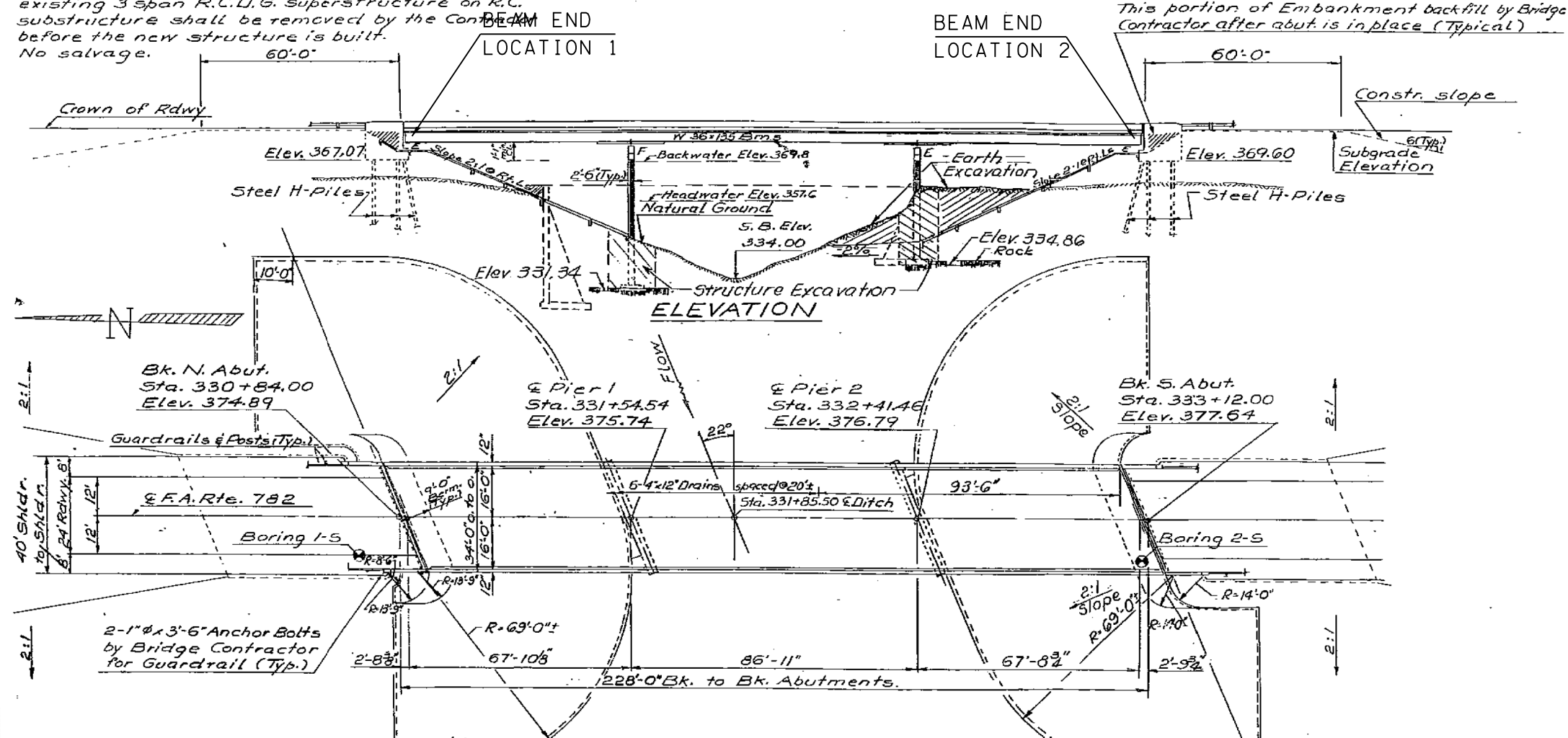


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. /
A.A.L. P.A. 782	113-1B-1	Gallatin	74	21	12 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

B.M.: R.R. Spike in Power Pole 39' Left Sta. 337+56
Elev. 360.71.
Existing Structure: #030-0005 Built as S.B.I.
Rte. 140, Sec. 113-B, at Sta. 331+85 in 1931. The
existing 3 span R.C.D.G. superstructure on R.C.
substructure shall be removed by the Contractor
before the new structure is built.
No salvage.



GENERAL NOTES

Fasteners shall be high strength bolts. Bolts 3/8"; open holes 1/2", unless otherwise noted.
Calculated weight of Structural Steel = 177,910 lbs.
All structural steel shall be AASHTO: M 222 unpainted except expansion joint angles and attached bars which shall be AASHTO: M 183 and shop painted with two coats of basic lead silico chromate paint.
Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
Anchor bolts shall be set before bolting diaphragms over supports.
Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 50# per 100 sq. ft.
Layout of slope walls may be varied in the field to suit ground conditions as directed by the Engineer.
The Contractor shall drive one test pile in a permanent location of the North Abut. as directed by the Engineer before ordering the remainder of piles.
Protective Coat shall be applied in accordance with Art. 503.12 of Standard Specifications.
Reinf. bars shall conform to the requirements of AASHTO M 31 Grade 60.
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the tension flanges, webs and all splice plate material of the steel girders or wide flange beams.
For Boring Data see Proposal.

STATION 331+85.50
BUILT 197 BY
STATE OF ILLINOIS
F.A. RT. 782 SEC. 113-1B-1

LOADING H520
*STR. NO. 030-0005
NAME PLATE
See Std. 2113
*Structure number to be
supplied by District.

Sta. Equation:
Sta. 330+00.00 Back +
Sta. 330+02.30 Ahead +1.207%
Elev. 373.904
Sta. Increase

PLAN

No. Abut only

Elev. 369.21 No. Abut.
Elev. 371.89 So. Abut.

TOTAL BILL OF MATERIALS

Item	Unit	Super	Sub	Total
Class X Concrete	Cu. Yds.	2361	2470	4831
Reinforcement Bars	Lbs.	25940	34470	60410
Structural Steel	L.S.			L.S.
Steel Piles (Steel HP 10x42)	Lin. Ft.		786	786
Test Piles (Steel HP 10x42)	Each		1	1
Slope Wall (6')	Sq. Yds.		2870	2870
Preformed Joint Sealer (2 1/2")	Lin. Ft.	37		37
Neoprene Expansion Joint (2")	Lin. Ft.	38		38
Structure Excavation	Cu. Yds.		395	395
Name Plate	Each		1	1
Protective Coat	Sq. Yds.	972		972
Stud Shear Connectors	Each	2985		2985
Reinforcement Bars (epoxy coated)	Lbs.	35,570		35,570
Removal of Existing Structures	Each		1	1
Rock Excavation	Cu. Yds.		8	8

WATERWAY INFORMATION

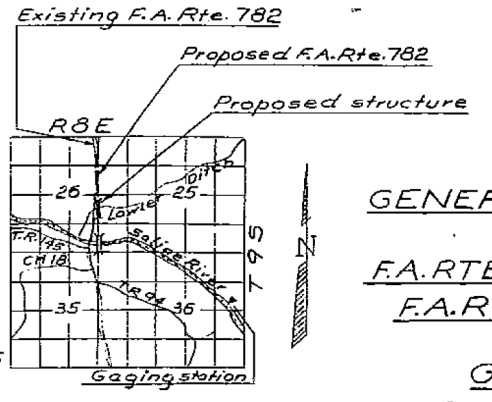
	Lawler Ditch	Saline River	Both Structures
Drainage Area	3.32 ^{mi}	1022 ^{mi}	1025.32 ^{mi}
Required Opening	1690 ^{ft}	8190 ^{ft}	9,880 ^{ft}
Proposed Opening	1690 ^{ft}	8190 ^{ft}	9,880 ^{ft}
Headwater Elev. (20)	357.6	357.6	357.6
Q(50)	6046 c.f.s.	36154 c.f.s.	42,200 c.f.s.
Headwater Elev. (100)	359.4	359.4	359.4
Q(100)	7013 c.f.s.	44687 c.f.s.	51,700 c.f.s.
Backwater Elev. (50) Created Head	369.8	369.8	369.8
Backwater Elev. (100) Created Head	372.4	372.4	372.4
			0.23'

DESIGN STRESSES

$f_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinf.)}$
 $f_s = 27,000 \text{ psi (Struct.)}$
 $n = 8.5$

Allow 25 #/a' for Future W.S.

Design Specifications: 1973 AASHTO, 1974, 1975 and 1976 Interim Specifications
**Epoxy Coated Reinf. Bars shall be used in the top layer of the slab.



GENERAL PLAN & ELEVATION

F.A. RTE. 782 OVER LAWLER DITCH
F.A. RTE. 782 SECTION 113-1B-1

PROF. PROFILE F.A. RTE. 782
(@ Rdwy.)

DESIGNED: Dominic A. DeLuna
CHECKED: [Signature]
DRAWN: F.M.
CHECKED: [Signature]

APPROVED: [Signature]