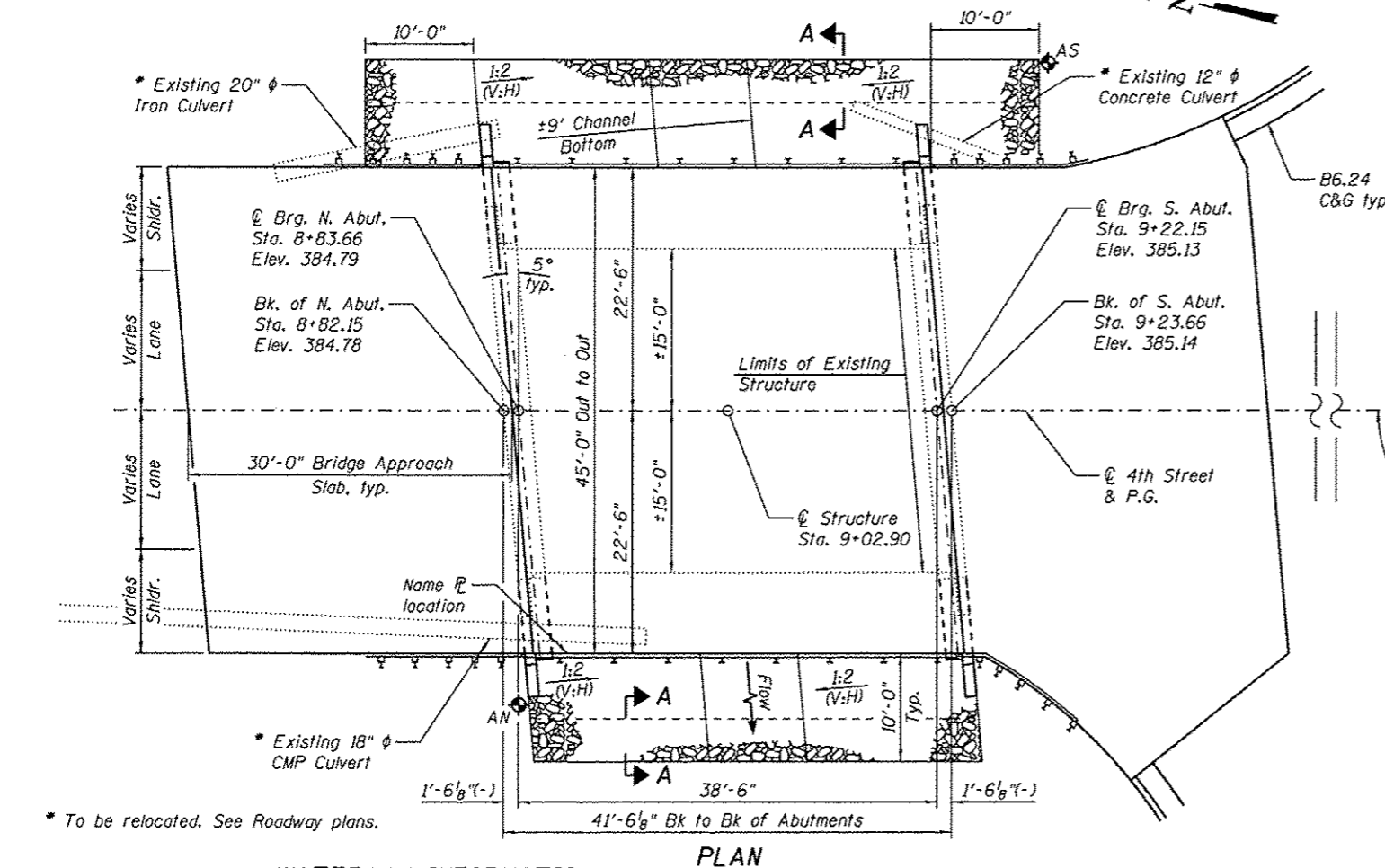
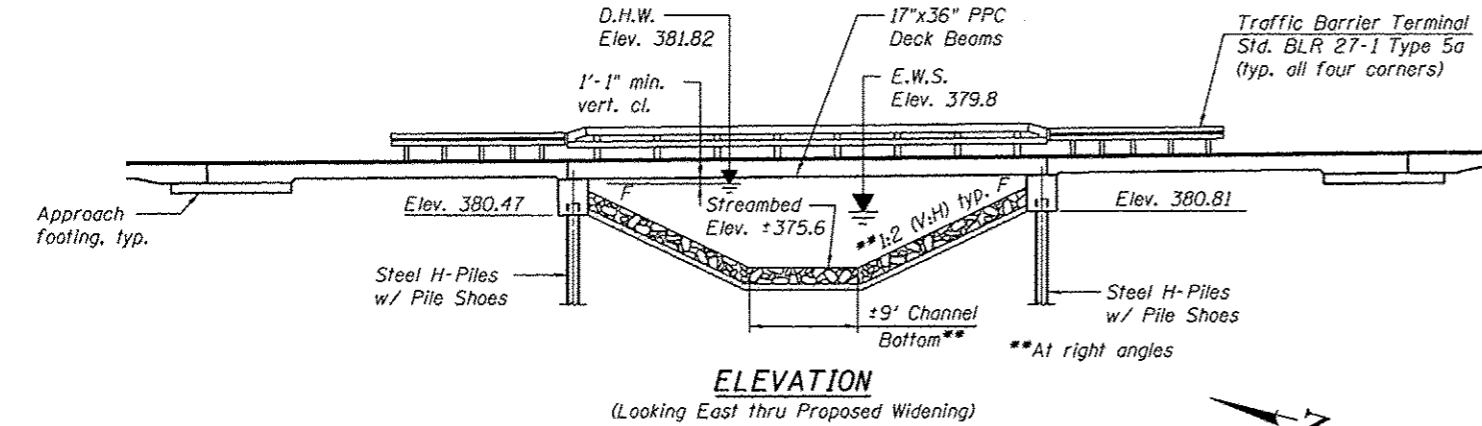


Bench Mark: Chiseled "□" SW Wingwall of 4th Street Bridge over Unnamed Creek. Elevation 384.77

Existing Structure: S.N. 083-6008 was built in 1990 as Municipal Street 6380 (4th Street), Section 89-00027-00-BR at Station 0+97. The existing structure consists of a single span PPC deck beam superstructure with bituminous overlay on pile bent abutments supported by steel H-piles. The structure is 41'-6" back-to-back abutments and 30'-0" out-to-out deck. The abutments are to be widened and the superstructure is to be removed and replaced.

Road to be closed to traffic during construction.

No salvage.



* To be relocated. See Roadway plans.

WATERWAY INFORMATION

Drainage Area = 1.19 Sq. Mi. Low Grade Elev. 383.0 @ Sta. 5+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	533	104	106	380.79	0.05	0.06	380.84	380.85
Base	100	604	140	142	381.82	0.05	0.06	381.87	381.88
Overtopping									
Max. Calc.	500	769	180	182	382.70	0.15	0.16	382.85	382.86

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	380.47	380.81

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
3. Top of North Approach Slab Elevations
4. Top of South Approach Slab Elevations
5. Superstructure
6. Steel Railing, Type SM
- 7.-8. N. Approach Slab Details
- 9.-10. S. Approach Slab Details
11. 17"x36" PPC Deck Beam
12. 17"x36" PPC Deck Beam Details
13. Abutments
14. Abutment Details
15. HP Pile Details
- 16.-17. Soil Boring Logs

LOADING HL-93

(New Construction)
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition with 2013 Interims

DESIGN STRESSES

FIELD UNITS

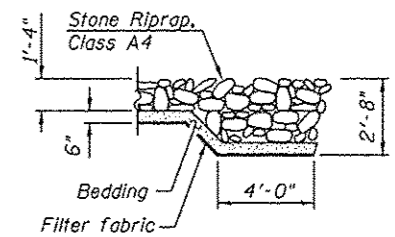
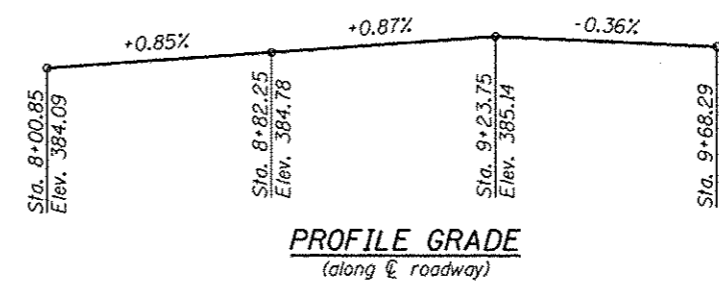
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

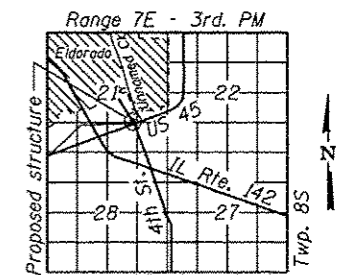
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" φ low lax. strands)
fpbt = 201,960 psi (1/2" φ low lax. strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (S₀₁) = 0.33g
Design Spectral Acceleration at 0.2 sec. (S₀₅) = 0.77g
Soil Site Class = D

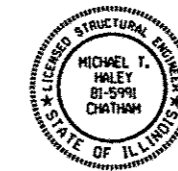


SECTION A-A



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

◆ Indicates boring location



Michael T. Haley 2-28-14
Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2014

GENERAL PLAN & ELEVATION

**4th STREET OVER
UNNAMED CREEK
MUNICIPAL ST. 6380
SEC. (29.30)R-1
SALINE COUNTY
STATION 9+02.90
STRUCTURE NO. 083-6008**



USER NAME *	DESIGNED - RPW	REVISED
FILE NAME *	CHECKED - LMS	REVISED
PLOT SCALE *	DRAWN - AJF	REVISED
PLOT DATE *	CHECKED - LMS	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
STRUCTURE NO. 083-6008**

SHEET NO. 1 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(29.30)R-1	SALINE	745	449
				CONTRACT NO. 78077

ILLINOIS FED. AID PROJECT