

Bench Mark: Brass disk stamped V-25, Top of SE wingwall
Elev. 624.60

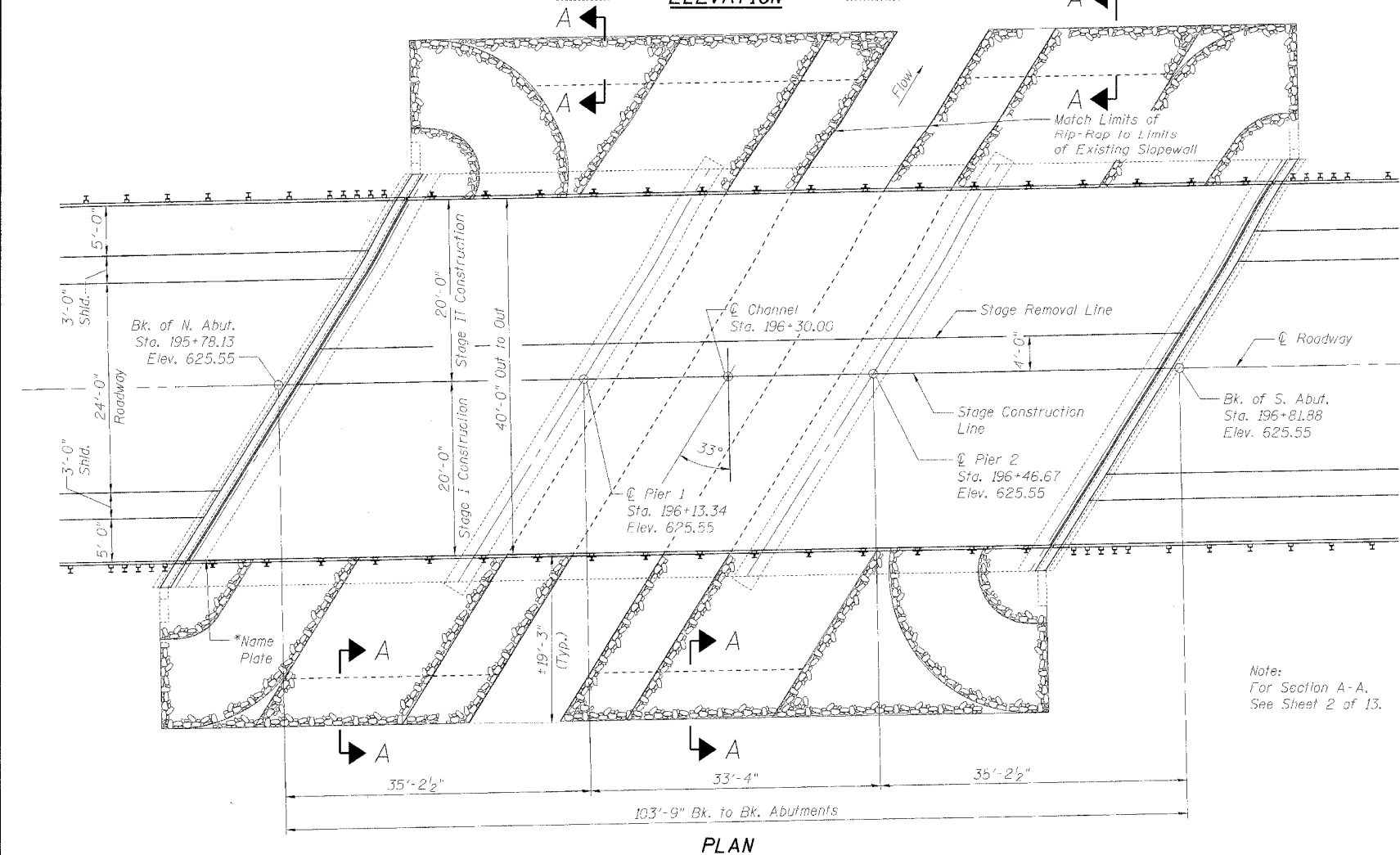
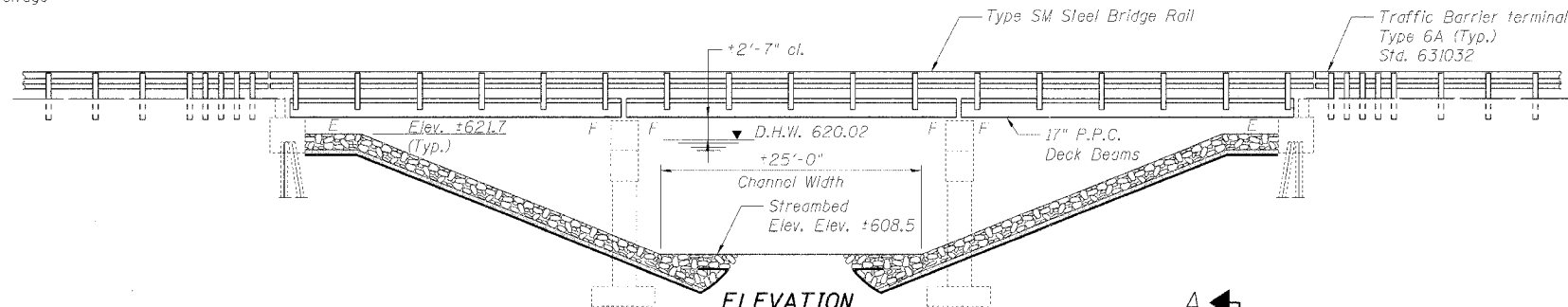
Existing Structure: S.N. 046-0070, three span, 103'-9" back to back of abutments, 46'-0" Out to Out.
Precast, Prestressed Concrete Deck Beams on Open Pile Bent Abutments and Solid
Wall Hammerhead Piers. Built as S.B.I. Route 49, Section 139 BR in 1971
Traffic to be maintained utilizing stage construction.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 1
F.A.P. 840	139 BR-1	KANKAKEE	69 17	13 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543



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DESIGN STRESSES

FIELD UNITS

- $f'_c = 3,500$ psi
- $f'_c = 5,000$ psi (concrete wearing surface)
- $f_y = 36,000$ psi (structural steel)
- $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

- $f'_c = 5,000$ psi
- $f'_ci = 4,000$ psi
- $f'_s = 270,000$ psi ($1/2$ " ϕ Low Lax Strands)
- $f'_{si} = 202,000$ psi ($1/2$ " ϕ Low Lax Strands)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

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

STATION 196+30
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. 840 SEC. 139 BR-1
LOADING HS 20
STR. NO. 046-0070

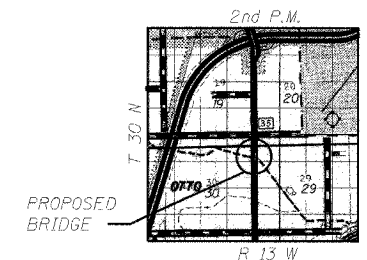
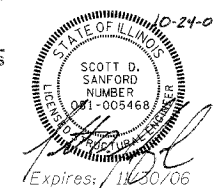
NAME PLATE
See Std. 515001

Attach to backside of 8" rail element

* Existing Name Plate shall be removed, cleaned and reattached adjacent to the new name plate. Cost included with "Name Plates".

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US ROUTE 45/52 OVER MINNIE CREEK
F.A.P. 840 SEC. 139 BR-1
KANKAKEE COUNTY
STATION 196+30.00
STRUCTURE NO. 046-0070

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.



WATERWAY INFORMATION

Drainage Area = 19.44 Sq. Mi. Low Grade Elev. = 623.43 feet @ Sta. 206+00

Flood	Freq. Yr.	Q C.F.S.		Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
		Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	2266	466	466	621.02	0.46	0.46	621.48	621.48		
Base	100	2564	472	472	621.12	0.57	0.57	621.69	621.69		
Overlapping											
Max. Calc.	500	3258	497	497	621.50	0.84	0.84	622.34	622.34		