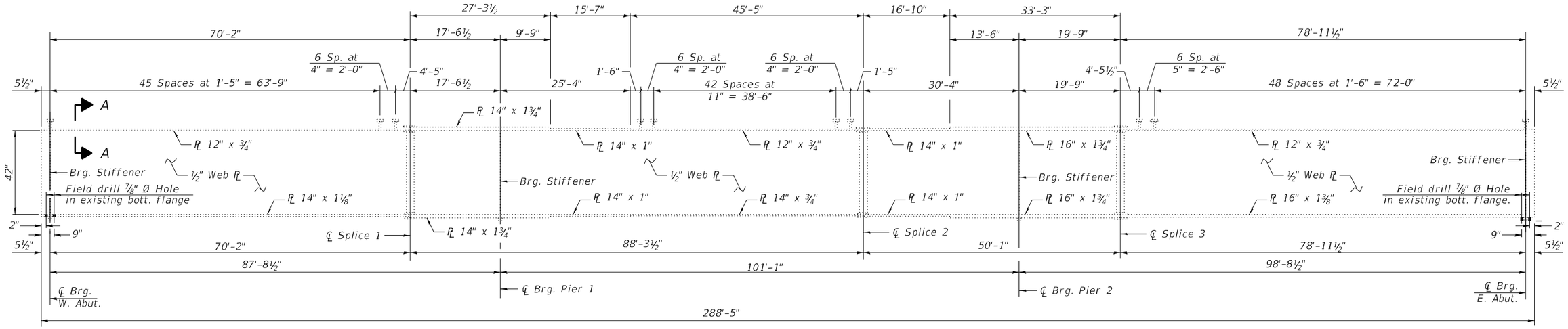
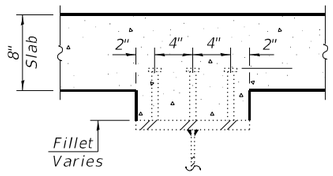


EXISTING GIRDER ELEVATION

Notes:
Any shear studs that are damaged by the Contractor's deck removal operations shall be replaced in kind or as directed by the Engineer. Cost included in Removal of "Existing Concrete Deck No. 1".



SECTION A-A

INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
	Is (in^4)	14,050	26,547	11,972	29,898	15,991
	Ic(n) (in^4)	42,332		34,033		51,475
	Ic(3n) (in^4)	31,132		25,702		36,734
	Ss (in^3)	743	1,167	571	1,314	946
	Sc(n) (in^3)	1,080		844		1,362
	Sc(3n) (in^3)	997		776		1,259
	D_L (k/')	1.01	1.09	0.99	1.11	1.03
	M_{D_L} ('k)	573	919	218	1,190	728
	s_{D_L} (k/')	0.26	0.26	0.26	0.26	0.26
	$M_{S_{D_L}}$ ('k)	146	234	71	287	189
	M_{L_L} ('k)	723	699	608	792	827
	MI ('k)	217	209	182	238	248
	$^5/_3$ [M_{L_L} + I] ('k)	1,567	1,513	1,317	1,717	1,792
	Ma ('k)	2,971	3,466	2,087	4,152	3,521
*	Mu ('k)	4,316	4,716	3,561	5176	5,204
	fs D_L non-comp (ksi)	9.3	9.4	4.6	10.9	9.2
	fs D_L (comp) (ksi)	1.8	2.4	1.1	2.6	1.8
	fs $^5/_3$ [M_{L_L} + M_I] (ksi)	17.4	15.6	18.7	15.7	15.8
	fs (Overload) (ksi)	28.4	27.4	24.4	29.2	26.8
**	fs (Total) (ksi)					
	VR (k)	52		55		55

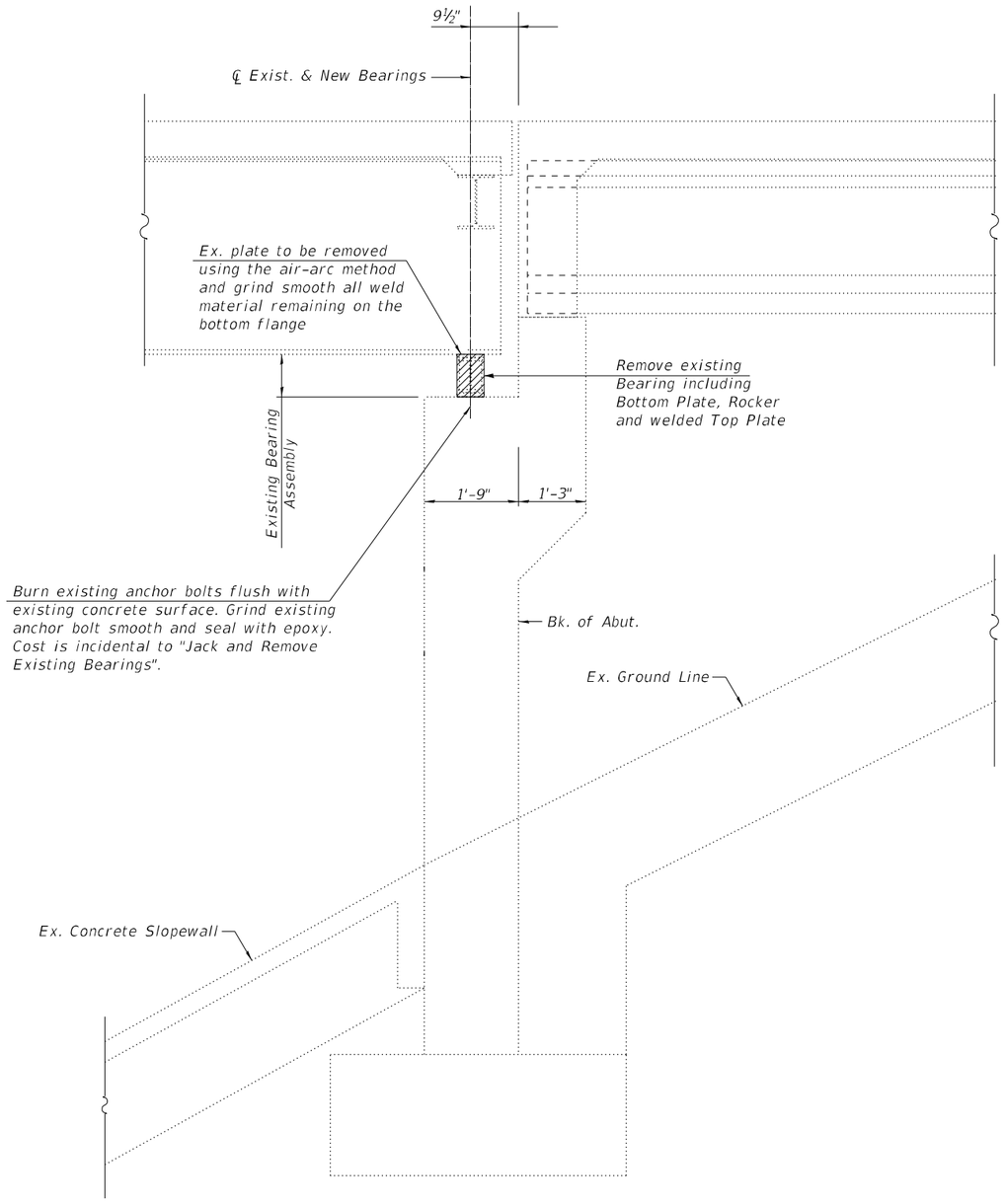
* Compact section
** Braced non-compact and partially braced section

INTERIOR GIRDER REACTION TABLE					
		W. Abut.	Pier 1	Pier 2	E. Abut.
R_{D_L}	(k)	44	131	148	50
R_{L_L}	(k)	43	63	67	43
R_I	(k)	13	19	20	13
R_{Total}	(k)	100	213	235	106

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total and Overload) due to non-composite dead loads ($in.^4$ and $in.^3$).
Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total and Overload) due to short-term composite live loads ($in.^4$ and $in.^3$).
Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total and Overload) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
D_L: Un-factored non-composite dead load (kips/ft.).
M_{D_L}: Un-factored moment due to non-composite dead load (kip-ft.).
s_{D_L}: Un-factored long-term composite (superimposed) dead load (kips/ft.)
$M_{S_{D_L}}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M_{L_L}: Un-factored live load moment (kip-ft.).
MI: Un-factored moment due to impact (kip-ft.).
Ma: Factored design moment (kip-ft.).
1.3 [M_{D_L} + $M_{S_{D_L}}$ + $\frac{5}{3}$ (M_{L_L} + MI)]
Mu: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
fs (Overload): Sum of stresses as computed from the moments below (ksi).
M_{D_L} + $M_{S_{D_L}}$ + $\frac{5}{3}$ (M_{L_L} + MI)
fs (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
1.3 [M_{D_L} + $M_{S_{D_L}}$ + $\frac{5}{3}$ (M_{L_L} + MI)]
VR: MaximumM_{L_L} + impact shear range within the composite portion of the span for stud shear connector design (kips).

① TOP OF WEB ELEVATIONS				
Girder No.	℄ Brg. W. Abut.	℄ Brg. Pier 1	℄ Brg. Pier 2	℄ Brg. E. Abut.
1	653.83	654.38	654.70	654.49
2	653.94	654.46	654.78	654.61
3	653.95	654.47	654.81	654.61
4	653.88	654.40	654.79	654.51

① Theoretical top of web after new bearings are in place



EXISTING BEARING REMOVAL DETAIL

(Dimensions at Rt L's)

JACK AND REMOVE EXISTING BEARINGS PROCEDURES

1. Jacking shall be done after existing deck removal is completed.
2. The Contractor shall submit for approval by the Engineer plans for jacking, prior to commencing any work at the bearings. The maximum dead load reaction with the deck removed (per bearing) at the west and east abutments = 16 kips. The minimum jack capacity at each beam shall be 32 kips at the west and east abutments.
3. Top of beam elevations shall be measured prior to jacking and shall remain the same after bearings are in place.
4. There shall be at least one jack per bearing and the jack shall be placed close to the bearing. The steel shall be raised a maximum of ¼" and shall be blocked in position until after the completion of the installation of new bearings.
5. Burn the existing anchor bolts flush with the concrete surface, grind smooth, and seal with epoxy. The rollers and top and bottom plates shall be removed. The top plate shall be removed using the air-arc method. Grind smooth all weld material remaining on the bottom flange. Cost of removing anchor bolts, rockers, top plates, and bottom plates shall be included with "Jack and Remove Existing Bearings."
6. The new elastomeric bearings shall be in place and the jacks lowered before the new concrete deck is poured.

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	8

MODEL: Default
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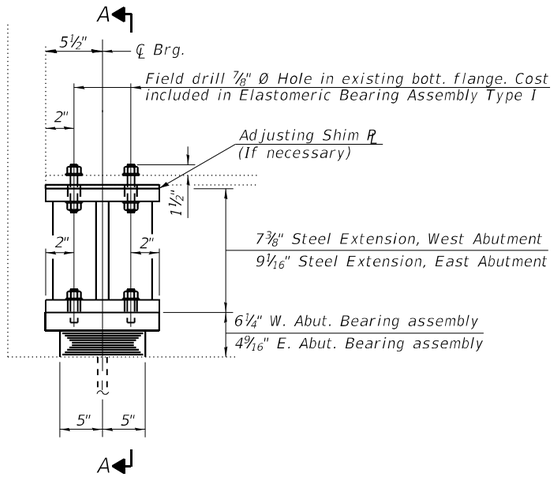
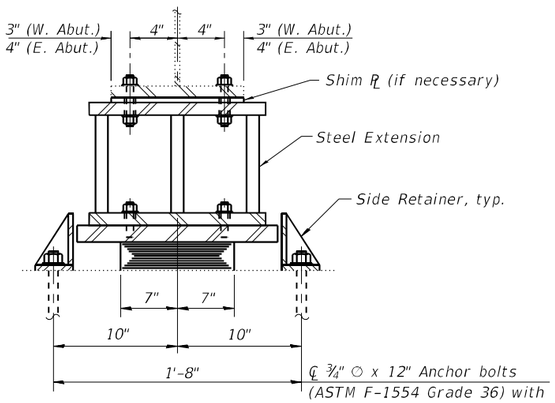
JACK & REMOVE EXISTING BEARINGS
STRUCTURE NO. 068-0040
SHEET 19 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	102
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

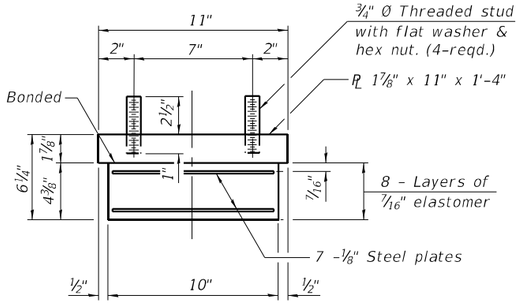


ELEVATION AT ABUTMENTS



SECTION A-A

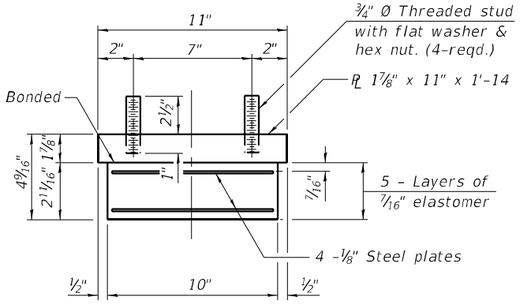
TYPE I ELASTOMERIC BEARING



BEARING ASSEMBLY

(West Abutment)

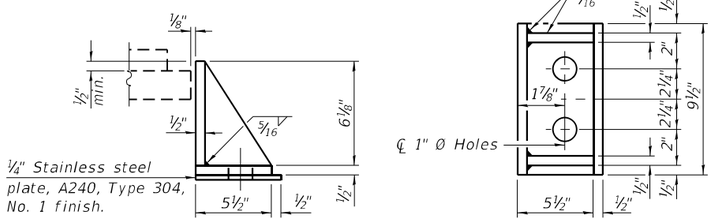
Note:
Shim plates shall not be placed under bearing assembly.



BEARING ASSEMBLY

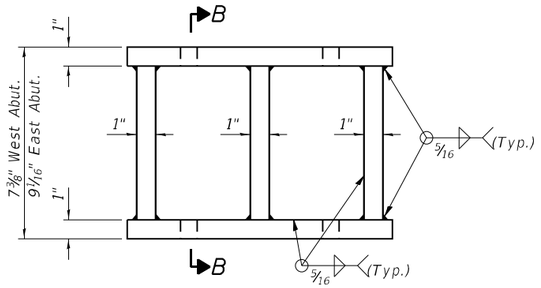
(East Abutment)

Note:
Shim plates shall not be placed under bearing assembly.

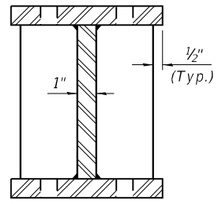


SIDE RETAINER

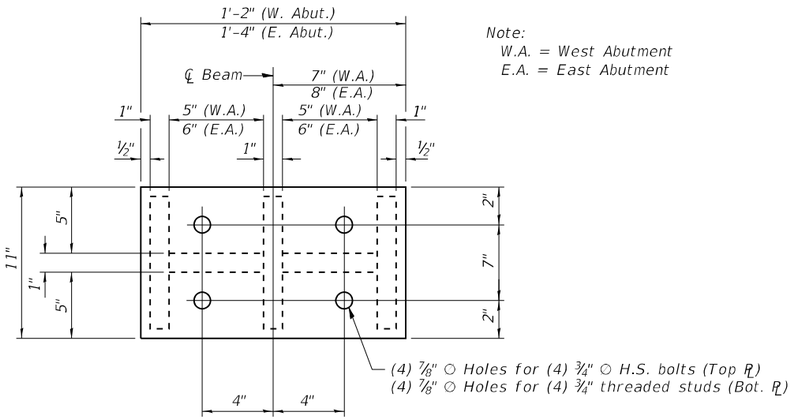
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



ELEVATION - STEEL EXTENSION



SECTION B-B



PLAN - STEEL EXTENSION

Note:
W.A. = West Abutment
E.A. = East Abutment

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers, and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

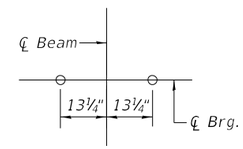
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Prior to ordering any material, the Contractor shall verify in the field all bearing heights and shim thickness dimensions.

All (embedded and separate) bearing plates, side retainers, extensions, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable unless noted otherwise.

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.



ANCHOR BOLT LAYOUT DETAIL

TWO ABUTMENTS BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	8
Anchor Bolts, 3/4"	Each	32
Furnishing and Erecting Structural Steel	Pound	1,330

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ABUTMENT BEARING DETAILS
STRUCTURE NO. 068-0040
SHEET 20 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	103
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

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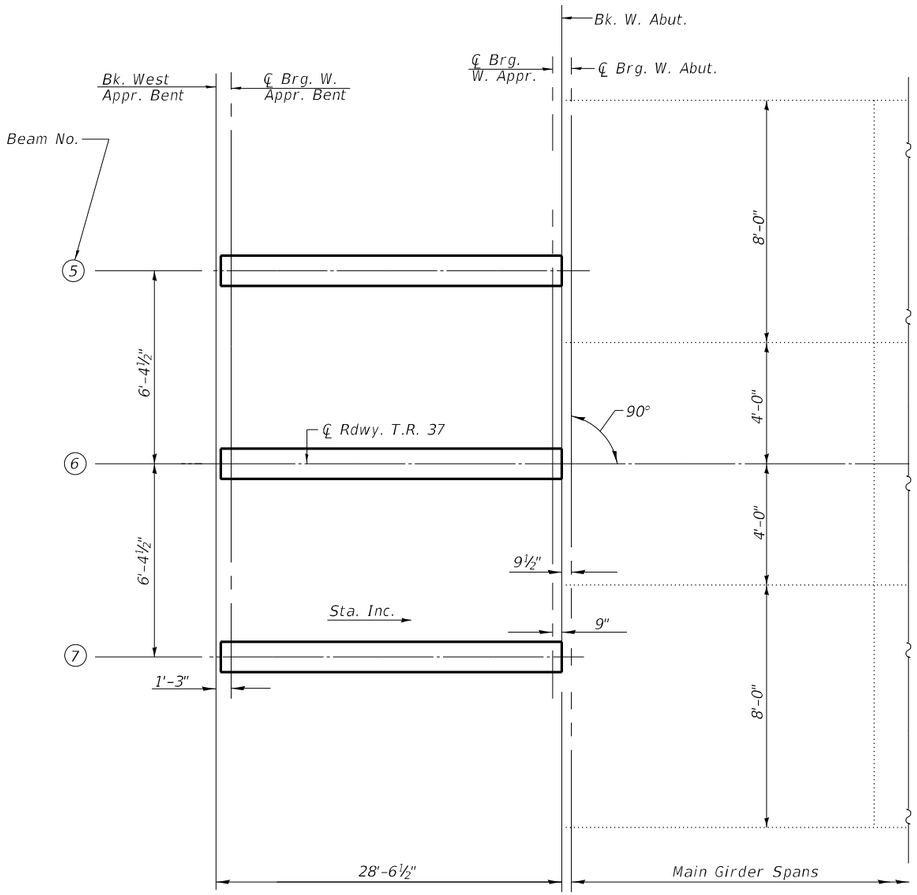
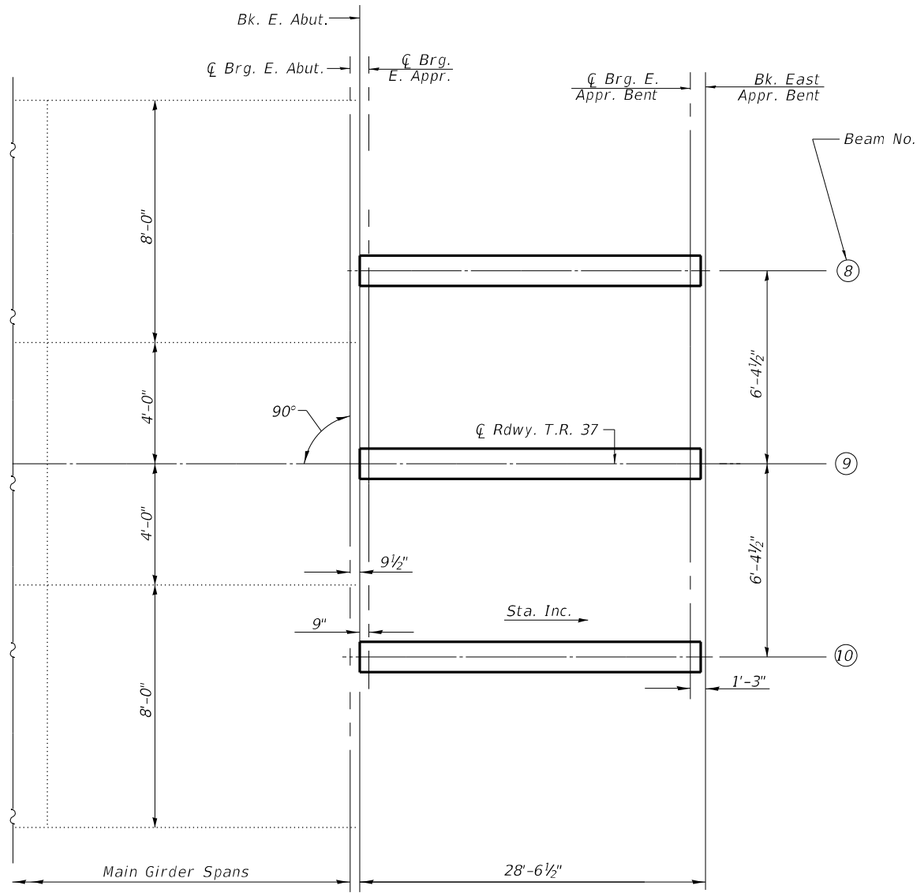


WEST APPROACH FRAMING PLAN



EAST APPROACH FRAMING PLAN

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I	(in^4)	48,648
I'	(in^4)	180,494
Sb	(in^3)	3,165
Sb'	(in^3)	6,007
St	(in^3)	2,358
St'	(in^3)	30,335
DC1	(k/')	1.03
MDC1	('k)	94
DC2	(k/')	0.23
MDC2	('k)	21
DW	(k/')	0.32
MDW	('k)	29
M^{L+IM}	('k)	309

INTERIOR BEAM REACTION TABLE		
		Abut. and Appr. Bent
RDC1	(k)	14
RDC2	(k)	3
RDW	(k)	4
R^{L+IM}	(k)	50
RTotal	(k)	71

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
Sb: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
Sb': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
St: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
St': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: 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.).
MDC2: 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.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
M^{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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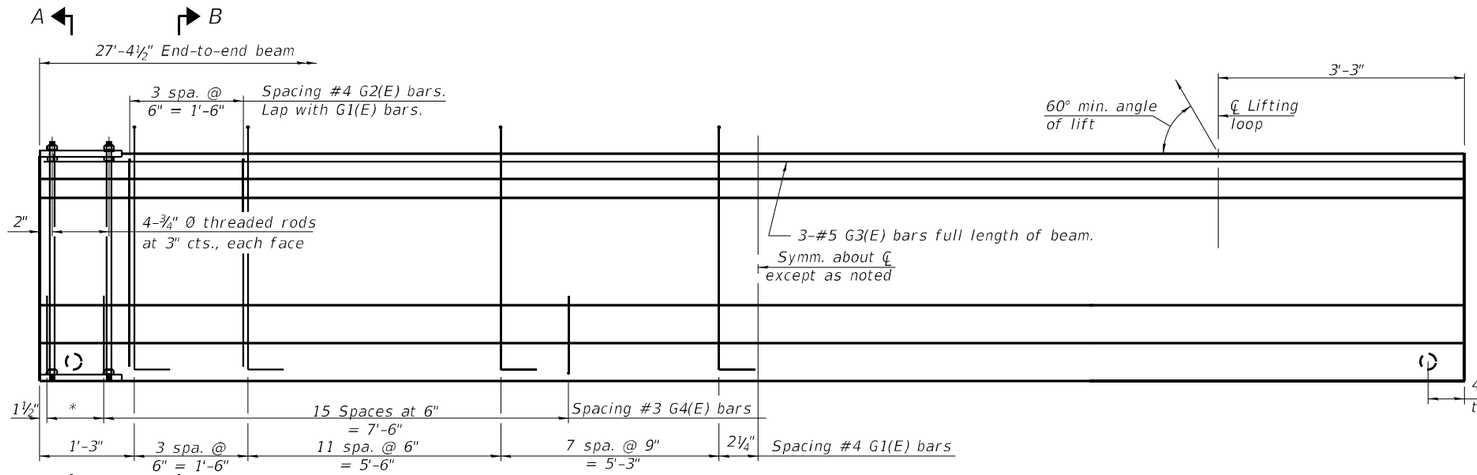
DEPARTMENT OF TRANSPORTATION

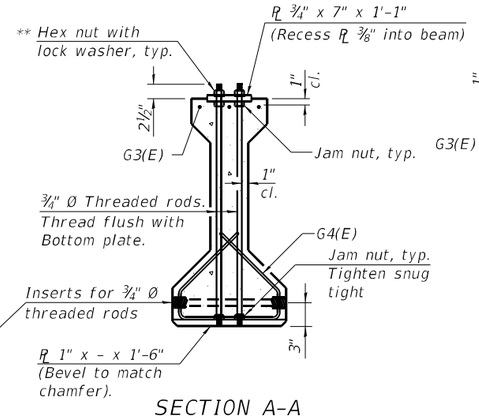
APPROACH FRAMING PLAN
STRUCTURE NO. 068-0040
SHEET 21 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	104
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

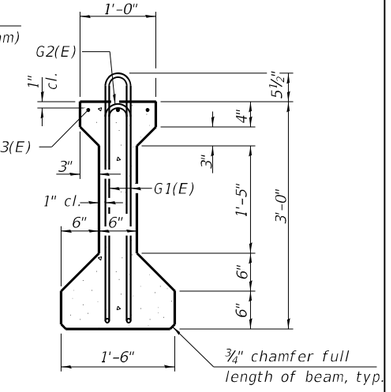


*3 spaces at 3" = 9"

ELEVATION OF BEAM
(Showing reinforcement & dimensions)



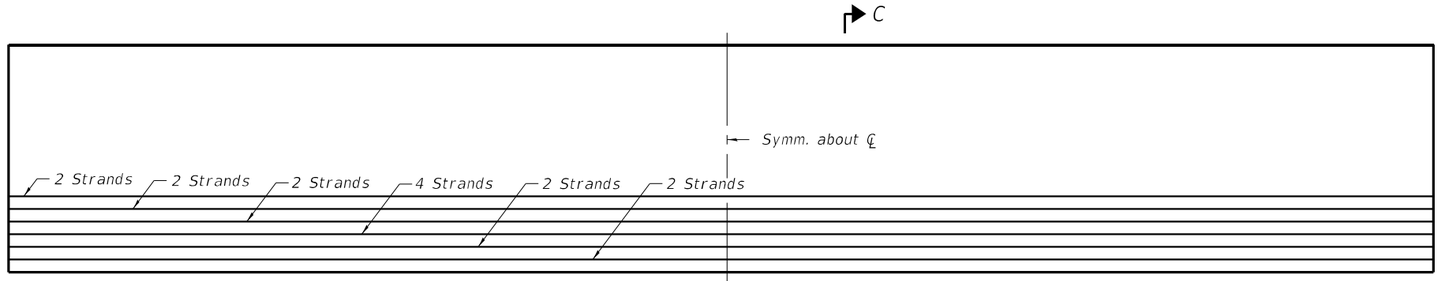
SECTION A-A
** Only tighten sufficiently to compress lock washers



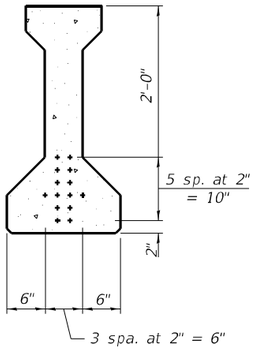
SECTION B-B

BAR LIST
ONE BEAM ONLY
(For information only)

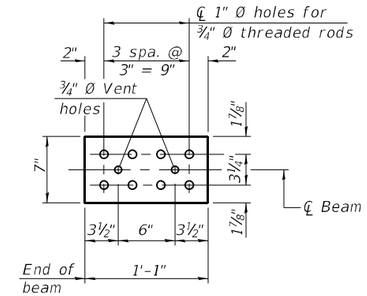
Bar	No.	Size	Length	Shape
G1(E)	44	#4	7'-7"	
G2(E)	8	#4	5'-8"	
G3(E)	3	#5	27'-1"	
G4(E)	38	#3	4'-1"	



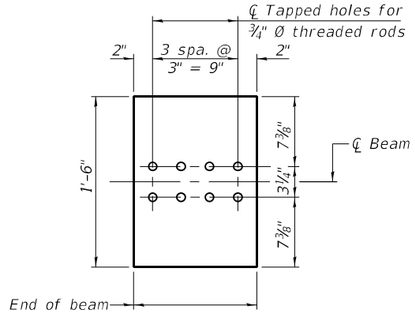
ELEVATION OF BEAM
(Showing prestressing steel)



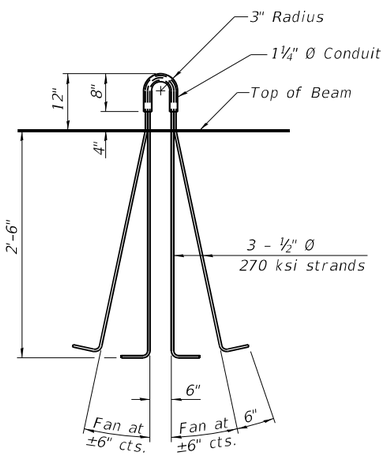
SECTION C-C
(14 -½" Ø 270 ksi strands)



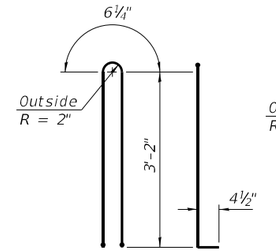
TOP PLATE



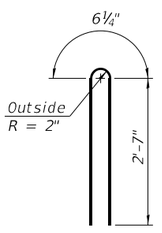
BOTTOM PLATE
See bearing details for pintle hole locations when required.



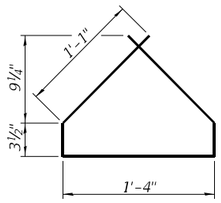
LIFTING LOOP DETAIL



BAR G1(E)



BAR G2(E)



BAR G4(E)

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 6,000 psi and a release concrete compressive strength, f'ci, of 5,000 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	164.3

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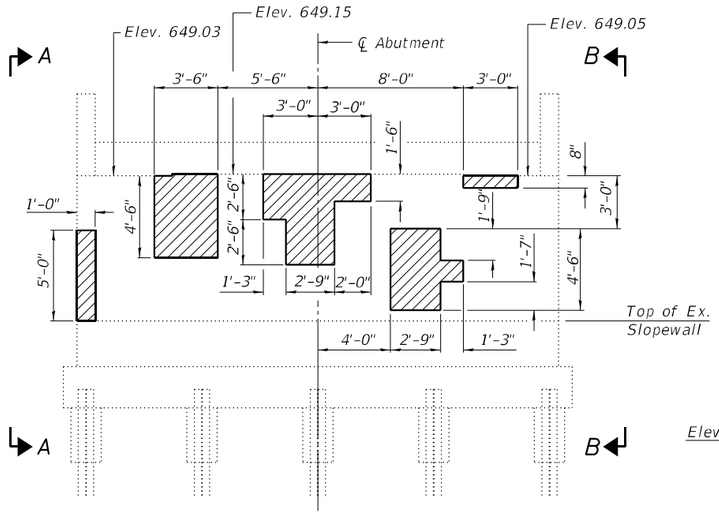
DEPARTMENT OF TRANSPORTATION

APPROACH BEAMS
STRUCTURE NO. 068-0040
SHEET 22 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	105
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	

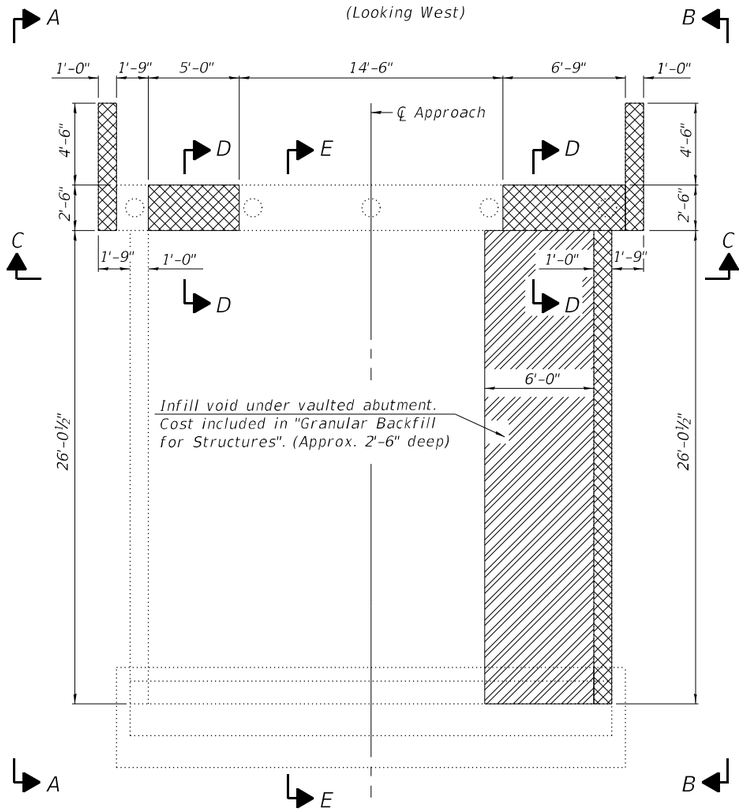
LEGEND

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Concrete Removal
- Infill void under vaulted abutment. Cost included in "Granular Backfill for Structures". (Approx. 2'-6" deep)

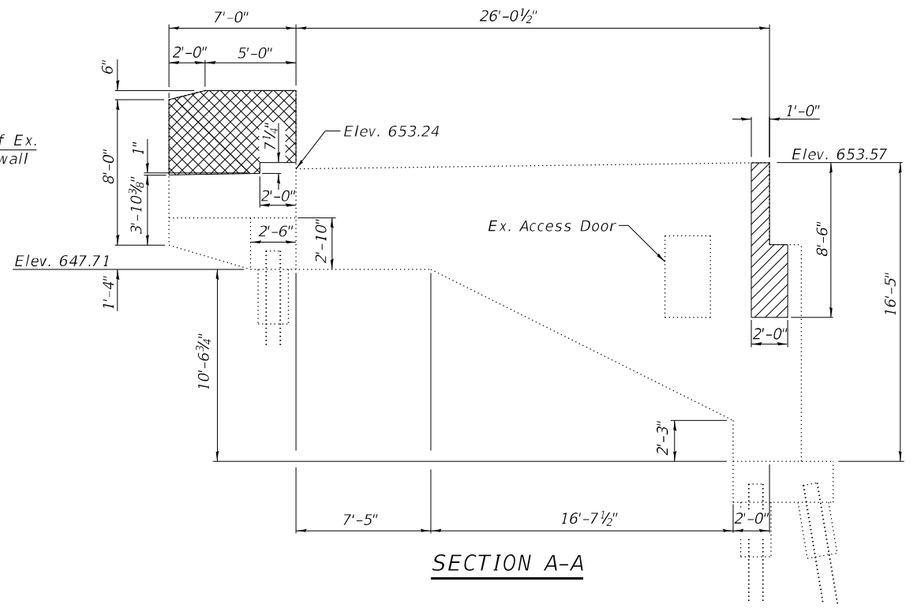


WEST ABUTMENT

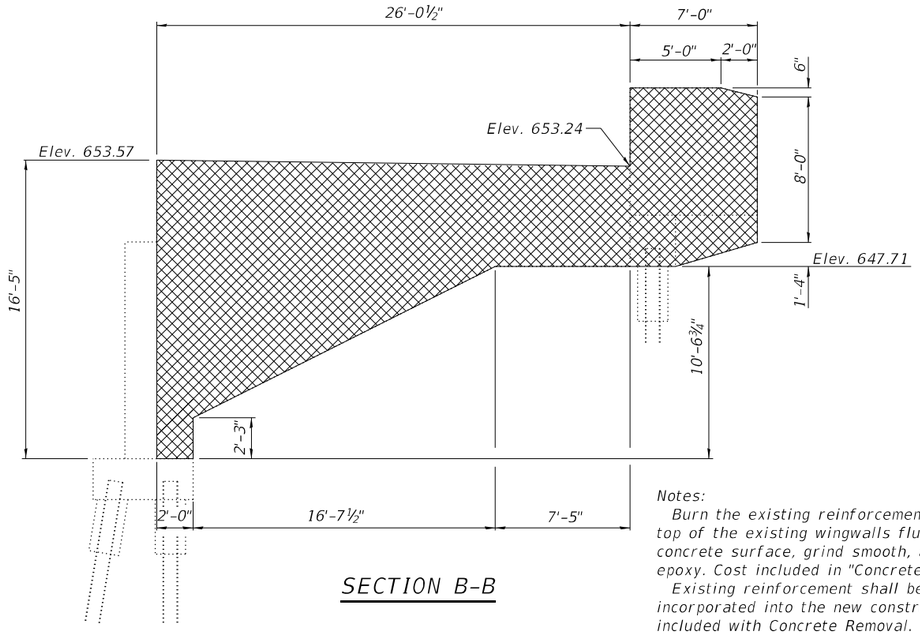
(Looking West)



WEST APPROACH PLAN



SECTION A-A

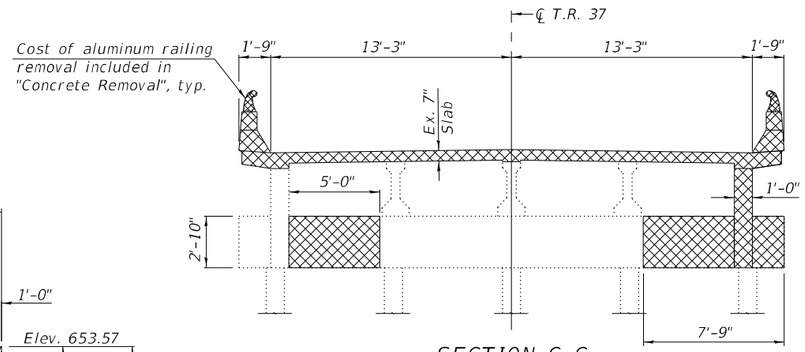


SECTION B-B

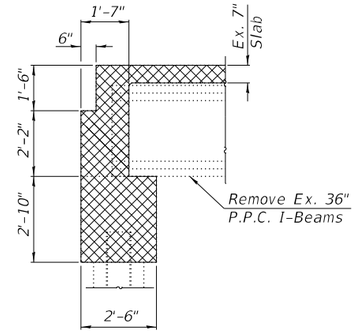
Notes:

Burn the existing reinforcement bars at the top of the existing wingwalls flush with the concrete surface, grind smooth, and seal with epoxy. Cost included in "Concrete Removal".

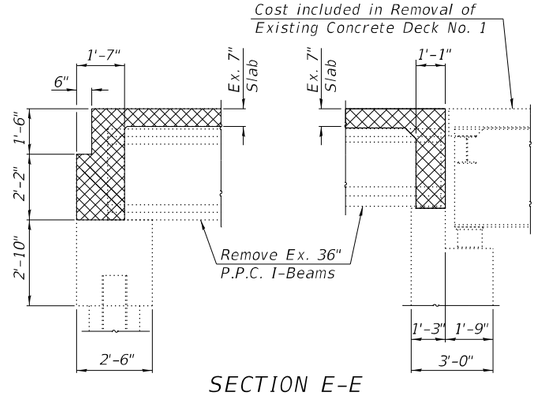
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



SECTION C-C



SECTION D-D



SECTION E-E

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	47.8
Removal of Existing Concrete I-Beam	Each	3
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	69
Granular Backfill for Structures	Cu. Yd.	20

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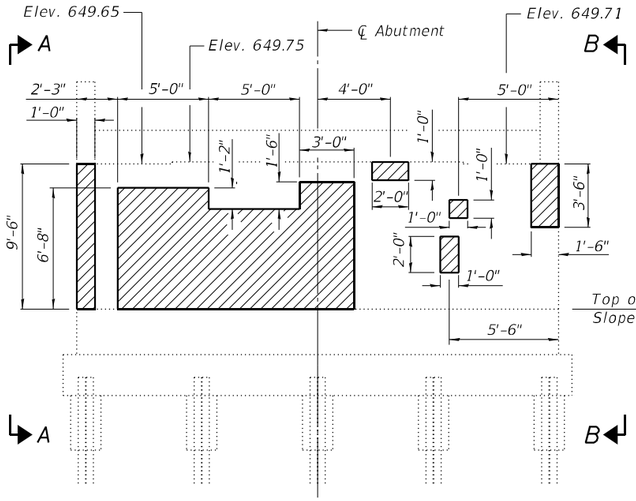
WEST ABUTMENT DEMO PLAN AND DETAILS
STRUCTURE NO. 068-0040

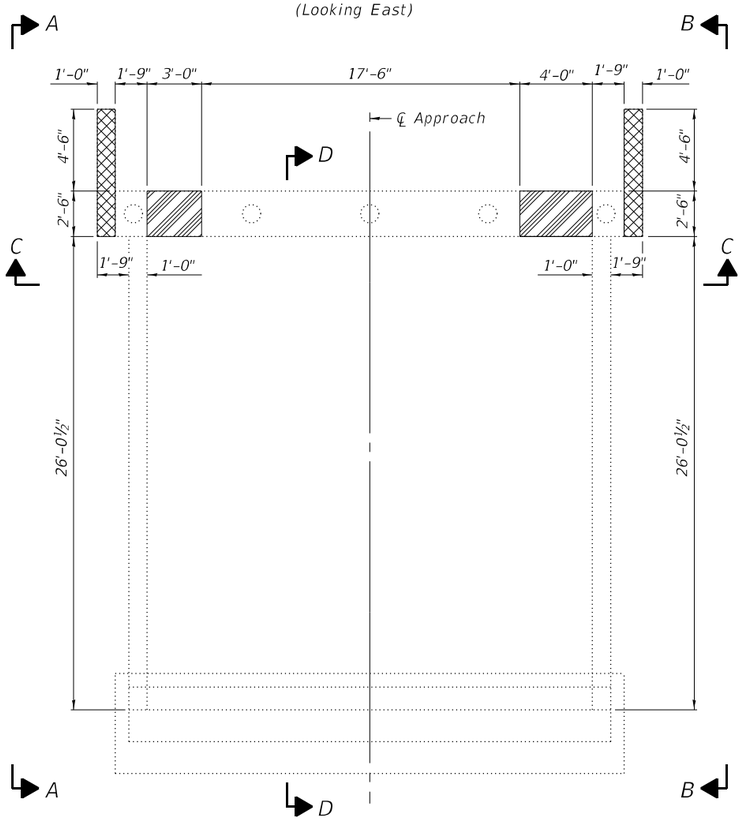
SHEET 23 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	106
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			



EAST ABUTMENT

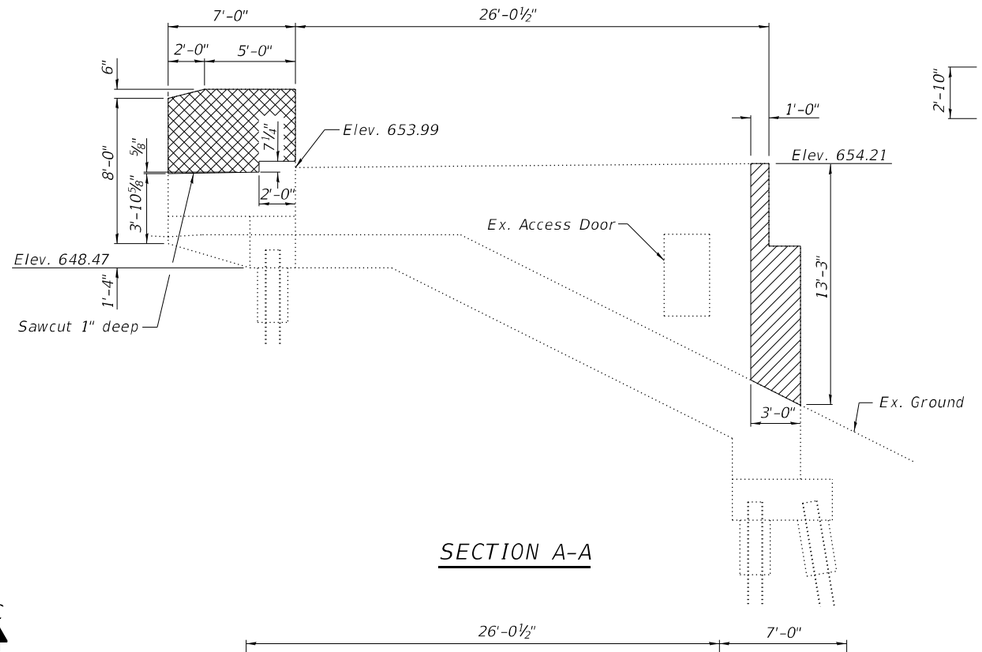
(Looking East)



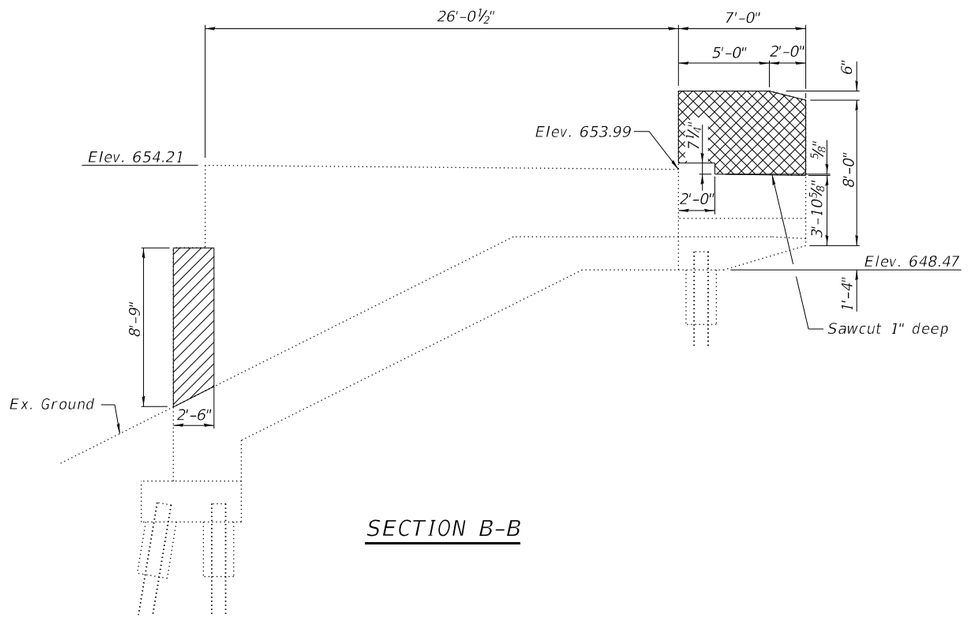
EAST APPROACH PLAN

LEGEND

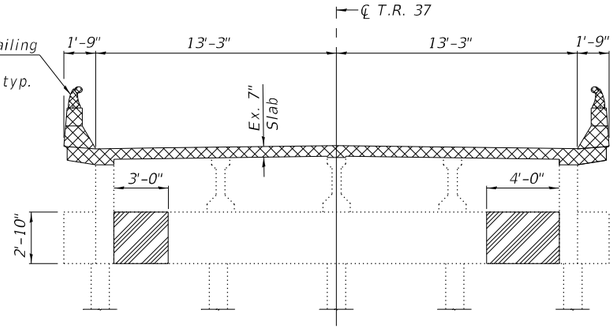
- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Concrete Removal
- Structural Repair of Concrete (Depth Greater Than 5 Inches)



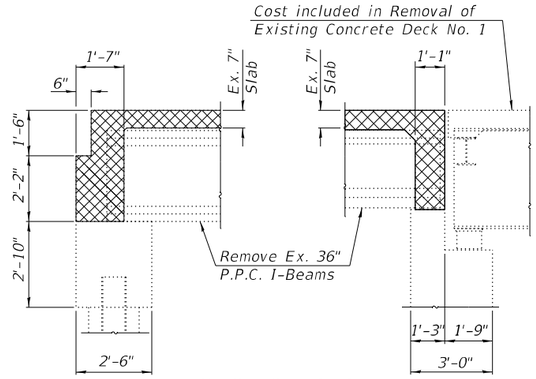
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

Notes:

Burn the existing reinforcement bars at the top of the existing wingwalls flush with the concrete surface, grind smooth, and seal with epoxy. Cost included in "Concrete Removal".

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	34.5
Removal of Existing Concrete I-Beam	Each	3
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	154
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	20

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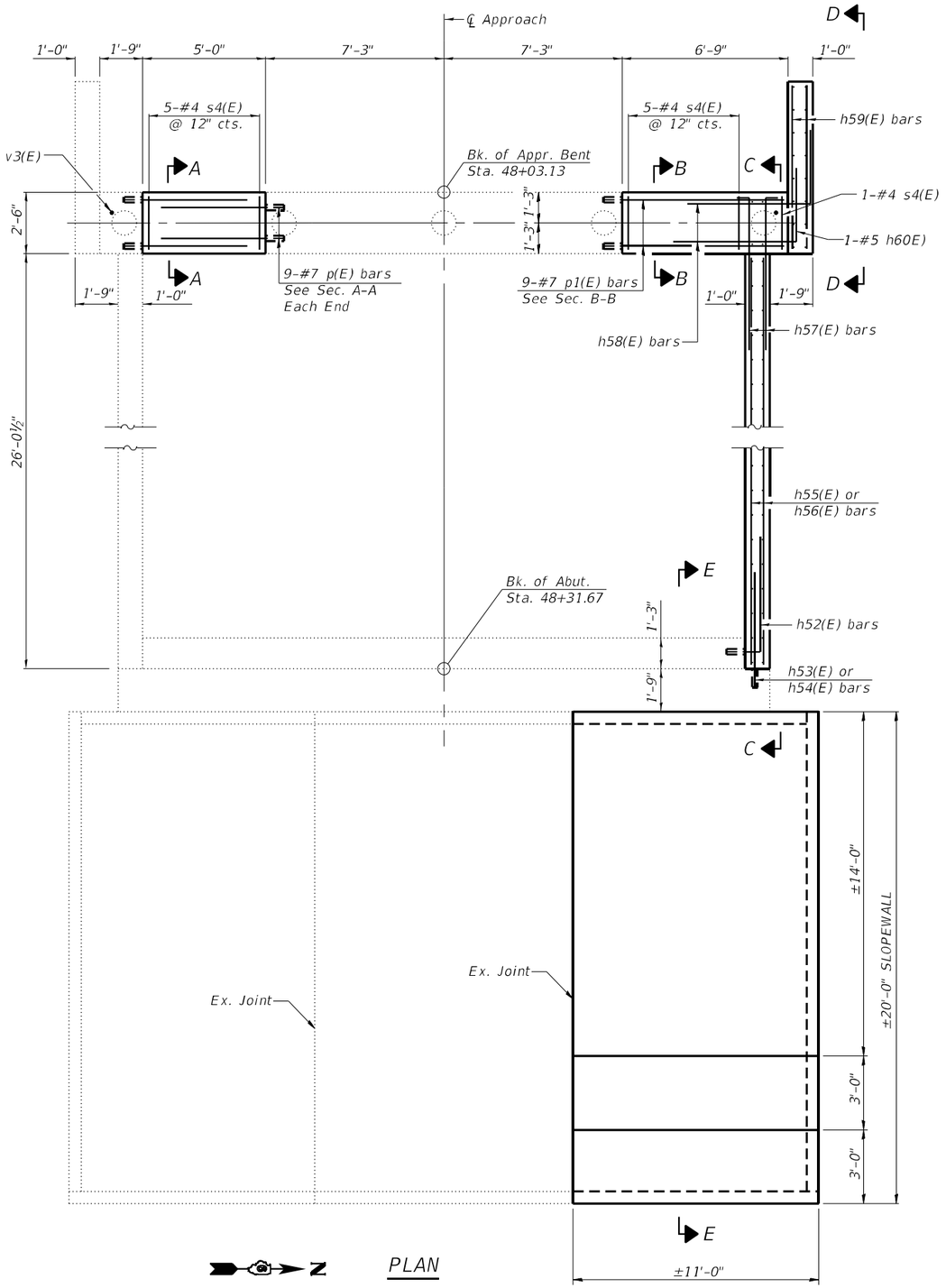
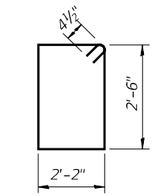
EAST ABUTMENT DEMO PLAN AND DETAILS
STRUCTURE NO. 068-0040
SHEET 24 OF 28 SHEETS

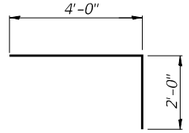
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	107
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



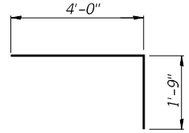
Notes:
For Section C-C and D-D see sheet 26 of 28.



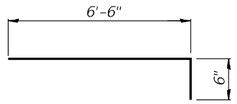
BAR s4(E)



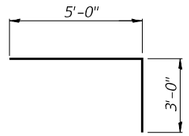
BAR h51(E)



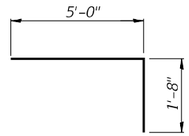
BAR h52(E)



BAR h57(E)



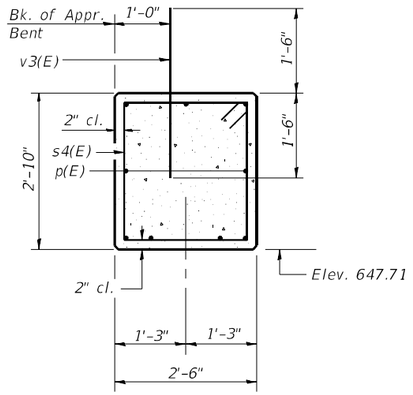
BAR h58(E)



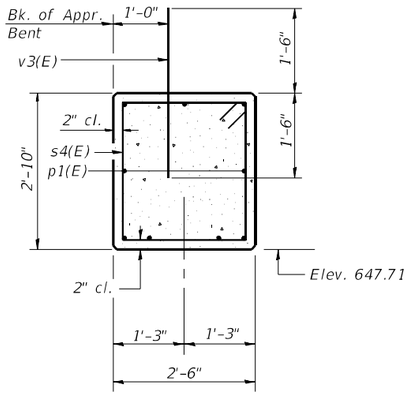
BAR h60(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h50(E)	36	#5	5'-0"	
h51(E)	3	#5	6'-0"	
h52(E)	4	#5	5'-9"	
h53(E)	8	#5	4'-9"	
h54(E)	3	#5	2'-7"	
h55(E)	8	#5	19'-6"	
h56(E)	12	#5	25'-8"	
h57(E)	12	#5	7'-0"	
h58(E)	10	#5	8'-0"	
h59(E)	10	#5	6'-8"	
h60(E)	1	#5	6'-8"	
h61(E)	2	#6	20'-9"	
p(E)	18	#7	5'-0"	
p1(E)	9	#7	7'-4"	
s4(E)	11	#4	10'-1"	
v50(E)	4	#5	16'-7"	
v51(E)	18	#5	20'-3"	
v52(E)	20	#5	5'-8"	
v53(E)	4	#5	6'-2"	
v54(E)	10	#5	5'-6"	
Reinforcement Bars, Epoxy Coated			Pound	2,050
Concrete Structure			Cu. Yd.	13.5
Slopewall Repair			Sq. Yd.	31
Controlled Low Strength Material			Cu. Yd.	20



SECTION A-A



SECTION B-B

Epoxy grout h50(E), h52(E), h53(E), h54(E), p(E), p1(E) and v3(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications

For the layout of reinforcement bar v3(E), see Sheets 10-11 of 28.

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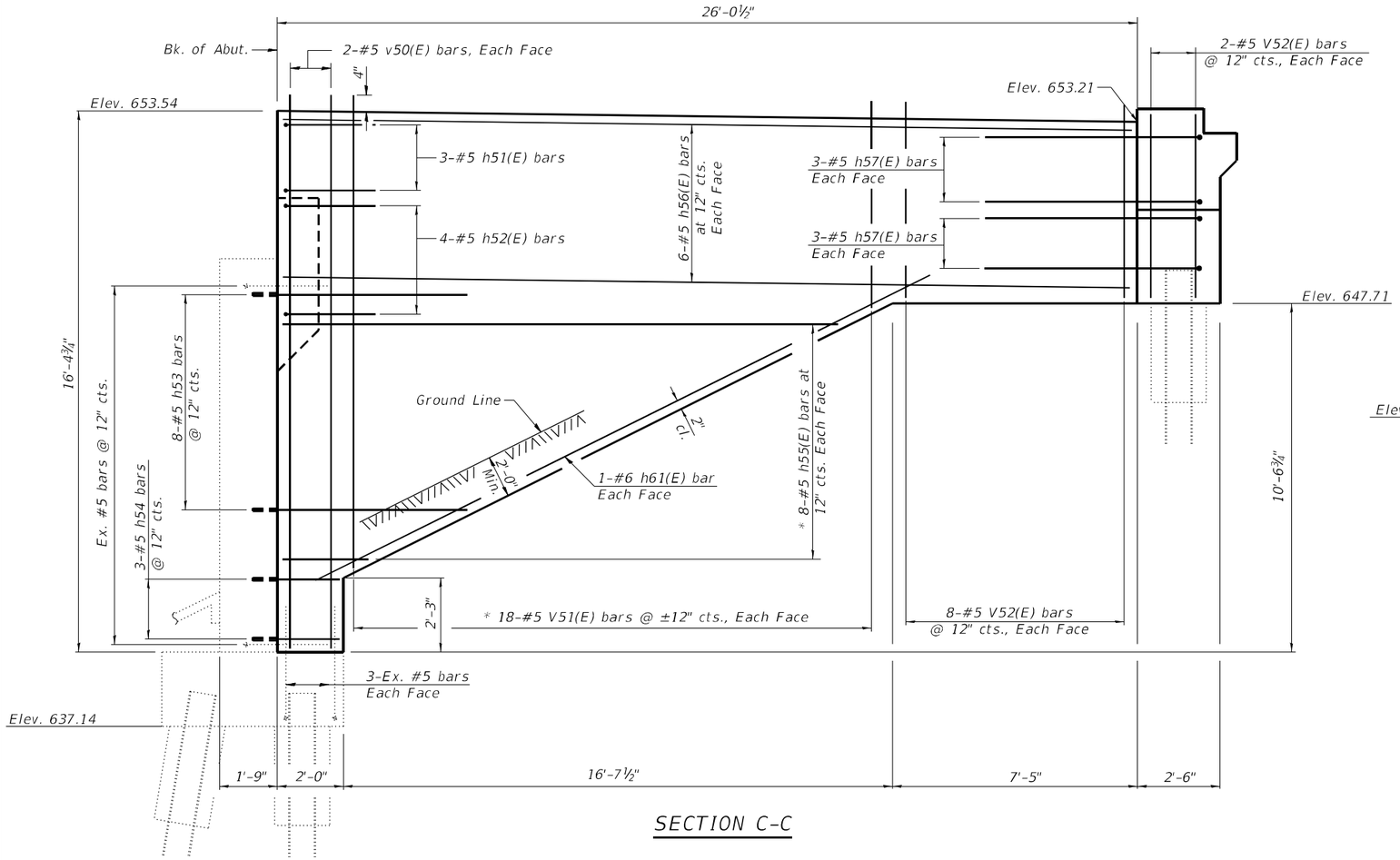
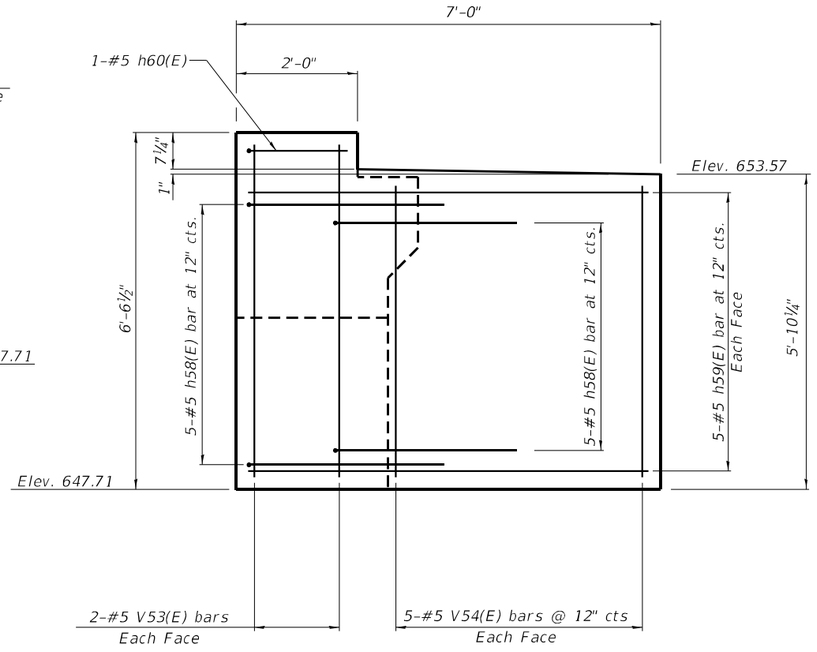
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT REPAIR DETAILS
STRUCTURE NO. 068-0040
SHEET 25 OF 28 SHEETS

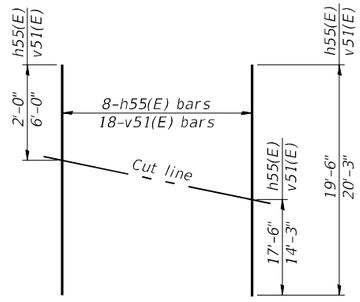
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	108
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



SECTION C-C

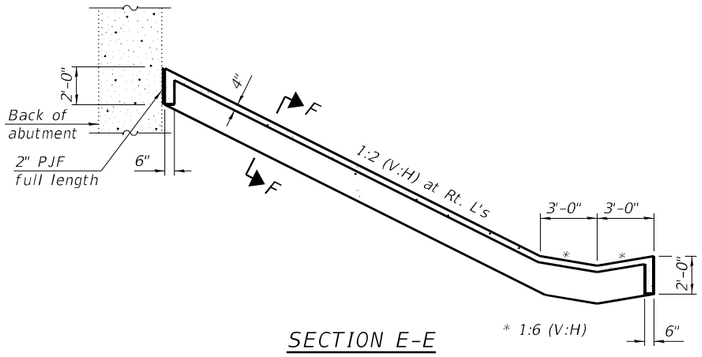


SECTION D-D



FIELD CUTTING DIAGRAM

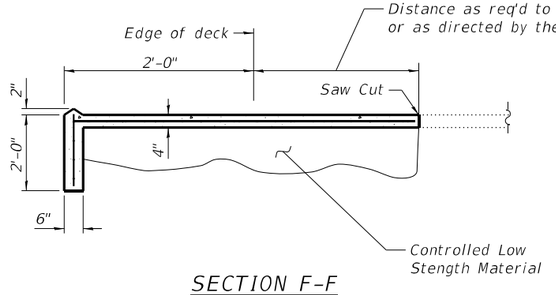
* Order h55(E) and v51(E) bars full length. Cut to fit and use the remainder of bars in opposite face.



SECTION E-E

SECTION THRU CONCRETE SLOPEWALL REPAIR

CONCRETE SLOPE WALL SHALL MATCH
EX. CONCRETE SLOPEWALL AT EX. JOINT



SECTION F-F

Notes:
For details of reinforcement and Bill of Material, see sheet 25 of 28.
Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

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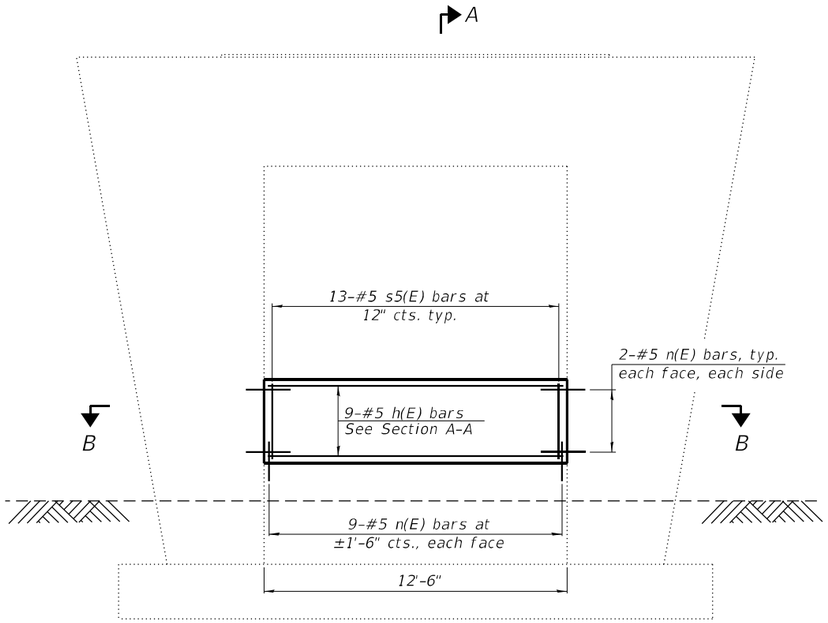
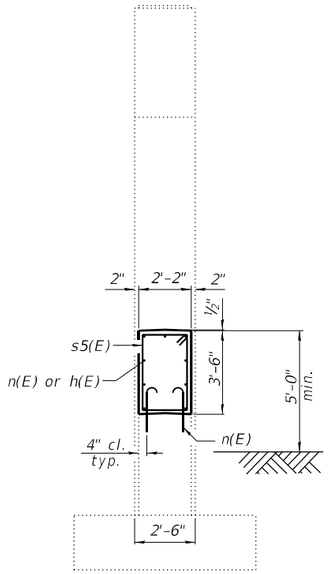
WEST ABUTMENT REPAIR DETAILS
STRUCTURE NO. 068-0040
SHEET 26 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	109
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

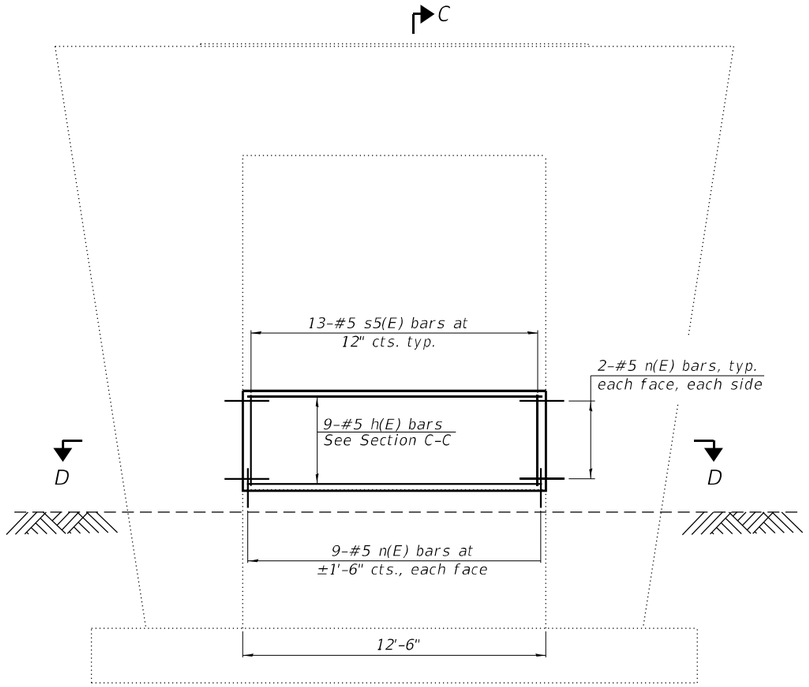


PIER 1 ELEVATION

(Looking East)

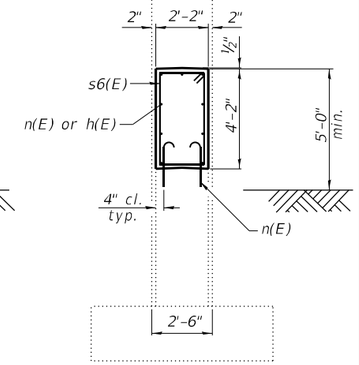


SECTION A-A

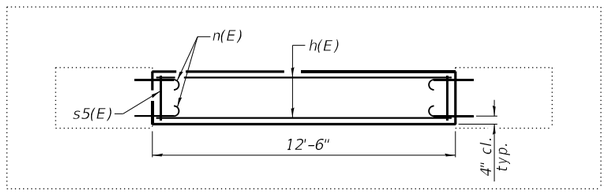


PIER 2 ELEVATION

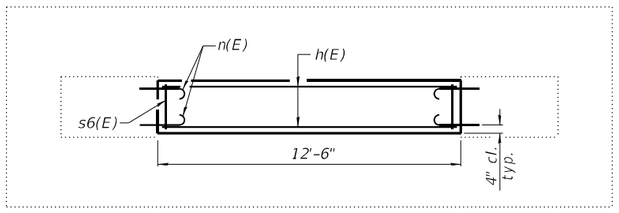
(Looking East)



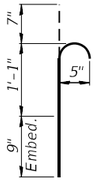
SECTION C-C



SECTION B-B

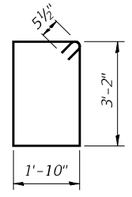


SECTION D-D

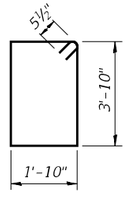


BAR n(E)

Epoxy grout n(E) bars in 9" min. deep holes according to Article 584 of the Standard Specifications
Cost included with Reinforcement Bars, Epoxy Coated



BAR s5(E)



BAR s6(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	18	#5	12'-2"	
n(E)	34	#5	2'-5"	
s5(E)	13	#5	10'-11"	
s6(E)	13	#5	12'-3"	
Reinforcement Bars, Epoxy Coated			Pound	630
Concrete Structure			Cu. Yd.	7.7

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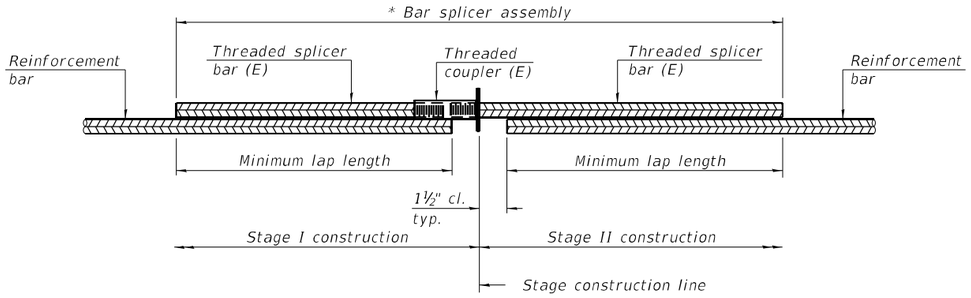
PIER REPAIR DETAILS
STRUCTURE NO. 068-0040
SHEET 27 OF 28 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	110
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



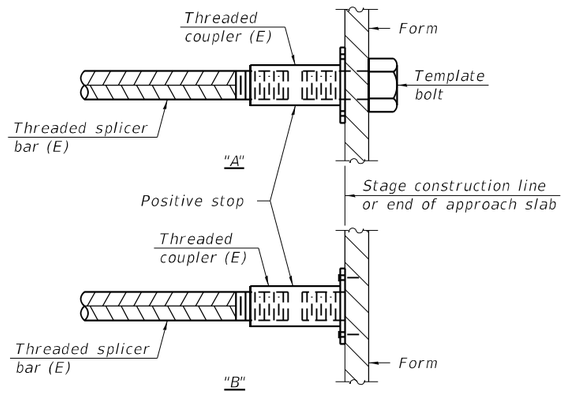
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

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

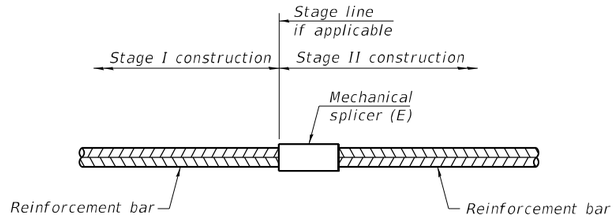
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
West Bent	#5	28	3'-6"
East Bent	#5	28	3'-6"



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

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 1-1-2020

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Engineers • Architects • Surveyors
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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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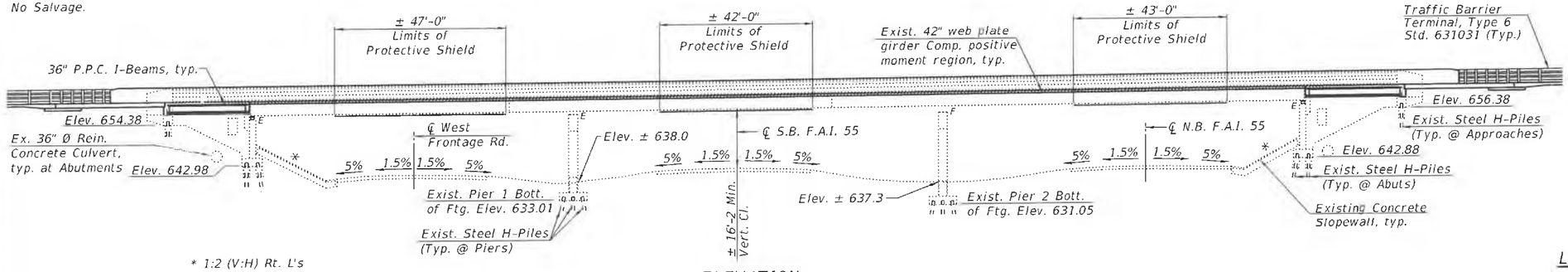
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 068-0040
SHEET 28 OF 28 SHEETS

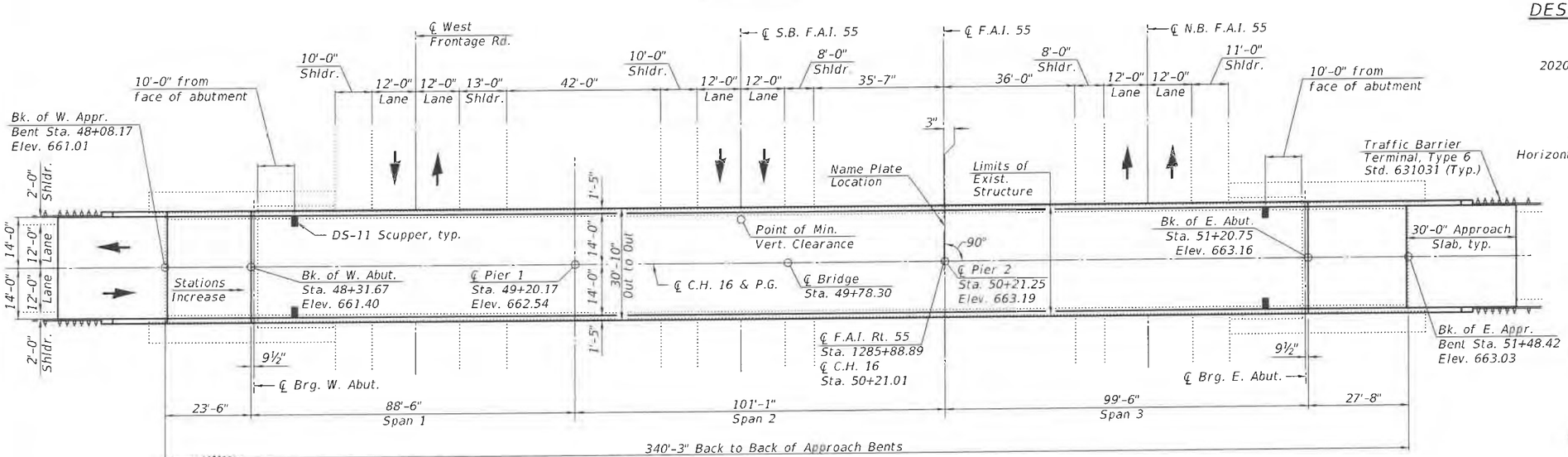
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	111
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Chiseled "□" in top center opening of Median Pier (Pier 2) of existing S.N. 068-0041, Station 1285+89, 0'-0" offset, NAVD 88 Elev. 639.01

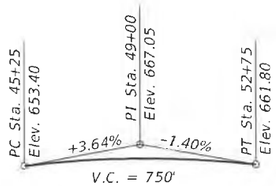
Existing S.N. 068-0041: The existing structure was originally built in 1972 as FA-Project I-55-2(41)66, Section 68-4HB as a three span 42" steel web plate girder bridge with reinforced concrete deck. A microsilica overlay was added and joint repairs were completed in 2003 as FAI-55, Section 68-4 RS and deck sealing was completed in 2014 and 2019 and the superstructure was repainted in 2019. The existing structure measures 340'-3" back-to-back of approach bents with a 30'-0" out-to-out deck width. The substructure consists of vaulted concrete abutments supported by steel piles and two column trapezoidal piers supported by steel piles. The existing precast prestressed concrete approach beams and reinforced concrete deck will be removed and replaced.
The roadway will be closed during construction.
Traffic to be maintained utilizing detours.
No Salvage.



ELEVATION



PLAN



PROFILE GRADE
(℄ C.H. 16)

LOCATION SKETCH

INDEX OF SHEETS

LOADING HS20-44 (New Const.)

No allowance for future wearing surface.

DESIGN SPECIFICATIONS (New Const.)

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

2020 AASHTO LRFD Bridge Design Specifications (P.P.C I-Beams and Concrete Deck)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.059g
Site Coefficient (S) = 1.2

DESIGN STRESSES

FIELD UNITS (New Construction)

f'_c = 4,000 psi (Superstructure)
f'_c = 3,500 psi (Substructure)
f_y = 50,000 psi (Structural Steel)
f_y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS (New Construction)

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi (½" ϕ Low Relaxation Strands)
f_{si} = 201,960 psi (½" ϕ Low Relaxation Strands)

FIELD UNITS (Exist. Construction)

f'_c = 3,000 psi (Superstructure)
f'_c = 3,500 psi (Curb, Parapet, Substructure)
f_y = 36,000 psi (Structural Steel)
f_y = 40,000 psi (Reinforcement)

Aaron M. Schafer
081-007926
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
10/17/2022
Aaron M. Schafer Date
Licensed Structural Engineer
State of Illinois No. 081-007926
License Expires 11/30/2022

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 16
OVER F.A.I. ROUTE 55 (I-55)
SECTION (68-4RS1-BY, 68-5HB)D, 68-3RS5
MONTGOMERY COUNTY
STATION 49+78.30
STRUCTURE NO. 068-0041

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 068-0041
SHEET 1 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	112
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

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SCOPE OF WORK

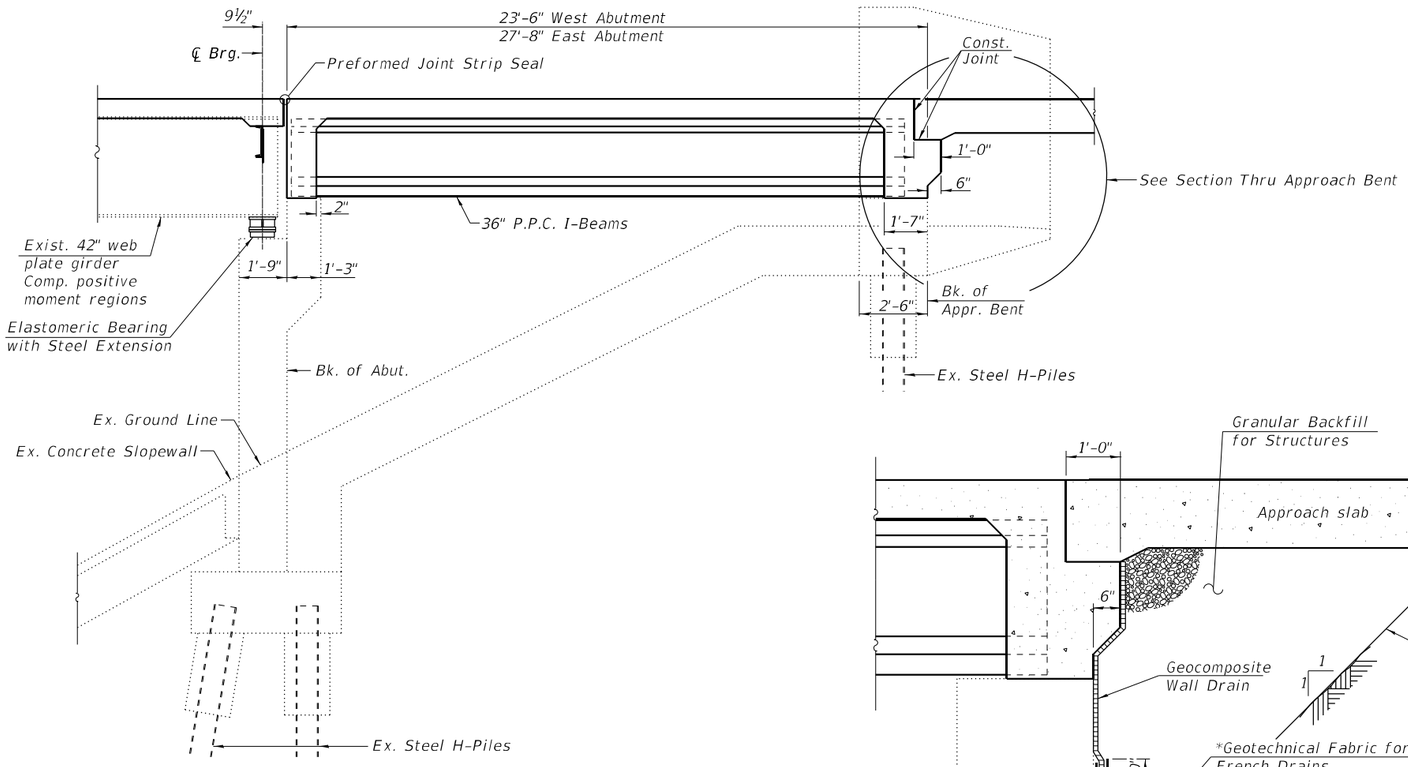
1. Set-up traffic control and close roadway.
2. Remove concrete and steel railings, deck, precast prestressed approach beams, and upper portion of wingwalls.
3. Remove existing rocker expansion bearings at the abutments and replace with elastomeric bearings.
4. Perform concrete repairs on substructure units.
5. Replace damaged shear connectors, as needed, replace steel end diaphragms.
6. Erect new prestressed I-beams at vaulted abutments.
7. Construct new 8" concrete deck, parapets, and approach slabs.
8. Regrade ditches in front of abutments.

STATION 49+78.30
RE-BUILT 202_ BY
STATE OF ILLINOIS
F.A.I. RT. 55
SEC. (68-4RS1-BY,68-5HB)D,68-3RS5
LOADING HS-20
STRUCTURE NO. 068-0041

NAME PLATE

See Std. 515001

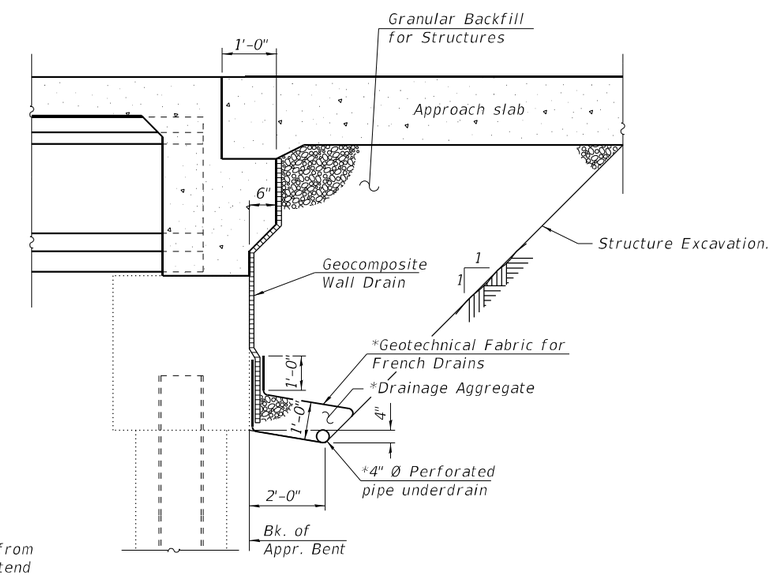
New Name Plate shall be located next to existing Name Plate. Cost included with Name Plates.



SECTION THRU UNFILLED VAULTED ABUTMENT

*Included in the cost of Pipe Underdrains for Structures.

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).



SECTION THRU APPROACH BENT

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	64.6	4.6	69.2
Removal of Existing Concrete Deck No. 2	Each	1		1
Protective Shield	Sq. Yd.	440		440
Structure Excavation	Cu. Yd.		65	65
Concrete Structures	Cu. Yd.		24.8	24.8
Concrete Superstructure	Cu. Yd.	406.5		406.5
Bridge Deck Grooving	Sq. Yd.	1,153		1,153
Protective Coat	Sq. Yd.	1,588		1,588
Concrete Superstructure (Approach Slab)	Cu. Yd.	83.6		83.6
Furnishing and Erecting Precast Prestressed Concrete I-beams, 36"	Foot	146.5		146.5
Furnishing and Erecting Structural Steel	Pound	3,230		3,230
Reinforcement Bars, Epoxy Coated	Pound	141,940	610	142,550
Bar Splicers	Each	56		56
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	60		60
Elastomeric Bearing Assembly, Type I	Each	8		8
Anchor Bolts, 3/4"	Each	32		32
Granular Backfill for Structures	Cu. Yd.		65	65
Geocomposite Wall Drain	Sq. Yd.		36	36
Jack and Remove Existing Bearings	Each	8		8
Structural Steel Removal	Pound	2,038		2,038
Removal of Existing Concrete I-Beam	Each	6		6
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.		34	34
Drainage Scuppers, DS-11	Each	4		4
Pipe Underdrains for Structures	Foot		270	270

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts (in painted areas and ASTM A325 Type 3 in unpainted areas). Bolts ¾" Ø, holes $^{13}/_{16}$" Ø, unless otherwise noted.

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

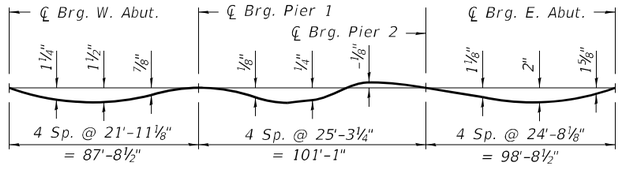
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding ¼ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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

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.

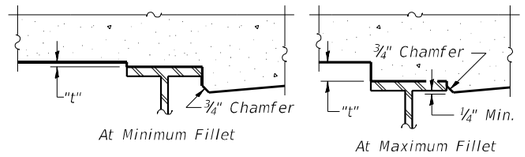
The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.



DEAD LOAD DEFLECTION DIAGRAM

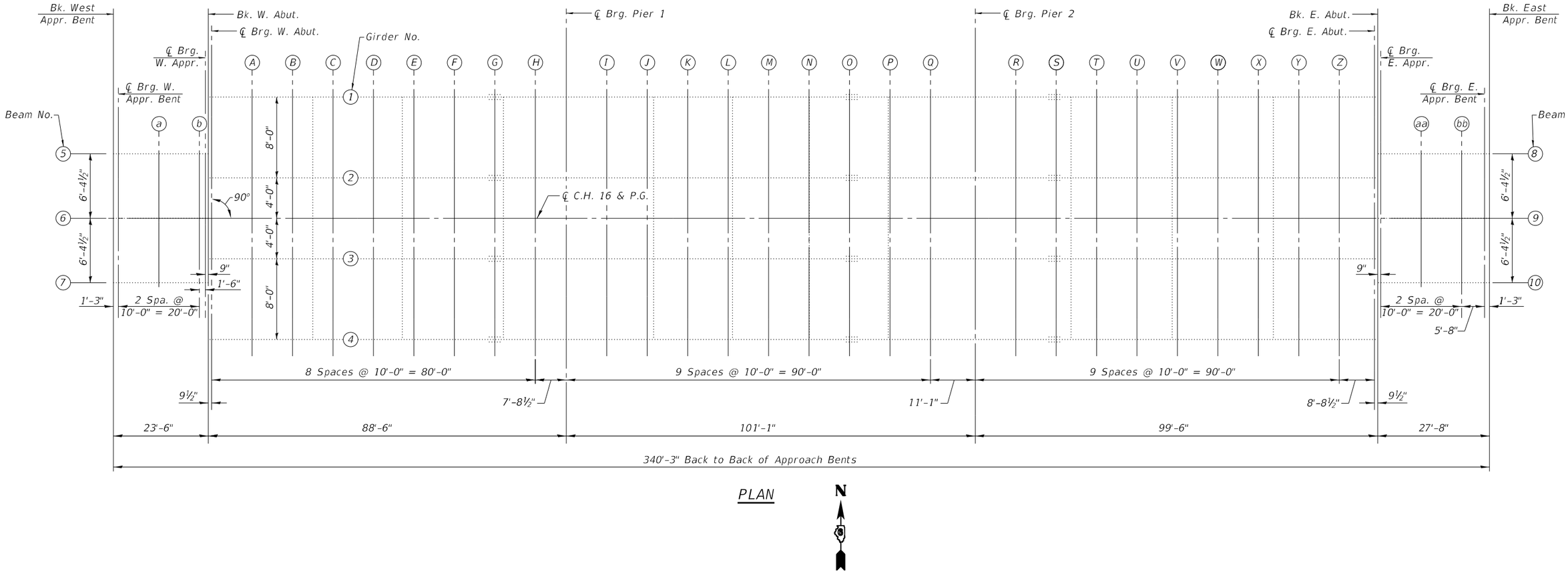
(Includes weight of concrete only.)

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 as shown on Sheet 4 of 26.



To determine "t": After removal of the existing concrete deck, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 4 of 26, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0041
SHEET 3 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	114
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

WEST APPROACH SPAN – BEAMS 5 & 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Appr. Bent	48+08.17	6.38	660.92	660.92
℄ Brg. W. Appr. Bent	48+09.42	6.38	660.94	660.94
a	48+19.42	6.38	661.11	661.11
b	48+29.42	6.38	661.27	661.27
℄ Brg. W. Abut.	48+30.92	6.38	661.30	661.30
Bk. W. Abut.	48+31.67	6.38	661.31	661.31

EAST APPROACH SPAN – BEAMS 8 & 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+20.75	6.38	663.06	663.06
℄ Brg. E. Appr.	51+21.50	6.38	663.06	663.06
aa	51+31.50	6.38	663.02	663.02
bb	51+41.50	6.38	662.97	662.97
℄ Brg. E. Appr. Bent	51+47.17	6.38	662.94	662.94
Bk. E. Appr. Bent	51+48.42	6.38	662.94	662.94

WEST APPROACH SPAN – BEAM 6, ℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Appr. Bent	48+08.17	0.00	661.01	661.01
℄ Brg. W. Appr. Bent	48+09.42	0.00	661.03	661.03
a	48+19.42	0.00	661.20	661.20
b	48+29.42	0.00	661.37	661.37
℄ Brg. W. Abut.	48+30.92	0.00	661.39	661.39
Bk. W. Abut.	48+31.67	0.00	661.40	661.40

EAST APPROACH SPAN – BEAM 9, ℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+20.75	0.00	663.16	663.16
℄ Brg. E. Appr.	51+21.50	0.00	663.16	663.16
aa	51+31.50	0.00	663.12	663.12
bb	51+41.50	0.00	663.07	663.07
℄ Brg. E. Appr. Bent	51+47.17	0.00	663.04	663.04
Bk. E. Appr. Bent	51+48.42	0.00	663.03	663.03

MAIN SPANS – GIRDERS 1 & 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+31.67	12.00	661.22	661.22
℄ Brg. W. Abut.	48+32.46	12.00	661.24	661.24
A	48+42.46	12.00	661.39	661.44
B	48+52.46	12.00	661.54	661.63
C	48+62.46	12.00	661.68	661.80
D	48+72.46	12.00	661.81	661.93
E	48+82.46	12.00	661.94	662.05
F	48+92.46	12.00	662.06	662.14
G	49+02.46	12.00	662.17	662.22
H	49+12.46	12.00	662.28	662.30
℄ Brg. Pier 1	49+20.17	12.00	662.36	662.36
I	49+30.17	12.00	662.45	662.44
J	49+40.17	12.00	662.54	662.54
K	49+50.17	12.00	662.62	662.63
L	49+60.17	12.00	662.70	662.72
M	49+70.17	12.00	662.77	662.79
N	49+80.17	12.00	662.83	662.85
O	49+90.17	12.00	662.88	662.89
P	50+00.17	12.00	662.93	662.92
Q	50+10.17	12.00	662.97	662.96
℄ Brg. Pier 2	50+21.25	12.00	663.01	663.01
R	50+31.25	12.00	663.04	663.07
S	50+41.25	12.00	663.06	663.13
T	50+51.25	12.00	663.07	663.18
U	50+61.25	12.00	663.08	663.23
V	50+71.25	12.00	663.08	663.25
W	50+81.25	12.00	663.07	663.24
X	50+91.25	12.00	663.06	663.21
Y	51+01.25	12.00	663.04	663.15
Z	51+11.25	12.00	663.01	663.07
℄ Brg. E. Abut.	51+19.96	12.00	662.98	662.98
BK. E. Abut.	51+20.75	12.00	662.98	662.98

MAIN SPANS – GIRDERS 2 & 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+31.67	4.00	661.34	661.34
℄ Brg. W. Abut.	48+32.46	4.00	661.36	661.36
A	48+42.46	4.00	661.51	661.56
B	48+52.46	4.00	661.66	661.75
C	48+62.46	4.00	661.80	661.92
D	48+72.46	4.00	661.93	662.05
E	48+82.46	4.00	662.06	662.17
F	48+92.46	4.00	662.18	662.26
G	49+02.46	4.00	662.29	662.34
H	49+12.46	4.00	662.40	662.42
℄ Brg. Pier 1	49+20.17	4.00	662.48	662.48
I	49+30.17	4.00	662.57	662.56
J	49+40.17	4.00	662.66	662.66
K	49+50.17	4.00	662.74	662.75
L	49+60.17	4.00	662.82	662.84
M	49+70.17	4.00	662.89	662.91
N	49+80.17	4.00	662.95	662.97
O	49+90.17	4.00	663.00	663.01
P	50+00.17	4.00	663.05	663.04
Q	50+10.17	4.00	663.09	663.08
℄ Brg. Pier 2	50+21.25	4.00	663.13	663.13
R	50+31.25	4.00	663.16	663.19
S	50+41.25	4.00	663.18	663.25
T	50+51.25	4.00	663.19	663.30
U	50+61.25	4.00	663.20	663.35
V	50+71.25	4.00	663.20	663.37
W	50+81.25	4.00	663.19	663.36
X	50+91.25	4.00	663.18	663.33
Y	51+01.25	4.00	663.16	663.27
Z	51+11.25	4.00	663.13	663.19
℄ Brg. E. Abut.	51+19.96	4.00	663.10	663.10
BK. E. Abut.	51+20.75	4.00	663.10	663.10

MAIN SPANS – ℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+31.67	0.00	661.40	661.40
℄ Brg. W. Abut.	48+32.46	0.00	661.42	661.42
A	48+42.46	0.00	661.57	661.62
B	48+52.46	0.00	661.72	661.81
C	48+62.46	0.00	661.86	661.98
D	48+72.46	0.00	661.99	662.11
E	48+82.46	0.00	662.12	662.23
F	48+92.46	0.00	662.24	662.32
G	49+02.46	0.00	662.35	662.40
H	49+12.46	0.00	662.46	662.48
℄ Brg. Pier 1	49+20.17	0.00	662.54	662.54
I	49+30.17	0.00	662.63	662.62
J	49+40.17	0.00	662.72	662.72
K	49+50.17	0.00	662.80	662.81
L	49+60.17	0.00	662.88	662.90
M	49+70.17	0.00	662.95	662.97
N	49+80.17	0.00	663.01	663.03
O	49+90.17	0.00	663.06	663.07
P	50+00.17	0.00	663.11	663.10
Q	50+10.17	0.00	663.15	663.14
℄ Brg. Pier 2	50+21.25	0.00	663.19	663.19
R	50+31.25	0.00	663.22	663.25
S	50+41.25	0.00	663.24	663.31
T	50+51.25	0.00	663.25	663.36
U	50+61.25	0.00	663.26	663.41
V	50+71.25	0.00	663.26	663.43
W	50+81.25	0.00	663.25	663.42
X	50+91.25	0.00	663.24	663.39
Y	51+01.25	0.00	663.22	663.33
Z	51+11.25	0.00	663.19	663.25
℄ Brg. E. Abut.	51+19.96	0.00	663.16	663.16
BK. E. Abut.	51+20.75	0.00	663.16	663.16

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0041
SHEET 4 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	115
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

NORTH EDGE OF SHOULDER

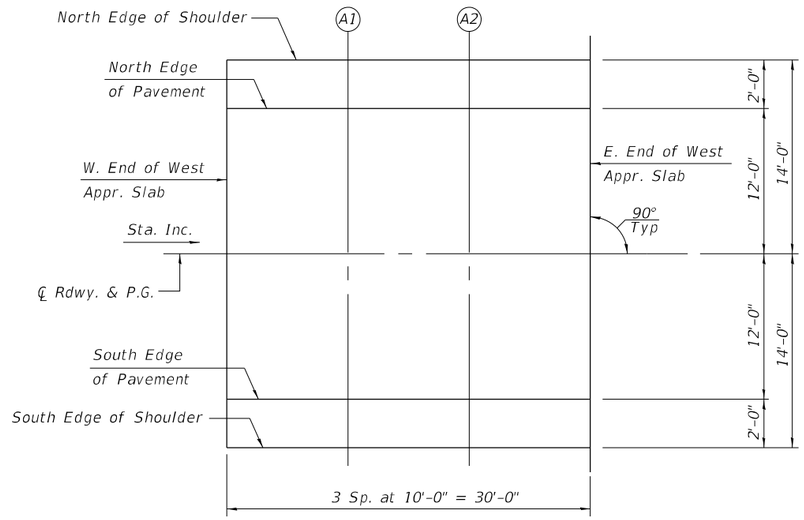
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	47+78.67	-14.00	660.26
A1	47+88.67	-14.00	660.45
A2	47+98.67	-14.00	660.64
E. End West Appr. Slab	48+08.67	-14.00	660.81

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	47+78.67	-12.00	660.29
A1	47+88.67	-12.00	660.48
A2	47+98.67	-12.00	660.67
E. End West Appr. Slab	48+08.67	-12.00	660.84

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	47+78.67	0.00	660.47
A1	47+88.67	0.00	660.66
A2	47+98.67	0.00	660.85
E. End West Appr. Slab	48+08.67	0.00	661.02



PLAN

Note:
Offsets to the left of ℄ C.H. 16 are negative.
Offsets to the right of ℄ C.H. 16 are positive.

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	47+78.67	12.00	660.29
A1	47+88.67	12.00	660.48
A2	47+98.67	12.00	660.67
E. End West Appr. Slab	48+08.67	12.00	660.84

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	47+78.67	14.00	660.26
A1	47+88.67	14.00	660.45
A2	47+98.67	14.00	660.64
E. End West Appr. Slab	48+08.67	14.00	660.81

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 068-0041
SHEET 5 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	116
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

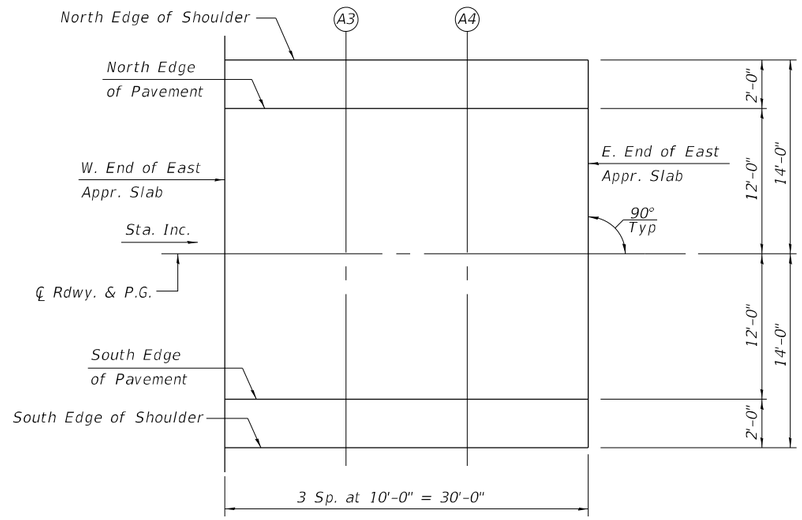
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	51+47.92	-14.00	662.83
A3	51+57.92	-14.00	662.77
A4	51+67.92	-14.00	662.70
E. End East Appr. Slab	51+77.92	-14.00	662.63

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	51+47.92	-12.00	662.86
A3	51+57.92	-12.00	662.80
A4	51+67.92	-12.00	662.73
E. End East Appr. Slab	51+77.92	-12.00	662.66

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	51+47.92	0.00	663.04
A3	51+57.92	0.00	662.98
A4	51+67.92	0.00	662.91
E. End East Appr. Slab	51+77.92	0.00	662.84



PLAN

N

Note:
Offsets to the left of ℄ C.H. 16 are negative.
Offsets to the right of ℄ C.H. 16 are positive.

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	51+47.92	12.00	662.86
A3	51+57.92	12.00	662.80
A4	51+67.92	12.00	662.73
E. End East Appr. Slab	51+77.92	12.00	662.66

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	51+47.92	14.00	662.83
A3	51+57.92	14.00	662.77
A4	51+67.92	14.00	662.70
E. End East Appr. Slab	51+77.92	14.00	662.63

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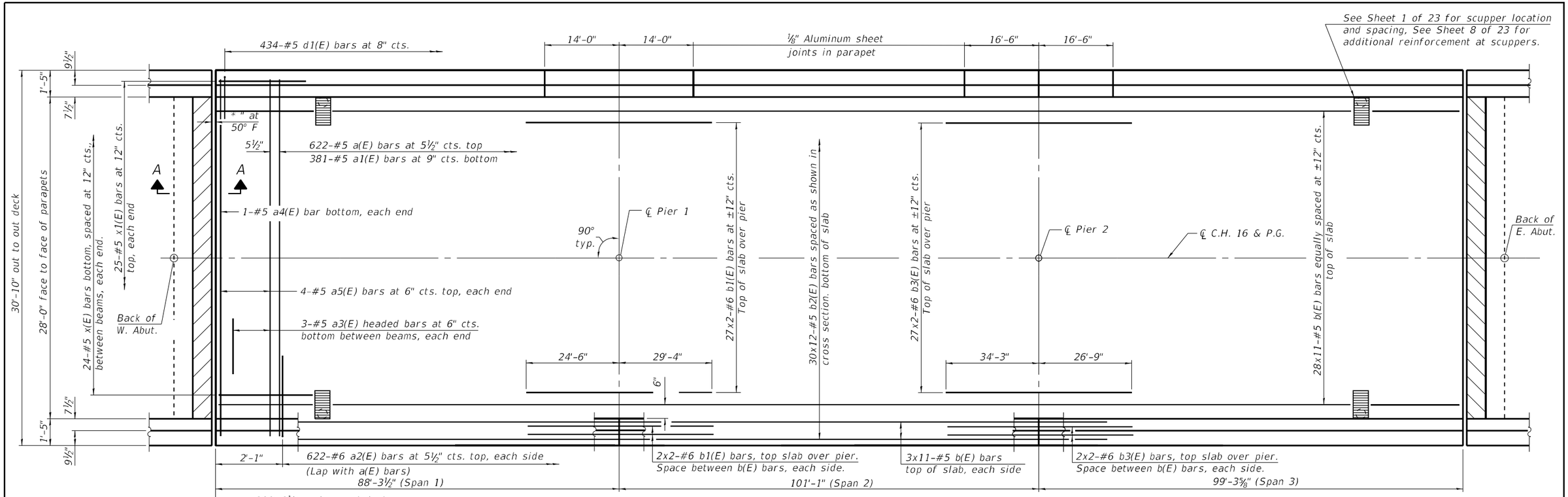
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 068-0041
SHEET 6 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	117
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			



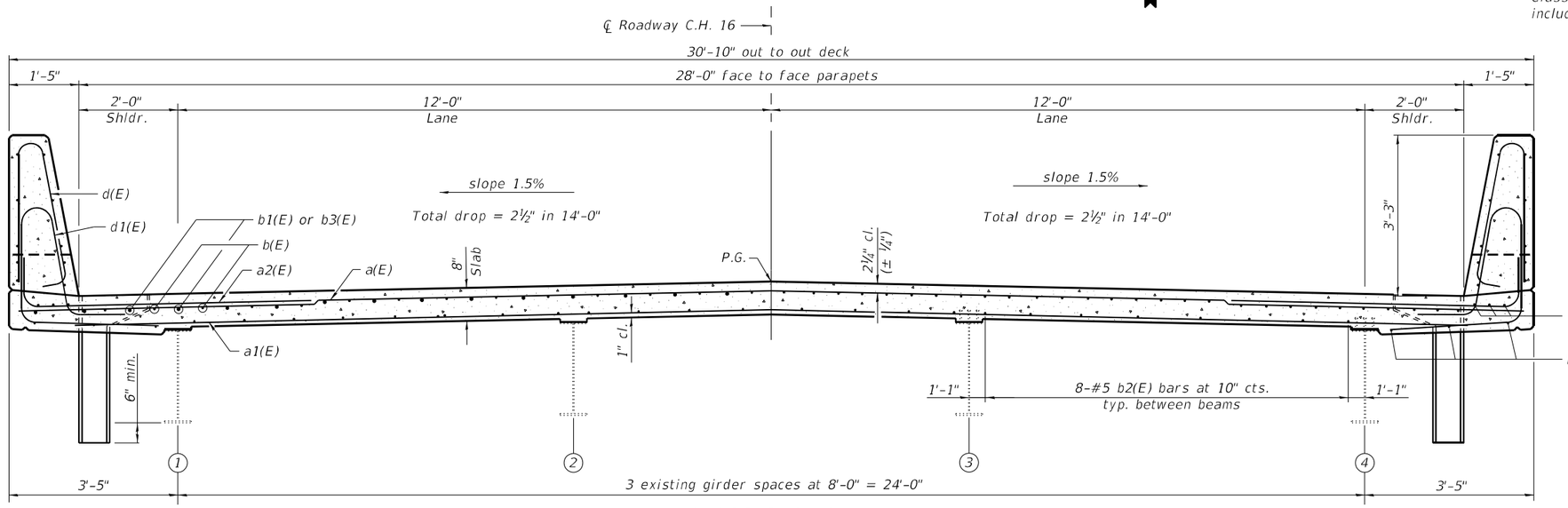
MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 5'-0"

PLAN

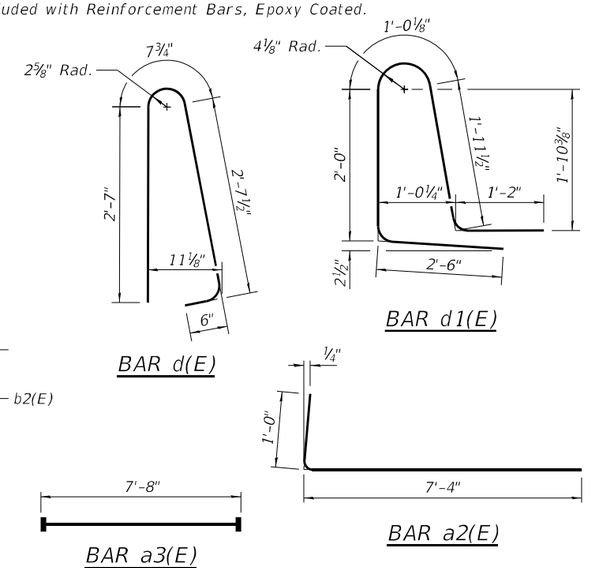
* Dimension showing concrete opening. For joint opening see sheet 14 of 26.

Notes:
See sheet 8 of 26 for superstructure details and Bill of Material.
Bars indicated thus 30x12-#5 etc. indicates 30 lines of bars with 12 lengths per line.
See sheet 8 of 26 for Section A-A.
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.



CROSS SECTION

(Looking East)



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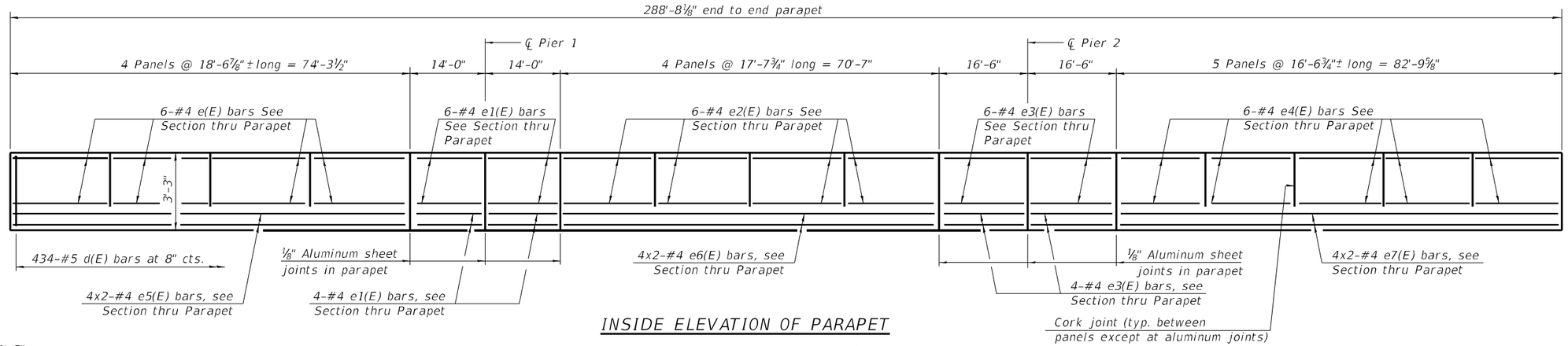
SUPERSTRUCTURE
STRUCTURE NO. 068-0041
SHEET 7 OF 26 SHEETS

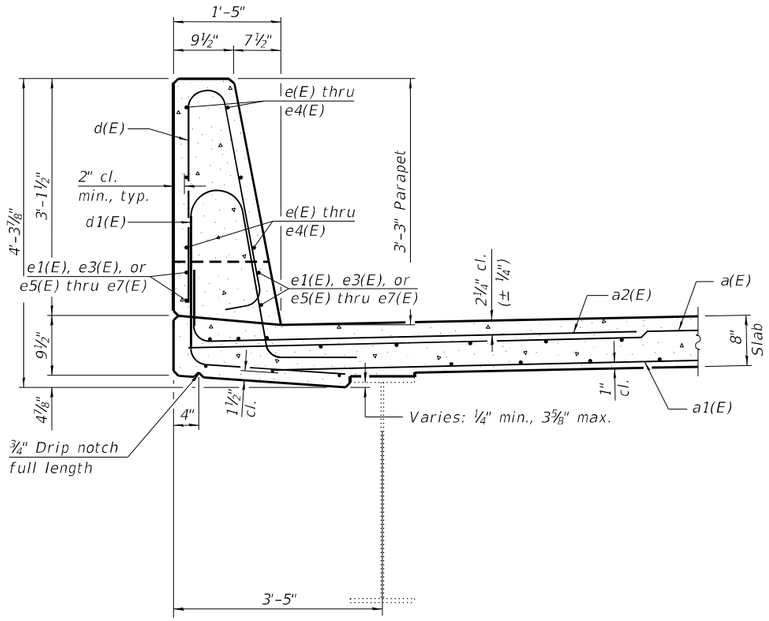
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	118
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

MINIMUM BAR LAP

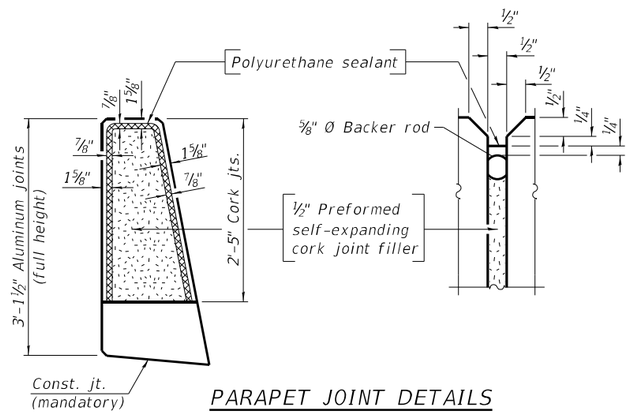
#4 bar = 2'-5"



INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET

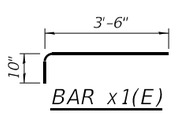


PARAPET JOINT DETAILS

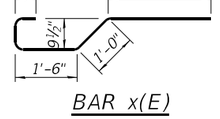
Notes:

The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

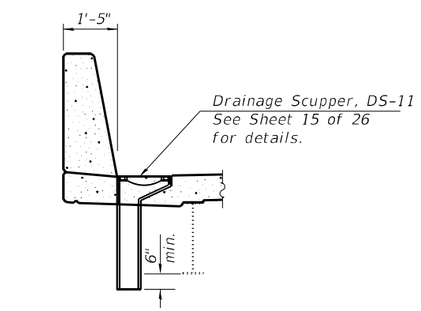
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.



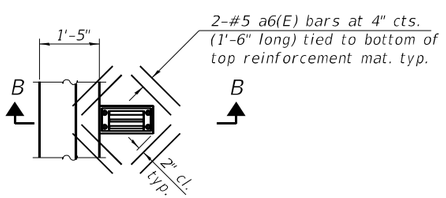
BAR x1(E)



BAR x(E)



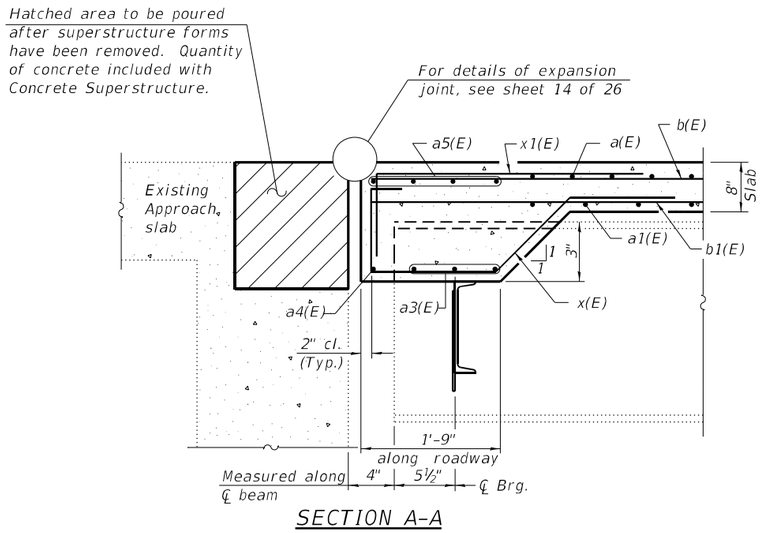
SECTION B-B



PLAN AT DRAINAGE SCUPPER

Note:

Cut longitudinal reinforcement to clear drainage scuppers.



SECTION A-A

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	622	#5	30'-6"	
a1(E)	381	#5	28'-0"	
a2(E)	1244	#6	8'-4"	
a3(E)	18	#5	7'-8"	
a4(E)	2	#5	24'-8"	
a5(E)	8	#5	30'-6"	
a6(E)	32	#5	1'-6"	
b(E)	374	#5	29'-6"	
b1(E)	62	#6	29'-5"	
b2(E)	360	#5	27'-4"	
b3(E)	62	#6	33'-0"	
d(E)	868	#5	6'-5"	
d1(E)	868	#5	8'-8"	
e(E)	48	#4	18'-4"	
e1(E)	40	#4	13'-9"	
e2(E)	48	#4	17'-4"	
e3(E)	40	#4	16'-3"	
e4(E)	60	#4	16'-4"	
e5(E)	16	#4	38'-4"	
e6(E)	16	#4	36'-4"	
e7(E)	16	#4	42'-7"	
x(E)	48	#5	6'-4"	
x1(E)	50	#5	4'-4"	
Reinforcement Bars, Epoxy Coated			Lbs.	92,620
Concrete Superstructure			Cu. Yd.	326.3

Bars indicated thus 4x2-#4 etc. indicates 4 line of bars with 2 lengths per line.

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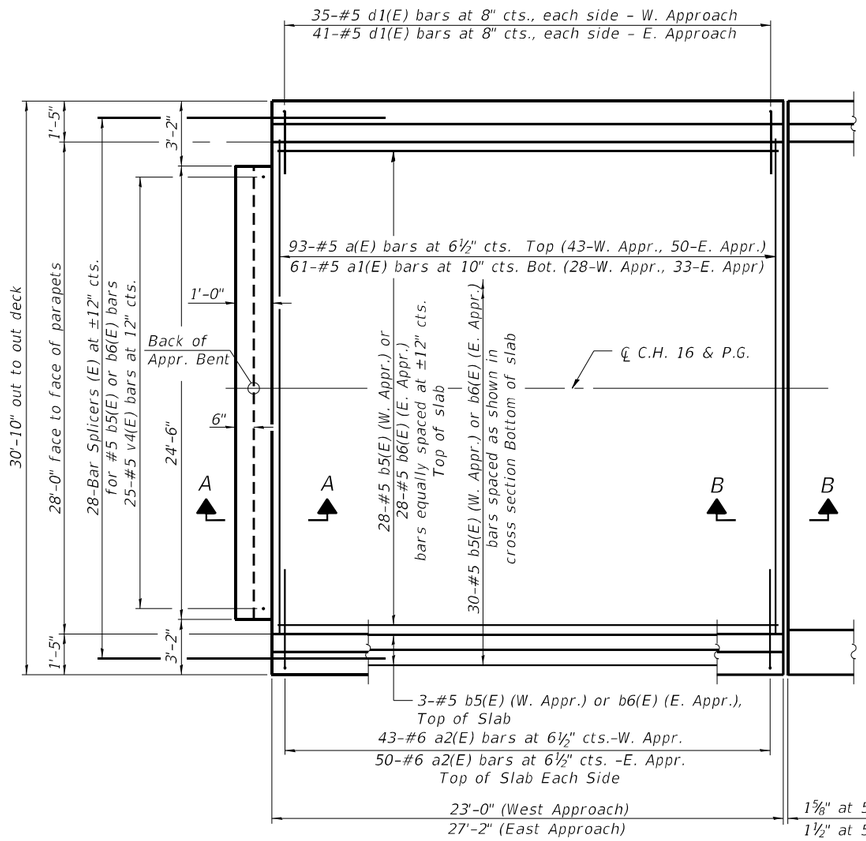
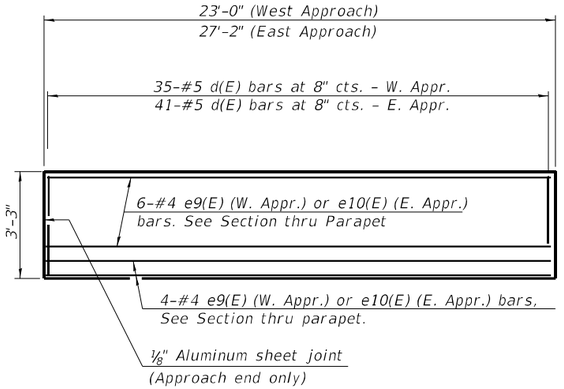
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 068-0041
SHEET 8 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	119
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

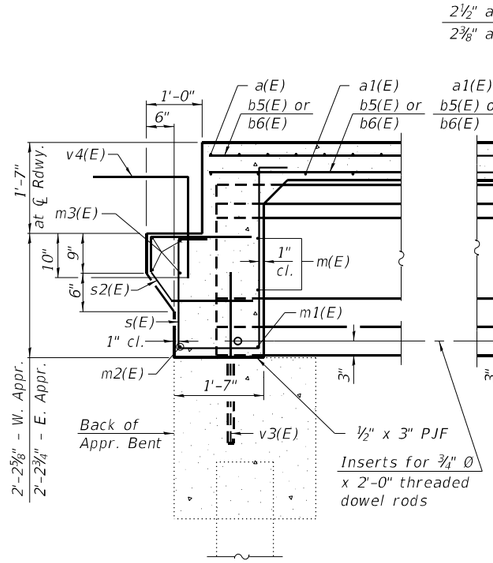


PLAN

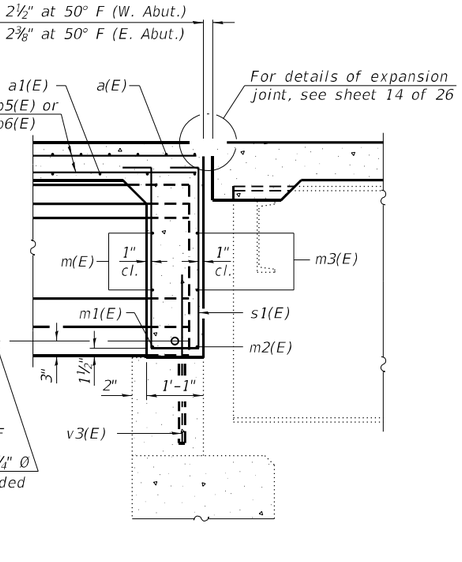


INSIDE ELEVATION OF PARAPET

(Two per approach spans)

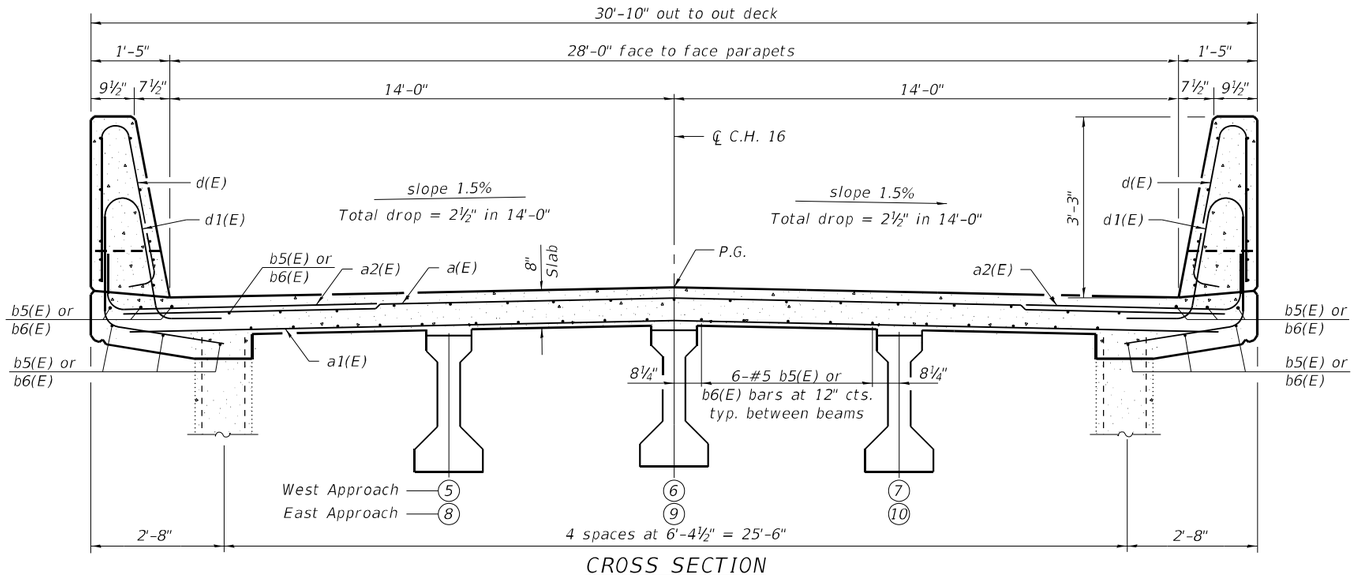


SECTION A-A



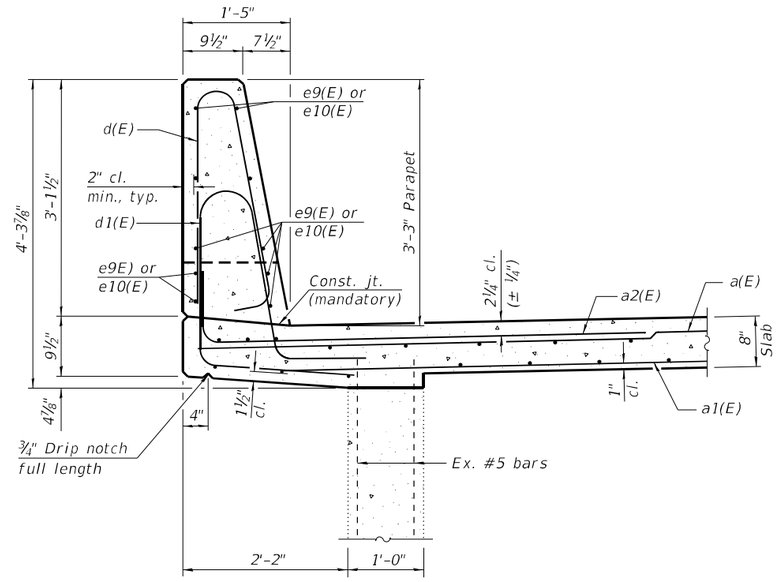
SECTION B-B

Notes:
For details of reinforcement and Bill of Material, see sheet 10 of 26.



CROSS SECTION

(Looking East)



SECTION THRU PARAPET

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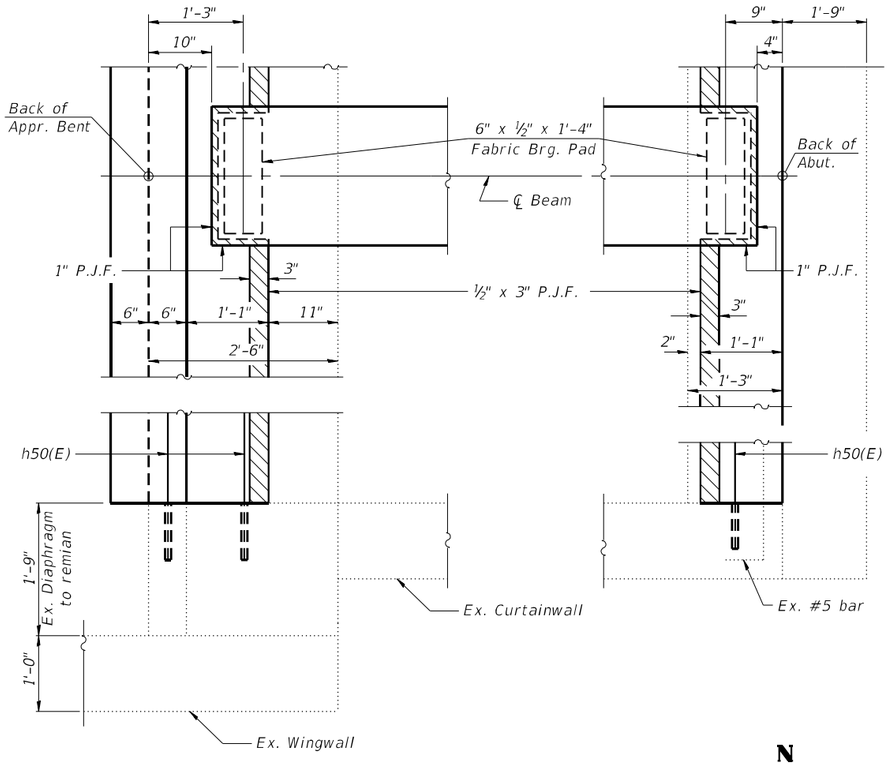
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

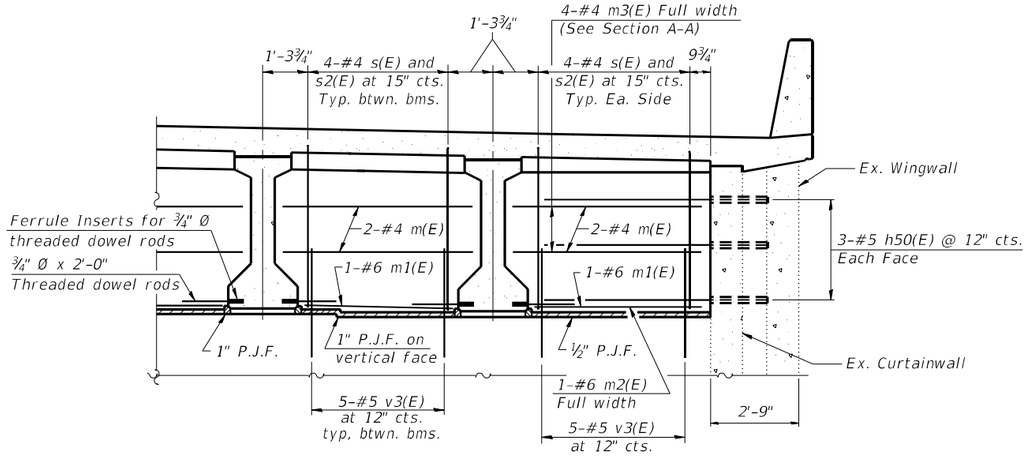
VAULTED ABUTMENT APPROACH SPANS
STRUCTURE NO. 068-0041
SHEET 9 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	120
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

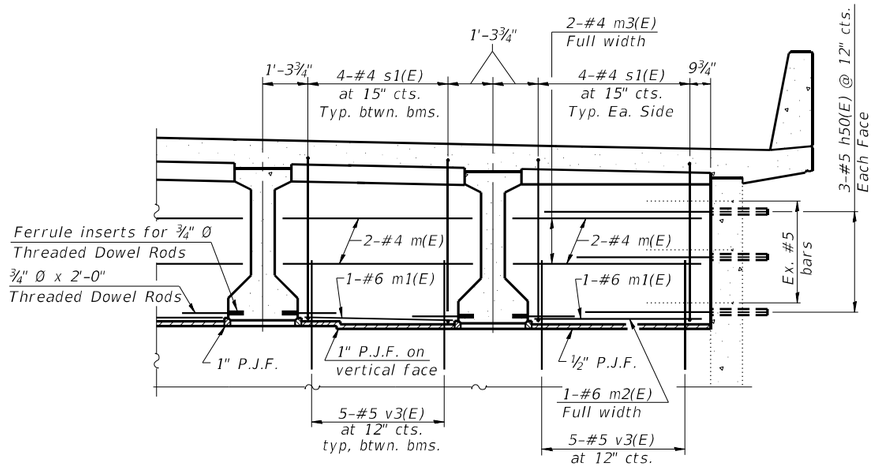


PARTIAL PLAN

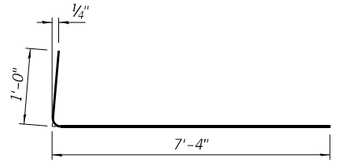
(West approach shown; East approach similar by 180° rotation)



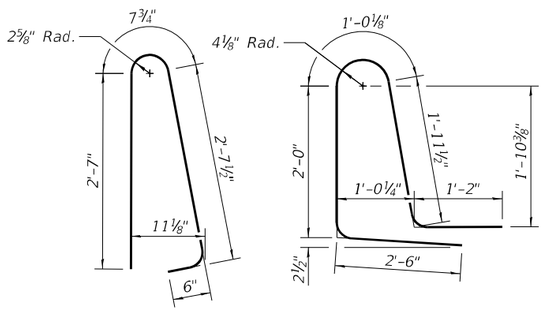
DIAPHRAGM AT APPROACH BENT



DIAPHRAGM AT ABUTMENT

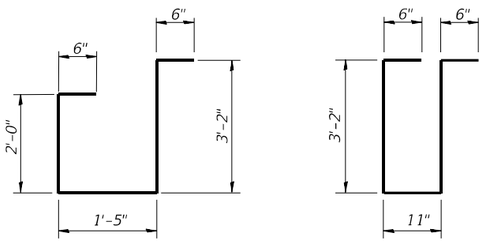


BAR a2(E)



BAR d(E)

BAR d1(E)



BAR s(E)

BAR s1(E)

BAR s2(E)

BAR v4(E)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	93	#5	30'-6"	
a1(E)	61	#5	28'-0"	
a2(E)	186	#6	8'-4"	
b5(E)	64	#5	22'-8"	
b6(E)	64	#5	26'-10"	
d(E)	152	#5	6'-5"	
d1(E)	152	#5	8'-8"	
e9(E)	20	#4	22'-8"	
e10(E)	20	#4	26'-10"	
h50(E)	24	#5	5'-0"	
m(E)	32	#4	5'-6"	
m1(E)	16	#6	4'-6"	
m2(E)	4	#6	24'-2"	
m3(E)	12	#4	24'-2"	
s(E)	32	#4	7'-7"	
s1(E)	32	#4	8'-3"	
s2(E)	32	#4	4'-2"	
v3(E)	80	#5	3'-0"	
v4(E)	50	#5	3'-5"	
Reinforcement Bars, Epoxy Coated			Pound	14,970
Concrete Superstructure			Cu. Yd.	72.4
Bar Splicers			Each	56

Epoxy grout h50(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications

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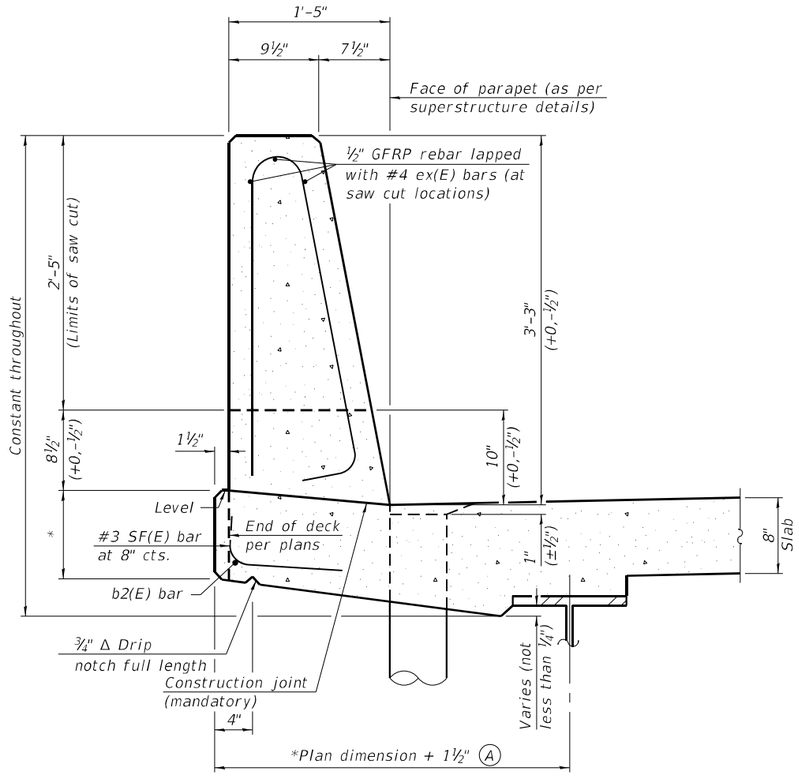
DEPARTMENT OF TRANSPORTATION

VAULTED ABUTMENT APPROACH SPAN DETAILS
STRUCTURE NO. 068-0041
SHEET 10 OF 26 SHEETS

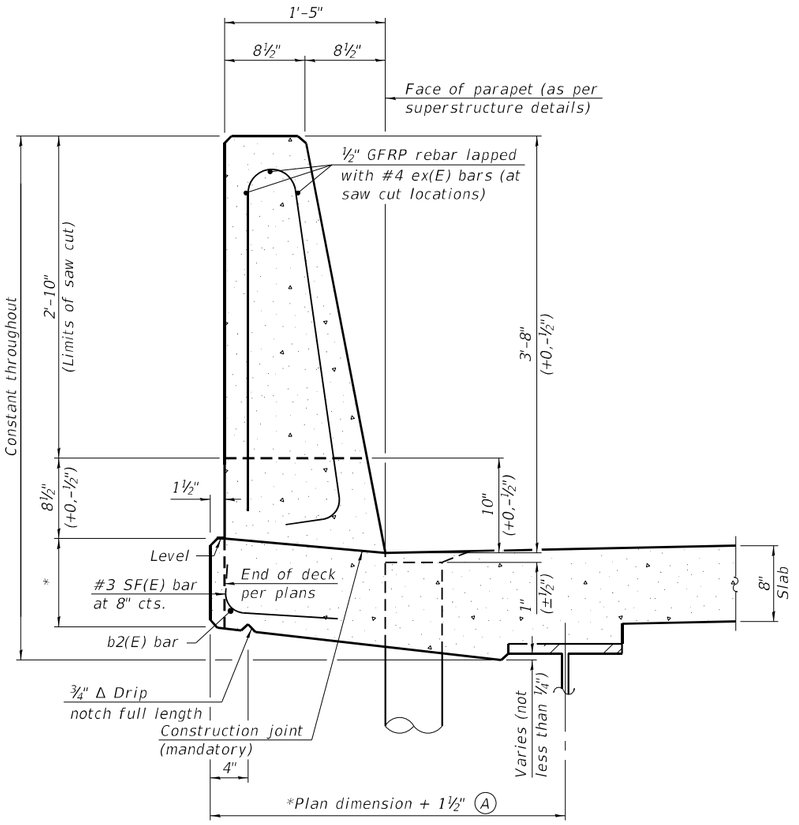
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	121
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			



39" CONSTANT-SLOPE PARAPET SECTION

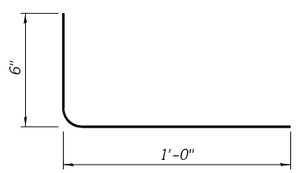
(Showing dimensions, d(E), and ½" Ø GFRP rebar)

*See Superstructure Details.

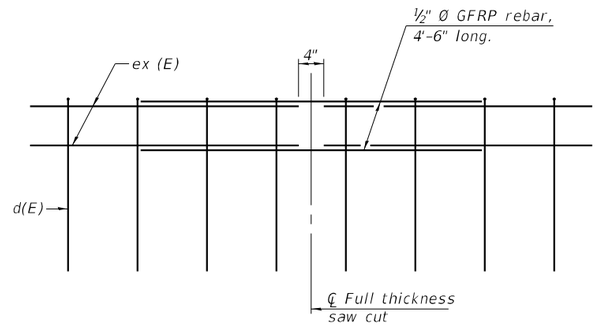


44" CONSTANT-SLOPE PARAPET SECTION

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



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL

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

Notes:

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

Place full depth aluminum sheets as shown on superstructure details.

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

Steel superstructure shown. Other superstructure types similar.

SFP 39-44 1-1-2020

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CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 068-0041
SHEET 11 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	122
			CONTRACT NO. 72G54	
		ILLINOIS	FED. AID PROJECT	

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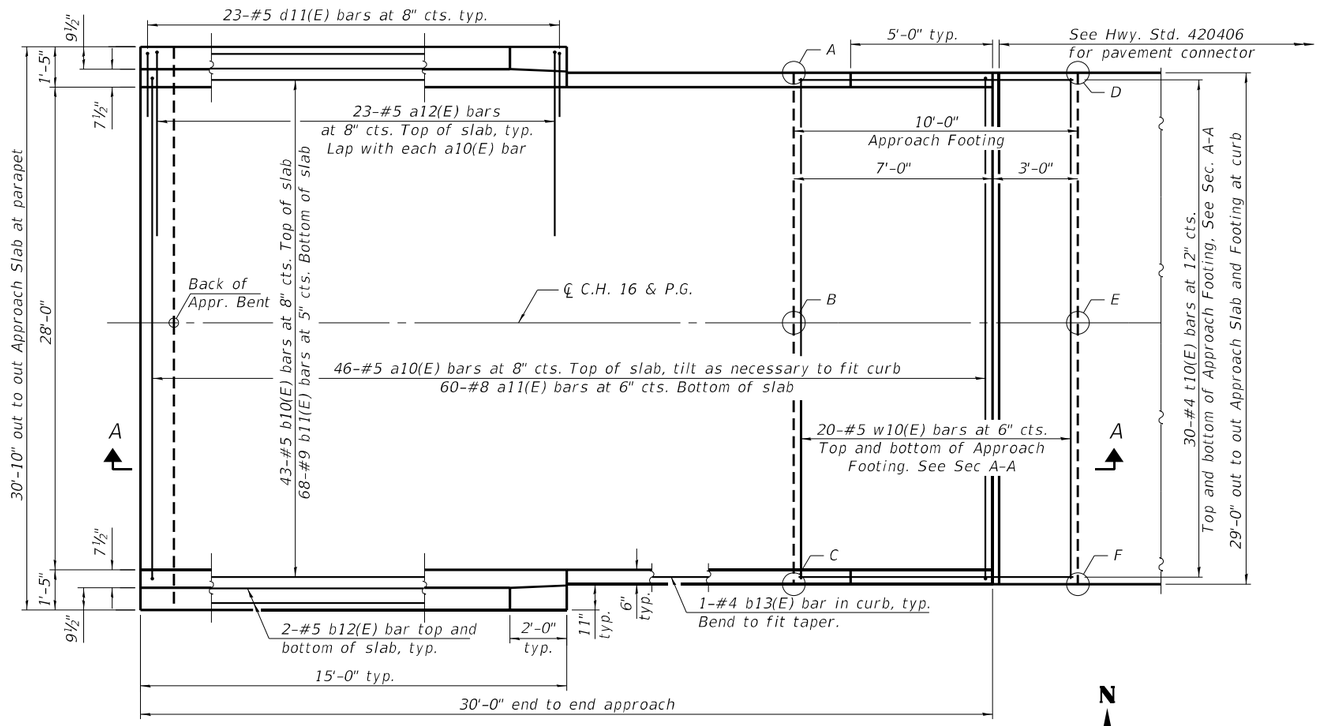


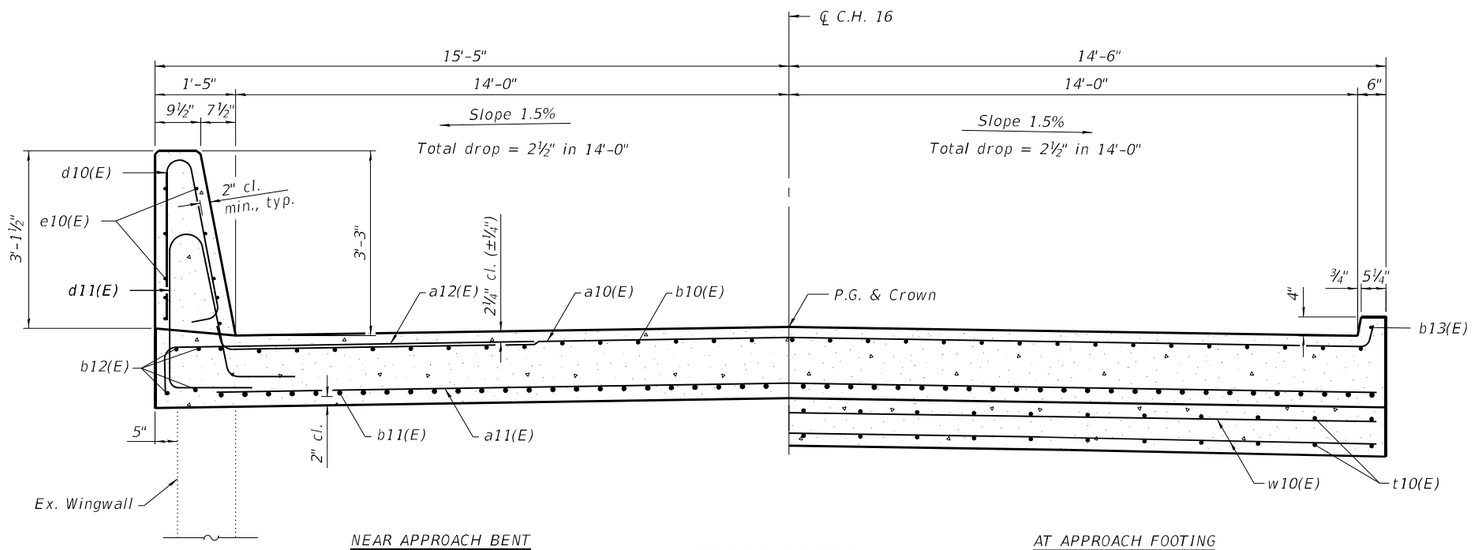
PLAN

(East approach slab shown; West approach slab similar by 180° rotation)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

West Approach			East Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A – 47+85.67/14.5' RT	659.14	658.30	A – 51+70.92/14.5' LT	661.43	660.59
B – 47+85.67/℄	659.36	658.52	B – 51+70.92/℄	661.64	660.81
C – 47+85.67/14.5' LT	659.14	658.30	C – 51+70.92/14.5' RT	661.43	660.59
D – 47+75.67/14.5' RT	658.95	658.11	D – 51+80.92/14.5' LT	661.35	660.52
E – 47+75.67/ ℄	659.16	658.33	E – 51+80.92/ ℄	661.57	660.74
F – 47+75.67/14.5' LT	658.95	658.11	F – 51+80.92/14.5' RT	661.35	660.52

Notes:
See Sheet 13 of 26 for parpapet elevation and Section A-A.
See Sheet 13 Of 26 for additional details and Bill of Material.



NEAR APPROACH BENT — AT APPROACH FOOTING

CROSS SECTION

(Looking East)

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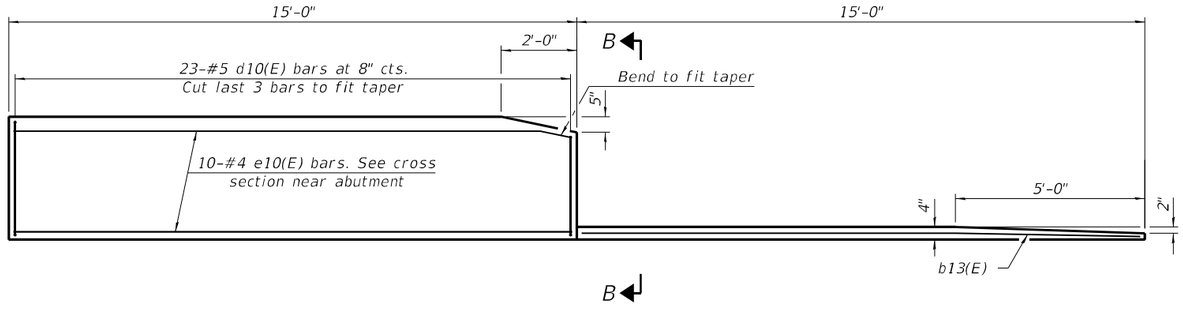
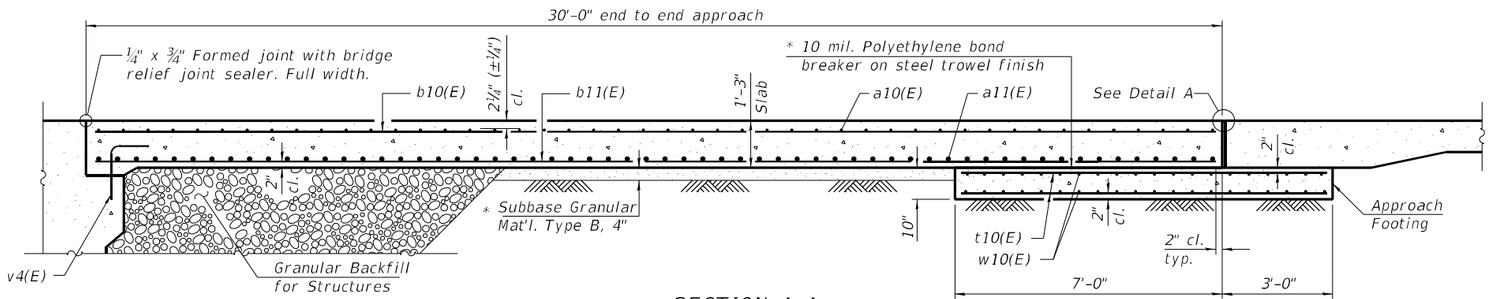
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 068-0041
SHEET 12 OF 26 SHEETS

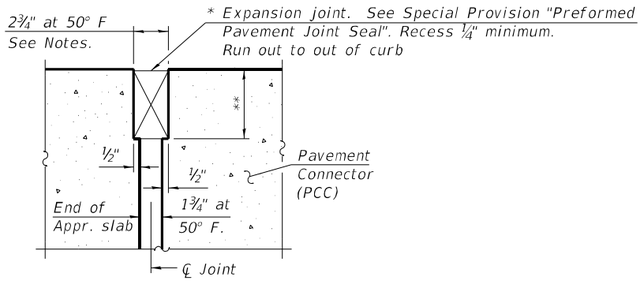
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HBJD, 68-3RS5	MONTGOMERY	192	123
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



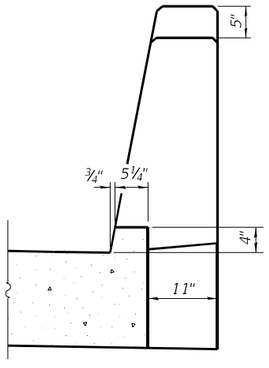
INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A



DETAIL A



VIEW B-B

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. The length of bridge used to calculate the adjustment shall be equal to the PPC beam span plus the approach slab.

Parapet concrete shall be paid for as Concrete Superstructure.

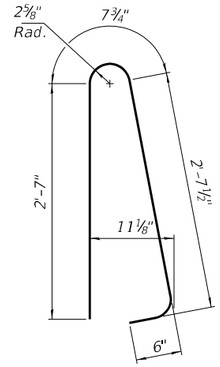
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

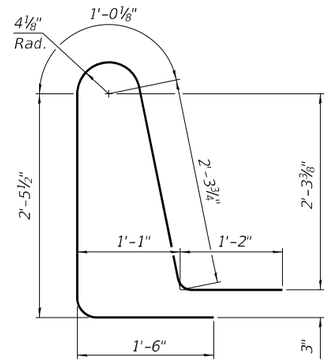
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

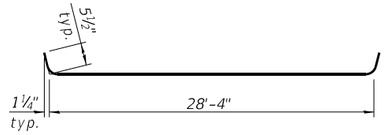
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 26.



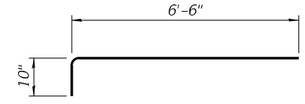
BAR d10(E)



BAR d11(E)



BAR a10(E)



BAR a12(E)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	29'-3"	
a11(E)	120	#8	28'-8"	
a12(E)	92	#5	7'-4"	
b10(E)	86	#5	29'-8"	
b11(E)	136	#9	29'-8"	
b12(E)	16	#5	14'-8"	
b13(E)	4	#4	14'-8"	
d10(E)	92	#5	6'-5"	
d11(E)	92	#5	8'-6"	
e10(E)	40	#4	14'-8"	
t10(E)	120	#4	9'-8"	
w10(E)	80	#5	28'-8"	
Concrete Superstructure		Cu. Yd.	7.8	
Concrete Superstructure (Approach Slab)		Cu. Yd.	83.6	
Concrete Structures		Cu. Yd.	17.9	
Reinforcement Bars, Epoxy Coated		Pound	34,350	

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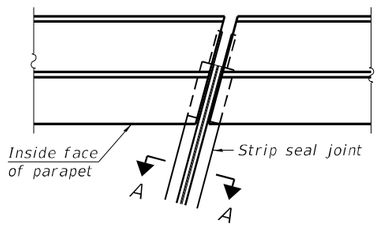
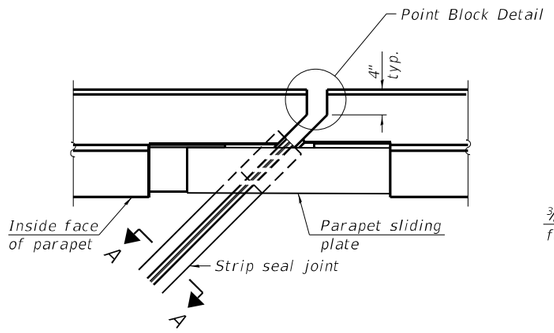
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 068-0041
SHEET 13 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HBJD, 68-3RS5	MONTGOMERY	192	124
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

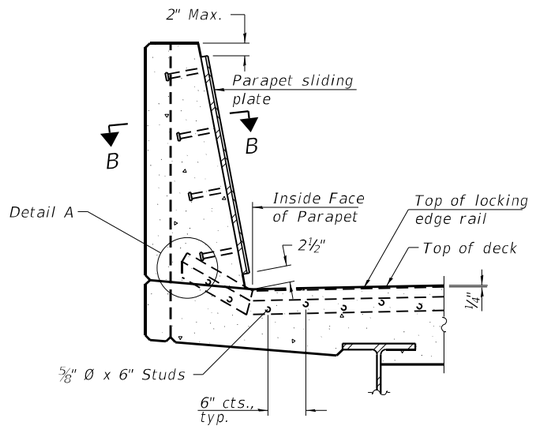


FOR SKEWS ≤ 30°



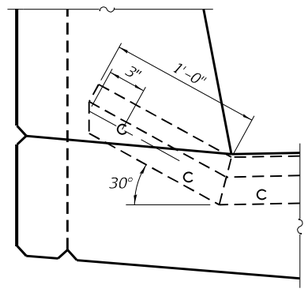
FOR SKEWS > 30°

PLAN AT PARAPET

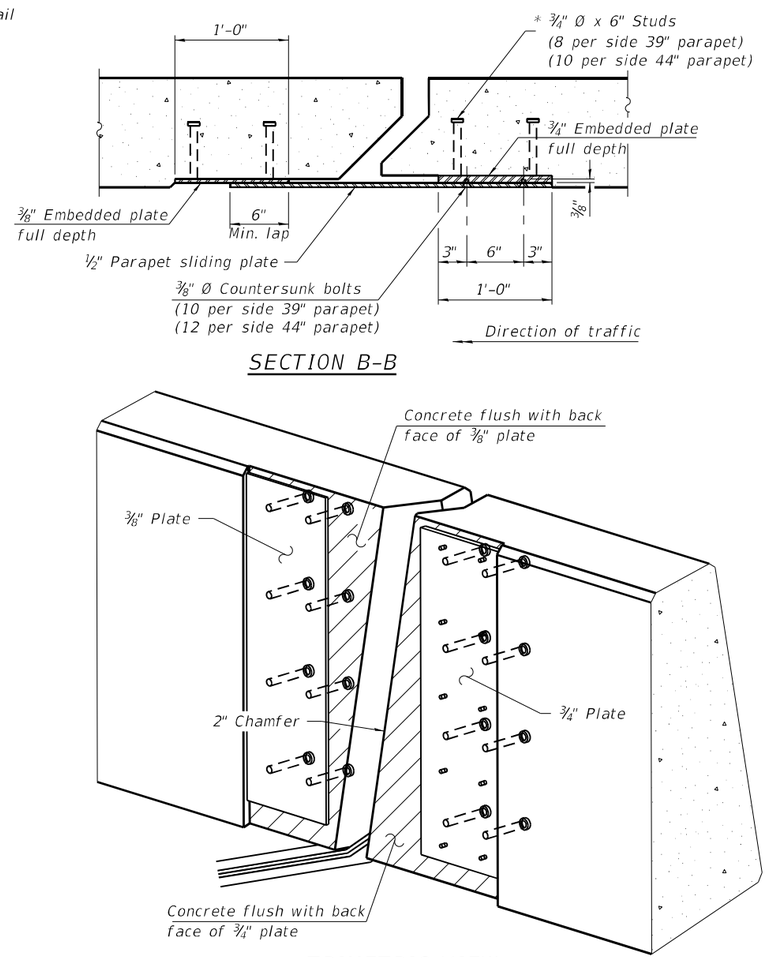


SECTION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



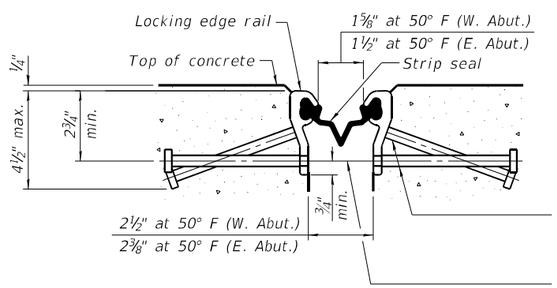
DETAIL A



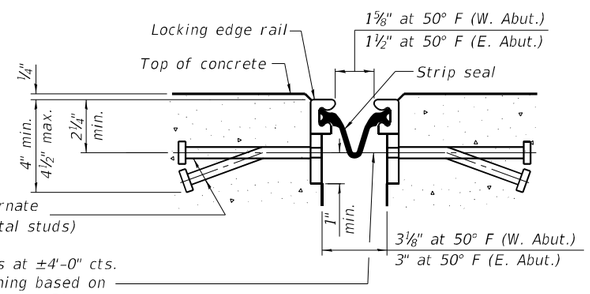
TRIMETRIC VIEW

(Showing embedded plates only)

SECTION B-B



SHOWING ROLLED RAIL JOINT



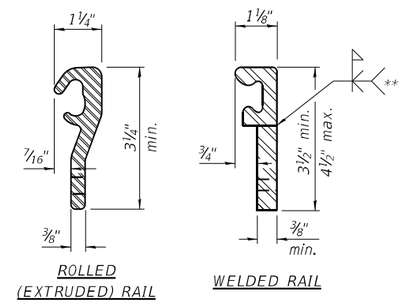
SHOWING WELDED RAIL JOINT

* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

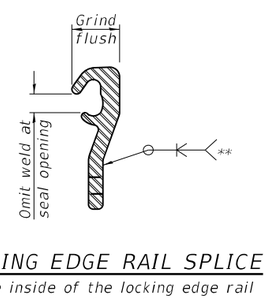
SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	60

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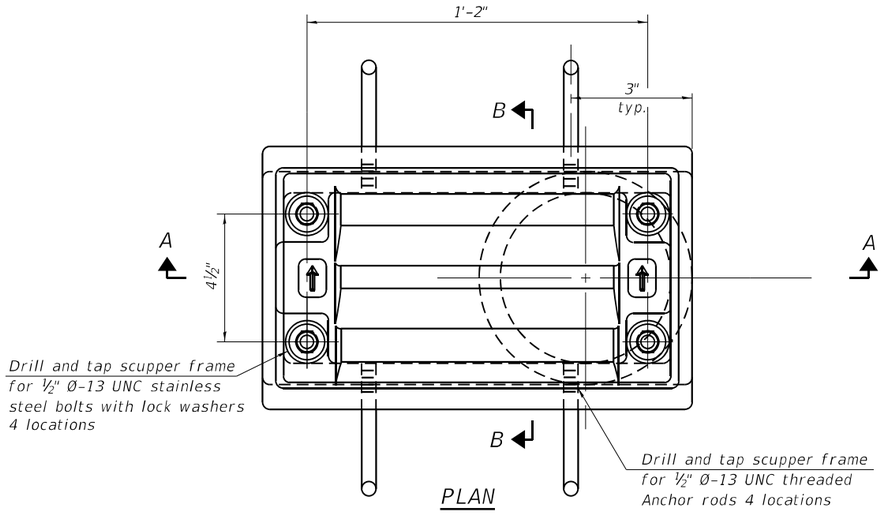
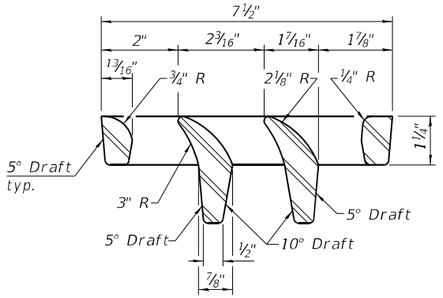
PREFORMED JOINT STRIPSEAL
STRUCTURE NO. 068-0041
SHEET 14 OF 26 SHEETS

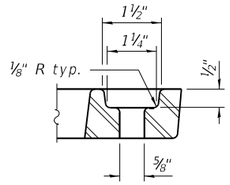
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	125
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			



PLAN



VANE GRATE DETAIL



GRATE 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.

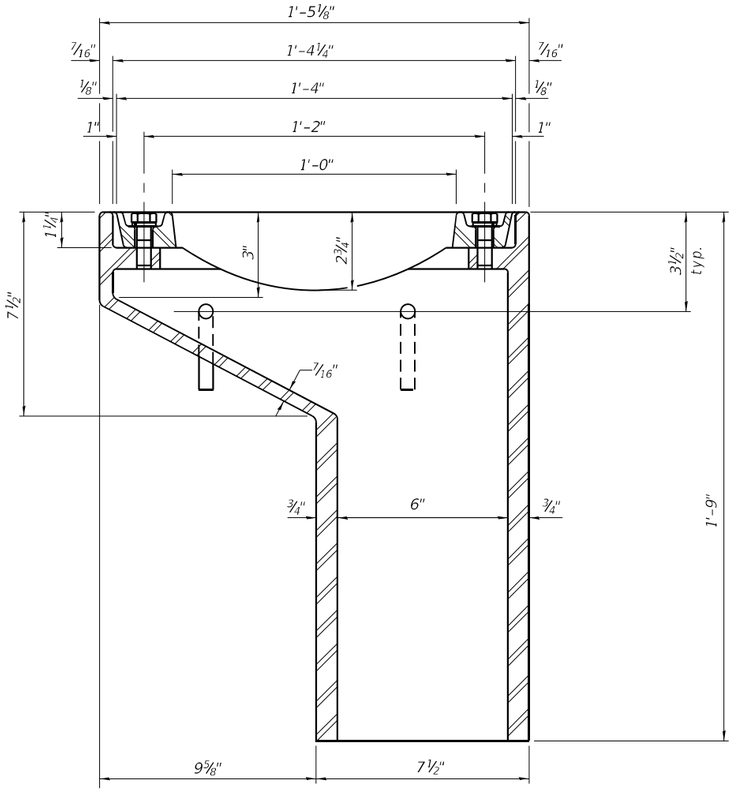
Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer 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.

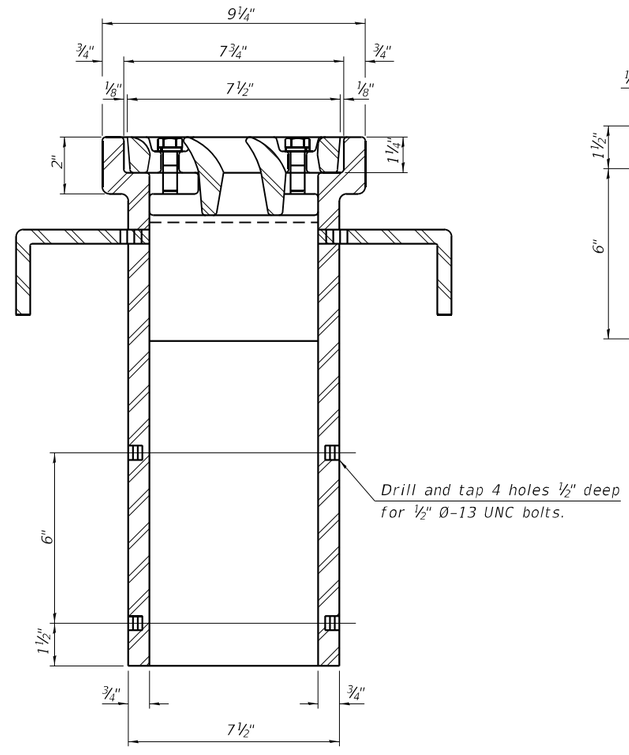
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

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.

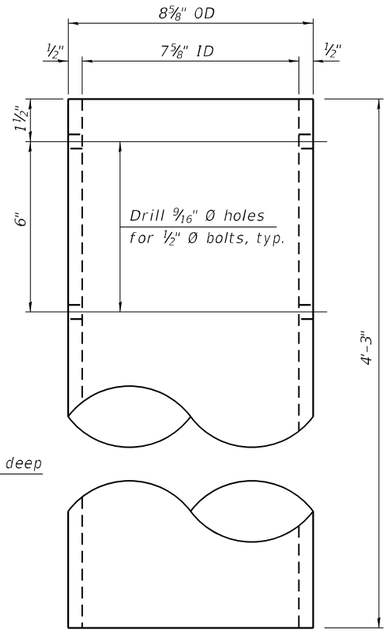


SECTION A-A

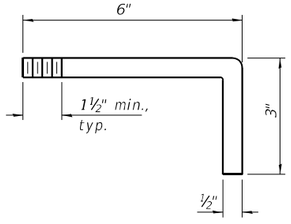
See sheet 8 of 26 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11 1-1-2020

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DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 068-0041
SHEET 15 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	126
		CONTRACT NO. 72G54		
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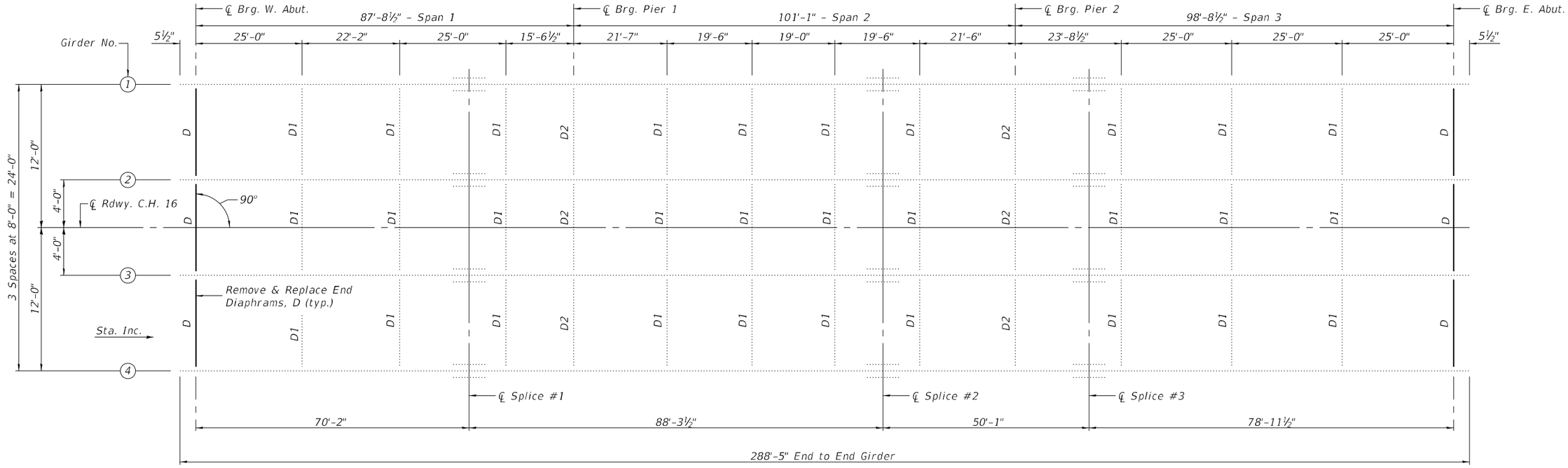
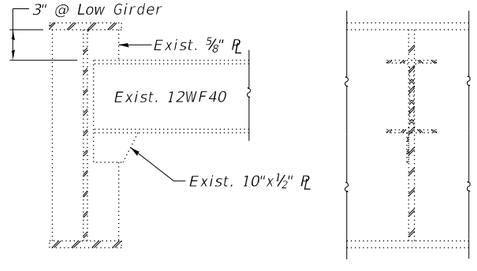
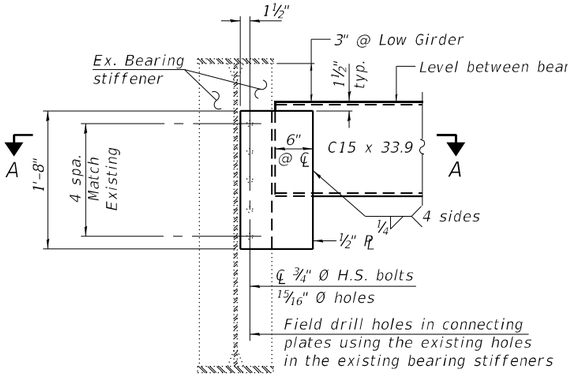


EXISTING FRAMING PLAN



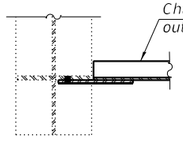
EXISTING END DIAPHRAGM, D



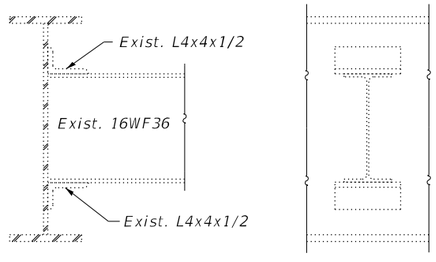
END DIAPHRAGM REPAIR DETAIL

(6 each)

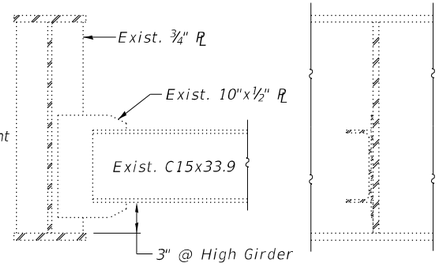
Note:
Two hardened washers required for each set of oversized holes.
New C15x33.9 diaphragms and connecting plates shall be hot-dipped galvanized.



SECTION A-A



EXISTING DIAPHRAGM, D1



EXISTING DIAPHRAGM, D2

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Removal	Pound	2,038
Furnishing and Erecting Structural Steel	Pound	1,900

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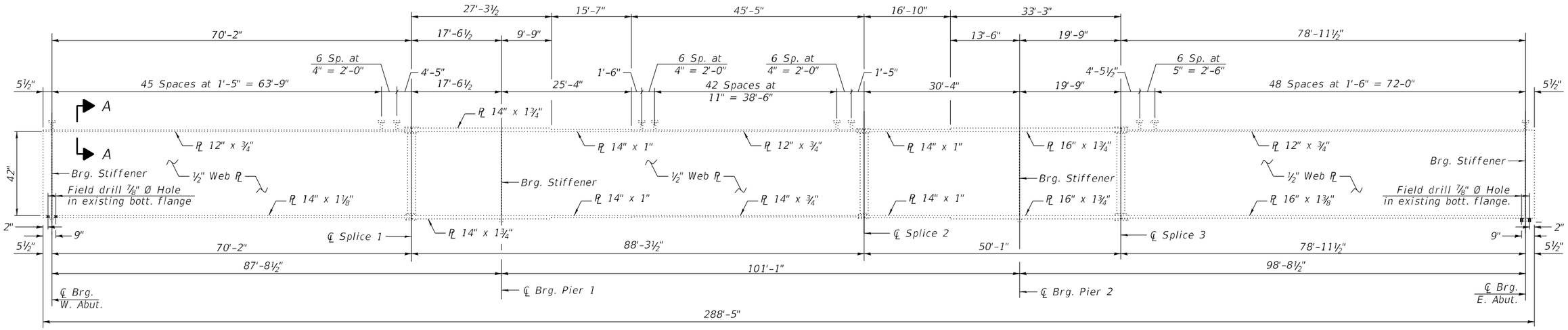
DEPARTMENT OF TRANSPORTATION

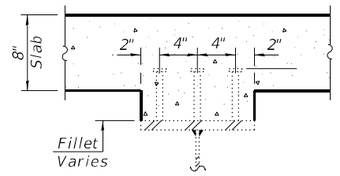
FRAMING PLAN
STRUCTURE NO. 068-0041
SHEET 16 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	127
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



EXISTING GIRDER ELEVATION

Notes:
Any shear studs that are damaged by the Contractor's deck removal operations shall be replaced in kind or as directed by the Engineer. Cost included in Removal of "Existing Concrete Deck No. 2".



SECTION A-A

INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
Is	(in^4)	14,050	26,547	11,972	29,899	15,991
Ic(n)	(in^4)	42,332		34,033		51,475
Ic(3n)	(in^4)	31,132		25,702		36,734
Ss	(in^3)	743	1,167	571	1,314	946
Sc(n)	(in^3)	1,080		844		1,362
Sc(3n)	(in^3)	997		776		1,259
w_D	(k/')	1.01	1.09	0.99	1.11	1.03
M_D	('k)	572	921	220	1,203	727
s_D	(k/')	0.26	0.26	0.26	0.26	0.26
M_{SD}	('k)	147	234	71	287	189
M_L	('k)	723	699	608	792	827
MI	('k)	217	209	182	238	248
$\frac{5}{3}[M_L + I]$	('k)	1,567	1,513	1,317	1,717	1,792
Ma	('k)	2,971	3,467	2,090	4,169	3,520
* Mu	('k)	4,316	4,716	3,561	5,176	5,204
f_s D non-comp	(ksi)	9.2	9.5	4.6	11.0	9.2
f_s D (comp)	(ksi)	1.8	2.4	1.1	2.6	1.8
$f_s \frac{5}{3}[M_L + M_I]$	(ksi)	17.4	15.6	18.7	15.7	15.8
fs (Overload)	(ksi)	28.4	27.4	24.4	29.3	26.8
** fs (Total)	(ksi)					
VR	(k)	52		55		55

* Compact section
** Braced non-compact and partially braced section

INTERIOR GIRDER REACTION TABLE					
		W. Abut.	Pier 1	Pier 2	E. Abut.
R_D	(k)	44	131	149	50
R_L	(k)	43	63	67	43
R_I	(k)	13	19	19	13
R_{Total}	(k)	100	213	235	106

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total and Overload) due to non-composite dead loads ($in.^4$ and $in.^3$).
Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total and Overload) due to short-term composite live loads ($in.^4$ and $in.^3$).
Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total and Overload) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
w_D: Un-factored non-composite dead load (kips/ft.).
M_D: Un-factored moment due to non-composite dead load (kip-ft.).
s_D: Un-factored long-term composite (superimposed) dead load (kips/ft.)
M_{SD}: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M_L: Un-factored live load moment (kip-ft.).
MI: Un-factored moment due to impact (kip-ft.).
Ma: Factored design moment (kip-ft.).
$1.3\ [M_D + M_{SD} + \frac{5}{3}(M_L + MI)]$
Mu: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
fs (Overload): Sum of stresses as computed from the moments below (ksi).
$M_D + M_{SD} + \frac{5}{3}(M_L + MI)$
fs (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\ [M_D + M_{SD} + \frac{5}{3}(M_L + MI)]$
VR: MaximumM_L + impact shear range within the composite portion of the span for stud shear connector design (kips).

① TOP OF WEB ELEVATIONS				
Girder No.	℄ Brg. W. Abut.	℄ Brg. Pier 1	℄ Brg. Pier 2	℄ Brg. E. Abut.
1	660.44	661.39	662.13	662.16
2	660.52	661.47	662.19	662.28
3	660.56	661.46	662.19	662.31
4	660.45	661.42	662.10	662.19

① Theoretical top of web after new bearings are in place

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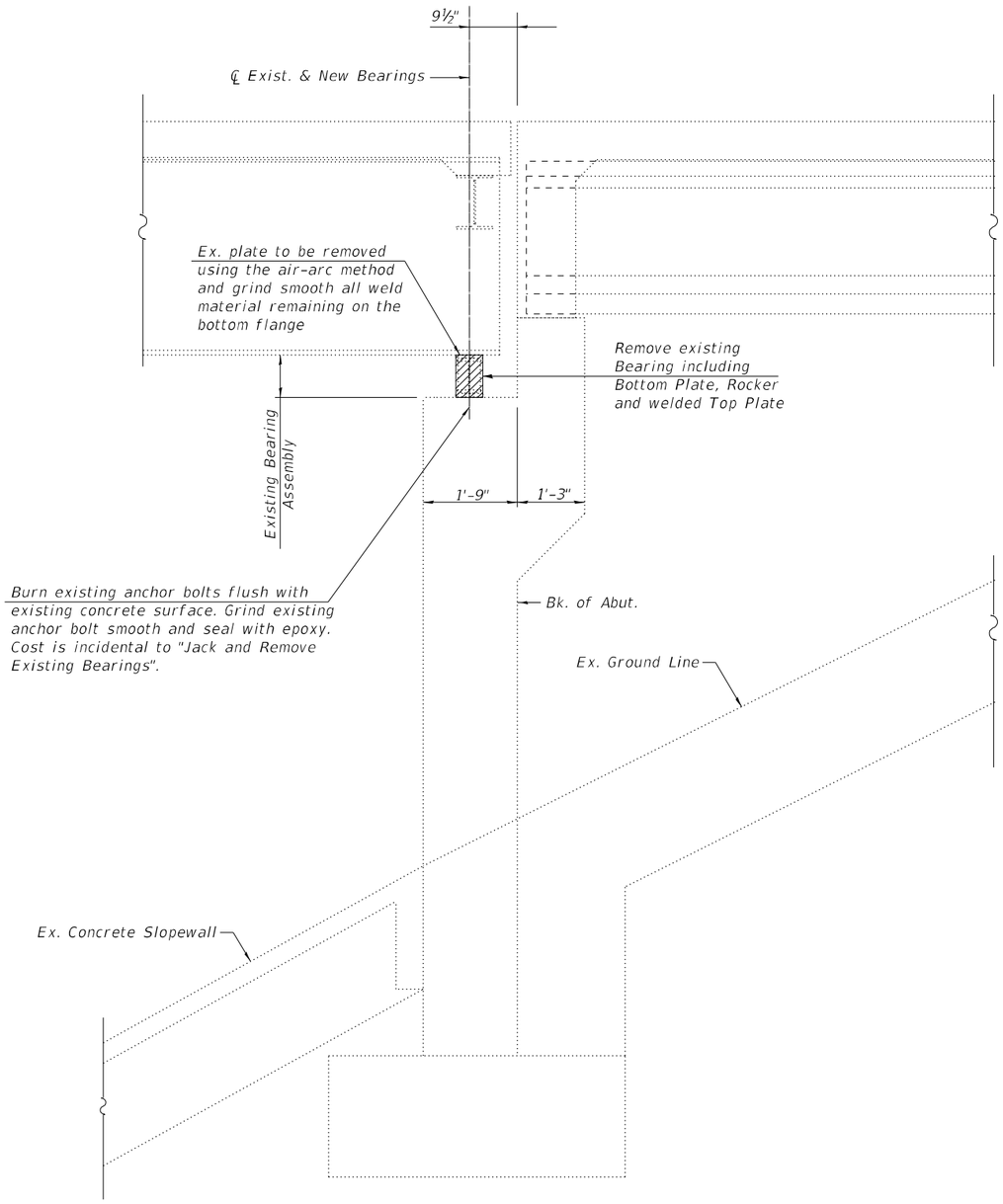
PLOT DATE =	CHECKED - RJP	REVISED -	SHEET 17 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	128
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



EXISTING BEARING REMOVAL DETAIL

(Dimensions at Rt L's)

JACK AND REMOVE EXISTING BEARINGS PROCEDURES

1. Jacking shall be done after existing deck removal is completed.
2. The Contractor shall submit for approval by the Engineer plans for jacking, prior to commencing any work at the bearings. The maximum dead load reaction with the deck removed (per bearing) at the west and east abutments = 16 kips. The minimum jack capacity at each beam shall be 32 kips at the west and east abutments.
3. Top of beam elevations shall be measured prior to jacking and shall remain the same after bearings are in place.
4. There shall be at least one jack per bearing and the jack shall be placed close to the bearing. The steel shall be raised a maximum of ¼" and shall be blocked in position until after the completion of the installation of new bearings.
5. Burn the existing anchor bolts flush with the concrete surface, grind smooth, and seal with epoxy. The rollers and top and bottom plates shall be removed. The top plate shall be removed using the air-arc method. Grind smooth all weld material remaining on the bottom flange. Cost of removing anchor bolts, rockers, top plates, and bottom plates shall be included with "Jack and Remove Existing Bearings."
6. The new elastomeric bearings shall be in place and the jacks lowered before the new concrete deck is poured.

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	8

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STATE OF ILLINOIS
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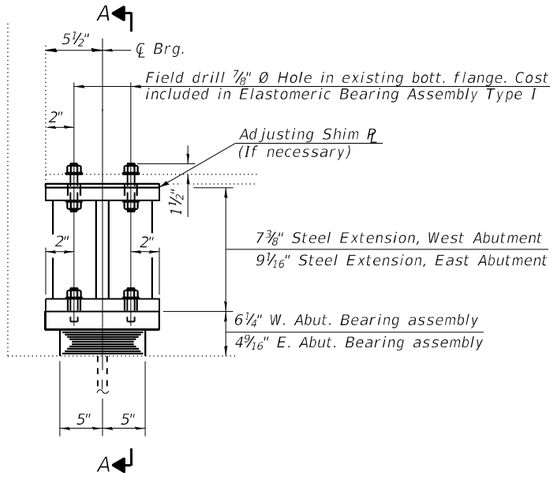
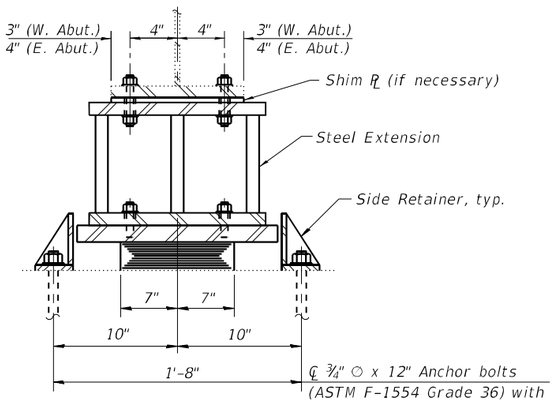
JACK AND REMOVE EXISTING BEARINGS
STRUCTURE NO. 068-0041
SHEET 18 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	129
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

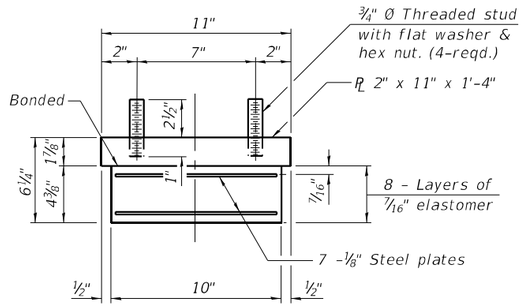


ELEVATION AT ABUTMENTS



SECTION A-A

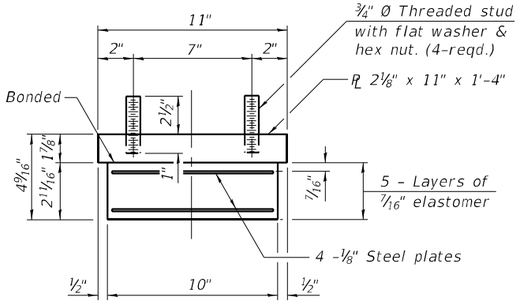
TYPE I ELASTOMERIC BEARING



BEARING ASSEMBLY

(West Abutment)

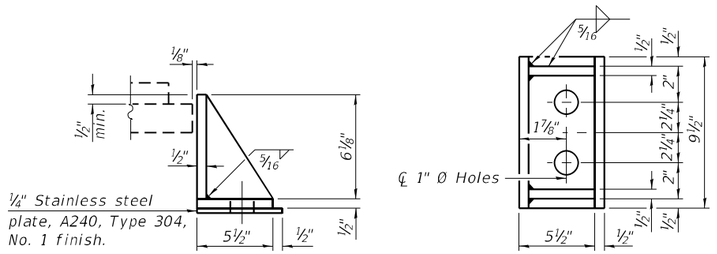
Note:
Shim plates shall not be placed under bearing assembly.



BEARING ASSEMBLY

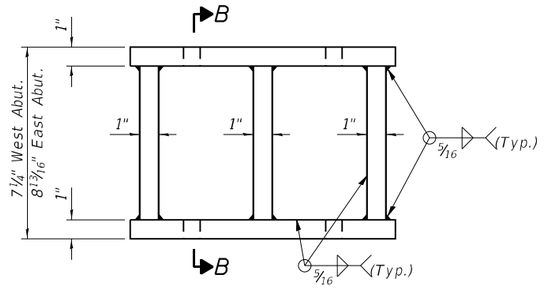
(East Abutment)

Note:
Shim plates shall not be placed under bearing assembly.

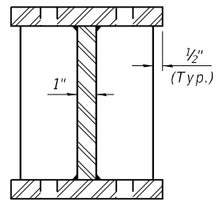


SIDE RETAINER

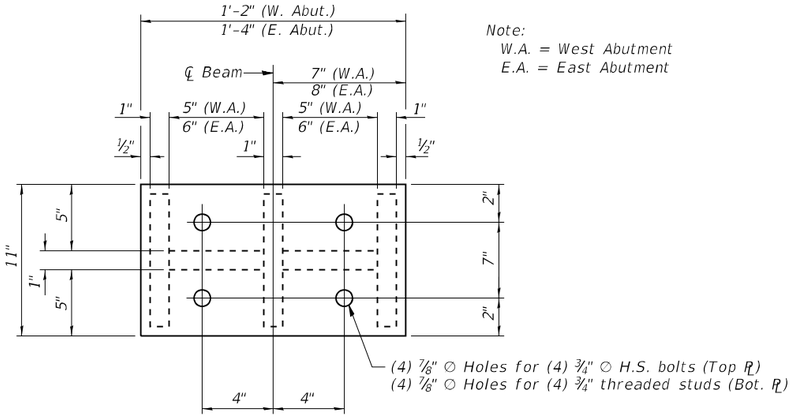
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



ELEVATION - STEEL EXTENSION



SECTION B-B



PLAN - STEEL EXTENSION

Note:
W.A. = West Abutment
E.A. = East Abutment

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers, and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

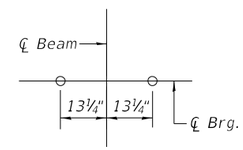
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Prior to ordering any material, the Contractor shall verify in the field all bearing heights and shim thickness dimensions.

All (embedded and separate) bearing plates, side retainers, extensions, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable unless noted otherwise.

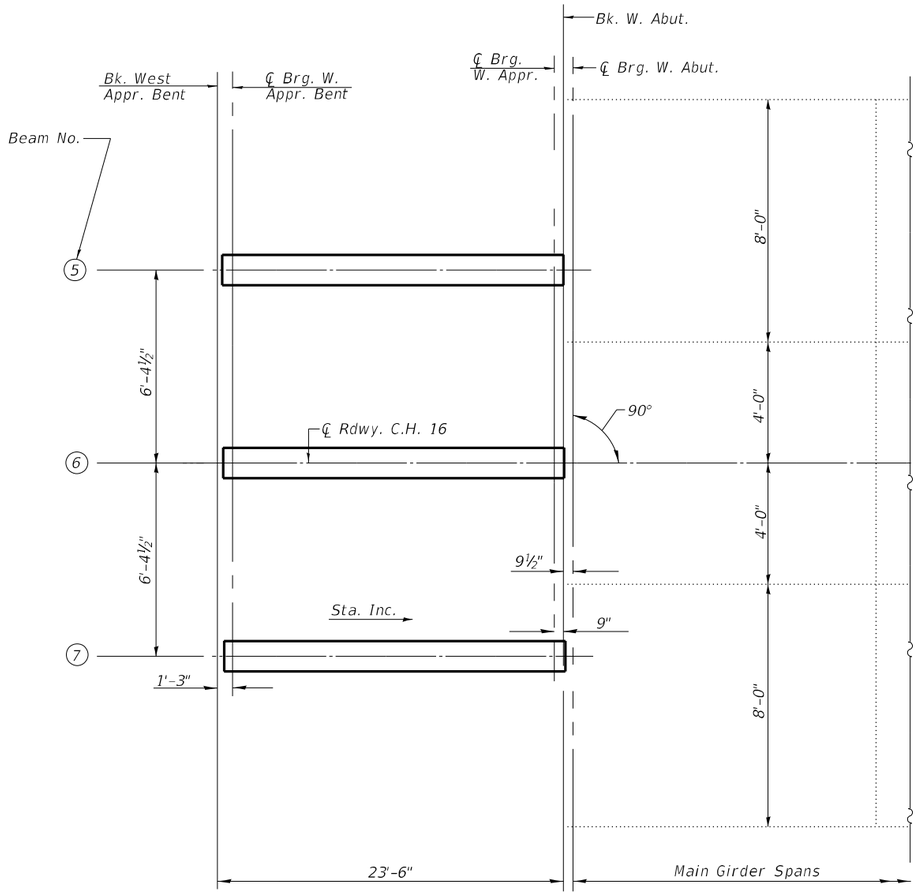
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



ANCHOR BOLT LAYOUT DETAIL

TWO ABUTMENTS BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	8
Anchor Bolts, 3/4"	Each	32
Furnishing and Erecting Structural Steel	Pound	1,330

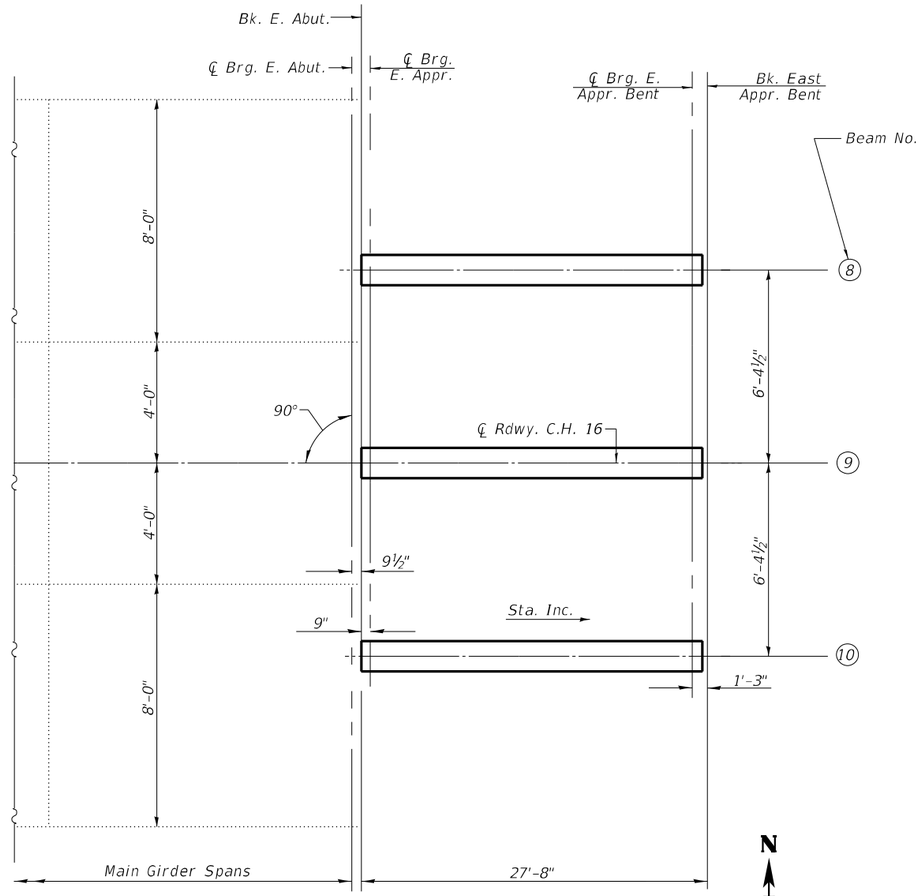


WEST APPROACH FRAMING PLAN

WEST APPROACH INTERIOR BEAM MOMENT TABLE		0.5 Span
I	(in^4)	48,648
I'	(in^4)	180,494
Sb	(in^3)	3,165
Sb'	(in^3)	6,007
St	(in^3)	2,358
St'	(in^3)	30,335
DC1	(k/')	1.03
MDC1	('k)	62
DC2	(k/')	0.23
MDC2	('k)	14
DW	(k/')	0.32
MDW	('k)	19
M_{L+IM}	('k)	239

WEST APPROACH INTERIOR BEAM REACTION TABLE		Abut. and Appr. Bent
RDC1	(k)	11
RDC2	(k)	3
RDW	(k)	4
R_{L+IM}	(k)	47
RTotal	(k)	64

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
Sb: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
Sb': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
St: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
St': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: 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.).
MDC2: 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.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).



EAST APPROACH FRAMING PLAN

EAST APPROACH INTERIOR BEAM MOMENT TABLE		0.5 Span
I	(in^4)	48,648
I'	(in^4)	180,494
Sb	(in^3)	3,165
Sb'	(in^3)	6,007
St	(in^3)	2,358
St'	(in^3)	30,335
DC1	(k/')	1.03
MDC1	('k)	87
DC2	(k/')	0.23
MDC2	('k)	19
DW	(k/')	0.32
MDW	('k)	27
M_{L+IM}	('k)	296

EAST APPROACH INTERIOR BEAM REACTION TABLE		Abut. and Appr. Bent
RDC1	(k)	13
RDC2	(k)	3
RDW	(k)	4
R_{L+IM}	(k)	49
RTotal	(k)	70

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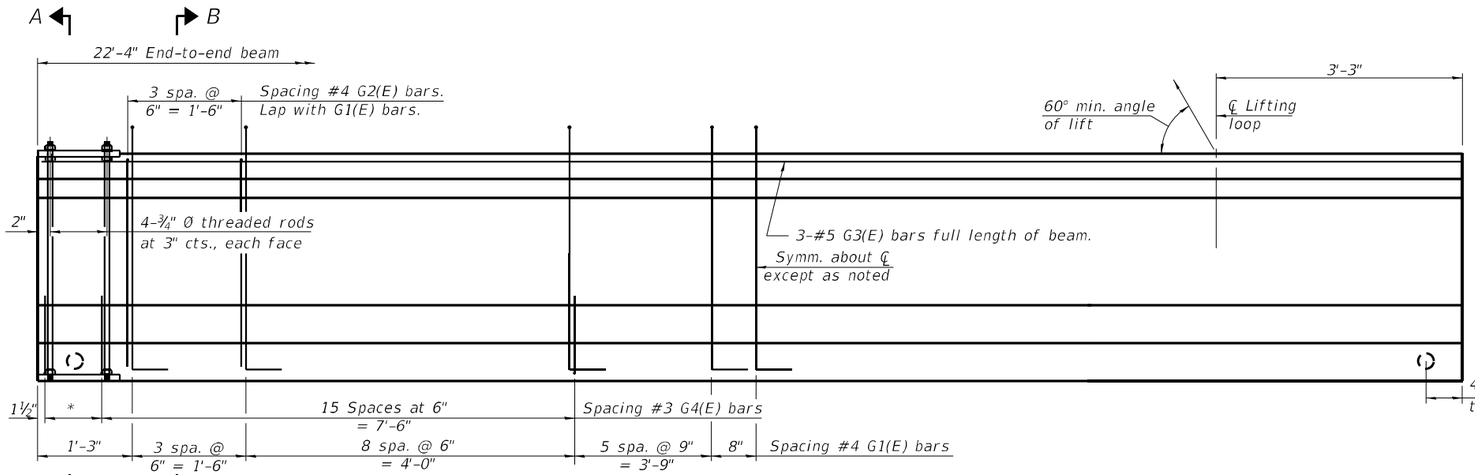
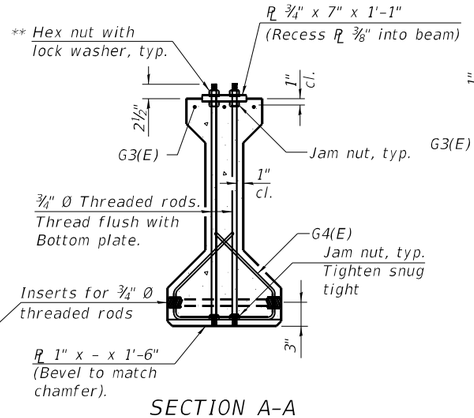
APPROACH FRAMING PLANS
STRUCTURE NO. 068-0041
SHEET 20 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	131
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

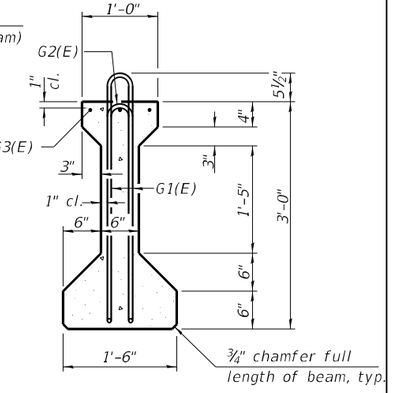


*3 spaces at 3" = 9"

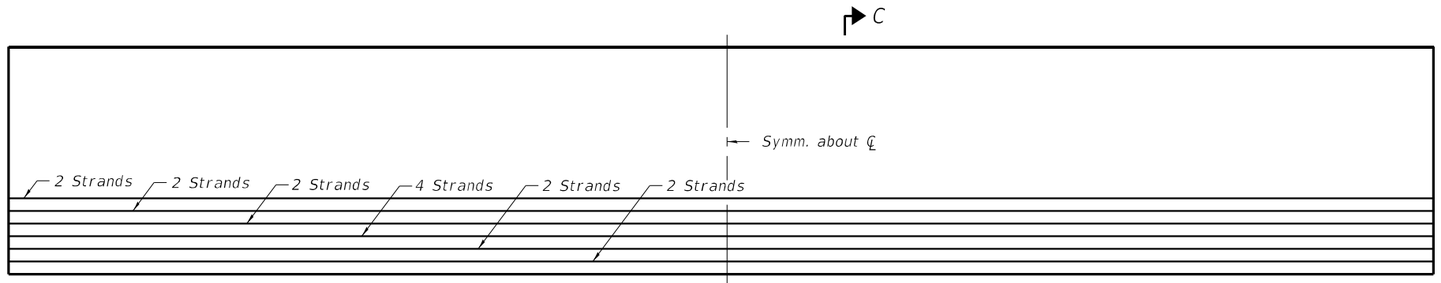
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



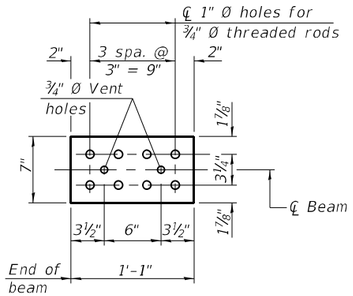
SECTION A-A
** Only tighten sufficiently to compress lock washers



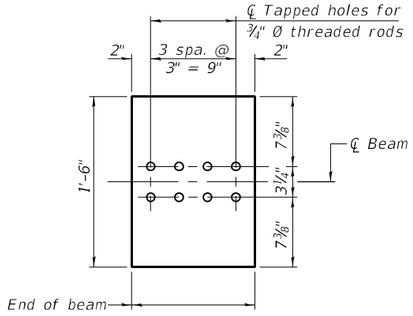
SECTION B-B



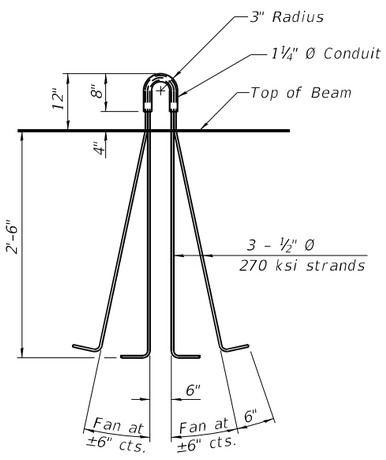
ELEVATION OF BEAM
(Showing prestressing steel)



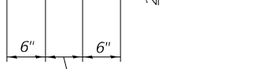
TOP PLATE



BOTTOM PLATE
See bearing details for pintle hole locations when required.



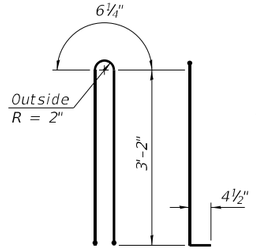
LIFTING LOOP DETAIL



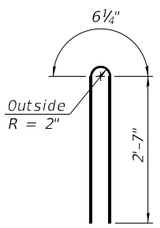
SECTION C-C
(14 -½" Ø 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

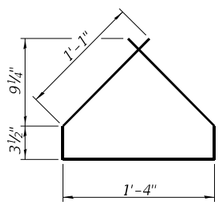
Bar	No.	Size	Length	Shape
G1(E)	35	#4	7'-7"	
G2(E)	8	#4	5'-8"	
G3(E)	3	#5	22'-1"	
G4(E)	38	#3	4'-1"	



BAR G1(E)



BAR G2(E)



BAR G4(E)

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 6,000 psi and a release concrete compressive strength, f'ci, of 5,000 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	67.0

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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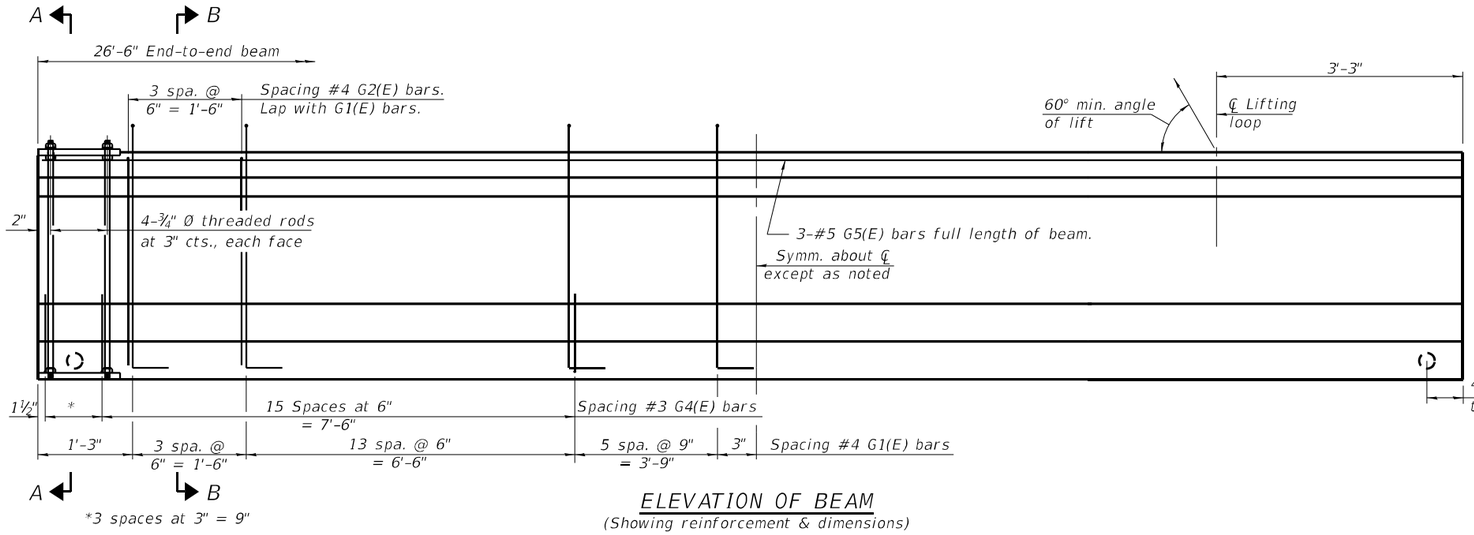
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

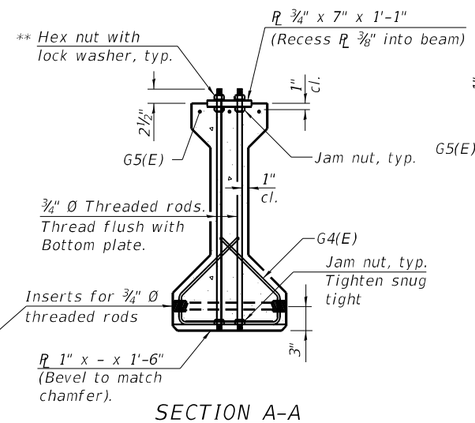
WEST APPROACH BEAMS
STRUCTURE NO. 068-0041
SHEET 21 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	132
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

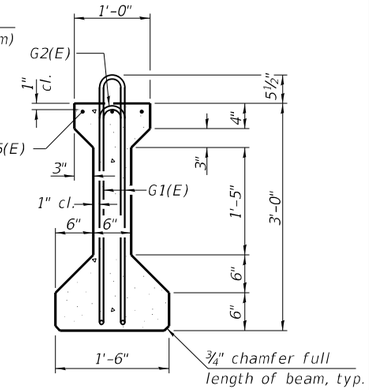


*3 spaces at 3" = 9"

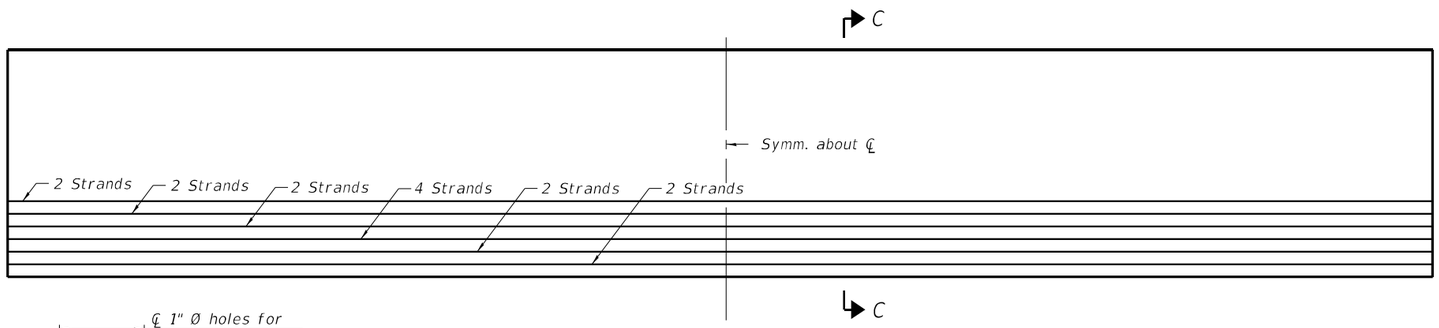
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



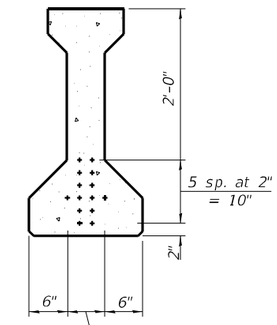
SECTION A-A
** Only tighten sufficiently to compress lock washers



SECTION B-B



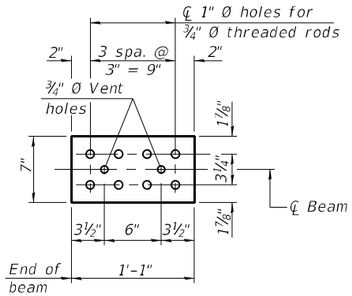
ELEVATION OF BEAM
(Showing prestressing steel)



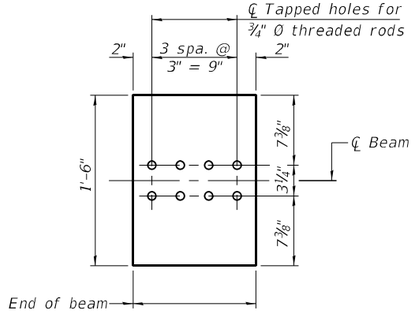
SECTION C-C
(14 -½" Ø 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

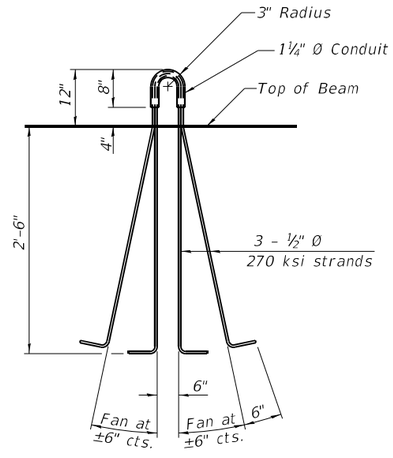
Bar	No.	Size	Length	Shape
G1(E)	44	#4	7'-7"	
G2(E)	8	#4	5'-8"	
G4(E)	38	#3	4'-1"	
G5(E)	3	#5	26'-3"	



TOP PLATE

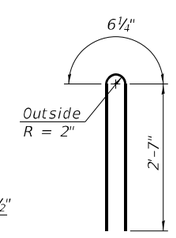


BOTTOM PLATE
See bearing details for pintle hole locations when required.

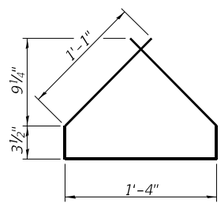


LIFTING LOOP DETAIL

BAR G1(E)



BAR G2(E)



BAR G4(E)

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 6,000 psi and a release concrete compressive strength, f'ci, of 5,000 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	79.5

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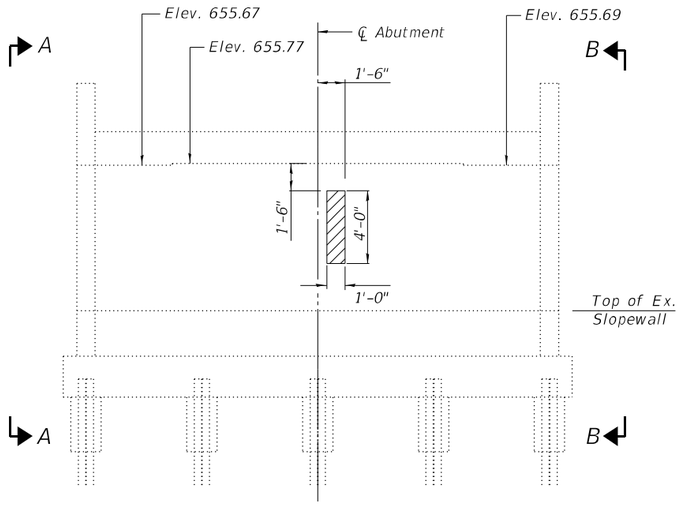
DEPARTMENT OF TRANSPORTATION

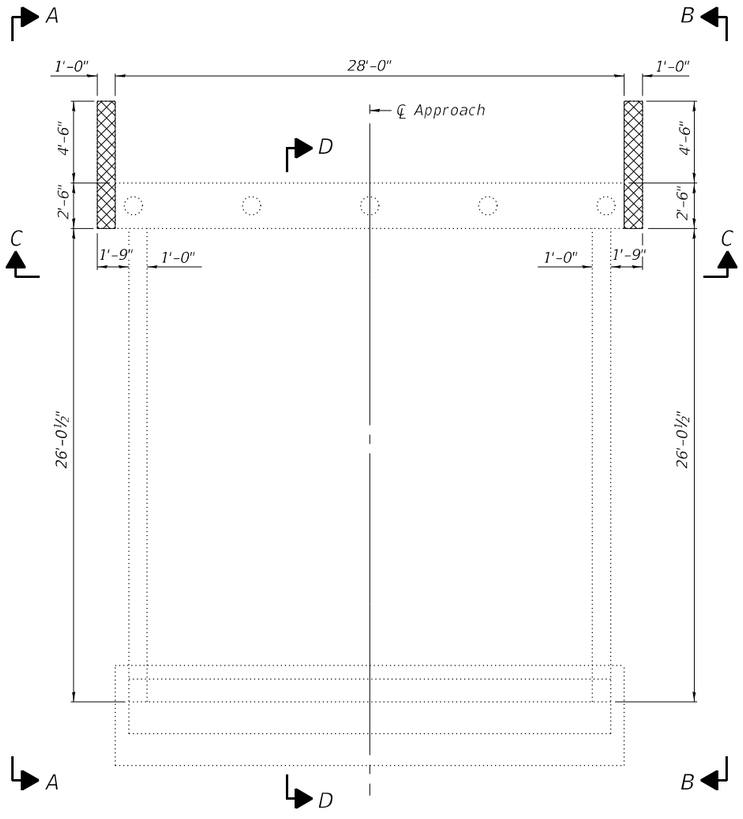
EAST APPROACH BEAMS
STRUCTURE NO. 068-0041
SHEET 22 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	133
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



WEST ABUTMENT

(Looking West)

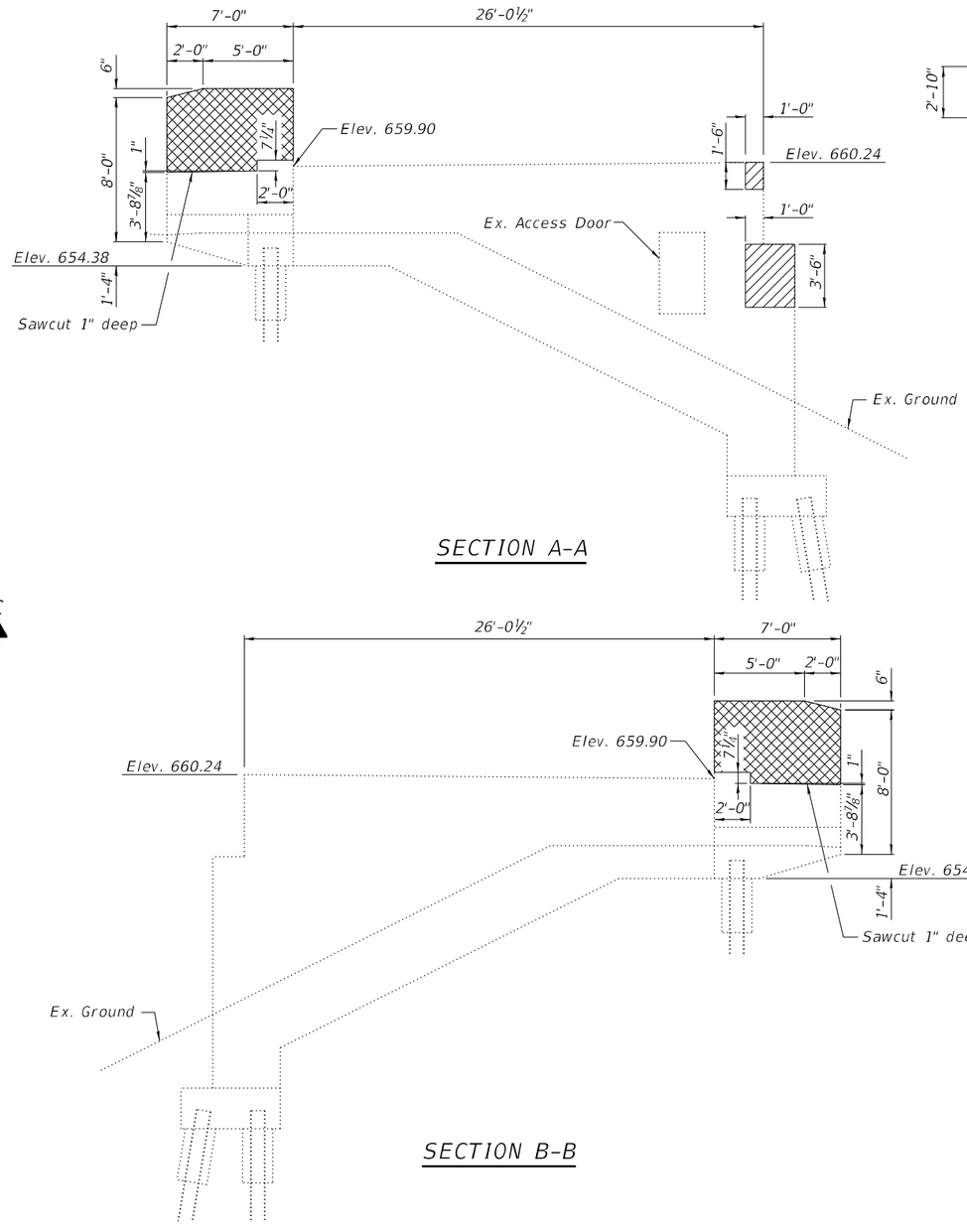


WEST APPROACH PLAN

LEGEND

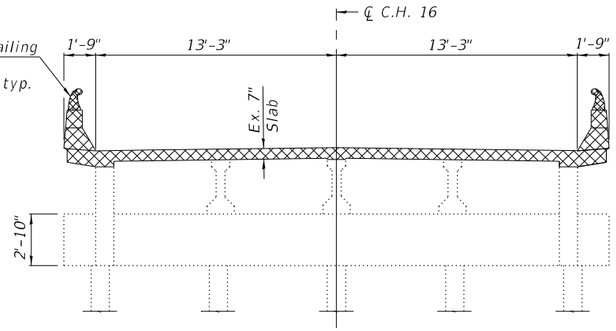
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)

Concrete Removal

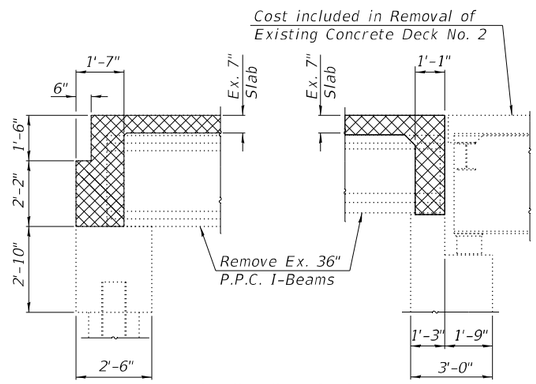


SECTION A-A

SECTION B-B



SECTION C-C



SECTION D-D

Notes:

Burn the existing reinforcement bars at the top of the existing wingwalls flush with the concrete surface, grind smooth, and seal with epoxy.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	34.6
Removal of Existing Concrete I-Beam	Each	3
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	15

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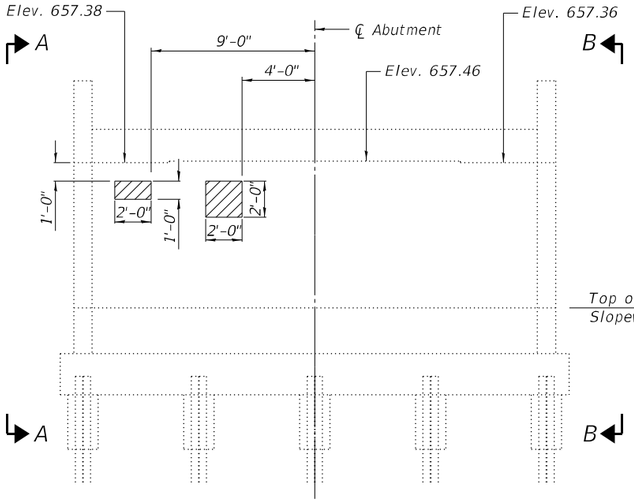
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

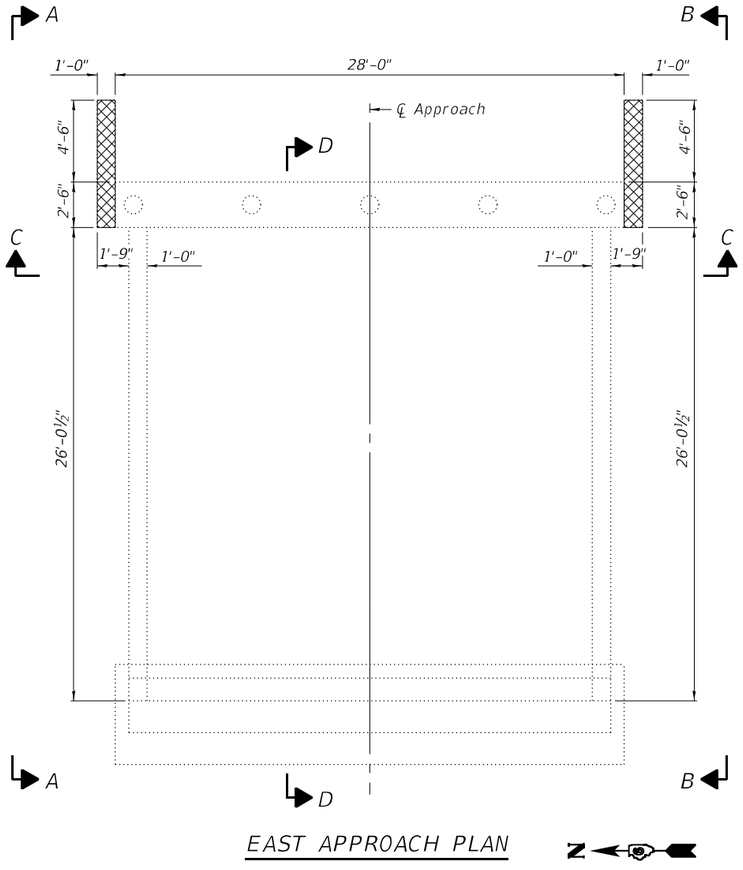
WEST ABUTMENT DEMO PLAN AND DETAILS
STRUCTURE NO. 068-0041
SHEET 23 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	134
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



EAST ABUTMENT

(Looking East)

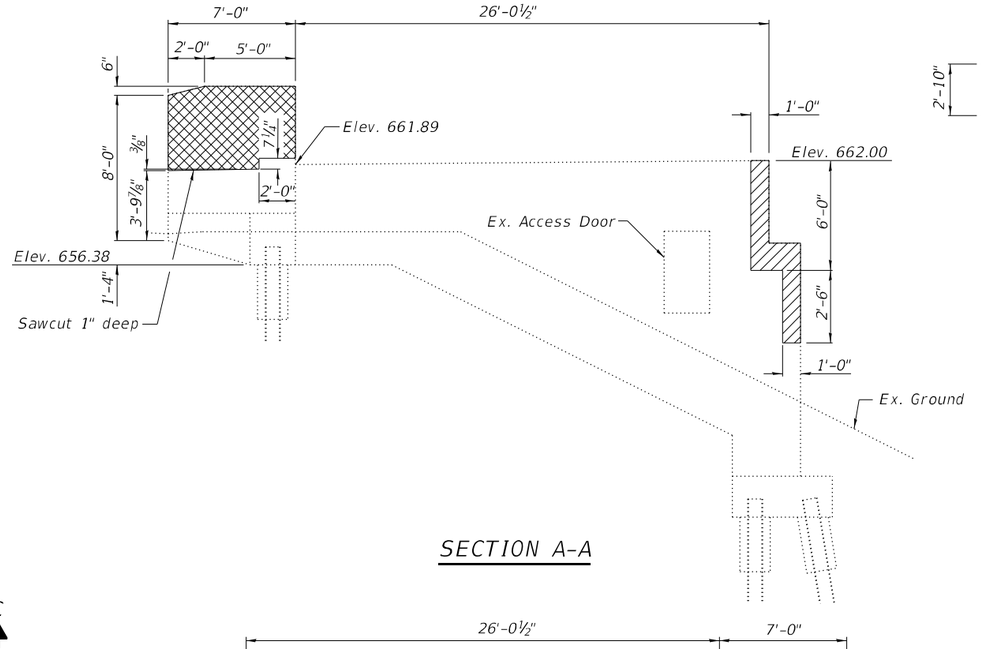


EAST APPROACH PLAN

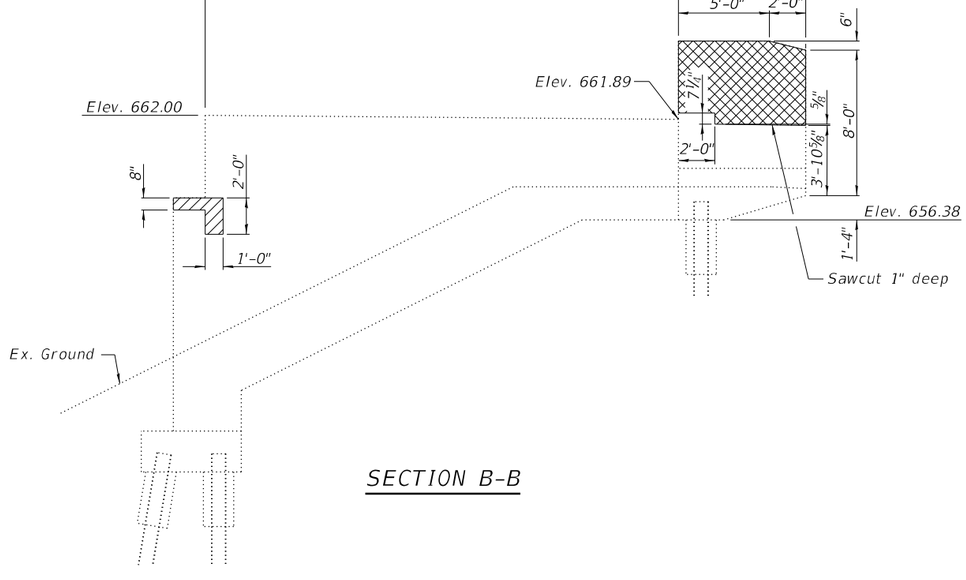
LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 inches)

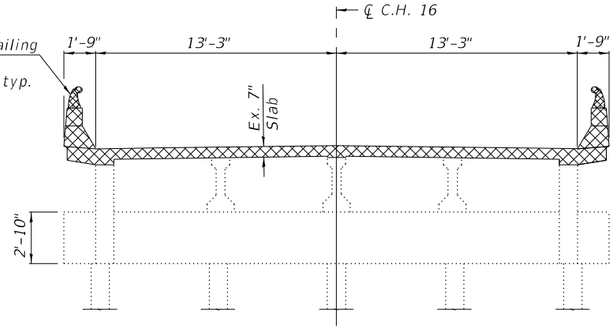
Concrete Removal



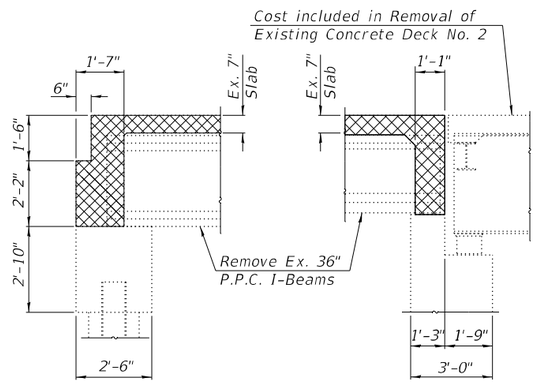
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

Notes:

Burn the existing reinforcement bars at the top of the existing wingwalls flush with the concrete surface, grind smooth, and seal with epoxy.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	34.6
Removal of Existing Concrete I-Beam	Each	3
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	19

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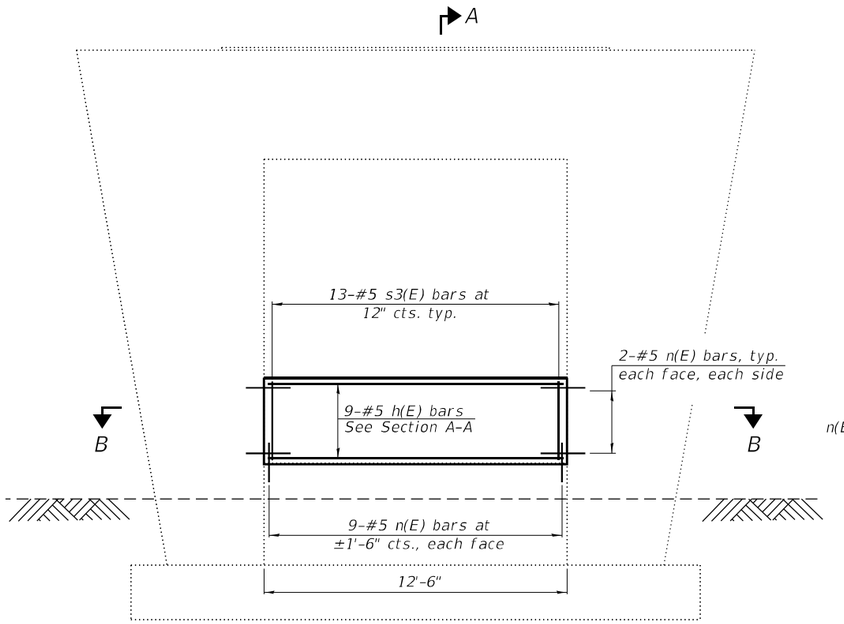
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DEMO PLAN AND DETAILS
STRUCTURE NO. 068-0041

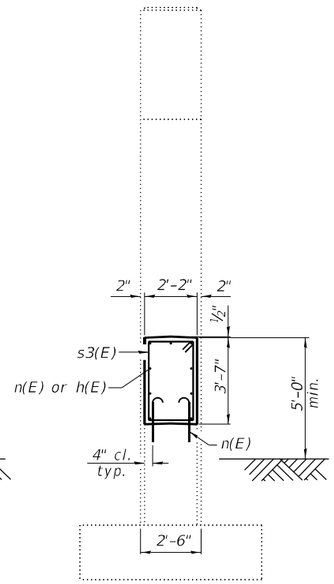
SHEET 24 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	135
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	

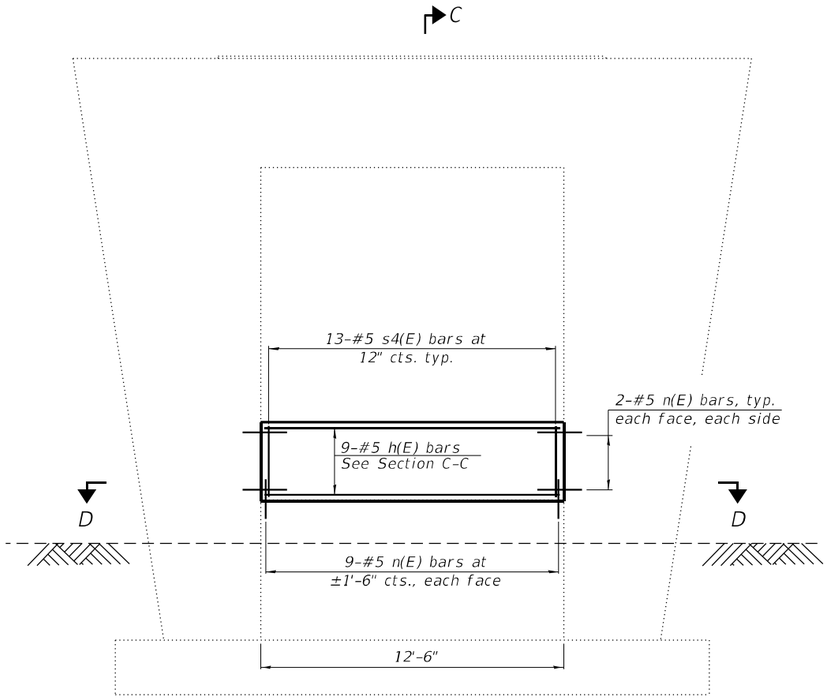


PIER 1 ELEVATION

(Looking East)

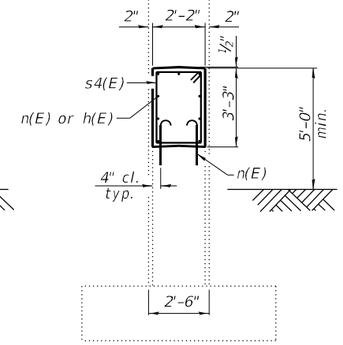


SECTION A-A

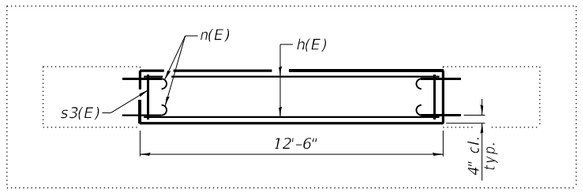


PIER 2 ELEVATION

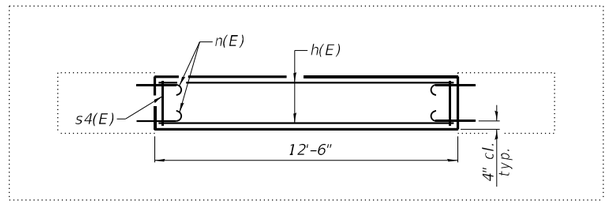
(Looking East)



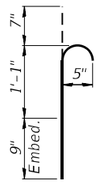
SECTION C-C



SECTION B-B

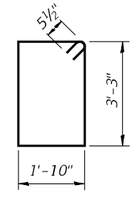


SECTION D-D

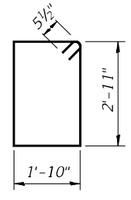


BAR n(E)

Epoxy grout n(E) bars in 9" min. deep holes
according to Article 584 of the Standard Specifications
Cost included with Reinforcement Bars, Epoxy Coated



BAR s3(E)



BAR s4(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	18	#5	12'-2"	
n(E)	34	#5	2'-5"	
s3(E)	13	#5	11'-1"	
s4(E)	13	#5	10'-5"	
Reinforcement Bars, Epoxy Coated			Pound	610
Concrete Structure			Cu. Yd.	6.9

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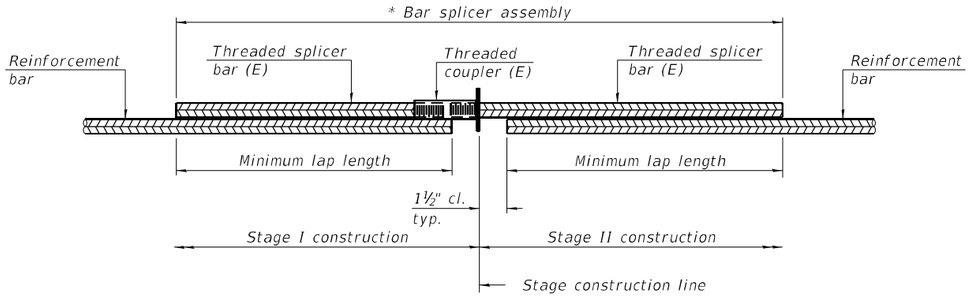
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
STRUCTURE NO. 068-0041
SHEET 25 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	136
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



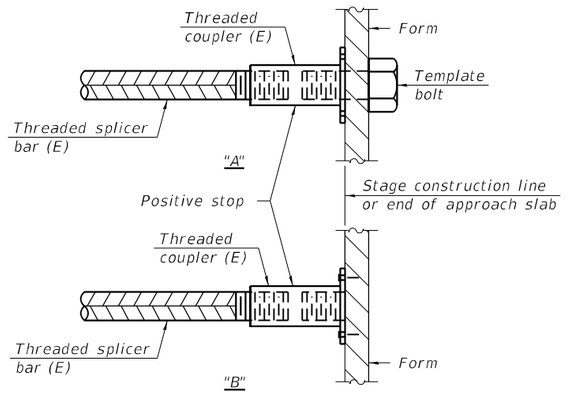
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

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

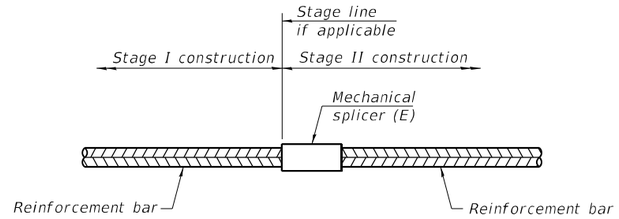
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
West Bent	#5	28	3'-6"
East Bent	#5	28	3'-6"



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

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 1-1-2020

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST.,QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME =	DESIGNED - AMS	REVISED -	
	CHECKED - RJP	REVISED -	
PLOT SCALE =	DRAWN - AMS	REVISED -	
PLOT DATE =	CHECKED - RJP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 068-0041
SHEET 26 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	137
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

Bench Mark: Chiseled "□" at base of pier of SN 068-0037. Elev. 643.967.

Existing Structure: Structure Number 068-0037, built in 1973 as FAI Route 55, Section 68-5HB at Sta. 1044+12.84. The structure is a two span curved continuous steel girder bridge composite in positive moment regions, supported on vaulted abutments and a multi-column pier. The bridge measures 299'-8" back to back approach bents along the local tangent with a skew of 12°-35'-48.73" ahead left. The out to out deck is 68'-0" measured radially. Work to be completed using Stage Construction, while maintaining one lane of traffic in each direction at all times.

No Salvage.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.055g
Site Coefficient (S) = 1.0

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS (New Construction)

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

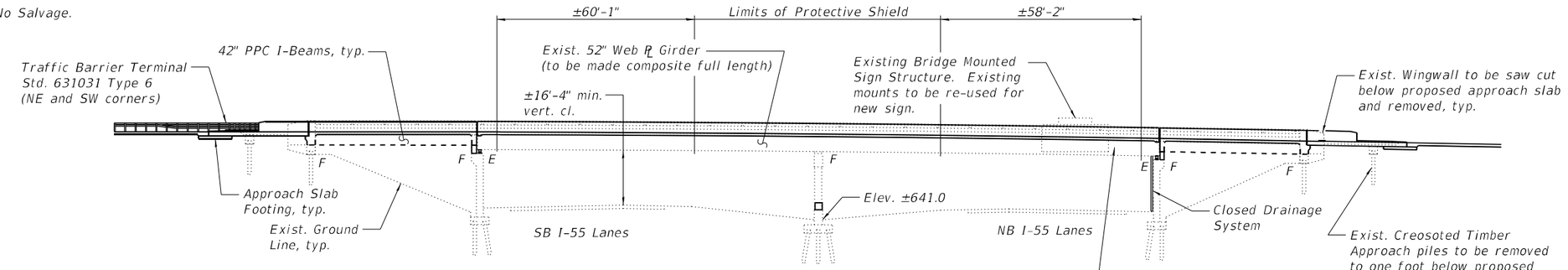
PRECAST PRESTRESSED UNITS

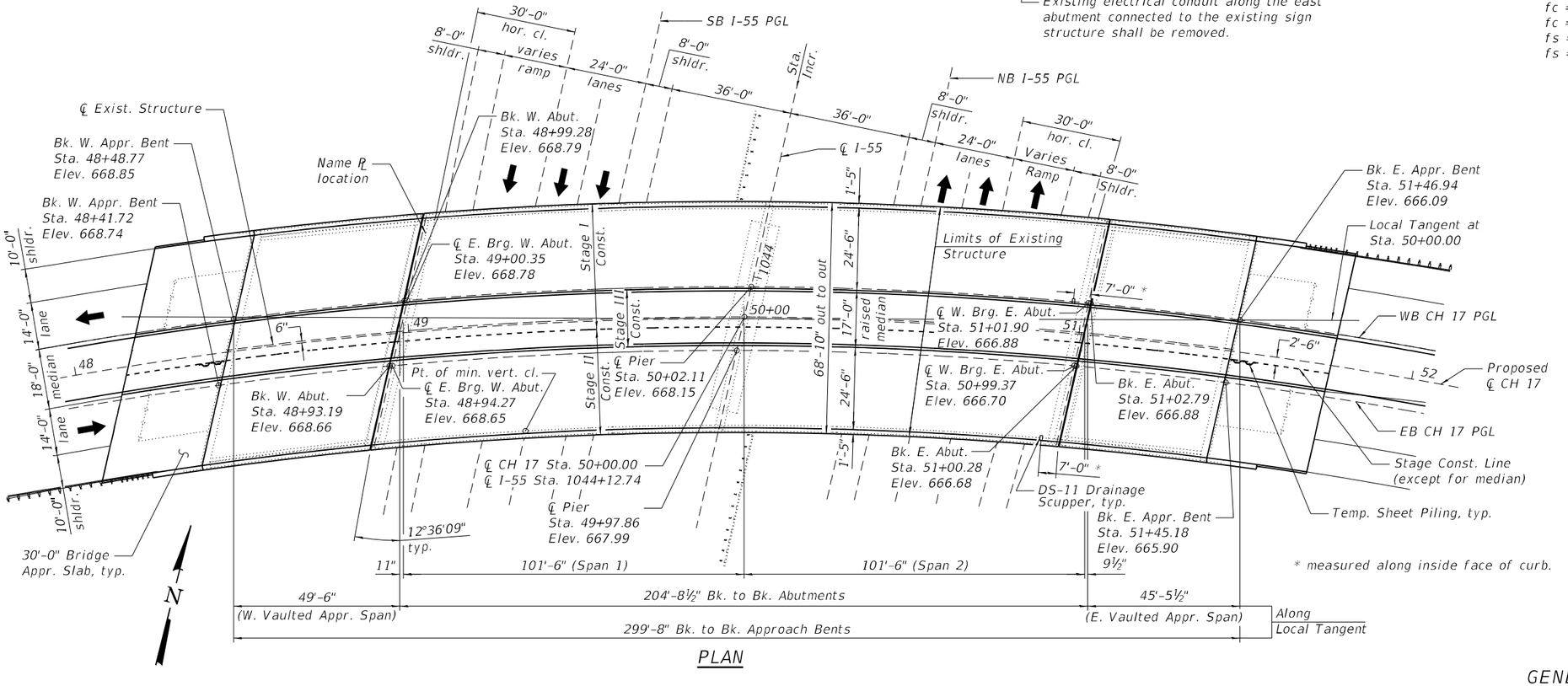
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (0.5" Ø Low Relaxation Strands)
fpbt = 201,960 psi (0.5" Ø Low Relaxation Strands)

FIELD UNITS (Exist. Construction)

fc = 1,200 psi (Deck Slab)
fc = 1,400 psi (All other concrete)
fs = 20,000 psi (Reinforcement)
fs = 20,000 psi (Structural Steel)

ELEVATION





PLAN

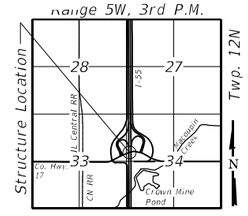
Notes:
All transverse dimensions are radial unless noted otherwise.
All longitudinal dimensions are measured along the Local Tangent unless noted otherwise.
DS-11 scuppers shall be collected into a closed drainage system.
A datum adjustment of -0.55 ft has been applied to the original plan elevations.

STATE OF ILLINOIS ★ LICENSED STRUCTURAL ENGINEER ★ MICHAEL T. HALEY 081-005991 CHATHAM

Michael T. Haley 10/17/2022

Michael T. Haley — Date
Licensed Structural Engineer
State of Illinois No. 081-005991
Expires 11/30/2022

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



LOCATION SKETCH

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 17 OVER I-55
F.A.I. RTE. 55 - SEC. (68-3)RS-6, (68-4)RS-1,I-3
MONTGOMERY COUNTY
STATION 1044+12.74
STRUCTURE NO. 068-0037

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - MTH	REVISED -	
	PLOT SCALE=	DRAWN - AJF	REVISED -	
	PLOT DATE = 11/30/2022	CHECKED - MTH	REVISED -	

SHEET 1 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	138
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	

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GENERAL NOTES

1. Fasteners shall be ASTM F3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. ø, holes 15/16 in. ø, unless otherwise noted.
2. No field welding is permitted except as specified in the contract documents.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
   As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
5. If the Contractor elects to use cantilever forming brackets on the exterior beams, 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.
6. 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.
7. Concrete Sealer shall be applied to the new concrete surfaces on the front face of abutment backwalls.
8. All new Structural Steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type 1.
9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
10. Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel shall be cleaned per Near White Blast Cleaning (SSPC-SP10). The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) shall be painted according to the requirements of Organic Zinc-Rich Primer/Epoxy Intermediate Coat/Urethane Topcoat (OZ/E/U). 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 Interstate Green, Munsell No. 7.5G 4/8.
11. SSPC QP1 (and SSPC QP2) Certification is required for this Contract.
12. The existing electrical conduit attached to the bridge shall be removed. See Roadway plans.
13. The existing bridge-mounted sign structure shall be removed during Stage 2 construction and replaced after construction of new south parapet using existing mounts. See Signing Plans and Special Provision.
14. The Contractor shall resurvey the I-55 vertical clearance over each lane and shoulder following the deck replacement. This work will not be paid for separately, but shall be included with the contract lump sum price for "Construction Layout".

SCOPE OF WORK

1. Remove and replace existing concrete deck utilizing stage construction, while providing protective shield over live traffic.
2. Make new deck composite full length.
3. Remove and replace each vaulted approach span slab, diaphragms and beams.
4. Remove approach pavement and replace with bridge approach slabs.
5. Strengthen steel girder ends as needed.
6. Remove and replace existing abutment bearings utilizing new steel extensions.
7. Perform concrete repair at each abutment and pier as required.
8. Raise existing pier crash wall to 5'-0" above ground elevation.
9. Clean and paint existing structural steel.
10. Remove portion of wingwalls for construction of new approach slabs.

INDEX OF SHEETS

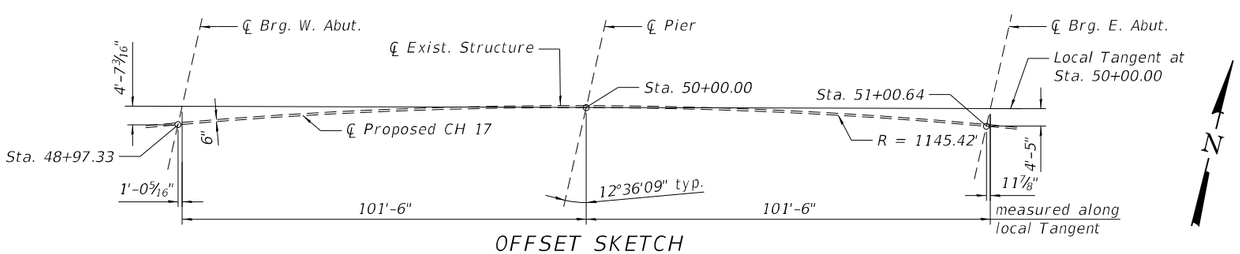
CH 17 CURVE DATA

P.I. Sta. = 53+31.48
Δ = 54°28'04" (Rt)
D = 5°00'08"
R = 1,145.42'
T = 589.52'
L = 1,088.88'
E = 142.80'
P.C. Sta. = 47+41.96
P.T. Sta. = 58+30.84

STATION 1044+12.74
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 55
SEC. (68-3)RS-6, (68-4)RS-1, I-3
LOADING HS-20
STRUCTURE NO. 068-0037

NAME PLATE

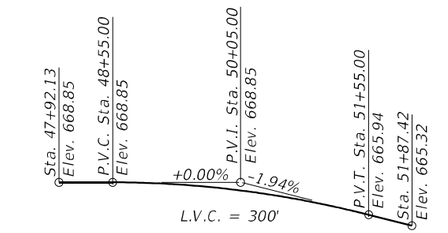
See Std. 515001
New Name Plate shall be placed next to existing Name Plate.



OFFSET SKETCH

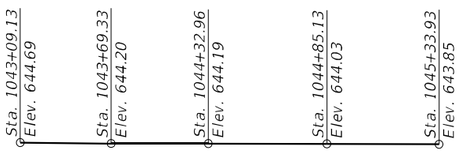
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	173.9	18.0	191.9
Removal of Existing Concrete Deck No. 3	Each	1	-	1
Protective Shield	Sq. Yd.	886	-	886
Structure Excavation	Cu. Yd.	-	167	167
Concrete Structures	Cu. Yd.	-	63.4	63.4
Concrete Superstructure	Cu. Yd.	757.9	-	757.9
Bridge Deck Grooving	Sq. Yd.	2,556	-	2,556
Protective Coat	Sq. Yd.	2,981	-	2,981
Concrete Superstructure (Approach Slab)	Cu. Yd.	186.2	-	186.2
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 in	Foot	650	-	650
Furnishing and Erecting Structural Steel	Pound	4,260	-	4,260
Stud Shear Connectors	Each	1,476	-	1,476
Reinforcement Bars, Epoxy Coated	Pound	260,750	2,060	262,810
Bar Splicers	Each	1,291	92	1,383
Name Plates	Each	-	1	1
Preformed Joint Strip Seal	Foot	140	-	140
Elastomeric Bearing Assembly, Type I	Each	-	18	18
Anchor Bolts, 1"	Each	-	40	40
Temporary Sheet Piling	Sq. Ft.	-	146	146
Granular Backfill for Structures	Cu. Yd.	-	167	167
Concrete Sealer	Sq. Ft.	-	274	274
Epoxy Crack Injection	Foot	-	225	225
Geocomposite Wall Drain	Sq. Yd.	-	88	88
Pipe Underdrains for Structures 4"	Foot	-	168	168
Jack and Remove Existing Bearings	Each	-	18	18
Structural Steel Repair	Pound	1,120	-	1,120
Removal of Existing Concrete I-Beam	Each	14	-	14
Containment and Disposal of Lead Paint Cleaning Residues No. 1	L. Sum	1	-	1
Cleaning and Painting Steel Bridge No. 1	L. Sum	1	-	1
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	-	58	58
Drainage Scuppers, DS-11	Each	2	-	2
Drainage System for Structures	L. Sum	1	-	1



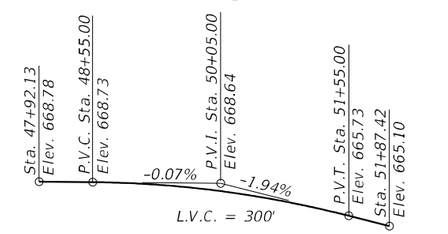
PROPOSED WB CH 17 PROFILE GRADE

(9.5' left of ℄ Roadway)



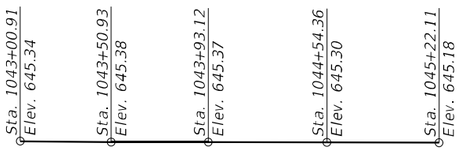
EXISTING NB I-55 PROFILE GRADE

(Along Inside Edge of NB Pavement from survey)



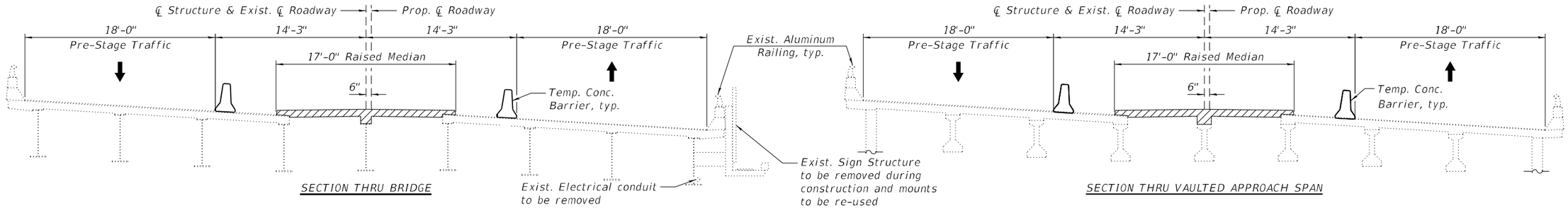
PROPOSED EB CH 17 PROFILE GRADE

(9.5' right of ℄ Roadway)

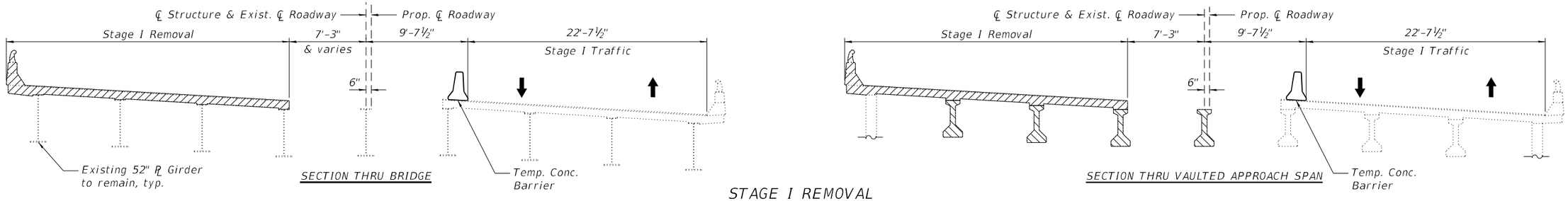


EXISTING SB I-55 PROFILE GRADE

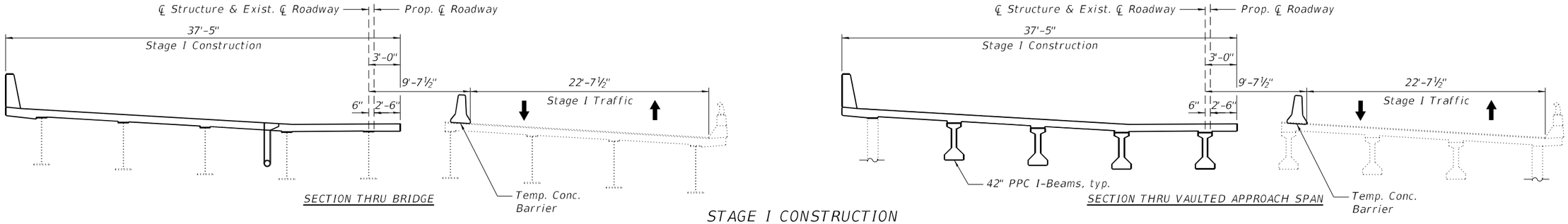
(Along Inside Edge of SB Pavement from survey)



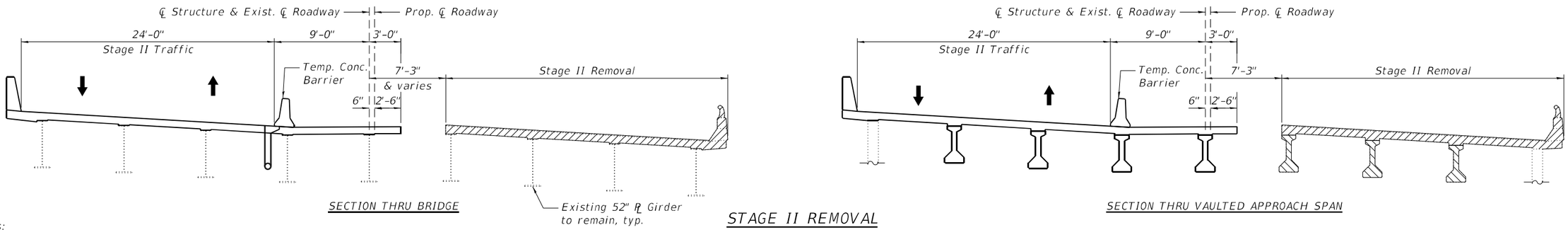
PRE-STAGE REMOVAL



STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL

Notes:

All sections are looking east.
All transverse dimensions are radial unless noted otherwise.
See Sheet 5 of 37 for details of Temporary Concrete Barrier.
See Roadway Plans for quantity of Temporary Concrte Barrier and Drums.
Cost of removal of existing aluminum railing and wearing surface is included with Removal of Existing Concrete Deck No. 3.

LEGEND

Removal of Existing Concrete Deck No. 3

Removal of Existing Concrete I-Beam

(Sheet 1 of 2)

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LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

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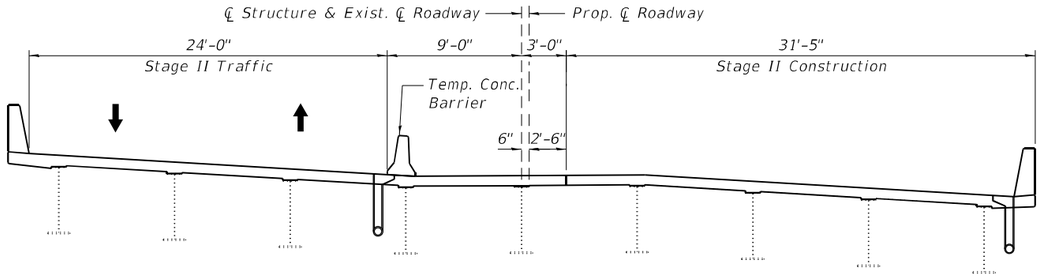
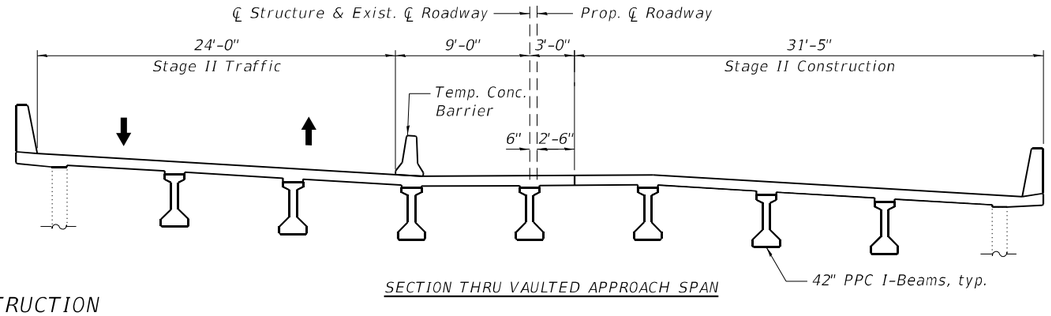
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 068-0037
SHEET 3 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	140
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

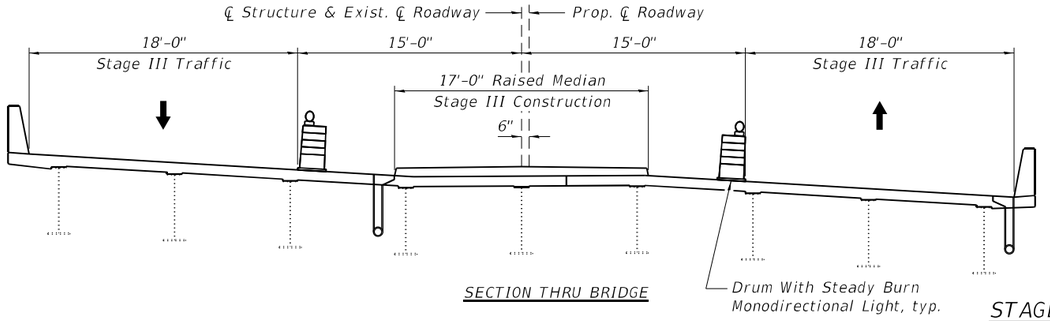


SECTION THRU BRIDGE

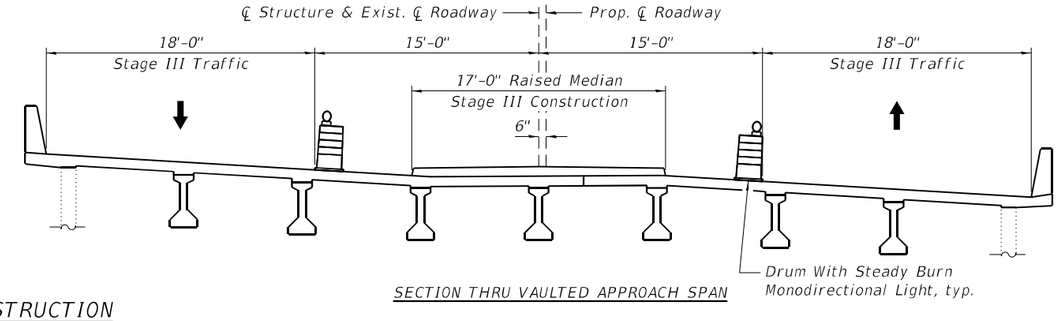


SECTION THRU VAULTED APPROACH SPAN

STAGE II CONSTRUCTION



SECTION THRU BRIDGE

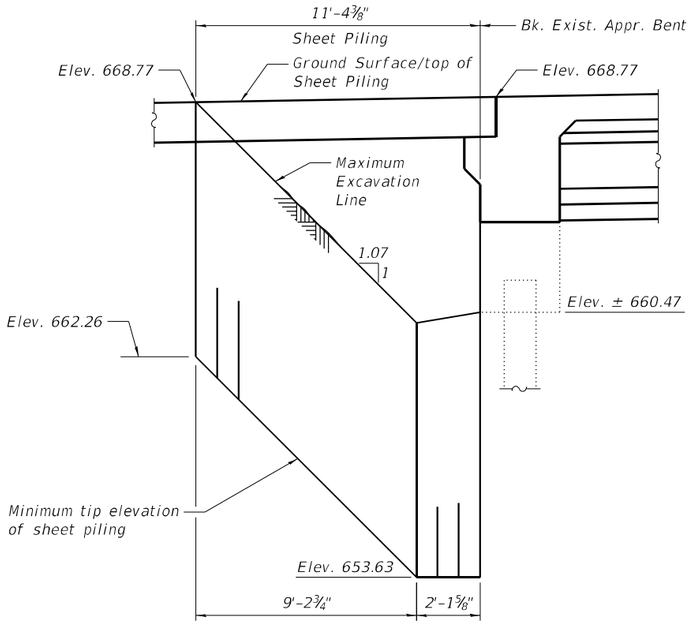


SECTION THRU VAULTED APPROACH SPAN

STAGE III CONSTRUCTION

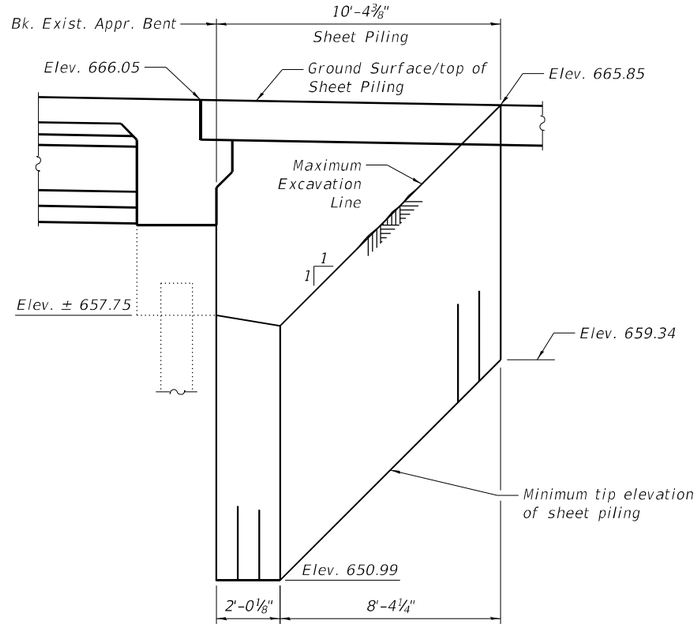
Notes:

All sections are looking east.
All transverse dimensions are radial unless noted otherwise.
See Sheet 5 of 37 for details of Temporary Concrete Barrier.
See Roadway Plans for quantity of Temporary Concrte Barrier and Drums.
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.
Min. Section Modulus for sheeting = 4.6 in^3/ft (typ.).



TEMPORARY SHEET PILING AT WEST APPROACH BENT

(Dimensions along stage construction line)



TEMPORARY SHEET PILING AT EAST APPROACH BENT

(Dimensions along stage construction line)

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LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

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	CHECKED - MTH	REVISED -	
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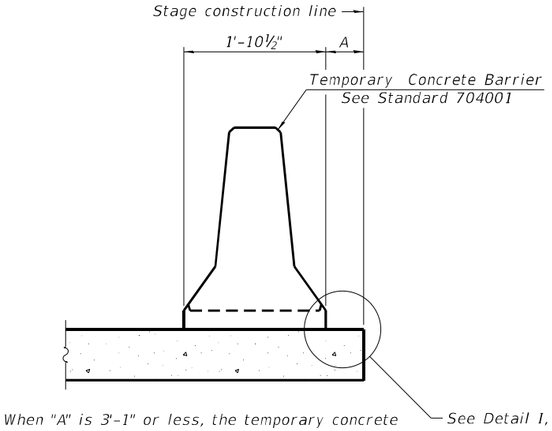
PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

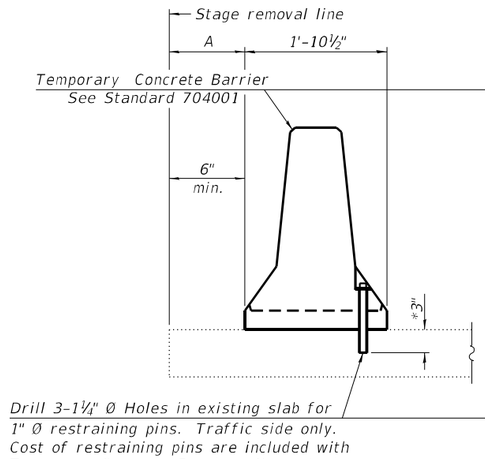
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 068-0037
SHEET 4 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	141
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



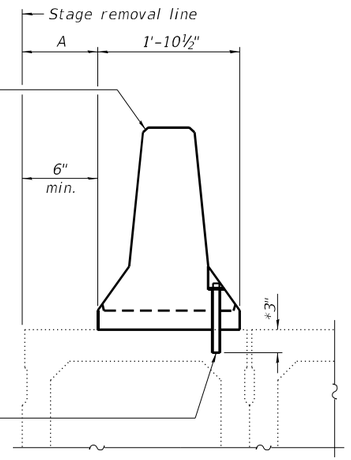
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø 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".

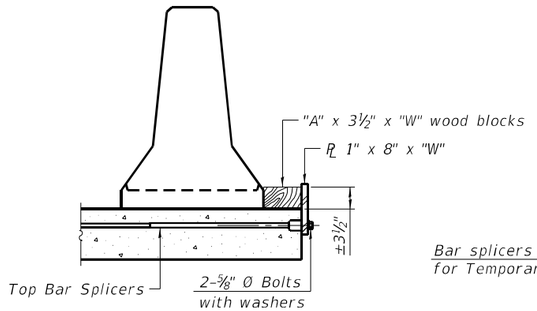
EXISTING SLAB



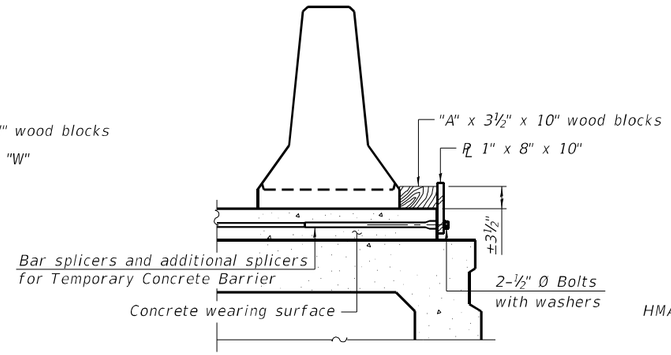
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

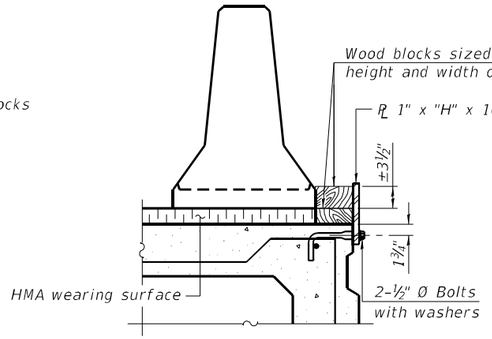
SECTIONS THRU SLAB OR DECK BEAM



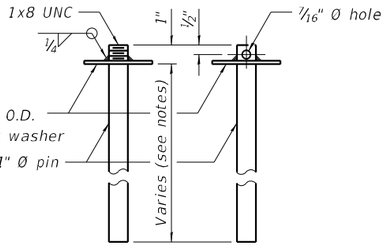
DETAIL I



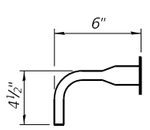
DETAIL II



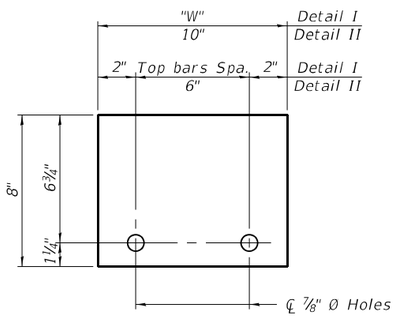
DETAIL III



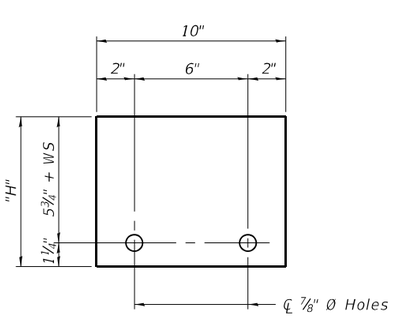
RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(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 1½", 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.

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

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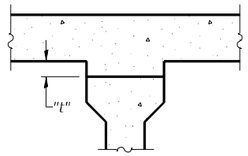
PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

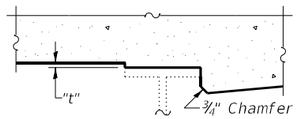
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 068-0037

SHEET 5 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	142
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

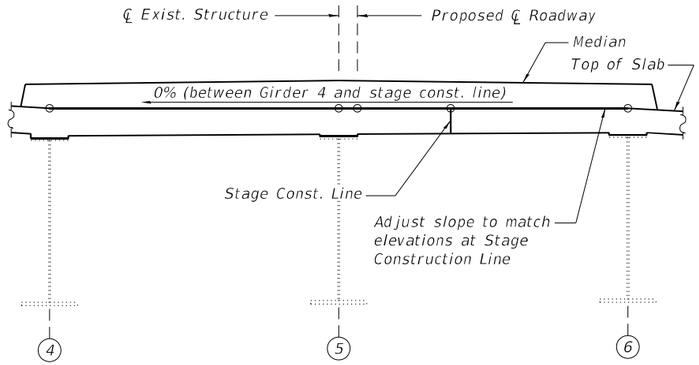


To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 7 and 8 of 37, minus slab thickness, equals the fillet heights "t" above top flanges of beams.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 8 thru 10 of 37, minus slab thickness, equals the fillet heights "t" above top flange of beams.

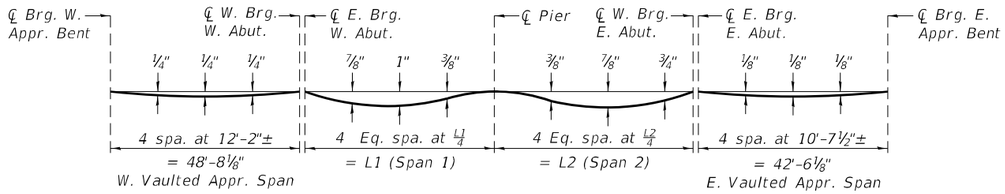
FILLET HEIGHTS



DETAIL AT MEDIAN

(Looking East)

Elevations at ℄ Roadway, Stage Construction Line and Girders 4 thru 6 are given at Theoretical Top of Slab below Median.



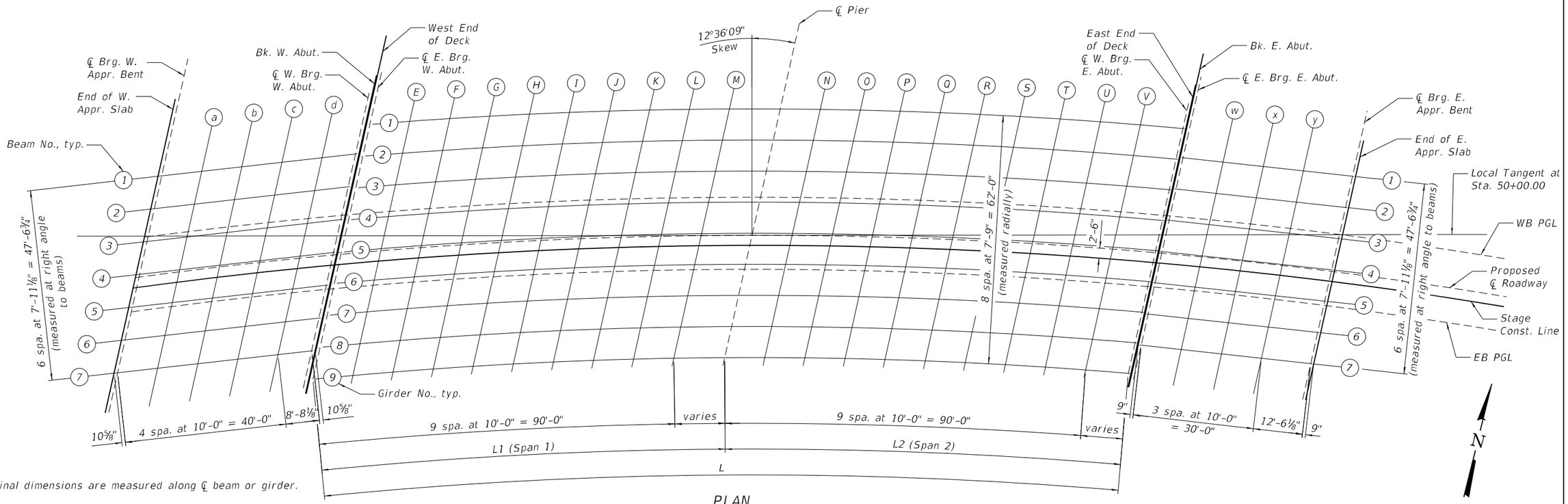
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only, excluding beams)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 7 thru 10 of 37.

DIMENSION TABLE

Girder	L1	L2	L
1	102'-5⅝"	100'-6¾"	203'-0⅜"
2	102'-6⅛"	100'-7"	203'-1⅛"
3	102'-6¾"	100'-7¼"	203'-2"
4	102'-7⅜"	100'-7½"	203'-2⅞"
5	102'-8"	100'-7¾"	203'-3¾"
6	102'-8⅝"	100'-8"	203'-4⅝"
7	102'-9¼"	100'-8¼"	203'-5½"
8	102'-9⅞"	100'-8½"	203'-6⅜"
9	102'-10½"	100'-8¾"	203'-7¼"



Note:
Longitudinal dimensions are measured along ℄ beam or girder.

PLAN

(Sheet 1 of 5)

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Springfield, Illinois

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PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0037
SHEET 6 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	143
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

WEST APPROACH SPAN – BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+54.55	–24.15	669.74	669.74
℄ Brg. W. Appr. Bent	48+55.42	–24.13	669.74	669.74
a	48+65.21	–24.04	669.73	669.75
b	48+75.00	–24.03	669.72	669.75
c	48+84.80	–24.10	669.71	669.73
d	48+94.59	–24.27	669.70	669.71
℄ W. Brg. W. Abut.	49+03.09	–24.47	669.69	669.69
Bk. W. Abut.	49+03.95	–24.50	669.69	669.69

WEST APPROACH SPAN – BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+51.74	–16.26	669.26	669.26
℄ Brg. W. Appr. Bent	48+52.61	–16.25	669.26	669.26
a	48+62.47	–16.13	669.25	669.27
b	48+72.33	–16.10	669.24	669.26
c	48+82.19	–16.15	669.23	669.25
d	48+90.05	–16.29	669.22	669.24
℄ W. Brg. W. Abut.	49+00.61	–16.48	669.21	669.21
Bk. W. Abut.	49+01.48	–16.50	669.21	669.21

WEST APPROACH SPAN – WB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+49.30	–9.50	668.85	668.85
℄ Brg. W. Appr. Bent	48+50.18	–9.50	668.85	668.85
a	48+60.14	–9.50	668.85	668.86
b	48+70.08	–9.50	668.84	668.86
c	48+79.99	–9.50	668.83	668.85
d	48+89.86	–9.50	668.81	668.82
℄ W. Brg. W. Abut.	48+98.42	–9.50	668.79	668.79
Bk. W. Abut.	48+99.28	–9.50	668.79	668.79

WEST APPROACH SPAN – BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+48.89	–8.39	668.78	668.78
℄ Brg. W. Appr. Bent	48+49.77	–8.37	668.78	668.78
a	48+59.69	–8.23	668.77	668.79
b	48+69.62	–8.17	668.76	668.78
c	48+79.55	–8.20	668.75	668.77
d	48+89.48	–8.32	668.74	668.75
℄ W. Brg. W. Abut.	48+98.10	–8.49	668.73	668.73
Bk. W. Abut.	48+98.97	–8.51	668.73	668.73

WEST APPROACH SPAN – BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+46.00	–0.52	668.78	668.78
℄ Brg. W. Appr. Bent	48+46.88	–0.50	668.78	668.78
a	48+56.88	–0.33	668.77	668.79
b	48+66.88	–0.25	668.76	668.79
c	48+76.87	–0.26	668.76	668.78
d	48+86.87	–0.35	668.75	668.76
℄ W. Brg. W. Abut.	48+95.55	–0.51	668.74	668.74
Bk. W. Abut.	48+96.43	–0.52	668.73	668.73

WEST APPROACH SPAN – PROPOSED ℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+45.81	0.00	668.78	668.78
℄ Brg. W. Appr. Bent	48+46.70	0.00	668.78	668.78
a	48+56.76	0.00	668.77	668.79
b	48+66.79	0.00	668.76	668.79
c	48+76.79	0.00	668.76	668.78
d	48+86.76	0.00	668.75	668.76
℄ W. Brg. W. Abut.	48+95.39	0.00	668.74	668.74
Bk. W. Abut.	48+96.26	0.00	668.73	668.73

WEST APPROACH SPAN – STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+44.88	2.50	668.78	668.78
℄ Brg. W. Appr. Bent	48+45.77	2.50	668.78	668.78
a	48+55.86	2.50	668.77	668.79
b	48+65.91	2.50	668.77	668.79
c	48+75.94	2.50	668.76	668.78
d	48+85.93	2.50	668.75	668.76
℄ W. Brg. W. Abut.	48+94.58	2.50	668.74	668.74
Bk. W. Abut.	48+95.46	2.50	668.74	668.74

WEST APPROACH SPAN – BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+43.07	7.34	668.87	668.87
℄ Brg. W. Appr. Bent	48+43.96	7.36	668.87	668.87
a	48+54.03	7.56	668.85	668.86
b	48+64.09	7.66	668.83	668.86
c	48+74.16	7.68	668.82	668.84
d	48+84.23	7.61	668.80	668.81
℄ W. Brg. W. Abut.	48+92.96	7.48	668.78	668.78
Bk. W. Abut.	48+93.85	7.46	668.78	668.78

WEST APPROACH SPAN – EB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+42.26	9.50	668.74	668.74
℄ Brg. W. Appr. Bent	48+43.16	9.50	668.74	668.74
a	48+53.32	9.50	668.73	668.74
b	48+63.44	9.50	668.72	668.74
c	48+73.53	9.50	668.71	668.73
d	48+83.59	9.50	668.68	668.70
℄ W. Brg. W. Abut.	48+92.30	9.50	668.66	668.66
Bk. W. Abut.	48+93.19	9.50	668.66	668.66

WEST APPROACH SPAN – BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+40.11	15.19	668.39	668.39
℄ Brg. W. Appr. Bent	48+41.00	15.22	668.39	668.39
a	48+51.13	15.44	668.37	668.38
b	48+61.27	15.57	668.35	668.38
c	48+71.41	15.61	668.34	668.36
d	48+81.54	15.56	668.32	668.33
℄ W. Brg. W. Abut.	48+90.34	15.45	668.30	668.30
Bk. W. Abut.	48+91.24	15.44	668.30	668.30

WEST APPROACH SPAN – BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End of W. Appr. Slab	48+37.09	23.04	667.92	667.92
℄ Brg. W. Appr. Bent	48+37.99	23.06	667.91	667.91
a	48+48.20	23.31	667.89	667.91
b	48+58.40	23.47	667.88	667.90
c	48+68.61	23.53	667.86	667.88
d	48+78.82	23.51	667.84	667.85
℄ W. Brg. W. Abut.	48+87.68	23.42	667.82	667.82
Bk. W. Abut.	48+88.58	23.41	667.82	667.82

EAST APPROACH SPAN – BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+04.68	–24.25	667.73	667.73
℄ E. Brg. E. Abut.	51+05.42	–24.24	667.72	667.72
w	51+15.21	–24.12	667.55	667.56
x	51+25.01	–24.09	667.38	667.40
y	51+34.80	–24.14	667.21	667.22
℄ Brg. E. Appr. Bent	51+47.05	–24.33	667.00	667.00
End of E. Appr. Slab	51+47.79	–24.35	666.98	666.98

Note:
Stations and offsets are measured radially along ℄ Roadway.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0037
SHEET 7 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	144
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

EAST APPROACH SPAN – BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+03.67	-16.34	667.27	667.27
℄ E. Brg. E. Abut.	51+04.42	-16.32	667.25	667.25
w	51+14.28	-16.20	667.09	667.09
x	51+24.14	-16.16	666.91	666.93
y	51+34.00	-16.21	666.74	666.75
℄ Brg. E. Appr. Bent	51+46.33	-16.39	666.53	666.53
End of E. Appr. Slab	51+47.07	-16.40	666.51	666.51

EAST APPROACH SPAN – BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+01.62	-0.51	666.82	666.82
℄ E. Brg. E. Abut.	51+02.37	-0.50	666.80	666.80
w	51+12.37	-0.36	666.63	666.64
x	51+22.36	-0.30	666.46	666.47
y	51+32.36	-0.33	666.29	666.30
℄ Brg. E. Appr. Bent	51+44.86	-0.50	666.07	666.07
End of E. Appr. Slab	51+45.62	-0.51	666.06	666.06

EAST APPROACH SPAN – BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+00.56	7.40	666.81	666.81
℄ E. Brg. E. Abut.	51+01.32	7.41	666.79	666.79
w	51+11.39	7.56	666.62	666.63
x	51+21.46	7.63	666.44	666.46
y	51+31.52	7.60	666.27	666.28
℄ Brg. E. Appr. Bent	51+44.11	7.45	666.05	666.05
End of E. Appr. Slab	51+44.87	7.43	666.03	666.03

EAST APPROACH SPAN – BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	50+99.50	15.31	666.34	666.34
℄ E. Brg. E. Abut.	51+00.26	15.32	666.33	666.33
w	51+10.40	15.48	666.15	666.16
x	51+20.54	15.55	665.98	665.99
y	51+30.67	15.54	665.80	665.81
℄ Brg. E. Appr. Bent	51+43.35	15.39	665.58	665.58
End of E. Appr. Slab	51+44.12	15.38	665.56	665.56

EAST APPROACH SPAN – WB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+02.79	-9.50	666.86	666.86
℄ E. Brg. E. Abut.	51+03.54	-9.50	666.85	666.85
w	51+13.48	-9.50	666.69	666.70
x	51+23.40	-9.50	666.52	666.53
y	51+33.31	-9.50	666.35	666.36
℄ Brg. E. Appr. Bent	51+45.70	-9.50	666.12	666.12
End of E. Appr. Slab	51+46.45	-9.50	666.10	666.10

EAST APPROACH SPAN – PROPOSED ℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+01.55	0.00	666.82	666.82
℄ E. Brg. E. Abut.	51+02.30	0.00	666.81	666.81
w	51+12.32	0.00	666.63	666.64
x	51+22.33	0.00	666.46	666.47
y	51+32.32	0.00	666.29	666.30
℄ Brg. E. Appr. Bent	51+44.81	0.00	666.07	666.07
End of E. Appr. Slab	51+45.57	0.00	666.06	666.06

EAST APPROACH SPAN – EB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+00.28	9.50	666.68	666.68
℄ E. Brg. E. Abut.	51+01.05	9.50	666.67	666.67
w	51+11.15	9.50	666.51	666.51
x	51+21.24	9.50	666.33	666.35
y	51+31.32	9.50	666.16	666.17
℄ Brg. E. Appr. Bent	51+43.92	9.50	665.93	665.93
End of E. Appr. Slab	51+44.68	9.50	665.91	665.91

EAST APPROACH SPAN – BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	50+98.42	23.21	665.88	665.88
℄ E. Brg. E. Abut.	50+99.19	23.23	665.86	665.86
w	51+09.39	23.40	665.69	665.70
x	51+19.60	23.48	665.51	665.52
y	51+29.81	23.47	665.33	665.34
℄ Brg. E. Appr. Bent	51+42.58	23.33	665.11	665.11
End of E. Appr. Slab	51+43.35	23.32	665.09	665.09

EAST APPROACH SPAN – BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+02.65	-8.42	666.80	666.80
℄ E. Brg. E. Abut.	51+03.40	-8.41	666.79	666.79
w	51+13.33	-8.28	666.62	666.63
x	51+23.26	-8.23	666.45	666.46
y	51+33.18	-8.27	666.27	666.28
℄ Brg. E. Appr. Bent	51+45.60	-8.44	666.05	666.05
End of E. Appr. Slab	51+46.35	-8.46	666.04	666.04

EAST APPROACH SPAN – STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	51+01.22	2.50	666.82	666.82
℄ E. Brg. E. Abut.	51+01.98	2.50	666.81	666.81
w	51+12.01	2.50	666.64	666.65
x	51+22.04	2.50	666.47	666.48
y	51+32.06	2.50	666.29	666.30
℄ Brg. E. Appr. Bent	51+44.58	2.50	666.07	666.07
End of E. Appr. Slab	51+45.33	2.50	666.06	666.06

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	49+06.29	-31.50	670.11	670.11
℄ E. Brg. W. Abut.	49+07.13	-31.50	670.10	670.10
E	49+16.86	-31.50	670.07	670.10
F	49+26.59	-31.50	670.03	670.09
G	49+36.32	-31.50	669.98	670.06
H	49+46.06	-31.50	669.92	670.01
I	49+55.79	-31.50	669.86	669.95
J	49+65.52	-31.50	669.80	669.87
K	49+75.25	-31.50	669.72	669.77
L	49+84.98	-31.50	669.65	669.67
M	49+94.72	-31.50	669.56	669.57
℄ Pier	50+06.85	-31.50	669.45	669.45
N	50+16.58	-31.50	669.35	669.35
O	50+26.31	-31.50	669.24	669.26
P	50+36.05	-31.50	669.13	669.17
Q	50+45.78	-31.50	669.02	669.07
R	50+55.51	-31.50	668.89	668.96
S	50+65.24	-31.50	668.76	668.84
T	50+74.98	-31.50	668.63	668.70
U	50+84.71	-31.50	668.49	668.54
V	50+94.44	-31.50	668.34	668.37
℄ W. Brg. E. Abut.	51+04.72	-31.50	668.18	668.18
East End of Deck	51+05.40	-31.50	668.16	668.16

Note:
Stations and offsets are measured radially along ℄ Roadway.

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - CZ	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE=	DRAWN - AJF	REVISED -	
PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0037
SHEET 8 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	145
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	49+03.92	-23.75	669.64	669.64
℄ E. Brg. W. Abut.	49+04.77	-23.75	669.64	669.64
E	49+14.56	-23.75	669.60	669.64
F	49+24.36	-23.75	669.56	669.62
G	49+34.16	-23.75	669.52	669.59
H	49+43.96	-23.75	669.46	669.55
I	49+53.75	-23.75	669.40	669.48
J	49+63.55	-23.75	669.34	669.40
K	49+73.35	-23.75	669.27	669.31
L	49+83.14	-23.75	669.19	669.22
M	49+92.94	-23.75	669.10	669.11
℄ Pier	50+05.20	-23.75	668.99	668.99
N	50+15.00	-23.75	668.89	668.90
O	50+24.79	-23.75	668.79	668.81
P	50+34.59	-23.75	668.68	668.71
Q	50+44.39	-23.75	668.56	668.61
R	50+54.18	-23.75	668.44	668.50
S	50+63.98	-23.75	668.31	668.38
T	50+73.78	-23.75	668.17	668.24
U	50+83.57	-23.75	668.03	668.08
V	50+93.37	-23.75	667.88	667.91
℄ W. Brg. E. Abut.	51+03.74	-23.75	667.72	667.72
East End of Deck	51+04.42	-23.75	667.71	667.71

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	49+01.53	-16.00	669.18	669.18
℄ E. Brg. W. Abut.	49+02.38	-16.00	669.17	669.17
E	49+12.24	-16.00	669.14	669.17
F	49+22.10	-16.00	669.10	669.16
G	49+31.96	-16.00	669.05	669.13
H	49+41.83	-16.00	669.00	669.09
I	49+51.69	-16.00	668.94	669.03
J	49+61.55	-16.00	668.88	668.95
K	49+71.41	-16.00	668.81	668.86
L	49+81.27	-16.00	668.73	668.76
M	49+91.14	-16.00	668.65	668.66
℄ Pier	50+03.53	-16.00	668.53	668.53
N	50+13.39	-16.00	668.44	668.44
O	50+23.25	-16.00	668.33	668.35
P	50+33.11	-16.00	668.22	668.26
Q	50+42.98	-16.00	668.10	668.16
R	50+52.84	-16.00	667.98	668.05
S	50+62.70	-16.00	667.85	667.93
T	50+72.56	-16.00	667.72	667.79
U	50+82.43	-16.00	667.57	667.63
V	50+92.29	-16.00	667.43	667.46
℄ W. Brg. E. Abut.	51+02.74	-16.00	667.26	667.26
East End of Deck	51+03.43	-16.00	667.25	667.25

WB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+99.49	-9.50	668.79	668.79
℄ E. Brg. W. Abut.	49+00.35	-9.50	668.78	668.78
E	49+10.26	-9.50	668.75	668.78
F	49+20.18	-9.50	668.71	668.77
G	49+30.10	-9.50	668.67	668.75
H	49+40.02	-9.50	668.62	668.70
I	49+49.93	-9.50	668.56	668.64
J	49+59.85	-9.50	668.49	668.56
K	49+69.77	-9.50	668.42	668.47
L	49+79.69	-9.50	668.35	668.37
M	49+89.61	-9.50	668.26	668.27
℄ Pier	50+02.11	-9.50	668.15	668.15
N	50+12.02	-9.50	668.05	668.06
O	50+21.94	-9.50	667.95	667.97
P	50+31.86	-9.50	667.84	667.87
Q	50+41.78	-9.50	667.72	667.78
R	50+51.70	-9.50	667.60	667.67
S	50+61.61	-9.50	667.47	667.54
T	50+71.53	-9.50	667.33	667.40
U	50+81.45	-9.50	667.19	667.25
V	50+91.37	-9.50	667.04	667.08
℄ W. Brg. E. Abut.	51+01.90	-9.50	666.88	666.88
East End of Deck	51+02.59	-9.50	666.87	666.87

GIRDER 4 & WB SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+99.09	-8.25	668.71	668.71
℄ E. Brg. W. Abut.	48+99.95	-8.25	668.71	668.71
E	49+09.88	-8.25	668.68	668.71
F	49+19.81	-8.25	668.64	668.70
G	49+29.74	-8.25	668.59	668.67
H	49+39.67	-8.25	668.54	668.63
I	49+49.59	-8.25	668.48	668.57
J	49+59.52	-8.25	668.42	668.49
K	49+69.45	-8.25	668.35	668.40
L	49+79.38	-8.25	668.27	668.30
M	49+89.31	-8.25	668.19	668.20
℄ Pier	50+01.83	-8.25	668.08	668.08
N	50+11.76	-8.25	667.98	667.98
O	50+21.69	-8.25	667.88	667.89
P	50+31.62	-8.25	667.77	667.80
Q	50+41.55	-8.25	667.65	667.70
R	50+51.47	-8.25	667.53	667.59
S	50+61.40	-8.25	667.40	667.47
T	50+71.33	-8.25	667.26	667.33
U	50+81.26	-8.25	667.12	667.17
V	50+91.19	-8.25	666.97	667.00
℄ W. Brg. E. Abut.	51+01.73	-8.25	666.81	666.81
East End of Deck	51+02.43	-8.25	666.79	666.79

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+96.63	-0.50	668.72	668.72
℄ E. Brg. W. Abut.	48+97.49	-0.50	668.72	668.72
E	49+07.49	-0.50	668.68	668.72
F	49+17.48	-0.50	668.65	668.71
G	49+27.48	-0.50	668.60	668.68
H	49+37.48	-0.50	668.55	668.64
I	49+47.47	-0.50	668.50	668.58
J	49+57.47	-0.50	668.43	668.50
K	49+67.46	-0.50	668.36	668.41
L	49+77.46	-0.50	668.29	668.32
M	49+87.45	-0.50	668.21	668.22
℄ Pier	50+00.11	-0.50	668.09	668.09
N	50+10.11	-0.50	668.00	668.00
O	50+20.10	-0.50	667.89	667.91
P	50+30.10	-0.50	667.78	667.82
Q	50+40.09	-0.50	667.67	667.72
R	50+50.09	-0.50	667.54	667.61
S	50+60.09	-0.50	667.41	667.49
T	50+70.08	-0.50	667.28	667.35
U	50+80.08	-0.50	667.14	667.19
V	50+90.07	-0.50	666.99	667.02
℄ W. Brg. E. Abut.	51+00.71	-0.50	666.82	666.82
East End of Deck	51+01.41	-0.50	666.81	666.81

PROPOSED ℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+96.47	0.00	668.72	668.72
℄ E. Brg. W. Abut.	48+97.33	0.00	668.72	668.72
E	49+07.33	0.00	668.69	668.72
F	49+17.33	0.00	668.65	668.71
G	49+27.33	0.00	668.60	668.68
H	49+37.33	0.00	668.55	668.64
I	49+47.33	0.00	668.50	668.58
J	49+57.33	0.00	668.44	668.50
K	49+67.33	0.00	668.37	668.41
L	49+77.33	0.00	668.29	668.32
M	49+87.33	0.00	668.21	668.22
℄ Pier	50+00.00	0.00	668.09	668.09
N	50+10.00	0.00	668.00	668.00
O	50+20.00	0.00	667.89	667.91
P	50+30.00	0.00	667.78	667.82
Q	50+40.00	0.00	667.67	667.72
R	50+50.00	0.00	667.54	667.61
S	50+60.00	0.00	667.41	667.49
T	50+70.00	0.00	667.28	667.35
U	50+80.00	0.00	667.14	667.19
V	50+90.00	0.00	666.99	667.02
℄ W. Brg. E. Abut.	51+00.64	0.00	666.82	666.82
East End of Deck	51+01.35	0.00	666.81	666.81

Note:
Stations and offsets are measured radially along ℄ Roadway.

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LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - CZ	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE=	DRAWN - AJF	REVISED -	
PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0037
SHEET 9 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	146
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+95.67	2.50	668.72	668.72
℄ E. Brg. W. Abut.	48+96.53	2.50	668.72	668.72
E	49+06.55	2.50	668.69	668.72
F	49+16.58	2.50	668.65	668.71
G	49+26.60	2.50	668.61	668.69
H	49+36.62	2.50	668.56	668.64
I	49+46.64	2.50	668.50	668.58
J	49+56.66	2.50	668.44	668.51
K	49+66.68	2.50	668.37	668.42
L	49+76.71	2.50	668.29	668.32
M	49+86.73	2.50	668.21	668.22
℄ Pier	49+99.44	2.50	668.10	668.10
N	50+09.46	2.50	668.00	668.01
O	50+19.48	2.50	667.90	667.92
P	50+29.51	2.50	667.79	667.82
Q	50+39.53	2.50	667.67	667.73
R	50+49.55	2.50	667.55	667.62
S	50+59.57	2.50	667.42	667.49
T	50+69.59	2.50	667.28	667.35
U	50+79.62	2.50	667.14	667.20
V	50+89.64	2.50	666.99	667.02
℄ W. Brg. E. Abut.	51+00.31	2.50	666.83	666.83
East End of Deck	51+01.02	2.50	666.82	666.82

GIRDER 6 & EB SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+94.13	7.25	668.79	668.79
℄ E. Brg. W. Abut.	48+95.00	7.25	668.79	668.79
E	49+05.06	7.25	668.75	668.79
F	49+15.13	7.25	668.71	668.77
G	49+25.19	7.25	668.66	668.74
H	49+35.25	7.25	668.61	668.70
I	49+45.32	7.25	668.55	668.63
J	49+55.38	7.25	668.48	668.55
K	49+65.44	7.25	668.41	668.46
L	49+75.51	7.25	668.33	668.36
M	49+85.57	7.25	668.24	668.26
℄ Pier	49+98.37	7.25	668.13	668.13
N	50+08.43	7.25	668.03	668.03
O	50+18.50	7.25	667.92	667.94
P	50+28.56	7.25	667.81	667.84
Q	50+38.62	7.25	667.69	667.74
R	50+48.69	7.25	667.56	667.63
S	50+58.75	7.25	667.43	667.51
T	50+68.81	7.25	667.29	667.37
U	50+78.88	7.25	667.15	667.21
V	50+88.94	7.25	667.00	667.03
℄ W. Brg. E. Abut.	50+99.67	7.25	666.83	666.83
East End of Deck	51+00.38	7.25	666.82	666.82

EB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+93.40	9.50	668.66	668.66
℄ E. Brg. W. Abut.	48+94.27	9.50	668.65	668.65
E	49+04.35	9.50	668.62	668.65
F	49+14.43	9.50	668.58	668.64
G	49+24.52	9.50	668.53	668.61
H	49+34.60	9.50	668.48	668.56
I	49+44.69	9.50	668.42	668.50
J	49+54.77	9.50	668.35	668.42
K	49+64.85	9.50	668.28	668.32
L	49+74.94	9.50	668.20	668.23
M	49+85.02	9.50	668.11	668.12
℄ Pier	49+97.86	9.50	667.99	667.99
N	50+07.94	9.50	667.89	667.90
O	50+18.03	9.50	667.79	667.81
P	50+28.11	9.50	667.67	667.71
Q	50+38.19	9.50	667.56	667.61
R	50+48.28	9.50	667.43	667.50
S	50+58.36	9.50	667.30	667.38
T	50+68.44	9.50	667.16	667.23
U	50+78.53	9.50	667.02	667.07
V	50+88.61	9.50	666.87	666.90
℄ W. Brg. E. Abut.	50+99.37	9.50	666.70	666.70
East End of Deck	51+00.08	9.50	666.69	666.69

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+91.59	15.00	668.33	668.33
℄ E. Brg. W. Abut.	48+92.47	15.00	668.32	668.32
E	49+02.60	15.00	668.29	668.32
F	49+12.73	15.00	668.25	668.31
G	49+22.87	15.00	668.20	668.28
H	49+33.00	15.00	668.15	668.24
I	49+43.13	15.00	668.09	668.17
J	49+53.26	15.00	668.02	668.09
K	49+63.40	15.00	667.95	668.00
L	49+73.53	15.00	667.87	667.90
M	49+83.66	15.00	667.79	667.80
℄ Pier	49+96.60	15.00	667.67	667.67
N	50+06.73	15.00	667.57	667.58
O	50+16.87	15.00	667.46	667.48
P	50+27.00	15.00	667.35	667.39
Q	50+37.13	15.00	667.23	667.29
R	50+47.26	15.00	667.11	667.18
S	50+57.40	15.00	666.98	667.05
T	50+67.53	15.00	666.84	666.91
U	50+77.66	15.00	666.69	666.75
V	50+87.80	15.00	666.54	666.57
℄ W. Brg. E. Abut.	50+98.62	15.00	666.37	666.37
East End of Deck	50+99.34	15.00	666.36	666.36

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+89.02	22.75	667.86	667.86
℄ E. Brg. W. Abut.	48+89.90	22.75	667.86	667.86
E	49+00.10	22.75	667.83	667.86
F	49+10.31	22.75	667.79	667.85
G	49+20.51	22.75	667.74	667.82
H	49+30.71	22.75	667.69	667.78
I	49+40.91	22.75	667.63	667.71
J	49+51.12	22.75	667.57	667.64
K	49+61.32	22.75	667.50	667.54
L	49+71.52	22.75	667.42	667.45
M	49+81.72	22.75	667.33	667.34
℄ Pier	49+94.81	22.75	667.21	667.21
N	50+05.01	22.75	667.12	667.12
O	50+15.21	22.75	667.01	667.03
P	50+25.42	22.75	666.90	666.93
Q	50+35.62	22.75	666.78	666.83
R	50+45.82	22.75	666.65	666.72
S	50+56.02	22.75	666.52	666.60
T	50+66.23	22.75	666.38	666.45
U	50+76.43	22.75	666.24	666.29
V	50+86.63	22.75	666.09	666.12
℄ W. Brg. E. Abut.	50+97.56	22.75	665.92	665.92
East End of Deck	50+98.28	22.75	665.91	665.91

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
West End of Deck	48+86.41	30.50	667.40	667.40
℄ E. Brg. W. Abut.	48+87.30	30.50	667.39	667.39
E	48+97.57	30.50	667.36	667.39
F	49+07.84	30.50	667.32	667.38
G	49+18.12	30.50	667.28	667.35
H	49+28.39	30.50	667.23	667.31
I	49+38.66	30.50	667.17	667.25
J	49+48.94	30.50	667.11	667.17
K	49+59.21	30.50	667.04	667.08
L	49+69.48	30.50	666.96	666.99
M	49+79.76	30.50	666.88	666.89
℄ Pier	49+92.99	30.50	666.76	666.76
N	50+03.26	30.50	666.66	666.66
O	50+13.54	30.50	666.55	666.57
P	50+23.81	30.50	666.44	666.48
Q	50+34.08	30.50	666.32	666.37
R	50+44.36	30.50	666.20	666.26
S	50+54.63	30.50	666.07	666.14
T	50+64.91	30.50	665.93	665.99
U	50+75.18	30.50	665.78	665.83
V	50+85.45	30.50	665.63	665.66
℄ W. Brg. E. Abut.	50+96.48	30.50	665.46	665.46
East End of Deck	50+97.20	30.50	665.45	665.45

Note:
Stations and offsets are measured radially along ℄ Roadway.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 068-0037

SHEET 10 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	147
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

NORTH FACE OF CURB

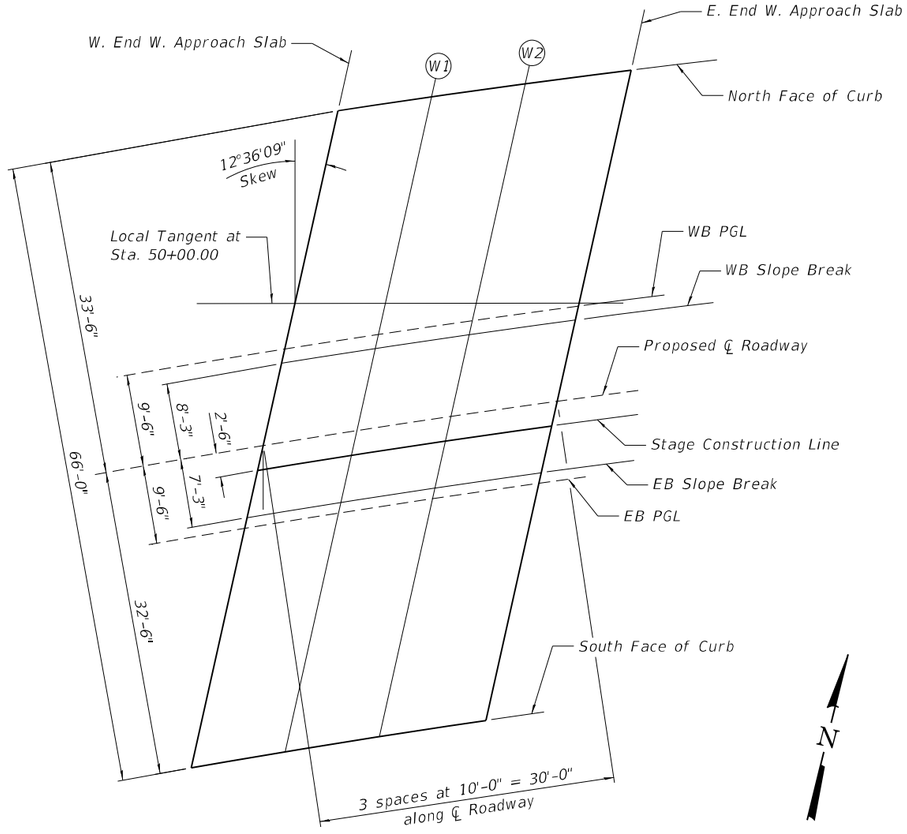
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+28.81	-33.50	670.31
W1	48+38.48	-33.50	670.31
W2	48+48.16	-33.50	670.31
E. End W. Approach Slab	48+57.84	-33.50	670.31

WB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+19.58	-9.50	668.85
W1	48+29.48	-9.50	668.85
W2	48+39.39	-9.50	668.85
E. End W. Approach Slab	48+49.30	-9.50	668.85

WB SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+19.09	-8.25	668.77
W1	48+29.00	-8.25	668.77
W2	48+38.92	-8.25	668.77
E. End W. Approach Slab	48+48.84	-8.25	668.77



WEST APPROACH SLAB PLAN

PROPOSED ℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+15.81	0.00	668.77
W1	48+25.81	0.00	668.77
W2	48+35.81	0.00	668.77
E. End W. Approach Slab	48+45.81	0.00	668.77

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+14.81	2.50	668.77
W1	48+24.83	2.50	668.77
W2	48+34.86	2.50	668.77
E. End W. Approach Slab	48+44.88	2.50	668.77

EB SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+12.89	7.25	668.90
W1	48+22.96	7.25	668.89
W2	48+33.03	7.25	668.88
E. End W. Approach Slab	48+43.11	7.25	668.87

EB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+11.97	9.50	668.76
W1	48+22.07	9.50	668.75
W2	48+32.16	9.50	668.75
E. End W. Approach Slab	48+42.26	9.50	668.74

SOUTH FACE OF CURB

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Approach Slab	48+02.39	32.50	667.36
W1	48+12.73	32.50	667.36
W2	48+23.07	32.50	667.35
E. End W. Approach Slab	48+33.40	32.50	667.34

Note:
Stations and offsets are measured radially to ℄ Roadway.

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STATE OF ILLINOIS
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TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 068-0037
SHEET 11 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	148
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

NORTH FACE OF CURB

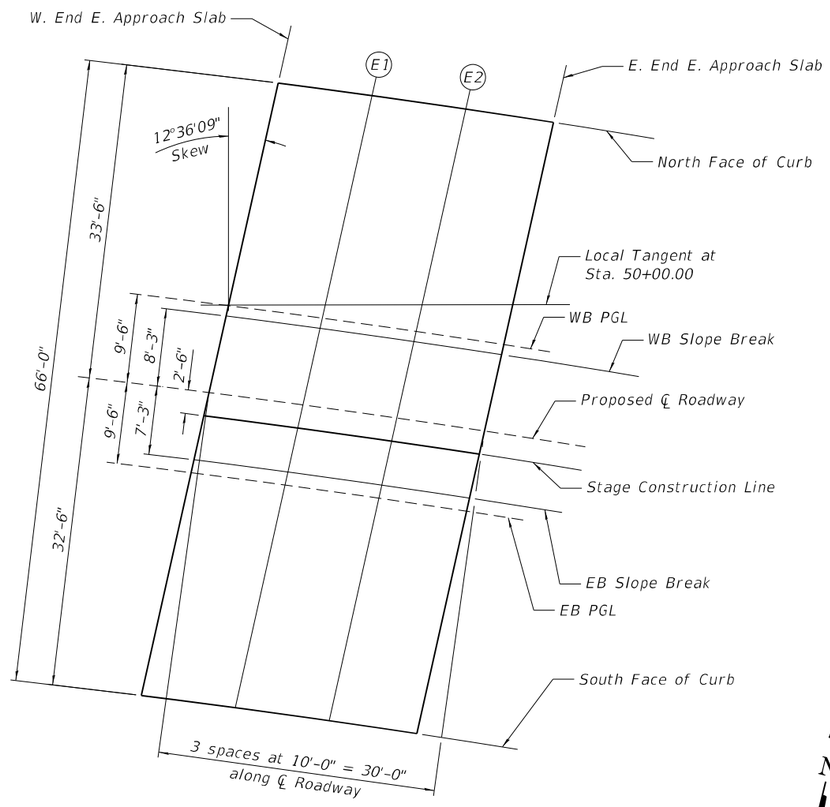
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+48.60	-33.50	667.53
E1	51+58.31	-33.50	667.34
E2	51+68.03	-33.50	667.15
E. End E. Approach Slab	51+77.74	-33.50	666.96

WB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+46.45	-9.50	666.10
E1	51+56.36	-9.50	665.91
E2	51+66.28	-9.50	665.72
E. End E. Approach Slab	51+76.20	-9.50	665.53

WB SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+46.33	-8.25	666.03
E1	51+56.26	-8.25	665.84
E2	51+66.19	-8.25	665.65
E. End E. Approach Slab	51+76.11	-8.25	665.45



EAST APPROACH SLAB PLAN

PROPOSED ℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+45.57	0.00	666.04
E1	51+55.57	0.00	665.85
E2	51+65.57	0.00	665.66
E. End E. Approach Slab	51+75.57	0.00	665.46

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+45.33	2.50	666.05
E1	51+55.36	2.50	665.86
E2	51+65.38	2.50	665.66
E. End E. Approach Slab	51+75.40	2.50	665.47

EB SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+44.89	7.25	666.05
E1	51+54.95	7.25	665.85
E2	51+65.02	7.25	665.67
E. End E. Approach Slab	51+75.08	7.25	665.47

EB PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+44.68	9.50	665.91
E1	51+54.76	9.50	665.72
E2	51+64.84	9.50	665.54
E. End E. Approach Slab	51+74.92	9.50	665.34

SOUTH FACE OF CURB

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Approach Slab	51+42.45	32.50	664.55
E1	51+52.75	32.50	664.36
E2	51+63.04	32.50	664.17
E. End E. Approach Slab	51+73.33	32.50	663.97

Note:
Stations and offsets are measured radially to ℄ Roadway.

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STATE OF ILLINOIS
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TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 068-0037
SHEET 12 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	149
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

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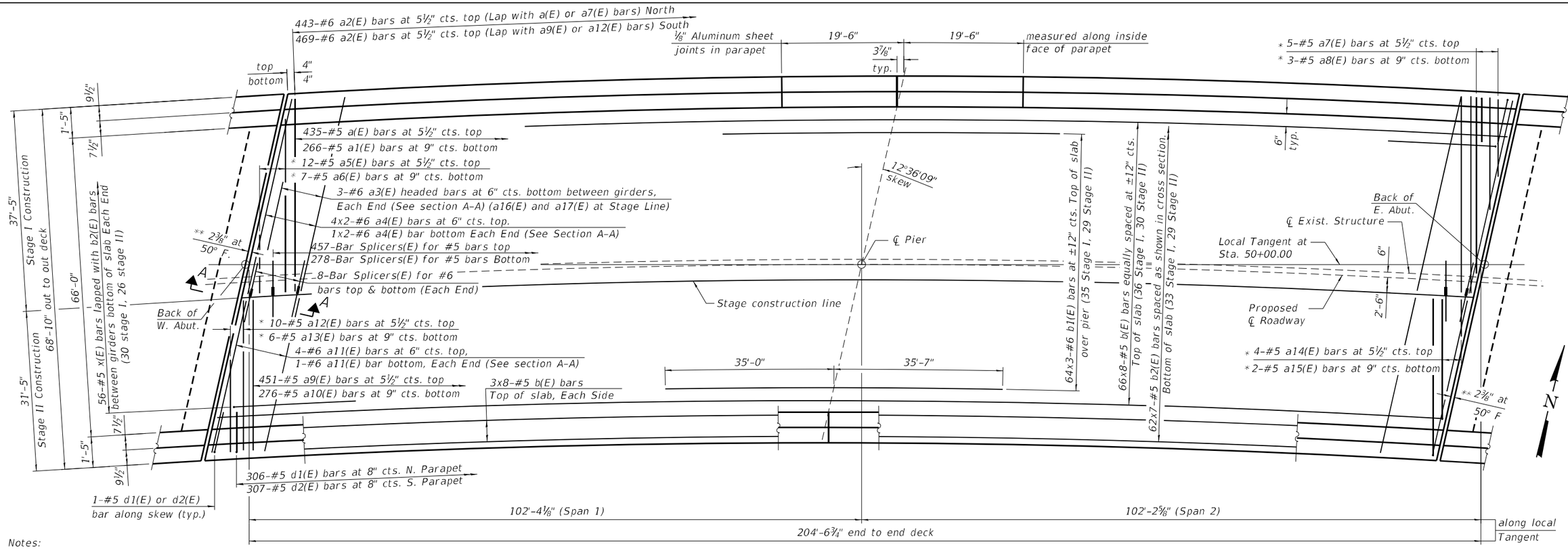


Notes:

See sheets 14 and 15 of 37 for superstructure details, scupper reinforcement detail, and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 15 of 37 for section A-A and Median details.
See Sheet 1 of 37 for location of Drainage Scuppers.
All transverse dimensions are measured radially unless noted otherwise.
a(E), a1(E), a5(E), a6(E), a9(E), a10(E), a12(E) and a13(E) placed radially with spacing controlled at inside face of north parapet.
Bend longitudinal reinforcement in field as required to fit.

PLAN

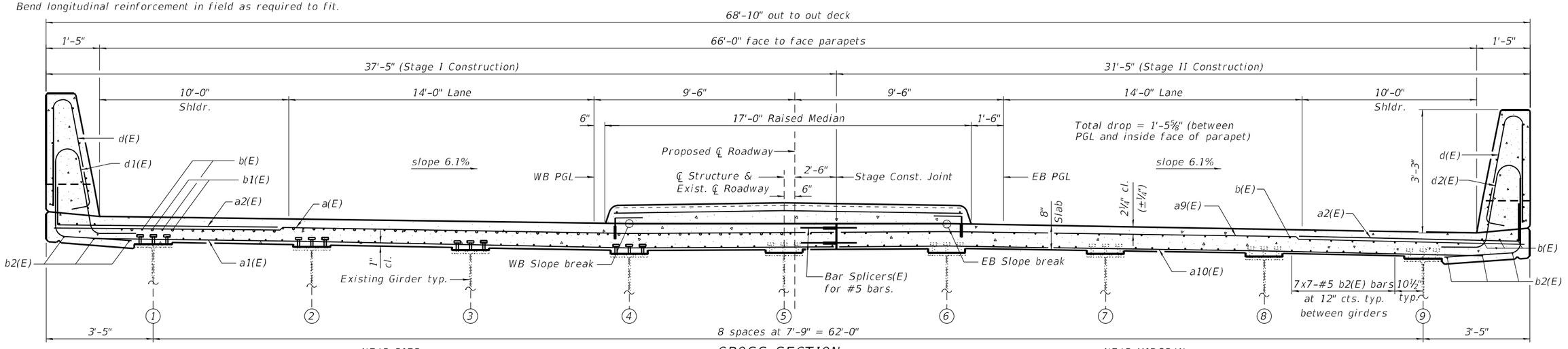
(Median Not Shown for Clarity)

* See Field Cutting Diagram on sheet 15 of 37.

** Dimension showing concrete opening. For joint opening see sheet 25 of 37.

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 3'-7"



NEAR PIER — NEAR MIDSPAN

CROSS SECTION

(Looking East)
(Scuppers not shown for clarity)

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		CHECKED - MTH	REVISED -			55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	150
	PLOT SCALE=	DRAWN - AJF	REVISED -							CONTRACT NO. 72G54
	PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -		SHEET 13 OF 37 SHEETS			ILLINOIS	FED. AID PROJECT	

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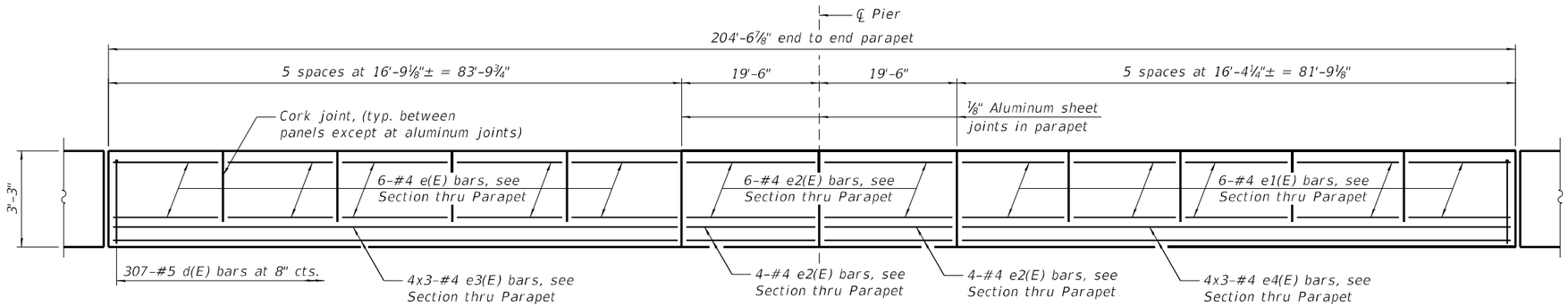
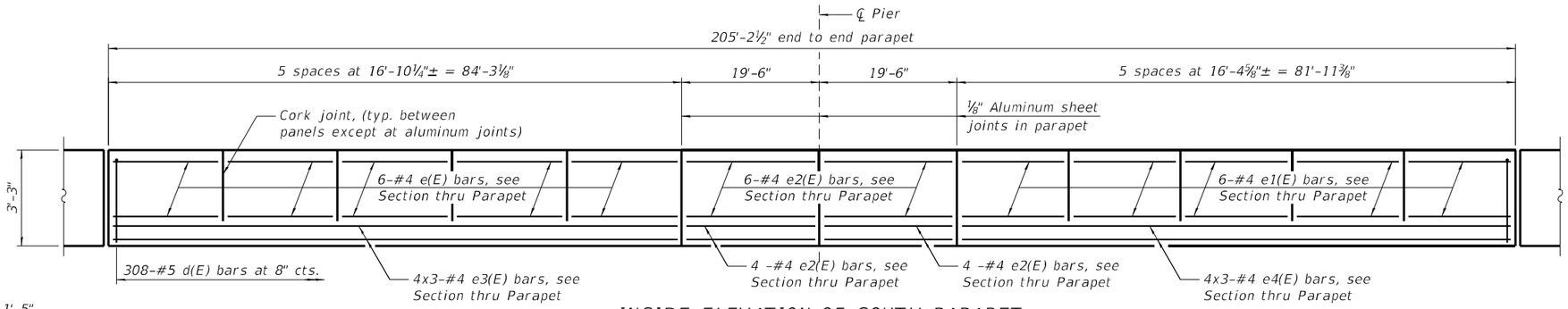


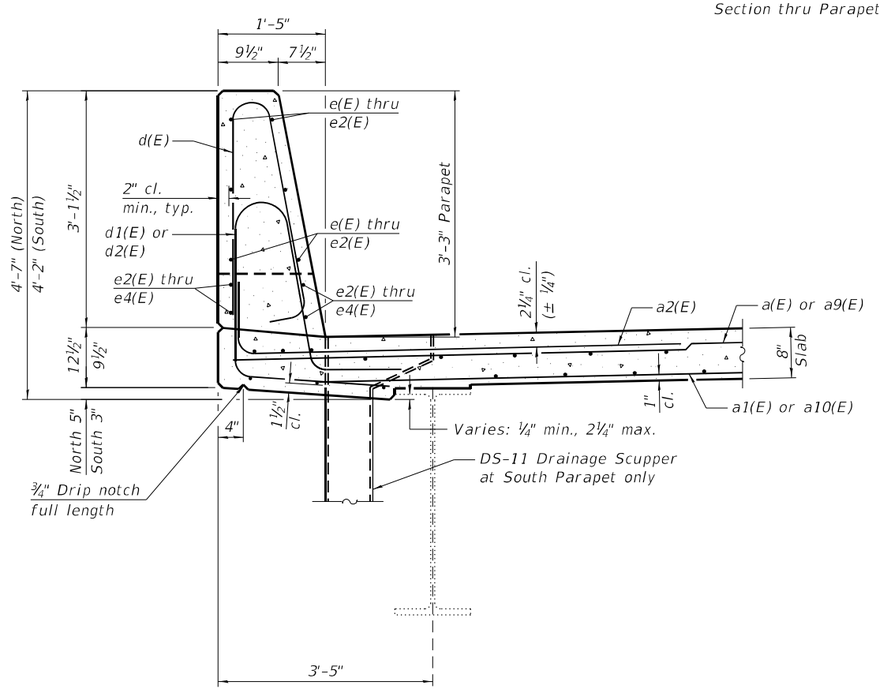
INSIDE ELEVATION OF NORTH PARAPET

(Measured along inside face of parapet)
(Looking North)



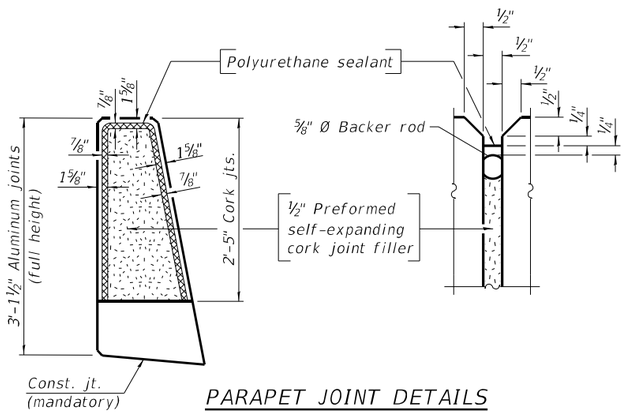
INSIDE ELEVATION OF SOUTH PARAPET

(Measured along inside face of parapet)
(Looking North Reflected view)



SECTION THRU PARAPET

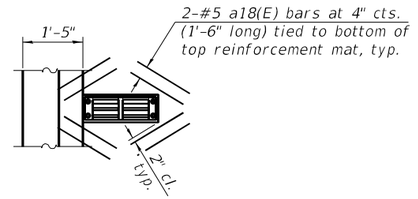
(South Parapet shown; North Parapet similar)



PARAPET JOINT DETAILS

MINIMUM BAR LAP

(Parapets)
#4 bar = 2'-5"



PLAN AT SCUPPERS

Cut longitudinal reinforcement to clear drainage scuppers.

Notes:

The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

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

Bend longitudinal reinforcement in field as required to fit.

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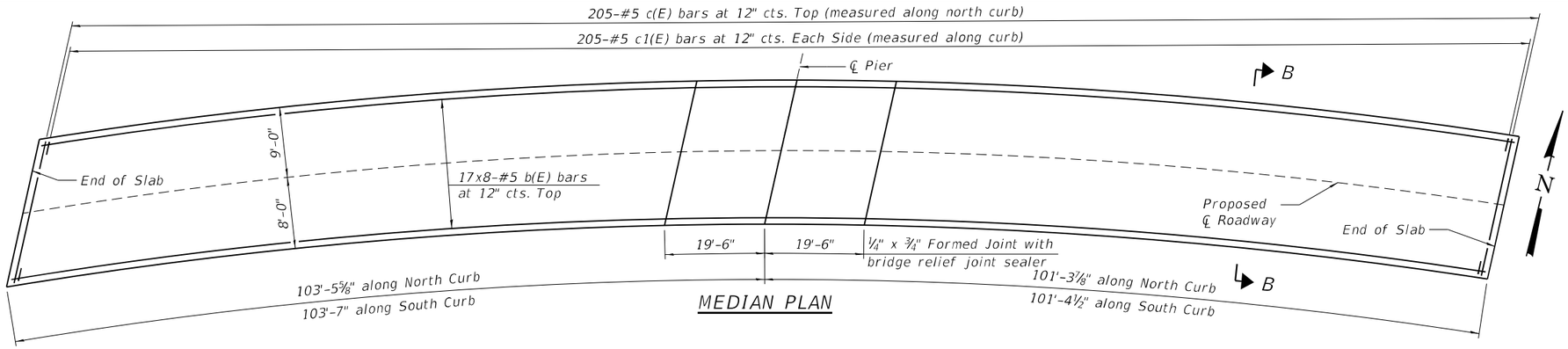
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 068-0037
SHEET 14 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	151
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			



MEDIAN PLAN

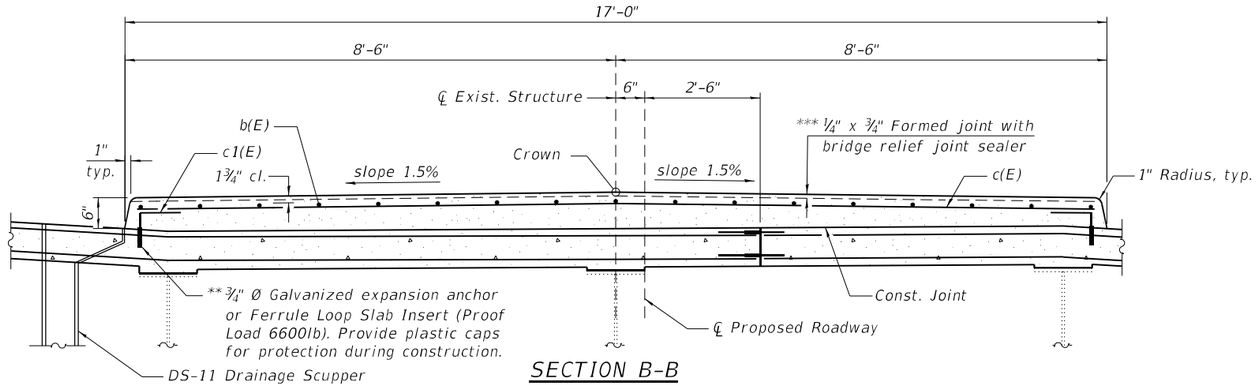
** The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.

*** Full width-backer rod not required.

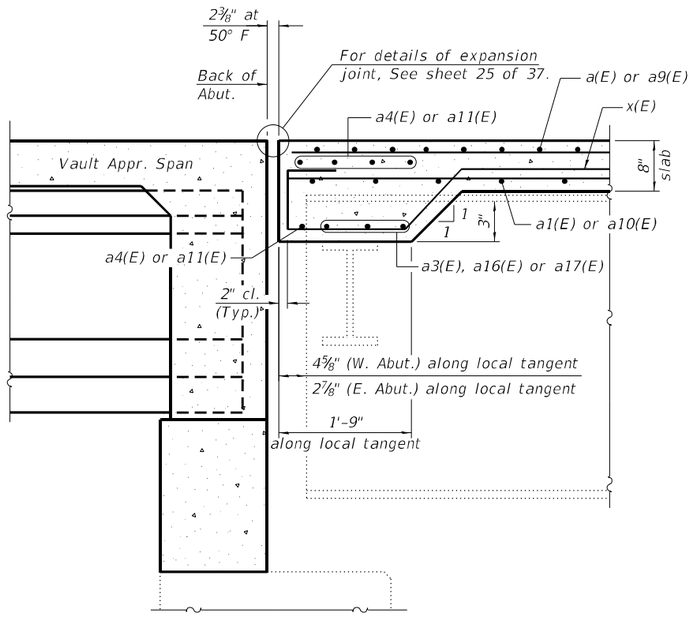
Notes:
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.
All transverse dimensions are measured radially unless noted otherwise.
Bend longitudinal reinforcement in field as required to fit.

MINIMUM BAR LAP

(Median)
#5 bar = 3'-6"



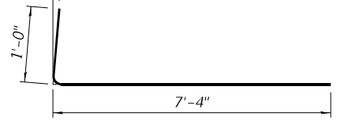
SECTION B-B



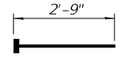
SECTION A-A
(at right angles)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	435	#5	37'-1"	
a1(E)	266	#5	36'-11"	
a2(E)	912	#6	8'-4"	
a3(E)	42	#6	7'-7"	
a4(E)	20	#6	21'-4"	
a5(E)	12	#5	39'-1"	
a6(E)	7	#5	39'-10"	
a7(E)	5	#5	35'-8"	
a8(E)	3	#5	36'-4"	
a9(E)	451	#5	31'-1"	
a10(E)	276	#5	30'-11"	
a11(E)	10	#6	32'-9"	
a12(E)	10	#5	35'-2"	
a13(E)	6	#5	34'-0"	
a14(E)	4	#5	34'-10"	
a15(E)	2	#5	38'-9"	
a16(E)	6	#6	2'-9"	
a17(E)	6	#6	4'-7"	
a18(E)	16	#5	1'-6"	
b(E)	712	#5	28'-9"	
b1(E)	192	#6	25'-11"	
b2(E)	434	#5	32'-4"	
c(E)	205	#5	17'-2"	
c1(E)	410	#5	1'-4"	
d(E)	615	#5	6'-5"	
d1(E)	307	#5	8'-8"	
d2(E)	308	#5	8'-8"	
e(E)	60	#4	16'-6"	
e1(E)	60	#4	16'-1"	
e2(E)	40	#4	19'-3"	
e3(E)	24	#4	29'-8"	
e4(E)	24	#4	28'-10"	
x(E)	112	#5	6'-3"	
Reinforcement Bars, Epoxy Coated		Pound	126,460	
Concrete Superstructure		Cu. Yd.	465.8	

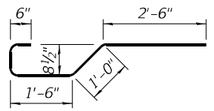


BAR a2(E)

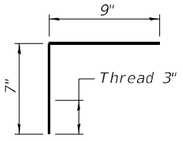


BAR a16(E)
(Stage I Between Girders 5 and 6)

BAR a17(E)
(Stage II Between Girders 5 and 6)



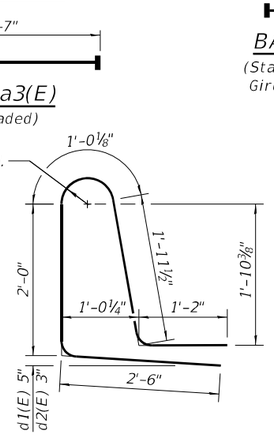
BAR x(E)



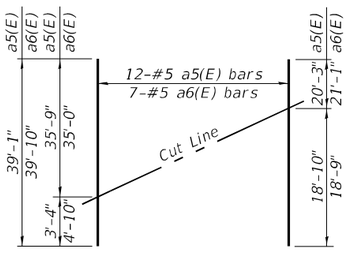
BAR c1(E)

BAR a3(E)
(Headed)

BAR d(E)

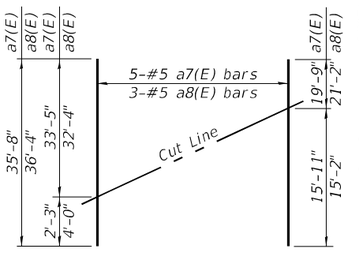


BARS d1(E) & d2(E)



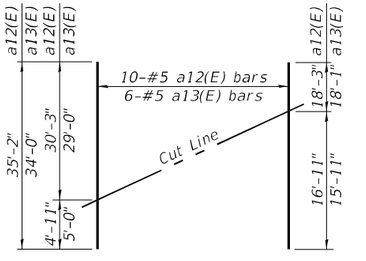
FIELD CUTTING DIAGRAM

Order a5(E) and a6(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.



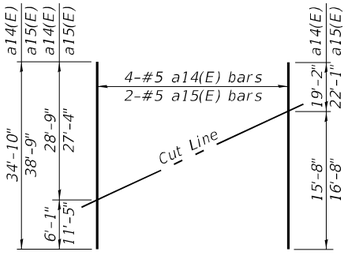
FIELD CUTTING DIAGRAM

Order a7(E) and a8(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.



FIELD CUTTING DIAGRAM

Order a12(E) and a13(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.



FIELD CUTTING DIAGRAM

Order a14(E) and a15(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.

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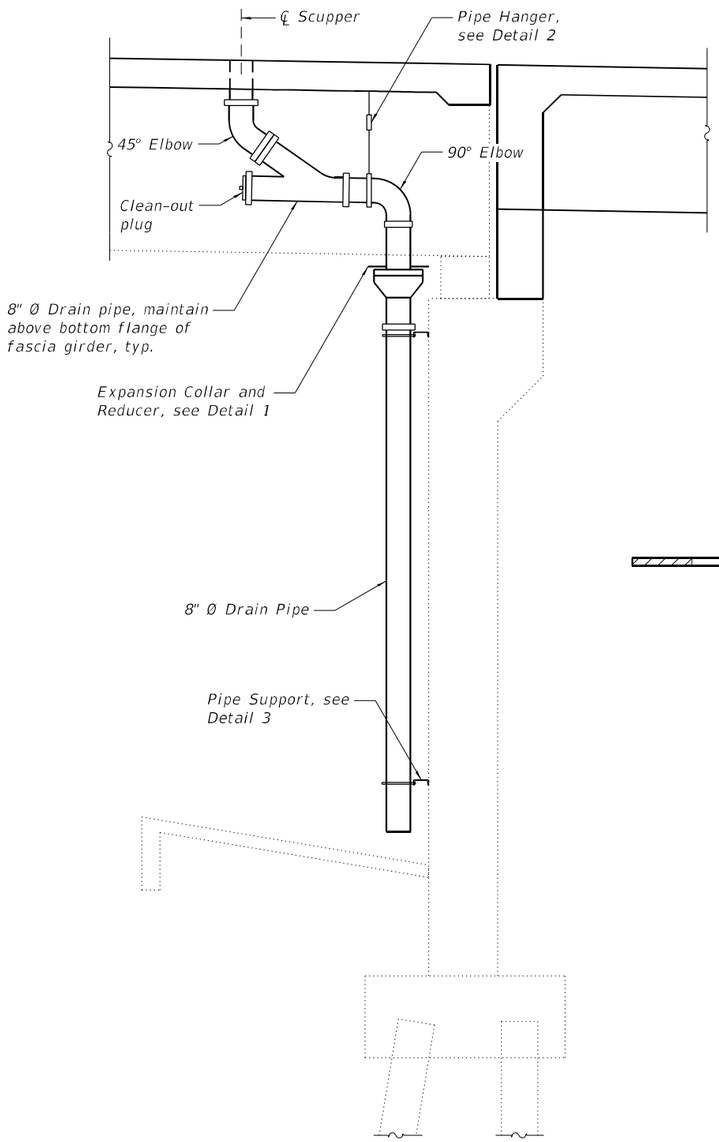
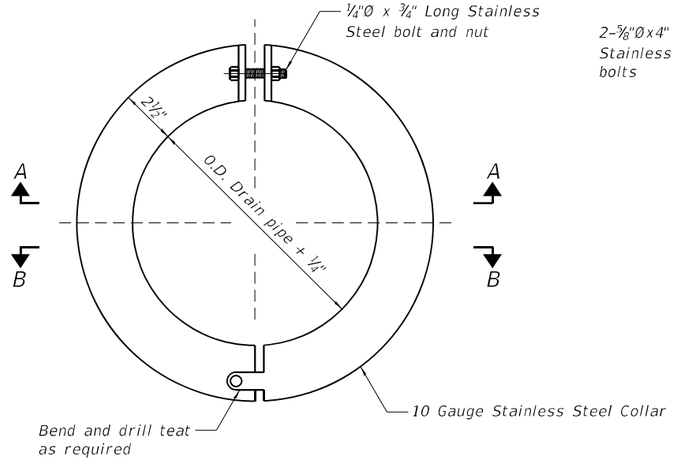
		CHECKED - MTH	REVISED -		
	PLOT SCALE=	DRAWN - AJF	REVISED -		
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -		SHEET 15 OF 37 SHEETS

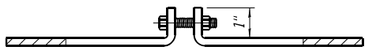
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	152
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



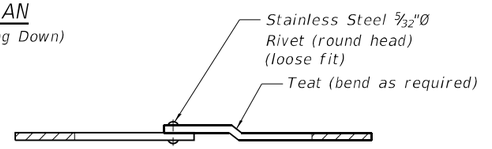
EAST ABUTMENT DRAINAGE SYSTEM



PLAN
(Looking Down)

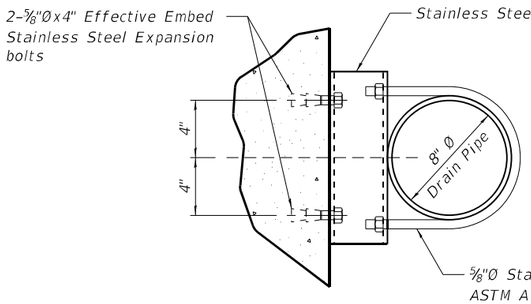


SECTION A-A

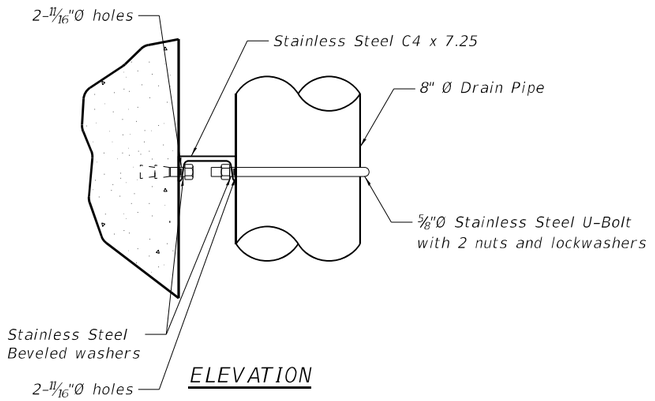


SECTION B-B

DETAIL 1
EXPANSION COLLAR DETAILS

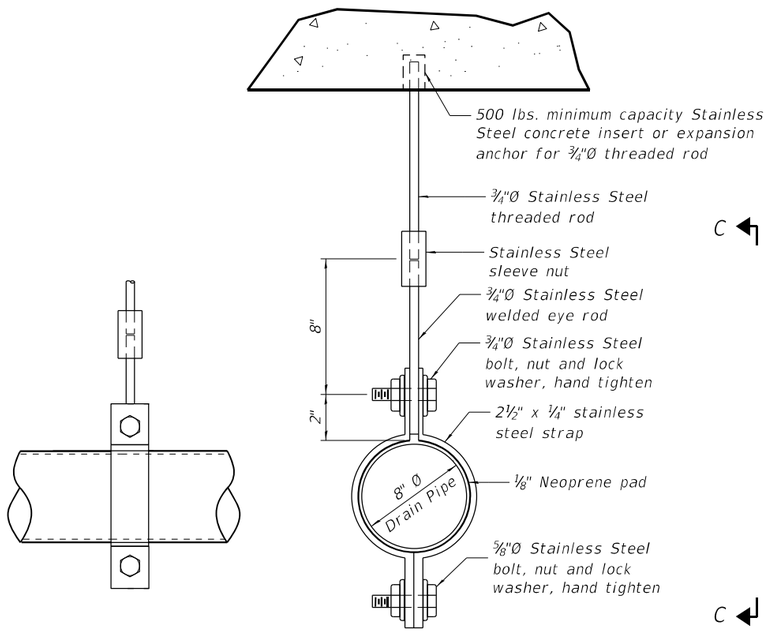


PLAN



ELEVATION

DETAIL 3
PIPE SUPPORT DETAILS



VIEW C-C

DETAIL 2
COLLECTOR PIPE HANGER DETAILS

BILL OF MATERIAL

Item	Unit	Total
Drainage System for Structures	L. Sum	1

Notes:
Bolt pattern and size in drain pipe flange to match scupper flange.
For Drainage Scupper location and spacing see sheet 1 of 37.
For Drainage Scupper detail see sheet 26 of 37.
All bolts, nuts and washers shall be stainless steel in accordance with standard specifications Article 1006.29(d).
Reducers shall be sized to accommodate a longitudinal movement of ½" in each direction.
All stainless steel hardware for drainage systems shall be coated with antiseize compound.

MODEL: Default
FILE NAME: E:\2020-7\Struct\Final Design\CADD\CADD Sheets\06800037-72G54-016-BridgeDrainageSystem.dgn
12/8/2022 8:32:08 AM

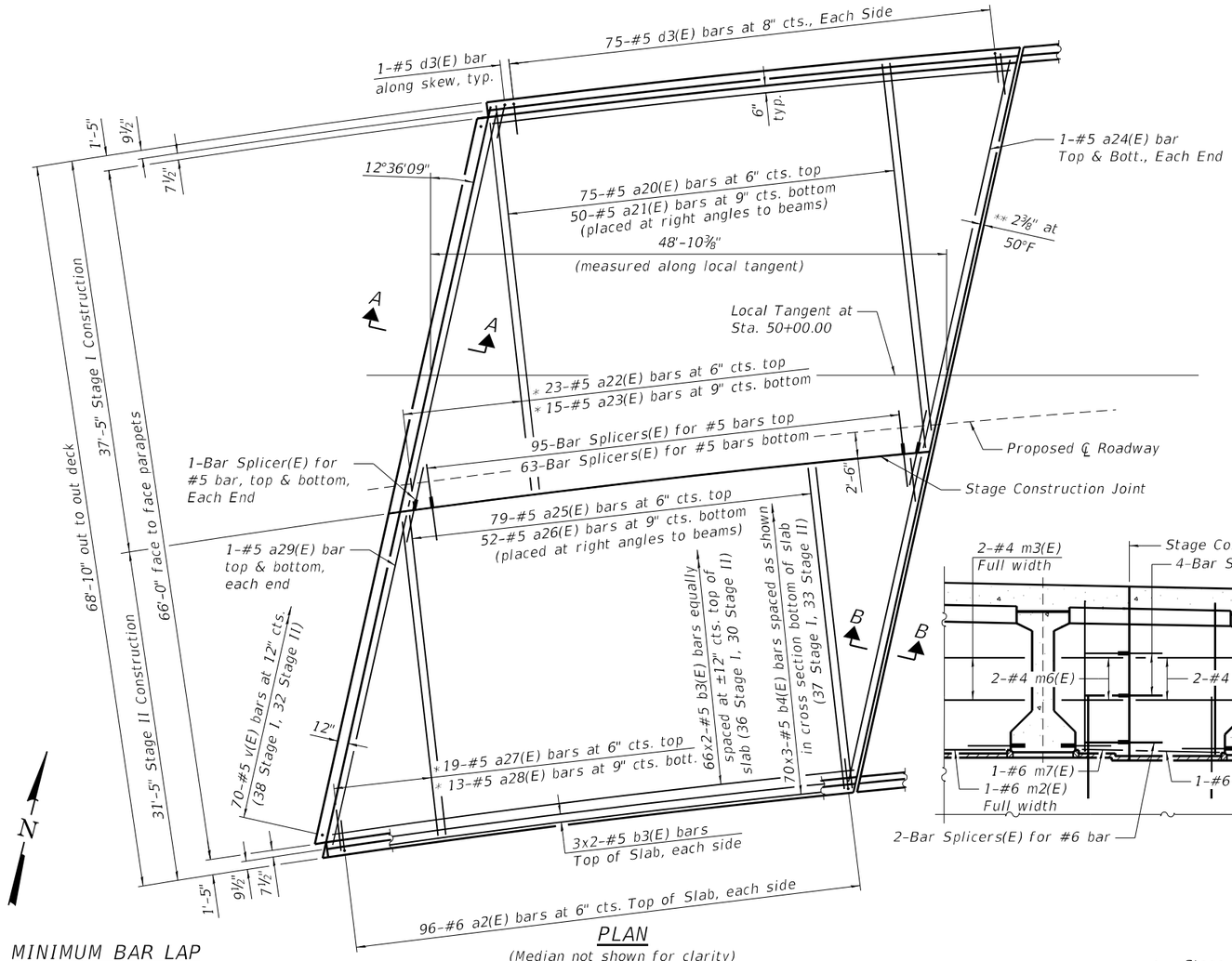
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - CZ	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE=	DRAWN - AJF	REVISED -	
PLOT DATE = 12/8/2022	CHECKED - MTH	REVISED -	

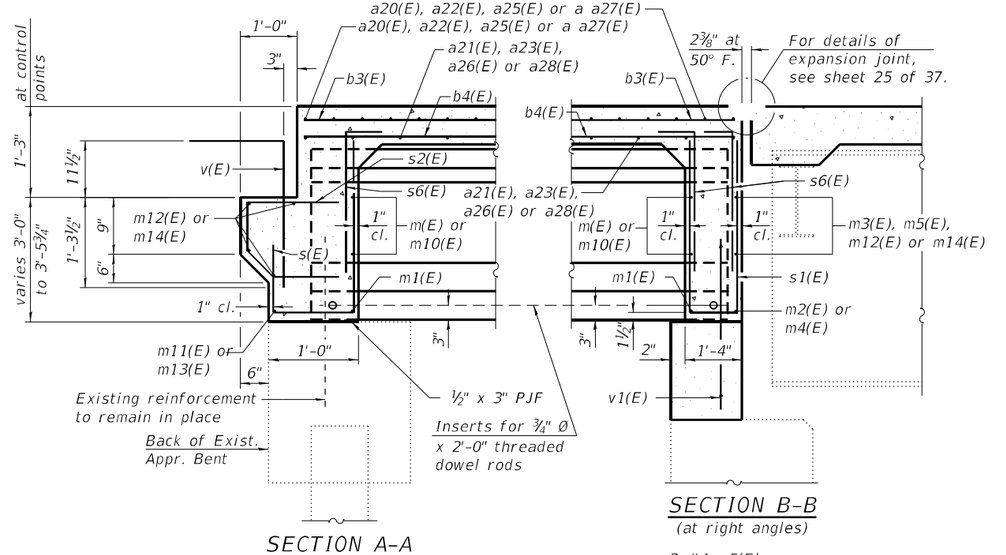
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DRAINAGE SYSTEM
STRUCTURE NO. 068-0037
SHEET 16 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	153
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

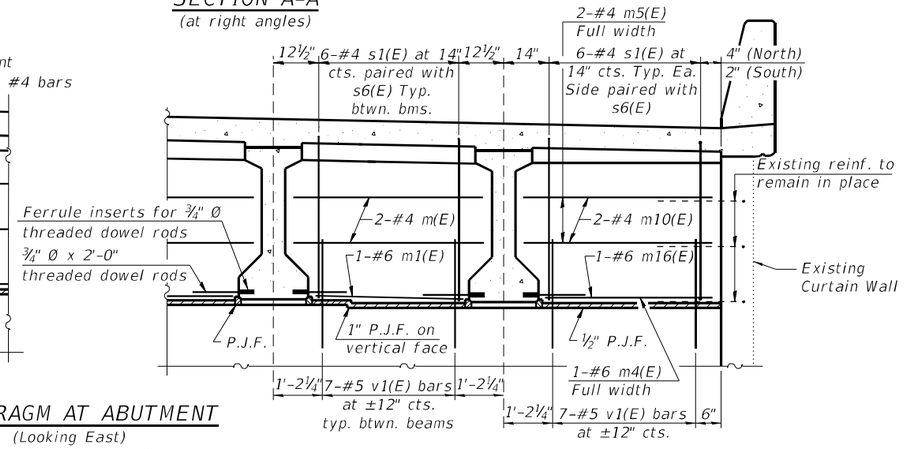


PLAN
(Median not shown for clarity)

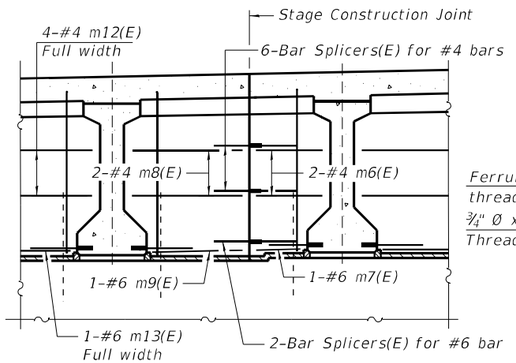


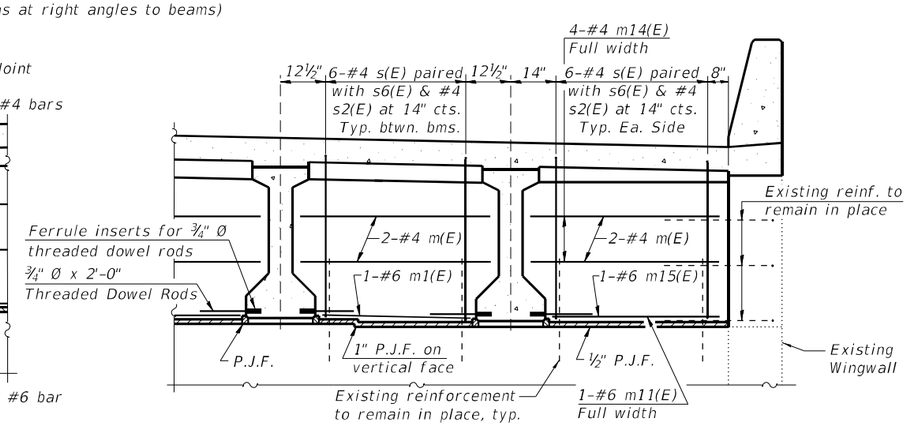
SECTION A-A
(at right angles)

SECTION B-B
(at right angles)



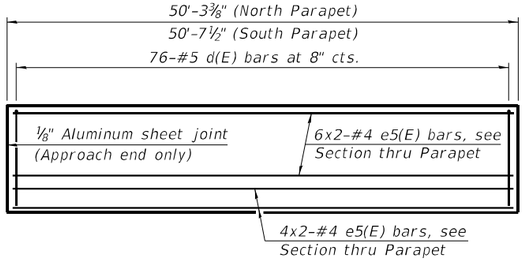
DIAPHRAGM AT ABUTMENT
(Looking East)
(Dimensions at right angles to beams)





DIAPHRAGM AT APPROACH BENT
(Looking West)
(Dimensions at right angles to beams)

MINIMUM BAR LAP
#4 bar = 2'-5" (Parapet)
#5 bar = 3'-6" (Slab)



INSIDE ELEVATION OF PARAPET
(Measured along inside face of parapet)

* See Field Cutting Diagram on sheet 20 of 37.

** Dimension showing concrete opening. For joint spacing see sheet 25 of 37.

Notes:

See sheets 19 and 20 of 37 for cross section, bar bend details and Bill of Material.

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

All transverse dimensions are measured radially unless noted otherwise.

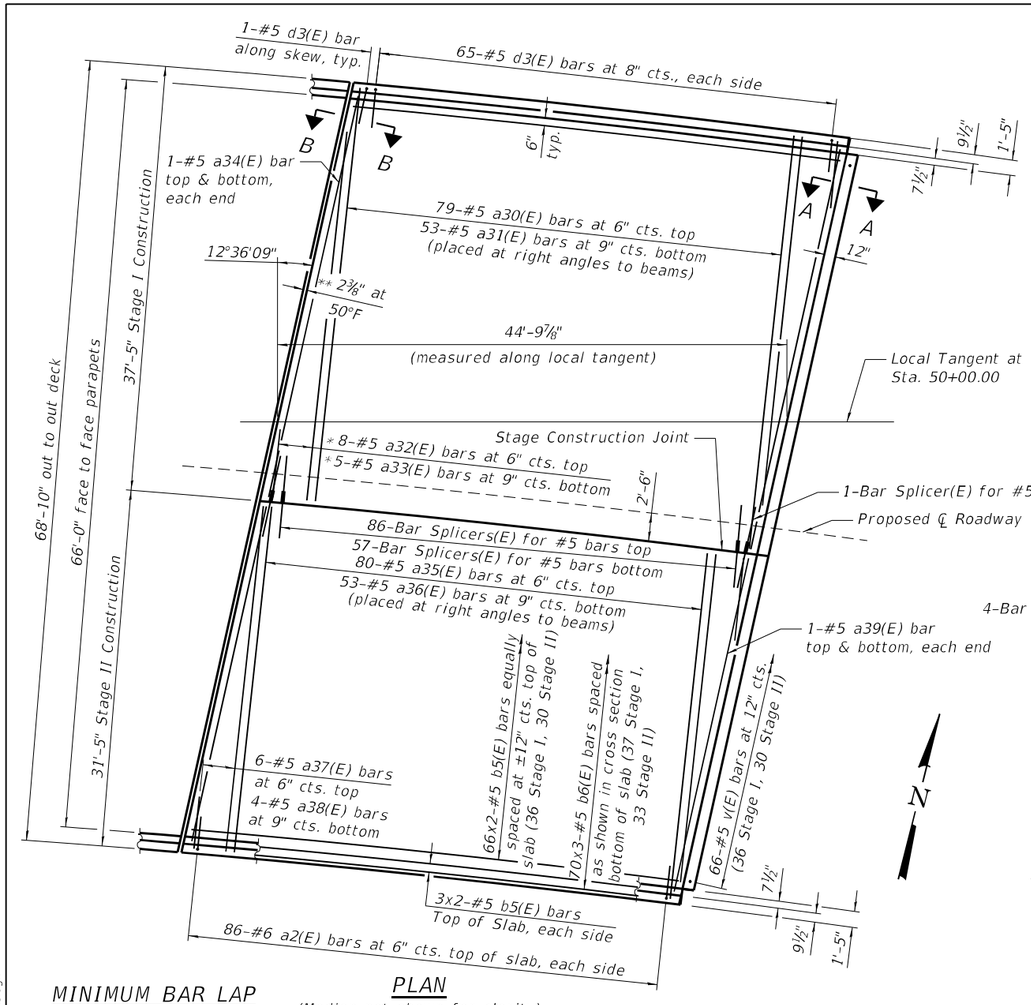
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

Bend longitudinal reinforcement in field as required to fit.

MODEL: Default
FILE NAME: E:\2020-7\Struct\Final Design\CADD\CADD Sheets\0680037-72G54-017-WestVaultedApproachSpans.dgn
10/31/2022 9:39:32 AM

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST VAULTED APPROACH SPAN STRUCTURE NO. 068-0037
		CHECKED - MTH	REVISED -		
	PLOT SCALE=	DRAWN - AJF	REVISED -		SHEET 17 OF 37 SHEETS
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	154
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

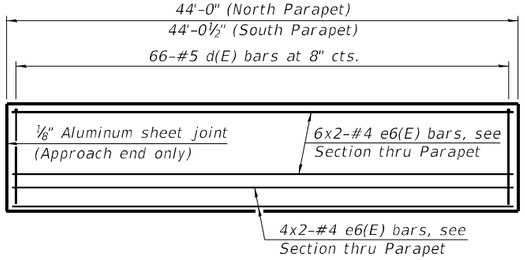


MINIMUM BAR LAP

#4 bar = 2'-5" (Parapet)
#5 bar = 3'-6" (Slab)

PLAN

(Median not shown for clarity)



INSIDE ELEVATION OF PARAPET

(Measured along inside face of parapet)

* See Field Cutting Diagram on sheet 20 of 37.

** Dimension showing concrete opening. For joint spacing see sheet 25 of 37.

Notes:

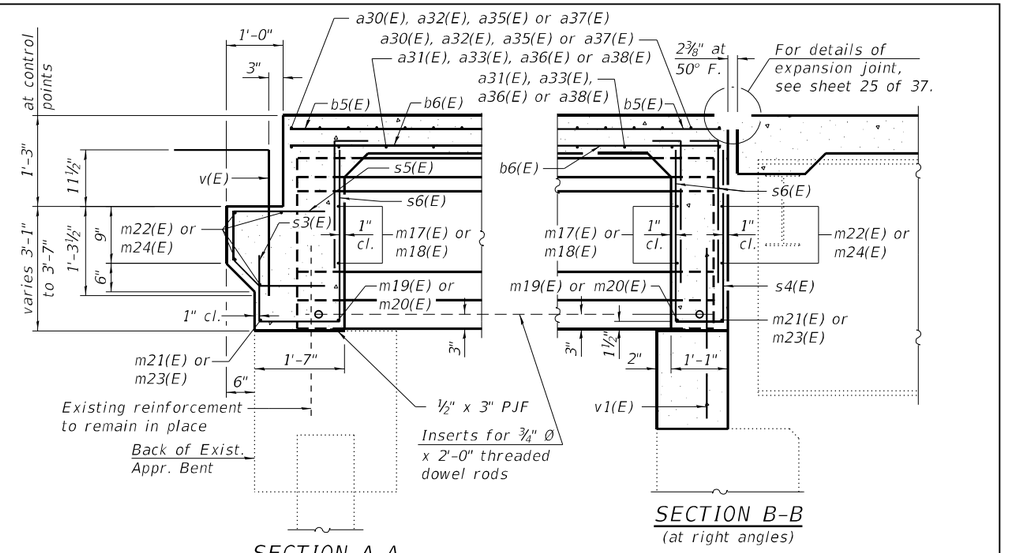
See sheets 19 and 20 of 37 for cross section, bar bend details and Bill of Material.

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

All transverse dimensions are measured radially unless noted otherwise.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

Bend longitudinal reinforcement in field as required to fit.

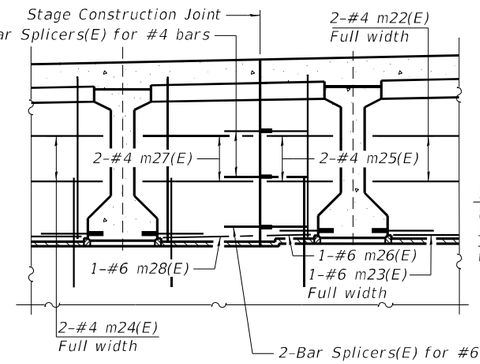


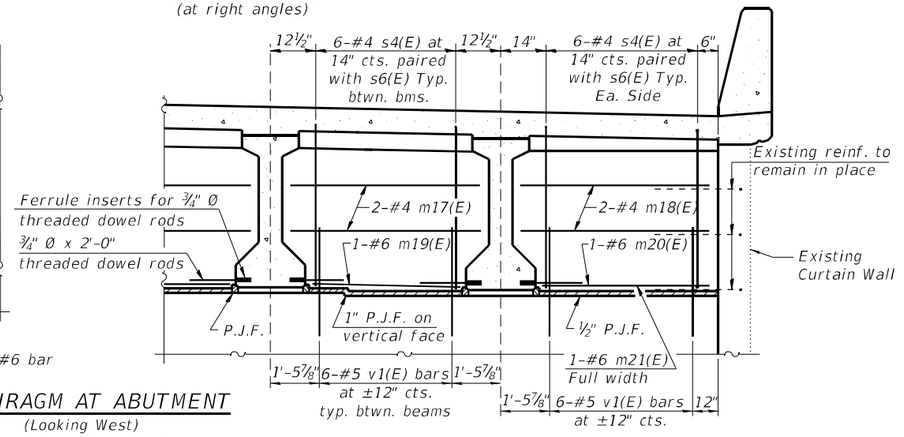
SECTION A-A

(at right angles)

SECTION B-B

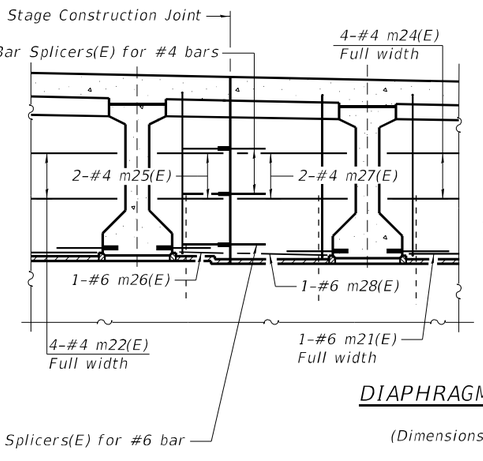
(at right angles)

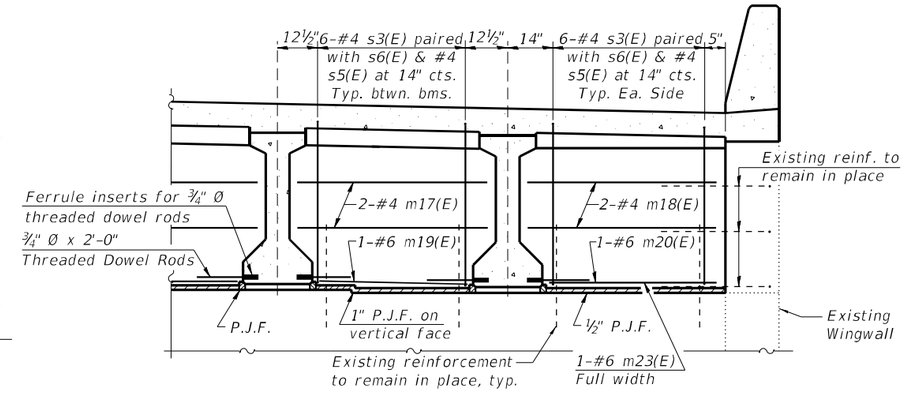




DIAPHRAGM AT ABUTMENT

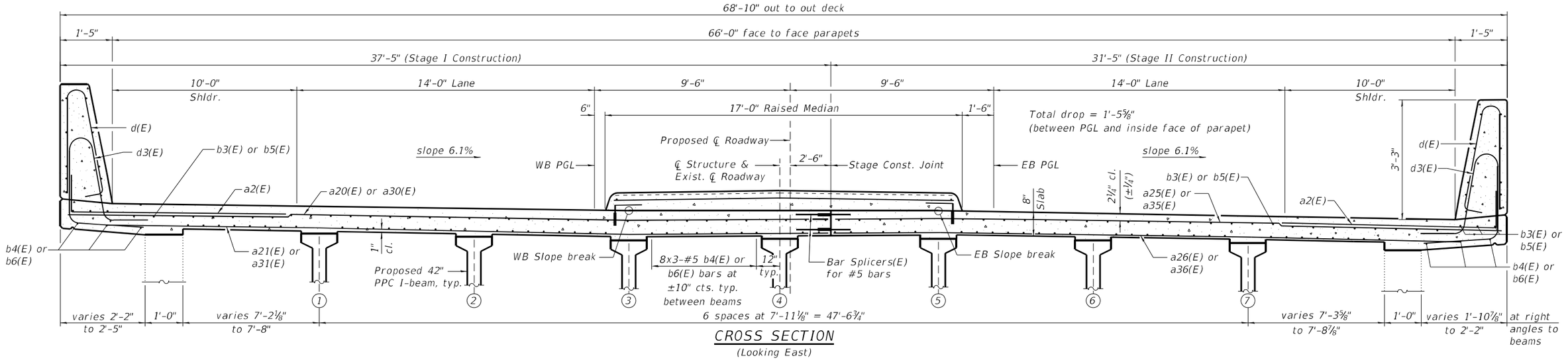
(Looking West)
(Dimensions at right angles to beams)





DIAPHRAGM AT APPROACH BENT

(Looking East)
(Dimensions at right angles to beams)



CROSS SECTION

(Looking East)

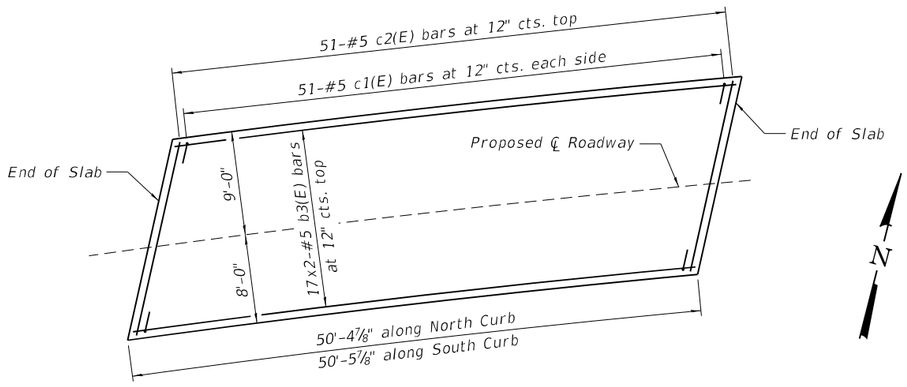
Notes:

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

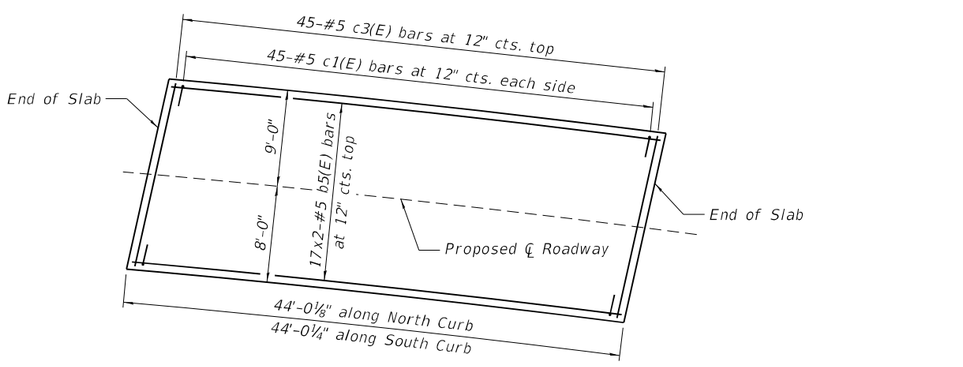
Bend longitudinal reinforcement in field as required to fit.

** The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.

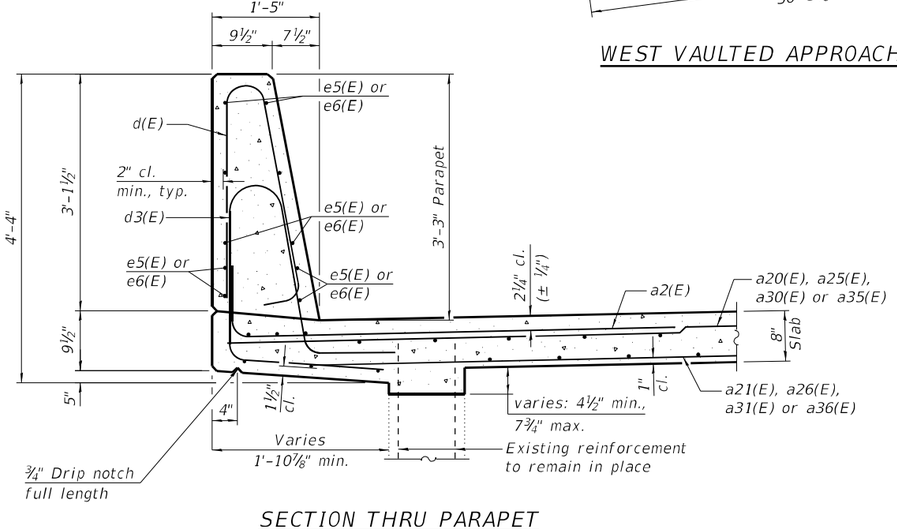
*** Full width-backer rod not required.



WEST VAULTED APPROACH SPAN MEDIAN PLAN

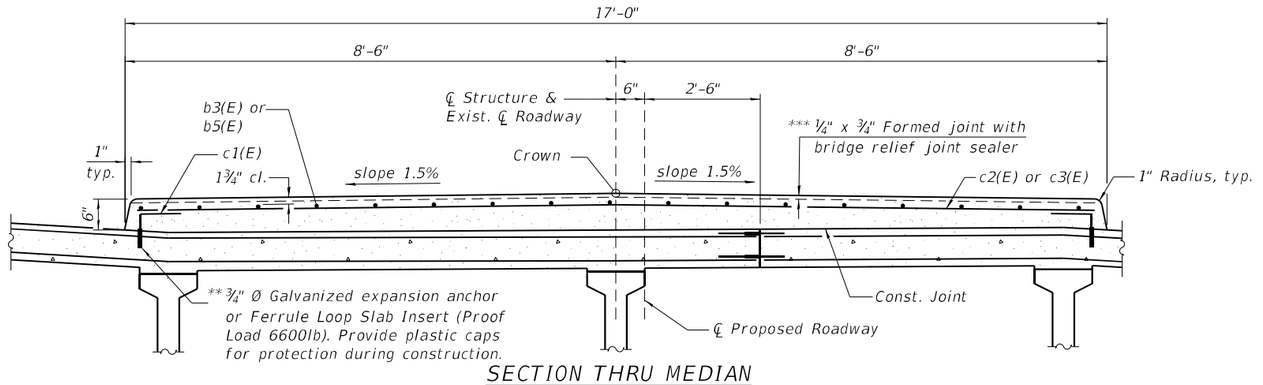


EAST VAULTED APPROACH SPAN MEDIAN PLAN



SECTION THRU PARAPET

(South Parapet shown; North Parapet similar)



SECTION THRU MEDIAN

(Looking East)

(Sheet 1 of 2)

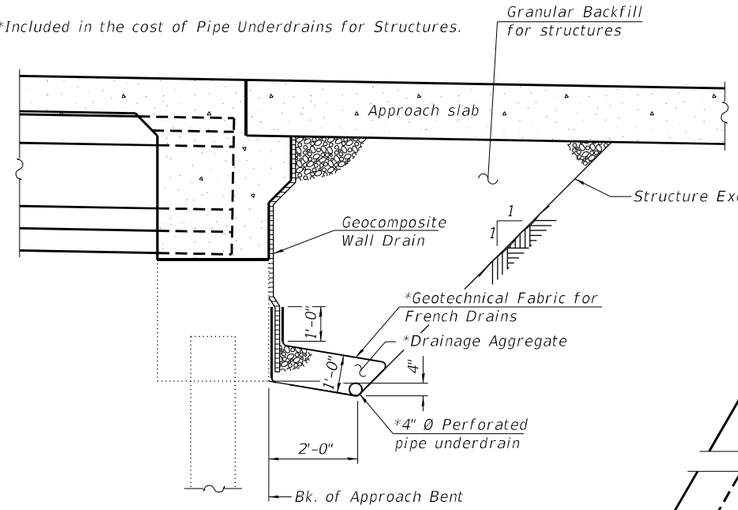
LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	VAULTED APPROACH SPAN DETAILS STRUCTURE NO. 068-0037
		CHECKED - MTH	REVISED -		
	PLOT SCALE=	DRAWN - AJF	REVISED -		SHEET 19 OF 37 SHEETS
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	156
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: E:\2020-7\Struct\Final Design\CADD\CADD Sheets\068O037-72G54-019-VaultedApproachSpanDetails.dgn

10/31/2022 9:39:34 AM

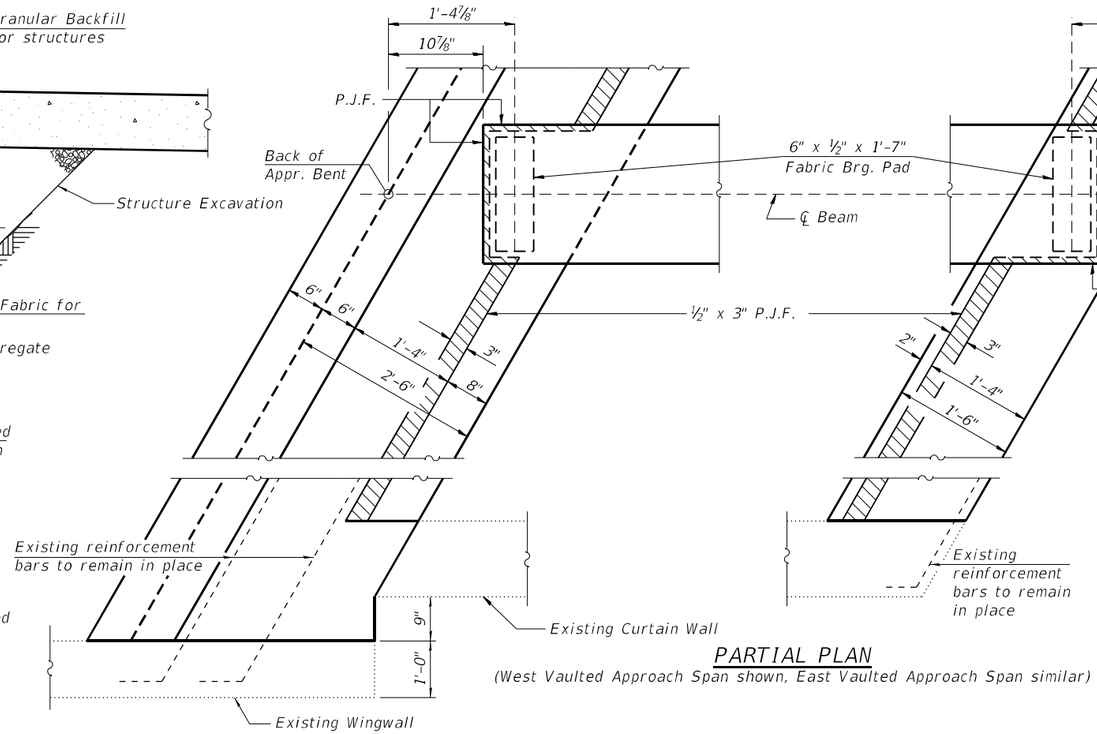
*Included in the cost of Pipe Underdrains for Structures.



SECTION THRU APPROACH BENT

(Horiz. dim. at Rt. ℄'s)

Note:
All drainage system components shall extend to 2'-0" from the end of the approach bent 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).



PARTIAL PLAN

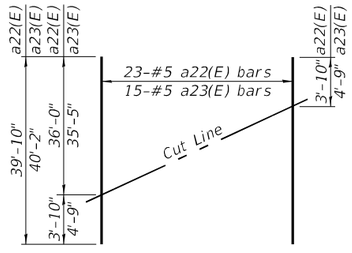
(West Vaulted Approach Span shown, East Vaulted Approach Span similar)

WEST APPROACH SPAN BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	192	#6	8'-4"	
a20(E)	75	#5	37'-1"	
a21(E)	50	#5	36'-11"	
a22(E)	23	#5	39'-10"	
a23(E)	15	#5	40'-2"	
a24(E)	4	#5	38'-11"	
a25(E)	79	#5	31'-1"	
a26(E)	52	#5	31'-3"	
a27(E)	19	#5	34'-0"	
a28(E)	13	#5	35'-2"	
a29(E)	4	#5	32'-8"	
b3(E)	178	#5	26'-11"	
b4(E)	210	#5	19'-0"	
c1(E)	102	#5	1'-4"	
c2(E)	51	#5	17'-6"	
d(E)	152	#5	5'-7"	
d3(E)	152	#5	7'-10"	
e5(E)	40	#4	26'-4"	
m(E)	24	#4	7'-6"	
m1(E)	10	#6	6'-2"	
m2(E)	1	#6	35'-7"	
m3(E)	2	#4	35'-7"	
m4(E)	1	#6	29'-5"	
m5(E)	2	#4	29'-5"	
m6(E)	4	#4	2'-8"	
m7(E)	2	#6	1'-11"	
m8(E)	4	#4	4'-8"	
m9(E)	2	#6	3'-11"	
m10(E)	4	#4	7'-0"	
m11(E)	1	#6	36'-1"	
m12(E)	4	#4	29'-10"	
m13(E)	1	#6	29'-10"	
m14(E)	4	#4	36'-1"	
m15(E)	2	#6	6'-10"	
m16(E)	2	#6	6'-6"	
s(E)	48	#4	6'-4"	
s1(E)	48	#4	7'-6"	
s2(E)	48	#4	3'-3"	
s6(E)	144	#4	3'-8"	
v(E)	70	#5	3'-1"	
Reinforcement Bars, Epoxy Coated		Pound	29,480	
Concrete Superstructure		Cu. Yd.	138.3	

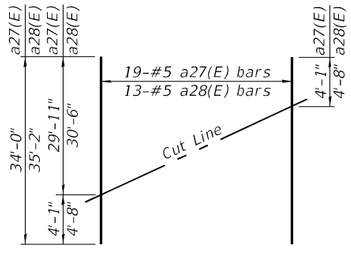
EAST APPROACH SPAN BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	172	#6	8'-4"	
a30(E)	79	#5	37'-1"	
a31(E)	53	#5	36'-11"	
a32(E)	8	#5	38'-7"	
a33(E)	5	#5	38'-3"	
a34(E)	4	#5	37'-2"	
a35(E)	80	#5	31'-1"	
a36(E)	53	#5	30'-11"	
a37(E)	6	#5	35'-0"	
a38(E)	4	#5	37'-4"	
a39(E)	4	#5	31'-2"	
b5(E)	178	#5	23'-7"	
b6(E)	210	#5	17'-0"	
c1(E)	90	#5	1'-4"	
c3(E)	45	#5	16'-9"	
d(E)	132	#5	5'-7"	
d3(E)	132	#5	7'-10"	
e6(E)	40	#4	23'-2"	
m17(E)	20	#4	7'-2"	
m18(E)	8	#4	6'-10"	
m19(E)	10	#6	5'-9"	
m20(E)	4	#6	6'-1"	
m21(E)	2	#6	34'-2"	
m22(E)	6	#4	34'-2"	
m23(E)	2	#6	28'-1"	
m24(E)	6	#4	28'-1"	
m25(E)	4	#4	2'-5"	
m26(E)	2	#6	1'-9"	
m27(E)	4	#4	4'-4"	
m28(E)	2	#6	3'-8"	
s3(E)	48	#4	6'-11"	
s4(E)	48	#4	7'-3"	
s5(E)	48	#4	4'-5"	
s6(E)	144	#4	3'-8"	
v(E)	66	#5	3'-1"	
Reinforcement Bars, Epoxy Coated		Pound	26,100	
Concrete Superstructure		Cu. Yd.	127.2	



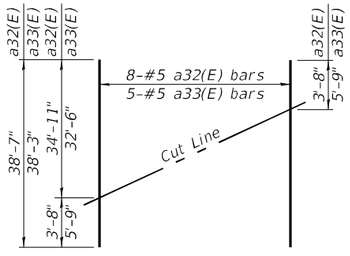
FIELD CUTTING DIAGRAM

Order a22(E) and a23(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.



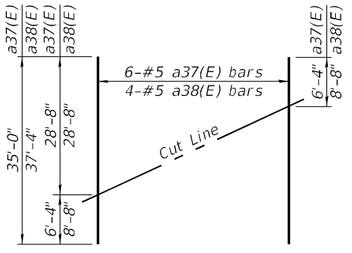
FIELD CUTTING DIAGRAM

Order a27(E) and a28(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.



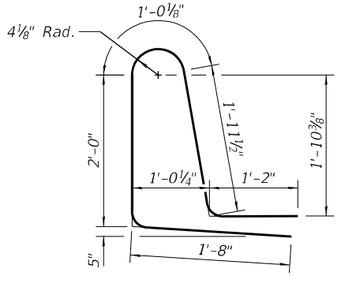
FIELD CUTTING DIAGRAM

Order a32(E) and a33(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.

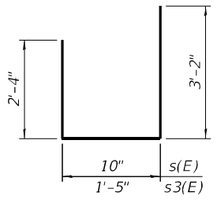


FIELD CUTTING DIAGRAM

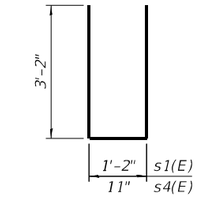
Order a37(E) and a38(E) bars full length. Cut as shown and use remainder of bars in opposite half of section.



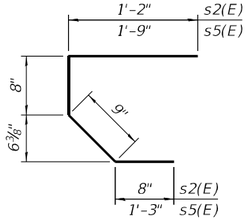
BAR d3(E)



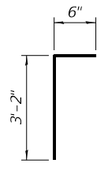
BARS s(E) & s3(E)



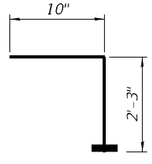
BARS s1(E) & s4(E)



BARS s2(E) & s5(E)



BAR s6(E)



BAR v(E)

(Headed)

Notes:
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.
See sheet 15 of 37 for additional bar bend details.

MODEL: Default
FILE NAME: E:\2020-7\Struct\Final Design\CADD\CADD Sheets\0680037-72G54-020-VaultedApproachSpanDetails.dgn

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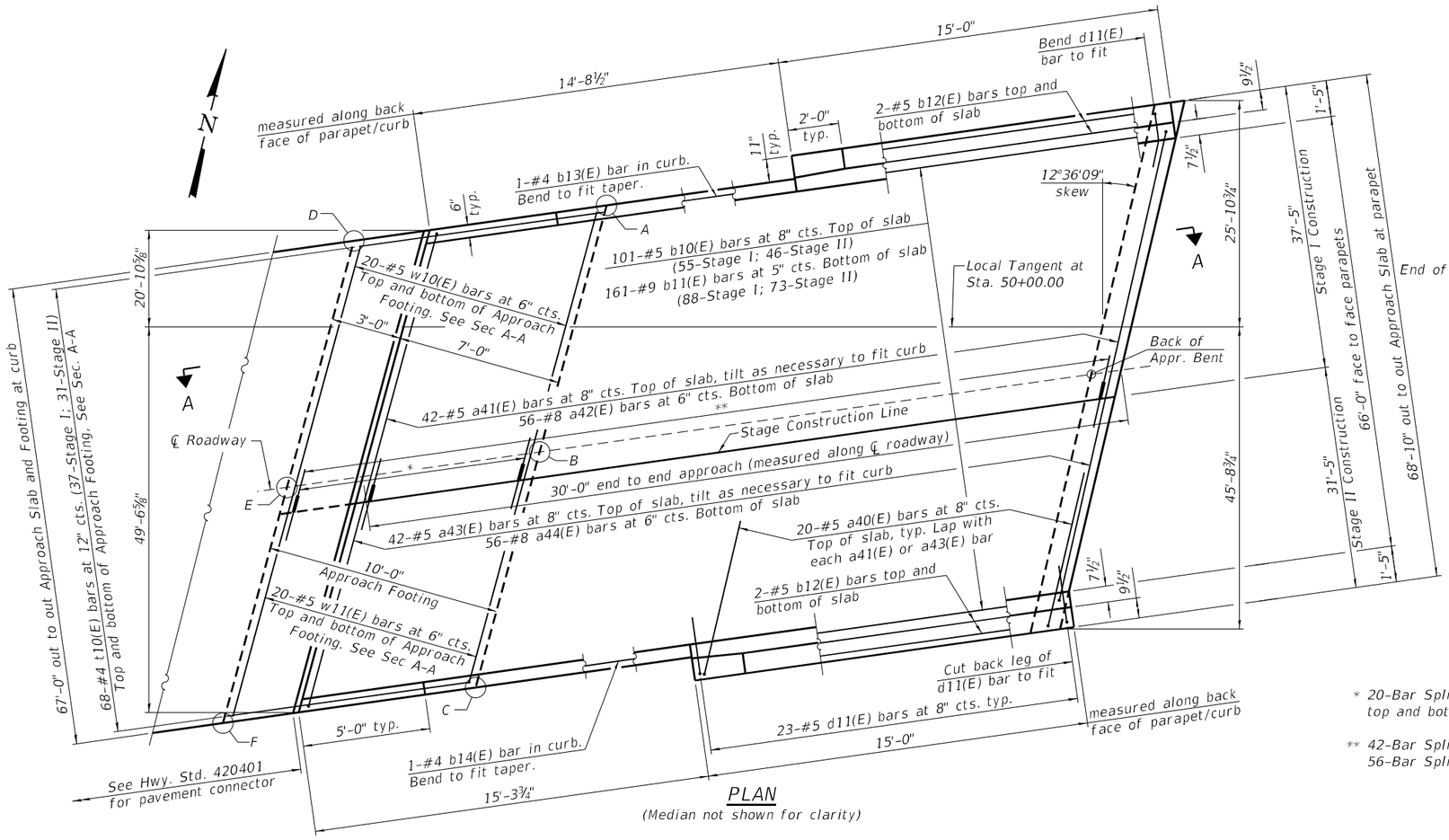
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - CZ	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE=	DRAWN - AJF	REVISED -	
PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VAULTED APPROACH SPAN DETAILS
STRUCTURE NO. 068-0037
SHEET 20 OF 37 SHEETS

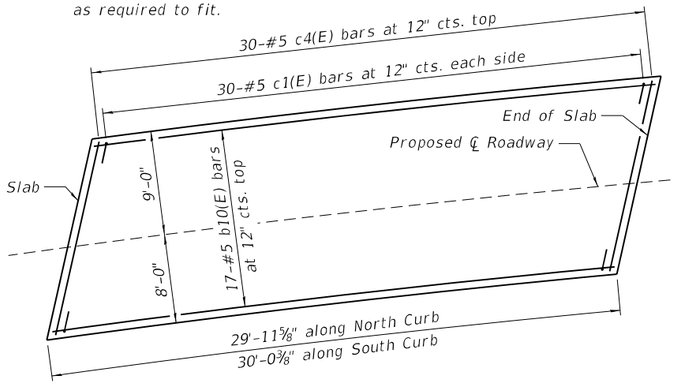
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	157
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



PLAN

(Median not shown for clarity)

Notes:
See sheet 23 of 37 for Section A-A and approach slab details.
Bend longitudinal reinforcement in field as required to fit.



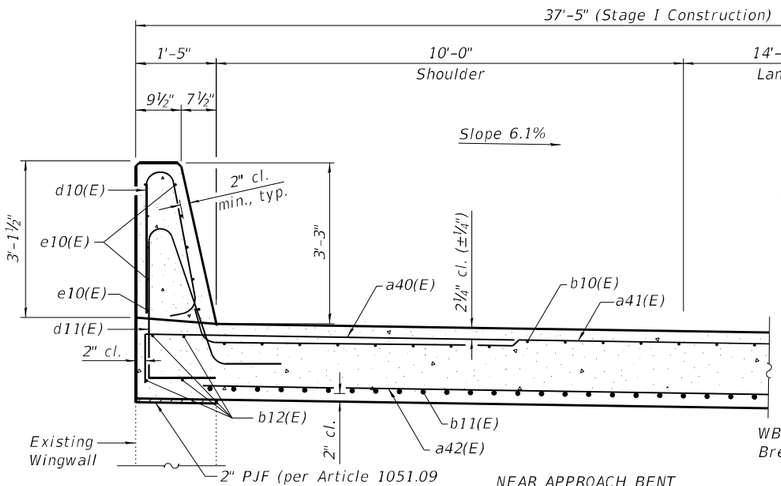
WEST APPROACH SLAB MEDIAN PLAN

* 20-Bar Splicers(E) for #5 bars top and bottom approach footing

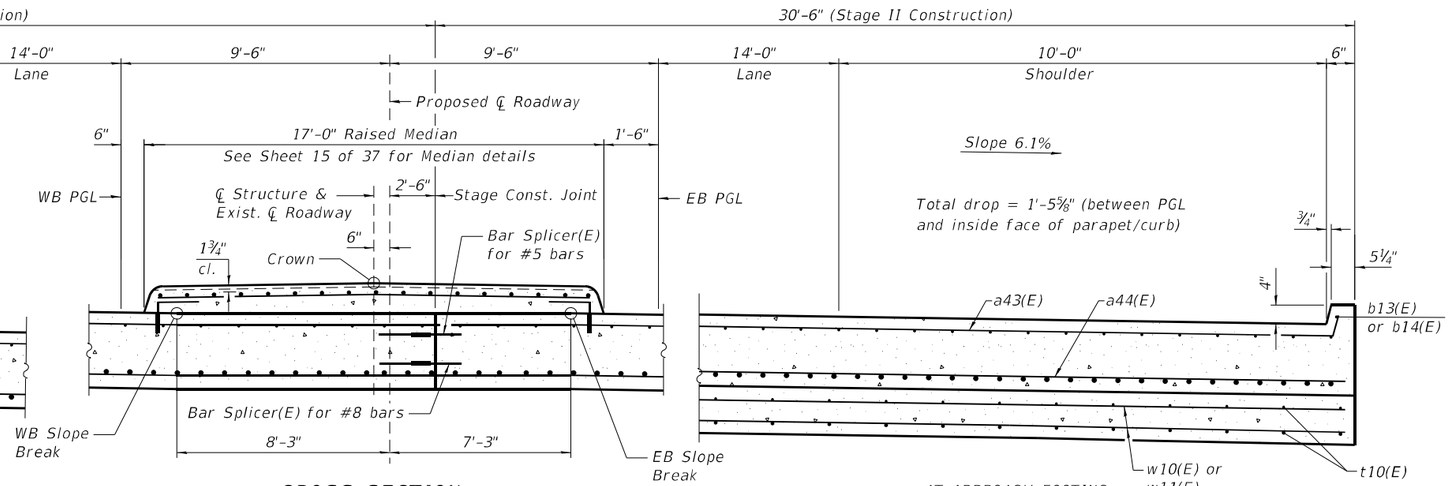
** 42-Bar Splicers(E) for #5 bars, top
56-Bar Splicers(E) for #8 bars bottom

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

West Approach		
Point/ Location	Top	Bottom
A - Sta. 48+36.28/34.00' Lt.	669.09	668.26
B - Sta. 48+23.34/℄	667.52	666.69
C - Sta. 48+09.96/33.00' Rt.	666.08	665.24
D - Sta. 48+25.87/34.00' Lt.	669.09	668.26
E - Sta. 48+12.58/℄	667.52	666.69
F - Sta. 47+98.88/33.00' Rt.	666.09	665.25



NEAR APPROACH BENT



CROSS SECTION

(Looking East)

AT APPROACH FOOTING

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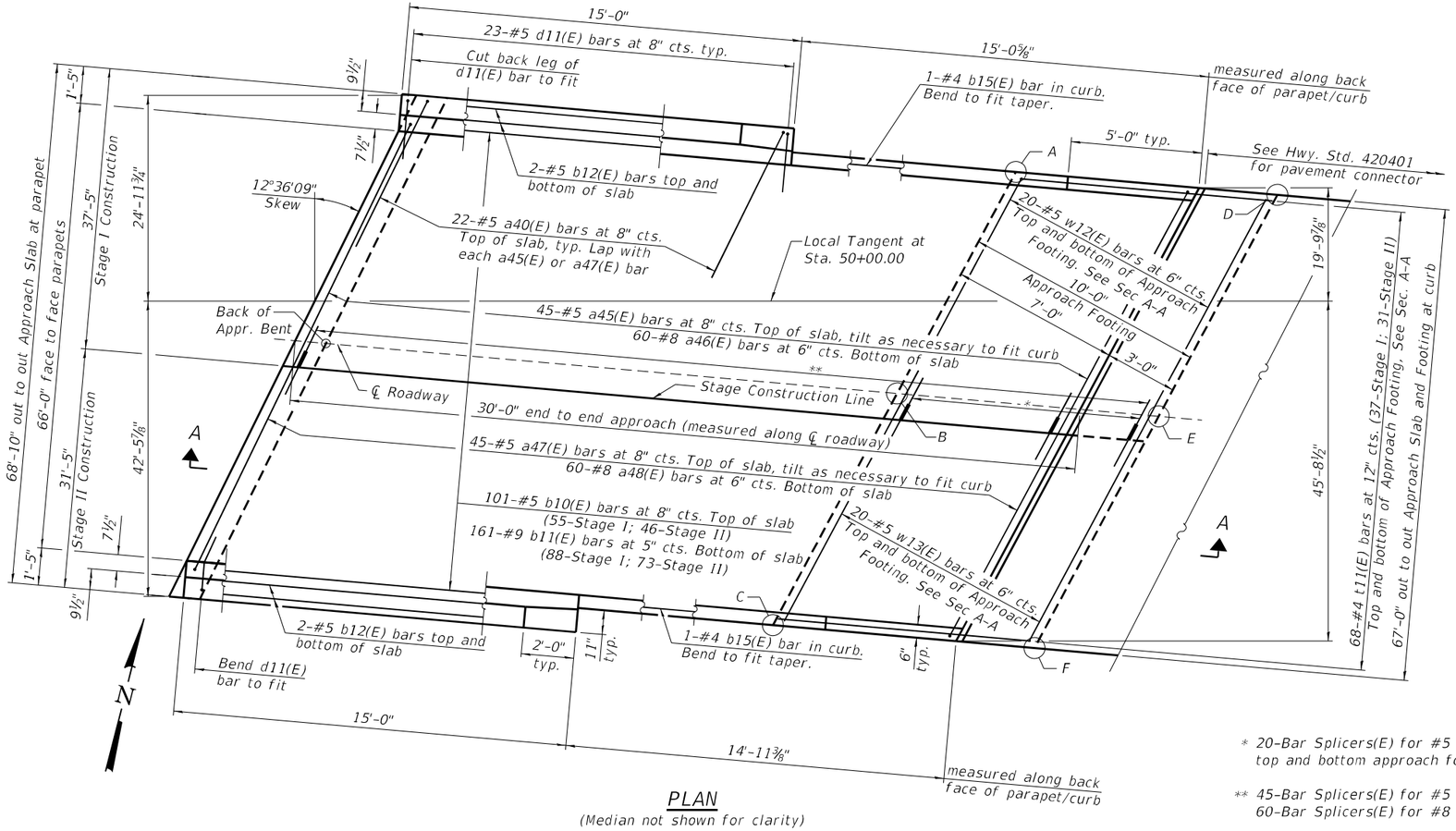
		CHECKED - MTH	REVISED -
	PLOT SCALE=	DRAWN - AJF	REVISED -
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB
STRUCTURE NO. 068-0037
SHEET 21 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	158
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



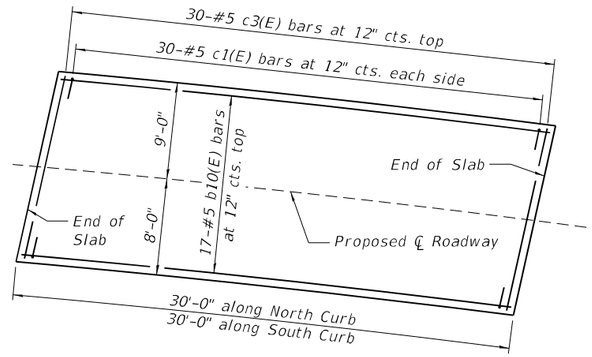
PLAN

(Median not shown for clarity)

* 20-Bar Splicers(E) for #5 bars top and bottom approach footing

** 45-Bar Splicers(E) for #5 bars, top
60-Bar Splicers(E) for #8 bars bottom

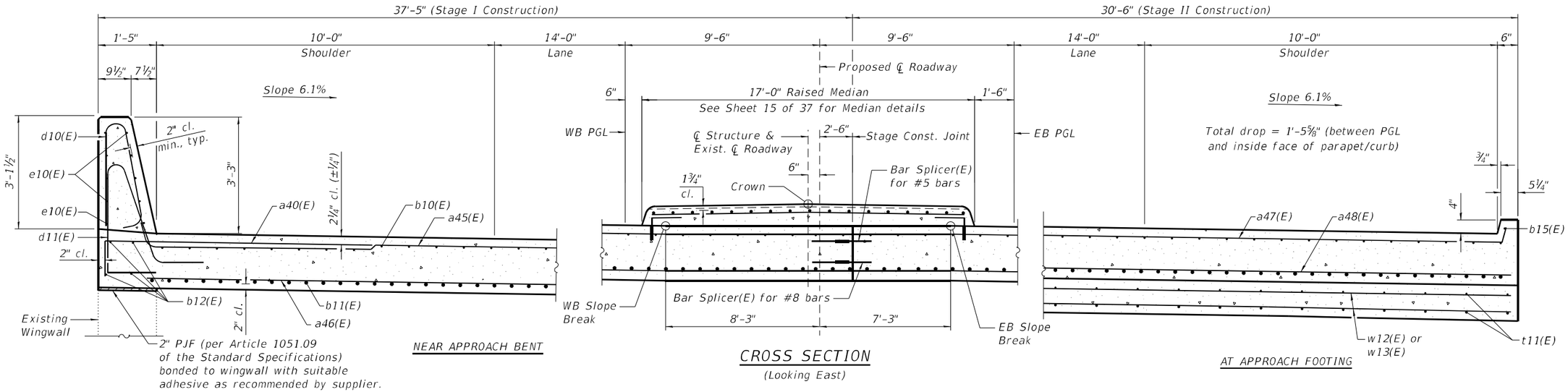
Notes:
See sheet 23 of 37 for Section A-A and approach slab details.
Note:
Bend longitudinal reinforcement in field as required to fit.



EAST APPROACH SLAB MEDIAN PLAN

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

East Approach		
Point/ Location	Top	Bottom
A - Sta. 51+70.96/34.00' Lt.	665.87	665.04
B - Sta. 51+68.55/℄	664.35	663.52
C - Sta. 51+66.07/33.00' Rt.	662.83	662.00
D - Sta. 51+80.69/34.00' Lt.	665.69	664.85
E - Sta. 51+78.57/℄	664.16	663.32
F - Sta. 51+76.39/33.00' Rt.	662.63	661.80



NEAR APPROACH BENT

CROSS SECTION

(Looking East)

AT APPROACH FOOTING

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - MTH	REVISED -	
	PLOT SCALE=	DRAWN - AJF	REVISED -	
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -	

EAST BRIDGE APPROACH SLAB
STRUCTURE NO. 068-0037

SHEET 22 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	159
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

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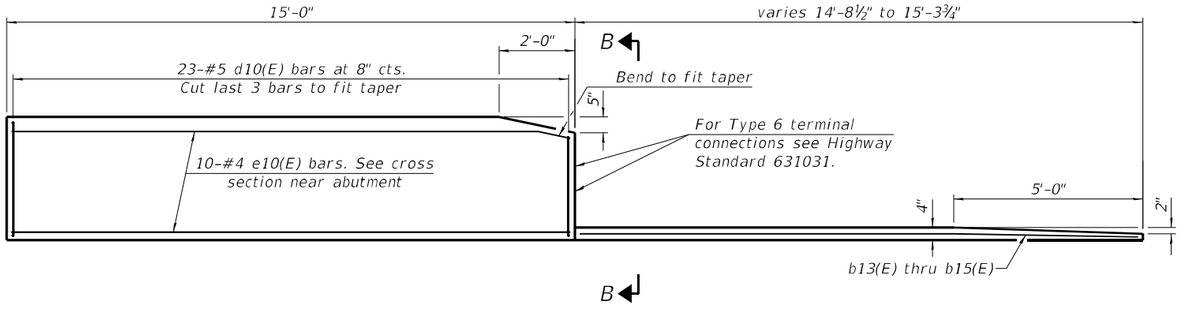
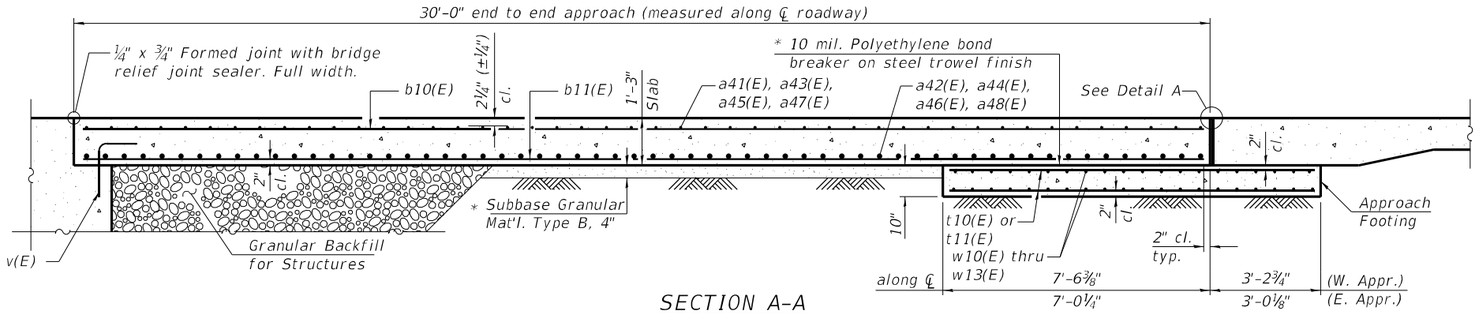
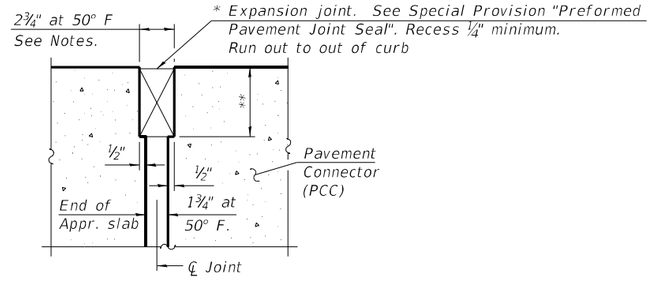


INSIDE ELEVATION OF PARAPET AND CURB



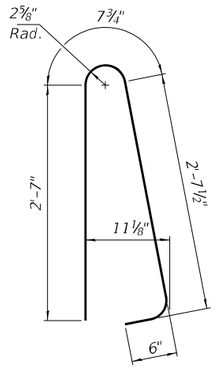
SECTION A-A



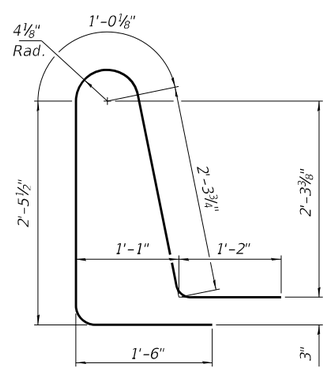
DETAIL A
(at Rt. ℄s)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

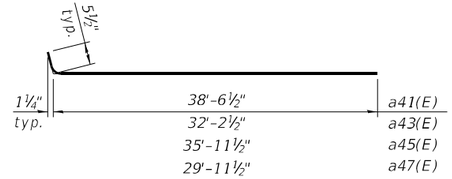


BAR d10(E)

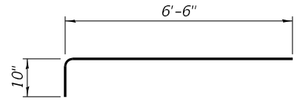


BAR d11(E)

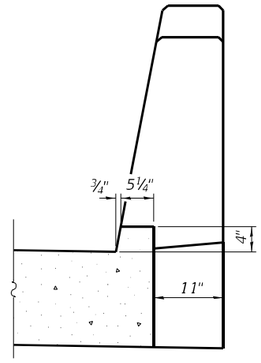
Notes:
The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 20 of 37.
Bend longitudinal reinforcement in field as required to fit.



BARS a41(E), a43(E), a45(E), & a47(E)



BAR a40(E)



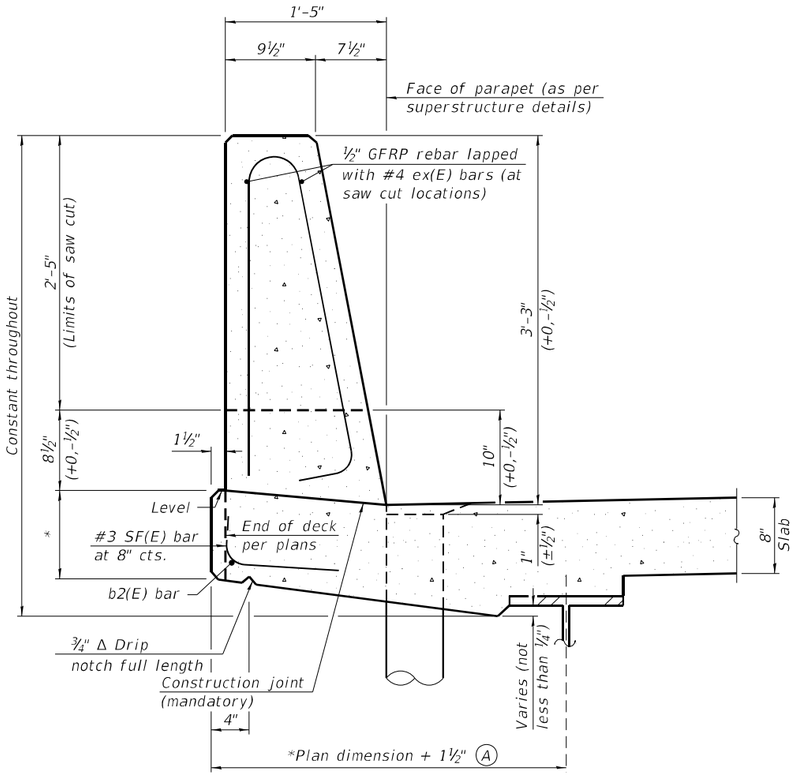
VIEW B-B

WEST APPROACH
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a40(E)	20	#5	7'-4"	
a41(E)	42	#5	39'-0"	
a42(E)	56	#8	38'-10"	
a43(E)	42	#5	32'-8"	
a44(E)	56	#8	32'-7"	
b10(E)	118	#5	29'-8"	
b11(E)	161	#9	29'-8"	
b12(E)	8	#5	14'-8"	
b13(E)	1	#4	14'-5"	
b14(E)	1	#4	15'-0"	
c1(E)	60	#5	1'-4"	
c4(E)	30	#5	18'-0"	
d10(E)	46	#5	6'-5"	
d11(E)	46	#5	8'-6"	
e10(E)	20	#4	14'-8"	
t10(E)	136	#4	10'-6"	
w10(E)	40	#5	38'-10"	
w11(E)	40	#5	32'-7"	
Concrete Superstructure			Cu. Yd.	13.3
Concrete Superstructure (Approach Slab)			Cu. Yd.	93.1
Concrete Structures			Cu. Yd.	22.3
Reinforcement Bars, Epoxy Coated			Pound	39,500

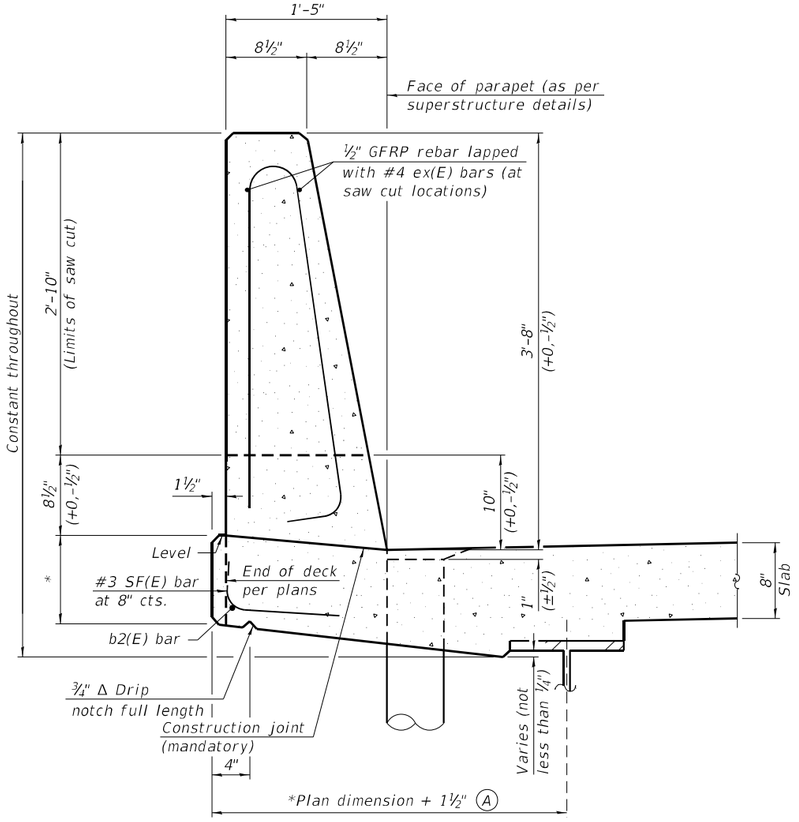
EAST APPROACH
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a40(E)	22	#5	7'-4"	
a45(E)	45	#5	36'-5"	
a46(E)	60	#8	36'-4"	
a47(E)	45	#5	30'-5"	
a48(E)	60	#8	30'-4"	
b10(E)	118	#5	29'-8"	
b11(E)	161	#9	29'-8"	
b12(E)	8	#5	14'-8"	
b15(E)	2	#4	14'-9"	
c1(E)	60	#5	1'-4"	
c3(E)	30	#5	16'-9"	
d10(E)	46	#5	6'-5"	
d11(E)	46	#5	8'-6"	
e10(E)	20	#4	14'-8"	
t11(E)	136	#4	9'-9"	
w12(E)	40	#5	36'-4"	
w13(E)	40	#5	30'-4"	
Concrete Superstructure			Cu. Yd.	13.3
Concrete Superstructure (Approach Slab)			Cu. Yd.	93.1
Concrete Structures			Cu. Yd.	20.7
Reinforcement Bars, Epoxy Coated			Pound	39,210



39" CONSTANT-SLOPE PARAPET SECTION

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



44" CONSTANT-SLOPE PARAPET SECTION

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

*See Superstructure Details.

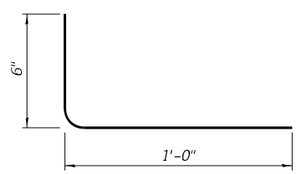
Notes:

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

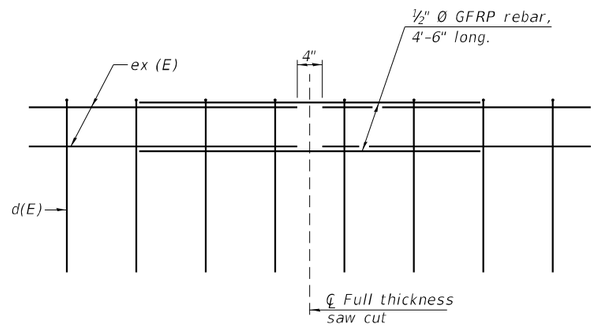
Place full depth aluminum sheets as shown on superstructure details.

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

Steel superstructure shown. Other superstructure types similar.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL

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

SFP 39-44 1-1-2020

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 068-0037
		CHECKED - MTH	REVISED -		
	PLOT SCALE=	DRAWN - AJF	REVISED -		SHEET 24 OF 37 SHEETS
	PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	161
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

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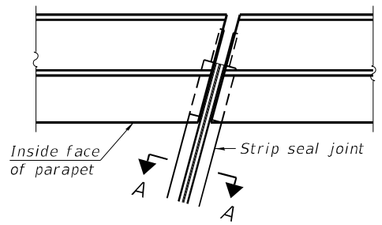
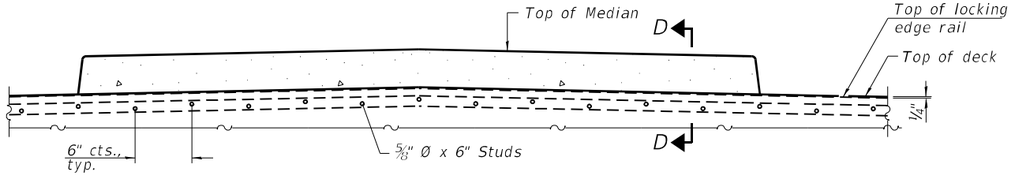


PLAN AT PARAPET



SECTION AT MEDIAN

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

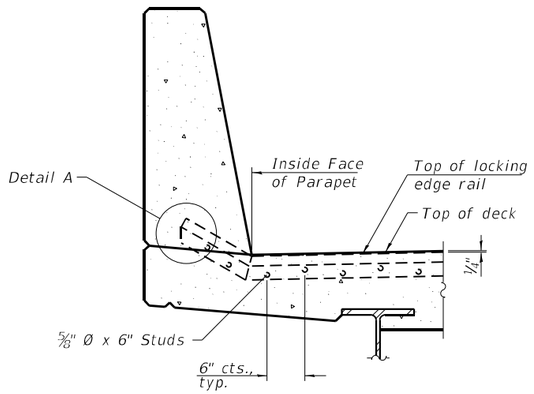
The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

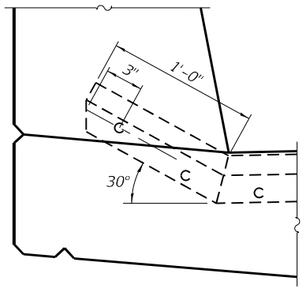
The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of anchorage studs included with Preformed Joint Strip Seal.

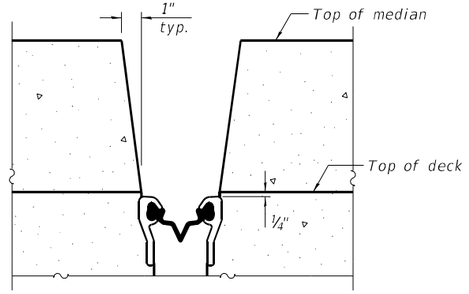
The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required.



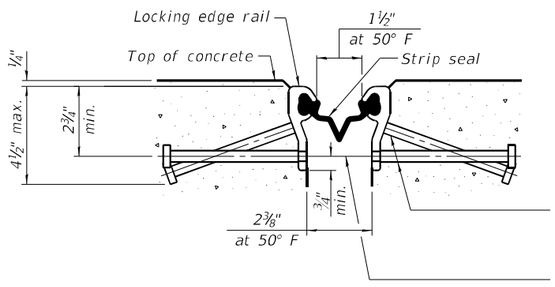
SECTION AT PARAPET



DETAIL A



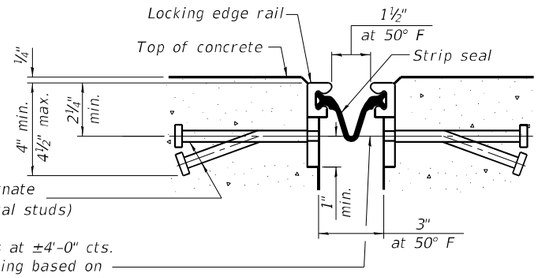
SECTION D-D
(at Rt. ℄'s)



SHOWING ROLLED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

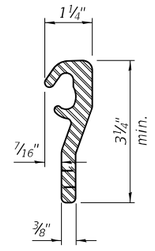
⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



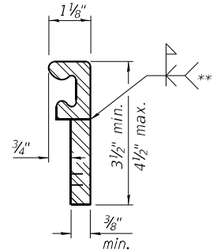
SHOWING WELDED RAIL JOINT

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



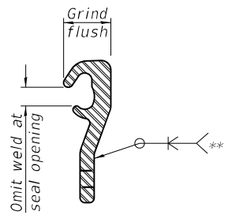
ROLLED
(EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	140

MODEL: Default
FILE NAME: E:\2020-7\Struct\Final Design\CADD\CADD Sheets\0680037-72G54-025-PreformedJointStripSeal.dgn

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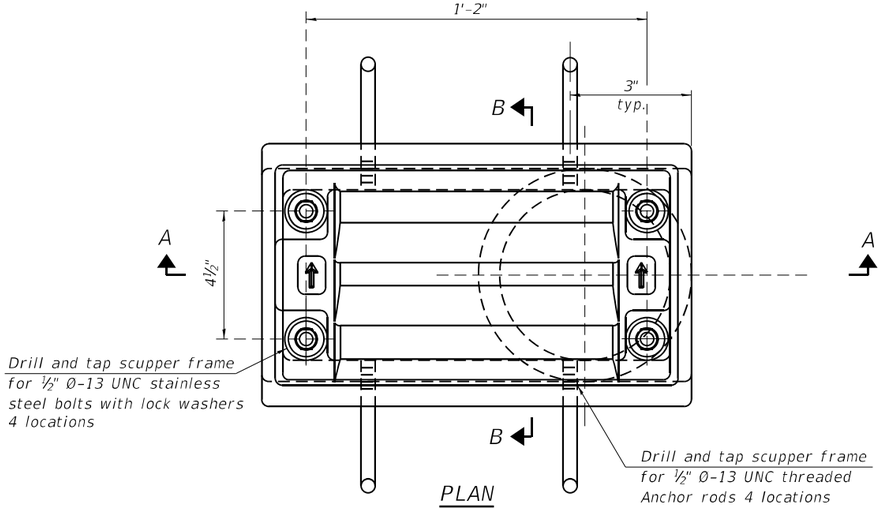
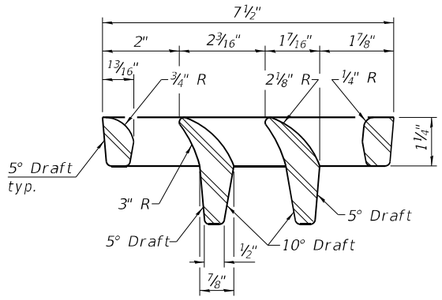
	PLOT SCALE=	DRAWN - AJF	REVISED -	
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -	

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 068-0037
SHEET 25 OF 37 SHEETS

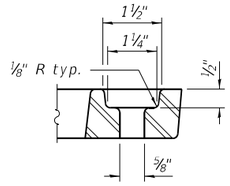
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	162
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



PLAN



VANE GRATE DETAIL



GRATE 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.

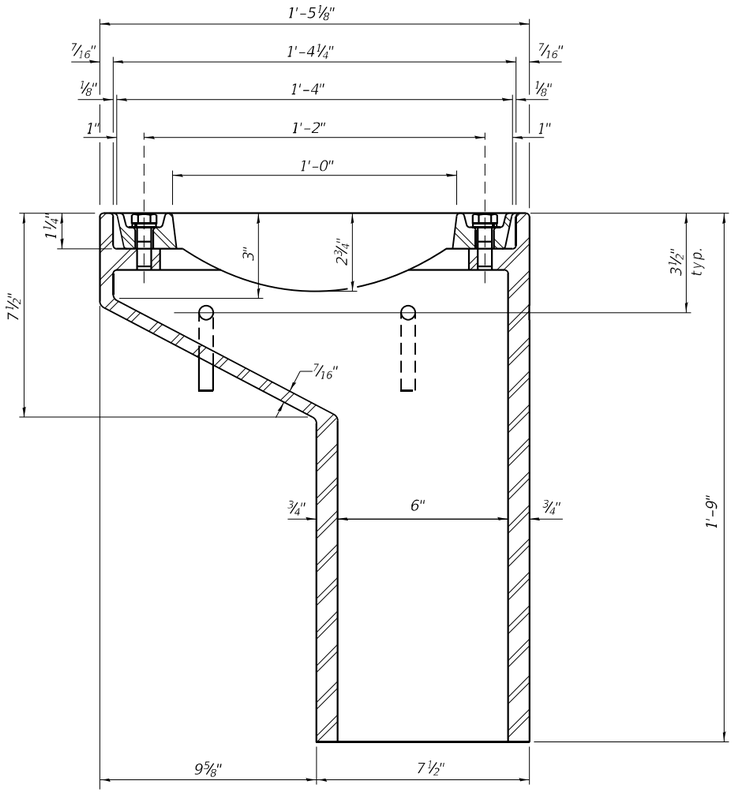
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

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 treated as specified on sheet of .

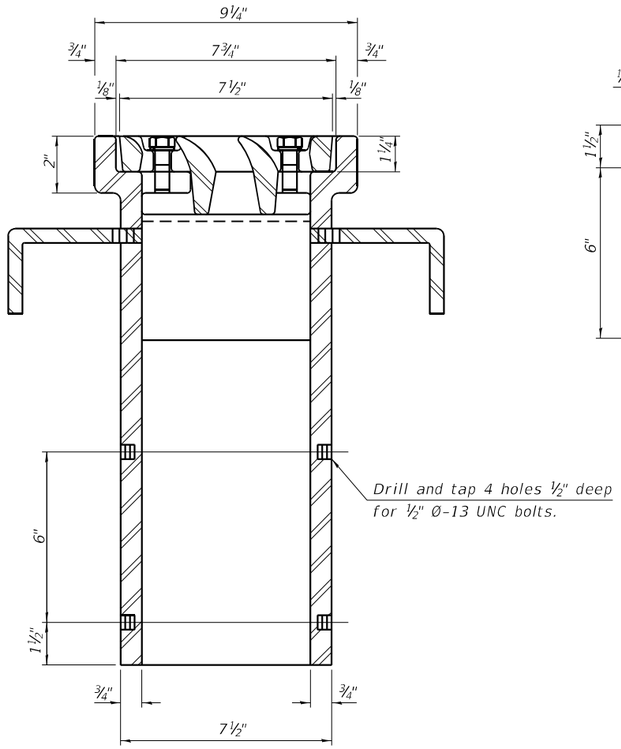
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

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.

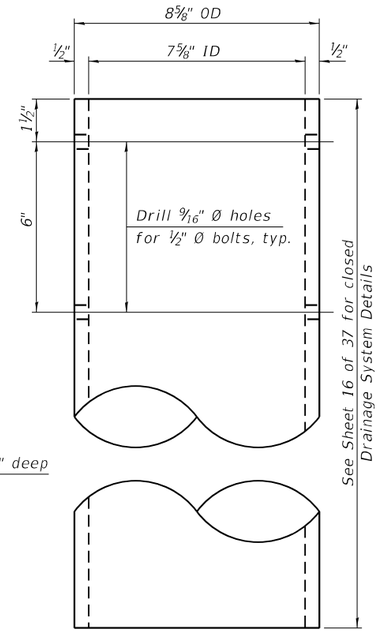


SECTION A-A

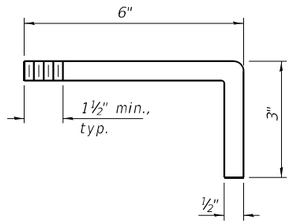
See sheet 14 of 37 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	2

DS-11 1-1-2020

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DS-11
STRUCTURE NO. 068-0037
SHEET 26 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	163
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

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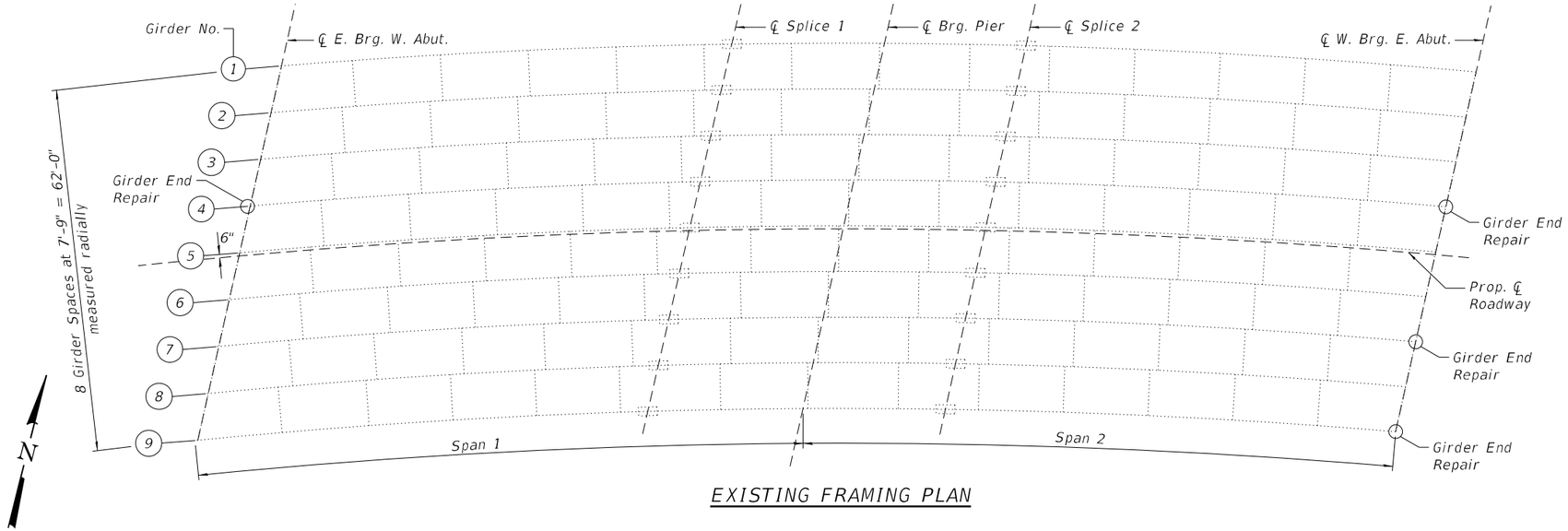


EXISTING FRAMING PLAN

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in^4)	24775	58125	24775
Ic(n)	(in^4)	73206	65673	73206
Ic(3n)	(in^4)	52405	65673	52404
Ss	(in^3)	1142	2114	1142
Sc(n)	(in^3)	1626	2207	1626
Sc(3n)	(in^3)	1495	2207	1495
Sℓ	(in^3)	60.75	144	60.75
℘	(k/')	1.03	1.19	1.03
M℘	('k)	625	1746	572
s℘	(k/')	0.42	0.42	0.42
Ms℘	('k)	280	608	260
M℄	('k)	861	957	851
MI	('k)	215	191	213
$\frac{5}{3}$[M℄ + MI]	('k)	1793	1914	1773
Ma	('k)	3508	5548	3386
Mbℓ	('k)	1.2	4.1	3.9
fs℘ (non-comp)	(ksi)	6.6	9.9	6.0
fs℘ (comp)	(ksi)	2.2	3.3	2.1
fs$\frac{5}{3}$ [M℄ + MI]	(ksi)	13.2	10.4	13.1
fℓ	(ksi)	0.2	0.3	0.8
fs(Overload)	(ksi)	22.0	23.6	21.2
fs(Total)	(ksi)	28.7	30.7	27.5
Fcr(Overload)	(ksi)	34.2	34.2	34.2
VR	(k)	22.39	28.03	22.41
Fcr	(ksi)	35.9	34.3	35.7

INTERIOR GIRDER REACTION TABLE				
		W. Abut.	Pier	E. Abut.
R℘	(k)	52.3	199.7	49.6
R℄	(k)	54.2	87.1	55.1
RI	(k)	16.2	21.8	16.5
R_{Total}	(k)	122.7	308.5	121.2

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total and Overload) due to non-composite dead loads ($in.^4$ and $in.^3$).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total and Overload) due to short-term composite live loads ($in.^4$ and $in.^3$).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total and Overload) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

Sℓ: Section modulus of one flange plate for lateral flange bending ($in.^3$).

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

M℘: Un-factored moment due to non-composite dead load (kip-ft).

s℘: Un-factored long-term composite (superimposed) dead load (kips/ft.).

Ms℘: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M℄: Un-factored live load moment (kip-ft.).

MI: Un-factored moment due to impact (kip-ft).

Ma: Factored design moment (kip-ft.).
$1.3\ [M℘ + Ms℘ + \frac{5}{3}(M℄ + MI)]$

Mbℓ: Factored lateral bending moment for flange plate (kip-ft.).

fℓ: Factored calculated normal stress at the edge of flange due to lateral bending (ksi).

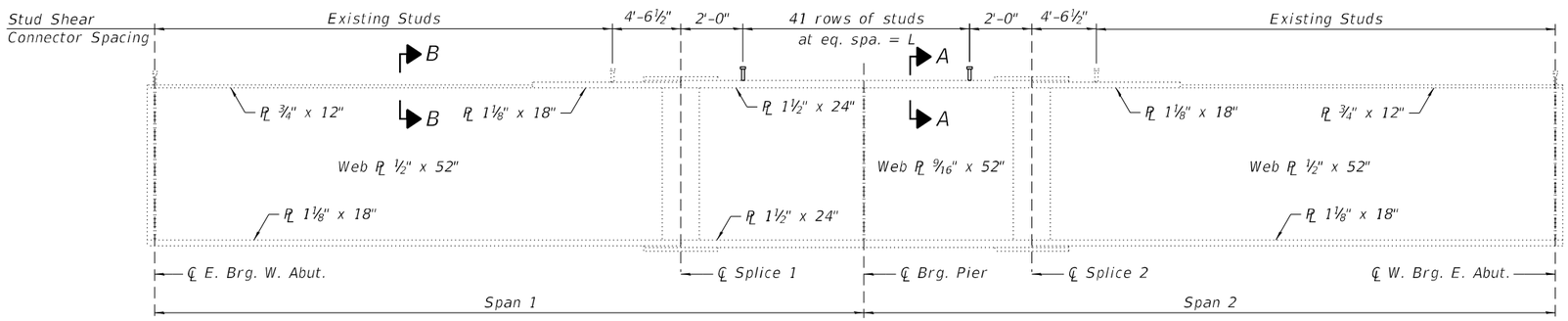
fs(Overload): Sum of stresses as computed from the moments below (ksi).
$M℘ + Ms℘ + \frac{5}{3}(M℄ + MI)$

fs(Total): Sum of stresses as computed from the moments below (ksi).
$1.3\ [M℘ + Ms℘ + \frac{5}{3}(M℄ + MI)]$

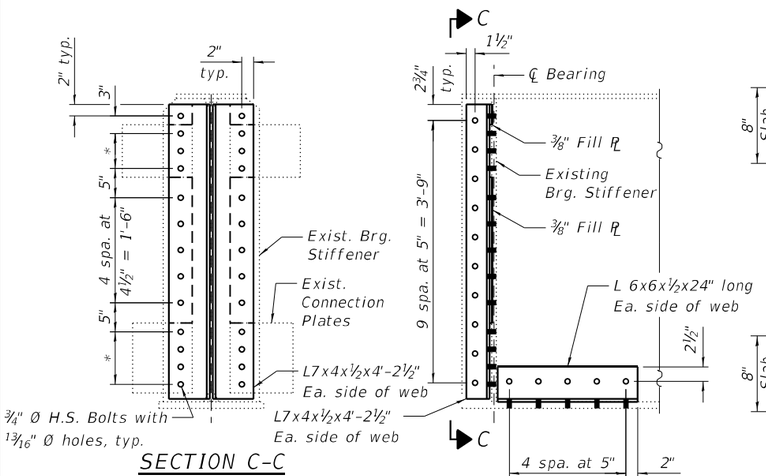
Fcr(Overload): Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5 (ksi.).

Fcr: Critical average flange stress (smaller of Fcr1 or Fcr2 for partially braced flanges and F_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4) (ksi).

VR: Maximum℄ + impact shear range within span for stud shear connector design (kips).



EXISTING GIRDER ELEVATION

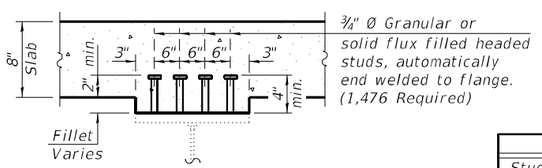


SECTION C-C

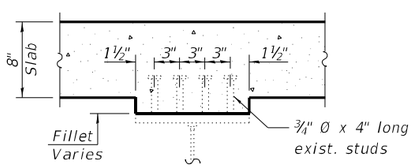
GIRDER END REPAIRS

(East end of Girder 4, 7 and 9; West end of Girder 4)

* Match existing holes in connection plate.



SECTION A-A



SECTION B-B

Note:
M℄ and R℄ include the effects of centrifugal force and superelevation.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stud Shear Connectors	Each	1,476
Structural Steel Repair	Pound	1,120

STUD SPACING

GIRDER	L
1	45'-11¼"
2	46'-0⅛"
3	46'-0⅞"
4	46'-1¾"
5	46'-2⅝"
6	46'-3½"
7	46'-4½"
8	46'-5⅜"
9	46'-6⅜"

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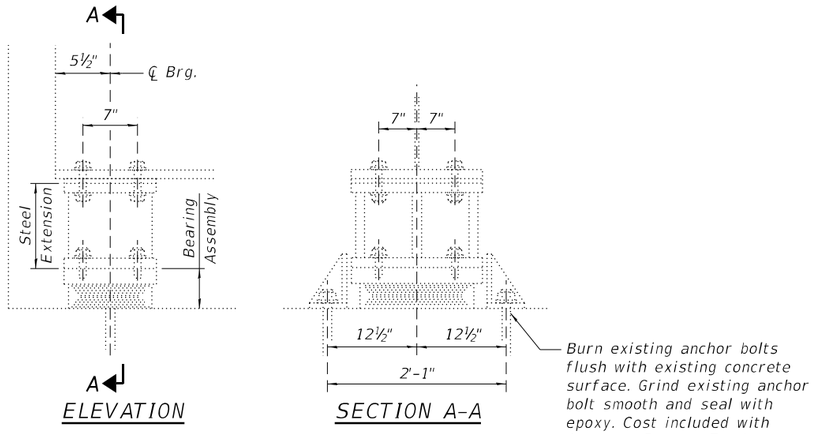
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND STEEL DETAILS
STRUCTURE NO. 068-0037
SHEET 27 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	164
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

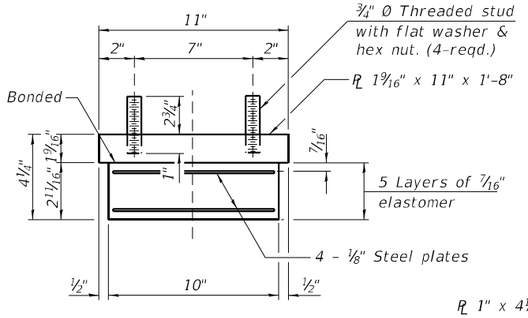


ELEVATION

SECTION A-A

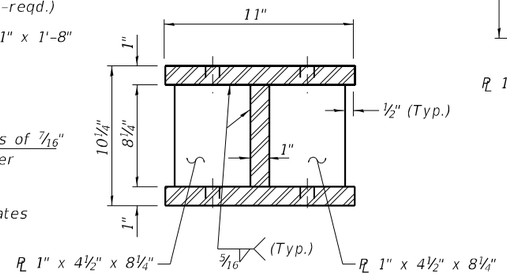
Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost included with Jack and Remove Existing Bearings.

EXISTING ABUTMENT BEARINGS TO BE REMOVED

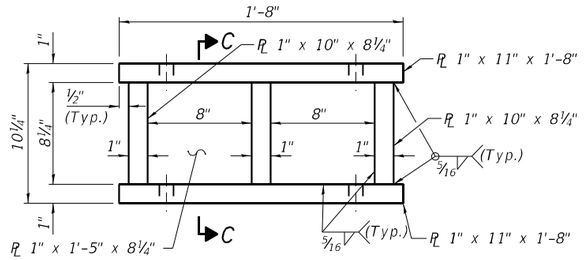


BEARING ASSEMBLY

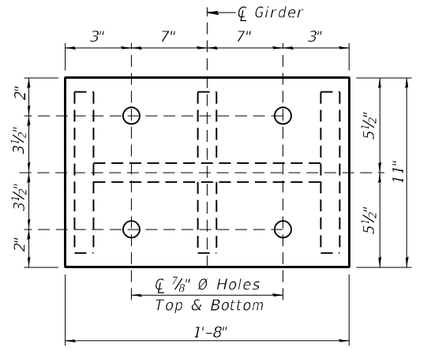
Shim plates shall not be placed under bearing assembly.



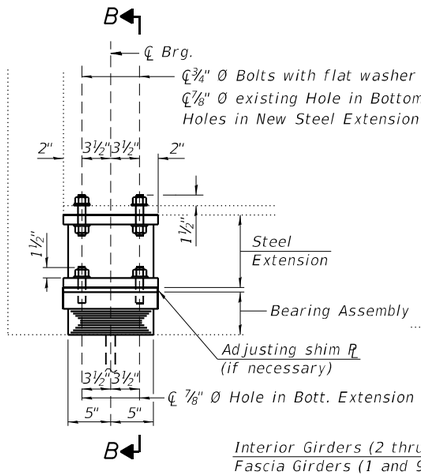
SECTION C-C



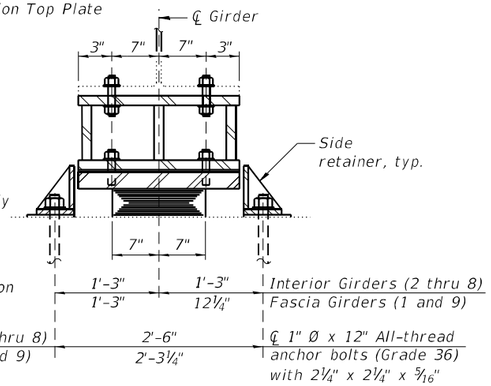
ELEVATION STEEL EXTENSION



PLAN STEEL EXTENSION

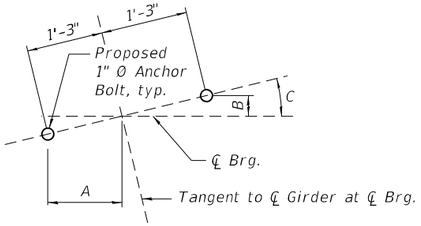


ELEVATION AT ABUTMENT



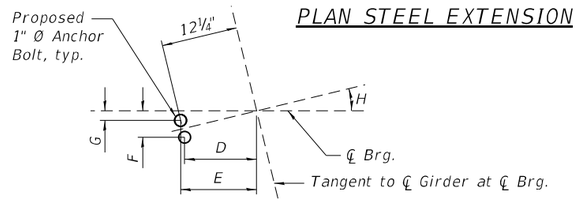
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.



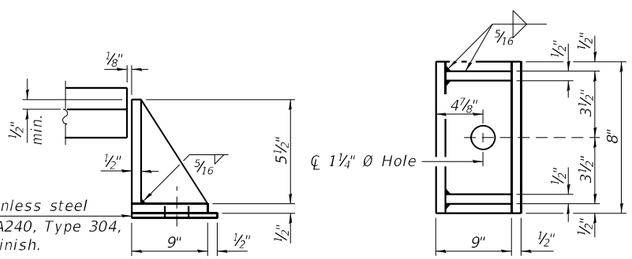
TYPICAL ANCHOR BOLT LOCATION

	W. Abut.			E. Abut.		
	A	B	C	A	B	C
Girder 1	1'-2⅜"	4½"	17°14'53"	1'-2⅛"	1⅞"	7°21'52"
Girder 2	1'-2⅜"	4½"	17°21'58"	1'-2⅛"	1⅞"	7°24'49"
Girder 3	1'-2¼"	4½"	17°29'09"	1'-2⅛"	2"	7°27'48"
Girder 4	1'-2¼"	4½"	17°36'25"	1'-2⅛"	2"	7°30'49"
Girder 5	1'-2¼"	4⅜"	17°43'48"	1'-2⅛"	2"	7°33'53"
Girder 6	1'-2¼"	4⅜"	17°51'17"	1'-2⅛"	2"	7°37'00"
Girder 7	1'-2¼"	4⅜"	17°58'53"	1'-2⅛"	2"	7°40'09"
Girder 8	1'-2¼"	4⅜"	18°06'35"	1'-2⅛"	2"	7°43'21"
Girder 9	1'-2¼"	4¾"	18°14'25"	1'-2⅛"	2"	7°46'35"



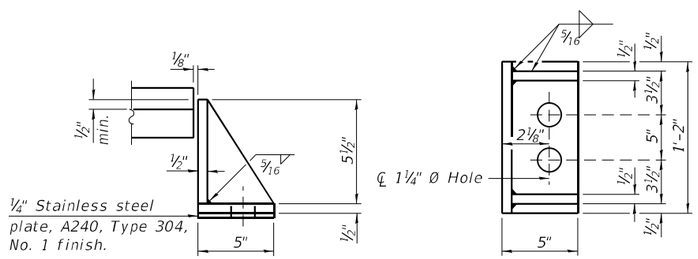
ANCHOR BOLT LOCATION OUTSIDE OF FASCIA GIRDER

	W. Abut.					E. Abut.				
	D	E	F	G	H	D	E	F	G	H
Girder 1	11"	12½"	6"	1¼"	17°14'53"	11⅛"	12½"	4"	-⅛"	7°21'52"
Girder 9	10⅞"	12⅜"	6¼"	1½"	18°14'25"	11¾"	12½"	4⅛"	-⅛"	7°46'35"



TYPICAL SIDE RETAINER

(32 locations)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SIDE RETAINER OUTSIDE OF FASCIA GIRDERS

(4 locations)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	18
Anchor Bolts, 1"	Each	40
Furnishing and Erecting Structural Steel	Pound	4,260
Jack and Remove Existing Bearings	Each	18

Notes:

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The Contractor is to verify the existing dimensions prior to fabricating the bearing extensions. Cost of extensions included with Furnishing and Erecting Structural Steel.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

The structural steel plates of Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.

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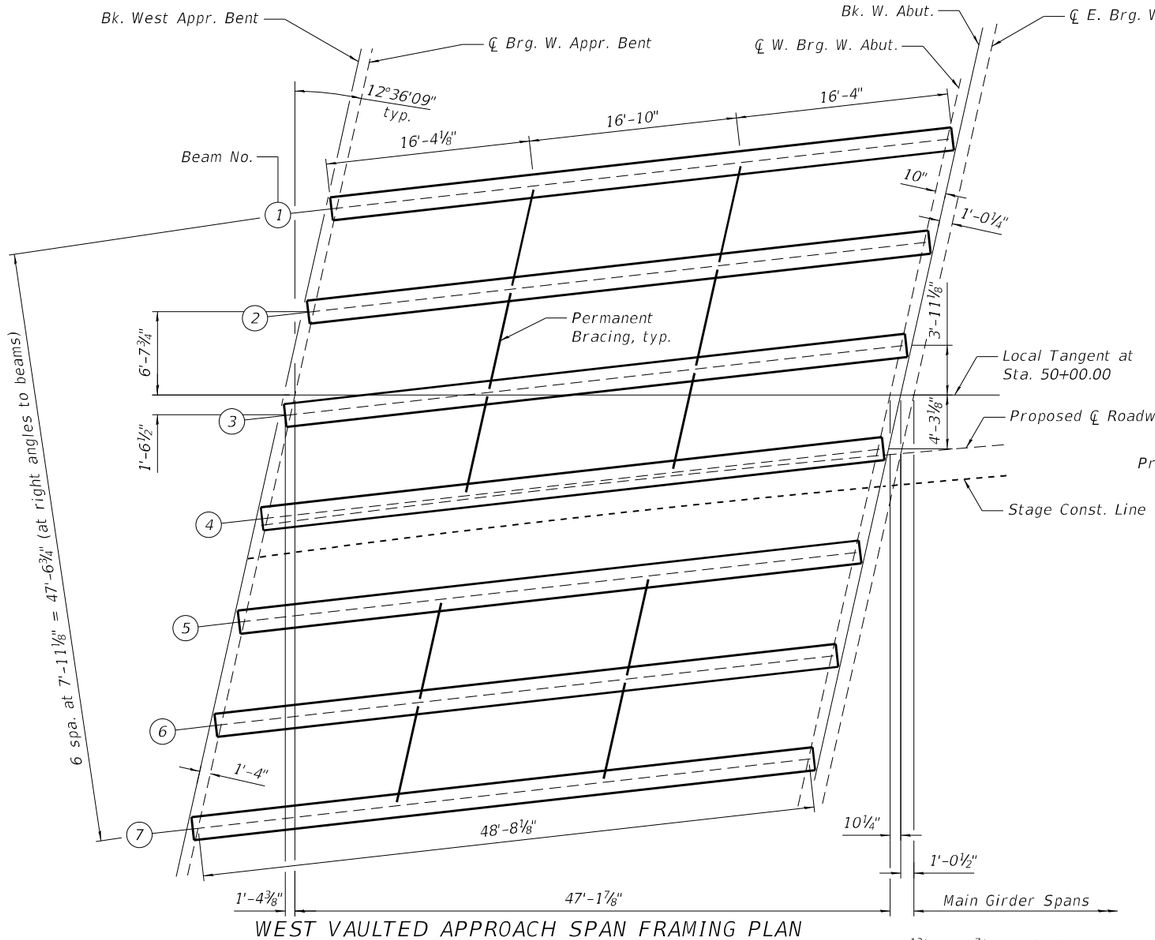
BEARING DETAILS
STRUCTURE NO. 068-0037
SHEET 28 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	165
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

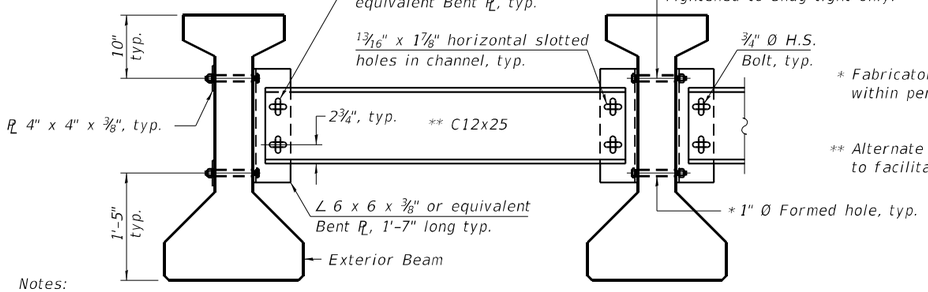


WEST VAULTED APPROACH SPAN FRAMING PLAN

EAST VAULTED APPROACH SPAN FRAMING PLAN

INTERIOR BEAM MOMENT TABLE			
		0.5 Span W. Approach	0.5 Span E. Approach
I	(in^4)	90,956	90,956
I'	(in^4)	314,392	314,392
Sb	(in^3)	5,153	5,153
Sb'	(in^3)	9,153	9,153
St	(in^3)	3,735	3,735
St'	(in^3)	41,097	41,097
$DC1$	($k/'$)	1.277	1.277
$MDC1$	('k)	405	309
$DC2$	($k/'$)	0.258	0.258
$MDC2$	('k)	79	61
DW	($k/'$)	0.198	0.198
MDW	('k)	56	43
$LLDF$		.736	.763
M_{L+IM}	('k)	727	600

INTERIOR BEAM REACTION TABLE			
		Abut. & Bent W. Approach	Abut. & Bent E. Approach
$LLDF$		.809	.809
$RDC1$	(k)	33.3	29.0
$RDC2$	(k)	6.3	5.5
RDW	(k)	4.5	3.9
R_{L+IM}	(k)	73.8	69.8
$RTotal$	(k)	117.9	108.2



* Fabricator shall locate to miss strands within permissible tolerances.

** Alternate C12x30 channels are permitted to facilitate material acquisition.

Notes:
- All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
- Two hardened washers are required for each set of oversized holes.
- All holes shall be 15⁄16" Ø unless otherwise noted.
- 5⁄16" x 3" x 3" plate washers are required over all slotted holes.
- All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.
- Threaded rods shall be ASTM F 1554 Grade 55.
- Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
- Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.

PERMANENT BRACING DETAILS FOR 42" PPC I-BEAMS

- I: Non-composite moment of inertia of beam section ($in.^4$).
- I': Composite moment of inertia of beam section ($in.^4$).
- Sb: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
- Sb': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
- St: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
- St': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
- $DC1$: Un-factored non-composite dead load (kips/ft.).
- $MDC1$: 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.).
- $MDC2$: 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.).
- MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
- M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VAULTED APPROACH SPAN FRAMING PLAN
STRUCTURE NO. 068-0037
SHEET 29 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	166
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	

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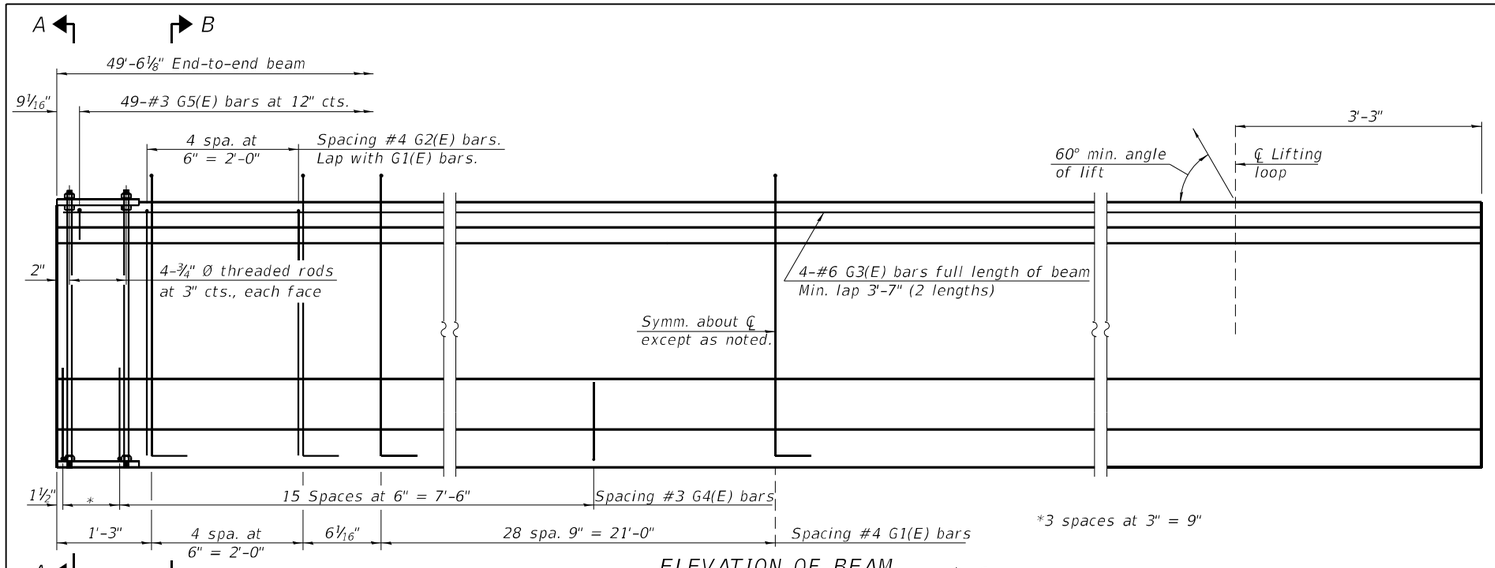
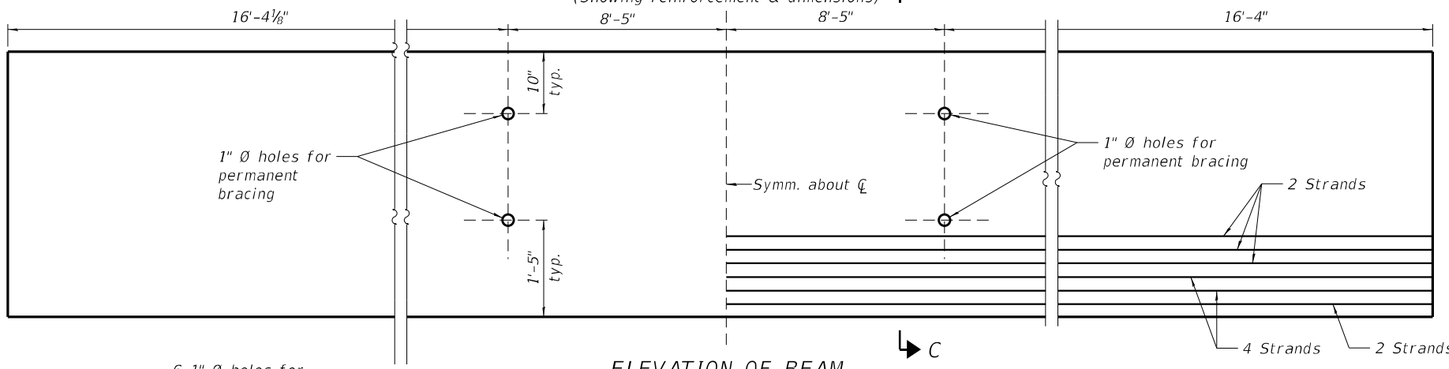
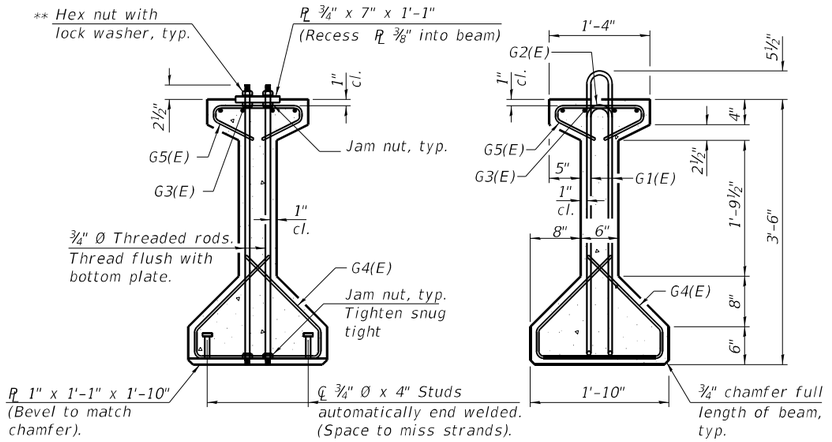


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

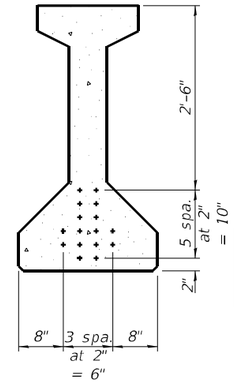


ELEVATION OF BEAM
(Showing prestressing steel)



SECTION A-A
**Only tighten sufficiently to compress lock washers

SECTION B-B



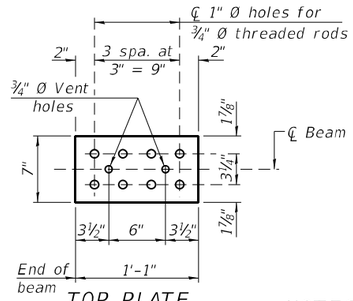
SECTION C-C
(16-½" Ø 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

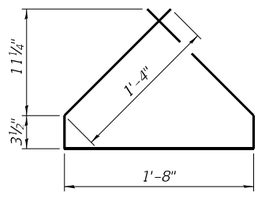
Bar	No.	Size	Length	Shape
G1(E)	67	#4	8'-7"	
G2(E)	10	#4	6'-8"	
G3(E)	8	#6	26'-6"	
G4(E)	38	#3	4'-11"	
G5(E)	49	#3	2'-6"	

BILL OF MATERIAL

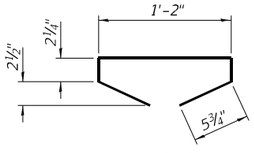
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Foot	347



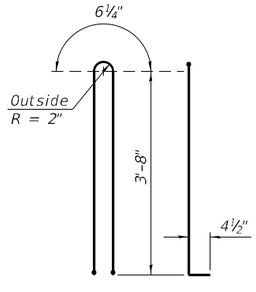
TOP PLATE



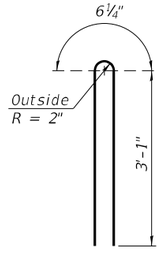
BAR G4(E)



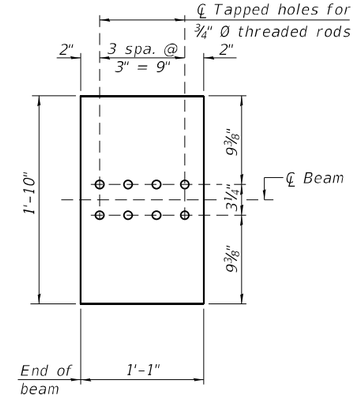
BAR G5(E)



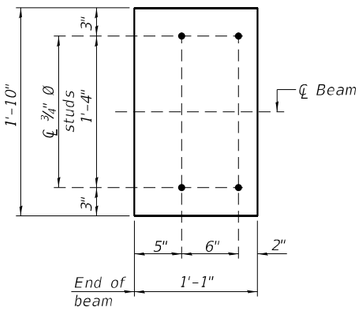
BAR G1(E)



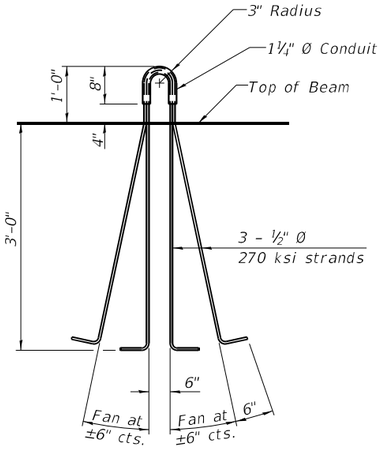
BAR G2(E)



BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



LIFTING LOOP DETAIL

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 6,000 psi and a release concrete compressive strength, f'ci, of 5,000 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

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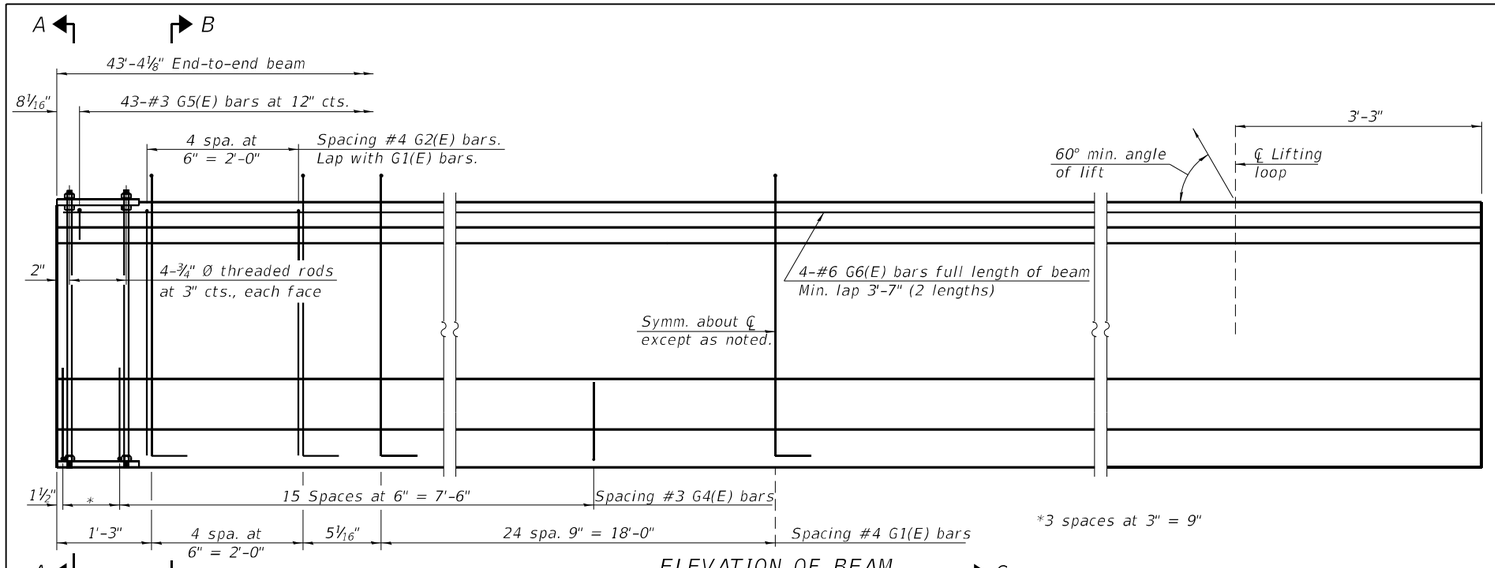
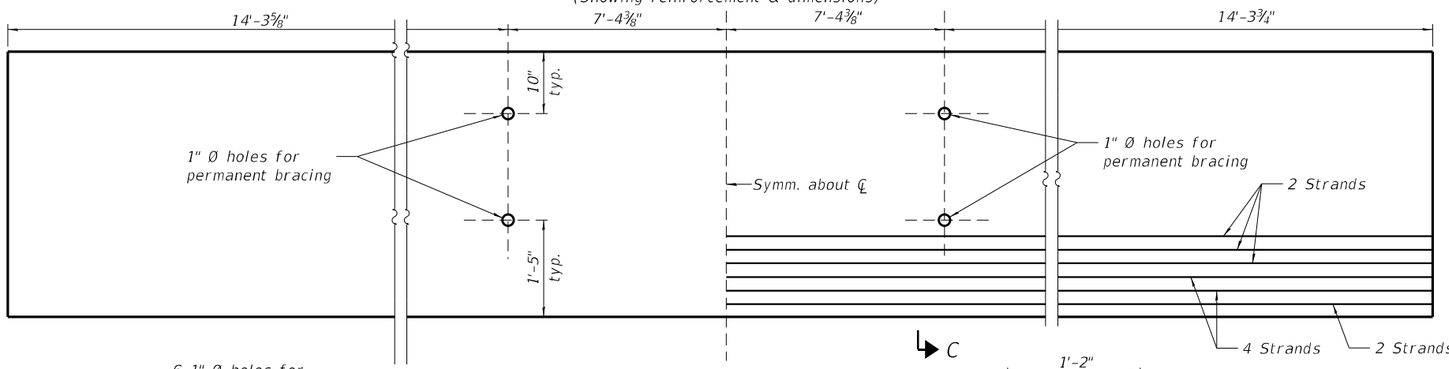
	PLOT SCALE=	DRAWN - AJF	REVISED -	
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -	

WEST VAULTED APPROACH SPAN BEAMS
STRUCTURE NO. 068-0037
SHEET 30 OF 37 SHEETS

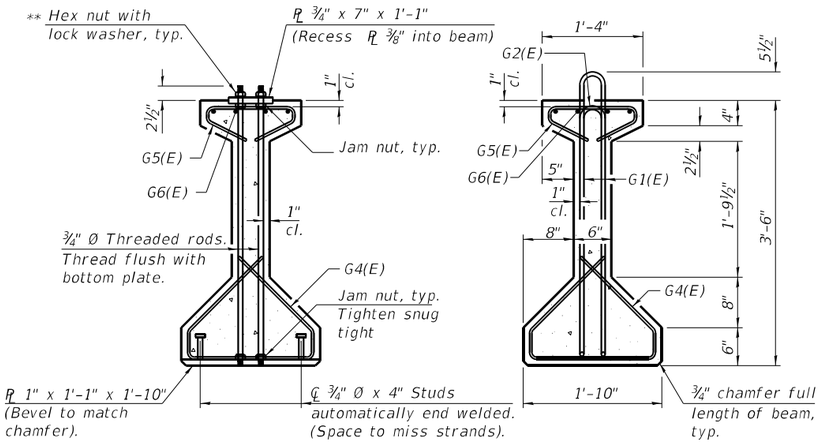
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	167
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



ELEVATION OF BEAM
(Showing reinforcement & dimensions)

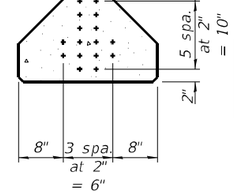


ELEVATION OF BEAM
(Showing prestressing steel)



SECTION A-A
**Only tighten sufficiently to compress lock washers

SECTION B-B



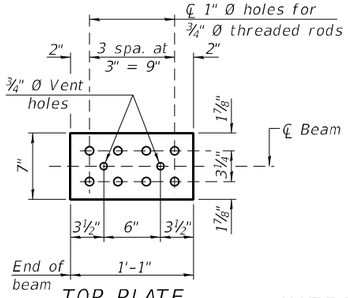
SECTION C-C
(16-½" Ø 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

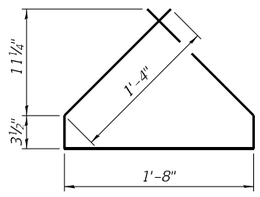
Bar	No.	Size	Length	Shape
G1(E)	59	#4	8'-7"	
G2(E)	10	#4	6'-8"	
G4(E)	38	#3	4'-11"	
G5(E)	43	#3	2'-6"	
G6(E)	8	#6	23'-6"	

BILL OF MATERIAL

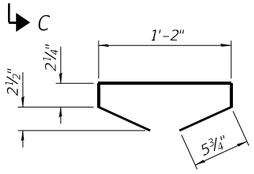
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Foot	303



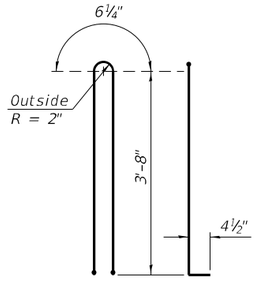
TOP PLATE



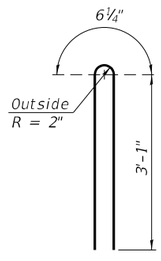
BAR G4(E)



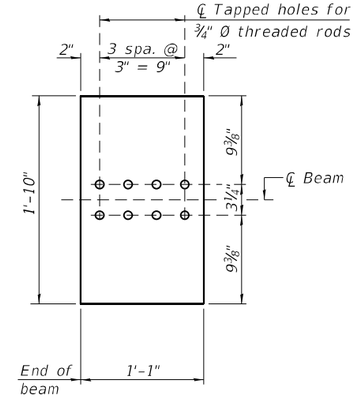
BAR G5(E)



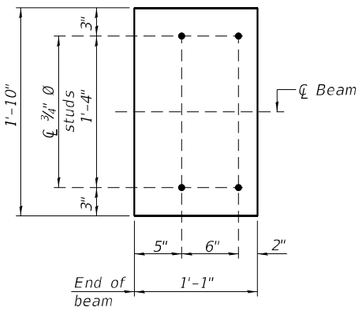
BAR G1(E)



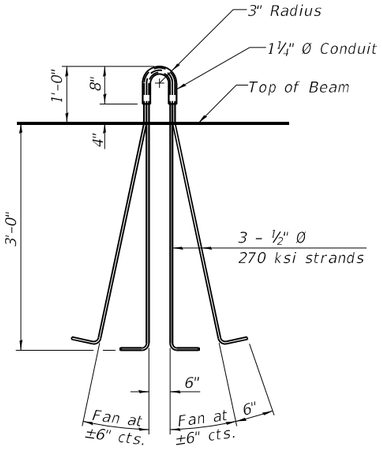
BAR G2(E)



BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



LIFTING LOOP DETAIL

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 6,000 psi and a release concrete compressive strength, f'ci, of 5,000 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

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PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST VAULTED APPROACH SPAN BEAMS
STRUCTURE NO. 068-0037
SHEET 31 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	168
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	

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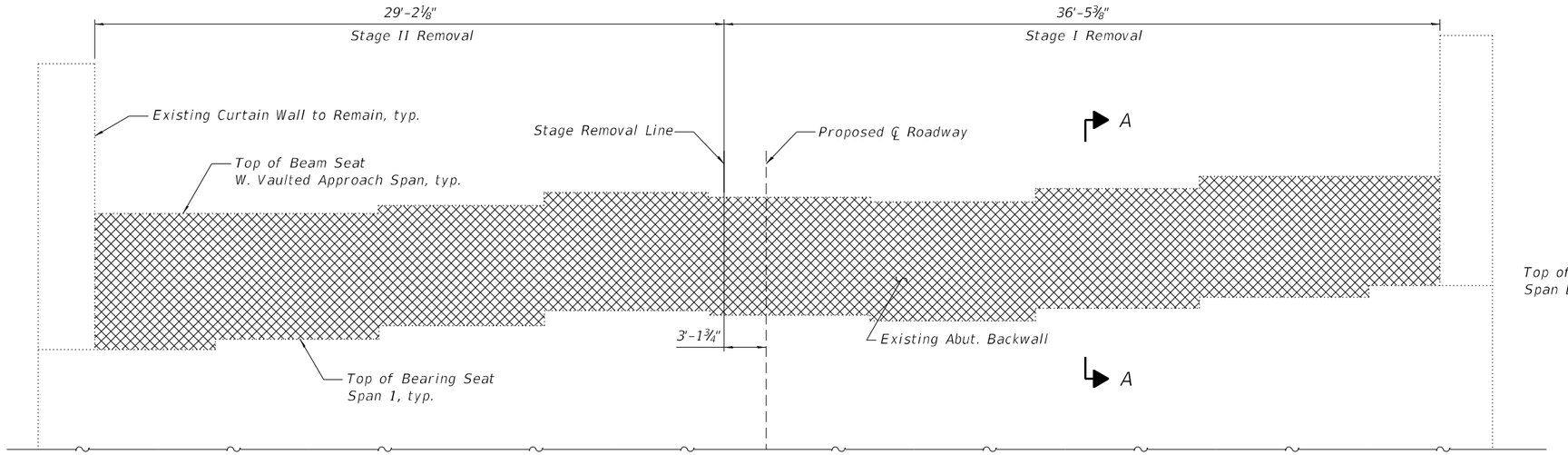
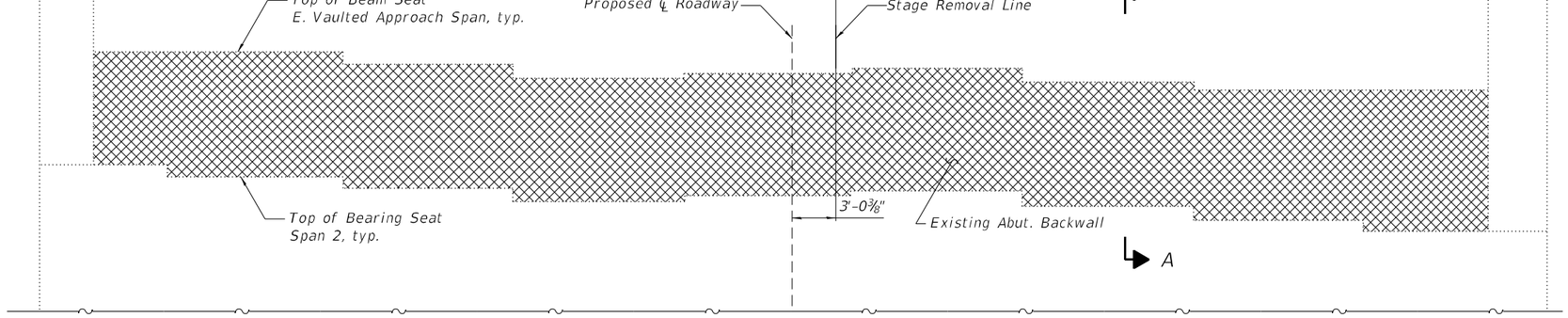


WEST ABUTMENT ELEVATION

(Looking West)
(Dimensions measured along front face of backwall)



EAST ABUTMENT ELEVATION

(Looking East)
(Dimensions measured along front face of backwall)

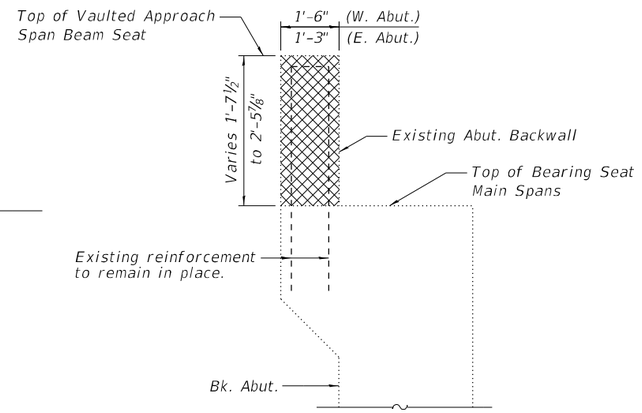
Notes:

Existing reinforcement bars extending into concrete removal areas shall be cleaned, straightened and incorporated into new concrete. Cost included with Concrete Removal.

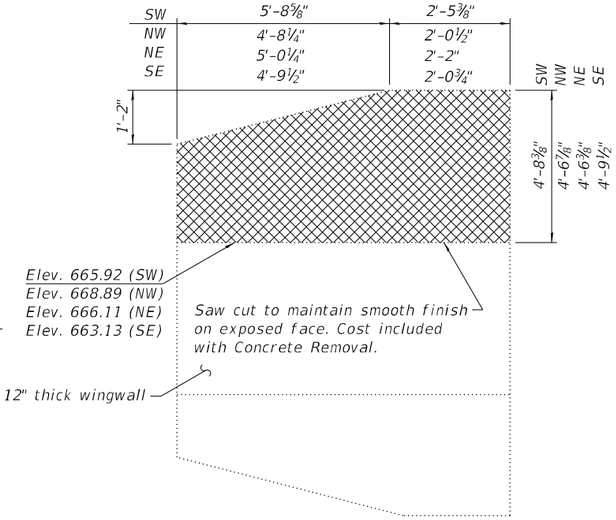
Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Cross Hatched areas indicate limits of Concrete Removal.

Seal exposed rebar at top of wingwall with epoxy. Cost included with Concrete Removal.



SECTION A-A



WINGWALL ELEVATION AT APPROACH BENT

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	18.0

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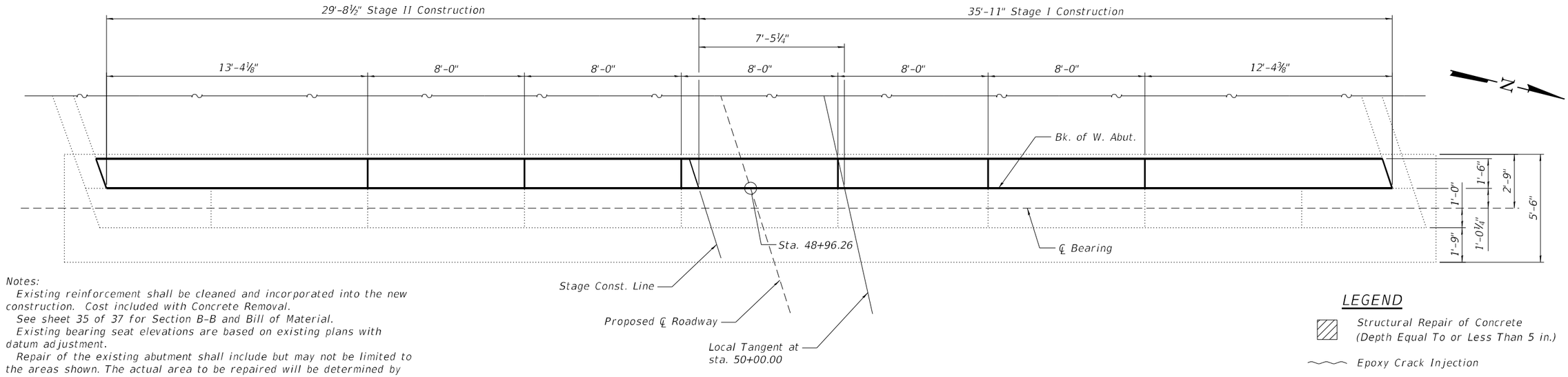
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - CZ	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT SCALE=	DRAWN - AJF	REVISED -	
PLOT DATE = 10/17/2022	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL DETAILS
STRUCTURE NO. 068-0037
SHEET 32 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	169
		CONTRACT NO. 72G54		
		ILLINOIS	FED. AID PROJECT	



Notes:

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

See sheet 35 of 37 for Section B-B and Bill of Material.

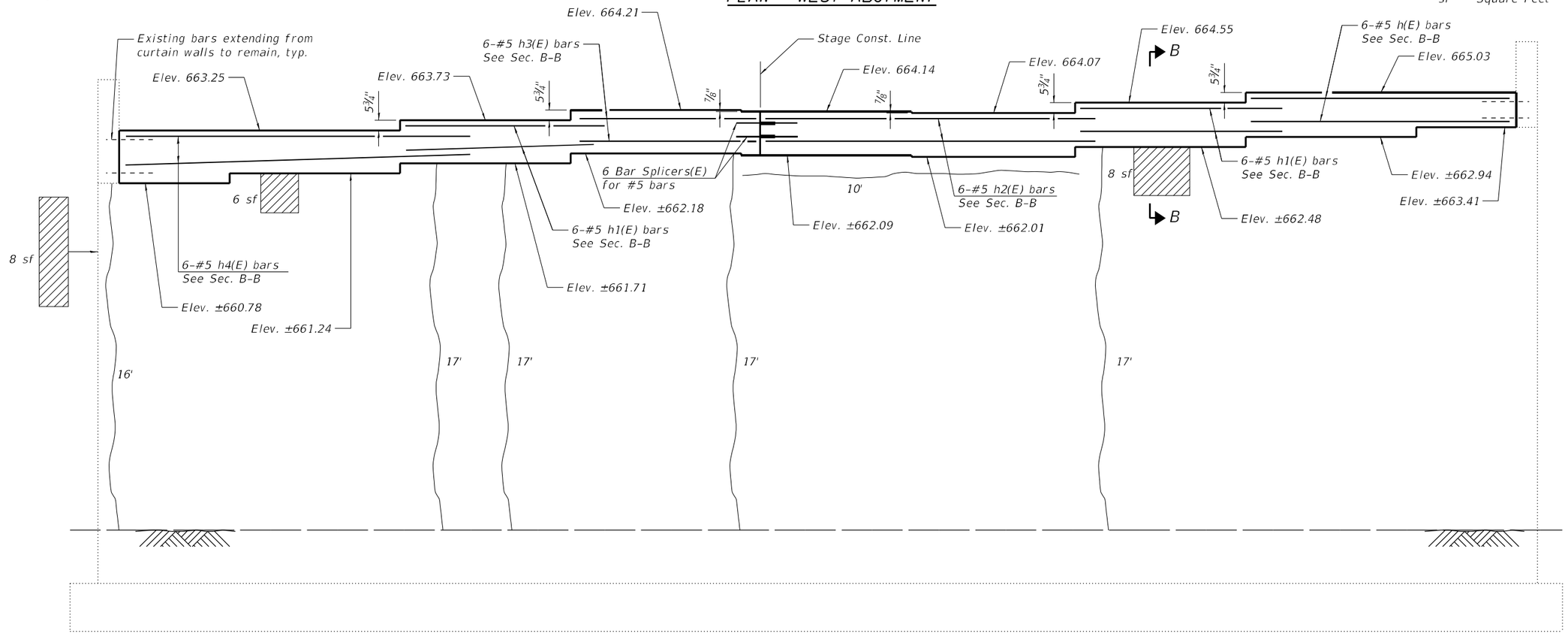
Existing bearing seat elevations are based on existing plans with datum adjustment.

Repair of the existing abutment shall include but may not be limited to the areas shown. The actual area to be repaired will be determined by the Engineer at the time of construction.

LEGEND

	Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)
	Epoxy Crack Injection
sf	Square Feet

PLAN - WEST ABUTMENT



ELEVATION - WEST ABUTMENT

(Looking West)

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**WEST ABUTMENT DETAILS STRUCTURE NO. 068-0037**
		CHECKED - MTH	REVISED -		
	PLOT SCALE=	DRAWN - AJF	REVISED -		
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -		SHEET 33 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	170
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

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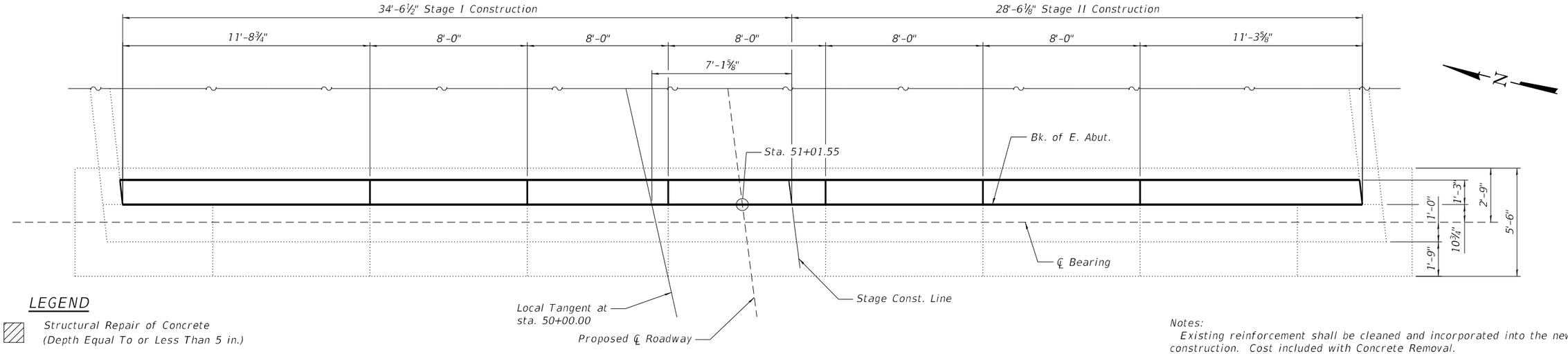


LEGEND

- Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)
- Epoxy Crack Injection
- sf Square Feet

PLAN - EAST ABUTMENT

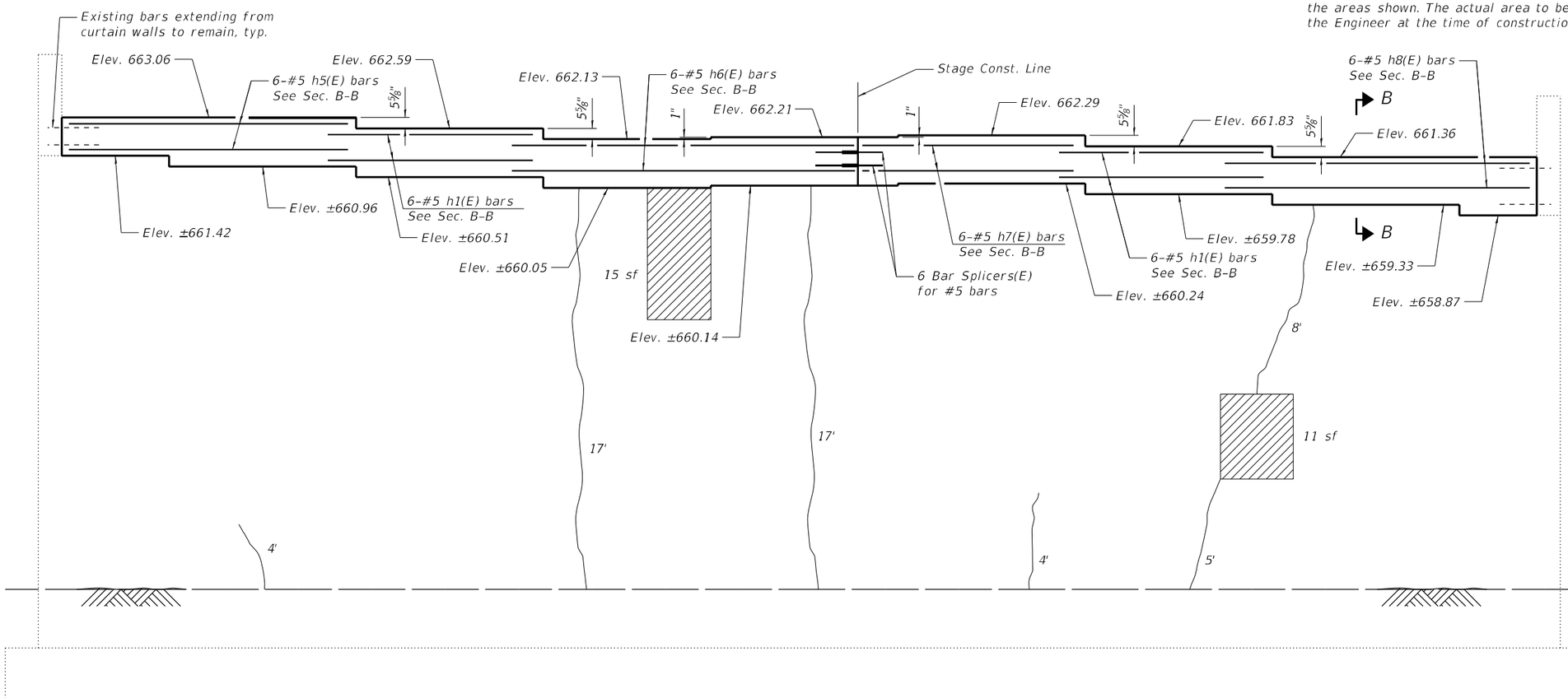
Notes:

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

See sheet 35 of 37 for Section B-B and Bill of Material.

Existing bearing seat elevations are based on existing plans with datum adjustment.

Repair of the existing abutment shall include but may not be limited to the areas shown. The actual area to be repaired will be determined by the Engineer at the time of construction.



ELEVATION - EAST ABUTMENT

(Looking East)

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - CZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT DETAILS STRUCTURE NO. 068-0037
		CHECKED - MTH	REVISED -		
	PLOT SCALE=	DRAWN - AJF	REVISED -		
	PLOT DATE = 10/31/2022	CHECKED - MTH	REVISED -		SHEET 34 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	171
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

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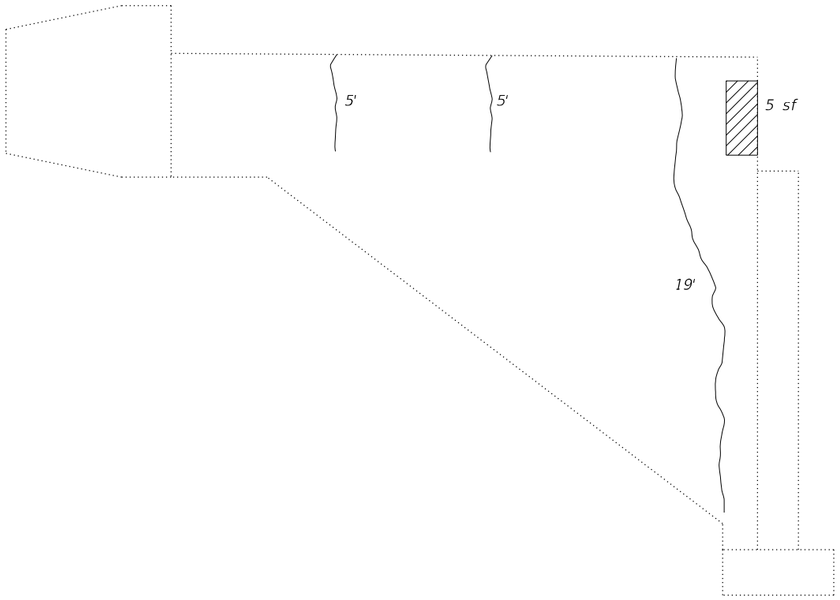
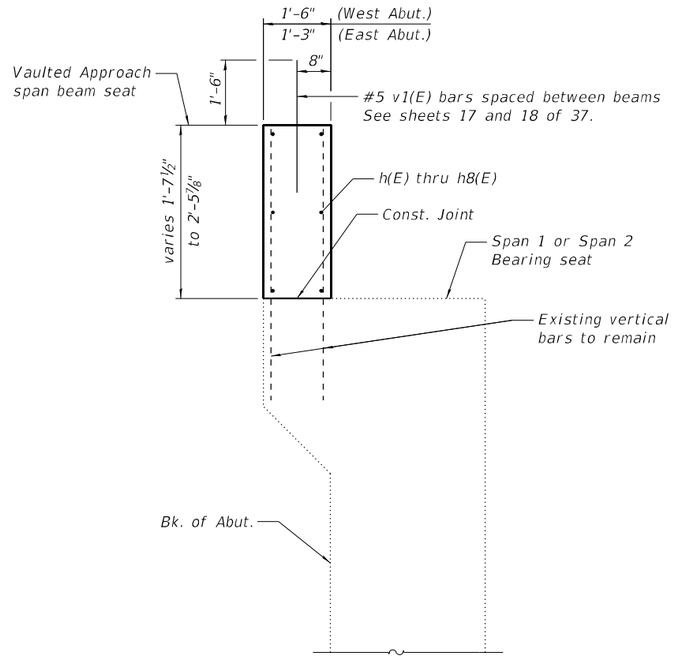
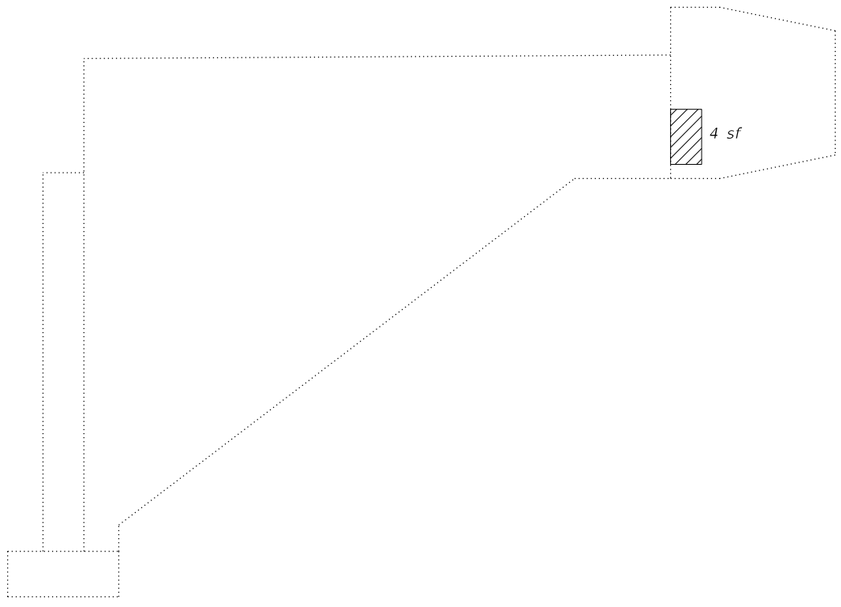


SOUTHWEST CURTAIN WALL & WINGWALL



SECTION B-B

(Dimensions at right angles)



SOUTHEAST CURTAIN WALL & WINGWALL

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	6	#5	12'-0"	———
h1(E)	12	#5	9'-4"	———
h2(E)	6	#5	16'-9"	———
h3(E)	6	#5	8'-0"	———
h4(E)	6	#5	14'-8"	———
v1(E)	56	#5	3'-0"	———
Concrete Structures			Cu. Yd.	7.5
Reinforcement Bars, Epoxy Coated			Pound	620
Concrete Sealer			Sq. Ft.	139
Structural Repair of Concrete (Depth ≤ 5")			Sq. Ft.	27
Epoxy Crack Injection			Foot	123

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	12	#5	9'-4"	———
h5(E)	6	#5	11'-5"	———
h6(E)	6	#5	16'-0"	———
h7(E)	6	#5	8'-8"	———
h8(E)	6	#5	12'-8"	———
v1(E)	48	#5	3'-0"	———
Concrete Structures			Cu. Yd.	6.0
Reinforcement Bars, Epoxy Coated			Pound	580
Concrete Sealer			Sq. Ft.	135
Structural Repair of Concrete (Depth ≤ 5")			Sq. Ft.	30
Epoxy Crack Injection			Foot	55

Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

LEGEND

- Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)
- Epoxy Crack Injection
- sf Square Feet

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Springfield, Illinois

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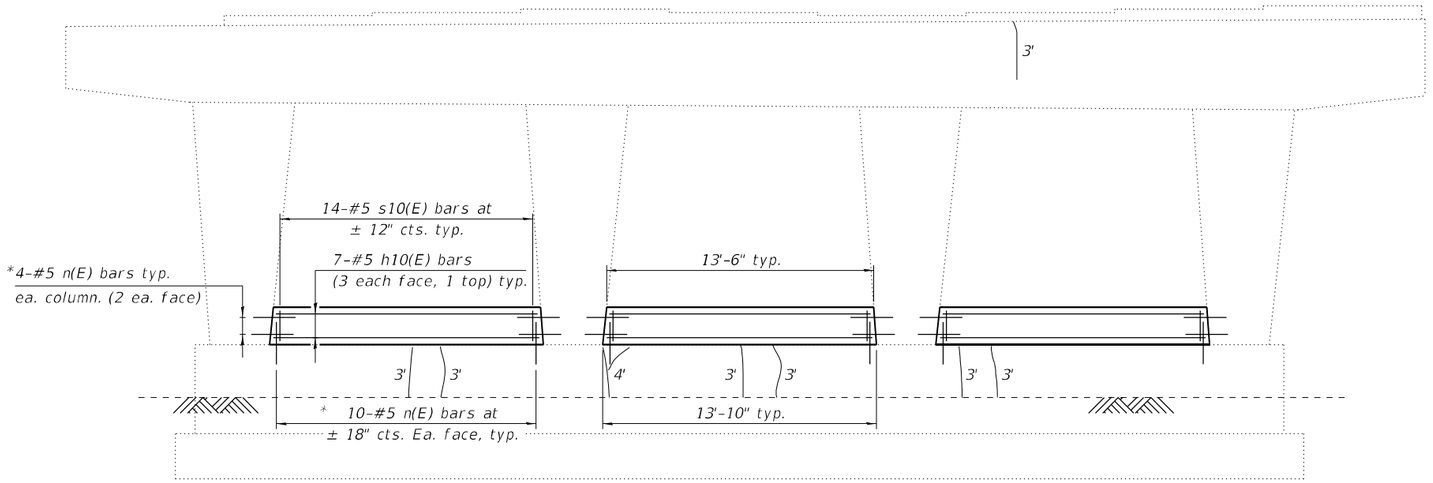
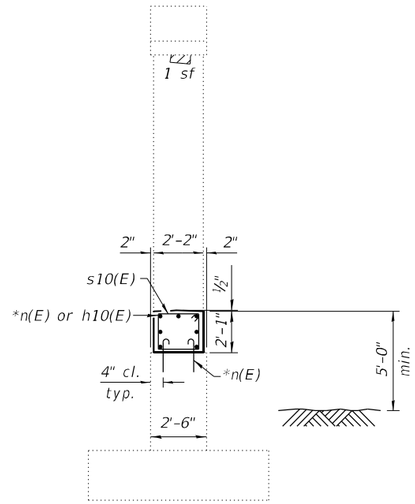
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 068-0037
SHEET 35 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	172
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

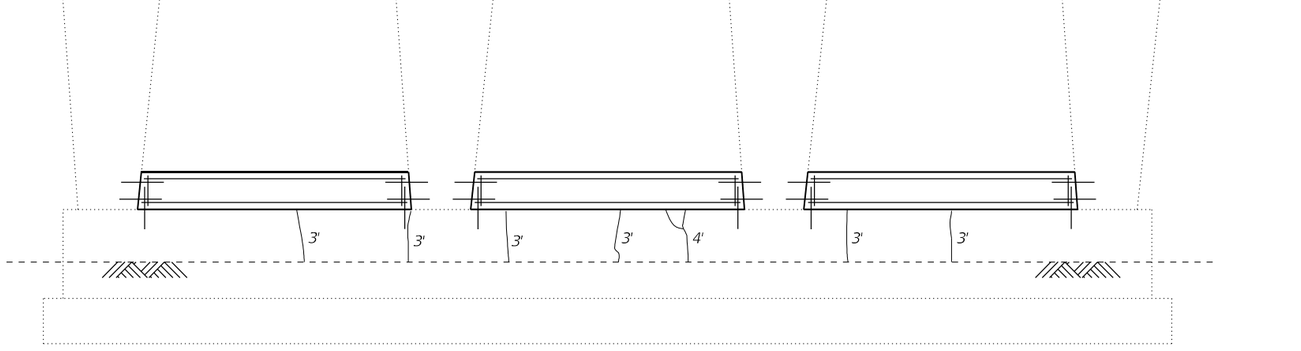


ELEVATION
(Looking West)



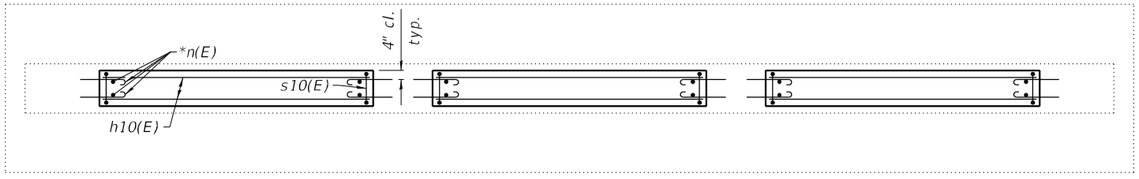
END VIEW
(Looking North)

* Epoxy grout n(E) bars in 9" min. deep holes according to Article 584 of the Standard Specifications.



ELEVATION
(Looking East)

N



PLAN

LEGEND

- Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)
- Epoxy Crack Injection
- sf Square Feet

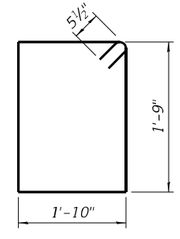
Notes:

Repair of the exisiting pier shall include but may not be limited to the areas shown. The actual area to be repaired shall be determined by the Engineer at the time of construction.

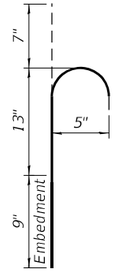
Cost of epoxy grouting bars shall be included with Reinforcement Bars, Epoxy Coated.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	21	#5	13'-3"	———
n(E)	84	#5	2'-5"	⌐—
s10(E)	42	#5	8'-1"	▯
Concrete Structures		Cu. Yd.	6.9	
Reinforcement Bars, Epoxy Coated		Pound	860	
Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)		Sq. Ft.	1	
Epoxy Crack Injection		Foot	47	



BAR s10(E)



BAR n(E)

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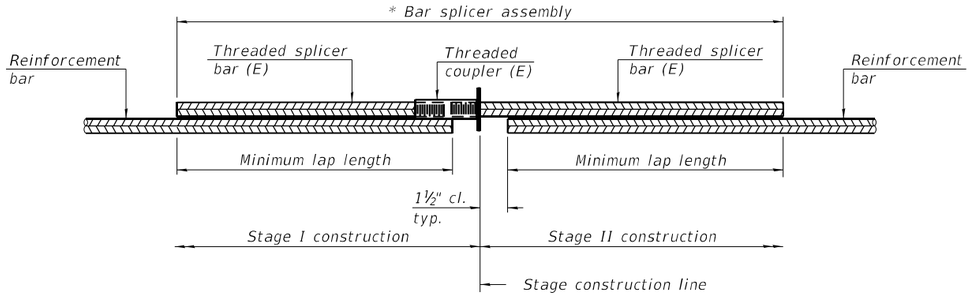
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
STRUCTURE NO. 068-0037
SHEET 36 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	173
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		



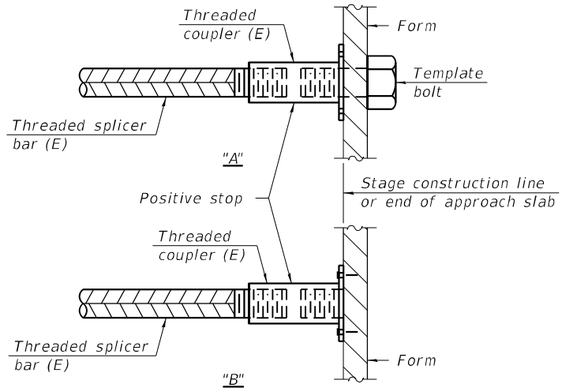
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

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

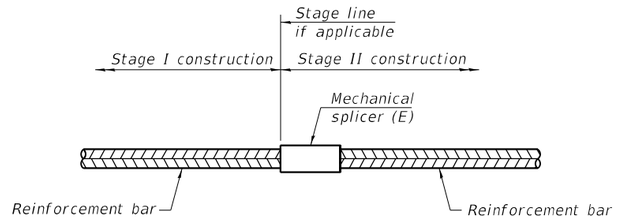
** Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.*

Location	Bar size	No. assemblies required	Minimum lap length
Deck Slab	#5	735	3'-6"
Deck Slab	#6	16	3'-7"
Approach Slab	#5	167	3'-4"
Approach Slab	#8	116	4'-9"
Abutments	#5	12	3'-4"
Approach Span	#4	20	2'-8"
Approach Span	#5	309	3'-6"
Approach Span	#6	8	3'-7"



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

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 1-1-2020

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STATE OF ILLINOIS
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BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 068-0037
SHEET 37 OF 37 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-3)RS-6, (68-4)RS-1, I-3	MONTGOMERY	192	174
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

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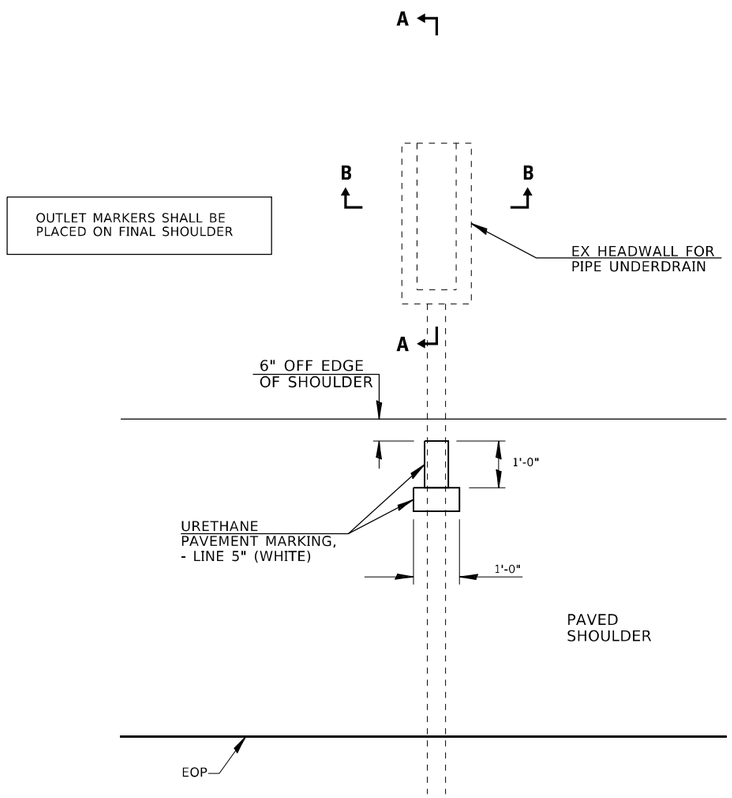
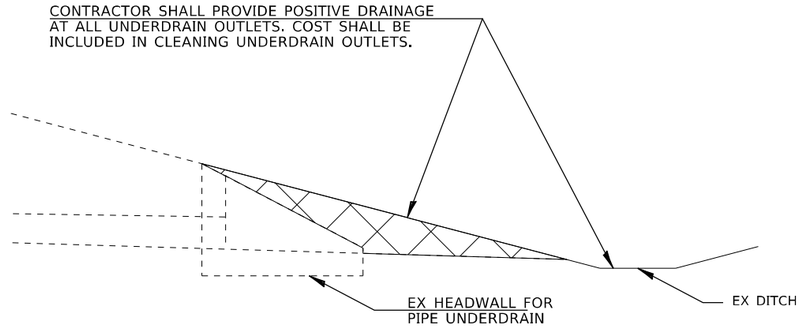
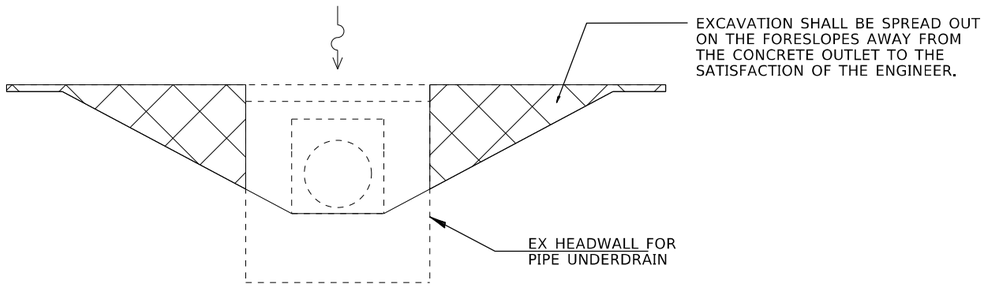


TYPICAL PIPE UNDERDRAIN MARKER DETAIL



SECTION A-A



DITCH FLOW LINE

SECTION B-B

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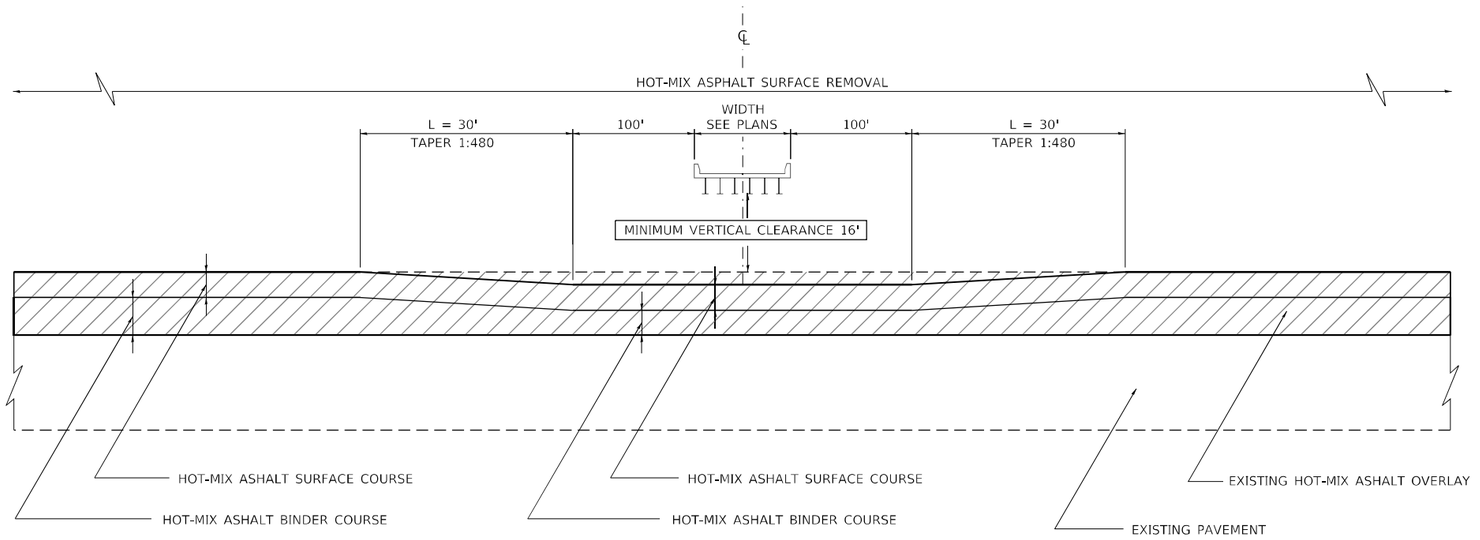
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
RESURFACING(INT 3RD)

SCALE: | SHEET 1 OF 8 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	175
		CONTRACT NO.72G54		
	ILLINOIS FED. AID PROJECT			

*(68-4RS1-BY, 68-5HB)D, 68-3RS5



OVERHEAD STRUCTURE RAMPING DETAIL

- HOT-MIX ASPHALT SURFACE REMOVAL

NOTES:

1) HOT-MIX ASPHALT RESURFACING OF THE EXISTING PAVEMENT AND SHOULDERS SHALL DONE IN A MANNER THAT MAINTAINS A MINIMUM VERTICAL CLEARANCE OF 16 FEET AT ALL OVERHEAD STRUCTURES. THE MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM OUTSIDE TO OUTSIDE OF THE PAVED SHOULDERS.

   PRIOR TO THE START OF RESURFACING OPERATIONS, THE CONTRACTOR, IN THE PRESENCE OF THE ENGINEER, SHALL MEASURE AND DOCUMENT THE EXISTING VERTICAL CLEARANCE AT ALL OVERHEAD STRUCTURES. MEASUREMENTS SHALL BE TAKEN AT THE OUTSIDE EDGES OF THE PAVED SHOULDERS, AT THE EDGE OF EACH LANE, AND AT ANY SPLICE PLATES OVER THE SHOULDERS OR PAVEMENT. IF NECESSARY, THE ENGINEER SHALL MAKE ADJUSTMENTS TO THE RESURFACING THICKNESS SHOWN IN THE PLANS TO MAINTAIN THE REQUIRED MINIMUM VERTICAL CLEARANCE.

   FOLLOWING PLACEMENT OF THE SURFACE COURSE AND HMA SHOULDERS, THE CONTRACTOR, IN THE PRESENCE OF THE ENGINEER, SHALL MEASURE AND DOCUMENT THE VERTICAL CLEARANCE AS DESCRIBED ABOVE. IF THE MINIMUM VERTICAL CLEARANCE IS LESS THAN 16 FEET, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL REMOVE AND REPLACE THE HMA SURFACE COURSE AS DIRECTED BY THE ENGINEER.

   THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE VARIOUS HOT-MIX ASPHALT ITEMS.

   HOT-MIX ASPHALT SHOULDERS SHALL BE RAMPED IN THE SAME MANNER AS THE HMA BINDER AND SURFACE COURSES.

2) THE MINIMUM THICKNESS OF SMA WHEN PLACED WILL BE 1 1/2". IF ADJUSTMENTS TO THE SMA LIFTS ARE UNABLE TO MAINTAIN THE 16 FOOT VERTICAL CLEARANCE, THE CONTRACTOR WILL BE REQUIRED TO MILL THE SMA BINDER COURSE BEFORE THE PLACMENT OF THE SMA SURFACE COURSE IN ORDER TO MAINTAIN THE 16 FOOT VERTICAL CLEARANCE. ANY ADDITIONAL MILLING REQUIRED WILL BE MEASURED AND PAID FOR USING THE SAME PAY ITEM USED FOR THE MAINLINE HMA SURFACE REMOVAL.

PAVEMENT CORE INFORMATION

LOCATION	HMA THICKNESS (IN)	
	SBDL	NBDL
UNDER MORRISONVILLE RD. OVERHEAD	4.5	4.75
UNDER WAGGONER RD. OVERHEAD	3.5	3.9

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DEPARTMENT OF TRANSPORTATION

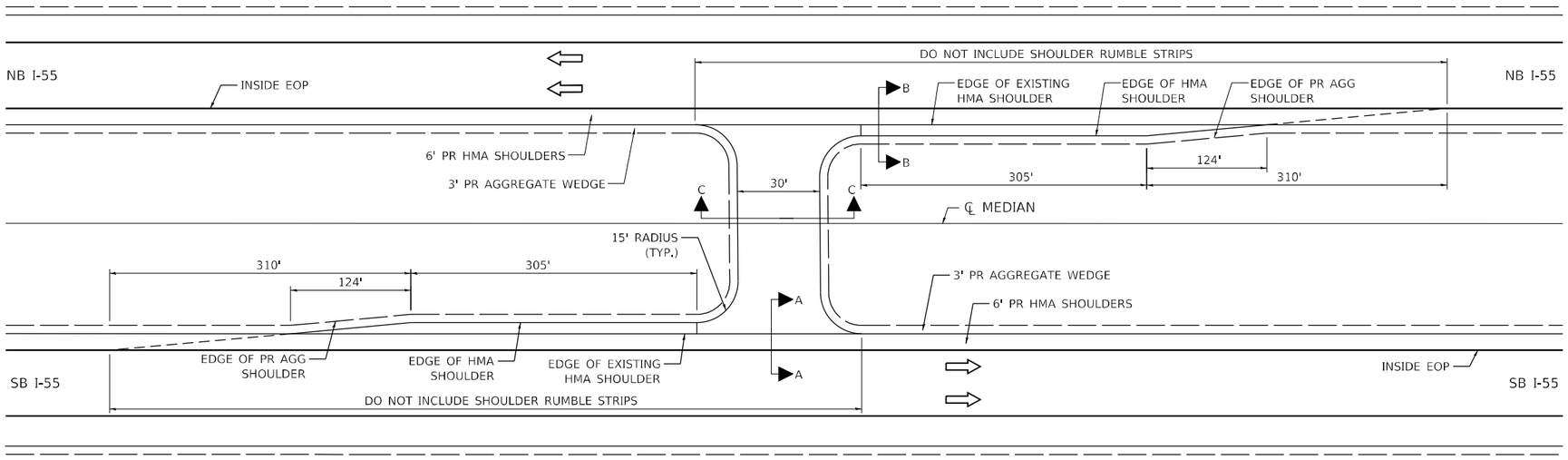
MISCELLANEOUS DETAILS
RESURFACING(INT 3RD)

SCALE: | SHEET 2 OF 8 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	176
		CONTRACT NO.72G54		
	ILLINOIS	FED. AID PROJECT		

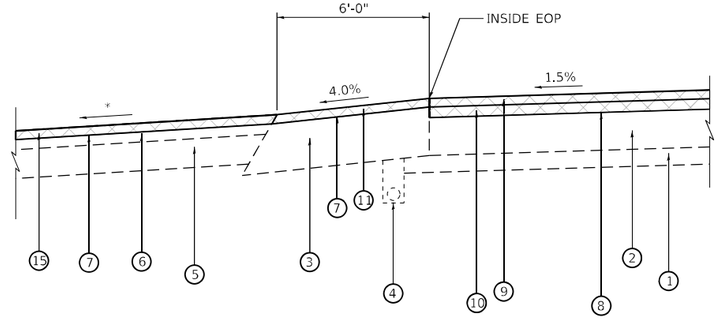
*(68-4RS1-BY, 68-5HBJD, 68-3RS5

EMERGENCY MEDIAN CROSSOVERS

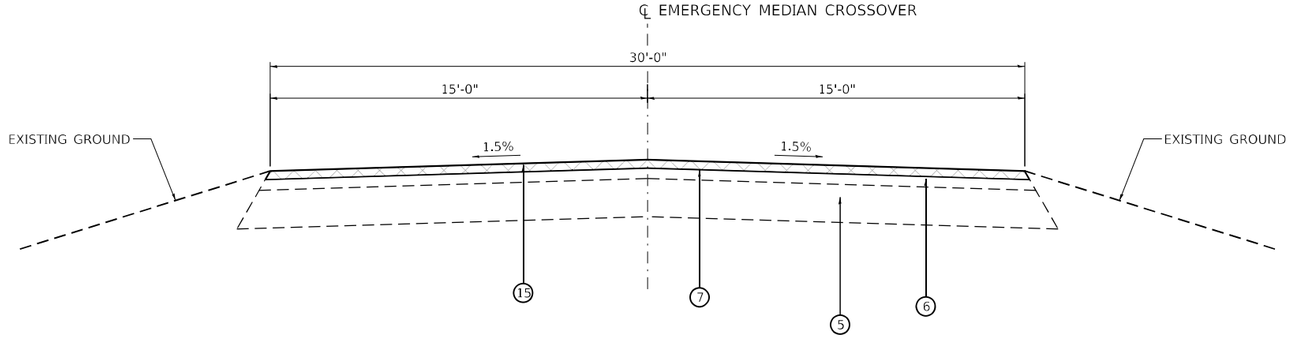


NOTE:
TWO DELINEATORS SHALL BE PLACED IN ADVANCE OF THE MEDIAN CROSSOVERS. ONE SHALL BE AT THE CROSSOVER, THE OTHER 800' IN ADVANCE OF THE FIRST. THE DELINEATOR AT THE CROSSOVER SHALL HAVE TWO REFLECTORS, AND THE DELINEATOR 800' IN ADVANCE SHALL HAVE THREE REFLECTORS

PLAN VIEW



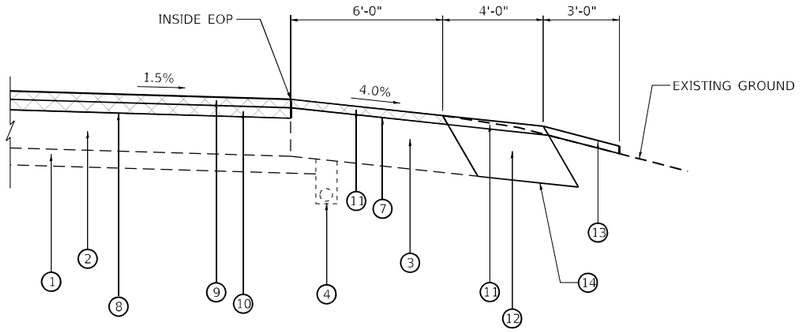
SECTION A–A



SECTION C–C

LEGEND

1. EX STABILIZED SUBBASE 4"
2. EX CRC PAVEMENT 9"
3. EX BITUMINOUS SHOULDERS
4. EX PIPE UNDERDRAINS
5. EX AGGREGATE BASE COURSE
6. EX HOT MIX ASPHALT OVERLAY
7. PR HOT MIX ASPHALT SURFACE REMOVAL, 1½"
8. PR HOT MIX ASPHALT SURFACE REMOVAL, 4½" *
9. PR POLYMERIZED HOT MIX ASPHALT SURFACE COURSE, SMA 9.5, MIX "E", N80, 1½" (PASSING LANE)
10. PR POLYMERIZED HOT MIX ASPHALT BINDER COURSE, SMA 12.5, N50 3" (PASSING LANE)
11. PR HOT MIX ASPHALT SHOULDERS (1½")
12. PR HOT MIX ASPHALT SHOULDERS (8")
13. PR AGGREGATE WEDGE
14. EXCAVATING AND GRADING EXISTING SHOULDERS
15. INCIDENTAL HOT MIX ASPHALT



SECTION B–B

* - MAINTAIN SLOPES AWAY FROM MAINLINE PAVEMENT TO ENSURE PROPER DRAINAGE INTO MEDIAN DITCHES.

EMERGENCY CROSSOVER IMPROVEMENT

NOTE:
SEE SHOULDER IMPROVEMENTS TABLE IN SUMMARY SCHEDULES.

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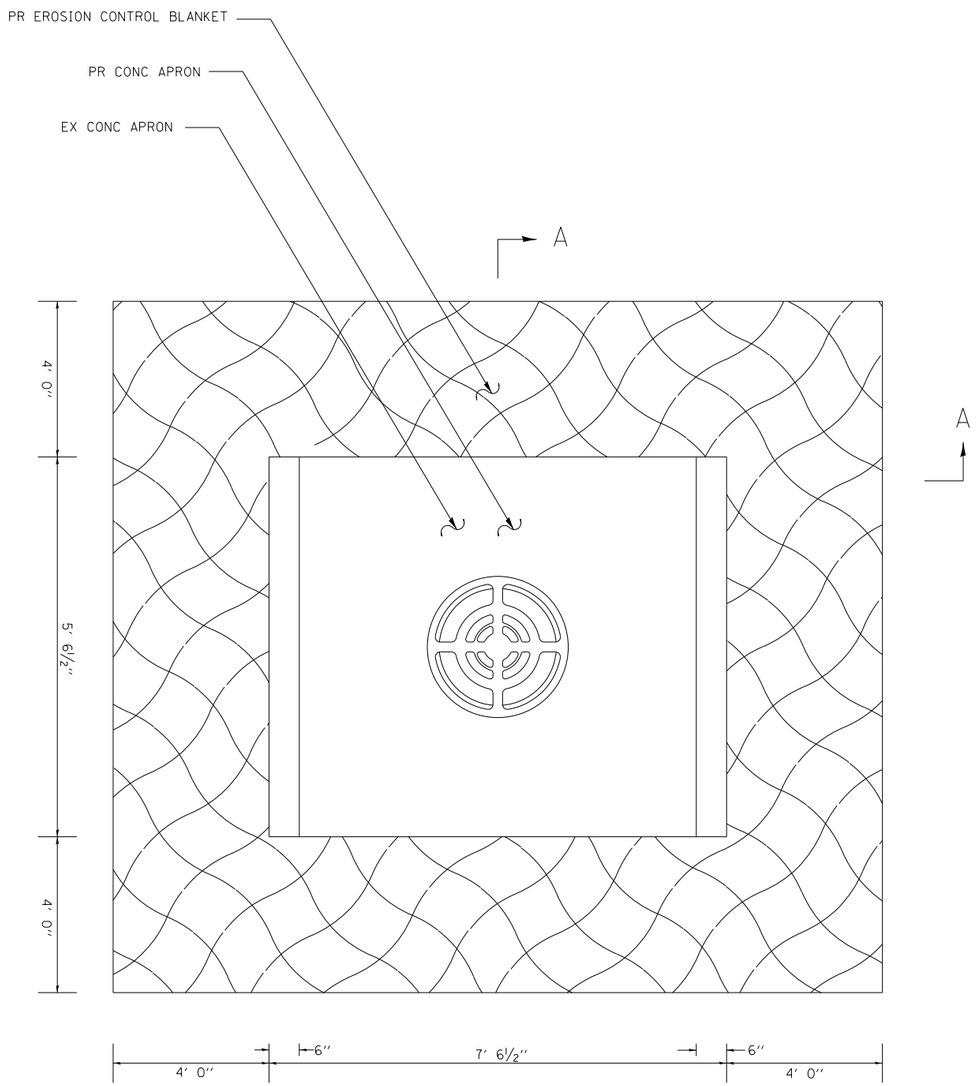
DEPARTMENT OF TRANSPORTATION

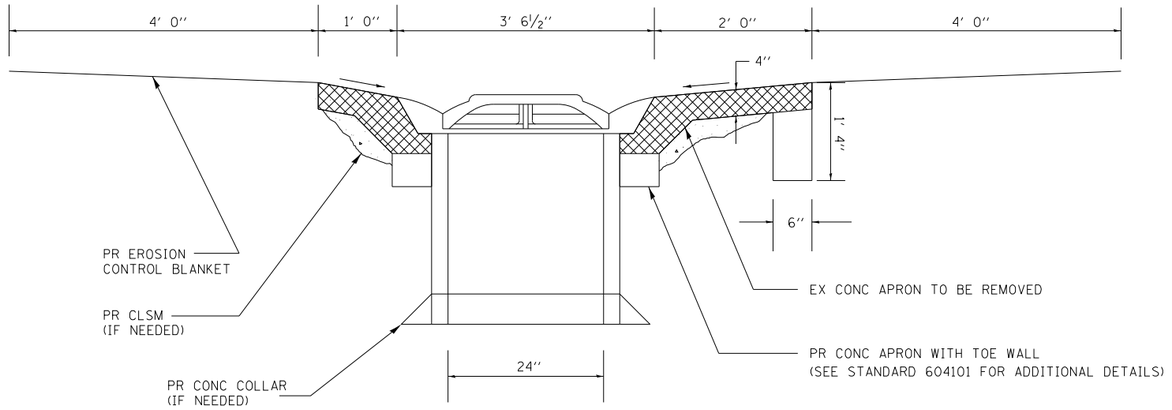
MISCELLANEOUS DETAILS
RESURFACING(INT 3RD)

SCALE: | SHEET 3 OF 8 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	177
		CONTRACT NO.72G54		
	ILLINOIS	FED. AID PROJECT		

*(68-4RS1-BY, 68-5HB)D, 68-3RS5





SECTION A-A

REPAIRS TO INLET STANDARD 2250

LOCATION	INLET TO BE RECONSTRUCTED (EACH)	EROSION CONTROL BLANKET (SQ YD)	CONTROLLED LOW STRENGTH MATERIAL (CU YD)	CONCRETE COLLAR (CU YD)
CL STA 1065+00	1	18.7	1.5	0.2

NOTES:

1. ALL LABOR & ITEMS REQUIRED TO COMPLETE THE WORK (EROSION BLANKET, CLSM, CONCRTE COLLAR & SEEDING) SHALL BE INCLUDED IN THE COST FOR INLETS TO BE RECONSTRUCTED.
2. SEE STANDARD 604101 FOR ADDITIONAL DETAILS NOT SHOWN. THE TOE WALL AT THE LONG END OF THE APRON IS IN ADDITION TO WHAT IS SHOWN IN STANDARD 604101.
3. CONTROLLED LOW STRENGTH MATERIAL AND/OR CONCRETE COLLAR TO BE USED IF DEEMED NECESSARY BY THE ENGINEER, THE QUANTITY IN THE ABOVE SCHEDULE IS ESTIMATED. ACTUAL QUANTITY TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
RESURFACING(INT 3RD)

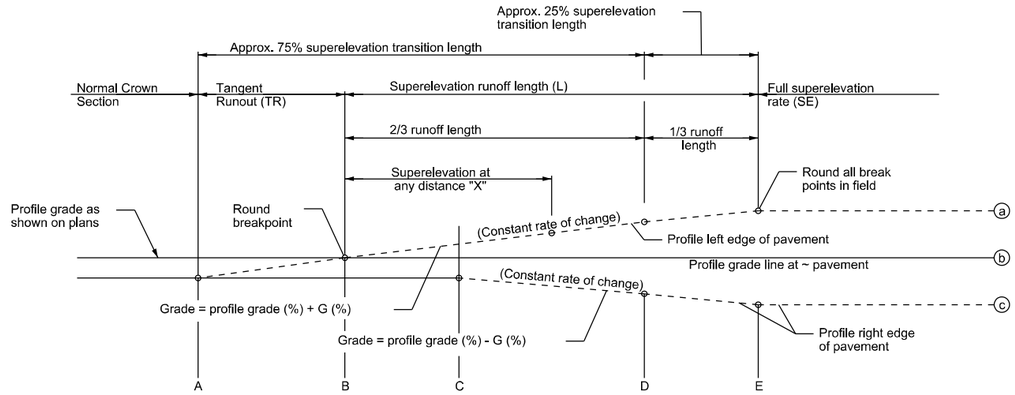
SCALE: | SHEET 4 OF 8 SHEETS | STA. | TO STA.

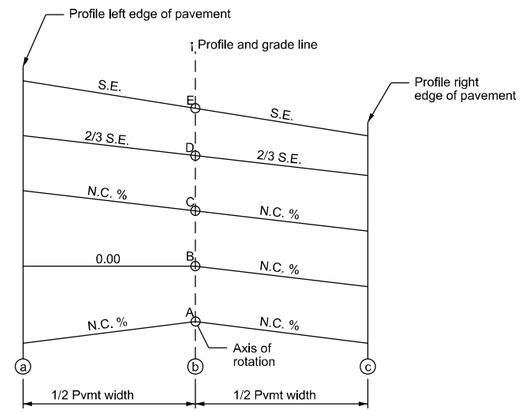
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	178
		CONTRACT NO.72G54		
	ILLINOIS	FED. AID PROJECT		

*(68-4RS1-BY, 68-5HB)D, 68-3RS5

EXISTING CURVE 44+29TRREL37						
SECTION	STATION	LEFT EDGE	SLOPE %	CL	SLOPE %	RIGHT EDGE
E	45+93.40	649.25	-5.50%	649.80	5.50%	650.35
D	46+26.08	650.39	-3.67%	650.76	3.67%	651.13
C	46+64.83	651.59	-1.50%	651.74	1.50%	651.89
B	46+91.62	652.17	-1.50%	652.32	0.00%	652.32
	47+00.00	652.35	-1.50%	652.50	-0.50%	652.45
A	47+18.40	652.73	-1.50%	652.88	-1.50%	652.73

EXISTING CURVE 55+00TRREL37						
SECTION	STATION	LEFT EDGE	SLOPE %	CL	SLOPE %	RIGHT EDGE
A	52+13.05	654.23	-1.50%	654.38	-1.50%	654.23
	52+25.00	654.03	-1.50%	654.19	-1.00%	654.10
B	52+39.84	653.79	-1.50%	653.94	0.00%	653.94
	52+50.00	653.63	-1.50%	653.78	0.60%	653.84
C	52+66.63	653.36	-1.50%	653.51	1.50%	653.66
D	53+05.38	652.59	-3.67%	652.96	3.67%	653.33
E	53+38.05	651.86	-5.50%	652.41	5.50%	652.96





AXIS OF ROTATION ABOUT CENTERLINE OF TRAVELED WAY - TWO LANE ROADS

MODEL: Default
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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST., QUINCY, ILLINOIS 62301 217.223.5570
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

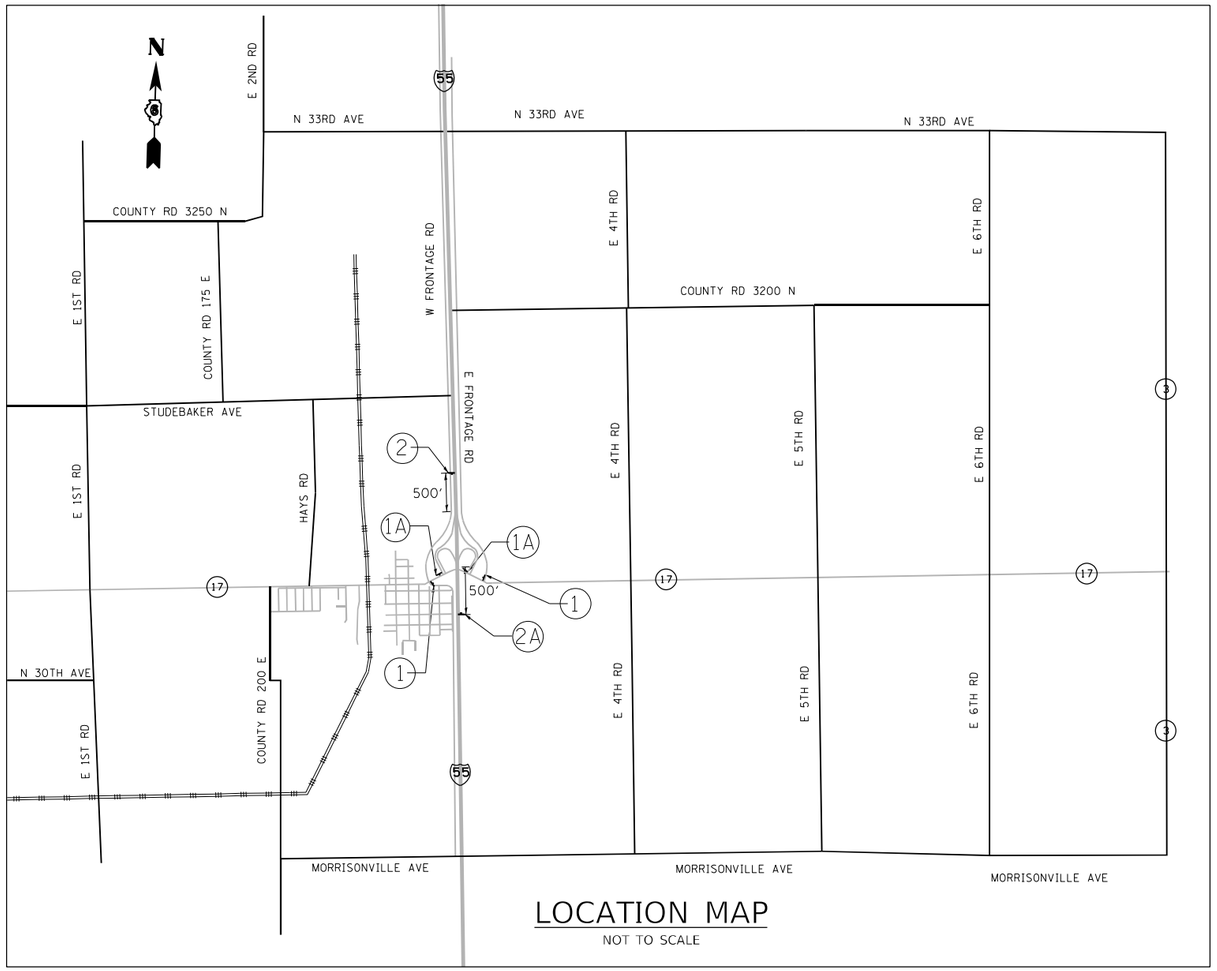
USER NAME = ams	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / In.	CHECKED -	REVISED -
PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
SUPERELEVATION TRANSITION

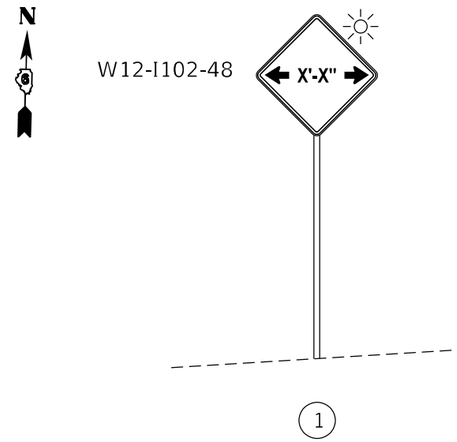
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

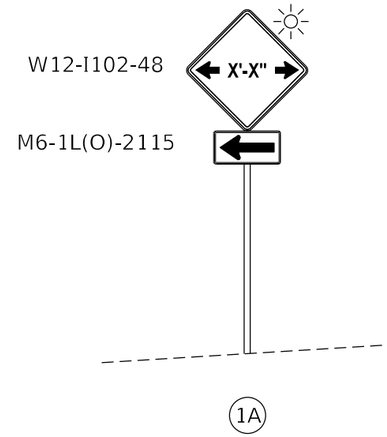
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	179
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

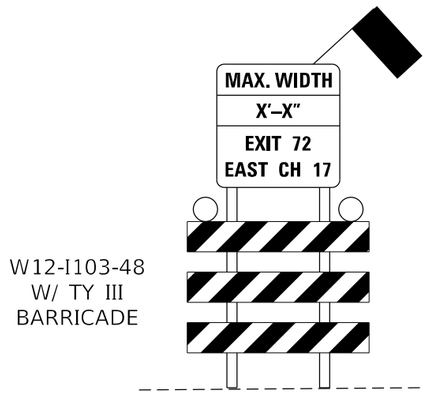


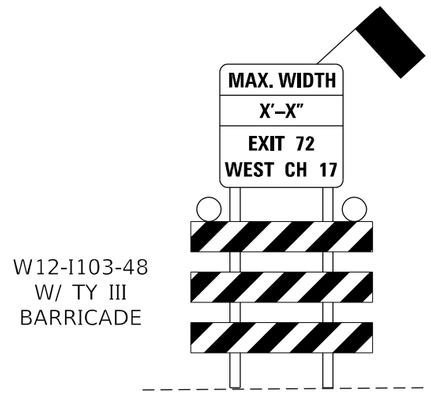
LOCATION MAP

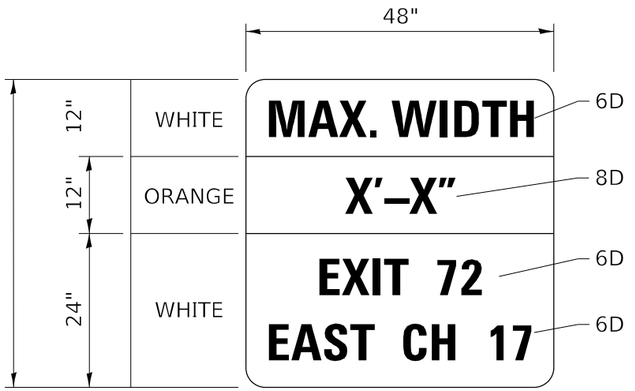
NOT TO SCALE











W12-I103-48

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. THE LOCATION OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
3. ALL TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
4. THE WIDTH SHOWN ON THE SIGN SHALL BE 18" LESS THAN THE ACTUAL WIDTH SHOWN ON THE PLANS.

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Bartlett&West
1207 SINCLAIR DRIVE, SUITE 2 - JERSEYVILLE, IL 62052
PHONE 618-654-4001
ILLINOIS DESIGN FIRM NO 184006580-0002
WWW.BARTLETTWEST.COM

USER NAME = MAC01839	DESIGNED - RAM	REVISED -	
	CHECKED - KTW	REVISED -	
PLOT SCALE = 60.0000 ' / in.	DRAWN - RAM	REVISED -	
PLOT DATE = 10/20/2022	CHECKED - KTW	REVISED -	

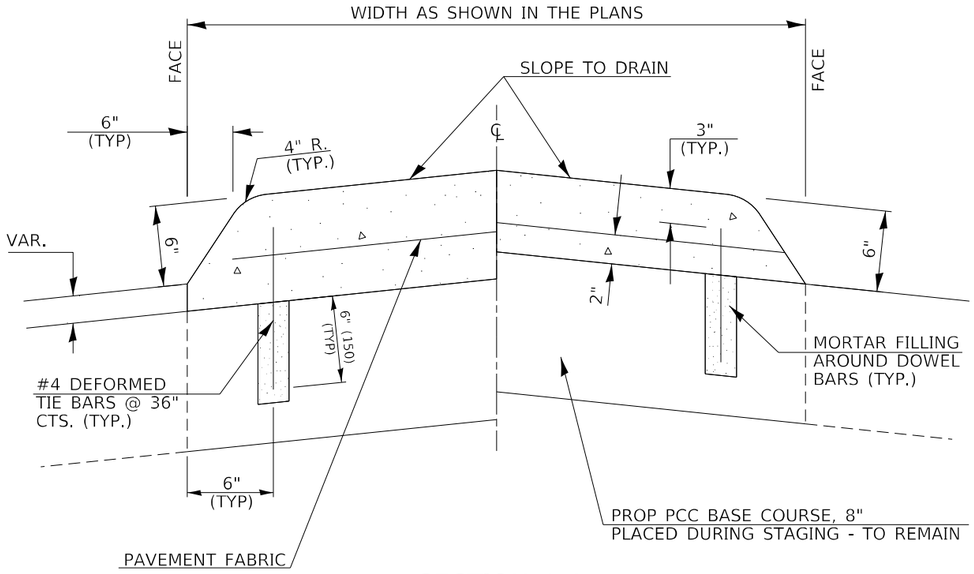
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
C.H. 17 – WIDTH RESTRICTION SIGNING

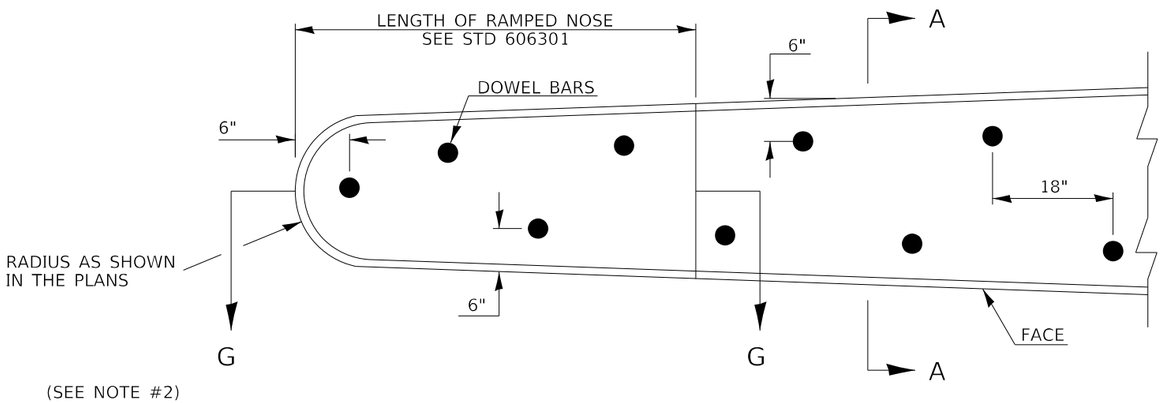
SCALE: | SHEET 06 OF 08 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	180
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

*(68-4RS)-BY, 68-5HB)D, 68-3RS5



SECTION A-A

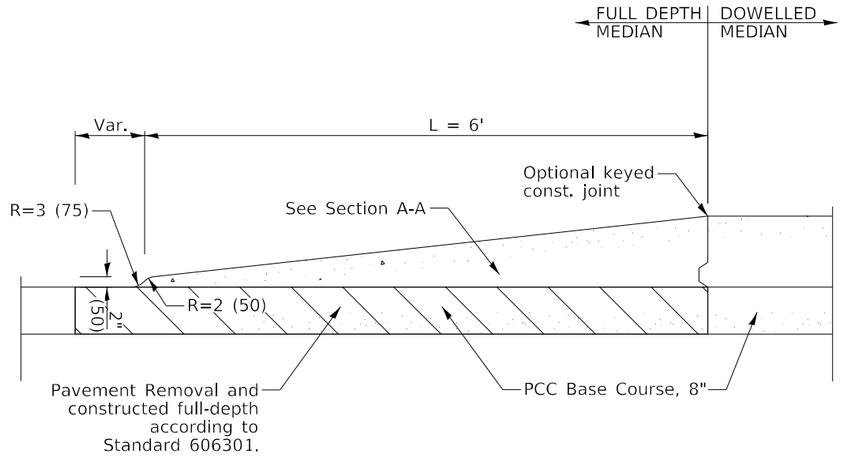


(SEE NOTE #2)

PLAN OF MEDIAN

GENERAL NOTES

1. THE GENERAL NOTES FOR STANDARD 606301 SHALL APPLY.
2. DOWEL BARS @ 36" CTS. OR AS DIRECTED BY THE ENGINEER.
3. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ FOOT FOR CONCRETE MEDIAN, OF THE SIZE AND TYPE SHOWN ON THE PLANS, INCLUDING THE COST OF FURNISHING AND INSTALLING THE DOWEL BARS, MORTAR FILLING, AND PAVEMENT FABRIC. THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING PAVEMENT FOR THE RAMP NOSE WILL BE INCLUDED IN THE COST FOR THE CONCRETE MEDIAN, TYPE SM (DOWELLED). NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



SECTION G-G

Bartlett&West
1207 SINCLAIR DRIVE, SUITE 2 • JERSEYVILLE, IL 62052
PHONE 618-654-6001
ILLINOIS DESIGN FIRM NO 184006/089-0002
WWW.BARTLETTWEST.COM

USER NAME = MAG01839	DESIGNED - RAM	REVISED -
	CHECKED - KTW	REVISED -
PLOT SCALE = 0.0833 ' / in.	DRAWN - RAM	REVISED -
PLOT DATE = 10/20/2022	CHECKED - KTW	REVISED -

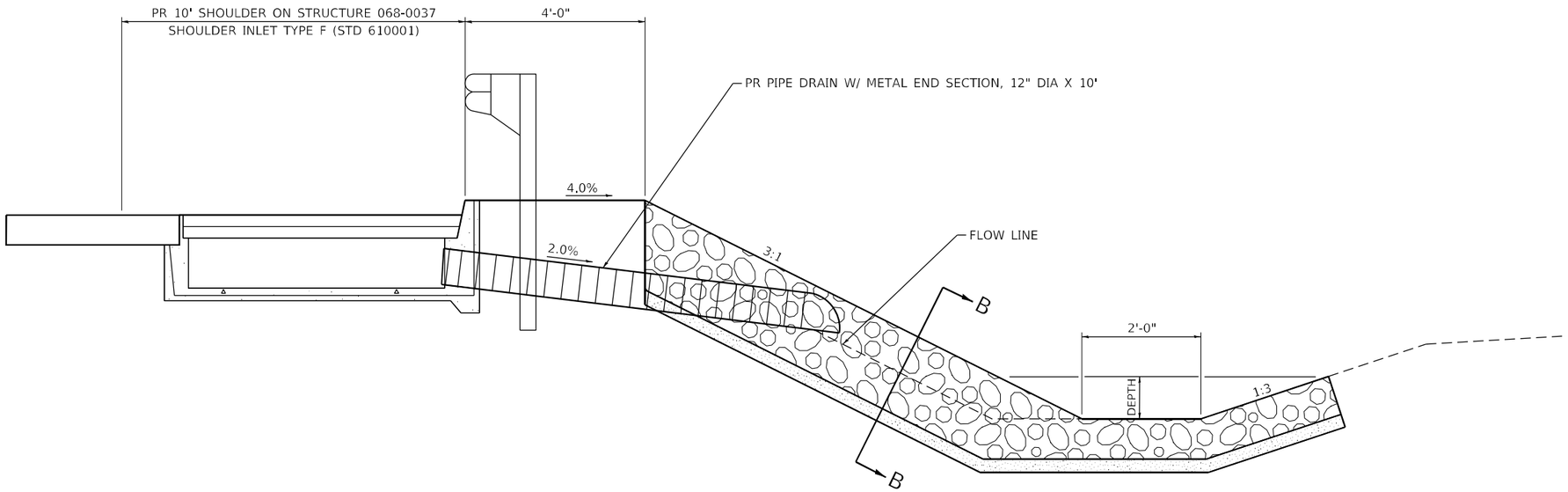
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

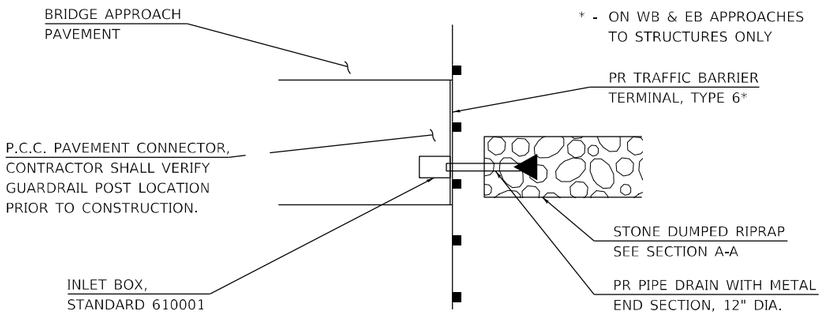
MISCELLANEOUS DETAILS
C.H. 17 – MEDIAN DETAIL

SCALE: | SHEET 07 OF 08 SHEETS | STA. | TO STA.

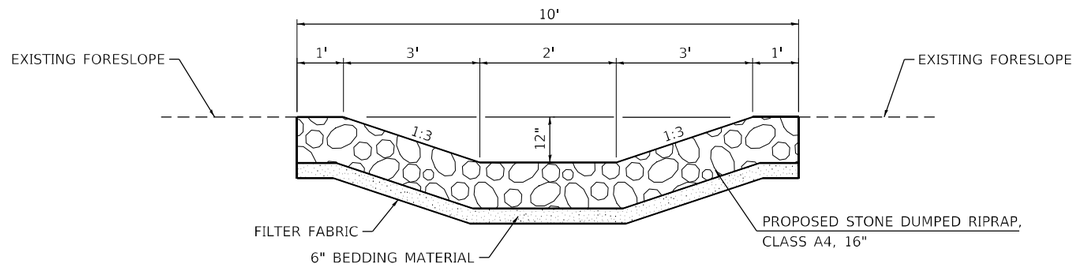
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	181
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

*(68-4RS)-BY, 68-5HB)D, 68-3RS5





PLAN



SECTION B-B

NOTE:
SEE STD 610001 FOR DETAILS NOT SHOWN.

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Bartlett&West
1207 SINCLAIR DRIVE, SUITE 2 - JERSEYVILLE, IL 62052
PHONE 618-654-6001
ILLINOIS DESIGN FIRM NO 184006600-0002
WWW.BARTLETTWEST.COM

USER NAME = MAG01839	DESIGNED - RAM	REVISED -	
	CHECKED - KTW	REVISED -	
PLOT SCALE = 0.0833 ' / in.	DRAWN - RAM	REVISED -	
PLOT DATE = 10/20/2022	CHECKED - KTW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

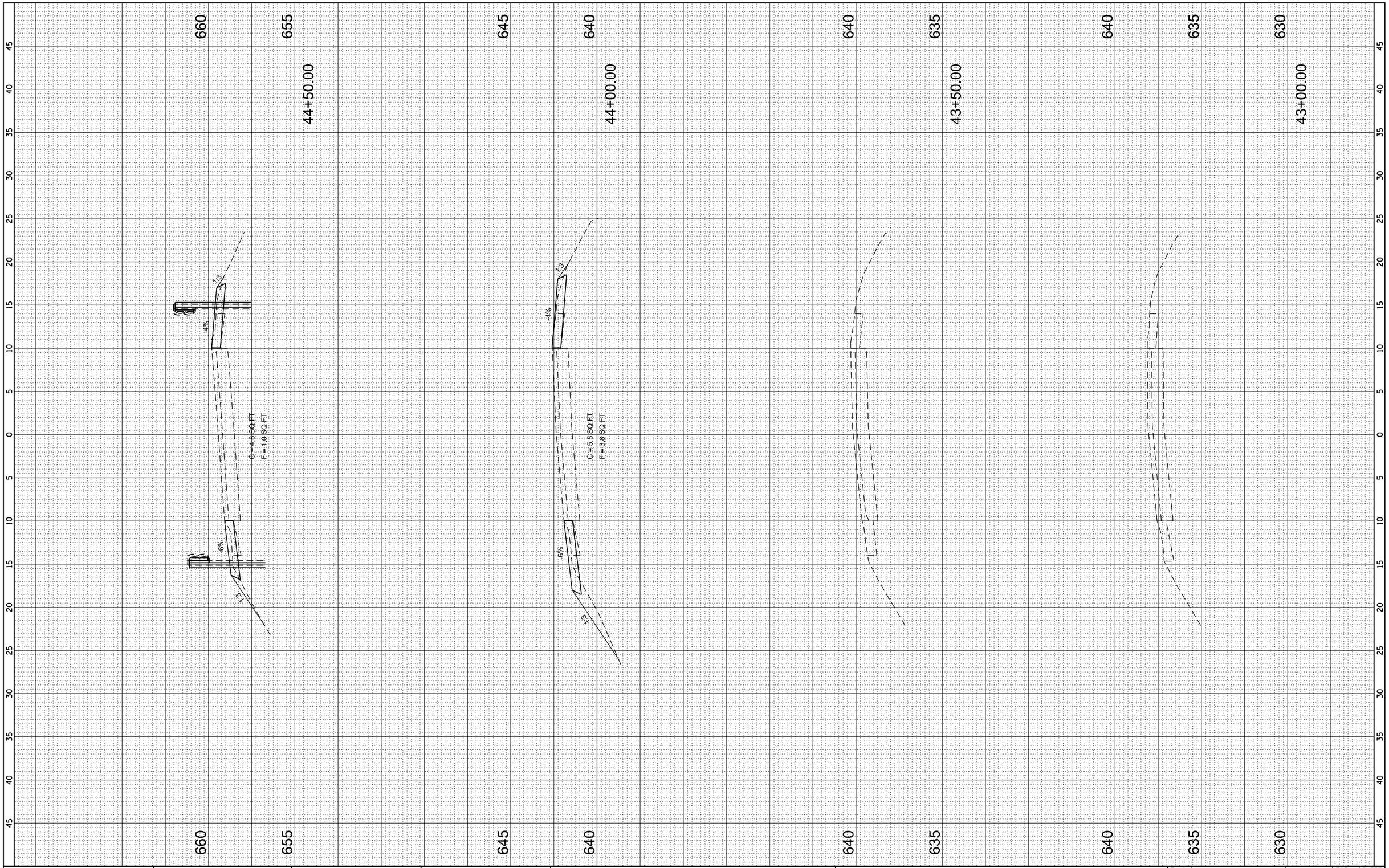
MISCELLANEOUS DETAILS
C.H. 17 – RIPRAP SWALE DETAIL

SCALE: | SHEET 08 OF 08 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MONTGOMERY	192	182
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

*(68-4RS)-BY, 68-5HB)D, 68-3RS5

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = ams	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R.37
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 1 OF 6 SHEETS | STA. 43+00.00 | TO STA. 44+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	183
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
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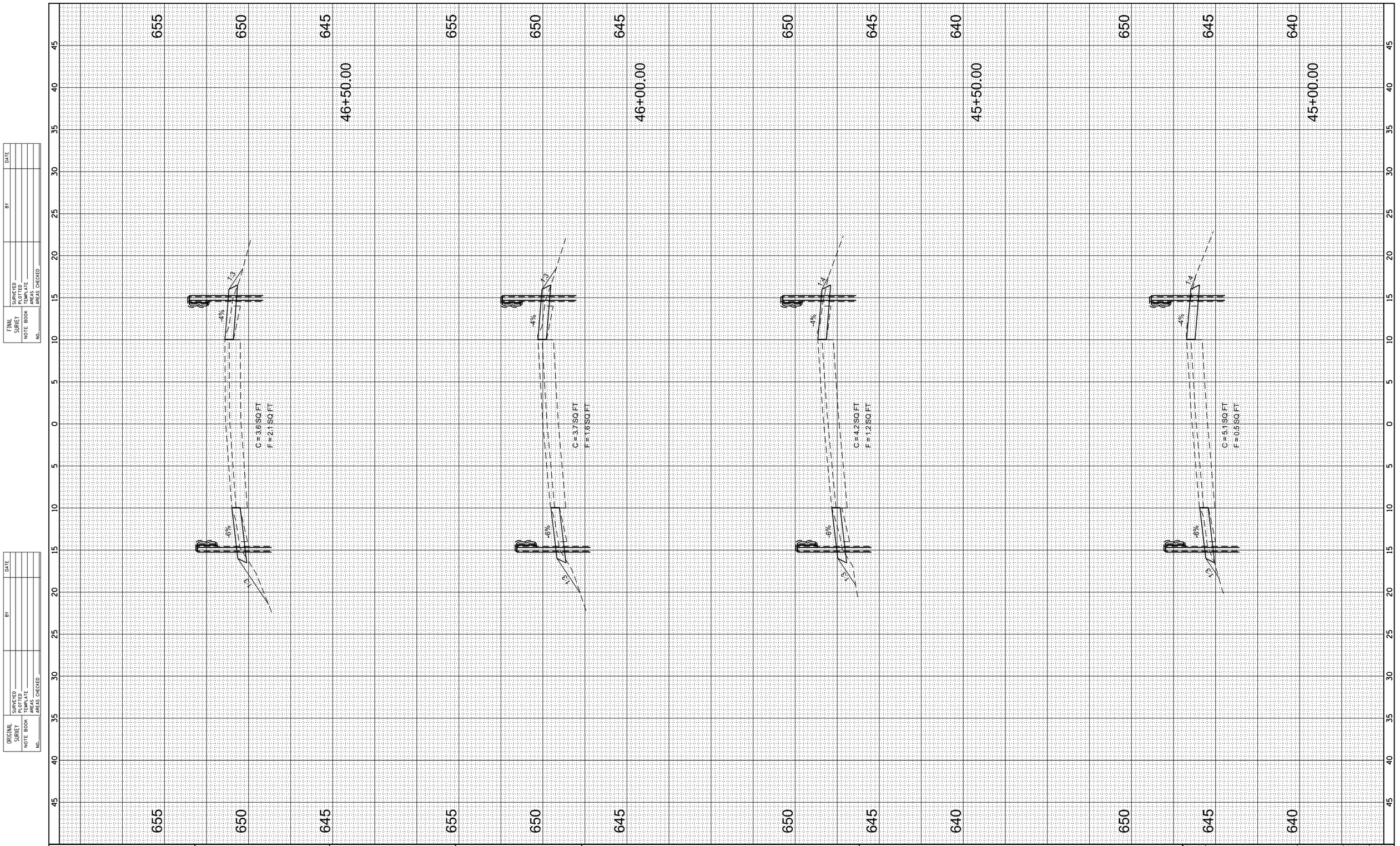
NO.	AREAS CHECKED		



KLINGNER & ASSOCIATES, P.C.	USER NAME = ams	DESIGNED -	REVISED -
Engineers • Architects • Surveyors		DRAWN -	REVISED -
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 37
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 2 OF 6 SHEETS | STA. 45+00.00 | TO STA. 46+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	184
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

KLINGNER & ASSOCIATES, P.C.	USER NAME = ems	DESIGNED -	REVISED -
Engineers • Architects • Surveyors		DRAWN -	REVISED -
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 37
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 3 OF 6 SHEETS | STA. 46+83.63 | TO STA. 47+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HBJD, 68-3RS5	MONTGOMERY	192	185
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
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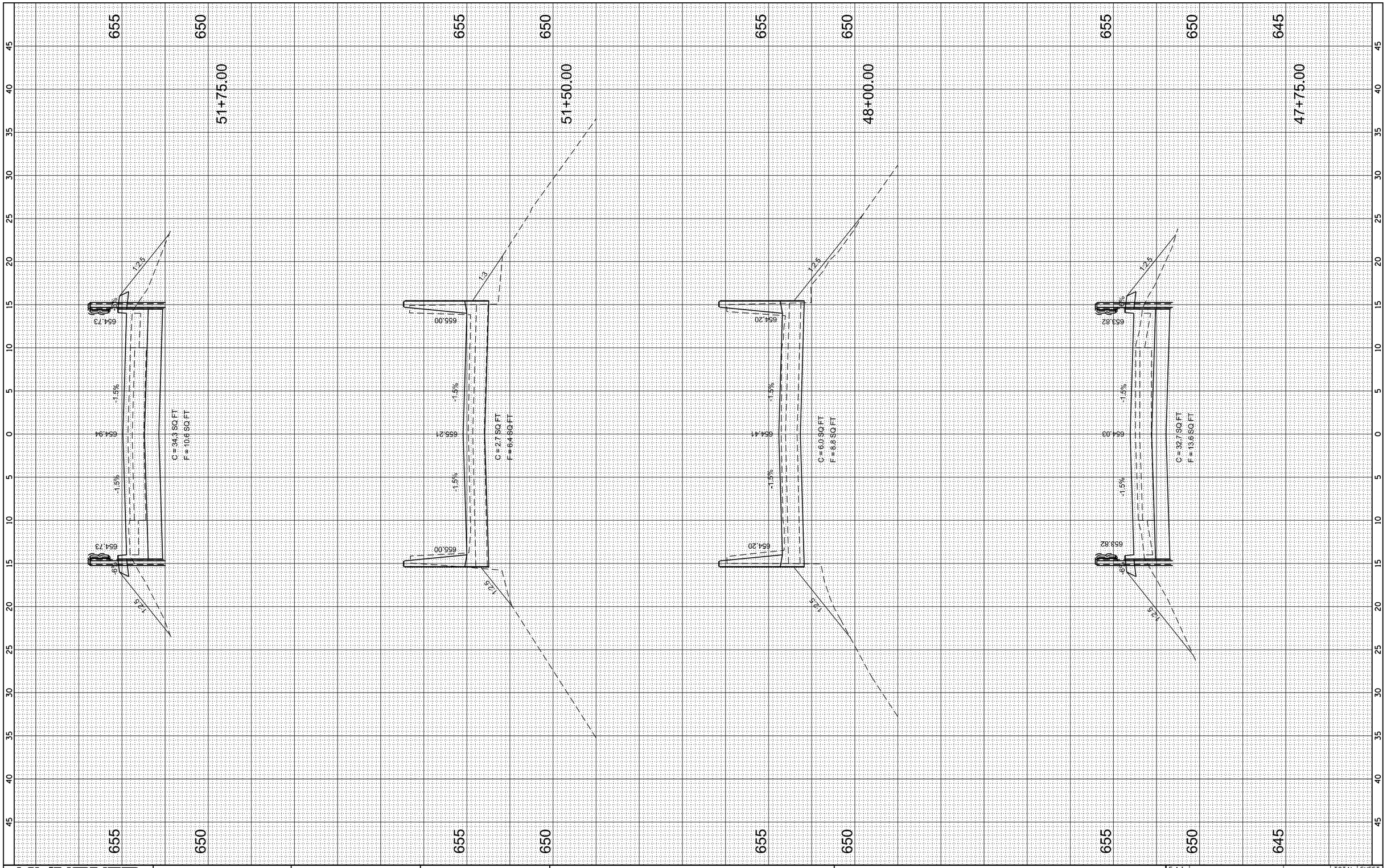
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



KLINGNER & ASSOCIATES, P.C.	USER NAME = ams	DESIGNED -	REVISED -
Engineers • Architects • Surveyors		DRAWN -	REVISED -
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

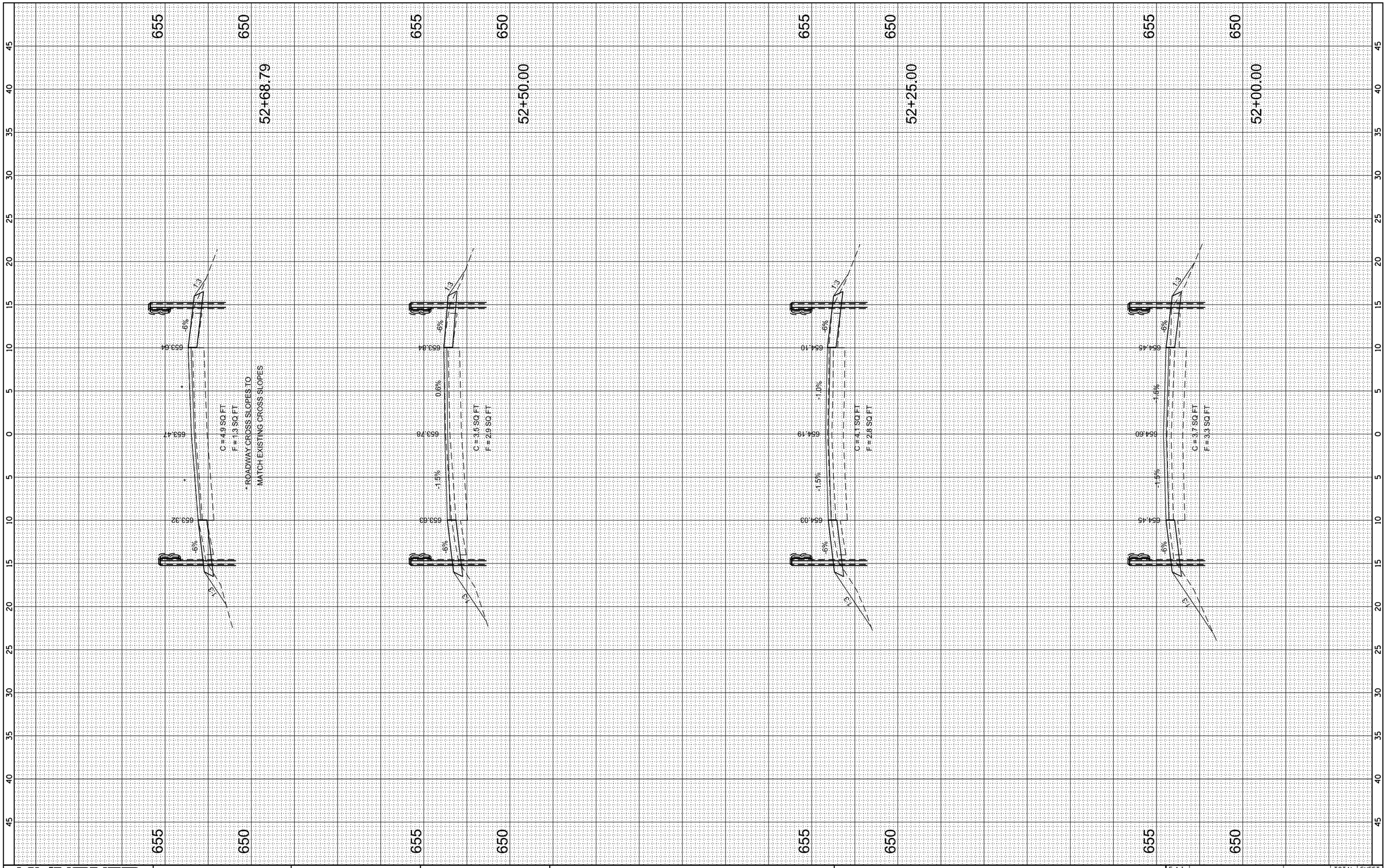
T.R. 37
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 4 OF 6 SHEETS | STA. 47+75.00 | TO STA. 51+75.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	186
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



KLINGNER & ASSOCIATES, P.C.	USER NAME = ams	DESIGNED -	REVISED -
Engineers • Architects • Surveyors		DRAWN -	REVISED -
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 37
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 5 OF 6 SHEETS | STA. 52+00.00 | TO STA. 52+68.79

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	187
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
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NOTE BOOK	TEMPLATE		
	AREAS		
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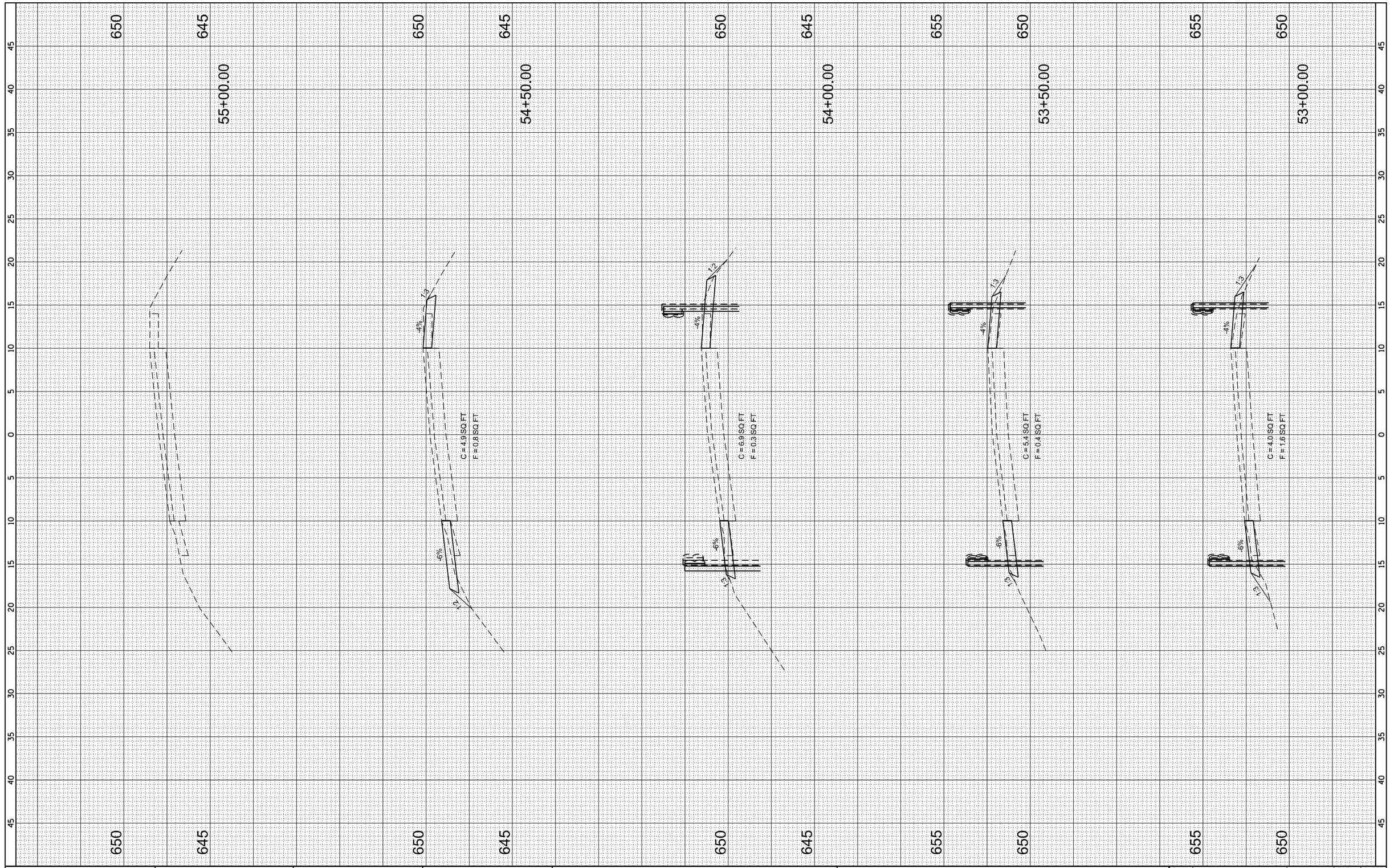

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = ams	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 37
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 6 OF 6 SHEETS | STA. 53+00.00 TO STA. 55+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	188
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY		BY	DATE
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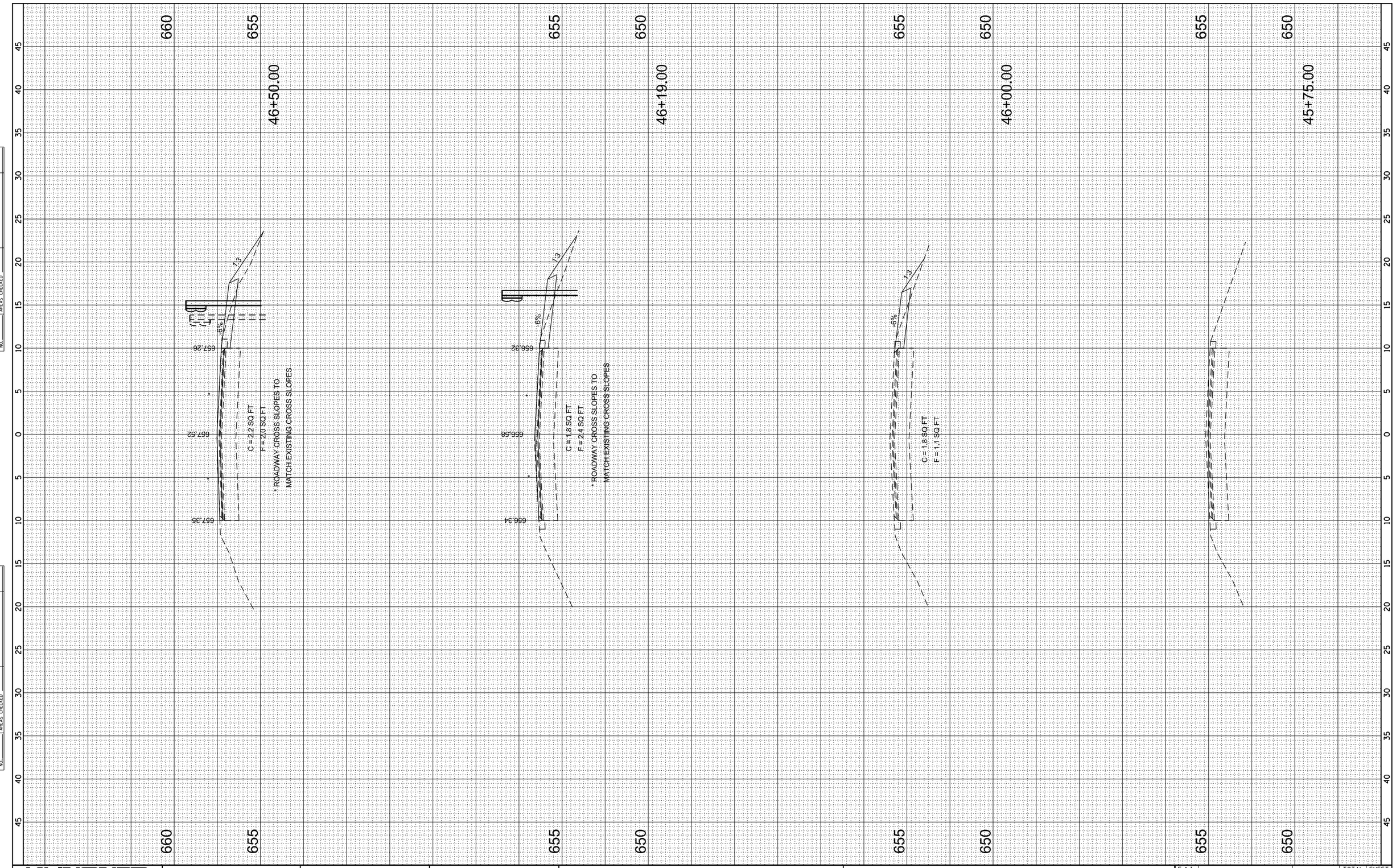
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = ams	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

C.H. 16
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 1 OF 4 SHEETS | STA. 45+75.00 | TO STA. 46+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	189
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
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NOTE BOOK	TEMPLATE		
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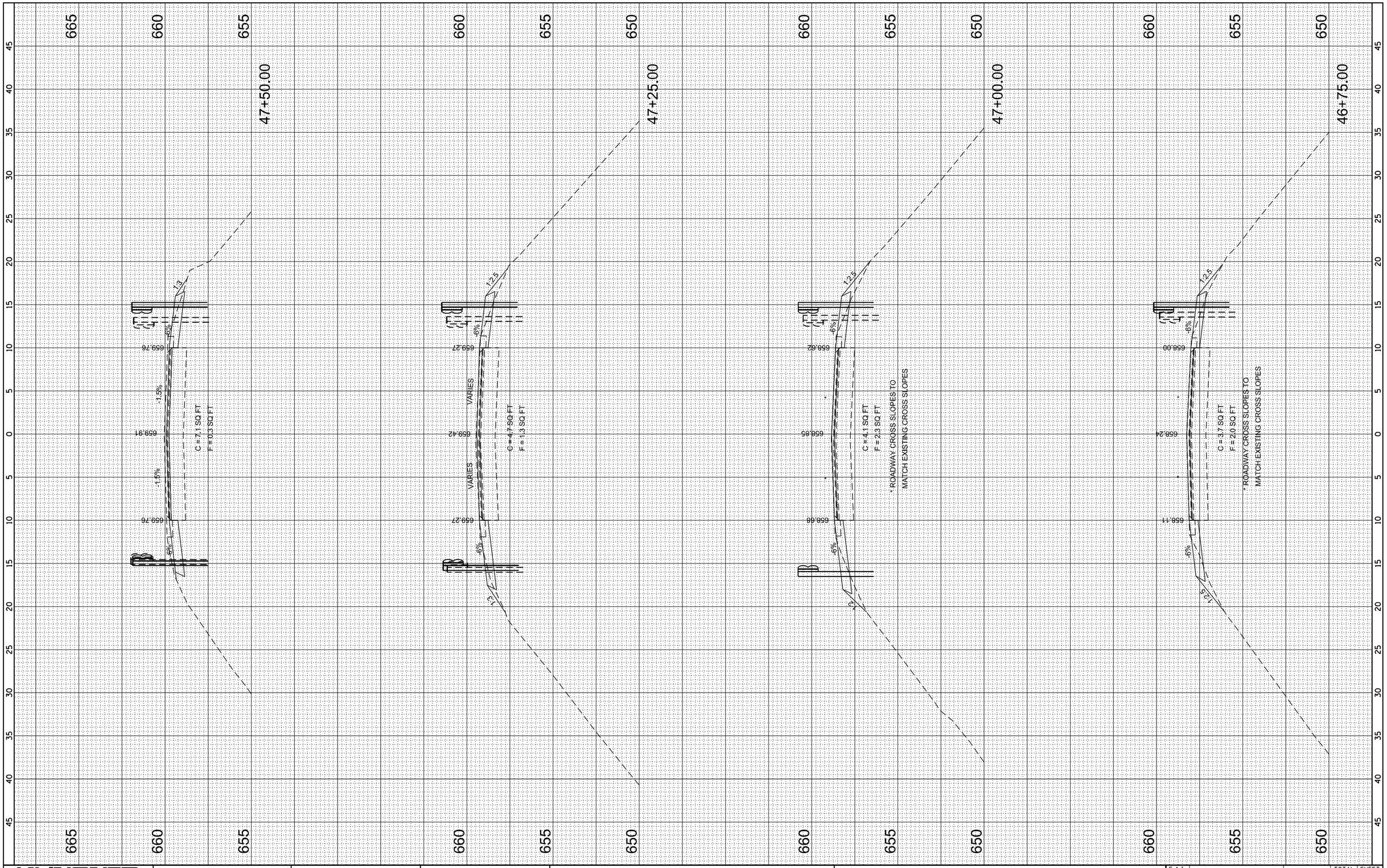
NO.	AREAS CHECKED		



KLINGNER & ASSOCIATES, P.C.	USER NAME = ams	DESIGNED -	REVISED -
Engineers • Architects • Surveyors		DRAWN -	REVISED -
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

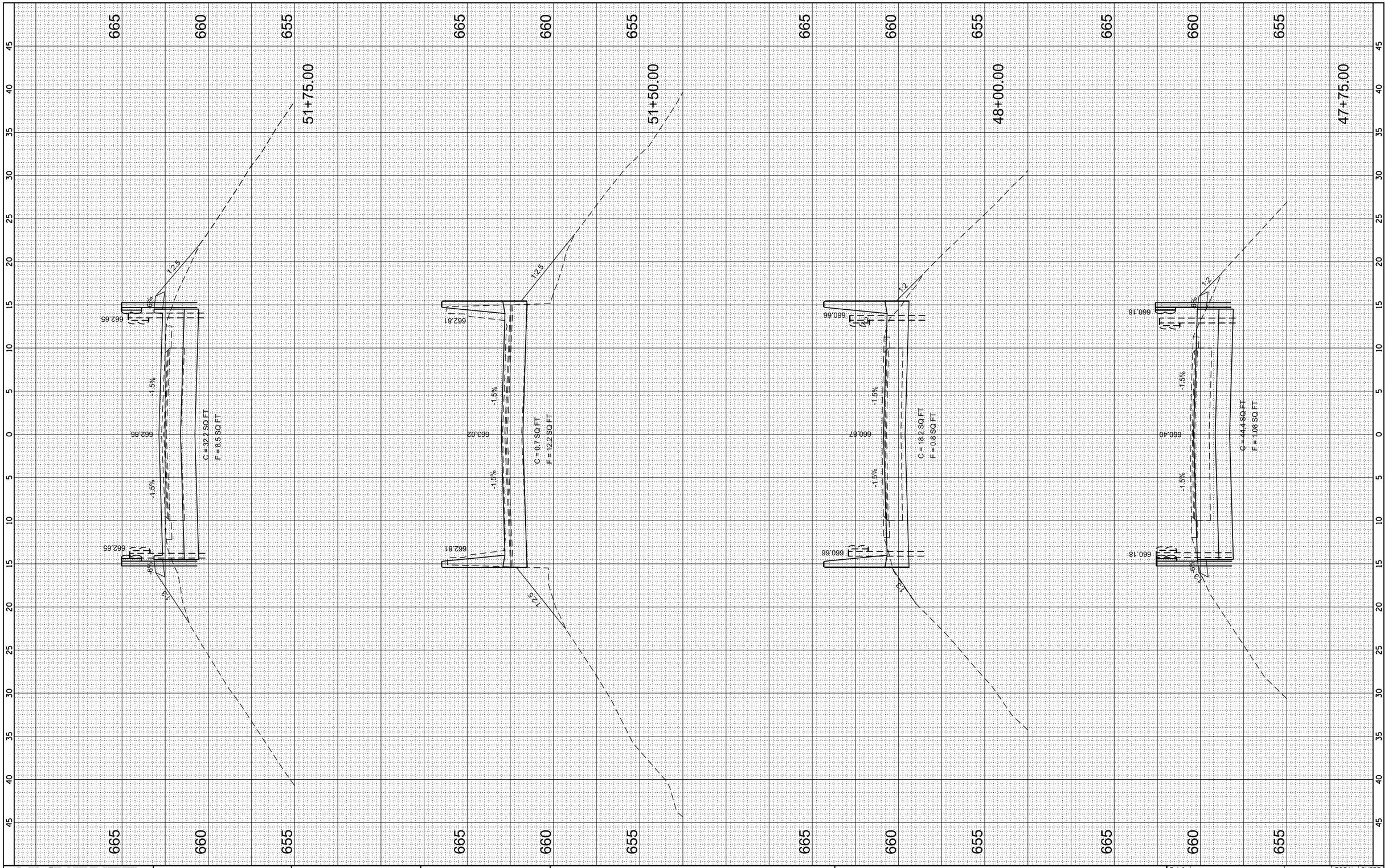
C.H. 16
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 2 OF 4 SHEETS | STA. 46+75.00 TO STA. 47+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	190
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



USER NAME = ams	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/17/2022	DATE -	REVISED -	

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

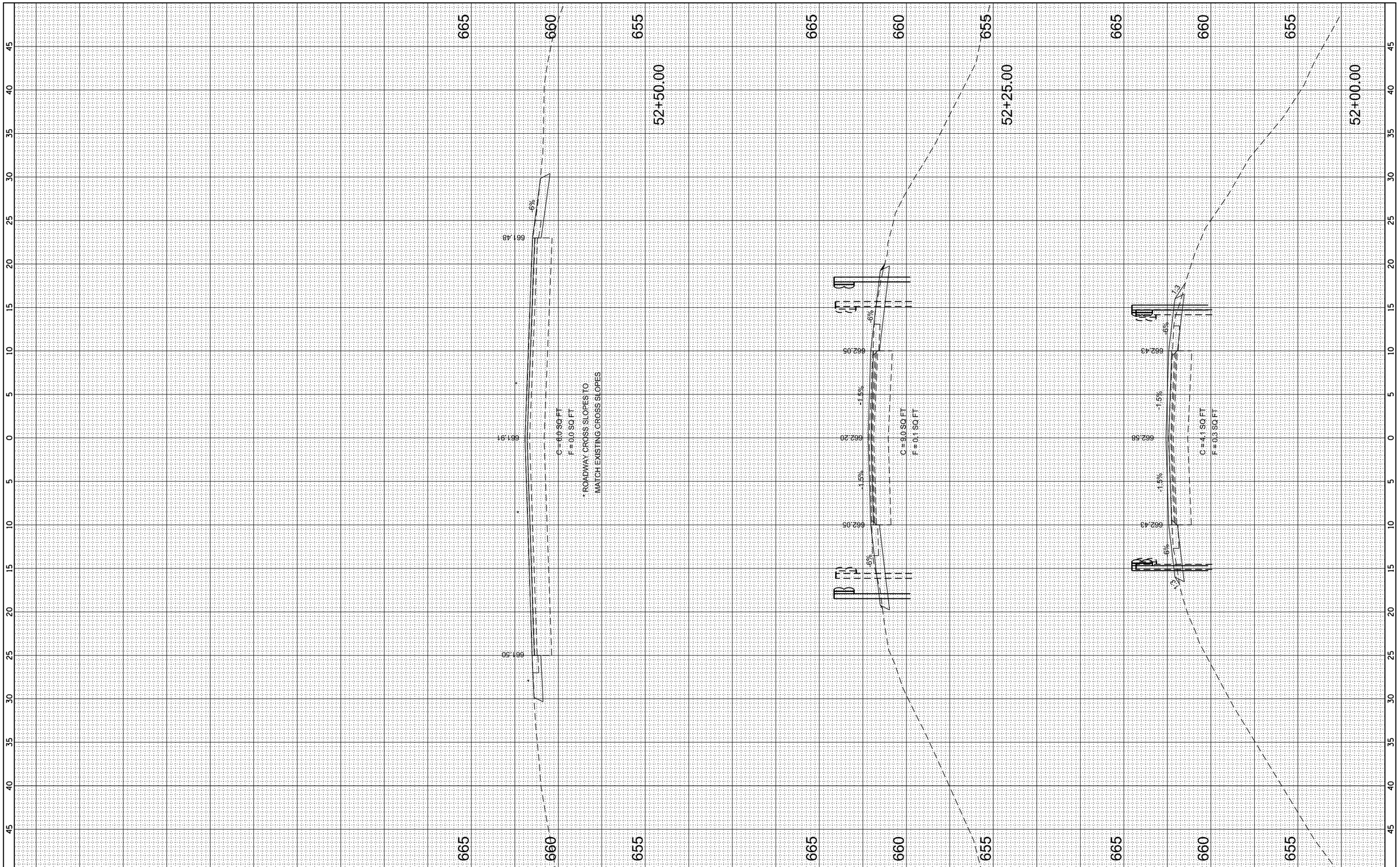
C.H. 16
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 3 OF 4 SHEETS | STA. 47+75.00 TO STA. 51+75.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	191
		CONTRACT NO. 72G54		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



KLINGNER & ASSOCIATES, P.C.			
Engineers • Architects • Surveyors	USER NAME = ems	DESIGNED -	REVISED -
616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670		DRAWN -	REVISED -
STATE OF ILLINOIS DESIGN FIRM NO. 184-0738	PLOT SCALE = 10.0004 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/17/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

C.H. 16
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 4 OF 4 SHEETS | STA. 52+00.00 TO STA. 52+75.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(68-4RS1-BY, 68-5HB)D, 68-3RS5	MONTGOMERY	192	192
		CONTRACT NO. 72G54		
	ILLINOIS	FED. AID PROJECT		