

MAPA Meeting – October 27, 2020

Recent and Upcoming Policy Changes

1. Sections 717.50.3.1 and 717.610.3.1 are new sections requiring shop drawings shall be in accordance with Sec. 1080. Sections 717.50.5 and 717.60.5 remove Open Cell Foam Joint and Preformed Silicone or EPDM Expansion Joint from the basis of payment respectively (example not shown).

717.50.3 Construction Requirements. The contractor shall have a manufacturer's representative on site for the joint installation. The representative shall be responsible for ensuring the surface preparation and joint installation are done in accordance with the manufacturer's requirements.

717.50.3.1 Shop Drawings. Shop drawings for structural steel for expansion joint systems shall be prepared in accordance with Sec 1080. The dimensions of the open cell foam shall be shown on the shop drawings for the armored joint. Shop drawings will not be required when the open cell foam is placed against concrete or existing steel armor.

717.50.3.12 Field Splices. The Open Cell Foam shall be installed in one continuous piece without field splices, unless otherwise specified on the plans or directed to by the engineer. Open Cell Foam shall be spliced with silicone called for in Sec 1057 and in accordance with the manufacturers recommendations.

717.60.3 Construction Requirements. The contractor shall furnish to the engineer the manufacturer's written product information, installation procedures and instructional information at least two weeks prior to installation. The contractor shall obtain the services of a qualified technical representative approved by the manufacturer of the expansion joint seal and acceptable to the engineer, to assist during the installation. The contractor, the technical representative and the engineer shall meet to review and clarify installation procedures and requirements prior to starting the work. The start of surface preparations and seal installation shall not occur without the technical representative being present. The technical representative shall be present for at least one day at the start of surface preparations and seal installation.

717.60.3.1 Shop Drawings. Shop drawings for structural steel for expansion joint systems shall be prepared in accordance with Sec 1080. The dimensions of the preformed silicone or EPDM seal shall be shown on the shop drawings for the armored joint. Shop drawings will not be required when the preformed silicone or EPDM seal is placed against concrete or existing steel armor.

717.60.3.12 Surface Preparation. The concrete or steel surface shall be prepared for priming and seal placement. New Portland cement concrete shall be fully cured and allowed to dry a minimum of seven days. The joint shall be cleaned of all gravel, loose material and other

2. Section 733.2 and 733.3.2.1.1, changed subsurface drainage geotextile to separation geotextile.

733.2 Material. All material shall be in accordance with Division 1000, Materials, and specifically as follows:

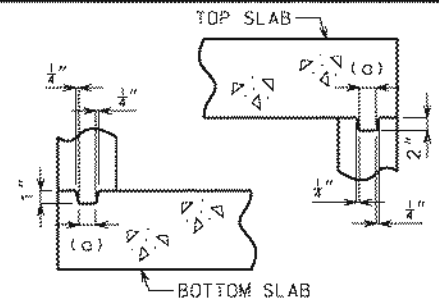
Item	Section
Subsurface Drainage Separation Geotextile	1011
Precast Concrete Box Culverts	1049
Plastic Joint Compound for Vitrified Clay and Concrete Pipe	1057
Tubular Joint Seal	1057
Mortars and Grout	1066

733.3.2.1.2 Filter cloth 3 feet in width and double thickness shall be centered over the top and sides of all joints between individual box sections with edges sealed with mastic or two-sided tape. Filter cloth shall be a ~~subsurface drainage~~ separation geotextile in accordance with Section 1011.

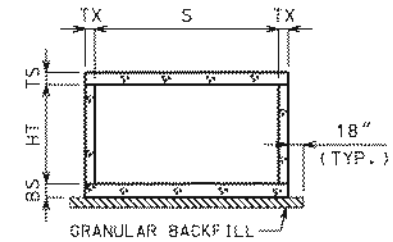
3. Section 1080.3.1.2 and 1080.3.2 added clarifications for electronic shop drawing notifications and approvals.

1080.3.1.2 Notification of Inspection. The ~~engineer~~ Bridge Division shall be electronically notified at least four working days prior to the beginning of the shop fabrication so a QA inspector may be present if so desired and to allow the QA inspector to make travel arrangements. If the fabricator notifies and requests inspection and the QA inspector arrives at the location of inspection to find the material is not ready for inspection as indicated in the request, any travel costs incurred by ~~MoDOT~~ for additional inspection shall be paid by the contractor.

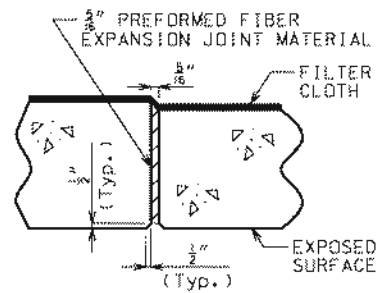
1080.3.2 Shop Drawings. Shop drawings for structural steel and miscellaneous metals shall be required and shall be prepared in strict accordance with the design details shown on the plans. If details are lacking, the details shall be supplied and shall conform to the design plans and specifications. All drawings shall be clear and complete and shall be thoroughly checked before submittal. Shop drawings shall be completely titled in accordance with the contract plans and shall pertain to only a single structure. One set of the shop drawings for railroad structures and other structures shall be submitted electronically to the Bridge Division for approval. The prints submitted shall be legible and shall have distinct details of sufficient contrast. Prints that do not have the desired clarity and contrast will be returned for corrective action. One set of prints will be returned marked reviewed or approved subject to noted corrections. The contractor shall promptly make necessary corrections and resubmit for final approval. When shop drawings are approved, the contractor shall furnish ~~any additional prints requested.~~ Reproductions ~~of the approved shop drawings shall be provided to the contractor for use on the project.~~



KEYED CONSTRUCTION JOINT
 (a) APPROXIMATELY ONE-THIRD OF WALL THICKNESS



GRANULAR BACKFILL LIMITS AND MEMBER DIMENSIONS

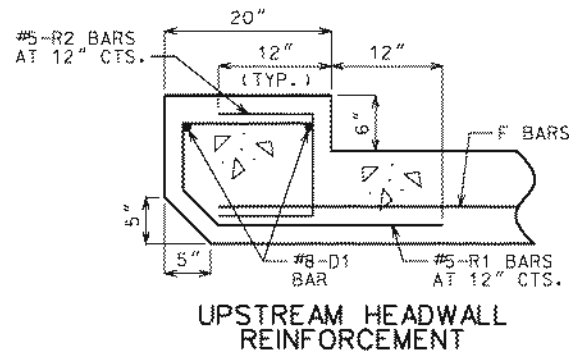


TRANSVERSE JOINT THRU BARREL

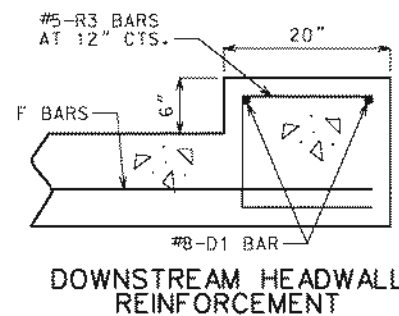
PREFORMED FIBER EXPANSION JOINT MATERIAL IN ACCORDANCE WITH SEC 1057 SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH 10 GAGE COPPER WIRE OR 12 GAGE SOFT DRAWN GALVANIZED STEEL WIRE.

FILTER CLOTH 3 FEET IN WIDTH AND DOUBLE THICKNESS SHALL BE CENTERED ON TRANSVERSE JOINTS IN TOP SLAB AND SIDEWALLS WITH EDGES SEALED WITH MASTIC OR TWO SIDED TAPE. FILTER CLOTH SHALL BE A ~~SUBSURFACE DRAINAGE~~ GEOTEXTILE IN ACCORDANCE WITH SEC 1011. COST OF FURNISHING AND INSTALLING FILTER CLOTH WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS.

SEPARATION

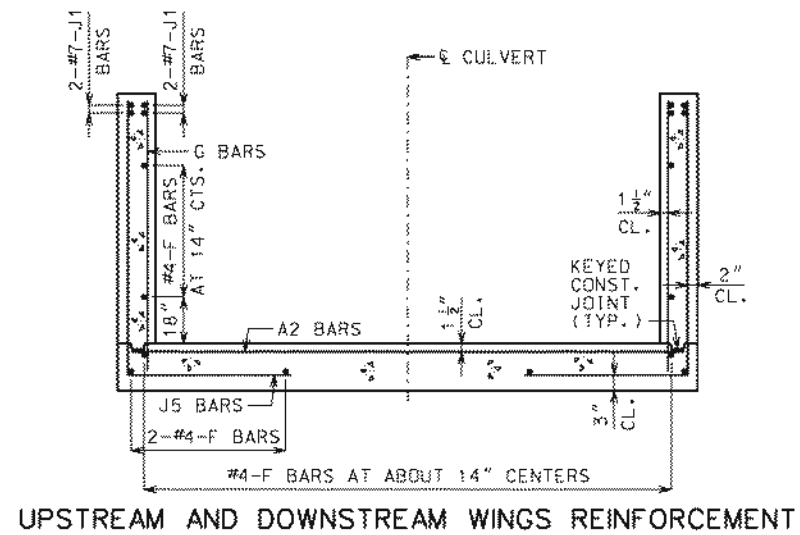


UPSTREAM HEADWALL REINFORCEMENT

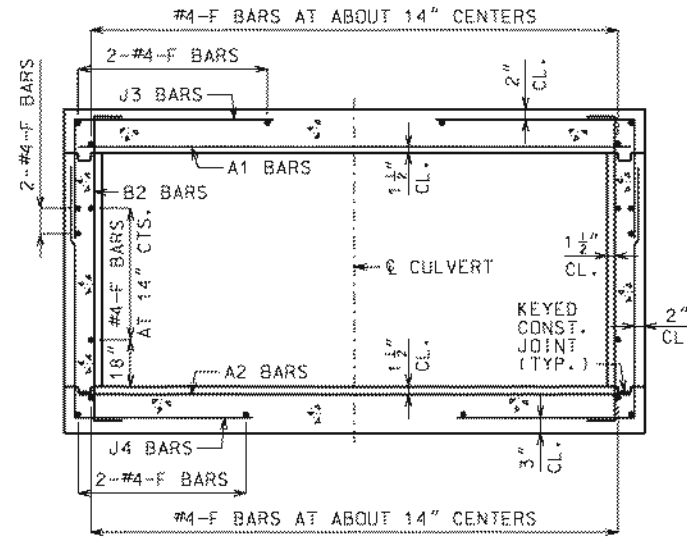


DOWNSTREAM HEADWALL REINFORCEMENT

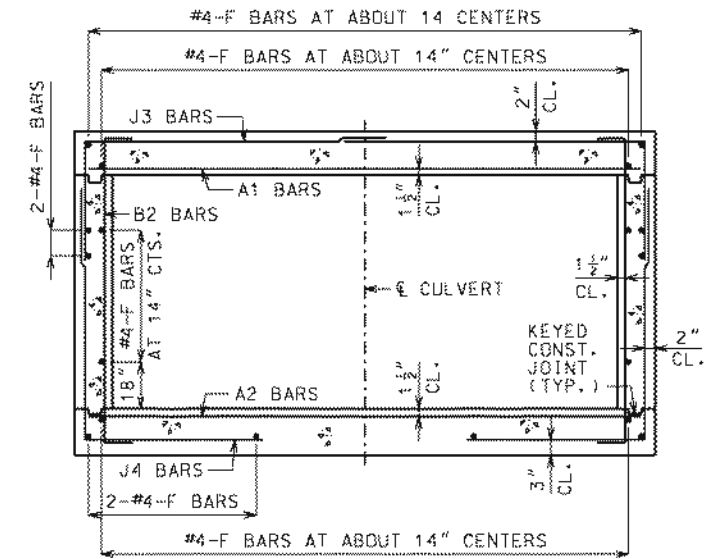
4. Multiple 703 Std. Plan sheets - replacing Subsurface Drainage with Separation.



UPSTREAM AND DOWNSTREAM WINGS REINFORCEMENT



BARREL REINFORCEMENT FOR DESIGN FILLS OVER 2'-0"



BARREL REINFORCEMENT FOR DESIGN FILLS 2'-0" OR LESS

GENERAL NOTES:

FOR MEMBER THICKNESS AND FOR BAR SIZES, SPACING AND DIMENSIONS OF ALL REINFORCEMENT EXCEPT J5 BARS, SEE 703.17. FOR J5 BARS, SEE 703.37.

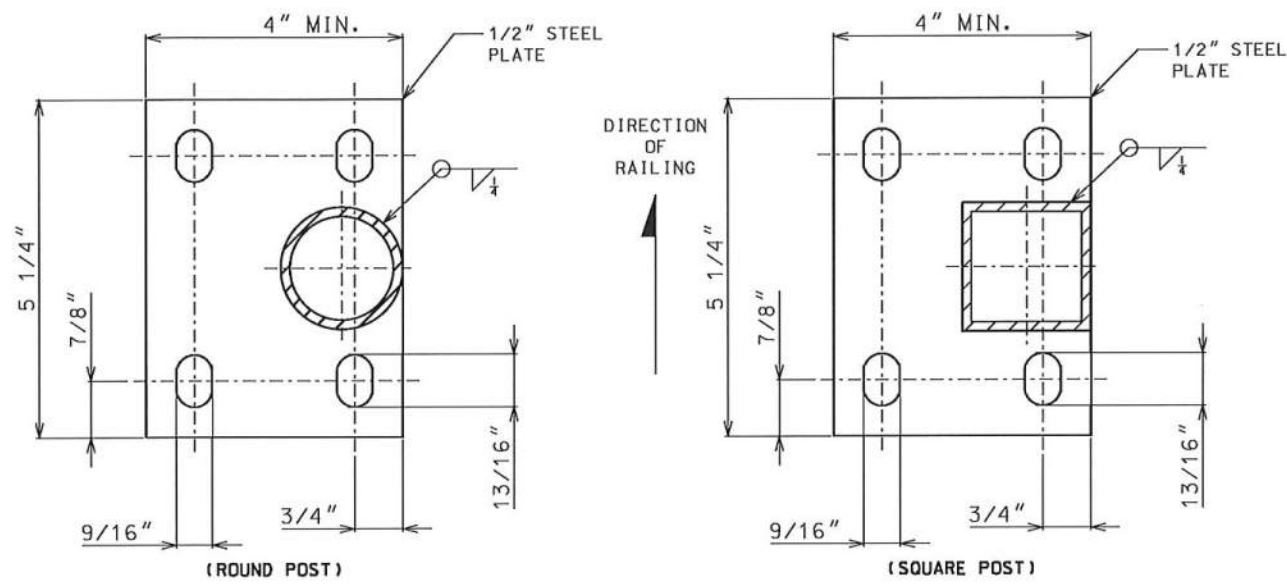
BARREL AND WINGS SECTIONS ARE SYMMETRICAL ABOUT AND NORMAL TO Q CULVERT. HEADWALL SECTIONS ARE NORMAL TO LONG DIRECTION OF HEADWALL.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

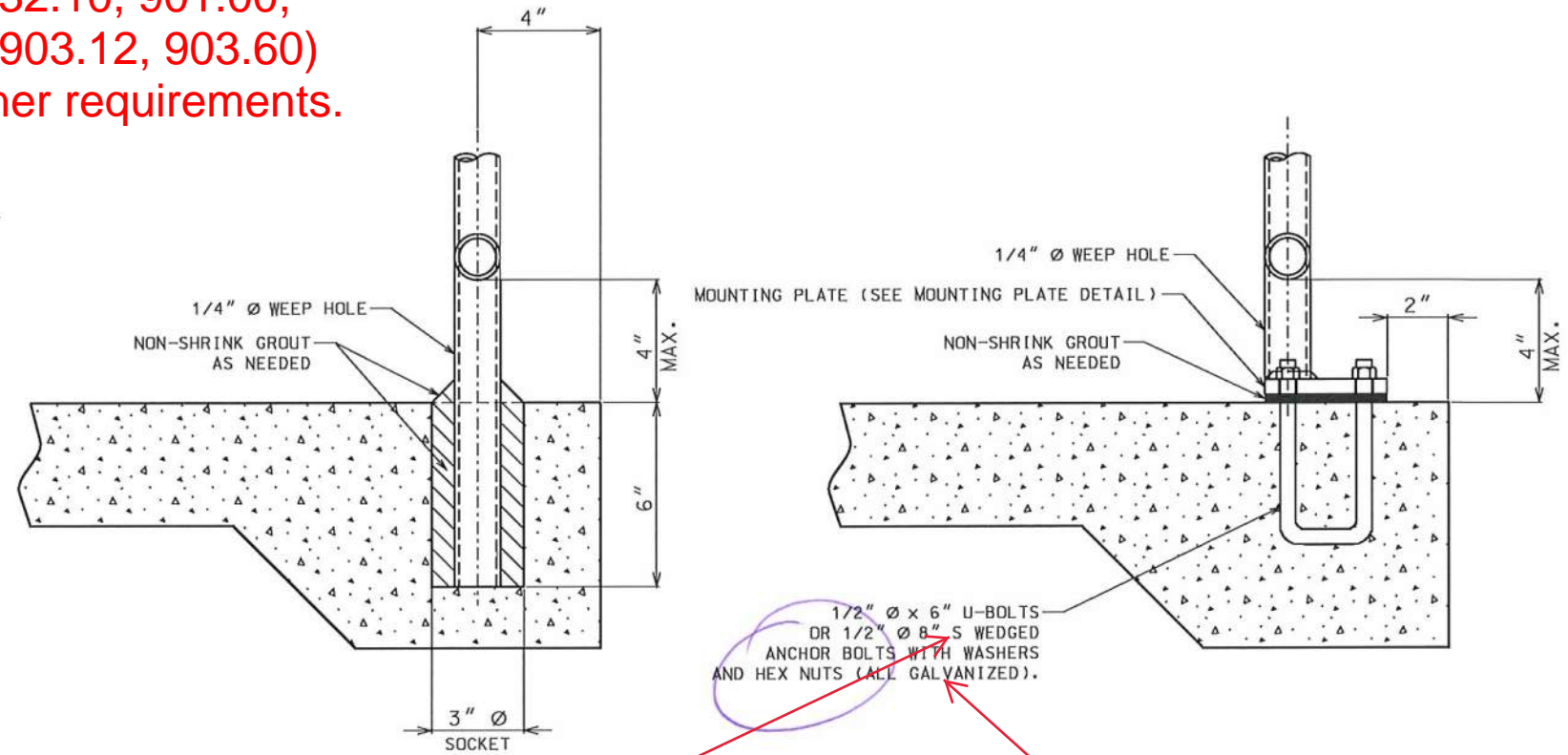
MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1 1/2".

	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	CONCRETE SINGLE BOX CULVERT SKEW: SQUARED WINGS: STRAIGHT	
	SECTIONS	
DATE EFFECTIVE: 07/01/2015 DATE PREPARED: 5/13/2015	703.10J	SHEET NO. 3 OF 3

5. Multiple Std. Plans (608.40, 614.11, 617.20, 732.05, 732.10, 901.00, 901.01, 902.10, 902.70, 903.03, 903.05, 903.06, 903.10, 903.12, 903.60) updated ASTM galvanizing requirements and other fastener requirements.



MOUNTING PLATE DETAIL (PLAN VIEW)



SOCKET MOUNTING DETAIL

PLATE MOUNTING DETAIL

ASTM F1554 GRADE 36

SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 (ASTM A153), CLASS C.

GENERAL RAILING COMMERCIAL STEEL RAILING ACCORDANCE WITH AASHTO M 232 (ASTM A153), CLASS C. ROUND OR SQUARE STEEL OF GOOD LUMINUM ALLOY 6061-T6 OR 6063-T6. GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M 232 (ASTM A153), CLASS C.

ALL JOINTS SHALL BE CONTINUOUS WELDED AND GROUND SMOOTH. METAL SAFETY RAIL MUST BE COMPLIANT WITH THE "AMERICAN'S WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)". EXCEPTIONS MUST BE APPROVED BY THE ENGINEER. ALL OTHER AREAS OF NON-COMPLIANCE SHALL BE REMOVED AND CORRECTED AT THE CONTRACTOR'S EXPENSE.

ALL POSTS SHALL HAVE A 1/4" WEEP HOLE IMMEDIATELY ABOVE THE MOUNTING PLATE.

WHEN INSTALLED THE POSTS SHALL BE PLUMB AND RAILINGS SHALL MATCH THE SLOPE OF THE SIDEWALK.

HANDRAIL REQUIREMENTS		
FILL SLOPE	FILL HEIGHT	HANDRAIL
(1V:3H) OR FLATTER	—	NOT REQUIRED
(1V:3H) OR STEEPER	≥ 6 FT.	REQUIRED
(1V:2H) OR STEEPER	≥ 4 FT.	REQUIRED
(1V:1H) OR STEEPER	≥ 1 FT.	REQUIRED

RAILING AND POST SPECIFICATION				
DESCRIPTION	TYPE	SIZE (DIA.)	WEIGHT (LBS. / FT.)	
			ALUM.	STEEL
RAILING & POST	ROUND	1 1/2"	0.940	2.720
	SQUARE	2" X 2"	1.3094	4.310
BALUSTER	ROUND	1/2"	0.2312	0.668
	RECT.	3/8" X 1/2" STL.	—	0.6375
	SQUARE	1/2" X 1/2" ALUM.	0.2944	—

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

Eric E. Schroeter
 NUMBER PE-28411
 PROFESSIONAL ENGINEER

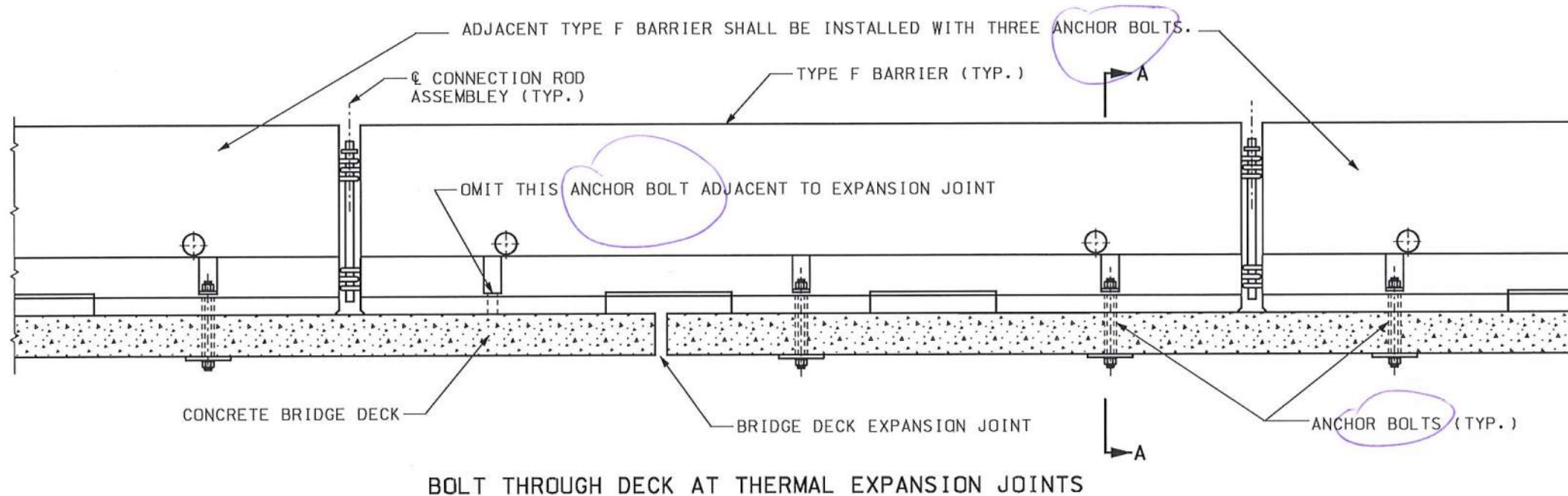
HANDRAILING

DATE EFFECTIVE: 04/01/2015
 DATE PREPARED: 2/20/2015

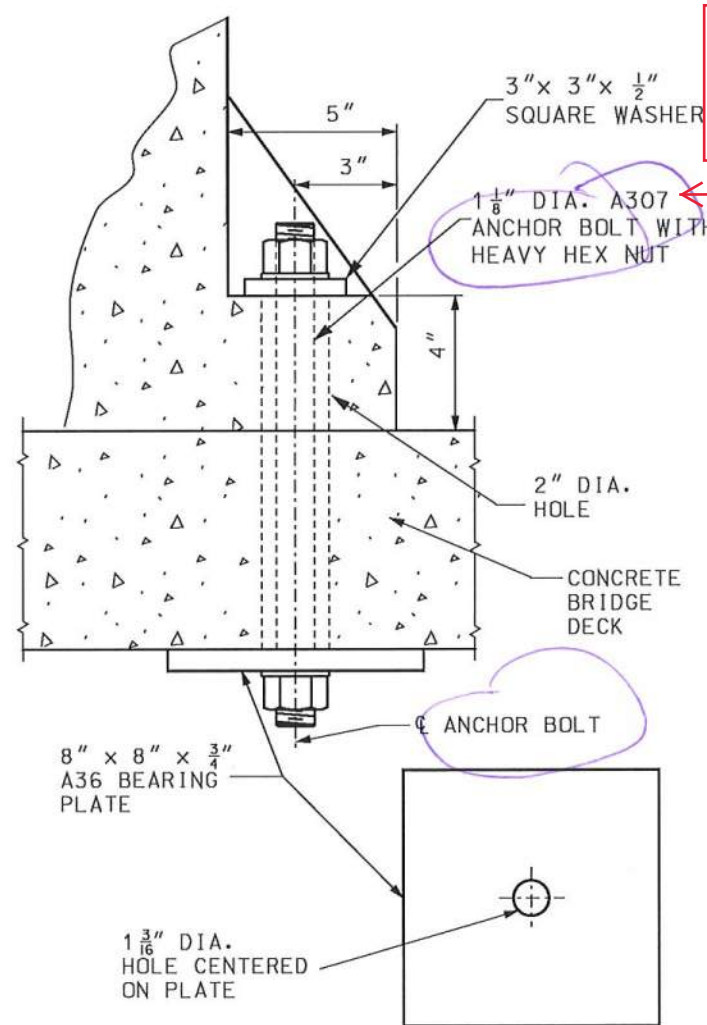
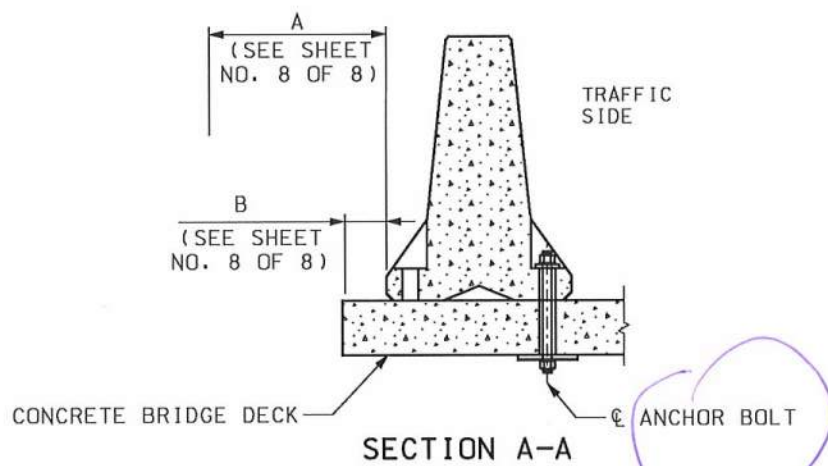
608.40

SHEET NO. 3 OF 4

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



BOLT THROUGH DECK AT THERMAL EXPANSION JOINTS



BOLT THROUGH DECK DETAIL

1 1/8" dia. ASTM A307 ANCHOR BOLT WITH HEX NUT

I agree. Use HEX.

GENERAL NOTES:

ANCHOR BOLT SYSTEMS ARE ONLY APPLICABLE ON BRIDGE DECKS AND RIGID PAVEMENTS.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD BEFORE ORDERING NEW MATERIAL.

SEE OTHER SHEETS FOR DETAILS NOT SHOWN.

AFTER REMOVAL OF ANCHOR BOLTS HOLES SHALL BE FILLED WITH QUALIFIED SPECIAL MORTAR IN ACCORDANCE WITH SEC 704.

	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		TEMPORARY CONCRETE TRAFFIC BARRIER (BOLT SYSTEM)
DATE EFFECTIVE: 10/01/2015 DATE PREPARED: 9/3/2015	617.20D	SHEET NO. 6 OF 8

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.