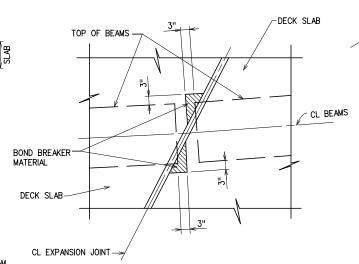


NOTE:

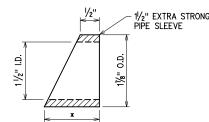
PLAN QUANTITIES FOR "CLASS AA CONCRETE" INCLUDE BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT CENTERLINE BEARING ONLY, MEASURED FROM BOTTOM OF DECK SLAB TO TOP OF BEAM, AND VARIES ACROSS THE SPAN. HAUNCH HEIGHT TO BE DETERMINED AFTER ERECTION OF BEAMS TO PROVIDE FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT AND SUBMITTED TO THE ENGINEER FOR APPROVAL THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT. SEE SHT. 92 FOR DEFLECTION DIAGRAMS.



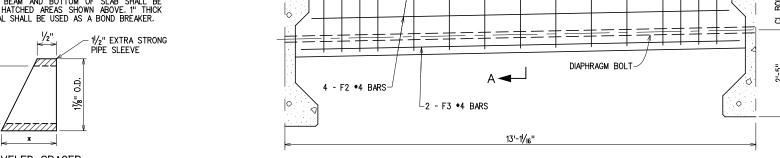
DETAIL OF BOND BREAK AT BEAM CORNER

NOTE:

WHERE THE TOP CORNER OF BEAM PROJECTS UNDER THE SLAB OF THE ADJACENT SPAN, A MINIMUM OF 1" CLEARANCE BETWEEN TOP OF BEAM AND BOTTOM OF SLAB SHALL BE PROVIDED IN THE HATCHED AREAS SHOWN ABOVE. 1" THICK EXPANSION MATERIAL SHALL BE USED AS A BOND BREAKER.



BEVELED SPACER * BEVEL AS REQUIRED TO ACCOUNT FOR SKEW AND CROSS SLOPE.



_ 1'-1"

4-U2 •4 BARS @

6"=1'-6"

1'-0''

ELEVATION

10'-11¹/₁₆"

7-U2 *4 BARS EQ. SPA. = 5'-11/16"

PLAN

A **◄**

6 - F *4 BARS

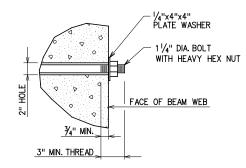
1'-0"

4-U2 *4 BARS @

6"=1'-6"

1'-1" _

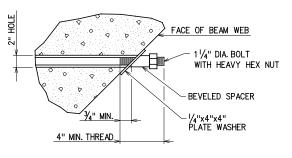
END DIAPHRAGM (TYPE III BEAMS)



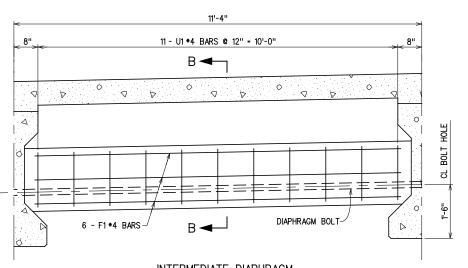
DETAIL DIAPHRAGM BOLT

NOIE:
STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS SHALL COMFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A *10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST. HEX NUTS SHALL COMFORM TO AASHTO M291 (ASTM ASAST).

PAINT EXPOSED DIAPHRAGM BOLT, HEX NUT AND PLATE WASHER WITH TWO COATS OF ZINC RICH PAINT (MIN. 6 MIL THICKNESS) AFTER ASSEMBLY. ALL COST OF DIAPHRAGM BOLT, PLATE WASHER AND HEX NUT TO BE INCLUDED IN THE UNIT PRICE BID FOR "STRUCTURAL STEEL"



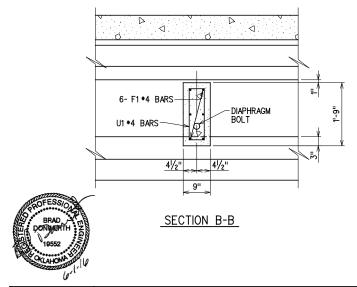
DETAIL DIAPHRAGM BOLT SKEWED



INTERMEDIATE DIAPHRAGM (TYPE III BEAMS)

GROSSMAN & KEITH ENGINEERING COMPANY

10408 GREENBRIAR PL., OKLA. CITY OK. 73159 PH. 691-3213 CA. •74 FAX 691-3214 EXPIRES 06/30/2016



-ET *4 BARS

- U2 *4 BARS

_ 41/2"

SECTION A-A

9"

∕EB •5 BARS

B +5 BARS-

A *4 BARS-

6- F *4 BARS

DIAPHRAGM -

U.S. 277 OVER DEEP RED CREEK OVERFLOW BRIDGE "C" COTTON COUNTY DESIGN DRAWN DIAPHRAGM DETAILS CHECKED APPROVED 28036(04) SQUAD G/K ENGR. JOB PIECE NO. _SHEET_NO_<u>93</u>_