

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	50

INDEX OF SHEETS

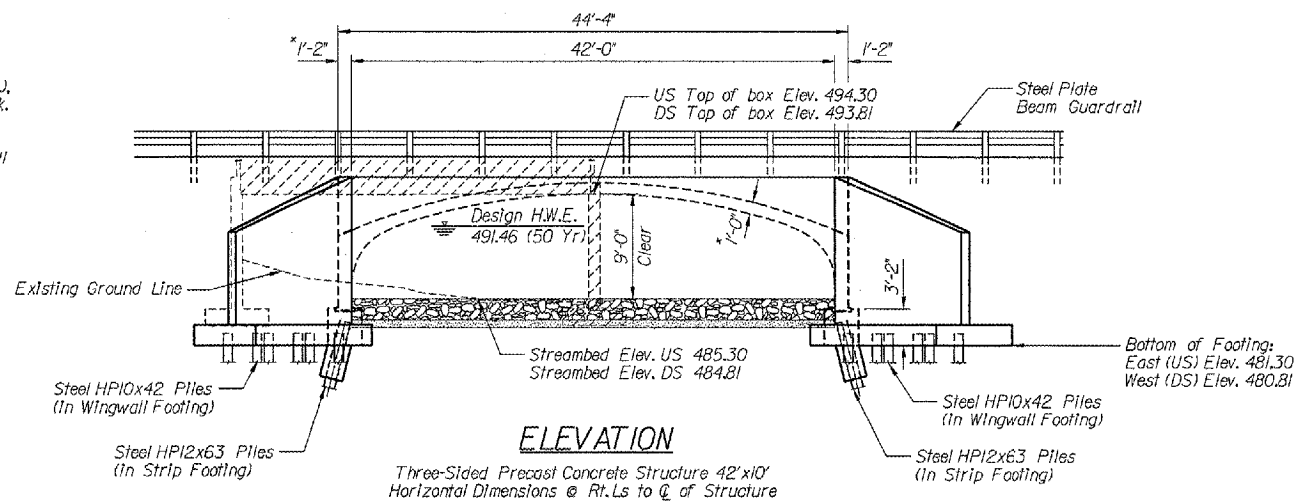
No.	Description
1	General Plan and Elevation
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3	Stage Construction Details
4	Geotextile Retaining Wall
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STA. TO STA.
FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT
SN075-2508 Sheet 1 of 11

Benchmark - chisled "□" on Southeast Wingwall of Bridge No SN 075-0039.
Elev. 497.60.

Existing structure: SN 075-0039, 39' wide single span (32'-0" bk. to bk. abut.), reinforced concrete T-beam structure on closed abutments, 39'-4" o. to a. deck. Built in 1937 as F.A. Rte. 158, Sec. No. 2-B. The contractor shall remove the existing structure as required and replace it with a three-sided box culvert (9'(H) x 42'(W) x 59'(L)). The road shall be kept open to one lane traffic at all times utilizing stage construction.

No Salvage.



ELEVATION

Three-Sided Precast Concrete Structure 42'x10'
Horizontal Dimensions @ Rt. Ls to C/L of Structure

- * Slab and wall thicknesses may vary as per manufacturer's design
- ▨ Indicates portions of existing structure to be removed.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706, Grade 60 (LL Modified). See Special Provisions.
Layout of slope protection system may be varied in the field to suit the conditions as directed by the engineer.
The Contractor shall drive test piles to 110% of the Nominal Required Bearing specified in production locations of substructures specified (six locations follow) or approved by the Engineer before ordering the remainder of piles.
one (1) test pile HPI0x42 in each of the four (4) wingwall footings
one (1) test pile HPI2x63 in each of the two (2) strip footings, as close to the stage construction line as possible.
The Steel H-piles shall be according to AASHTO M270 Grade 50

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The contractor shall sawcut the upper portion of the existing abutments at the Stage Removal line before Stage II Removal to ensure the remaining portion will not be prematurely damaged.

The footing design is based on the following maximum reactions applied at the top of the footing:
Footings: 16.82 k/ft (vertical), 10.0 k/ft (horizontal).
The Contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete footing design with calculations, details and the required seals shall be submitted for review and approval.

Dimensions for three-sided box are for a 42'x10' ConSpan Section, Hy-Span, REDI-Span and BEBO Bridge Sections are also acceptable, but dimensions may vary.

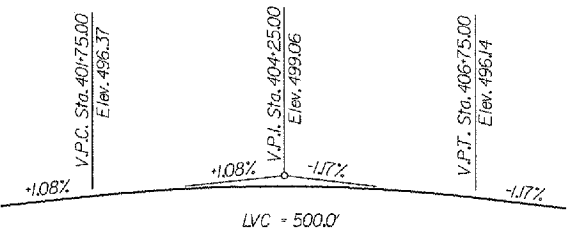
STATION 404+21.51
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. ROUTE 304
SECTION 2(B-5)
LOADING HS 20-44
STR. NO. 075-2508

Design Scour Elevations	
Northwest Footing	Southeast Footing
480.8	480.8

NAME PLATE
See Std. 515001

WATERWAY INFORMATION

Drainage Area = 1.9 sq. mi.		Low Grade Elev. = 496.44 ft. @ Sta. 411+00		Headwater Elev.	
Flood	Freq. Yr.	0 C.F.S.	Natural H.W.E.	Exist. Prop.	Headwater Elev.
		Exist.	Prop.	Exist.	Prop.
Design	10	1467	132	221	490.35
Base	50	2416	166	267	491.46
Overtopping	100	2839	181	287	491.93
Max. Calc.	500	3687	202	316	492.62
					4.35
					1.99
					496.97
					494.61



PROFILE GRADE
Along C/L Roadway

LOADING HS20-44

Allow 50*/sq.ft. For Future Wearing Surface

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th Ed.

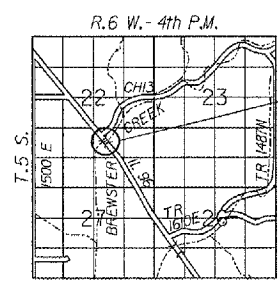
DESIGN STRESSES

(FIELD UNITS)
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (structural steel)

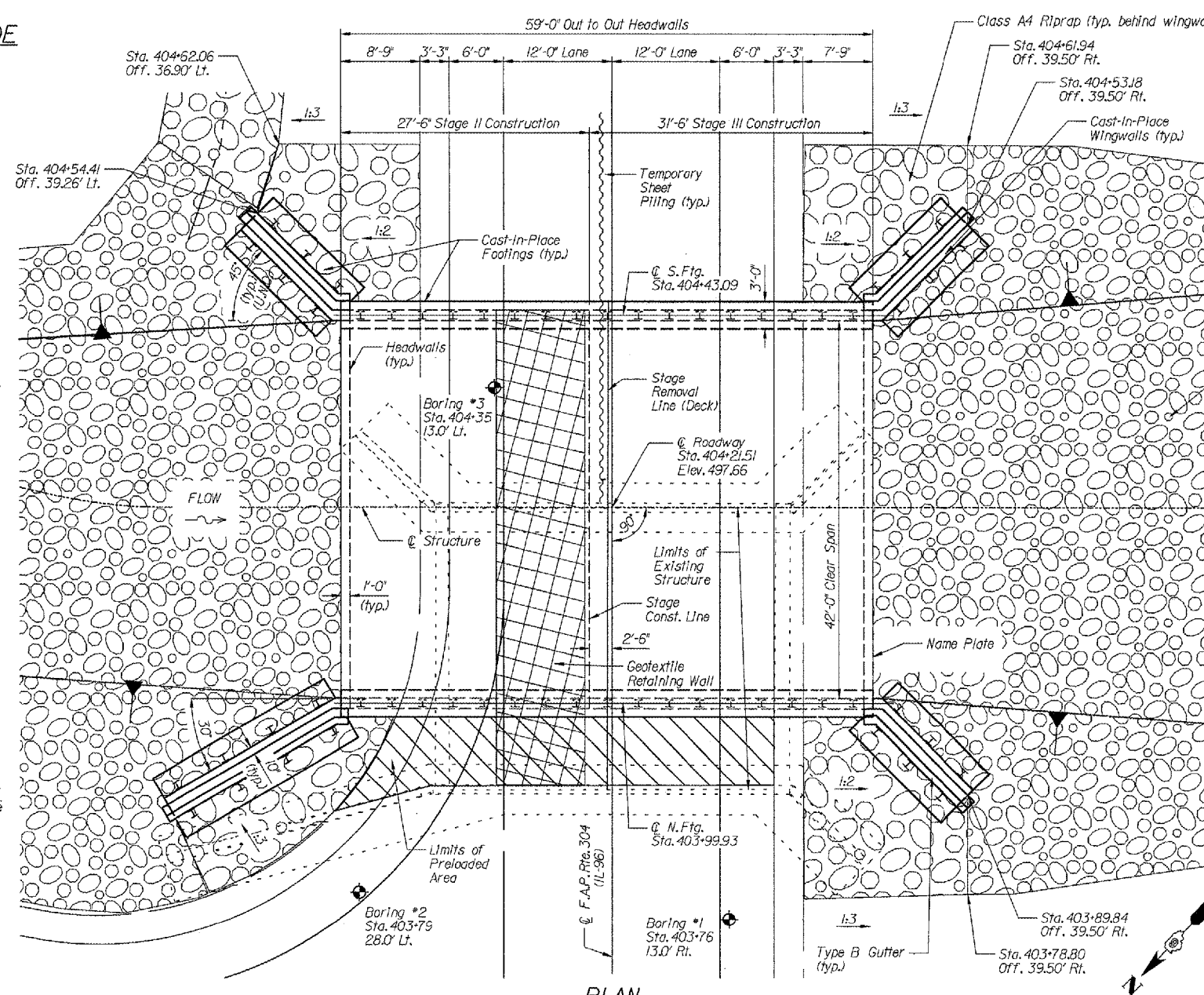
(PRECAST UNITS)
f'c = 5,000 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

SEISMIC DATA

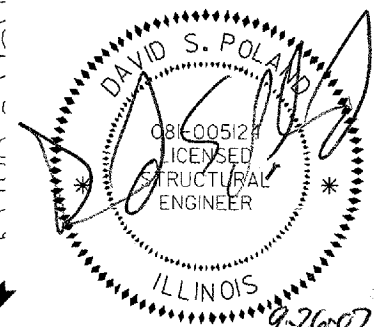
Seismic Performance Category (SPC) - A
Bedrock Acceleration Coefficient (A) = 4.8%g
Site Coefficient (S) = 1.0



LOCATION MAP



PLAN



DAVID S. POLAND
LICENSED STRUCTURAL ENGINEER
QUINCY, ILLINOIS
EXPIRES: 11/30/08

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TSD)
Engineer of Bridges & Structures

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508
SCALE: N/A DRAWN BY: JLS
DATE: SEPT 2007 CHECKED BY: DSP

PLOT DATE: 8/24/07
FILE NAME: 075-2508-50
USER: JLS