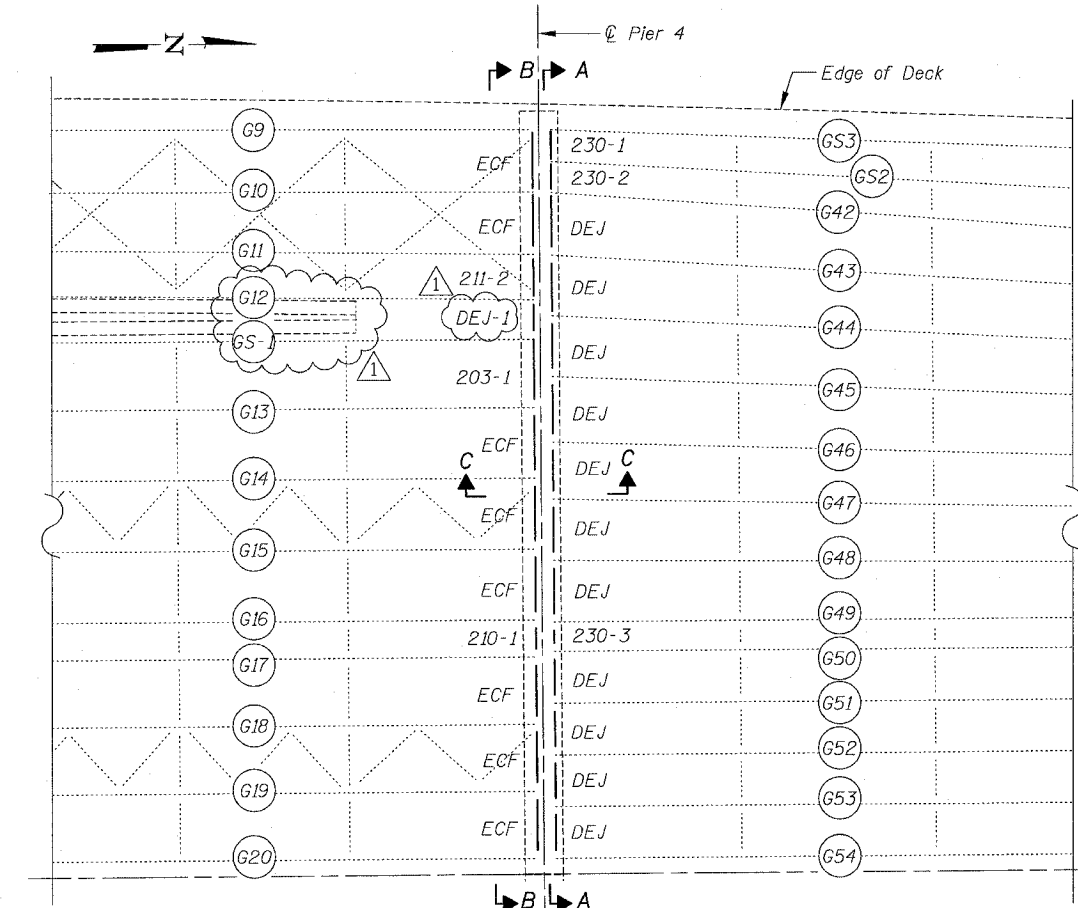
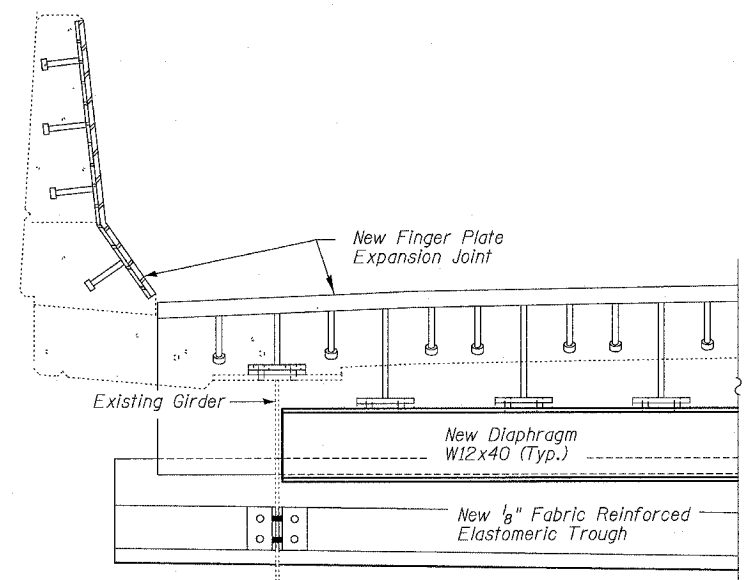


F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84/90	2003-029I	COOK	344	261
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62581				

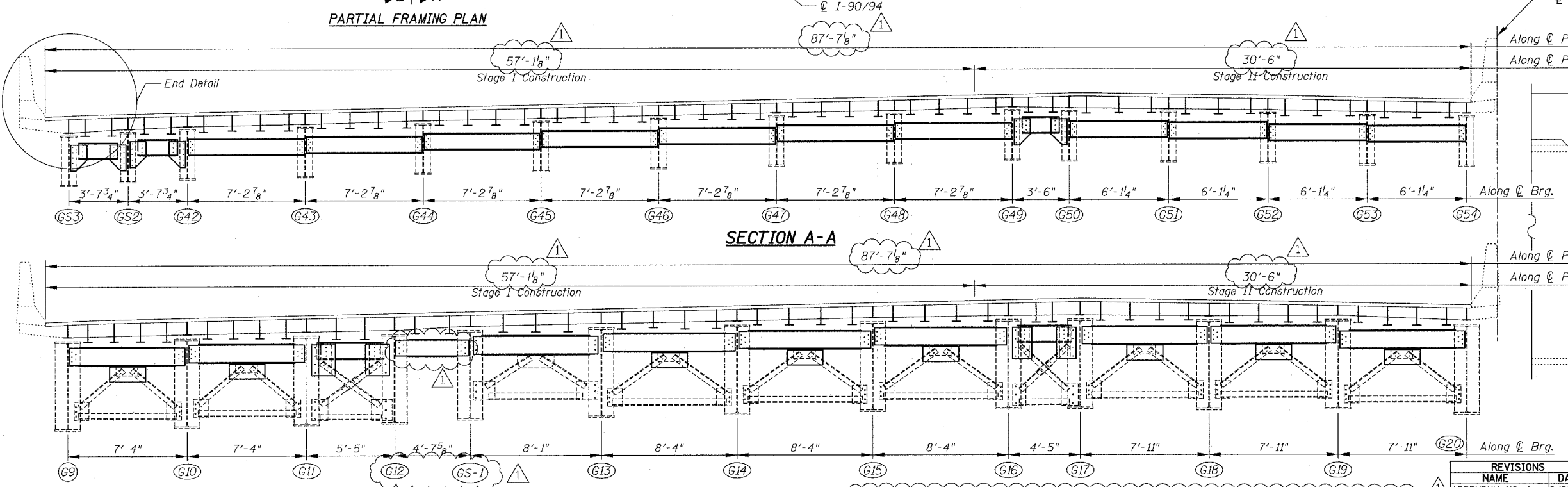


**DIAPHRAGM REPLACEMENT NOTES**

- Existing structural steel shall be cleaned and painted in accordance with the Special Provision for Cleaning and Painting Contact Surface Areas of Existing Steel Structures.
- All new diaphragms shall be level, and all cross frame and diaphragm details shown are looking toward  $\odot$  Pier, unless otherwise noted.
- All new fasteners shall be  $\frac{3}{4}$ "  $\phi$  H.S. bolts with minimum edge distance of  $1\frac{1}{2}$ ", unless otherwise noted.
- Contractor shall set the finger plate joints in place in the field and make all necessary adjustments to establish line and grade for the joints and then field drill  $\frac{1}{8}$ "  $\phi$  holes in new diaphragms to match stools and shims. Field drilling and removal and resetting of joints to accomplish field drilling, if necessary, will be included in the cost of Furnishing and Erecting Structural Steel.
- Existing cross frames welded to the gusset plates to be replaced shall be temporarily disconnected by removing welds and grinding smooth, and reattached by bolting.
- Holes in new diaphragms or connection plates shall be field drilled  $\frac{1}{8}$ "  $\phi$  unless otherwise noted, to match holes in existing members. Select connections may require the contractor to field drill, new  $\frac{1}{8}$ "  $\phi$  holes unless otherwise noted, through both existing and new members. Cost of all field drilling required to replace diaphragms and associated members will be included with Furnishing and Erecting Structural Steel.
- Field cutting shall use the air-arc method. Flame cutting will not be permitted within 2" of girder web or flange. Grinding shall be done parallel to the longitudinal beam direction. Cost of field cutting, grinding shall be included with Structural Steel Removal.
- All diaphragm replacements shall be coordinated with stage construction for Finger Plate Expansion Joints.
- Cost of removal and disposal of existing steel shall be included in the cost of Structural Steel Removal.
- Cross Frame designations reference original shop drawings.
- All plate dimensions refer to Width x Height x Thickness.

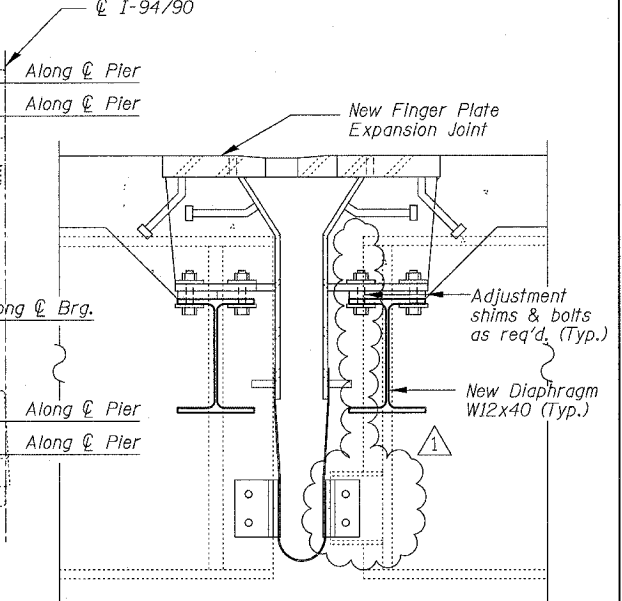


**END DETAIL**



**SECTION A-A**

**SECTION B-B**



**SECTION C-C**

- New bent plates shall be bent in shop with angles measured in field.
- All diaphragms including the one right below the construction joint shall be removed and replaced at the specified stage. The removal shall not include the existing stools beyond the removal line at that stage. These stools, however, shall be disconnected from the existing diaphragm for the removal, and temporarily tight-fit (shimmed) to the new diaphragm. No drilling, bolting or welding is allowed for such a temporary connection to the new diaphragm.

REVISIONS	NAME	DATE
ADDENDUM NO. 1		6/29/06

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
 SB DAN RYAN ELEVATED BRIDGE  
 REPAIR FROM 15TH TO 28TH STREETS  
 DIAPHRAGM REPLACEMENT  
 PIER 4, SN 016-1110  
 SCALE: NTS  
 DATE: 5/25/2006  
 DRAWN BY: MTR  
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.  
 CONSULTING ENGINEERS  
 Chicago, Illinois  
 312.228.0100  
 www.bbandainc.com