Bench Mark: Square cut at center of door entrance to 707 W. Harrison St; South side of Harrison St. ±90' west of west line of Des Plaines. Elevation 597.47.
A t cut in the SE anchor bolt at the 11th street light N. of Roosevelt on the W. side of Halsted. Elev. = 594.06

Existing Structure: S.N. 016-1029 was built in 1958 and carries EB I-290 traffic over I-90/94. The existing seven-span structure has an overall length of approx. 502'-0" and out-to-out deck width varies from 57'-6" to 79'-10". The existing superstructure consists of simple span concrete tee (Span 1 only) and wide-flange beams with 7½" thick concrete deck and 1½" overlay. The existing substructure consists of reinforced concrete abutment and multi-column piers. Substructure units are supported on caissons. Existing structure to be removed and replaced. Traffic to be maintained utilizing stage construction.

No salvage.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition with 2013 Interim Revisions

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

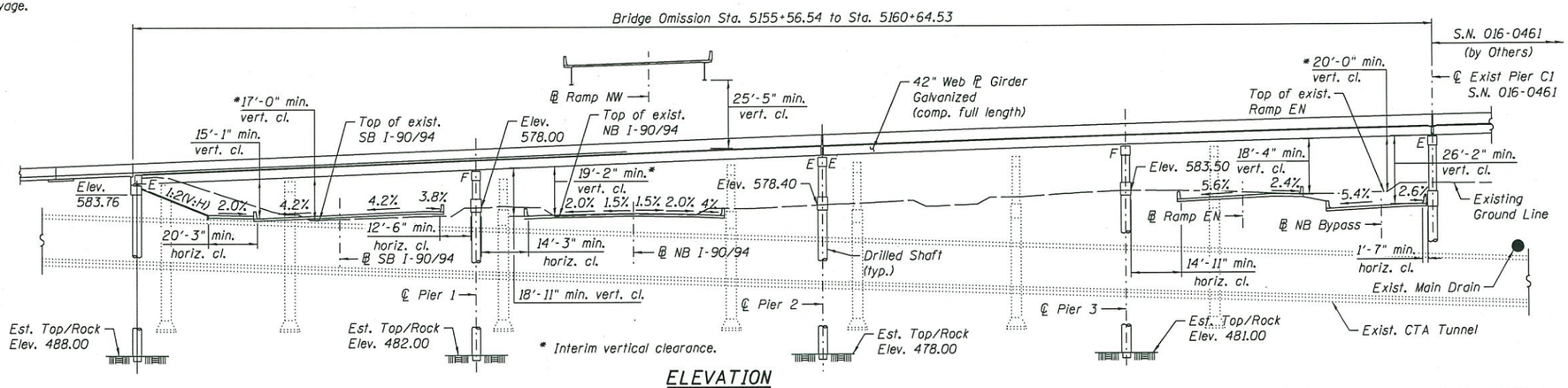
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

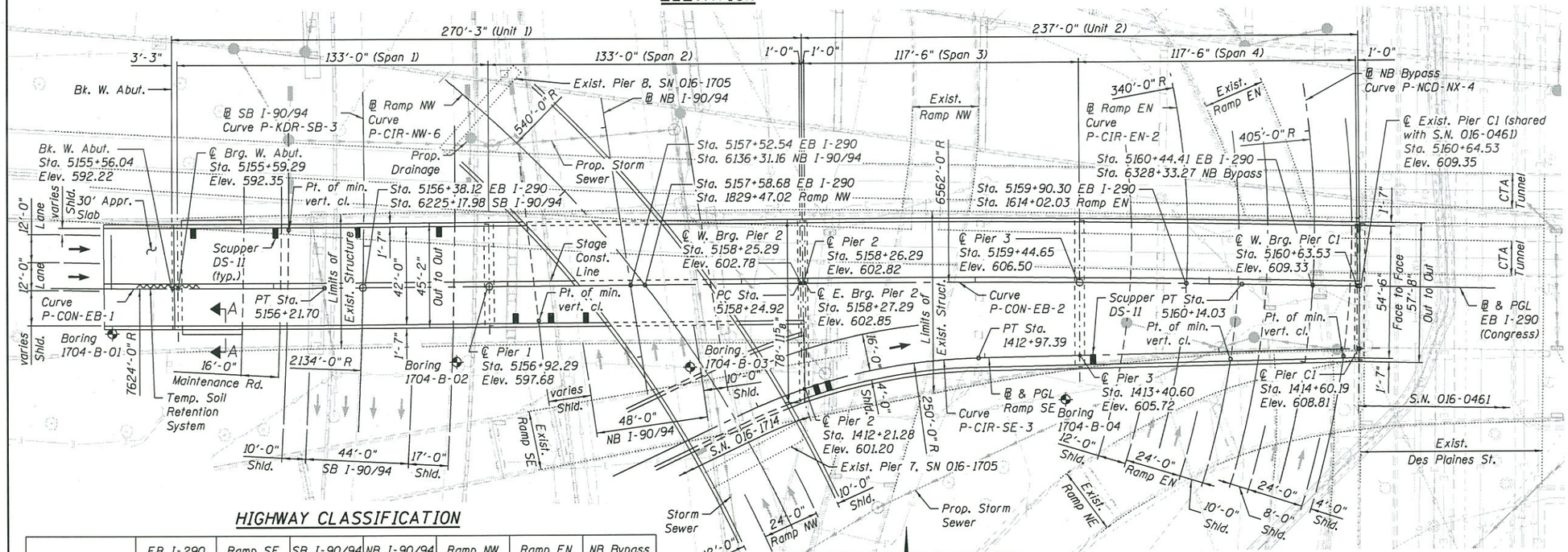
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.085g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.144g
Soil Site Class = D

Notes:
1. All structural steel shall be hot-dip galvanized.
2. For Section A-A see Sheet 2.

ELEVATION

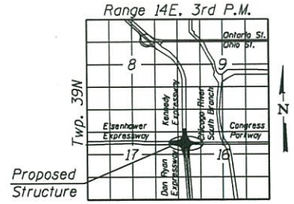


PLAN



DS-11 SCUPPER LOCATION

Station	Offset
5155+65.95	26.0' LT
5156+00.95	26.0' LT
5156+35.95	26.0' LT
5156+70.95	26.0' LT
5157+03.29	16.0' RT
5157+18.29	16.0' RT
5157+33.29	16.0' RT
5158+32.29	47.8' RT
5158+37.29	46.3' RT
5159+50.65	35.3' RT



HIGHWAY CLASSIFICATION

	EB I-290	Ramp SE	SB I-90/94	NB I-90/94	Ramp NW	Ramp EN	NB Bypass
Functional Class	Interstate	Interstate	Interstate	Interstate	Interstate	Interstate	Interstate
ADT (2012)	32,500	4,600	100,100	96,700	32,500	26,600	NA
ADT (2040)	33,000	5,000	98,000	81,000	36,000	31,000	17,000
ADTT (2012)	380	123	11,351	11,217	2,483	1,032	NA
ADTT (2040)	386	134	11,113	9,396	2,750	1,203	378
DHV (2040)	2,610	440	6,340	4,780	2,790	1,910	1,680
Design Speed	50 m.p.h.	25 m.p.h.	60 m.p.h.	60 m.p.h.	35 m.p.h.	30 m.p.h.	30 m.p.h.
Posted Speed	45 m.p.h.	25 m.p.h.	45 m.p.h.	45 m.p.h.	35 m.p.h.	30 m.p.h.	NA
	One-Way Traffic						
	Directional Distribution 100:0						

APPROVED
OCT 07 2014
AS A BASIS FOR PREPARATION OF DETAILED PLANS

LEGEND:

Combined Sewer
Electric — E —
Fiber Optic — FO —
Storm Sewer
Water Line — W —
Gas Line — G —
Fire Hydrant
Light Pole
Soil Boring

GENERAL PLAN & ELEVATION
EB I-290 (CONGRESS)
OVER I-90/94
F.A.I. RTE. 90/94/290
SECTION 2014-001 R&B
COOK COUNTY
STATION 5156+92.29
STRUCTURE NO. 016-1704

AECOM

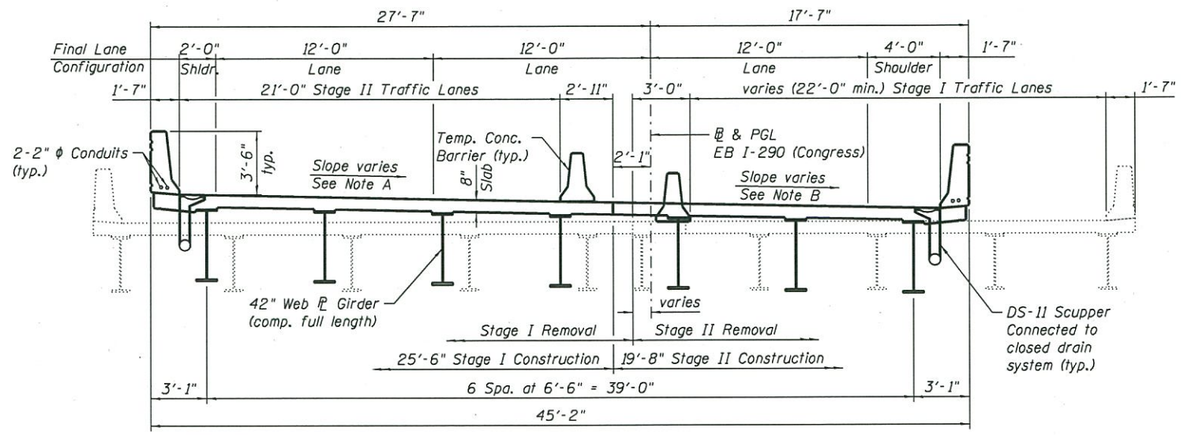
USER NAME = hejl	DESIGNED - JXH	REVISED
	CHECKED - EJO	REVISED
PLOT SCALE = N.T.S.	DRAWN - GF	REVISED
PLOT DATE = 9/5/2014	DATE - 09/05/2014	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-1704
SHEET NO. 1 OF 3 SHEETS

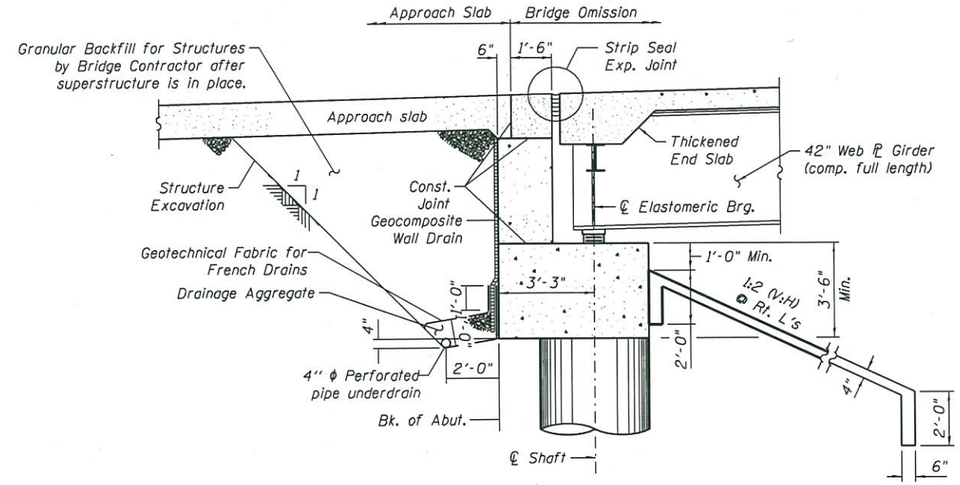
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-001 R&B	COOK		
		CONTRACT NO. 60X75		
	ILLINOIS FED. AID PROJECT			

016-1704-CIRCLE100-SHT-ACM-ST-TSL-001



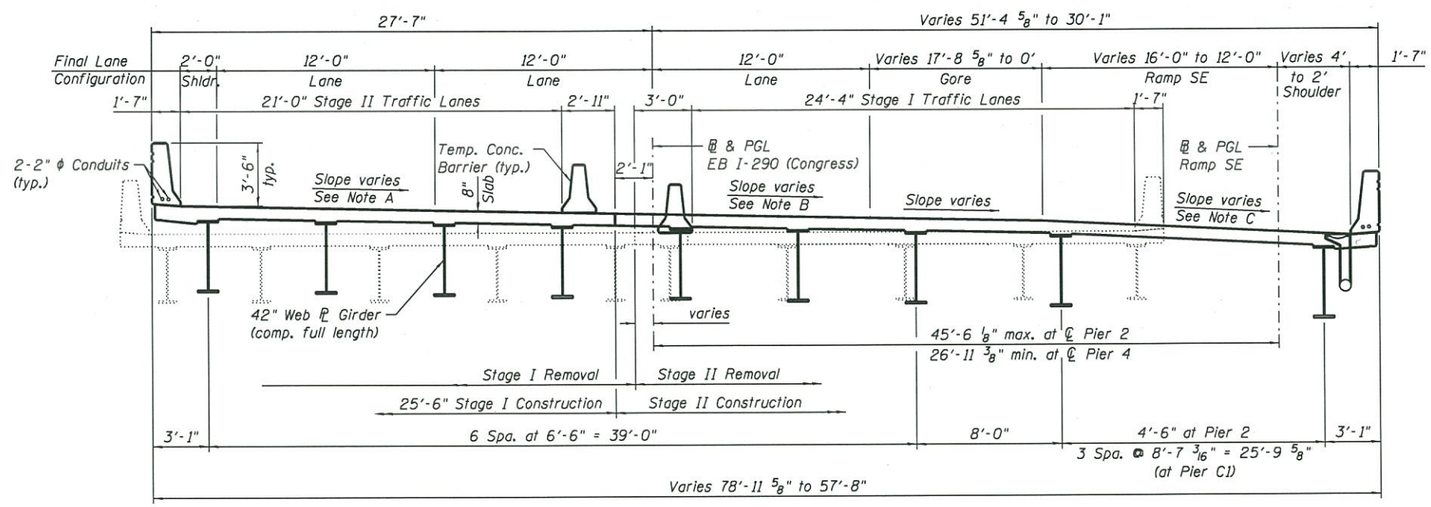
CROSS SECTION - UNIT 1

(Looking East)



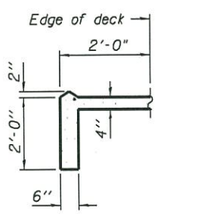
SECTION THRU ABUTMENT

(Horiz. Dims. ✪ Rt. L's to ℄ Brg.)

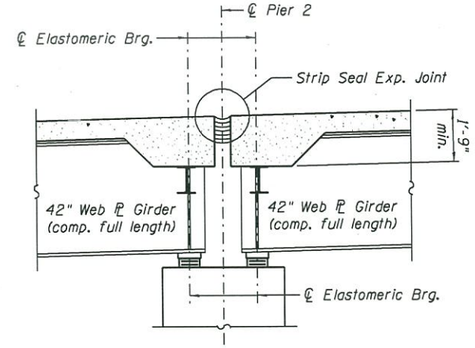


CROSS SECTION - UNIT 2

(Looking East)



SECTION A-A



SECTION THRU EXP. PIER

(Horiz. Dims. ✪ Rt. L's to ℄ Pier)

APPROVED

OCT 07 2014

AS A BASIS FOR PREPARATION OF DETAILED PLANS

NOTES:

Note A: (Direction of slope referenced from left edge of pavement)
Constant cross slope (2.00%) Sta. 5155+23.00 to Sta. 5155+97.36
Transition (2.00% to -2.00%) Sta. 5155+97.36 to Sta. 5157+41.36
Constant cross slope (-2.00%) Sta. 5157+41.36 to Sta. 5160+47.26
Transition (-2.00% to 2.00%) Sta. 5160+47.26 to Sta. 5161+91.26

Note B: (Direction of slope referenced from ℄ EB Congress)
Constant cross slope (2.00%) Sta. 5155+23.00 to Sta. 5155+97.36
Transition (2.00% to -2.00%) Sta. 5155+97.36 to Sta. 5157+41.36
Constant cross slope (-2.00%) Sta. 5157+41.36 to Sta. 5161+91.26

Note C: (Direction of slope referenced from right edge of pavement.
All stations are given along the baseline of Ramp SE.)
Transition (-5.60% to 5.40%) Sta. 1409+91.41 to Sta. 1412+42.41
Full S.E. (5.40%) Sta. 1412+42.41 to Sta. 1412+72.70
Transition (5.40% to 2.00%) Sta. 1412+72.70 to Sta. 1413+50.70
Constant cross slope (2.00%) Sta. 1413+50.70 to Sta. 1415+32.20

SECTIONS AND DETAILS
EB I-290 (CONGRESS)
OVER I-90/94
F.A.I. RTE. 90/94/290
SECTION 2014-001 R&B
COOK COUNTY
STATION 5156+92.29
STRUCTURE NO. 016-1704

016-1704-CIRCLE100-SHT-AGM-ST-TSL-002

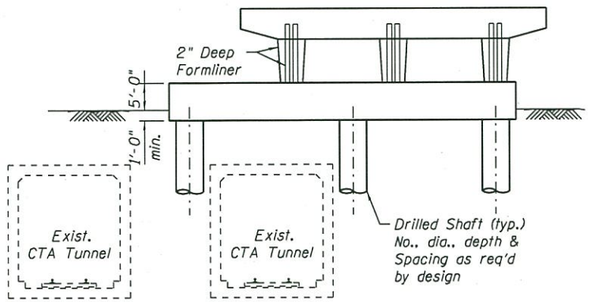
AECOM

USER NAME = hejl	DESIGNED - JXH	REVISED	
	CHECKED - EJO	REVISED	
PLOT SCALE = N.T.S.	DRAWN - GF	REVISED	
PLOT DATE = 9/5/2014	DATE - 09/05/2014	REVISED	

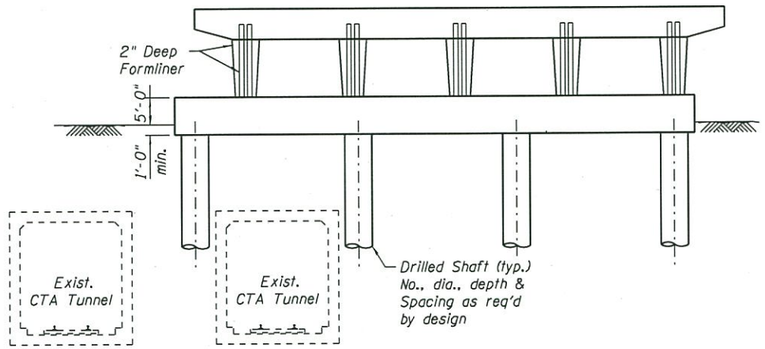
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-1704
SHEET NO. 2 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-001 R&B	COOK		
		CONTRACT NO. 60X75		
	ILLINOIS FED. AID PROJECT			



PIER 1 SKETCH
(Looking East)



PIER 2 SKETCH
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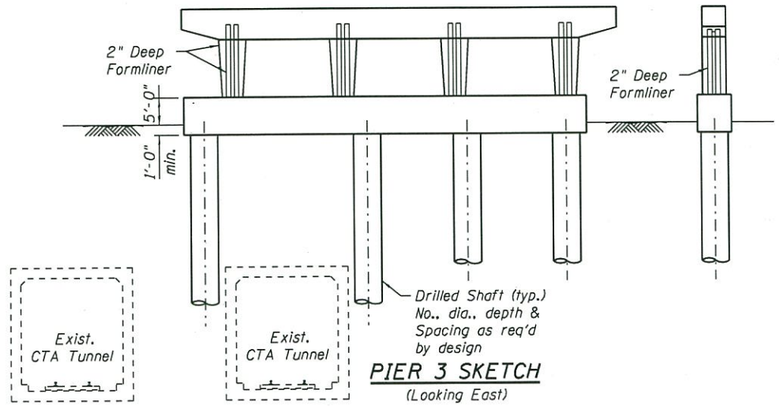
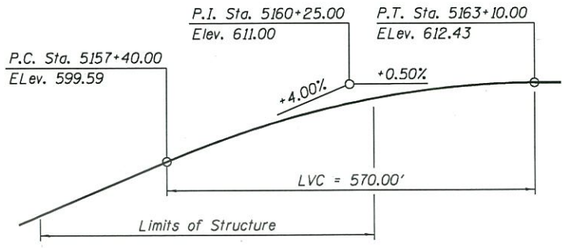
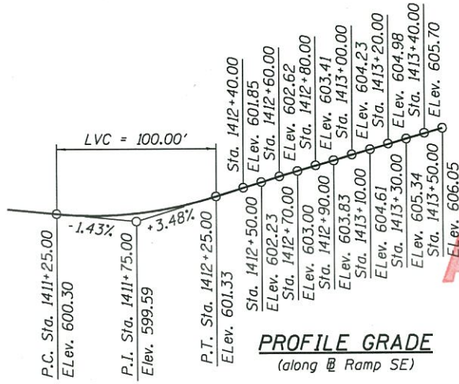


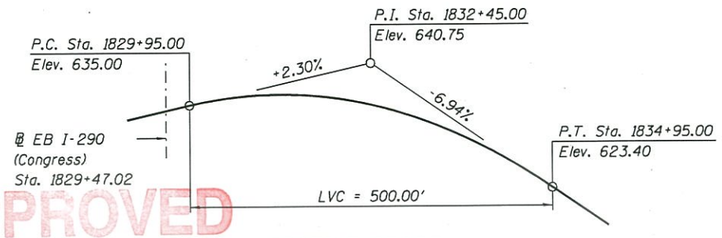
PIER 3 SKETCH
(Looking East)



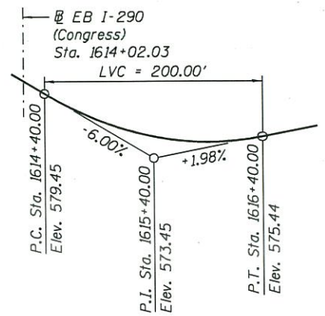
PROFILE GRADE
(along ℄ EB I-290 (Congress))



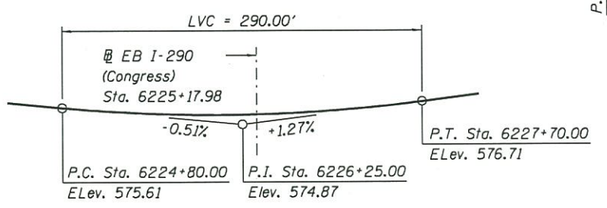
PROFILE GRADE
(along ℄ Ramp SE)



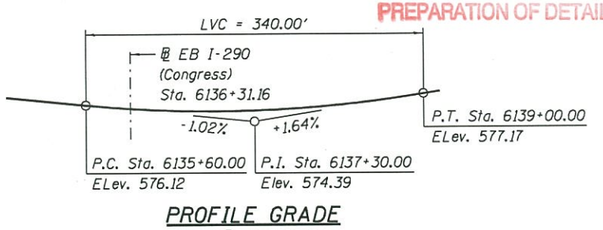
PROFILE GRADE
(along ℄ Ramp NW)



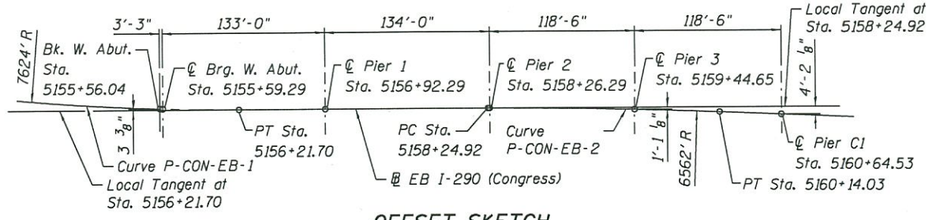
PROFILE GRADE
(along ℄ Ramp EN)



PROFILE GRADE
(along ℄ SB I-90/94)



PROFILE GRADE
(along ℄ NB I-90/94)



OFFSET SKETCH

CURVE DATA
(EB I-290 (Congress))
Curve: P-CON-EB-1
PI Sta. = 5155+15.58
Δ = 1° 35' 42" (Lt)
D = 0° 45' 05"
R = 7,624.00'
T = 106.13'
L = 212.25'
E = 0.74'
e = 2.00%
T.R. = NA
S.E. RUN = 18'
P.C. Sta. = 5154+09.45
P.T. Sta. = 5156+21.70
DS = 50

Curve: P-CON-EB-2
PI Sta. = 5159+19.48
Δ = 1° 39' 04" (Rt)
D = 0° 52' 23"
R = 6,562.00'
T = 94.56'
L = 189.11'
E = 0.68'
e = 2.00%
T.R. = 72'
S.E. RUN = 72'
P.C. Sta. = 5158+24.92
P.T. Sta. = 5160+14.03
DS = 50

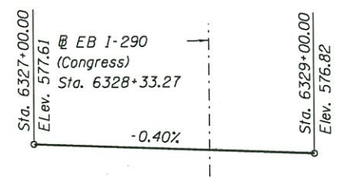
CURVE DATA
(Ramp SE)
Curve: P-CIR-SE-3
PI Sta. = 1412+44.91
Δ = 24° 25' 53" (Rt)
D = 22° 55' 06"
R = 250.00'
T = 54.12'
L = 106.60'
E = 5.79'
e = 5.40%
T.R. = NA
S.E. RUN = 78'
P.C. Sta. = 1411+90.79
P.T. Sta. = 1412+97.39
DS = 25

CURVE DATA
(SB I-90/94)
Curve: P-KDR-SB-3
PI Sta. = 6224+30.06
Δ = 11° 28' 39" (Rt)
D = 2° 41' 06"
R = 2,134.00'
T = 214.46'
L = 427.48'
E = 10.75'
e = 4.20%
T.R. = NA
S.E. RUN = 203'
P.C. Sta. = 6222+15.60
P.T. Sta. = 6226+43.08
DS = 60

CURVE DATA
(Ramp NW)
Curve: P-CIR-NW-6
PI STA. = 1831+44.30
Δ = 88° 30' 25" (Lt)
D = 10° 36' 37"
R = 540.00'
T = 526.11'
L = 834.16'
E = 213.92'
e = 5.40%
T.R. = 39'
S.E. RUN = 105'
P.C. Sta. = 1826+18.19
P.T. Sta. = 1834+52.35
DS = 35

CURVE DATA
(Ramp EN)
Curve: P-CIR-EN-2
PI Sta. = 1624+72.31
Δ = 158° 53' 11" (Lt)
D = 16° 51' 06"
R = 340.00'
T = 1,824.37'
L = 942.85'
E = 1,515.78'
e = 5.60%
T.R. = 36'
S.E. RUN = 102'
P.C. Sta. = 1606+47.94
P.T. Sta. = 1615+90.79
DS = 30

CURVE DATA
(NB Bypass)
Curve: P-NCD-NX-4
PI Sta. = 6328+76.78
Δ = 59° 05' 41" (LT)
D = 14° 08' 50"
R = 405.00'
T = 229.58'
L = 417.72'
E = 60.54'
e = 5.40%
T.R. = 36'
S.E. RUN = 98'
P.C. Sta. = 6326+47.20
P.T. Sta. = 6330+64.91
DS = 30



PROFILE GRADE
(along ℄ NB Bypass)

APPROVED
OCT 07 2014
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DETAILS
EB I-290 (CONGRESS)
OVER I-90/94
F.A.I. RTE. 90/94/290
SECTION 2014-001 R&B
COOK COUNTY
STATION 5156+92.29
STRUCTURE NO. 016-1704

AECOM

USER NAME = hejl	DESIGNED - JXH	REVISED	
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PLOT SCALE = N.T.S.	DRAWN - GF	REVISED	
PLOT DATE = 9/5/2014	DATE - 09/05/2014	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-1704
SHEET NO. 3 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-001 R&B	COOK		
		CONTRACT NO. 60X75		
	ILLINOIS FED. AID PROJECT			

016-1704-CIRCLE100-SHT-ACM-ST-TSL-003