



# Wisconsin Department of Transportation

December 18, 2020

## Division of Transportation Systems Development

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

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

### NOTICE TO ALL CONTRACTORS:

**Proposal #33: 1021-00-78, WISC 2021 100**  
**Baldwin - Menomonie**  
**CTH NN Bridge EB B-55-0271**  
**IH 94**  
**St. Croix County**

**1021-00-79, WISC 2021 101**  
**Baldwin - Menomonie**  
**CTH NN Bridge WB B-55-0270**  
**IH 94**  
**St. Croix County**

**1021-04-77, WISC 2021 102**  
**Baldwin - Menomonie**  
**Carr Creek EB Br B-55-0281 & 0285**  
**IH 94**  
**St. Croix County**

**1021-04-78, WISC 2021 103**  
**Baldwin - Menomonie**  
**Carr Creek WB Br B-55-0282 & 0286**  
**IH 94**  
**St. Croix County**

### Letting of January 12, 2021

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)
406A – 406E	C-55-19 (inadvertently missing in plan set)

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  
**1021-00-79**

- ▲ SEE CORNER DETAILS ON "APRON DETAILS" SHEET
- NAME PLATE LOCATION (SEE "APRON DETAILS" SHEET)
- \* BUILD APRON AND END OF BOX LEVEL
- INDICATES WING NUMBER
- VERT. CONST. JOINT
- △ EXIST. BARREL TO REMAIN IN PLACE
- INSIDE WALLS TO MATCH EXISTING (TYP.)
- ☒ REMOVE EXISTING APRON AND WINGS.
- ADHESIVE ANCHORS NO. 5 BARS, EMBED 6" INTO SOUND CONCRETE AND SPACE 6" INTO JOINTS (TYP. IN ALL WALLS AND SLABS)

**Addendum No. 01**  
**ID 1021-00-79**  
**Added Sheet 409A**  
**December 18, 2020**

**LIST OF DRAWINGS**

1. LAYOUT
2. BOX DETAILS 1
3. BOX DETAILS 2
4. APRON DETAILS
5. APRON DETAILS

STRUCTURE DESIGN CONTACTS:  
BRETT FOLLETT (608) 266-0214  
AARON BONK (608) 261-0261

8

**BUREAU OF STRUCTURES**

5/1/20

DATE

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**STRUCTURE C-55-19**

COUNTY ST. CROIX TOWN

IH 94 OVER BRANCH OF EAU GALLE RIVER

DESIGN SPEC. N/A

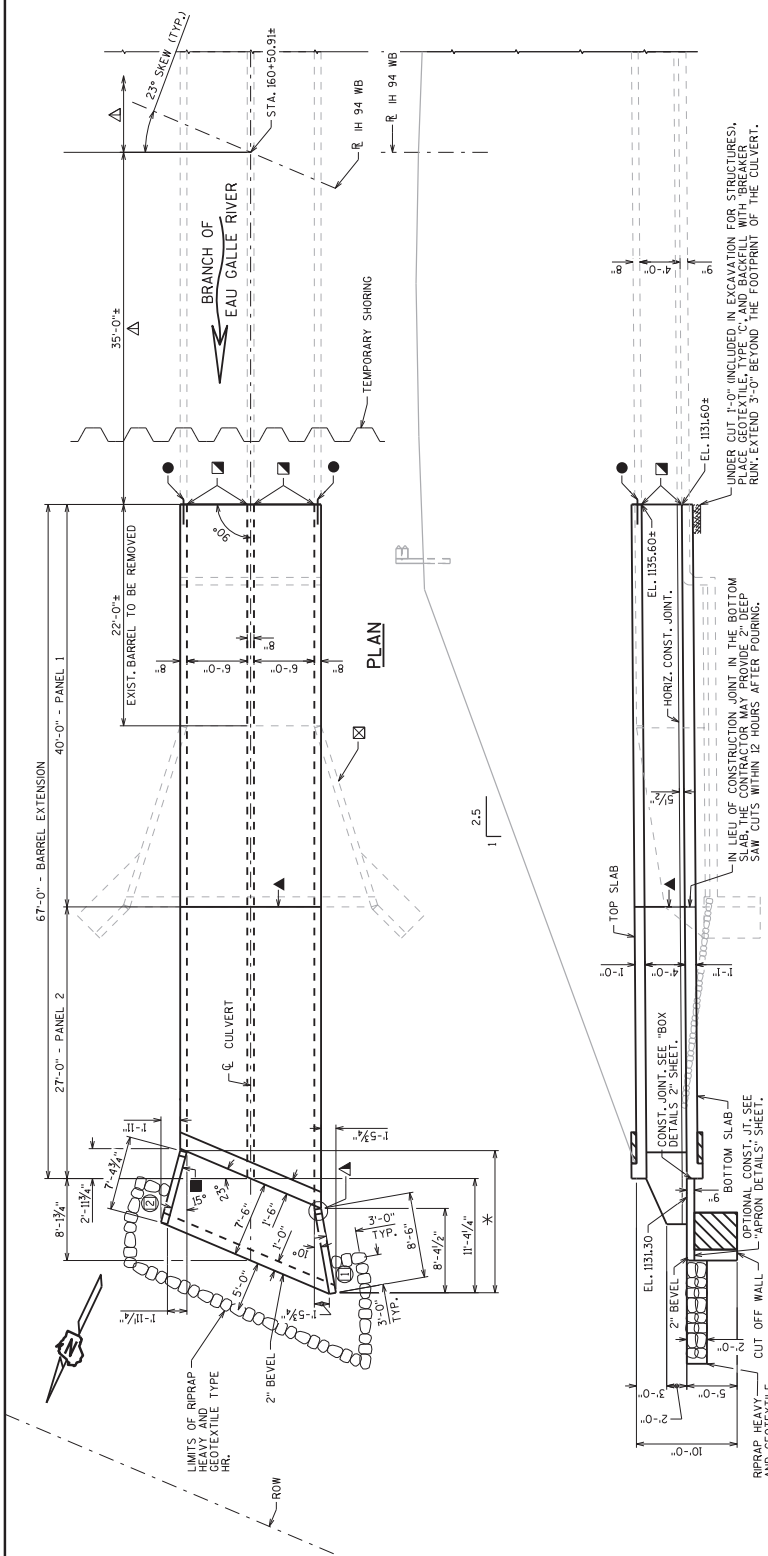
REHABILITATION N/A

BY: [Signature] DR: [Signature] N/A

PLANS: MJK

SHEET 1 OF 5

406A



**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 1/4" UNLESS OTHERWISE NOTED.  
THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES CULVERTS C-55-19 SHALL BE THE EXISTING GROUNDLINE.  
ALL WORK AREAS MUST 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 6" MIN. BELOW THE TOP OF BOTTOM SLAB.  
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 SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL OBTAIN THE CURRENT WISCONSIN SECTION OF THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE TOTAL ESTIMATED QUANTITIES.

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #4 OR #2 CONCRETE COARSE AGGREGATE WITH #4 STEEL FIBER REINFORCEMENT IN THE BREAKER RUN TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

**TOTAL ESTIMATED QUANTITIES**

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. B0+50.91	LS	1
208.2000	EXCAVATION FOR STRUCTURES CULVERTS C-55-19	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	685
310.015	BREAKER RUN	CY	57
504.0205	ADHESIVE ANCHORS NO. 5 BAR	EACH	42
504.0100	CONCRETE MASONRY CULVERTS	CY	101
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	10,715
505.0800	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	260
511.200	TEMPORARY SHORING C-55-19	SF	1,660
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	CY	9
606.0300	RIPRAP HEAVY	CY	11
645.0105	GEOTEXTILE TYPE C	SY	186
645.0120	GEOTEXTILE TYPE HR	SY	28
	NON-BID ITEMS		
	FILLER	EACH	1/4"

**DESIGN DATA**

LIVE LOAD: \_\_\_\_\_  
 DESIGN WINDING: HL-93  
 DESIGN WINDING: HL-93  
 DESIGN WINDING: HL-93  
 OPERATING RATING FACTOR: RF = 1.35  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255(KIPS)  
 EARTHLOAD: \_\_\_\_\_  
 DESIGNED FOR 22 FT. OF FILL.  
 MATERIAL PROPERTIES:  
 BAR STEEL REINFORCEMENT: \_\_\_\_\_ f<sub>y</sub> = 3,600 P.S.I.  
 \_\_\_\_\_ f<sub>c</sub> = 6,000 P.S.I.

**HYDRAULIC DATA**

100 YEAR FREQUENCY  
 V<sub>100</sub> = 150 C.T.P.S.  
 R.O.S. = 70 M.P.H.  
 W<sub>100</sub> = 4,920 (204)  
 WATERWAY AREA = 48 SQ. FT.  
 DRAINAGE AREA = 0.55 SQ. MI.  
 ROADWAY OVERTOPPING = N/A

**TRAFFIC VOLUME**

100 YEAR FREQUENCY  
 V<sub>100</sub> = 150 C.T.P.S.  
 R.O.S. = 70 M.P.H.  
 W<sub>100</sub> = 4,920 (204)  
 WATERWAY AREA = 48 SQ. FT.  
 DRAINAGE AREA = 0.55 SQ. MI.  
 ROADWAY OVERTOPPING = N/A

ID. 1021-00-09B

DATE: FEB. 2020

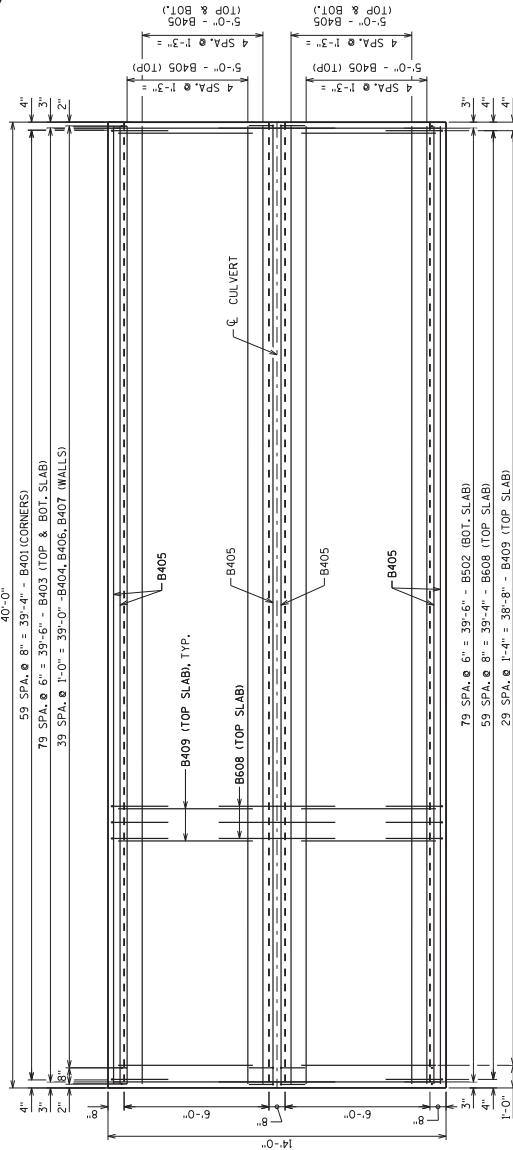
SCALE = 6:00

STATE PROJECT NUMBER  
**1021-00-79**

**BILL OF BARS**

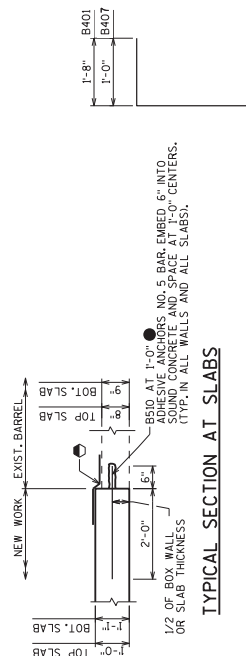
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE

BAR MARK	NO.	LENGTH	BAR SERIES	LOCATION
B401	240	5'-2"	X	CORNERS
B502	80	4'-10"		BOT. SLAB - TRANSVERSE
B403	160	13'-5"		TOP AND BOT. SLAB - TRANSVERSE
B404	164	12'-5"		WALLS - DOMELS - VERT.
B405	64	39'-8"		TOP AND BOT. SLAB AND WALLS - LONGIT.
B406	82	4'-4"		EXTERIOR WALLS - VERT.
B407	82	5'-3"	X	INTERIOR WALLS - VERT.
B608	60	4'-10"		TOP SLAB - TRANSVERSE
B409	30	5'-7"		TOP SLAB - TRANSVERSE
B510	42	2'-6"		VERT. CONST. JOINT
B511	42	4'-0"		VERT. CONST. JOINT



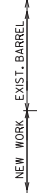
**PLAN VIEW OF PANEL 1**

Addendum No. 01  
ID 1021-00-79  
Added Sheet 409B  
December 18, 2020



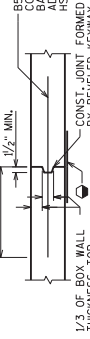
**TYPICAL SECTION AT SLABS**

B401, B407



**VERTICAL CONSTRUCTION JOINT**

TYP. WALLS



**VERTICAL CONSTRUCTION JOINT**

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JOINT IN BOTTOM SLAB.

- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS; EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.
- OMIT 1" FILLET IF ALT. CONST. JOINT IS USED
- ADHESIVE ANCHORS NO. 5 BARS EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS (TYP. IN ALL WALLS AND SLABS)
- IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

**TYPICAL SECTION THRU BOX - PANEL 1**

ALL LONGITUDINAL BARS NOT LABELED ARE B405 AS SHOWN

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION	
<b>STRUCTURE C-55-19</b>			
DESIGNED BY	BRANN	PLANS CHECKED BY	MIK
<b>BOX DETAILS 1</b>			SHEET 2
			<b>406B</b>

STATE PROJECT NUMBER  
**1021-00-79**

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

**BILL OF BARS**

BAR MARK	NO. RECD.	LENGTH	BAR SERIES	LOCATION
C401	164	5'-2"	X	CORNERS
C502	54	4'-10"	X	BOT. SLAB - TRANSVERSE
C403	96	13'-6"	▲	TOP AND BOT. SLAB - TRANSVERSE
C404	22	6'-11"	▲	TOP AND BOT. SLAB - TRANSVERSE
C405	112	2'-5"	X	WALLS - DOWELS - VERT.
C406	56	4'-4"	X	EXTERIOR WALLS - VERT.
C407	56	5'-3"	X	INTERIOR WALL - VERT.
C608	41	4'-10"	X	TOP SLAB - TRANSVERSE
C409	42	5'-7"	▲	TOP SLAB - TRANSVERSE
C411	10	25'-4"	▲	TOP AND BOT. SLAB - LONGIT.
C412	10	27'-11"	▲	TOP AND BOT. SLAB - LONGIT.
C413	5	25'-1"	▲	TOP SLAB - LONGIT.
C414	9	23'-9"	▲	EXTERIOR WALL - LONGIT.
C415	12	26'-7"	▲	EXTERIOR WALL - LONGIT.
C416	9	29'-5"	▲	EXTERIOR WALL - LONGIT.
C417	1	24'-4"	▲	BOT. SLAB - LONGIT.
C418	1	25'-7"	▲	BOT. SLAB - LONGIT.
C419	1	27'-7"	▲	BOT. SLAB - LONGIT.
C420	1	28'-10"	▲	BOT. SLAB - LONGIT.
C321	19	4'-9"	X	BOT. HEADER - STIRRUP - VERT.
C722	12	14'-9"	X	HEADER - HORIZ.
C323	19	5'-1"	X	TOP HEADER - STIRRUP - VERT.
C524	14	4'-0"	X	APRON CONNECTION JOINT TIE

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

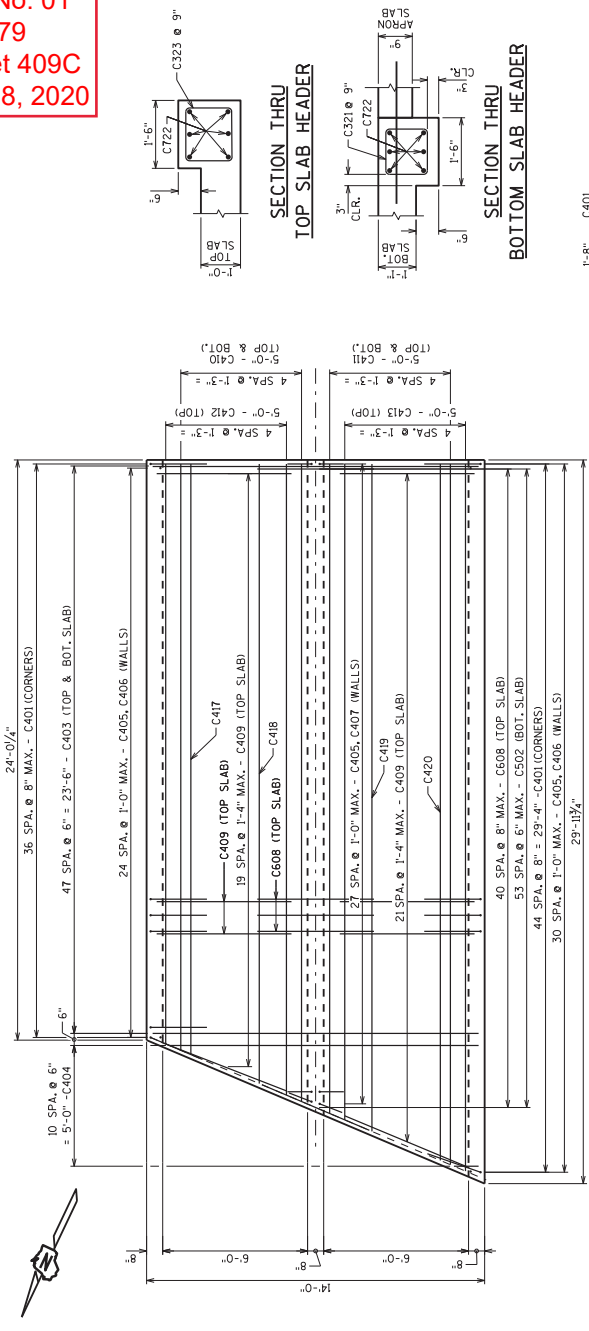
**BAR SERIES TABLE**

BAR MARK	NO. RECD.	LENGTH
C404	2 SERIES OF 11	1'-0" TO 12'-9"
C410	2 SERIES OF 5	24'-3" TO 26'-4"
C411	2 SERIES OF 5	26'-10" TO 29'-0"
C412	1 SERIES OF 5	24'-6" TO 26'-1"
C413	1 SERIES OF 5	23'-3" TO 23'-3"

BUNDLE AND TAG EACH SERIES SEPARATELY.

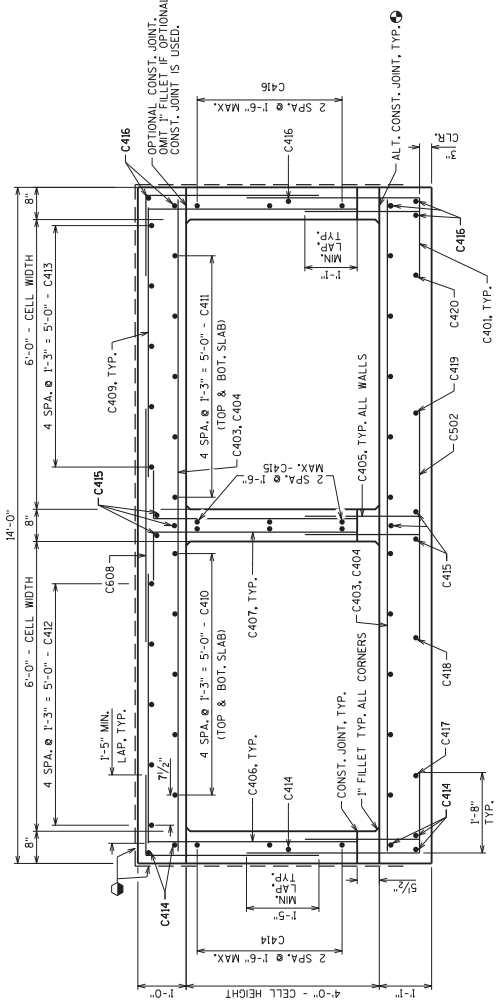
- \* FLARE BARS AS NECESSARY TO FIT AT SKEWED END
- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS; EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.
- OMIT 1" FILLET IF ALT. CONST. JOINT IS USED
- IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

Addendum No. 01  
ID 1021-00-79  
Added Sheet 409C  
December 18, 2020

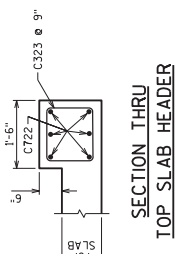


**PLAN VIEW OF PANEL 2**

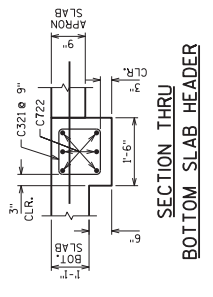
APRON AND HEADERS ARE NOT SHOWN



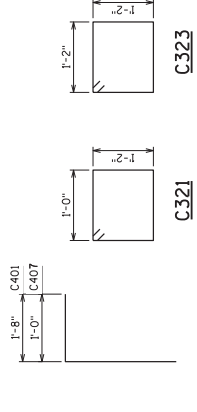
**TYPICAL SECTION THRU BOX - PANEL 2**



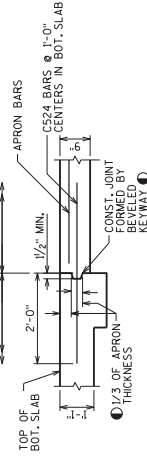
**SECTION THRU TOP SLAB HEADER**



**SECTION THRU BOTTOM SLAB HEADER**



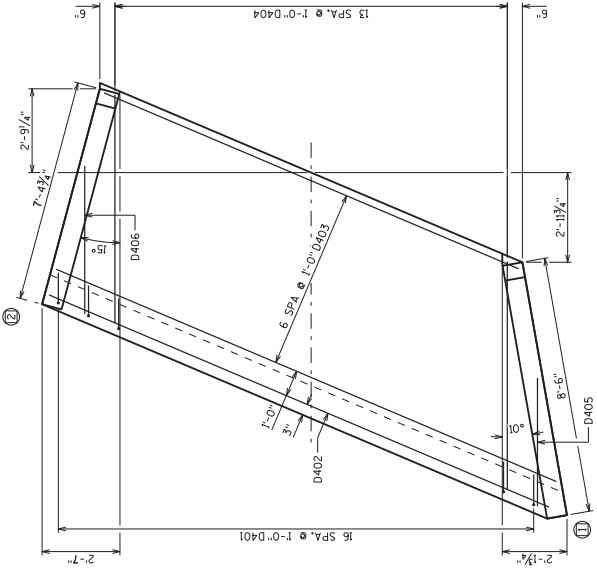
NOTE: SEE BOX DETAILS 1" SHEET FOR VERTICAL CONSTRUCTION JOINT DETAIL



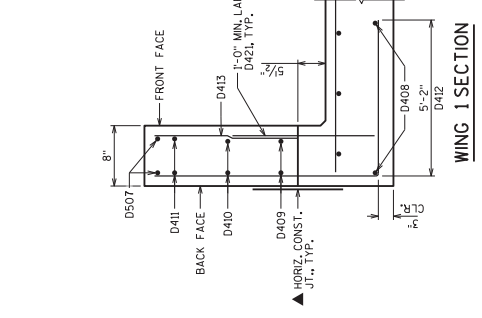
**APRON CONNECTION DETAIL**

NO. DATE REVISION BY  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
STRUCTURES DESIGN SECTION  
STRUCTURE C-55-19  
ISSUED BY: MJK  
SHEET 3  
406C

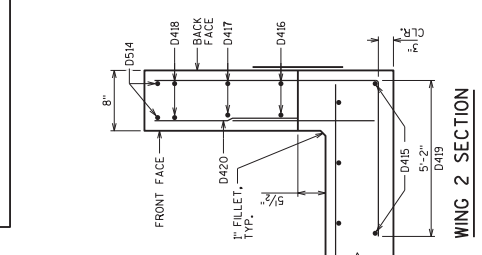
STATE PROJECT NUMBER  
1021-00-79



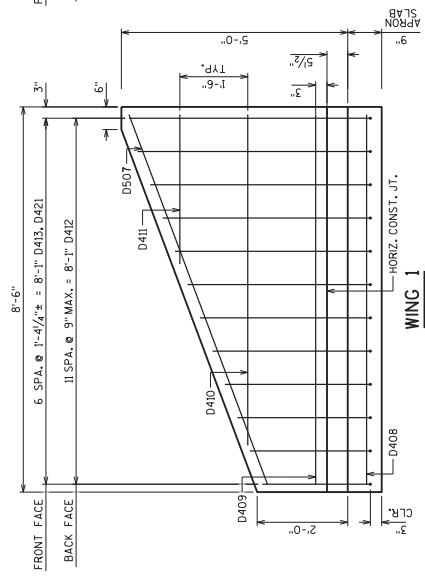
OUTLET APRON PLAN



WING 1 SECTION

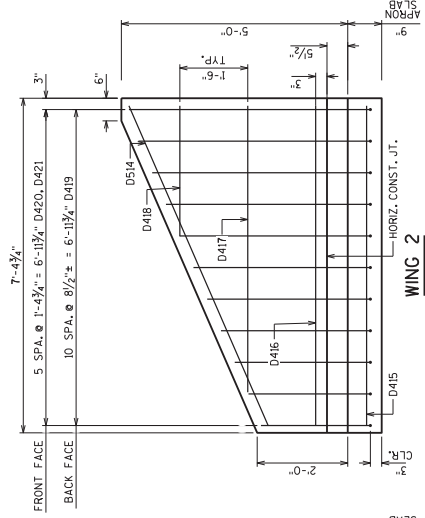


WING 2 SECTION



WING 1

SHOWING BACK FACE REINFORCEMENT



WING 2

SHOWING BACK FACE REINFORCEMENT

Addendum No. 01  
ID 1021-00-79  
Added Sheet 409D  
December 18, 2020

INDICATES WING NUMBER  
8" SUBMERGED MEMBRANE WATERPROOFING PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH, TYP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
STRUCTURES DESIGN SECTION

STRUCTURE C-55-19

DESIGNER	BRUNN
BY	MJK
DATE	BAF/CED

APRON

SHEET 4

406D

STATE PROJECT NUMBER  
1021-00-79

**BAR SERIES TABLE**

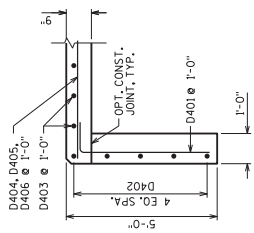
BAR MARK	NO. RECD.	LENGTH
D403	1 SERIES OF 7	14'-11" TO 17'-11"
D412	1 SERIES OF 12	7'-5" TO 10'-5"
D413	1 SERIES OF 7	1'-5" TO 4'-4"
D419	1 SERIES OF 11	7'-5" TO 10'-5"
D420	1 SERIES OF 6	1'-5" TO 4'-4"

**BILL OF BARS**

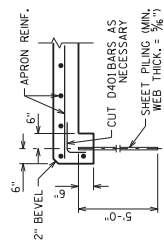
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	NO. RECD.	LENGTH	BAR SERIES	LOCATION
D401	17	5'-6"	X	OUTLET APRON AND CUTOFF WALL VERT.
D402	5	17'-11"	X	OUTLET APRON AND CUTOFF WALL HORIZ.
D403	7	16'-5"	▲	OUTLET APRON SLAB HORIZ.
D404	14	7'-8"	▲	OUTLET APRON SLAB HORIZ.
D405	1	4'-4"	▲	OUTLET APRON SLAB HORIZ.
D406	1	4'-11"	▲	OUTLET APRON SLAB HORIZ.
D507	X	8'-7"	▲	WING 1 HORIZ. TOP BOTH FACES
D408	2	8'-1"	▲	WING 1 HORIZ. APRON SLAB
D409	X	2	8'-1"	WING 1 HORIZ. BOTTOM BOTH FACES
D410	X	2	7'-2"	WING 1 HORIZ.
D411	X	2	3'-2"	WING 1 HORIZ.
D412	X	12	8'-11"	▲ WING 1 VERT. BACK FACE
D413	X	7	2'-11"	▲ WING 1 VERT. FRONT FACE
D514	X	2	7'-7"	▲ WING 2 HORIZ. TOP BOTH FACES
D416	X	2	6'-11"	WING 2 HORIZ. BOTTOM BOTH FACES
D417	X	2	6'-11"	WING 2 HORIZ.
D418	X	2	2'-9"	WING 2 HORIZ.
D419	X	11	8'-11"	▲ WING 2 VERT. BACK FACE
D420	X	6	2'-11"	▲ WING 2 VERT. FRONT FACE
D421	X	13	2'-0"	WINGS 1 & 2 DOWELS - FRONT FACE

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

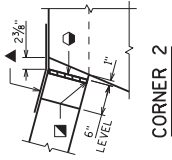


**CUT-OFF WALL**

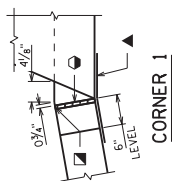


**ALTERNATE CUT-OFF WALL**

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.

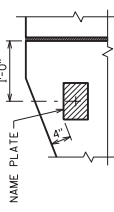


**CORNER 2**

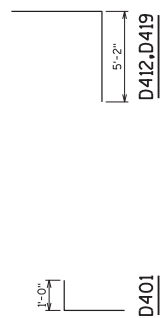


**CORNER 1**

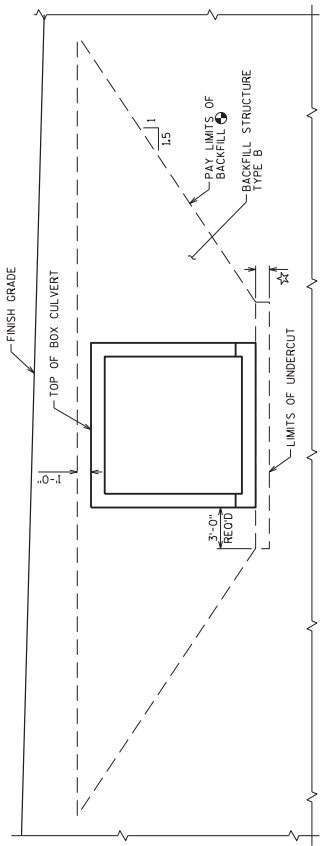
**CORNER DETAILS**



**NAME PLATE LOCATION WING 2**



Addendum No. 01  
ID 1021-00-79  
Added Sheet 409E  
December 18, 2020



**TYPICAL SECTION THRU BOX CULVERT**

● BACKFILL PAY LIMITS: BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED IN CONTRACTOR'S PAYMENT LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.  
★ UNDERCUT 1'-0" EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

- 3/4" FILLER, TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.
- ▲ 1" BEVEL, TYP.
- ▲ 1/8" REINFORCED WEIR/SANE WALL BEHIND WEIR AND FROM HORIZ. CONST. JT. TO TOP OF WALL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-55-19			
DESIGNED BY	BRUNN	BAF/CED.	MIK
SHEET 5			406E

**APRON DETAILS**

406E