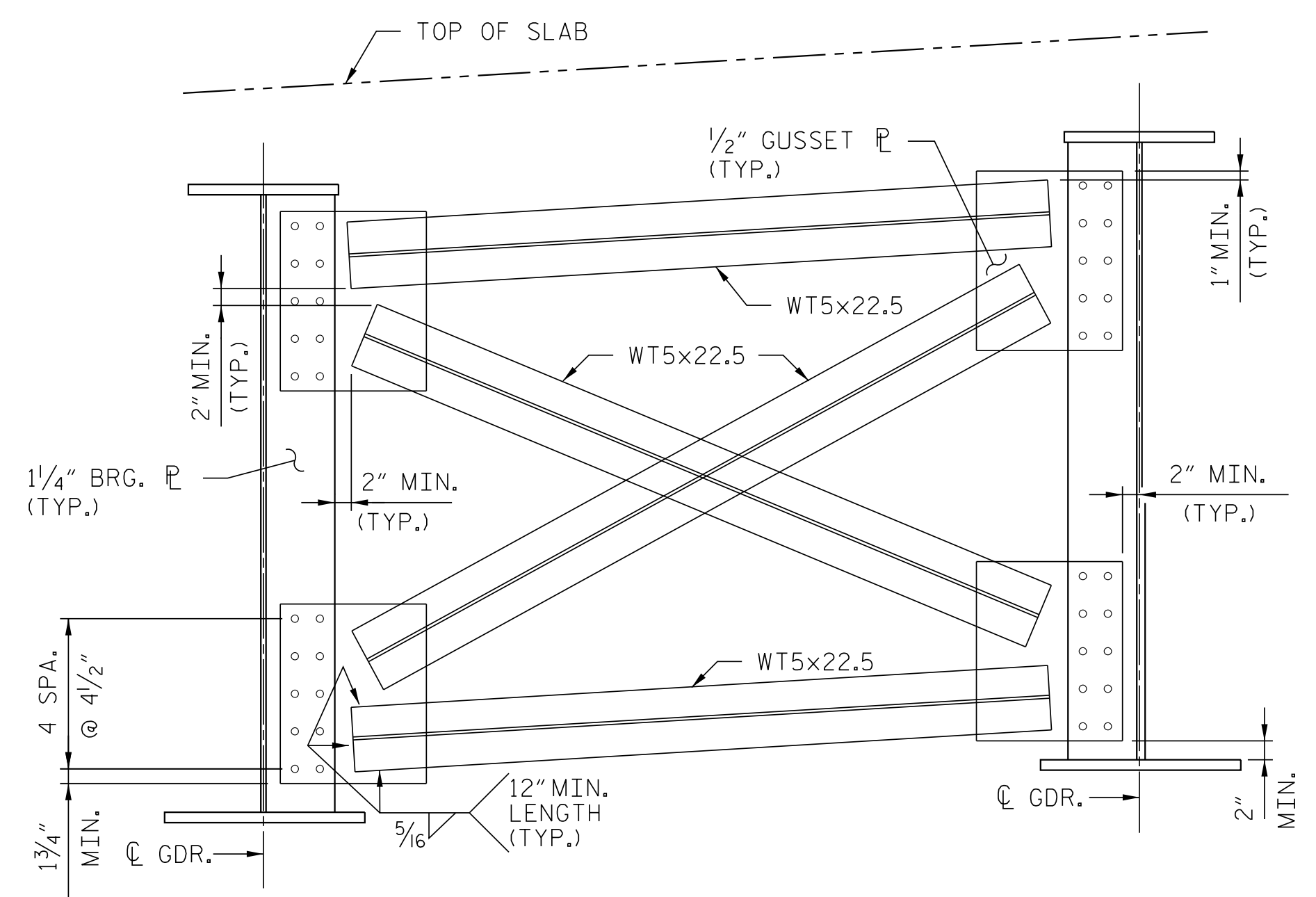


TYPICAL INTERMEDIATE CROSSFRAME (CF-1)



TYPICAL BENT CROSSFRAME (CF-2)

NOTES:

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 AND PAINTED IN ACCORDANCE WITH SYSTEM 1 OF ARTICLE 442-8 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 7/8" DIA. HIGH STRENGTH BOLTS, UNLESS OTHERWISE NOTED.

BEARING STIFFENERS MAY REQUIRE COPING IF WIDER THAN BOTTOM FLANGE.

ENDS OF GIRDERS SHALL BE PLUMB.

STUDS ON GIRDERS MAY BE SHIFTED UP TO 1 INCH IF NECESSARY TO CLEAR FLANGE SPLICE WELD.

TENSION ON THE ASTM A325 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-8 OF THE STANDARD SPECIFICATIONS.

STRUCTURAL STEEL ERECTION IN A CONTINUOUS UNIT SHALL BE COMPLETE BEFORE FALSEWORK OR FORMS ARE PLACED ON THE UNIT.

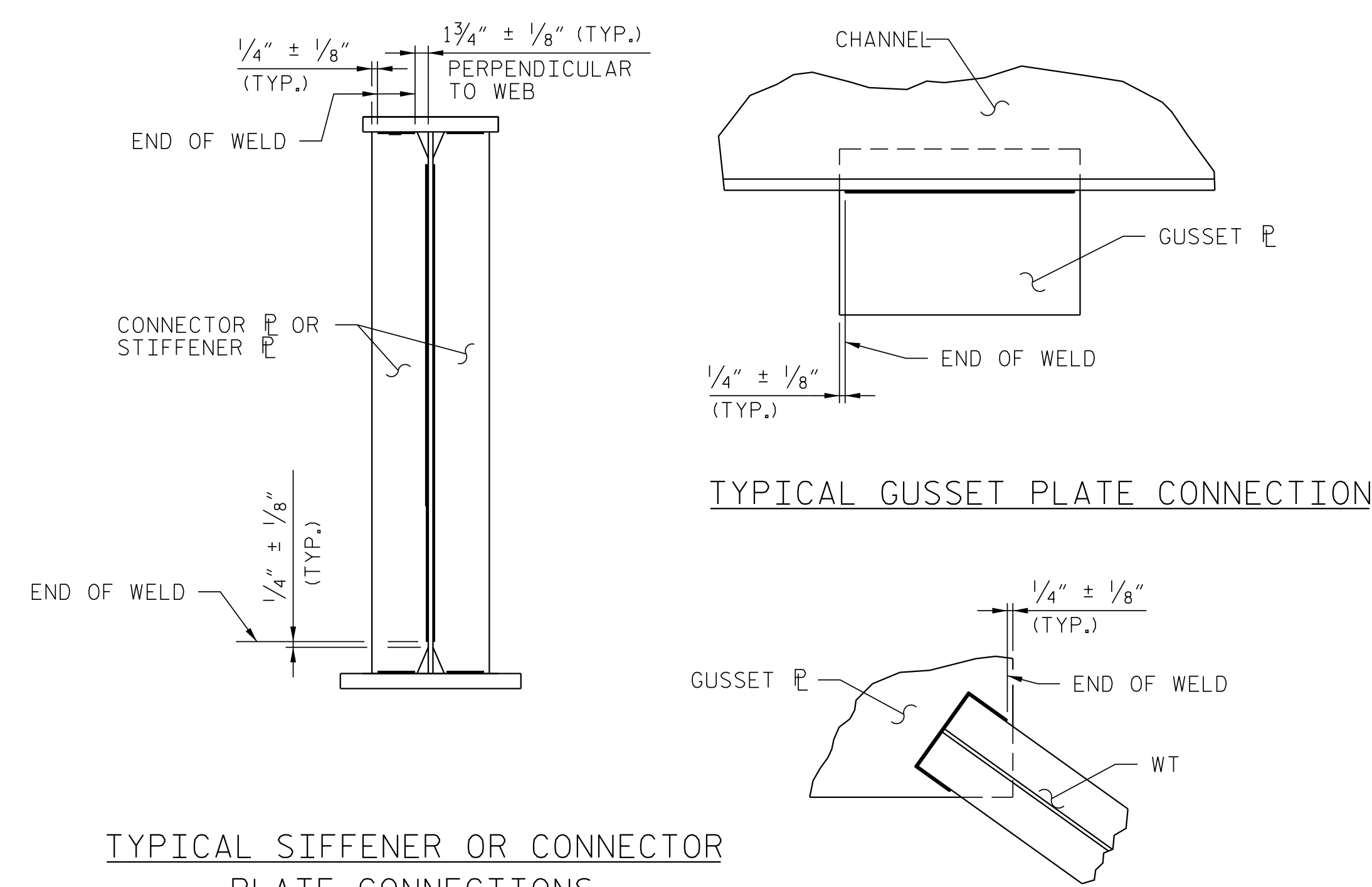
PERMITTED FLANGE AND WEB SHOP SPLICES SHALL NOT BE LOCATED WITHIN 15 FEET OF MAXIMUM DEAD LOAD DEFLECTION (NOR WITHIN 15 FEET OF INTERMEDIATE BEARINGS OF CONTINUOUS UNITS). KEEP 2 FEET MINIMUM BETWEEN WEB AND FLANGE SHOP SPLICES. KEEP 6" MINIMUM BETWEEN CONNECTOR PLATE OR TRANSVERSE STIFFENER WELDS AND WEB OR FLANGE SHOP SPLICES.

THE CONTRACTOR MAY, WHEN NECESSARY, PROPOSE A SCHEME FOR AVOIDING INTERFERENCE BETWEEN METAL STAY-IN-PLACE FORM SUPPORTS OR FORMS AND BEAM/GIRDER STIFFENERS OR CONNECTOR PLATES. THE PROPOSAL SHALL BE INDICATED, AS APPROPRIATE, ON EITHER THE STEEL WORKING DRAWINGS OR THE METAL STAY-IN-PLACE FORM WORKING DRAWINGS.

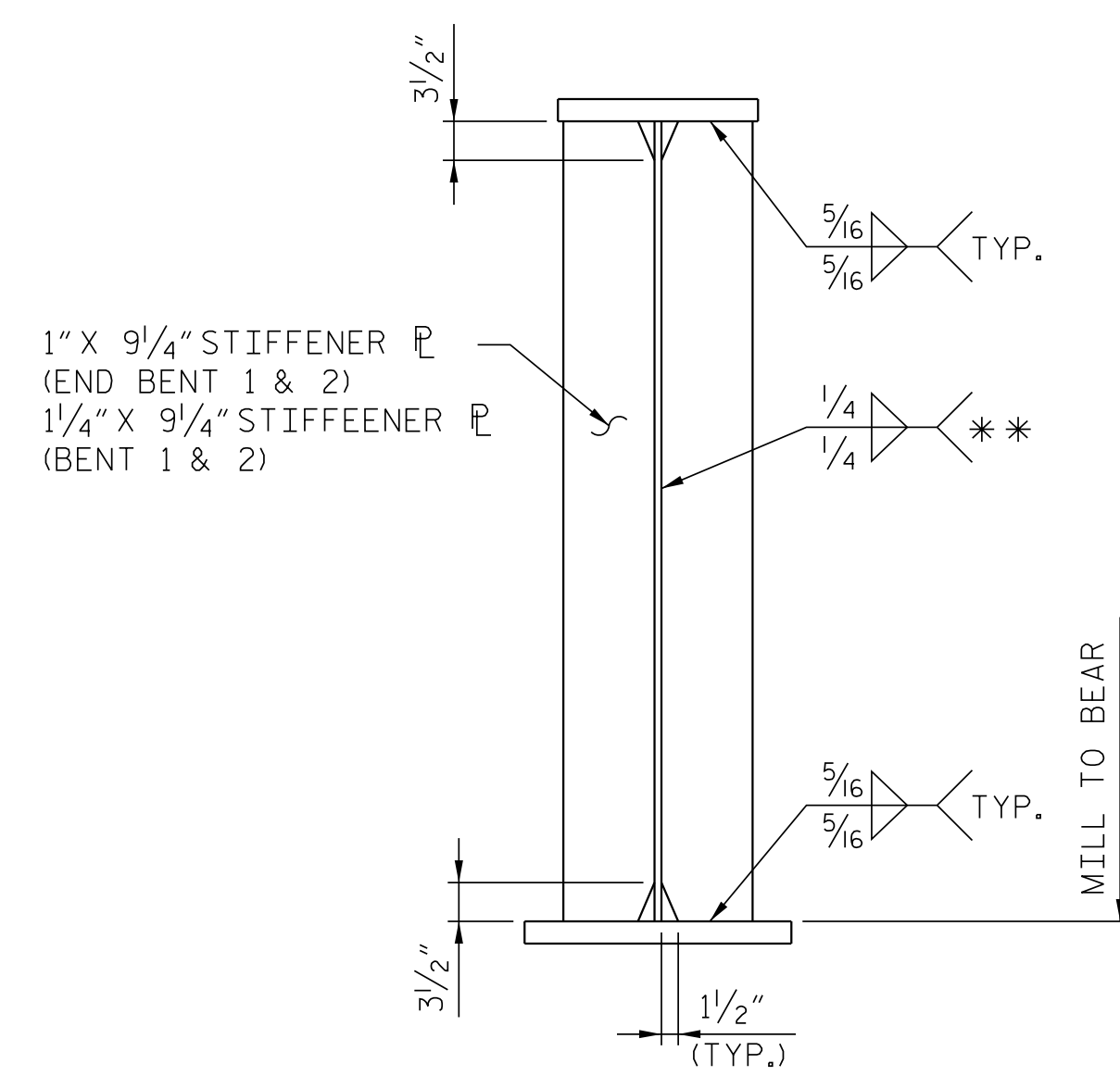
BEARING STIFFENERS ARE TO BE PLACED NORMAL TO THE WEB OF THE GIRDER AND SHALL BE PLUMB.

PAINT THE CONTACT SURFACES OF ALL BOLTED CONNECTIONS WITH PRIMER ONLY. IN ADDITION, THE OUTSIDE SURFACES OF SPLICE PLATES ARE TO BE PRIMED ONLY AT THE TIME OF INSTALLATION. TOP COATS TO BE APPLIED IN THE FIELD TO THE OUTSIDE SURFACES OF SPLICE PLATES.

FABRICATOR SHALL DETAIL DIAPHRAGM MEMBERS AND CONNECTIONS FOR NO-LOAD FIT-UP.

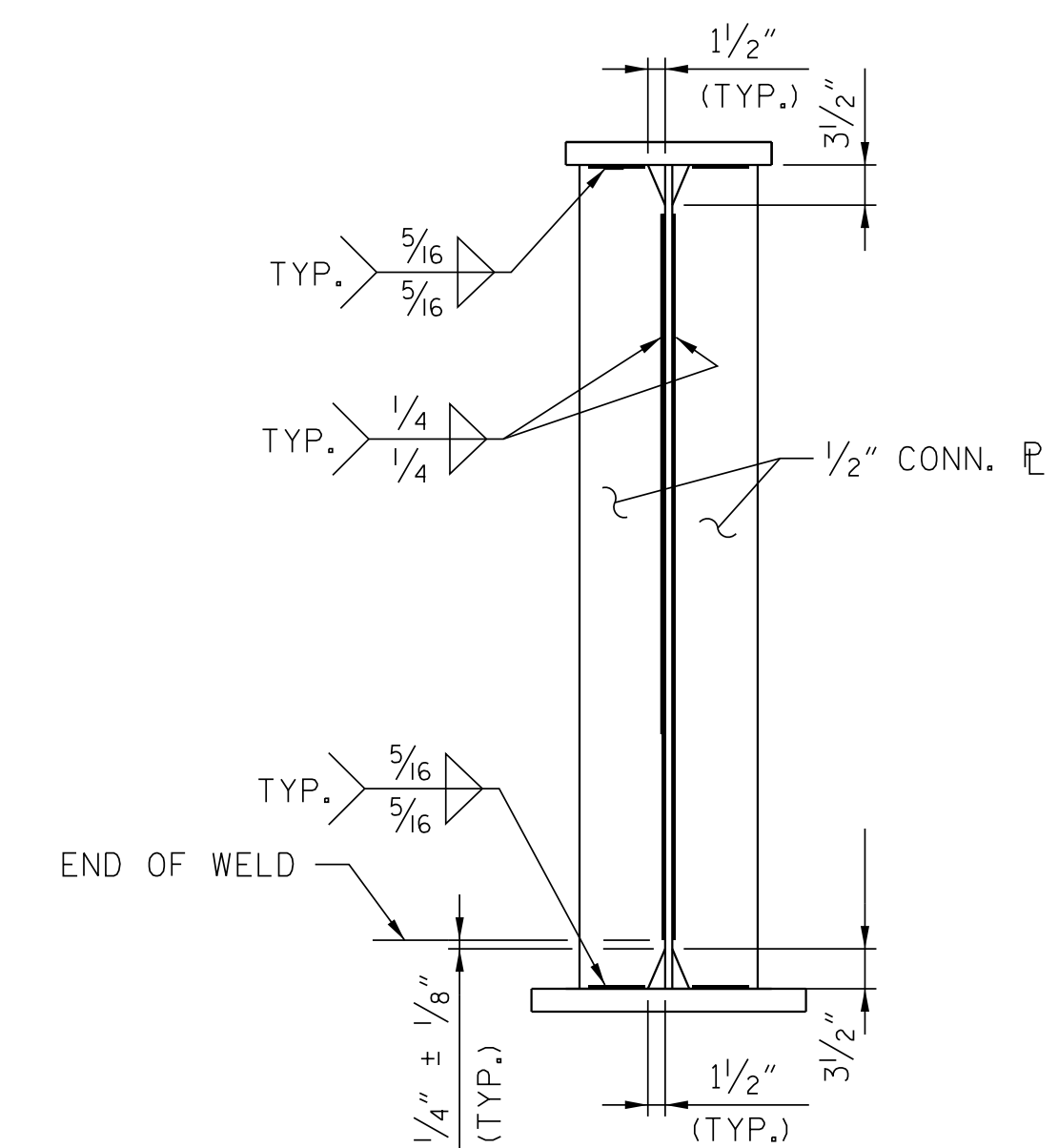


TYPICAL GUSSET PLATE CONNECTION

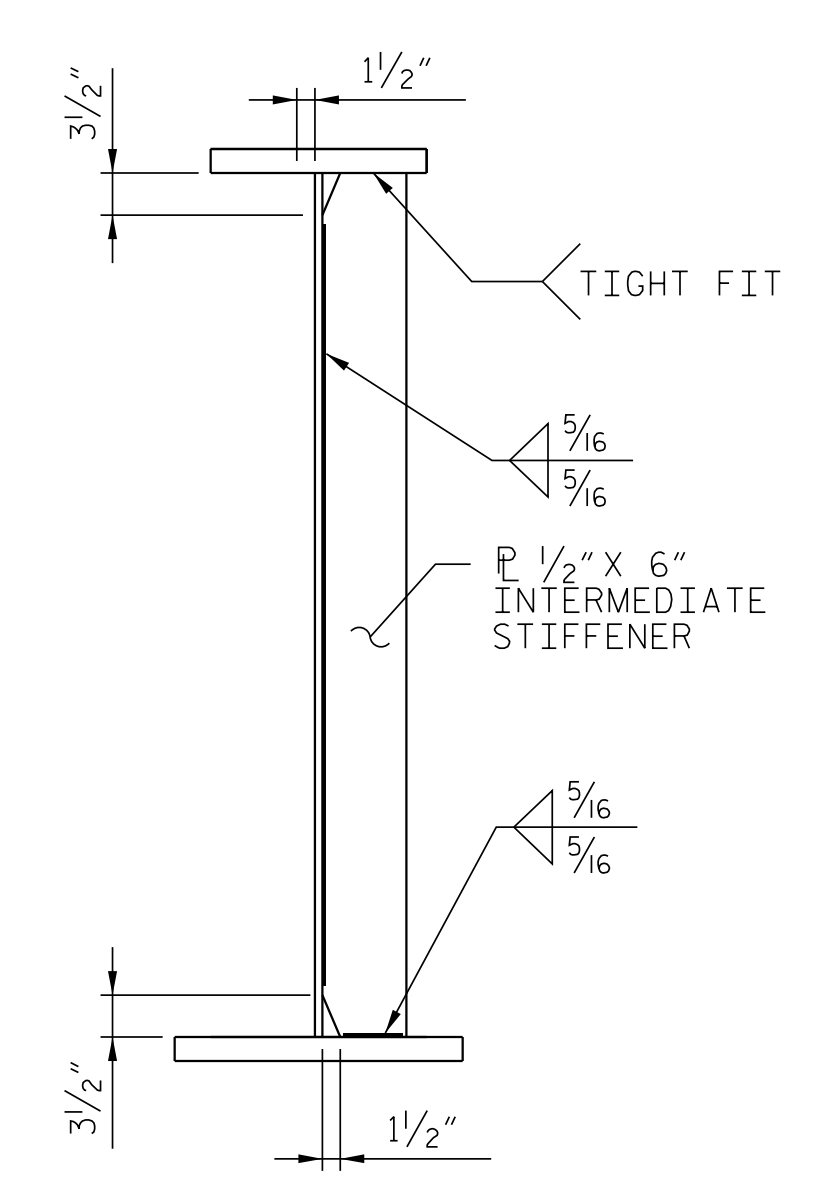


BEARING STIFFENER DETAIL

** PER BRIDGE WELDING CODE FIG 2.3(C) BEVEL IF NECESSARY.



CONNECTOR PLATE DETAIL

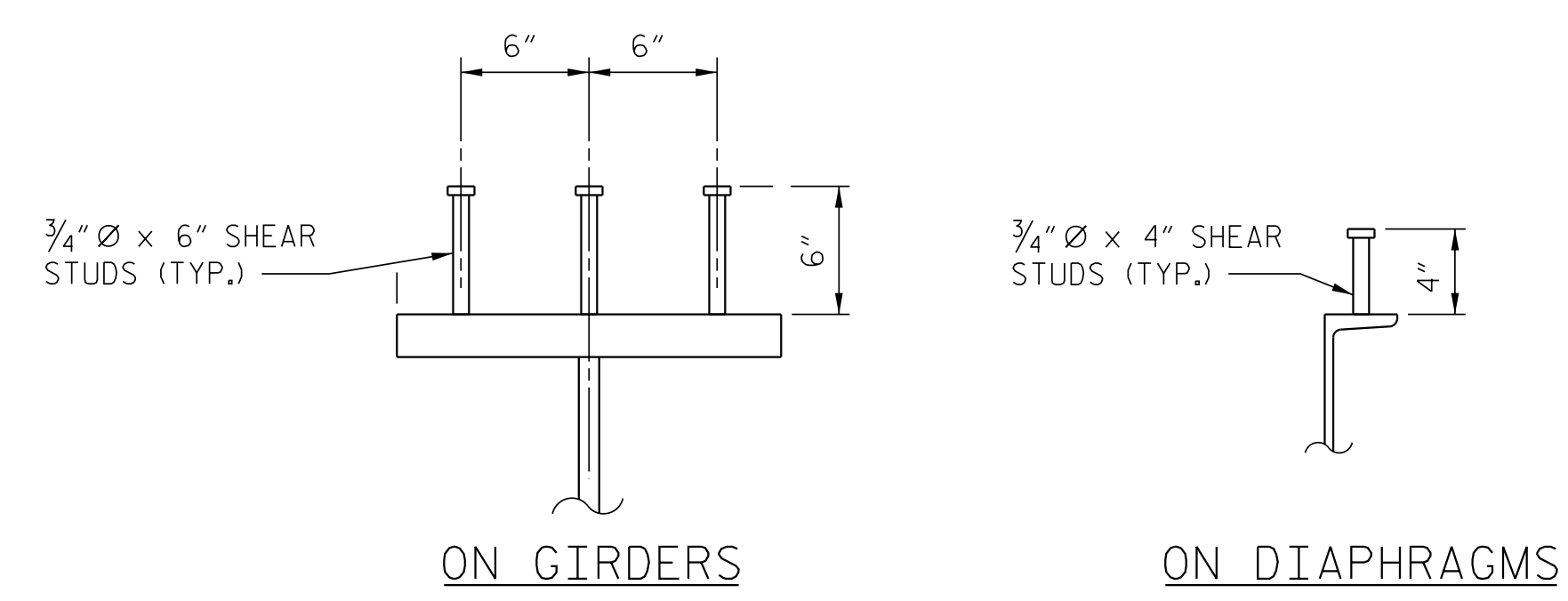


INTERMEDIATE STIFFENER DETAIL

TYPICAL STIFFENER OR CONNECTOR PLATE CONNECTIONS (INTERIOR GIRDER SHOWN, HOLES NOT SHOWN)

TYPICAL ANGLE TO GUSSET PLATE CONNECTION

WELD TERMINATION DETAILS



SHEAR STUD DETAILS

PROJECT NO. R-5516
CRAVEN COUNTY
 STATION: 32+25.84 -YEB01-
75+13.29 -L-
 SHEET 3 OF 5

AECOM
 AECOM TECHNICAL SERVICES, INC.
 701 CORPORATE CENTER DRIVE, SUITE 475
 RALEIGH, NC 27607
 (919) 854-6200 www.aecom.com
 AECOM License No. F-0342

4/12/2017

NORTH CAROLINA PROFESSIONAL SEAL 030474

ENGINEER JOHN C. MORRISON

DocuSigned by: John C. Morrison A2FDE142C82F4AB

STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
SUPERSTRUCTURE					
STRUCTURAL STEEL DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO. S-20					TOTAL SHEETS 51

DRAWN BY : N. K. BROWN DATE : 03/16
 CHECKED BY : J. C. MORRISON DATE : 03/16
 DESIGN E.O.R. : J. C. MORRISON DATE : 05/16

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATE: 4/7/2017 TIME: 3:04:14 PM
 USER: jmorriso P:\6328444_Sigcom_Road\400_Technical\408_Structure\Cada\400_520_05516_SML_S03.dgn