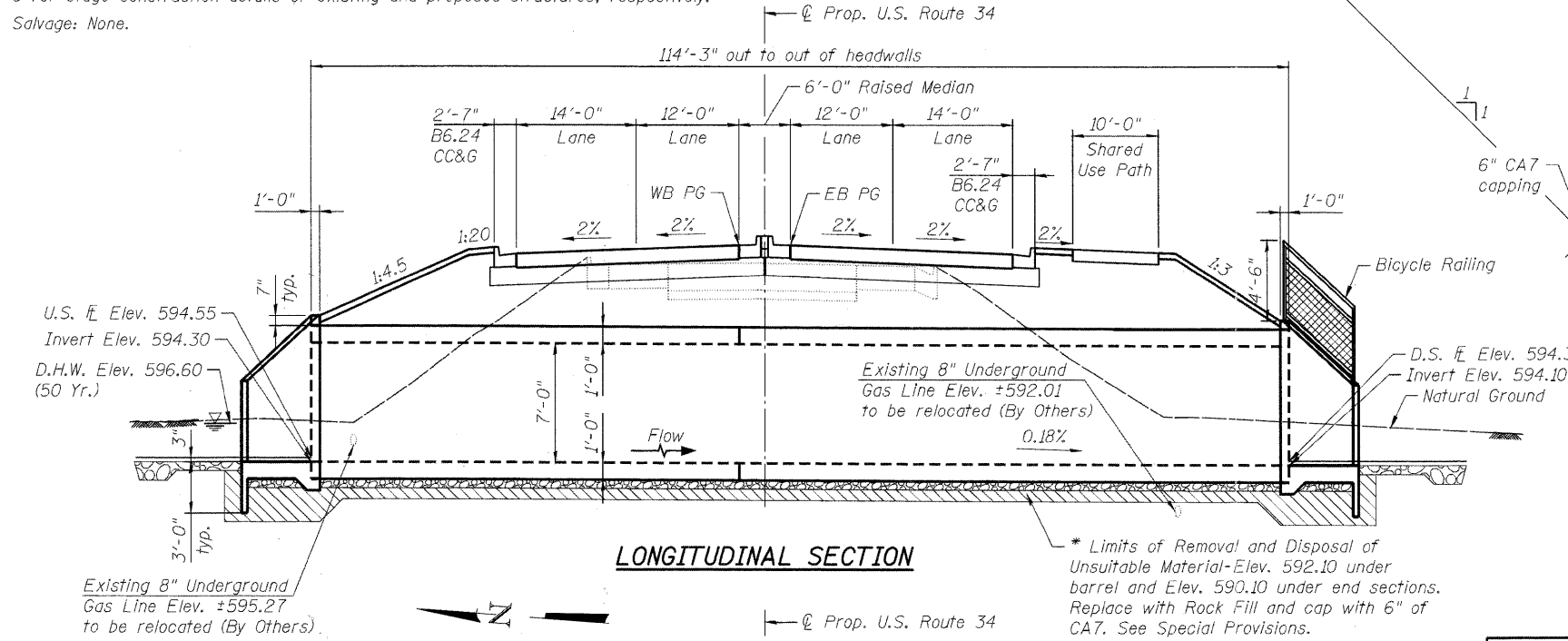


Bench Mark:

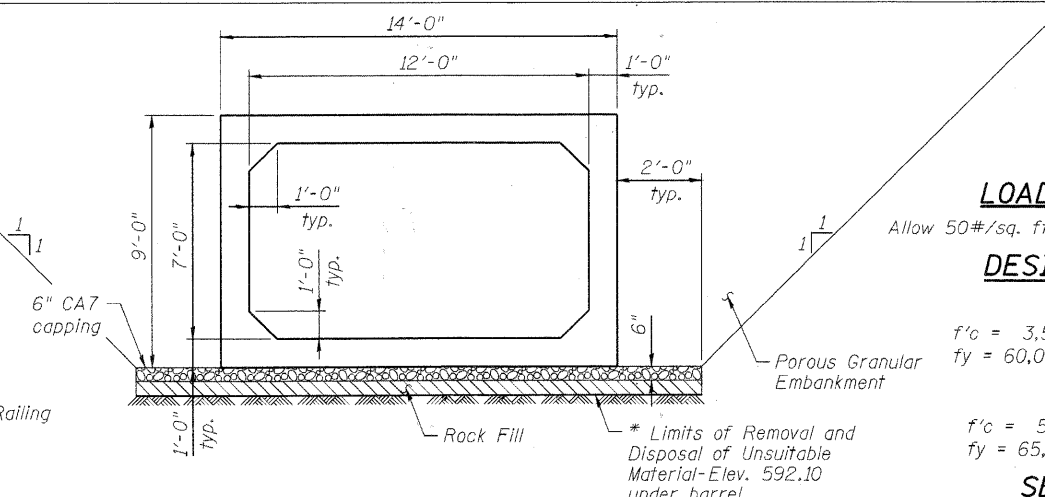
(BM#296) Railroad spike in power pole, North side of center line US 34
Sta. 33+69.90, Offset 56.33' Lt., Elev. 642.169.

Existing Structure: The existing structure is a Cast-in-Place concrete 12'-0"x7'-6" single box culvert and is 45'-2" in length. It is located at STA 26+36.91 and will be replaced by SN 047-2559 at STA 24+00.00. See sheets 3 and 4 of 6 for stage construction details of existing and proposed structures, respectively.

Salvage: None.



LONGITUDINAL SECTION



SECTION THRU PRECAST BARREL

The Rock Fill shall be capped with 6" of CA7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for "Rock Fill".

* The limits and quantities of removal and replacement shown are estimated since no soil borings or investigation was performed and may be modified by the district geotechnical and field engineer in the field during construction.

WATERWAY INFORMATION

Flood	Freq. Yr.	Q	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	3651	572	572	595.2	0.5	0.6	595.7	595.8
Base	50	5306	743	743	596.6	0.6	0.9	597.1	597.5
Overtopping	100	5949	808	808	597.1	0.7	1.0	597.8	598.1
Max. Calc.	500	7502	940	940	598.1	1.0	1.3	599.1	599.4

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

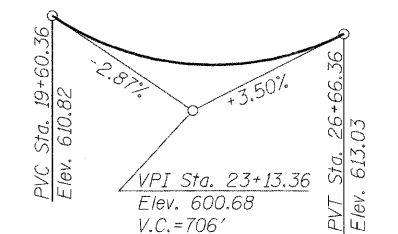
f'c = 5,000 psi (Precast)
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

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

DESIGN SPECIFICATIONS

2002 AASHTO

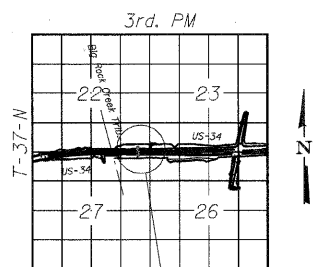


PROFILE GRADE

(Along US-34 P.G.L. EB/WB)

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	591.30	591.10



LOCATION SKETCH

GENERAL PLAN

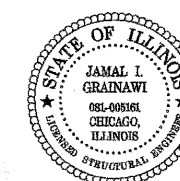
U.S. ROUTE 34 OVER BIG ROCK CREEK

F.A.P RTE. 591 - SEC. 14R-1

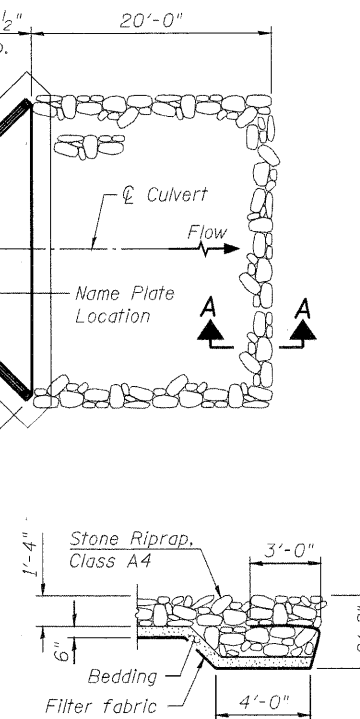
KENDALL COUNTY

STATION 24+00.00

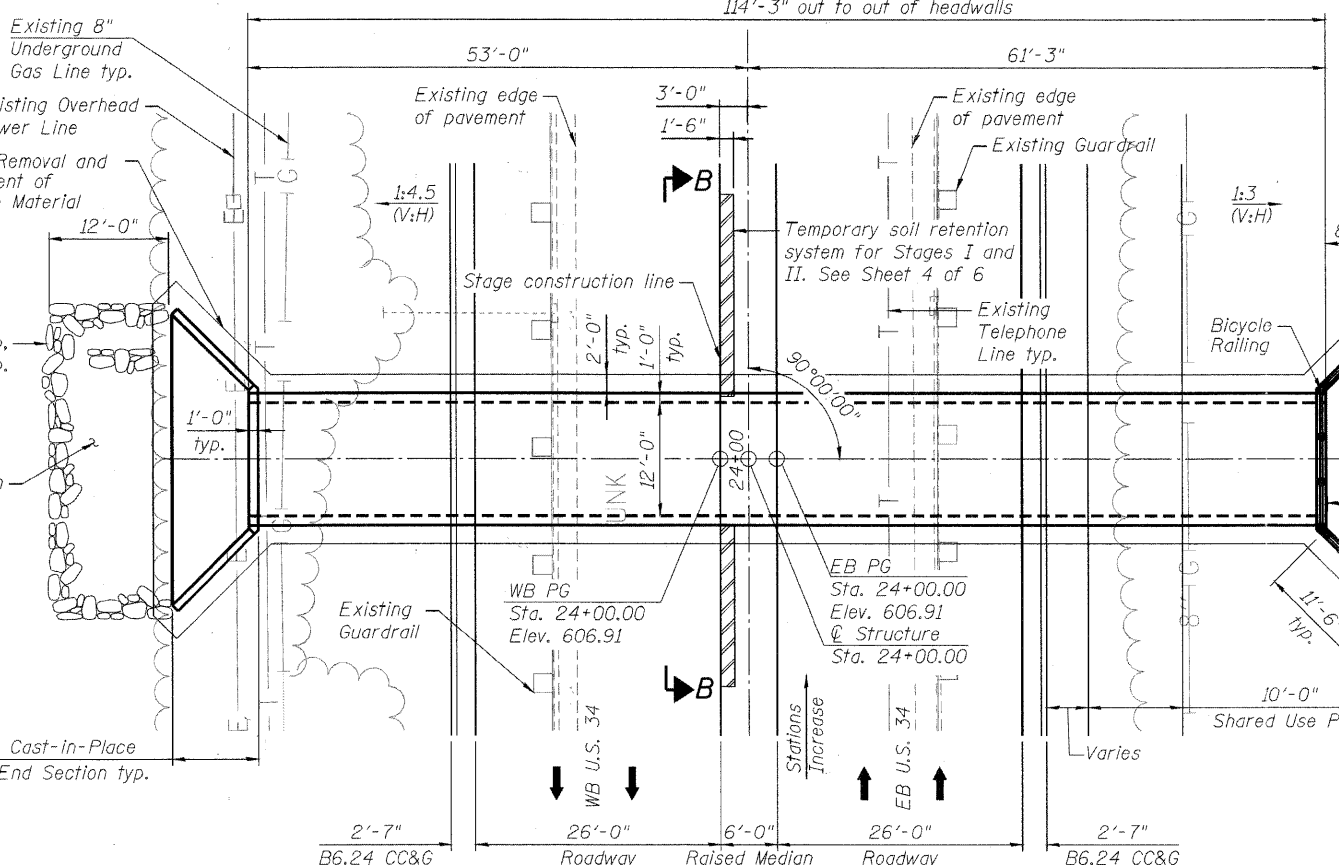
STRUCTURE NO. 047-2559



Signed *Jamal Grainawi*
JAMAL I. GRAINAWI, S.E. Il. Lic. No. 081-006161
Expires 11-30-2012.
Date MAY 6, 2011



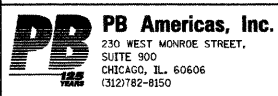
SECTION A-A



PLAN

Notes:
For section B-B, see sheet 4 of 6.
For stage construction details, see sheet 4 of 6.

T:\16829-PrainePky-Ph2\Struct\Cadd\PreFinal\US34 WC98A Single Box Culvert\0472559-D366985-001-GPE.dgn 06-MAY-2011 10:18



FILE NAME = 0472559-D366985-001-GPE.dgn	DESIGNED - H. Alkhatib	REVISED -
PLOT SCALE = NONE	CHECKED - P. Lopez	REVISED -
PLOT DATE = 5/6/2011	DRAWN - H. Alkhatib	REVISED -
	CHECKED - J. Grainawi	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 047-2559
SHEET NO. 1 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	13R-2+14R-1 & BR-10+15R-1	KENDALL	429	318

CONTRACT NO. 66985
ILLINOIS FED. AID PROJECT