

Bench Mark: Chiseled "□" top of northwest wingwall, Elev. 522.23

Existing Structure: S.N. 050-0183. The original structure (S.N. 050-0148) was constructed in 1920 as SBI Route 7, Section H and was removed and replaced in 1980 with the current single span 17" PPC Deck Beam bridge as FA Route 623, Section H-BR-1. The substructure consists of closed reinforced concrete abutments supported on spread footings set in rock. The bridge length is 24'-9 1/2" back to back of abutments and the out to out width is 32'-0".

Traffic will be detoured during construction.

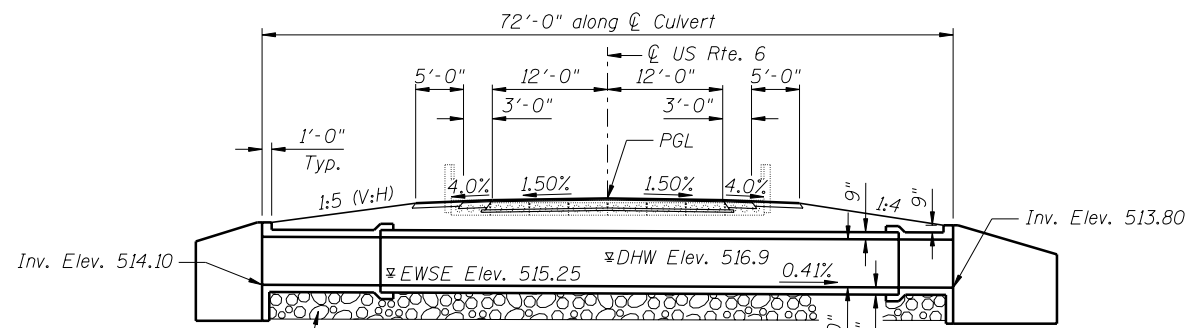
No Salvage.

INDEX OF SHEETS

- S-1 General Plan & Elevation
- S-2 Box Culvert End Sections
- S-3 Culvert Details
- S-4 Soil Borings

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified) of the Standard Specifications and the appropriate requirements of AASHTO M259.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing existing superstructure.
4. Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of ASTM C1577.



Removal and Disposal of Unsuitable Material to be Replaced with Rock Fill. See Section Thru Barrel for Limits, Sheet S-3

LONGITUDINAL SECTION

Dimensions and slopes are perpendicular to roadway unless noted

STATION 238+24
BUILT BY
STATE OF ILLINOIS
F.A. RTE. 623 SEC. (H)BR-1
LOADING HL-93
STRUCTURE NO. 050-2054

NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	146
Removal of Existing Structures	Each	1
Structure Excavation	Cu. Yd.	33
Reinforcement Bars	Pound	8,450
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	55.4
Precast Concrete Box Culverts 9'x5'	Foot	108
Rock Fill	Cu. Yd.	109

LOADING HL-93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD
Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (welded wire fabric)

WATERWAY INFORMATION

Drainage Area = 0.35 sq. mi. Exist. Low Grade Elev. = 521.77 @ Sta. 236+75
Prop. Low Grade Elev. = 521.65 @ Sta. 236+50

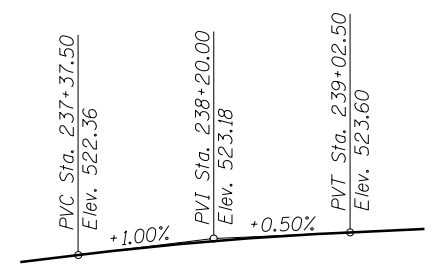
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	161	21	41	516.4	0.7	0.0	517.1	516.4
Base	50	260	30	50	516.9	0.6	0.0	517.5	516.9
Base	100	302	34	53	517.1	0.6	0.0	517.7	517.1
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	407	41	61	517.5	0.8	0.1	518.3	517.6

10-Year Velocity through Existing Bridge = 3.8 fps
10-Year Velocity through Proposed Bridge = 3.6 fps

DESIGN SCOUR

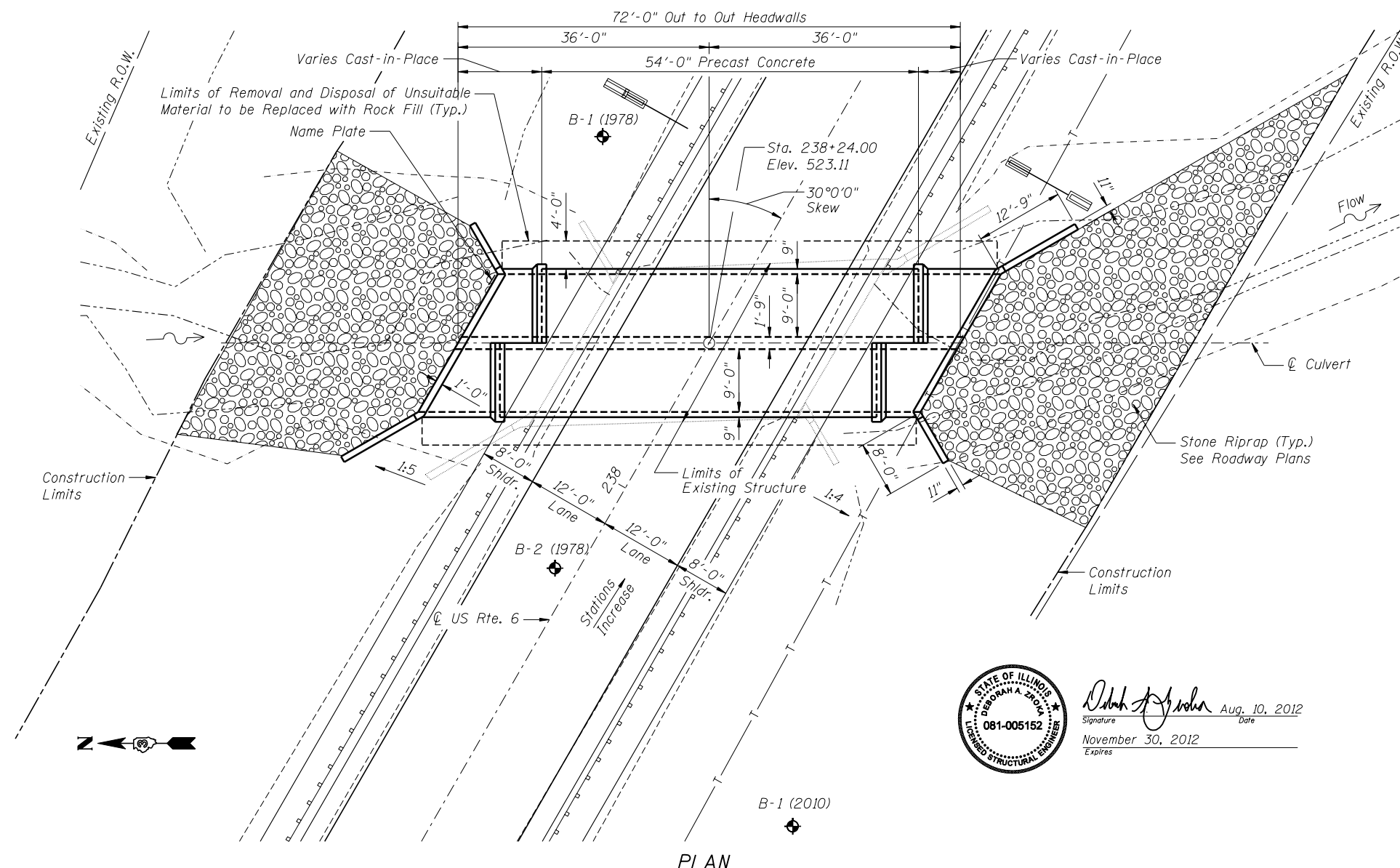
ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	511.10	510.80

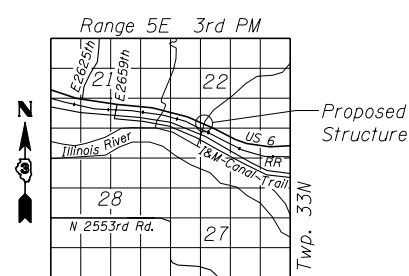


PROFILE GRADE

(along centerline of US Route 6)



PLAN



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US 6 OVER TRIBUTARY OF I&M CANAL
FAP 623 SEC. (H)BR-1
LA SALLE COUNTY
STA. 238+24.00
STRUCTURE NO. 050-2054



Signature: *Deborah A. Zoka* Date: Aug. 10, 2012
November 30, 2012 Expires



USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 0:2.0000 '1" / IN.	CHECKED - DAZ	REVISED -
PLOT DATE = 8/15/2012	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
S.N. 050-2054

SHEET NO. S-1 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	15
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66A13	