STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION Disconnect & reattach Disconnect & reattach ST5WF10.5 lateral bracing, Typ./ ST5WF10.5 lateral bracing. Typ. 12 12 84 Existing\ (typ.) Existing <sup>3</sup><sub>R</sub>" x 9<sup>3</sup><sub>4</sub>" x 2'-1<sup>1</sup><sub>2</sub>" 3" x 9<sup>3</sup>4" x 2'-1<sup>1</sup>4" (typ.) Gusset R to be removed. Gusset P to be removed. 1'-4'' 10<sup>3</sup>4′′ ′ 10<sup>3</sup>4′′ 4'2' ? <u>Sp.</u> at 3½'' ''', typ. <u>Sp.</u> at 4" Typ. . . . \* Use holes in WT section WT10.5X41.5-- | | | | | . . . WT10.5X41.5 as a template for drilling holes in web. 2″ ELEVATION ELEVATION 12 -Note A. Typ. Note A. Typ. 71 Clip corner of existing 44" Note A: ST5WF10.5 section, Use holes in exist. ST5WF10.5 PLAN <sup>if necessary. Typ.</sup> PLAN as a template for drilling holes in WT section. REPAIR DETAIL A REPAIR DETAIL B (1 Location) (4 Locations) € Stiffener → | - 2'4' r 🕨 / C Web W/ — Exist. stiffener. Exist. 716" web--WT10.5X41.5 5° VHV MARCH 7. 2005 DESIGNED Varies from EXAMINE a. Morris DAB CHECKED L A PASSED baliva Exist. 16" flange plate DRAWN TYPICAL CONNECTION BRACKET DIMENSIONS VHV DAB SECTION A-A CHECKED

	ROUTE NO.	SECTION	COUNTY		TOTAL SHEETS	SHEAT NO.
			BUREAU		3	3
	FED. ROAD DIST. NO. 7		ILLINOIS	FED. ALD PROJECT-		
CONTRACT NO CANO						

SHEET NO. 2

2 SHEETS

CONTRACT NO. 64A92

## Procedure for Repair Detail

- 1. Remove existing horizontal gusset plates as shown. The minimum distance from cut to face of web shall be the larger of  $l_4$ " or web to gusset R weld size, with removal of remaining material by grinding as described below. The cut shall be made vertically through the gusset without angling the cut towards the web. Equipment and method of cutting shall be approved by the Engineer. Any method of removal to be used shall ensure that no damage is done to the existing web, vertical stiffener or welds connecting these elements. Cutting shall be done in a manner such that the paint on the opposite face of the web is not damaged. If damage occurs, the damaged area shall be repainted at the contractor's expense and procedures shall be modified to prevent damage at subsequent removal locations.
- 2. Remove material between cut and web by grinding and grind smooth at web surface. Web plate surfaces shall have a roughness average (Ra) of 250 µ in. or less. Grinding equipment shall be approved by the Engineer. The grinding operation should not gouge the girder web R.
- 3. The web surface at the modification shall be inspected using dye penetrant or magnetic particle methods. Any cracks found shall be identified and reported to the Bureau of Bridges and Structures for further disposition.
- 4. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Notes: All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted. Fasteners shall be high strength bolts. Bolts  ${}^{3}_{4}$ ' $\phi$ , open holes 1316 ", unless otherwise noted.

REPAIR DETAILS FAI RT. 180 BUREAU COUNTY SN 006-0085