

Bench Marks:
 Iron Pin in shoulder on East side of IL RT. 53. 32.76' North of PK Nail in end post of guardrail and 29.82' West of Light Pole with PK Nail. Sta. 158+55.45, Offset 19.19' RI, Elev. 690.34.

Existing Structure:
 The existing structure is a 2'x2' precast concrete box culvert.
 The existing structure is to be removed and replaced. Traffic is to be maintained on the existing roadway during construction by staging the construction.

No salvage.

WATERWAY INFORMATION TABLE

Proposed Low Grade Elev. = 691.1 @ Sta. 162+00
 Existing Low Grade Elev. = 688.6 @ Sta. 162+00
 Drainage Area = 28.0 Acres

Flood	Freq. Yr.	Q (C.F.S.)	Opening (Sq. Ft.)		Nat. H.W.E.	Head (Ft.)		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	30	4	11	687.3	1.7	0.2	689.0	687.5
Base	100	51	4	12	688.1	5.7	0.3	693.8	688.4
Overtopping	Ex. Less than 10 years, Pr. 500+ years								
Max. Calc.	500	87	4	12	688.9	18.7	1.5	707.6	690.4

Exist. Freeboard 0.0 Prop. Freeboard 3.0

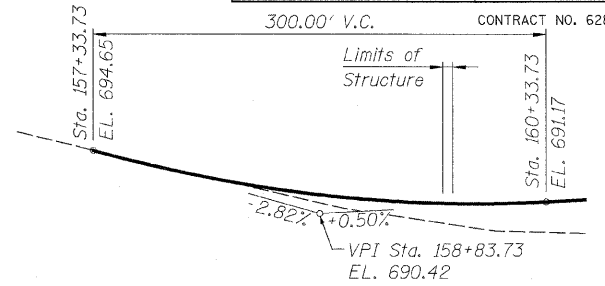
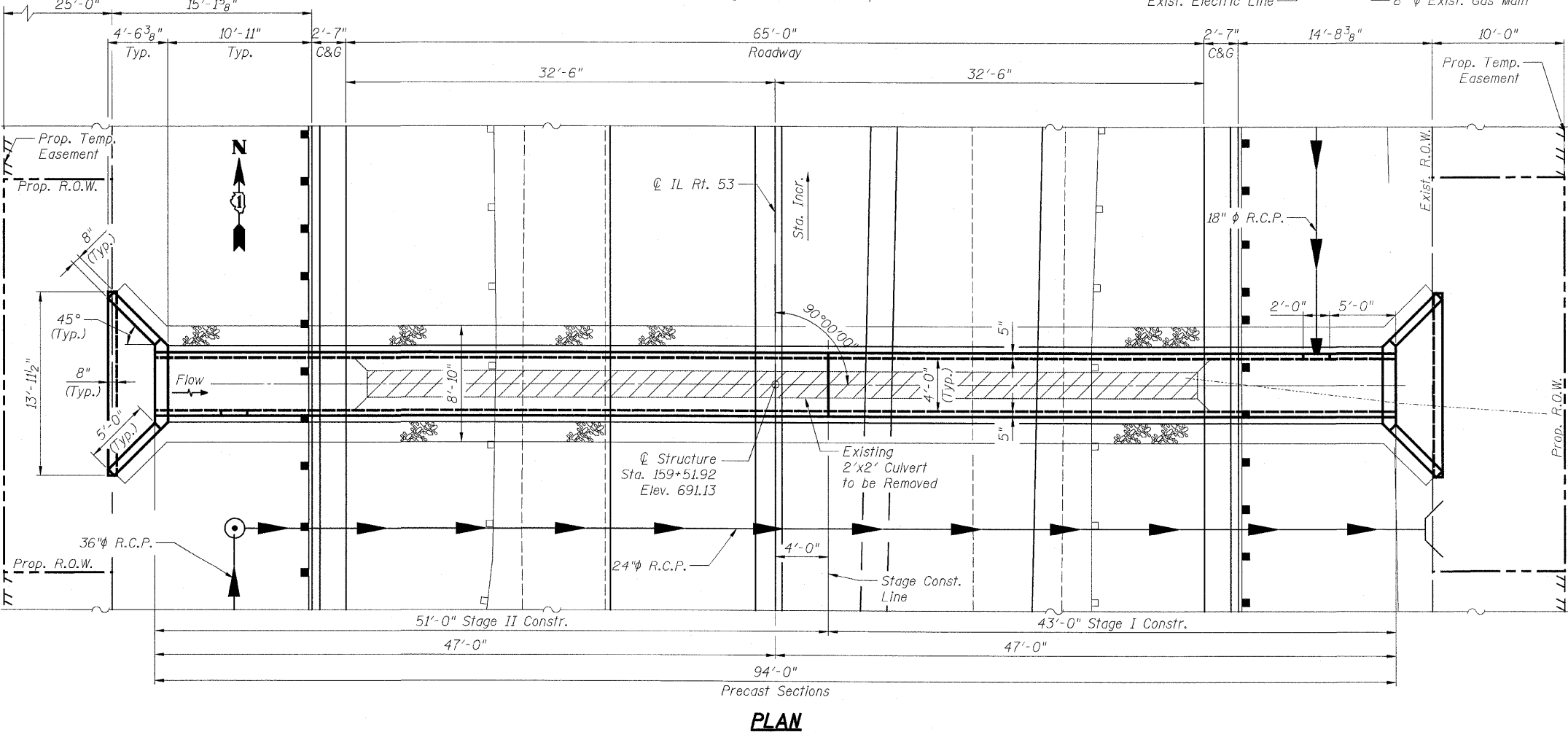
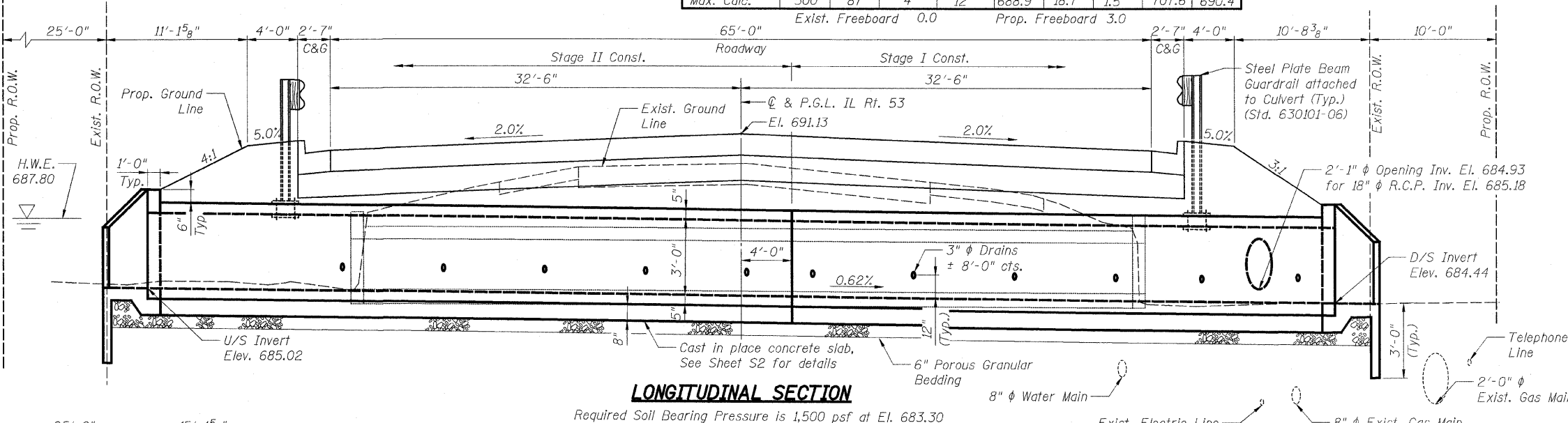
INDEX OF SHEETS

- B1 - General Plan & Elevation
- B2 - Culvert Details

Sheet B1 of B2

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2578	532B-1	DUPAGE	117	69

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT
 CONTRACT NO. 62881



GENERAL NOTES

- The Precast Concrete Box Culvert shall conform to the requirements of AASHTO M-259.
- Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-322, Grade 60. The cost of reinforcement is included with "Box Culvert End Sections".
- Welded wire fabric shall conform to the requirements of ASTM A185.
- The porous granular bedding material shall be gradation CA-7, CA-11, or CA-18 and shall be compacted to the satisfaction of the Engineer by mechanical means. Cost for porous granular bedding under the precast concrete portion of the culvert shall be included with "Precast Concrete Box Culverts 4' x 3'".
- Work this sheet with B2 for details of Cast-in-Place Sections.
- All exposed concrete edges shall be chamfered 3/4" unless otherwise noted.



Paul M Lopez
 PAUL M. LOPEZ, P.E., S.E.
 NO. 081-005231
 EXP. DATE: 11/30/10

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44

Allowance for Future Wearing Surface=50 lb/ft

DESIGN STRESSES

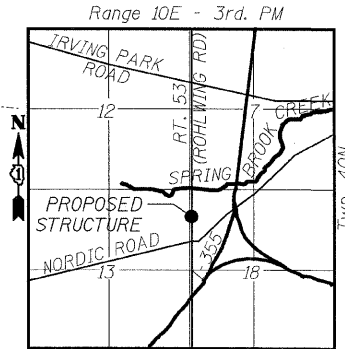
Precast Units
 f'c=5,000 psi
 fy=65,000 psi (welded wire fabric)

Field Units
 f'c=3,500 psi
 fy=60,000 psi (Reinf.)
 fy=65,000 psi (welded wire fabric)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Box Culvert End Sections	Each	2
Precast Concrete Box Culvert 4'x3'	Foot	94
Box Culvert Removal	Foot	59
Concrete Slab	Sq.Yd.	60

* See Special Provisions



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
4'x3' BOX CULVERT GP&E
 ILLINOIS ROUTE 53
 FAU 2578 SECTION 532B-1
 DUPAGE COUNTY STATION 159+51.92

SCALE: NONE DATE: 6/12/09 DRAWN BY: M.T./ E.M. CHECKED BY: A. YARGICOGLU

