



DESIGNED	J.Z.
CHECKED	J.A.Z.
DRAWN	M.S.M.
CHECKED	J.Z.

6 End Diaphragm D Req'd
1 End Diaphragm D1 Req'd

Notes:

- All Structural Steel shall be AASHTO M 270 Grade 36.
- Bolts shall be high strength bolts mechanically galvanized AASHTO M 164, Type 1. Bolts 3/4" ϕ , open holes 13/16" dia. unless otherwise noted.
- Two hardened washers required for each set of oversized holes at angles & diaphragm W12x40.
- Field drilling holes in exist. web and removal of the existing diaphragms is included with "Furnishing and Erecting Structural Steel".

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	3,760

END DIAPHRAGM D1 CONSTRUCTION SEQUENCE

- Order End Diaphragm D1 in two sections.
- Attach Section ① of diaphragm to Beam 5 and top flange splice \mathcal{R} during Stage 1 construction.
- Place timber block posts between Section ① of diaphragm and abutment bearing seat.
- Attach Section ② of diaphragm to both Beam 4 and top flange splice \mathcal{R} during Stage 2 construction.
- Attach web splice plates to Sections ① and ② of diaphragms.
- Remove timber block posts.
- Attach bottom flange splice \mathcal{R} to Sections ① and ② of diaphragms.

END OF BEAM REPAIR DETAILS AND NEW DIAPHRAGMS AT W. ABUT.
IL RTE. 137 (BUCKLEY ROAD) OVER DES PLAINES RIVER
FAP 352 (IL 137), SECTION 56 B-1-2 LAKE COUNTY STATION 64+63.88 S.N. 049-0063
DATE: 01-14-09
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC ILLINOIS

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