BENCHMARK: #1-Chiseled square on wing wall at NE corner bridge on northbound lane of I-39. Elevation taken from Idot Bridge Plans, Elev. 649.14.

EXISTING STRUCTURE: SN 062-0001 is a single span reinforced concrete T-Beam structure supported on closed abutments. The structure has no skew. The structure was built in 1924 and was widened in 1956. The bridge is 33'-0" bk.-bk. abuts. and 36'-4" O.-O. deck with 30'-0" clear width between curbs. Existing structure is to be removed. A state route detour will be utilized for construction of the proposed bridge.

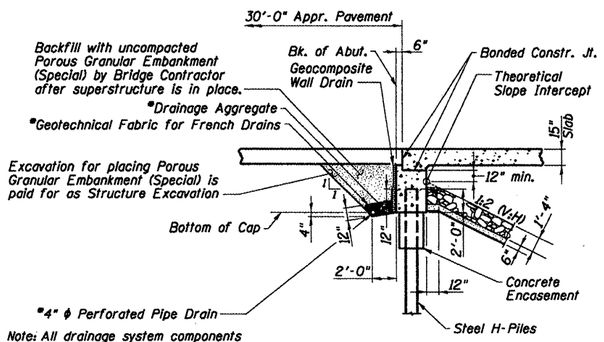
No salvage.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 253	*	MARSHALL	9	45
STA		TO STA		
FED. ROAD DIST. NO. *		ILLINOIS	FED. AID PROJECT-	
*68(BR,BR-1)		DWG. NO. 1 OF 9		

CONTRACT NO. 68573

STRUCTURE INDEX OF SHEETS

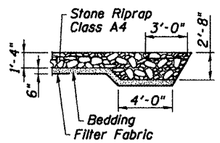
General Plan	Dwg. No. 1 of 9
General Data	Dwg. No. 2 of 9
Top of Slab Elevations	Dwg. No. 3 of 9
Superstructure	Dwg. No. 4 Of 9
Superstructure Details	Dwg. No. 5-6 of 9
Abutments	Dwg. No. 7 of 9
Piers	Dwg. No. 8 of 9
Soil Borings	Dwg. No. 9 of 9



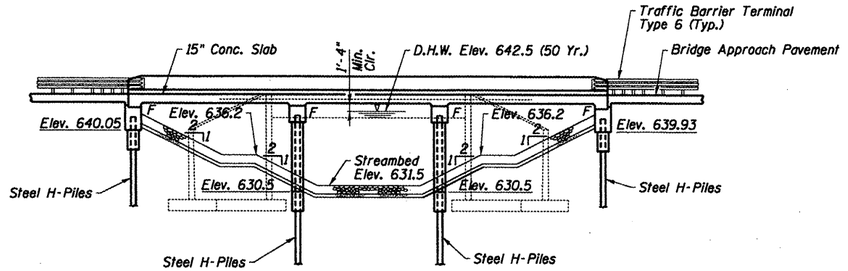
SECTION THRU INTEGRAL ABUTMENT

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 pipe shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)."

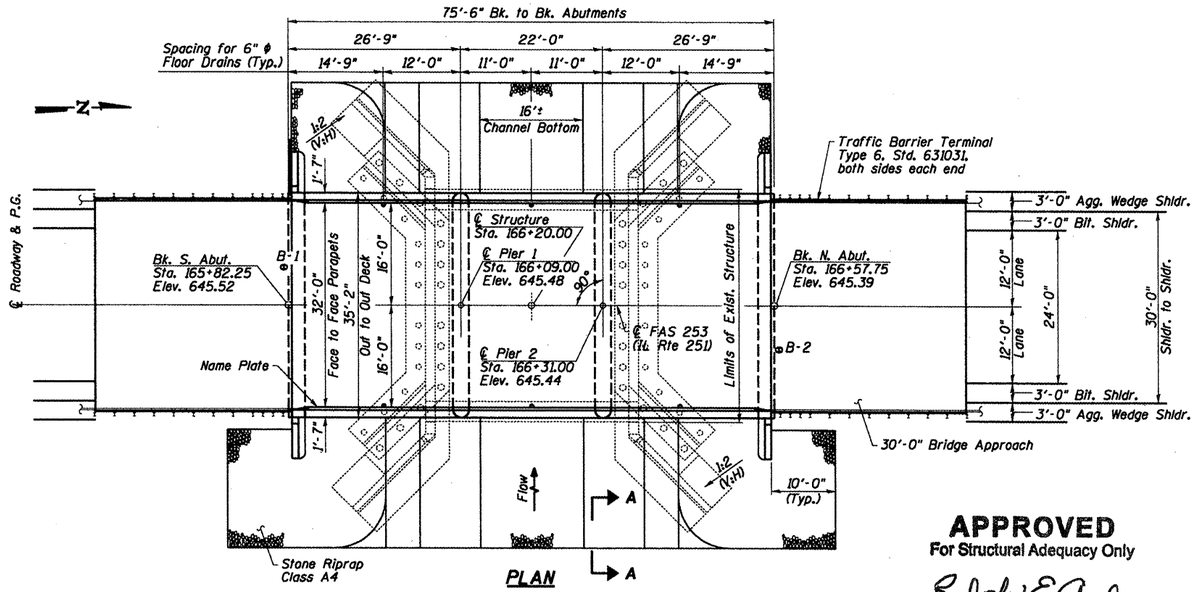
* Included in the cost of Pipe Underdrains for Structures



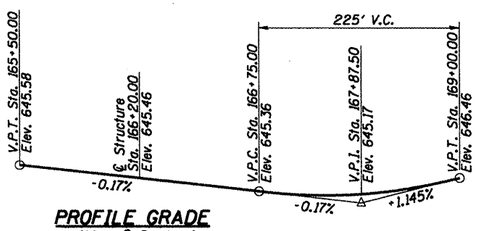
SECTION A-A



ELEVATION



PLAN



PROFILE GRADE

(Along ℄ Roadway)

DESIGN SCOUR ELEVATION TABLE

S. Abut.	Pier 1	Pier 2	N. Abut.
640.05	627.50	627.50	639.93

WATERWAY INFORMATION

Drainage Area = 9.9 Sq. Mi.
Exist. Low Grade Elev. = 644.50 Ft. @ Sta. 166+00
Prop. Low Grade Elev. = 645.34 Ft. @ Sta. 167+04

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.
Design	50	2060	269	440	642.5	1.1	0.0	643.6	642.5
Base	100	2365	269	469	643.0	1.5	0.0	644.5	643.0
Overtopping	100	2365	269	-	643.0	1.5	0.0	644.5	-
Max. Calc.	500	3065	269	523	643.9	1.3	0.0	645.2	643.9

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50 psf for future wearing surface.

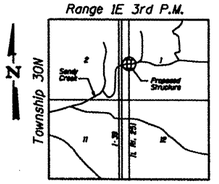
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0



LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Ralph E Anderson
Engineer of Bridges & Structures

STATE OF ILLINOIS · RICHARD D. PAYNE · No. 4647 · LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-06
SIGNATURE
03-31-06
DATE

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	11/05
DRAWN BY:	DWH	11/05
CHECKED BY:	ELH	05/06
APPROVED BY:	RDP	05/06

GENERAL PLAN
IL ROUTE 251 OVER SANDY CREEK
FAS ROUTE 253 - SECTION 68(BR,BR-1)
MARSHALL COUNTY
STATION 166+20
STRUCTURE NO. 062-0071