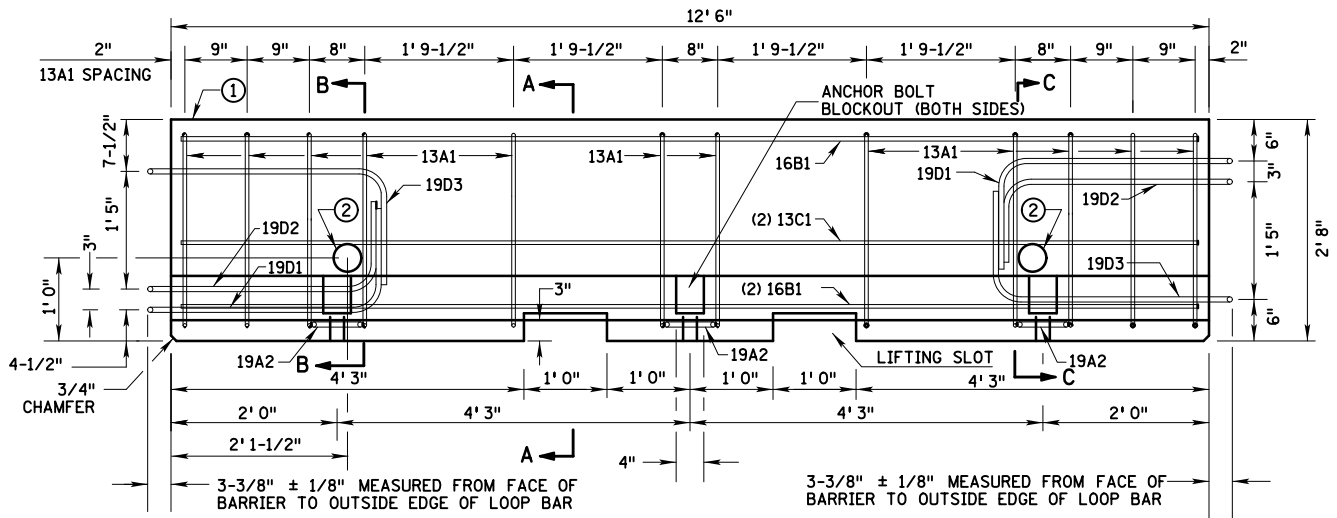


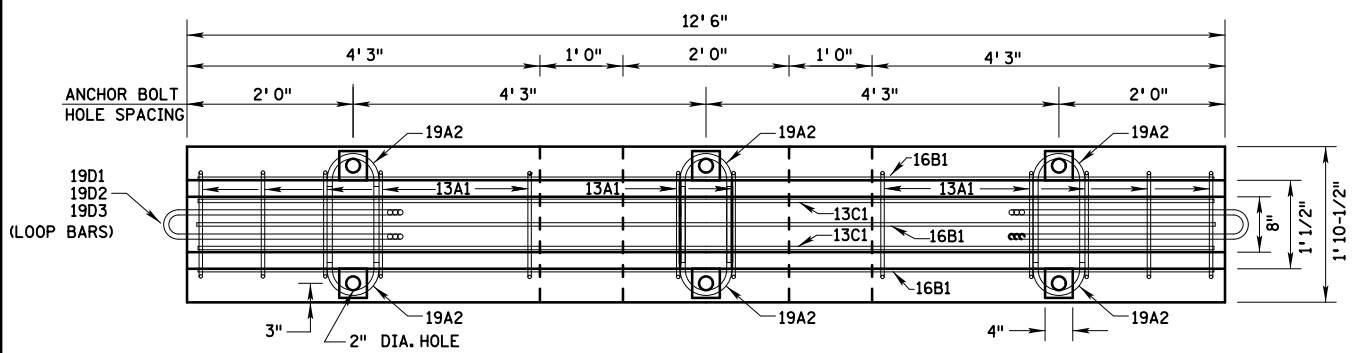
PLOTTED/REVISED: 12-NOV-2010

PATH & FILE NAME: IP_PWP-dll43906\83377_1_spt.dgn

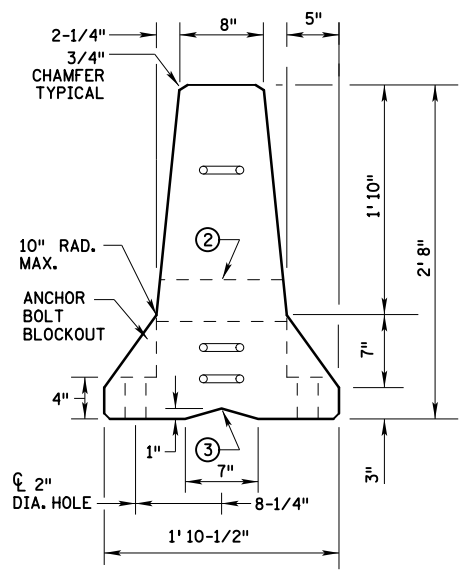
PLOT NAME: s83377_1_spt



ELEVATION VIEW



PLAN VIEW



END VIEW

NOTES:

THIS BARRIER IS CONSISTENT WITH TYPE SWC09, AS DEFINED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE."
 BARRIER SECTIONS SHALL NOT BE PERMANENTLY INCORPORATED INTO CONSTRUCTION OR MAINTENANCE PROJECTS.
 AT NO TIME SHALL THE BARRIERS BE LIFTED, MOVED, ETC. BY USE OF THE LOOP BARS: 19D1, 19D2 OR 19D3.
 SECTION: THE SECTION FURNISHED MUST GENERALLY COMPLY WITH DIMENSIONS SHOWN. REQUESTS FOR MINOR VARIATIONS IN SECTION GEOMETRY AND ATTACHMENTS MAY BE SUBMITTED TO THE STATE MATERIALS ENGINEER FOR APPROVAL.

LIFTING SLOTS: LIFTING SLOTS SHALL BE CONSTRUCTED WHERE SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION ON THE ROADWAY AND SHOULD BE KEPT FREE OF DEBRIS.

- ① MARKED END: THE MARKED END IS THAT END OF THE BARRIER HAVING ONE LOOP BAR AT THE TOP AND TWO LOOP BARS AT THE BOTTOM. EACH BARRIER SHALL BE PERMANENTLY MARKED ON THIS END BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - TYPE 8337C
 - NAME OR TRADEMARK OF MANUFACTURER
 - LOCATION OF PLANT
 - DATE MANUFACTURED (MONTH AND YEAR)
- ② LIFTING HOLE - 4-INCH DIAMETER, 11-GAUGE STEEL ROUND MECHANICAL TUBING SLEEVE. THESE HOLES ARE OPTIONAL.
- ③ V NOTCH IS OPTIONAL.

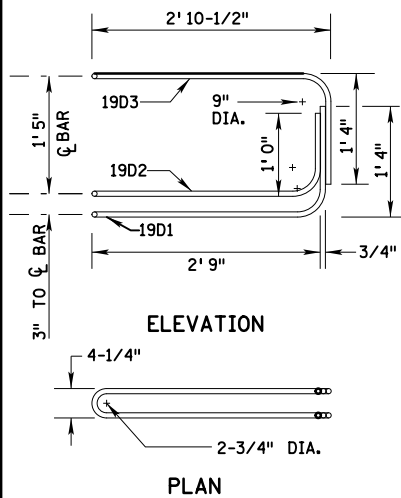
NOT APPROVED

REFERENCE DATE:

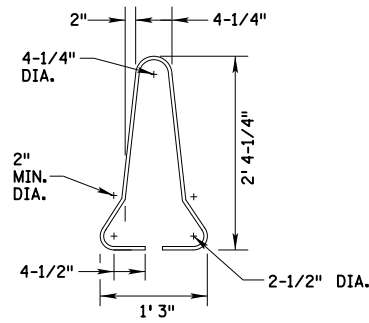
STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
**TEMPORARY PORTABLE PRECAST
 CONCRETE BARRIER**
 TYPE "F"

SPECIFICATION
 REFERENCE
 2533
 3301
 3309

STANDARD
 PLATE
 NO.
8337C
 1 OF 3

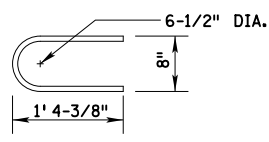


**LOOP BAR ASSEMBLY ①
BARS 19D1, 19D2, 19D3**

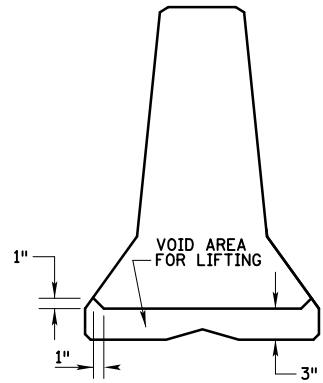


**VERTICAL STIRRUP
BAR 13A1**

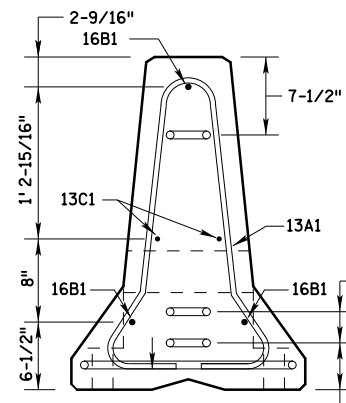
12'-6" BARRIER SECTION					
BILL OF REINFORCING MATERIALS ②					
BAR	BAR SIZE	SHAPE	NO. OF BARS	LENGTH FT.	WEIGHT LBS.
13A1	13		12	6' 0"	48.1
19A2	19		6	2' 11"	26.3
16B1	16		3	12' 2"	38.1
13C1	13		2	12' 2"	16.3
BILL OF LOOP ASSEMBLY MATERIALS ③					
19D1	19		2	8' 5"	25.3
19D2	19		2	7' 7"	22.8
19D3	19		2	8' 6"	25.5



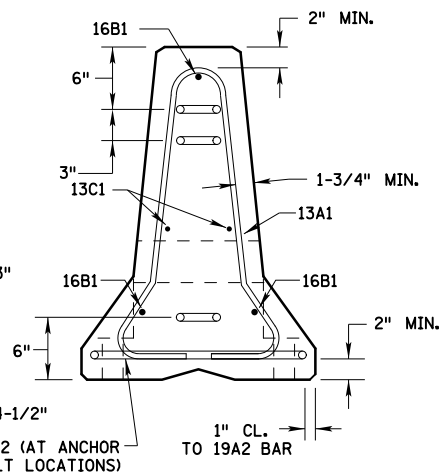
BAR 19A2



**SECTION A-A
LIFTING SLOT DETAIL**



**SECTION B-B
TYPICAL SECTION**



**SECTION C-C
TYPICAL SECTION**

NOTES:

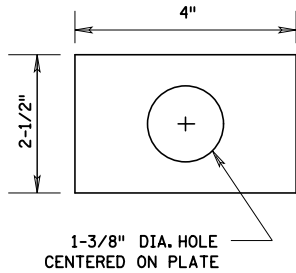
- DIMENSIONS ARE OUT-TO-OUT OF BARS UNLESS OTHERWISE NOTED.
- CONCRETE SHALL DEVELOP A MINIMUM OF 28-DAY CONCRETE COMPRESSIVE STRENGTH OF NOT LESS THAN 5 KSI. THE CONCRETE SHALL USE A PORTLAND CEMENT SPECIFIED IN AASHTO M85 FOR TYPE I OR II CEMENT.
- ① MARKED END SHOWN. INVERT FOR OTHER END.
- ② REINFORCING STEEL SHALL BE GRADE 60 KSI AND SHALL CONFORM TO EITHER OF THE FOLLOWING:
 - EPOXY-COATED DEFORMED BARS AS SPECIFIED IN AASHTO M284M
 - AASHTO M31M DEFORMED AND PLAIN BILLET STEEL REINFORCING BARS FOR USE WITH CALCIUM NITRATE CORROSION INHIBITOR (30% CALCIUM NITRITE SOLUTION)
- ③ LOOP BARS, SEE SPEC. 3309, A709 GR. 70 OR A706 GR. 60. THE LOOP BARS SHALL BE 0.75" DIA. SMOOTH STEEL BARS WITH A MINIMUM YIELD OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 78 KSI, A MINIMUM 14% ELONGATION IN 8", AND PASSING A 180° BEND TEST USING A 3.5" PIN BEND DIAMETER. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSIONS.

NOT APPROVED
REFERENCE DATE:

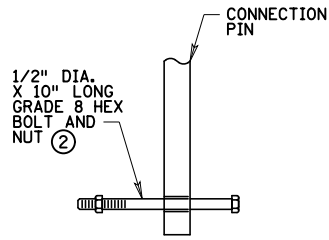
STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY PORTABLE PRECAST
CONCRETE BARRIER**
TYPE "F"

SPECIFICATION
REFERENCE
2533
3301
3306

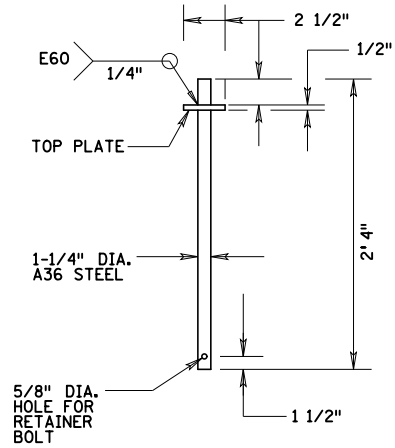
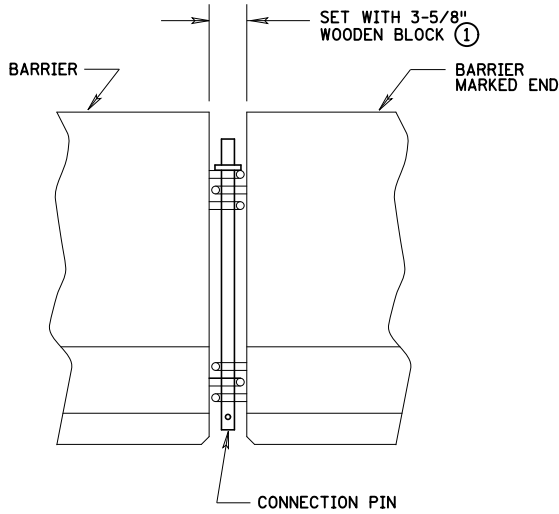
STANDARD
PLATE
NO.
8337C
2 OF 3



TOP PLATE
DETAIL



RETAINER BOLT
AND NUT DETAIL



CONNECTOR PIN DETAILS

NOTES:

CONNECTOR PIN WITH RETAINING BOLD SHALL BE MANUFACTURED USING AASHTO ASTM A35/A36M STEEL.

- ① SLACK SHALL BE REMOVED FROM JOINT AFTER PIN INSTALLATION.
- ② RETAINER BOLT AT CONTRACTORS OPTION.

NOT APPROVED

REFERENCE DATE:

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY PORTABLE PRECAST
CONCRETE BARRIER**
TYPE "F"

SPECIFICATION
REFERENCE

2533
3301
3309

STANDARD
PLATE
NO.

8337C
3 OF 3