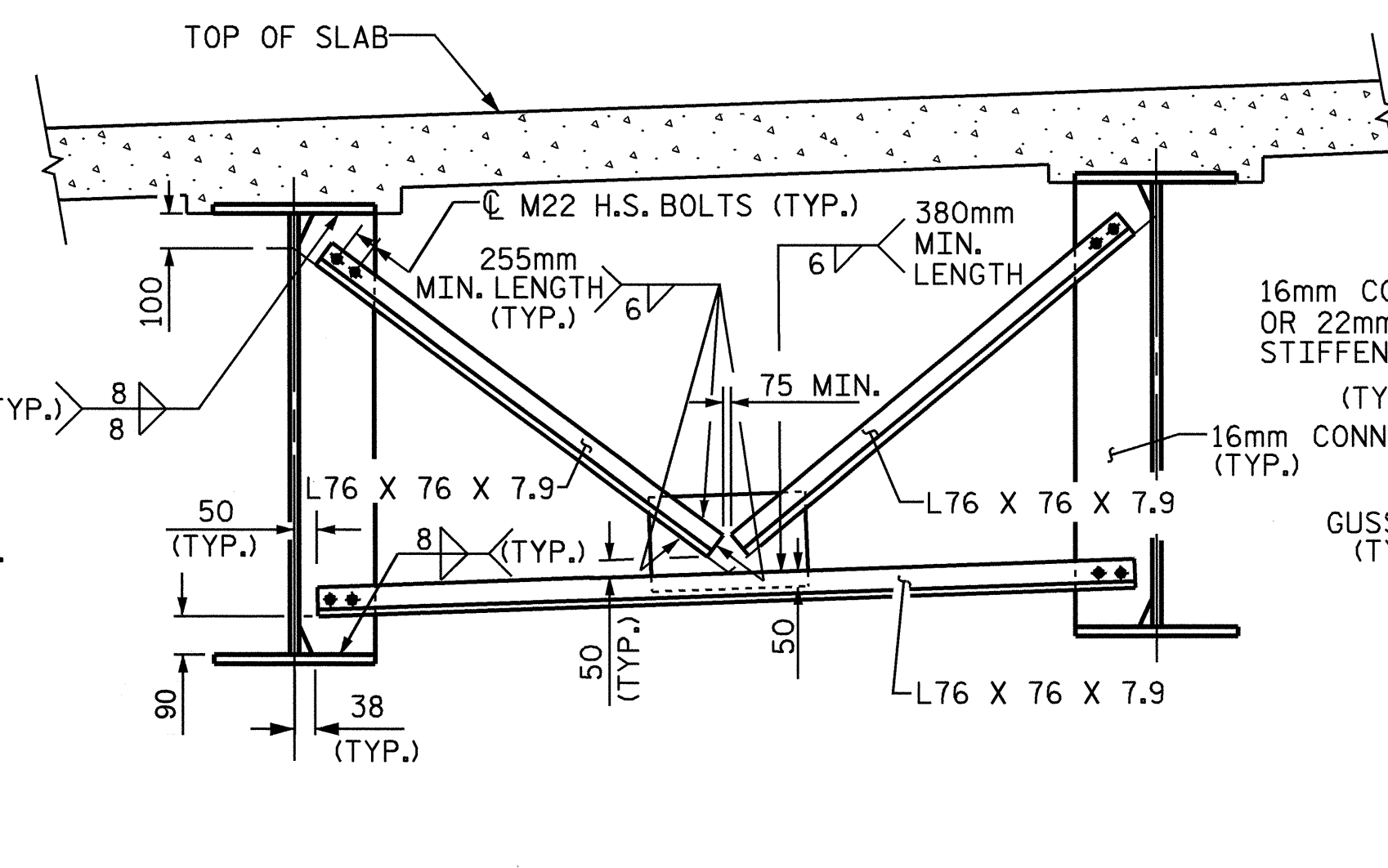
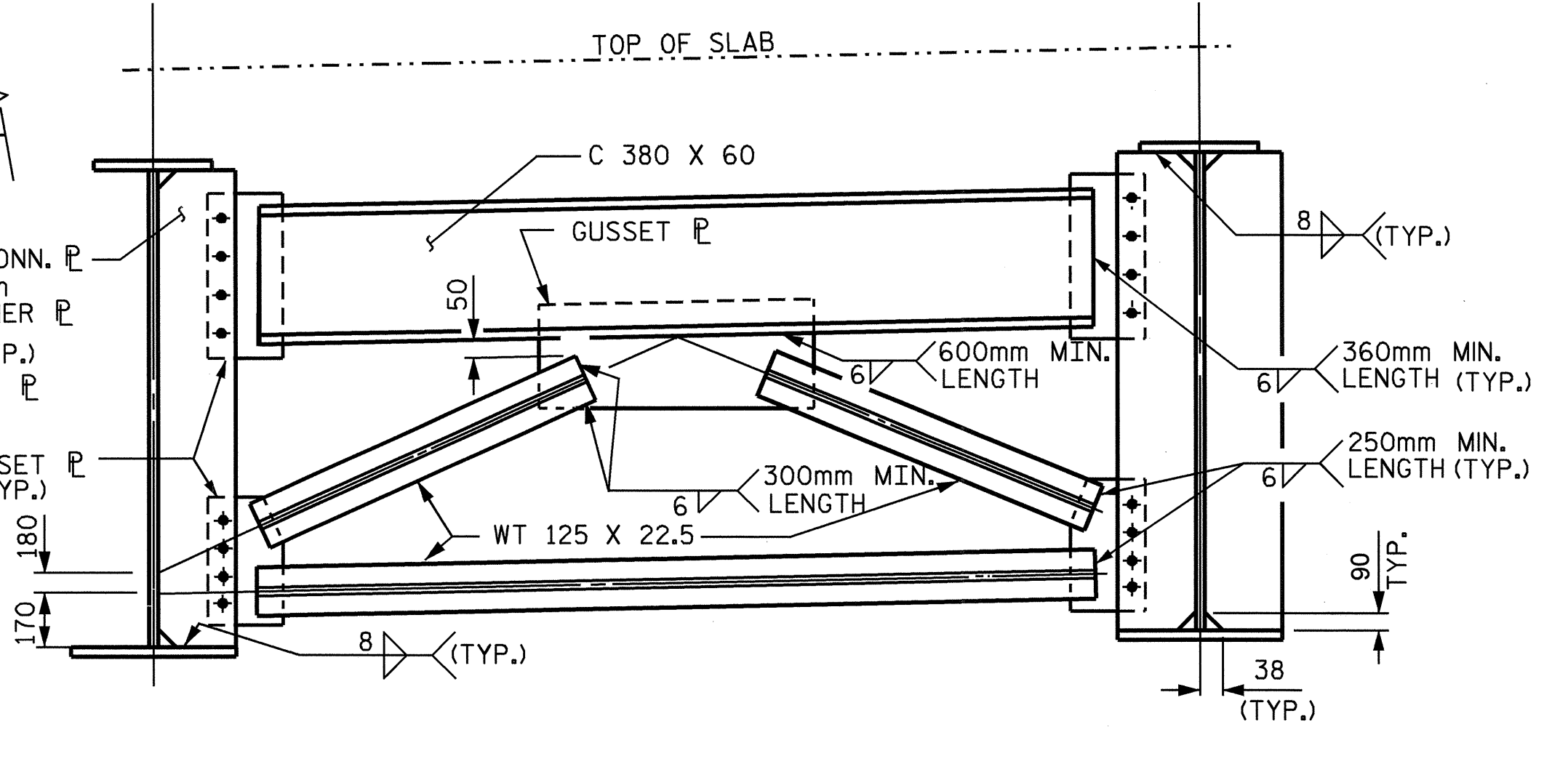


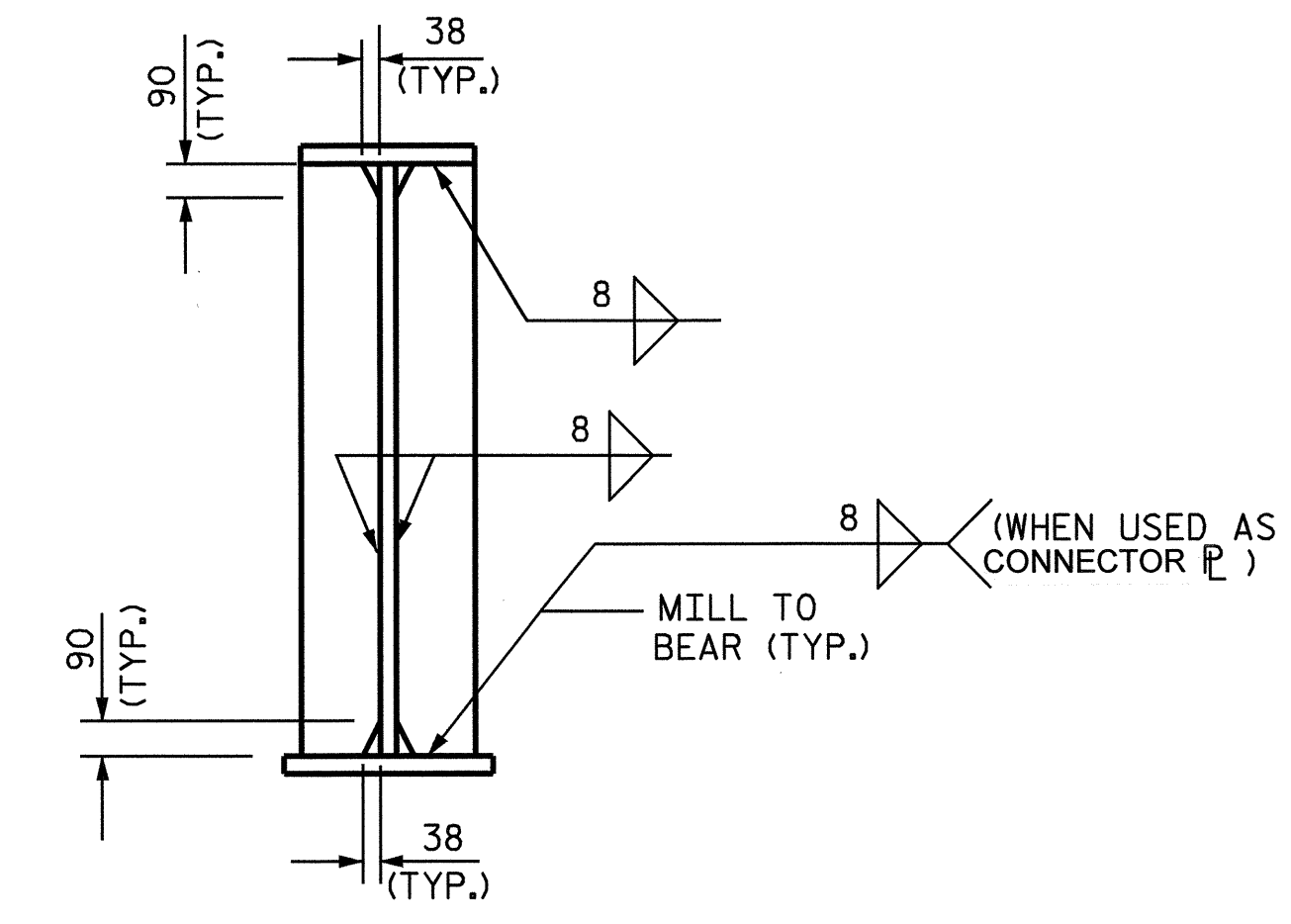
TYPICAL END BENT DIAPHRAGM (D1)



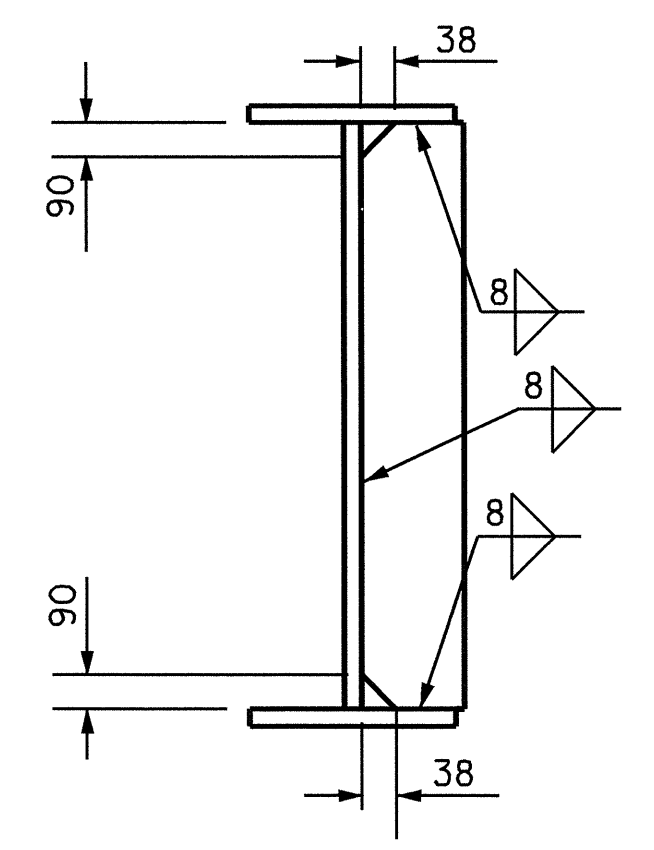
TYPICAL INTERMEDIATE DIAPHRAGM (D2)



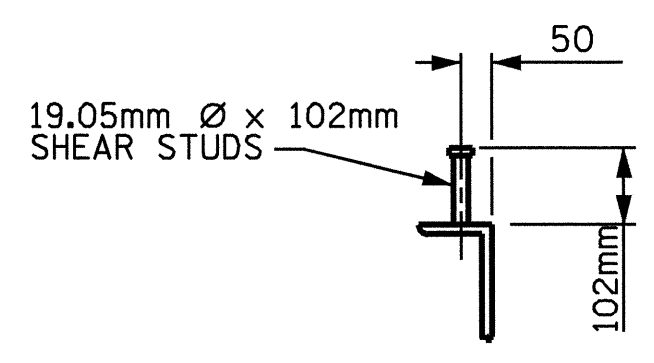
TYPICAL BENT DIAPHRAGM (D3)



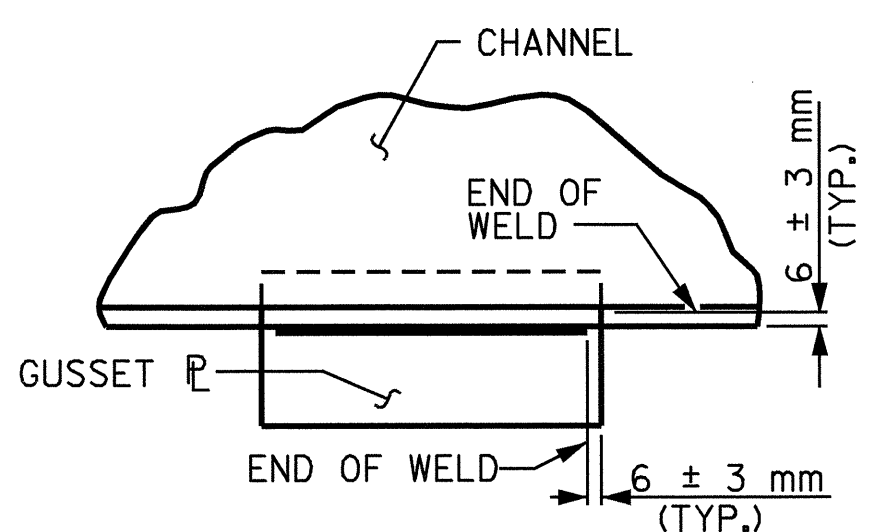
BEARING STIFFENER



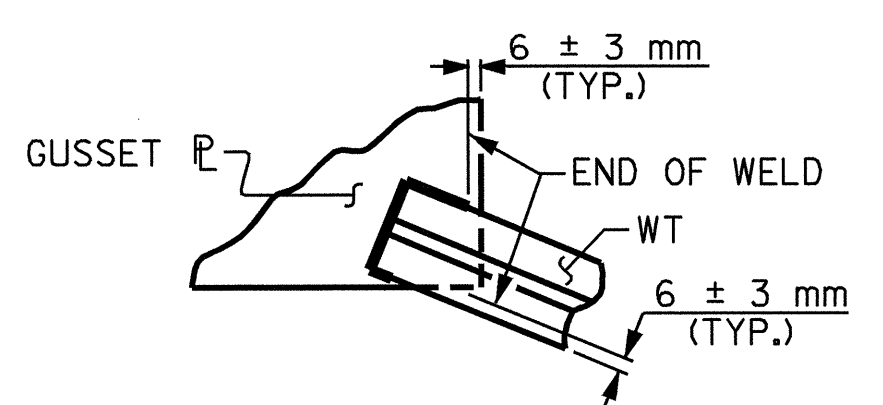
CONNECTOR PLATE



SHEAR STUD DETAILS

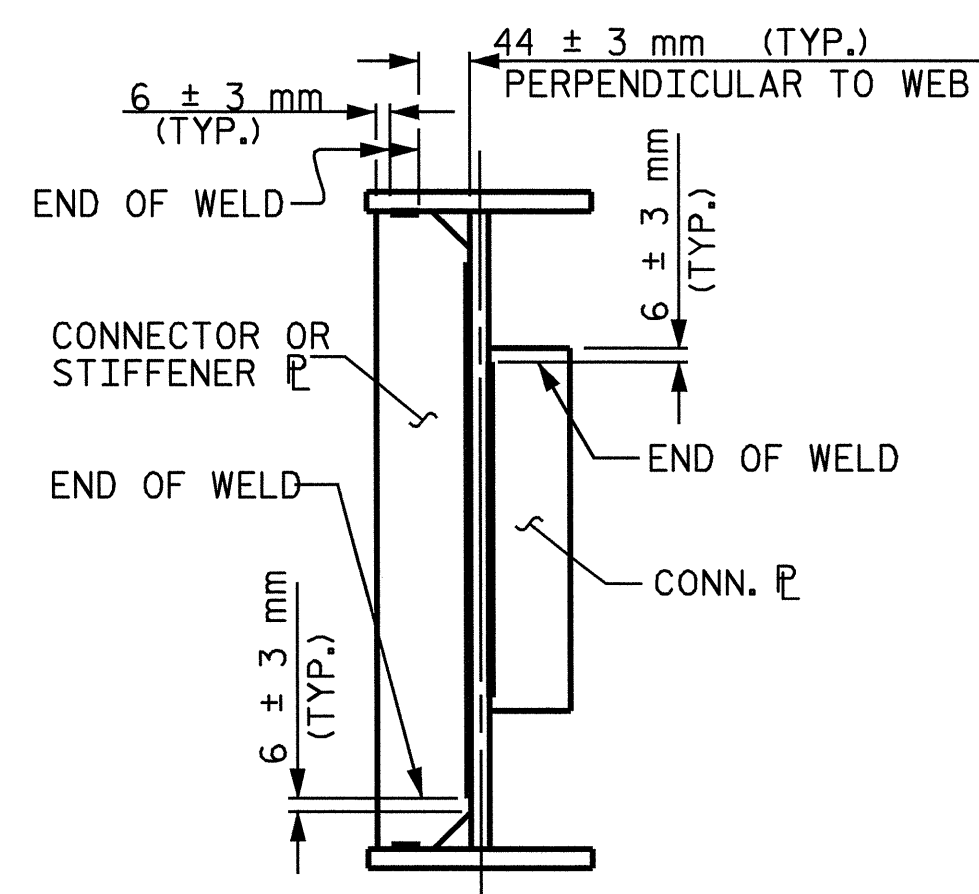


TYPICAL GUSSET PLATE CONNECTION



TYPICAL "TEE" TO GUSSET PLATE CONNECTION

WELD TERMINATION DETAILS



TYPICAL STIFFENER OR CONNECTOR PLATE CONNECTIONS

NOTES

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 345W STEEL AND PAINTED IN ACCORDANCE WITH SYSTEM 4 OF ARTICLE 442-7 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.

ALL DIMENSIONS SHOWN ARE HORIZONTAL OR VERTICAL, UNLESS OTHERWISE NOTED.

ALL FIELD CONNECTIONS TO BE 22.23mm DIA. HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED.

TENSION ON THE AASHTO M164 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-10 OF THE STANDARD SPECIFICATIONS.

BEARING STIFFENERS ARE TO BE PLACED NORMAL TO THE WEB OF THE GIRDER AT END BENTS 1 & 2, BENT 1 AND SHALL BE PLUMB.

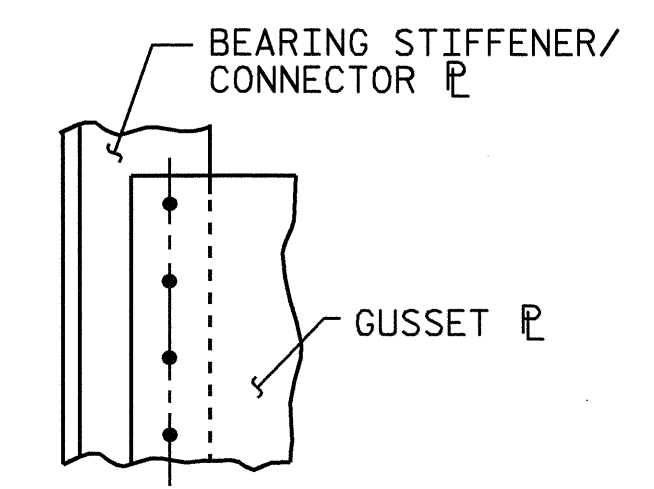
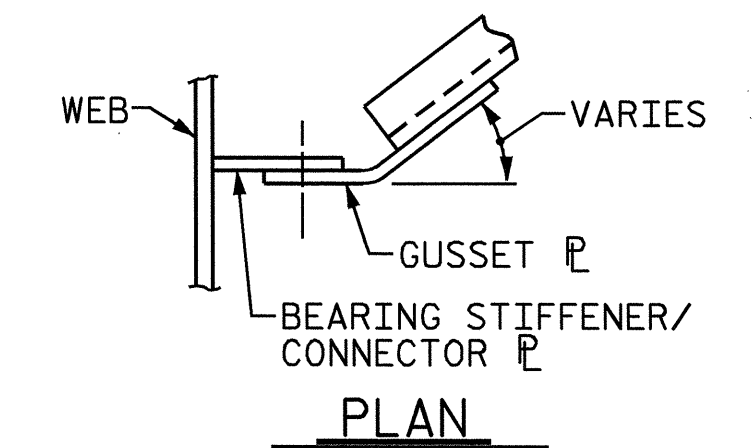
AT ALL POINTS OF SUPPORT IN SPANS A-B, NUTS FOR ANCHOR BOLTS SHALL BE TIGHTENED FINGER TIGHT AND GIVEN AN ADDITIONAL 1/4 TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

SHOP SPLICES ARE PERMITTED TO LIMIT THE MAXIMUM REQUIRED FLANGE PIECE LENGTHS TO 18 METERS AND WEB PIECE LENGTHS TO 14 METERS. PERMITTED FLANGE AND WEB SHOP SPLICES SHALL NOT BE LOCATED WITHIN 4.5 METERS OF MAXIMUM DEAD LOAD DEFLECTION (NOR WITHIN 4.5 METERS OF INTERMEDIATE BEARINGS OF CONTINUOUS UNITS). KEEP 600mm MINIMUM BETWEEN WEB AND FLANGE SHOP SPLICES. KEEP 150mm MINIMUM BETWEEN CONNECTOR PLATE OR TRANSVERSE STIFFENER WELDS AND WEB OR FLANGE SHOP SPLICES.

STUDS ON GIRDERS MAY BE SHIFTED UP TO 25mm IF NECESSARY TO CLEAR FLANGE SPLICE WELD.

ENDS OF GIRDERS SHALL BE PLUMB.

A CHARPY V-NOTCH TEST IS REQUIRED FOR WEB PLATES, BOTTOM FLANGE PLATES, BOTTOM FLANGE SPLICE PLATES AND WEB SPLICE PLATES (IF USED) FOR ALL GIRDERS IN SPANS A & B.

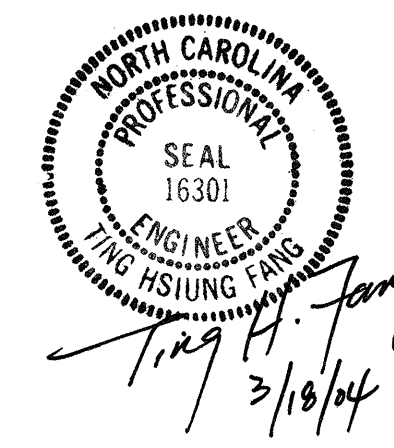


GUSSET DETAILS

PROJECT NO. R-513BB
ROBESON COUNTY
 STATION: 209+17.263 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUPERSTRUCTURE
 STRUCTURAL STEEL
 DETAILS**



DRAWN BY : N. O. TRAN DATE : 7/30/03
 CHECKED BY : M. A. ALLEN DATE : 2-04

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTALS					S-43
					312