



## Wisconsin Department of Transportation

---

February 28, 2023

**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 #01: 1009-11-78  
Madison – Portage  
River Road Bridge B-13-89  
IH 39  
Dane County**

### Letting of March 14, 2023

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

#### Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
9 - 22	SDD – Concrete Barrier Temporary Precast, 12'-6"

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

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

PLACE BARRIER ON PAVED SURFACE BEFORE PLACEMENT OF TEMPORARY BARRIER.  
REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

- (100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:  
A. TYPE OF BARRIER: WH-CBTP  
B. MANUFACTURER  
C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

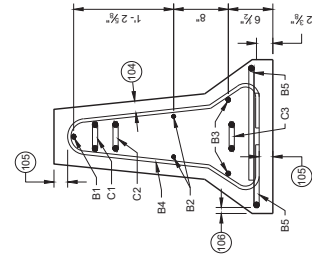
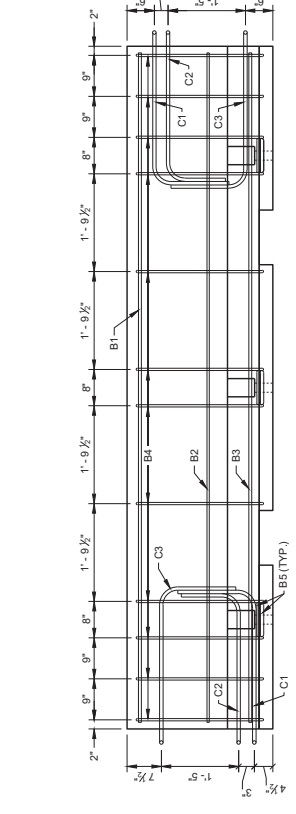
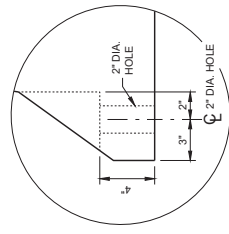
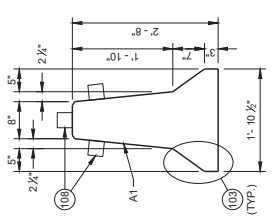
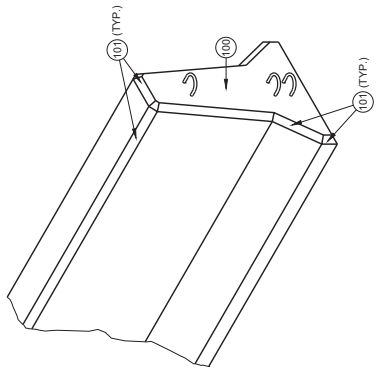
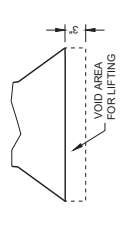
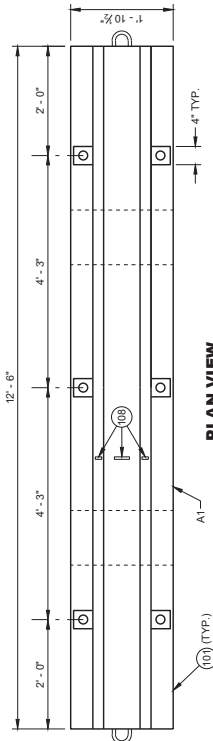
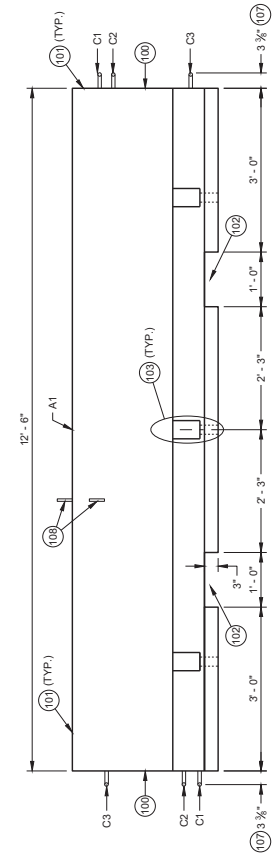
(103) SEE ANCHOR BLOCK DETAIL

(104) 1 1/2" MIN. CLEAR COVER

(105) 7" MIN. CLEAR COVER

(106) 1" MIN. CLEAR COVER

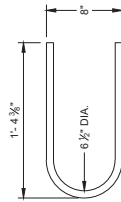
(107) ± 1/2" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)  
(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN REQUIRED BY SECTION 633 OF THE STANDARD SPECIFICATIONS. DELINEATORS AND REFLECTORS SHALL BE PLACED ON THE REAR FACE OF THE BARRIER. DELINEATORS SHALL BE SPACED AT A MAXIMUM OF 25 FEET AND SHALL BE MOUNTED ON THE REAR FACE OF THE BARRIER. DELINEATORS SHALL BE MOUNTED ON THE REAR FACE OF THE BARRIER IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.



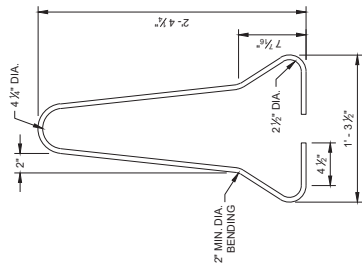
Addendum No. 01  
ID 1009-11-78  
Revised Sheet 10  
February 28, 2023

CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"

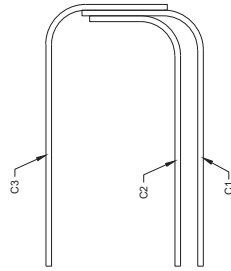
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



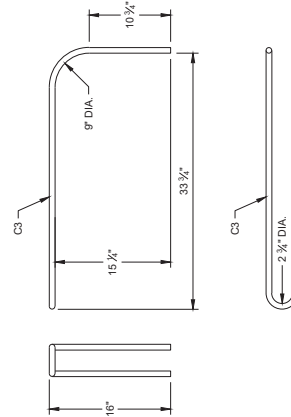
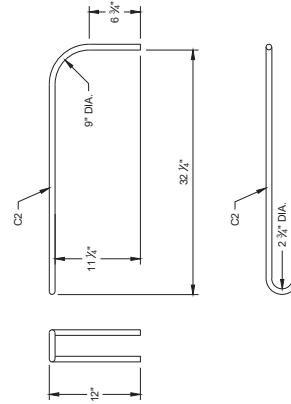
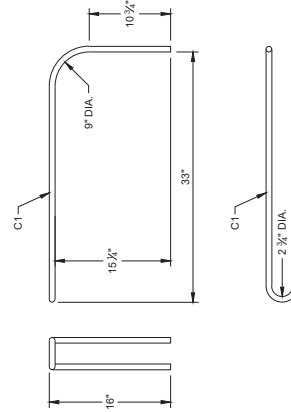
**B5 BAR DETAIL**



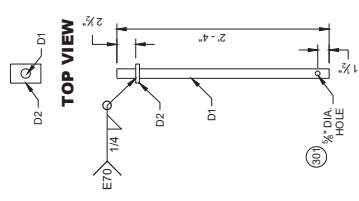
**B4 BAR DETAIL**



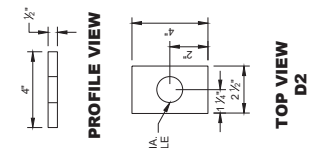
**PROFILE VIEW  
LOOP BAR ASSEMBLY**



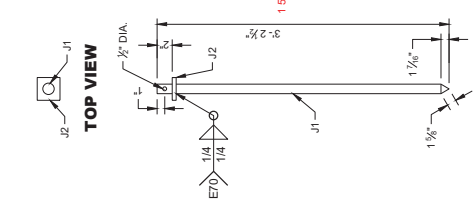
**C BAR DETAILS**



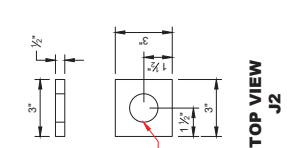
**PROFILE VIEW  
CONNECTOR PIN  
ASSEMBLY**



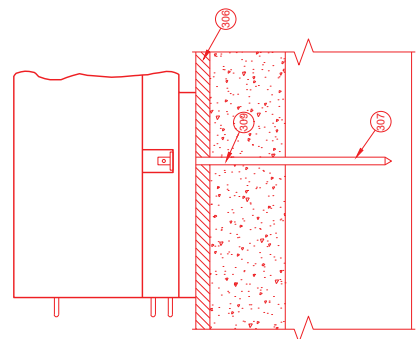
**CONNECTING TEMPORARY  
BARRIER SECTIONS**



**PROFILE VIEW  
ASPHALT ANCHOR PIN  
ASSEMBLY**

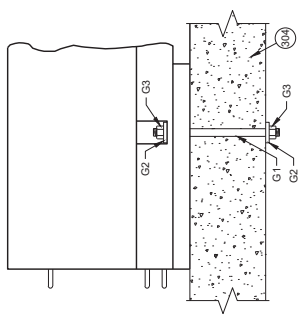


**SIDE VIEW  
ASPHALT ANCHOR  
INSTALLATION  
THROUGH  
ASPHALT PAVEMENT**

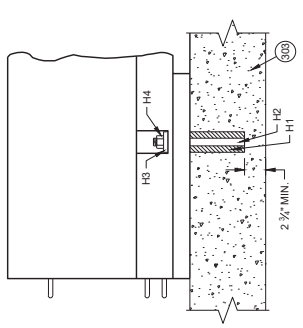


**SIDE VIEW  
ASPHALT ANCHOR  
INSTALLATION  
THROUGH  
ASPHALT OVERLAY  
ON TOP OF  
CONCRETE PAVEMENT**

- GENERAL NOTES**
- 309 SET WITH 3/4" WOOD BLOCK.
  - 307 HOLE IS OPTIONAL.
  - 302 CONNECTOR PIN ASSEMBLY.
  - 303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.
  - 304 CONCRETE DECK.
  - 305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.
  - 306 MINIMUM OF 2" OF ASPHALT.
  - 307 ASPHALT ANCHOR PIN ASSEMBLY.
  - 308 IF DRILLING A PILOT HOLE, THE MAX. DIA. OF THE HOLE IS 3/4".
  - 309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



**SIDE VIEW  
THROUGH BOLT ANCHOR  
INSTALLATION**

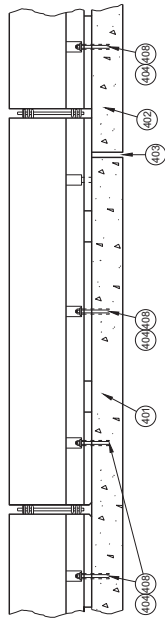


**SIDE VIEW  
ADHESIVE ANCHOR  
INSTALLATION**

Addendum No. 01  
ID 1009-11-78  
Revised Sheet 11  
February 28, 2023

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

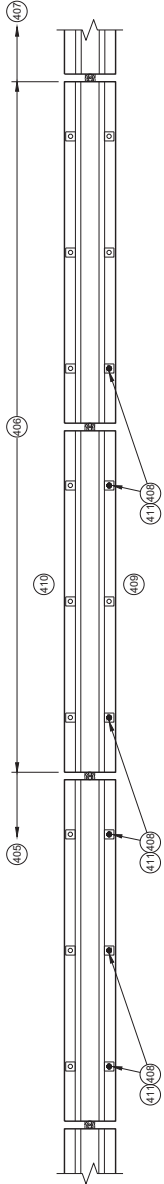
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



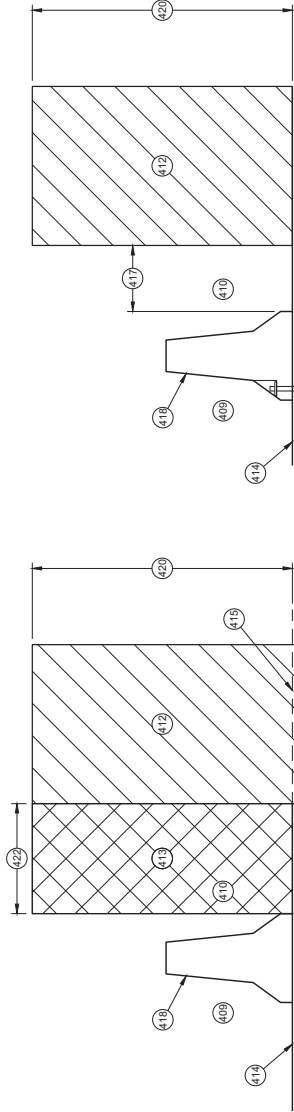
**PROFILE VIEW  
ANCHORED BARRIER NEAR EXPANSION JOINT** (405)

**GENERAL NOTES**

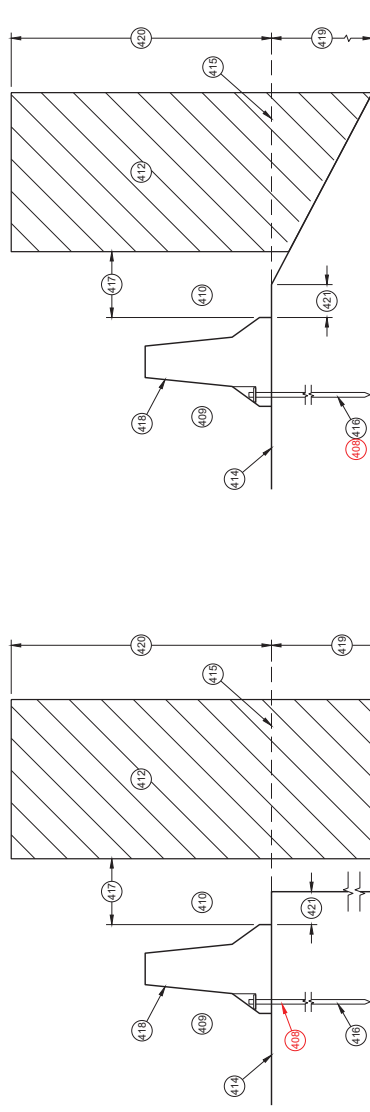
- 400 NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. THE ANCHOR BOLT SHALL BE PLACED IN THE APPROACH SLAB AND THE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.
- 401 CONCRETE DECK
- 402 CONCRETE DECK OR APPROACH SLAB
- 403 EXPANSION JOINT
- 404 ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.
- 405 ANCHORED TEMPORARY BARRIER
- 406 TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING
- 407 REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH PAVEMENTS WITH ASTM D3960 TYPE I RUBBERIZED CRACK FILLER.
- 408 TRAFFIC SIDE
- 409 NON-TRAFFIC SIDE
- 410 ANCHOR LOCATION. SEE ANCHORING DETAILS.
- 411 WORK AREA
- 412 AREA FREE OF OBJECTS AND WORKERS
- 413 GRADE LINE
- 414 EXTENDED GRADE LINE
- 415 ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.
- 416 WHEN OBJECT'S EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.
- 417 OBJECTS ARE NOT TO BE PLACED ON, IN CONTACT TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.
- 418 DEPTHS OF 3 FEET OR MORE.
- 419 Y = 6.5'
- 420 OFFSET FROM BACK OF BARRIER EDGE:  
CONCRETE PAVEMENT 1.0'  
ASPHALT 0.5'
- 421 POSTED SPEED (MPH):  
4.0' NUMBER  
40 OR LOWER 2.0'



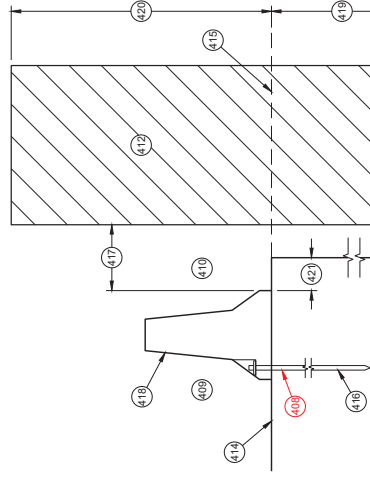
**PLAN VIEW  
TRANSITION FROM FREE STANDING TO ANCHORED BARRIER**



**CROSS SECTION  
FREE STANDING BARRIER**



**CROSS SECTION  
ANCHORED BARRIER FOR OBJECTS ABOVE  
THE GRADE LINE AND NEAR THE BARRIER**



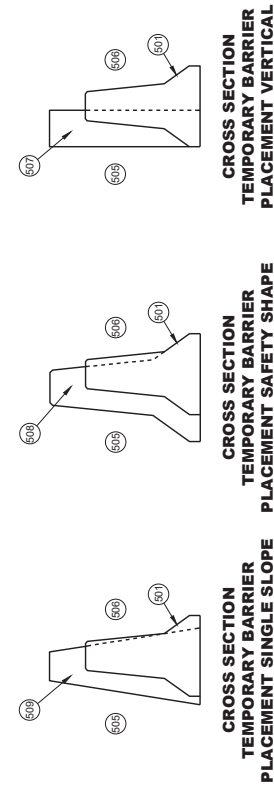
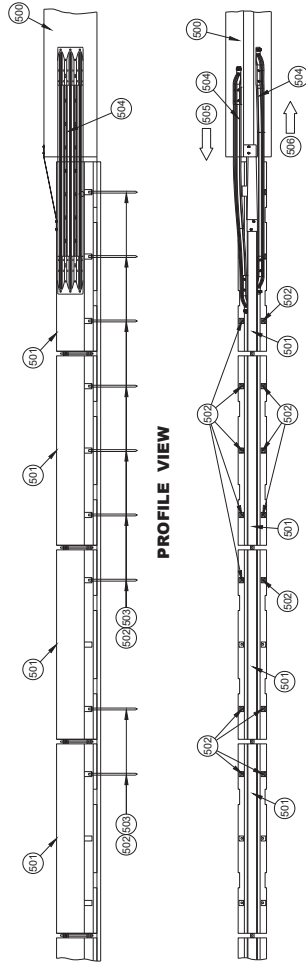
**CROSS SECTION  
ANCHORED BARRIER NEAR A SLOPE**

Addendum No. 01  
ID 1009-11-78  
Revised Sheet 12  
February 28, 2023

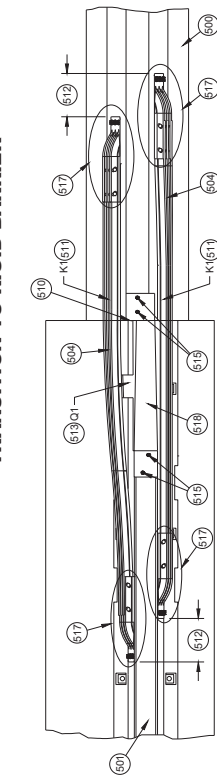
**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

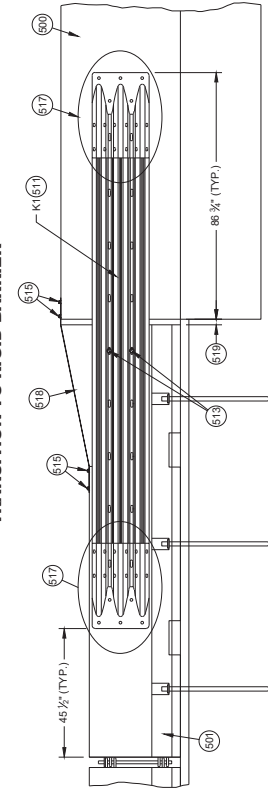
- 600 EXISTING RIGID BARRIERS (VARIES)
- 601 TEMPORARY BARRIER
- 602 SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).
- 603 ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.
- 604 NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.
- 605 TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.
- 606 TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.
- 607 VERTICAL BARRIER
- 608 SAFETY SHAPE BARRIER
- 609 SINGLE SLOPE BARRIER
- 610 CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.
- 611 BENT THRIE BEAM TO FIT.
- 612 THRIE BEAM PIECES ARE OFFSET 15'; TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
- 613 TWO (2) P1, P2 AND P3 ARE REQUIRED
- 614 FIVE (5) N1, N2 AND N3 ARE REQUIRED
- 615 TWO (2) R1, R2 AND R3 ARE REQUIRED
- 616 CUT WOOD BLOCK TO FIT.
- 617 SEE THREE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.
- 618 CAP ASSEMBLY
- 619 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.
- 620 ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



**PLAN VIEW**  
**TRANSITION TO RIGID BARRIER**



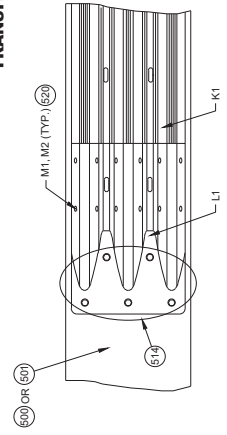
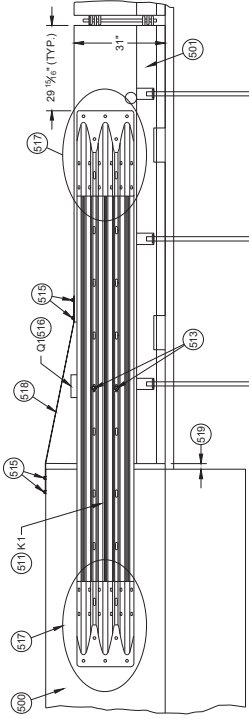
**PLAN DETAIL VIEW**  
**TRANSITION TO RIGID BARRIER**



**FRONT DETAIL VIEW**  
**TRANSITION TO RIGID BARRIER**

**DETAIL PLAN VIEW**  
**THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY**

**BACK DETAIL VIEW**  
**TRANSITION TO RIGID BARRIER**



Addendum No. 01  
ID 1009-11-78  
Revised Sheet 13  
February 28, 2023

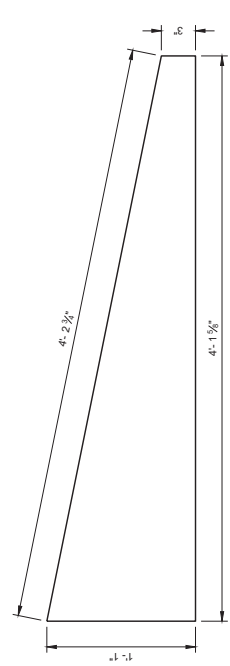
**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

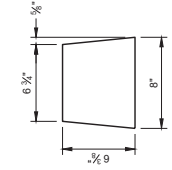
**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

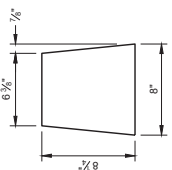
Addendum No. 01  
ID 1009-11-78  
Revised Sheet 14  
February 28, 2023



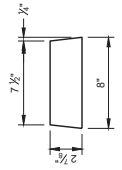
**SIDE VIEW  
S3**



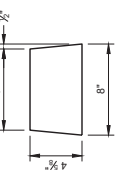
**S5**



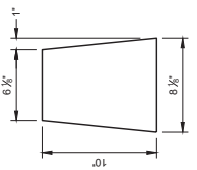
**S4**



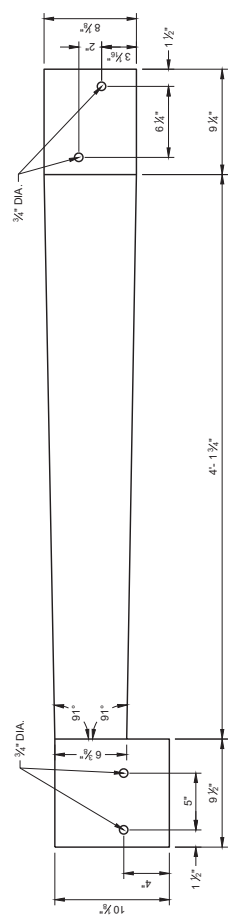
**S7**



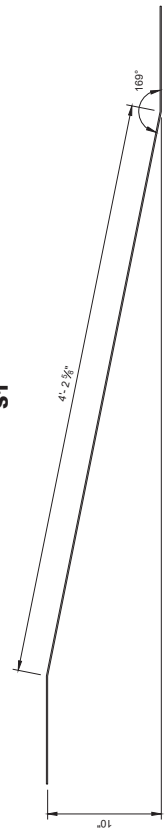
**S6**



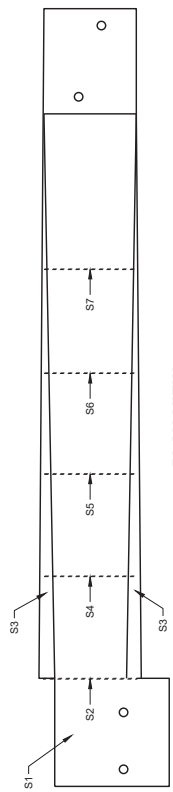
**S2**



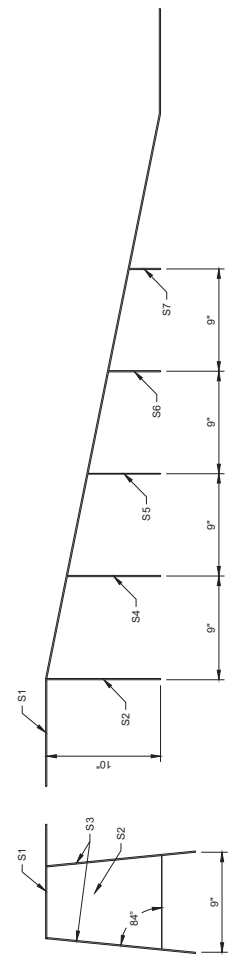
**TOP VIEW  
S1**



**ELEVATION VIEW  
S1**



**PLAN VIEW**



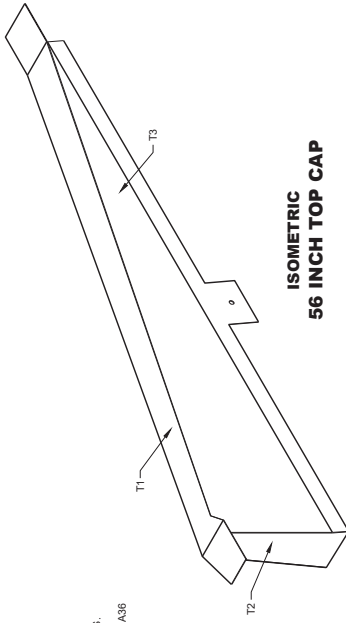
**600 SIDE VIEW**

**BACK VIEW**

**42" TOP CAP ASSEMBLY**

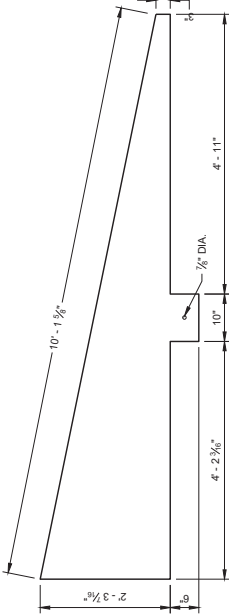
**GENERAL NOTES**  
STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES  
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.  
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

**GENERAL NOTES**  
 STITCHWELD GUSSET PLATES AND END PLATES ON THREE SIDES  
 STITCHWELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.  
 SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM/A36 GALVANIZED STEEL.  
 (700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.

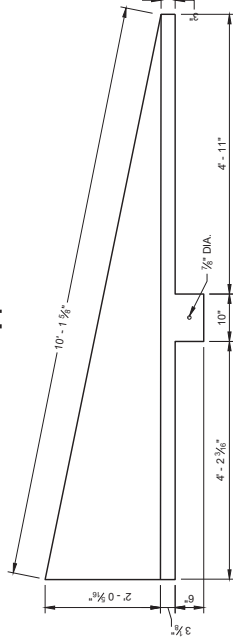


**ISOMETRIC  
56 INCH TOP CAP**

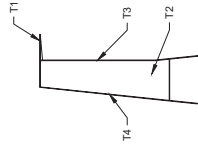
**END VIEW**



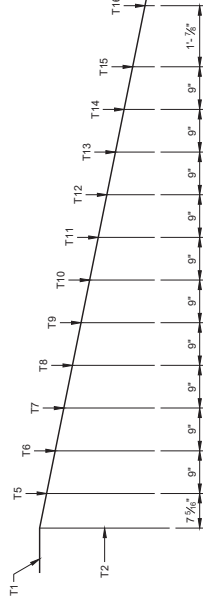
**SIDE VIEW  
T4**



**SIDE VIEW  
T3**

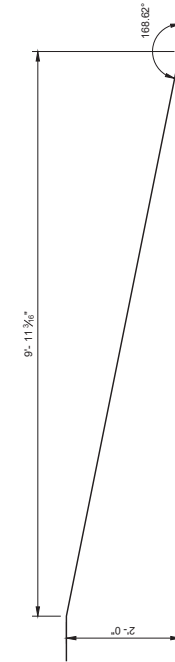


**END VIEW**

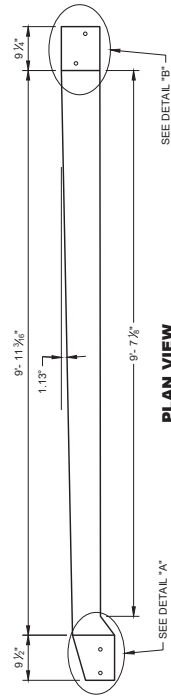


**SIDE VIEW  
56 INCH TOP CAP**

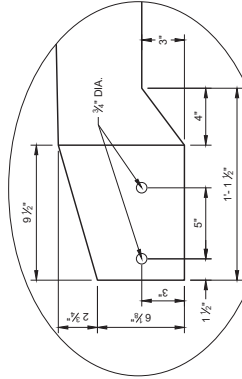
**END VIEW  
56 INCH TOP CAP**



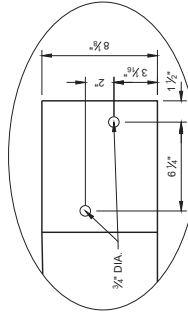
**SIDE VIEW  
TOP PLATE T1**



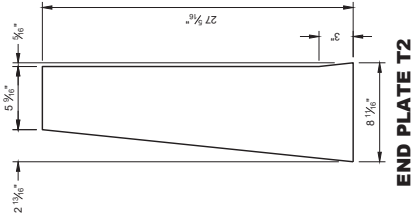
**PLAN VIEW  
TOP PLATE T1**



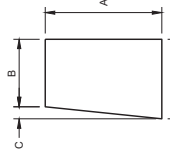
**DETAIL "A"**



**DETAIL "B"**



**END PLATE T2**



**GUSSET PLATES  
T5 - T16**

GUSSET NO.	GUSSET DIMENSIONS			
	A	B	C	D
T5	22 3/16"	5 7/8"	2 3/16"	8 1/16"
T6	21"	5 1/2"	2 3/16"	8 1/16"
T7	19 3/4"	6 3/4"	1 13/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 3/8"	6 3/8"	1 1/2"	8 1/16"
T10	13 3/4"	6 3/4"	1 1/2"	8 1/16"
T11	11 1/8"	6 3/8"	1 1/2"	8 1/16"
T12	10 3/8"	7"	1 1/2"	8 1/16"
T13	8 3/4"	7 3/8"	1 1/2"	8 1/16"
T14	6 9/16"	7 3/8"	1 1/2"	8 1/16"
T15	4 1/8"	7 3/8"	1 1/2"	8"
T16	2 1/2"	7 3/4"	1 1/2"	8"

Addendum No. 01  
 ID 1009-11-78  
 Revised Sheet 15  
 February 28, 2023

**CONCRETE BARRIER  
 TEMPORARY PRECAST,  
 12" - 6"**

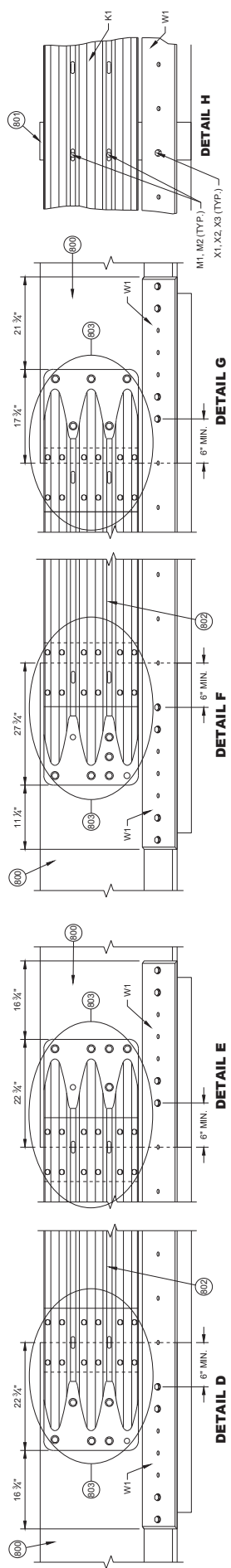
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION



Addendum No. 01  
ID 1009-11-78  
Revised Sheet 16  
February 28, 2023

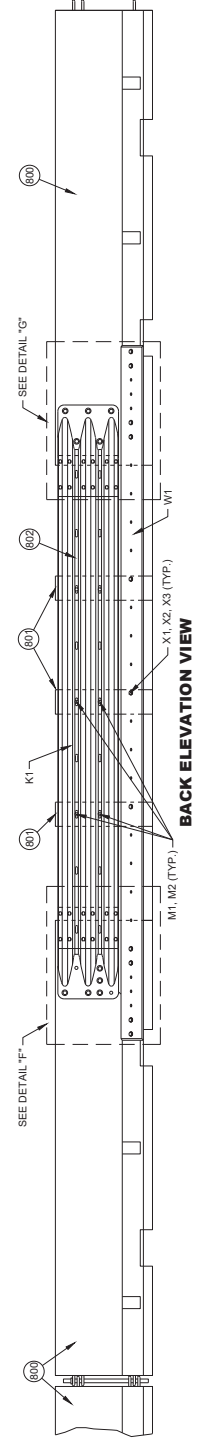
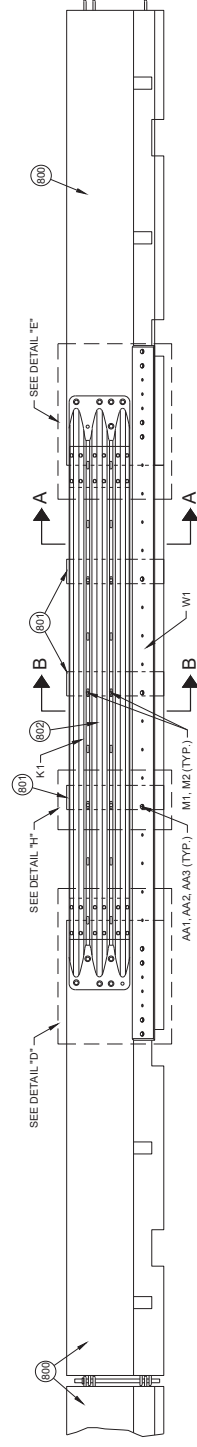
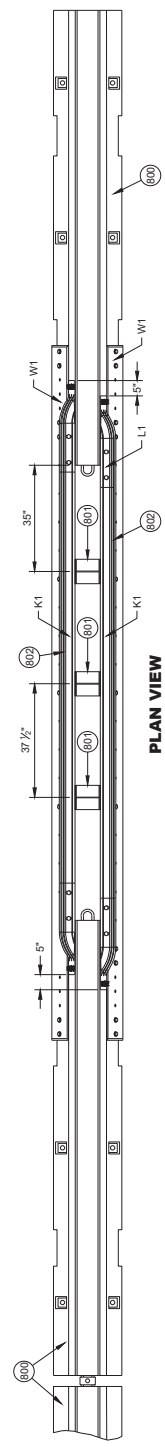
CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

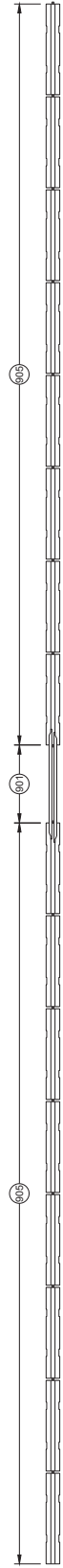


**GENERAL NOTES**

- 600 FREE STANDING TEMPORARY BARRIER
- 601 GAP STIFFENER ASSEMBLY
- 602 THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.
- 603 SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



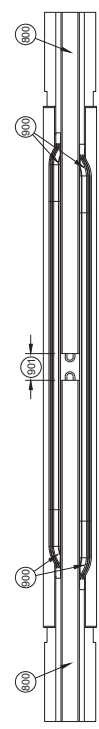
**PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER**



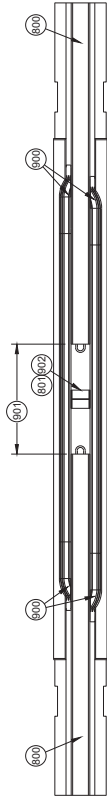
PLAN VIEW  
GAP WITHIN SPACING

**GENERAL NOTES**

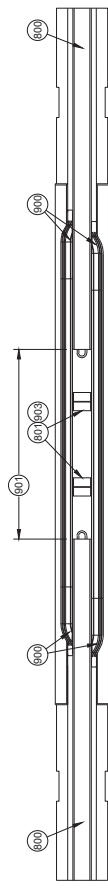
- 600 SEE OTHER DETAILS FOR TEMPORARY GAP-HARDWARE (TYP.)
- 601 TEMPORARY BARRIER GAP
- 602 GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
- 603 GAP STIFFENER ASSEMBLY IS OFFSET 18 3/4" FROM CENTER
- 604 MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
- 605 MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



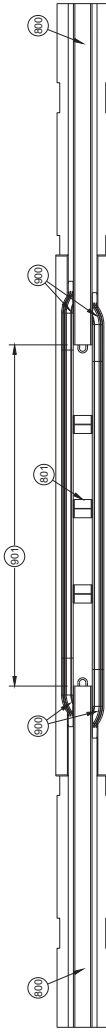
PLAN VIEW  
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX.



PLAN VIEW  
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX.



PLAN VIEW  
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX.



PLAN VIEW  
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX.

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

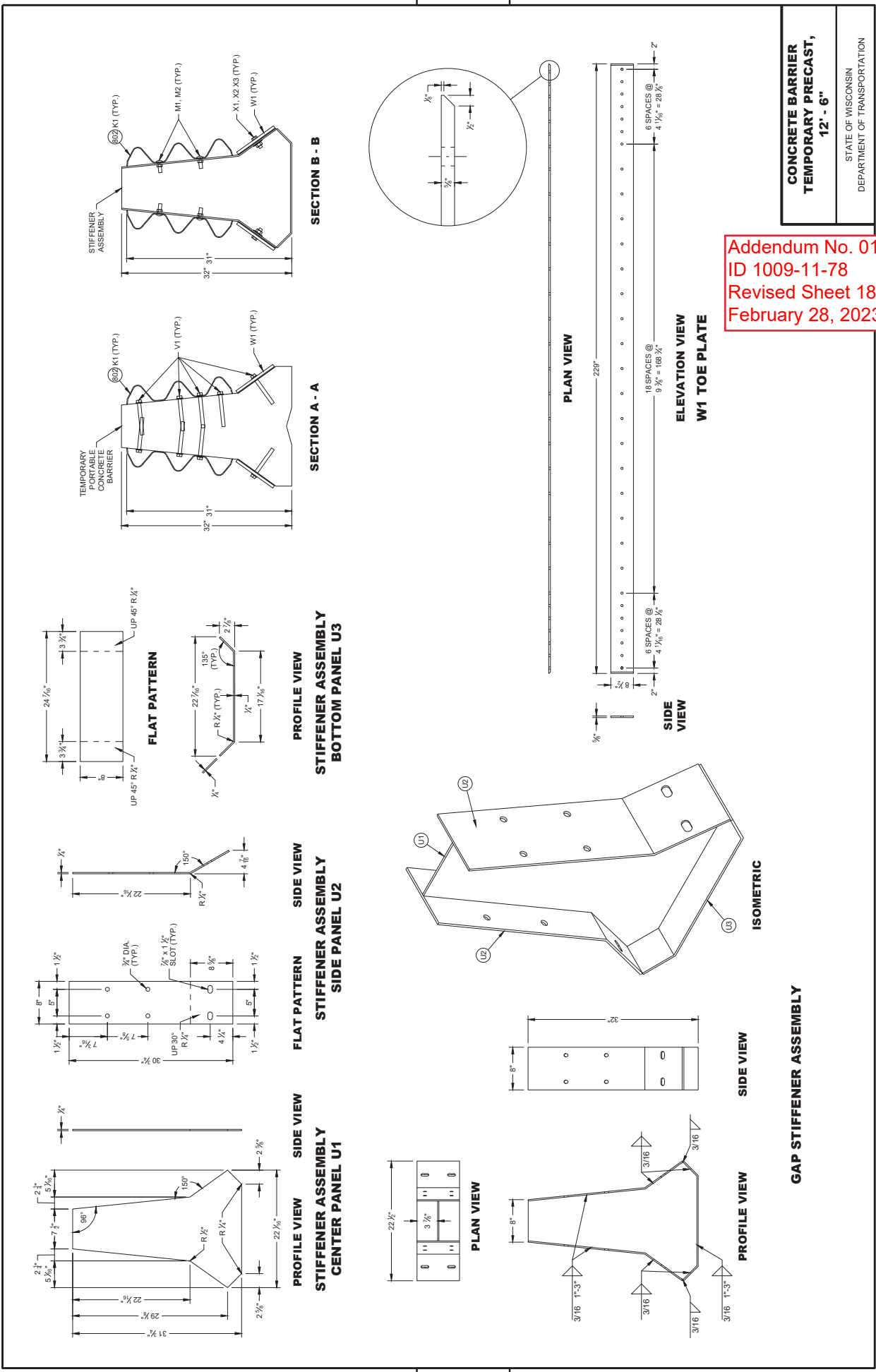
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

Addendum No. 01  
ID 1009-11-78  
Revised Sheet 17  
February 28, 2023

CONCRETE BARRIER  
 TEMPORARY PRECAST,  
 12' - 6"

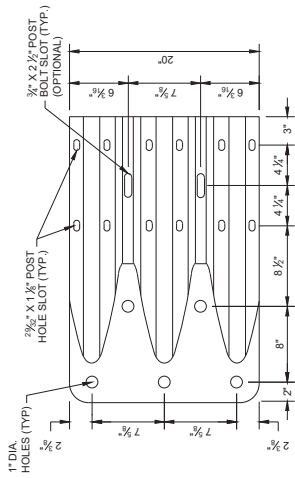
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

Addendum No. 01  
 ID 1009-11-78  
 Revised Sheet 18  
 February 28, 2023



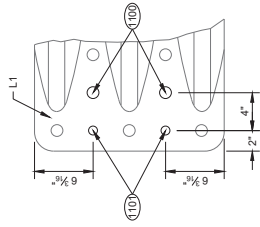
**GENERAL NOTES**

- (108) 1" DIA. HOLE
- (109) 3/4" DIA. HOLE
- (110) 3/4" DIA. HOLE
- (111) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL STRESS CONCENTRATION. PROVIDE HOLES WITH 1/8" MIN. RADIUS. DRILL ADDITIONAL HOLES OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



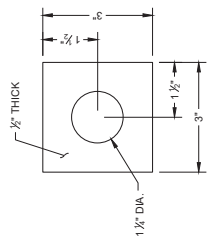
**ELEVATION VIEW**

**THRIE BEAM TERMINAL CONNECTOR**

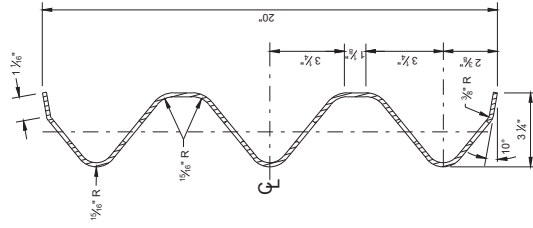


**ELEVATION VIEW**

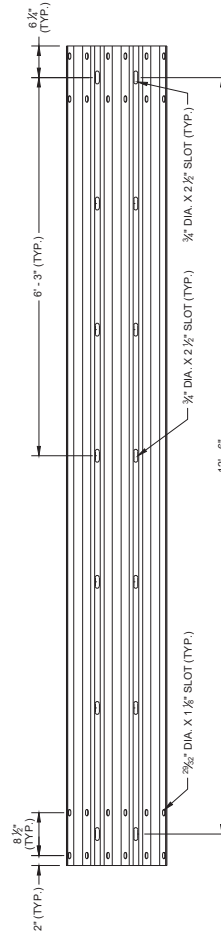
**ADDITIONAL THRIE BEAM TERMINAL CONNECTOR HOLE DETAIL**



**PLATE WASHER DETAIL G2, H3**



**SECTION THROUGH BEAM K1**



**SLOTTED THRIE BEAM RAIL K1**

Addendum No. 01  
ID 1009-11-78  
Revised Sheet 19  
February 28, 2023

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

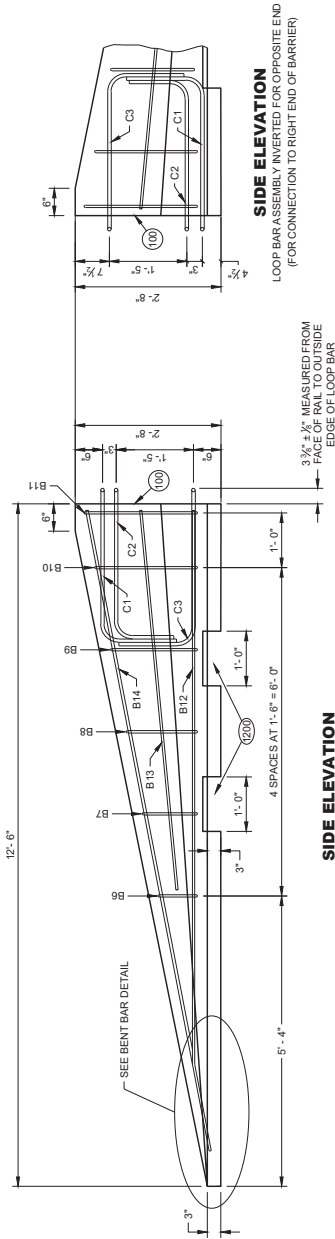
Addendum No. 01  
 ID 1009-11-78  
 Revised Sheet 20  
 February 28, 2023

CONCRETE BARRIER  
 TEMPORARY PRECAST,  
 12' - 6"

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

(20) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.



**SIDE ELEVATION**

(FOR CONNECTION TO LEFT END OF BARRIER)



**SIDE ELEVATION**

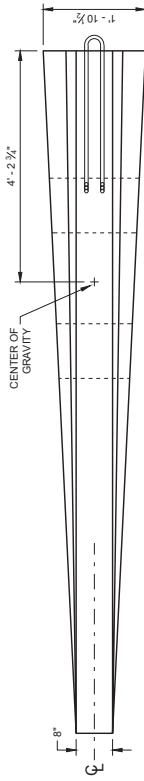
(FOR CONNECTION TO RIGHT END OF BARRIER)

END SECTION

**FLARE AT BARRIER END**

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

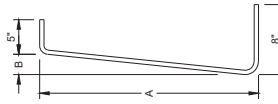
**PLAN VIEW**



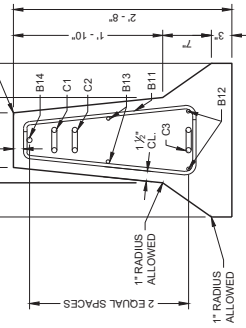
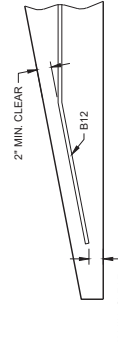
BAR	A	B
B6	10"	1"
B7	1'-1"	1 1/2"
B8	1'-5"	1 3/4"
B9	1'-8"	1 3/4"
B10	2'-0 1/2"	2 3/4"
B11	2'-3"	2 3/4"

**B BARS**

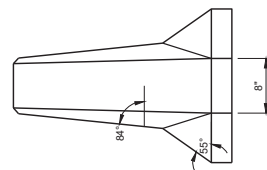
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY



**BENT BAR DETAIL**



**END SECTION**



**FRONT ELEVATION**

**DETAILS OF BARRIER TAPER SECTION**

**BILL OF MATERIALS - CONCRETE BARRIER PRECAST**

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f <sub>c</sub> 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 16'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-0"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-0"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-0"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	3/4" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	3/4" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	3/4" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI /	1 1/2" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI /	1 1/2" DIA.
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 A307 GRADE A / OR SAE J429 GRADE 2 UNC 2 / ASTM B895 CLASS 55 TYPE 2 A307 GRADE A / OR SAE J429 GRADE 2 UNC 2 /	1 1/2" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 A307 GRADE A / OR SAE J429 GRADE 2 UNC 2 /	12 GAUGE
H1	ADHESIVE ANCHOR - ADHESIVE	ICCES AC308.5 1/2" EMBEDMENT WITH A MIN. 5000 PSI STRENGTH OF 1,650 PSI. SEE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 A307 GRADE A / OR SAE J429 GRADE 2 UNC 2 /	1 1/2" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	12 GAUGE
J1	ASPHALT ANCHOR PIN - ROD	ASTM A572 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI /	1 1/2" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX. STRENGTH 50 KSI / ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
K1	THREE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	
L1	THREE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	3/4" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	3/4" DIA.
N1	THREE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	3/4" DIA.
N2	THREE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	12 GAUGE
N3	THREE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THREE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	3/4" DIA.
P2	THREE BEAM RAIL CONNECTION 1-MECHANICAL OR ADHESIVE ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	12 GAUGE
P3	THREE BEAM RAIL CONNECTION 1-MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
O1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	3/4" DIA.
R2	CAP - BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2209 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 / ASTM B895 CLASS 55 TYPE 2 /	12 GAUGE
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
S1	CAP 42-INCH TOP PLATE	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M117 / ASTM A123 / ASTM A36 MIN. STRENGTH 36 KSI / OR ASTM A429 MAX. STRENGTH 50 KSI / OR ASTM A572 MAX. STRENGTH 50 KSI / OR ASTM A592 MAX. STRENGTH 50 KSI /	12 GAUGE

Addendum No. 01  
ID 1009-11-78  
Revised Sheet 21  
February 28, 2023

CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**BILL OF MATERIALS - CONCRETE BARRIER PRECAST**

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	12 GAUGE
U1	GAP STIFFENER	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	
U2	GAP STIFFENER - CONNECTION PLATE 1	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THREE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIIPS AND ULTIMATE SHEAR LOAD 21.5 KIIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	3/4" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP ASHTO M232 CLASS C / ASTM A143 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO ASHTO M286 CLASS 50 TYPE 1 / ASTM B895 CLASS 50 TYPE 1 UNC OVER HEX HEAD OR ASHTO M286 CLASS 50 TYPE 1 / ASTM B895 CLASS 50 TYPE 1 UNC OVER SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A448 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	
V1	TOE PLATE	ASHTO M117 / ASTM A153 / ASTM A95 MIN. STRENGTH 136 KSI OR ASTM A529 MAX. STRENGTH 150 KSI OR ASTM A992 MAX. STRENGTH 90 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP ASHTO M232 CLASS C / ASTM A143 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO ASHTO M286 CLASS 50 TYPE 1 / ASTM B895 CLASS 50 TYPE 1 UNC OVER SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A448 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	3/4" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP ASHTO M232 CLASS C / ASTM A143 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO ASHTO M286 CLASS 50 TYPE 2 / ASTM B895 CLASS 50 TYPE 2, F438 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP ASHTO M232 CLASS C / ASTM A143 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO ASHTO M286 CLASS 50 TYPE 2 / ASTM B895 CLASS 50 UNC OVER TAP NUTS AS SPECIFIED IN ASHTO 281 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J895 GRADE 5	

Addendum No. 01  
ID 1009-11-78  
Revised Sheet 22  
February 28, 2023

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 28, 2023  
DATE  
RST/ Rodney Taylor  
ROADWAY STRUCTURES DEVELOPMENT  
ENGINEER

