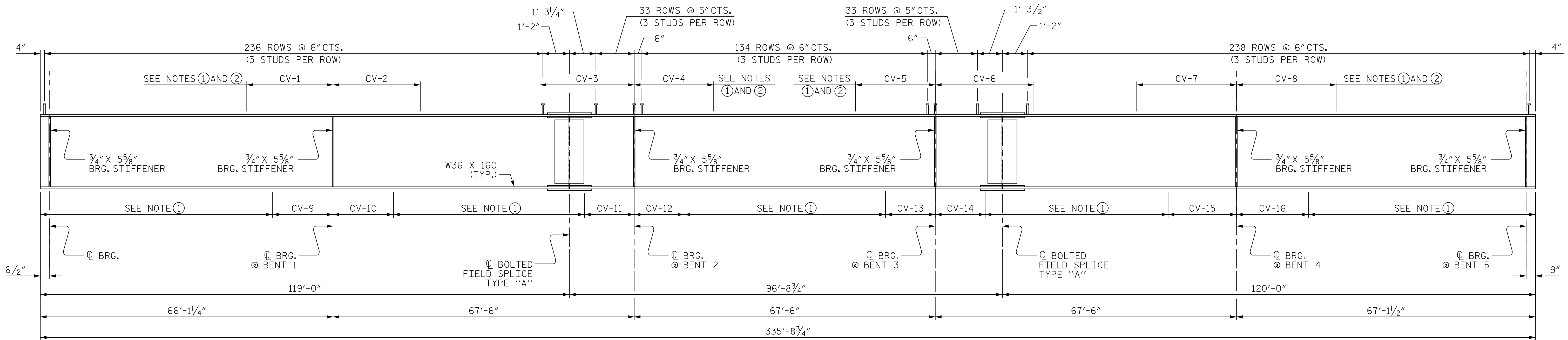
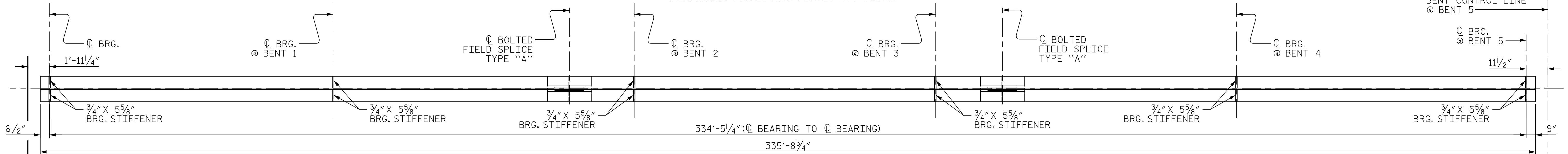


p:\gfn\p-w\ben\p-w\01\Documents\Projects\63639\Task 010 B-4626\Discipline\Struct\Drawn\Rowan 3\Archives\Delete\401-057\_B4626\_SMU\_001\_790003\_027  
 Rowan.pen.tbl  
 9/2/2021 3:59:41 PM pdf\_color\_gfclt\_FS.plt



**ROLLED BEAM ELEVATION**

(DIAPHRAGM CONNECTION PLATES NOT SHOWN)



**PLAN OF BOTTOM FLANGE**

**NOTES:**

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50W AND PAINTED IN ACCORDANCE WITH SYSTEM 5 OR SYSTEM 6 OF THE STRUCTURAL STEEL SHOP COATINGS PROGRAM AND SECTION 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 3/4" DIA. HIGH STRENGTH BOLTS FOR UNITS 1 & 3 AND 1/8" DIA. HIGH STRENGTH BOLTS FOR UNIT 2 UNLESS OTHERWISE NOTED.

STIFFENERS ARE NOT REQUIRED ON THE OUTSIDE OF EXTERIOR BEAMS.

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

FOR ROLLED BEAMS, A CHARPY V-NOTCH TEST IS REQUIRED ON ALL BEAM SECTIONS, COVER PLATES AND SPLICE PLATES AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ARTICLE 1072-7 OF THE STANDARD SPECIFICATIONS.

WORK POINT LOCATIONS ARE BASED ON THE BEST SURVEY INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY WORK POINT STATIONS BEFORE PREPARING SHOP DRAWINGS FOR THE STRUCTURAL STEEL. IF RESULTS FROM THE FIELD SURVEY DIFFER FROM DIMENSIONS SHOWN ON THE PLANS, CONTACT THE ENGINEER.

FOR AASHTO M270 GRADE 50W STRUCTURAL STEEL, SOLE PLATE & RETAINER TAB SHALL BE AASHTO M270 GRADE 50W AND SHALL NOT BE GALVANIZED. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

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.

STUDS ON GIRDERS MAY BE SHIFTED UP TO 1" 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.

END OF BEAMS AND GIRDERS SHALL BE PLUMB.

BEARING STIFFENER MAY REQUIRE COPING IF WIDER THAN BOTTOM FLANGE.

AT THE CONTRACTOR'S OPTION, THE DIAPHRAGM WITH THE WELDED GUSSET PLATES MAY BE USED IN LIEU OF THE DIAPHRAGM WITH BOLTED ANGLES AT NO ADDITIONAL COST TO THE DEPARTMENT.

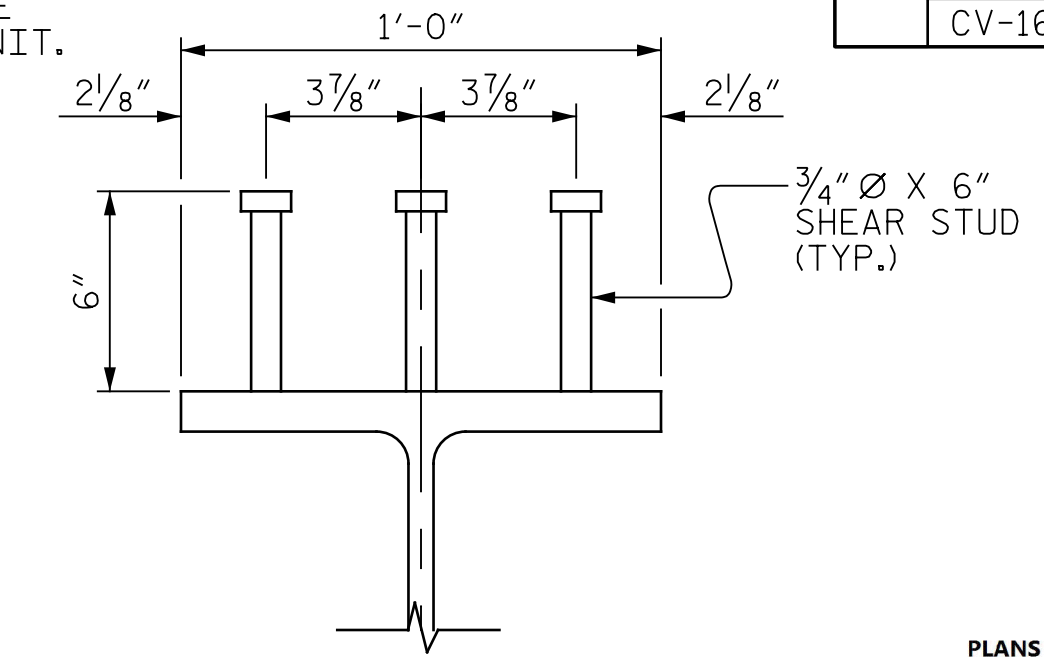
STRUCTURAL STEEL ERECTION IN A CONTINUOUS UNIT SHALL BE COMPLETE BEFORE FALSEWORK OR FORMS ARE PLACED ON THE UNIT.

CHARPY V-NOTCH DIMENSIONS						
		GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4	GIRDER 5
TOP FLANGE	CV-1	15'-0"	15'-6"	15'-6"	15'-6"	15'-0"
	CV-2	19'-6"	19'-6"	19'-6"	19'-6"	19'-6"
	CV-3	16'-6"	16'-0"	16'-0"	16'-0"	16'-6"
	CV-4	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"
	CV-5	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"
	CV-6	16'-6"	16'-0"	16'-0"	16'-0"	16'-6"
	CV-7	19'-6"	19'-6"	19'-6"	19'-6"	19'-6"
	CV-8	15'-6"	15'-6"	15'-6"	15'-6"	15'-6"
BOTTOM FLANGE	CV-9	9'-0"	9'-6"	9'-6"	9'-6"	9'-0"
	CV-10	10'-0"	11'-0"	11'-0"	11'-0"	10'-0"
	CV-11	8'-6"	8'-6"	8'-6"	8'-6"	8'-6"
	CV-12	8'-0"	8'-6"	8'-6"	8'-6"	8'-0"
	CV-13	8'-0"	8'-0"	8'-0"	8'-0"	8'-0"
	CV-14	8'-0"	8'-6"	8'-6"	8'-6"	8'-0"
	CV-15	10'-6"	11'-0"	11'-0"	11'-0"	10'-6"
	CV-16	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"

**CHARPY V-NOTCH NOTES:**

- ① CHARPY V-NOTCH TESTS ARE REQUIRED FOR ALL TOP OR BOTTOM OF FLANGE PLATES WHICH FALL WITHIN THESE LIMITS. ALL WEB PLATES AND ALL SPLICE PLATES, IF A PERMITTED SHOP FLANGE SPLICE IS NOT USED, CHARPY V-NOTCH TESTS WILL BE REQUIRED FOR THE ENTIRE FLANGE PLATE. FOR CHARPY V-NOTCH TEST, SEE ARTICLE 1072-7 OF THE STANDARD SPECIFICATIONS.
- ② NO WELDING OF FORMS OR FALSEWORK TO THE TOP FLANGE WILL BE PERMITTED IN THIS REGION.

PROJECT NO. B-4626  
STANLY, ROWAN  
AND DAVIDSON COUNTY  
 STATION: 45+22.65 -EBL-



**SHEAR STUD DETAILS**



DocuSigned by:  
 Eric B. Nelson  
 9/2/2021  
 1c2698211907ecdc

PLANS PREPARED BY:  
**Gannett Fleming**  
 Suite 900  
 Raleigh, NC 27603  
 (919) 420-7660  
 Excellence Delivered As Promised  
 NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SUPERSTRUCTURE  
 STRUCTURAL STEEL  
 DETAILS  
 UNIT 1**

REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S1-27  
 TOTAL SHEETS 125

DRAWN BY: T. FORD DATE: 04/2021  
 CHECKED BY: R. FISHER DATE: 05/2021  
 DESIGN ENGINEER OF RECORD: R. NELSON DATE: 05/2021