

F.A.P. RTE. 309	SECTION (17)RB	COUNTY WHITESIDE	TOTAL SHEETS 376	SHEET NO. 51
FED. ROAD DIST. NO. 2		ILLINOIS FED. AID PROJECT		Contract #64B74

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Bench Mark:
Cut square in SE Wingwall on existing bridge, Sta. 1038+15.56, Offset 24.25 RT, Elev. = 633.60

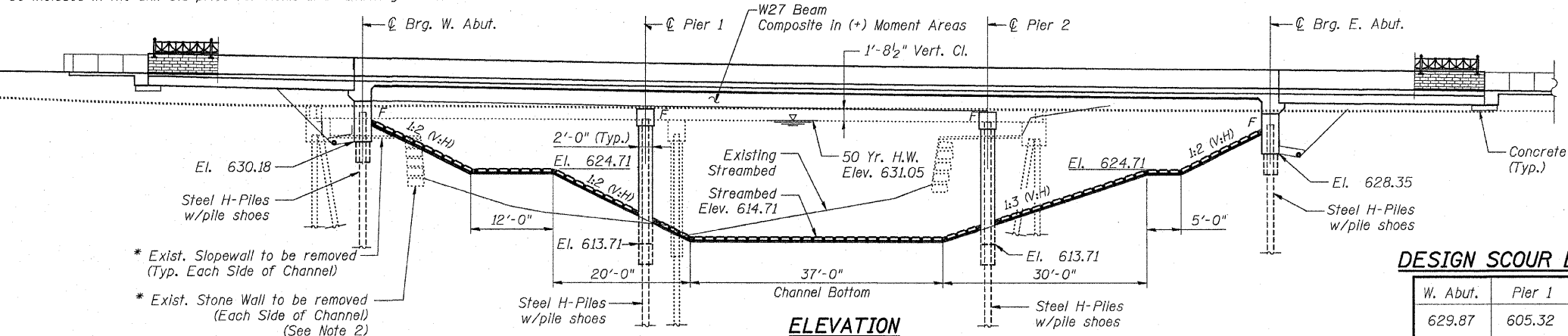
Existing Structure:
Structure No. 098-0053 was originally constructed in 1971 as a 2-span PPC deck beam bridge supported on pile bent abutments and a center pile bent pier. The structure length is 108'-0" (Bk. to Bk. Abut.) and the width is 33'-0" (O. to O.). The substructure is normal to the superstructure (no skew).

- Notes:
1. Road shall be kept open to traffic at all times by utilizing stage construction. During Stage I and Stage II, one lane of alternating traffic will be provided with the use of temporary traffic signals.
 2. Salvage limestone from the stone walls in front of the bridge abutments. The Contractor shall deliver the preserved limestone to the City's quarry located at 14601 Norrish Road, Morrison, IL. The City's contacts are Gary Trsenriter, Morrison Superintendent of Public Services at mobile (815) 535-1104 and Mike Garland, Morrison Public Services Department at mobile (815) 499-6000. The cost of the limestone salvage shall not be paid for separately but shall be included in the unit bid price for Removal of Existing Structures.

WATERWAY INFORMATION

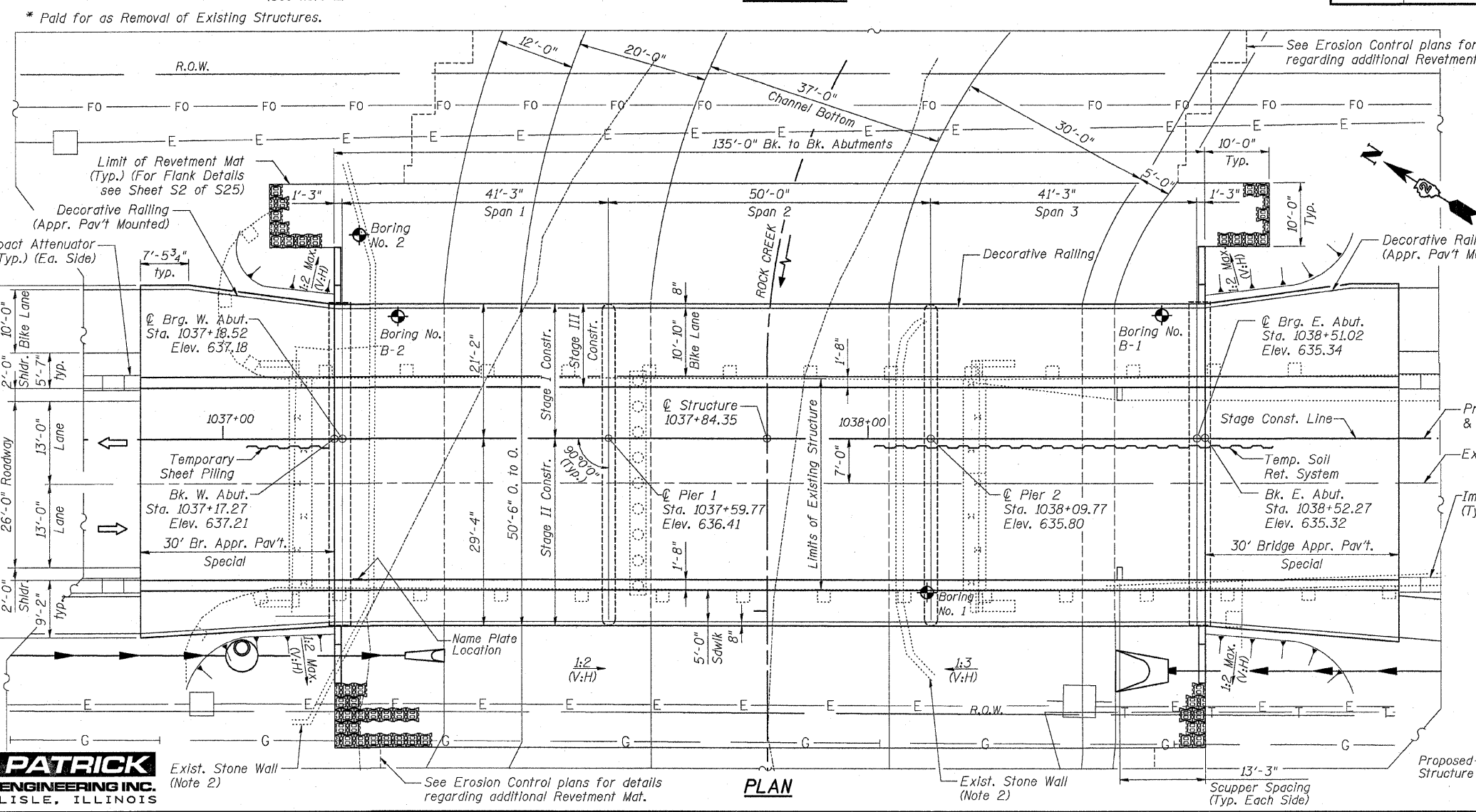
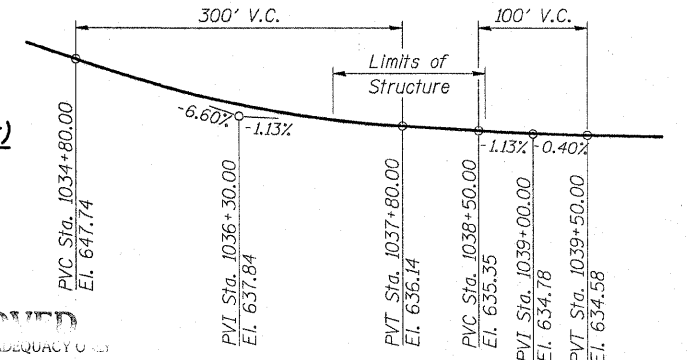
Max Recorded H.W.E. = 631.70

Drainage Area = 159.9 sq.mil		Existing Low Grade Elev. 632.64 @ Sta. 1043+50		Proposed Low Grade Elev. 632.95 @ Sta. 1044+00	
Flood	Freq. (Yr.)	Q (cfs)	Opening (Sq. Ft.)	Natural Head (ft)	Headwater El.
			Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	50	4640	960 1205	629.26 0.24	0.07 631.29 631.12
Base	100	5131	1024 1280	631.68 0.32	0.09 632.00 631.77
EX Overtopping	169	5520	1039	632.18 0.46	0.16 632.64
PR Overtopping	309	6013	1415	632.79	0.16 632.95
Max. Calc.					



DESIGN SCOUR ELEVATIONS (ft)

W. Abut.	Pier 1	Pier 2	E. Abut.
629.87	605.32	605.32	628.01



APPROVED
FOR STRUCTURAL ADEQUACY
Reid E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PATRICK ENGINEERING, INC.



ATALAY YARGICOGLU, S.E.
081-005358

EXP 11/30/2010

DATE 12/18/2008

PROFILE GRADE
(Along PGL Roadway)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44

Allowance for Future Wearing Surface = 50 #/sq. ft.

DESIGN STRESSES

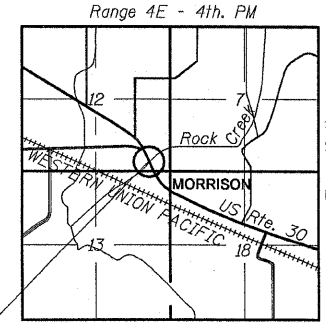
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)
 $f_y = 50,000$ psi (M270 Gr 50 Struct. Steel)

SEISMIC DATA

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

LEGEND

- Soil Boring Location
- FO — Exist. Underground Fiber Optic Line
- E — Exist. Overhead Electrical Line
- G — Exist. Gas Line
- T — Exist. Telephone Line
- Storm Sewer



LOCATION SKETCH

GENERAL PLAN
U.S. RTE. 30/IL RTE. 78 OVER ROCK CREEK
F.A.P. ROUTE 309, SECTION (17)RB
WHITESIDE COUNTY
STATION 1037+84.35
STRUCTURE NO. 098-0113

DATE: December 18, 2008
DRAWN BY: D. Schettler
CHECKED BY: A. Yargicoglu



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