



Wisconsin Department of Transportation

November 19, 2024

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #18: 4540-34-71, WISC 2025107
Cedar Grove – Sheboygan Falls
CTH D – STH 28
STH 32
Sheboygan County

4540-36-71, WISC 2025108
Cedar Grove – Sheboygan Falls
CTH D – STH 28
STH 32
Sheboygan County

Letting of December 10, 2024

This is Addendum No. 01, which provides for the following:

Plan Sheets:

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
290A-290F	C-59-117
290G-290L	C-59-118
290M-290R	C-59-119
290S-290Y	C-59-121

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

END OF ADDENDUM

STATE PROJECT NUMBER
4540-34-71

DESIGN DATA

LIVE LOAD: HI-93
DESIGN LOADING: RF = 1.12
OPERATING RATING: RF = 1.45
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)
EARTHLOAD: DESIGNED FOR 2.5 TO 8.0 FT. OF FILL
MATERIAL PROPERTIES:
CONCRETE MASONRY: $f'_c = 3,500$ PSI
BAR STEEL REINFORCEMENT: $f_y = 60,000$ PSI
HYDRAULIC DATA
100-YEAR FREQUENCY:
 $Q_{100} = 200$ C.F.S.
 $V_{100} = 9.30$ F.P.S.
 $HW_{100} = 691.87$ EL.
WATERWAY AREA = 18.4 SQ. FT.
DRAINAGE AREA = 0.34 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8
2-YEAR FREQUENCY:
 $Q_2 = 60$ C.F.S.
 $V_2 = 6.84$ F.P.S.
 $HW_2 = 690.55$ EL.
CURVE DATA
FEATURE ON
P.I. = 526+20.58
 $\Delta = 27^\circ 56' 11''$ LT
 $D = 470.00'$
 $L = 688.41'$
 $R = 1432.39'$
P.C. = 522+64.29
P.T. = 529+62.69

TRAFFIC DATA

FEATURE ON: STH 32
ADT = 3450 (2046)
A.D.S. = 40 MPH
LIST OF DRAWINGS
1. GENERAL PLAN
2. GENERAL NOTES & QUANTITIES
3. BOX DETAILS
4. APRON DETAILS
5. CURB & GUTTER DETAILS
6. SUBSURFACE EXPLORATION

LIST OF DRAWINGS

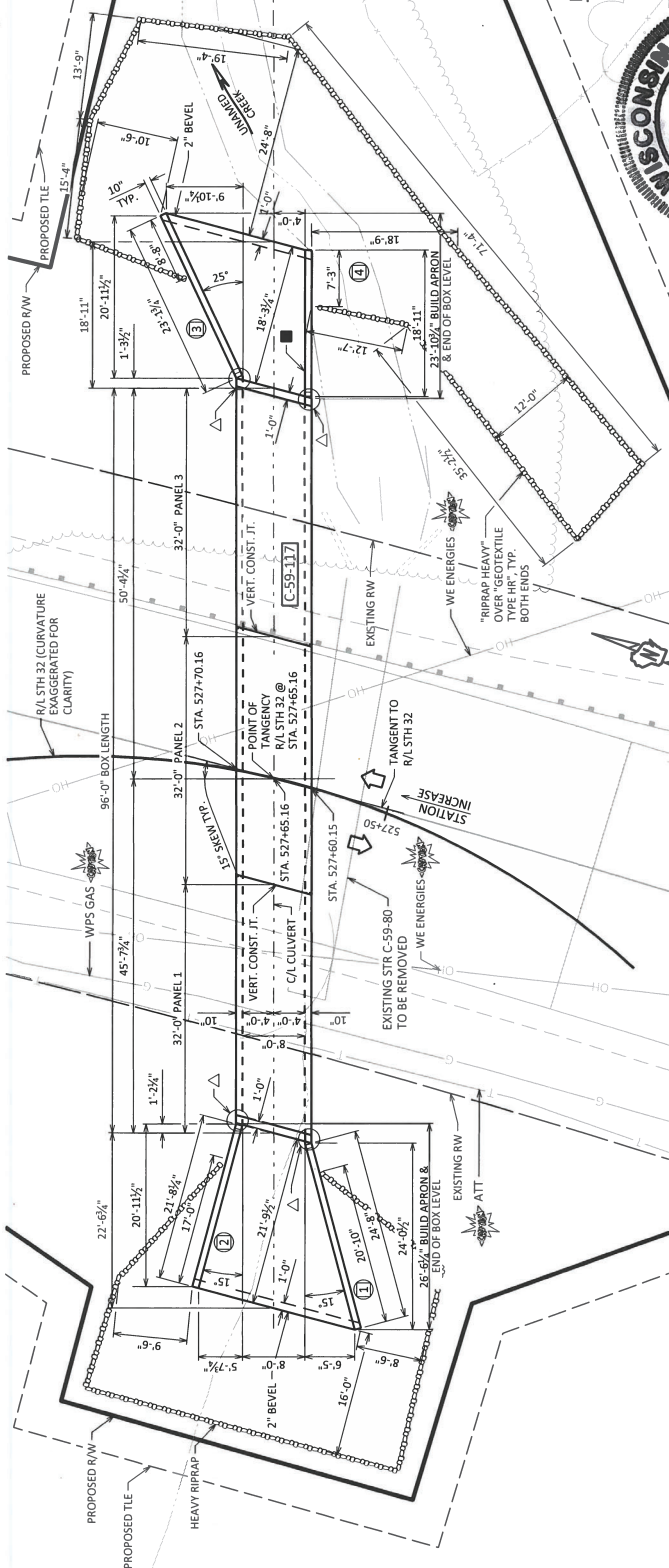
1. GENERAL PLAN
2. GENERAL NOTES & QUANTITIES
3. BOX DETAILS
4. APRON DETAILS
5. CURB & GUTTER DETAILS
6. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:
CONSULTANT CONTACT: KEVIN WOOD
BOS CONTACT: AARON BONE
(414) 259-1500
(608) 261-0261

NO.	DATE	REVISION	BY
1		116.8 Admin Street, Suite 201, Milwaukee, WI 53201 800.592.8440 www.graeef.com	
2		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED: <i>[Signature]</i> 08/05/24 DATE: 08/05/24 CHIEF STRUCTURES DESIGN ENGINEER	
3		STRUCTURE C-59-117	
4		COUNTY: STH 32 OVER UNNAMED CREEK	
5		TOWN: SHEBOYGAN	
6		DESIGN SPEC: ASHTO LRFD BRIDGE DESIGN SPECIFICATION	
7		DESIGNED BY: CMW	
8		CHECKED BY: KGW	
9		SHEET 1 OF 6	
10		GENERAL PLAN	
11		290A	

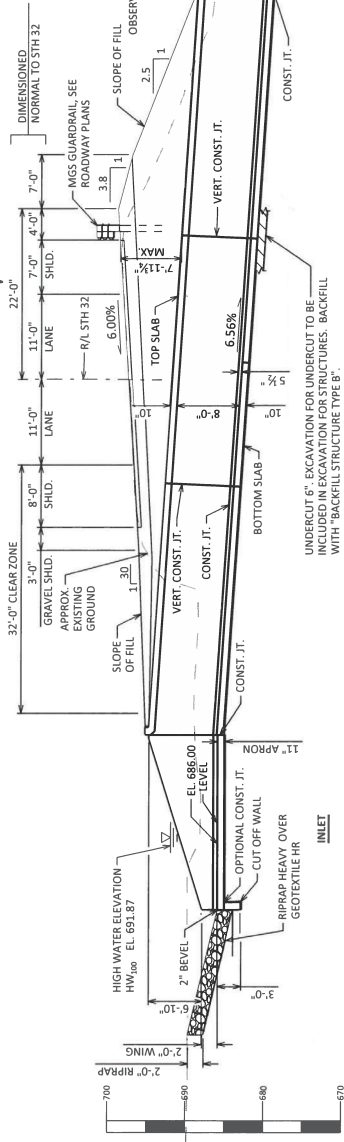
SCALE: 1" = 4540-34-40
DATE: 11/19/24

Addendum No. 01
ID 4540-34-71
Added Sheet 290A
November 19, 2024



PLAN

SINGLE CELL CONCRETE CULVERT



ELEVATION

LOOKING NORTH

NOTE: INVERTS ARE SET APPROX. 1.5 FT. TO 2.5 FT. BELOW EXISTING STREAMBED ELEVATION

BENCH MARK

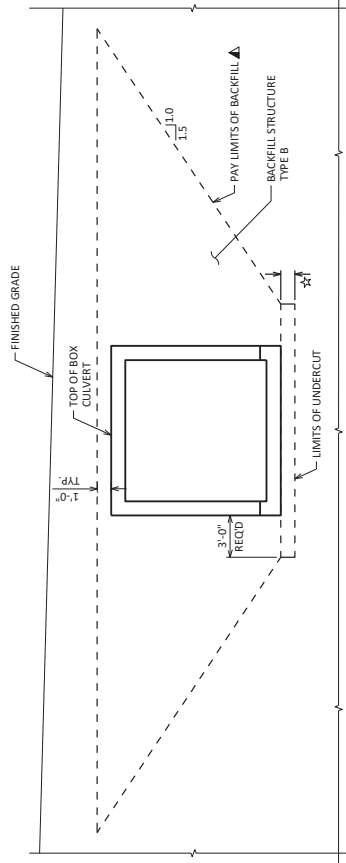
NO.	STATION	DESCRIPTION	ELEV.
1010	528+31 (30' LT)	SPIKE IN PP	694.03

LEGEND

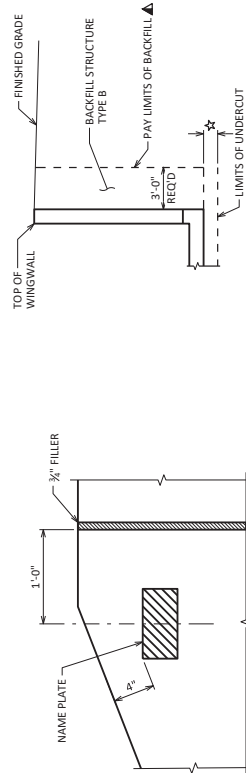
- SEE CORNER DETAILS ON "DETAILS" SHEET (5)
- NAME PLATE LOCATION
- INDICATES WING NUMBER

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-59-80	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-59-117	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,952
504.0100	CONCRETE MASONRY CULVERTS	CY	148
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	15,530
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,620
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	31
606.0300	RIPRAP HEAVY	CY	183
645.0120	GEOTEXTILE TYPE HR	SY	370
	NON-BID ITEMS		
	FILLER	SIZE	¾"
	NAME PLATE	EACH	1



TYPICAL SECTION THRU BOX CULVERT



NAME PLATE DETAIL
WING 4

TYPICAL SECTION THRU
BOX CULVERT WINGWALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

THE EXISTING STRUCTURE C-59-80 IS A THREE SIDED CULVERT, 5'-0" WIDE 5'-0" HIGH WITH A LENGTH OF 63'-0". THE ENTIRE STRUCTURE IS TO BE REMOVED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-59-117" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE 18" (MIN) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SUPERVISOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE BOX CULVERT. THE CONTRACTOR SHALL PROVIDE DETAILS ON CHAPTER 36 STANDARD SPECIFICATIONS FOR BRIDGE, RAILROAD AND HIGHWAY STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

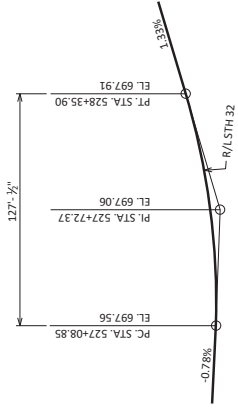
APRONS AND TOP OF BOTTOM SLAB OF BARREL SHALL BE TRANSVERSE TINED. THE TINES SHALL BE IN ACCORDANCE WITH WISDOT STANDARD SPECIFICATION 502.3.7.8.

Addendum No. 01
ID 4540-34-71
Added Sheet 290B
November 19, 2024

LEGENDS

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDER CUT 6". EXCAVATION FOR UNDER CUT IS TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B".



PROFILE GRADE LINE

(BEST FIT DEVELOPED FROM EXISTING TOPOGRAPHY SURVEY)

STATE PROJECT NUMBER

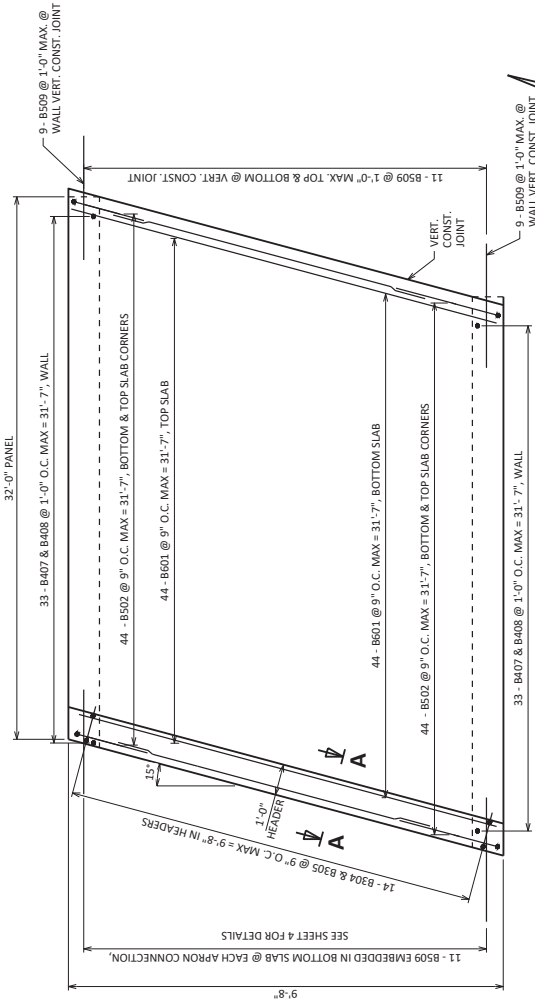
4540-34-71

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

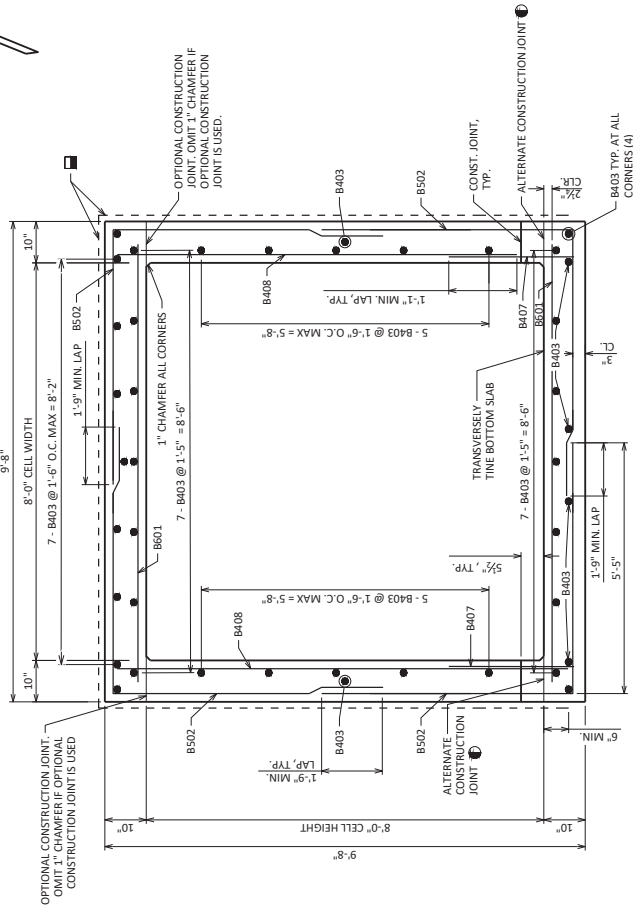
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B601		264	9'-4"			TOP & BOTTOM TRANS. BARS
B502		528	11'-2"	X		TOP & BOTTOM CORNER
B403		129	31'-8"			LONG.
B304		14	2'-7"	X		INLET HEADER
B305		14	2'-11"	X		OUTLET HEADER
B406		4	9'-8"			HEADER TRANS.
B407		198	2'-4"			WALL BOTTOM SLAB VERT.
B408		198	8'-1"			INTERIOR WALL VERT.
B509		102	4'-0"			VERT. CONST. JT. & APRON DOWELS

Addendum No. 01
ID 4540-34-71
Added Sheet 290C
November 19, 2024

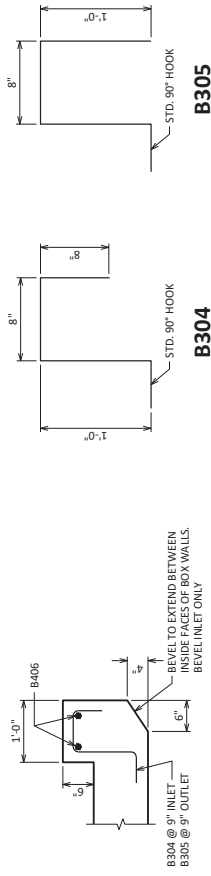


PLAN VIEW - PANEL 1

PANEL 2 SIMILAR, PANEL 3 SIMILAR OPP. HAND



TYPICAL SECTION THRU BOX

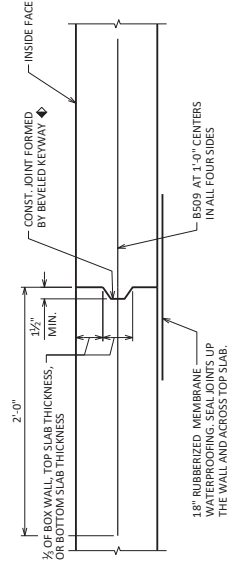


SECTION A-A THRU HEADER

INI ET SHOWN OITI ET SIMILAR

LEGEND

- ◐ ALTERNATE CONSTRUCTION JOINT: OMIT 1" CHAMFER IF ALTERNATE CONST. JOINT IS USED.
- ◑ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 24 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.
- ◒ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.

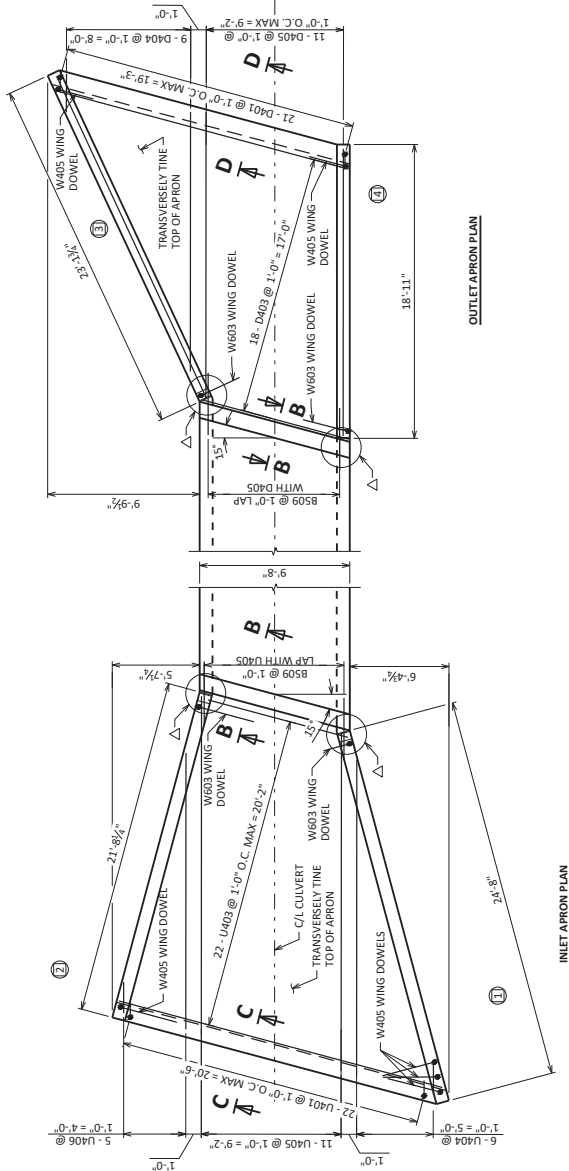


VERTICAL CONSTRUCTION JOINT

[illegible]

STATE PROJECT NUMBER

4540-34-71



APRON REINFORCING PLAN

OUTLET APRON PLAN

STD. 90° HOOK

CUT OFF WALLS

INLET SECTION C-C

OUTLET SECTION D-D

D401, U401

BILL OF BARS INLET

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	QTY	NO. REQD.	LENGTH	BAR SERIES	LOCATION
U401	22	3'-3"	X		CUT OFF WALL VERT.
U402	4	21'-9"			CUT OFF WALL HORIZ.
U403	22	15'-5"			TRANS. APRON BARS
U404	6	11'-1"			LONG. APRON
U405	11	22'-2"			LONG. APRON
U406	5	10'-0"			LONG. APRON

BILL OF BARS OUTLET

BAR MARK	QTY	NO. REQD.	LENGTH	BAR SERIES	LOCATION
D401	21	5'-3"	X		CUT OFF WALL VERT.
D402	6	19'-6"			CUT OFF WALL HORIZ.
D403	18	14'-6"			TRANS. APRON BARS
D404	9	9'-9"			LONG. APRON
D405	11	18'-7"			LONG. APRON

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

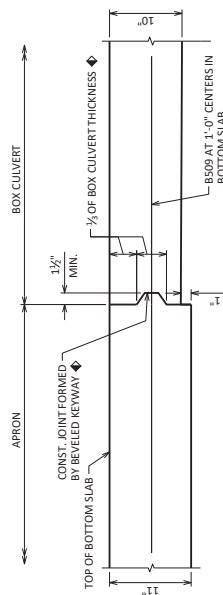
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQD.	LENGTH
U403	1 SERIES OF 24	9'-8" TO 21'-2"
U404	1 SERIES OF 6	2'-0" TO 20'-2"
U405	1 SERIES OF 5	2'-0" TO 18'-0"

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQD.	LENGTH
D403	1 SERIES OF 18	9'-8" TO 19'-4"
D404	1 SERIES OF 9	2'-6" TO 17'-0"



SECTION B-B APRON CONNECTION DETAIL

LEGEND

◆ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM OF THE APRON, THE JOINTS SHALL BE LOCATED WITHIN 12 HOURS AFTER POURING. 45 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

△ SEE CORNER DETAILS SHEET 5

Addendum No. 01
ID 4540-34-71
Added Sheet 290D
November 19, 2024

8

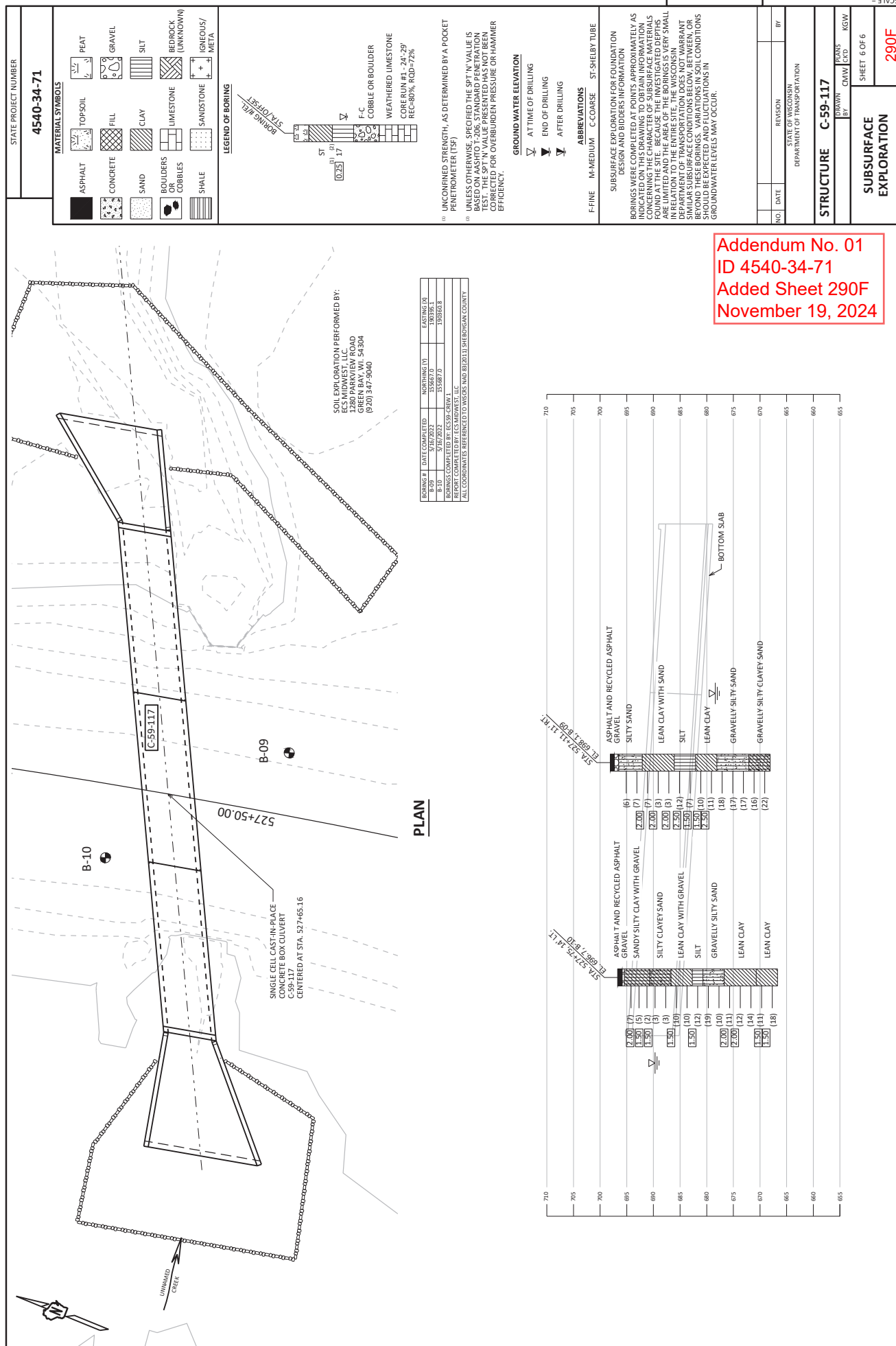
8

SCALE =

SHEET 4 OF 6

290D

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		C-59-117	
DESIGNED BY	KGW	CWG	ECD
APRON DETAILS			



TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-59-2916	EACH	1
206.0001	EXCAVATION FOR STRUCTURES CULVERTS C-59-118	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,639
504.0100	CONCRETE MASONRY CULVERTS	CY	169
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	20,690
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,860
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	30
606.0300	RIPRAP HEAVY	CY	106
645.0120	GEOTEXTILE TYPE HR	SY	245
	NON-BID ITEMS		
	FILLER	SIZE	1/4"
	NAME PLATE	EACH	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

EXISTING STRUCTURE C-59-2916 IS A THREE SIDED CULVERT, 14'-0" WIDE X 6'-0" HIGH WITH A LENGTH OF 45'-0". THE ENTIRE STRUCTURE IS TO BE REMOVED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-59-118" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

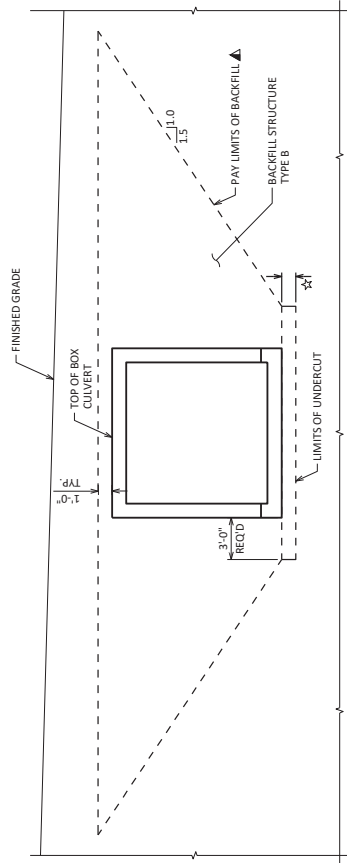
THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

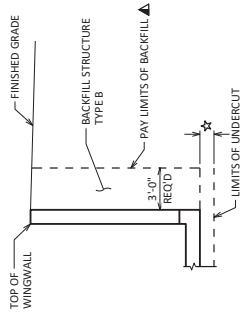
PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

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 THE REQUIREMENTS OF THE STRUCTURES DESIGN SECTION. THE QUANTITY OF THE PRECAST CONCRETE BOX CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

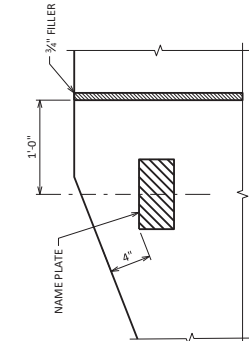
IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.



TYPICAL SECTION THRU BOX CULVERT



TYPICAL SECTION THRU BOX CULVERT WINGWALL



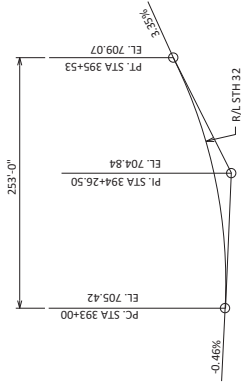
NAME PLATE DETAIL

WING 4

Addendum No. 01
ID 4540-34-71
Added Sheet 290H
November 19, 2024

LEGENDS

- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ☆ UNDER CUT 6". EXCAVATION FOR UNDER CUT IS TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B".



PROFILE GRADE LINE

(BEST FIT DEVELOPED FROM EXISTING TOPOGRAPHY SURVEY)

STATE PROJECT NUMBER

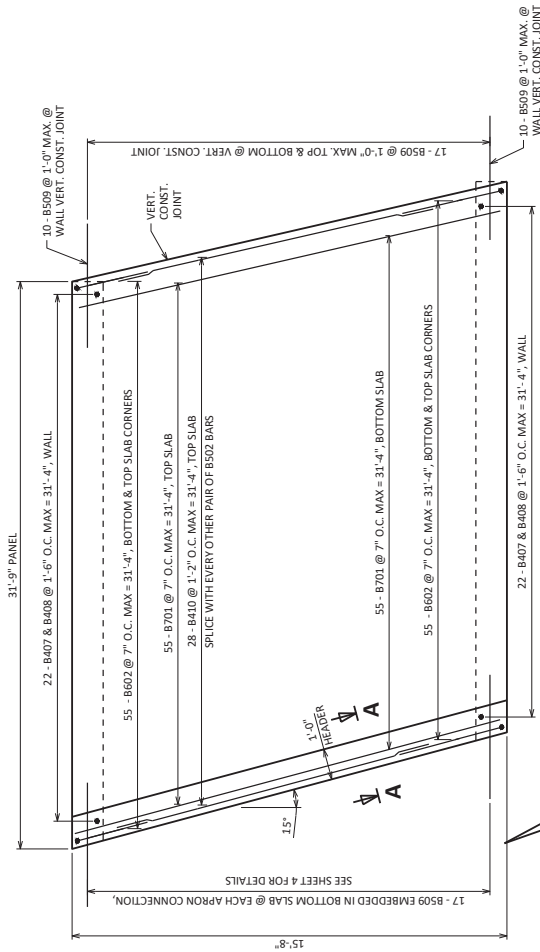
4540-34-71

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

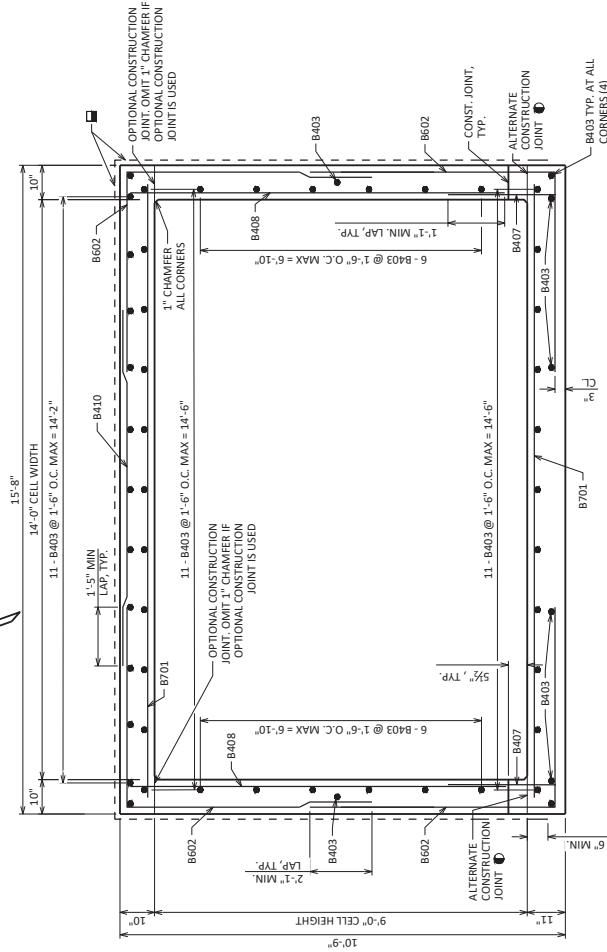
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT SERIES	LOCATION
8701	220	15'-10"			TOP & BOTTOM SLAB TRANS.
8602	440	11'-9"	X		TOP & BOTTOM SLAB CORNER
8403	110	31'-5"			LONG.
8304	23	3'-1"	X		INLET HEADER
8305	23	3'-4"	X		OUTLET HEADER
8406	4	15'-10"			HEADER
8407	88	2'-6"			WALL BOTTOM SLAB VERT.
8408	88	9'-2"			EXTERIOR WALL VERT.
8509	88	4'-0"			VERT. CONST. JT. & APRON DOWELS
8410	56	8'-10"			TOP SLAB TRANS.

Addendum No. 01
ID 4540-34-71
Added Sheet 290I
November 19, 2024

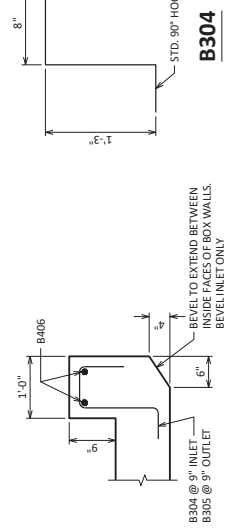


PLAN VIEW - PANEL 1

PANEL 2 SIMILAR OPP. HAND

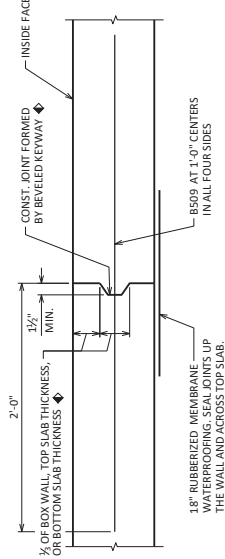


TYPICAL SECTION THRU BOX



SECTION A-A THRU HEADER

INLET SHOWN , OUTLET SIMILAR



VERTICAL CONSTRUCTION JOINT

18" RUBBERIZED MEMBRANE —
WATERPROOFING, SEAL JOINTS UP
THE WALL AND ACROSS TOP SLAB.

— B509 AT 1'-0" CENTERS
IN ALL FOUR SIDES

LEGEND

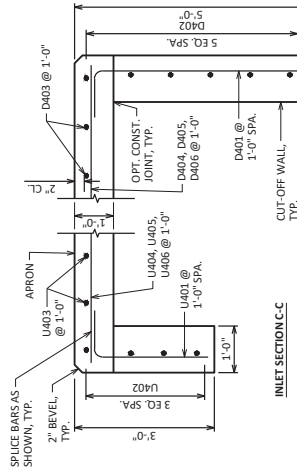
- ALTERNATE CONSTRUCTION JOINT: OMIT 1" CHAMFER IF ALTERNATE CONST. JOINT IS USED.
- ◆ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.
- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.

 ∞

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		C-59-118	
DRAWING BY		PLANS	KGW
		CMG LCO	
BOX DETAILS		SHEET 3 OF 6	
		2901	

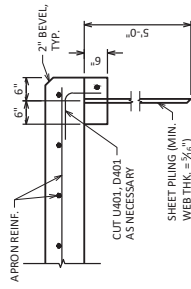
SCALE =

 ∞



CUT-OFF WALLS

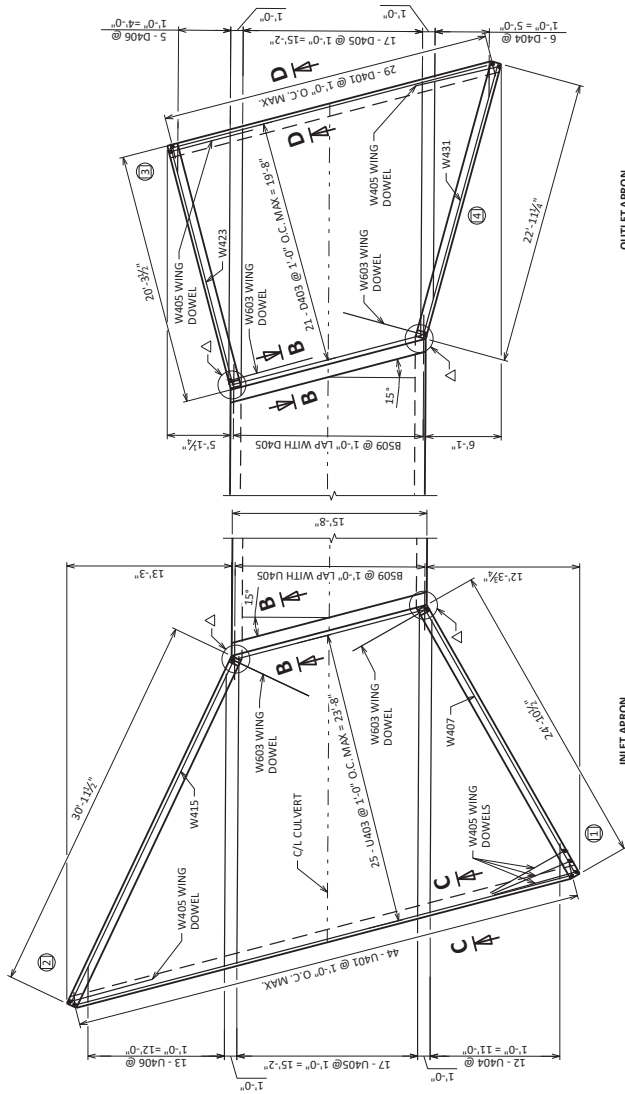
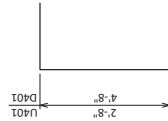
CUT-OFF WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

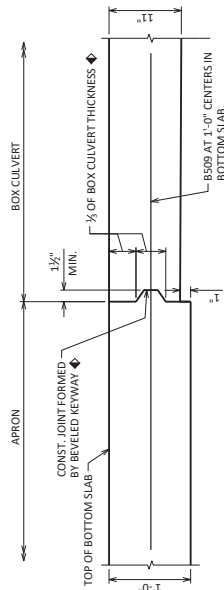
D401, U401



APRON REINFORCING PLAN

INLET APRON

OUTLET APRON



BILL OF BARS INLET

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401	44	3'-6"	X		CUT-OFF WALL VERT.
U402	4	41'-2"			CUT-OFF WALL HORIZ.
U403	25	29'-0"			TRANS. APRON BARS
U404	12	12'-7"			LONG. APRON
U405	17	24'-9"			LONG. APRON
U406	13	12'-8"			LONG. APRON

BILL OF BARS OUTLET

BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
D401	29	5'-6"	X		CUT-OFF WALL VERT.
D402	6	26'-4"			CUT-OFF WALL HORIZ.
D403	21	21'-7"			TRANS. APRON BARS
D404	6	10'-0"			LONG. APRON
D405	17	20'-8"			LONG. APRON
D406	6	9'-9"			LONG. APRON

SECTION B-B APRON CONNECTION DETAIL

LEGEND

◆ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM OF THE APRON, THE APRON SHALL BE CAST WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

△ SEE CORNER DETAILS SHEET 5

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 25	15'-10" TO 42'-2"
U404	1 SERIES OF 12	1'-11" TO 23'-3"
U406	1 SERIES OF 13	2'-0" TO 23'-4"

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
D403	1 SERIES OF 21	15'-10" TO 27'-4"
D404	1 SERIES OF 5	1'-11" TO 18'-1"
D406	1 SERIES OF 6	1'-11" TO 17'-7"

Addendum No. 01
ID 4540-34-71
Added Sheet 290J
November 19, 2024

BILL OF BARS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	NO. REQD.	LENGTH	BENT	BAR SERIES	LOCATION
W401	X	71	2'-9"	▲	WING F.F. VERT. DOWEL
W402	X	18	5'-2"	▲	WING 1 F.F. VERT.
W603	X	104	11'-10"	X	WING DOWEL B.F.
W604	X	26	7'-2"	▲	WING 1 B.F. VERT.
W405	X	60	10'-7"	X	WING DOWEL B.F.
W406	X	15	3'-2"	▲	WING 1 B.F. VERT.
W407	X	7	24'-5"	▲	WING 1 HORIZ.
W408	X	10	11'-6"	▲	WING 1 HORIZ.
W509	X	2	25'-7"	▲	WING 1 TOP HORIZ.
W410	X	22	5'-2"	▲	WING 2 F.F. VERT.
W612	X	32	7'-2"	▲	WING 2 B.F. VERT.
W414	X	19	3'-2"	▲	WING 2 B.F. VERT.
W415	X	7	30'-6"	▲	WING 2 HORIZ.
W416	X	10	14'-3"	▲	WING 2 HORIZ.
W517	X	2	31'-6"	▲	WING 2 TOP HORIZ.
W418	X	15	5'-2"	▲	WING 3 F.F. VERT.
W620	X	22	7'-1"	▲	WING 3 B.F. VERT.
W422	X	12	3'-0"	▲	WING 3 B.F. VERT.
W423	X	7	19'-10"	▲	WING 3 HORIZ.
W424	X	10	9'-4"	▲	WING 3 HORIZ.
W525	X	2	21'-4"	▲	WING 3 TOP HORIZ.
W426	X	16	5'-2"	▲	WING 4 F.F. VERT.
W628	X	24	7'-2"	▲	WING 4 B.F. VERT.
W430	X	14	3'-2"	▲	WING 4 B.F. VERT.
W431	X	7	22'-6"	▲	WING 4 HORIZ.
W432	X	10	10'-7"	▲	WING 4 HORIZ.
W533	X	2	23'-10"	▲	WING 4 TOP HORIZ.

▲ LENGTH SHOWN FOR BARS IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR SERIES CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQD.	LENGTH
W402	1. SERIES OF 18	1'-2" TO 9'-2"
W604	1. SERIES OF 26	5'-2" TO 9'-2"
W406	1. SERIES OF 15	1'-4" TO 5'-0"
W408	2. SERIES OF 5	3'-2" TO 19'-10"
W410	1. SERIES OF 22	1'-2" TO 9'-2"
W412	1. SERIES OF 32	5'-2" TO 9'-2"
W414	1. SERIES OF 19	1'-4" TO 5'-0"
W416	2. SERIES OF 5	4'-0" TO 24'-8"
W418	1. SERIES OF 15	1'-2" TO 9'-2"
W620	1. SERIES OF 22	5'-0" TO 9'-2"
W422	1. SERIES OF 12	1'-4" TO 4'-8"
W424	2. SERIES OF 5	1'-2" TO 16'-0"
W426	1. SERIES OF 16	1'-2" TO 9'-2"
W628	1. SERIES OF 24	5'-2" TO 9'-2"
W430	1. SERIES OF 14	1'-4" TO 5'-0"
W432	2. SERIES OF 5	2'-11" TO 18'-3"

Addendum No. 01
ID 4540-34-71
Added Sheet 290K
November 19, 2024

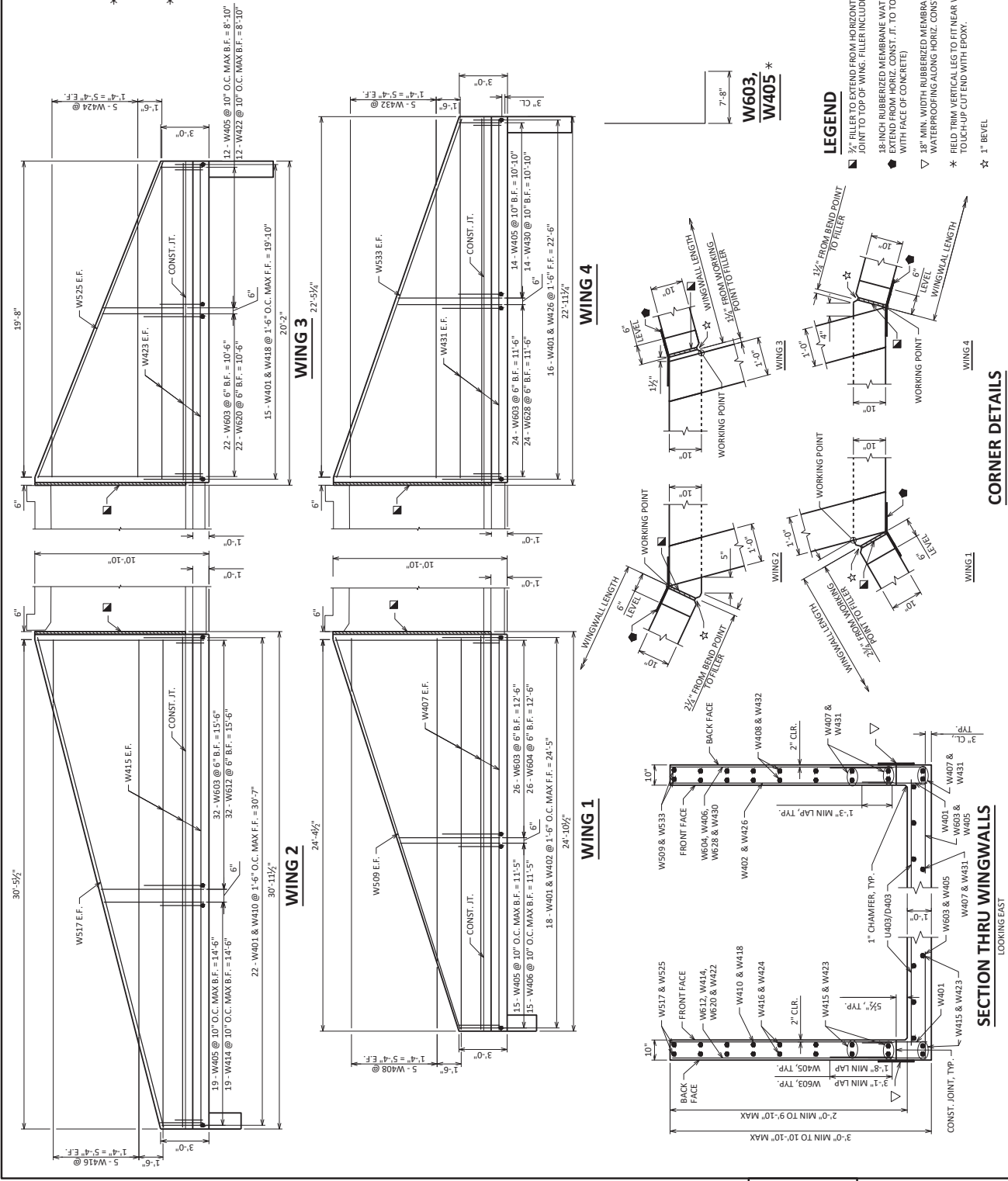
LEGEND

- 1/2" FILLER TO EXTEND FROM HORIZONTAL CONSTRUCTION JOINT TO TOP OF WING. FILLER INCLUDED IN WING LENGTH.
- 18 INCH RUBBERIZED MEMBRANE WATERPROOFING WITH FACE OF CONCRETE.
- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING TO LICK-UP CUT END WITH EPOXY.
- 1" BEVEL

CORNER DETAILS

SECTION THRU WINGWALLS

LOOKING EAST



STATE PROJECT NUMBER

4540-34-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

EXISTING STRUCTURE C-59-2650 IS A THREE SIDED CULVERT, 10'-0" WIDE X 6'-6" HEIGHT WITH A LENGTH OF 44'-0". THE ENTIRE STRUCTURE IS TO BE REMOVED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES C-59-119" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

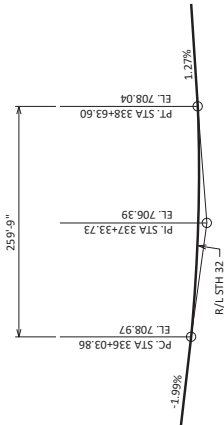
PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

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 ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

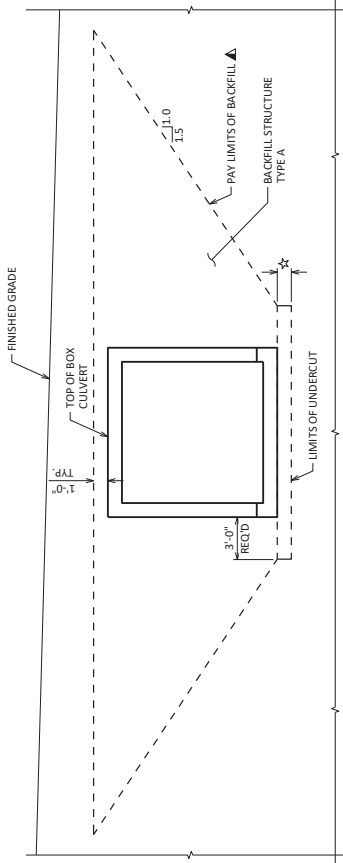
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-59-2650	EACH	1
206.0001	EXCAVATION FOR STRUCTURES CULVERTS C-59-119	EACH	1
210.3500	BACKFILL STRUCTURE TYPE B	TON	2.065
504.0100	CONCRETE MASONRY CULVERTS	CY	180
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	20,440
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,460
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	32
606.0300	RIPRAP HEAVY	CY	240
645.0120	GEOTEXTILE TYPE HR	SY	463
	NON-BID ITEMS	SIZE	1/4"
	FILLER	SIZE	1/4"
	NAME PLATE	EACH	1

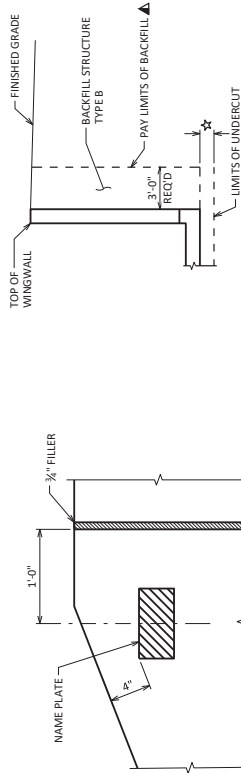


PROFILE GRADE LINE

(BEST FIT DEVELOPED FROM EXISTING TOPOGRAPHY SURVEY)



TYPICAL SECTION THRU BOX CULVERT



NAME PLATE DETAIL

WING 4

TYPICAL SECTION THRU BOX CULVERT WINGWALL

LEGENDS

▲ 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'-6". EXCAVATION FOR UNDER CUT IS TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

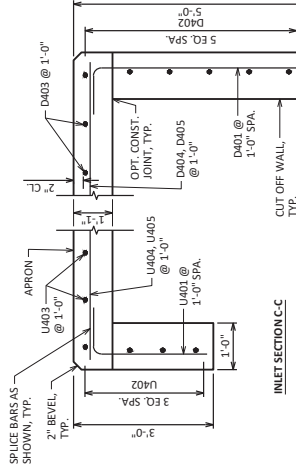
Addendum No. 01
ID 4540-34-71
Added Sheet 290N
November 19, 2024

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
STRUCTURE	C-59-119	DESIGNED BY	WAR
		DRAWN BY	KGW
		REVIEWED BY	KGW
		APPROVED BY	KGW
		SHEET	2 OF 6
		GENERAL NOTES & QUANTITIES	290N

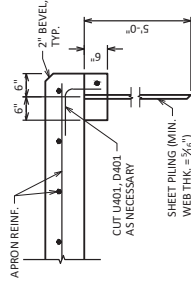
SCALE =

STATE PROJECT NUMBER

4540-34-71



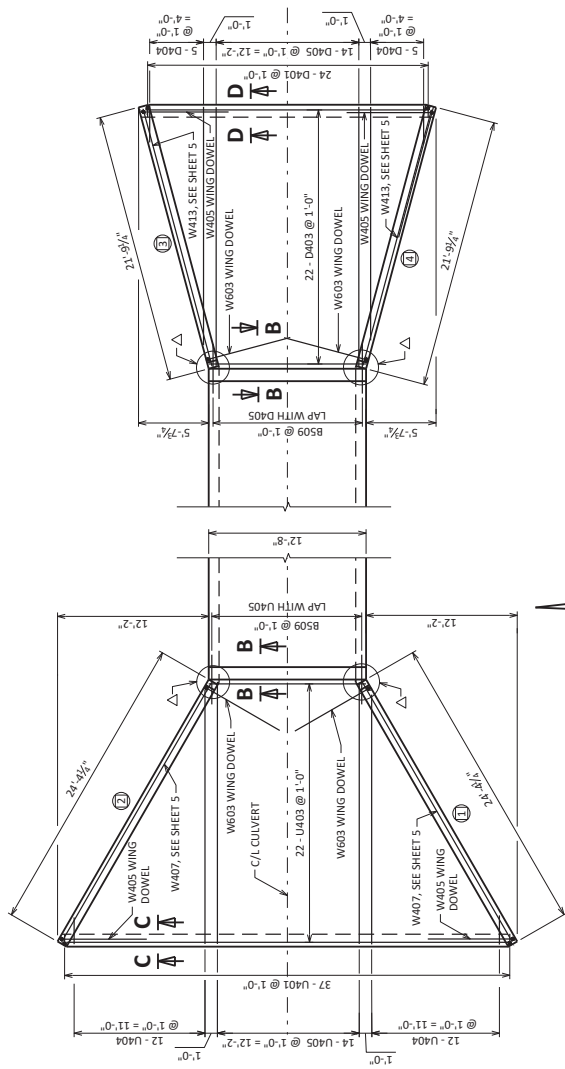
CUT OFF WALLS



ALTERNATE CUT OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

Addendum No. 01
ID 4540-34-71
Added Sheet 290P
November 19, 2024



APRON REINFORCING PLAN

INLET APRON

OUTLET APRON

D401, U401

BILL OF BARS INLET

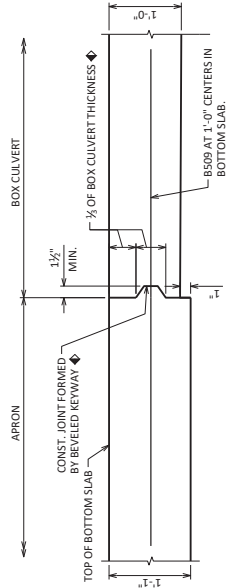
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401	38	3'-6"	X		CUT OFF WALL VERT.
U402	4	36'-5"			CUT OFF WALL HORIZ.
U403	22	23'-10"			TRANS. APRON BARS
U404	24	10'-10"			LONG. APRON
U405	14	21'-2"			LONG. APRON

BILL OF BARS OUTLET

BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
D401	24	5'-6"	X		CUT OFF WALL VERT.
D402	6	23'-5"			CUT OFF WALL HORIZ.
D403	22	17'-3"			TRANS. APRON BARS
D404	10	10'-3"			LONG. APRON
D405	14	20'-11"			LONG. APRON

SECTION B-B APRON CONNECTION DETAIL



BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 22	12'-2" TO 35'-6"
U404	2 SERIES OF 12	1'-3" TO 20'-5"

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
D403	1 SERIES OF 22	12'-2" TO 22'-4"
D404	2 SERIES OF 5	1'-3" TO 19'-3"

LEGEND

◆ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE APRON SHALL BE CAST IN PLACE WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

△ SEE CORNER DETAILS SHEET 5

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN	
		DEPARTMENT OF TRANSPORTATION	

STRUCTURE C-59-119

DESIGNED BY WAR EXD KGW

APRON DETAILS

SHEET 4 OF 6

290P

SCALE =

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	NO. OF COPIES	LENGTH	BAR SERIES	LOCATION
W401	X	66	2'-10"	WING F.F. VERT. DOWEL
W402	X	34	4'-9"	WING 1 & 2 - F.F. VERT.
W603	X	68	12'-1"	X
W604	X	34	6'-5"	WING B.F. VERT. DOWEL
W405	X	46	10'-9"	WING 1 & 2 - B.F. VERT.
W406	X	26	3'-0"	WING DOWEL B.F.
W407	X	14	23'-11"	WING 1 & 2 - B.F. VERT.
W408	X	16	10'-7"	WING 1 & 2 - HORIZ.
W509	X	4	24'-9"	WING 3 & 4 - TOP
W410	X	32	4'-9"	WING 1 & 2 - F.F. VERT.
W611	X	34	6'-2"	WING 3 & 4 - F.F. VERT.
W412	X	20	2'-7"	WING 3 & 4 - B.F. VERT.
W413	X	14	21'-4"	WING 3 & 4 - HORIZ.
W414	X	16	9'-4"	WING 3 & 4 - HORIZ.
W515	X	4	23'-3"	WING 3 & 4 - TOP

▲ LENGTH SHOWN FOR BARS IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

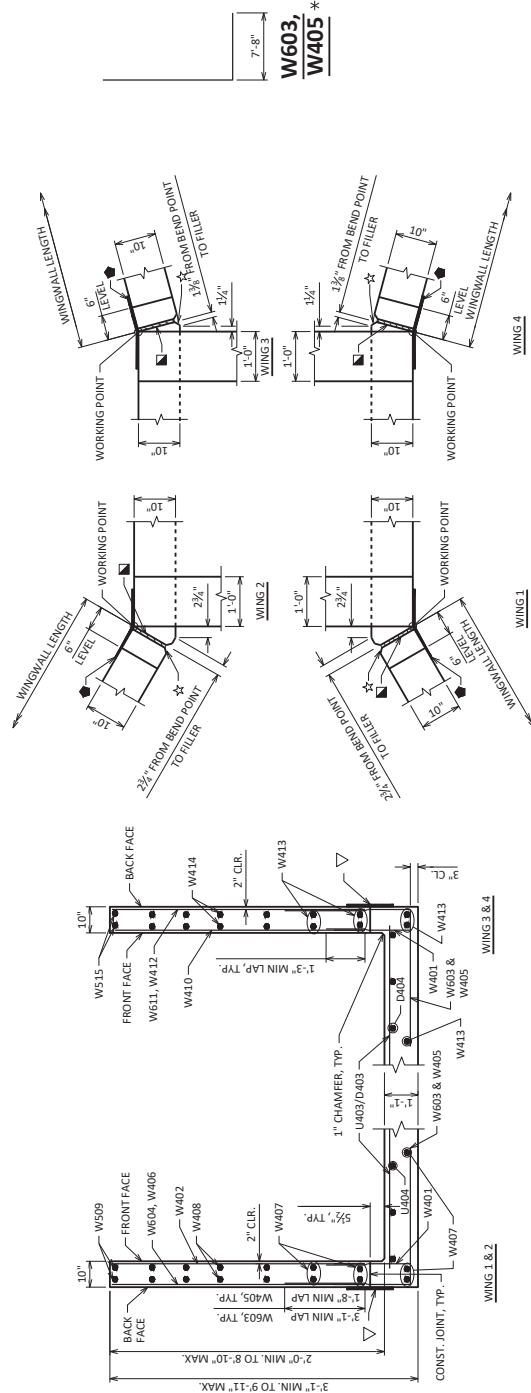
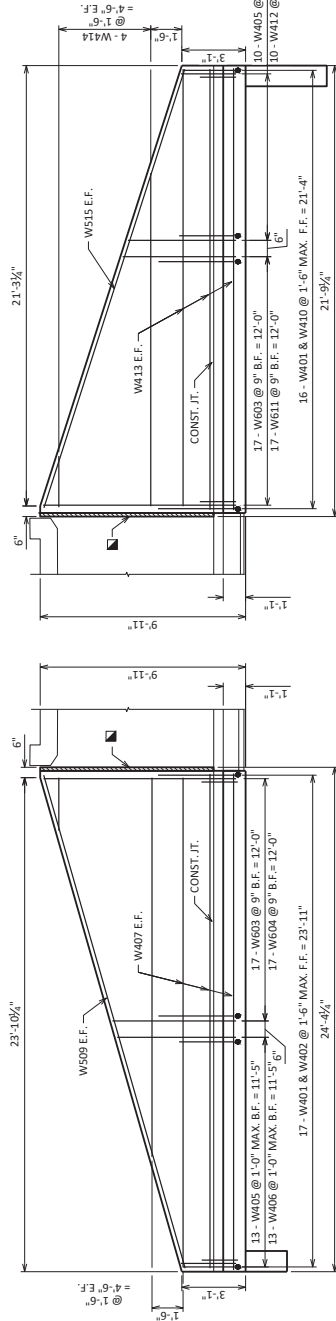
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
W402	2 SERIES OF 17	1'-3" TO 8'-2"
W604	2 SERIES OF 17	4'-8" TO 8'-2"
W406	2 SERIES OF 13	1'-3" TO 4'-8"
W408	4 SERIES OF 4	2'-8" TO 18'-5"
W410	2 SERIES OF 16	1'-3" TO 8'-2"
W611	2 SERIES OF 17	4'-2" TO 8'-2"
W412	2 SERIES OF 10	1'-3" TO 3'-11"
W414	4 SERIES OF 4	2'-5" TO 16'-2"

WING 3 & 4

WINGS 1 & 2



CORNER DETAILS

SECTION THRU WINGWALLS

LEGEND

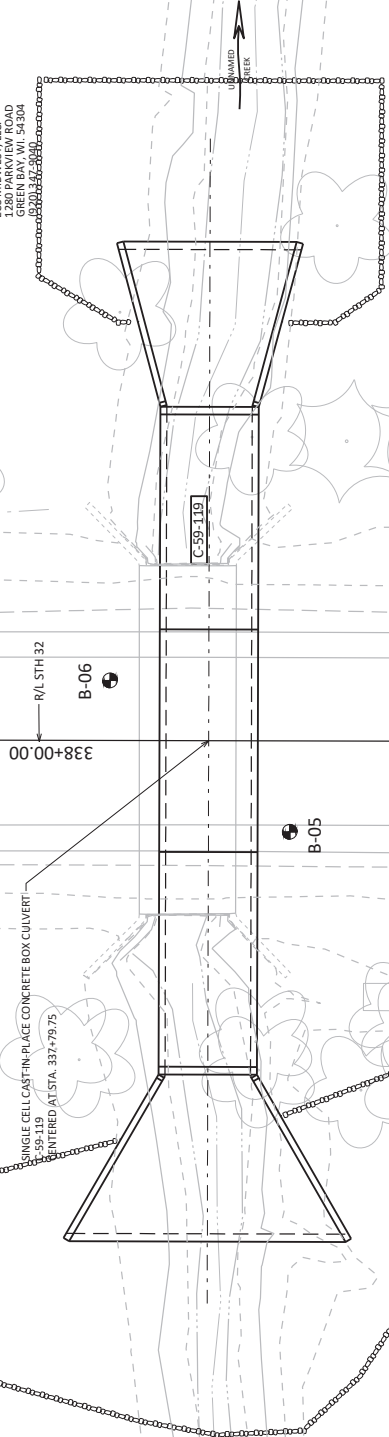
- ▲ FILLER TO EXTEND FROM HORIZONTAL CONSTRUCTION JOINT TO TOP OF WING. FILLER INCLUDED IN WING LENGTH.
- ◆ 18-INCH RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL (FLUSH WITH FACE OF CONCRETE)
- ▽ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONST. JT. IN WING
- * FIELD TRIM VERTICAL LEG TO FIT NEAR WING TIP. TOUCH-UP CUT END WITH EPOXY.
- ☆ 1" BEVEL

Addendum No. 01
ID 4540-34-71
Added Sheet 290Q
November 19, 2024

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
STRUCTURE	C-59-119	DESIGNED BY	WAR ECD
		CHECKED BY	KGW
		SHEET	5 OF 6
			290Q

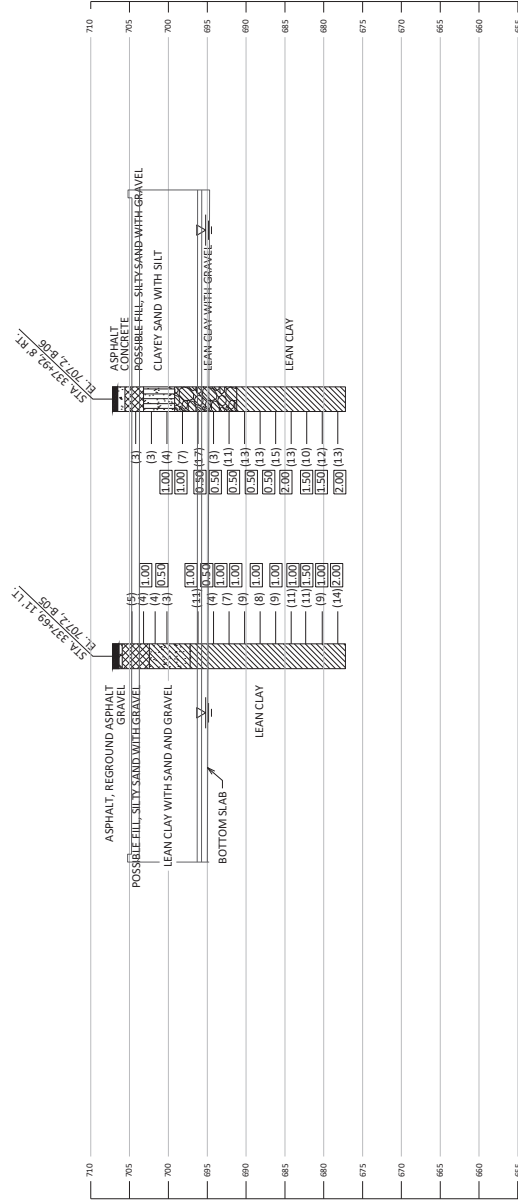
WINGWALL
DETAILS

SOIL BORING DATA PERFORMED BY:
ECS INDUSTRIES, LLC
1280 PARKVIEW ROAD
GREEN BAY, WI 54304
TEL: 920.833.3333
WWW.ECSINDUSTRIES.COM



BORING #	DATE COMPLETED	NORTHING (VI)	EASTING (VI)
B-05	9/12/2022	137152.7	187624.0
B-06	9/12/2022	137152.9	187643.4
REPORT COMPILED BY: ECS INDUSTRIES, LLC			
ALL COORDINATES REFERENCED TO WISCONSIN DATUM 83 (2011) - SHEBOYGAN COUNTY			

PLAN

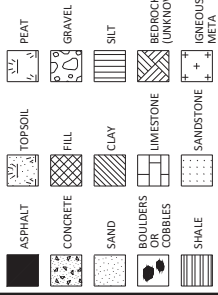


Addendum No. 01
ID 4540-34-71
Added Sheet 290R
November 19, 2024

STATE PROJECT NUMBER

4540-34-71

MATERIAL SYMBOLS



LEGEND OF BORING

BRING IN/OUT

ST

0.25 17

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC-80%, KOD-72%

UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (135)

UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON A 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 LOCATED ON THE ATTACHED MAP. THE DEPTHS OF SUBSURFACE MATERIALS FOUND AT THE SITE, BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL, ARE NOT GUARANTEED TO BE REPRESENTATIVE OF THE ENTIRE DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED. GROUND WATER LEVELS MAY OCCUR.

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

STRUCTURE C-59-119

REVISION

NO. DATE

BY

DESIGNED BY

CHECKED BY

KGW

SHEET 6 OF 6

290R

SCALE =

STATE PROJECT NUMBER
4540-34-71

DESIGN DATA

LIVE LOAD: HL-93
INVENTORY RATING: RF = 1.14
DESIGN RATING: RD = 1.14
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV), 230 (KIPS)
EARTHLOAD: DESIGNED FOR 0.5 TO 1.0 FT. OF FILL
MATERIAL PROPERTIES:
CONCRETE MASONRY: $f_c = 3,500$ PSI
BAR STEEL REINFORCEMENT: $f_y = 60,000$ PSI

HYDRAULIC DATA

100-YEAR FREQUENCY:
 $Q_{100} = 234$ C.F.S.
 $V_{100} = 9.8$ F.P.S.
 $HW_{100} = 688.09$ EL.
WATERWAY AREA = 17.5 SQ. FT.
WATERWAY AREA = 17.5 SQ. FT.
ROADWAY OVERTOPE = N/A
SCOUR CRITICAL CODE = 8
2-YEAR FREQUENCY:
 $Q_2 = 43.7$ C.F.S.
 $V_2 = 4.3$ F.P.S.
 $HW_2 = 684.5$ EL.

TRAFFIC DATA

FEATURE ON: STH 32
ADT = 3450 (2048)
R.D.S. = 40 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. STRUCTURE DETAILS & QUANTITIES
3. BOX DETAILS
4. APRON DETAILS
5. WINGWALL DETAILS
6. SUBSURFACE EXPLORATION
7. RAILING DETAILS

STRUCTURE DESIGN CONTACTS:
CONSULTANT CONTACT: KEVIN WOOD (414) 259-1500
BOS CONTACT: AARON BOKK (608) 261-0261

NO.	DATE	REVISION	BY
GR&E			
1501 Springfield Drive, Suite 201, WI 53446-6847 608.292.5440 www.grand-ae.com			

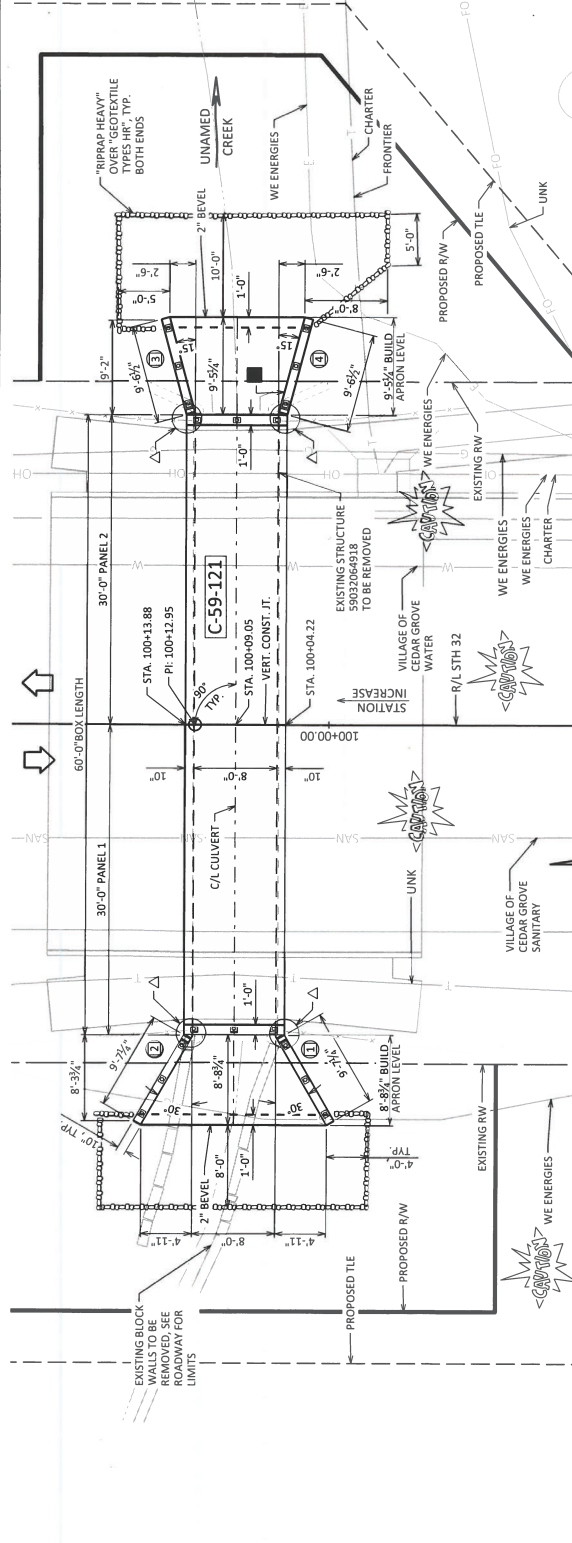
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED: *[Signature]* 08/05/24
DATE

STRUCTURE C-59-121
SHEBOYGAN VILLAGE
CDAR GROVE

DESIGN SPEC: AASHTO LRFD BRIDGE DESIGN SPECIFICATION
DESIGNED BY: KEVIN WOOD
CHECKED BY: AARON BOKK
BY: KEVIN WOOD

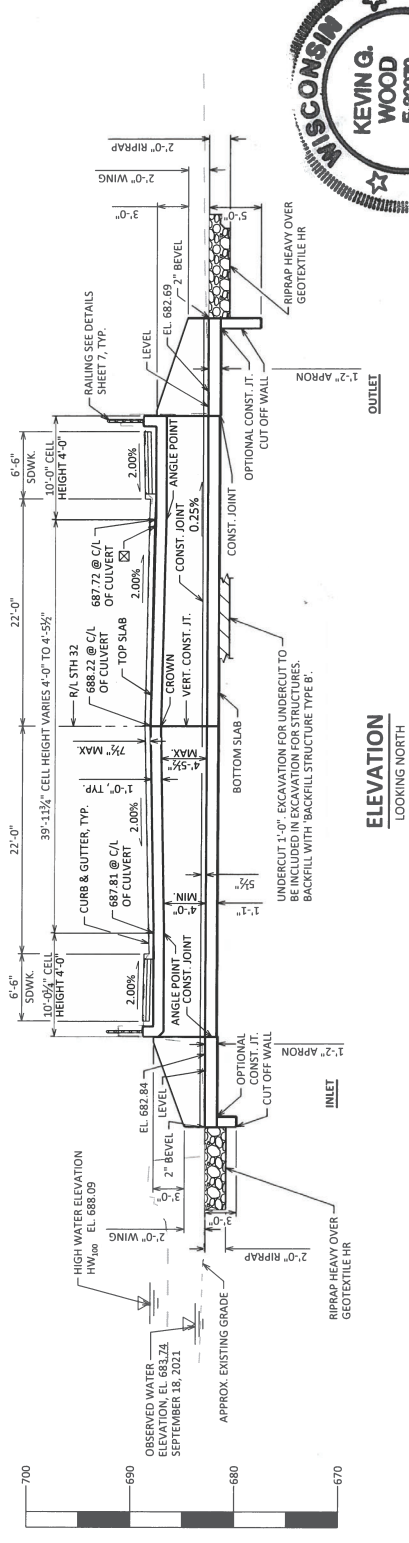
GENERAL PLAN
SHEET 1 OF 7
290S

DATE: 1.D. 4540-34-40



PLAN

SINGLE CELL CONCRETE CULVERT



ELEVATION

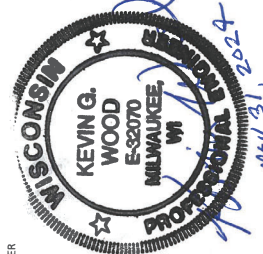
LOOKING NORTH

LEGEND

- NAME PLATE LOCATION SHEET 2
- SEE CORNER DETAILS ON "DETAILS" SHEET 5
- INDICATES WING NUMBER
- SHEET MEMBRANE WATERPROOFING

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
1002	102+57 (24' RT)	CIS 'X' NW FLANGE BOLT ON HYD. 1601.50	



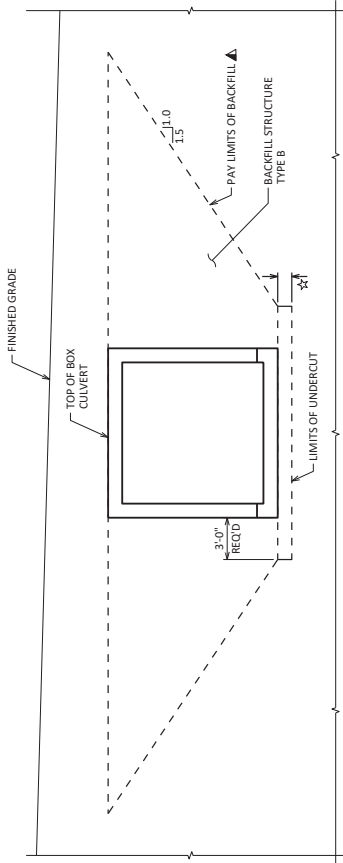
Addendum No. 01
ID 4540-34-71
Added Sheet 290S
November 19, 2024

TOTAL ESTIMATED QUANTITIES

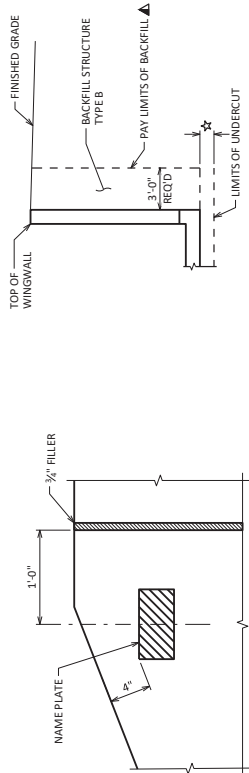
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE 59032064918	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-59-121	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	600
504.0100	CONCRETE MASONRY CULVERTS	CY	84
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	6,940
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	790
513.2001	RAILING PIPE	LF	58
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SF	12
516.0600.5	SHEET MEMBRANE WATERPROOFING FOR ASPHALT OVERLAY	SF	84
606.0300	RIPRAP HEAVY	CY	37
645.0120	GEOTEXTILE TYPE HR	SF	88
	NON-BID ITEMS		
	FILLER		
	NAME PLATE	SIZE	¾"
		EACH	1

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- 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.
- BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.
- EXISTING STRUCTURE 59032064918 AT STATION 100+09 IS A FOUR SIDED CULVERT, 6'-0" WIDE X 4'-0" HEIGHT WITH A LENGTH OF 44'-0". THE ENTIRE STRUCTURE IS TO BE REMOVED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-59-121" SHALL BE THE EXISTING GROUND LINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
- PLACE "SHEET MEMBRANE WATERPROOFING FOR ASPHALT OVERLAY" ON TOP SLAB AND EXTEND 6" BELOW TOP OF BOTTOM SLAB.
- PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS. OVERLAP WITH "SHEET MEMBRANE WATERPROOFING FOR ASPHALT OVERLAY" A MINIMUM OF 3" .
- IN LIEU OF CONSTRUCTION JOINTS, THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.
- PRECAST BARREL SECTIONS, WINGWALLS, HEADERS, CUTOFF WALLS, AND APRON ALTERNATIVES ARE NOT ALLOWED.

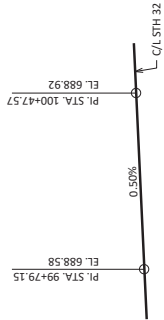


TYPICAL SECTION THRU BOX CULVERT



NAME PLATE DETAIL
WING 4

TYPICAL SECTION THRU BOX CULVERT WINGWALL



PROFILE GRADE LINE

(BEST FIT DEVELOPED FROM EXISTING TOPOGRAPHY SURVEY)

Addendum No. 01
ID 4540-34-71
Added Sheet 290T
November 19, 2024

LEGENDS

- ▲ BACKFILL PAY LIMITS, BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ★ UNDER CUT 1'-0" EXCAVATION FOR UNDER CUTS IS TO BE BACKFILLED WITH STRUCTURE BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-59-121			
DESIGNED BY	PERMANENT	CONTRACTOR	KGW
GENERAL NOTES & QUANTITIES			SHEET 2 OF 7
			290T

STATE PROJECT NUMBER

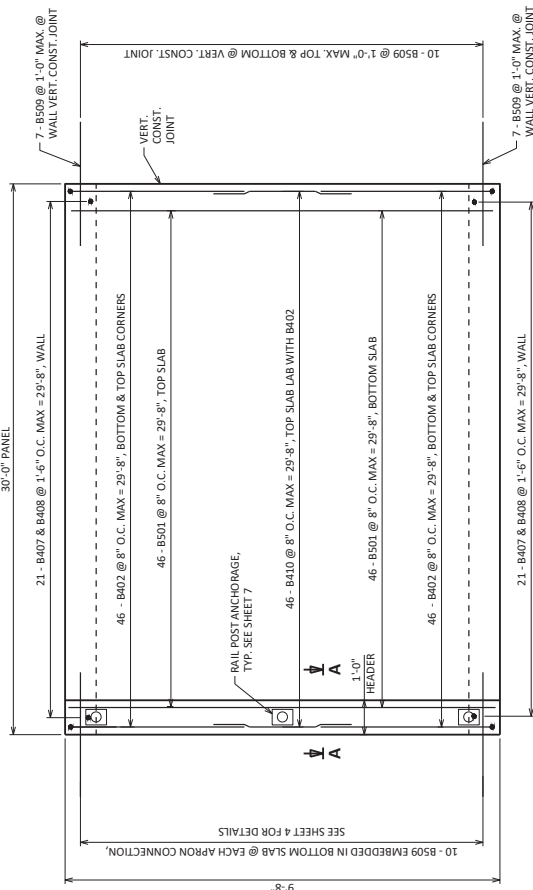
4540-34-71

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

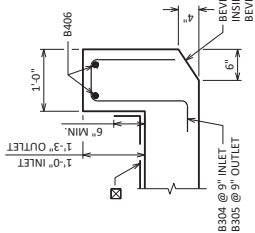
BAR MARK	NO. REQ'D	LENGTH	BAR SERIES	LOCATION
B501	184	9'-4"		TOP & BOTTOM SLAB TRANS.
B402	368	7'-8"	X	TOP & BOTTOM CORNER
B403	86	29'-8"		LONG
B304	14	3'-11"	X	INLET HEADER
B305	14	4'-9"	X	OUTLET HEADER
B406	4	9'-4"		HEADER
B407	84	2'-7"		WALL BOTTOM SLAB VERT.
B408	84	4'-8"		EXTERIOR WALL VERT.
B509	54	4'-0"		VERT. CONST. JT. & APRON DOWELS
B410	92	5'-5"		TOP SLAB TRANS.

Addendum No. 01
ID 4540-34-71
Added Sheet 290U
November 19, 2024



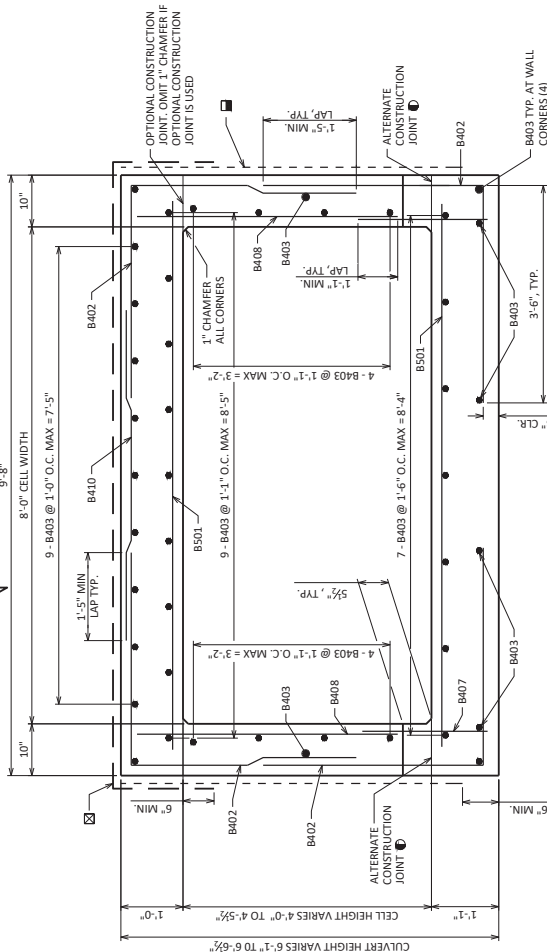
PLAN VIEW - PANEL 1

PANEL 2 SIMILAR OPP. HAND



SECTION A-A THRU HEADER

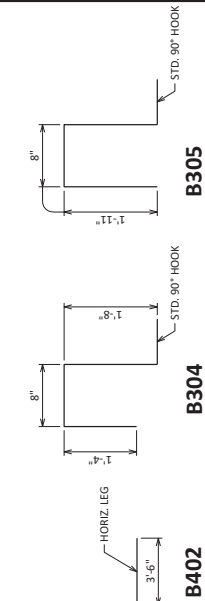
INLET SHOWN, OUTLET SIMILAR



TYPICAL SECTION THRU BOX

LEGEND

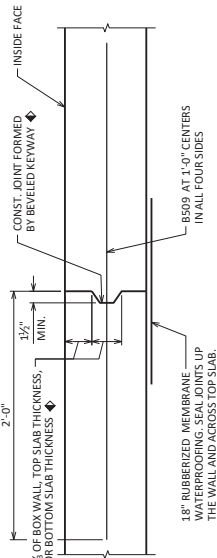
- ALTERNATE CONSTRUCTION JOINT: OMIT 1" CHAMFER IF ALTERNATE CONST. JOINT IS USED.
- IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, PROVIDE 18" RUBBERIZED MEMBRANE WATERPROOFING WITHIN 12 HOURS AFTER POURING. USE BARS 4'-0" AT 1'-0" CENTERS REQUIRED.
- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING TO BE PROVIDED TO ALL VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.
- "SHEET MEMBRANE WATERPROOFING FOR ASPHALT OVERLAYS" ACROSS TOP SLAB. EXTEND 6" ALONG VERTICAL FACE OF HEADERS AND BELOW BOTTOM OF TOP SLAB.



B402

B304

B305



VERTICAL CONSTRUCTION JOINT

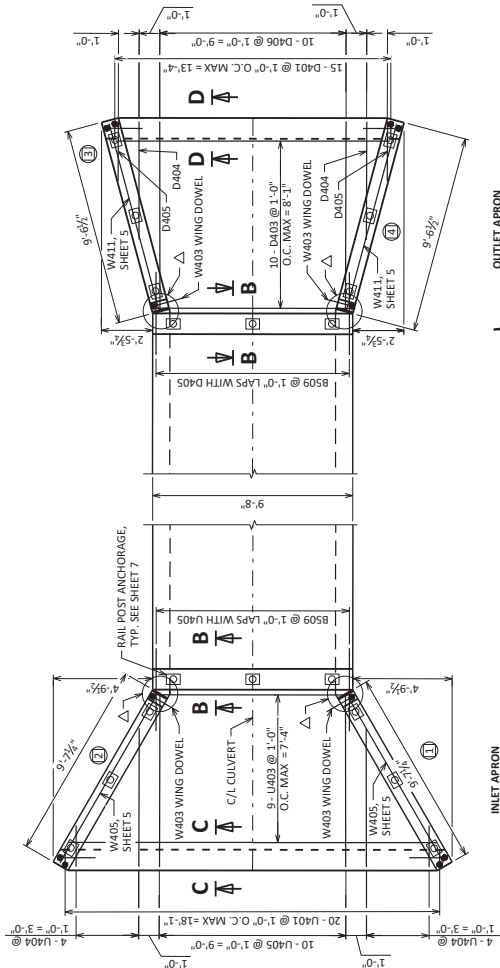
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-59-121			
DESIGNED BY	CWG	ECG	KGW
SHEET 3 OF 7			
290U			

BOX DETAILS

SCALE =

STATE PROJECT NUMBER

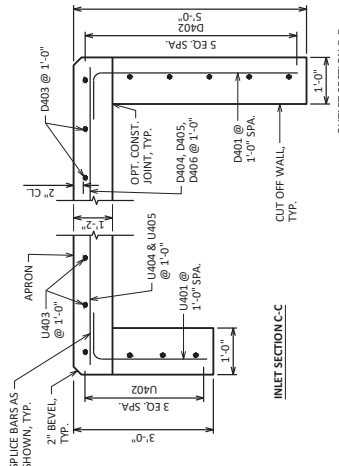
4540-34-71



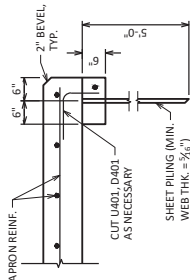
APRON REINFORCING PLAN

INLET APRON

OUTLET APRON



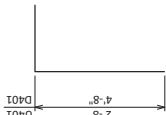
CUT OFF WALLS



ALTERNATE CUT OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

Addendum No. 01
ID 4540-34-71
Added Sheet 290V
November 19, 2024



D401, U401

BILL OF BARS INLET

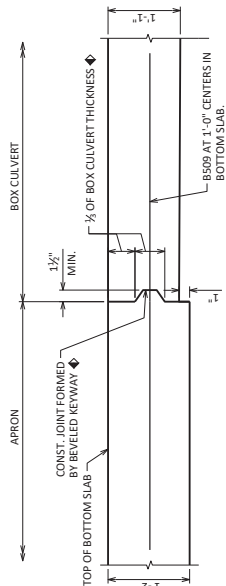
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	NO. REQ'D.	LENGTH	BAR SERIES	LOCATION
U401	20	3'-6"	X	CUT OFF WALL VERT.
U402	4	18'-1"	▲	CUT OFF WALL HORIZ.
U403	9	13'-7"	▲	TRANS. APRON BARS
U404	8	4'-7"	▲	LONG. APRON
U405	10	8'-4"	▲	LONG. APRON

BILL OF BARS OUTLET

BAR MARK	NO. REQ'D.	LENGTH	BAR SERIES	LOCATION
D401	15	5'-6"	X	CUT OFF WALL VERT.
D402	6	13'-4"	▲	CUT OFF WALL HORIZ.
D403	10	11'-2"	▲	TRANS. APRON BARS
D404	2	6'-2"	▲	LONG. APRON
D405	2	2'-8"	▲	LONG. APRON
D406	10	9'-1"	▲	LONG. APRON

SECTION B-B APRON CONNECTION DETAIL



▲ LENGTH SHOWN FOR BARS IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 9	9'-3" TO 17'-11"
U404	2 SERIES OF 4	2'-0" TO 7'-2"

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
D403	1 SERIES OF 10	9'-4" TO 13'-0"

LEGEND

◆ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM OF THE APRON, THE APRON SHALL BE CAST IN PLACES WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

△ SEE CORNER DETAILS SHEET 5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-59-121			
DESIGNED BY	CWG	KGW	
SHEET 4 OF 7			
290V			

SCALE =

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	NO. REQ'D	LENGTH	BENT	LOCATION
* W401	X 32	3'-0"		WING F.F. VERT. DOWEL
W402	X 16	2'-9"	▲	WING 1 & 2 - F.F. VERT.
W403	X 56	8'-0"	X	WING B.F. VERT. DOWEL
W404	X 28	2'-9"		WING 1 & 2 - B.F. VERT.
W405	X 12	9'-2"		WING 1 & 2 - HORIZ.
W406	X 4	5'-10"		WING 1 & 2 - HORIZ.
W407	X 4	2'-0"		WING 1 & 2 - HORIZ.
W508	X 4	9'-8"		WING 1 & 2 - TOP
W409	X 16	2'-9"	▲	WING 3 & 4 - F.F. VERT.
W410	X 28	2'-9"	▲	WING 3 & 4 - B.F. VERT.
W411	X 12	9'-1"		WING 3 & 4 - HORIZ.
W412	X 4	5'-9"		WING 3 & 4 - HORIZ.
W413	X 4	2'-0"		WING 3 & 4 - HORIZ.
W514	X 4	9'-6"		WING 3 & 4 - TOP

▲ LENGTH SHOWN FOR BARS IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

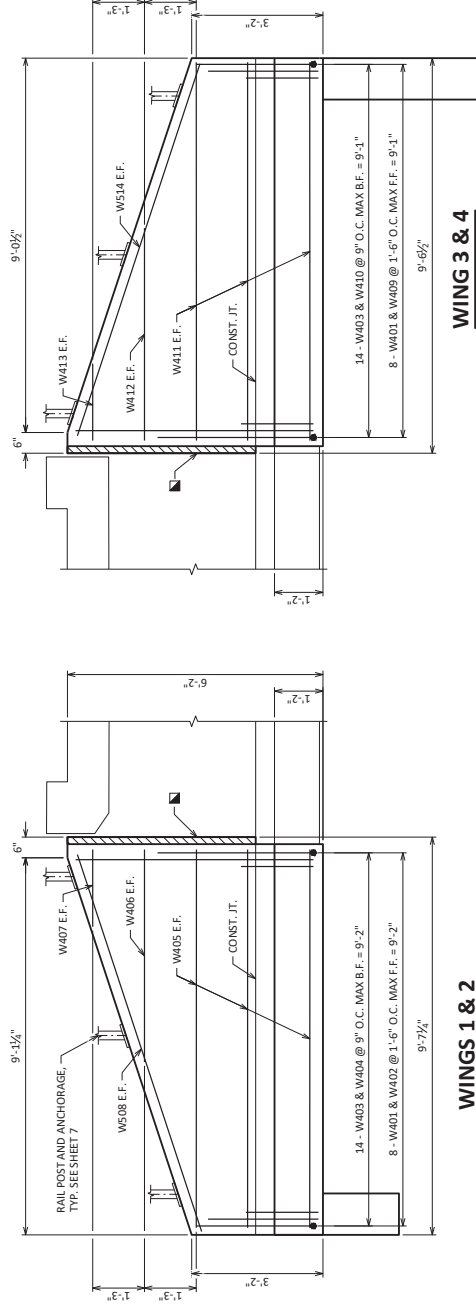
BAR MARK	NO. REQ'D	LENGTH
W402	2 SERIES OF 8	1'-3" TO 4'-3"
W404	2 SERIES OF 14	1'-3" TO 4'-3"
W409	2 SERIES OF 8	1'-3" TO 4'-3"
W410	2 SERIES OF 14	1'-3" TO 4'-3"

Addendum No. 01
ID 4540-34-71
Added Sheet 290W
November 19, 2024

LEGEND

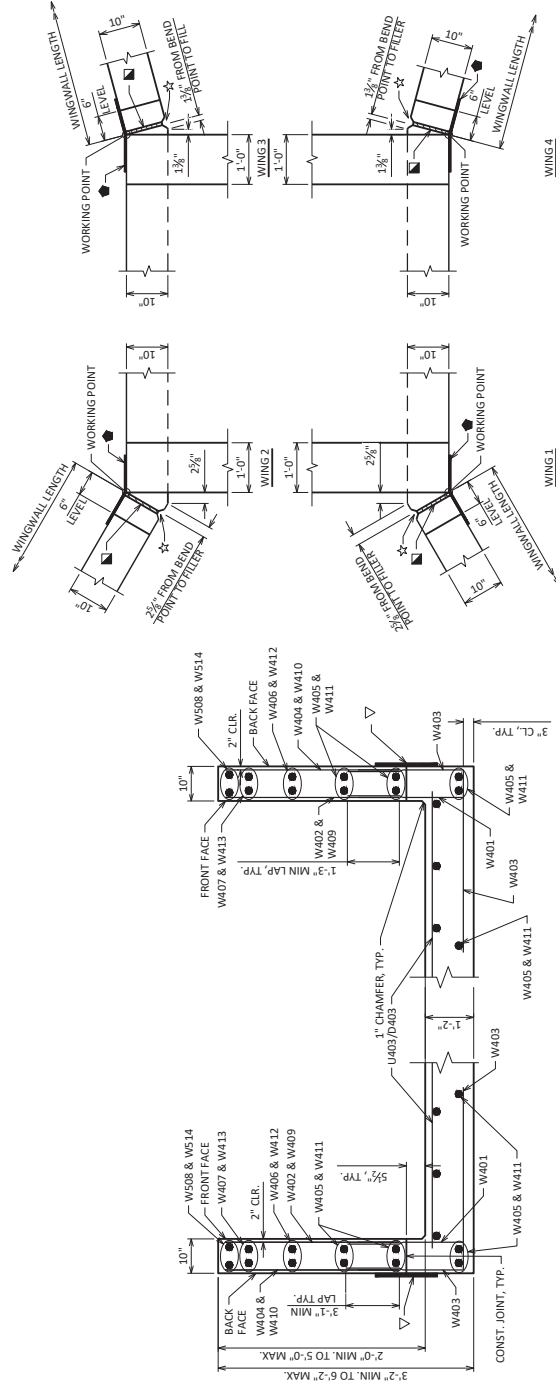
- ▲ 3/4" FILLER TO EXTEND FROM HORIZONTAL CONSTRUCTION JOINT TO TOP OF WING. FILLER INCLUDED IN WING LENGTH.
- 18-INCH RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL (FLUSH WITH FACE OF CONCRETE)
- ▽ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONST. JT. IN WING
- * FIELD TRIM VERTICAL LEG TO FIT NEAR WING TIP.
- ☆ TOUCHUP CUT END WITH F.O.R.
- ☆ 1" BEVEL

5'-2"
W403 *



WING 3 & 4

WINGS 1 & 2



CORNER DETAILS

SECTION THRU WINGWALLS

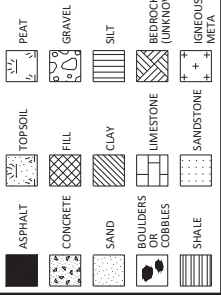
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-59-121		DESIGNED BY	KGW
DRAWN BY		CWG	ECD
SHEET 5 OF 7		290W	

WINGWALL
DETAILS

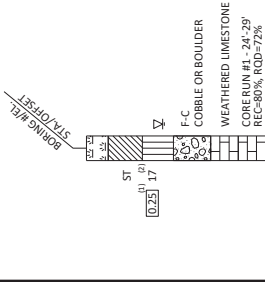
SOIL EXPLORATION PERFORMED BY:
ECS MIDWEST, LLC
1000 W. WISCONSIN ROAD
GREEN BAY, WI 54304
(920) 347-9040

STATE PROJECT NUMBER
4540-34-71

MATERIAL SYMBOLS



LEGEND OF BORING



UNCOMPACTIONED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (15%)
UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON A STANDARD 60 LB. HAMMER, 30 INCH DROP, 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 SHOWN ON THE ATTACHED MAP. THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE, BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL, IS NOT NEARLY AS ACCURATE AS THAT WHICH COULD BE OBTAINED BY A MORE EXTENSIVE INVESTIGATION. THE DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS FROM THE INFORMATION HEREIN MAY OCCUR.

NO. DATE REVISION BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-59-121

DESIGNED BY
CWM/KCD

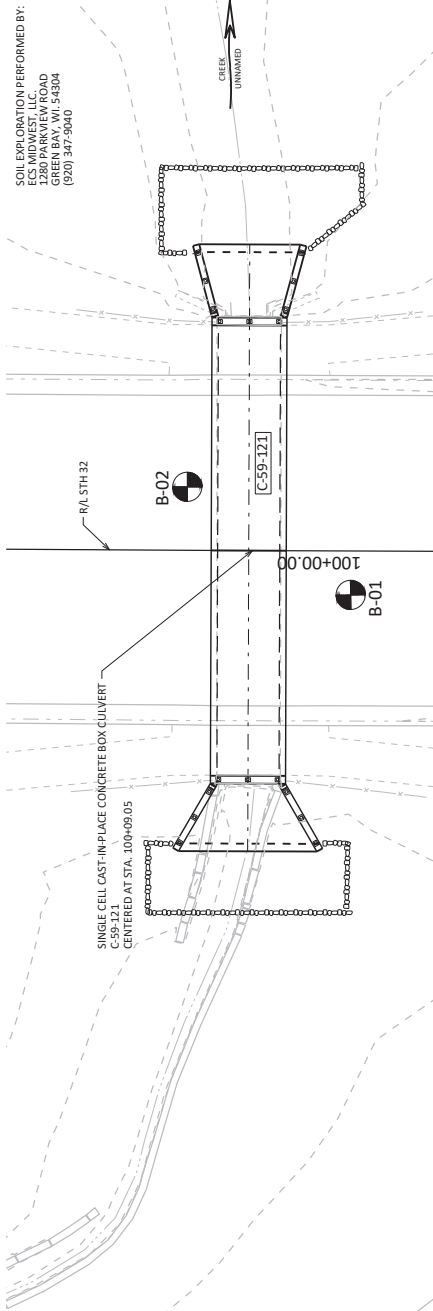
KGW

**SUBSURFACE
EXPLORATION**

SHEET 6 OF 7

290X

Addendum No. 01
ID 4540-34-71
Added Sheet 290X
November 19, 2024



PLAN

