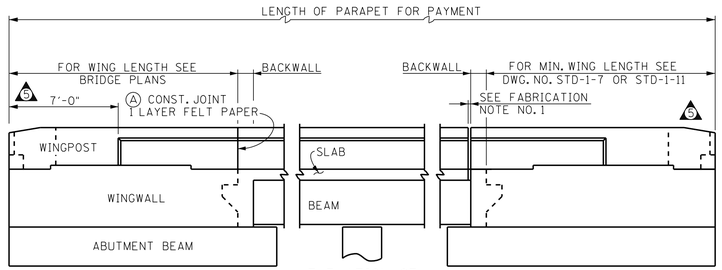
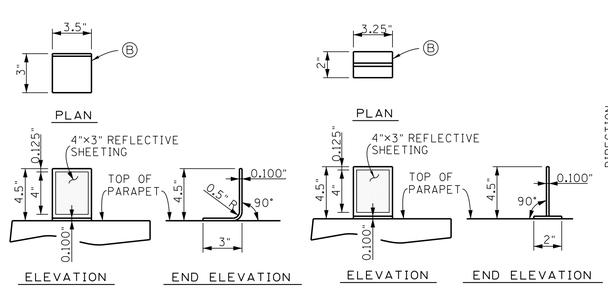
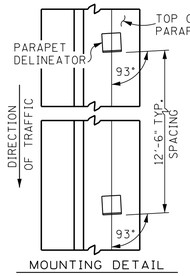
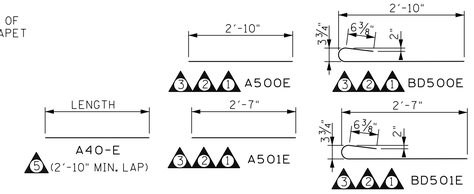
STD11SS.DGN



ELEVATION OF PARAPET ℄ BENT







PROJECT NO.	YEAR	SHEET NO.
	2006	

REVISIONS

	NO.	DATE	BY	BRIEF DESCRIPTION
	1	10-15-08	RLC	REVISED HP BARS
	2	11-1-10	JHW	REVISED HP BARS
	3	6-1-11	EPW	CHANGED HP50- BARS TO A50- AND BD50- BARS AND STEEL QUANTITIES
	4	5-1-14	JHW	REVISED DIMENSIONS
	5	10-15-19	JHW	REVISED GUARDRAIL ATTACHMENT, ENDPOST SIZE AND STEEL, AND WINGPOST BAR AND STEEL QUANTITIES ADDED BARS H40-E DETAIL. CHANGED MIN. LAP FOR NO. 4 BARS
MR	6	6-15-20	JHW	REVISED H40-E BARS TO H47-E, ADDED STAR EMBLEMS NEXT TO H47-E BARS AND CHANGED HP570E BARS TO H47-E. CHANGED HA47-E BARS TO HB47-E

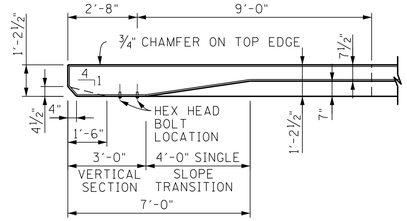
MR MINOR REVISION - FHWA APPROVAL NOT REQUIRED

REINFORCING NOTES:

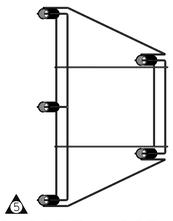
1. BAR DIMENSIONS ARE OUT TO OUT. FIRST DIGIT OF THE NUMBER INDICATES SIZE.
2. LONGITUDINAL BARS SHALL BE FULL LENGTH OF PARAPET EXCEPT THAT NO BAR WILL PASS THROUGH OPEN JOINTS.

6 ✡ BARS H47-E, BARS HB47-E AND BARS B57OE IN WINGWALLS TO BE INCLUDED IN EPOXY COATED REINFORCING QUANTITIES AND BILL OF STEEL FOR WINGWALLS.
✡ BARS B57OE IN SLAB TO BE INCLUDED IN EPOXY COATED REINFORCING QUANTITIES AND BILL OF STEEL FOR SUPERSTRUCTURE.
NOTE: BARS LISTED IN ABOVE NOTES ARE NOT INCLUDED IN WINGPOST QUANTITIES OR PARAPET QUANTITIES SHOWN THIS SHEET.

ELEVATION OF PARAPET ℄ WINGWALL WITH CONSTRUCTION JOINT

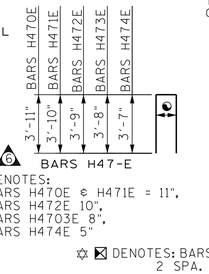


ELEVATION OF PARAPET ℄ WINGWALL WITH EXPANSION JOINT



INSERT ASSEMBLY

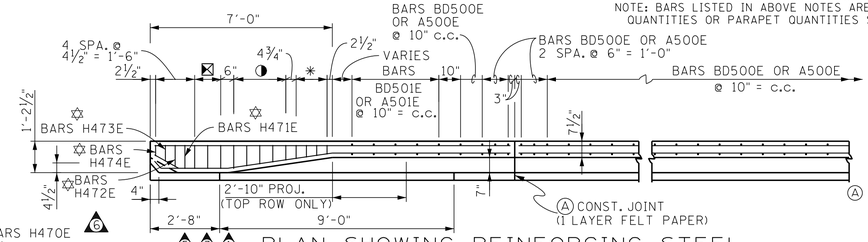
CAST IN PLACE THREADED STEEL INSERT WITH 7/8"x2" HEX HEAD GALVANIZED BOLTS (A307) HOT DIP ZINC COATING ASTM A153



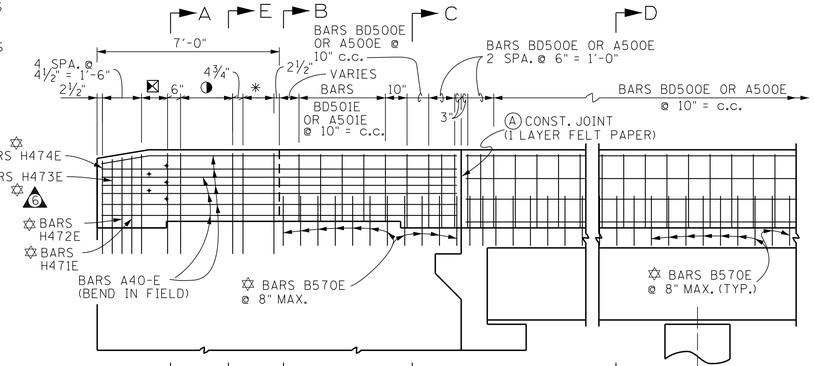
5 6 DENOTES: BARS H470E & H471E = 11", BARS H472E 10", BARS H4703E 8", BARS H474E 5"

PARAPET DELINEATOR

Ⓑ PARAPET DELINEATORS SHALL BE HIGH IMPACT, UV-STABILIZED, ENGINEERED THERMOPLASTIC OR POLYCARBONATE SUBSTRATE. SEE TDOT APPROVED QUALIFIED PRODUCT LISTS FOR ACCEPTABLE PRODUCTS.



PLAN SHOWING REINFORCING STEEL



5 3 1 ELEVATION SHOWING REINFORCING STEEL

GENERAL NOTES:

DESIGN: AASHTO SPECIFICATIONS CURRENT EDITION WITH ADDENDA.

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (CURRENT EDITION).

CONCRETE: TO BE CLASS 'A' f'c = 3,000 psi. SEE SPECIAL PROVISION REGARDING SECTION 604 - CONCRETE STRUCTURES.

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. SPACING DIMENSIONS ARE CENTER TO CENTER UNLESS OTHERWISE NOTED. THE SUFFIX 'E', FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT. SEE SPECIAL PROVISION 907A.

Ⓐ NOTE: CONTRACTOR MAY POUR THE PARAPET WITHOUT FELT PAPER PROVIDED HE FORMS A ½ INCH V-GROOVE ALONG THE TRAFFIC FACE AND TOP OF PARAPET DURING CASTING OF CONCRETE OR SOON AFTER SLIP-FORMING.

PARAPET DELINEATOR REFLECTIVE SHEETING SHALL MEET ASTM D4956, TYPE V SPECIFICATIONS. THE REFLECTIVE SHEETING SHALL BE A MINIMUM OF 4"x3" AND HAVE MINIMUM COVERAGE AREA OF 12 SQUARE INCHES. THE COLOR OF THE DELINEATORS SHALL CONFORM TO THE REQUIREMENTS OUTLINED IN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PARAPET DELINEATORS WILL NOT BE REQUIRED IN AREAS WHERE ROADWAY IS LIGHTED.

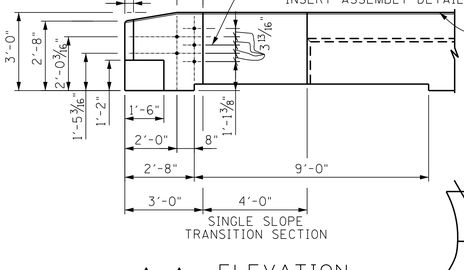
THE COST OF FURNISHING AND INSTALLING PARAPET DELINEATORS, INCLUDING ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION, SHALL BE INCLUDED IN BID PRICE FOR CONCRETE PARAPET.

PARAPET DELINEATORS SHALL BE MOUNTED DIRECTLY TO THE CONCRETE OF THE PARAPET WITH A ONE COMPONENT ADHESIVE AS RECOMMENDED BY THE MANUFACTURER. MASKING SHALL BE APPLIED TO THE TOP OF BARRIER TO PREVENT TEXTURE COATING FROM ENCROACHING ON DELINEATOR MOUNTING SURFACE.

FABRICATION NOTES:

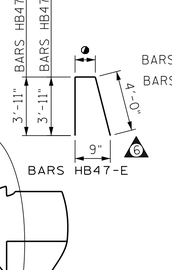
1. OPEN JOINTS OR FILLED JOINTS WILL BE ALLOWED IN PARAPET ONLY WHEN SHOWN ON PROJECT DRAWINGS. JOINTS SHALL CONFORM TO THE JOINT DETAILS ON THIS SHEET OR AS OTHERWISE SHOWN ON PROJECT DRAWINGS.
2. PARAPET CONCRETE SHALL NOT BE CAST PRIOR TO REMOVAL OF ALL SUPERSTRUCTURE RELATED FALSEWORK.
3. ALIGNMENT AND PROFILE OF PARAPET SHALL CONFORM TO ROADWAY PROFILE AND GEOMETRY.
4. IF THE PARAPET IS SLIP-FORMED, ROUNDED EDGES WITH A 1 INCH RADIUS MAY BE USED INSTEAD OF THE 1 INCH CHAMFER AS SHOWN.
5. A ½ INCH DEEP V-GROOVE ALONG THE TRAFFIC FACE AND TOP OF PARAPET SHALL BE FORMED DURING CASTING OF CONCRETE OR SOON AFTER SLIP-FORMING @ 10'-0" CENTER-TO-CENTER.
6. A ⅜"×4" FLAT DUMBBELL OR FLAT RIBBED P.V.C. (POLYVINYL CHLORIDE) WATERSTOP MAY BE USED IN LIEU OF THE 1¼" SLOPE AT EDGE OF SLAB. WATERSTOP MUST BE CONTINUOUS ENTIRE LENGTH OF PARAPET. RUBBER WATERSTOP MUST BE FACTORY OR FIELD VULCANIZED OR CEMENT SPLICED WITH THE AID OF PREMOLDED JUNCTIONS, AND/OR UNIONS.
7. VERTICAL DIMENSIONS ARE TAKEN AT THE TRAFFIC FACE WITH PARAPET PLUMB. ALL ADJUSTMENTS FOR CROSS-SLOPE OF THE DECK SHALL BE ACCOMMODATED BY ADJUSTING THE BACK SIDE OF THE PARAPET AND ANY ASSOCIATED BACK FACE VERTICAL REINFORCING.

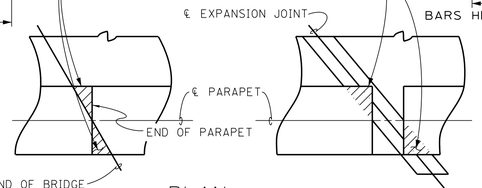
PLAN OF WINGPOST



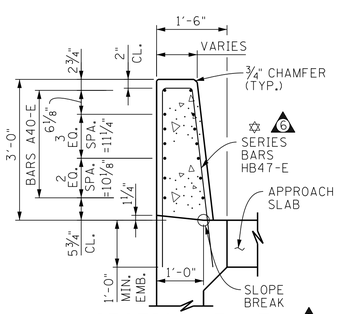
5 4 ELEVATION

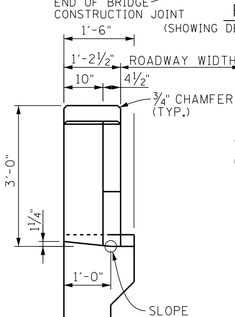
DENOTES: SER. BARS HB470E = VARIES FROM 4⅜" TO 5¼", SER BARS HB471E VARIES FROM 5½" TO 6⅞"

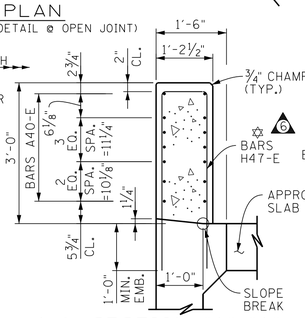


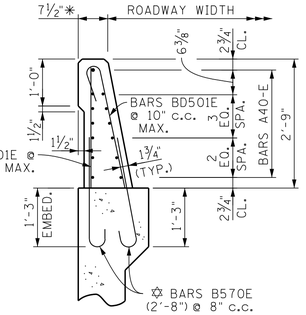


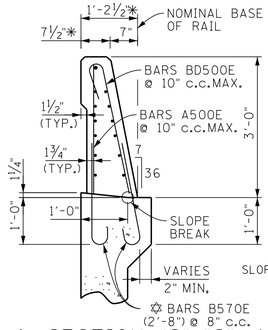
PLAN (SHOWING DETAIL @ OPEN JOINT)

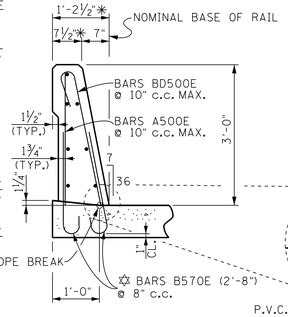












5 3 1 WINGPOST QUANTITIES
(PER WING, BASED ON 11'-8" WINGPOST)

CLASS 'A' CONCRETE C.Y.	REINFORCING STEEL LB.
1.3	230

5 3 1 PARAPET QUANTITIES
(PER LINEAR FOOT)

CLASS 'A' CONCRETE C.Y.	REINFORCING STEEL LB.
.0926	12.9

5 THIS RAIL HAS BEEN EVALUATED AND ACCEPTED TO BE OF EQUAL STRENGTH TO OTHER SAFTY-SHAPED RAILINGS WITH LIKE GEOMETRY, WHICH HAVE BEEN CRASH TESTED TO MEET MASH TL4. PER TTI REPORT FHW/TX-12/9-1002-5,.

P.V.C. (POLYVINYL CHLORIDE) WATERSTOP. SEE FABRICATION NOTE 6.

*REGARDLESS OF THE HEIGHT OF PARAPET CONSTRUCTED, INCLUDING THE SPECIFIED HEIGHT OF THE CONTRACT AND ANY ADJUSTMENT TO ACHIEVE A SMOOTH TOP OF RAIL PROFILE, THE 7½" TOP OF RAIL WIDTH AND 7:36 SLOPE OF RAIL FASCIA SHALL BE MAINTAINED WITHOUT VARIATIONS. RESULTING HEIGHT ADJUSTMENTS MAY ONLY BE ACCOMMODATED BY VARYING THE WIDTH OF THE RAIL BASE. THE 1'-2½" NOMINAL BASE WIDTH APPLIES FOR A 36" RAIL HEIGHT AT TRAFFIC FASCIA.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET 2006

DESIGNED BY _____ DATE _____
DRAWN BY K.L. FRANKENFIELD/KXM DATE _____
SUPERVISED BY _____ DATE _____
CHECKED BY _____ DATE _____

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-1-1SS