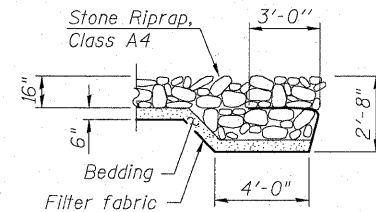


Benchmark: "X" cut SW bolt on hydrant at Sta. 1161+97 and Offset 51' right, Elev. 675.38.

Existing Structure: Structure No. 049-0013 was originally built in 1921 as F.A. Route 42. Section C-BR and the Superstructure was reconstructed in 1975. The existing single span structure consist of P.P.C. deck beams supported on closed wall, top and bottom restrained abutments with spread footings. The structure is 26'-0" back to back abutments and 33'-0" Out to Out of Beams.

Traffic will be maintained utilizing staged construction and temporary traffic signal system will be provided to maintain two way traffic over one lane.

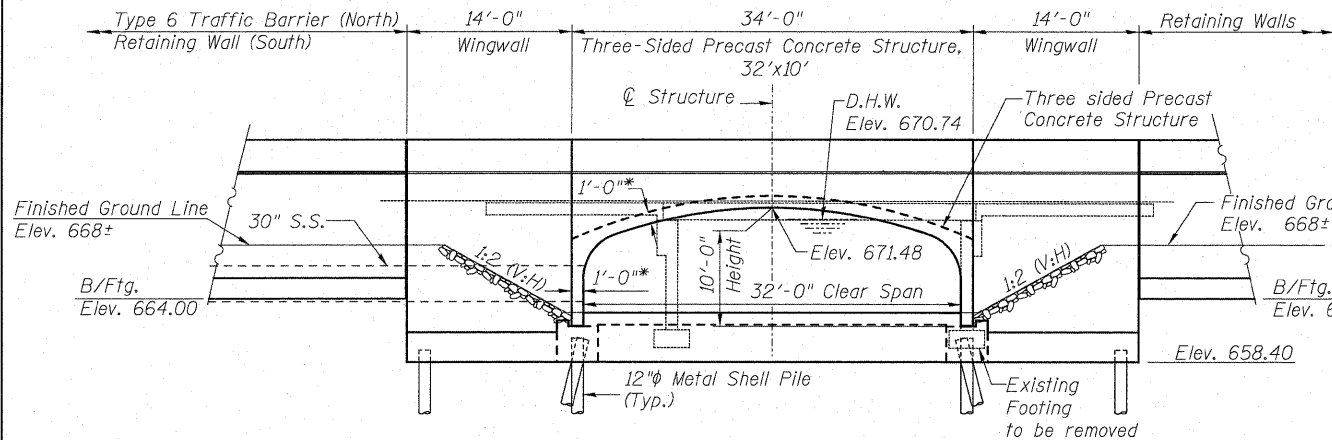
No Salvage



SECTION A-A

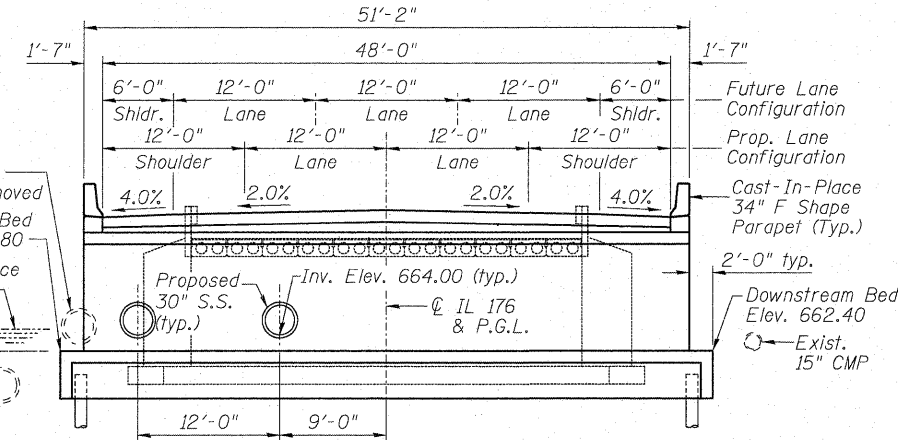
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Downstream	Upstream
	658.66	658.66



ELEVATION

*Slab and wall thickness may vary as per manufacturer's design.



SECTION THRU STRUCTURE

INDEX OF SHEETS

- S-1 General Plan
- S-2 Stage Construction Details
- S-3 Temporary Concrete Barrier
- S-4 Geotextile Retaining Wall
- S-5 Foundation Plan and Details
- S-6 Wingwall Elevations and Details
- S-7 Wingwall Details
- S-8 Headwall and Parapet Details
- S-9 Bar Splicer Assembly Details
- S-10 Metal Shell Pile Details
- S-11 General Plan - Retaining Walls
- S-12 SW & SE Retaining Walls
- S-13 NE Retaining Wall
- S-14 Retaining Wall Details
- S-15 Boring Logs

LOADING HS-20

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

WATERWAY INFORMATION

Drainage Area = 8.17 sq. mi. Prop. Low Grade Elev. 671.2 ft @ Sta. 1156+50

Flood Year	Freq. C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.		
		Exist.	Prop.		Exist.	Prop.	Exist.	Prop.	
Design	10	471	150.1	211.8	669.69	0.15	0.05	669.84	669.74
Base	50	682	170.6	234.3	670.74	0.35	0.12	671.09	670.86
Overtopping	100	747	170.6	238.1	671.06	0.37	0.14	671.43	671.20
Max. Calc.	>100	747	170.6	238.1	671.06	0.37	0.14	671.43	671.20
	500	1139	170.6	242.5	672.76	0.06	0.05	672.82	672.81

Note:

- The Contractor is advised that the existing PPC Deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
- If the Contractor's procedures for existing deck beam removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.

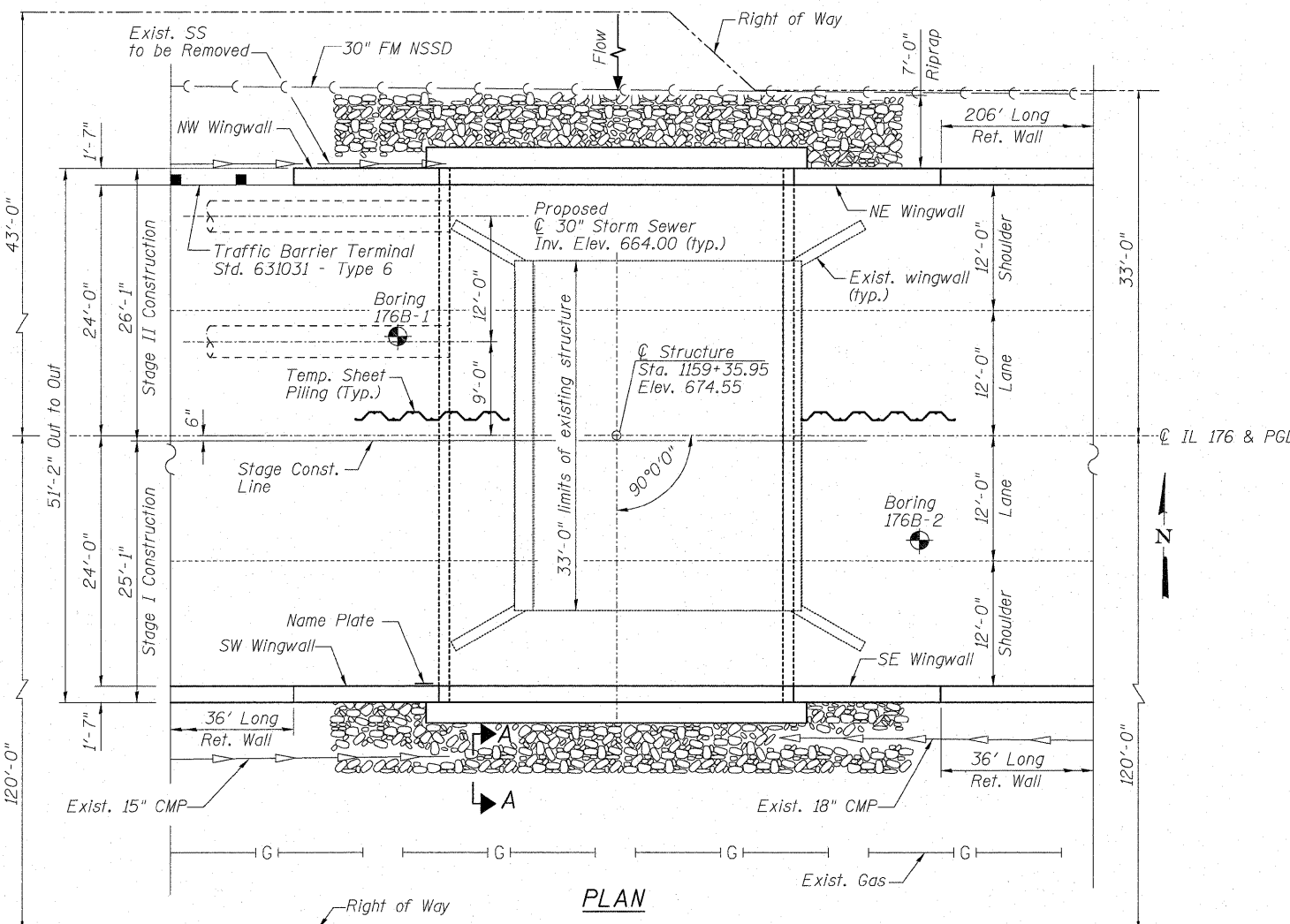
APPROVED FOR STRUCTURAL ADEQUACY ONLY

Carl [Signature]
ENGINEER OF BRIDGES AND STRUCTURES

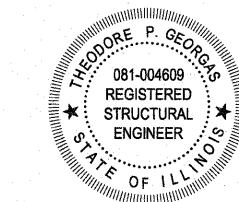
STATION 1159+35.95
BUILT 2011 BY
STATE OF ILLINOIS
F.A.U. 1238/RT. IL-176
LOADING HS-20
STRUCTURE NO. 049-0238

NAME PLATE
See Std. 515001

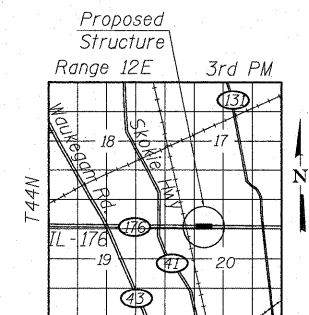
PROFILE GRADE - IL ROUTE 176



PLAN



Theodore P. Georgas 1-31-11
Theodore P. Georgas Date
Licensed Structural Engineer
State of Illinois 081-4609
Expires 11/30/2012



LOCATION SKETCH

IL ROUTE 176 OVER EAST SKOKIE DITCH



USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NUMBER 049-0238 STATION 1159+35.95

SHEET NO. S-1 OF S-15 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	29
DATE: 01-28-2011			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 60J67