

LONGITUDINAL SECTION
(Existing not shown for clarity)

Benchmark: Square Cut on Concrete Base of the Street Lighting Cabinet at Northwest Corner of IL Rte. 53 and Southport Ave. Elev. 669.02

Existing Structure: Structure No. 022-0082 was originally built in 1932 as a concrete deck slab bridge. In 1967, the bridge was widened to accommodate one additional traffic lane in each direction. In 1986, the existing structure was rehabilitated a second time. The single span structure consists of cast in place deck slab and P.P.C. deck beams supported on Integral Abutment on piles. The out to out of deck is 65'-4" and the back to back of abutments is 53'-8". Traffic will be maintained utilizing staged construction.

Salvage: None

WATERWAY INFORMATION

Drainage Area = 11.8 sq. mi. Prop. Low Grade Elev. 669.05 feet @ Sta. 99+16.5

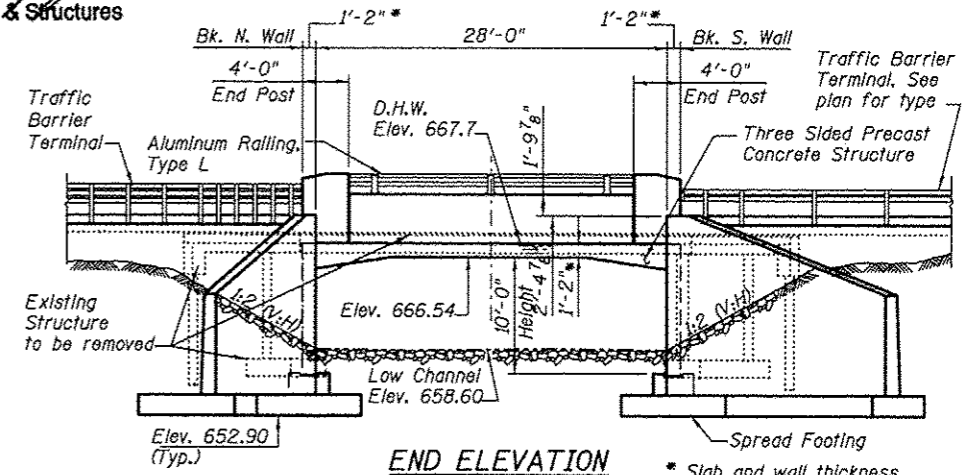
Flood Year	Freq. Q	C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
10	730	187.6	219.5	187.6	666.1	0.2	0.0	666.3	666.1
Design	50	1160	187.6	219.5	667.7	0.7	0.2	668.4	667.9
Base	100	1365	187.6	219.5	668.3	0.9	0.4	669.2	668.7
Overtopping	195	1492	187.6	219.5	668.5	N/A	0.5	N/A	669.0
Max. Calc.	500	1900	187.6	219.5	669.1	1.0	0.8	670.1	669.9

APPROVED
For Structural Adequacy Only

Jixing He
Engineer of Bridges & Structures

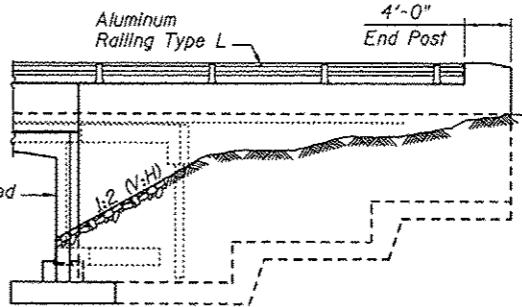
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	South Foundation	North Foundation
	655.1	652.9



END ELEVATION
(Looking East)

* Slab and wall thickness may vary as per manufacturer's design.



NORTHEAST WINGWALL
(Partial Elevation)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

LOADING HS-20

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

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition

DESIGN STRESSES

FIELD UNITS

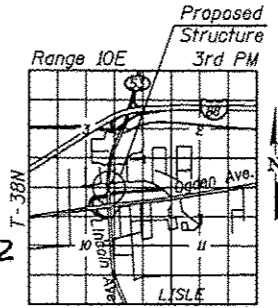
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded wire fabric)

GENERAL PLAN

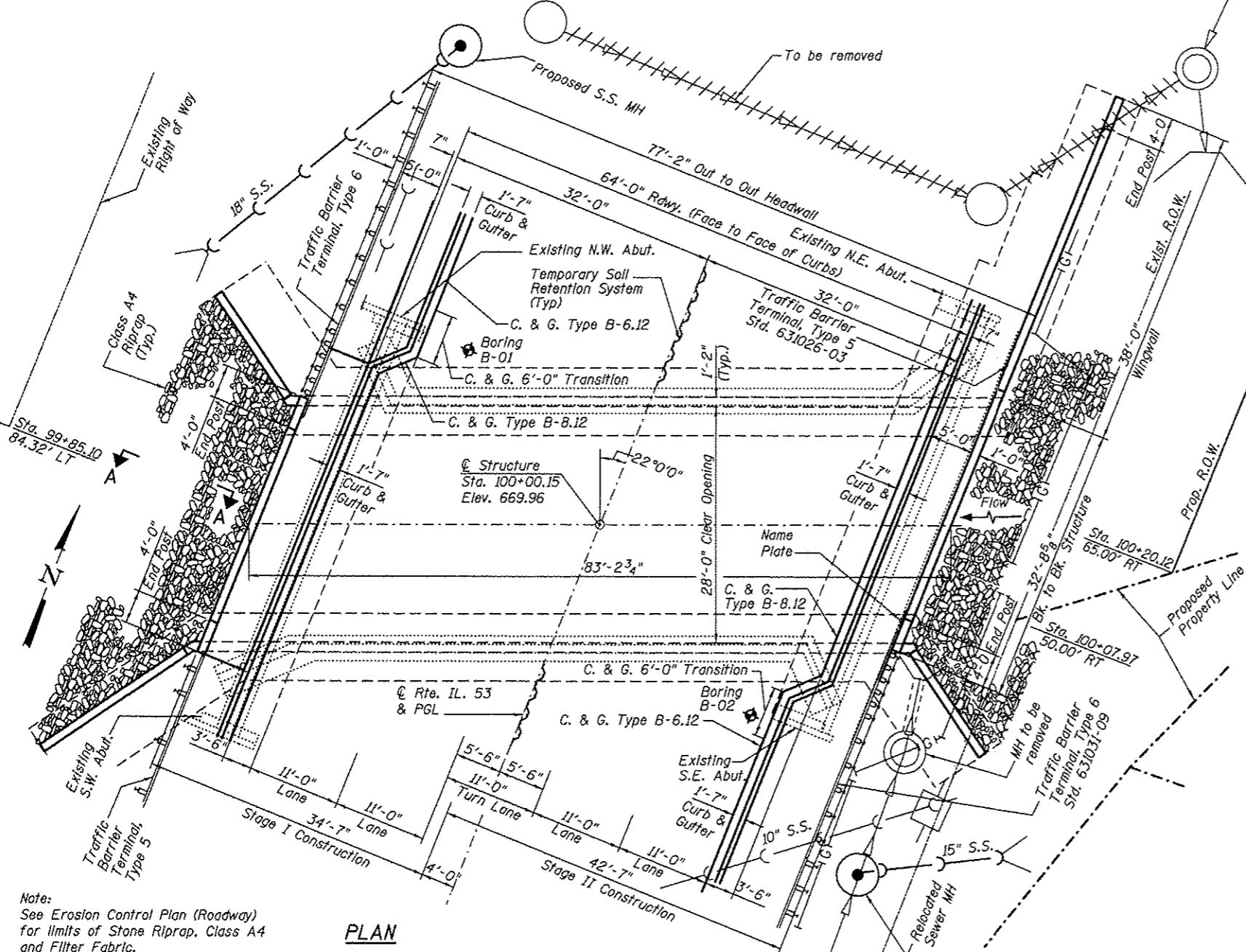
**ILLINOIS ROUTE 53 (LINCOLN AVE.)
OVER ST. JOSEPH'S CREEK
F.A.P. 870 - SEC. 534R-B
DUPAGE COUNTY
STATION 100+00.15
STRUCTURE NO. 022-3054**



LOCATION SKETCH



Jixing He
Jixing He
Licensed Structural Engineer
State of Illinois 081-005253
Expires 11/30/2012



PLAN

Note: See Erosion Control Plan (Roadway) for limits of Stone Riprap, Class A4 and Filter Fabric.



USER NAME #	DESIGNED - JPM	REVISED -
PLOT SCALE #	CHECKED - JXH	REVISED -
PLOT DATE #	DRAWN - MPS	REVISED -
	CHECKED - JPM/JXH/TPG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 022-3054 STA. 100 + 00.15
SHEET NO. OF 513 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534R-B	DUPAGE	53	30

CONTRACT NO. 60MB3
DATE: AUGUST 03, 2012 ILLINOIS FED. AID PROJECT