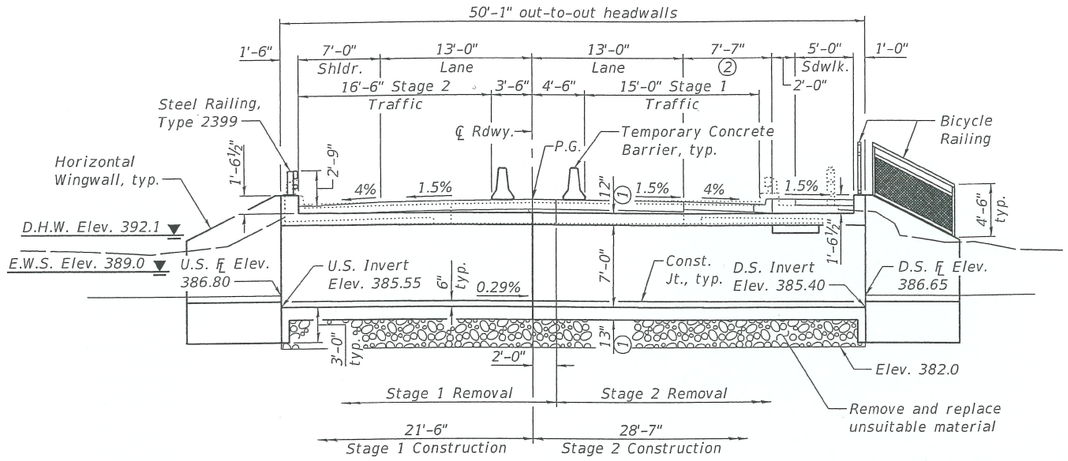
Bench Mark: BM "A" – RR spike in light pole at the Southeast quadrant of US–51 and Kimmel Road, Sta. 640+18.43, 26.25' Rt., Elev. 396.66.

Existing Structure: S.N. 039–0002 was originally built in 1921 as S.B.I. Route 2, Section 4–B. The structure was widened in kind on both edges in 1954. The structure consists of a single span cast–in–place concrete slab supported by concrete closed abutments founded on spread footings. The back–to–back abutment length is 25'–11½" and the out–to–out deck width is 47'–5". Structure to be removed and replaced.

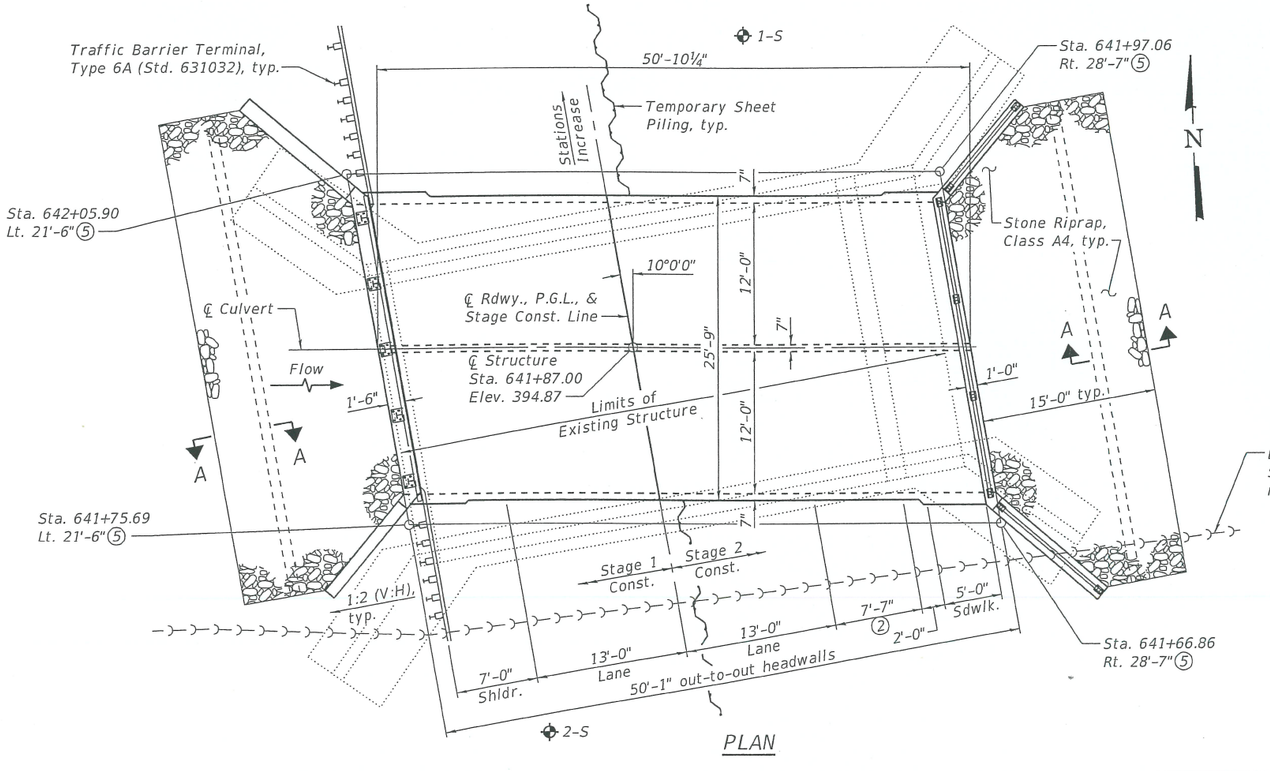
Traffic Control: One traffic lane will be maintained by utilizing staged construction.

Salvage: None.



LONGITUDINAL SECTION

(All horizontal dimensions are at Rt. L's to ℄ Rdwy.)



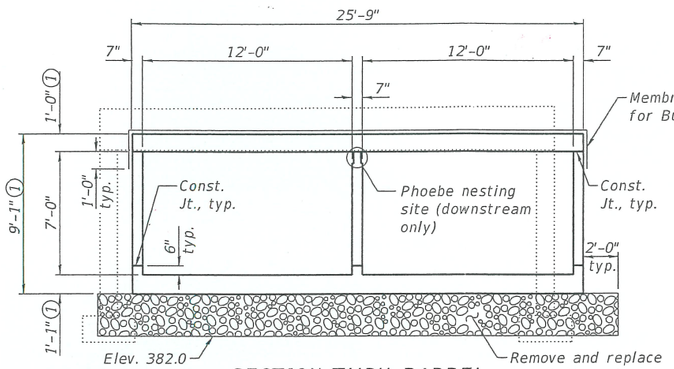
PLAN

WATERWAY INFORMATION

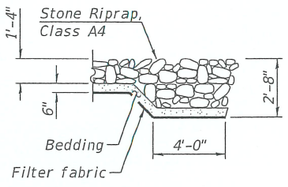
Drainage Area = 1.48 Sq. Mi.

Existing Low Grade Elev. 394.8 @ Sta. 641+50
Proposed Low Grade Elev. 394.8 @ Sta. 641+50

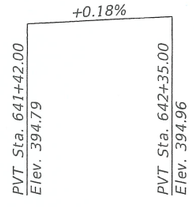
Flood	Freq. Yr.	Discharge C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head – Ft. Exist.	Head – Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	543	83	117	391.7	1.0	0.1	392.7	391.8
Design	50	883	94	128	392.1	2.5	0.7	394.6	392.8
Base	100	1,040	98	132	392.3	2.8	1.0	395.1	393.3
Max. Calc.	500	1,430	105	138	392.6	2.8	2.2	395.4	394.8



SECTION THRU BARREL



SECTION A–A



PROFILE GRADE

(Along ℄ Roadway)

LOADING HL–93

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

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS

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

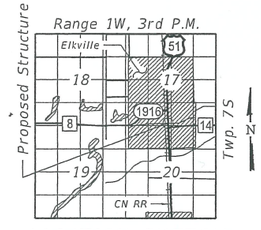
HIGHWAY CLASSIFICATION

F.A.P. Rte. 322 – U.S. Rte. 51
Functional Class: Other Principal Arterial
ADT: 7,450 (2017); 9,090 (2037)
ADTT: 670 (2017); 818 (2037)
DHV: 1,000 (2037)
Design Speed: 40 m.p.h.
Posted Speed: 40 m.p.h.
Two–Way Traffic
Directional Distribution: 50:50

APPROVED

JUN 27 2019

AS A BASIS FOR PREPARATION OF DETAILED PLANS



LOCATION SKETCH

Notes:
① Thickness is subject to refinement during final design.
② 6'–0" shoulder with 1'–7" Curb & Gutter B6.12.
③ Utility coordination to be completed by the District.
④ Precast alternate is not allowed.
⑤ Limits of removal and replacement of unsuitable material.

GENERAL PLAN & ELEVATION
U.S. ROUTE 51 OVER STREAM IN ELKVILLE
F.A.P. RTE. 322 – SEC. 4B–2
JACKSON COUNTY
STATION 641+87.00
STRUCTURE NO. 039–2032

FILE NAME: H:\PR\13042\13042.005\Structural\TSL\Microstation\0392032-78595-General Plan & Elevation.dgn

OATES ASSOCIATES
www.oatesassociates.com
ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

USER NAME =		DESIGNED - KBC	REVISED -
		CHECKED - JAD	REVISED -
PLOT SCALE =		DRAWN - KBC	REVISED -
PLOT DATE =	6/6/2019	CHECKED - JAD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	4B-2	JACKSON		
		CONTRACT NO. 78595		
	ILLINOIS	FED. AID PROJECT		