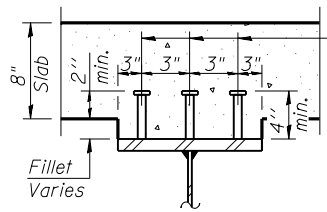
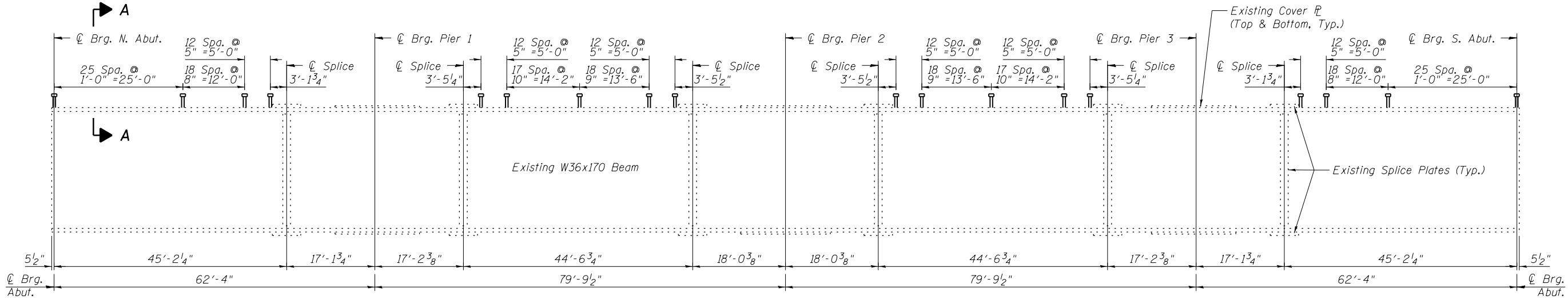


Notes:

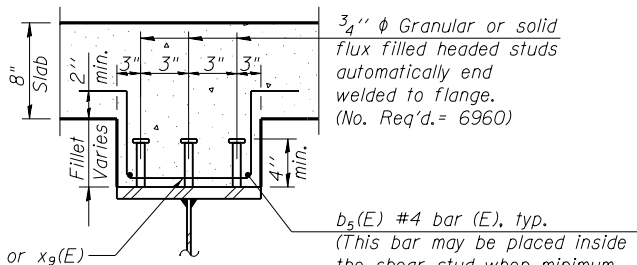
Two hardened washers required for each set of oversized holes.

Remove existing diaphragms and shelf angles between spans where diaphragms are to be replaced (3 locations). Existing bolts to remain on members where shelf angle on opposite side is to remain.



3/4"  $\phi$  Granular or solid flux filled headed studs automatically end welded to flange. (No. Req'd. = 6960)

Note that fillet heights are expected to be high on some beams and the vertical dimension of shear studs should consider this to ensure they extend at least 2" into the slab, except where fillet areas have shear reinforcement.



3/4"  $\phi$  Granular or solid flux filled headed studs automatically end welded to flange. (No. Req'd. = 6960)

$b_5(E)$  #4 bar (E), typ. (This bar may be placed inside the shear stud when minimum clearances cannot be satisfied).

$x_8(E)$  or  $x_9(E)$  #4 bar at 12" cts.

- Notes:
- Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
  - Any missing, loose, or deteriorated rivets found in existing connections during construction shall be replaced with high strength bolts.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	1,130
Stud Shear Connectors	Each	6,960

G-1 7-1-10  
BENTON & ASSOCIATES, INC.  
QUIGG ENGINEERING INC

FILE NAME	USER NAME	DESIGNED	REVISIONS
0600104-76G10-018-Steel.dgn		MBH	
		DRB	
		MBH	
		RHB	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL  
STRUCTURE NO. 060-0104

SHEET NO. 18 OF 29 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	60-2HB-2	MADISON	52	36
CONTRACT NO. 76G10				
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT				