

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	1314B-1-F	COOK	19	1
		ILLINOIS	CONTRACT NO. 60K91	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAI-94 (BISHOP FORD EXPRESSWAY)  
AT COTTAGE GROVE AVENUE  
SECTION 1314B-1-F  
PROJECT: *IM-094-3(418)064*  
BEAM AND BEARING FABRICATION  
COOK COUNTY

C-91-618-10

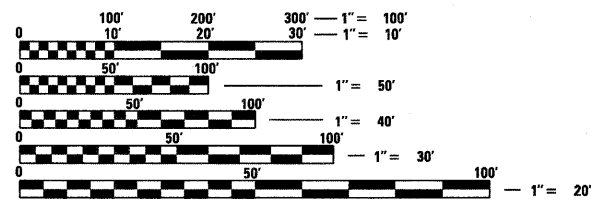
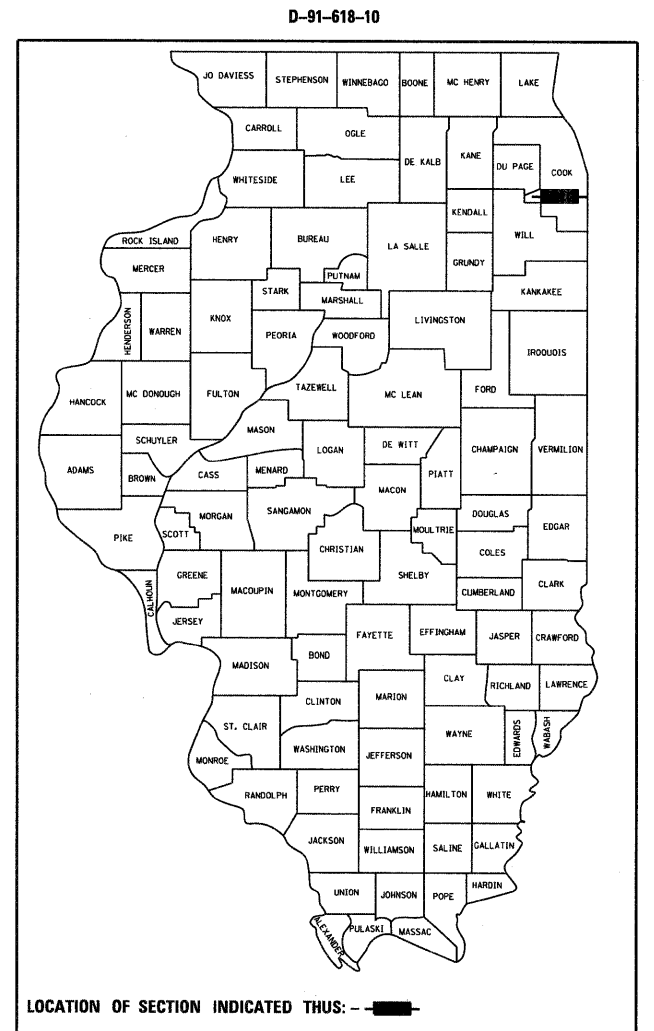
FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

F.A.U. 2917  
COTTAGE GROVE AVENUE  
EXISTING ADT: 11,900 (2006)  
DESIGN ADT: 15,390 (2021)  
SPEED LIMIT: 35 MPH

DESIGN DESIGNATION  
COTTAGE GROVE AVENUE  
1827(31) Minor Arterial (Urban) 2.58 (PCC-20)

PROJECT LOCATED IN THE CITY OF CHICAGO  
IN COOK COUNTY

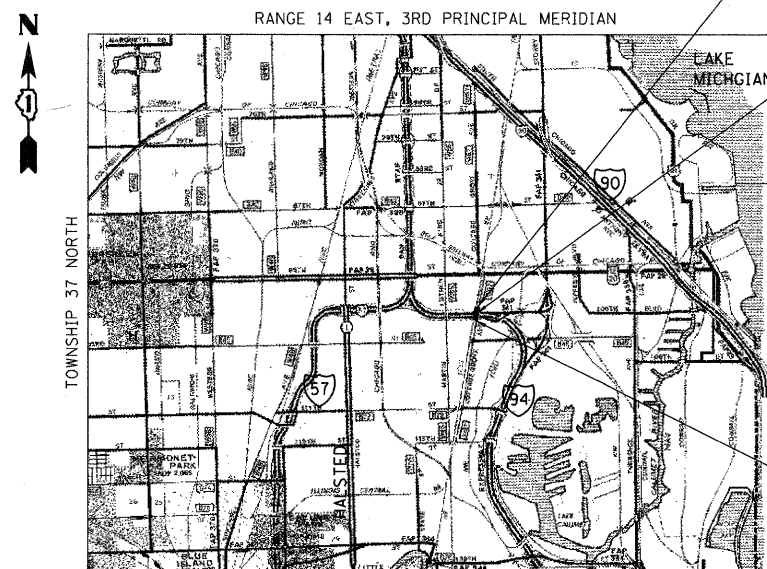


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

FOR UTILITY INFORMATION CONTACT  
C.U.A.N.  
CHICAGO UTILITY ALERT NETWORK  
312-744-7000

PROJECT MANAGER: HELEN PAZON (847)705-4523

CONTRACT NO. 60K91



PROJECT BEGINS  
STA. 100+32.00

STA. 101+93.89  
EXISTING S.N. 016-2119  
REMOVE EXISTING 171.8'  
THREE SPAN STRUCTURE

PROJECT ENDS  
STA. 103+24.59

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

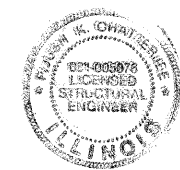
SUBMITTED MAY 5, 2010

*Diana M. O'Keefe* DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 25 2010  
*Scott E. Stitt, P.E.* acting ENGINEER OF DESIGN AND ENVIRONMENT

June 25 2010  
*Christine M. Reed* DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**



Expires: 11-30-2010  
*Pijush K. Chatterjee*

GROSS LENGTH = 239 FT. = 0.045 MILE  
NET LENGTH = 239 FT. = 0.045 MILE

**SEPSTEIN**

600 W FULTON ST  
CHICAGO, ILLINOIS  
60681 1259

TEL 312 454 9100  
FAX 312 559 1217  
WEB www.epstein-isi.com

PROJECT MANAGER: HELEN PAZON (847)705-4523

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

- 1 Title Sheet
- 2 Index of Drawings and Summary of Quantities
- 3-19 Bridge Plans SN 016-1243

SUMMARY OF QUANTITIES


CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED. 20% STATE	
				BRIDGE	
				SFTY-2A	
				URBAN	
50500205	Furnishing Structural Steel	L SUM	1	1	
52100110	Furnishing Elastomeric Bearing Assembly, Type I	EACH	20	20	
<del>52100400</del>	<del>Steel Bearing Assembly</del>	<del>EACH</del>	<del>20</del>	<del>20</del>	
* X0322770	Storage of Structural Steel and Bearings	CAL DA	90	90	

\* Denotes Special Provision

INDEX OF DRAWINGS  
AND SUMMARY OF QUANTITIES  
STRUCTURE NO. 016-1243

DESIGNED <i>EV</i>
CHECKED <i>PC</i>
DRAWN <i>JCP</i>
CHECKED <i>JPO</i>

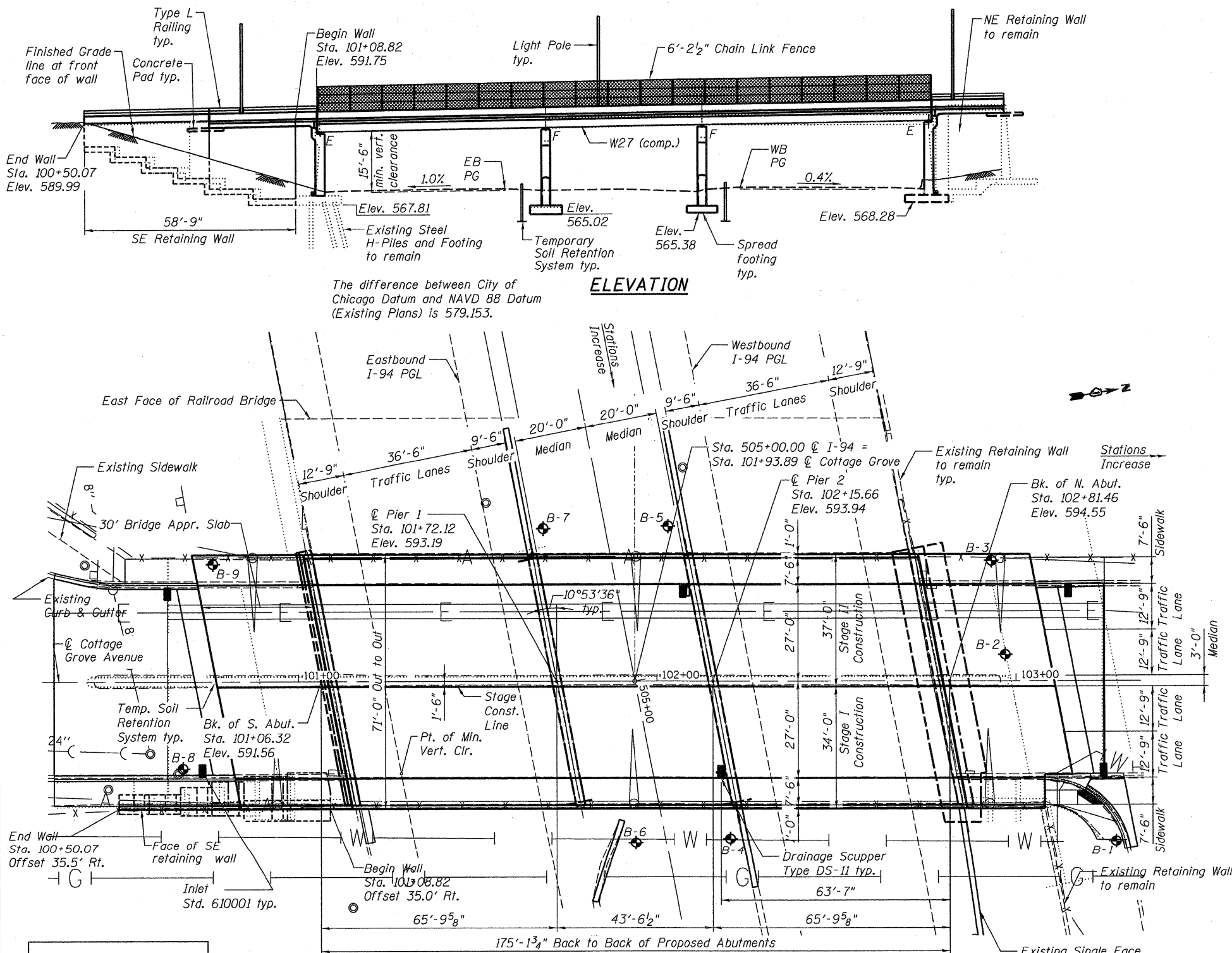
200
EXAMINED
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isi.com	SHEET NO. 2  19 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	2
					CONTRACT NO. 60K91	
ILLINOIS FED. AID PROJECT						

BM-#10: Chiseled square located on the southeast corner of southwest leg of concrete overhead sign footing at 17.68 ft Left from C/L I-94 Sta. 507+10.85, Elev. 578.44.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Existing Structure: S.N. 016-2119 Built in 1960 as part of FAI-94 Section 066-1314-CF at Sta. 101+93.89. Existing structure consists of a three simple span 36"x33" PPC deck beams with a bituminous overlay supported on two closed abutments and two solid stem piers. Except for South Abutment that is supported on steel HP piles, the substructure units are founded on spread footing. Sidewalks, metal handrails, chain link fences and lighting are provided on each side of the bridge. Structure is 171'-10" long Back to Back of abutments and Out-to-Out deck width is 71'-0".  
Structure to be removed and replaced except the existing piles supported South Abutment will be retained to support the proposed South Abutment. Existing SE Retaining Wall to be removed and replaced. Traffic to be maintained utilizing stage construction.



The difference between City of Chicago Datum and NAVD 88 Datum (Existing Plans) is 579.153.

ELEVATION

PLAN

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

**DESIGN STRESSES**  
FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50)  
 $f_y = 36,000$  psi (M270 Grade 36)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.063g  
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.112g  
Soil Site Class = C

STATION 505+00.00  
BUILT 201\_ BY  
STATE OF ILLINOIS  
F.A.I. 94  
SEC. 1314B-1  
LOADING HL-93  
STR. NO. 016-2119

NAME PLATE

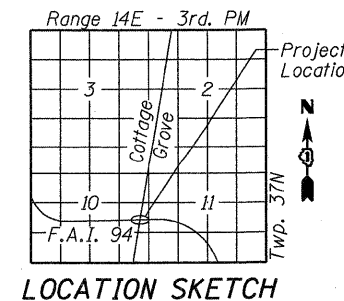
APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson (TIT)*  
ENGINEER OF BRIDGES AND STRUCTURES



*Pijush K. Chatterjee*  
Expires 11-30-2010

GENERAL PLAN AND ELEVATION  
FAI 94 AT COTTAGE GROVE AVENUE  
FAI 94 SECTION 1314B-1-F  
COOK COUNTY  
STATION 505+00.00  
STRUCTURE NO. 016-2119



DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

 600 W FULTON ST CHICAGO, ILLINOIS 60611 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.sepstein-il.com	SHEET NO. 1	F.A.I. RTE. 94	SECTION 1314B-1-F	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 3
	S17 SHEETS	CONTRACT NO. 60K91			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

THESE PLANS ARE FOR THE FURNISHING OF THE STRUCTURAL STEEL AND BEARINGS. ALL WORK SHOWN THAT IS NOT RELATED TO THE FABRICATION IS FOR INFORMATION ONLY. IT IS NOT INCLUDED IN THIS CONTRACT.

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts  $\frac{7}{8}$ "  $\phi$ , holes  $\frac{5}{16}$ "  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel:  
AASHTO M270 Grade 50 = 279,650 lbs.  
AASHTO M270 Grade 36 = 15,370 lbs.

No field welding is permitted except as specified in the contract documents.

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".

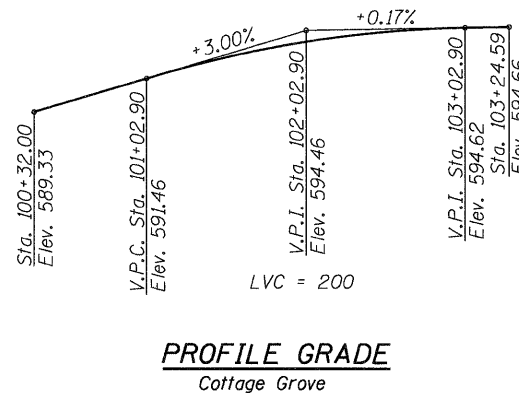
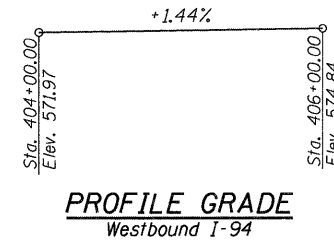
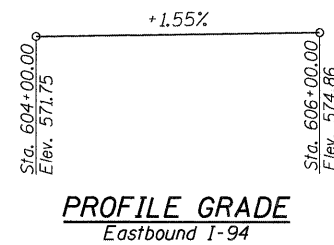
TOTAL BILL OF MATERIAL

ITEMS	UNITS	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
Furnishing Structural Steel	L. Sum	1	-	1
Furnishing Elastomeric Bearing Assembly, Type I	Each	20	-	20
Storage of Structural Steel and Bearings	Cal Day	90	-	90

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Notes, Index of Drawings and Total Bill of Materials
- 3 Top of Slab Elevations I
- 4 Top of Slab Elevations II
- \*5 Top of Slab Elevations III
- \*6 Top of Slab Elevations IV
- \*7 Deck Plan and Cross Section
- \*8 Superstructure Details 1
- \*9 Superstructure Details 2
- \*10 Framing Plan
- \*11 Diaphragm Details
- 12 Beam Details
- 13 Bearing Details
- 14 South Abutment
- 15 North Abutment
- \*16 Abutment Details
- \*17 Piers 1 and 2

\*THIS WORK IS NOT INCLUDED IN THIS FABRICATION CONTRACT. THE SHEET IS FOR INFORMATION ONLY.



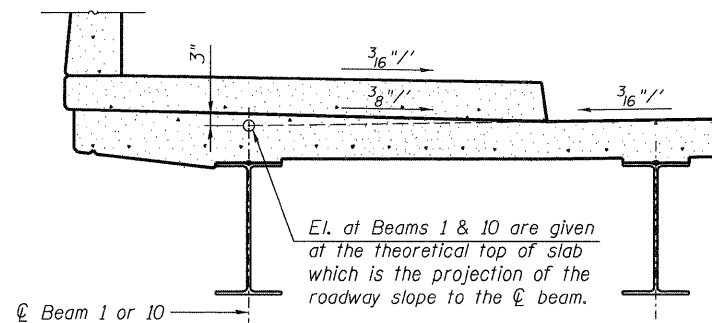
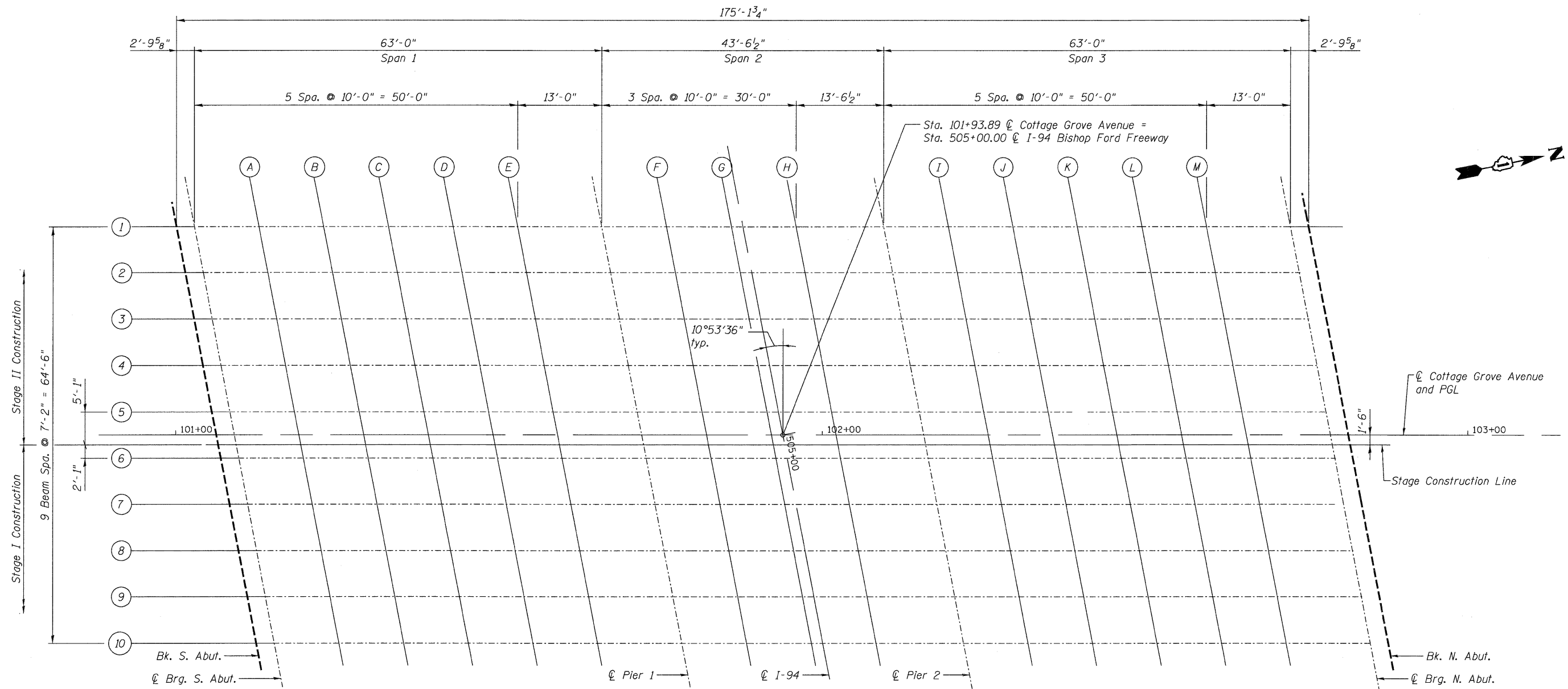
GENERAL NOTES, INDEX OF DRAWINGS  
AND TOTAL BILL OF MATERIALS  
STRUCTURE NO. 016-2119

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-hsi.com	SHEET NO. 2  S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	4
				CONTRACT NO. 60K91		
				ILLINOIS FED. AID PROJECT		

6/11/2010 10:22:46 AM P:\Projects\090002925 - I.DOT FTB 152\CADD\CADD Sheets\Beam Fabrication\0161243-004-GenNotes 1.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PROJECTION UNDER SIDEWALK DETAIL

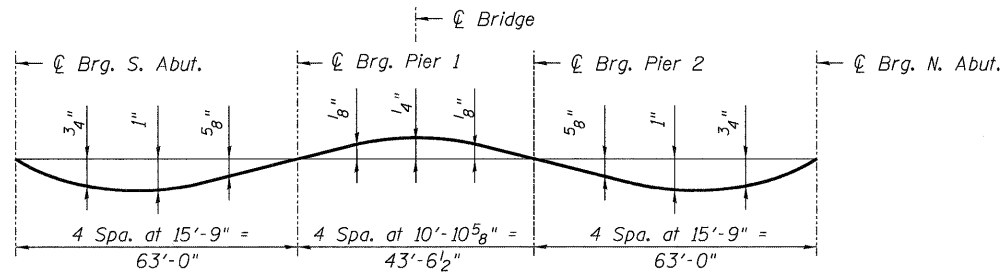
FOR INFORMATION ONLY

TOP OF SLAB ELEVATIONS I  
STRUCTURE NO. 016-2119

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

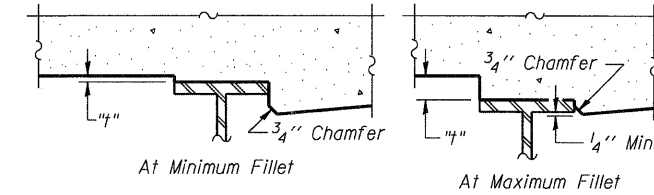
 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isi.com	SHEET NO. 3  S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	5
CONTRACT NO. 60K91						ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete deck and fillet only)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+00.10	32.25	590.87	590.87
CL BRG. S. ABUT.	101+02.91	32.25	590.96	590.96
A	101+12.91	32.25	591.25	591.30
B	101+22.91	32.25	591.53	591.61
C	101+32.91	32.25	591.79	591.90
D	101+42.91	32.25	592.04	592.13
E	101+52.91	32.25	592.28	592.33
CL BRG. PIER 1	101+65.91	32.25	592.57	592.57
F	101+75.91	32.25	592.77	592.75
G	101+85.91	32.25	592.96	592.94
H	101+95.91	32.25	593.13	593.11
CL BRG. PIER 2	102+09.45	32.25	593.35	593.35
I	102+19.45	32.25	593.49	593.53
J	102+29.45	32.25	593.62	593.69
K	102+39.45	32.25	593.73	593.83
L	102+49.45	32.25	593.83	593.92
M	102+59.45	32.25	593.92	593.98
CL BRG. N. ABUT.	102+72.45	32.25	594.01	594.01
BK N. ABUT.	102+75.25	32.25	594.03	594.03

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+01.48	25.08	591.03	591.03
CL BRG. S. ABUT.	101+04.29	25.08	591.11	591.11
A	101+14.29	25.08	591.40	591.45
B	101+24.29	25.08	591.68	591.76
C	101+34.29	25.08	591.94	592.04
D	101+44.29	25.08	592.19	592.27
E	101+54.29	25.08	592.42	592.48
CL BRG. PIER 1	101+67.29	25.08	592.71	592.71
F	101+77.29	25.08	592.91	592.89
G	101+87.29	25.08	593.10	593.07
H	101+97.29	25.08	593.27	593.25
CL BRG. PIER 2	102+10.83	25.08	593.48	593.48
I	102+20.83	25.08	593.62	593.66
J	102+30.83	25.08	593.75	593.82
K	102+40.83	25.08	593.86	593.96
L	102+50.83	25.08	593.96	594.05
M	102+60.83	25.08	594.04	594.11
CL BRG. N. ABUT.	102+73.83	25.08	594.13	594.13
BK N. ABUT.	102+76.63	25.08	594.14	594.14

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+02.86	17.92	591.18	591.18
CL BRG. S. ABUT.	101+05.67	17.92	591.26	591.26
A	101+15.67	17.92	591.55	591.60
B	101+25.67	17.92	591.83	591.91
C	101+35.67	17.92	592.09	592.19
D	101+45.67	17.92	592.33	592.42
E	101+55.67	17.92	592.57	592.62
CL BRG. PIER 1	101+68.67	17.92	592.85	592.85
F	101+78.67	17.92	593.05	593.03
G	101+88.67	17.92	593.23	593.21
H	101+98.67	17.92	593.40	593.38
CL BRG. PIER 2	102+12.21	17.92	593.61	593.61
I	102+22.21	17.92	593.75	593.79
J	102+32.21	17.92	593.88	593.95
K	102+42.21	17.92	593.99	594.09
L	102+52.21	17.92	594.08	594.17
M	102+62.21	17.92	594.16	594.23
CL BRG. N. ABUT.	102+75.21	17.92	594.25	594.25
BK N. ABUT.	102+78.01	17.92	594.26	594.26

**TOP OF SLAB ELEVATIONS II**  
**STRUCTURE NO. 016-2119**

**FOR INFORMATION ONLY**

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

 800 W FULTON ST CHICAGO, ILLINOIS 60661 1259	TEL 312 454 9100 FAX 312 556 1217 WEB www.epstein-isl.com	SHEET NO. 4	F.A.I. RTE. 94	SECTION 1314B-1-F	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 6
		S17 SHEETS	CONTRACT NO. 60K91			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+04.24	10.75	591.33	591.33
CL BRG. S. ABUT.	101+07.05	10.75	591.42	591.42
A	101+17.05	10.75	591.70	591.75
B	101+27.05	10.75	591.98	592.05
C	101+37.05	10.75	592.23	592.33
D	101+47.05	10.75	592.48	592.55
E	101+57.05	10.75	592.71	592.76
CL BRG. PIER 1	101+70.05	10.75	592.99	592.99
F	101+80.05	10.75	593.19	593.17
G	101+90.05	10.75	593.37	593.35
H	102+00.05	10.75	593.54	593.52
CL BRG. PIER 2	102+13.59	10.75	593.75	593.75
I	102+23.59	10.75	593.88	593.92
J	102+33.59	10.75	594.00	594.07
K	102+43.59	10.75	594.11	594.20
L	102+53.59	10.75	594.21	594.29
M	102+63.59	10.75	594.29	594.35
CL BRG. N. ABUT.	102+76.59	10.75	594.37	594.37
BK N. ABUT.	102+79.39	10.75	594.38	594.38

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+05.62	3.58	591.49	591.49
CL BRG. S. ABUT.	101+08.43	3.58	591.57	591.57
A	101+18.43	3.58	591.85	591.90
B	101+28.43	3.58	592.12	592.20
C	101+38.43	3.58	592.38	592.47
D	101+48.43	3.58	592.62	592.70
E	101+58.43	3.58	592.85	592.90
CL BRG. PIER 1	101+71.43	3.58	593.13	593.13
F	101+81.43	3.58	593.32	593.31
G	101+91.43	3.58	593.51	593.48
H	102+01.43	3.58	593.67	593.65
CL BRG. PIER 2	102+14.97	3.58	593.88	593.88
I	102+24.97	3.58	594.01	594.05
J	102+34.97	3.58	594.13	594.20
K	102+44.97	3.58	594.24	594.33
L	102+54.97	3.58	594.33	594.41
M	102+64.97	3.58	594.41	594.47
CL BRG. N. ABUT.	102+77.97	3.58	594.49	594.49
BK N. ABUT.	102+80.77	3.58	594.50	594.50

**ROADWAY, PG AND CROWN**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+06.31	0.00	591.56	591.56
CL BRG. S. ABUT.	101+09.12	0.00	591.64	591.64
A	101+19.12	0.00	591.93	591.97
B	101+29.12	0.00	592.20	592.28
C	101+39.12	0.00	592.45	592.55
D	101+49.12	0.00	592.70	592.77
E	101+59.12	0.00	592.92	592.97
CL BRG. PIER 1	101+72.12	0.00	593.20	593.20
F	101+82.12	0.00	593.39	593.38
G	101+92.12	0.00	593.57	593.55
H	102+02.12	0.00	593.74	593.72
CL BRG. PIER 2	102+15.66	0.00	593.94	593.94
I	102+25.66	0.00	594.08	594.11
J	102+35.66	0.00	594.20	594.26
K	102+45.66	0.00	594.30	594.39
L	102+55.66	0.00	594.39	594.47
M	102+65.66	0.00	594.47	594.53
CL BRG. N. ABUT.	102+78.66	0.00	594.55	594.55
BK N. ABUT.	102+81.46	0.00	594.56	594.56

**STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+06.60	1.50	591.55	591.55
CL BRG. S. ABUT.	101+09.41	1.50	591.63	591.63
A	101+19.41	1.50	591.91	591.96
B	101+29.41	1.50	592.18	592.26
C	101+39.41	1.50	592.44	592.53
D	101+49.41	1.50	592.68	592.75
E	101+59.41	1.50	592.91	592.95
CL BRG. PIER 1	101+72.41	1.50	593.18	593.18
F	101+82.41	1.50	593.37	593.36
G	101+92.41	1.50	593.55	593.53
H	102+02.41	1.50	593.72	593.70
CL BRG. PIER 2	102+15.95	1.50	593.92	593.92
I	102+25.95	1.50	594.06	594.09
J	102+35.95	1.50	594.18	594.24
K	102+45.95	1.50	594.28	594.37
L	102+55.95	1.50	594.37	594.45
M	102+65.95	1.50	594.45	594.51
CL BRG. N. ABUT.	102+78.95	1.50	594.53	594.53
BK N. ABUT.	102+81.75	1.50	594.54	594.54

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+07.00	3.58	591.53	591.53
CL BRG. S. ABUT.	101+09.81	3.58	591.61	591.61
A	101+19.81	3.58	591.89	591.94
B	101+29.81	3.58	592.16	592.24
C	101+39.81	3.58	592.41	592.51
D	101+49.81	3.58	592.66	592.73
E	101+59.81	3.58	592.88	592.93
CL BRG. PIER 1	101+72.81	3.58	593.16	593.16
F	101+82.81	3.58	593.35	593.33
G	101+92.81	3.58	593.53	593.51
H	102+02.81	3.58	593.70	593.68
CL BRG. PIER 2	102+16.35	3.58	593.90	593.90
I	102+26.35	3.58	594.03	594.07
J	102+36.35	3.58	594.15	594.22
K	102+46.35	3.58	594.25	594.34
L	102+56.35	3.58	594.34	594.42
M	102+66.35	3.58	594.42	594.48
CL BRG. N. ABUT.	102+79.35	3.58	594.49	594.49
BK N. ABUT.	102+82.15	3.58	594.51	594.51


**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+08.38	10.75	591.45	591.45
CL BRG. S. ABUT.	101+11.19	10.75	591.54	591.54
A	101+21.19	10.75	591.82	591.86
B	101+31.19	10.75	592.08	592.16
C	101+41.19	10.75	592.34	592.43
D	101+51.19	10.75	592.58	592.65
E	101+61.19	10.75	592.80	592.85
CL BRG. PIER 1	101+74.19	10.75	593.07	593.07
F	101+84.19	10.75	593.26	593.25
G	101+94.19	10.75	593.44	593.42
H	102+04.19	10.75	593.60	593.59
CL BRG. PIER 2	102+17.73	10.75	593.80	593.80
I	102+27.73	10.75	593.93	593.97
J	102+37.73	10.75	594.05	594.12
K	102+47.73	10.75	594.15	594.24
L	102+57.73	10.75	594.24	594.32
M	102+67.73	10.75	594.31	594.37
CL BRG. N. ABUT.	102+80.73	10.75	594.39	594.39
BK N. ABUT.	102+83.53	10.75	594.40	594.40

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

**FOR INFORMATION ONLY**

**TOP OF SLAB ELEVATIONS III  
STRUCTURE NO. 016-2119**

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259	TEL 312 454 9100 FAX 312 559 1217 WEB www.sepstein-isi.com	SHEET NO. 5	F.A.I. RTE. 94	SECTION 1314B-1-F	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 7
		S17 SHEETS	CONTRACT NO. 60K91			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+09.76	17.92	591.38	591.38
CL BRG. S. ABUT.	101+12.57	17.92	591.46	591.46
A	101+22.57	17.92	591.74	591.79
B	101+32.57	17.92	592.01	592.09
C	101+42.57	17.92	592.26	592.36
D	101+52.57	17.92	592.50	592.58
E	101+62.57	17.92	592.72	592.77
CL BRG. PIER 1	101+75.57	17.92	592.99	592.99
F	101+85.57	17.92	593.18	593.16
G	101+95.57	17.92	593.35	593.33
H	102+05.57	17.92	593.51	593.49
CL BRG. PIER 2	102+19.11	17.92	593.71	593.71
I	102+29.11	17.92	593.84	593.88
J	102+39.11	17.92	593.95	594.03
K	102+49.11	17.92	594.05	594.15
L	102+59.11	17.92	594.14	594.23
M	102+69.11	17.92	594.21	594.28
CL BRG. N. ABUT.	102+82.11	17.92	594.28	594.28
BK N. ABUT.	102+84.91	17.92	594.30	594.30

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+11.14	25.08	591.31	591.31
CL BRG. S. ABUT.	101+13.95	25.08	591.39	591.39
A	101+23.95	25.08	591.67	591.72
B	101+33.95	25.08	591.93	592.02
C	101+43.95	25.08	592.18	592.28
D	101+53.95	25.08	592.42	592.50
E	101+63.95	25.08	592.64	592.69
CL BRG. PIER 1	101+76.95	25.08	592.90	592.90
F	101+86.95	25.08	593.09	593.07
G	101+96.95	25.08	593.26	593.24
H	102+06.95	25.08	593.42	593.40
CL BRG. PIER 2	102+20.49	25.08	593.62	593.62
I	102+30.49	25.08	593.74	593.78
J	102+40.49	25.08	593.86	593.93
K	102+50.49	25.08	593.95	594.06
L	102+60.49	25.08	594.04	594.13
M	102+70.49	25.08	594.11	594.17
CL BRG. N. ABUT.	102+83.49	25.08	594.18	594.18
BK N. ABUT.	102+86.29	25.08	594.19	594.19


**BEAM 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. ABUT.	101+12.52	32.25	591.24	591.24
CL BRG. S. ABUT.	101+15.33	32.25	591.32	591.32
A	101+25.33	32.25	591.59	591.64
B	101+35.33	32.25	591.85	591.94
C	101+45.33	32.25	592.10	592.20
D	101+55.33	32.25	592.33	592.42
E	101+65.33	32.25	592.55	592.61
CL BRG. PIER 1	101+78.33	32.25	592.82	592.82
F	101+88.33	32.25	593.00	592.99
G	101+98.33	32.25	593.17	593.15
H	102+08.33	32.25	593.33	593.31
CL BRG. PIER 2	102+21.87	32.25	593.52	593.52
I	102+31.87	32.25	593.65	593.69
J	102+41.87	32.25	593.76	593.83
K	102+51.87	32.25	593.86	593.96
L	102+61.87	32.25	593.94	594.03
M	102+71.87	32.25	594.01	594.07
CL BRG. N. ABUT.	102+84.87	32.25	594.07	594.07
BK N. ABUT.	102+87.67	32.25	594.08	594.08

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

FOR INFORMATION ONLY

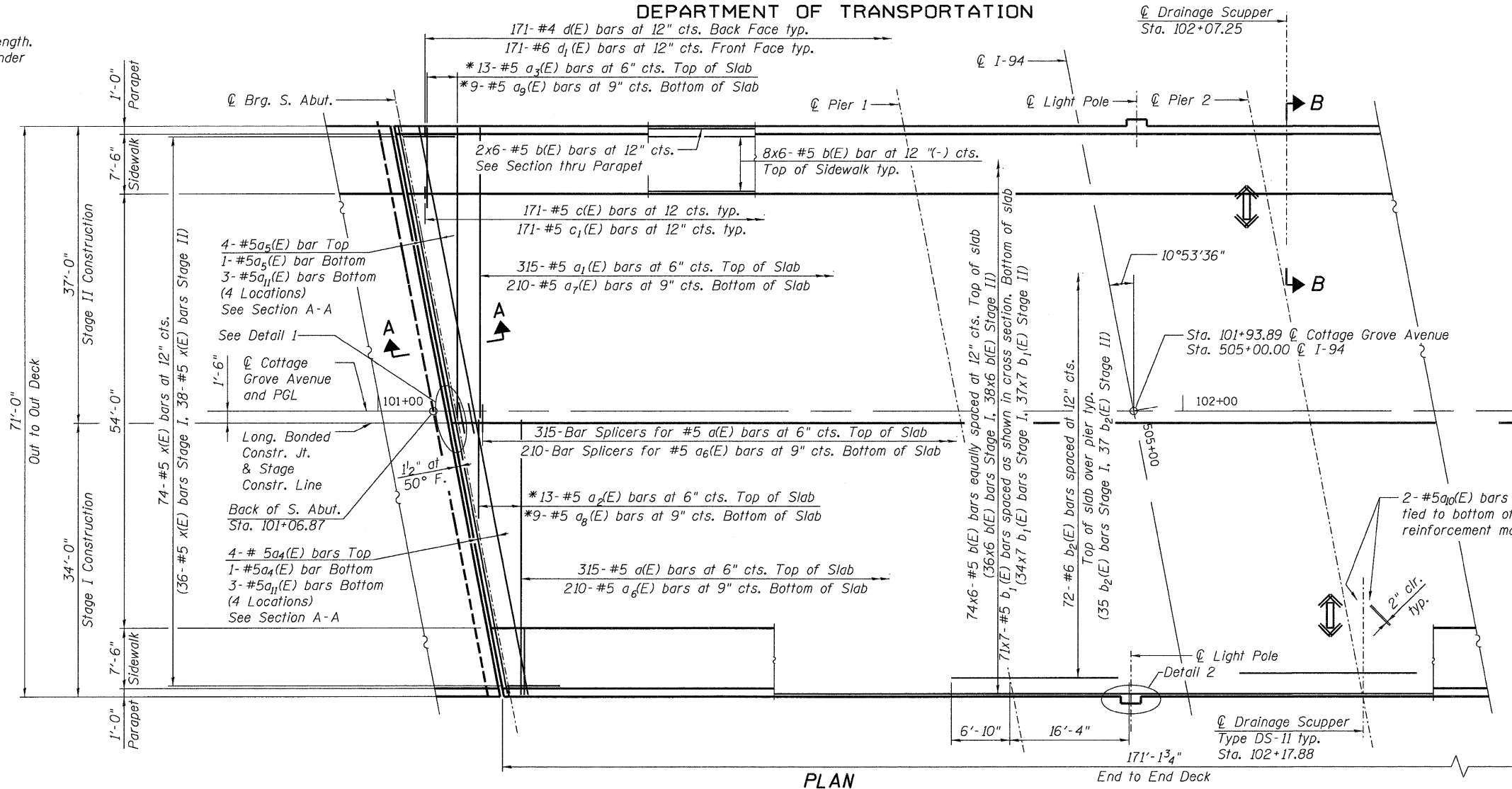
TOP OF SLAB ELEVATIONS IV  
STRUCTURE NO. 016-2119

 800 W FULTON ST CHICAGO, ILLINOIS 60661 1259	TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isl.com	SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		S17 SHEETS	94	1314B-1-F	COOK	19	8
CONTRACT NO. 60K91						ILLINOIS FED. AID PROJECT	



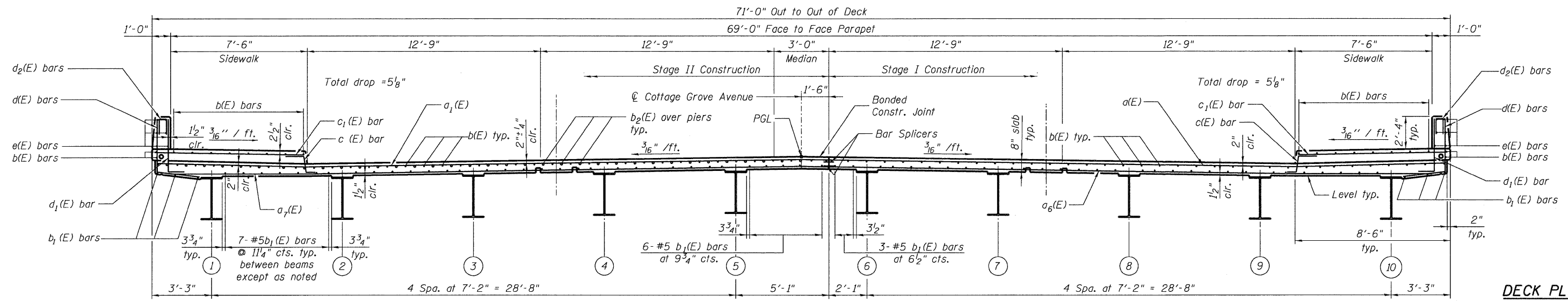
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\* Order a(E) & a<sub>1</sub>(E) bars full length.  
Cut to fit skew and use remainder  
of bars in opposite end.



**MINIMUM BAR LAP**  
(Slab)  
#5 bar = 3'-3"

- Notes:
1. For superstructure detail, parapet reinforcement, Section B-B and Bill of Material, see sheet 11 of 19.
  2. For Section A-A and Details 1 and 2, see sheet 10 of 19.
  3. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  4. Cut longitudinal reinforcement to clear drainage scuppers.



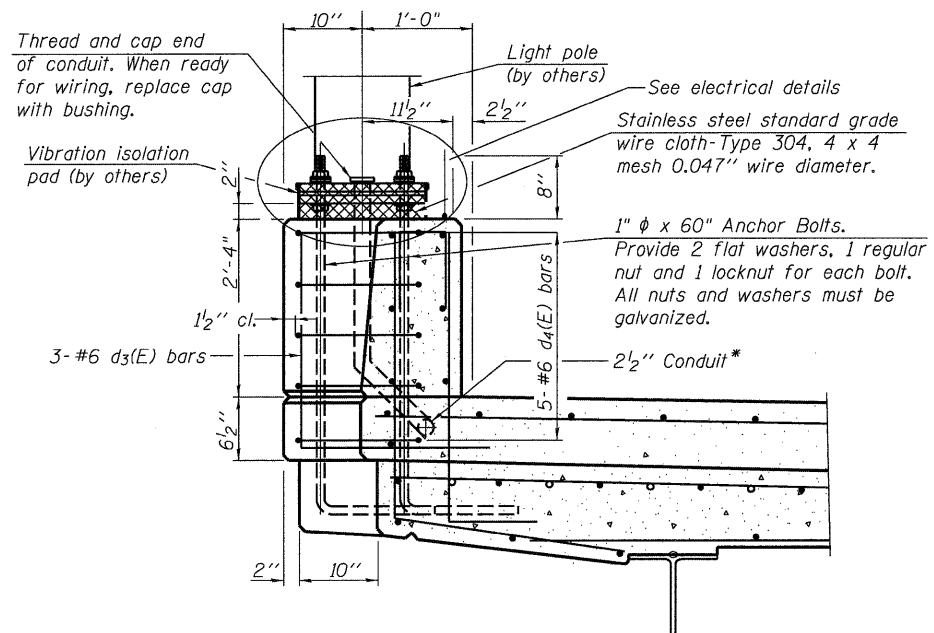
**DECK PLAN AND CROSS SECTION**  
STRUCTURE NO. 016-2119

**FOR INFORMATION ONLY**

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isl.com	SHEET NO. 7 S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	9
					CONTRACT NO. 60K91	
ILLINOIS FED. AID PROJECT						

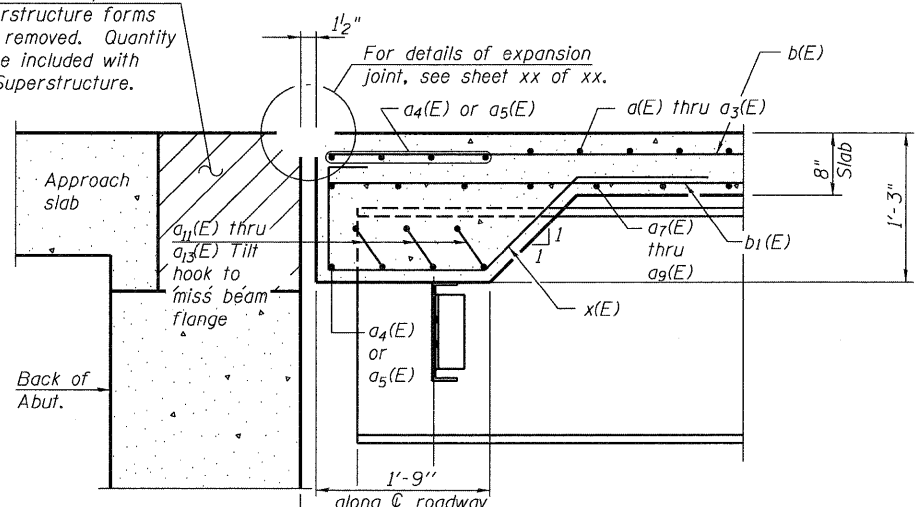
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



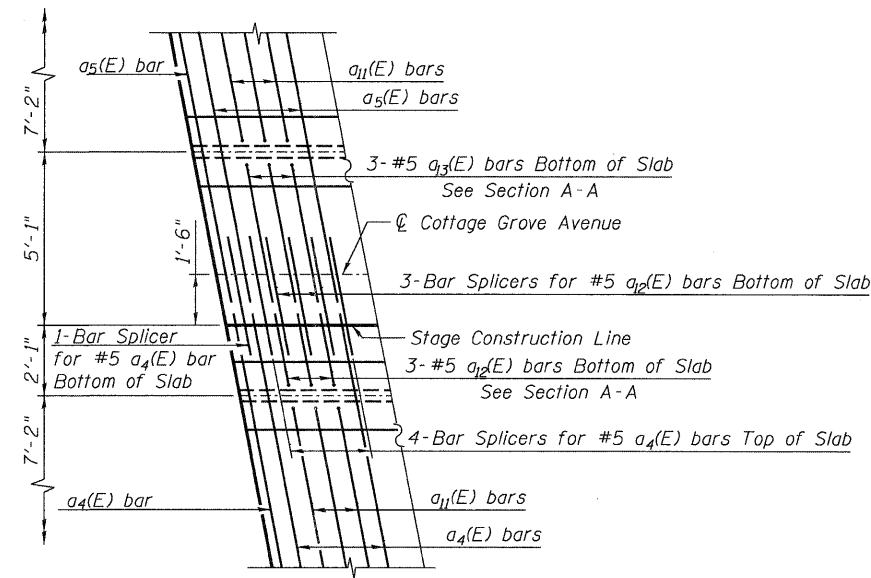
**SECTION B-B**

\*Conduit shall have minimum 1/2" clearance from all reinforcement.

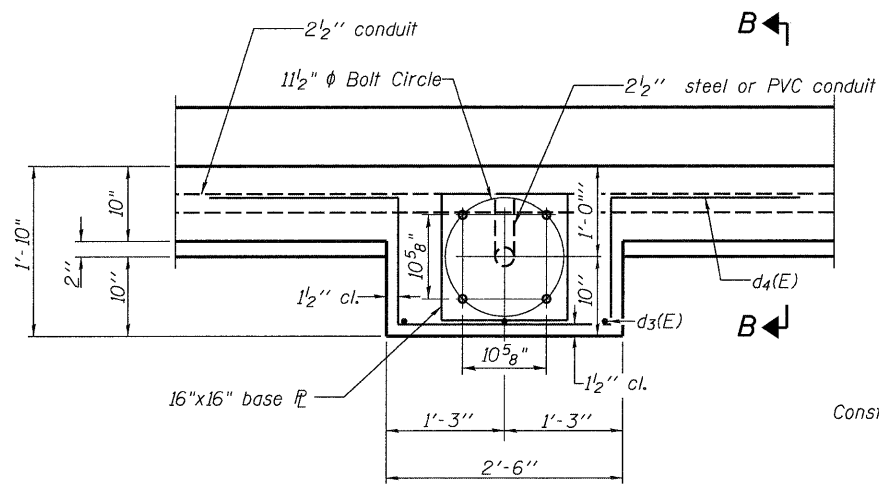
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



**SECTION A-A**

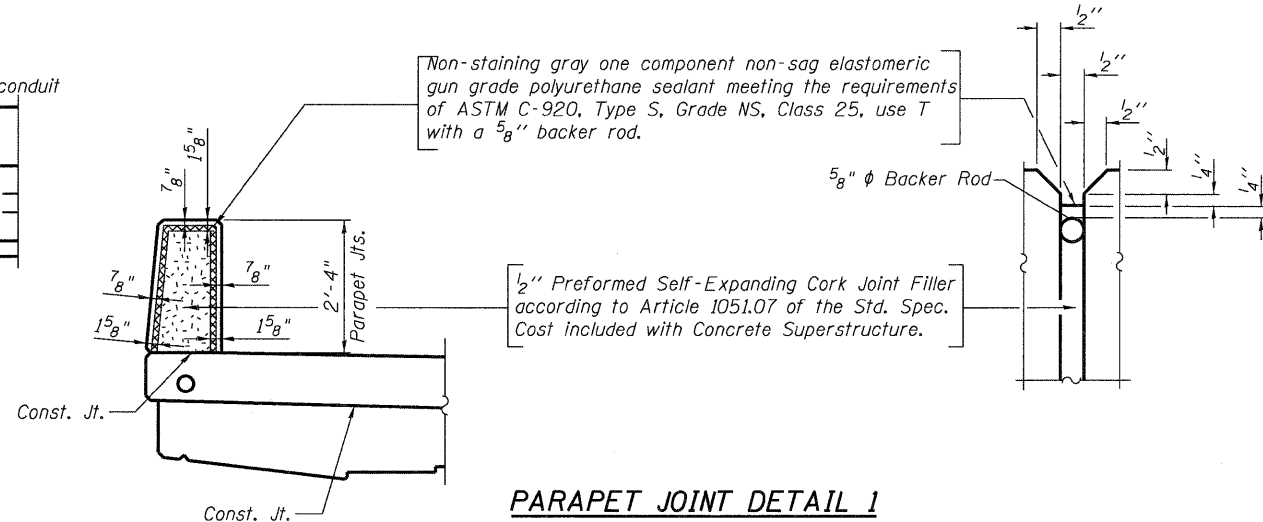


**DETAIL 1**  
(at Expansion Joint)  
Typical Slab Reinforcement  
not shown for clarity

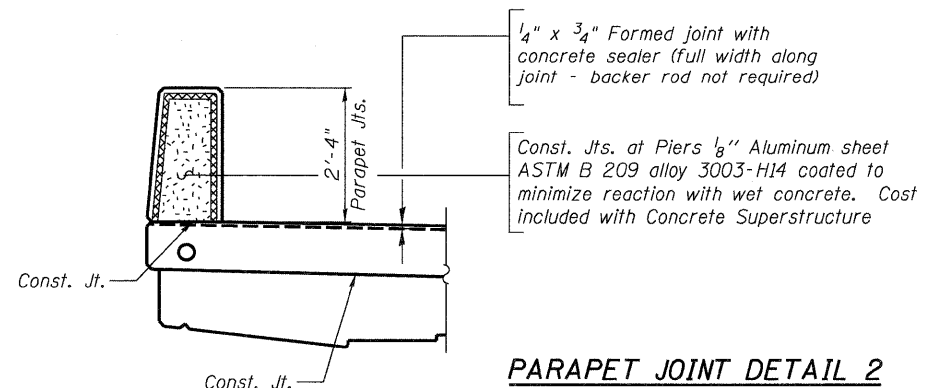


**DETAIL 2**  
2 locations

Note:  
Cost of anchor rods and conduit is included with Concrete Superstructure.



**PARAPET JOINT DETAIL 1**



**PARAPET JOINT DETAIL 2**

- Notes:
1. For location of Details 1 and 2, see sheet 9 of 19.
  2. For location of Parapet Joint Details 1 and 2, see Sheet 11 of 19.

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

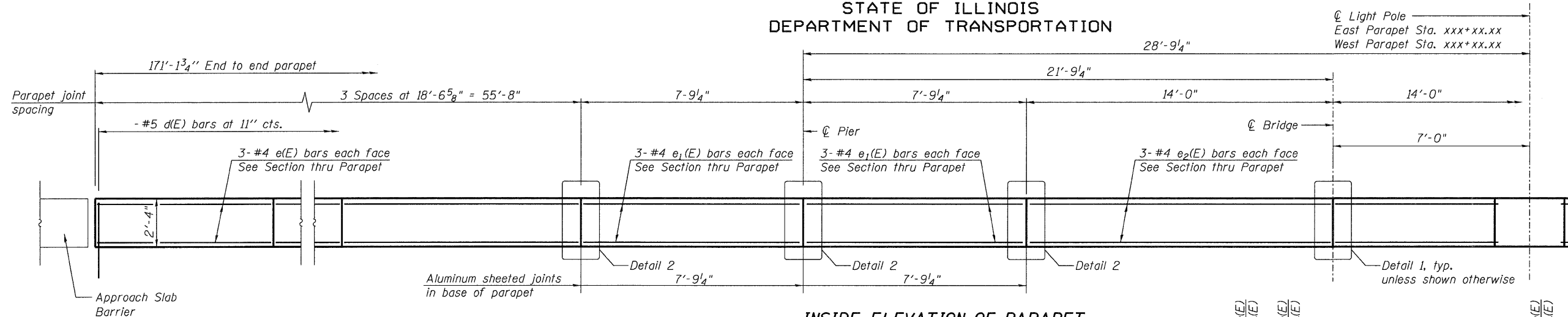
**FOR INFORMATION ONLY**

<b>SEPSTEIN</b> 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 8100 FAX 312 559 1217 WEB www.epstein-si.com	SHEET NO. 8  S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	10
				CONTRACT NO. 60K91		
ILLINOIS FED. AID PROJECT						

**SUPERSTRUCTURE DETAILS 1**  
**STRUCTURE NO. 016-2119**

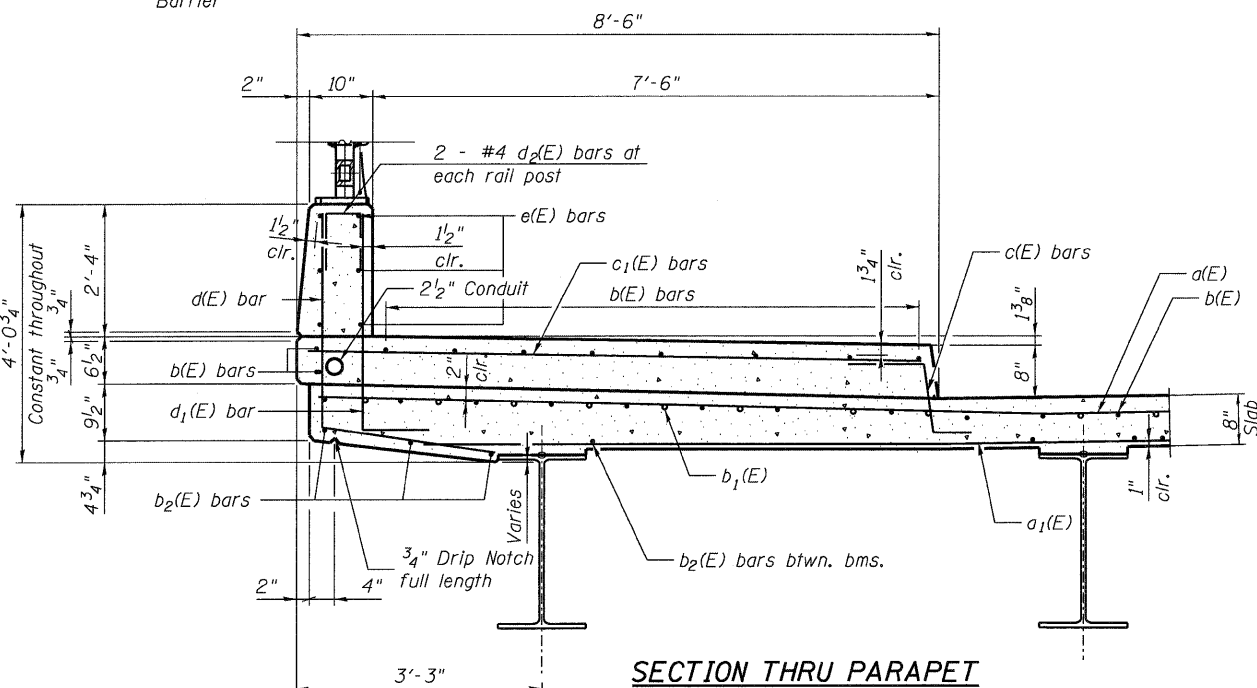
6/15/2010 4:47:27 PM P:\Projects\2000\0162119-1\DOT\FTB\152\CADD\CADD Sheets\Beam Fabrication\0162119-010-DeedDetails1.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

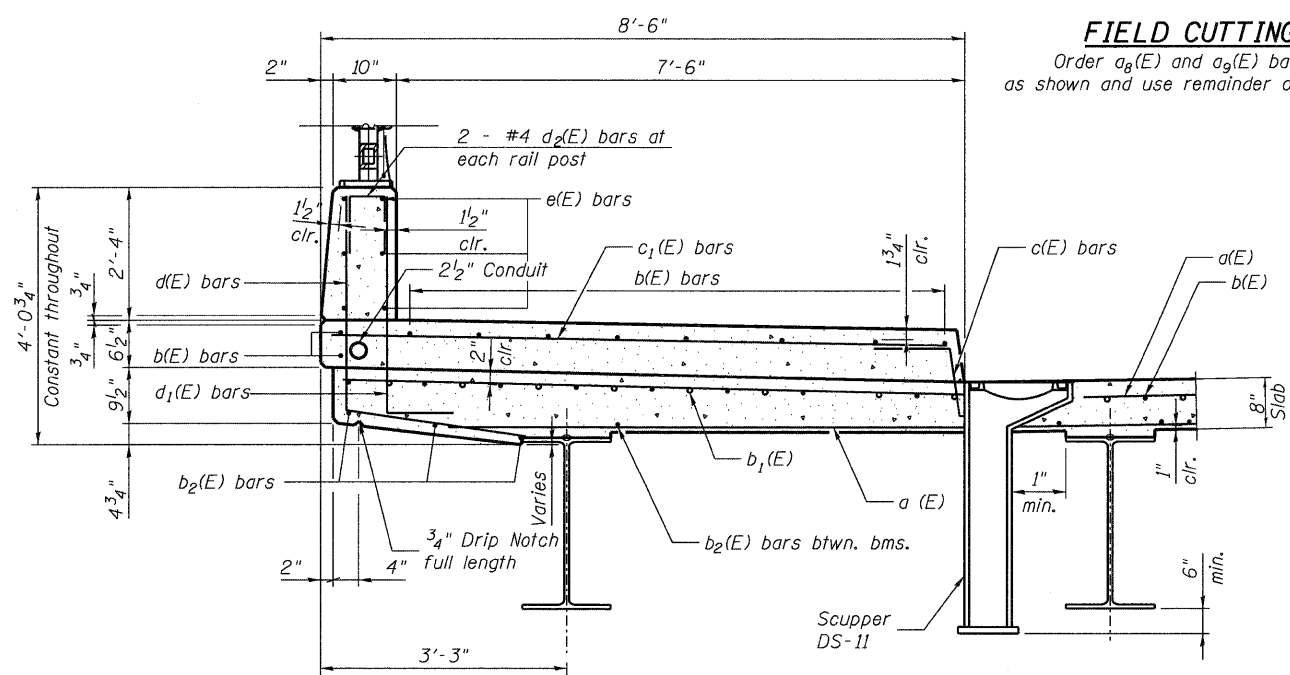


**INSIDE ELEVATION OF PARAPET**

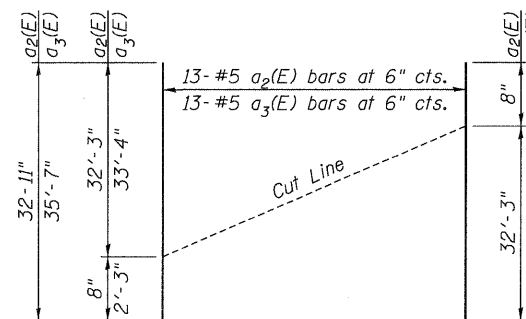
West Parapet Looking West Shown,  
East Parapet Looking East is Similar



**SECTION THRU PARAPET**

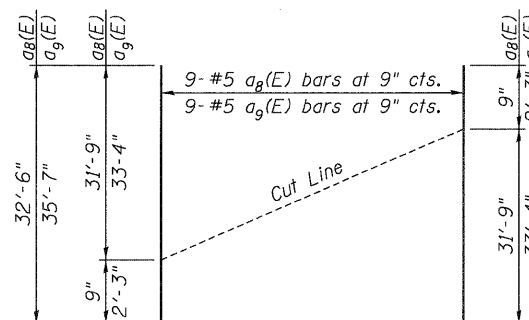


**SECTION B-B**



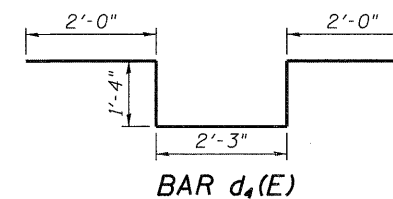
**FIELD CUTTING DIAGRAM**

Order  $a_2(E)$  and  $a_3(E)$  bars full length. Cut as shown and use remainder of bars in opposite face.

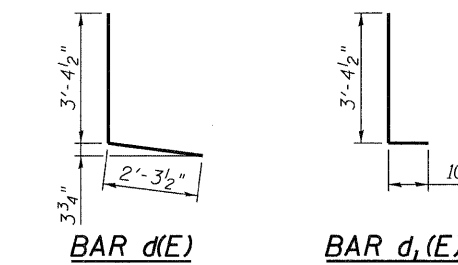


**FIELD CUTTING DIAGRAM**

Order  $a_8(E)$  and  $a_9(E)$  bars full length. Cut as shown and use remainder of bars in opposite face.

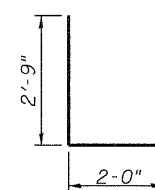


**BAR  $d_4(E)$**

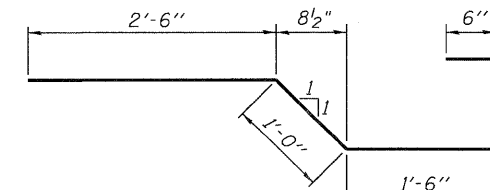


**BAR  $d(E)$**

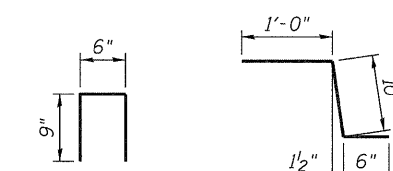
**BAR  $d_1(E)$**



**BAR  $d_3(E)$**

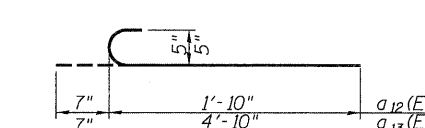


**BAR  $x(E)$**

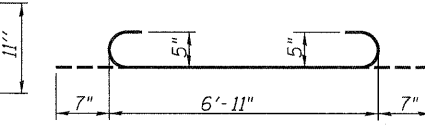


**BAR  $d_2(E)$**

**BAR  $c(E)$**



**BARS  $a_{12}(E)$  and  $a_{13}(E)$**



**BAR  $a_{11}(E)$**

**SUPERSTRUCTURE DETAILS 2  
STRUCTURE NO. 016-2119**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar No.	Size	Length	Shape
a(E)	315	#5	33' - 8"
a1(E)	315	#5	36' - 9"
a2(E)	13	#5	32' - 11"
a3(E)	13	#5	35' - 7"
a4(E)	10	#5	34' - 9"
a5(E)	10	#5	36' - 11"
a6(E)	210	#5	33' - 7"
a7(E)	210	#5	36' - 8"
a8(E)	9	#5	32' - 6"
a9(E)	9	#5	35' - 7"
a10(E)	16	#5	2' - 0"
a11(E)	48	#5	8' - 1"
a12(E)	6	#5	2' - 5"
a13(E)	6	#5	5' - 5"
b(E)	564	#5	31' - 3"
b1(E)	497	#5	27' - 3"
b2(E)	144	#6	23' - 2"
c(E)	342	#5	2' - 4"
c1(E)	342	#5	8' - 3"
d(E)	342	#4	5' - 8"
d1(E)	342	#6	4' - 3"
d2(E)	10	#4	2' - 0"
d3(E)	6	#6	4' - 9"
d4(E)	10	#6	8' - 11"
e(E)	72	#4	18' - 3"
e1(E)	48	#4	7' - 6"
e2(E)	24	#4	13' - 9"
x(E)	74	#5	6' - 7"

Reinforcement Bars, Epoxy Coated	Pound	88,133
Concrete Superstructure	Cu. Yds.	431.9
Splicers	Each	541
Bridge Deck Grooving	Sq. Yds.	979
Protective Coat	Sq. Yds.	1,458

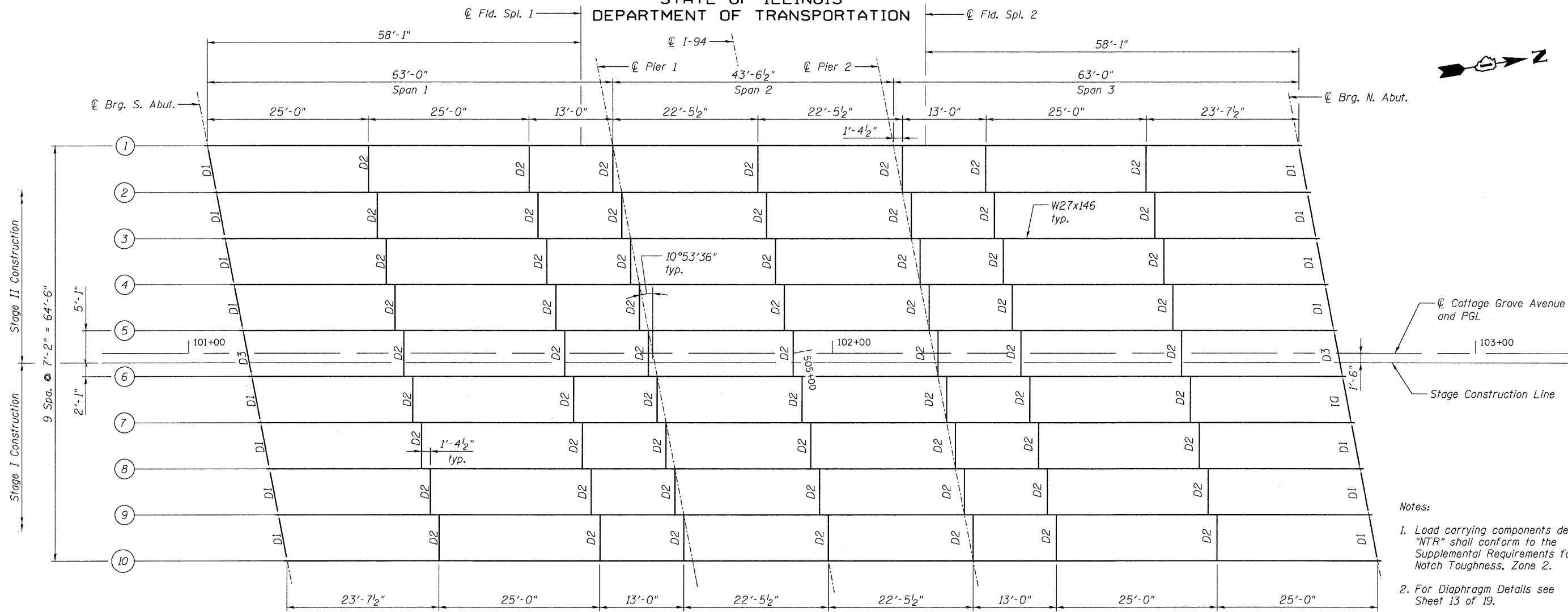
DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

**FOR INFORMATION ONLY**

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isi.com	SHEET NO. 9 S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	11
CONTRACT NO. 60K91						ILLINOIS FED. AID PROJECT

6/10/2010 5:20:34 PM P:\Projects\2600029225 - IDOT P1B 152CAD\CADD Sheets\Beam Fabrication\0161248-011-DeckDetails.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



- Notes:
1. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
  2. For Diaphragm Details see Sheet 13 of 19.
  3. For Beam and Splice Details see Sheet 14 of 19.

**FRAMING PLAN**

	Abut.	Pier
$R_{DC1}$ (k)	24.4	53.9
$R_{DC2}$ (k)	14.4	29.3
$R_{DW}$ (k)	7.5	15.2
$R_{\frac{1}{2} + IM}$ (k)	79.3	126.7
$R_{Total}$ (k)	125.6	225.1

	0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
$I_s$ ( $in^4$ )	5630	5630	5630
$I_c(n)$ ( $in^4$ )	15,544	15,544	15,544
$I_c(3n)$ ( $in^4$ )	11,284	-	11,284.2
$S_s$ ( $in^3$ )	411	411	411
$S_c(n)$ ( $in^3$ )	9,197.7	-	-
$S_c(3n)$ ( $in^3$ )	1,685.1	-	-
$Z$ ( $in^3$ )	457.33	457.33	457.33
$DC1$ ( $k/ft$ )	0.926	0.926	0.926
$M_{DC1}$ (k)	322.2	297	77.6
$DC2$ ( $k/ft$ )	0.516	0.516	0.516
$M_{DC2}$ (k)	199	117.6	5.1
$DW$ ( $k/ft$ )	0.27	0.27	0.27
$M_{DW}$ (k)	104	61.4	2.6
$M_{\frac{1}{2} + IM}$ (k)	792.4	341.8	346.2
$M_u$ (Strength I) (k)	2,194.4	1,208.7	519.2
$\phi_r M_n, \phi_r M_{nc}$ (k)	2,919.1	-	-
$f_s$ DC1 (ksi)	9.41	8.67	2.27
$f_s$ DC2 (ksi)	1.42	3.43	0.15
$f_s$ DW (ksi)	0.74	1.79	0.08
$f_s$ 1.3( $\frac{1}{2} + IM$ ) (ksi)	20.76	13.08	13.25
$f_s$ (Service II) (ksi)	36.58	27.11	11.19
$f_s$ (Total)(Strength I) (ksi)	-	-	-
$V_r$ (k)	23.8	-	12.4

\* Compact sections  
\*\* Non-Compact and slender sections

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads ( $in^4$  and  $in^3$ ).

$I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ( $in^4$  and  $in^3$ ).

$I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ( $in^4$  and  $in^3$ ).

$Z$ : Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations ( $in^3$ ).

$DC1$ : Un-factored non-composite dead load (kips/ft.).

$M_{DC1}$ : Un-factored moment due to non-composite dead load (kip-ft.).

$DC2$ : Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

$M_{DC2}$ : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

$DW$ : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

$M_{DW}$ : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_{\frac{1}{2} + IM}$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

$M_u$  (Strength I): Factored design moment (kip-ft.).  
 $1.25(M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\frac{1}{2} + IM}$

$\phi_r M_n$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_r M_{nc}$ : Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

$f_s$  (Service II): Sum of stresses as computed from the moments below (ksi).  
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{\frac{1}{2} + IM}$

$f_s$  (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $1.25(M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\frac{1}{2} + IM}$

$V_r$ : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

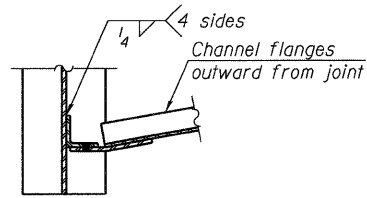
DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

**FRAMING PLAN  
STRUCTURE NO. 016-2119**

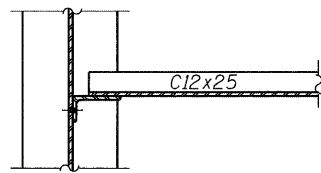
 600 W FULTON ST CHICAGO, ILLINOIS 60611 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isi.com	SHEET NO. 10  S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	12
CONTRACT NO. 60K91						
ILLINOIS FED. AID PROJECT						

6/10/2010 5:20:48 PM P:\Projects\2009002025-1001\_PTB\_152CAD\CADD\_Sheets\Beam Fabrication\0161243-012-FramingPlan.dgn

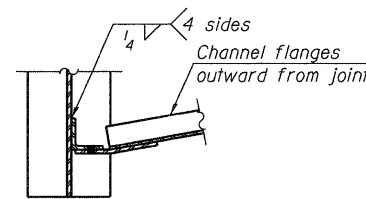
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



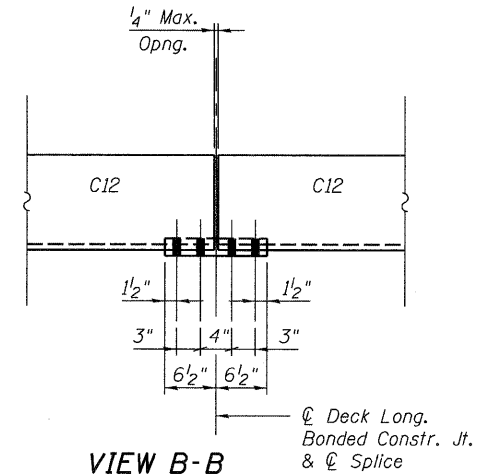
SECTION A-A



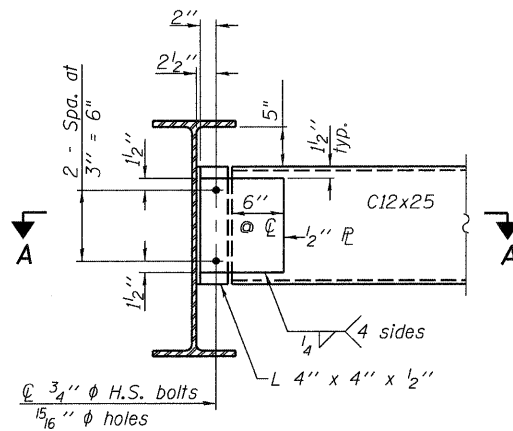
SECTION B-B



SECTION C-C



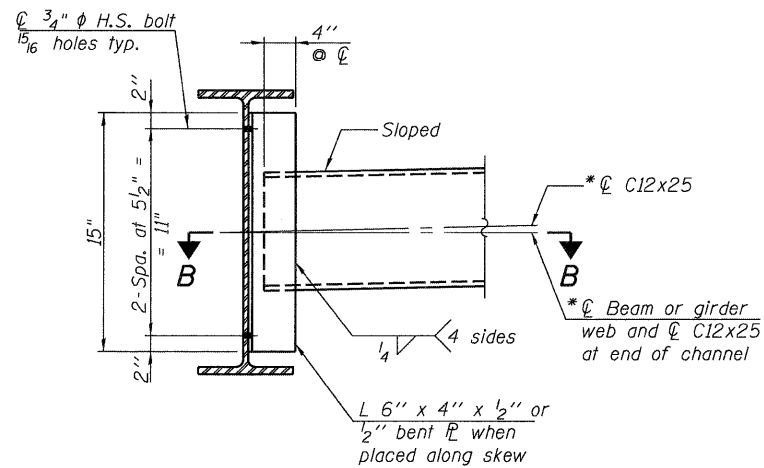
VIEW B-B



END DIAPHRAGM D1

16 Required

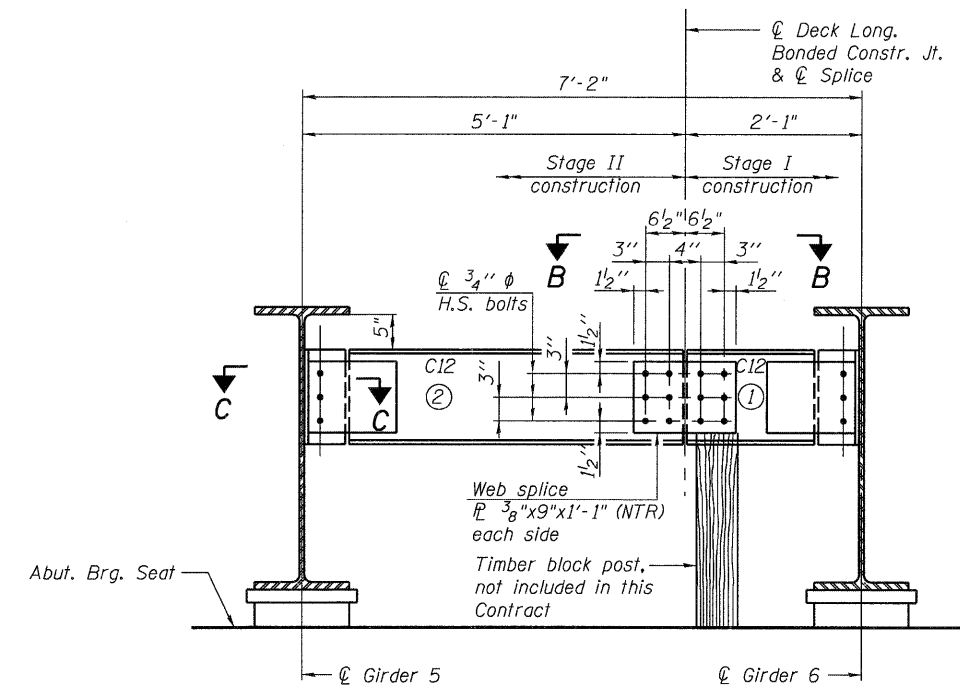
Note:  
Two hardened washers required for each set of oversized holes.



DIAPHRAGM D2

63 Required

\* Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.



END DIAPHRAGM D3

2 Required  
(Looking North at N. Abut.,  
S. Abut. Similar)

END DIAPHRAGM STAGE  
CONSTRUCTION SEQUENCE

- 1.) Order diaphragm D3 in two sections.
- 2.) Attach section ① of diaphragm to girder 6 during Stage I Construction.
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing seat.
- 4.) Attach section ② of diaphragm to both girder 5 and section ① of diaphragm during Stage II Construction with splice plates.
- 5.) Remove timber block posts.

Notes:

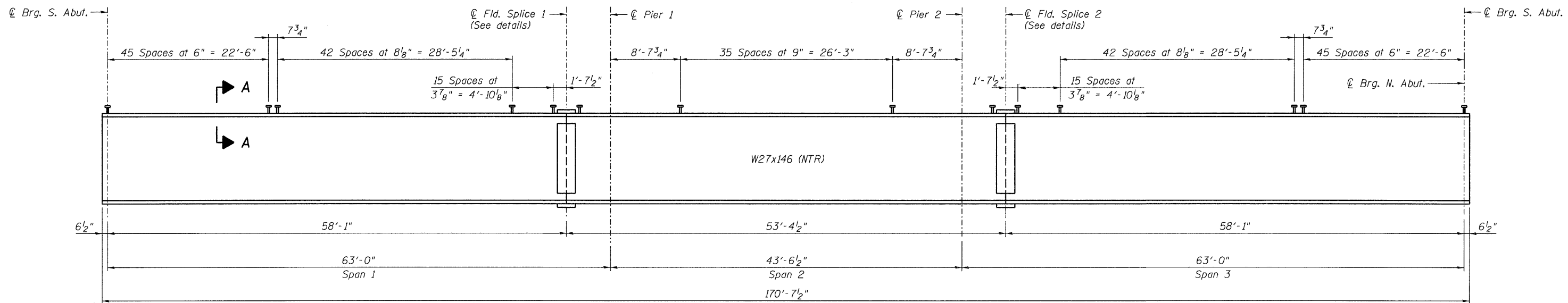
1. See Sheet 12 of 19 for diaphragm locations.
2. H.S. bolts for diaphragms shall be AASHTO M164/ASTM A325 H.S. bolts Type 1, mechanically galvanized bolts. Bolts 3/4 in.  $\phi$ , holes 15/16 in.  $\phi$ , unless otherwise noted
3. Two hardened washers required for each set of oversized holes..
4. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

DIAPHRAGM DETAILS  
STRUCTURE NO. 016-2119

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.spainstein.com	SHEET NO. 11  S17 SHEETS	F.A.I. RTE. 94	SECTION 1314B-1-F	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 13
		CONTRACT NO. 60K91				ILLINOIS FED. AID PROJECT

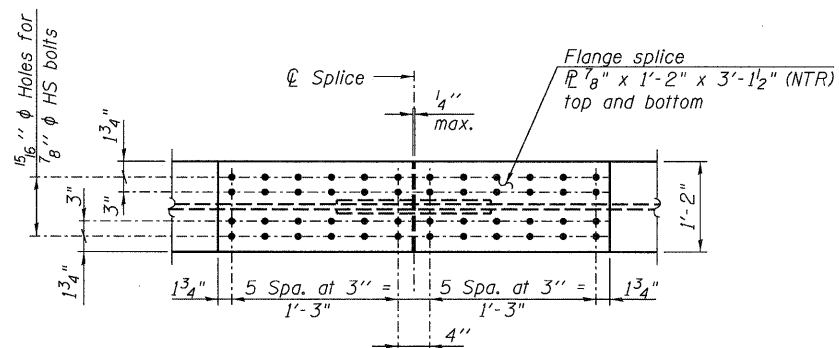
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



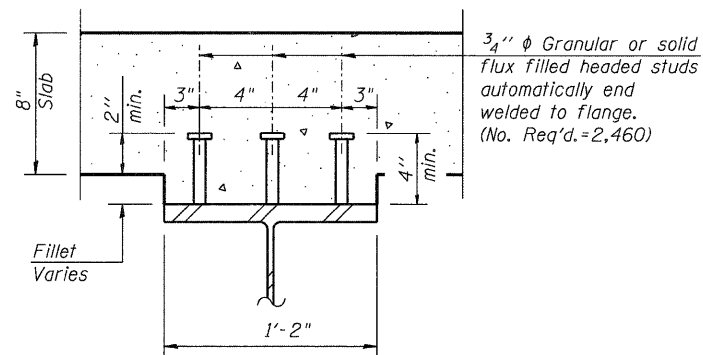
TYPICAL BEAM ELEVATION

TOP OF BEAM ELEVATIONS  
(For Fabrication only)

	℄ Brg. S. Abut.	℄ Splice 1	℄ Brg. Pier 1	℄ Brg. Pier 2	℄ Splice 1	℄ Brg. N. Abut.
Beam 1	590.31	591.76	591.85	592.63	592.73	593.36
Beam 2	590.38	591.82	591.91	592.68	592.78	593.40
Beam 3	590.53	591.96	592.05	592.82	592.91	593.52
Beam 4	590.69	592.10	592.19	592.95	593.04	593.64
Beam 5	590.84	592.24	592.33	593.08	593.17	593.76
Beam 6	590.88	592.27	592.36	593.10	593.19	593.77
Beam 7	590.81	592.18	592.27	593.00	593.09	593.66
Beam 8	590.73	592.10	592.19	592.91	593.00	593.55
Beam 9	590.66	592.02	592.10	592.82	592.91	593.45
Beam 10	590.67	592.02	592.10	592.81	592.89	593.43



VIEW B-B



SECTION A-A

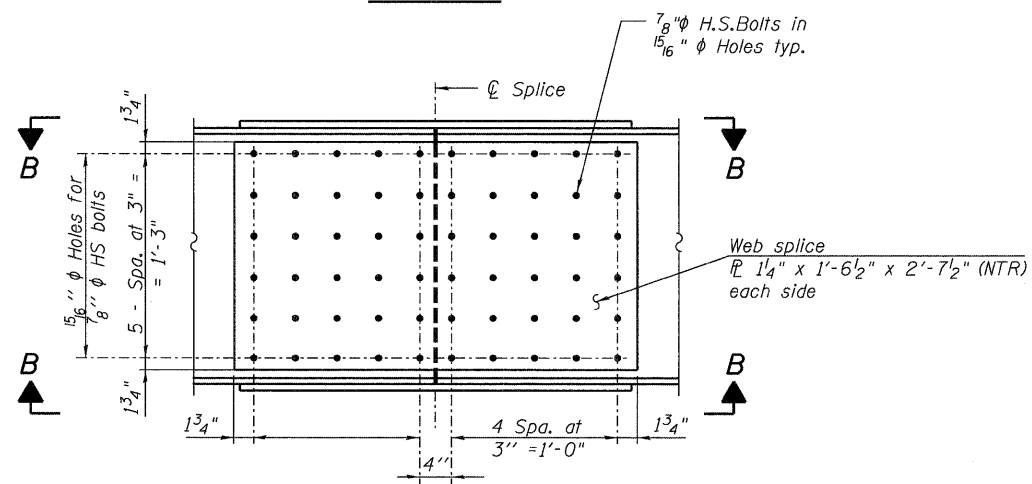
- Notes:
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
  - AASHTO M270 Grade 50 steel shall be used for all wide flange beams and splice plates.

BILL OF MATERIALS

Item	Unit	Total
Furnishing Structural Steel	L. Sum	1
* Stud Shear Connectors	Each	6,420

\* Stud Shear Connectors not included in this Contract

BEAM DETAILS  
STRUCTURE NO. 016-2119



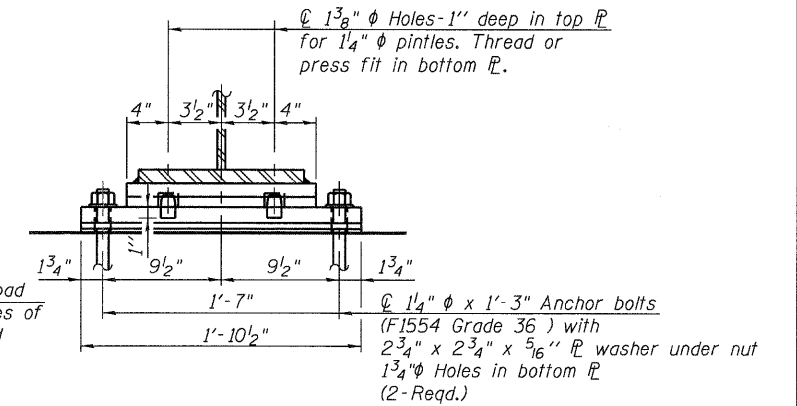
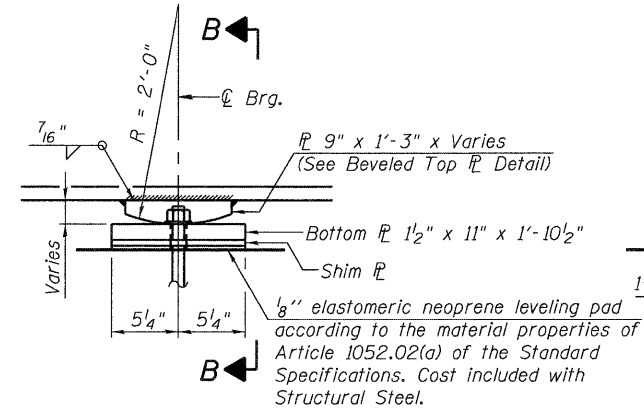
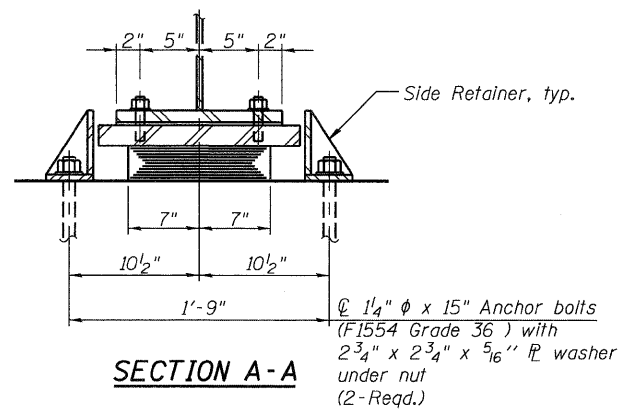
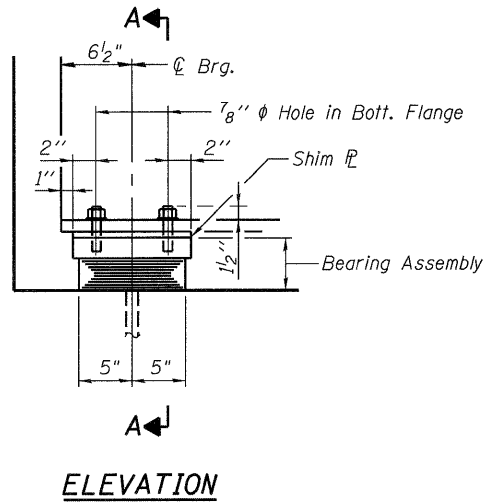
TYPICAL SPLICE ELEVATION

SPLICE DETAIL  
(20 Required)

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

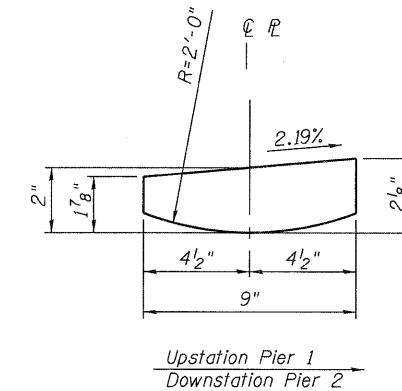
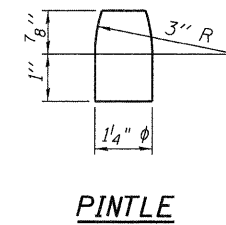
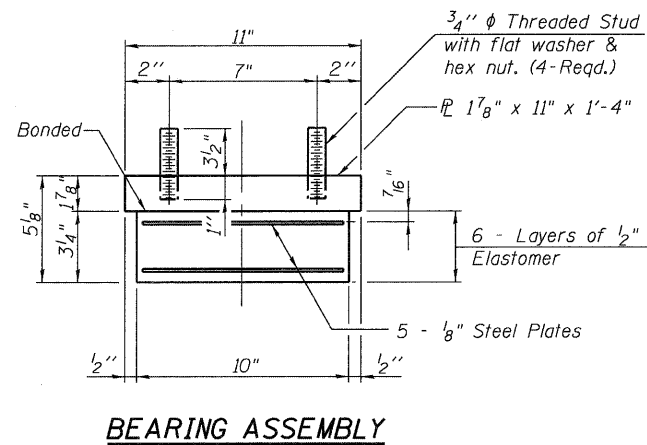
 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isl.com	SHEET NO. 12  S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	14
CONTRACT NO. 60K91						ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**TYPE I ELASTOMERIC EXP. BRG.**  
(at Abutments)

**FIXED BEARING**  
(at Piers)



Note:  
Shim plates shall not be placed under Bearing Assembly.

Notes:

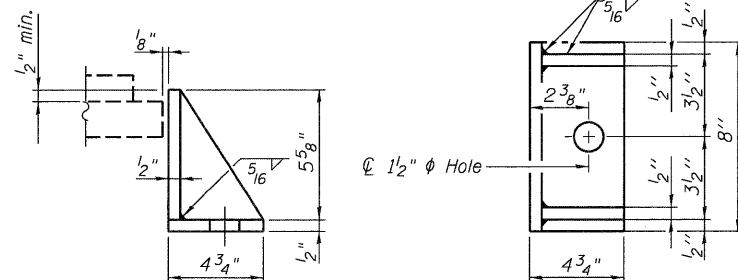
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Furnishing Elastomeric Bearing Assembly, Type I.
- The structural steel plates and side retainers of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing Elastomeric Bearing Assembly, Type I	Each	20
* Anchor Bolts 1/4" φ x 1'-3"	Each	80

**BEARING DETAILS**  
**STRUCTURE NO. 016-2119**

\* Anchor bolts not included in this Contract



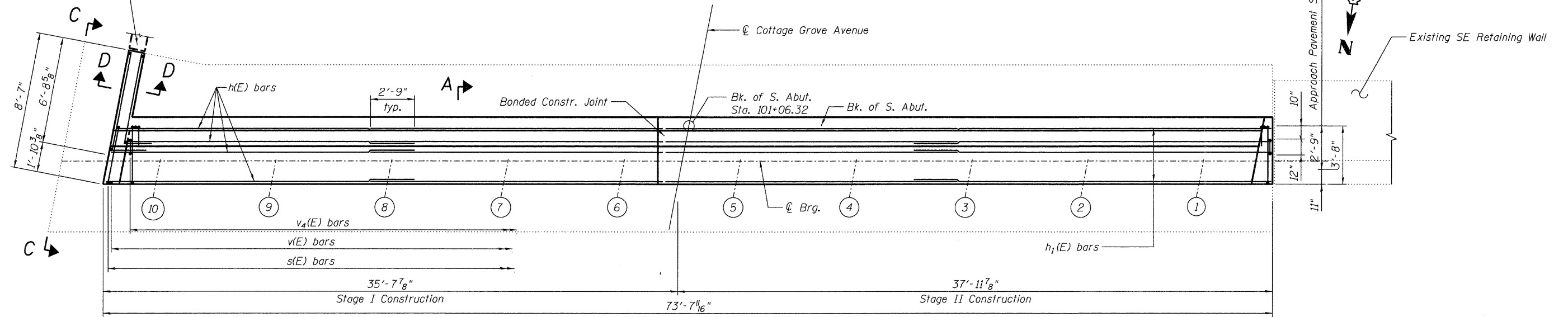
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

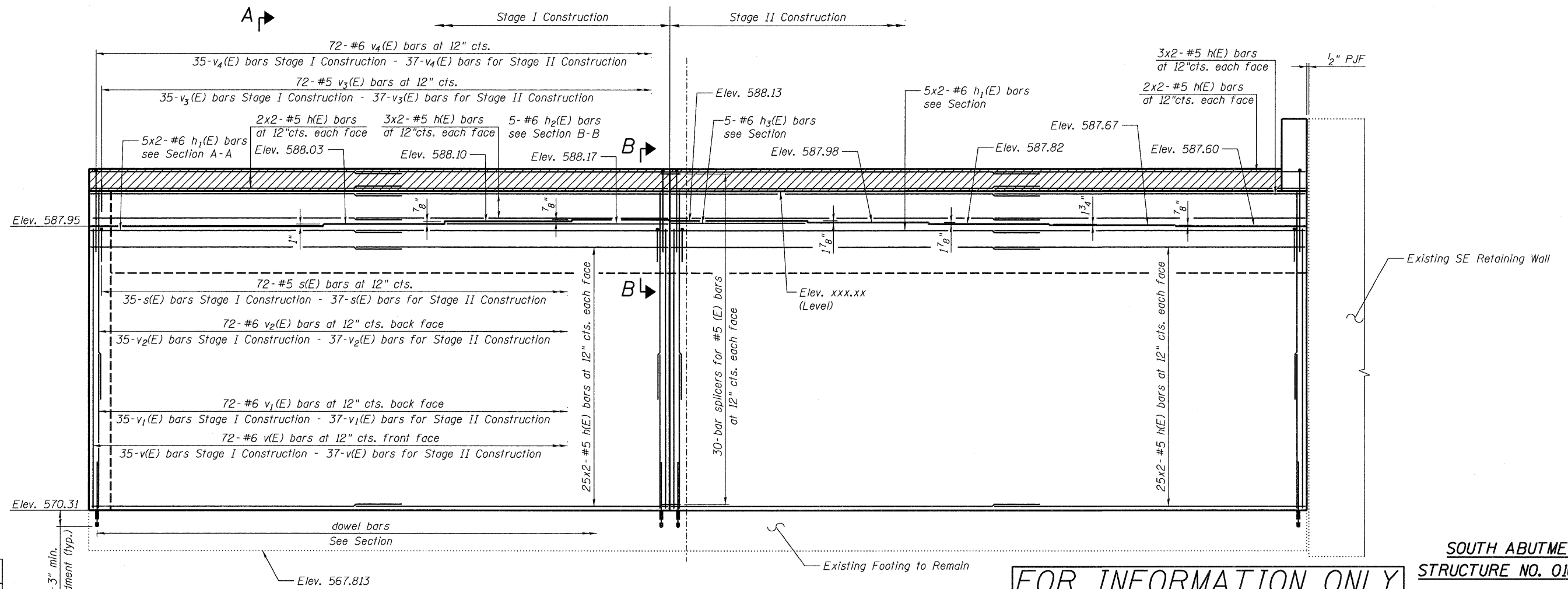
 600 W FULTON ST CHICAGO, ILLINOIS 60681 1259 TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-isi.com	SHEET NO. 13  S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	15
CONTRACT NO. 60K91						ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Proposed SE Retaining Wall  
See Sheet xx for Details



PLAN



ELEVATION

(Looking South at South Abutment)

FOR INFORMATION ONLY

SOUTH ABUTMENT  
STRUCTURE NO. 016-2119

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

**SEPSTEIN**  
600 W FULTON ST  
CHICAGO, ILLINOIS  
60661 1259  
TEL. 312 454 9100  
FAX 312 559 1217  
WEB www.epstein-isi.com

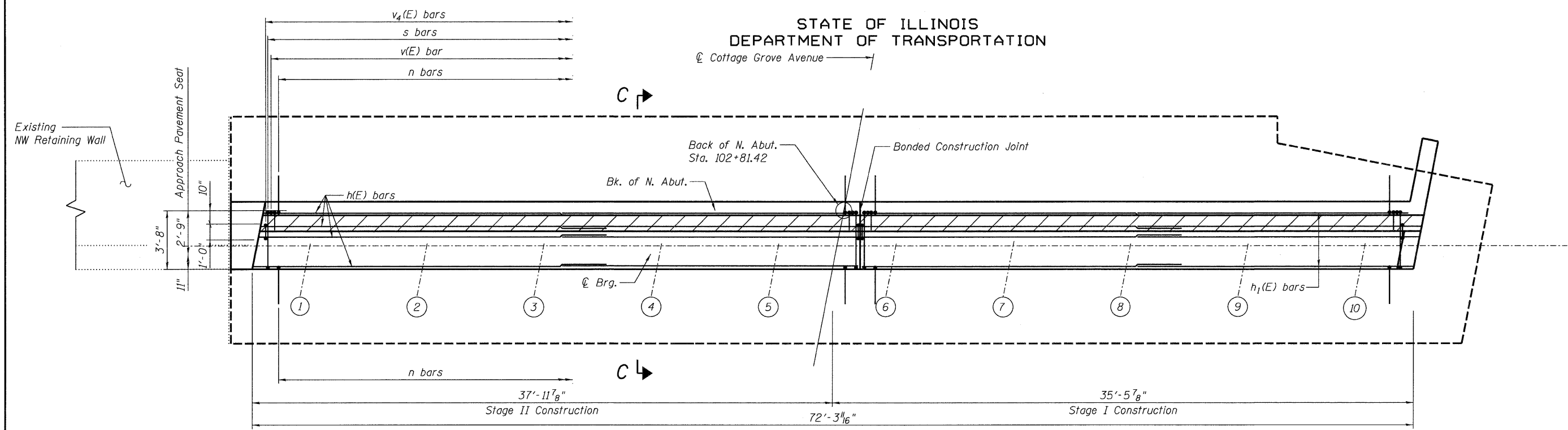
SHEET NO. 14  
S17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	1314B-1-F	COOK	19	16
CONTRACT NO. 60K91			ILLINOIS FED. AID PROJECT	

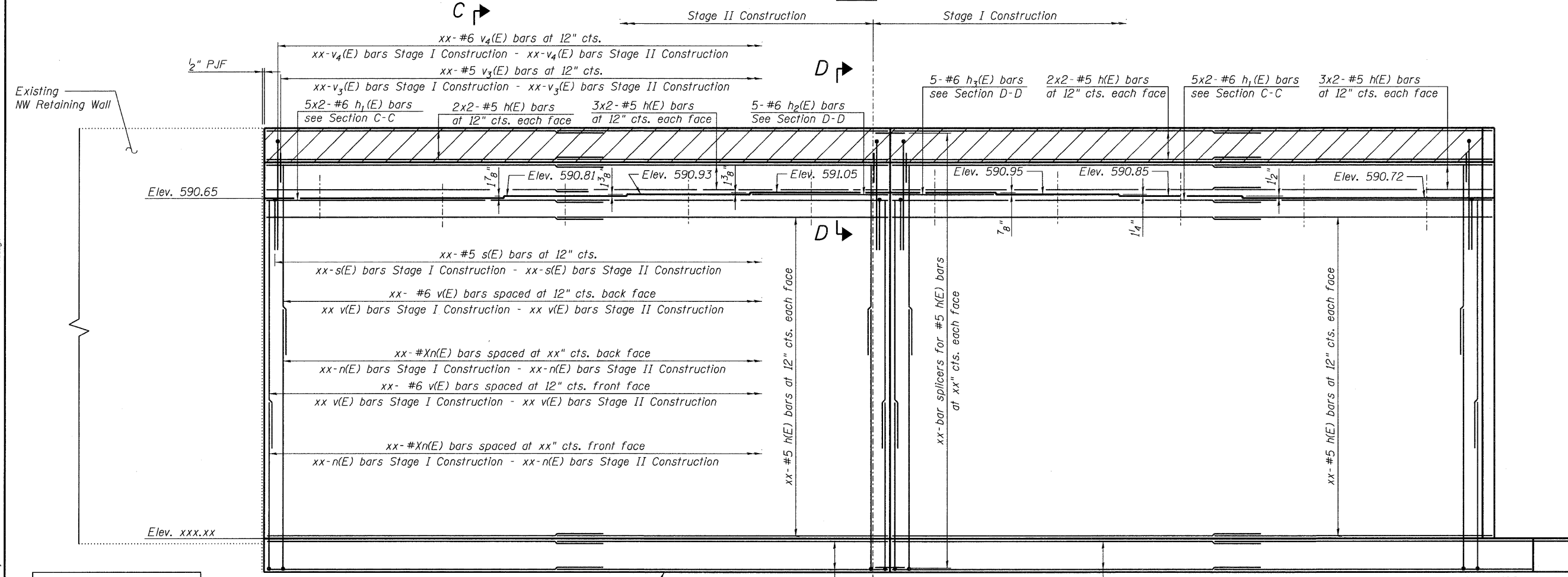


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

☉ Cottage Grove Avenue



PLAN



ELEVATION

(Looking North at North Abutment)

FOR INFORMATION ONLY

NORTH ABUTMENT  
STRUCTURE NO. 016-2119

DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

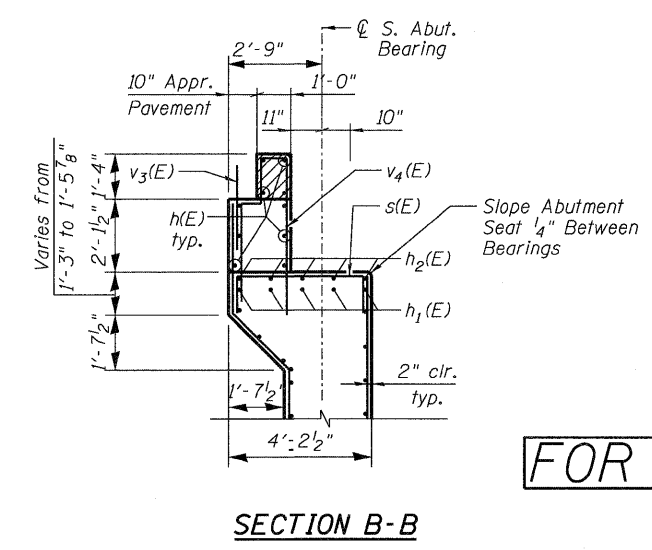
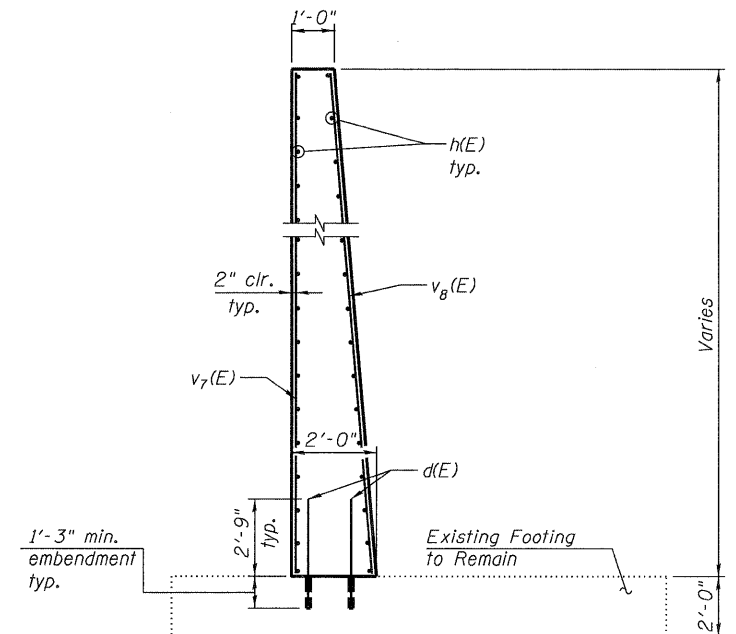
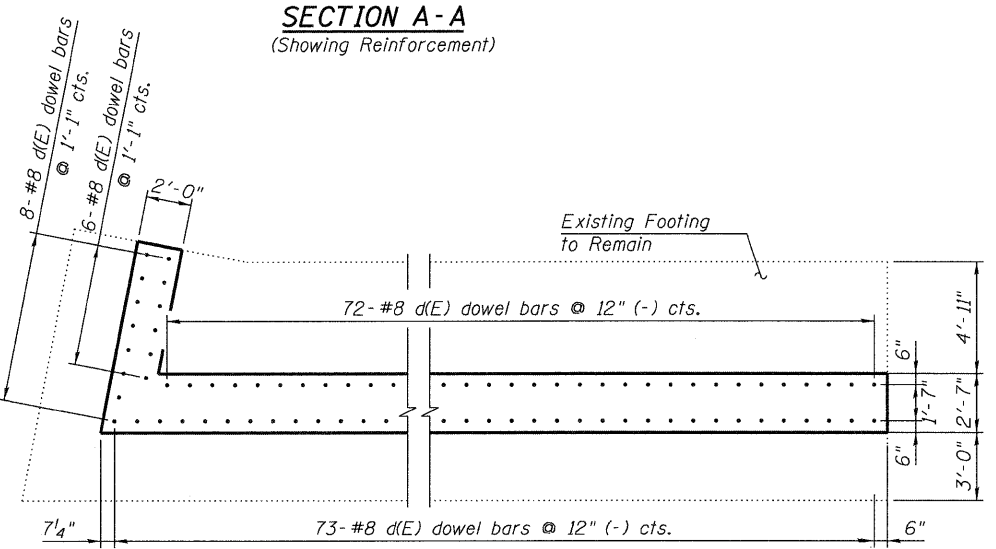
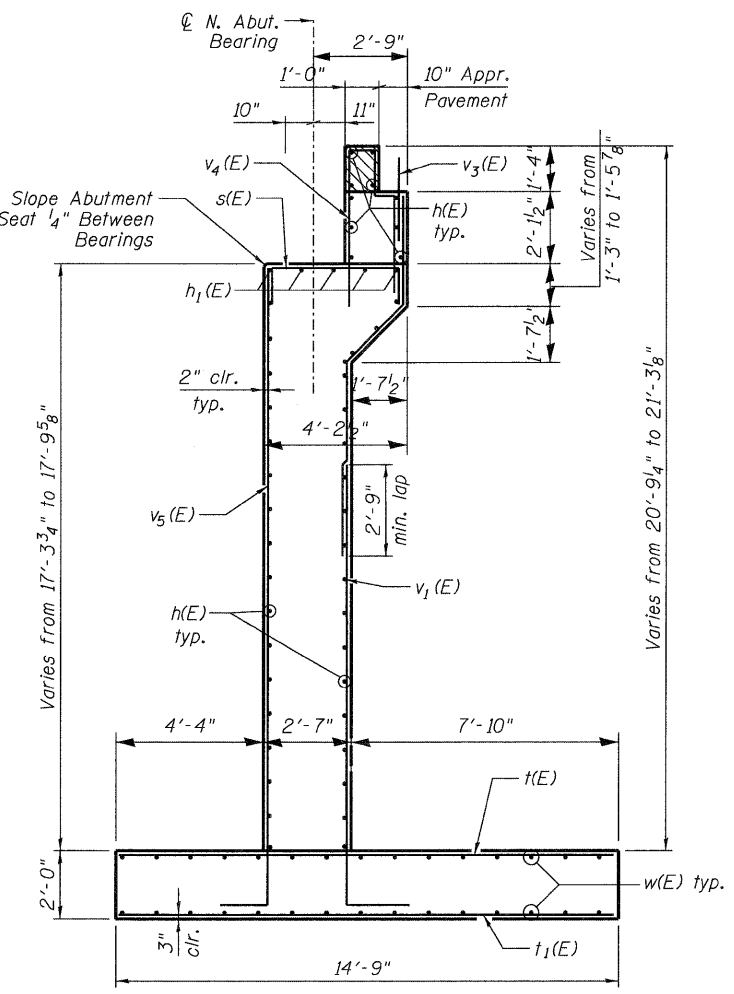
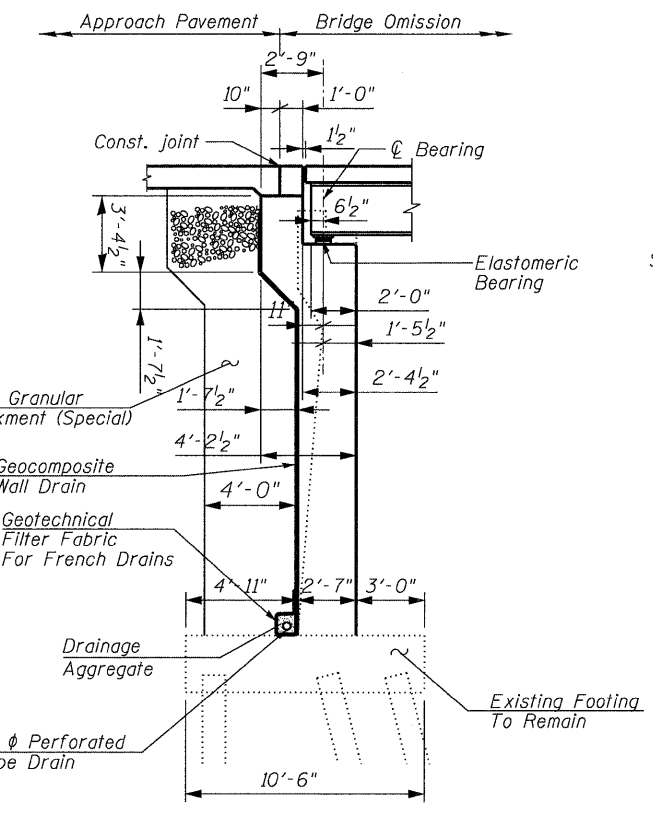
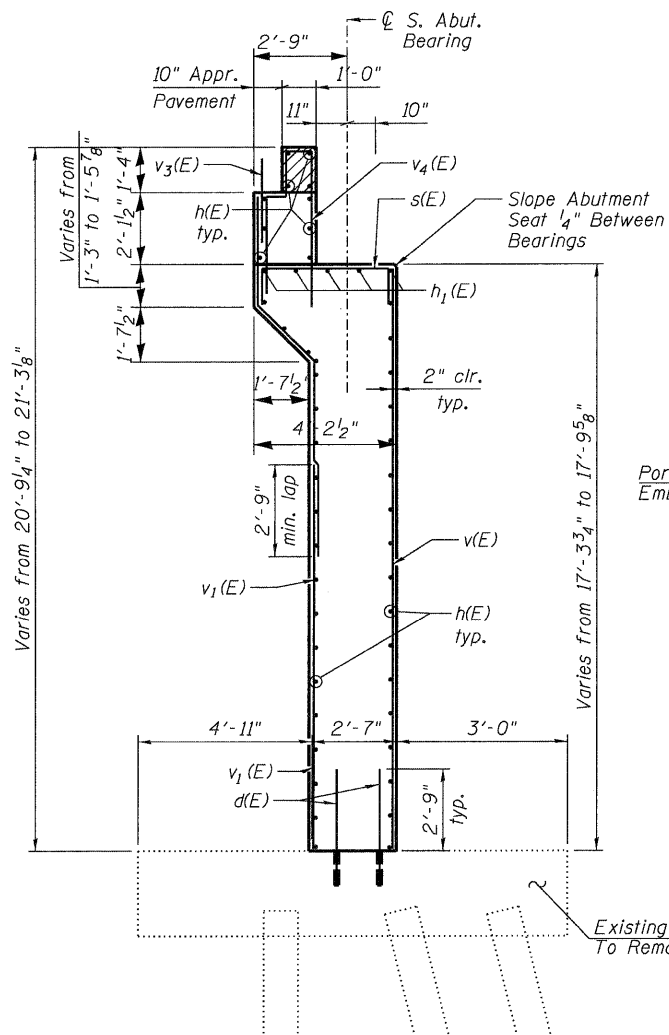
	SHEET NO. 15 S17 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		94	1314B-1-F	COOK	19	17
800 W FULTON ST CHICAGO, ILLINOIS 60681 1259		TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-il.com		CONTRACT NO. 60K91		
ILLINOIS FED. AID PROJECT						

8/15/2010 4:52:22 PM P:\Projects\2000\09225 - IDOT PTB 152\CAD\CADD Sheets\Beam Fabrication\016\249-017-NorthAbut.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)				
h <sub>1</sub> (E)				
h <sub>2</sub> (E)				
h <sub>3</sub> (E)				
h <sub>4</sub> (E)				
h <sub>5</sub> (E)				
h <sub>6</sub> (E)				
h <sub>7</sub> (E)				
h <sub>8</sub> (E)				
h <sub>9</sub> (E)				
h <sub>10</sub> (E)				
h <sub>11</sub> (E)				
n(E)				
p(E)				
s(E)				
t(E)				
t <sub>1</sub> (E)				
v(E)				
v <sub>1</sub> (E)				
v <sub>2</sub> (E)				
v <sub>3</sub> (E)				
v <sub>4</sub> (E)				
v <sub>5</sub> (E)				
v <sub>6</sub> (E)				
v <sub>7</sub> (E)				
v <sub>8</sub> (E)				
v <sub>9</sub> (E)				
w(E)				
Structure Excavation			Cu. Yd.	
Concrete Structures			Cu. Yd.	
Reinforcement Bars, Epoxy Coated			Pound	
Concrete Sealer			Sq. Ft.	



FOR INFORMATION ONLY

ABUTMENT DETAILS  
STRUCTURE NO. 016-2119

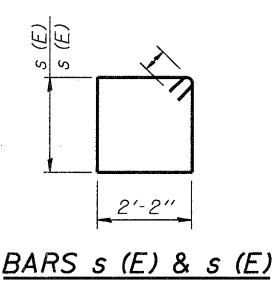
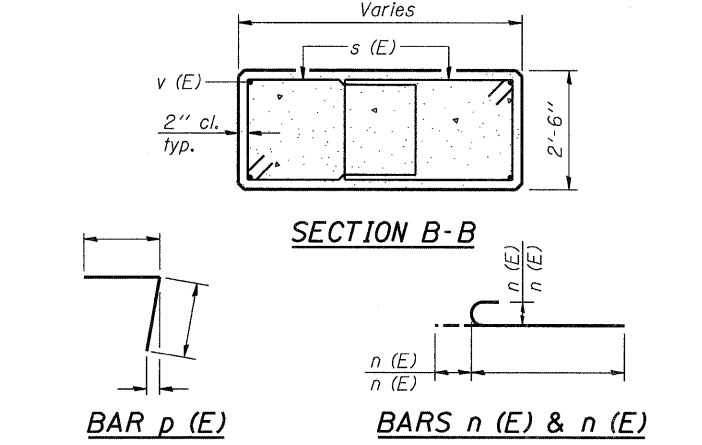
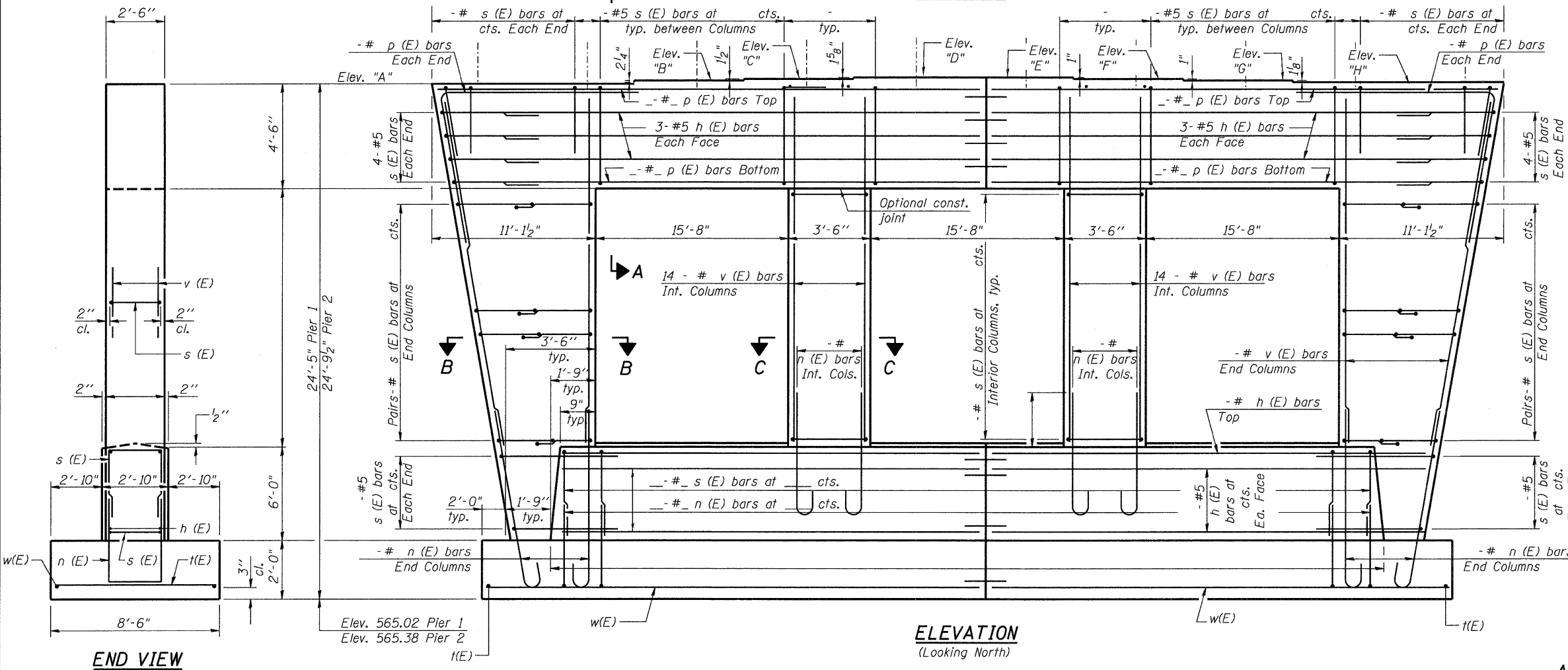
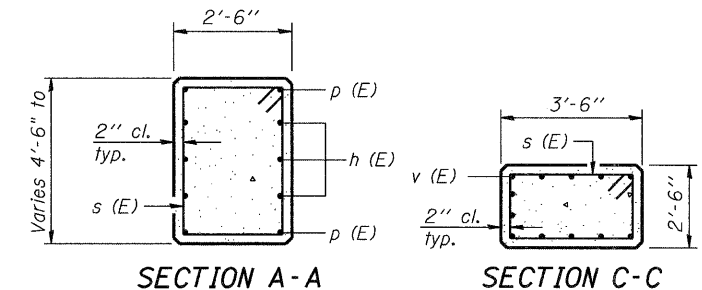
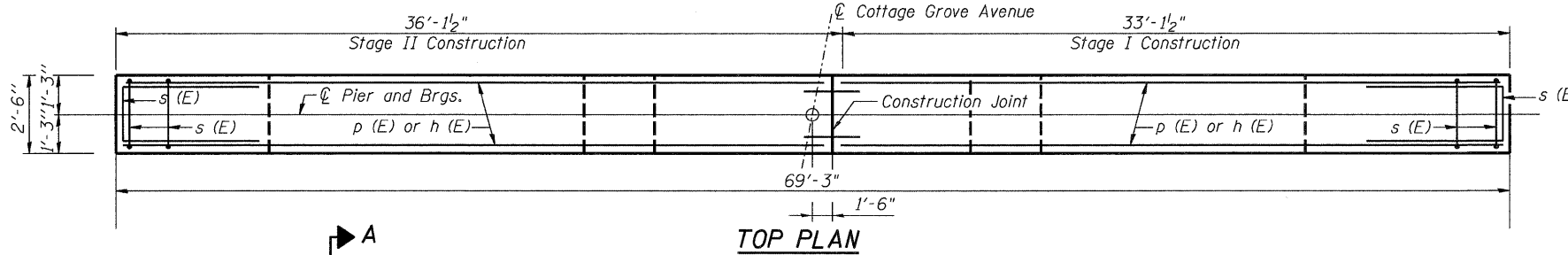
DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

 600 W FULTON ST CHICAGO, ILLINOIS 60661 1259	TEL 312 454 9100 FAX 312 559 1217 WEB www.epstein-il.com	SHEET NO. 16	F.A.I. RTE. 94	SECTION 1314B-1-F	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 18
		S17 SHEETS	CONTRACT NO. 60K91		ILLINOIS FED. AID PROJECT		

6/10/2010 5:22:16 PM P:\Projects\2009\02225 - DOT PTB 1520\CAD\CADD Sheets\Beam Fabrication\0161243-018-AbutDetails.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
Space reinforcement in cap to miss anchor bolts.  
Four steps monolithically with cap.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)		#		—
h (E)		#		—
n (E)		#		U
n (E)		#		U
n (E)		#		U
p (E)		#		—
p (E)		#		—
p (E)		#		7
s (E)		#		□
s (E)		#		□
s (E)		#		□
s (E)		#		□
s (E)		#		□
t(E)		#		—
v (E)		#		—
w(E)		#		—
Structure Excavation			Cu. Yd.	
Concrete Structures			Cu. Yd.	
Reinforcement Bars, Epoxy Coated			Pound	
Furnishing - Piles,			Foot	
Driving Piles			Foot	
Test Pile,			Each	

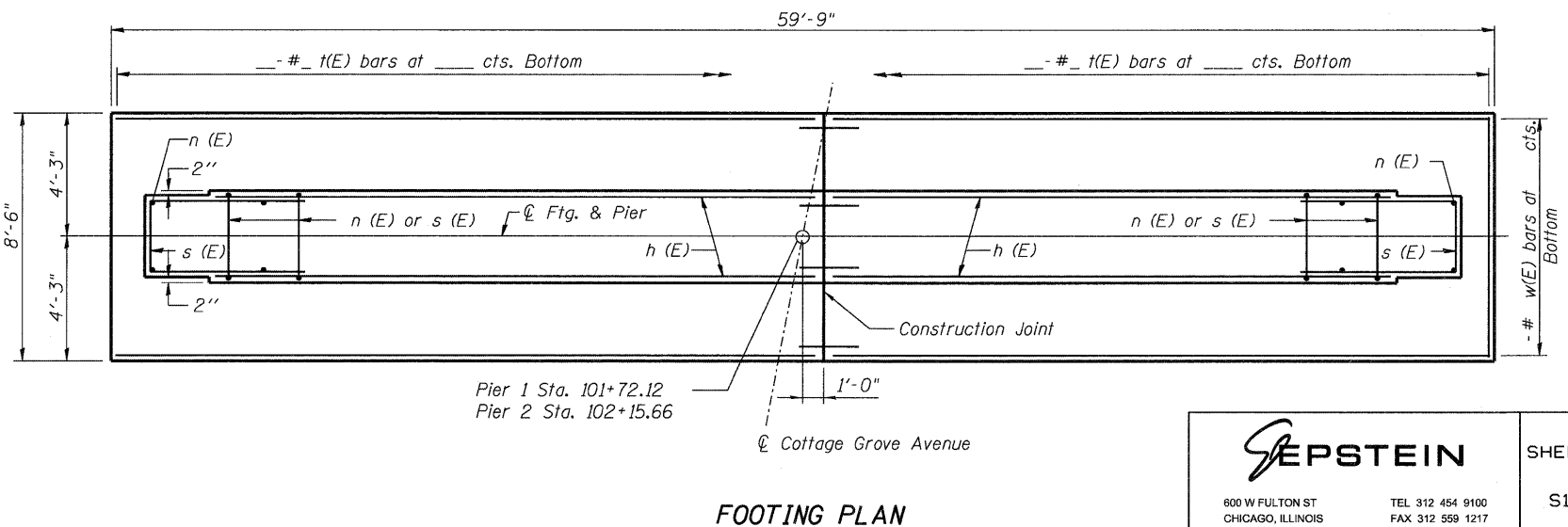
A & B DIMENSIONS

Bar	A	B

FOR INFORMATION ONLY

PIERS 1 AND 2  
STRUCTURE NO. 016-2119

Elev.	PIER 1	PIER 2
"A"	589.28	590.06
"B"	589.48	590.25
"C"	589.62	590.38
"D"	589.76	590.51
"E"	589.78	590.51
"F"	589.70	590.43
"G"	589.62	590.34
"H"	589.53	590.24



DESIGNED	EV
CHECKED	PC
DRAWN	JCP
CHECKED	JPO

**SEPSTEIN**  
800 W FULTON ST  
CHICAGO, ILLINOIS  
60661 1259  
TEL 312 454 9100  
FAX 312 559 1217  
WEB www.epstein-si.com

SHEET NO. 17  
S17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	1314B-1-F	COOK	19	19
CONTRACT NO. 60K91			ILLINOIS FED. AID PROJECT	

P:\Projects\2000\029225 - IDOT PTB 152\CAD\CADD Sheets\Beam Fabrication\0161243-019-Piers\Iand2.dgn