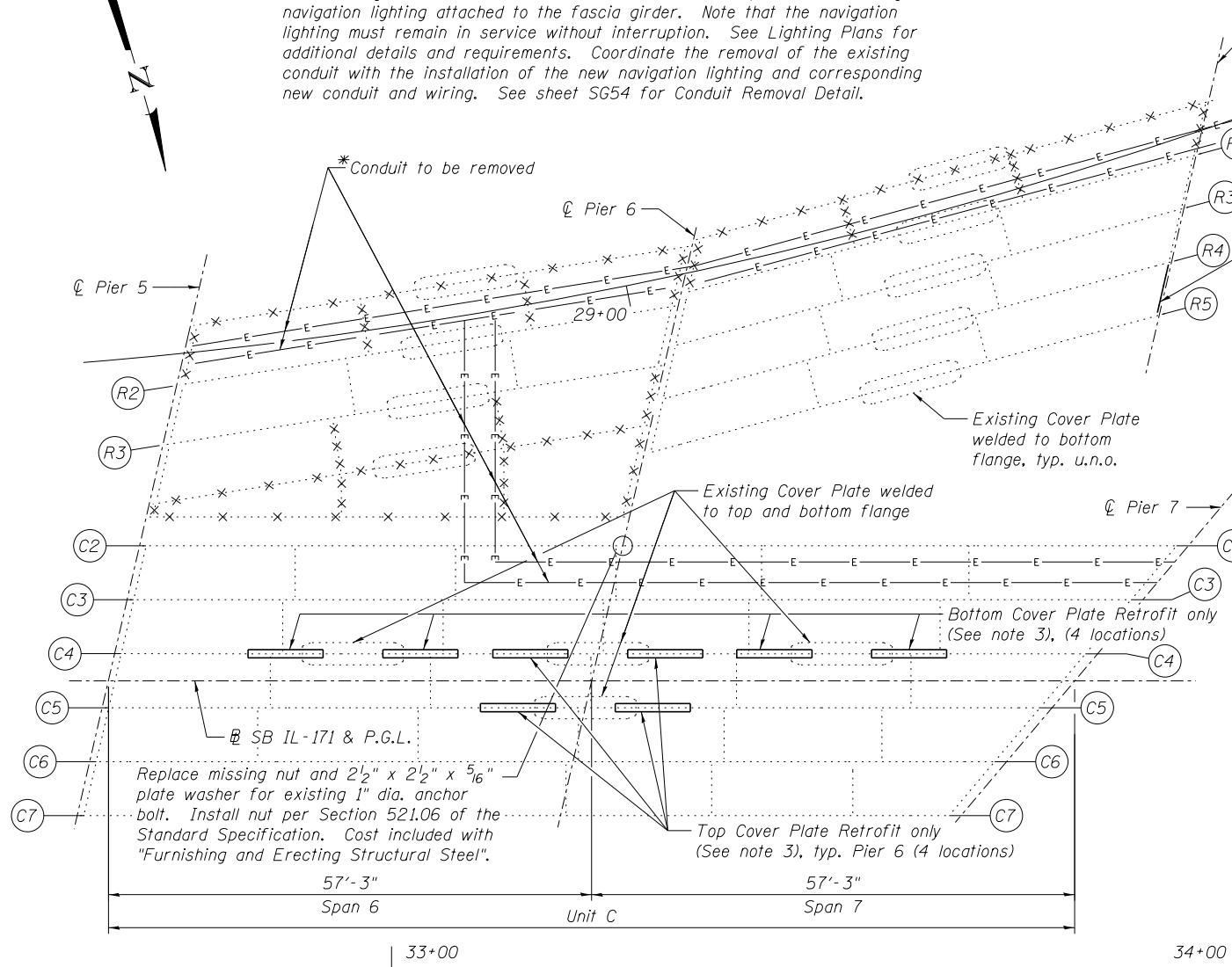


* The existing conduit contains live electrical cables that power the existing navigation lighting attached to the fascia girder. Note that the navigation lighting must remain in service without interruption. See Lighting Plans for additional details and requirements. Coordinate the removal of the existing conduit with the installation of the new navigation lighting and corresponding new conduit and wiring. See sheet SG54 for Conduit Removal Detail.

LEGEND

---x---x---x--- Remove existing steel



BEAM STRENGTHENING NOTES:

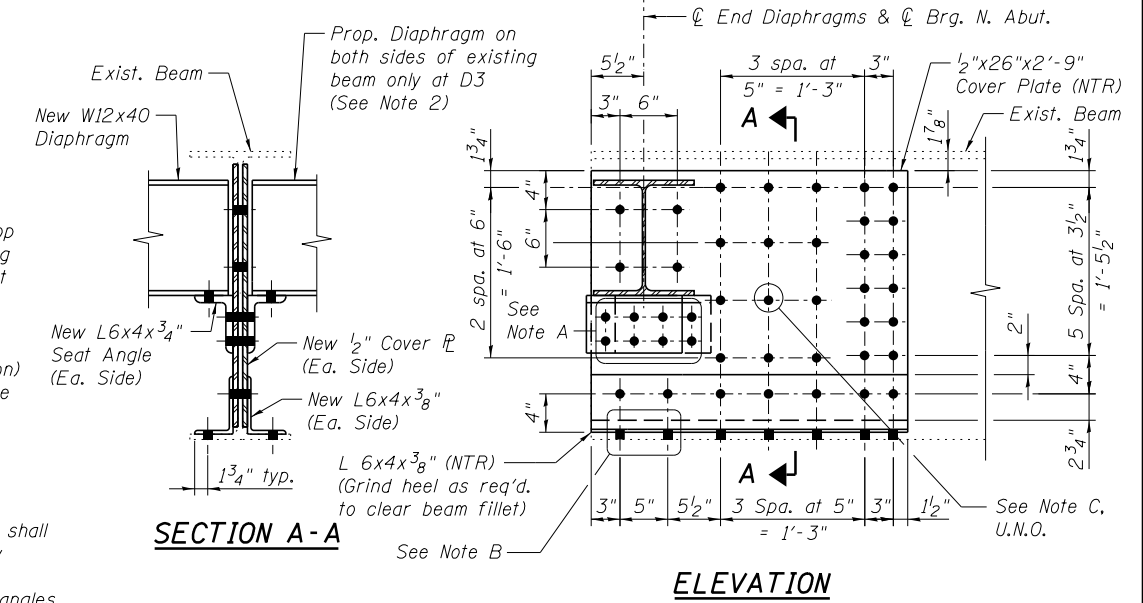
Note A:
See Sheet SG59 for bolt spacing at existing seat angle connection. Bolts for end diaphragm seat angle connection shall be 3/4"φ, ASTM A325 Type 1, mechanically galvanized, in 1 5/16"φ holes. Holes in new steel plates shall be field drilled using the holes in the existing beam web from the existing end diaphragm seat angles as a template. Holes in the new seat angles shall be shop drilled. The Contractor shall verify existing dimensions before ordering materials. Cost of field drilling shall be included in "Structural Steel Repair".

Note B:
Remove existing 3/4"φ bolts (4 each location) connecting the existing beam flange to the existing bearing bolster, field ream the existing holes to 1 5/16"φ, and bolt new connection with 7/8"φ H.S. bolts. Cost included with "Structural Steel Repair".

Note C:
Bolts for beam strengthening connections shall be 7/8"φ, ASTM A325 Type 1, mechanically galvanized, in 1 5/16"φ holes, unless noted otherwise. Holes in new steel plates and angles shall be shop drilled. Holes in the existing beam web and flange shall be field drilled using the holes from the new plates and angles as a template. Cost of field drilling shall be included in "Structural Steel Repair".

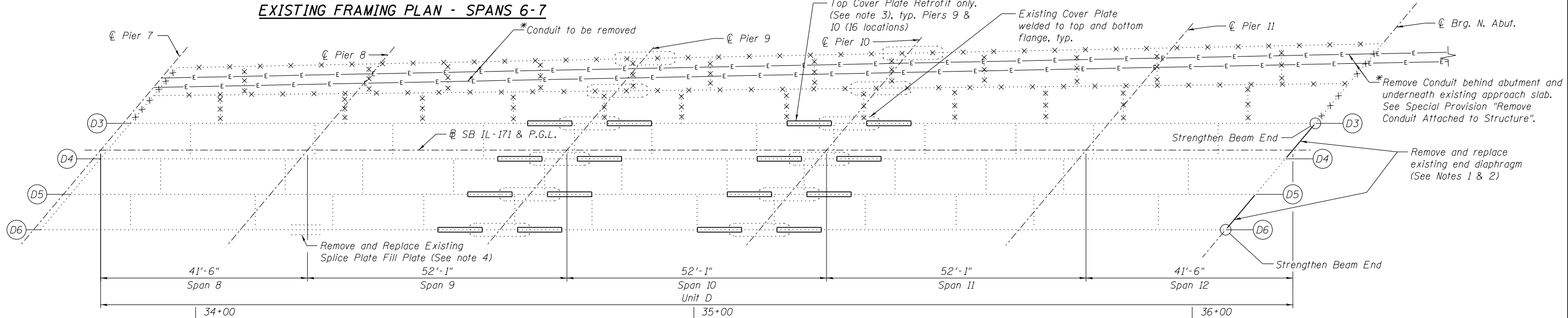
NOTES:

1. Removal of steel paid for as "Structural Steel Removal". Replacement of steel paid for as "Furnishing and Erecting Structural Steel".
2. See sheet SG55 for End Diaphragm Removal and Replacement Details.
3. Place bolted cover plate at ends of existing cover plates where shown. See sheet SG54 for Cover Plate Retrofit Detail.
4. See sheet SG54 for Field Splice Repair Detail.
5. Weight of existing bearings that are removed with existing beams are included in quantity of steel removal. Weight of elastomeric pads incidental to structural steel removal quantity.
6. The Engineer will inspect all existing bearing anchor bolts to ascertain their condition. Any damaged anchor bolts shall be reported to the BBS for further direction. The Contractor shall provide all means and access for the Engineer to perform the anchor bolt inspections. All costs associated with providing the access shall be considered included in the unit price for "Furnishing and Erecting Structural Steel".
7. At locations of existing beam and bearing removal and replacement, burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost included with "Furnishing and Erecting Structural Steel".



BEAM STRENGTHENING DETAIL

(2 Locations) D3 shown, D6 similar.
The structural steel for the cover plates and flange angles shall meet the requirements of AASHTO M270 Grade 50



benesch
engineers · scientists · planners

Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10093

EXISTING FRAMING PLAN - SPANS 8-12

FILE NAME =	USER NAME = jsurber	DESIGNED - DTS	REVISED -
0160486.60J16.053.Steel.Repair.Plan.Spans.8-12.dgn		CHECKED - TPS	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - TPS	REVISED -
	PLOT DATE = 8/6/2014		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL REMOVAL AND REPAIR PLAN UNIT C & D
STRUCTURE NO. 016-0486**

F.A.P. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	2013-038B-R	COOK	821	643
CONTRACT NO.			60J16	
ILLINOIS FED. AID PROJECT				

SHEET NO. SG53 OF SG100 SHEETS

Y:\chicago\100005\100093\Eng_Docs\Phase_1\11\SN_016_0486_0487_1st_Ave_over_Canal\Final\Final_0486\016_053.Steel.Repair.Plan.Spans.6-thru.12.dgn 7:30:32 PM 8/6/2014