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

Existing Structure: S.N. 099-0063 (WB) 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 51'-1" to 54'-11¼". 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.

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.
	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

*** Elevations from Hydraulic Report were converted to NAVD88.

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 Bridges

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)
fy = 36,000 psi (M270 Grade36)

FIELD UNITS (EXIST. CONST.)

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

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

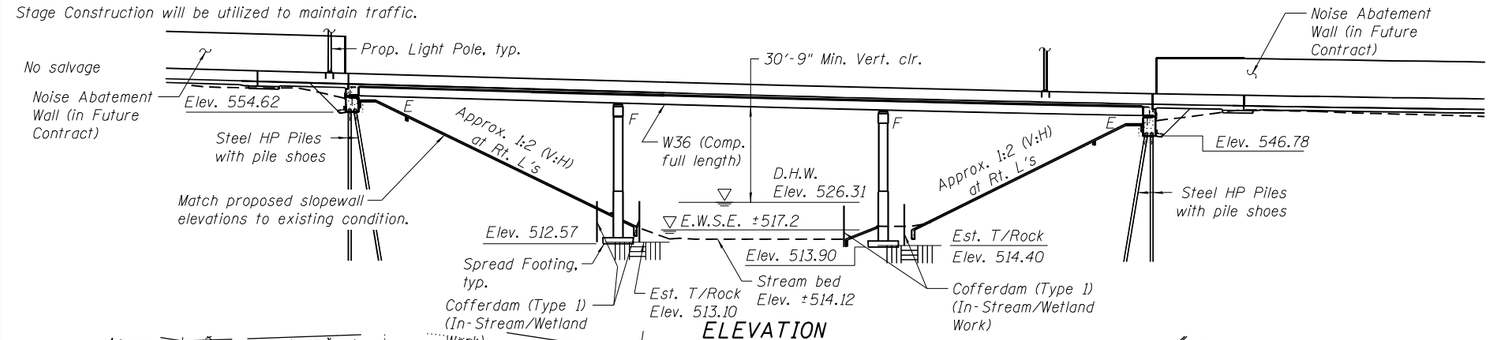
ROADWAY TAPERS

Location	Sta.	Offset
1	720+32.13	49'-10 3/8"
2	723+01.26	55'-3"

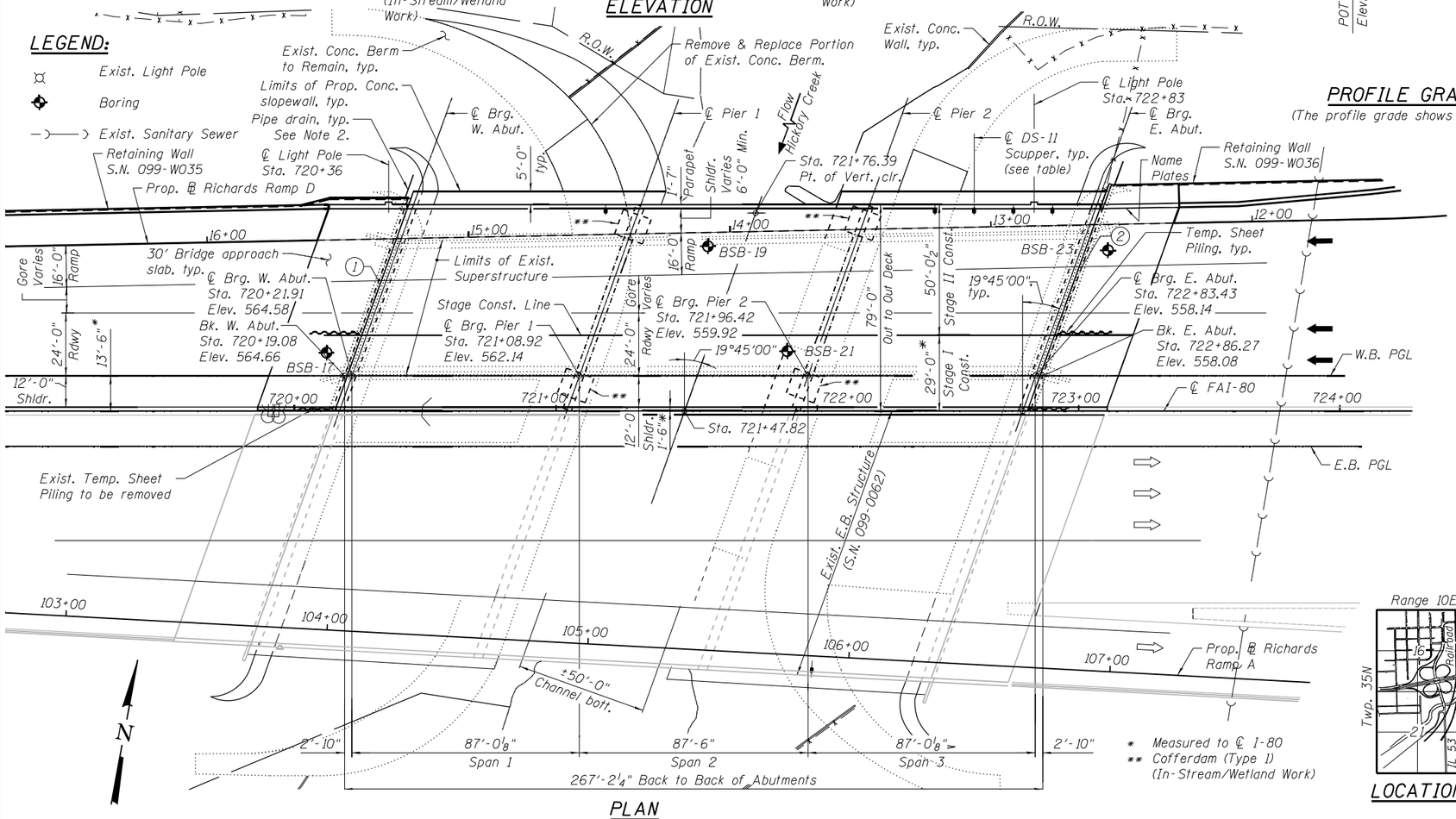
DESIGN SCOUR ELEVATION TABLE

	W. Abut.	Pier 1	Pier 2	E. Abut.	Item 113
Q100	N/A	490.54	490.54	N/A	5
Q200	N/A	491.18	491.18	N/A	
Design	554.62	512.57	513.90	546.78	
Check	554.62	512.57	513.90	546.78	

Notes:
1. Up to ¼" maybe ground off the bridge deck and the bridge approach slabs.
2. Cost of perforated drain within limits of abutments and retaining walls is included with Pipe Underdrains for Structures 4". For pipe outlet and end treatment, see Drainage Plans.



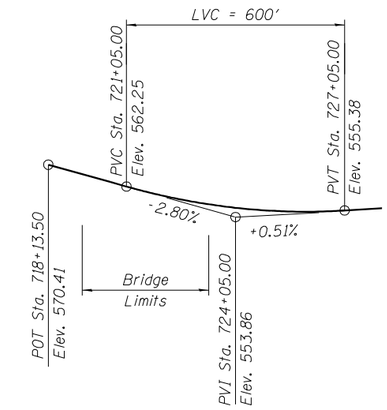
ELEVATION



PLAN

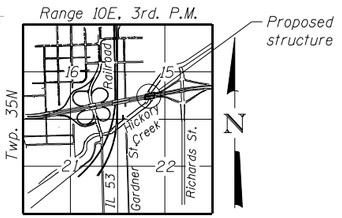
PROFILE GRADE PROP. I-80 WB

(The profile grade shows the final elevations after grinding)



SCUPPERS

Sta.
721+19
722+45
722+60
722+75
722+90



LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

VINOD C. PATEL 081-004528 CHICAGO, IL
STATE OF ILLINOIS LICENSED STRUCTURAL ENGINEER

Signed:
Date: 3/10/2022
Exp: 11/30/2022
Sheets: 1 thru 46

GENERAL PLAN & ELEVATION
I-80 OVER HICKORY CREEK
F.A.I. RTE. 80 - SEC. 2013-009B
WILL COUNTY
STATION 721+49.17
STRUCTURE NO. 099-0063 (WB)

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET SH-01 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	254
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			

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GENERAL NOTES

Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts $^{7}/_{8}$ in. ϕ, holes $^{15}/_{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 832,740 pounds (AASHTO M270 Grade 50)
41,040 pounds (AASHTO M270 Grade 36)

All structural steel shall be AASHTO M270 Grade 50, unless noted otherwise.

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 parapets 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 22 on roadway plan sheet 3. 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

SH-1 General Plan & Elevation
SH-2 General Data
SH-3 Slope Wall Details
SH-4 Substructure Layout & Sheet Piling Details
SH-5 Construction Staging
SH-6 Temporary Concrete Barrier For Stage Construction
SH-7 Top of Slab Elevations Layout
SH-8 Top of Slab Elevations - 1
SH-9 Top of Slab Elevations - 2
SH-10 Top of Slab Elevations - 3
SH-11 Top of Slab Elevations - 4
SH-12 Top of Slab Elevations - 5
SH-13 Top of West Approach Slab Elevations
SH-14 Top of East Approach Slab Elevations
SH-15 Deck Plan
SH-16 Deck Sections
SH-17 Parapet Elevations
SH-18 Superstructure Details - 1
SH-19 Superstructure Details - 2
SH-20 Abutment Diaphragm Details - 1
SH-21 Abutment Diaphragm Details - 2
SH-22 Bridge Approach Slab Details - 1
SH-23 Bridge Approach Slab Details - 2
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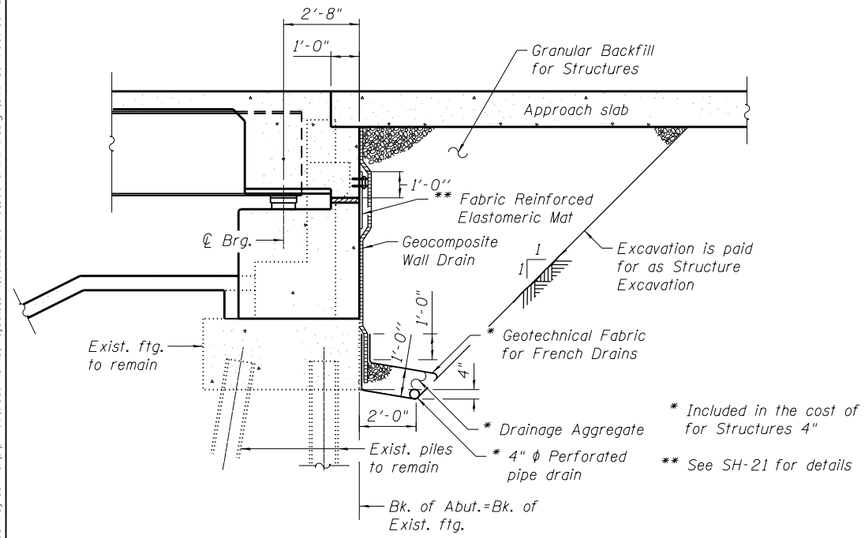
SH-25 Drainage Scupper Details
SH-26 Framing Plan & Beam Elevation
SH-27 Beam Details - 1
SH-28 Beam Details - 2
SH-29 Bearing Details
SH-30 Abutment Removal Details
SH-31 West Abutment
SH-32 East Abutment
SH-33 Abutment Details - 1
SH-34 Abutment Details - 2
SH-35 Pier Removal Details
SH-36 Pier 1 Details - 1
SH-37 Pier 1 Details - 2
SH-38 Pier 2 Details - 1
SH-39 Pier 2 Details - 2
SH-40 Pier Details
SH-41 Hp Pile Detail
SH-42 Bar Splicer Assembly and Mechanical Splicer Details
SH-43 Soil Boring Logs - 1
SH-44 Soil Boring Logs - 2
SH-45 Soil Boring Logs - 3
SH-46 Soil Boring Logs - 4

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq Yd	-	1,244	1,244
Filter Fabric	Sq Yd	-	1,244	1,244
Removal Of Existing Superstructures	Each	1	-	1
Concrete Removal	Cu Yd	-	121.3	121.3
Slope Wall Removal	Sq Yd	-	1,386	1,386
Structure Excavation	Cu Yd	-	795	795
Cofferdam Excavation	Cu Yd	-	241	241
Rock Excavation For Structures	Cu Yd	-	183	183
Concrete Structures	Cu Yd	52.2	427.2	479.4
Concrete Superstructure	Cu Yd	758.4	-	758.4
Concrete Encasement	Cu Yd	-	9.8	9.8
Protective Coat	Sq Yd	3,160	-	3,160
Concrete Superstructure (Approach Slab)	Cu Yd	246.3	-	246.3
Furnishing And Erecting Structural Steel	L Sum	0.35	-	0.35
Stud Shear Connectors	Each	13,904	-	13,904
Reinforcement Bars, Epoxy Coated	Pound	322,450	57,640	380,090
Bar Splicers	Each	1,121	120	1,241
Mechanical Splicers	Each	-	20	20
Slope Wall 6 Inch	Sq Yd	-	639	639
Furnishing Steel Piles Hp12X53	Foot	-	552	552
Driving Piles	Foot	-	552	552
Pile Shoes	Each	-	14	14
Name Plates	Each	1	-	1
Preformed Joint Seal 2 1/2"	Foot	266	-	266
Elastomeric Bearing Assembly, Type I	Each	22	-	22
Anchor Bolts, 1"	Each	88	-	88
Temporary Sheet Piling	Sq Ft	-	765	765
Granular Backfill For Structures	Cu Yd	-	414	414
Geocomposite Wall Drain	Sq Yd	-	201	201
Pipe Underdrains For Structures 4"	Foot	-	198	198
Cofferdam (Type 1) (In-Stream/Wetland Work)	Each	-	4	4
Bridge Deck Grooving (Longitudinal)	Sq Yd	1,879	-	1,879
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	-	210	210
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	-	40	40
Drainage Scuppers, DS-11	Each	5	-	5
Diamond Grinding (Bridge Section)	Sq Yd	2,600	-	2,600
Temporary Support System	L Sum	-	1	1

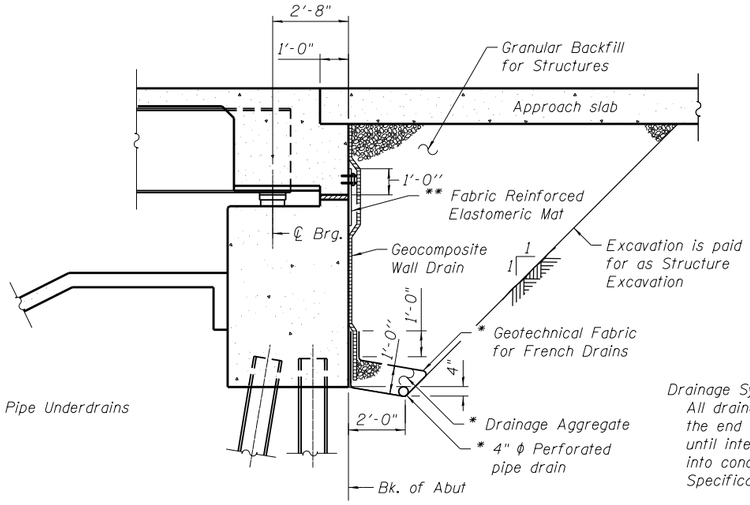


* Included in the cost of Pipe Underdrains for Structures 4"

** See SH-21 for details

SECTION THRU SEMI-INTEGRAL ABUTMENT AT EXIST. ABUT.

(Horiz. dim. at Rt. L's to ℄ Brgs.)



SECTION THRU SEMI-INTEGRAL ABUTMENT AT ABUT. EXTENSION

(Horiz. dim. at Rt. L's to ℄ Brgs.)

Drainage System 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).

STATION 721+47.82
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 80 SEC. 2013-009B
LOADING HL-93
STRUCTURE NO. 099-0063

NAME PLATE

See Std. 515001

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

1 REVISED SHEET 6/2/2022

USER NAME =	DESIGNED - BAR	REVISED - 1 6/1/2022 BAR	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

GENERAL DATA
STRUCTURE NO. 099-0063
SHEET SH-02 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

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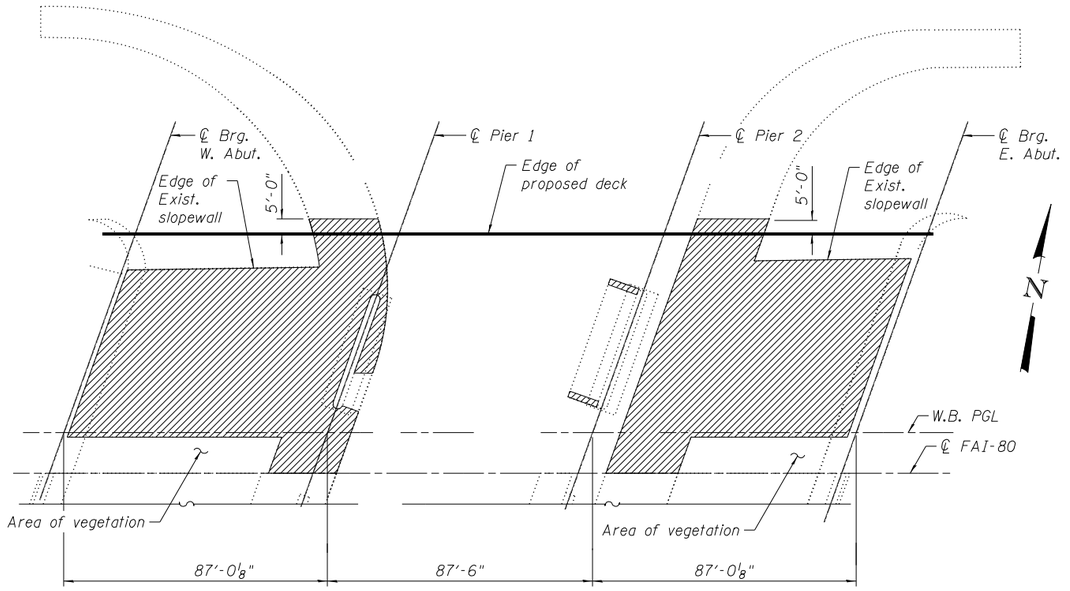
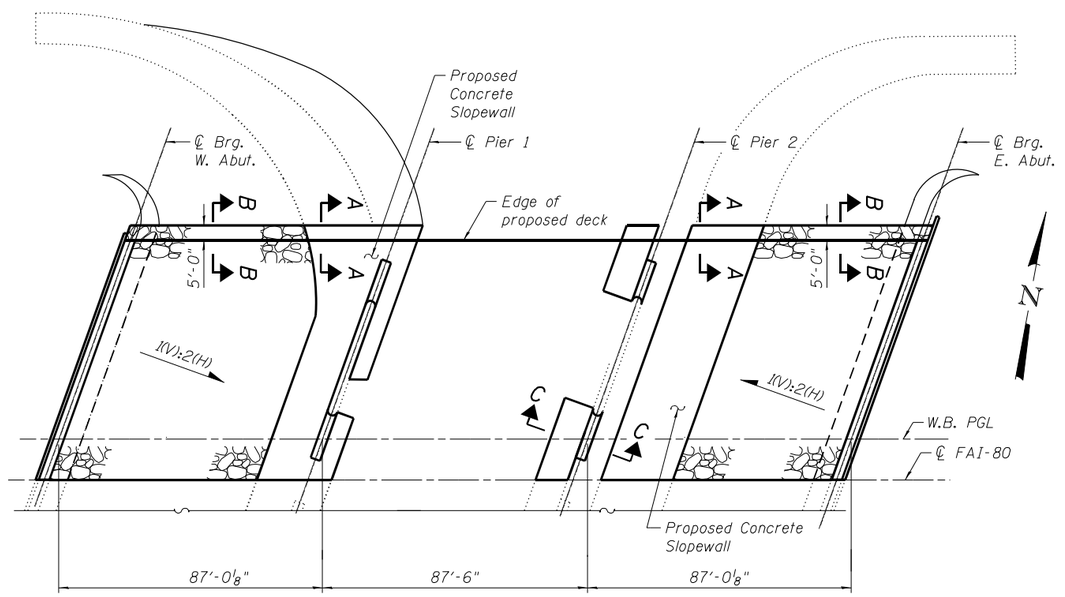
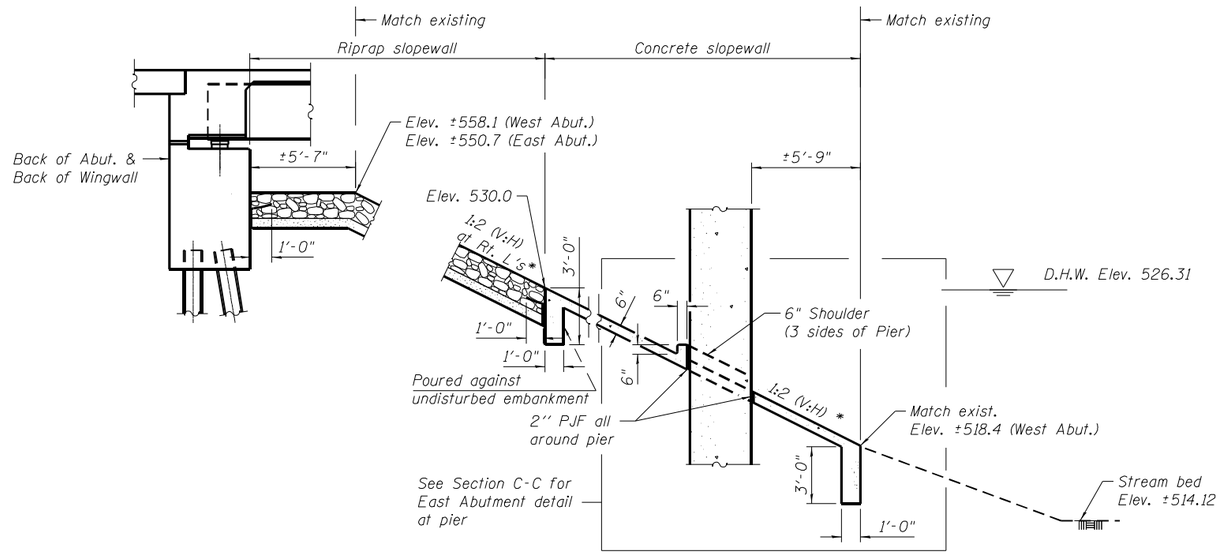


REMOVAL PLAN

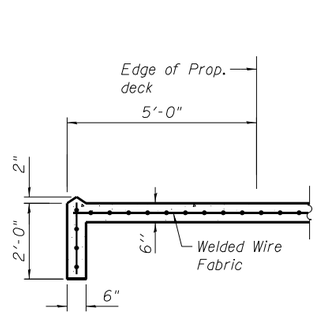


PROPOSED PLAN

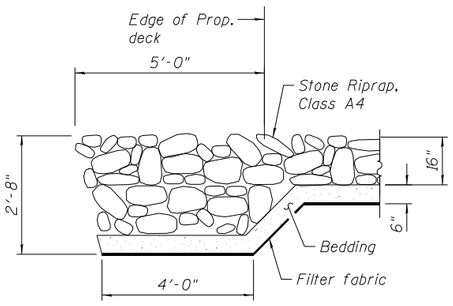


SECTION THRU SLOPEWALL

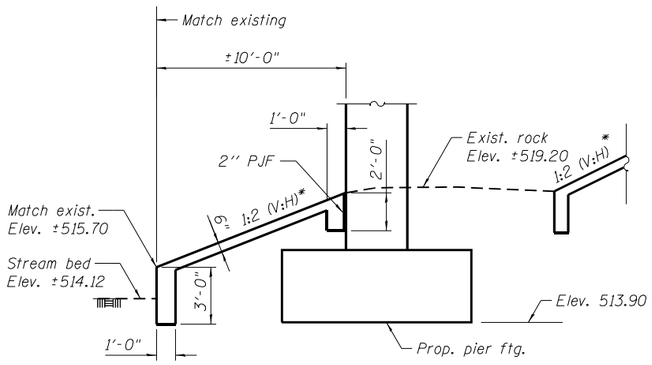
(West Slopewall Shown)



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND:

Slopewall removal

BILL OF MATERIAL

Item	Unit	Quantity
Stone Riprap, Class A4	Sq Yd	1,244
Filter Fabric	Sq Yd	1,244
Slope Wall Removal	Sq Yd	1,386
Slope Wall 6 inch	Sq Yd	639

Notes:
1. Slopewall shall be reinforced with welded wire fabric 6 in. x 6 in.-W4.0xW4.0, weighing 58 lb per 100 sq ft.
2. Layout of the slope proection system may be varied to suit ground conditions in the field as directed by the Engineer.

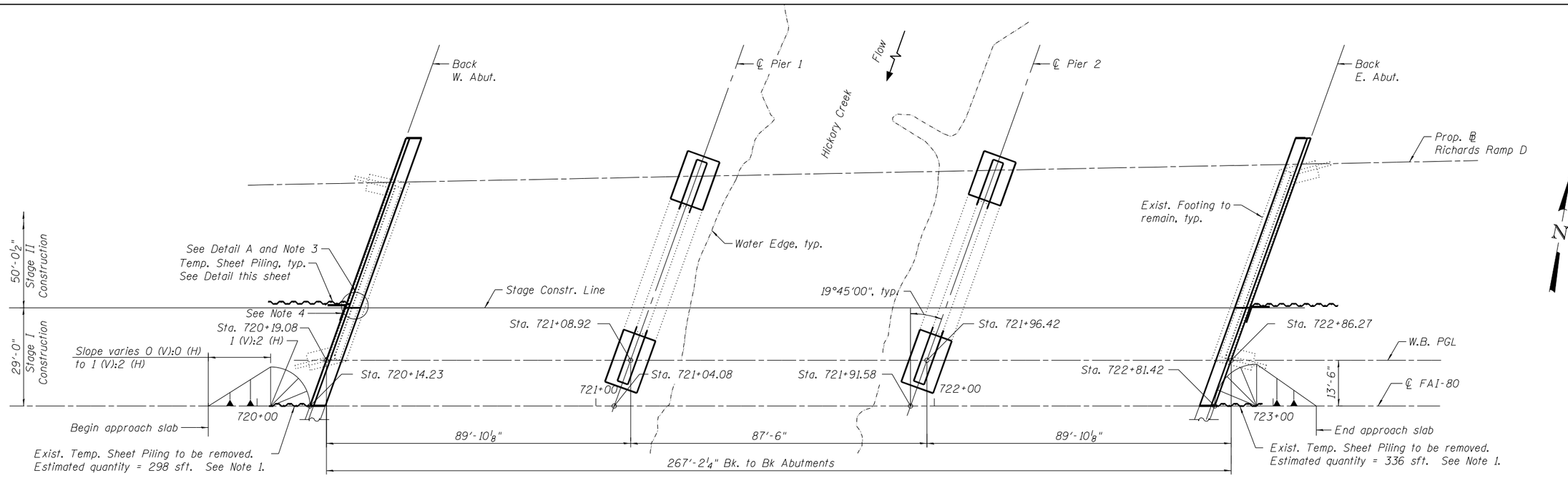
* Match existing slope.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

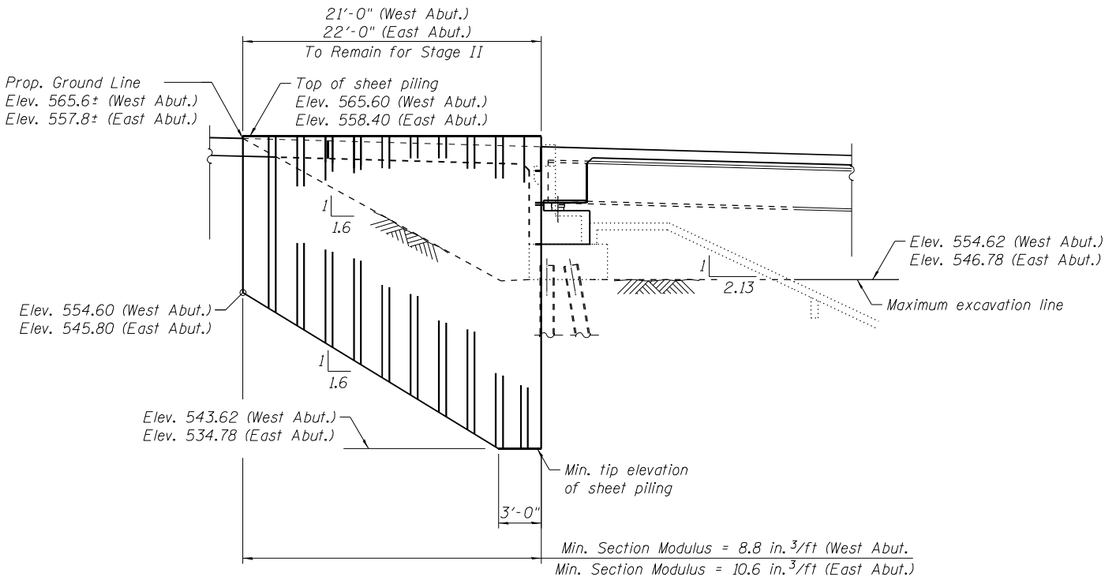
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE WALL DETAILS
STRUCTURE NO. 099-0063
SHEET SH-03 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	256
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

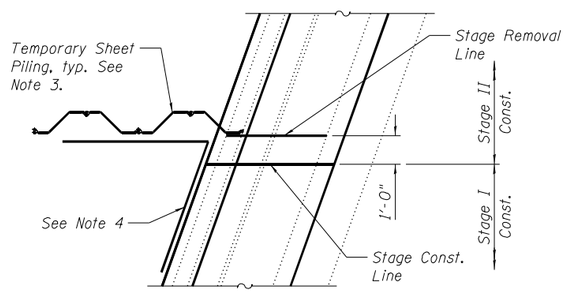


SUBSTRUCTURE & SHEET PILING LAYOUT PLAN



TEMPORARY SHEET PILING AT STAGE CONSTRUCTION LINE

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



DETAIL A

(West Abutment shown,
East Abutment similar)

Notes:

1. *Cost for the removal of the Existing Temporary Sheet Piling is included with Removal of Existing Superstructures.*
2. *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.*
3. *The Contractor shall connect the sheeting within the width of existing footing 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.*
4. *Contractor to design earth retention between Stage I proposed abutment and temporary sheet piling. Design shall be reviewed and accepted by the Engineer. Cost shall be included with Temporary Sheet Piling.*

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Sheet Piling	Sq Ft	765

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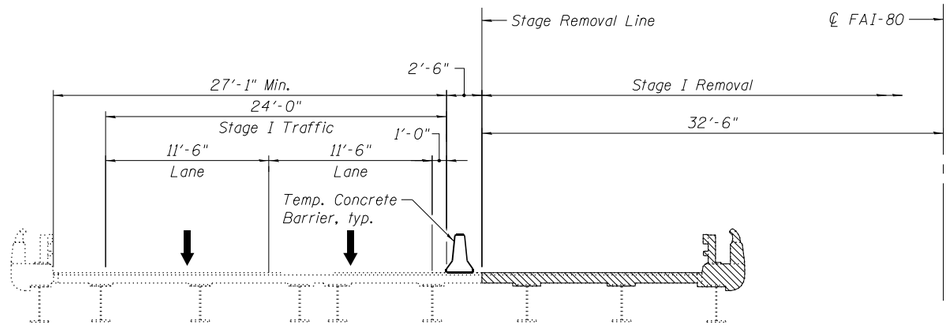
	CHECKED - VCP	REVISED -
PLOT SCALE =	DRAWN - MTR	REVISED -
PLOT DATE =	CHECKED - BAR	REVISED -

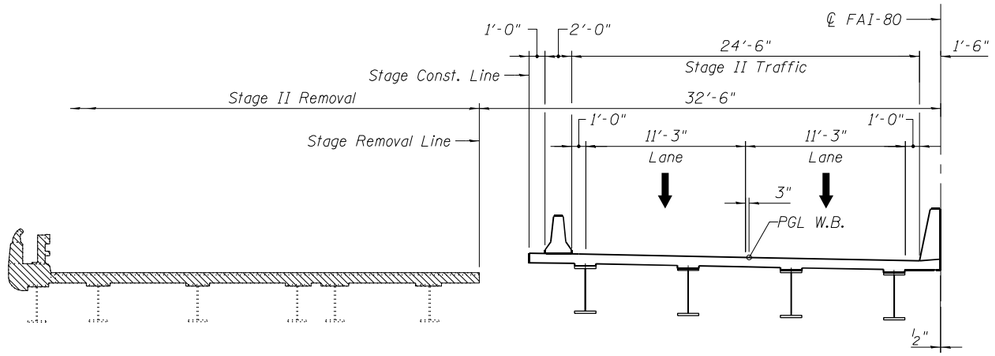
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT & SHEET PILING DETAILS
STRUCTURE NO. 099-0063
SHEET SH-04 OF SH-46 SHEETS

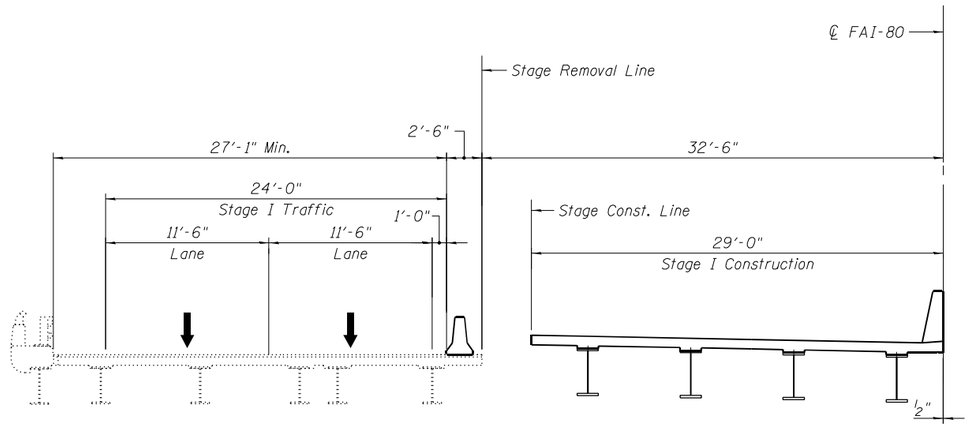
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	257
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	



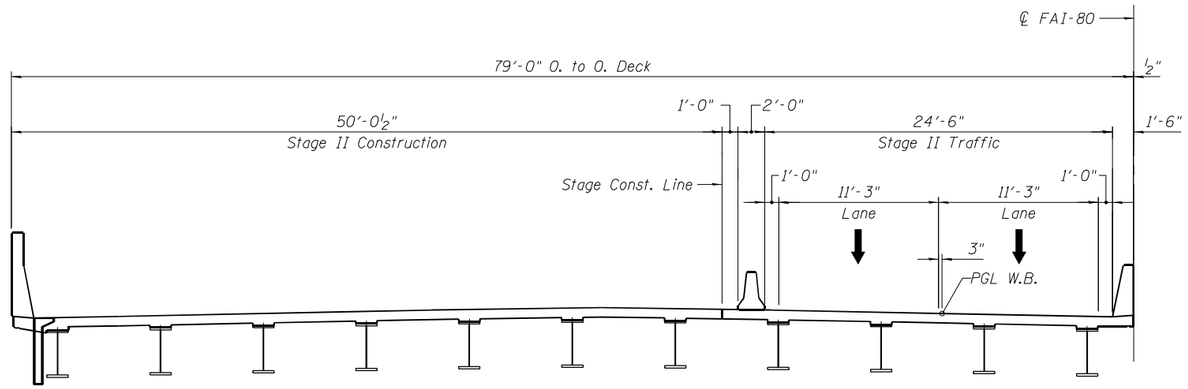
STAGE I REMOVAL



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.*
5. *For Stage IA maintenance of traffic layout, see Roadway Plans.*

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
STRUCTURE NO. 099-0063
SHEET SH-05 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	258
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			

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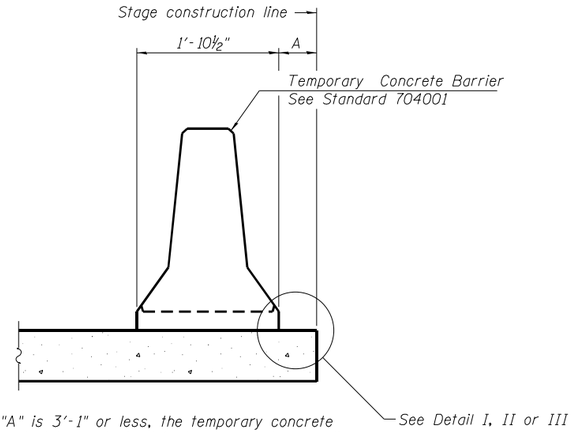
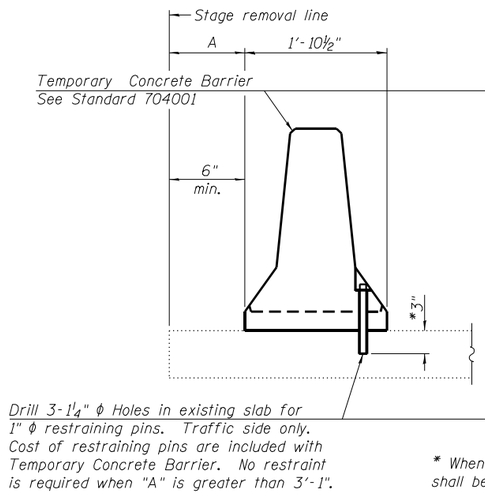


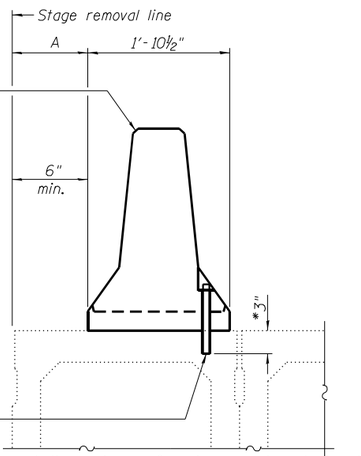
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" ϕ Holes in existing slab for 1" ϕ restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

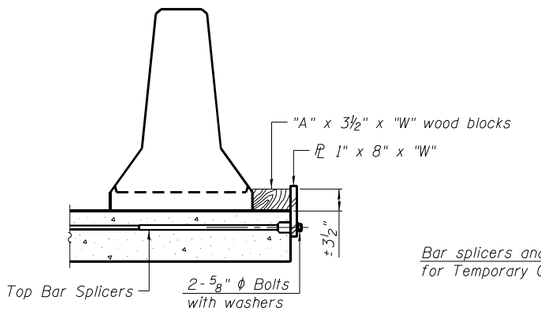
EXISTING SLAB



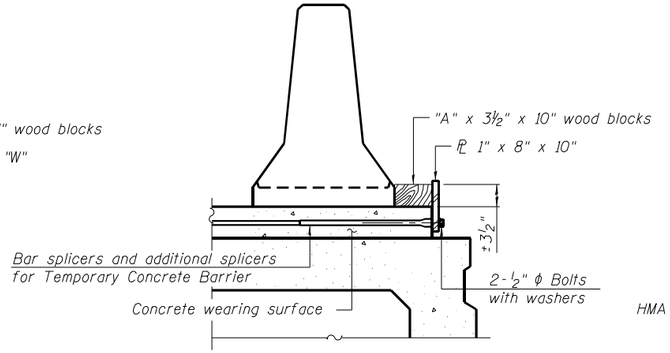
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

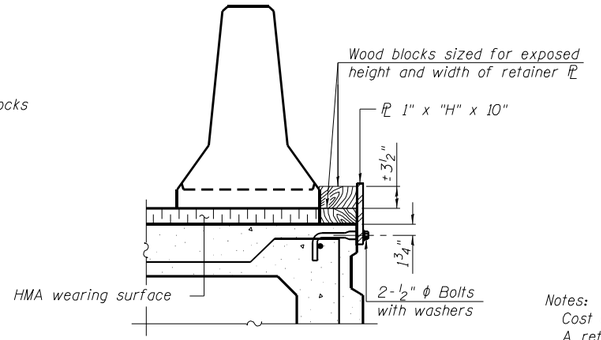
SECTIONS THRU SLAB OR DECK BEAM



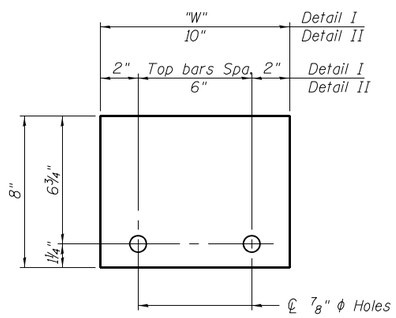
DETAIL I



DETAIL II

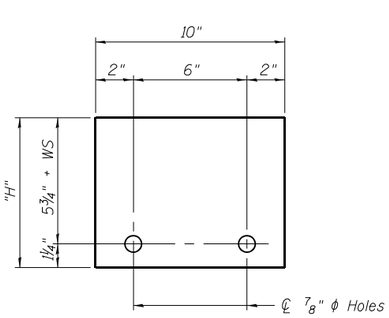


DETAIL III



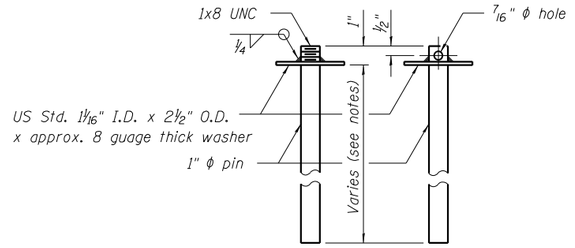
STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)

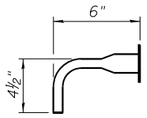


STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1'2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

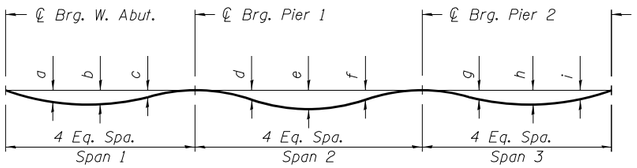
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 099-0063

SHEET SH-06 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	259
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

MODEL: Sheet
FILE NAME: pw:\\exp-pw.bentley.com:exp-pw-01\Documents\Projects\CHI\00263426-A0\800 CADD Design\811 Contract 60W35_WB\811.10 Structural\WB Hickory\Sheet\0990063-60W35-006-TEMPB.dgn

3/9/2022 11:33:50 AM



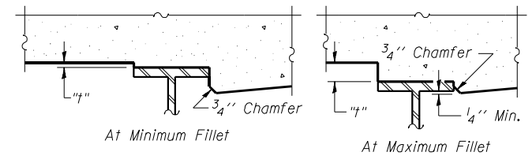
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on Sheets SH-08 thru SH-12.

DEAD LOAD DEFLECTION TABLE

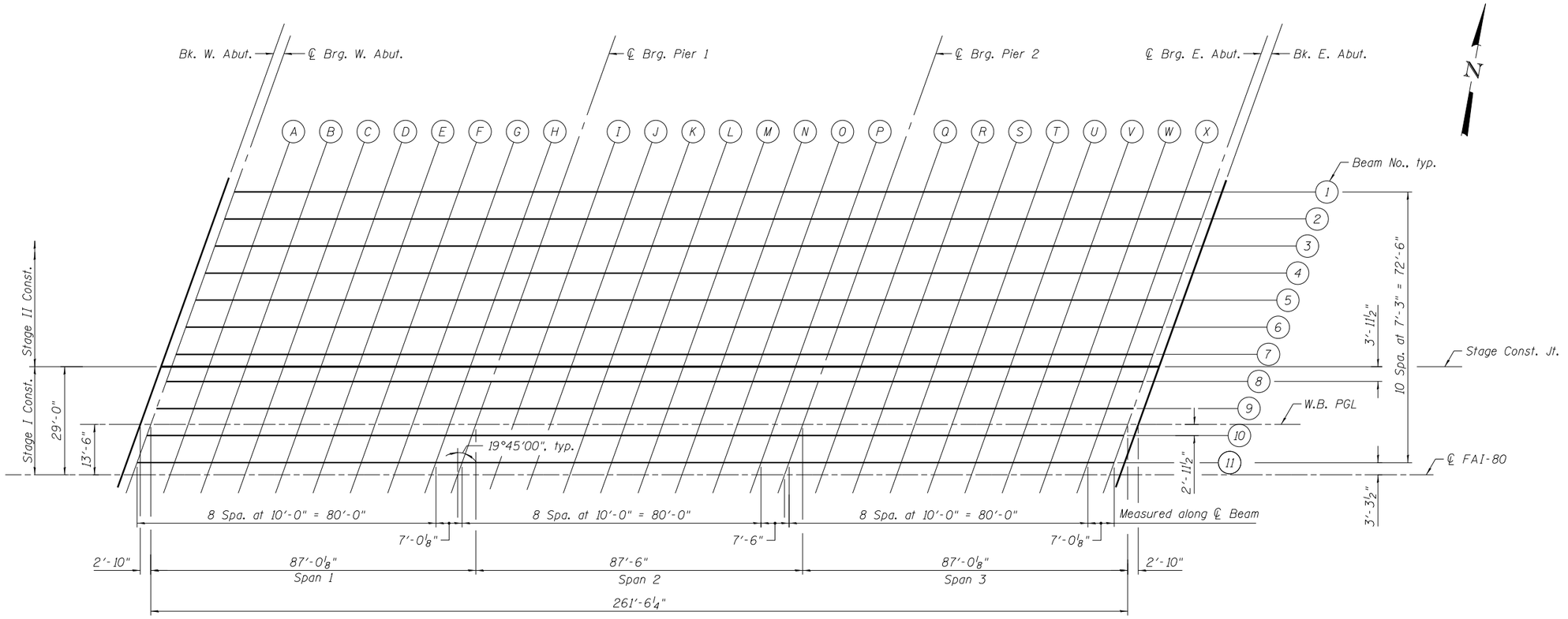
Beam No.	a	b	c	d	e	f	g	h	i
1	1 1/4"	1 1/2"	7/8"	-1/8"	0"	-1/8"	7/8"	1 1/2"	1 1/4"
2-3	1"	1 3/8"	3/4"	-1/8"	0"	-1/8"	3/4"	1 3/8"	1"
4-8	7/8"	1 1/8"	5/8"	-1/8"	0"	-1/8"	5/8"	1 1/8"	7/8"
9-10	1"	1 1/4"	5/8"	-1/8"	0"	-1/8"	5/8"	1 1/4"	1"
11	1"	1 1/4"	5/8"	-1/8"	0"	-1/8"	5/8"	1 1/4"	1"



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 Sheets SH-08 thru SH-12. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets SH-08 thru SH-12, minus slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown below. For grinding the deck, see Special Provisions.

FILLET HEIGHTS



PLAN

Notes:
1. For beam layout, see Sheet SH-26.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
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PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS LAYOUT
STRUCTURE NO. 099-0063
SHEET SH-07 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	260
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+41.44	-75.79	563.75	563.77
℄ Brg. W. Abut.	720+44.28	-75.79	563.67	563.69
A	720+54.28	-75.79	563.39	563.46
B	720+64.28	-75.79	563.11	563.22
C	720+74.28	-75.79	562.83	562.97
D	720+84.28	-75.79	562.55	562.69
E	720+94.28	-75.79	562.27	562.40
F	721+04.28	-75.79	561.99	562.10
G	721+14.28	-75.79	561.71	561.78
H	721+24.28	-75.79	561.44	561.48
℄ Brg. Pier 1	721+31.29	-75.79	561.25	561.27
I	721+41.29	-75.79	560.99	561.00
J	721+51.29	-75.79	560.73	560.74
K	721+61.29	-75.79	560.48	560.49
L	721+71.29	-75.79	560.23	560.25
M	721+81.29	-75.79	559.99	560.01
N	721+91.29	-75.79	559.76	559.77
O	722+01.29	-75.79	559.53	559.54
P	722+11.29	-75.79	559.30	559.32
℄ Brg. Pier 2	722+18.79	-75.79	559.14	559.16
Q	722+28.79	-75.79	558.92	558.97
R	722+38.79	-75.79	558.72	558.80
S	722+48.79	-75.79	558.51	558.63
T	722+58.79	-75.79	558.31	558.46
U	722+68.79	-75.79	558.12	558.27
V	722+78.79	-75.79	557.93	558.07
W	722+88.79	-75.79	557.75	557.86
X	722+98.79	-75.79	557.58	557.64
℄ Brg. E. Abut.	723+05.80	-75.79	557.46	557.48
Bk. E. Abut.	723+08.63	-75.79	557.41	557.43

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+38.84	-68.54	563.96	563.98
℄ Brg. W. Abut.	720+41.67	-68.54	563.88	563.90
A	720+51.67	-68.54	563.60	563.67
B	720+61.67	-68.54	563.32	563.43
C	720+71.67	-68.54	563.04	563.17
D	720+81.67	-68.54	562.76	562.90
E	720+91.67	-68.54	562.48	562.61
F	721+01.67	-68.54	562.20	562.30
G	721+11.67	-68.54	561.93	561.99
H	721+21.67	-68.54	561.65	561.69
℄ Brg. Pier 1	721+28.68	-68.54	561.46	561.49
I	721+38.68	-68.54	561.20	561.21
J	721+48.68	-68.54	560.94	560.95
K	721+58.68	-68.54	560.69	560.70
L	721+68.68	-68.54	560.44	560.46
M	721+78.68	-68.54	560.20	560.22
N	721+88.68	-68.54	559.96	559.98
O	721+98.68	-68.54	559.73	559.74
P	722+08.68	-68.54	559.51	559.52
℄ Brg. Pier 2	722+16.18	-68.54	559.34	559.36
Q	722+26.18	-68.54	559.12	559.17
R	722+36.18	-68.54	558.91	558.99
S	722+46.18	-68.54	558.71	558.82
T	722+56.18	-68.54	558.51	558.64
U	722+66.18	-68.54	558.32	558.45
V	722+76.18	-68.54	558.13	558.25
W	722+86.18	-68.54	557.95	558.04
X	722+96.18	-68.54	557.77	557.82
℄ Brg. E. Abut.	723+03.19	-68.54	557.65	557.67
Bk. E. Abut.	723+06.03	-68.54	557.60	557.62

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+36.24	-61.29	564.18	564.20
℄ Brg. W. Abut.	720+39.07	-61.29	564.10	564.12
A	720+49.07	-61.29	563.82	563.89
B	720+59.07	-61.29	563.54	563.65
C	720+69.07	-61.29	563.26	563.39
D	720+79.07	-61.29	562.98	563.12
E	720+89.07	-61.29	562.70	562.83
F	720+99.07	-61.29	562.42	562.52
G	721+09.07	-61.29	562.14	562.21
H	721+19.07	-61.29	561.87	561.91
℄ Brg. Pier 1	721+26.08	-61.29	561.68	561.70
I	721+36.08	-61.29	561.41	561.43
J	721+46.08	-61.29	561.15	561.17
K	721+56.08	-61.29	560.90	560.91
L	721+66.08	-61.29	560.65	560.67
M	721+76.08	-61.29	560.41	560.42
N	721+86.08	-61.29	560.17	560.18
O	721+96.08	-61.29	559.94	559.95
P	722+06.08	-61.29	559.71	559.72
℄ Brg. Pier 2	722+13.58	-61.29	559.54	559.56
Q	722+23.58	-61.29	559.33	559.37
R	722+33.58	-61.29	559.11	559.19
S	722+43.58	-61.29	558.91	559.01
T	722+53.58	-61.29	558.71	558.83
U	722+63.58	-61.29	558.51	558.64
V	722+73.58	-61.29	558.32	558.44
W	722+83.58	-61.29	558.14	558.23
X	722+93.58	-61.29	557.96	558.01
℄ Brg. E. Abut.	723+00.59	-61.29	557.84	557.86
Bk. E. Abut.	723+03.42	-61.29	557.79	557.81

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

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

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 1
STRUCTURE NO. 099-0063
SHEET SH-08 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	261
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+33.63	-54.04	564.40	564.42
℄ Brg. W. Abut.	720+36.47	-54.04	564.32	564.34
A	720+46.47	-54.04	564.04	564.10
B	720+56.47	-54.04	563.76	563.85
C	720+66.47	-54.04	563.48	563.59
D	720+76.47	-54.04	563.20	563.31
E	720+86.47	-54.04	562.92	563.02
F	720+96.47	-54.04	562.64	562.72
G	721+06.47	-54.04	562.36	562.42
H	721+16.47	-54.04	562.08	562.12
℄ Brg. Pier 1	721+23.48	-54.04	561.89	561.91
I	721+33.48	-54.04	561.63	561.64
J	721+43.48	-54.04	561.37	561.38
K	721+53.48	-54.04	561.11	561.13
L	721+63.48	-54.04	560.86	560.88
M	721+73.48	-54.04	560.61	560.63
N	721+83.48	-54.04	560.37	560.39
O	721+93.48	-54.04	560.14	560.15
P	722+03.48	-54.04	559.91	559.93
℄ Brg. Pier 2	722+10.98	-54.04	559.74	559.77
Q	722+20.98	-54.04	559.53	559.57
R	722+30.98	-54.04	559.31	559.38
S	722+40.98	-54.04	559.11	559.19
T	722+50.98	-54.04	558.90	559.01
U	722+60.98	-54.04	558.71	558.82
V	722+70.98	-54.04	558.52	558.62
W	722+80.98	-54.04	558.33	558.41
X	722+90.98	-54.04	558.15	558.20
℄ Brg. E. Abut.	722+97.99	-54.04	558.03	558.05
Bk. E. Abut.	723+00.82	-54.04	557.98	558.00

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+31.03	-46.79	564.60	564.62
℄ Brg. W. Abut.	720+33.86	-46.79	564.52	564.54
A	720+43.86	-46.79	564.24	564.30
B	720+53.86	-46.79	563.96	564.05
C	720+63.86	-46.79	563.68	563.79
D	720+73.86	-46.79	563.40	563.51
E	720+83.86	-46.79	563.12	563.23
F	720+93.86	-46.79	562.84	562.93
G	721+03.86	-46.79	562.56	562.62
H	721+13.86	-46.79	562.29	562.32
℄ Brg. Pier 1	721+20.87	-46.79	562.10	562.12
I	721+30.87	-46.79	561.83	561.84
J	721+40.87	-46.79	561.56	561.58
K	721+50.87	-46.79	561.31	561.32
L	721+60.87	-46.79	561.06	561.07
M	721+70.87	-46.79	560.81	560.83
N	721+80.87	-46.79	560.57	560.58
O	721+90.87	-46.79	560.33	560.35
P	722+00.87	-46.79	560.10	560.12
℄ Brg. Pier 2	722+08.37	-46.79	559.93	559.96
Q	722+18.37	-46.79	559.71	559.75
R	722+28.37	-46.79	559.50	559.56
S	722+38.37	-46.79	559.29	559.38
T	722+48.37	-46.79	559.09	559.19
U	722+58.37	-46.79	558.89	559.00
V	722+68.37	-46.79	558.70	558.80
W	722+78.37	-46.79	558.51	558.59
X	722+88.37	-46.79	558.33	558.37
℄ Brg. E. Abut.	722+95.38	-46.79	558.20	558.22
Bk. E. Abut.	722+98.22	-46.79	558.15	558.17

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+28.43	-39.54	564.78	564.81
℄ Brg. W. Abut.	720+31.26	-39.54	564.71	564.73
A	720+41.26	-39.54	564.43	564.48
B	720+51.26	-39.54	564.15	564.23
C	720+61.26	-39.54	563.87	563.97
D	720+71.26	-39.54	563.59	563.70
E	720+81.26	-39.54	563.31	563.41
F	720+91.26	-39.54	563.03	563.11
G	721+01.26	-39.54	562.75	562.80
H	721+11.26	-39.54	562.47	562.50
℄ Brg. Pier 1	721+18.27	-39.54	562.28	562.30
I	721+28.27	-39.54	562.01	562.02
J	721+38.27	-39.54	561.74	561.75
K	721+48.27	-39.54	561.48	561.50
L	721+58.27	-39.54	561.23	561.25
M	721+68.27	-39.54	560.98	561.00
N	721+78.27	-39.54	560.74	560.75
O	721+88.27	-39.54	560.50	560.52
P	721+98.27	-39.54	560.27	560.29
℄ Brg. Pier 2	722+05.77	-39.54	560.10	560.12
Q	722+15.77	-39.54	559.88	559.92
R	722+25.77	-39.54	559.66	559.73
S	722+35.77	-39.54	559.45	559.54
T	722+45.77	-39.54	559.25	559.35
U	722+55.77	-39.54	559.05	559.16
V	722+65.77	-39.54	558.85	558.96
W	722+75.77	-39.54	558.67	558.75
X	722+85.77	-39.54	558.48	558.53
℄ Brg. E. Abut.	722+92.78	-39.54	558.36	558.38
Bk. E. Abut.	722+95.61	-39.54	558.31	558.33

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

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

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 2
STRUCTURE NO. 099-0063
SHEET SH-09 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	262
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+25.82	-32.29	564.81	564.83
℄ Brg. W. Abut.	720+28.66	-32.29	564.73	564.75
A	720+38.66	-32.29	564.45	564.51
B	720+48.66	-32.29	564.17	564.26
C	720+58.66	-32.29	563.89	564.00
D	720+68.66	-32.29	563.61	563.72
E	720+78.66	-32.29	563.33	563.43
F	720+88.66	-32.29	563.05	563.13
G	720+98.66	-32.29	562.77	562.83
H	721+08.66	-32.29	562.49	562.53
℄ Brg. Pier 1	721+15.67	-32.29	562.30	562.32
I	721+25.67	-32.29	562.03	562.04
J	721+35.67	-32.29	561.76	561.78
K	721+45.67	-32.29	561.50	561.52
L	721+55.67	-32.29	561.25	561.26
M	721+65.67	-32.29	561.00	561.02
N	721+75.67	-32.29	560.75	560.77
O	721+85.67	-32.29	560.52	560.53
P	721+95.67	-32.29	560.28	560.30
℄ Brg. Pier 2	722+03.17	-32.29	560.11	560.13
Q	722+13.17	-32.29	559.89	559.93
R	722+23.17	-32.29	559.67	559.74
S	722+33.17	-32.29	559.46	559.55
T	722+43.17	-32.29	559.25	559.36
U	722+53.17	-32.29	559.05	559.16
V	722+63.17	-32.29	558.86	558.96
W	722+73.17	-32.29	558.67	558.75
X	722+83.17	-32.29	558.48	558.53
℄ Brg. E. Abut.	722+90.18	-32.29	558.36	558.38
Bk. E. Abut.	722+93.01	-32.29	558.31	558.33

LONGITUDINAL STAGE CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+24.64	-29.00	564.79	564.81
℄ Brg. W. Abut.	720+27.48	-29.00	564.71	564.74
A	720+37.48	-29.00	564.43	564.49
B	720+47.48	-29.00	564.15	564.24
C	720+57.48	-29.00	563.87	563.98
D	720+67.48	-29.00	563.60	563.71
E	720+77.48	-29.00	563.32	563.42
F	720+87.48	-29.00	563.04	563.12
G	720+97.48	-29.00	562.76	562.81
H	721+07.48	-29.00	562.48	562.51
℄ Brg. Pier 1	721+14.49	-29.00	562.28	562.30
I	721+24.49	-29.00	562.01	562.02
J	721+34.49	-29.00	561.74	561.76
K	721+44.49	-29.00	561.48	561.50
L	721+54.49	-29.00	561.23	561.25
M	721+64.49	-29.00	560.98	561.00
N	721+74.49	-29.00	560.73	560.75
O	721+84.49	-29.00	560.49	560.51
P	721+94.49	-29.00	560.26	560.28
℄ Brg. Pier 2	722+01.99	-29.00	560.09	560.11
Q	722+11.99	-29.00	559.87	559.91
R	722+21.99	-29.00	559.65	559.71
S	722+31.99	-29.00	559.44	559.52
T	722+41.99	-29.00	559.23	559.33
U	722+51.99	-29.00	559.03	559.14
V	722+61.99	-29.00	558.83	558.93
W	722+71.99	-29.00	558.64	558.72
X	722+81.99	-29.00	558.45	558.50
℄ Brg. E. Abut.	722+89.00	-29.00	558.33	558.35
Bk. E. Abut.	722+91.83	-29.00	558.28	558.30

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+23.22	-25.04	564.77	564.79
℄ Brg. W. Abut.	720+26.05	-25.04	564.69	564.71
A	720+36.05	-25.04	564.41	564.47
B	720+46.05	-25.04	564.13	564.22
C	720+56.05	-25.04	563.85	563.96
D	720+66.05	-25.04	563.57	563.68
E	720+76.05	-25.04	563.29	563.40
F	720+86.05	-25.04	563.01	563.10
G	720+96.05	-25.04	562.73	562.79
H	721+06.05	-25.04	562.45	562.49
℄ Brg. Pier 1	721+13.06	-25.04	562.26	562.28
I	721+23.06	-25.04	561.99	562.00
J	721+33.06	-25.04	561.72	561.73
K	721+43.06	-25.04	561.46	561.47
L	721+53.06	-25.04	561.20	561.22
M	721+63.06	-25.04	560.95	560.97
N	721+73.06	-25.04	560.71	560.72
O	721+83.06	-25.04	560.47	560.48
P	721+93.06	-25.04	560.23	560.25
℄ Brg. Pier 2	722+00.56	-25.04	560.06	560.08
Q	722+10.56	-25.04	559.84	559.88
R	722+20.56	-25.04	559.62	559.68
S	722+30.56	-25.04	559.40	559.49
T	722+40.56	-25.04	559.20	559.30
U	722+50.56	-25.04	558.99	559.10
V	722+60.56	-25.04	558.80	558.90
W	722+70.56	-25.04	558.60	558.68
X	722+80.56	-25.04	558.42	558.47
℄ Brg. E. Abut.	722+87.57	-25.04	558.29	558.31
Bk. E. Abut.	722+90.41	-25.04	558.24	558.26

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

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

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 3
STRUCTURE NO. 099-0063
SHEET SH-10 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	263
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+20.62	-17.79	564.70	564.72
℄ Brg. W. Abut.	720+23.45	-17.79	564.62	564.64
A	720+33.45	-17.79	564.34	564.40
B	720+43.45	-17.79	564.06	564.15
C	720+53.45	-17.79	563.78	563.89
D	720+63.45	-17.79	563.50	563.61
E	720+73.45	-17.79	563.22	563.32
F	720+83.45	-17.79	562.94	563.02
G	720+93.45	-17.79	562.66	562.72
H	721+03.45	-17.79	562.38	562.42
℄ Brg. Pier 1	721+10.46	-17.79	562.19	562.21
I	721+20.46	-17.79	561.91	561.93
J	721+30.46	-17.79	561.64	561.66
K	721+40.46	-17.79	561.38	561.40
L	721+50.46	-17.79	561.12	561.14
M	721+60.46	-17.79	560.87	560.89
N	721+70.46	-17.79	560.62	560.64
O	721+80.46	-17.79	560.38	560.40
P	721+90.46	-17.79	560.15	560.16
℄ Brg. Pier 2	721+97.96	-17.79	559.97	560.00
Q	722+07.96	-17.79	559.75	559.79
R	722+17.96	-17.79	559.53	559.59
S	722+27.96	-17.79	559.31	559.40
T	722+37.96	-17.79	559.10	559.21
U	722+47.96	-17.79	558.90	559.01
V	722+57.96	-17.79	558.70	558.80
W	722+67.96	-17.79	558.51	558.59
X	722+77.96	-17.79	558.32	558.37
℄ Brg. E. Abut.	722+84.97	-17.79	558.19	558.21
Bk. E. Abut.	722+87.80	-17.79	558.14	558.16

W.B. PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+19.08	-13.50	564.66	564.68
℄ Brg. W. Abut.	720+21.91	-13.50	564.58	564.60
A	720+31.91	-13.50	564.30	564.36
B	720+41.91	-13.50	564.02	564.12
C	720+51.91	-13.50	563.74	563.86
D	720+61.91	-13.50	563.46	563.58
E	720+71.91	-13.50	563.18	563.29
F	720+81.91	-13.50	562.90	562.99
G	720+91.91	-13.50	562.62	562.68
H	721+01.91	-13.50	562.34	562.37
℄ Brg. Pier 1	721+08.92	-13.50	562.14	562.16
I	721+18.92	-13.50	561.87	561.88
J	721+28.92	-13.50	561.60	561.61
K	721+38.92	-13.50	561.33	561.35
L	721+48.92	-13.50	561.08	561.09
M	721+58.92	-13.50	560.82	560.84
N	721+68.92	-13.50	560.58	560.59
O	721+78.92	-13.50	560.33	560.35
P	721+88.92	-13.50	560.10	560.11
℄ Brg. Pier 2	721+96.42	-13.50	559.92	559.94
Q	722+06.42	-13.50	559.70	559.74
R	722+16.42	-13.50	559.48	559.55
S	722+26.42	-13.50	559.26	559.36
T	722+36.42	-13.50	559.05	559.17
U	722+46.42	-13.50	558.85	558.97
V	722+56.42	-13.50	558.65	558.76
W	722+66.42	-13.50	558.45	558.54
X	722+76.42	-13.50	558.26	558.32
℄ Brg. E. Abut.	722+83.43	-13.50	558.14	558.16
Bk. E. Abut.	722+86.26	-13.50	558.08	558.11

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+18.01	-10.54	564.63	564.65
℄ Brg. W. Abut.	720+20.85	-10.54	564.55	564.57
A	720+30.85	-10.54	564.27	564.33
B	720+40.85	-10.54	563.99	564.09
C	720+50.85	-10.54	563.71	563.83
D	720+60.85	-10.54	563.43	563.55
E	720+70.85	-10.54	563.15	563.26
F	720+80.85	-10.54	562.87	562.96
G	720+90.85	-10.54	562.59	562.65
H	721+00.85	-10.54	562.31	562.35
℄ Brg. Pier 1	721+07.86	-10.54	562.11	562.13
I	721+17.86	-10.54	561.84	561.85
J	721+27.86	-10.54	561.57	561.58
K	721+37.86	-10.54	561.30	561.32
L	721+47.86	-10.54	561.04	561.06
M	721+57.86	-10.54	560.79	560.81
N	721+67.86	-10.54	560.54	560.56
O	721+77.86	-10.54	560.30	560.31
P	721+87.86	-10.54	560.06	560.08
℄ Brg. Pier 2	721+95.36	-10.54	559.89	559.91
Q	722+05.36	-10.54	559.66	559.71
R	722+15.36	-10.54	559.44	559.51
S	722+25.36	-10.54	559.22	559.32
T	722+35.36	-10.54	559.01	559.13
U	722+45.36	-10.54	558.81	558.93
V	722+55.36	-10.54	558.61	558.72
W	722+65.36	-10.54	558.41	558.50
X	722+75.36	-10.54	558.22	558.28
℄ Brg. E. Abut.	722+82.37	-10.54	558.10	558.12
Bk. E. Abut.	722+85.20	-10.54	558.04	558.07

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

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

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 4
STRUCTURE NO. 099-0063
SHEET SH-11 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	264
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	720+15.41	-3.29	564.56	564.58
℄ Brg. W. Abut.	720+18.25	-3.29	564.48	564.50
A	720+28.25	-3.29	564.20	564.26
B	720+38.25	-3.29	563.92	564.01
C	720+48.25	-3.29	563.64	563.75
D	720+58.25	-3.29	563.36	563.48
E	720+68.25	-3.29	563.08	563.19
F	720+78.25	-3.29	562.80	562.89
G	720+88.25	-3.29	562.52	562.58
H	720+98.25	-3.29	562.24	562.27
℄ Brg. Pier 1	721+05.26	-3.29	562.04	562.06
I	721+15.26	-3.29	561.76	561.78
J	721+25.26	-3.29	561.49	561.51
K	721+35.26	-3.29	561.23	561.24
L	721+45.26	-3.29	560.97	560.98
M	721+55.26	-3.29	560.71	560.73
N	721+65.26	-3.29	560.46	560.48
O	721+75.26	-3.29	560.22	560.23
P	721+85.26	-3.29	559.98	559.99
℄ Brg. Pier 2	721+92.76	-3.29	559.80	559.83
Q	722+02.76	-3.29	559.58	559.62
R	722+12.76	-3.29	559.35	559.42
S	722+22.76	-3.29	559.13	559.23
T	722+32.76	-3.29	558.92	559.04
U	722+42.76	-3.29	558.72	558.84
V	722+52.76	-3.29	558.51	558.63
W	722+62.76	-3.29	558.32	558.41
X	722+72.76	-3.29	558.13	558.18
℄ Brg. E. Abut.	722+79.77	-3.29	558.00	558.02
Bk. E. Abut.	722+82.60	-3.29	557.95	557.97

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

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

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 5
STRUCTURE NO. 099-0063
SHEET SH-12 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	265
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	720+13.10	-77.46	564.51	564.53
A1	720+23.10	-77.46	564.23	564.25
A2	720+33.10	-77.46	563.95	563.97
E. End West Appr. Pav't.	720+43.10	-77.46	563.67	563.69

CROSS SLOPE BREAK 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	720+03.06	-49.50	565.35	565.37
A1	720+13.06	-49.50	565.07	565.09
A2	720+23.06	-49.50	564.79	564.81
E. End West Appr. Pav't.	720+33.06	-49.50	564.51	564.53

CROSS SLOPE BREAK 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	719+98.76	-37.50	565.65	565.67
A1	720+08.76	-37.50	565.37	565.39
A2	720+18.76	-37.50	565.09	565.11
E. End West Appr. Pav't.	720+28.76	-37.50	564.81	564.83

STAGE CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	719+95.70	-29.00	565.60	565.62
A1	720+05.70	-29.00	565.32	565.34
A2	720+15.70	-29.00	565.04	565.06
E. End West Appr. Pav't.	720+25.70	-29.00	564.76	564.79

CROSS SLOPE BREAK 3

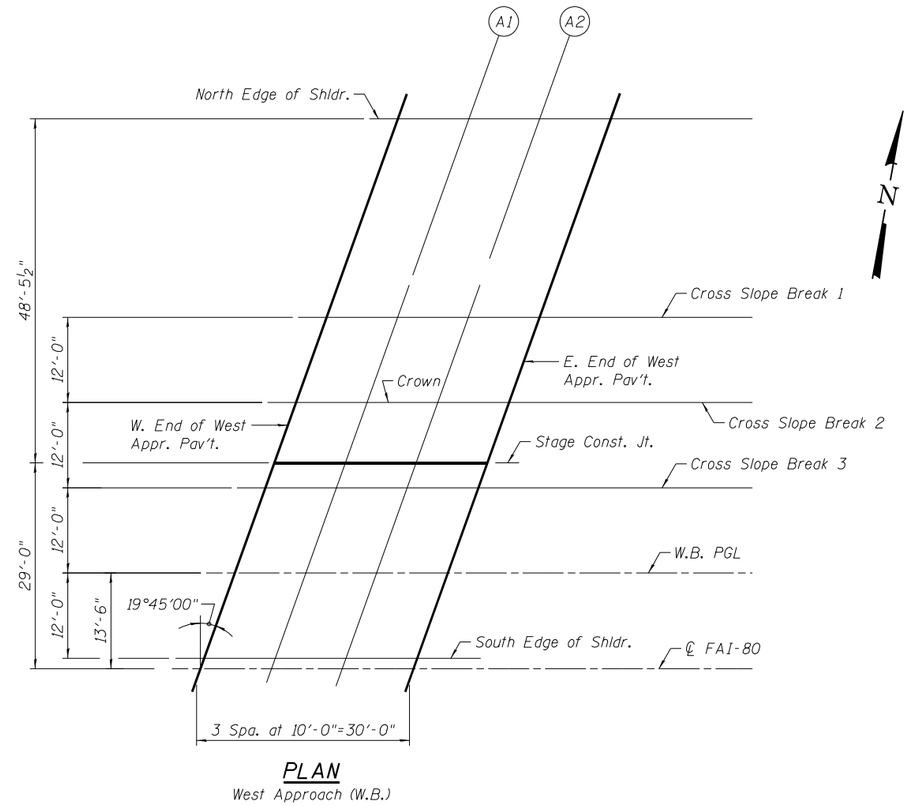
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	719+94.45	-25.50	565.59	565.61
A1	720+04.45	-25.50	565.31	565.33
A2	720+14.45	-25.50	565.03	565.05
E. End West Appr. Pav't.	720+24.45	-25.50	564.75	564.77

W.B. PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	719+90.14	-13.50	565.47	565.49
A1	720+00.14	-13.50	565.19	565.21
A2	720+10.14	-13.50	564.91	564.93
E. End West Appr. Pav't.	720+20.14	-13.50	564.63	564.65

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	719+85.83	-1.50	565.35	565.37
A1	719+95.83	-1.50	565.07	565.09
A2	720+05.83	-1.50	564.79	564.81
E. End West Appr. Pav't.	720+15.83	-1.50	564.51	564.53



PLAN

West Approach (W.B.)

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

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

exp.

USER NAME =	DESIGNED - BAR	REVISED -
	CHECKED - VCP	REVISED -
PLOT SCALE =	DRAWN - MTR	REVISED -
PLOT DATE =	CHECKED - BAR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 099-0063

SHEET SH-13 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	266
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	723+08.17	-77.46	557.38	557.41
A3	723+18.29	-77.64	557.21	557.23
A4	723+28.43	-77.82	557.05	557.07
E. End East Appr. Pav't.	723+38.55	-78.00	556.89	556.91

CROSS SLOPE BREAK 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	722+98.13	-49.50	558.11	558.14
A3	723+08.13	-49.50	557.94	557.97
A4	723+18.13	-49.50	557.78	557.80
E. End East Appr. Pav't.	723+28.13	-49.50	557.62	557.64

CROSS SLOPE BREAK 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	722+93.82	-37.50	558.37	558.39
A3	723+03.82	-37.50	558.20	558.22
A4	723+13.82	-37.50	558.03	558.05
E. End East Appr. Pav't.	723+23.82	-37.50	557.87	557.89

STAGE CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	722+90.77	-29.00	558.30	558.32
A3	723+00.77	-29.00	558.12	558.14
A4	723+10.77	-29.00	557.95	557.97
E. End East Appr. Pav't.	723+20.77	-29.00	557.79	557.81

CROSS SLOPE BREAK 3

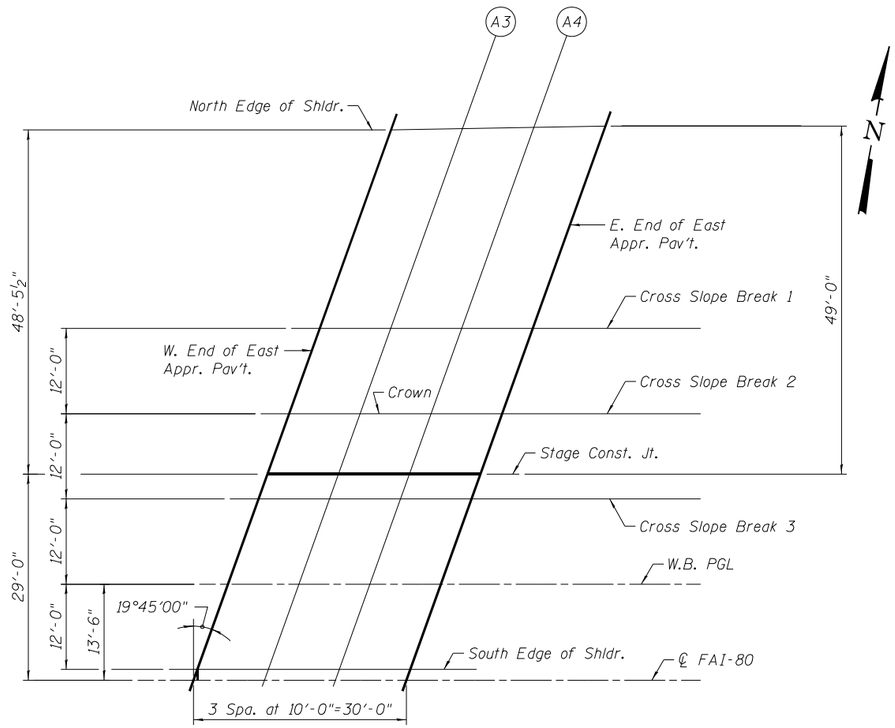
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	722+89.51	-25.50	558.27	558.29
A3	722+99.51	-25.50	558.09	558.11
A4	723+09.51	-25.50	557.92	557.94
E. End East Appr. Pav't.	723+19.51	-25.50	557.76	557.78

W.B. PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	722+85.20	-13.50	558.10	558.12
A3	722+95.20	-13.50	557.93	557.95
A4	723+05.20	-13.50	557.75	557.77
E. End East Appr. Pav't.	723+15.20	-13.50	557.59	557.61

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Pav't.	722+80.89	-1.50	557.94	557.96
A3	722+90.89	-1.50	557.76	557.78
A4	723+00.89	-1.50	557.59	557.61
E. End East Appr. Pav't.	723+10.89	-1.50	557.42	557.44



PLAN

East Approach (W.B.)

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

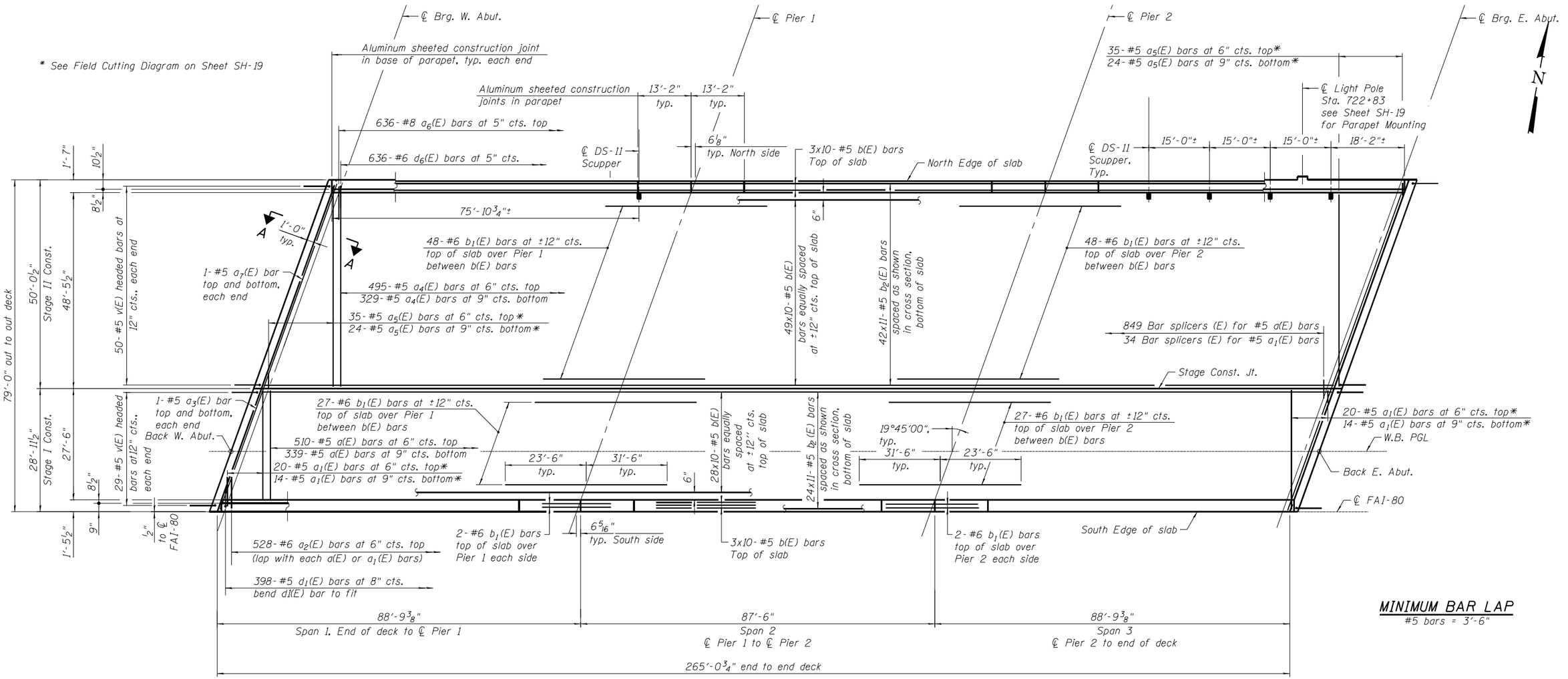
2. Offsets are measured with respect to ℄ FAI-80.

USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 099-0063

SHEET SH-14 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	267
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		



PLAN

MINIMUM BAR LAP
#5 bars = 3'-6"

Notes:
1. For superstructure details and Bill of Material, see Sheet SH-19.
2. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. For parapet reinforcement, see Sheets SH-16 thru SH-19.
4. For deck cross section, see Sheet SH-16.
5. For Section A-A, see Sheet SH-20.
6. For Bar Splicer details, see Sheet SH-42.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN
STRUCTURE NO. 099-0063
SHEET SH-15 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	268
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

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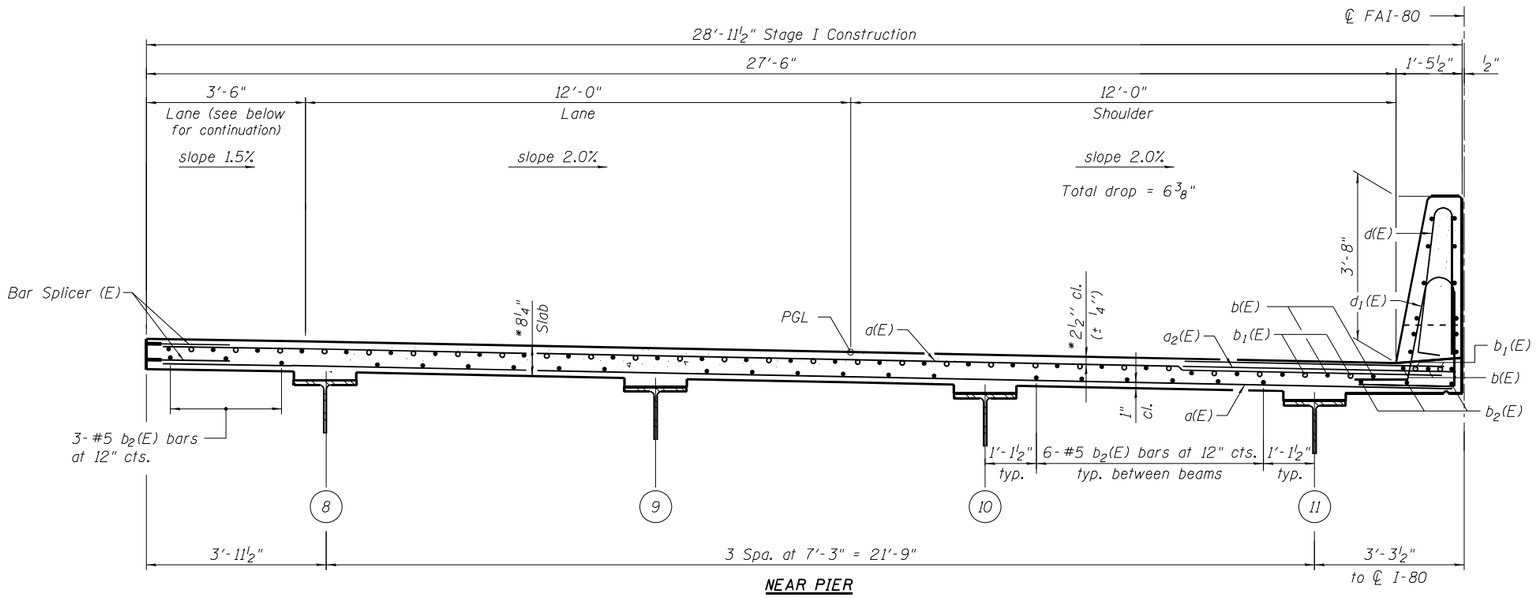
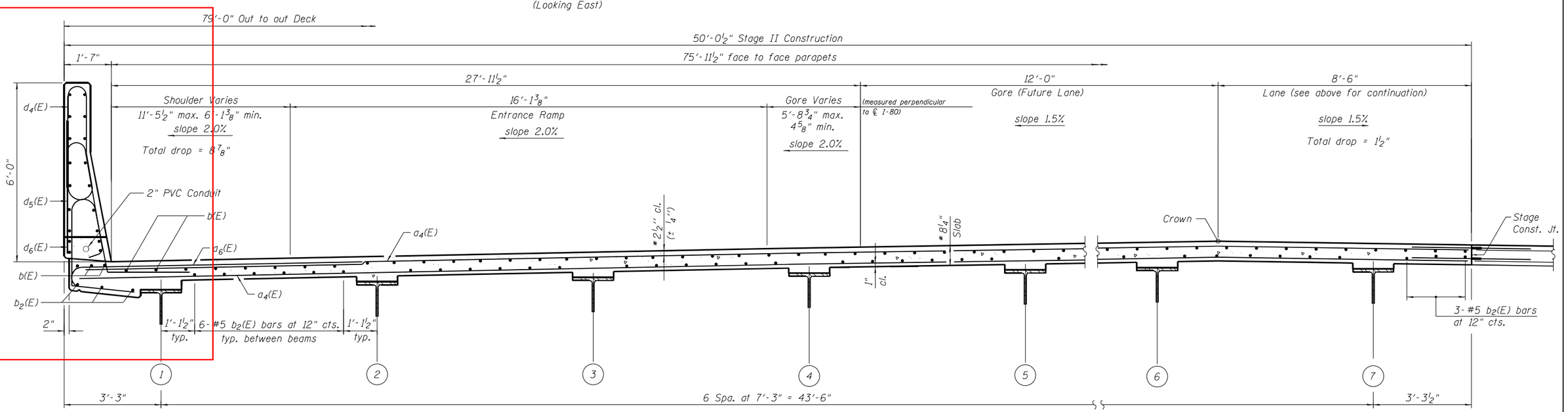


NEAR PIER

CROSS SECTION -STAGE I CONSTRUCTION

(Looking East)



NEAR MIDSPAN

CROSS SECTION - STAGE II CONSTRUCTION

(Looking East)

Notes:

1. For notes, see Sheet SH-15.
2. For Parapet details, see Sheet SH-17.
3. For scupper details, see Sheet SH-25.

* Prior to grinding

MODEL: Sheet
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	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SECTIONS
STRUCTURE NO. 099-0063
SHEET SH-16 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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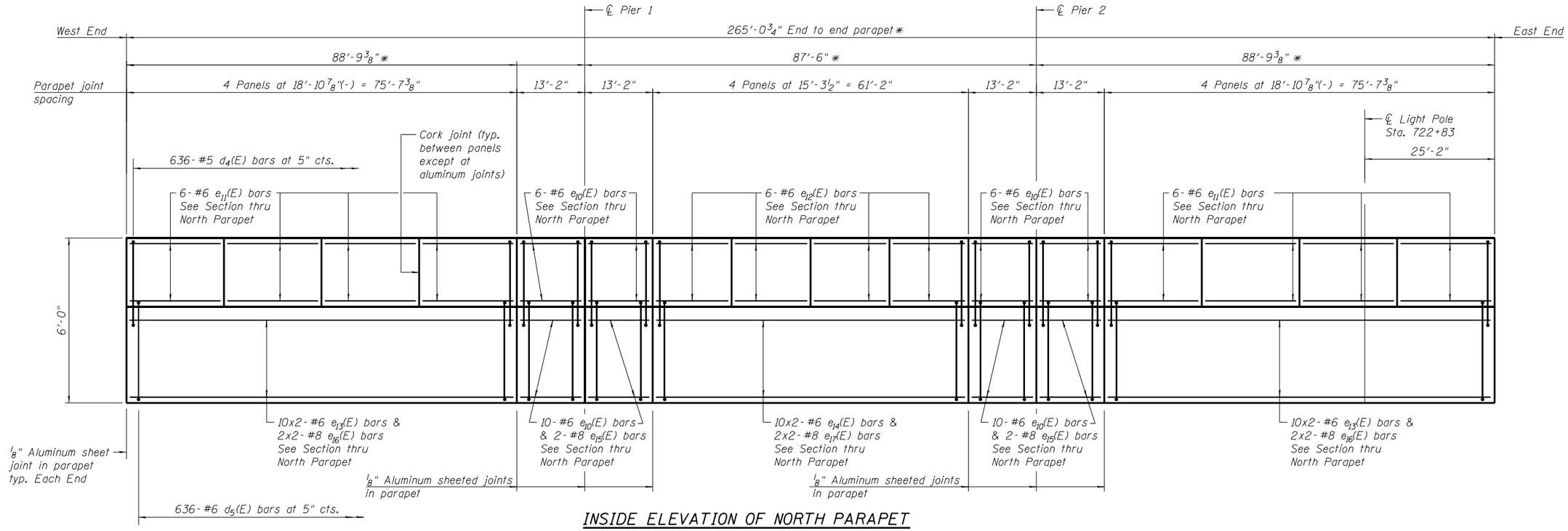
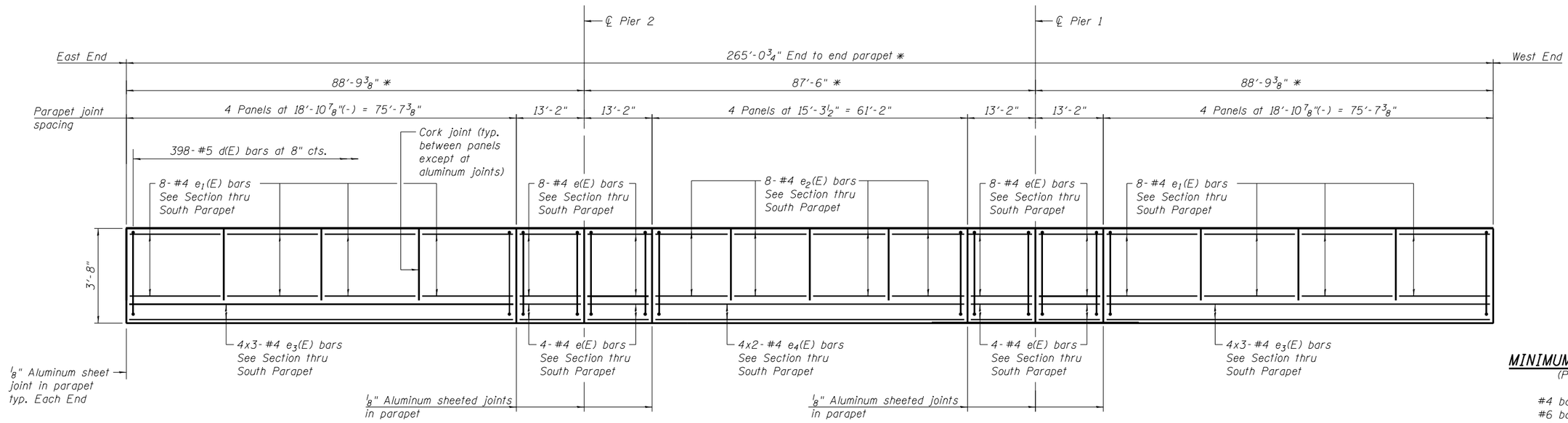
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF NORTH PARAPET

* Measured along inside face of parapet



INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP
(Parapet)

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

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

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - VCP	REVISED -	
	PLOT SCALE =	DRAWN - MTR	REVISED -	
	PLOT DATE =	CHECKED - BAR	REVISED -	

PARAPET ELEVATIONS
STRUCTURE NO. 099-0063
SHEET SH-17 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	270
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

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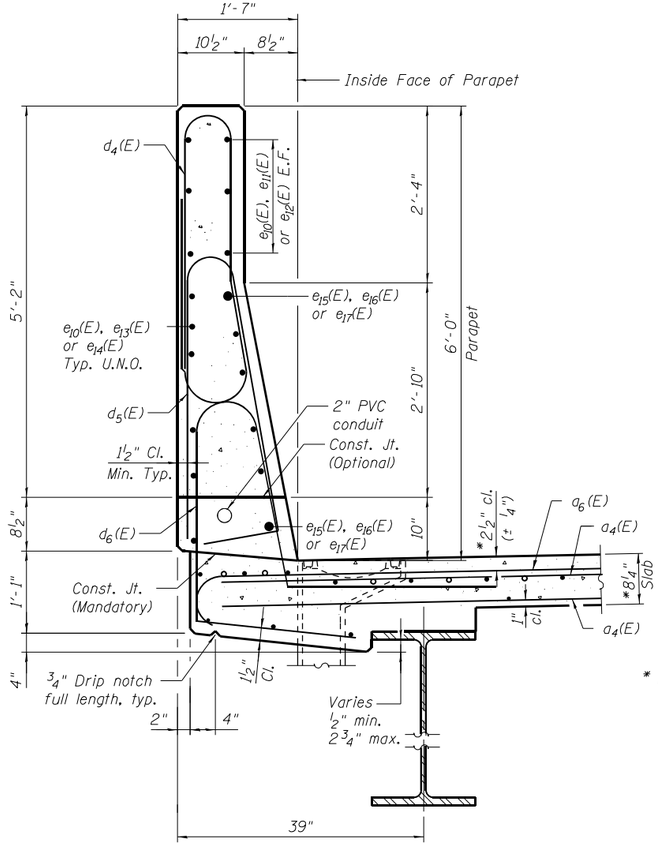
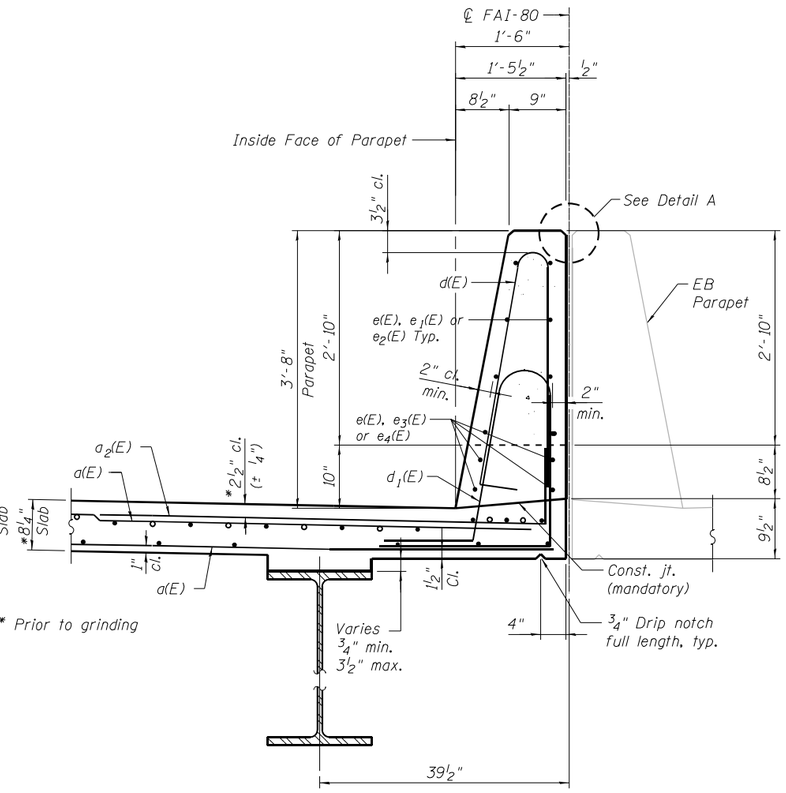
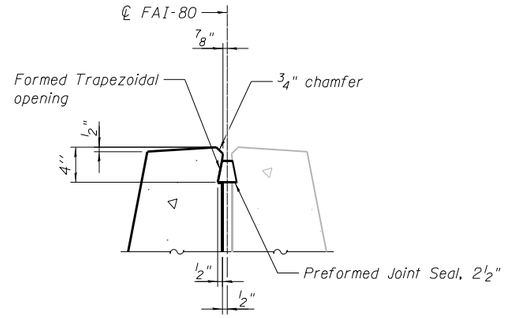


SECTION THRU NORTH PARAPET

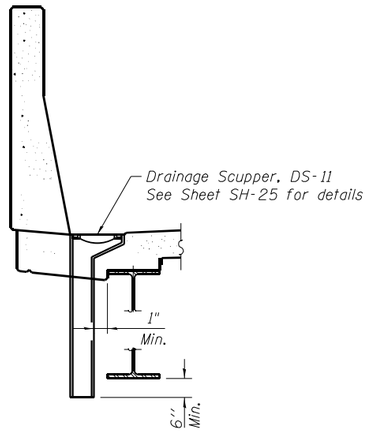


* Prior to grinding

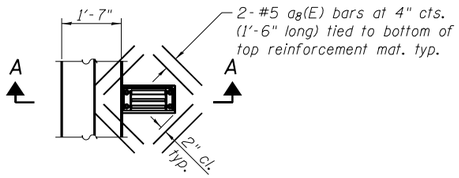
SECTION THRU SOUTH PARAPET



DETAIL A



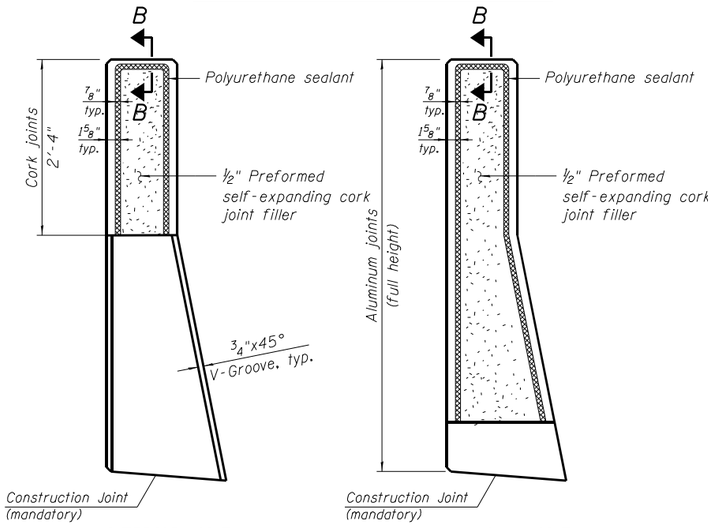
SECTION A-A

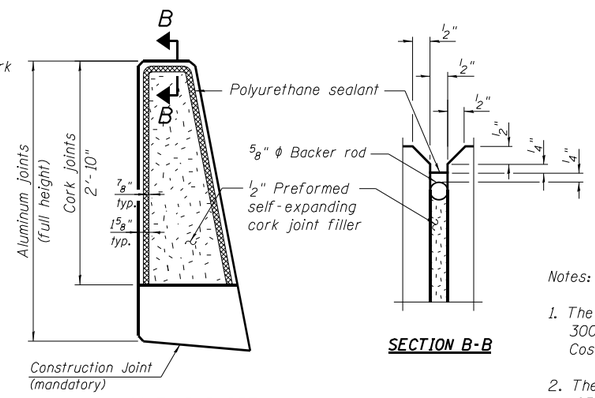


PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

DETAIL AT SCUPPER
(5 Thus)





Notes:

1. The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14, coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
2. The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Specs. and the color shall be gray.

PARAPET JOINT DETAILS

MODEL: Sheet
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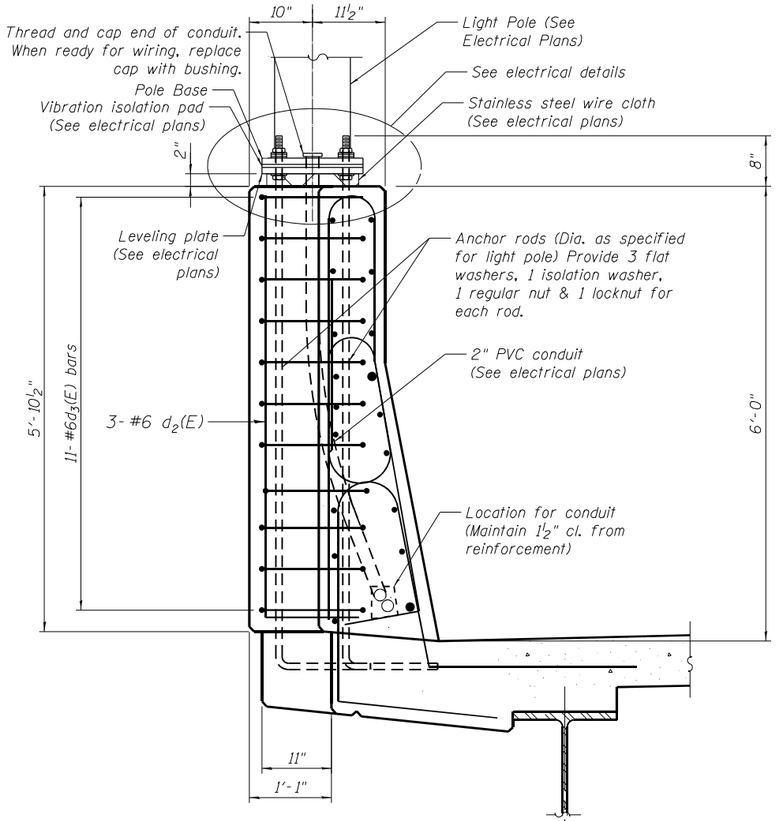
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

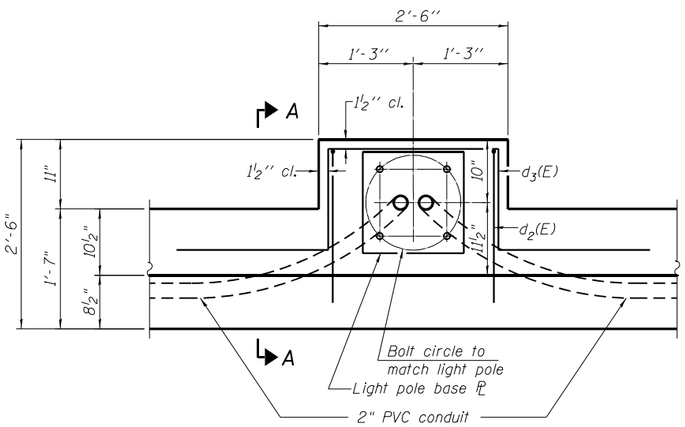
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - 1
STRUCTURE NO. 099-0063
SHEET SH-18 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	271
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

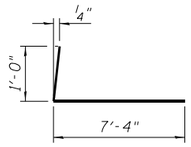


SECTION A-A

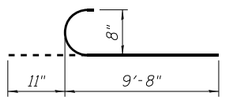


PLAN

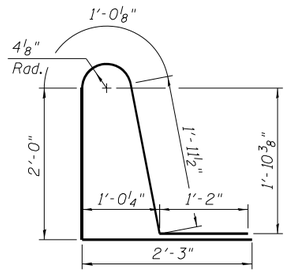
Note:
Cost of anchor rods is included with Concrete Superstructure.



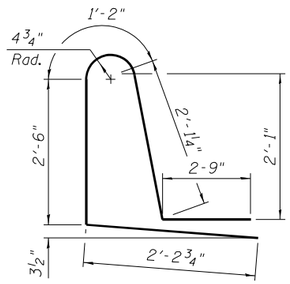
BAR d2(E)



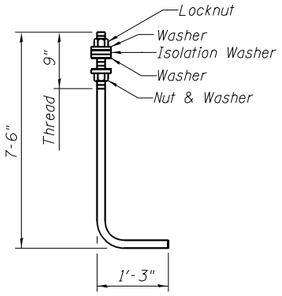
BAR d6(E)



BAR d1(E)

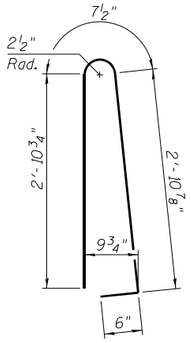


BAR d6(E)

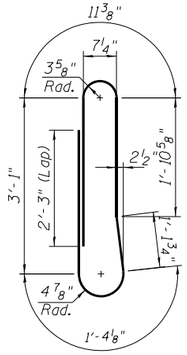


ANCHOR ROD

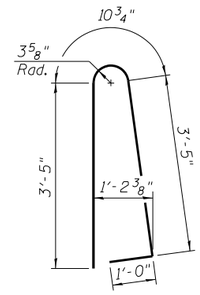
Diameter as specified for light poles.
(ASTM F 1554 Grade 105)
Full length hot dipped galvanized



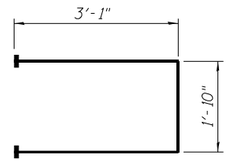
BAR d(E)



BAR d4(E)



BAR d5(E)



BAR s(E)
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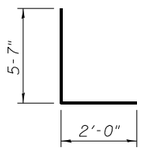
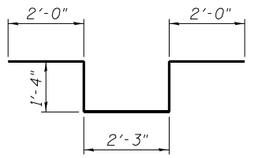
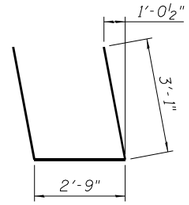


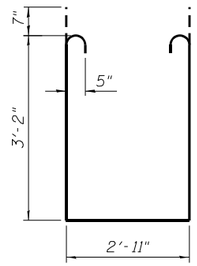
BAR d2(E)



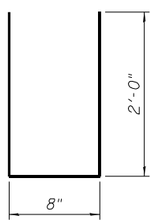
BAR d3(E)



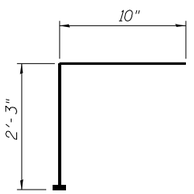
BAR m4(E)



BAR s1(E)



BAR u(E)



BAR v(E)
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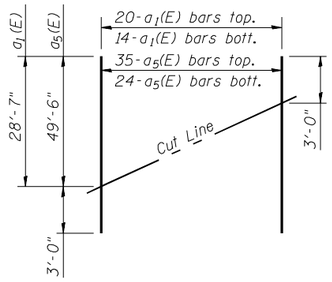
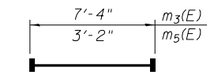


FIELD CUTTING DIAGRAM



BAR m3(E) & m5(E)
(Headed)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	849	#5	28'-7"	
d1(E)	34	#5	31'-7"	
d2(E)	528	#6	8'-4"	
d3(E)	4	#5	30'-5"	
d4(E)	824	#5	49'-6"	
d5(E)	59	#5	52'-6"	
d6(E)	636	#8	10'-7"	
d7(E)	4	#5	52'-7"	
d8(E)	80	#5	1'-6"	
b(E)	830	#5	29'-8"	
b1(E)	158	#6	55'-0"	
b2(E)	726	#5	27'-3"	
d(E)	398	#5	6'-11"	
d1(E)	398	#5	8'-5"	
d2(E)	3	#6	7'-7"	
d3(E)	11	#6	8'-11"	
d4(E)	636	#5	10'-8"	
d5(E)	636	#6	8'-9"	
d6(E)	636	#6	10'-7"	
e(E)	48	#4	12'-10"	
e1(E)	64	#4	18'-7"	
e2(E)	32	#4	14'-11"	
e3(E)	24	#4	26'-11"	
e4(E)	8	#4	31'-9"	
e10(E)	64	#6	12'-10"	
e11(E)	48	#6	18'-7"	
e12(E)	24	#6	14'-11"	
e13(E)	40	#6	39'-8"	
e14(E)	20	#6	32'-5"	
e15(E)	8	#8	12'-10"	
e16(E)	8	#8	41'-0"	
e17(E)	4	#8	33'-9"	
m(E)	10	#6	30'-5"	
m1(E)	4	#4	30'-5"	
m2(E)	60	#6	7'-4"	
m3(E)	60	#6	7'-4"	
m4(E)	12	#6	8'-11"	
m5(E)	12	#6	3'-2"	
m6(E)	20	#6	28'-5"	
m7(E)	8	#4	27'-9"	
s(E)	132	#5	8'-0"	
s1(E)	132	#5	10'-5"	
u(E)	132	#4	4'-8"	
v(E)	158	#5	3'-1"	

Item	Unit	Quantity
Concrete Superstructure	Cu Yd	735.1
Reinforcement Bars, Epoxy Coated	Pound	205,350

MODEL: Sheet
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3/9/2022 11:42:31 AM

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PLOT DATE = | CHECKED - BAR | REVISED -
CHECKED - VCP | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - 2
STRUCTURE NO. 099-0063
SHEET SH-19 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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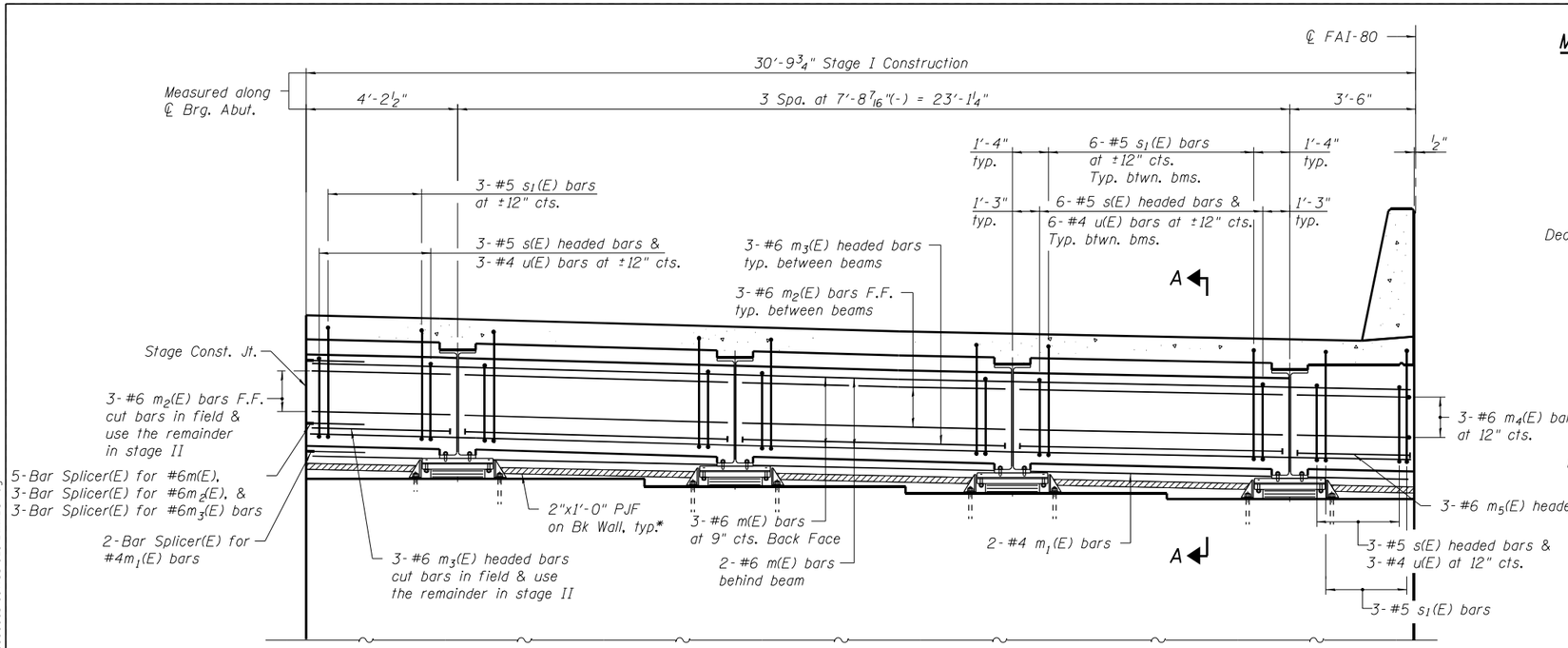
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

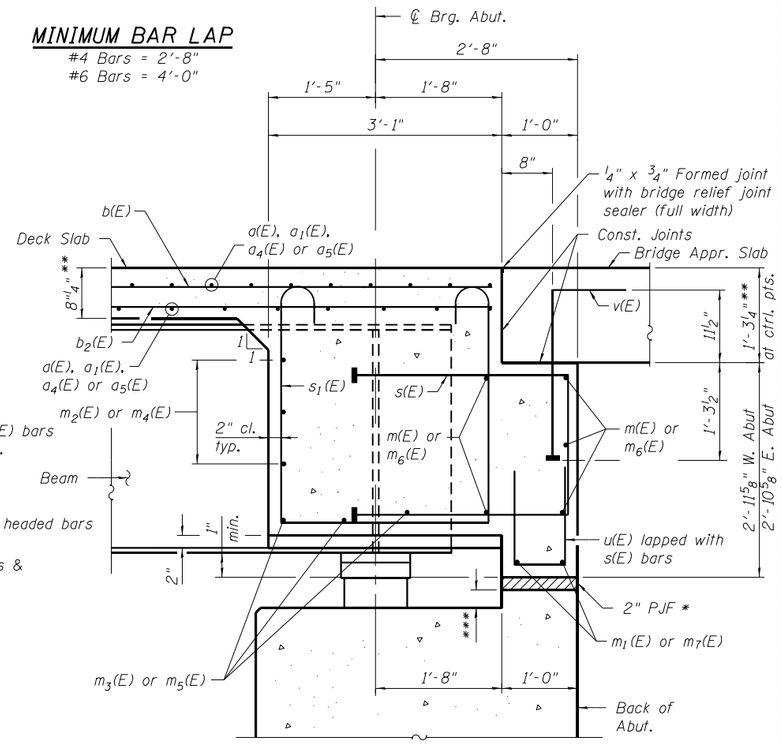


CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE I CONSTRUCTION

West Abutment Diaphragm similar

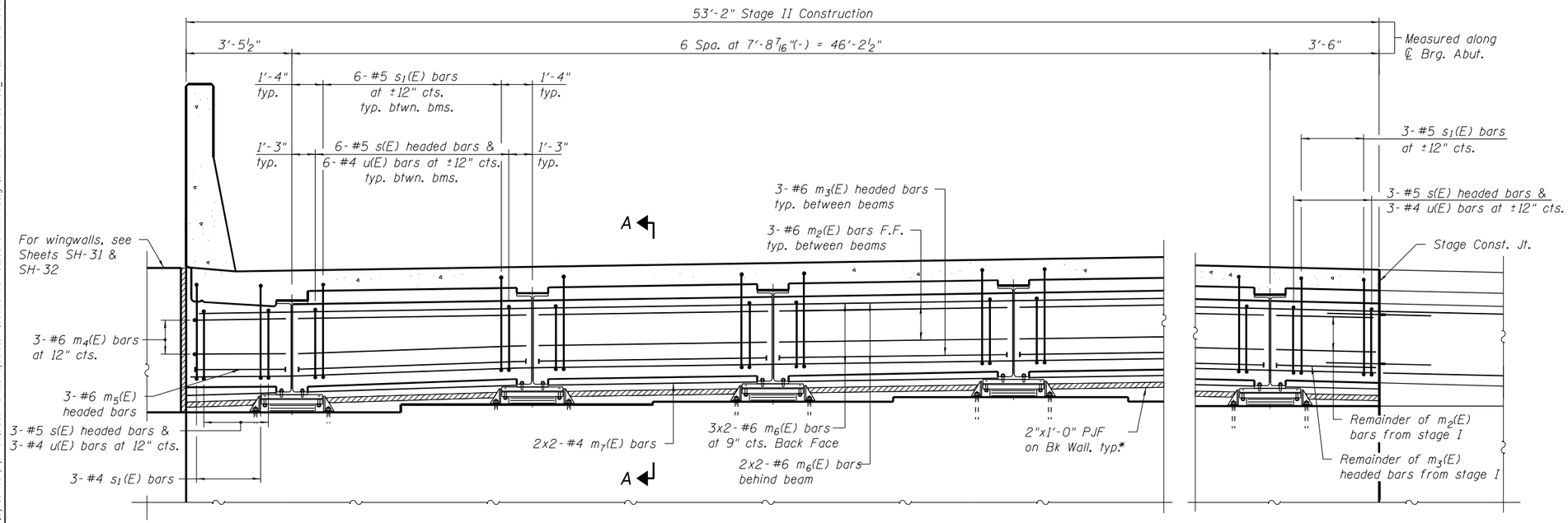
MINIMUM BAR LAP

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



SECTION A-A

Dimensions at right angles to abutment, except as shown.



CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE II CONSTRUCTION

West Abutment Diaphragm similar

* Cost included with Concrete Superstructure
** Prior to grinding
*** Varies, see Sheet SH-34

Notes:

1. Reinforcement bars in diaphragm are billed with superstructure on Sheet SH-19.
2. Concrete in diaphragm is included with Concrete Superstructure on Sheet SH-19.
3. For details of bars s(E), s_1(E), u(E) & v(E) see Sheet SH-19.
4. The s(E), s_1(E), u(E) and v(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 SH-42.
7. Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
8. Bearing Stiffener shall be placed at right angles to beam web at cenerline of bearing.
9. Bars indicated thus 5x2-#6 etc. indicates 5 lines of bars with 2 lengths per line.
10. For abutment joint elevation and control point locations, see Sheet SH-21.

exp.

USER NAME =	DESIGNED - BAR	REVISED -
	CHECKED - VCP	REVISED -
PLOT SCALE =	DRAWN - MTR	REVISED -
PLOT DATE =	CHECKED - BAR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DIAPHRAGM DETAILS - 1
STRUCTURE NO. 099-0063
SHEET SH-20 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	273
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

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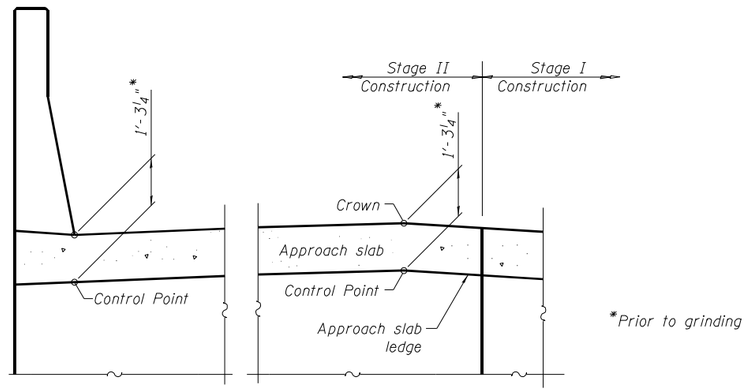
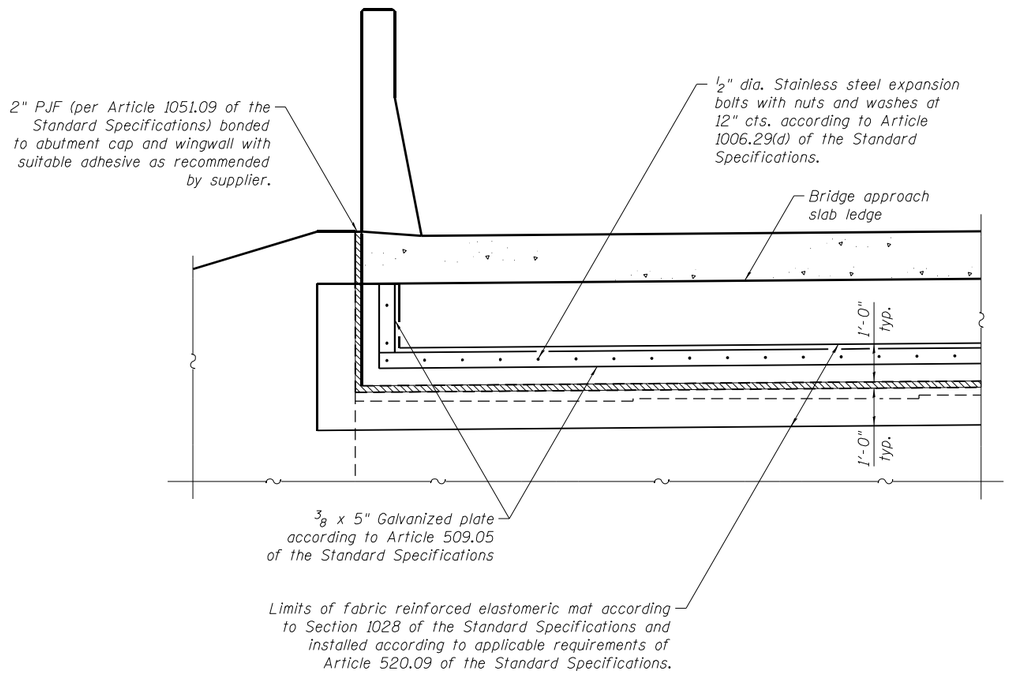
3/9/2022 11:43:13 AM



*Prior to grinding

DETAIL OF APPROACH SLAB LEDGE

(Looking East at back of W. Abut.)



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.

ABUTMENT JOINT - ELEVATION

(Looking East at back of W. Abut.)

Notes:
1. For notes, see Sheet SH-20.
2. For sections through abutments, see Sheet SH-02.

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT DIAPHRAGM DETAILS - 2 STRUCTURE NO. 099-0063
		CHECKED - VCP	REVISED -		
	PLOT SCALE =	DRAWN - MTR	REVISED -		
	PLOT DATE =	CHECKED - BAR	REVISED -		SHEET SH-21 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		ILLINOIS	FED. AID PROJECT	

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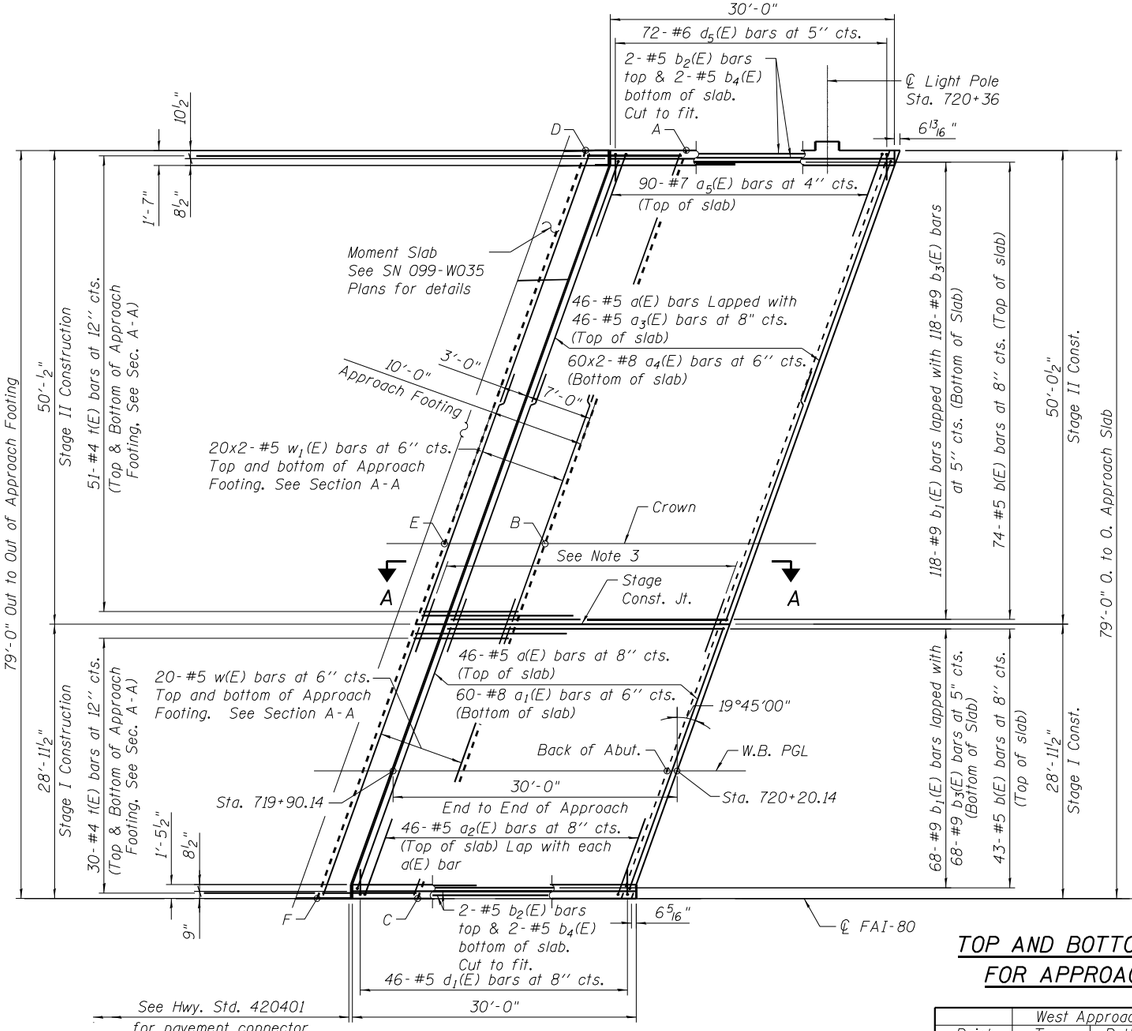
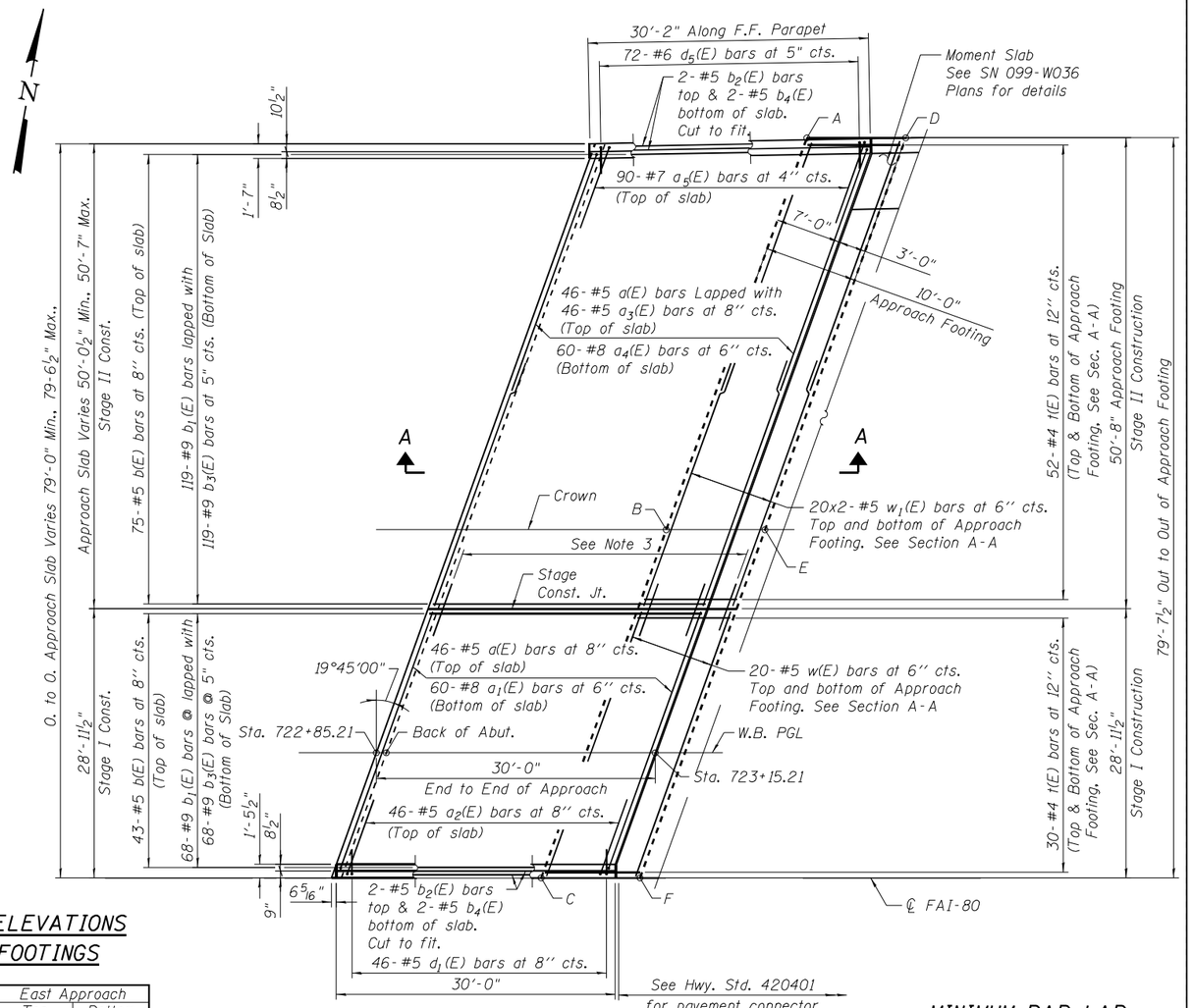


PLAN - WEST APPROACH SLAB



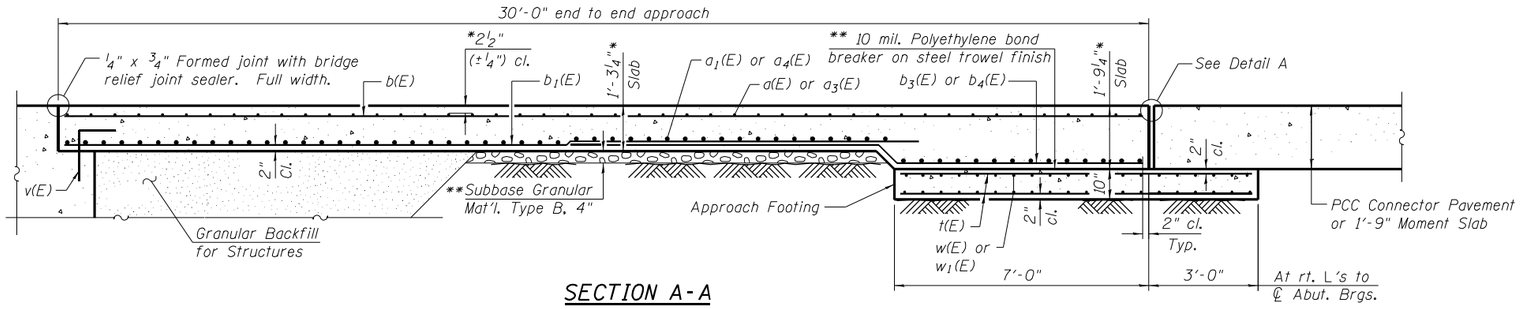
PLAN - EAST APPROACH SLAB

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTINGS

	West Approach		East Approach	
Point	Top	Bottom	Top	Bottom
A	562.50	561.67	555.23	554.40
B	563.69	562.86	556.24	555.41
C	563.38	562.54	555.78	554.94
D	562.80	561.97	555.07	554.23
E	563.99	563.15	556.07	555.24
F	563.67	562.84	555.60	554.76

MINIMUM BAR LAP

#4 bars = 2'-7"
#5 bars = 3'-4"
#8 bars = 4'-9"
#9 bars = 8'-7"



SECTION A-A

*Prior to grinding
**Cost included with Concrete Superstructure (Approach Slab)

Notes:
1. For parapet elevations, cross section and Detail A, see Sheet SH-23.
2. The a(E) series bar spacings are measured along ℄ Rdwy.
3. 40-Bar splicers (E) for #5 w(E) bars top and bottom in footing, 46-Bar splicers (E) for #5 a(E) bars top, and 60-Bar splicers (E) for #8 a_1(E) bars bottom. Total required for each Approach Slab. For Bar Splicer details, see Sheet SH-42.
4. Bars indicated thus 10x2 etc. indicates 10 lines of bars with 2 lengths per line.
5. Parapet concrete shall be paid for as Concrete Superstructure.
6. Approach slab concrete shall be paid for a Concrete Superstructure (Approach Slab).
7. Approach footing concrete shall be paid for as Concrete Structures.
8. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
9. For v(E) bar details, see Sheet SH-19.
10. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
11. Cost of excavation for approach footing included with Concrete Structures.
12. For Granular Backfill for Structures and drainage treatment details, see Sheet SH-02.

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS - 1
STRUCTURE NO. 099-0063
SHEET SH-22 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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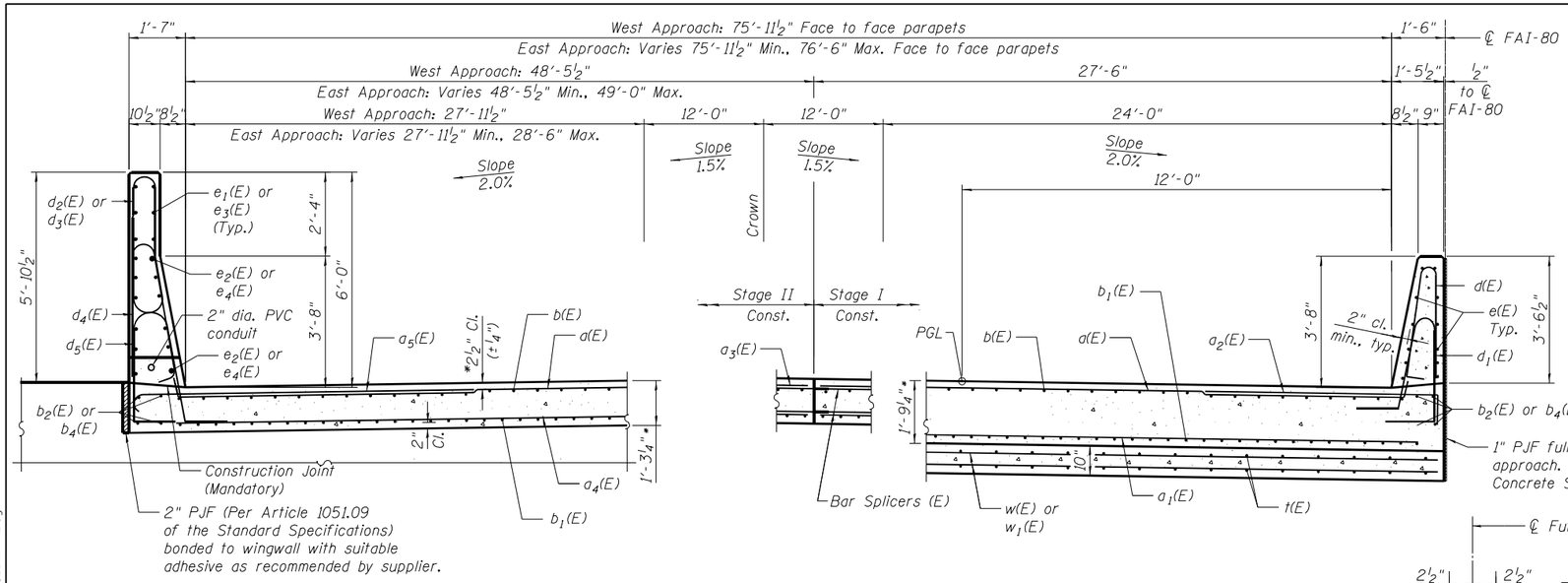
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

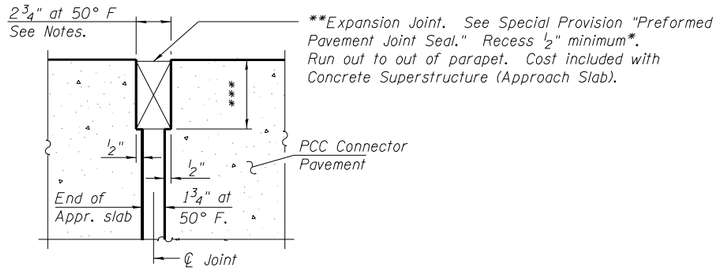


NEAR ABUTMENT

AT APPROACH FOOTING

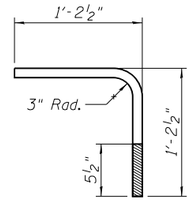
CROSS SECTION

(See Plan for dimensions not shown)



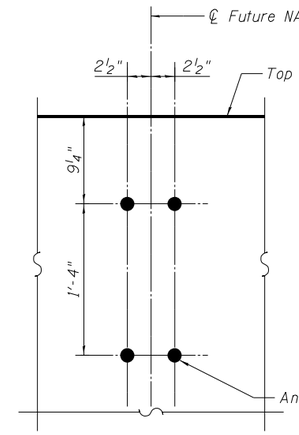
DETAIL A

(℄ Rt. L's)



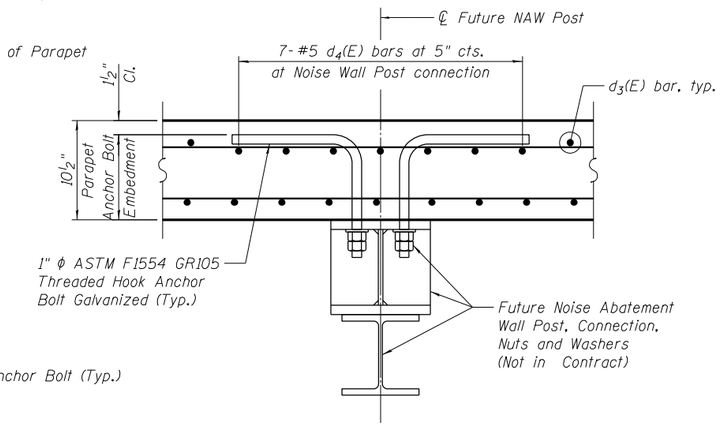
CUSTOM BENT ANCHOR BOLT

ASTM F1554 GR105
4 Thus for Each Post
Cost included with Concrete Superstructure

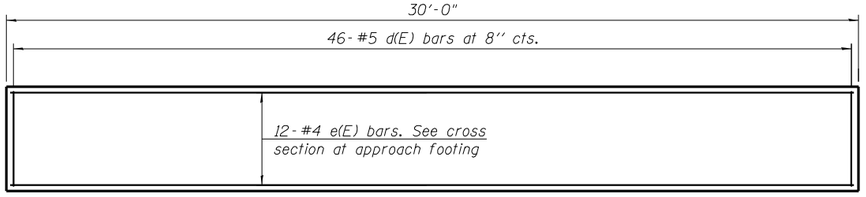


ANCHOR BOLT LAYOUT

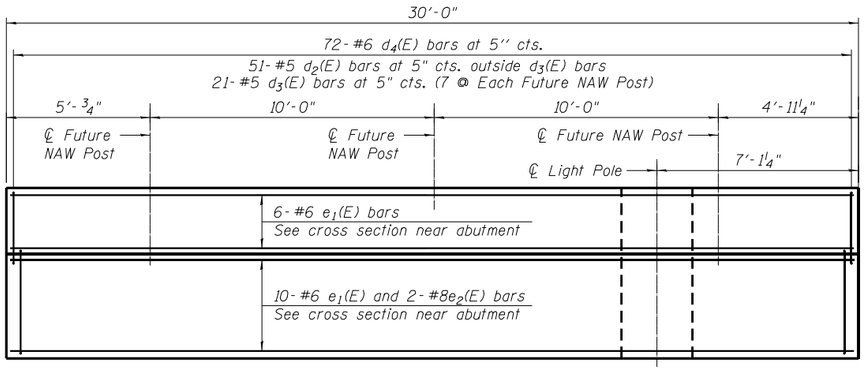
(Back of Parapet Elevation)



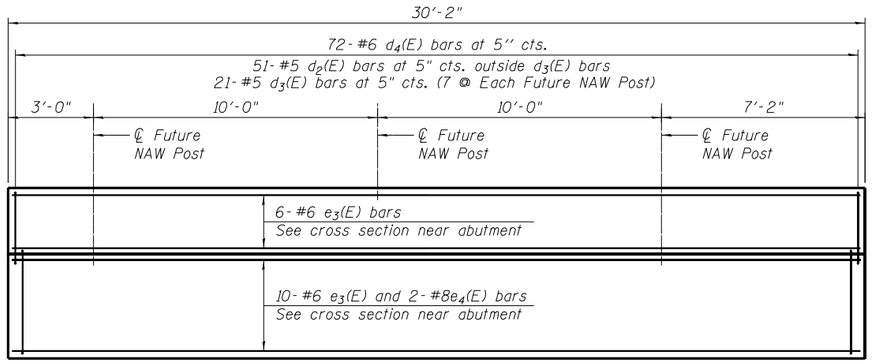
PLAN AT FUTURE NAW POST



INSIDE ELEVATION SOUTH PARAPET (TWO THUS)



INSIDE ELEVATION NORTH PARAPET (WEST APPROACH)



INSIDE ELEVATION NORTH PARAPET (EAST APPROACH)

* Prior to grinding
** Cost included with Concrete Superstructure (Approach Slab).
*** Per Manufacturer recommendations

Notes:
1. For Bar Splicer details, see Sheet SH-42.
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 bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS - 2
STRUCTURE NO. 099-0063
SHEET SH-23 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			

BAR
BAR

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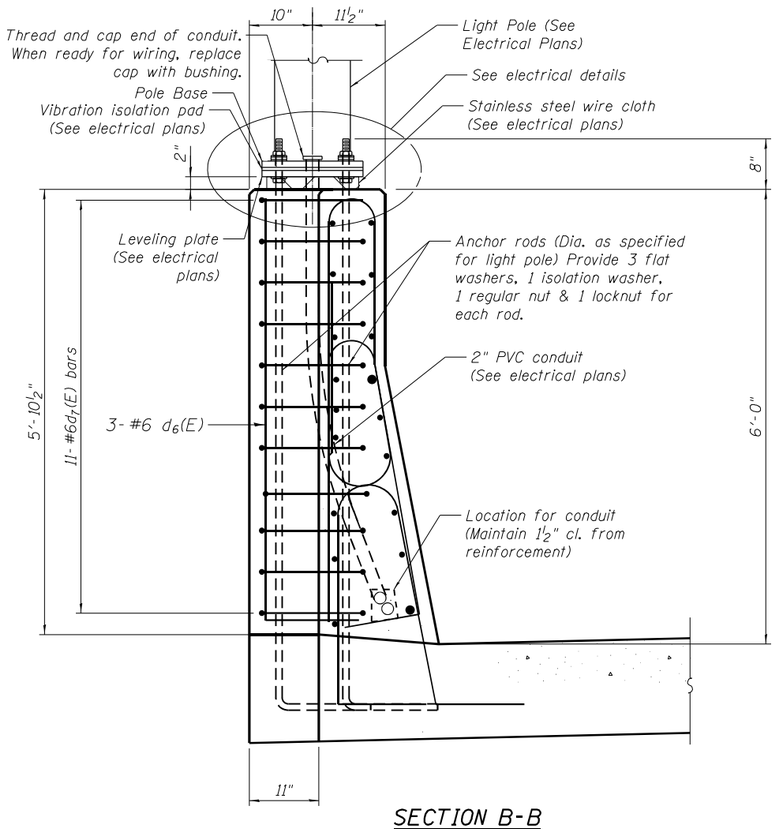
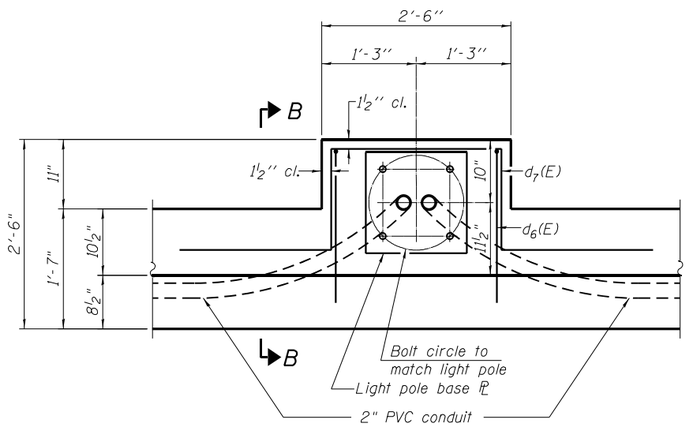
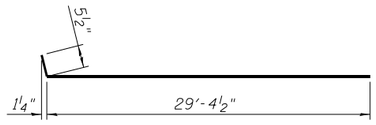


SECTION B-B

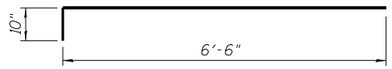


LIGHT POLE PLAN

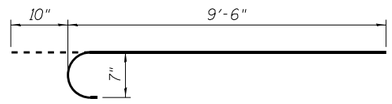
Note:
Cost of anchor rods is included with Concrete Superstructure.



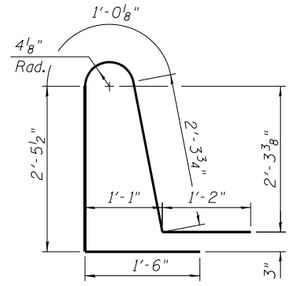
BAR a(E)



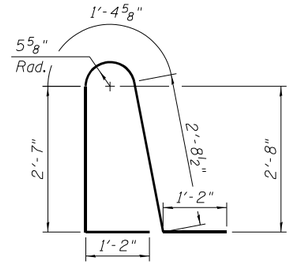
BAR a2(E)



BAR a5(E)



BAR d1(E)



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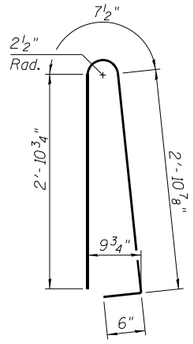
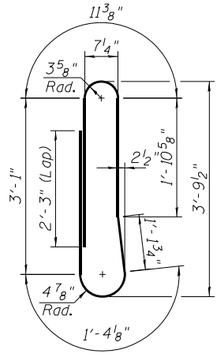


BAR d(E)



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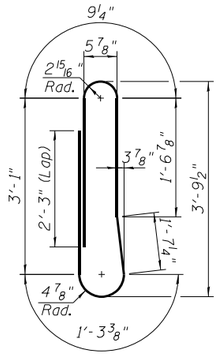
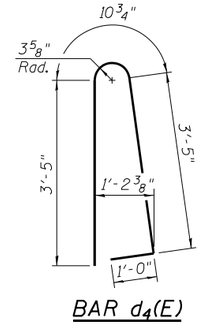
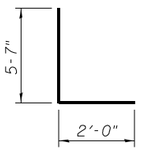


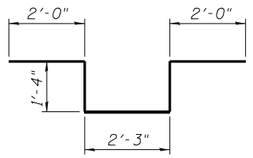
BAR d3(E)



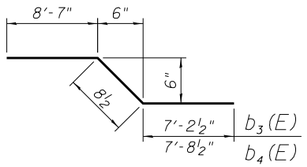
BAR d4(E)



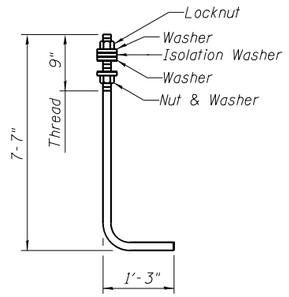
BAR d6(E)



BAR d7(E)



BARS b3(E) & b4(E)



ANCHOR ROD

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

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	184	#5	29'-10"	
a1(E)	120	#8	29'-10"	
a2(E)	92	#5	7'-4"	
a3(E)	92	#5	26'-3"	
a4(E)	240	#8	28'-10"	
a5(E)	180	#7	10'-4"	
b(E)	243	#5	29'-8"	
b1(E)	373	#9	23'-6"	
b2(E)	8	#5	30'-3"	
b3(E)	373	#9	16'-6"	
b4(E)	8	#5	17'-0"	
d(E)	92	#5	7'-0"	
d1(E)	92	#5	8'-6"	
d2(E)	102	#5	10'-8"	
d3(E)	42	#5	10'-7"	
d4(E)	144	#6	8'-9"	
d5(E)	144	#6	9'-0"	
d6(E)	3	#6	7'-7"	
d7(E)	11	#6	8'-11"	
e(E)	24	#4	29'-8"	
e1(E)	16	#6	29'-8"	
e2(E)	2	#8	29'-8"	
e3(E)	16	#6	29'-10"	
e4(E)	2	#8	29'-10"	
t(E)	163	#4	10'-3"	
w(E)	80	#5	30'-5"	
w1(E)	160	#5	28'-1"	

Item	Unit	Quantity
Concrete Structures	Cu Yd	52.2
Concrete Superstructure	Cu Yd	23.3
Concrete Superstructure (Approach Slab)	Cu Yd	246.3
Reinforcement Bars, Epoxy Coated	Pound	117,100

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PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS - 3
STRUCTURE NO. 099-0063
SHEET SH-24 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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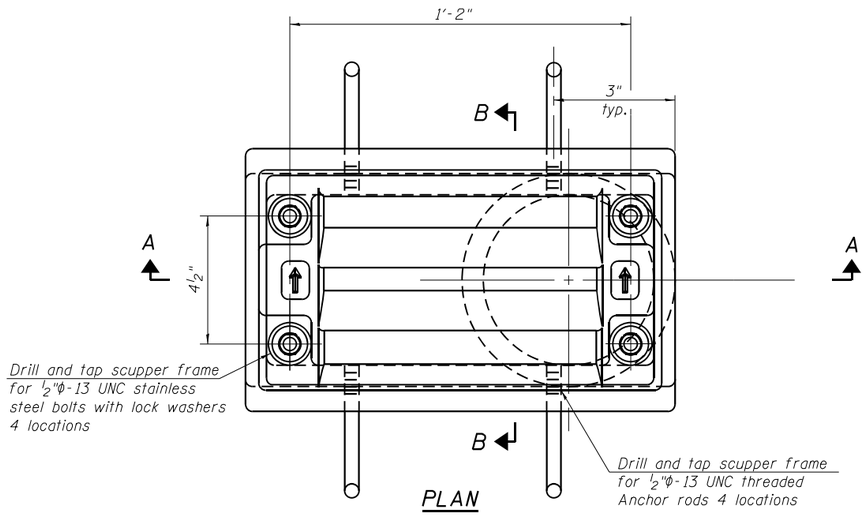
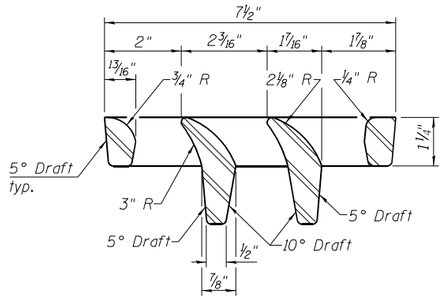
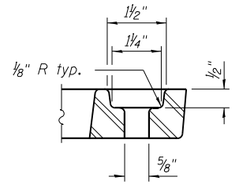
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be 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 frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

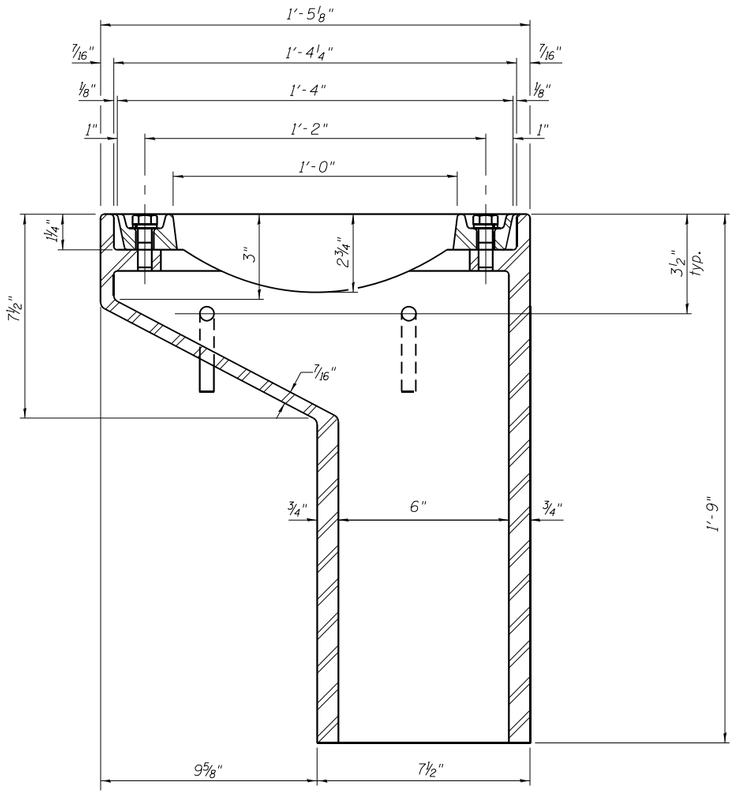
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be pigmented or painted to match the color of the adjacent beam.

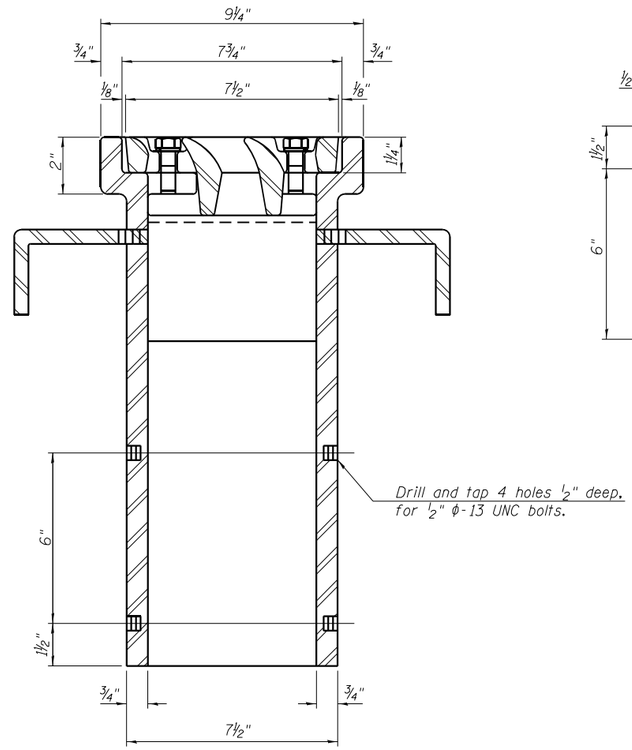
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-11.

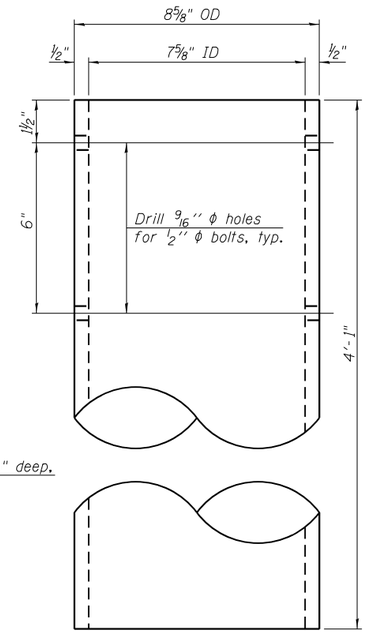


SECTION A-A

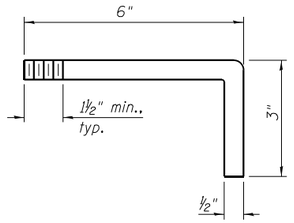
See Sheet SH-18 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

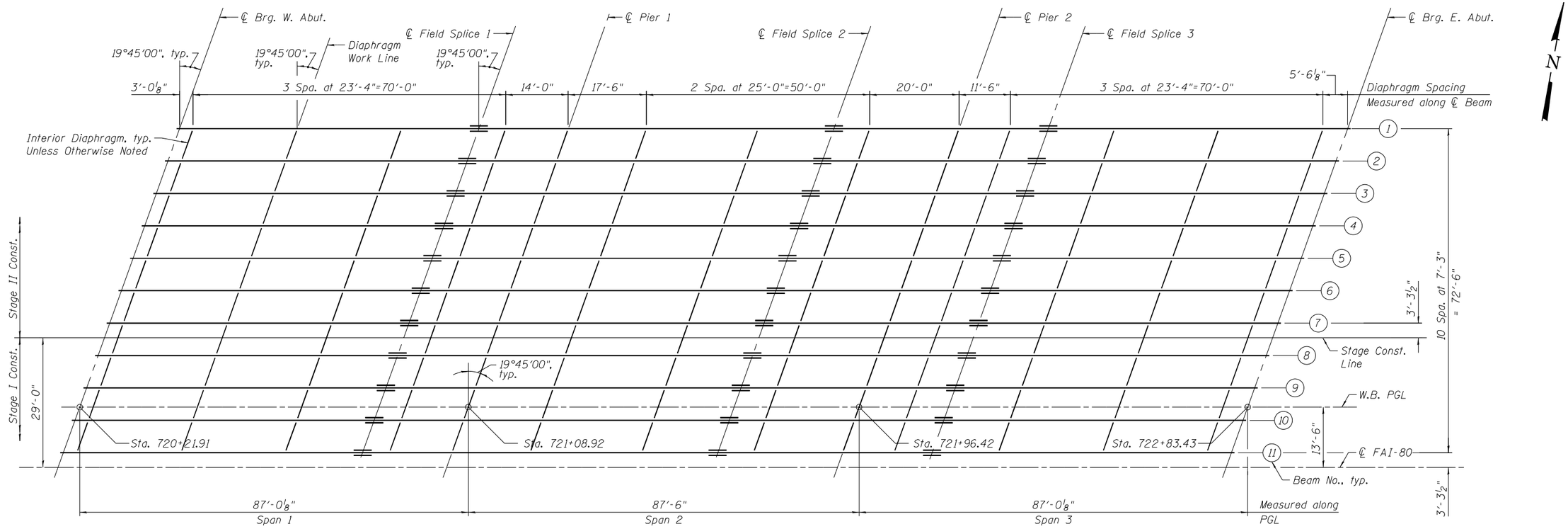
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	5

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

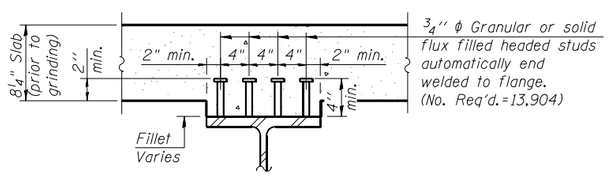
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 099-0063
SHEET SH-25 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	278
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

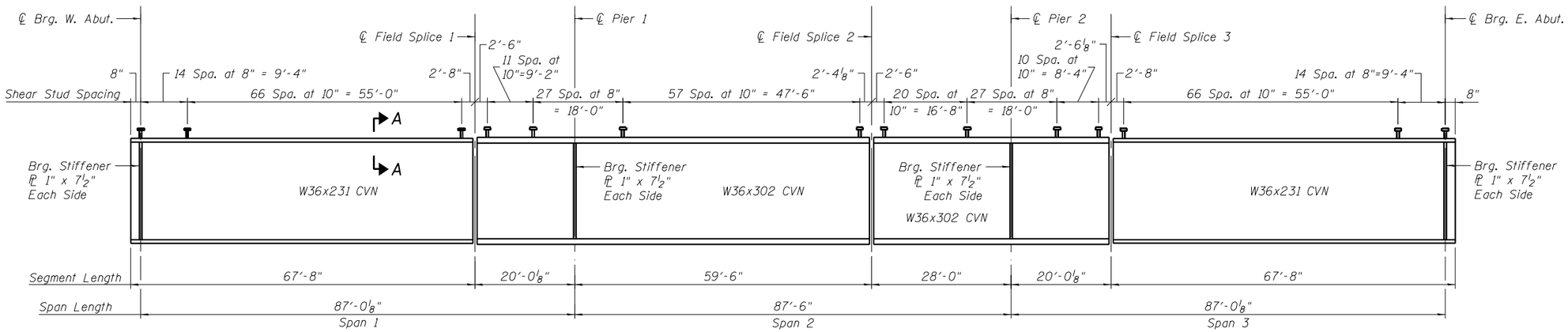


FRAMING PLAN



SECTION A-A

Notes:
1. Structural steel for beams and field splices shall be AASHTO M270 Grade 50.
2. All diaphragms shall be installed as steel is erected and secured erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
3. "CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.



BEAM ELEVATION

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN & BEAM ELEVATION STRUCTURE NO. 099-0063
		CHECKED - MGR	REVISED -		
	PLOT SCALE =	DRAWN - MGR	REVISED -		SHEET SH-26 OF SH-46 SHEETS
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	279
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

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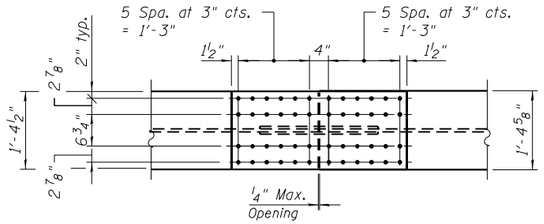

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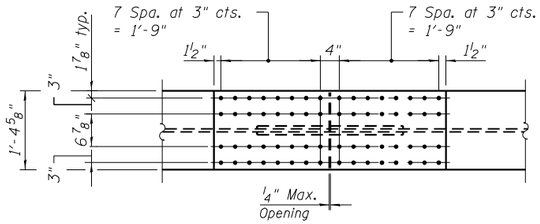

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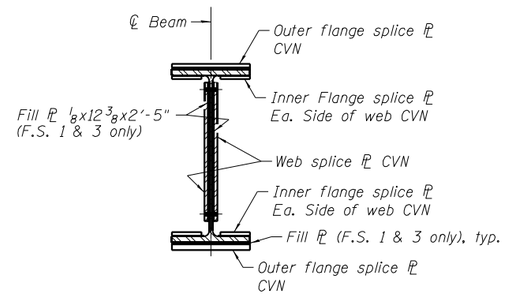
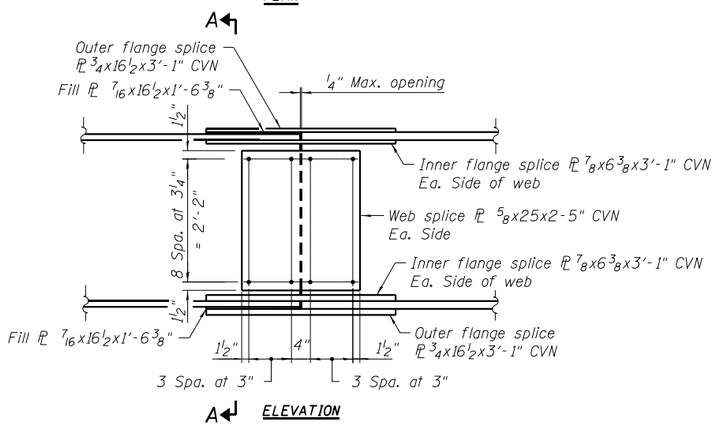
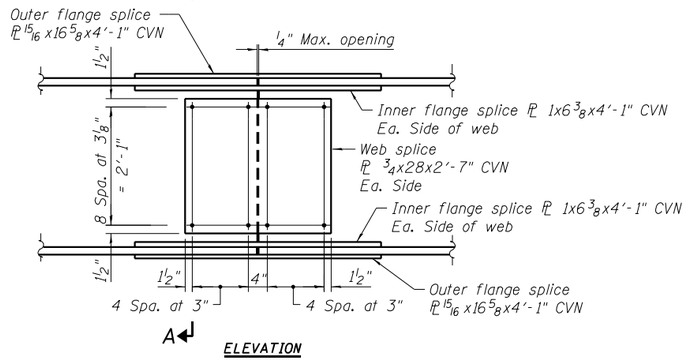


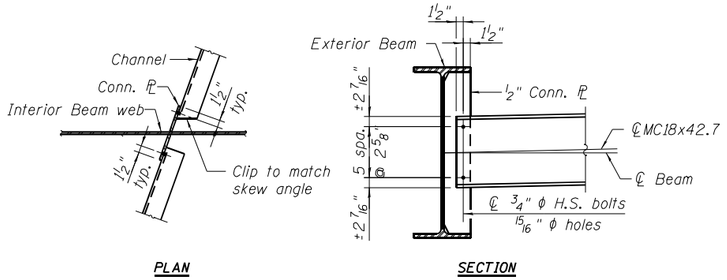
SECTION A-A



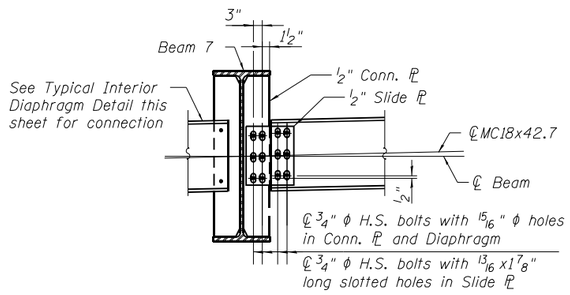
FIELD SPLICE 1 & 3 DETAIL



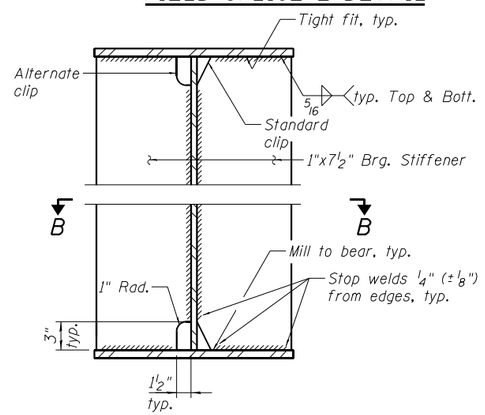
FIELD SPLICE 2 DETAIL



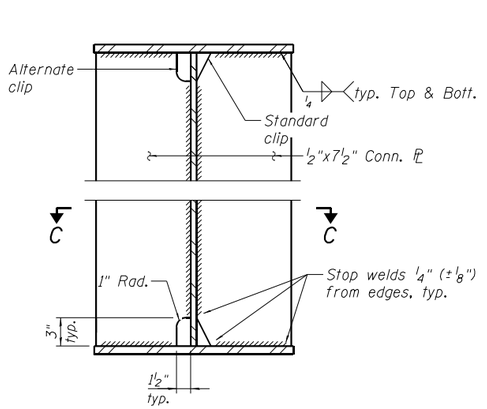
TYPICAL INTERIOR DIAPHRAGM



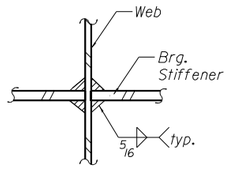
INTERIOR DIAPHRAGM AT STAGE CONST. JT.



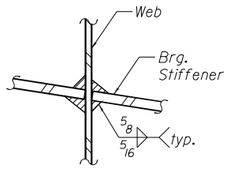
BEARING STIFFENERS



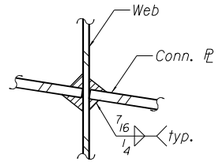
CONNECTION PLATES



SECTION B-B AT ABUTMENTS



SECTION B-B AT PIERS



SECTION C-C

Notes:

1. All structural steel for field splices shall be AASHTO M270 Grade 50, except for fill plates which shall 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 SH-26.
4. Two hardened washers required for each set of oversized holes.
5. Alternate diaphragm channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.
6. "CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.

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USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM DETAILS - 1
STRUCTURE NO. 099-0063
SHEET SH-27 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	280
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

EXTERIOR BEAM MOMENT TABLE						
		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)	34,778	-	43,884	-	34,778
$I_c(3n)$	(in^4)	25,665	-	32,300	-	25,665
$I_c(cr)$	(in^4)	-	24,322	-	24,322	-
S_s	(in^3)	855	1,130	1,130	1,130	855
$S_c(n)$	(in^3)	1,137	-	1,475	-	1,137
$S_c(3n)$	(in^3)	1,035	-	1,337	-	1,035
$S_c(cr)$	(in^3)	-	1,202	-	1,202	-
DC1	(k/')	1.15	1.22	1.22	1.22	1.15
M_{DC1}	('k)	672	955	216	955	672
DC2	(k/')	0.32	0.32	0.32	0.32	0.32
M_{DC2}	('k)	190	257	52	257	190
DW	(k/')	0.35	0.35	0.35	0.35	0.35
M_{DW}	('k)	203	275	55	275	203
LLDF		0.57	0.57	0.57	0.57	0.57
M_{L+IM}	('k)	1,033	1,079	883	1,079	1,033
M_U (Strength I)	('k)	3,190	3,816	1,963	3,816	3,190
$\phi_f M_n$	('k)	5,457	5,927	6,949	5,927	5,457
f_s DC1	(ksi)	9.43	10.14	2.29	10.14	9.43
f_s DC2	(ksi)	2.20	2.57	0.47	2.57	2.20
f_s DW	(ksi)	2.35	2.74	0.49	2.74	2.35
f_s (L+IM)	(ksi)	10.91	10.77	7.19	10.77	10.91
f_s (Service II)	(ksi)	28.17	29.45	12.59	29.45	28.17
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_f F_n$	(ksi)	-	-	-	-	-
Vr	(k)	61.71	70.87	63.26	70.87	61.71

INTERIOR BEAM MOMENT TABLE						
		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)	35,457	-	44,806	-	35,457
$I_c(3n)$	(in^4)	26,229	-	32,975	-	26,229
$I_c(cr)$	(in^4)	-	24,563	-	24,563	-
S_s	(in^3)	855	1,130	1,130	1,130	855
$S_c(n)$	(in^3)	1,143	-	1,484	-	1,143
$S_c(3n)$	(in^3)	1,043	-	1,347	-	1,043
$S_c(cr)$	(in^3)	-	1,207	-	1,207	-
DC1	(k/')	1.05	1.12	1.12	1.12	1.05
M_{DC1}	('k)	611	873	200	873	611
DC2	(k/')	0.32	0.32	0.32	0.32	0.32
M_{DC2}	('k)	190	257	52	257	190
DW	(k/')	0.35	0.35	0.35	0.35	0.35
M_{DW}	('k)	203	275	55	275	203
LLDF		0.60	0.60	0.60	0.60	0.60
M_{L+IM}	('k)	1,079	1,128	923	1,128	1,079
M_U (Strength I)	('k)	3,194	3,799	2,013	3,799	3,194
$\phi_f M_n$	('k)	5,531	6,027	7,033	6,027	5,531
f_s DC1	(ksi)	8.58	9.27	2.12	9.27	8.58
f_s DC2	(ksi)	2.19	2.56	0.46	2.56	2.19
f_s DW	(ksi)	2.34	2.73	0.49	2.73	2.34
f_s (L+IM)	(ksi)	11.33	11.21	7.47	11.21	11.33
f_s (Service II)	(ksi)	27.83	29.14	12.78	29.14	27.83
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_f F_n$	(ksi)	-	-	-	-	-
Vr	(k)	57.18	65.81	58.62	65.81	57.18

EXTERIOR BEAM REACTION TABLE					
		W. Abut.	Pier 1	Pier 2	E. Abut.
LLDF		0.63	0.63	0.63	0.63
OCF		1.07	-	-	1.07
R_{DC1}	(k)	79.9	116.0	116.0	79.9
R_{DC2}	(k)	11.1	31.1	31.1	11.1
R_{DW}	(k)	11.9	33.3	33.3	11.9
R_L	(k)	54.3	95.9	95.9	54.3
R_{Im}	(k)	12.8	19.1	19.1	12.8
R_{Total}	(k)	169.9	295.3	295.3	169.9

Note: R_{DC1} includes an approach slab load of 27.8 kips at each abutment.

INTERIOR BEAM REACTION TABLE					
		W. Abut.	Pier 1	Pier 2	E. Abut.
LLDF		0.82	0.82	0.82	0.82
OCF		-	-	-	-
R_{DC1}	(k)	78.1	106.1	106.1	78.1
R_{DC2}	(k)	11.1	31.1	31.1	11.1
R_{DW}	(k)	11.9	33.3	33.3	11.9
R_L	(k)	71.1	125.6	125.6	71.1
R_{Im}	(k)	16.8	24.9	24.9	16.8
R_{Total}	(k)	189.0	321.0	321.0	189.0

Note: R_{DC1} includes an approach slab load of 29.3 kips at each abutment.

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.
1	562.67	560.82	560.27	558.65	558.13	557.72	556.49
2	563.13	561.17	560.64	559.06	558.54	558.13	556.93
3	563.35	561.39	560.85	559.24	558.74	558.35	557.11
4	563.56	561.60	561.06	559.47	558.95	558.54	557.30
5	563.78	561.80	561.26	559.65	559.11	558.70	557.47
6	563.96	562.00	561.45	559.80	559.28	558.87	557.62
7	563.98	561.99	561.46	559.89	559.30	558.84	557.61
8	563.95	561.96	561.42	559.82	559.25	558.81	557.55
9	563.86	561.89	561.35	559.74	559.16	558.71	557.45
10	563.83	561.83	561.30	559.72	559.11	558.64	557.38
11	563.73	561.75	561.20	559.58	558.99	558.53	557.26

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.).

LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.

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).

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

OCF: Obtuse Correction Factor applied to non-continuous exterior beam ends and computed according to Article 4.6.2.2.3c-1.

RDC1: Un-factored reaction due to non-composite dead load (kip).

RDC2: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).

RDW: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).

R_L: Un-factored live load reaction (kip).

R_{Im}: Un-factored dynamic load allowance (impact) (kip).

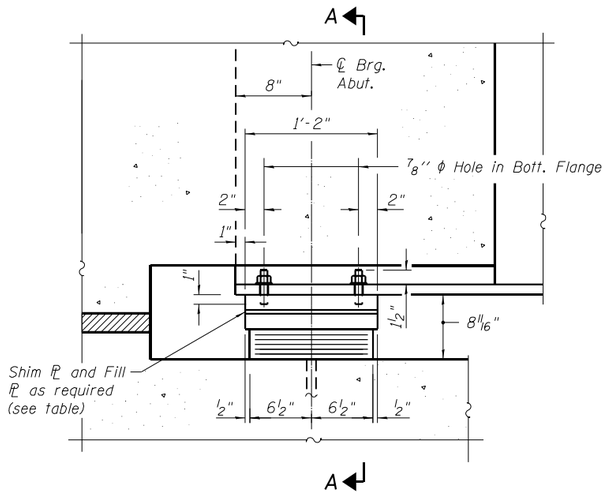
exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

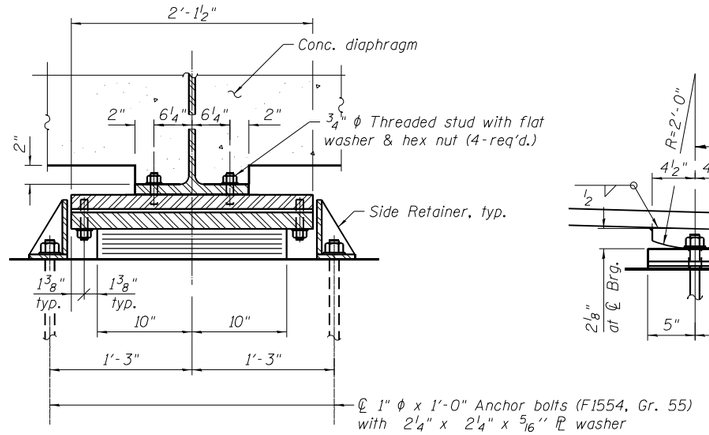
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM DETAILS - 2
STRUCTURE NO. 099-0063
SHEET SH-28 OF SH-46 SHEETS

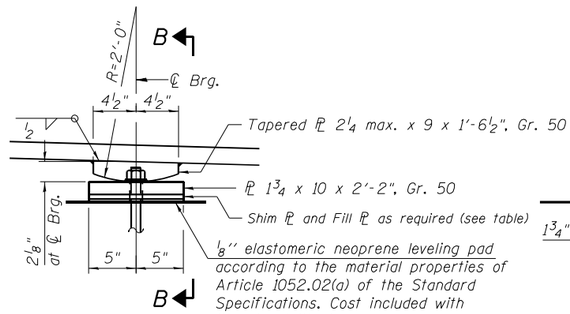
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	281
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	



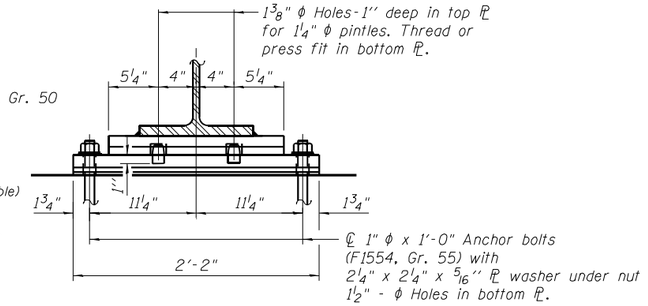
ELEVATION AT ABUT.



SECTION A-A



ELEVATION



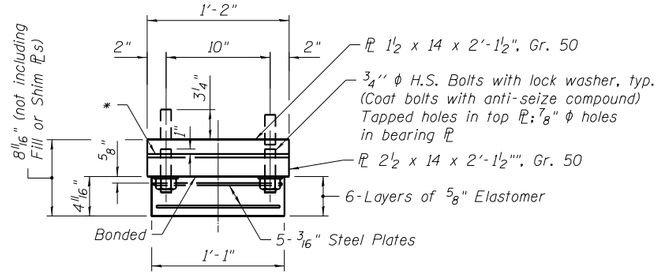
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

(22 required)

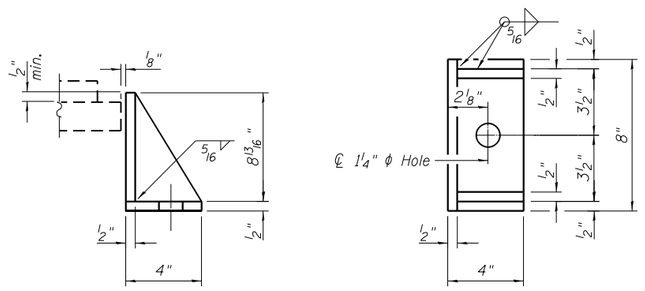
FIXED BEARING AT PIERS

(22 required)



BEARING ASSEMBLY

* Fill plate and adjusting shim plate if req'd (1/8" max.)

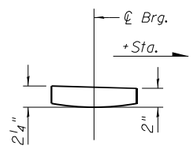


SIDE RETAINER

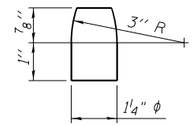
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

MANDATORY FILL PLATE THICKNESSES

Location	Beam	Thickness
West Abut.	6	1/8"
	10	1 1/4"
Pier 1	6	1/4"
	10	1 1/8"
Pier 2	6	1/4"
	10	1 1/2"
East Abut.	6	1/8"
	8	2"
	9	7/8"



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. Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
3. Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restrain is used.
4. Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
5. Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
6. The structural steel plates of the Bearing Assembly and the plates and the 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	22
Anchor Bolts, 1"	Each	88

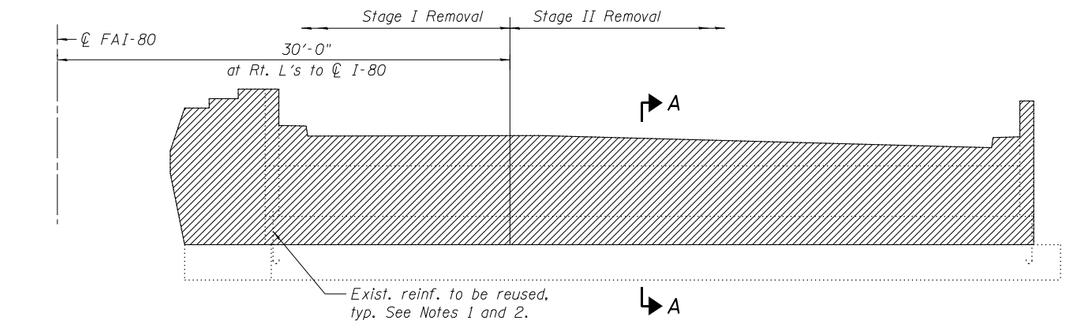
exp.

USER NAME =		DESIGNED - BAR	REVISED -	
		CHECKED - VCP	REVISED -	
PLOT SCALE =		DRAWN - MTR	REVISED -	
PLOT DATE =		CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

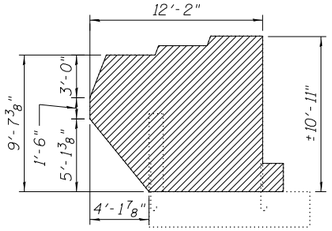
BEARING DETAILS
STRUCTURE NO. 099-0063
SHEET SH-29 OF SH-46 SHEETS

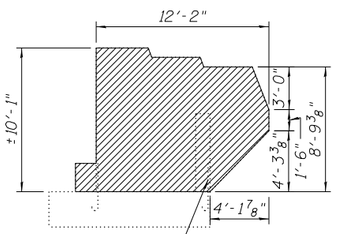
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	282
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			



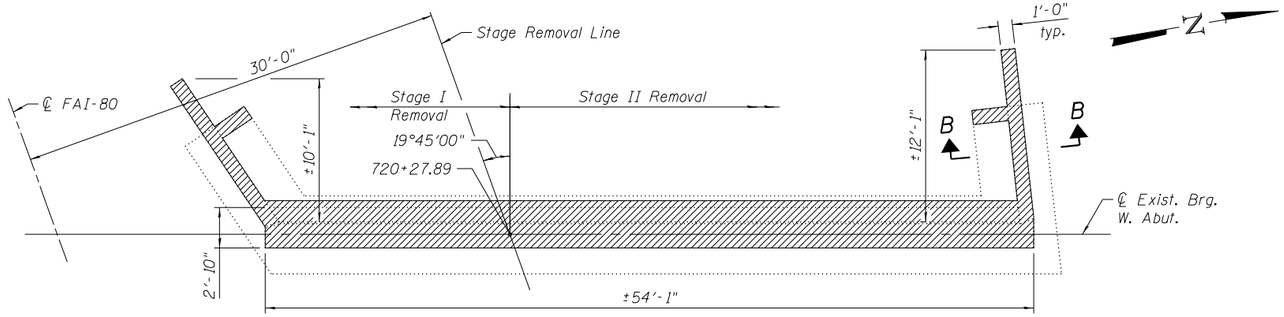
ELEVATION - WEST ABUTMENT

Looking West

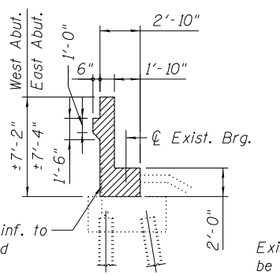




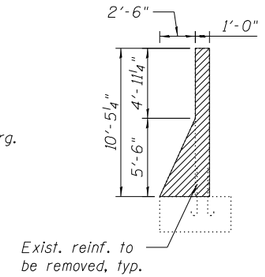
ELEVATION - WEST ABUT. WINGWALLS



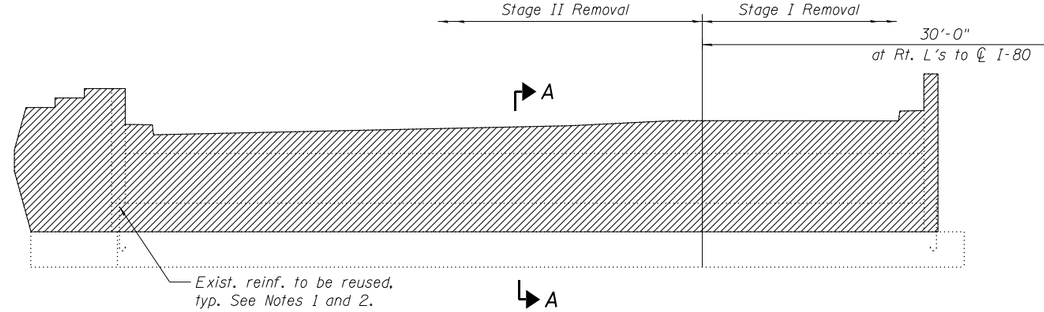
PLAN - WEST ABUTMENT



SECTION A-A

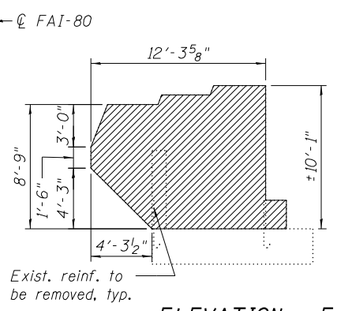


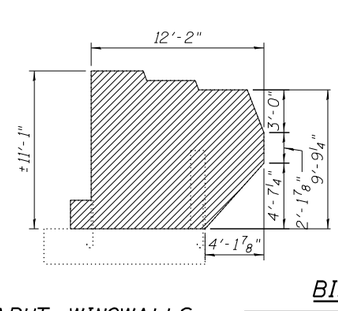
SECTION B-B



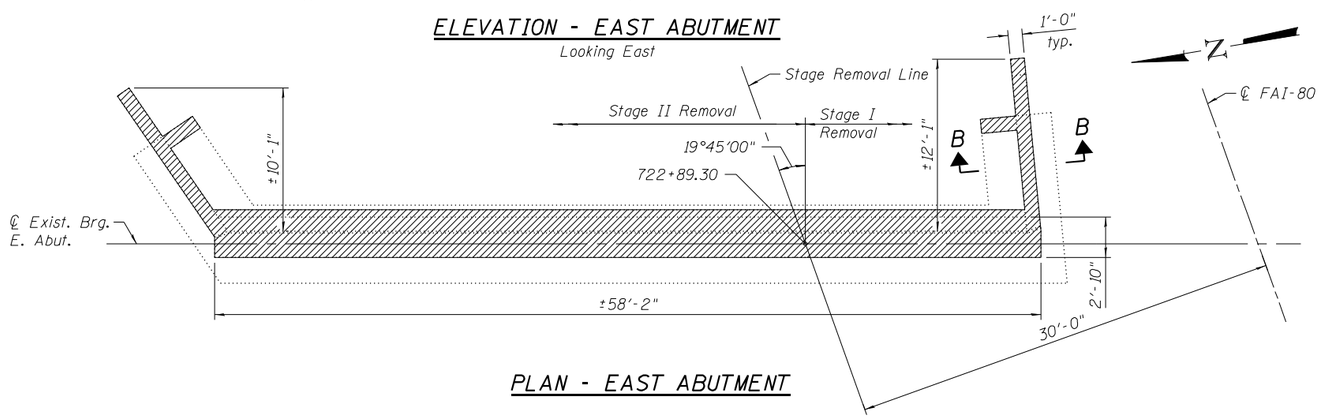
ELEVATION - EAST ABUTMENT

Looking East





ELEVATION - EAST ABUT. WINGWALLS



PLAN - EAST ABUTMENT

LEGEND:

Concrete Removal

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu Yd	69.8

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 included with 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.*

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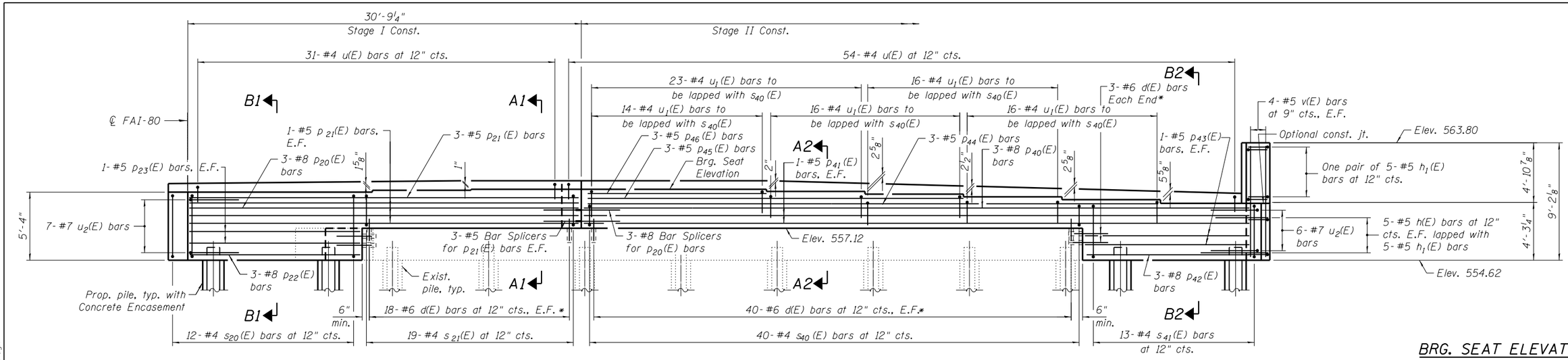
exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

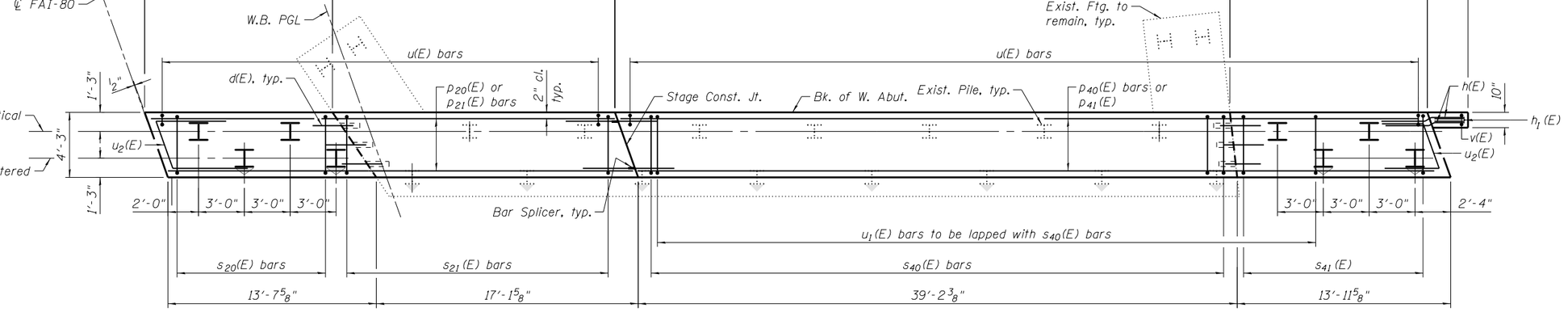
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 099-0063
SHEET SH-30 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	283
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			



ELEVATION



PLAN - PILE CAP

BRG. SEAT ELEVATIONS

Beam	Elev.
1	558.89
2	559.36
3	559.58
4	559.79
5	560.00
6	560.17
7	560.17
8	560.17
9	560.09
10	559.95
11	559.95

PILE DATA

Type: HP 12x53 with pile shoes
Nominal Required Bearing: 419 kips
Factored Resistance Available: 230 kips
Est. Length: (45) (70) ⚠
No. Production Piles: 8

MIN. BAR LAPS

#5 - 3'-9"
#8 - 8'-2"

* Drill and grout bars according to Article 584 of the Standard Specifications with an embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

Notes:
1. Place reinforcement to clear piles, dowel bars, and anchor bolt locations.
2. For sections, see Sheet SH-34.
3. For bearing spacing details, see Sheet SH-33.
4. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal
5. See Sheet SH-30 for Concrete Removal Details.
6. Order Bars $p_{22}(E)$, $p_{23}(E)$, $p_{42}(E)$, $p_{43}(E)$, $p_{44}(E)$, $p_{45}(E)$ and $p_{46}(E)$ full length. Cut bars in field to fit as needed.
7. Piles shown as battered shall be battered at 3H:12V.
8. Space "s(E)" bars to miss piles. Keep 2" minimum clearance to nearest pile.

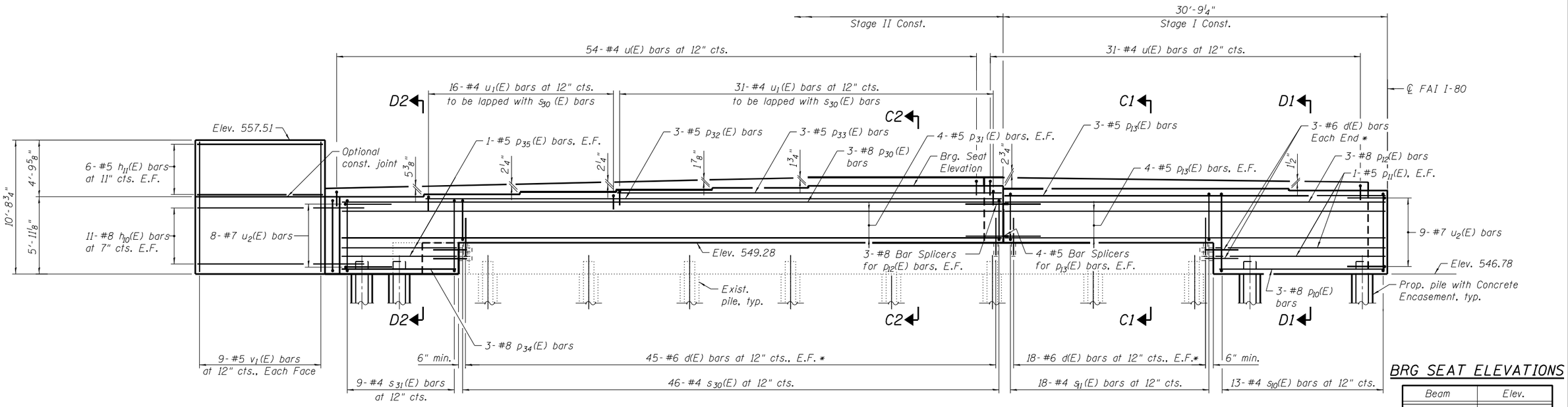
⚠1 REVISED SHEET 6/2/2022

USER NAME =	DESIGNED - BAR	REVISED - ⚠6/1/2022 BAR	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

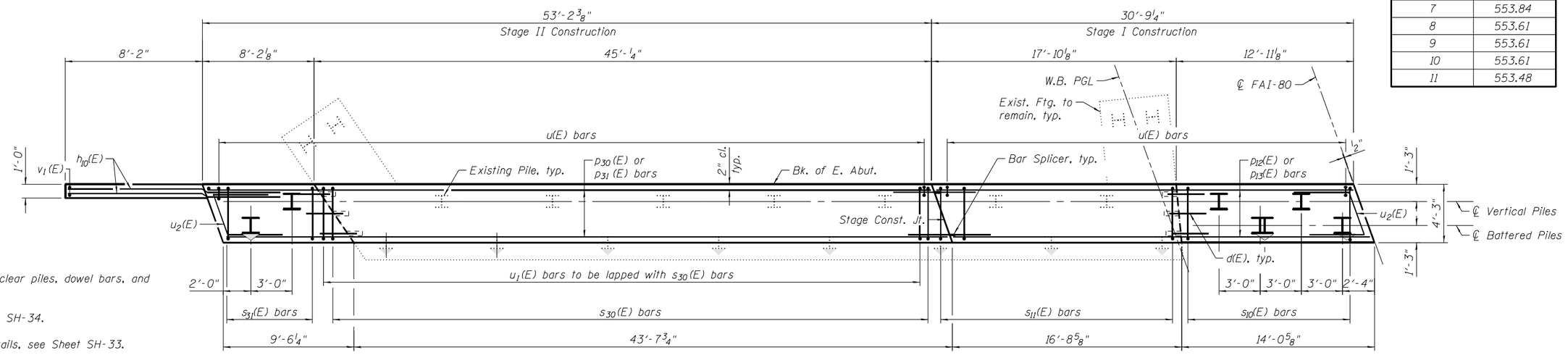
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 099-0063
SHEET SH-31 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	284
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			



ELEVATION



PLAN - PILE CAP

BRG SEAT ELEVATIONS

Beam	Elev.
1	552.71
2	553.16
3	553.35
4	553.53
5	553.69
6	553.84
7	553.84
8	553.61
9	553.61
10	553.61
11	553.48

Notes:

1. Place reinforcement to clear piles, dowel bars, and anchor bolt locations.
2. For sections, see Sheet SH-34.
3. For bearing spacing details, see Sheet SH-33.
4. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal
5. See Sheet SH-30 for Concrete Removal Details.
6. Order Bars $p_{10}(E)$, $p_{11}(E)$, $p_{32}(E)$, $p_{33}(E)$, $p_{34}(E)$, and $p_{35}(E)$ full length. Cut bars in field to fit as needed.
7. Piles shown as battered shall be battered at 3H:12V.
8. Space "s(E)" bars to miss piles. Keep 2" minimum clearance to nearest pile.

PILE DATA

Type: HP 12x53 with pile shoes
Nominal Required Bearing: 419 kips
Factored Resistance Available: 230 kips
Est. Length: 32 ft
No. Production Piles: 6

* Drill and grout bars according to Article 584 of the Standard Specifications with an embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

MIN. BAR LAPS

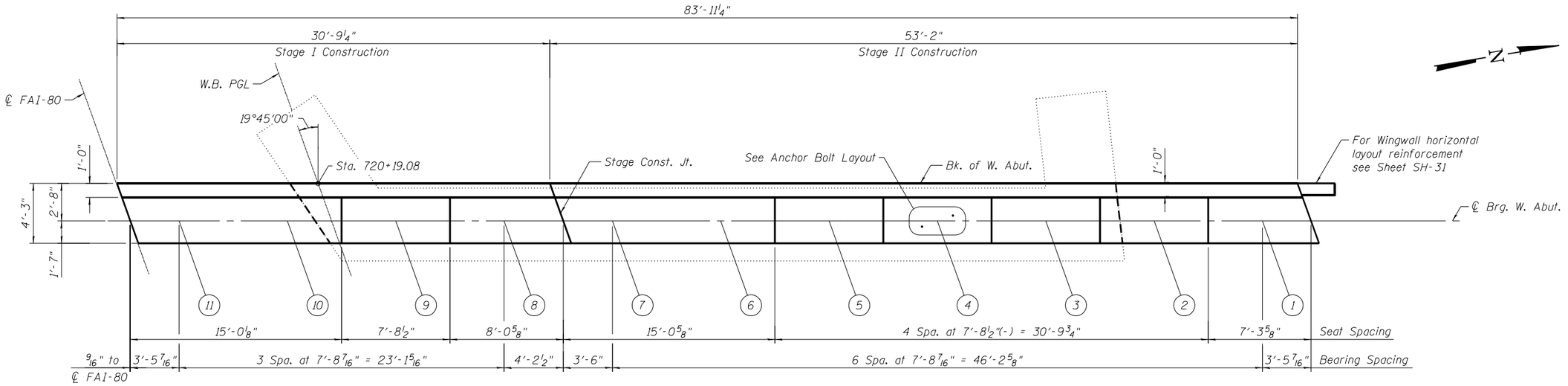
#5 - 3'-9"
#8 - 8'-2"

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

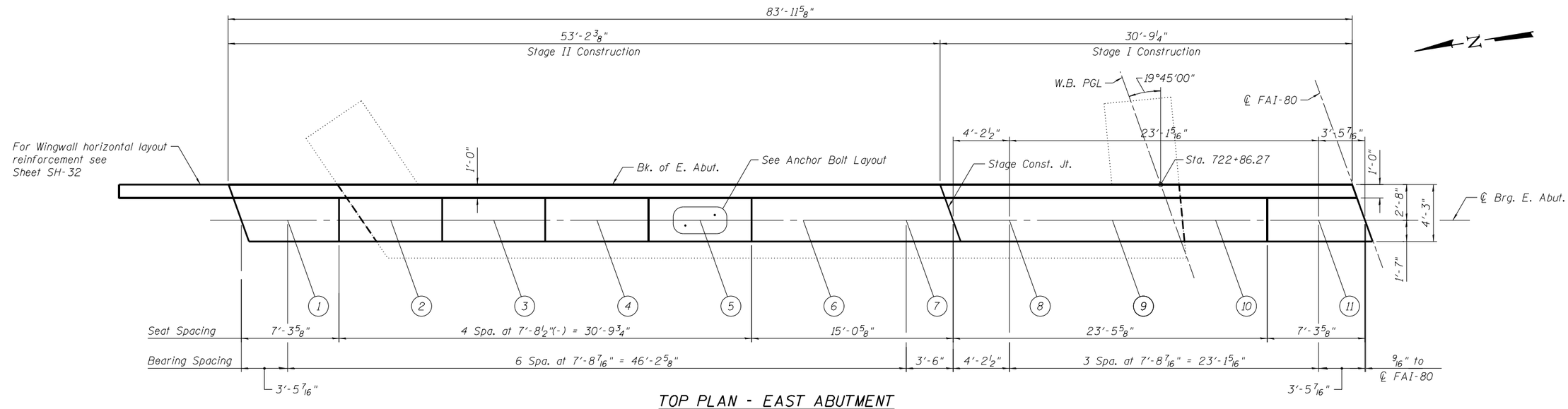
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 099-0063
SHEET SH-32 OF SH-46 SHEETS

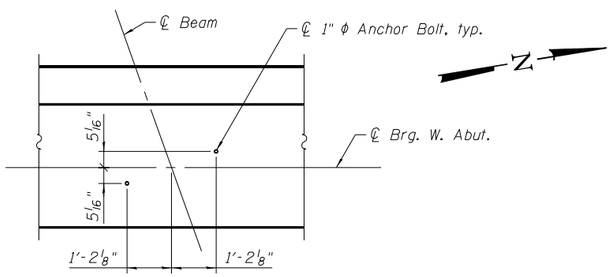
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	285
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	



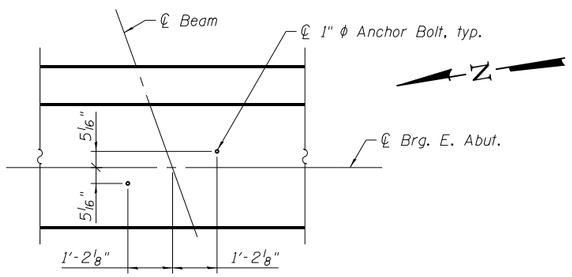
TOP PLAN - WEST ABUTMENT



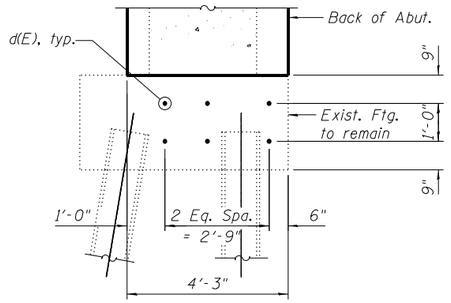
TOP PLAN - EAST ABUTMENT



ANCHOR BOLT LAYOUT - WEST ABUTMENT



ANCHOR BOLT LAYOUT - EAST ABUTMENT



d(E) BAR LAYOUT

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS - 1
STRUCTURE NO. 099-0063
SHEET SH-33 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	286
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

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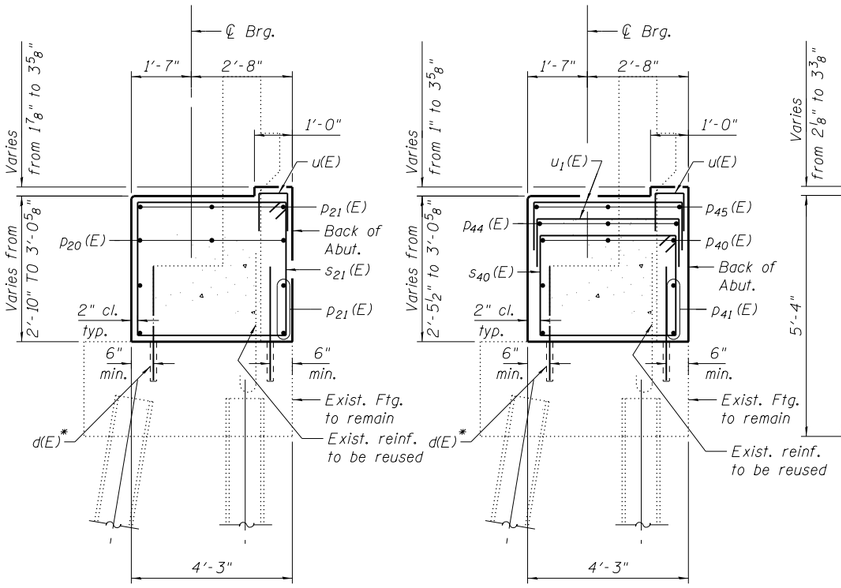
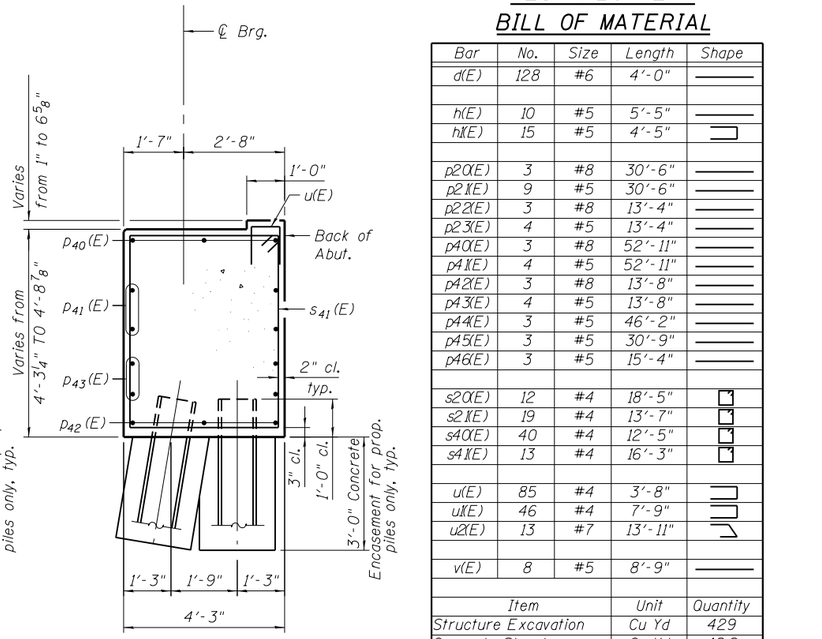


SECTION A1-A1

SECTION A2-A2

*Drill and grout bars according to Article 584 of the Standard Specifications with an embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

SECTION B1-B1



SECTION B2-B2

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	128	#6	4'-0"	
h(E)	10	#5	5'-5"	
h1(E)	15	#5	4'-5"	
p20(E)	3	#8	30'-6"	
p21(E)	9	#5	30'-6"	
p22(E)	3	#8	13'-4"	
p23(E)	4	#5	13'-4"	
p40(E)	3	#8	52'-11"	
p41(E)	4	#5	52'-11"	
p42(E)	3	#8	13'-8"	
p43(E)	4	#5	13'-8"	
p44(E)	3	#5	46'-2"	
p45(E)	3	#5	30'-9"	
p46(E)	3	#5	15'-4"	
s20(E)	12	#4	18'-5"	
s21(E)	19	#4	13'-7"	
s40(E)	40	#4	12'-5"	
s41(E)	13	#4	16'-3"	
u(E)	85	#4	3'-8"	
u1(E)	46	#4	7'-9"	
u2(E)	13	#7	13'-11"	
v(E)	8	#5	8'-9"	

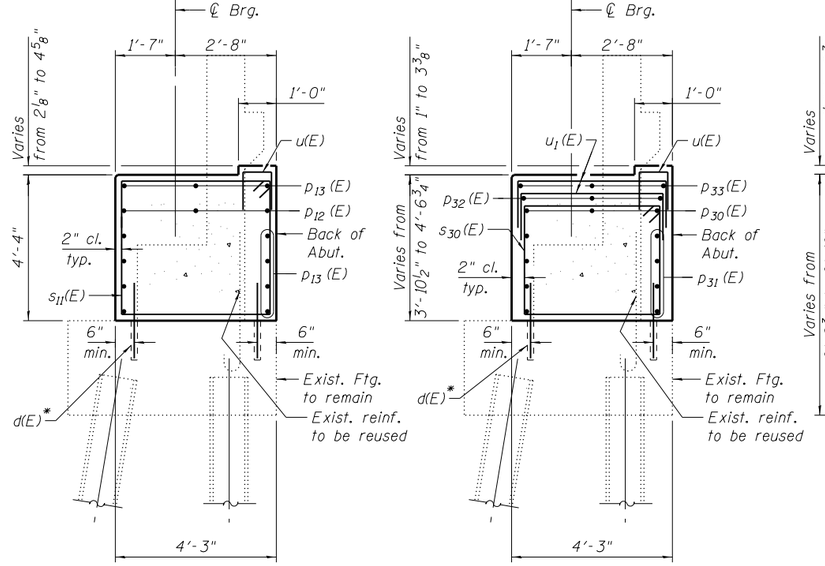
Item	Unit	Quantity
Structure Excavation	Cu Yd	429
Concrete Structures	Cu Yd	48.9
Concrete Encasement	Cu Yd	4.4
Reinforcement Bars, Epoxy Coated	Pound	4,370
Furnishing Steel Piles HP 12x53	Foot	360 ⚠1
Driving Piles	Foot	360
Pile Shoes	Each	8

For details of Bar Splicers, see Sheet SH-42.
For pile details, see Sheet SH-41.

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	138	#6	4'-0"	
h10(E)	22	#8	16'-2"	
h1(E)	12	#5	7'-10"	
p10(E)	3	#8	13'-9"	
p11(E)	4	#5	13'-9"	
p12(E)	3	#8	30'-6"	
p13(E)	11	#5	30'-6"	
p30(E)	3	#8	52'-11"	
p31(E)	8	#5	52'-11"	
p32(E)	3	#5	46'-1"	
p33(E)	3	#5	30'-8"	
p34(E)	3	#8	9'-2"	
p35(E)	4	#5	9'-2"	
s10(E)	13	#4	21'-1"	
s11(E)	18	#4	16'-7"	
s30(E)	46	#4	15'-7"	
s31(E)	9	#4	19'-7"	
u(E)	85	#4	3'-8"	
u1(E)	47	#4	7'-9"	
u2(E)	17	#7	13'-11"	
v(E)	11	#5	18'-3"	

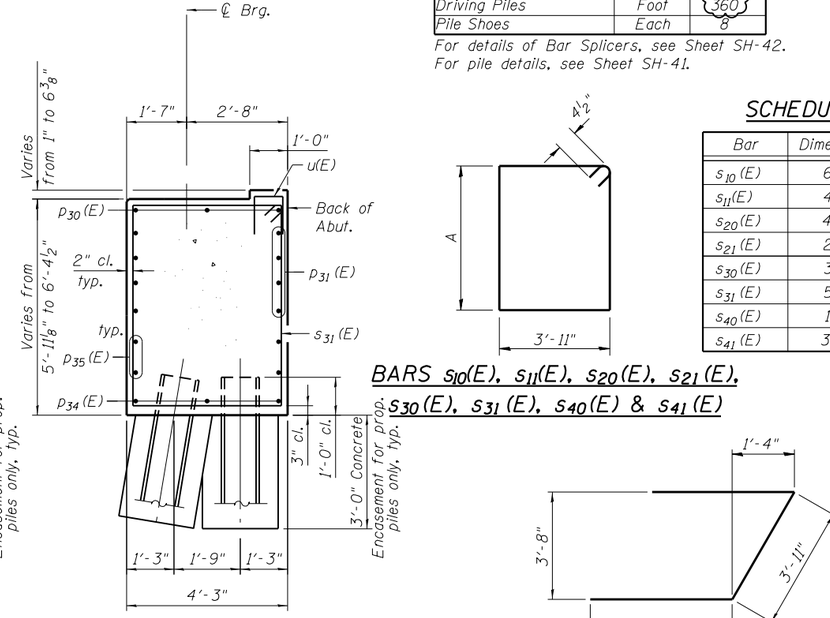
Item	Unit	Quantity
Structure Excavation	Cu Yd	366
Concrete Structures	Cu Yd	68.4
Concrete Encasement	Cu Yd	5.4
Reinforcement Bars, Epoxy Coated	Pound	5,980
Furnishing Steel Piles HP 12x53	Foot	192
Driving Piles	Foot	192
Pile Shoes	Each	6



SECTION C1-C1

SECTION C2-C2

SECTION D1-D1

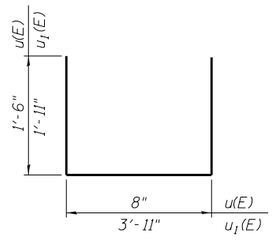


SECTION D2-D2

SCHEDULE

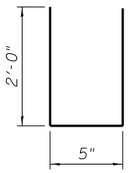
Bar	Dimension A
s10(E)	6'-3"
s11(E)	4'-0"
s20(E)	4'-11"
s21(E)	2'-6"
s30(E)	3'-6"
s31(E)	5'-6"
s40(E)	1'-11"
s41(E)	3'-10"

BARS s10(E), s11(E), s20(E), s21(E), s30(E), s31(E), s40(E) & s41(E)



BAR u(E) & u1(E)

BAR u2(E)



BAR h(E)

⚠1 REVISED SHEET 6/2/2022

MODEL: Sheet
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exp.

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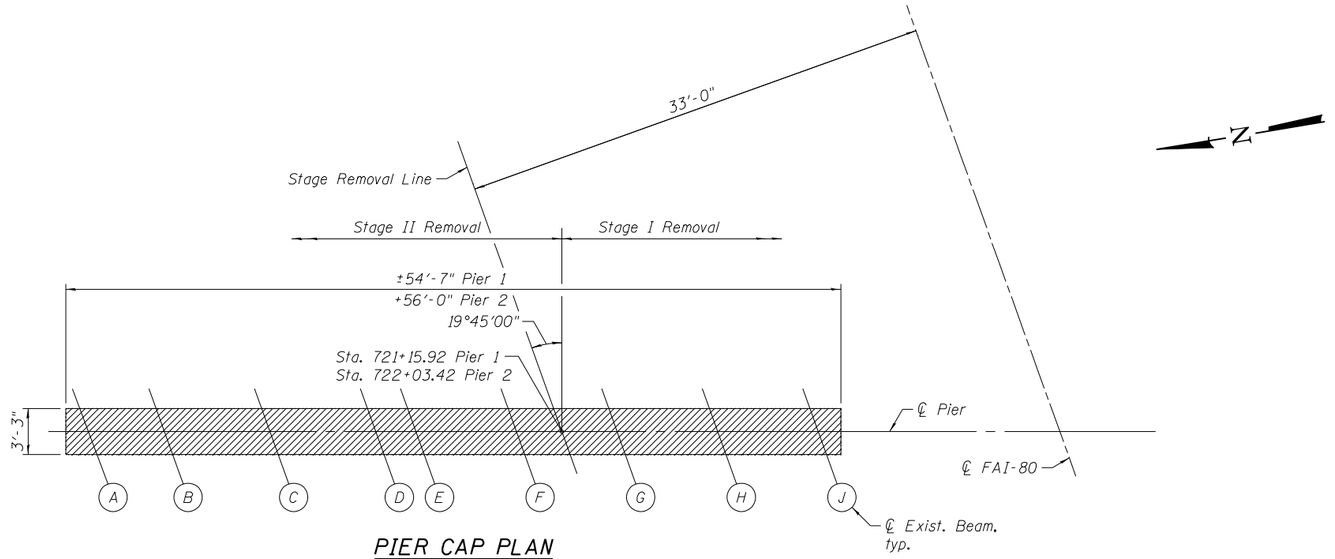
	CHECKED - VCP	REVISED -
PLOT SCALE =	DRAWN - MTR	REVISED -
PLOT DATE =	CHECKED - BAR	REVISED -

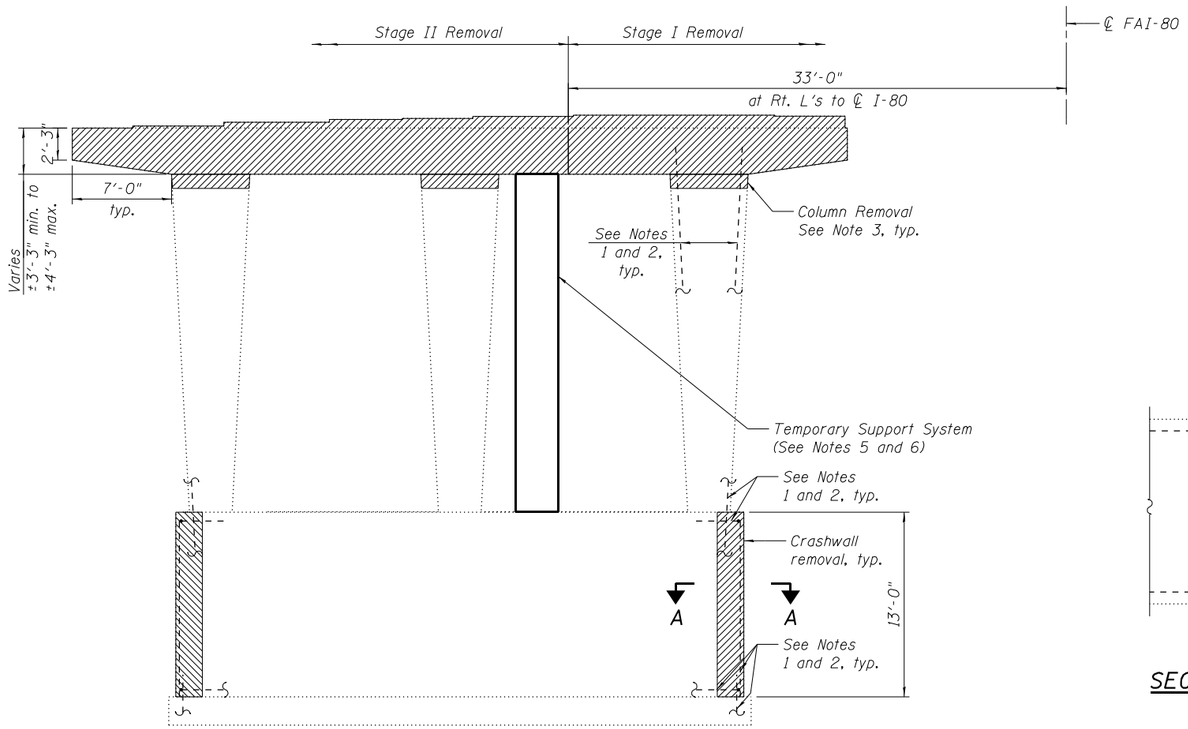
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS - 2
STRUCTURE NO. 099-0063
SHEET SH-34 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	287
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

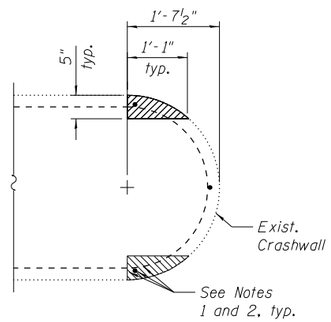


PIER CAP PLAN



ELEVATION - PIERS 1 AND 2

Looking East



SECTION A-A

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu Yd	51.5
Temporary Support System	L Sum	1
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	210
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	40

LEGEND:

Concrete Removal

Notes:

1. Contractor shall not cut or remove existing reinforcement bars extending from the existing pier.
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 included with Concrete Removal.
5. The Temporary Support Plan shall be prepared and sealed by an Illinois Licensed Structural Engineer and shall be submitted to the Engineer for review and acceptance. See Special Provisions.
6. 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 = 140 kips
   Live Load = 120 kips
7. Structural concrete repair for all EB and WB piers is included in this contract. Limits of repair will be as directed by the Engineer.

MODEL: Sheet
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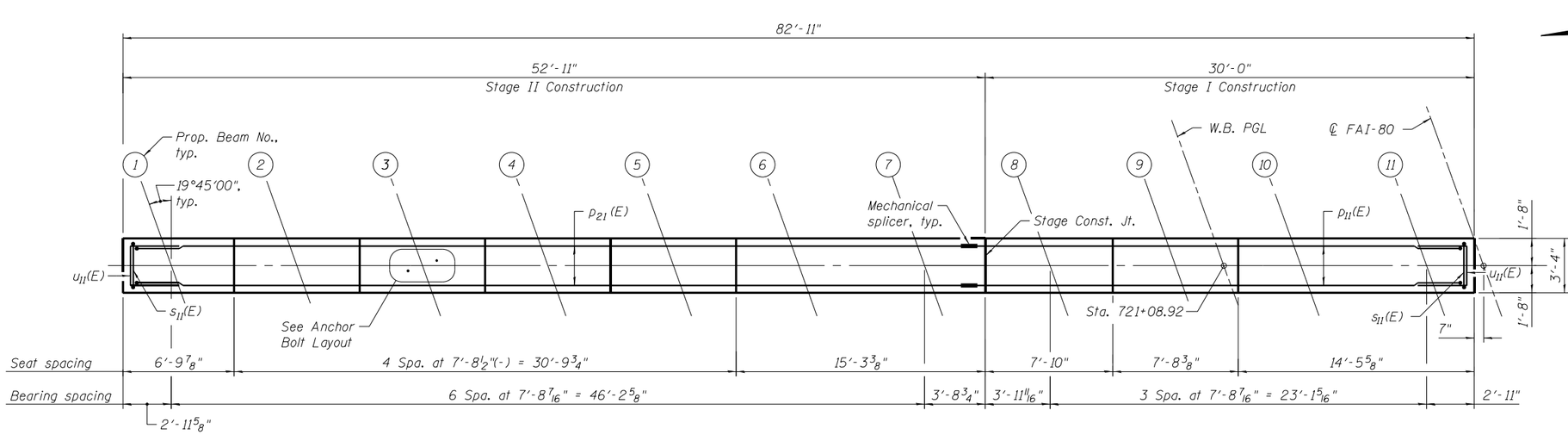
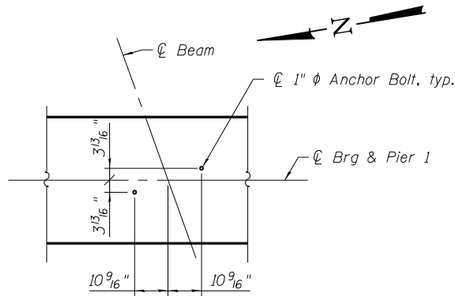
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REMOVAL DETAILS
STRUCTURE NO. 099-0063
SHEET SH-35 OF SH-46 SHEETS

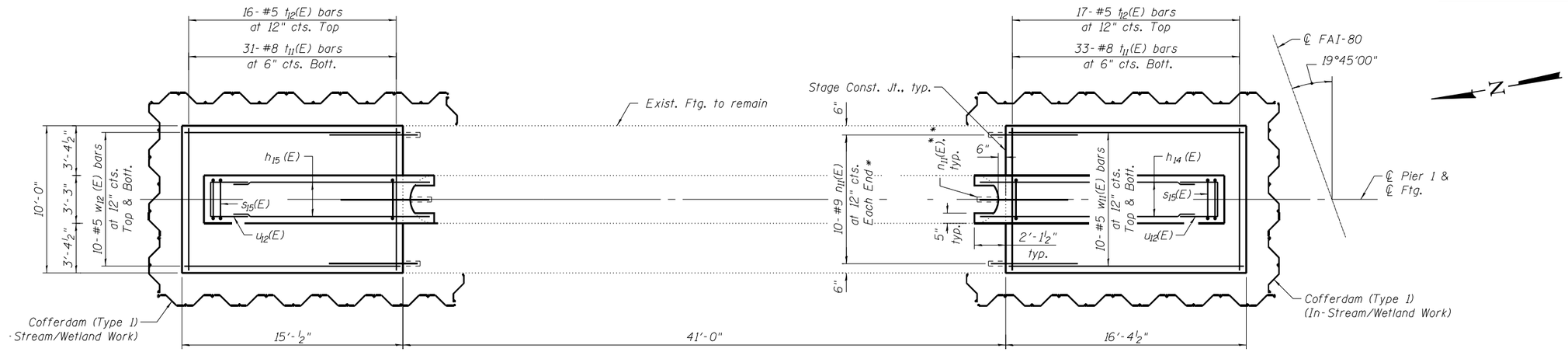
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	288
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			



TOP PLAN



ANCHOR BOLT LAYOUT



FOOTING PLAN

* Drill and grout bars according to Section 584 of the Standard Specifications with an 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 SH-37.
3. For Bill of Material and bar bending diagram see Sheet SH-40.

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 1 DETAILS - 1 STRUCTURE NO. 099-0063 SHEET SH-36 OF SH-46 SHEETS
		CHECKED - VCP	REVISED -		
	PLOT SCALE =	DRAWN - MTR	REVISED -		
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	289
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

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BRG. SEAT ELEVATIONS

Beam	Elev.
1	556.83
2	557.19
3	557.41
4	557.63
5	557.82
6	557.99
7	557.99
8	557.99
9	557.91
10	557.77
11	557.77

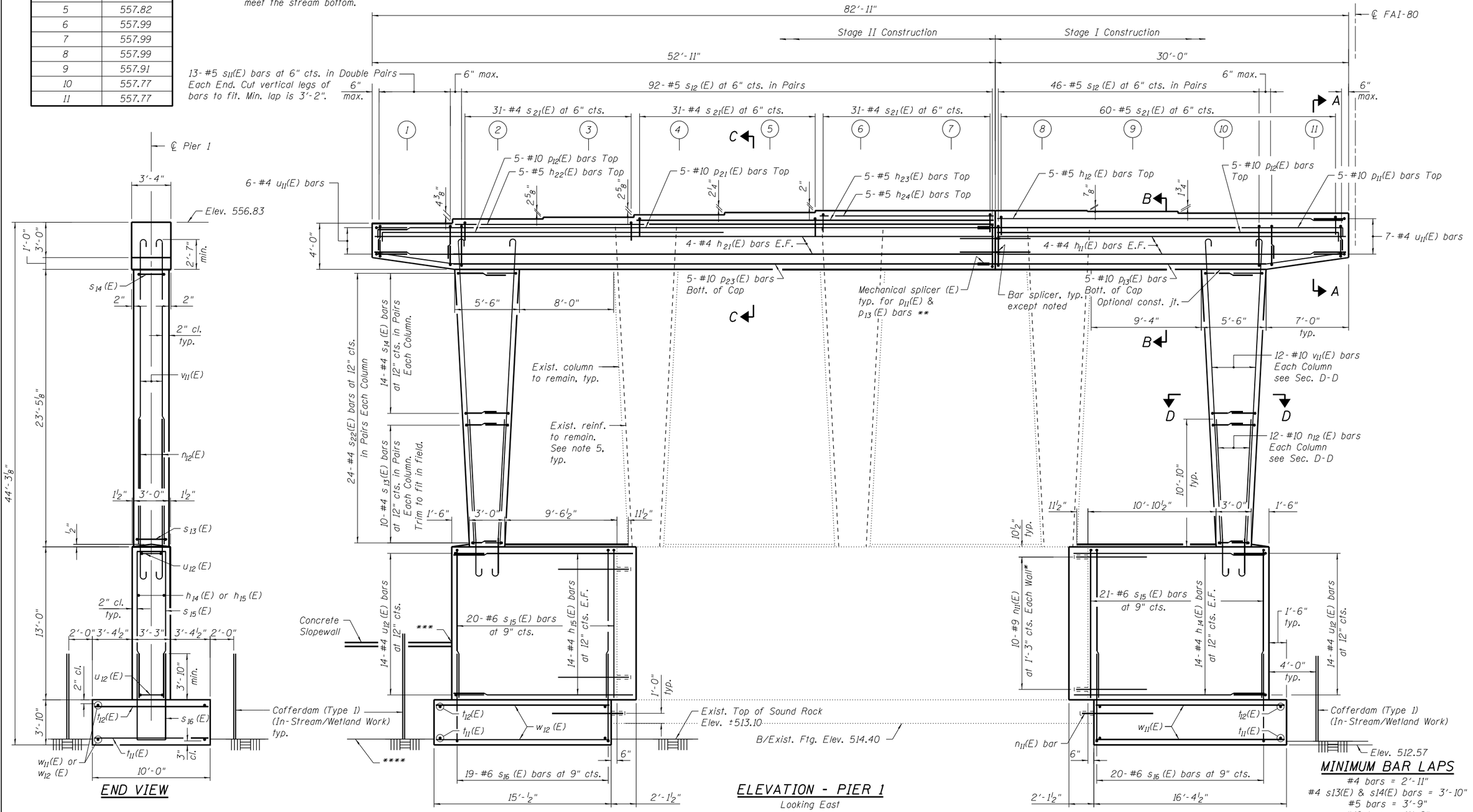
* Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

** 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. ±521.3 at North Face to match existing slope wall elevation.

**** Top of Rock and bott. of Cofferdam Exacvation is approximately ±513.1 and varies to meet the stream bottom.

Notes:
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. The proposed footing elevations for all piers shall be located at the adjoining existing footing elevation or at least six inches below top of rock, whichever is lowest. The rock excavation shall be made with near-vertical sides at the plan dimensions to all the sides and based of the embedded portion of the footing to be cast against undisturbed rock surfaces.
4. For Bill of Material and bar bending diagrams, see Sheet SH-40.
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.



MINIMUM BAR LAPS

#4 bars = 2'-11"
#4 s13(E) & s14(E) bars = 3'-10"
#5 bars = 3'-9"
#10 bars = 11'-6"

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - VCP	REVISED -	
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	PLOT DATE =	CHECKED - BAR	REVISED -	

PIER 1 DETAILS - 2
STRUCTURE NO. 099-0063
SHEET SH-37 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	290
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

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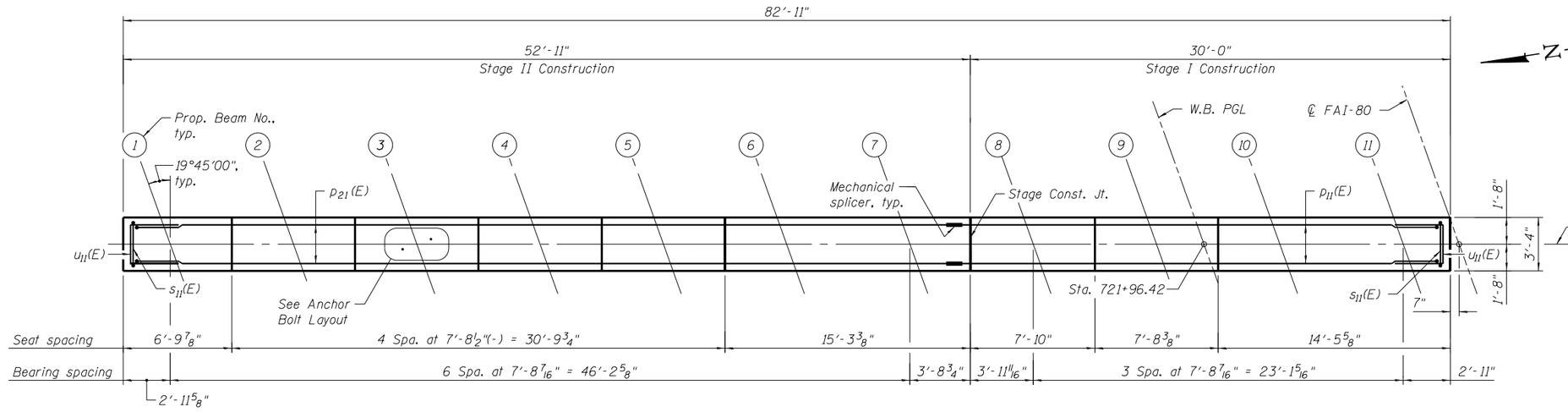
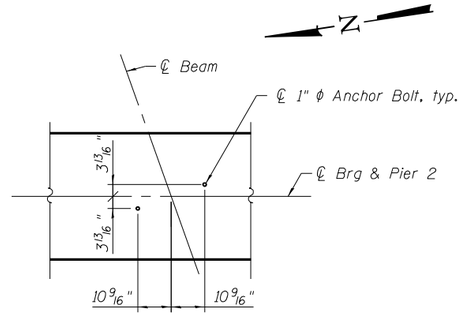
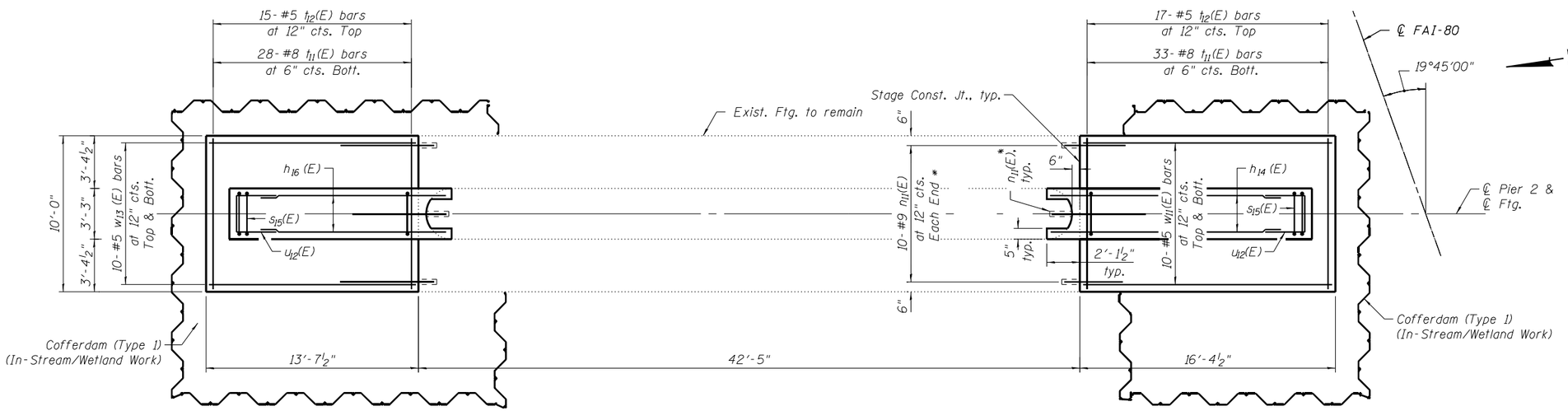


TOP PLAN



ANCHOR BOLT LAYOUT



FOOTING PLAN

* Drill and grout bars according to Section 584 of the Standard Specifications with an 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 SH-39.
3. For Bill of Material and bar bending diagram see Sheet SH-40.

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 2 DETAILS - 1 STRUCTURE NO. 099-0063
		CHECKED - VCP	REVISED -		SHEET SH-38 OF SH-46 SHEETS
	PLOT SCALE =	DRAWN - MTR	REVISED -		
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	291
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

MODEL: Sheet
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BRG. SEAT ELEVATIONS

Beam	Elev.
1	554.68
2	555.09
3	555.31
4	555.51
5	555.68
6	555.82
7	555.82
8	555.82
9	555.72
10	555.54
11	555.54

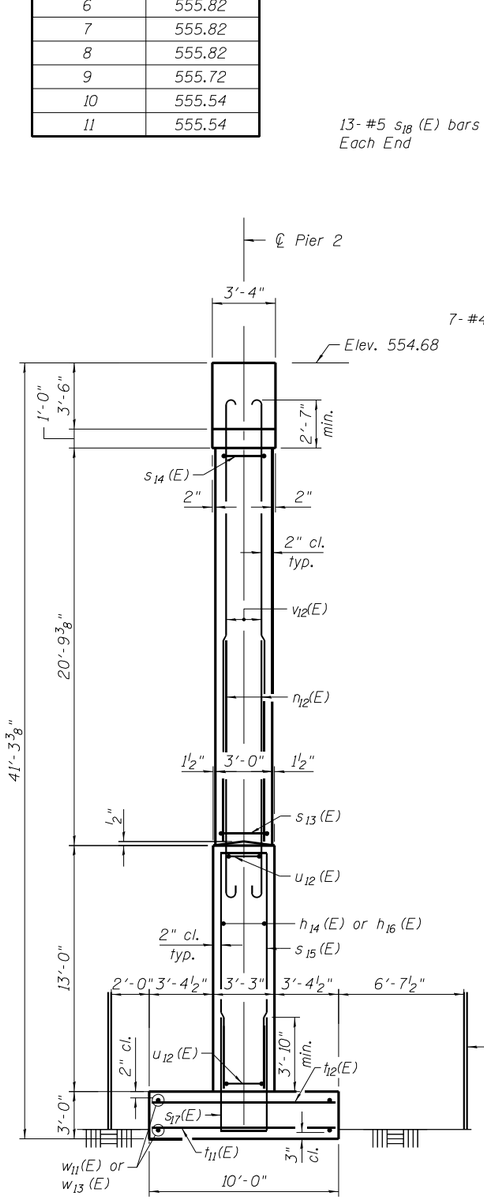
* Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

** 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.

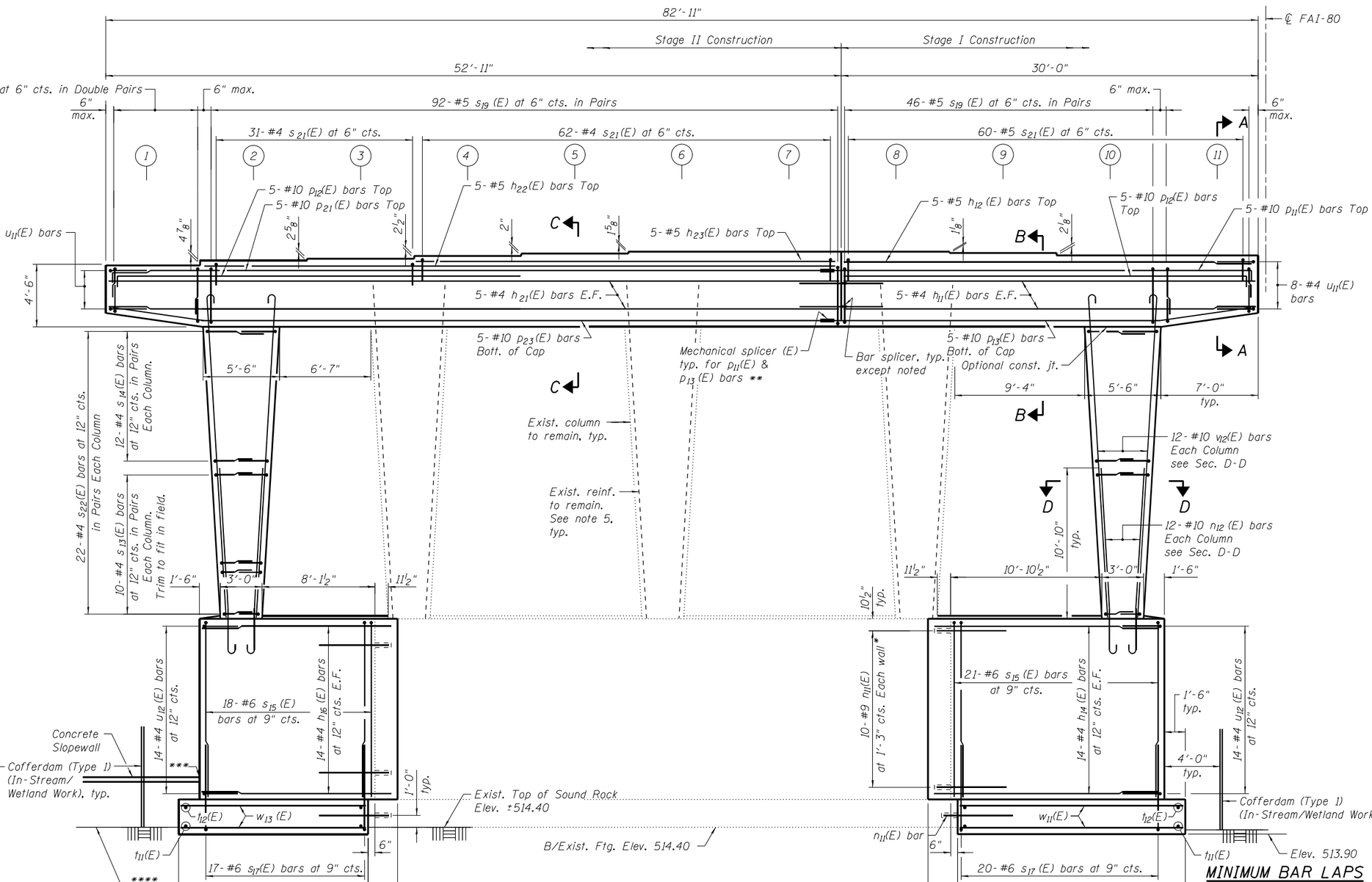
*** Elev. at ±518.0 at North Face to match existing slope wall elevation.

**** Top of Rock and bott. of Cofferdam Exacvation is approximately ±514.4 and varies to meet the stream bottom.

Notes:
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. The proposed footing elevations for all piers shall be located at the adjoining existing footing elevation or at least six inches below top of rock, whichever is lowest. The rock excavation shall be made with near-vertical sides at the plan dimensions to all the sides and based of the embedded portion of the footing to be cast against undisturbed rock surfaces.
4. For Bill of Material and bar bending diagrams, see Sheet SH-40.
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 2
Looking East

MINIMUM BAR LAPS

#4 bars = 2'-11"
#4 s13(E) & s14(E) bars = 3'-10"
#5 bars = 3'-9"
#10 bars = 11'-6"

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS - 2
STRUCTURE NO. 099-0063
SHEET SH-39 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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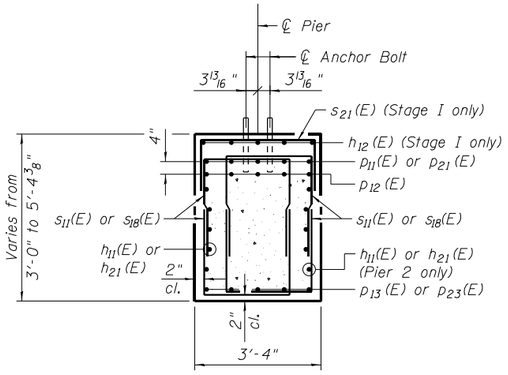
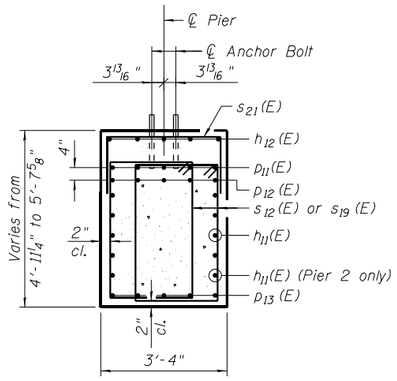
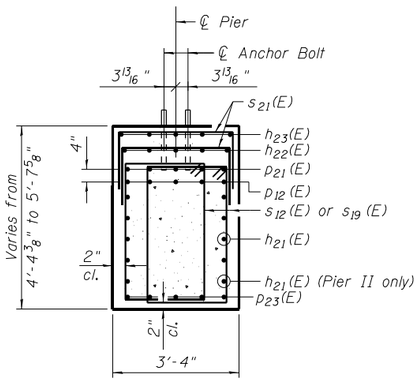
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		



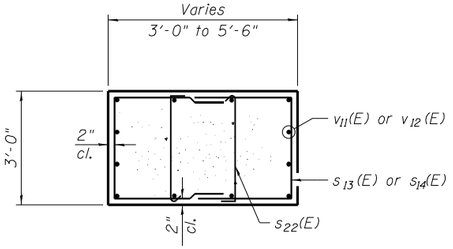
SECTION A-A



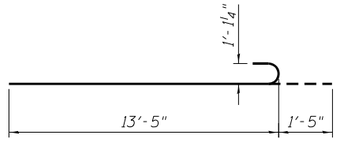
SECTION B-B



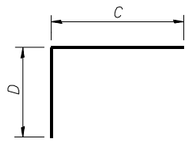
SECTION C-C



SECTION D-D



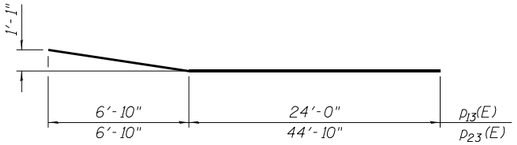
BAR n12(E)



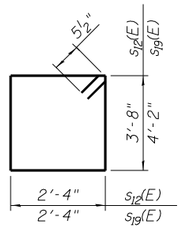
BARS p11(E), p12 (E) & p21(E)

C & D DIMENSIONS

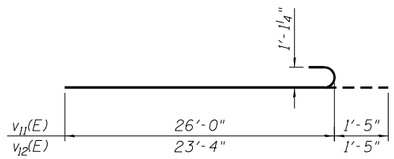
Bar	C	D
p11 (E)	30'-10"	1'-10"
p12 (E)	29'-5"	1'-10"
p21(E)	51'-7"	1'-10"



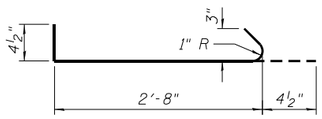
BAR p13 (E) & p23(E)



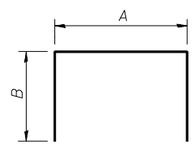
BARS s12 (E) & s19 (E)



BARS v11 (E) & v12 (E)



BAR s22(E)



BARS s11(E), s13 (E), s14 (E), s15 (E), s16 (E), s17 (E), s18 (E), s21 (E), u11 (E) & u12 (E)

A & B DIMENSIONS

Bar	A	B
s11 (E)	2'-4"	3'-5"
s13 (E)	2'-8"	3'-10"
s14 (E)	2'-8"	4'-6"
s15 (E)	2'-11"	12'-10"
s16 (E)	2'-11"	7'-9"
s17 (E)	2'-11"	6'-11"
s18 (E)	2'-4"	3'-11"
s21(E)	3'-0"	1'-6"
u11 (E)	2'-10"	3'-0"
u12 (E)	2'-9"	3'-0"

PIER 1 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	8	#4	29'-9"	
h12(E)	5	#5	29'-8"	
h14(E)	28	#4	16'-8"	
h15(E)	28	#4	15'-4"	
h2(E)	8	#4	52'-8"	
h22(E)	5	#5	45'-9"	
h23(E)	5	#5	30'-5"	
h24(E)	5	#5	15'-0"	
n1(E)	40	#9	6'-0"	
n12(E)	24	#10	14'-10"	
p1(E)	5	#10	32'-8"	
p12(E)	10	#10	31'-3"	
p13(E)	5	#10	30'-11"	
p21(E)	5	#10	53'-7"	
p23(E)	5	#10	51'-10"	
s1(E)	104	#5	9'-2"	
s12(E)	276	#5	12'-11"	
s13(E)	40	#4	10'-4"	
s14(E)	56	#4	11'-8"	
s15(E)	41	#6	28'-7"	
s16(E)	39	#6	18'-5"	
s2(E)	153	#4	6'-0"	
s22(E)	96	#4	3'-5"	
t1(E)	64	#8	9'-8"	
t12(E)	33	#5	9'-8"	
u1(E)	13	#4	8'-10"	
u12(E)	28	#4	8'-9"	
v1(E)	24	#10	27'-5"	
w1(E)	20	#5	16'-0"	
w12(E)	20	#5	14'-8"	

Item	Unit	Quantity
Cofferdam Excavation	Cu Yd	145
Cofferdam (Type 1) (In-Stream/Wetland Work)	Each	2
Concrete Structures	Cu Yd	164.9
Reinforcement Bars, Epoxy Coated	Pound	23,790

PIER 2 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	10	#4	29'-9"	
h12(E)	5	#5	29'-8"	
h14(E)	28	#4	16'-8"	
h16(E)	28	#4	13'-11"	
h2(E)	10	#4	52'-8"	
h22(E)	5	#5	45'-9"	
h23(E)	5	#5	30'-5"	
n1(E)	40	#9	6'-0"	
n12(E)	24	#10	14'-10"	
p1(E)	5	#10	32'-8"	
p12(E)	10	#10	31'-3"	
p13(E)	5	#10	30'-11"	
p2(E)	5	#10	53'-7"	
p23(E)	5	#10	51'-10"	
s13(E)	40	#4	10'-4"	
s14(E)	48	#4	11'-8"	
s15(E)	39	#6	28'-7"	
s17(E)	37	#6	16'-9"	
s18(E)	104	#5	10'-2"	
s19(E)	276	#5	13'-11"	
s2(E)	153	#4	6'-0"	
s22(E)	88	#4	3'-5"	
t1(E)	61	#8	9'-8"	
t12(E)	32	#5	9'-8"	
u1(E)	15	#4	8'-10"	
u12(E)	28	#4	8'-9"	
v12(E)	24	#10	24'-9"	
w1(E)	20	#5	16'-0"	
w13(E)	20	#5	13'-3"	

Item	Unit	Quantity
Cofferdam Excavation	Cu Yd	96
Cofferdam (Type 1) (In-Stream/Wetland Work)	Each	2
Concrete Structures	Cu Yd	145.0
Reinforcement Bars, Epoxy Coated	Pound	23,500

USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

PIER DETAILS
STRUCTURE NO. 099-0063
SHEET SH-40 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	293
		CONTRACT NO. 60W35		
	ILLINOIS FED. AID PROJECT			

MODEL: Sheet
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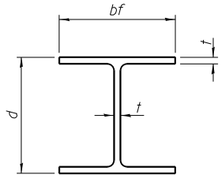
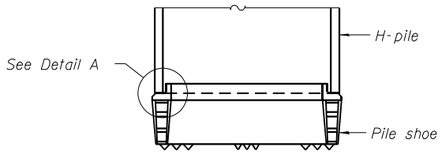
3/9/2022 11:54:15 AM

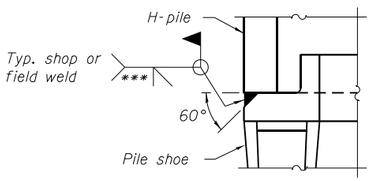


STEEL PILE TABLE

Designation	Depth d	Flange width bf	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"



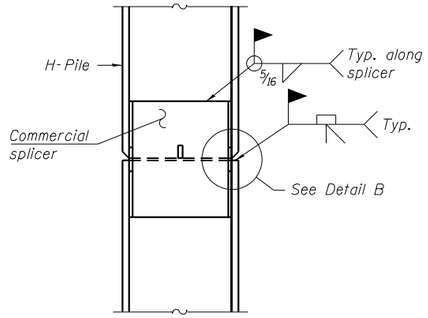
ELEVATION



DETAIL A

SHOE ATTACHMENT

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



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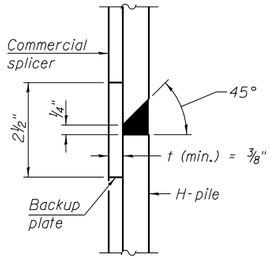
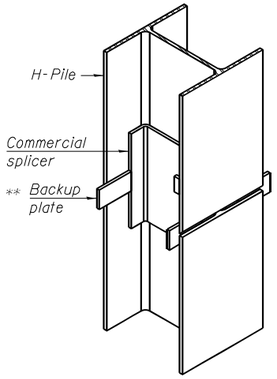
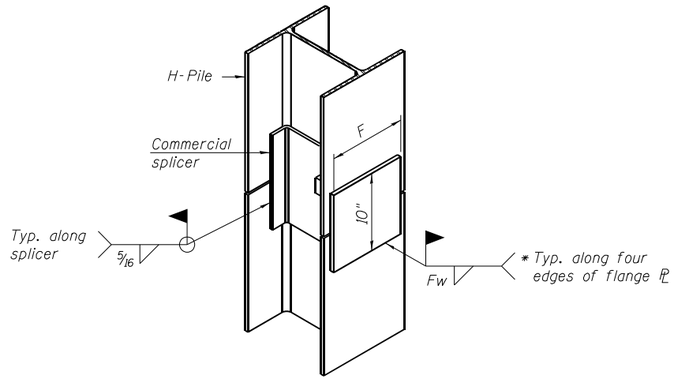


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



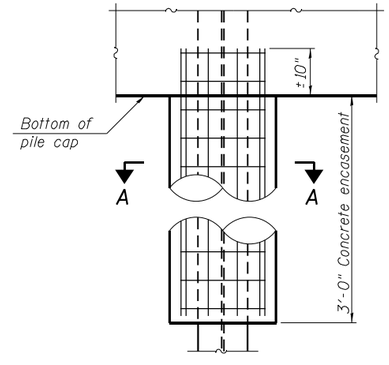
ISOMETRIC VIEW

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.).



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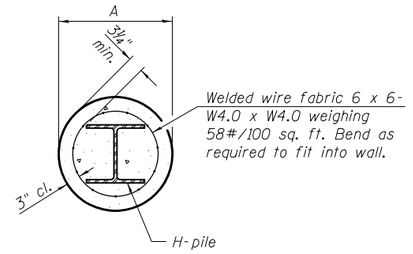
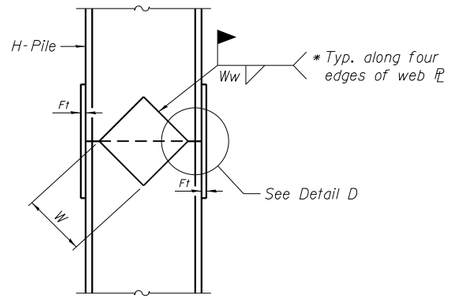


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

(Forms for encasement may be omitted when soil conditions permit).



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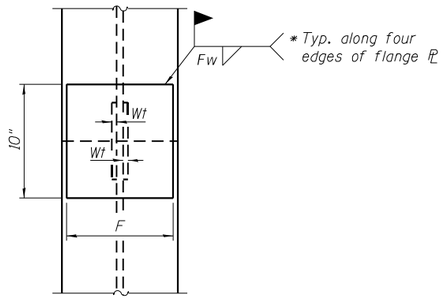
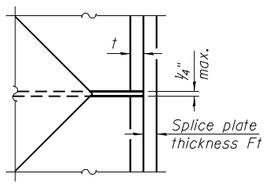


END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
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

F-HP 8-11-2017

USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - MTR	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

HP PILE DETAIL
STRUCTURE NO. 099-0063
SHEET SH-41 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	294
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

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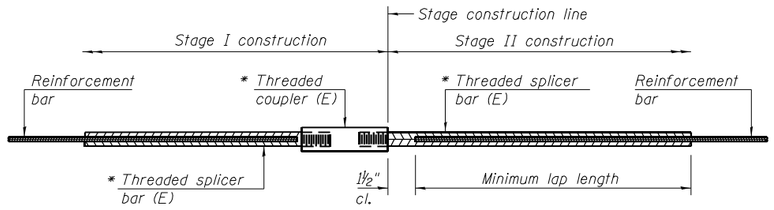
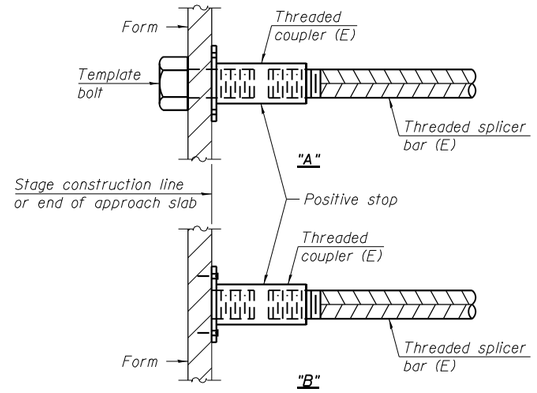


STANDARD BAR SPLICER ASSEMBLY

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

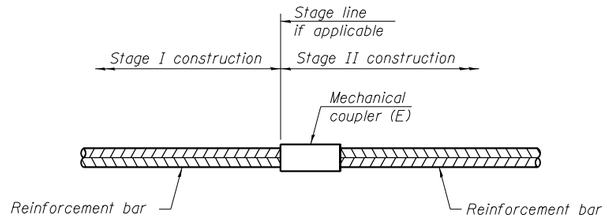
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	883	3'-6"
Approach slabs	#5	172	3'-4"
	#8	120	4'-9"
Abutments	#5	14	3'-9"
	#8	6	8'-2"
Piers	#4	20	2'-11"
Diaphragms	#4	4	2'-8"
	#6	22	4'-0"



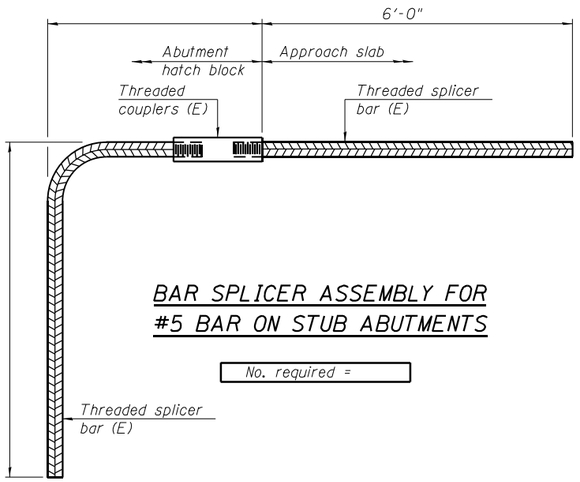
INSTALLATION AND SETTING METHODS

"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



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

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PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
STRUCTURE NO. 099-0063

SHEET SH-42 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	295
		CONTRACT NO. 60W35		
		ILLINOIS	FED. AID PROJECT	

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3/9/2022 11:55:16 AM

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 2
Date 3/17/14

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 Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-17
Station 720+12
Offset 22.30ft Left
Ground Surface Elev. 565.20 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 (%)	DESCRIPTION
				6.0" ASPHALT, 4.0" CONCRETE, 4.0" CRUSHED STONE
				564.03
	3			CLAY to CLAY LOAM-brown & gray-stiff to hard (Fill)
	3	2.5	21	
	4	P		
	2			
	2	1.0	19	
-5	2	P		
	3			
	5	3.0	19	
	6	P		
	2			
	2	2.0	31	
-10	3	P		
	3			
	8	1.3	14	
	7	P		
	4			
	8	3.1	15	
-15	9	B		
	6			
	8	2.8	19	
	11	P		
	5			
	11	4.5	19	
-20	11	P		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION
				CLAY to CLAY LOAM-brown & gray-stiff to hard (Fill) *(continued)*
	4			
	7	3.5	16	
	13	P		
	6			
	7	4.0	19	
-25	11	P		
	6			
	9	3.8	17	
	14	P		
	8			
	9	3.3	17	
-30	15	P		
	8			
	9	2.8	18	
-35	13	B		
	5			
	6			527.20
-40	15		29	SANDY LOAM-brown & gray-medium dense

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\2015\13125 INNTS, 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 3/17/14

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 Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. BSB-17
Station 720+12
Offset 22.30ft Left
Ground Surface Elev. 565.20 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 (%)	DESCRIPTION
				524.70
				SILTY SAND-dark gray-medium dense
	3			
	4		23	
-45	8			
				518.20
				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)

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ROCK CORE LOG

PAGE 1 of 1
DATE 3/18/2014
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-17 Top of Rock Elev. 518.2
Station 720+12 Begin Core Elev. 517.2
Offset 22.3' Left
Ground Surface Elev. 565.2

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	DESCRIPTION
	1	100.0	47.0	n/a	299 @ -49.5'	SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE
						RUN 1 (-48.0' to -58.0')
						Light gray with horizontal to wavy bedding. Porous with some chert nodules. Numerous horizontal fractures throughout.
-53						
-58						

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 SH-01.

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - VCP	REVISED -	
	PLOT SCALE =	DRAWN - MTR	REVISED -	
	PLOT DATE =	CHECKED - BAR	REVISED -	

SOIL BORING LOGS - 1
STRUCTURE NO. 099-0063
SHEET SH-43 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	296
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 2
Date 3/10/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JZ
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-19
Station 721+58
Offset 63.10ft Left
Ground Surface Elev. 560.10 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 (%)
2.0" ASPHALT, 8.0" CONCRETE BRIDGE DECK 559.27				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\2015\13125 INTS, 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 3/10/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JZ
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-19
Station 721+58
Offset 63.10ft Left
Ground Surface Elev. 560.10 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)*							
-45							
513.10 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)

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ROCK CORE LOG

PAGE 1 of 1
DATE 3/10/2014
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-19 Top of Rock Elev. 513.1
Station 721+58 Begin Core Elev. 513.1
Offset 63.1' Left
Ground Surface Elev. 560.1

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE RUN 1 (-47.0' to -57.0') Light gray to gray, fine grained with horizontal to wavy bedding. Porous with some weathering. Highly fractured & cherty to -49.8'. Numerous horizontal fractures throughout.	1	100.0	43.0	n/a	1025 @ -54.7
-52					
-57					

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 SH-01.

exp.	USER NAME =	DESIGNED - BAR	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		CHECKED - VCP	REVISED -	
	PLOT SCALE =	DRAWN - MTR	REVISED -	
	PLOT DATE =	CHECKED - BAR	REVISED -	

SOIL BORING LOGS - 2
STRUCTURE NO. 099-0063
SHEET SH-44 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	297
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

MODEL: S-42
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SOIL BORING LOG

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

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-21
Station 721+88
Offset 23.00ft Left
Ground Surface Elev. 560.40 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 (%)	DESCRIPTION
0				2.0" ASPHALT, 8.0" CONCRETE BRIDGE DECK 559.57
				VOID
-5				
-10				
-15				
-20				
				VOID *(continued)*
-25				
-30				
-35				
-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)

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SOIL BORING LOG

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

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-21
Station 721+88
Offset 23.00ft Left
Ground Surface Elev. 560.40 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 (%)	DESCRIPTION
				VOID *(continued)*
-45				
				514.40
				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)

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ROCK CORE LOG

PAGE 1 of 1
DATE 3/15/20145
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-21 Top of Rock Elev. 514.4
Station 721+88 Begin Core Elev. 514.4
Offset 23.0' Left
Ground Surface Elev. 560.4

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	
-51	1	98.0	48.0	n/a	233 / 48.7	SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE RUN 1 (-46.0' to -56.0') Light gray to gary with some rust staining. Porous with horizontal to wavy bedding. Numerous horizontal fractures throughout with some intersecting vertical fractures.
-56						

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 SH-01.

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - VCP	REVISED -	
	PLOT SCALE =	DRAWN - MTR	REVISED -	
	PLOT DATE =	CHECKED - BAR	REVISED -	

SOIL BORING LOGS - 3
STRUCTURE NO. 099-0063
SHEET SH-45 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	298
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

MODEL: S-43
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SOIL BORING LOG

GSI Job No. 13125
Page 1 of 2
Date 1/15/14

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-23
Station 723+11
Offset 61.50ft Left
Ground Surface Elev. 556.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 554.4 ft ▼
Upon Completion n/a ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4" ASPHALT, 12.0" CONCRETE			
555.07			
CLAY LOAM-brown & gray-stiff to hard (Fill)	1		
	1		9
	1		
	2		
-5	2		15
	3		
	3		
	5	2.8	14
	5	P	
	2		
-10	3	2.8	22
	5	P	
	4		
	5	1.9	15
	7	B	
	4		
	6	2.7	16
-15	9	B	
	5		
	5	2.2	20
	4	B	
	3		
-20	5		17
	12		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-brown & gray-stiff to hard (Fill) *(continued)*			
	6		
	9	2.1	16
	12	B	
	4		
	7	2.8	17
-25	10	B	
	9		
	10	1.8	15
	10	B	
	14		
	12	4.5	11
-30	12	P	
524.40			
SILTY CLAY LOAM-dark brown & gray-loose	2		
	2	0.6	28
-35	3	B	
517.90			
Drillers Observation: Fractured Rock	50/2"		
516.90			
-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)

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SOIL BORING LOG

GSI Job No. 13125
Page 2 of 2
Date 1/15/14

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-23
Station 723+11
Offset 61.50ft Left
Ground Surface Elev. 556.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 554.4 ft ▼
Upon Completion n/a ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Drillers Observation: Apparent Bedrock *(continued)*			
515.90			
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 1/16/2014
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-23 Top of Rock Elev. 517.9
Station 723+11 Begin Core Elev. 515.9
Offset 61.5' Left
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 (−40.5' to −50.5')	1	100.0	12.0	n/a	831 @ −43.1'
Light gray to gray with horizontal bedding. Weathered & porous. Highly fractured with numerous intersecting horizontal & vertical fractures.					
−45.5					
−50.5					

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 SH-01.

USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS - 4 STRUCTURE NO. 099-0063
	CHECKED - VCP	REVISED -		
PLOT SCALE =	DRAWN - MTR	REVISED -		
PLOT DATE =	CHECKED - BAR	REVISED -		SHEET SH-46 OF SH-46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-009B	WILL	465	299
		CONTRACT NO. 60W35		
	ILLINOIS	FED. AID PROJECT		

MODEL: S-44
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