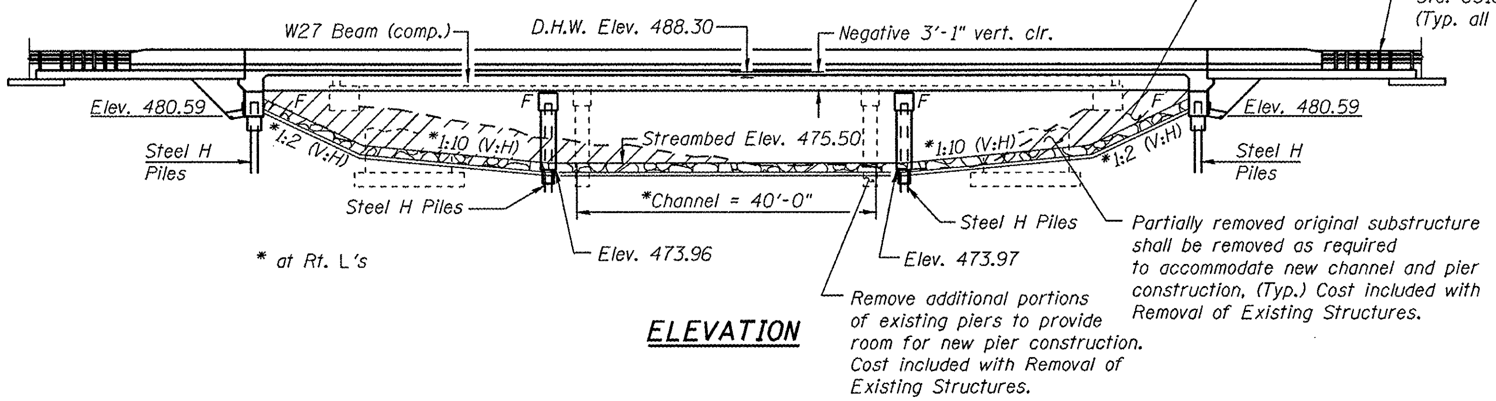
Bench Mark: Chiseled "□" on northwest wingwall of existing S.N. 072-0137, Elev. 488.36.

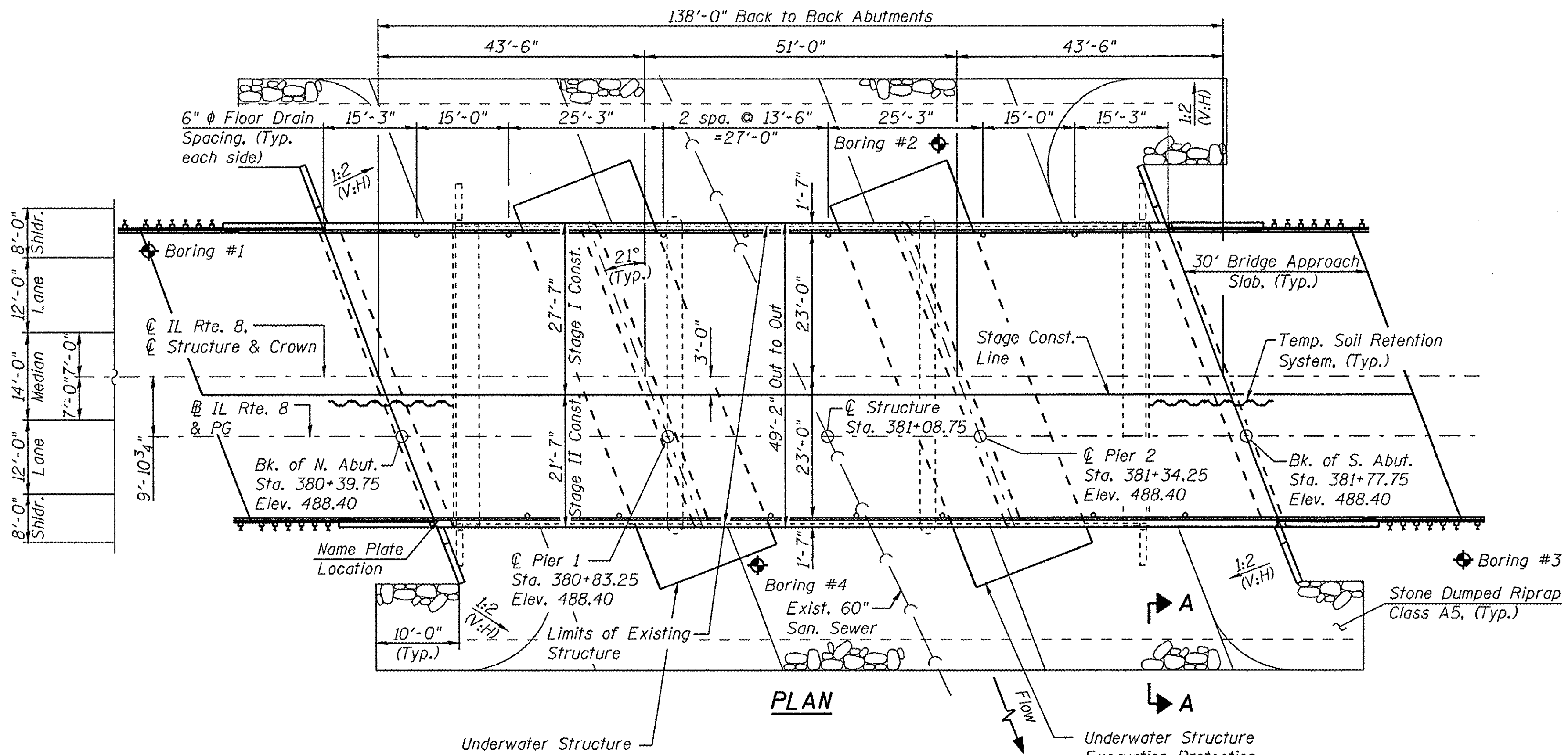
Existing Structure: S.N. 072-0137 was built in 1980 as F.A.S. Route 384, Section ZC-15D-BR. The existing structure is a 3-span PPC deck beam bridge on solid encased pile bent piers and pile bent abutments. 113'-9" Bk. to Bk. abutments and 48'-0" Out to Out of deck. Structure to be completely removed and replaced.
Traffic to be maintained utilizing stage construction with one lane open during Stage I and two lanes open during Stage II.

No Salvage.

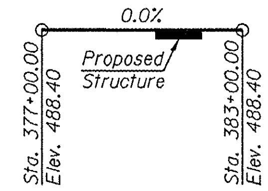
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION

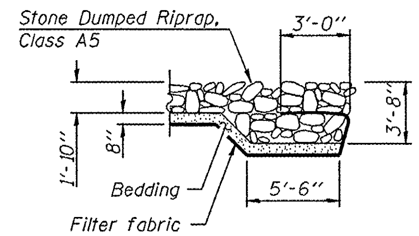


PLAN



PROFILE GRADE

(along ℄ IL Rte. 8)



SECTION A-A

INDEX OF SHEETS

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	480.6	459.0	459.0	480.6

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition with 2008 Interim

LOADING HL-93

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

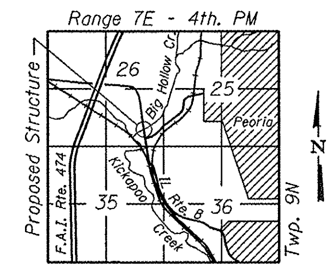
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Structural Steel, M270 Grade 50)
fy = 36,000 psi (Structural Steel, M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = .12g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = .19g
Soil Site Class = D



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 7.15 sq. mi. Existing Low Grade Elev. 488.11 @ Sta. 381+00
Proposed Low Grade Elev. 488.41 @ Sta. 381+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	2057	827	872	486.50	0.50	0.23	487.00	486.73
Design	50	3520	827	872	488.30	1.07	0.53	489.37	488.83
Base	100	4201	827	872	489.30	1.12	0.61	490.42	489.91
Overtopping	15	2100	-	872	488.30	-	0.26	-	488.56
Max. Calc.	500	5922	827	872	491.40	1.18	0.68	492.58	492.08

10 Year Velocity through Exist. Bridge = 4.2 fps 10 Year Velocity through Prop. Bridge = 2.5 fps

LICENSED STRUCTURAL ENGINEER MICHAEL T. HALEY 81-5991 CHATHAM STATE OF ILLINOIS

Michael T. Haley 7/30/09

Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2010

Date

APPROVED
For Structural Adequacy Only

Ralph E. Anderson

Engineer of Bridges & Structures

GENERAL PLAN
IL ROUTE 8 OVER BIG HOLLOW CREEK
F.A.U. ROUTE 6658
SECTION (ZC-15D-BR)BR
PEORIA COUNTY
STATION 381+08.75
STRUCTURE NO. 072-0227

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois

Designed By: TBP | Checked By: KHH | Drawn By: TBP
Date: 03/2009 | File: 072-0227.dgn

SHEET NO. 1

22 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6658	(ZC-15D-BR)BR	PEORIA	49	14
		CONTRACT NO. 68478		

FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT

D-94-060-05