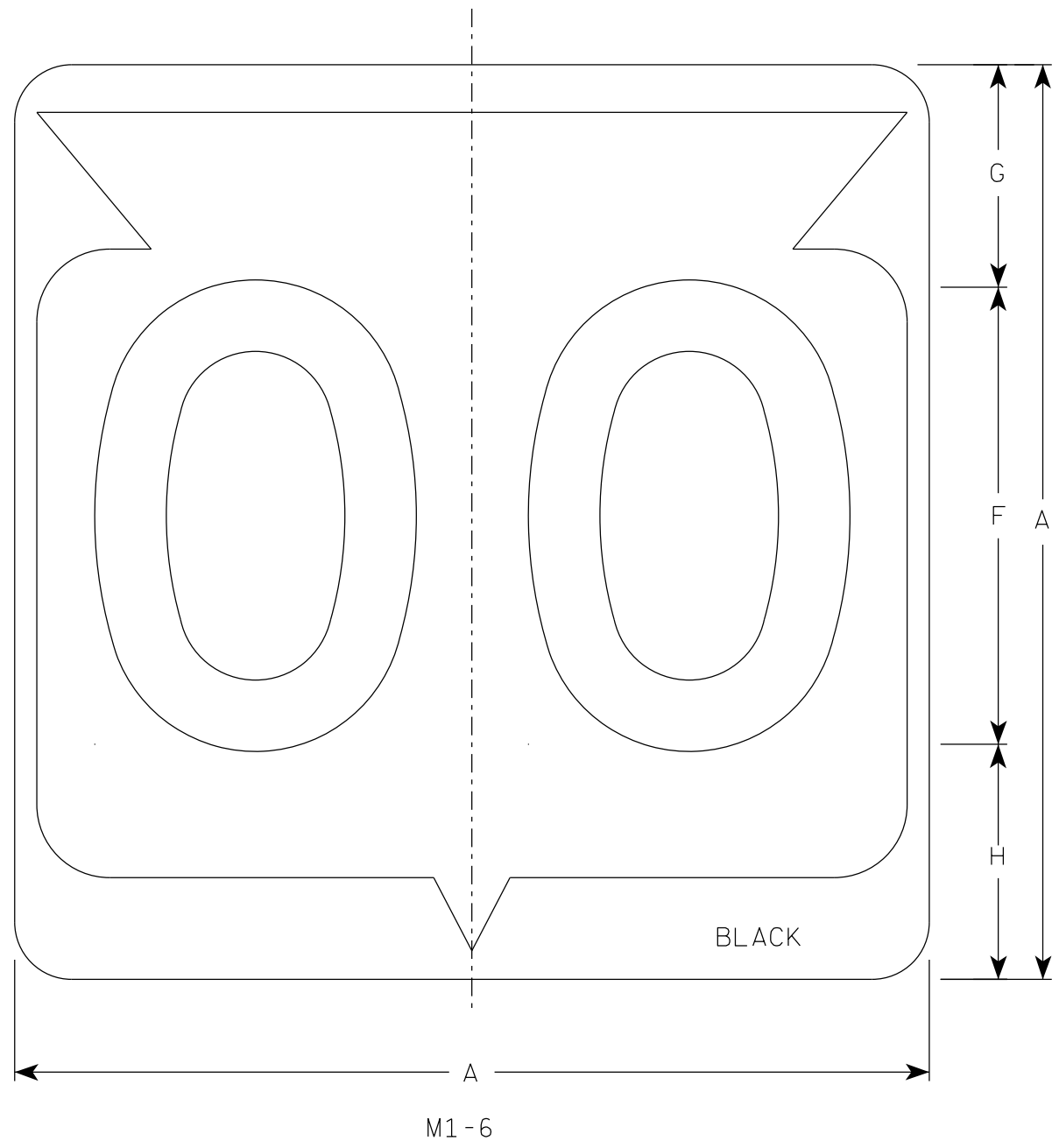
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs Series C



7

7

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		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

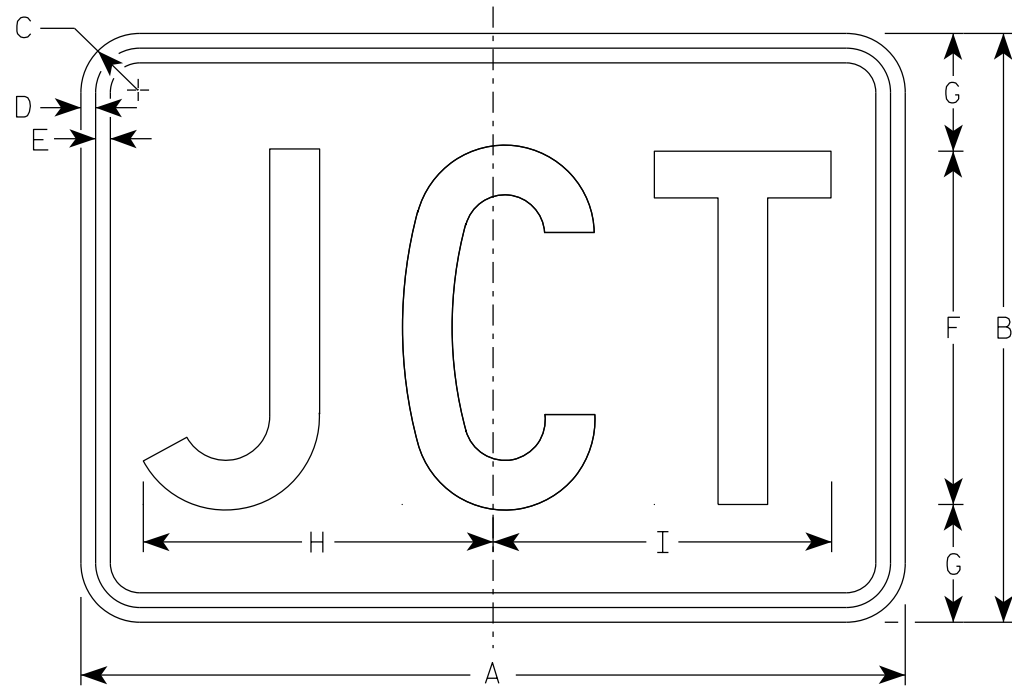
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
for State Traffic Engineer

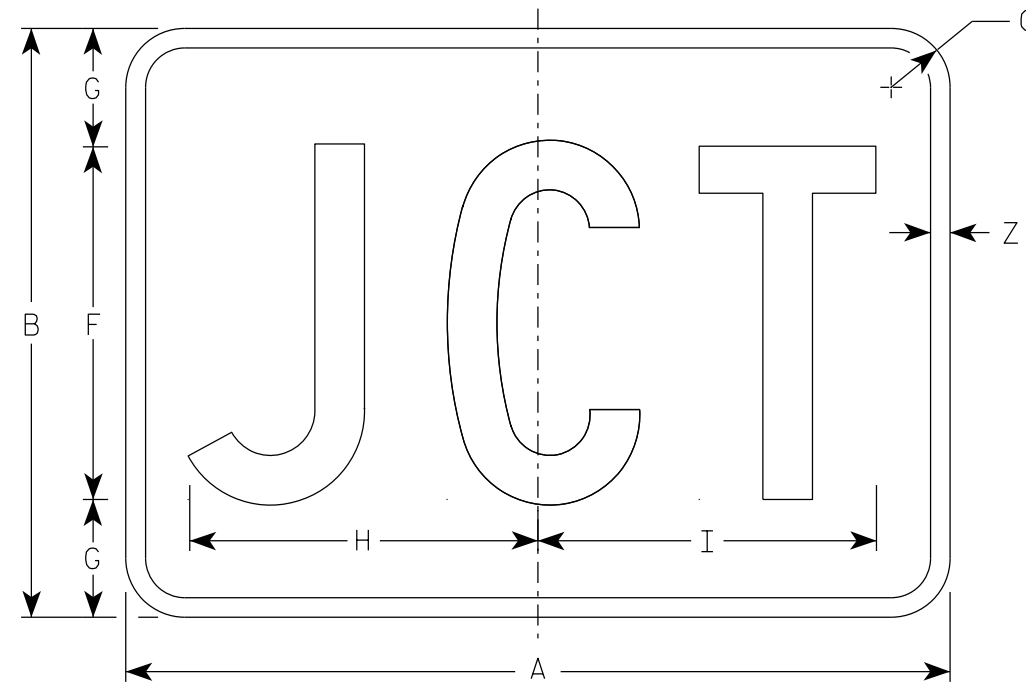
DATE 11/8/2022 PLATE NO. M1-6.11

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
 - Background - See note 5
 - Message - See note 5
3. Message Series - C
4. M2-1 Background - White
Message - Black
- MB2-1 Background - Blue
Message - White
- MK2-1 Background - Green
Message - White
- MM2-1 Background - White
Message - Green
- MN2-1 Background - Brown
Message - White
- MP2-1 Background - White
Message - Blue
- MR2-1 Background - Brown
Message - Yellow



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

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	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
2M	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
3	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
4	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
5	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40

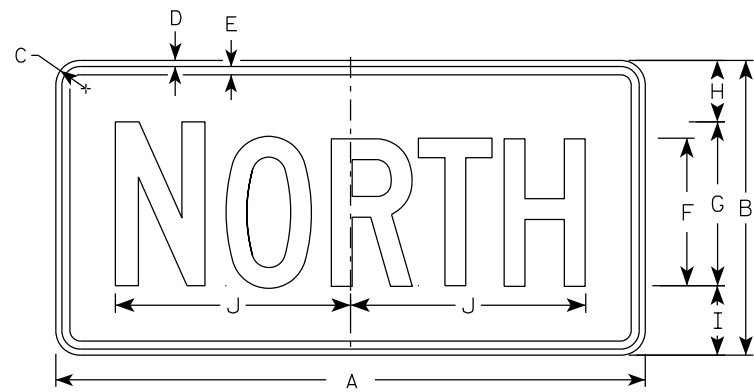
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

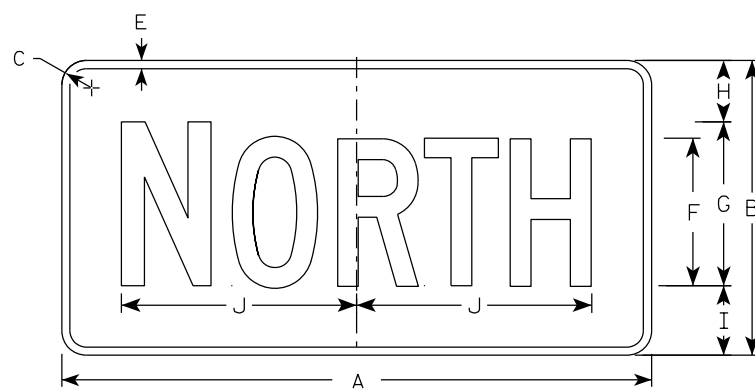
APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 2/8/2023 PLATE NO. M2-1.14

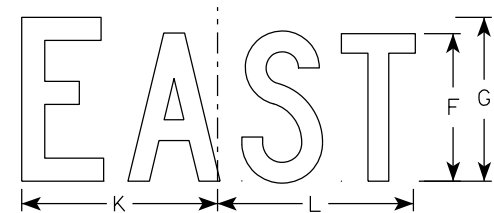
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



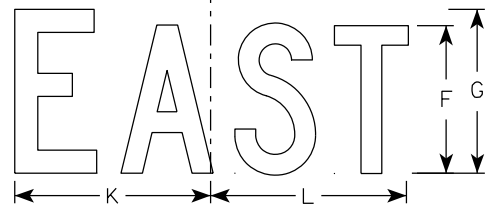
M3-1
MM3-1
MP3-1



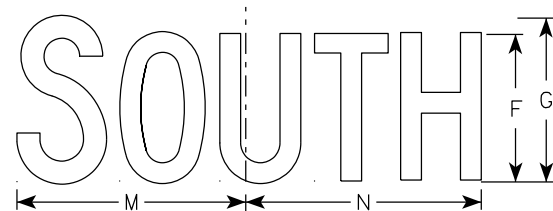
MB3-1
MK3-1
MN3-1



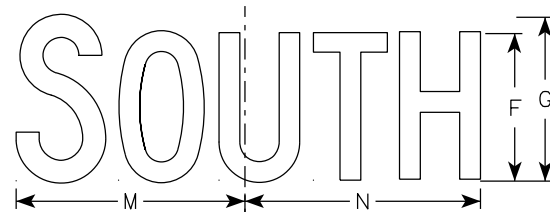
M3-2
MM3-2
MP3-2



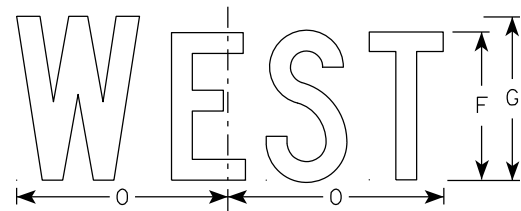
MB3-2
MK3-2
MN3-2



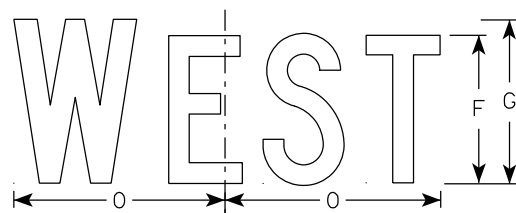
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

- All Signs Type II - Type H Reflective
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- 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.
- M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.

7

7

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 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

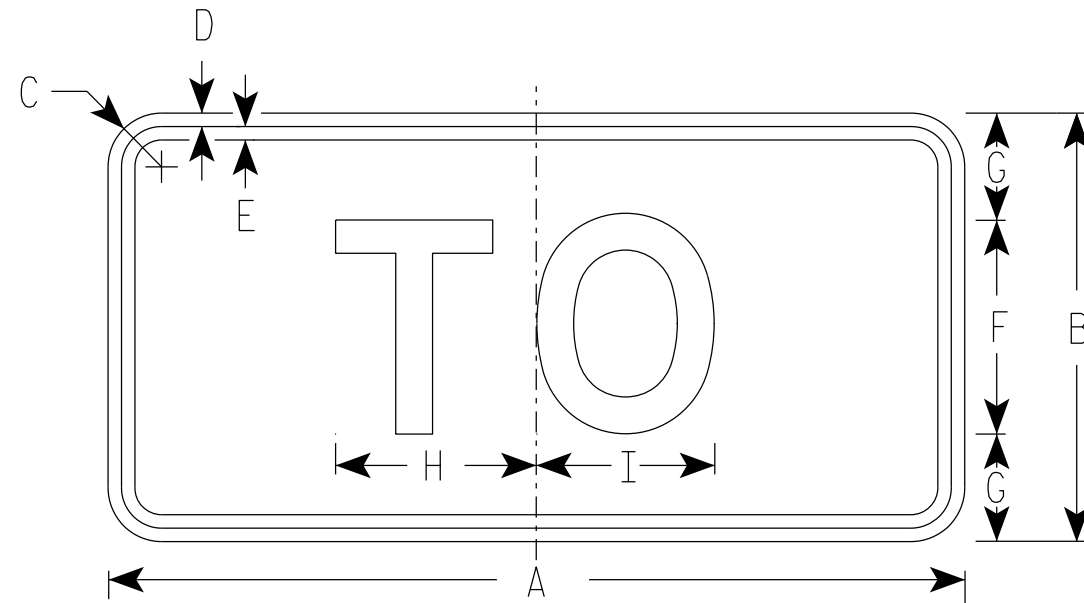
STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

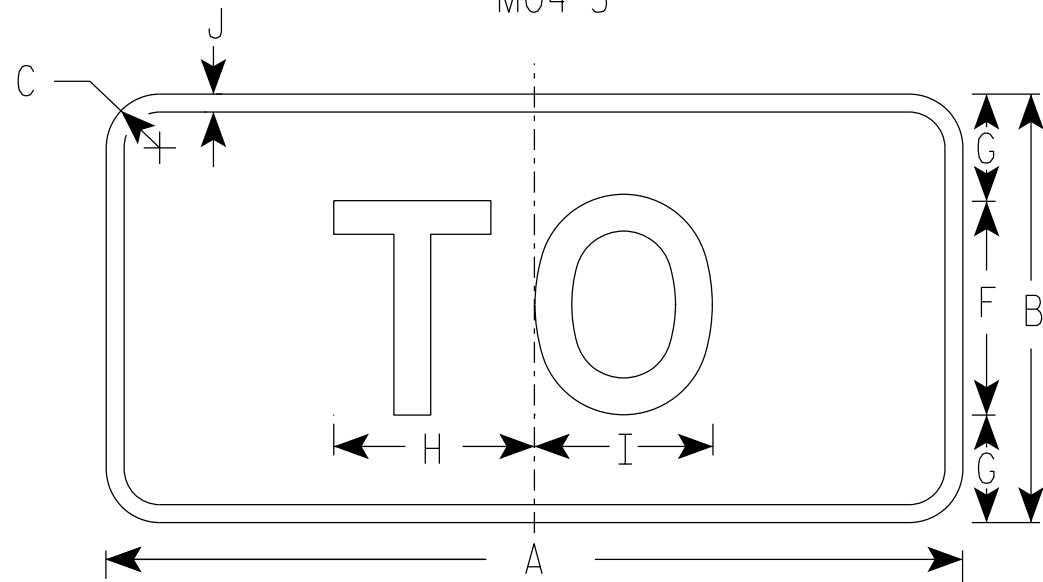
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
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. M4-5 Background - White
Message - Black
MB4-5 Background - Blue
Message - White
MK4-5 Background - Green
Message - White
MM4-5 Background - White
Message - Green
MN4-5 Background - Brown
Message - White
MP4-5 Background - White
Message - Blue
M04-5 Background - Orange Type F Reflective
Message - Black

7

7

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 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																2.00	
2M	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																2.00	
3	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																4.5	
4	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																4.5	
5	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																4.5	

STANDARD SIGN
M4-5

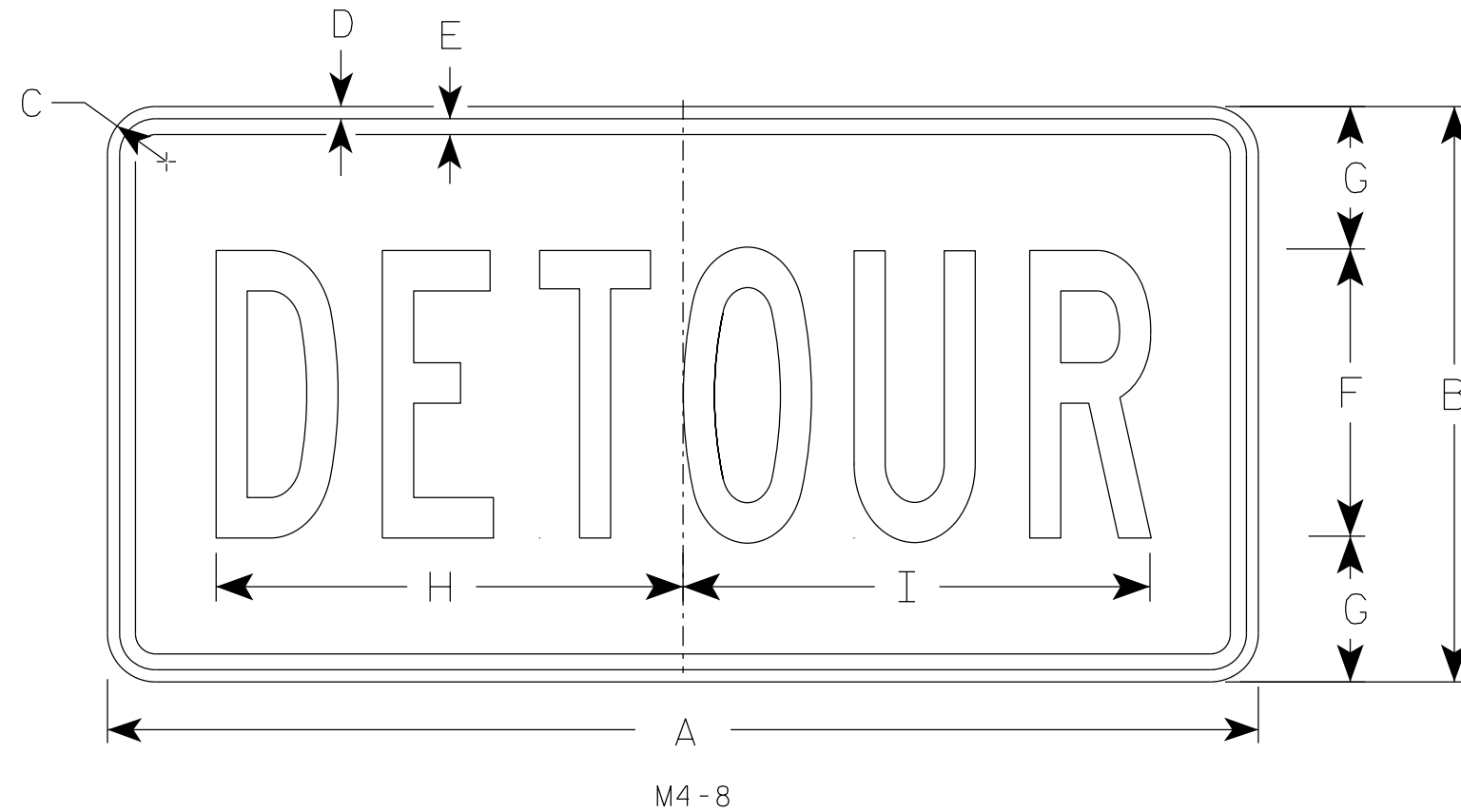
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-5.11

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
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.



7

7

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 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

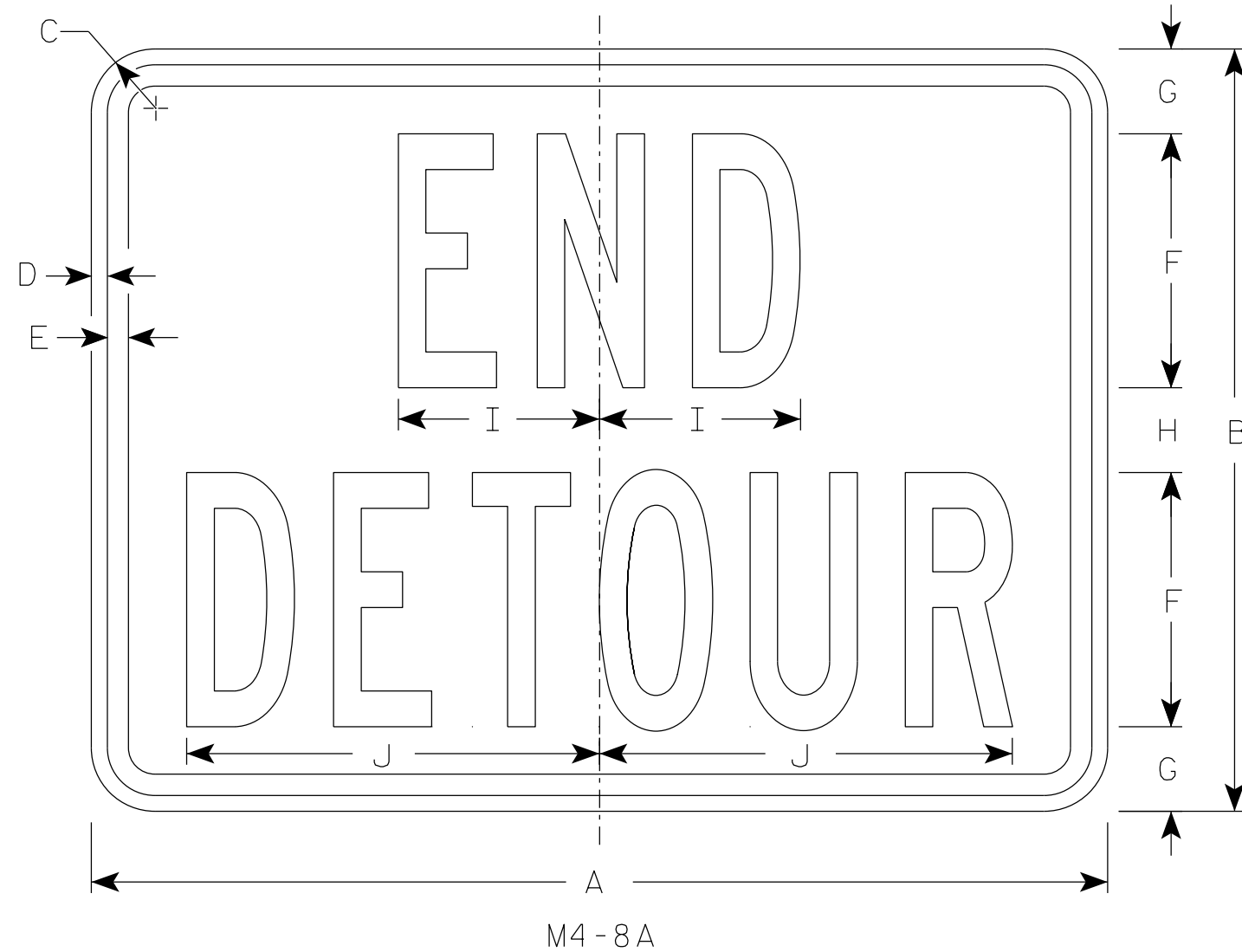
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
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.



M4-8A

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	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

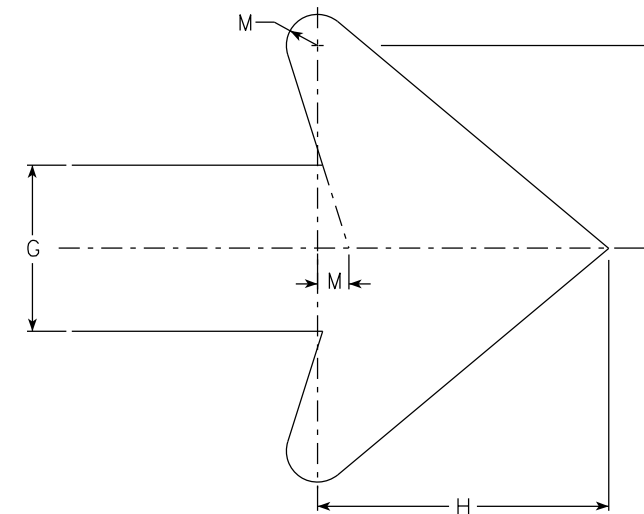
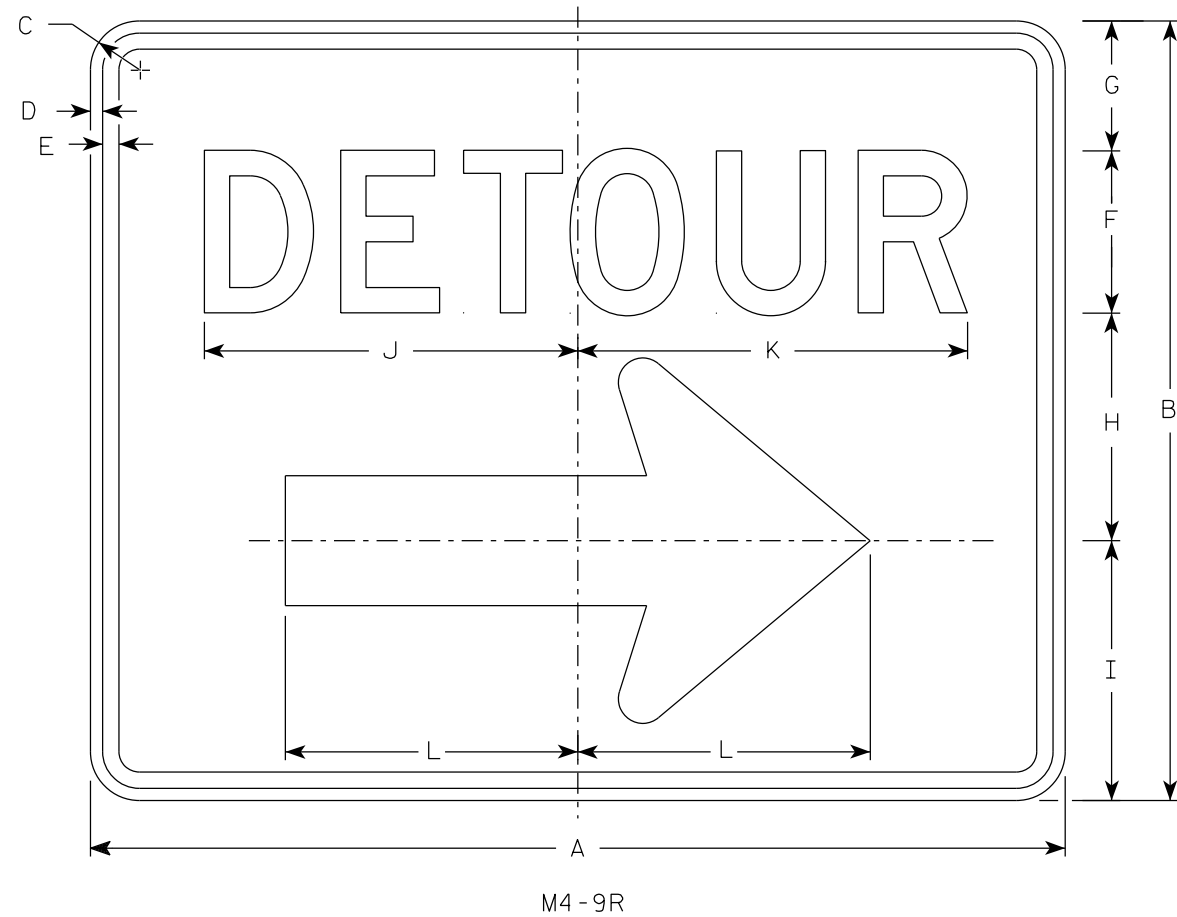
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

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.
4. M4-9L is the same as M4-9R 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 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

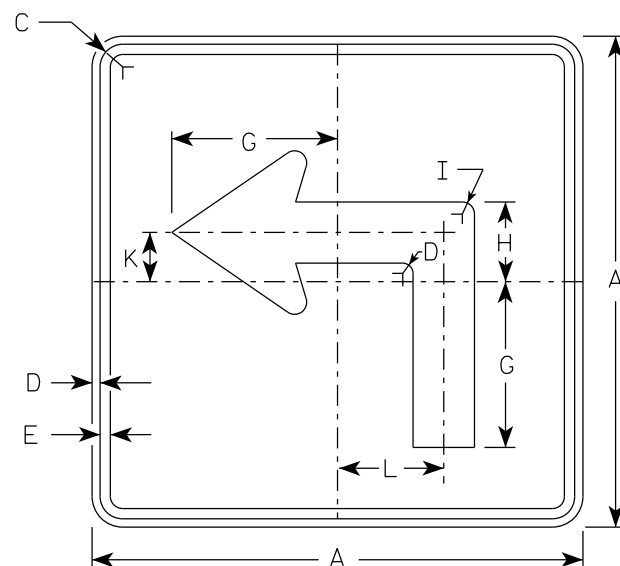
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

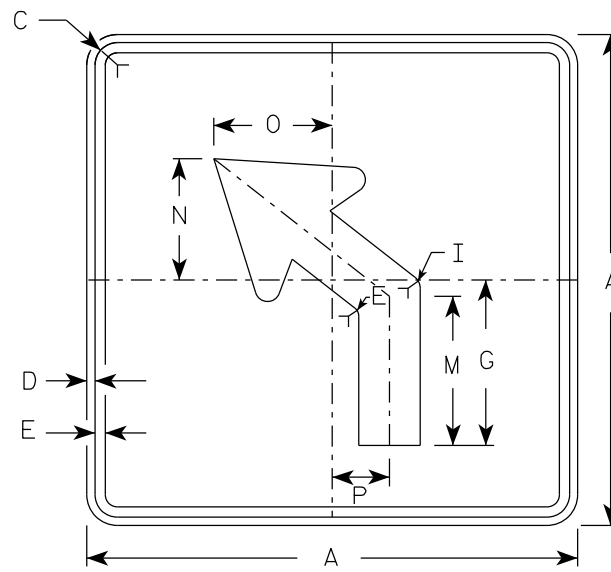
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

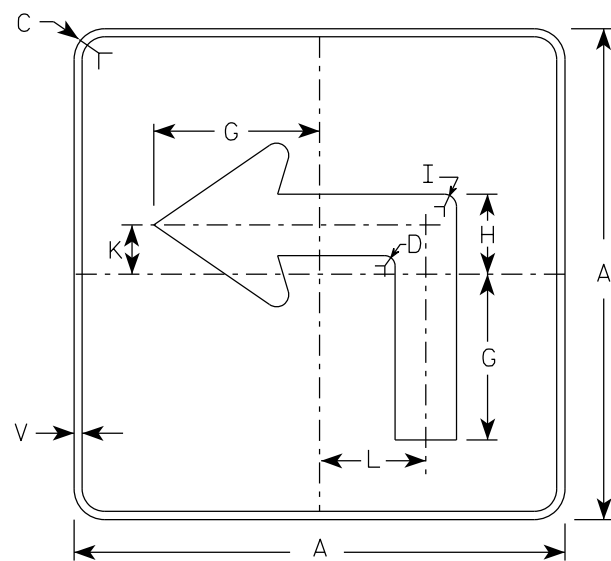
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



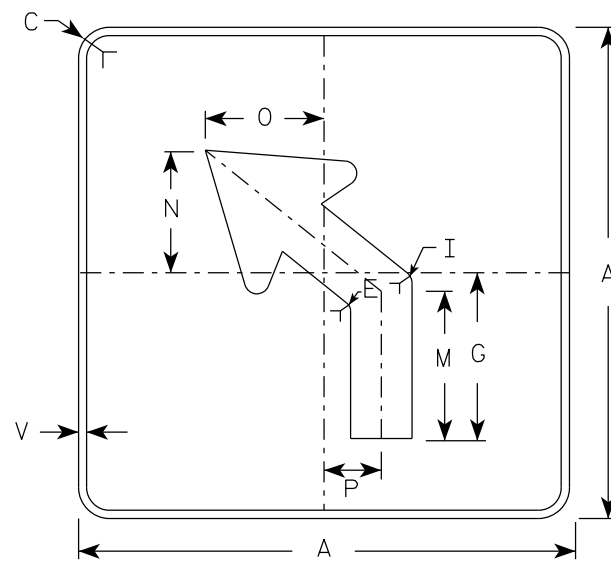
M5-1L
MM5-1L
M05-1L
MP5-1L



M5-2L
MM5-2L
M05-2L
MP5-2L

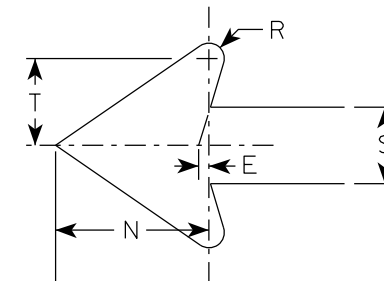


MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L

ARROW DETAIL



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 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.
- | | |
|-----------------|---|
| 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 |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

7

7

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	21		1 1/2	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		1/2					3.06
2M	21		1 1/2	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		1/2					3.06
3	30		1 7/8	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

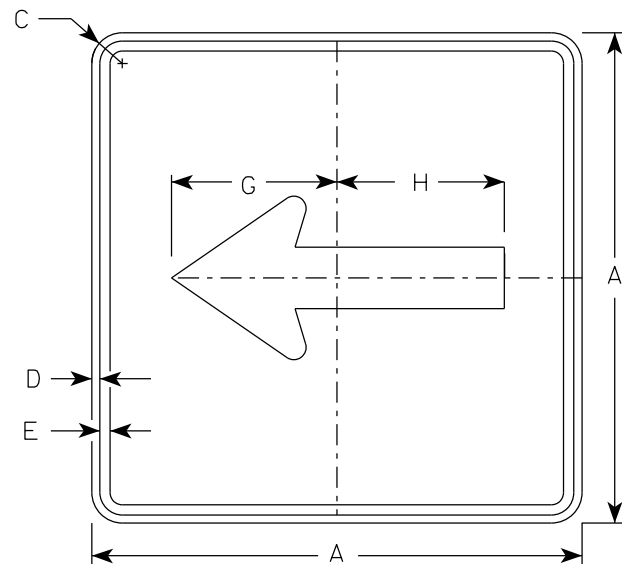
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

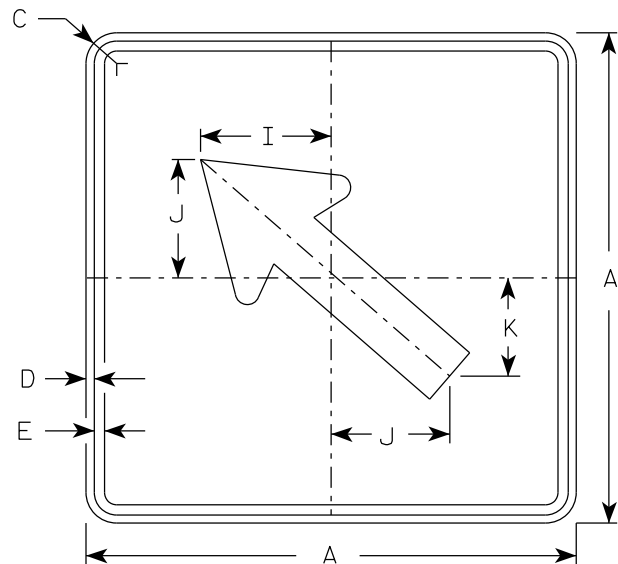
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

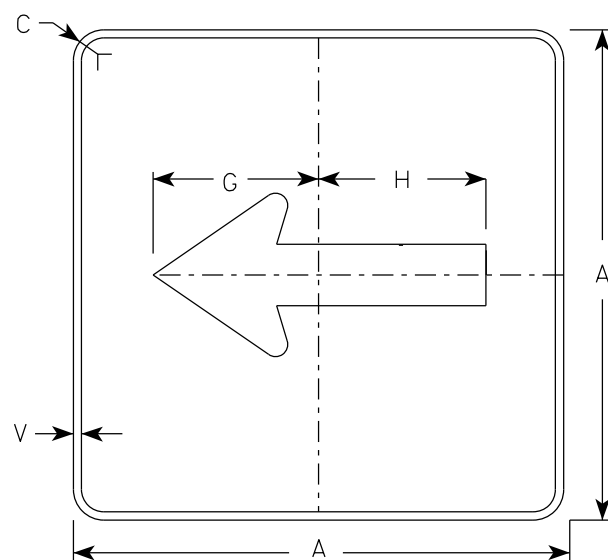
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



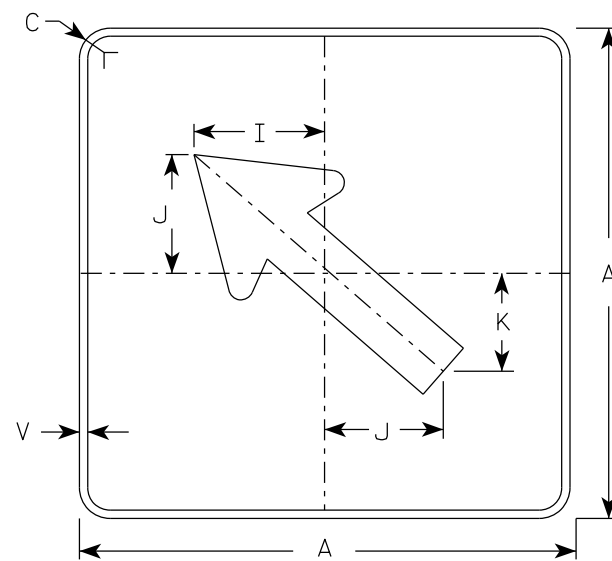
M6-1
MM6-1
M06-1
MP6-1



M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

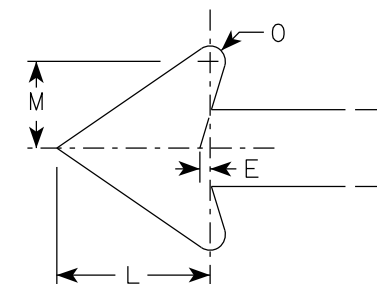


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

- Signs are Type II - Type H Reflective except as Shown
- Color:
 - Background - See note 4
 - Message - See note 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.
- 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
 M06-1 and M06-2 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

ARROW DETAIL



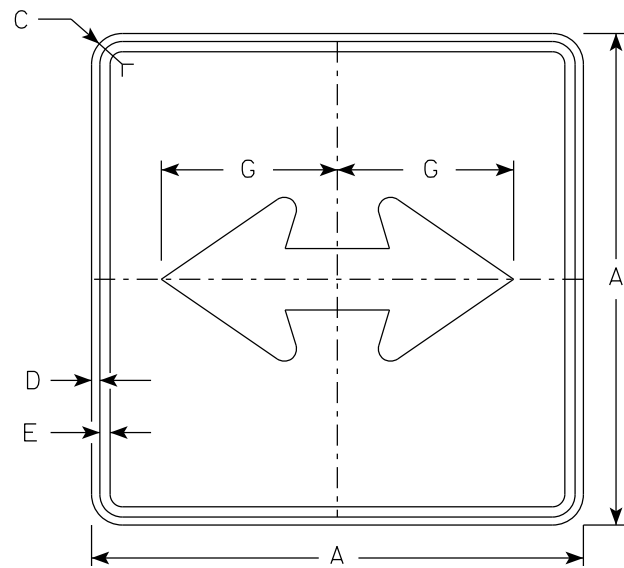
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

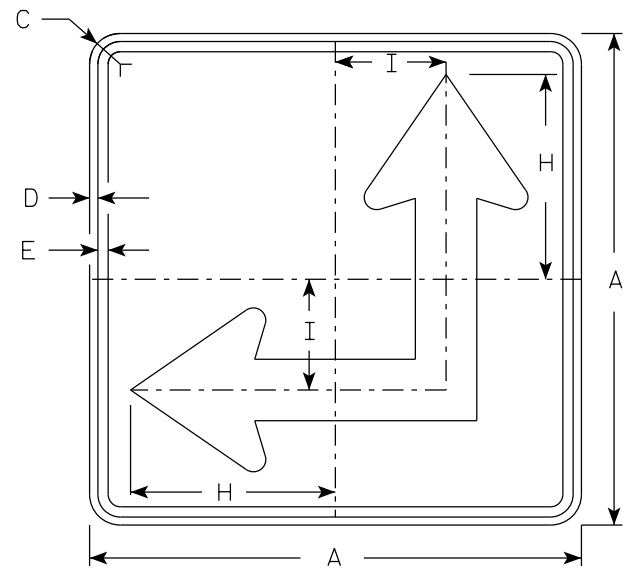
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

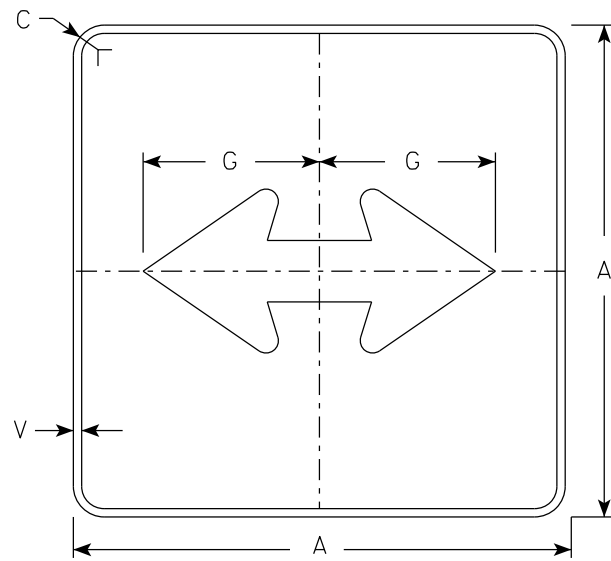
DATE 2/13/2023 PLATE NO. M6-1.16



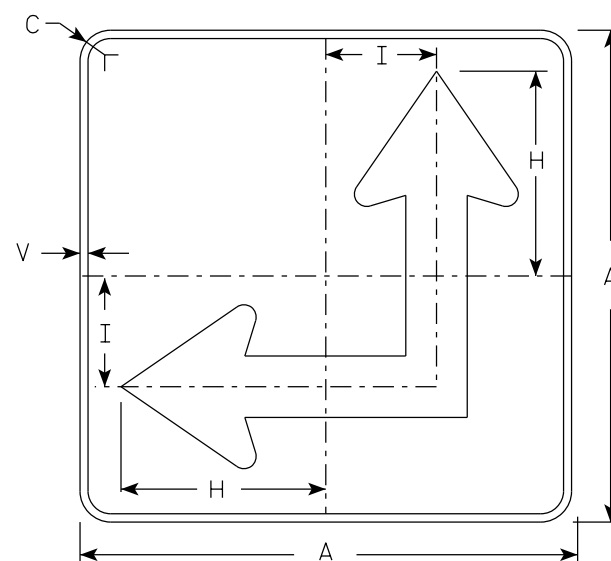
M6-4
MM6-4
M06-4
MP6-4



M6-6
MM6-6
M06-6
MP6-6



MB6-4
MK6-4
MN6-4
MR6-4

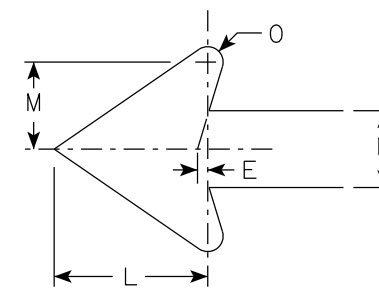


MB6-6
MK6-6
MN6-6
MR6-6

NOTES

- Signs are Type II - Type H Reflective except as Shown
- Color:
Background - See Note 4
Message - See Note 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.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.

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	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2								1/2				3.06
2M	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2								1/2				3.06
3	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4								1/2				6.25
4	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4								1/2				6.25
5	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4								1/2				6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

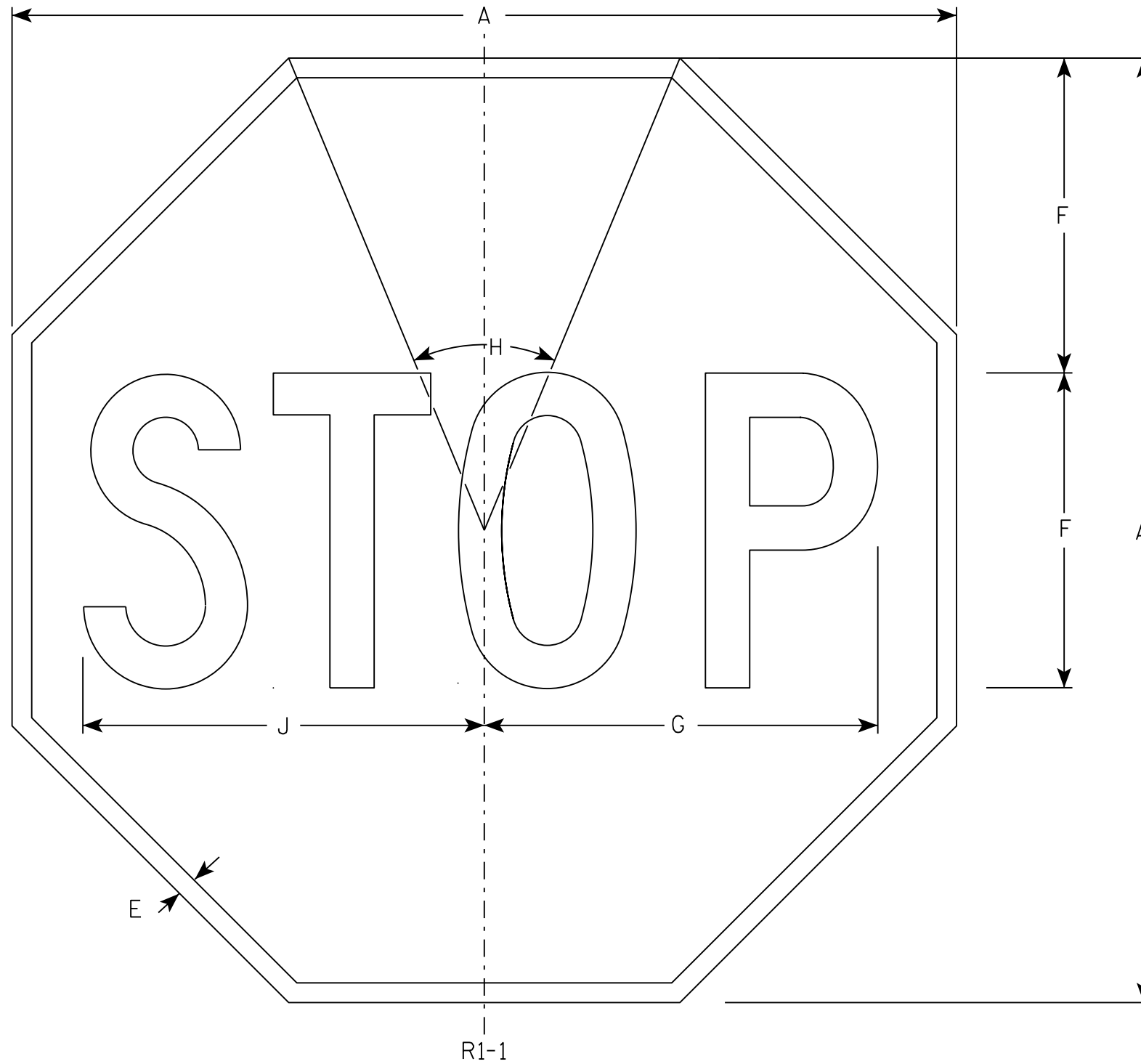
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-4.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **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



7

7

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

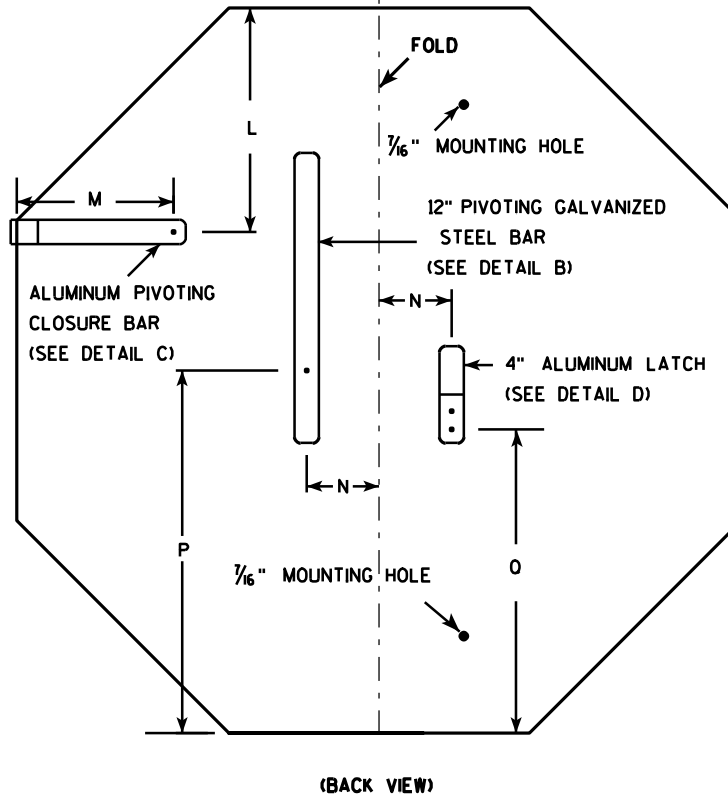
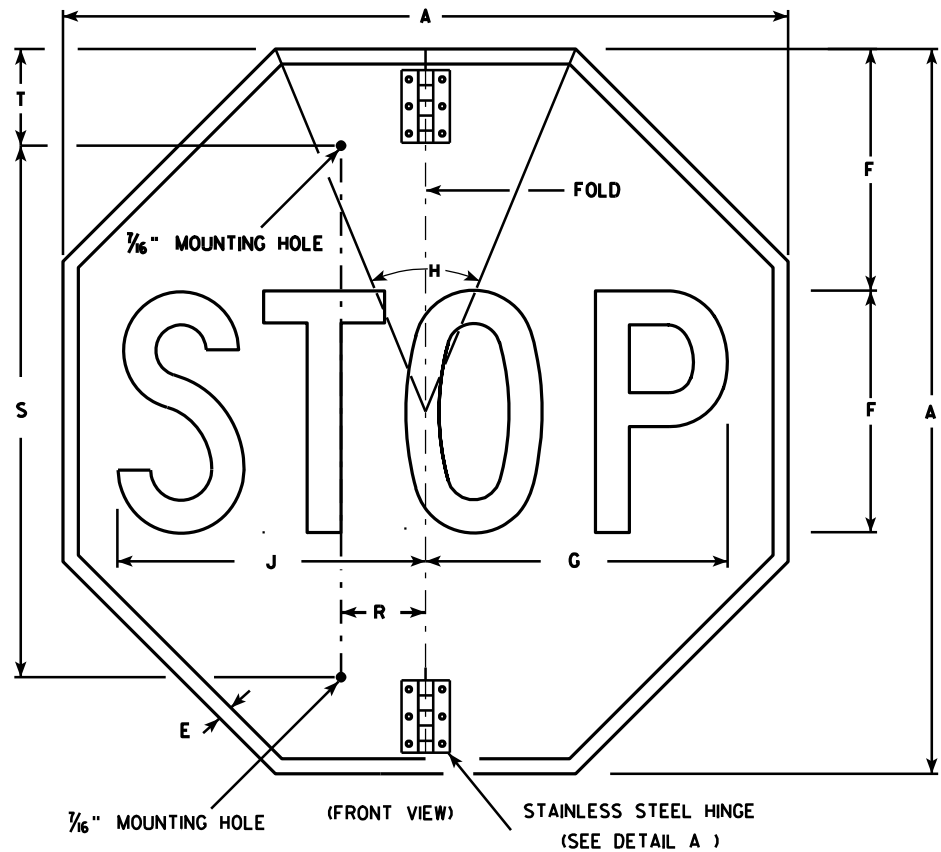
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

STANDARD SIGN
R1-1

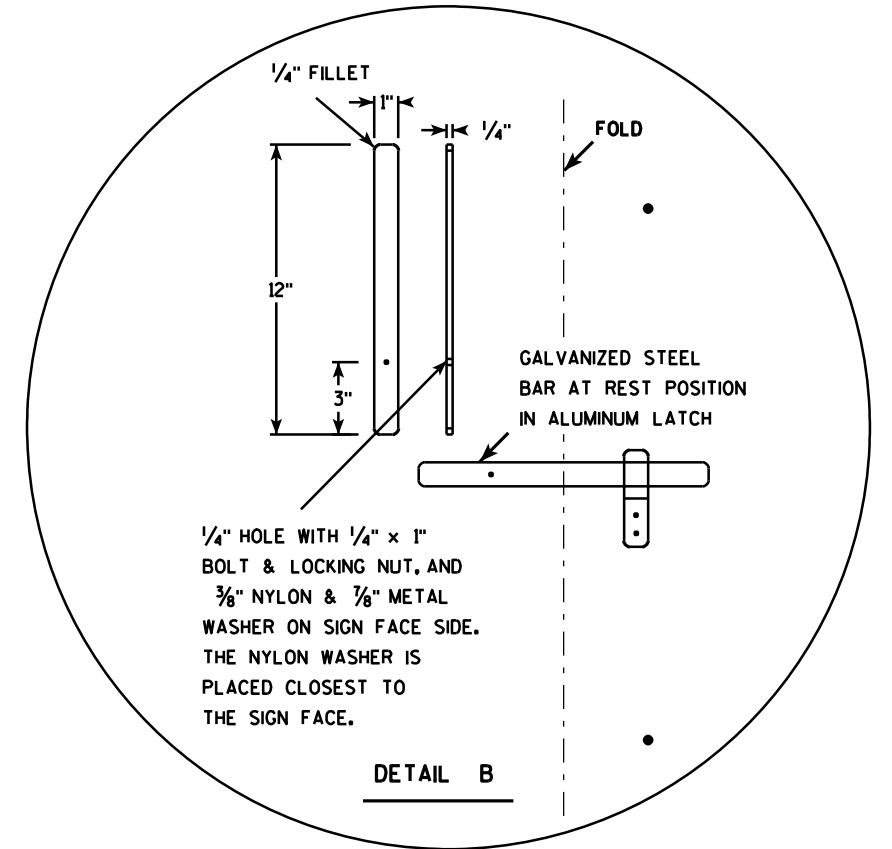
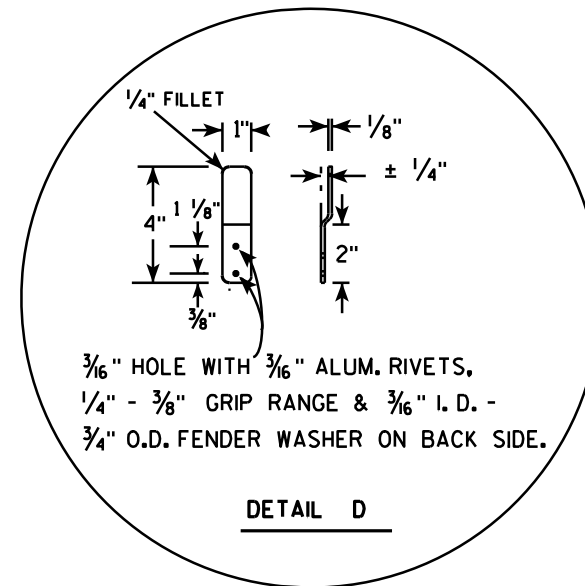
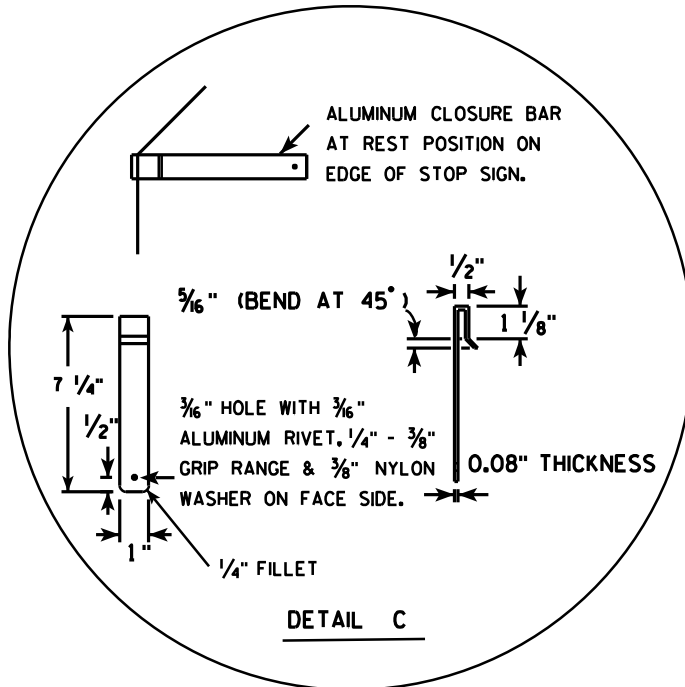
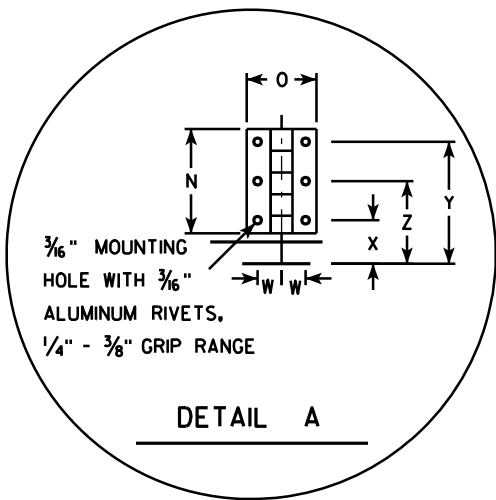
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



- 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.



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				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			1 1/8	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			1 1/8	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			1 1/8	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

STANDARD SIGN
R1-1F

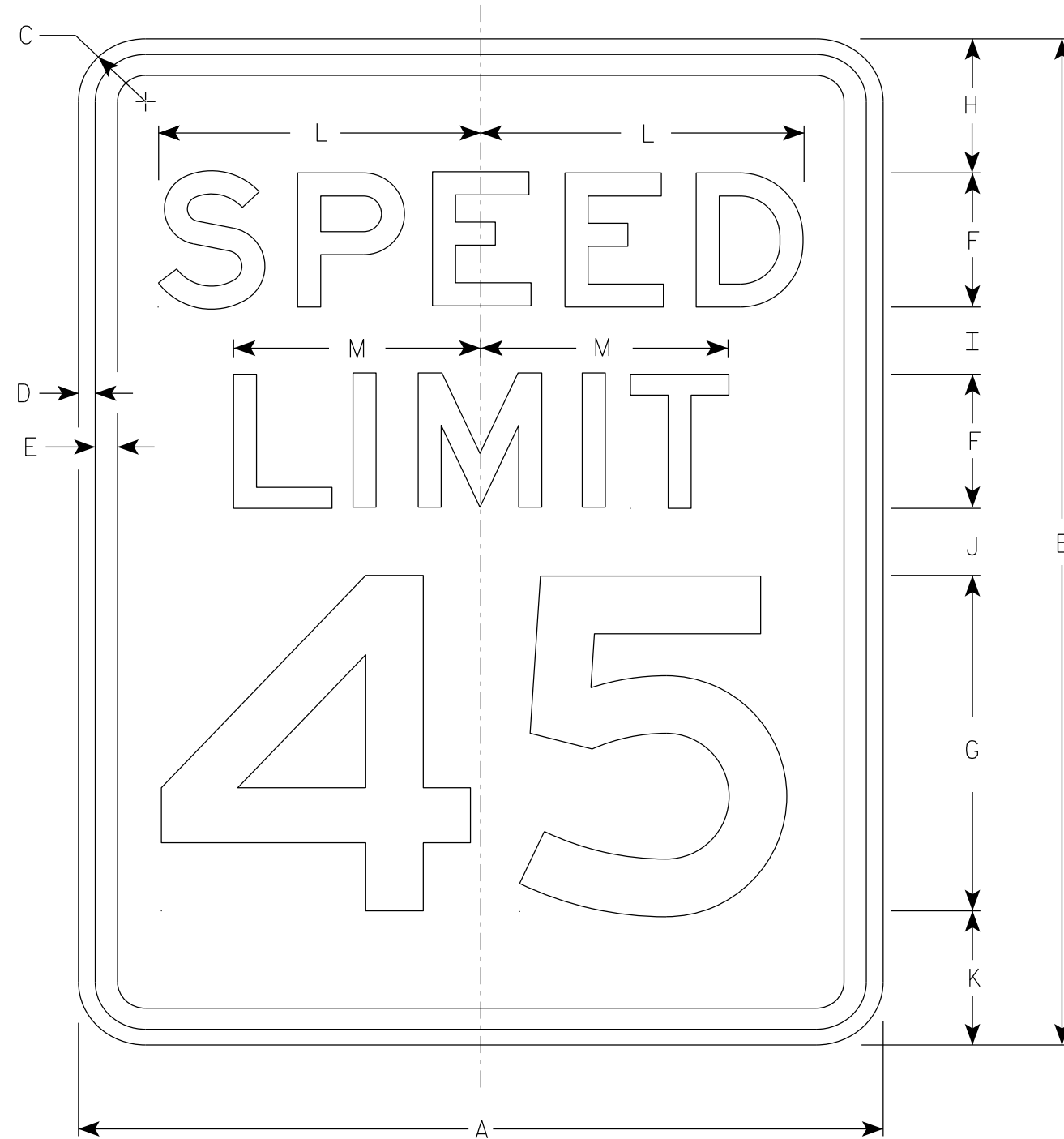
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.



R2-1

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 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	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 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	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

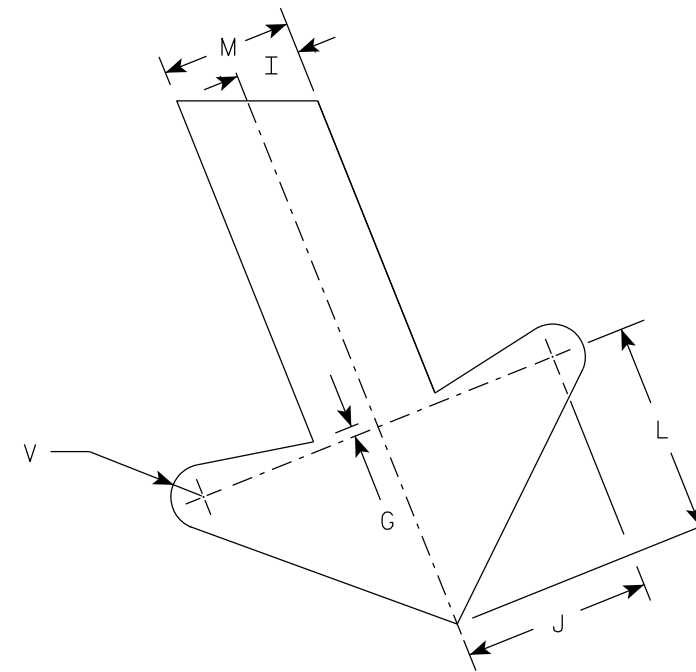
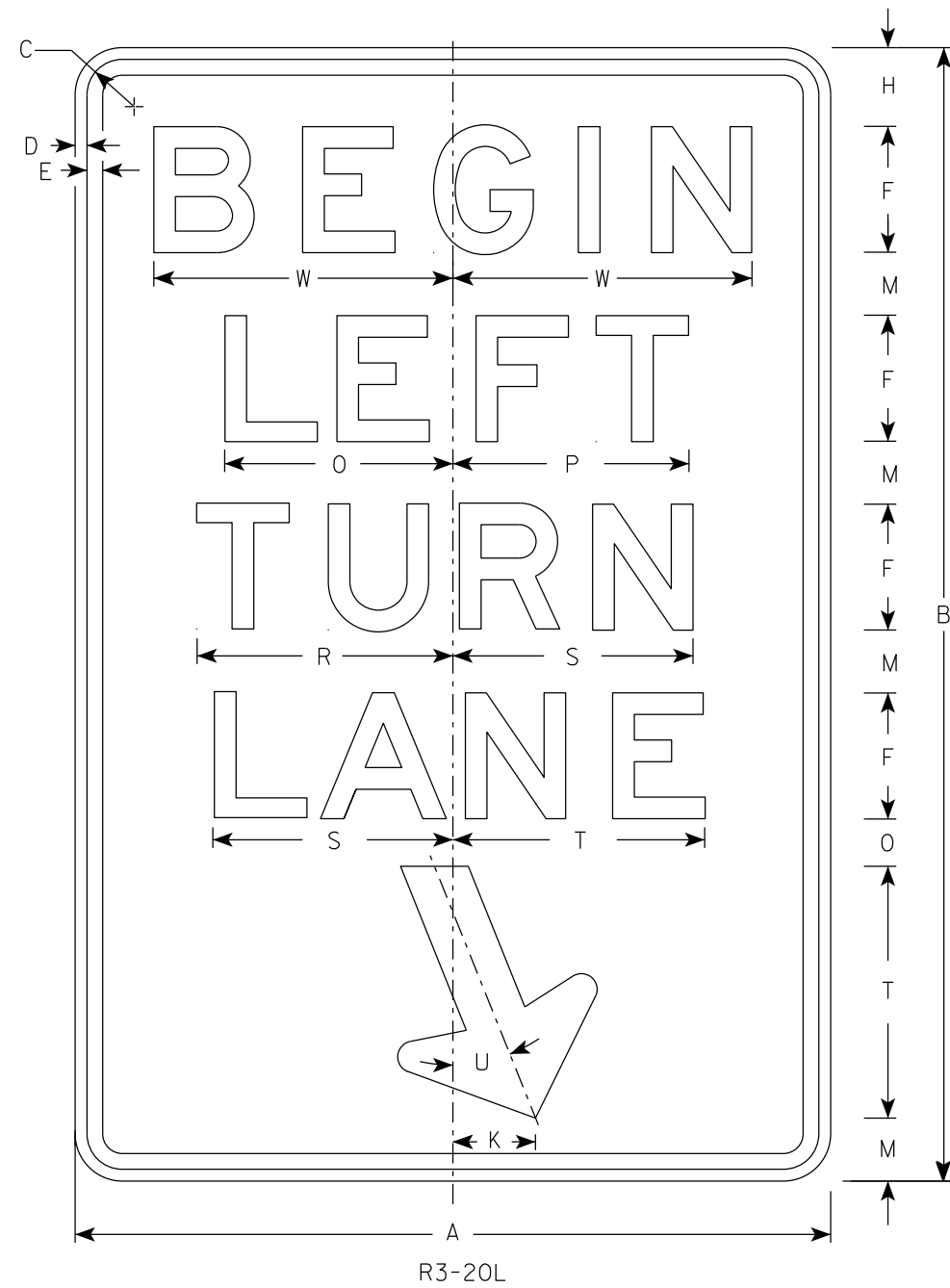
APPROVED *Matthew R Rauch*
State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
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																											
2S	24	36	1 1/2	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 1/2	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 7/8	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 2/23/23 PLATE NO. R3-20L.8

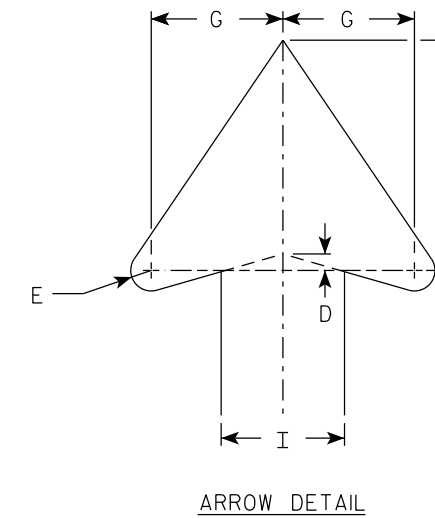
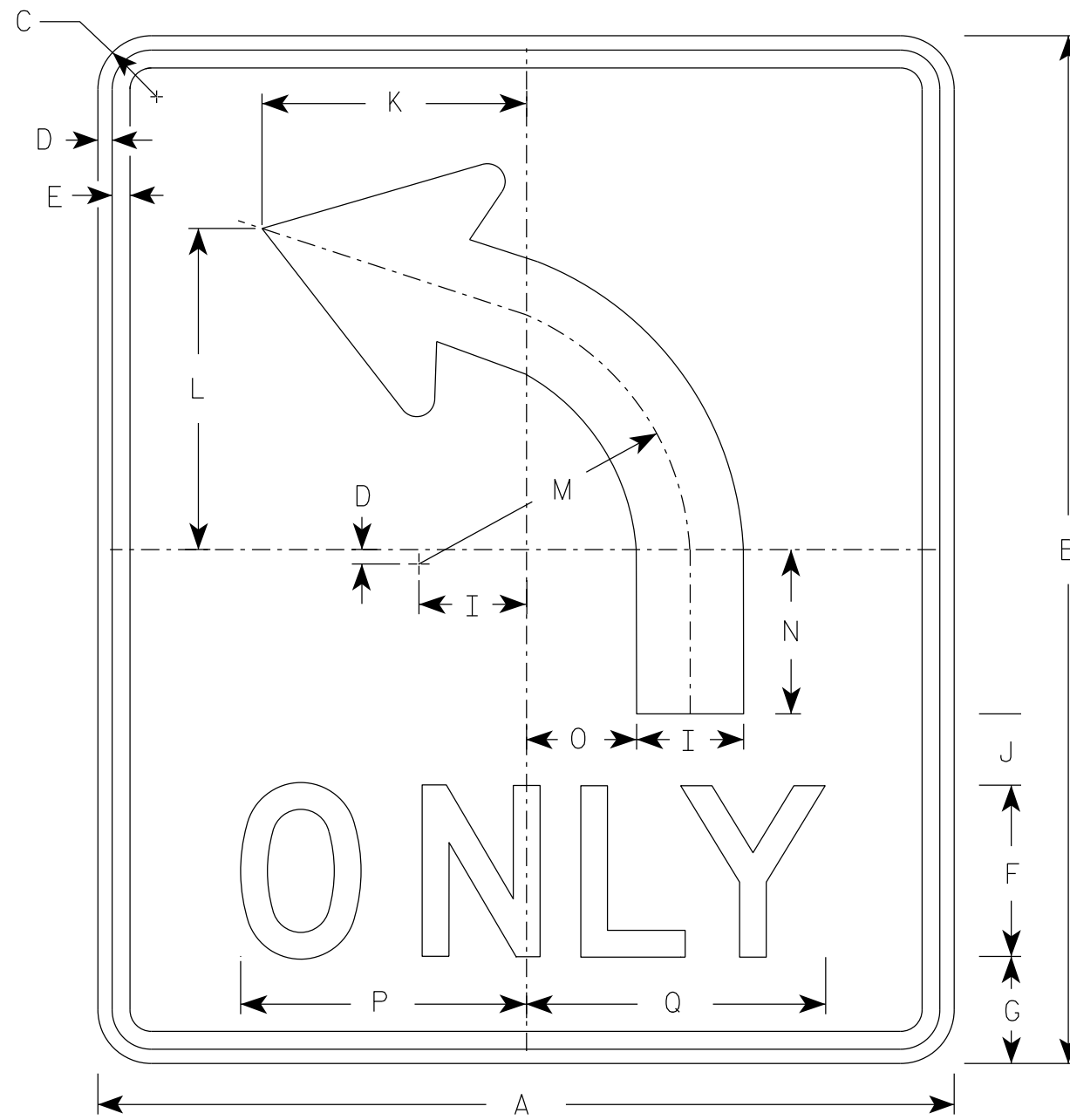
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. R3-50R is the same as R3-50L except curved portion of arrow points right.



R3-50L

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 7/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2									7.5	
2M	30	36	1 7/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2									7.5	
3																											
4																											
5																											

STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-50.3

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

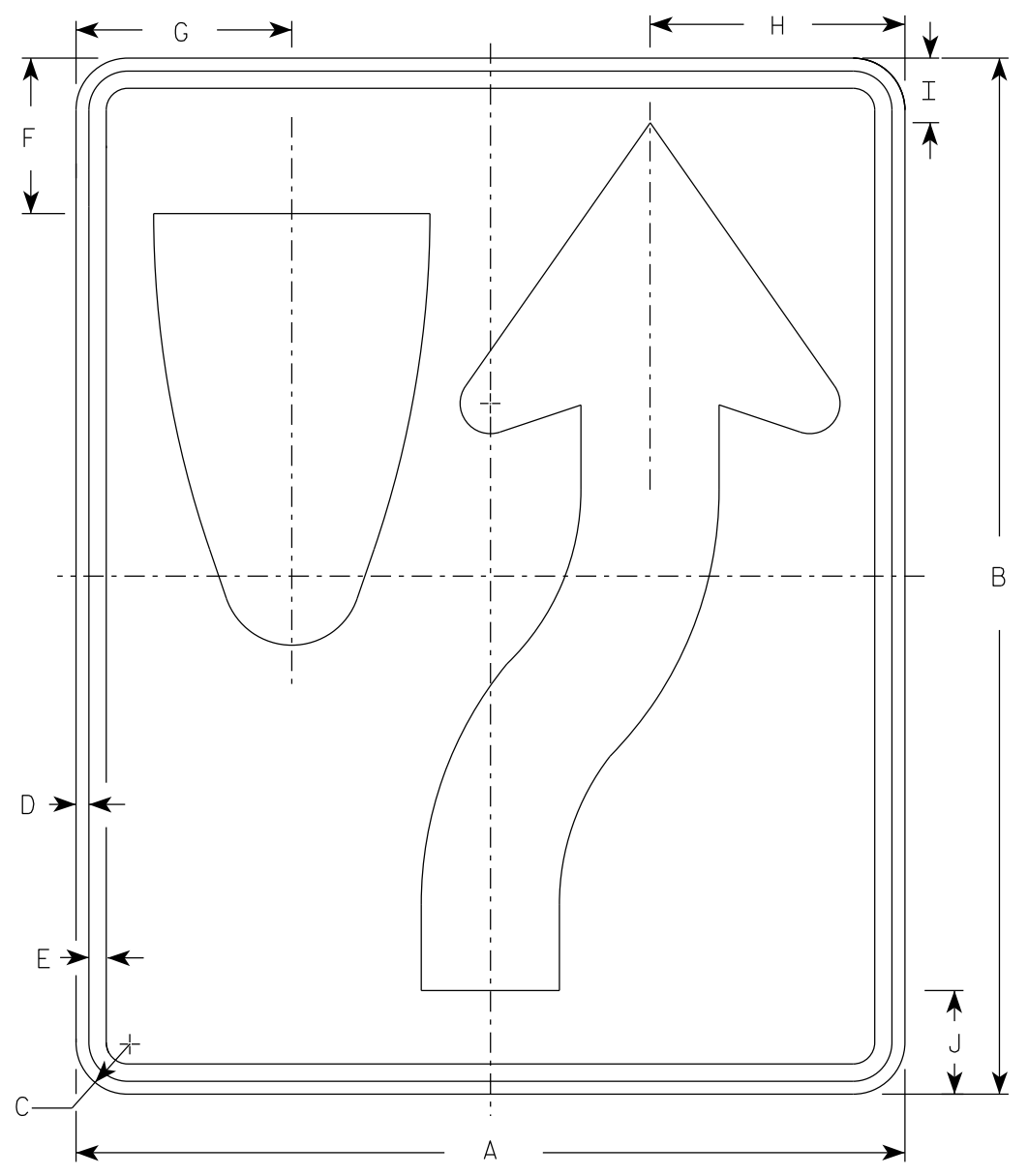
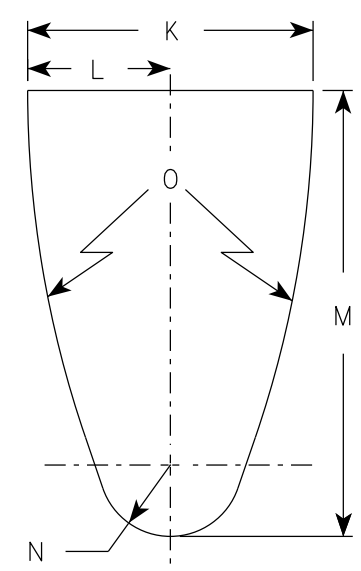
7

7

NOTES

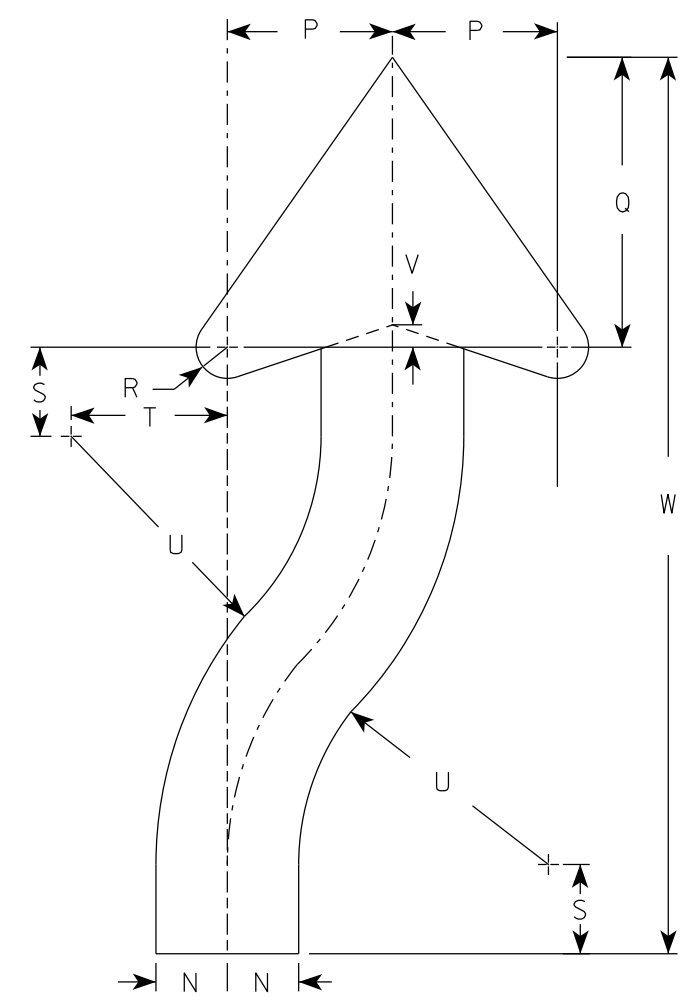
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. R4-8 is the same as R4-7 except Legend is reversed.

DIVIDER DETAIL



R4-7

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 1/2	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 1/2	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 1/2	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 7/8	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 7/8	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	3	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 8/17/23 PLATE NO. R4-7.9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C



R4-53

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	54		1 7/8	5/8	3/4	6	5	3 1/2	7 3/4	9 1/2	2 1/4	15 1/4	9	16 7/8	18 3/4	8 1/8		5 1/2	22 5/8	17 1/8							20.25
2M	54		1 7/8	5/8	3/4	6	5	3 1/2	7 3/4	9 1/2	2 1/4	15 1/4	9	16 7/8	18 3/4	8 1/8		5 1/2	22 5/8	17 1/8							20.25
3																											
4																											
5																											

STANDARD SIGN
R4-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/17/23 PLATE NO. R4-53.2

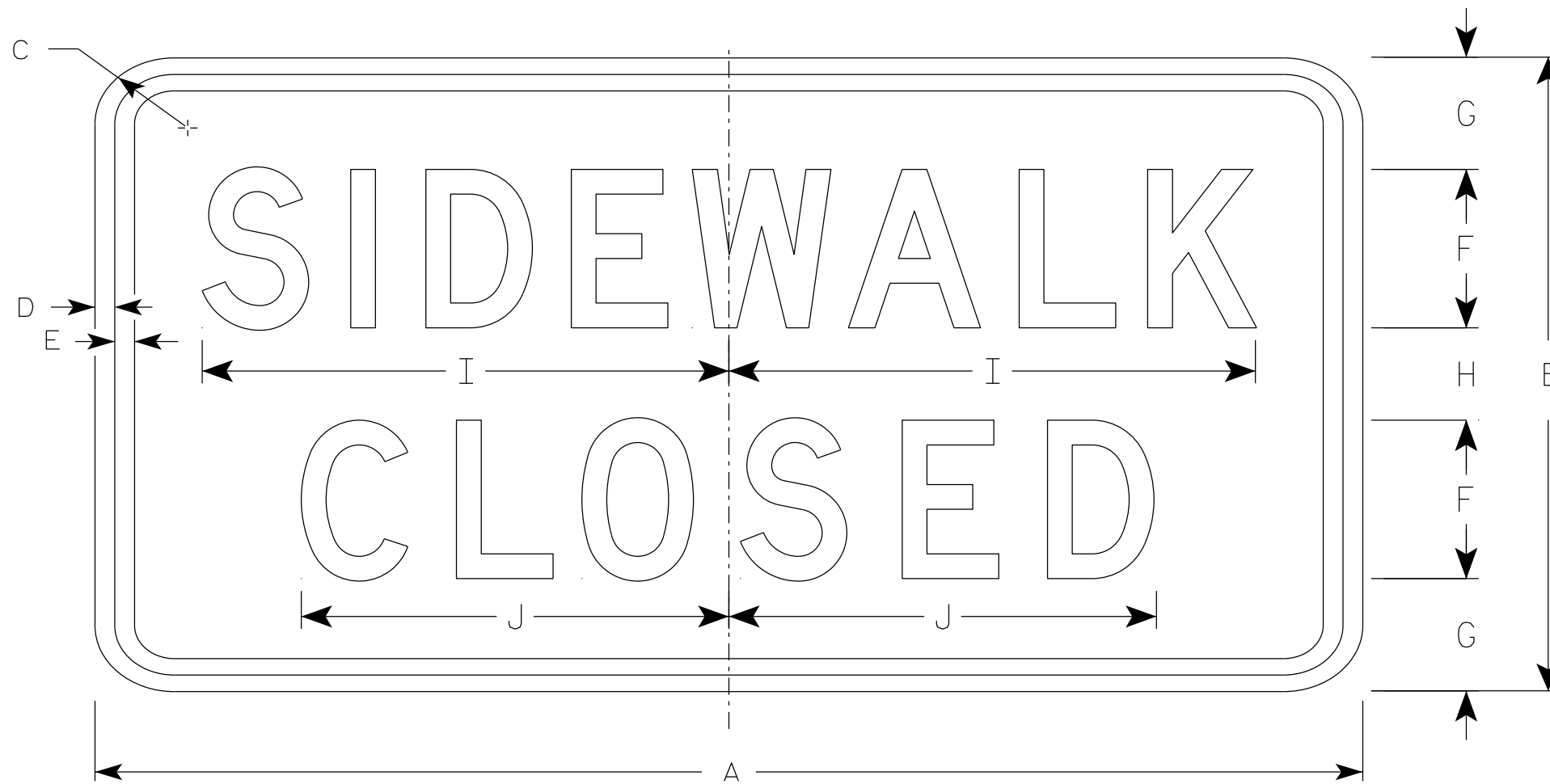
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
 - Background - White
 - Message - Black
3. Message Series - C
4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-9

7

7

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 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

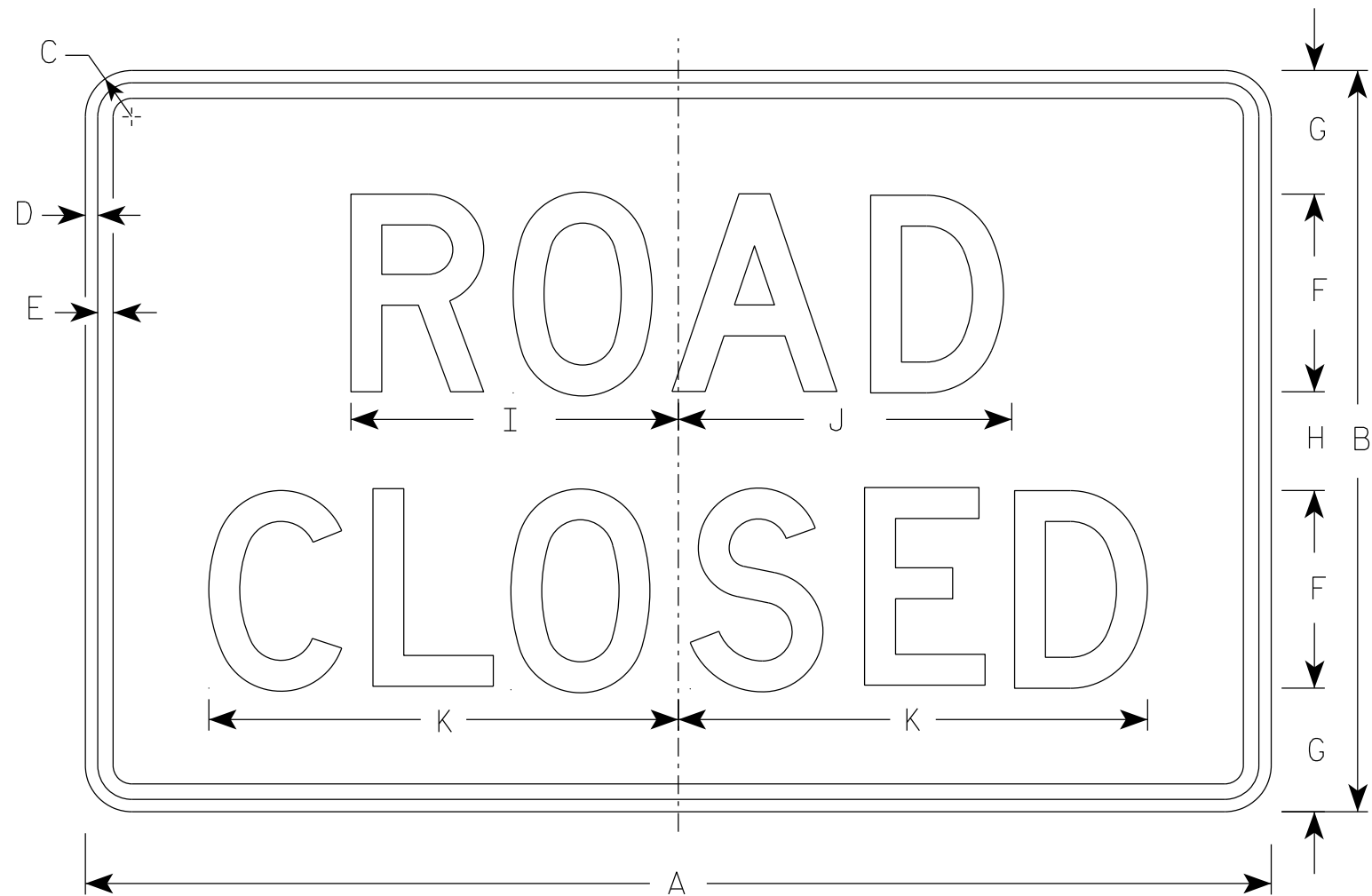
STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

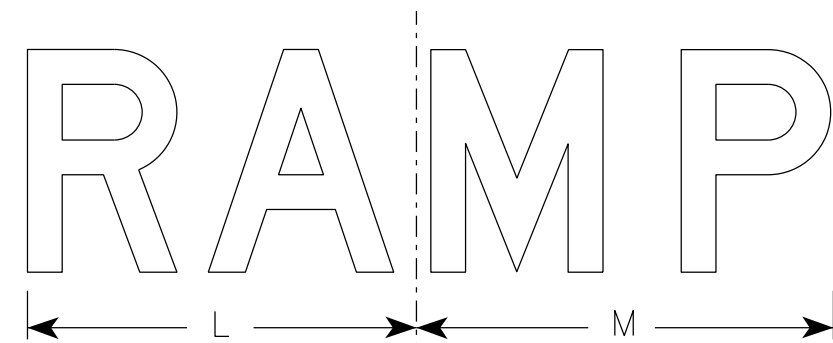
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

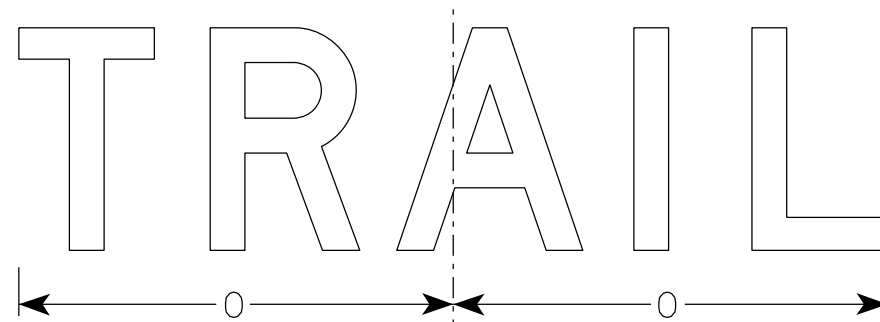
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



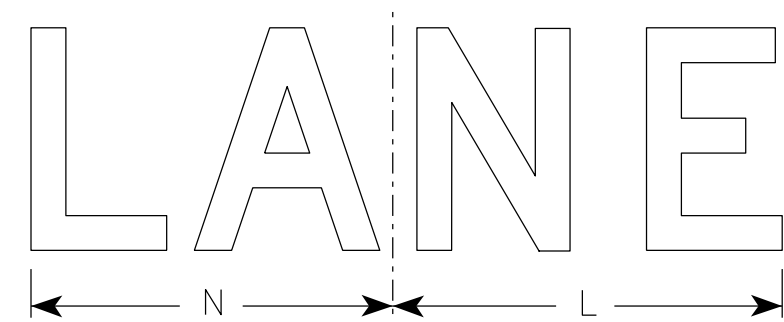
R11-2



R11-2R



R11-2T



R11-2L

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.

7

7

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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	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

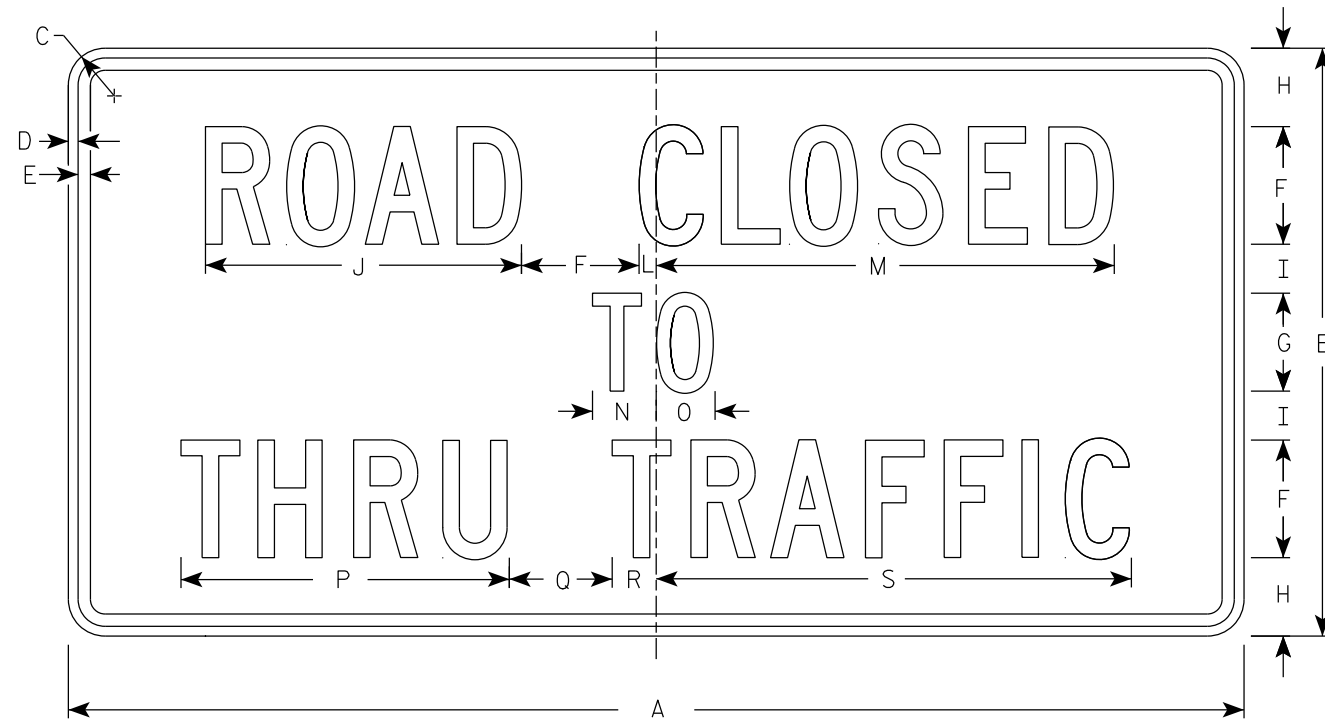
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

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.



R11-4

7

7

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	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

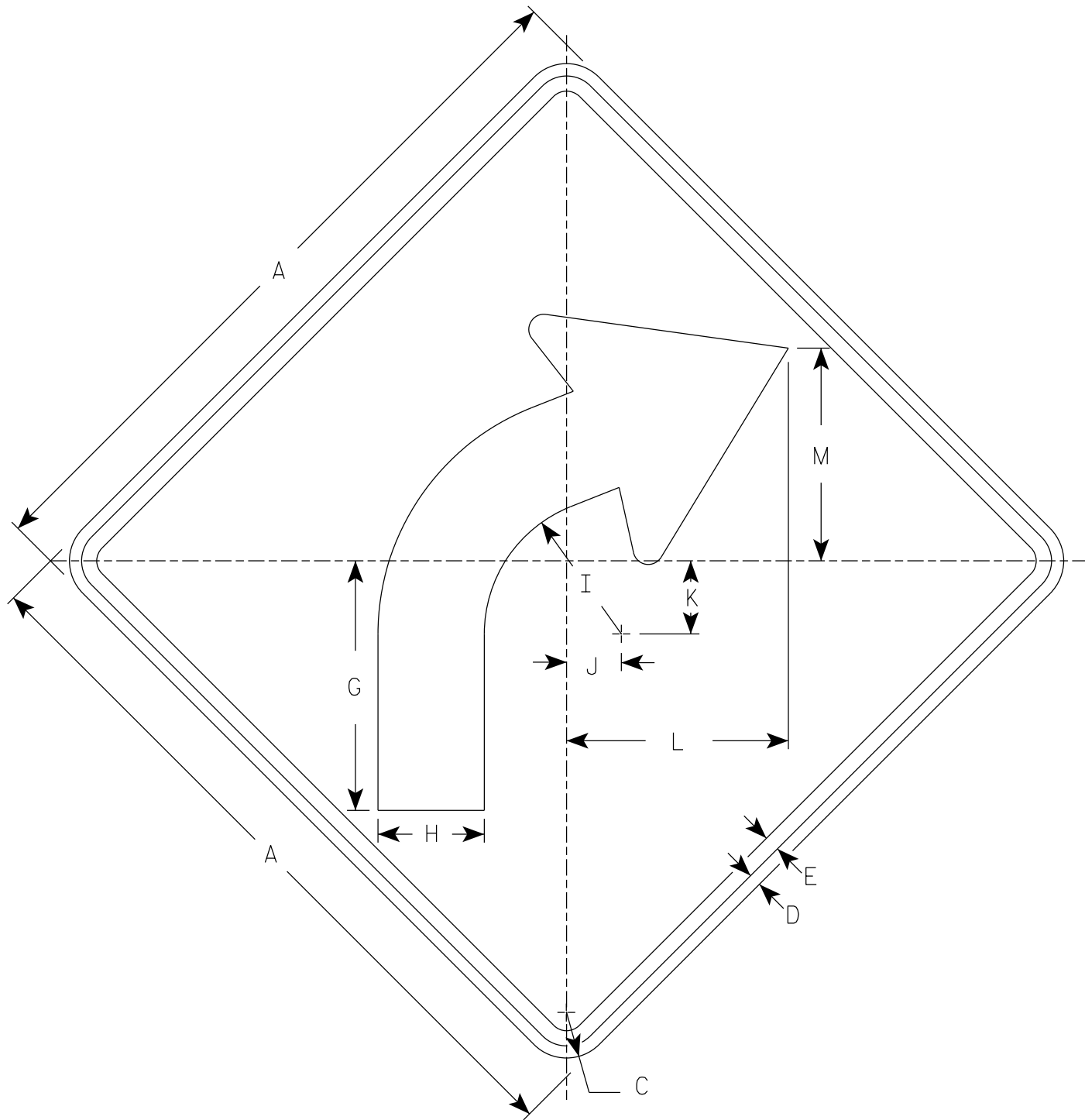
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

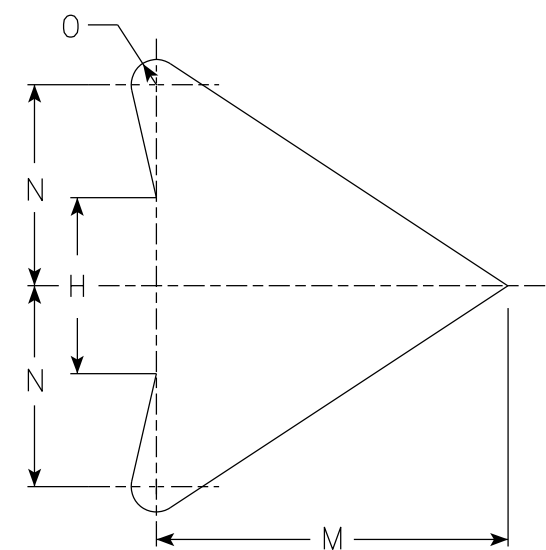
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W1-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



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 1/2	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 7/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		3	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

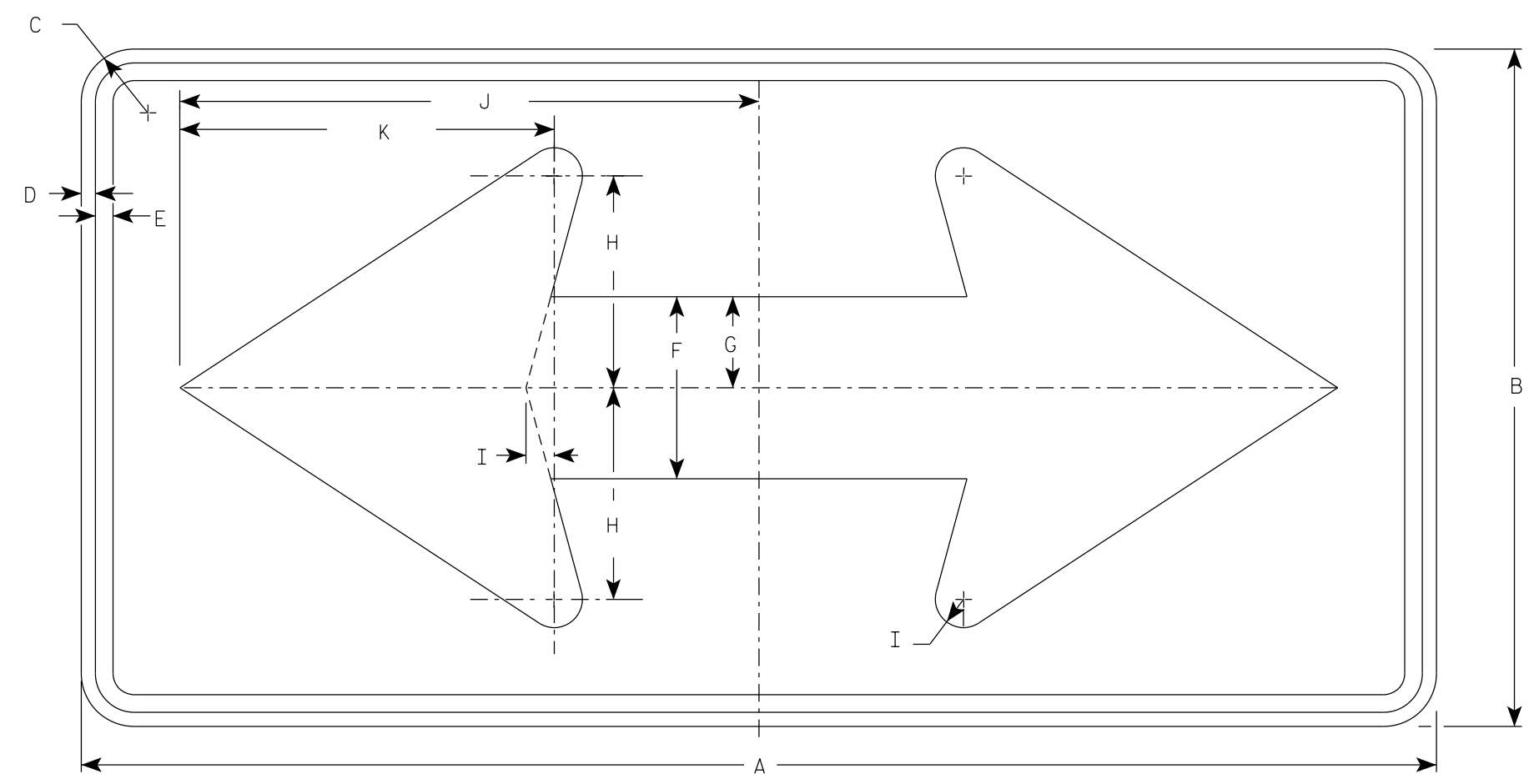
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/23/2023 PLATE NO. W1-2.11

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 Background - Yellow
 Message - Black



W1-7

7

7

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	18	1 1/2	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	3	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

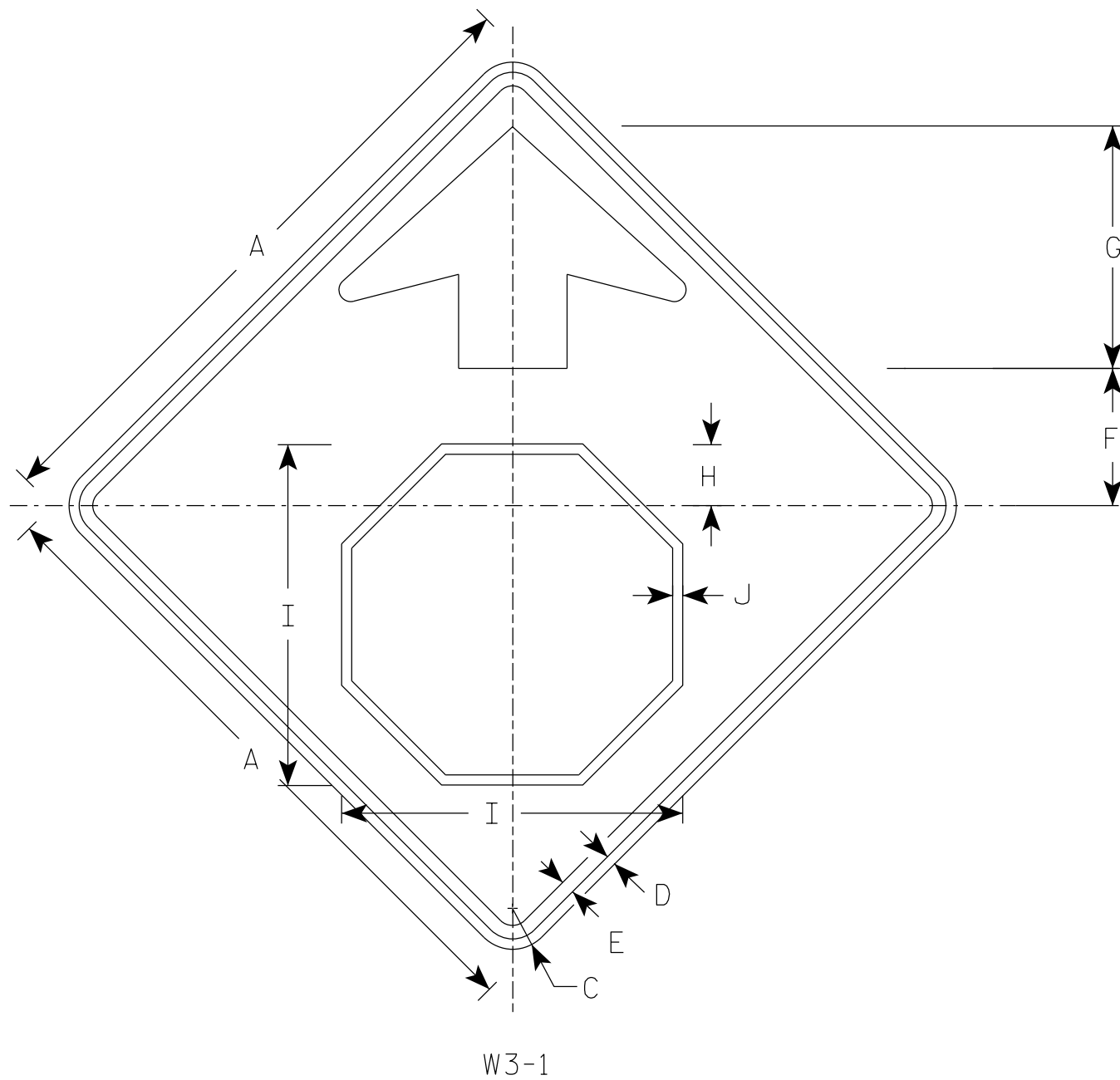
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 5/10/2023 PLATE NO. W1-7.8

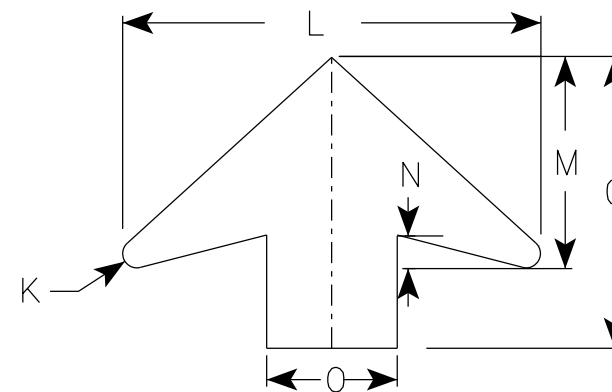
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**



W3-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 - Background - Yellow
 - Arrow & Border - Black
 - Stop 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	30		1 7/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

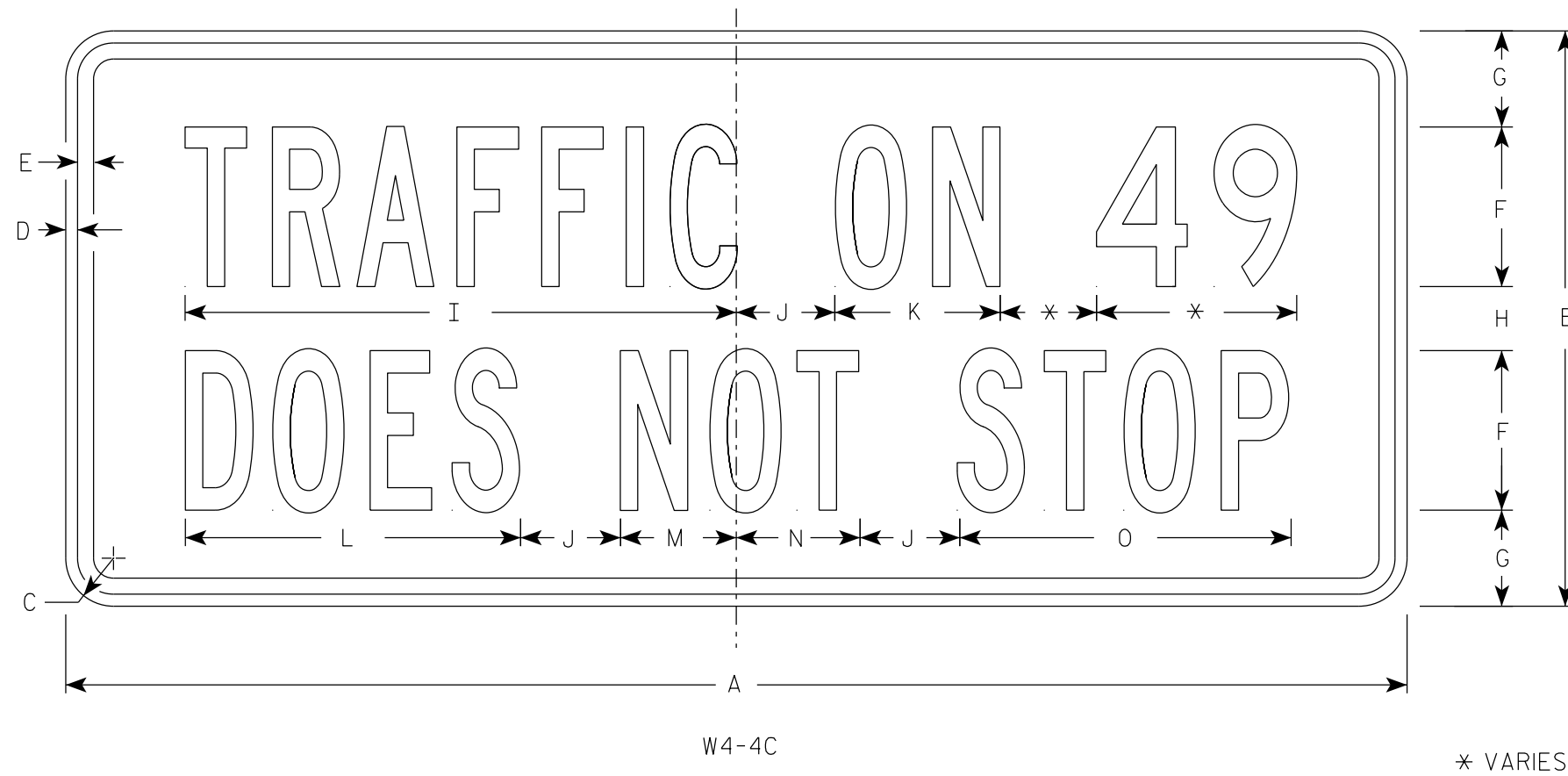
DATE 8/17/2023 PLATE NO. W3-1.13

7

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Message Series - B (See note 4)
4. Highway Number usually Series D. 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																											
2S	24	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
2M	24	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
3	36	15	1 1/2	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	4 1/4	8 3/8	3 1/8	3 1/8	8 3/8												3.75
4	42	18	1 1/2	3/8	1/2	5	3	2	17 1/4	3 1/8	5 1/8	10 1/2	3 7/8	3 7/8	10 3/8												5.25
5																											

STANDARD SIGN
W4-4C

WISCONSIN DEPT OF TRANSPORTATION

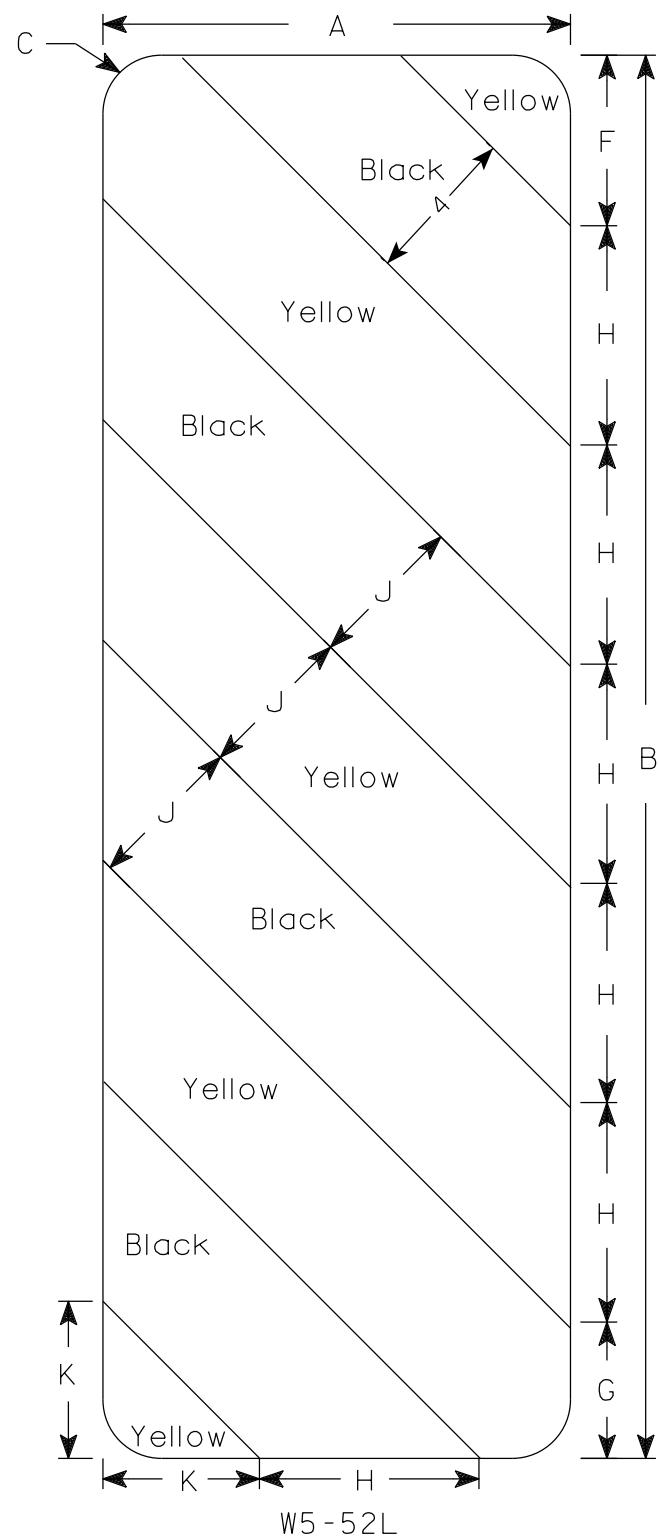
APPROVED *Matthew R Rauch*
State Traffic Engineer

DATE 9/5/2023 PLATE NO. W4-4.3

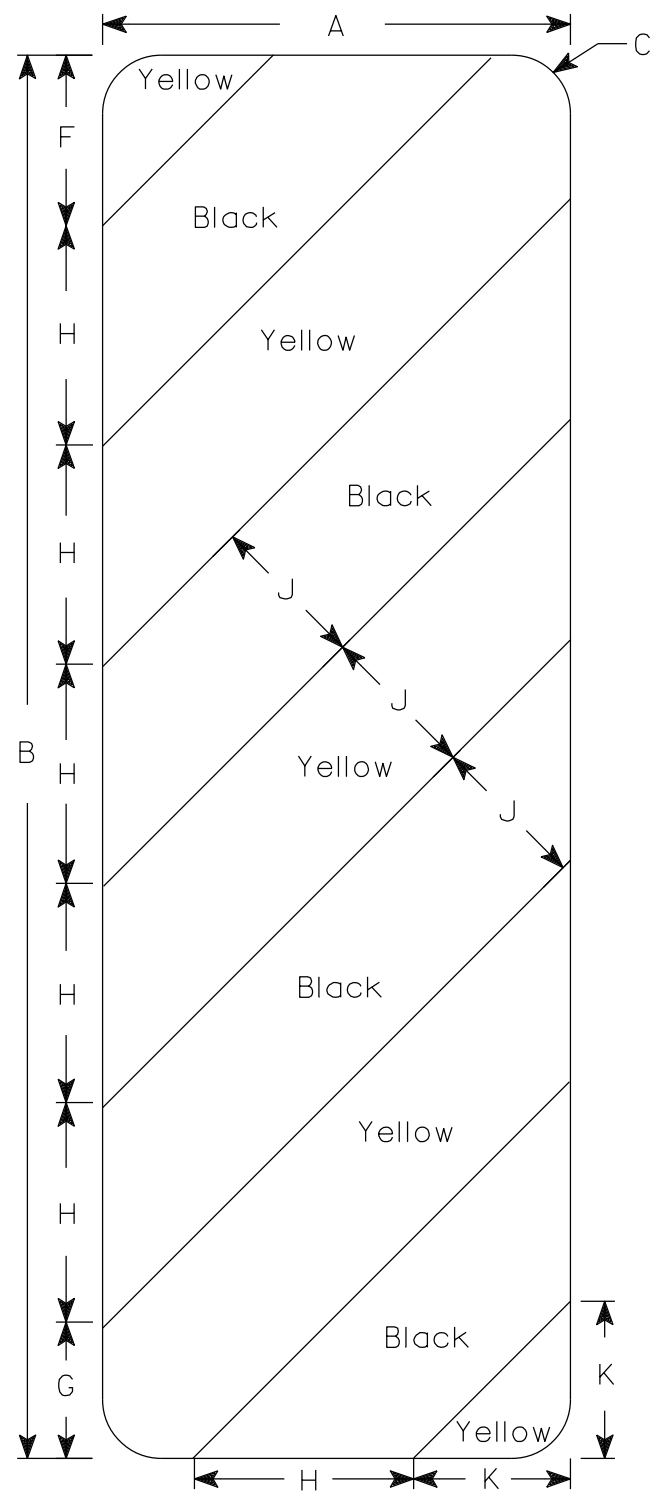
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

7

7



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Alternate colors of stripes as shown.

7

7

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	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

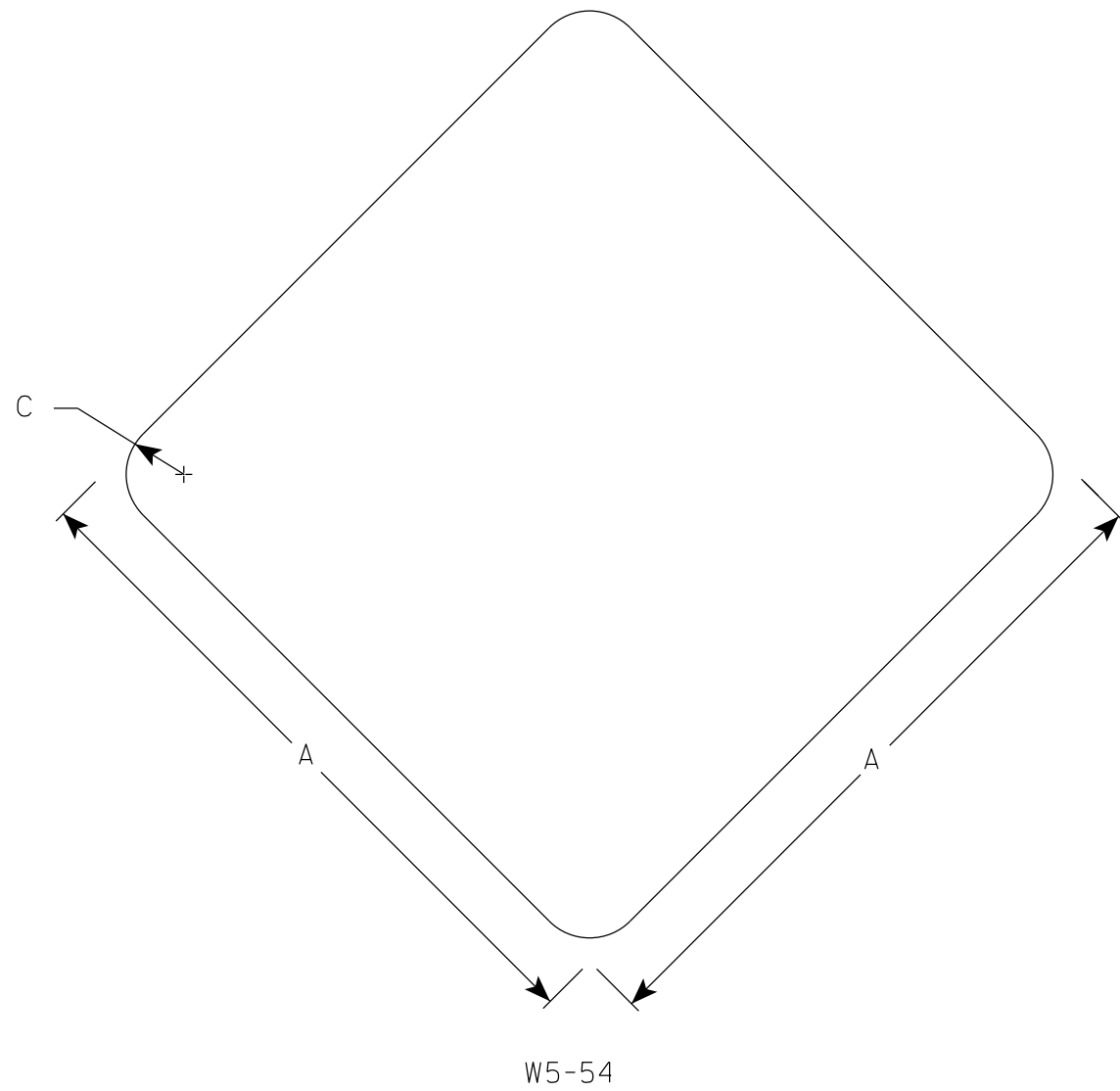
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow



7

7

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		1 1/2																								1.0
2S	18		1 1/2																								2.25
2M	18		1 1/2																								2.25
3																											
4																											
5																											

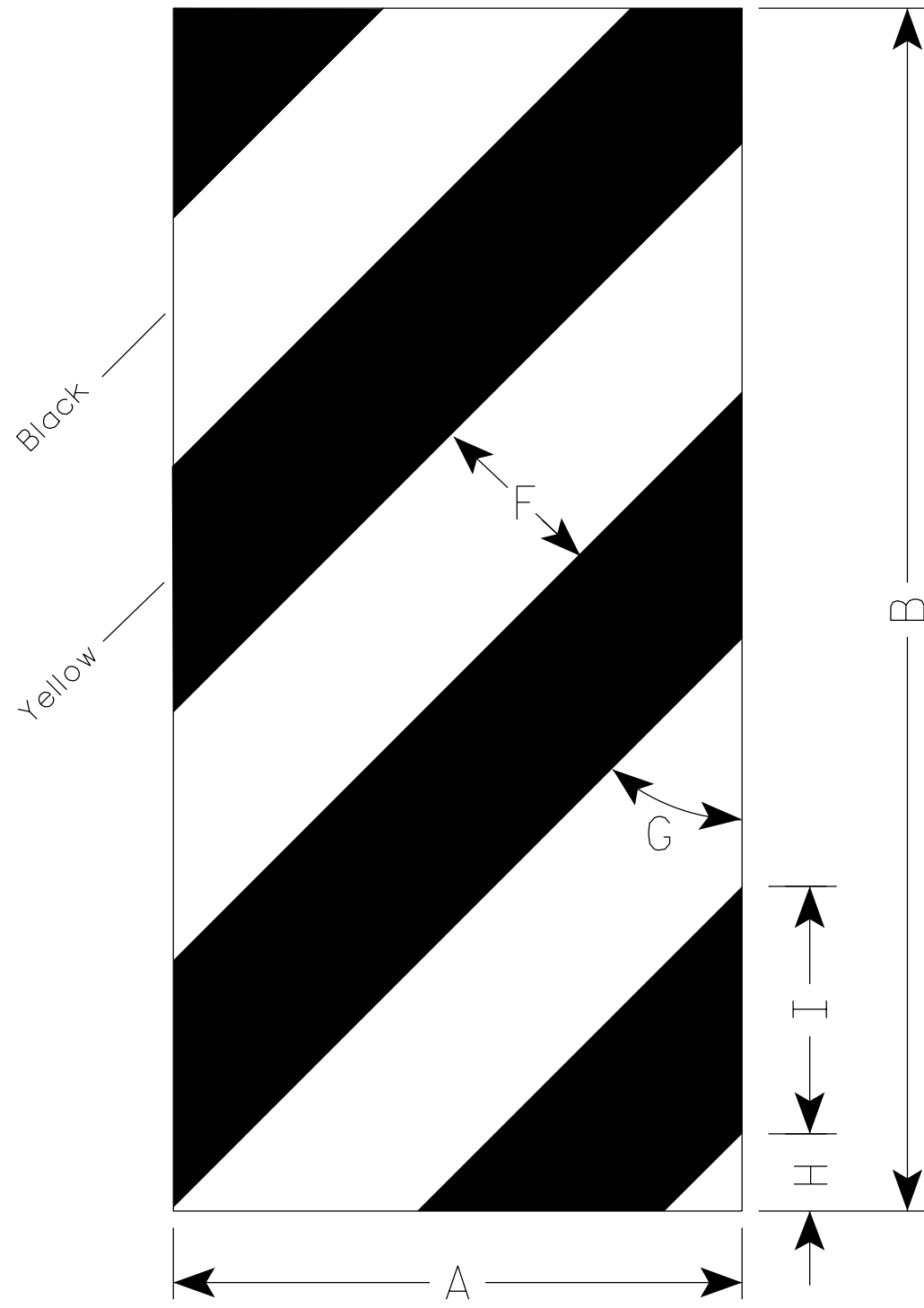
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

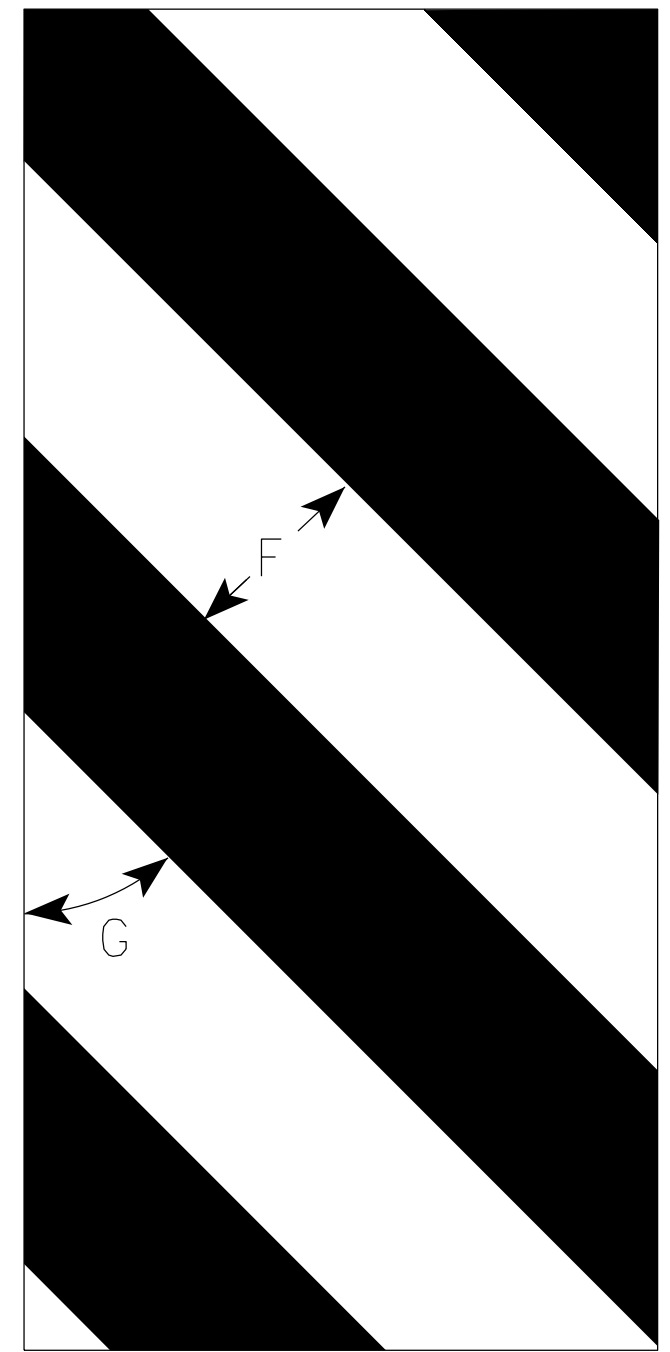
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/5/2024 PLATE NO. W5-54.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W5-60R



W5-60L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Base material is to be .040 sheet aluminum.

7

7

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	13	27 1/2				4	45°	1 3/4	5 5/8																		2.48
2M	13	27 1/2				4	45°	1 3/4	5 5/8																		2.48
3																											
4																											
5																											

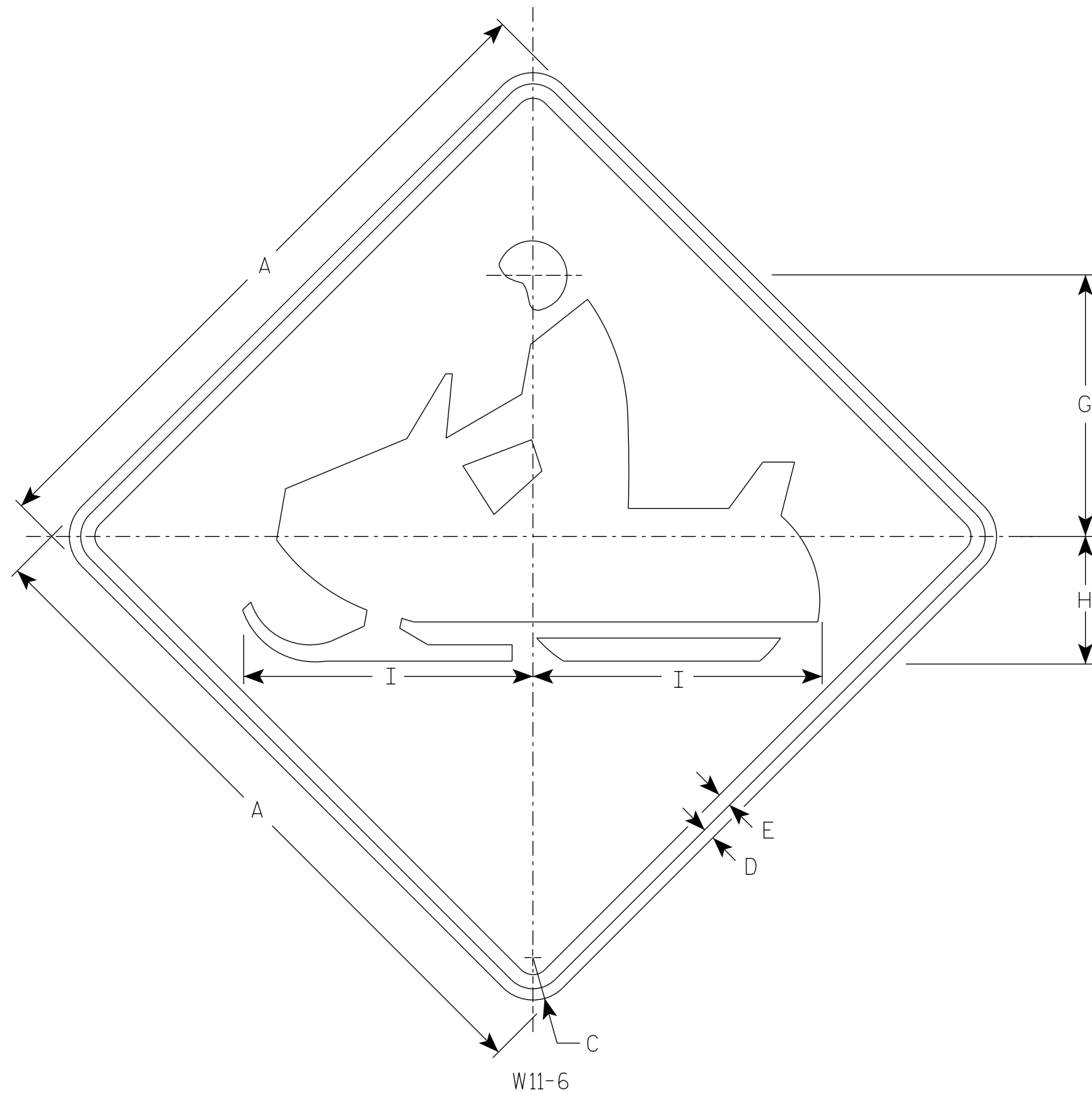
STANDARD SIGN
W5-60L & W5-60R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/5/2024 PLATE NO. W5-60.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black

7

7

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 1/2	3/8	1/2		9 1/2	4 1/2	10 1/4																		4.0
2S	30		1 7/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 7/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		2 1/4	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		3	3/4	1		19	9	20 1/2																		16.0
5																											

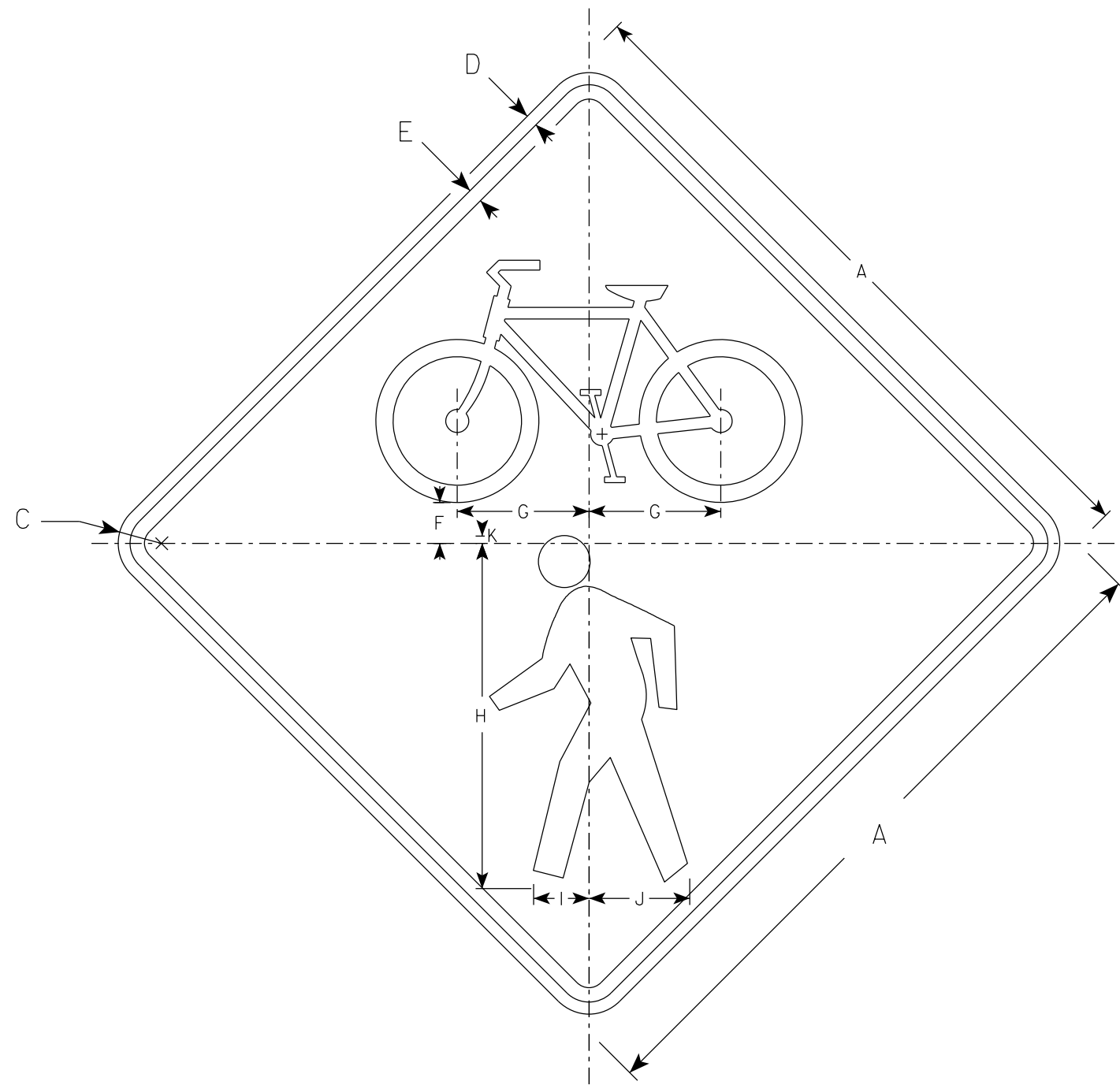
STANDARD SIGN
W11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/15/2023 PLATE NO. W11-6.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W11-15

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 Background - Yellow
 Message - Black

7

7

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 1/2	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 7/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		2 1/4	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		2 1/4	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
4	48		3	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

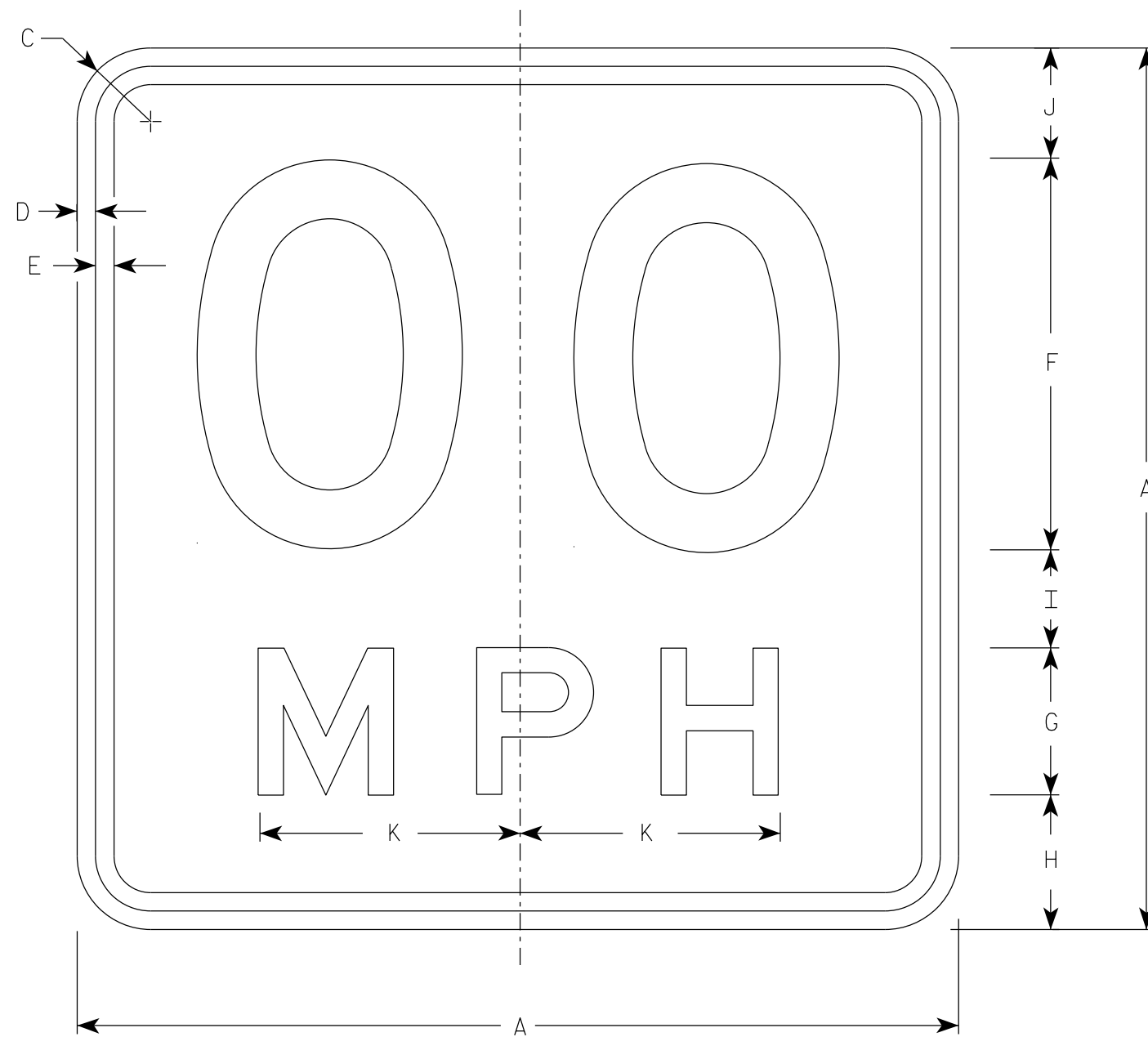
STANDARD SIGN
W11-15

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 11/21/2023 PLATE NO. W11-15.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 5
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
5. Line 1 is Series D
Line 2 is Series E

W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 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	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

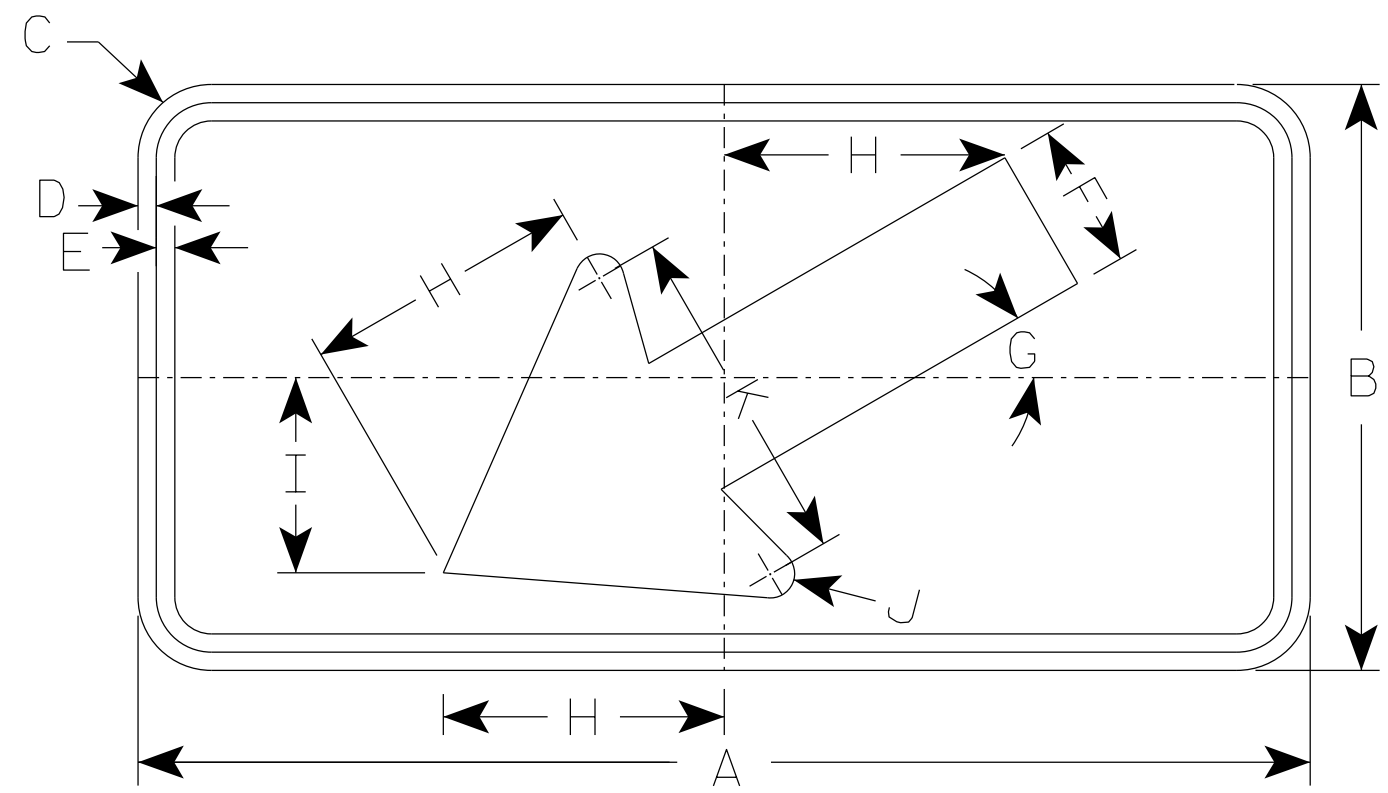
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W13-1.17

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

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.



W16-7L

- * 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.

7

7

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 1/2	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
* 2M	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 3	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN
W16-7

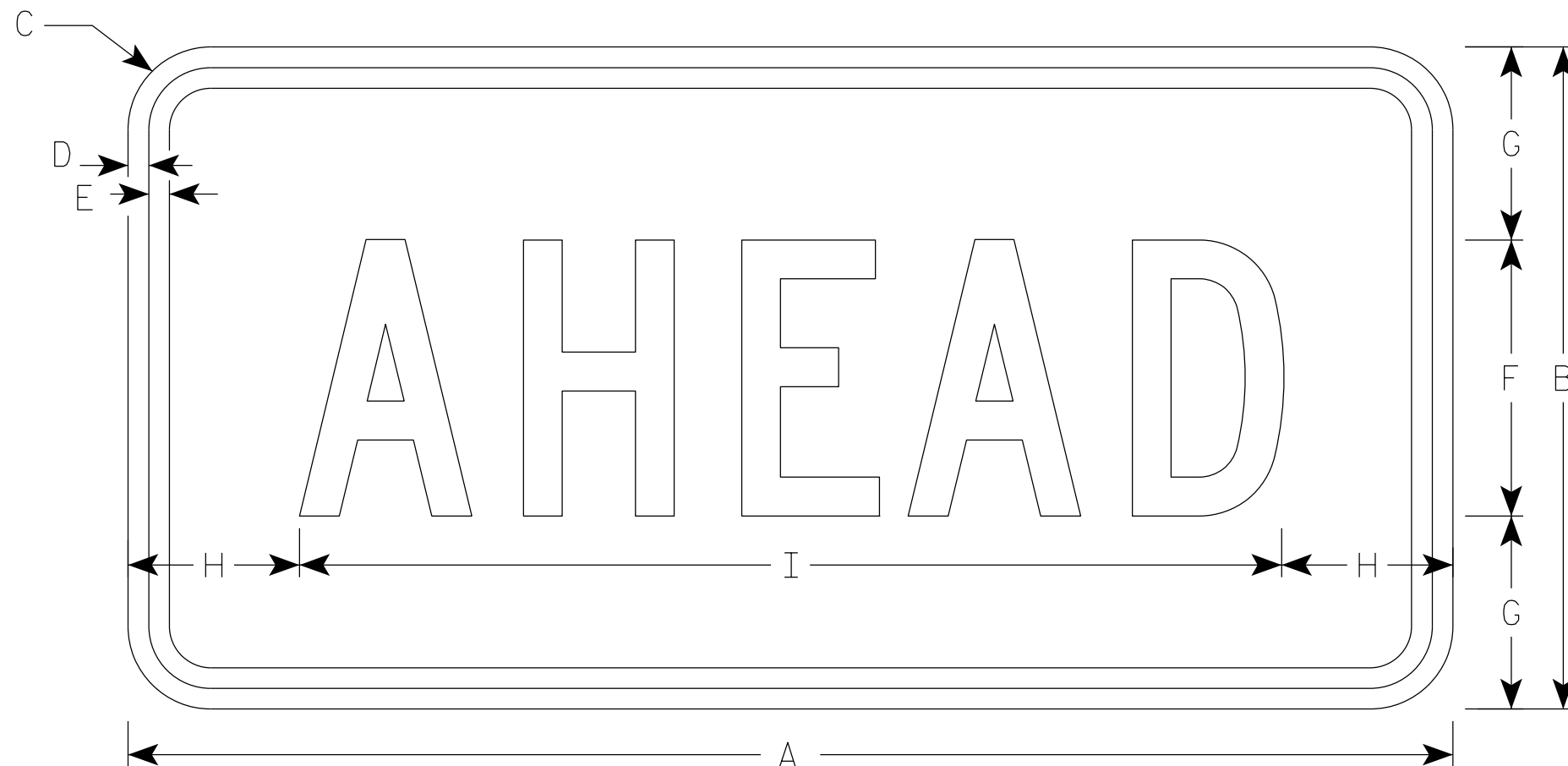
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-7.9

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Message Series - C



W16-9P

- * For 36" x 36" Warning Signs, use 30" x 18" W16-9P signs.
- * For 48" x 48" Warning Signs, use 48" x 24" W16-9P 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 1/2	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
* 2M	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
* 3	30	18	1 1/2	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
* 4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

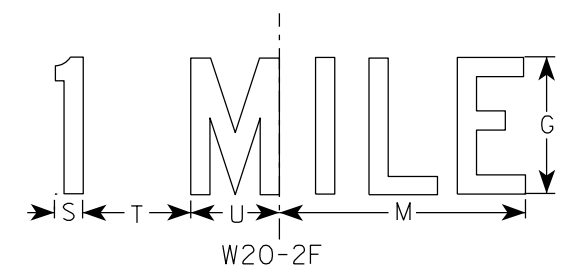
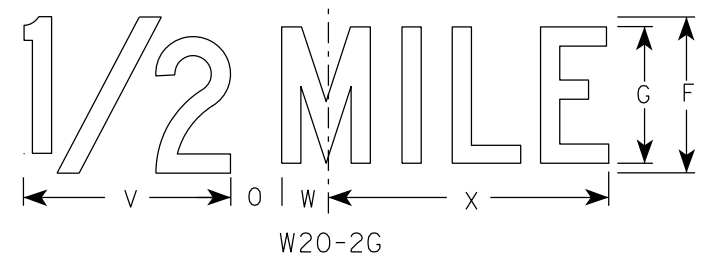
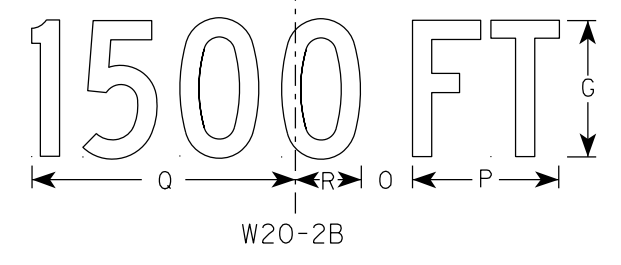
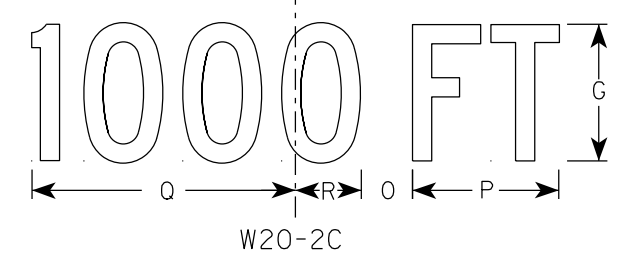
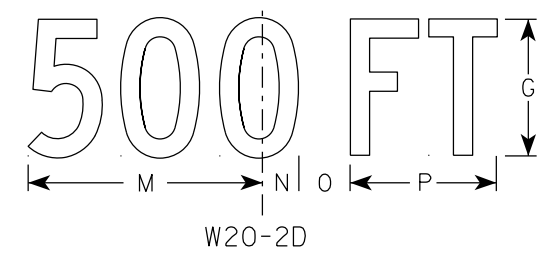
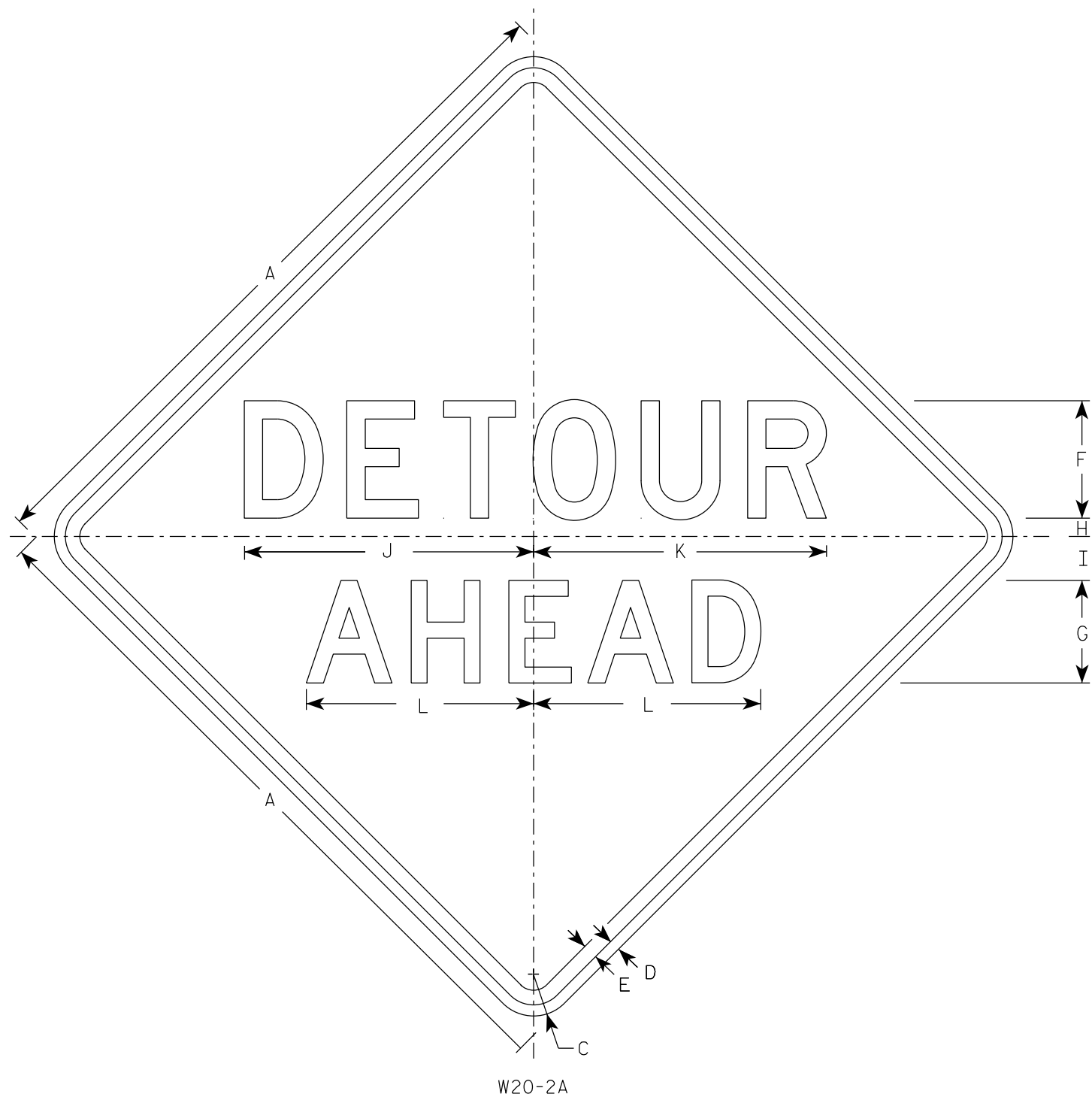
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-9P.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

7

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
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 D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

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		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

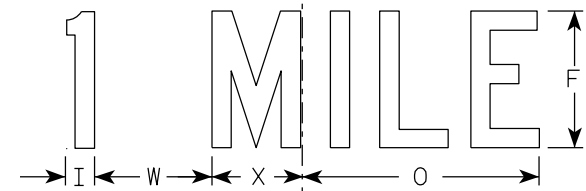
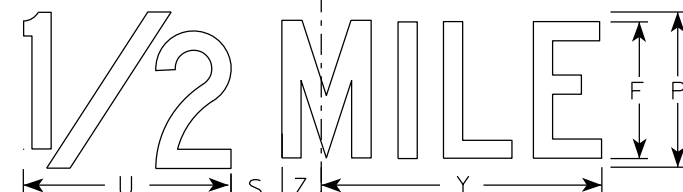
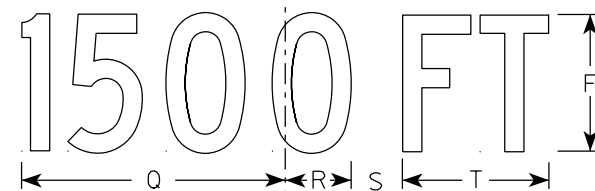
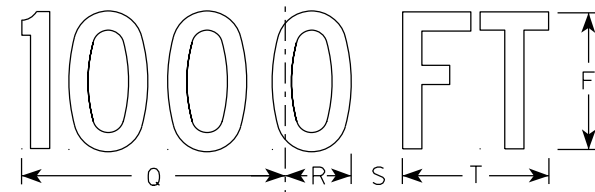
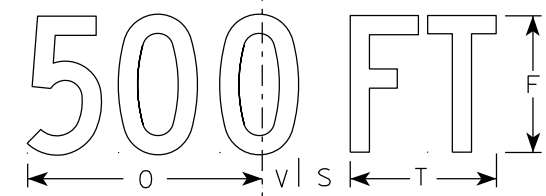
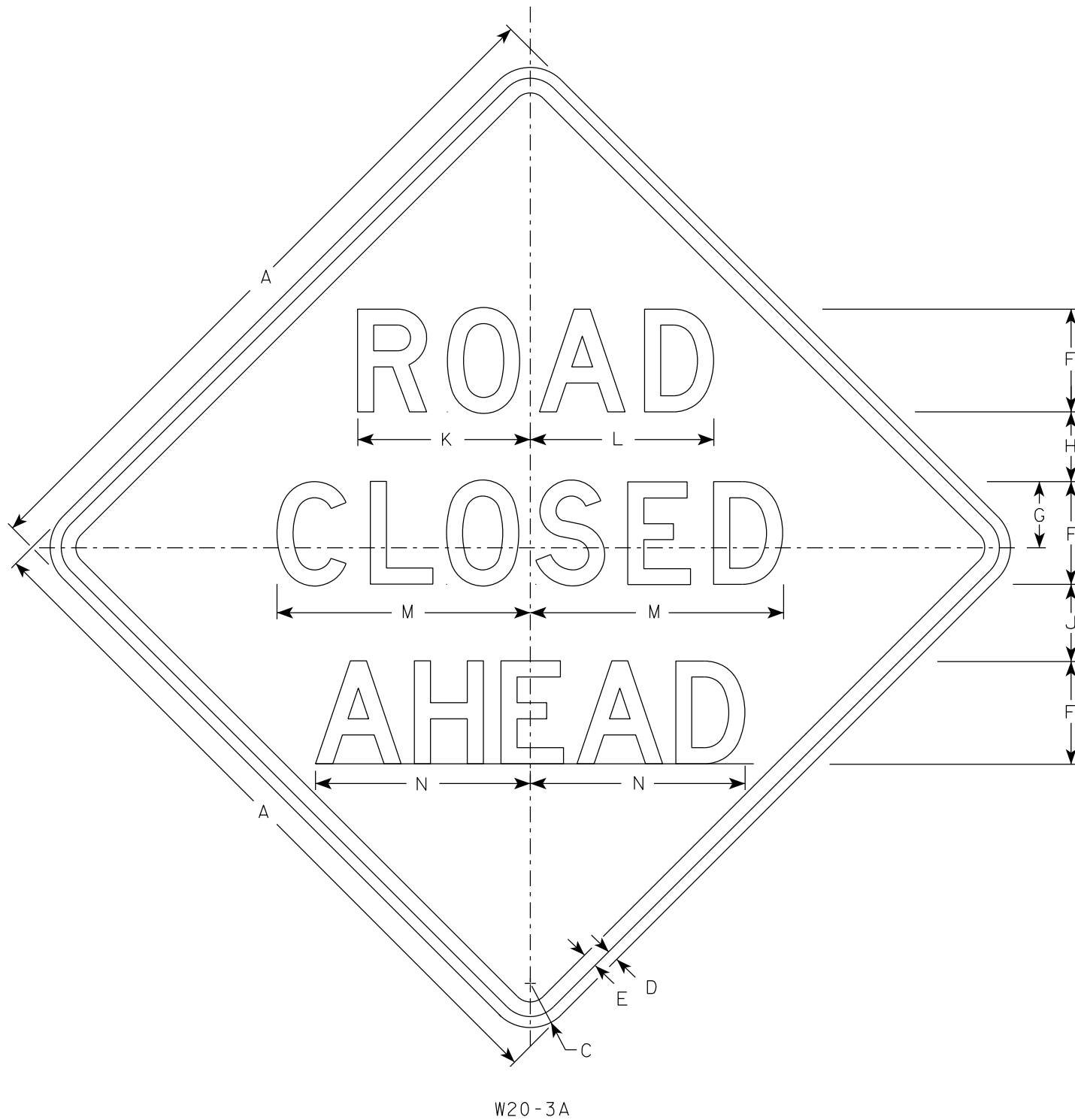
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

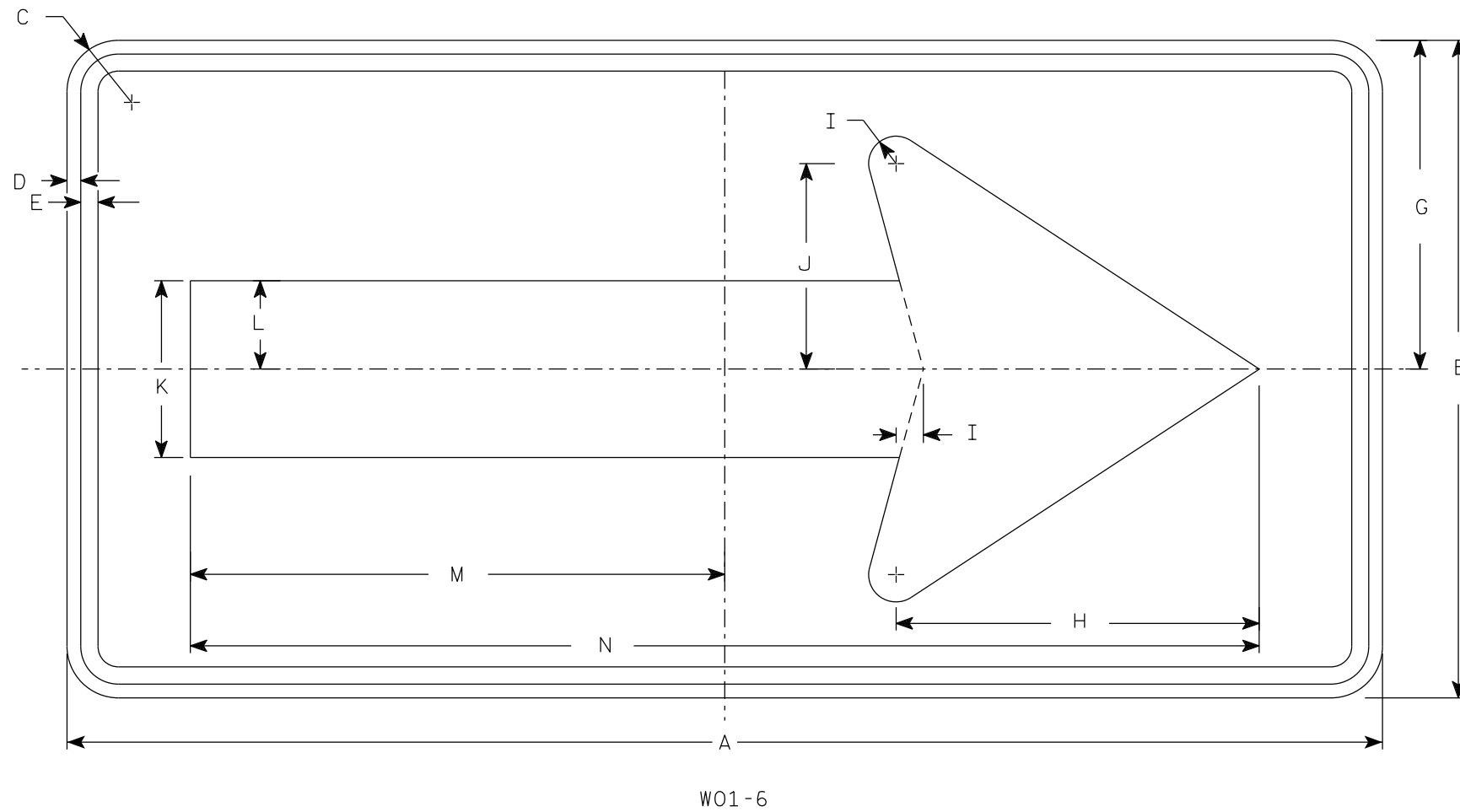
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

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.



7

7

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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	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

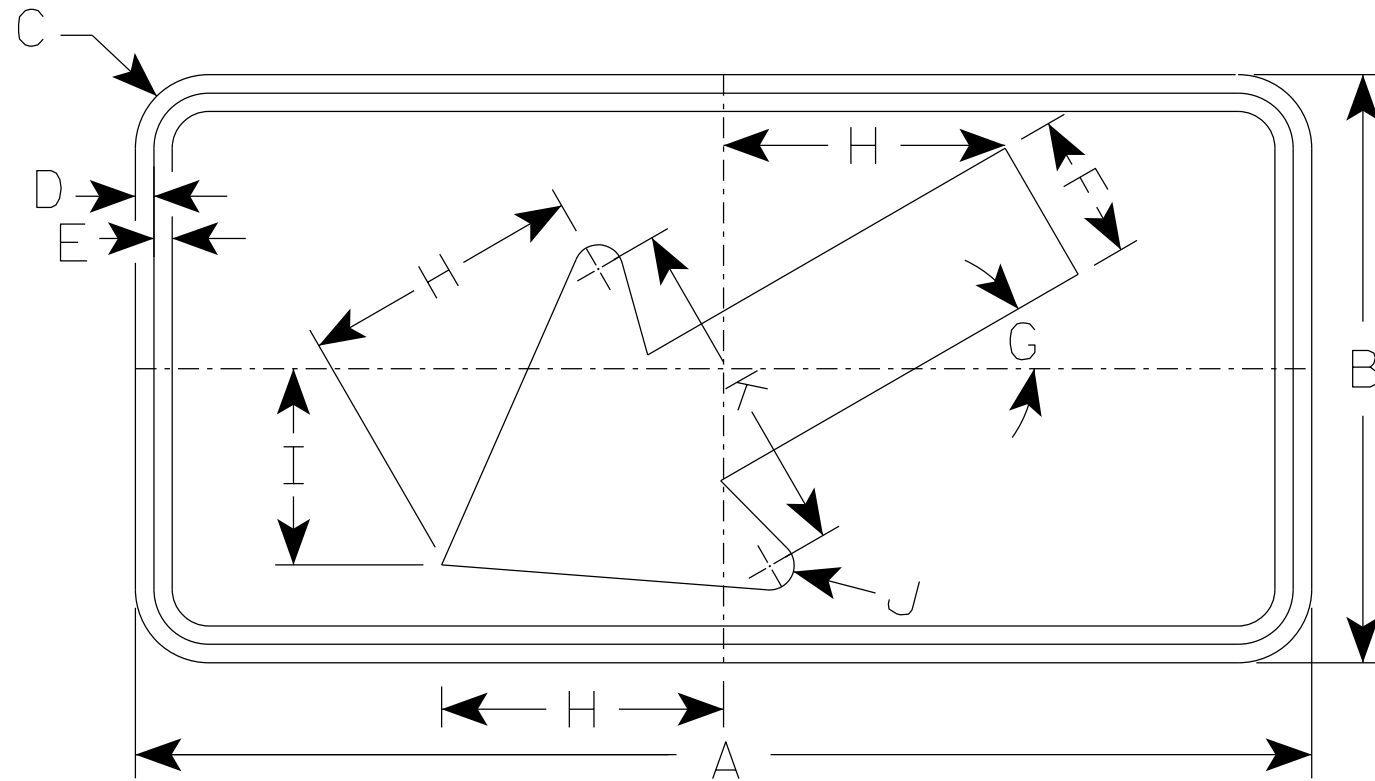
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-6.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded but corners shall be rounded when base material is metal.
4. W016-7R is the same as W016-L except the arrow is reversed along the vertical centerline.



W016-7L

7

7

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	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2S	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
2M	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
3	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0

STANDARD SIGN
W016-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W016-7.3

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

Culvert 374+60

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 4	
374+26.31	37426.31	0.00	0.00	0.00	0.00	0	0	0	0	0	0
374+50.00	37450.00	23.69	0.00	0.00	0.92	0	0	0	0	0	0
374+60.00	37460.00	10.00	0.53	0.00	6.20	0	0	1	0	1	-1
374+84.97	37484.97	24.97	0.00	0.00	0.81	0	0	3	0	5	-5
TOTALS						0	0	4			

Culvert 428+66

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
NOTE 1	NOTE 2	NOTE 3	NOTE 1			NOTE 4					
427+50.00	42750.00	0.00	0.14	0.00	7.17	0	0	0	0	0	0
428+00.00	42800.00	50.00	0.45	0.00	8.71	1	0	15	1	20	-19
428+50.00	42850.00	50.00	0.37	0.00	35.94	1	0	41	2	73	-71
428+66.73	42866.73	16.73	0.40	0.00	42.88	0	0	24	2	104	-102
429+00.00	42900.00	33.27	3.23	0.00	14.51	2	0	35	4	150	-146
429+50.00	42950.00	50.00	2.94	0.00	3.92	6	0	17	10	172	-162
430+00.00	43000.00	50.00	0.00	0.00	0.57	3	0	4	13	177	-164
TOTALS						13	0	136			

9

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Guardrail 1

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
490+29	to	491+30		Shoulder Widening		39.33	0	0			
479+66.04	47966.04	0.00	7.29	0.00	0.00	0	0	0	0	0	0
479+80.07	47980.07	14.03	5.45	0.00	0.00	3	0	0	3	0	3
480+00.00	48000.00	19.93	6.40	0.00	0.00	4	0	0	7	0	7
480+05.07	48005.07	5.07	7.89	0.00	0.00	1	0	0	8	0	8
480+30.06	48030.06	24.99	4.81	0.00	0.00	6	0	0	14	0	14
480+50.00	48050.00	19.94	0.15	0.00	0.02	2	0	0	16	0	16
481+00.00	48100.00	50.00	1.55	0.00	0.00	2	0	0	18	0	18
481+50.00	48150.00	50.00	0.33	0.00	0.02	2	0	0	20	0	20
482+00.00	48200.00	50.00	0.20	0.00	0.05	0	0	0	20	0	20
482+50.00	48250.00	50.00	0.38	0.00	0.00	1	0	0	21	0	21
483+00.00	48300.00	50.00	0.23	0.00	0.07	1	0	0	22	0	22
483+50.00	48350.00	50.00	0.06	0.00	0.28	0	0	0	22	0	22
484+00.00	48400.00	50.00	0.28	0.00	0.03	0	0	0	22	0	22
484+50.00	48450.00	50.00	0.29	0.00	0.07	1	0	0	23	0	23
485+00.00	48500.00	50.00	0.41	0.00	0.04	1	0	0	24	0	24
485+50.00	48550.00	50.00	0.12	0.00	0.23	0	0	0	24	0	24
486+00.00	48600.00	50.00	0.05	0.00	0.15	0	0	0	24	0	24
486+50.00	48650.00	50.00	0.29	0.00	0.07	0	0	0	24	0	24
487+00.00	48700.00	50.00	0.18	0.00	0.18	0	0	0	24	0	24
487+50.00	48750.00	50.00	1.30	0.00	0.00	1	0	0	25	0	25
488+00.00	48800.00	50.00	0.27	0.00	0.01	1	0	0	26	0	26
488+50.00	48850.00	50.00	0.80	0.00	0.00	1	0	0	27	0	27
489+00.00	48900.00	50.00	0.00	0.00	0.00	1	0	0	28	0	28
489+50.00	48950.00	50.00	0.00	0.00	0.00	0	0	0	28	0	28
490+00.00	49000.00	50.00	0.62	0.00	0.00	1	0	0	29	0	29
490+30.00	49030.00	30.00	0.22	0.00	0.00	0	0	0	29	0	29
490+50.00	49050.00	20.00	0.00	0.00	0.00	0	0	0	29	0	29
490+55.00	49055.00	5.00	0.00	0.00	0.00	0	0	0	29	0	29
490+80.00	49080.00	25.00	0.00	0.00	0.00	0	0	0	29	0	29
491+00.00	49100.00	20.00	0.03	0.00	0.04	0	0	0	29	0	29
491+50.00	49150.00	50.00	0.00	0.00	0.19	0	0	0	29	0	29
492+00.00	49200.00	50.00	0.00	0.00	0.02	0	0	0	29	0	29
TOTALS						68	0	0			

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Guardrail 2

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
507+45 RT	TO	513+14 RT		Shoulder Widening		118	0	0			
507+59 LT	TO	508+21 LT		Shoulder Widening		20	0	0			
512+66 LT	TO	513+03 LT		Shoulder Widening		10	0	0			
503+00.00	50300.00	0.00	0.09	0.00	1.47	0	0	0	0	0	0
503+50.00	50350.00	50.00	0.07	0.00	0.07	0	0	1	0	1	-1
504+00.00	50400.00	50.00	0.01	0.00	0.31	0	0	0	0	1	-1
504+50.00	50450.00	50.00	0.00	0.00	3.74	0	0	4	0	7	-7
505+00.00	50500.00	50.00	0.00	0.00	13.67	0	0	16	0	27	-27
505+19.89	50519.89	19.89	0.00	0.00	1.13	0	0	5	0	34	-34
505+44.78	50544.78	24.89	0.03	0.00	0.24	0	0	1	0	35	-35
505+50.00	50550.00	5.22	0.04	0.00	0.20	0	0	0	0	35	-35
505+69.67	50569.67	19.67	0.03	0.00	0.06	0	0	0	0	35	-35
506+00.00	50600.00	30.33	0.00	0.00	0.07	0	0	0	0	35	-35
506+50.00	50650.00	50.00	15.56	0.00	0.01	14	0	0	14	35	-21
507+00.00	50700.00	50.00	0.20	0.00	0.00	15	0	0	29	35	-6
507+50.00	50750.00	50.00	0.24	0.00	7.14	0	0	7	29	44	-15
508+00.00	50800.00	50.00	4.28	0.00	35.78	4	0	40	33	96	-63
508+25.00	50825.00	25.00	3.92	0.00	0.00	4	0	17	37	118	-81
508+50.00	50850.00	25.00	5.83	0.00	0.00	5	0	0	42	118	-76
509+00.00	50900.00	50.00	1.55	0.00	0.04	7	0	0	49	118	-69
509+50.00	50950.00	50.00	0.07	0.00	81.23	1	0	75	50	216	-166
510+00.00	51000.00	50.00	0.84	0.00	84.82	1	0	154	51	416	-365
510+50.00	51050.00	50.00	1.46	0.00	0.02	2	0	79	53	519	-466
511+00.00	51100.00	50.00	0.29	0.00	0.01	2	0	0	55	519	-464
511+46.00	51146.00	46.00	0.52	0.00	0.02	1	0	0	56	519	-463
511+50.00	51150.00	4.00	0.46	0.00	0.02	0	0	0	56	519	-463
511+71.00	51171.00	21.00	0.13	0.00	2.17	0	0	1	56	520	-464
511+96.00	51196.00	25.00	0.03	0.00	8.30	0	0	5	56	527	-471
512+00.00	51200.00	4.00	0.03	0.00	6.86	0	0	1	56	528	-472
512+42.66	51242.66	42.66	0.31	0.00	1.04	0	0	6	56	536	-480
512+50.00	51250.00	7.34	0.43	0.00	0.70	0	0	0	56	536	-480
512+67.66	51267.66	17.66	0.60	0.00	2.15	0	0	1	56	537	-481
512+92.50	51292.50	24.84	0.36	0.00	42.94	0	0	21	56	564	-508
513+00.00	51300.00	7.50	0.36	0.00	39.70	0	0	11	56	579	-523
513+50.00	51350.00	50.00	0.34	0.00	7.71	1	0	44	57	636	-579
513+87.35	51387.35	37.35	0.55	0.00	0.00	1	0	5	58	642	-584
TOTALS						206	0	494			

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Guardrail 3

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
525+45 RT	TO	529+87 RT		Shoulder Widening		88	0	0			
527+00 LT	TO	532+03 LT		Shoulder Widening		97	0	0			
524+16.88	52416.88	0.00	0.01	0.00	0.97	0	0	0	0	0	0
524+50.00	52450.00	33.12	0.00	0.00	0.39	0	0	1	0	1	-1
525+00.00	52500.00	50.00	0.83	0.00	0.33	1	0	1	1	3	-2
525+50.00	52550.00	50.00	1.22	0.00	0.37	2	0	1	3	4	-1
525+77.97	52577.97	27.97	1.33	0.00	0.59	1	0	0	4	4	0
526+00.00	52600.00	22.03	1.34	0.00	0.91	1	0	1	5	5	0
526+02.97	52602.97	2.97	1.34	0.00	0.94	0	0	0	5	5	0
526+27.96	52627.96	24.99	1.40	0.00	0.48	1	0	1	6	7	-1
526+50.00	52650.00	22.04	1.52	0.00	1.71	1	0	1	7	8	-1
527+00.00	52700.00	50.00	2.43	0.00	14.01	4	0	15	11	27	-16
527+27.06	52727.06	27.06	2.18	0.00	22.08	2	0	18	13	51	-38
527+50.00	52750.00	22.94	1.72	0.00	0.03	2	0	9	15	62	-47
527+52.15	52752.15	2.15	1.67	0.00	0.03	0	0	0	15	62	-47
527+77.22	52777.22	25.07	1.46	0.00	7.49	1	0	3	16	66	-50
528+00.00	52800.00	22.78	23.42	0.00	53.83	10	0	26	26	100	-74
528+50.00	52850.00	50.00	74.19	0.00	73.16	90	0	118	116	254	-138
529+00.00	52900.00	50.00	31.40	0.00	27.67	98	0	93	214	374	-160
529+06.67	52906.67	6.67	29.47	0.00	24.77	8	0	6	222	382	-160
529+31.67	52931.67	25.00	19.57	0.00	15.27	23	0	19	245	407	-162
529+50.00	52950.00	18.33	12.47	0.00	12.16	11	0	9	256	419	-163
529+56.67	52956.67	6.67	9.17	0.00	10.42	3	0	3	259	423	-164
530+00.00	53000.00	43.33	2.96	0.00	4.01	10	0	12	269	438	-169
530+50.00	53050.00	50.00	1.45	0.00	2.91	4	0	6	273	446	-173
531+00.00	53100.00	50.00	0.40	0.00	0.42	2	0	3	275	450	-175
531+22.50	53122.50	22.50	0.46	0.00	1.01	0	0	1	275	451	-176
531+47.50	53147.50	25.00	0.55	0.00	1.31	0	0	1	275	452	-177
531+50.00	53150.00	2.50	0.55	0.00	1.30	0	0	0	275	452	-177
531+72.50	53172.50	22.50	0.36	0.00	1.18	0	0	1	275	454	-179
532+00.00	53200.00	27.50	0.00	0.00	1.23	0	0	1	275	455	-180
532+50.00	53250.00	50.00	0.01	0.00	0.94	0	0	2	275	458	-183
532+77.50	53277.50	27.50	0.01	0.00	0.90	0	0	1	275	459	-184
TOTALS						460	0	353			

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Culvert 556+96

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
556+32.29	55632.29	0.00	0.80	0.00	0.01	0	0	0	0	0	0
556+50.00	55650.00	17.71	1.70	0.00	3.78	1	0	1	1	1	0
556+95.10	55695.10	45.10	0.00	0.00	52.57	1	0	47	2	62	-60
557+00.00	55700.00	4.90	0.00	0.00	40.21	0	0	8	2	73	-71
557+50.00	55750.00	50.00	0.00	0.00	6.89	0	0	44	2	130	-128
557+69.16	55769.16	19.16	0.17	0.00	1.62	0	0	3	2	134	-132
TOTALS						2	0	103			

Guardrail 4

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
580+52 RT	TO	581+65 RT		Shoulder Widening		25	0	0			
583+57 RT	TO	584+50 RT		Shoulder Widening		29	0	0			
583+95 LT	TO	585+69 LT		Shoulder Widening		45	0	0			
581+00.00	58100.00	0.00	0.00	0.00	2.50	0	0	0	0	0	0
581+05.00	58105.00	5.00	0.00	0.00	1.69	0	0	0	0	0	0
581+30.00	58130.00	25.00	0.05	0.00	0.28	0	0	1	0	1	-1
581+50.00	58150.00	20.00	0.06	0.00	0.30	0	0	0	0	1	-1
581+55.00	58155.00	5.00	0.01	0.00	0.08	0	0	0	0	1	-1
582+00.00	58200.00	45.00	0.81	0.00	0.44	1	0	0	1	1	0
582+24.43	58224.43	24.43	0.49	0.00	3.71	1	0	2	2	4	-2
582+50.00	58250.00	25.57	0.63	0.00	4.35	1	0	4	3	9	-6
582+74.67	58274.67	24.67	0.60	0.00	4.19	1	0	4	4	14	-10
583+00.00	58300.00	25.33	0.14	0.00	175.17	0	0	84	4	124	-120
583+40.53	58340.53	40.53	0.28	0.00	26.58	0	0	151	4	320	-316
583+50.00	58350.00	9.47	0.50	0.00	0.98	0	0	5	4	326	-322
583+65.40	58365.40	15.40	3.90	0.00	0.79	1	0	1	5	328	-323
583+90.28	58390.28	24.88	1.55	0.00	5.45	3	0	3	8	332	-324
584+00.00	58400.00	9.72	0.88	0.00	1.13	0	0	1	8	333	-325
584+50.00	58450.00	50.00	0.21	0.00	6.33	1	0	7	9	342	-333
584+80.04	58480.04	30.04	0.25	0.00	3.90	0	0	6	9	350	-341
585+00.00	58500.00	19.96	0.31	0.00	5.34	0	0	3	9	354	-345
585+05.05	58505.05	5.05	0.32	0.00	5.70	0	0	1	9	355	-346
585+30.05	58530.05	25.00	0.00	0.00	0.00	0	0	3	9	359	-350
585+50.00	58550.00	19.95	0.48	0.00	2.92	0	0	1	9	360	-351
586+00.00	58600.00	50.00	0.38	0.00	0.03	1	0	3	10	364	-354

TOTALS 109 0 280

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Guardrail 5

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
587+63 RT	TO	594+45 RT		Shoulder Widening		211	0	0			
587+74 LT	TO	588+59 LT		Shoulder Widening		30	0	0			
594+80 LT	TO	596+32 LT		Shoulder Widening		49	0	0			
587+00.00	58700.00	0.00	0.00	0.00	0.31	0	0	0	0	0	0
587+50.00	58750.00	50.00	0.04	0.00	1.42	0	0	2	0	3	-3
588+00.00	58800.00	50.00	0.96	0.00	0.00	1	0	1	1	4	-3
588+20.18	58820.18	20.18	0.29	0.00	5.46	0	0	2	1	7	-6
588+45.06	58845.06	24.88	0.00	0.00	0.85	0	0	3	1	10	-9
588+50.00	58850.00	4.94	0.00	0.00	0.38	0	0	0	1	10	-9
588+69.93	58869.93	19.93	3.83	0.00	0.12	1	0	0	2	10	-8
589+00.00	58900.00	30.07	1.20	0.00	0.00	3	0	0	5	10	-5
589+50.00	58950.00	50.00	5.73	0.00	9.20	6	0	9	11	22	-11
590+00.00	59000.00	50.00	1.38	0.00	35.69	7	0	42	18	77	-59
590+50.00	59050.00	50.00	1.52	0.00	36.13	3	0	67	21	164	-143
591+00.00	59100.00	50.00	0.07	0.00	38.70	1	0	69	22	254	-232
591+50.00	59150.00	50.00	0.07	0.00	38.08	0	0	71	22	346	-324
592+00.00	59200.00	50.00	0.05	0.00	47.54	0	0	79	22	449	-427
592+50.00	59250.00	50.00	0.09	0.00	46.13	0	0	87	22	562	-540
593+00.00	59300.00	50.00	2.81	0.00	35.31	3	0	75	25	659	-634
593+44.96	59344.96	44.96	2.13	0.00	19.23	4	0	45	29	718	-689
593+50.00	59350.00	5.04	2.20	0.00	18.52	0	0	4	29	723	-694
593+69.96	59369.96	19.96	0.76	0.00	10.01	1	0	11	30	737	-707
593+94.96	59394.96	25.00	1.05	0.00	40.31	1	0	23	31	767	-736
594+00.00	59400.00	5.04	0.75	0.00	40.69	0	0	8	31	777	-746
594+50.00	59450.00	50.00	0.03	0.00	1.94	1	0	39	32	828	-796
595+00.00	59500.00	50.00	0.01	0.00	0.03	0	0	2	32	831	-799
595+30.00	59530.00	30.00	0.01	0.00	0.00	0	0	0	32	831	-799
595+50.00	59550.00	20.00	0.50	0.00	0.01	0	0	0	32	831	-799
595+55.00	59555.00	5.00	0.53	0.00	0.04	0	0	0	32	831	-799
595+80.00	59580.00	25.00	0.76	0.00	0.25	1	0	0	33	831	-798
596+00.00	59600.00	20.00	0.00	0.00	0.00	0	0	0	33	831	-798
			TOTALS			323	0	639			

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Culvert 620+55

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
619+25.00	61925.00	0.00	3.99	0.00	0.39	0	0	0	0	0	0
619+50.00	61950.00	25.00	7.42	0.00	0.96	5	0	1	5	1	4
620+00.00	62000.00	50.00	3.34	0.00	29.06	10	0	28	15	38	-23
620+50.00	62050.00	50.00	0.00	0.00	110.84	3	0	130	18	207	-189
621+00.00	62100.00	50.00	0.00	0.00	28.39	0	0	129	18	374	-356
621+50.00	62150.00	50.00	4.46	0.00	16.36	4	0	41	22	428	-406
621+87.17	62187.17	37.17	2.64	0.00	0.04	5	0	11	27	442	-415
TOTALS						27	0	340			

Storm Sewer

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1	1.30	NOTE 4
632+00.00	63200.00	0.00	0.71	0.00	0.00	0	0	0	0	0	0
632+50.00	63250.00	50.00	0.00	0.00	13.41	1	0	12	1	16	-15
633+00.00	63300.00	50.00	0.00	0.00	39.70	0	0	49	1	79	-78
633+50.00	63350.00	50.00	0.06	0.00	19.34	0	0	55	1	151	-150
634+00.00	63400.00	50.00	3.65	0.00	0.00	3	0	18	4	174	-170
634+16.75	63416.75	16.75	6.68	0.00	0.00	3	0	0	7	174	-167
TOTALS						7	0	134			

Culvert 716+80

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
715+58.95	71558.95	0.00	0.00	0.00	3.47	0	0	0	0	0	0
716+00.00	71600.00	41.05	0.00	0.00	5.10	0	0	7	0	9	-9
716+50.00	71650.00	50.00	0.01	0.00	7.70	0	0	12	0	25	-25
716+77.05	71677.05	27.05	0.03	0.00	12.73	0	0	10	0	38	-38
717+00.00	71700.00	22.95	0.00	0.00	7.83	0	0	9	0	49	-49
717+50.00	71750.00	50.00	0.00	0.00	7.31	0	0	14	0	68	-68
718+00.00	71800.00	50.00	3.84	0.00	0.00	4	0	7	4	77	-73
TOTALS						4	0	59			

Culvert 732+00

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1	1.30	NOTE 4
West End						5.78	0	0			
732+19.06	73219.06	0.00	0.60	0.00	0.05	6	0	0	0	0	6
732+50.00	73250.00	30.94	0.06	0.00	5.21	0	0	3	0	4	2
732+75.52	73275.52	25.52	0.00	0.00	0.00	0	0	2	0	7	-1
TOTALS						6	0	5			

Culvert 737+08

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
736+12.00	73612.00	0.00	0.00	0.00	5.79	0	0	0	0	0	0
736+50.00	73650.00	38.00	23.72	0.00	14.01	17	0	14	17	18	-1
737+00.00	73700.00	50.00	34.14	0.00	17.81	54	0	29	71	56	15
737+09.86	73709.86	9.86	23.36	0.00	35.29	10	0	10	81	69	12
737+33.08	73733.08	23.22	4.20	0.00	0.00	12	0	15	93	88	5
TOTALS						93	0	68			

C-64-092 South

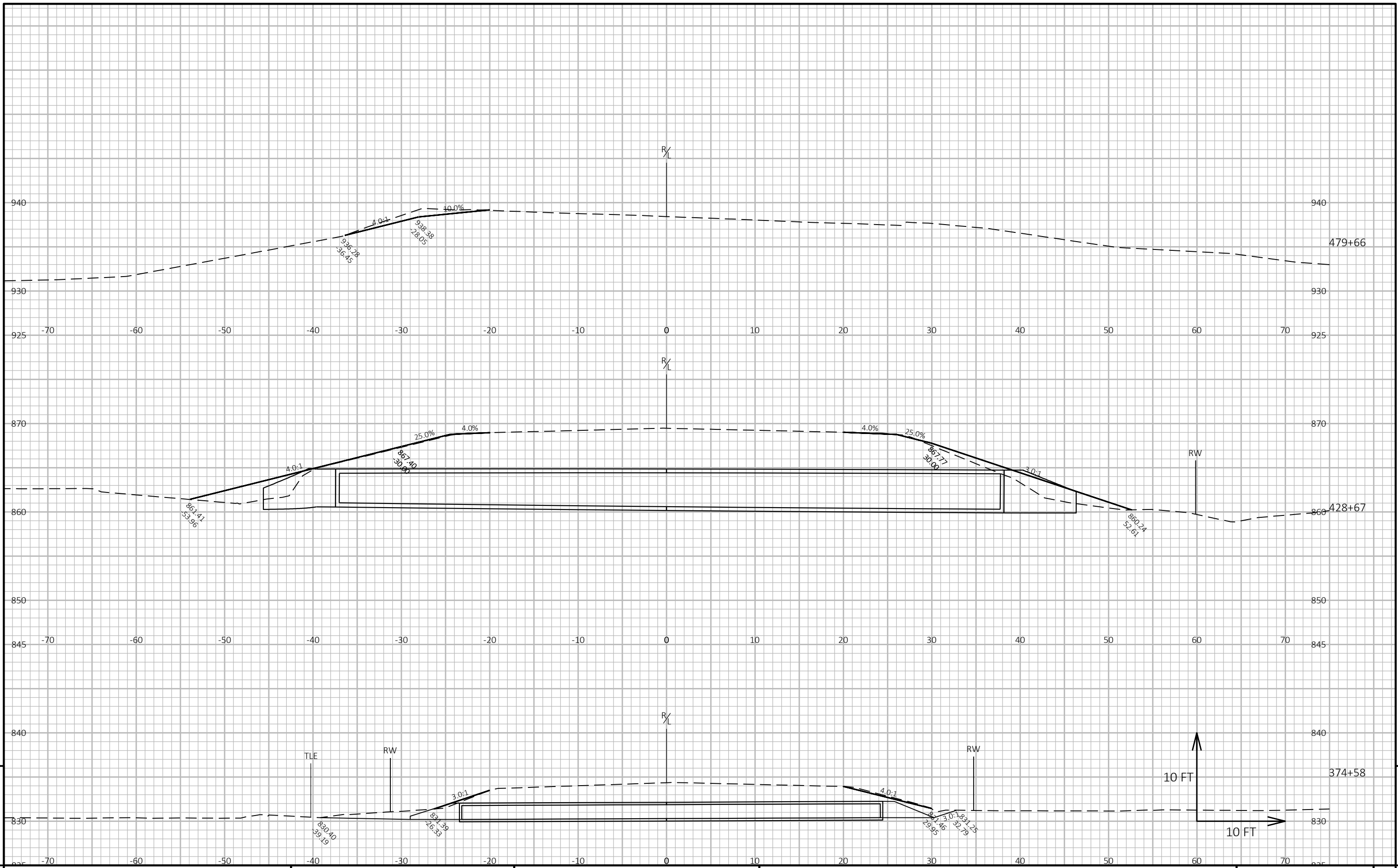
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1					
0+56.40	56.40	0.00	0.28	0.00	0.00	0	0	0	0	0	0
0+59.12	59.12	2.72	5.17	0.00	0.00	0	0	0	0	0	0
0+77.45	77.45	18.33	49.34	0.00	0.00	19	0	0	19	0	19
0+84.19	84.19	6.74	49.19	0.00	0.00	12	0	0	31	0	31
0+85.66	85.66	1.47	45.06	0.00	0.00	3	0	0	34	0	34
TOTALS						34	0	0			

C-64-092 North

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
2+03.11	203.11	0.00	17.04	0.00	0.00	0	0	0	0	0	0
2+10.00	210.00	6.89	37.68	0.00	1.39	7	0	0	7	0	7
2+13.32	213.32	3.32	52.21	0.00	0.11	6	0	0	13	0	13
2+20.00	220.00	6.68	71.43	0.00	0.00	15	0	0	28	0	28
2+30.00	230.00	10.00	58.39	0.00	0.90	24	0	0	52	0	52
2+40.00	240.00	10.00	71.11	0.00	7.45	24	0	2	76	3	73
2+50.00	250.00	10.00	98.68	0.00	0.00	31	0	1	107	4	103
2+60.00	260.00	10.00	97.06	0.00	0.30	36	0	0	143	4	139
2+70.00	270.00	10.00	38.06	0.00	0.46	25	0	0	168	4	164
2+80.00	280.00	10.00	4.31	0.00	1.80	8	0	0	176	4	172
2+85.64	285.64	5.64	0.00	0.00	0.69	0	0	0	176	4	172
			TOTALS			176	0	3			

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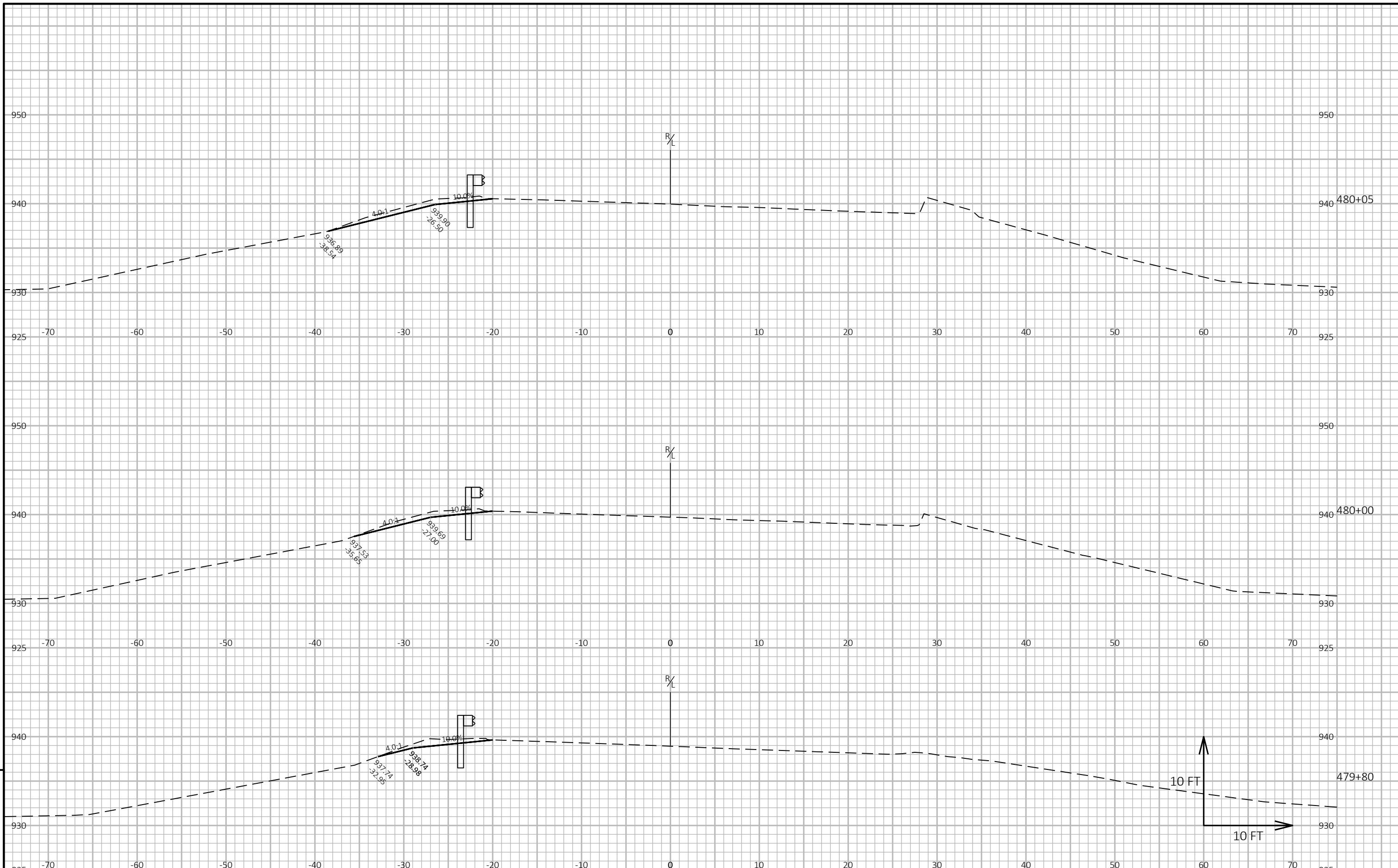
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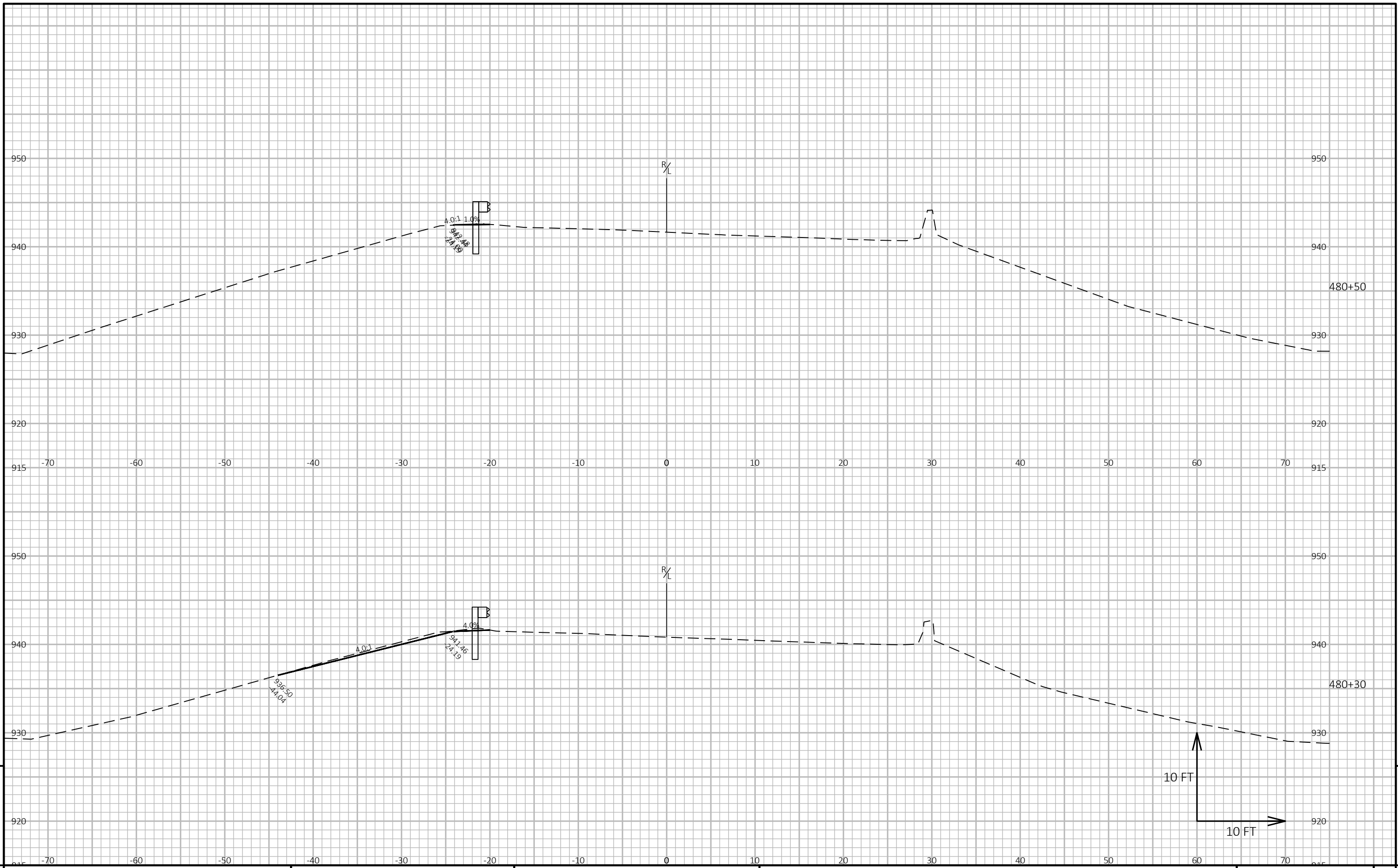
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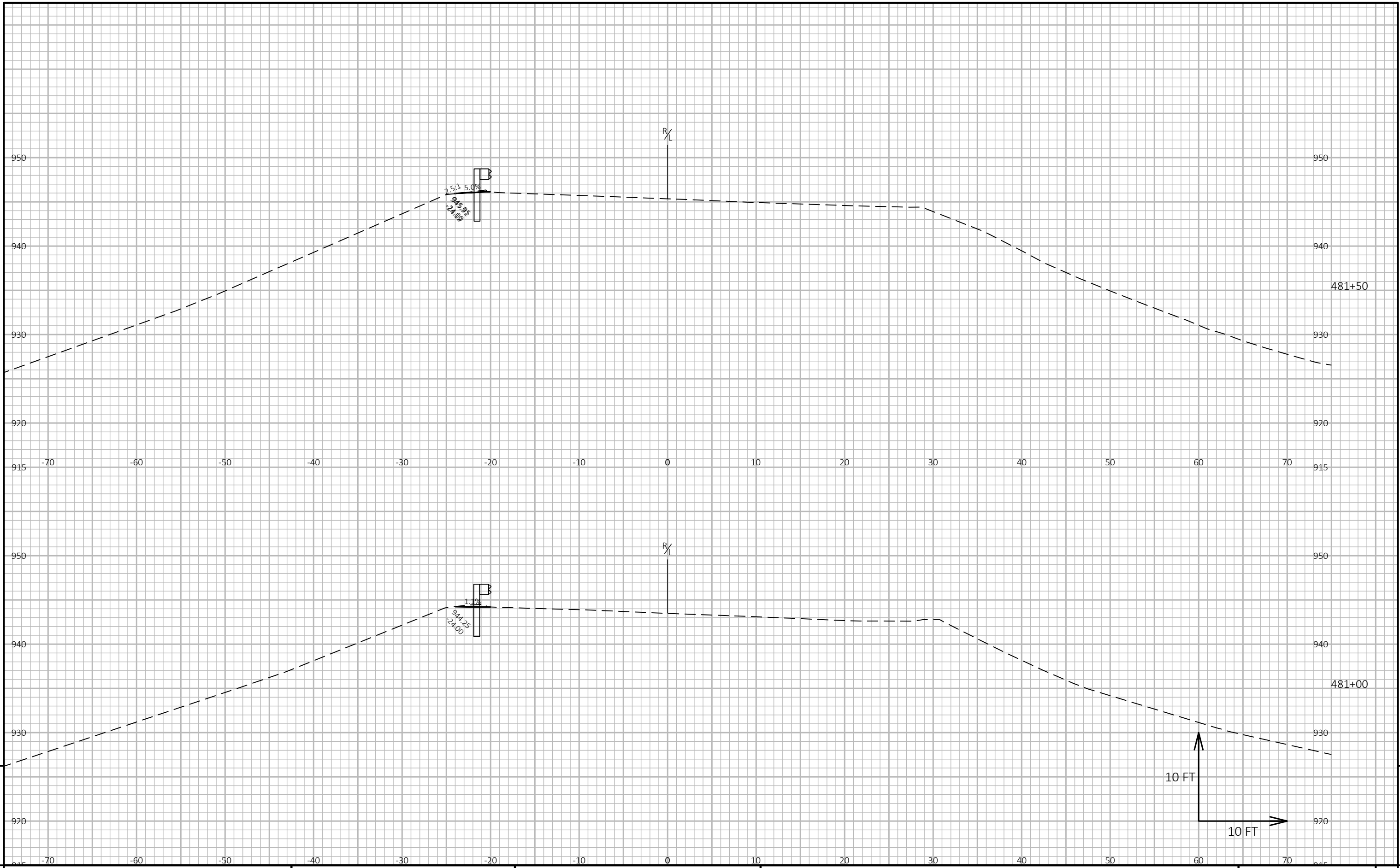
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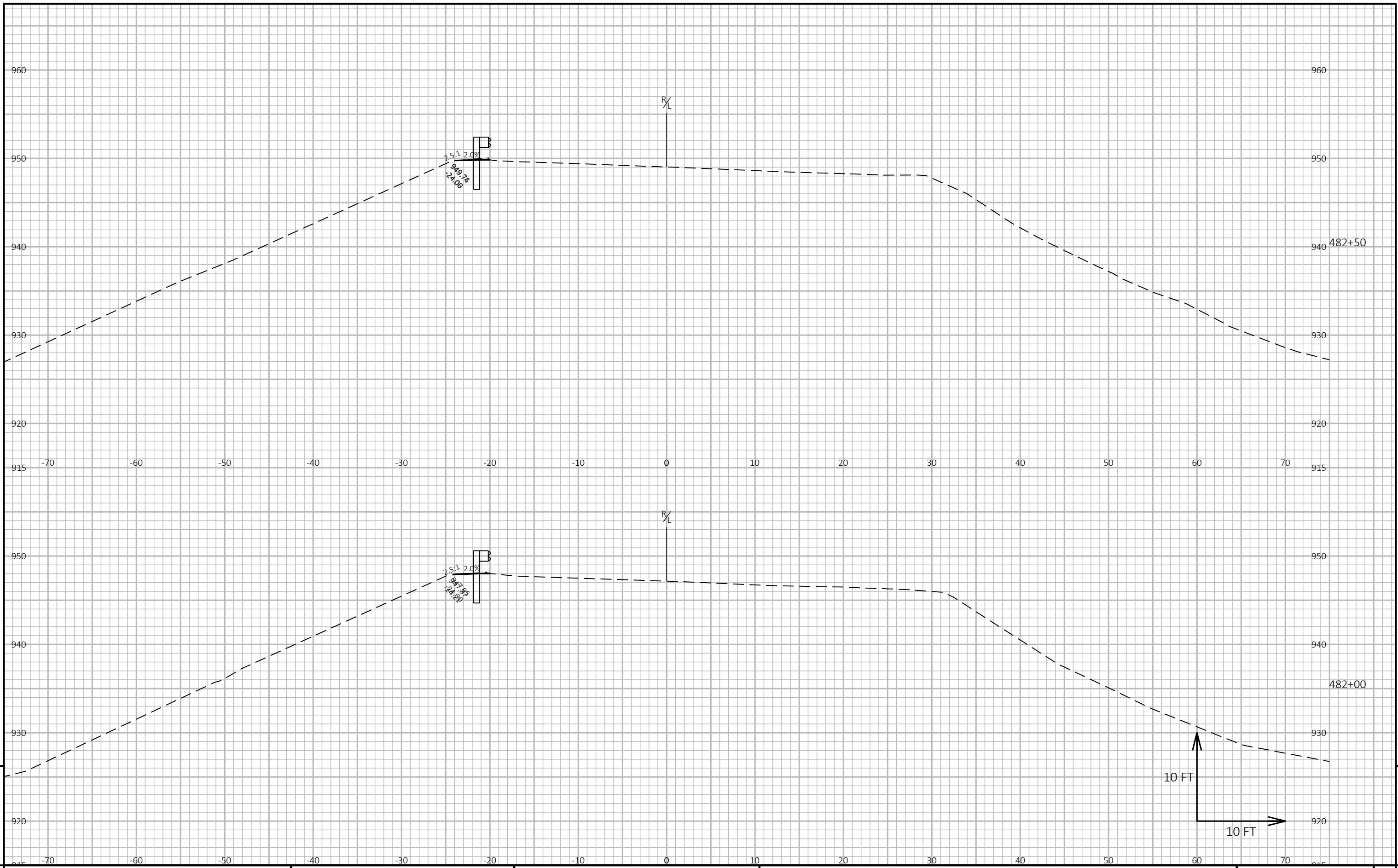
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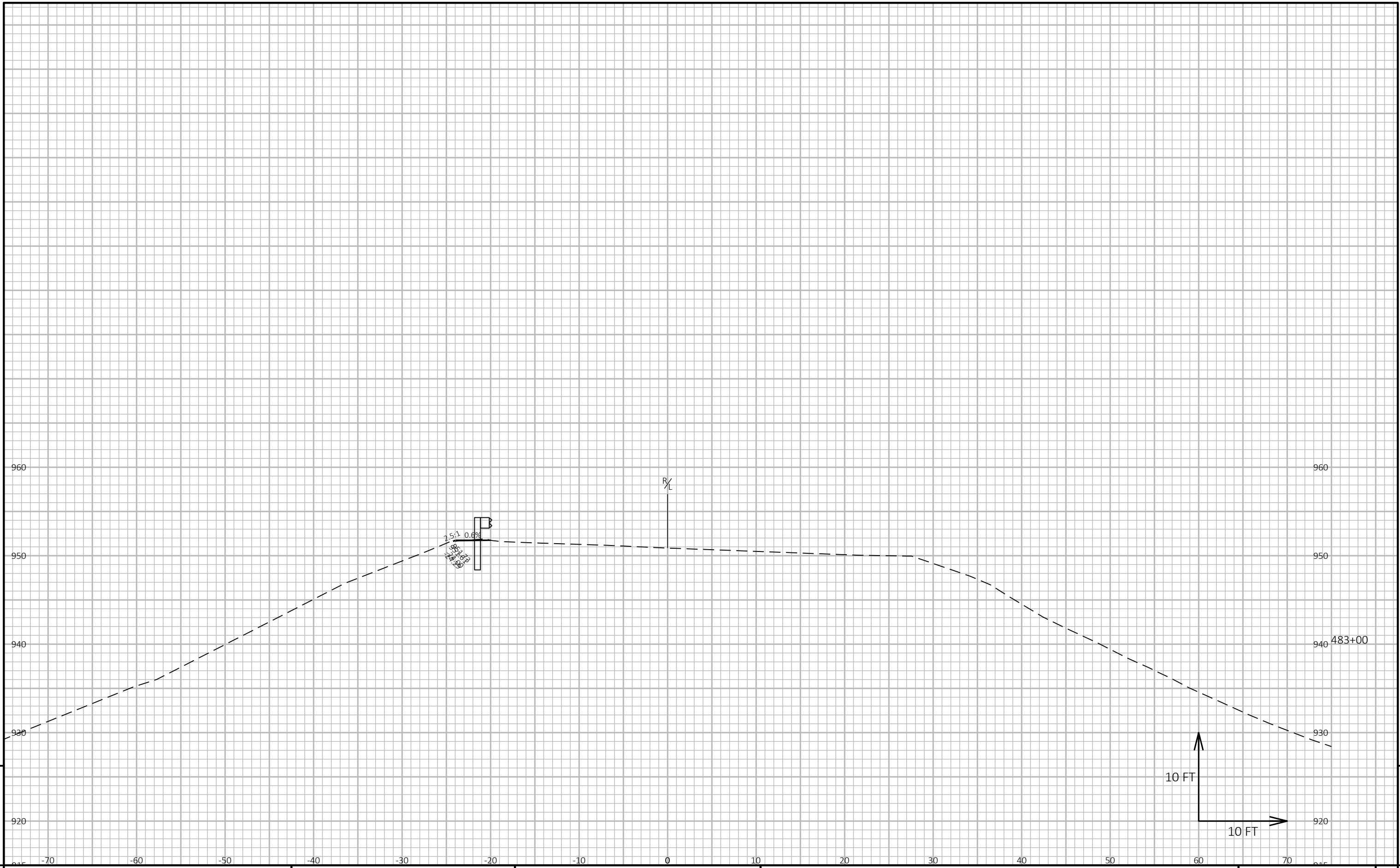
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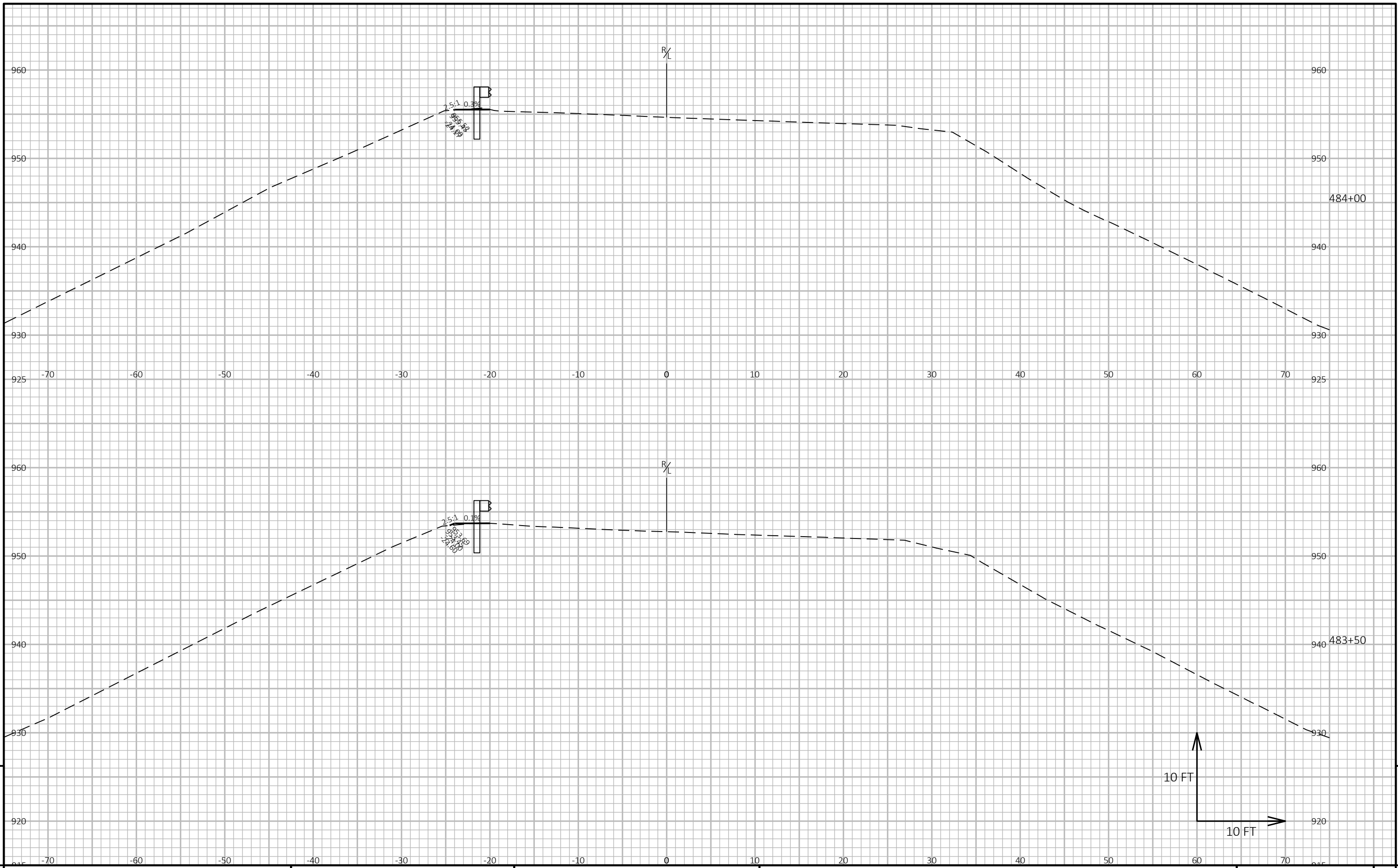
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LAYOUT NAME - 090206



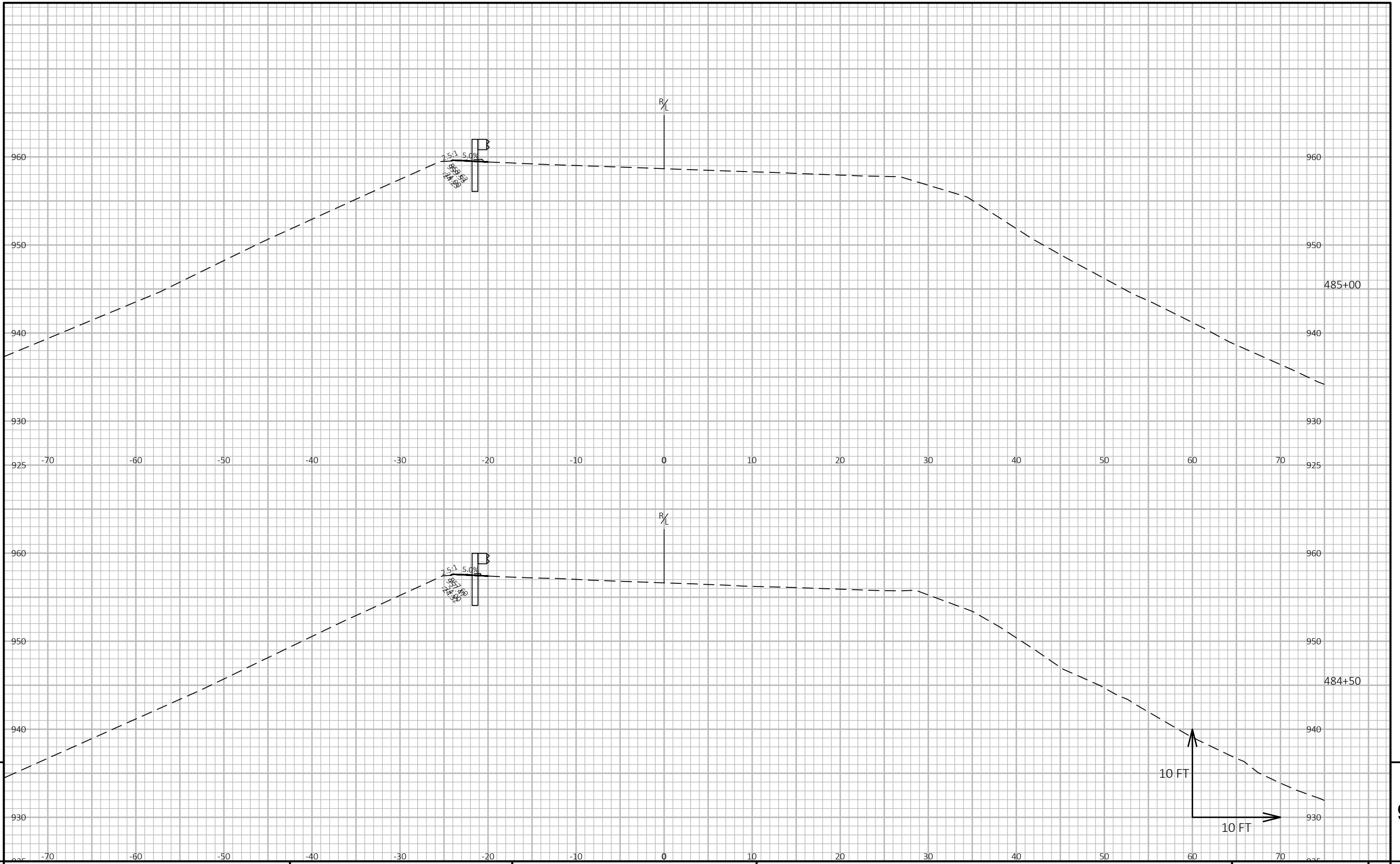
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LAYOUT NAME - 090207



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PROJECT NO: 3130-03-71

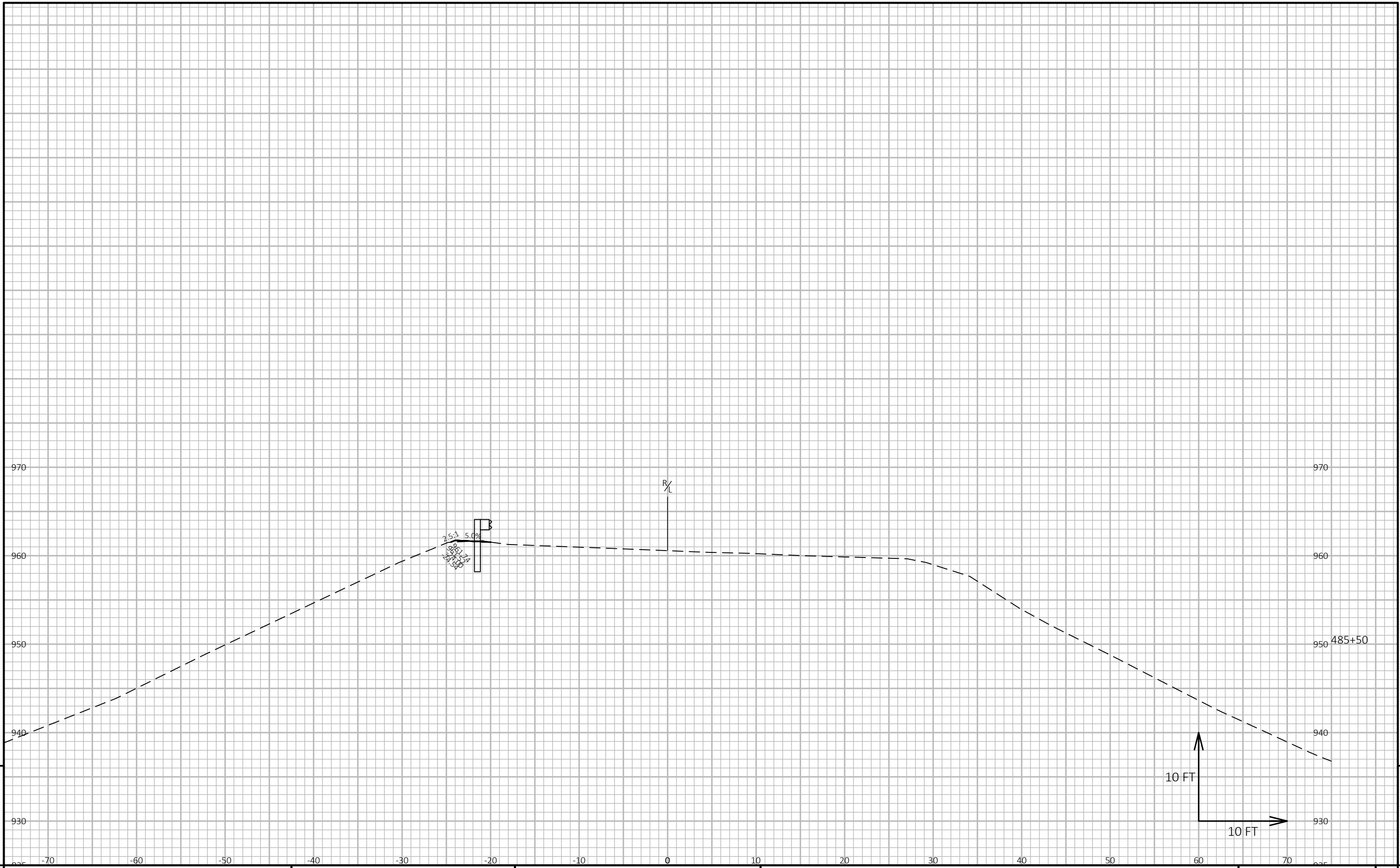
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COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

E

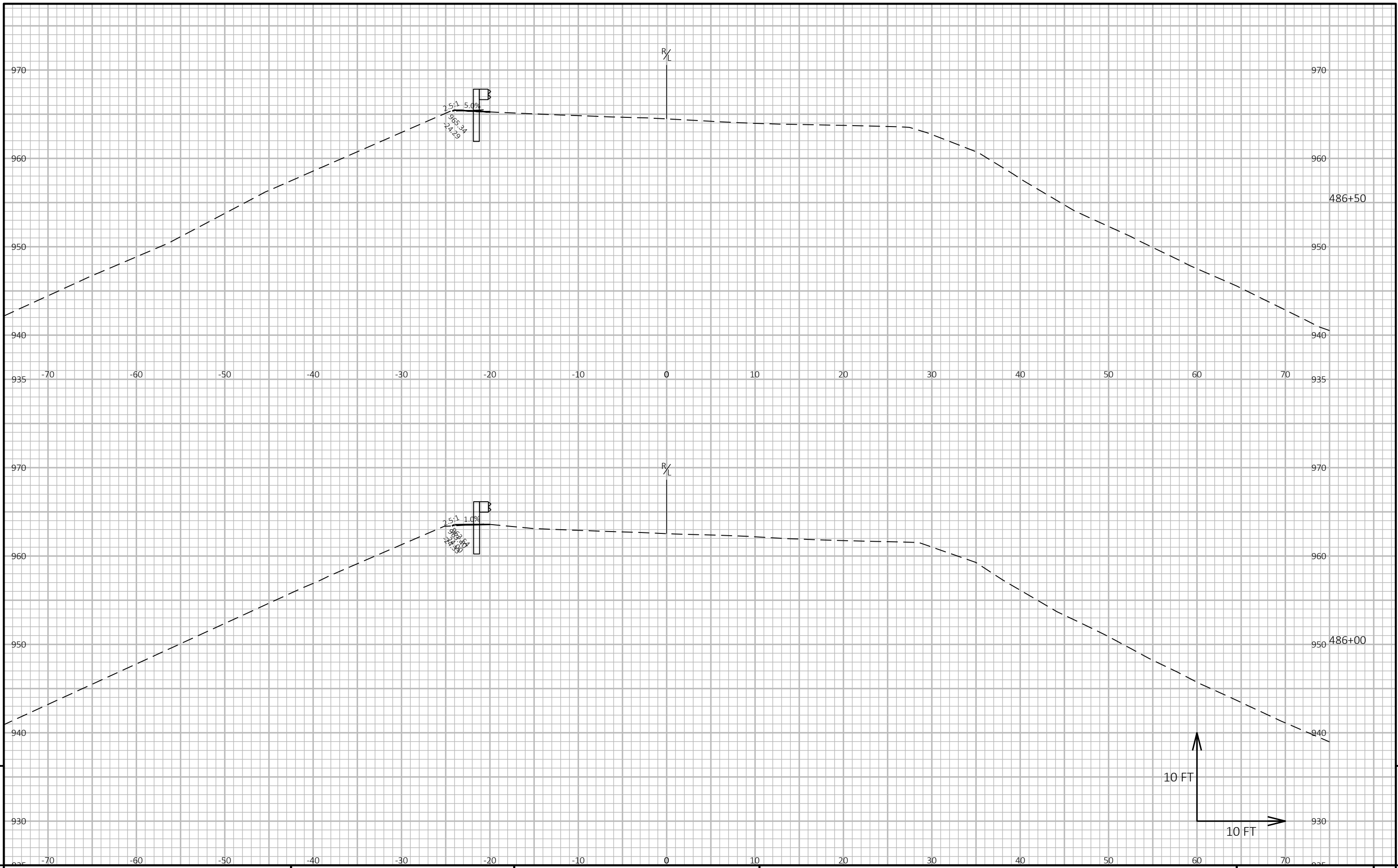


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 PLOT DATE : 7/8/2024 11:13 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



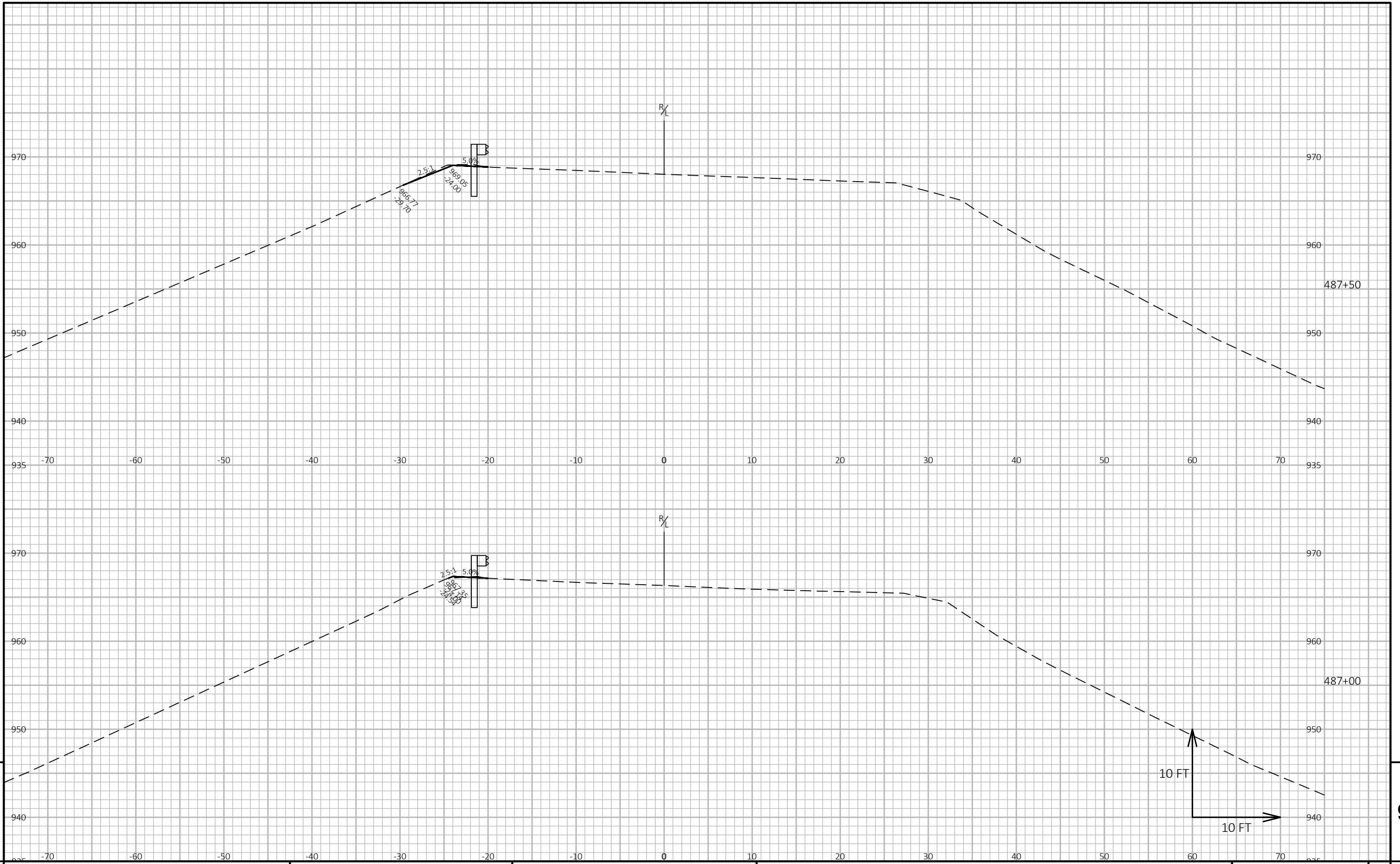
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 PLOT DATE : 7/8/2024 11:13 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

LAYOUT NAME - 090210



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PROJECT NO: 3130-03-71

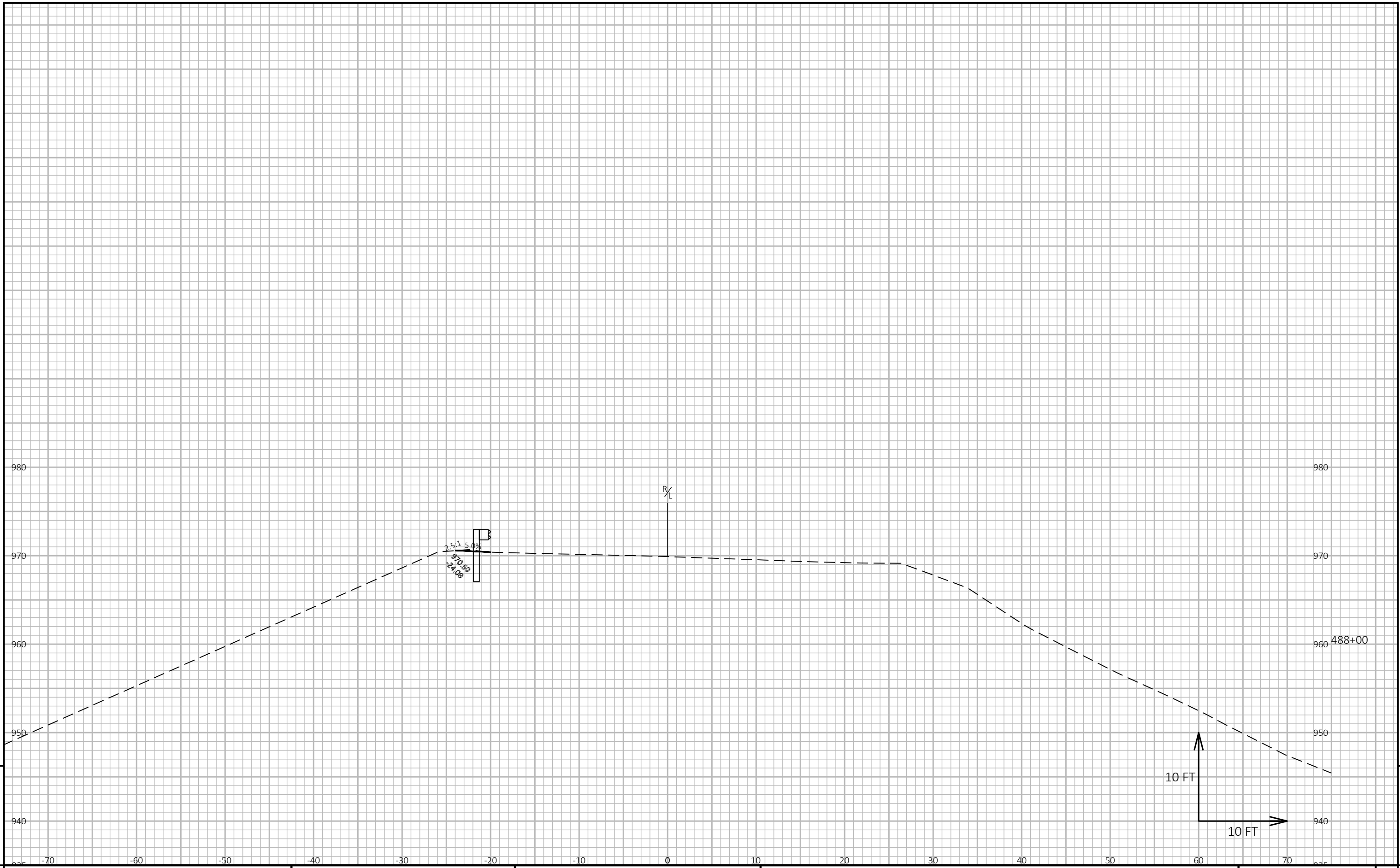
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COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

E

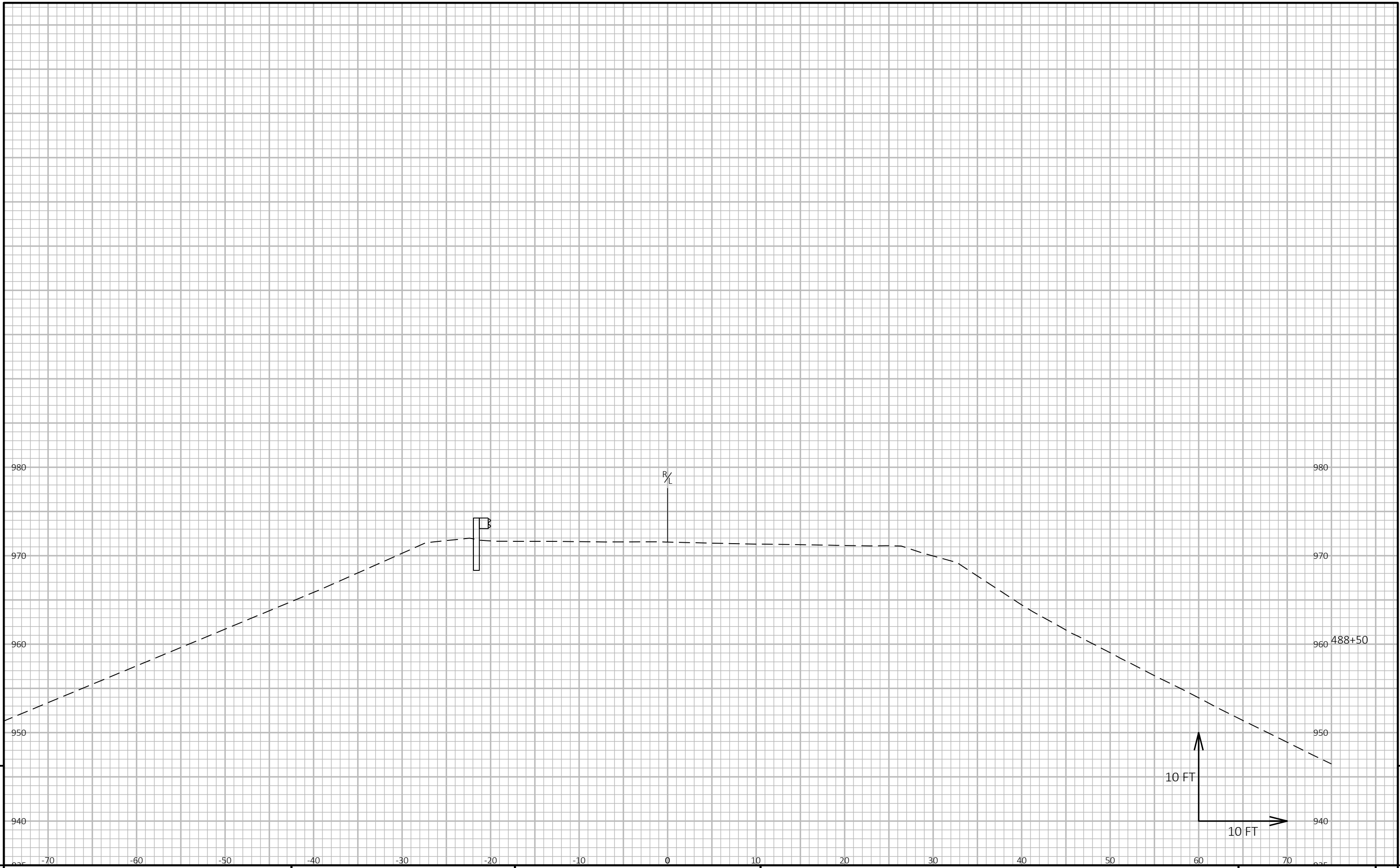


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 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



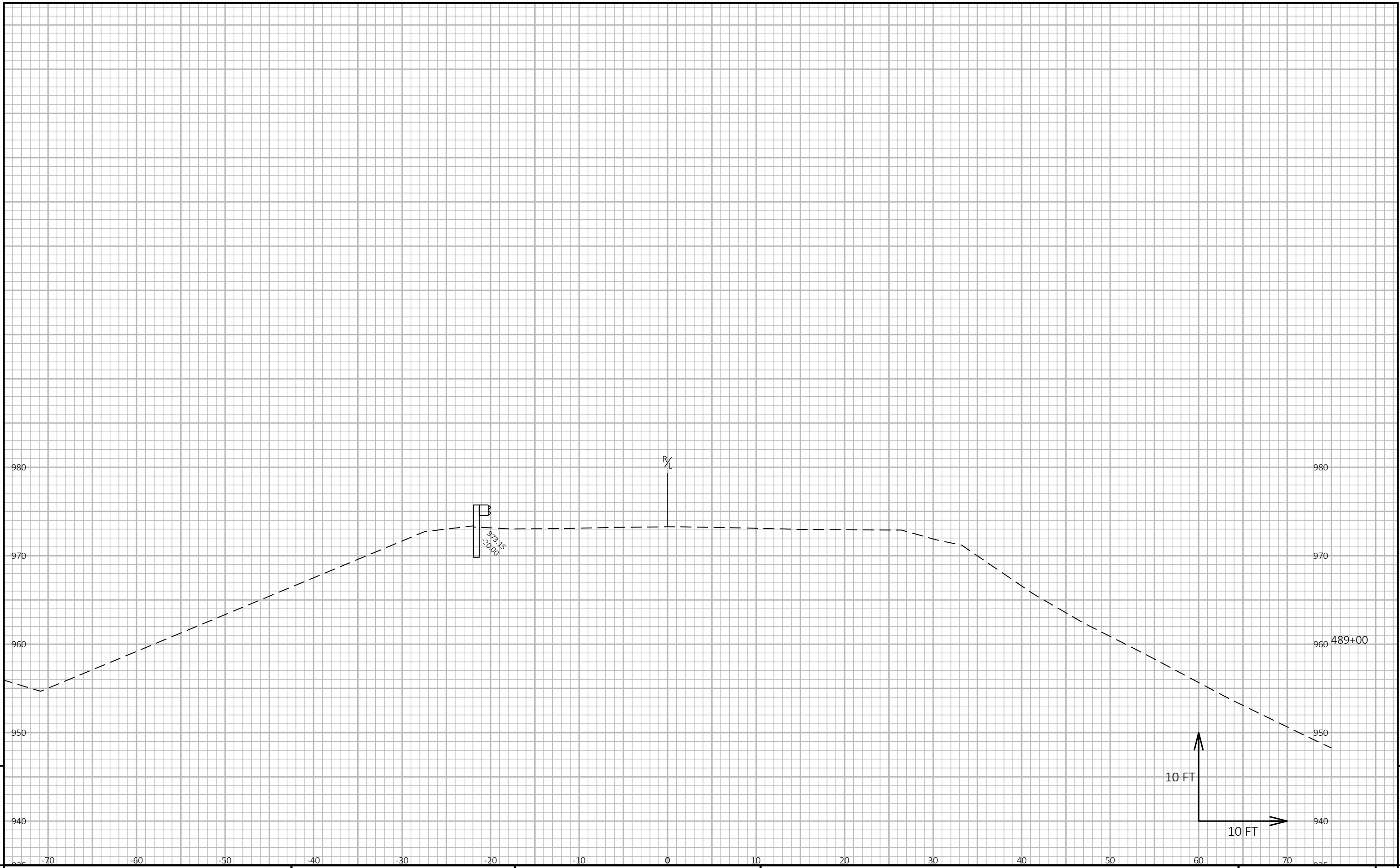
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:13 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090213

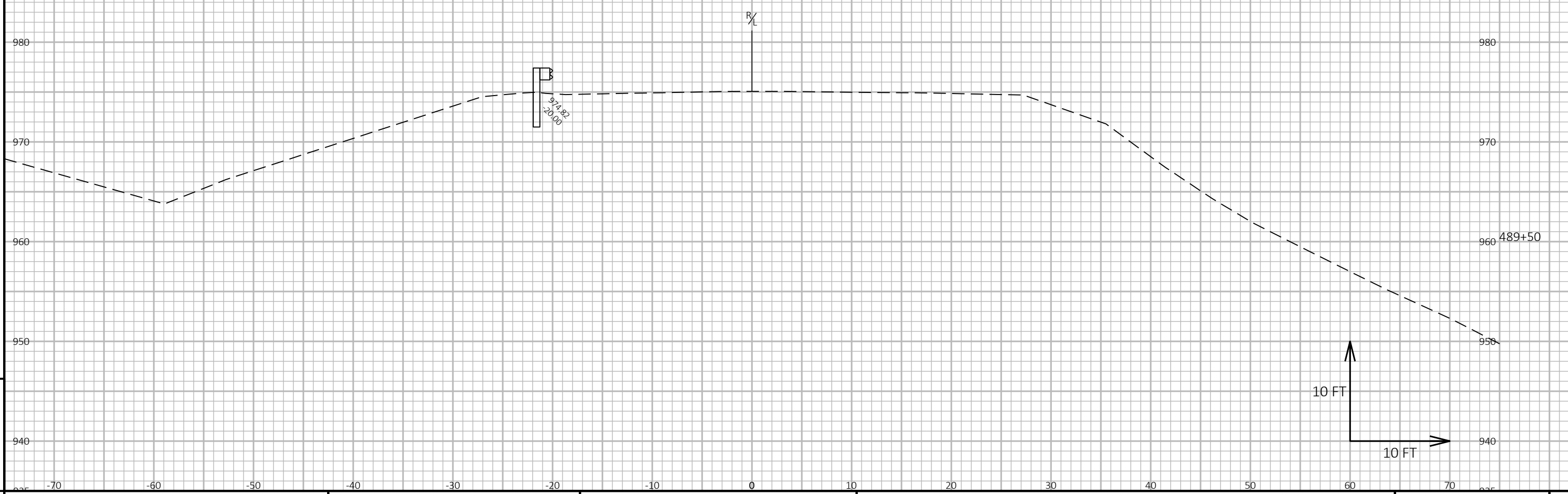
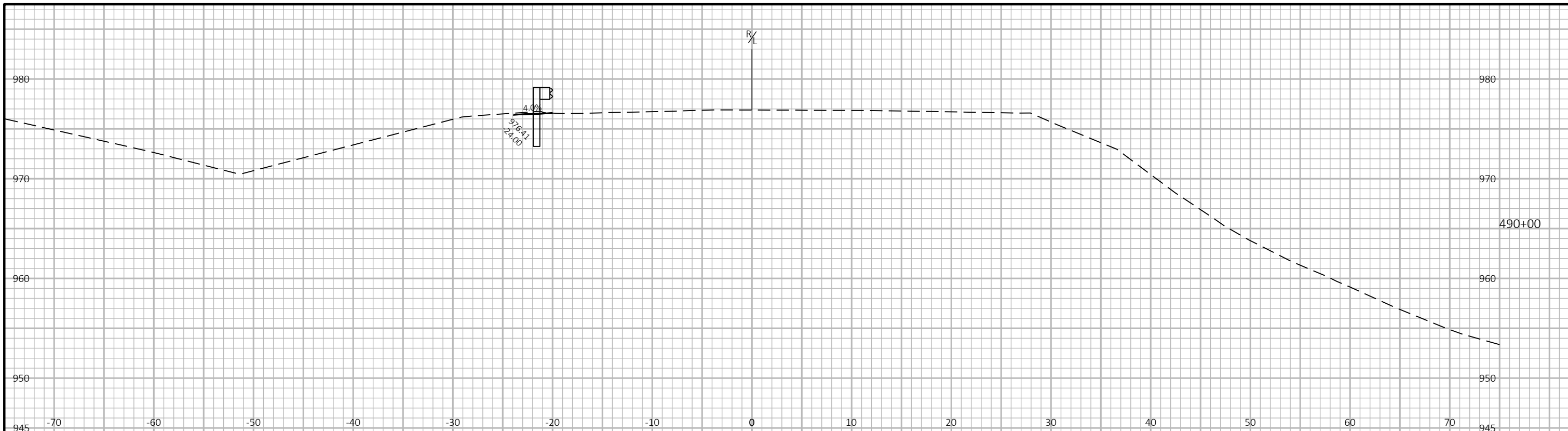


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG
 PLOT DATE : 7/8/2024 11:13 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

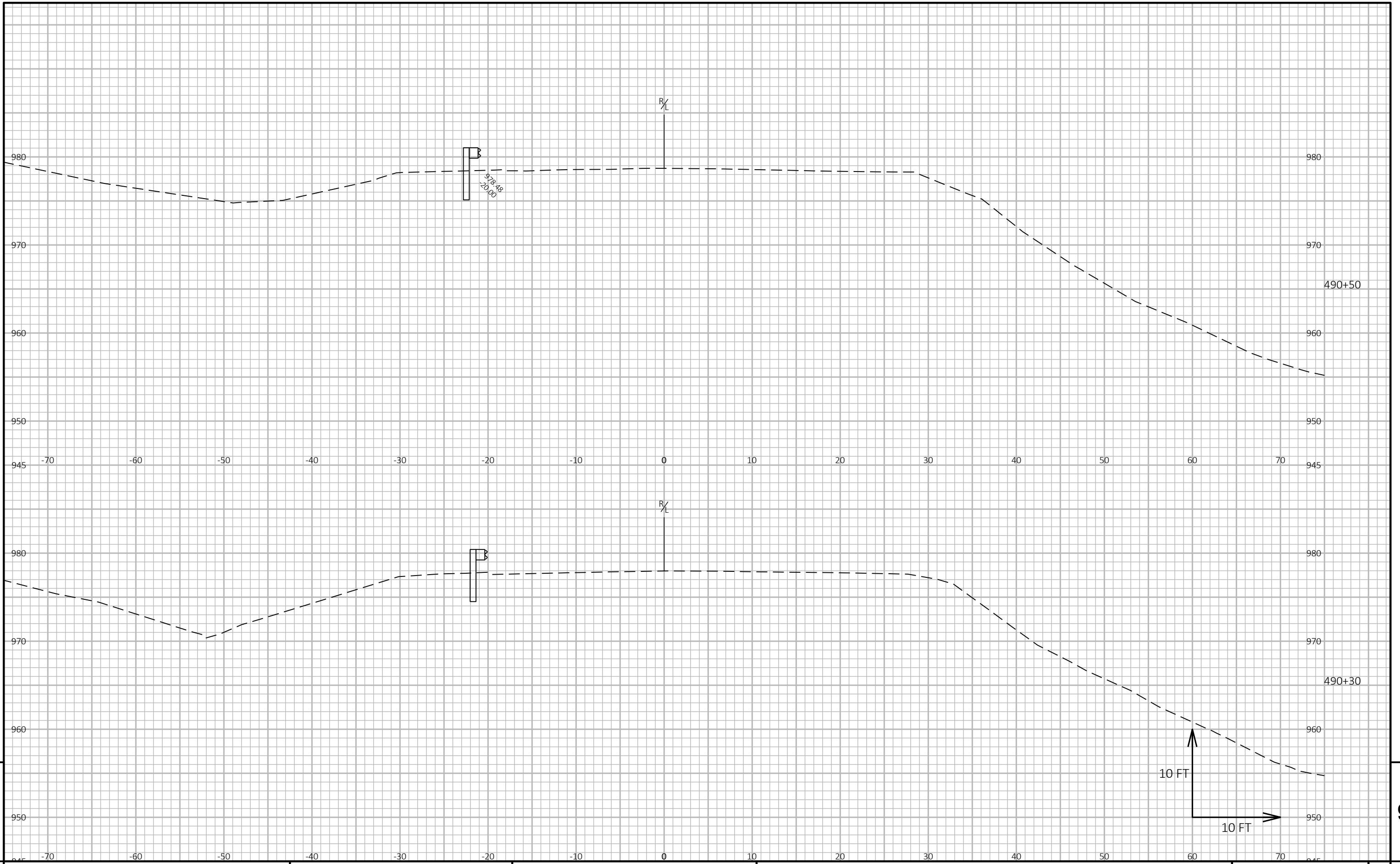


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG
 PLOT DATE : 7/8/2024 11:13 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



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PROJECT NO: 3130-03-71

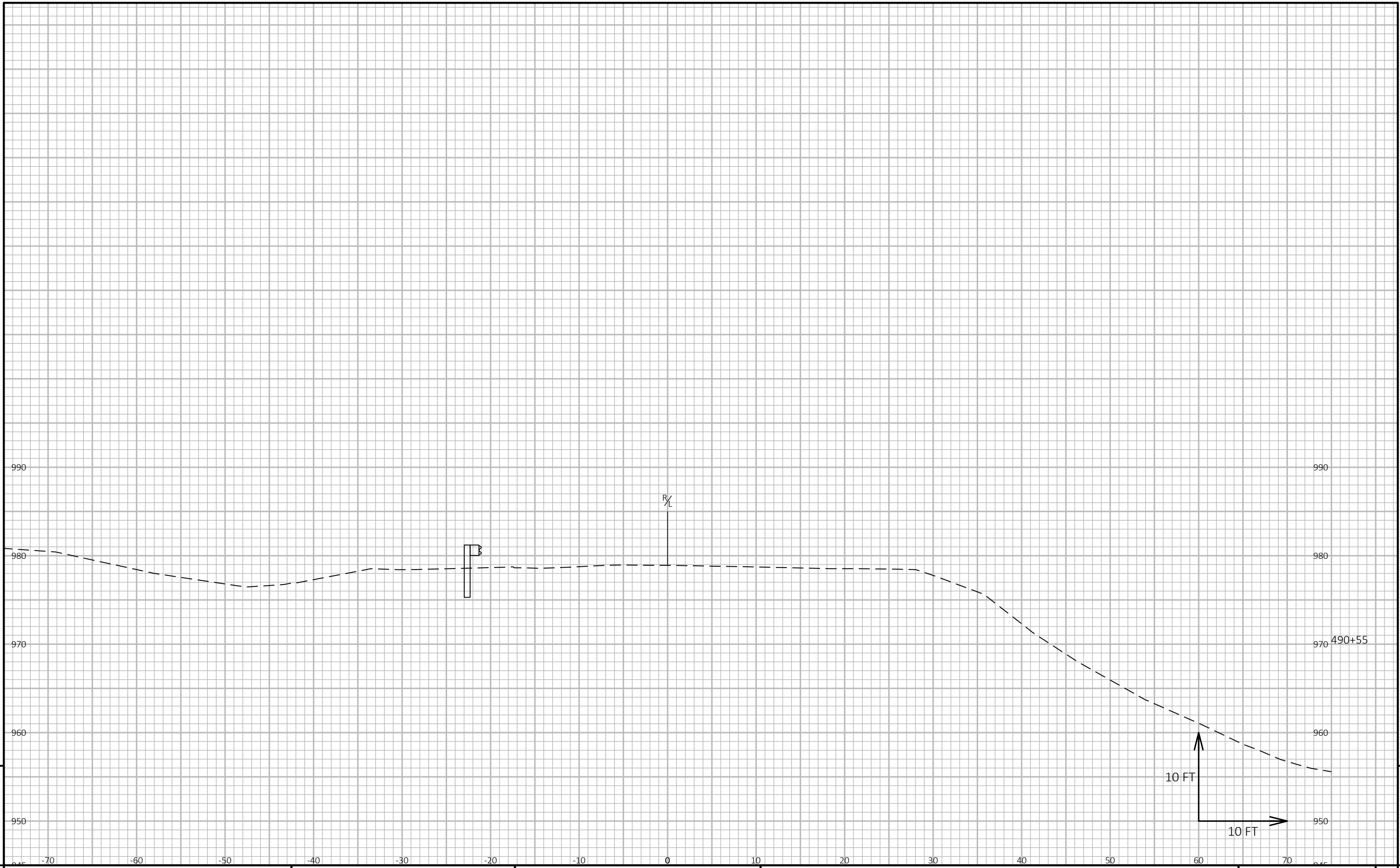
HWY: USH 12

COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

E



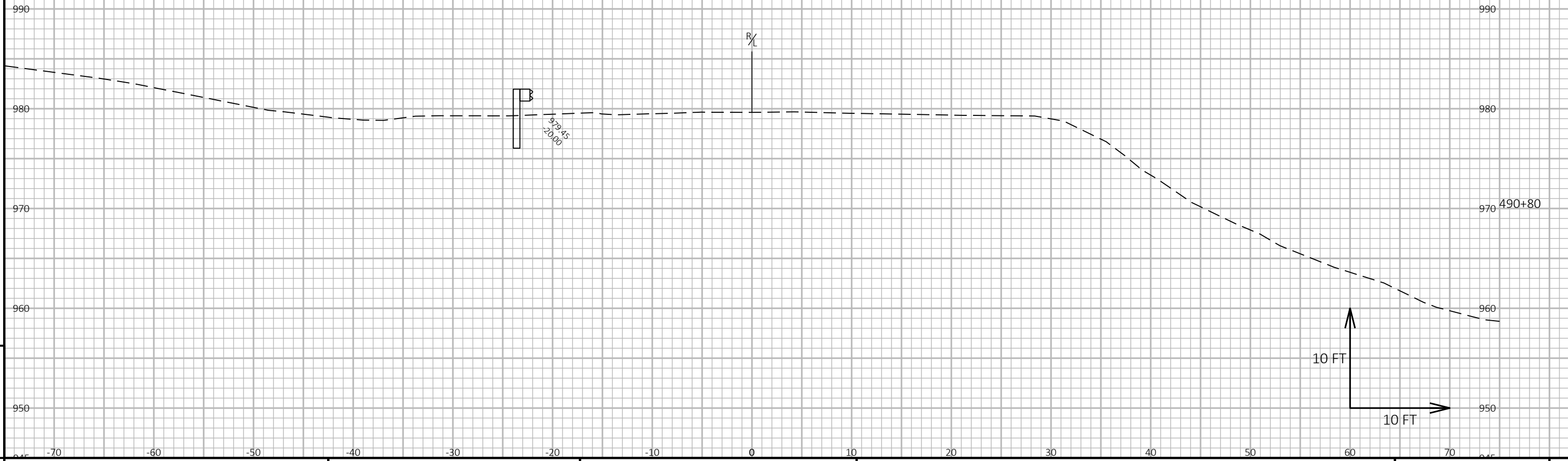
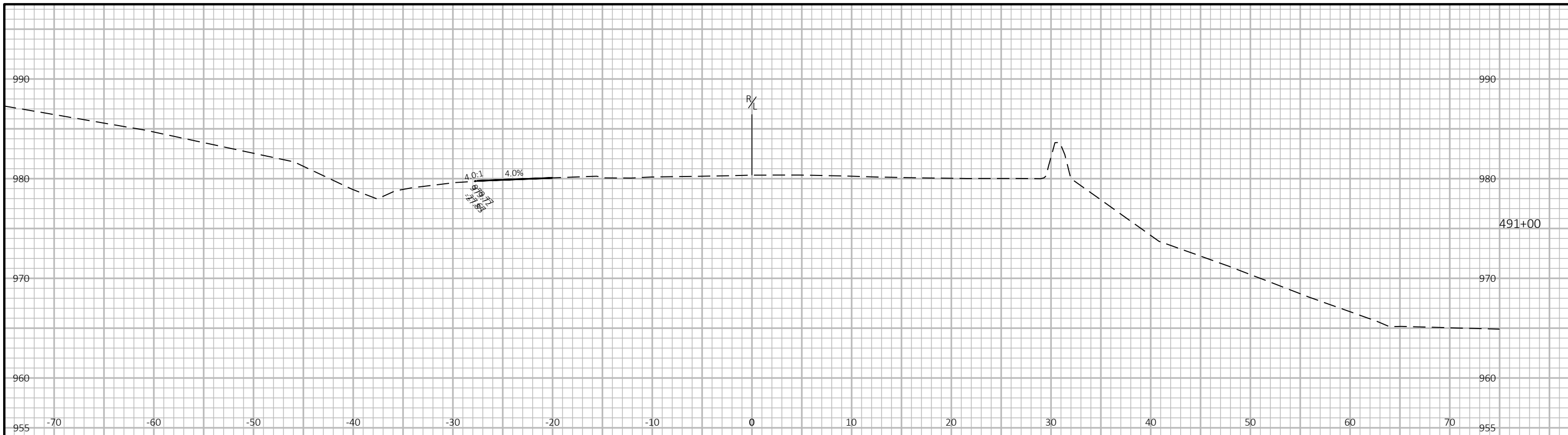
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG	PLOT DATE : 7/8/2024 11:13 AM	PLOT BY : TONY BUBLITZ	PLOT NAME :	PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.	WISDOT/CADD SHEET 49
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LAYOUT NAME - 090217

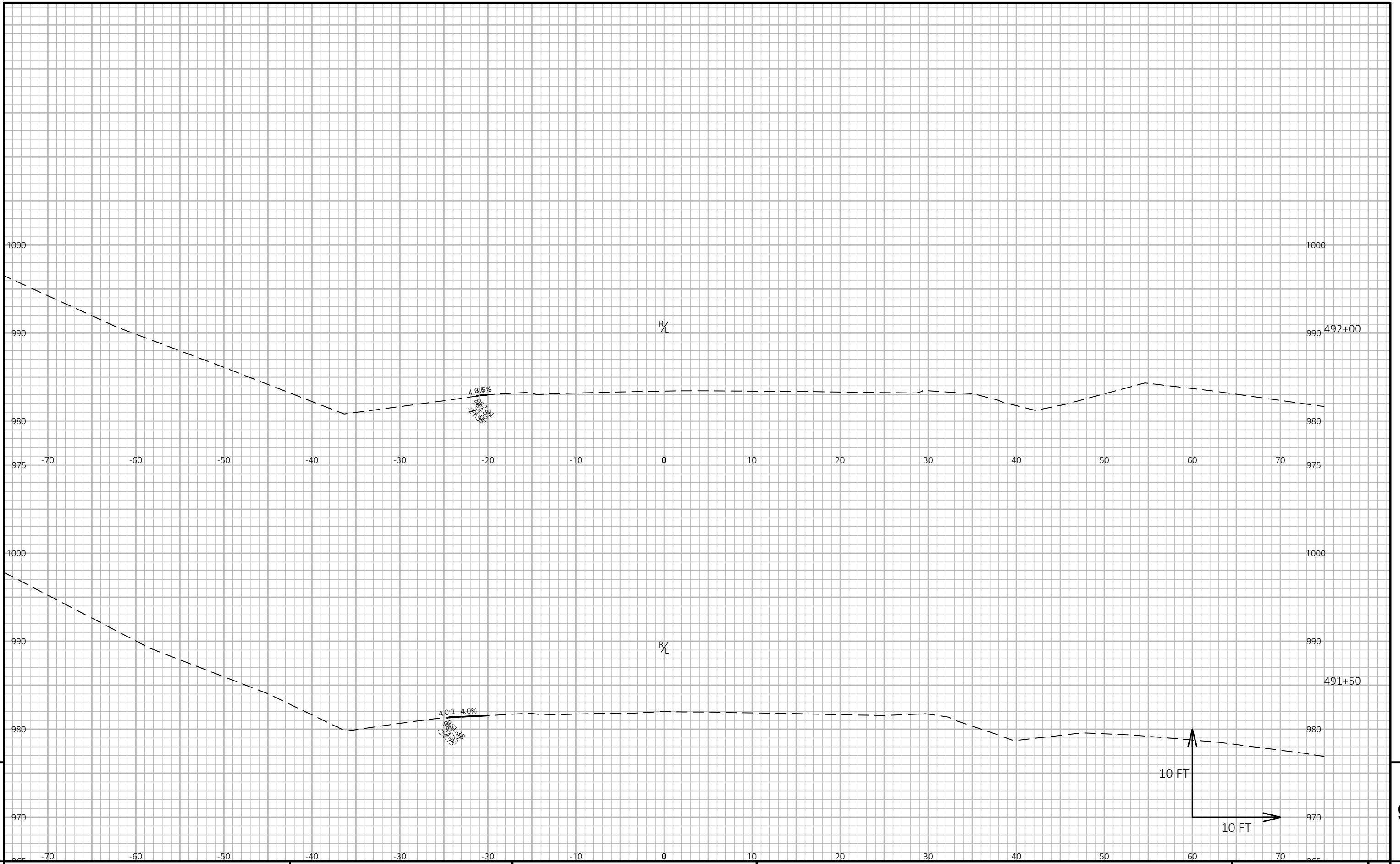


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG
 PLOT DATE : 7/8/2024 11:14 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



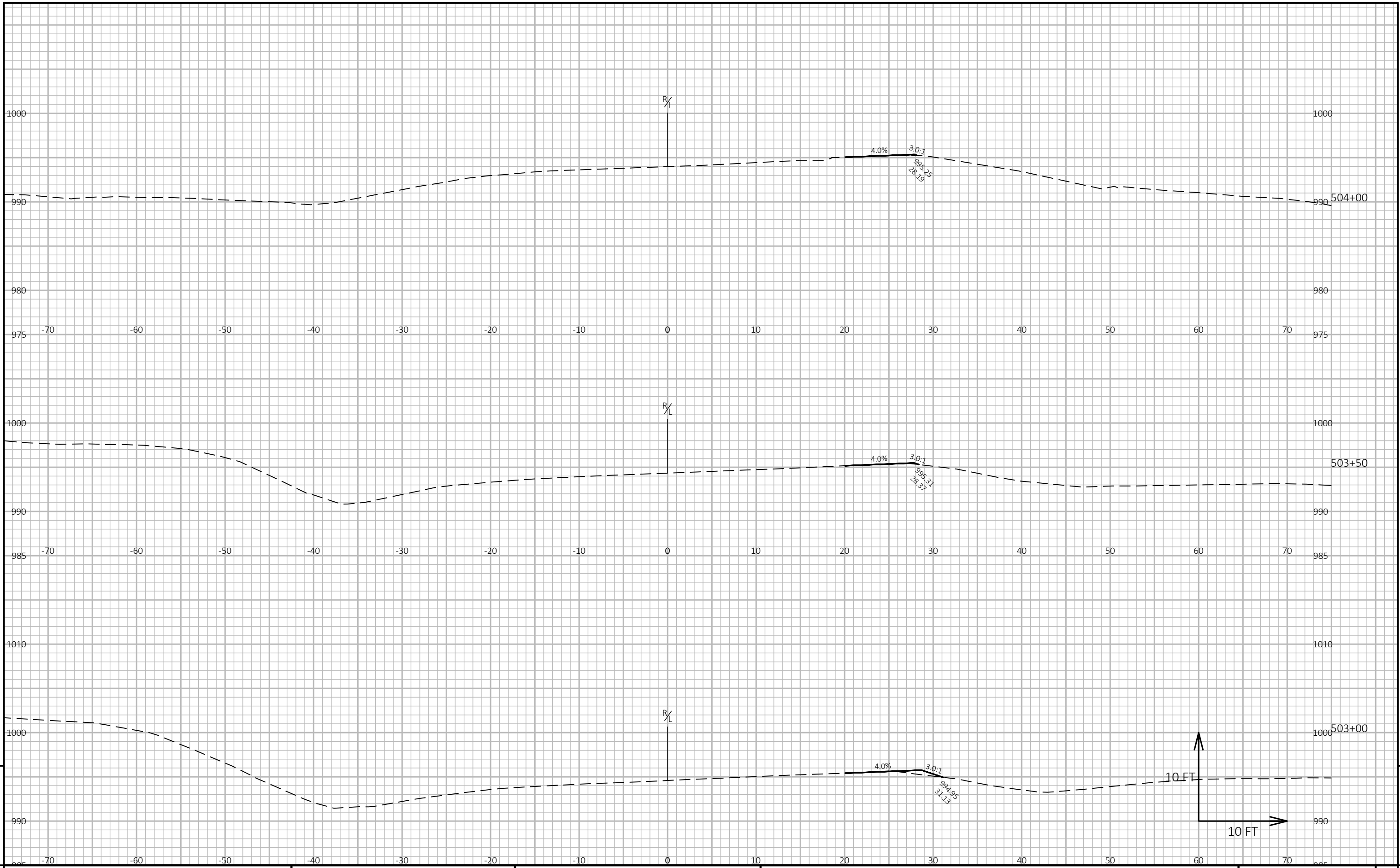
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:14 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090219



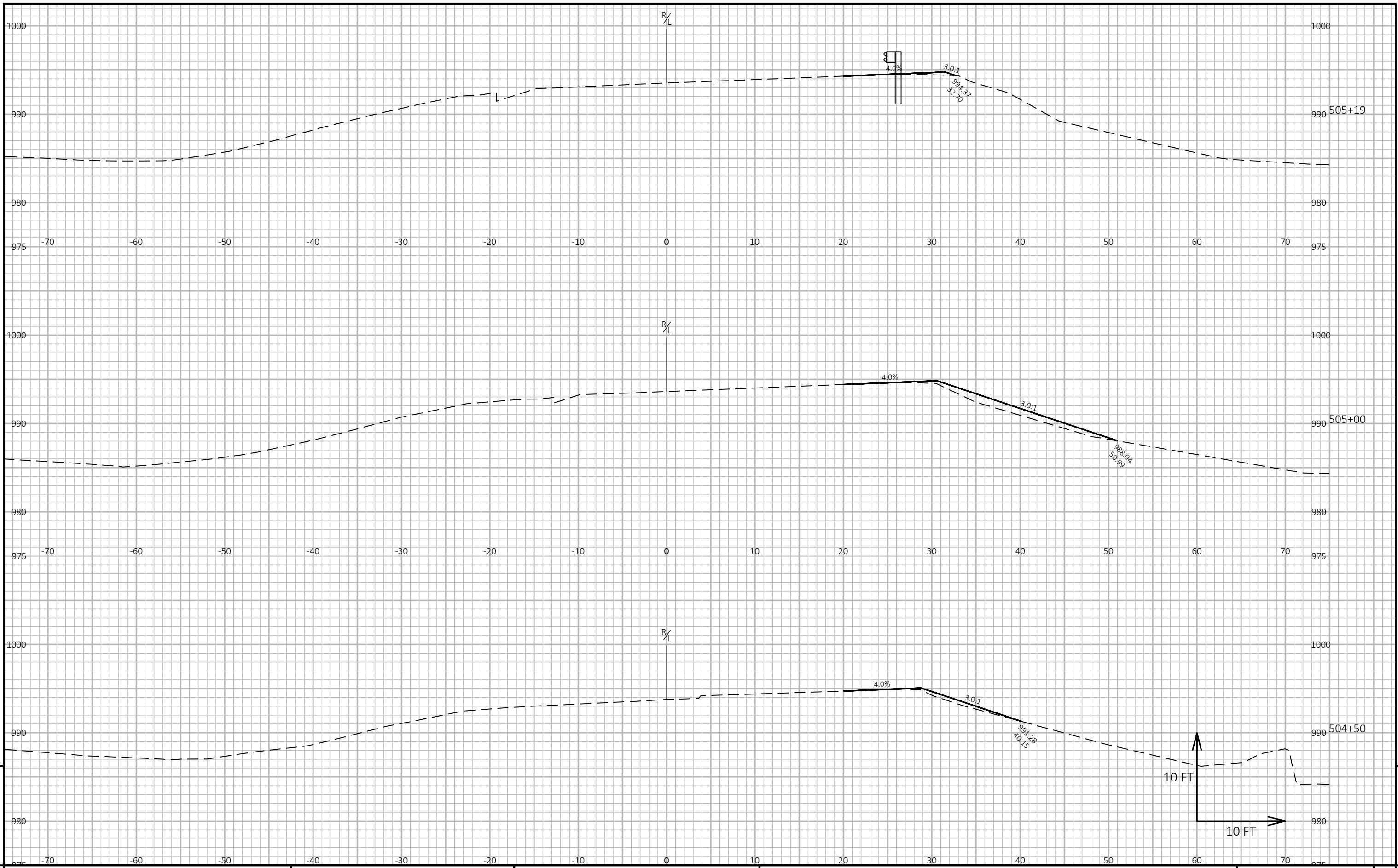
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:14 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090220



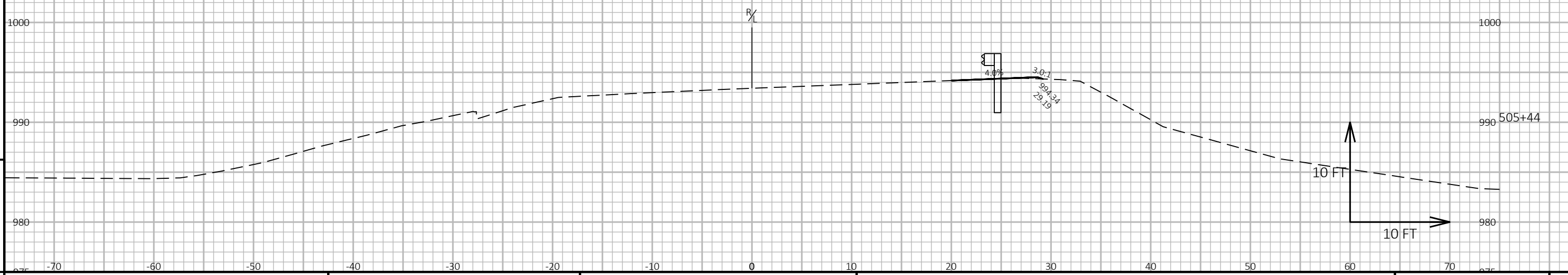
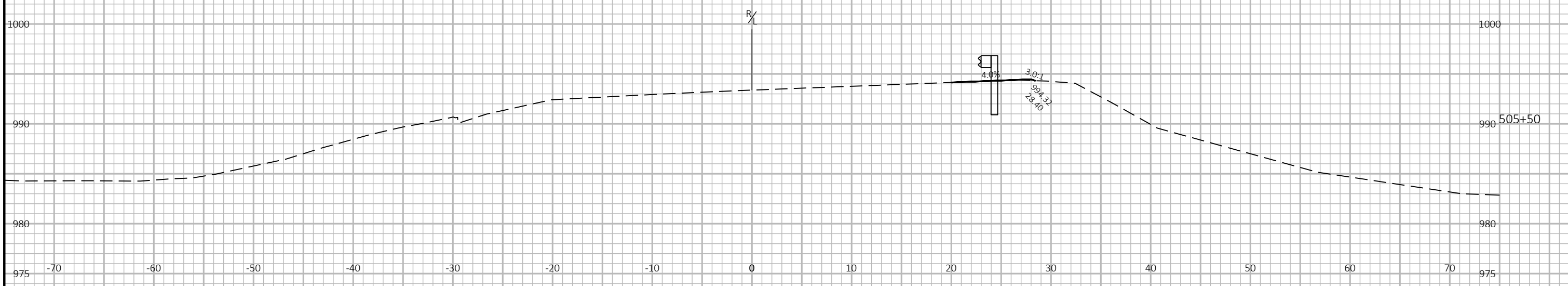
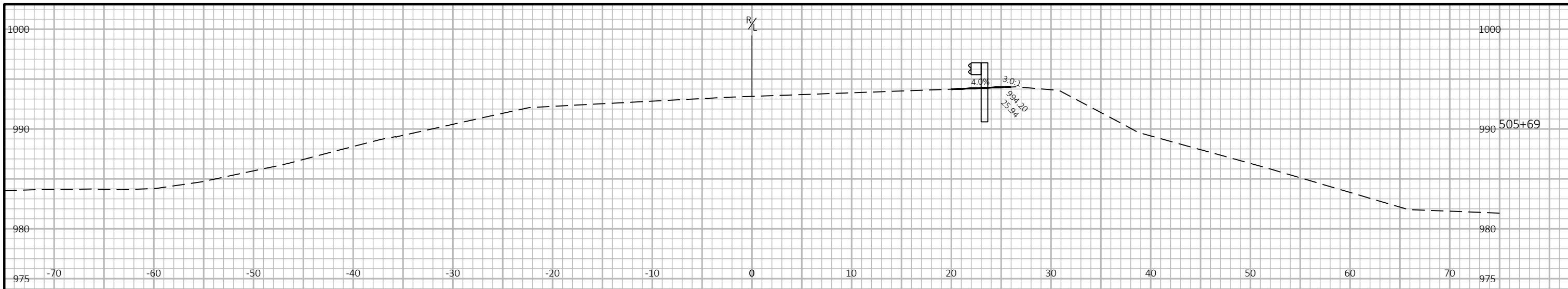
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:14 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090221



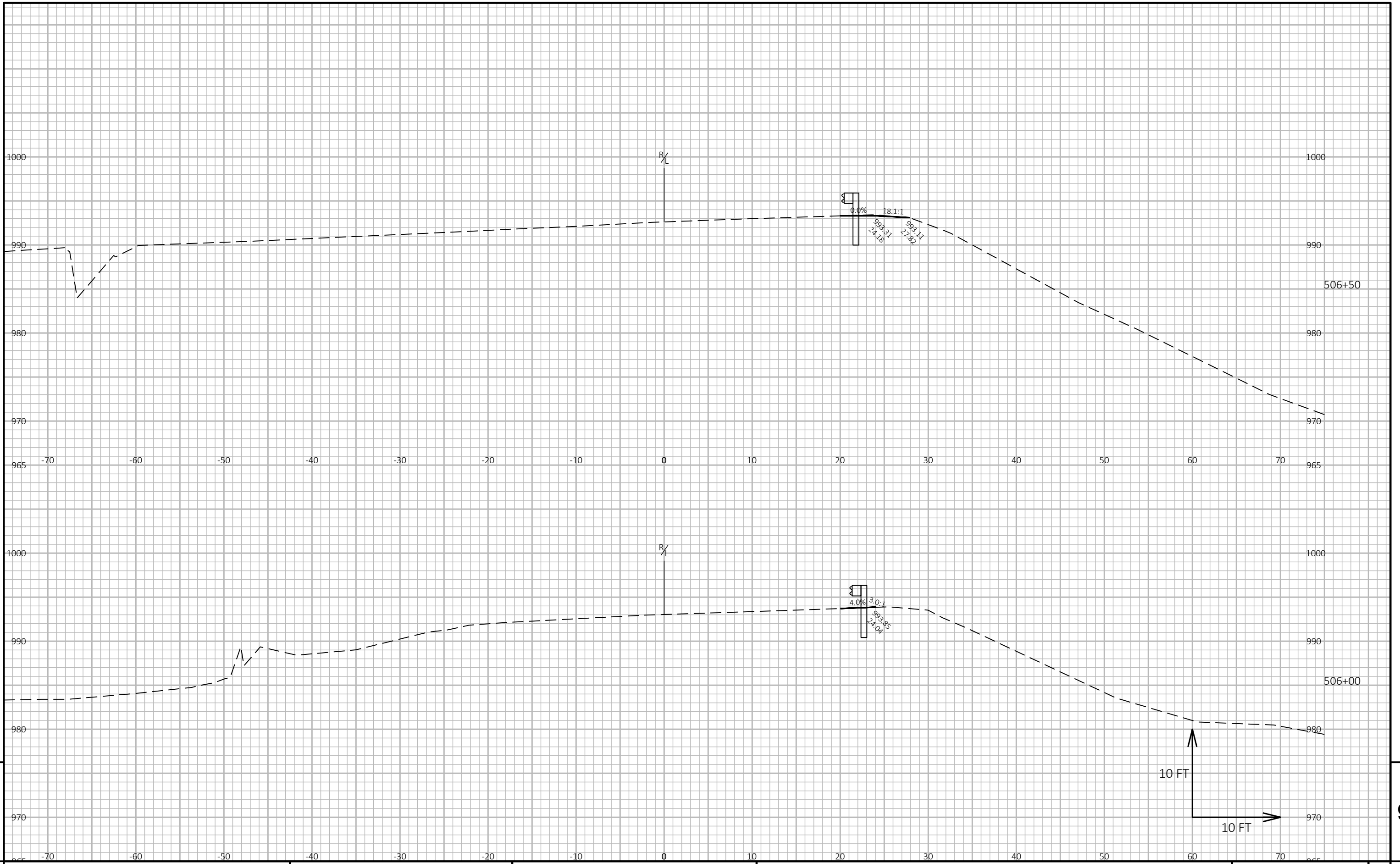
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:14 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

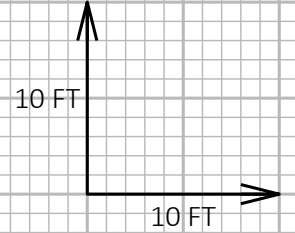
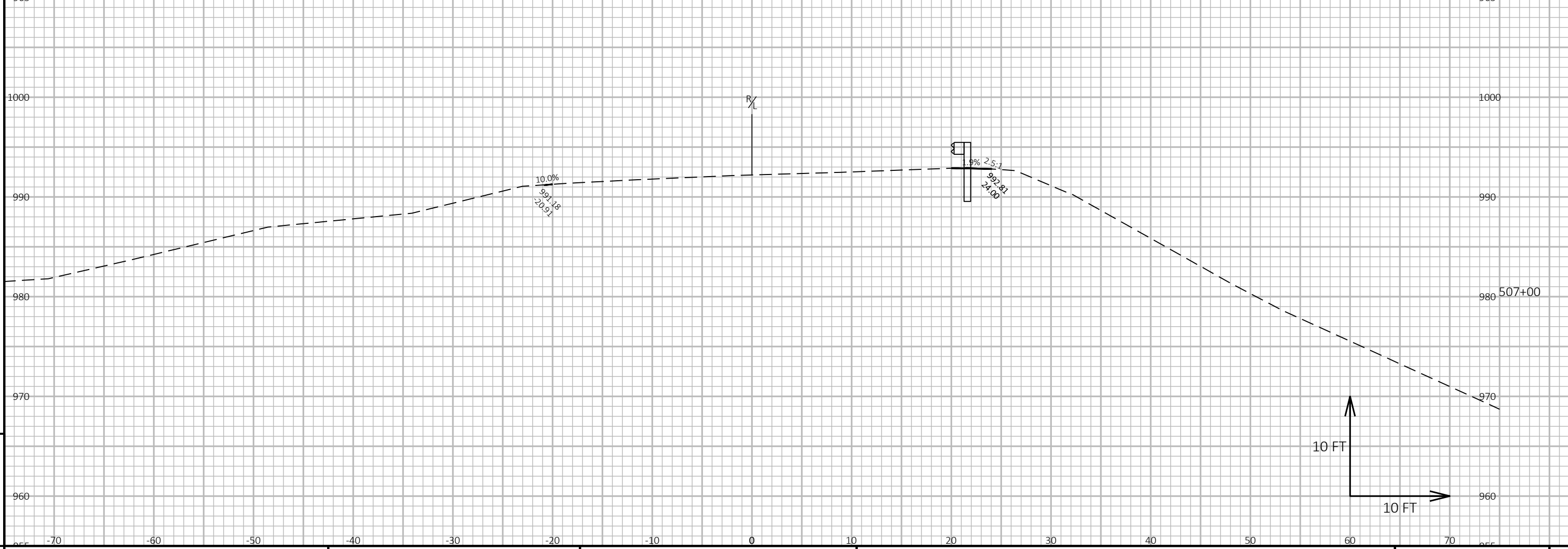
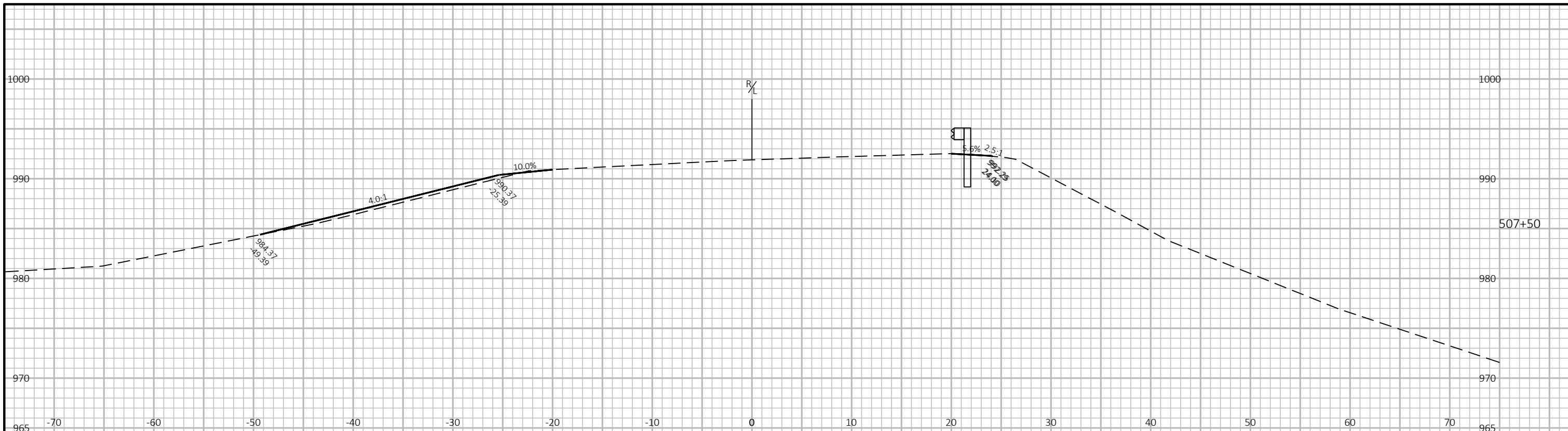
LAYOUT NAME - 090222



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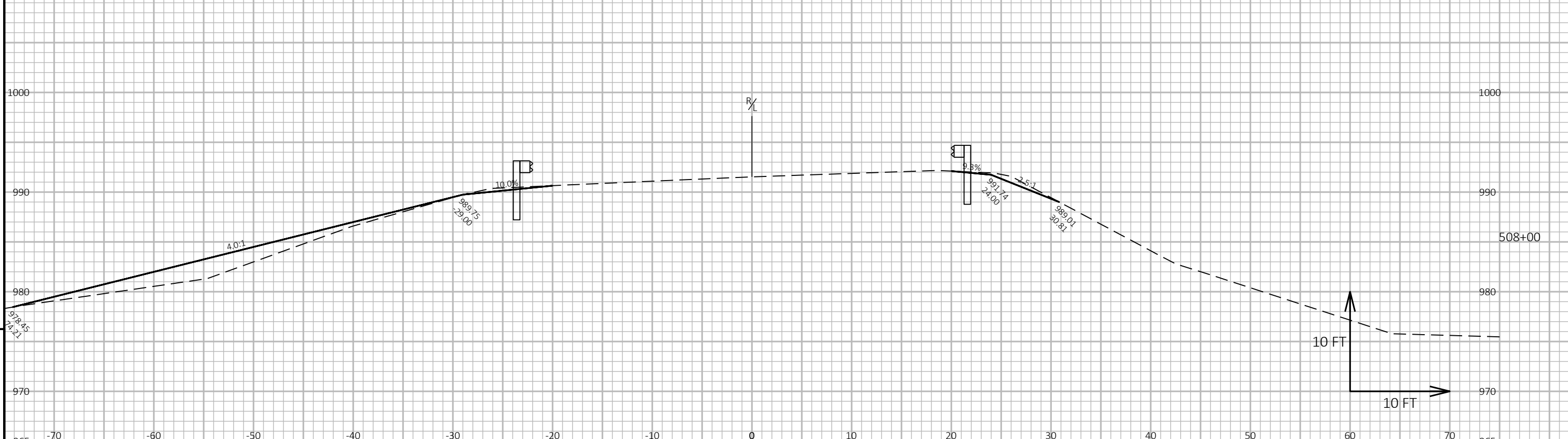
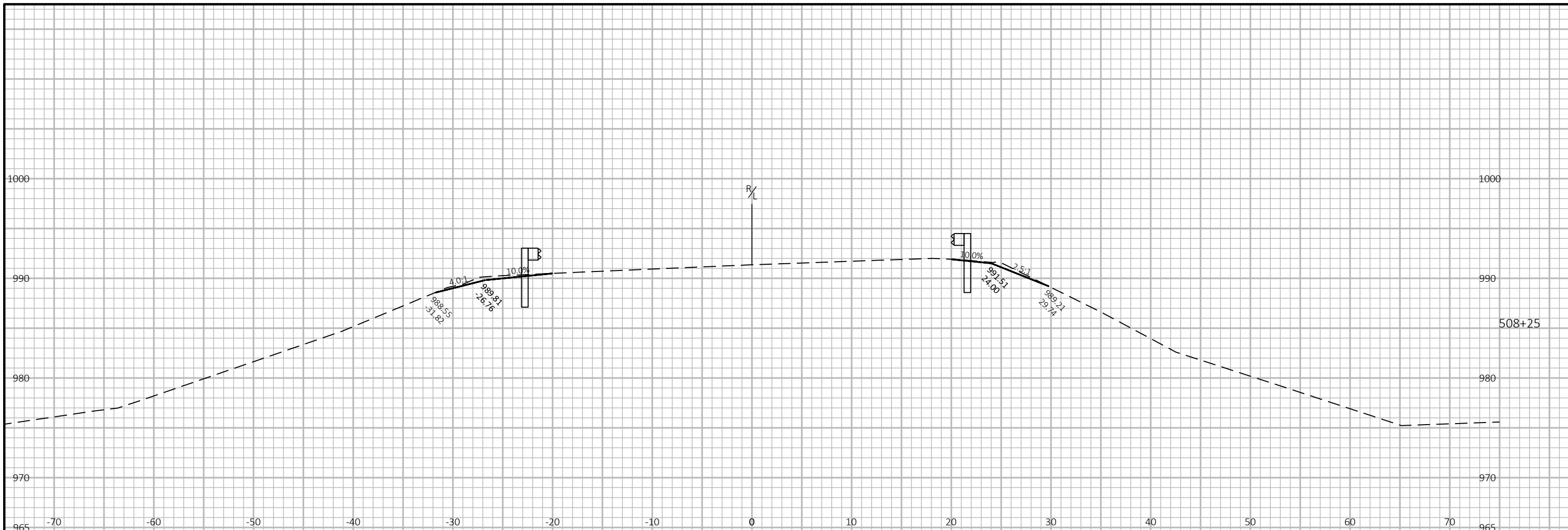
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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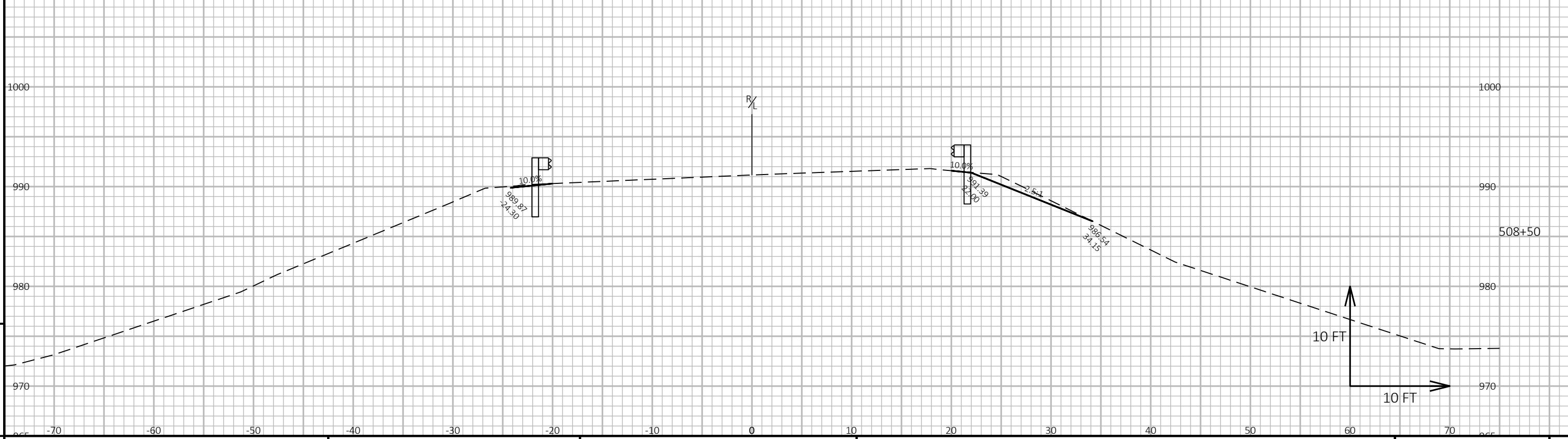
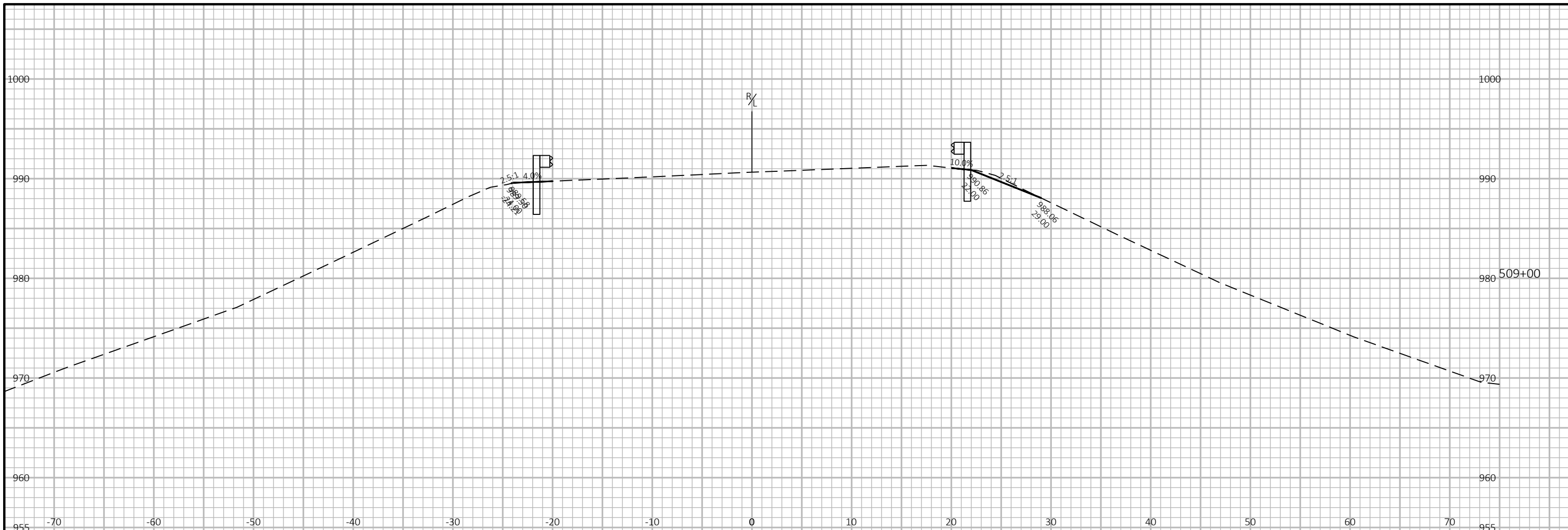
PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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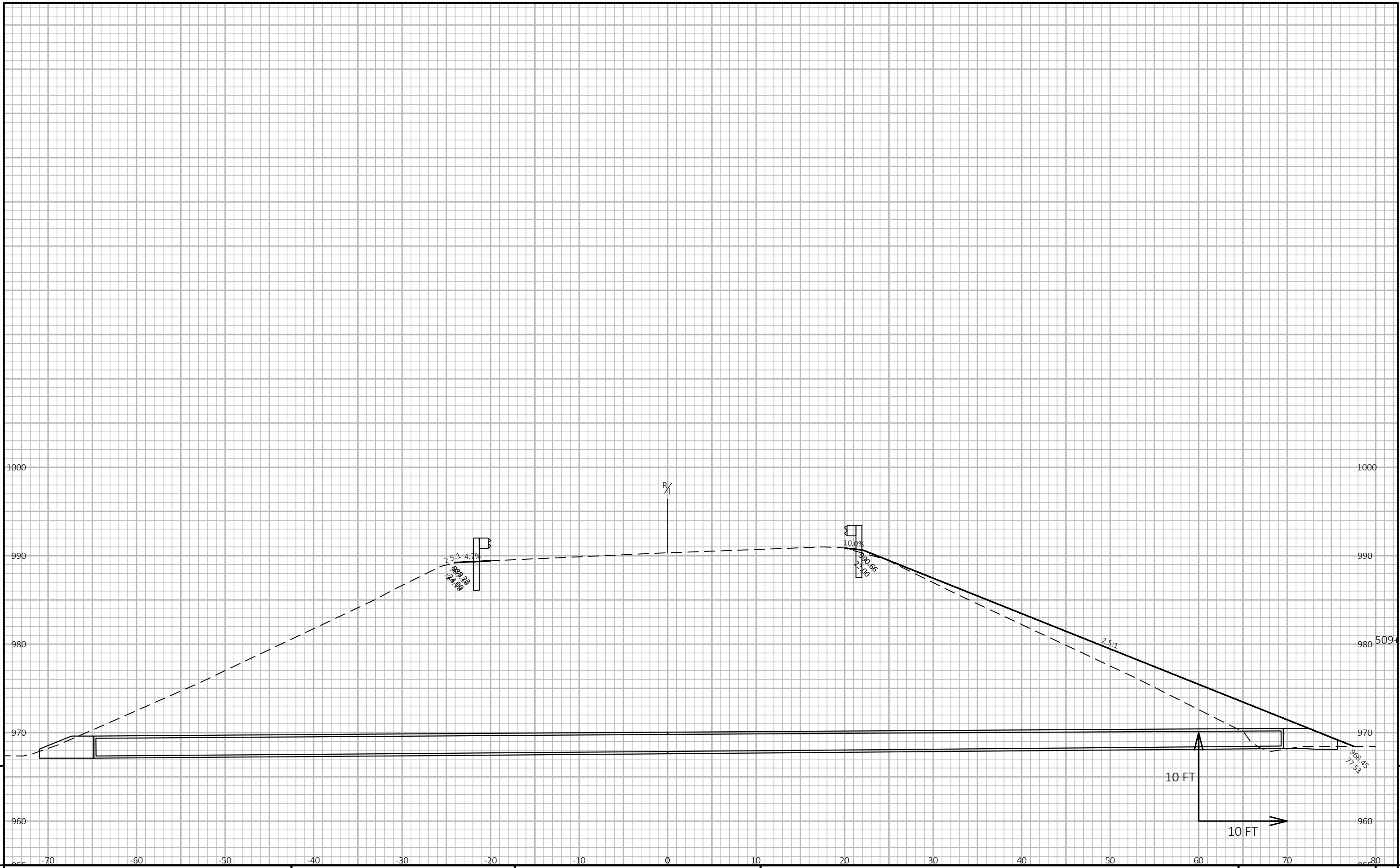
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

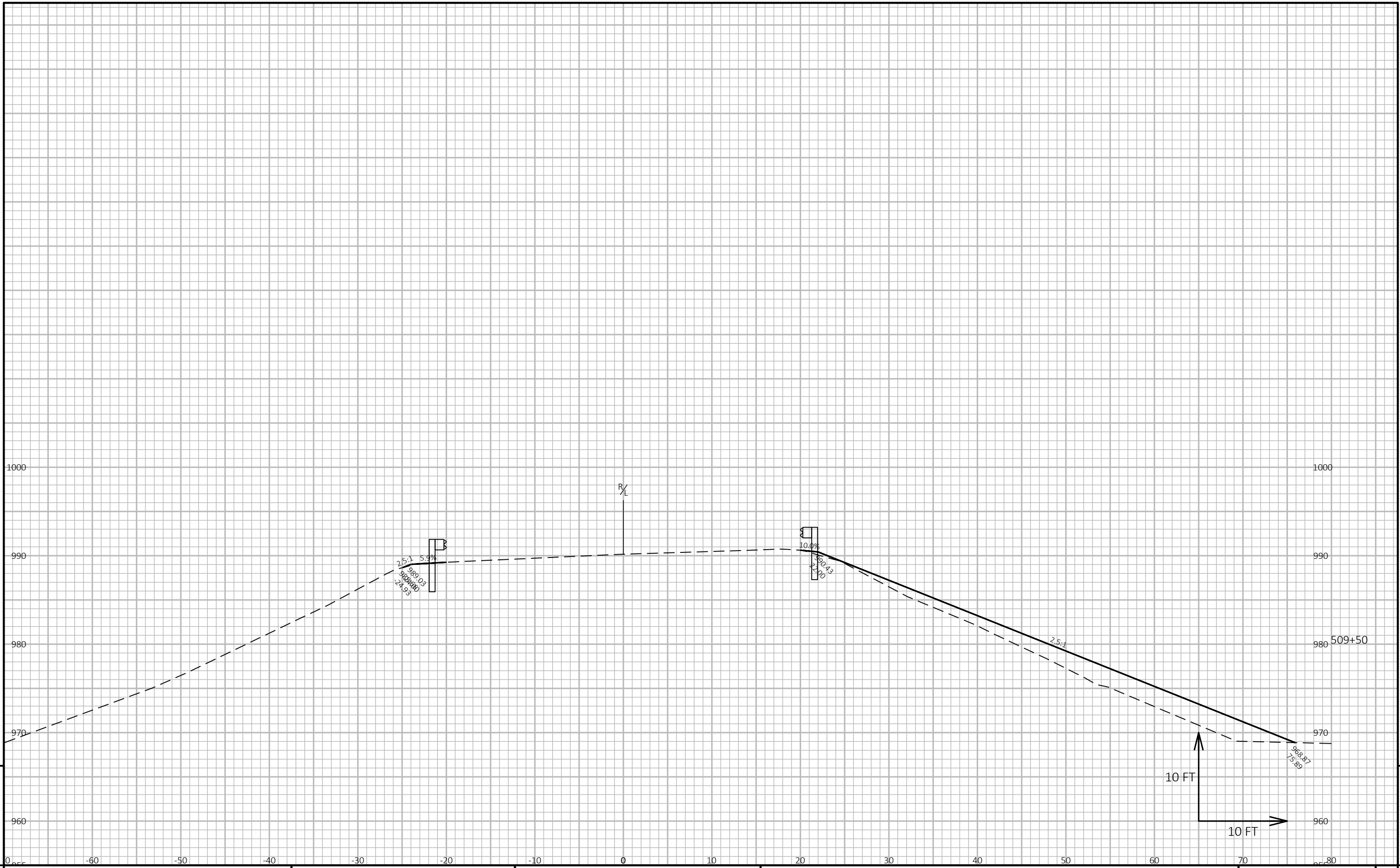


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG
 PLOT DATE : 7/8/2024 11:15 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 LAYOUT NAME - 090227
 WISDOT/CADD SHEET 49



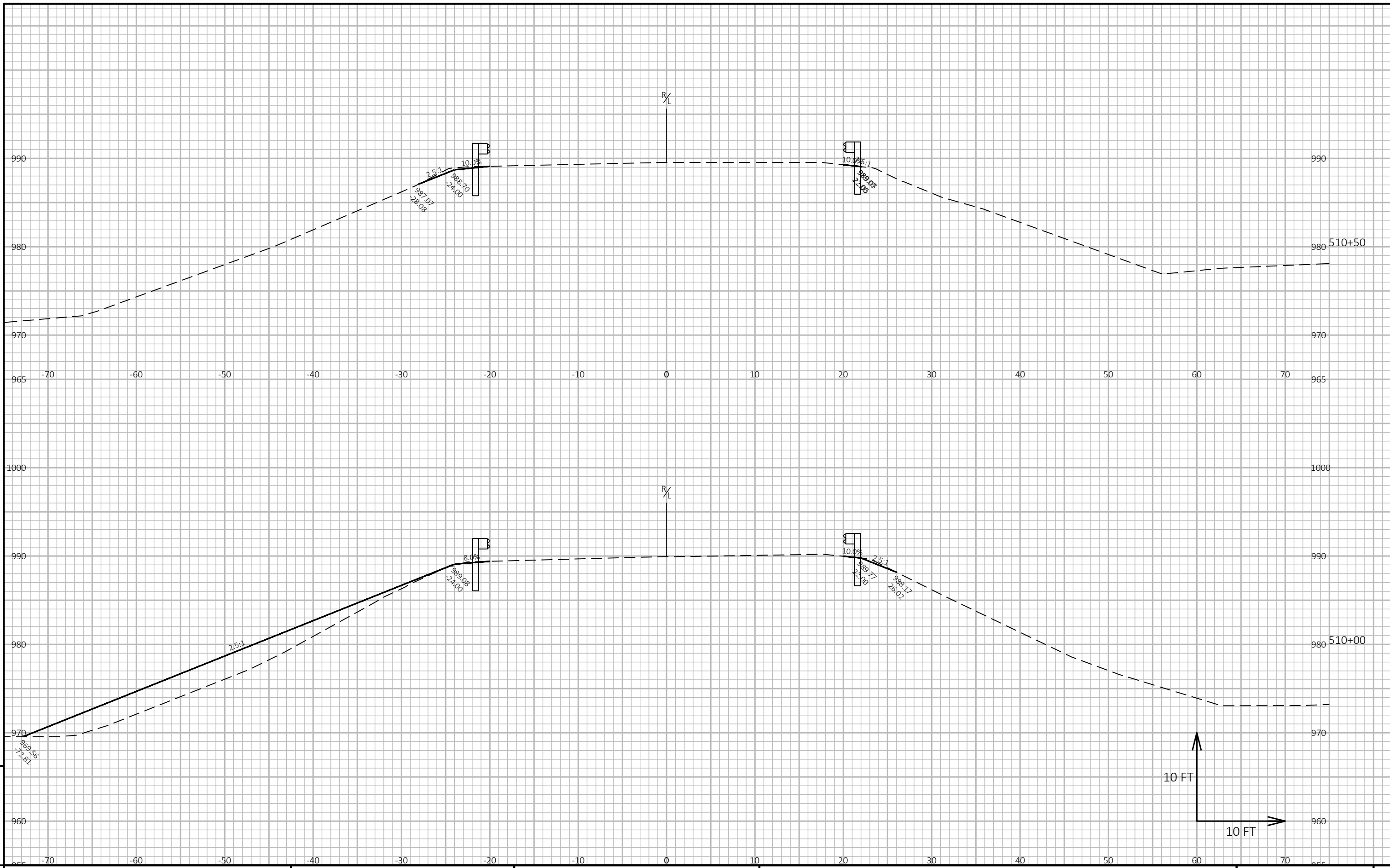
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:15 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090228



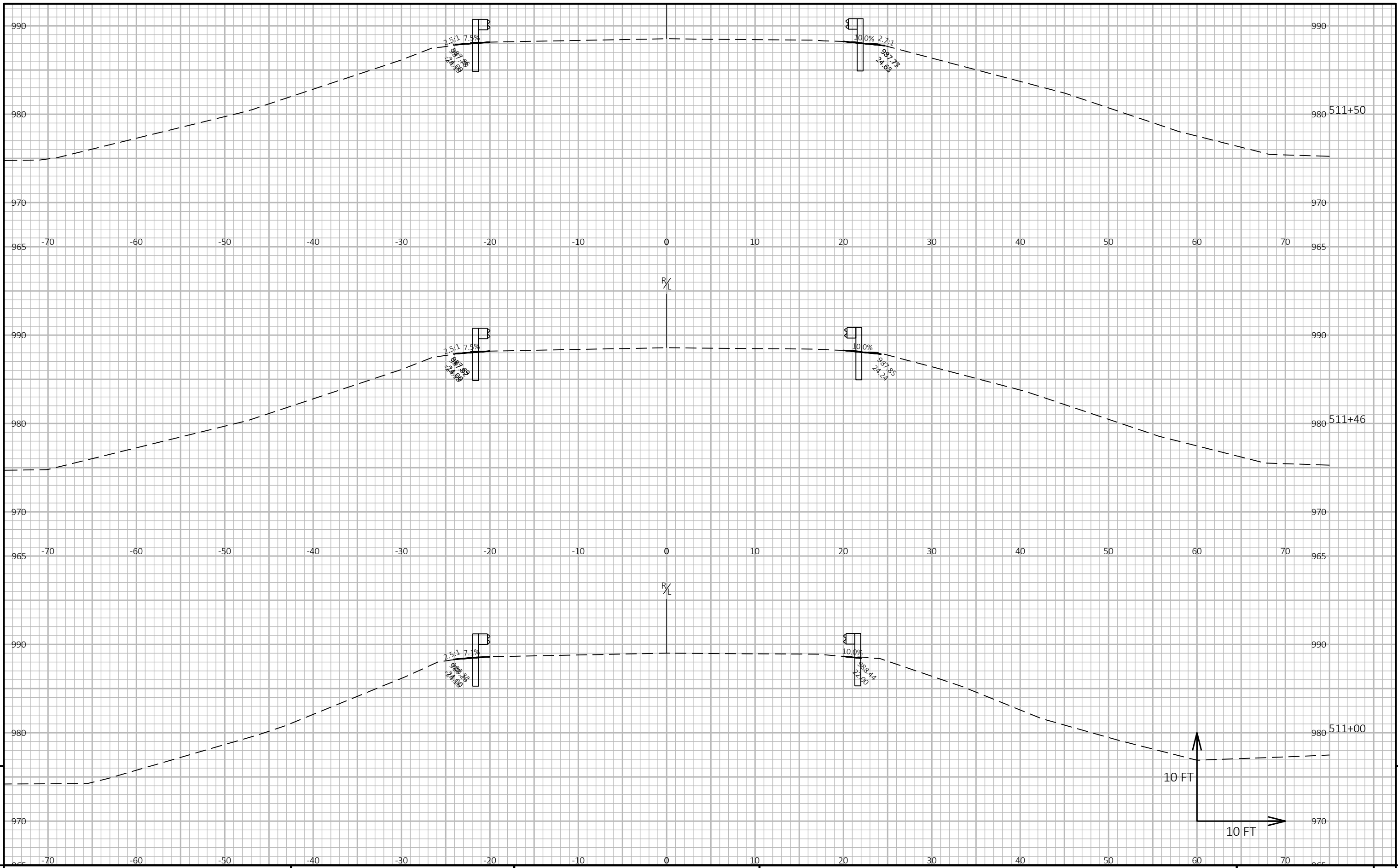
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:15 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090229



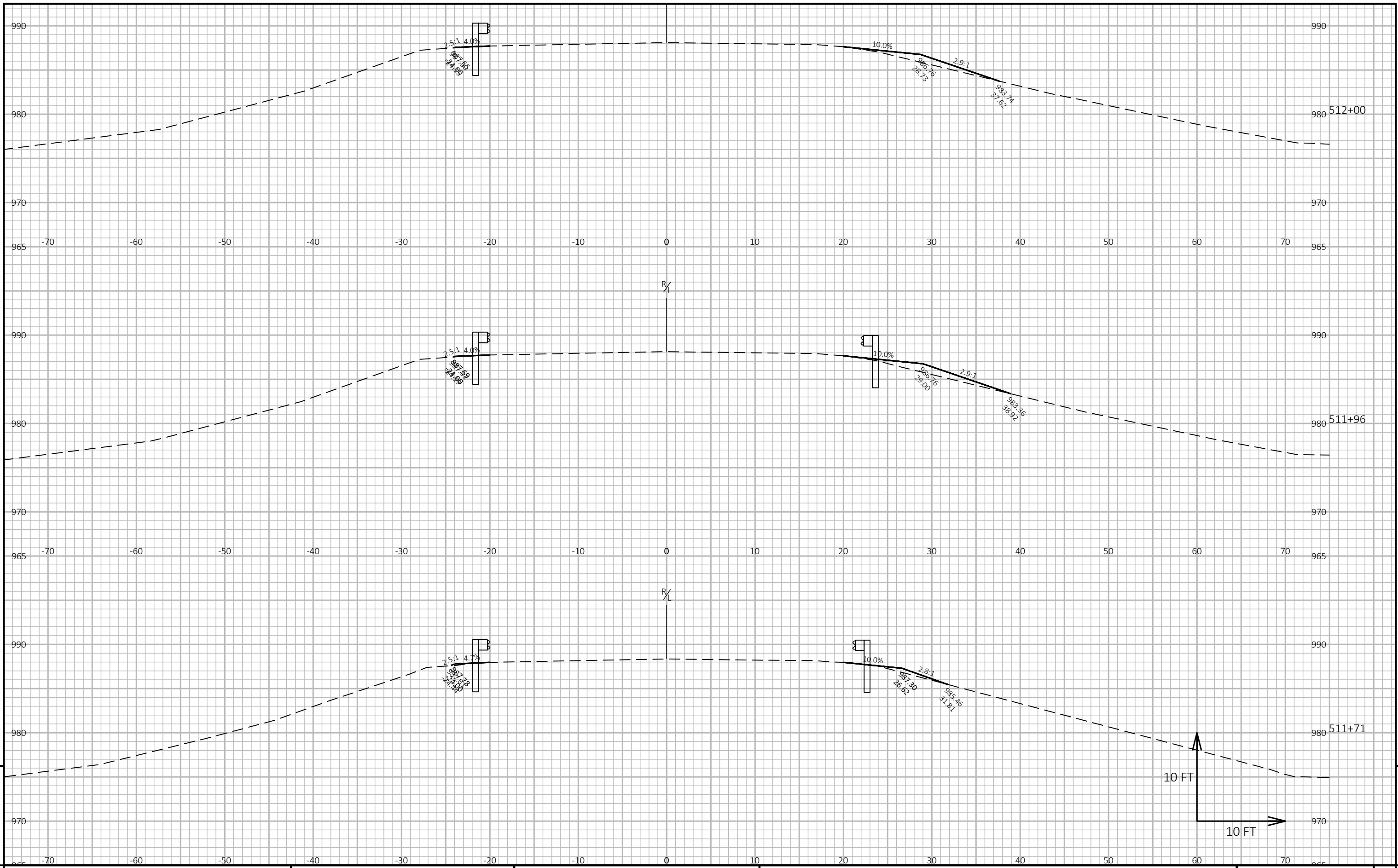
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:15 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090230



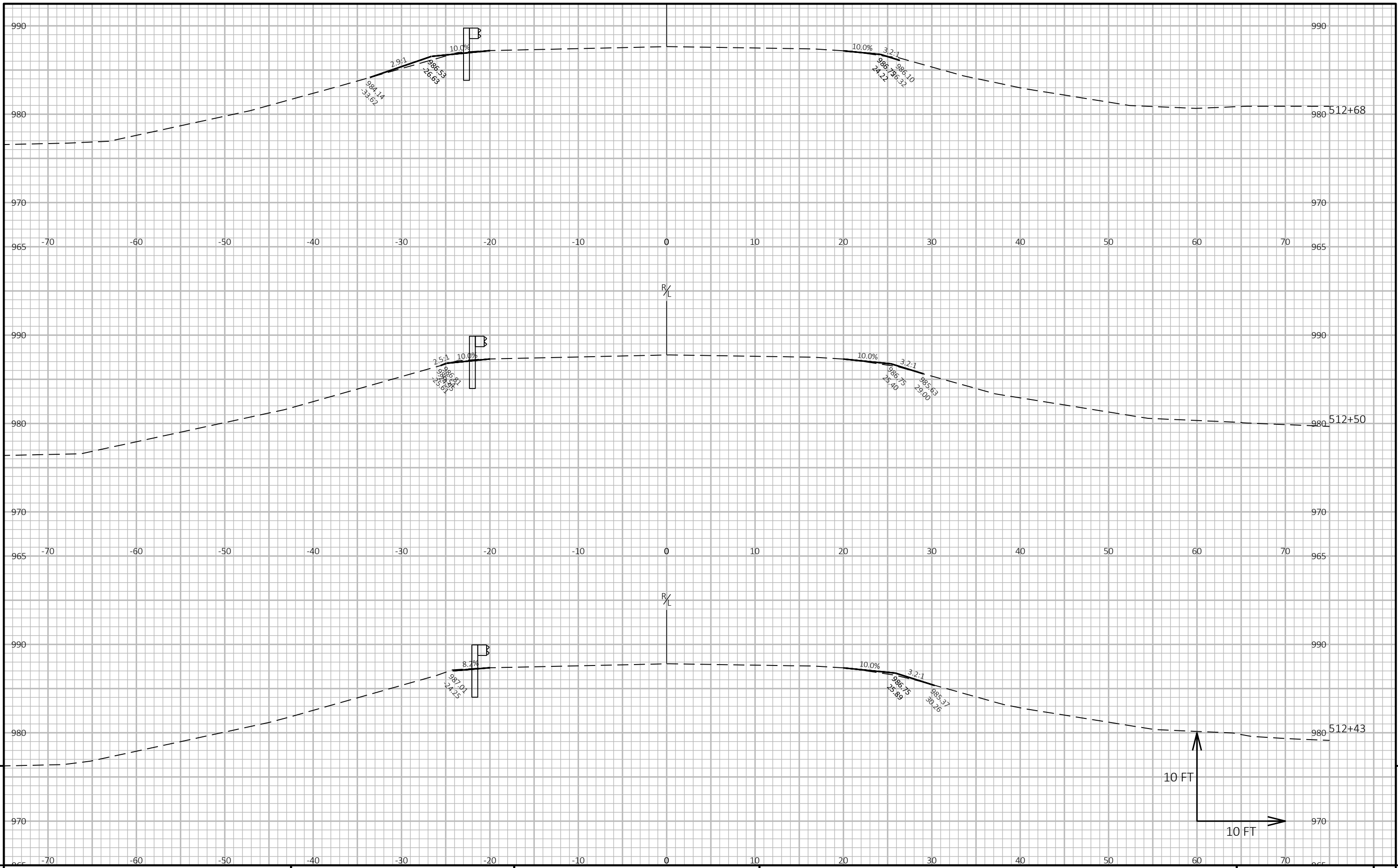
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG
 PLOT DATE : 7/8/2024 11:15 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

LAYOUT NAME - 090231



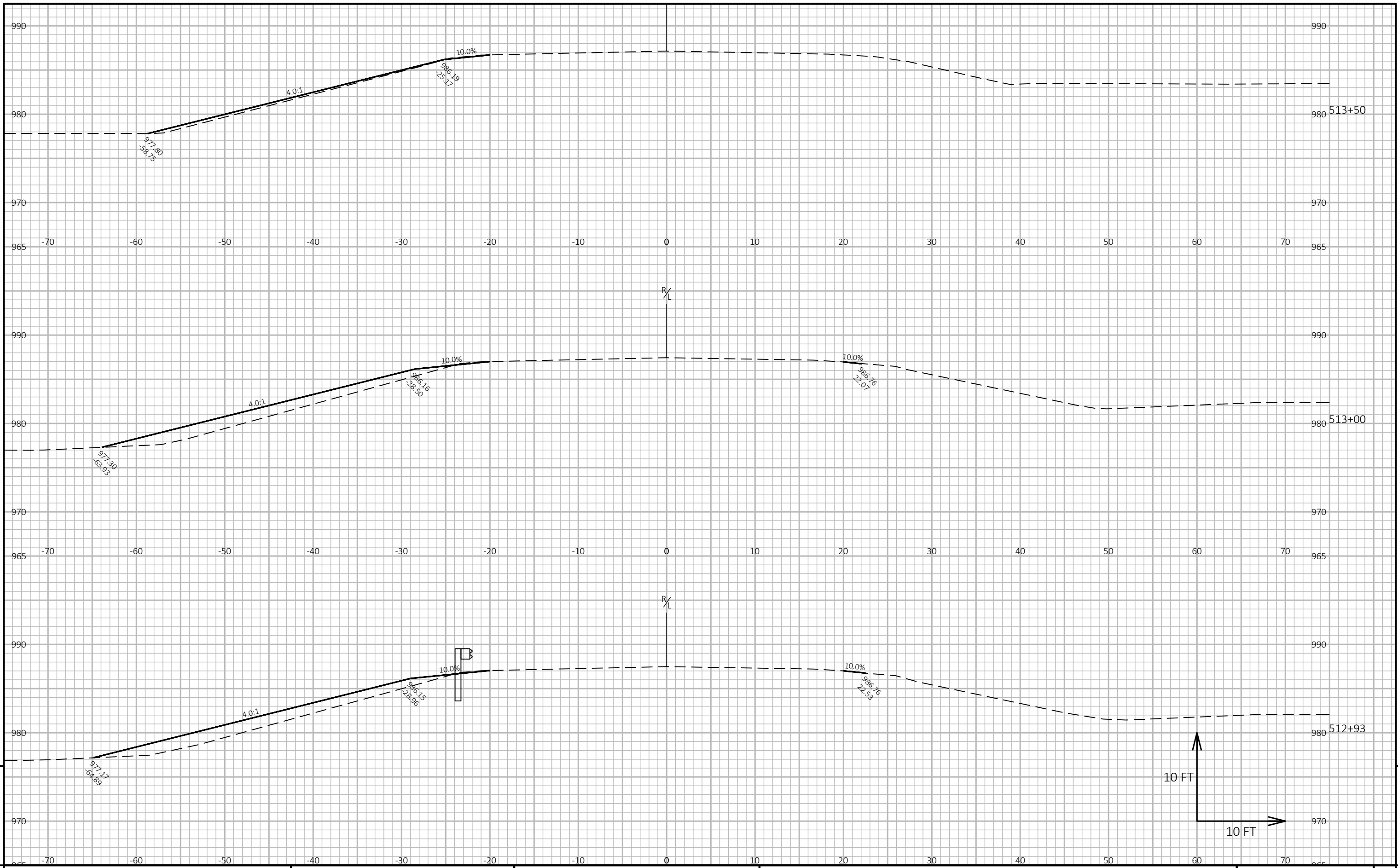
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

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LAYOUT NAME - 090232



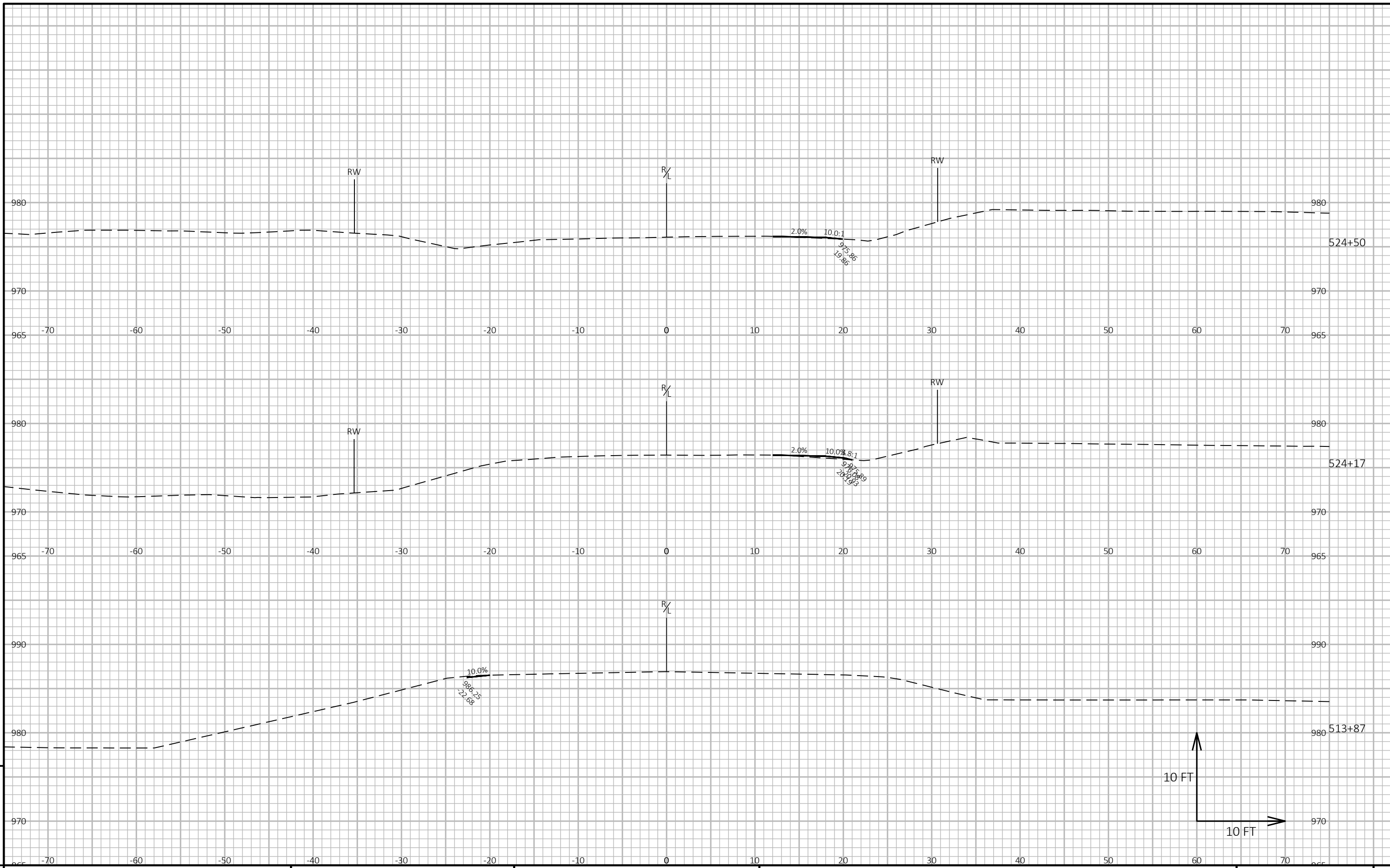
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:15 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090233

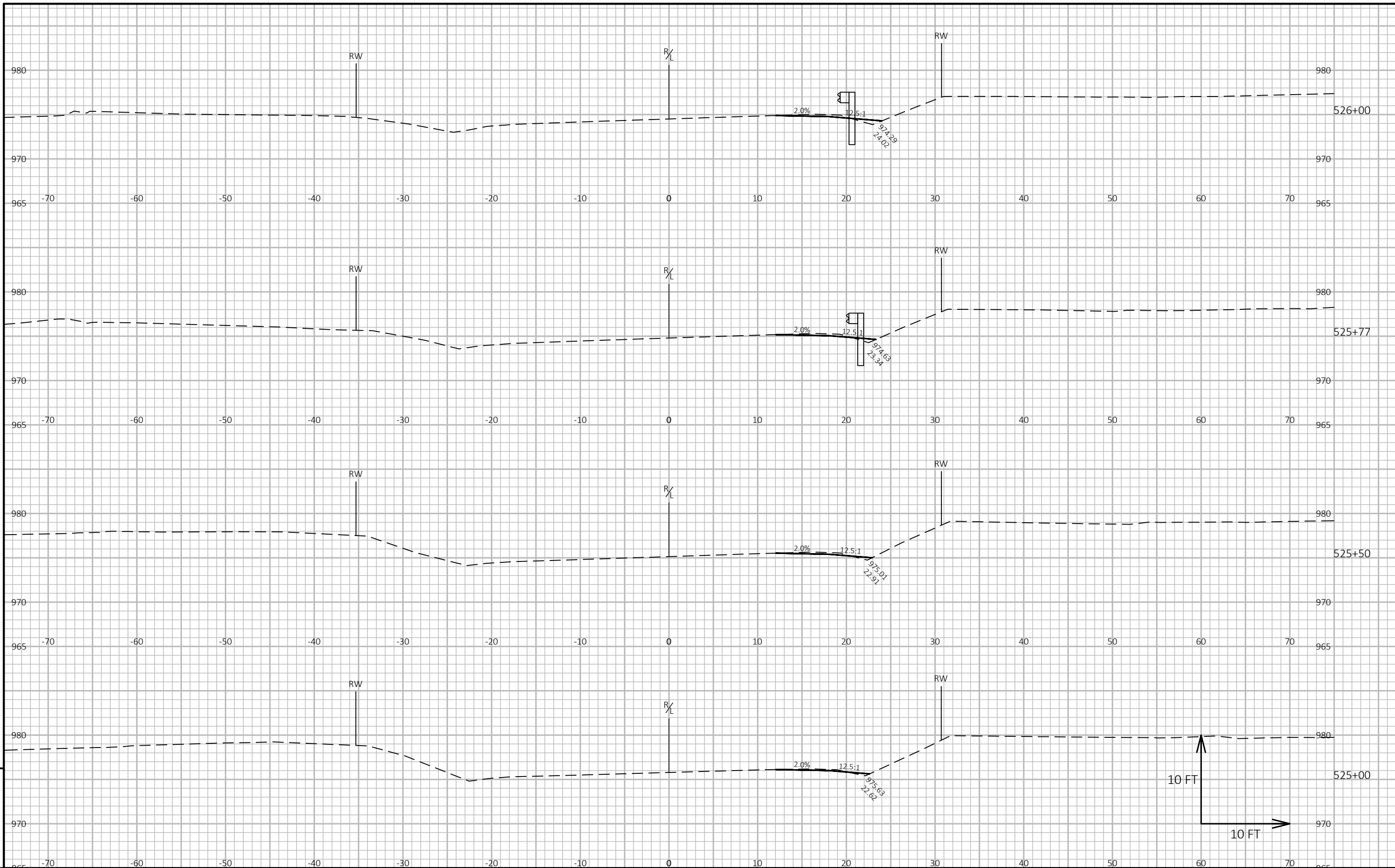


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG
 PLOT DATE : 7/8/2024 11:15 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



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PROJECT NO: 3130-03-71

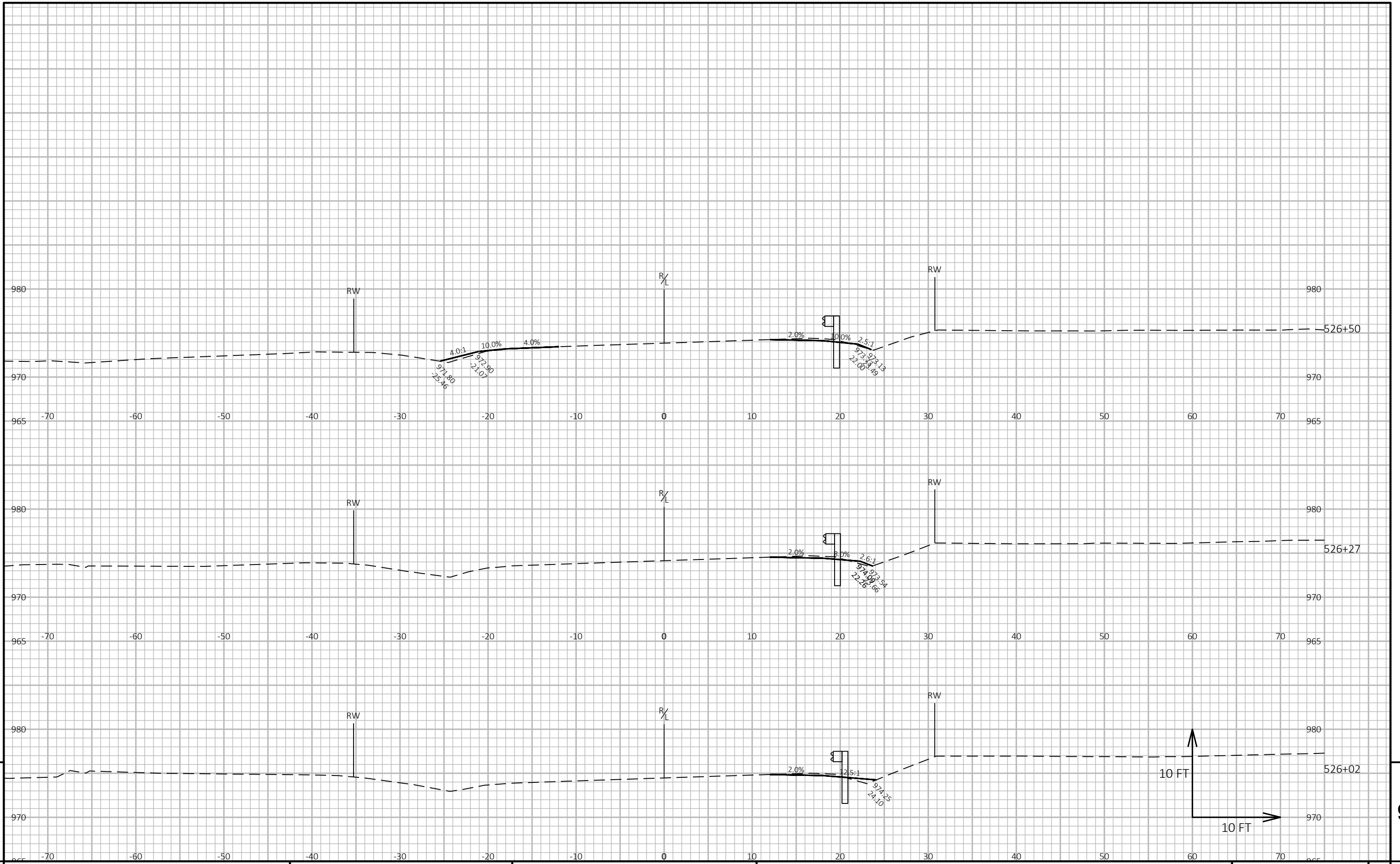
HWY: USH 12

COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

E



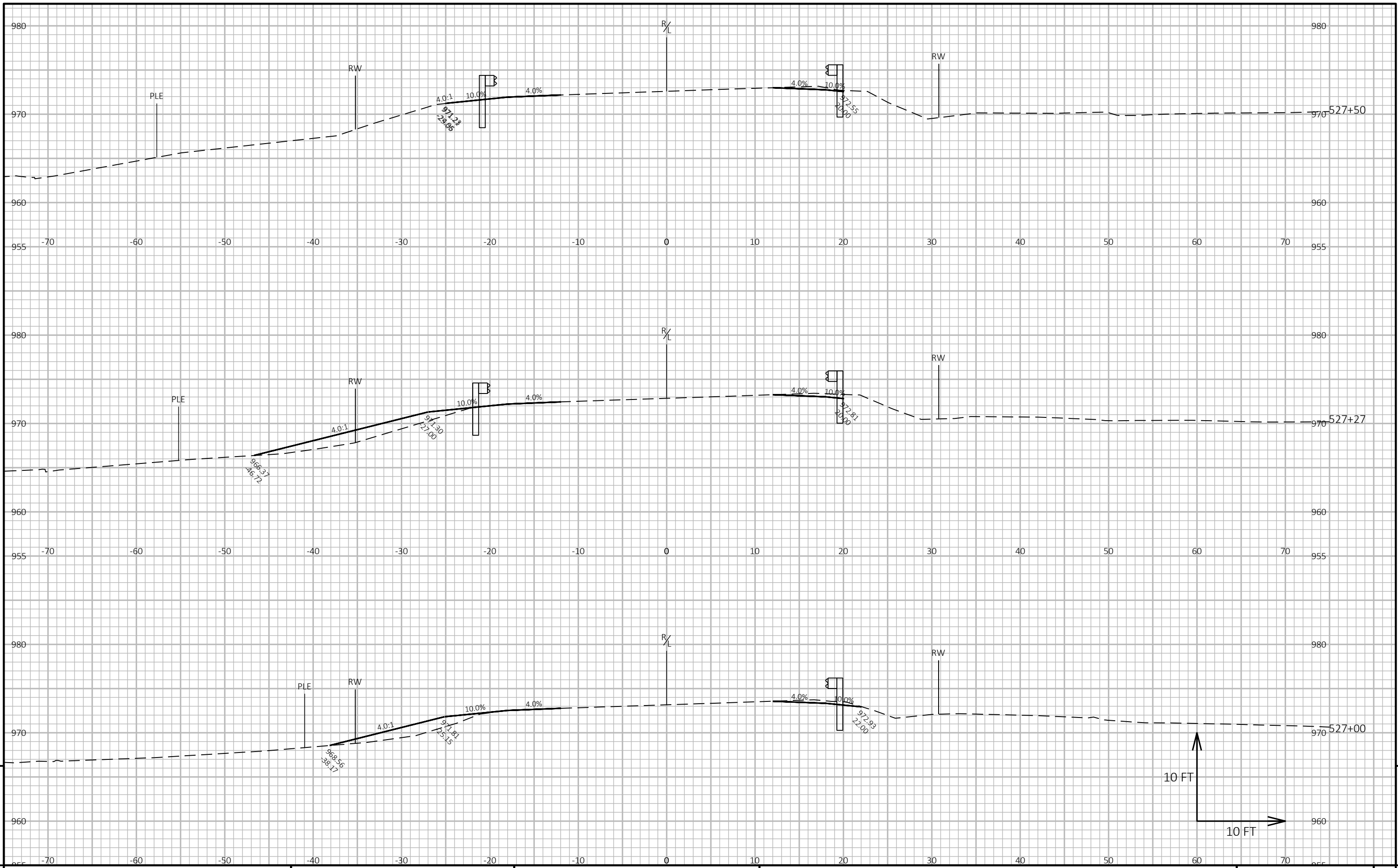
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:16 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090236



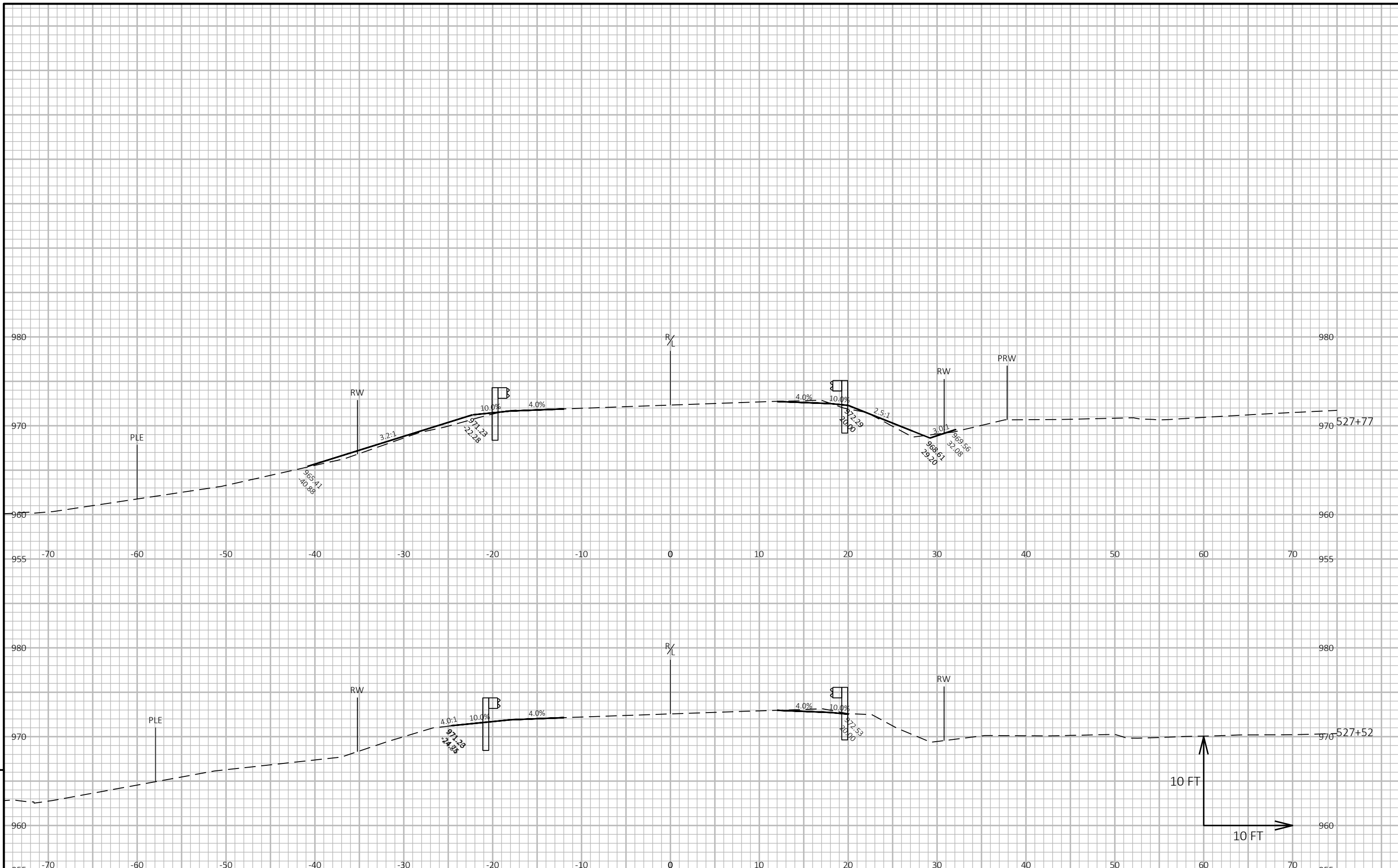
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:16 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090237



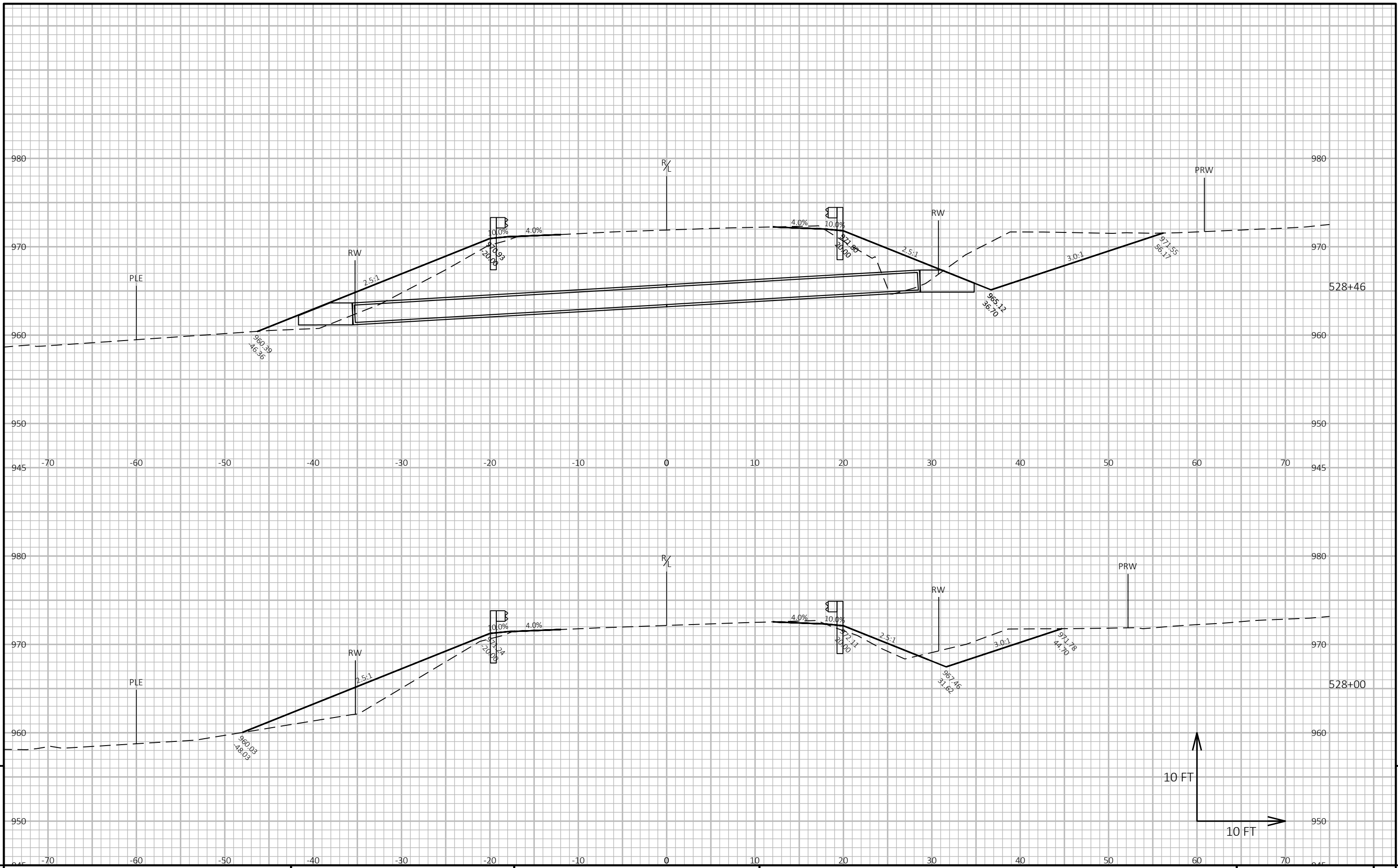
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:16 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090238



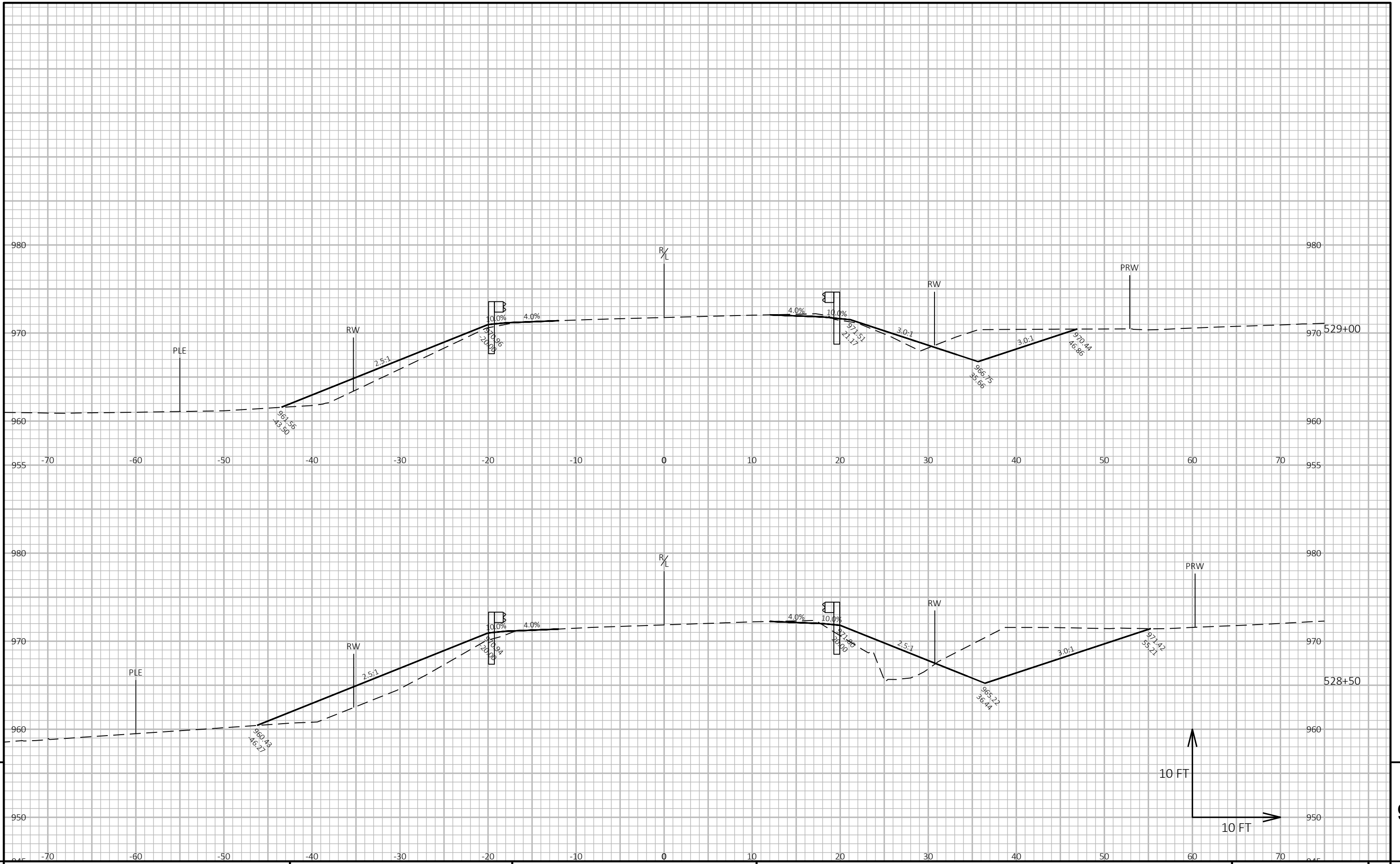
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME: L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE: 7/8/2024 11:16 AM PLOT BY: TONY BUBLITZ PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

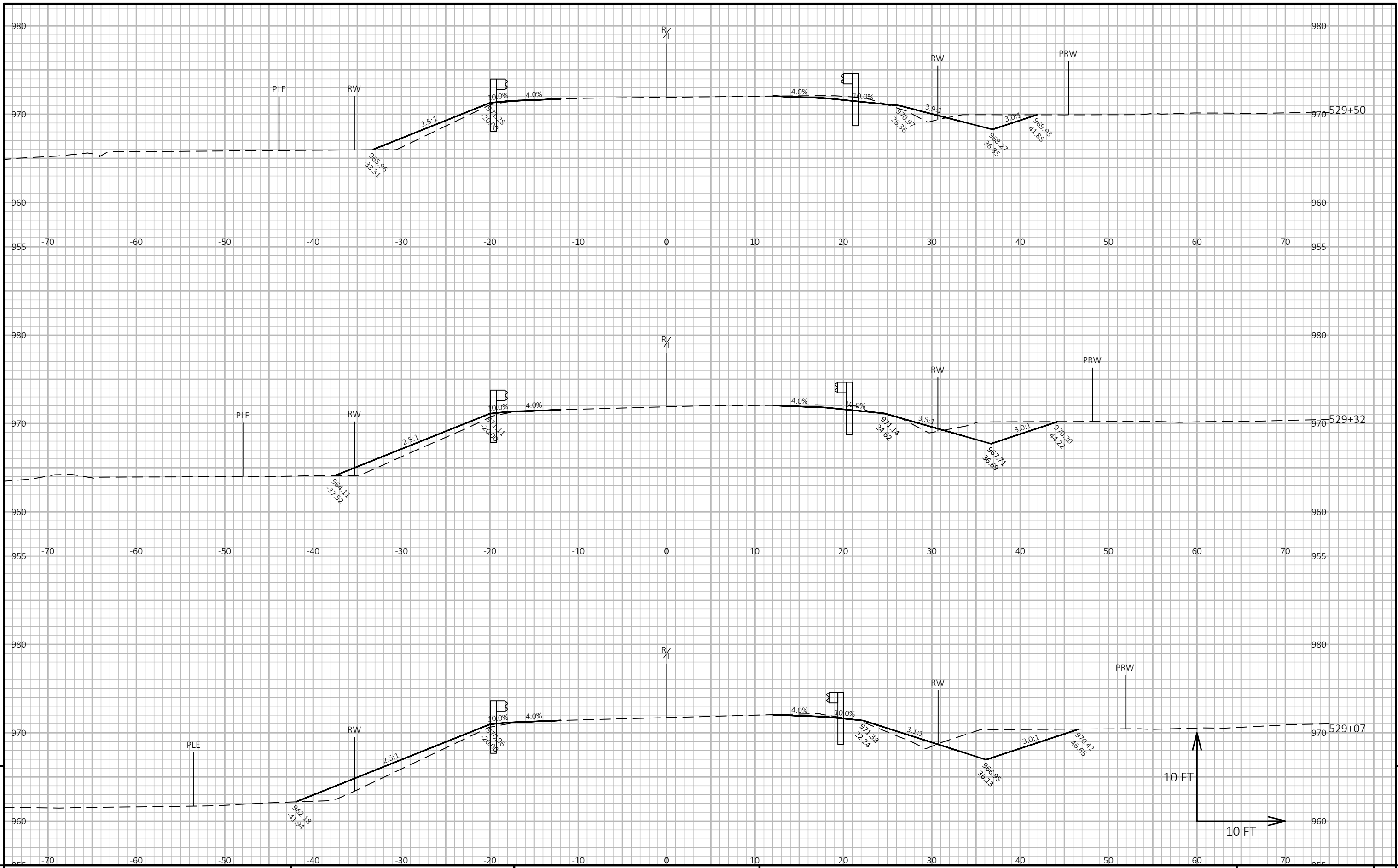
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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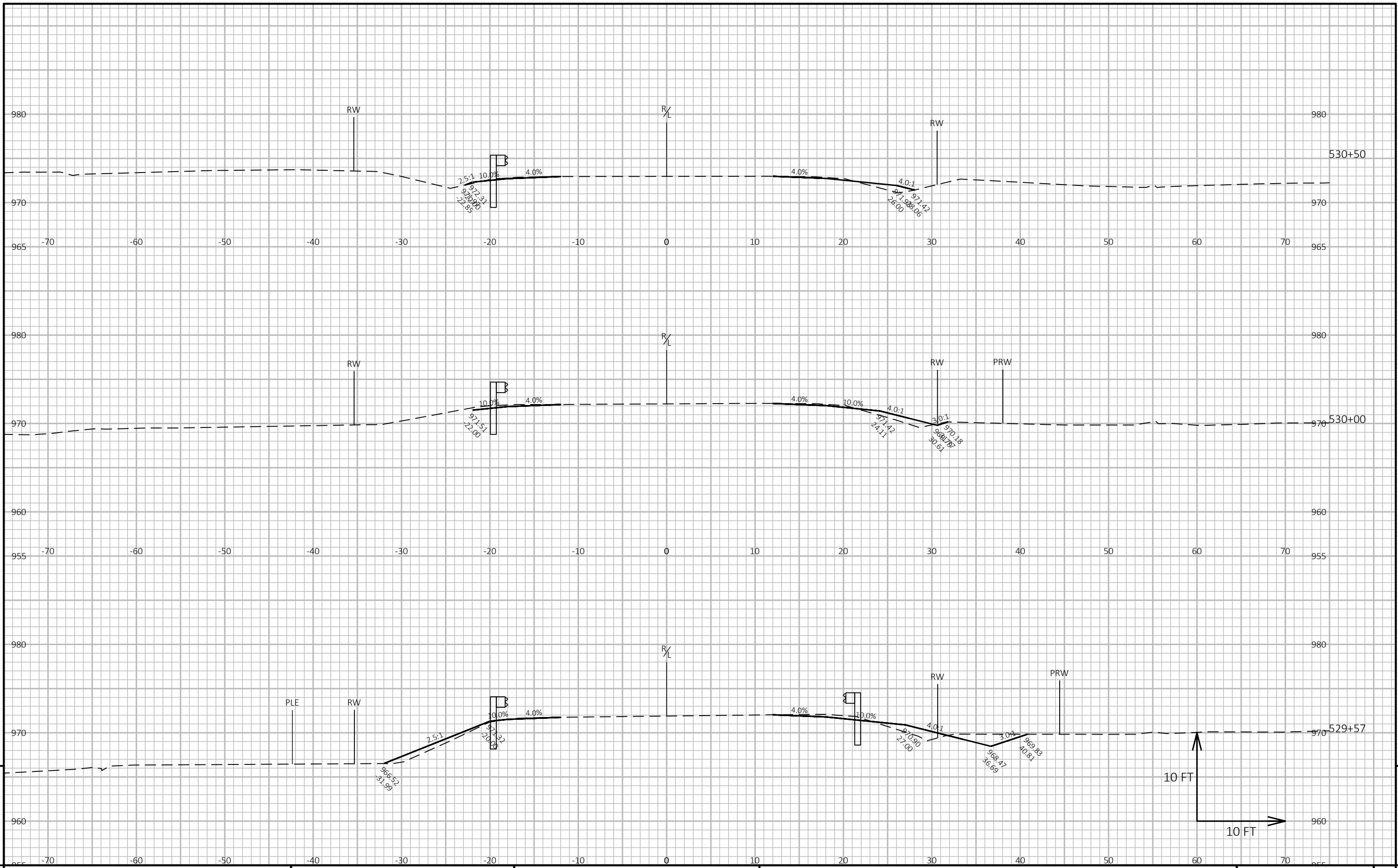


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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME: L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE: 7/8/2024 11:16 AM PLOT BY: TONY BUBITZ PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



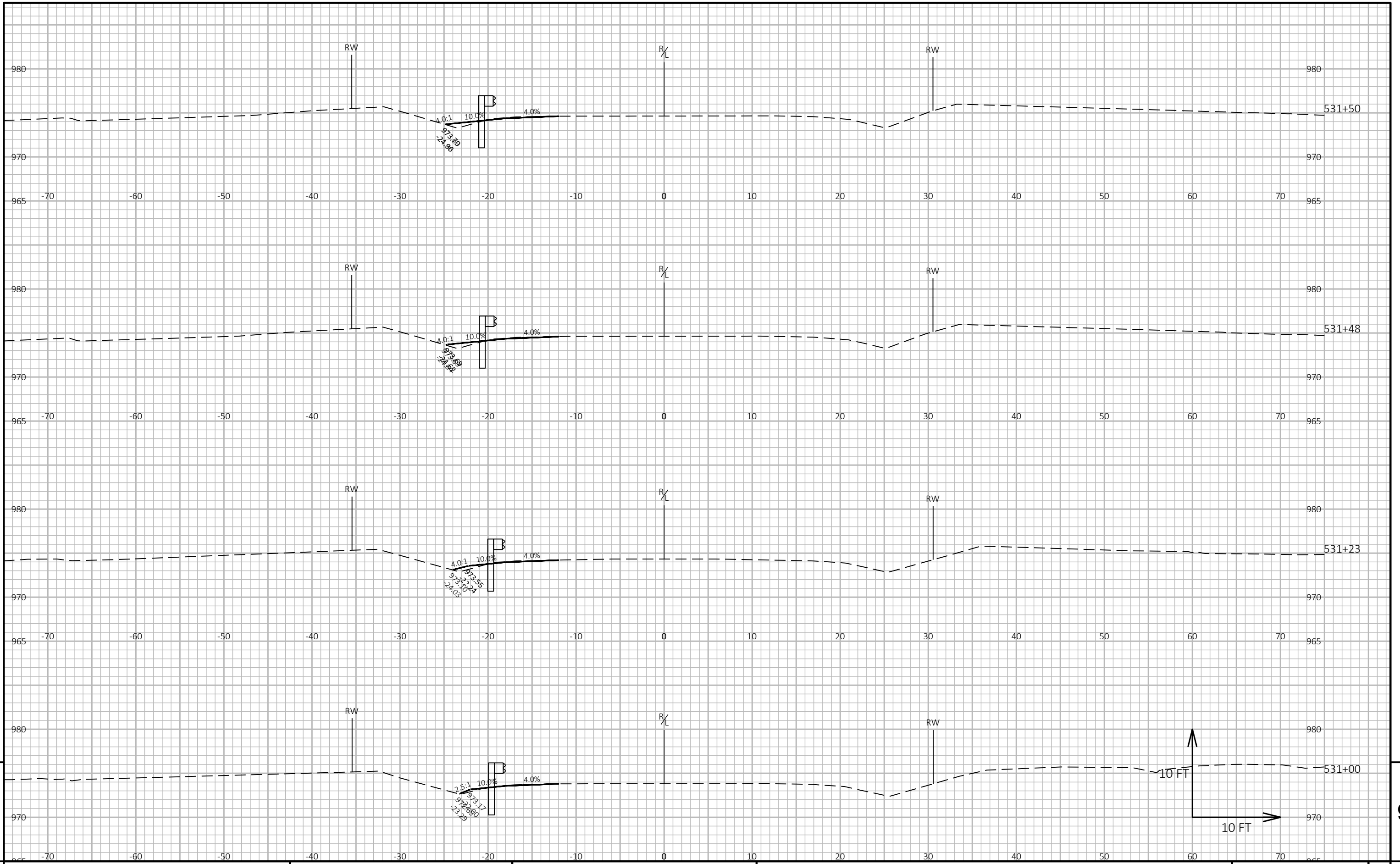
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:16 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090242



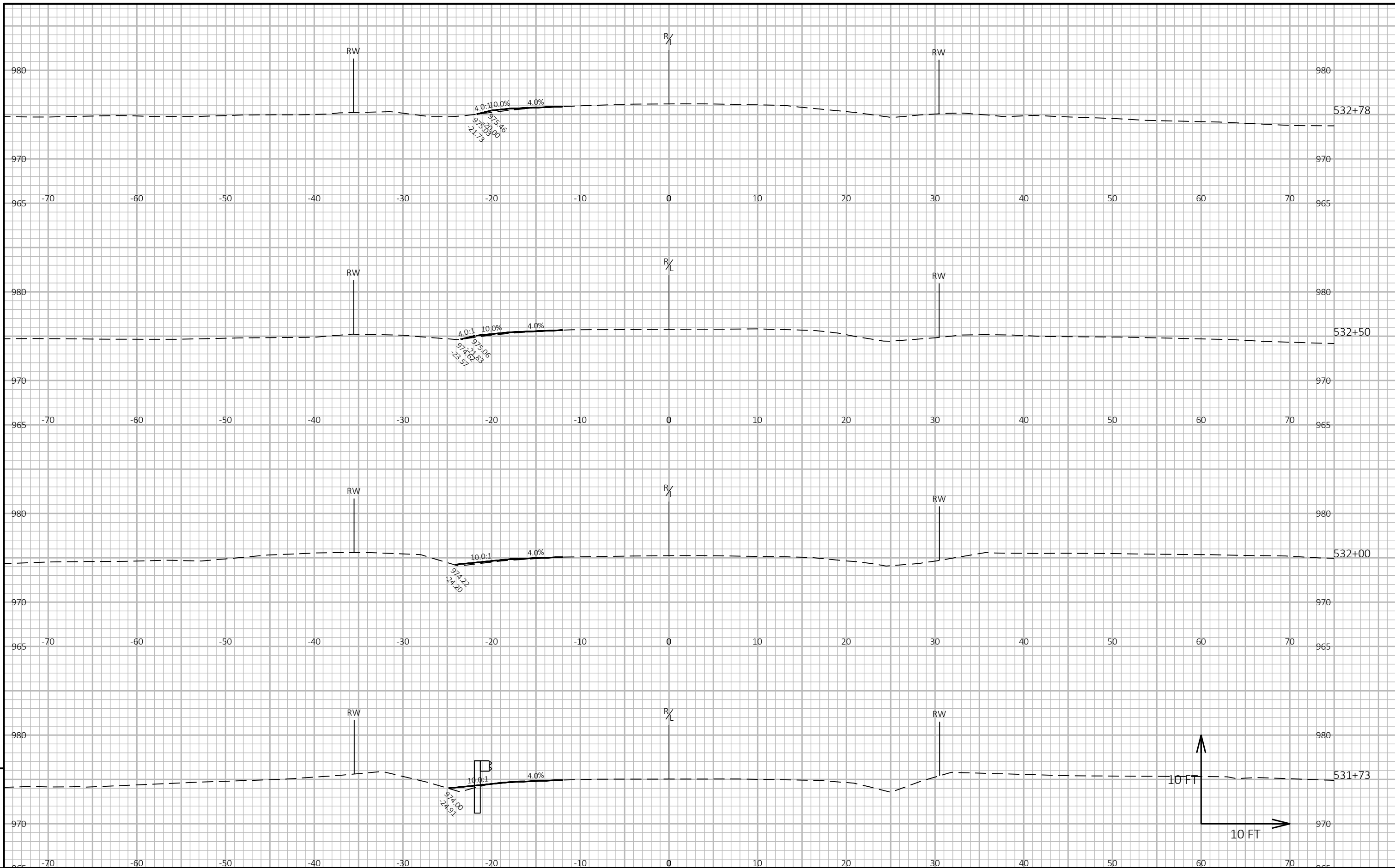
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\ SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:16 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

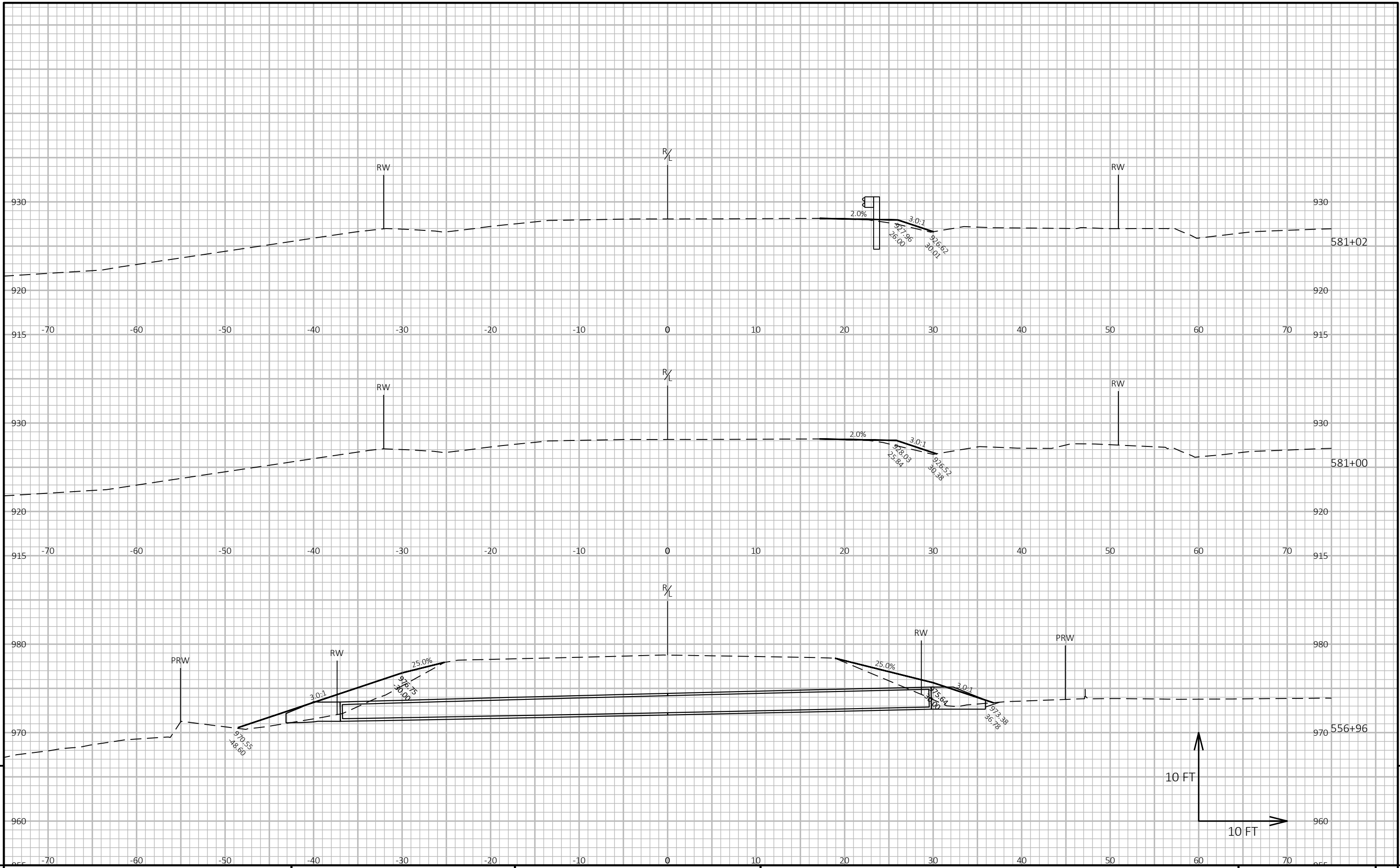
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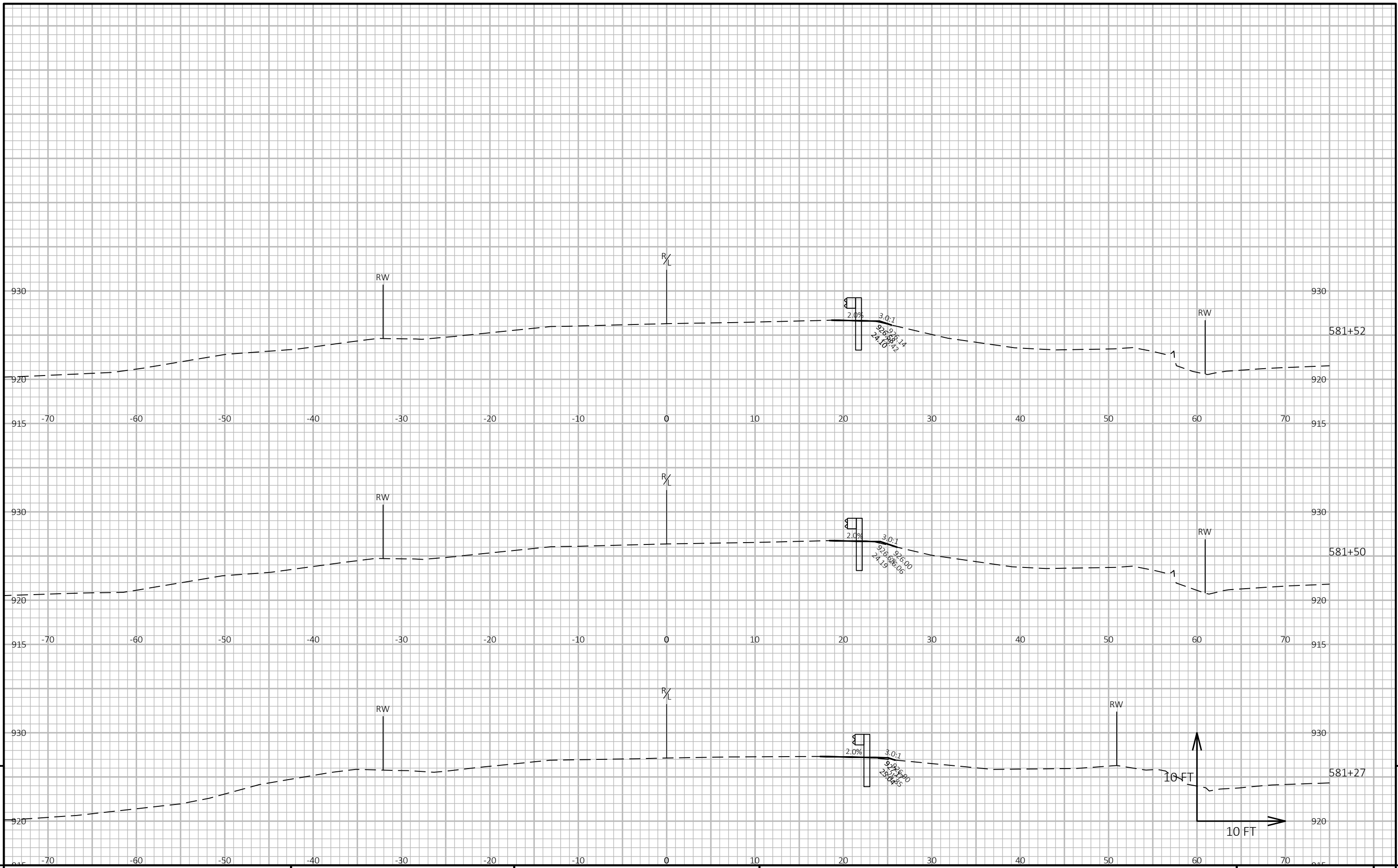
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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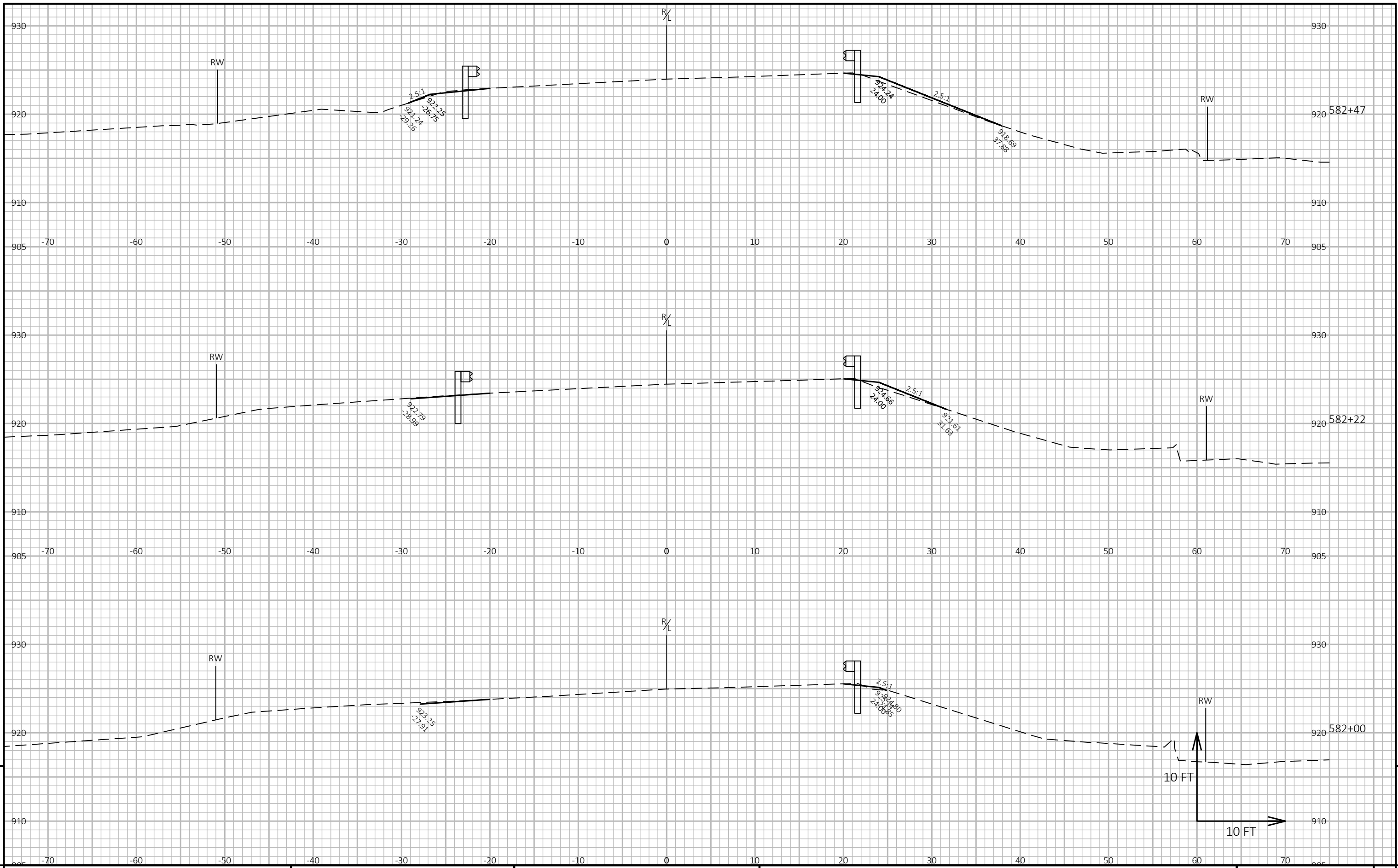
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME: L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE: 7/8/2024 11:17 AM PLOT BY: TONY BUBLITZ PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090246



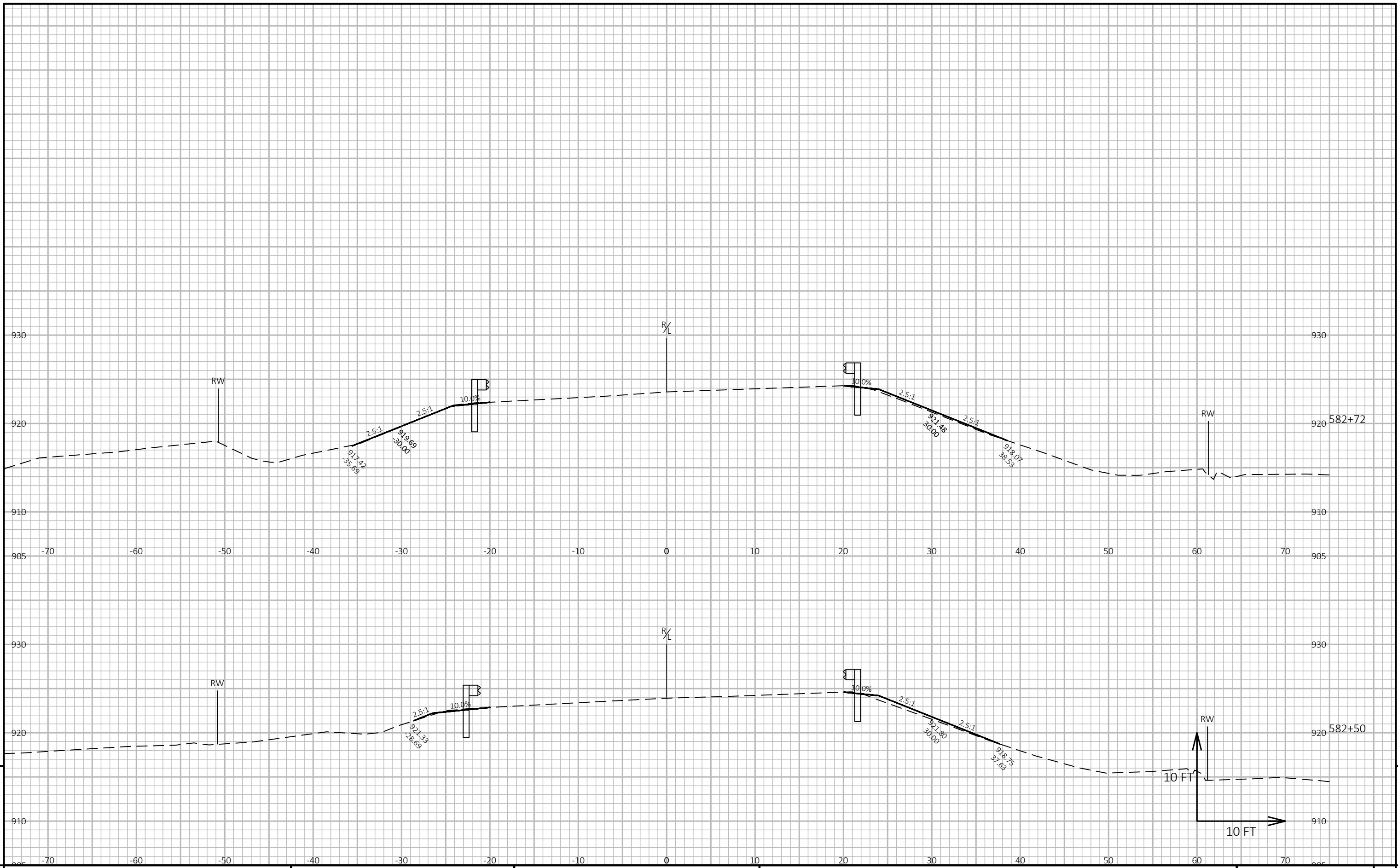
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:17 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090247

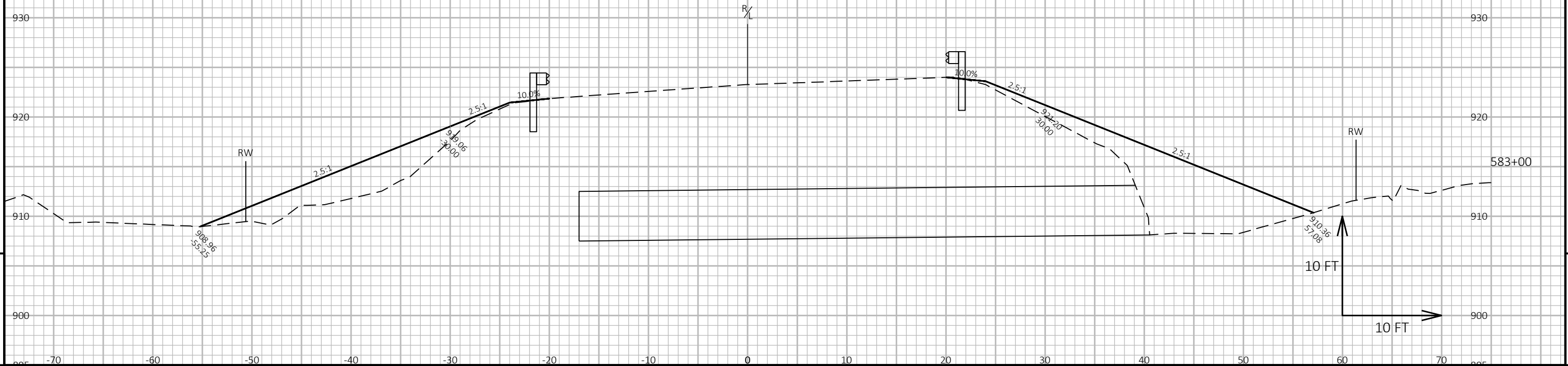
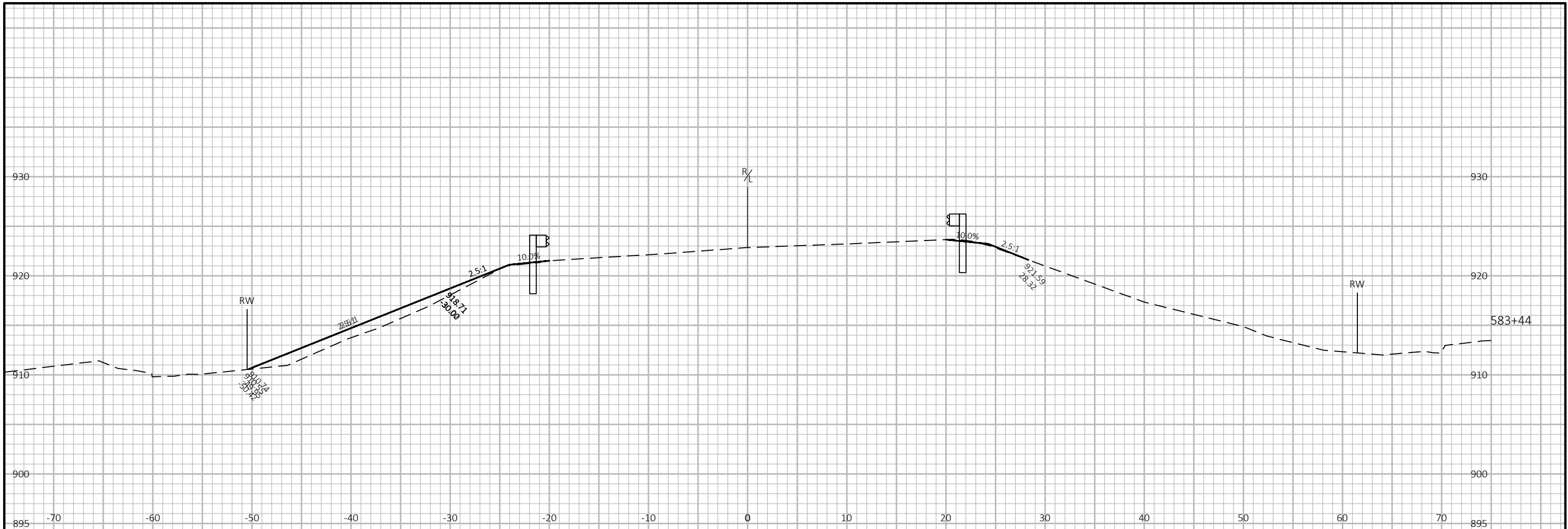


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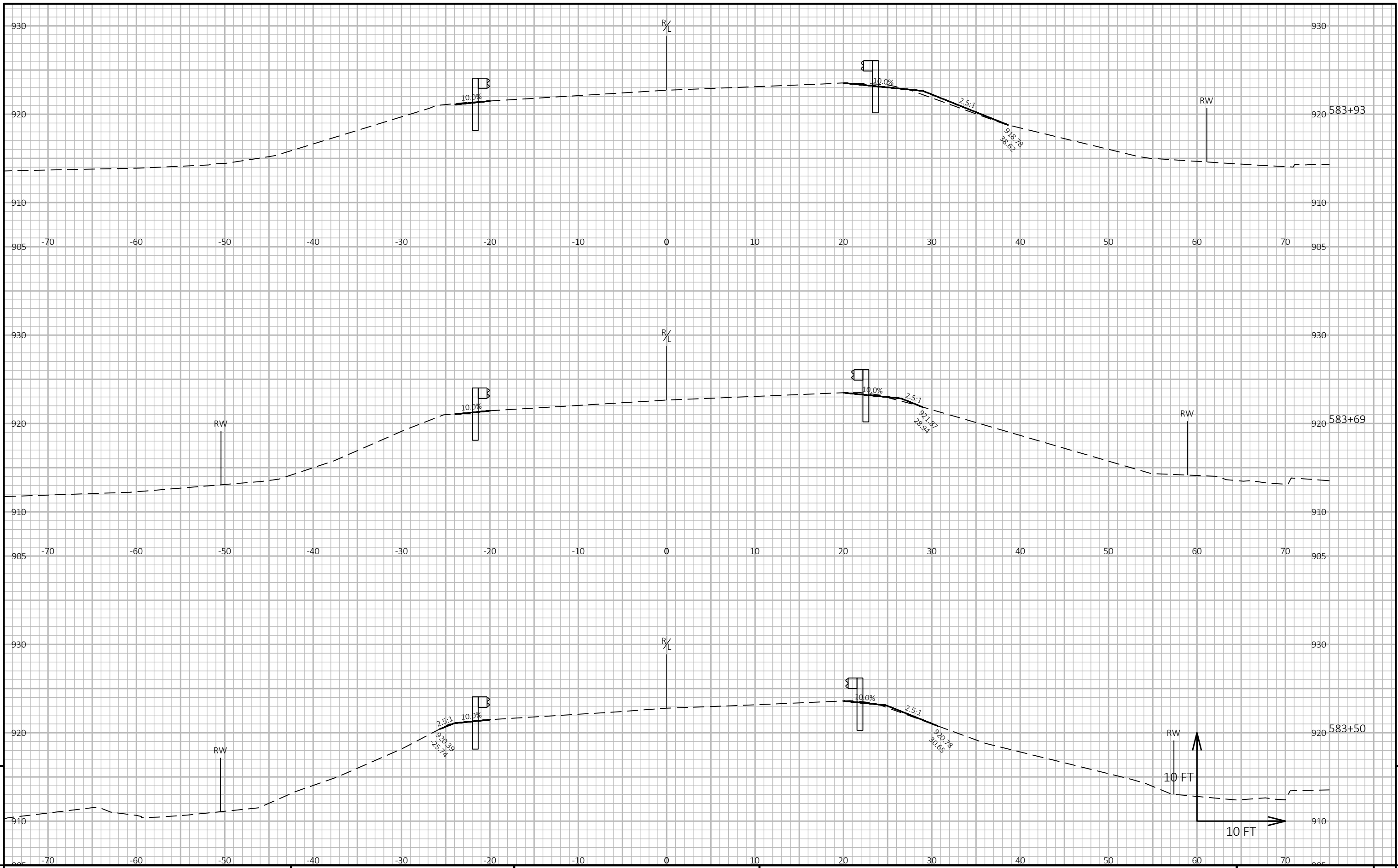
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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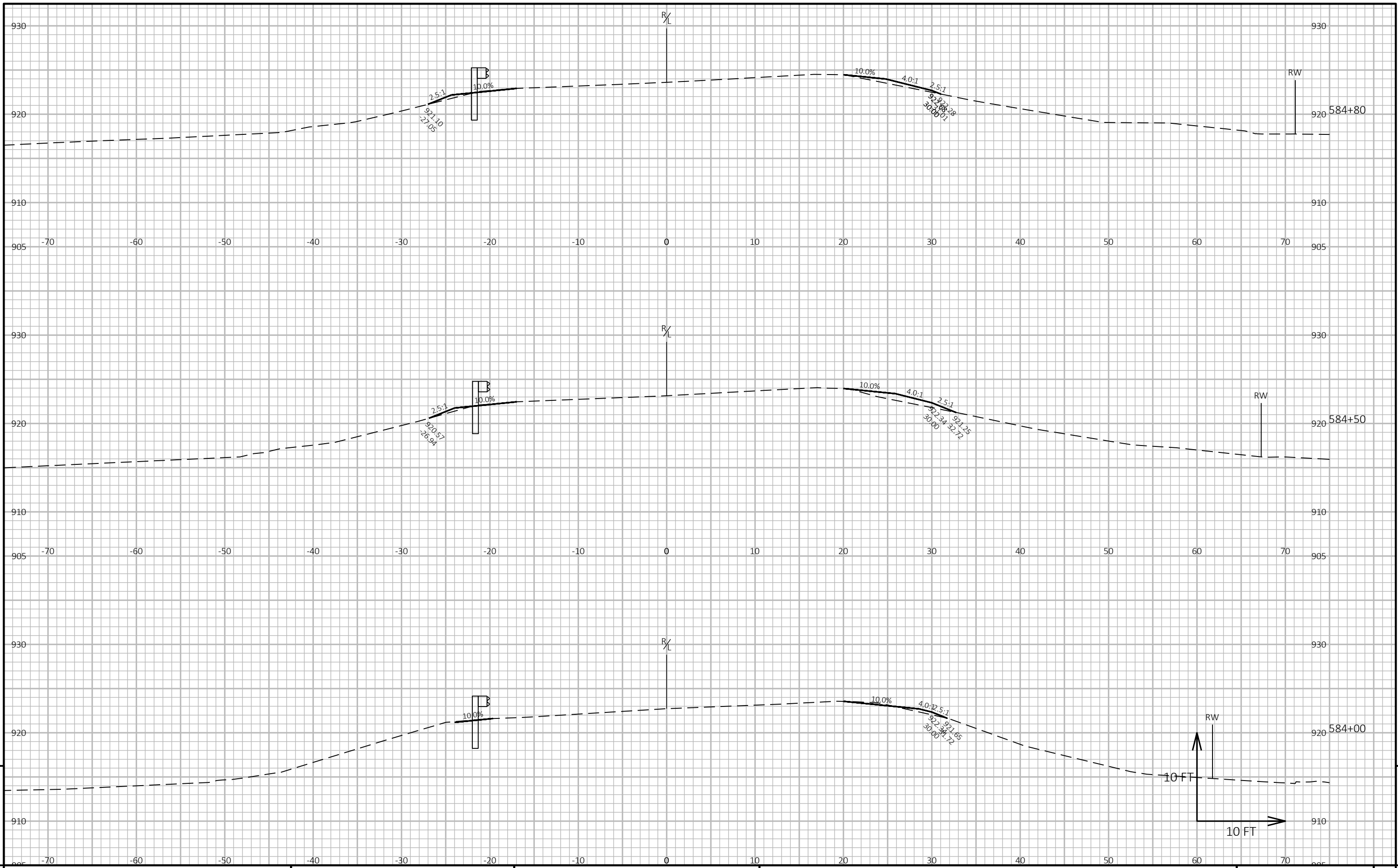
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 LAYOUT NAME - 090248
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 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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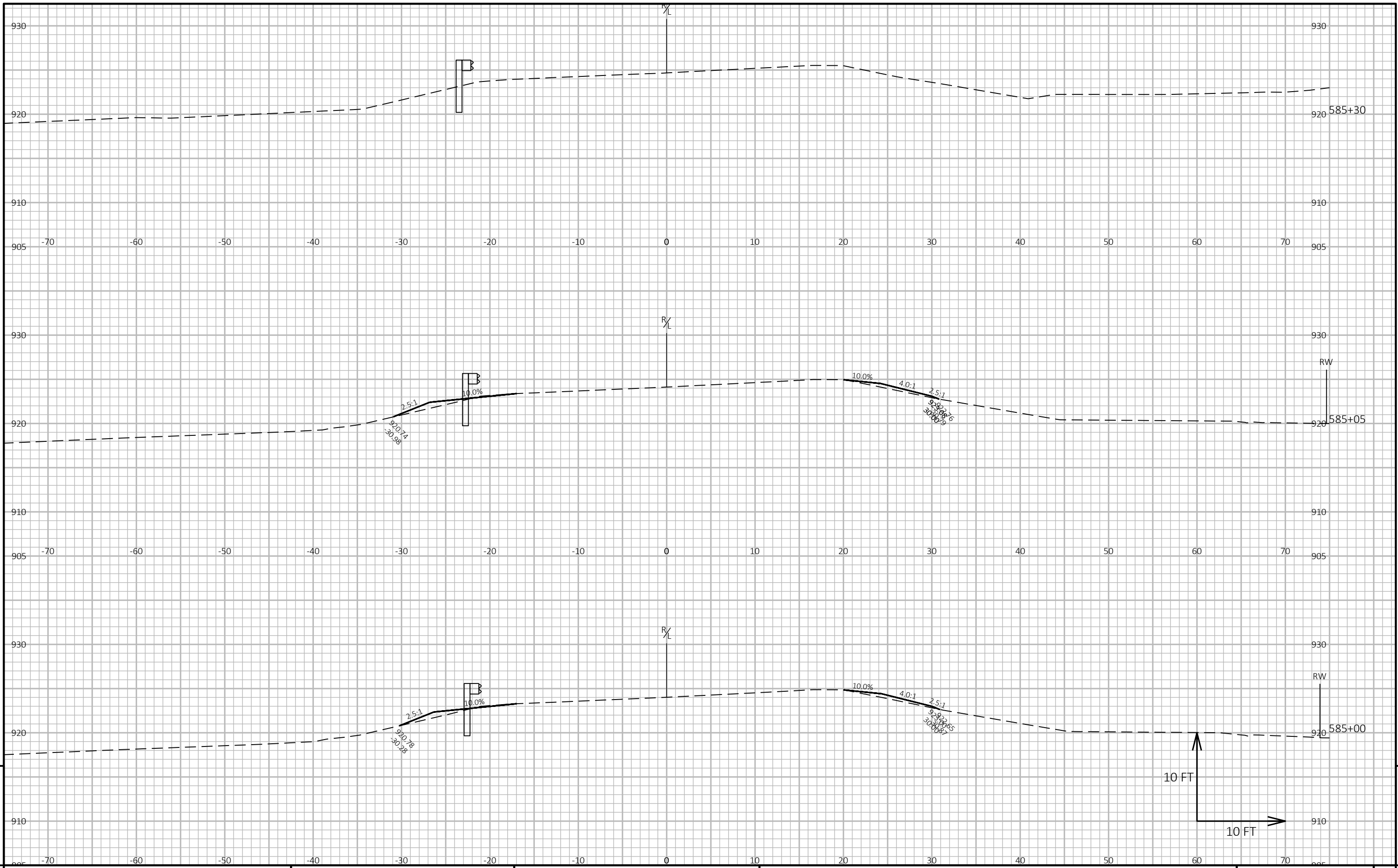
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:17 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090251



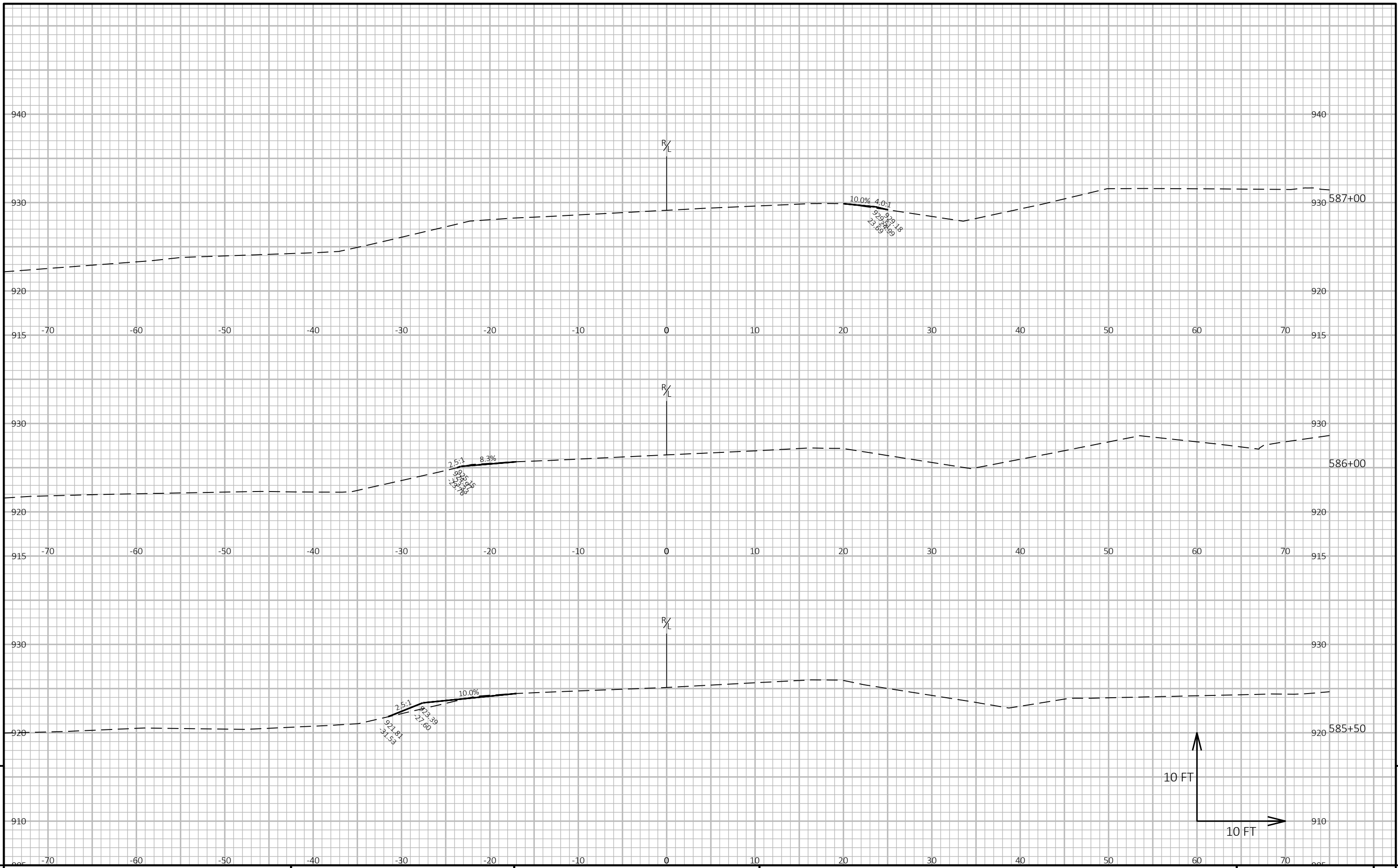
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:17 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090252



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PROJECT NO: 3130-03-71

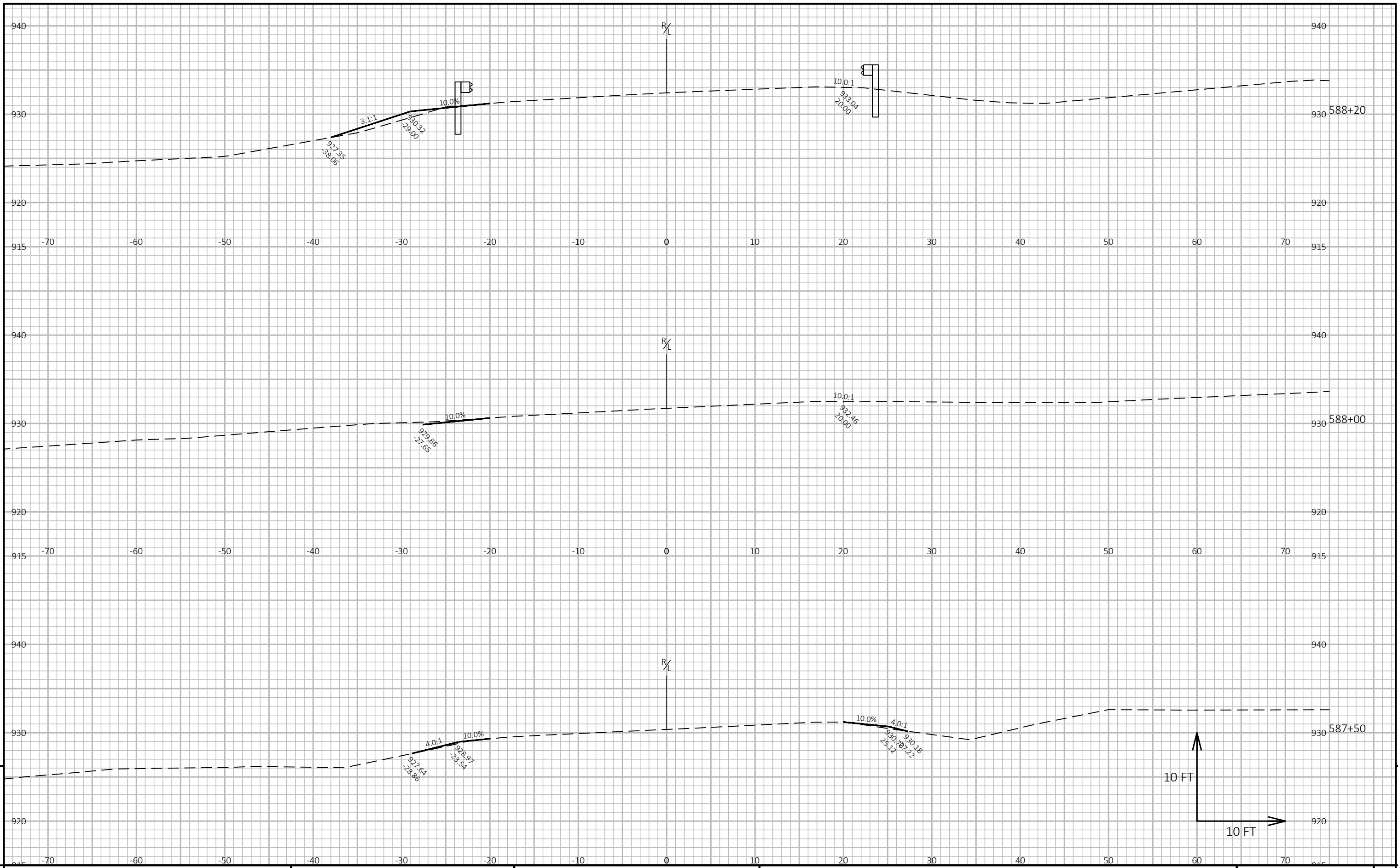
HWY: USH 12

COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

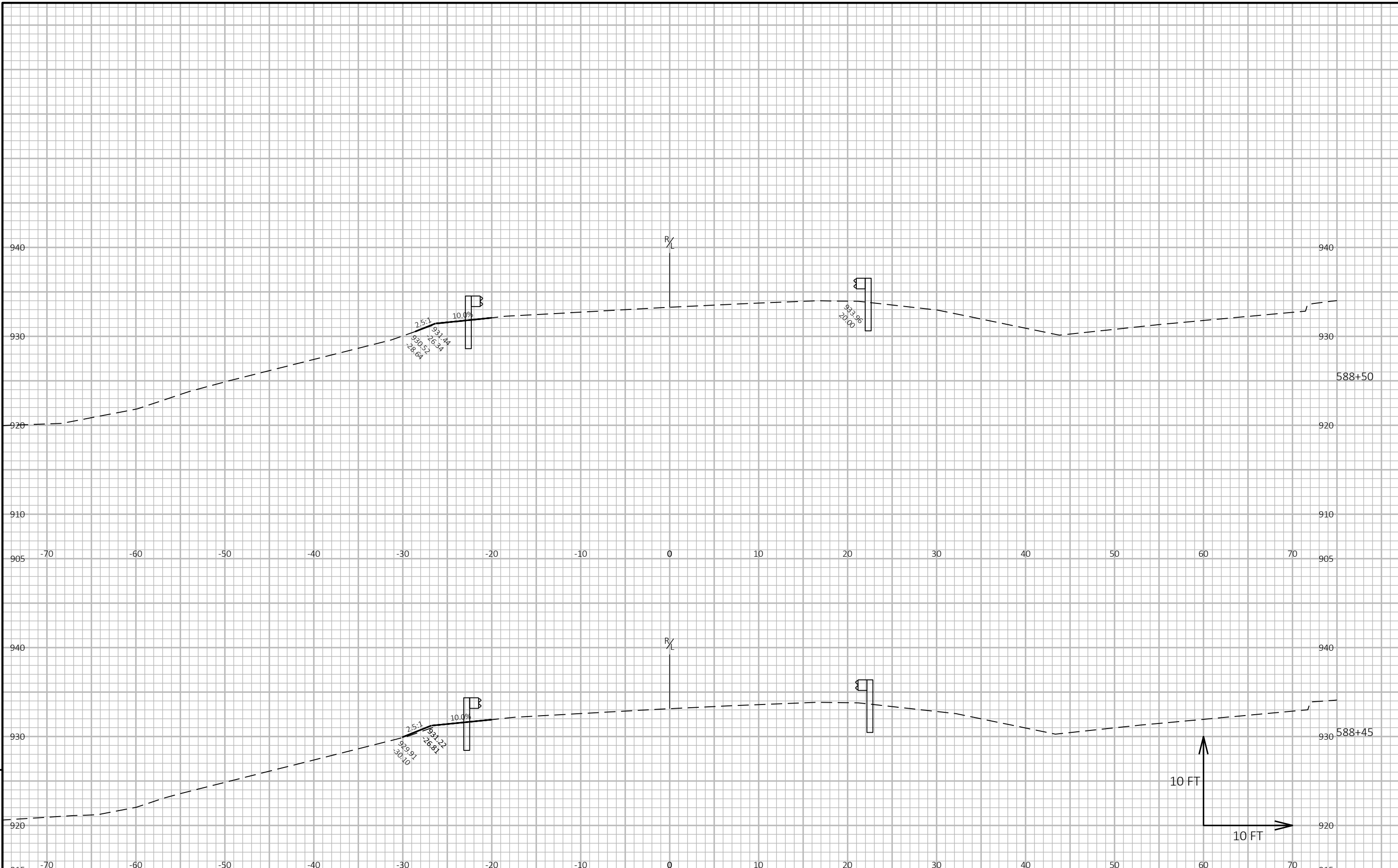
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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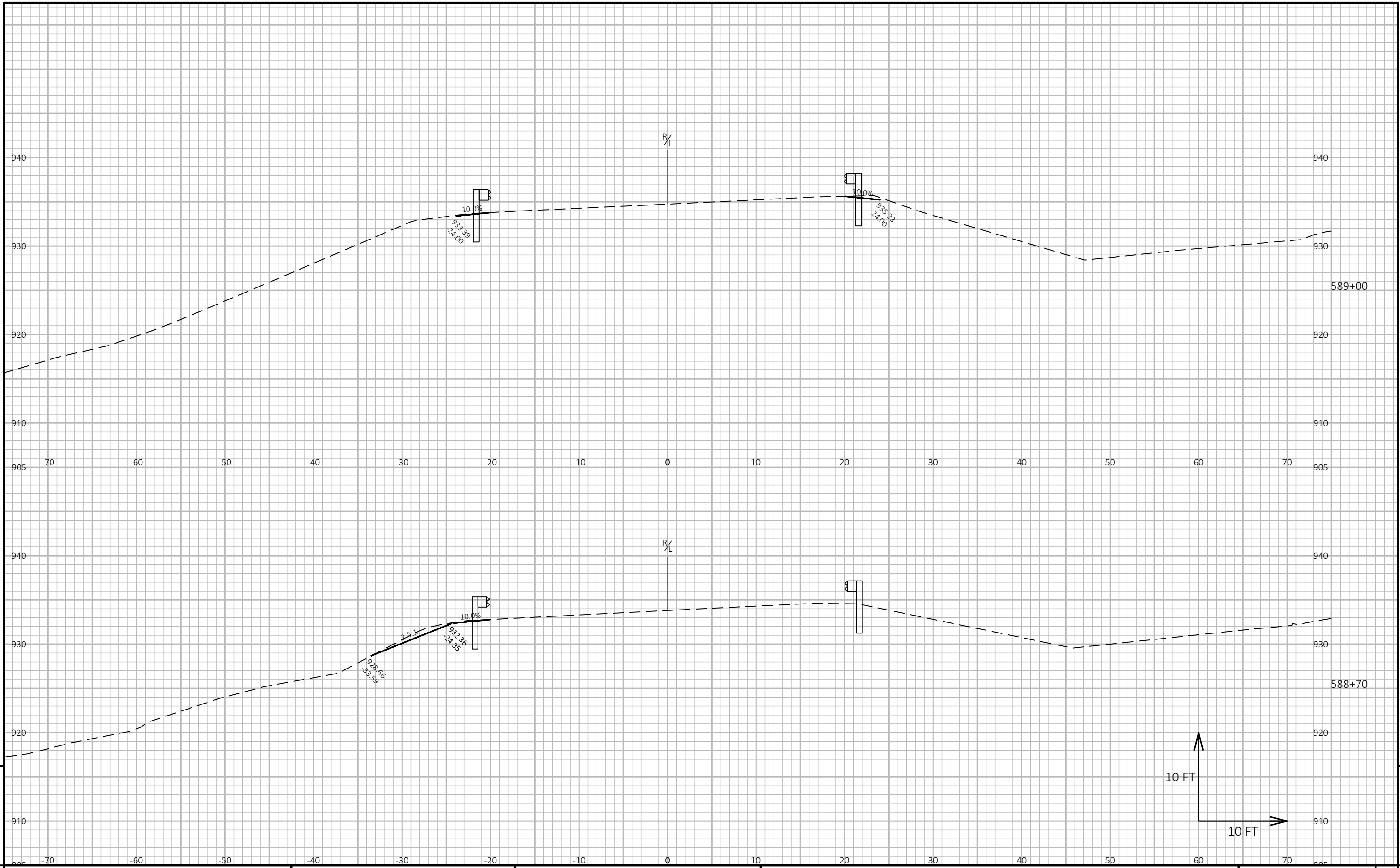


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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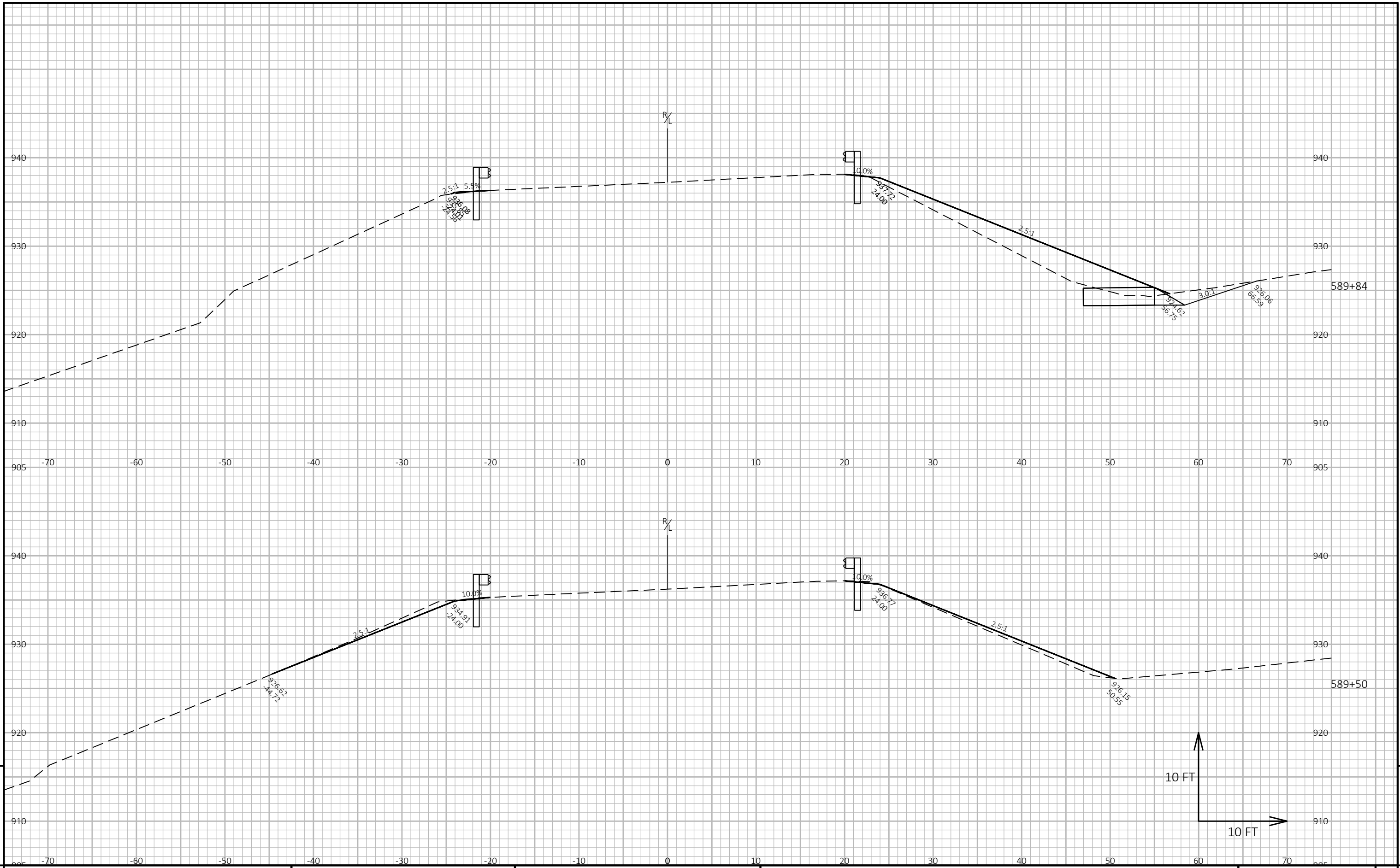
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 PLOT DATE : 7/8/2024 11:18 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



9

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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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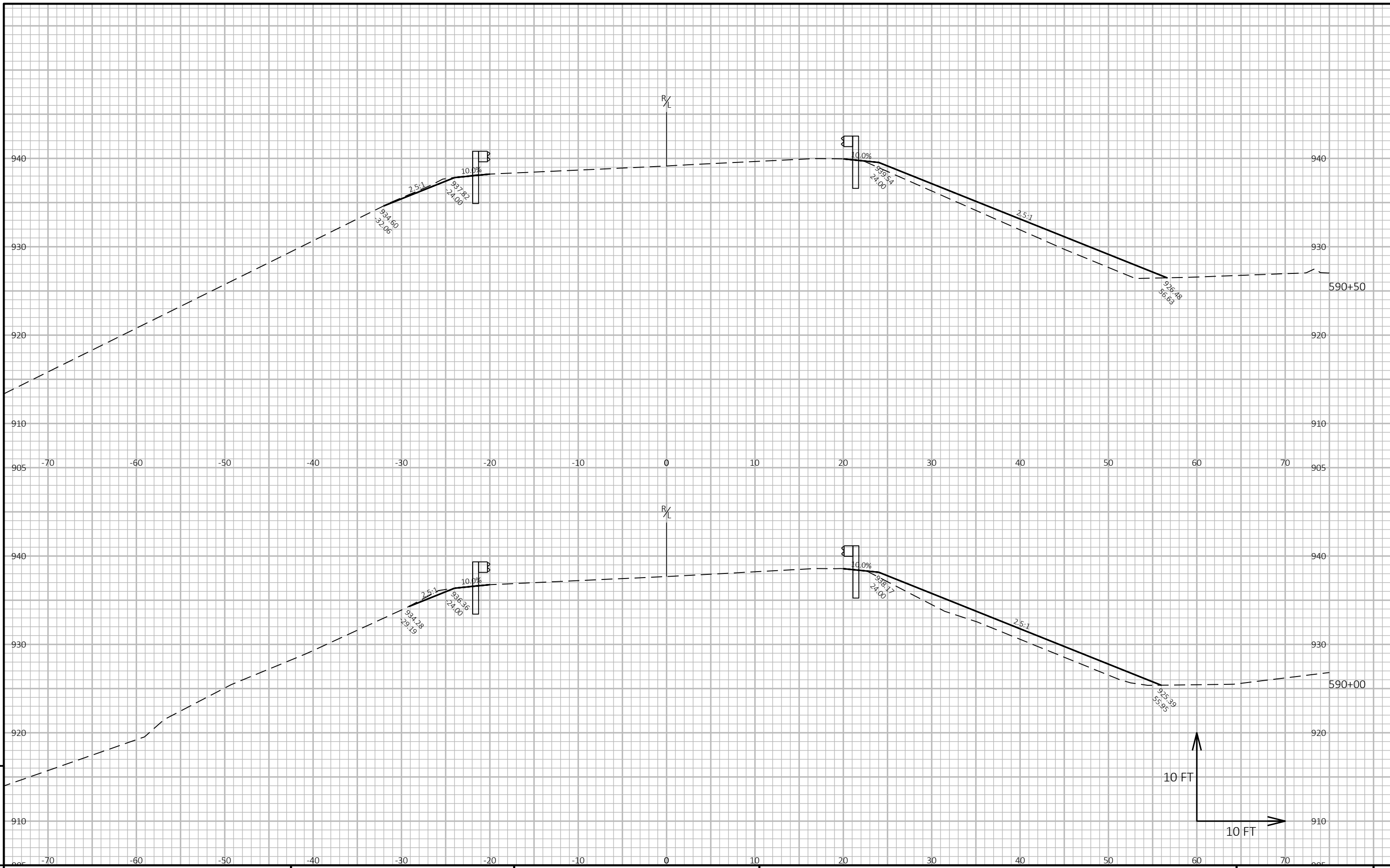


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/17/2024 9:30 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



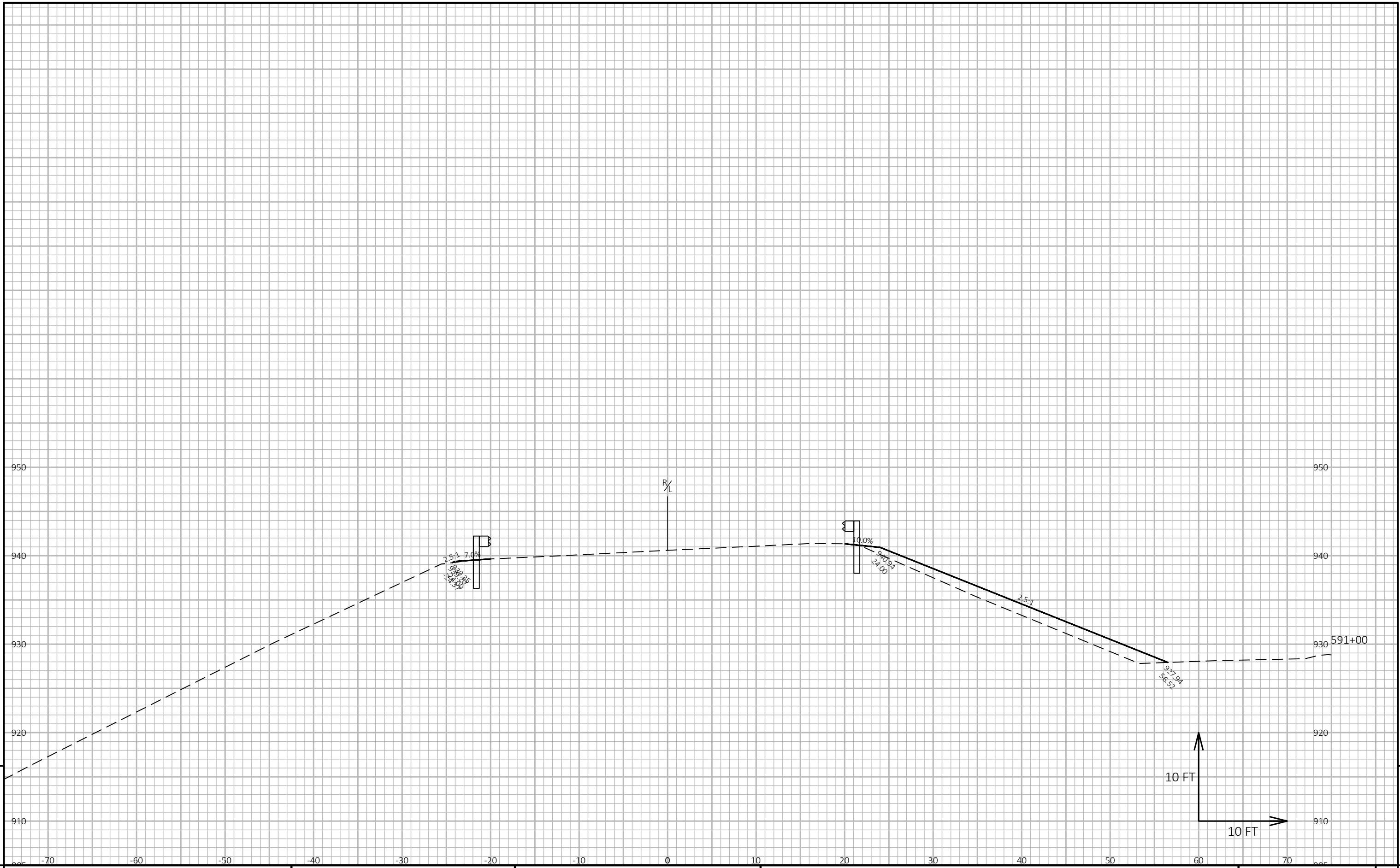
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090258



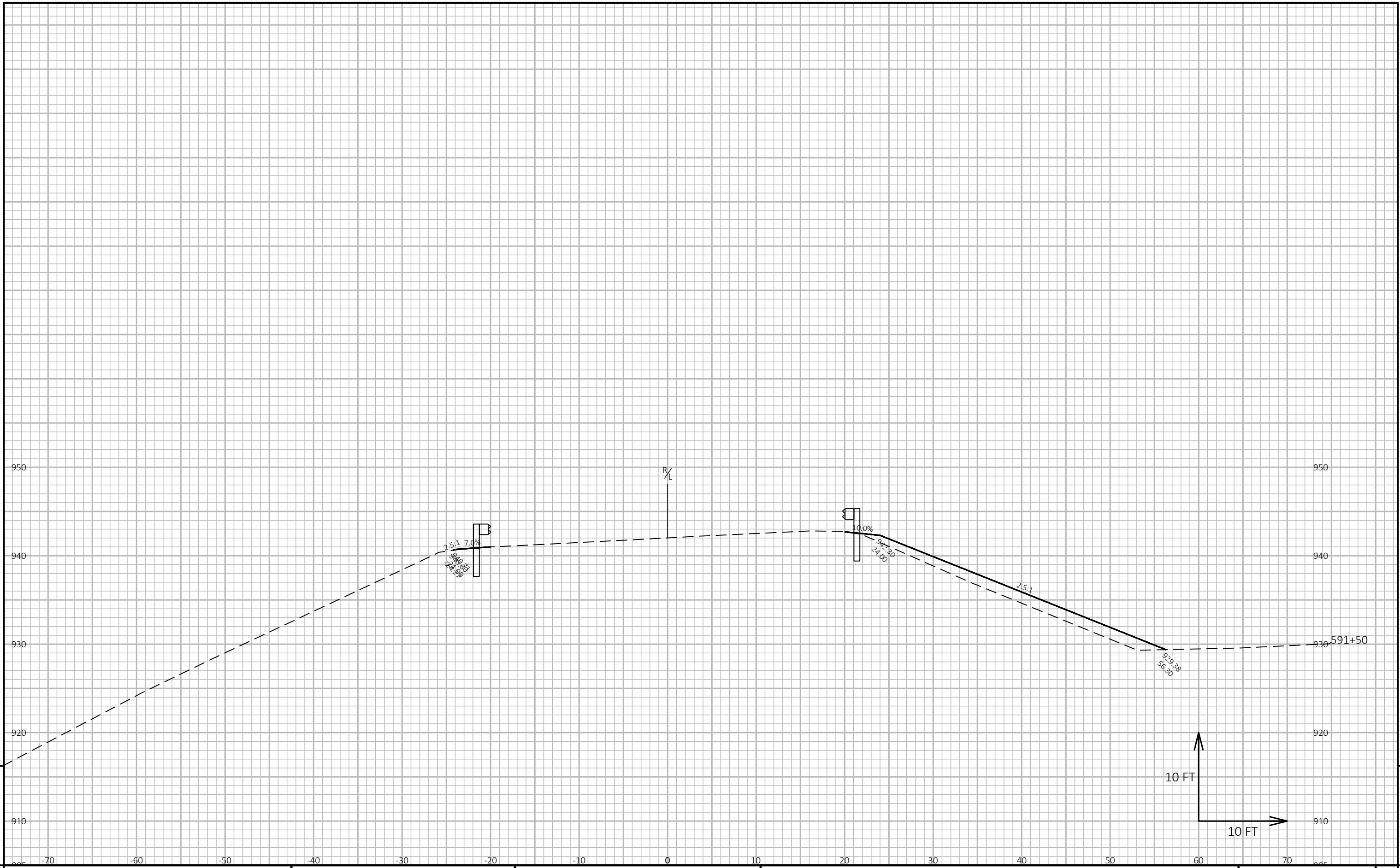
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090259



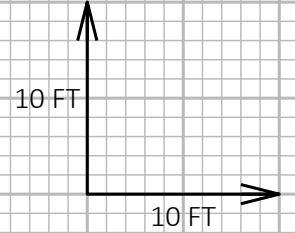
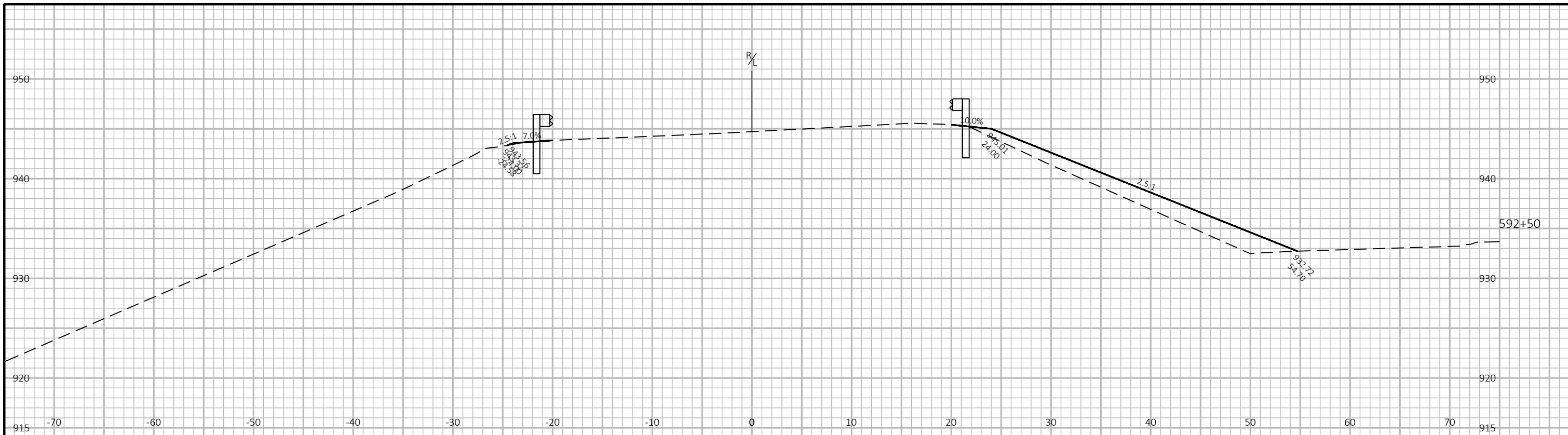
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090260



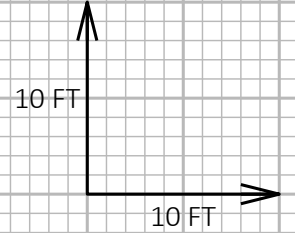
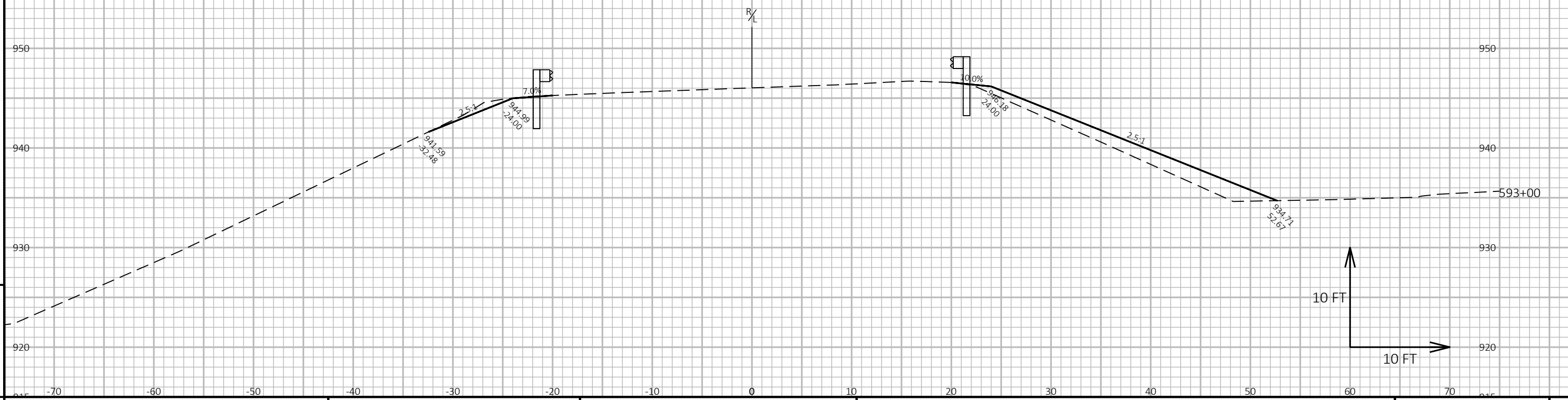
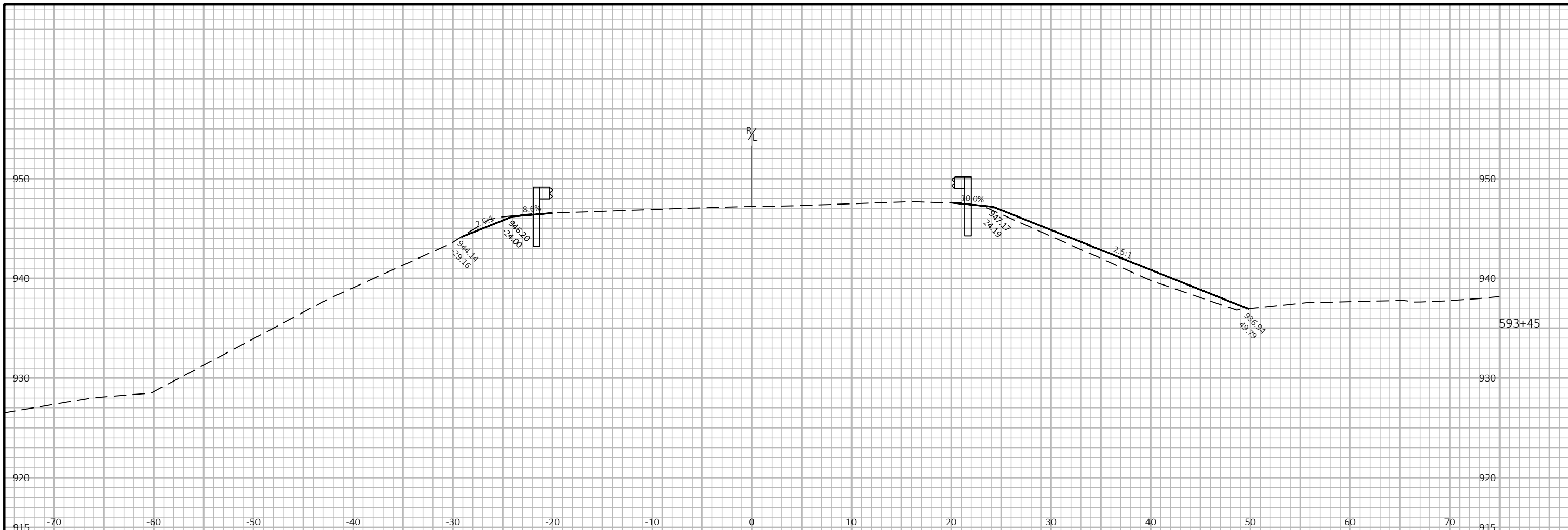
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090261



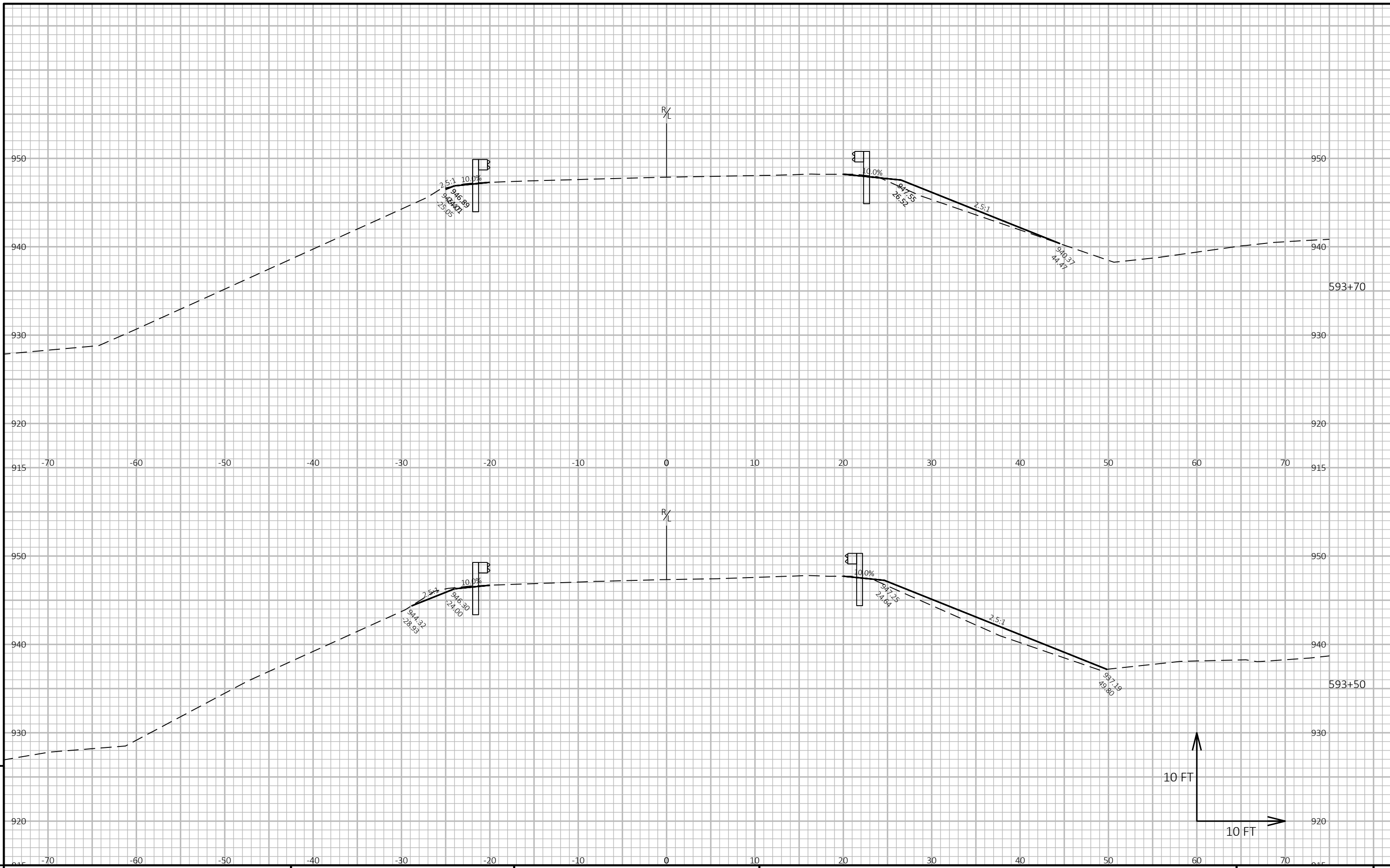
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090262



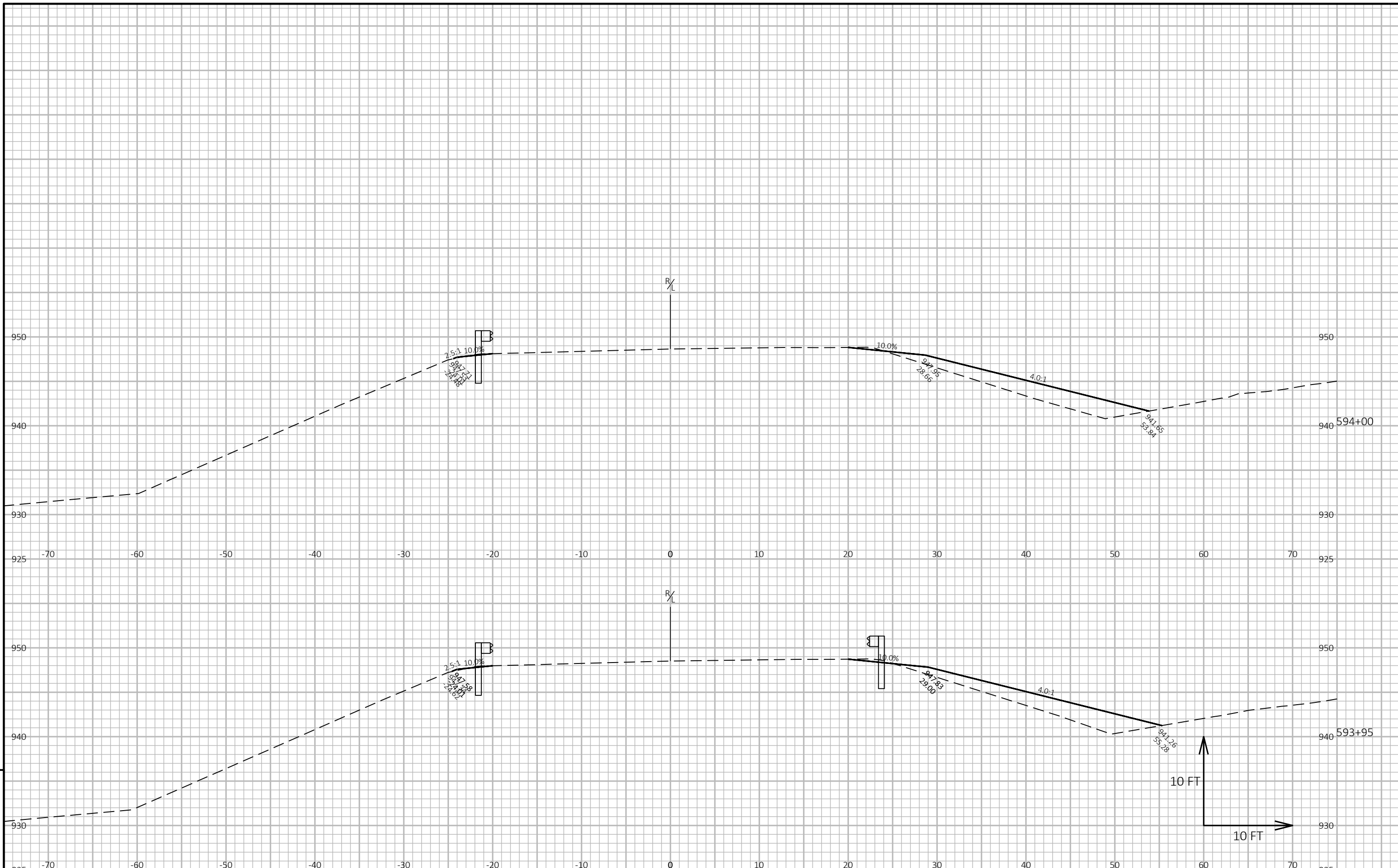
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: USH 12 SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090263

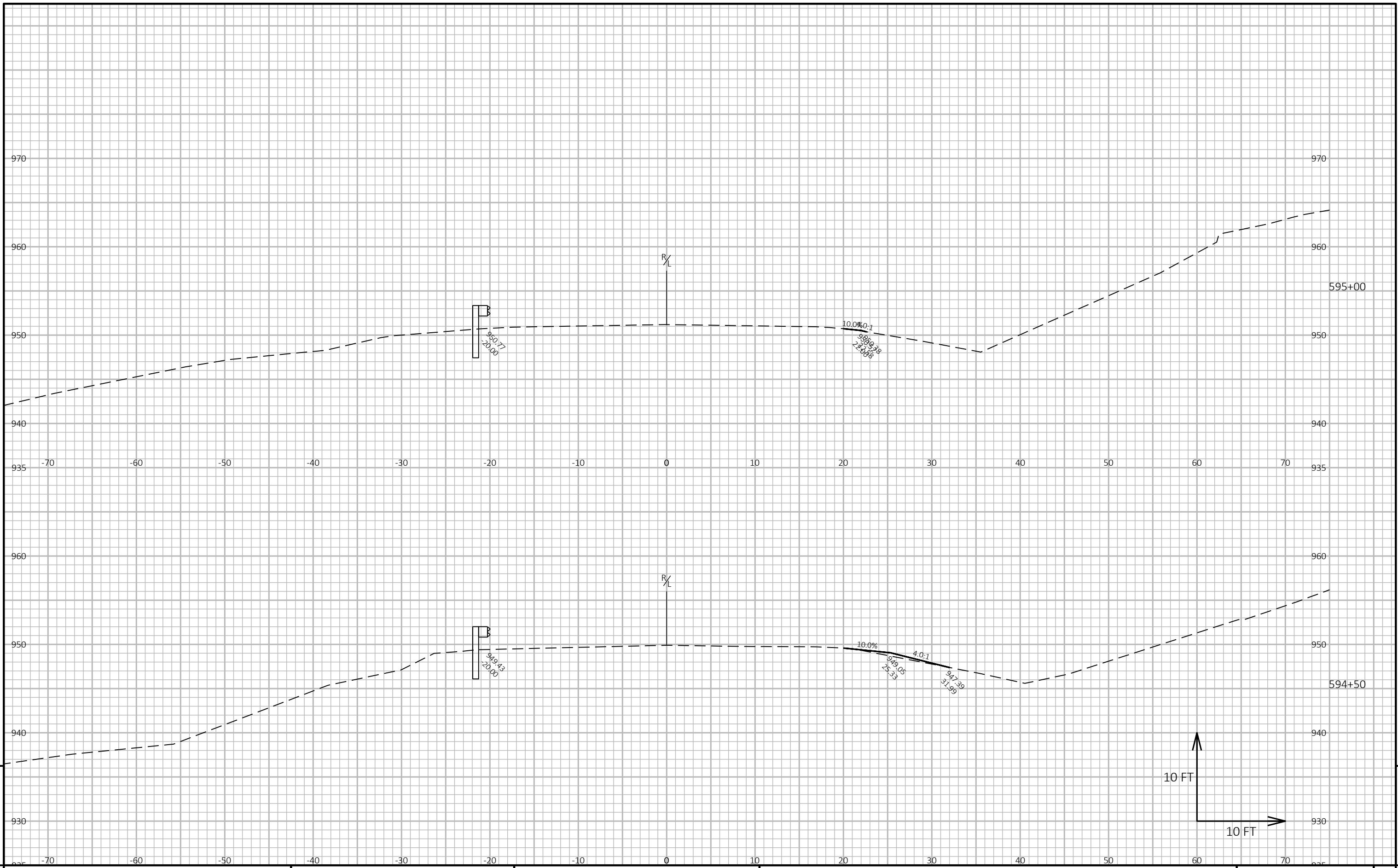


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG
 LAYOUT NAME - 090264
 PLOT DATE : 7/8/2024 11:18 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



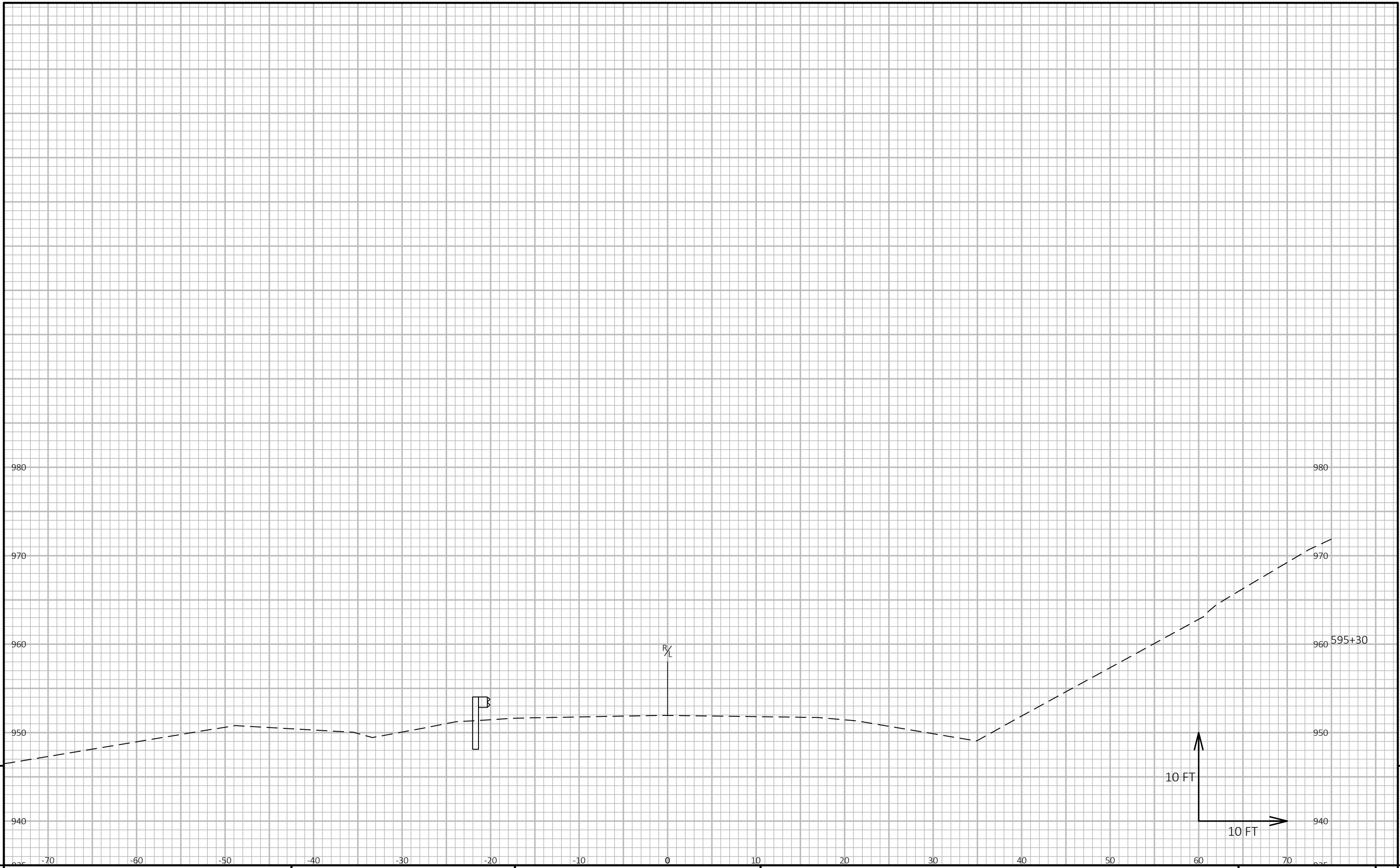
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:18 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090265

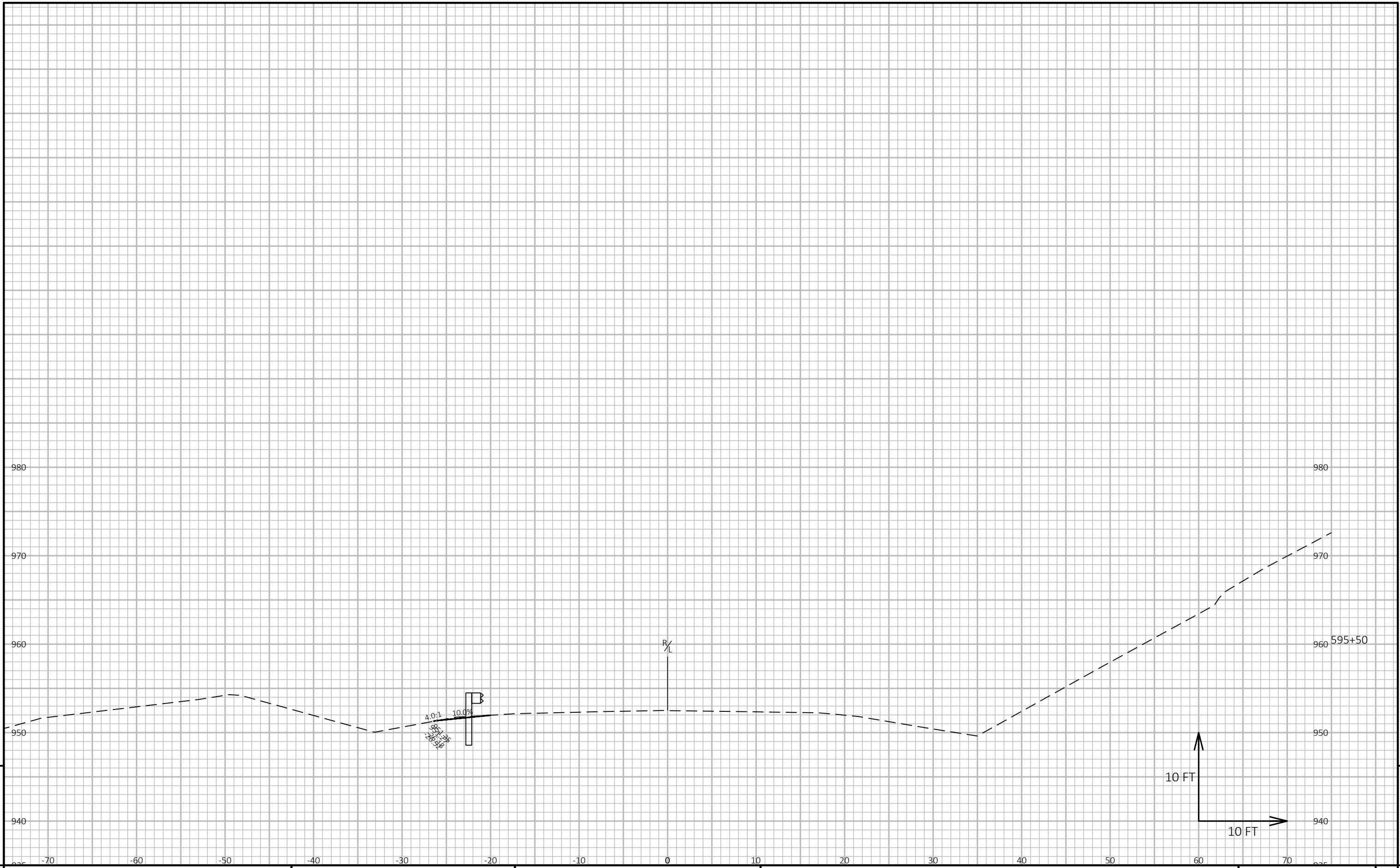


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG
 LAYOUT NAME - 090266
 PLOT DATE : 7/8/2024 11:19 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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 LAYOUT NAME - 090267

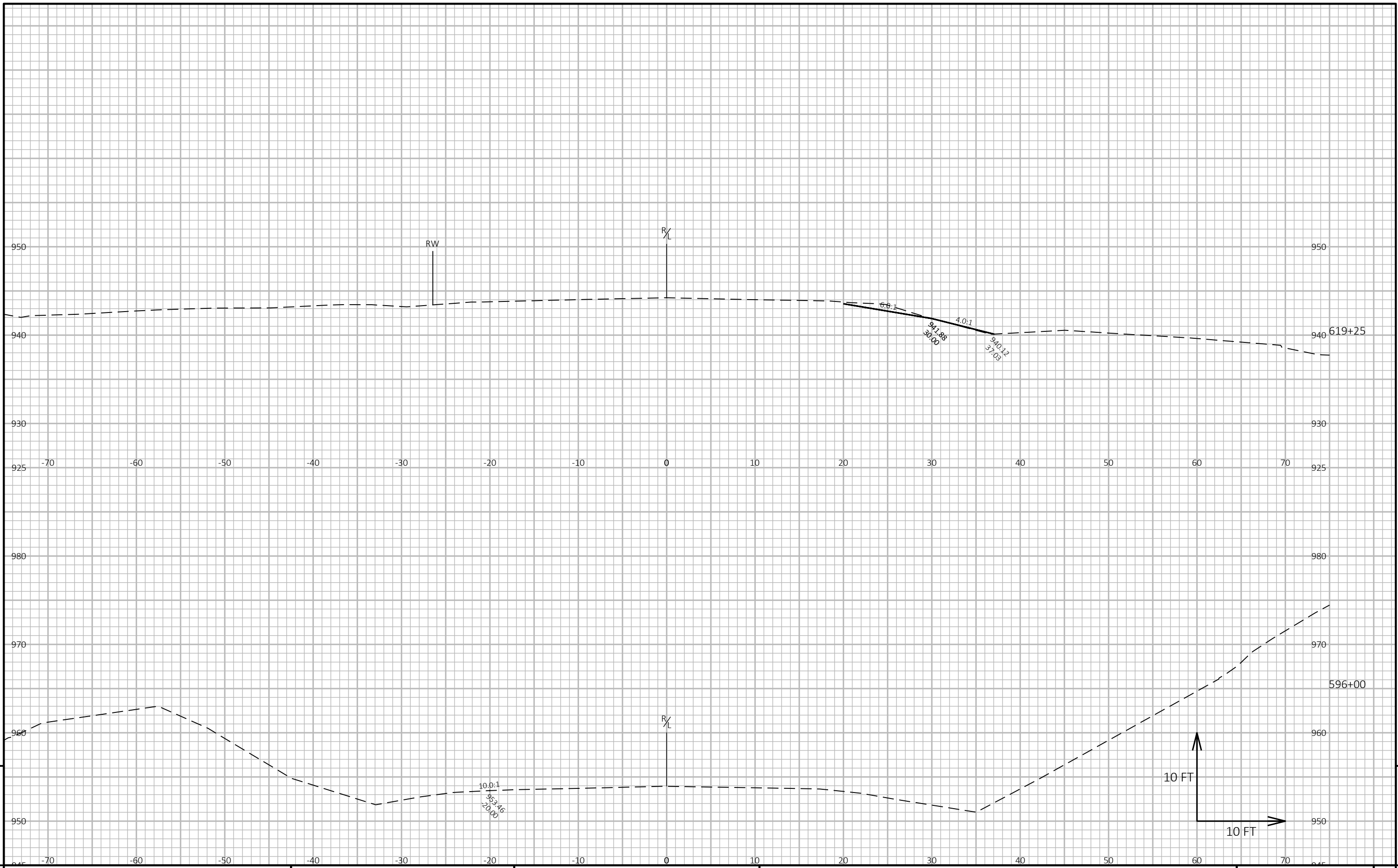
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PLOT BY : TONY BUBLITZ

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD SHEET 49



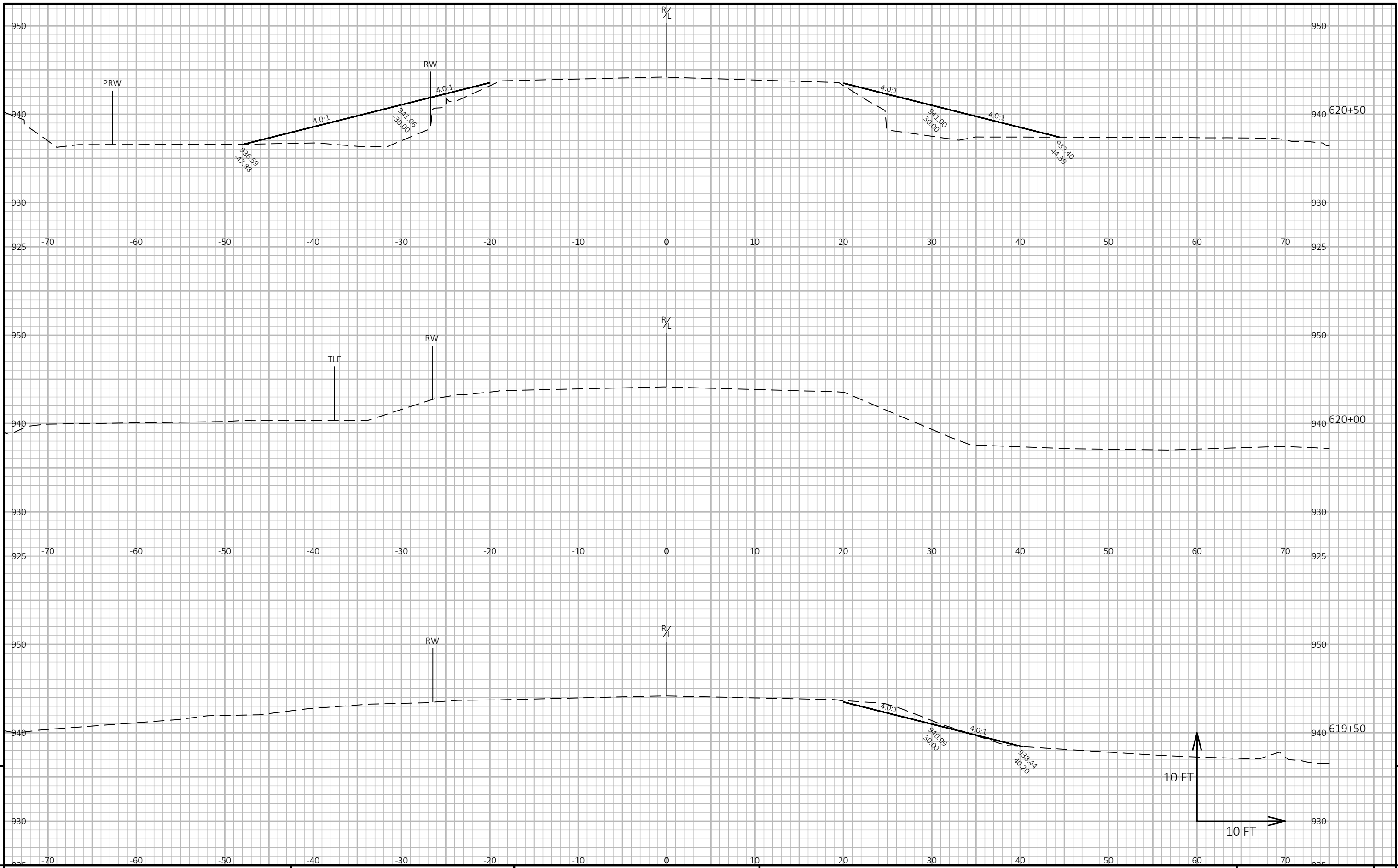
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090201_XS 100.DWG PLOT DATE : 7/8/2024 11:19 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

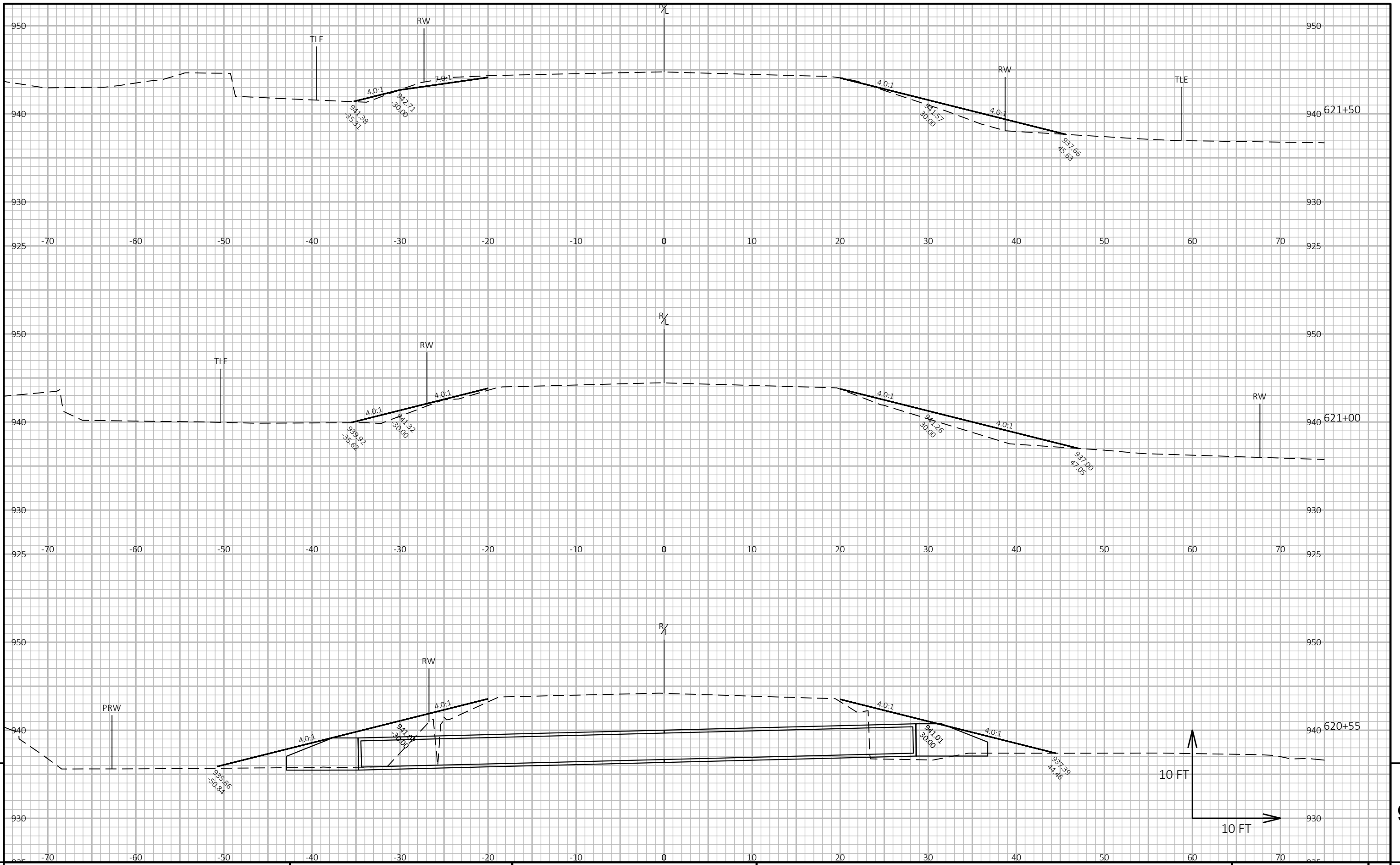
LAYOUT NAME - 090269



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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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PROJECT NO: 3130-03-71

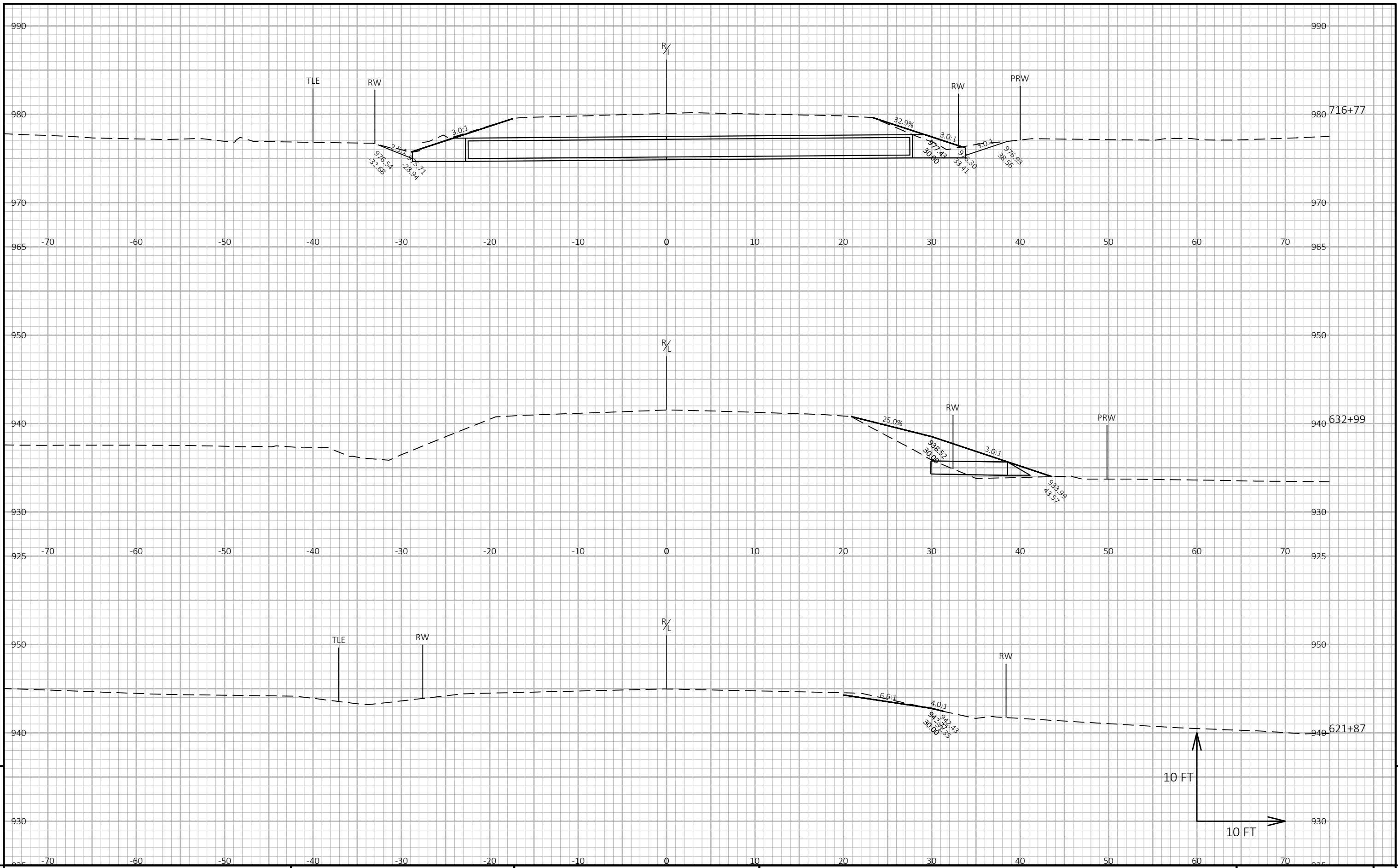
HWY: USH 12

COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

E

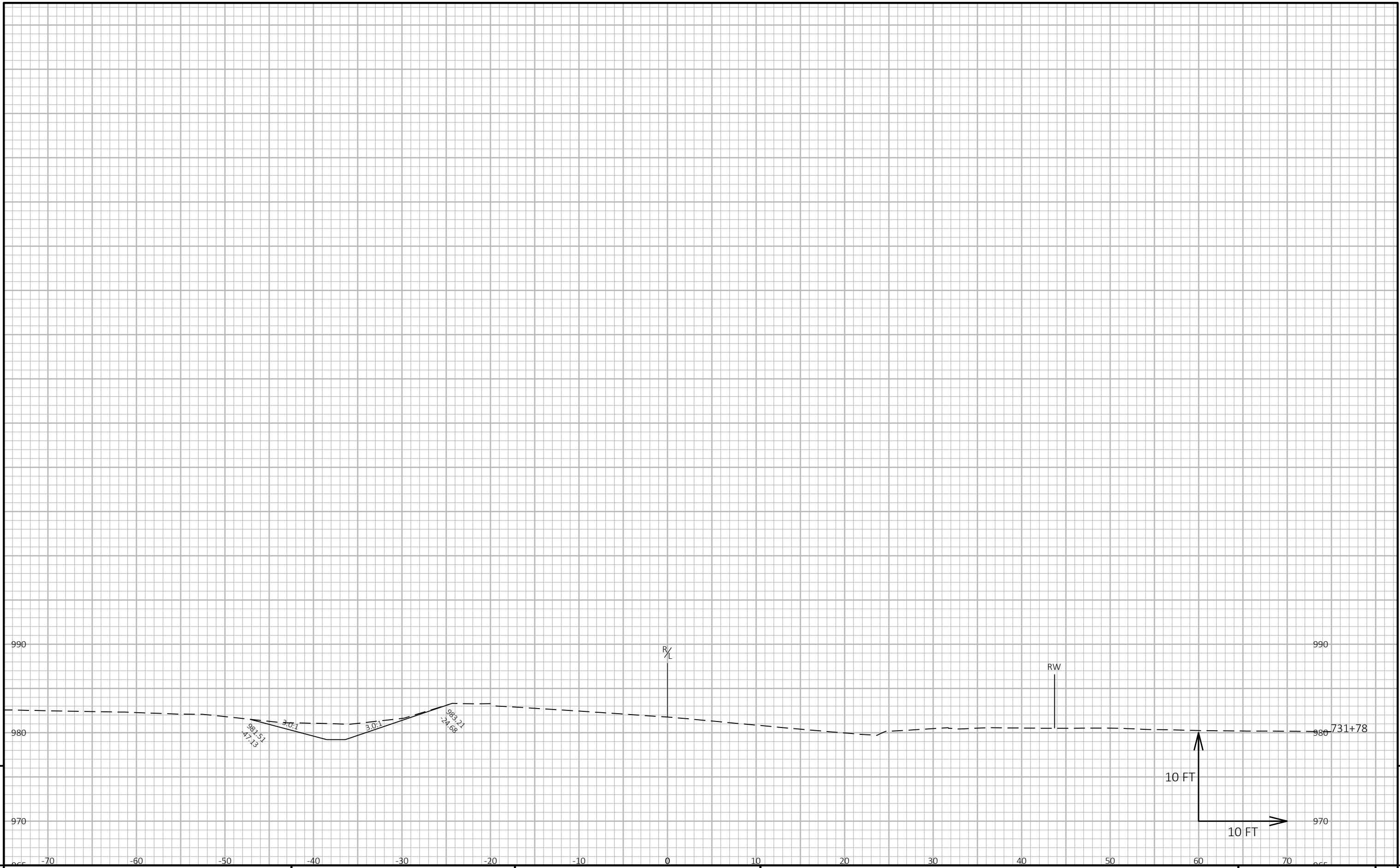


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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090201_XS 100.DWG
 PLOT DATE : 7/17/2024 9:35 AM
 PLOT BY : TONY BUBLITZ
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



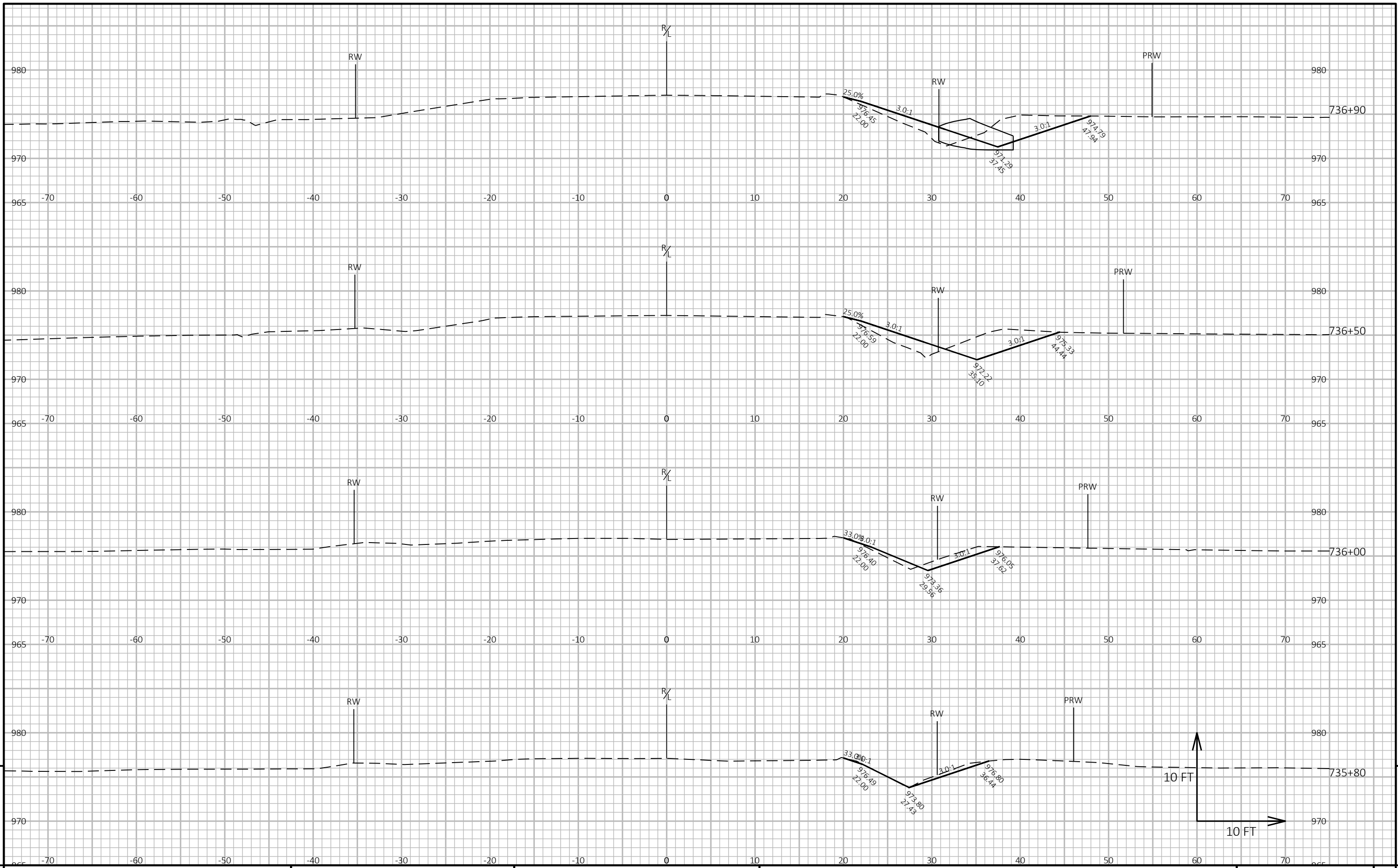
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090203_XS.DWG PLOT DATE : 7/25/2024 7:57 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

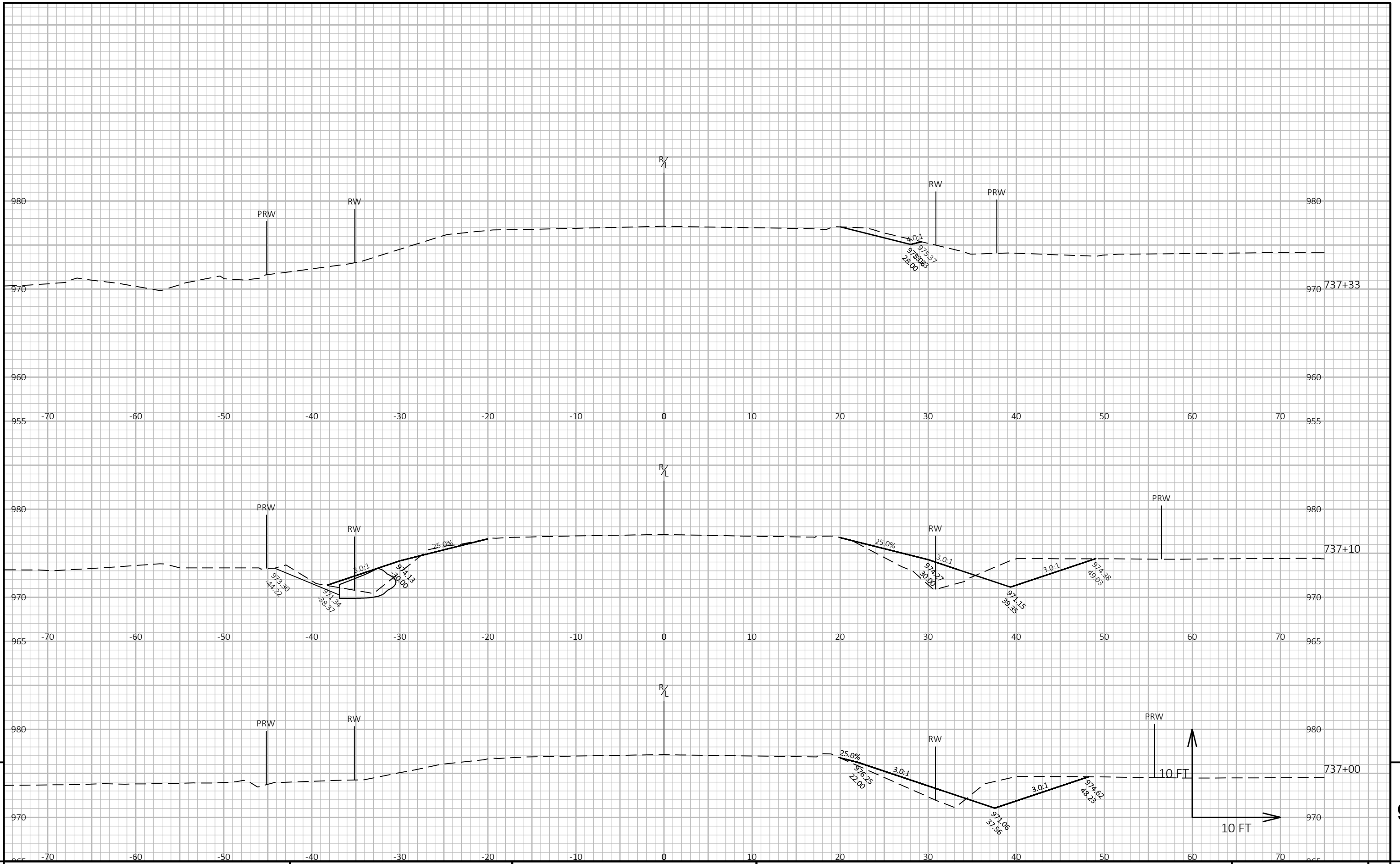
LAYOUT NAME - 03



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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E
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PROJECT NO: 3130-03-71

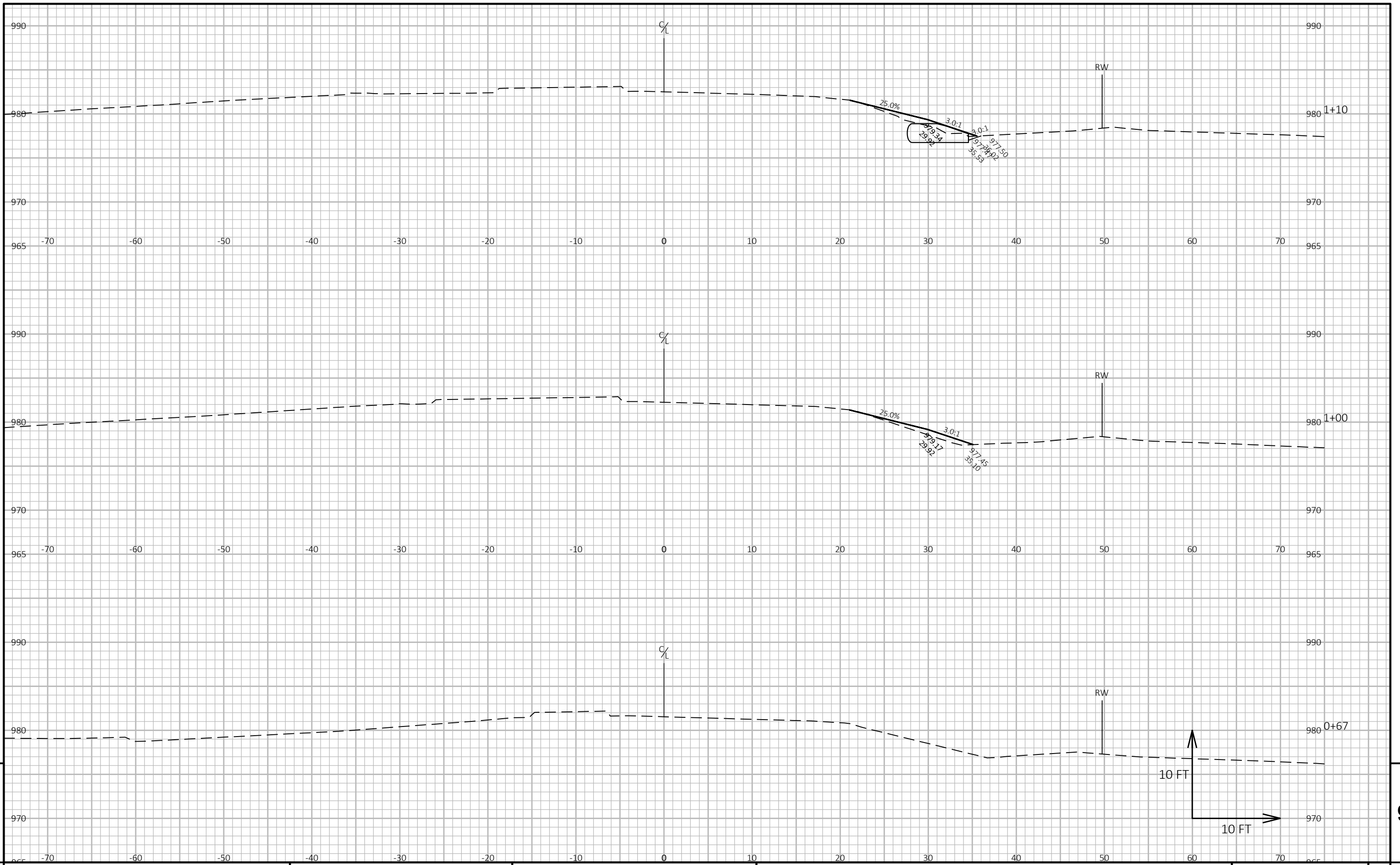
HWY: USH 12

COUNTY: WALWORTH

CROSS SECTIONS: USH 12

SHEET

E



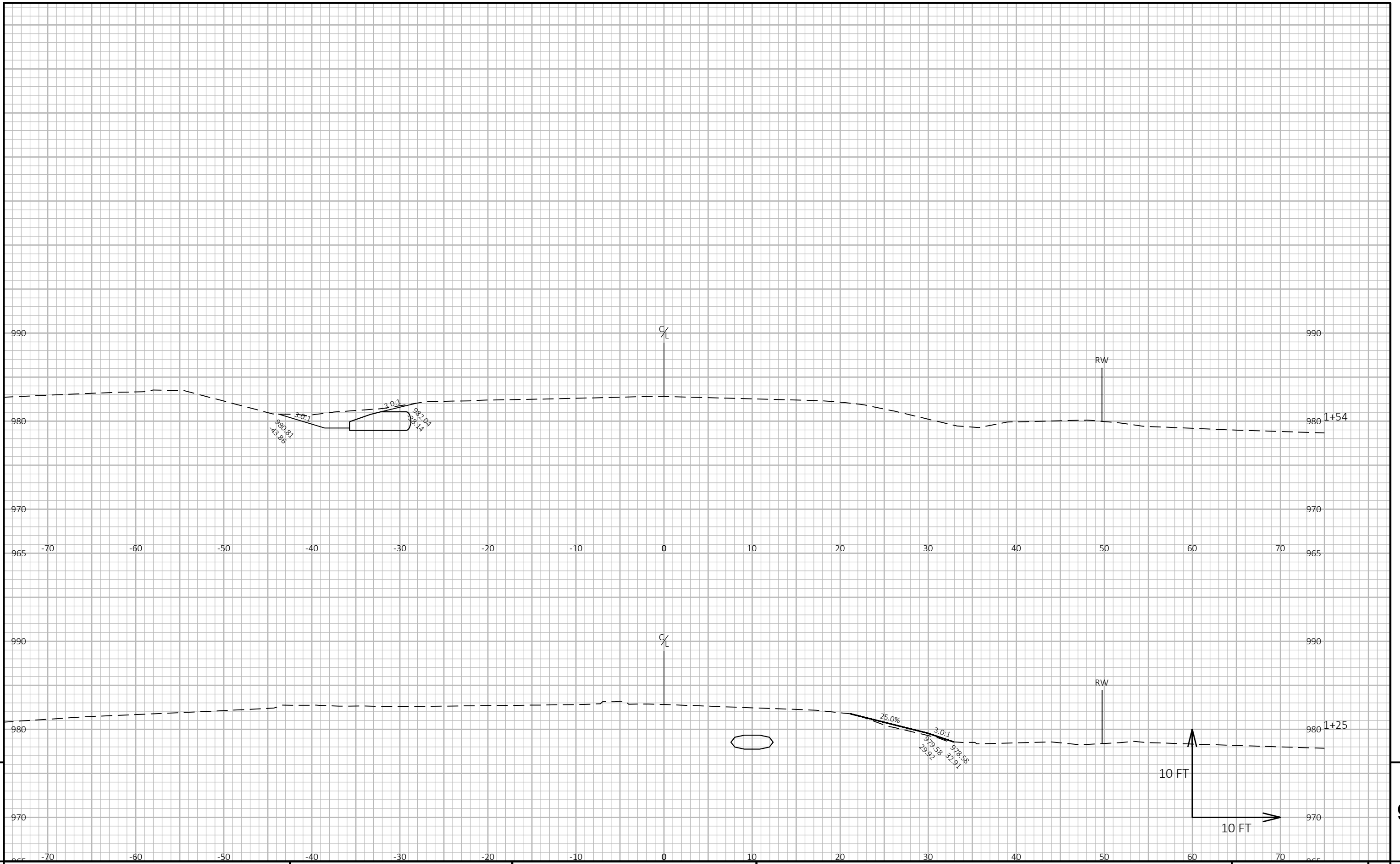
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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: STH 67	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090203_XS.DWG PLOT DATE : 7/23/2024 11:33 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 01



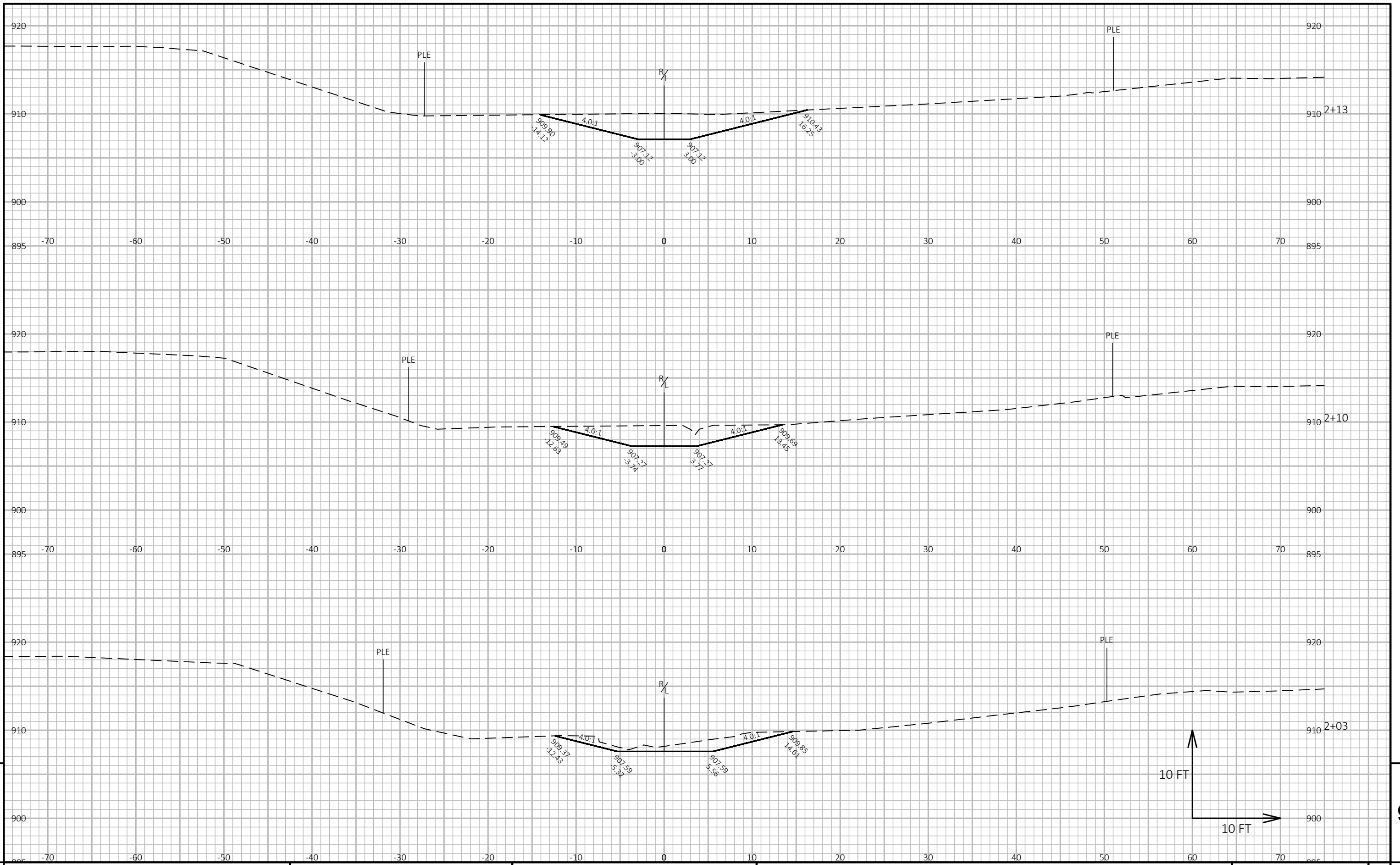
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: STH 67 SHEET E

FILE NAME: L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090203_XS.DWG PLOT DATE: 7/25/2024 7:56 AM PLOT BY: TONY BUBLITZ PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 02



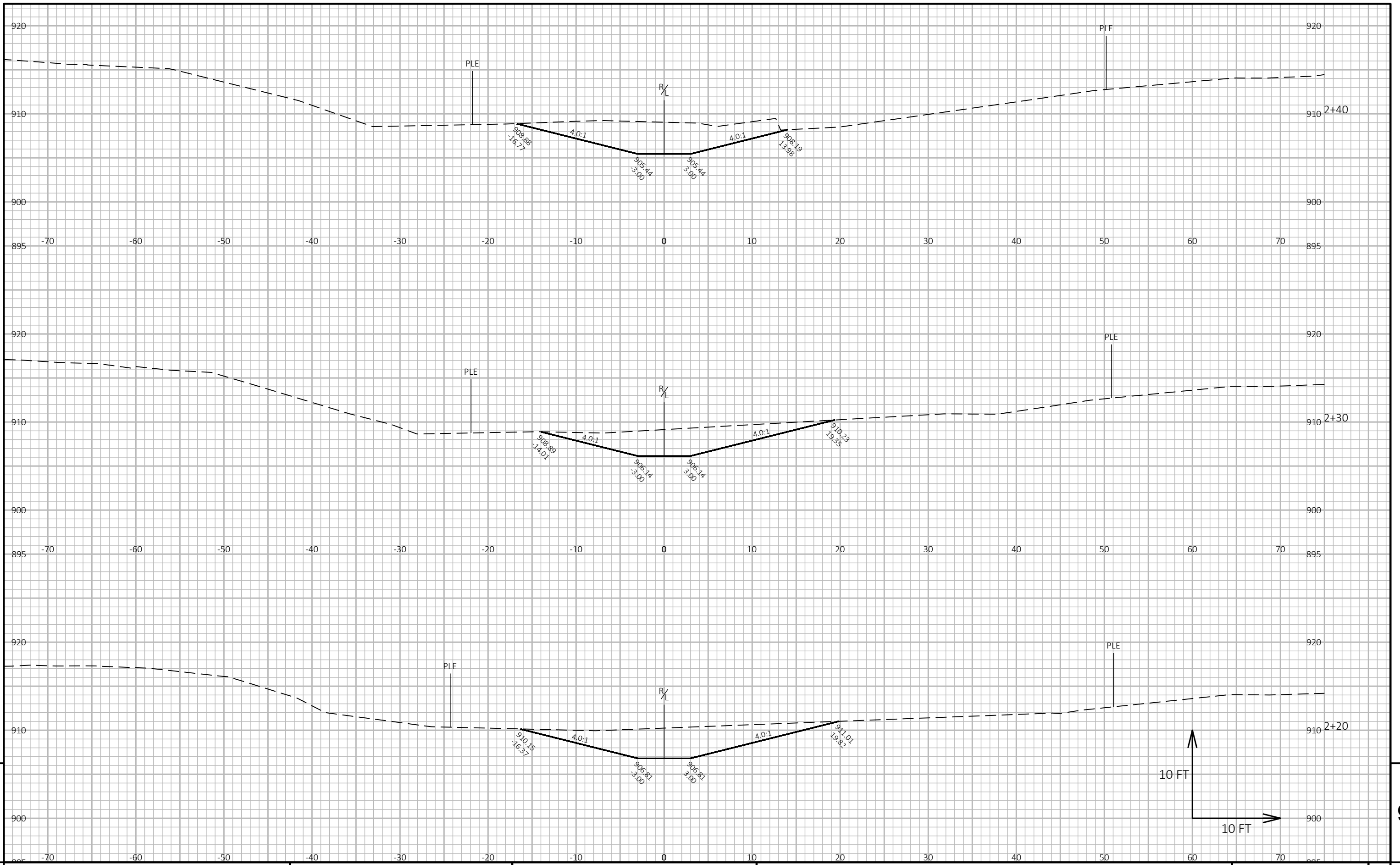
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: C-64-092 OUTFALL SHEET E

FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETS\PLAN\090202_XS.DWG PLOT DATE : 2/22/2024 2:40 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090291



PROJECT NO: 3130-03-71

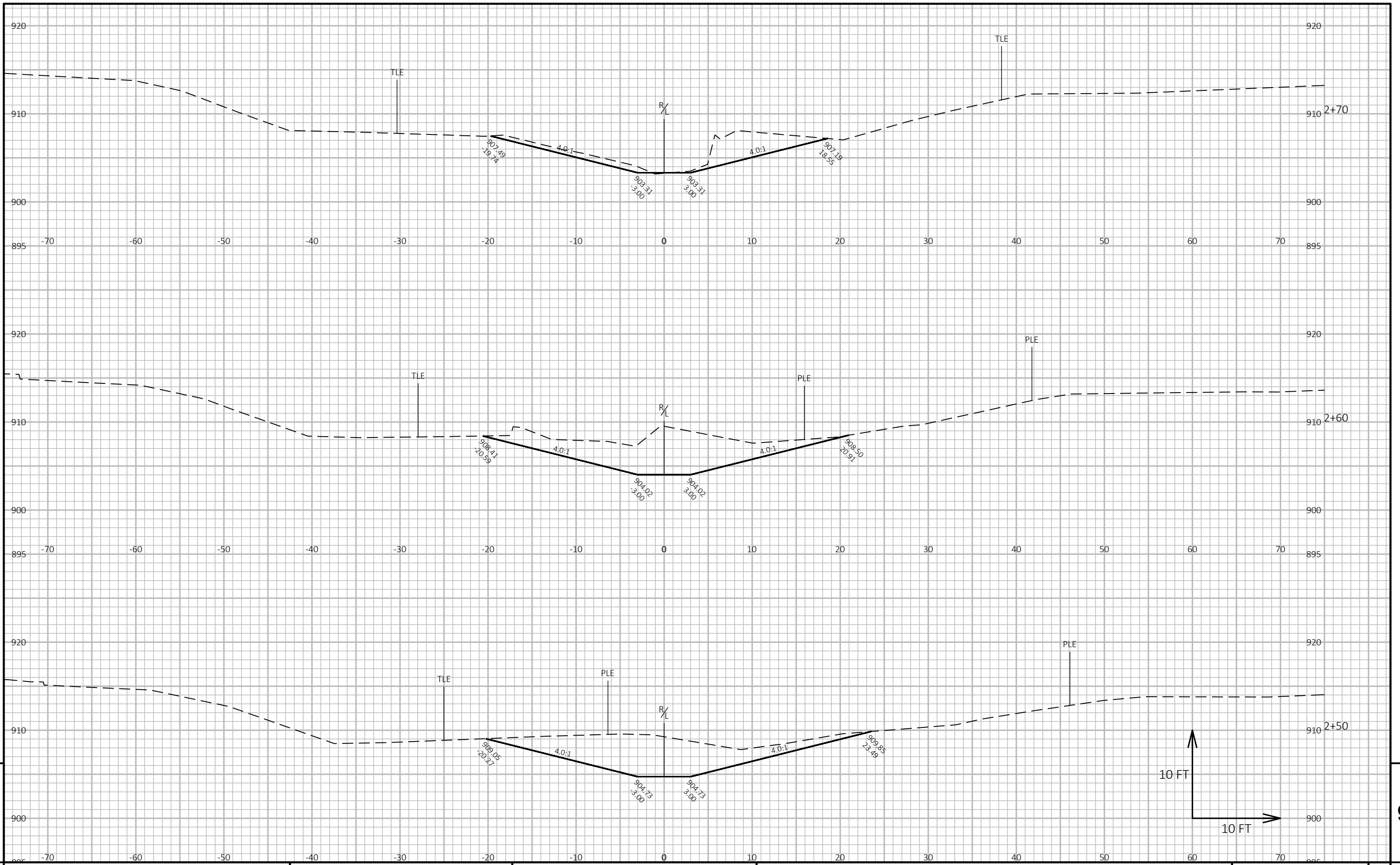
HWY: USH 12

COUNTY: WALWORTH

CROSS SECTIONS: C-64-092 OUTFALL

SHEET

E



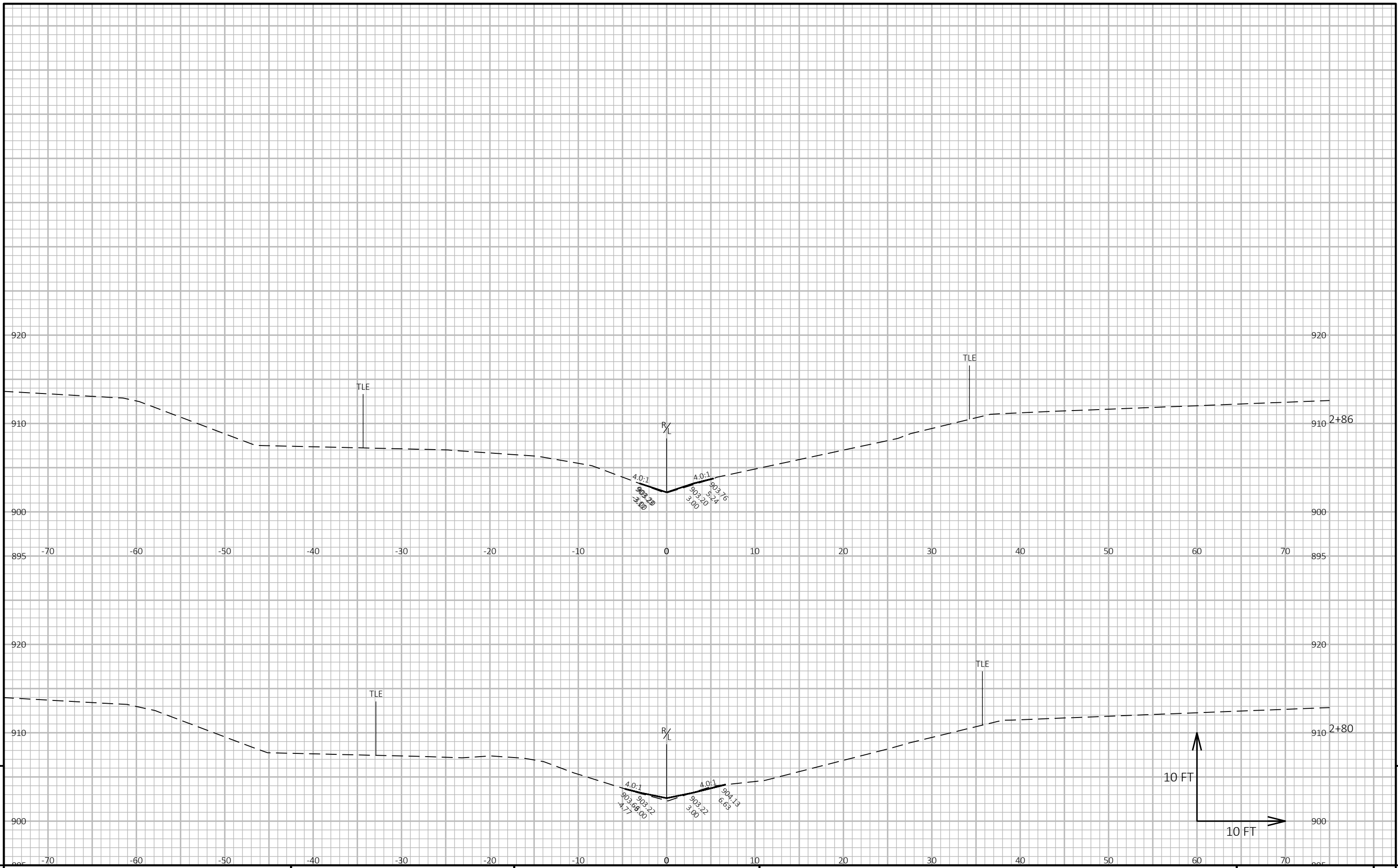
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PROJECT NO: 3130-03-71 HWY: USH 12 COUNTY: WALWORTH CROSS SECTIONS: C-64-092 OUTFALL SHEET E

FILE NAME: L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090202_XS.DWG PLOT DATE: 2/22/2024 2:40 PM PLOT BY: TONY BUBLITZ PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090293



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PROJECT NO: 3130-03-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: C-64-092 OUTFALL	SHEET	E
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FILE NAME : L:\DESIGN PROJECTS\3130-03-01 USH 12\10. ROADWAY\CADD\SHEETSPLAN\090202_XS.DWG PLOT DATE : 2/22/2024 2:40 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090294

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>