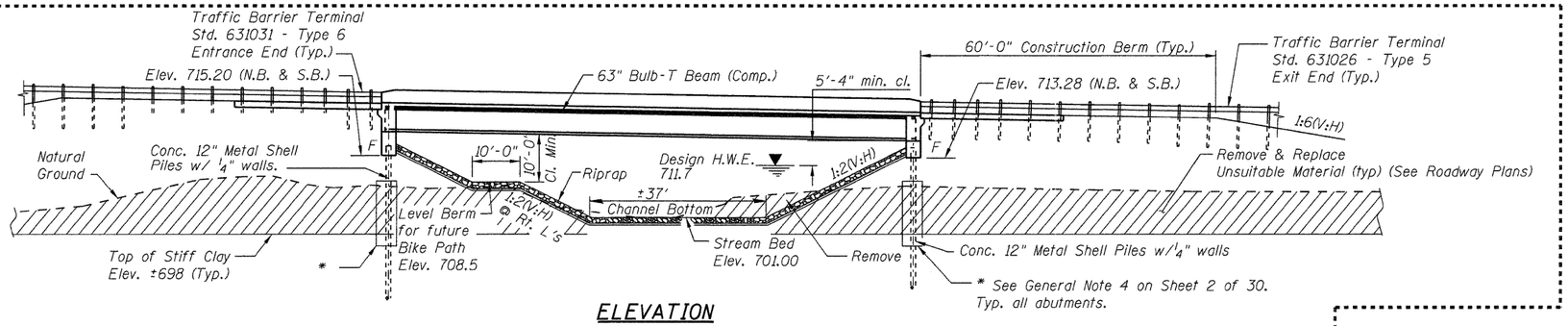
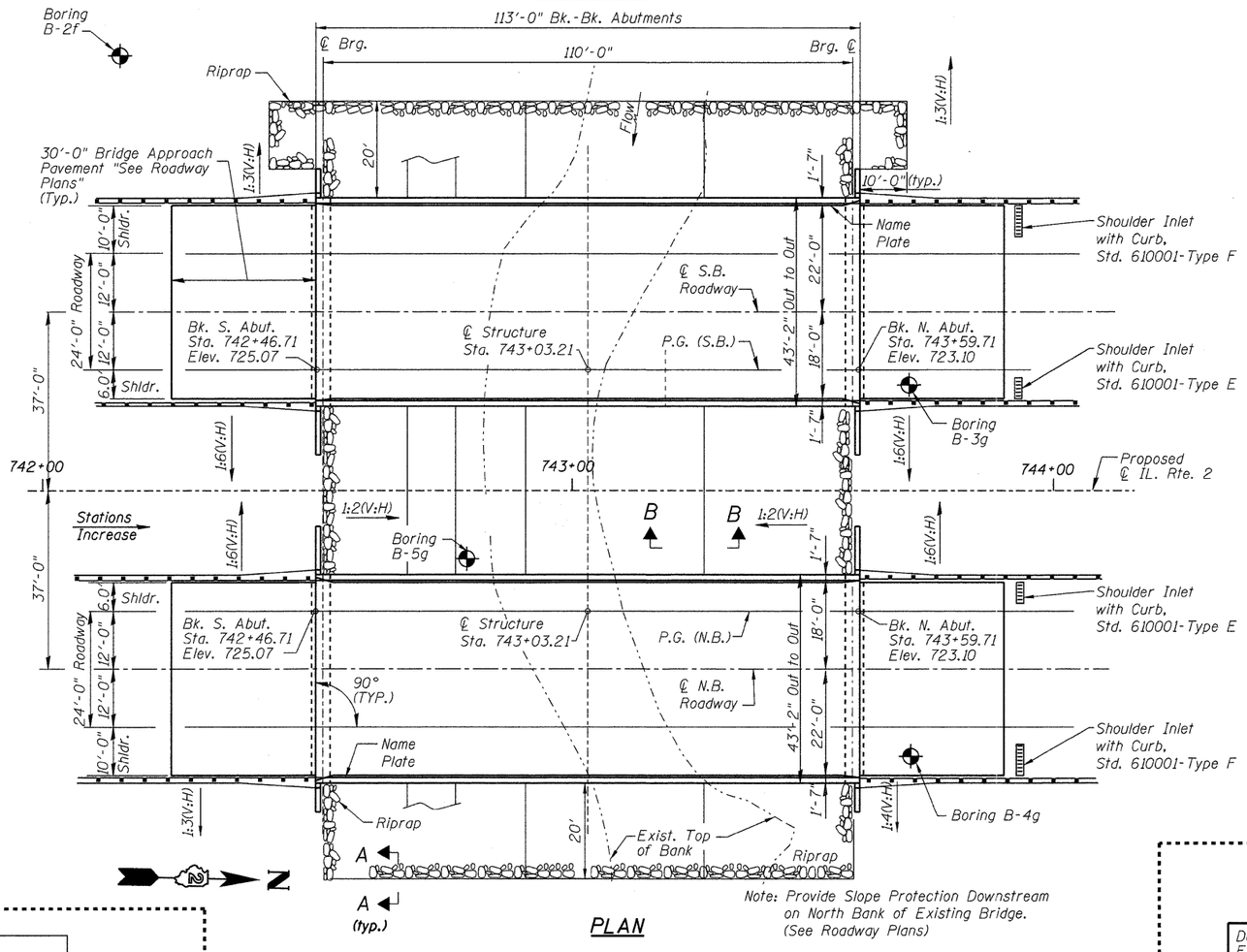
Bench Mark: N.W. corner of abutment seat of bridge on existing Il. Rte. 2 alignment. Sta. 743+39, 137' Rt. Elevation 715.17

Exisitng Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN

Note: Provide Slope Protection Downstream on North Bank of Existing Bridge. (See Roadway Plans)

See Sheets 27 and 28 for Sections A-A and B-B

DESIGNED	JAN
CHECKED	JAW
DRAWN	BTO
CHECKED	JAW

STATION 743+03.21
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 734 SEC. 77-2B-1
WINNEBAGO COUNTY
LOADING HS20
STR. NO. 101-0177

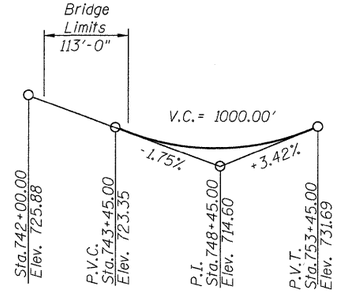
NAME PLATE (S.B.)

See Std. 515001

STATION 743+03.21
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 734 SEC. 77-2B-1
WINNEBAGO COUNTY
LOADING HS20
STR. NO. 101-0178

NAME PLATE (N.B.)

See Std. 515001



PROFILE GRADE

DESIGN SPECIFICATIONS

2002 AASHTO Standard Spec. (17th Edition)

LOADING HS20-44

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.5%
Site Coefficient (S) = 1.2

1

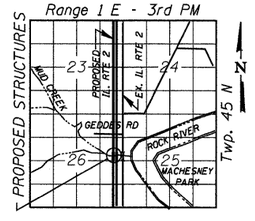
DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (Reinf.)

PRECAST UNITS
f'_s = 270,000 psi (1/2" ϕ Low Relax. Strands)
f_{si} = 201,960 psi (1/2" ϕ Low Relax. Strands)
f'_c = 6,000 psi
f'_{ci} = 5,000 psi

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
JOHN A. NEU
81-004960
6/1/2011
OAK PARK
LICENSED STRUCTURAL ENGINEER
LICENSE EXPIRES
11/30/2011



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 6.66 Sq. Mi. Proposed Low Grade Elev. 720.00 ft. ℄ Sta.747+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural High Water El.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Ten-Year	10	1114	N/A	639	711.5	N/A	0.1	N/A	711.6
Design	50	1702	N/A	656	711.7	N/A	0.3	N/A	712.0
Base	100	1947	N/A	674	711.9	N/A	0.4	N/A	712.3
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	2525	N/A	702	712.2	N/A	0.5	N/A	712.7

10-Year Velocity through Existing Bridge= N/A 10-Year Velocity through Proposed Bridge= 1.8 fps

DESIGN SCOUR TABLE

Design Scour Elevation	S. Abut.	N. Abut.
	715.2	713.3

1 Revised 6/1/2011, JAN

GENERAL PLAN
IL RT. 2 OVER MUD CREEK (PUBLIC WATER)
F.A.P. ROUTE 734 SEC. 77-2B-1
WINNEBAGO COUNTY
STRUCTURE NO. 101-0177 & 101-0178

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30 SHEETS	734	77-2B-1, 77-2-2	WINNEBAGO	530	273
			CONTRACT NO. 64813		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		