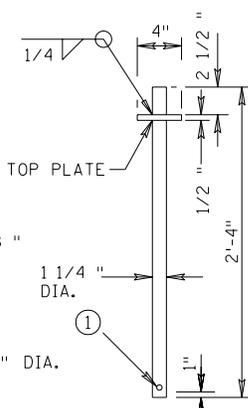
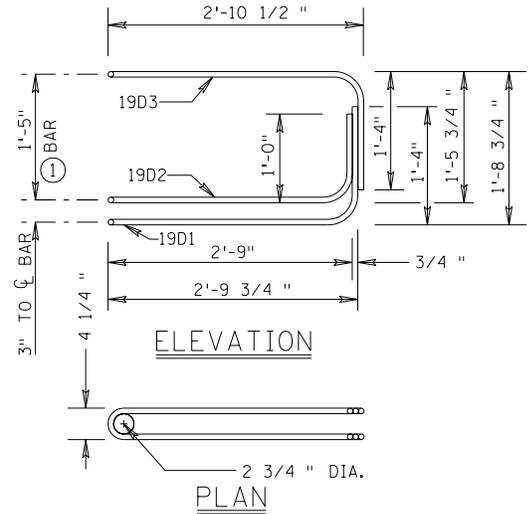
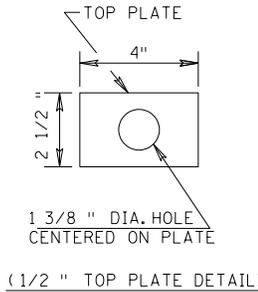


13A1

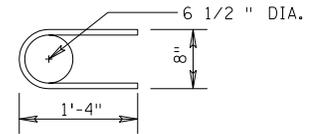


DETAIL A
CONNECTION PIN
(A36 STEEL) 10.9 LBS. EACH



LOOP BAR ASSEMBLY

(MARKED END SHOWN, INVERT FOR OTHER END)
(MATERIAL AS STATED IN GENERAL NOTES)
(DIMENSIONS ARE OUT TO OUT OF BARS UNLESS OTHERWISE NOTED.)



19A2

GENERAL NOTES:

MATERIAL: USE SPEC. 3301, GRADE 60 REINFORCING BARS, EXCEPT FOR THE LOOP BARS (19D1, 19D2 AND 19D3).

THE LOOP BARS (19D1, 19D2 AND 19D3) SHALL BE 3/4" SMOOTH STEEL BARS PER SPEC. 3309 GR. 50W. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSIONS.

THE CONCRETE MIX SHALL BE 3W43 PER SPEC. 2461.3.

USE 1 1/8" DIA. ANCHOR BOLTS WITH HEAVY HEX NUT & WASHER PER SPEC. 3385, TYPE A. CONNECTION PIN SHALL BE MATERIAL COMPLYING WITH SPEC. 3391.2A..

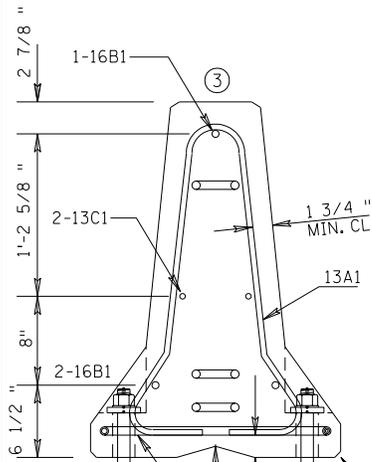
ALL BOLTS AND NUTS SHALL BE GALVANIZED PER SPEC. 3392 COMPLYING WITH SPEC. 3391.2A.

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.

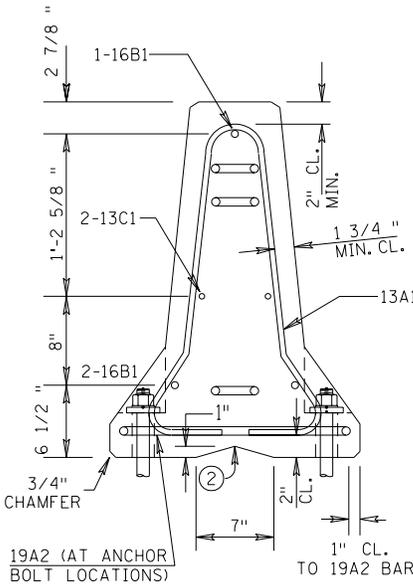
LIFTING SLOTS: LIFTING SLOTS SHALL BE CONSTRUCTED WHERE SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION ON THE ROADWAY AND SHOULD BE KEPT FREE OF DEBRIS.

- ① 3/8" HOLE AND RETAINER BOLT AT CONTRACTOR'S OPTION.
- ② V NOTCH IS OPTIONAL
- ③ MARKED END
- ④ SEE TRAFFIC CONTROL PLAN FOR TYPE OF BARRIER DELINEATION AND SPACING. IF NO TRAFFIC CONTROL PLAN IS PROVIDED, SEE MN MUTCD CHAPTER 6F TEMPORARY TRAFFIC BARRIER FOR GUIDANCE.
- ⑤ THIS WILL BE A THROUGH BOLT IF MOUNTED ON BRIDGES.

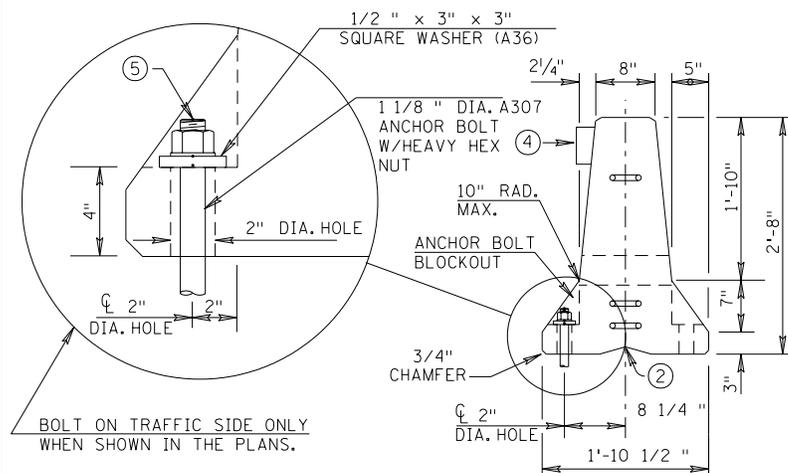
NOTE:
BARRIER SECTIONS SHALL NOT BE PERMANENTLY INCORPORATED INTO CONSTRUCTION OR MAINT. PROJECTS.



SECTION A-A
TYPICAL SECTION
(STIRRUP PLACEMENT)



SECTION B-B
TYPICAL SECTION
(STIRRUP PLACEMENT)



END VIEW

APPROVED Mar. 19, 2003

Delbert W. Sander
STATE DESIGN ENGINEER

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

SPECIFICATION
REFERENCE
2533

STANDARD
PLATE
NO.
8337B
1 of 2

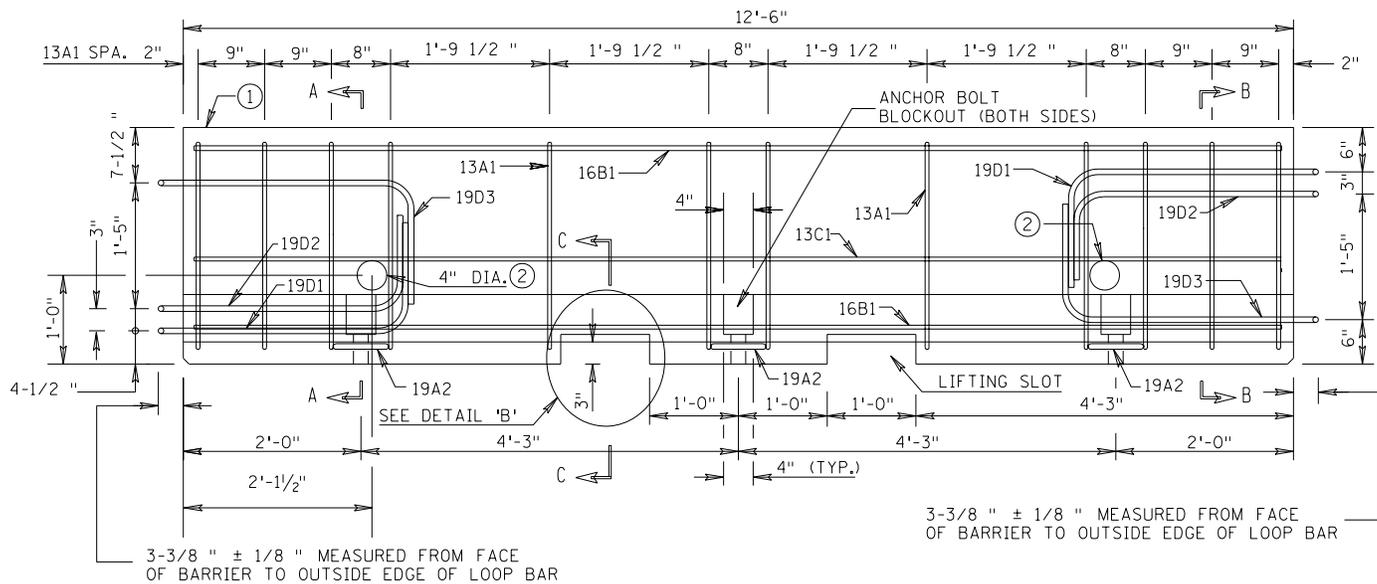
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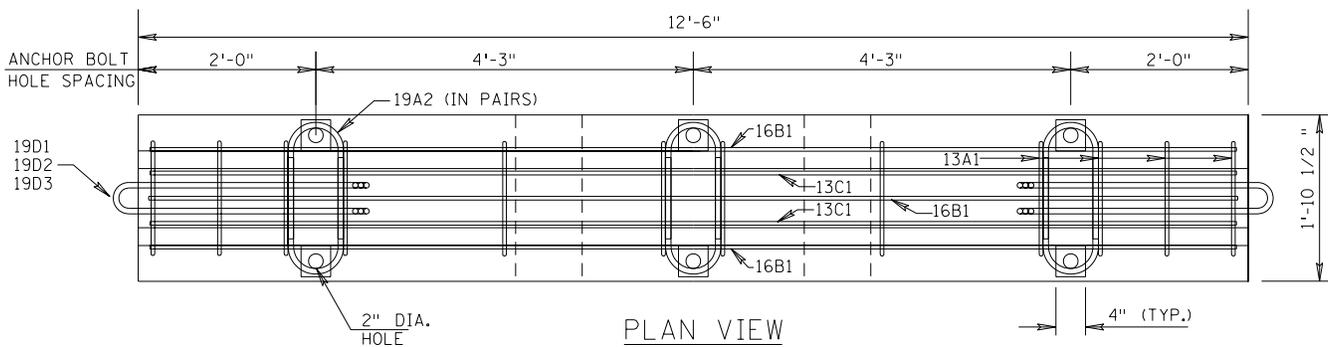
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\$\$\$@PLOT@NAME@\$\$\$\$

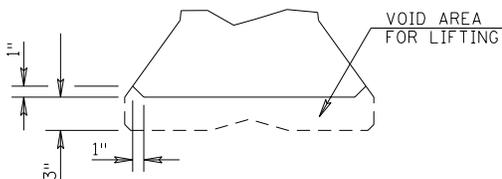
PLOT NAME:



ELEVATION VIEW



PLAN VIEW



SECTION C-C LIFTING SLOT DETAIL

(1" CHAMFER TO PREVENT SPALLING)

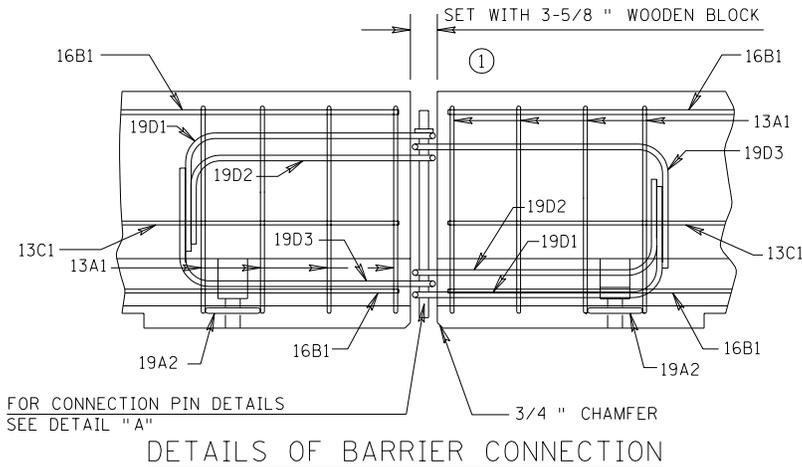
GENERAL NOTES:

- ① MARKING: THE LEFT END OF EACH BARRIER SHALL BE PERMANENTLY MARKED BY STAMPING OR FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - TYPE 8337B
 - NAME OR TRADEMARK OF MANUFACTURER AND LOCATION OF PLANT.
 - DATE MANUFACTURED (MONTH AND YEAR)
 - A709 GR.50W OR EQUAL.
- ② 4" DIAMETER - 11 GAUGE STEEL ROUND MECHANICAL TUBING SLEEVE. THESE HOLES ARE OPTIONAL.

AT NO TIME SHALL THE BARRIERS BE LIFTED, MOVED, ETC. BY USE OF THE LOOP BARS: 19D1, 19D2 OR 19D3.
PER 12'-6" BARRIER SECTION

REINFORCING ASTM A615 GR. 60 (SEE SPEC. 3301)					
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
LOOP ASSEMBLY ASTM A709 GR. 50W (SEE SPEC. 3309)					
19D1	19		2	8'-5"	25.3
19D2	19		2	7'-7"	22.8
19D3	19		2	8'-6"	25.5

CONCRETE QUANTITY = 1.318 C.Y.
CONCRETE WEIGHT = 5340 LBS.



DETAILS OF BARRIER CONNECTION

FOR CONNECTION PIN DETAILS SEE DETAIL "A"

APPROVED Mar. 19, 2003

Delbert W. Sander
STATE DESIGN ENGINEER

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

SPECIFICATION
REFERENCE
2533

STANDARD
PLATE
NO.
8337B
2 of 2