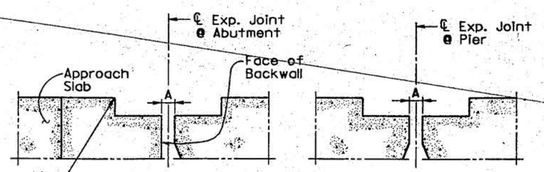
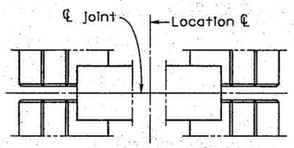
Gainsboro Bridge over NS Railway, Norfolk Ave, and Shen Ave.

FHWA REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.				U000-128-116, PE101, B610	11(35)



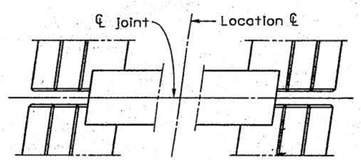
AT ABUTMENT AT PIER

SECTION THROUGH JOINT RECESS



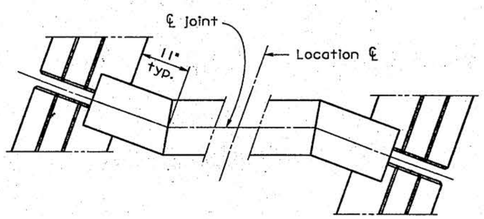
PLAN ELASTOMERIC EXPANSION DAM

STRAIGHT CROSSING



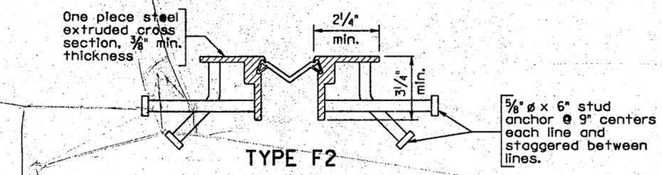
PLAN ELASTOMERIC EXPANSION DAM

SKEWED CROSSING UNDER 10°

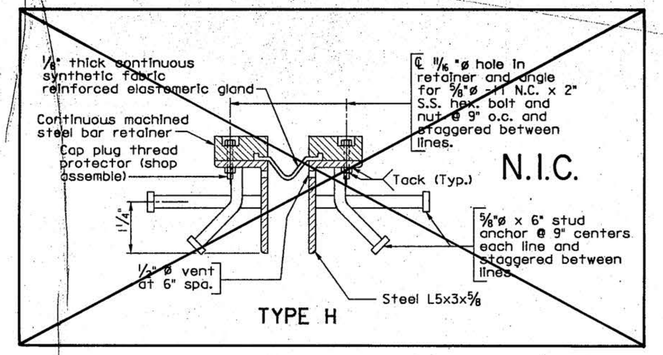


PLAN ELASTOMERIC EXPANSION DAM

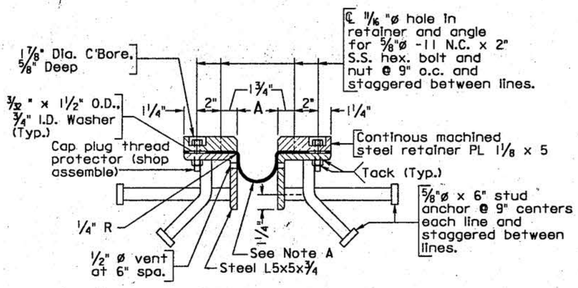
SKEWED CROSSING OVER 10°



TYPE F2



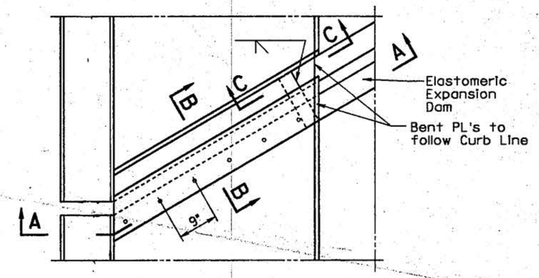
TYPE H



Note A: 1/8" thick continuous synthetic fabric reinforced sheet elastomeric gland. Constant width = 14". 50 or 60 Durometer. Punch 1 1/2" dia. holes through gland to match bolt locations.

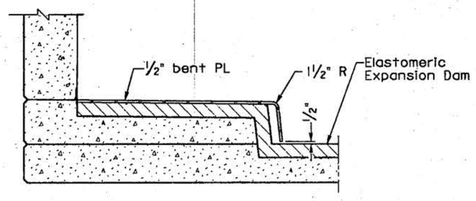
TYPE I

TYPES OF EXPANSION DAMS



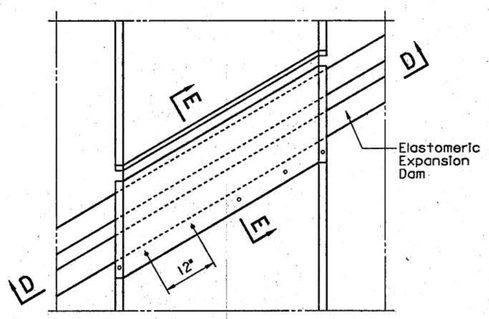
PLAN AT SIDEWALK

(Any Skew)



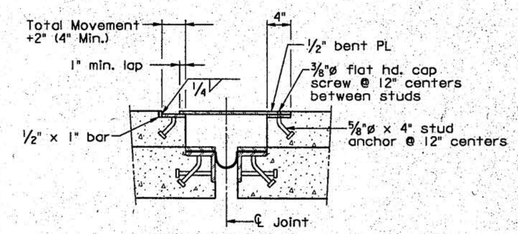
SECTION A-A

NOTCH EXPANSION DAM TO ACCOMODATE CITY OF ROANOKE 2-3" ø CONDUITS WITH FITTINGS.



PLAN AT RAISED MEDIAN

(Any Skew)



SECTION E-E

NOTES:

Shop drawings of the type of dam(s) selected and corresponding slab opening(s) and anchor details shall be submitted to the Engineer for review in accordance with these details and Section 105.02 of the Specifications.

Top of dam shall be set below top of slab in accordance with manufacturer's recommendation or 1/8", whichever is greater.

Concrete shall be placed beneath the dam in such a manner as to prevent the formation of air pockets in the concrete.

All stud anchors, bolts, nuts and washers shall be ASTM A276, Type 304 Stainless steel.

Non-stainless ferrous metal shall be ASTM A709 GRADE 36 and shall be painted in accordance with Section 411 of the Specifications.

Completely welded curb and gutter sections shall be furnished for Types F2 and I.

Steel sections shall be furnished in minimum lengths of 20' and shall be field welded into continuous sections. Welds shall be ground smooth in areas where they will be in contact with the elastomer.

Where the total lenght of the joint is less than 40', the minimum length of steel sections shall be half of the total length of the joint.

Elastomeric gland material shall conform to Section 212.02(j) of the Specifications. Fabric reinforcement shall be a nonwicking woven polyester material.

Dam Proprietary Nomenclature:

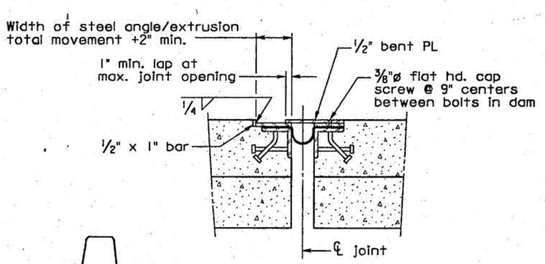
Type F2 = Acme Strip Seal, On-Flex Strip Seal (Structural Accessories), Steelflex SSC-M (D.S.Brown), & BRC Industries BS400

Type I = Nonproprietary

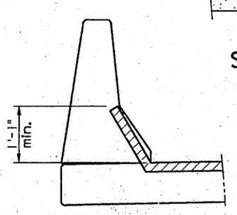
Abutment	Pier	Types Allowed	A (@ 60 ° F.)	t	Total Movement	Skew Angle
A		I	2"	11/64"	2"	2.47°
A		F2	2 1/4"	11/64"	2"	2.47°

"A" shall be increased or decreased for every 10 ° F. temperature drop or rise respectively by "t". "A" is measured perpendicular to the joint centerline.

Total movement is the movement the dam must be capable of providing to allow for the effects of temperature changes, girder end rotation under live load and racking caused by the skew angle.

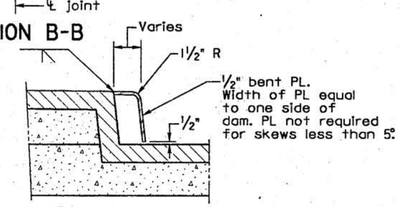


SECTION B-B

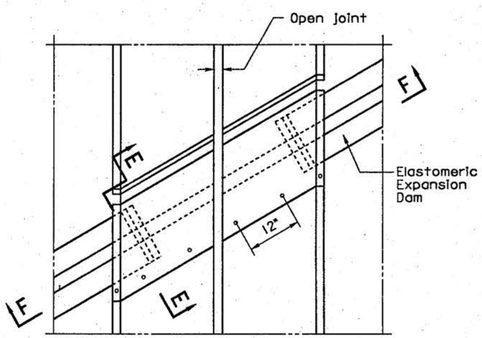


PARAPET SECTION

On ℄ expansion joint

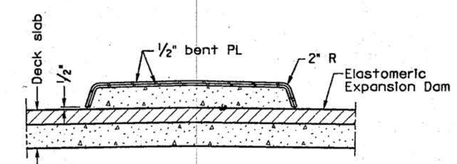


SECTION C-C

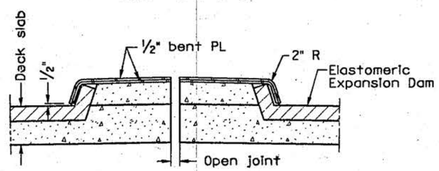


PLAN AT RAISED MEDIAN WITH LONGITUDINAL JOINT

(Any Skew)



SECTION D-D



SECTION F-F

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No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

ELASTOMERIC EXPANSION DAM

Designed: S&B DIV
Drawn: S&B DIV
Checked: S&B DIV

Date: JANUARY, 1995

Plan No. 268-49

Sheet No. 35 of 42

5-26-89

CADD BEJ-3

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