

Bench Mark: Chiseled "□" on N.E. wingwall. Elev. 624.50.

Existing Structure: S.N. 053-0146, built 1974 as FA Rte 18 Section 15-BR. 104'-0" bk. to bk. abutments 46'-0" out to out deck. Precast, prestressed concrete deck beam, 21", on open pile bent abutments and a tapered solid wall concrete pier. Traffic to be maintained during construction utilizing stage construction.

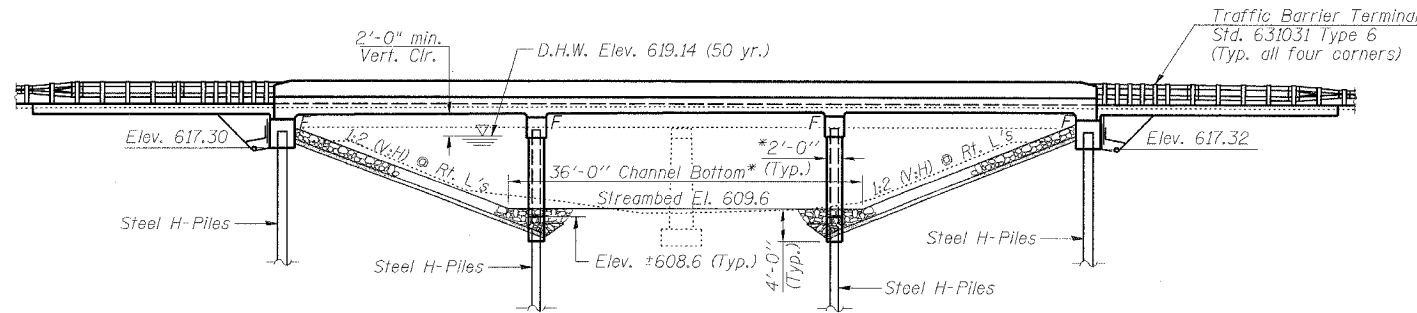
No Salvage.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft)	West Abut.	Pier 1	Pier 2	East Abut.
	617.3	605.6	605.6	617.3

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 41	15BR	LIVINGSTON	38	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #66665

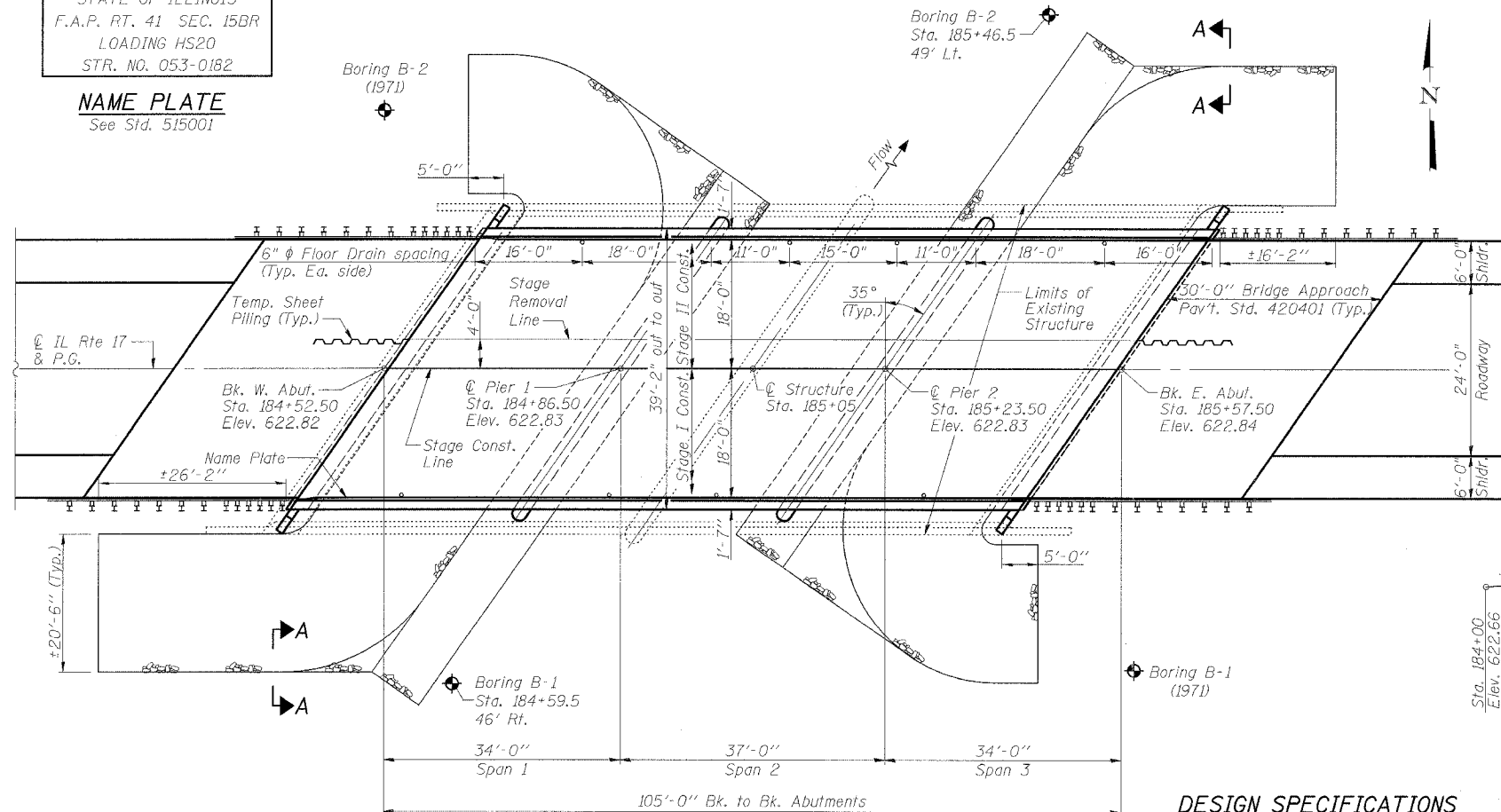


ELEVATION

*Measured perpendicular to C of pier

STATION 185+05
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 41 SEC. 15BR
LOADING HS20
STR. NO. 053-0182

NAME PLATE
See Std. 515001



PLAN

WATERWAY INFORMATION

Drainage Area = 15.11 sq. mi. Exist. Low Grade Elev. 622.5 ft. @ Sta. 184+00
Prop. Low Grade Elev. 622.8 ft. @ Sta. 181+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater E.I.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	1470	402	413	618.5	0.3	0.3	618.8	618.8
Base	100	1655	447	454	619.1	0.4	0.4	619.5	619.5
Overtopping	-	-	-	-	619.4	0.5	0.5	619.9	619.9
Max. Calc.	500	2082	501	504	619.8	0.7	0.7	620.5	620.5

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

LOADING HS20-44

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

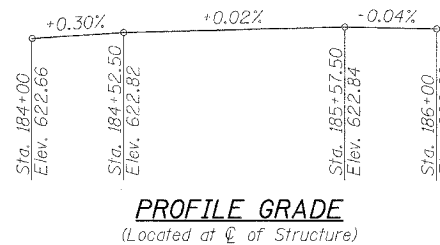
DESIGN STRESSES

FIELD UNITS

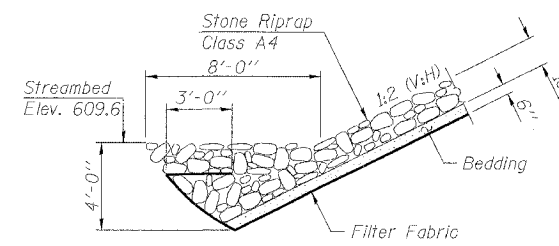
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

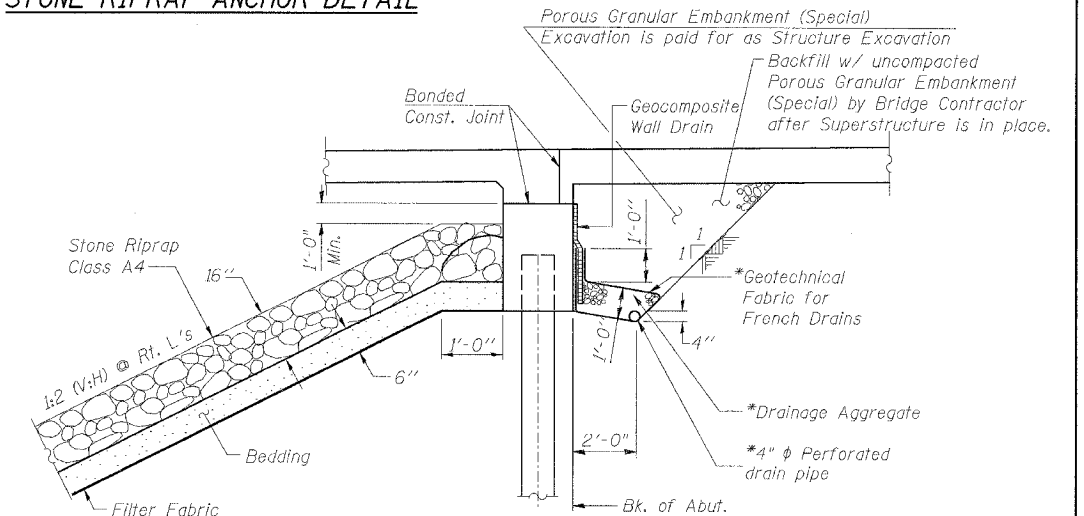
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.042 g
Site Coefficient (S) = 1.2



PROFILE GRADE
(Located at C of Structure)



STONE RIPRAP ANCHOR DETAIL



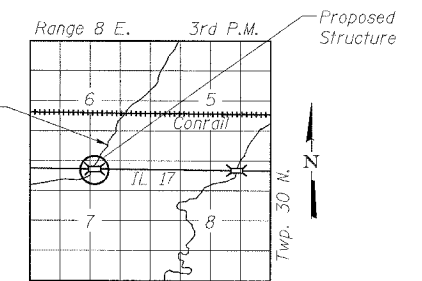
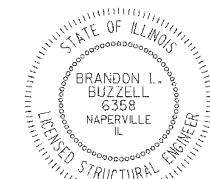
PIPE UNDERDRAIN & RIPRAP DETAIL

(Horizontal Dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.
Note: All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

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Excellence through Ownership

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Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
IL 17 OVER UNNAMED DRAINAGE DITCH
FAP RTE 41 - SECTION 15BR
LIVINGSTON COUNTY
STATION 185+05
STRUCTURE NO. 053-0182

DATE: 10/20/2006

DRAWN BY JMT
CHECKED BY BLB