Bench Mark: Iron rod with yellow cap at Sta. 722+92.37, 4.19' Rt. ℄ I-80, Elev. 556.54.

Existing Structure: S.N. 099-0062 (EB) was built in 1964 under F.A.I. Route 80 Project I-80-4(36)134, Section 99-4B-1. The structure was repaired in 1990, 1998, 2001, and 2011. The work included repair of the concrete deck and substructure, and replacement of the expansion joints, waterproofing membrane and bituminous overlay. Existing structure consists of three single span reinforced concrete deck on composite W36 rolled steel beams supported by pile bent abutments and multi-column concrete piers founded on spread footings. The approach slabs are supported on timber piles. The structure measures 265'-5" back to back of abutments. The out to out deck width varies from 48'-0" to 54'-5 ½". Existing superstructure, concrete slopewalls, pier caps and approach slabs are to be removed and replaced. The substructure will remain, except the pier caps and abutment stems will be rebuilt.

Stage Construction will be utilized to maintain traffic.

No salvage

WATERWAY INFORMATION

Drainage Area = 109 sq.mi. Low Grade Elev. 557.62 @ Sta. 722+72

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	2	3,710	597	597	521.13	0.62	0.32	521.75	521.45
	10	6,230	772	772	522.84	0.71	0.46	523.55	523.30
Design	50	10,660	1,163	1,163	526.31	0.52	0.45	526.83	526.76
Base	100	13,750	1,416	1,416	528.40	0.57	0.58	528.97	528.98
Overtopping	>500	-	-	-	-	-	-	-	-
Max. Calc.	500	23,203	2,197	2,197	534.02	1.00	1.00	535.02	535.02

LOADING HL-93

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

DESIGN SPECIFICATIONS

NEW CONSTRUCTION:

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition, with 2013 Interims

EXISTING PIERS AND ABUTMENTS:

1995 FHWA Seismic Retrofitting Manual for Highway Biridges

DESIGN STRESSES

FIELD UNITS (NEW CONST.)

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi
fy = 40,000 psi (Reinforcement)
fy = 36,000 psi (Structural steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.068g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.125g
Soil Site Class = C

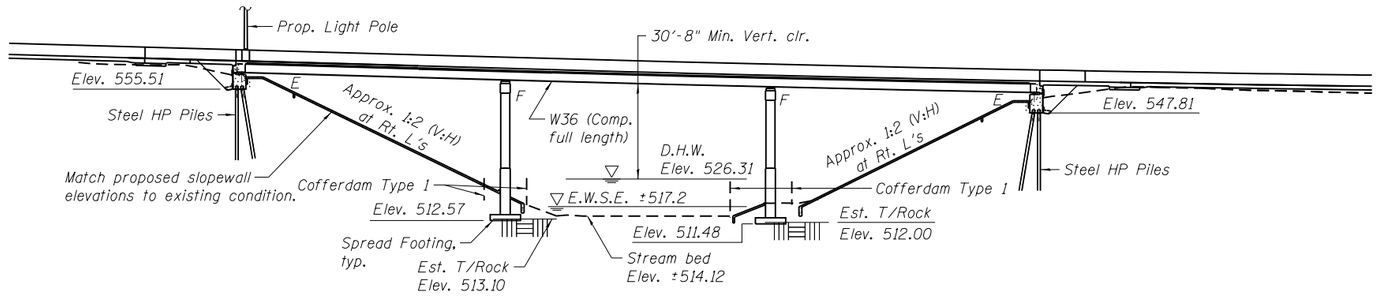
ROADWAY TAPERS

Location	Sta.	Offset	
1	719+97.33	49'-6"	
2	719+91.32	66'-8¼"	2
3	722+62.58	49'-6"	
4	722+51.48	80'-7"	2

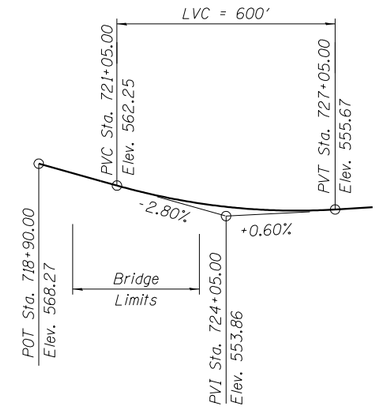
2

DESIGN SCOUR ELEVATION TABLE

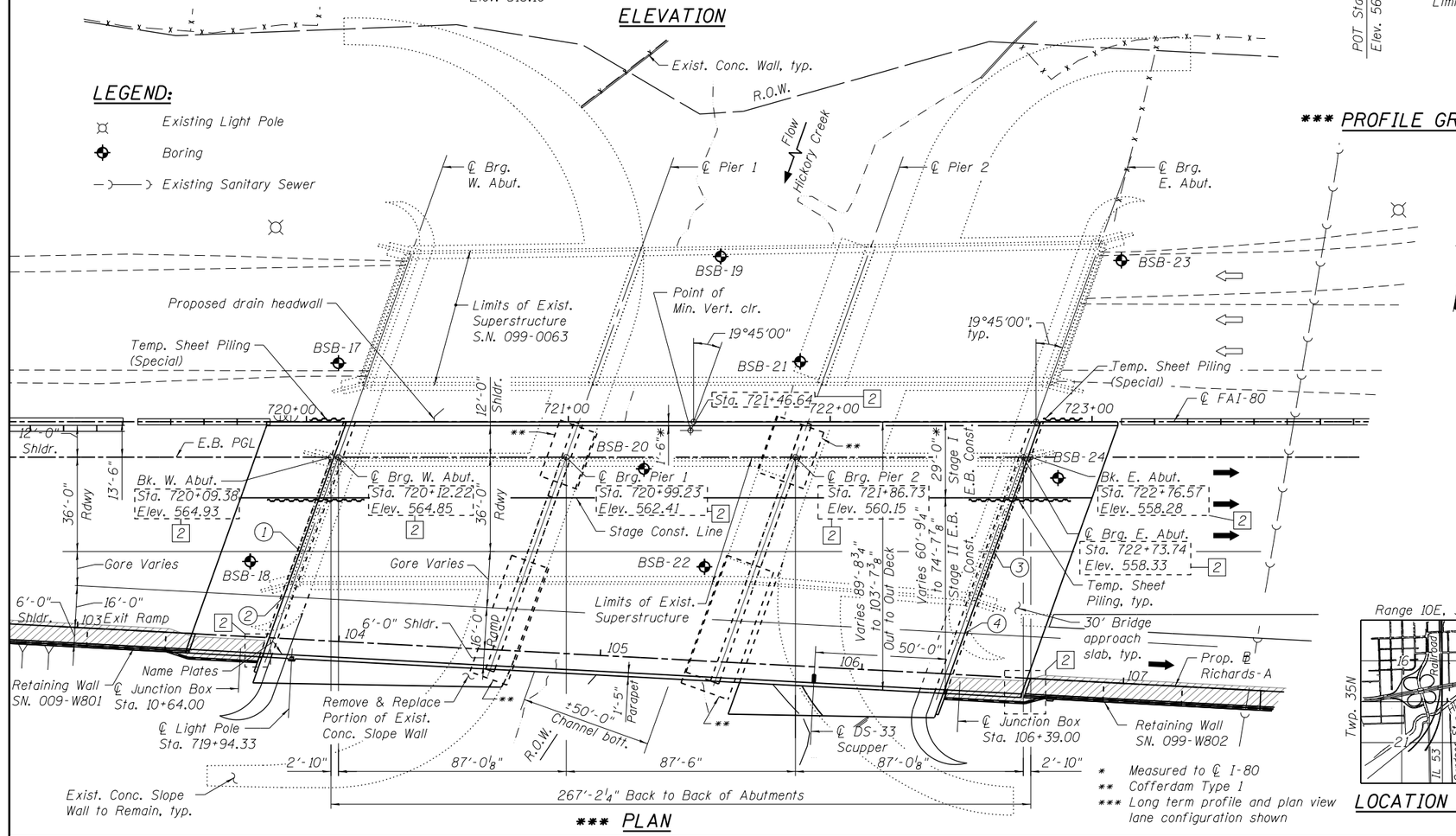
W. Abut.	Pier 1	Pier 2	E. Abut.
551.51	514.40	514.40	547.81



ELEVATION



*** PROFILE GRADE PROP. I-80 EB



*** PLAN

* Measured to ℄ I-80
** Cofferdam Type 1
*** Long term profile and plan view lane configuration shown

LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

THOMAS A. THOMPSON
081-007653
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

Signed:
Date: 6/26/2020
Exp: 11/30/2020
Sheets: 1 thru 54

GENERAL PLAN AND ELEVATION
I-80 OVER HICKORY CREEK
F.A.I. RTE. 80 - SEC. 2013-008B
WILL COUNTY
STATION 721+47.82 [2]
STRUCTURE NO. 099-0062 (EB)

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - ACF	REVISED [2] 6/11/2021 LK	
	CHECKED - PCA	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - ACF/TAT	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	236
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-001-GPE.dgn

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts.
Bolts $^{7}/_{8}$ in. ϕ, holes $^{15}/_{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 1,082,790 pounds (AASHTO M270 Grade 50)
68,300 pounds (AASHTO M270 Grade 36)

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

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1#8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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 of the exterior surface and the bottom of the bottom flange of fascia beams, masked off connection surfaces,field installed fasteners and damaged areas shall be touched up 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.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Slipforming of the median parapet (adjacent to the centerline of I-80) is not allowed.

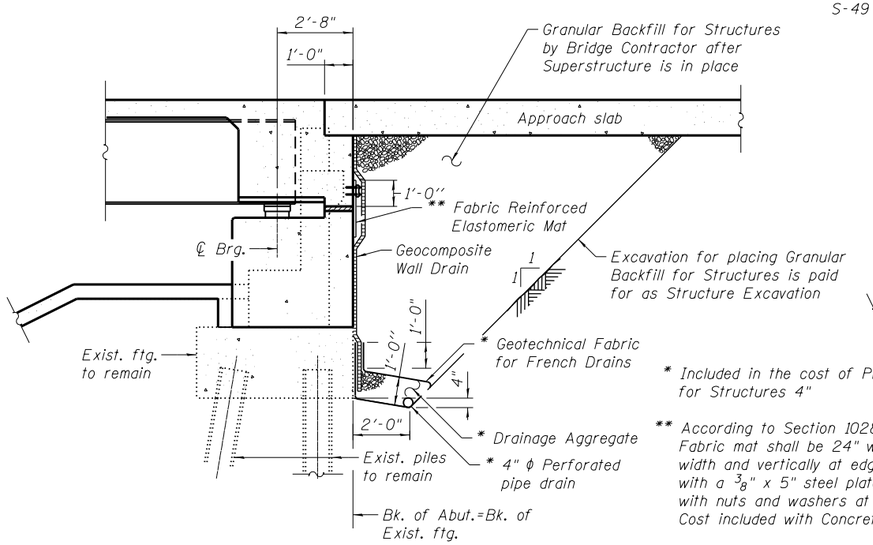
If the Contractor elects to use cantilever forming brackets on the exterior beams or griders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

This Project requires a US Army Corps of Engineers (USACE) 404 permit. See General Note 25 on roadway plan sheet no. 4. Instream work plan will be required depicting any work within the Waters of the US (WOUS) noted on the plans. The Contractor shall develop and submit work plan as described in General Note 4 on sheet no. 4. Instream work plan may be required for the construction of proposed Pier 1 and Pier 2.

INDEX OF SHEETS

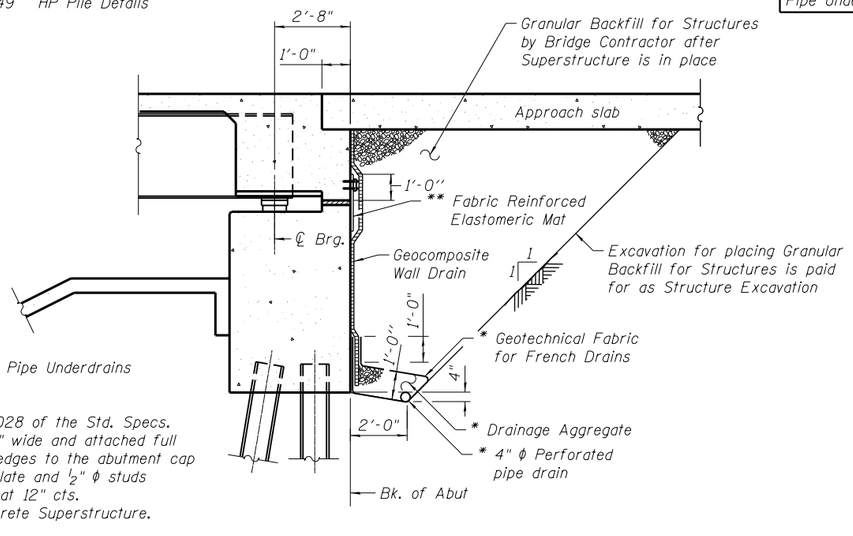
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL	
Removal of Existing Superstructures	Each	1		1	
Concrete Removal	Cu Yd		113.3	113.3	
Slope Wall Removal	Sq Yd		334	334	
Structure Excavation	Cu Yd		928	928	
Cofferdam Excavation	Cu Yd		115	115	
Rock Excavation for Structures	Cu Yd		357	357	
Cofferdam (Type 1) (Location - 1)	Each		1	1	
Cofferdam (Type 1) (Location - 2)	Each		1	1	
Cofferdam (Type 1) (Location - 3)	Each		1	1	
Cofferdam (Type 1) (Location - 4)	Each		1	1	
Concrete Structures	Cu Yd		791.0	791.0	1
Concrete Superstructure	Cu Yd	845.9		845.9	2
Bridge Deck Grooving	Sq Yd	3,389		3,389	
Concrete Encasement	Cu Yd		114.9	114.9	
Protective Coat	Sq Yd	3,708		3,708	
Concrete Superstructure (Approach Slab)	Cu Yd	268.6		268.6	
Furnishing and Erecting Structural Steel	L Sum	0.30		0.30	
Stud Shear Connectors	Each	16,296		16,296	
Reinforcement Bars, Epoxy Coated	Pound	317,440	95,320	412,760	
Bar Splicers	Each	1,123	114	1,237	
Mechanical Splicers	Each		20	20	
Slope Wall 6 Inch	Sq Yd		992	992	
Furnishing Steel Piles HP12x53	Foot		946	946	
Driving Piles	Foot		946	946	
Test Pile Steel HP12x53	Each		2	2	
Name Plates	Each	1		1	
Elastomeric Bearing Assembly, Type I	Each	30		30	
Anchor Bolts, 1"	Each		120	120	
Temporary Sheet Piling	Sq Ft		1,284	1,284	
Temporary Sheet Piling (Special)	Sq Ft		634	634	
Geocomposite Wall Drain	Sq Yd		203	203	
Granular Backfill for Structures	Cu Yd		521	521	
Drainage Scuppers, DS-33	Each	1		1	
Pipe Underdrains for Structures 4"	Foot		240	240	



SECTION THRU SEMI-INTEGRAL ABUTMENT AT EXIST. ABUT.

(Horiz. dim. at Rt. L's)



SECTION THRU SEMI-INTEGRAL ABUTMENT AT ABUT. EXTENSION

(Horiz. dim. at Rt. L's)

* Included in the cost of Pipe Underdrains for Structures 4"

** According to Section 1028 of the Std. Specs. Fabric mat shall be 24" wide and attached full width and vertically at edges to the abutment cap with a $^{3}/_{8}$" x 5" steel plate and $^{1}/_{2}$" ϕ studs with nuts and washers at 12" cts. Cost included with Concrete Superstructure.

STATION 721+47.82 [2]
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 80 SEC. 2013-008B
LOADING HL-93
STRUCTURE NO. 099-0062

NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

Drainage Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

HBP Illinois Partners

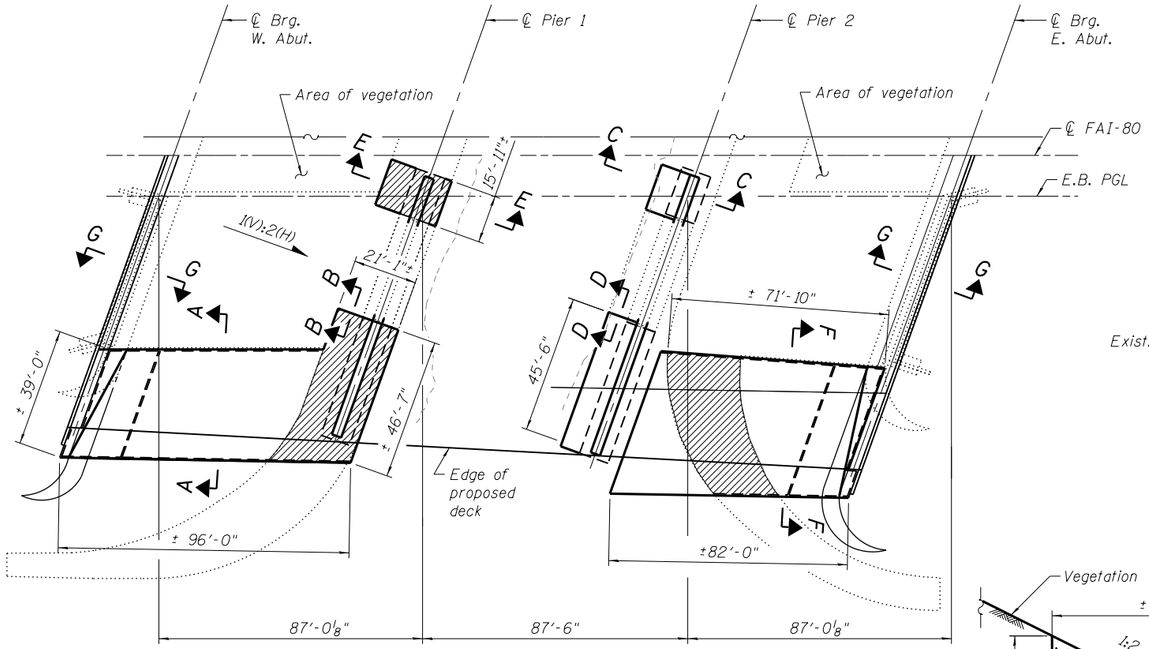
USER NAME = jschaefer	DESIGNED - ACF	REVISED 1	3/1/2021 P.A.B.
	CHECKED - PCA	REVISED 2	6/11/2021 JRS
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - PCA/TAT	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

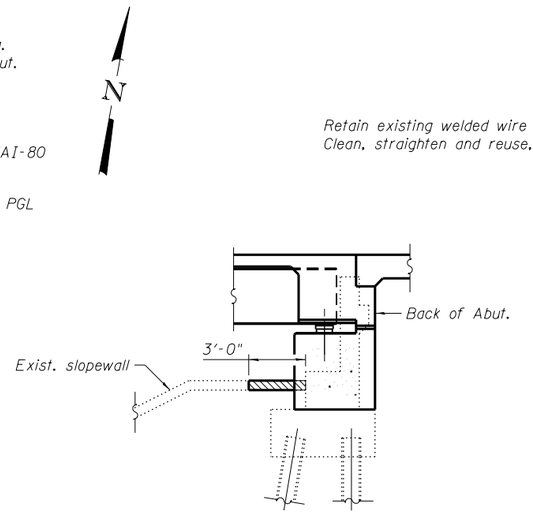
GENERAL DATA
STRUCTURE NO. 099-0062
SHEET NO. 2 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	237
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

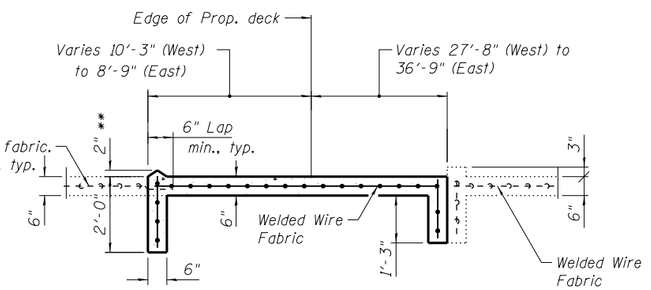
0990062-60W34-002-GN.dgn



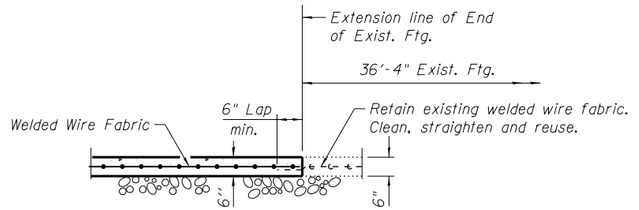
PLAN



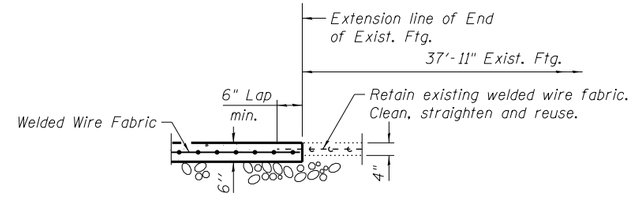
SECTION G-G



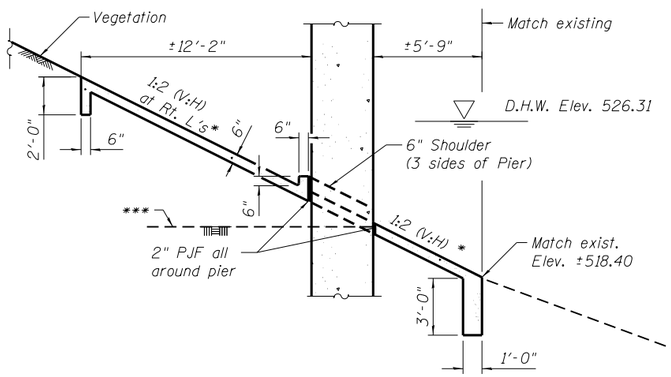
SECTION A-A SHOWN
SECTION F-F SIMILAR EXCEPT AS NOTED



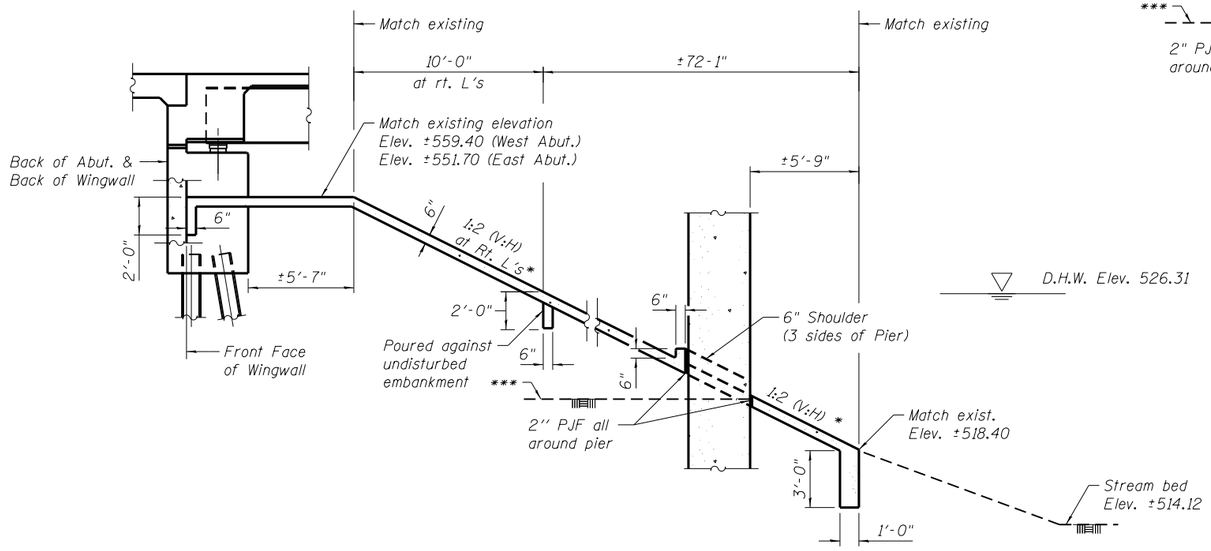
SECTION B-B



SECTION D-D

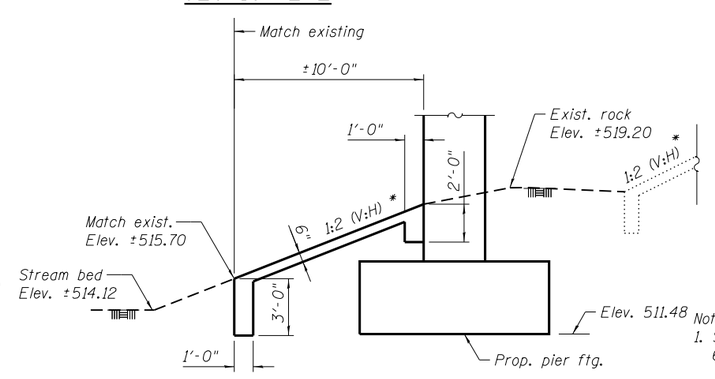


SECTION E-E



SECTION THRU WEST CONCRETE SLOPEWALL AT SOUTH FASCIA

East Slopewall at South fascia similar



SECTION C-C

LEGEND:

Slopewall removal & replacement

BILL OF MATERIAL

Item	Unit	Quantity
Slope Wall Removal	Sq Yd	334
Slope Wall 6 inch	Sq Yd	992

Notes:
1. Slopewall shall be reinforced with welded wire fabric 6 in. x 6 in.-W4.0x4.0, weighing 58 lb per 100 sq ft.

* Match slope of existing.
** 0" at Section F-F
*** Top or Rock is approximately ±519.20 and varies to meet steam bottom.

HBP Illinois Partners

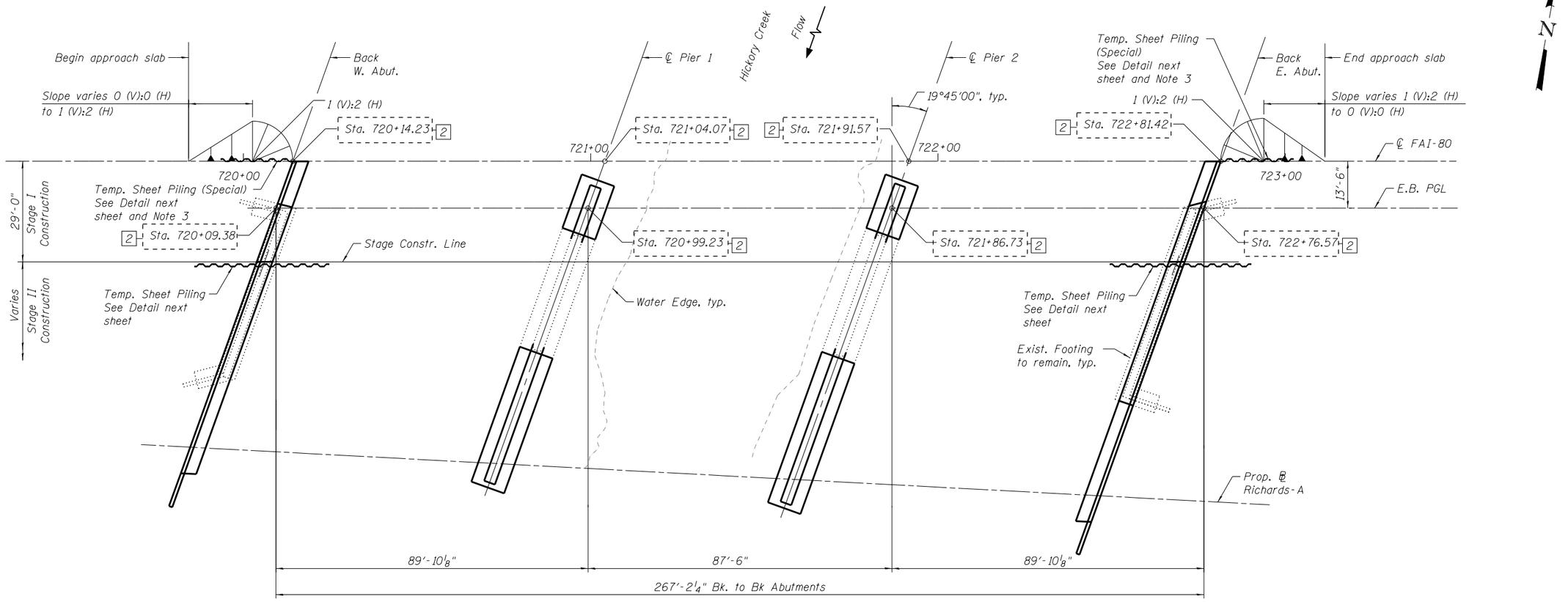
USER NAME = eabuatherah	DESIGNED - PCA/TAT	REVISED
	CHECKED - APC/ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - APC/ACF	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE WALL DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 3 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	238
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

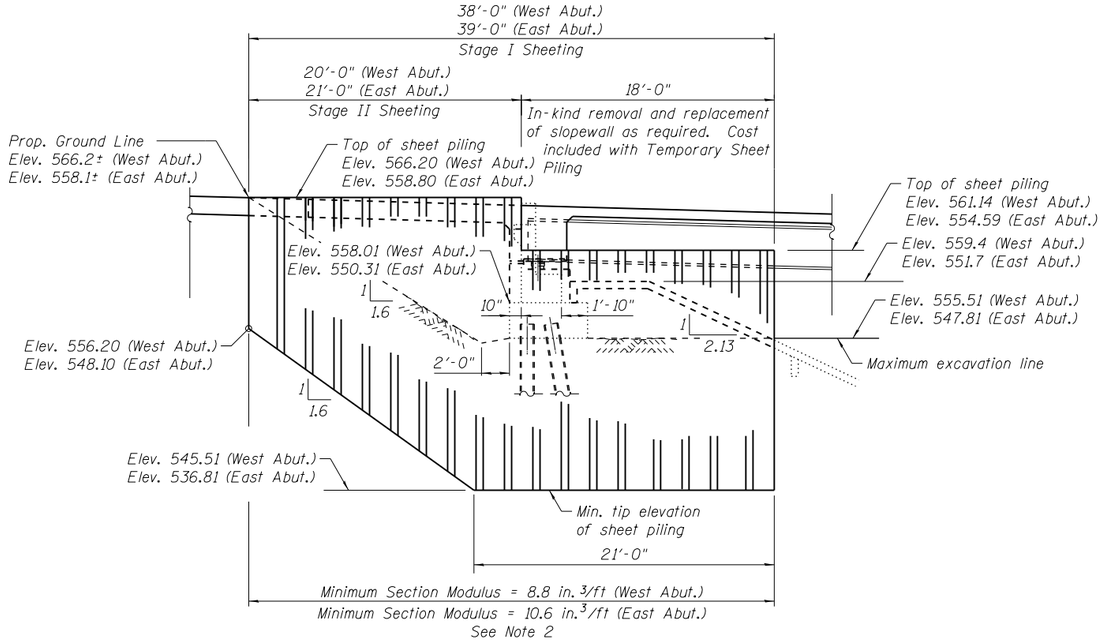
0990062-60W34-003-SLOPEW.dgn



SUBSTRUCTURE & SHEET PILING LAYOUT PLAN

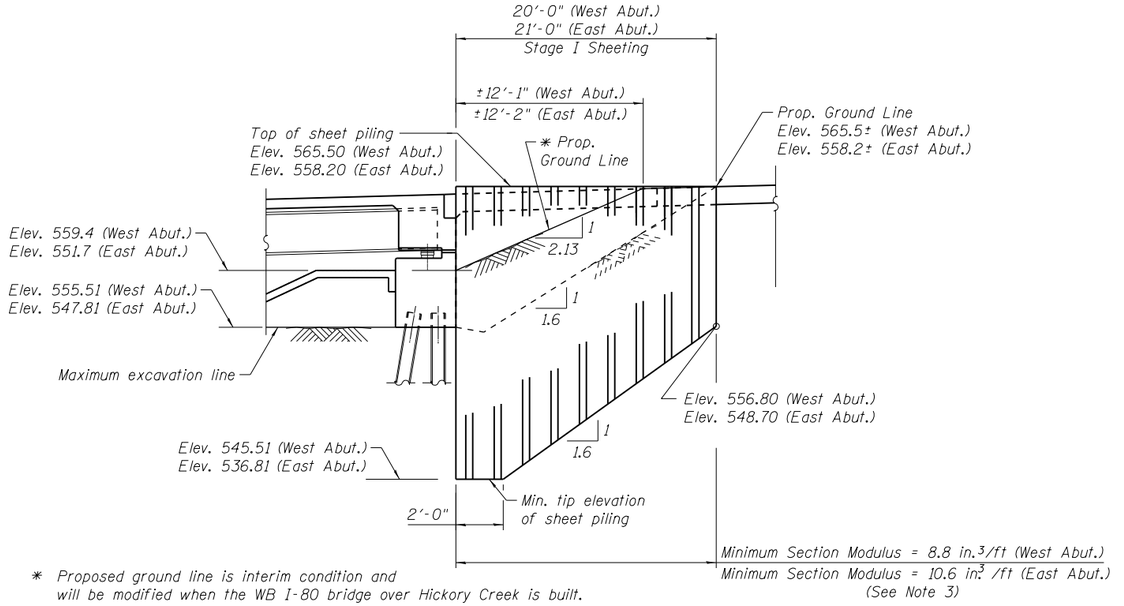
HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - PCA/ACF	REVISED 2 6/11/2021 JRS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUBSTRUCTURE & SHEET PILING LAYOUT STRUCTURE NO. 099–0062	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - APC	REVISED			80	2013-008B	WILL	511	239
		DRAWN - LK	REVISED					CONTRACT NO. 60W34		
	PLOT DATE = 6/11/2021	CHECKED - APC/TAT	REVISED		SHEET NO. 4 OF 54 SHEETS			ILLINOIS FED. AID PROJECT		

0990062-60W34-004-FND.dgn



TEMPORARY SHEET PILING AT STAGE CONSTRUCTION LINE

(West Abutment shown looking North.
East Abutment looking South similar except as noted)



* Proposed ground line is interim condition and will be modified when the WB I-80 bridge over Hickory Creek is built.

TEMPORARY SHEET PILING (SPECIAL) AT ℄ FAI-80

(West Abutment shown looking South.
East Abutment looking North similar except as noted)

Notes:

1. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

2. The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

3. Temporary Sheet Piling (Special) shall be paid for as Temporary Sheet Piling (Special). It shall be in accordance with the standard specifications and Article 522.06(a) except it shall remain in place.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Sheet Piling	Sq Ft	1,284
Temporary Sheet Piling (Special)	Sq Ft	634

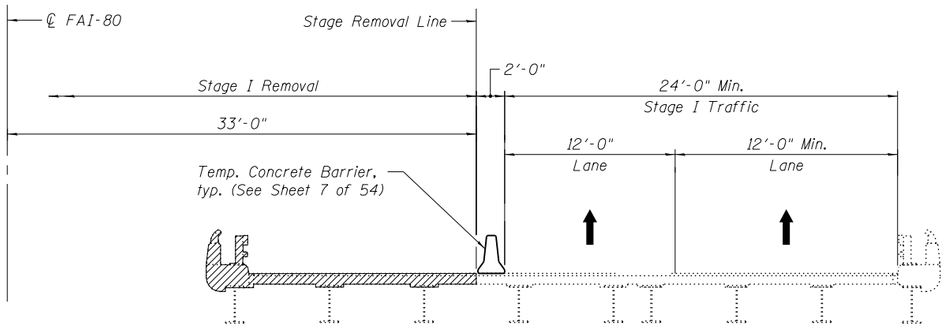
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - PCA/ACF	REVISED
		CHECKED - APC	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - APC/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

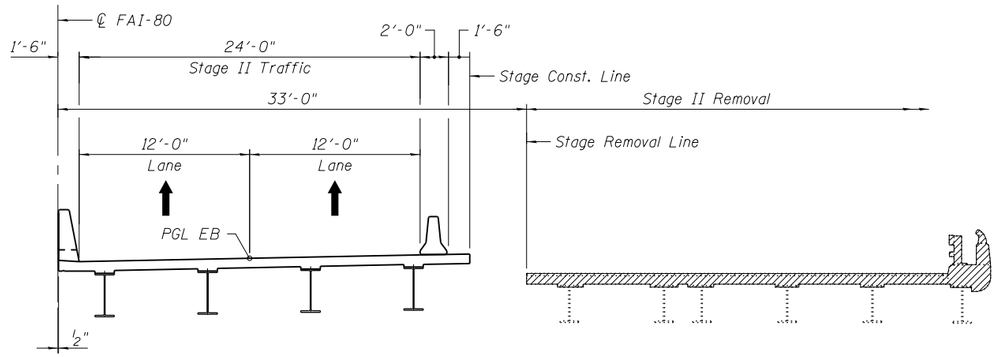
SHEET PILING DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 5 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	240
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

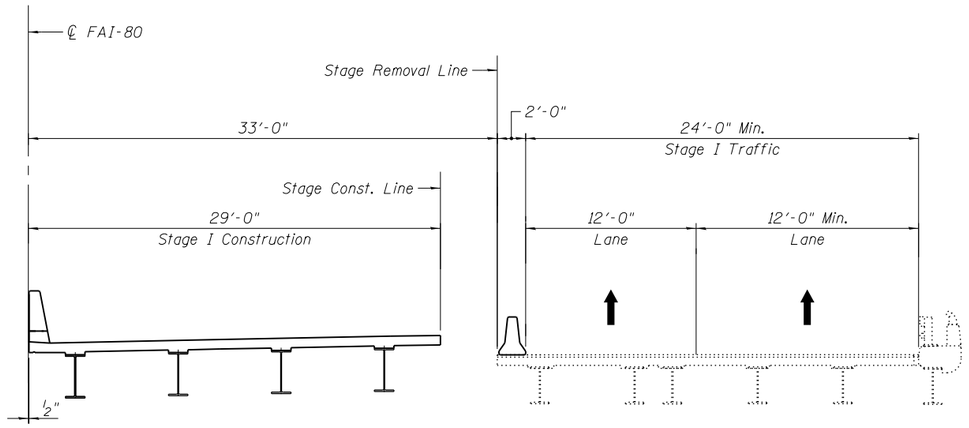
0990062-60W34-005-FND.dgn



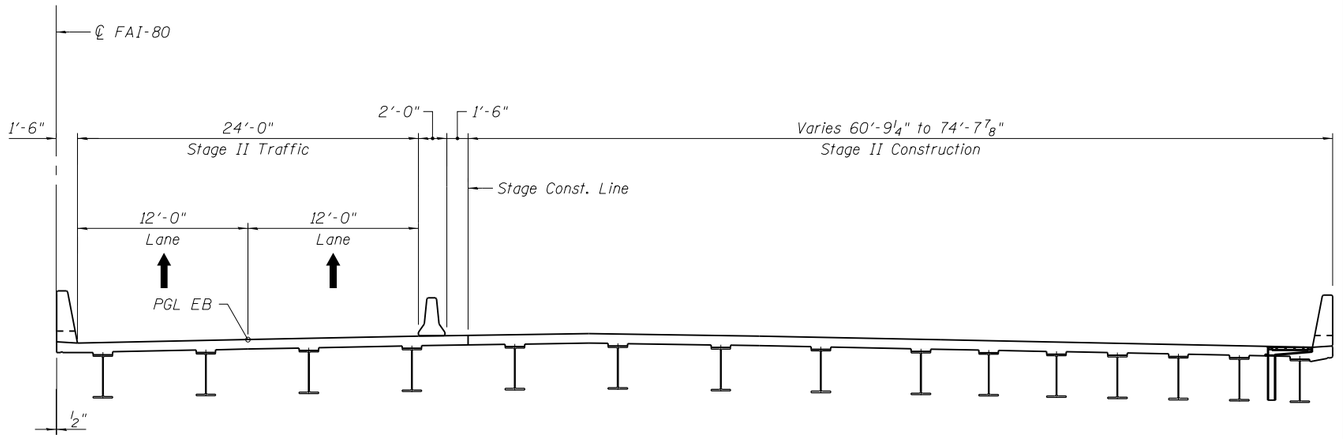
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

Notes:
1. All views are looking East.
2. Hatched areas indicates Removal of Existing Structures.
3. All dimensions taken at Rt L's to ℄ I-80 except as noted.
4. For Temporary Concrete Barrier quantity, see Roadway Plans.

HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - ACF	REVISED
		CHECKED - PCA	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED

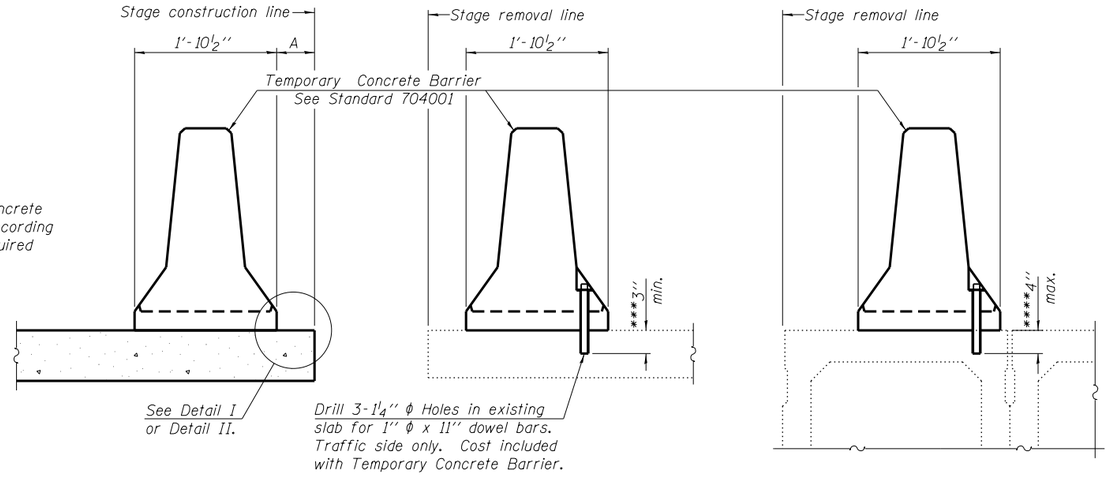
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
STRUCTURE NO. 099-0062
SHEET NO. 6 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	241
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-006-STG.dgn

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel PL to the top layer of couplers with 2-$\frac{5}{8}$'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel PL to the concrete slab or concrete wearing surface with 2-$\frac{5}{8}$'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

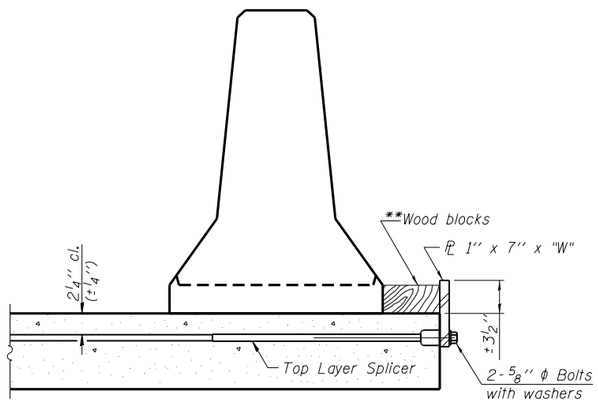
Cost of anchorage is included with Temporary Concrete Barrier.

The 1'' x 7'' x ''W'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

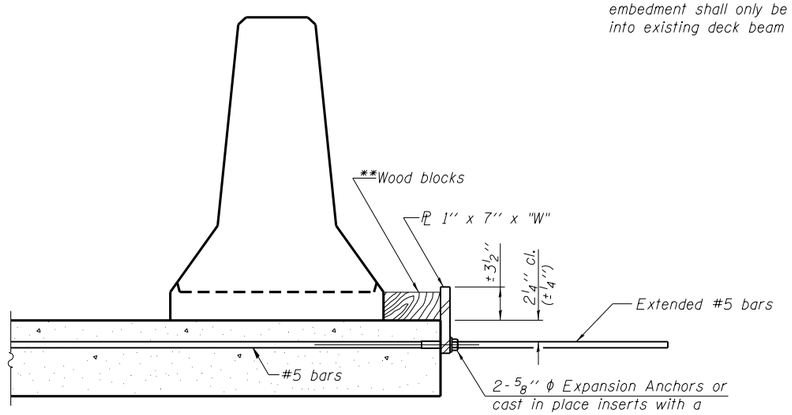
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

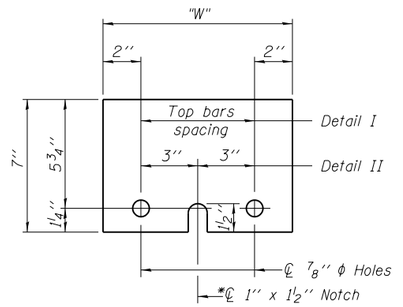
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1'' x 7'' x ''W''

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4''

R-27

7-1-10

USER NAME = eabuatherah	DESIGNED - LK	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED

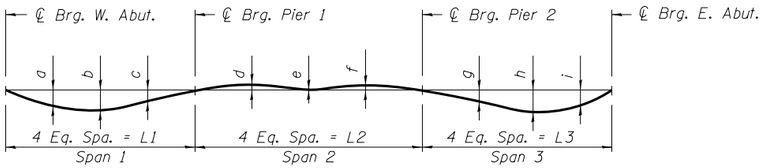
HBP Illinois Partners

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 099-0062
SHEET NO. 7 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	242
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

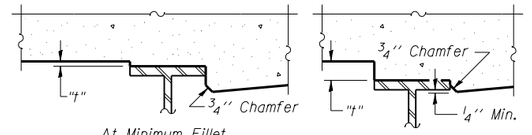
0990062-60W34-007-TEMPB.dgn



BEAMS 12-26

DEAD LOAD DEFLECTION TABLE

Beam No.	Span 1				Span 2				Span 3			
	a	b	c	L1	d	e	f	L2	g	h	i	L3
12	1 1/8"	1 3/8"	3/4"	87'-0 1/8"	- 1/8"	0"	- 1/8"	87'-6"	3/4"	1 3/8"	1 1/4"	87'-0 1/8"
13-18	1 1/8"	1 1/2"	3/4"	87'-0 1/8"	- 1/8"	0"	- 1/8"	87'-6"	3/4"	1 1/2"	1 1/8"	87'-0 1/8"
19-20	1 1/8"	1 3/8"	3/4"	87'-0 1/8"	- 1/8"	0"	- 1/8"	87'-6"	3/4"	1 1/2"	1 1/8"	87'-0 1/8"
21	7/8"	1 1/8"	5/8"	86'-8 7/8"	0"	0"	- 1/8"	87'-2 3/4"	3/4"	1 3/8"	1 1/8"	86'-8 7/8"
22	7/8"	1 1/8"	5/8"	86'-5 3/4"	0"	0"	- 1/8"	86'-11 5/8"	3/4"	1 3/8"	1 1/8"	86'-5 3/4"
23	7/8"	1"	5/8"	86'-2 3/4"	0"	0"	- 1/8"	86'-8 1/2"	3/4"	1 1/4"	1"	86'-2 3/4"
24	7/8"	1"	5/8"	85'-11 3/4"	0"	0"	0"	86'-5 1/2"	3/4"	1 1/4"	1"	85'-11 3/4"
25	7/8"	1"	5/8"	85'-8 3/4"	0"	0"	0"	86'-2 5/8"	5/8"	1 1/4"	1"	85'-8 3/4"
26	7/8"	1"	5/8"	85'-5 7/8"	0"	0"	0"	85'-11 5/8"	5/8"	1 1/8"	1"	85'-5 7/8"



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 on Sheets 9 thru 14, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

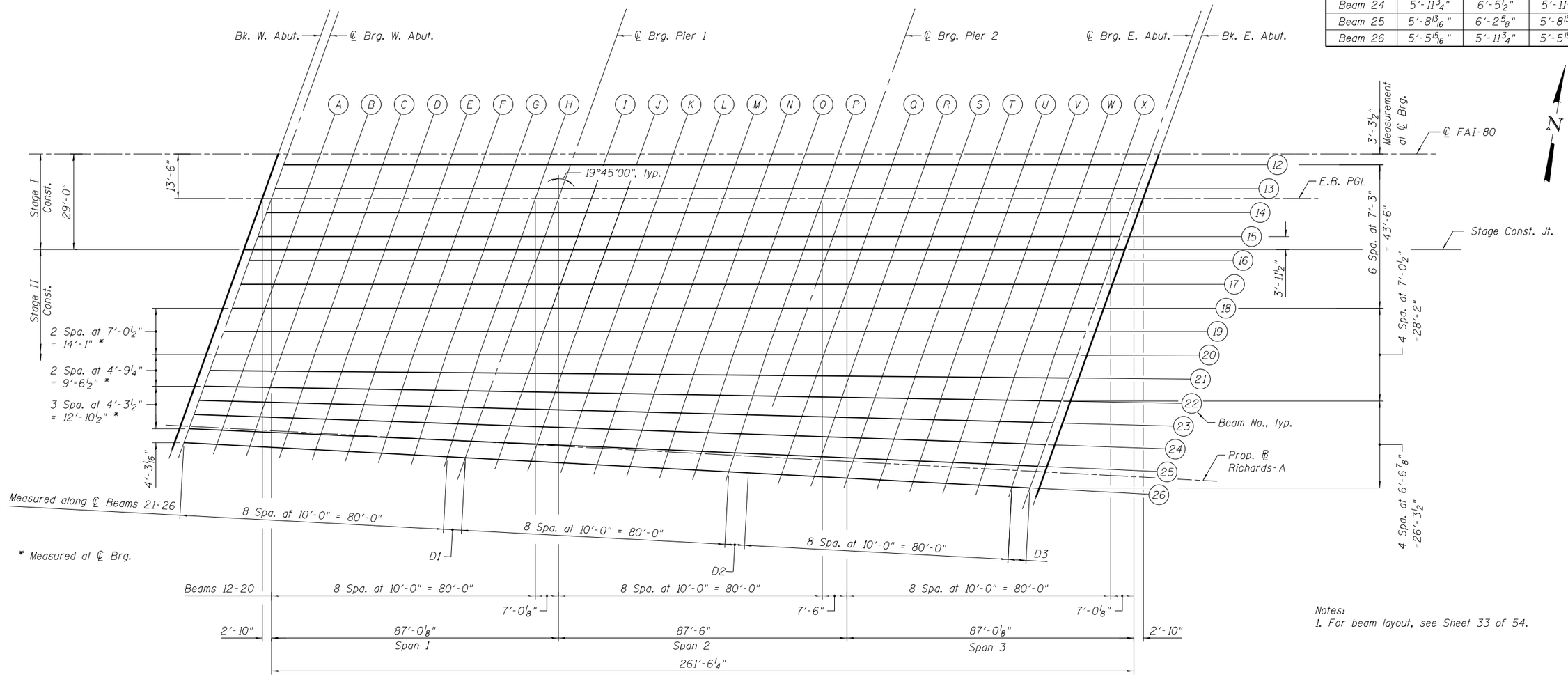
END SPAN DIMENSIONS

Location	D1	D2	D3
Beam 12-20	7'-1/8"	7'-6"	7'-1/8"
Beam 21	6'-8 15/16"	7'-2 3/4"	6'-8 15/16"
Beam 22	6'-5 13/16"	6'-11 5/8"	6'-5 13/16"
Beam 23	6'-2 3/4"	6'-8 1/2"	6'-2 3/4"
Beam 24	5'-11 3/4"	6'-5 1/2"	5'-11 3/4"
Beam 25	5'-8 13/16"	6'-2 5/8"	5'-8 13/16"
Beam 26	5'-5 15/16"	5'-11 3/4"	5'-5 15/16"

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."



PLAN

Notes:
1. For beam layout, see Sheet 33 of 54.

HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - EAA/PAB	REVISED
		CHECKED - EAA/PAB	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - EAA/PAB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS LAYOUT
STRUCTURE NO. 099-0062
SHEET NO. 8 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	243
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-008-TOEPL.dgn

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+13.05	3.29	564.62	564.62
℄ Brg. W. Abut.	720+15.88	3.29	564.54	564.54
A	720+25.88	3.29	564.26	564.30
B	720+35.88	3.29	563.98	564.05
C	720+45.88	3.29	563.70	563.79
D	720+55.88	3.29	563.42	563.51
E	720+65.88	3.29	563.14	563.22
F	720+75.88	3.29	562.86	562.93
G	720+85.88	3.29	562.58	562.62
H	720+95.88	3.29	562.30	562.32
℄ Brg. Pier 1	721+02.89	3.29	562.11	562.11
I	721+12.89	3.29	561.82	561.81
J	721+22.89	3.29	561.55	561.54
K	721+32.89	3.29	561.28	561.28
L	721+42.89	3.29	561.02	561.02
M	721+52.89	3.29	560.77	560.76
N	721+62.89	3.29	560.52	560.51
O	721+72.89	3.29	560.27	560.26
P	721+82.89	3.29	560.03	560.03
℄ Brg. Pier 2	721+90.39	3.29	559.86	559.86
Q	722+00.39	3.29	559.63	559.65
R	722+10.39	3.29	559.41	559.45
S	722+20.39	3.29	559.19	559.26
T	722+30.39	3.29	558.98	559.07
U	722+40.39	3.29	558.77	558.86
V	722+50.39	3.29	558.57	558.65
W	722+60.39	3.29	558.38	558.44
X	722+70.39	3.29	558.19	558.21
℄ Brg. E. Abut.	722+77.41	3.29	558.06	558.06
Bk. E. Abut.	722+80.24	3.29	558.01	558.01
	2		2	2

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+10.45	10.54	564.84	564.84
℄ Brg. W. Abut.	720+13.28	10.54	564.76	564.76
A	720+23.28	10.54	564.48	564.52
B	720+33.28	10.54	564.20	564.27
C	720+43.28	10.54	563.92	564.01
D	720+53.28	10.54	563.64	563.73
E	720+63.28	10.54	563.36	563.44
F	720+73.28	10.54	563.08	563.15
G	720+83.28	10.54	562.80	562.84
H	720+93.28	10.54	562.52	562.54
℄ Brg. Pier 1	721+00.29	10.54	562.33	562.33
I	721+10.29	10.54	562.04	562.04
J	721+20.29	10.54	561.77	561.76
K	721+30.29	10.54	561.50	561.50
L	721+40.29	10.54	561.24	561.24
M	721+50.29	10.54	560.98	560.98
N	721+60.29	10.54	560.73	560.73
O	721+70.29	10.54	560.49	560.48
P	721+80.29	10.54	560.25	560.24
℄ Brg. Pier 2	721+87.79	10.54	560.07	560.07
Q	721+97.79	10.54	559.84	559.86
R	722+07.79	10.54	559.61	559.66
S	722+17.79	10.54	559.40	559.47
T	722+27.79	10.54	559.18	559.27
U	722+37.79	10.54	558.97	559.07
V	722+47.79	10.54	558.77	558.86
W	722+57.79	10.54	558.58	558.64
X	722+67.79	10.54	558.39	558.41
℄ Brg. E. Abut.	722+74.80	10.54	558.26	558.26
Bk. E. Abut.	722+77.64	10.54	558.20	558.20
	2		2	2

E.B. PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+09.38	13.50	564.93	564.93
℄ Brg. W. Abut.	720+12.22	13.50	564.85	564.85
A	720+22.22	13.50	564.57	564.61
B	720+32.22	13.50	564.29	564.36
C	720+42.22	13.50	564.01	564.10
D	720+52.22	13.50	563.73	563.82
E	720+62.22	13.50	563.45	563.53
F	720+72.22	13.50	563.17	563.23
G	720+82.22	13.50	562.89	562.93
H	720+92.22	13.50	562.61	562.62
℄ Brg. Pier 1	720+99.23	13.50	562.41	562.41
I	721+09.23	13.50	562.14	562.13
J	721+19.23	13.50	561.86	561.85
K	721+29.23	13.50	561.59	561.59
L	721+39.23	13.50	561.33	561.33
M	721+49.23	13.50	561.07	561.07
N	721+59.23	13.50	560.82	560.81
O	721+69.23	13.50	560.57	560.56
P	721+79.23	13.50	560.33	560.32
℄ Brg. Pier 2	721+86.73	13.50	560.15	560.15
Q	721+96.73	13.50	559.92	559.94
R	722+06.73	13.50	559.70	559.75
S	722+16.73	13.50	559.48	559.55
T	722+26.73	13.50	559.27	559.36
U	722+36.73	13.50	559.06	559.16
V	722+46.73	13.50	558.85	558.94
W	722+56.73	13.50	558.66	558.72
X	722+66.73	13.50	558.47	558.50
℄ Brg. E. Abut.	722+73.74	13.50	558.34	558.34
Bk. E. Abut.	722+76.57	13.50	558.28	558.28
	2		2	2

Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - JLF/MMK	REVISED 2 6/11/2021 LK	
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - ACF	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – 1
STRUCTURE NO. 099–0062
SHEET NO. 9 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	244
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-009-TOEI.dgn

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+07.84	17.79	565.06	565.06
℄ Brg. W. Abut.	720+10.68	17.79	564.97	564.97
A	720+20.68	17.79	564.69	564.73
B	720+30.68	17.79	564.41	564.48
C	720+40.68	17.79	564.13	564.22
D	720+50.68	17.79	563.85	563.95
E	720+60.68	17.79	563.57	563.66
F	720+70.68	17.79	563.29	563.36
G	720+80.68	17.79	563.02	563.06
H	720+90.68	17.79	562.74	562.76
℄ Brg. Pier 1	720+97.69	17.79	562.54	562.54
I	721+07.69	17.79	562.27	562.26
J	721+17.69	17.79	561.99	561.98
K	721+27.69	17.79	561.72	561.72
L	721+37.69	17.79	561.46	561.46
M	721+47.69	17.79	561.20	561.20
N	721+57.69	17.79	560.95	560.94
O	721+67.69	17.79	560.70	560.69
P	721+77.69	17.79	560.46	560.45
℄ Brg. Pier 2	721+85.19	17.79	560.28	560.28
Q	721+95.19	17.79	560.05	560.07
R	722+05.19	17.79	559.82	559.87
S	722+15.19	17.79	559.60	559.68
T	722+25.19	17.79	559.39	559.48
U	722+35.19	17.79	559.18	559.28
V	722+45.19	17.79	558.98	559.06
W	722+55.19	17.79	558.78	558.84
X	722+65.19	17.79	558.59	558.61
℄ Brg. E. Abut.	722+72.20	17.79	558.46	558.46
Bk. E. Abut.	722+75.03	17.79	558.40	558.40
	2		2	2

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+05.24	25.04	565.28	565.28
℄ Brg. W. Abut.	720+08.07	25.04	565.19	565.19
A	720+18.07	25.04	564.91	564.95
B	720+28.07	25.04	564.63	564.70
C	720+38.07	25.04	564.35	564.44
D	720+48.07	25.04	564.07	564.17
E	720+58.07	25.04	563.79	563.88
F	720+68.07	25.04	563.51	563.58
G	720+78.07	25.04	563.24	563.28
H	720+88.07	25.04	562.96	562.97
℄ Brg. Pier 1	720+95.08	25.04	562.76	562.76
I	721+05.08	25.04	562.49	562.48
J	721+15.08	25.04	562.22	562.21
K	721+25.08	25.04	561.94	561.94
L	721+35.08	25.04	561.68	561.68
M	721+45.08	25.04	561.42	561.41
N	721+55.08	25.04	561.16	561.16
O	721+65.08	25.04	560.91	560.91
P	721+75.08	25.04	560.67	560.66
℄ Brg. Pier 2	721+82.58	25.04	560.49	560.49
Q	721+92.58	25.04	560.26	560.28
R	722+02.58	25.04	560.03	560.08
S	722+12.58	25.04	559.81	559.89
T	722+22.58	25.04	559.59	559.69
U	722+32.58	25.04	559.38	559.48
V	722+42.58	25.04	559.18	559.27
W	722+52.58	25.04	558.98	559.04
X	722+62.58	25.04	558.79	558.82
℄ Brg. E. Abut.	722+69.60	25.04	558.65	558.65
Bk. E. Abut.	722+72.43	25.04	558.60	558.60
	2		2	2

LONGITUDINAL STAGE CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+03.82	29.00	565.38	565.38
℄ Brg. W. Abut.	720+06.65	29.00	565.30	565.30
A	720+16.65	29.00	565.02	565.06
B	720+26.65	29.00	564.74	564.81
C	720+36.65	29.00	564.46	564.55
D	720+46.65	29.00	564.18	564.28
E	720+56.65	29.00	563.90	563.99
F	720+66.65	29.00	563.62	563.69
G	720+76.65	29.00	563.34	563.38
H	720+86.65	29.00	563.06	563.07
℄ Brg. Pier 1	720+93.66	29.00	562.86	562.86
I	721+03.66	29.00	562.58	562.57
J	721+13.66	29.00	562.32	562.31
K	721+23.66	29.00	562.05	562.04
L	721+33.66	29.00	561.78	561.78
M	721+43.66	29.00	561.52	561.51
N	721+53.66	29.00	561.26	561.26
O	721+63.66	29.00	561.01	561.00
P	721+73.66	29.00	560.77	560.76
℄ Brg. Pier 2	721+81.16	29.00	560.59	560.59
Q	721+91.16	29.00	560.36	560.38
R	722+01.16	29.00	560.13	560.18
S	722+11.16	29.00	559.91	559.98
T	722+21.16	29.00	559.69	559.78
U	722+31.16	29.00	559.48	559.58
V	722+41.16	29.00	559.27	559.36
W	722+51.16	29.00	559.07	559.14
X	722+61.16	29.00	558.88	558.91
℄ Brg. E. Abut.	722+68.18	29.00	558.74	558.74
Bk. E. Abut.	722+71.01	29.00	558.69	558.69
	2		2	2

Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+02.64	32.29	565.46	565.46
℄ Brg. W. Abut.	720+05.47	32.29	565.38	565.38
A	720+15.47	32.29	565.10	565.14
B	720+25.47	32.29	564.82	564.89
C	720+35.47	32.29	564.54	564.63
D	720+45.47	32.29	564.26	564.35
E	720+55.47	32.29	563.98	564.06
F	720+65.47	32.29	563.70	563.76
G	720+75.47	32.29	563.42	563.46
H	720+85.47	32.29	563.14	563.16
℄ Brg. Pier 1	720+92.48	32.29	562.94	562.94
I	721+02.48	32.29	562.66	562.65
J	721+12.48	32.29	562.40	562.39
K	721+22.48	32.29	562.13	562.12
L	721+32.48	32.29	561.86	561.86
M	721+42.48	32.29	561.60	561.60
N	721+52.48	32.29	561.34	561.34
O	721+62.48	32.29	561.09	561.09
P	721+72.48	32.29	560.85	560.84
℄ Brg. Pier 2	721+79.98	32.29	560.67	560.67
Q	721+89.98	32.29	560.44	560.46
R	721+99.98	32.29	560.21	560.26
S	722+09.98	32.29	559.98	560.06
T	722+19.98	32.29	559.77	559.86
U	722+29.98	32.29	559.55	559.65
V	722+39.98	32.29	559.35	559.44
W	722+49.98	32.29	559.15	559.21
X	722+59.98	32.29	558.95	558.98
℄ Brg. E. Abut.	722+66.99	32.29	558.82	558.82
Bk. E. Abut.	722+69.83	32.29	558.77	558.77
	2		2	2

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+00.03	39.54	565.58	565.58
℄ Brg. W. Abut.	720+02.87	39.54	565.50	565.50
A	720+12.87	39.54	565.22	565.26
B	720+22.87	39.54	564.94	565.01
C	720+32.87	39.54	564.66	564.75
D	720+42.87	39.54	564.38	564.48
E	720+52.87	39.54	564.10	564.19
F	720+62.87	39.54	563.82	563.89
G	720+72.87	39.54	563.54	563.58
H	720+82.87	39.54	563.26	563.28
℄ Brg. Pier 1	720+89.88	39.54	563.06	563.06
I	720+99.88	39.54	562.78	562.77
J	721+09.88	39.54	562.52	562.51
K	721+19.88	39.54	562.25	562.24
L	721+29.88	39.54	561.98	561.98
M	721+39.88	39.54	561.72	561.71
N	721+49.88	39.54	561.46	561.45
O	721+59.88	39.54	561.21	561.20
P	721+69.88	39.54	560.96	560.95
℄ Brg. Pier 2	721+77.38	39.54	560.78	560.78
Q	721+87.38	39.54	560.54	560.57
R	721+97.38	39.54	560.31	560.36
S	722+07.38	39.54	560.09	560.16
T	722+17.38	39.54	559.87	559.96
U	722+27.38	39.54	559.66	559.75
V	722+37.38	39.54	559.45	559.54
W	722+47.38	39.54	559.25	559.31
X	722+57.38	39.54	559.05	559.08
℄ Brg. E. Abut	722+64.39	39.54	558.92	558.92
Bk. E. Abut.	722+67.22	39.54	558.86	558.86
	2		2	2

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+97.43	46.79	565.54	565.54
℄ Brg. W. Abut.	720+00.26	46.79	565.46	565.46
A	720+10.26	46.79	565.18	565.22
B	720+20.26	46.79	564.90	564.98
C	720+30.26	46.79	564.62	564.72
D	720+40.26	46.79	564.34	564.44
E	720+50.26	46.79	564.06	564.15
F	720+60.26	46.79	563.78	563.85
G	720+70.26	46.79	563.50	563.54
H	720+80.26	46.79	563.23	563.24
℄ Brg. Pier 1	720+87.28	46.79	563.03	563.03
I	720+97.28	46.79	562.75	562.74
J	721+07.28	46.79	562.48	562.47
K	721+17.28	46.79	562.21	562.20
L	721+27.28	46.79	561.94	561.93
M	721+37.28	46.79	561.67	561.67
N	721+47.28	46.79	561.41	561.41
O	721+57.28	46.79	561.16	561.15
P	721+67.28	46.79	560.91	560.90
℄ Brg. Pier 2	721+74.78	46.79	560.73	560.73
Q	721+84.78	46.79	560.49	560.51
R	721+94.78	46.79	560.26	560.31
S	722+04.78	46.79	560.03	560.11
T	722+14.78	46.79	559.81	559.91
U	722+24.78	46.79	559.60	559.70
V	722+34.78	46.79	559.39	559.48
W	722+44.78	46.79	559.19	559.25
X	722+54.78	46.79	558.99	559.02
℄ Brg. E. Abut	722+61.79	46.79	558.85	558.85
Bk. E. Abut.	722+64.62	46.79	558.80	558.80
	2		2	2

Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+94.90	53.83	565.49	565.49
℄ Brg. W. Abut.	719+97.74	53.83	565.41	565.41
A	720+07.74	53.83	565.13	565.17
B	720+17.74	53.83	564.85	564.92
C	720+27.74	53.83	564.57	564.66
D	720+37.74	53.83	564.29	564.38
E	720+47.74	53.83	564.01	564.09
F	720+57.74	53.83	563.73	563.79
G	720+67.74	53.83	563.45	563.49
H	720+77.74	53.83	563.17	563.18
℄ Brg. Pier 1	720+84.75	53.83	562.97	562.97
I	720+94.75	53.83	562.69	562.68
J	721+04.75	53.83	562.41	562.40
K	721+14.75	53.83	562.14	562.14
L	721+24.75	53.83	561.87	561.87
M	721+34.75	53.83	561.60	561.60
N	721+44.75	53.83	561.34	561.34
O	721+54.75	53.83	561.09	561.08
P	721+64.75	53.83	560.84	560.83
℄ Brg. Pier 2	721+72.25	53.83	560.66	560.66
Q	721+82.25	53.83	560.42	560.44
R	721+92.25	53.83	560.19	560.23
S	722+02.25	53.83	559.96	560.03
T	722+12.25	53.83	559.74	559.83
U	722+22.25	53.83	559.52	559.61
V	722+32.25	53.83	559.31	559.39
W	722+42.25	53.83	559.10	559.17
X	722+52.25	53.83	558.90	558.93
℄ Brg. E. Abut	722+59.26	53.83	558.77	558.77
Bk. E. Abut.	722+62.09	53.83	558.71	558.71

[2] [2] [2]

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+92.37	60.88	565.42	565.42
℄ Brg. W. Abut.	719+95.21	60.88	565.34	565.34
A	720+05.21	60.88	565.06	565.10
B	720+15.21	60.88	564.78	564.85
C	720+25.21	60.88	564.50	564.59
D	720+35.21	60.88	564.22	564.31
E	720+45.21	60.88	563.94	564.02
F	720+55.21	60.88	563.66	563.72
G	720+65.21	60.88	563.38	563.42
H	720+75.21	60.88	563.10	563.11
℄ Brg. Pier 1	720+82.22	60.88	562.90	562.90
I	720+92.22	60.88	562.62	562.61
J	721+02.22	60.88	562.34	562.33
K	721+12.22	60.88	562.06	562.06
L	721+22.22	60.88	561.79	561.79
M	721+32.22	60.88	561.52	561.52
N	721+42.22	60.88	561.26	561.26
O	721+52.22	60.88	561.01	561.00
P	721+62.22	60.88	560.76	560.75
℄ Brg. Pier 2	721+69.72	60.88	560.57	560.57
Q	721+79.72	60.88	560.33	560.35
R	721+89.72	60.88	560.10	560.14
S	721+99.72	60.88	559.87	559.94
T	722+09.72	60.88	559.64	559.73
U	722+19.72	60.88	559.43	559.52
V	722+29.72	60.88	559.21	559.30
W	722+39.72	60.88	559.01	559.07
X	722+49.72	60.88	558.81	558.84
℄ Brg. E. Abut	722+56.73	60.88	558.67	558.67
Bk. E. Abut.	722+59.56	60.88	558.62	558.62

[2] [2] [2]

BEAM 21

Location	Station	Offset [2]	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+90.67	65.61	565.37	565.37
℄ Brg. W. Abut.	719+93.49	65.65	565.29	565.29
A	720+03.49	65.73	565.01	565.04
B	720+13.49	65.82	564.73	564.78
C	720+23.49	65.91	564.45	564.51
D	720+33.49	65.99	564.17	564.24
E	720+43.49	66.08	563.88	563.95
F	720+53.49	66.17	563.60	563.65
G	720+63.49	66.26	563.32	563.35
H	720+73.49	66.34	563.04	563.05
℄ Brg. Pier 1	720+80.23	66.40	562.85	562.85
I	720+90.23	66.49	562.57	562.56
J	721+00.23	66.58	562.29	562.28
K	721+10.23	66.66	562.00	562.00
L	721+20.23	66.75	561.73	561.73
M	721+30.23	66.84	561.46	561.46
N	721+40.23	66.92	561.19	561.19
O	721+50.23	67.01	560.93	560.93
P	721+60.23	67.10	560.68	560.67
℄ Brg. Pier 2	721+67.46	67.16	560.50	560.50
Q	721+77.46	67.25	560.26	560.28
R	721+87.46	67.34	560.02	560.07
S	721+97.46	67.42	559.79	559.86
T	722+07.46	67.51	559.56	559.65
U	722+17.46	67.60	559.34	559.43
V	722+27.46	67.68	559.13	559.21
W	722+37.46	67.77	558.92	558.98
X	722+47.46	67.86	558.71	558.74
℄ Brg. E. Abut	722+54.20	67.92	558.58	558.58
Bk. E. Abut.	722+57.03	67.94	558.52	558.52

[2] [2] [2]

Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - PAB	REVISED [2] 6/11/2021 LK
	CHECKED - AMK	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/11/2021	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – 4
STRUCTURE NO. 099–0062
SHEET NO. 12 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	247
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-012-TOE4.dgn

BEAM 22

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+88.97	70.37	565.32	565.32
℄ Brg. W. Abut.	719+91.78	70.42	565.24	565.24
A	720+01.78	70.59	564.96	564.99
B	720+11.78	70.77	564.68	564.73
C	720+21.78	70.94	564.39	564.46
D	720+31.78	71.12	564.11	564.18
E	720+41.77	71.29	563.83	563.89
F	720+51.77	71.47	563.54	563.59
G	720+61.77	71.64	563.26	563.29
H	720+71.77	71.82	562.98	562.99
℄ Brg. Pier 1	720+78.25	71.93	562.79	562.79
I	720+88.25	72.10	562.51	562.51
J	720+98.25	72.28	562.23	562.22
K	721+08.25	72.45	561.94	561.94
L	721+18.24	72.63	561.66	561.66
M	721+28.24	72.80	561.39	561.39
N	721+38.24	72.98	561.12	561.12
O	721+48.24	73.15	560.86	560.85
P	721+58.24	73.33	560.61	560.60
℄ Brg. Pier 2	721+65.20	73.45	560.43	560.43
Q	721+75.20	73.62	560.19	560.20
R	721+85.20	73.80	559.94	559.99
S	721+95.20	73.97	559.71	559.78
T	722+05.20	74.15	559.48	559.56
U	722+15.20	74.32	559.26	559.34
V	722+25.20	74.50	559.04	559.12
W	722+35.19	74.67	558.83	558.88
X	722+45.19	74.85	558.62	558.64
℄ Brg. E. Abut.	722+51.67	74.96	558.49	558.49
Bk. E. Abut.	722+54.49	75.01	558.43	558.43
	2		2	2

BEAM 23

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+87.43	74.63	565.28	565.28
℄ Brg. W. Abut.	719+90.24	74.71	565.20	565.20
A	720+00.24	74.97	564.92	564.94
B	720+10.23	75.23	564.63	564.68
C	720+20.23	75.50	564.35	564.41
D	720+30.23	75.76	564.06	564.13
E	720+40.22	76.02	563.78	563.83
F	720+50.22	76.29	563.49	563.53
G	720+60.22	76.55	563.21	563.23
H	720+70.21	76.81	562.92	562.93
℄ Brg. Pier 1	720+76.44	76.98	562.74	562.74
I	720+86.43	77.24	562.46	562.45
J	720+96.43	77.51	562.17	562.17
K	721+06.43	77.77	561.89	561.89
L	721+16.42	78.03	561.61	561.60
M	721+26.42	78.30	561.33	561.33
N	721+36.42	78.56	561.06	561.05
O	721+46.41	78.82	560.80	560.79
P	721+56.41	79.09	560.54	560.53
℄ Brg. Pier 2	721+63.12	79.26	560.37	560.37
Q	721+73.11	79.53	560.12	560.14
R	721+83.11	79.79	559.87	559.92
S	721+93.11	80.05	559.64	559.70
T	722+03.10	80.31	559.40	559.48
U	722+13.10	80.58	559.18	559.26
V	722+23.10	80.84	558.96	559.03
W	722+33.09	81.10	558.74	558.79
X	722+43.09	81.37	558.53	558.55
℄ Brg. E. Abut	722+49.31	81.53	558.40	558.40
Bk. E. Abut.	722+52.12	81.61	558.35	558.35
	2		2	2

BEAM 24

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+85.90	78.90	565.24	565.24
℄ Brg. W. Abut.	719+88.70	79.00	565.16	565.16
A	719+98.69	79.35	564.87	564.90
B	720+08.69	79.70	564.59	564.63
C	720+18.68	80.06	564.30	564.36
D	720+28.67	80.41	564.01	564.08
E	720+38.67	80.76	563.73	563.78
F	720+48.66	81.11	563.44	563.48
G	720+58.66	81.47	563.15	563.18
H	720+68.65	81.82	562.87	562.87
℄ Brg. Pier 1	720+74.62	82.03	562.69	562.69
I	720+84.62	82.38	562.41	562.40
J	720+94.61	82.73	562.12	562.12
K	721+04.61	83.09	561.83	561.83
L	721+14.60	83.44	561.55	561.55
M	721+24.59	83.79	561.27	561.27
N	721+34.59	84.14	561.00	560.99
O	721+44.58	84.50	560.73	560.72
P	721+54.57	84.85	560.47	560.46
℄ Brg. Pier 2	721+61.03	85.08	560.30	560.30
Q	721+71.02	85.43	560.05	560.07
R	721+81.02	85.78	559.80	559.84
S	721+91.01	86.13	559.56	559.63
T	722+01.01	86.48	559.33	559.41
U	722+11.00	86.84	559.10	559.18
V	722+20.99	87.19	558.87	558.95
W	722+30.99	87.54	558.66	558.71
X	722+40.98	87.89	558.44	558.46
℄ Brg. E. Abut	722+46.95	88.11	558.32	558.32
Bk. E. Abut.	722+49.75	88.20	558.26	558.26
	2		2	2

Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - PAB	REVISED 2 6/11/2021 LK	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - AMK	REVISED	
		DRAWN - LK	REVISED	
	PLOT DATE = 6/11/2021	CHECKED - AMK	REVISED	

TOP OF SLAB ELEVATIONS – 5
STRUCTURE NO. 099–0062
SHEET NO. 13 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	248
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

0990062-60W34-013-T0E5.dgn

BEAM 25

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+84.37	83.17	565.20	565.20
℄ Brg. W. Abut.	719+87.16	83.29	565.12	565.12
A	719+97.15	83.73	564.83	564.86
B	720+07.14	84.18	564.54	564.59
C	720+17.13	84.62	564.25	564.32
D	720+27.12	85.06	563.96	564.03
E	720+37.11	85.50	563.67	563.74
F	720+47.10	85.94	563.39	563.43
G	720+57.09	86.38	563.10	563.12
H	720+67.08	86.83	562.81	562.82
℄ Brg. Pier 1	720+72.81	87.08	562.64	562.64
I	720+82.80	87.52	562.36	562.35
J	720+92.79	87.96	562.07	562.07
K	721+02.78	88.41	561.78	561.79
L	721+12.77	88.85	561.49	561.50
M	721+22.76	89.29	561.21	561.22
N	721+32.75	89.73	560.93	560.94
O	721+42.74	90.17	560.66	560.67
P	721+52.73	90.61	560.40	560.40
℄ Brg. Pier 2	721+58.94	90.89	560.24	560.24
Q	721+68.93	91.33	559.98	560.00
R	721+78.92	91.77	559.73	559.77
S	721+88.91	92.22	559.49	559.54
T	721+98.90	92.66	559.25	559.32
U	722+08.89	93.10	559.02	559.09
V	722+18.88	93.54	558.79	558.86
W	722+28.87	93.98	558.57	558.62
X	722+38.86	94.42	558.36	558.37
℄ Brg. E. Abut.	722+44.59	94.68	558.23	558.23
Bk. E. Abut.	722+47.38	94.80	558.18	558.18
	2		2	2

BEAM 26

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+82.85	87.40	565.16	565.16
℄ Brg. W. Abut.	719+85.63	87.55	565.07	565.07
A	719+95.62	88.08	564.78	564.81
B	720+05.60	88.61	564.49	564.54
C	720+15.59	89.15	564.20	564.27
D	720+25.57	89.68	563.91	563.98
E	720+35.56	90.21	563.62	563.68
F	720+45.55	90.75	563.33	563.38
G	720+55.53	91.28	563.04	563.07
H	720+65.52	91.81	562.75	562.76
℄ Brg. Pier 1	720+71.01	92.11	562.59	562.59
I	720+80.99	92.64	562.30	562.30
J	720+90.98	93.17	562.01	562.01
K	721+00.96	93.71	561.72	561.72
L	721+10.95	94.24	561.43	561.43
M	721+20.93	94.77	561.15	561.15
N	721+30.92	95.31	560.87	560.87
O	721+40.91	95.84	560.60	560.59
P	721+50.89	96.37	560.33	560.33
℄ Brg. Pier 2	721+56.86	96.69	560.17	560.17
Q	721+66.85	97.23	559.92	559.93
R	721+76.83	97.76	559.66	559.70
S	721+86.82	98.29	559.42	559.48
T	721+96.80	98.83	559.18	559.25
U	722+06.79	99.36	558.94	559.02
V	722+16.77	99.89	558.71	558.78
W	722+26.76	100.43	558.49	558.53
X	722+36.75	100.96	558.27	558.29
℄ Brg. E. Abut	722+42.23	101.25	558.15	558.15
Bk. E. Abut.	722+45.01	101.40	558.09	558.09
	2		2	2

Notes:
1. *All Elevations and Offsets are in feet.*

2. *Offsets are measured with respect to ℄ FAI-80.*

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - PAB	REVISED 2 6/11/2021 LK	
	CHECKED - AMK	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - AMK	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – 6
STRUCTURE NO. 099–0062
SHEET NO. 14 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	249
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-014-TOE6.dgn

NORTH EDGE OF SHLDR.

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+84.76	1.50	565.38 [2]
A1	719+94.76	1.50	565.10
A2	720+04.76	1.50	564.82
E. End West Appr. Pav't.	720+14.76	1.50	564.54

CROSS SLOPE BREAK 1

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+76.14	25.50	566.10 [2]
A1	719+86.14	25.50	565.82
A2	719+96.14	25.50	565.54
E. End West Appr. Pav't.	720+06.14	25.50	565.26

CROSS SLOPE BREAK 2

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+71.83	37.50	566.40 [2]
A1	719+81.83	37.50	566.12
A2	719+91.83	37.50	565.84
E. End West Appr. Pav't.	720+01.83	37.50	565.56

E.B. PGL

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+80.45	13.50	565.74 [2]
A1	719+90.45	13.50	565.46
A2	720+00.45	13.50	565.18
E. End West Appr. Pav't.	720+10.45	13.50	564.90

STAGE CONST. JT.

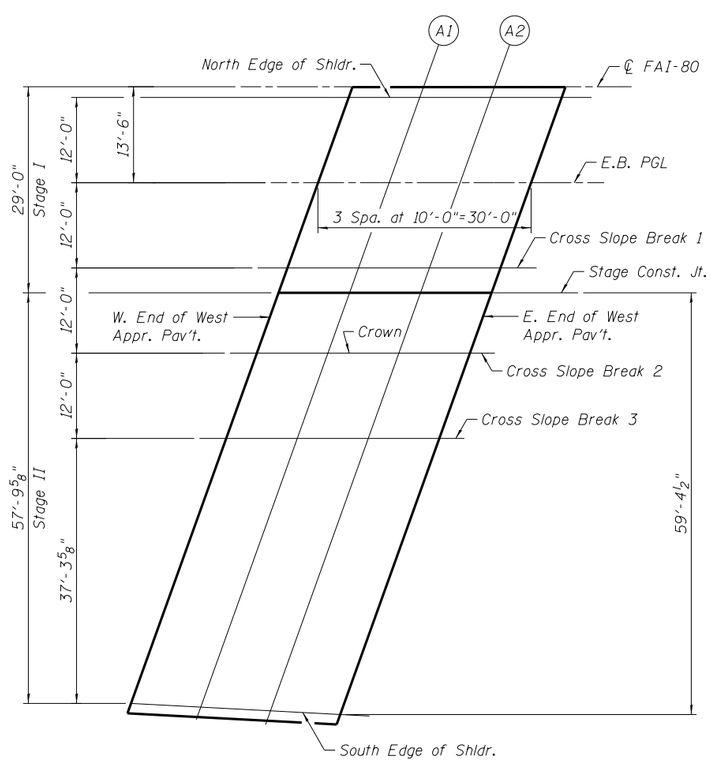
Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+74.88	29.00	566.19 [2]
A1	719+84.88	29.00	565.91
A2	719+94.88	29.00	565.63
E. End West Appr. Pav't.	720+04.88	29.00	565.35

CROSS SLOPE BREAK 3

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+67.52	49.50	566.34 [2]
A1	719+77.52	49.50	566.06
A2	719+87.52	49.50	565.78
E. End West Appr. Pav't.	719+97.52	49.50	565.50

SOUTH EDGE OF SHLDR.

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+54.13	86.80	565.97 [2]
A1	719+63.94	87.33	565.69
A2	719+73.75	87.85	565.40
E. End West Appr. Pav't.	719+83.57	88.38	565.12



PLAN

West Approach (E.B.)

Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - JLF	REVISED [2] 6/11/2021 JRS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF WEST APPROACH SLAB ELEVATIONS STRUCTURE NO. 099-0062
		CHECKED - ACF/PAB	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 6/11/2021	CHECKED - MMK/PAB	REVISED		SHEET NO. 15 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	250
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-015-TOEWAPP.dgn

NORTH EDGE OF SHLDR.

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+79.82	1.50	557.99 [2]
A3	722+89.82	1.50	557.81
A4	722+99.82	1.50	557.64
E. End East Appr. Pav't.	723+09.82	1.50	557.47

E.B. PGL

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+75.51	13.50	558.30 [2]
A3	722+85.51	13.50	558.12
A4	722+95.51	13.50	557.95
E. End East Appr. Pav't.	723+05.51	13.50	557.78

CROSS SLOPE BREAK 1

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+71.21	25.50	558.62 [2]
A3	722+81.21	25.50	558.44
A4	722+91.21	25.50	558.26
E. End East Appr. Pav't.	723+01.21	25.50	558.09

STAGE CONST. JT.

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+69.95	29.00	558.70 [2]
A3	722+79.95	29.00	558.52
A4	722+89.95	29.00	558.34
E. End East Appr. Pav't.	722+99.95	29.00	558.17

CROSS SLOPE BREAK 2

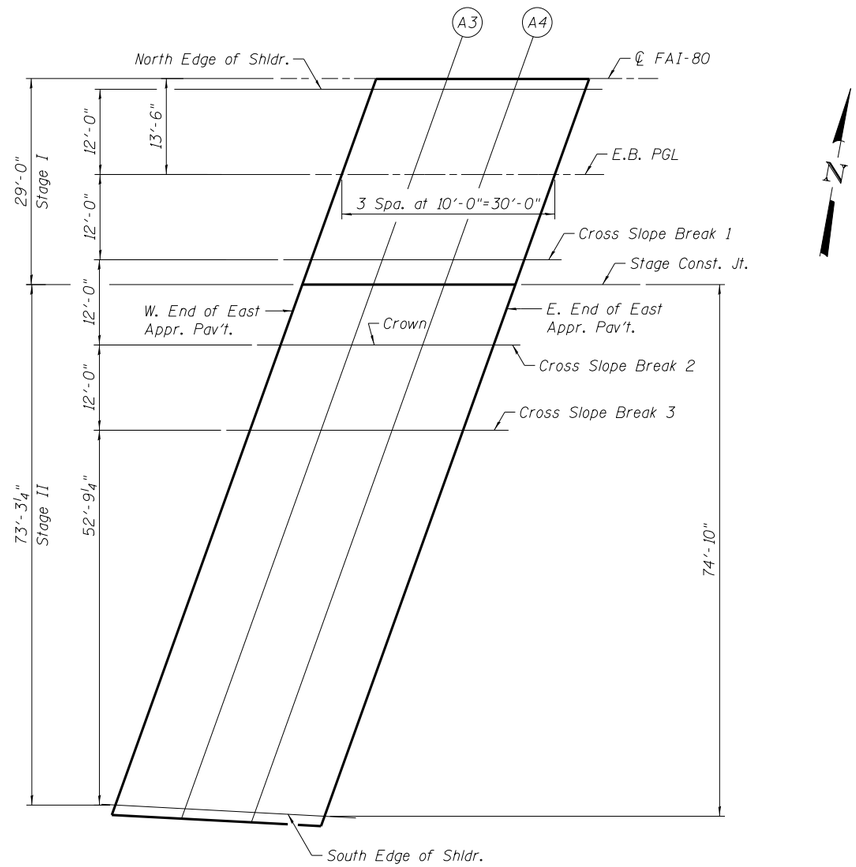
Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+66.90	37.50	558.88 [2]
A3	722+76.90	37.50	558.70
A4	722+86.90	37.50	558.52
E. End East Appr. Pav't.	722+96.90	37.50	558.35

CROSS SLOPE BREAK 3

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+62.59	49.50	558.79 [2]
A3	722+72.59	49.50	558.60
A4	722+82.59	49.50	558.42
E. End East Appr. Pav't.	722+92.59	49.50	558.24

SOUTH EDGE OF SHLDR.

Location	Station [2]	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+43.64	102.27	558.10 [2]
A3	722+53.46	102.79	557.90
A4	722+63.27	103.31	557.70
E. End East Appr. Pav't.	722+73.08	103.84	557.50



PLAN

East Approach (E.B.)

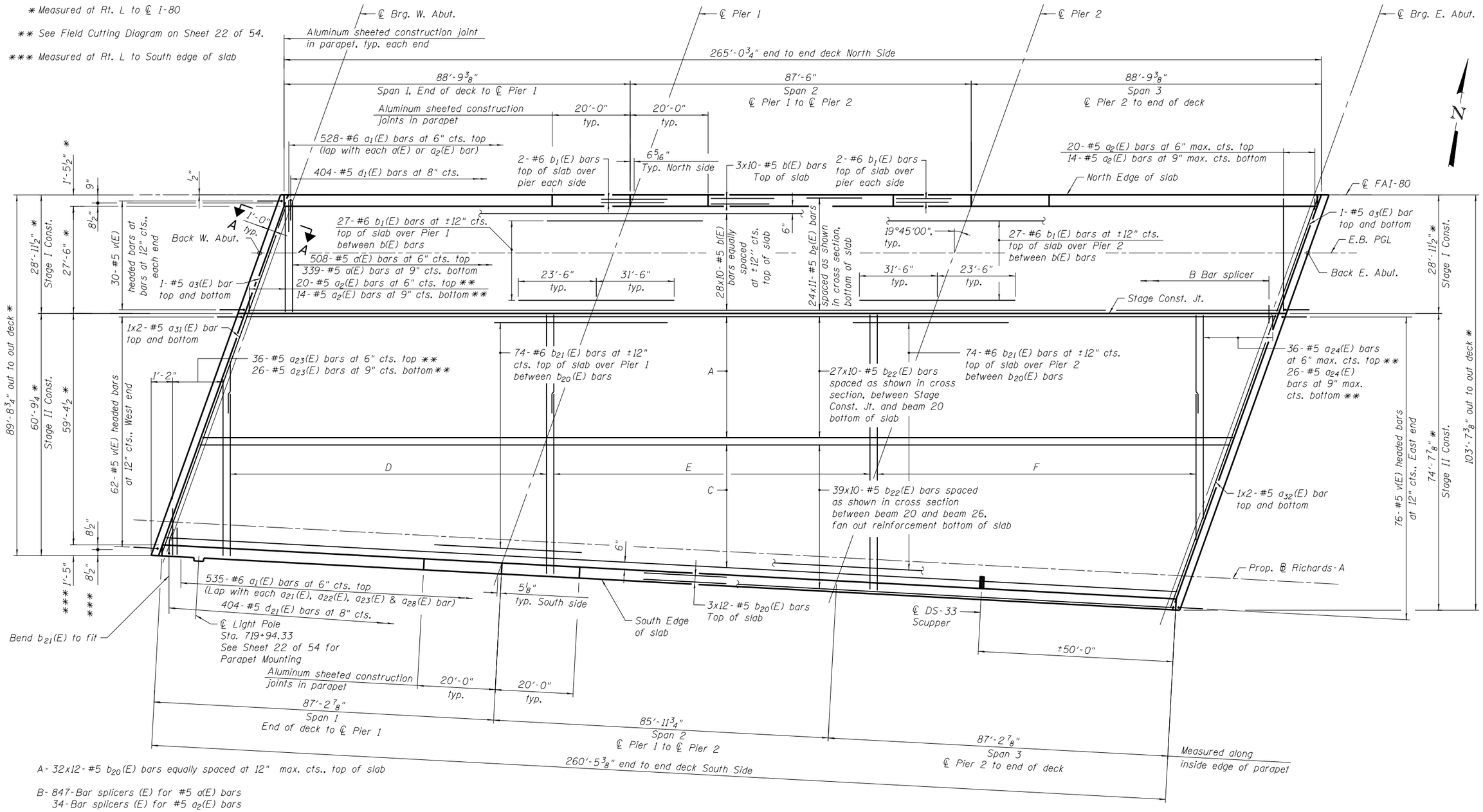
Notes:
1. All Elevations and Offsets are in feet.

2. Offsets are measured with respect to ℄ FAI-80.

HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - JLF	REVISED [2] 6/11/2021 JRS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF EAST APPROACH SLAB ELEVATIONS STRUCTURE NO. 099-0062
		CHECKED - ACF/PAB	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 6/11/2021	CHECKED - MMK/PAB	REVISED		SHEET NO. 16 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	251
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-016-TOEEAPP.dgn



A- 32x12-#5 b_{20}(E) bars equally spaced at 12" max. cts., top of slab

B- 847-Bar splicers (E) for #5 a(E) bars
34-Bar splicers (E) for #5 a_2(E) bars

C- 43x12-#5 b_{20}(E) bars at 12" max. cts. top of slab. Fan out reinforcement to accomodate skew of the deck.

D- 166-sets of #5 a_{20}(E) lapped with #5 a_{21}(E) at 6" max. cts. top
111-sets of #5 a_{25}(E) lapped with #5 a_{29}(E) at 9" max. cts. bottom

E- 166-sets of #5 a_{20}(E) lapped with #5 a_{22}(E) at 6" max. cts. top
111-sets of #5 a_{25}(E) lapped with #5 a_{26}(E) at 9" max. cts. bottom

F- 167-sets of #5 a_{20}(E) lapped with #5 a_{28}(E) at 6" max. cts. top
111-sets of #5 a_{25}(E) lapped with #5 a_{27}(E) at 9" max. cts. bottom

PLAN

MINIMUM BAR LAP

#5 bars = 3'-6"

Notes:
1. For superstructure details and Bill of Material, see Sheet 22 of 54.
2. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. For parapet reinforcement, see Sheet 18 thru 22 of 54.
4. For deck cross section, see Sheet 18 & 19 of 54.
5. For Section A-A, see Sheet 27 of 54.
6. For Bar Splicer details, see Sheet 50 of 54.

HBP Illinois Partners

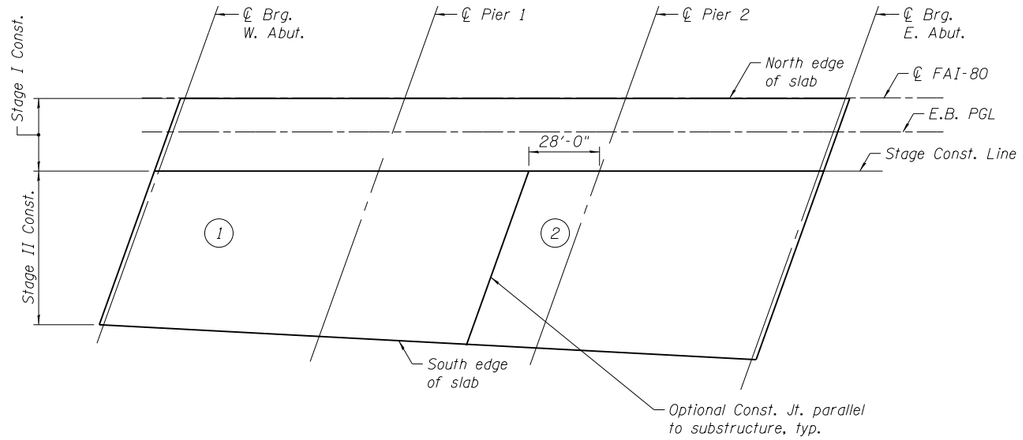
USER NAME = eabuatherah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF/TAT	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN
STRUCTURE NO. 099-0062
SHEET NO. 17 OF 54 SHEETS

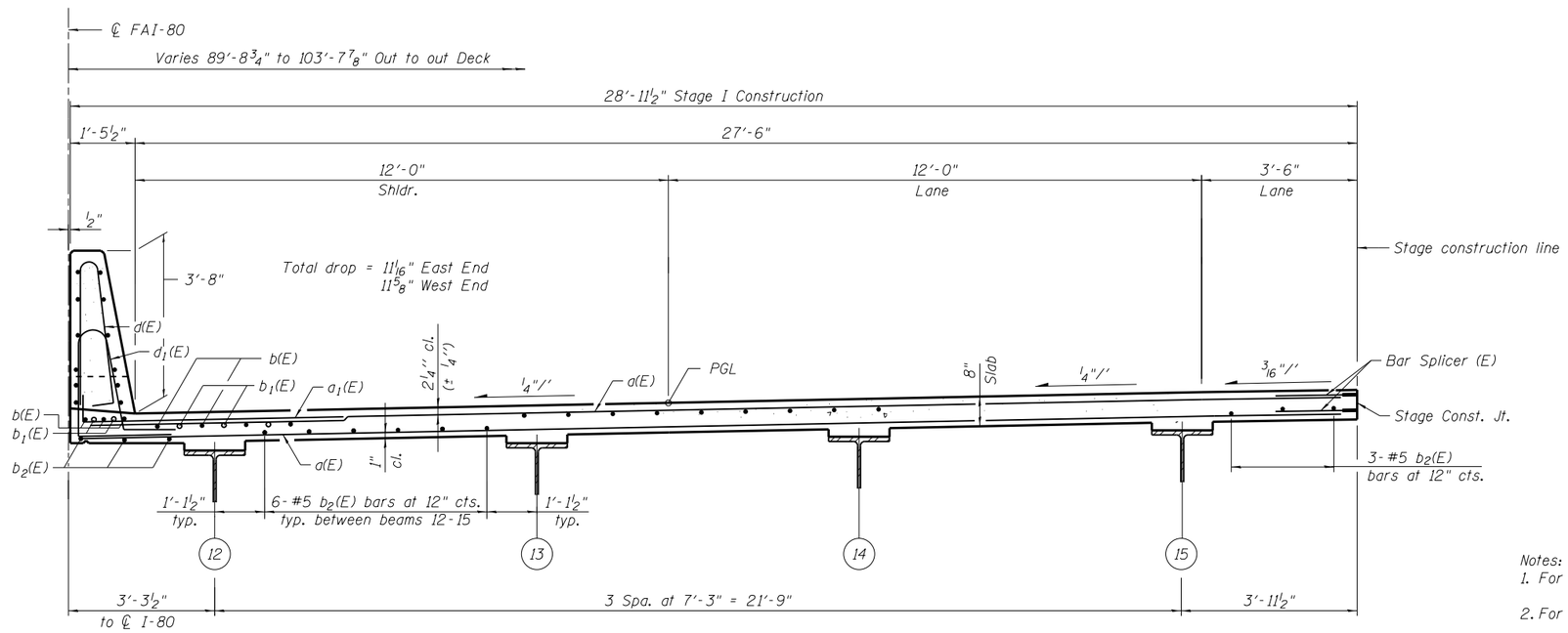
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	252
		CONTRACT NO. 60W34		
ILLINOIS FED. AID PROJECT				

0990062-60W34-017-DCK.dgn



N

DECK POUR SEQUENCE - STAGE II



NEAR PIER

CROSS SECTION -STAGE I CONSTRUCTION

(Looking East)

Notes:
1. For notes, see Sheet 17 of 54.
2. For Parapet details, see Sheet 21 of 54.
3. For scupper details, see Sheet 31 of 54.
4. When the deck pour is stopped for the day at one or more transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall be made until both of the following are met:
   At least 72 hours shall have elapsed from the end of the previous pour.
   The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

HBP Illinois Partners

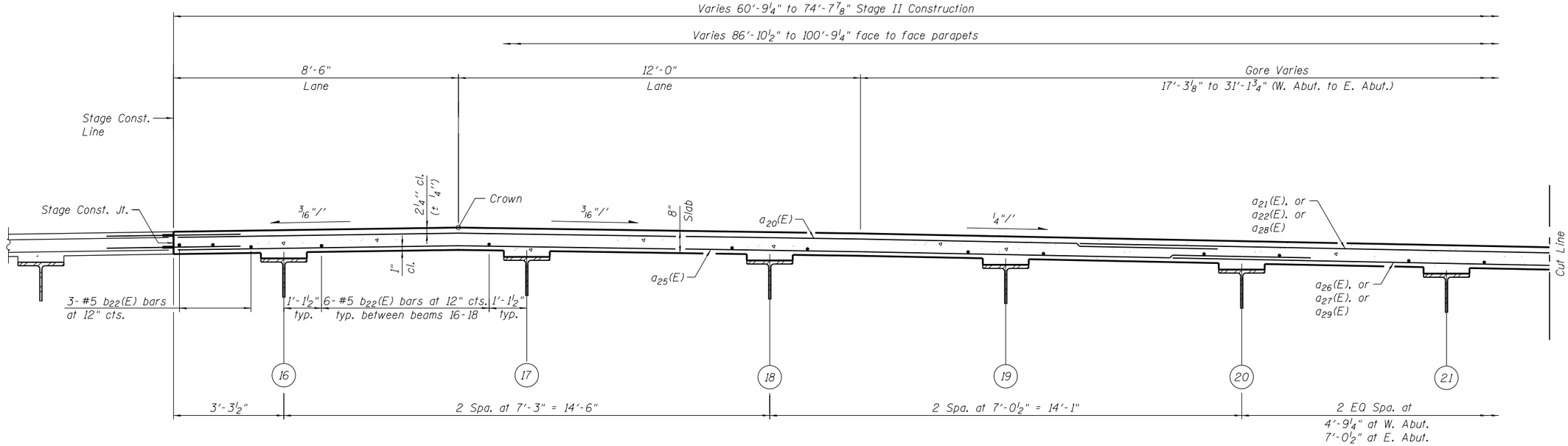
USER NAME = eabuatherah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

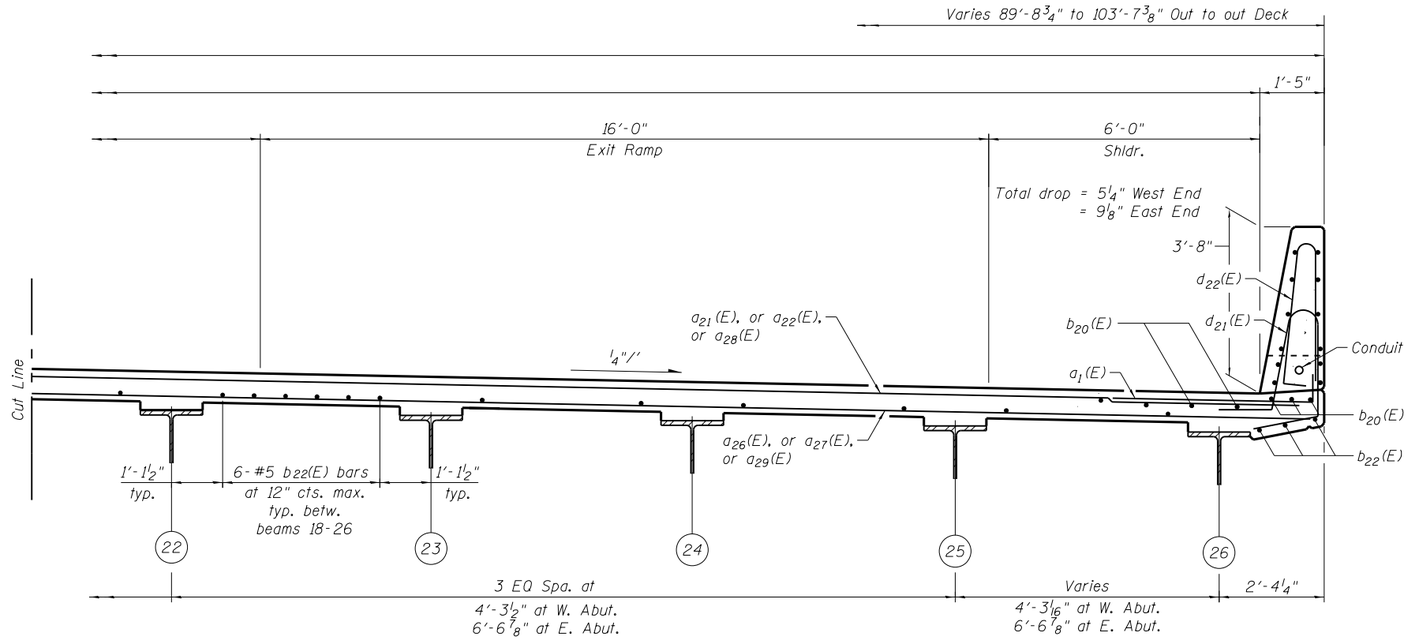
DECK SECTIONS – 1
STRUCTURE NO. 099–0062
SHEET NO. 18 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	253
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-018-DCKSEC.dgn



CROSS SECTION - STAGE II CONSTRUCTION
(Looking East)



NEAR MIDSPAN

CROSS SECTION - STAGE II CONSTRUCTION
(Looking East)

Notes:
1. For notes, see Sheet 17 of 54.
2. For Parapet details, see Sheet 21 of 54.
3. For scupper details, see Sheet 31 of 54.

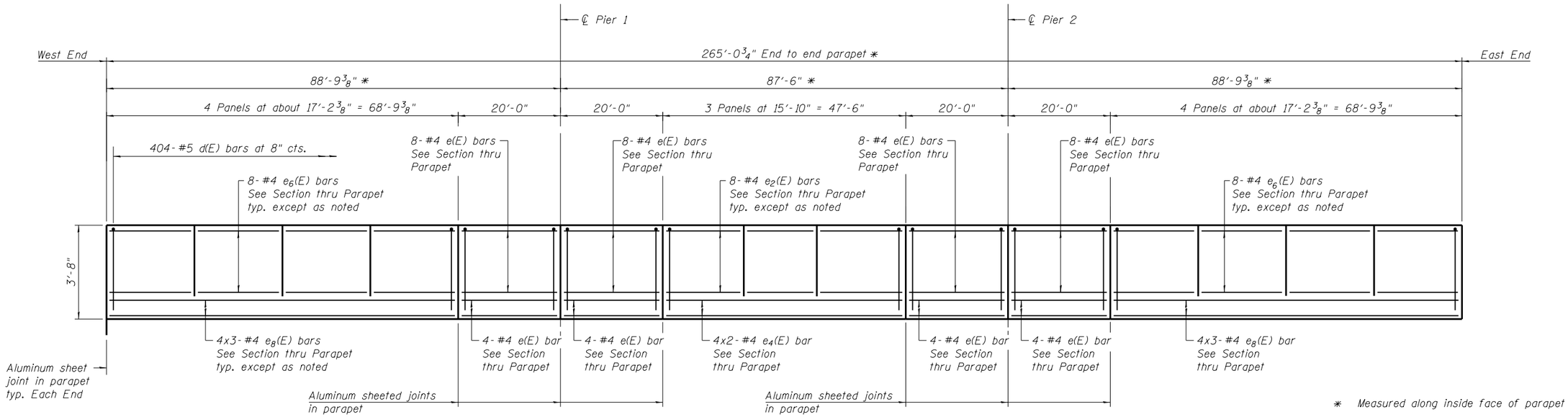
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - MRI/MMK/PAB	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

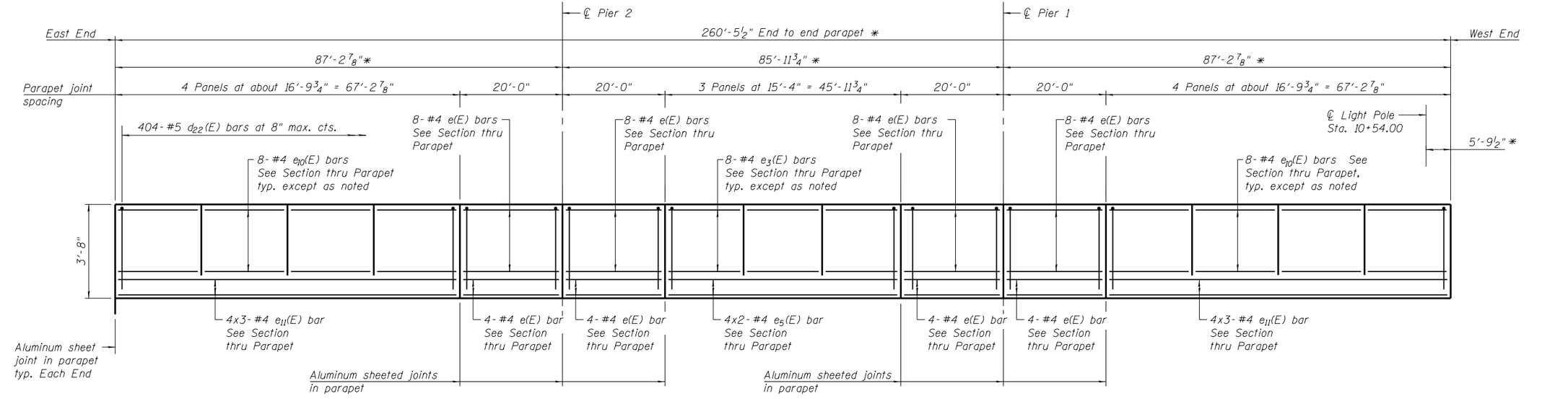
DECK SECTIONS - 2
STRUCTURE NO. 099-0062
SHEET NO. 19 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	254
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-019-DCKSEC2.dgn



INSIDE ELEVATION OF NORTH PARAPET



INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP

(Parapet)

#4 bar = 2′-8"

Notes:

1. Bars indicated thus "4x3-#4 etc." indicates 4 lines of bars with 3 lengths per line.

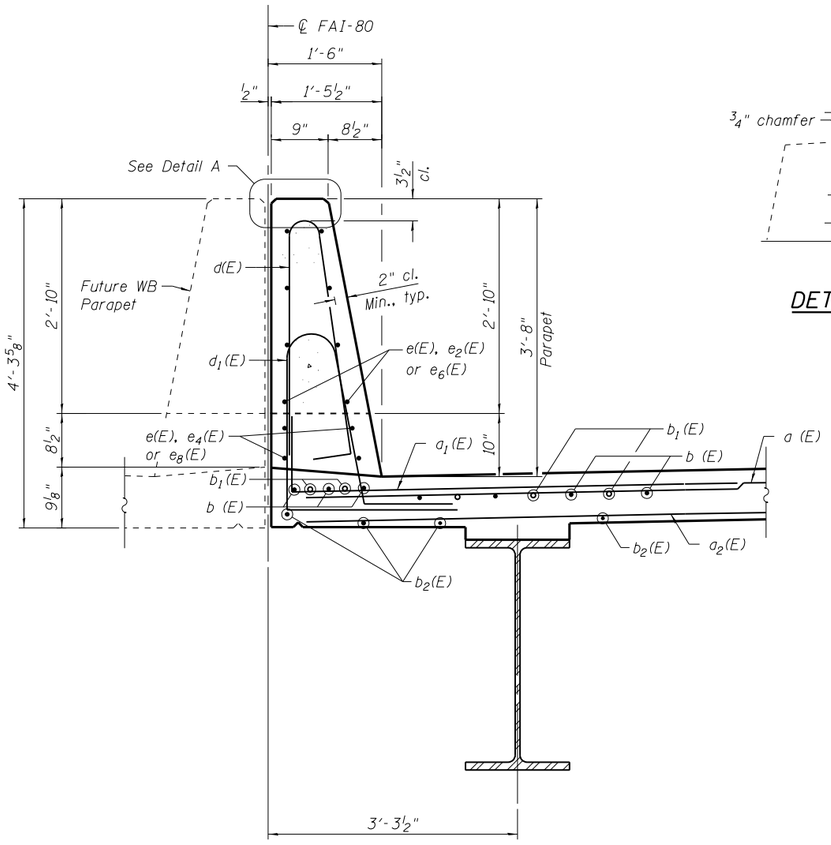
HBP Illinois Partners	USER NAME = eabustherah	DESIGNED - MRI/MMK/PAB	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

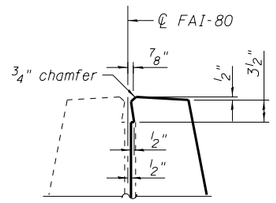
PARAPET ELEVATIONS
STRUCTURE NO. 099-0062
SHEET NO. 20 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	255
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

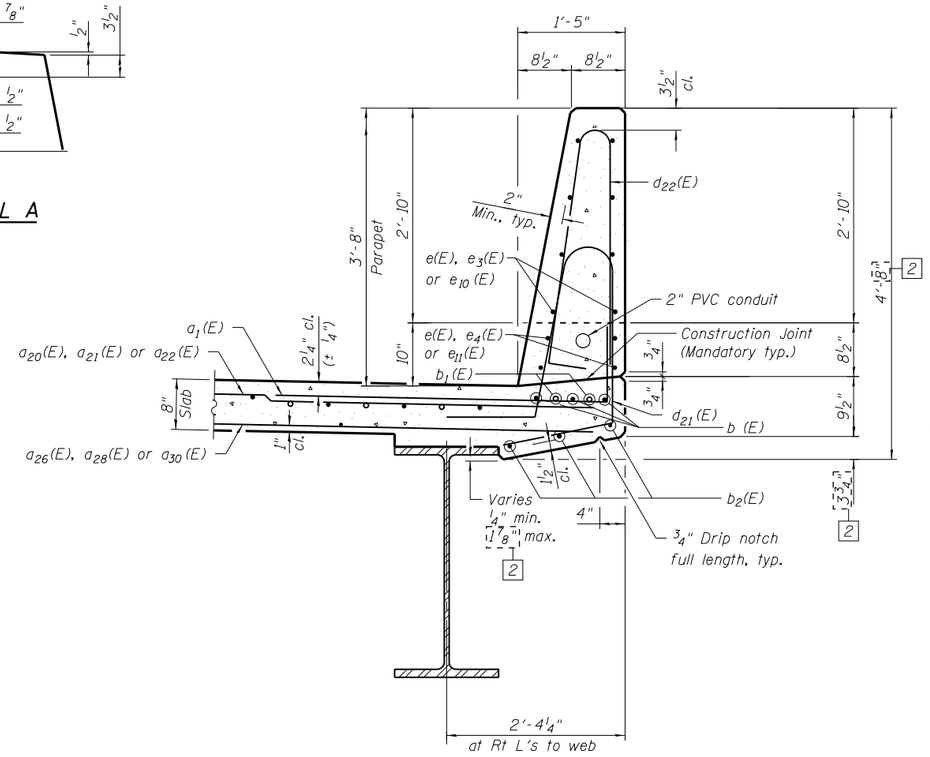
0990062-60W34-020-DCKPA.dgn



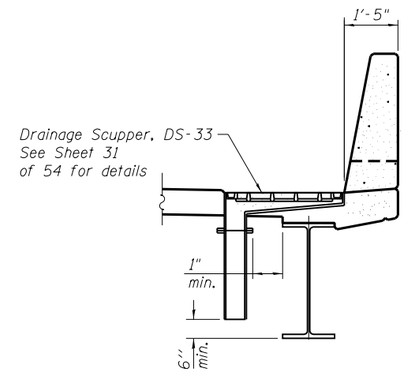
SECTION THRU PARAPET
North Parapet



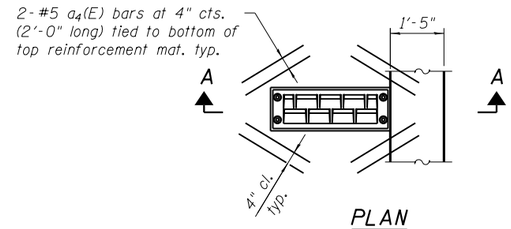
DETAIL A



SECTION THRU PARAPET
South Parapet



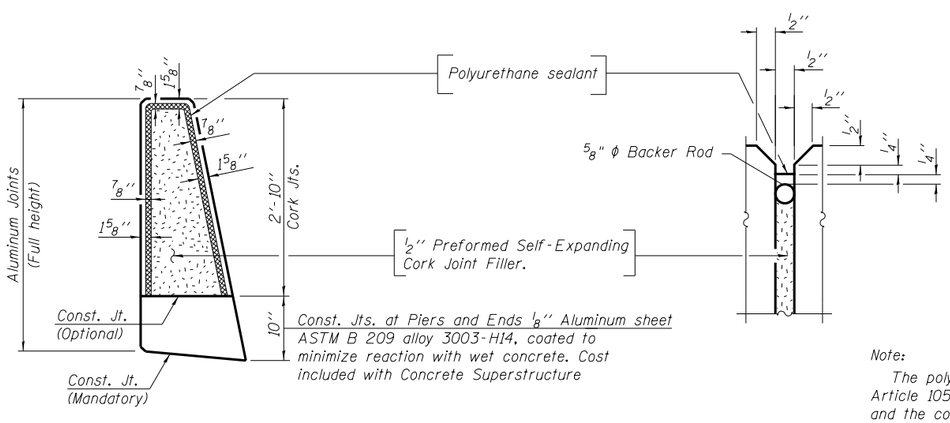
SECTION A-A



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

DETAIL AT SCUPPER



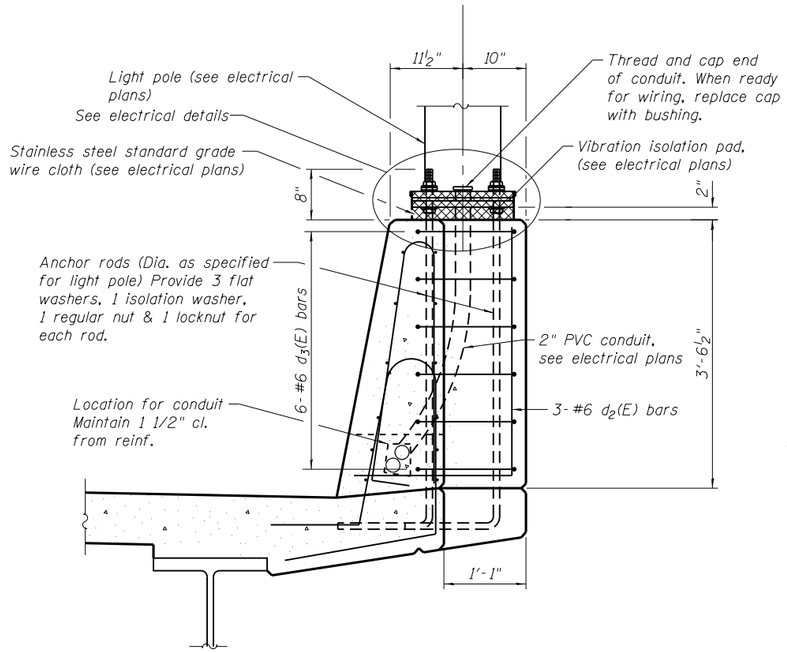
Note:
The polyurethane sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.

PARAPET JOINT DETAILS

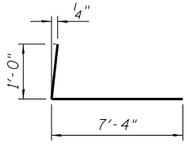
HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - MRI/MMK/PAB	REVISED 2 6/11/2021 JRS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK DETAILS STRUCTURE NO. 099-0062
		CHECKED - ACF	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 6/11/2021	CHECKED - ACF/TAT	REVISED		SHEET NO. 21 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	256
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

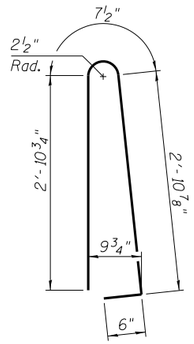
0990062-60W34-021-DCKDETL.dgn



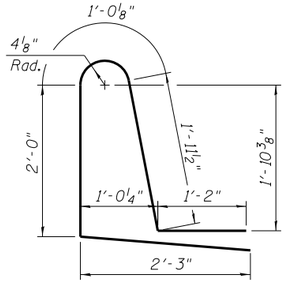
SECTION A-A



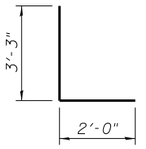
BAR a1(E)



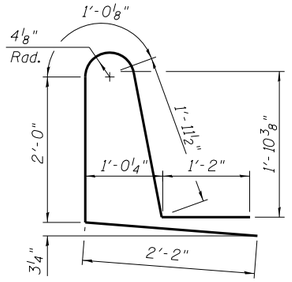
BAR d(E)



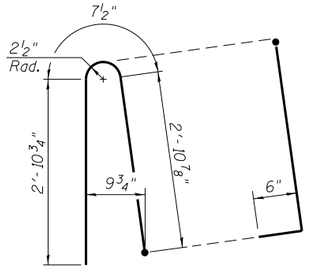
BAR d1(E)



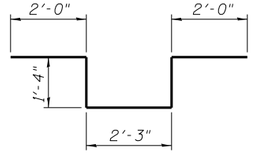
BAR d2(E)



BAR d21(E)



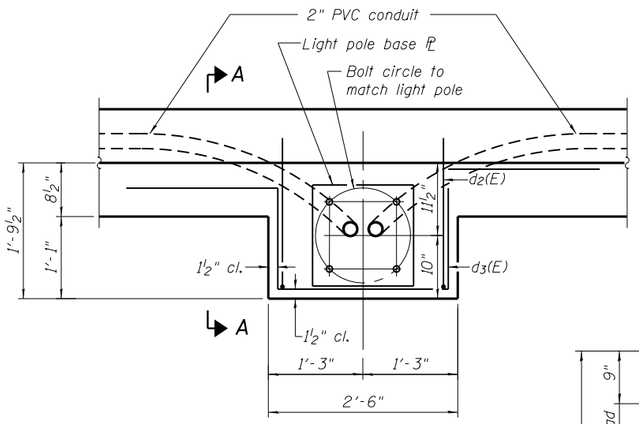
BAR d22(E)
(South Parapet)



BAR d3(E)

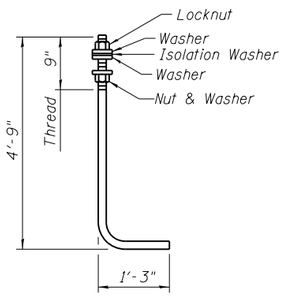
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	847	#5	28'-8"	
a1(E)	1063	#6	8'-4"	
a2(E)	34	#5	31'-8"	
a3(E)	4	#5	30'-5"	
a4(E)	8	#5	2'-0"	
a20(E)	499	#5	30'-0"	
a21(E)	166	#5	39'-5"	
a22(E)	166	#5	43'-11"	
a23(E)	31	#5	55'-0"	
a24(E)	31	#5	55'-0"	
a25(E)	333	#5	33'-6"	
a26(E)	111	#5	40'-4"	
a27(E)	111	#5	44'-5"	
a28(E)	167	#5	47'-11"	
a29(E)	111	#5	35'-11"	
a31(E)	4	#5	33'-11"	
a32(E)	4	#5	41'-4"	
b(E)	310	#5	29'-8"	
b1(E)	62	#6	55'-0"	
b2(E)	264	#5	27'-3"	
b20(E)	936	#5	25'-4"	
b21(E)	148	#6	55'-0"	
b22(E)	660	#5	29'-8"	
d(E)	404	#5	6'-11"	
d1(E)	404	#5	8'-5"	
d2(E)	3	#6	5'-3"	
d3(E)	6	#6	8'-11"	
d21(E)	404	#5	8'-4"	
d22(E)	404	#5	6'-11"	
e(E)	96	#4	19'-8"	
e2(E)	24	#4	15'-6"	
e3(E)	24	#4	14'-11"	
e4(E)	8	#4	25'-0"	
e5(E)	8	#4	24'-2"	
e6(E)	64	#4	16'-10"	
e8(E)	24	#4	24'-11"	
e10(E)	64	#4	16'-5"	
e11(E)	24	#4	24'-2"	
m(E)	10	#6	30'-5"	
m1(E)	10	#6	34'-3"	
m2(E)	36	#6	7'-4"	
m3(E)	12	#6	7'-7"	
m4(E)	4	#4	30'-5"	
m5(E)	18	#6	7'-1"	
m6(E)	6	#6	4'-8"	
m7(E)	12	#6	4'-2"	
m8(E)	12	#6	6'-7"	
m10(E)	15	#6	29'-0"	
m11(E)	4	#4	33'-7"	
m12(E)	6	#4	28'-2"	
m13(E)	36	#6	7'-4"	
m14(E)	12	#6	3'-2"	
m15(E)	18	#6	7'-1"	
m16(E)	6	#6	4'-8"	
m17(E)	12	#6	4'-2"	
m18(E)	12	#6	6'-7"	
s(E)	162	#5	6'-7"	
s1(E)	162	#5	10'-1"	
u(E)	162	#4	4'-8"	
v(E)	198	#5	3'-1"	
Reinforcement Bars, Epoxy Coated		Pound	211,850	
Concrete Superstructure		Cu Yd	828.8 [2]	

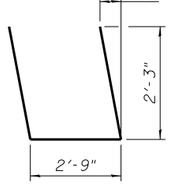


PLAN

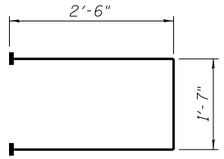
Note:
Cost of anchor rods is included with Concrete Superstructure.



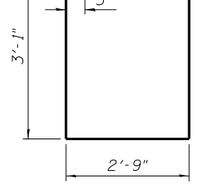
ANCHOR ROD
Diameter as specified for light poles.
(ASTM F 1554 Grade 105)
Full length hot dipped galvanized



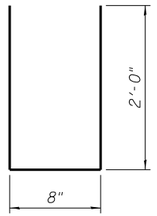
BAR m3(E)



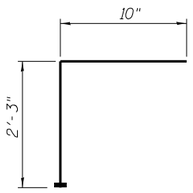
BAR s(E)
(Headed)



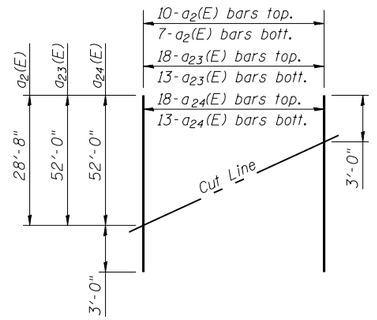
BAR s1(E)



BAR u(E)



BAR v(E)
(Headed)



FIELD CUTTING DIAGRAM

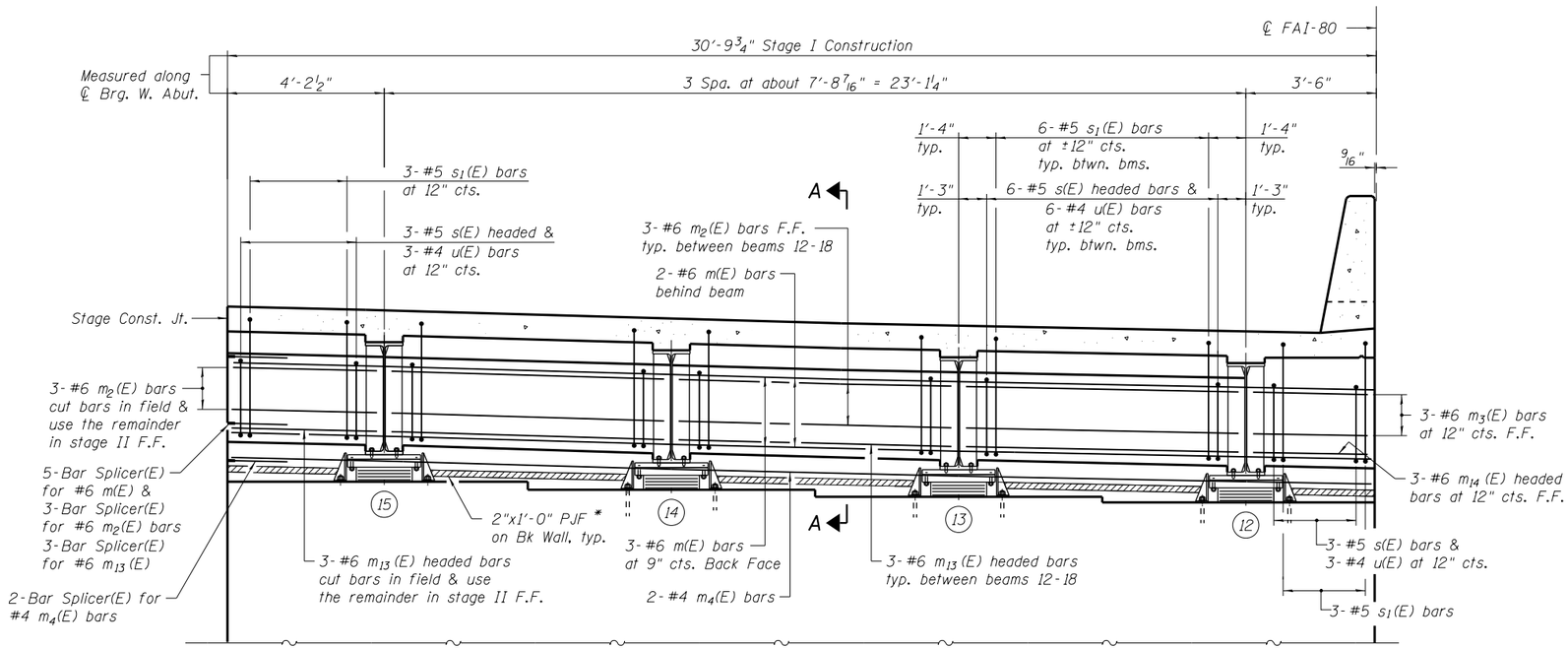
HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - MRI/MMK/PAB	REVISED [2] 6/11/2021 JRS	
		CHECKED - ACF	REVISED	
		DRAWN - LK	REVISED	
	PLOT DATE = 6/11/2021	CHECKED - ACF/TAT	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 22 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	257
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-022-DCKDET2.dgn



CONCRETE DIAPHRAGM ELEVATION AT WEST ABUTMENT - STAGE I CONSTRUCTION

MIN. BAR LAP

#4 bar = 2'-8"
#6 bar = 4'-0"

Notes:
1. For notes see Sheet 27 of 54.

2. For Section A-A see Sheet 27 of 54.

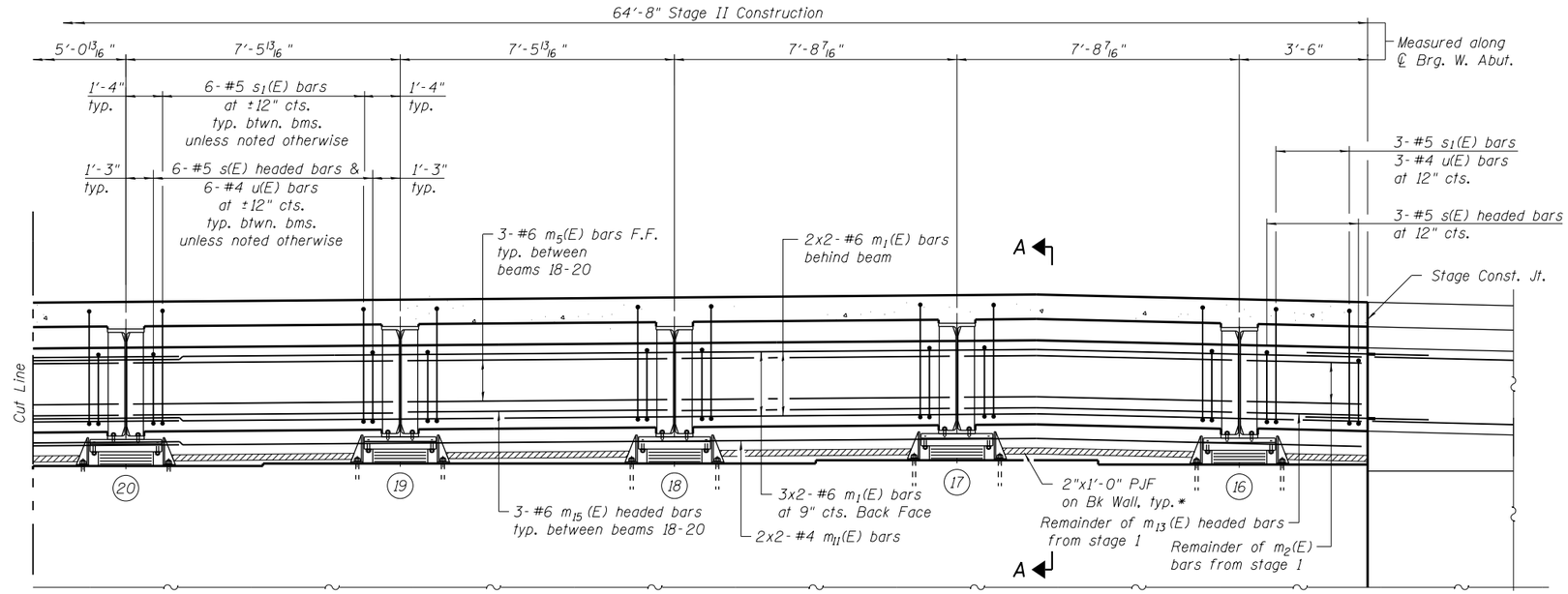
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - MRI/PAB	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

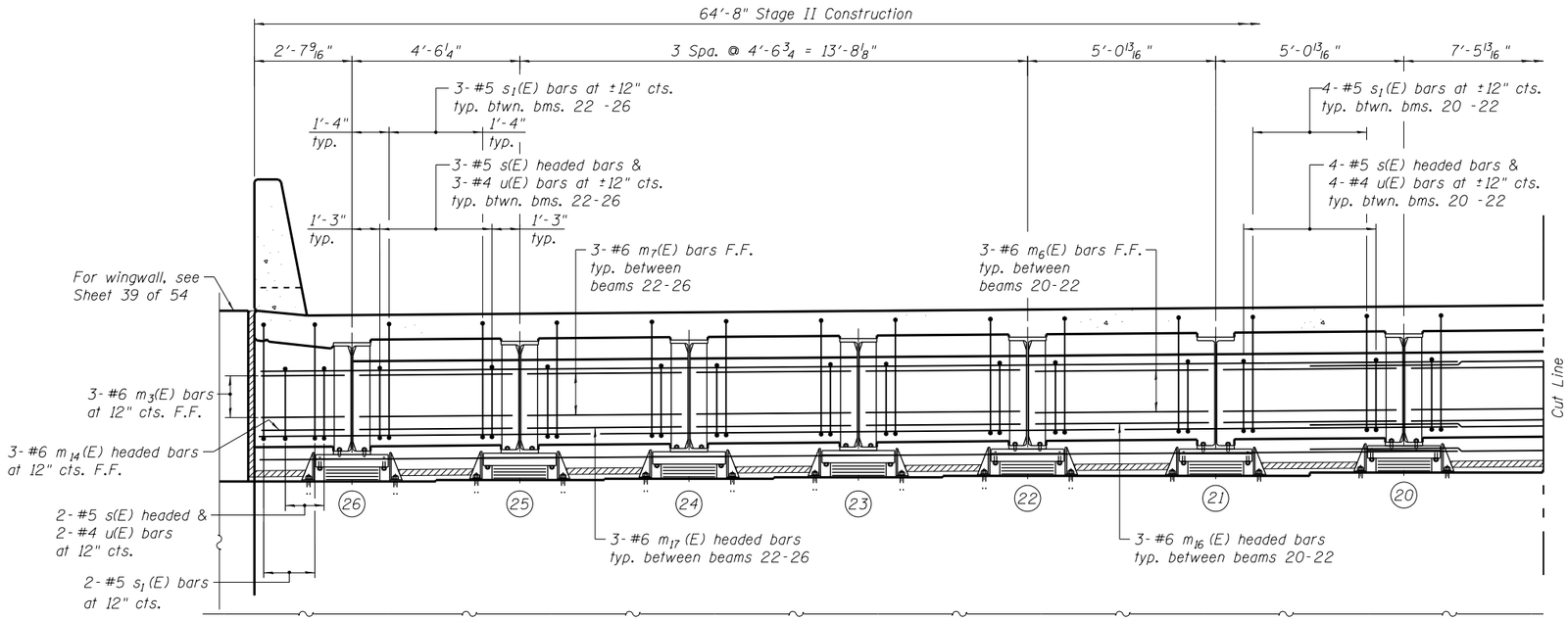
WEST ABUTMENT DIAPHRAGM DETAILS – 1
STRUCTURE NO. 099–0062
SHEET NO. 23 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	258
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-023-DIAWABUT.dgn



CONCRETE DIAPHRAGM ELEVATION AT WEST ABUTMENT - STAGE II CONSTRUCTION



CONCRETE DIAPHRAGM ELEVATION AT WEST ABUTMENT - STAGE II CONSTRUCTION

MIN. BAR LAP

#4 bar = 2'-8"
#6 bar = 4'-0"

Notes:
1. For notes see Sheet 27 of 54.
2. For Section A-A see Sheet 27 of 54.
3. Bars indicated thus 5 x 2-#6 etc. indicates 5 lines of bars with 2 lengths per line.

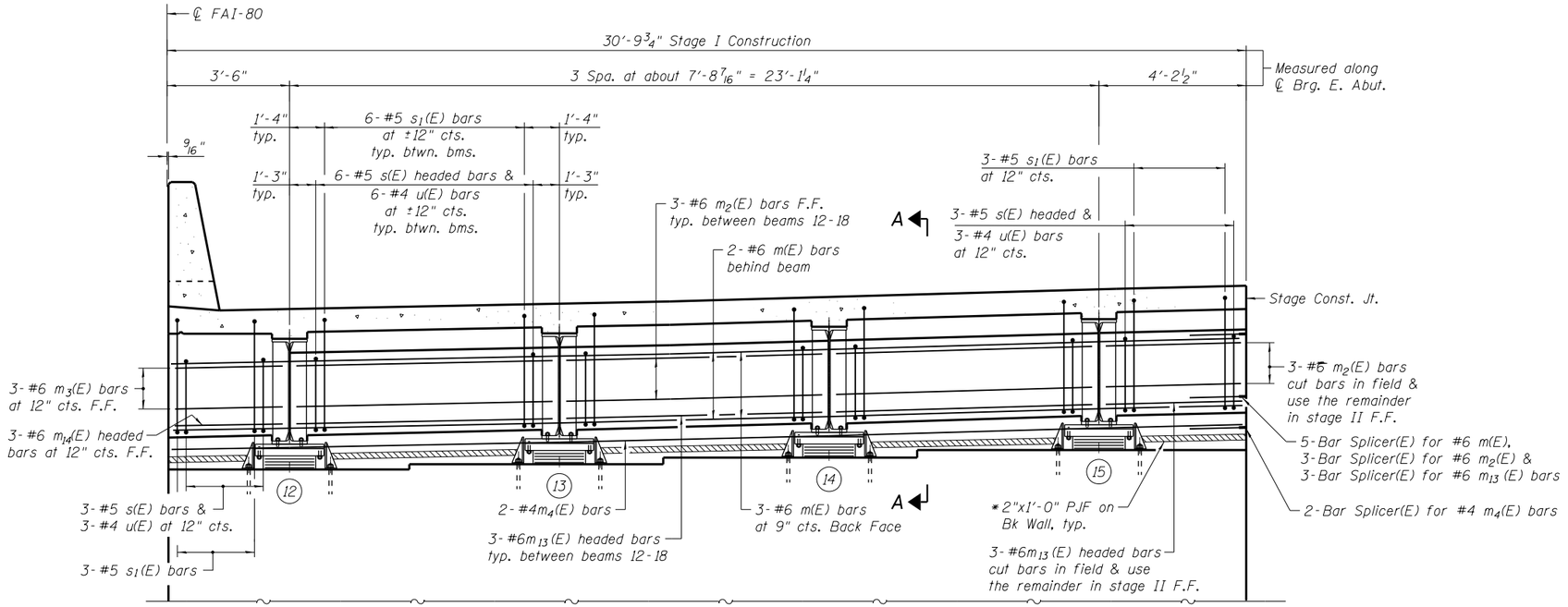
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - MRI/PAB	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DIAPHRAGM DETAILS – 2
STRUCTURE NO. 099–0062
SHEET NO. 24 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	259
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-024-DIAWABUT2.dgn



CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE I CONSTRUCTION

MIN. BAR LAP

#4 bar = 2'-8"
#6 bar = 4'-0"

Notes:
1. For notes see Sheet 27 of 54.

2. For Section A-A, see Sheet 27 of 54.

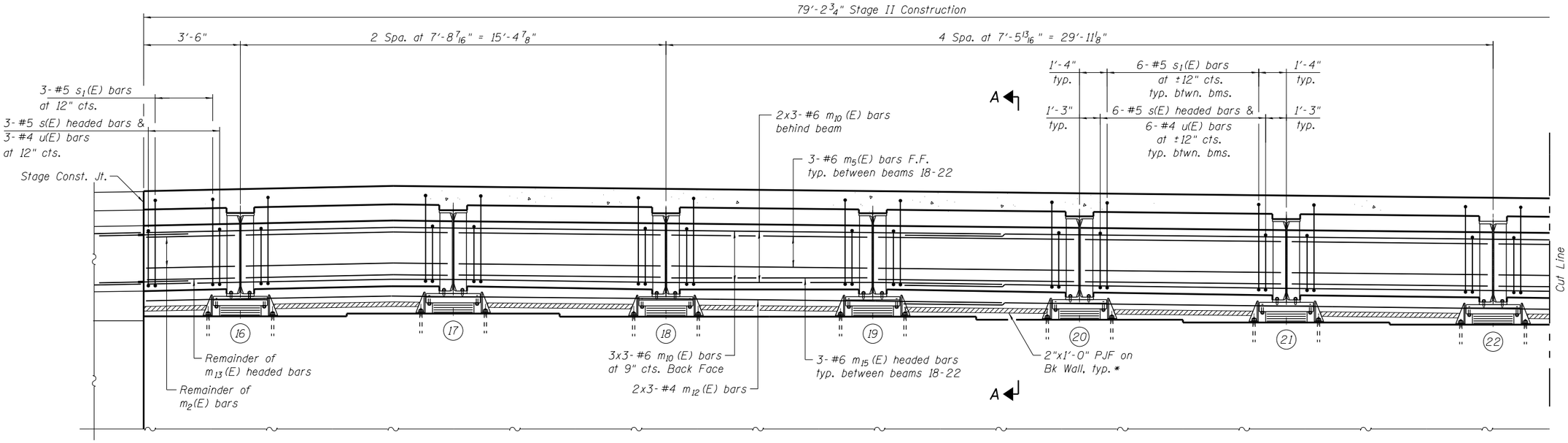
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - MRI/PAB	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

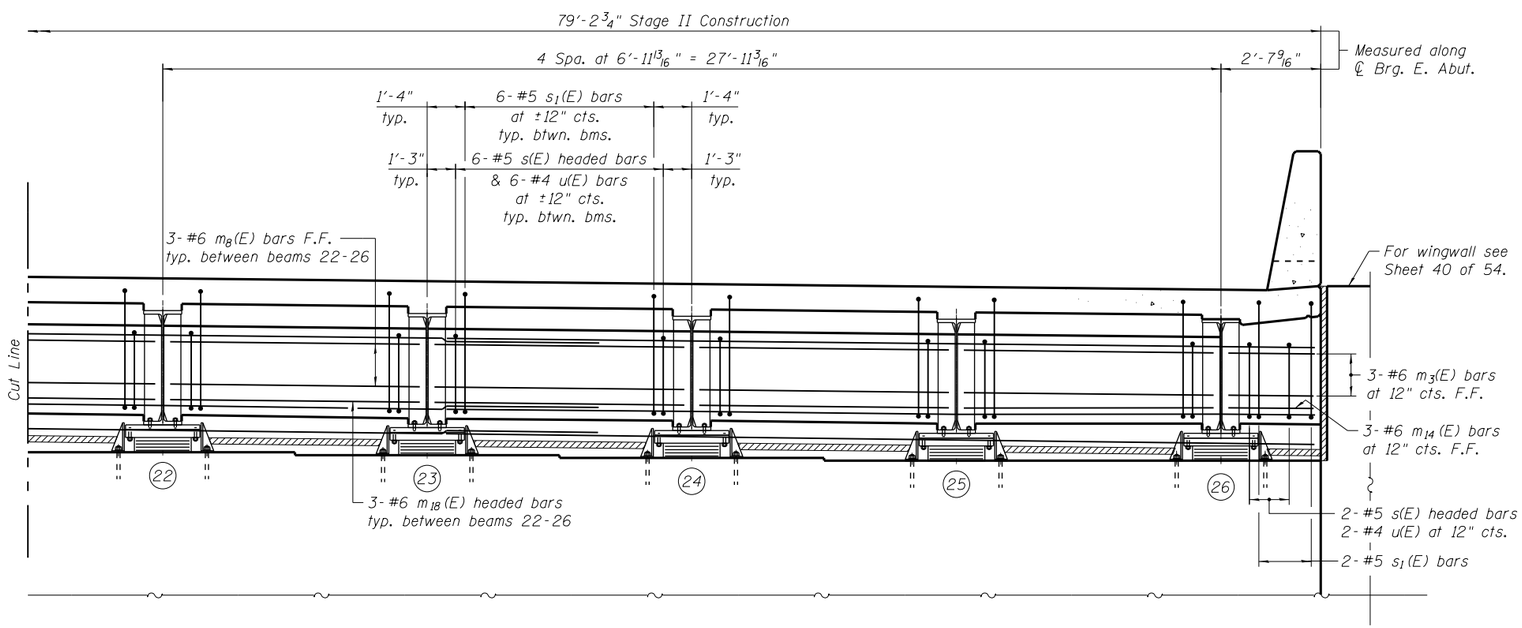
EAST ABUTMENT DIAPHRAGM DETAILS – 1
STRUCTURE NO. 099–0062
SHEET NO. 25 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	260
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-025-DIAEABUT.dgn



CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE II CONSTRUCTION



CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE II CONSTRUCTION

MIN. BAR LAP

#4 bar = 2'-8"
#6 bar = 4'-0"

Notes:
1. For notes see Sheet 27 of 54.
2. For Section A-A see Sheet 27 of 54.
3. Bars indicated thus 5 x 3-#6 etc. indicates 5 lines of bars with 3 lengths per line.

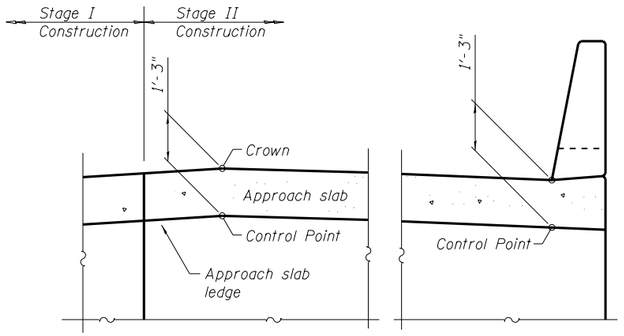
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - MRI/PAB	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DIAPHRAGM DETAILS – 2
STRUCTURE NO. 099–0062
SHEET NO. 26 OF 54 SHEETS

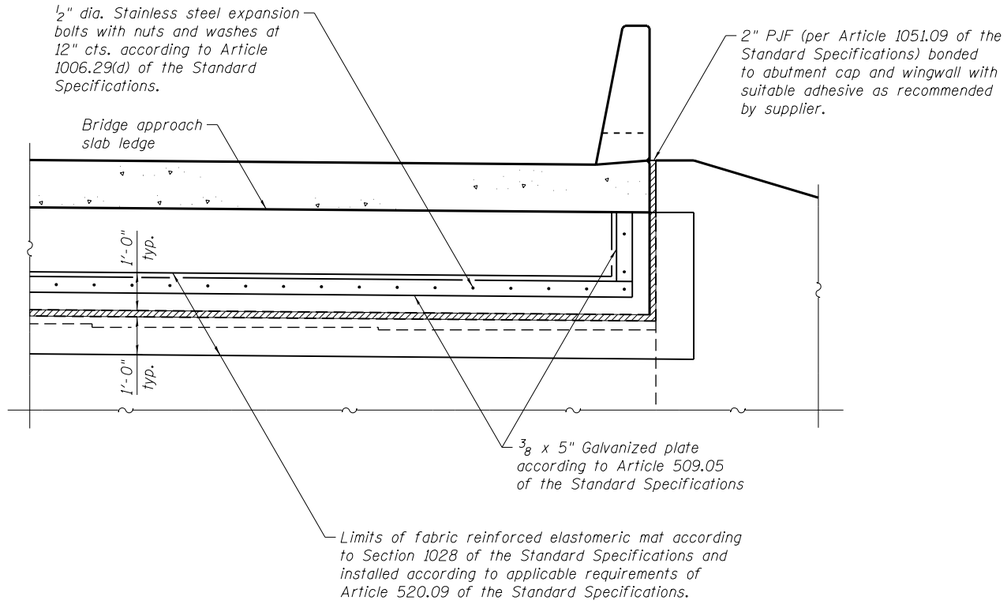
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	261
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-026-DIAEABUT2.dgn



DETAIL OF APPROACH SLAB LEDGE

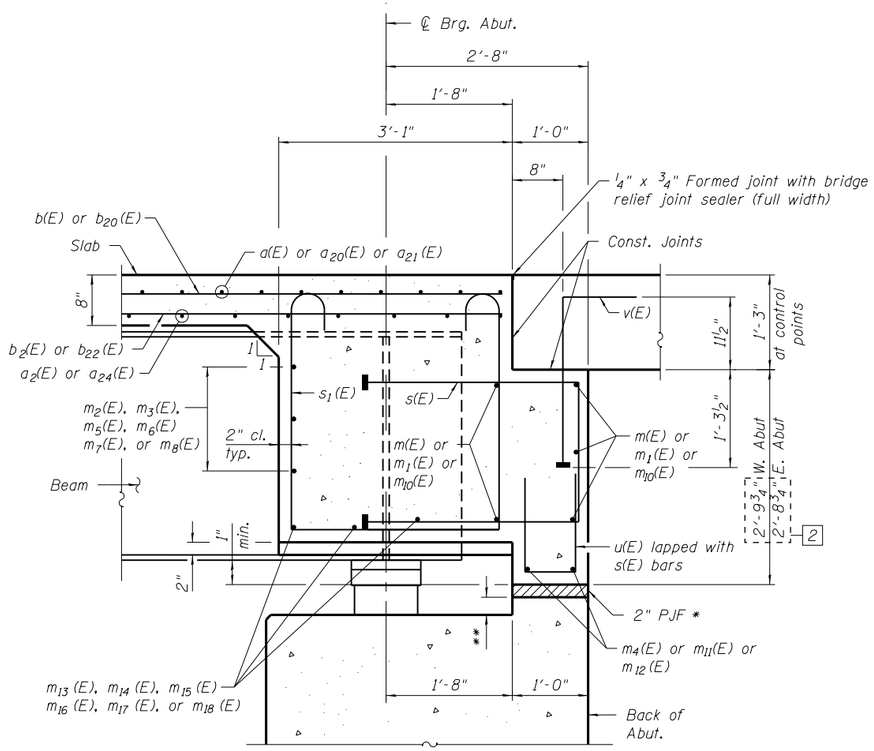
(Looking East at back of abutment)



ABUTMENT JOINT DETAILS - ELEVATION

(Looking East at back of abutment, west Abut. shown)

Note:
Cost of fabric reinforced elastomeric mat, galvanized plate, stainless steel expansion bolts with nuts and washers and installation are included in the cost of Concrete Superstructure.



SECTION A-A

Dimensions at right angles to abutment, except as shown.

Notes:

1. Reinforcement bars in diaphragm are billed with superstructure on Sheet 22 of 54.
2. Concrete in diaphragm is included with Concrete Superstructure on Sheet 22 of 54.
3. For details of bars s(E), s_1(E), u(E), & v(E) see Sheet 22 of 54.
4. The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
5. Provide 2" PJF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.
6. For Bar Splicer details, see Sheet 50 of 54.
7. Headed bars shall conform to ASTM A970 with threaded attachement; Class HA.
8. Bearing stiffener with a required 1" thickness placed at right angles to beam web at centerline of bearing.

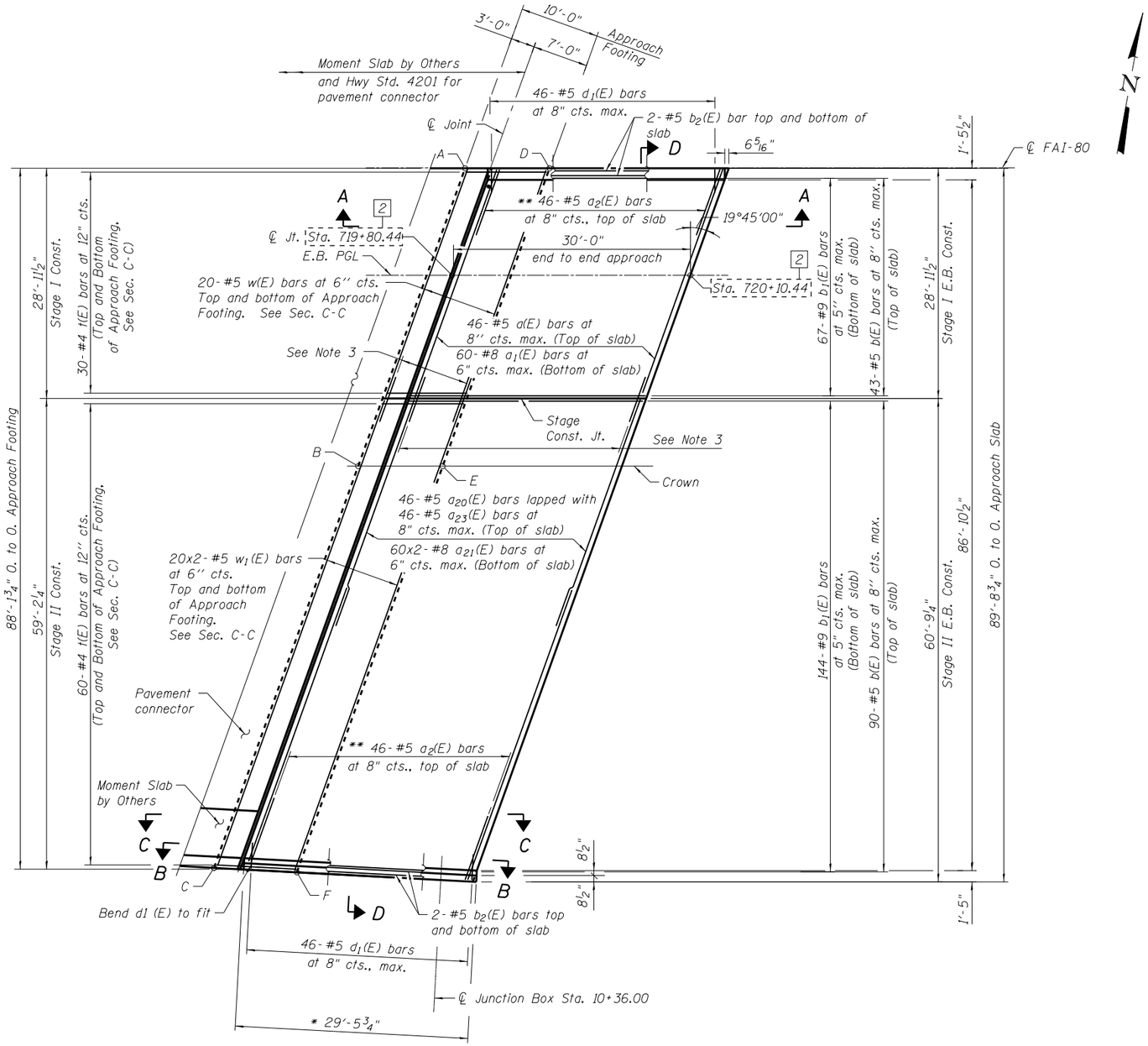
* Cost included with Concrete Superstructure

** Varies see Sheet 42 of 54.

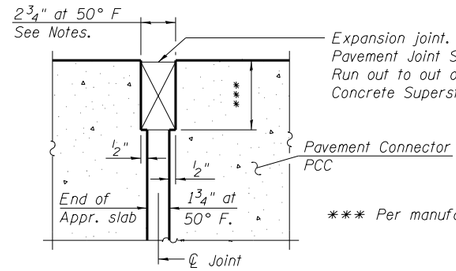
HBP Illinois Partners	USER NAME = jschaefer	DESIGNED - MRI	REVISED 2 6/11/2021 JRS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT DIAPHRAGM DETAILS STRUCTURE NO. 099-0062
		CHECKED - ACF	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 6/11/2021	CHECKED - ACF	REVISED		SHEET NO. 27 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	262
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

0990062-60W34-027-DIAABUT.dgn



PLAN - WEST APPROACH SLAB



*** Per manufacturer recommendations

DETAIL A
(@ Rt. L's)

Point	West Approach	
	Top	Bottom
A	564.20	563.37
B	565.24	564.41
C	564.80	563.96
D	563.91	563.07
E	564.94	564.11
F	564.50	563.66

2

* Measured along the back face of parapet.
** Lap with top #5 bars, typ.

MIN. BAR LAP

#5 = 3'-4"
#8 = 5'-4"

Notes:
1. For Views A-A and B-B, Sections C-C and D-D, see Sheet 30 of 54.
2. The a(E) series bar spacings are measured along ℄ Rdwy.
3. 2x40-Bar splicers (E) for #5 w(E) bars top and bottom in footing, 2x46-Bar splicers (E) for #5 a(E) bars top, and 2x60-Bar splicers (E) for #8 a_1(E) bars bottom.
4. Bars indicated thus 10x2 etc. indicates 10 lines of bars with 2 lengths per line.
5. For Bar Splicer details, see Sheet 50 of 54.
6. The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$" for installation purposes.

HBP Illinois Partners

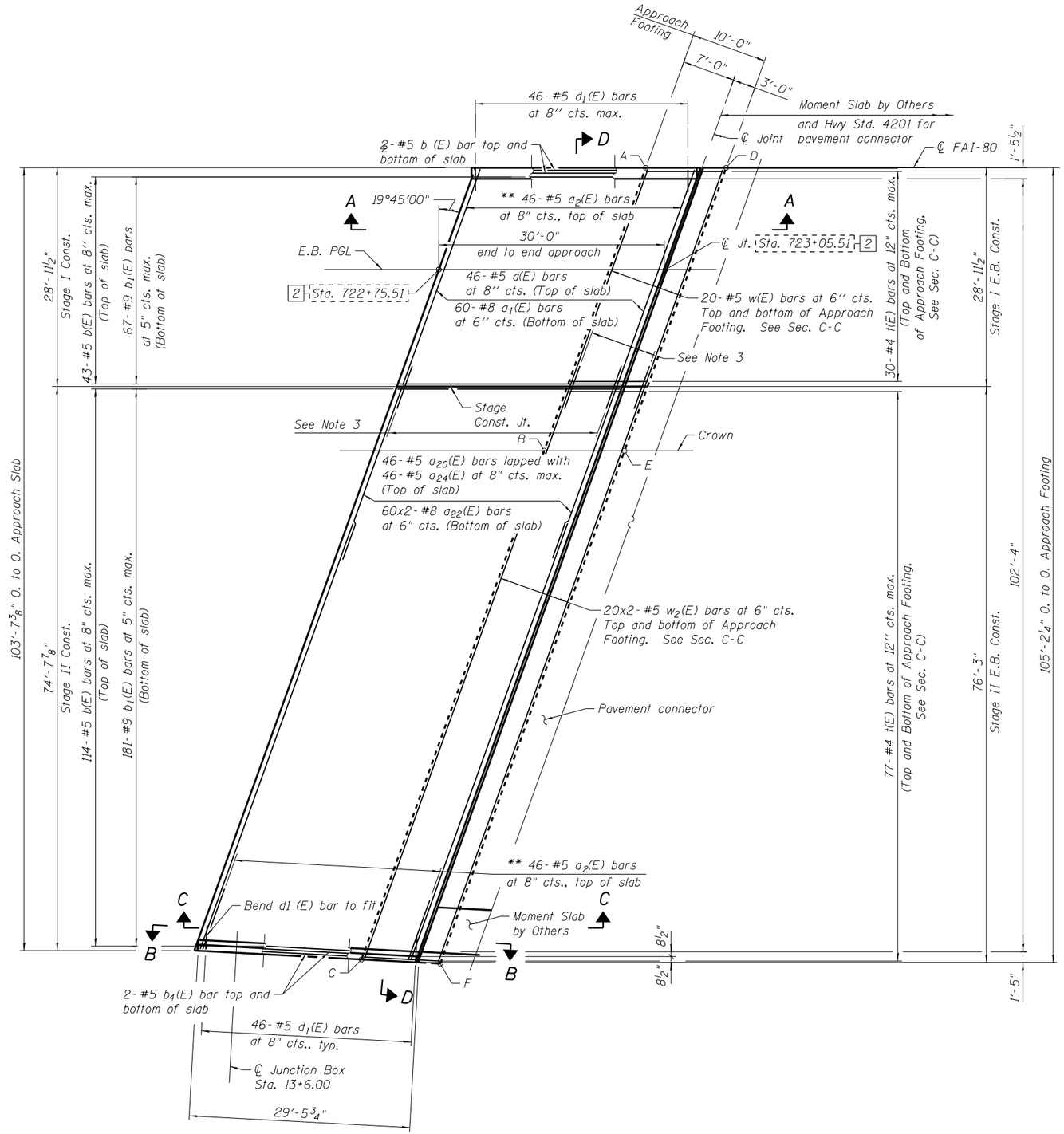
USER NAME = jschaefer	DESIGNED - EAA	REVISED 2 6/11/2021 JRS
	CHECKED - EAA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/11/2021	CHECKED - EAA/TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS – 1
STRUCTURE NO. 099–0062
SHEET NO. 28 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	263
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-028-APPR1.dgn



N

Point	East Approach	
	Top	Bottom
A	556.33	555.50
B	557.22	556.39
C	556.38	555.55
D	556.16	555.33
E	557.04	556.21
F	556.17	555.34

2

PLAN - EAST APPROACH SLAB

MIN. BAR LAP

#5 = 3'-4"
#8 = 5'-4"

* Measured along the back face of parapet
** Lap with top #5 bars, typ.

Notes:
1. For Views A-A and B-B, and Sections C-C and D-D, see Sheet 30 of 54.
2. The a(E) series bar spacings are measured along ℄ Rdwy.
3. 2x40-Bar splicers (E) for #5 w(E) bars top and bottom in footing, 2x46-Bar splicers (E) for #5 a(E) bars top, and 2x60-Bar splicers (E) for #8 a_1(E) bars bottom.
4. Bars indicated thus 10x2 etc. indicates 10 lines of bars with 2 lengths per line.
5. For Bar Splicer details, see Sheet 50 of 54.

HBP Illinois Partners

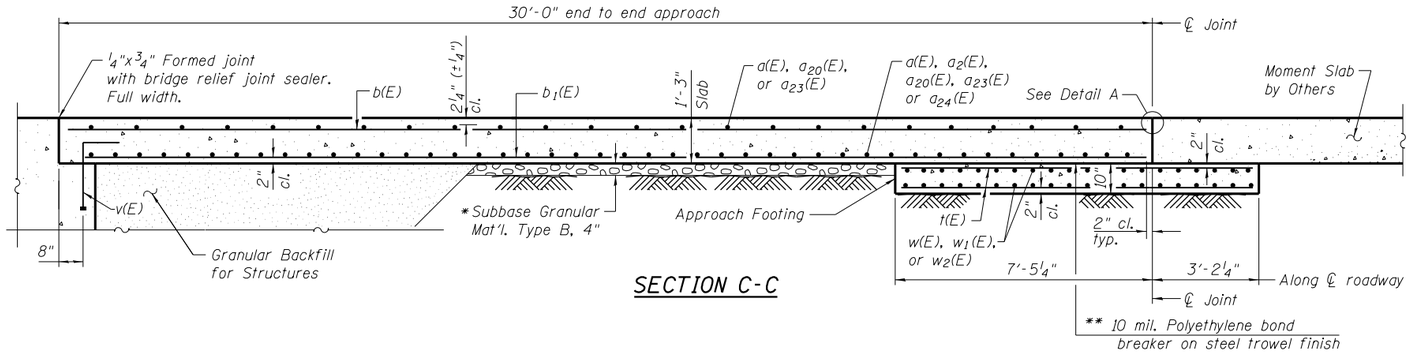
USER NAME = jschaefer	DESIGNED - MMK/PAB	REVISED 2 6/11/2021 JRS	
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - ACF/TAT	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

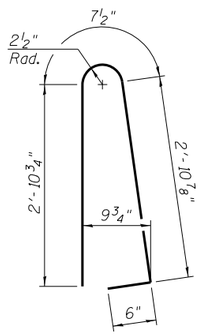
BRIDGE APPROACH SLAB DETAILS – 2
STRUCTURE NO. 099–0062
SHEET NO. 29 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	264
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

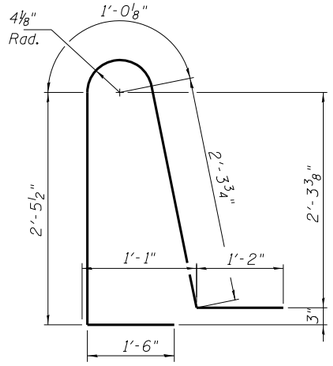
0990062-60W34-029-APPR2.dgn



SECTION C-C

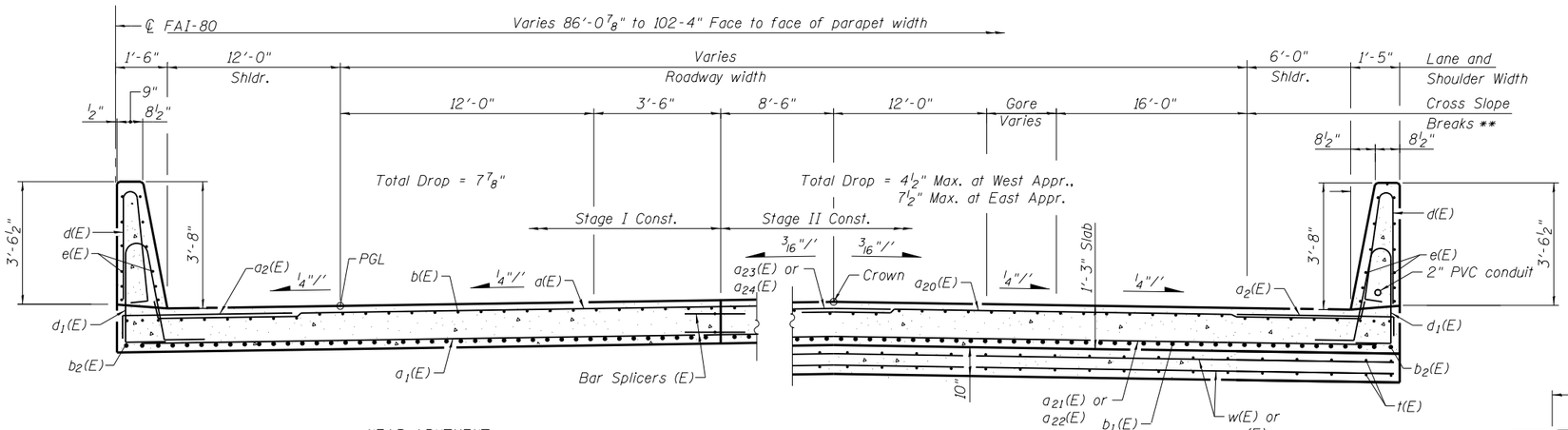


BAR d(E)



BAR d_1(E)

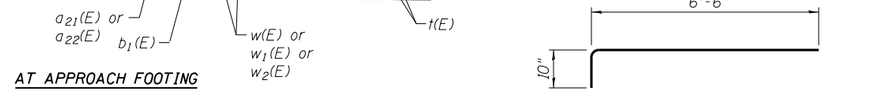
* Cost included with Concrete Superstructure (Approach Slab).



NEAR ABUTMENT

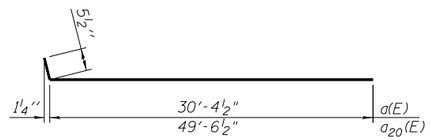
SECTION D-D

(See Plan for dimensions not shown)

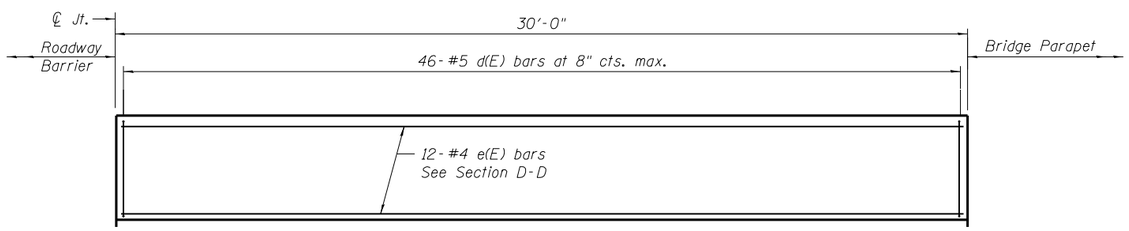


AT APPROACH FOOTING

BAR a_2(E)



BAR d(E) & a_{20}(E)



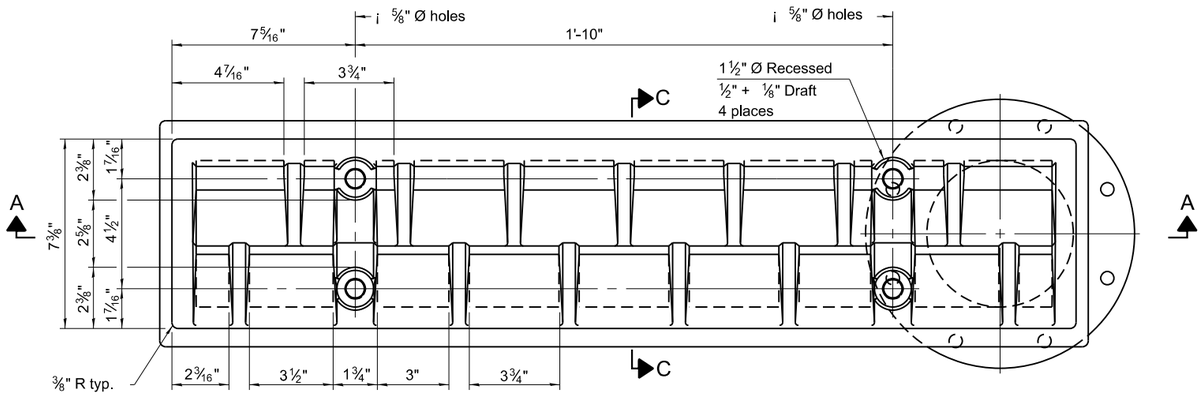
VIEW A-A

(View B-B similar)

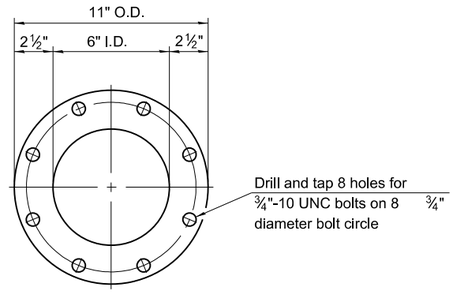
TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	92	#5	30'-10"	
a_1(E)	120	#8	30'-5"	
a_2(E)	184	#5	7'-4"	
a_{20}(E)	92	#5	50'-0"	
a_{21}(E)	120	#8	34'-0"	
a_{22}(E)	120	#8	42'-3"	
a_{23}(E)	46	#5	17'-1"	
a_{24}(E)	46	#5	33'-6"	
b(E)	290	#5	29'-8"	
b_1(E)	459	#9	29'-9"	
b_2(E)	16	#5	29'-8"	
d(E)	184	#5	7'-0"	
d_1(E)	184	#5	8'-6"	
e(E)	48	#4	29'-8"	
t(E)	394	#4	10'-1"	
w(E)	80	#5	30'-5"	
w_1(E)	80	#5	34'-9"	
w_2(E)	80	#5	43'-0"	
Concrete Superstructure (Approach Slab)		Cu. Yd.	268.6	
Concrete Structures		Cu. Yd.	63.4	
Reinforcement Bars, Epoxy Coated		Pound	117,270	
Concrete Superstructure		Cu. Yd.	17.1	

Notes:
1. See Sheet 28 of 54 for Detail A.
2. Parapet concrete shall be paid for as Concrete Superstructure.
3. Approach slab concrete shall be paid for as Concrete Superstructure (Approach Slab).
4. Approach footing concrete shall be paid for as Concrete Structures.
5. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
6. For v(E) bar details, see Sheet 22 of 54.
7. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
8. For bar splicer details, see Sheet 50 of 54.
9. Cost of excavation for approach footing included with Concrete Structures.
10. For Granular Backfill for Structures and drainage treatment details, see Sheet 2 of 54.
11. For junction box details, see Electrical Details sheet in Roadway Plans.



PLAN



VIEW B-B

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

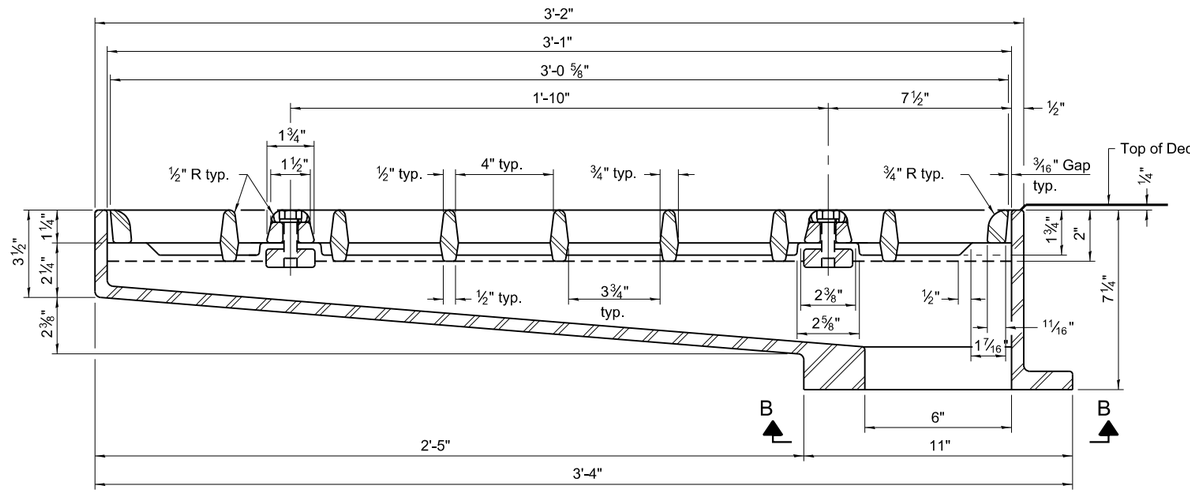
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

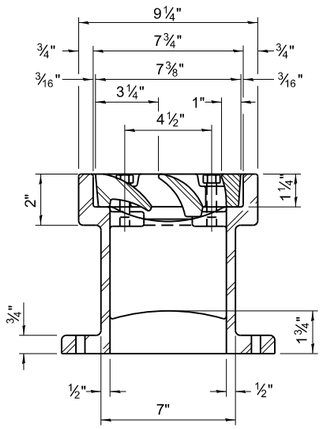
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

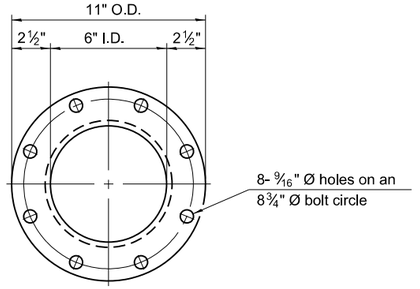


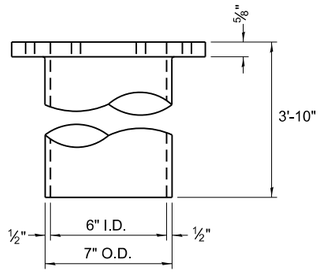
SECTION A-A

See sheet 21 of 54 for scupper location relative to parapet.

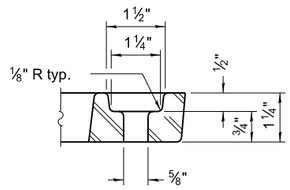


SECTION C-C

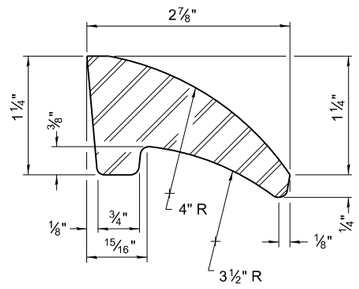




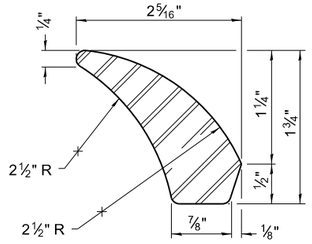
DOWNSPOUT



BOLT HOLE DETAIL



FIRST VANE DETAIL



SECOND VANE DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	1

DS-33

2-17-2017

USER NAME = eabuatherah	DESIGNED - LK	REVISED	
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED	

HBP Illinois Partners

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-33
STRUCTURE NO. 099-0062
SHEET NO. 31 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	266
		CONTRACT NO. 60W34		
ILLINOIS	FED. AID PROJECT			

0990062-60W34-03-SCUPPER.dgn

GENERAL NOTES

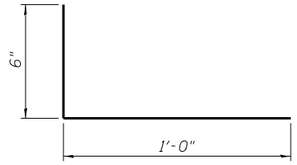
All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 44" parapet.

Place full deph aluminum sheet as shown on superstructure details.

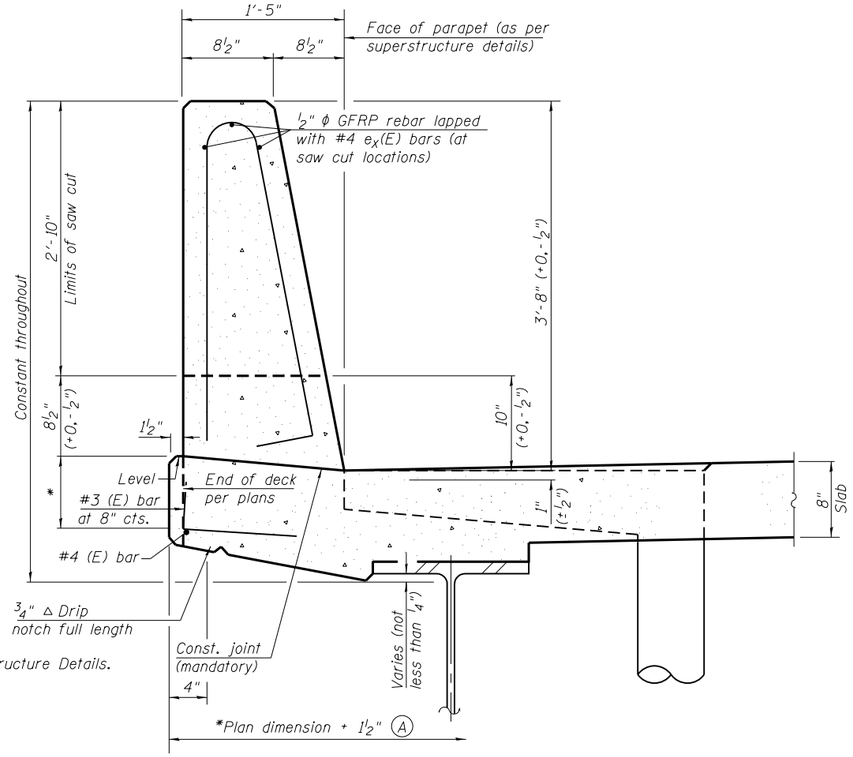
Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.

Slipforming of the median parapet (adjacent to the centerline of I-80) is not allowed.

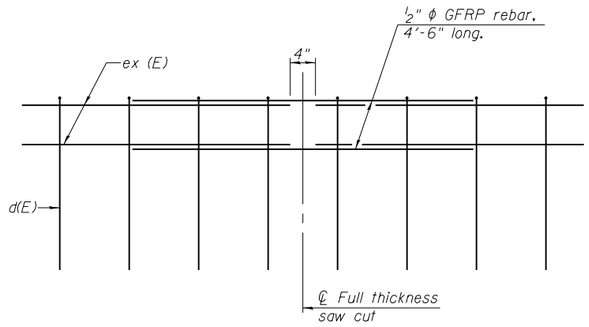


#3 (E) BAR



44" CONSTANT SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" ϕ GFRP rebar)

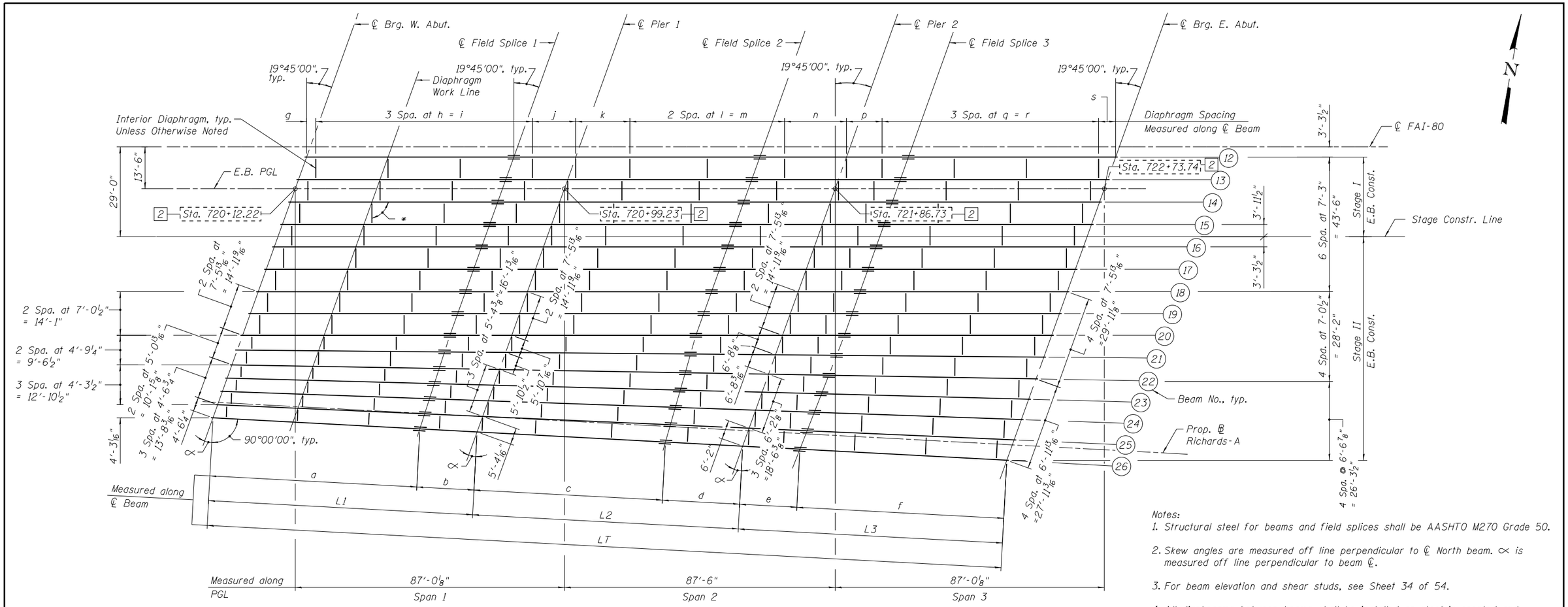


GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - LK	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 099-0062	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ACF	REVISED			80	2013-008B	WILL	511	267
		DRAWN - LK	REVISED							CONTRACT NO. 60W34
	PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED		SHEET NO. 32 OF 54 SHEETS			ILLINOIS	FED. AID PROJECT	

0990062-60W34-032-SLIP.dgn



1 ** Elevation at W36x231 called out (see Splice Detail on Sheet 34)
*** Elevation at W36x302 called out (see Splice Detail on Sheet 34)

FRAMING PLAN

BEAM LENGTHS AND SKEW DIMENSIONS

Beam No.	Beam Lengths										Skew Angle
	Span 1			Span 2			Span 3				
	a	b	L1	c	d	L2	e	f	L3	LT	∝
12-20	67'-0"	20'-0⅛"	87'-0⅛"	59'-6"	28'-0"	87'-6"	20'-0⅛"	67'-0"	87'-0⅛"	261'-6¼"	19°45'00"
21	67'-0"	19'-8 15/16"	86'-8 15/16"	59'-9 3/16"	27'-5 9/16"	87'-2¾"	19'-8 15/16"	67'-0"	86'-8 15/16"	260'-8⅝"	19°15'03"
22	67'-0"	19'-5 13/16"	86'-5 13/16"	60'-5/16"	26'-11 5/16"	86'-11⅝"	19'-5 13/16"	67'-0"	86'-5 13/16"	259'-11¼"	18°44'54"
23	67'-0"	19'-2¾"	86'-2¾"	60'-3⅜"	26'-5⅛"	86'-8½"	19'-2¾"	67'-0"	86'-2¾"	259'-2"	18°14'28"
24	67'-0"	18'-11¾"	85'-11¾"	60'-6⅜"	25'-11⅛"	86'-5½"	18'-11¾"	67'-0"	85'-11¾"	258'-5"	17°43'51"
25	67'-0"	18'-8 13/16"	85'-8 13/16"	60'-9 5/16"	25'-5 5/16"	86'-2⅝"	18'-8 13/16"	67'-0"	85'-8 13/16"	257'-8¼"	17°13'03"
26	67'-0"	18'-5 15/16"	85'-5 15/16"	61'-3/16"	24'-11 9/16"	85'-11¾"	18'-5 15/16"	67'-0"	85'-5 15/16"	256'-11⅝"	16°41'34"

* Interior diagphragm perpendicular to northern beam, typ.

BEAM DIMENSIONS

Beam No.	g	h	i	j	k	l	m	n	p	q	r	s
12-20	3'-0⅛"	23'-4"	70'-0"	14'-0"	17'-6"	25'-0"	50'-0"	20'-0"	11'-6"	23'-4"	70'-0"	5'-6⅛"
21	3'-0"	23'-3⅛"	69'-9 7/16"	13'-11½"	17'-5⅜"	24'-11 1/16"	49'-10⅛"	19'-11¼"	11'-5 9/16"	23'-3⅛"	69'-9 7/16"	5'-5 15/16"
22	2'-11⅞"	23'-2 5/16"	69'-6⅞"	13'-11"	17'-4¾"	24'-10 3/16"	49'-8⅜"	19'-10 9/16"	11'-5 3/16"	23'-2 5/16"	69'-6⅞"	5'-5¾"
23	2'-11 13/16"	23'-1½"	69'-4 7/16"	13'-10½"	17'-4⅛"	24'-9 5/16"	49'-6 9/16"	19'-9 13/16"	11'-4¾"	23'-1½"	69'-4 7/16"	5'-5 9/16"
24	2'-11 11/16"	23'-1/16"	69'-2"	13'-10"	17'-3½"	24'-8 7/16"	49'-4⅞"	19'-9⅛"	11'-4⅜"	23'-1/16"	69'-2"	5'-5⅜"
25	2'-11⅝"	22'-11⅞"	68'-11 11/16"	13'-9 9/16"	17'-2 15/16"	24'-7⅝"	49'-3 3/16"	19'-8½"	11'-4"	22'-11⅞"	68'-11 11/16"	5'-5 3/16"

1 TOP OF BEAM ELEVATION (FOR FABRICATION ONLY)

Beam No.	℄ Brg. W. Abut.	℄ Field Splice 1**	℄ Pier 1	℄ Field Splice 2***	℄ Pier 2	℄ Field Splice 3**	℄ Brg. E. Abut.
12	563.78	561.81	561.31	559.70	559.06	558.56	557.32
13	564.00	562.03	561.53	559.91	559.27	558.77	557.52
14	564.21	562.25	561.74	560.12	559.47	558.96	557.70
15	564.43	562.46	561.95	560.33	559.68	559.17	557.90
16	564.62	562.66	562.14	560.51	559.85	559.35	558.06
17	564.74	562.78	562.26	560.62	559.96	559.45	558.15
18	564.71	562.74	562.22	560.58	559.92	559.41	558.10
19	564.65	562.67	562.16	560.51	559.84	559.33	558.02
20	564.58	562.60	562.09	560.44	559.76	559.24	557.92
21	564.53	562.54	562.03	560.36	559.69	559.17	557.83
22	564.48	562.48	561.97	560.29	559.62	559.09	557.74
23	564.44	562.43	561.92	560.22	559.56	559.03	557.66
24	564.40	562.38	561.88	560.16	559.50	558.96	557.57
25	564.36	562.32	561.82	560.09	559.42	558.89	557.48
26	564.31	562.27	561.77	560.03	559.36	558.82	557.41

Notes:
1. Structural steel for beams and field splices shall be AASHTO M270 Grade 50.
2. Skew angles are measured off line perpendicular to ℄ North beam. ∝ is measured off line perpendicular to beam ℄.
3. For beam elevation and shear studs, see Sheet 34 of 54.
4. All diaphragms between beams shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

HBP Illinois Partners

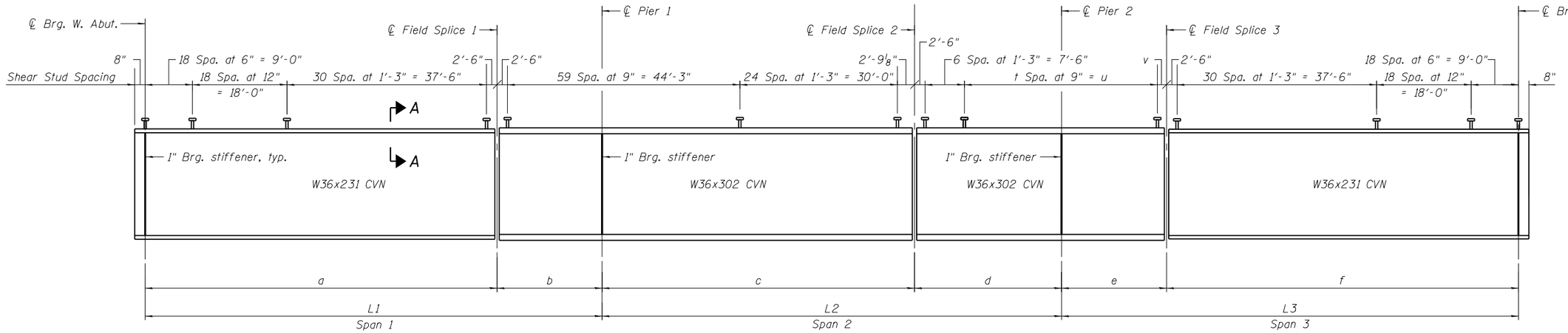
USER NAME = jschaefer	DESIGNED - ITC/PCA/PAB	REVISED 1	3/1/2021 P.A.B.
	CHECKED - JFA/ACF/AMK	REVISED 2	6/11/2021 JRS
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - JFA/AMK	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 099-0062
SHEET NO. 33 OF 54 SHEETS

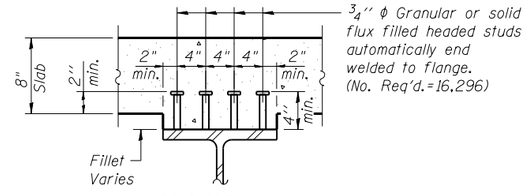
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	268
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

0990062-60W34-033-FRAM.dgn

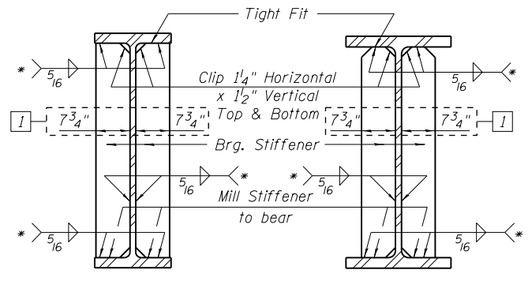


Beam No.	t	u	v
12-20	48	36'-0"	2'-⅛"
21	47	35'-3"	1'-11½"
22	46	34'-6"	1'-11 1/16"
23	45	33'-9"	1'-10 7/8"
24	44	33'-0"	1'-10 7/8"
25	43	32'-3"	1'-11⅛"
26	42	31'-6"	1'-11½"

BEAM 12-26 ELEVATION



SECTION A-A

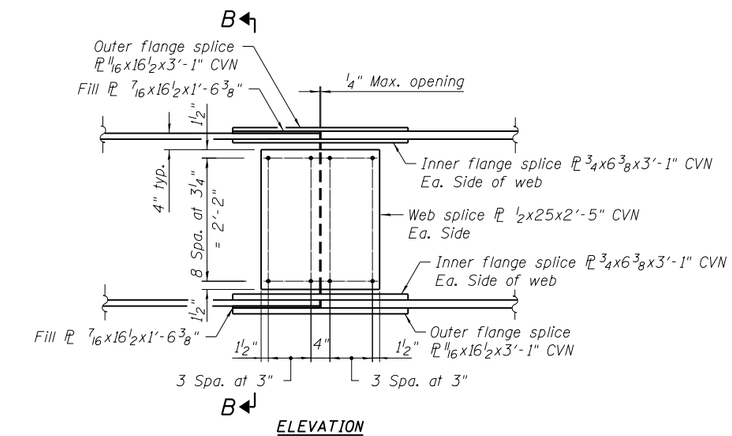


SECTION AT PIER

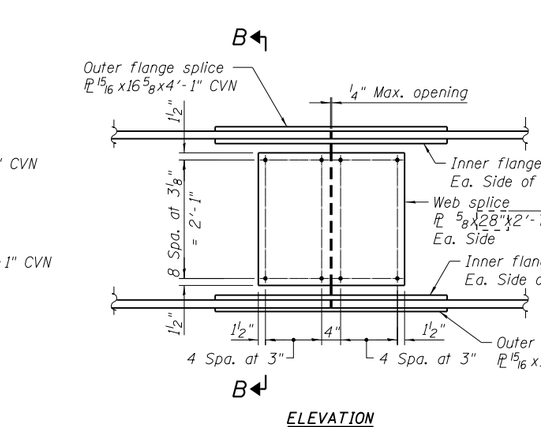
SECTION AT ABUTMENT

* Terminate ¼" (±⅛") from the end of plate intersects.

BEARING STIFFENER



PLAN



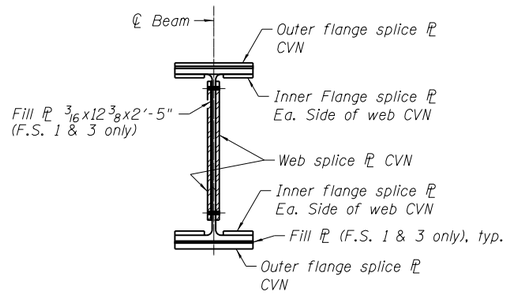
PLAN

ELEVATION

FIELD SPLICE 1 & 3 DETAIL

ELEVATION

FIELD SPLICE 2 DETAIL



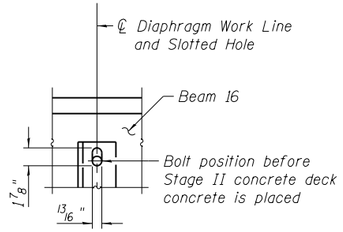
SECTION B-B

Notes:
1. Structural steel shall be AASHTO M270 Grade 50, except fill plates may be AASHTO M270 Grade 36 or 50.
2. "CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.

HBP Illinois Partners	USER NAME = LKolste	DESIGNED - ITC/PCA/PAB	REVISED 1 3/1/2021 P.A.B.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEAM ELEVATIONS STRUCTURE NO. 099-0062
		CHECKED - JFA/AMK	REVISED		
		DRAWN - LK	REVISED		SHEET NO. 34 OF 54 SHEETS
	PLOT DATE = 2/23/2021	CHECKED - JFA/AMK	REVISED		

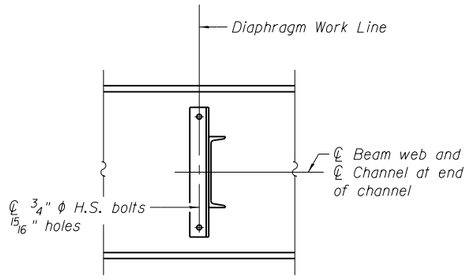
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	269
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-034-BMELEV.dgn

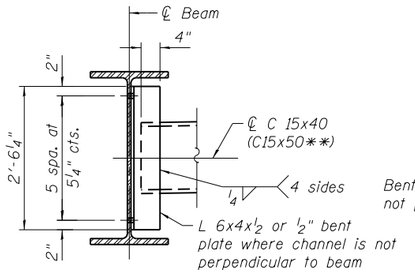


DETAIL C

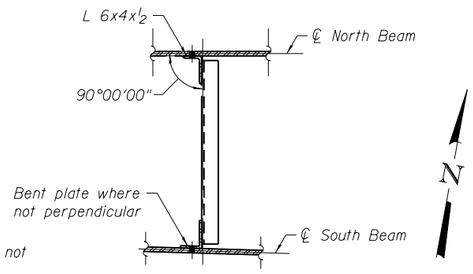
Bolts in slots shall be finger tight until the Stage II pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load as shown in Detail C.



ELEVATION



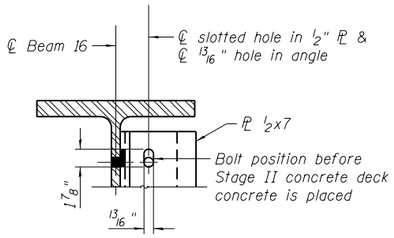
SECTION



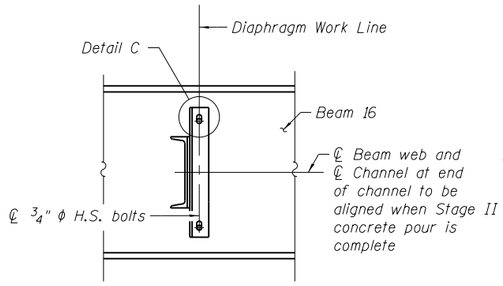
PLAN

INTERIOR DIAPHRAGM

(Except at Stage Construction Joint)
Two hardened washers required for each set of oversized holes.

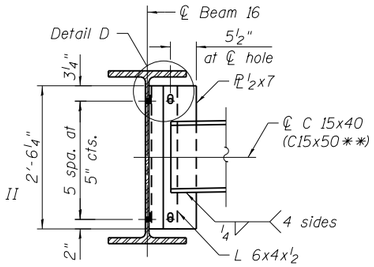


DETAIL D

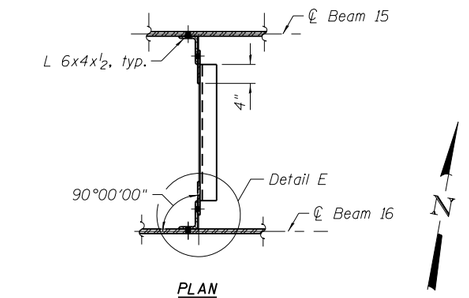


ELEVATION

Bolt shown in Stage I position



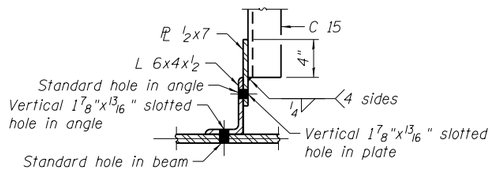
SECTION



PLAN

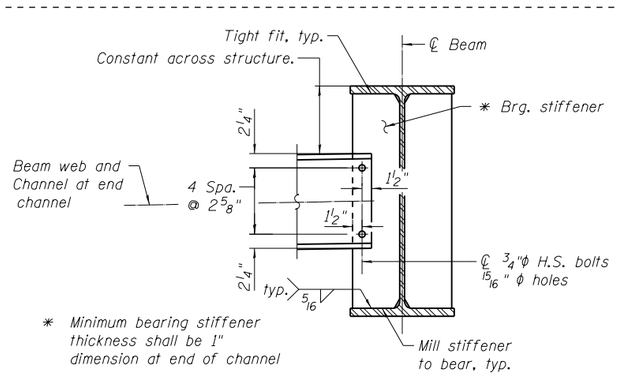
INTERIOR DIAPHRAGM AT STAGE CONST. JT.

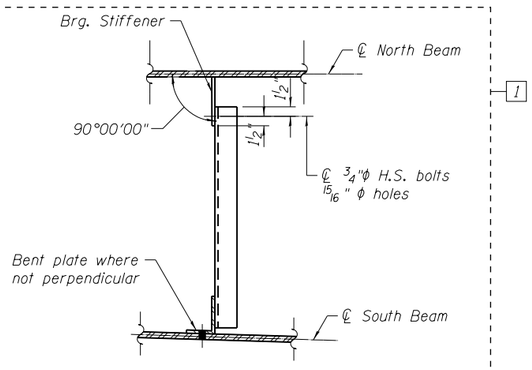
Two hardened washers required for each set of oversized holes.



DETAIL E

(Beam 16 shown. Beam 15 similar except all holes shall be 15/16" oversized holes)





INTERIOR DIAPHRAGM AT BEARING STIFFENER

** Alternate channels are 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 extra cost to the Department.

Notes:
1. All Structural Steel for diaphragms may be AASHTO M270 Grade 36.
2. All diaphragms between beams shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
3. For Diaphragm work line spacing, see Sheet 33 of 54.

HBP Illinois Partners

USER NAME = LKolste	DESIGNED - PCA	REVISED 1 3/1/2021 P.A.B.	
	CHECKED - JFA	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 2/23/2021	CHECKED - JFA	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM DETAILS – 1
STRUCTURE NO. 099–0062
SHEET NO. 35 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	270
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-035-STLDETL.dgn

EXTERIOR BEAM MOMENT TABLE - BEAM 12						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	15,600	21,100	21,100	21,100	15,600
$I_c(n)$	(in^4)	36,524	45,003	45,002	45,003	36,524
$I_c(3n)$	(in^4)	26,267	32,507	32,507	32,507	26,267
$I_c(cr)$	(in^4)	17,690	24,800	23,208	24,800	17,690
S_s	(in^3)	854	1,130	1,130	1,130	854
$S_c(n)$	(in^3)	1,176	6,050	1,507	6,050	1,176
$S_c(3n)$	(in^3)	1,055	2,459	1,350	2,459	1,055
$S_c(cr)$	(in^3)	-	1,464	-	1,464	-
DC1	(k/')	0.98	1.06	1.06	1.06	0.98
M_{DC1}	('k)	553	-811	181	-810	556
DC2	(k/')	0.57	0.57	0.57	0.57	0.57
M_{DC2}	('k)	175	-336	103	-344	174
DW	(k/')	0.27	0.27	0.27	0.27	0.27
M_{DW}	('k)	182	-229	44	-231	185
M_{L+IM}	('k)	931	-1,088	881	-1,107	919
M_u (Strength I)	('k)	2,812	-3,681	1,963	-3,726	2,799
$\phi_f M_n$	('k)	5,327	-5,349	6,801	-5,144	5,327
f_s DC1	(ksi)	7.77	8.62	1.92	8.60	7.81
f_s DC2	(ksi)	1.99	2.76	0.92	2.82	1.98
f_s DW	(ksi)	2.07	1.88	0.39	1.90	2.10
f_s (L+IM)	(ksi)	9.50	8.92	7.02	9.08	9.38
f_s (Service II)	(ksi)	24.18	24.85	12.35	25.11	24.09
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_f F_n$	(ksi)	-	-	-	-	-
V_f	(k)	70.80	57.40	50.20	46.00	56.10

EXTERIOR BEAM REACTION TABLE - BEAM 12					
		W. Abut.	Pier 1	Pier 2	E. Abut.
R_{DC1}	(k)	63.9	98.2	98.2	63.9
R_{DC2}	(k)	27.1	50.8	53.5	16.6
R_{DW}	(k)	9.5	25.4	26.9	9.9
R_{L+IM}	(k)	98.2	120.1	122.4	54.0
R_{Total}	(k)	198.7	294.4	301.0	144.4

Note: R_{DC1} includes an approach slab load of 20.0 kips at each abutment.

INTERIOR BEAM MOMENT TABLE - BEAM 13-17						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	15,600	21,100	21,100	21,100	15,600
$I_c(n)$	(in^4)	37,057	45,696	45,695	45,696	37,057
$I_c(3n)$	(in^4)	26,691	32,993	32,993	32,993	26,691
$I_c(cr)$	(in^4)	17,414	24,612	22,930	24,612	17,414
S_s	(in^3)	854	1,130	1,130	1,130	854
$S_c(n)$	(in^3)	1,181	6,417	1,514	6,417	1,181
$S_c(3n)$	(in^3)	1,061	2,539	1,357	2,539	1,061
$S_c(cr)$	(in^3)	-	1,452	-	1,452	-
DC1	(k/')	0.98	1.06	1.06	1.06	0.98
M_{DC1}	('k)	576	-845	190	-843	577
DC2	(k/')	0.57	0.57	0.57	0.57	0.57
M_{DC2}	('k)	79	-98	36	-90	87
DW	(k/')	0.27	0.27	0.27	0.27	0.27
M_{DW}	('k)	195	-267	53	-268	197
M_{L+IM}	('k)	846	-1,016	781	-1,013	848
M_u (Strength I)	('k)	2,592	-3,357	1,729	-3,342	2,609
$\phi_f M_n$	('k)	5,377	-5,377	6,857	-5,169	5,377
f_s DC1	(ksi)	8.09	8.97	2.02	8.95	8.11
f_s DC2	(ksi)	0.89	0.81	0.32	0.74	0.98
f_s DW	(ksi)	2.21	2.20	0.47	2.22	2.22
f_s (L+IM)	(ksi)	8.60	8.40	6.19	8.37	8.62
f_s (Service II)	(ksi)	22.37	22.91	10.86	22.80	22.52
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_f F_n$	(ksi)	-	-	-	-	-
V_f	(k)	32.00	46.60	28.20	48.80	27.50

INTERIOR BEAM REACTION TABLE - BEAM 13-17					
		W. Abut.	Pier 1	Pier 2	E. Abut.
R_{DC1}	(k)	65.6	102.4	102.5	65.9
R_{DC2}	(k)	-8.4	5.8	3.0	7.6
R_{DW}	(k)	12.8	33.9	34.3	11.0
R_{L+IM}	(k)	79.2	127.3	127.0	80.6
R_{Total}	(k)	149.2	269.4	266.7	165.1

Note: R_{DC1} includes an approach slab load of 20.0 kips at each abutment.

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) in uncracked sections due to short-term composite live 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) in uncracked sections, due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.^{4} and 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_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

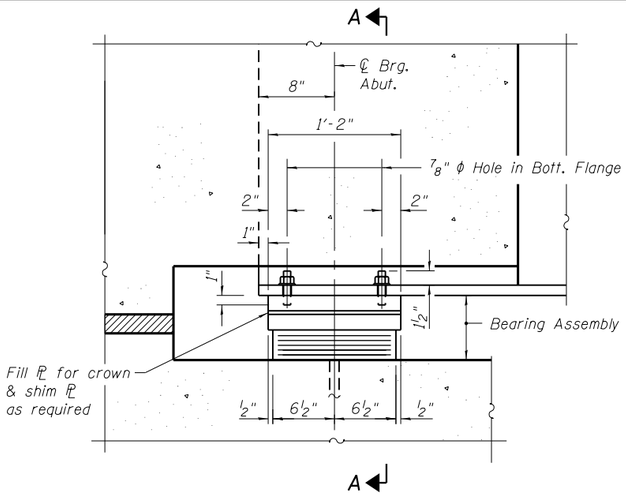
V_f: Maximum factored shear range in span computed according to Article 6.10.10.

Note:
M_{L} and R_{L} include the effects of centrifugal force and superelevation.

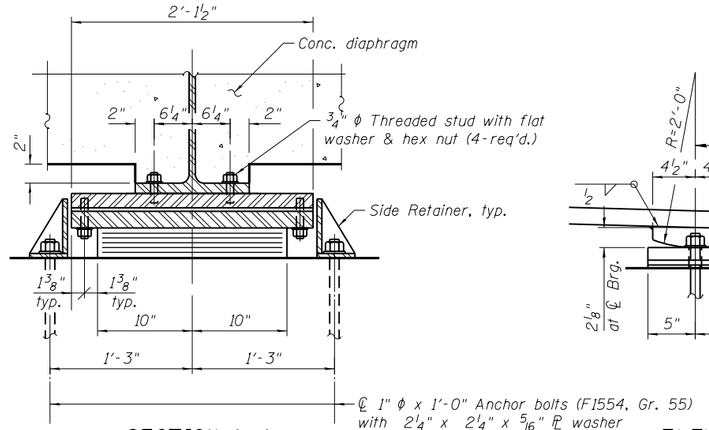
HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - ITC	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEAM DETAILS – 2 STRUCTURE NO. 099–0062
		CHECKED - JFA	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 6/25/2020	CHECKED - JFA	REVISED		SHEET NO. 36 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	271
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

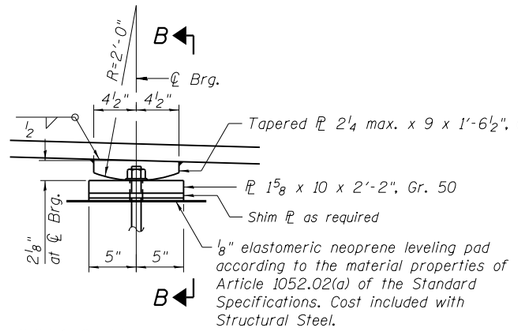
0990062-60W34-036-STLDET3.dgn



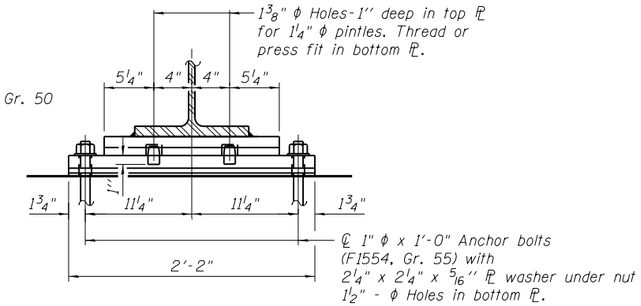
ELEVATION AT ABUT.



SECTION A-A



ELEVATION



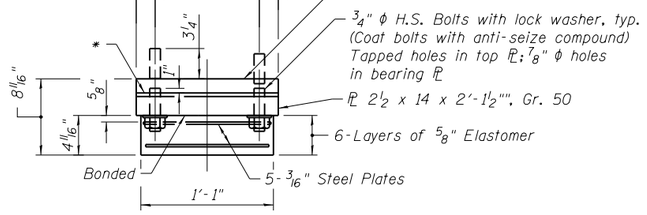
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

(30 Required)

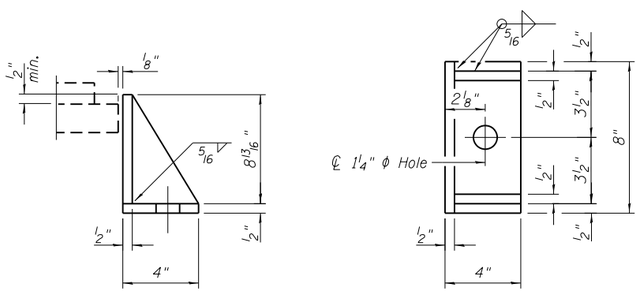
FIXED BEARING AT PIERS

(30 Required)



TOP BEARING ASSEMBLY

* Fill plate and shim plate if req'd (⅛" max.)



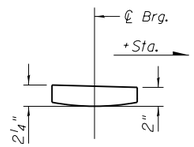
SIDE RETAINER

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

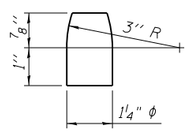
MANDATORY FILL PLATE THICKNESSES

Location	Beam	Thickness
West Abut.	18	¾"
	21	½"
	23	½"
	25	⅝"
Pier 1	12	⅝"
	13	⅝"
	14	⅝"
	15	⅝"
	16	⅝"
	17	⅝"
	18	⅛"
	19	½"
	20	⅝"
	21	⅝"
	23	½"
	24	⅛"
	25	⅝"
	26	⅛"
Pier 2	12	⅝"
	13	⅝"
	14	⅝"
	15	⅝"
	16	⅝"
	17	⅝"
	18	¼"
	20	½"
	21	½"
	22	½"
	23	⅝"
	25	⅝"
East Abut.	18	⅞"

1



TAPERED TOP PLATE



PINTLE

Notes:

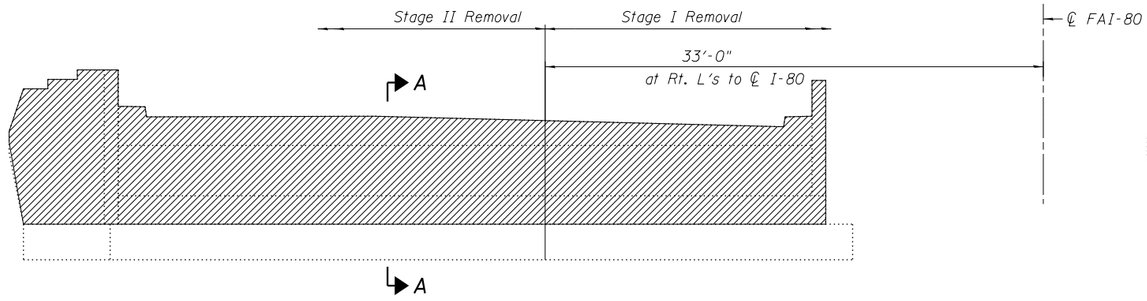
1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
3. Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
4. Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
5. Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
6. The structural steel plates of the Bearing Assembly and the plates and pintles of the fixed bearing shall conform to the requirements of AASHTO M 270 Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	30
Anchor Bolts, 1"	Each	120

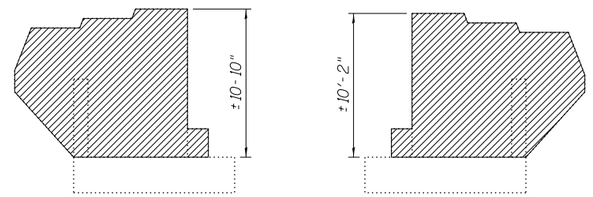
HBP Illinois Partners	USER NAME = LKolste	DESIGNED - ACF/APC	REVISED 1 3/1/2021 P.A.B.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEARING DETAILS STRUCTURE NO. 099-0062	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ITC/AMK	REVISED			80	2013-008B	WILL	511	272
		DRAWN - LK	REVISED					CONTRACT NO. 60W34		
	PLOT DATE = 2/23/2021	CHECKED - APC	REVISED		SHEET NO. 37 OF 54 SHEETS			ILLINOIS FED. AID PROJECT		

0990062-60W34-037-BRG.dgn

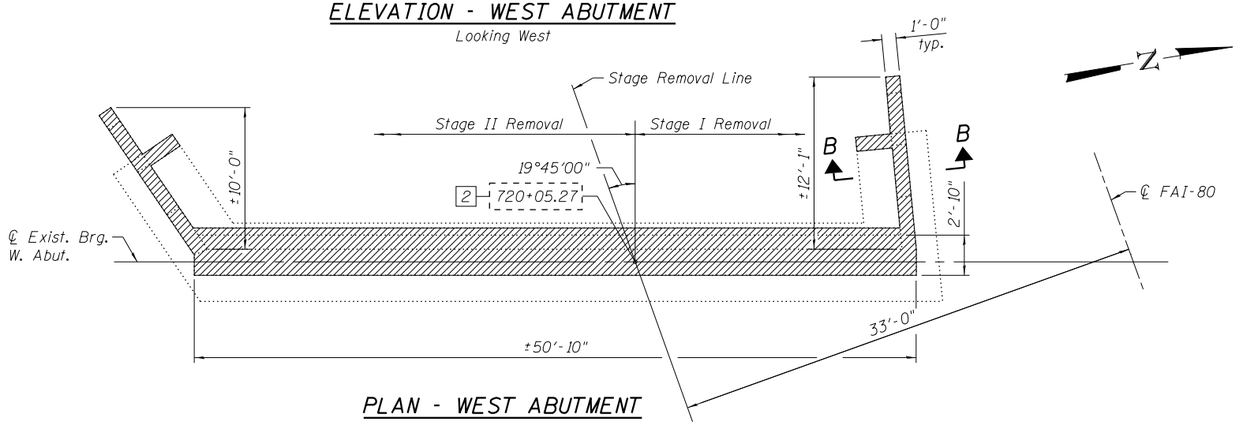


ELEVATION - WEST ABUTMENT

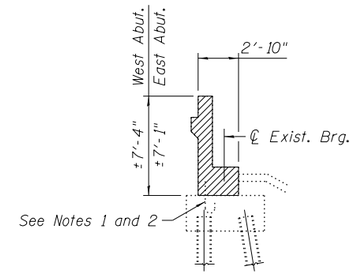
Looking West



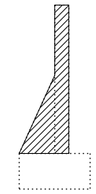
ELEVATION - WEST ABUT. WINGWALLS



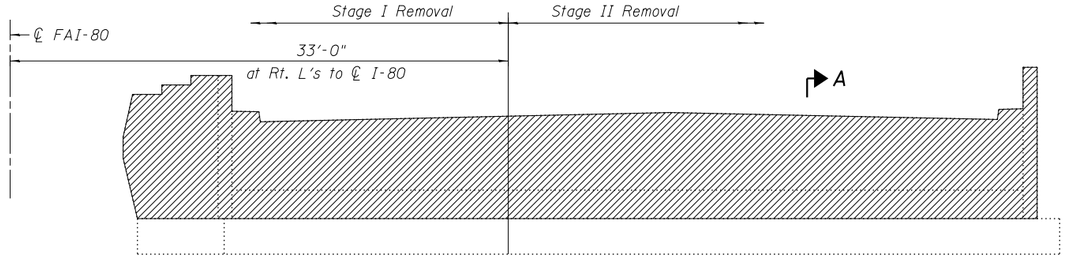
PLAN - WEST ABUTMENT



SECTION A-A

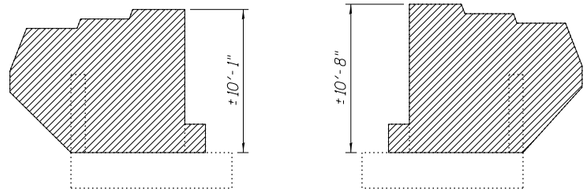


SECTION B-B

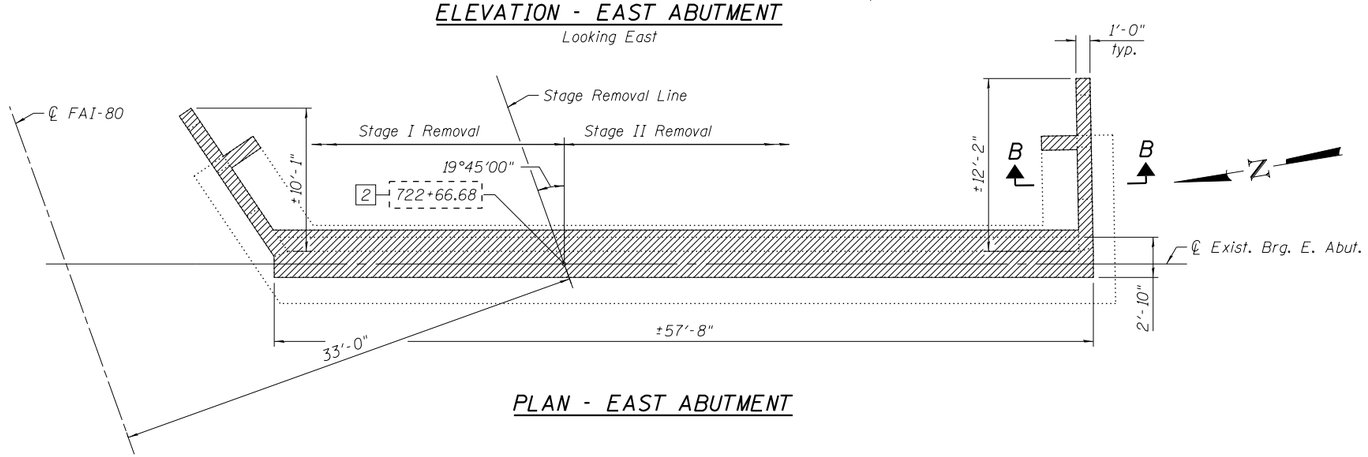


ELEVATION - EAST ABUTMENT

Looking East



ELEVATION - EAST ABUT. WINGWALLS



PLAN - EAST ABUTMENT

LEGEND:

Concrete Removal

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	68.2

Notes:

1. Contractor shall not cut or remove existing reinforcement bars extending from the footing.
2. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Existing piles not shown.
4. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal".
5. Any damage to portions of the existing structure to remain in service shall be repaired by the Contractor at no additional cost to the Department.

HBP Illinois Partners

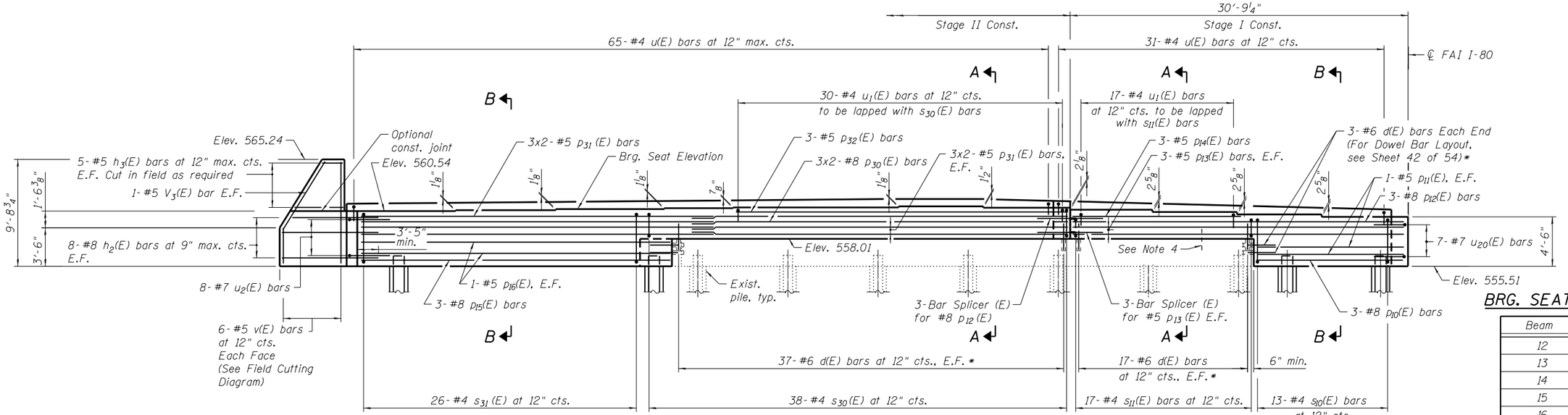
USER NAME = jschaefer	DESIGNED - ACF	REVISED 2 6/11/2021 JRS
	CHECKED - TAT	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/11/2021	CHECKED - TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 38 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	273
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

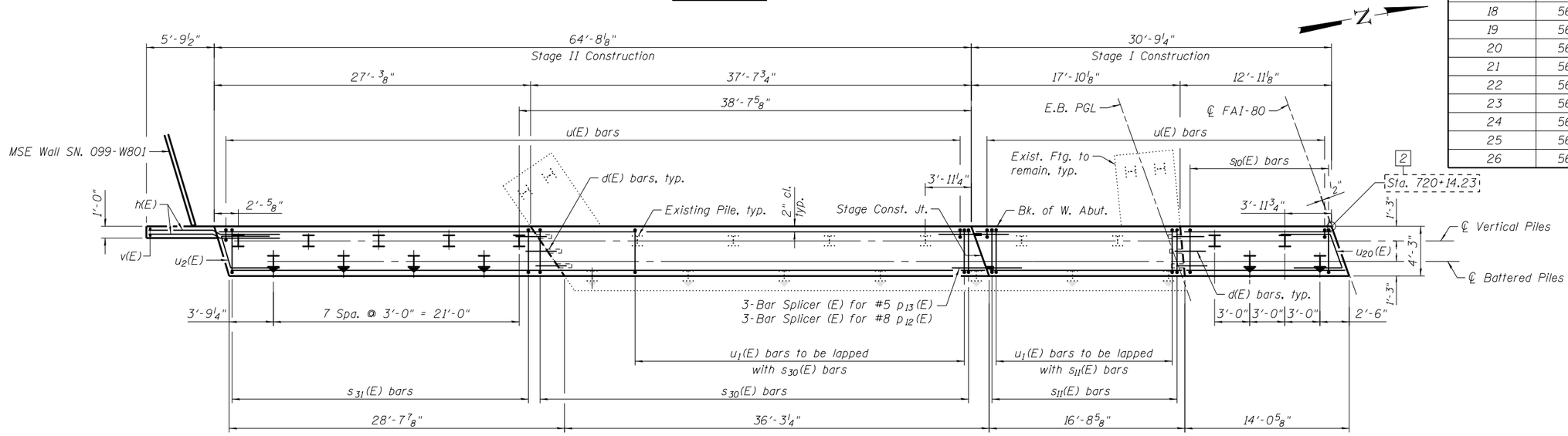
0990062-60W34-038-ABUTREM.dgn



ELEVATION

BRG. SEAT ELEVATIONS

Beam	Elev.
12	560.01
13	560.23
14	560.45
15	560.67
16	560.85
17	560.97
18	560.88
19	560.88
20	560.81
21	560.72
22	560.72
23	560.63
24	560.63
25	560.54
26	560.54



PLAN - PILE CAP

PILE DATA

Type: HP 12x53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 230 kips
Est. Length: 39 ft
No. Production Piles: 12
No. Test Piles: 1
Est. Top of Rock Elev.: 519.20

MINIMUM BAR LAP

#5 bars = 3'-8"
#8 bars = 7'-8"

* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

Notes:
1. Place reinforcement to clear piles, d(E) bars, and anchor bolt locations.
2. For sections A-A and B-B, see Sheet 42 of 54.
3. For bearing spacing details, see Sheet 41 of 54.
4. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
5. See Sheet 38 of 54 for Concrete Removal Details.
6. Order Bars p_{10}(E), p_{11}(E), p_{14}(E), p_{15}(E), p_{16}(E) and p_{32}(E) full length. Cut bars in field to fit as needed.
7. Piles shown as battered should be battered at 3H:12V.

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - APC/ITC/NJM	REVISED 2	6/11/2021 JRS
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - APC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 099-0062
SHEET NO. 39 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	274
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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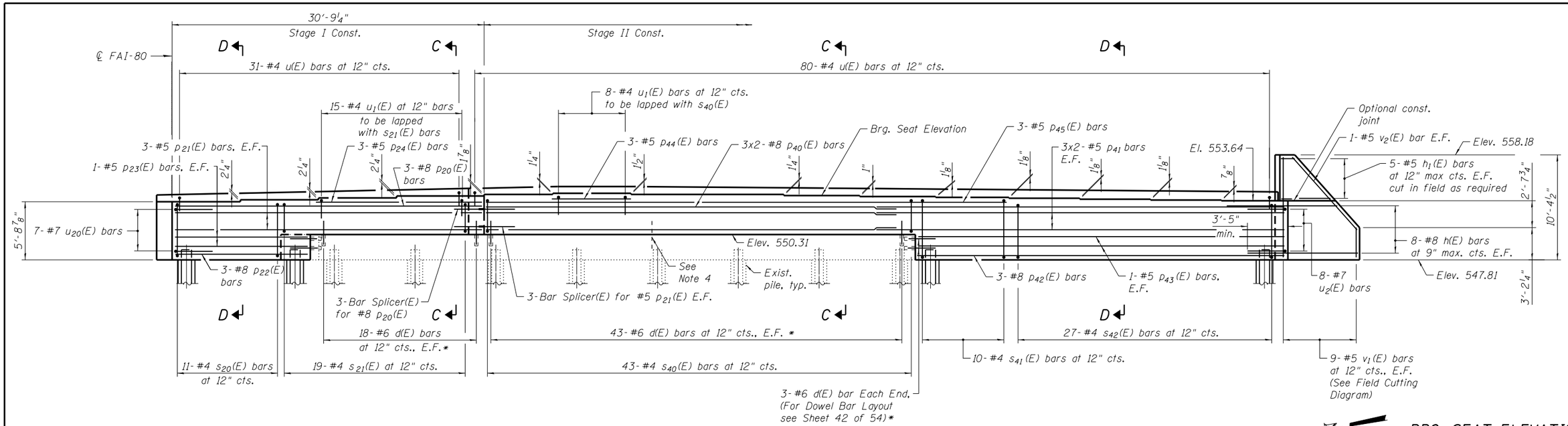
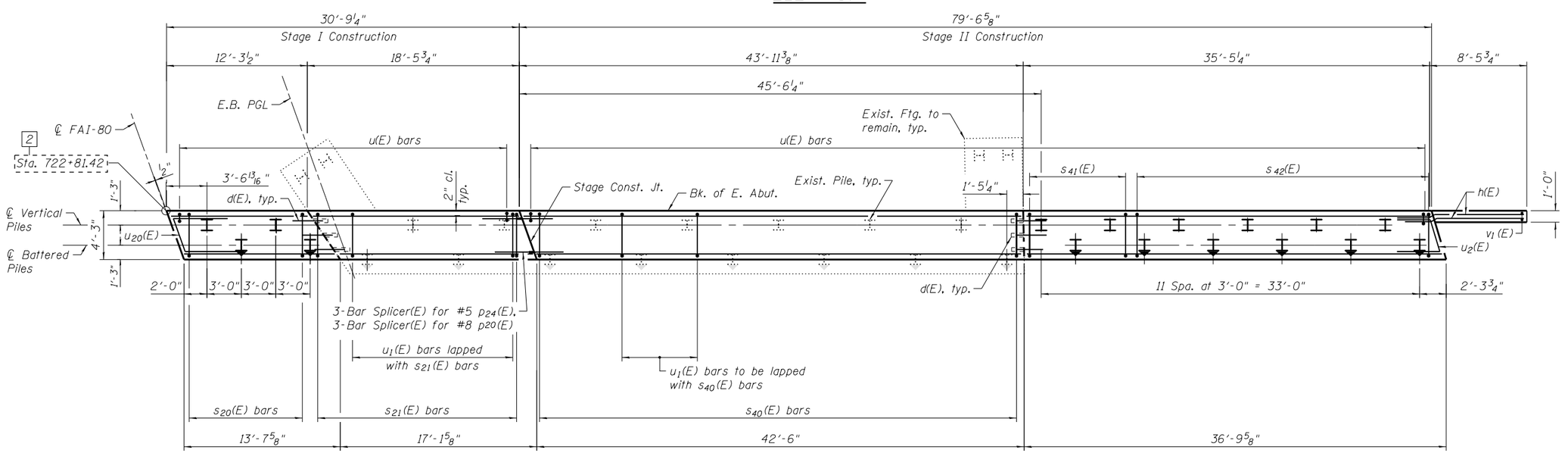


ELEVATION



BRG. SEAT ELEVATIONS

Beam	Elev.
12	553.55
13	553.74
14	553.93
15	554.12
16	554.28
17	554.38
18	554.25
19	554.25
20	554.15
21	554.07
22	553.98
23	553.89
24	553.80
25	553.71
26	553.64

PLAN - PILE CAP

PILE DATA

Type: HP 12x53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 230 kips
Est. Length: 30 ft
No. Production Piles: 15
No. Test Piles: 1
Est. Top of Rock Elev.: 519.90

MINIMUM BAR LAP

#5 bars = 3'-8"
#8 bars = 7'-8"

* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

Notes:
1. Place reinforcement to clear piles, d(E) bars, and anchor bolt locations.
2. For sections C-C, D-D, see Sheet 42 of 54.
3. Order bars $p_{22}(E)$, $p_{23}(E)$, $p_{24}(E)$, $p_{42}(E)$, $p_{43}(E)$ and $p_{45}(E)$ full length. Cut bars in field to fit as needed.
4. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
5. Piles shown as battered should be battered at 3H:12V.
6. For bearing spacing details, see Sheet 41 of 54.
7. See Sheet 38 of 54 for Concrete Removal Details.

HBP Illinois Partners

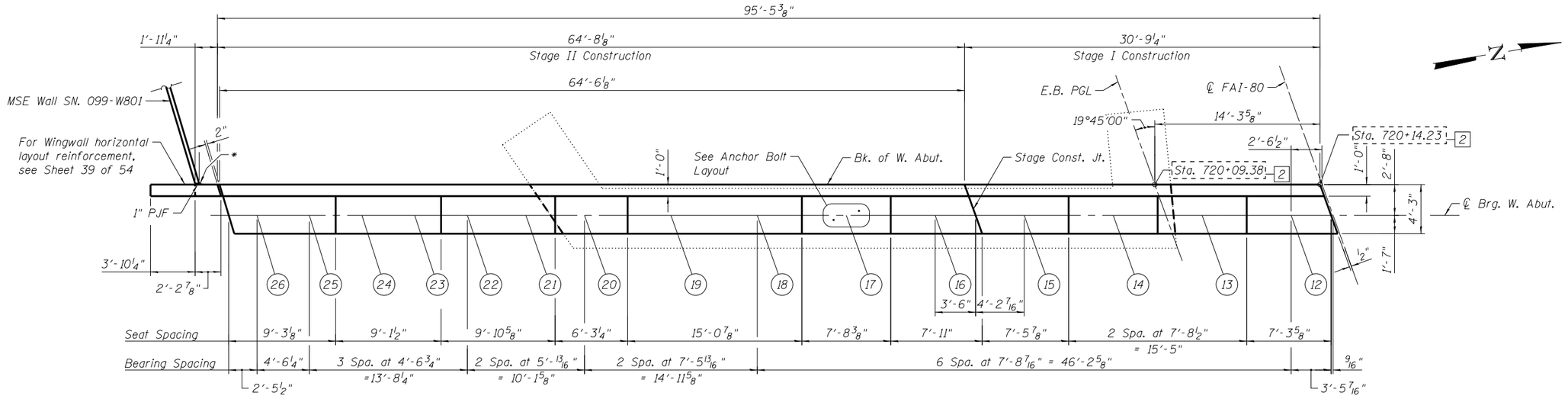
USER NAME = jschaefer	DESIGNED - APC/ITC/NJM	REVISED 2 6/11/2021 JRS	
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - APC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

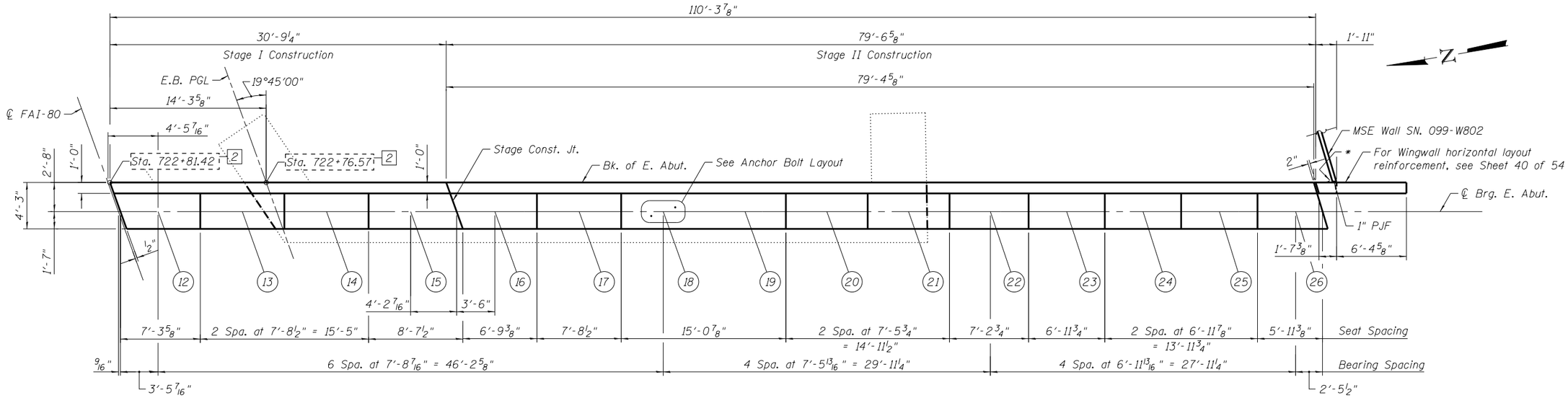
EAST ABUTMENT
STRUCTURE NO. 099-0062
SHEET NO. 40 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	275
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

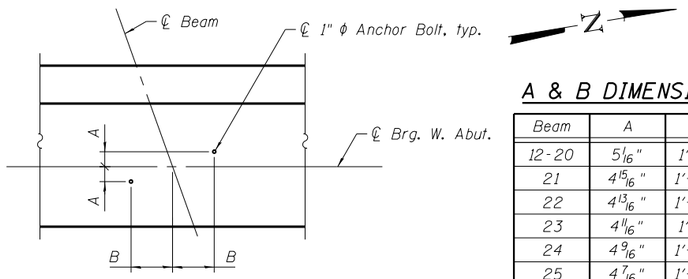
0990062-60W34-040-EABUT.dgn



TOP PLAN - WEST ABUTMENT



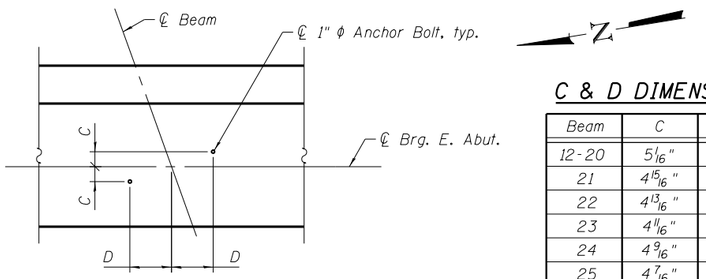
TOP PLAN - EAST ABUTMENT



ANCHOR BOLT LAYOUT - WEST ABUTMENT

A & B DIMENSIONS

Beam	A	B
12-20	5/16"	1'-2 1/8"
21	4 15/16"	1'-2 3/16"
22	4 13/16"	1'-2 3/16"
23	4 11/16"	1'-2 1/4"
24	4 9/16"	1'-2 5/16"
25	4 7/16"	1'-2 5/16"
26	4 5/16"	1'-2 3/8"



ANCHOR BOLT LAYOUT - EAST ABUTMENT

C & D DIMENSIONS

Beam	C	D
12-20	5/16"	1'-2 1/8"
21	4 15/16"	1'-2 3/16"
22	4 13/16"	1'-2 3/16"
23	4 11/16"	1'-2 1/4"
24	4 9/16"	1'-2 5/16"
25	4 7/16"	1'-2 5/16"
26	4 5/16"	1'-2 3/8"

* Geotechnical Fabric for french drains attached full width and vertically at edges of MSE Wall and wingwall. Cost included. Cost included with "Pipe Underdrains for Structures 4"

HBP Illinois Partners

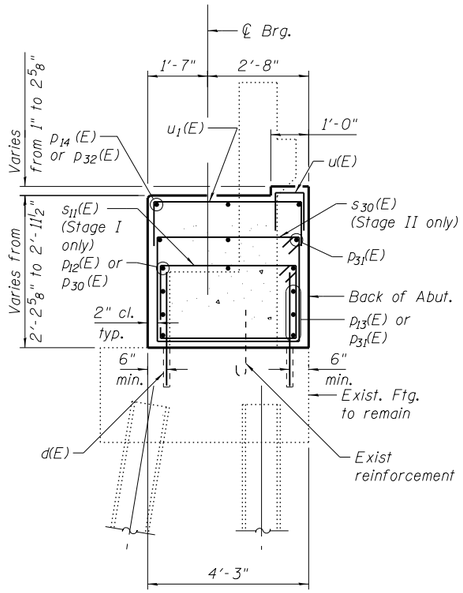
USER NAME = jschaefer	DESIGNED - APC/ITC/NJM	REVISED 2	6/11/2021 JRS
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - APC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

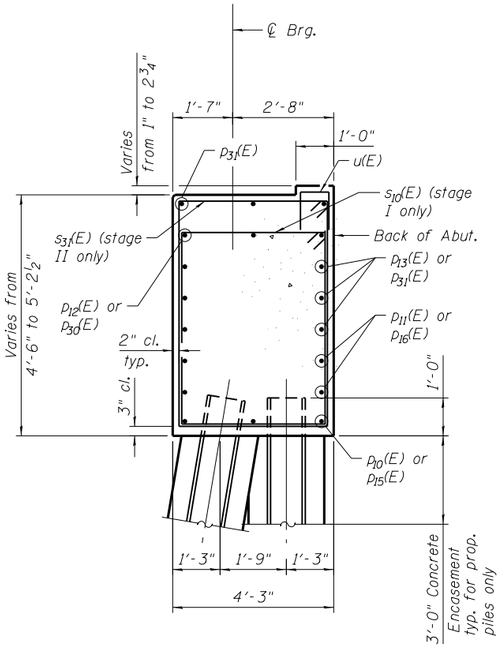
ABUTMENT DETAILS – 1
STRUCTURE NO. 099–0062
SHEET NO. 41 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	276
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

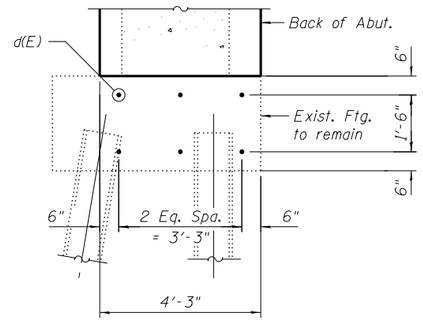
0990062-60W34-041-ABUTDET1.dgn



SECTION A-A



SECTION B-B



d(E) BAR LAYOUT

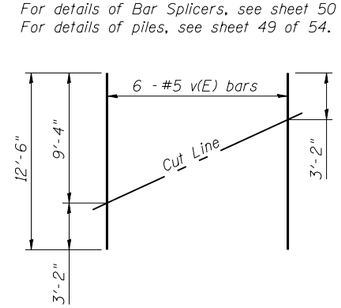
WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	120	#6	3'-0"	
h_2(E)	16	#8	9'-4"	
h_3(E)	10	#5	4'-7"	
p_{10}(E)	3	#8	13'-8"	
p_{11}(E)	4	#5	13'-8"	
p_{12}(E)	3	#8	30'-6"	
p_{13}(E)	6	#5	30'-6"	
p_{14}(E)	3	#5	16'-4"	
p_{15}(E)	3	#8	28'-3"	
p_{16}(E)	4	#5	28'-3"	
p_{30}(E)	6	#8	36'-2"	
p_{31}(E)	18	#5	34'-2"	
p_{32}(E)	3	#5	30'-4"	
s_{10}(E)	13	#4	16'-9"	
s_{11}(E)	17	#4	11'-11"	
s_{30}(E)	38	#4	12'-11"	
s_{31}(E)	26	#4	17'-9"	
u(E)	96	#4	2'-10"	
u_1(E)	47	#4	7'-11"	
u_2(E)	8	#7	11'-8"	
u_{20}(E)	7	#7	11'-9"	
v(E)	6	#5	12'-6"	
v_3(E)	2	#5	7'-2"	
Structure Excavation			Cu Yd	461
Concrete Structures			Cu Yd	58.1
Concrete Encasement			Cu Yd	59.0
Reinforcement Bars, Epoxy Coated			Pound	4,760
Furnishing Steel Piles, HP 12x53			Foot	480
Driving Piles			Foot	480
Test Pile Steel HP12x53			Each	1

For details of Bar Splicers, see sheet 50 of 54.
For details of piles, see sheet 49 of 54.

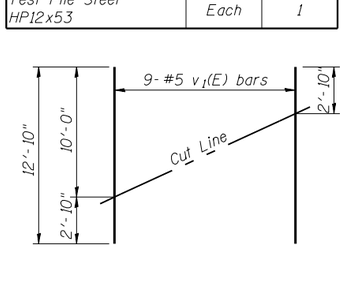
EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	134	#6	3'-0"	
h(E)	16	#8	11'-4"	
h_1(E)	10	#5	5'-8"	
p_{20}(E)	3	#8	30'-6"	
p_{21}(E)	6	#5	30'-6"	
p_{22}(E)	3	#8	13'-4"	
p_{23}(E)	4	#5	13'-4"	
p_{24}(E)	3	#5	16'-0"	
p_{40}(E)	6	#8	43'-6"	
p_{41}(E)	12	#5	41'-6"	
p_{42}(E)	3	#8	36'-5"	
p_{43}(E)	4	#5	36'-5"	
p_{44}(E)	3	#5	7'-4"	
p_{45}(E)	3	#5	52'-7"	
s_{20}(E)	11	#4	19'-3"	
s_{21}(E)	19	#4	14'-9"	
s_{40}(E)	43	#4	15'-3"	
s_{41}(E)	10	#4	20'-1"	
s_{42}(E)	27	#4	19'-5"	
u(E)	111	#4	2'-10"	
u_1(E)	23	#4	7'-11"	
u_2(E)	8	#7	11'-8"	
u_{20}(E)	7	#7	11'-9"	
v_1(E)	9	#5	12'-10"	
v_2(E)	2	#5	9'-6"	
Structure Excavation			Cu Yd	467
Concrete Structures			Cu Yd	87.4
Concrete Encasement			Cu Yd	55.9
Reinforcement Bars, Epoxy Coated			Pound	5,730
Furnishing Steel Piles, HP 12x53			Foot	466
Driving Piles			Foot	466
Test Pile Steel HP12x53			Each	1



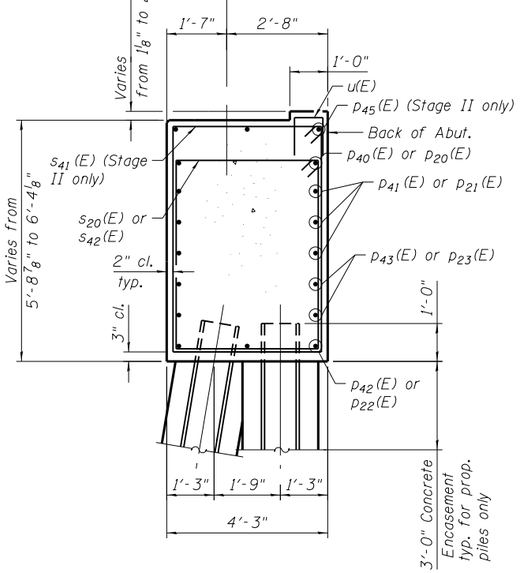
FIELD CUTTING DIAGRAM

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



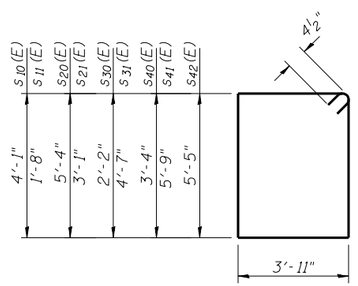
FIELD CUTTING DIAGRAM

Order v_1(E) full length. Cut as shown and use remainder of bars in opposite face.

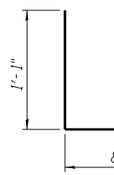


SECTION C-C

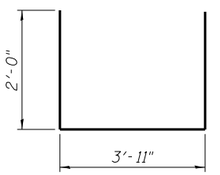
SECTION D-D



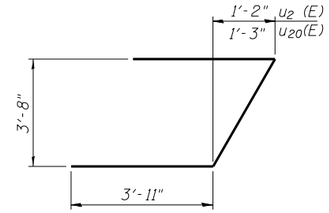
BARS s_{10}(E), s_{11}(E), s_{20}(E), s_{21}(E), s_{30}(E), s_{31}(E), s_{40}(E), s_{41}(E), & s_{42}(E)



BAR u(E)



BAR u_1(E)



BAR u_2(E) & u_{20}(E)

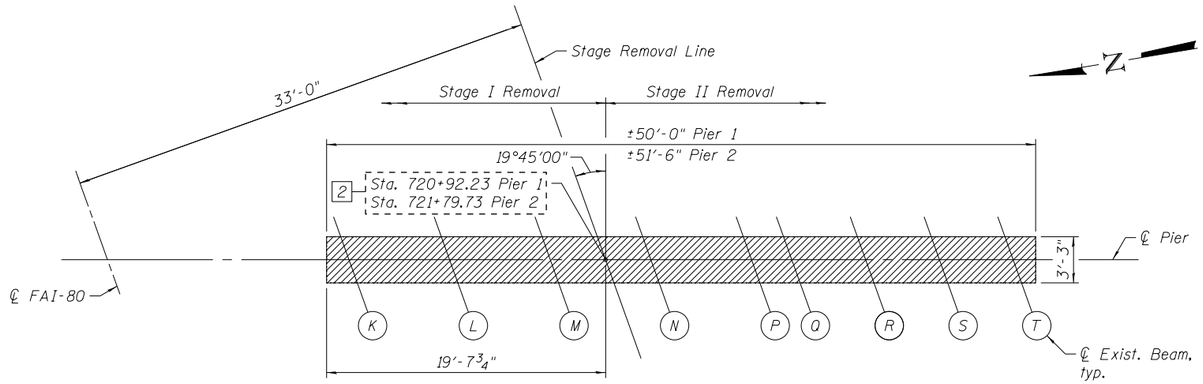
HBP Illinois Partners	USER NAME = eabustherah	DESIGNED - APC/ITC/NJM	REVISED
		CHECKED - ACF	REVISED
		DRAWN - LK	REVISED
	PLOT DATE = 6/25/2020	CHECKED - APC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

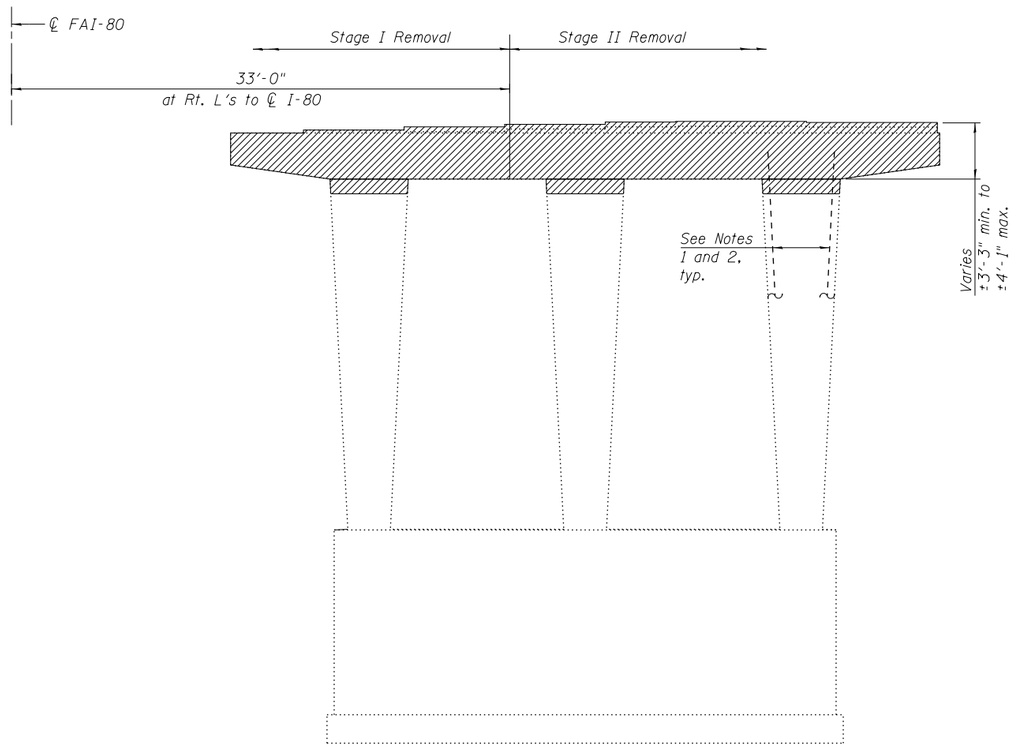
ABUTMENT DETAILS – 2
STRUCTURE NO. 099–0062
SHEET NO. 42 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	277
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

0990062-60W34-042-ABUTDET2.dgn



PIER CAP PLAN



ELEVATION

Looking East

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	45.1

LEGEND:

Concrete Removal

Notes:

1. Contractor shall not cut or remove existing reinforcement bars extending from the column.
2. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Remove portion of existing columns as required to the bottom of the new pier cap elevations as determined in the following sheets. Cost included with Concrete Removal.
4. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal".

HBP Illinois Partners

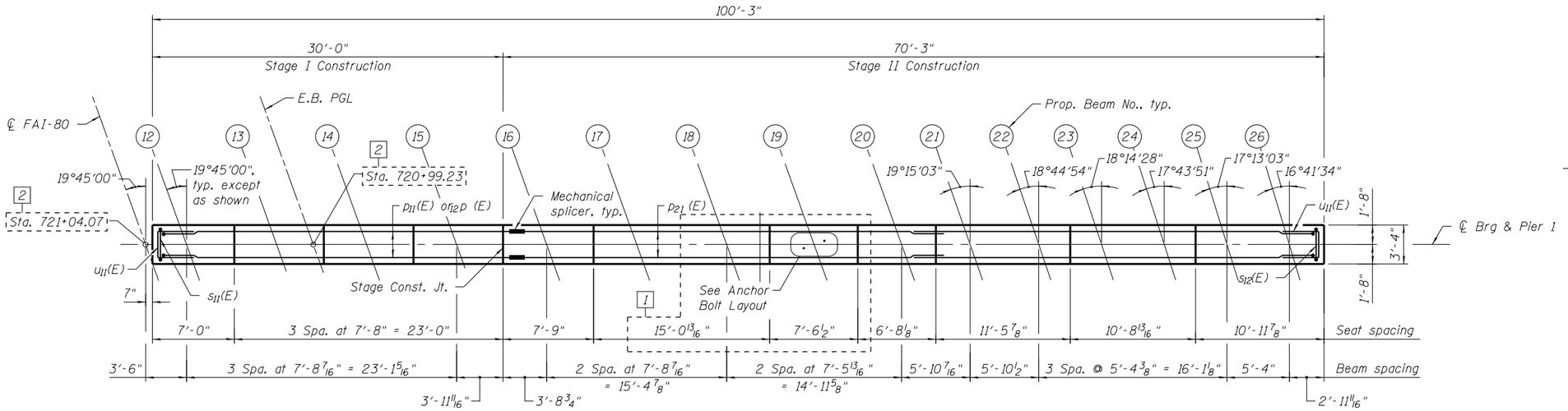
USER NAME = jschaefer	DESIGNED - ACF	REVISED 2 6/11/2021 JRS
	CHECKED - TAT	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/11/2021	CHECKED - TAT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

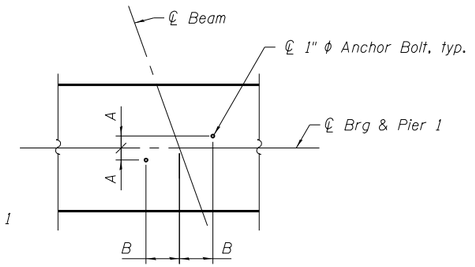
PIER REMOVAL DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 43 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	278
		CONTRACT NO. 60W34		
ILLINOIS FED. AID PROJECT				

0990062-60W34-043-PREM.dgn



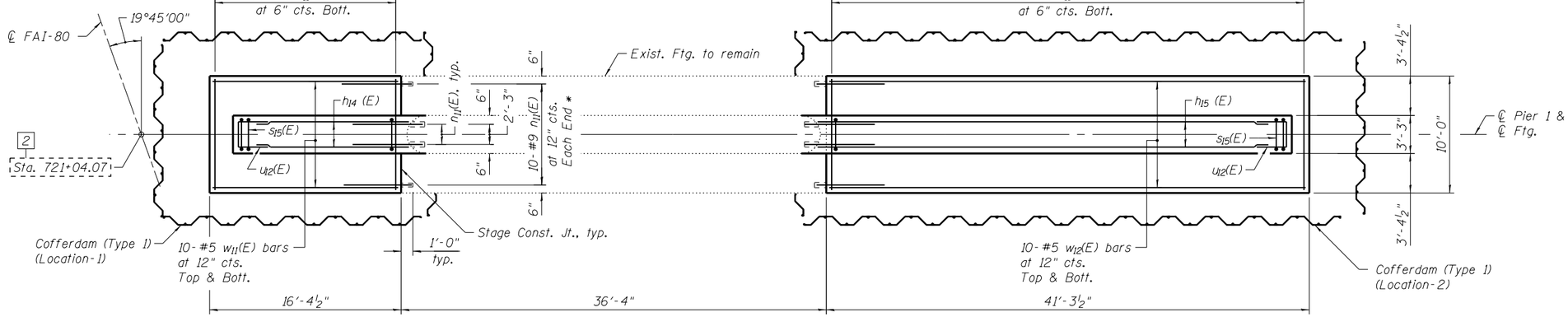
TOP PLAN



ANCHOR BOLT LAYOUT

A & B DIMENSIONS

Beam	A	B
12-20	$3\frac{13}{16}$"	$10\frac{9}{16}$"
21	$3\frac{11}{16}$"	$10\frac{5}{8}$"
22	$3\frac{5}{8}$"	$10\frac{5}{8}$"
23	$3\frac{1}{2}$"	$10\frac{11}{16}$"
24	$3\frac{7}{16}$"	$10\frac{11}{16}$"
25	$3\frac{5}{16}$"	$10\frac{3}{4}$"
26	$3\frac{1}{4}$"	$10\frac{3}{4}$"



FOOTING PLAN

* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

Notes:
1. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
2. For Pier elevation see Sheet 45 of 54.
3. For Bill of Material and bar bending diagram see Sheet 48 of 54.

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - APC/MLK	REVISED 1	3/1/2021 P.A.B.
	CHECKED - PCA	REVISED 2	6/11/2021 JRS
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - APC/TAT	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS - 1
STRUCTURE NO. 099-0062
SHEET NO. 44 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	279
		CONTRACT NO. 60W34		
ILLINOIS FED. AID PROJECT				

0990062-60W34-044-PIERPL.dgn

BRG. SEAT ELEVATIONS

Beam	Elev.
12	557.82
13	558.04
14	558.25
15	558.46
16	558.65
17	558.77
18	558.77
19	558.69
20	558.60
21	558.54
22	558.54
23	558.44
24	558.44
25	558.33
26	558.33

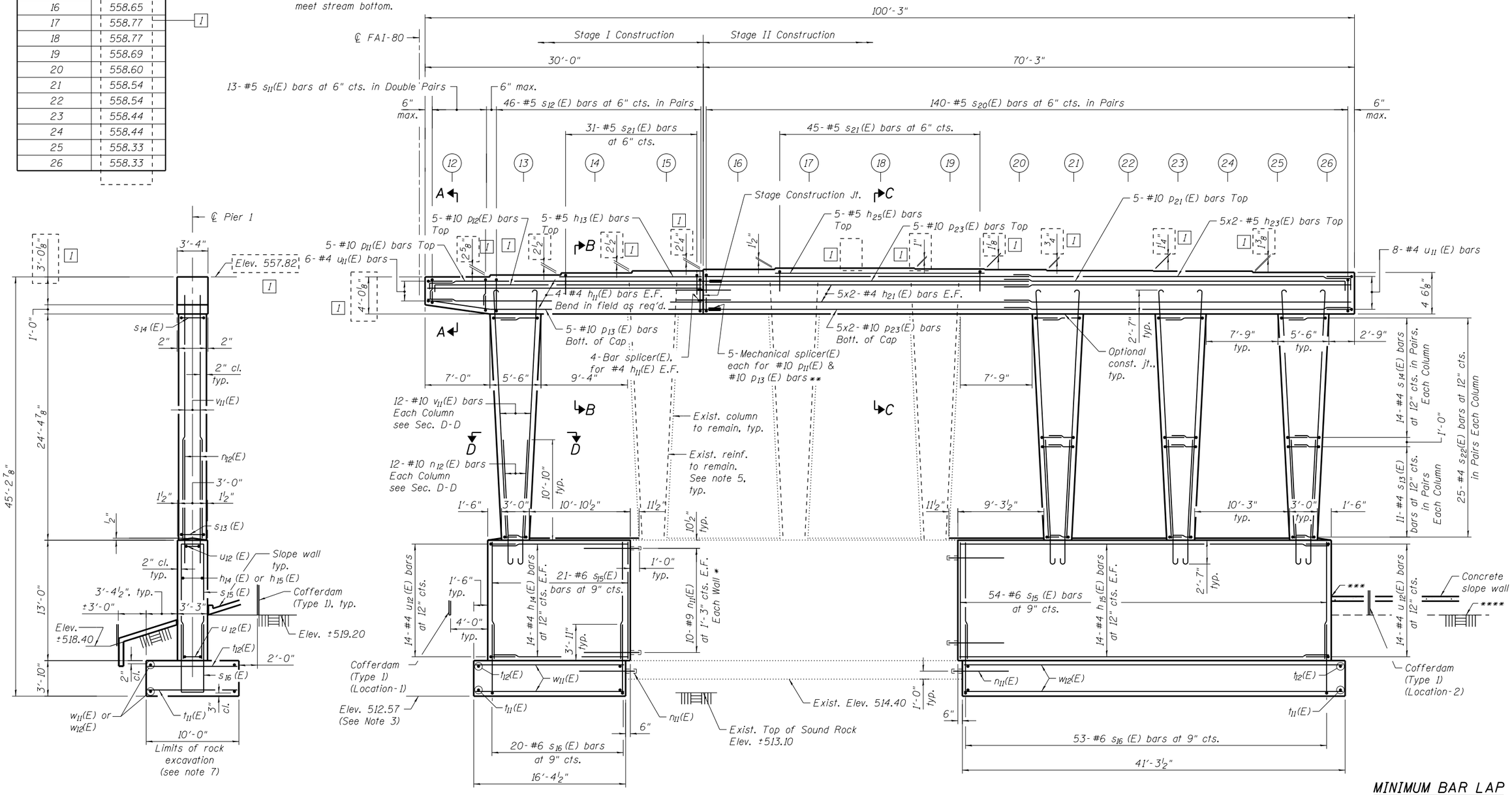
* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

** The longitudinal bars in the pier cap are detailed with a 1 foot extension length beyond the stage construction joint to accommodate the mechanical couplers. Contractor shall adjust the extension length based on the selected mechanical splicer assembly.

*** Elev. ±521.2 at East Face, match existing slope wall elevation.

**** Top of Rock and bott. of Cofferdam Excavation is approximately Elev. ±519.20 and varies to meet stream bottom.

Notes:
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. The proposed bottom of footing elevations for all piers shall be located at the adjoining existing bottom of footing elevation or six inches below top of sound rock, whichever is lowest. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.
4. For Bill of Material, sections and bar bending diagrams, see Sheet 48 of 54.
5. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
6. The maximum applied service bearing pressure Qmax = 8.3 ksf.
7. Limits of rock excavation shall include the removal of rock for pier foundation and slope wall.



END VIEW

ELEVATION - PIER 1
Looking East

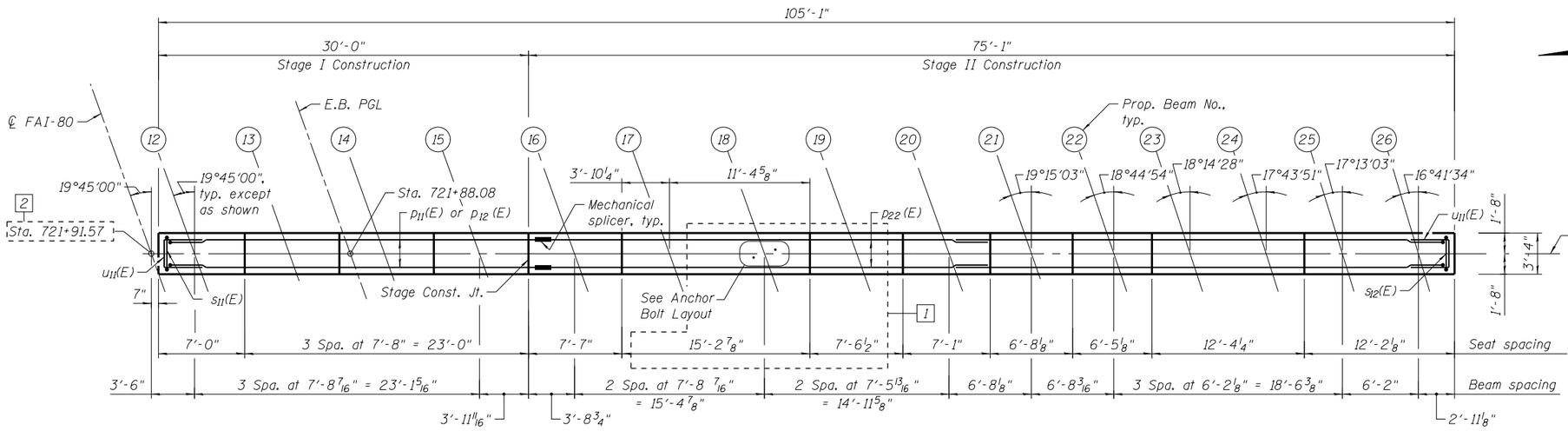
MINIMUM BAR LAP

#4 bars = 2'-11"
#5 bars = 3'-8"
#10 bars = 12'-4"

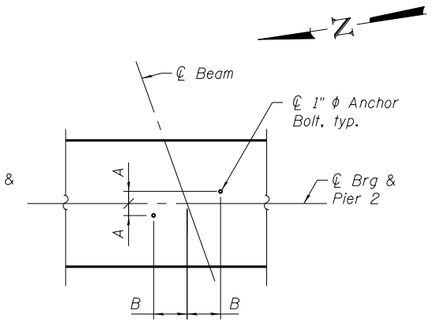
USER NAME = LKalita	DESIGNED - APC/MLK	REVISED 1 3/1/2021 P.A.B.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 1 DETAILS – 2 STRUCTURE NO. 099–0062
	CHECKED - PCA	REVISED		
	DRAWN - LK	REVISED		
PLOT DATE = 2/23/2021	CHECKED - APC/TAT	REVISED		SHEET NO. 45 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	280
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-045-PIERELdgn



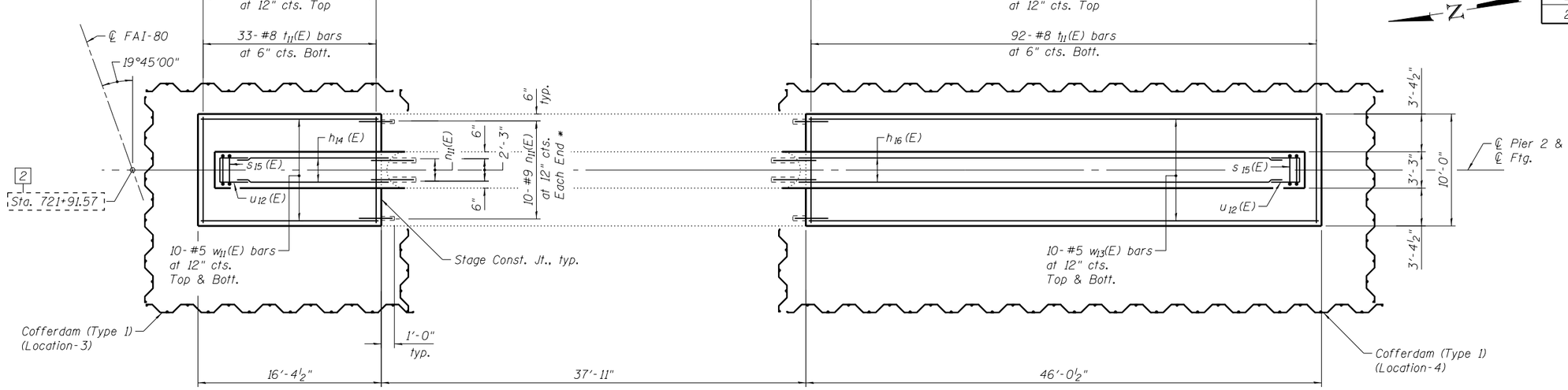
TOP PLAN



ANCHOR BOLT LAYOUT

A & B DIMENSIONS

Beam	A	B
12-20	3 13/16"	10 9/16"
21	3 11/16"	10 5/8"
22	3 5/8"	10 5/8"
23	3 7/16"	10 11/16"
24	3 5/16"	10 11/16"
25	3¼"	10¾"
26	3¼"	10¾"



FOOTING PLAN

* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

Notes:
1. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
2. For Pier elevation see Sheet 47 of 54.
3. For Bill of Material and bar bending diagram see Sheet 48 of 54.

HBP Illinois Partners

USER NAME = jschaefer	DESIGNED - APC/MLK	REVISED 1	3/1/2021 P.A.B.
	CHECKED - PCA	REVISED 2	6/11/2021 JRS
	DRAWN - LK	REVISED	
PLOT DATE = 6/11/2021	CHECKED - APC/TAT	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS – 1
STRUCTURE NO. 099–0062
SHEET NO. 46 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	281
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-046-PIER2PL.dgn

BRG. SEAT ELEVATIONS

Beam	Elev.	
12	555.57	
13	555.78	
14	555.98	
15	556.19	
16	556.36	
17	556.47	
18	556.47	1
19	556.41	
20	556.28	
21	556.21	
22	556.14	
23	556.07	
24	556.07	
25	555.93	1
26	555.93	

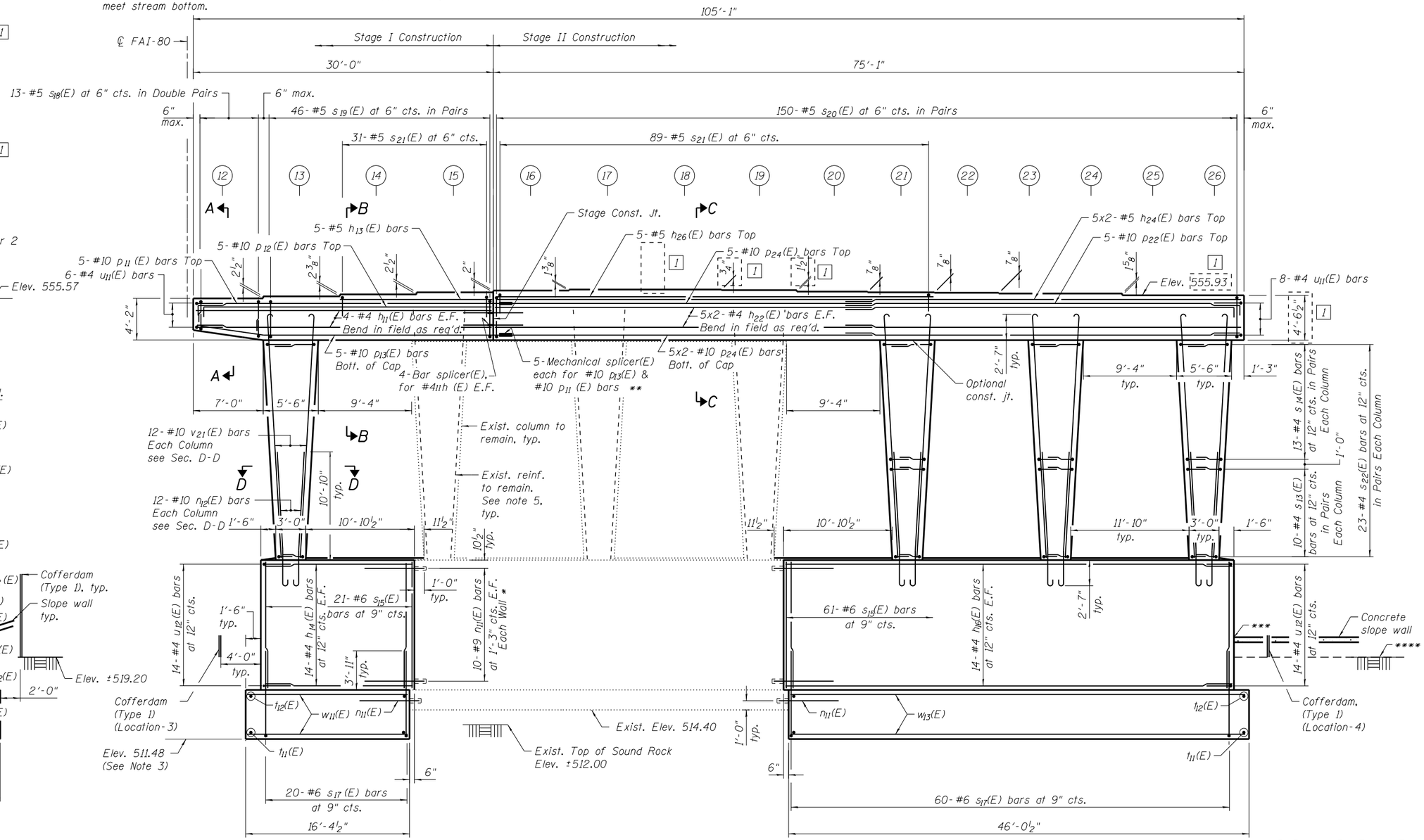
* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

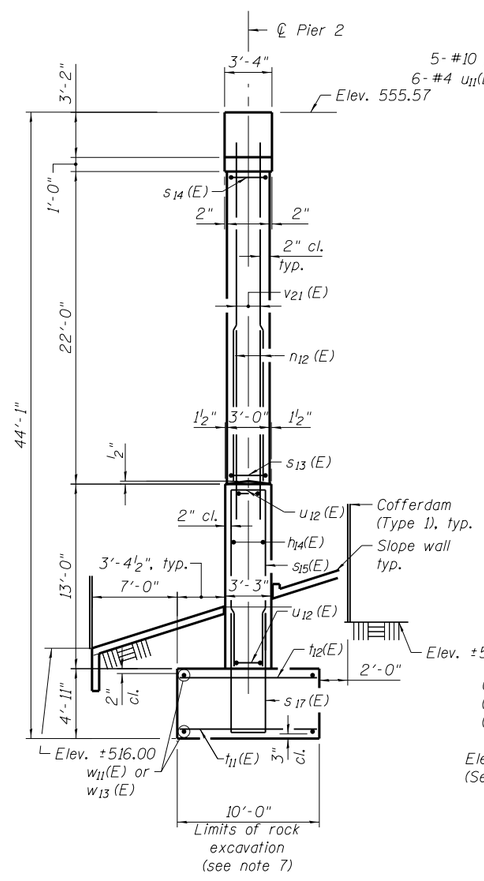
** The longitudinal bars in the pier cap are detailed with a 1 foot extension length beyond the stage construction joint to accommodate the mechanical couplers. Contractor shall adjust the extension length based on the selected mechanical splicer assembly.

*** Elev. ±520.7 at West Face, match existing slope wall elevation.

**** Top of Rock and bott. of Cofferdam Excavation is approximately Elev. ±519.20 and varies to meet stream bottom.

Notes:
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. The proposed bottom of footing elevations for all piers shall be located at the adjoining existing bottom of footing elevation or six inches below top of sound rock, whichever is lowest. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.
4. For Bill of Material, sections and bar bending diagrams, see Sheet 48 of 54.
5. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
6. The maximum applied service bearing pressure Qmax = 7.1 ksf.
7. Limits of rock excavation shall include the removal of rock for the pier foundation and slope wall.





END VIEW

ELEVATION - PIER 2

Looking East

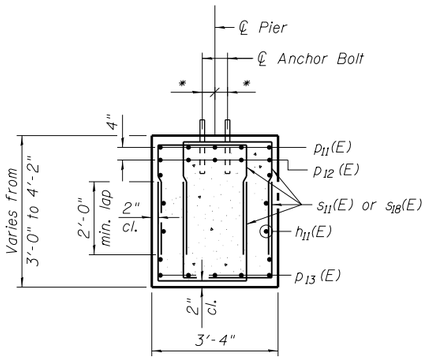
MINIMUM BAR LAP

#4 bars = 2'-11"
#5 bars = 3'-8"
#10 bars = 12'-4"

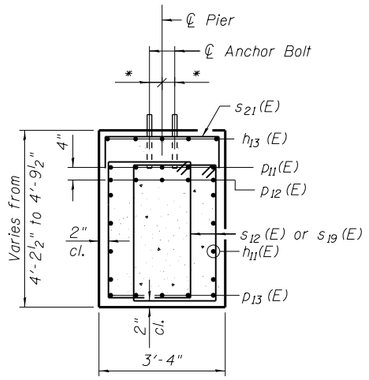
HBP Illinois Partners	USER NAME = LKalita	DESIGNED - APC/MLK	REVISED 1 3/1/2021 P.A.B.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 2 DETAILS – 2 STRUCTURE NO. 099–0062
		CHECKED - PCA	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 2/23/2021	CHECKED - APC/TAT	REVISED		SHEET NO. 47 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	282
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

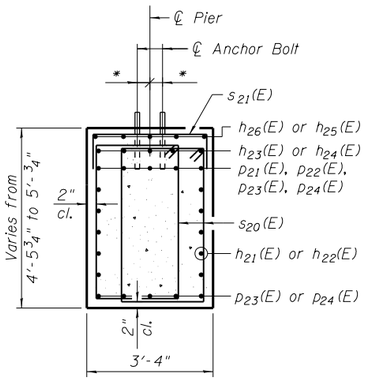
0990062-60W34-047-PIER2EL.dgn



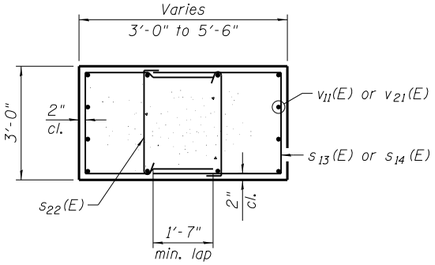
SECTION A-A



SECTION B-B

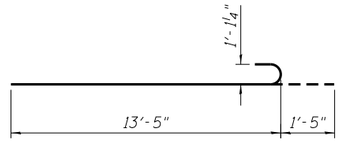


SECTION C-C

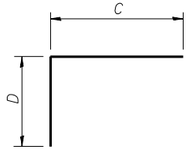


SECTION D-D

* See Anchor Bolt Layout details



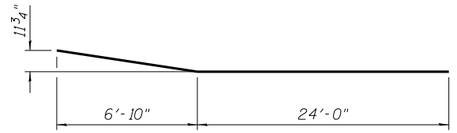
BAR n_{12}(E)



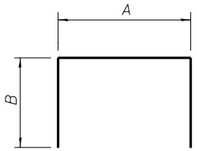
BARS p_{11}(E), p_{12} (E), p_{21}(E) & p_{22}(E)

C & D DIMENSIONS

Bar	C	D
p_{11} (E)	30'-10"	1'-10"
p_{12} (E)	29'-5"	1'-10"
p_{21} (E)	40'-9"	1'-10"
p_{22}(E)	43'-7"	1'-10"



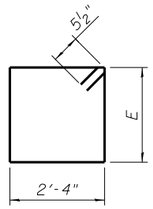
BAR p_{13}(E)



BARS s_{11}(E), s_{13} (E), s_{14} (E), s_{15} (E), s_{16} (E), s_{17} (E), s_{18} (E), s_{21}(E), u_{11}(E) & u_{12} (E)

A & B DIMENSIONS

Bar	A	B
s_{11} (E)	2'-4"	2'-10"
s_{13} (E)	2'-8"	2'-8"
s_{14} (E)	2'-8"	3'-6"
s_{15} (E)	2'-11"	12'-11"
s_{16} (E)	2'-11"	7'-6"
s_{17} (E)	2'-11"	8'-7"
s_{18} (E)	2'-4"	2'-11"
s_{21} (E)	3'-0"	1'-6"
u_{11} (E)	2'-10"	3'-0"
u_{12} (E)	2'-9"	3'-0"



BAR s_{12} (E), s_{19} (E) & s_{20}(E)

E DIMENSIONS

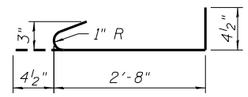
Bar	E
s_{12}(E)	3'-8"
s_{19}(E)	3'-10"
s_{20}(E)	4'-1"

PIER 1 BILL OF MATERIAL

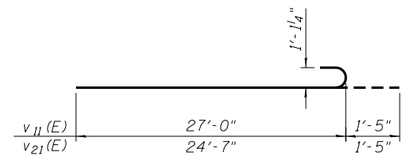
Bar	No.	Size	Length	Shape
h_{11}(E)	8	# 4	29'-9"	
h_{13}(E)	5	# 5	15'-0"	
h_{14}(E)	28	# 4	15'-0"	
h_{15}(E)	28	# 4	39'-11"	
h_{21}(E)	20	# 4	36'-6"	
h_{23}(E)	10	# 5	36'-10"	
h_{25}(E)	5	# 5	22'-6"	
n_{11}(E)	60	# 9	5'-0"	
n_{12}(E)	48	# 10	14'-10"	
p_{11}(E)	5	# 10	32'-8"	
p_{12}(E)	5	# 10	31'-3"	
p_{13}(E)	5	# 10	30'-11"	
p_{21}(E)	5	# 10	42'-7"	
p_{23}(E)	15	# 10	40'-9"	
s_{11}(E)	52	# 5	8'-0"	
s_{12}(E)	92	# 5	12'-11"	
s_{13}(E)	88	# 4	8'-0"	
s_{14}(E)	112	# 4	9'-8"	
s_{15}(E)	75	# 6	28'-5"	
s_{16}(E)	73	# 6	17'-11"	
s_{20}(E)	280	# 5	13'-9"	
s_{21} (E)	76	# 5	6'-0"	
s_{22}(E)	200	# 4	3'-5"	
t_{11}(E)	115	# 8	9'-8"	
t_{12}(E)	58	# 5	9'-8"	
u_{11}(E)	14	# 4	8'-10"	
u_{12}(E)	28	# 4	8'-9"	
v_{11}(E)	48	# 10	28'-5"	
w_{11}(E)	20	# 5	16'-0"	
w_{13}(E)	20	# 5	40'-11"	
Cofferdam Excavation		Cu Yd	75	
Cofferdam (Type 1) (Location-1)		Each	1	
Cofferdam (Type 1) (Location-2)		Each	1	
Concrete Structures		Cu Yd	271.8	1
Reinforcement Bars, Epoxy Coated		Pound	35,760	
Rock Excavation		Cu Yd	164	

PIER 2 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{11}(E)	8	# 4	29'-9"	
h_{13}(E)	5	# 5	15'-0"	
h_{14}(E)	28	# 4	15'-0"	
h_{16}(E)	28	# 4	44'-9"	
h_{22}(E)	20	# 4	38'-10"	
h_{24}(E)	10	# 5	39'-3"	
h_{26}(E)	5	# 5	43'-9"	
n_{11}(E)	60	# 9	5'-0"	
n_{12}(E)	48	# 10	14'-10"	
p_{11}(E)	5	# 10	32'-8"	
p_{12}(E)	5	# 10	31'-3"	
p_{13}(E)	5	# 10	30'-11"	
p_{22}(E)	5	# 10	45'-5"	
p_{24}(E)	15	# 10	43'-7"	
s_{13}(E)	80	# 4	8'-0"	
s_{14}(E)	104	# 4	9'-8"	
s_{15}(E)	82	# 6	28'-5"	
s_{17}(E)	80	# 6	20'-1"	
s_{18}(E)	52	# 5	8'-2"	
s_{19}(E)	92	# 5	13'-3"	
s_{20}(E)	300	# 5	13'-9"	
s_{21} (E)	120	# 5	6'-0"	
s_{22}(E)	184	# 4	3'-5"	
t_{11}(E)	125	# 8	9'-8"	
t_{12}(E)	63	# 5	9'-8"	
u_{11}(E)	14	# 4	8'-10"	
u_{12}(E)	28	# 4	8'-9"	
v_{21} (E)	48	# 10	26'-0"	
w_{11}(E)	20	# 5	16'-0"	
w_{13}(E)	20	# 5	45'-8"	
Cofferdam Excavation		Cu Yd	40	
Cofferdam (Type 1) (Location-3)		Each	1	
Cofferdam (Type 1) (Location-4)		Each	1	
Concrete Structures		Cu Yd	310.3	1
Reinforcement Bars, Epoxy Coated		Pound	37,390	
Rock Excavation		Cu Yd	193	



BAR s_{22}(E)

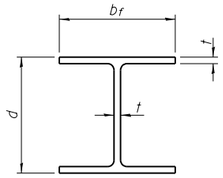


BAR v_{11} (E) & v_{21}(E)

HBP Illinois Partners	USER NAME = LKalita	DESIGNED - APC/MLK	REVISED 1 3/1/2021 P.A.B.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER DETAILS STRUCTURE NO. 099-0062
		CHECKED - PCA	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 2/23/2021	CHECKED - APC/TAT	REVISED		SHEET NO. 48 OF 54 SHEETS

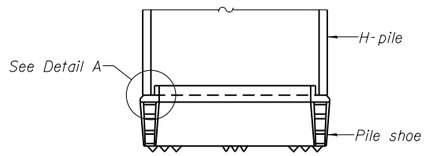
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	283
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-048-PIERDET.dgn

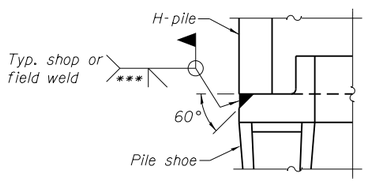


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

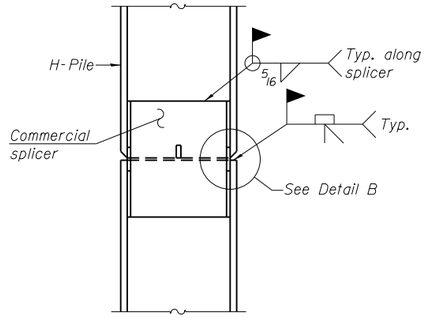


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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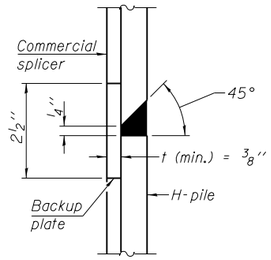
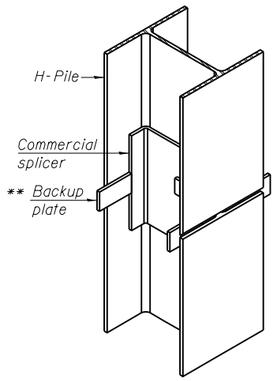
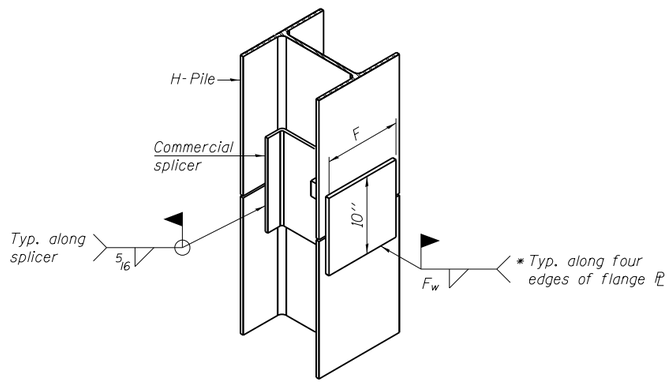


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



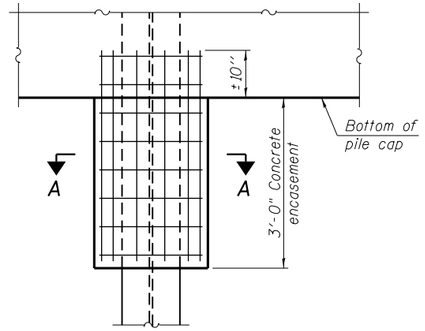
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

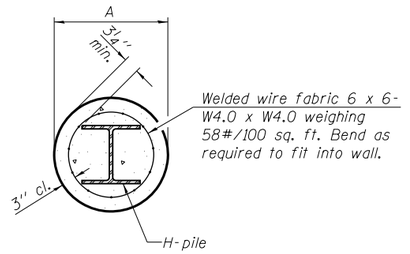
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



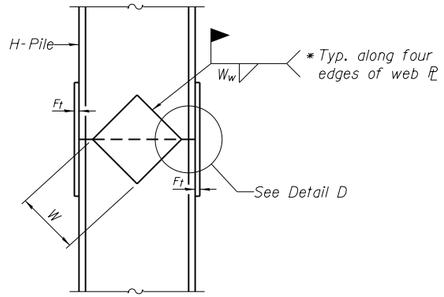
ELEVATION



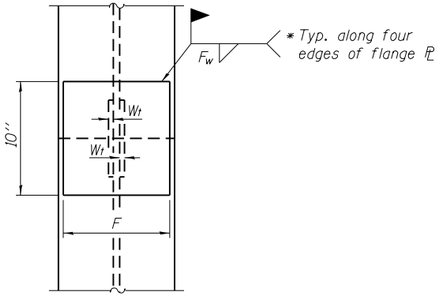
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

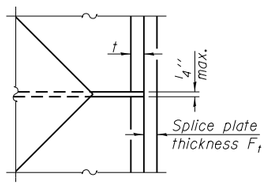
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 1-27-12

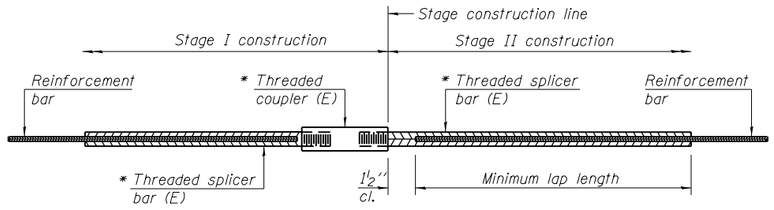
USER NAME = eabuatherah	DESIGNED - LK	REVISED	
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 49 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	284
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-049-PILE.dgn

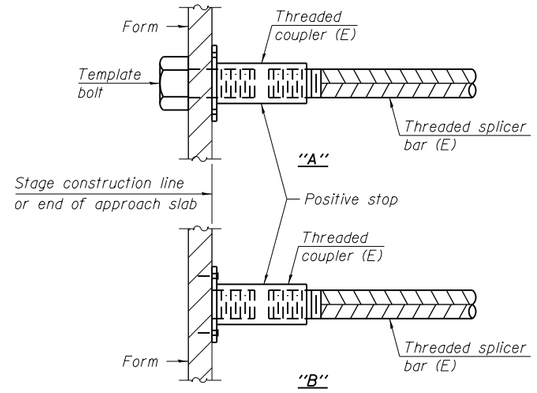


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

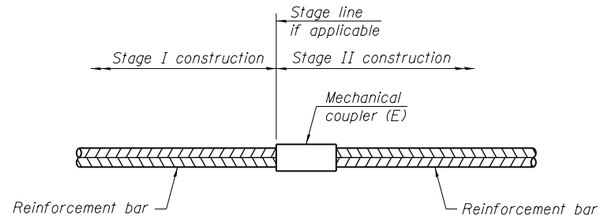
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	885	3'-6"
Approach slabs	#5	172	3'-4"
	#8	120	5'-4"
Abutments	#5	12	3'-8"
	#8	6	12'-4"
Piers	#4	16	2'-11"
Diaphragms	#4	4	2'-8"
	#6	22	4'-0"



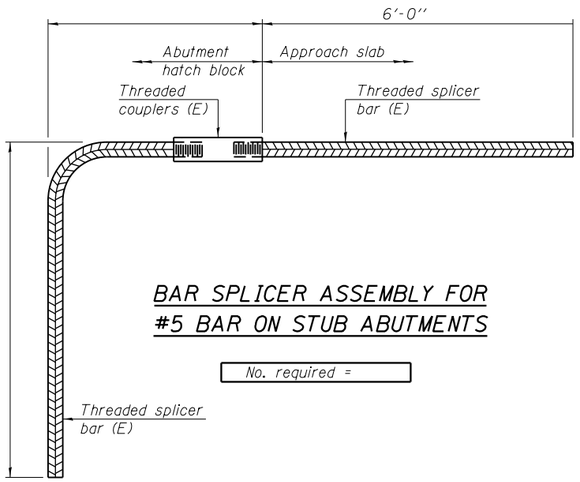
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1	#10	10
Pier 2	#10	10



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-17-2017

USER NAME = eabuatherah	DESIGNED - LK	REVISED	
	CHECKED - ACF	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
STRUCTURE NO. 099-0062
SHEET NO. 50 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	285
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-050-SPLDET.dgn

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

GSI Job No. 13125
Page 1 of 2
Date 3/19/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-18
Station 719+78
Offset 53.30ft Right
Ground Surface Elev. 566.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to 10.0' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.0" ASPHALT, 8.0" GRAVEL			
565.20			
CLAY to CLAY LOAM-brown & gray-stiff to hard (Fil)	12		
	10		7
	9		
	5		
	3	4.0	16
-5	8	P	
	4		
	4	1.9	21
	6	B	
	5		
	5	2.4	18
-10	6	B	
	4		
	7	1.7	21
	9	B	
	7		
	8	1.2	18
-15	10	B	
	5		
	8	1.8	15
	13	P	
	17		
	9	1.3	20
-20	14	B	
CLAY to CLAY LOAM-brown & gray-stiff to hard (Fil) *(continued)*			
	7		
	9	2.5	19
	13	B	
	9		
	11	1.5	22
-25	11	B	
	9		
	11	3.1	20
	14	B	
	14		
	11	2.7	17
-30	11	B	
	8		
	12	3.0	16
-35	15	B	
529.20			
CLAY LOAM with GRAVEL-dark brown, gray & black-very dense (Fil)			
	50/2"		
			14
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\13125-INTB, I-80 PHASE II (NEAR-TERM)\13125 BORING LOGS\13125_LOG.GPJ 5/30/14

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SOIL BORING LOG

GSI Job No. 13125
Page 2 of 2
Date 3/19/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-18
Station 719+78
Offset 53.30ft Right
Ground Surface Elev. 566.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to 10.0' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM with GRAVEL-dark brown, gray & black-very dense (Fill) *(continued)*			
523.20			
LOAM-gray-medium dense	5		
	5	1.0	31
-45	6	P	
519.20			
Drillers Observation: Apparent Bedrock			
517.20			
Borehole continued with rock coring.			
-50			
-55			
-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\13125-INTB, I-80 PHASE II (NEAR-TERM)\13125 BORING LOGS\13125_LOG.GPJ 5/30/14

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ROCK CORE LOG

PAGE 1 of 1
DATE 3/20/2014
LOGGED BY JK
GSI JOB No. 13125

ROUTE ???? DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION @@@@ LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. XX CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station XX
BORING NO. BSB-18
Station 719+78
Offset 53.3' Right
Ground Surface Elev. 566.2
Core Diameter 2.0 in
Top of Rock Elev. 519.2
Begin Core Elev. 517.2

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE RUN 1 (−49.0' to −59.0') Light gray, porous & cherty with horizontal bedding. Highly fractured throughout with numerous intersecting horizontal & vertical fractures.	1	100.0	14.0	n/a	7092 @ -52.8'
−54					
−59					

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Notes:
1. For location of soil boring, see Sheet 1 of 54.

HBP Illinois Partners	USER NAME = eabuatherah	DESIGNED - ACF	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS – 1 STRUCTURE NO. 099–0062 SHEET NO. 51 OF 54 SHEETS
		CHECKED - AYW	REVISED		
		DRAWN - LK	REVISED		
	PLOT DATE = 6/25/2020	CHECKED - AYW	REVISED		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	286
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-051-BORL.dgn

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 2
Date 3/26/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JB
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Muc Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-20
Station 721+29
Offset 18.00ft Right
Ground Surface Elev. 561.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
2.25" ASPHALT, 7.75" CONCRETE BRIDGE DECK 560.77				VOID *(continued)*			
VOID							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\13125 HNTB, I-80 PHASE II (NEAR TERM)\13125 BORING LOG\13125_LOG.GPJ 5/30/14

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SOIL BORING LOG

GSI Job No. 13125
Page 2 of 2
Date 3/26/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JB
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-20
Station 721+29
Offset 18.00ft Right
Ground Surface Elev. 561.60 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VOID *(continued)*							
513.10 Borehole continued with rock coring.							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\13125 HNTB, I-80 PHASE II (NEAR TERM)\13125 BORING LOG\13125_LOG.GPJ 5/30/14

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ROCK CORE LOG

PAGE 1 of 1
DATE 3/26/2014
LOGGED BY MD
GSI JOB No. 13125

ROUTE ???? DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION @@@@ LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. XX CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station XX Core Diameter 2.0 in
BORING NO. BSB-20 Top of Rock Elev. 513.1
Station 721+29 Begin Core Elev. 513.1
Offset 18.0' Right
Ground Surface Elev. 561.6

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE RUN 1 (−48.5' to −58.5') Light gray to gray with horizontal bedding. Slightly porous with some rust staining. Some large chert nodules. Highly fractured throughout with numerous intersecting horizontal & vertical fractures.	1	100.0	34.0	n/a	695 @ −50.8'
−53.5					
−58.5					

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Notes:
1. For location of soil boring, see Sheet 1 of 54.

USER NAME = eabuatherah	DESIGNED - ACF	REVISED	
	CHECKED - AYW	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/25/2020	CHECKED - AYW	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS - 2
STRUCTURE NO. 099-0062
SHEET NO. 52 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	287
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

0990062-60W34-052-BOR2.dgn

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GSI Job No. 13125

SOIL BORING LOG

Page 1 of 2

Date 3/20/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW

SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM

COUNTY Will DRILLING METHOD Muc Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. BSB-22
Station 721+52
Offset 55.40ft Right
Ground Surface Elev. 560.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.0" ASPHALT, 8.0" CONCRETE BRIDGE DECK 559.50				VOID *(continued)*			
VOID							
-5				-25			
-10				-30			
-15				-35			
-20				-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\13125 HNTB, I-80 PHASE II (NEAR TERM)\13125 BORING LOGS\13125_LOG.GPJ 5/30/14

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GSI Job No. 13125

SOIL BORING LOG

Page 2 of 2

Date 3/20/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW

SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM

COUNTY Will DRILLING METHOD Mud Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. BSB-22
Station 721+52
Offset 55.40ft Right
Ground Surface Elev. 560.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VOID *(continued)*			
512.00 Borehole continued with rock coring.			
-45			
-50			
-55			
-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 3/20/2014
LOGGED BY JK
GSI JOB No. 13125

ROUTE ???? DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION @@@@ LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. XX CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station XX Core Diameter 2.0 in
BORING NO. BSB-22 Top of Rock Elev. 512.0
Station 721+52 Begin Core Elev. 512.0
Offset 55.4' Right
Ground Surface Elev. 560.5

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE RUN 1 (-48.5' to -58.5') Light gray & porous with horizontal bedding.Highly fractured throughout	1	100.0	7.5	n/a	212 @ -51.0'
-53.5					
-58.5					

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Notes:
1. For location of soil boring, see Sheet 1 of 54.

HBP Illinois Partners

USER NAME = eabuatherah	DESIGNED - ACF	REVISED
	CHECKED - AYW	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - AYW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS – 3
STRUCTURE NO. 099-0062
SHEET NO. 53 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	288
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

0990062-60W34-053-BOR3.dgn

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 3/20/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW
SECTION _____ LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. _____
Station _____
BORING NO. BSB-24
Station 722+87
Offset 21.40ft Right
Ground Surface Elev. 557.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 555.4 ft ▼
Upon Completion n/a ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				6.0" ASPHALT, 18.0" CONCRETE
555.40 ▼			25	CLAY LOAM-brown & gray-very stiff to hard (Fill)
	2			
-5	2 2		21	
	8			
	10 8		20	
	3			
-10	5 8	3.8 P	21	
	3			
	3 4	2.3 P	28	
	2			
-15	2 3	2.8 P	22	
	3			
-20	5 7	3.5 P	17	
	5			
-25	7 9	4.0 P	13	
	6			
-30	9 13	4.5 P	16	
	4			
	8 13		16	
	8			
-35	13 17		15	
	2			
-40	3 5		24	

DEPTH (ft)	Description
	CLAY LOAM-brown & gray-very stiff to hard (Fill) *(continued)*
534.40	SILTY CLAY LOAM-gray-medium dense
531.90	CLAY LOAM-gray-medium dense to dense
525.40	SILTY SAND with Gravel-dark brown-loose
520.90	Drillers Observation-Weathered & fractured rock.
519.90	Drillers Observation-Apparent Bedrock
518.90	Borehole continued with rock coring.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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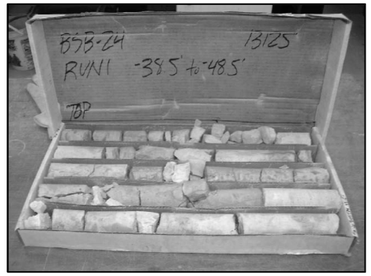
ROCK CORE LOG

PAGE 1 of 1
DATE 3/20/2014
LOGGED BY JK
GSI JOB No. 13125

ROUTE ???? DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION @@@@ LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. XX CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station XX Core Diameter 2.0 in
BORING NO. BSB-24 Top of Rock Elev. 519.9
Station 722+87 Begin Core Elev. 518.9
Offset 21.4' Right
Ground Surface Elev. 557.4

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	Description
	1	100.0	19.0	n/a	868 @ -46.0'	SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE RUN 1 (-38.5' to -48.5') Light gray & weathered with horizontal to wavy bedding. Highly fractured throughout with numerous intersecting horizontal & vertical fractures & some thin clay partings.
-43.5						
-48.5						



Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Notes:
1. For location of soil boring, see Sheet 1 of 54.

USER NAME = eabuatherah	DESIGNED - ACF	REVISED	
	CHECKED - AYW	REVISED	
	DRAWN - LK	REVISED	
PLOT DATE = 6/25/2020	CHECKED - AYW	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS – 4
STRUCTURE NO. 099-0062
SHEET NO. 54 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	289
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

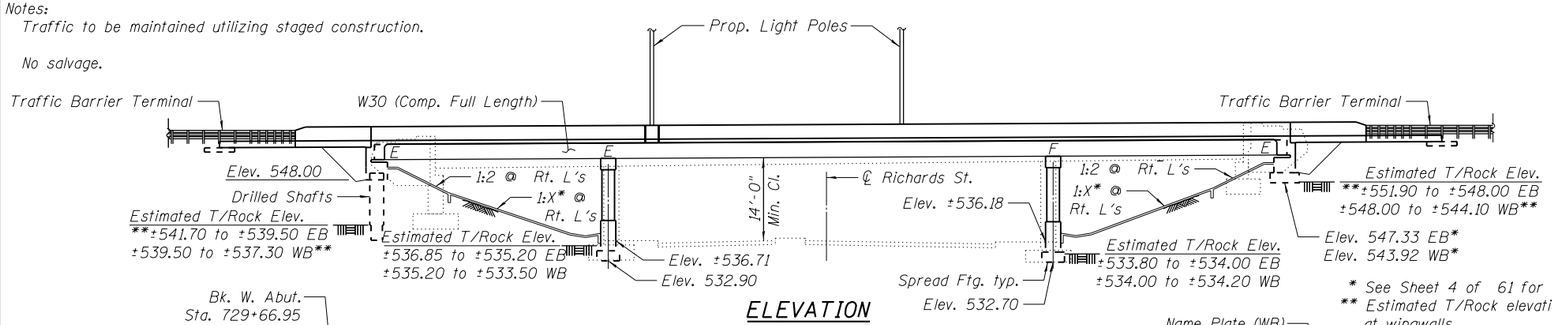
0990062-60W34-054-BOR4.dgn

Bench Mark: Square cut on middle step of S.E. wingwall of WB bridge over Richards St. Elev. = 558.98

Existing Structure: S.N. 099-0064 (EB) and S.N. 099-0065 (WB) were built in 1963 under Federal Aid Interstate Route 80 Project I-80-4(38) Section 99-4HB-1. The structures were repaired in 1990 under Federal Aid Interstate Route 80 Project C-91-169-88 Section 99-4RS-2 & 99 (3B, 4B-1, 4HB, 4HB-1, 4VB) BR-88. The structures were repaired in 1998 under Federal Aid Interstate Route 80 Project C-91-225-93 Section 99-4-1RS-3 and 99-4-1VB-1. The structures were repaired in 2001 under Federal Aid Interstate Route 80 Project C-91-507-00 Section (99 (1, 2, 3, 4) & 4-1) RS-7. The dual structures consist of 3 simple spans measuring 165'-9" back to back of abutments. Out to out deck width of 36'-0" at 08°-36'-00" skew (left forward) that is supported by two W36 beams (exterior) and four W30 beams (interior) at the end spans, and six W36 beams at the middle span. Spans are supported on concrete stub abutments and wing walls founded on spread footings, and two hammerhead piers founded on spread footings.

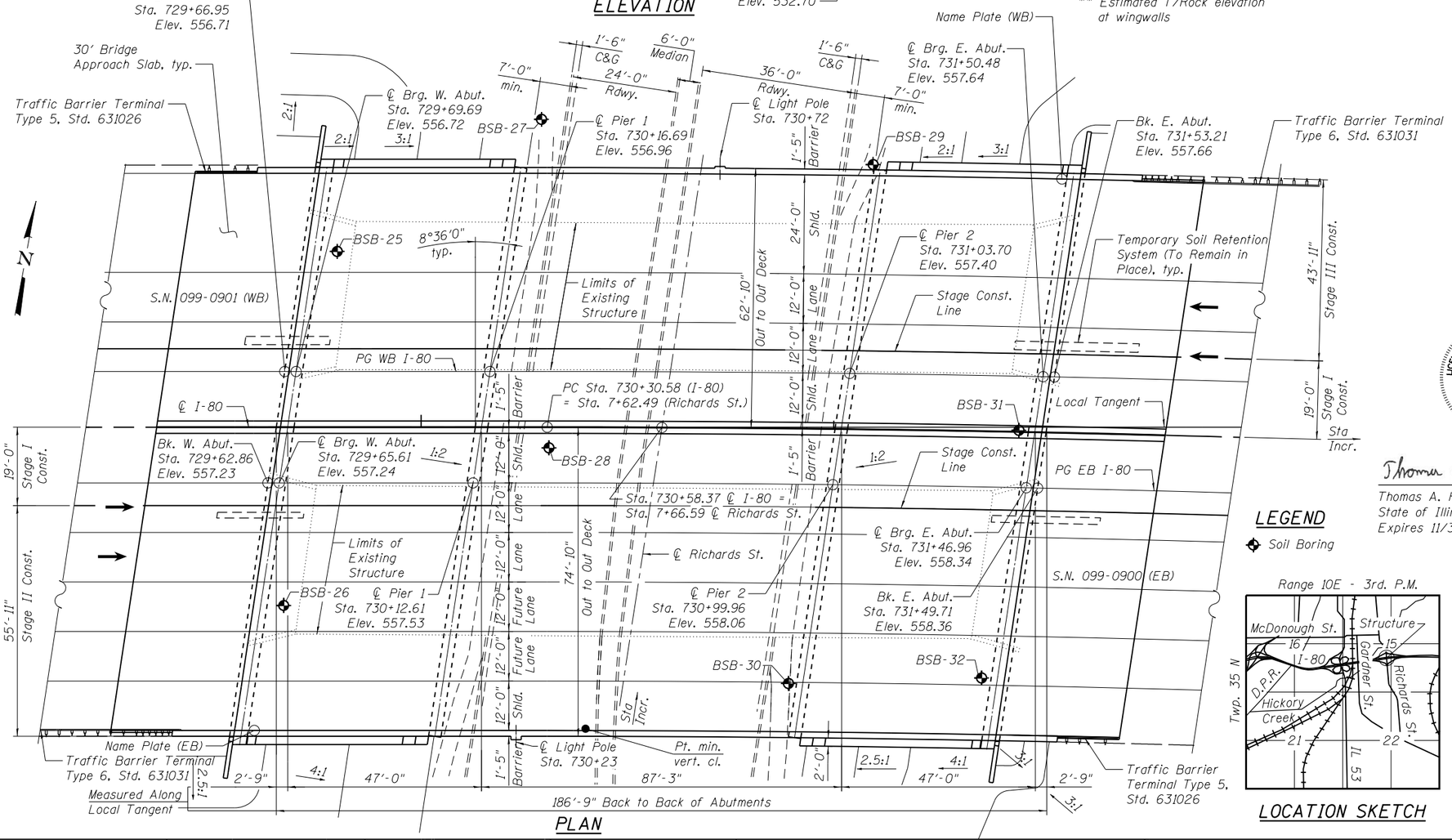
Notes:
Traffic to be maintained utilizing staged construction.

No salvage.

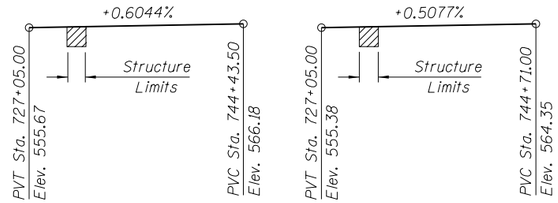


ELEVATION

* See Sheet 4 of 61 for X values.
** Estimated T/Rock elevation at wingwalls



PLAN



PROFILE GRADE
(Along PG EB I-80)

PROFILE GRADE
(Along PG WB I-80)

LOADING HL-93

Allow 50 psf for future wearing surface.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interims

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.068g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.125g
Soil Site Class = C

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
THOMAS A. HARROUN
081007637
STATE OF ILLINOIS

Thomas A. Harroun 10/1/2020

Thomas A. Harroun P.E., S.E. Date
State of Illinois No. 081007637
Expires 11/30/2020

CURVE DATA

(Along Proposed ℄ I-80 Curve 9)
PI Sta. = 734+61.07
Δ = 8° 35' 29" (Rt.)
D = 0° 59' 59"
R = 5,731.00'
T = 430.49'
L = 859.36'
E = 16.15'
e = 3.3%
T.R. = 40'
S.E. Run = 128'
P.C. Sta. = 730+30.58
P.T. Sta. = 738+89.94

LEGEND

Soil Boring

LOCATION SKETCH

GENERAL PLAN & ELEVATION
I-80 OVER F.A.U. RTE. 354 (RICHARDS ST.)
F.A.I. RTE. 80 - SECTION 2013-008B
WILL COUNTY
STATION 730+58.37
STRUCTURE NO. 099-0900 (EB)
STRUCTURE NO. 099-0901 (WB)

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USER NAME = default	DESIGNED WJA	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	290
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-001-GPE.dgn

INDEX OF SHEETS

GENERAL NOTES

Fasteners shall be ASTM A 325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. dia., holes $\frac{15}{16}$ in. dia., unless otherwise noted.

Calculated weight of Structural Steel = 731,550 pounds (Grade 50) and 57,540 pounds (Grade 36).

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

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of new abutments and new piers.

The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.

In addition to the requirements of Standard Specifications Article 501.03, the Contractor shall evaluate the condition of the existing protective shield. Such evaluation shall be performed by an Illinois-licensed Structural Engineer. If structurally adequate, the existing protective shield shall remain in place for demolition of the existing bridge deck; if not, the protective shield shall be replaced prior to demolition. The cost of evaluation and any new protective shield is included in Protective Shield.

The removal and disposal of the existing protective shielding shall be included in the cost of Removal of Existing Structures No. 2.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. 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.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

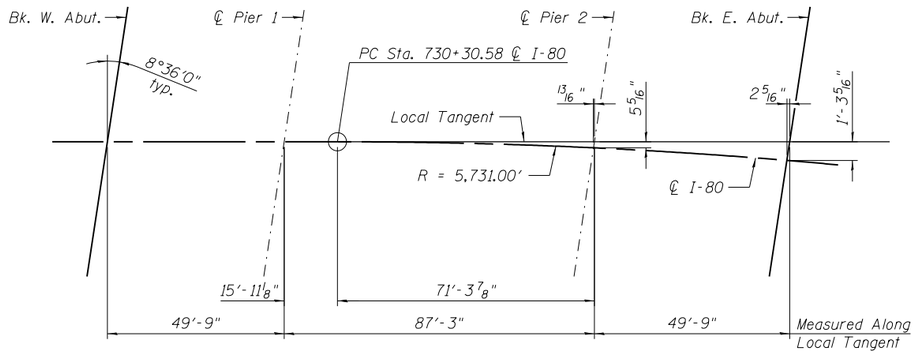
Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Protective shield shall be installed under the superstructure to be removed for the full length of the bridge. The lateral width limits should be extended at minimum 2 ft. outside edge of the existing bridge.

TOTAL BILL OF MATERIAL

Item	Unit	S.N. 099-0900 (EB) Super	S.N. 099-0900 (EB) Sub	S.N. 099-0901 (WB) Super	S.N. 099-0901 (WB) Sub	Total
Removal of Existing Structures No. 1	Each	0.50	0.50	0.50	0.50	2
Protective Shield	Sq. Yd.	1,503		1,268		2,771 /1
Structure Excavation	Cu. Yd.		1,411		1,281	2,692
Rock Excavation for Structures	Cu. Yd.		370		153	523
Concrete Structures	Cu. Yd.		682		597	1,279
Concrete Superstructure	Cu. Yd.	486		425		911
Bridge Deck Grooving	Sq. Yd.	1,903		1,573		3,476
Protective Coat	Sq. Yd.	2,367		2,115		4,482
Concrete Superstructure (Approach Slab)	Cu. Yd.	244		207		451
Furnishing and Erecting Structural Steel	L. Sum	0.1		0.1		0.2
Stud Shear Connectors	Each	13,248		11,040		24,288
Reinforcement Bars, Epoxy Coated	Pound	177,420	84,530	158,120	82,940	503,010
Bar Splicers	Each	884	194	884	192	2,154
Slope Wall 4 Inch	Sq. Yd.		810		700	1,510
Name Plates	Each	1		1		2
Drilled Shaft in Soil	Cu. Yd.		15		16	31
Drilled Shaft in Rock	Cu. Yd.		4		4	8
Preformed Joint Seal, 3 1/2"	Foot	122.5		122.5		245 /4
Elastomeric Bearing Assembly, Type I	Each	36		30		66
Anchor Bolts, 1 1/4"	Each		96		80	176
Temporary Soil Retention System	Sq. Ft.		138		219	357
Granular Backfill for Structures	Cu. Yd.		397		358	755
Concrete Sealer	Sq. Ft.		8,092		6,668	14,760
Geocomposite Wall Drain	Sq. Yd.		165		143	308
Temporary Soil Retention System (To Remain In Place)	Sq. Ft.		113		211	324
Pipe Underdrains for Structures 4"	Foot		164		164	328
Temporary Support System	Each		2		2	4



OFFSET SKETCH

N

STATION 730+58.37
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 80 SEC. 2013-008B
LOADING HL-93
STRUCTURE NO. 099-0900

NAME PLATE (EB)
See Std. 515001

STATION 730+58.37
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 80 SEC. 2013-008B
LOADING HL-93
STRUCTURE NO. 099-0901

NAME PLATE (WB)
See Std. 515001

HBP Illinois Partners

USER NAME = default	DESIGNED WJA	REVISED /1 ADDENDUM 10/21/2020
	CHECKED TAH	REVISED 4 04/20/2022 YC
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 2 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	291
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

INDEX OF SHEETS

GENERAL NOTES

Fasteners shall be ASTM A 325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. dia., holes $\frac{15}{16}$ in. dia., unless otherwise noted.

Calculated weight of Structural Steel = 731,550 pounds (Grade 50) and 57,540 pounds (Grade 36).

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

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

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The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.

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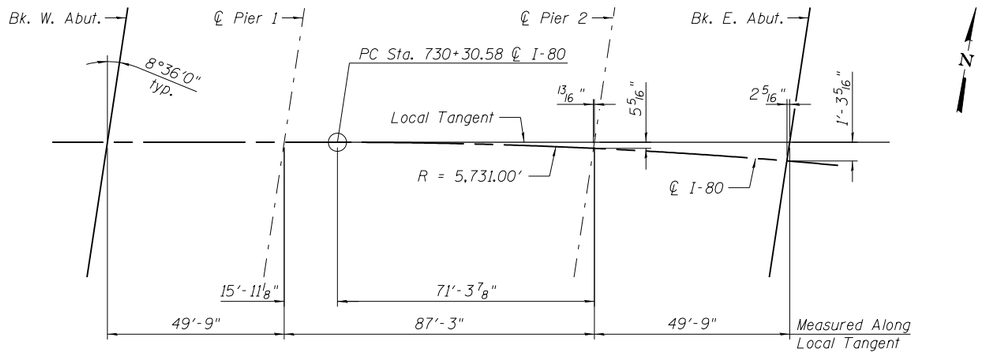
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Protective shield shall be installed under the superstructure to be removed for the full length of the bridge. The lateral width limits should be extended at minimum 2 ft. outside edge of the existing bridge.

TOTAL BILL OF MATERIAL

Item	Unit	S.N. 099-0900 (EB) Super	S.N. 099-0900 (EB) Sub	S.N. 099-0901 (WB) Super	S.N. 099-0901 (WB) Sub	Total
Removal of Existing Structures No. 1	Each	0.5	0.5	0.5	0.5	2
Protective Shield	Sq. Yd.	1,503		1,268		2,771 /1
Structure Excavation	Cu. Yd.		1,411		1,281	2,692
Rock Excavation for Structures	Cu. Yd.		370		153	523
Concrete Structures	Cu. Yd.		681 /1		597	1,278 /1
Concrete Superstructure	Cu. Yd.	486		425		911
Bridge Deck Grooving	Sq. Yd.	1,903		1,573		3,476
Protective Coat	Sq. Yd.	2,367		2,115		4,482
Concrete Superstructure (Approach Slab)	Cu. Yd.	244		207		451
Furnishing and Erecting Structural Steel	L. Sum	0.1		0.1		0.2
Stud Shear Connectors	Each	13,248	1	11,040		24,288
Reinforcement Bars, Epoxy Coated	Pound	177,420	84,490	158,120	82,940	502,970 /1
Bar Splicers	Each	884	194	884	192	2,154
Slope Wall 4 Inch	Sq. Yd.		810		700	1,510
Name Plates	Each	1		1		2
Drilled Shaft in Soil	Cu. Yd.		15		16	31
Drilled Shaft in Rock	Cu. Yd.		4		4	8
Preformed Joint Seal, 2 1/2"	Foot	93		93		186
Elastomeric Bearing Assembly, Type I	Each	36		30		66
Anchor Bolts, 1 1/4"	Each		96		80	176
Temporary Soil Retention System	Sq. Ft.		138		219	357
Granular Backfill for Structures	Cu. Yd.		397		358	755
Concrete Sealer	Sq. Ft.		8,092		6,668	14,760
Geocomposite Wall Drain	Sq. Yd.		165		143	308
Temporary Soil Retention System (To Remain In Place)	Sq. Ft.		113		211	324
Pipe Underdrains for Structures 4"	Foot		164		164	328
Temporary Support System	Each		2		2	4



OFFSET SKETCH

STATION 730+58.37
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 80 SEC. 2013-008B
LOADING HL-93
STRUCTURE NO. 099-0900

NAME PLATE (EB)

See Std. 515001

STATION 730+58.37
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 80 SEC. 2013-008B
LOADING HL-93
STRUCTURE NO. 099-0901

NAME PLATE (WB)

See Std. 515001

HBP Illinois Partners

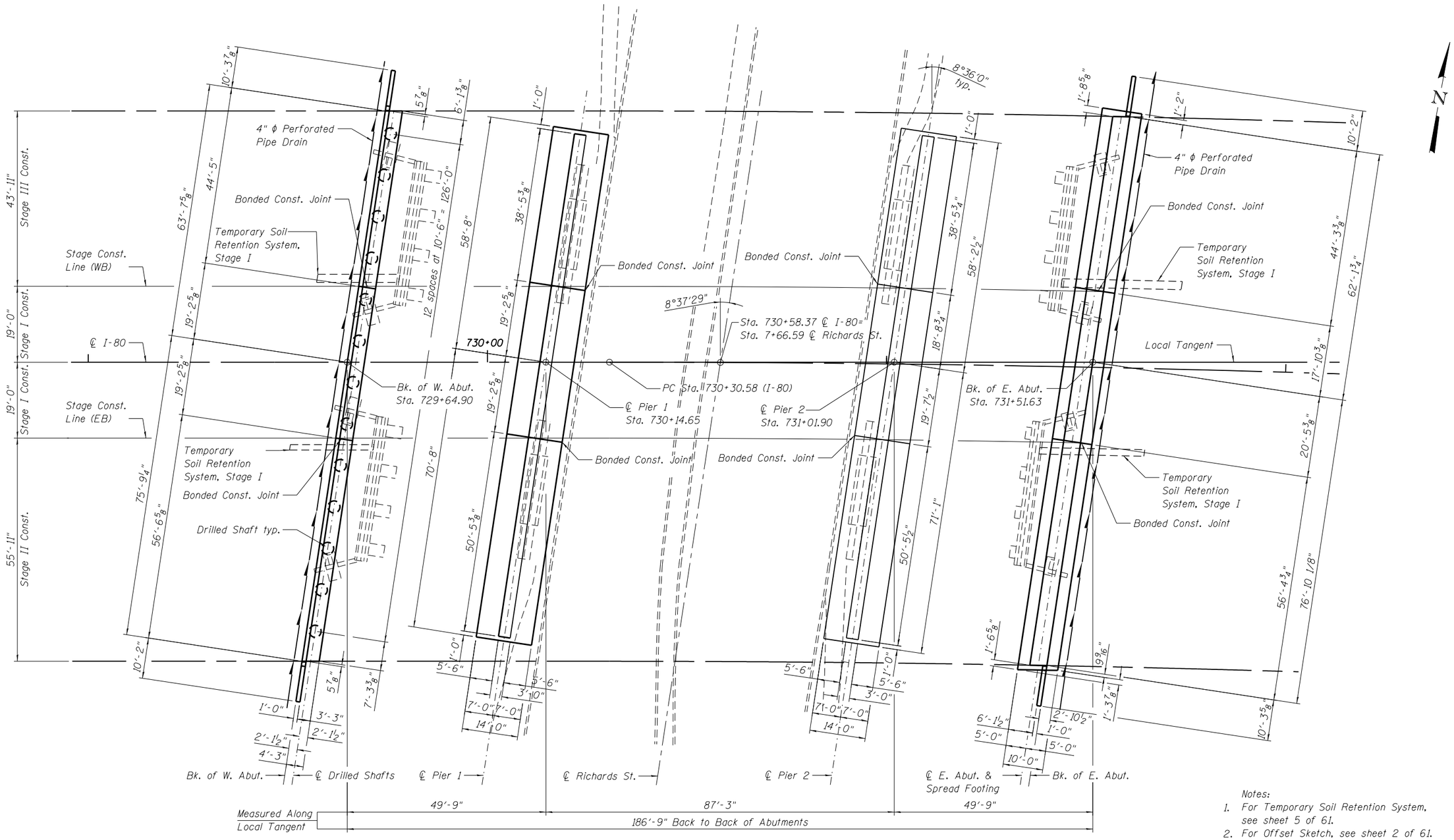
USER NAME = default	DESIGNED WJA	REVISED /1 ADDENDUM 10/21/2020	
	CHECKED TAH	REVISED /1 3/1/2021 P.A.B.	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 2/27/2022	CHECKED YC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 2 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	291
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-002-GN.dgn



FOOTING LAYOUT PLAN

Notes:
1. For Temporary Soil Retention System, see sheet 5 of 61.
2. For Offset Sketch, see sheet 2 of 61.
3. For lighting and utilities, see Lighting Plans.
4. For grading, see I-80 at Richards Street Bridge Grading Plan.

HBP Illinois Partners

USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

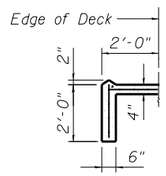
FOOTING LAYOUT
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 3 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	292
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

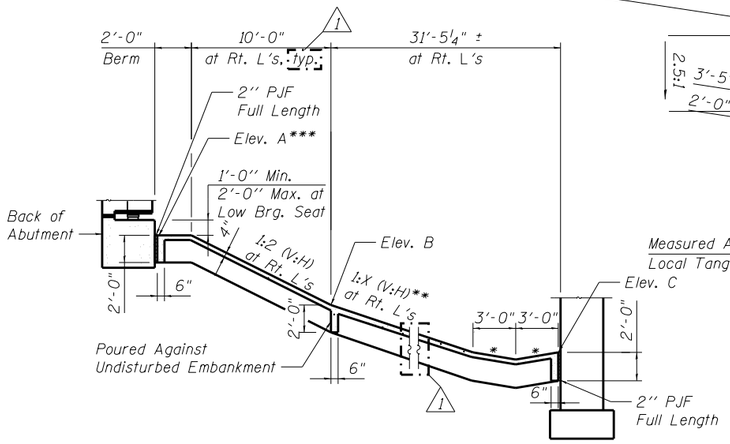
FILE NAME = 0990900-0990901-60W34-003-FND.dgn

SLOPE WALL ELEVATIONS

Location	Elev. A	Elev. B	Elev. C
West Slope Wall			
South Edge	551.26	546.26	538.07
North Edge	552.05	547.05	538.07
East Slope Wall			
South Edge	551.76	546.76	537.87
Beam 10	552.36	547.36	537.87
North Edge	553.31	548.31	537.87

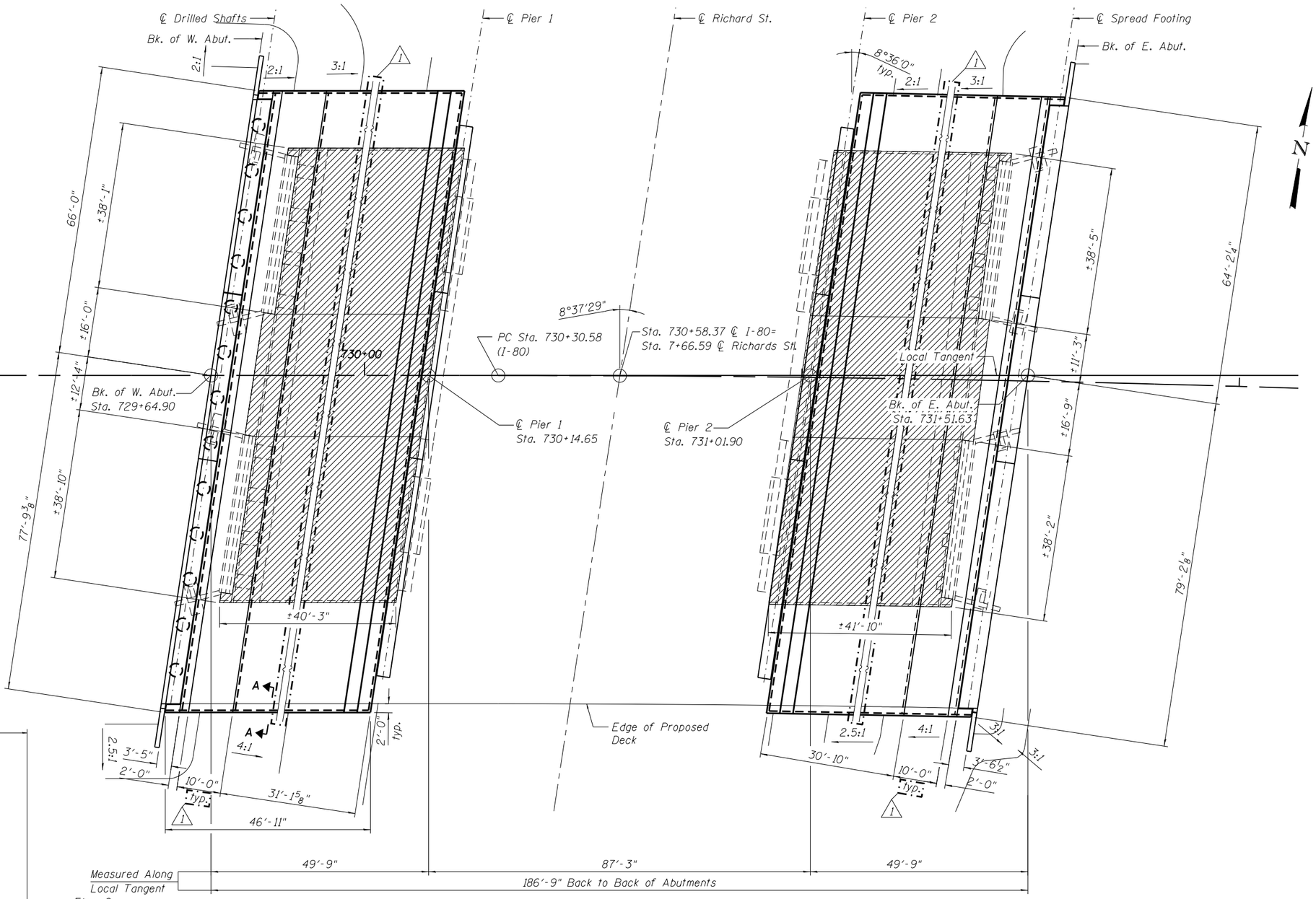


SECTION A-A



SECTION THRU CONCRETE SLOPEWALL

* 1:6 (V:H)
** X varies from 3.0 to 3.1 at West slope wall and from 2.4 to 2.8 at East slope wall.
*** The berm shall be sloped ½ in. per ft. to drain.



SLOPEWALL PLAN

BILL OF MATERIAL

Item	Unit	Total
Slope Wall 4 inch	Sy. Yd.	1,510

Notes:
1. Hatched areas indicate Slope Wall Removal.
2. Removal of the slope wall is included in the cost of REMOVAL OF EXISTING STRUCTURES NO. 1.
3. For grading, see I-80 at Richards Street Bridge Grading Plan.

HBP Illinois Partners

USER NAME = default	DESIGNED MSL	REVISED 1 ADDENDUM 10/21/2020	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED YC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOOTING LAYOUT
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 4 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	293
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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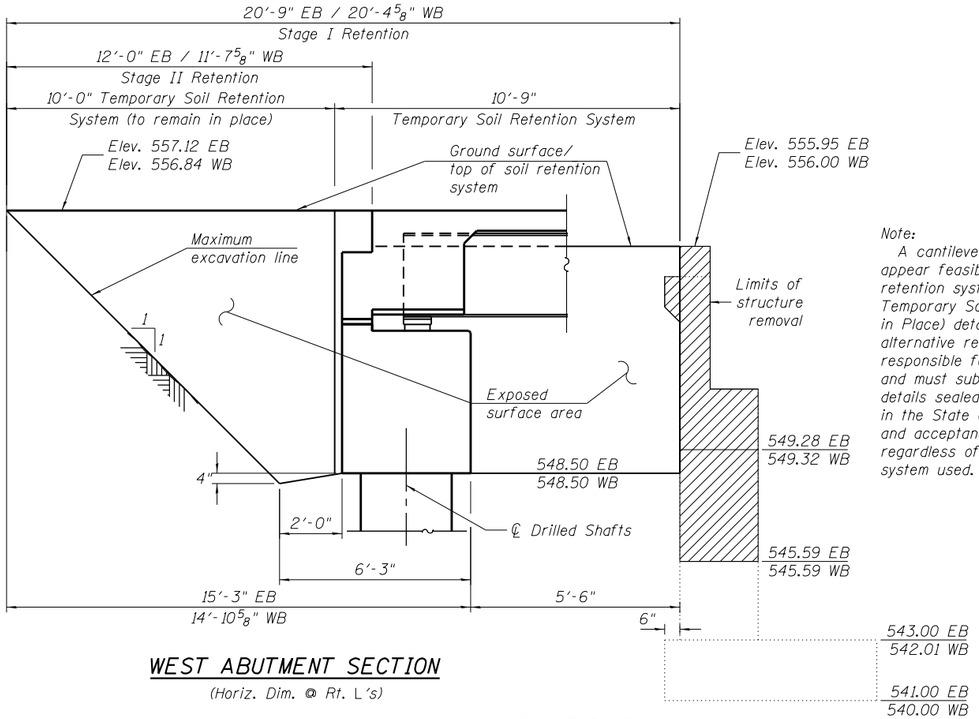
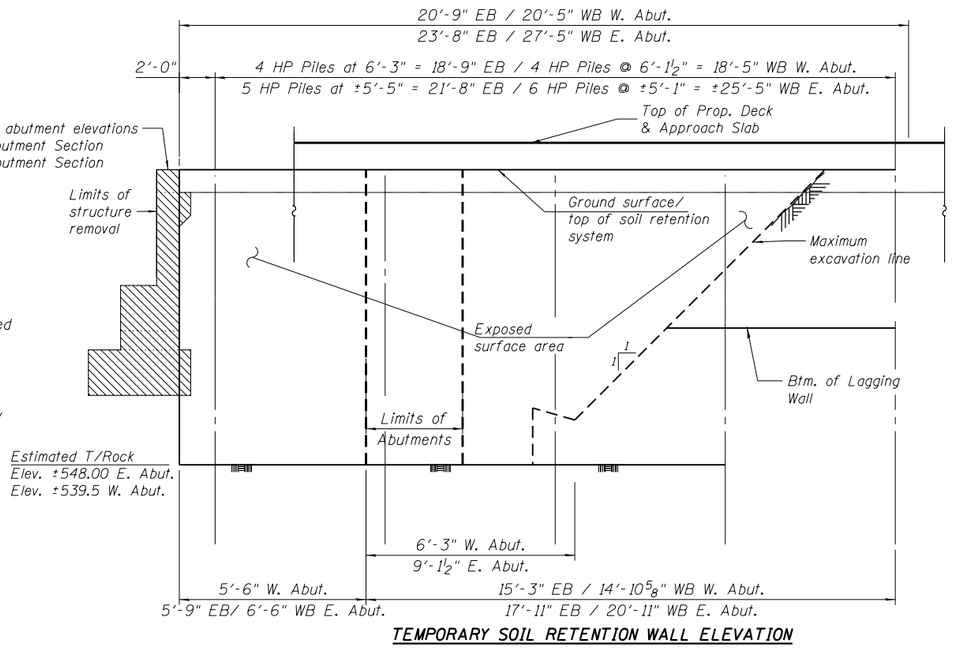


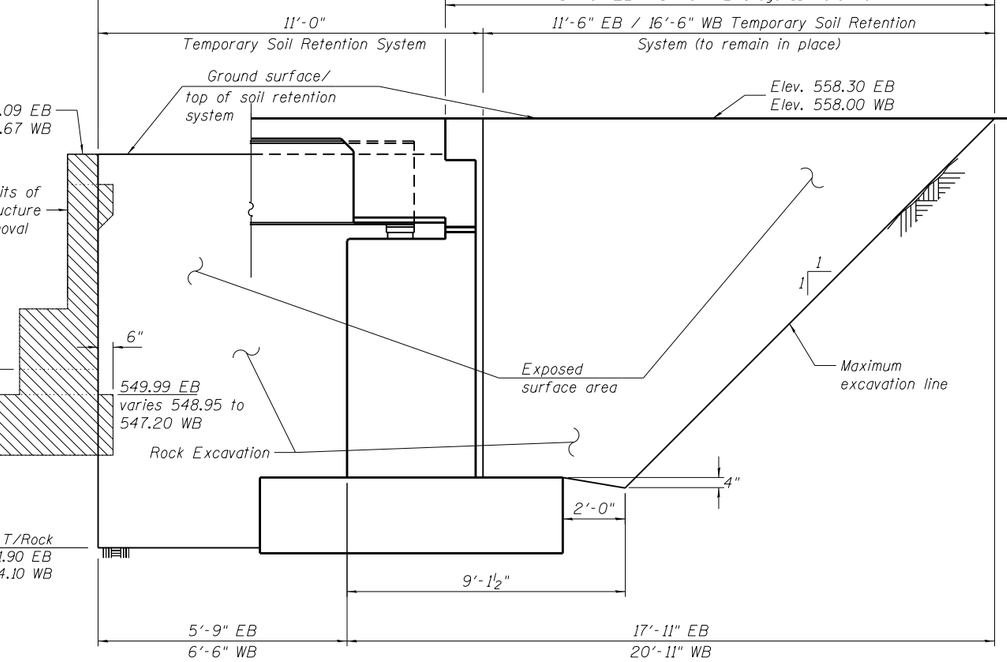
WEST ABUTMENT SECTION

(Horiz. Dim. @ Rt. L's)

Note:
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Temporary Soil Retention System (To Remain in Place) detail shown on this sheet is a suggested alternative retention system but the Contractor is responsible for the design of the system and must submit the design calculations and details sealed by a licensed structural engineer in the State of Illinois to the Engineer for review and acceptance. This process must be followed regardless of the temporary soil retention system used.

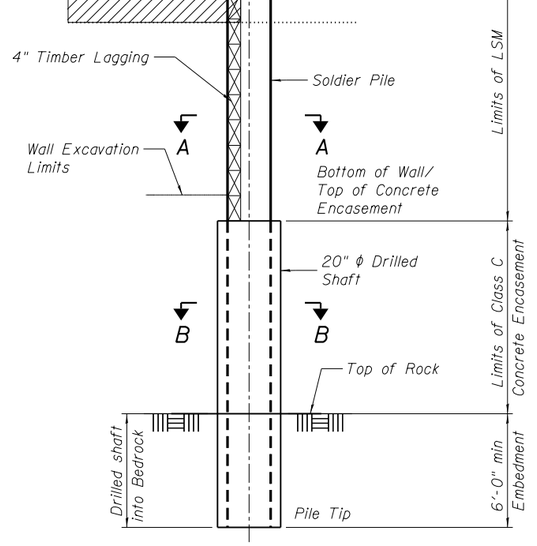


TEMPORARY SOIL RETENTION WALL ELEVATION

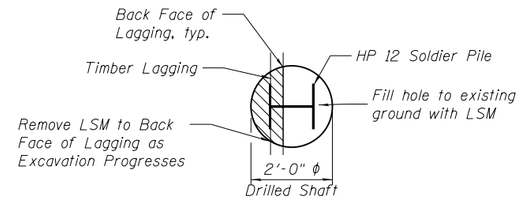


EAST ABUTMENT SECTION

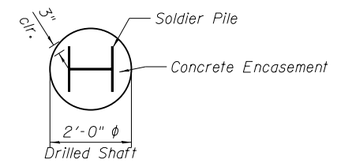
(Horiz. Dim. @ Rt. L's)



TYPICAL SECTION



SECTION A-A



SECTION B-B

Notes:
1. *Fill drilled shaft with low strength mortar backfill from existing ground line down to top of concrete encasement.*
2. *All material, labor, equipment and any miscellanous items necessary to complete the construction of temporary wall shall be included in lump sum price for Temporary Soil Retention System (To Remain in Place).*

SUGGESTED TEMPORARY SOIL RETENTION SYSTEM AT ABUTMENTS

USER NAME = default	DESIGNED YC	REVISED	
	CHECKED CJW	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED YC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 5 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	294
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

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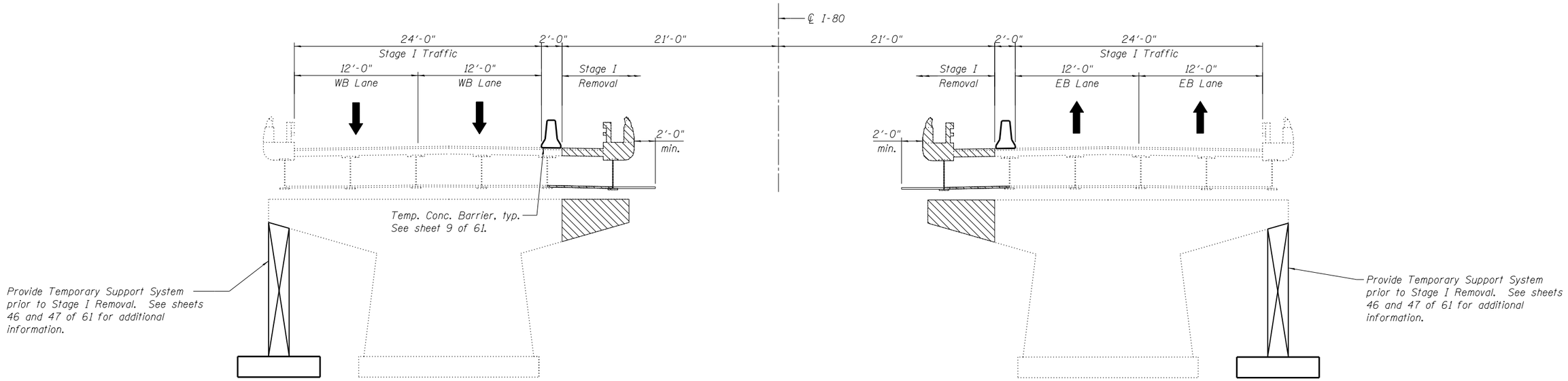
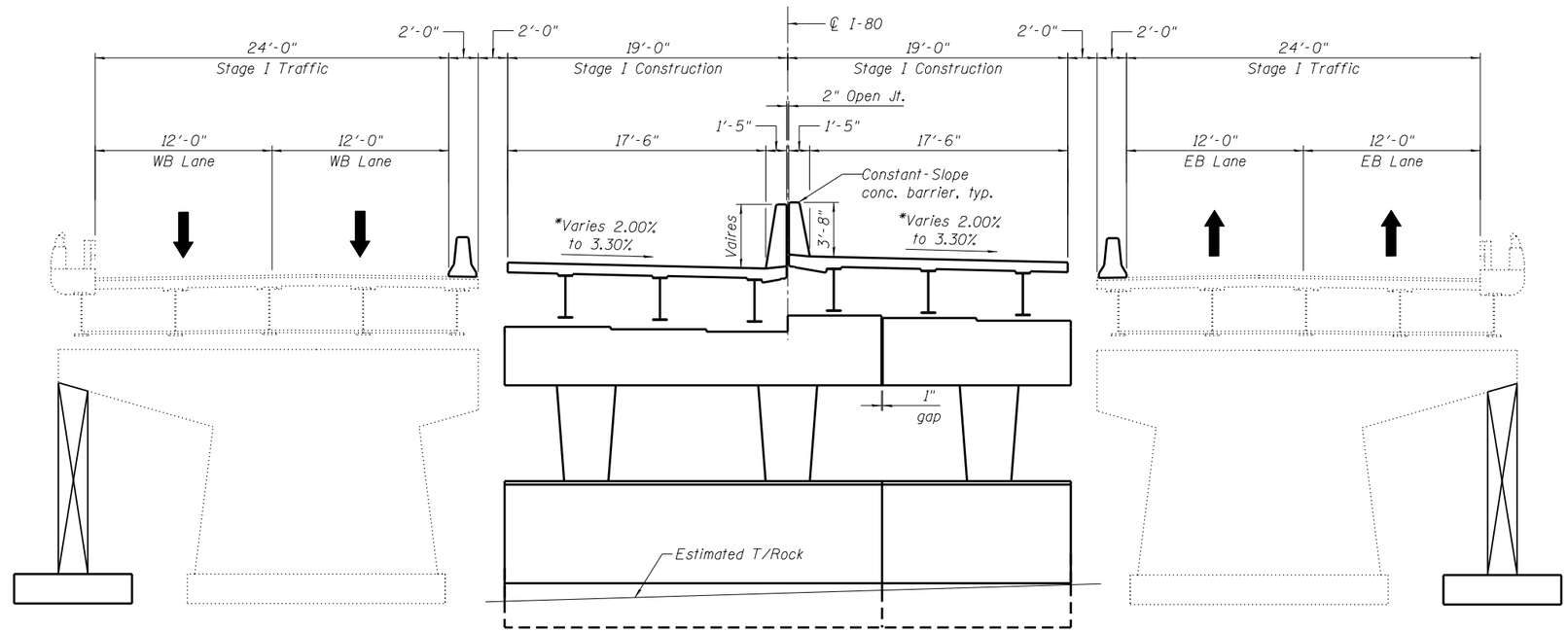


STAGE I REMOVAL



* Slope varies due to superelevation transition from 2.00% at Sta. 729+55 to 3.30% full superelevation at Sta. 738+87

STAGE I CONSTRUCTION

Notes:

1. *All staging cross sections are looking East.*
2. *For quantity of Temporary Concrete Barrier, see roadway plans.*
3. *Hatched area indicates Removal of Existing Structures.*

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED
	CHECKED CJW	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED CY	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 6 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	295
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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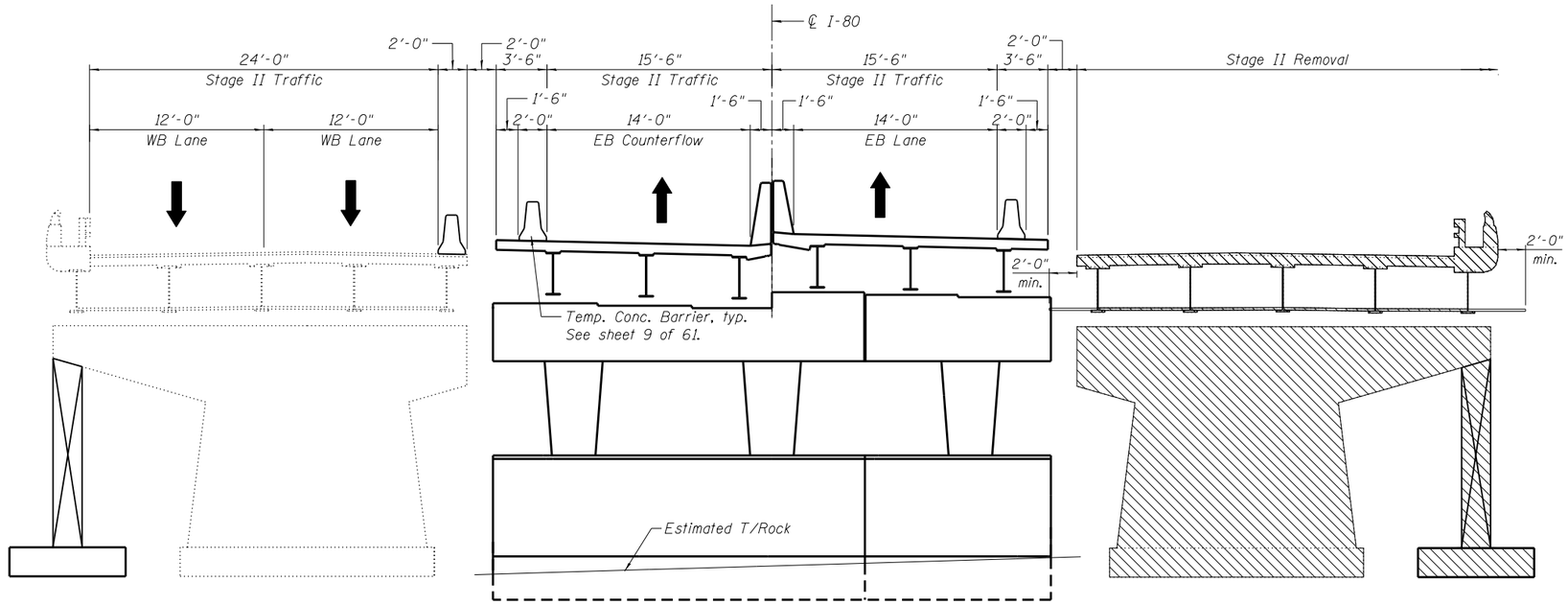
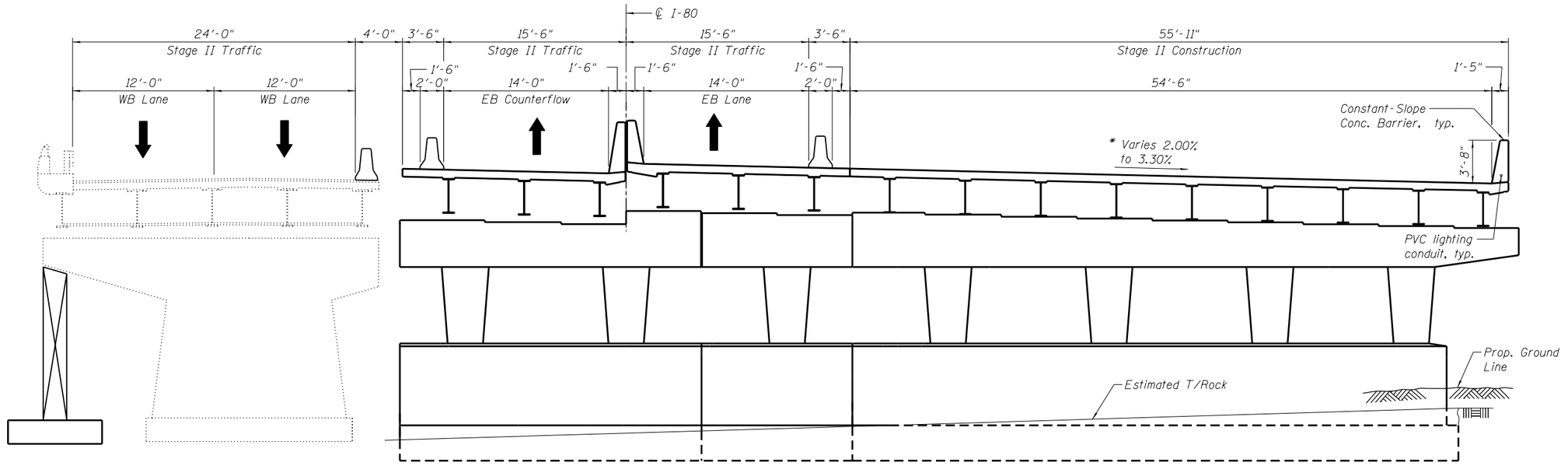


STAGE II REMOVAL



STAGE II CONSTRUCTION

* Slope varies due to superelevation transition from 2.00% at Sta. 729+55 to 3.30% full superelevation at Sta. 738+87

Notes:
1. All staging cross sections are looking East.
2. For quantity of Temporary Concrete Barrier, see roadway plans.
3. Hatched area indicates Removal of Existing Structures.

HBP Illinois Partners

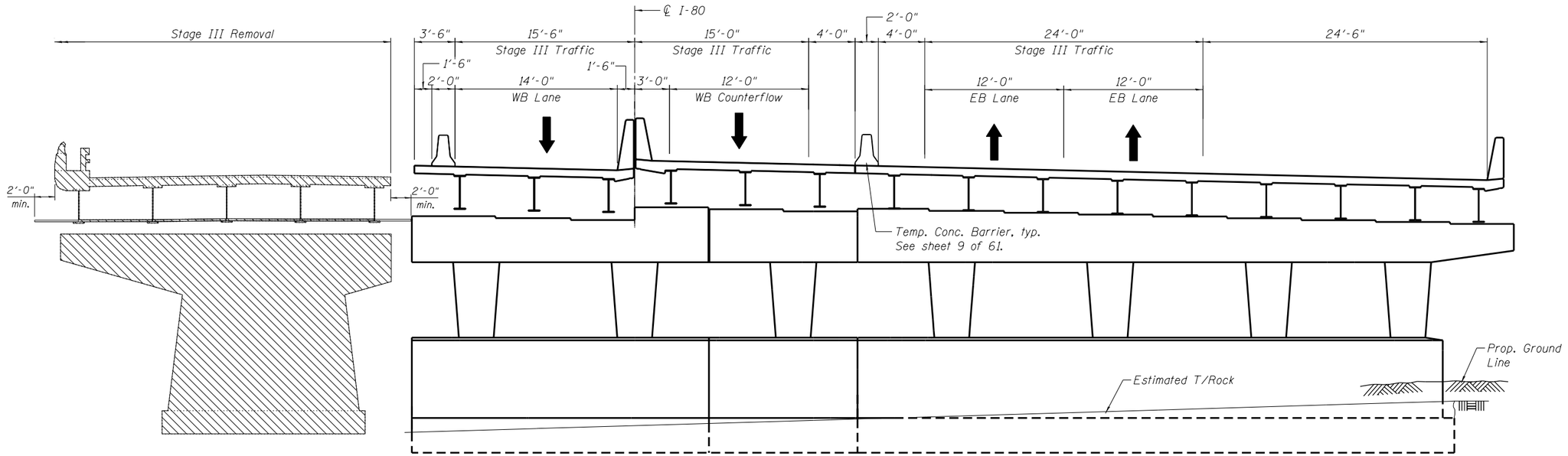
USER NAME = default	DESIGNED YC	REVISED
	CHECKED CJW	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

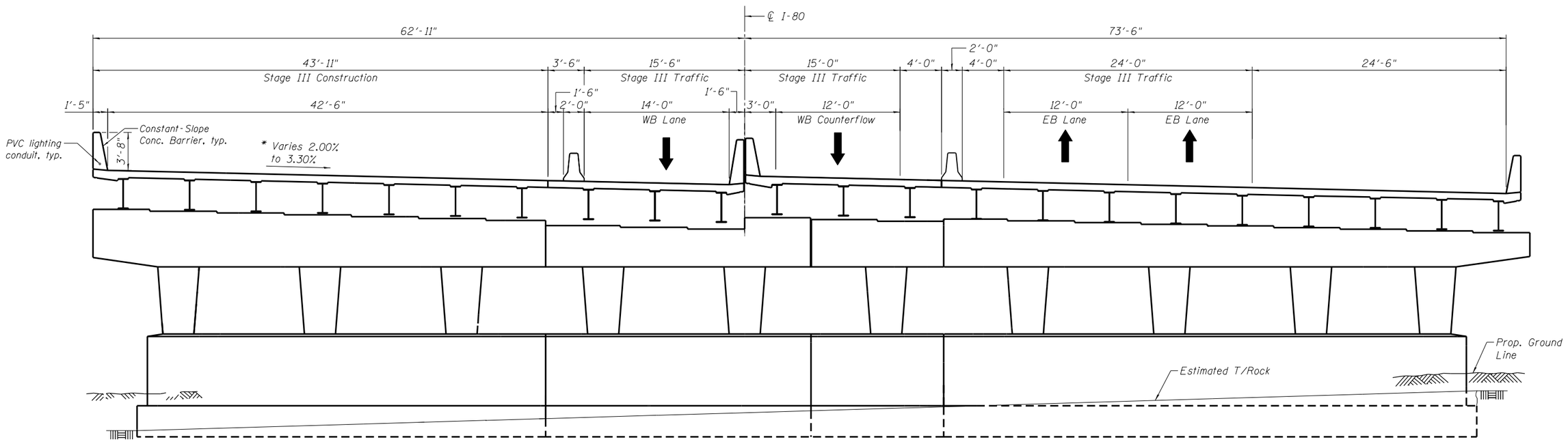
STAGE CONSTRUCTION DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 7 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	296
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-007-STG.dgn



STAGE III REMOVAL



STAGE III CONSTRUCTION

* Slope varies due to superelevation transition from 2.00% at Sta. 729+55 to 3.30% full superelevation at Sta. 738+87

Notes:
1. All staging cross sections are looking East.
2. For quantity of Temporary Concrete Barrier, see roadway plans.
3. Hatched area indicates Removal of Existing Structures.

HBP Illinois Partners	USER NAME = default	DESIGNED WJA	REVISED
		CHECKED TAH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED YC	REVISED

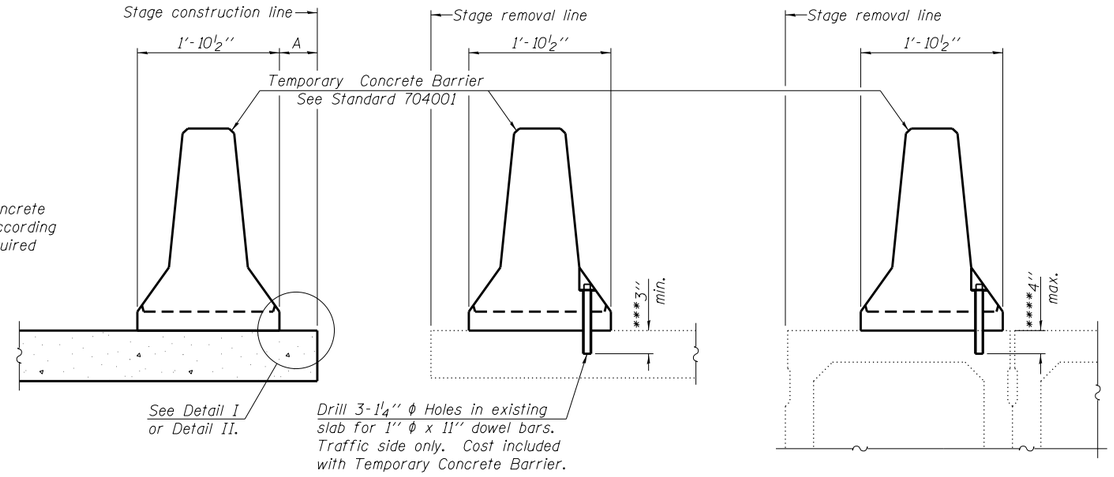
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 8 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	297
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-008-STG.dgn

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel PL to the top layer of couplers with 2-$\frac{5}{8}$'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel PL to the concrete slab or concrete wearing surface with 2-$\frac{5}{8}$'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

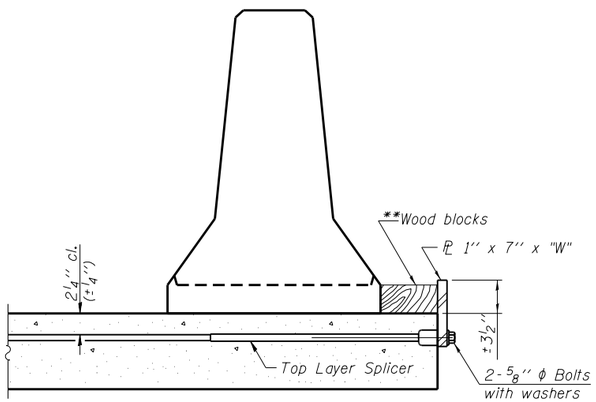
Cost of anchorage is included with Temporary Concrete Barrier.

The 1'' x 7'' x ''W'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

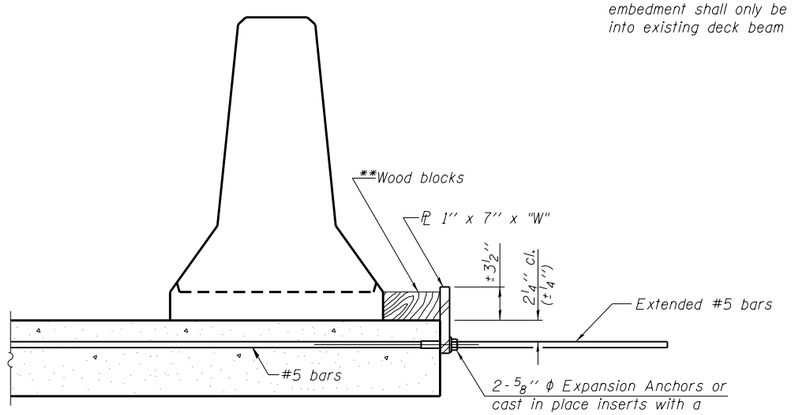
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

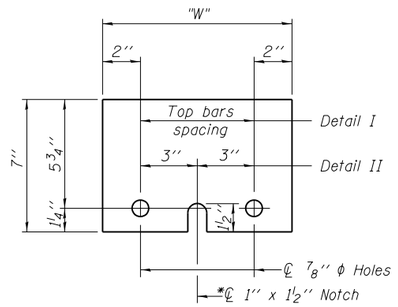
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1'' x 7'' x ''W''

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4''

R-27

7-1-10

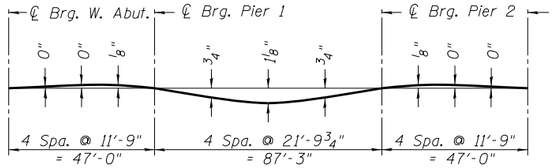
USER NAME = default	DESIGNED WJA	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 9 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	298
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

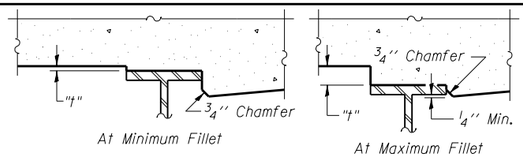
FILE NAME = 0990900-099090I-60W34-009-TBAR.dgn



Note:
The 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 on Sheets 11 thru 15 of 61.

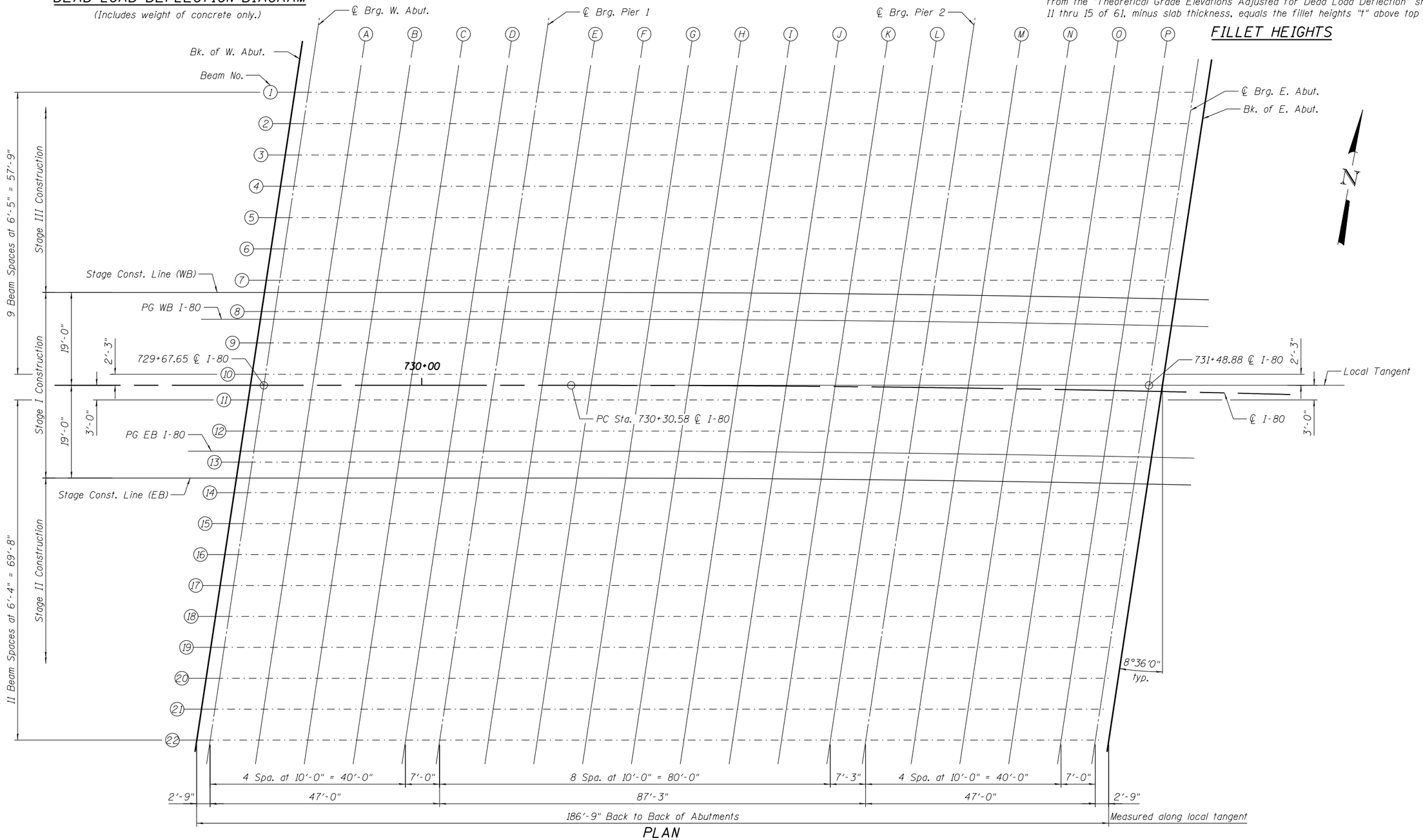
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)



Note:
To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 11 thru 15 of 61, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

USER NAME = default	DESIGNED TAH	REVISED	
	CHECKED YC	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED YC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 10 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	299
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-010-TOSE.dgn

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+73.97	-60.00	557.76	557.76
CL Brg. W. Abut.	729+76.72	-60.00	557.79	557.79
A	729+86.72	-60.00	557.89	557.89
B	729+96.72	-60.00	557.98	557.98
C	730+06.72	-60.00	558.08	558.07
D	730+16.72	-60.00	558.18	558.17
CL Brg. Pier 1	730+23.72	-60.00	558.24	558.24
E	730+33.69	-60.01	558.34	558.36
F	730+43.59	-60.02	558.44	558.49
G	730+53.48	-60.05	558.53	558.61
H	730+63.38	-60.10	558.63	558.72
I	730+73.28	-60.17	558.73	558.82
J	730+83.17	-60.25	558.83	558.90
K	730+93.07	-60.35	558.90	558.94
L	731+02.96	-60.47	558.95	558.97
CL Brg. Pier 2	731+10.13	-60.56	558.99	558.99
M	731+20.03	-60.71	559.04	559.04
N	731+29.93	-60.87	559.10	559.10
O	731+39.82	-61.05	559.16	559.16
P	731+49.71	-61.25	559.21	559.21
CL Brg. E. Abut.	731+56.63	-61.40	559.25	559.25
Bk. E. Abut.	731+59.35	-61.46	559.27	559.27

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+73.00	-53.58	557.61	557.61
CL Brg. W. Abut.	729+75.75	-53.58	557.64	557.64
A	729+85.75	-53.58	557.73	557.73
B	729+95.75	-53.58	557.82	557.82
C	730+05.75	-53.58	557.91	557.90
D	730+15.75	-53.58	558.00	557.99
CL Brg. Pier 1	730+22.75	-53.58	558.06	558.06
E	730+32.73	-53.59	558.15	558.18
F	730+42.64	-53.61	558.24	558.30
G	730+52.55	-53.63	558.33	558.41
H	730+62.46	-53.68	558.42	558.52
I	730+72.36	-53.74	558.52	558.60
J	730+82.27	-53.82	558.61	558.68
K	730+92.18	-53.92	558.68	558.73
L	731+02.08	-54.04	558.73	558.75
CL Brg. Pier 2	731+09.26	-54.13	558.77	558.77
M	731+19.17	-54.28	558.83	558.82
N	731+29.08	-54.44	558.88	558.88
O	731+38.98	-54.62	558.94	558.94
P	731+48.88	-54.82	559.00	559.00
CL Brg. E. Abut.	731+55.81	-54.97	559.04	559.04
Bk. E. Abut.	731+58.53	-55.02	559.05	559.05

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+72.03	-47.17	557.47	557.47
CL Brg. W. Abut.	729+74.78	-47.17	557.49	557.49
A	729+84.78	-47.17	557.57	557.57
B	729+94.78	-47.17	557.66	557.65
C	730+04.78	-47.17	557.74	557.73
D	730+14.78	-47.17	557.82	557.82
CL Brg. Pier 1	730+21.78	-47.17	557.88	557.88
E	730+31.77	-47.17	557.97	557.99
F	730+41.69	-47.19	558.05	558.10
G	730+51.61	-47.21	558.13	558.21
H	730+61.53	-47.26	558.22	558.31
I	730+71.45	-47.32	558.30	558.39
J	730+81.37	-47.40	558.39	558.46
K	730+91.28	-47.49	558.46	558.51
L	731+01.20	-47.61	558.52	558.53
CL Brg. Pier 2	731+08.39	-47.70	558.56	558.56
M	731+18.31	-47.85	558.61	558.60
N	731+28.22	-48.01	558.67	558.66
O	731+38.14	-48.19	558.72	558.72
P	731+48.05	-48.38	558.78	558.78
CL Brg. E. Abut.	731+54.99	-48.53	558.82	558.82
Bk. E. Abut.	731+57.71	-48.59	558.84	558.84

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+71.06	-40.75	557.32	557.32
CL Brg. W. Abut.	729+73.81	-40.75	557.34	557.34
A	729+83.81	-40.75	557.42	557.42
B	729+93.81	-40.75	557.50	557.49
C	730+03.81	-40.75	557.57	557.57
D	730+13.81	-40.75	557.65	557.64
CL Brg. Pier 1	730+20.81	-40.75	557.70	557.70
E	730+30.81	-40.76	557.78	557.81
F	730+40.74	-40.77	557.86	557.91
G	730+50.67	-40.79	557.94	558.02
H	730+60.60	-40.84	558.02	558.11
I	730+70.53	-40.90	558.10	558.19
J	730+80.46	-40.97	558.18	558.25
K	730+90.39	-41.07	558.25	558.29
L	731+00.31	-41.18	558.30	558.32
CL Brg. Pier 2	731+07.51	-41.27	558.34	558.34
M	731+17.44	-41.42	558.40	558.39
N	731+27.37	-41.58	558.45	558.45
O	731+37.30	-41.75	558.51	558.51
P	731+47.22	-41.95	558.56	558.56
CL Brg. E. Abut.	731+54.16	-42.09	558.60	558.60
Bk. E. Abut.	731+56.89	-42.15	558.62	558.62

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+70.09	-34.33	557.17	557.17
CL Brg. W. Abut.	729+72.84	-34.33	557.19	557.19
A	729+82.84	-34.33	557.26	557.26
B	729+92.84	-34.33	557.34	557.33
C	730+02.84	-34.33	557.41	557.40
D	730+12.84	-34.33	557.48	557.47
CL Brg. Pier 1	730+19.84	-34.33	557.53	557.53
E	730+29.84	-34.34	557.60	557.62
F	730+39.79	-34.35	557.67	557.72
G	730+49.73	-34.37	557.74	557.82
H	730+59.67	-34.41	557.81	557.91
I	730+69.61	-34.47	557.89	557.98
J	730+79.55	-34.55	557.96	558.03
K	730+89.49	-34.64	558.03	558.08
L	730+99.43	-34.75	558.08	558.10
CL Brg. Pier 2	731+06.63	-34.84	558.12	558.12
M	731+16.57	-34.98	558.18	558.17
N	731+26.51	-35.14	558.23	558.23
O	731+36.45	-35.32	558.29	558.29
P	731+46.39	-35.51	558.35	558.35
CL Brg. E. Abut.	731+53.34	-35.66	558.39	558.39
Bk. E. Abut.	731+56.07	-35.71	558.40	558.40

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+69.12	-27.92	557.03	557.03
CL Brg. W. Abut.	729+71.87	-27.92	557.05	557.05
A	729+81.87	-27.92	557.11	557.11
B	729+91.87	-27.92	557.18	557.17
C	730+01.87	-27.92	557.24	557.24
D	730+11.87	-27.92	557.31	557.30
CL Brg. Pier 1	730+18.87	-27.92	557.35	557.35
E	730+28.87	-27.92	557.42	557.44
F	730+38.83	-27.93	557.48	557.54
G	730+48.78	-27.95	557.55	557.63
H	730+58.73	-27.99	557.61	557.71
I	730+68.69	-28.05	557.68	557.77
J	730+78.64	-28.12	557.75	557.82
K	730+88.59	-28.21	557.81	557.86
L	730+98.54	-28.33	557.87	557.88
CL Brg. Pier 2	731+05.75	-28.41	557.91	557.91
M	731+15.70	-28.55	557.96	557.95
N	731+25.65	-28.71	558.02	558.01
O	731+35.60	-28.89	558.07	558.07
P	731+45.55	-29.08	558.13	558.13
CL Brg. E. Abut.	731+52.51	-29.22	558.17	558.17
Bk. E. Abut.	731+55.24	-29.28	558.19	558.19

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED
	CHECKED WJA	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED WJA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 11 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	300
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-01-TOSE.dgn

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+68.15	-21.50	556.89	556.89
CL Brg. W. Abut.	729+70.90	-21.50	556.90	556.90
A	729+80.90	-21.50	556.96	556.96
B	729+90.90	-21.50	557.02	557.02
C	730+00.90	-21.50	557.08	557.07
D	730+10.90	-21.50	557.14	557.13
CL Brg. Pier 1	730+17.90	-21.50	557.18	557.18
E	730+27.90	-21.51	557.24	557.26
F	730+37.87	-21.51	557.30	557.35
G	730+47.84	-21.53	557.35	557.43
H	730+57.80	-21.57	557.41	557.51
I	730+67.76	-21.63	557.47	557.56
J	730+77.73	-21.70	557.54	557.61
K	730+87.69	-21.79	557.60	557.64
L	730+97.65	-21.90	557.65	557.67
CL Brg. Pier 2	731+04.87	-21.99	557.69	557.69
M	731+14.83	-22.12	557.75	557.74
N	731+24.79	-22.28	557.80	557.80
O	731+34.75	-22.45	557.86	557.86
P	731+44.71	-22.64	557.91	557.91
CL Brg. E. Abut.	731+51.68	-22.79	557.95	557.95
Bk. E. Abut.	731+54.41	-22.84	557.97	557.97

STAGE CONSTRUCTION LINE (W.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+67.77	-19.00	556.83	556.83
CL Brg. W. Abut.	729+70.52	-19.00	556.85	556.85
A	729+80.52	-19.00	556.90	556.90
B	729+90.52	-19.00	556.96	556.96
C	730+00.52	-19.00	557.02	557.01
D	730+10.52	-19.00	557.07	557.06
CL Brg. Pier 1	730+17.52	-19.00	557.11	557.11
E	730+27.52	-19.00	557.17	557.19
F	730+37.49	-19.00	557.22	557.28
G	730+47.46	-19.00	557.28	557.36
H	730+57.42	-19.00	557.33	557.43
I	730+67.38	-19.00	557.39	557.48
J	730+77.34	-19.00	557.45	557.52
K	730+87.29	-19.00	557.50	557.55
L	730+97.24	-19.00	557.55	557.57
CL Brg. Pier 2	731+04.46	-19.00	557.59	557.59
M	731+14.40	-19.00	557.64	557.63
N	731+24.35	-19.00	557.69	557.68
O	731+34.29	-19.00	557.74	557.74
P	731+44.23	-19.00	557.79	557.79
CL Brg. E. Abut.	731+51.18	-19.00	557.83	557.83
Bk. E. Abut.	731+53.91	-19.00	557.84	557.84

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+67.18	-15.08	556.74	556.74
CL Brg. W. Abut.	729+69.93	-15.08	556.76	556.76
A	729+79.93	-15.08	556.81	556.81
B	729+89.93	-15.08	556.86	556.86
C	729+99.93	-15.08	556.92	556.91
D	730+09.93	-15.08	556.97	556.96
CL Brg. Pier 1	730+16.93	-15.08	557.00	557.00
E	730+26.93	-15.09	557.06	557.08
F	730+36.91	-15.10	557.11	557.16
G	730+46.89	-15.11	557.16	557.24
H	730+56.86	-15.15	557.22	557.31
I	730+66.84	-15.20	557.27	557.36
J	730+76.81	-15.28	557.32	557.40
K	730+86.78	-15.36	557.38	557.43
L	730+96.75	-15.47	557.43	557.45
CL Brg. Pier 2	731+03.98	-15.56	557.47	557.47
M	731+13.96	-15.69	557.53	557.52
N	731+23.93	-15.85	557.58	557.58
O	731+33.90	-16.02	557.64	557.64
P	731+43.87	-16.21	557.70	557.70
CL Brg. E. Abut.	731+50.85	-16.35	557.74	557.74
Bk. E. Abut.	731+53.59	-16.41	557.75	557.75

PROFILE GRADE (W.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+66.94	-13.50	556.71	556.71
CL Brg. W. Abut.	729+69.69	-13.50	556.72	556.72
A	729+79.69	-13.50	556.77	556.77
B	729+89.69	-13.50	556.83	556.82
C	729+99.69	-13.50	556.88	556.87
D	730+09.69	-13.50	556.93	556.92
CL Brg. Pier 1	730+16.69	-13.50	556.96	556.96
E	730+26.69	-13.50	557.01	557.04
F	730+36.67	-13.50	557.06	557.12
G	730+46.64	-13.50	557.11	557.19
H	730+56.62	-13.50	557.17	557.26
I	730+66.59	-13.50	557.22	557.31
J	730+76.55	-13.50	557.27	557.34
K	730+86.52	-13.50	557.32	557.36
L	730+96.48	-13.50	557.37	557.38
CL Brg. Pier 2	731+03.70	-13.50	557.40	557.40
M	731+13.65	-13.50	557.45	557.45
N	731+23.61	-13.50	557.51	557.50
O	731+33.56	-13.50	557.56	557.55
P	731+43.51	-13.50	557.61	557.61
CL Brg. E. Abut.	731+50.47	-13.50	557.64	557.64
Bk. E. Abut.	731+53.21	-13.50	557.66	557.66

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+66.21	-8.67	556.60	556.60
CL Brg. W. Abut.	729+68.96	-8.67	556.62	556.62
A	729+78.96	-8.67	556.66	556.66
B	729+88.96	-8.67	556.71	556.71
C	729+98.96	-8.67	556.75	556.75
D	730+08.96	-8.67	556.80	556.79
CL Brg. Pier 1	730+15.96	-8.67	556.83	556.83
E	730+25.96	-8.67	556.88	556.90
F	730+35.95	-8.68	556.93	556.98
G	730+45.94	-8.69	556.97	557.05
H	730+55.92	-8.73	557.02	557.11
I	730+65.91	-8.78	557.07	557.16
J	730+75.89	-8.85	557.11	557.19
K	730+85.88	-8.94	557.16	557.21
L	730+95.86	-9.04	557.22	557.23
CL Brg. Pier 2	731+03.10	-9.13	557.26	557.26
M	731+13.08	-9.26	557.31	557.30
N	731+23.07	-9.42	557.37	557.36
O	731+33.05	-9.59	557.42	557.42
P	731+43.03	-9.77	557.48	557.48
CL Brg. E. Abut.	731+50.01	-9.91	557.52	557.52
Bk. E. Abut.	731+52.75	-9.97	557.54	557.54

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+65.24	-2.25	556.46	556.46
CL Brg. W. Abut.	729+67.99	-2.25	556.48	556.48
A	729+77.99	-2.25	556.52	556.52
B	729+87.99	-2.25	556.56	556.55
C	729+97.99	-2.25	556.59	556.59
D	730+07.99	-2.25	556.63	556.63
CL Brg. Pier 1	730+14.99	-2.25	556.66	556.66
E	730+24.99	-2.26	556.70	556.73
F	730+34.99	-2.26	556.74	556.80
G	730+44.98	-2.27	556.78	556.86
H	730+54.98	-2.31	556.82	556.91
I	730+64.98	-2.36	556.86	556.95
J	730+74.97	-2.43	556.91	556.98
K	730+84.97	-2.51	556.95	556.99
L	730+94.96	-2.62	557.00	557.02
CL Brg. Pier 2	731+02.21	-2.70	557.04	557.04
M	731+12.20	-2.83	557.10	557.09
N	731+22.20	-2.98	557.15	557.15
O	731+32.19	-3.15	557.21	557.21
P	731+42.19	-3.34	557.26	557.26
CL Brg. E. Abut.	731+49.18	-3.48	557.30	557.30
Bk. E. Abut.	731+51.92	-3.53	557.32	557.32

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC		REVISED
	CHECKED WJA		REVISED
PLOT SCALE = NTS	DRAWN RMH		REVISED
PLOT DATE = 6/25/2020	CHECKED WJA		REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 12 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	301
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-02-TOSE.dgn

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+64.45	3.00	557.46	557.46
CL Brg. W. Abut.	729+67.20	3.00	557.48	557.48
A	729+77.20	3.00	557.55	557.55
B	729+87.20	3.00	557.62	557.62
C	729+97.20	3.00	557.69	557.68
D	730+07.20	3.00	557.76	557.75
CL Brg. Pier 1	730+14.20	3.00	557.81	557.81
E	730+24.20	3.00	557.88	557.90
F	730+34.20	3.00	557.95	558.01
G	730+44.20	2.98	558.02	558.10
H	730+54.21	2.95	558.09	558.19
I	730+64.22	2.90	558.17	558.26
J	730+74.22	2.84	558.24	558.31
K	730+84.23	2.75	558.31	558.36
L	730+94.23	2.65	558.38	558.40
CL Brg. Pier 2	731+01.48	2.57	558.43	558.43
M	731+11.48	2.43	558.49	558.48
N	731+21.49	2.28	558.56	558.55
O	731+31.49	2.12	558.62	558.62
P	731+41.49	1.93	558.69	558.69
CL Brg. E. Abut.	731+48.49	1.79	558.74	558.74
Bk. E. Abut.	731+51.24	1.74	558.76	558.76

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+63.49	9.33	557.32	557.32
CL Brg. W. Abut.	729+66.24	9.33	557.34	557.34
A	729+76.24	9.33	557.40	557.40
B	729+86.24	9.33	557.47	557.46
C	729+96.24	9.33	557.53	557.52
D	730+06.24	9.33	557.60	557.59
CL Brg. Pier 1	730+13.24	9.33	557.64	557.64
E	730+23.24	9.33	557.70	557.73
F	730+33.24	9.33	557.77	557.82
G	730+43.26	9.32	557.83	557.91
H	730+53.28	9.29	557.90	557.99
I	730+63.30	9.24	557.97	558.06
J	730+73.31	9.18	558.03	558.11
K	730+83.33	9.09	558.10	558.15
L	730+93.34	8.99	558.17	558.18
CL Brg. Pier 2	731+00.60	8.91	558.21	558.21
M	731+10.61	8.78	558.28	558.27
N	731+20.63	8.63	558.34	558.34
O	731+30.65	8.47	558.41	558.41
P	731+40.66	8.28	558.48	558.48
CL Brg. E. Abut.	731+47.66	8.14	558.52	558.52
Bk. E. Abut.	731+50.41	8.09	558.54	558.54

PROFILE GRADE (E.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+62.86	13.50	557.23	557.23
CL Brg. W. Abut.	729+65.61	13.50	557.25	557.25
A	729+75.61	13.50	557.31	557.31
B	729+85.61	13.50	557.37	557.36
C	729+95.61	13.50	557.43	557.42
D	730+05.61	13.50	557.49	557.48
CL Brg. Pier 1	730+12.61	13.50	557.53	557.53
E	730+22.61	13.50	557.59	557.61
F	730+32.61	13.50	557.65	557.70
G	730+42.63	13.50	557.71	557.79
H	730+52.65	13.50	557.77	557.86
I	730+62.67	13.50	557.83	557.92
J	730+72.69	13.50	557.89	557.97
K	730+82.70	13.50	557.95	558.00
L	730+92.70	13.50	558.01	558.03
CL Brg. Pier 2	730+99.96	13.50	558.06	558.06
M	731+09.96	13.50	558.12	558.11
N	731+19.97	13.50	558.18	558.17
O	731+29.97	13.50	558.24	558.24
P	731+39.97	13.50	558.30	558.30
CL Brg. E. Abut.	731+46.96	13.50	558.34	558.34
Bk. E. Abut.	731+49.70	13.50	558.36	558.36

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+62.53	15.67	557.18	557.18
CL Brg. W. Abut.	729+65.28	15.67	557.20	557.20
A	729+75.28	15.67	557.26	557.26
B	729+85.28	15.67	557.31	557.31
C	729+95.28	15.67	557.37	557.37
D	730+05.28	15.67	557.43	557.42
CL Brg. Pier 1	730+12.28	15.67	557.47	557.47
E	730+22.28	15.67	557.53	557.55
F	730+32.29	15.67	557.59	557.64
G	730+42.31	15.65	557.65	557.73
H	730+52.34	15.63	557.71	557.80
I	730+62.37	15.58	557.77	557.86
J	730+72.40	15.52	557.83	557.90
K	730+82.43	15.44	557.89	557.93
L	730+92.45	15.34	557.95	557.97
CL Brg. Pier 2	730+99.72	15.26	558.00	558.00
M	731+09.74	15.13	558.06	558.06
N	731+19.77	14.98	558.13	558.12
O	731+29.80	14.81	558.19	558.19
P	731+39.82	14.63	558.26	558.26
CL Brg. E. Abut.	731+46.83	14.50	558.31	558.31
Bk. E. Abut.	731+49.59	14.44	558.33	558.33

STAGE CONSTRUCTION LINE (E.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+62.03	19.00	557.11	557.11
CL Brg. W. Abut.	729+64.78	19.00	557.12	557.12
A	729+74.78	19.00	557.18	557.18
B	729+84.78	19.00	557.23	557.23
C	729+94.78	19.00	557.29	557.28
D	730+04.78	19.00	557.34	557.34
CL Brg. Pier 1	730+11.78	19.00	557.38	557.38
E	730+21.78	19.00	557.44	557.46
F	730+31.78	19.00	557.49	557.55
G	730+41.81	19.00	557.55	557.63
H	730+51.84	19.00	557.60	557.70
I	730+61.87	19.00	557.66	557.75
J	730+71.89	19.00	557.71	557.79
K	730+81.91	19.00	557.77	557.81
L	730+91.93	19.00	557.83	557.84
CL Brg. Pier 2	730+99.19	19.00	557.87	557.87
M	731+09.20	19.00	557.93	557.92
N	731+19.22	19.00	557.99	557.99
O	731+29.23	19.00	558.05	558.05
P	731+39.24	19.00	558.11	558.11
CL Brg. E. Abut.	731+46.24	19.00	558.16	558.16
Bk. E. Abut.	731+48.98	19.00	558.17	558.17

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+61.57	22.00	557.05	557.05
CL Brg. W. Abut.	729+64.32	22.00	557.06	557.06
A	729+74.32	22.00	557.11	557.11
B	729+84.32	22.00	557.16	557.16
C	729+94.32	22.00	557.22	557.21
D	730+04.32	22.00	557.27	557.26
CL Brg. Pier 1	730+11.32	22.00	557.30	557.30
E	730+21.32	22.00	557.36	557.38
F	730+31.33	22.00	557.41	557.46
G	730+41.37	21.99	557.46	557.54
H	730+51.41	21.96	557.51	557.61
I	730+61.45	21.92	557.57	557.66
J	730+71.48	21.86	557.62	557.69
K	730+81.52	21.78	557.68	557.72
L	730+91.56	21.68	557.74	557.75
CL Brg. Pier 2	730+98.83	21.60	557.78	557.78
M	731+08.87	21.47	557.85	557.84
N	731+18.91	21.33	557.91	557.91
O	731+28.95	21.16	557.98	557.98
P	731+38.98	20.98	558.05	558.05
CL Brg. E. Abut.	731+46.00	20.85	558.09	558.09
Bk. E. Abut.	731+48.76	20.79	558.11	558.11

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED
	CHECKED WJA	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED WJA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS IV
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 13 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	302
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-013-TOSE.dgn

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+60.62	28.33	556.91	556.91
CL Brg. W. Abut.	729+63.37	28.33	556.92	556.92
A	729+73.37	28.33	556.97	556.97
B	729+83.37	28.33	557.01	557.01
C	729+93.37	28.33	557.06	557.05
D	730+03.37	28.33	557.11	557.10
CL Brg. Pier 1	730+10.37	28.33	557.14	557.14
E	730+20.37	28.33	557.18	557.21
F	730+30.37	28.33	557.23	557.28
G	730+40.42	28.33	557.28	557.36
H	730+50.47	28.30	557.32	557.41
I	730+60.52	28.26	557.37	557.46
J	730+70.57	28.20	557.42	557.49
K	730+80.62	28.12	557.47	557.51
L	730+90.66	28.02	557.52	557.54
CL Brg. Pier 2	730+97.94	27.94	557.57	557.57
M	731+07.99	27.82	557.63	557.63
N	731+18.04	27.67	557.70	557.69
O	731+28.09	27.51	557.76	557.76
P	731+38.14	27.33	557.83	557.83
CL Brg. E. Abut.	731+45.17	27.20	557.88	557.88
Bk. E. Abut.	731+47.93	27.14	557.90	557.90

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+59.66	34.67	556.78	556.78
CL Brg. W. Abut.	729+62.41	34.67	556.79	556.79
A	729+72.41	34.67	556.83	556.83
B	729+82.41	34.67	556.87	556.86
C	729+92.41	34.67	556.91	556.90
D	730+02.41	34.67	556.95	556.94
CL Brg. Pier 1	730+09.41	34.67	556.97	556.97
E	730+19.41	34.67	557.01	557.04
F	730+29.41	34.67	557.05	557.11
G	730+39.46	34.66	557.09	557.17
H	730+49.52	34.64	557.13	557.22
I	730+59.59	34.59	557.17	557.26
J	730+69.65	34.54	557.22	557.29
K	730+79.71	34.46	557.26	557.30
L	730+89.77	34.37	557.31	557.32
CL Brg. Pier 2	730+97.06	34.29	557.35	557.35
M	731+07.12	34.16	557.42	557.41
N	731+17.18	34.02	557.48	557.48
O	731+27.24	33.86	557.55	557.55
P	731+37.29	33.68	557.62	557.62
CL Brg. E. Abut.	731+44.33	33.55	557.66	557.66
Bk. E. Abut.	731+47.09	33.50	557.68	557.68

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+58.70	41.00	556.64	556.64
CL Brg. W. Abut.	729+61.45	41.00	556.65	556.65
A	729+71.45	41.00	556.69	556.69
B	729+81.45	41.00	556.72	556.72
C	729+91.45	41.00	556.75	556.75
D	730+01.45	41.00	556.79	556.78
CL Brg. Pier 1	730+08.45	41.00	556.81	556.81
E	730+18.45	41.00	556.84	556.87
F	730+28.45	41.00	556.88	556.93
G	730+38.51	40.99	556.91	556.99
H	730+48.58	40.97	556.94	557.04
I	730+58.65	40.93	556.98	557.07
J	730+68.73	40.88	557.01	557.09
K	730+78.80	40.80	557.05	557.10
L	730+88.87	40.71	557.09	557.11
CL Brg. Pier 2	730+96.17	40.63	557.14	557.14
M	731+06.24	40.51	557.20	557.20
N	731+16.31	40.37	557.27	557.26
O	731+26.38	40.21	557.34	557.33
P	731+36.45	40.03	557.40	557.40
CL Brg. E. Abut.	731+43.49	39.90	557.45	557.45
Bk. E. Abut.	731+46.26	39.85	557.47	557.47

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+57.74	47.33	556.51	556.51
CL Brg. W. Abut.	729+60.49	47.33	556.52	556.52
A	729+70.49	47.33	556.55	556.55
B	729+80.49	47.33	556.57	556.57
C	729+90.49	47.33	556.60	556.59
D	730+00.49	47.33	556.63	556.62
CL Brg. Pier 1	730+07.49	47.33	556.65	556.65
E	730+17.49	47.33	556.67	556.70
F	730+27.49	47.33	556.70	556.75
G	730+37.55	47.33	556.73	556.81
H	730+47.64	47.31	556.76	556.85
I	730+57.72	47.27	556.78	556.87
J	730+67.80	47.21	556.81	556.89
K	730+77.89	47.14	556.84	556.89
L	730+87.97	47.05	556.88	556.89
CL Brg. Pier 2	730+95.27	46.98	556.92	556.92
M	731+05.36	46.85	556.99	556.98
N	731+15.44	46.71	557.05	557.05
O	731+25.52	46.56	557.12	557.12
P	731+35.60	46.38	557.19	557.19
CL Brg. E. Abut.	731+42.65	46.25	557.23	557.23
Bk. E. Abut.	731+45.42	46.20	557.25	557.25

BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+56.79	53.67	556.38	556.38
CL Brg. W. Abut.	729+59.54	53.67	556.39	556.39
A	729+69.54	53.67	556.41	556.41
B	729+79.54	53.67	556.43	556.43
C	729+89.54	53.67	556.45	556.44
D	729+99.54	53.67	556.47	556.46
CL Brg. Pier 1	730+06.54	53.67	556.49	556.49
E	730+16.54	53.67	556.51	556.53
F	730+26.53	53.67	556.53	556.58
G	730+36.59	53.66	556.55	556.63
H	730+46.69	53.64	556.57	556.66
I	730+56.78	53.61	556.59	556.68
J	730+66.88	53.55	556.61	556.69
K	730+76.97	53.48	556.64	556.68
L	730+87.06	53.39	556.67	556.68
CL Brg. Pier 2	730+94.38	53.32	556.71	556.71
M	731+04.47	53.20	556.77	556.77
N	731+14.57	53.06	556.84	556.83
O	731+24.66	52.91	556.91	556.90
P	731+34.75	52.73	556.97	556.97
CL Brg. E. Abut.	731+41.81	52.60	557.02	557.02
Bk. E. Abut.	731+44.58	52.55	557.04	557.04

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+55.83	60.00	556.25	556.25
CL Brg. W. Abut.	729+58.58	60.00	556.26	556.26
A	729+68.58	60.00	556.27	556.27
B	729+78.58	60.00	556.29	556.28
C	729+88.58	60.00	556.30	556.29
D	729+98.58	60.00	556.31	556.31
CL Brg. Pier 1	730+05.58	60.00	556.33	556.33
E	730+15.58	60.00	556.34	556.36
F	730+25.58	60.00	556.35	556.41
G	730+35.63	60.00	556.37	556.45
H	730+45.74	59.98	556.38	556.48
I	730+55.85	59.95	556.40	556.49
J	730+65.95	59.89	556.42	556.49
K	730+76.06	59.82	556.43	556.48
L	730+86.16	59.74	556.45	556.47
CL Brg. Pier 2	730+93.48	59.66	556.49	556.49
M	731+03.59	59.54	556.56	556.55
N	731+13.69	59.41	556.63	556.62
O	731+23.80	59.25	556.69	556.69
P	731+33.90	59.08	556.76	556.76
CL Brg. E. Abut.	731+40.97	58.95	556.81	556.81
Bk. E. Abut.	731+43.74	58.90	556.82	556.82

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED	
	CHECKED WJA	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED WJA	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS V
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 14 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	303
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-099090I-60W34-014-TOSE.dgn

BEAM 21

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+54.87	66.33	556.12	556.12
CL Brg. W. Abut.	729+57.62	66.33	556.13	556.13
A	729+67.62	66.33	556.13	556.13
B	729+77.62	66.33	556.14	556.14
C	729+87.62	66.33	556.15	556.15
D	729+97.62	66.33	556.16	556.15
CL Brg. Pier 1	730+04.62	66.33	556.17	556.17
E	730+14.62	66.33	556.17	556.20
F	730+24.62	66.33	556.18	556.24
G	730+34.67	66.33	556.19	556.27
H	730+44.79	66.32	556.20	556.29
I	730+54.91	66.28	556.21	556.30
J	730+65.02	66.23	556.22	556.29
K	730+75.14	66.17	556.23	556.28
L	730+85.25	66.08	556.24	556.26
CL Brg. Pier 2	730+92.58	66.01	556.28	556.28
M	731+02.70	65.89	556.34	556.34
N	731+12.82	65.75	556.41	556.40
O	731+22.94	65.60	556.48	556.47
P	731+33.05	65.43	556.54	556.54
CL Brg. E. Abut.	731+40.12	65.30	556.59	556.59
Bk. E. Abut.	731+42.90	65.25	556.61	556.61

BEAM 22

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+53.91	72.67	556.00	556.00
CL Brg. W. Abut.	729+56.66	72.67	556.00	556.00
A	729+66.66	72.67	556.00	556.00
B	729+76.66	72.67	556.00	556.00
C	729+86.66	72.67	556.00	556.00
D	729+96.66	72.67	556.01	556.00
CL Brg. Pier 1	730+03.66	72.67	556.01	556.01
E	730+13.66	72.67	556.01	556.03
F	730+23.66	72.67	556.01	556.07
G	730+33.70	72.67	556.01	556.09
H	730+43.83	72.65	556.02	556.11
I	730+53.96	72.62	556.02	556.11
J	730+64.09	72.57	556.02	556.10
K	730+74.22	72.51	556.03	556.07
L	730+84.35	72.42	556.03	556.05
CL Brg. Pier 2	730+91.68	72.35	556.07	556.07
M	731+01.81	72.23	556.13	556.12
N	731+11.94	72.10	556.20	556.19
O	731+22.07	71.95	556.26	556.26
P	731+32.19	71.78	556.33	556.33
CL Brg. E. Abut.	731+39.28	71.65	556.38	556.38
Bk. E. Abut.	731+42.06	71.60	556.39	556.39

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED
	CHECKED WJA	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED WJA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS VI
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 15 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	304
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-05-TOSE.dgn

NORTH EDGE OF N. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+45.21	-61.50	557.52
A1	729+55.21	-61.50	557.61
A2	729+65.21	-61.50	557.71
E. End of W. Appr. Slab	729+75.21	-61.50	557.81

NORTH EDGE OF FUTURE LANE 3

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+43.39	-49.50	557.27
A1	729+53.39	-49.50	557.36
A2	729+63.39	-49.50	557.44
E. End of W. Appr. Slab	729+73.39	-49.50	557.53

NORTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+41.58	-37.50	557.03
A1	729+51.58	-37.50	557.10
A2	729+61.58	-37.50	557.18
E. End of W. Appr. Slab	729+71.58	-37.50	557.25

NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+39.76	-25.50	556.80
A1	729+49.76	-25.50	556.86
A2	729+59.76	-25.50	556.92
E. End of W. Appr. Slab	729+69.76	-25.50	556.98

STAGE CONSTRUCTION LINE

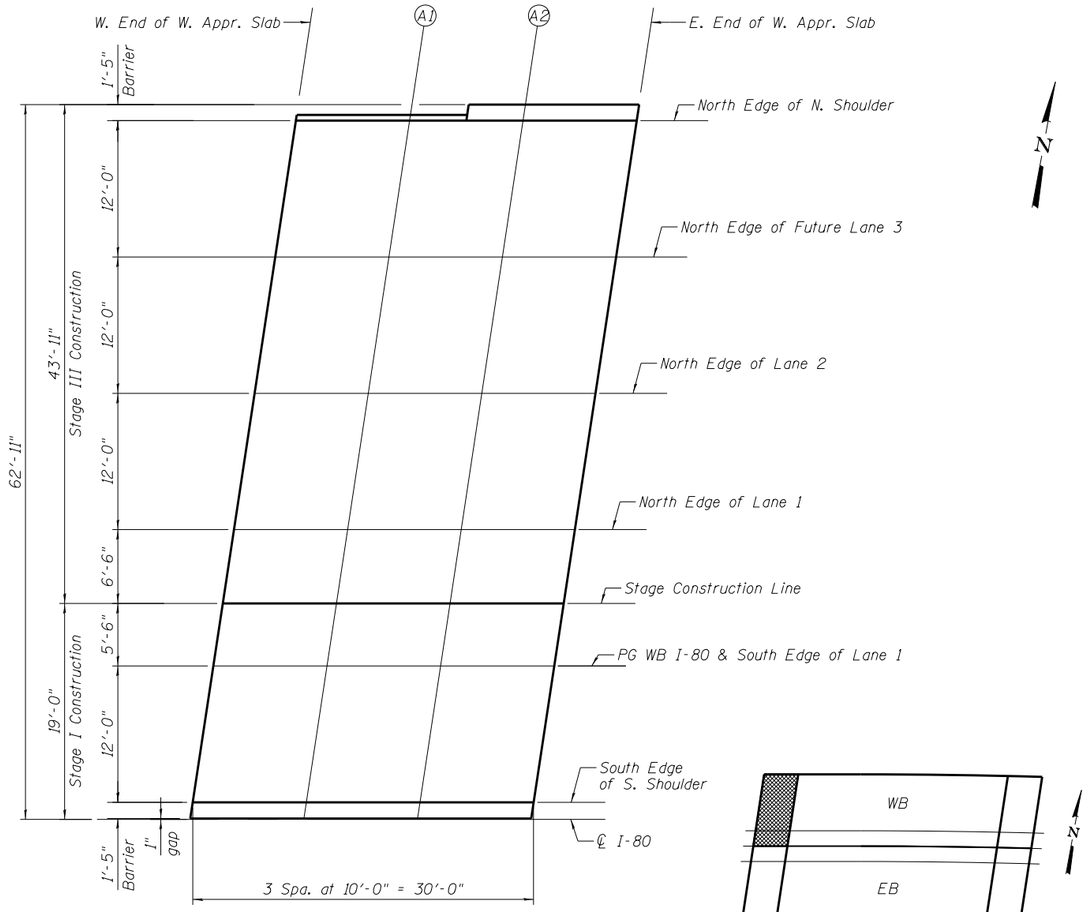
Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+38.78	-19.00	556.67
A1	729+48.78	-19.00	556.72
A2	729+58.78	-19.00	556.78
E. End of W. Appr. Slab	729+68.78	-19.00	556.84

PG WB I-80 & SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+37.95	-13.50	556.56
A1	729+47.95	-13.50	556.61
A2	729+57.95	-13.50	556.66
E. End of W. Appr. Slab	729+67.95	-13.50	556.71

SOUTH EDGE OF S. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+36.14	-1.50	556.33
A1	729+46.14	-1.50	556.37
A2	729+56.14	-1.50	556.41
E. End of W. Appr. Slab	729+66.14	-1.50	556.45



PLAN
West Approach (Westbound)

KEY PLAN

All offsets are measured from ℄ I-80.

USER NAME = default	DESIGNED YC		REVISED
	CHECKED WJA		REVISED
PLOT SCALE = NTS	DRAWN RMH		REVISED
PLOT DATE = 6/25/2020	CHECKED WJA		REVISED

HBP Illinois Partners

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 16 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	305
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-016-TOSE WAPP.dgn

NORTH EDGE OF N. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+35.68	1.50	557.28
A1	729+45.68	1.50	557.35
A2	729+55.68	1.50	557.43
E. End of W. Appr. Slab	729+65.68	1.50	557.50

PG WB I-80 & NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+33.87	13.50	557.05
A1	729+43.87	13.50	557.11
A2	729+53.87	13.50	557.17
E. End of W. Appr. Slab	729+63.87	13.50	557.23

STAGE CONSTRUCTION LINE

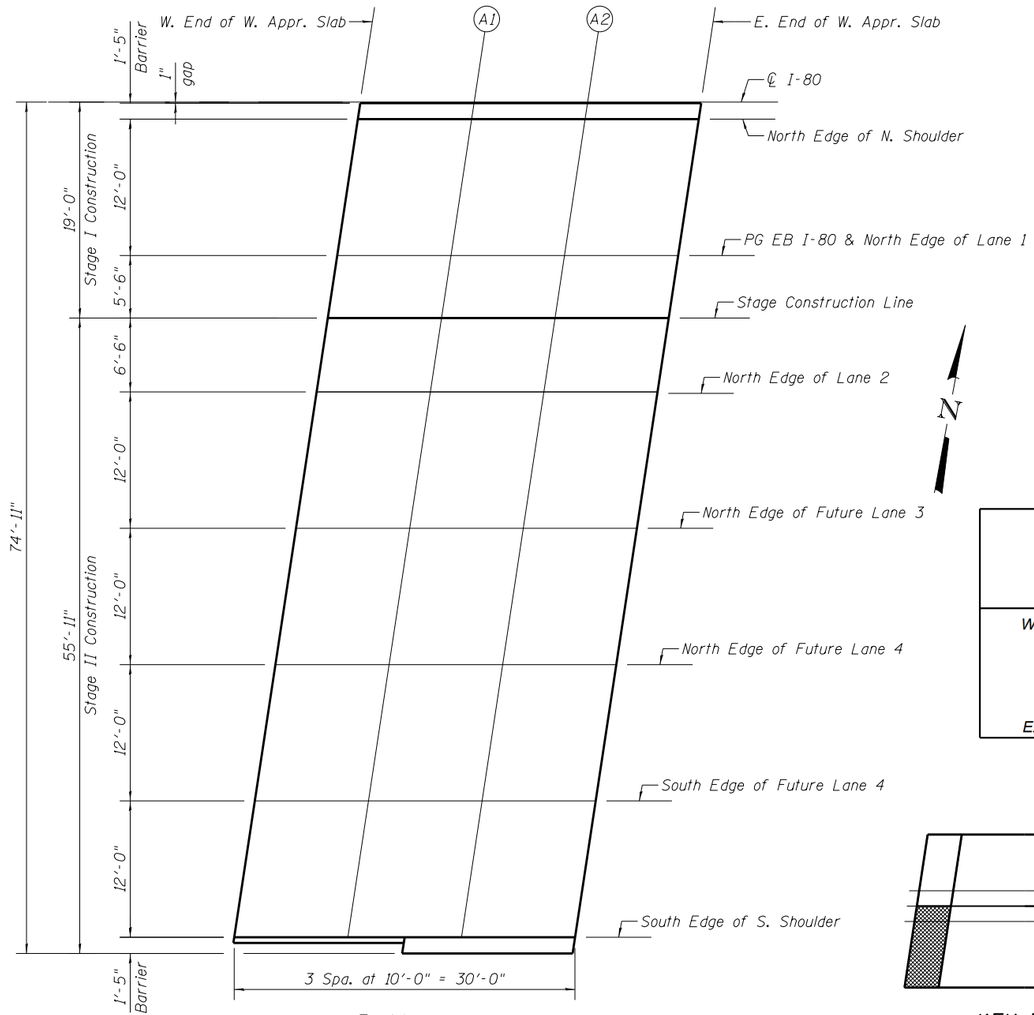
Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+33.04	19.00	556.95
A1	729+43.04	19.00	557.00
A2	729+53.04	19.00	557.06
E. End of W. Appr. Slab	729+63.04	19.00	557.12

NORTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+32.06	25.50	556.83
A1	729+42.06	25.50	556.88
A2	729+52.06	25.50	556.93
E. End of W. Appr. Slab	729+62.06	25.50	556.98

NORTH EDGE OF FUTURE LANE 3

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+30.24	37.50	556.61
A1	729+40.24	37.50	556.64
A2	729+50.24	37.50	556.68
E. End of W. Appr. Slab	729+60.24	37.50	556.72

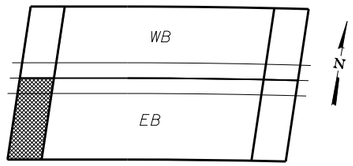


PLAN

West Approach (Eastbound)

SOUTH EDGE OF S. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+24.80	73.50	555.96
A1	729+34.80	73.50	555.97
A2	729+44.80	73.50	555.97
E. End of W. Appr. Slab	729+54.80	73.50	555.98



KEY PLAN

NORTH EDGE OF FUTURE LANE 4

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+28.43	49.50	556.39
A1	729+38.43	49.50	556.42
A2	729+48.43	49.50	556.44
E. End of W. Appr. Slab	729+58.43	49.50	556.47

SOUTH EDGE OF FUTURE LANE 4

Location	Station	Offset	Theoretical Grade Elevation
W. End of W. Appr. Slab	729+26.61	61.50	556.17
A1	729+36.61	61.50	556.19
A2	729+46.61	61.50	556.21
E. End of W. Appr. Slab	729+56.61	61.50	556.22

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED
	CHECKED WJA	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED WJA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 17 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	306
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-017-TOSE WAPP.dgn

NORTH EDGE OF N. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+58.36	-61.51	559.27
A3	731+68.23	-61.51	559.32
A4	731+78.09	-61.51	559.37
E. End of E. Appr. Slab	731+87.95	-61.51	559.42

NORTH EDGE OF FUTURE LANE 3

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+56.84	-49.50	558.86
A3	731+66.72	-49.50	558.91
A4	731+76.61	-49.50	558.96
E. End of E. Appr. Slab	731+86.49	-49.50	559.01

NORTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+55.30	-37.50	558.46
A3	731+65.21	-37.50	558.51
A4	731+75.11	-37.50	558.56
E. End of E. Appr. Slab	731+85.01	-37.50	558.61

NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+53.76	-25.50	558.05
A3	731+63.69	-25.50	558.10
A4	731+73.61	-25.50	558.16
E. End of E. Appr. Slab	731+83.54	-25.50	558.21

STAGE CONSTRUCTION LINE

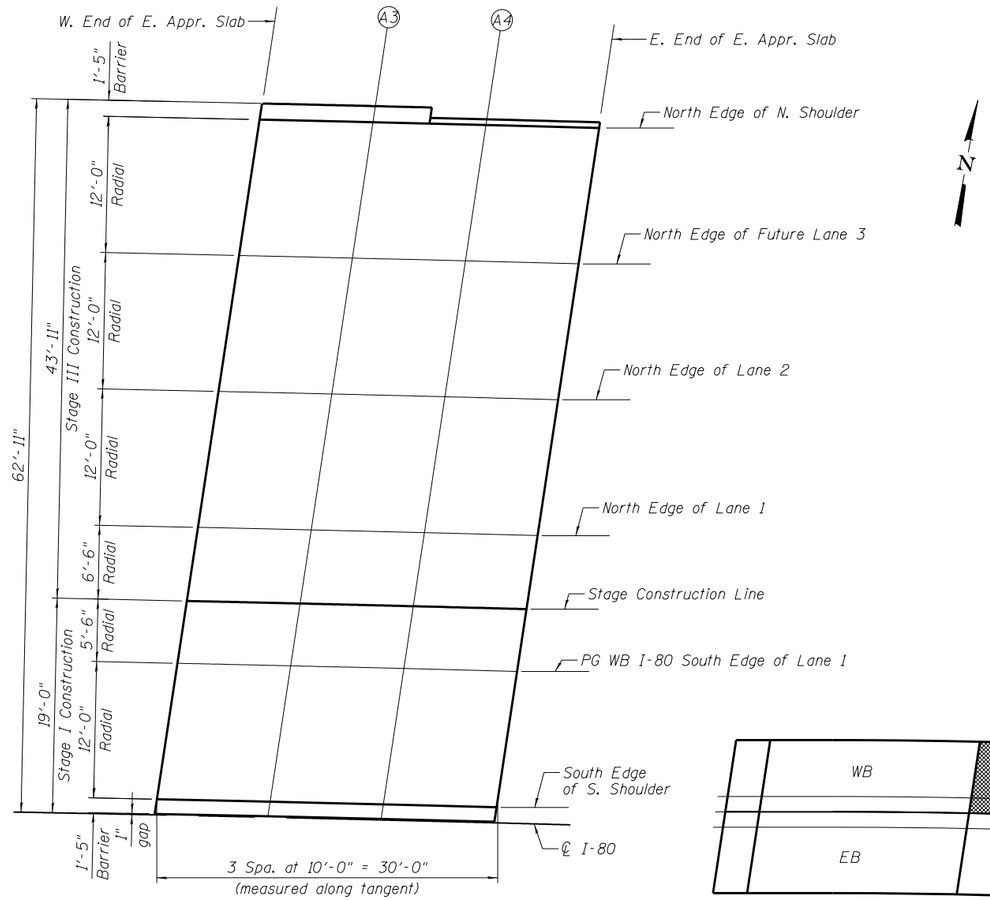
Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+52.92	-19.00	557.84
A3	731+62.86	-19.00	557.89
A4	731+72.80	-19.00	557.94
E. End of E. Appr. Slab	731+82.73	-19.00	557.99

PG WB I-80 & SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+52.21	-13.50	557.65
A3	731+62.16	-13.50	557.70
A4	731+72.11	-13.50	557.75
E. End of E. Appr. Slab	731+82.05	-13.50	557.80

SOUTH EDGE OF S. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+50.66	-1.50	557.25
A3	731+60.63	-1.50	557.30
A4	731+70.59	-1.50	557.35
E. End of E. Appr. Slab	731+80.56	-1.50	557.40



PLAN

East Approach (Westbound)

KEY PLAN

All offsets are measured from ℄ I-80.

HBP Illinois Partners	USER NAME = default	DESIGNED YC	REVISED
		CHECKED WJA	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED WJA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 18 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	307
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-018-TOSE EAPP.dgn

NORTH EDGE OF N. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+50.26	1.50	558.76
A3	731+60.24	1.50	558.82
A4	731+70.21	1.50	558.88
E. End of E. Appr. Slab	731+80.18	1.50	558.94

PG WB I-80 & NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+48.70	13.50	558.35
A3	731+58.70	13.50	558.41
A4	731+68.69	13.50	558.47
E. End of E. Appr. Slab	731+78.68	13.50	558.53

STAGE CONSTRUCTION LINE

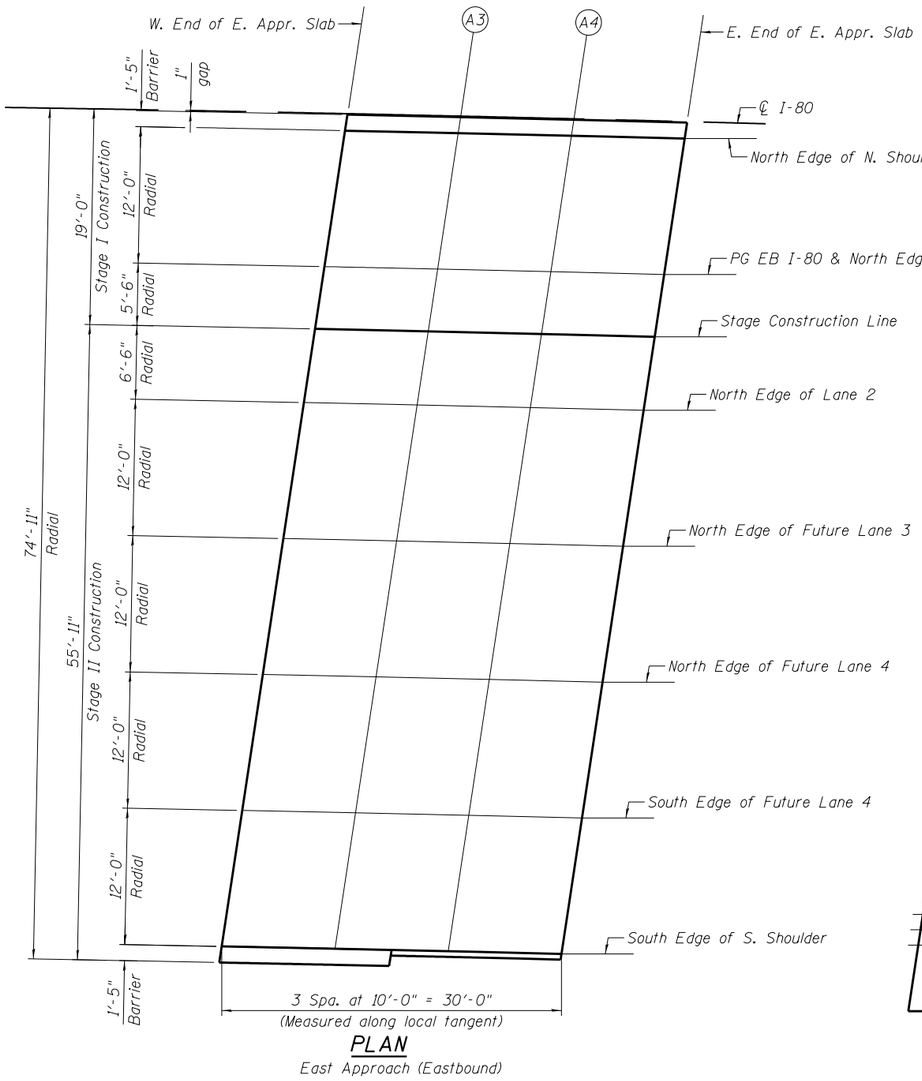
Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+47.98	19.00	558.17
A3	731+57.99	19.00	558.23
A4	731+67.99	19.00	558.29
E. End of E. Appr. Slab	731+77.99	19.00	558.35

NORTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+47.13	25.50	557.95
A3	731+57.15	25.50	558.01
A4	731+67.16	25.50	558.07
E. End of E. Appr. Slab	731+77.18	25.50	558.13

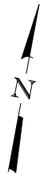
NORTH EDGE OF FUTURE LANE 3

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+45.55	37.50	557.54
A3	731+55.59	37.50	557.60
A4	731+65.63	37.50	557.66
E. End of E. Appr. Slab	731+75.67	37.50	557.72



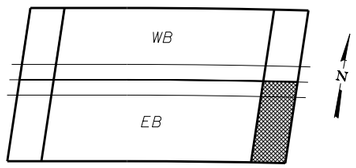
PLAN

East Approach (Eastbound)



SOUTH EDGE OF S. SHOULDER

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+40.79	73.49	556.32
A3	731+50.89	73.49	556.39
A4	731+60.99	73.49	556.45
E. End of E. Appr. Slab	731+71.09	73.49	556.51



KEY PLAN

NORTH EDGE OF FUTURE LANE 4

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+43.97	49.50	557.14
A3	731+54.03	49.50	557.20
A4	731+64.09	49.50	557.26
E. End of E. Appr. Slab	731+74.15	49.50	557.32

SOUTH EDGE OF FUTURE LANE 4

Location	Station	Offset	Theoretical Grade Elevation
W. End of E. Appr. Slab	731+42.38	61.49	556.73
A3	731+52.46	61.49	556.79
A4	731+62.55	61.49	556.85
E. End of E. Appr. Slab	731+72.62	61.49	556.91

All offsets are measured from ℄ I-80.

HBP Illinois Partners

USER NAME = default	DESIGNED YC	REVISED
	CHECKED WJA	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED WJA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS IV
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 19 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	308
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-019-TOSE EAPP.dgn

N

Measured along inside face of parapet

184′-6¼" end to end deck

48′-8⅞" | 87′-2" | 48′-7⅜"

340-#6 a_2(E) bars at 6½" cts. top (lap with each top a(E) or a_1(E) bar Each Side)

2-#6 b_3(E) bars top of slab, typ.

2-#6 b_2(E) bars top of slab, typ.

3x6-#5 b(E) bars top of slab, typ.

℄ Light Pole Sta. 730+72

2-#6 b_2(E) bars top of slab, typ.

2-#6 b_3(E) bars top of slab, typ.

25′-9" | 19′-9" | 19′-9" | 25′-9"

329-#5 a_1(E) bars at 6½" cts. top
215-#5 a_1(E) bars at 10" cts. bot.

60-#6 b_3(E) bars at 12" cts. btwn. b(E) bars, top of slab over pier (18 Stage I, 42 Stage III)

*11-#5 a_1(E) bars at 6½" cts. top
*7-#5 a_1(E) bars at 10" cts. bot.

340-Bar Splicers (E) for #5 a(E), Top
222-Bar Splicers (E) for #5 a(E), Bot.

337-#5 a(E) bars at 6½" cts. top
220-#5 a(E) bars at 10" cts. bot.

*4-#5 a(E) bars at 6½" cts. top
*3-#5 a(E) bars at 10" cts. bot.

60-#6 b_2(E) bars at 12" cts., btwn. b(E) bars, top of slab over pier (lapped with b_3(E) bars) (18 Stage I, 42 Stage III)

60x6-#5 b(E) bars at 12" cts. top (18 Stage I, 42 Stage III)

53x7-#5 b_1(E) bars bot. spaced as shown in cross section

60-#6 b_2(E) bars at 12" cts., btwn. b(E) bars, top of slab over pier (lapped with b_3(E) bars) (18 Stage I, 42 Stage III)

60-#6 b_3(E) bars at 12" cts., btwn. b(E) bars, top of slab over pier (18 Stage I, 42 Stage III)

64-#5 v_{100}(E) bars at 12" cts. each end (19 Stage I, 45 Stage III)

62′-10" out to out deck | 43′-11" Stage III Constr. | 18′-11" Stage I Constr. | 60′-0" face to face parapets | 1′-5" | 8½" | 8½" | 8½" | 1′-5" | 8½" | 5′-6"

Bk. W. Abut. | ℄ Pier 1 | Stage Construction Line | ℄ Pier 2

8°36′0" typ.

B B

1-#5 a_1(E) bar top and bot. each end

1′-0" typ.

1-#5 Bar Splicer (E) for #5 a(E), Top and Bot. each end

5′-6"

PG WB I-80

Bk. E. Abut.

1-#5 a(E) bar, top and bot. each end

℄ I-80

277-#5 d_1(E) bars at 8" cts. Opposite Side
443-#5 d_1(E) at 5" cts. Median Parapet

12′-0" | 12′-0"

⅛"Aluminum sheet joints in parapet, typ.

48′-8⅞" | 87′-2¼" | 48′-7½"

Measured along inside face of parapet

184′-6⅝" end to end deck

Notes:
1. See Sheet 24 of 61 for superstructure details and Bill of Material.
2. See Sheet 22 and 23 of 61 for parapet joint spacing and reinforcement.
3. See Sheet 27 of 61 for Section A-A and Section B-B.
4. For underpass lighting details, see Lighting Plans.
5. For Bar Splicer details, see Sheet 54 of 61.

*Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end

PLAN
(Westbound)

62′-10" out to out deck

Radial dimensions

43′-11" Stage III Construction | 18′-11" Stage I Construction

60′-0" face to face parapets

1′-5" | 24′-0" Shoulder | 12′-0" Lane | 12′-0" Lane | 12′-0" Shoulder | 1′-5"

℄ I-80 | 1"

d_3(E) | d_1(E) | 2" ϕ PVC conduit | b(E) | b_1(E) | 3′-8" | a_2(E) | b(E) | a_1(E) | a_1(E)

slope varies 2.00% to 3.30%

2¼" (±¼") cl. | 1" cl. | slope varies 2.00% to 3.30% | 8" Slab

Stage Construction Line | PG WB I-80 | Bonded Constr. Jt. | Bar Splicers (E), typ.

5′-6"

slope varies 2.00% to 3.30% | slope varies 2.00% to 3.30%

a(E) | b_2(E), b_3(E) over pier | a_2(E)

Total Drop Varies from 1′-2⅜" to 1′-11¾"

Varies 4′-9⅜" to 5′-3⅜"

d_2(E) | d(E) | d_1(E) | b_2(E), b_3(E) | a(E)

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Luminaire Hangar Assembly, typ.

10" typ. | 5-#5 b_1(E) bars at ±14" cts., max. (typ. btwn. girders) | 10" typ.

** Beam spacing and overhang dimensions are perpendicular to local tangent
*** Spa. 6⅝" min. to 11¾" max.
**** Spa. 12⅜" max. to 7¼" min.

10" | 4-#5 b_1(E) @ *** | 4-#5 b_1(E) @ **** | 10"

Varies 2′-6" to 3′-9¼"** | Varies 3′-11" to 2′-7¾"** | Varies 4′-10" to 3′-6⅞"** | Varies 1′-7" to 2′-10⅛"**

Varies 2′-11"** to 1′-6¼"** | 9 beam spaces at 6′-5"** = 57′-9" | Varies 2′-2"** to 3′-4¾"** | W. Abut. | E. Abut.

NEAR MIDSPAN | NEAR PIER

CROSS SECTION
(Looking East)

USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 20 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	309
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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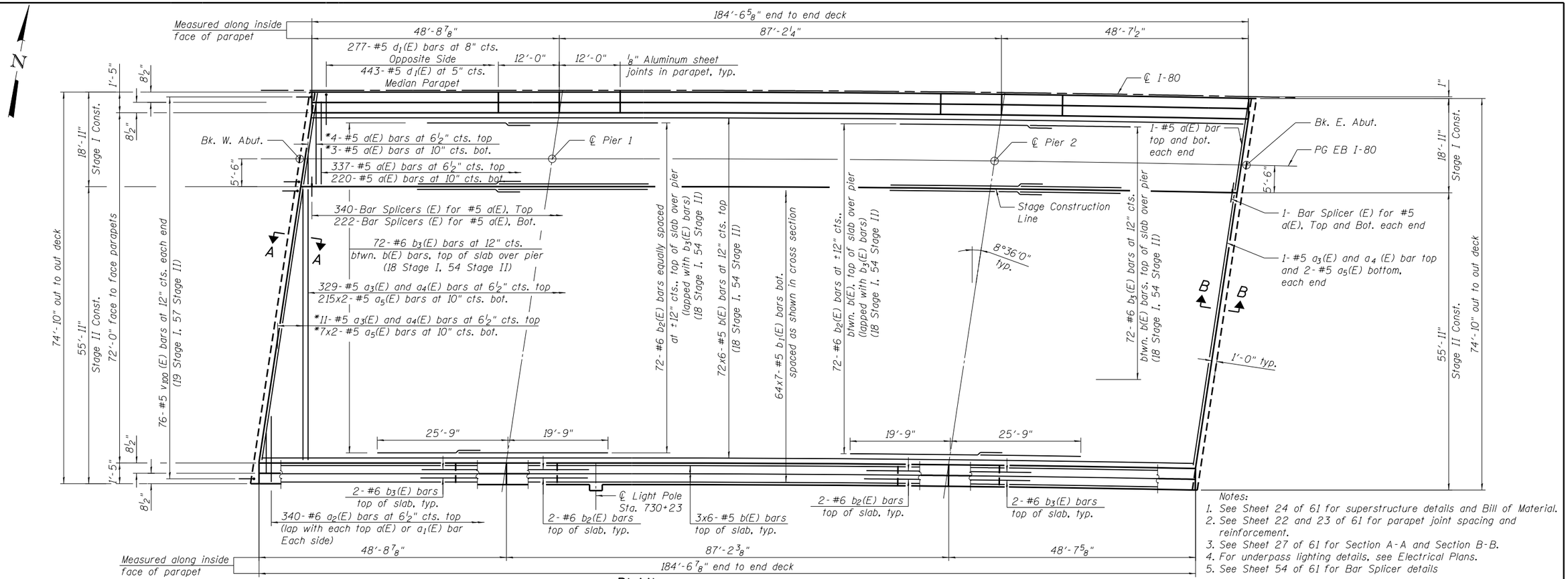
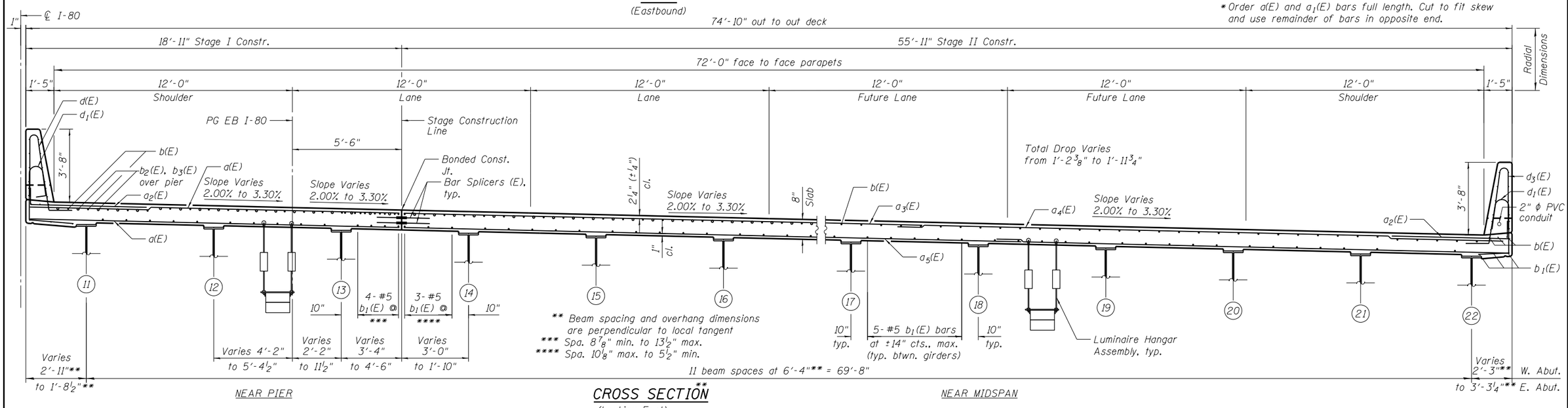


Notes:
1. See Sheet 24 of 61 for superstructure details and Bill of Material.
2. See Sheet 22 and 23 of 61 for parapet joint spacing and reinforcement.
3. See Sheet 27 of 61 for Section A-A and Section B-B.
4. For underpass lighting details, see Electrical Plans.
5. See Sheet 54 of 61 for Bar Splicer details

* Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN
(Eastbound)



NEAR PIER — NEAR MIDSPAN

CROSS SECTION**
(Looking East)

USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED	

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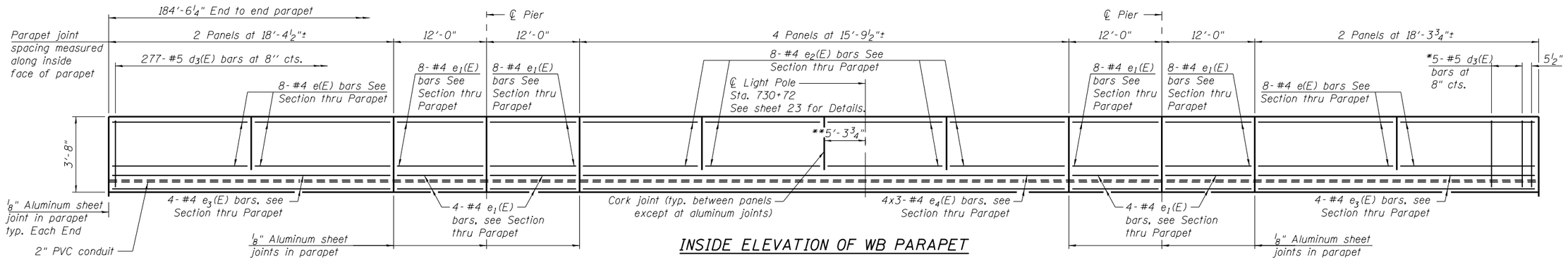
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

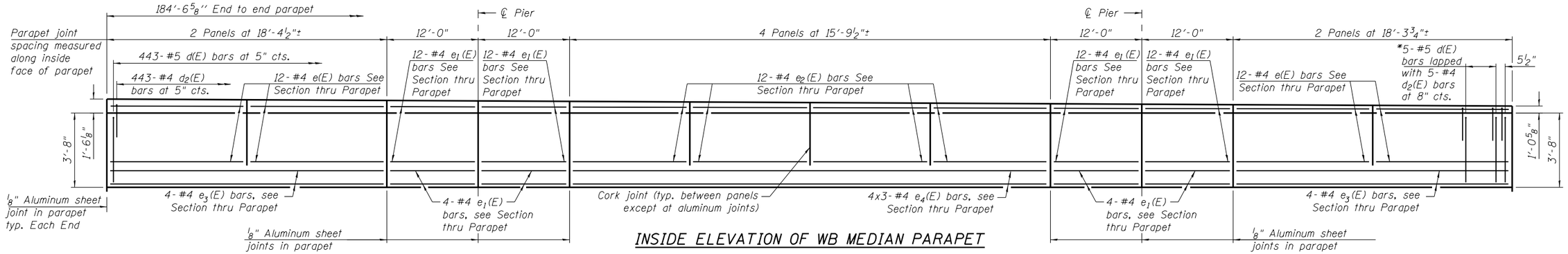
DECK PLAN II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 21 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	310
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

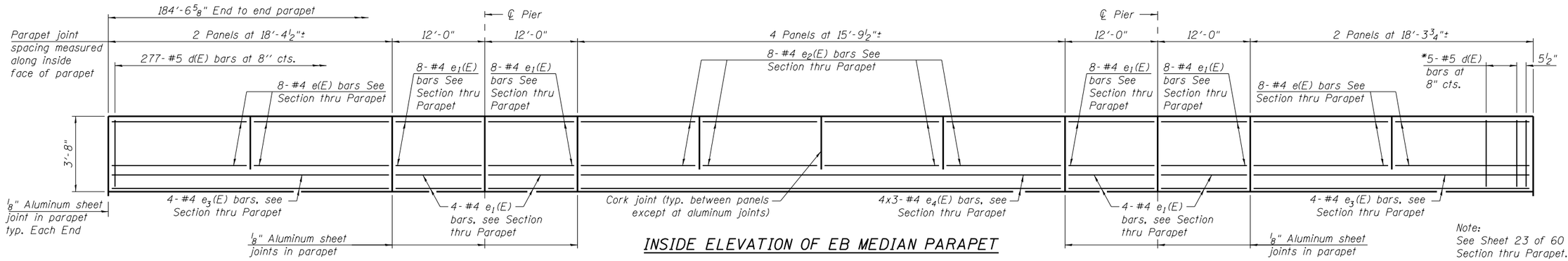
FILE NAME = 0990900-0990901-60W34-021-DCKPL EB.dgn



INSIDE ELEVATION OF WB PARAPET

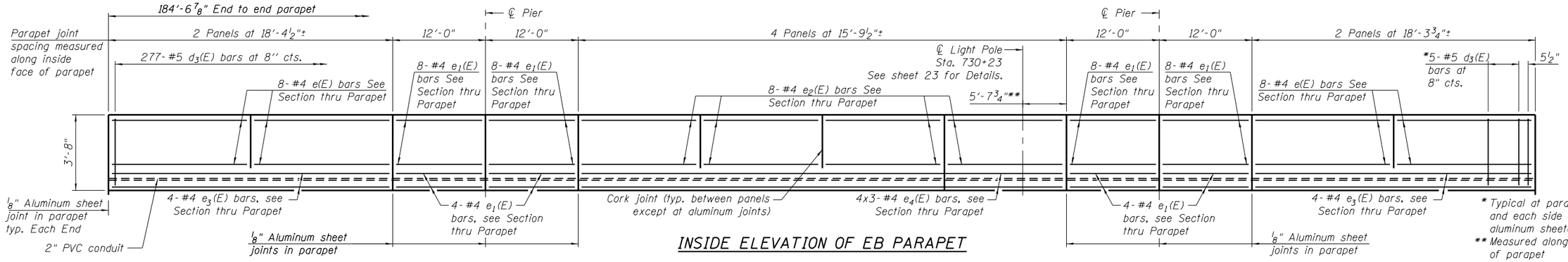


INSIDE ELEVATION OF WB MEDIAN PARAPET



INSIDE ELEVATION OF EB MEDIAN PARAPET

Note:
See Sheet 23 of 60 for Section thru Parapet.



INSIDE ELEVATION OF EB PARAPET

* Typical at parapet ends and each side of aluminum sheeted joints.
** Measured along inside face of parapet

USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

HBP Illinois Partners

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 22 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	311
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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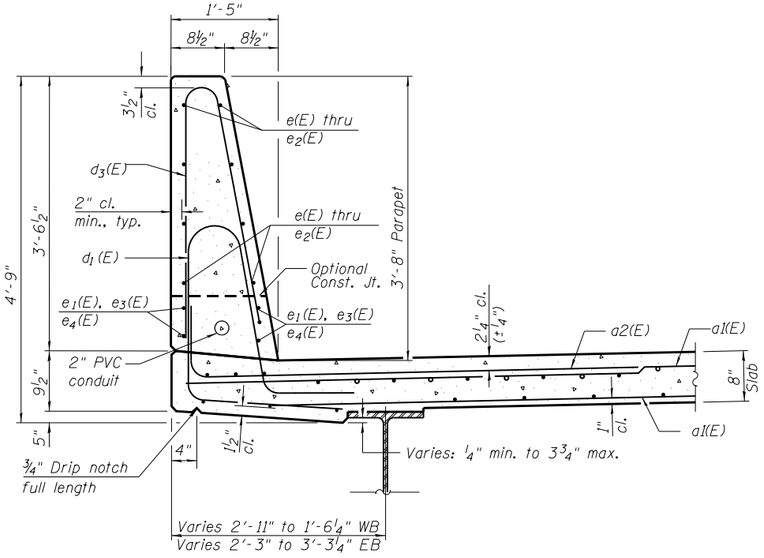
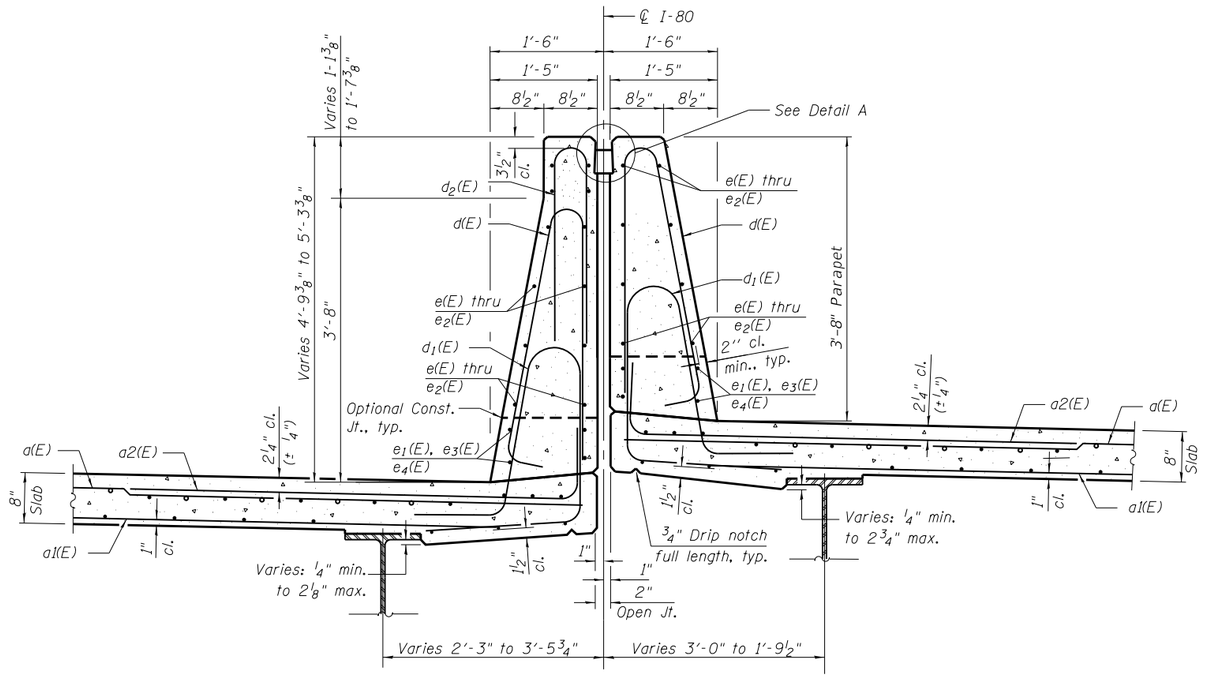
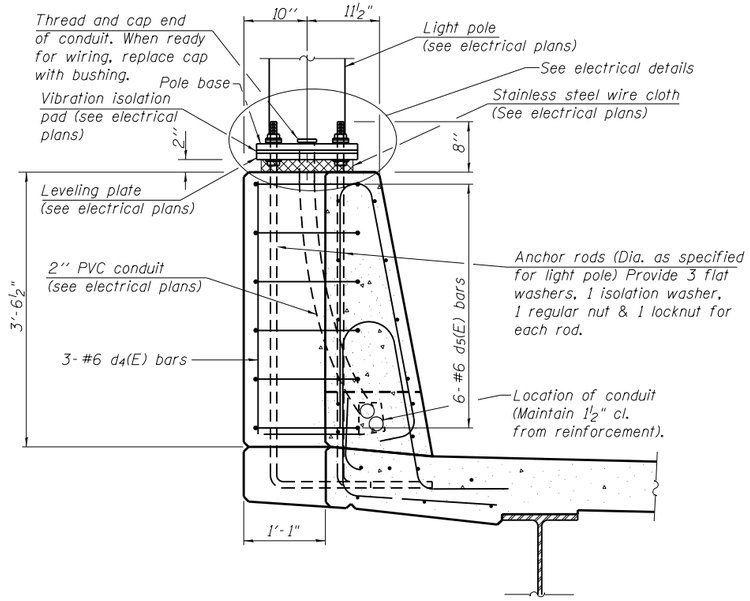


SECTION THRU PARAPET

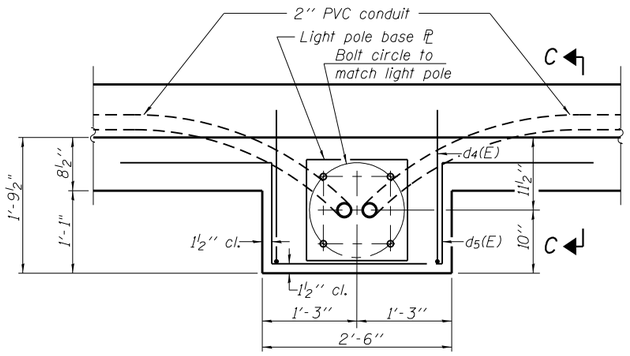


SECTION THRU MEDIAN PARAPET

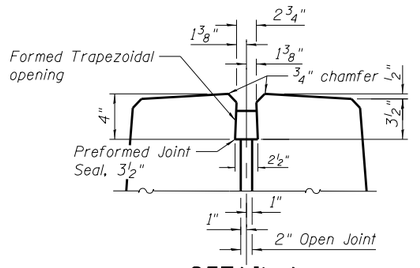
(Looking East)



SECTION C-C



PLAN



DETAIL A

Note:
See Sheet 24 of 60 for bar diagrams and Bill of Materials.

HBP Illinois Partners	USER NAME = default	DESIGNED MSL	REVISED
		CHECKED TAH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 23 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	312
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

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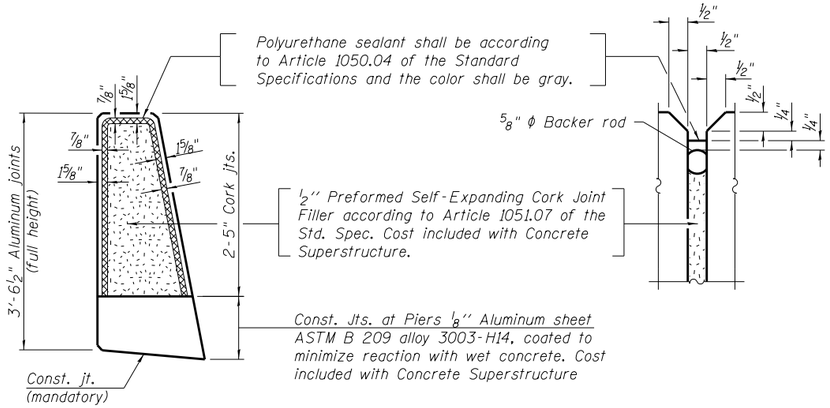
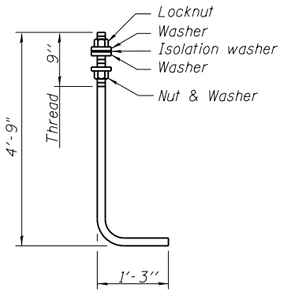


PARAPET JOINT DETAILS



ANCHOR ROD

Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized

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

MINIMUM BAR LAP

#4 bar = 2'-5"
#5 bar = 3'-6"
#6 bar = 4'-10"

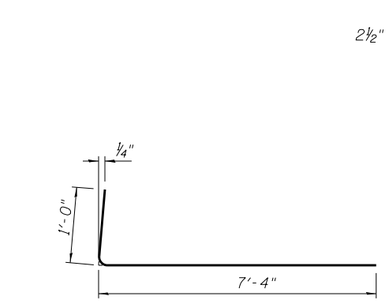
BILL OF MATERIAL (E.B.)

Bar	No.	Size	Length	Shape
a(E)	568	5	18'-8"	
a2(E)	680	6	8'-4"	
a3(E)	342	5	26'-6"	
a4(E)	342	5	32'-10"	
a5(E)	448	5	29'-10"	
b(E)	468	5	34'-8"	
b2(E)	148	6	33'-5"	
b2(E)	148	6	33'-5"	
b3(E)	148	6	20'-4"	
d(E)	282	5	6'-11"	
d1(E)	720	5	8'-11"	
d3(E)	282	5	6'-11"	
d4(E)	3	6	5'-3"	
d5(E)	6	6	8'-11"	
e(E)	64	4	18'-3"	
e1(E)	96	4	11'-10"	
e2(E)	64	4	15'-7"	
e3(E)	32	4	18'-2"	
e4(E)	24	4	22'-8"	
m1(E)	16	6	18'-10"	
m3(E)	32	6	30'-5"	
m7(E)	80	6	6'-0"	
m9(E)	4	6	3'-0"	
m10(E)	4	6	4'-2"	
m11(E)	4	6	2'-8"	
m13(E)	8	6	2'-2"	
m18(E)	4	6	1'-4"	
m19(E)	72	5	5'-10"	
m20(E)	4	6	2'-11"	
m21(E)	4	6	2'-7"	
m22(E)	16	5	1'-6"	
s(E)	166	5	8'-8"	
s1(E)	166	5	9'-1"	
u(E)	166	5	4'-8"	
v100(E)	152	5	3'-1"	
Concrete Superstructure			Cu. Yd.	470
Bridge Deck Grooving			Sq. Yd.	1436
Protective Coat			Sq. Yd.	1804
Reinforcement Bars, Epoxy Coated			Pounds	119,210

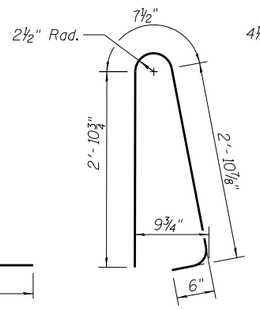
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

BILL OF MATERIAL (W.B.)

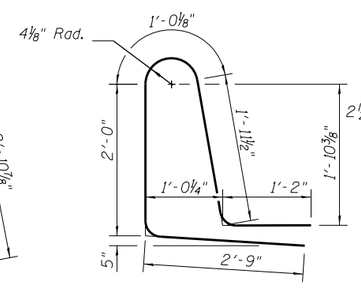
Bar	No.	Size	Length	Shape
a(E)	568	5	18'-8"	
a1(E)	566	5	43'-7"	
a2(E)	680	6	8'-4"	
b(E)	396	5	34'-8"	
b1(E)	372	5	30'-0"	
b2(E)	128	5	33'-5"	
b3(E)	128	6	20'-4"	
d(E)	448	5	6'-11"	
d1(E)	720	5	8'-11"	
d2(E)	448	4	5'-8"	
d3(E)	282	5	6'-11"	
d4(E)	3	6	5'-3"	
d5(E)	6	6	8'-11"	
e(E)	80	4	18'-3"	
e1(E)	112	4	11'-10"	
e2(E)	80	4	15'-7"	
e3(E)	32	4	18'-2"	
e4(E)	24	4	22'-8"	
m1(E)	16	6	18'-10"	
m5(E)	16	6	44'-1"	
m6(E)	4	6	2'-4"	
m7(E)	64	6	6'-0"	
m8(E)	4	6	3'-5"	
m13(E)	4	6	1'-10"	
m14(E)	4	6	1'-2"	
m15(E)	4	6	3'-7"	
m16(E)	4	6	3'-0"	
m17(E)	4	6	2'-2"	
m19(E)	60	5	5'-10"	
m21(E)	4	6	2'-7"	
s(E)	138	5	8'-8"	
s1(E)	138	5	9'-1"	
u(E)	138	5	4'-8"	
v100(E)	128	5	3'-1"	
Concrete Superstructure			Cu. Yd.	409
Bridge Deck Grooving			Sq. Yd.	1189
Protective Coat			Sq. Yd.	1613
Reinforcement Bars, Epoxy Coated			Pounds	103,290



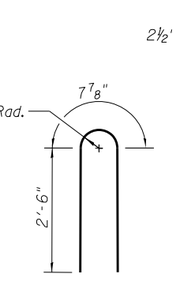
BAR a2(E)



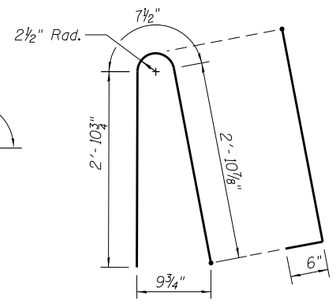
BAR d(E)



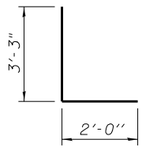
BAR d1(E)



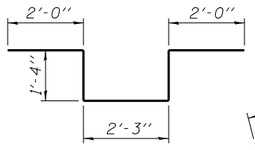
BAR d2(E)



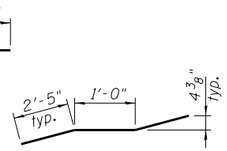
BAR d3(E)
(use where conduit is present)



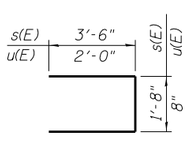
BAR d4(E)



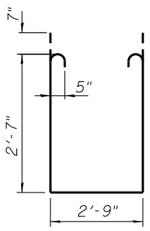
BAR d5(E)



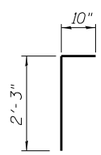
BAR m19(E)



BARS s(E) & u(E)



BAR s1(E)



BAR v100(E)

Note:
See Sheet 53 of 60 for Bar Splicer (E) details.

HBP Illinois Partners	USER NAME = default	DESIGNED MSL	REVISED
		CHECKED TAH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED RRH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK DETAILS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 24 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	313
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

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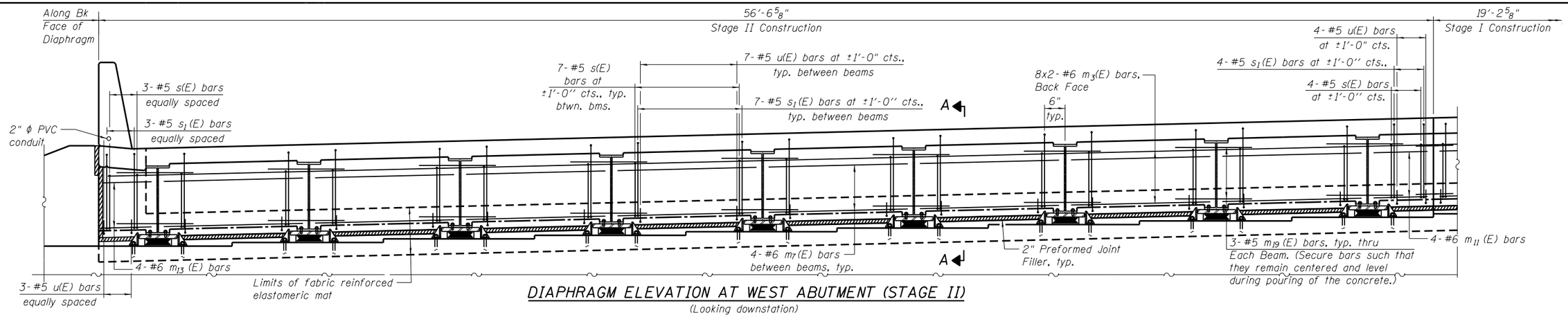
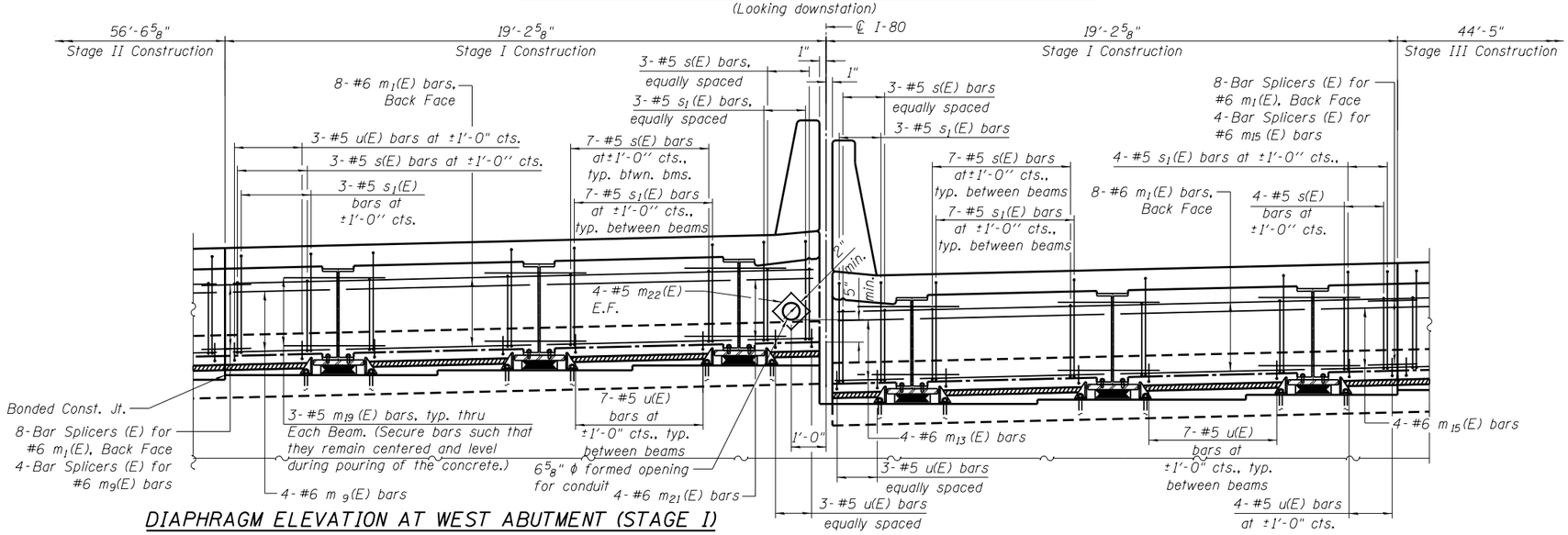


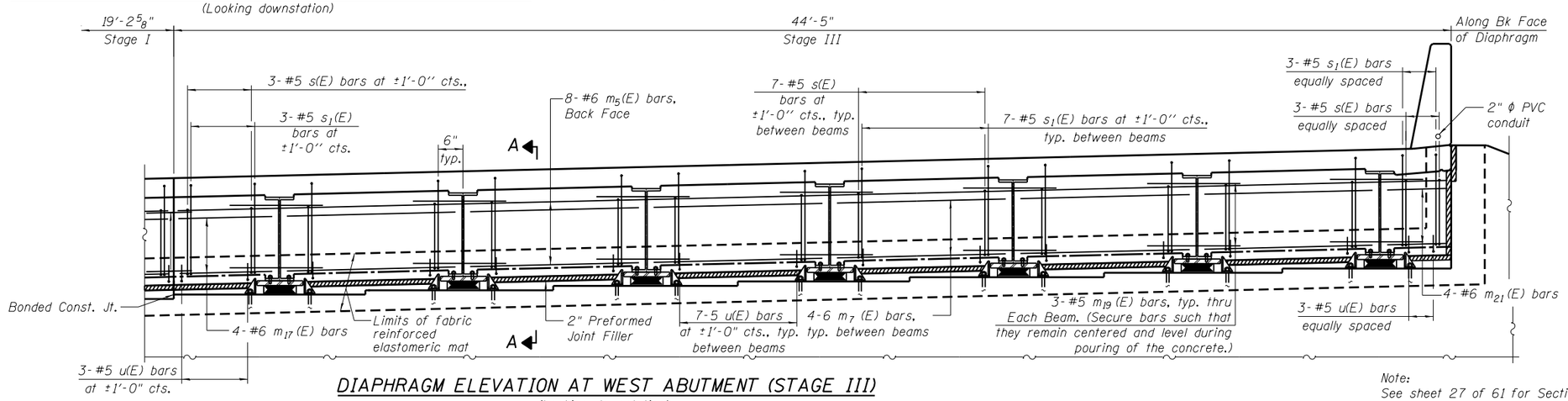
DIAPHRAGM ELEVATION AT WEST ABUTMENT (STAGE II)

(Looking downstation)



DIAPHRAGM ELEVATION AT WEST ABUTMENT (STAGE I)

(Looking downstation)



DIAPHRAGM ELEVATION AT WEST ABUTMENT (STAGE III)

(Looking downstation)

Note:
See sheet 27 of 61 for Section A-A, and Plan at Abutment.

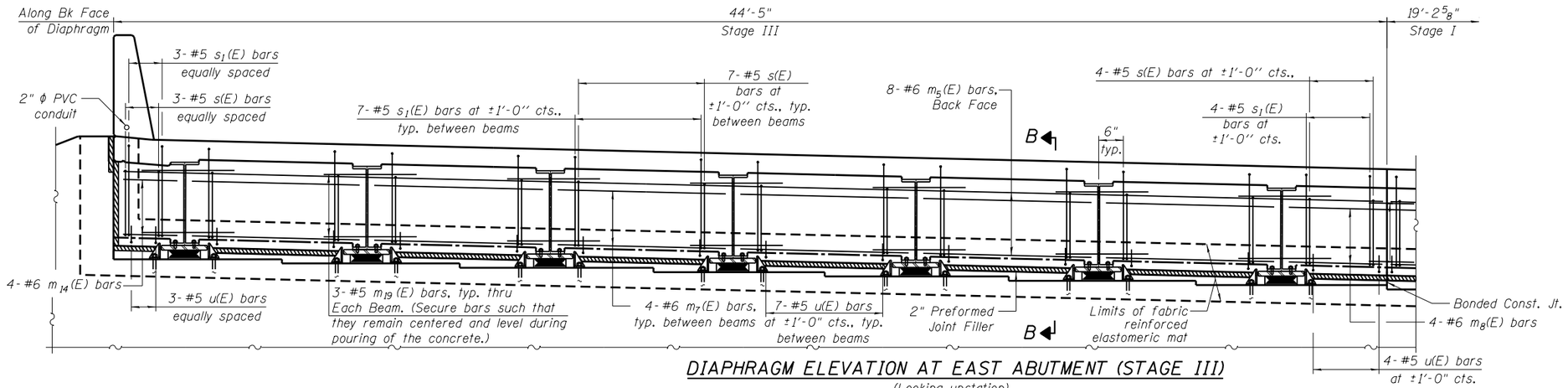
USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED JP	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 25 OF 61 SHEETS

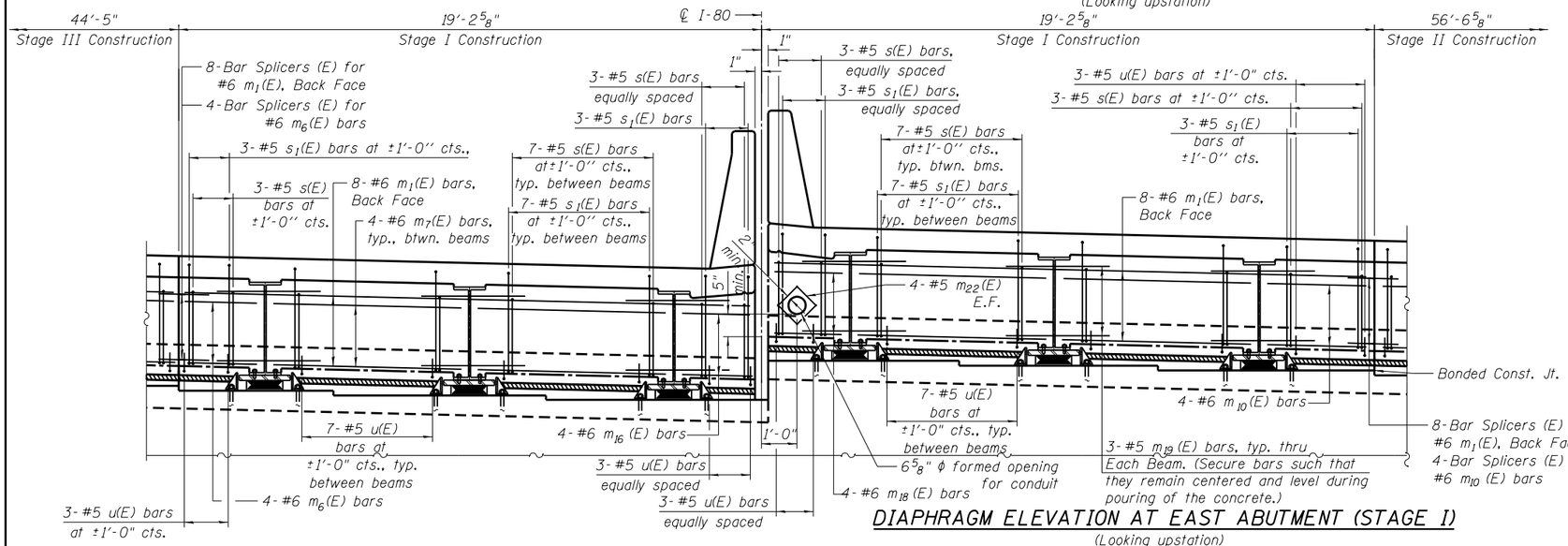
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	314
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-025-DIA WB.dgn



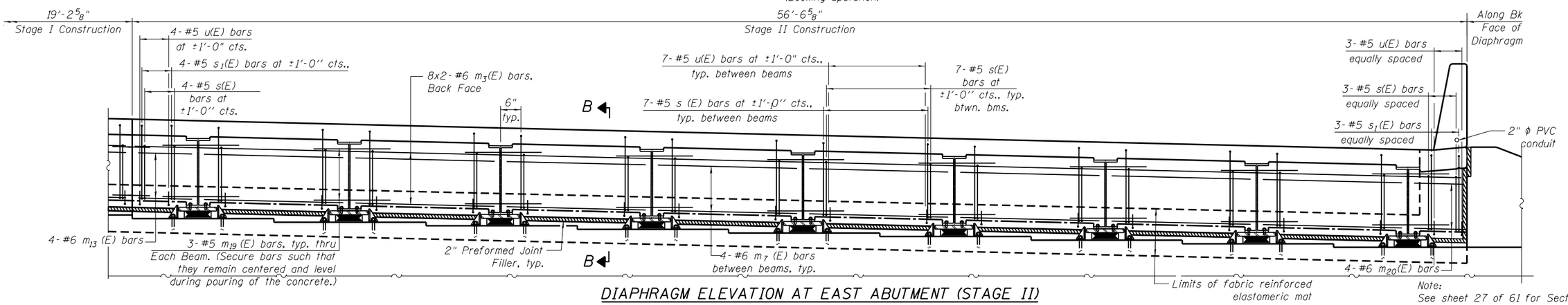
DIAPHRAGM ELEVATION AT EAST ABUTMENT (STAGE III)

(Looking upstation)



DIAPHRAGM ELEVATION AT EAST ABUTMENT (STAGE I)

(Looking upstation)



DIAPHRAGM ELEVATION AT EAST ABUTMENT (STAGE II)

(Looking upstation)

Note:
See sheet 27 of 61 for Section A-A, and Plan at Abutment.

USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED JP	REVISED	

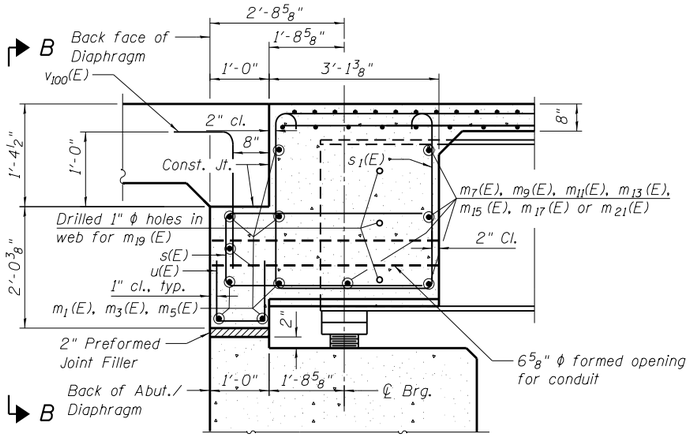
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 26 OF 61 SHEETS

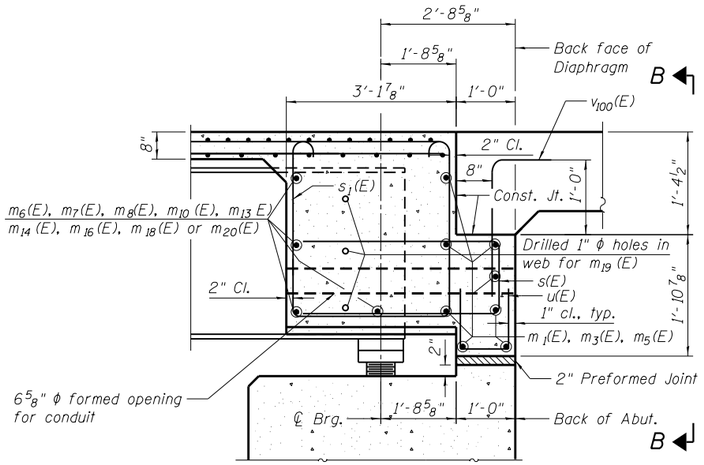
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	315
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-026-DIA EB.dgn



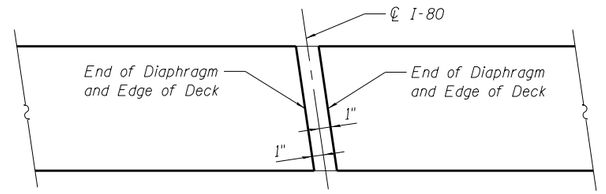
SECTION A-A

West Abutment (at Rt. L's)

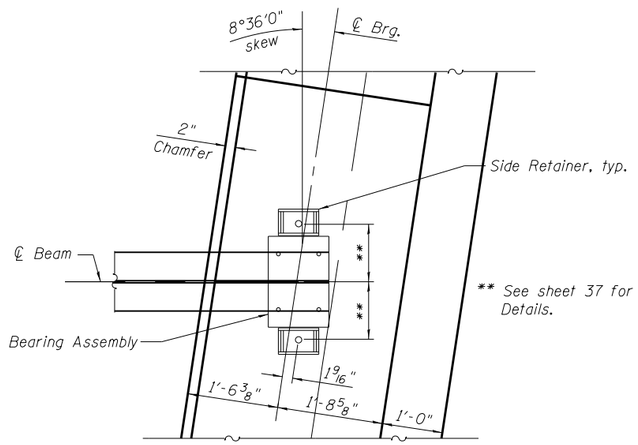


SECTION B-B

East Abutment (at Rt. L's)

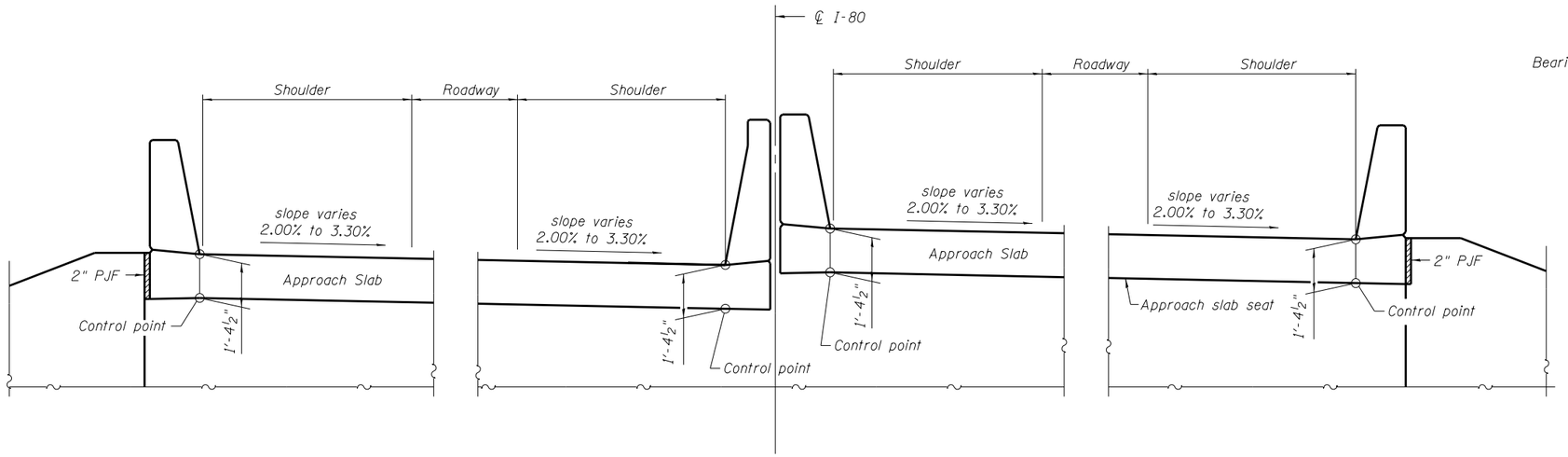


PLAN AT DIAPHRAGM



PLAN AT ABUTMENT

(Showing bottom flange of beam)



VIEW B-B

(Looking at back of West Abutment. East Abutment similar)

Notes:

1. See Sheet 54 of 61 for bar splicer details.
2. See sheet 23 and 24 of 61 for superstructure details and Bill of Material.
3. Composite wall drain not shown on this sheet for clarity, see sheet 44 of 61 for details.
4. The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
5. The approach slab seat shall have a constant slope determined from the control points shown.

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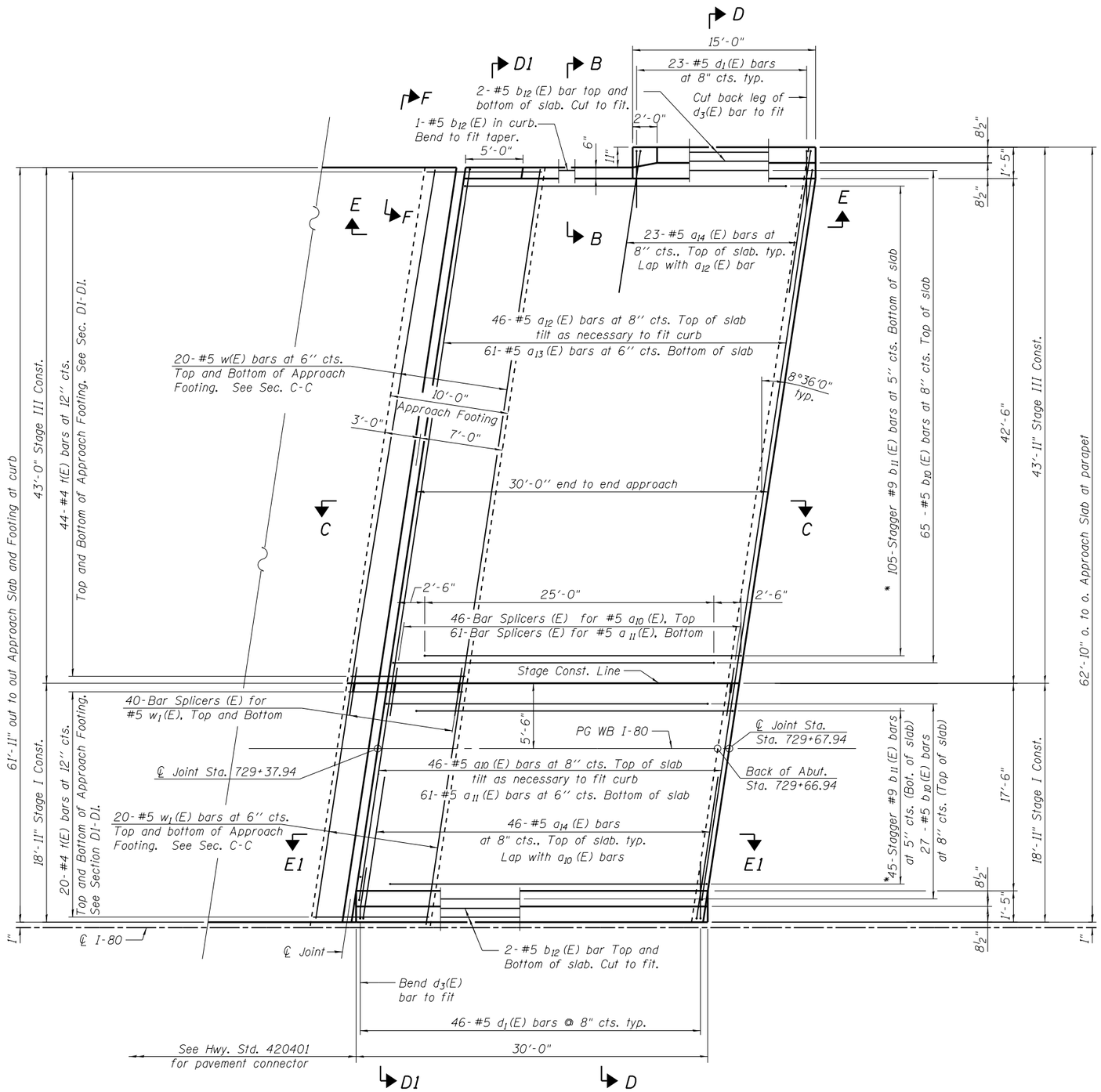
USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 27 OF 61 SHEETS

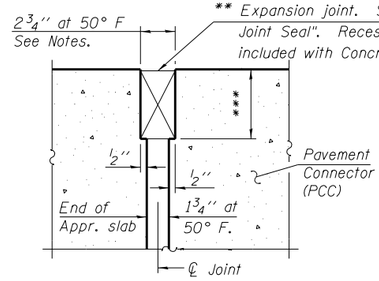
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	316
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-027-DIA DTL.dgn



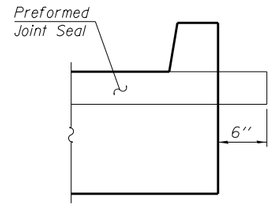
PLAN

West Approach Slab (Westbound)

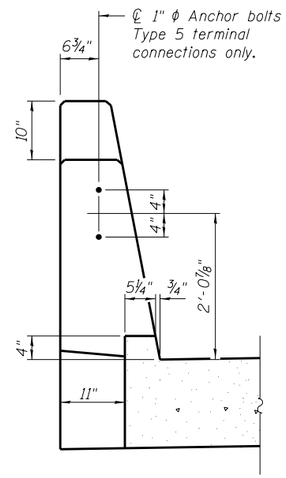


RIGID PAVEMENT

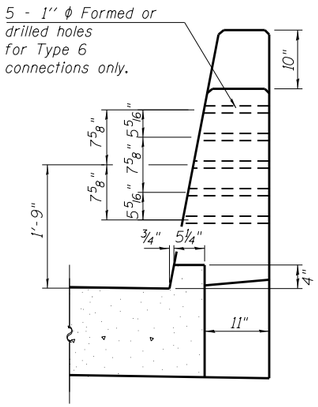
DETAIL A



VIEW F-F



VIEW B-B



VIEW B'-B'

Notes:

1. See sheet 32 of 61 for Section C-C.
   See sheet 33 of 61 for Sections D-D, D1-D1, and Views E-E and E1-E1.
2. a_{10} (E) and a_{11} (E) bar spacings measured along PG WB I-80.

* Tilt #9 b_{11} (E) bars as required to maintain clearance.
** Cost included with Concrete Superstructure (Approach Slab).
*** Per manufacturer recommendations.

USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED YC	REVISED	

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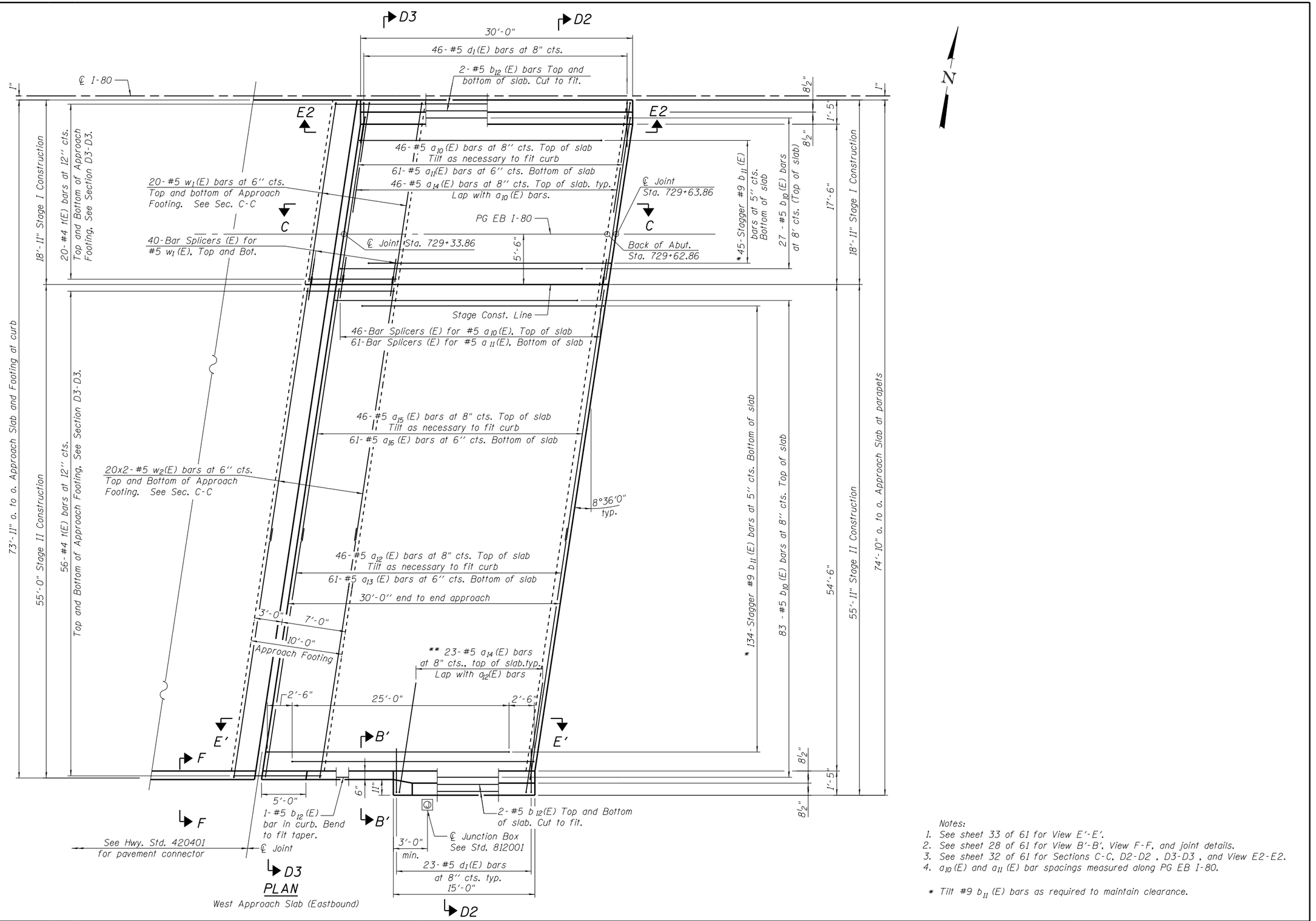
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APROACH SLAB DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 28 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	317
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-028-WAPPR WB.dgn



Notes:

1. See sheet 33 of 61 for View E'-E'.
2. See sheet 28 of 61 for View B'-B', View F-F, and joint details.
3. See sheet 32 of 61 for Sections C-C, D2-D2 , D3-D3 , and View E2-E2.
4. a_{10}(E) and a_{11} (E) bar spacings measured along PG EB I-80.

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

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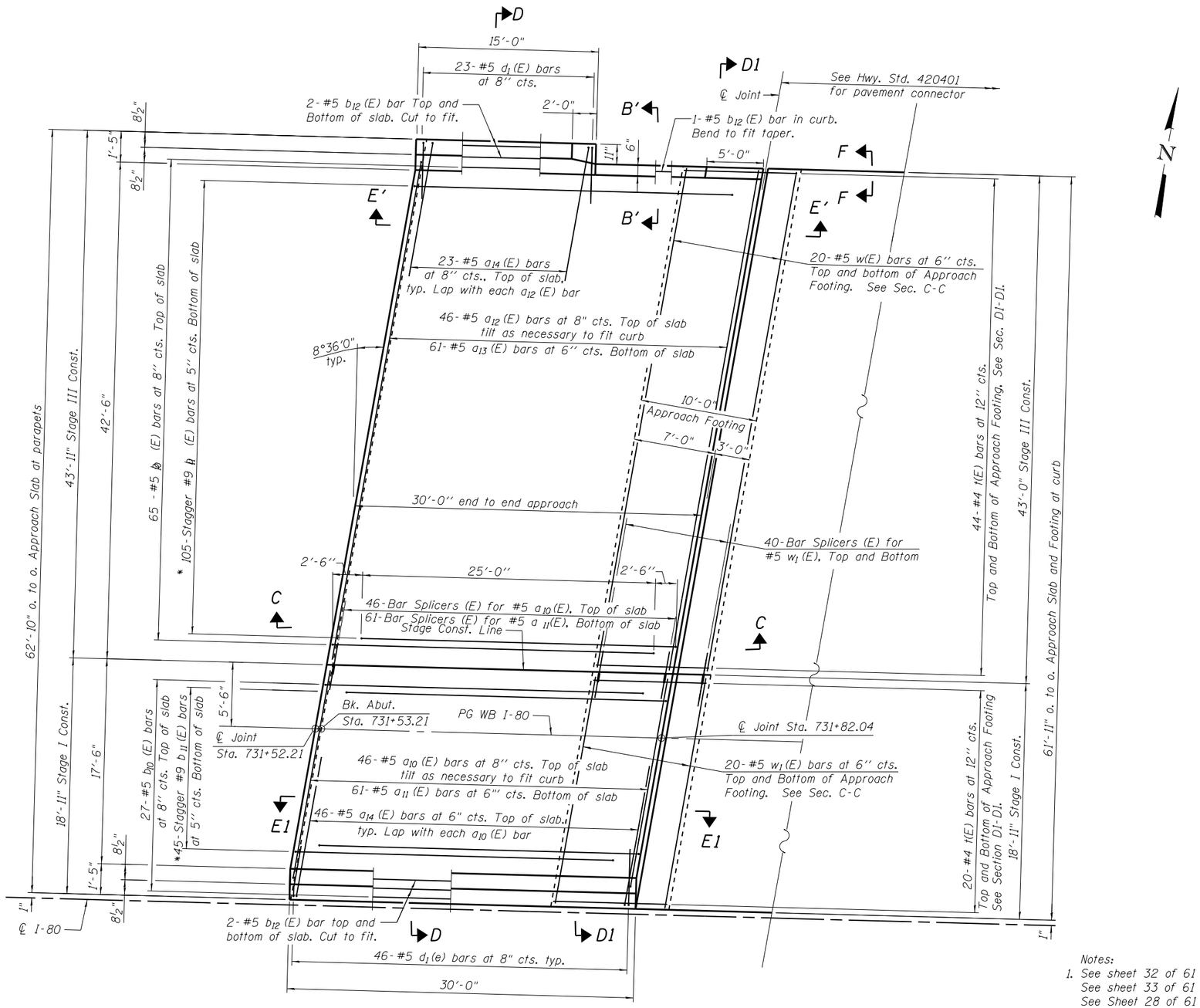
USER NAME = default	DESIGNED	MSL	REVISED
	CHECKED	TAH	REVISED
PLOT SCALE = NTS	DRAWN	RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED	YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS II
STRUCTURE NOS. 099–0900 (E.B.) & 099–0901(W.B.)
SHEET NO. 29 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	318
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-029-WAPPR EB.dgn



PLAN

East Approach Slab (Westbound)

Notes:

1. See sheet 32 of 61 for Section C-C.
   See sheet 33 of 61 for Sections D-D, D1-D1 and Views E'-E' & E1-E1.
   See Sheet 28 of 61 for View B'-B' and F-F, and joint details.
2. a_{10}(E) and a_{11} (E) bar spacings measured along PG WB I-80.

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

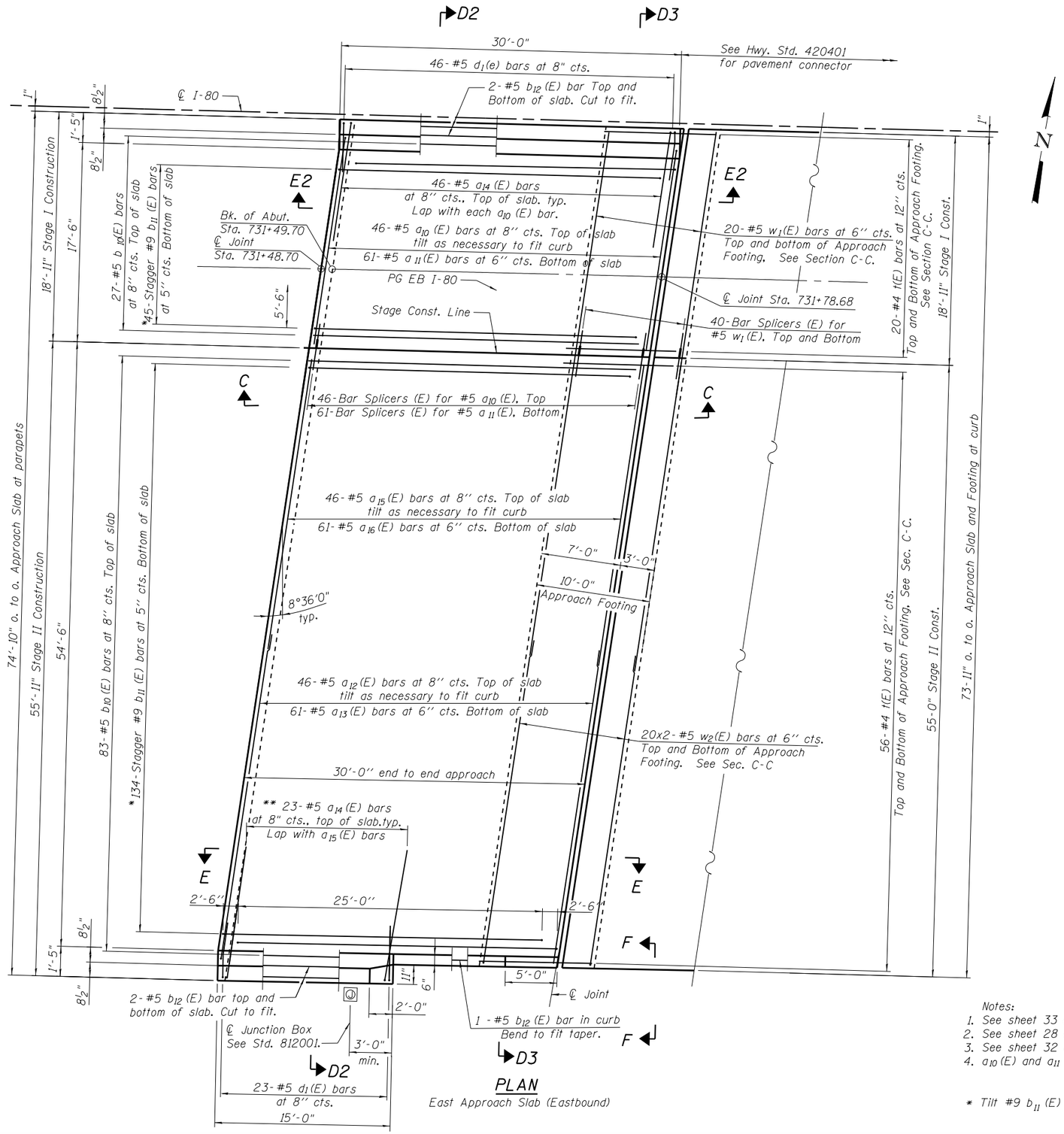
HBP Illinois Partners	USER NAME = default	DESIGNED MSL	REVISED
		CHECKED TAH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 30 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	319
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-030-EAPPR #B.dgn



Notes:

1. See sheet 33 of 61 for View E-E.
2. See sheet 28 of 61 for Views B-B and F-F and joint details.
3. See sheet 32 of 61 for Sections C-C, D2-D2, D3-D3 and View E2-E2.
4. a_{10}(E) and a_{11} (E) bar spacings measured along PG EB I-80.

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

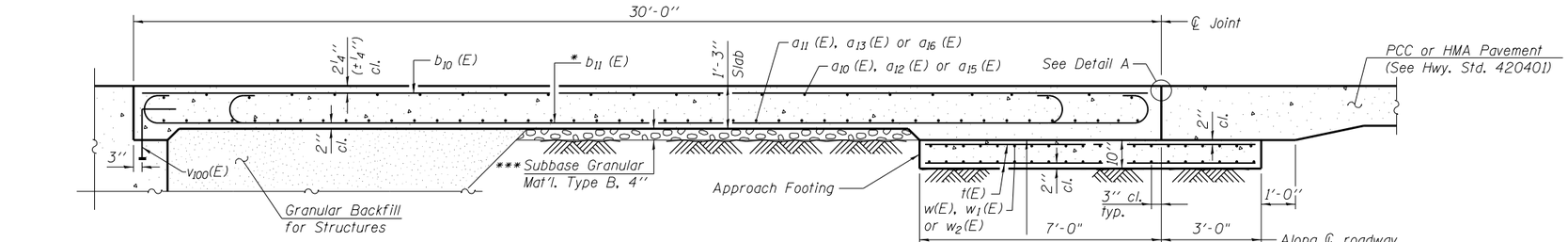
HBP Illinois Partners	USER NAME = default	DESIGNED MSL	REVISED
		CHECKED TSH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

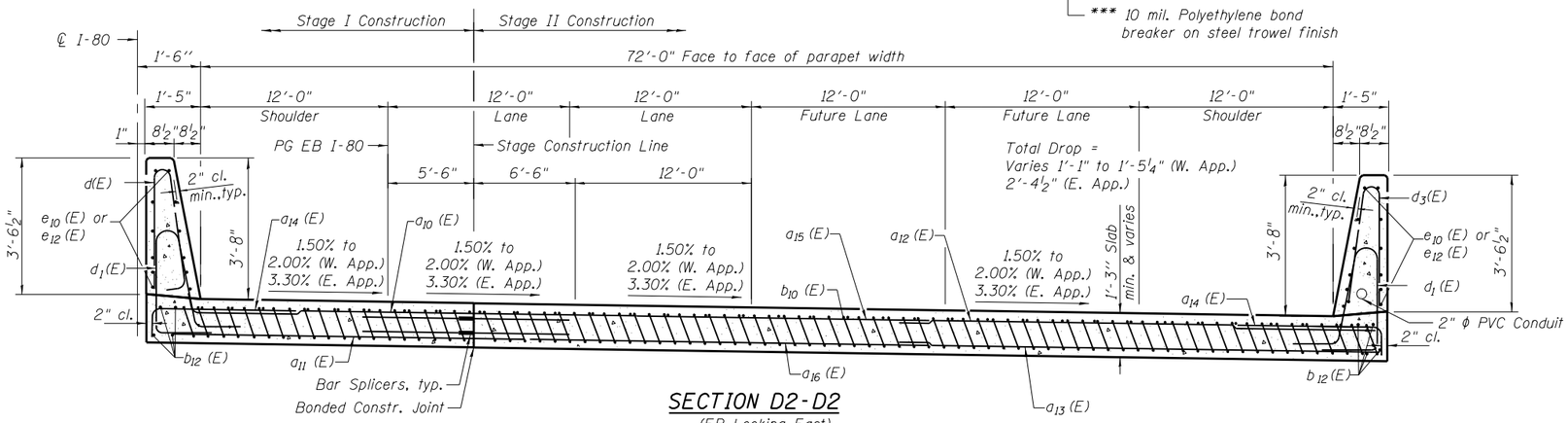
BRIDGE APPROACH SLAB DETAILS IV
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 31 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	320
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-03I-EAPPR EB.dgn

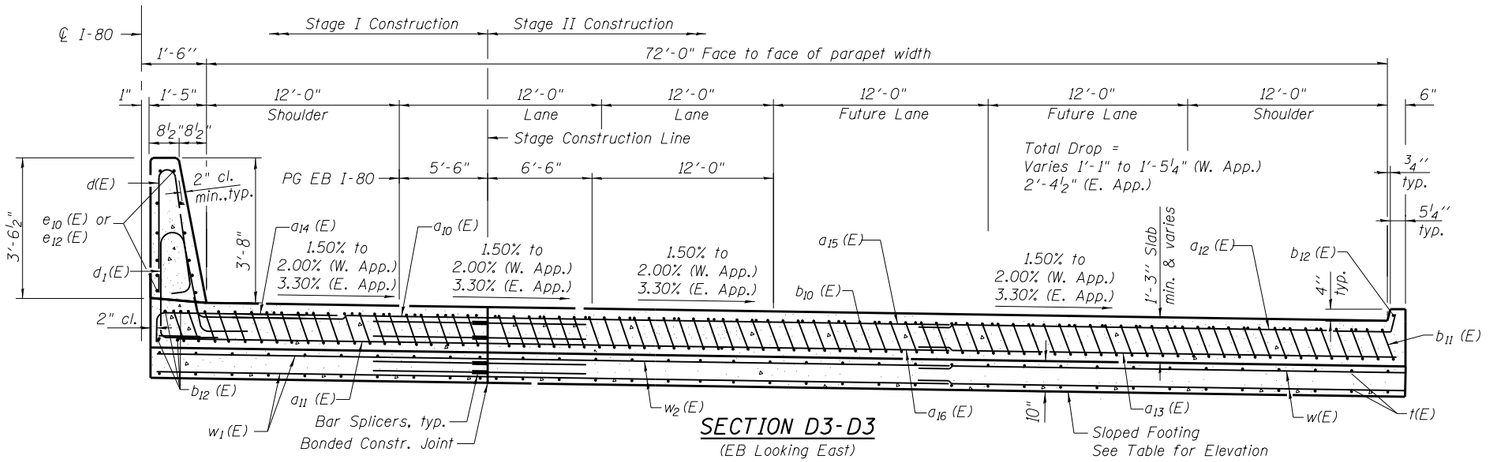


SECTION C-C



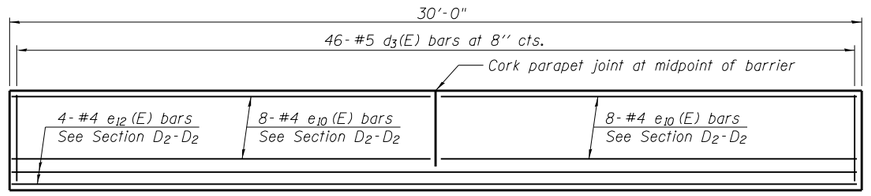
SECTION D2-D2

(EB Looking East)
(Near Abutment)



SECTION D3-D3

(EB Looking East)
(Near Approach Footing)



VIEW E2-E2

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure (Approach Slab).

Notes:

1. See sheets 28 and 30 of 61 for Location of Section D-D, Section D1-D1, and View E1-E1 of approach slab.
2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure (Approach Slab).
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. For bar splicer details, see sheet 54 of 61.
7. Cost of excavation for approach footing included with Concrete Structures.
8. For Granular Backfill for Structures and drainage treatment details, see sheet 44 of 61.
9. For additional parapet details, see sheet 23 of 61. Parapet continues the entire length of the approach on the median side.

USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED YC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS V
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 32 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	321
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

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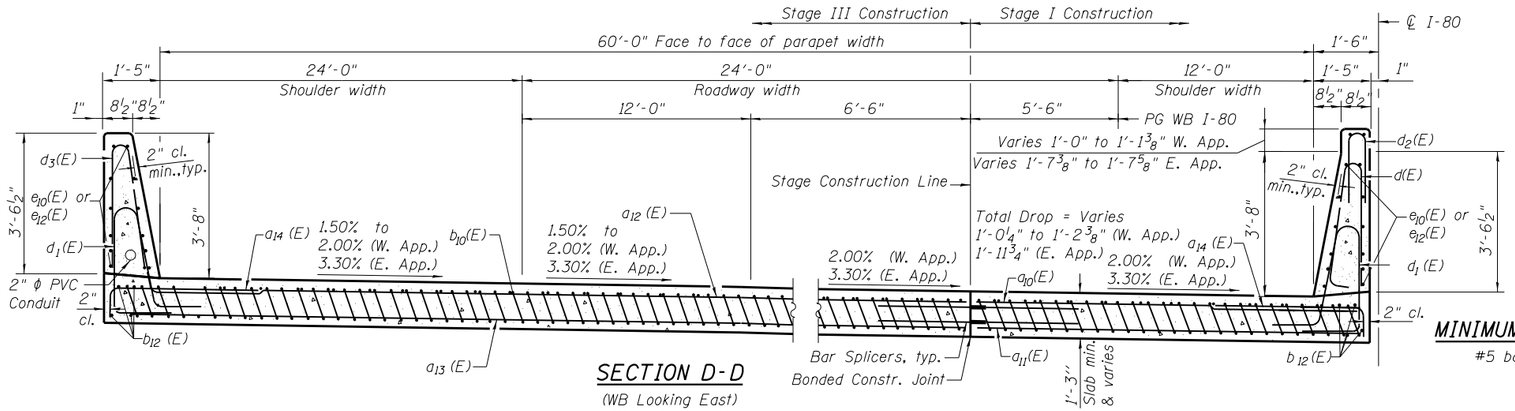
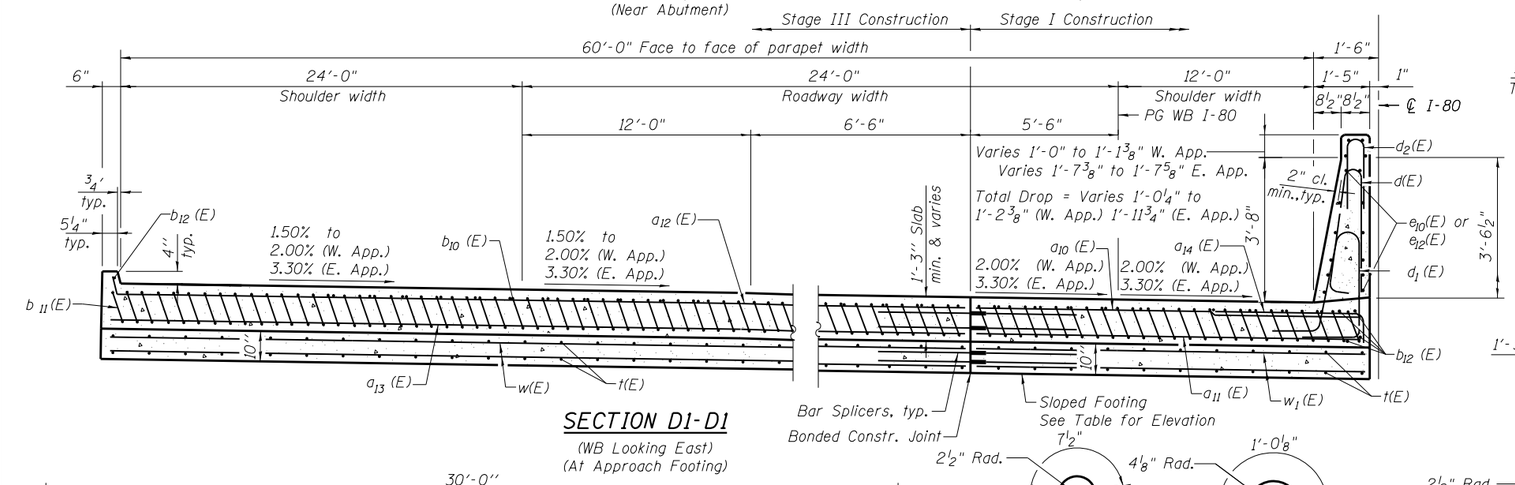


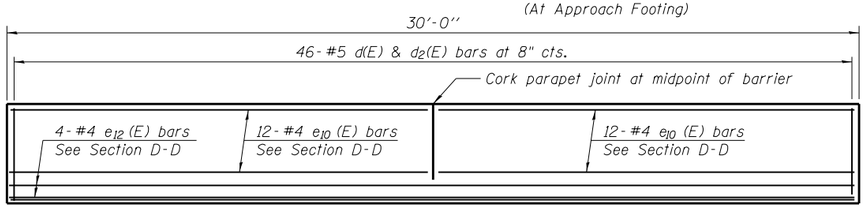
SECTION D-D

(WB Looking East)
(Near Abutment)

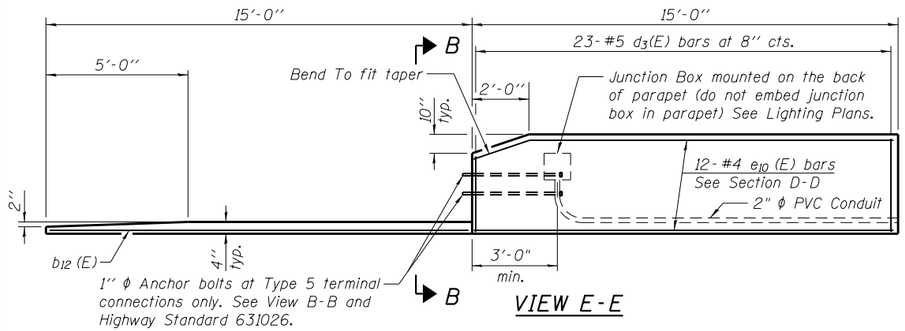


SECTION D1-D1

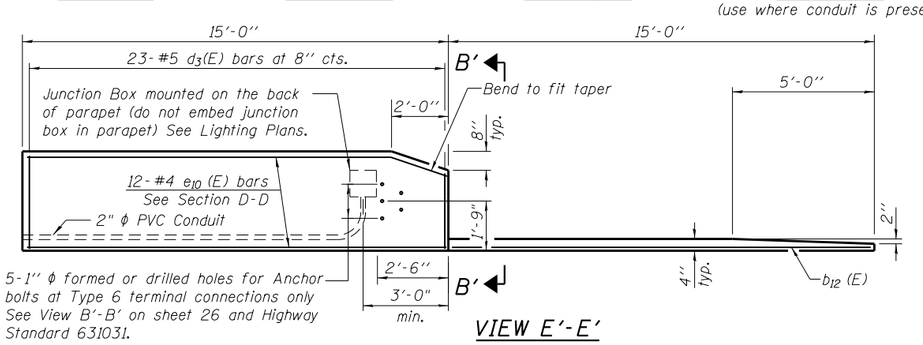
(WB Looking East)
(At Approach Footing)



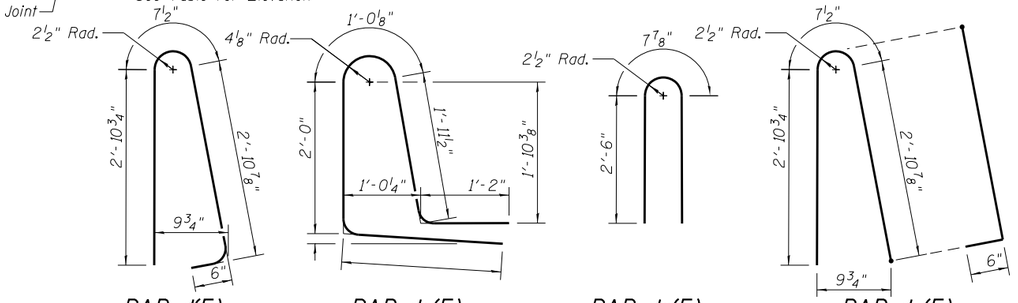
VIEW E1 -E1



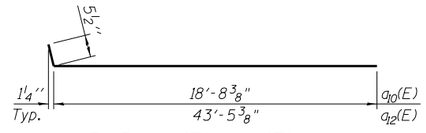
VIEW E-E



VIEW E'-E'

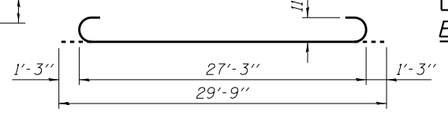


BAR d(E) | BAR d1(E) | BAR d2(E) | BAR d3(E)
(use where conduit is present)



BAR a10(E), a12(E)

BAR a14(E)

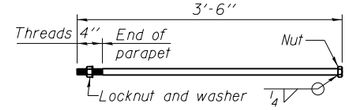


BAR b11 (E)

Notes:
1. See sheet 28 of 61 for Detail A; View B-B and View B'-B'; location of Section C-C, D-D, D1-D1; and Views E-E and E1-E1 of approach slab.
2. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of the bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
3. Parapet concrete shall be paid for as Concrete Superstructure.
4. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
5. Approach footing concrete shall be paid for as Concrete Structures.
6. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
7. For $v_{100}(E)$ bar details, see sheet 24 of 61.
8. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
9. For bar splicer details, see sheet 54 of 61.
10. Cost of excavation for approach footing included with Concrete Structures.
11. For Granular Backfill for Structures and drainage treatment details, see sheet 44 of 61.
12. For additional parapet details, see sheet 23 of 61. Parapet continues the entire length of the approach on the median side.

MINIMUM BAR LAP

#5 bar = 3'-4"



1"ϕ ANCHOR BOLT

Cost included with Concrete Superstructure (Approach Slab) (Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

SLOPED FOOTING TABLE

Approach Slab	Elev. Bottom of App. Footing	
	North End	South End
EB at E. Abut.	556.57	554.46
EB at W. Abut.	554.89	553.75
WB at E. Abut.	557.02	554.94
WB at W. Abut.	555.11	554.00

BILL OF MATERIAL FOUR APPROACHES

Bar	No.	Size	Length	Shape
a10(E)	184	#5	19'-2"	
a11(E)	254	#5	18'-4"	
a12(E)	184	#5	43'-11"	
a13(E)	254	#5	43'-11"	
a14(E)	276	#5	7'-4"	
a28(E)	92	#5	29'-5"	
a16(E)	122	#5	29'-5"	
b10(E)	404	#5	29'-8"	
b11(E)	658	#9	29'-9"	
b12(E)	36	#5	14'-8"	
d(E)	92	#5	7'-0"	
d1(E)	276	#5	8'-9"	
d2(E)	92	#5	4'-2"	
d3(E)	184	#5	6'-11"	
e10(E)	128	#4	14'-8"	
e12(E)	25	#4	29'-8"	
t(E)	560	#4	9'-8"	
w(E)	80	#5	43'-7"	
w1(E)	160	#5	18'-10"	
w2(E)	160	#5	29'-5"	
Concrete Structures		Cu. Yd.	85	
Concrete Superstructure		Cu. Yd.	32	
Bridge Deck Grooving		Sq. Yd.	851	
Protective Coat		Sq. Yd.	1,065	
Concrete Superstructure (Approach Slab)		Cu. Yd.	451	
Reinforcement Bars, Epoxy Coated		Pound	128,360	

HBP Illinois Partners

USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

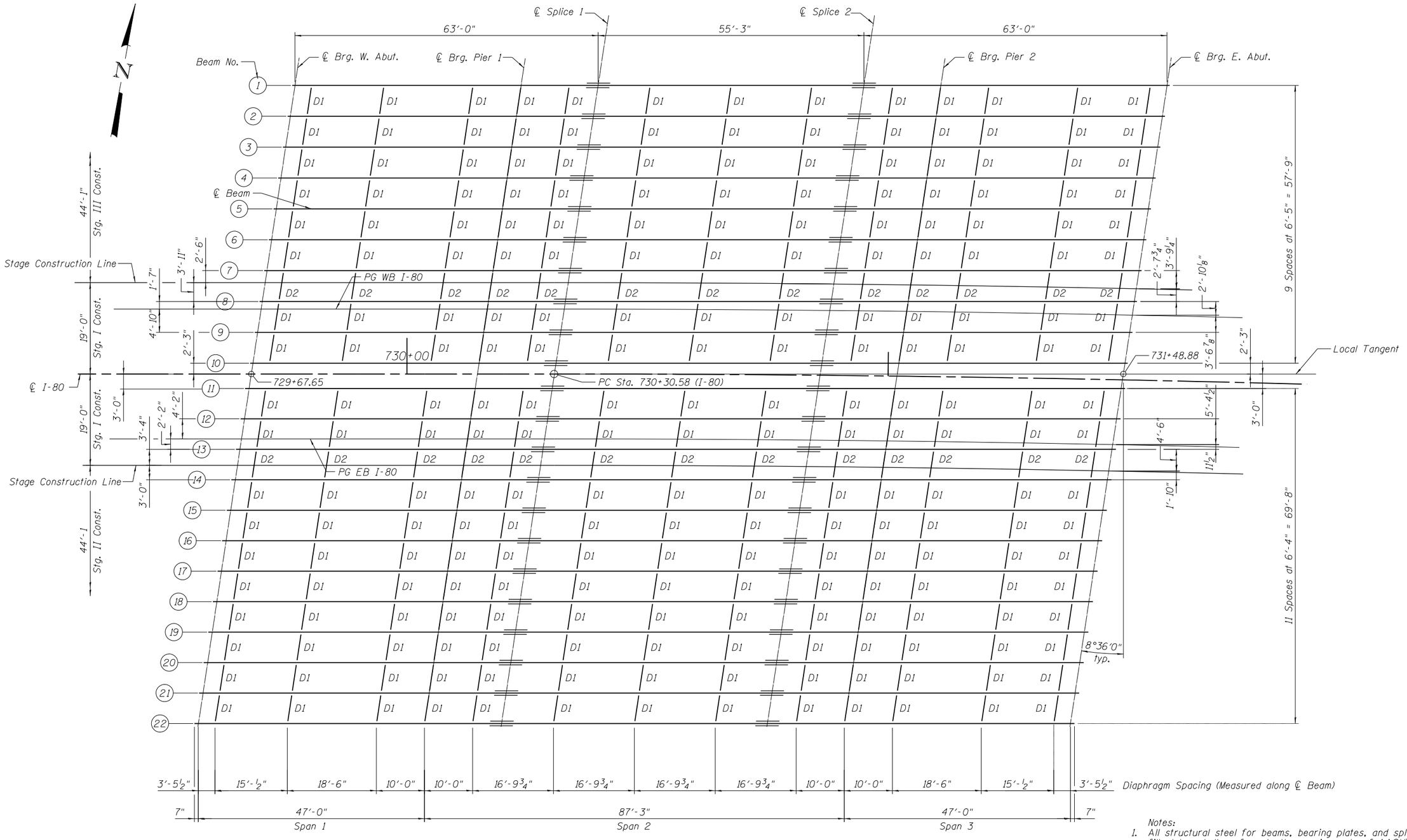
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS VI
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 33 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	322
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-033-APPR-WB.dgn



FRAMING PLAN

Notes:
1. All structural steel for beams, bearing plates, and splices except fill plates shall conform to the requirements of AASHTO M270, Grade 50.
2. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

HBP Illinois Partners

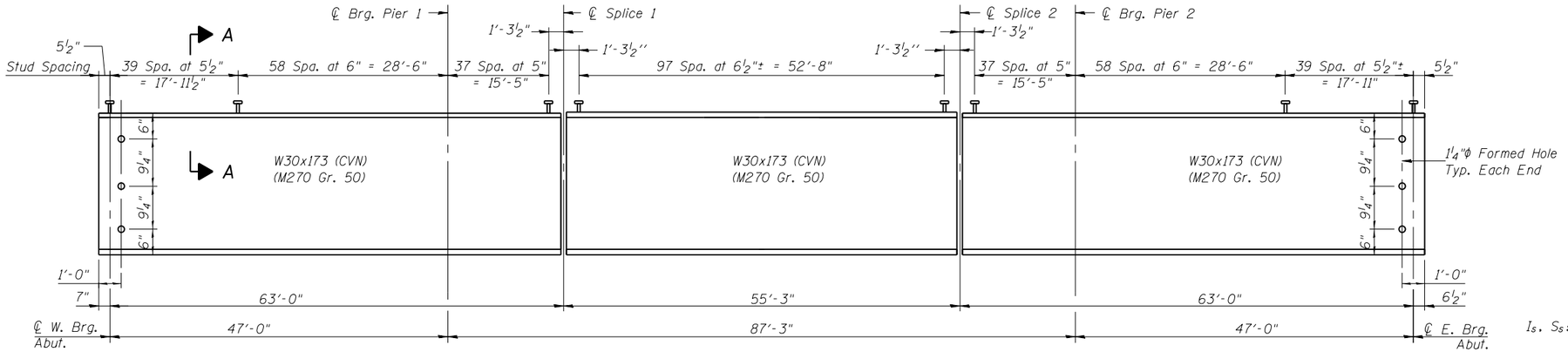
USER NAME = default	DESIGNED TAH	REVISED
	CHECKED YC	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 34 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	323
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

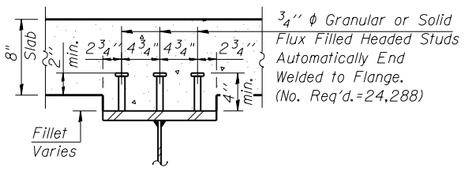
FILE NAME = 0990900-099090I-60W34-034-FRAMPL.dgn



BEAM ELEVATION

"CVN" denotes Charpy-V-Notch impact energy requirements, zone 2

INTERIOR GIRDER MOMENT TABLE - HL-93						
		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
I_s	(in^4)	8,230	8,230	8,230	8,230	8,230
I_c (n)	(in^4)	18,163	-	18,163	-	18,163
I_c (3n)	(in^4)	13,481	-	13,481	-	13,481
I_c (cr)	(in^4)	-	10,106	-	10,106	-
S_s	(in^3)	541	541	541	541	541
S_c (n)	(in^3)	712	-	712	-	712
S_c (3n)	(in^3)	651	-	651	-	651
S_c (cr)	(in^3)	-	587	-	587	-
DC1	(k/ft)	0.82	0.82	0.82	0.82	0.82
M_{DC1}	(k-ft)	41	447	341	447	41
DC2	(k/ft)	0.19	0.19	0.19	0.19	0.19
M_{DC2}	(k-ft)	9.3	103.0	78.0	103.0	9.3
DW	(k/ft)	0.32	0.32	0.32	0.32	0.32
M_{DW}	(k-ft)	16	173	132	173	16
M_{LL+IM}	(k-ft)	475	692	703	692	475
M_u (Strength I)	(k-ft)	918	2158	1,952	2158	918
$\Phi_f M_n$	(k-ft)	-	-	-	-	-
f_s DC1	(ksi)	0.90	9.91	7.56	9.91	0.91
f_s DC2	(ksi)	0.17	2.11	1.44	2.11	0.17
f_s DW	(ksi)	0.29	3.54	2.43	3.54	0.29
f_s (LL+IM)	(ksi)	8.01	14.15	11.85	14.15	8.01
f_s (Service II)	(ksi)	11.77	33.95	26.84	33.95	11.78
$0.95R_h F_{yf}$	(ksi)	47.5	47.5	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	15.79	45.09	35.64	45.09	15.80
$\Phi_f F_n$	(ksi)	50.0	50.0	50.0	50.0	50.0
V_f	(k)	34.8	-	39.2	-	34.8



SECTION A-A

INTERIOR GIRDER REACTION TABLE			
		W. Abut. or E. Abut.	Pier 1 or 2
R (DC1)	(k)	45.1 **	65.0
R (DC2)	(k)	2.3	14.9
R (DW)	(k)	3.8	25.2
R (LL+IM)	(k)	65.5	129.6
R (Total)	(k)	116.7	234.7

** Abutment DC1 Reaction Includes Diaphragm Self-Weight and Weight of Approach Slab.

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) in uncracked sections due to short-term composite live 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) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

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_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

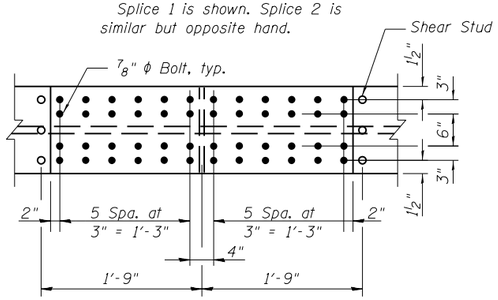
$0.95R_h F_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

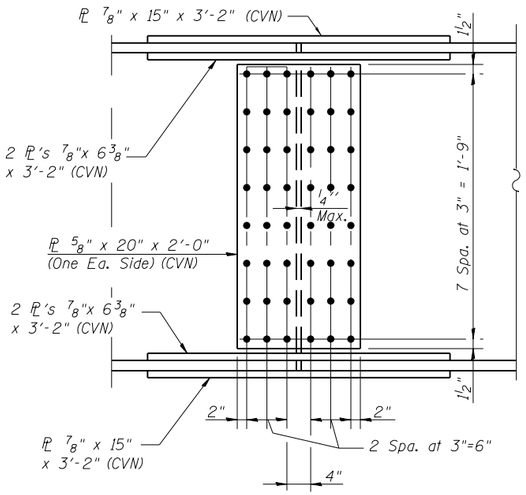
$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

Note:
Splice 1 is shown. Splice 2 is similar but opposite hand.



FLANGE SPLICE PLATE



WEB SPLICE PLATE

FIELD SPLICE DETAIL

44 Required

"CVN" denotes Charpy-V-Notch impact energy requirements, zone 2

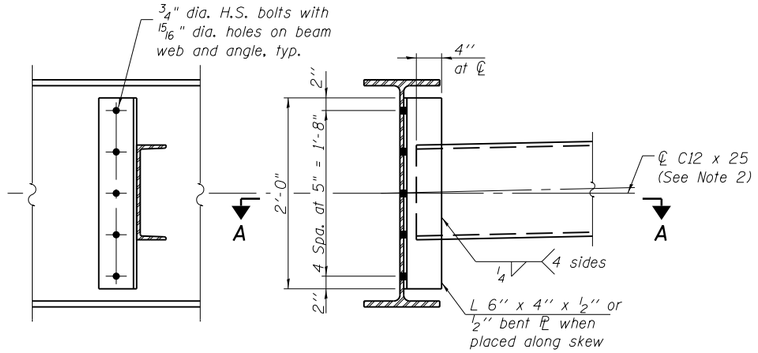
* For the diaphragms (D2) ℄ of 3/4" ϕ H.S. bolts, 15/16" ϕ holes at Beam 13 end of bracing and 13/16" x 1 7/8" long-slotted vertical holes at Beam 14 member connection plate. At Beam 14, locate slotted holes such that at final condition, bolts are at bottom of slots.

The bolts for the slotted holes shall only be finger tightened prior to the deck pouring and to be fully tightened after completion of the pouring for Stage II Construction.

℄ of 3/4" ϕ H.S. bolts, 15/16" ϕ holes at Beam 8 end of bracing and 13/16" x 1 7/8" long-slotted vertical holes at Beam 7 member connection plate.

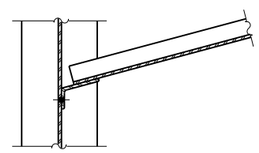
At Beam 7 locate slotted holes such that at final condition, bolts are at bottom of slats.

The bolts for the slotted holes shall only be finger tightened prior to the deck pouring and to be fully tightened after completion of the pouring for Stage III Construction.

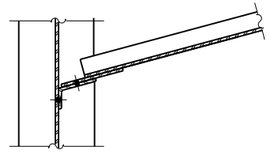


INTERIOR DIAPHRAGM - D1

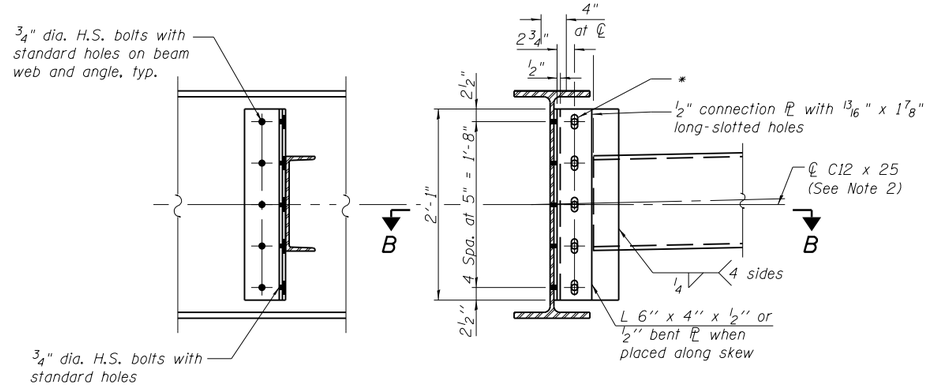
234 Required



SECTION A-A



SECTION B-B



INTERIOR DIAPHRAGM - D2

26 Required

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beram 7	Beam 8	Beam 9	Beam 10
℄ Brg. W. Abut.	557.06	556.91	556.76	556.61	556.46	556.32	556.17	556.03	555.89	555.75
℄ Pier 1	557.50	557.32	557.15	556.97	556.80	556.63	556.45	556.28	556.11	555.94
Splice #1	557.65	557.46	557.28	557.09	556.91	556.73	556.54	556.36	556.18	556.00
Splice #2	558.12	557.91	557.70	557.49	557.29	557.08	556.87	556.66	556.45	556.24
℄ Pier 2	558.22	558.01	557.80	557.59	557.38	557.17	556.96	556.75	556.54	556.33
℄ Brg. E. Abut.	558.52	558.31	558.09	557.87	557.66	557.44	557.23	557.01	556.79	556.58

[1]

	Beam 11	Beam 12	Beam 13	Beam 14	Beam 15	Beam 16	Beram 17	Beam 18	Beam 19	Beam 20	Beam 21	Beam 22
℄ Brg. W. Abut.	556.75	556.61	556.47	556.33	556.19	556.06	555.92	555.79	555.66	555.53	555.40	555.27
℄ Pier 1	557.08	556.92	556.75	556.58	556.41	556.25	556.08	555.92	555.76	555.60	555.44	555.28
Splice #1	557.19	557.02	556.84	556.66	556.49	556.31	556.14	555.97	555.80	555.63	555.46	555.29
Splice #2	557.58	557.38	557.17	556.97	556.76	556.55	556.35	556.14	555.94	555.73	555.53	555.33
℄ Pier 2	557.69	557.48	557.27	557.07	556.86	556.62	556.41	556.19	555.98	555.77	555.55	555.34
℄ Brg. E. Abut.	558.01	557.79	557.58	557.36	557.15	556.83	556.59	556.34	556.10	555.86	555.61	555.37

[1]

Notes:

1. Two hardened washers are required for each set of oversized holes.
2. Alternate C12 x 30 diphragm channels are permitted for D1 and D2 diaphragms to facilitate material acquisition. Calculated weight of structural steel is based on C12 x 25. The alternate, if utilized, shall be provided at no extra cost to the department.
3. The W30 x 173 splice plates for beams shall be AASHTO M270 Grade 50.
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.

HBP Illinois Partners

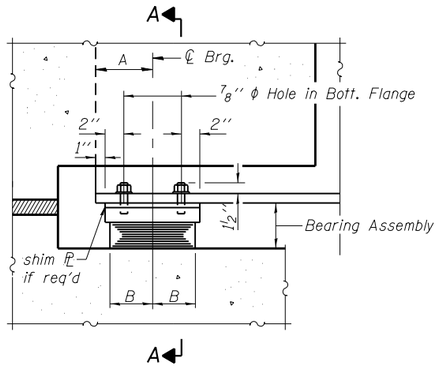
USER NAME = default	DESIGNED TAH	REVISED [1] 3/1/2021 P.A.B.	
	CHECKED YC	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 2/27/2022	CHECKED YC	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

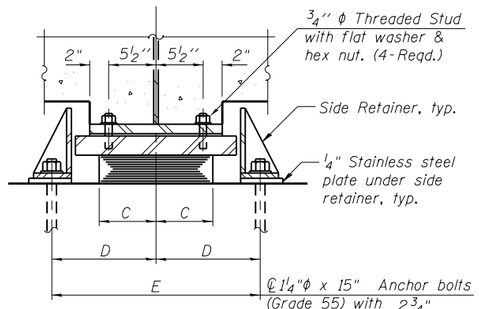
STRUCTURAL STEEL DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 36 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	325
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-036-STDET.dgn



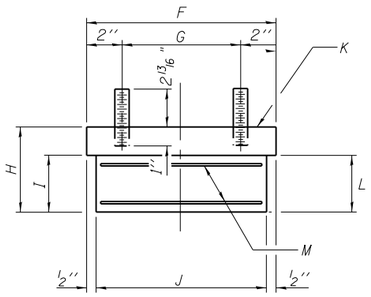
ELEVATION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

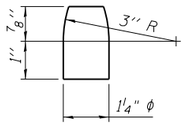
(44 Required)



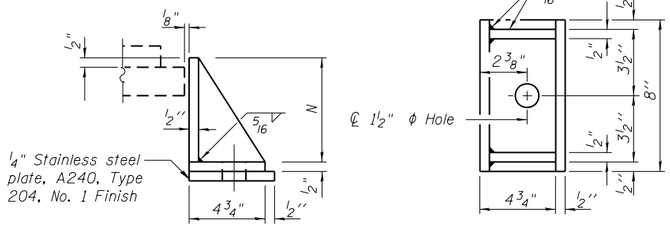
BEARING ASSEMBLY

Shim plates shall not be placed under Bearing Assembly.

	West Abut.	East Abut.
A	7"	6 1/2"
B	5 1/2"	5"
C	8"	7"
D	11 1/2"	11 1/2"
E	1'-11"	1'-11"
F	1'-0"	11"
G	8"	7"
H	5 3/4"	4 3/16"
I	4 1/4"	2 11/16"
J	11"	10"
K	1'-6" x 1'-0" x 1 1/2"	1'-6" x 11" x 1 1/2"
L	7 - Layers of 1/2" Elastomer	5 - Layers of 7/16" Elastomer
M	6 - 1/8" Steel Plates	4 - 1/8" Steel Plates
N	5 3/4"	4 3/4"



PINTLE



SIDE RETAINER

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

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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.

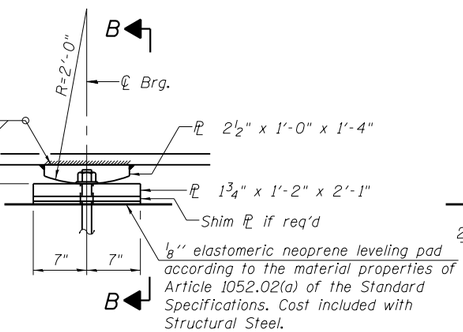
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

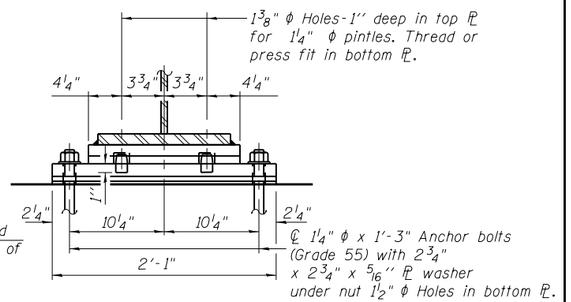
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and shall be placed as shown on bearing details.

Structural steel plates and pintles of the fixed bearing shall conform to the requirements of AASHTO M270 Grade 50.



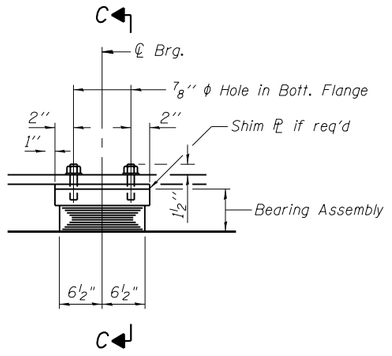
ELEVATION AT PIER



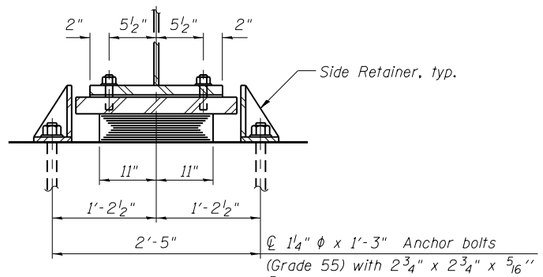
SECTION B-B

FIXED BEARING AT PIER 2

(22 Required)



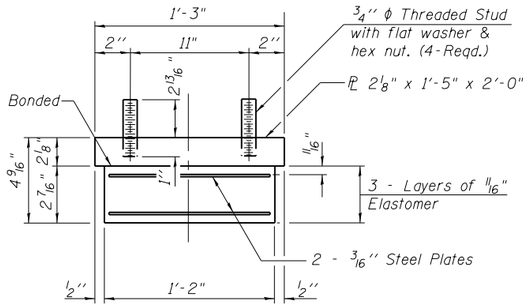
ELEVATION AT PIER



SECTION C-C

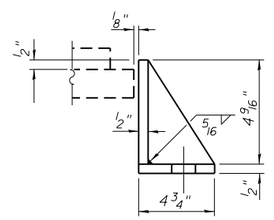
TYPE I ELASTOMERIC EXP. BRG. AT PIER 1

(22 Required)



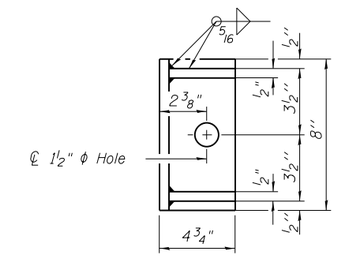
BEARING ASSEMBLY

Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

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



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	66
Anchor Bolts, 1 1/4"	Each	176

USER NAME = default	DESIGNED TAH	REVISED	
	CHECKED YC	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED YC	REVISED	

HBP Illinois Partners

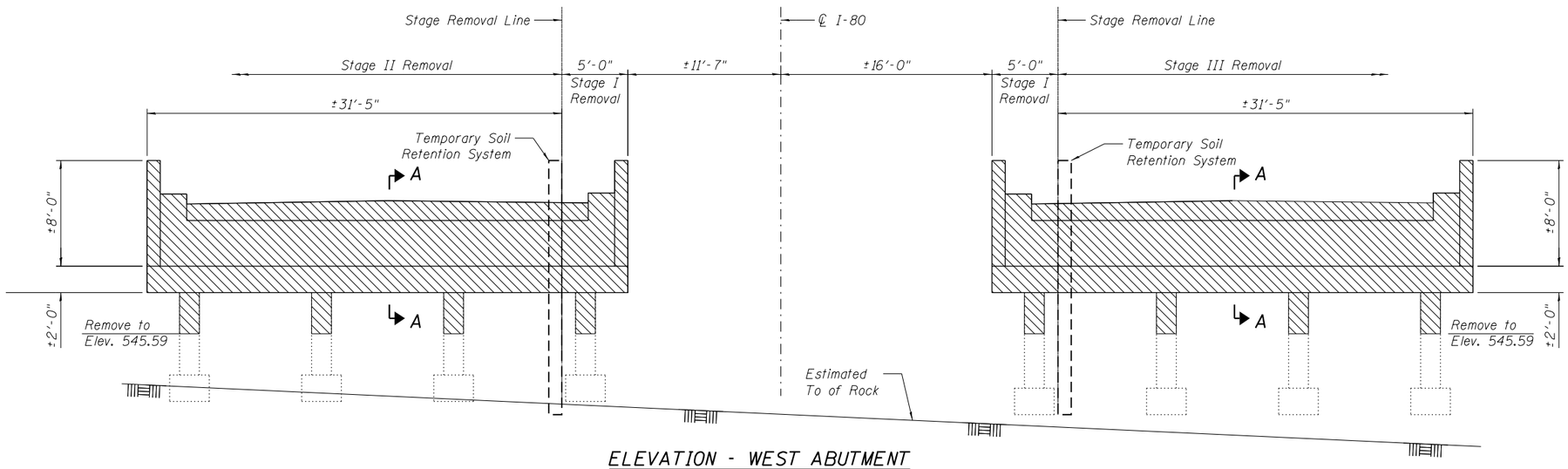
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 37 OF 61 SHEETS

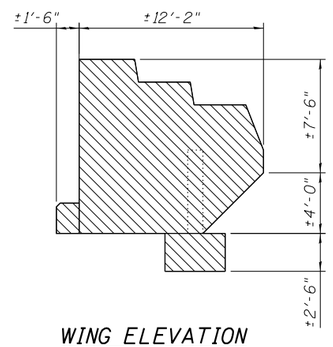
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	326
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-037-BRG.dgn

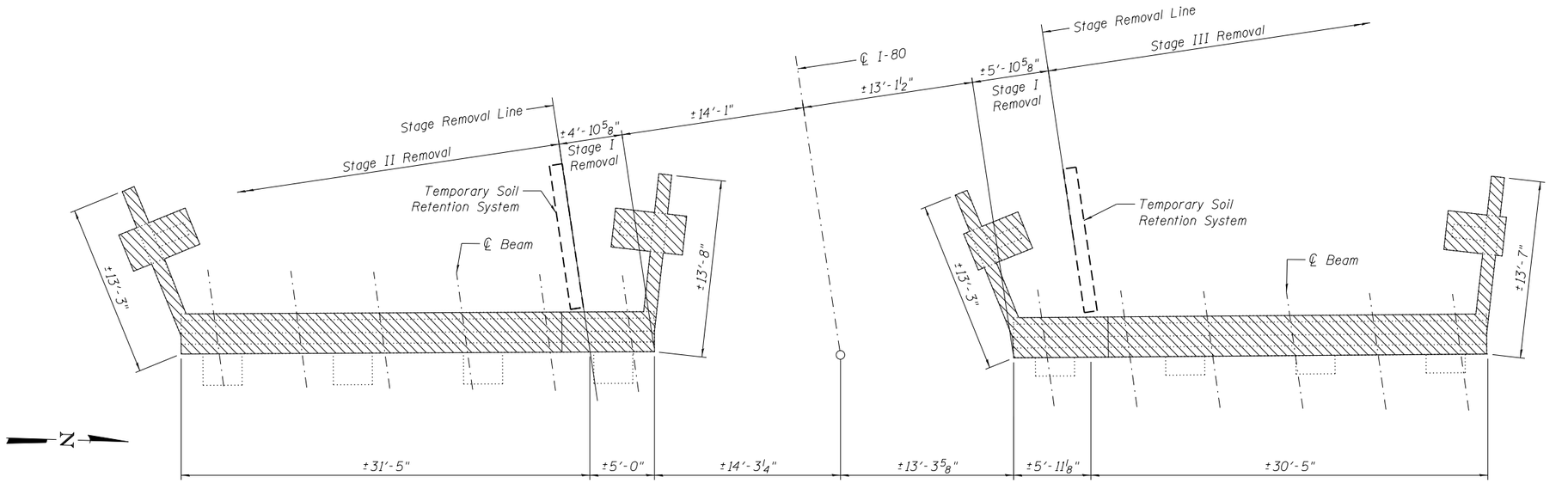


ELEVATION - WEST ABUTMENT

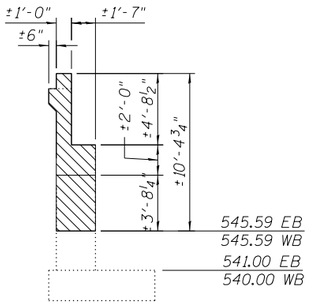
(Looking West)



WING ELEVATION



PLAN - WEST ABUTMENT



SECTION A-A

Notes:
1. Hatched areas indicate Removal of Existing Structures No. 2.
2. Removal shall be paid for as Removal of Existing Stuctures No. 2.
3. See sheet 5 of 61 for Temporary Soil Retention System details.

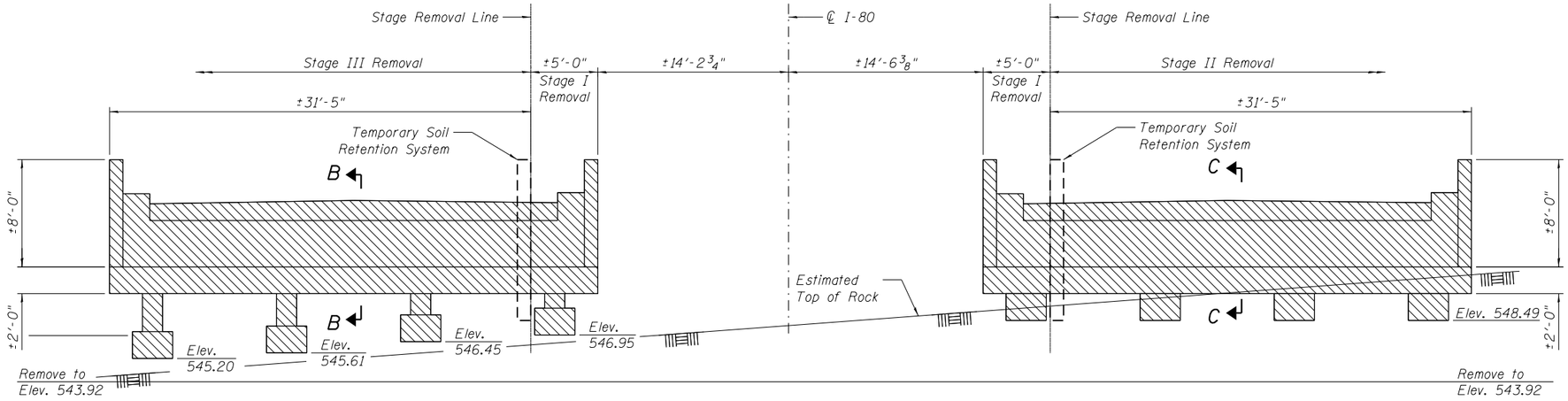
HBP Illinois Partners	USER NAME = default	DESIGNED WJA	REVISED
		CHECKED TAH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED YC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT REMOVAL
STRUCTURE NOS. 099–0900 (E.B.) & 099–0901(W.B.)
SHEET NO. 38 OF 61 SHEETS

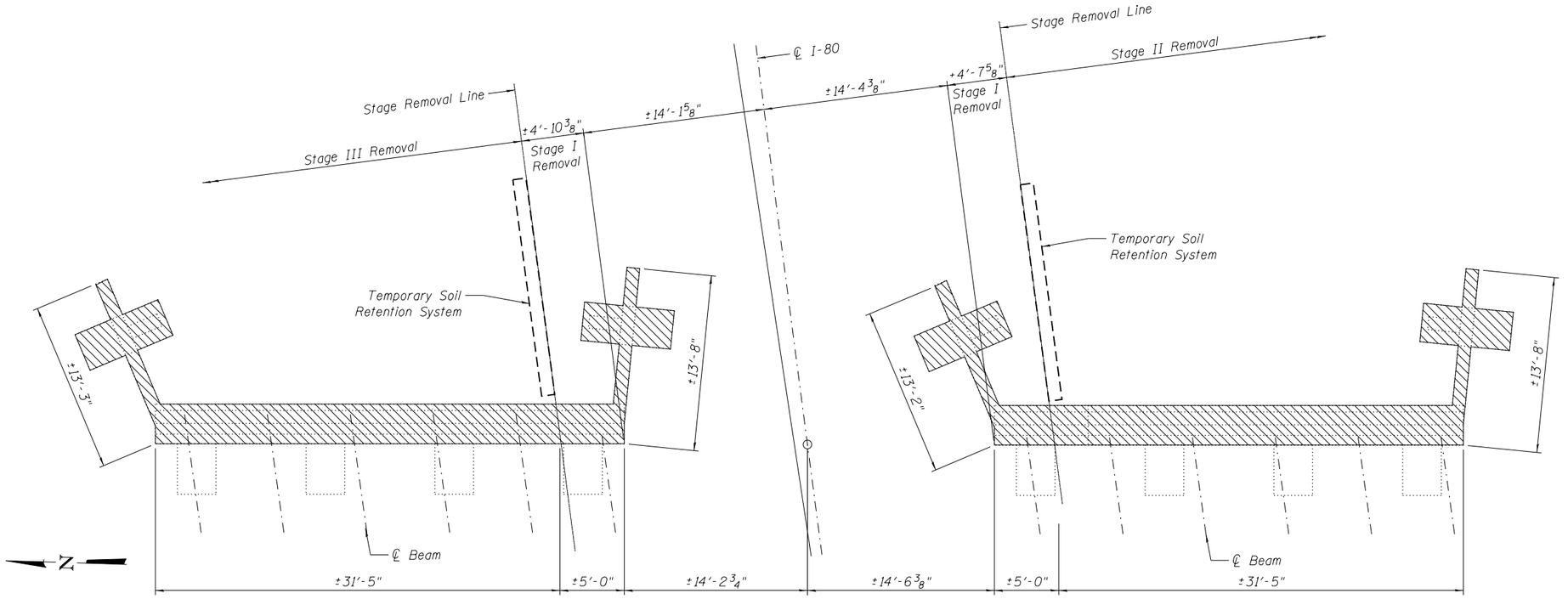
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	327
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-038-WABUT REM.dgn

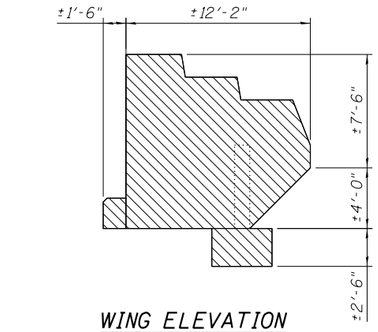


ELEVATION - EAST ABUTMENT

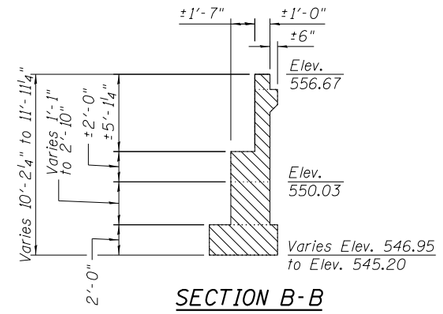
(Looking East)



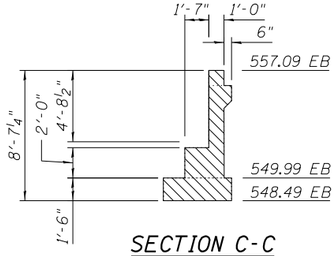
PLAN - EAST ABUTMENT



WING ELEVATION



SECTION B-B



SECTION C-C

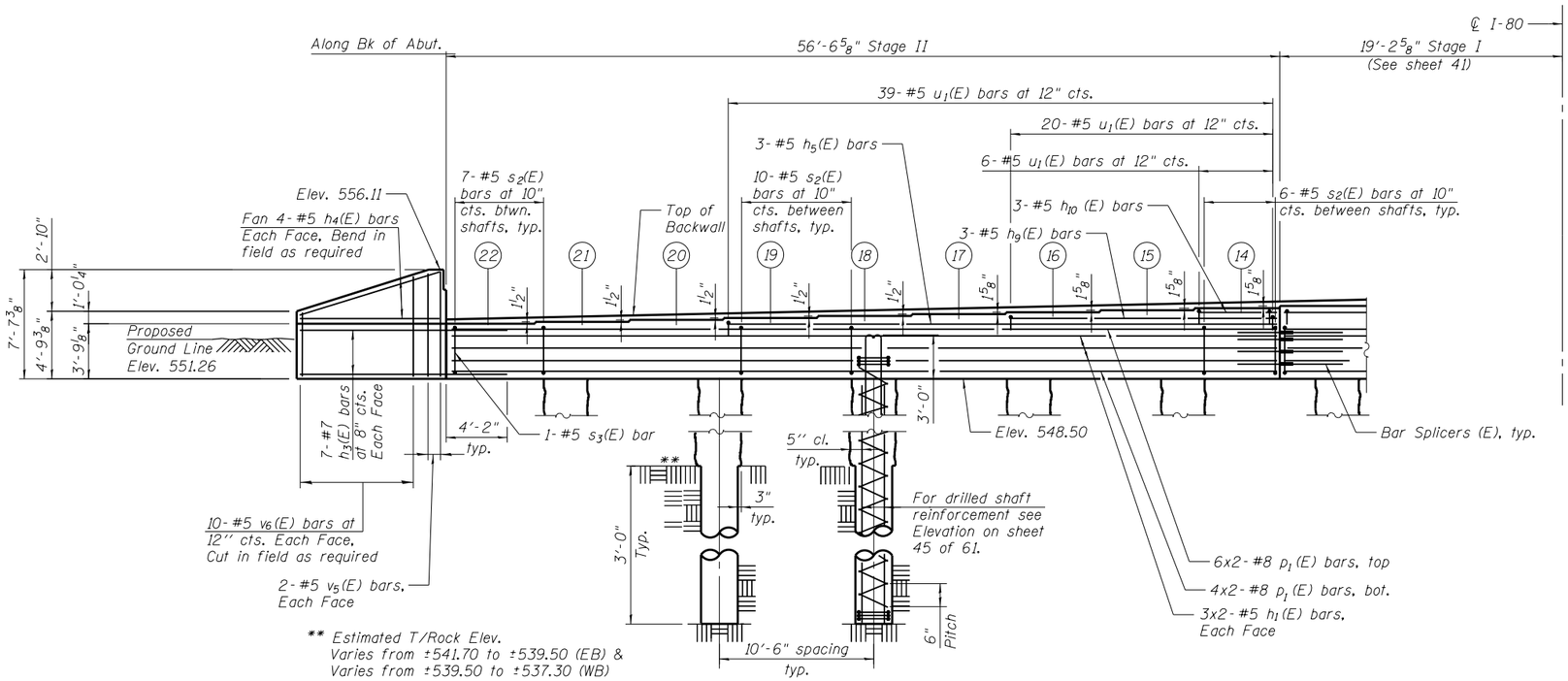
Notes:

1. *Hatched areas indicate Removal of Existing Structures No. 2.*
2. *Removal shall be paid for as Removal of Existing Stuctures No. 2.*
3. *See sheet 5 of 61 for Temporary Soil Retention System details.*

HBP Illinois Partners	USER NAME = default	DESIGNED WJA	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT REMOVAL STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
		CHECKED TAH	REVISED		
	PLOT SCALE = NTS	DRAWN RMH	REVISED		SHEET NO. 39 OF 61 SHEETS
	PLOT DATE = 6/25/2020	CHECKED YC	REVISED		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	328
			CONTRACT NO. 60W34	
		ILLINOIS	FED. AID PROJECT	

FILE NAME = 0990900-099090I-60W34-039-EABUT REM.dgn

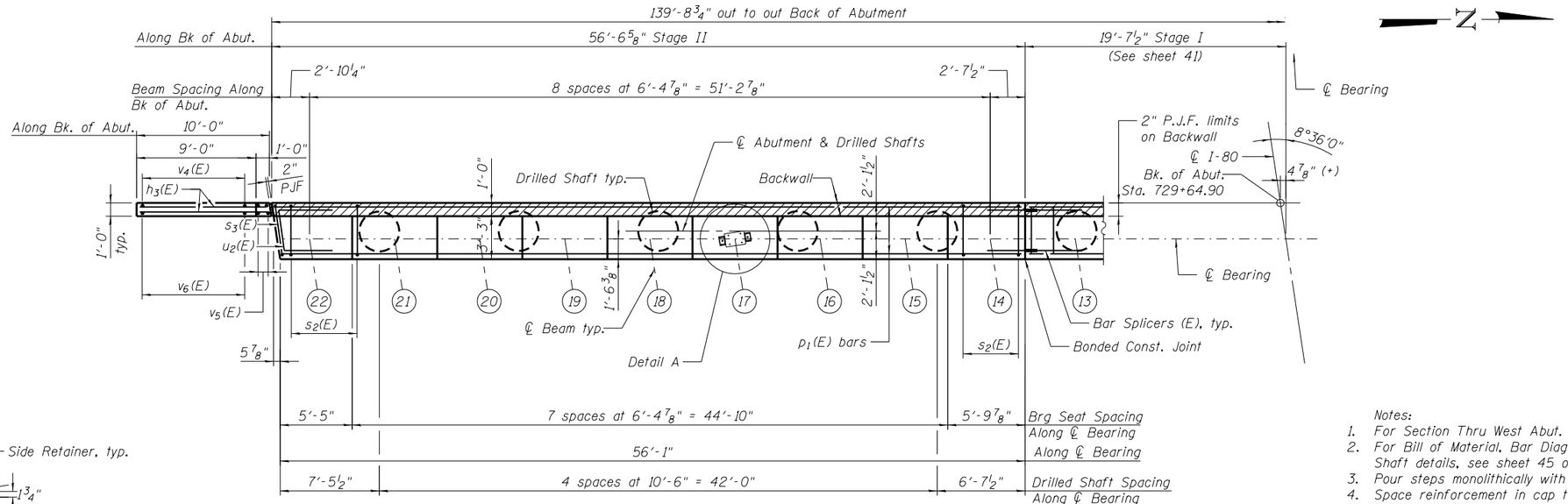


PARTIAL WEST ABUTMENT ELEVATION

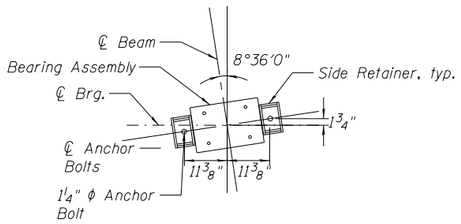
(Looking West)

BEARING SEAT ELEVATIONS

Beam	Elev.
14	553.32
15	553.18
16	553.05
17	552.91
18	552.78
19	552.65
20	552.51
21	552.38
22	552.26



PARTIAL WEST ABUTMENT PLAN



DETAIL A

Notes:
1. For Section Thru West Abut. see sheet 44 of 61.
2. For Bill of Material, Bar Diagrams, and Drilled Shaft details, see sheet 45 of 61.
3. Pour steps monolithically with cap.
4. Space reinforcement in cap to miss anchor bolts.
5. For underpass lighting details, see Electrical Plans.
6. For Temporary Soil Retention System details, see sheet 5 of 61.
7. For Bar Splicer details, see Sheet 54 of 61.

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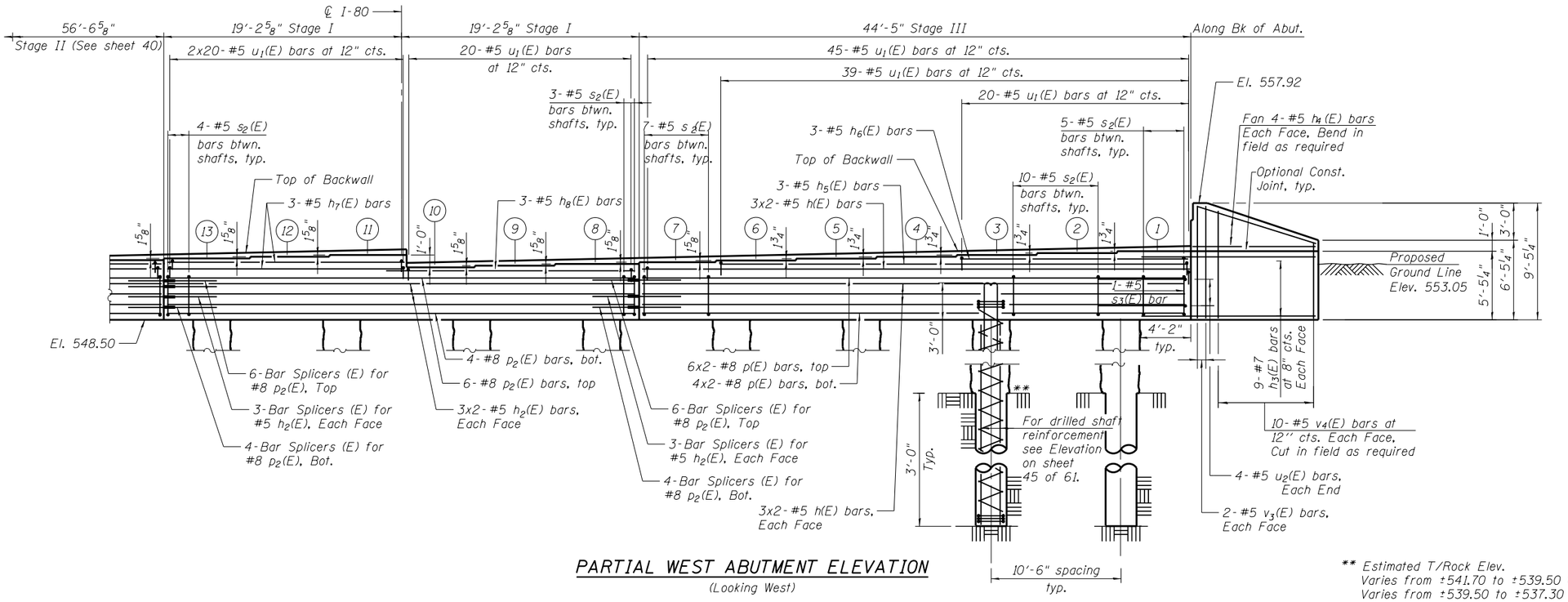
USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 40 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	329
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

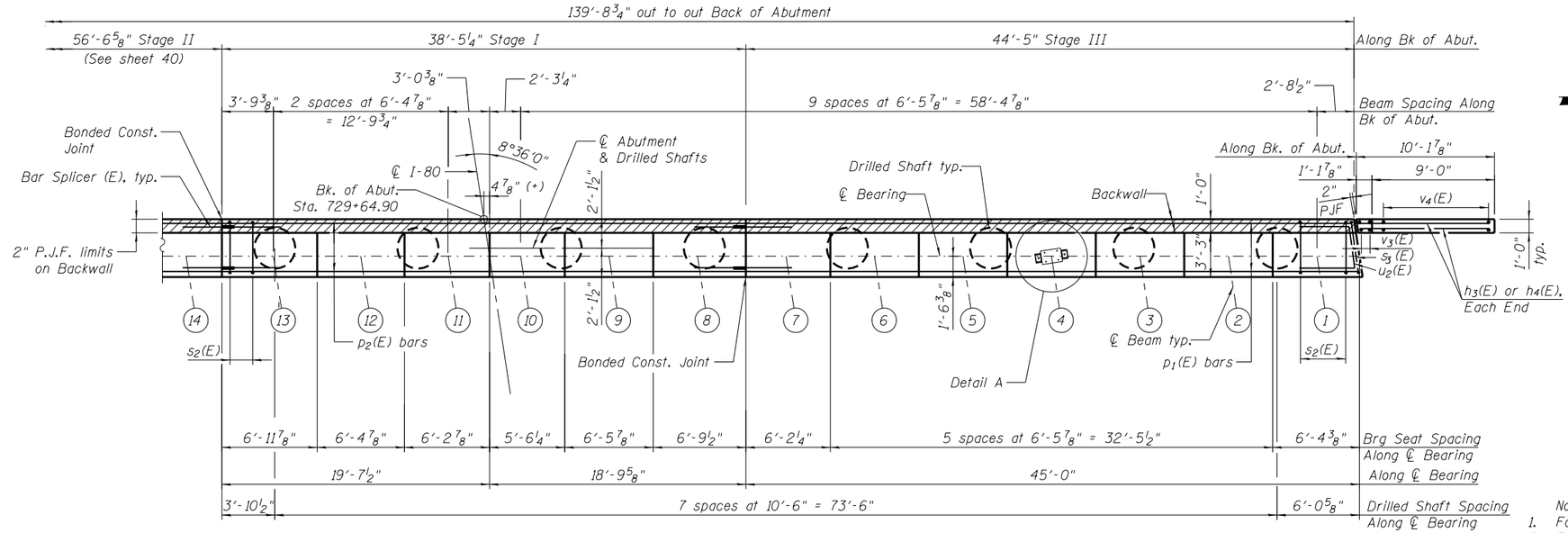
FILE NAME = 0990900-099090I-60W34-040-#ABUT WB.dgn



PARTIAL WEST ABUTMENT ELEVATION

(Looking West)

** Estimated T/Rock Elev.
Varies from ±541.70 to ±539.50 (EB) &
Varies from ±539.50 to ±537.30 (WB)



PARTIAL WEST ABUTMENT PLAN

BEARING SEAT ELEVATIONS

Beam	Elev.
1	554.05
2	553.90
3	553.75
4	553.60
5	553.45
6	553.31
7	553.16
8	553.02
9	552.88
10	552.73
11	553.74
12	553.60
13	553.46

Notes:
1. For Section Thru West Abut. see sheet 44 of 61.
2. For Bill of Material, Bar Diagrams, and Drilled Shaft details, see sheet 45 of 61.
3. Pour steps monolithically with cap.
4. Space reinforcement in cap to miss anchor bolts.
5. For underpass lighting details, see Electrical Plans.
6. For Temporary Soil Retention System details, see sheet 5 of 61.
7. For Bar Splicer details, see Sheet 54 of 61.

HBP Illinois Partners

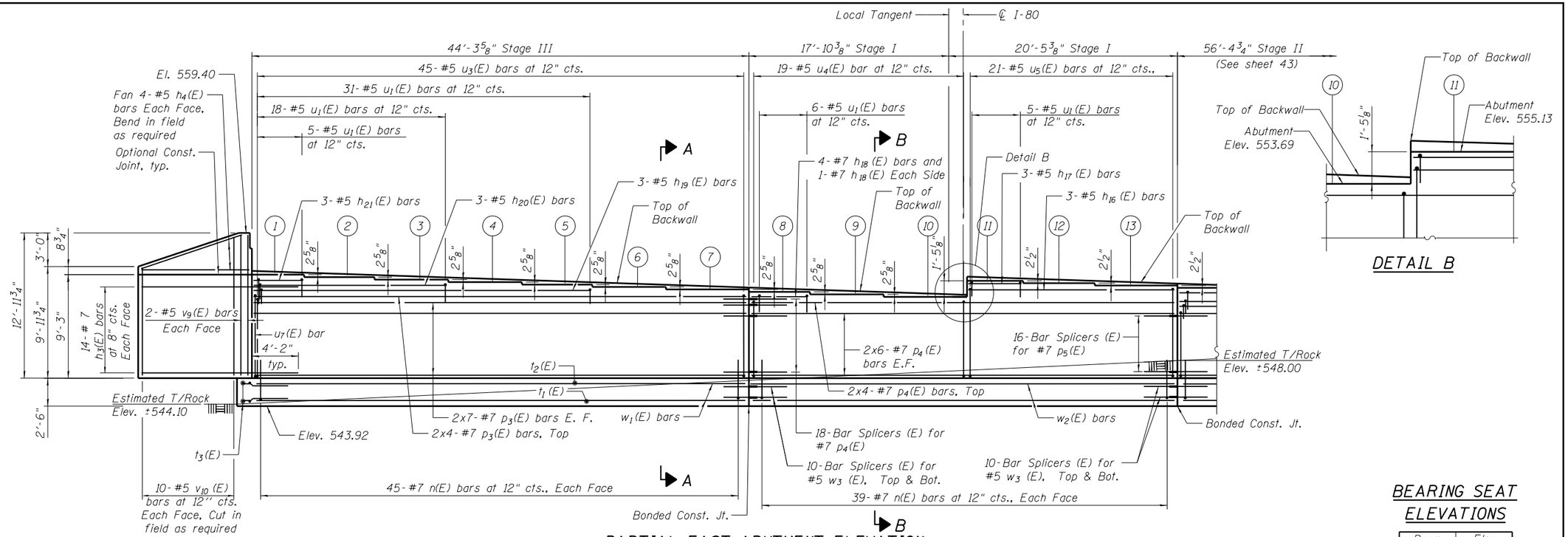
USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 41 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	330
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-04I-WABUT WB.dgn

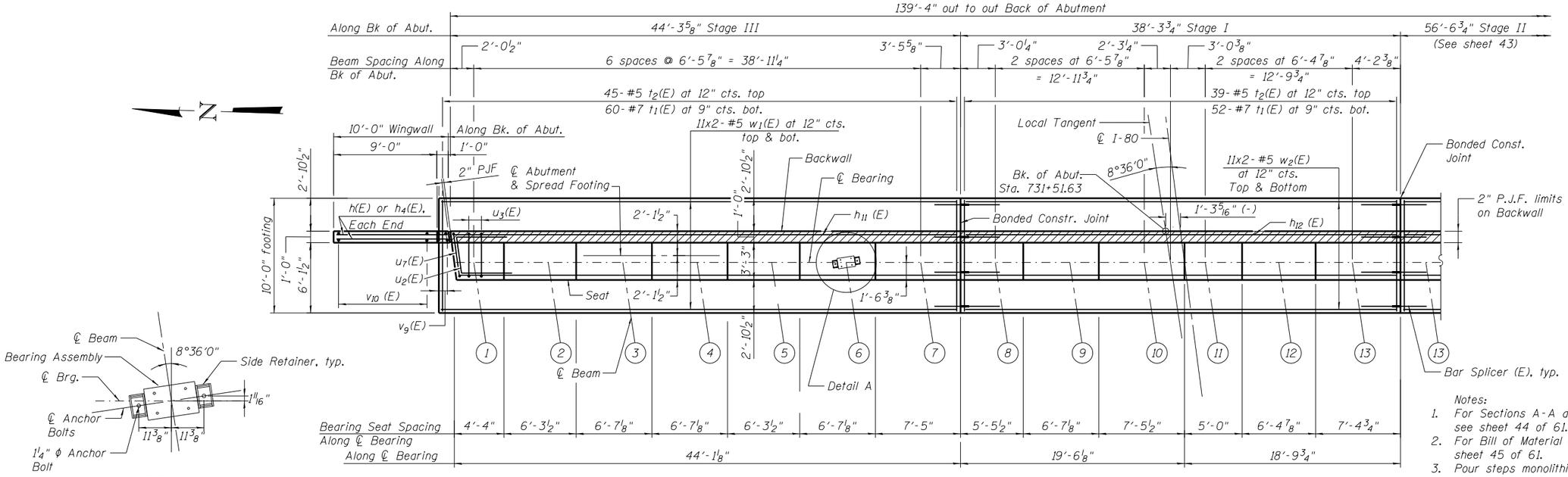


PARTIAL EAST ABUTMENT ELEVATION

(Looking East)

BEARING SEAT ELEVATIONS

Beam	Elev.
1	555.64
2	555.43
3	555.21
4	554.99
5	554.78
6	554.56
7	554.34
8	554.13
9	553.91
10	553.69
11	555.13
12	554.91
13	554.70



PARTIAL EAST ABUTMENT PLAN

Notes:
1. For Sections A-A and B-B, Section Thru West Abut., see sheet 44 of 61.
2. For Bill of Material and Bar Diagrams, see sheet 45 of 61.
3. Pour steps monolithically with cap.
4. Space reinforcement in cap to miss anchor bolts.
5. For underpass lighting details, see Electrical Plans.
6. For Temporary Soil Retention System details, see sheet 5 of 61.
7. For Bar Splicer details, see Sheet 54 of 61.

USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 42 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	331
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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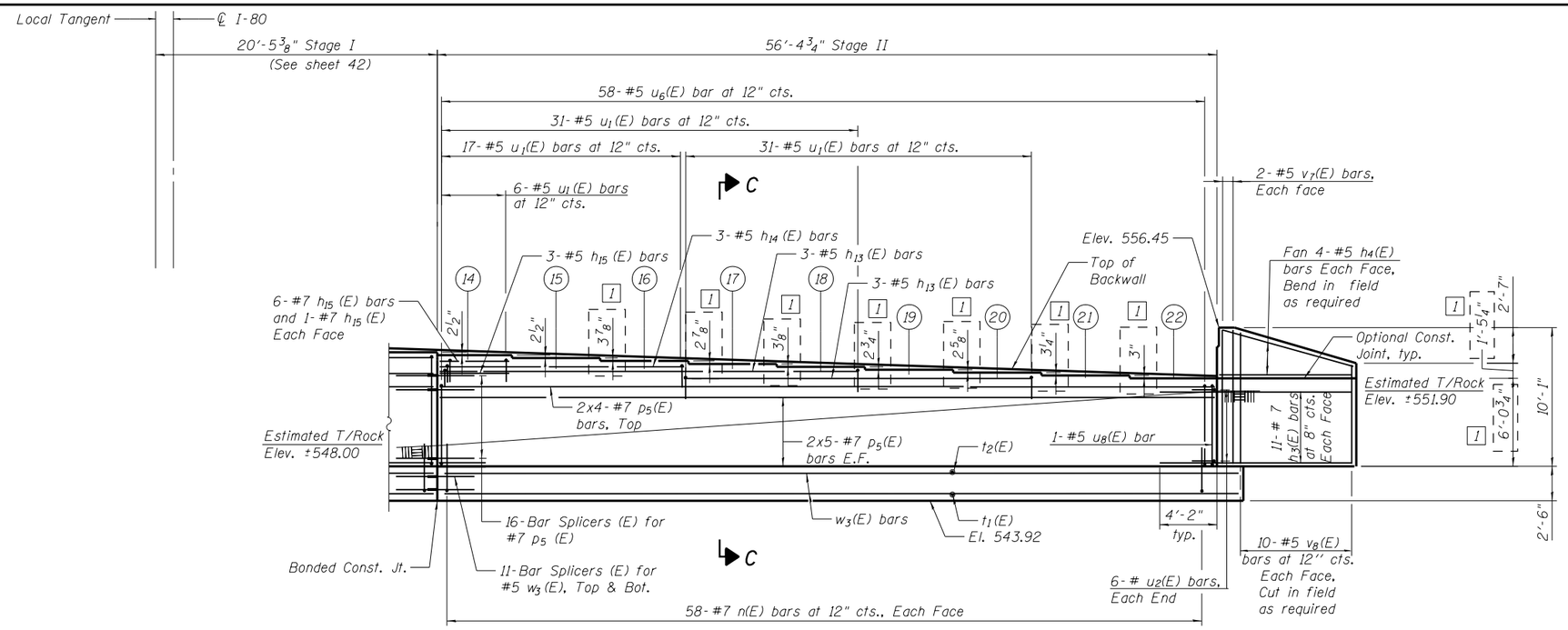


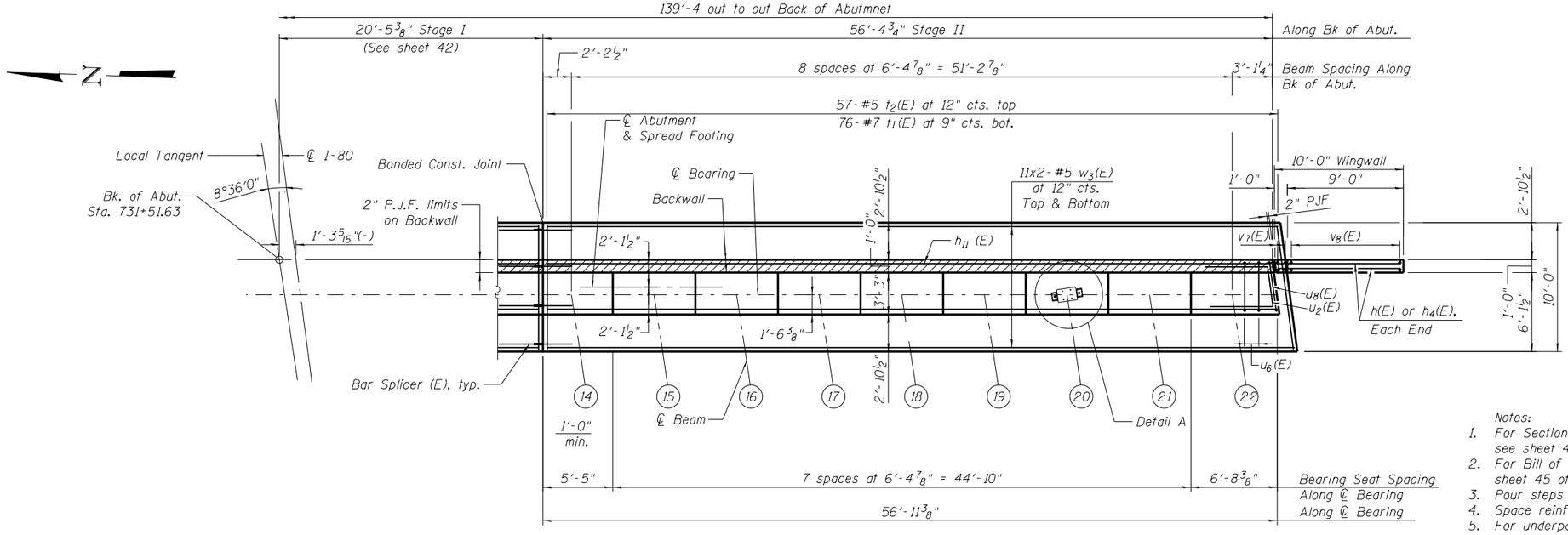
PARTIAL EAST ABUTMENT ELEVATION

(Looking East)

BEARING SEAT ELEVATIONS

Beam	Elev.
14	554.48
15	554.27
16	553.95
17	553.71
18	553.45
19	553.22
20	552.97
21	552.73
22	552.48

1



PARTIAL EAST ABUTMENT PLAN

Notes:

1. For Sections C-C and Section Thru West Abut., see sheet 44 of 61.
2. For Bill of Material and Bar Diagrams, see sheet 45 of 61.
3. Pour steps monolithically with cap.
4. Space reinforcement in cap to miss anchor bolts.
5. For underpass lighting details, see Electrical Plans.
6. For Detail A, see sheet 42 of 61.
7. For Temporary Soil Retention System details, see sheet 5 of 61.
8. For Bar Splicer details, see Sheet 54 of 61.

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USER NAME = default	DESIGNED MSL	REVISED 1 3/1/2021 P.A.B.	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 2/27/2022	CHECKED TAH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 43 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	332
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

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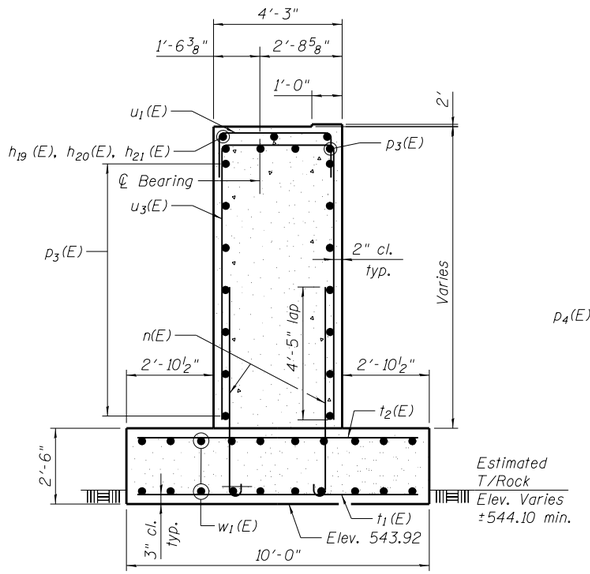
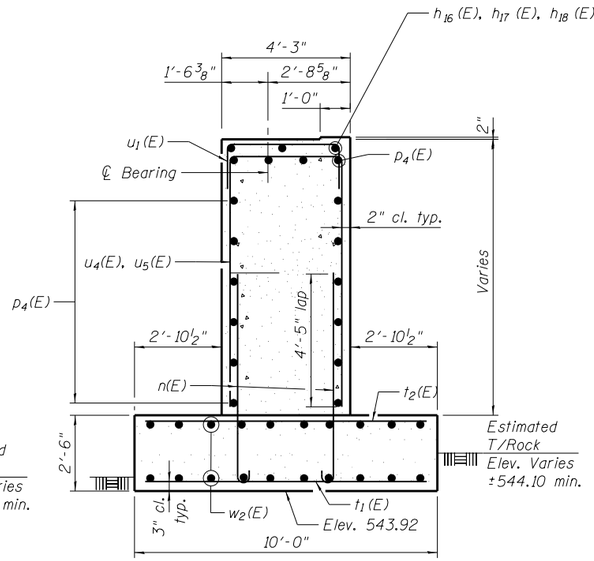


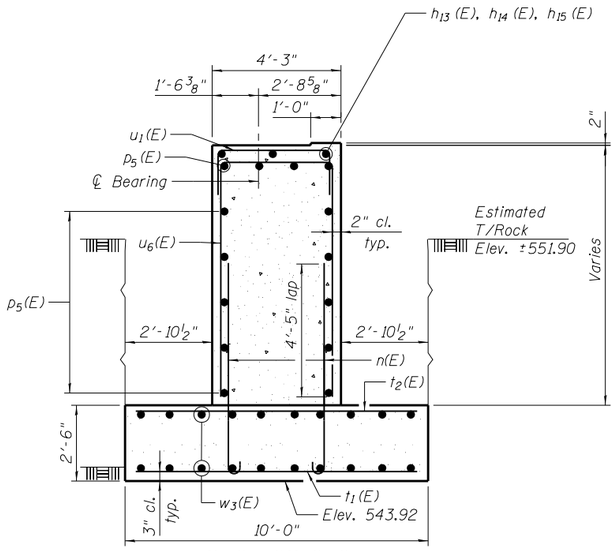
SECTION A-A

Dimensions at right angles to abutment.



SECTION B-B

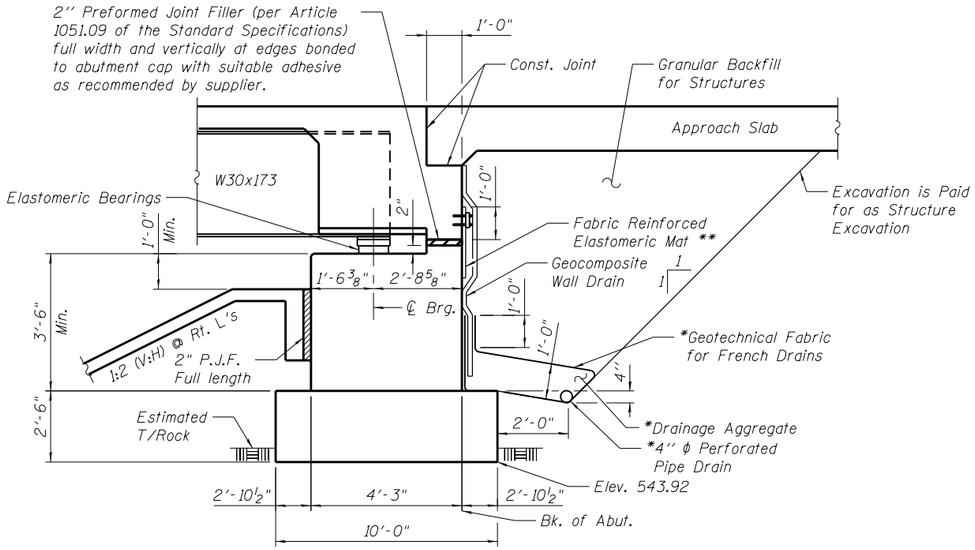
Dimensions at right angles to abutment.



SECTION C-C

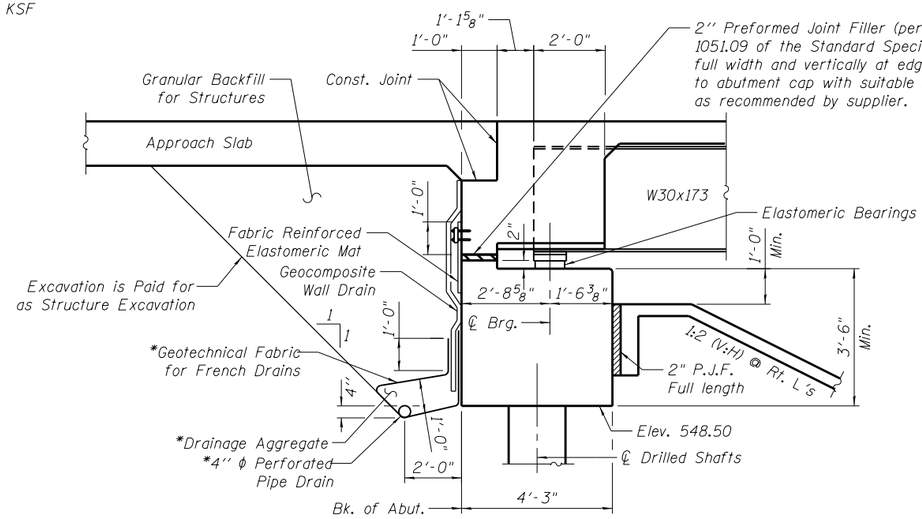
Dimensions at right angles to abutment.

Note:
The maximum applied service bearing pressure at East Abutment: Q_{MAX} = 2.48 KSF



SECTION THRU EAST ABUTMENT

(Horiz. Dim. @ Rt. L's)



SECTION THRU WEST ABUTMENT

(Horiz. Dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions).

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

** Fabric Reinforced Elastomeric Mat according to Section 1028 of the Standard Specifications. Fabric mat shall be 24" wide and attached full width and vertically at edges to the abutment cap with a ⅜" x 5" steel plate and ½" ϕ studs with nuts and washers at 12" cts. Cost included with Concrete Superstructure.

Note:
Since the top of rock is sloping across the footing, the bottom of footing elevation shall be verified and adjusted as needed in the field to ensure 3" minimum embedment in non-weathered rock. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.

HBP Illinois Partners

USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 44 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	333
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

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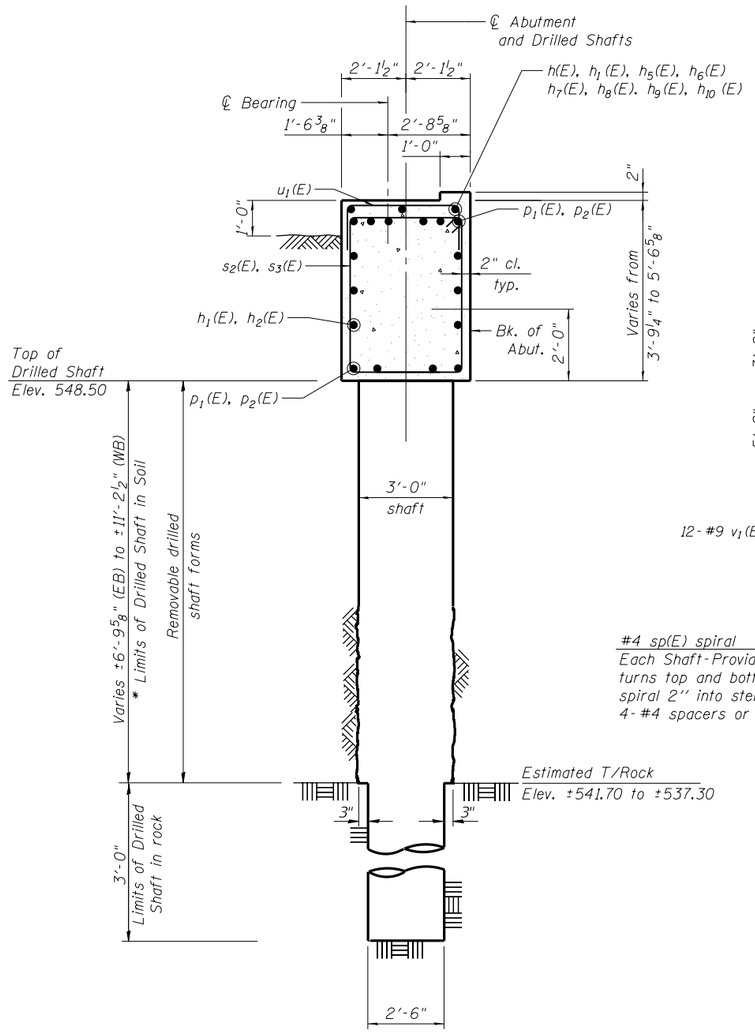
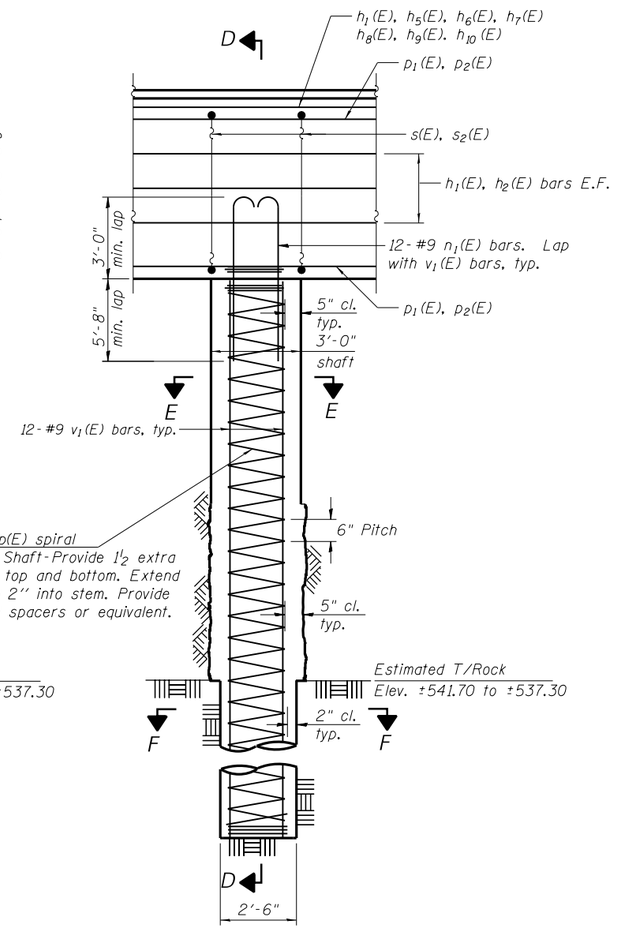
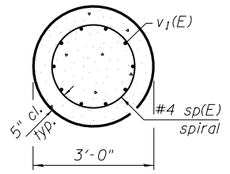


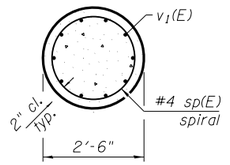
SECTION D-D



ELEVATION
(Looking West)



SECTION E-E



SECTION F-F

BILL OF MATERIAL AT WEST ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	18	#5	24'-0"	——
h1(E)	12	#5	30'-0"	——
h2(E)	12	#5	20'-10"	——
h3(E)	32	#7	14'-0"	——
h4(E)	16	#5	9'-8"	——
h5(E)	6	#5	38'-5"	——
h6(E)	3	#5	18'-11"	——
h7(E)	6	#5	19'-3"	——
h8(E)	3	#5	21'-5"	——
h9(E)	3	#5	18'-4"	——
h10(E)	3	#5	5'-6"	——
n1(E)	156	#9	9'-11"	——⌐
p(E)	20	#8	25'-0"	——
p1(E)	20	#8	30'-7"	——
p2(E)	10	#8	38'-1"	——
s2(E)	132	#5	15'-7"	□
s3(E)	2	#5	15'-8"	□
sp(E)	13	#4	*12'-4"	WWWW
u1(E)	229	#5	7'-5"	⊓
u2(E)	8	#5	11'-8"	⊓
v1(E)	156	#9	11'-10"	——
v3(E)	4	#5	9'-5"	——
v4(E)	20	#5	9'-1"	——
v5(E)	4	#5	7'-3"	——
v6(E)	20	#5	6'-11"	——
Structure Excavation		Cu. Yd.	783	
Concrete Structures		Cu. Yd.	107	
Drilled Shafts in Soil		Cu. Yd.	31	
Drilled Shaft in Rock		Cu. Yd.	8	
Reinforcement Bars, Epoxy Coated		Pounds	22,810	
Concrete Sealer		Sq. Ft.	2,244	

BILL OF MATERIAL AT EAST ABUTMENT

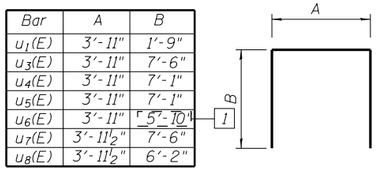
Bar	No.	Size	Length	Shape
h3(E)	50	#7	14'-0"	——
h4(E)	16	#5	9'-8"	——
h13(E)	6	#5	30'-8"	——
h14(E)	3	#5	17'-10"	——
h15(E)	6	#7	5'-1"	——
h16(E)	3	#5	18'-5"	——
h17(E)	3	#5	4'-8"	——
h18(E)	6	#7	5'-1"	——
h19(E)	3	#5	29'-9"	——
h20(E)	3	#5	16'-11"	——
h21(E)	3	#5	4'-0"	——
n(E)	284	#7	7'-5"	——⌐
p3(E)	36	#7	24'-4"	——
p4(E)	32	#7	21'-6"	——
p5(E)	28	#7	30'-6"	——
t1(E)	188	#7	9'-8"	——
t2(E)	141	#5	9'-8"	——
u1(E)	150	#5	7'-5"	⊓
u2(E)	12	#5	11'-8"	⊓
u3(E)	45	#5	18'-11"	⊓
u4(E)	19	#5	18'-1"	⊓
u5(E)	21	#5	18'-1"	⊓
u6(E)	58	#5	15'-7"	⊓ 1
u7(E)	1	#5	19'-0"	⊓
u8(E)	1	#5	16'-4"	⊓
v7(E)	4	#5	9'-9"	——
v8(E)	20	#5	9'-5"	——
v9(E)	4	#5	12'-11"	——
v10(E)	20	#5	12'-7"	——
w1(E)	44	#5	24'-0"	——
w2(E)	44	#5	20'-9"	——
w3(E)	44	#5	30'-0"	——
Rock Excavation for Structures		Cu. Yd.	252	
Structure Excavation		Cu. Yd.	1857	
Concrete Structures		Cu. Yd.	311	1
Reinforcement Bars, Epoxy Coated		Pounds	24,500	1
Concrete Sealer		Sq. Ft.	3,649	

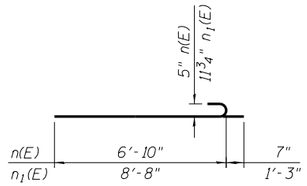
TYP. LAP SPLICE

Bar Size	Min. Lap
#5	3'-2"
#7	4'-5"
#8	5'-1"
#9	5'-8"

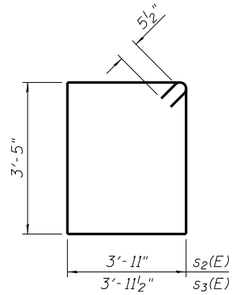
* Length is average height of spiral. Contractor shall ensure spiral lengths are sufficient for each of the variable depths of drilled shafts.

Bar	A	B
u1(E)	3'-11"	1'-9"
u3(E)	3'-11"	7'-6"
u4(E)	3'-11"	7'-1"
u5(E)	3'-11"	7'-1"
u6(E)	3'-11"	5'-10" 1
u7(E)	3'-11½"	7'-6"
u8(E)	3'-11½"	6'-2"

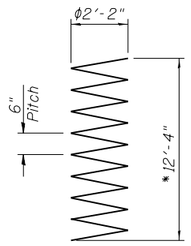




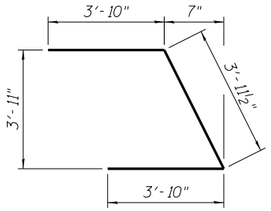
BAR n(E), n1(E)



BARs s2(E), s3(E)



BAR sp (E)



BAR u2(E)

Note:
See sheet 54 of 61 for Bar Splicer (E) details.

HBP Illinois Partners

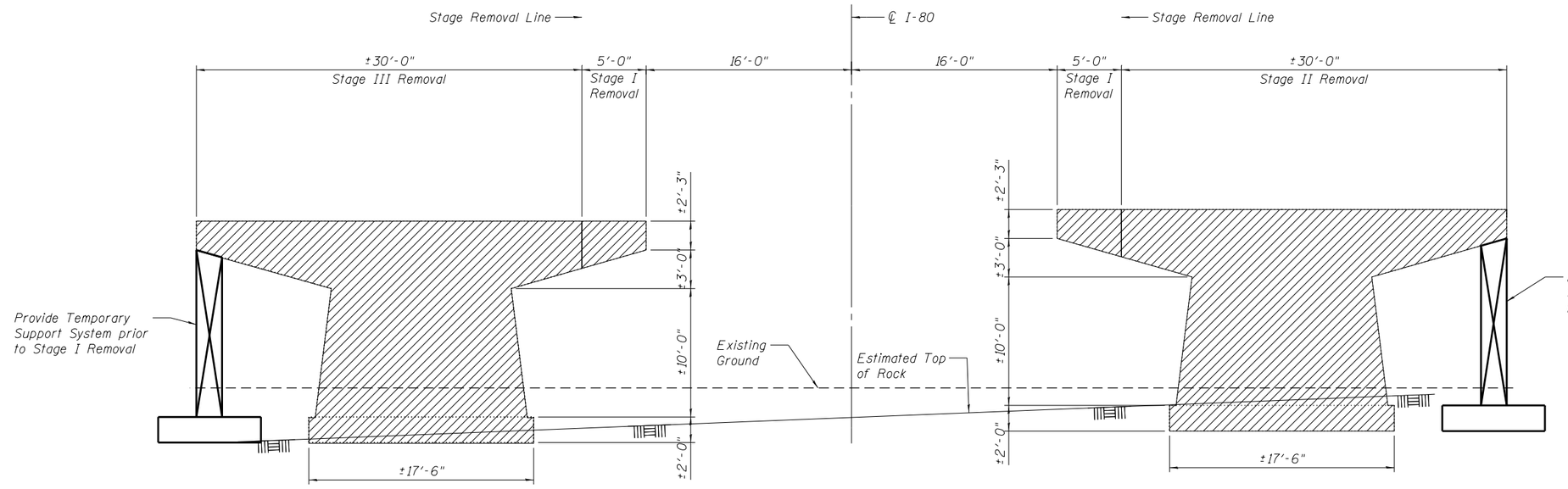
USER NAME = default	DESIGNED MSL	REVISED 1 3/1/2021 P.A.B.	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 2/27/2022	CHECKED TAH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

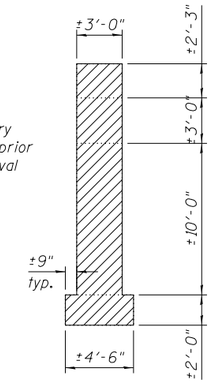
ABUTMENT DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 45 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	334
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

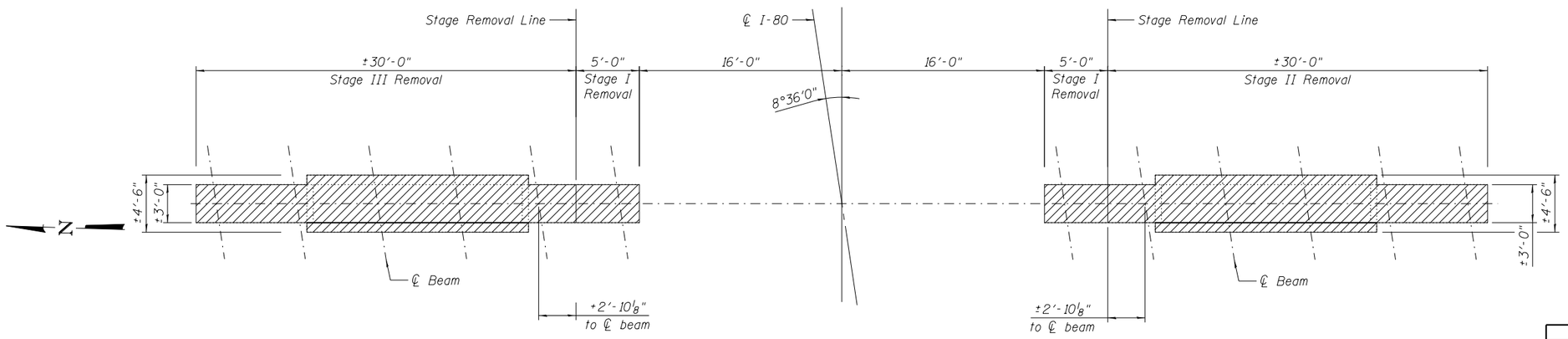
FILE NAME = 0990900-0990901-60W34-045-ABUT DTL.dgn



ELEVATION
(Looking East)



TYPICAL SECTION THRU PIER



TOP PLAN

BILL OF MATERIAL

Item	Units	Qty.
Temporary Support System	Each	2

Notes:
1. The design and documentation of the temporary support system must be sealed by a licensed structural engineer in the State of Illinois and submitted to the Engineer for review and approval.
2. At each Pier, provide Temporary Support System prior to Stage I Removal. The Temporary Support System shall be designed for the following unfactored Service loads:
   Dead Load = 117 kips
   Live Load = 55 kips

Notes:
1. Hatched areas indicate Removal of Existing Structures No. 2.
2. Removal shall be paid for as Removal of Existing Stuctures No. 2.

HBP Illinois Partners

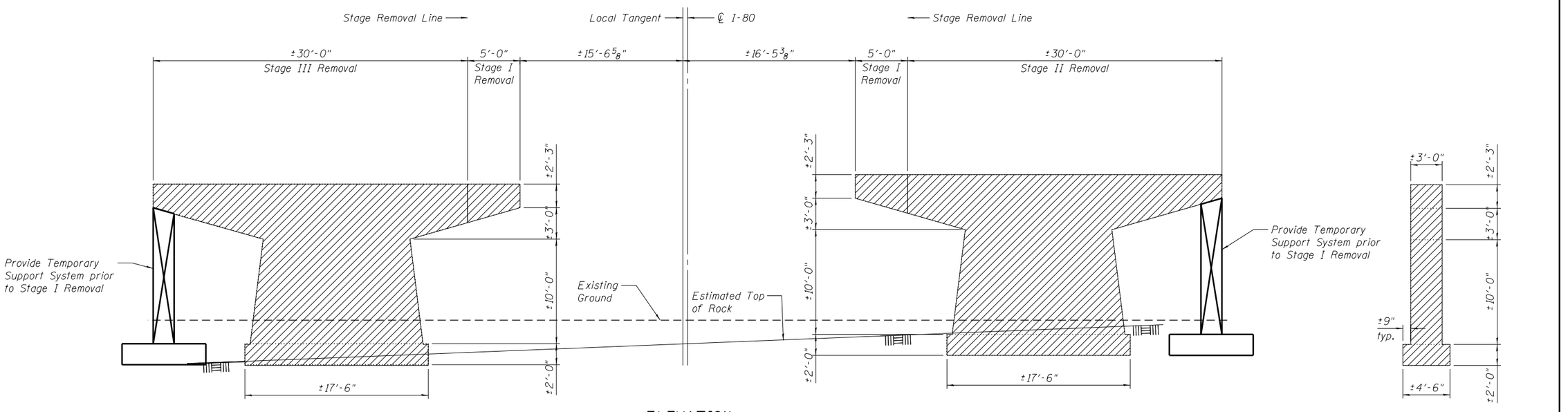
USER NAME = default	DESIGNED WJA	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REMOVAL
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 46 OF 61 SHEETS

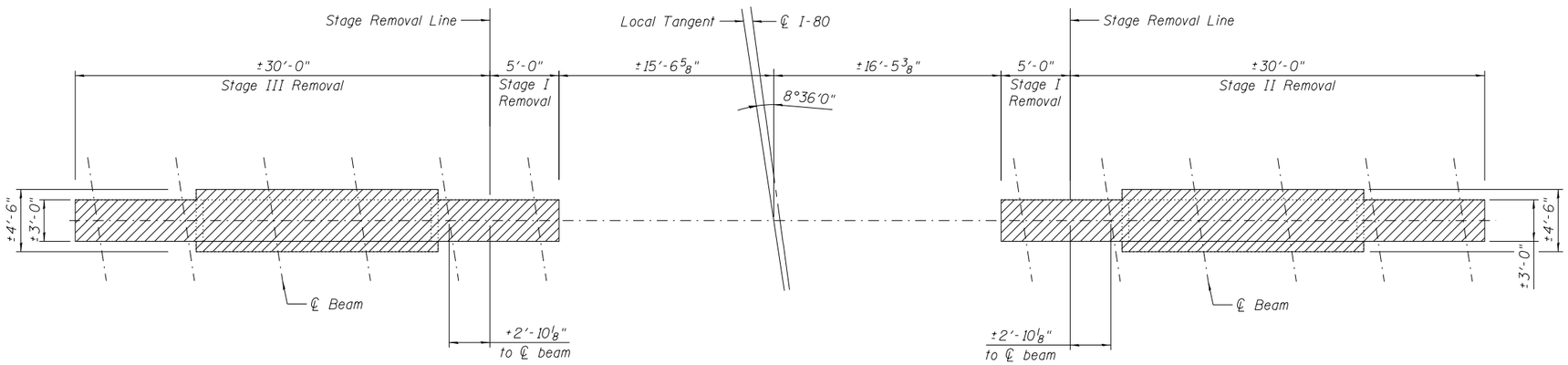
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	335
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-046-PIERREM.dgn



ELEVATION
(Looking East)

TYPICAL SECTION THRU PIER



TOP PLAN

Notes:
1. The design and documentation of the temporary support system must be sealed by a licensed structural engineer in the State of Illinois and submitted to the Engineer for review and approval.
2. At each Pier, provide Temporary Support System prior to Stage I Removal. The Temporary Support System shall be designed for the following unfactored Service loads:
   Dead Load = 117 kips
   Live Load = 55 kips

BILL OF MATERIAL

Item	Units	Qty.
Temporary Support System	Each	2

Notes:
1. Hatched areas indicate Removal of Existing Structures No. 2.
2. Removal shall be paid for as Removal of Existing Stuctures No. 2.

HBP Illinois Partners

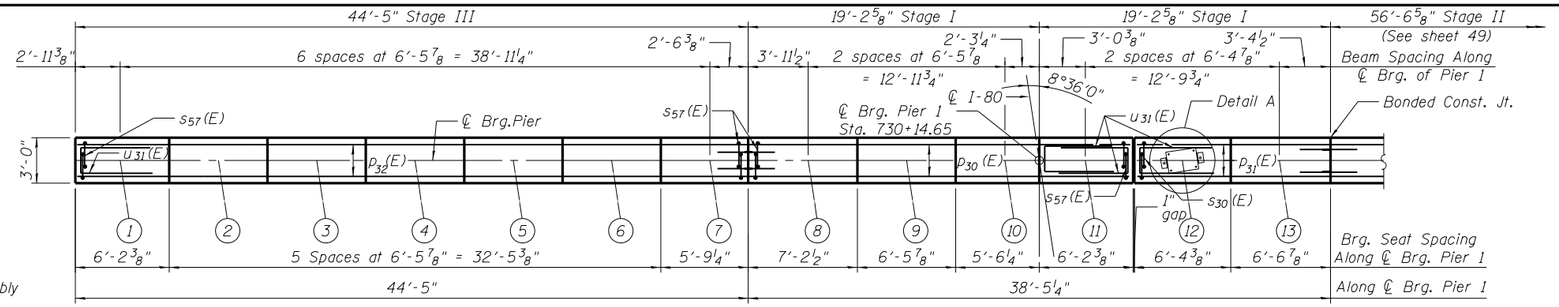
USER NAME = default	DESIGNED WJA	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REMOVAL
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 47 OF 61 SHEETS

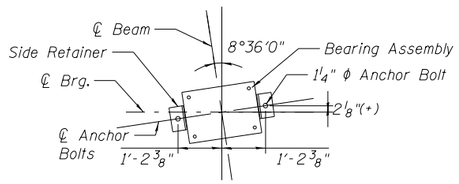
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	336
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-047-PIER2 REM.dgn



PARTIAL TOP PLAN - PIER 1

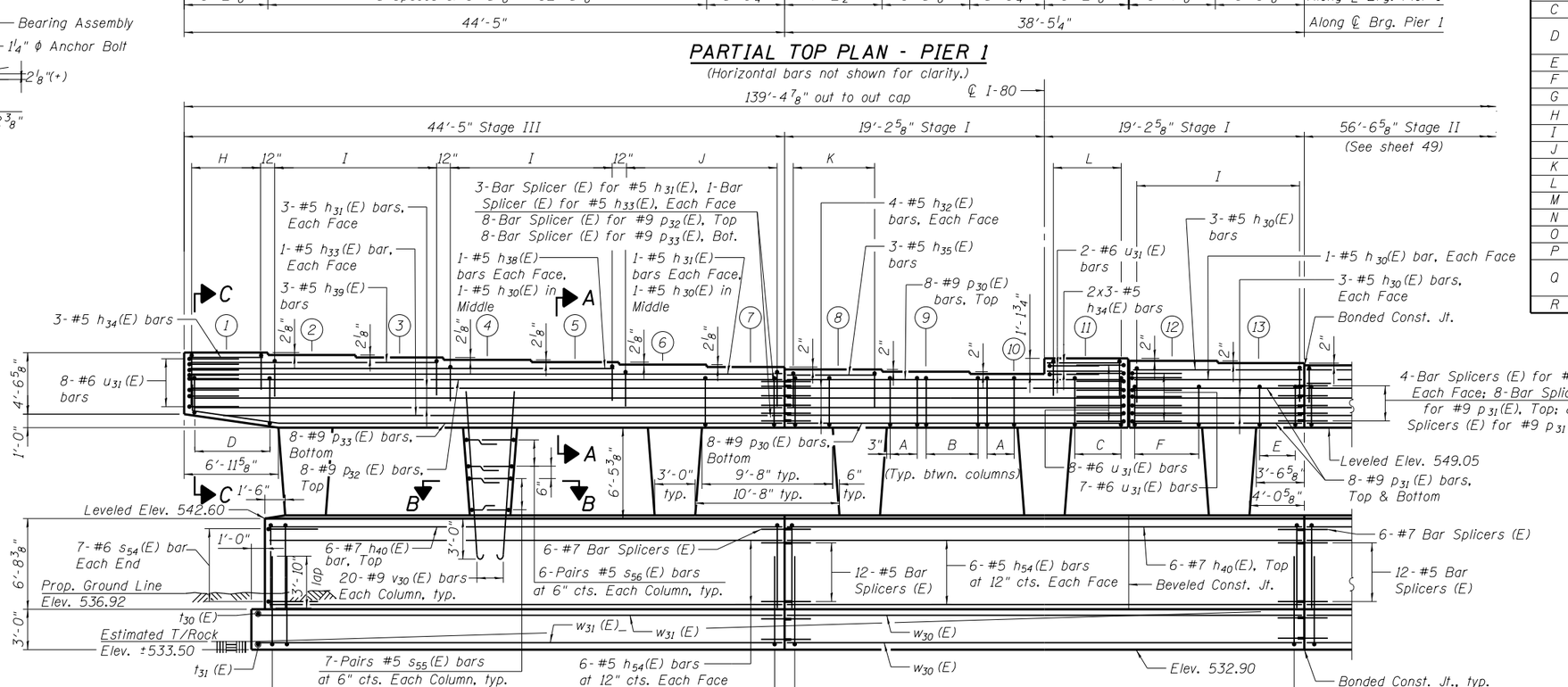
(Horizontal bars not shown for clarity.)



DETAIL A

BAR SCHEDULE

Label	Bar (Stirrup) and Quantity	Spacing
A	7 pairs-#5 s_{57}(E)	4"
B	8 pairs-#5 s_{57}(E)	8"
C	11 pairs-#5 s_{57}(E)	4"
D	21 pairs-#5 s_{58}(E) thru #5 s_{78}(E)	4"
E	11 pairs-#5 s_{30}(E)	4"
F	14 pairs-#5 s_{30}(E)	4"
G	7 pairs-#5 s_{30}(E)	4"
H	6-#5 u_{30}(E)	12"
I	13-#5 u_{30}(E)	12"
J	12-#5 u_{30}(E)	12"
K	7-#5 u_{30}(E)	12"
L	6-#5 u_{30}(E)	12"
M	20-#5 u_{30}(E)	12"
N	8 pairs-#5 s_{30}(E)	8"
O	6 pairs-#5 s_{30}(E)	4"
P	6 pairs-#5 s_{30}(E)	8"
Q	21 pairs-#5 s_{31}(E) thru #5 s_{51}(E)	4"
R	6 pairs-#5 s_{30}(E)	4"

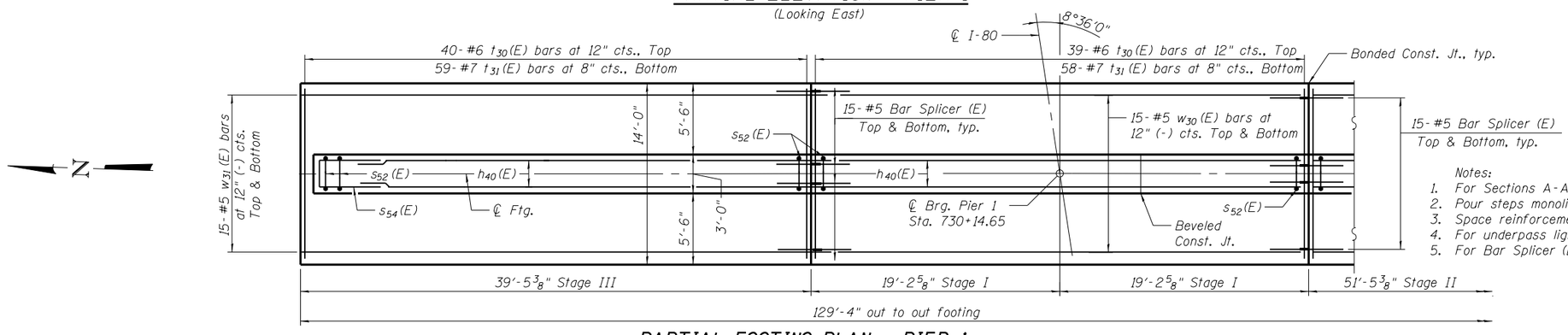


PARTIAL ELEVATION - PIER 1

(Looking East)

BEARING SEAT ELEVATIONS

Beam	Elev.	
1	554.59	1
2	554.41	
3	554.24	
4	554.05	1
5	554.05	
6	553.71	
7	553.54	
8	553.36	
9	553.19	
10	553.02	
11	554.17	
12	554.00	
13	553.83	



PARTIAL FOOTING PLAN - PIER 1

Notes:
1. For Sections A-A thru C-C, see sheet 50 of 61.
2. Pour steps monolithically with cap.
3. Space reinforcement in cap to miss anchor bolts.
4. For underpass lighting details, see Electrical plans.
5. For Bar Splicer (E) details, see sheet 54 of 61.

HBP Illinois Partners

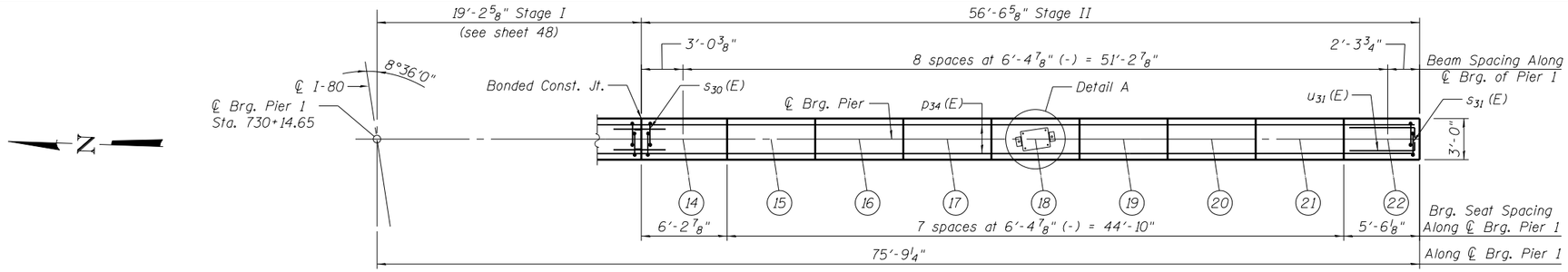
USER NAME = default	DESIGNED MSL	REVISED 1 3/1/2021 P.A.B.
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 2/27/2022	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS I
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 48 OF 61 SHEETS

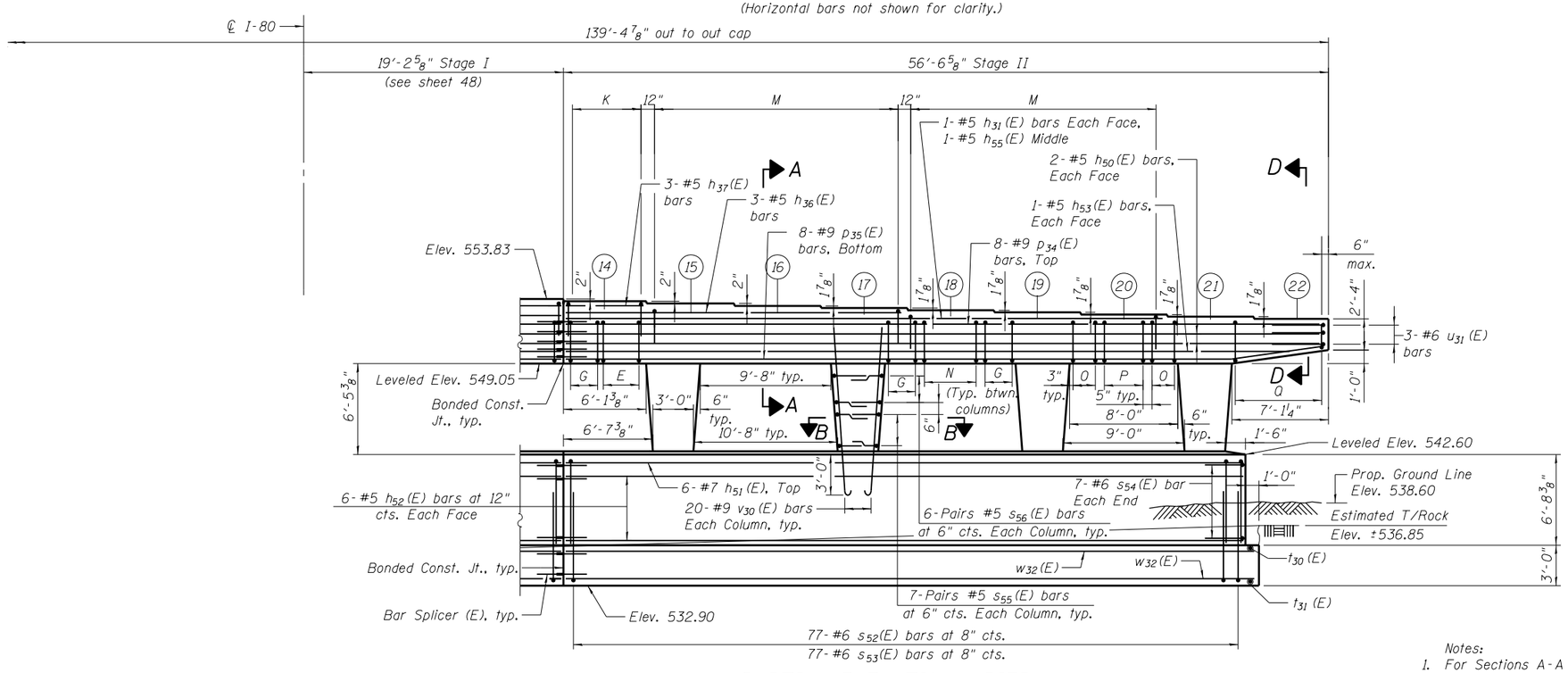
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	337
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-0990901-60W34-048-PIER1.dgn



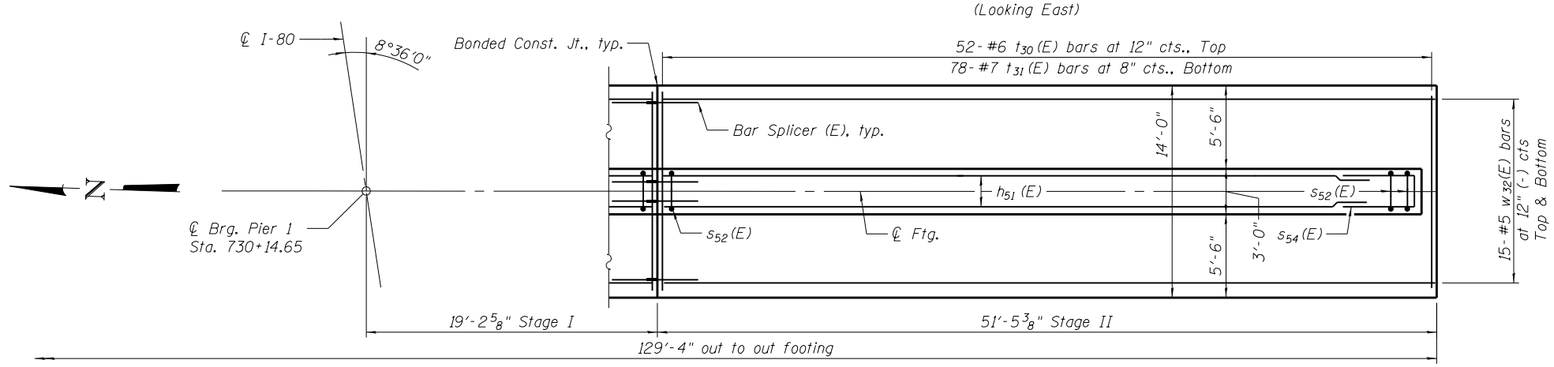
PARTIAL TOP PLAN - PIER 1

(Horizontal bars not shown for clarity.)



PARTIAL ELEVATION - PIER 1

(Looking East)



PARTIAL FOOTING PLAN - PIER 1

BEARING SEAT ELEVATIONS

Beam	Elev.
14	553.66
15	553.50
16	553.33
17	553.17
18	553.00
19	552.84
20	552.68
21	552.52
22	552.37

Notes:

1. For Sections A-A thru C-C, see Sheet 50 of 61.
2. Pour steps monolithically with cap.
3. Space reinforcement in cap to miss anchor bolts.
4. For underpass lighting details, see Electrical plans.
5. For Detail A, see sheet 48 of 61.
6. For Bar Schedule, see sheet 48 of 61.
7. For Bar Splicers details, see sheet 54 of 61.

HBP Illinois Partners

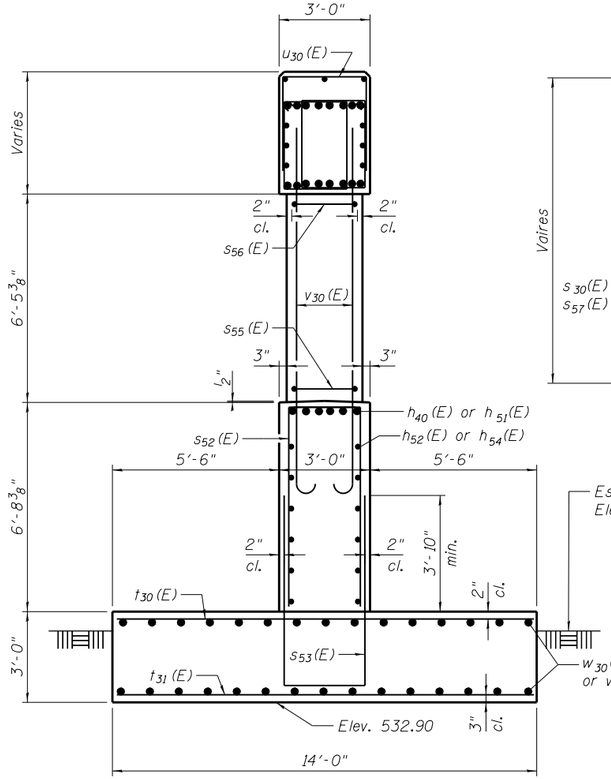
USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 49 OF 61 SHEETS

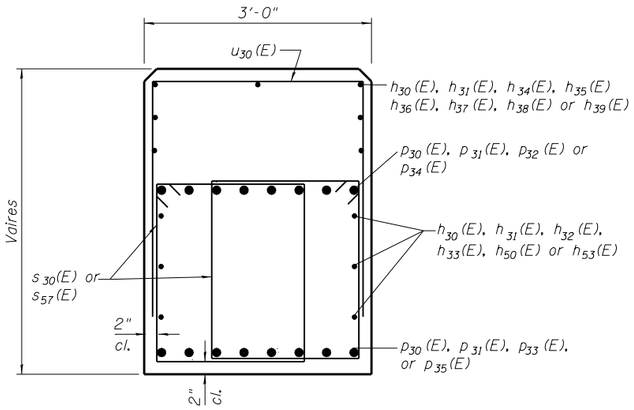
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	338
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-099090I-60W34-049-PIER1.dgn

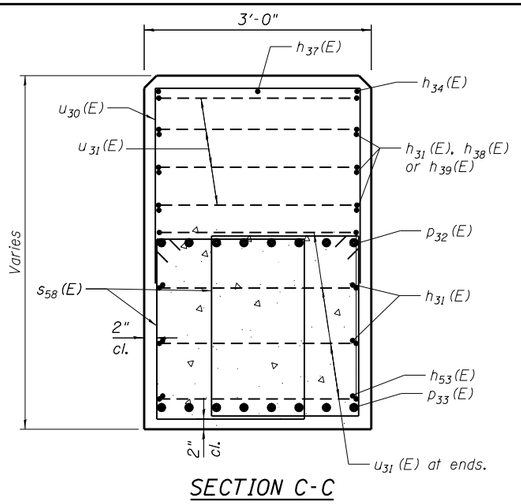


TYPICAL SECTION AT ℄ COLUMNS

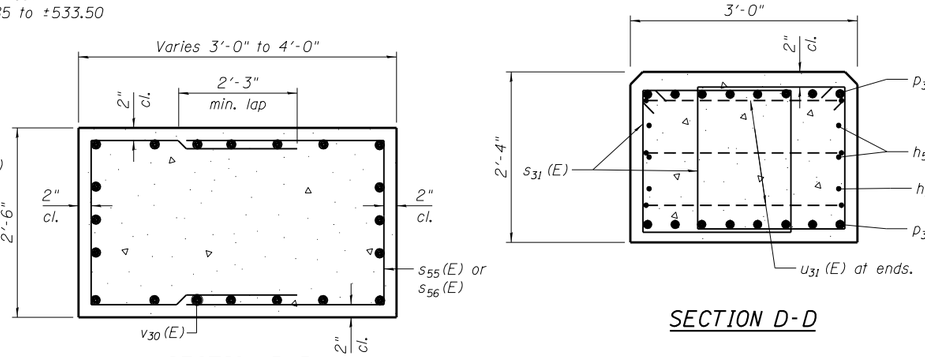
Note:
The Maximum applied Service Bearing Pressure: Q_{MAX} = 3.98 KSF



SECTION A-A

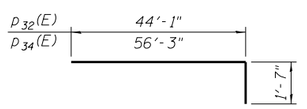


SECTION C-C

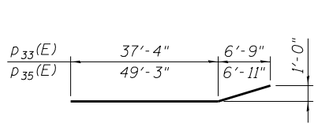


SECTION B-B

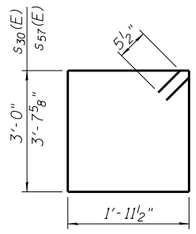
SECTION D-D



BARS p_{32} (E) & p_{34} (E)

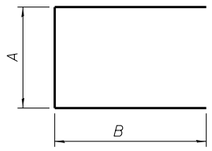


BARS p_{33} (E) & p_{35} (E)

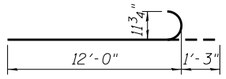


BAR s_{30} (E) & s_{57} (E)

Bar	A	B
s_{52} (E)	2'-8"	6'-4"
s_{53} (E)	2'-8"	6'-7"
s_{54} (E)	2'-6½"	2'-8"
s_{55} (E)	2'-2"	2'-8"
s_{56} (E)	2'-2"	3'-0"
u_{30} (E)	2'-8"	2'-7"
u_{31} (E)	2'-6 3/4"	3'-6"



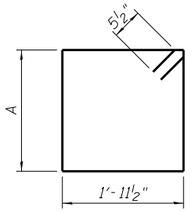
BAR s_{52} (E) thru s_{56} (E)
BARS u_{30} (E) & u_{31} (E)



BAR v_{30} (E)

Bar	A
s_{31} (E)	2'-0"
s_{32} (E)	2'-5/8"
s_{33} (E)	2'-1 1/4"
s_{34} (E)	2'-1 3/4"
s_{35} (E)	2'-2 3/8"
s_{36} (E)	2'-3"
s_{37} (E)	2'-3 5/8"
s_{38} (E)	2'-4 1/4"
s_{39} (E)	2'-4 3/4"
s_{40} (E)	2'-5 3/8"
s_{41} (E)	2'-6"
s_{42} (E)	2'-6 5/8"
s_{43} (E)	2'-7 1/4"
s_{44} (E)	2'-7 3/4"
s_{45} (E)	2'-8 3/8"
s_{46} (E)	2'-9"
s_{47} (E)	2'-9 5/8"
s_{48} (E)	2'-10 1/4"
s_{49} (E)	2'-10 3/4"
s_{50} (E)	2'-11 3/8"
s_{51} (E)	3'-0"

Bar	A
s_{58} (E)	2'-7 5/8"
s_{59} (E)	2'-8 1/4"
s_{60} (E)	2'-8 7/8"
s_{61} (E)	2'-9 1/2"
s_{62} (E)	2'-10"
s_{63} (E)	2'-10 5/8"
s_{64} (E)	2'-11 1/4"
s_{65} (E)	2'-11 7/8"
s_{66} (E)	3'-1/2"
s_{67} (E)	3'-1"
s_{68} (E)	3'-1 5/8"
s_{69} (E)	3'-2 1/4"
s_{70} (E)	3'-2 7/8"
s_{71} (E)	3'-3 1/2"
s_{72} (E)	3'-4"
s_{73} (E)	3'-4 5/8"
s_{74} (E)	3'-5 1/4"
s_{75} (E)	3'-5 7/8"
s_{76} (E)	3'-6 1/2"
s_{77} (E)	3'-7"
s_{78} (E)	3'-7 5/8"



BARS s_{31} (E) thru s_{51} (E) & s_{58} (E) thru s_{78} (E)

Note:
Since the top of rock is sloping across the footing, the bottom of footing elevation shall be verified and adjusted as needed in the field to ensure 3" minimum embedment in non-weathered rock. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.

Note:
For Bar Splicer Details, see sheet 54 of 61.

BILL OF MATERIAL AT PIER 1

Bar	No.	Size	Length	Shape
h30(E)	13	#5	12'-7"	
h31(E)	10	#5	44'-1"	
h32(E)	8	#5	25'-1"	
h33(E)	2	#5	40'-7"	
h34(E)	9	#5	5'-10"	
h35(E)	3	#5	6'-10"	
h36(E)	3	#5	25'-1"	
h37(E)	3	#5	5'-11"	
h38(E)	2	#5	31'-10"	
h39(E)	3	#5	18'-10"	
h40(E)	12	#7	38'-1"	
h50(E)	4	#5	56'-2"	
h51(E)	6	#7	50'-1"	
h52(E)	12	#5	50'-1"	
h53(E)	2	#5	52'-5"	
h54(E)	24	#5	38'-1"	
h55(E)	1	#5	19'-3"	
p30(E)	16	#9	25'-1"	
p31(E)	16	#9	12'-7"	
p32(E)	8	#9	45'-8"	
p33(E)	8	#9	44'-1"	
p34(E)	8	#9	57'-10"	
p35(E)	8	#9	56'-2"	
s30(E)	210	#5	11'-2"	
s31(E)	2	#5	9'-2"	
s32(E)	2	#5	9'-3"	
s33(E)	2	#5	9'-4"	
s34(E)	2	#5	9'-6"	
s35(E)	2	#5	9'-7"	
s36(E)	2	#5	9'-8"	
s37(E)	2	#5	9'-9"	
s38(E)	2	#5	9'-10"	
s39(E)	2	#5	9'-12"	
s40(E)	2	#5	10'-1"	
s41(E)	2	#5	10'-2"	
s42(E)	2	#5	10'-3"	
s43(E)	2	#5	10'-4"	
s44(E)	2	#5	10'-6"	
s45(E)	2	#5	10'-7"	
s46(E)	2	#5	10'-8"	
s47(E)	2	#5	10'-9"	
s48(E)	2	#5	10'-10"	
s49(E)	2	#5	10'-12"	
s50(E)	2	#5	11'-1"	
s51(E)	2	#5	11'-2"	

Bar	No.	Size	Length	Shape
s52(E)	194	#6	15'-4"	
s53(E)	194	#6	16'-6"	
s54(E)	14	#6	7'-11"	
s55(E)	140	#5	7'-6"	
s56(E)	120	#5	8'-2"	
s57(E)	198	#5	12'-5"	
s58(E)	2	#5	10'-5"	
s59(E)	2	#5	10'-6"	
s60(E)	2	#5	10'-8"	
s61(E)	2	#5	10'-9"	
s62(E)	2	#5	10'-10"	
s63(E)	2	#5	10'-11"	
s64(E)	2	#5	11'-0"	
s65(E)	2	#5	11'-2"	
s66(E)	2	#5	11'-3"	
s67(E)	2	#5	11'-4"	
s68(E)	2	#5	11'-5"	
s69(E)	2	#5	11'-6"	
s70(E)	2	#5	11'-8"	
s71(E)	2	#5	11'-9"	
s72(E)	2	#5	11'-10"	
s73(E)	2	#5	11'-11"	
s74(E)	2	#5	12'-0"	
s75(E)	2	#5	12'-2"	
s76(E)	2	#5	12'-3"	
s77(E)	2	#5	12'-4"	
s78(E)	2	#5	12'-5"	
t30(E)	131	#6	13'-8"	
t31(E)	195	#7	13'-8"	
u30(E)	117	#5	7'-6"	
u31(E)	28	#6	9'-6"	
v30(E)	200	#9	13'-3"	
w30(E)	30	#5	38'-1"	
w31(E)	30	#5	39'-1"	
w32(E)	30	#5	51'-1"	
Rock Excavation for Structures			Cu. Yd.	175
Structure Excavation			Cu. Yd.	17
Concrete Structures			Cu. Yd.	386
Reinforcement Bars, Epoxy Coated			Pounds	52,300
Concrete Sealer			Sq. Ft.	4,377

HBP Illinois Partners

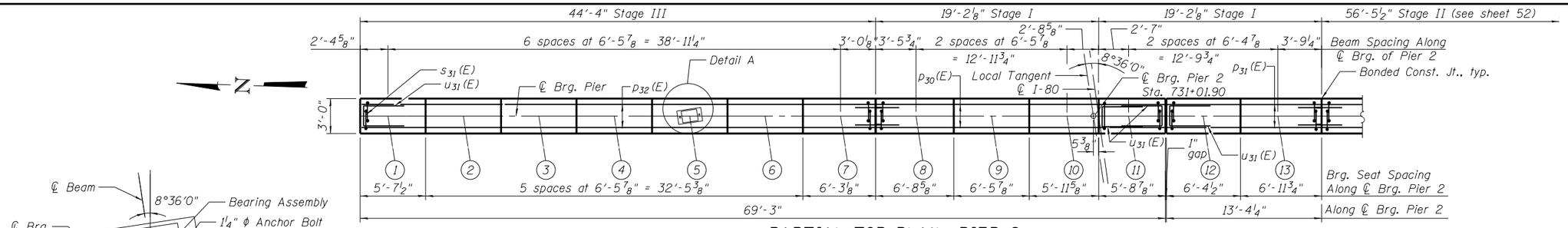
USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

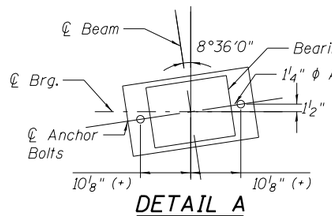
PIER 1 DETAILS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 50 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	339
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-050-PIERDTL.dgn



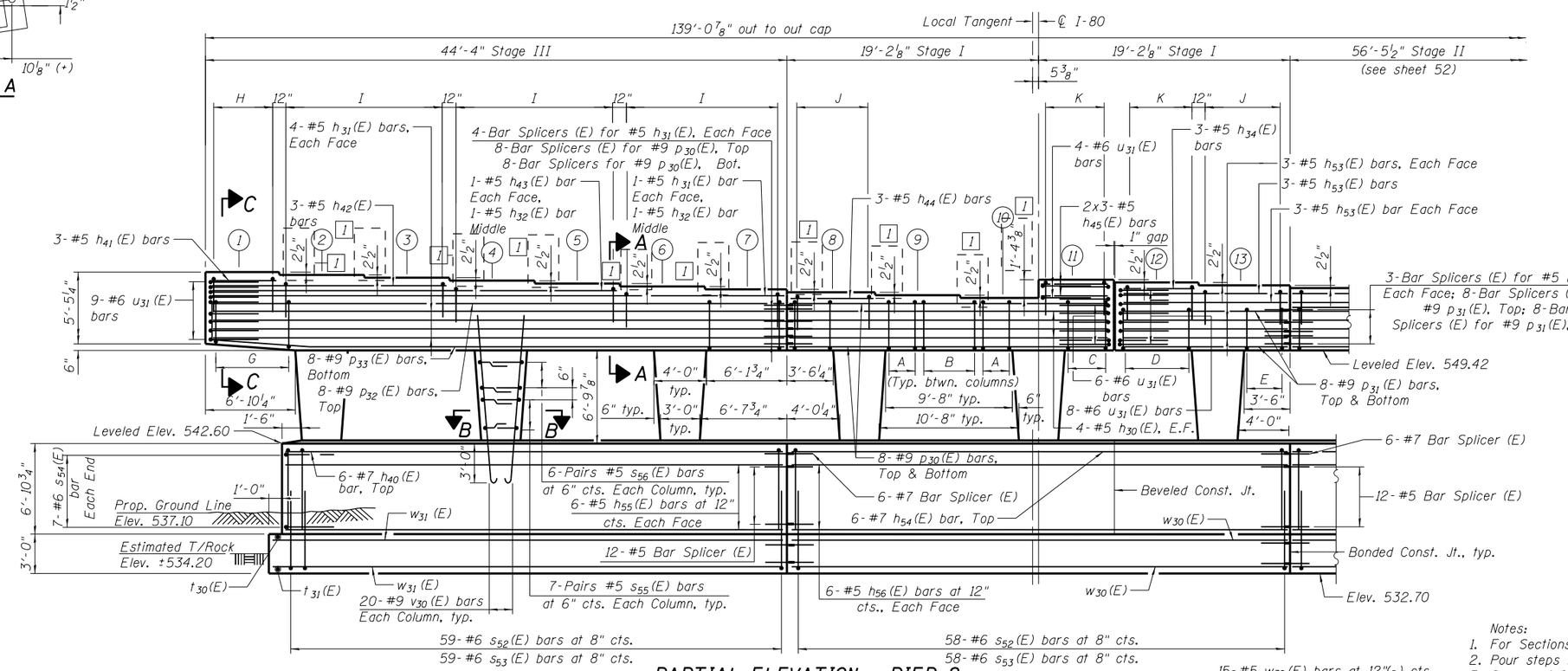
PARTIAL TOP PLAN -PIER 2



DETAIL A

BAR SCHEDULE

Label	Bar (Stirrup) and Quantity	Spacing
A	7 pair #5 s_{57}(E)	4"
B	8 pair #5 s_{57}(E)	8"
C	10 pair #5 s_{57}(E)	4"
D	15 pair #5 s_{30}(E)	4"
E	8 pair #5 s_{30}(E)	4"
F	17 pair #5 s_{30}(E)	4"
G	21 #5 s_{58}(E) thru #5 s_{78}(E) in pairs	4"
H	6 - #5 u_{30}(E)	12"
I	13- #5 u_{30}(E)	12"
J	8- #5 u_{30}(E)	12"
K	7- #5 u_{30}(E)	12"
L	7 pair #5 s_{30}(E)	4"
M	8 pair #5 s_{30}(E)	8"
N	10 pair #5 s_{30}(E)	4"
O	21 #5 s_{31}(E) thru #5 s_{51}(E) in pairs	4"



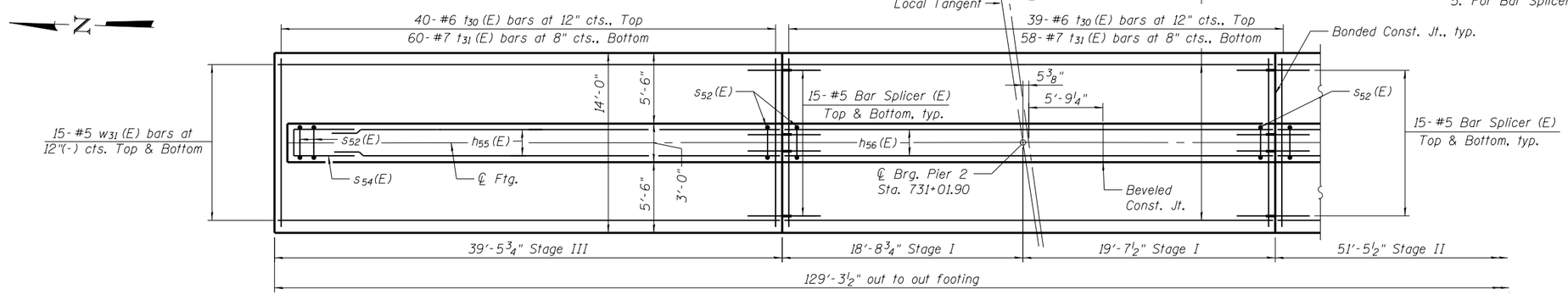
PARTIAL ELEVATION - PIER 2

(Looking East, Front Face)

BEARING SEAT ELEVATIONS

Beam	Elev.	
1	555.32	
2	555.12	1
3	554.90	
4	554.69	
5	554.50	
6	554.27	1
7	554.06	
8	553.86	1
9	553.63	
10	553.43	1
11	554.79	
12	554.59	
13	55437	

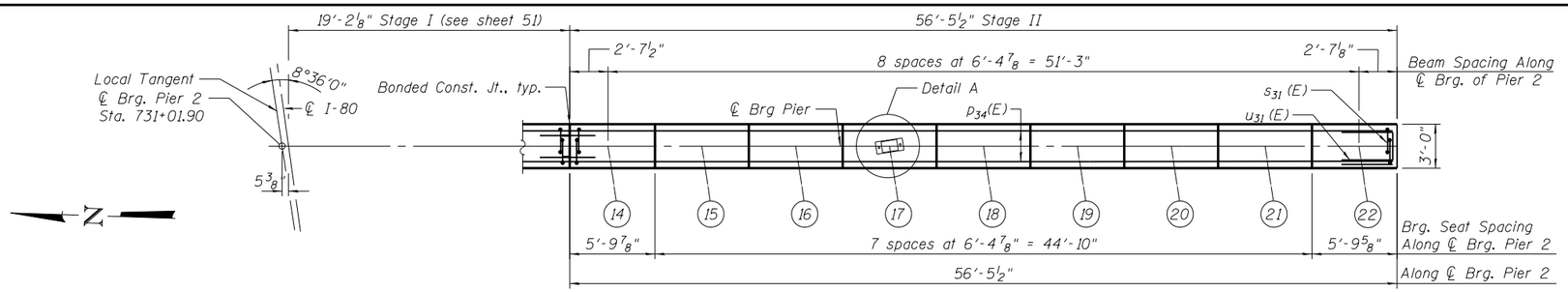
Notes:
1. For Sections A-A thru C-C, see Sheet 53 of 61.
2. Pour steps monolithically with cap.
3. Space reinforcement in cap to miss anchor bolts.
4. For underpass lighting details, see Electrical plans.
5. For Bar Splicer Details, see sheet 54 of 61.



PARTIAL FOOTING PLAN - PIER 2

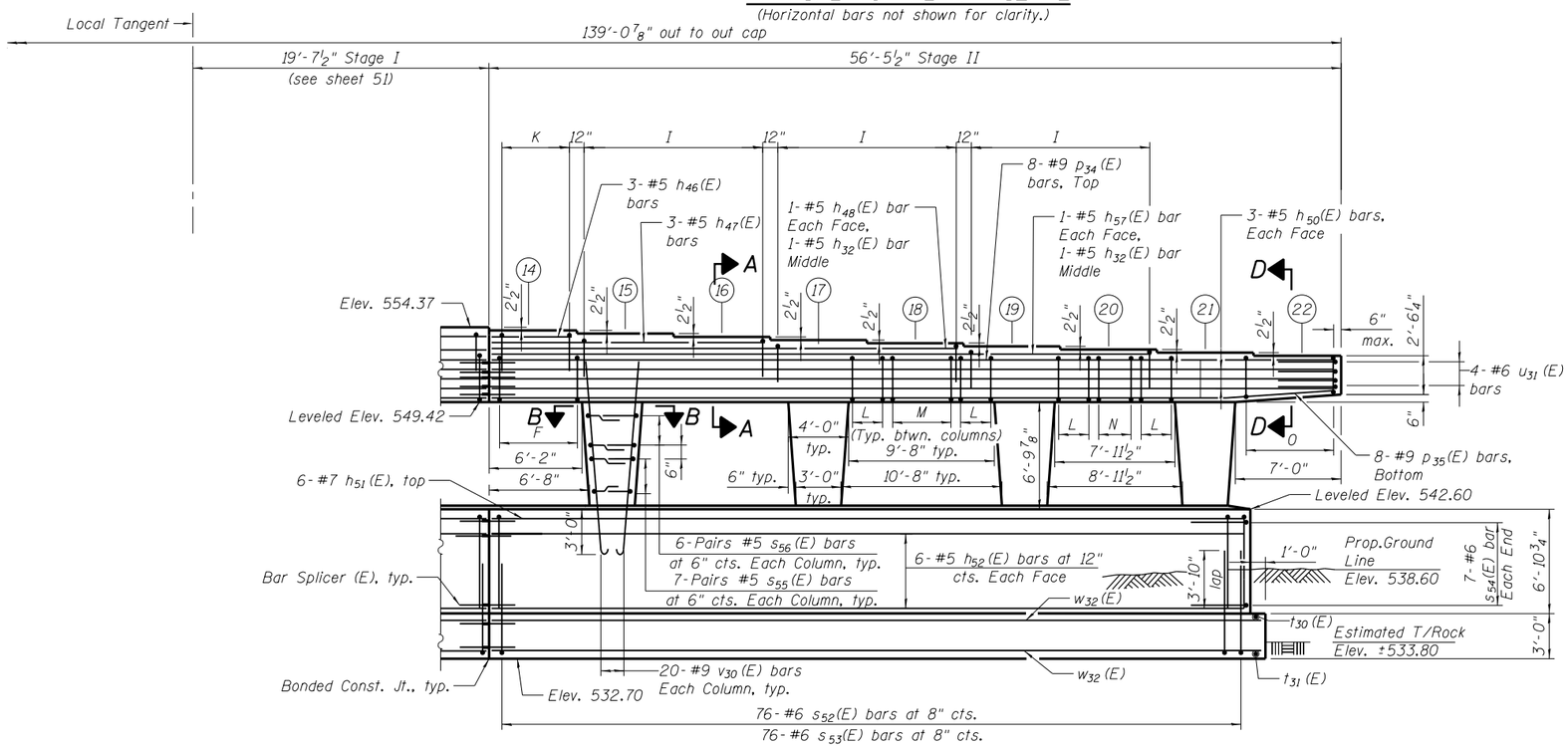
HBP Illinois Partners	USER NAME = default	DESIGNED MSL	REVISED 1 3/1/2021 P.A.B.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 2 DETAILS I	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED TAH	REVISED		STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)	80	2013-008B	WILL	511	340
	PLOT SCALE = NTS	DRAWN RMH	REVISED		SHEET NO. 51 OF 61 SHEETS				CONTRACT NO. 60W34	
	PLOT DATE = 2/27/2022	CHECKED TAH	REVISED					ILLINOIS	FED. AID PROJECT	

FILE NAME = 0990900-099090I-60W34-05I-PIER2.dgn



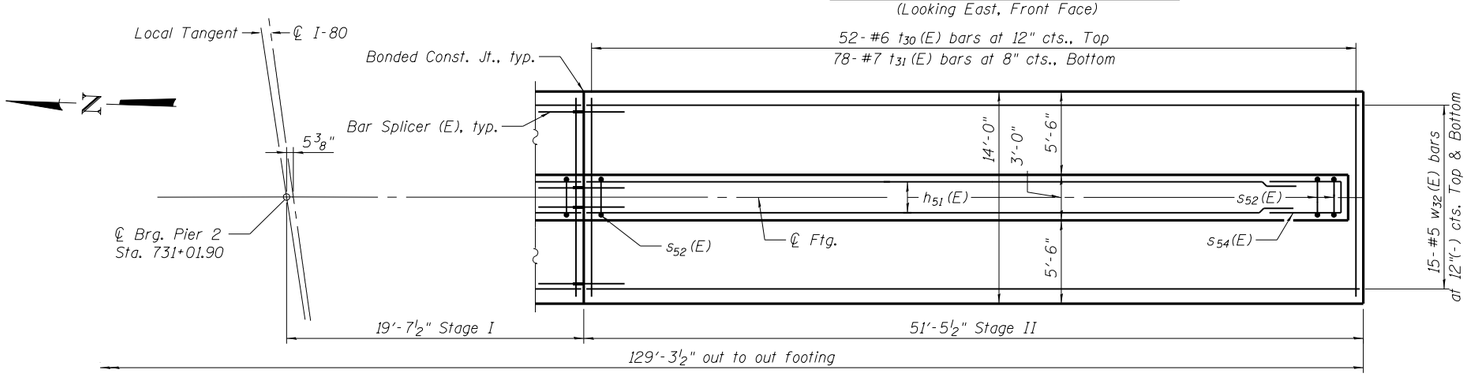
PARTIAL TOP PLAN -PIER 2

(Horizontal bars not shown for clarity.)



PARTIAL ELEVATION - PIER 2

(Looking East, Front Face)



PARTIAL FOOTING PLAN - PIER 2

BEARING SEAT ELEVATIONS

Beam	Elev.	
14	554.18	1
15	553.96	
16	553.73	
17	553.51	
18	553.30	
19	553.08	
20	552.87	
21	552.65	
22	552.44	

Notes:
1. For Sections A-A thru C-C, see Sheet 53 of 61.
2. Pour steps monolithically with cap.
3. Space reinforcement in cap to miss anchor bolts.
4. For underpass lighting details, see Electrical plans.
5. For Detail A, see sheet 51 of 61.
6. For Bar Schedule, see sheet 51 of 61.
7. For Bar Splicer Details, see sheet 54 of 61.

HBP Illinois Partners

USER NAME = default	DESIGNED MSL	REVISED 1 3/1/2021 P.A.B.	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 2/27/2022	CHECKED TAH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 52 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	341
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

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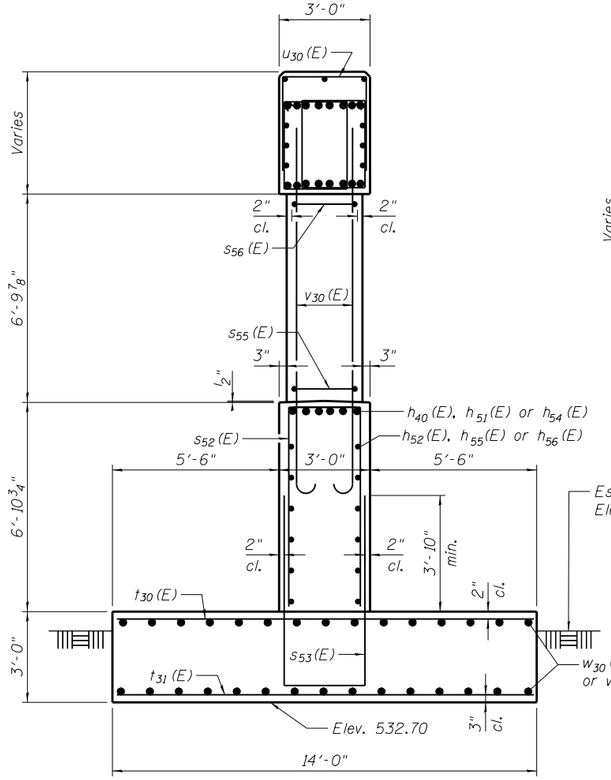
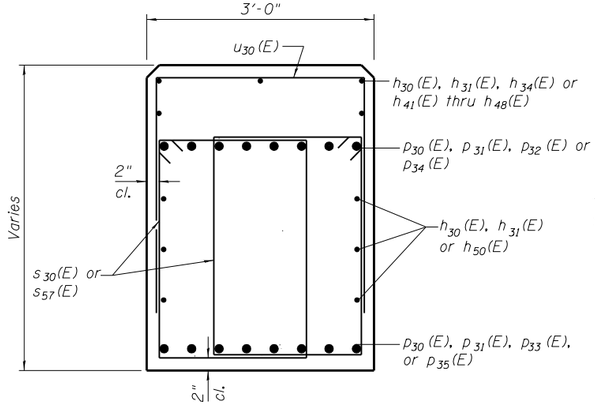
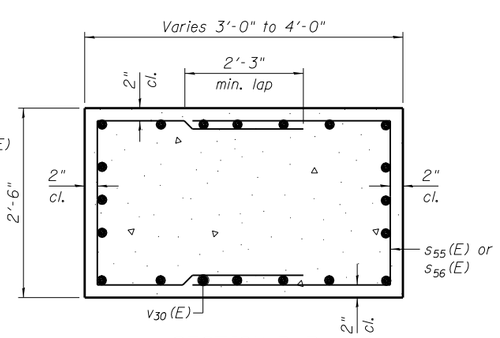


TYPICAL SECTION AT ℄ COLUMNS

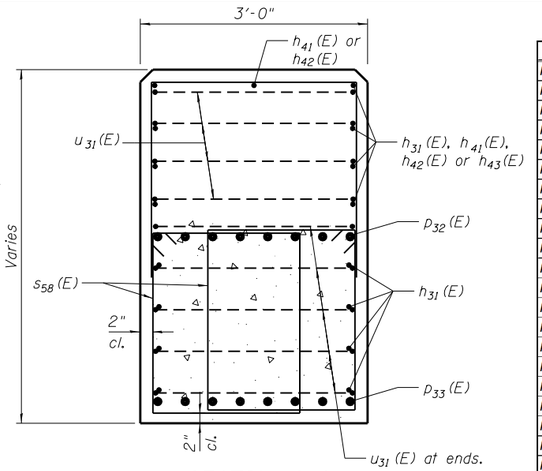
Note:
The Maximum applied Service Bearing Pressure: Q_{MAX} = 3.98 KSF



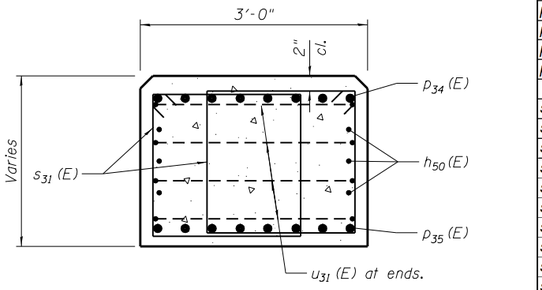
SECTION A-A



SECTION B-B



SECTION C-C



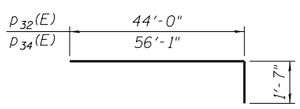
SECTION D-D

BILL OF MATERIAL AT PIER 2

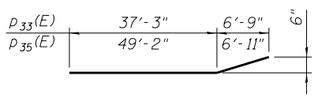
Bar	No.	Size	Length	Shape
h30(E)	8	#5	24'-7"	—
h31(E)	10	#5	44'-0"	—
h32(E)	4	#5	13'-4"	—
h34(E)	3	#5	6'-0"	—
h40(E)	6	#7	38'-2"	—
h41(E)	3	#5	5'-5"	—
h42(E)	3	#5	18'-3"	—
h43(E)	2	#5	31'-3"	—
h44(E)	3	#5	6'-4"	—
h45(E)	6	#5	5'-5"	—
h46(E)	3	#5	5'-6"	—
h47(E)	3	#5	18'-3"	—
h48(E)	2	#5	31'-1"	—
h50(E)	6	#5	56'-1"	—
h51(E)	6	#7	50'-1"	—
h52(E)	12	#5	50'-1"	—
h53(E)	11	#5	13'-0"	—
h54(E)	6	#7	38'-0"	—
h55(E)	12	#5	38'-2"	—
h56(E)	12	#5	38'-0"	—
h57(E)	2	#5	43'-11"	—
p30(E)	16	#9	24'-7"	—
p31(E)	16	#9	13'-0"	—
p32(E)	8	#9	45'-7"	⌐
p33(E)	8	#9	44'-0"	／
p34(E)	8	#9	57'-8"	⌐
p35(E)	8	#9	56'-1"	／
s30(E)	216	#5	10'-2"	□
s31(E)	2	#5	9'-6"	□
s32(E)	2	#5	9'-7"	□
s33(E)	2	#5	9'-7"	□
s34(E)	2	#5	9'-8"	□
s35(E)	2	#5	9'-8"	□
s36(E)	2	#5	9'-9"	□
s37(E)	2	#5	9'-10"	□
s38(E)	2	#5	9'-10"	□
s39(E)	2	#5	9'-11"	□
s40(E)	2	#5	9'-11"	□
s41(E)	2	#5	10'-0"	□
s42(E)	2	#5	10'-1"	□
s43(E)	2	#5	10'-1"	□
s44(E)	2	#5	10'-2"	□
s45(E)	2	#5	10'-2"	□
s46(E)	2	#5	10'-3"	□
s47(E)	2	#5	10'-4"	□
s48(E)	2	#5	10'-4"	□
s49(E)	2	#5	10'-5"	□
s50(E)	2	#5	10'-5"	□
s51(E)	2	#5	10'-6"	□
s52(E)	193	#6	16'-0"	⊏

Bar	No.	Size	Length	Shape
s53(E)	193	#6	15'-10"	⊏
s54(E)	14	#6	7'-11"	⊏
s55(E)	140	#5	7'-6"	⊏
s56(E)	120	#5	8'-2"	⊏
s57(E)	196	#5	12'-6"	□
s58(E)	2	#5	11'-6"	□
s59(E)	2	#5	11'-6"	□
s60(E)	2	#5	11'-7"	□
s61(E)	2	#5	11'-8"	□
s62(E)	2	#5	11'-8"	□
s63(E)	2	#5	11'-9"	□
s64(E)	2	#5	11'-9"	□
s65(E)	2	#5	11'-10"	□
s66(E)	2	#5	11'-11"	□
s67(E)	2	#5	11'-11"	□
s68(E)	2	#5	11'-12"	□
s69(E)	2	#5	12'-0"	□
s70(E)	2	#5	12'-1"	□
s71(E)	2	#5	12'-2"	□
s72(E)	2	#5	12'-2"	□
s73(E)	2	#5	12'-3"	□
s74(E)	2	#5	12'-3"	□
s75(E)	2	#5	12'-4"	□
s76(E)	2	#5	12'-5"	□
s77(E)	2	#5	12'-5"	□
s78(E)	2	#5	12'-6"	□
t30(E)	131	#6	13'-8"	—
t31(E)	196	#7	13'-8"	—
	0	#	'-"	
u30(E)	121	#5	7'-6"	⊏
u31(E)	31	#6	9'-7"	⊏
v30(E)	200	#9	13'-7"	⊃
w30(E)	30	#5	38'-0"	—
w31(E)	30	#5	39'-2"	—
w32(E)	30	#5	51'-1"	—

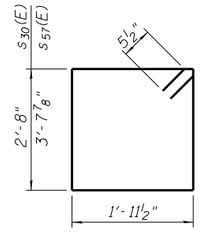
Rock Excavation for Structures	Cu. Yd.	96
Structure Excavation	Cu. Yd.	35
Concrete Structures	Cu. Yd.	389
Reinforcement Bars, Epoxy Coated	Pounds	52,500
Concrete Sealer	Sq. Ft.	4490



BARS p_{32} (E) & p_{34} (E)



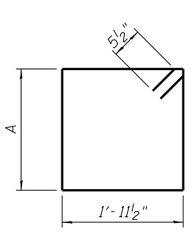
BARS p_{33} (E) & p_{35} (E)



BAR s_{30} (E) & s_{57} (E)

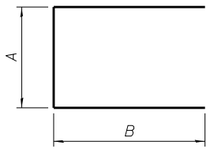
Bar	A
s_{31} (E)	2'-2"
s_{32} (E)	2'-2 1/4"
s_{33} (E)	2'-2 5/8"
s_{34} (E)	2'-2 7/8"
s_{35} (E)	2'-3 1/4"
s_{36} (E)	2'-3 1/2"
s_{37} (E)	2'-3 3/4"
s_{38} (E)	2'-4 1/8"
s_{39} (E)	2'-4 3/8"
s_{40} (E)	2'-4 3/4"
s_{41} (E)	2'-5"
s_{42} (E)	2'-5 1/4"
s_{43} (E)	2'-5 5/8"
s_{44} (E)	2'-5 7/8"
s_{45} (E)	2'-6 1/4"
s_{46} (E)	2'-6 1/2"
s_{47} (E)	2'-6 3/4"
s_{48} (E)	2'-7 1/8"
s_{49} (E)	2'-7 3/8"
s_{50} (E)	2'-7 3/4"
s_{51} (E)	2'-8"

Bar	A
s_{58} (E)	3'-1 7/8"
s_{59} (E)	3'-2 1/8"
s_{60} (E)	3'-2 1/2"
s_{61} (E)	3'-2 3/4"
s_{62} (E)	3'-3 1/8"
s_{63} (E)	3'-3 3/8"
s_{64} (E)	3'-3 5/8"
s_{65} (E)	3'-4"
s_{66} (E)	3'-4 1/4"
s_{67} (E)	3'-4 5/8"
s_{68} (E)	3'-4 7/8"
s_{69} (E)	3'-5 1/8"
s_{70} (E)	3'-5 1/2"
s_{71} (E)	3'-5 3/4"
s_{72} (E)	3'-6 1/8"
s_{73} (E)	3'-6 3/8"
s_{74} (E)	3'-6 5/8"
s_{75} (E)	3'-7"
s_{76} (E)	3'-7 1/4"
s_{77} (E)	3'-7 5/8"
s_{78} (E)	3'-7 7/8"

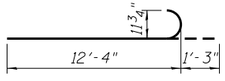


BAR s_{31} (E) thru s_{51} (E) & s_{58} (E) thru s_{78} (E)

Bar	A	B
s_{52} (E)	2'-8"	6'-8"
s_{53} (E)	2'-8"	6'-7"
s_{54} (E)	2'-6 1/2"	2'-8"
s_{55} (E)	2'-2"	2'-8"
s_{56} (E)	2'-2"	3'-0"
u_{30} (E)	2'-4"	2'-7"
u_{31} (E)	2'-6 3/4"	3'-6"



BAR s_{52} (E) thru s_{56} (E), BARS u_{30} (E) & u_{31} (E)



BAR v_{30} (E)

Note:
Since the top of rock is sloping across the footing, the bottom of footing elevation shall be verified and adjusted as needed in the field to ensure 3" minimum embedment in non-weathered rock. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.

Note:
For Bar Splicer Details, see sheet 54 of 61.

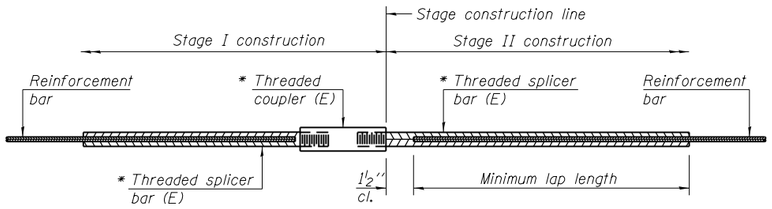
HBP Illinois Partners	USER NAME = default	DESIGNED MSL	REVISED
		CHECKED TAH	REVISED
	PLOT SCALE = NTS	DRAWN RMH	REVISED
	PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 53 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	342
		CONTRACT NO. 60W34		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 0990900-099090I-60W34-053-PIER2 DTL.dgn



STANDARD BAR SPLICER ASSEMBLY

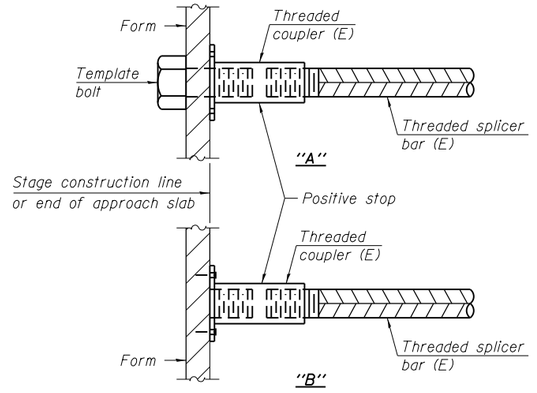
Threaded splicer bar length = min. lap length + 1½" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar Size	No. Assemblies Required	Minimum Lap Length
EB Deck	#5	566	5
WB Deck	#5	566	5
EB Diaphragm	#6	24	5
WB Diaphragm	#6	24	5
EB E Approach	#5	147	5
WB E Approach	#5	147	5
EB W Approach	#5	147	5
WB W Approach	#5	147	5
Pier 1	#5	96	6
Pier 1	#7	12	6
Pier 1	#9	32	6
Pier 2	#5	96	6
Pier 2	#7	12	6
Pier 2	#9	32	6
W Abutment	#5	12	6
W Abutment	#8	20	6
E Abutment	#5	40	6
E Abutment	#7	34	6

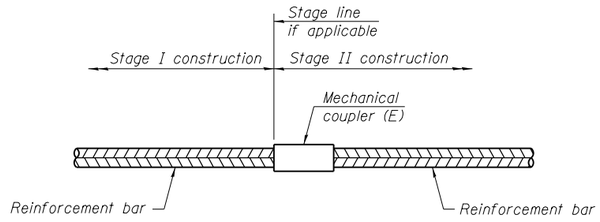
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"
10	5'-10"	8'-1"	8'-8"	9'-10"	10'-10"	12'-4"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C



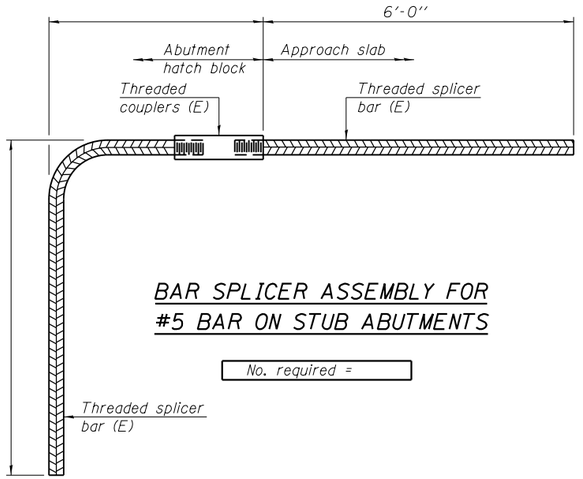
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

Notes:
1. Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
2. All reinforcement shall be lapped and tied to the splicer bars.
3. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
4. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 6-8-15

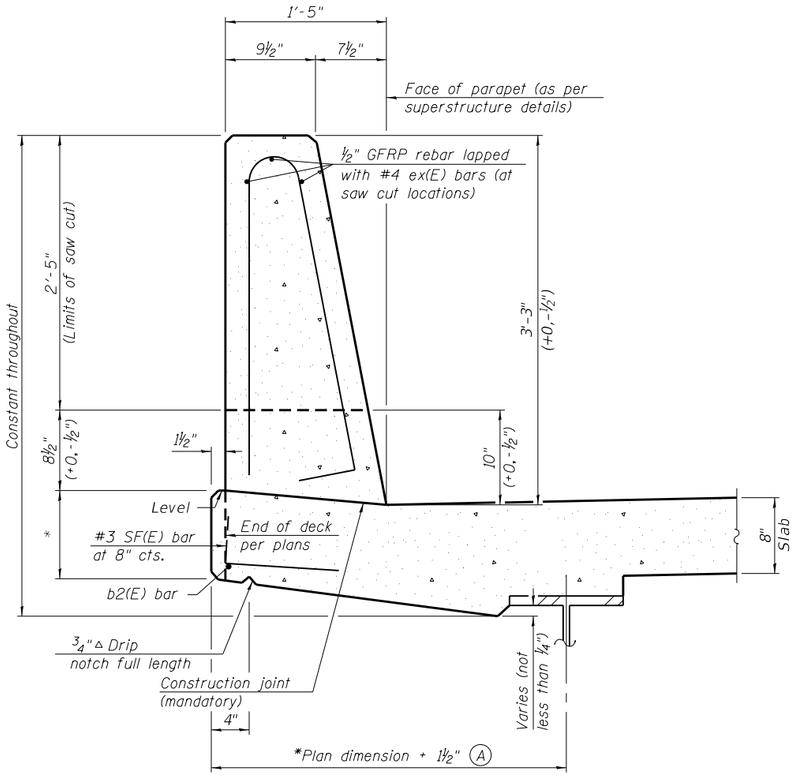
USER NAME = default	DESIGNED MSL	REVISED	
	CHECKED TAH	REVISED	
PLOT SCALE = NTS	DRAWN RMH	REVISED	
PLOT DATE = 6/25/2020	CHECKED RRH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 54 OF 61 SHEETS

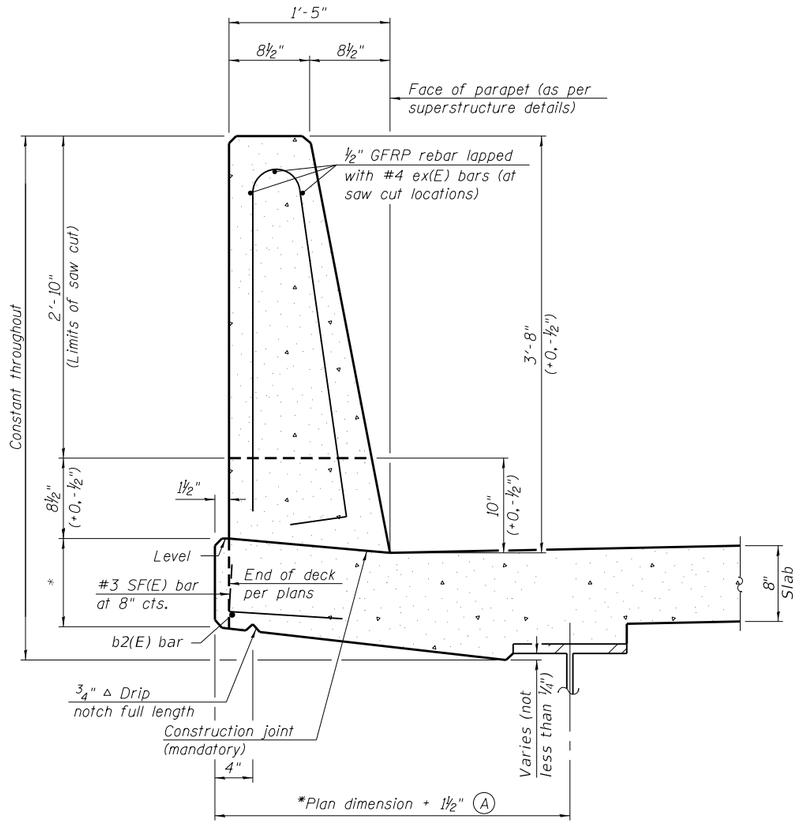
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	343
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-054-BARSPL.dgn



39" CONSTANT-SLOPE PARAPET SECTION

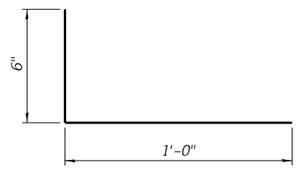
(Showing dimensions, d(E), and ½" ϕ GFRP rebar)



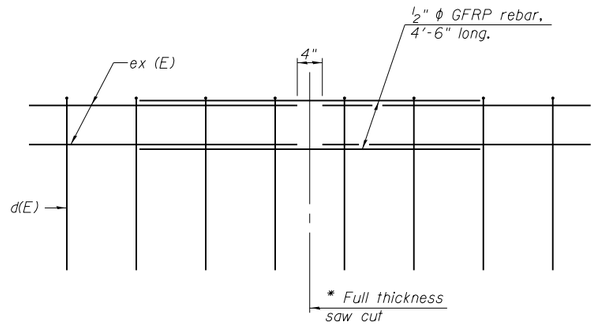
44" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" ϕ GFRP rebar)

*See Superstructure Details.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.

Slipforming of the median parapet (adjacent to the centerline of I-80) is not allowed.

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USER NAME = default	DESIGNED MSL	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 55 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	344
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-0990901-60W34-055-PARSLP.dgn

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 11/7/13

ROUTE F.A.I RTE. 80 **DESCRIPTION** F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) **LOGGED BY** TZ

SECTION 99-4HB-1 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R10E, 3rd **PM**

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. W.B. 099-0065
Station 730+57.48

BORING NO. BSB-25
Station 729+67
Offset 42.60ft Left
Ground Surface Elev. 556.00 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry to 18.5' ft
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
11.0" ASPHALT				
555.08				
CLAY LOAM-brown & gray-very stiff (Fill)		6		
		7	2.5	14
		8	P	
553.00				
CRUSHED STONE-dense to very dense (Fill)		17		
		19		4
	-5	23		
		50/5"		
				1
548.00				
SAND, GRAVEL & STONE-dense (Fill)		19		
		23		5
	-10	27		
545.50				
CRUSHED STONE with BRICK-medium dense (Fill)		5		
		6		9
		8		
543.00				
SAND, GRAVEL, STONE & BRICK-brown & gray-medium dense (Fill)		5		
		6		9
	-15	7		
539.50				
Drillers Observation: Weathered & fractured rock		7		
		50/5"		8
538.00				
Drillers Observation: Apparent Bedrock				
537.00				
Borehole continued with rock coring.	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 11/7/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. W.B.099-0065 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. **BSB-25** Top of Rock Elev. 538.0
Station 729+67 Begin Core Elev. 537.0
Offset 42.6' Left
Ground Surface Elev. 556.0

	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE						
RUN 1 (-19.0' to -29.0')		1	100.0	84.0	n/a	932 @ -19.4'
Light gray with horizontal bedding. Slightly porous with horizontal fractures & some small vugs.	-24					
	-29					

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 11/7/13

ROUTE F.A.I RTE. 80 **DESCRIPTION** F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) **LOGGED BY** TZ

SECTION 99-4HB-1 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R10E, 3rd **PM**

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. E.B. 099-0064
Station 730+57.48

BORING NO. BSB-26
Station 729+47
Offset 43.20ft Right
Ground Surface Elev. 556.00 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry to 15.0' ft
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.0" ASPHALT				
555.67				
8.0" CONCRETE				
555.00				
CLAY LOAM-brown & gray-stiff to hard (Fill)		6		
		8	4.5	14
		10	P	
		7		
		9	1.0	18
	-5	10	P	
550.50				
CRUSHED STONE-medium dense to dense (Fill)		37		
		25		2
		27		
		12		
		9		6
	-10	9		
545.50				
SANDY CLAY LOAM-dark brown to black-medium dense (Fill)		6		
		7		14
		9		
543.00				
FRACTURED ROCK-very dense		50/2"		
				2
541.00	-15			
Borehole continued with rock coring.				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 11/7/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I. RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. E.B.099-0064 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. **BSB-26** Top of Rock Elev. 541.0
Station 729+47 Begin Core Elev. 541.0
Offset 43.2' Right
Ground Surface Elev. 556.0

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
	1	100.0	26.0	n/a	1136 @ -16.6'

SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE
RUN 1 (-15.0' to -25.0')
Light gray with horizontal bedding. Highly fractured to -23.0' with numerous intersecting horizontal & vertical fractures.

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 10/17/13

ROUTE F.A.I RTE. 80 DESCRIPTION F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) LOGGED BY TZ
SECTION 99-4HB-1 LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. W.B. 099-0065
Station 730+57.48
BORING NO. BSB-27
Station 730+31
Offset 74.60ft Left
Ground Surface Elev. 536.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to 3.0' ft
Upon Completion n/a ft
After ___ Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.5" CONCRETE	535.83			
GRAVEL & FRACTURE ROCK-very dense		25		
		50/4"		5
	533.20			
Borehole continued with rock coring.				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 10/17/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I. RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. W.B.099-0065 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. **BSB-27** Top of Rock Elev. 533.2
Station 730+31 Begin Core Elev. 533.2
Offset 74.6' Left
Ground Surface Elev. 536.2

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
	1	100.0	34.0	n/a	806 @ -3.5'

SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE
RUN 1 (-3.0' to -13.0')
Light gray to gray with horizontal to wavy bedding. Porous with some small vugs.
Weathered with rust staining becoming highly weathered & fractured from -5.9' with some chert replacement nodules.

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

USER NAME = default	DESIGNED -	REVISED	
	CHECKED -	REVISED	
PLOT SCALE = NTS	DRAWN -	REVISED	
PLOT DATE = 6/25/2020	CHECKED -	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS II
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 57 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	346
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 0990900-099090I-60W34-057-BOR2.dgn

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 10/17/13

ROUTE F.A.I RTE. 80 **DESCRIPTION** F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) **LOGGED BY** TZ

SECTION 99-4HB-1 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R10E, 3rd **PM**

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. E.B. 099-0064
Station 730+57.48

BORING NO. BSB-28
Station 730+30
Offset 5.00ft Right
Ground Surface Elev. 536.80 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry to 2.5' ft
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
12.0" CONCRETE			
535.80			
CLAY LOAM-dark brown-stiff (Fill) 535.30	7		
Drillers Observation: Apparent Bedrock 534.30	50/5"	1.5 P	15
Borehole continued with rock coring.			
-5			
-10			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 10/17/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I. RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. E.B.099-0064 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. **BSB-28** Top of Rock Elev. 535.3
Station 730+30 Begin Core Elev. 534.3
Offset 5.0' Right
Ground Surface Elev. 536.8

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE					
RUN 1 (-2.5' to -12.5')	1	100.0	31.0	n/a	1380 @ -3.0'
Light gray to gray with horizontal to wavy bedding. Porous & weathered with some chert nodules. Highly fractured & weathered from -4.5' with intersecting horizontal & vertical fractures.					
-7.5					
-12.5					

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 10/18/13

ROUTE F.A.I RTE. 80 **DESCRIPTION** F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) **LOGGED BY** TZ

SECTION 99-4HB-1 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R10E, 3rd **PM**

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. W.B. 099-0065
Station 730+57.48

BORING NO. BSB-29
Station 731+09
Offset 64.20ft Left
Ground Surface Elev. 536.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry to 2.5' ft
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.0" CONCRETE 535.87			
SAND & STONE-brown (Fill)			
	7		
534.20	50/5"		7
Drillers Observation: Apparent Bedrock 533.70			
Borehole continued with rock coring.			
-5			
-10			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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USER NAME = default	DESIGNED -	REVISED
	CHECKED -	REVISED
PLOT SCALE = NTS	DRAWN -	REVISED
PLOT DATE = 6/25/2020	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 58 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	347
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-058-BOR3.dgn

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ROCK CORE LOG

PAGE 1 of 1
DATE 10/18/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. W.B.099-0065 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. **BSB-29** Top of Rock Elev. 534.2
Station 731+09 Begin Core Elev. 533.7
Offset 64.2' Left
Ground Surface Elev. 536.2

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
	1	100.0	21.0	n/a	1110 ● -4.7'

SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE
RUN 1 (-2.5' to -12.5')
Light gray & porous with horizontal bedding. Weathered & cherty with some vugs. Highly fractured throughout with vertical fractures from -2.5' to -4.0'.

-7.5
-12.5

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 10/18/13

ROUTE F.A.I RTE. 80 DESCRIPTION F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) LOGGED BY TZ
SECTION 99-4HB-1 LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. E.B. 099-0064
Station 730+57.48
BORING NO. BSB-30
Station 730+88
Offset 61.80ft Right
Ground Surface Elev. 538.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to 4.5' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.0" CONCRETE 537.97			
CRUSHED STONE-medium dense to dense (Fill)	7		
	11		3
	14		
	26		
533.80	50/3"		3
Borehole continued with rock coring.			

-5
-10
-15
-20

Z:\PROJECTS\2013\13125 INTB. I-80 PHASE II (NEAR TERM)\13125 BORING LOGS\13125_LOG.GPJ 5/1/14

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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Naperville, Illinois 60565
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ROCK CORE LOG

PAGE 1 of 1
DATE 10/18/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. E.B.099-0064 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. **BSB-30** Top of Rock Elev. 533.8
Station 730+88 Begin Core Elev. 533.8
Offset 61.8' Right
Ground Surface Elev. 538.3

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
	1	100.0	31.0	n/a	1608 ● -5.2'

SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE
RUN 1 (-4.5' to -14.5')
Light gray & with horizontal bedding becoming cherty, porous & weathered with numerous horizontal fractures throughout. Vertical fracture with intersecting horizontal fractures from -12.6' to -14.5'.

-9.5
-14.5

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

HBP Illinois Partners	USER NAME = default	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS IV STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
		CHECKED -	REVISED		
	PLOT SCALE = NTS	DRAWN -	REVISED		
	PLOT DATE = 6/25/2020	CHECKED -	REVISED		SHEET NO. 59 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	348
		CONTRACT NO. 60W34		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 0990900-099090I-60W34-059-BOR4.dgn

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 11/7/13

ROUTE F.A.I RTE. 80 **DESCRIPTION** F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) **LOGGED BY** TZ

SECTION 99-4HB-1 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R10E, 3rd **PM**

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. W.B. 099-0065
Station 730+57.48

BORING NO. BSB-31
Station 731+59
Offset 0.40ft Left
Ground Surface Elev. 556.00 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry to 8.0' ft
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY TOPSOIL & STONE (Fill)			
555.00			12
TOPSOIL-dark brown to black	6		
	5	3.0	26
	4	P	
553.00			
CLAY LOAM-brown & gray-very stiff	3		
	4	1.0	19
-5	4	P	
	5		
	6	2.5	23
	14	P	
548.00			
Drillers Observation: Apparent Bedrock			
546.00 -10			
Borehole continued with rock coring.			
-15			
-20			

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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 11/7/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. W.B.099-0065 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. BSB-31 Top of Rock Elev. 548.0
Station 731+59 Begin Core Elev. 546.0
Offset 0.4' Left
Ground Surface Elev. 556.0

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE					
RUN 1 (-10.0' to -20.0')	1	99.0	44.0	n/a	847 ● -15.0'
Light gray & slightly porous with horizontal bedding. Light rust staining to -13.5'.					
Numerous horizontal fractures throughout.					
-15					
-20					

Color pictures of the cores Yes Cores will be stored for examination for —
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

USER NAME = default	DESIGNED -	REVISED	
	CHECKED -	REVISED	
PLOT SCALE = NTS	DRAWN -	REVISED	
PLOT DATE = 6/25/2020	CHECKED -	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS V
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 60 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	349
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-060-BORS.dgn

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 1
Date 10/21/13

ROUTE F.A.I RTE. 80 **DESCRIPTION** F.A.I. RTE. 80 Over F.A.U. 354 (Richards St.) **LOGGED BY** TZ

SECTION 99-4HB-1 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R10E, 3rd **PM**

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. E.B. 099-0064
Station 730+57.48

BORING NO. BSB-32
Station 731+51
Offset 59.80ft Right
Ground Surface Elev. 556.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry to 6.0' ft
Upon Completion n/a ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
12.0" TOPSOIL-black			
555.40			22
CLAY LOAM-dark brown & black-hard (Fill)	10		
	10	4.5	13
	15	P	
553.40			
SILTY GRAVEL & FRACTURED ROCK-brown-medium dense	13		
551.90	16		5
-5 Drillers Observation: Apparent Bedrock	50/3"		
550.40			
Borehole continued with rock coring.			
-10			
-15			
-20			

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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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ROCK CORE LOG

PAGE 1 of 1
DATE 10/21/2013
LOGGED BY JK
GSI JOB No. 13125

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION 99-4HB-1 LOCATION SEC 15, T35N, R10E, SW 1/4, 3rd PM
COUNTY Will CORING METHOD Rotary Wash
STRUCT. NO. E.B.099-0064 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station 730+57.48 Core Diameter 2.0 in
BORING NO. BSB-32 Top of Rock Elev. 551.9
Station 731+51 Begin Core Elev. 550.4
Offset 59.8' Right
Ground Surface Elev. 556.4

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE					
RUN 1 (-6.0' to -16.0')	1	100.0	27.0	n/a	910 @ -11.2'
Light gray & fine grained with horizontal bedding. Weathered with numerous horizontal fractures throughout.					
-11.0					
-16.0					

Color pictures of the cores Yes Cores will be stored for examination for –
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

USER NAME = default	DESIGNED -	REVISED	
	CHECKED -	REVISED	
PLOT SCALE = NTS	DRAWN -	REVISED	
PLOT DATE = 6/25/2020	CHECKED -	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS VI
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)
SHEET NO. 61 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	350
		CONTRACT NO. 60W34		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 0990900-099090I-60W34-06I-BOR6.dgn