ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	THIS SHEET NO.
FAP 505	111B	STEPHENSON		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

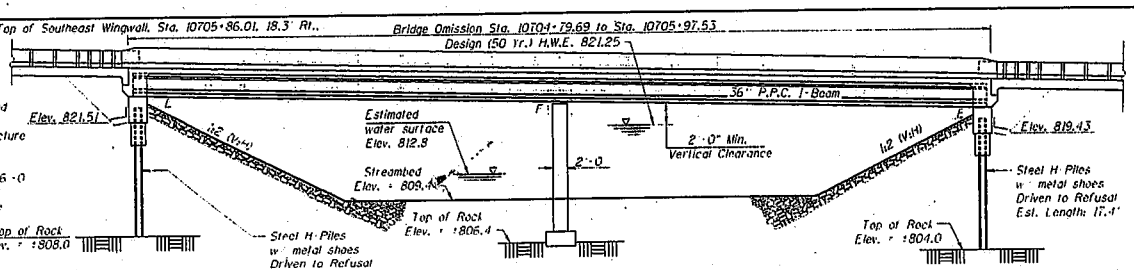
SHEET NO. 1
2 SHEETS

Contract #64970

Bench Mark: Chiseled Square, Top of Southeast Wingwall, Sta. 10705+86.01, 18.3' Rt., Elev. 824.47

Existing Structure: Structure number 089-0040, built in 1928 as S.B.I. 75, Sec. 111B. Portions of the substructure and the superstructure were rebuilt in 1973. The rebuilt superstructure is a PPC deck beam Bridge with a 5" concrete overlay with closed abutments. Two-span 86'-0" back to back abutments. 33'-0" out to out width. Traffic to be detoured.

No Salvage.



ELEVATION

HIGHWAY CLASSIFICATION

FAP Route 505
Functional Class: Minor Arterial
ADT: 3200 (2001); 4100 (2021)
ADTT: 200 (2001)
DHV: 320 (2001); 410 (2021)
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.

LOADING HS20-44

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

DESIGN SPECIFICATIONS

AASHTO 2002 Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_s = 270,000 psi (½" ϕ low lax. strands)
f_{si} = 201,960 psi (½" ϕ low lax. strands)

SEISMIC DATA

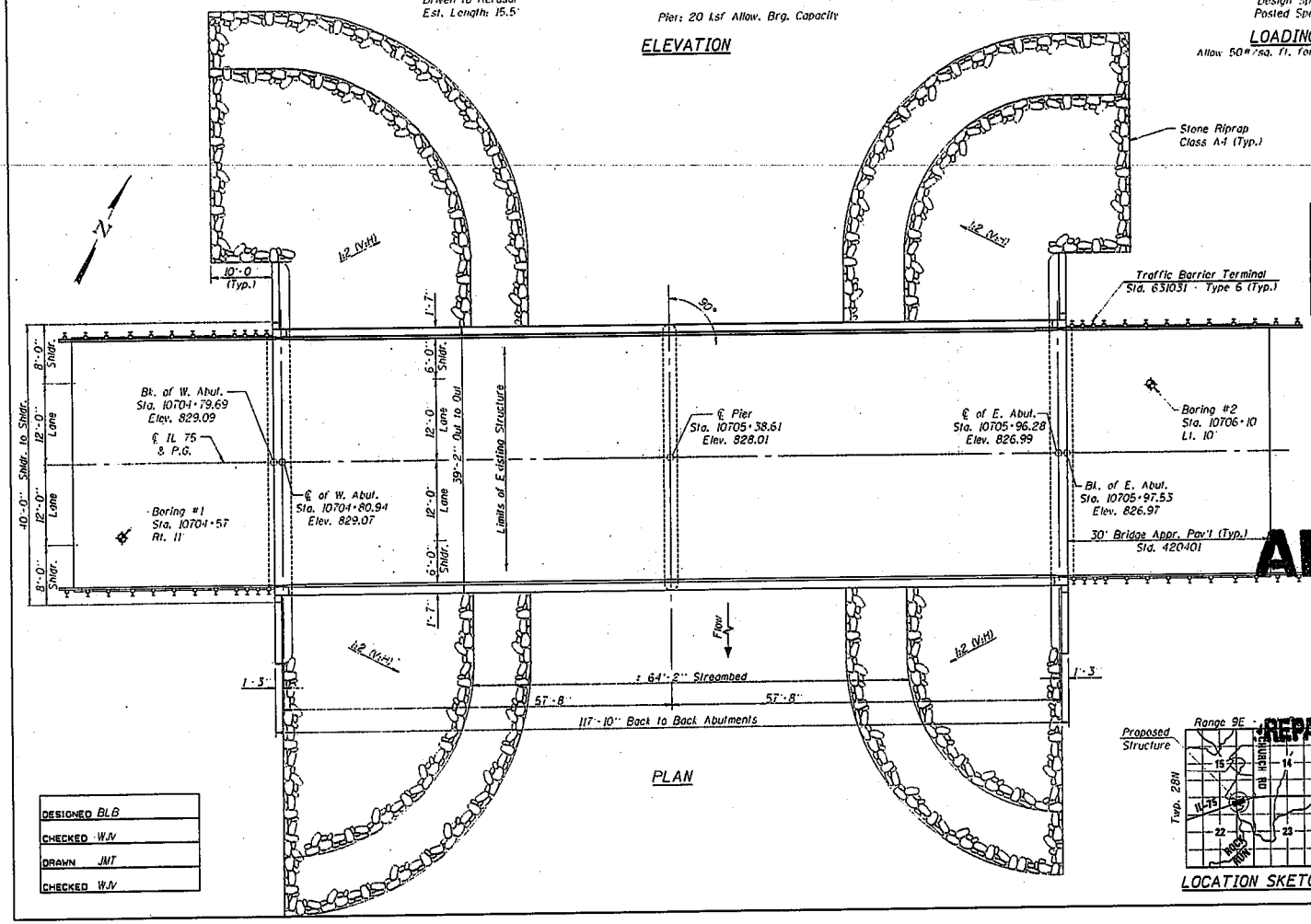
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.0

WATERWAY INFORMATION

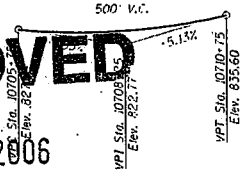
Drainage Area = 23.03 Sq. Mi. Prop. Low Grade El. 826.22 @ Sta. 10707+00

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	2382	564	599	819.89	0.34	0.31	820.23	820.20
Design	50	3590	662	717	821.25	0.48	0.45	821.73	821.70
Base	100	4092	701	762	821.74	0.53	0.49	822.27	822.23
Overlopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	5275	785	860	822.79	0.73	0.66	823.52	823.45

Design Scour Elevations		
West Abutment	Pier	East Abutment
824.6	806.4	822.6

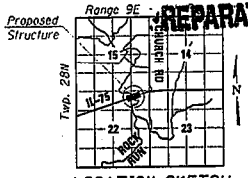


PLAN



PROFILE GRADE
(Along ℄ Roadway)

APPROVED
JUL 31 2006
AS A BASIS FOR PREPARATION OF DETAILED PLAN



LOCATION SKETCH

DESIGNED	BLB
CHECKED	WJV
DRAWN	JMT
CHECKED	WJV

ILLINOIS DEPARTMENT OF TRANSPORTATION

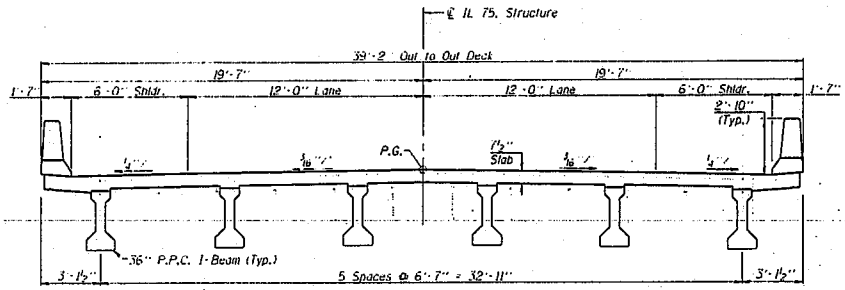
GENERAL PLAN
IL-75 OVER ROCK RUN CREEK
FAP RTE 505 - SECTION 111B
STEPHENSON COUNTY
STATION 10705+38.61
STRUCTURE NO. 089-0084

DATE: 6/23/2005

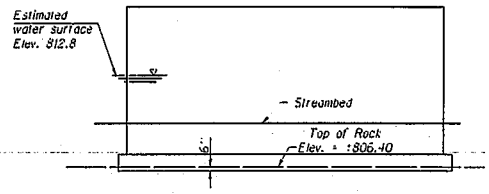
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 505	111B	STEPHENSON		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2
2 SHEETS

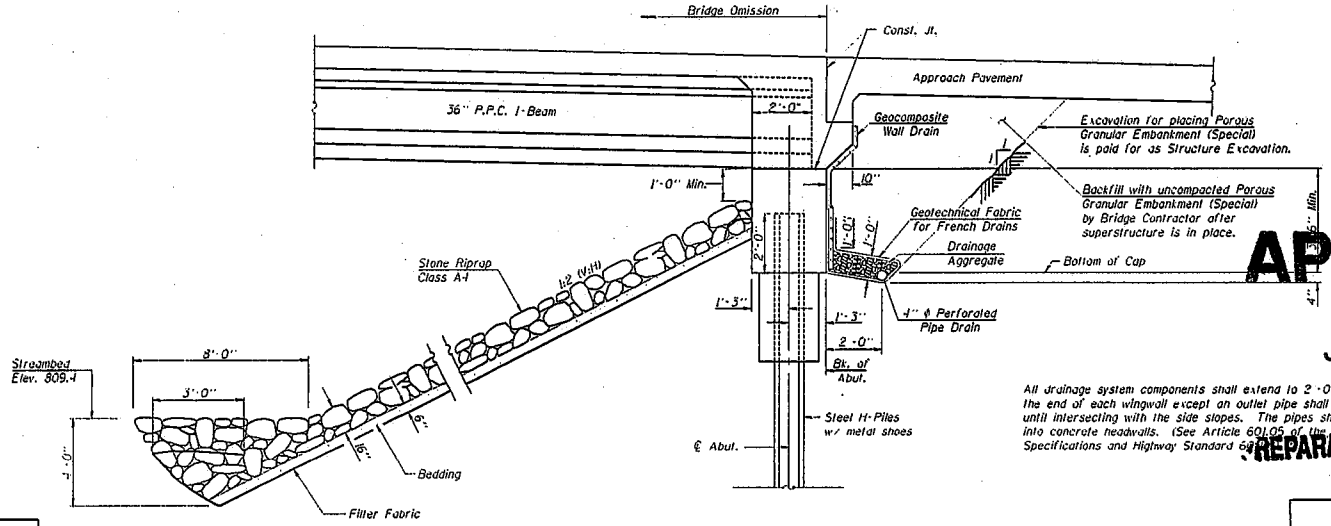
Contract #64970



CROSS SECTION
(Looking East)



SOLID WALL PIER SKETCH



SECTION THRU INTEGRAL ABUTMENT

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 [illegible] into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 6[illegible]

APPROVED
JUL 31 2006
AS A BASIS FOR PREPARATION OF DETAILED PLAN

DESIGNED	BLB
CHECKED	WJV
DRAWN	JMT
CHECKED	WJV

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS
IL - 75 OVER ROCK RUN CREEK
FAP RTE 505 - SECTION 111B
STEPHENSON COUNTY
STATION 10705+38.61
STRUCTURE NO. 089-0084

DATE: 6/23/2006