

B.M. #610 - Chiseled "□" on Northwest Corner of Bridge over Lost Creek.  
Sta. 374+90, 19' Rt.,  
Elev. 540.54

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE: Structure No. 018-0059 is a comprehensive reconstruction built in 1981 to replace the original structure built in 1931. The current existing structure is a 2 span structure 162'-3<sup>5</sup>/<sub>8</sub>" bk. to bk. of abutments. The spans are 81'-1<sup>7</sup>/<sub>8</sub>" in length each and are made of 33" P.P.C. deck beams with a 1<sup>3</sup>/<sub>4</sub>" overlay and a width of 36'-0". There are steel guardrails on either side. The abutments are pile bent. The original pier was widened to accommodate the new deck. The bridge is at 40° skew.

Traffic to be maintained with use of stage construction.

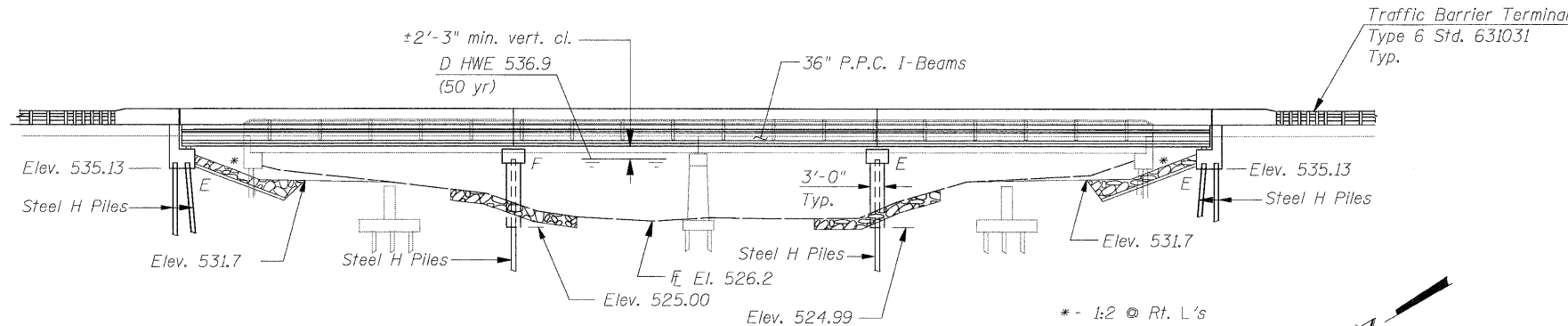
No salvage.

WATERWAY INFORMATION

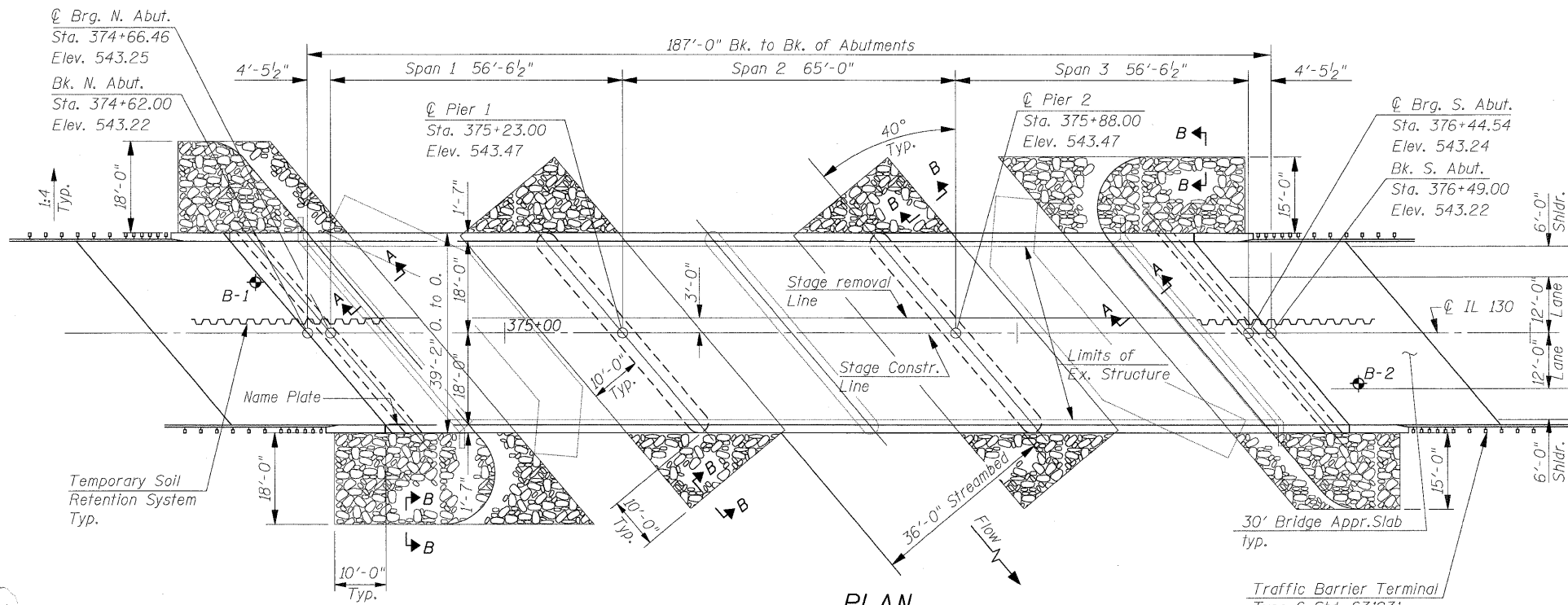
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
			Existing Low Grade Elev. 460.6 @ Sta. 235+00			Proposed Low Grade Elev. 461.6 @ Sta. 235+00			
Design	10	2625	616	769	536.0	0.6	0.5	536.6	536.5
Base	50	4216	668	878	536.9	1.0	0.9	537.9	537.8
Overtopping	100	4930	668	927	537.3	1.3	1.1	538.6	538.4
Max. Calc.	500	6683	706	1015	538.0	2.0	1.4	540.0	539.4

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	535.19	513.32	513.32	535.20



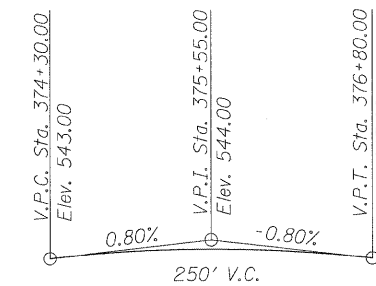
ELEVATION



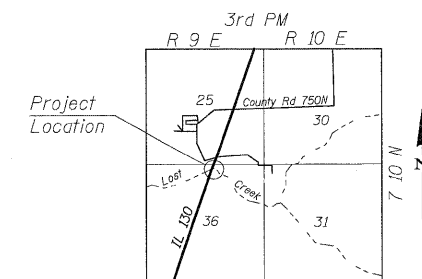
PLAN

STATION 375+55.50  
BUILT 20xx BY  
STATE OF ILLINOIS  
F.A.P. ROUTE 116  
SECTION (112BR)B  
LOADING HL-93  
STRUCTURE NO. 018-0064

NAME PLATE  
See Std. 515001



PROPOSED PROFILE



LOCATION SKETCH

DESIGN SPECIFICATIONS  
2007 AASHTO LRFD Bridge Design Specifications  
with 2008 Interims

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinforcement)  
f<sub>y</sub> = 50,000 psi (M270 Grade 50)

PRECAST UNITS

f<sub>c</sub> = 6,000 psi  
f<sub>ci</sub> = 5,000 psi  
f<sub>'s</sub> = 270,000 psi  
f<sub>'si</sub> = 201,960 psi

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2  
Design Spectral Acceleration at 1.0 Sec. (SD1) = 0.278g  
Design Spectral Acceleration at 0.2 Sec. (SDs) = 0.643  
Soil Site Class = E

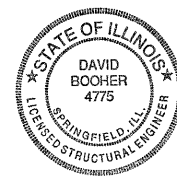
GENERAL PLAN  
IL ROUTE 130  
OVER LOST CREEK  
F.A.P. ROUTE 116  
SECTION (112BR)B  
CUMBERLAND COUNTY  
STA. 375+55.5  
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

**ie** CONSULTANTS, INC  
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APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

David Booyer (S.E.)  
ENGINEER OF BRIDGES AND STRUCTURES



David Booyer, Illinois S.E. 081-004775  
Expires 11-30-2010

8-13-09  
Date

SHEET NO. 1 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR)B	CUMBERLAND	72	32
FED. ROAD DIST. NO. - ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 74236					