

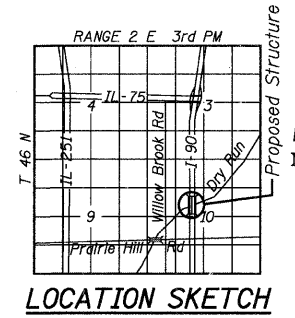
Benchmark: Cut square at N.W. corner of bridge in S.B. lane of FAI-90 Elev. 778.39.

Existing Structures: S.N. 101-0001 S.B. S.N. 101-0002 N.B. and Built in 1959 as F.A.I. Rte. 1 Sec X2-1B at Sta. 73+19.20. Existing dual structures each consist of a 3-span reinforced concrete deck on continuous steel WF beams supported by spill-thru abutments and solid wall piers. 136'-9 1/2" Bk. to Bk. abutments. S.B. structure width varies 51'-7 1/4" to 54'-3 3/8" out-to-out deck. N.B. structure is 44'-5" out-to-out deck. Structures to be removed and replaced in stages. Traffic to be maintained utilizing crossovers.

No Salvage.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Structure No.	N. Abut.	Pier 1	Pier 2	S. Abut.
	S.N. 101-0193	769.84	752.40	755.40	770.60
	S.N. 101-0194	769.82	752.40	755.40	770.58

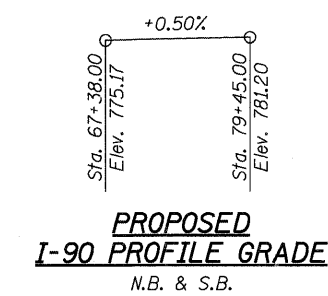


LOCATION SKETCH

STATION 73+21.50
BUILT BY
STATE OF ILLINOIS
F.A.I. RTE 90 SEC (X2-1)R
LOADING HL-93
STRUCTURE NO. 101-0193

STATION 73+21.50
BUILT BY
STATE OF ILLINOIS
F.A.I. RTE 90 SEC (X2-1)R
LOADING HL-93
STRUCTURE NO. 101-0194

NAME PLATES
See Std. 515001



PROPOSED I-90 PROFILE GRADE
N.B. & S.B.

INDEX OF BRIDGE SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES & BILL OF MATERIAL
- 3 STAGE CONSTRUCTION DETAILS
- 4 TOP OF DECK ELEVATION PLAN N.B.
- 5 TOP OF DECK ELEVATIONS N.B. BEAMS 1-5
- 6 TOP OF DECK ELEVATIONS N.B. BEAMS 6-8
- 7 TOP OF DECK ELEVATION PLAN S.B.
- 8 TOP OF DECK ELEVATIONS S.B. BEAMS 9-13
- 9 TOP OF DECK ELEVATIONS S.B. BEAMS 14-17
- 10 TOP OF NORTHEAST APPROACH SLAB ELEVATIONS
- 11 TOP OF SOUTHWEST APPROACH SLAB ELEVATIONS
- 12 TOP OF NORTHWEST APPROACH SLAB ELEVATIONS
- 13 TOP OF SOUTHWEST APPROACH SLAB ELEVATIONS
- 14 SUPERSTRUCTURE, NORTHBOUND
- 15 SUPERSTRUCTURE DETAILS, N.B.
- 16 SUPERSTRUCTURE, SOUTHBOUND
- 17 SUPERSTRUCTURE DETAILS S.B.
- 18 MEDIAN PARAPET DETAILS
- 19 BRIDGE APPROACH SLAB DETAILS N.E. (1 of 2)
- 20 BRIDGE APPROACH SLAB DETAILS N.E. (2 of 2)
- 21 BRIDGE APPROACH SLAB DETAILS S.E. (1 of 2)
- 22 BRIDGE APPROACH SLAB DETAILS S.E. (2 of 2)
- 23 BRIDGE APPROACH SLAB DETAILS N.W. (1 of 2)
- 24 BRIDGE APPROACH SLAB DETAILS N.W. (2 of 2)
- 25 BRIDGE APPROACH SLAB DETAILS S.W. (1 of 2)
- 26 BRIDGE APPROACH SLAB DETAILS S.W. (2 of 2)
- 27 DIAPHRAGM DETAILS N.B.
- 28 DIAPHRAGM DETAILS S.B.
- 29 BEARING DETAILS
- 30 FRAMING PLAN N.B.
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- 45 SOIL BORING LOGS III
- 46 SOIL BORING LOGS IV
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- 48 SOIL BORING LOGS VI

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications 5th Edition

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

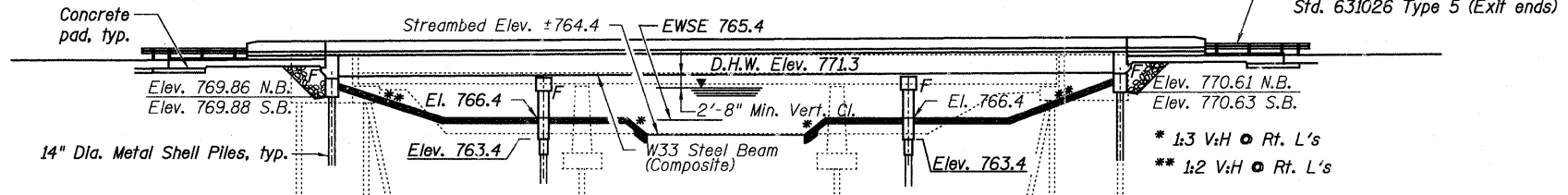
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S₁) = 0.074g
Design Spectral Acceleration at 0.2 sec. (S_{0.2}) = 0.121g
Soil Site Class = D

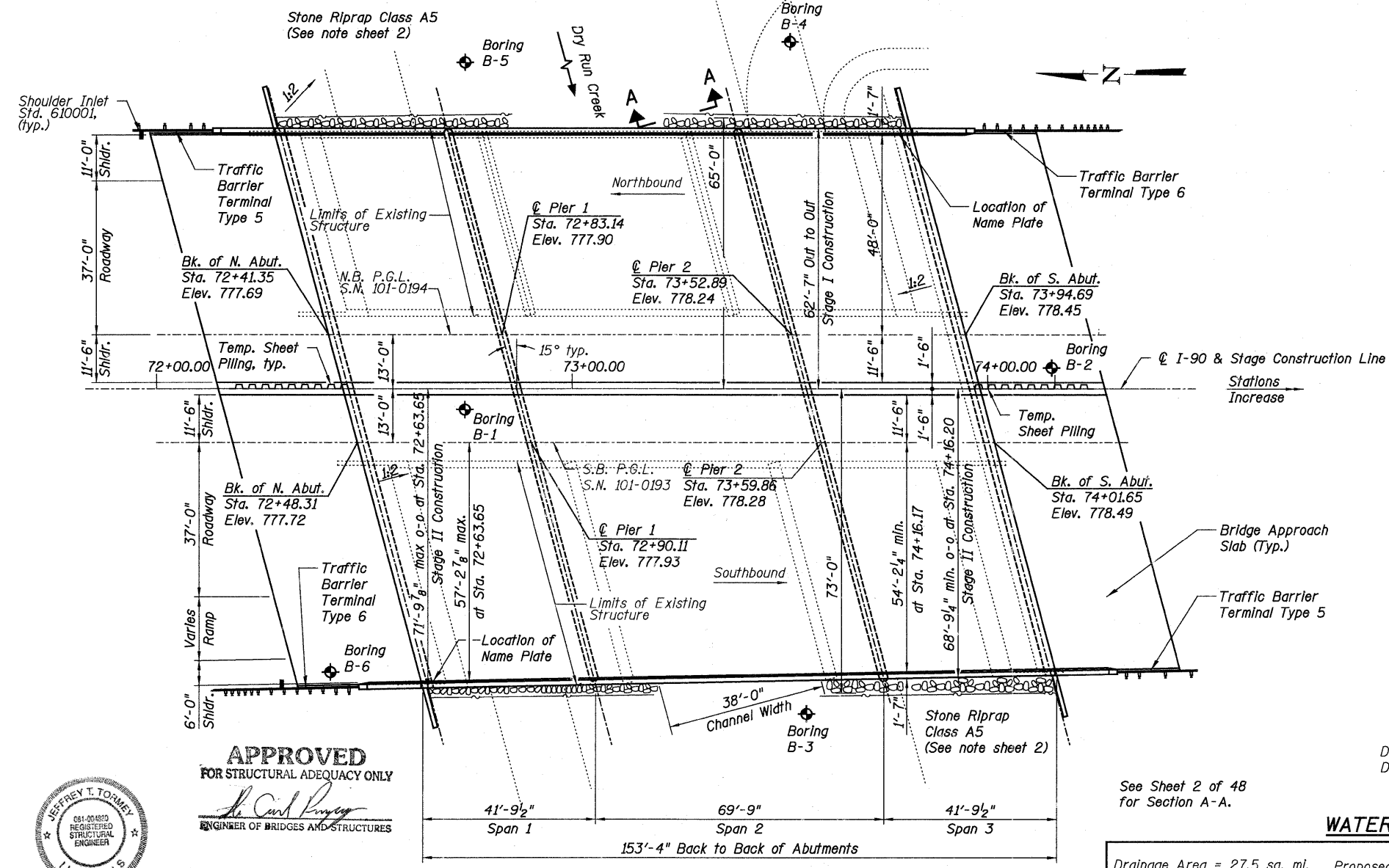
WATERWAY INFORMATION

Drainage Area = 27.5 sq. mi. Proposed Low Grade Elevation: 775.35 ft. @ Sta. 66+44.25

Flood	Freq Yr	Q C.F.S	Opening (sq ft)		Natural Head (ft)		Headwater Elev. (ft)		
			Exlst.	Prop.	H.W.E.	Exlst.	Prop.	Exlst.	Prop.
Ten-Yr	10	2520	439	514	770.4	0.8	0.4	771.2	770.8
Design	50	4030	538	620	771.3	1.4	0.8	772.7	772.1
Base	100	4720	573	657	771.6	2.2	1.1	773.8	772.7
QVT(E)	422	6211	648	--	772.2	2.4	--	774.6	--
Max	500	6430	660	742	772.3	2.5	2.0	774.8	774.3

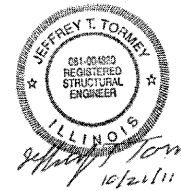


ELEVATION



PLAN

APPROVED FOR STRUCTURAL ADEQUACY ONLY



JEFFREY T. TORREY
IL REGISTRATION #081-004880
EXPIRATION DATE 11/30/12

Signature of Jeffrey T. Torrey
ENGINEER OF BRIDGES AND STRUCTURES

See Sheet 2 of 48 for Section A-A.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 101-0193 S.B. & 101-0194 N.B.

BRIDGE SHEET NO. 1 OF 48 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(X2-1)R	WINNEBAGO	510	346
CONTRACT NO. 64C29				

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7282 Argus Drive
(815) 395-2332
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USER NAME =	DESIGNED - JTT	REVISED -
PLOT SCALE =	CHECKED - VAC	REVISED -
PLOT DATE =	DRAWN - JBB	REVISED -
	CHECKED - JTT	REVISED -