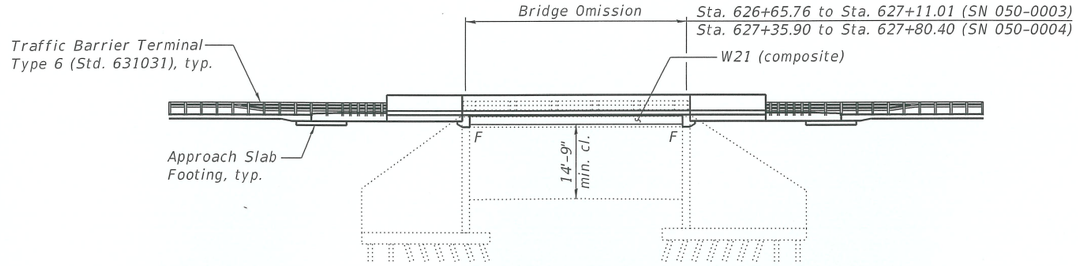
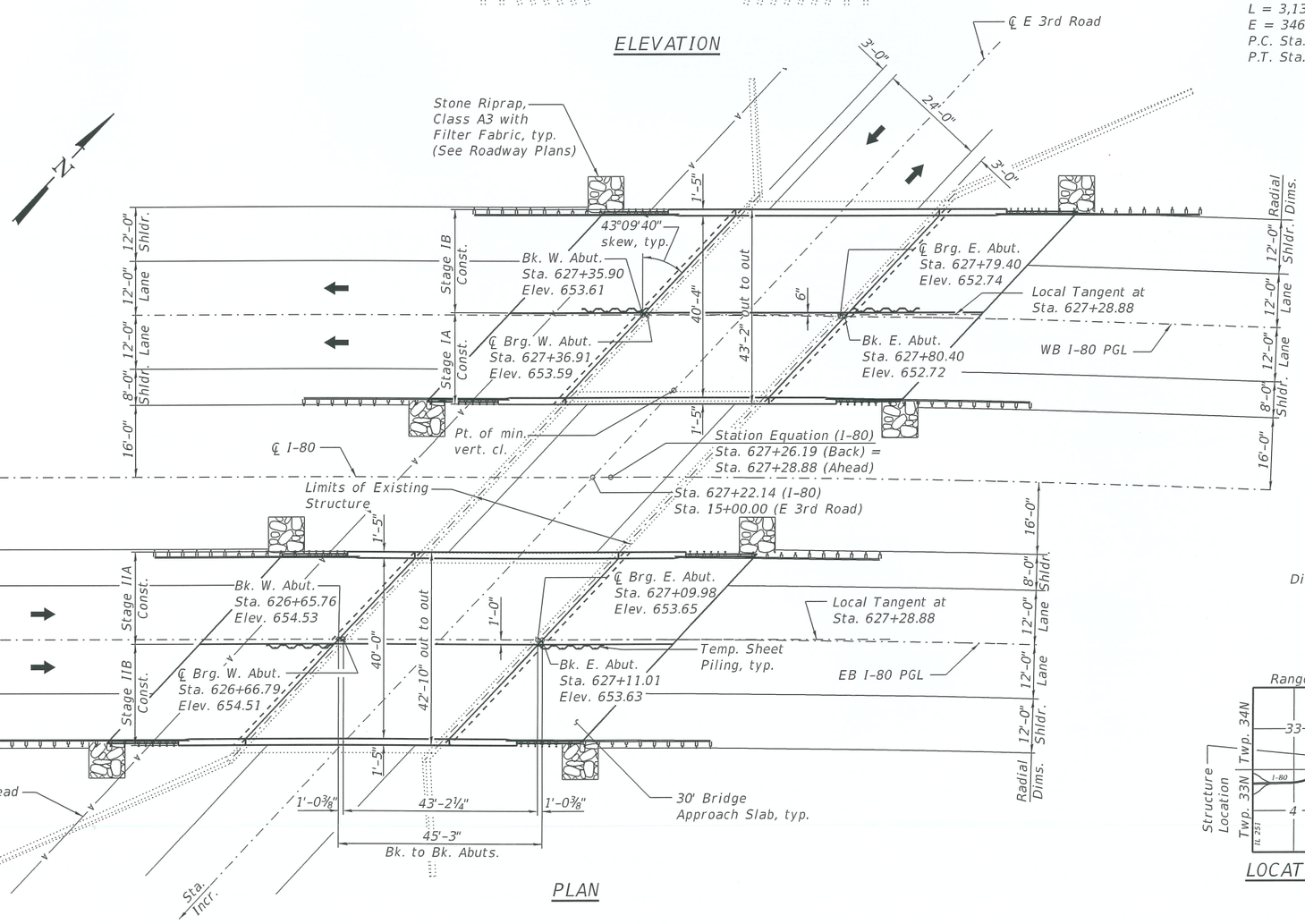
Bench Mark: Cut "□" on top of west median bridge rail of SN 050-0004, I-80 Station 626+99.63, 0.42' Rt, Elev. 655.880.

Existing Structures: SN 050-0003 (EB) and SN 050-0004 (WB), built in 1961 as FAI Route 80, Section 50-2HB-1 at Station 627+23.50. Significant rehabilitation to these structures included longitudinal joint closure in 1996 and placement of a concrete overlay in 2003. The existing dual structures are single span reinforced concrete tee beam superstructures supported on closed abutments restrained top and bottom. 45'-3" back to back abutments, 44'-4" out to out deck with a 43°-09'-40" left ahead skew. Concrete superstructure to be removed and replaced using Stage Construction, while maintaining one lane of thru traffic in each direction at all times, plus additional lane for ramp traffic only.

No Salvage.



ELEVATION



PLAN

SCOPE OF WORK

1. Remove approach slabs and excavate fill behind abutments to a depth of six feet to reduce lateral loading behind abutments.
2. Remove and replace existing superstructure and replace approach slabs utilizing stage construction, while providing protective shield over live traffic.
3. Perform concrete repairs to each abutment as required.

I-80 CURVE DATA

(Exist. Curve 80-SEC50-2_8)

P.I. Sta. = 643+91.28
Δ = 47°-02'-15" (Rt)
D = 1°-30'-00"
R = 3,819.84'
T = 1,662.40'
L = 3,135.93'
E = 346.06'
P.C. Sta. = 627+28.88
P.T. Sta. = 658+64.82

LOADING HL-93

(New Construction)
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

(New Construction)
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS (New Construction)
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (Exist. Construction)
f'c = 3,500 psi
fs = 20,000 psi (Reinforcement)

SEISMIC DATA

(Existing Substructure)
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.0

HIGHWAY CLASSIFICATION

	FAI Route 80	MS 6100A (E 3rd Rd)
Functional Class:	Interstate	Major Collector
ADT:	32,900 (2017); 40,303 (2032)	1,300 (2016); 1,452 (2032)
ADTT:	13,650 (2017); 16,721 (2032)	312 (2016); 348 (2032)
DHV:	2,700 (2032)	145 (2032)
Design Speed:	70 mph	30 mph
Posted Speed:	70 mph	30 mph
Directional Distribution:	Two-Way 50:50	Two-Way 50:50

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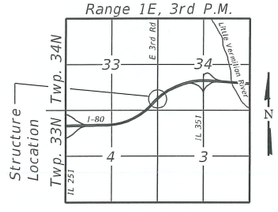

LOCATION SKETCH

GENERAL PLAN & ELEVATION
I-80 OVER E 3RD ROAD (MS 6100A)
F.A.I. RTE. 80 - SEC. (50-2)HBR-1
LASALLE COUNTY
STATION 627+22.14
STRUCTURE NO. 050-0003 (EB)
STRUCTURE NO. 050-0004 (WB)

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Consulting Engineers
Springfield, Illinois

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		CHECKED - VPT	REVISED -		
PLOT SCALE =		DRAWN - DAS	REVISED -		
PLOT DATE =	5/23/2019	CHECKED - MTH	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 3 SHEETS

F.A.I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE		
		CONTRACT NO. 66J69		
	ILLINOIS	FED. AID PROJECT		

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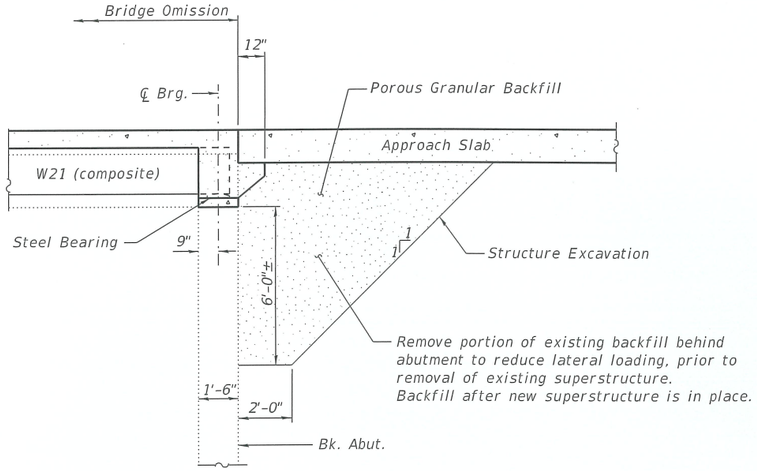
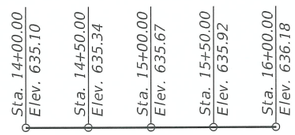


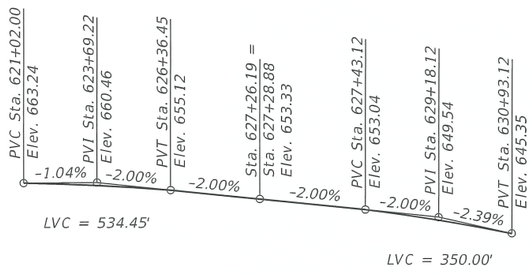
SECTION THRU ABUTMENT

(Horiz. dim. @ Rt. ℄'s)



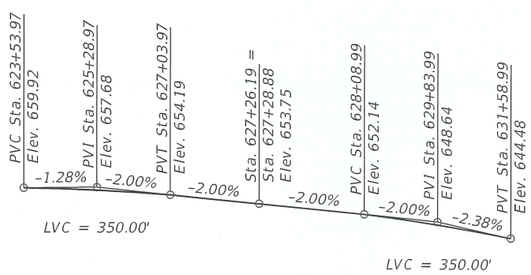
E 3RD RD PROFILE GRADE

(along ℄ roadway)



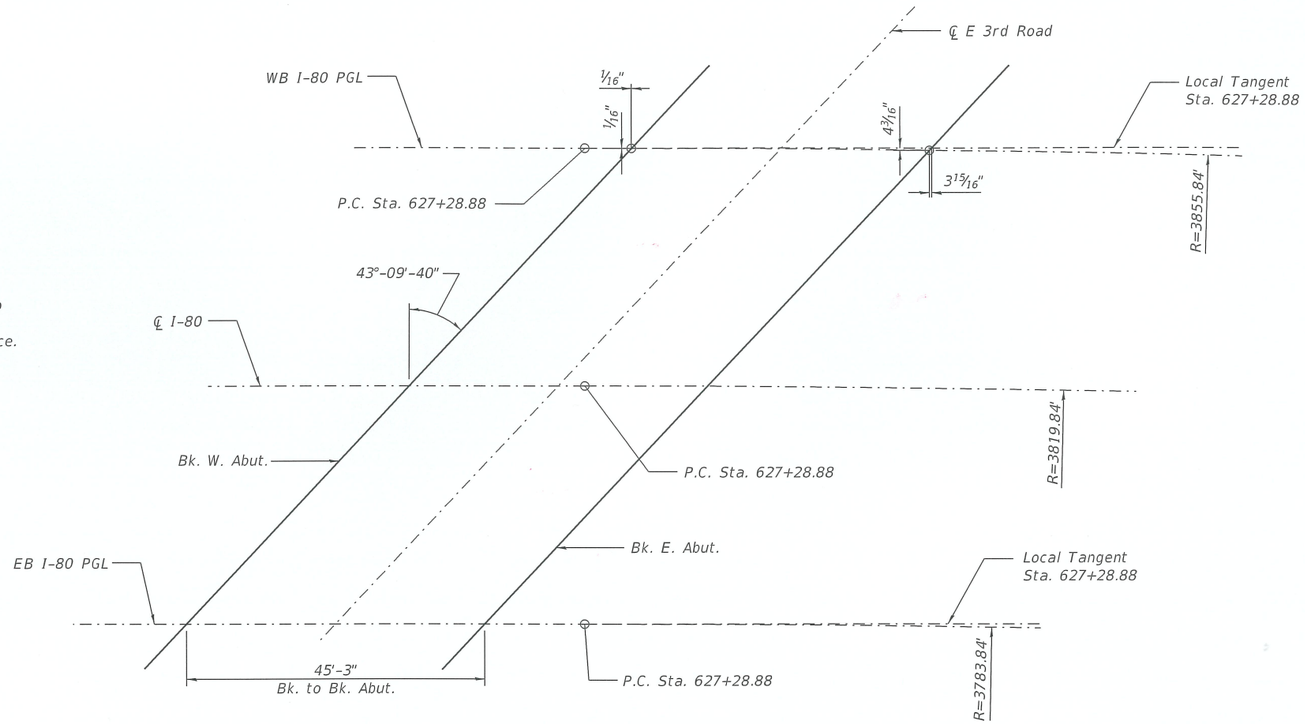
EB I-80 PROFILE GRADE

(along ℄ EB lanes)



WB I-80 PROFILE GRADE

(along ℄ WB lanes)



OFFSET SKETCH

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PREPARATION OF DETAILED PLANS

GENERAL DATA

I-80 OVER E 3RD ROAD (MS 6100A)

F.A.I. RTE. 80 - SEC. (50-2)HBR-1

LASALLE COUNTY

STATION 627+22.14

STRUCTURE NO. 050-0003 (EB)

STRUCTURE NO. 050-0004 (WB)

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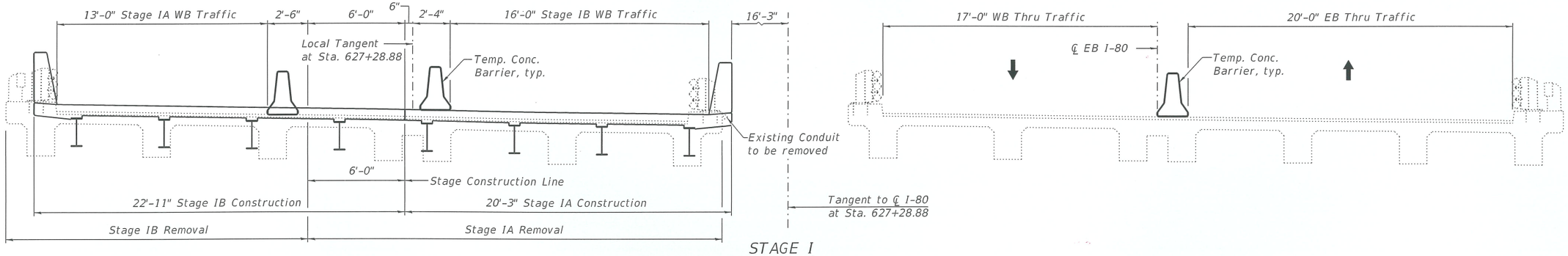
		CHECKED - VPT	REVISED -	
	PLOT SCALE =	DRAWN - DAS	REVISED -	
	PLOT DATE = 5/23/2019	CHECKED - MTH	REVISED -	

SHEET 2 OF 3 SHEETS

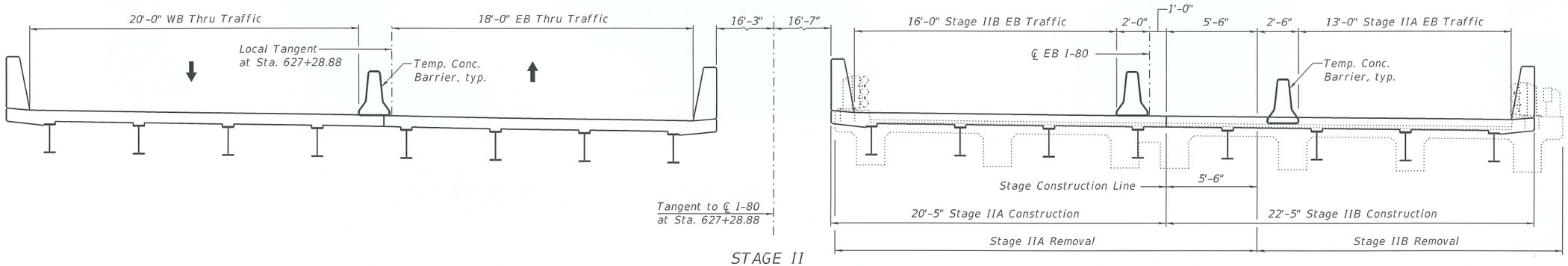
F.A.I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE		
		CONTRACT NO. 66J69		
	ILLINOIS FED. AID PROJECT			



STAGE I

(Looking East)

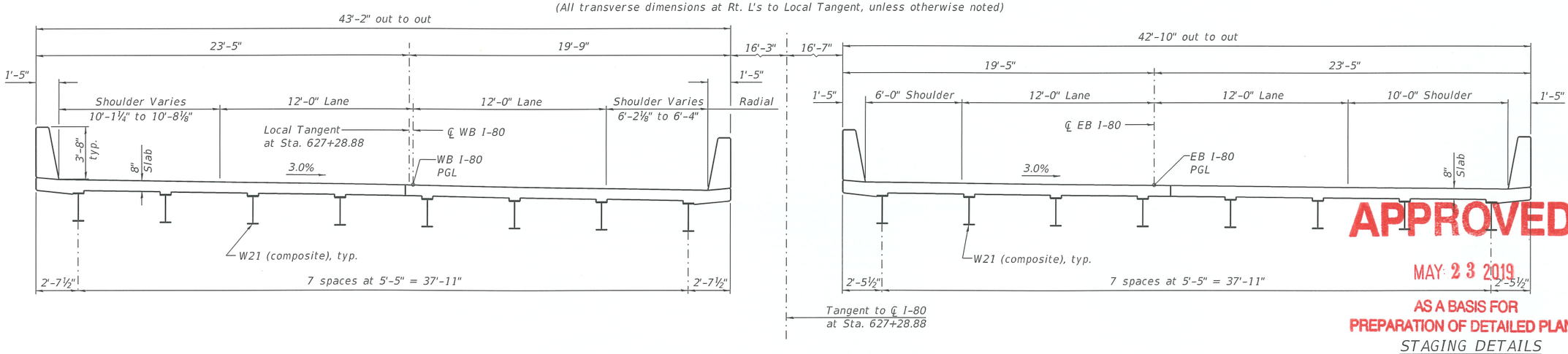
(All transverse dimensions at Rt. L's to Local Tangent, unless otherwise noted)



STAGE II

(Looking East)

(All transverse dimensions at Rt. L's to Local Tangent, unless otherwise noted)



PROPOSED CROSS SECTION THRU BRIDGES

(Looking East)

(All transverse dimensions at Rt. L's to Local Tangent, unless otherwise noted)

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MAY 23 2019

AS A BASIS FOR PREPARATION OF DETAILED PLANS

STAGING DETAILS

I-80 OVER E 3RD ROAD (MS 6100A)

F.A.I. RTE. 80 - SEC. (50-2)HBR-1

LASALLE COUNTY

STATION 627+22.14

STRUCTURE NO. 050-0003 (EB)

STRUCTURE NO. 050-0004 (WB)

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Springfield, Illinois

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 3 OF 3 SHEETS

F.A.I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE		
		CONTRACT NO. 66J69		
		ILLINOIS	FED. AID PROJECT	