

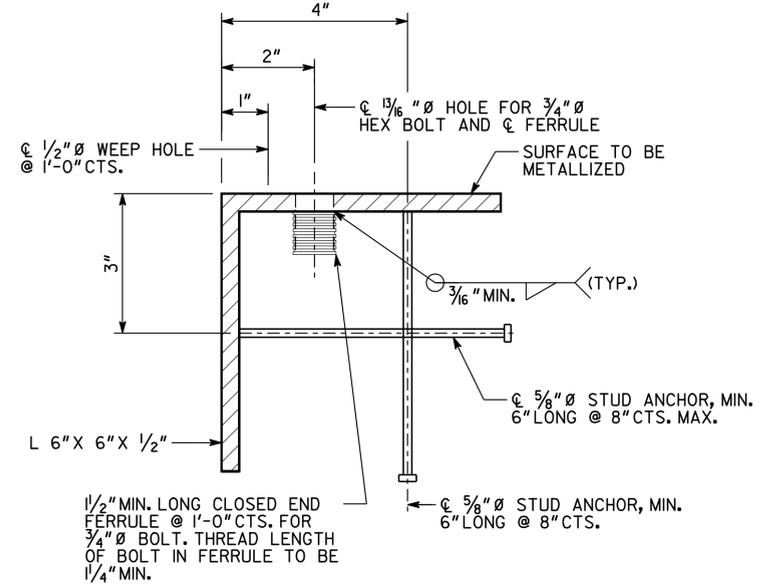
RELEASED FOR CONSTRUCTION 10-05-2010

EXPANSION DAM NOTES

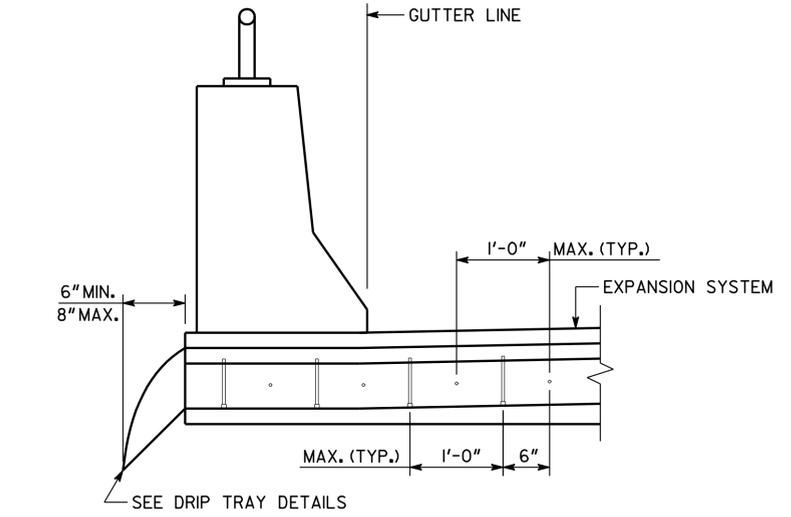
- JOINT DETAILS SHOWN ARE INTENDED TO BE REPRESENTATIVE IN NATURE. EXPANSION JOINT SYSTEMS SHALL BE ACCEPTABLE PRODUCTS OF PREQUALIFIED MANUFACTURERS. THE EXPANSION JOINT SHALL SATISFY ALL REQUIREMENTS SPECIFIED IN THE AASHTO LFD STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (CURRENT EDITION) AND SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT, IN ALL POSITIONS, AN HS20 HIGHWAY TRUCK LOADING WITH IMPACT.
- THE CONTRACTOR SHALL SUBMIT DETAILS OF THE EXPANSION SYSTEM TO BE USED TOGETHER WITH THE INSTALLATION PLAN TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. THE DETAILS AND PLANS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.
- THE CONTRACTOR SHALL INSURE THE FINGER PLATE MOUNTING BOLTS ARE INSTALLED SUCH THAT THEY WILL NOT WORK LOOSE AND BECOME A TRAFFIC CONCERN.
- SURFACES COMING IN CONTACT WITH NEOPRENE SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
- ALL STEEL EXCEPT COVER PLATES FOR BARRIER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50W. COVER PLATES FOR BARRIER SHALL MEET ASTM A558 GRADE 50W AND BE GALVANIZED. THE MINIMUM DECK COVER PLATE THICKNESS SHALL BE 1". ALL OTHER STEEL SHALL BE MINIMUM OF 1/2" THICK.
- THE EXPANSION SYSTEM SHALL BE CONSTRUCTED SUCH THAT THE EXPANSION JOINT GLAND MAY BE REMOVED FOR FUTURE MAINTENANCE. THE CONTRACTOR IS ALLOWED TO DETAIL FINGER PLATES WITH ONE SPLICE, WHICH SHALL BE LOCATED AT THE CENTERLINE OF THE BRIDGE.
- ALL EXPOSED SURFACES OF THE STEEL SHALL BE CLEANED IN ACCORDANCE WITH THE REQUIREMENTS OF SSPC SP10-63T. THE STEEL, EXCEPT FOR THE AREAS IN CONTACT WITH THE SEAL, SHALL BE PAINTED WITH ONE SHOP COAT INORGANIC ZINC PRIMER, A MINIMUM OF 3.5 MILS DRY FILM THICKNESS WILL BE REQUIRED. ANCHOR ASSEMBLY NEED NOT BE PAINTED.
- STEEL ANCHORING ELEMENT SECTIONS MAY BE FABRICATED USING ONE SPLICE LOCATED AT THE CENTERLINE OF THE BRIDGE, AND CONNECTED IN THE FIELD BY PARTIAL JOINT PENETRATION GROOVE WELDS. NO WELD SHALL BE PERMITTED WHERE STEEL COMES IN CONTACT WITH EXPANSION JOINT. TOP AND INSIDE SURFACES OF WELDS SHALL BE GROUND FLUSH AFTER WELDING. SPLICES SHALL BE WELDED BEFORE INSTALLING SEALS. SURFACES WITHIN 2" OF THE FIELD WELD SHALL NOT BE PAINTED BUT SHALL RECEIVE ONE COAT OF RAW LINSEED OIL. AFTER FIELD WELDING IS COMPLETED, THE CONTRACTOR SHALL TOUCH UP PAINT OR PAINT DAMAGED AREAS. THE NUMBER OF SPLICES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. FIELD WELDS SHALL BE DETAILED ON SHOP DRAWINGS.
- THE EXPANSION JOINT LENGTH SHALL BE MEASURED FROM EDGE TO EDGE OF DECK.
- IF BLOCKOUTS ARE REQUIRED FOR JOINT INSTALLATION, ADJUST DECK SLAB AND BARRIER REINFORCING STEEL AS NECESSARY.
- ANCHOR ASSEMBLIES SHALL BE SPACED AT 12" MAX.
- ALL DECK EXPANSION JOINT COVER PLATES SHALL BE RATED BICYCLE-SAFE.
- ALUMINUM SHALL NOT BE USED TO FABRICATE ANY PART OF THE EXPANSION JOINT.
- THE 1/2" COVER PLATE SHALL CONFORM TO THE SHAPE OF THE BARRIER.
- THE 3/4" CONCRETE INSERTS SHALL BE CLOSED-END FERRULED WITH LOOPED WIRE STRUTS ATTACHED TO THEM. THE INSERTS SHALL CONFORM TO ASTM A108, GRADE 12L14 AND SHALL HAVE A TENSILE WORKING LOAD CAPACITY OF AT LEAST 3000 LBS.
- THE ELASTOMERIC COMPONENT OF EACH JOINT SHALL CONSIST OF A CONTINUOUS UNIT FOR THE ENTIRE LENGTH OF THE JOINT (INCLUDING DRIP TRAYS). THE SEAL GLAND FOR THE JOINT SHALL BE VULCANIZED ELASTOMERIC COMPOUND USING POLYMERIZED NEOPRENE IN ACCORDANCE WITH ASTM D-2000 AS THE ONLY BASIC ELASTOMER. FIELD SPLICING OF THE GLAND MATERIAL SHALL NOT BE PERMITTED. THE FABRIC SHALL BE OF GOOD QUALITY AND EQUAL TO A FABRIC USED BY MANUFACTURERS OF SHEET RUBBER PRODUCTS DESIGNED FOR USE IN HIGHWAY BRIDGE EXPANSION JOINT APPLICATIONS.
- IF STUDS ARE UTILIZED IN THE ANCHORING SYSTEM, THEY SHALL MEET THE REQUIREMENTS OF SECTION 512 OF THE STANDARD SPECIFICATIONS. STRAPS UTILIZED FOR ERECTION PURPOSES SHALL BE AASHTO M 270 GRADE 36 STEEL.
- A LUBRICANT/ADHESIVE SHALL BE USED IN BONDING THE SEAL TO THE STEEL ELEMENTS. THE LUBRICANT/ADHESIVE SHALL BE A ONE PART MOISTURE CURING POLYURETHANE AND HYDROCARBON SOLVENT MIXTURE MEETING THE REQUIREMENTS OF ASTM D-4070-91.
- THE JOINT SHALL CONFORM TO THE FINISHED GRADE OF THE BRIDGE DECK WHEN INSTALLED. THE ELASTOMERIC COMPONENT SHALL BE RECESSED SUFFICIENTLY FROM THE FINISHED GRADE OF THE BRIDGE DECK UNDER ALL COMBINATIONS OF MOTION AND SKEW ANGLE TO PREVENT PROTRUSION ABOVE THE DECK WHEN THE JOINT IS CLOSED. THE EFFECTS OF HORIZONTAL AND VERTICAL CURVATURE OR BOTH HORIZONTAL AND VERTICAL CURVATURE AND SKEW ANGLE SHALL BE CONSIDERED IN PROPERLY SIZING AND INSTALLING THE JOINT.

BENT	TOTAL EXPANSION	TOTAL CONTRACTION	JOINT WIDTH "W" AT 70°	TOTAL RATED MOVEMENT	Δ TEMP. ± 10° F
7	2 5/8"	1 5/16"	2 3/4"	3 5/16"	9/16"
10	2 5/8"	1 5/16"	2 3/4"	3 5/16"	9/16"

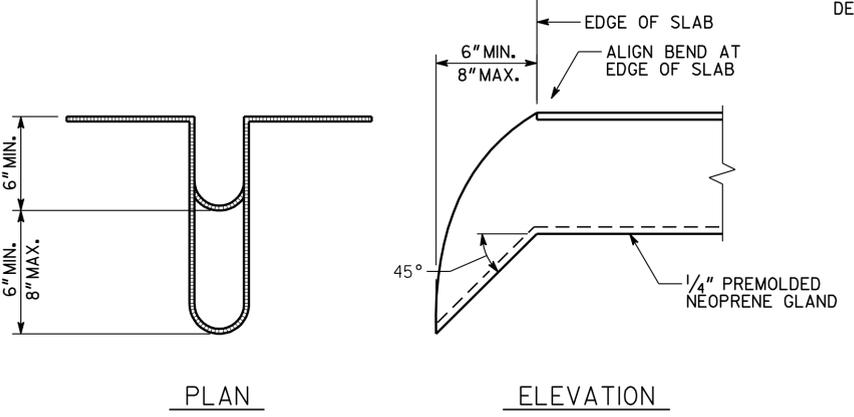
JOINT TYPE	MANUFACTURER	DESIGNATION
EXPANSION DAM	THE D.S. BROWN CO.	NEOPRENE TROUGH SYSTEM W/ FINGER PLATES
	WATSON BOWMAN & ACME CORP.	NEOPRENE TROUGH SYSTEM W/ FINGER PLATES
	E-POXY INDUSTRIES, INC.	NEOPRENE TROUGH SYSTEM W/ FINGER PLATES OR APPROVED EQUIVALENT



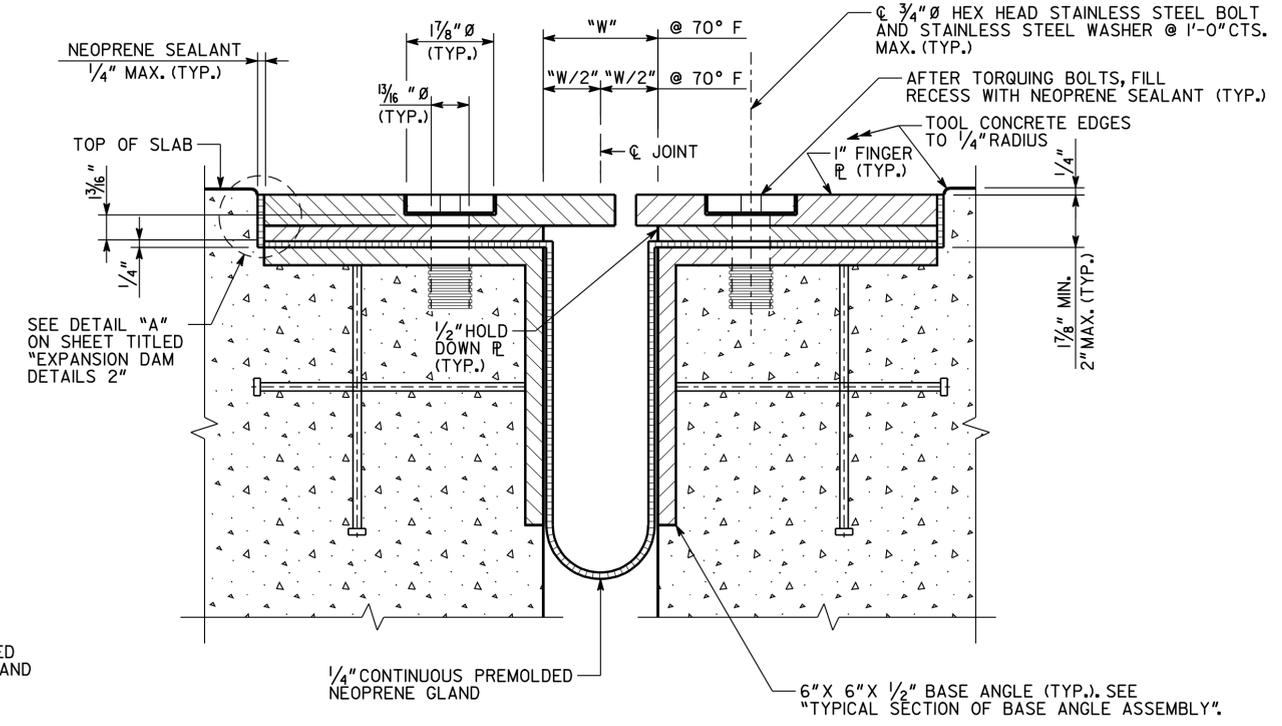
TYPICAL SECTION OF BASE ANGLE ASSEMBLY



ELEVATION ALONG JOINT AT BARRIER (LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)



DRIP TRAY DETAILS



TYPICAL SECTION AT EXPANSION DAM

BRIDGE NO. 1

THE LPA GROUP
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3585 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

EXPANSION DAM DETAILS I
SR 204 SPUR (DIAMOND CAUSEWAY)
OVER SKIDAWAY NARROWS
CHATHAM COUNTY CSSTP-0008-00(651)

SCALE: AS SHOWN
OCTOBER 2010

DRAWING NO. 35-IIA	DESIGNED SAD	CHECKED DGH	REVIEWED WMD / WEI
BRIDGE SHEET IIA OF 48	DRAWN MDM	DESIGN GROUP DGH	APPROVED PVL