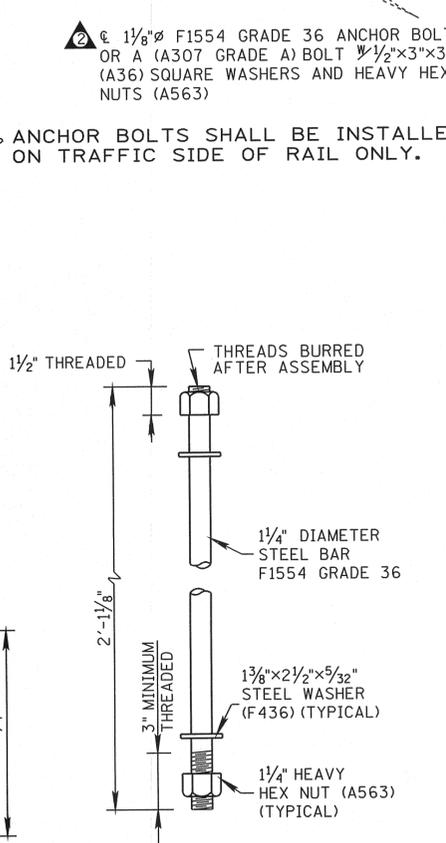
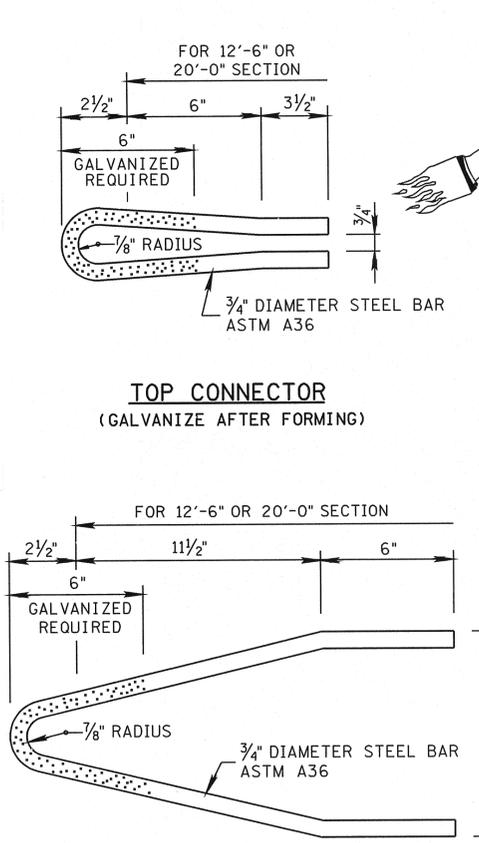
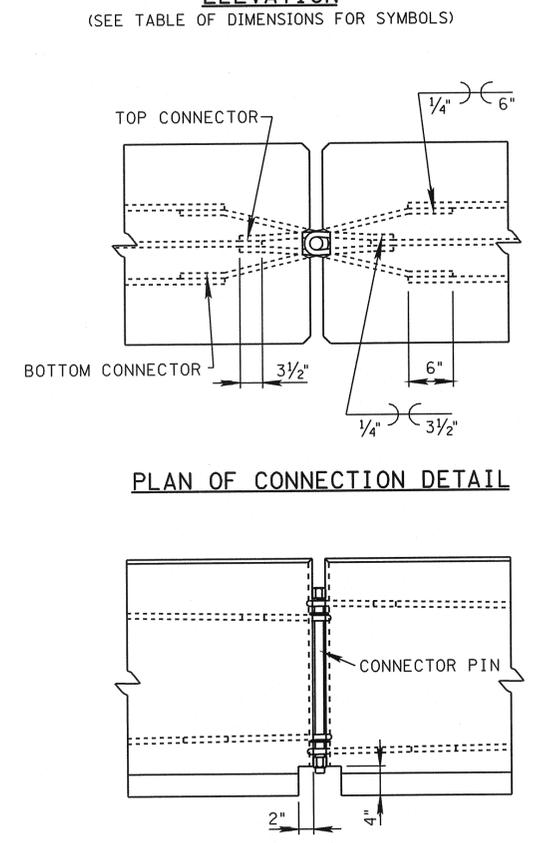
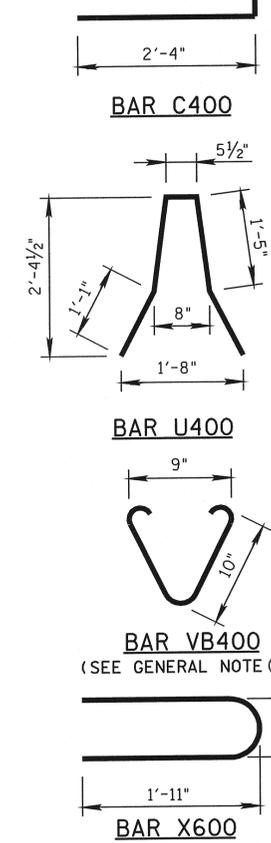
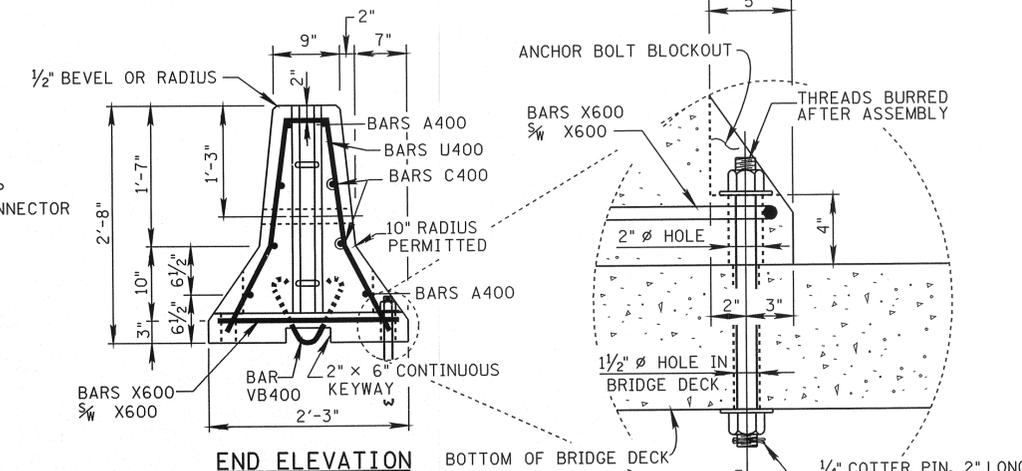
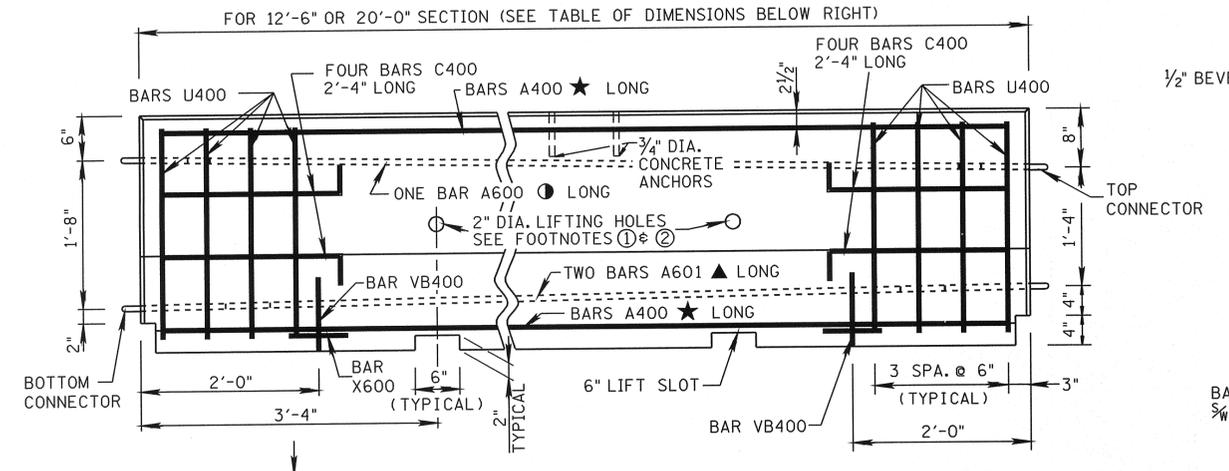


**DETAIL 'A'**  
(TOP & BOTTOM CONNECTOR NOT SHOWN)



**LIFTING HOLE AND SLOT FOOTNOTES:**

- ① 2" DIAMETER LIFTING HOLE - 2 REQUIRED FOR EACH SECTION TO BE PLACED 3'-4" FROM EITHER END OF THE BARRIER RAIL. ADDITIONAL HOLES MAY BE ADDED TO 20'-0" SECTION LENGTHS. PLACEMENT OF ADDITIONAL HOLES TO BE AT THE DISCRETION OF THE FABRICATOR, FORMED WITH 2" PVC PIPE OR EQUAL.
- ② LIFTING BAR SHALL BE REQUIRED TO PREVENT SPALLING OF CONCRETE AROUND HOLES.

PROJECT NO.	YEAR	SHEET NO.	
	2005		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	10-16-08	JHW	REVISED QUANTITIES
2	11-1-10	JHW	REVISED ANCHOR BOLT DESIGNATION & NOTES

**GENERAL NOTE:**

- (A) PRECAST CONCRETE BARRIER SHALL BE CONSTRUCTED WITH CLASS "A" CONCRETE MANUFACTURED IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.
- (B) REINFORCING STEEL: TO BE ASTM A615.
- (C) THE CONNECTOR PIN SHALL BE A 1/4"x25 1/8" F1554 GRADE 36 ANCHOR BOLT OR 1/4"x25 1/8" (A307 GRADE A) BOLT. THE CONNECTOR PIN, TOP CONNECTOR, BOTTOM CONNECTOR, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111. THIS STANDARD DEPICTS THE TRADITIONAL PIN AND EYE CONNECTION DETAILS. ANY FEDERAL HIGHWAY ADMINISTRATION APPROVED, NCHRP 350 COMPLIANT CONNECTION, SUCH AS THE J-J HOOK POSITIVE CONNECTION MAY ALSO BE USED.
- (D) PLACE ALL STEEL REINFORCEMENT 2" MINIMUM FROM OUTSIDE FACE OF BARRIER, EXCEPT AS OTHERWISE SHOWN.
- (E) PAYMENT WILL BE MADE UNDER ITEM NUMBER DESIGNATED ON PLANS FOR BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL (PER LINEAR FOOT).
- (F) ANY SALVABLE VALUE OF THE PORTABLE BARRIER RAIL WILL BECOME THE PROPERTY OF THE CONTRACTOR. THE PORTABLE BARRIER RAIL SHALL BE MOVED OFF THE PROJECT IN A MANNER AND TIME SUITABLE TO THE ENGINEER.
- (G) WHEN INTERCONNECTED PORTABLE BARRIER RAIL IS FABRICATED IN THE UPRIGHT POSITION AS SHOWN ON THIS DRAWING THE VB400 LIFTING BAR WILL BECOME OPTIONAL AND MAY BE OMITTED FROM THE INSTALLATION.
- (H) THIS BARRIER HAS BEEN SUCCESSFULLY TESTED TO THE REQUIREMENTS OF NCHRP 350. THE CONTRACTOR MAY SUBMIT ALTERNATE BARRIERS THAT HAVE BEEN APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION AS NCHRP 350 COMPLIANT. THE ALTERNATE BARRIERS MUST BE CERTIFIED BY THE CONTRACTOR AS HAVING BEEN FABRICATED IN ACCORDANCE WITH THE APPROVED ALTERNATES DETAILS.
- (I) DIFFERENT SECTION LENGTHS AND DIFFERENT APPROVED CONNECTIONS CAN BE USED ON A SPECIFIC PROJECT (REFER TO GENERAL NOTES H AND C ABOVE), ONLY ONE SECTION LENGTH AND CONNECTION TYPE SHALL BE USED IN A SINGLE RUN OF INTERCONNECTED PORTABLE BARRIER RAIL.
- (J) TRANSVERSE SLOTS IN BOTTOM OF RAIL SHALL BE PLUGGED WHERE REQUIRED TO PREVENT DRAINAGE FROM IMPINGING ON TRAFFIC LANES, RAILROAD RIGHT-OF-WAY, OR AS DIRECTED BY PLANS.
- (K) IMMEDIATELY AFTER REMOVAL OF BARRIER RAIL, THE HOLES IN THE BRIDGE DECK FOR THE ANCHOR BOLTS SHALL BE CLEANED AND PACKED WITH NON-SHRINK GROUT. ALL GROUTING MATERIAL SHALL BE ON THE MATERIALS AND TEST QUALIFIED PRODUCTS LIST (OPL).

**APPROXIMATE WEIGHT AND QUANTITIES**

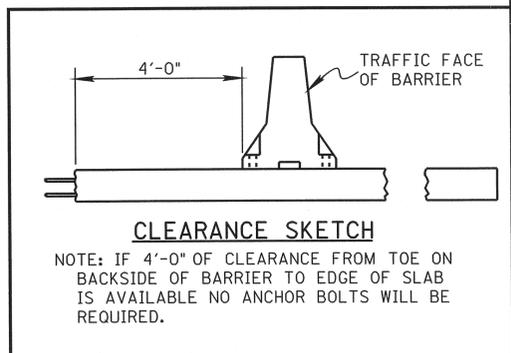
SECTION LENGTH FEET	WEIGHT POUND	REINFORCING STEEL POUND	CONCRETE (CUBIC YARD)
12'-6"	6,075	166	1.5
20'-0"	9,720	245	2.4

**BILL OF STEEL**

BAR	SIZE	NO. REQUIRED	LENGTH
A400	4	4	★
A600	6	1	●
A601	6	2	▲
C400	4	8	2'-8"
U400	4	8	5'-6"
VB400	4	2	2'-1"
X600	6	1	4'-3"

**TABLE OF DIMENSIONS**

SECTION	●	▲	★	■
12'-6"	11'-6"	10'-7"	12'-0"	6
20'-0"	19'-0"	18'-1"	19'-6"	10



MINOR REVISION - FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL  
2005

CORRECT *Edward P. Wasserman*  
ENGINEER OF STRUCTURES

DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUPERVISED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

ELEVATION OF CONNECTION DETAIL

BOTTOM CONNECTOR (GALVANIZE AFTER FORMING)

CONNECTOR PIN

(SEE ELEVATION FOR LOCATION)