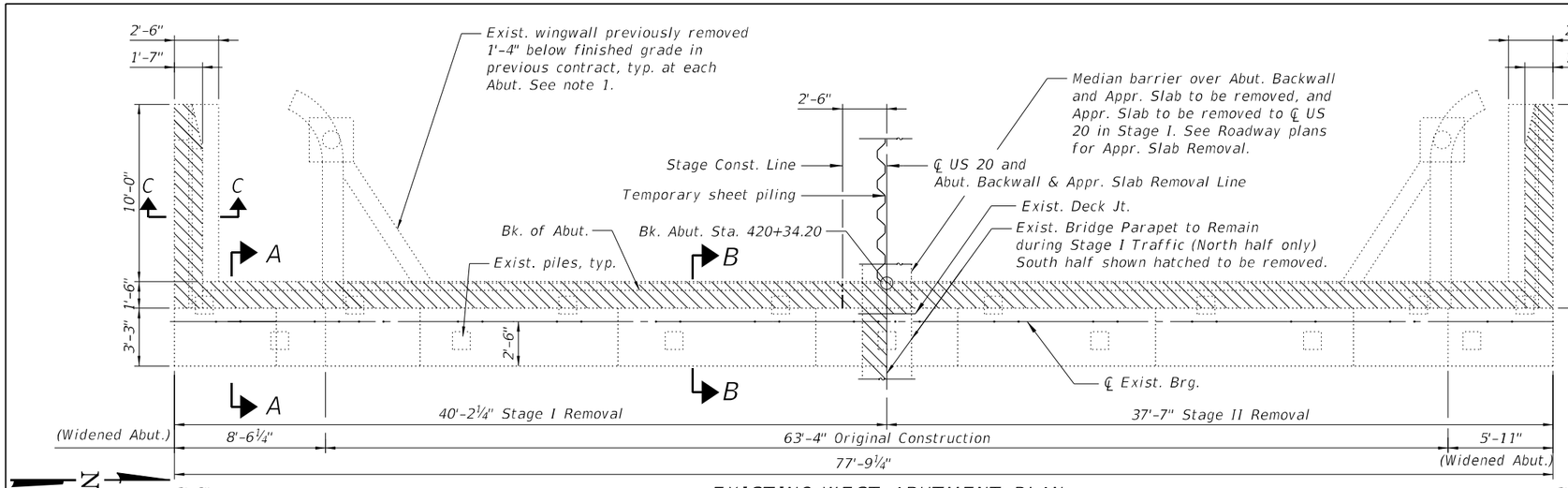
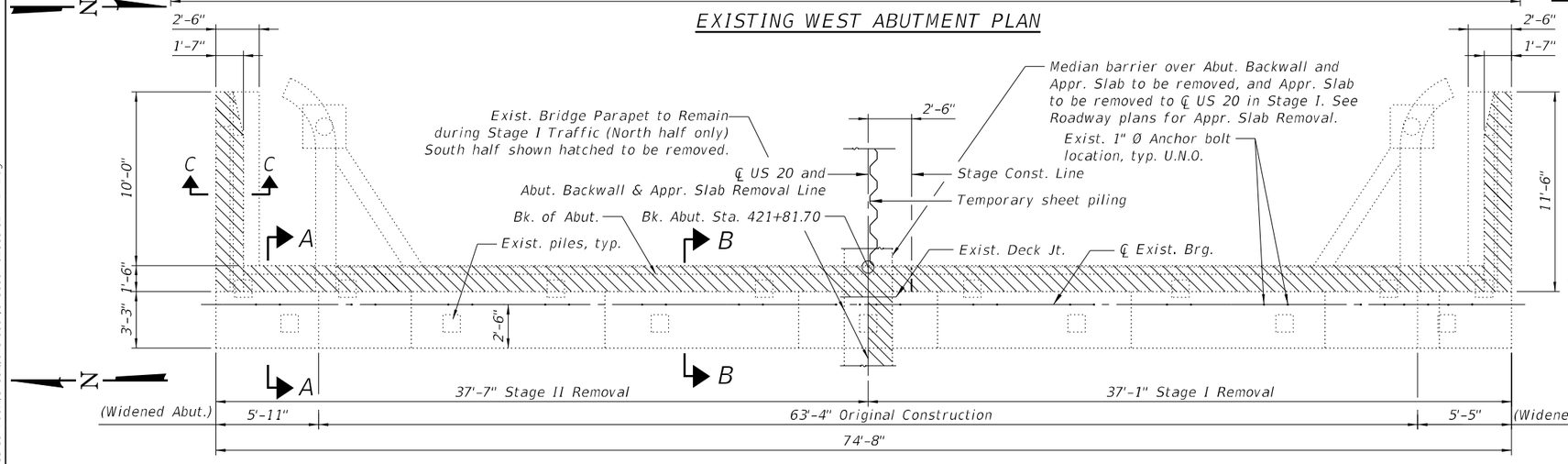
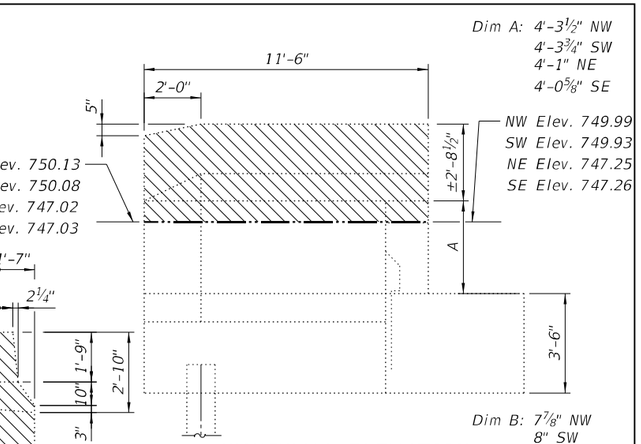


EXISTING WEST ABUTMENT PLAN

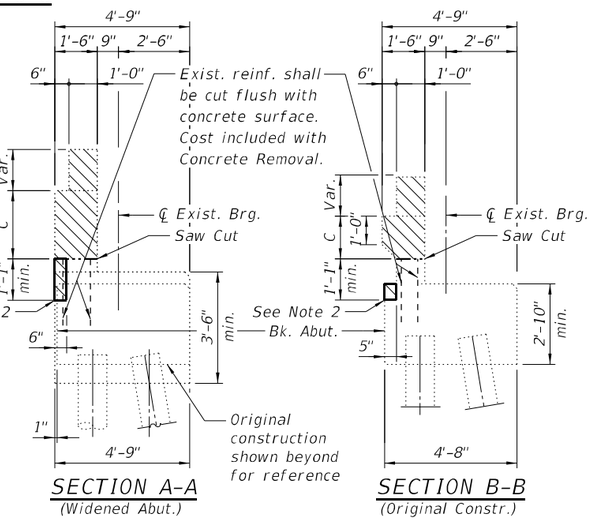


EXISTING EAST ABUTMENT PLAN



WINGWALL ELEVATION

SECTION C-C



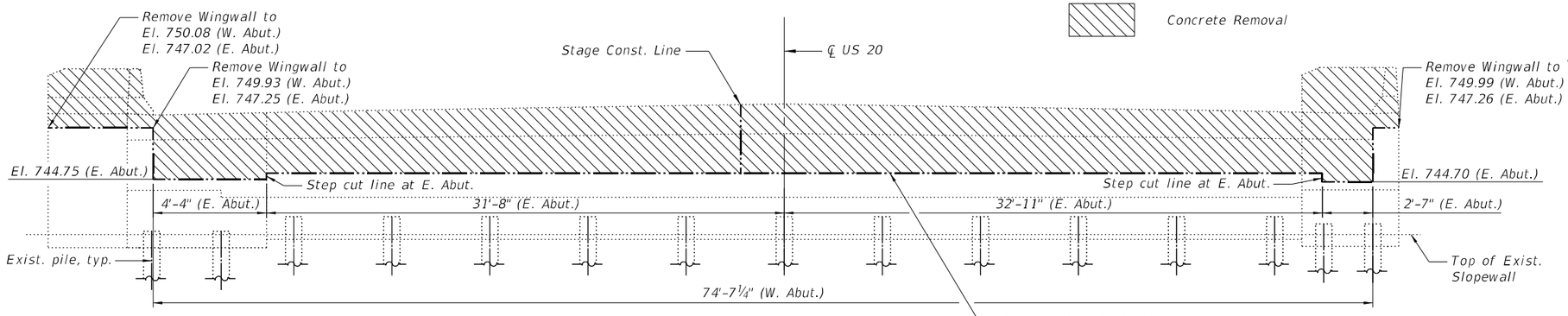
SECTION A-A
(Widened Abut.)

SECTION B-B
(Original Constr.)

Dim C: ±1'-9⅜" (W. Abut.)
1'-9⅞" min. (E. Abut.)
2'-1½" max. (E. Abut.)

LEGEND

Concrete Removal



TYPICAL ABUTMENT ELEVATION
(West Abutment shown, East Abutment Similar)

NOTES

1. The Existing Wingwall within the limits of the original construction shall be removed to a minimum of 2-ft below subgrade or as directed by the Engineer. This work will not be measured for payment, but shall be included in the cost of Concrete Removal.
2. Additional abutment cap concrete removal will be necessary to accommodate the fabric reinforced elastomeric mat and/or plate. Removal shall be as directed by the Engineer.
3. See sheet 31 of 35 for slopewall repair details and bill of materials.
4. Existing beam line and anchor bolt locations shown on this drawing.

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT REMOVAL STRUCTURE NO. 045-0007
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 28 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	201
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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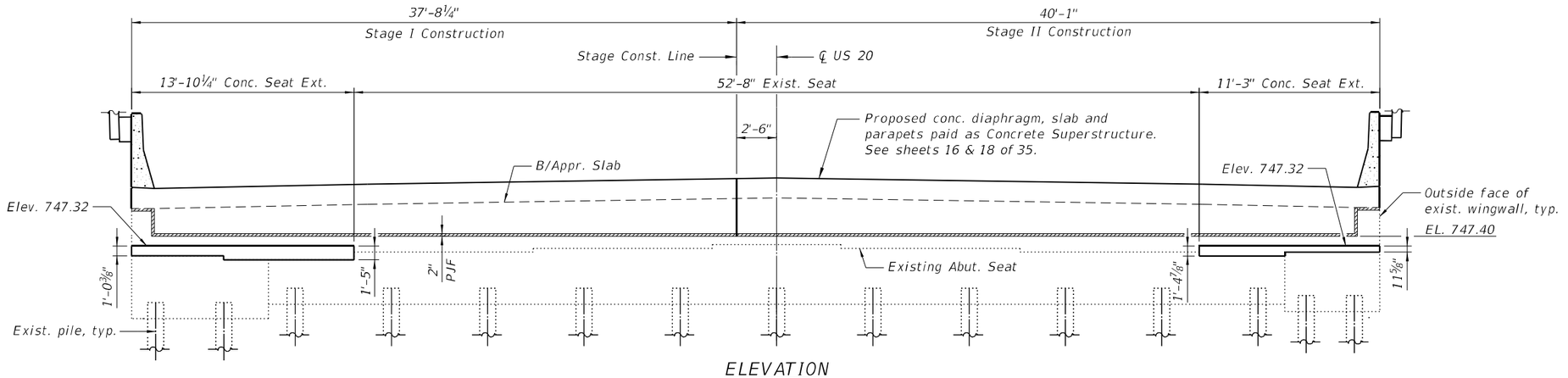
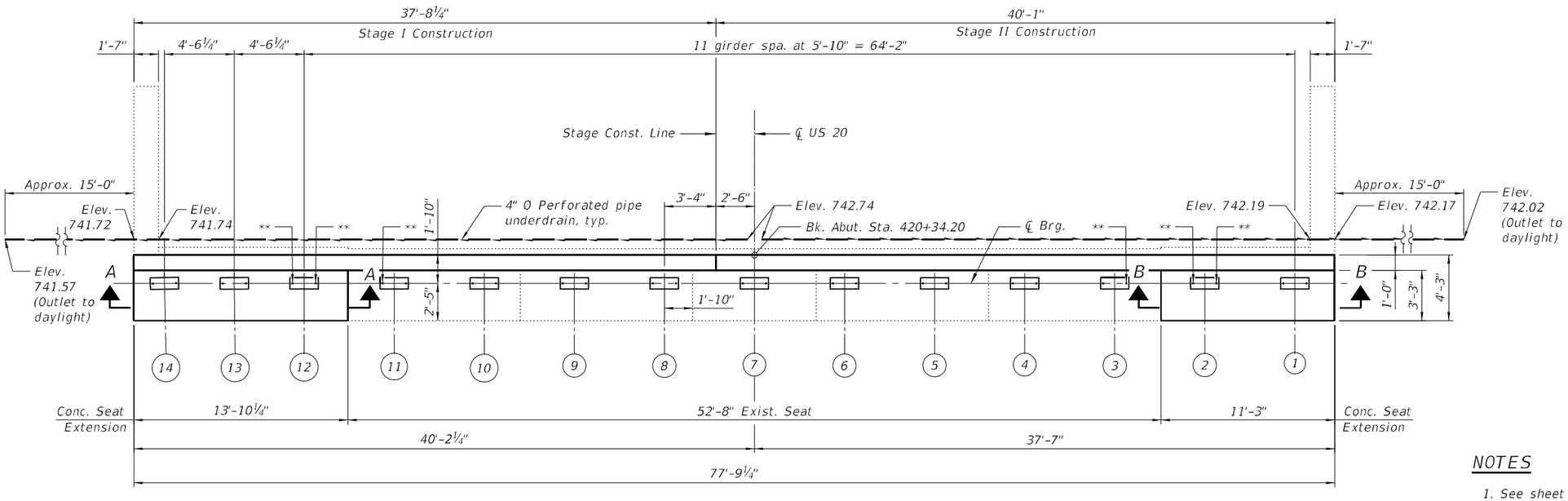
3/20/2024 4:40:46 PM



ELEVATION
(Looking West)



PLAN

*EXISTING SEAT ELEV
(For Information Only)

Exist. Beam No.	W. Abut.
1	746.35
2	745.91
3	747.16
4	747.19
5	747.27
6	747.27
7	747.35
8	747.34
9	747.23
10	747.23
11	747.14
12	747.14
13	745.90
14	745.93
15	746.29

*As Surveyed Seat Elev. Contractor shall verify prior to ordering bearing materials and fill plates. See sheet 28 of 35 for existing beam locations.

BILL OF MATERIAL
AT WEST ABUTMENT

Bar	No.	Size	Length	Shape
h20(E)	6	#5	13'-6"	———
h21(E)	2	#5	7'-9"	———
h22(E)	2	#5	5'-0"	———
h23(E)	6	#5	10'-11"	———
d20(E)	12	#5	1'-7"	———
d21(E)	15	#5	1'-11"	———
u20(E)	8	#5	5'-11"	⊓
u21(E)	12	#5	4'-5"	⊓
u22(E)	15	#5	5'-3"	⊓
Concrete Removal			Cu. Yd.	15.4
Structure Excavation			Cu. Yd.	98.1
Concrete Structures			Cu. Yd.	3.7
Reinforcement Bars, Epoxy Coated			Pound	420
Granular Backfill for Structures			Cu. Yd.	140.9
Geocomposite Wall Drain			Sq. Yd.	67
Pipe Underdrains			Foot	109
Slope Wall Crack Sealing			Foot	63

NOTES

1. See sheet 31 of 35 for details and sections.
2. Bill of material includes slopewall repair quantity shown on sheet 31 of 35 .

**Modified retainer shall be used for this side of bearing to miss exist. anchor bolt at Beams 2, 3, 11 & 12. See sheet 25 of 35 for additional details and quantities.

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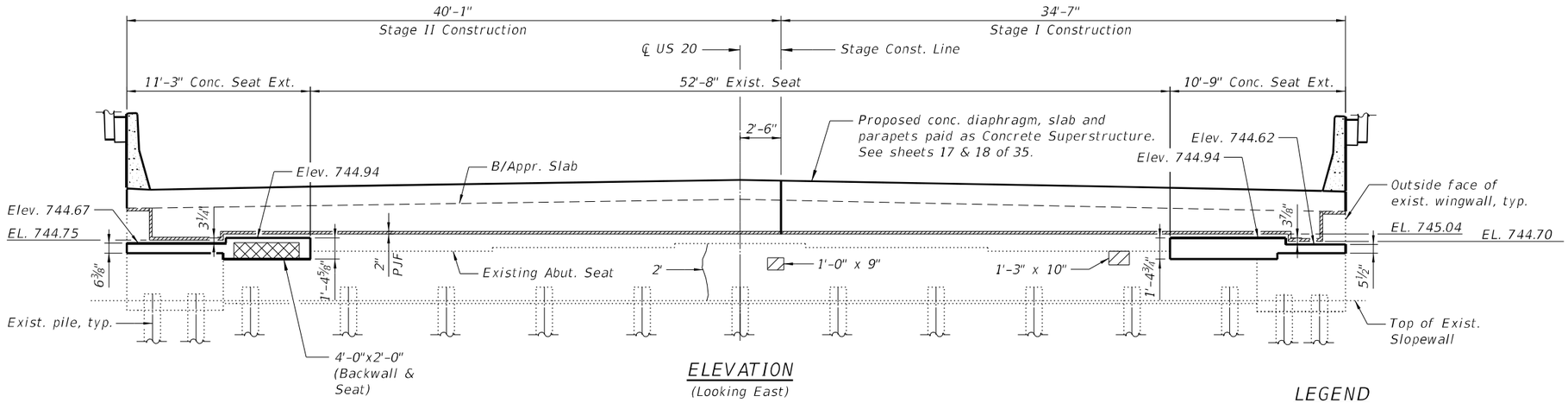
3/20/2024 4:40:49 PM

GANNETT FLEMING

USER NAME = jstarzyk		DESIGNED - SS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT PLAN & ELEVATION STRUCTURE NO. 045-0007
		CHECKED - MZ	REVISED -		
PLOT SCALE =		DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024		CHECKED - MZ	REVISED -		SHEET 29 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	202
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking East)

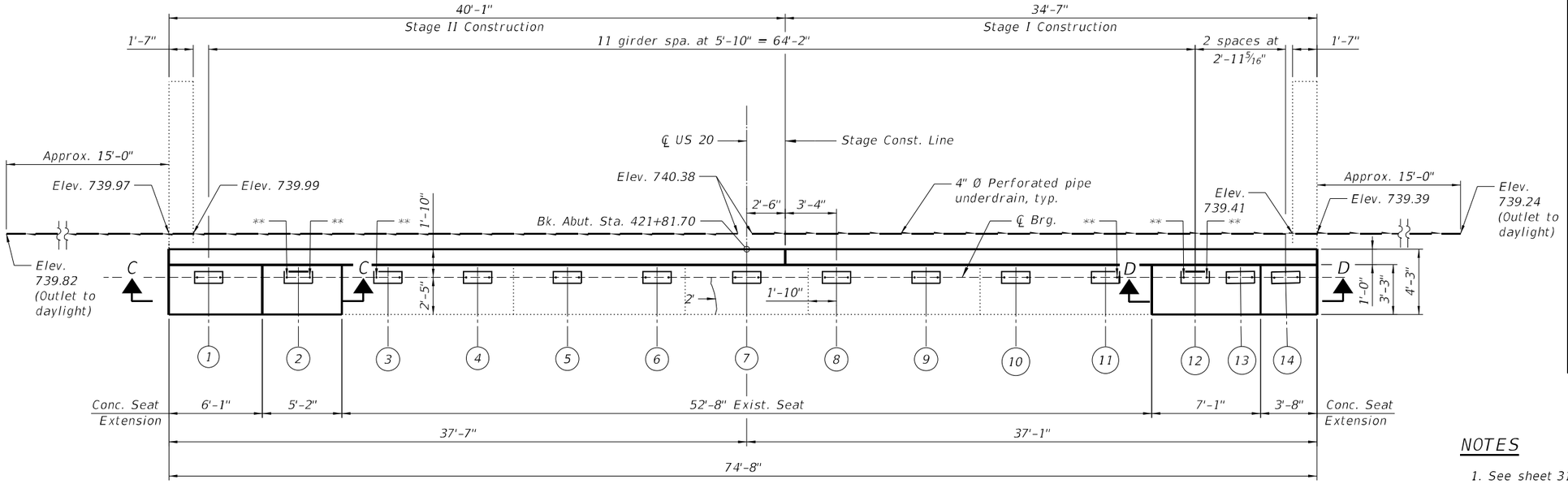
LEGEND

- Structural Repair of Concrete (D<=5")
- Structural Repair of Concrete (D>5")
- Epoxy Crack Injection

*EXISTING SEAT ELEV
(For Information Only)

Exist. Beam No.	E. Abut.
1	744.14
2	743.55
3	744.89
4	744.89
5	744.95
6	744.98
7	745.03
8	745.03
9	744.94
10	744.94
11	744.86
12	744.85
13	743.54
14	743.50
15	744.16

*As Surveyed Seat Elev. Contractor shall verify prior to ordering bearing materials and fill plates. See sheet 28 of 35 for existing beam locations.



PLAN

BILL OF MATERIAL AT EAST ABUTMENT

Bar	No.	Size	Length	Shape
h22(E)	2	#5	5'-0"	—
h23(E)	4	#5	10'-11"	—
h24(E)	2	#5	6'-3"	—
h25(E)	4	#5	10'-5"	—
d21(E)	14	#5	1'-11"	—
d22(E)	10	#5	1'-2"	—
u20(E)	6	#5	5'-11"	⊓
u22(E)	14	#5	5'-3"	⊓
u23(E)	10	#5	3'-5"	⊓
Concrete Removal		Cu. Yd.	15.3	
Structure Excavation		Cu. Yd.	90.9	
Concrete Structures		Cu. Yd.	2.7	
Reinforcement Bars, Epoxy Coated		Pound	300	
Epoxy Crack Injection		Foot	4	
Granular Backfill for Structures		Cu. Yd.	121.2	
Geocomposite Wall Drain		Sq. Yd.	60	
Pipe Underdrains		Foot	106	
Slope Wall Crack Sealing		Foot	65	
Structural Repair of Concrete (Depth equal to or less than 5 inches)		Sq. Ft.	2	
Structural Repair of Concrete (Depth greater than 5 inches)		Sq. Ft.	8	

NOTES

1. See sheet 31 of 35 for details and sections.
2. Bill of material includes slopewall repair quantity shown on sheet 31 of 35 .

**Modified retainer shall be used for this side of bearing to miss exist. anchor bolt at Beams 2, 3, 11 & 12. See sheet 25 of 35 for additional details and quantities.

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GANNETT FLEMING

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	CHECKED - MZ	REVISED -			
PLOT SCALE =	DRAWN - LAM	REVISED -		SHEET 30 OF 35 SHEETS	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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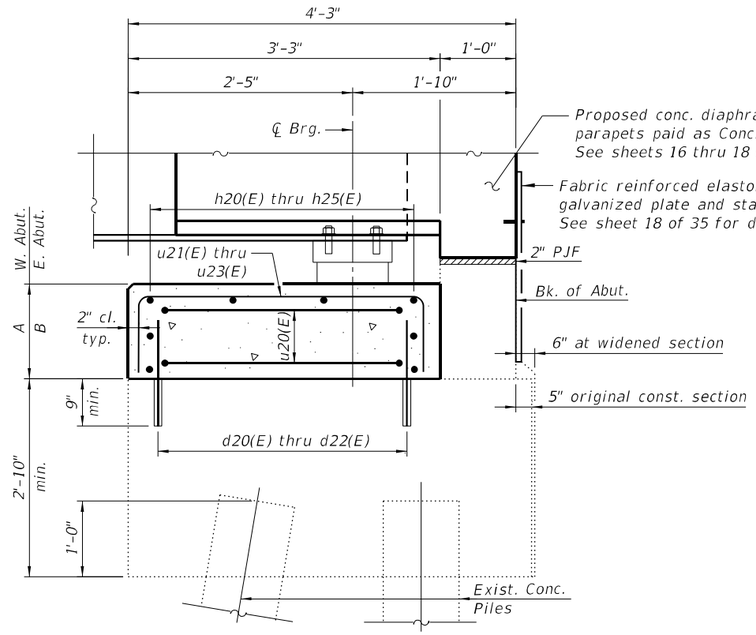
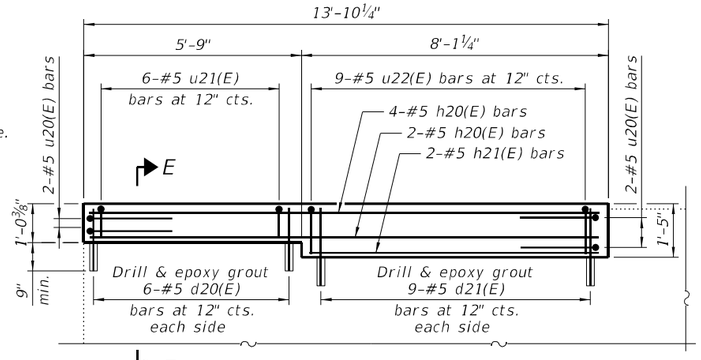
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



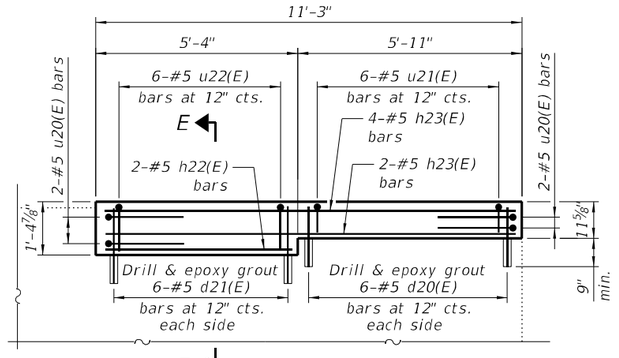
SECTION E-E

Dim A varies 11⅜" to 1'-5" at W. Abut.
Dim B varies 5½" to 1'-4⅝" at E. Abut.
See sheet 29 & 30 of 35 for seat elevations.



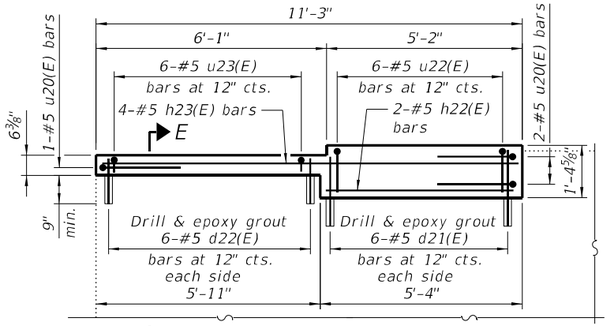
SECTION A-A

(West Abutment)



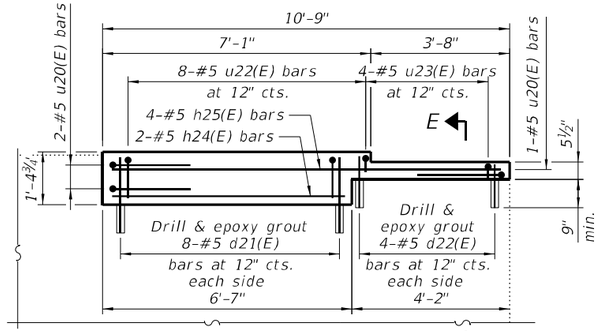
SECTION B-B

(West Abutment)



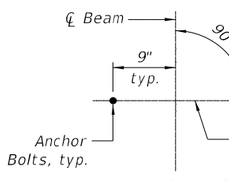
SECTION C-C

(East Abutment)



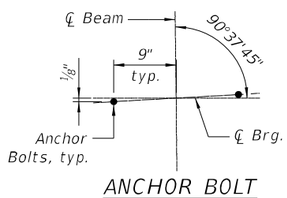
SECTION D-D

(East Abutment)



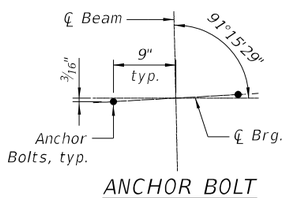
ANCHOR BOLT LOCATION DETAIL

(Beams 1-12)



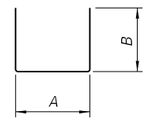
ANCHOR BOLT LOCATION DETAIL

(Beam 13)



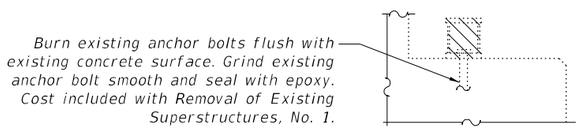
ANCHOR BOLT LOCATION DETAIL

(Beam 14)

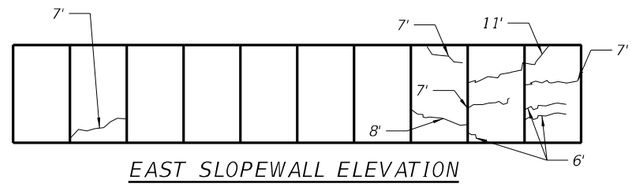


	A	B
u20(E)	2'-11"	1'-6"
u21(E)	2'-11"	9"
u22(E)	2'-11"	1'-2"
u23(E)	2'-11"	3"

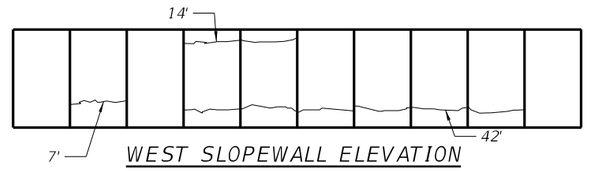
BARS u20(E) thru u23(E)



BEARING ANCHOR BOLT REMOVAL



EAST SLOPEWALL ELEVATION



WEST SLOPEWALL ELEVATION

LEGEND

Slope Wall Crack Sealing

Note:
The quantity of slopewall crack repairs are based on a 2023 visual inspection. A portion of cracks shown have previous repairs, but may need additional repairs. The length and locations of repairs shall be determined by the engineer at the time of construction.

MODEL: Default
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GANNETT FLEMING

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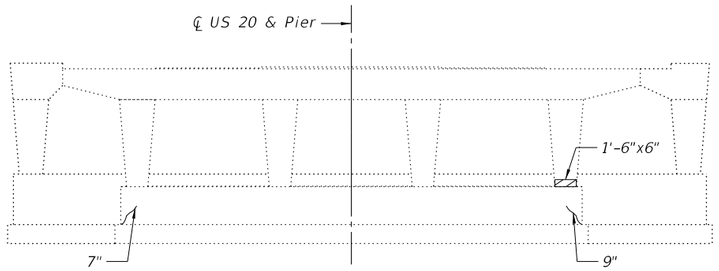
		CHECKED - MZ	REVISED -		
PLOT SCALE = 4.0000 ' / in.		DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024		CHECKED - MZ	REVISED -		

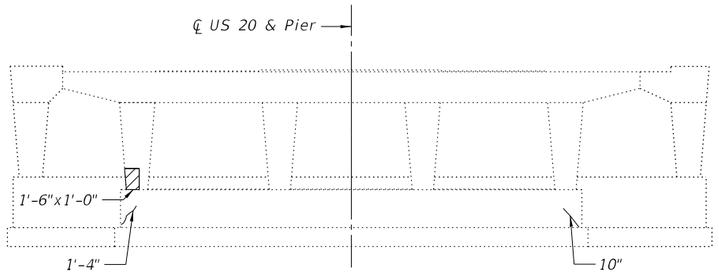
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 045-0007
SHEET 31 OF 35 SHEETS

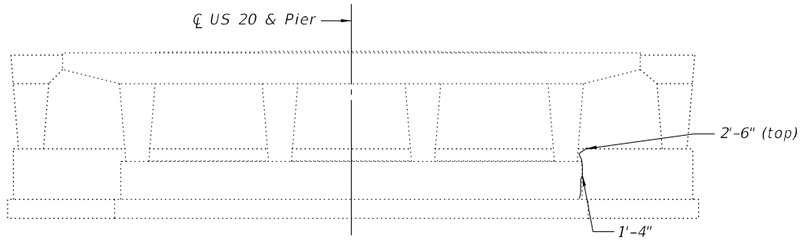
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	345-23-BR	KANE	379	204
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



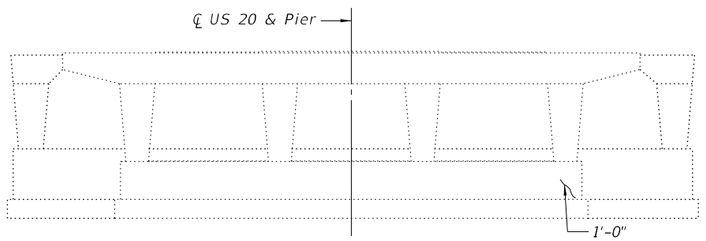
WEST FACE PIER 1
(Looking East)



EAST FACE PIER 1
(Looking West)



WEST FACE PIER 2
(Looking East)



EAST FACE PIER 2
(Looking West)

BILL OF MATERIAL

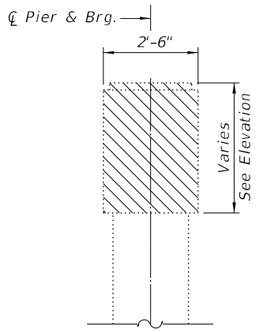
ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	43.2
Epoxy Crack Injection	Foot	9
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq Ft	3

LEGEND

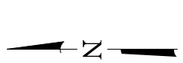
Concrete Removal

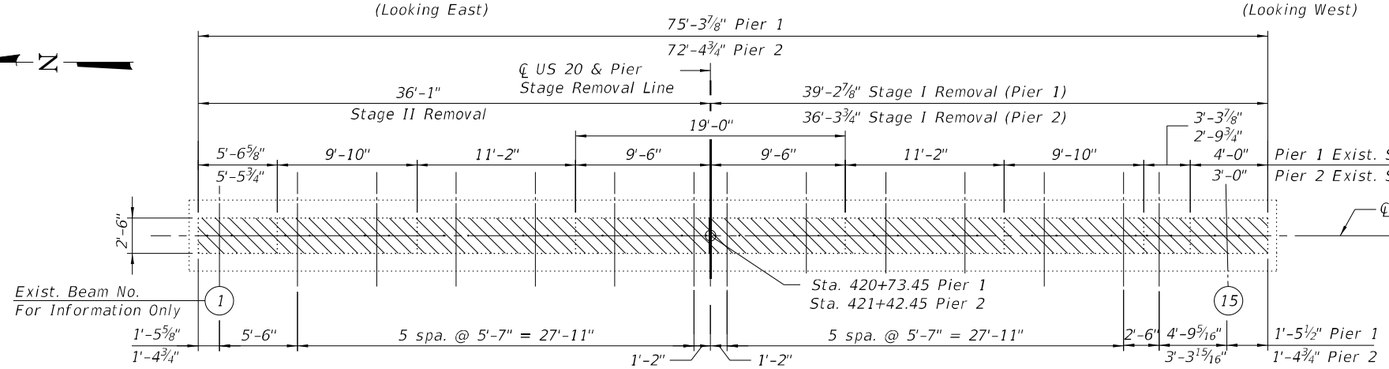
Structural Repair of Concrete (D<=5")

Epoxy Crack Injection

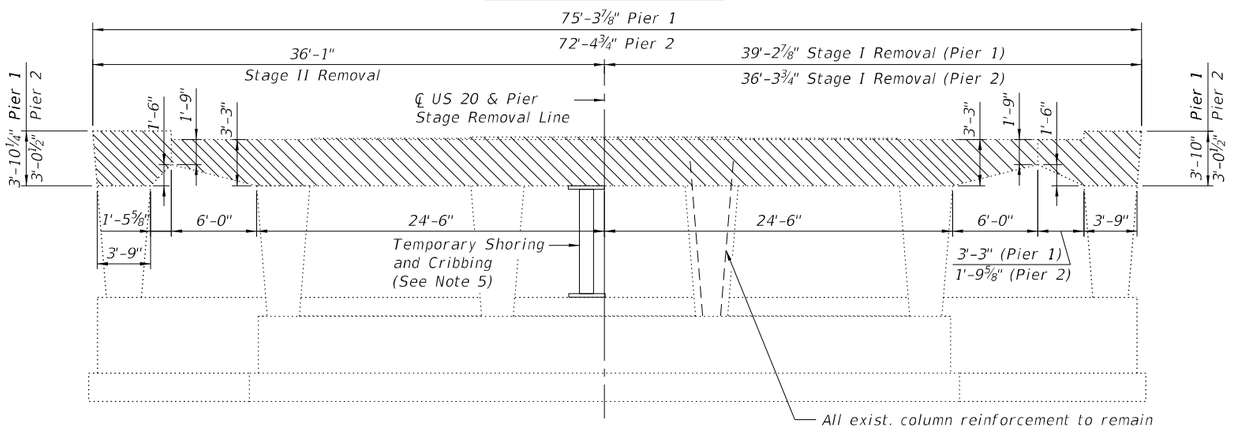


TYP. PIER CAP
CROSS SECTION





EXISTING PIER PLAN



EXISTING PIER ELEVATION
(Looking East)

*EXISTING SEAT ELEV
(For Information Only)

Exist. Beam No.	Pier 1	Pier 2
1	745.81	744.05
2	745.21	744.22
3	745.23	744.22
4	745.31	744.32
5	745.30	744.31
6	745.40	744.42
7	745.39	744.38
8	745.39	744.40
9	745.39	744.39
10	745.30	744.26
11	745.28	744.27
12	745.21	744.16
13	745.19	744.15
14	745.16	743.99
15	745.73	743.91

*As Surveyed Seat Elev. Contractor shall verify prior to ordering bearing materials, fabricating extensions, and fill plates.

NOTES

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

2. Any reinforcement bars to be incorporated 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.

3. The ends of existing reinforcement bars which are cut & exposed shall be coated with epoxy. Cost included with Concrete Removal.

4. Temporary lighting to be maintained during construction, see electrical plans.

5. Cost of temporary shoring and cribbing shall be included with Concrete Removal, according to Article 501 of the Std. Specs. The Contractor shall determine temporary shoring and cribbing loads required, but may reference existing plans (F.A. Route 426 (U.S. 20) Section 8R-HB-6(86) dated 1986) for beam reactions to aid in the design of temporary shoring and cribbing. Existing plans are available from the Department upon request given 30 days advanced notice.

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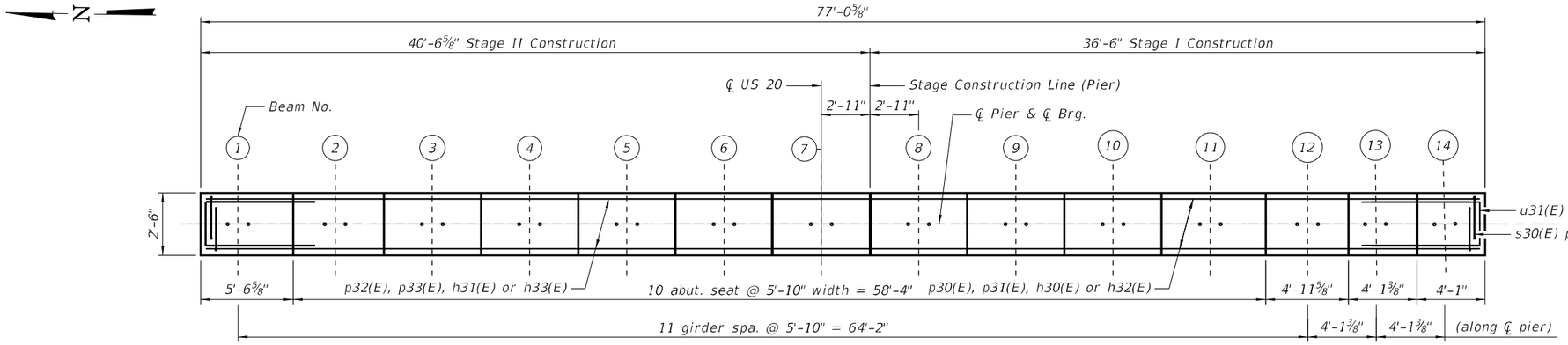
GANNETT FLEMING

USER NAME =	jstarzyk	DESIGNED -	SS	REVISED -	
		CHECKED -	MZ	REVISED -	
PLOT SCALE =		DRAWN -	EBP	REVISED -	
PLOT DATE =	3/20/2024	CHECKED -	MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REMOVAL & REPAIRS
STRUCTURE NO. 045-0007
SHEET 32 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	205
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



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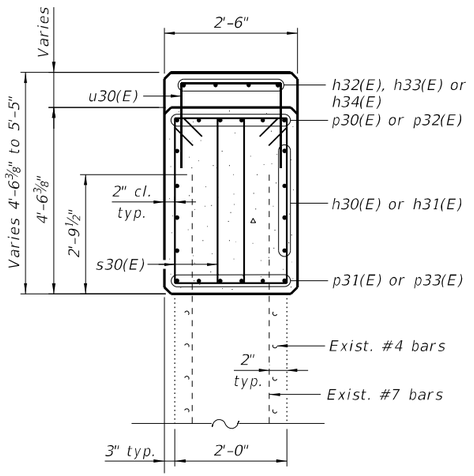
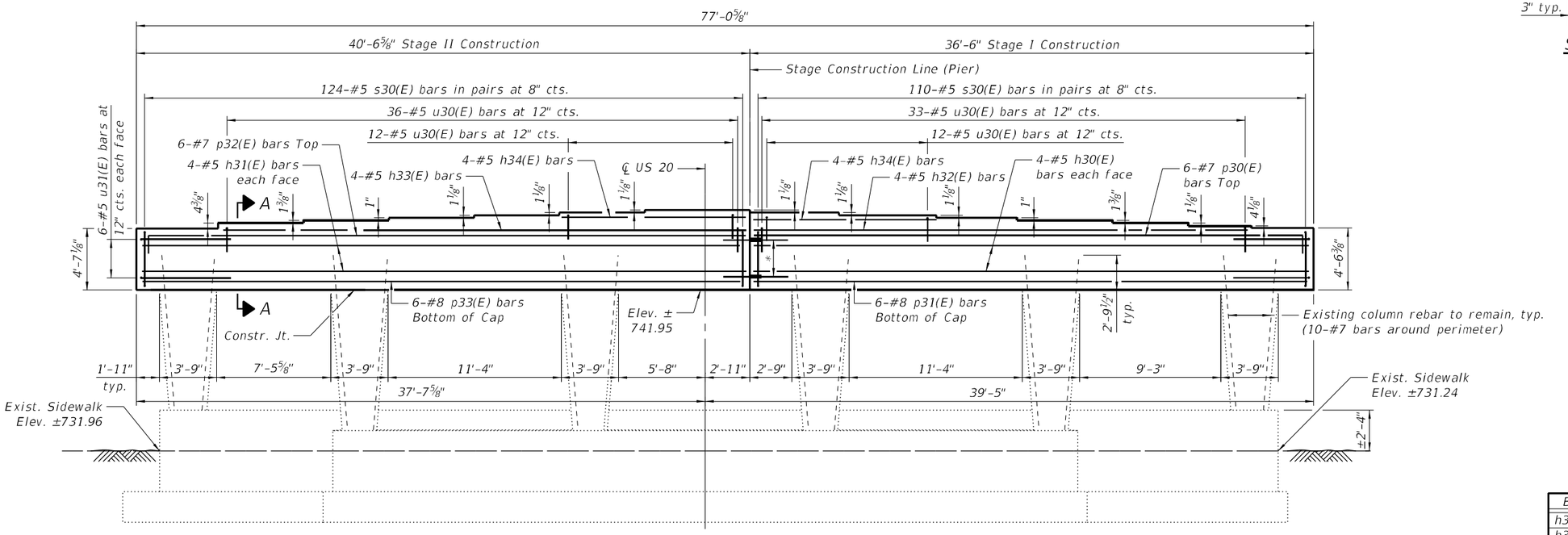


SECTION A-A

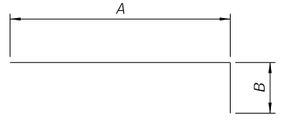


ELEVATION
(Looking East)

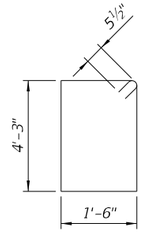
* 8-#5 bar splicers (E) for h31(E) bars
6-#7 bar splicers (E) for p32(E) bars
6-#8 bar splicers (E) for p33(E) bars

A & B DIMENSIONS

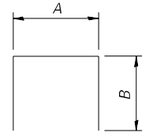
Bar	A	B
p30(E)	36'-0"	1'-4"
p32(E)	40'-3"	1'-4"
u30(E)	2'-2"	2'-6"
u31(E)	2'-0"	3'-1"



BARS p30(E) & p32(E)



BARS s30(E)



BARS u30(E) & u31(E)

NOTES

1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space all reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. See sheet 31 of 35 for anchor bolt layout plan.

BEARING SEAT ELEVATION

Beam No.	Pier 1
1	746.55
2	746.91
3	747.02
4	747.10
5	747.19
6	747.28
7	747.37
8	747.28
9	747.19
10	747.10
11	747.02
12	746.91
13	746.82
14	746.48

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	8	#5	36'-0"	
h31(E)	8	#5	40'-3"	
h32(E)	4	#5	32'-1"	
h33(E)	4	#5	34'-8"	
h34(E)	8	#5	11'-4"	
p30(E)	6	#7	37'-4"	
p31(E)	6	#8	36'-0"	
p32(E)	6	#7	41'-7"	
p33(E)	6	#8	40'-3"	
s30(E)	234	#5	12'-5"	
u30(E)	93	#5	7'-2"	
u31(E)	12	#5	8'-2"	
Concrete Structures			Cu. Yd.	36.5
Reinforcement Bars, Epoxy Coated			Pound	6,980

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GANNETT FLEMING

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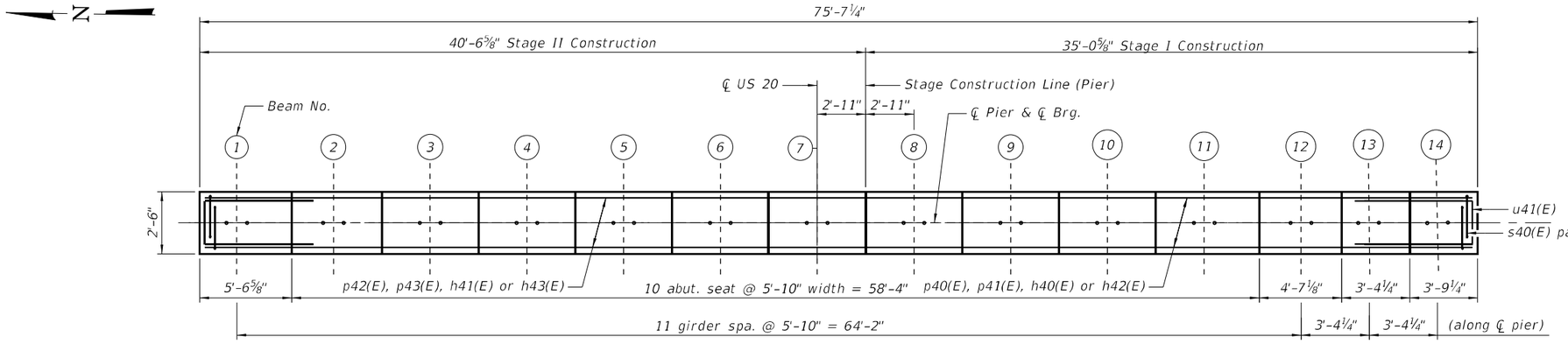
	CHECKED - JGC	REVISED -	
PLOT SCALE =	DRAWN - LAM	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS
STRUCTURE NO. 045-0007
SHEET 33 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	206
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



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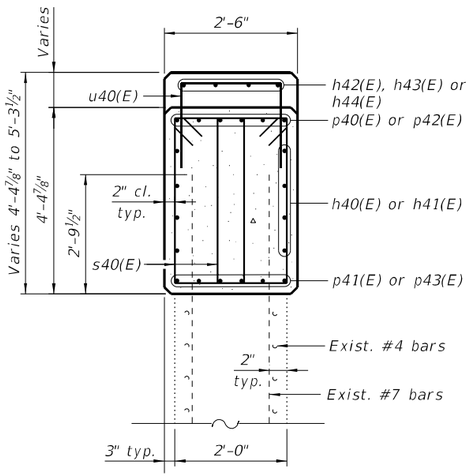
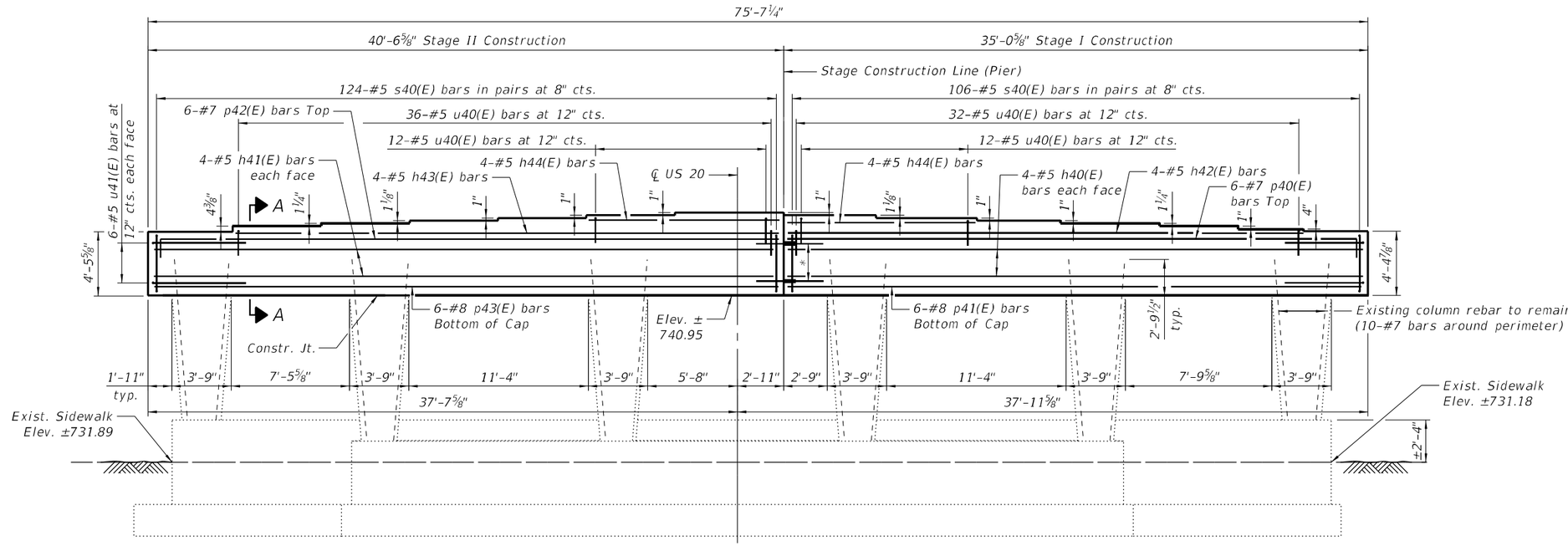


SECTION A-A



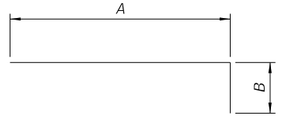
ELEVATION

(Looking East)

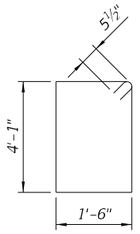
* 8-#5 bar splicers (E) for h41(E) bars
6-#7 bar splicers (E) for p42(E) bars
6-#8 bar splicers (E) for p43(E) bars

A & B DIMENSIONS

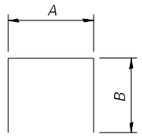
Bar	A	B
p40(E)	34'-7"	1'-4"
p42(E)	40'-3"	1'-4"
u40(E)	2'-2"	2'-6"
u41(E)	2'-0"	3'-1"



BARS p40(E) & p42(E)



BARS s40(E)



BARS u40(E) & u41(E)

NOTES

1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space all reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. See sheet 31 of 35 for anchor bolt layout plan.

BEARING SEAT ELEVATION

Beam No.	Pier 2
1	745.42
2	745.79
3	745.89
4	745.98
5	746.07
6	746.15
7	746.24
8	746.16
9	746.07
10	745.98
11	745.89
12	745.78
13	745.70
14	745.36

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h40(E)	8	#5	34'-7"	
h41(E)	8	#5	40'-3"	
h42(E)	4	#5	30'-11"	
h43(E)	4	#5	34'-8"	
h44(E)	8	#5	11'-4"	
p40(E)	6	#7	35'-11"	
p41(E)	6	#8	34'-7"	
p42(E)	6	#7	41'-7"	
p43(E)	6	#8	40'-3"	
s40(E)	230	#5	12'-1"	
u40(E)	92	#5	7'-2"	
u41(E)	12	#5	8'-2"	
Concrete Structures			Cu. Yd.	34.7
Reinforcement Bars, Epoxy Coated			Pound	6,790

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GANNETT FLEMING

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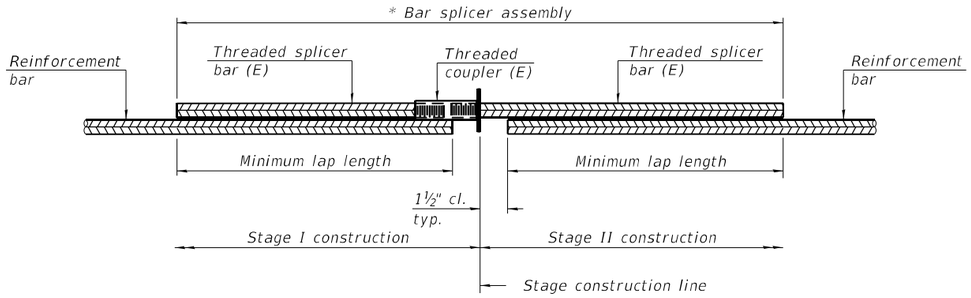
	CHECKED - JGC	REVISED -		
PLOT SCALE =	DRAWN - LAM	REVISED -		SHEET 34 OF 35 SHEETS
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	207
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved OPL list may be used.

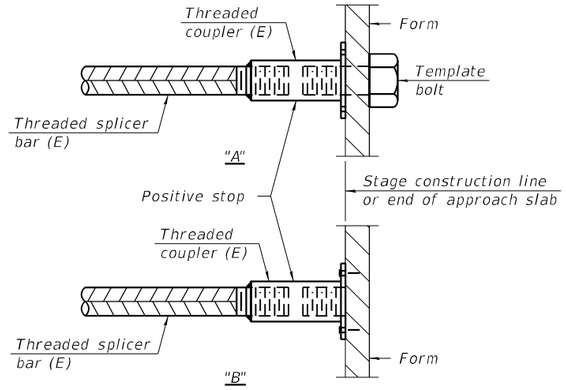
Threaded splicer bar length = min. lap length + 1½" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
Top of Deck	#5	246	3'-0"
Bottom of Deck	#5	176	3'-6"
E. Approach Slab	#5	46	3'-0"
E. Approach Slab	#8	61	4'-9"
E. Approach Footing	#5	40	3'-2"
W. Approach Slab	#5	46	3'-0"
W. Approach Slab	#8	61	4'-9"
W. Approach Footing	#5	40	3'-2"
E. Diaphragm	#4	2	2'-5"
E. Diaphragm	#6	5	3'-7"
W. Diaphragm	#4	2	2'-5"
W. Diaphragm	#6	5	3'-7"
Pier 1 Cap	#5	8	3'-7"
Pier 1 Cap	#7	6	5'-0"
Pier 1 Cap	#8	6	5'-9"
Pier 2 Cap	#5	8	3'-7"
Pier 2 Cap	#7	6	5'-0"
Pier 2 Cap	#8	6	5'-9"

MODIFIED BAR SPLICER FOR DIAPHRAGM AT STAGE LINE

Location	Bar size	No. assemblies required	Lap Length
W. Diaphragm	#6	4	2'-4"
E. Diaphragm	#6	4	2'-4"



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.

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-1-2023

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS	REVISED -	
	CHECKED - MZ	REVISED -	
PLOT SCALE =	DRAWN - EBP	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 045-0007

SHEET 35 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	208
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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Benchmark: B.M. #511 Found disk on bridge abutment, north side. Elevation 726.36.

Existing Structure: S.N. 016-0217 carrying US Route 20 over Poplar Creek was originally constructed in 1959 as F.A. Route 6, Section 8-RB-1. In 1986, the bridge was widened, concrete overlay placed, expansion joints reconstructed, bearings replaced and substructure was rehabilitated and widened. The structure is a three-span non-composite steel beam bridge supported on reinforced concrete stub abutments founded on concrete piles, and concrete wall piers founded on spread footings and 1 pile at each end to support the widening. The overall structure is 119'-0" back to back of abutments on a 29° forward left skew, and an out to out structure width of 37'-7" for both Eastbound and Westbound directions.

Traffic to be maintained utilizing stage construction. No salvage.

SCOPE OF WORK

1. Remove existing superstructure and bearings, abutment backwall, and portions of existing wingwalls.
2. Remove and replace existing steel extensions and bearings. Construct concrete extensions at Pier 2. Perform concrete repairs to abutment and pier caps as needed.
3. Convert existing abutments to semi-integral abutments.
4. Complete concrete repairs on piers and abutments.
5. Remove and replace sunken portion of existing slopewall.
6. Install riprap.
7. Erect new rolled beams and construct new concrete deck, parapet median and approach slabs.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition
2006 Seismic Retrofitting Manual for Highway Structures: Part 1 - Bridges (FHWA-HRT-06-032)

DESIGN STRESSES

FIELD UNITS (New Constr.)

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

FIELD UNITS (Exist. Constr.)

fc = 1,400 psi (Substructure)

LOADING HL-93

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

SEISMIC DATA

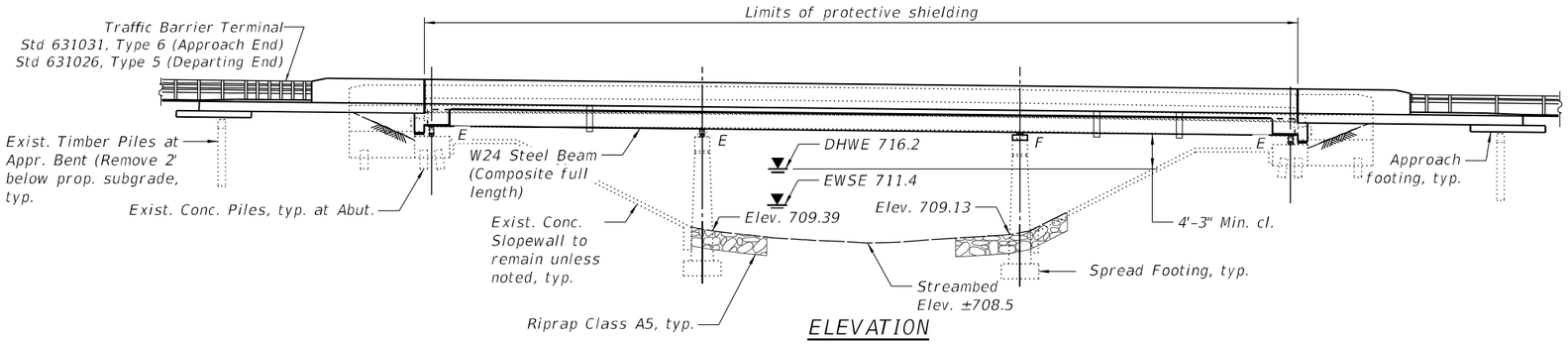
Seismic Retrofit Category (SRC) = C
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.17
Design Spectral Acceleration at 0.2 (SDS) = 0.24
Soil Site Class = D
Performance Level = PL3

STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

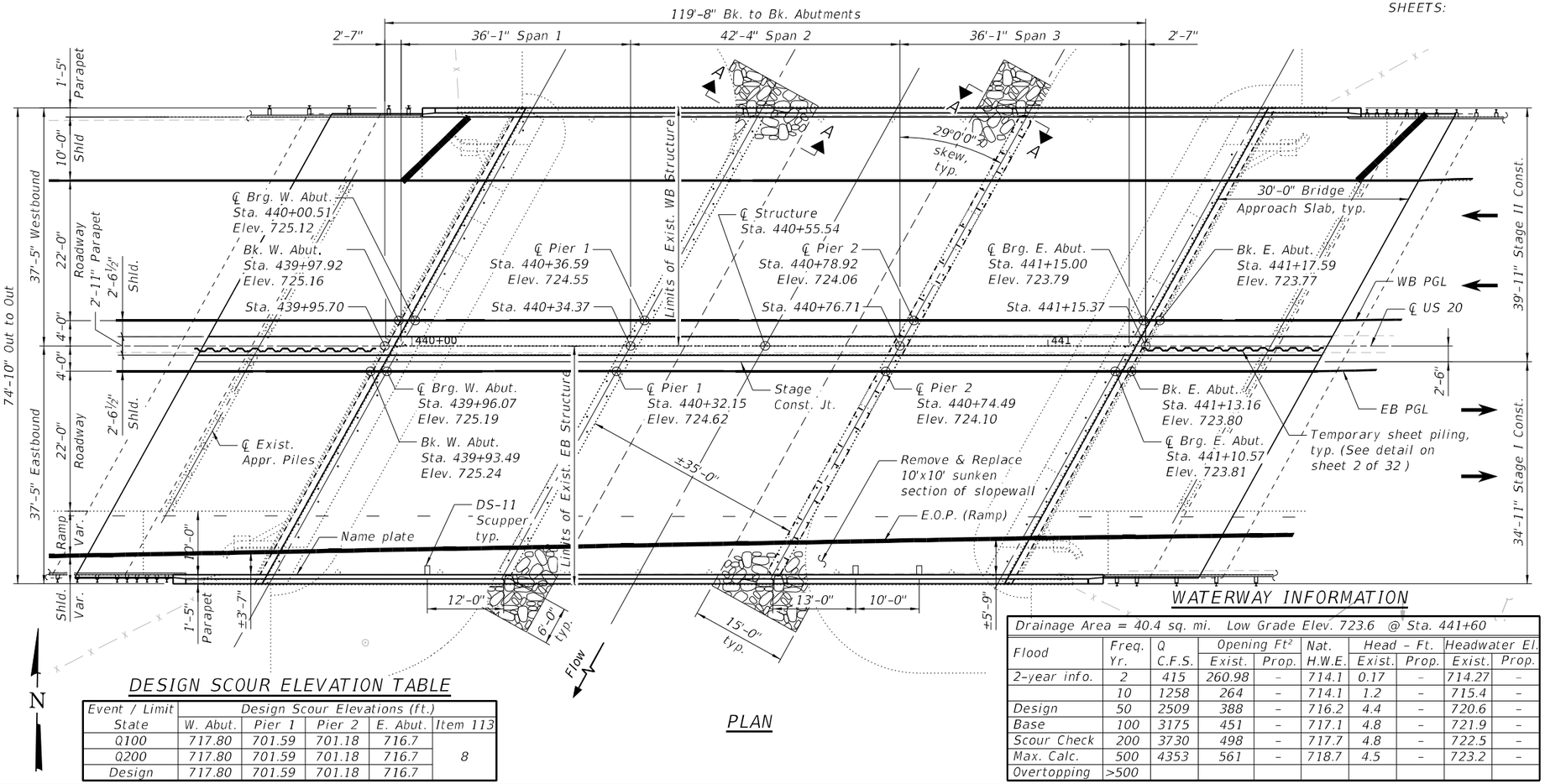
SIGNATURE:

DATE: March 20, 2024
EXPIRES: November 30, 2024
SHEETS:

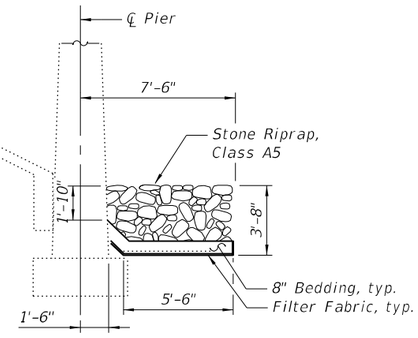
APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



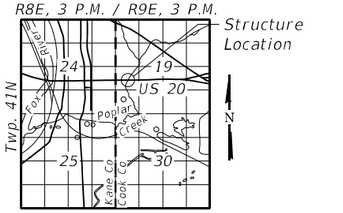
ELEVATION



PLAN



SECTION A-A



Structure Location

LOCATION SKETCH

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)				
	W. Abut.	Pier 1	Pier 2	E. Abut.	Item 113
Q100	717.80	701.59	701.18	716.7	
Q200	717.80	701.59	701.18	716.7	8
Design	717.80	701.59	701.18	716.7	

WATERWAY INFORMATION

Drainage Area = 40.4 sq. mi. Low Grade Elev. 723.6 @ Sta. 441+60

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
2-year info.	2	415	260.98	-	714.1	0.17	-	714.27	-
	10	1258	264	-	714.1	1.2	-	715.4	-
Design	50	2509	388	-	716.2	4.4	-	720.6	-
Base	100	3175	451	-	717.1	4.8	-	721.9	-
Scour Check	200	3730	498	-	717.7	4.8	-	722.5	-
Max. Calc.	500	4353	561	-	718.7	4.5	-	723.2	-
Overtopping	>500								

GENERAL PLAN & ELEVATION
US ROUTE 20 OVER POPLAR CREEK
F.A.P. RTE. 345-SEC. 345-23-BR
COOK COUNTY
STATION 440+55.54
STRUCTURE NO. 016-0217

GANNETT FLEMING

USER NAME = mzelisko	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		
	CHECKED - DF	REVISED -			
PLOT SCALE =	DRAWN - LAM	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -			

SHEET 1 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	209
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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GENERAL NOTES

Fasteners shall be ASTM F3125 Grade A325 Type 1, mechanically galvanized bolts in painted areas. Bolts $\frac{7}{8}$-in. Ø, holes $\frac{15}{16}$-in. Ø, unless otherwise noted.

Calculated weight of Structural Steel
= 145,720 pounds (AASHTO M270 Grade 50)
= 10,610 pounds (AASHTO M270 Grade 36)

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

Reinforcement bars designated (E) shall be epoxy coated.

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.

The finishing machine rails shall be placed on the top flange of the exterior beams within the deck pour. Beam blocks shall be placed between beams at all tie locations in each bay for the full width of the deck pour.

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

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Plan dimensions and details relative to existing structure have been taken from 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. Contractor shall take appropriate precautions to address the presence of lead on this project.

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

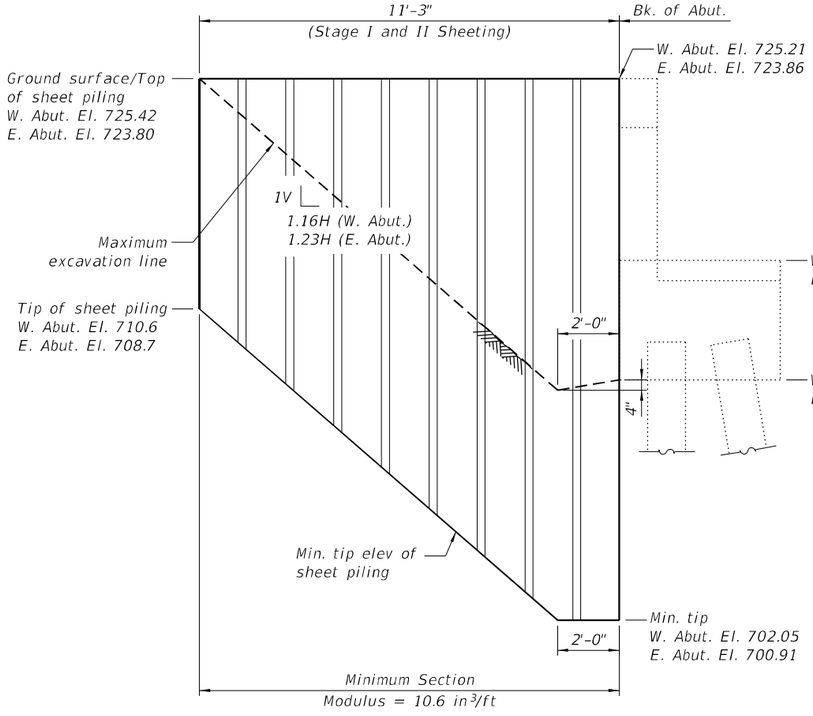
This project requires a US Army Corps of Engineers permit, and the Contractor shall adhere to the conditions, requirements, and Commitments regarding the work at Poplar Creek.

A Cofferdam (Type I) (In-Stream/Wetland Work) is identified to divert stream flow to complete the riprap work. It is anticipated that the Cofferdam will be placed on top of the streambead and not penetrate or disturb the streambed. All erosion control measures identified in the erosion control plans should be implemented when performing this work.

The removal of cribbing at both abutments shall be included in the cost of Removal of Existing Superstructure No. 2.

INDEX OF SHEETS

1	General Plan & Elevation
2	General Data
3	Pre-Stage Deck Repairs
4	Construction Staging
5	Temporary Concrete Barrier for Stage Construction
6	Top of Slab Elevations Layout
7	Top of Slab Elevations I
8	Top of Slab Elevations II
9	Top of Slab Elevations III
10	Top of West Approach Slab Elevations
11	Top of East Approach Slab Elevations
12	Superstucture Plan
13	Superstucture Cross Section
14	Superstructure Details I
15	Superstructure Details II
16	Abutment Diaphragm Details I
17	Abutment Diaphragm Details II
18	Bridge Approach Slab Plan
19	Bridge Approach Slab Details
20	Drainage Scupper, DS-11
21	Framing Plan & Beam Elevation
22	Beam Details
23	Abutment Bearing I
24	Abutment Bearing II
25	Pier Bearing
26	Abutment Removal
27	Abutment Repairs
28	Slopewall Repairs
29	Pier Repair
30	Pier Details
31	Bar Splicer Assembly and Mechanical Splicer Details
32	Concrete Parapet Slipforming Option



TEMPORARY SHEET PILING

(Along ℄ US 20 at each abutment)

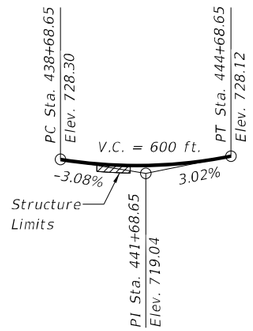
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

STA. 440+55.54
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 345 SEC. 345-23-BR
LOADING HL-93
STR. NO. 016-0217

NAME PLATE

See Std. 515001

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

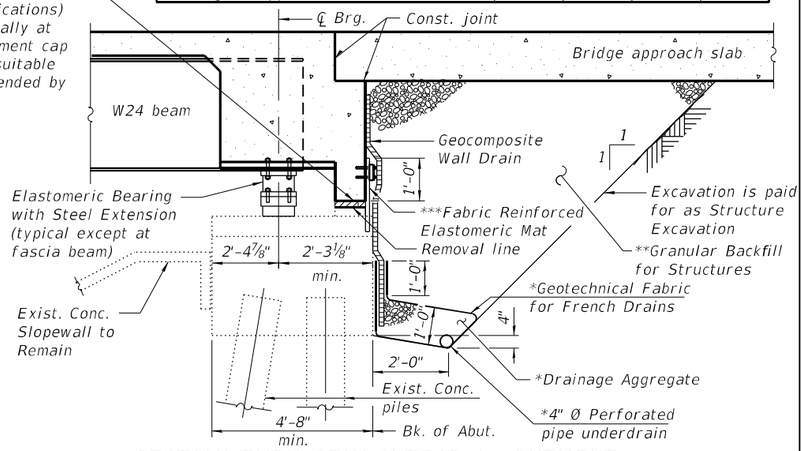


PROFILE GRADE - US 20

4-ft offset (Eastbound & Westbound)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu Yd	-	50	50
Stone Riprap, Class A5	Sq Yd	-	164	164
Filter Fabric	Sq Yd	-	164	164
Removal of Existing Superstructures No. 2	Each	1	-	1
Concrete Removal	Cu Yd	-	35.1	35.1
Slope Wall Removal	Sq Yd	-	80	80
Protective Shield	Sq Yd	976	-	976
Structure Excavation	Cu Yd	-	213	213
Concrete Structures	Cu Yd	-	47.6	47.6
Concrete Superstructure	Cu Yd	356.6	-	356.6
Bridge Deck Grooving	Sq Yd	1,278	-	1,278
Protective Coat	Sq Yd	1,665	-	1,665
Concrete Superstructure (Approach Slab)	Cu Yd	206.4	-	206.4
Furnishing and Erecting Structural Steel	L Sum	0.18	-	0.18
Stud Shear Connectors	Each	10,491	-	10,491
Reinforcement Bars, Epoxy Coated	Pound	235,790	970	236,760
Bar Splicers	Each	673	-	673
Slope Wall, 4 Inch	Sq Yd	-	80	80
Name Plates	Each	1	-	1
Elastomeric Bearing Assembly, Type I	Each	39	-	39
Anchor Bolts, 3/4"	Each	104	-	104
Epoxy Crack Injection	Foot	-	101	101
Temporary Sheet Piling	Sq Ft	-	444	444
Granular Backfill for Structures	Cu Yd	-	239	239
Geocomposite Wall Drain	Sq Yd	-	135	135
Pipe Underdrains for Structures 4"	Foot	-	212	212
Cofferdam (Type 1) (In-Stream/Wetland Work)	Each	-	2	2
Bar Terminators	Each	506	-	506
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq Ft	-	23	23
Structural Repair of Concrete (Depth greater than 5 inches)	Sq Ft	-	8	8
Deck Slab Repair (Partial)	Sq Yd	30	-	30
Drainage Scuppers, DS-11	Each	3	-	3



SECTION THRU SEMI-INTEGRAL ABUTMENT

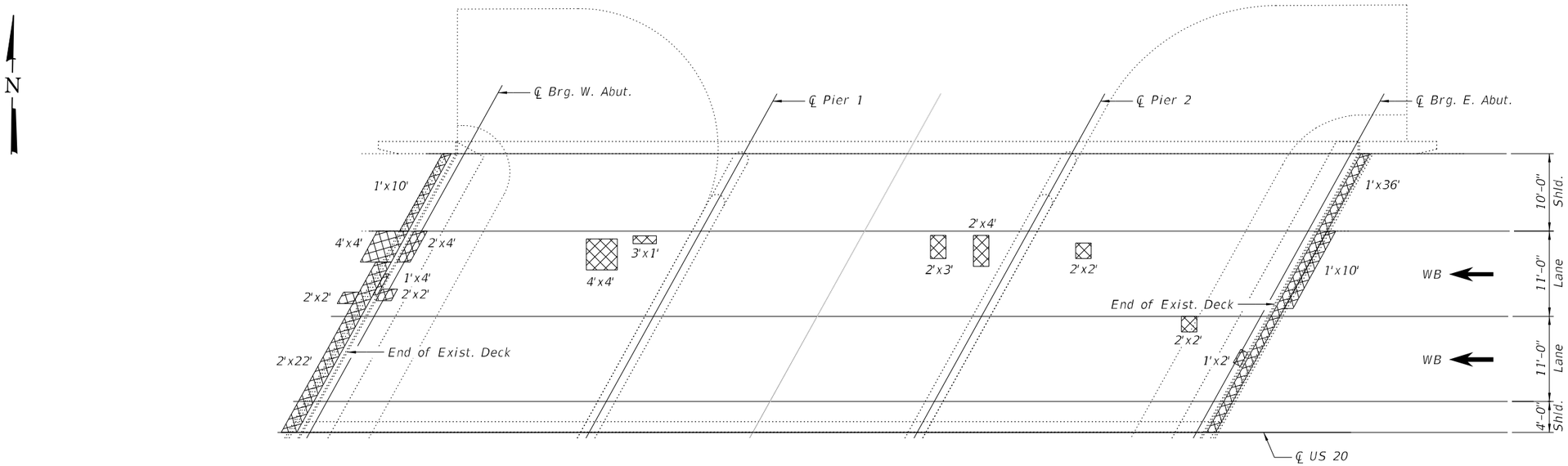
(Horiz. dim. @ Rt. ∠'s)

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

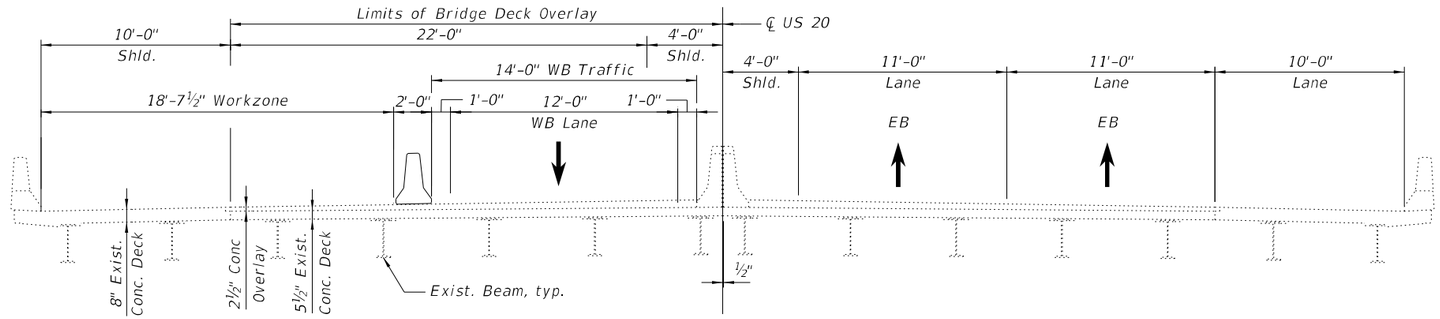
** Granular Backfill for Structures shall follow Std. Spec. 586 except the coarse aggregate shall be Grad CA7, CA11 or CA14. Granular backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.

*** Cost included with Concrete Superstructure. Fabric mat shall be 24" wide and attached full width of vertically at edges to the abutment cap with a $\frac{3}{8}$" x 5" steel plate and $\frac{1}{2}$" Ø studs with nuts and washers at 12" centers according to Section 1028 of the Std. Specs. Further details of the $\frac{1}{2}$" expansion bolts and galvanized plate may be found on sheet 17 of 32.

Note:
All drainage system components shall extend from inside face to inside face of existing wingwalls. Place pipe drain under existing wingwall footing and extend through 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).

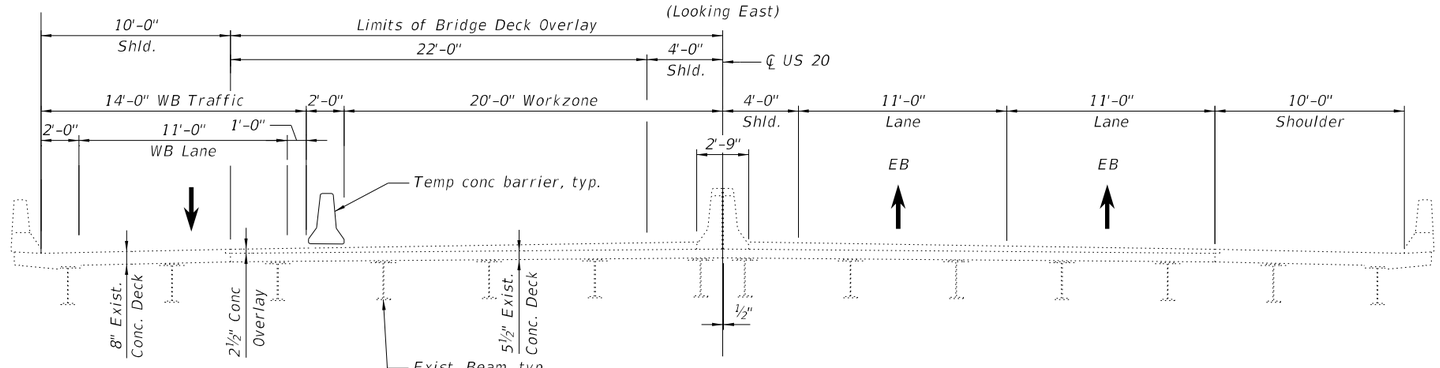


PARTIAL PLAN (WB)



PRESTAGE 1A

(Looking East)



PRESTAGE 1B

(Looking East)

LEGEND

Deck Slab Repair (Partial)

NOTES

1. See MOT plans for pre-stage traffic configuration during deck patching operations.
2. Area of proposed deck repairs are estimated based on a visual inspection. Actual type, location, and dimension of deck repairs are to be determined by the Engineer during construction. An additional quantity of 10 sq. yd. is included to account for repair growth and shall be used as directed by the Engineer.
3. HMA removal required for repairs on the approach slab or concrete overlay removal for deck slab repair will not be measured for payment separately, but shall be included in the cost of Deck Slab Repair (Partial).

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Deck Slab Repair (Partial)	Sq Yd	30

MODEL: Default
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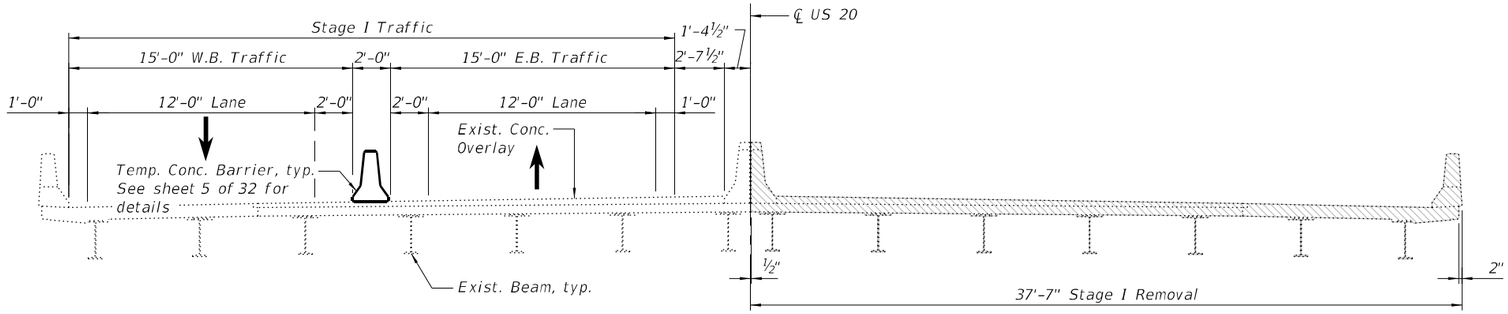
GANNETT FLEMING

USER NAME = jstarzyk		DESIGNED - SS	REVISED -		
		CHECKED - MZ	REVISED -		
PLOT SCALE =		DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024		CHECKED - MZ	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

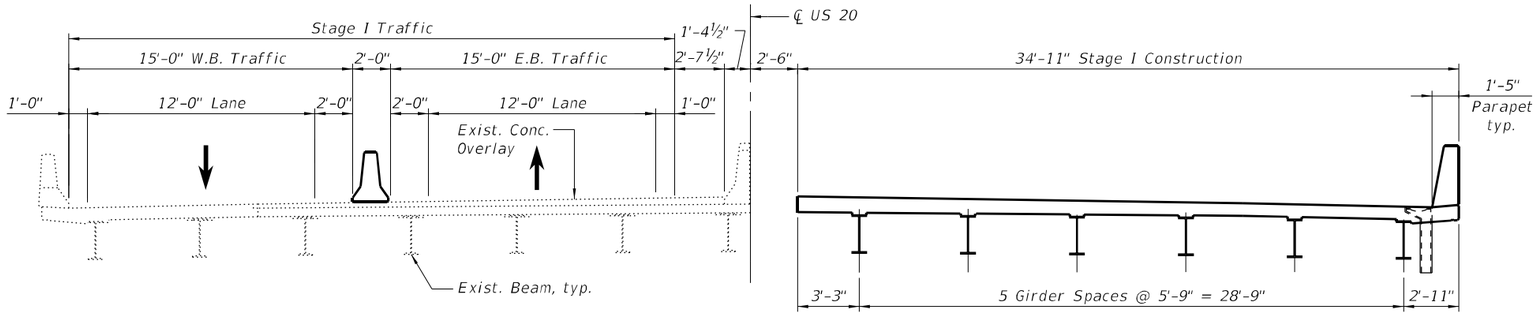
PRE-STAGE DECK REPAIRS
STRUCTURE NO. 016-0217
SHEET 3 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	211
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



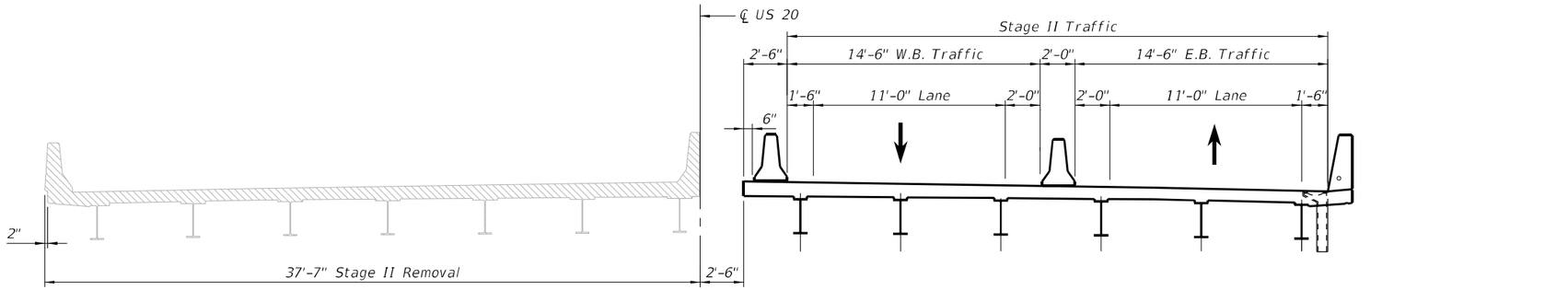
STAGE I REMOVAL

Looking East



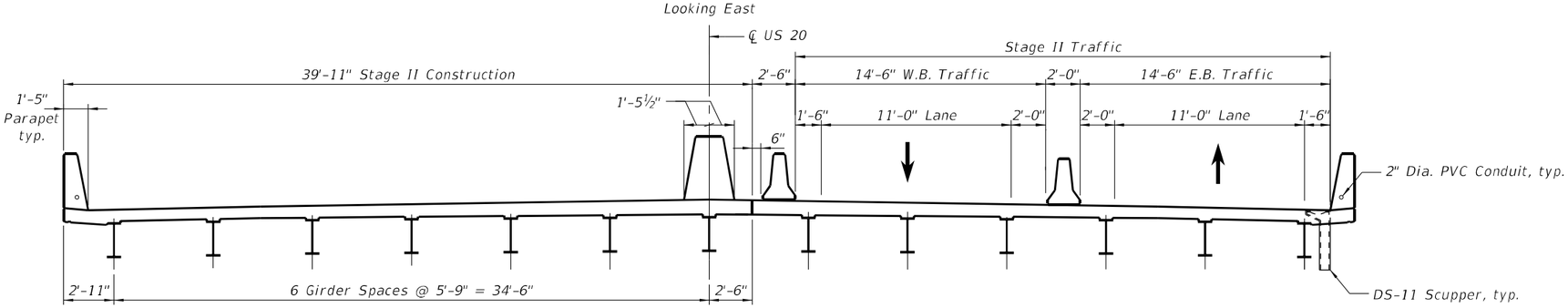
STAGE I CONSTRUCTION

Looking East



STAGE II REMOVAL

Looking East



STAGE II CONSTRUCTION

Looking East

LEGEND

Removal of Existing Superstructures, No. 2

Notes:

For quantity of Temporary Concrete Barrier, see Roadway Plans.

Stage Removal Line shown is for the superstructure and its location differs from the Stage Removal Line for the substructure.

Portions of the bridge parapet will remain during Stage 1 maintenance of traffic and shall be left in place until Stage 2 removal. See sheet 26 of 32 for additional details.

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GANNETT FLEMING

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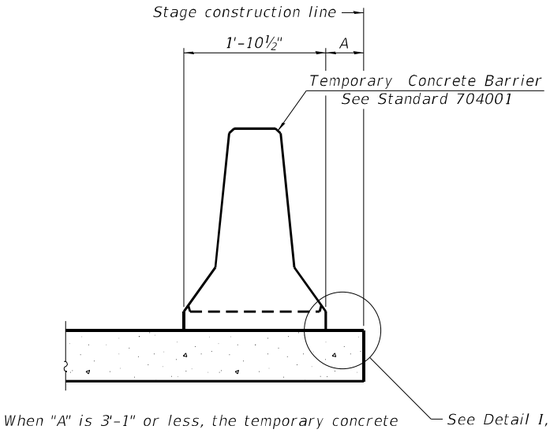
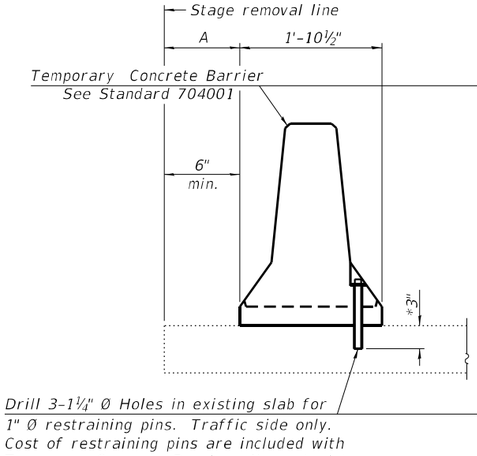
	CHECKED - DF	REVISED -			
PLOT SCALE =	DRAWN - LAM	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -		SHEET 4 OF 32 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	212
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



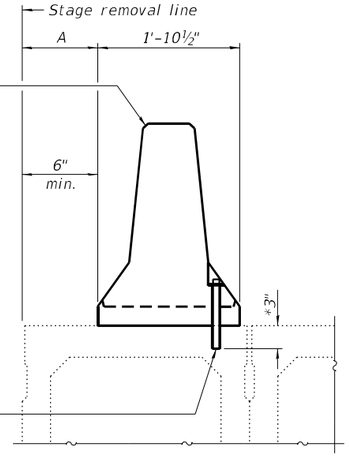
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

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".

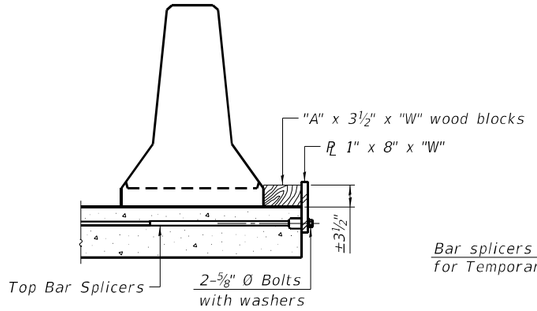
EXISTING SLAB



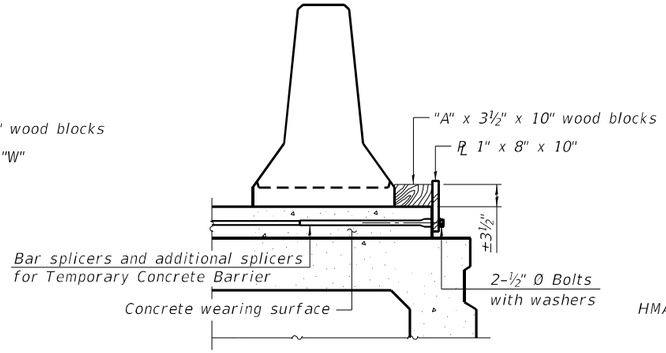
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

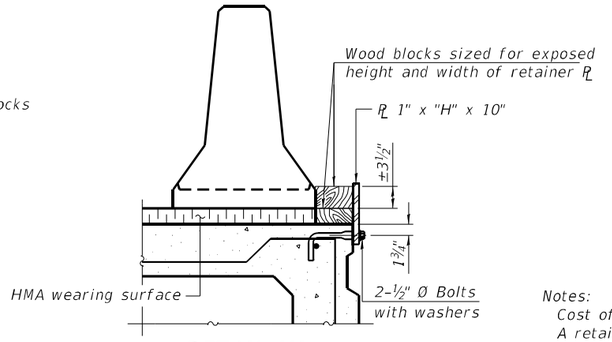
SECTIONS THRU SLAB OR DECK BEAM



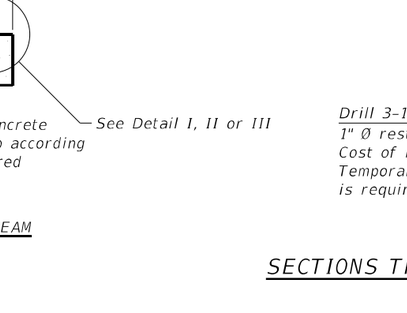
DETAIL I



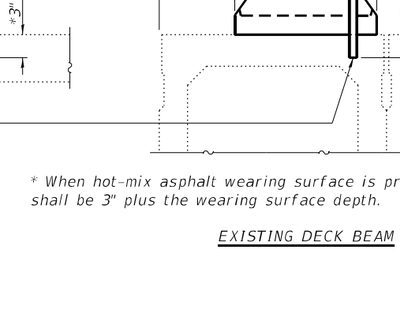
DETAIL II



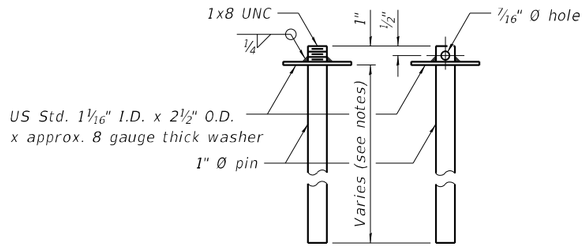
DETAIL III



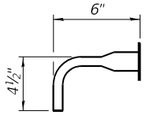
STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

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

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

When the 'A' dimension is less than 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

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 016-0217	
	CHECKED - DF	REVISED -			
PLOT SCALE =	DRAWN - LAM	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 5 OF 32 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	213
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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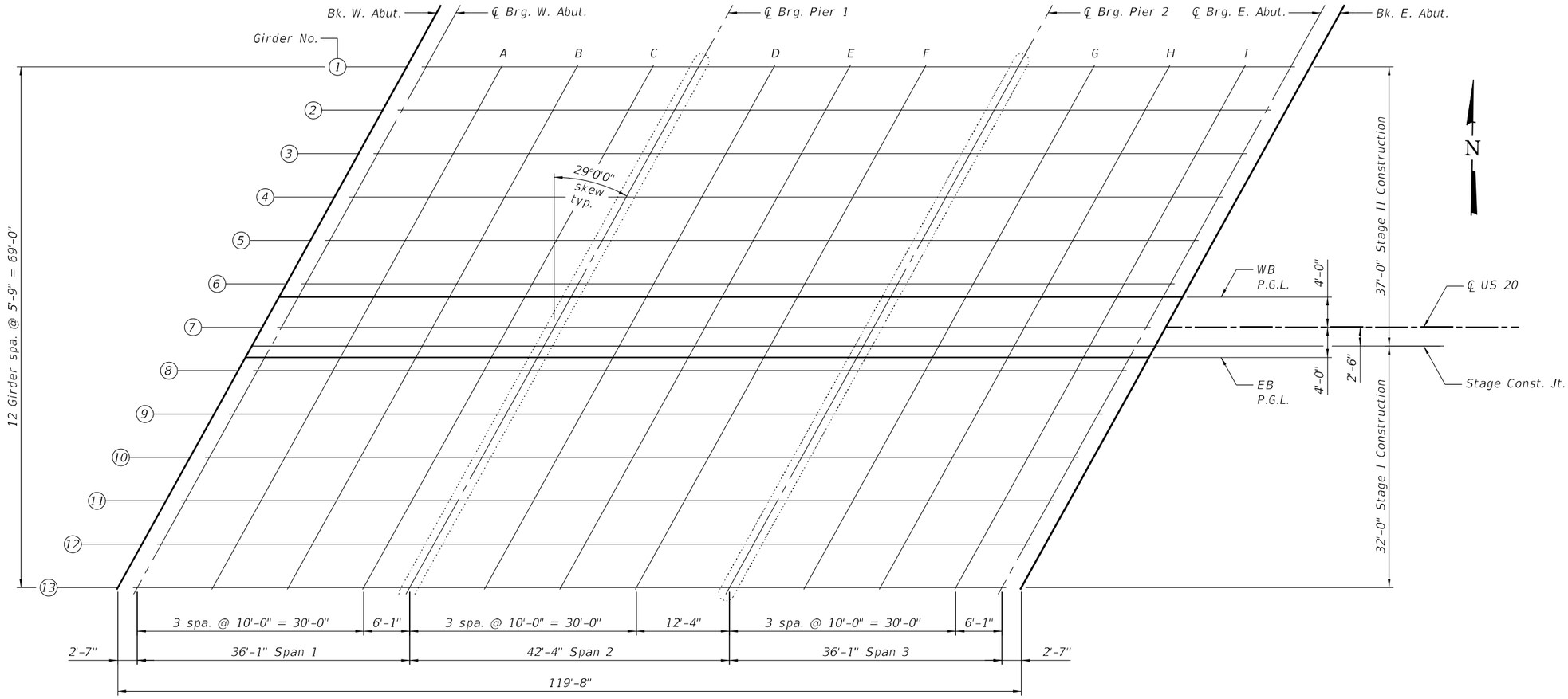
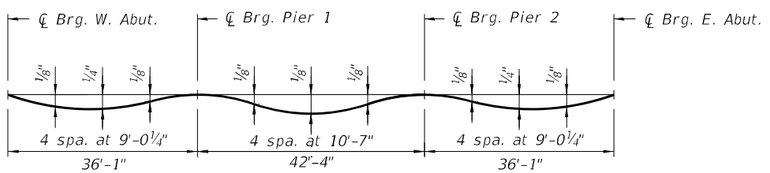


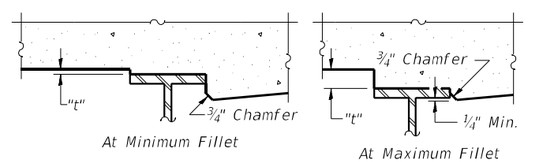
PLAN



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 7 thru 9 of 32.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 7 thru 9 of 32, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

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GANNETT FLEMING

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	CHECKED - MZ	REVISED -			SECTION FAP 345-23-BR
PLOT SCALE =	DRAWN - LAM	REVISED -			COUNTY COOK
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 6 OF 32 SHEETS	TOTAL SHEETS 379
					SHEET NO. 214
					CONTRACT NO. 62U83
					ILLINOIS FED. AID PROJECT

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	440+14.83	-34.50	724.38	724.38
℄ Brg. W. Abut.	440+17.41	-34.50	724.34	724.34
A	440+27.41	-34.50	724.18	724.20
B	440+37.41	-34.50	724.04	724.06
C	440+47.41	-34.50	723.91	723.92
℄ Brg. Pier 1	440+53.50	-34.50	723.84	723.84
D	440+63.50	-34.50	723.72	723.73
E	440+73.50	-34.50	723.61	723.63
F	440+83.50	-34.50	723.52	723.53
℄ Brg. Pier 2	440+95.83	-34.50	723.42	723.42
G	441+05.83	-34.50	723.34	723.35
H	441+15.83	-34.50	723.28	723.30
I	441+25.83	-34.50	723.23	723.24
℄ Brg. E. Abut.	441+31.91	-34.50	723.20	723.20
Bk. E. Abut.	441+34.50	-34.50	723.19	723.19

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	440+11.64	-28.75	724.54	724.54
℄ Brg. W. Abut.	440+14.23	-28.75	724.50	724.50
A	440+24.23	-28.75	724.35	724.36
B	440+34.23	-28.75	724.20	724.22
C	440+44.23	-28.75	724.07	724.07
℄ Brg. Pier 1	440+50.31	-28.75	723.99	723.99
D	440+60.31	-28.75	723.87	723.88
E	440+70.31	-28.75	723.76	723.77
F	440+80.31	-28.75	723.66	723.67
℄ Brg. Pier 2	440+92.64	-28.75	723.56	723.56
G	441+02.64	-28.75	723.48	723.49
H	441+12.64	-28.75	723.42	723.43
I	441+22.64	-28.75	723.36	723.37
℄ Brg. E. Abut.	441+28.72	-28.75	723.33	723.33
Bk. E. Abut.	441+31.31	-28.75	723.32	723.32

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	440+08.45	-23.00	724.70	724.70
℄ Brg. W. Abut.	440+11.04	-23.00	724.65	724.65
A	440+21.04	-23.00	724.49	724.51
B	440+31.04	-23.00	724.35	724.36
C	440+41.04	-23.00	724.21	724.21
℄ Brg. Pier 1	440+47.12	-23.00	724.13	724.13
D	440+57.12	-23.00	724.01	724.01
E	440+67.12	-23.00	723.90	723.91
F	440+77.12	-23.00	723.79	723.80
℄ Brg. Pier 2	440+89.45	-23.00	723.68	723.68
G	440+99.45	-23.00	723.60	723.61
H	441+09.45	-23.00	723.54	723.55
I	441+19.45	-23.00	723.48	723.49
℄ Brg. E. Abut.	441+25.53	-23.00	723.45	723.45
Bk. E. Abut.	441+28.12	-23.00	723.44	723.44

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	440+05.27	-17.25	724.84	724.84
℄ Brg. W. Abut.	440+07.85	-17.25	724.79	724.79
A	440+17.85	-17.25	724.63	724.64
B	440+27.85	-17.25	724.48	724.49
C	440+37.85	-17.25	724.34	724.34
℄ Brg. Pier 1	440+43.93	-17.25	724.26	724.26
D	440+53.93	-17.25	724.13	724.14
E	440+63.93	-17.25	724.02	724.03
F	440+73.93	-17.25	723.91	723.92
℄ Brg. Pier 2	440+86.27	-17.25	723.80	723.80
G	440+96.27	-17.25	723.71	723.72
H	441+06.27	-17.25	723.64	723.66
I	441+16.27	-17.25	723.58	723.59
℄ Brg. E. Abut.	441+22.34	-17.25	723.55	723.55
Bk. E. Abut.	441+24.93	-17.25	723.54	723.54

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	440+02.08	-11.50	724.98	724.98
℄ Brg. W. Abut.	440+04.66	-11.50	724.93	724.93
A	440+14.66	-11.50	724.77	724.78
B	440+24.66	-11.50	724.61	724.63
C	440+34.66	-11.50	724.47	724.47
℄ Brg. Pier 1	440+40.75	-11.50	724.38	724.38
D	440+50.75	-11.50	724.26	724.26
E	440+60.75	-11.50	724.14	724.15
F	440+70.75	-11.50	724.03	724.04
℄ Brg. Pier 2	440+83.08	-11.50	723.91	723.91
G	440+93.08	-11.50	723.83	723.84
H	441+03.08	-11.50	723.75	723.77
I	441+13.08	-11.50	723.69	723.70
℄ Brg. E. Abut.	441+19.16	-11.50	723.65	723.65
Bk. E. Abut.	441+21.75	-11.50	723.64	723.64

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+98.89	-5.75	725.12	725.12
℄ Brg. W. Abut.	440+01.48	-5.75	725.07	725.07
A	440+11.48	-5.75	724.90	724.92
B	440+21.48	-5.75	724.75	724.76
C	440+31.48	-5.75	724.60	724.60
℄ Brg. Pier 1	440+37.56	-5.75	724.51	724.51
D	440+47.56	-5.75	724.38	724.39
E	440+57.56	-5.75	724.26	724.27
F	440+67.56	-5.75	724.15	724.16
℄ Brg. Pier 2	440+79.89	-5.75	724.03	724.03
G	440+89.89	-5.75	723.94	723.95
H	440+99.89	-5.75	723.86	723.88
I	441+09.89	-5.75	723.79	723.80
℄ Brg. E. Abut.	441+15.97	-5.75	723.76	723.76
Bk. E. Abut.	441+18.56	-5.75	723.74	723.74

WB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+97.92	-4.00	725.16	725.16
℄ Brg. W. Abut.	440+00.51	-4.00	725.12	725.12
A	440+10.51	-4.00	724.95	724.96
B	440+20.51	-4.00	724.79	724.80
C	440+30.51	-4.00	724.64	724.64
℄ Brg. Pier 1	440+36.59	-4.00	724.55	724.55
D	440+46.59	-4.00	724.42	724.43
E	440+56.59	-4.00	724.30	724.31
F	440+66.59	-4.00	724.19	724.20
℄ Brg. Pier 2	440+78.92	-4.00	724.06	724.06
G	440+88.92	-4.00	723.97	723.98
H	440+98.92	-4.00	723.89	723.91
I	441+08.92	-4.00	723.82	723.83
℄ Brg. E. Abut.	441+15.00	-4.00	723.79	723.79
Bk. E. Abut.	441+17.59	-4.00	723.77	723.77

℄ US 20 & GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+95.70	0.00	725.26	725.26
℄ Brg. W. Abut.	439+98.29	0.00	725.21	725.21
A	440+08.29	0.00	725.04	725.06
B	440+18.29	0.00	724.88	724.89
C	440+28.29	0.00	724.73	724.73
℄ Brg. Pier 1	440+34.37	0.00	724.64	724.64
D	440+44.37	0.00	724.51	724.51
E	440+54.37	0.00	724.38	724.40
F	440+64.37	0.00	724.27	724.28
℄ Brg. Pier 2	440+76.71	0.00	724.14	724.14
G	440+86.71	0.00	724.05	724.06
H	440+96.71	0.00	723.97	723.98
I	441+06.71	0.00	723.90	723.91
℄ Brg. E. Abut.	441+12.79	0.00	723.86	723.86
Bk. E. Abut.	441+15.38	0.00	723.85	723.85

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+94.32	2.50	725.25	725.25
℄ Brg. W. Abut.	439+96.90	2.50	725.20	725.20
A	440+06.90	2.50	725.03	725.04
B	440+16.90	2.50	724.87	724.88
C	440+26.90	2.50	724.71	724.72
℄ Brg. Pier 1	440+32.98	2.50	724.63	724.63
D	440+42.98	2.50	724.49	724.49
E	440+52.98	2.50	724.36	724.37
F	440+62.98	2.50	724.25	724.26
℄ Brg. Pier 2	440+75.32	2.50	724.12	724.12
G	440+85.32	2.50	724.03	724.03
H	440+95.32	2.50	723.94	723.96
I	441+05.32	2.50	723.87	723.88
℄ Brg. E. Abut.	441+11.40	2.50	723.83	723.83
Bk. E. Abut.	441+13.99	2.50	723.82	723.82

EB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+93.49	4.00	725.24	725.24
℄ Brg. W. Abut.	439+96.07	4.00	725.19	725.19
A	440+06.07	4.00	725.02	725.03
B	440+16.07	4.00	724.86	724.87
C	440+26.07	4.00	724.70	724.71
℄ Brg. Pier 1	440+32.15	4.00	724.62	724.62
D	440+42.15	4.00	724.48	724.48
E	440+52.15	4.00	724.35	724.36
F	440+62.15	4.00	724.23	724.24
℄ Brg. Pier 2	440+74.49	4.00	724.10	724.10
G	440+84.49	4.00	724.01	724.02
H	440+94.49	4.00	723.93	723.94
I	441+04.49	4.00	723.85	723.86
℄ Brg. E. Abut.	441+10.57	4.00	723.81	723.81
Bk. E. Abut.	441+13.16	4.00	723.80	723.80

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+92.52	5.75	725.23	725.23
℄ Brg. W. Abut.	439+95.10	5.75	725.19	725.19
A	440+05.10	5.75	725.01	725.02
B	440+15.10	5.75	724.85	724.86
C	440+25.10	5.75	724.69	724.70
℄ Brg. Pier 1	440+31.18	5.75	724.60	724.60
D	440+41.18	5.75	724.46	724.47
E	440+51.18	5.75	724.34	724.35
F	440+61.18	5.75	724.22	724.23
℄ Brg. Pier 2	440+73.52	5.75	724.09	724.09
G	440+83.52	5.75	723.99	724.00
H	440+93.52	5.75	723.91	723.92
I	441+03.52	5.75	723.83	723.84
℄ Brg. E. Abut.	441+09.60	5.75	723.79	723.79
Bk. E. Abut.	441+12.19	5.75	723.78	723.78

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+89.33	11.50	725.20	725.20
℄ Brg. W. Abut.	439+91.91	11.50	725.16	725.16
A	440+01.91	11.50	724.98	724.99
B	440+11.91	11.50	724.81	724.82
C	440+21.91	11.50	724.65	724.66
℄ Brg. Pier 1	440+27.99	11.50	724.56	724.56
D	440+37.99	11.50	724.42	724.43
E	440+47.99	11.50	724.29	724.30
F	440+57.99	11.50	724.17	724.18
℄ Brg. Pier 2	440+70.33	11.50	724.03	724.03
G	440+80.33	11.50	723.94	723.94
H	440+90.33	11.50	723.85	723.86
I	441+00.33	11.50	723.77	723.78
℄ Brg. E. Abut.	441+06.41	11.50	723.73	723.73
Bk. E. Abut.	441+09.00	11.50	723.71	723.71

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+86.14	17.25	725.18	725.18
℄ Brg. W. Abut.	439+88.73	17.25	725.13	725.13
A	439+98.73	17.25	724.95	724.96
B	440+08.73	17.25	724.78	724.79
C	440+18.73	17.25	724.62	724.62
℄ Brg. Pier 1	440+24.81	17.25	724.52	724.52
D	440+34.81	17.25	724.38	724.38
E	440+44.81	17.25	724.24	724.26
F	440+54.81	17.25	724.12	724.13
℄ Brg. Pier 2	440+67.15	17.25	723.98	723.98
G	440+77.15	17.25	723.88	723.89
H	440+87.15	17.25	723.79	723.80
I	440+97.15	17.25	723.71	723.72
℄ Brg. E. Abut.	441+03.23	17.25	723.66	723.66
Bk. E. Abut.	441+05.82	17.25	723.65	723.65

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+82.96	23.00	725.15	725.15
℄ Brg. W. Abut.	439+85.54	23.00	725.10	725.10
A	439+95.54	23.00	724.92	724.93
B	440+05.54	23.00	724.74	724.76
C	440+15.54	23.00	724.58	724.58
℄ Brg. Pier 1	440+21.62	23.00	724.49	724.49
D	440+31.62	23.00	724.34	724.34
E	440+41.62	23.00	724.20	724.21
F	440+51.62	23.00	724.07	724.08
℄ Brg. Pier 2	440+63.96	23.00	723.93	723.93
G	440+73.96	23.00	723.83	723.83
H	440+83.96	23.00	723.73	723.74
I	440+93.96	23.00	723.65	723.66
℄ Brg. E. Abut.	441+00.04	23.00	723.60	723.60
Bk. E. Abut.	441+02.63	23.00	723.58	723.58

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+79.77	28.75	725.11	725.11
℄ Brg. W. Abut.	439+82.35	28.75	725.06	725.06
A	439+92.35	28.75	724.88	724.89
B	440+02.35	28.75	724.70	724.71
C	440+12.35	28.75	724.53	724.54
℄ Brg. Pier 1	440+18.43	28.75	724.43	724.43
D	440+28.43	28.75	724.28	724.29
E	440+38.43	28.75	724.14	724.15
F	440+48.43	28.75	724.01	724.02
℄ Brg. Pier 2	440+60.77	28.75	723.87	723.87
G	440+70.77	28.75	723.76	723.77
H	440+80.77	28.75	723.66	723.67
I	440+90.77	28.75	723.57	723.58
℄ Brg. E. Abut.	440+96.85	28.75	723.52	723.52
Bk. E. Abut.	440+99.44	28.75	723.50	723.50

GIRDER 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	439+76.58	34.50	725.06	725.06
℄ Brg. W. Abut.	439+79.17	34.50	725.01	725.01
A	439+89.17	34.50	724.82	724.83
B	439+99.17	34.50	724.64	724.65
C	440+09.17	34.50	724.47	724.47
℄ Brg. Pier 1	440+15.24	34.50	724.37	724.37
D	440+25.24	34.50	724.22	724.22
E	440+35.24	34.50	724.07	724.08
F	440+45.24	34.50	723.94	723.94
℄ Brg. Pier 2	440+57.58	34.50	723.79	723.79
G	440+67.58	34.50	723.68	723.68
H	440+77.58	34.50	723.57	723.59
I	440+87.58	34.50	723.48	723.49
℄ Brg. E. Abut.	440+93.66	34.50	723.43	723.43
Bk. E. Abut.	440+96.25	34.50	723.41	723.41

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+87.14	-36.00	724.83
A1	439+97.14	-36.00	724.65
A2	440+07.14	-36.00	724.47
E. End West Appr.	440+17.14	-36.00	724.31

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+81.59	-26.00	725.13
A1	439+91.59	-26.00	724.95
A2	440+01.59	-26.00	724.77
E. End West Appr.	440+11.59	-26.00	724.60

WB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+69.40	-4.00	725.71
A1	439+79.40	-4.00	725.51
A2	439+89.40	-4.00	725.32
E. End West Appr.	439+99.40	-4.00	725.14

℄ US 20

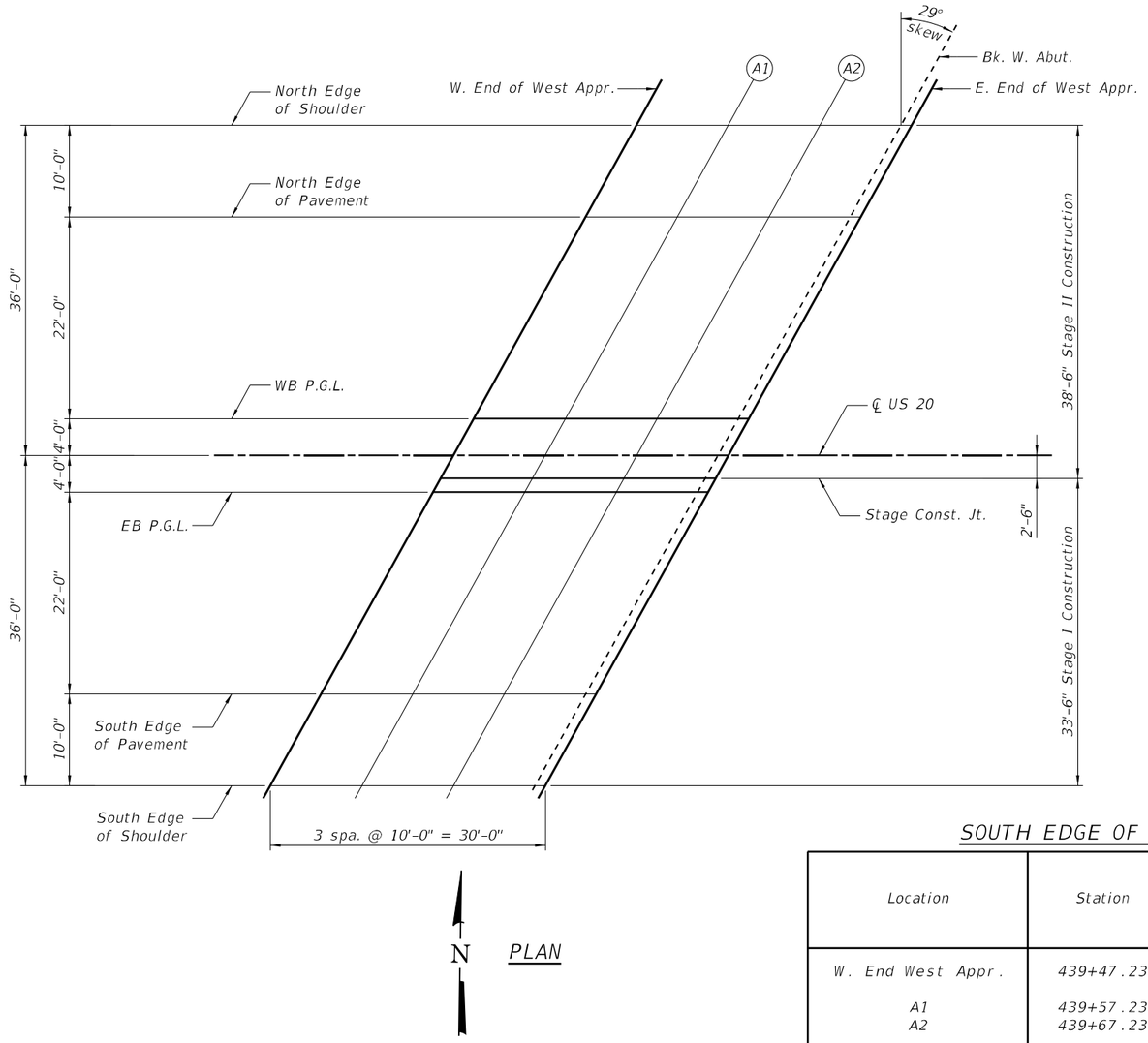
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+67.18	0.00	725.81
A1	439+77.18	0.00	725.61
A2	439+87.18	0.00	725.42
E. End West Appr.	439+97.18	0.00	725.23

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+65.80	2.50	725.80
A1	439+75.80	2.50	725.60
A2	439+85.80	2.50	725.41
E. End West Appr.	439+95.80	2.50	725.22

EB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+64.96	4.00	725.80
A1	439+74.96	4.00	725.59
A2	439+84.96	4.00	725.40
E. End West Appr.	439+94.96	4.00	725.21



PLAN

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+47.23	36.00	725.66
A1	439+57.23	36.00	725.44
A2	439+67.23	36.00	725.22
E. End West Appr.	439+77.23	36.00	725.02

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr.	439+52.77	26.00	725.73
A1	439+62.77	26.00	725.52
A2	439+72.77	26.00	725.31
E. End West Appr.	439+82.77	26.00	725.11

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GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - DF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF WEST APPROACH SLAB ELEVATIONS STRUCTURE NO. 016-0217
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - LAM	REVISED -		SHEET 10 OF 32 SHEETS
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	218
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	441+33.85	-36.00	723.17
A3	441+43.85	-36.00	723.13
A4	441+53.85	-36.00	723.11
E. End East Appr.	441+63.85	-36.00	723.10

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	441+28.31	-26.00	723.39
A3	441+38.31	-26.00	723.35
A4	441+48.31	-26.00	723.32
E. End East Appr.	441+58.31	-26.00	723.30

WB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	441+16.11	-4.00	723.78
A3	441+26.11	-4.00	723.73
A4	441+36.11	-4.00	723.69
E. End East Appr.	441+46.11	-4.00	723.66

℄ US 20

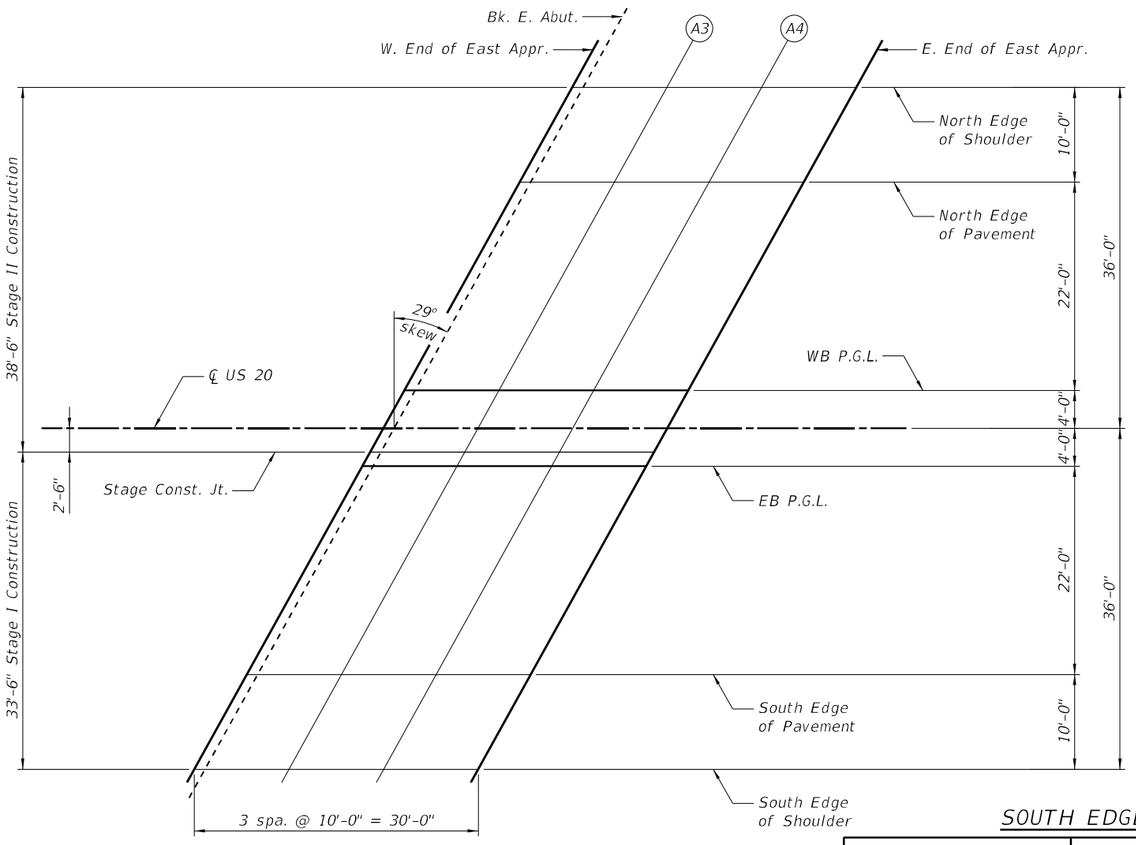
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	441+13.90	0.00	723.85
A3	441+23.90	0.00	723.80
A4	441+33.90	0.00	723.76
E. End East Appr.	441+43.90	0.00	723.72

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	441+12.51	2.50	723.82
A3	441+22.51	2.50	723.77
A4	441+32.51	2.50	723.72
E. End East Appr.	441+42.51	2.50	723.69

EB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	441+11.68	4.00	723.81
A3	441+21.68	4.00	723.75
A4	441+31.68	4.00	723.71
E. End East Appr.	441+41.68	4.00	723.67



PLAN

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	440+93.95	36.00	723.40
A3	441+03.95	36.00	723.33
A4	441+13.95	36.00	723.26
E. End East Appr.	441+23.95	36.00	723.21

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr.	440+99.49	26.00	723.56
A3	441+09.49	26.00	723.49
A4	441+19.49	26.00	723.43
E. End East Appr.	441+29.49	26.00	723.38

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GANNETT FLEMING

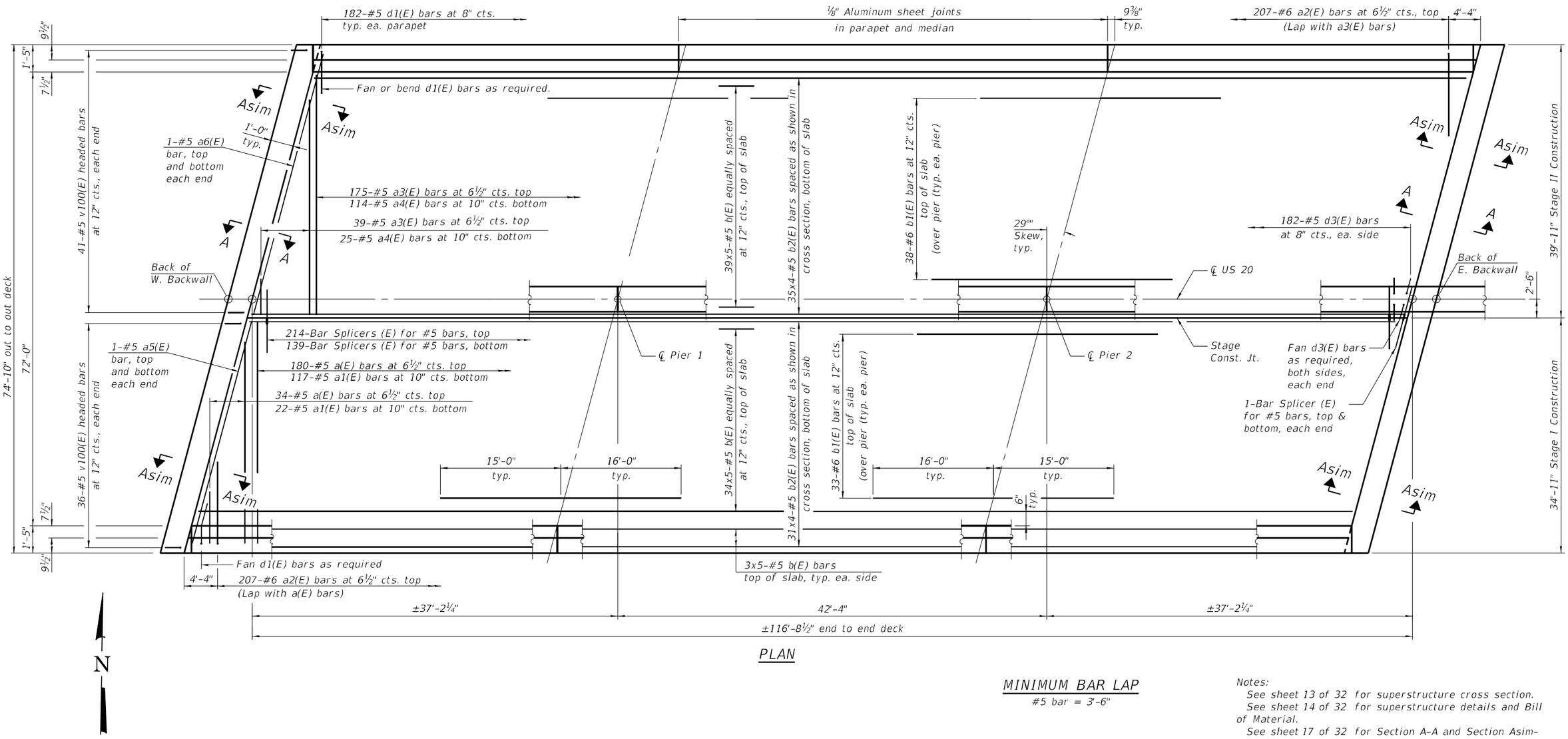
USER NAME = jstarzyk	DESIGNED - DF	REVISED -		
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-0217

SHEET 11 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	219
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



PLAN

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:

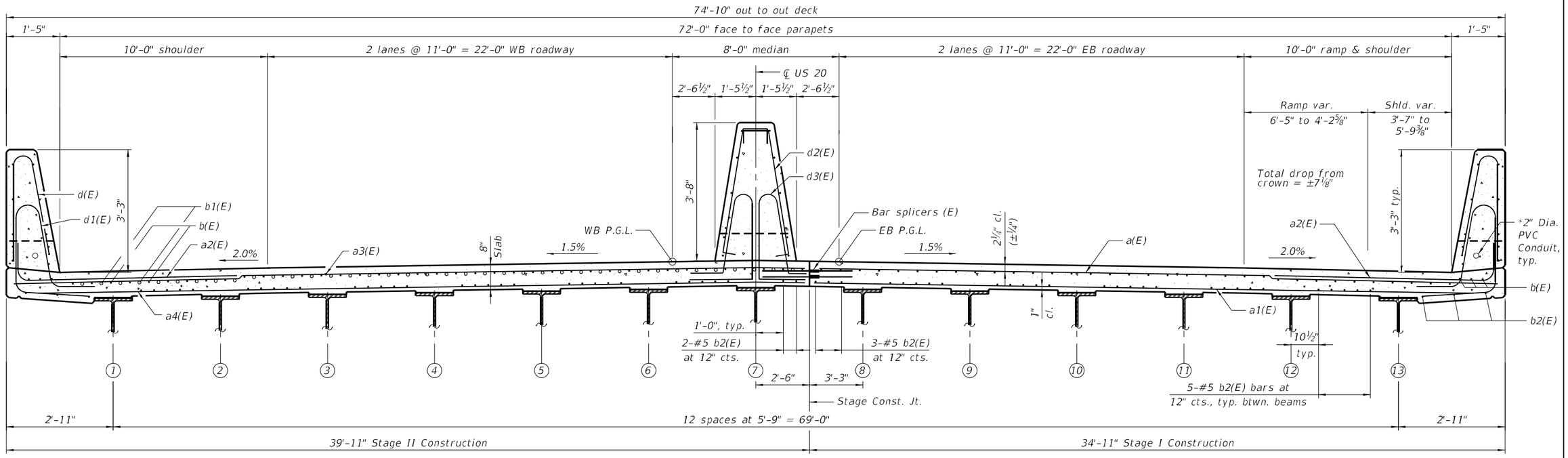
See sheet 13 of 32 for superstructure cross section.

See sheet 14 of 32 for superstructure details and Bill of Material.

See sheet 17 of 32 for Section A-A and Section Asim-Asim.

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

The Contractor may elect to pour the deck starting from either abutment and continuing for the length of the bridge, however this sequence produces an estimated uplift force of 0.5 kips/beam at the far abutment. Hold downs are required to resist uplift forces during the deck pour at the far abutment, and may include temporary retainers or additional weight holding down each beam. The Contractor shall provide hold down details to the Engineer for review and acceptance prior to the deck pour. Hold downs may be removed once the deck pour progresses to a point within 18 feet of the far abutment or when directed by the Engineer and shall become property of the Contractor and disposed of properly. This work shall be included in the cost of Concrete Superstructures.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking East)
*See electrical plans.

MODEL: Default
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GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE CROSS SECTION STRUCTURE NO. 016-0217
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 13 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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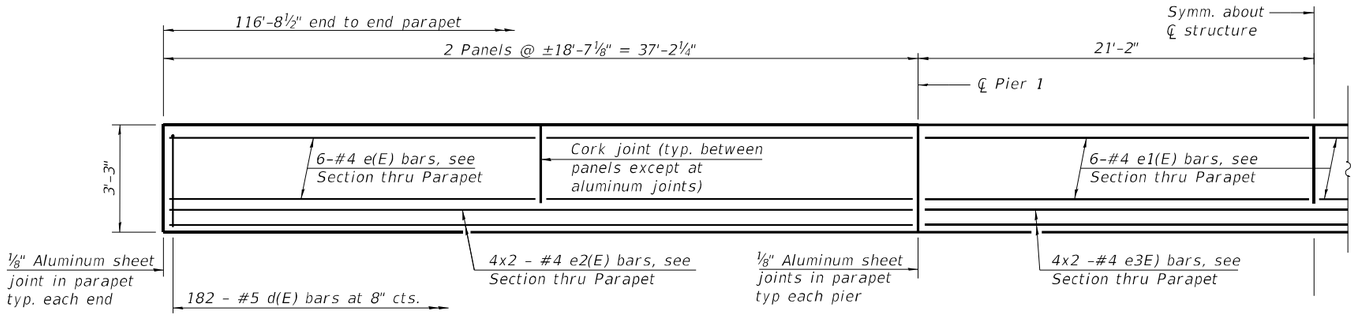
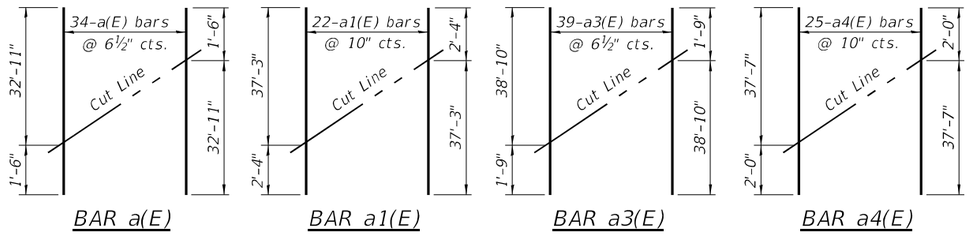
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET



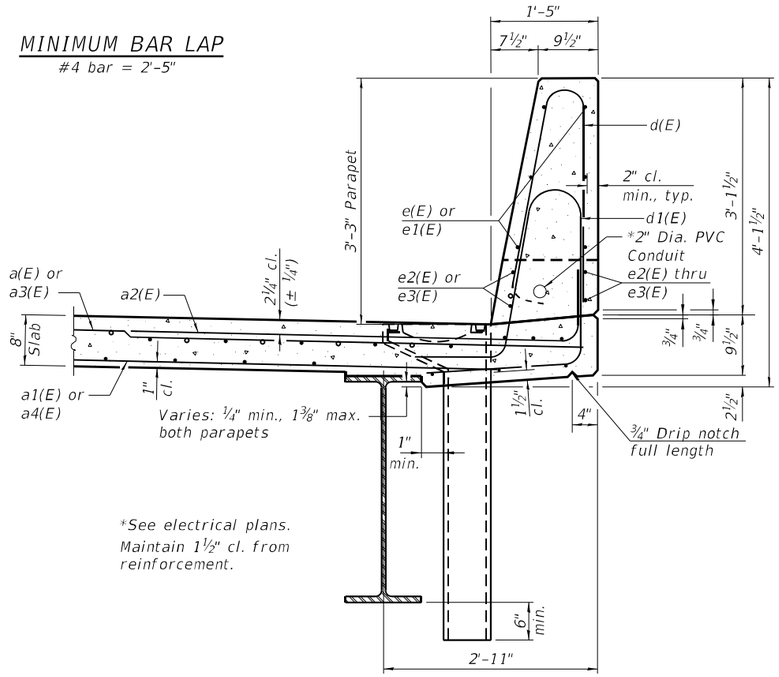
BAR a(E) BAR a1(E) BAR a3(E) BAR a4(E)

FIELD CUTTING DIAGRAM

Order a(E), a1(E), a3(E), and a4(E) bars full length.
Cut as shown and use remainder of bars in opposite end of deck.

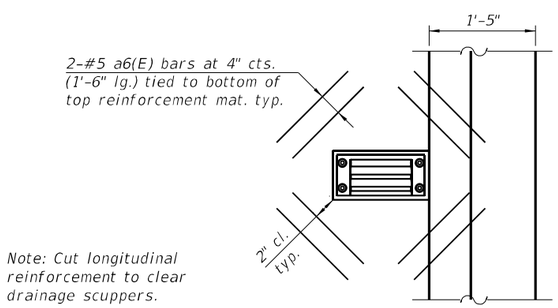
MINIMUM BAR LAP

#4 bar = 2'-5"



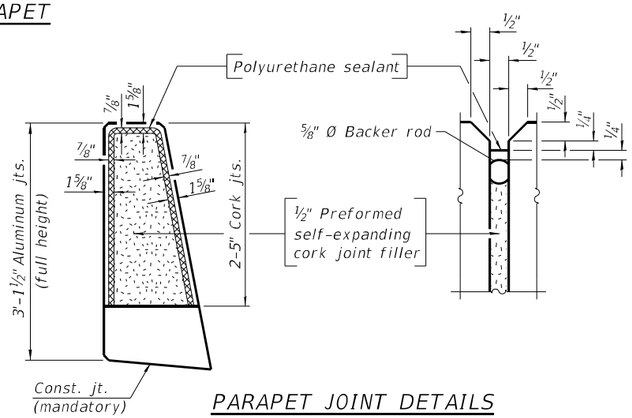
*See electrical plans. Maintain 1½" cl. from reinforcement.

SECTION THRU PARAPET



Note: Cut longitudinal reinforcement to clear drainage scuppers.

SCUPPER PLAN



PARAPET JOINT DETAILS

Notes:

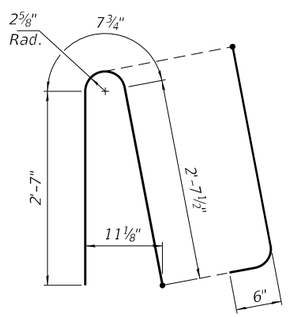
The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

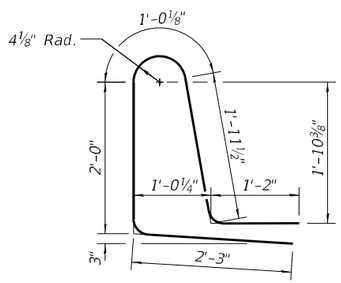
Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE BILL OF MATERIAL

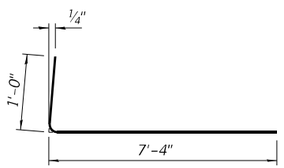
Bar	No.	Size	Length	Shape
a(E)	214	#5	34'-5"	
a1(E)	139	#5	34'-2"	
a2(E)	414	#6	8'-5"	
a3(E)	214	#5	39'-8"	
a4(E)	139	#5	39'-8"	
a5(E)	4	#5	39'-5"	
a6(E)	4	#5	45'-4"	
a7(E)	24	#5	1'-6"	
b(E)	395	#5	26'-1"	
b1(E)	142	#6	31'-0"	
b2(E)	264	#5	31'-9"	
d(E)	364	#5	6'-5"	
d1(E)	364	#5	8'-5"	
d2(E)	364	#5	5'-4"	
d3(E)	364	#5	8'-6"	
e(E)	80	#4	18'-4"	
e1(E)	40	#4	20'-10"	
e2(E)	48	#4	19'-8"	
e3(E)	24	#4	22'-3"	
m10(E)	10	#6	37'-9"	
m11(E)	48	#6	6'-3"	
m12(E)	48	#6	6'-3"	
m13(E)	16	#6	1'-3"	
m14(E)	8	#4	20'-4"	
m15(E)	10	#6	43'-6"	
m16(E)	8	#4	23'-2"	
s10(E)	128	#5	6'-11"	
s11(E)	128	#5	7'-0"	
u10(E)	128	#4	3'-8"	
v100(E)	154	#5	3'-1"	
Reinforcement Bars, Epoxy Coated		Pound	145,130	
Concrete Superstructure		Cu. Yd.	330.8	
Protective Coat		Sq. Yd.	1,113	
Bridge Deck Grooving		Sq. Yd.	844	
Bar Terminators		Each	506	



BAR d(E)



BAR d1(E)



BAR a2(E)

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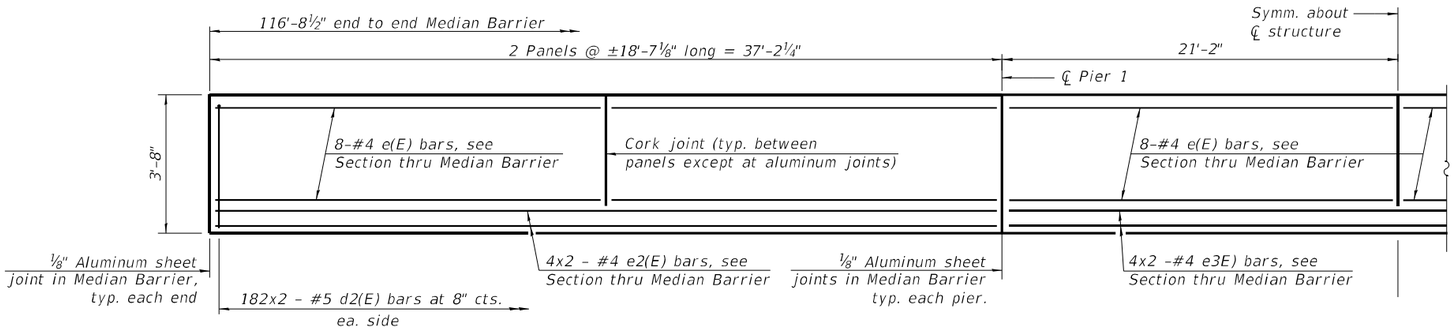
PLOT SCALE =	DRAWN - LAM	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS I
STRUCTURE NO. 016-0217
SHEET 14 OF 32 SHEETS

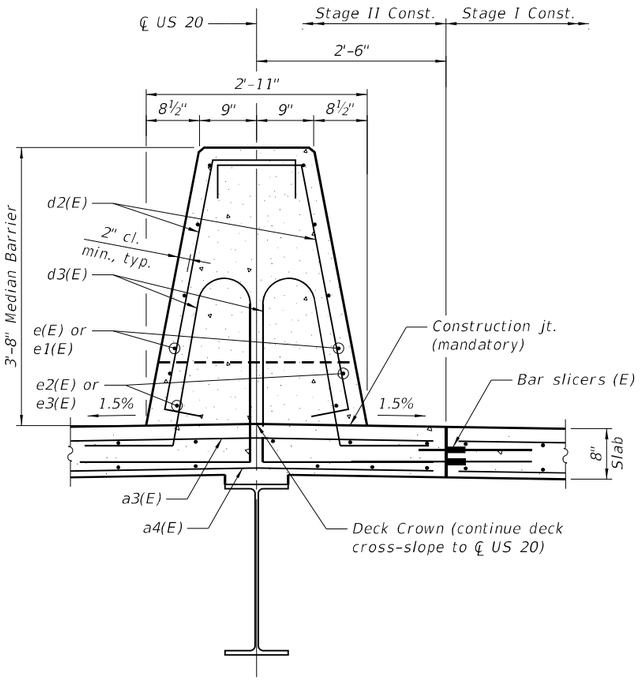
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	222
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



ELEVATION OF MEDIAN BARRIER

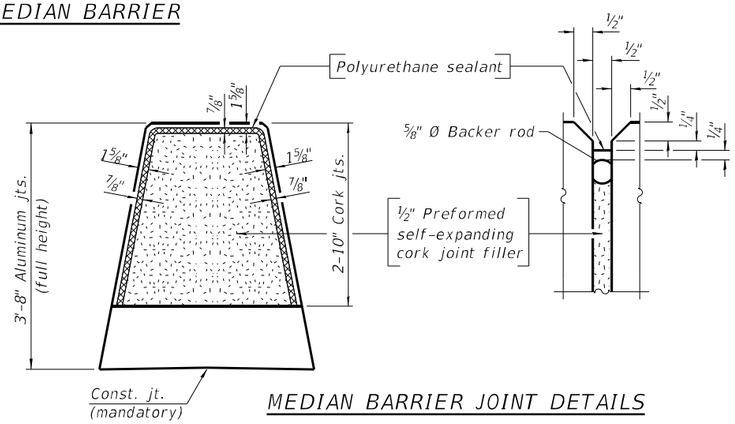
MINIMUM BAR LAP

#4 bar = 2'-5"



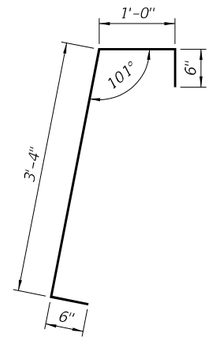
SECTION THRU MEDIAN BARRIER

(Looking East)

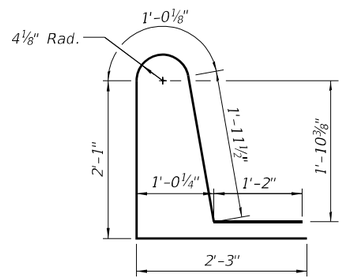


MEDIAN BARRIER JOINT DETAILS

Notes:
See sheet 14 of 32 for notes.



BAR d2(E)



BAR d3(E)

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GANNETT FLEMING

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	CHECKED - MZ	REVISED -		SHEET 15 OF 32 SHEETS
PLOT SCALE =	DRAWN - LAM	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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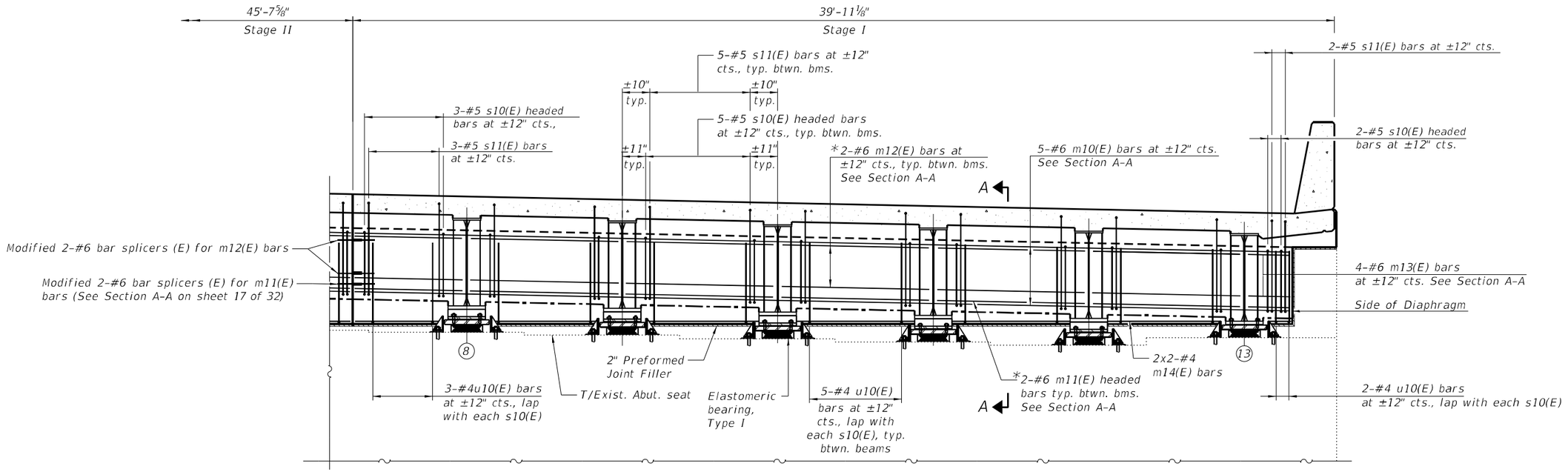
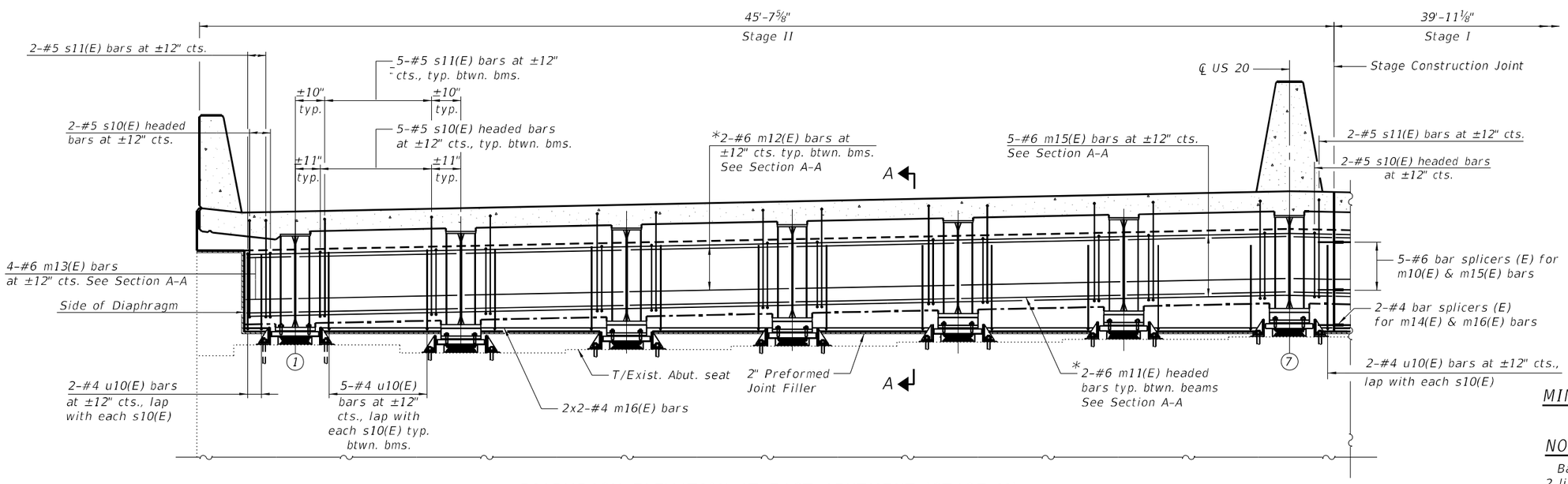
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



DIAPHRAGM ELEVATION AT EAST ABUTMENT (STAGE I)

(Looking East)
(West Abutment opposite hand)



DIAPHRAGM ELEVATION AT EAST ABUTMENT (STAGE II)

(Looking East)
(West Abutment opposite hand)

MINIMUM BAR LAP

#4 bar = 2'-5"

NOTE

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

* Cut bars to use on either side of stage joint line with modified bar splicers.

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GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS	REVISED -	
	CHECKED - MZ	REVISED -	
PLOT SCALE =	DRAWN - EBP	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DIAPHRAGM DETAILS I
STRUCTURE NO. 016-0217
SHEET 16 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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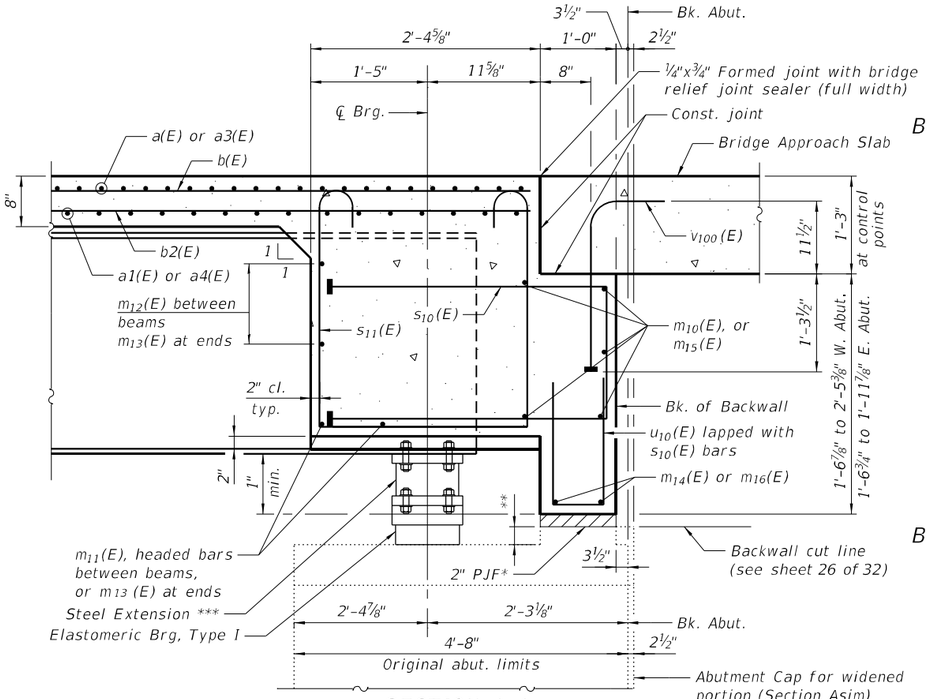
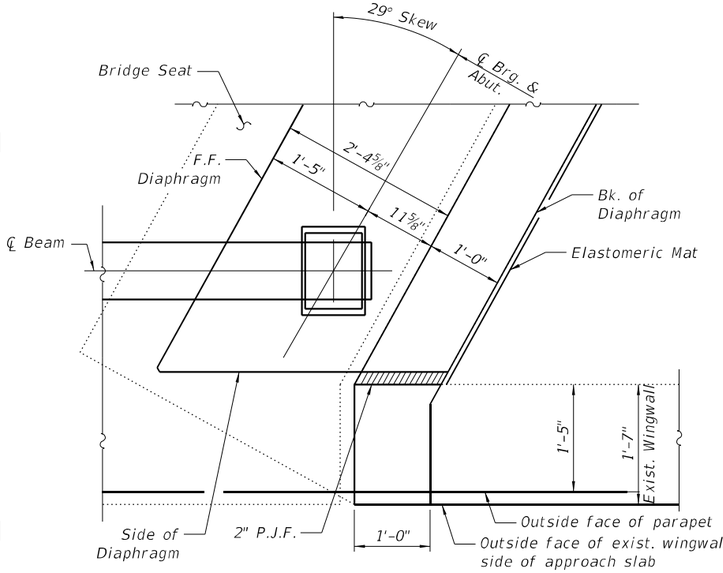
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



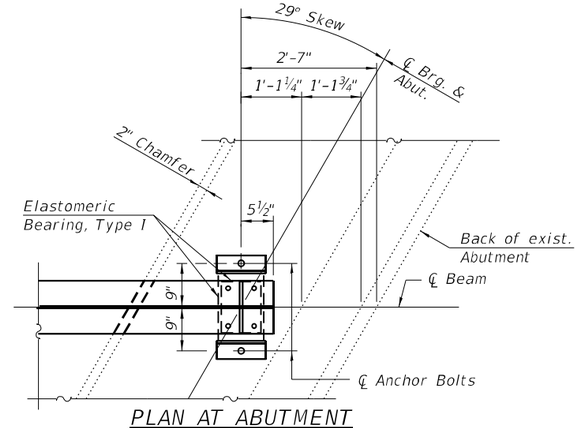
SECTION A-A

Dimensions at right angles to abutment, unless noted otherwise.
Section Asim depicts widened portion of abutment on either side of original construction showing difference in abutment cap and backwall widths, see sheet 12 of 32 for locations.
See diaphragm corner detail for diaphram ends.



DIAPHRAGM CORNER DETAIL

(Typical each end both sides)
(Galvanized plate not shown for clarity)



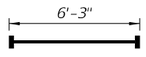
PLAN AT ABUTMENT

(Showing bottom flange of beam)

* Cost included with Concrete Superstructure

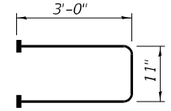
** Varies 1¾" to 11⅜" E. Abut. & 2⅛" to 8⅜" W. Abut.

*** If required, see sheet 23 of 32 .



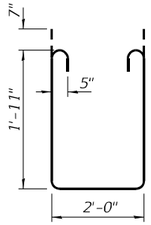
BAR m11(E)

(Headed)
(96-#6 Bar Terminators)

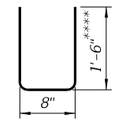


BAR s10(E)

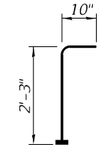
(Headed)
(256-#6 Bar Terminators)



BAR s11(E)



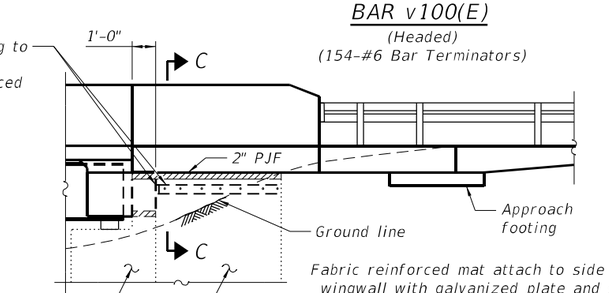
BAR u10(E)



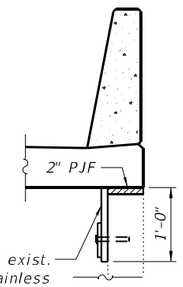
BAR v100(E)

(Headed)
(154-#6 Bar Terminators)

****Cut bars to fit in field as needed between Beams 1 & 3 and 11 & 13. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

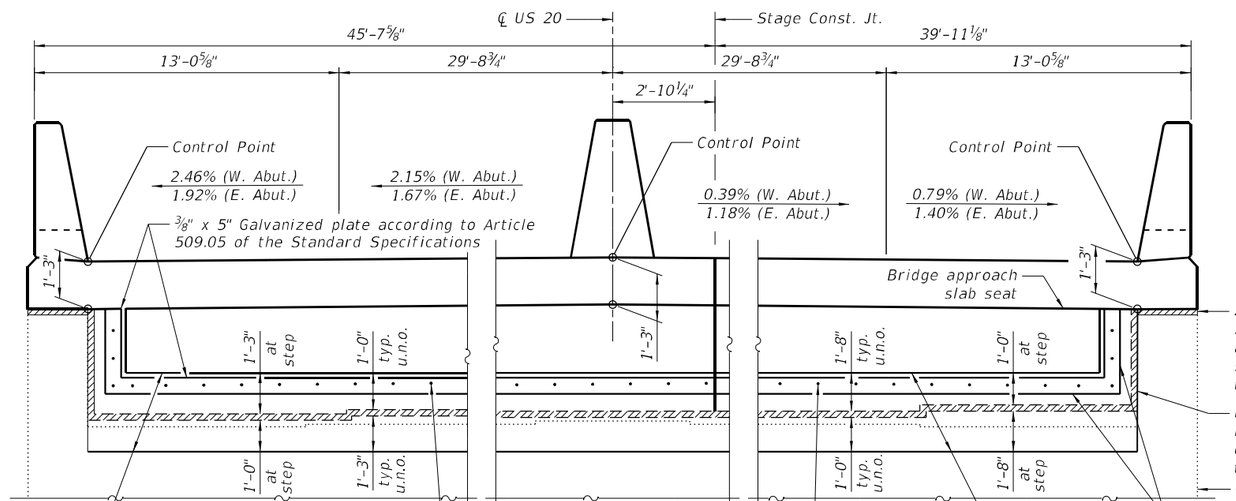


WINGWALL ELEVATION



SECTION C-C

Fabric reinforced mat attach to side of exist. wingwall with galvanized plate and stainless steel bolts. See View B-B. Top of mat at same elevation as top of 2" PJF. Cost included with Concrete Superstructures.



VIEW B-B

(Looking at back of W. Abut)
(Reflected view at back of E. Abut)

Notes:

See sheet 14 of 32 for Bill of Material.

The s10(E) and s11(E), U10(E) and v100(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

The approach slab seat shall have a constant slope determined from the control points shown.

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

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GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS	REVISED -	
	CHECKED - MZ	REVISED -	
PLOT SCALE =	DRAWN - EBP	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DIAPHRAGM DETAILS II
STRUCTURE NO. 016-0217
SHEET 17 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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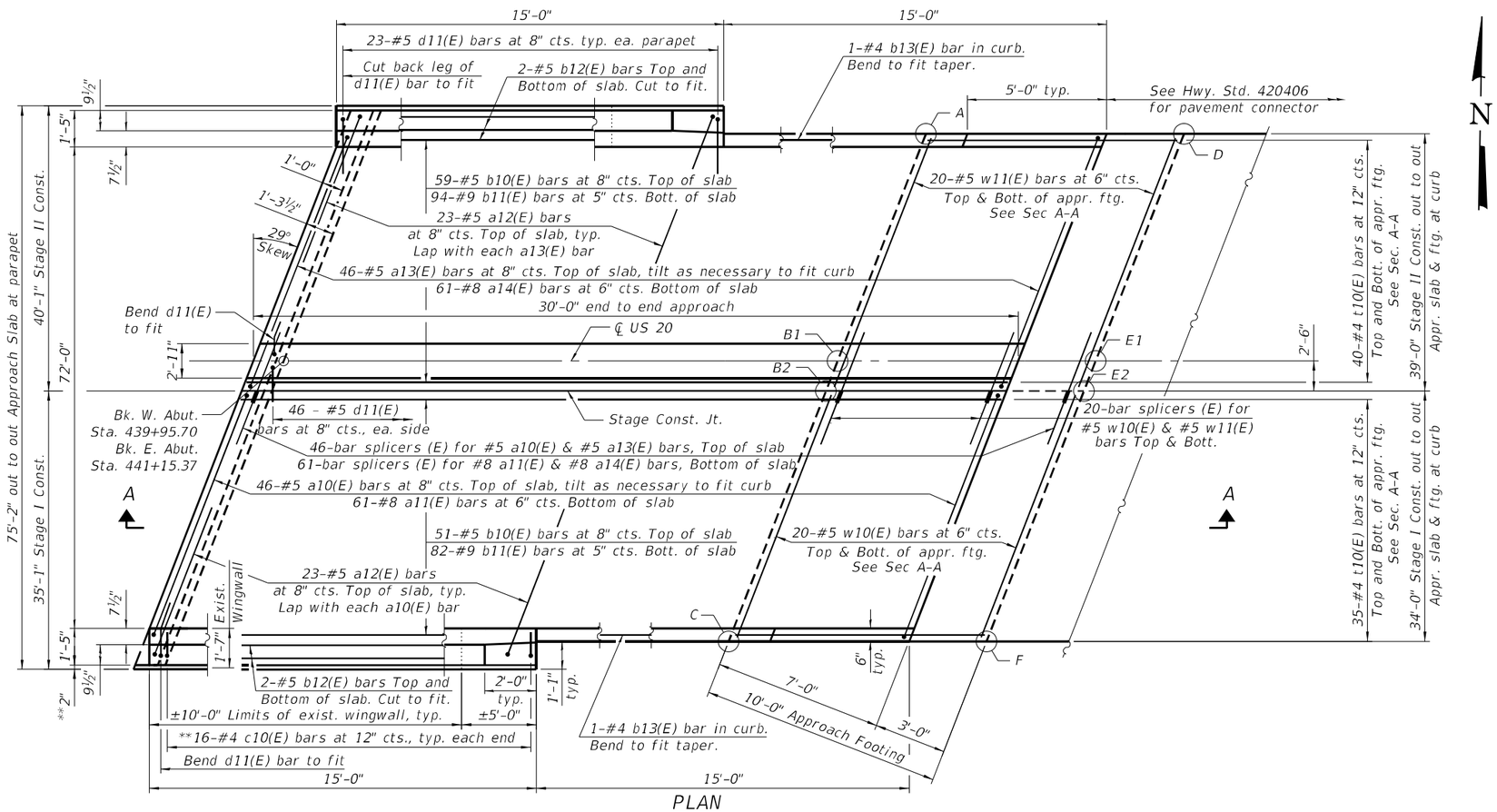
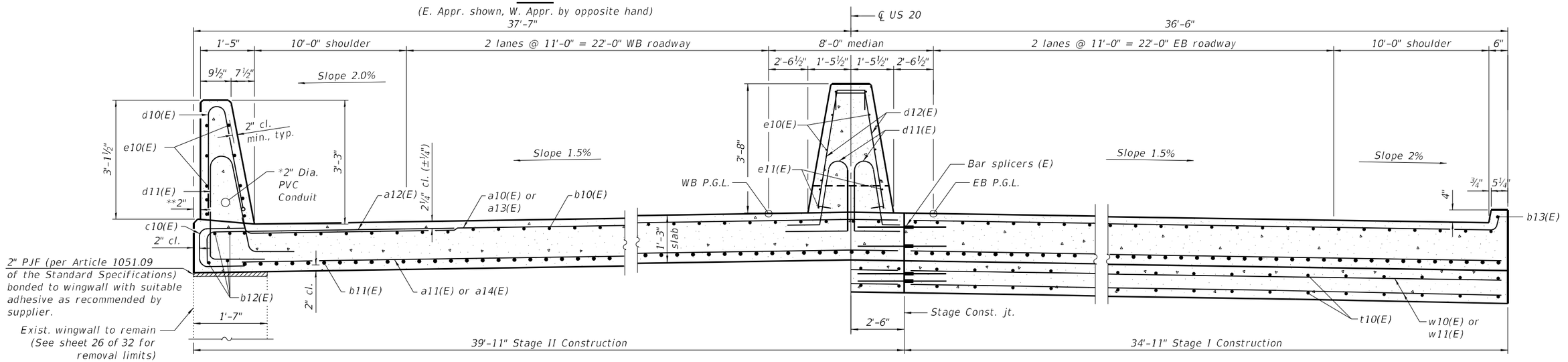
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



PLAN

(E. Appr. shown, W. Appr. by opposite hand)



NEAR ABUTMENT

CROSS SECTION

(Looking East)

AT APPROACH FOOTING

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	Station	Offset	Top	Bottom
West Approach				
A	439+95.41	36.5' Lt.	723.42	722.58
B1	439+75.18	0'	724.40	723.57
B2	439+73.79	4.0' Rt.	724.39	723.56
C	439+54.95	36.5' Rt.	724.23	723.39
D	439+83.98	36.5' Lt.	723.63	722.79
E1	439+63.75	0'	724.64	723.80
E2	439+62.36	4.0' Rt.	724.63	723.79
F	439+43.51	36.5' Rt.	724.48	723.65
East Approach				
A	441+56.13	36.5' Lt.	721.85	721.01
B1	441+35.90	0'	722.50	721.67
B2	441+34.51	4.0 Rt.	722.47	721.63
C	441+15.66	36.5' Rt.	721.99	721.16
D	441+67.56	36.5' Lt.	721.84	721.00
E1	441+47.33	0'	722.46	721.63
E2	441+45.94	4.0 Rt.	722.43	721.60
F	441+27.10	36.5' Rt.	721.94	721.10

NOTES

1. For Section A–A see sheet 19 of 32.

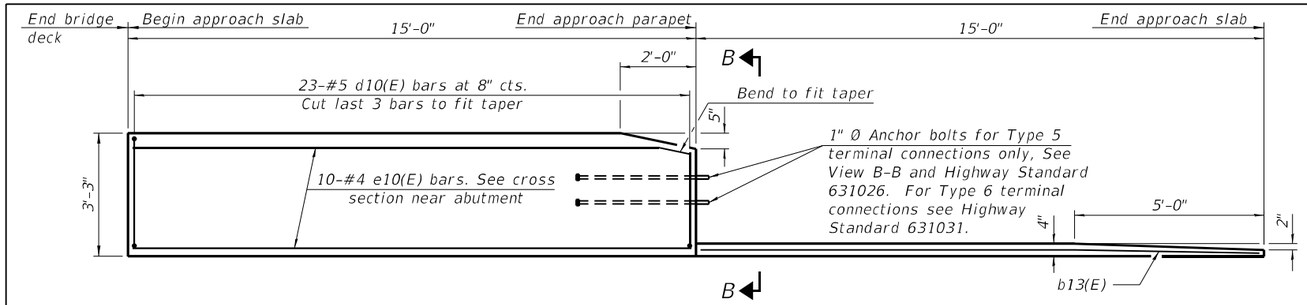
* See electrical plans. Maintain 1½" cl. from reinforcement.

** Extend outside edge of east and west approach slabs to outside edge of existing wingwall, ea. side. Proposed parapet length is 15'-0". Adjust c10(E) bars as needed.

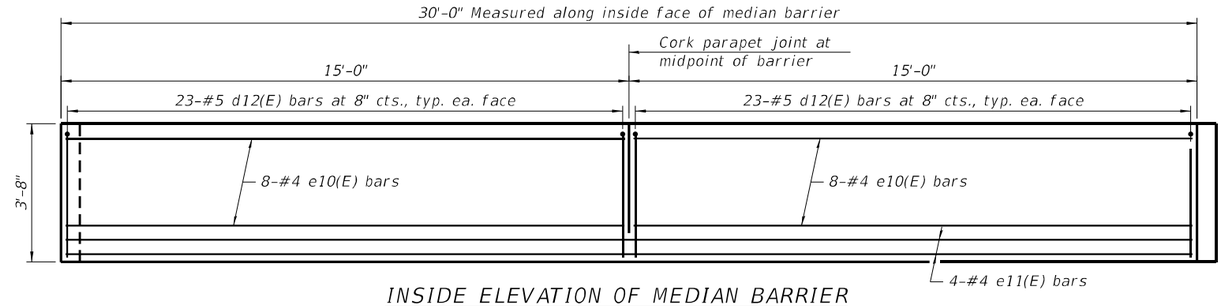
MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/016-0217/0160217-62L34-0114-ASP.dgn
3/20/2024 4:44:35 PM

GANNETT FLEMING

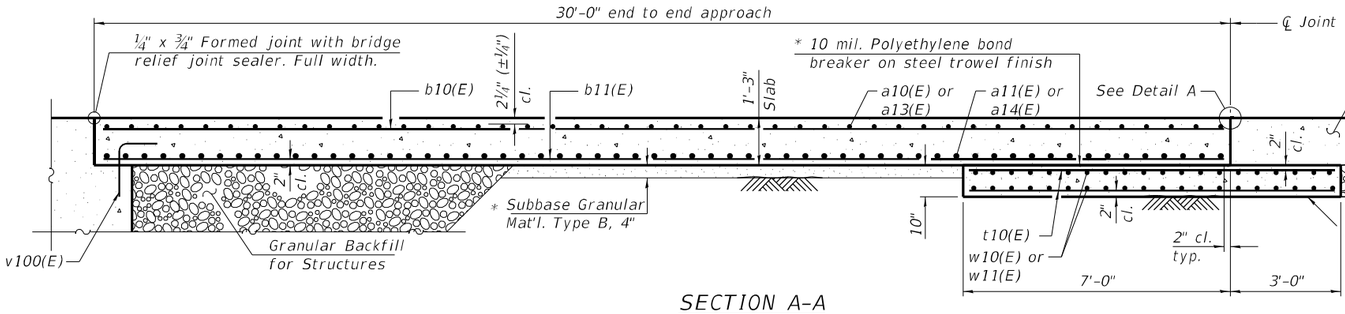
USER NAME = jstarzyk	DESIGNED - SS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB PLAN STRUCTURE NO. 016-0217	F.A.P. RTE. 345
	CHECKED - MZ	REVISED -			SECTION FAP 345-23-BR
PLOT SCALE =	DRAWN - LAM	REVISED -			COUNTY COOK
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 18 OF 32 SHEETS	TOTAL SHEETS 379
					SHEET NO. 226
					CONTRACT NO. 62U83
					ILLINOIS FED. AID PROJECT



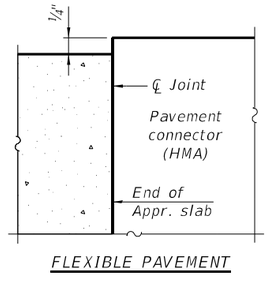
INSIDE ELEVATION OF PARAPET AND CURB



INSIDE ELEVATION OF MEDIAN BARRIER

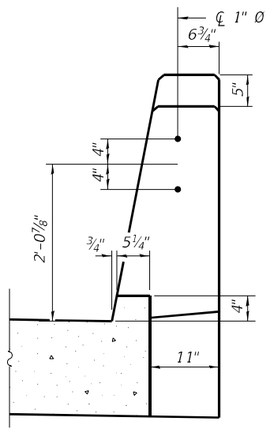


SECTION A-A



FLEXIBLE PAVEMENT

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. 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 and median barrier concrete shall be paid for as Concrete Superstructure.

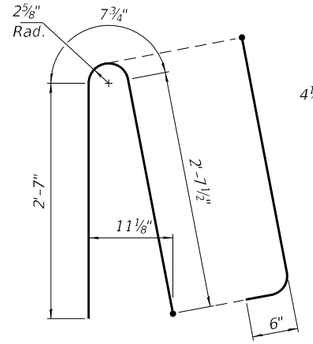
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

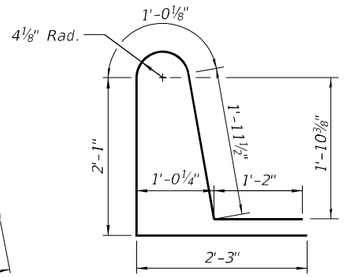
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

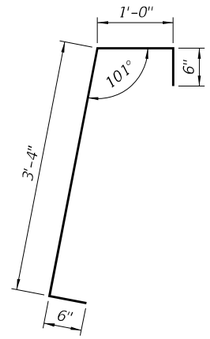
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 32.



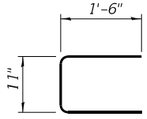
BAR d10(E)



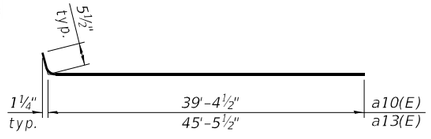
BAR d11(E)



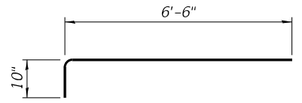
BAR d12(E)



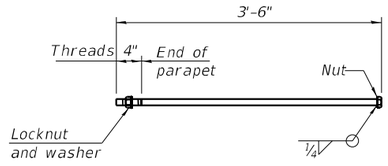
BAR c10(E)



BAR a10(E) or a13(E)



BAR a12(E)



*1" Ø ANCHOR BOLT

(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	38'-9"	
a11(E)	122	#8	38'-5"	
a12(E)	92	#5	7'-4"	
a13(E)	92	#5	45'-10"	
a14(E)	122	#8	45'-6"	
b10(E)	220	#5	29'-9"	
b11(E)	352	#9	29'-9"	
b12(E)	16	#5	14'-8"	
b13(E)	4	#4	14'-8"	
c10(E)	64	#4	3'-11"	⊏
d10(E)	92	#5	6'-5"	
d11(E)	276	#5	8'-6"	
d12(E)	184	#5	5'-4"	
e10(E)	72	#4	14'-8"	
e11(E)	8	#4	29'-9"	
t10(E)	300	#4	9'-8"	
w10(E)	80	#5	38'-5"	
w11(E)	80	#5	44'-4"	
Concrete Superstructure		Cu. Yd.	25.8	
Concrete Superstructure (Approach Slab)		Cu. Yd.	206.4	
Concrete Structures		Cu. Yd.	45.1	
Reinforcement Bars, Epoxy Coated		Pound	90,660	
Bridge Deck Grooving		Sq. Yd.	434	
Protective Coat		Sq. Yd.	552	

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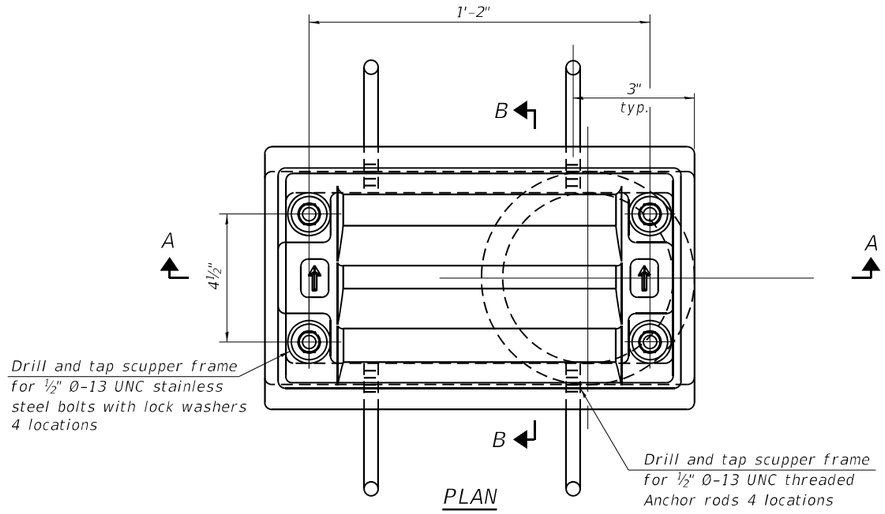
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS	REVISED -
	CHECKED - MZ	REVISED -
PLOT SCALE =	DRAWN - LAM	REVISED -
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -

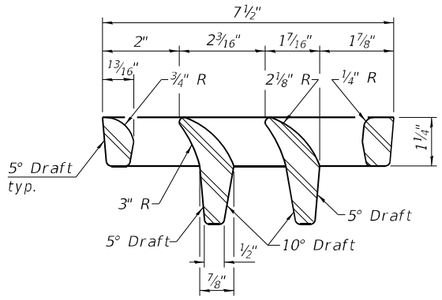
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-0217
SHEET 19 OF 32 SHEETS

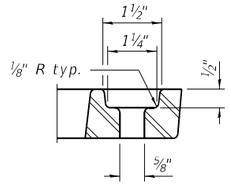
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	227
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



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.

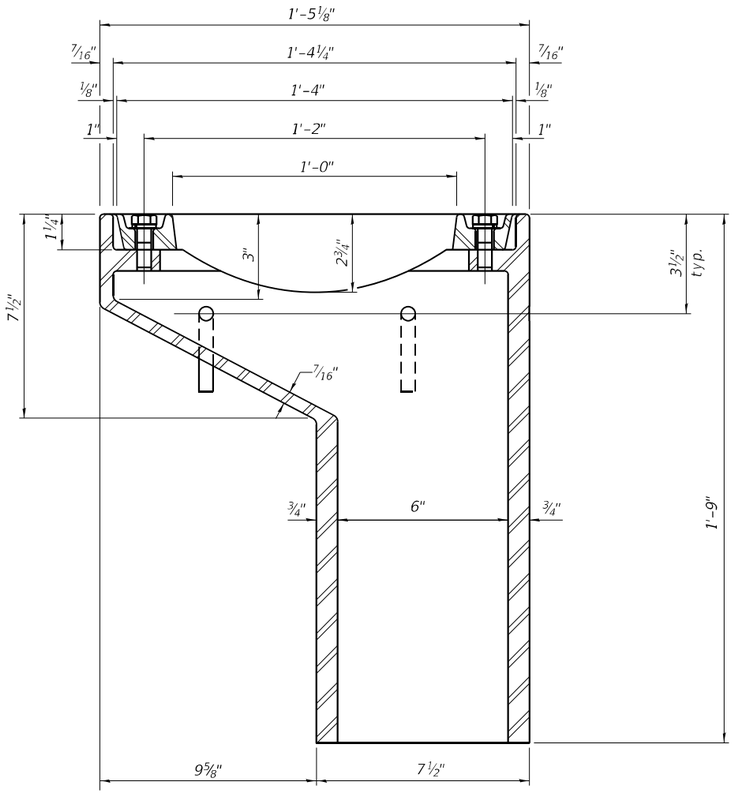
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

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 pigmented or painted to match the color of the adjacent beam.

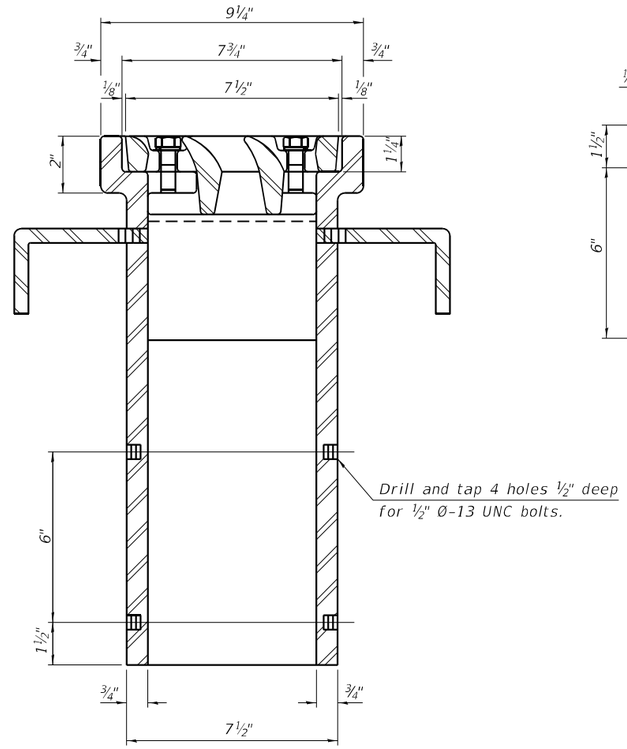
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

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

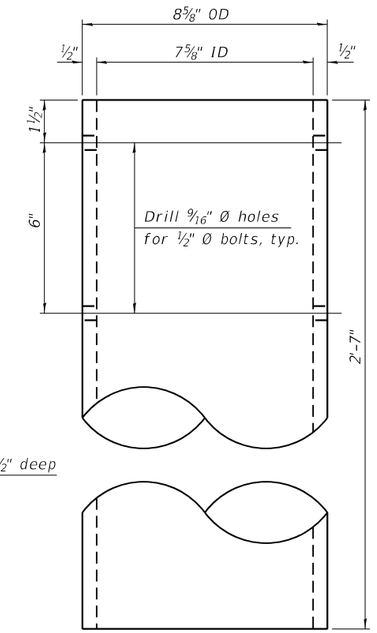


SECTION A-A

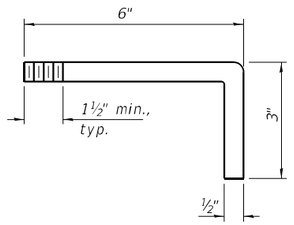
See sheet 14 of 32 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	3

DS-11 2-1-2023

GANNETT FLEMING	USER NAME = jstarzyk	DESIGNED - MDA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE SCUPPER, DS-11 STRUCTURE NO. 016-0217
		CHECKED - MZ	REVISED -		
	PLOT SCALE =	DRAWN - LAM	REVISED -		SHEET 20 OF 32 SHEETS
	PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	228
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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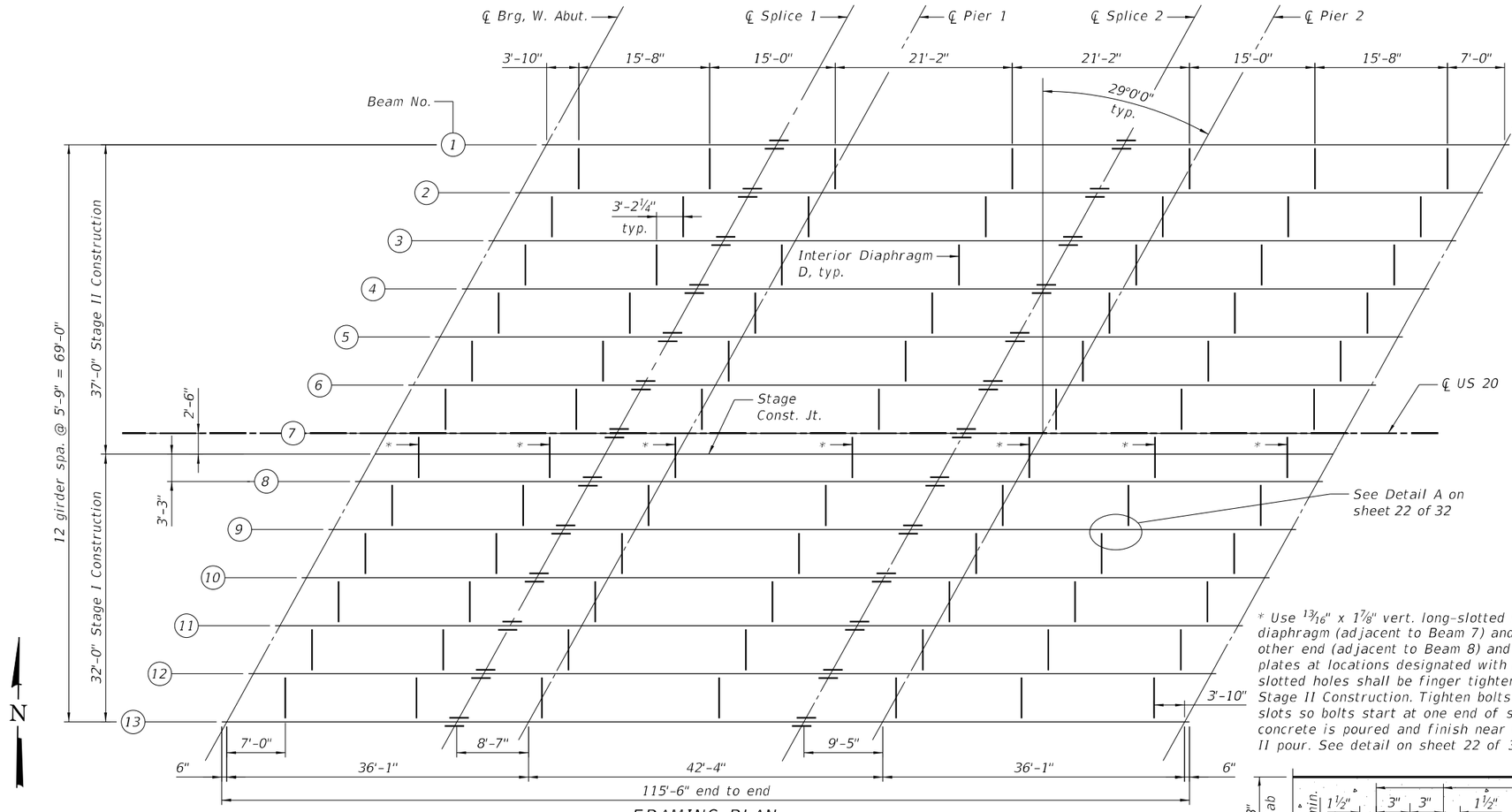
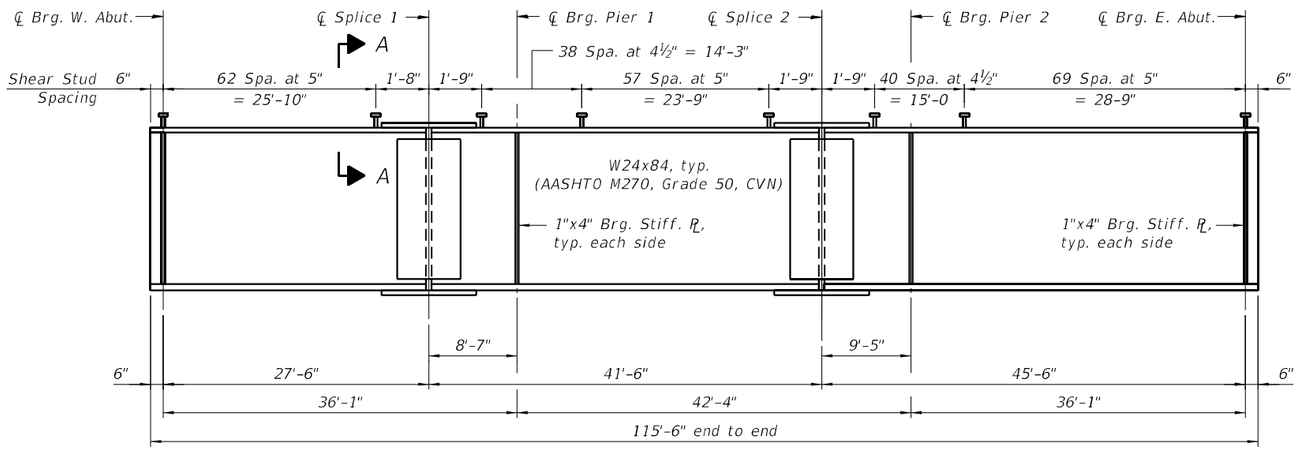
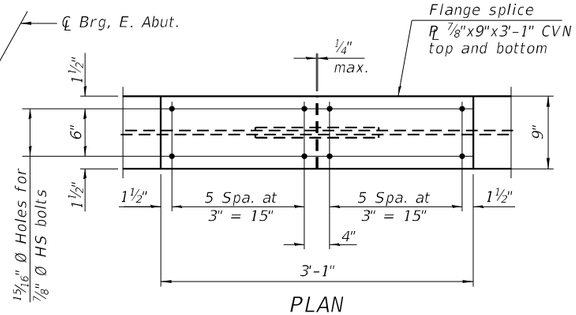


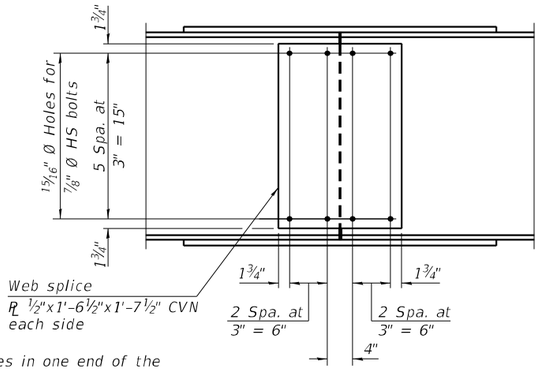
FRAMING PLAN



BEAM ELEVATION

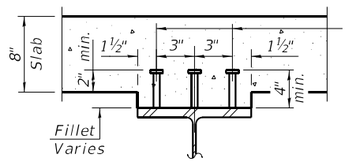


PLAN

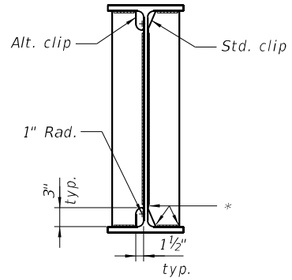


ELEVATION
SPLICE DETAIL
(26 Required)

* Use 13⁄16" x 1⅞" vert. long-slotted holes in one end of the diaphragm (adjacent to Beam 7) and standard oversize holes at the other end (adjacent to Beam 8) and in the main member connection plates at locations designated with (*) only. The bolts for the slotted holes shall be finger tightened prior to the deck pour for Stage II Construction. Tighten bolts after deck is poured. Position slots so bolts start at one end of slotted holes before the Stage II concrete is poured and finish near the opposite end after the Stage II pour. See detail on sheet 22 of 31.

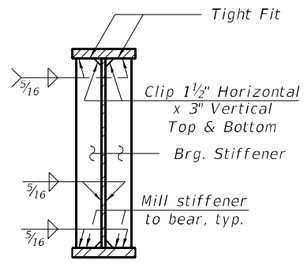


SECTION A-A



WELD LIMITS AND CLIP DETAILS

*Stop welds ¼" (±⅛") from edges as shown, typ.



BEARING STIFFENER DETAIL

Notes:

1. See sheet 22 of 32 for additional notes and details.
2. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
3. CVN denotes Charpy-V-Notch impact energy requirements, zone 2.

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN & BEAM ELEVATION STRUCTURE NO. 016-0217
	CHECKED - DF	REVISED -		SHEET 21 OF 32 SHEETS
PLOT SCALE =	DRAWN - EBP	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	229
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier	0.5 Sp. 2
I_s	(in^4)	2,370	2,370	2,370
$I_c(n)$	(in^4)	7,879	7,879	7,879
$I_c(3n)$	(in^4)	5,928	5,928	5,928
$I_c(cr)$	(in^4)	–	3,779	–
S_s	(in^3)	197	197	197
$S_c(n)$	(in^3)	321	–	321
$S_c(3n)$	(in^3)	290	–	290
$S_c(cr)$	(in^3)	–	245	–
S_x	(in^3)	307	237	310
DC1	(k/')	0.688	0.688	0.688
M_{DC1}	('k)	65	106	48
DC2	(k/')	0.405	0.405	0.405
M_{DC2}	('k)	38	62	28
DW	(k/')	0.266	0.266	0.266
M_{DW}	('k)	25	41	19
LLDF		0.598	0.589	0.581
M_{LL+IM}	('k)	313	261	299
f_f (Strength I)	(ksi)	–	–	–
$M_u + {}^1/_3 f_f S_x$	('k)	713	729	646
$\phi_f M_n$	('k)	1,660	–	1,681
f_s DC1	(ksi)	3.96	6.47	2.93
f_s DC2	(ksi)	1.57	3.04	1.16
f_s DW	(ksi)	1.03	2.01	0.79
f_s (f_L+IM)	(ksi)	11.7	12.8	11.2
$f_s + {}^{f_f}/_2$ (Service II)	(ksi)	21.8	28.1	19.4
Service II Resistance	(ksi)	47.5	47.5	47.5
$f_s + {}^{f_f}/_3$ (Strength I)	(ksi)	–	37.3	–
$\phi_f F_n$	(ksi)	–	47.9	–
V_f	(k)	43.2	49.2	43.6

GIRDER REACTION TABLE			
		W. & E. Abut.	Pier 1 & 2
LLDF		0.724	0.724
OCF		1.11	–
R_{DC1}	(k)	14.5	29.7
R_{DC2}	(k)	5.6	17.6
R_{DW}	(k)	3.7	11.6
R_{LL}	(k)	43.9	69.0
R_{Im}	(k)	12.0	15.7
R_{Total} (Strength I)(Impact)	(k)	128.4	224.6
R_{Total} (Strength I)(No Impact)	(k)	107.4	197.2

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

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

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

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

S_x : Section modulus about the major axis of the section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.³).

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

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

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

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

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

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

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

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

f_f: Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).

M_u : Strength I load combination of factored design moments (kip-ft.). $1.25\,(M_{DC1} + M_{DC2}) + 1.5\,M_{DW} + 1.75\,M_{LL+IM}$

$\phi_f M_n$: Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).

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

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

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

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

$f_s + f_f/2$ (Service II): Sum of stresses as computed below (ksi). f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (f_L + IM) + $f_f/2$

Service II Resistance: Composite ($0.95R_hF_{yf}$) or noncomposite ($0.80R_hF_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).

$f_s + f_f/3$ (Strength I): Sum of stresses as computed below on non-compact sections (ksi). 1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (f_L + IM) + $f_f/3$

$\phi_f F_n$: Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).

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

OCF: Obtuse Correction Factor according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.

R_{DC1} : Un-factored reaction due to non-composite dead load (kip).

R_{DC2} : Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).

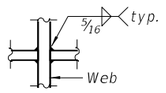
R_{DW} : Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).

R_{LL} : Un-factored live load reaction (kip).

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

R_{Total} (Strength I)(Impact): Strength I load combination of factored design reactions (kip). $1.25\,(R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75\,(R_{LL} + R_{IM})$

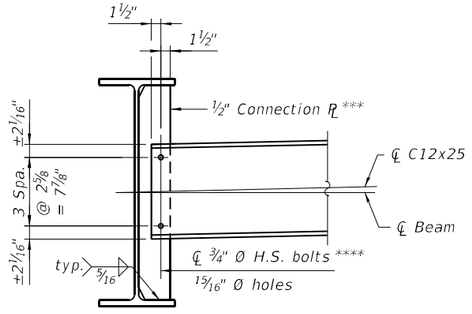
R_{Total} (Strength I)(No Impact): Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip). $1.25\,(R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75\,(R_{LL})$



WEB WELD DETAIL

** Top of Beam Elevations						
Beam No.	℄ Brg. W. Abut.	℄ Splice 1	℄ Pier 1	℄ Splice 2	℄ Pier 2	℄ Brg. E. Abut.
1	723.61	723.12	723.03	722.67	722.63	722.48
2	723.77	723.27	723.18	722.81	722.77	722.60
3	723.92	723.42	723.32	722.94	722.90	722.72
4	724.06	723.55	723.45	723.06	723.01	722.82
5	724.21	723.69	723.58	723.19	723.13	722.93
6	724.34	723.81	723.70	723.29	723.24	723.03
7	724.49	723.94	723.83	723.41	723.36	723.13
8	724.46	723.90	723.79	723.36	723.30	723.07
9	724.43	723.87	723.75	723.31	723.25	723.00
10	724.40	723.83	723.71	723.26	723.19	722.93
11	724.37	723.80	723.68	723.21	723.14	722.87
12	724.33	723.75	723.62	723.15	723.08	722.80
13	724.28	723.69	723.56	723.08	723.00	722.70

** For fabrication only.

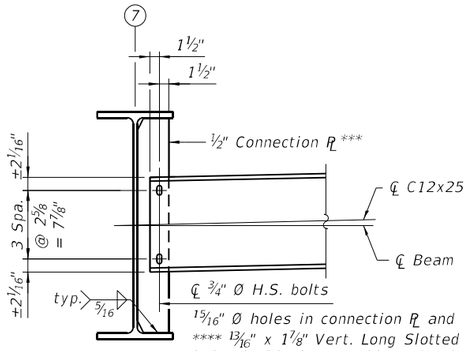


INTERIOR DIAPHRAGM - D

(84 Required)

*** Brg. Stiff. shall be used in lieu of Connection PL at piers

**** See note (*) on sheet 21 of 32, and Diaphragm Slotted Hole Detail this sheet.

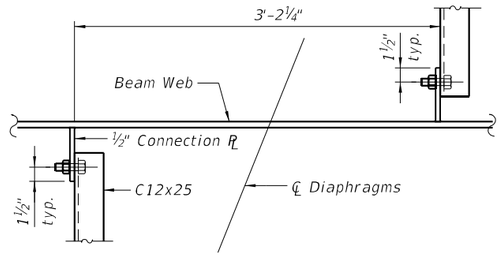


15/16" Ø holes in connection PL and **** 13/16" x 1 7/8" Vert. Long Slotted holes in Diaphragm, this end only.

DIAPHRAGM SLOTTED HOLE DETAIL

(Along Construction Line)

*** Brg. Stiff. shall be used in lieu of Connection PL at piers



DETAIL A

See sheet 21 of 32 for location.

Notes:

1. All splice plates and bearing stiffeners shall be AASHTO M270, Grade 50.
2. Two hardened washers required for each set of oversized holes.
3. Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels if utilized, shall be provided at no additional cost to the Department.

MODEL: Default
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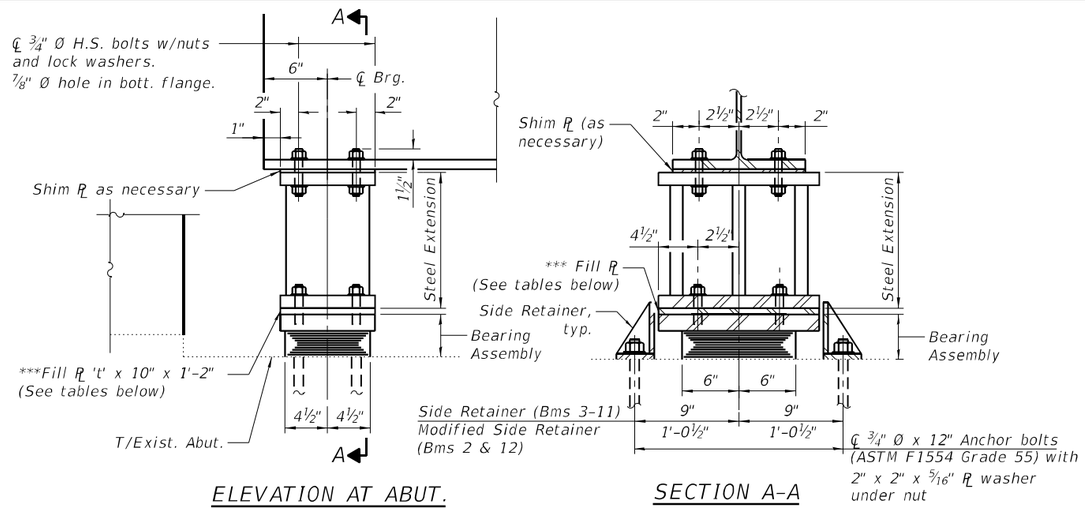
3/20/2024 4:44:52 PM

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEAM DETAILS STRUCTURE NO. 016-0217
	CHECKED - DF	REVISED -		
PLOT SCALE =	DRAWN - EBP	REVISED -		SHEET 22 OF 32 SHEETS
PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -		

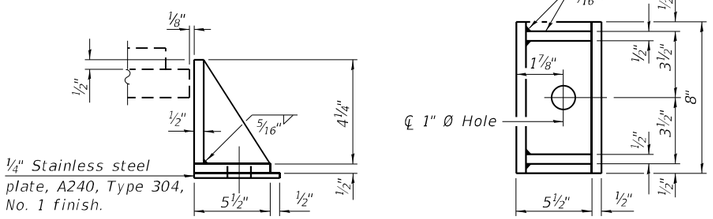
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	230
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



ELEVATION AT ABUT. SECTION A-A

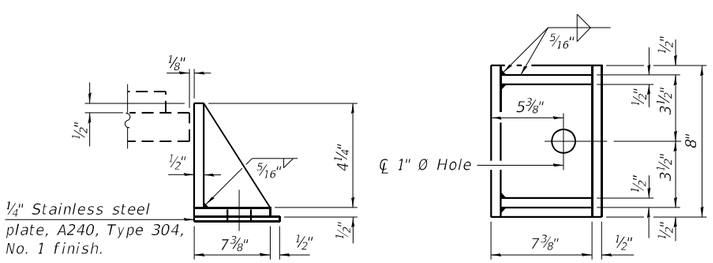
TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

(Bms 2 thru 12 only, see sheet 24 of 32 for Bms 1 & 13)



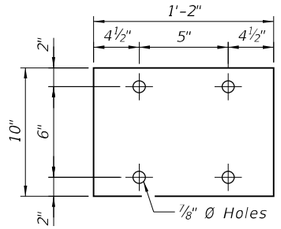
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (40 req'd)



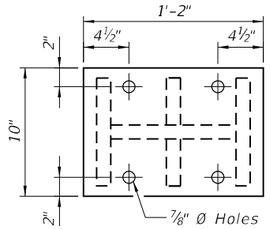
MODIFIED SIDE RETAINER

(at Bms 1, 2, 12, & 13) Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. See sheet 26 of 32 for locations. (12 req'd)

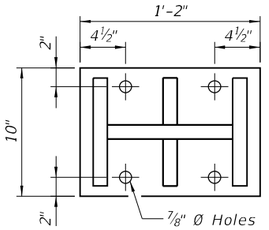


PLAN FILL PL

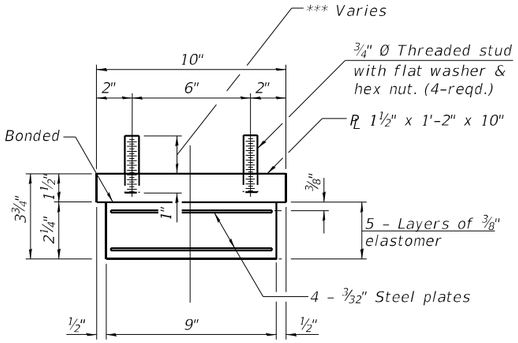
(Shim PL similar if required)



PLAN TOP PL



PLAN BOTTOM PL



BEARING ASSEMBLY

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

*** See West and East Abutment Extension & Fill PL Dimensions tables this sheet.

Notes:

Prior to ordering any material, the Contractor shall verify in the field all bearing & steel extension heights and fill plate & shim plate thicknesses.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

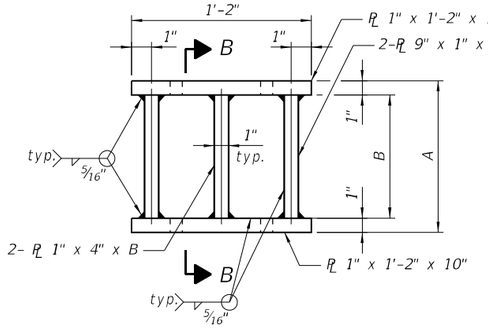
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

The structural steel plates of the Bearing Assembly, fixed bearing plates, pintles, and steel extensions shall conform to the requirements of AASHTO M270, Grade 50.

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 cost for fabricating and installing the fixed bearing assembly, steel extensions, fill plate and shim plate will be paid for as Furnishing and Erecting Structural Steel.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



ELEVATION

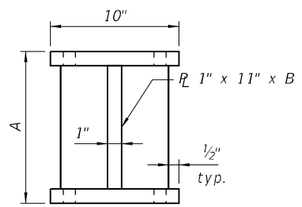
(Beam lines 2 thru 12 only)

*** WEST ABUTMENT EXTENSION & FILL PL DIMENSIONS

	BM 2	BM 3	BM 4	BM 5	BM 6	BM 7	BM 8	BM 9	BM 10	BM 11	BM 12
Fill Plate 't'	–	–	⅜"	–	–	¼"	¼"	⅜"	¼"	–	–
Steel Extension 'A'	9⅜"	10⅜"	10⅜"	11½"	12"	12"	11½"	11"	11"	10⅜"	10½"
Steel Extension 'B'	7⅜"	8⅜"	8⅜"	9½"	10"	10"	9½"	9"	9"	8⅜"	8½"
Threaded Stud Length (excluding 1" embedded into top PL)	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"

*** EAST ABUTMENT EXTENSION & FILL PL DIMENSIONS

	BM 2	BM 3	BM 4	BM 5	BM 6	BM 7	BM 8	BM 9	BM 10	BM 11	BM 12
Fill Plate 't'	–	–	–	⅜"	⅛"	–	¼"	–	–	–	–
Steel Extension 'A'	9"	10½"	10½"	11¾"	11¾"	11¾"	11¾"	11¼"	10½"	10⅛"	9½"
Steel Extension 'B'	7"	8½"	8½"	9¾"	9¾"	9¾"	9¾"	9¼"	8½"	8⅛"	7½"
Threaded Stud Length (excluding 1" embedded into top PL)	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"	2⅞"



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	26
Anchor Bolts, ¾"	Each	52

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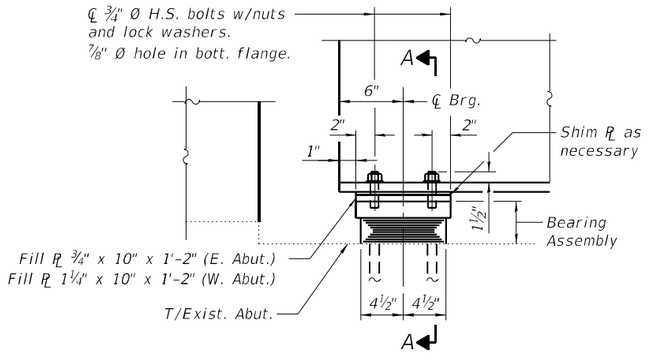
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS/DF	REVISED -		
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - EBP	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

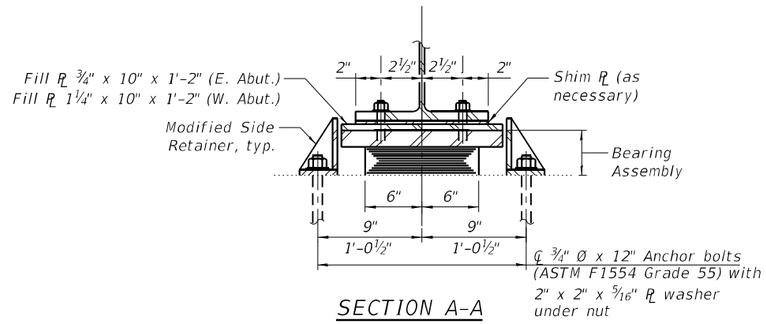
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT BEARING I
STRUCTURE NO. 016-0217
SHEET 23 OF 32 SHEETS

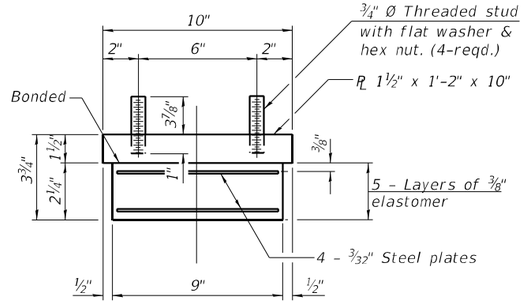
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	231
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			



ELEVATION AT ABUT.



SECTION A-A



BEARING ASSEMBLY

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

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

(Bms 1 & 13)

Note:
See sheet 23 of 32 for additional details, notes, and bill of material.

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GANNETT FLEMING

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	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - EBP	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 24 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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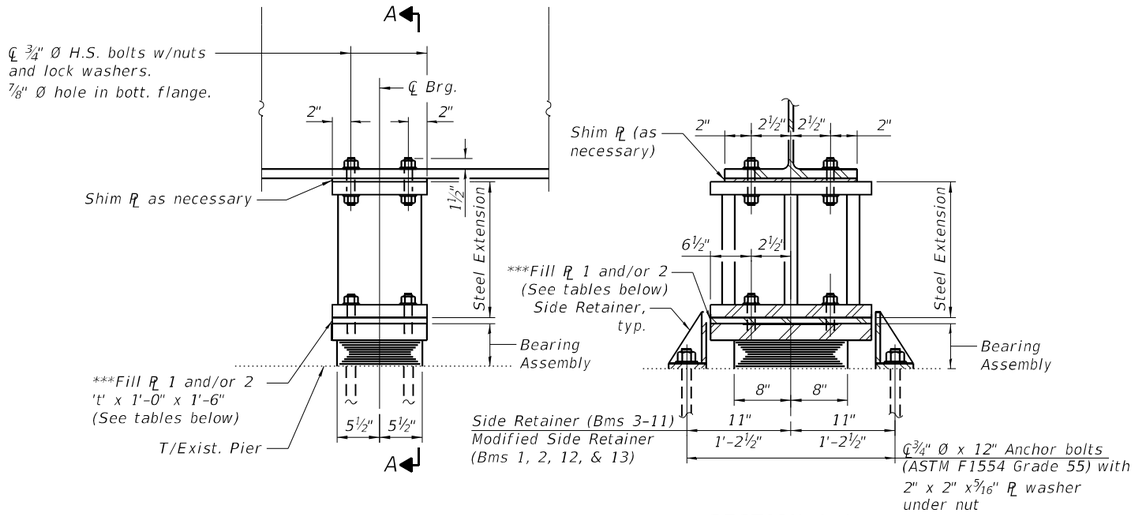
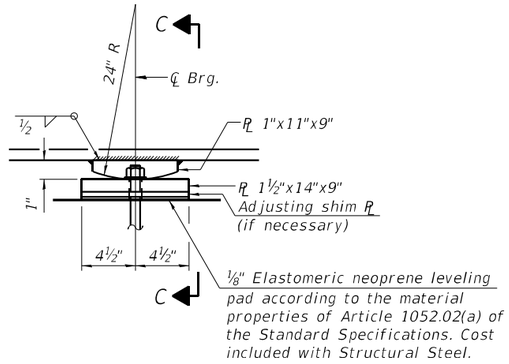
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



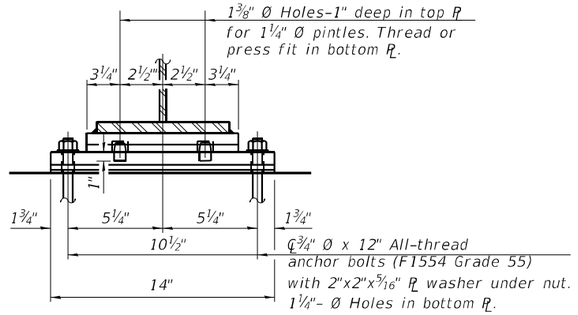
ELEVATION

SECTION A-A

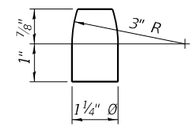
TYPE I ELASTOMERIC EXP. BRG. AT PIER 1



ELEVATION

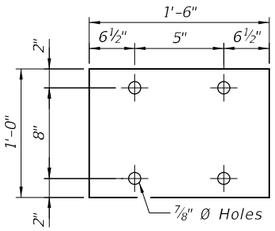


SECTION C-C



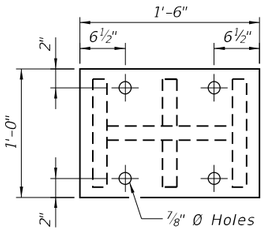
PINTLE

FIXED BEARING AT PIER 2



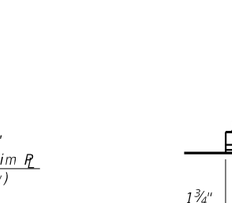
PLAN FILL Pℓ

(Shim Pℓ similar if required)

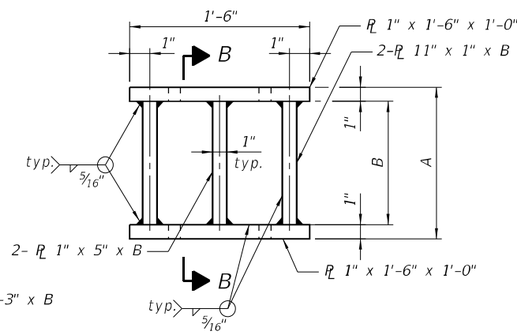


PLAN TOP Pℓ

PLAN BOTTOM Pℓ

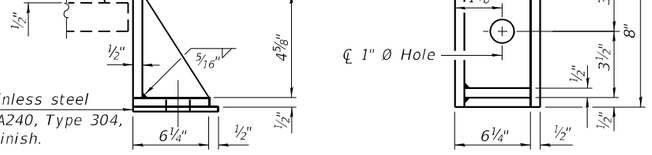


SECTION B-B



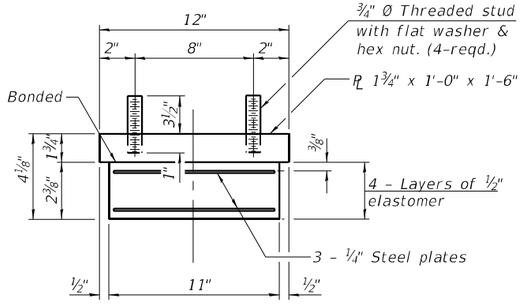
ELEVATION

(Beam lines 2 thru 12 only)



SIDE RETAINER

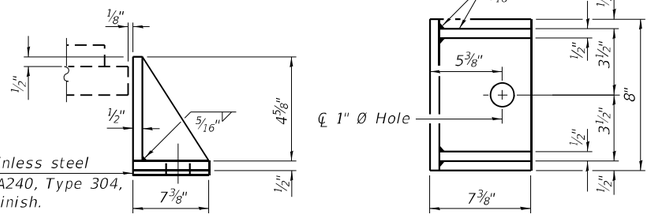
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
(20 req'd)



BEARING ASSEMBLY

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

*** See Pier 1 Extension & Fill Pℓ Dimensions table.



MODIFIED SIDE RETAINER

(at Bms 1, 2, 12, & 13)
See sheet 29 of 32 for locations.
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
(6 req'd)

*** PIER 1 EXTENSION & FILL Pℓ DIMENSIONS

	BM 1	BM 2	BM 3	BM 4	BM 5	BM 6	BM 7	BM 8	BM 9	BM 10	BM 11	BM 12	BM 13
Fill Plate 1 't'	¼"	-	¼"	-	-	-	½"	-	-	-	¼"	-	-
Fill Plate 2 't'	-	-	-	-	-	-	½"	-	-	-	-	-	-
Steel Extension 'A'	-	8⅞"	9"	8⅛"	9"	9"	10"	11⅛"	10"	9⅝"	9"	8½"	-
Steel Extension 'B'	-	6⅞"	7"	6⅛"	7"	7"	8"	9⅛"	8"	7⅝"	7"	6½"	-

Notes:
See sheet 23 of 32 for additional details and notes.

BILL OF MATERIAL

Item	Unit	
Elastomeric Bearing Assembly Type I	Each	13
Anchor Bolts, ¾"	Each	52

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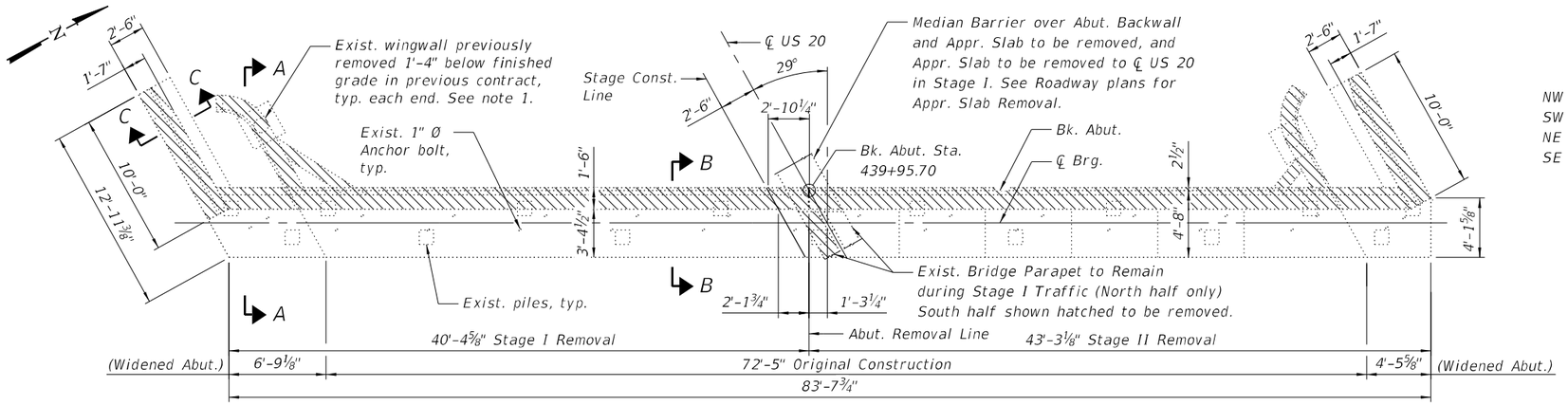
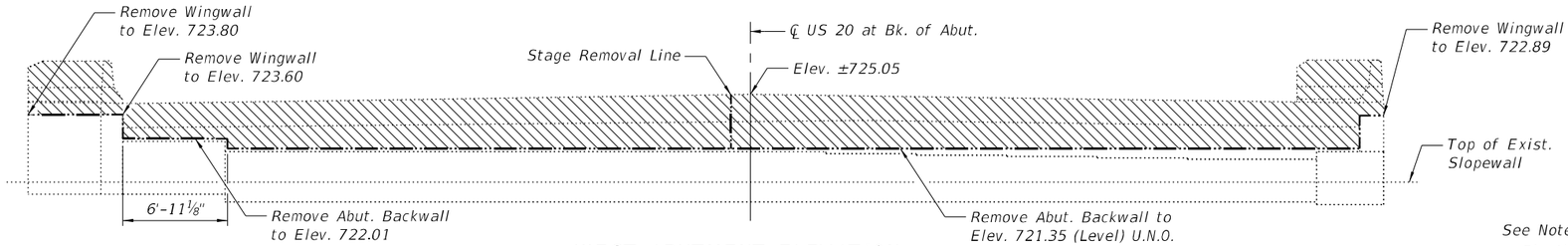
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS/DF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER BEARING STRUCTURE NO. 016-0217	
	CHECKED - MZ	REVISED -			
PLOT SCALE =	DRAWN - EBP	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		SHEET 25 OF 32 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	233
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

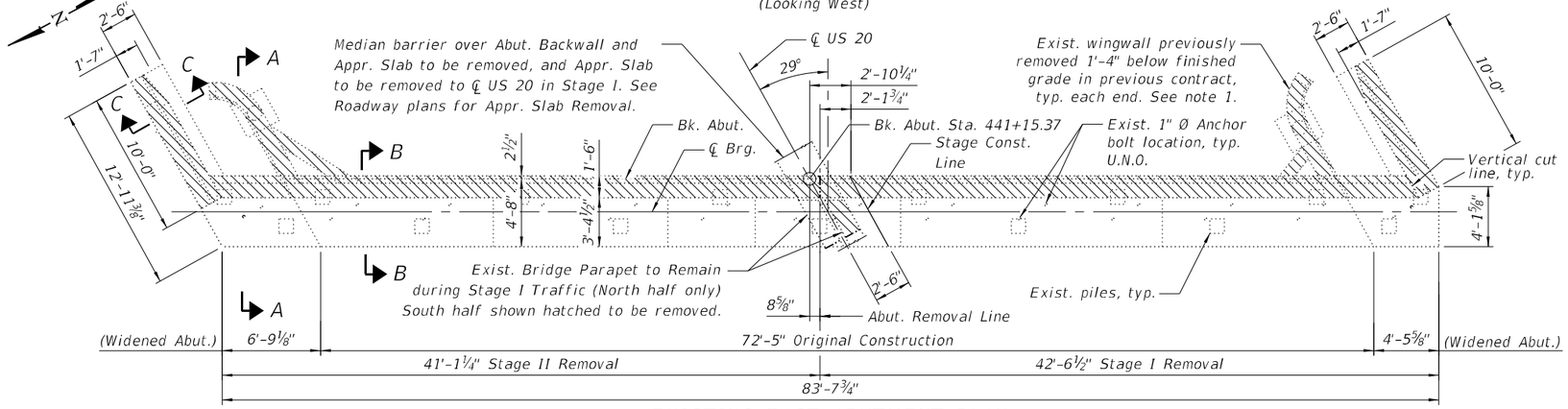


EXISTING WEST ABUTMENT PLAN

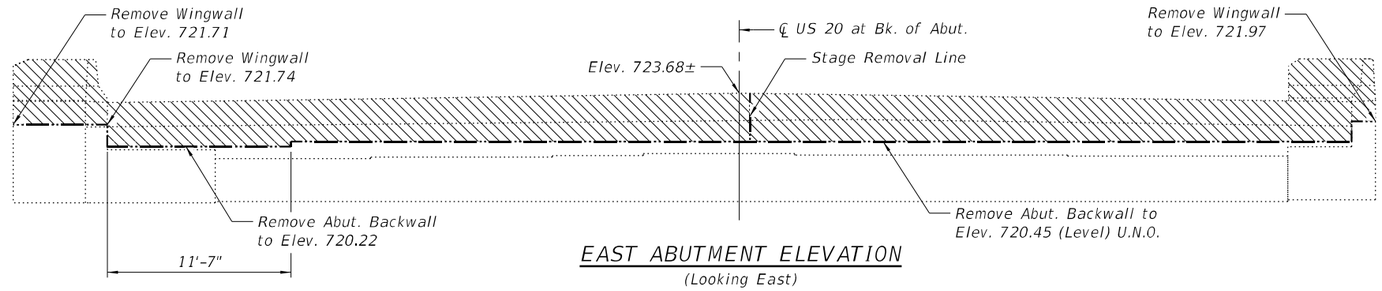


WEST ABUTMENT ELEVATION

(Looking West)

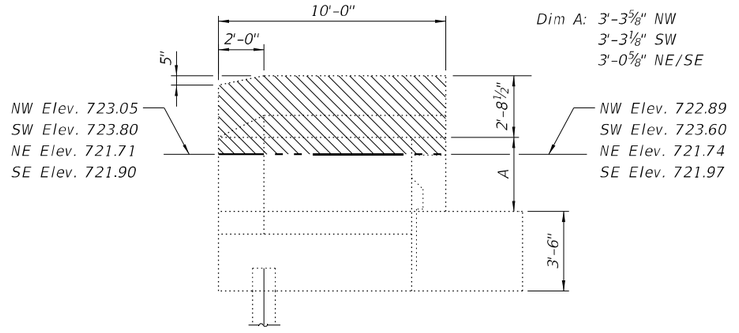


EXISTING EAST ABUTMENT PLAN

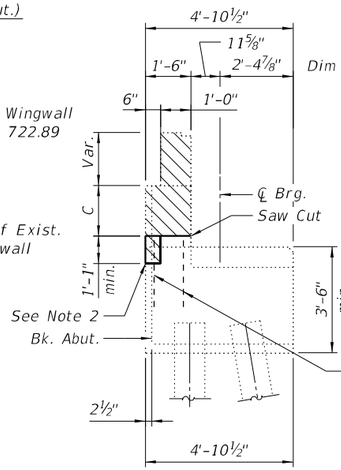


EAST ABUTMENT ELEVATION

(Looking East)

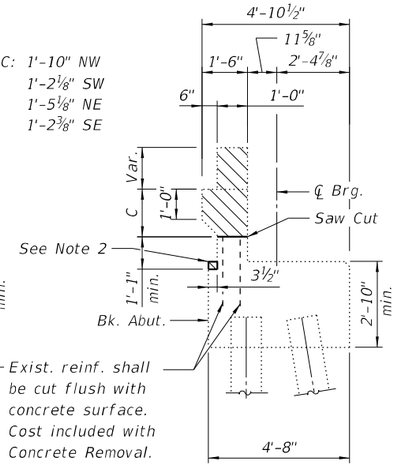


WINGWALL ELEVATION



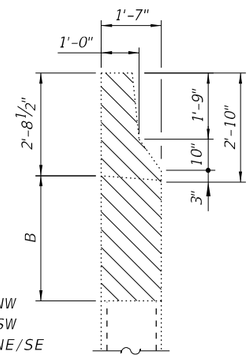
SECTION A–A

(Widened Abut.)

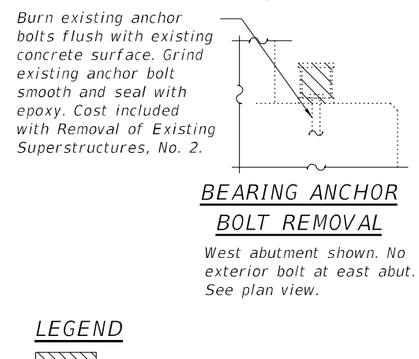


SECTION B–B

(Original Const.)



SECTION C–C



BEARING ANCHOR BOLT REMOVAL

West abutment shown. No exterior bolt at east abut. See plan view.

LEGEND

Concrete Removal

NOTES

1. The Existing Wingwall within the limits of the original construction shall be removed to a minimum of 2-ft below subgrade. A quantity of 1.5 cu. yds. of Concrete Removal has been estimated for this work. Removal shall be as directed by the Engineer.
2. Additional abutment cap concrete removal will be necessary to accommodate the fabric reinforced elastomeric mat and/or plate. Removal shall be as directed by the Engineer.
3. See sheet 23 & 27 of 32 for additional details and bill of material.

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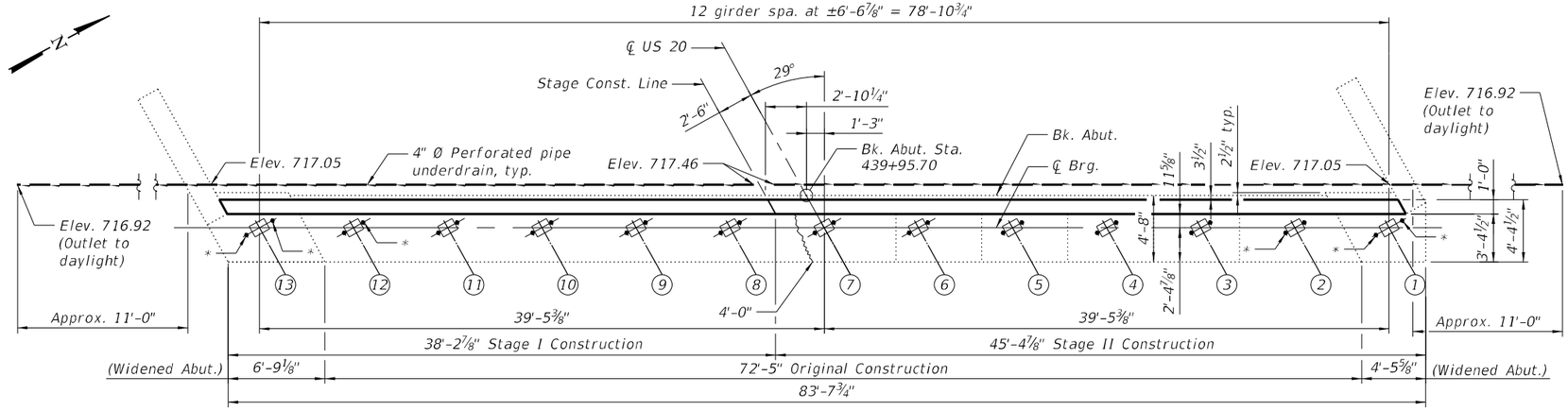
GANNETT FLEMING

USER NAME = jstarzyk		DESIGNED - DF/SS	REVISED -	
		CHECKED - MZ	REVISED -	
PLOT SCALE =		DRAWN - EBP	REVISED -	
PLOT DATE = 3/20/2024		CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

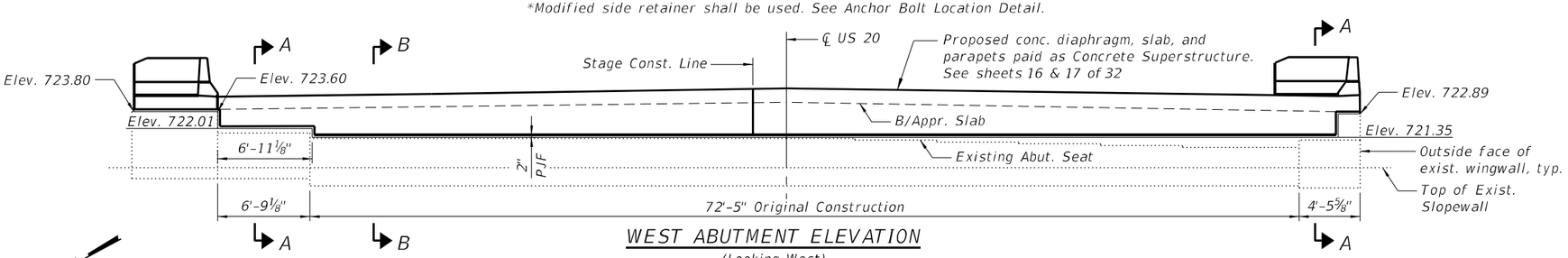
ABUTMENT REMOVAL
STRUCTURE NO. 016-0217
SHEET 26 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	234
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



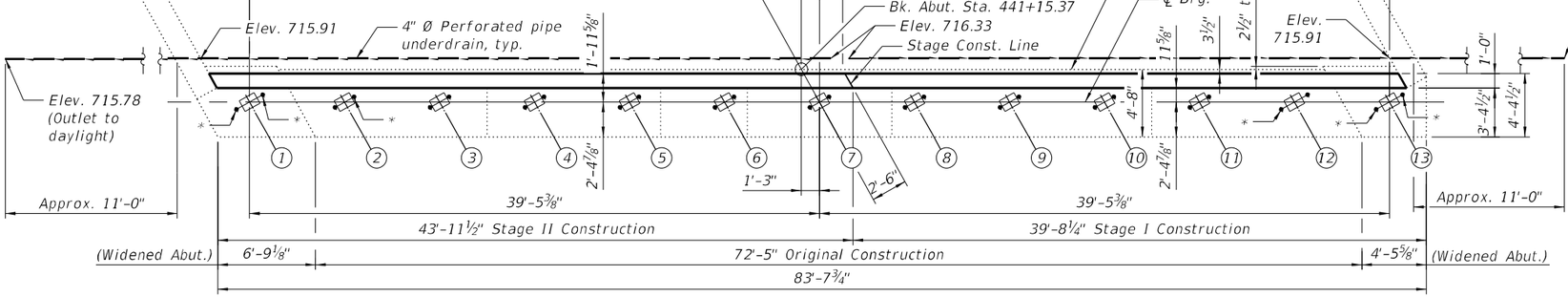
WEST ABUTMENT PLAN

*Modified side retainer shall be used. See Anchor Bolt Location Detail.



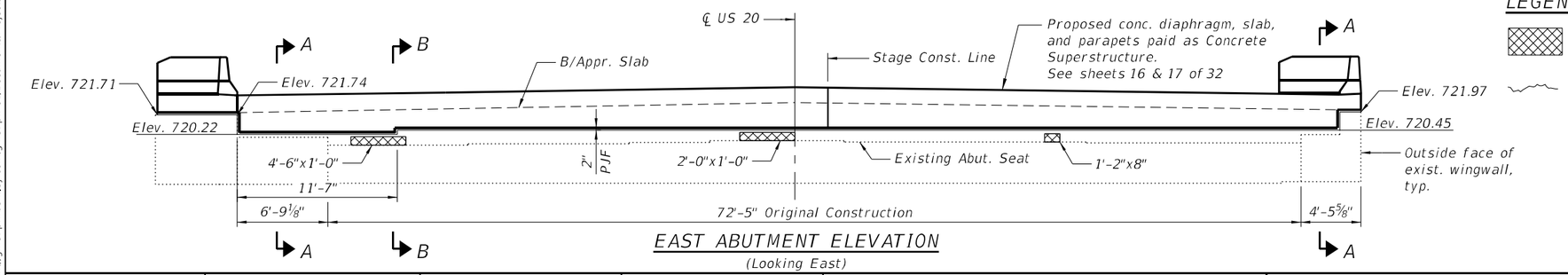
WEST ABUTMENT ELEVATION

(Looking West)



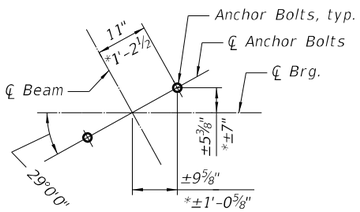
EAST ABUTMENT PLAN

*Modified side retainer shall be used. See Anchor Bolt Location Detail.



EAST ABUTMENT ELEVATION

(Looking East)



ANCHOR BOLT LOCATION DETAIL

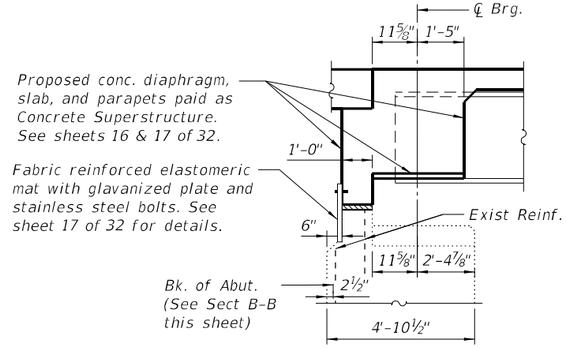
*Modified side retainer shall be used at Bms 1, 2, 12, & 13. See sheet 23 of 32 for additional details and quantities.

**Existing Seat Elev

(For Information Only)

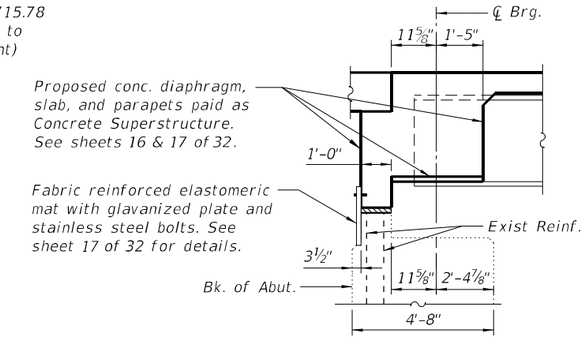
Beam No.	W. Abut.	E. Abut.
1	721.15	720.07
2	720.65	719.51
3	720.72	719.50
4	720.83	719.61
5	720.92	719.58
6	721.01	719.70
7	721.12	719.81
8	721.14	719.73
9	721.14	719.73
10	721.13	719.73
11	721.13	719.69
12	721.12	719.67
13	721.83	720.29

**As Surveyed Seat Elev. Contractor shall verify prior to ordering bearing materials and fill plates.



SECTION A-A

(Widened Abut.)



SECTION B-B

(Original Const.)

LEGEND

Structural Repair of Concrete (Depth Greater Than 5 Inches)

Epoxy Crack Injection

TWO ABUTMENTS BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	35.1
Epoxy Crack Injection	Foot	4
Pipe Underdrains for Structures, 4"	Foot	212
Structural Repair of Concrete (Depth greater than 5 inches)	Sq Ft	8

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - DF/SS	REVISED -
	CHECKED - MZ	REVISED -
PLOT SCALE =	DRAWN - EBP	REVISED -
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIRS
STRUCTURE NO. 016-0217
SHEET 27 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	235
			CONTRACT NO. 62U83	
		ILLINOIS	FED. AID PROJECT	

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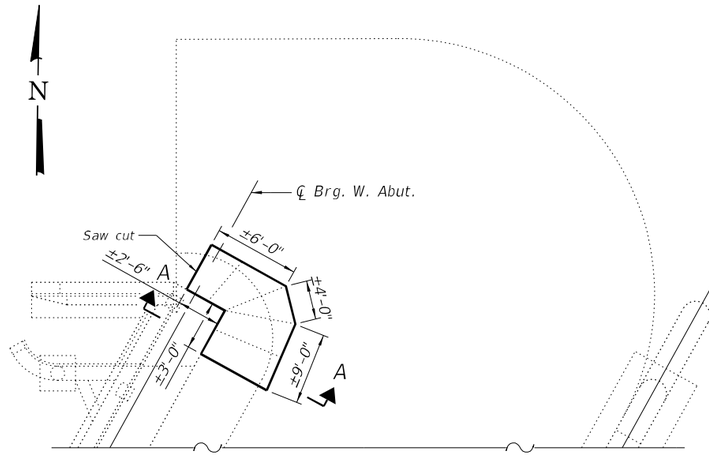
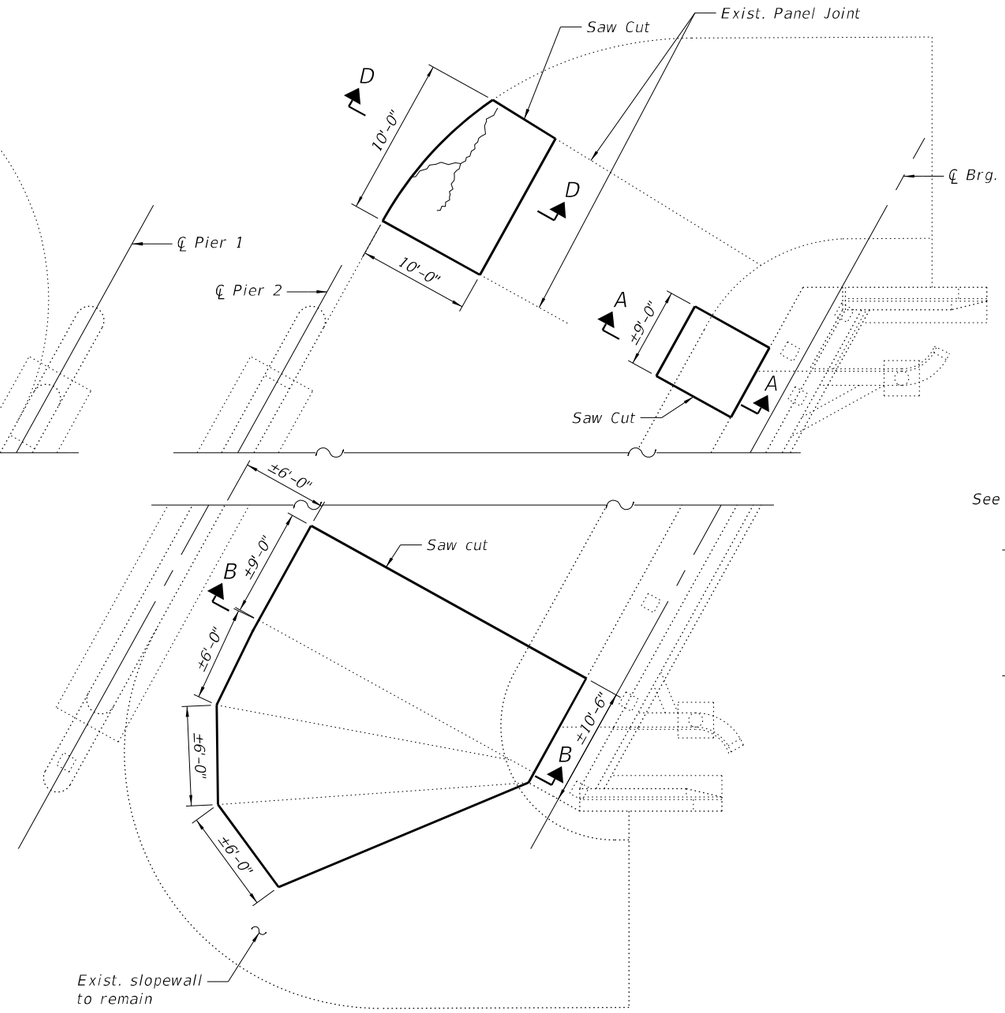


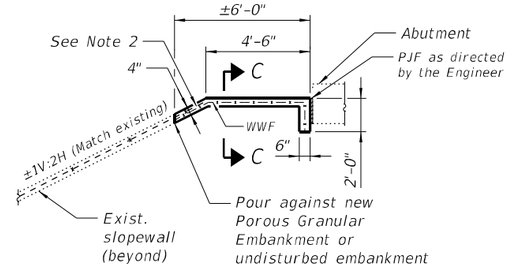
WEST SLOPE WALL PARTIAL PLAN

(Area of Slope Wall Removal and Slope Wall, 4 Inch)



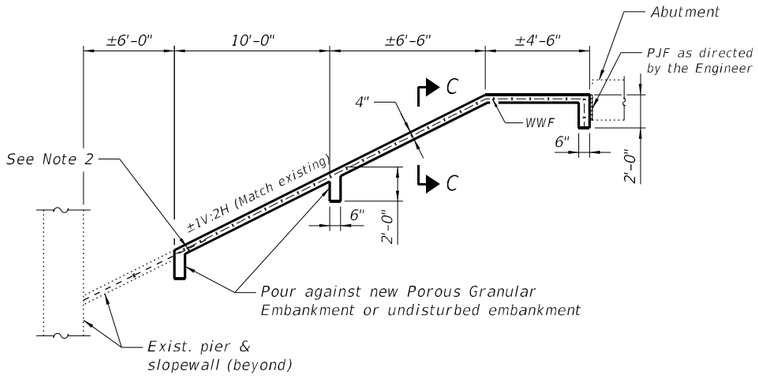
EAST SLOPE WALL PARTIAL PLAN

(Area of Slope Wall Removal and Slope Wall, 4 Inch)



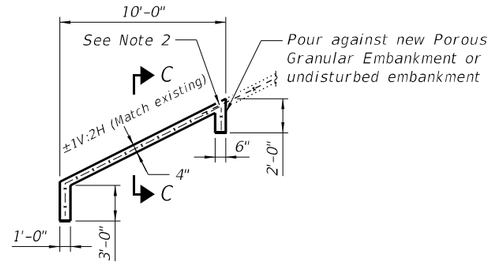
SECTION A-A

Dimensions at Right Ls U.N.O.

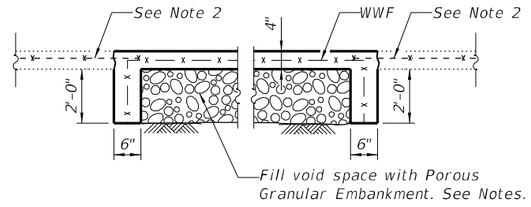


SECTION B-B

Dimensions at Right Ls U.N.O.



SECTION D-D



SECTION C-C

NOTES

1. Slopewall shall be reinforced with welded wire fabric, 6" x 6" – W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
2. Existing welded wire fabric to be cleaned by sandblasting to gray metal and incorporated into new construction. Lap existing and new welded wire fabric a minimum of 6".
3. Cost of Sawcuts and PJF included in the cost of Slope Wall, 4".
4. Removal limits and layout of the slope wall may be varied to suit ground conditions in field as directed by the Engineer.
5. A quantity of 50 cu. yds. of Porous Granular Embankment has been estimated to fill the voids under the slope wall areas to be removed.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu Yd	50.0
Slope Wall Removal	Sq Yd	80
Slope Wall, 4 Inch	Sq Yd	80

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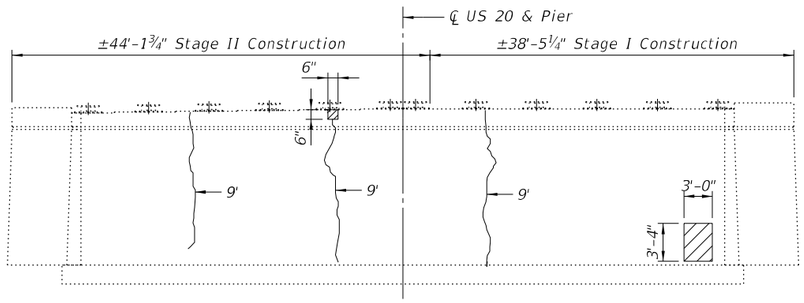
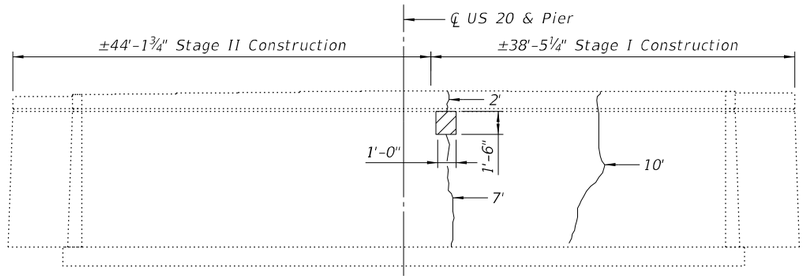
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - SS/DF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SLOPEWALL REPAIRS STRUCTURE NO. 016-0217	F.A.P. RTE. 345 | SECTION FAP 345-23-BR | COUNTY COOK | TOTAL SHEETS 379 | SHEET NO. 236
	CHECKED - MZ	REVISED -			CONTRACT NO. 62U83
PLOT SCALE =	DRAWN - LAM	REVISED -		SHEET 28 OF 32 SHEETS	ILLINOIS | FED. AID PROJECT
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -			



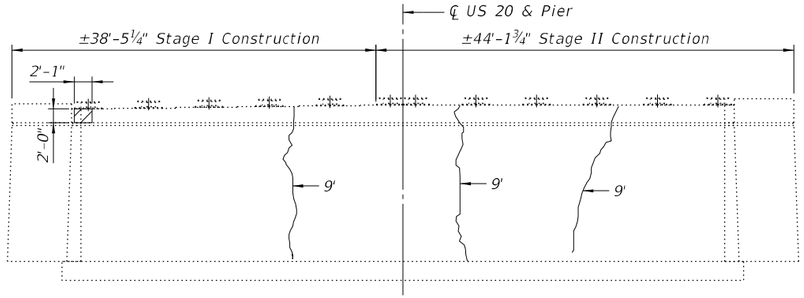
WEST FACE PIER 1

(Looking East)



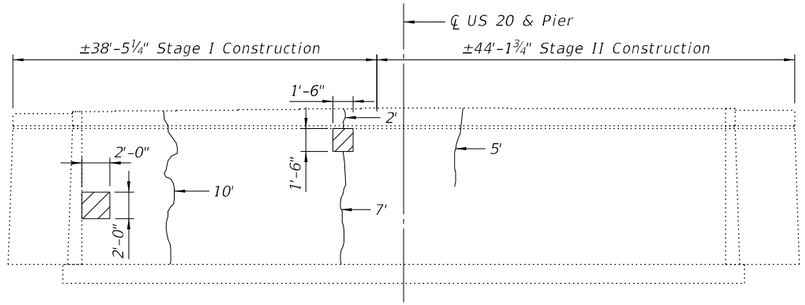
WEST FACE PIER 2

(Looking East)



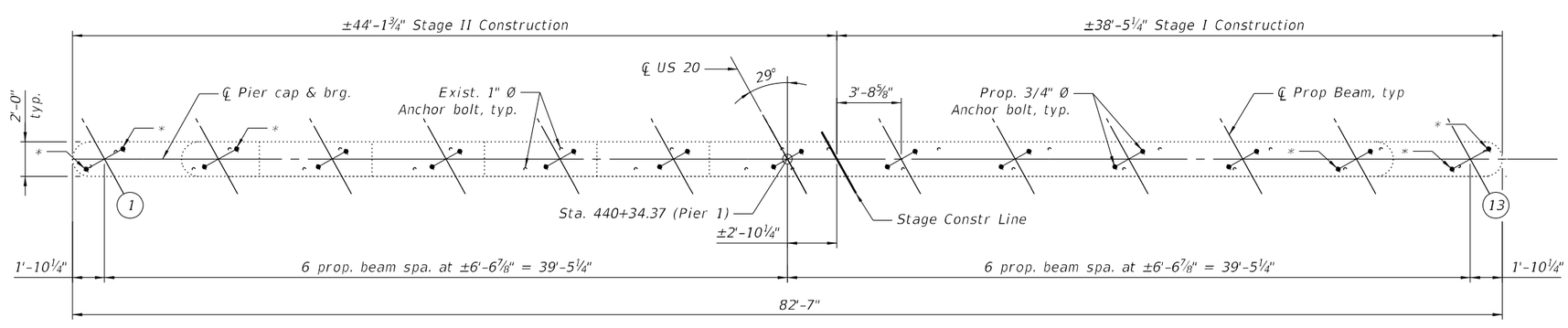
EAST FACE PIER 1

(Looking West)

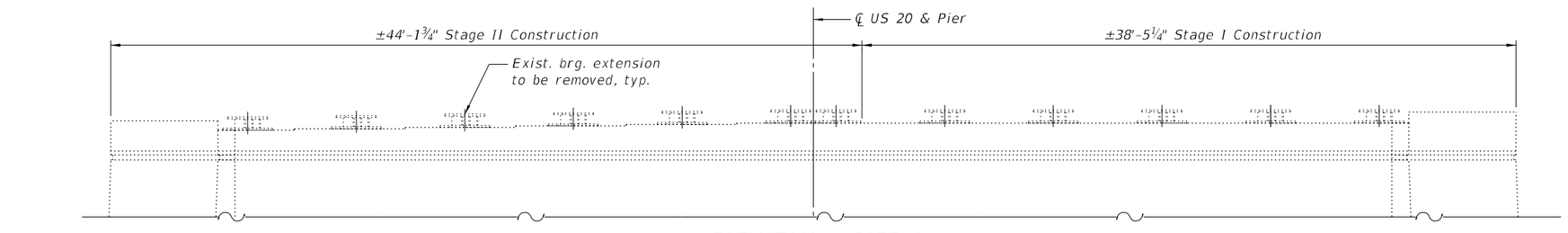


EAST FACE PIER 2

(Looking West)



PLAN – PIER 1



ELEVATION – PIER 1

Looking East

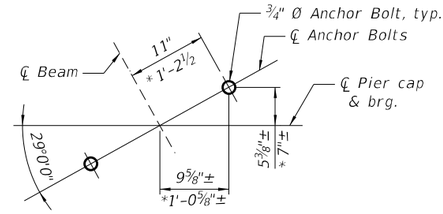
TWO PIERS
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Epoxy Crack Injection	Foot	97
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq Ft	23

LEGEND

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

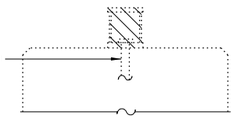
Epoxy Crack Injection



ANCHOR BOLT LOCATION DETAIL

*Modified side retainer shall be used at Bms 1, 2, 12, & 13.
See sheet 25 of 32 for additional details and quantities.

Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost included with Removal of Existing Superstructures, No. 2



BEARING ANCHOR BOLT REMOVAL

**EXISTING SEAT ELEV
(For Information Only)

Beam No.	Pier 1	Pier 2
1	720.65	719.55
2	720.08	719.76
3	720.19	719.82
4	720.41	719.90
5	720.48	719.97
6	720.58	720.09
7	720.50	720.14
8	720.50	720.13
9	720.56	720.06
10	720.55	720.07
11	720.55	720.07
12	720.56	720.04
13	721.20	719.90

**As Surveyed Seat Elev. Contractor shall verify Prior to ordering bearing materials and fill plates.

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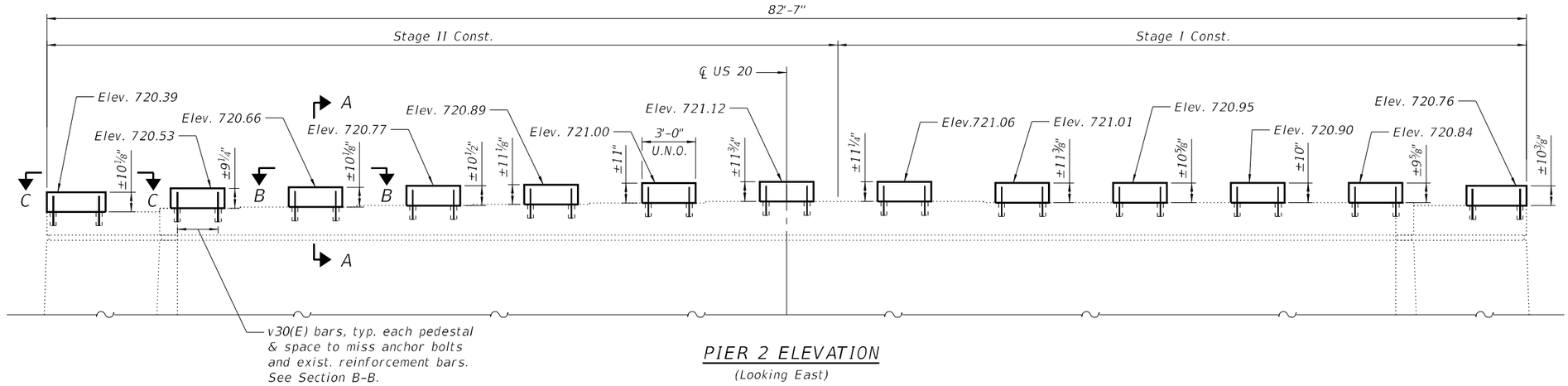
GANNETT FLEMING

USER NAME = jstarzyk		DESIGNED - DF/SS		REVISED -	
		CHECKED - MZ		REVISED -	
PLOT SCALE =		DRAWN - EBP		REVISED -	
PLOT DATE = 3/20/2024		CHECKED - MZ		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

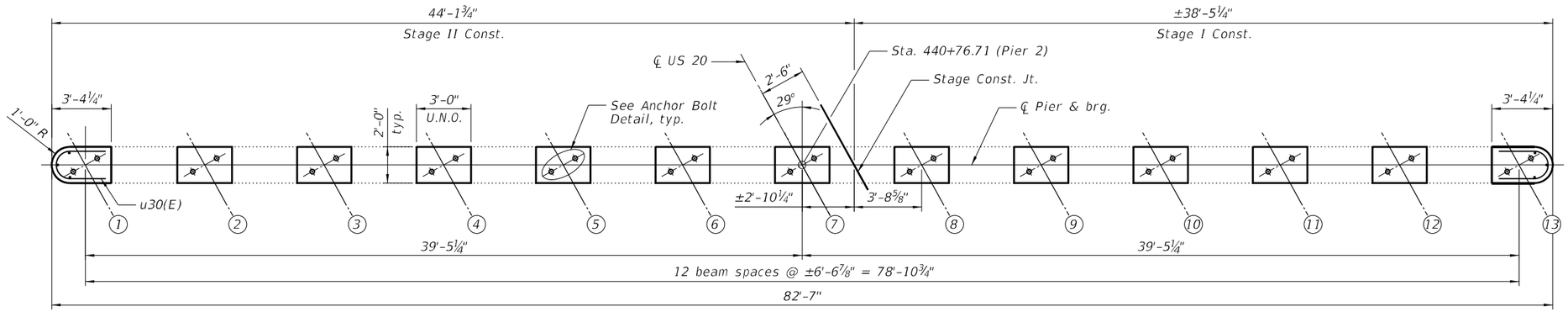
PIER REPAIRS
STRUCTURE NO. 016-0217
SHEET 29 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	237
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

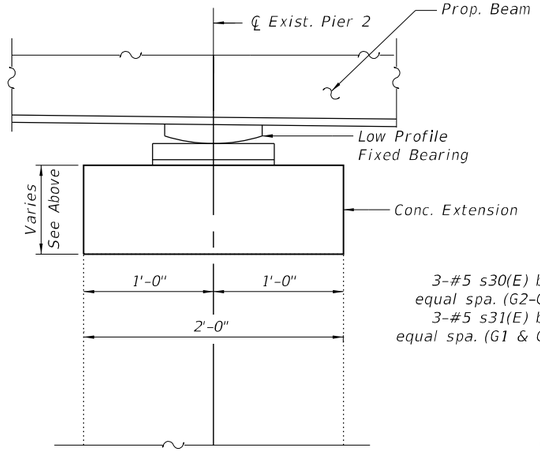


PIER 2 ELEVATION

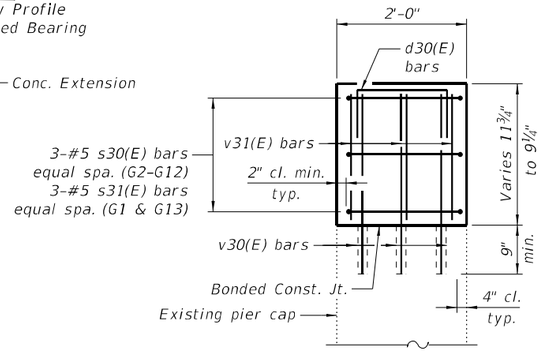
(Looking East)



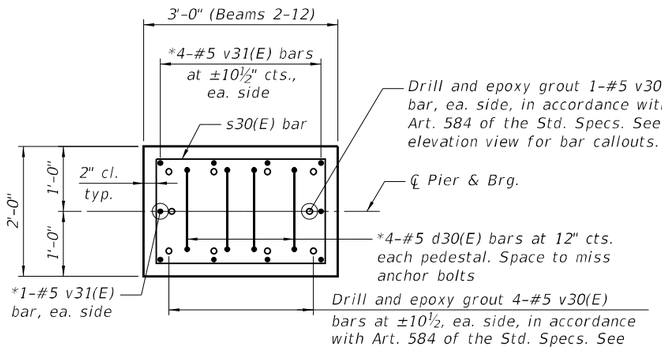
PIER 2 PLAN



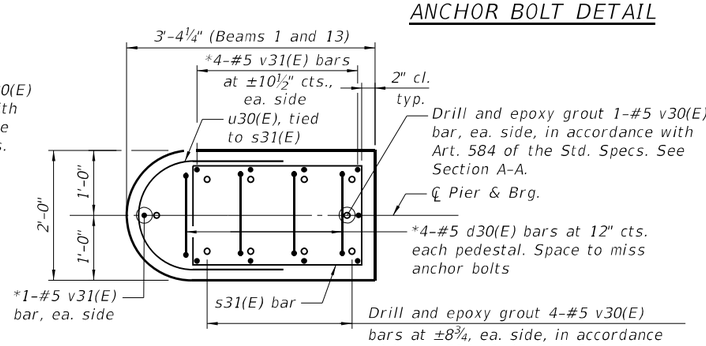
TYP. SECION THRU PIER 2



SECTION A-A



SECTION B-B



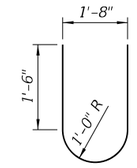
SECTION C-C

Note:
Prior to ordering any material, the contractor shall verify in the field all bearing height and shim thickness dimensions.

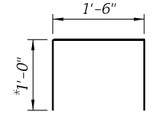
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d30(E)	52	#5	3'-6"	⊓
s30(E)	33	#5	9'-7"	▯
s31(E)	6	#5	8'-8"	▯
u30(E)	6	#5	6'-2"	∪
v30(E)	130	#5	1'-7"	—
v31(E)	130	#5	1'-0"	—
Reinforcement Bars, Epoxy Coated			Pound	970
Concrete Structures			Cu Yd	2.6

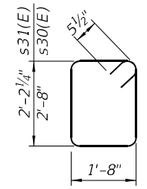
* Cut to fit in field.



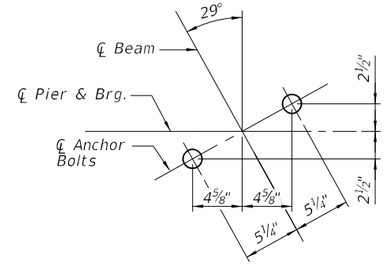
BAR u30(E)



BAR d30(E)



BAR s30(E) & s31(E)



ANCHOR BOLT DETAIL

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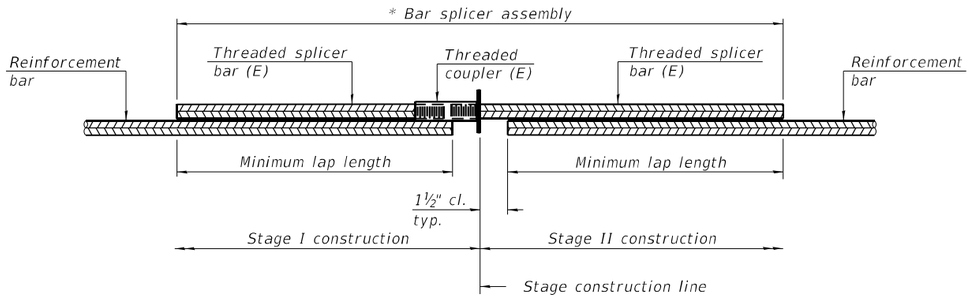
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - DF/SS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER DETAILS STRUCTURE NO. 016-0217
	CHECKED - MZ	REVISED -		SHEET 30 OF 32 SHEETS
PLOT SCALE =	DRAWN - EBP	REVISED -		
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	238
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved OPL list may be used.

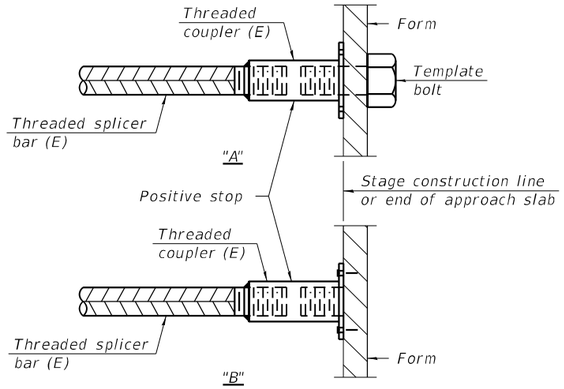
Threaded splicer bar length = min. lap length + 1½" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
Top of Deck	#5	216	3'-0"
Bottom of Deck	#5	141	3'-6"
E. Approach Slab	#5	46	3'-0"
E. Approach Slab	#8	61	4'-9"
E. Approach Footing	#5	40	3'-2"
W. Approach Slab	#5	46	3'-0"
W. Approach Slab	#8	61	4'-9"
W. Approach Footing	#5	40	3'-2"
E. Diaphragm	#4	2	2'-5"
E. Diaphragm	#6	5	3'-7"
W. Diaphragm	#4	2	2'-5"
W. Diaphragm	#6	5	3'-7"

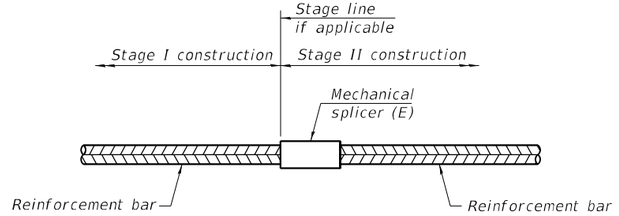
MODIFIED BAR SPLICER FOR DIAPHRAGM AT STAGE LINE

Location	Bar size	No. assemblies required	Lap Length
E. Diaphragm	#6	4	2'-4"
W. Diaphragm	#6	4	2'-4"



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

2-1-2023

GANNETT FLEMING

USER NAME = jstarzyk		DESIGNED - SS		REVISED - XXX	
		CHECKED - MZ		REVISED - XXX	
PLOT SCALE =		DRAWN - EBP		REVISED - XXX	
PLOT DATE = 3/20/2024		CHECKED - MZ		REVISED - XXX	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-0217
SHEET 31 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	239
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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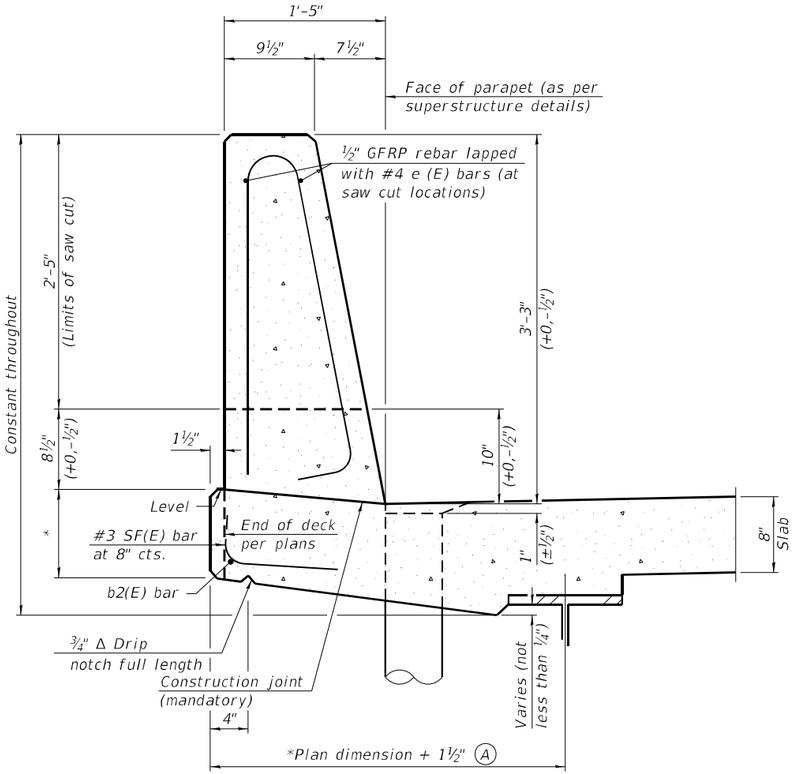
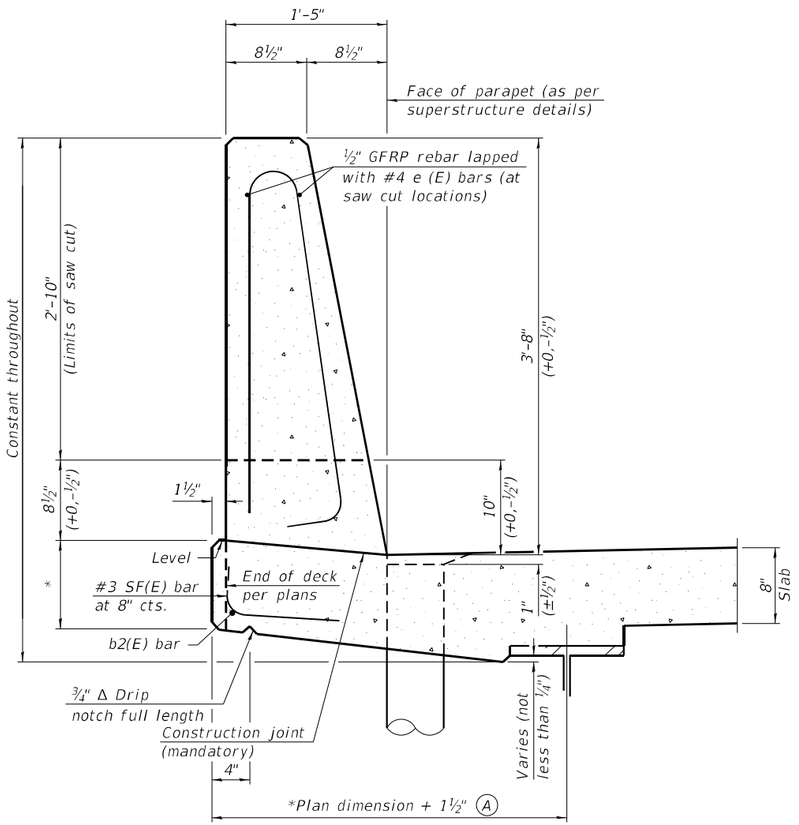


39" CONSTANT-SLOPE PARAPET SECTION

(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)

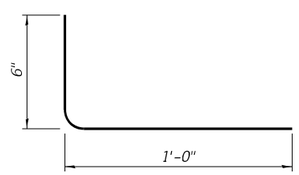
Notes:

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.

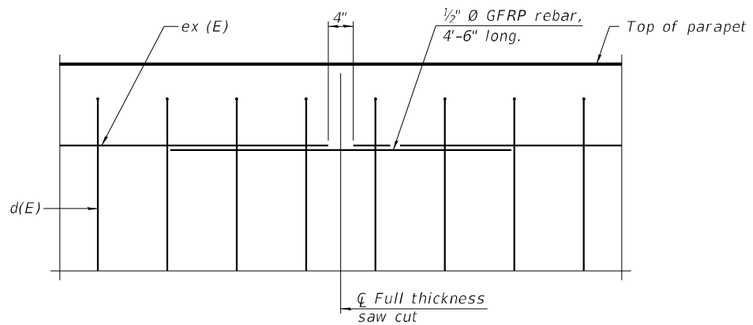
Place full depth aluminum sheets as shown on superstructure details.

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

Steel superstructure shown. Other superstructure types similar.



SF(E) BAR



GFRP REBAR STIFFENING DETAIL

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

SFP 39-44 11-1-2022

GANNETT FLEMING	USER NAME = jstarzyk	DESIGNED - EBP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 016-0217
		CHECKED - MZ	REVISED -		
	PLOT SCALE =	DRAWN - EBP	REVISED -		SHEET 32 OF 32 SHEETS
	PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK	379	240
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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Existing Structure: S.N. 045-0004 carrying US Route 20 over Fox River was originally constructed in 1960 as F.A. Route 6, Section 8R-B at Station 200+22.00. In 1986, the railing was replaced, floor drains installed, expansion joints reconstructed, substructure repaired, deck was patched and overlay placed. Structure consists of a five span steel beam bridge with 660'-0" back to back abutments along the roadway, 63'-8" out-to-out deck width, two column piers on spread footing and stub abutments.

Stage construction shall be utilized to maintain traffic during construction.

No Salvage.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition

LOADING HS-20

(Original Construction)

INDEX OF SHEETS

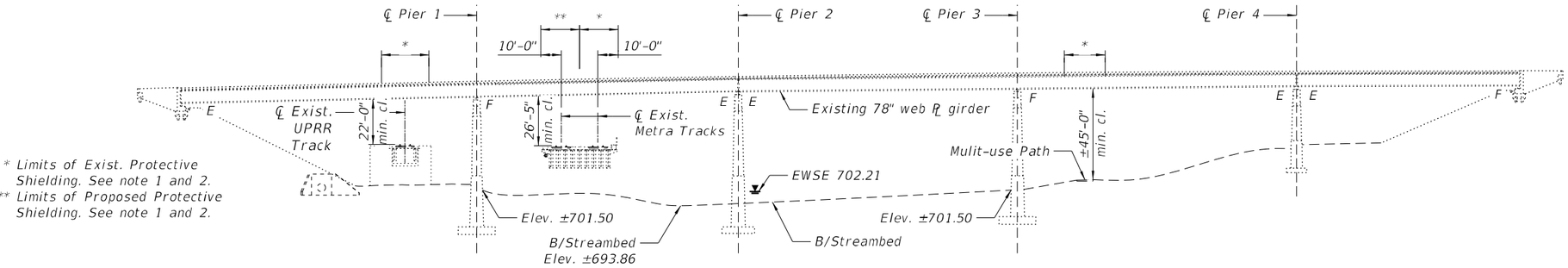
1. General Plan, Notes & Total Bill of Material
2. Construction Staging
3. Deck Repair Details
4. Protective Shield Details

SCOPE OF WORK

1. Install permanent protective shielding system (see Note 2).
2. Deck Slab Repair (Partial).

GENERAL NOTES

1. Protective shield is required in Span 1 and 2 over the UPRR and Metra railroads, and in Span 4 over the Multi-use path as shown on the plans, and shall be in place prior to the start of deck slab repair work. See sheet 4 of 4 for permanent protective shield details.
2. The Contractor shall note that protective shield is currently in place over the Multi-use path, UPRR and METRA Track #1. The total estimated quantity of existing protective shield is 425 sq. yd., and is not included in the contract quantity. The Contractor shall maintain or adjust, as directed by Engineer, the existing protective shield to meet the requirements of the Special Provision. The cost of maintaining, adjusting or removal and disposal of the existing protective shield shall be paid for according to Article 109.04.
3. 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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.



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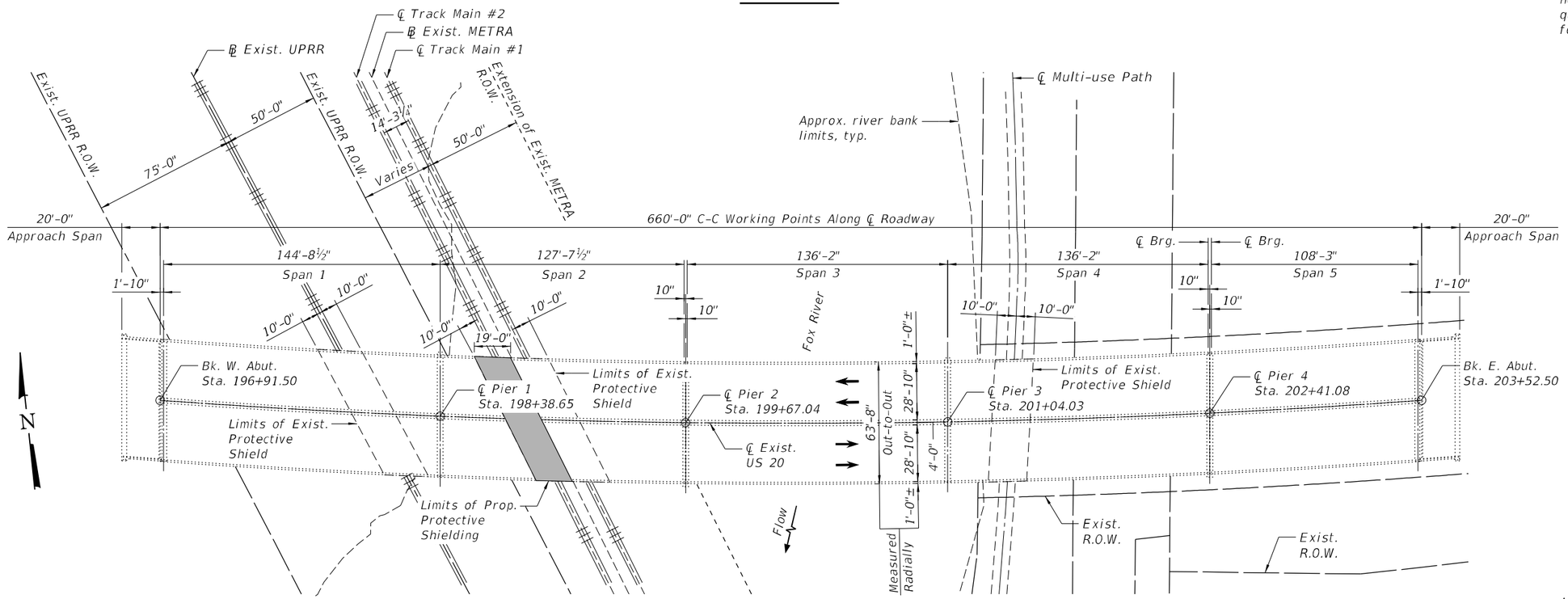


PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Shield (Permanent)	Sq. Yd.	101	-	101
Deck Slab Repair (Partial)	Sq. Yd.	122	-	122

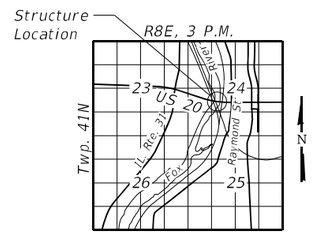
STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNATURE:

DATE: March 20, 2024

EXPIRES: November 30, 2024

SHEETS:



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US ROUTE 20 OVER UPRR, METRA & FOX RIVER (PUBLIC WATERS)
F.A.P. RTE. 345 - SEC 345-23-BR
KANE COUNTY
STATION 200+22.00
STRUCTURE NO. 045-0004

GANNETT FLEMING

USER NAME = mzelisko		DESIGNED - MZ		REVISED -	
		CHECKED - DF		REVISED -	
PLOT SCALE =		DRAWN - MZ		REVISED -	
PLOT DATE = 4/10/2024		CHECKED - DF		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 045-0004
SHEET 1 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	241
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			

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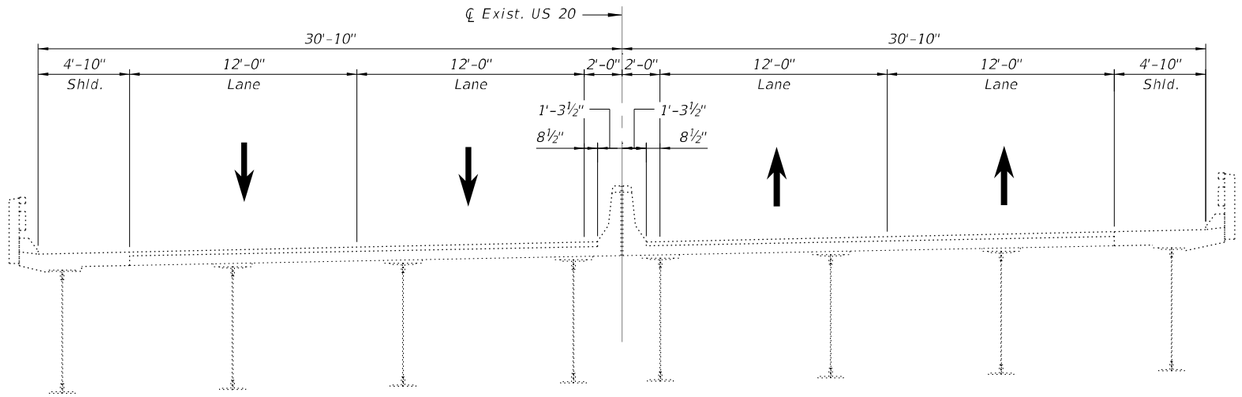

EXISTING SECTION

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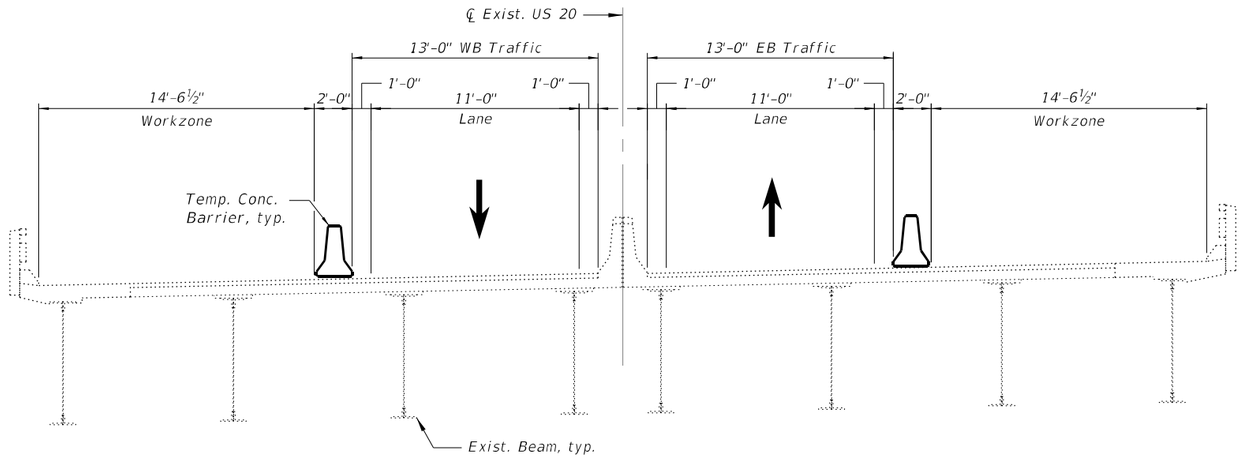
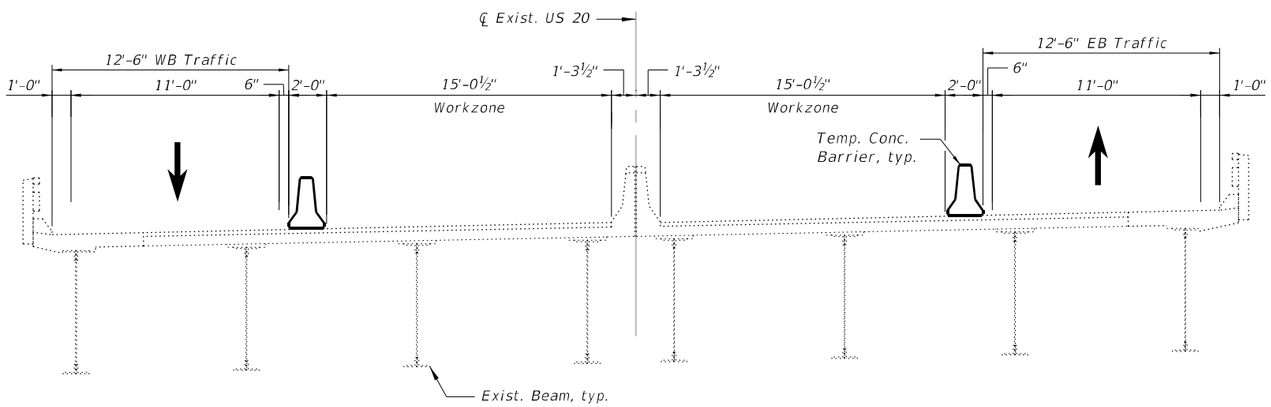


PRE-STAGE 1A

(Looking East)



PRE-STAGE 1B

(Looking East)

NOTES

1. See Maintenance of Traffic plans for traffic configuration during deck patching operations.

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GANNETT FLEMING

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	CHECKED - DF	REVISED -			
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PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -		SHEET 2 OF 4 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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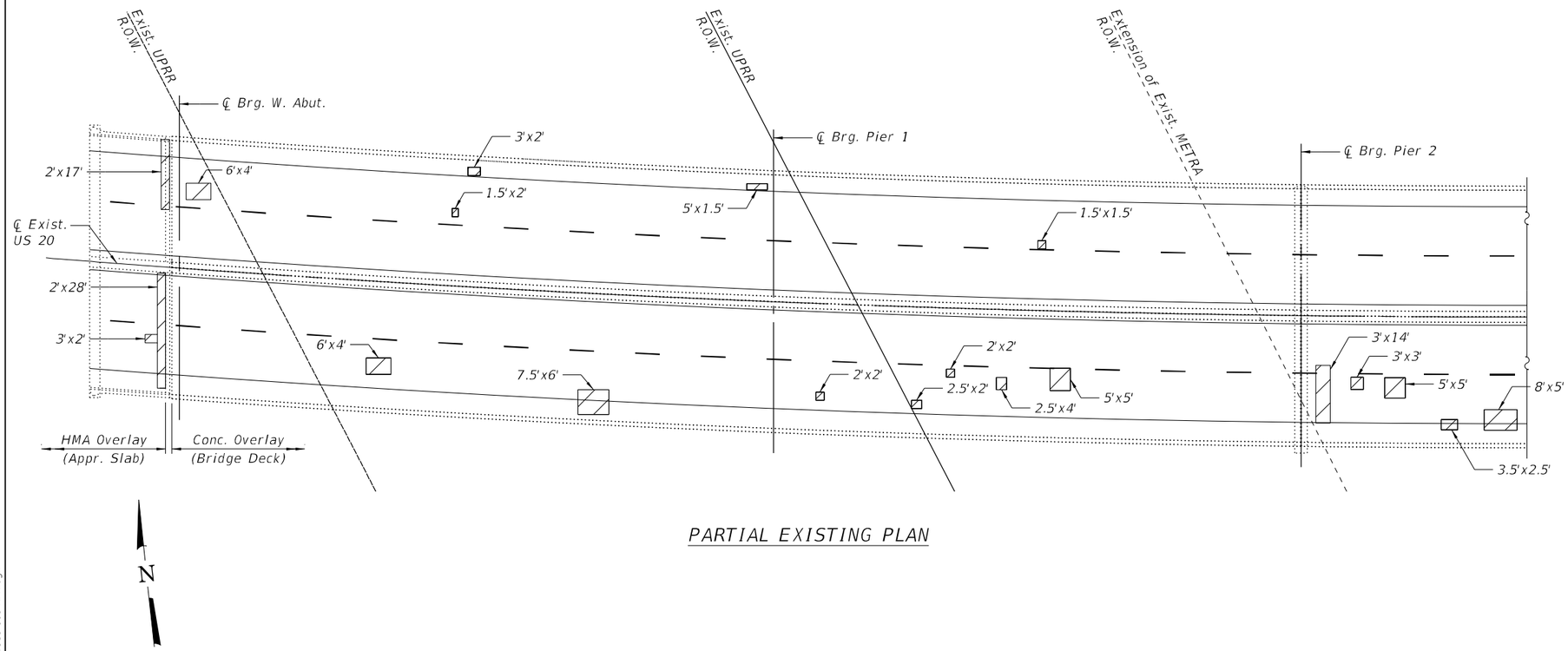
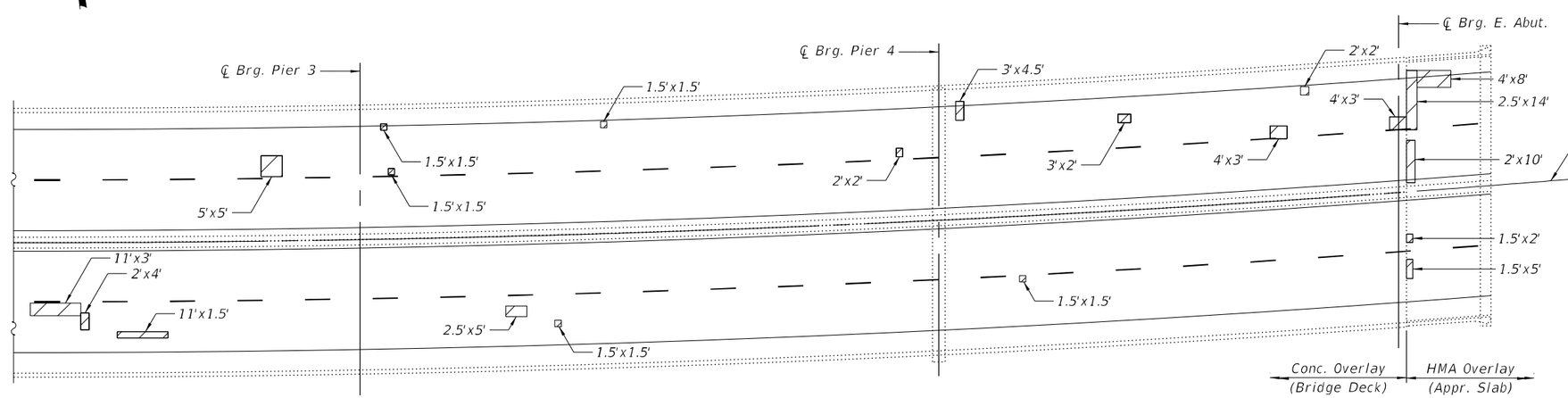
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



PARTIAL EXISTING PLAN



PARTIAL EXISTING PLAN

LEGEND

Deck Slab Repair (Partial)

NOTES

1. Area of proposed deck repairs are estimated based on a visual inspection. Actual type, location, and dimension of deck repairs are to be determined by the Engineer during construction. An additional quantity of 50 sq. yd. is included to account for repair growth and shall be used as directed by the Engineer. For quantities, see Total Bill of Material on sheet 1 of 4 .
2. HMA removal required for repairs on the approach slab or concrete overlay removal for deck slab repairs will not be measured for payment separately, but shall be included in the cost of Deck Slab Repair (Partial).
3. Dimensions are measured perpendicular to ℄ Exist. US 20 unless noted otherwise.

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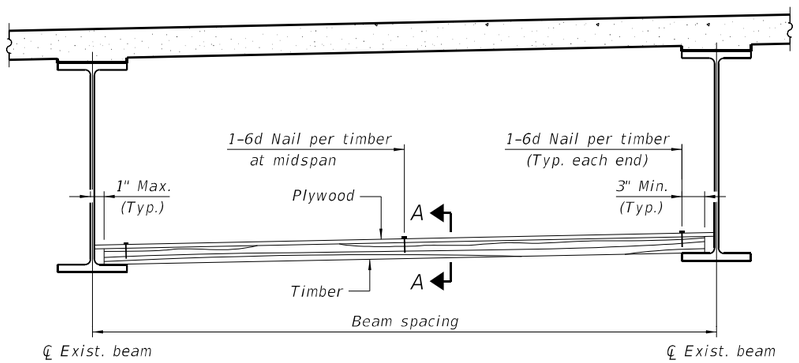
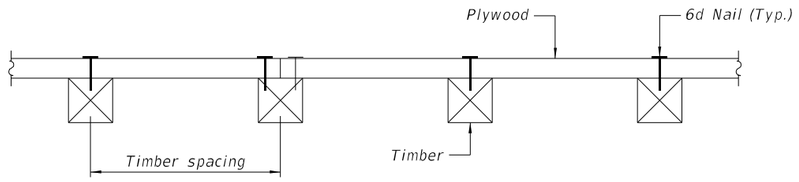
GANNETT FLEMING

USER NAME = mzelisko	DESIGNED - MDA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK REPAIR DETAILS STRUCTURE NO. 045-0004
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - MDA	REVISED -		SHEET 3 OF 4 SHEETS
PLOT DATE = 3/22/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	243
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.) 4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.,)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	12
8.25	8	12	12
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

Notes: See special provisions for Protective Shield (Permanent).

Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.

The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specifications for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.

The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.

All timber shall be treated.

Plywood shall be 5/8" Exterior type plywood per APA.

Plywood shall be placed such that the fence grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.

Transverse plywood joints shall be supported by timbers.

When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.

Design load = 200 psf.

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GANNETT FLEMING

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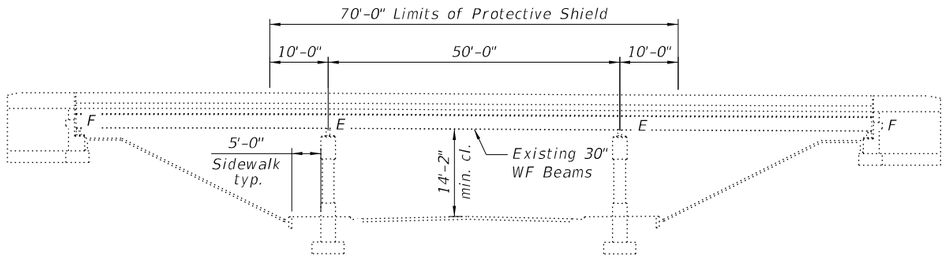
	CHECKED - DF	REVISED -			
PLOT SCALE =	DRAWN - MZ	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -		SHEET 4 OF 4 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	244
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			

Existing Structure: S.N. 045-0005 carrying US Route 20 over Raymond Street was originally constructed in 1960 as F.A. Route 6, Section 8R-HB4. In 1986, the bridge was widened, expansion joints reconstructed, bearings replaced, and substructure was rehabilitated and widened. The structure consists of a three span steel WF beam bridge with 139'-0" back-to-back abutments, varying out-to-out deck width from 78'-6¾" to 87'-8", multi-column piers and spill thru abutments supported on spread footings.

Stage construction shall be utilized to maintain traffic during construction.

No salvage.



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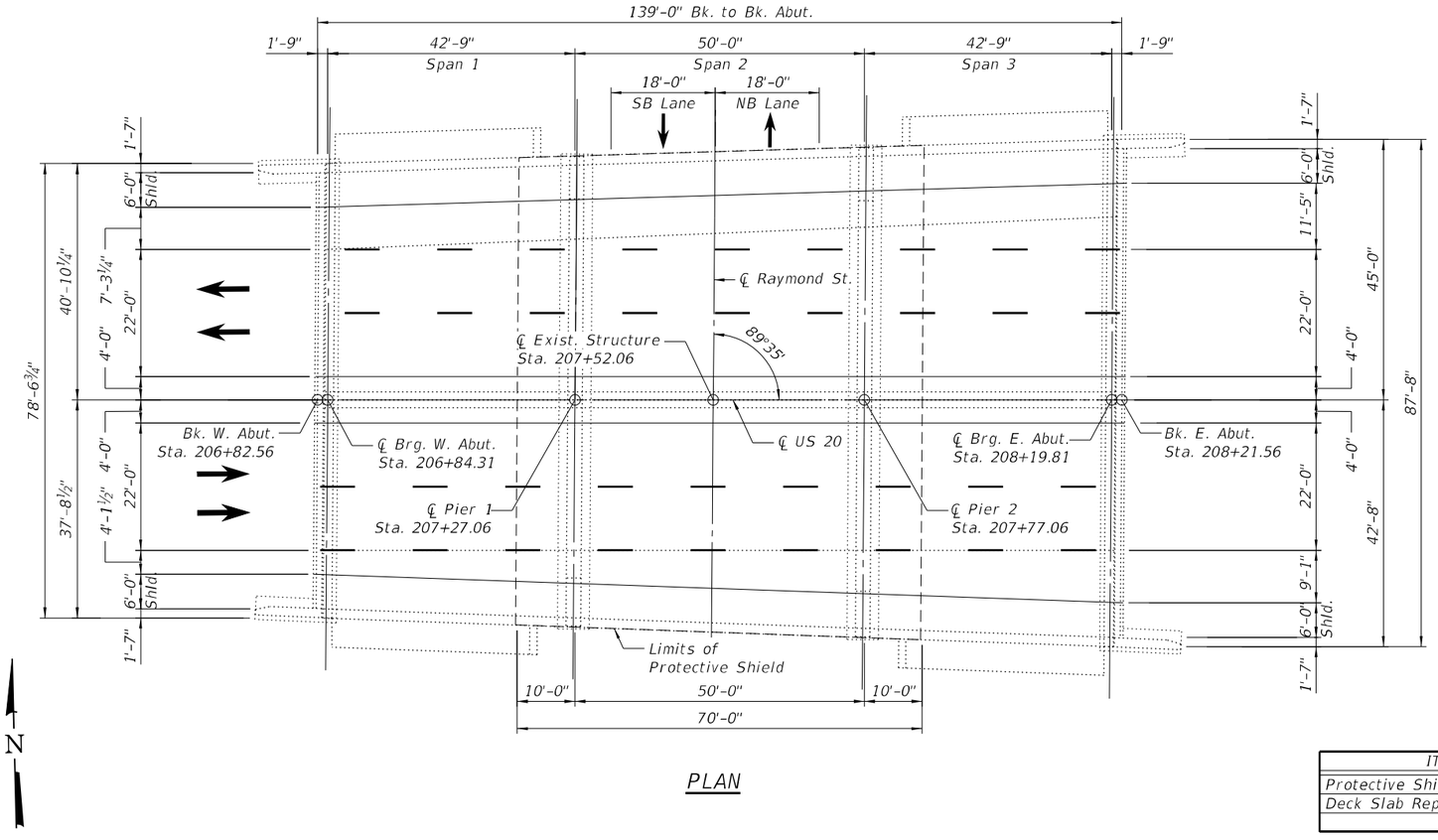


PLAN

INDEX OF SHEETS

1. General Plan, Notes & Total Bill of Material
2. Construction Staging
3. Deck Repair Details

SCOPE OF WORK

1. Install protective shielding system.
2. Repair deck slab.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications,
17th Edition

LOADING HS-20

(Original Construction)

GENERAL NOTES

1. 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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Shield	Sq. Yd.	646	-	646
Deck Slab Repair (Partial)	Sq. Yd.	43	-	43

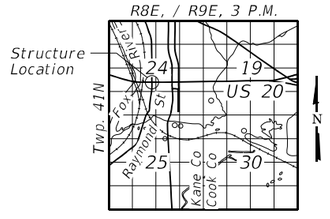
STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNATURE:

DATE: March 20, 2024

EXPIRES: November 30, 2024

SHEETS:



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US ROUTE 20 OVER RAYMOND ST.
F.A.P. RTE. 345 - SEC 345-23-BR
KANE COUNTY
STATION 207+52.06
STRUCTURE NO. 045-0005

GANNETT FLEMING

USER NAME = mzelisko		DESIGNED - MZ		REVISED -	
		CHECKED - DF		REVISED -	
PLOT SCALE =		DRAWN - MZ		REVISED -	
PLOT DATE = 4/10/2024		CHECKED - DF		REVISED -	

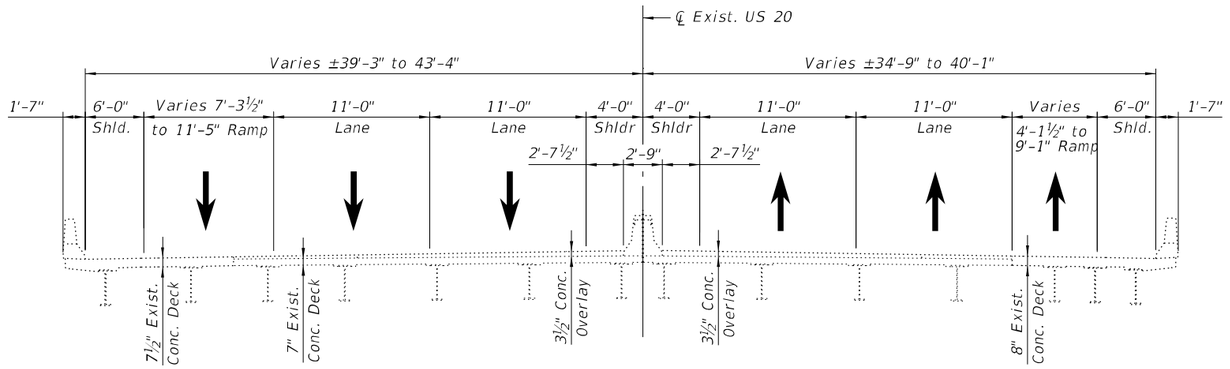
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 045-0005
SHEET 1 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	245
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

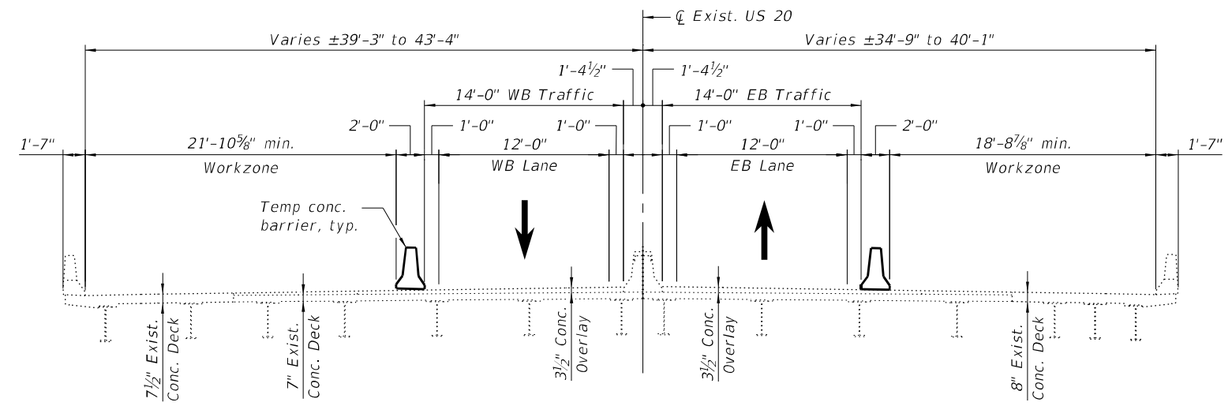
MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/045-0005/0450005-62U83-001-GPE.dgn

4/10/2024 10:06:40 AM



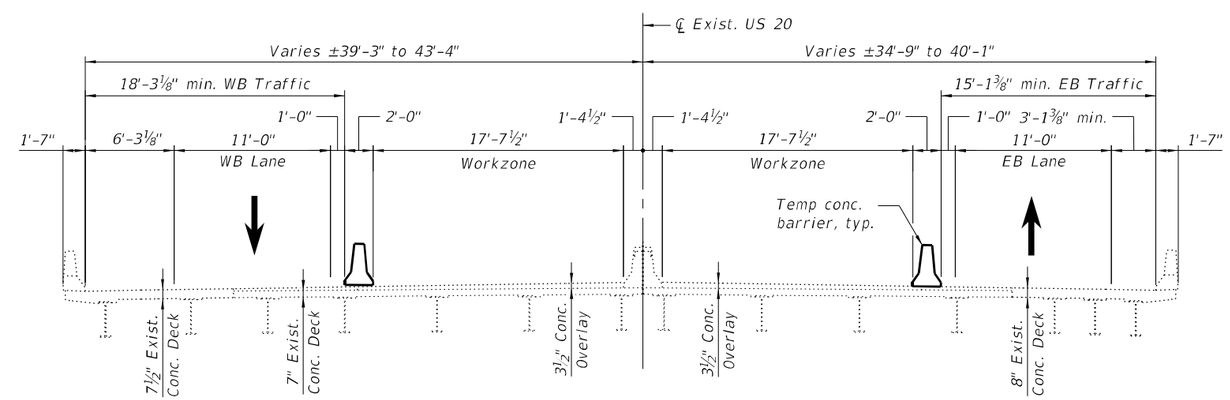
EXISTING SECTION

(Looking East)



PRE-STAGE 1A

(Looking East)



PRE-STAGE 1B

(Looking East)

NOTES

1. See Maintenance of Traffic plans for traffic configuration during deck patching operations.

MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/045-0005/0450005-62U83-002-CS.dgn
3/20/2024 4:53:02 PM

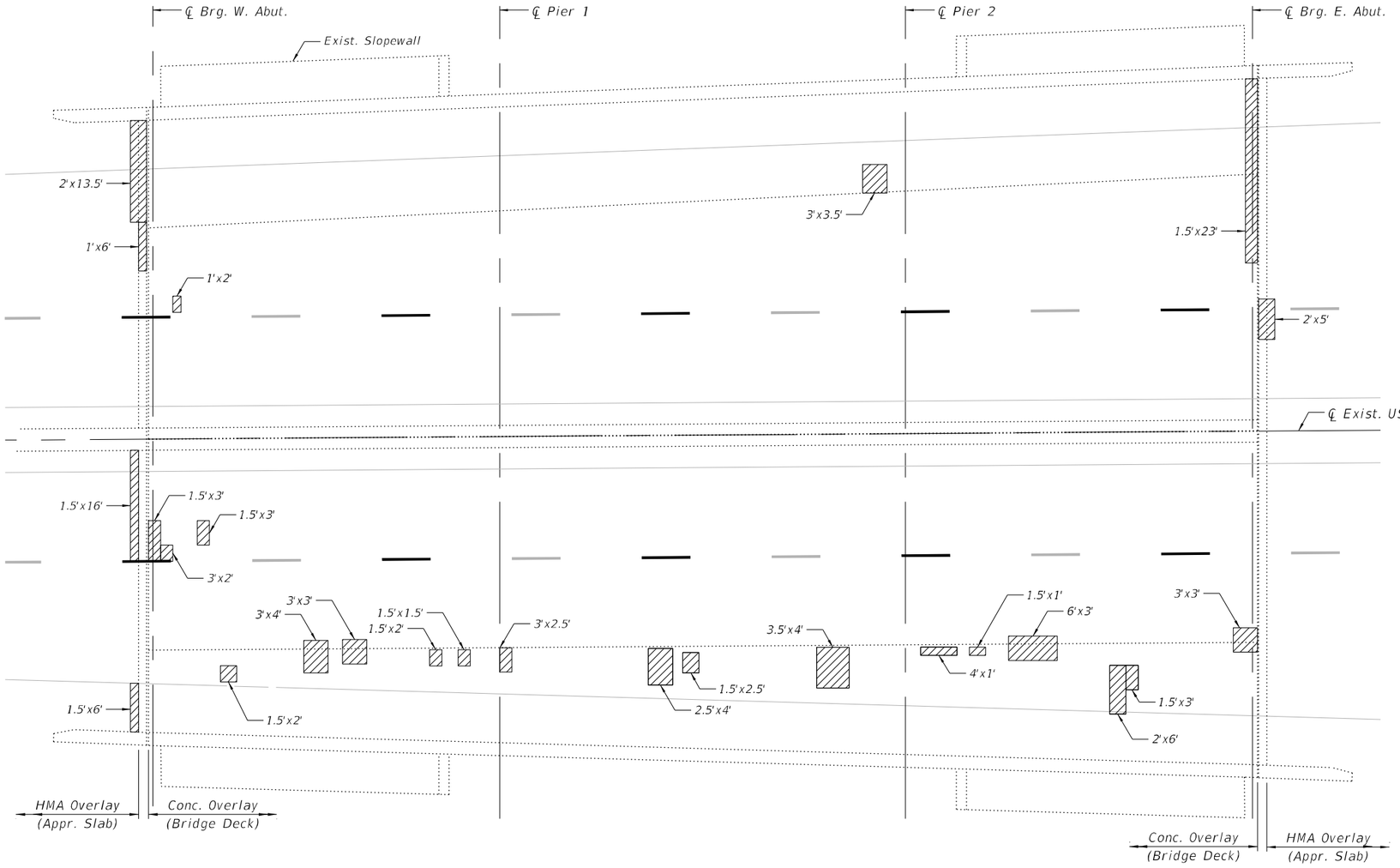
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - MZ	REVISED -			
	CHECKED - DF	REVISED -			
PLOT SCALE =	DRAWN - MZ	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - DF	REVISED -			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
STRUCTURE NO. 045-0005
SHEET 2 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	246
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



PLAN

LEGEND

Deck Slab Repair (Partial)

NOTES

1. Area of proposed deck repairs are estimated based on a visual inspection. Actual type, location, and dimension of deck repairs are to be determined by the Engineer during construction. An additional quantity of 15 sq. yd. is included to account for repair growth and shall be used as directed by the Engineer. For quantities, see Total Bill of Material on sheet 1 of 3.

2. HMA removal required for repairs on the approach slab or concrete overlay removal for deck slab repairs will not be measured for payment separately, but shall be included in the cost of Deck Slab Repair (Partial).

3. Dimensions are measured perpendicular to ℄ Exist. US 20 unless noted otherwise.

MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/045-0005/0450005-62U83-003-RPR.dgn
3/20/2024 4:53:05 PM

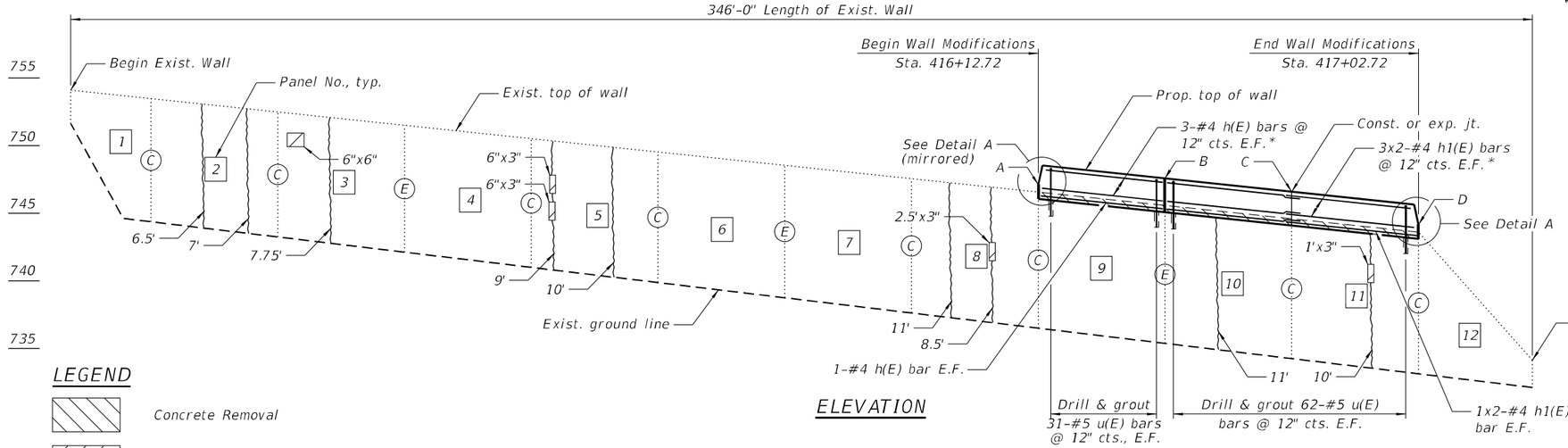
GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - MDA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK REPAIR DETAILS STRUCTURE NO. 045-0005
	CHECKED - MZ	REVISED -		
PLOT SCALE =	DRAWN - MDA	REVISED -		SHEET 3 OF 3 SHEETS
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	247
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

Benchmark: C.P. 153 Set "X" 30' W. ℄ St. Charles & 60' S. ℄ Russell St. Elev. 731.27.

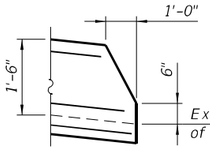
Existing Structure: The Retaining Wall at US 20 is a reinforced concrete cantilever retaining wall on spread footing with a total length of 346'-0". The height of the existing wall varies from a minimum of 6'-0" to a maximum of 16'-6".



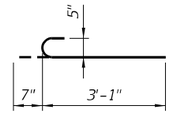
ELEVATION

Drill & grout 31-#5 u(E) bars @ 12" cts., E.F.

Drill & grout 62-#5 u(E) bars @ 12" cts. E.F.



DETAIL A



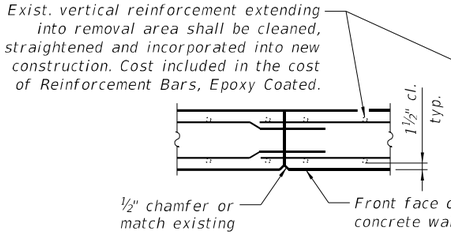
BAR u(E)

LEGEND

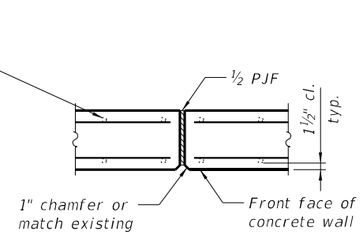
- Concrete Removal
- Structural Repair of Concrete (D<=5")
- Epoxy Crack Injection

NOTES

1. See sheets 3 and 4 for existing plan information and panel layout for information only.
2. "C" denotes Construction Joint.
3. "E" denotes Expansion Joint, ½".
4. See Noise Abatement Wall sheets for boring log information.
5. Cost of P.J.F. included in the cost of Concrete Structures (Retaining Wall).



Ⓒ CONSTRUCTION JOINT DETAIL



Ⓔ EXPANSION JOINT DETAIL

*Cut bars to fit at taper. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

Lap length #4 Bar = 2'-5"

STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNATURE:

DATE: March 20, 2024

EXPIRES: November 30, 2024

SHEETS:

WALL ELEVATIONS

Location	Exist. Elev.	Prop. Elev.
A	745.83	746.33
B	744.83	747.33
C	743.83	745.33
D	742.83	743.33

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

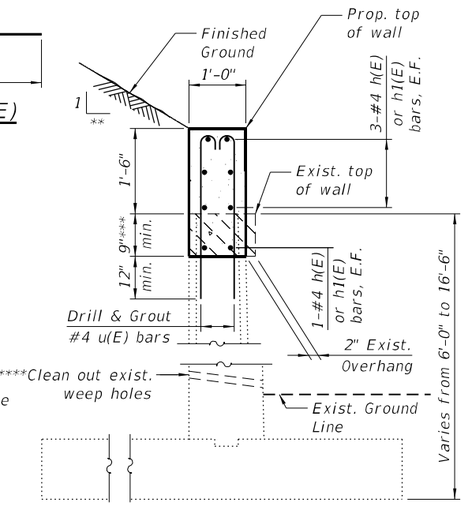
f'c = 3,500 psi

fy = 60,000 psi (Reinforcement)

EXIST FIELD UNITS

fc = 1,000 psi

fs = 20,000 psi (Reinforcement)



TYPICAL WALL SECTION

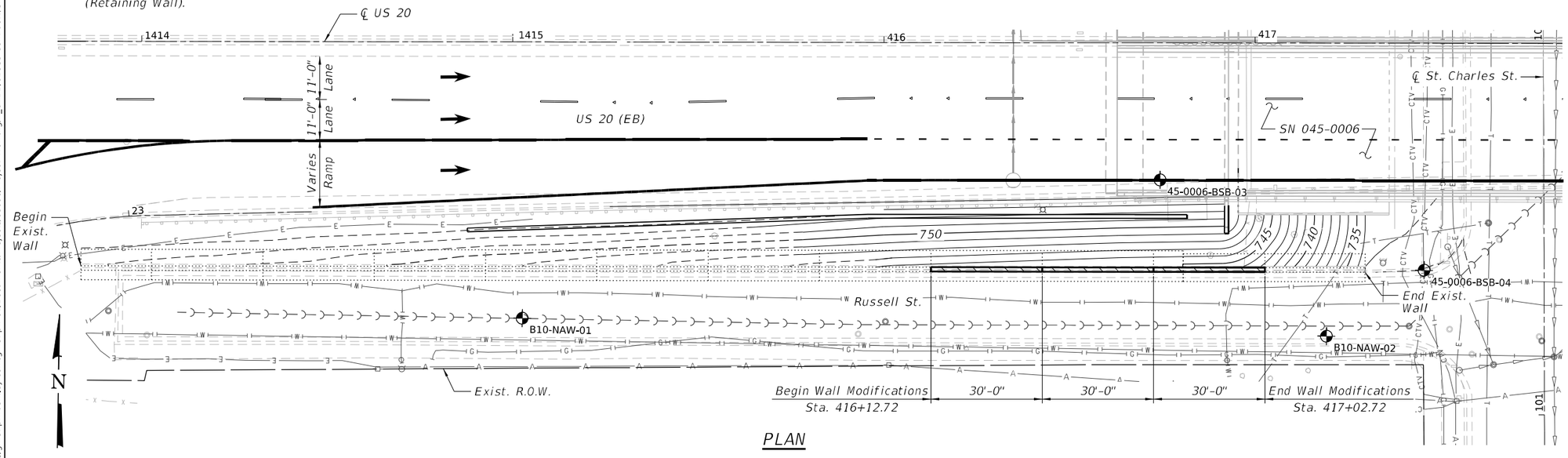
**Match exist. slope

***Contractor to remove at least 9" or to sound concrete

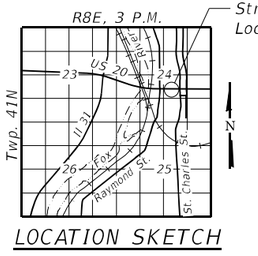
****Cost included with the cost of Concrete Structures (Retaining Wall)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	8	#4	29'-8"	
h1(E)	16	#4	31'-1"	
u(E)	186	#5	3'-8"	
Concrete Removal		Cu. Yd.	3.0	
Reinforcement Bars, Epoxy Coated		Pound	1,210	
Concrete Structures (Retaining Wall)		Cu. Yd.	7.5	
Concrete Sealer		Sq. Ft.	293	
Epoxy Crack Injection		Foot	81	
Structural Repair of Concrete (D<=5")		Sq. Ft.	2	



PLAN



LOCATION SKETCH

MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/D162U83-RWD-001-GPE.dgn

GANNETT FLEMING	USER NAME = mzellisko	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION EXISTING WALL MODIFICATIONS - WEST OF ST. CHARLES ST.
		CHECKED - DF	REVISED -		
	PLOT SCALE = 32.0000 ' / in.	DRAWN - EBP	REVISED -		SHEET 1 OF 4 SHEETS
	PLOT DATE = 3/21/2024	CHECKED - DF	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	248
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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Benchmark: C.P. 153 Set "X" 30' W. ℄ St. Charles & 60' S. ℄ Russell St. Elev. 731.27.

Existing Structure: The Retaining Wall at US 20 is a reinforced concrete cantilever retaining wall on spread footing with a total length of 173'-0". The retained height of the existing wall varies from a minimum of 6'-1" to a maximum of 14'-2".

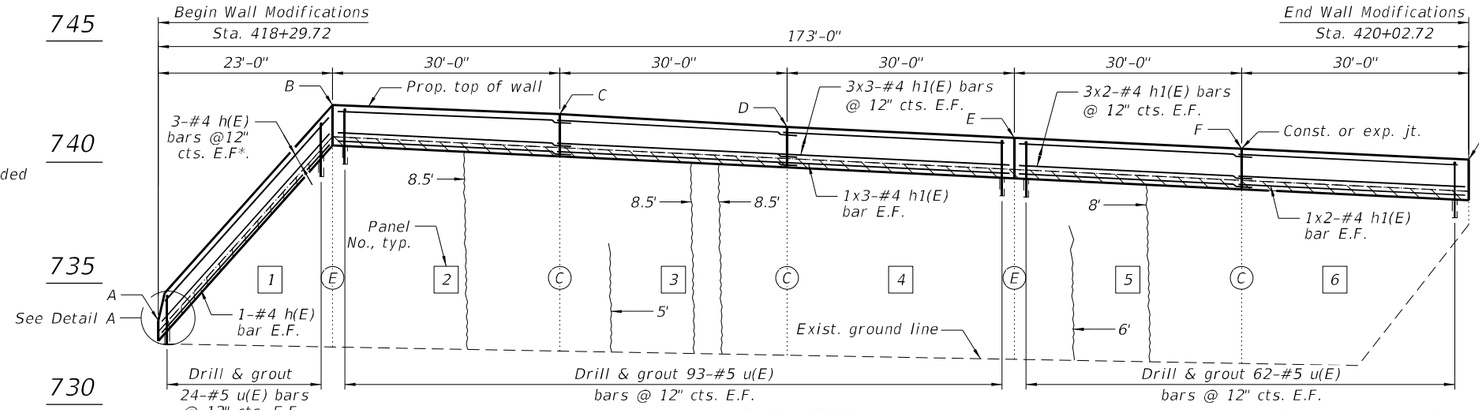
LEGEND

Concrete Removal

Epoxy Crack Injection

*Cut bars to fit at taper. Cost included in the cost of Reinforcement Bars, Epoxy Coated.

Lap Length #4 Bar = 2'-5"



ELEVATION

NOTES

1. See Sheets 3 and 4 for existing plan information and panel layout information only.
2. "C" denotes Construction Joint.
3. "E" denotes Expansion Joint, ½".
4. See Noise Abatement Wall sheets for boring log information.
5. Cost of P.J.F. included in the cost of Concrete Structures (Retaining Wall).

STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNATURE:

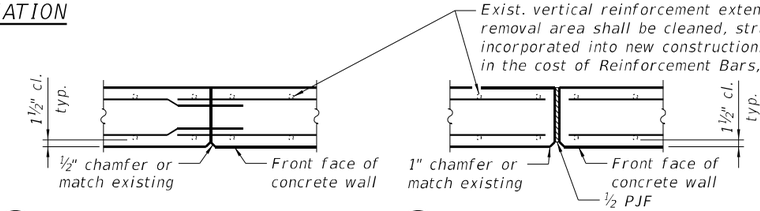
DATE: March 20, 2024

EXPIRES: November 30, 2024

SHEETS:

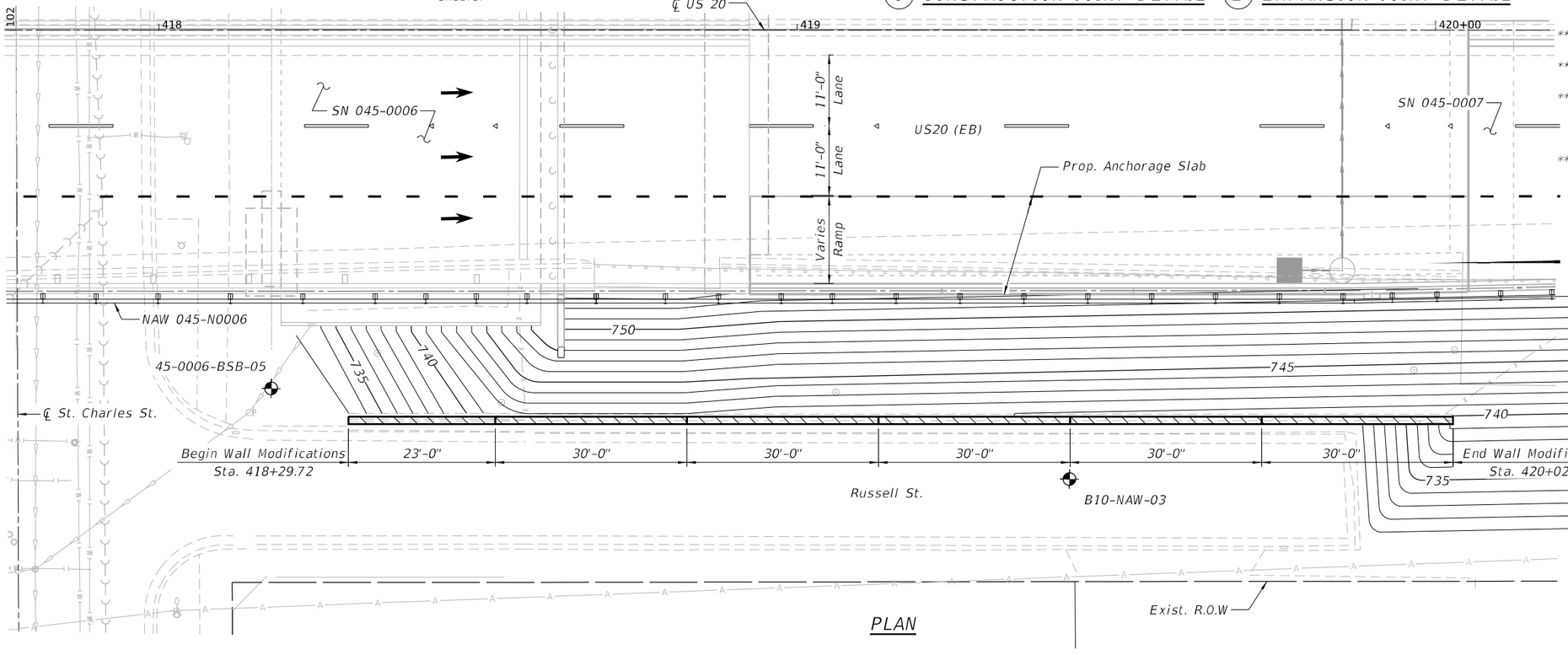
WALL ELEVATIONS

Location	Exist. Elev.	Prop. Elev.
A	732.25	732.75
B	740.27	742.27
C	739.73	741.98
D	739.35	741.35
E	738.86	740.86
F	738.43	740.43
G	737.96	739.96



Ⓒ CONSTRUCTION JOINT DETAIL

Ⓔ EXPANSION JOINT DETAIL



PLAN

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

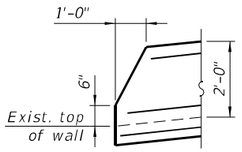
DESIGN STRESSES

FIELD UNITS

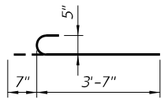
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

EXIST. FIELD UNITS

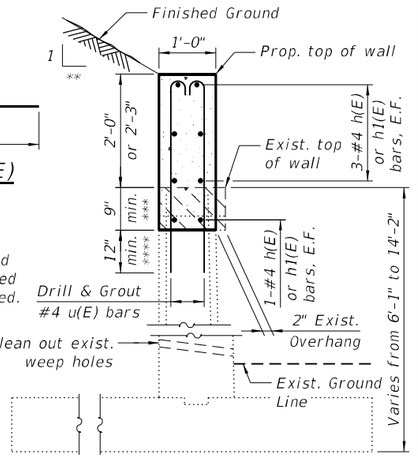
fc = 1,000 psi
fy = 20,000 psi (Reinforcement)



DETAIL A



BAR u(E)



TYPICAL WALL SECTION

**Match exist. slope

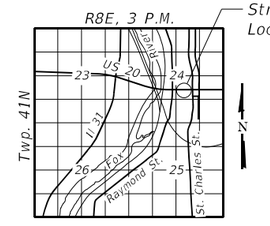
***Contractor to remove at least 9" or to sound concrete

****Bar embedment shall be reduced at the 2'-3" portion of the wall extension to maintain the same concrete cover with respect to the reinforcement at the top of wall

*****Cost included with the cost of Concrete Structures (Retaining Wall)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	8	#4	24'-10"	
h1(E)	40	#4	31'-6"	
u(E)	358	#5	4'-2"	
Concrete Removal			Cu. Yd.	5.7
Reinforcement Bars, Epoxy Coated			Pound	2,540
Concrete Structures (Retaining Wall)			Cu. Yd.	18.0
Concrete Sealer			Sq. Ft.	657
Epoxy Crack Injection			Foot	45



LOCATION SKETCH

GANNETT FLEMING	USER NAME = mzelisko	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - DF	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	DRAWN - LAM	REVISED -	
	PLOT DATE = 3/21/2024	CHECKED - DF	REVISED -	

GENERAL PLAN & ELEVATION
EXISTING WALL MODIFICATIONS - EAST OF ST. CHARLES. ST.
SHEET 2 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	249
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/D162U83-RWE-001-GPE.dgn

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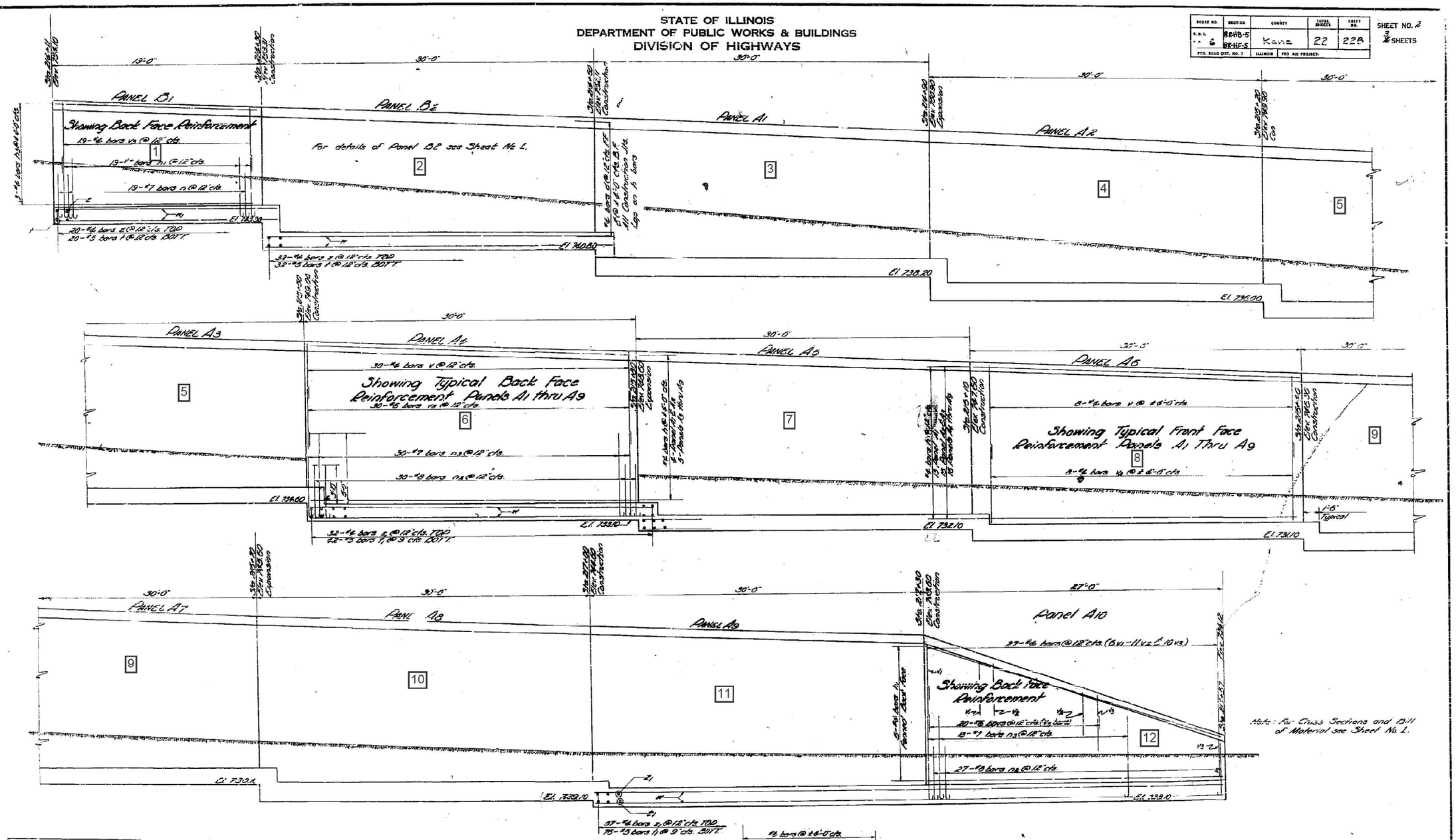
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
A.R.A.	8R-HB-5	Kane	22	22B
	8R-HF-5			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 2 OF 3 SHEETS



DESIGNED	Fischer	EXAMINED	
CHECKED	W. S. Revilla	PASSED	
DRAWN	W.L. Jacobs	APPROVED	
CHECKED	WLP		

Nov. 19 1958

ELEVATION OF RETAINING WALLS
F.A.P. Rt. 6 (SEC. 8E) Sec. 8R-HB-5 8R-HF-5
KANE COUNTY
STATIONS 214+11 to 217+57

FOR INFORMATION ONLY

GANNETT FLEMING	USER NAME = jstarzyk	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/20/2024	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS 1
EXISTING WALL MODIFICATIONS - WEST OF ST. CHARLES ST.
SHEET 3 OF 4 SHEETS

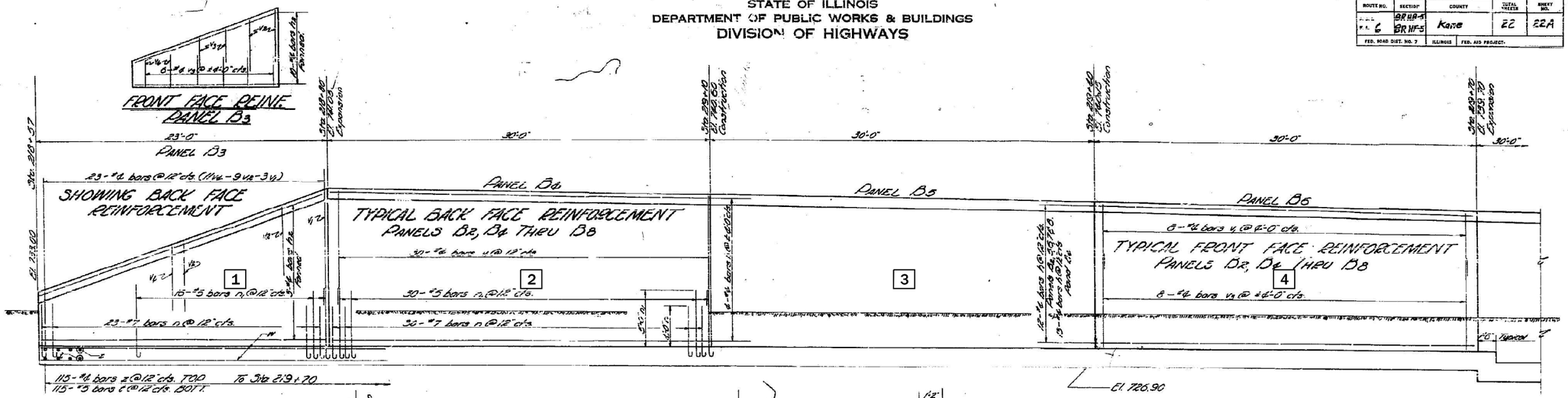
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	250
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

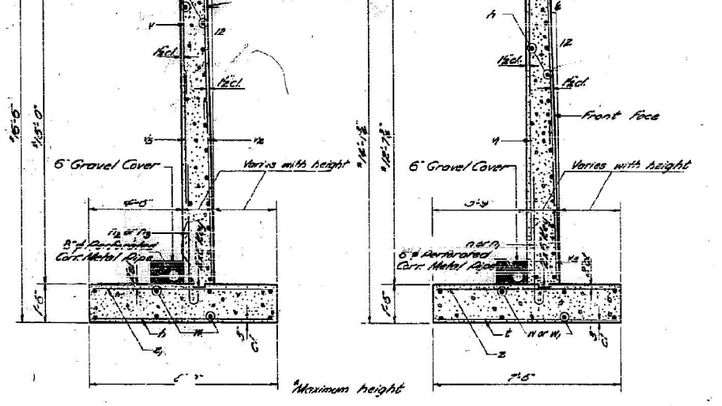
MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/D162U83-RWD-002-Exist1.dgn
3/20/2024 4:54:39 PM

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 6	BR HB-5 BR HF-5	Kane	22	22A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. / SHEETS





TYPICAL SECTION OF PANEL A

TYPICAL SECTION OF PANEL B

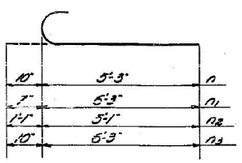
GENERAL NOTES

Class X Concrete shall be used throughout.
The back of the wall from the top of footing to ground line shall be waterproofed in accordance with Article 1121 of the Standard Specifications.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Class X Concrete	Cu. Yds.	1633.6
Reinforcement Bars	Lbs.	82,670
Perforated Corrugated Metal Pipe	Lin. Ft.	346
Class A Excavation for Structures	Cu. Yds.	1230
Porous Granular Embankment	Cu. Yds.	55

DESIGN STRESSES
fc 1000 p.s.i.
fs 20000 p.s.i.
n = 10
Max. Footing Pressure = 3.22 K/sq. ft.



BARS n, n1, n2 & n3

BILL OF MATERIAL (2 WALLS)

BAR	NO.	SIZE	LENGTH	SHAPE
h	279	#4	29'-9"	
h1	15	#6	28'-9"	
h2	13	#6	22'-9"	
h3	13	#6	18'-9"	
v	349	#4	5'-6"	
v1	239	#5	8'-0"	
v2	36	#4	7'-0"	
v3	103	#4	5'-0"	
v4	14	#6	6'-0"	
v5	290	#5	3'-6"	
n	222	#7	6'-1"	C
n1	215	#3	6'-10"	C
n2	297	#3	6'-2"	C
n3	289	#7	7'-1"	C
t	227	#4	7'-3"	
t1	313	#4	8'-6"	
f	227	#5	7'-3"	
f1	412	#5	8'-6"	
w	136	#4	3'-0"	
w1	8	#4	20'-0"	
d	183	#4	2'-0"	
Class X Concrete		Cu Yds.	521.9	
Reinforcement Bars		Lbs.	35,890	
Class A Excav. for Struct.		Cu Yds.	340	
Perforated Corr. Metal Pipe		Lin. Ft.	**619	
Porous Granular Embankment		Cu Yds.	40	

** Includes 100' of 8" ϕ Perforated Corr. Metal Pipe for future connection to main sewer.

DESIGNED		
CHECKED	W. J. Ravella	
DRAWN		
CHECKED	W.R.	

Nov. 19 1956

EXAMINED — CHAIRMAN OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

LAYOUT OF RETAINING WALLS
F.A.P. Rt. 6 (SEC. BP) Sec. 8RHB-5 8RHF-5
KANE COUNTY
STATIONS 218+57 TO 220+30

FOR INFORMATION ONLY

GANNETT FLEMING	USER NAME = jstarzyk	DESIGNED -	REVISED -	
		CHECKED -	REVISED -	
	PLOT SCALE = 2.0000 ' / in.	DRAWN -	REVISED -	
	PLOT DATE = 3/20/2024	CHECKED -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

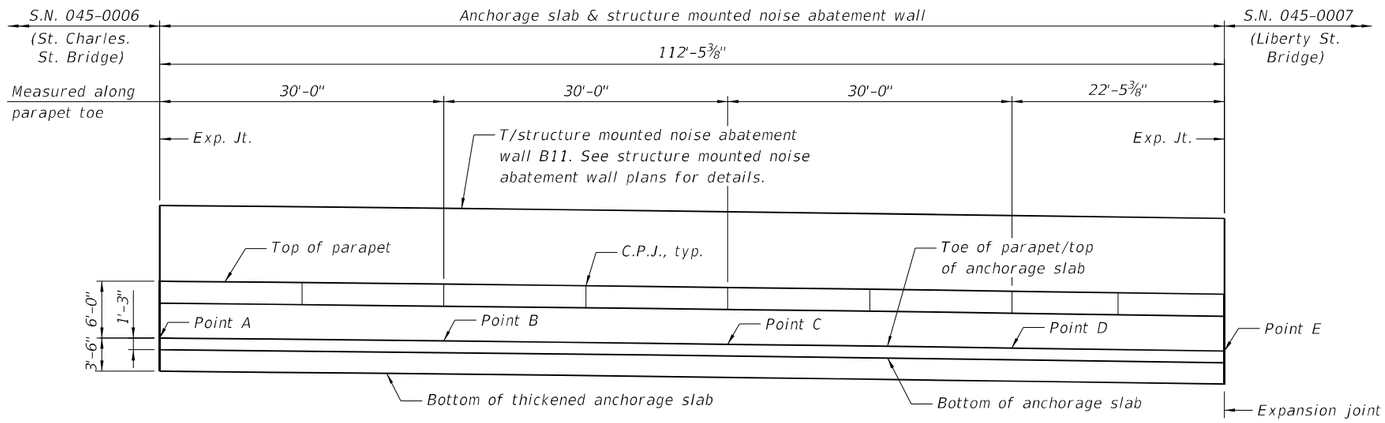
EXISTING PLANS 2
EXISTING WALL MODIFICATIONS - EAST OF ST. CHARLES. ST.
SHEET 4 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	251
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/D162U83-RWE-002-Exist2.dgn
3/20/2024 4:54:48 PM

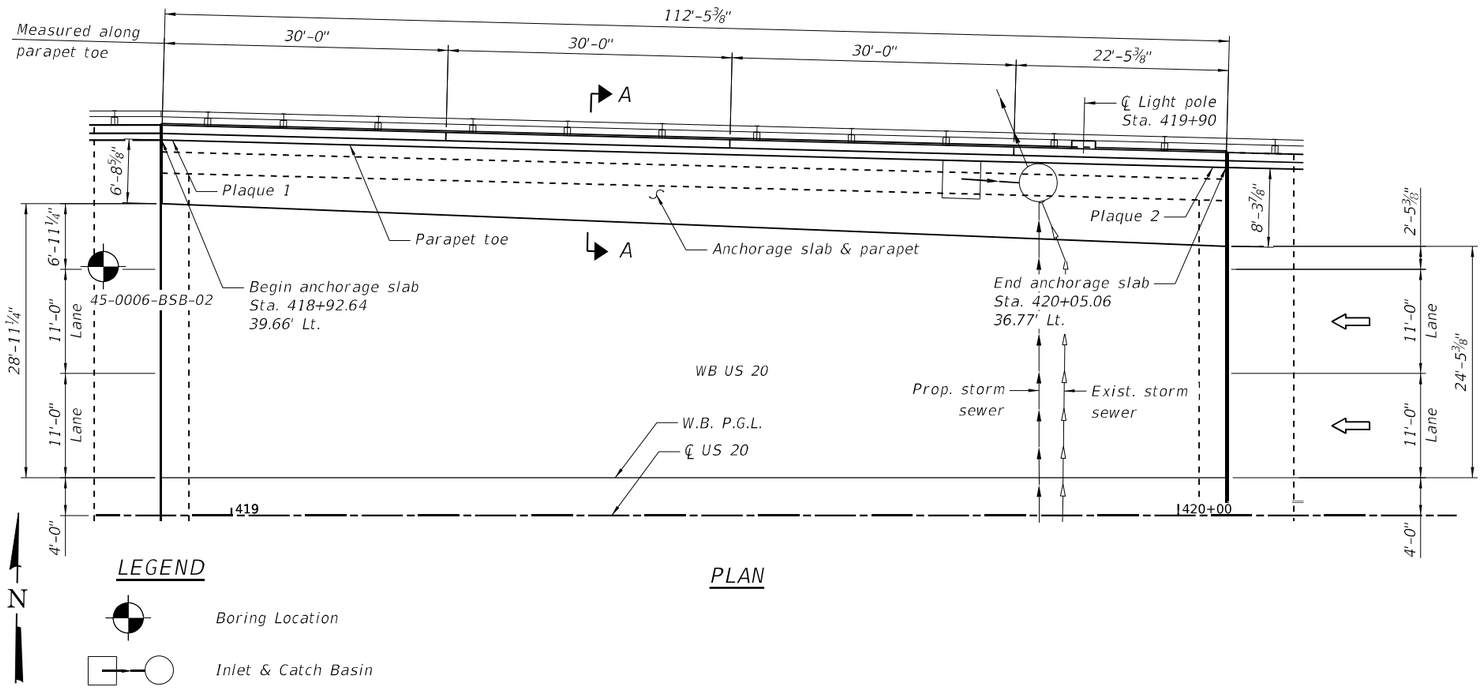
Benchmark: Cut "□" on top of Pier 2 crashwall located 8-ft north of SW corner of Pier 2, east side of Liberty St. Elev. 734.02. (BM #506)

Existing Structure: None



ELEVATION
(Looking North)

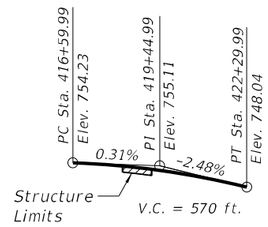
Expansion joint 1¾" open joint in parapet. Preformed Pavement Joint Seal in anchorage slab and up face of parapet, typ. each end. See bridge approach slab plans for details.



PLAN

INDEX OF SHEETS

1 General Plan & Elevation
2 Detailed Plan & Elevation
3 Section & Details

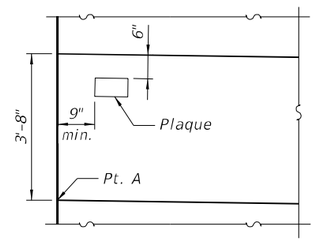


PROFILE GRADE - US 20
(Along WB PGL US 20)

PLAQUE __
ANCHORAGE SLAB AREA
SEC 345-23-BR
DO NOT OPEN-CUT
ROADWAY FROM
PLAQUE 1 TO PLAQUE 2

PLAQUE

(Paid for as Name Plate)



PLAQUE DETAIL
(Shown for Plaque 1, Plaque 2 similar)

STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNATURE:

DATE: March 20, 2024
EXPIRES: November 30, 2024
SHEETS:

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi (Parapet) (Superstructure)
f'c = 4,000 psi (Anchorage Slab) (Superstructure)
fy = 60,000 psi (Reinforcement)

DESIGN LOADS

Impact Load (Static) = 106 kip (TL-5 Loading 6 ft parapet)

TOTAL BILL OF MATERIAL

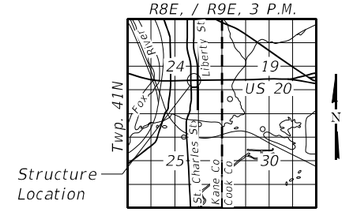
ITEM	UNIT	TOTAL
Concrete Superstructure	Cu Yd	115.2
Protective Coat	Sq Yd	181
Reinforcement Bars, Epoxy Coated	Pound	25,850
Name Plates	Each	2

ANCHORAGE SLAB CONTROL POINTS

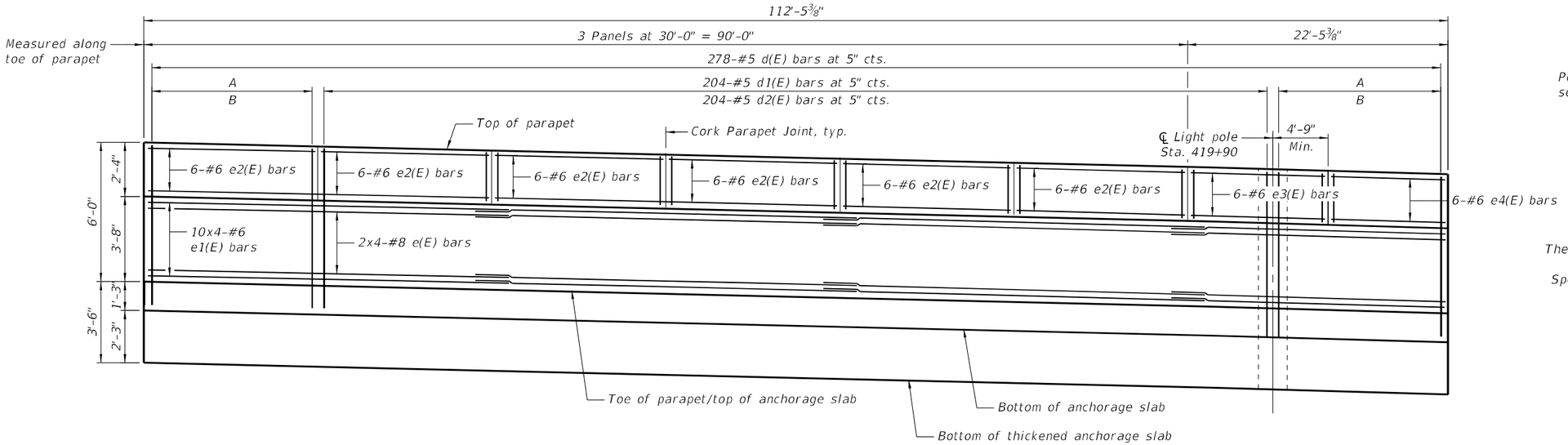
Description	Station	Offset	Elev. @ Toe of Parapet
Point A	418+92.64	39.66	753.02
Point B	419+22.63	38.89	752.76
Point C	419+52.62	38.12	752.47
Point D	419+82.61	37.35	752.12
Point E	420+05.06	36.77	751.84

NOTES

1. Stations and offsets are measured relative to ℄ US 20 at the parapet toe u.n.o.
2. C.P.J. - Cork Parapet Joint.
3. For Section A-A, anchorage slab and parapet reinforcement, light pole, and drainage details see sheets 2 and 3.
4. See drainage plans for location of inlet and catch basin.
5. For Noise Abatement Wall details, see Noise Abatement Wall plans.



LOCATION SKETCH



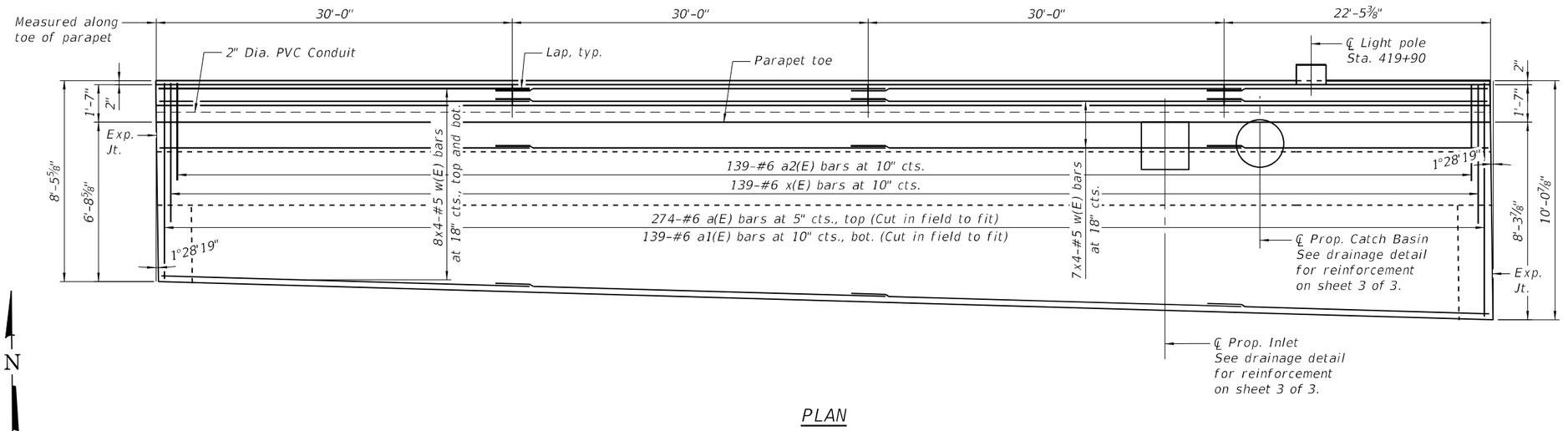
ELEVATION

(Looking North)

Only parapet reinforcement shown for clarity

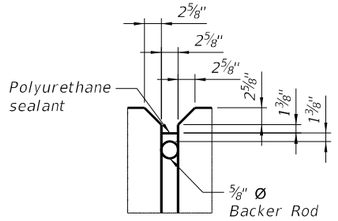
A: 37-#6 d3(E) bars at 5" cts.

B: 37-#6 d4(E) bars at 5" cts.



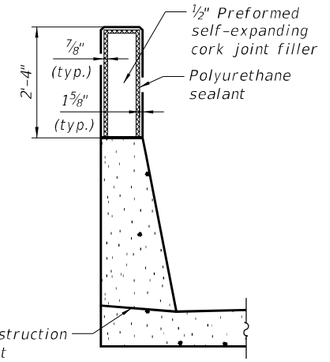
PLAN

Only slab reinforcement shown for clarity



SEALANT DETAIL

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



CORK PARAPET JOINT DETAILS

NOTES

1. Bars indicated thus 8x2-#5 bar etc. indicates 8 lines of bars with 2 lengths per line.
2. See sheet 3 of 3 for sections, details, reinforcing bar list, and drainage details.
3. Structure mounted noise abatement wall posts not shown for clarity.

MODEL: Default
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3/20/2024 4:56:38 PM

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILED PLAN & ELEVATION ANCHORAGE SLAB ON GRADE - WB	
	CHECKED - JGC	REVISED -			
PLOT SCALE = 10.6667 ' / in.	DRAWN - MDA	REVISED -		SHEET 2 OF 3 SHEETS	
PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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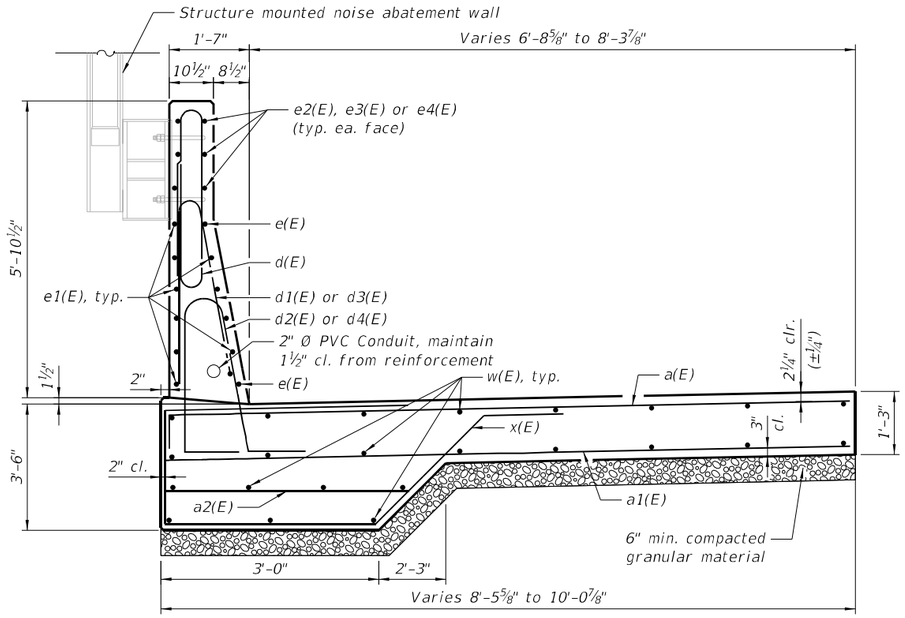
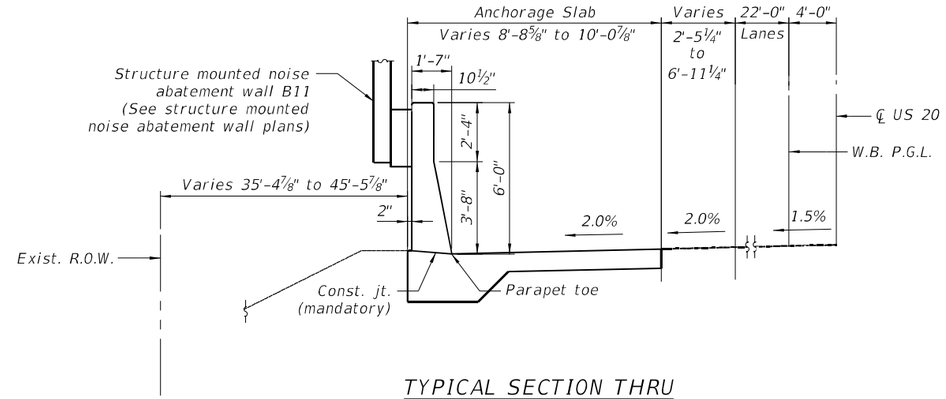
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			



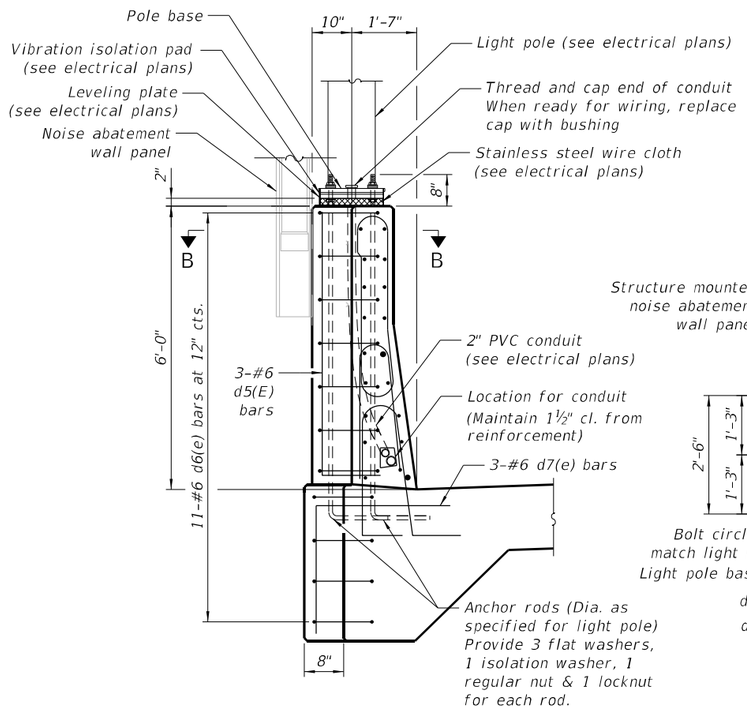
SECTION A-A



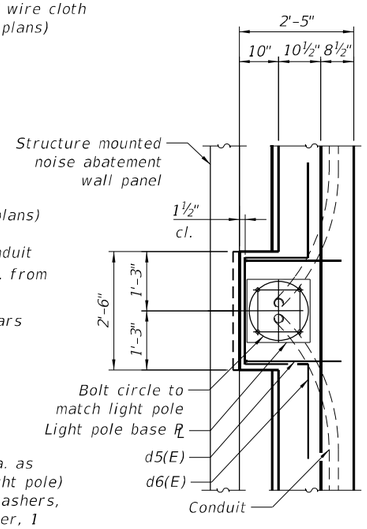
TYPICAL SECTION THRU ANCHORAGE SLAB ON GRADE

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	274	#6	10'-10"	
a1(E)	139	#6	9'-9"	
a2(E)	139	#6	3'-9"	
a3(E)	32	#6	2'-6"	
d(E)	278	#5	10'-6"	
d1(E)	204	#5	8'-1"	
d2(E)	204	#5	9'-0"	
d3(E)	74	#6	8'-7"	
d4(E)	74	#6	9'-0"	
d5(E)	3	#6	7'-9"	
d6(E)	11	#6	8'-11"	
d7(E)	3	#6	5'-1"	
e(E)	8	#8	32'-6"	
e1(E)	40	#6	30'-9"	
e2(E)	36	#6	14'-8"	
e3(E)	6	#6	11'-9"	
e4(E)	6	#6	10'-0"	
w(E)	92	#5	30'-4"	
x(E)	139	#6	15'-2"	
Concrete Superstructure			115.2	Cu Yd
Protective Coat			181	Sq Yd
Reinforcement Bars, Epoxy Coated			25,850	Pound

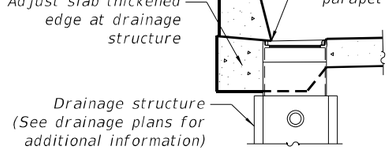


TYPICAL ANCHORAGE SLAB SECTION AT LIGHT POLE FOUNDATION

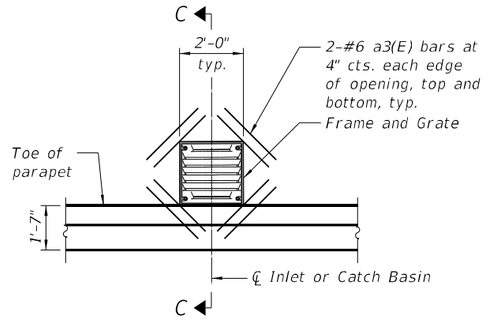


SECTION B-B

(Anchorage slab edge not shown for clarity)

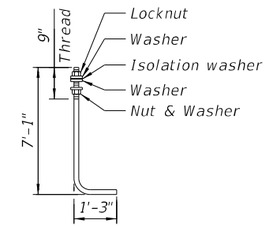


SECTION C-C



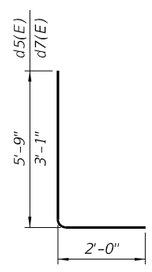
DRAINAGE DETAIL

Cut longitudinal reinforcement to clear Inlet & Catch Basin. Inlet frame and grate shown. Catch Basin frame & lid similar.

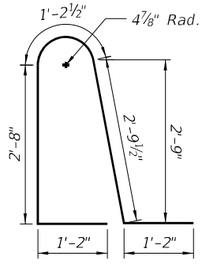


ANCHOR ROD

Diameter as specified for light poles. (ASTM F1554 Grade 105). Cost included with Concrete Superstructure.

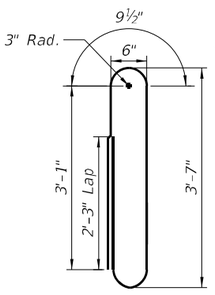


BAR d5(E) or d7(E)

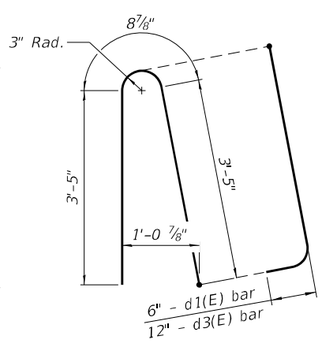


BAR d2(E) or d4(E)

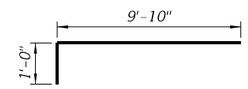
Back leg to extend 9½" into anchorage slab



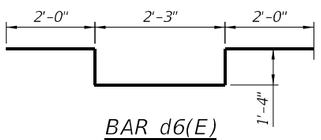
BAR d(E)



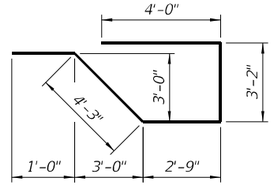
BAR d1(E) or d3(E)



BAR a(E)



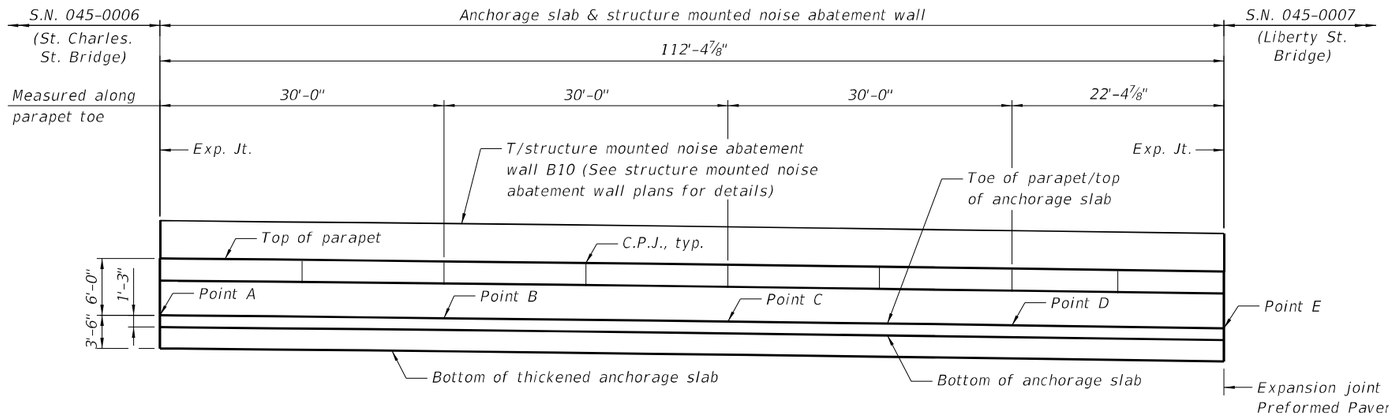
BAR d6(E)



BAR x(E)

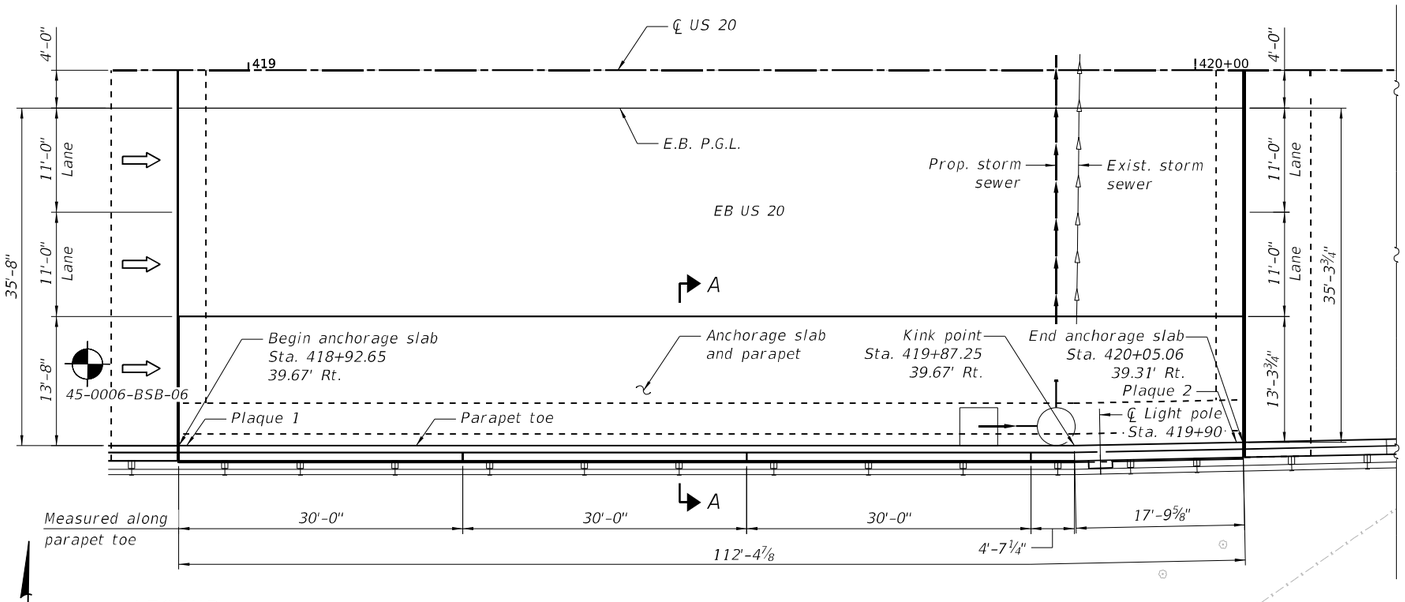
Benchmark: Cut "□" on top of Pier 2 crashwall located 8-ft north of SW corner of Pier 2, east side of Liberty St. Elev. 734.02. (BM #506)

Existing Structure: None



REFLECTED ELEVATION

(Looking North)



PLAN

LEGEND

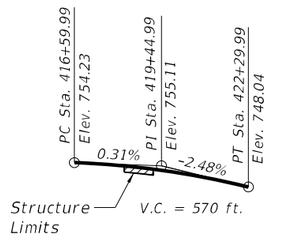
Boring Location

Inlet & Catch Basin

B10-NAW-03

INDEX OF SHEETS

1 General Plan & Elevation
2 Detailed Plan & Elevation
3 Section & Details



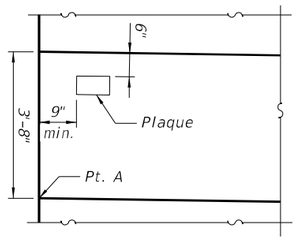
PROFILE GRADE - US 20

(Along EB PGL US 20)

PLAQUE __
ANCHORAGE SLAB AREA
SEC 345-23-BR
DO NOT OPEN-CUT
ROADWAY FROM
PLAQUE 1 TO PLAQUE 2

PLAQUE

(Paid for as Name Plate)



PLAQUE DETAIL

(Reflected Elevation, Shown for Plaque 1, Plaque 2 similar)

STATE OF ILLINOIS
DANIEL S. FILICE
081.007107
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNATURE:

DATE: March 20, 2024

EXPIRES: November 30, 2024

SHEETS:

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi (Parapet) (Superstructure)
f'c = 4,000 psi (Anchorage Slab) (Superstructure)
fy = 60,000 psi (Reinforcement)

DESIGN LOADS

Impact Load (Static) = 106 kip (TL-5 Loading 6 ft parapet)

TOTAL BILL OF MATERIAL

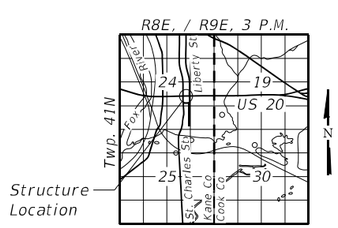
ITEM	UNIT	TOTAL
Concrete Superstructure	Cu Yd	171.1
Protective Coat	Sq Yd	258
Reinforcement Bars, Epoxy Coated	Pound	32,670
Name Plates	Each	2

ANCHORAGE SLAB CONTROL POINTS

Description	Station	Offset	Elev. @ Toe of Parapet
Point A	418+92.65	39.67 Rt.	753.02
Point B	419+22.65	39.67 Rt.	752.75
Point C	419+52.65	39.67 Rt.	752.43
Point D	419+82.65	39.67 Rt.	752.08
Point E	420+05.06	39.31 Rt.	751.79

NOTES

1. Stations and offsets are measured relative to ℄ US 20 at the parapet toe u.n.o.
2. C.P.J. - Cork Parapet Joint.
3. For Section A-A, anchorage slab and parapet reinforcement, light pole, and drainage details see sheets 2 and 3.
4. See drainage plans for location of inlet and catch basin.
5. For Noise Abatement Wall details, see Noise Abatement Wall plans.



LOCATION SKETCH

GANNETT FLEMING

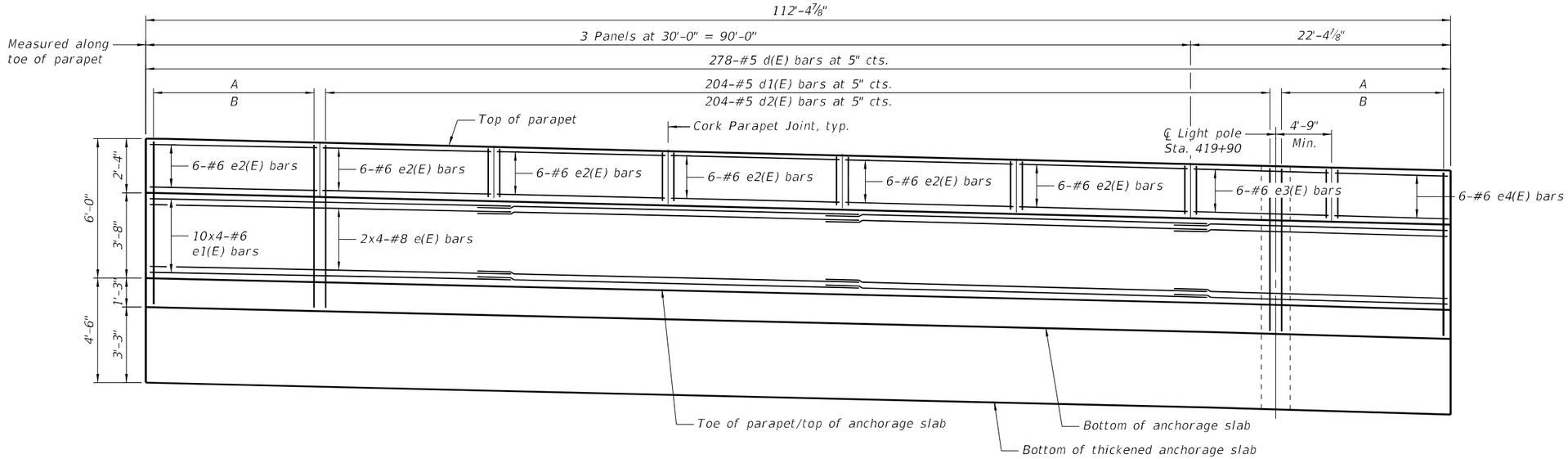
USER NAME = mzelisko		DESIGNED - MDA		REVISED -	
		CHECKED - MZ		REVISED -	
PLOT SCALE = 16.0000 ' / in.		DRAWN - LAM		REVISED -	
PLOT DATE = 3/21/2024		CHECKED - MZ		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
ANCHORAGE SLAB ON GRADE - EB

SHEET 1 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	255
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



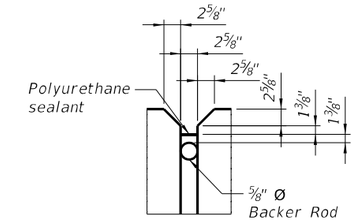
REFLECTED ELEVATION

(Looking North)

Only parapet reinforcement shown for clarity

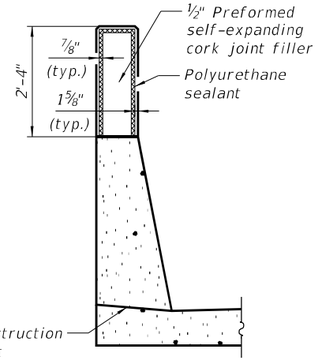
A: 37-#6 d3(E) bars at 5" cts.

B: 37-#6 d4(E) bars at 5" cts.

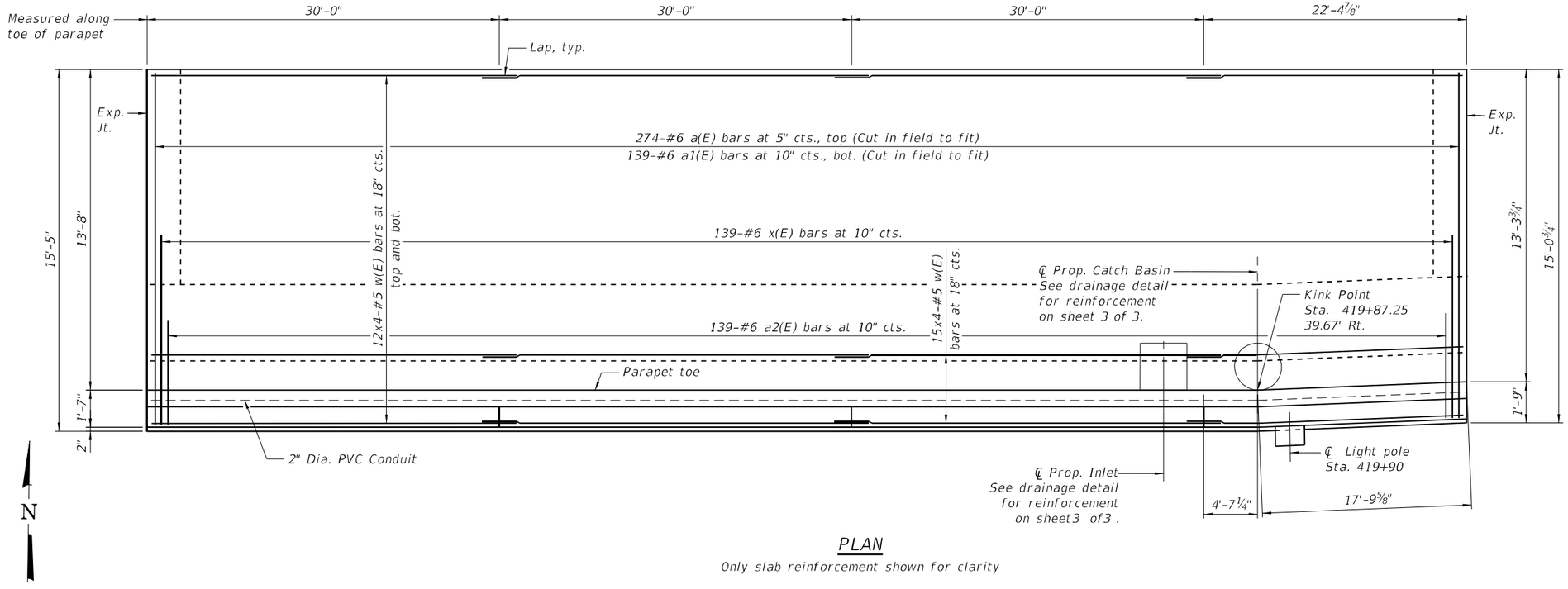


SEALANT DETAIL

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



CORK PARAPET JOINT DETAILS



PLAN

Only slab reinforcement shown for clarity

NOTES

1. Bars indicated thus 8x2-#5 bar etc. indicates 8 lines of bars with 2 lengths per line.
2. See sheet 3 of 3 for sections, details, reinforcing bar list, and drainage details.
3. Structure mounted noise abatement wall posts not shown for clarity.

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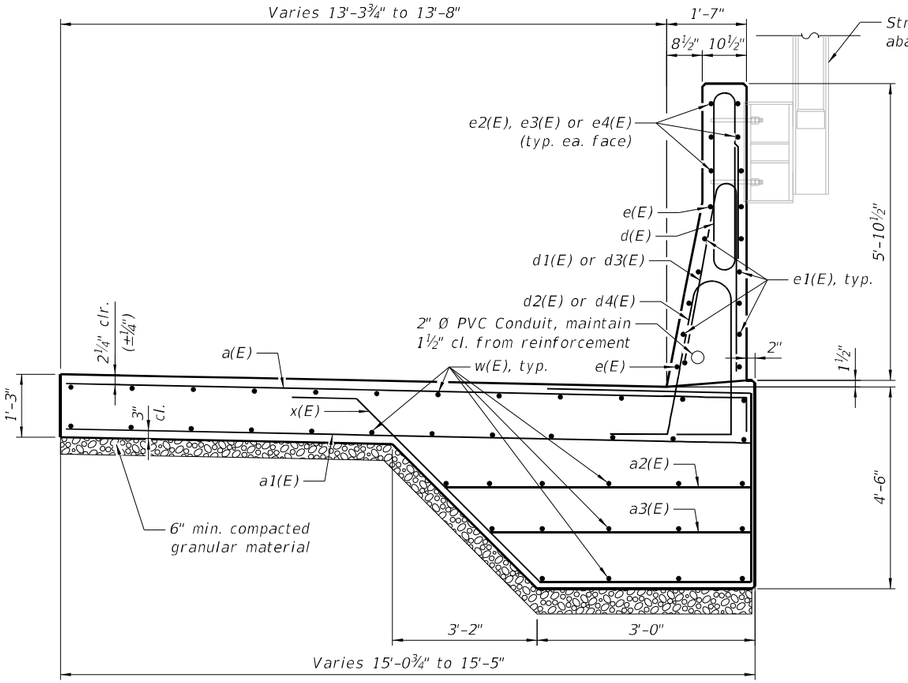
GANNETT FLEMING

USER NAME = jstarzyk		DESIGNED - MZ	REVISED -	
		CHECKED - JGC	REVISED -	
PLOT SCALE = 10.6667 ' / in.		DRAWN - MDA	REVISED -	
PLOT DATE = 3/20/2024		CHECKED - MZ	REVISED -	

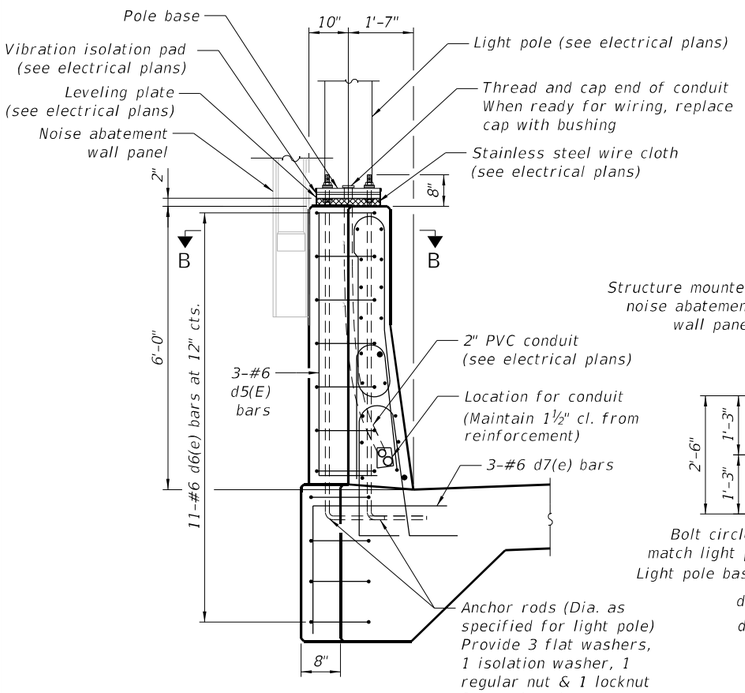
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILED PLAN & ELEVATION
ANCHORAGE SLAB ON GRADE - EB
SHEET 2 OF 3 SHEETS

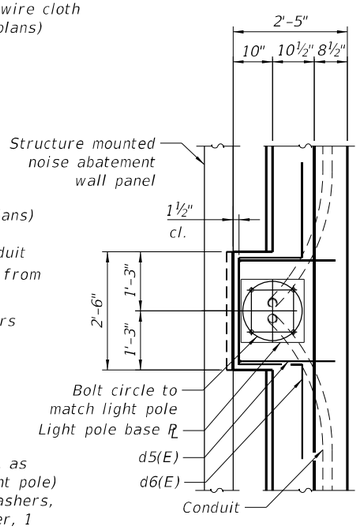
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	256
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



SECTION A-A

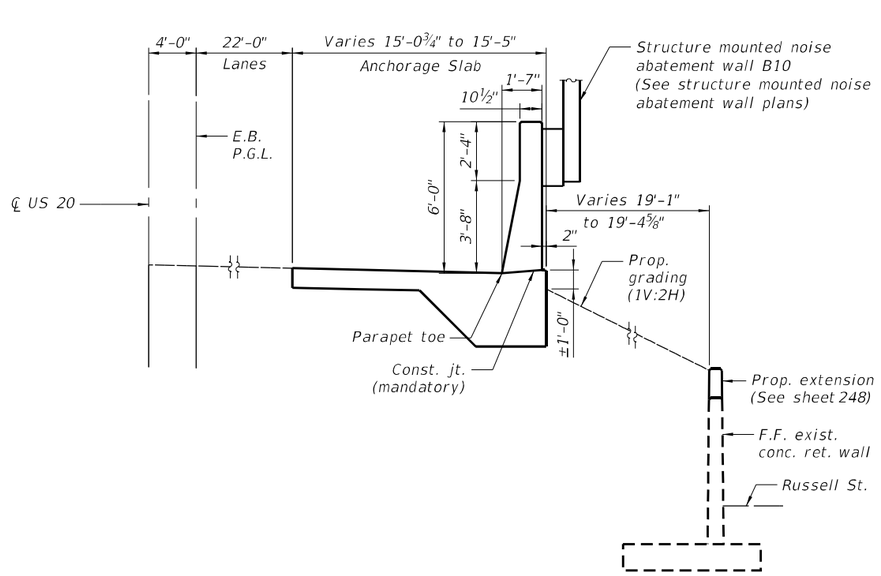


TYPICAL ANCHORAGE SLAB SECTION AT LIGHT POLE FOUNDATION



SECTION B-B

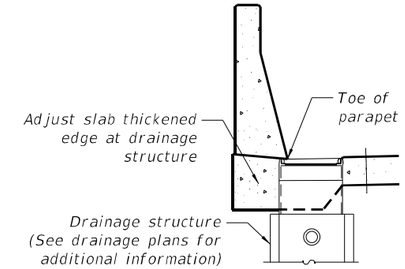
(Anchorage slab edge not shown for clarity)



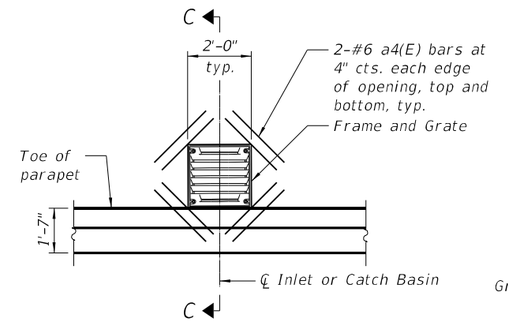
TYPICAL SECTION THRU ANCHORAGE SLAB ON GRADE

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	274	#6	16'-0"	
a1(E)	139	#6	15'-0"	
a2(E)	139	#6	4'-11"	
a3(E)	139	#6	3'-11"	
a4(E)	32	#6	2'-6"	
d(E)	278	#5	10'-6"	
d1(E)	204	#5	8'-1"	
d2(E)	204	#5	9'-0"	
d3(E)	74	#6	8'-7"	
d4(E)	74	#6	9'-0"	
d5(E)	3	#6	7'-9"	
d6(E)	11	#6	8'-11"	
d7(E)	3	#6	6'-1"	
e(E)	8	#8	32'-6"	
e1(E)	40	#6	30'-9"	
e2(E)	36	#6	14'-8"	
e3(E)	6	#6	11'-10"	
e4(E)	6	#6	9'-11"	
w(E)	156	#5	30'-4"	
x(E)	139	#6	17'-7"	
Concrete Superstructure			171.1	Cu Yd
Protective Coat			258	Sq Yd
Reinforcement Bars, Epoxy Coated			32,670	Pound

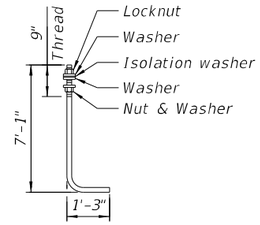


SECTION C-C



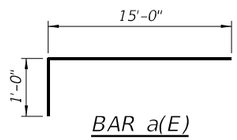
DRAINAGE DETAIL

Cut longitudinal reinforcement to clear Inlet & Catch Basin. Inlet frame & grate shown. Catch Basin frame & lid similar.

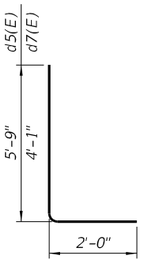


ANCHOR ROD

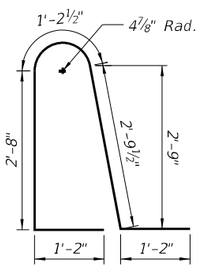
Diameter as specified for light poles. (ASTM F1554 Grade 105). Cost included with Concrete Superstructure.



BAR a(E)

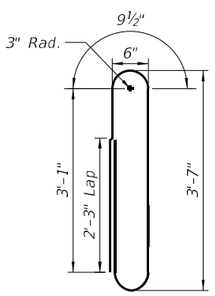


BAR d5(E) or d7(E)

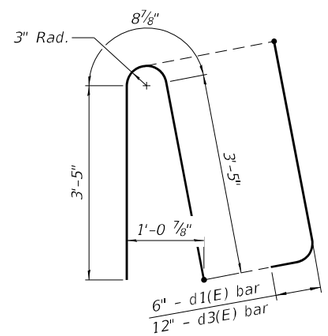


BAR d2(E) or d4(E)

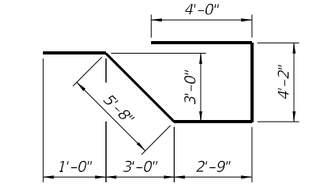
Back leg to extend 9½" into anchroage slab



BAR d(E)



BAR d1(E) or d3(E)



BAR d6(E)

BAR x(E)

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GANNETT FLEMING	USER NAME = jstarzyk	DESIGNED - MDA	REVISED -	
		CHECKED - MZ	REVISED -	
	PLOT SCALE = 2.0000 ' / in.	DRAWN - LAM	REVISED -	
	PLOT DATE = 3/20/2024	CHECKED - MZ	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

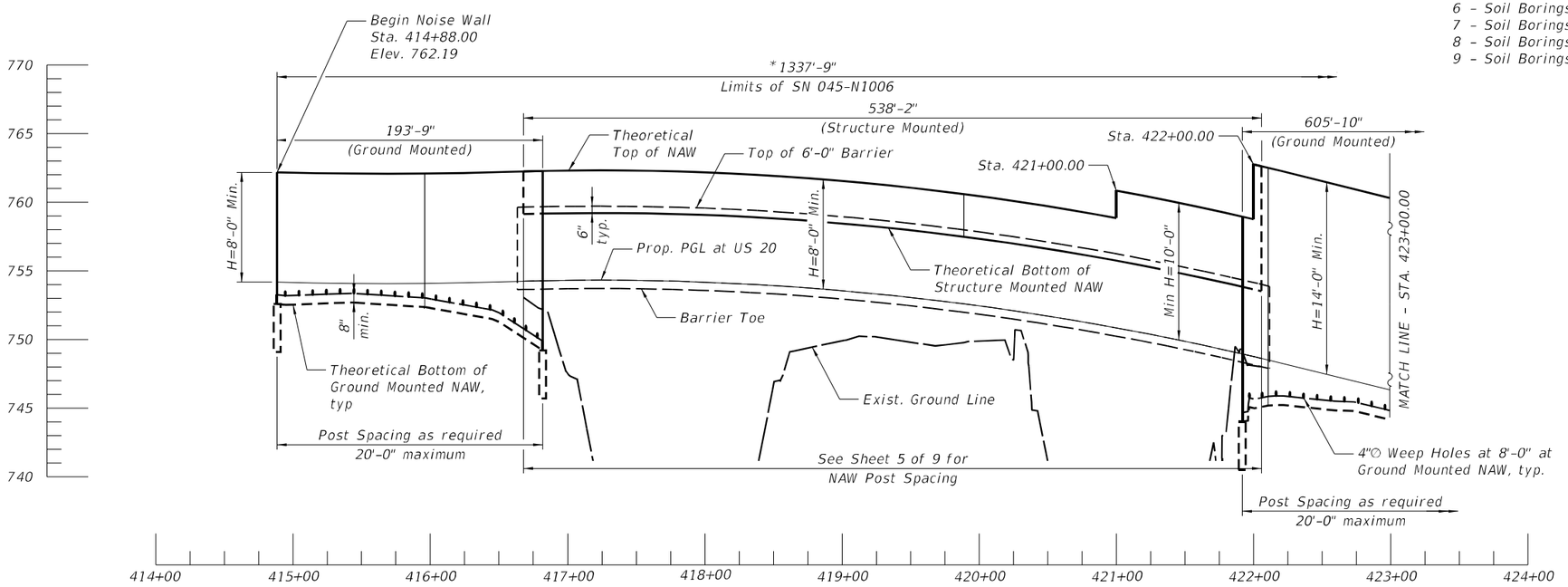
SECTION & DETAILS
ANCHORAGE SLAB ON GRADE - EB
SHEET 3 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	257
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Cut "Γ" on NW corner of Pier 1 on E side of St. Charles St. & 38 feet N ℄ of US 20.
Elev. = 737.093

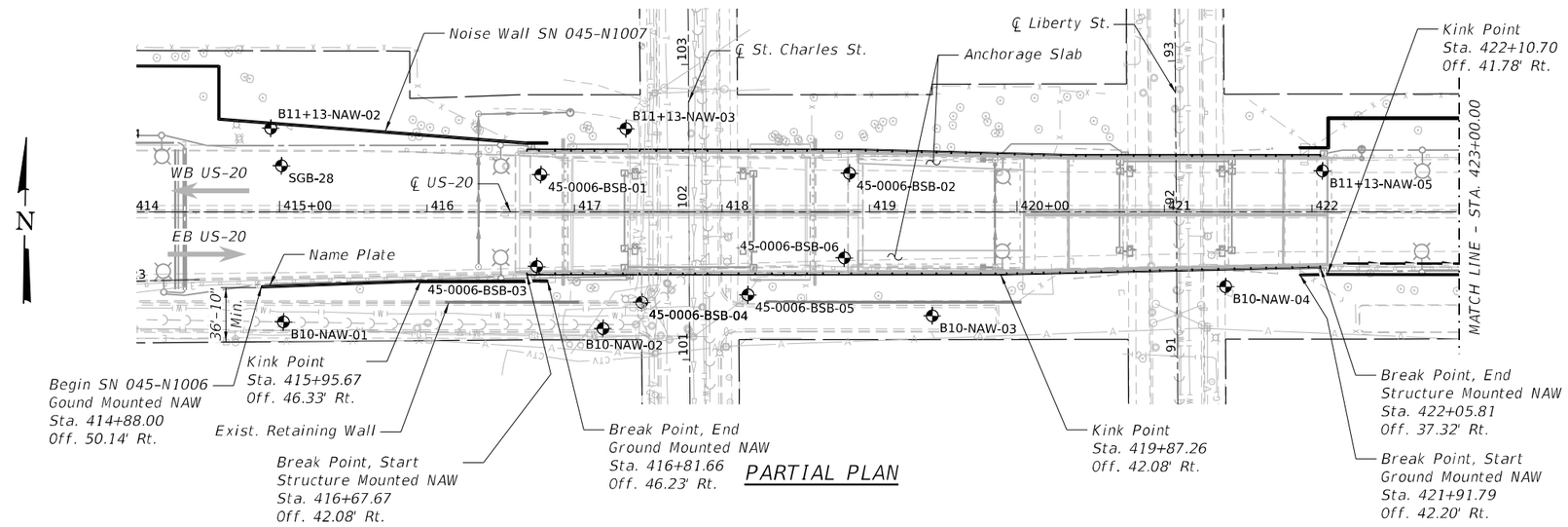
Existing Structure: None

Staging: See MOT plans



REFLECTED PARTIAL ELEVATION

*Measured along front face of Wall.



PARTIAL PLAN

INDEX OF SHEETS

1 - General Plan & Elevation I
2 - General Plan & Elevation II
3 - General Notes
4 - Details I
5 - Details II
6 - Soil Borings I
7 - Soil Borings II
8 - Soil Borings III
9 - Soil Borings IV

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c= 4,000 psi
fy= 60,000 psi (Reinforcement)
fy= 50,000 psi (M270 Grade 50, posts)
fy= 36,000 psi (M270 Grade 36, all
other structural steel)

PRECAST UNITS

f'c= 4,500 psi
fy= 60,000 psi (Reinforcement)
fy= 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADING

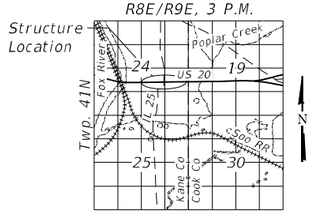
Structure Mounted Dead Load:
65 psf (Unfactored)
Vehicular Load: AASHTO LRFD
Article 15.8.4 - TL-5 Criteria
Strength III or V Wind: 35 psf
Service I Wind: 15 psf

NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of Wall.

LEGEND

◆	Soil Boring
———	Exist. R.O.W.
——W——W——	Exist. Water Main
—)—)—)—	Exist. Sanitary Sewer
——▷——▷——	Exist. Storm Sewer
——G——G——	Exist. Gas
——T——T——	Exist. Underground Tele.
——CTV——	Exist. CTV
—X—X—X—	Exist. Fence
——A——A——	Exist. Aerial Lines
——E——E——	Exist. Underground Electric
——▷——▷——	Prop. Storm Sewer
- - - -	Prop. Lighting Cable in Duct
NAW	Noise Abatement Wall



LOCATION SKETCH

GERALD E. KOYLASS
081-005264
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

Expires November 30, 2024

Date: 3/21/2024

GENERAL PLAN & ELEVATION
NOISE ABATEMENT WALL B10
F.A.P. RTE. 345 - SEC 345-23-BR
KANE COUNTY
STATION 414+88.00 to 427+97.00
STRUCTURE NO. 045-N1006

BURNS McDONNELL	USER NAME = eckay	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - GEK	REVISED -	
	PLOT SCALE = 100.0000 ' / in.	DRAWN - BAH	REVISED -	
	PLOT DATE = 3/21/2024	CHECKED - ECK	REVISED -	

GENERAL PLAN & ELEVATION I
STRUCTURE NO. 045-N1006
SHEET 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	258
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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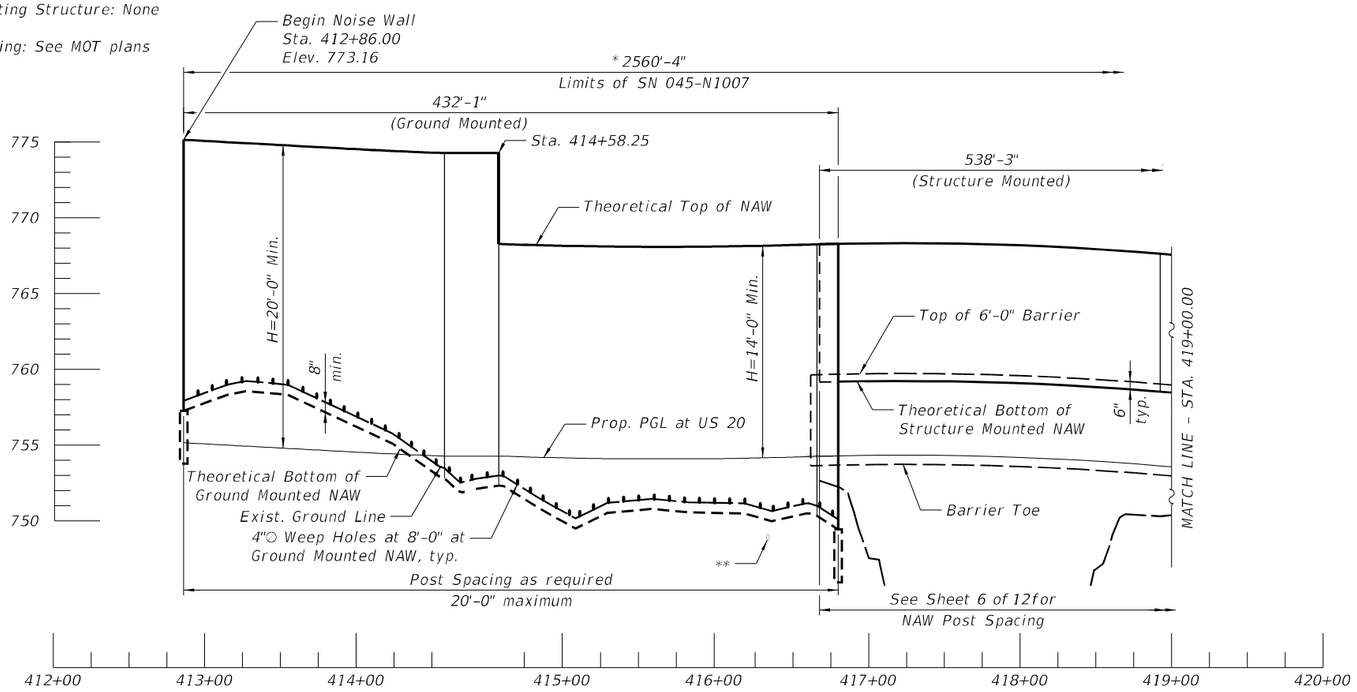
Benchmark: Cut "Γ" on NW corner of Pier 1 on E side of St. Charles St. & 38 feet N ℄ of US 20.
Elev. = 737.093

Existing Structure: None

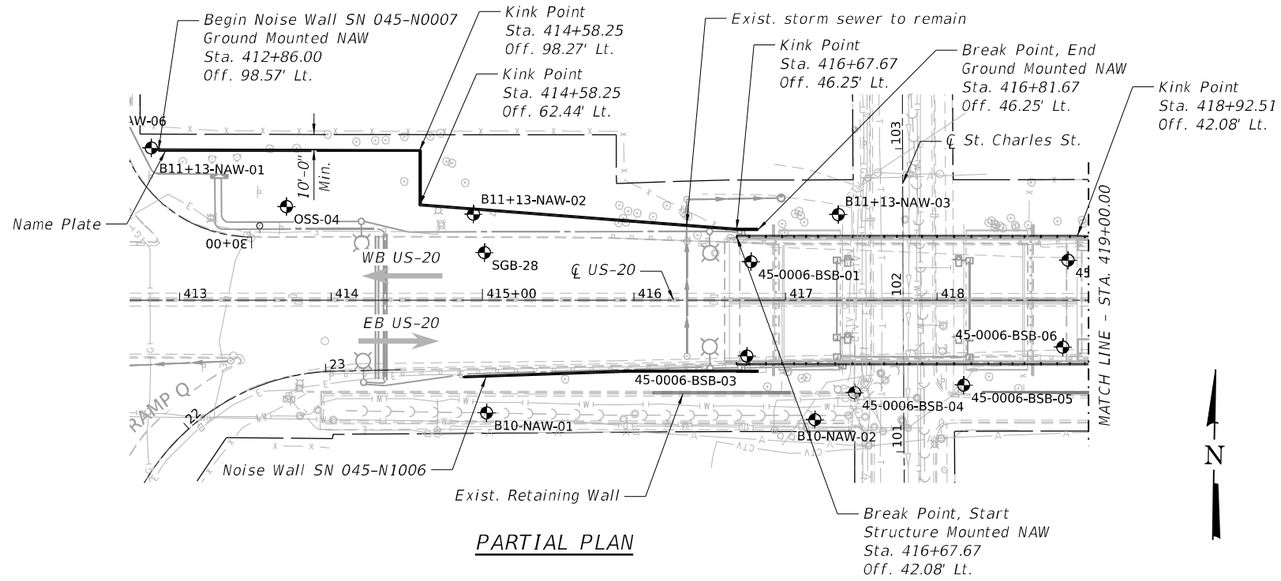
Staging: See MOT plans



PARTIAL ELEVATION

*Measured along front face of Wall.

**Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.



PARTIAL PLAN

INDEX OF SHEETS

1 - General Plan & Elevation I
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10 - Soil Borings IV
11 - Soil Borings V
12 - Soil Borings VI

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c= 4,000 psi
fy= 60,000 psi (Reinforcement)
fy= 50,000 psi (M270 Grade 50, posts)
fy= 36,000 psi (M270 Grade 36, all other structural steel)

PRECAST UNITS

f'c= 4,500 psi
fy= 60,000 psi (Reinforcement)
fy= 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADING

Structure Mounted Dead Load: 65 psf (Unfactored)
Vehicular Load: AASHTO LRFD Article 15.8.4 - TL-5 Criteria
Strength III or V Wind: 35 psf
Service I Wind: 15 psf

NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of Wall.

LICENSED STRUCTURAL ENGINEER
GERALD E. KOYLASS
081-005264
STATE OF ILLINOIS

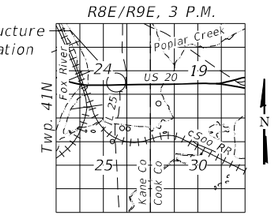
Expires November 30, 2024

Date: 3/21/2024

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- Exist. Gas
- Exist. Underground Tele.
- Exist. CTV
- Exist. Fence
- Exist. Aerial Lines
- Exist. Underground Electric
- Prop. Storm Sewer
- Prop. Lighting Cable in Duct
- NAW Noise Abatement Wall

Structure Location



LOCATION SKETCH

GENERAL PLAN & ELEVATION
NOISE ABATEMENT WALL B11+B13
F.A.P. RTE. 345 - SEC 345-23-BR
KANE COUNTY
STATION 412+86.00 to 438+00.00
STRUCTURE NO. 045-N1007

BURNS McDONNELL	USER NAME = eckay	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION I STRUCTURE NO. 045-N1007
		CHECKED - GEK	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	DRAWN - BAH	REVISED -		
	PLOT DATE = 3/21/2024	CHECKED - ECK	REVISED -		SHEET 1 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	267
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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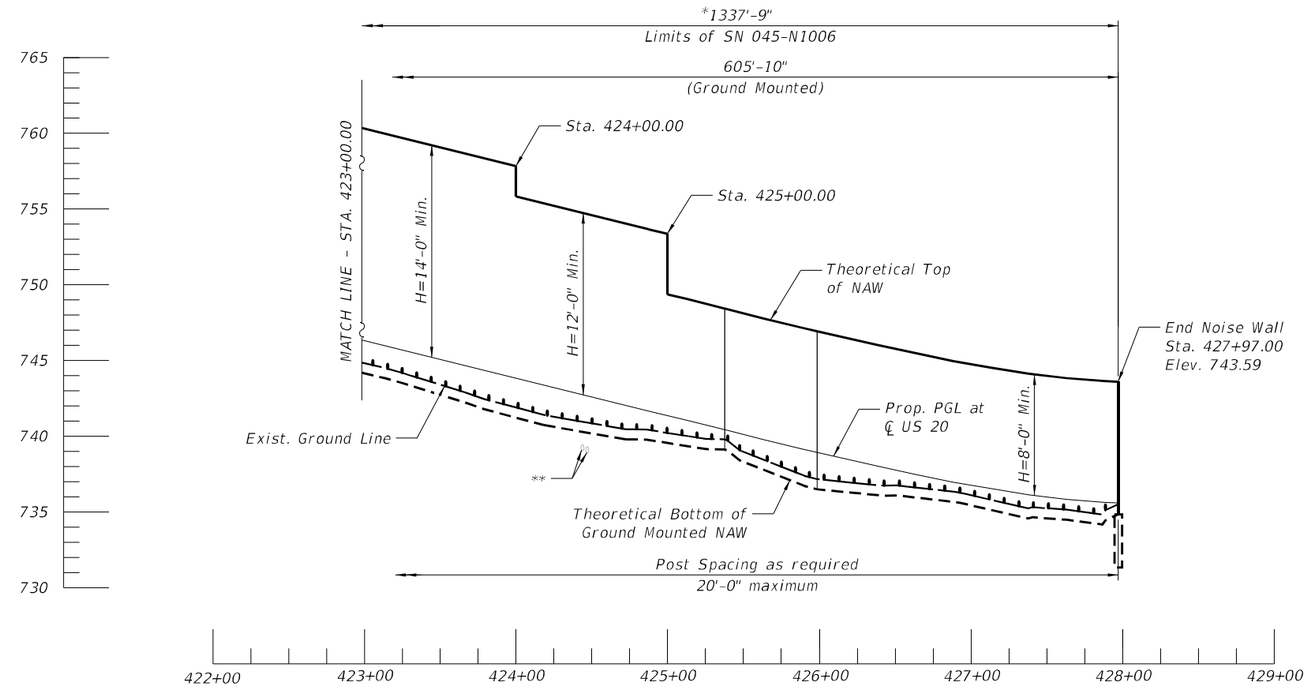


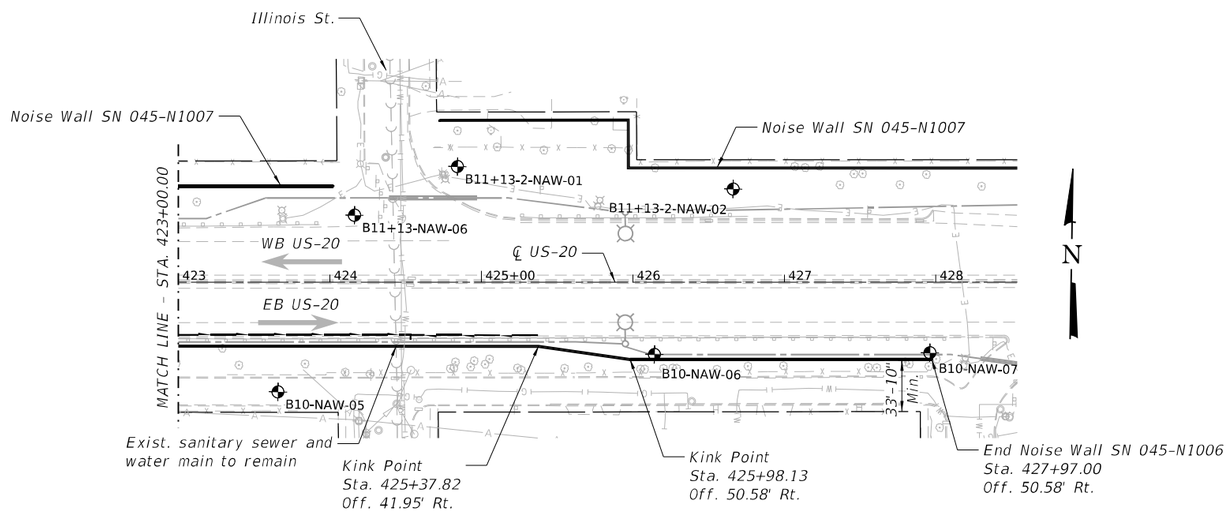
REFLECTED PARTIAL ELEVATION

*Measured along front face of Wall.

**Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.

WALL ELEVATION INFORMATION

Station	Offset	Theoretical Top of NAW Elev.	Exist. Ground Elev. at NAW	Theoretical Bottom of NAW Elev.	Prop. PGL Elev. at ℄ US 20
414+88.00	50.14 Rt.	762.15	753.27	752.60	754.19
415+00.00	49.72 Rt.	762.16	753.21	752.55	754.16
416+00.00	46.32 Rt.	762.11	752.96	752.29	754.11
416+81.66	46.23 Rt.	762.29	749.88	749.22	754.29
416+67.67	42.08 Rt.	762.26	–	759.15	754.26
417+00.00	42.08 Rt.	762.32	–	759.21	754.32
418+00.00	42.08 Rt.	762.19	–	759.08	754.19
419+00.00	42.08 Rt.	761.56	–	758.46	753.56
420+00.00	41.84 Rt.	760.45	–	757.36	752.45
421+00.00	39.64 Rt.	760.86	–	755.80	750.86
422+00.00	37.45 Rt.	762.77	–	753.76	748.77
422+05.81	37.32 Rt.	762.63	–	753.62	748.63
421+91.79	42.20 Rt.	758.96	744.67	744.01	748.96
422+00.00	42.02 Rt.	762.77	745.68	745.01	748.77
423+00.00	41.83 Rt.	760.31	744.82	744.16	746.31
424+00.00	41.88 Rt.	755.83	741.90	741.23	743.83
425+00.00	41.93 Rt.	749.36	740.22	739.56	741.36
426+00.00	50.58 Rt.	746.89	737.15	736.48	738.89
427+00.00	50.58 Rt.	744.75	736.10	735.44	736.75
427+97.00	50.58 Rt.	743.59	735.51	734.84	735.59



PARTIAL PLAN

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- Exist. Gas
- Exist. Underground Tele.
- Exist. CTV
- Exist. Fence
- Exist. Aerial Lines
- Exist. Underground Electric
- Prop. Storm Sewer
- Prop. Lighting Cable in Duct
- NAW — Noise Abatement Wall

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BURNS McDONNELL

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	CHECKED - GEK	REVISED -	
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PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION II
STRUCTURE NO. 045-N1006

SHEET 2 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	259
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of the proposed noise wall.

2. 4" Ø weep hole shall be provided through wall panels at the ground level at a spacing of 8 ft as required to facilitate surface drainage. Location to be determined by the Engineer. Cost included with Noise Abatement Wall, of the type specified.

3. Type, size and spacing of posts, noise wall panels, drilled shaft and size embedment length, reinforcement details, lifting bars and wall limits including top and bottom of wall shall be determined by the Contractor and shall be designed to avoid conflicts with the existing facilities. Cost included with Noise Abatement Wall, of the type specified.

4. The contractor shall review the maintenance of traffic plans. The Construction of Noise Abatement Wall may need to be sequenced to match the roadway sequence of construction. and the Contractor may not be able to construct the NAW in one continuos operation. Additional mobilization/demobilization required will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

5. The Contractor shall verify locations of all existing utilities and structures and shall take all necessary precautions to perform the work in such a manner as to not damage existing utilities or structures, located near or beneath the Noise Abatement Wall. Any damage to existing utilities or structures shall be repaired at no cost to the Department.

6. It is anticipated that temporary casing is required for each drilled shaft foundation due to soil condition. The temporary casing will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified.

7. It shall be the Contractor's responsibility to field verify existing ground elevations at the locations of the proposed ground mounted noise abatement walls and compare to that shown on the plans. Adjustments to NAW heights as required to accommodate actual field conditions shall be made by the Contractor at no additional cost. Cost to comply with this requirement is included in the cost of Noise Abatement Wall, of the type specified.

8. A Geotechnical Memorandum for Noise Abatement Walls, by Gannett Fleming is available upon request. Please allow 30 days time for distribution.

9. See special provisions for additional requirements.

10. In addition to the special provisions, the panels shall be designed to be vertically supported between foundations such that the excavation beneath the panels does not require additional supports. When panels span a utility crossing, the maximum post spacing shall be used to maximize the horizontal clearance between the posts and the utility. The cost for this work shall be included in the cost of Noise Abatement Wall of the type specified.

AESTHETIC FINISH GENERAL NOTES:

1. Precast Concrete Noise Abatement Wall Random Ashlar Limestone Formliner Pattern.

   The formliner used to create the random ashlar limestone pattern shall be of high quality and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. The liner shall be made from high-strength elastomeric urethane material which shall not compress more than 0.02 feet when poured at a rate of 10 vertical feet per hour. The form release agents shall be non-staining, non-residual and non-reactive.

   Precast Concrete Noise Abatement Wall Panels shall be constructed with a square cut random ashlar rusticated limestone surface with a maximum relief along each side as shown the details. The panel(s) height selected by the Fabricator should be compatible with Random Ashlar Limestone Formliner Pattern.

   The maximum architectural aesthetic surface treatment thickness along one side cannot exceed ¾ inches. The relief, on each side of precast concrete panel, is permitted to vary from 0 to ¾ inches, but the total architectural relief thickness, on both sides of the precast concrete panel, must not be greater than 1½ inches.

   Angular distortion with regards to panel squareness, defines as the difference between the two diagonals, shall not exceed ½ in. Panel dimensions shall be within ¼ in. all hardware embedded in panels shall be within ¼ in.

   The Random Ashlar Limestone Pattern shall be continuous for the full height of a wall section except the top 1'-0", regardless of the number of panels in a wall section. All exposed concrete edges shall have a ¾" chamfer except at horizontal edges between successive panels.

2. The color of the wall panels and support posts is identified by Federal Standard 595-B color number 30372.

3. Formliner treatment will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

4. Aesthetic finish for the precast panels and staining for the panels and steel posts will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified. The stain color and aesthetic textured finish pattern shall be approved by the Roadside Development Unit prior to ordering materials or beginning fabrication. Submittal shall be made 30 days in advance prior to ordering materials.

TOTAL BILL OF MATERIAL

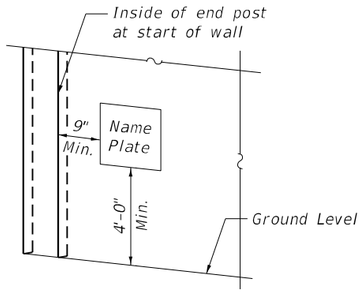
Item	Unit	Total
Noise Abatement Wall, Ground Mounted	Sq. Ft.	9,699
Noise Abatement Wall, Structure Mounted	Sq. Ft.	1,906
Name Plates	Each	1

NOISE REDUCTION DATA TABLE

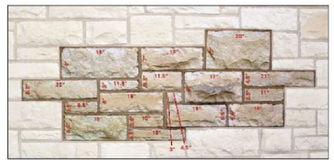
Noise Wall Structure Number	Face	From Sta.	To Sta.	Noise Reduction Coefficient
045-N1006	Front Face	414+88.00	427+97.00	Absorptive 0.80 min
	Back Face	414+88.00	427+97.00	Absorptive 0.65 min

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.P. RTE. 345
SEC 345-23-BR
FROM STA. 414+88.00 TO STA. 427+97.00
STRUCTURE NO. 045-N1006

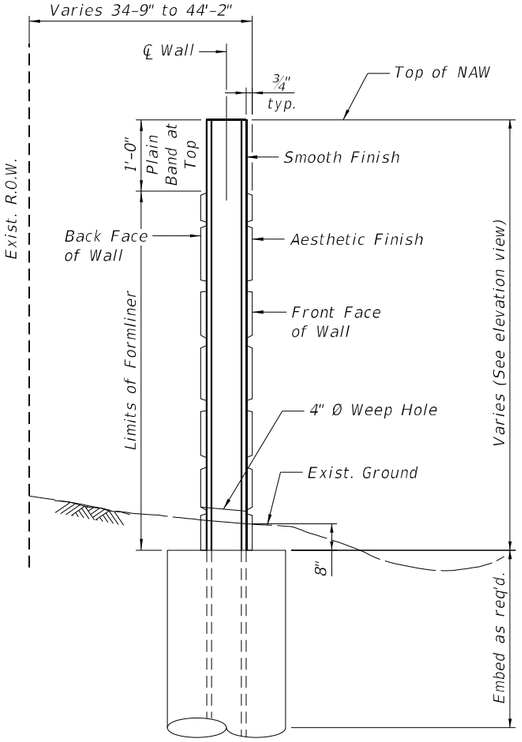
NAME PLATE
See Std. 515001



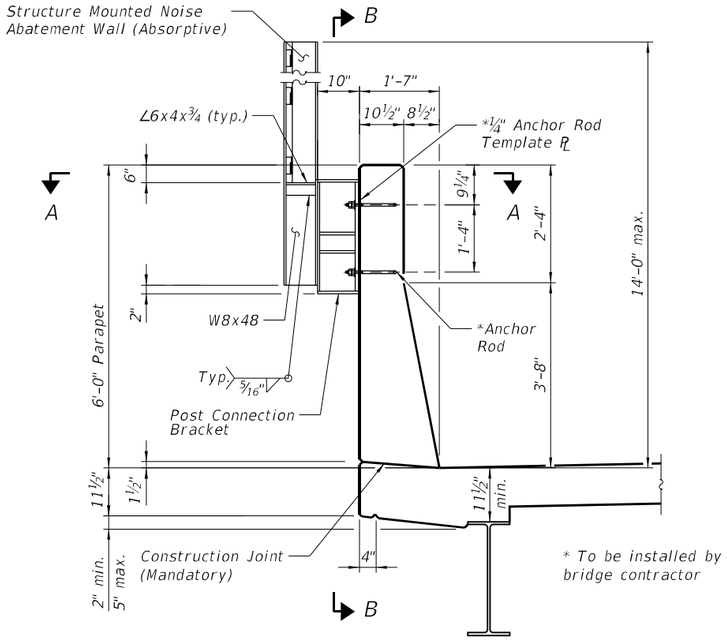
NAME PLATE LOCATION



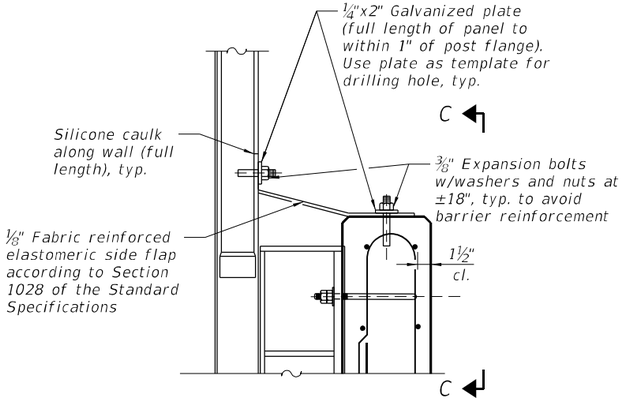
FORMLINER PATTERN DETAIL



GROUND MOUNTED NAW TYPICAL SECTION



STRUCTURE MOUNTED NOISE ABATEMENT WALL



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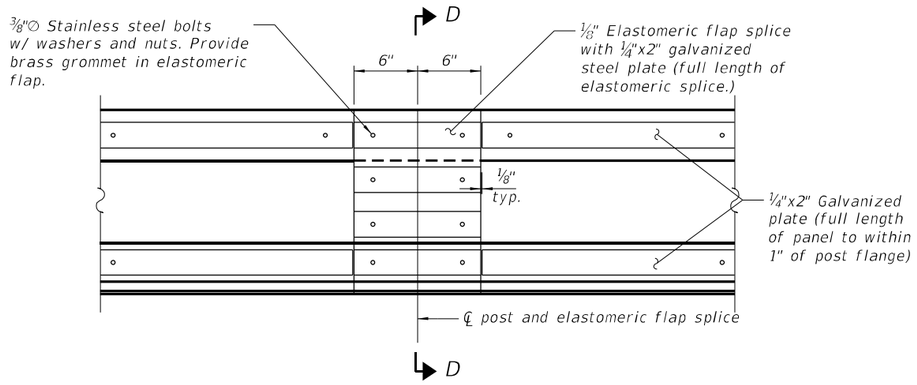
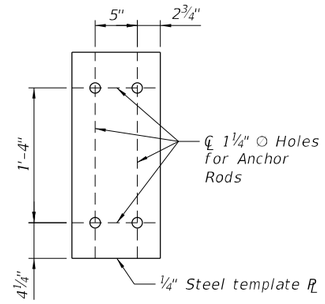
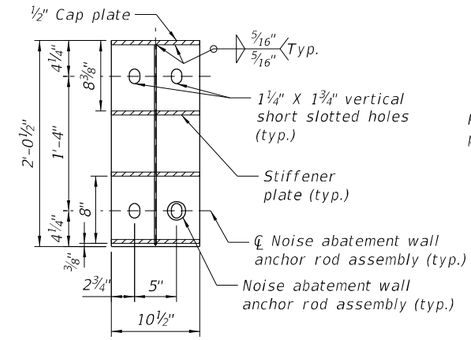


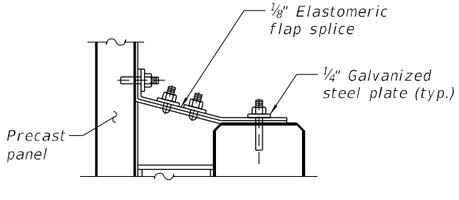
SECTION C-C



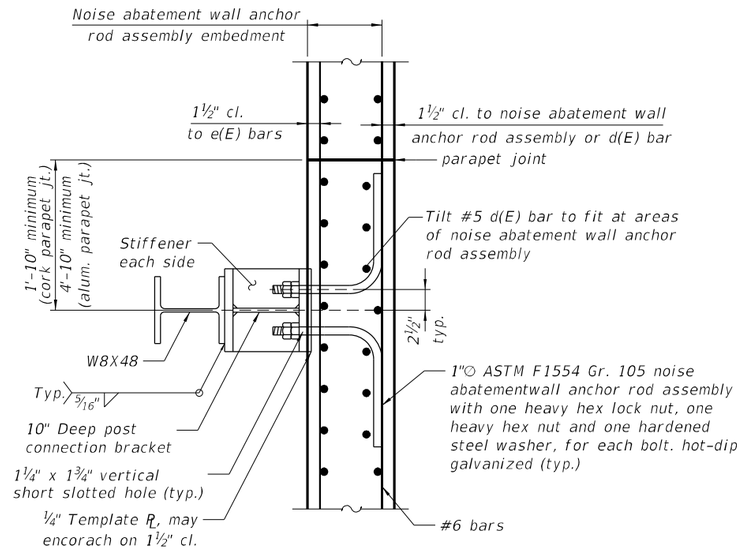
TEMPLATE PLATE FOR NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY



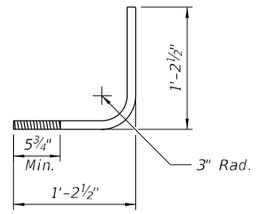
SECTION B-B



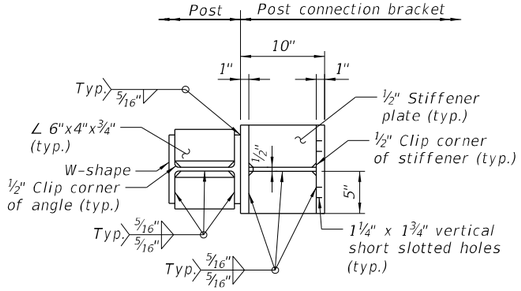
SECTION D-D



SECTION A-A



NOISE ABATEMENT WALL ANCHOR ROD ASSUMBLY



SECTION THRU POST AND POST CONNECTION BRACKET

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BURNS McDONNELL

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		CHECKED - GEK		REVISED -	
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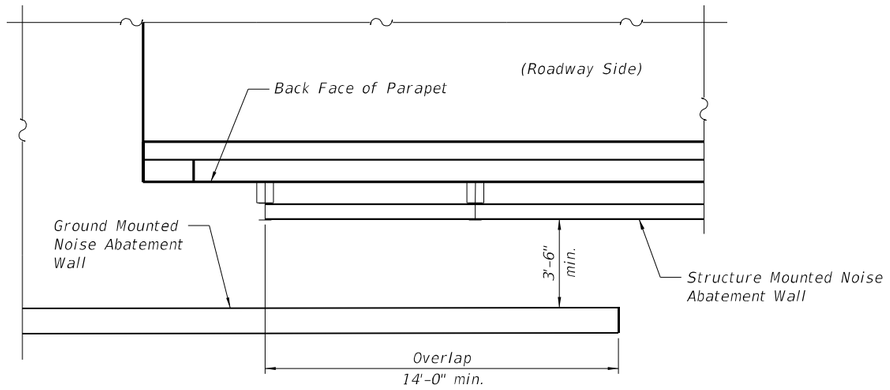
PLOT DATE = 3/20/2024		CHECKED - ECK		REVISED -	

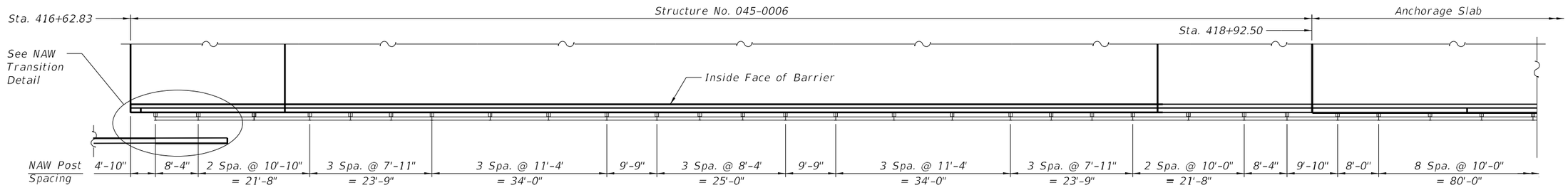
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS I
STRUCTURE NO. 045-N1006
SHEET 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	261
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			



NAW TRANSITION DETAIL



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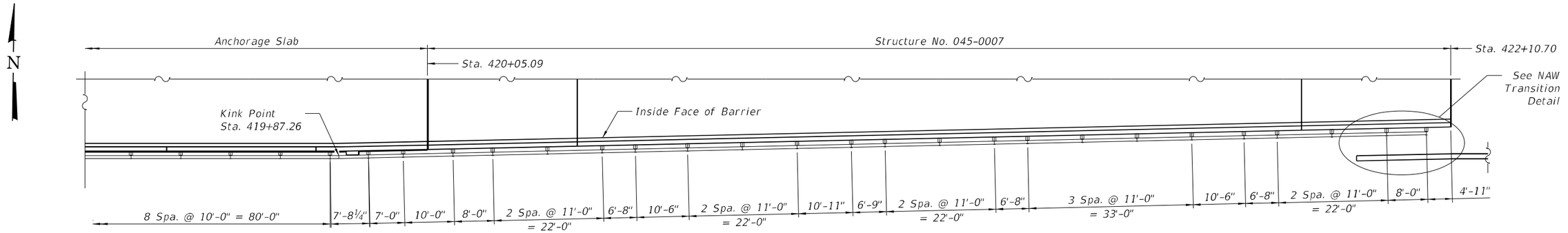

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BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	
	CHECKED - GEK	REVISED -	
PLOT SCALE = 3.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS II
STRUCTURE NO. 045-N1006
SHEET 5 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	262
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

Wang Engineering
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1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B10-NAW-01

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 739.01 ft
North: 1949890.37 ft
East: 1001583.37 ft
Station: 1415+06.42
Offset: 74.15 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	738.4	7-inch thick ASPHALT --PAVEMENT--						
	737.9	Brown SANDY GRAVEL; damp --AGGREGATE BASE--						
		Stiff to hard, brown SILTY CLAY to SILTY CLAY LOAM, trace to little gravel; damp --RDR 2--			1	2 3 3	1.50 P	21
			5		2	4 5 7	5.25 B	18
					3	4 5 8	2.95 B	18
			10		4	4 6 21	4.84 B	16
					5	18 18 14	3.50 P	11
			15		6	6 6 6	2.50 P	19
	722.8	Medium dense to dense, brown SANDY GRAVEL; damp --RDR 2-3--			7	8 18 12	NP	5
	719.0	Boring terminated at 20.00 ft	20		8	7 8 11	NP	7

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)

GENERAL NOTES

Begin Drilling: 04-22-2022 Complete Drilling: 04-22-2022
Drilling Contractor: Wang Testing Services Drill Rig: 20D50T [80%]
Driller: R&P Logger: M. Sadowski Checked by: JAB
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B10-NAW-01

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Lombard, IL 60140
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B10-NAW-02

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 732.27 ft
North: 1949892.05 ft
East: 1001793.88 ft
Station: 417+19.34
Offset: 78.92 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	731.9	5-inch thick ASPHALT --PAVEMENT--						
	731.4	6-inch thick, brown SANDY GRAVEL --AGGREGATE BASE--						
		Stiff to very stiff, brown SILTY CLAY LOAM to SILTY CLAY; damp --RDR 2--			1	5 3 3	1.75 P	20
			5		2	4 5 6	2.62 B	20
	725.8	Medium dense, brown SANDY GRAVEL; damp to saturated --RDR 2-3--			3	4 7 17	NP	6
			10		4	10 11 12	NP	4
					5	10 9 13	NP	6
			15		6	7 10 11	NP	5
		--sand heaving into augers--			7	7 8 5	NP	8
			20		8	4 6 7	NP	7

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--sand heaving into augers--						
					9	11 12 14	NP	8
	709.3	--sand heaving into augers--						
		Very stiff, gray SILTY CLAY; damp --RDR 2--			10	7 5 5	3.94 B	13
	707.3	Boring terminated at 25.00 ft	25					
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 04-22-2022 Complete Drilling: 04-22-2022
Drilling Contractor: Wang Testing Services Drill Rig: 20D50T [80%]
Driller: R&P Logger: M. Sadowski Checked by: JAB
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B10-NAW-02

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3/20/2024 4:58:25 PM

BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS I STRUCTURE NO. 045-N1006
	CHECKED - GEK	REVISED -		
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -		SHEET 6 OF 9 SHEETS
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	263
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

Wang Engineering
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1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B10-NAW-03

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 730.29 ft
North: 1949900.78 ft
East: 1002020.86 ft
Station: 419+42.64
Offset: 70.28 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	729.6	8-inch thick ASPHALT --PAVEMENT--						
	729.0	Brown SANDY GRAVEL; damp --FILL--						
		Medium stiff to stiff, brown SILTY CLAY LOAM to SILTY CLAY, trace to some gravel; damp --RDR 2--			1	6 5 4	0.75 P	11
			5		2	3 5 6	1.97 B	24
	723.8	Medium dense to dense, brown SANDY GRAVEL; damp to saturated --RDR 2-3--			3	6 12 20	NP	
			10		4	12 15 16	NP	5
					5	13 11 12	NP	6
			15		6	15 9 14	NP	5
		--sand heaving in augers--			7	5 7 10	NP	10
			20		8	10 9 12	NP	8
	709.6	Very stiff to hard, gray SILTY CLAY, trace gravel; damp --RDR 2-3--			9	8 12 13	5.08 B	12
			25		10	5 9 11	2.71 B	12
	705.3	Boring terminated at 25.00 ft						
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 04-21-2022 Complete Drilling: 04-21-2022
Drilling Contractor: Wang Testing Services Drill Rig: 20D50T [80%]
Driller: R&P Logger: M. Sadowski Checked by: JAB
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 15.50 ft
At Completion of Drilling: 21.50 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030T.GPJ WANGENG.GDT 9/1/22

BORING LOG B10-NAW-03

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1145 N Main Street
Lombard, IL 60140
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B10-NAW-04

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 731.32 ft
North: 1949928.75 ft
East: 1002222.13 ft
Station: 421+41.55
Offset: 50.50 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	730.7	7-inch thick, black SILTY CLAY --TOPSOIL--						
		Very stiff, brown SILTY CLAY, trace gravel; damp --RDR 2--			1	3 7 10	2.54 B	18
	728.3	Medium stiff to stiff, brown SILTY CLAY LOAM to SILTY CLAY, trace gravel; damp --RDR 2--			2	4 4 4	0.50 P	16
			5		3	4 4 6	1.00 P	23
			10		4	3 3 3	1.31 B	23
	720.8	Loose, brown LOAM, some gravel; moist --RDR 2--			5	5 5 3	NP	18
	718.3	Medium dense, brown and gray SANDY GRAVEL to GRAVEL; damp to saturated --RDR 2--	15		6	18 7 8	NP	
					7	9 13 19	NP	6
	713.3	Stiff, gray SILTY CLAY, trace gravel; damp --RDR 2--	20		8	3 5 6	1.39 B	16
	711.3	Boring terminated at 20.00 ft						

GENERAL NOTES

Begin Drilling: 04-21-2022 Complete Drilling: 04-21-2022
Drilling Contractor: Wang Testing Services Drill Rig: 20D50T [80%]
Driller: R&P Logger: M. Sadowski Checked by: JAB
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 15.50 ft
At Completion of Drilling: 17.50 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030T.GPJ WANGENG.GDT 9/1/22

BORING LOG B10-NAW-04

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Fax: 630-953-9928

BORING LOG B10-NAW-05

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 730.59 ft
North: 1949907.48 ft
East: 1002444.45 ft
Station: 423+65.70
Offset: 72.39 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	730.5	11.5-inch thick ASPHALT --PAVEMENT--						
	729.0	2.5-inch thick SANDY GRAVEL --AGGREGATE BASE--						
		6 inch thick, brown SAND; damp --FILL--						
		Medium stiff to stiff, brown CLAY LOAM, little to some gravel; damp to moist --RDR 2--	5	1		3 5 5	1.75 P	16
				2		5 3 3	0.75 P	11
				3		3 5 6	0.75 P	15
	722.6	Medium stiff to stiff, brown to gray SILTY CLAY LOAM to CLAY LOAM, trace gravel; damp --RDR 2--	10	4		4 6 9	0.75 P	18
				5		3 4 8	1.00 P	13
			15	6		4 7 9	1.00 P	13
				7		4 5 6	0.75 P	12
	712.6	Very stiff, gray SILTY CLAY, trace gravel; damp RDR 2						
			20	8		4 7 10	2.13 B	13
	710.6	Boring terminated at 20.00 ft						

GENERAL NOTES

Begin Drilling: 04-21-2022 Complete Drilling: 04-21-2022
Drilling Contractor: Wang Testing Services Drill Rig: 20D50T [80%]
Driller: R&P Logger: M. Sadowski Checked by: JAB
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121t0301.GPJ WANGENG.GDT 9/1/22

BORING LOG B10-NAW-05

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1145 N Main Street
Lombard, IL 60140
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B10-NAW-06

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 737.96 ft
North: 1949932.99 ft
East: 1002672.56 ft
Station: 426+14.22
Offset: 47.70 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick, dark brown and black SILTY CLAY LOAM --TOPSOIL--						
	737.0	Stiff, black and dark brown SILTY CLAY LOAM, trace gravel; moist --RDR 2--		1		5 5 6	1.00 P	15
	734.4	Very dense, tan GRAVEL; damp --RDR 2-5-- --hard drilling; possible cobbles-- --obstruction; boring resumed 10 ft E--	5	2		5 8 50/2"	NP	
	732.0	Medium dense, brown medium to coarse SAND, little gravel, damp --RDR 2--		3		10 10 11	NP	6
			10	4		7 8 12	NP	5
	727.5	Medium dense, brown, fine to medium SAND, trace gravel; damp --RDR 2--		5		7 6 7	NP	7
			15	6		5 5 7	NP	5
		--RDR 3-- --possible cobbles--		7		8 7 7	NR	
	721.2	Medium stiff, brown SILTY CLAY LOAM to SILTY LOAM, trace gravel; moist --RDR 2--						
			20	8		5 7 9	0.57 B	16
	717.5	Very stiff, brown SILTY CLAY, trace gravel; damp --RDR 2--						
				9		4 6 11	3.53 B	13
	715.5	Boring terminated at 22.50 ft						

GENERAL NOTES

Begin Drilling: 03-29-2022 Complete Drilling: 03-31-2022
Drilling Contractor: Wang Testing Services Drill Rig: 20D25A [83%]
Driller: PH&AG Logger: D. You Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121t0301.GPJ WANGENG.GDT 9/1/22

BORING LOG B10-NAW-06

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BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	
	CHECKED - GEK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NO. 045-N1006
SHEET 8 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	265
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B10-NAW-07

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 735.57 ft
North: 1949934.78 ft
East: 1002875.31 ft
Station: 427+96.03
Offset: 46.62 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	734.6	12-inch thick, black SILTY CLAY LOAM						
		--TOPSOIL--						
		Medium stiff to hard, black and brown SILTY CLAY LOAM to SILTY CLAY, trace to little gravel; damp to moist			1	4 5 7	0.75 P	11
		--RDR 2--						
	731.9	--Qu: 4.25P--						
		Medium dense, brown, fine to medium SAND, trace gravel; damp to moist	5		2	4 5 6	NP	6
		--RDR 2--						
	728.8			▽	3	9 7 8	NP	16
		Brown SILT, trace gravel; wet --RDR 2--						
	727.6							
		Medium dense, brown, fine to medium SAND, trace gravel; damp to moist			4	7 8 8	NP	11
		--RDR 2--	10					
					5	6 8 8	NP	8
					6	9 10 9	NP	6
			15					
					7	8 8 13	NP	5
	717.6							
		Medium dense, brown Gravelly SAND; damp						
		RDR 2			8	9 10 10	NP	5
	715.6		20					
		Boring terminated at 20.00 ft						

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)

GENERAL NOTES

Begin Drilling: **03-29-2022** Complete Drilling: **03-29-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **20D25A [83%]**
Driller: **PH&AG** Logger: **D. You** Checked by: **CLM**
Drilling Method: **2.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ▽ **6.75 ft**
At Completion of Drilling ▼ **DRY**
Time After Drilling **NA**
Depth to Water ▼ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B10-NAW-07

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#WANGENGINC 121030.GPJ WANGENG.GDT 9/1/22

BURNS McDONNELL

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	CHECKED - GEK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

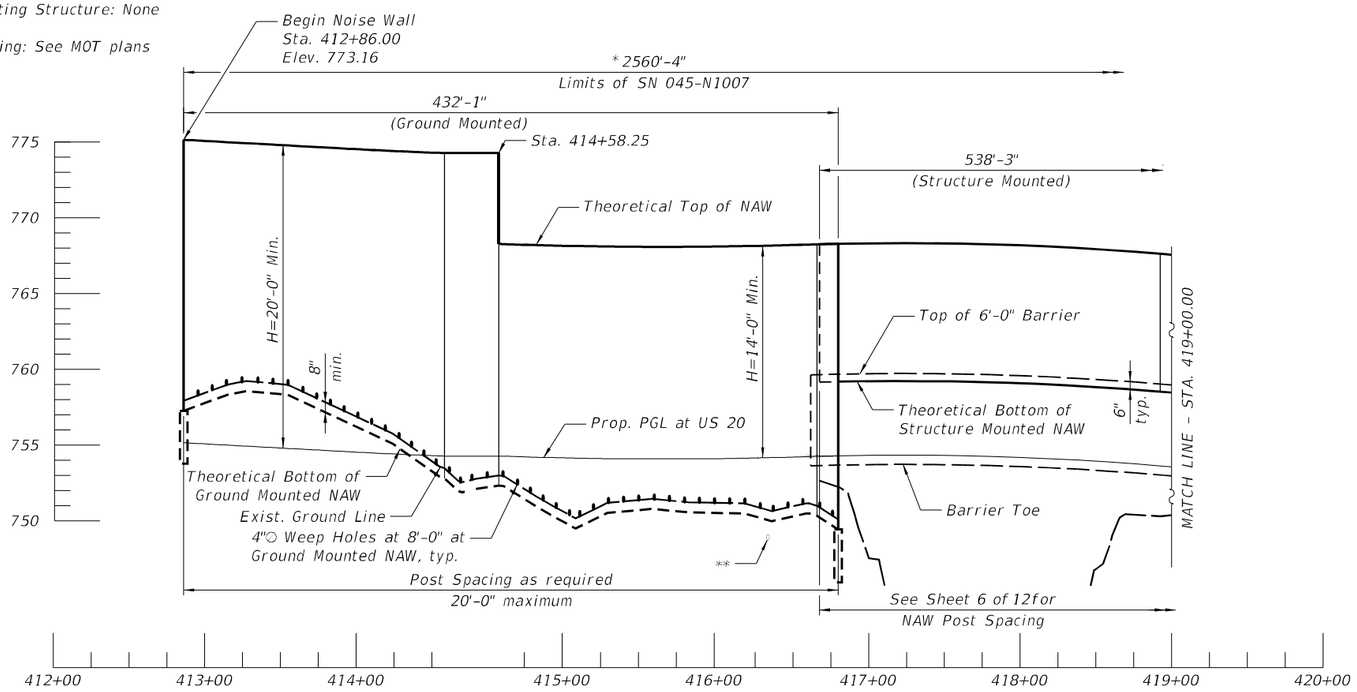
SOIL BORING LOGS IV
STRUCTURE NO. 045-N1006
SHEET 9 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE	379	266
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Cut "Γ" on NW corner of Pier 1 on E side of St. Charles St. & 38 feet N ℄ of US 20.
Elev. = 737.093

Existing Structure: None

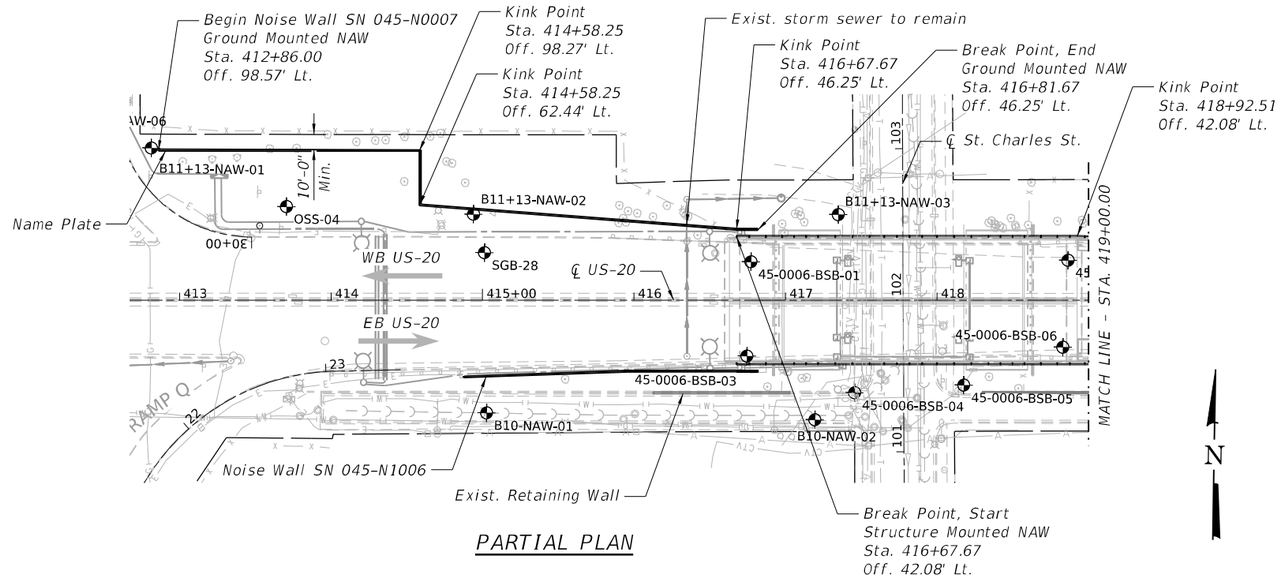
Staging: See MOT plans



PARTIAL ELEVATION

*Measured along front face of Wall.

**Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.



PARTIAL PLAN

INDEX OF SHEETS

1 - General Plan & Elevation I
2 - General Plan & Elevation II
3 - General Plan & Elevation III
4 - General Notes
5 - Details I
6 - Details II
7 - Soil Borings I
8 - Soil Borings II
9 - Soil Borings III
10 - Soil Borings IV
11 - Soil Borings V
12 - Soil Borings VI

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c= 4,000 psi
fy= 60,000 psi (Reinforcement)
fy= 50,000 psi (M270 Grade 50, posts)
fy= 36,000 psi (M270 Grade 36, all
other structural steel)

PRECAST UNITS

f'c= 4,500 psi
fy= 60,000 psi (Reinforcement)
fy= 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADING

Structure Mounted Dead Load:
65 psf (Unfactored)
Vehicular Load: AASHTO LRFD
Article 15.8.4 - TL-5 Criteria
Strength III or V Wind: 35 psf
Service I Wind: 15 psf

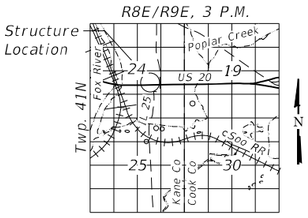
NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of Wall.

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- Exist. Gas
- Exist. Underground Tele.
- Exist. CTV
- Exist. Fence
- Exist. Aerial Lines
- Exist. Underground Electric
- Prop. Storm Sewer
- Prop. Lighting Cable in Duct
- NAW Noise Abatement Wall

R8E/R9E, 3 P.M.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
NOISE ABATEMENT WALL B11+B13
F.A.P. RTE. 345 - SEC 345-23-BR
KANE COUNTY
STATION 412+86.00 to 438+00.00
STRUCTURE NO. 045-N1007

BURNS McDONNELL	USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION I STRUCTURE NO. 045-N1007
		CHECKED - GEK	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	DRAWN - BAH	REVISED -		
	PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		SHEET 1 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	267
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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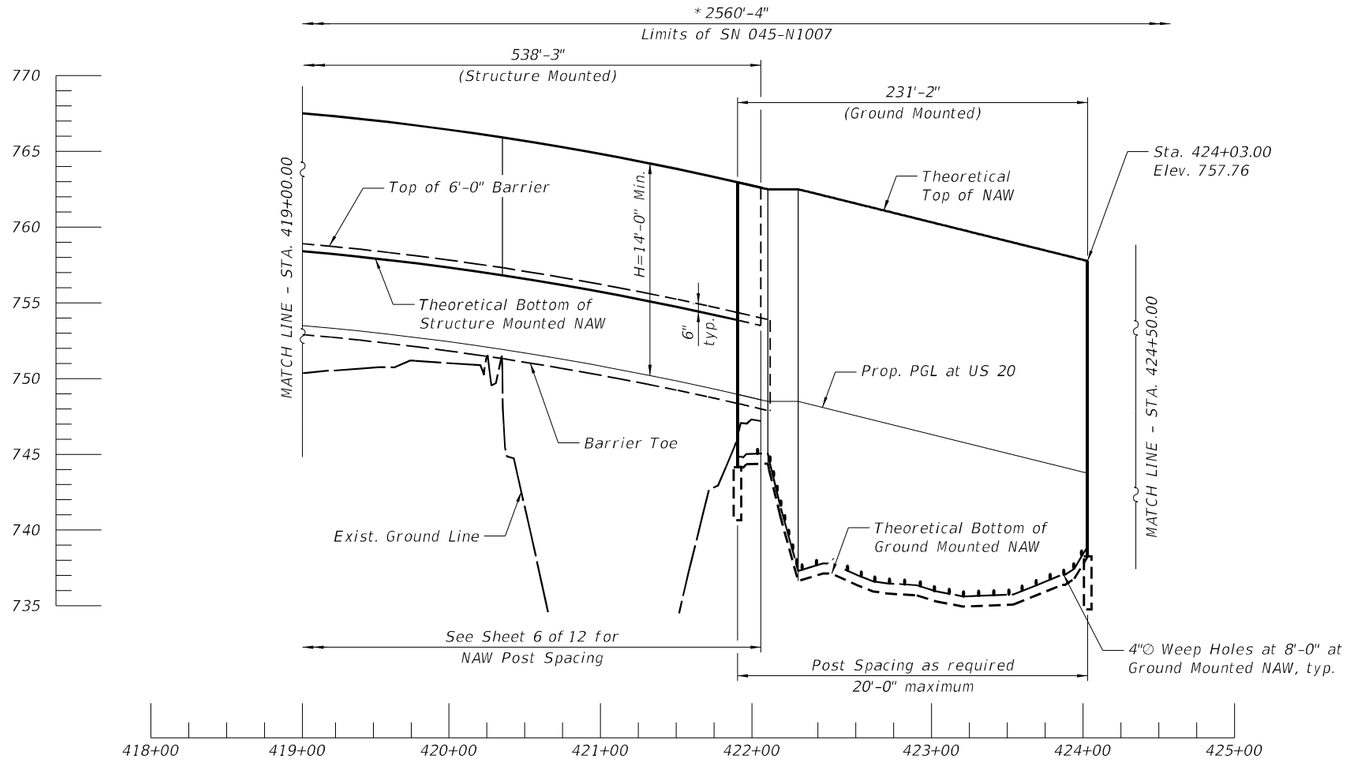
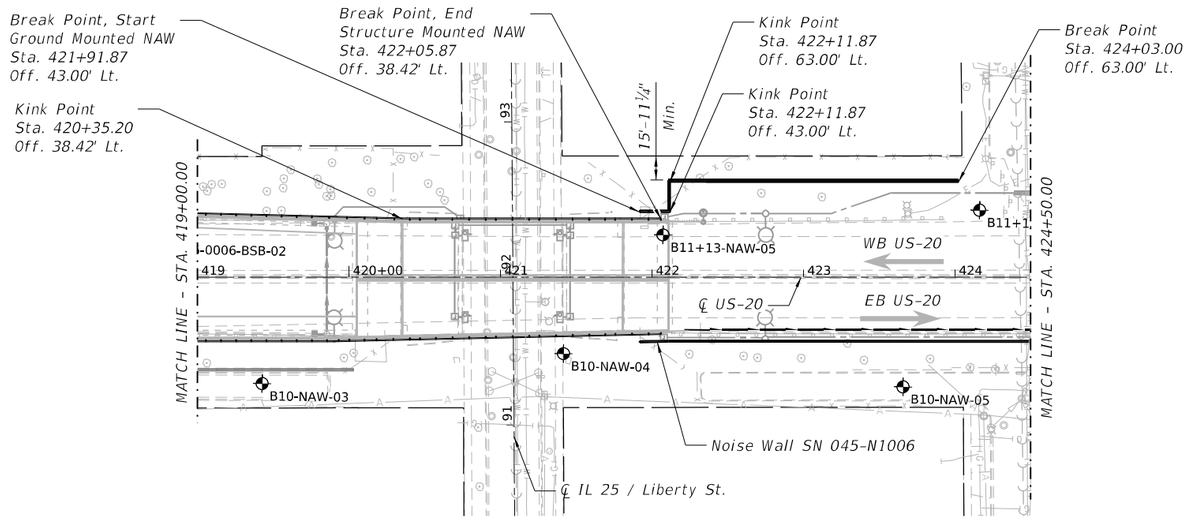


PARTIAL ELEVATION

*Measured along front face of Wall.



PARTIAL PLAN

WALL ELEVATION INFORMATION

Station	Offset	Theoretical Top of NAW Elev.	Exist. Ground Elev. at NAW	Theoretical Bottom of NAW Elev.	Prop. Elev. at PGL US 20
412+86.00	98.57 Lt.	773.16	757.93	757.27	755.16
413+00.00	98.55 Lt.	773.08	758.44	757.78	755.08
414+00.00	98.37 Lt.	772.54	756.88	756.22	754.54
415+00.00	59.22 Lt.	768.16	750.65	749.98	754.16
416+00.00	51.48 Lt.	768.11	751.20	750.53	754.11
416+81.67	46.25 Lt.	759.29	750.11	749.44	745.29
416+67.67	42.08 Lt.	768.26	–	759.15	754.26
417+00.00	42.08 Lt.	768.32	–	759.21	754.32
418+00.00	42.08 Lt.	768.19	–	759.08	754.19
419+00.00	41.89 Lt.	767.56	–	758.46	753.56
420+00.00	39.32 Lt.	766.45	–	757.41	752.45
421+00.00	38.42 Lt.	764.86	–	755.82	750.86
422+00.00	38.42 Lt.	762.77	–	753.74	748.77
422+05.87	38.42 Lt.	762.63	–	753.60	748.63
421+91.87	43.00 Lt.	762.96	744.81	744.14	748.96
422+00.00	43.00 Lt.	762.77	745.01	744.34	748.77
423+00.00	63.00 Lt.	760.31	736.04	735.38	746.31
424+00.00	63.00 Lt.	757.83	738.42	737.76	743.83
424+03.00	63.00 Lt.	757.76	738.92	738.25	743.76
424+72.50	106.26 Lt.	756.02	734.90	734.23	742.03
425+00.00	106.37 Lt.	755.36	734.46	733.79	741.36
426+00.00	74.84 Lt.	752.89	735.11	734.44	738.89
427+00.00	74.82 Lt.	750.75	735.53	734.86	736.75
428+00.00	74.8 Lt.	751.58	735.64	734.97	735.58
429+00.00	74.78 Lt.	751.58	737.61	736.94	735.58
430+00.00	74.76 Lt.	752.56	738.08	737.41	736.56
431+00.00	74.74 Lt.	754.09	738.22	737.55	738.09
432+00.00	74.72 Lt.	755.06	740.86	740.19	739.06
433+00.00	74.7 Lt.	757.29	740.70	740.03	739.29
434+00.00	74.68 Lt.	756.82	739.61	738.94	738.82
435+00.00	74.66 Lt.	755.71	739.39	738.72	737.71
436+00.00	74.64 Lt.	753.92	741.01	740.34	735.92
437+00.00	74.62 Lt.	751.41	740.87	740.20	733.41
438+00.00	74.61 Lt.	748.40	734.87	734.20	730.40

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- Exist. Gas
- Exist. Underground Tele.
- Exist. CTV
- Exist. Fence
- Exist. Aerial Lines
- Exist. Underground Electric
- Prop. Storm Sewer
- Prop. Lighting Conduit in Duct
- NAW — Noise Abatement Wall

N

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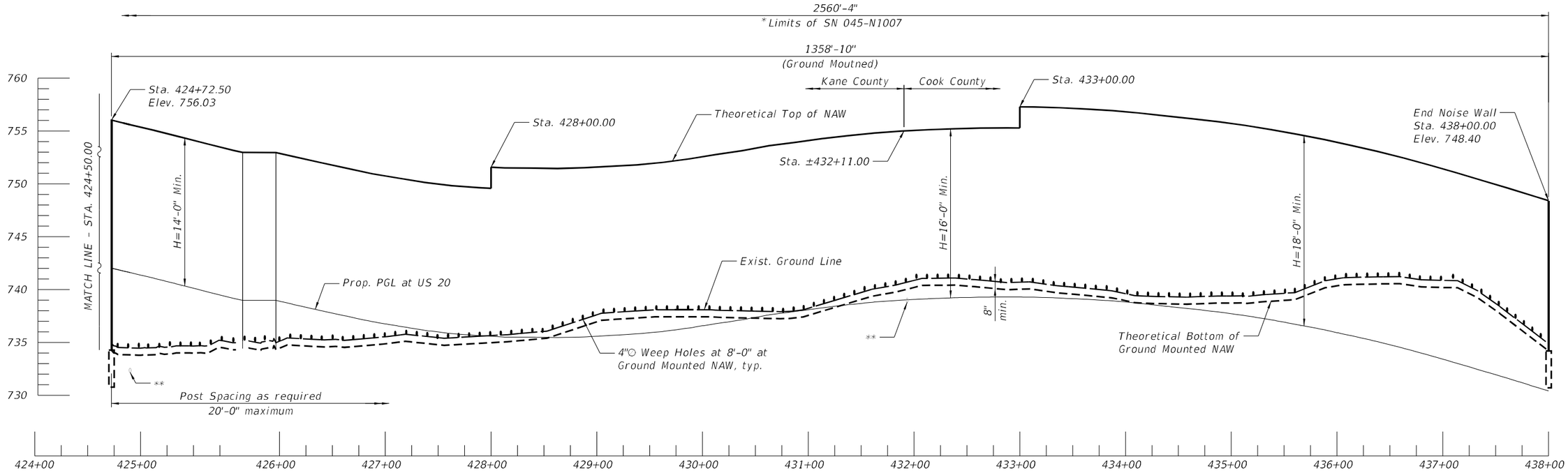
BURNS McDONNELL

USER NAME = jstarzyk		DESIGNED - ECK	REVISED -	
		CHECKED - GEK	REVISED -	
PLOT SCALE = 100.0000 ' / in.		DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024		CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION II
STRUCTURE NO. 045-N1007
SHEET 2 OF 12 SHEETS

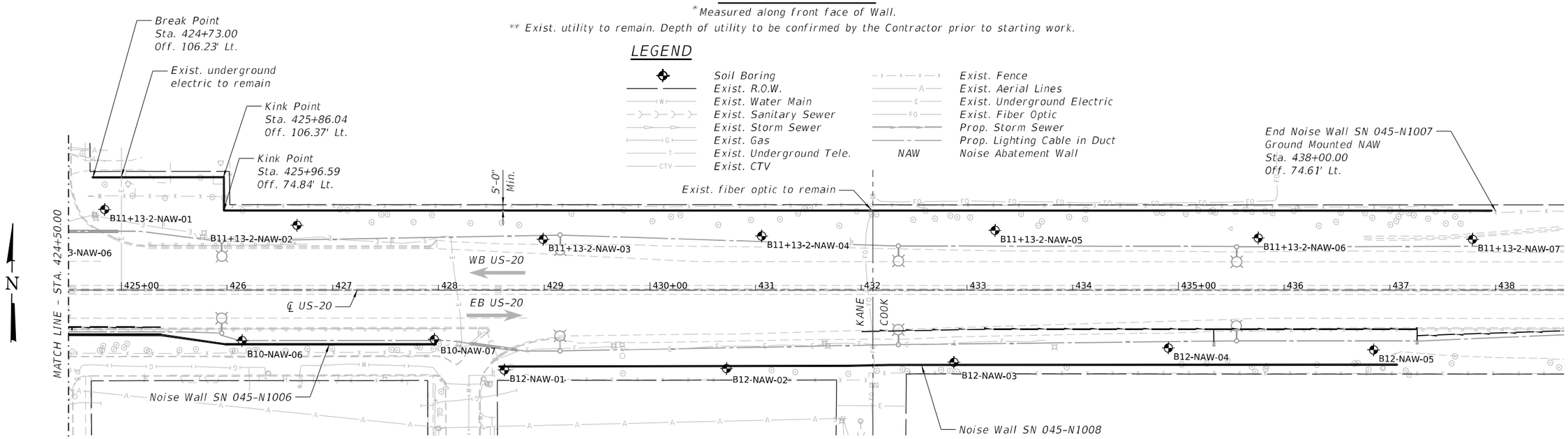
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	268
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



PARTIAL ELEVATION

*Measured along front face of Wall.

** Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.



LEGEND

Soil Boring	Exist. Fence
Exist. R.O.W.	Exist. Aerial Lines
Exist. Water Main	Exist. Underground Electric
Exist. Sanitary Sewer	Exist. Fiber Optic
Exist. Storm Sewer	Prop. Storm Sewer
Exist. Gas	Prop. Lighting Cable in Duct
Exist. Underground Tele.	NAW Noise Abatement Wall
Exist. CTV	

PARTIAL PLAN

BURNS McDONNELL	USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION III STRUCTURE NO. 045-N1007	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - GEK	REVISED -			345	FAP 345-23-BR	KANE / COOK	379	269
	PLOT SCALE = 100.0000 ' / in.	DRAWN - BAH	REVISED -					CONTRACT NO. 62U83		
	PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		SHEET 3 OF 12 SHEETS			ILLINOIS	FED. AID PROJECT	

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GENERAL NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of the proposed noise wall.

2. 4" Ø weep hole shall be provided through wall panels at the ground level at a spacing of 8 ft as required to facilitate surface drainage. Location to be determined by the Engineer. Cost included with Noise Abatement Wall, of the type specified.

3. Type, size and spacing of posts, noise wall panels, drilled shaft and size embedment length, reinforcement details, lifting bars and wall limits including top and bottom of wall shall be determined by the Contractor and shall be designed to avoid conflicts with the existing facilities. Cost included with Noise Abatement Wall, of the type specified.

4. The contractor shall review the maintenance of traffic plans. The Construction of Noise Abatement Wall may need to be sequenced to match the roadway sequence of construction. and the Contractor may not be able to construct the NAW in one continuos operation. Additional mobilization/demobilization required will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

5. The Contractor shall verify locations of all existing utilities and structures and shall take all necessary precautions to perform the work in such a manner as to not damage existing utilities or structures, located near or beneath the Noise Abatement Wall. Any damage to existing utilities or structures shall be repaired at no cost to the Department.

6. It is anticipated that temporary casing is required for each drilled shaft foundation due to soil condition. The temporary casing will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified.

7. It shall be the Contractor's responsibility to field verify existing ground elevations at the locations of the proposed ground mounted noise abatement walls and compare to that shown on the plans. Adjustments to NAW heights as required to accommodate actual field conditions shall be made by the Contractor at no additional cost. Cost to comply with this requirement is included in the cost of Noise Abatement Wall, of the type specified.

8. A Geotechnical Memorandum for Noise Abatement Walls, by Gannett Fleming is available upon request. Please allow 30 days time for distribution.

9. See special provisions for additional requirements.

10. In addition to the special provisions, the panels shall be designed to be vertically supported between foundations such that the excavation beneath the panels does not require additional supports. When panels span a utility crossing, the maximum post spacing shall be used to maximize the horizontal clearance between the posts and the utility. The cost for this work shall be included in the cost of Noise Abatement Wall of the type specified.

AESTHETIC FINISH GENERAL NOTES:

1. Precast Concrete Noise Abatement Wall Random Ashlar Limestone Formliner Pattern.

   The formliner used to create the random ashlar limestone pattern shall be of high quality and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. The liner shall be made from high-strength elastomeric urethane material which shall not compress more than 0.02 feet when poured at a rate of 10 vertical feet per hour. The form release agents shall be non-staining, non-residual and non-reactive.

   Precast Concrete Noise Abatement Wall Panels shall be constructed with a square cut random ashlar rusticated limestone surface with a maximum relief along each side as shown the details. The panel(s) height selected by the Fabricator should be compatible with Random Ashlar Limestone Formliner Pattern.

   The maximum architectural aesthetic surface treatment thickness along one side cannot exceed ¾ inches. The relief, on each side of precast concrete panel, is permitted to vary from 0 to ¾ inches, but the total architectural relief thickness, on both sides of the precast concrete panel, must not be greater than 1½ inches.

   Angular distortion with regards to panel squareness, defines as the difference between the two diagonals, shall not exceed ½ in. Panel dimensions shall be within ¼ in. all hardware embedded in panels shall be within ¼ in.

   The Random Ashlar Limestone Pattern shall be continuous for the full height of a wall section except the top 1'-0", regardless of the number of panels in a wall section. All exposed concrete edges shall have a ¾" chamfer except at horizontal edges between successive panels.

2. The color of the wall panels and support posts is identified by Federal Standard 595-B color number 30372.

3. Formliner treatment will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

4. Aesthetic finish for the precast panels and staining for the panels and steel posts will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified. The stain color and aesthetic textured finish pattern shall be approved by the Roadside Development Unit prior to ordering materials or beginning fabrication. Submittal shall be made 30 days in advance prior to ordering materials.

TOTAL BILL OF MATERIAL

Item	Unit	Total
Noise Abatement Wall, Ground Mounted	Sq. Ft.	34,934
Noise Abatement Wall, Structure Mounted	Sq. Ft.	4,900
Name Plates	Each	1

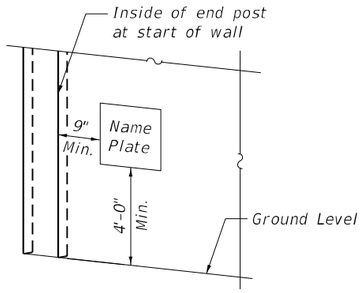
NOISE REDUCTION DATA TABLE

Noise Wall Structure Number	Face	From Sta.	To Sta.	Noise Reduction Coefficient
045-N1007	Front Face	412+86.00	438+00.00	Absorptive 0.80 min
	Back Face	412+86.00	438+00.00	Absorptive 0.65 min

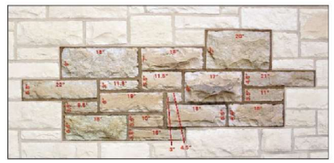
GROUND MOUNTED NAW TYPICAL SECTION

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.P. RTE. 345
SEC 345-23-BR
FROM STA. 412+86.00 TO STA. 438+00.00
STRUCTURE NO. 045-N1007

NAME PLATE
See Std. 515001



NAME PLATE LOCATION



FORMLINER PATTERN DETAIL

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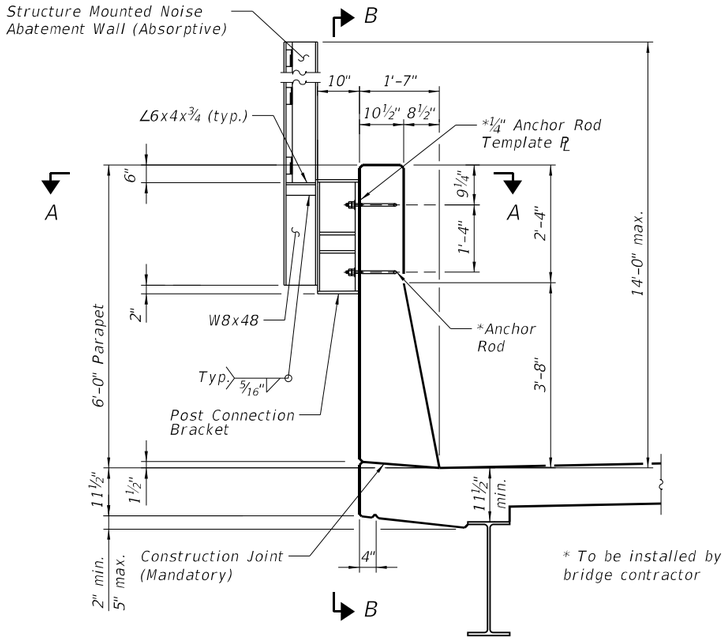
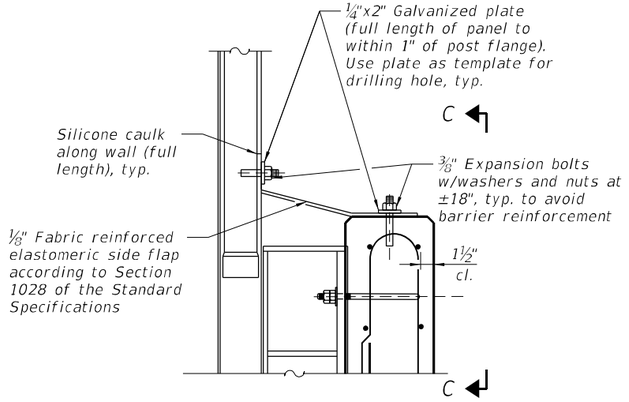
BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES STRUCTURE NO. 016-N1007	
	CHECKED - GEK	REVISED -			
PLOT SCALE = 3.0000 ' / in.	DRAWN - BAH	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		SHEET 4 OF 12 SHEETS	

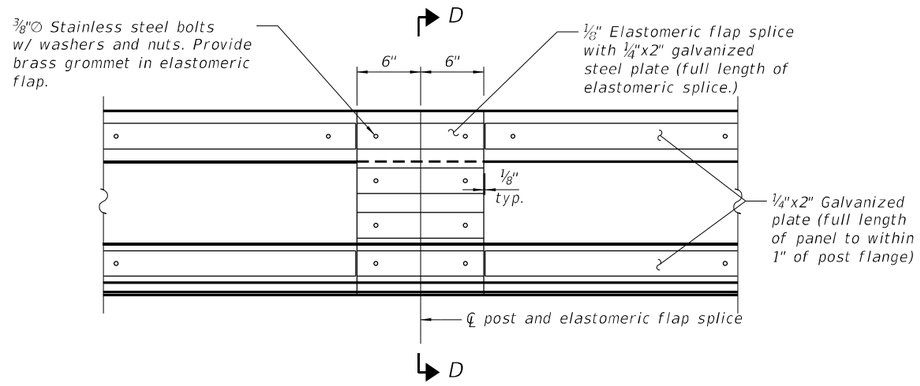
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	270
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



STRUCTURE MOUNTED NOISE ABATEMENT WALL



TYPICAL SECTION THRU DEBRIS SHIELD



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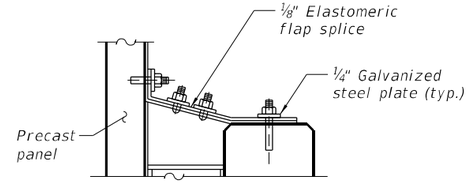

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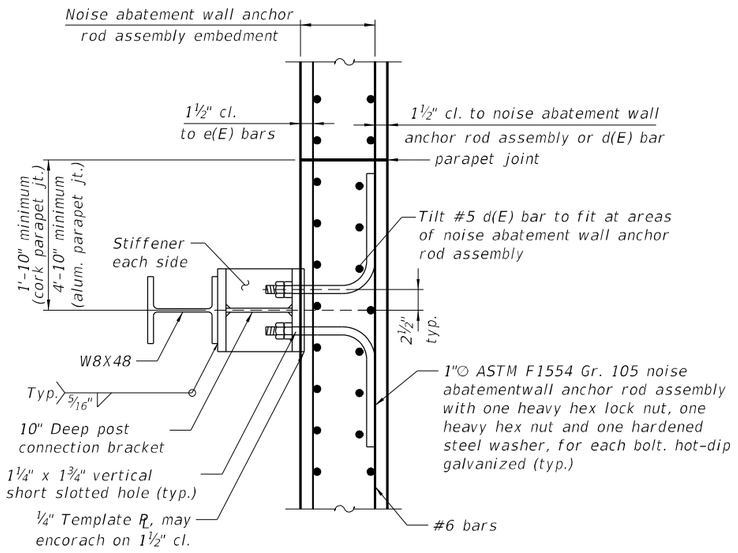

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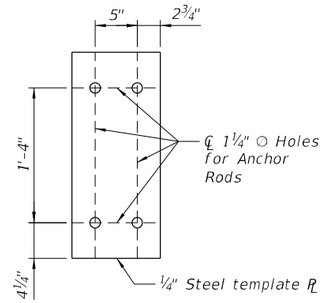
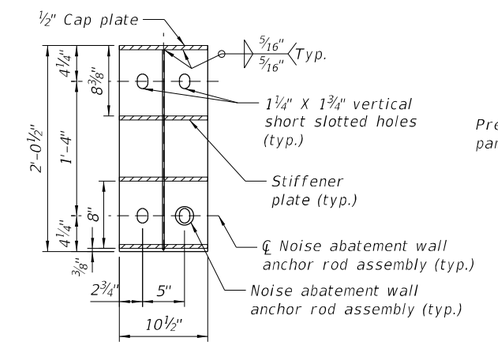


TEMPLATE PLATE FOR NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY



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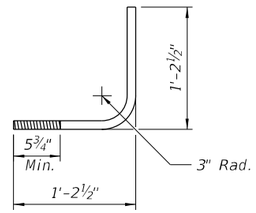
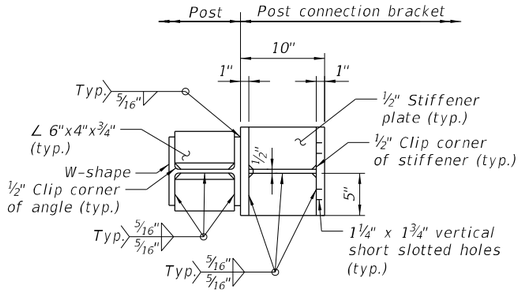


NOISE ABATEMENT WALL ANCHOR ROD ASSUMBLY



SECTION THRU POST AND POST CONNECTION BRACKET

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BURNS McDONNELL

USER NAME = jstarzyk		DESIGNED - ECK		REVISED -	
		CHECKED - GEK		REVISED -	
PLOT SCALE = 3.0000 ' / in.		DRAWN - BAH		REVISED -	
PLOT DATE = 3/20/2024		CHECKED - ECK		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS I
STRUCTURE NO. 045-N1007
SHEET 5 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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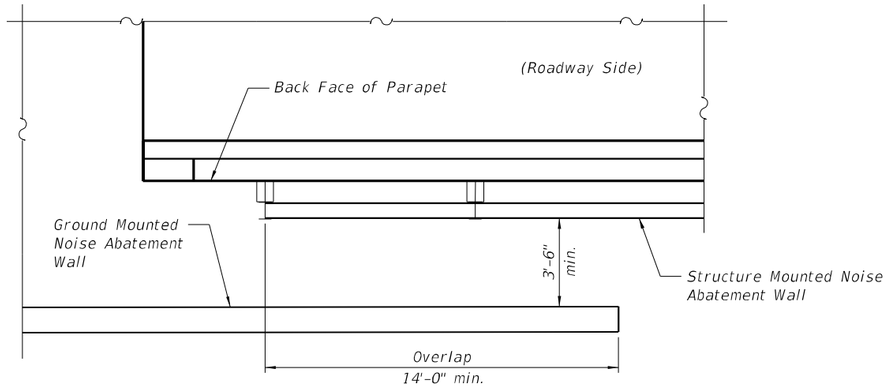
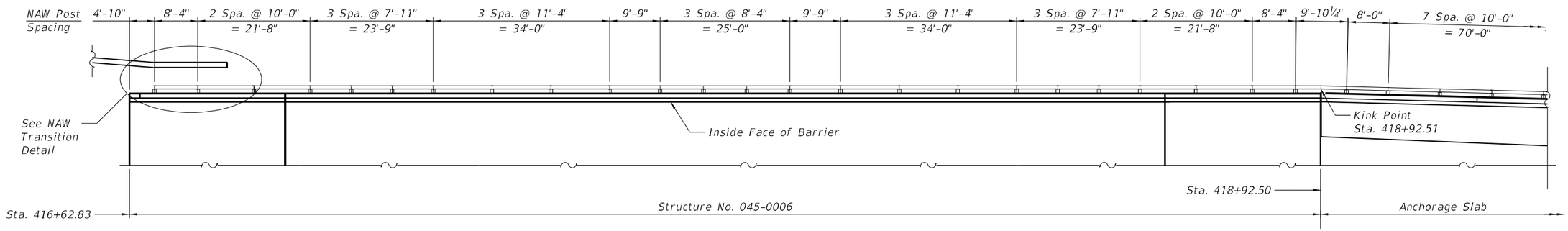
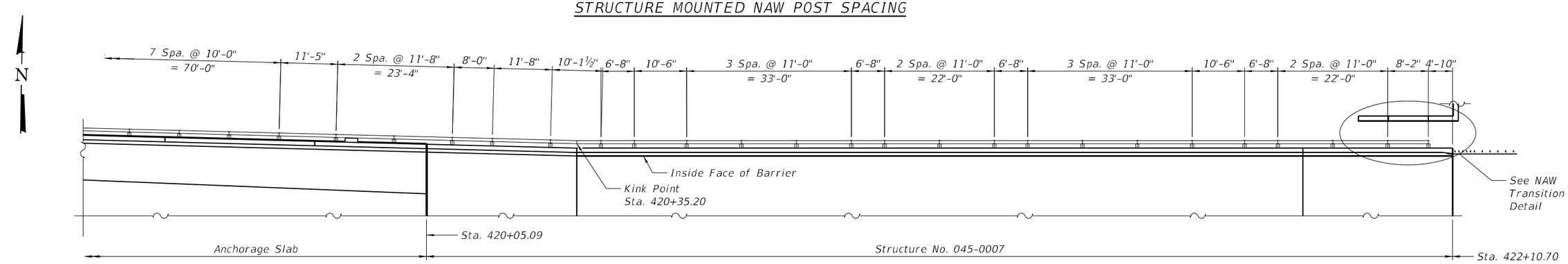
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



NAW TRANSITION DETAIL



STRUCTURE MOUNTED NAW POST SPACING



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BURNS McDONNELL	USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS II STRUCTURE NO. 045-N1007 SHEET 6 OF 12 SHEETS
		CHECKED - GEK	REVISED -		
	PLOT SCALE = 3.0000 ' / in.	DRAWN - BAH	REVISED -		
	PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	272
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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BORING LOG B11+13-NAW-01

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 758.51 ft
North: 1950060.01 ft
East: 1001355.98 ft
Station: 1412+88.38
Offset: 104.38 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick SILTY CLAY --TOPSOIL--						
	757.5	Very stiff, brown and black SILTY CLAY, trace gravel; moist --RDR 2--			1	5 6 4	3.03 B	22
	755.5	Dense, brown and gray Gravelly CLAY LOAM; moist --RDR 2--	5		2	6 18 19	NP	12
	753.0	--collect cutting-- Very stiff to hard, gray SILTY CLAY LOAM, trace gravel; damp to moist --RDR 2--			3	11 15 18	NR	16
		--possible cobble--	10		4	13 16 15	3.00 P	17
					5	6 8 10	2.62 B	17
			15		6	4 7 8	2.13 B	17
					7	4 9 11	3.03 B	17
			20		8	5 7 9	2.79 B	19
					9	42 50/6"		NR
			25		10	15 16 24		NA 14
					11	7 14 16	> 4.50 P	13
	730.5	Very stiff to hard, pinkish brown CLAY LOAM, trace gravel; damp to moist --3-inch sand; damp--			12	19 19 11	2.50 P	12
	728.5	--RDR 2-- Boring terminated at 30.00 ft	30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-17-2022 Complete Drilling: 03-17-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-NAW-01

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BORING LOG B11+13-NAW-02

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 751.74 ft
North: 1950020.49 ft
East: 1001570.27 ft
Station: 1414+98.72
Offset: 57.07 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick SILTY CLAY --TOPSOIL--						
	750.7	Medium stiff, black and brown SILTY CLAY, trace gravel; moist --RDR 2--			1	5 4 4	0.82 B	18
	748.7	Hard, brown and gray SILTY CLAY LOAM to CLAY LOAM, trace gravel; damp to moist --RDR 2--	5		2	2 2 7	5.00 B	16
					3	12 13 19	9.02 B	15
			10		4	13 16 21	10.25 B	13
					5	17 21 27	9.59 B	15
			15		6	10 11 18	7.71 B	16
					7	8 12 18	6.56 B	17
			20		8	6 9 13	4.18 B	23
	731.2	Dense, brown Gravelly SILTY LOAM; damp to moist --RDR 2--			9	15 18 12		NP 13
	728.7	Medium stiff, brown SILTY CLAY, trace gravel; moist --disturbed sample-- --push 18-inch to get Qu value--	25		10	5 8 14	0.74 B	20
	726.2	Stiff to very stiff, brown SILT to SILTY LOAM, trace gravel; damp to moist --RDR 2--			11	2 5 11	1.64 B	22
	722.0		30		12	15 25 37	2.38 B	17
	721.7	Brown fine SAND; damp Boring terminated at 30.00 ft						
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-17-2022 Complete Drilling: 03-17-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-NAW-02

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WANGENGINC 121030 GPJ WANGENG.GDT 9/1/22

BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	
	CHECKED - GEK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS I
STRUCTURE NO. 045-N1007
SHEET 7 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	273
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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BORING LOG B11+13-NAW-03

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 737.12 ft
North: 1950021.29 ft
East: 1001812.61 ft
Station: 417+34.82
Offset: 56.49 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	736.7	5-inch thick, brown SILTY CLAY --TOPSOIL--						
		Stiff, brown SILTY CLAY, trace gravel and brick fragments; damp --FILL--			1	2 2 4	1.50 P	21
	734.1	--RDR 2--						
		Medium dense, brown Gravelly SAND; damp --FILL--	5		2	2 4 6	NP	8
		--RDR 2--						
	731.6	Loose to medium dense, brown, fine to medium SAND, trace gravel; damp --RDR 2--			3	3 3 5	NP	9
			10		4	4 5 6	NP	6
					5	9 10 10	NP	4
			15		6	7 8 10	NP	4
					7	7 8 9	NP	4
			20		8	7 9 12	NP	4
	710.0	Medium dense, brown Gravelly SAND; wet to saturated --RDR 2--			9	11 11 12	NP	7
			25		10	13 8 8	NP	12
					11	10 5 11	NP	15
	707.6	Stiff to very stiff, brown to gray SILTY CLAY LOAM, trace gravel; damp --RDR 2--	30		12	10 8 7	NP	7
			35		13	5 5 8	3.28 B	13
			40		14	4 5 7	1.89 B	14

GENERAL NOTES

Begin Drilling: 04-14-2022 Complete Drilling: 04-14-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21GeoT[92%]
Driller: AG&CB Logger: M. Rojo Checked by: CLM
Drilling Method: 3.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 23.00 ft
At Completion of Drilling: ▼ 26.00 ft
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-NAW-03

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BORING LOG B11+13-NAW-05

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 747.75 ft
North: 1950000.06 ft
East: 1002285.46 ft
Station: 422+07.27
Offset: 27.87 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick ASPHALT --PAVEMENT--						
	746.8	Loose, dark brown Gravelly SAND, trace glass and brick fragments; damp --FILL--			1	3 3 3	NP	11
	744.8	--RDR 2--						
		Stiff to very stiff, dark brown SILTY CLAY LOAM, trace to little gravel and brick fragments; damp --FILL--	5		2	2 2 3	1.00 P	8
		--RDR 2--			3	2 3 4	3.00 P	15
	739.8	Stiff, dark brown Gravelly CLAY LOAM; damp to moist --FILL--			4	3 2 3	1.00 P	12
		--RDR 2--	10					
	737.3	Very stiff, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace to little gravel; damp --FILL--			5	4 3 3	3.50 P	15
		--RDR 2--						
			15		6	4 4 7	3.50 P	15
	732.3	Loose to medium dense, gray Gravelly SAND to SANDY GRAVEL, trace concrete fragments; damp --FILL--			7	7 3 2	NP	6
		--RDR 2-3--						
	727.8	Boring terminated at 20.00 ft	20		8	18 7 9	NP	4

GENERAL NOTES

Begin Drilling: 04-12-2022 Complete Drilling: 04-12-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21GeoT[92%]
Driller: AG&CB Logger: M. Rojo Checked by: CLM
Drilling Method: 3.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-NAW-05

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BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS II STRUCTURE NO. 045-N1007	
	CHECKED - GEK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		SHEET 8 OF 12 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	274
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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BORING LOG B11+13-NAW-06

WEI Job No.: 121-03-01
Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 742.87 ft
North: 1950019.63 ft
East: 1002494.16 ft
Station: 424+16.25
Offset: 44.18 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	742.5	4-inch thick, black SILTY CLAY --TOPSOIL--						
	741.9	Brown SANDY LOAM						
		Medium stiff, black, brown, and dark gray CLAY LOAM to SILTY CLAY LOAM, trace gravel; moist --FILL-- --RDR 2--			1	10 13 8	0.66 B	25
			5		2	4 4 7	0.82 B	18
					3	5 4 3	0.57 B	17
	734.9	Very stiff, black to greenish gray SILTY CLAY LOAM, little gravel; moist						
			10		4	4 6 6	0.25 P	19
	731.5	Medium dense, brown, medium to coarse SAND, trace gravel; damp --RDR 2--			5	6 9 10	NP	6
			15		6	10 8 8	NP	4
	727.4	Very dense, brown Gravelly SAND; damp --RDR 2--			7	6 35 50/3"	NP	5
	724.9	Medium dense, brown, fine SAND to SANDY LOAM, trace gravel; damp --RDR 2--						
	723.1		20		8	10 11 10	NP	10
		Stiff, pinkish gray CLAY LOAM to SILTY CLAY LOAM, trace gravel; moist --RDR 2--			9	34 18 9		NR
		--sand seem--	25		10	3 6 8		11
					11	3 4 6		13
	712.9	Boring terminated at 30.00 ft	30		12	5 5 7		14
			35					
			40					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-16-2022	Complete Drilling	03-16-2022	While Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-NAW-06

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BORING LOG B11+13-2-NAW-01

WEI Job No.: 121-03-01
Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 735.54 ft
North: 1950056.85 ft
East: 1002562.71 ft
Station: 424+84.21
Offset: 76.28 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick SILTY CLAY --TOPSOIL--						
	734.5	--disturbed sample-- Very stiff to hard, gray SILTY CLAY, trace to little gravel; damp to moist --RDR 2--			1	3 6 10	4.50 P	20
	731.8	Medium dense, brown, fine to medium SAND, trace to little gravel; dry to damp --RDR 2--	5		2	4 5 8	NP	2
					3	6 7 11	NP	3
			10		4	5 6 11	NP	3
	725.0	Medium dense, brown, medium to coarse SAND, some gravel; damp --RDR 2--			5	15 14 15	NP	4
	722.5	Dense, brown, fine to medium SAND, trace gravel; damp --RDR 2--	15		6	9 14 19	NP	4
	720.0	Stiff to vert stiff, gray SILTY CLAY LOAM to CLAY LOAM, trace gravel, moist --RDR 2--			7	12 5 9	2.13 B	12
			20		8	5 6 7	1.15 B	12
	710.5	Boring terminated at 25.00 ft	25		9	4 7 8	1.56 B	14
			30		10	5 7 9	1.72 B	14
			35					
			40					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-16-2022	Complete Drilling	03-16-2022	While Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-2-NAW-01

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BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	
	CHECKED - GEK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NO. 045-N1007
SHEET 9 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	275
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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Fax: 630-953-9928

BORING LOG B11+13-2-NAW-02

WEI Job No.: 121-03-01
Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 733.97 ft
North: 1950043.09 ft
East: 1002741.66 ft
Station: 426+66.13
Offset: 61.41 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		Stiff, black SILTY CLAY, trace gravel; moist --RDR 2--			1	4 4 6	1.50 P	32
	731.0	Medium stiff, black and brown SILTY CLAY, trace gravel; moist --RDR 2--	5		2	3 3 4	0.66 B	24
	728.5	Very loose, dark brown LOAM to SANDY LOAM, trace gravel; moist to wet --RDR 2--			3	2 0 2	NP	29
	726.0	Loose, light brown and brown, fine SAND, trace gravel; damp to moist --RDR 2--	10		4	3 4 5	NP	16
					5	2 2 3	NP	9
	721.0	Medium dense, brown, fine to coarse SAND; trace to little gravel; damp to saturated --RDR 2-3--	15		6	5 7 11	NP	8
				▽	7	12 12 11	NP	13
	716.0	Medium stiff, gray SILTY CLAY LOAM, trace gravel; moist RDR 2	20		8	2 3 2	0.98 B	14
	708.5	Very stiff, gray SILTY CLAY LOAM, trace gravel; moist --RDR 2--	25		9	4 4 5	0.74 B	16
					10	5 7 9	0.66 B	15
	706.5	Boring terminated at 27.50 ft	30		11	10 10 12	2.05 B	13
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-16-2022 Complete Drilling: 03-16-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 16.00 ft
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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Lombard, IL 60140
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B11+13-2-NAW-03

WEI Job No.: 121-03-01
Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 737.33 ft
North: 1950019.97 ft
East: 1001812.63 ft
Station: 428+98.99
Offset: 48.05 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick SANDY LOAM --TOPSOIL--						
	736.3	Dense, brown Gravelly SAND, damp --RDR 2--			1	10 14 16	NP	6
	734.3	Medium dense, brown, coarse SAND, little gravel; damp --RDR 2-3--	5		2	10 12 12	NP	6
	731.8	Medium dense, brown and red SANDY GRAVEL; damp --RDR 2-3--			3	14 15 13	NP	4
	729.3	Dense, brown, medium to coarse SAND, some gravel; damp --RDR 3--	10		4	11 18 15	NP	4
	726.8	Medium dense, brown, fine to medium SAND, trace gravel; damp to saturated --RDR 2-3--			5	8 12 16	NP	13
			15	▽	6	10 16 13	NP	17
	721.8	Stiff to very stiff, gray SILTY CLAY, trace gravel; moist --RDR 2--			7	7 7 10	2.46 B	14
			20		8	4 6 8	1.89 B	14
	712.3	Boring terminated at 25.00 ft	25		9	4 6 8	1.48 B	14
					10	4 5 8	2.71 B	14
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-16-2022 Complete Drilling: 03-16-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 13.50 ft
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG B11+13-2-NAW-02

BORING LOG B11+13-2-NAW-03

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BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	
	CHECKED - GEK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS IV
STRUCTURE NO. 045-N1007
SHEET 10 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	276
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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Fax: 630-953-9928

BORING LOG B11+13-2-NAW-04

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 732.05 ft
North: 1950039.91 ft
East: 1003181.94 ft
Station: 431+05.74
Offset: 51.18 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	730.4	Medium stiff, black SILTY CLAY, trace gravel; moist --trace organic matter-- --RDR 2--						
		Medium dense to dense, brown, medium to coarse SAND, trace to some gravel; damp --RDR 2-3--			1	8 20 16	0.50 P	54
			5		2	11 14 16	NP	6
					3	13 18 19	NP	4
			10		4	12 9 6	NP	5
					5	11 19 21	NP	3
					6	16 13 11	NP	4
	716.6		15					
		Dense, brown and gray Gravelly SAND; damp to saturated --RDR 2-3--			7	24 21 18	NP	4
					8	17 16 15	NP	7
			20					
	711.0	Stiff to very stiff, gray SILTY CLAY, trace gravel; moist --RDR 2--			9	6 8 10	2.79 B	14
			25		10	8 9 12	1.80 B	14
	707.1	Boring terminated at 25.00 ft						
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-16-2022 Complete Drilling: 03-16-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA to 10', mud rotary thereafter; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 19.50 ft
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1210301.GPJ WANGENG.GDT 9/1/22

BORING LOG B11+13-2-NAW-04

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BORING LOG B11+13-2-NAW-05

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 733.16 ft
North: 1950046.17 ft
East: 1003404.09 ft
Station: 433+26.49
Offset: 56.50 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	731.5	Medium stiff, black SILTY CLAY, trace gravel; moist --trace organic matter-- --RDR 2--						
		Dense, gray and brown, fine to medium SAND, little gravel; damp --RDR 2--			1	10 17 18	0.50 P	38
	730.2	Medium dense to dense, gray and brown SANDY GRAVEL to Gravelly SAND; damp --RDR 3--	5		2	15 15 15	NP	4
					3	14 16 10	NP	4
	725.2	Medium dense, brown, medium to coarse SAND, trace to little gravel; damp --RDR 2-3--	10		4	12 9 7	NP	4
					5	11 12 13	NP	4
	720.2	Medium dense to dense, brown Gravelly SAND; saturated --RDR 2--	15		6	8 18 16	NP	4
					7	15 16 17	NP	5
	713.2	Boring terminated at 20.00 ft	20		8	13 15 12	NP	9

GENERAL NOTES

Begin Drilling: 03-15-2022 Complete Drilling: 03-15-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 19.00 ft
At Completion of Drilling: ▼ 19.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1210301.GPJ WANGENG.GDT 9/1/22

BORING LOG B11+13-2-NAW-05

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BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	
	CHECKED - GEK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -	
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS V
STRUCTURE NO. 045-N1007
SHEET 11 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	277
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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BORING LOG B11+13-2-NAW-06

WEI Job No.: 121-03-01
Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 730.72 ft
North: 1950043.30 ft
East: 1003654.75 ft
Station: 435+75.43
Offset: 49.29 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		12-inch thick SILTY CLAY --TOPSOIL--						
	729.7	Dense, black SANDY LOAM to LOAM, trace gravel; moist RDR 2			1	10 16 19	NP	56
	727.7	Dense, brown Medium SAND, little gravel; damp --RDR 2--	5		2	10 13 17	NP	4
	725.2	Medium dense to dense, brown Gravelly SAND; damp --RDR 2--			3	15 13 17	NP	6
			10		4	7 11 17	NP	7
					5	9 15 20	NP	4
			15		6	15 19 19	NP	4
					7	14 23 22	NP	6
	712.7	Hard, gray SILTY CLAY, trace gravel; damp RDR 2			8	8 12 16	5.25 B	12
	710.7	Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 03-15-2022 Complete Drilling: 03-15-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B11+13-2-NAW-06

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BORING LOG B11+13-2-NAW-07

WEI Job No.: 121-03-01
Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 753.17 ft
North: 1950044.79 ft
East: 1003855.89 ft
Station: 437+78.21
Offset: 48.06 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	752.4	9-inch thick CONCRETE --PAVEMENT--						
		Medium dense, gray and brown Gravelly SAND; dry --AGGREGATE BASE-- --RDR 2--			1	12 12 9	NP	5
	750.2	Medium dense to dense, brown, medium to coarse SAND, little to some gravel; damp --RDR 2-3--	5		2	9 9 11	NP	5
					3	9 8 9	NP	4
			10		4	8 12 15	NP	4
	742.7	Medium dense, brown, medium to coarse SAND, trace to little gravel; damp to saturated --RDR 2--			5	15 17 17	NP	3
			15		6	15 13 12	NP	8
	737.7	Dense to very dense, brown Gravelly SAND to SANDY GRAVEL; saturated --RDR 2--			7	45 20 28	NP	7
	733.2	Boring terminated at 20.00 ft	20		8	19 37 23	NP	11

GENERAL NOTES

Begin Drilling: 03-15-2022 Complete Drilling: 03-15-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 14.00 ft
At Completion of Drilling: 17.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B11+13-2-NAW-07

MODEL: Default
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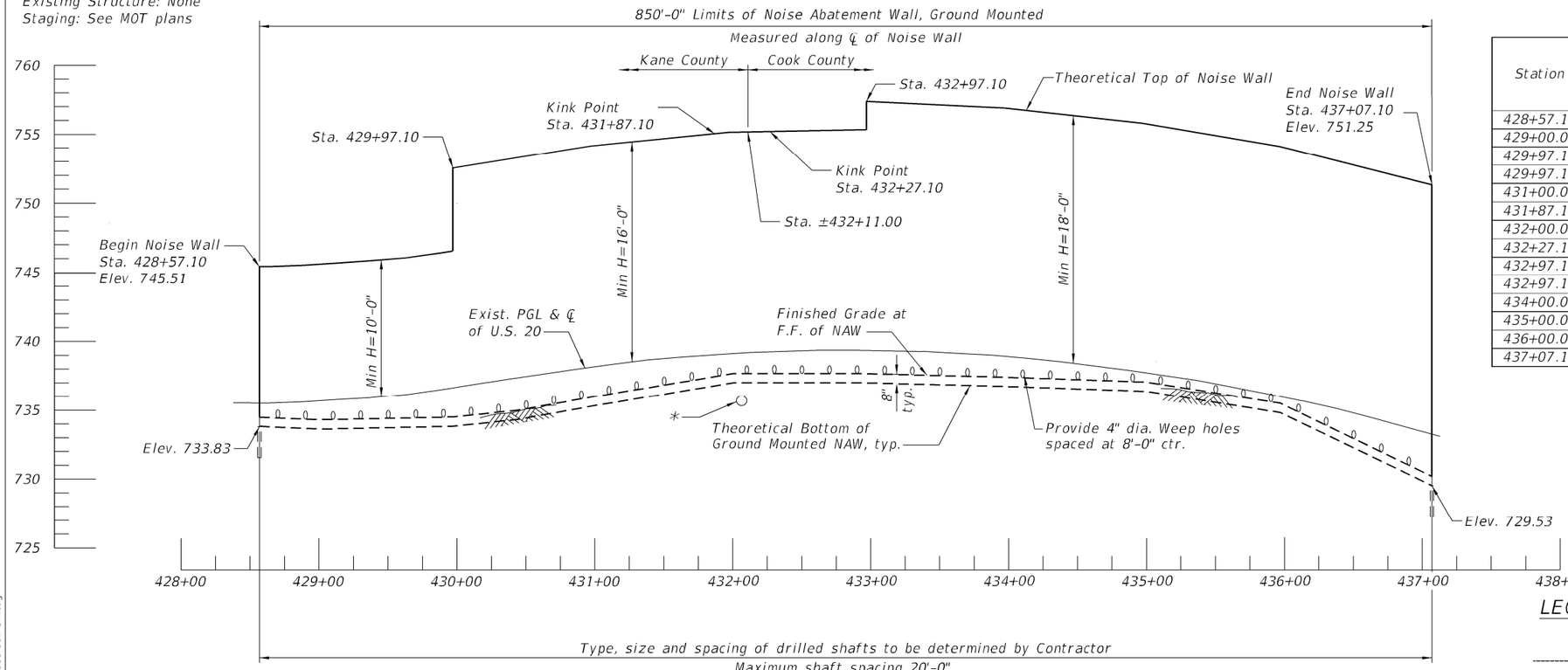
BURNS McDONNELL

USER NAME = jstarzyk	DESIGNED - ECK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS VI STRUCTURE NO. 045-N1007	
	CHECKED - GEK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - BAH	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ECK	REVISED -		SHEET 12 OF 12 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	KANE / COOK	379	278
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Cut "Γ" on NW corner of Pier 1 on E side of St. Charles St. & 38 feet N ℄ of US 20.
Elev. = 737.093
Existing Structure: None
Staging: See MOT plans



WALL ELEVATION INFORMATION

Station	Offset	Theo. Top of NAW Elev. (ft)	Theo. Bottom of NAW Elev. (ft)	Finished Grade at F.F. of NAW Elev. (ft)	Exist. P.G.L. Elev. at ℄ US 20 (ft)
428+57.10	71.78' Rt.	745.51	733.83	734.50	735.51
429+00.00	71.68' Rt.	745.68	733.63	734.30	735.68
429+97.10	71.49' Rt.	746.62	733.83	734.50	736.62
429+97.10	71.49' Rt.	752.62	733.83	734.50	736.62
431+00.00	71.27' Rt.	754.17	735.33	736.00	738.17
431+87.10	71.09' Rt.	755.03	736.90	737.57	739.03
432+00.00	70.82' Rt.	755.12	736.91	737.58	739.12
432+27.10	70.26' Rt.	755.25	736.92	737.59	739.25
432+97.10	70.22' Rt.	755.35	736.89	737.56	739.35
432+97.10	70.22' Rt.	757.35	736.89	737.56	739.35
434+00.00	70.17' Rt.	756.90	736.63	737.30	738.90
435+00.00	70.11' Rt.	755.72	735.90	736.57	737.72
436+00.00	70.06' Rt.	753.94	734.84	735.51	735.94
437+07.10	70.00' Rt.	751.25	729.53	730.20	733.25

INDEX OF SHEETS

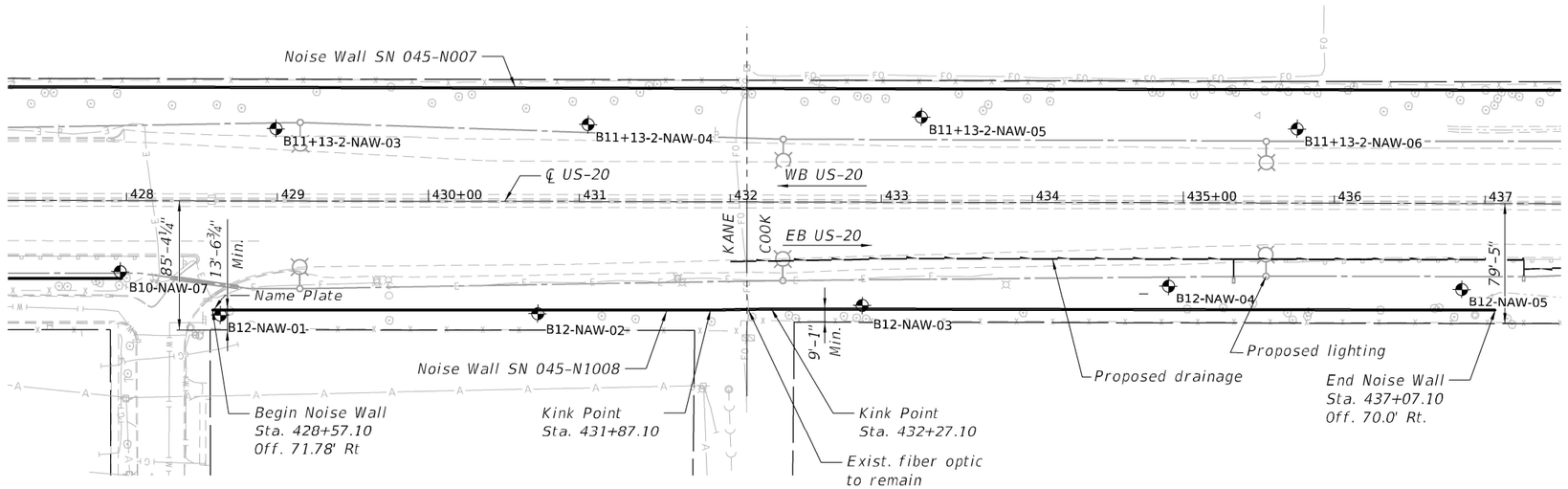
1 - General Plan & Elevation
2 - Section & Details
3 - Soil Boring Logs I
4 - Soil Boring Logs II
5 - Soil Boring Logs III

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- NAW — Noise Abatement Wall
- Exist. Light Pole
- Exist. Advertising Sign
- Exist. Fence
- FO — Exist. Fiber Optic
- A — Exist. Aerial Line
- G — Exist. Gas Line

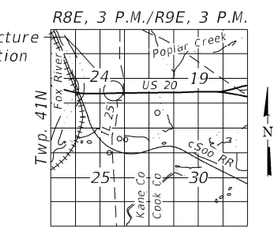
REFLECTED ELEVATION

∗ Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.



PLAN

R8E, 3 P.M./R9E, 3 P.M.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
NOISE ABATEMENT WALL B12
F.A.P. RTE. 345-SEC 345-23-BR
KANE/COOK COUNTY
STATION 428+57.10 to 437+07.10
STRUCTURE NO. 045-N1008

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TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED - XXX
	CHECKED - JK	REVISED - XXX
PLOT SCALE = 96.0000 ' / in.	DRAWN - JK	REVISED - XXX
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED - XXX

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 045-N1008
SHEET 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	279
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of the proposed noise wall.

2. 4" Ø weep hole shall be provided through wall panels at the ground level at a spacing of 8 ft as required to facilitate surface drainage. Location to be determined by the Engineer. Cost included with Noise Abatement Wall, of the type specified.

3. Type, size and spacing of posts, noise wall panels, drilled shaft and size embedment length, reinforcement details, lifting bars and wall limits including top and bottom of wall shall be determined by the Contractor and shall be designed to avoid conflicts with the existing facilities. Cost included with Noise Abatement Wall, of the type specified.

4. The contractor shall review the maintenance of traffic plans. The Construction of Noise Abatement Wall may need to be sequenced to match the roadway sequence of construction. and the Contractor may not be able to construct the NAW in one continuos operation. Additional mobilization/demobilization required will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

5. The Contractor shall verify locations of all existing utilities and structures and shall take all necessary precautions to perform the work in such a manner as to not damage existing utilities or structures, located near or beneath the Noise Abatement Wall. Any damage to existing utilities or structures shall be repaired at no cost to the Department.

6. It is anticipated that temporary casing is required for each drilled shaft foundation due to soil condition. The temporary casing will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified.

7. It shall be the Contractor's responsibility to field verify existing ground elevations at the locations of the proposed ground mounted noise abatement walls and compare to that shown on the plans. Adjustments to NAW heights as required to accommodate actual field conditions shall be made by the Contractor at no additional cost. Cost to comply with this requirement is included in the cost of Noise Abatement Wall, of the type specified.

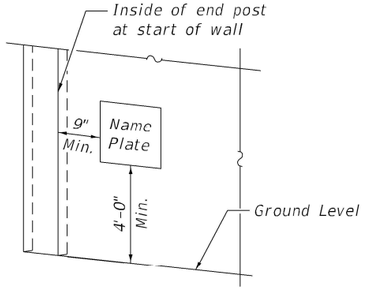
8. A Geotechnical Memorandum for Noise Abatement Walls, by Gannett Fleming is available upon request. Please allow 30 days time for distribution.

9. See special provisions for additional requirements.

10. In addition to the special provisions, the panels shall be designed to be vertically supported between foundations such that the excavation beneath the panels does not require additional supports. When panels span a utility crossing, the maximum post spacing shall be used to maximize the horizontal clearance between the posts and the utility. The cost for this work shall be included in the cost of Noise Abatement Wall of the type specified.

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.P. RTE. 345
SEC 345-23-BR
FROM STA. 428+57.10 TO STA. 437+07.10
STRUCTURE NO. 045-N1008

NAME PLATE
See Std. 515001



NAME PLATE LOCATION

AESTHETIC FINISH GENERAL NOTES:

1. Precast Concrete Noise Abatement Wall Random Ashlar Limestone Formliner Pattern.

   The formliner used to create the random ashlar limestone pattern shall be of high quality and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. The liner shall be made from high-strength elastomeric urethane material which shall not compress more than 0.02 feet when poured at a rate of 10 vertical feet per hour. The form release agents shall be non-staining, non-residual and non-reactive.

   Precast Concrete Noise Abatement Wall Panels shall be constructed with a square cut random ashlar rusticated limestone surface with a maximum relief along each side as shown the details. The panel(s) height selected by the Fabricator should be compatible with Random Ashlar Limestone Formliner Pattern.

   The maximum architectural aesthetic surface treatment thickness along one side cannot exceed ¾ inches. The relief, on each side of precast concrete panel, is permitted to vary from 0 to ¾ inches, but the total architectural relief thickness, on both sides of the precast concrete panel, must not be greater than 1½ inches.

   Angular distortion with regards to panel squareness, defines as the difference between the two diagonals, shall not exceed ½ in. Panel dimensions shall be within ¼ in. all hardware embedded in panels shall be within ¼ in.

   The Random Ashlar Limestone Pattern shall be continuous for the full height of a wall section except the top 1'-0", regardless of the number of panels in a wall section. All exposed concrete edges shall have a ¾" chamfer except at horizontal edges between successive panels.

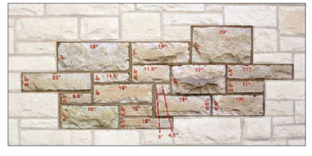
2. The color of the wall panels and support posts is identified by Federal Standard 595-B color number 30372.

3. Formliner treatment will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

4. Aesthetic finish for the precast panels and staining for the panels and steel posts will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified. The stain color and aesthetic textured finish pattern shall be approved by the Roadside Development Unit prior to ordering materials or beginning fabrication. Submittal shall be made 30 days in advance prior to ordering materials.

NOISE REDUCTION DATA TABLE

Noise Wall Structure Number	Face	From Sta.	To Sta.	Noise Reduction Coefficient
045-N1008	Front Face	428+57.10	437+07.10	Absorptive 0.80 min
	Back Face	428+57.10	437+07.10	Absorptive 0.65 min



FORMLINER PATTERN DETAIL

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c= 4,000 psi
fy= 60,000 psi (Reinforcement)
fy= 50,000 psi (M270 Grade 50, posts)
fy= 36,000 psi (M270 Grade 36, all other structural steel)

PRECAST UNITS

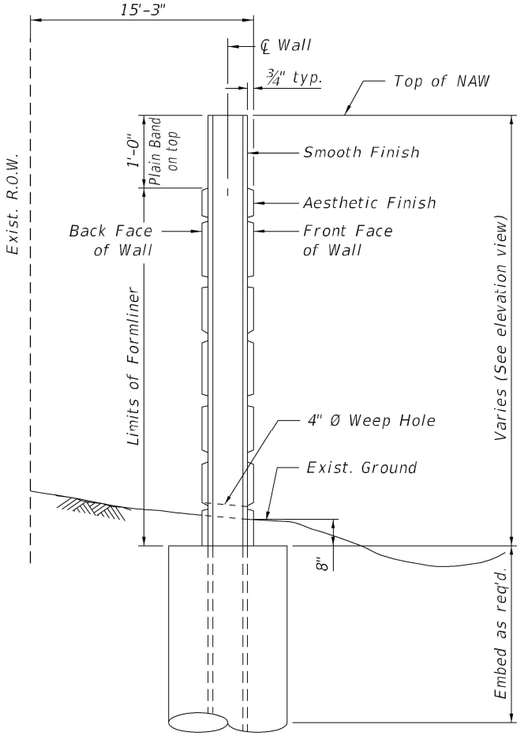
f'c= 4,500 psi
fy= 60,000 psi (Reinforcement)
fy= 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADING

Strength III or V Wind: 35 psf
Service I Wind: 15 psf

TOTAL BILL OF MATERIAL

Item	Unit	Total
Noise Abatement Wall, Ground Mounted	Sq. Ft.	15,554
Name Plates	Each	1



TYPICAL SECTION
Looking West

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B12-NAW-01

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 734.28 ft
North: 1949907.42 ft
East: 1002939.97 ft
Station: 428+62.32
Offset: 75.49 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	734.0	3-inch thick, dark brown SILTY CLAY LOAM --TOPSOIL--						
	732.8	Stiff, brown SILTY CLAY LOAM, trace gravel; moist --RDR 2--			1	3 3 2	1.75 P	20
		Medium dense, brown, fine to medium SAND, trace gravel; damp to moist --RDR 2--	5		2	9 9 13	NP	3
	728.8	Medium dense, brown medium to coarse SAND, little to some gravel; damp --RDR 2--			3	5 8 9	NP	6
			10		4	6 7 8	NP	4
	723.8	Brown SANDY GRAVEL; damp --RDR 2--						
	723.0	Medium dense, brown, fine to medium SAND, trace gravel; damp to moist --RDR 2--			5	10 9 9	NP	4
			15		6	7 8 9	NP	15
					7	6 7 9	NP	5
	716.3	Medium dense, brown, coarse SAND, little to some gravel; damp --RDR 2--			8	9 12 12	NP	4
	714.3	Boring terminated at 20.00 ft	20					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-29-2022	Complete Drilling	03-29-2022	While Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	20D25A [83%]	At Completion of Drilling	DRY
Driller	PH&AG	Logger	D. You	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B12-NAW-01

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Lombard, IL 60148
Telephone: 630-953-9928
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BORING LOG B12-NAW-02

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 735.35 ft
North: 1949912.19 ft
East: 1003164.20 ft
Station: 430+72.58
Offset: 74.15 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	734.4	12-inch thick, brown and gray SANDY LOAM --TOPSOIL--						
	733.2	Medium stiff, black SILTY CLAY to SANDY LOAM, trace gravel and organic matter; moist --RDR 2--			1	3 8 18	0.66 B	39
		Dense, brown, fine to medium SAND, little to some gravel; damp --RDR 2--	5		2	9 15 16	NP	5
	729.9	Medium dense to dense, brown, Gravelly SAND to SANDY GRAVEL; damp --RDR 3--			3	23 25 24	NP	4
			10		4	11 11 11	NP	5
					5	14 16 17	NP	5
	722.4	Medium stiff, pinkish gray to gray LOAM to CLAY LOAM, trace gravel; moist --RDR 2--			6	4 4 5	0.90 B	15
			15		7	4 7 6	0.98 B	14
			20		8	5 6 7	0.82 B	13
	714.9	Very stiff, gray CLAY LOAM to SILTY LOAM, trace gravel; moist --RDR 2--			9	3 6 9	2.79 B	11
	710.4	Boring terminated at 25.00 ft	25		10	11 10 14	2.38 B	12
			30					
			35					
			40					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-22-2022	Complete Drilling	03-22-2022	While Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B12-NAW-02

MODEL: Default
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3/20/2024 4:59:53 PM

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS I STRUCTURE NO. 045-N1008	
	CHECKED - JK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 3 OF 5 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	281
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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BORING LOG B12-NAW-03

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 737.28 ft
North: 1949920.82 ft
East: 1003367.16 ft
Station: 432+87.60
Offset: 68.26 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	736.3	12-inch thick CLAY --TOPSOIL--						
		Soft, black SILTY CLAY, trace gravel; moist --RDR 2--			1	9 10 11	0.41 B	9
	734.3	Dense, brown fine to medium SAND, trace to little gravel; damp --RDR 2--	5		2	18 21 20	NP	4
	731.8	Dense, brown, medium and coarse SAND, trace to little gravel; damp --RDR 2--			3	13 17 22	NP	5
			10		4	13 14 17	NP	5
					5	7 16 17	NP	5
			15		6	12 24 26	NP	4
					7	13 18 15	NP	4
			20		8	16 18 19	NP	4
	716.8	Medium dense to dense, brown Gravelly SAND; damp to wet --RDR 2--			9	17 20 18	NP	6
			25		10	15 9 9	NP	9
	712.3	Boring terminated at 25.00 ft						
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-22-2022 Complete Drilling: 03-22-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 23.50 ft
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG.GPJ WANGENG.GDT 9/1/22

BORING LOG B12-NAW-03

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Fax: 630-953-9928

BORING LOG B12-NAW-04

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 735.30 ft
North: 1949937.56 ft
East: 1003569.77 ft
Station: 434+90.45
Offset: 54.69 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	734.3	12-inch thick, black SILTY CLAY --TOPSOIL--						
		Medium stiff to stiff, black SILTY CLAY, trace gravel and organic matter; moist --RDR 2--			1	6 5 6	0.82 B	23
	731.4	--Qu: 1.50P-- Medium dense, brown, fine to medium SAND, trace to little gravel; damp to moist --RDR 2-3--	5		2	4 8 8	NP	8
					3	11 14 18	NP	5
	727.3	Medium dense to dense, brown medium to coarse SAND, trace to little gravel; moist --RDR 2--	10		4	8 13 13	NP	4
					5	12 13 12	NP	5
			15		6	13 20 21	NP	4
					7	17 27 30	NP	4
	717.3	Very dense, brown Gravelly SAND; moist --RDR 2--	20		8	22 36 35	NP	6
	713.6	Hard, gray CLAY LOAM to SILTY LOAM, trace gravel; moist --RDR 2--			9	40 39 50/3"	NR	
	710.3	Boring terminated at 25.00 ft	25		10	8 12 18	4.26 B	13
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 03-22-2022 Complete Drilling: 03-22-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 23.50 ft
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG.GPJ WANGENG.GDT 9/1/22

BORING LOG B12-NAW-04

MODEL: Default
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3/20/2024 4:59:59 PM

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk		DESIGNED - ZC		REVISED -	
		CHECKED - JK		REVISED -	
PLOT SCALE = 2.0000 ' / in.		DRAWN - JK		REVISED -	
PLOT DATE = 3/20/2024		CHECKED - ZC		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS II
STRUCTURE NO. 045-N1008
SHEET 4 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	282
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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Telephone: 63O-953-9928
Fax: 630-953-9928

BORING LOG B12-NAW-05

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 727.20 ft
North: 1949941.37 ft
East: 1003760.87 ft
Station: 436+84.66
Offset: 56.53 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	726.2	12-inch thick, black SILTY CLAY						
		--TOPSOIL--						
		Soft, black SILTY CLAY, trace gravel; moist			1	4 4 9	0.49 B	13
		--RDR 2--						
	724.2	Medium dense to dense, gray and brown, fine to medium SAND, trace to little gravel; damp			2	9 11 14	NP	6
		--RDR 2-3--	5		3	10 9 12	NP	5
					4	13 17 15	NP	5
	716.7	Dense, brown coarse SAND, trace to little gravel; damp	10					
		--RDR 2--			5	42 24 22	NP	6
	714.2	Dense, brown and gray SANDY GRAVEL; saturated						
		--RDR 3--			6	19 16 24	NP	7
	710.8	Very stiff to hard, pinkish gray to gray SILTY CLAY, trace to little gravel; moist	15		7	9 11 13	6.48 B	16
		--RDR 2--						
			20		8	7 10 15	4.43 B	14
		--trace wood fragments--	25		10	7 11 15	2.05 B	25
					11	11 16 21	4.76 B	13
	697.2	Boring terminated at 30.00 ft	30		12	9 12 19	4.59 B	13
			35		9	12 13 19	3.44 B	13
			40					

GENERAL NOTES

Begin Drilling: 03-23-2022 Complete Drilling: 03-23-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 13.50 ft
At Completion of Drilling: 19.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030 GPJ WANGENG.GDT 9/1/22

BORING LOG B12-NAW-05

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100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -
	CHECKED - JK	REVISED -
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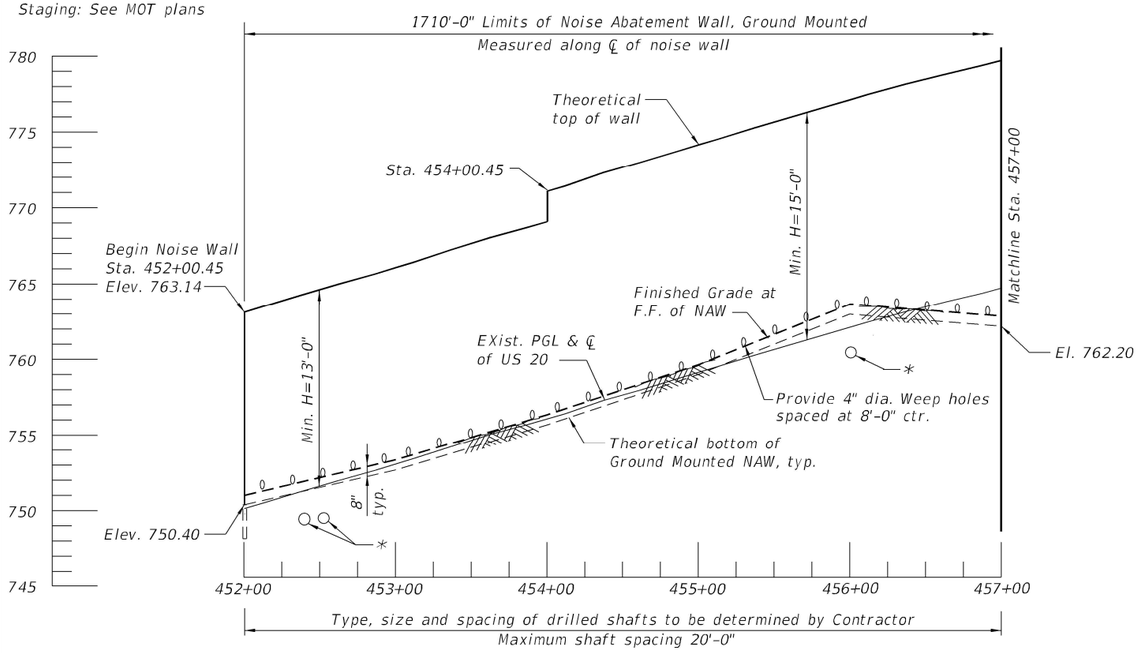
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NO. 045-N1008
SHEET 5 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	283
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Cut " ┌ " on NW corner of Pier 1 on E side of St. Charles St. & 38 feet N ℄ of US 20.
Elev. = 737.093
Existing Structure: None
Staging: See MOT plans



REFLECTED PARTIAL ELEVATION

*Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.

INDEX OF SHEETS

1 - General Plan & Elevation I
2 - General Plan & Elevation II
3 - Section & Details
4 - Soil Borings Logs I
5 - Soil Borings Logs II
6 - Soil Borings Logs III
7 - Soil Borings Logs IV
8 - Soil Borings Logs V
9 - Soil Borings Logs VI

WALL ELEVATION INFORMATION

Station	Offset	Theo. Top of NAW Elev. (ft)	Theo. Bottom of NAW Elev. (ft)	Finished Grade at F.F. of NAW Elev. (ft)	Exist. P.G.L. Elev. at ℄ US 20 (ft)
452+00.45	66.14' Rt.	763.14	750.40	751.07	750.14
453+00.45	65.94' Rt.	766.08	752.70	753.37	753.08
454+00.45	65.73 Rt.	769.10	755.70	756.37	756.10
454+00.45	65.73 Rt.	771.10	755.70	756.37	756.10
455+00.00	65.52' Rt.	774.16	759.00	759.67	759.16
456+00.00	65.31' Rt.	777.14	763.00	763.67	762.14
457+00.00	65.10' Rt.	779.73	762.20	762.87	764.73
458+00.00	64.90' Rt.	782.00	761.70	762.37	767.00
459+00.00	64.69' Rt.	783.59	763.00	763.67	768.59
460+00.00	64.48' Rt.	784.61	766.60	767.27	769.61
460+00.00	64.48' Rt.	786.61	766.60	767.27	769.61
461+00.00	64.27' Rt.	787.31	772.23	772.90	770.31
462+00.00	64.06' Rt.	787.96	773.80	774.47	770.96
463+00.00	63.86' Rt.	788.54	774.50	775.17	771.54
464+00.00	63.65' Rt.	789.16	774.50	775.17	772.16
465+66.13	63.40' Rt.	790.18	772.90	773.57	773.18
465+66.13	63.40' Rt.	783.18	772.90	773.57	773.18
466+00.00	63.23' Rt.	783.39	770.90	771.57	773.39
467+00.00	63.02' Rt.	783.91	770.00	770.67	773.91
468+00.00	62.82' Rt.	784.45	769.50	770.17	774.45
469+10.45	62.59' Rt.	785.18	770.20	770.87	775.18

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

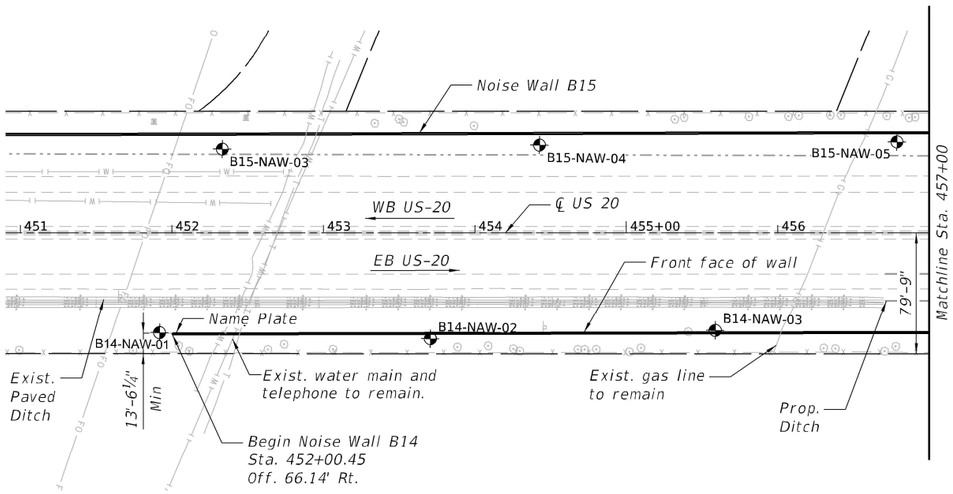
f'c= 4,000 psi
fy= 60,000 psi (Reinforcement)
fy= 50,000 psi (M270 Grade 50, posts)
fy= 36,000 psi (M270 Grade 36, all other structural steel)

PRECAST UNITS

f'c= 4,500 psi
fy= 60,000 psi (Reinforcement)
fy= 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADING

Strength III or V Wind: 35 psf
Service I Wind: 15 psf

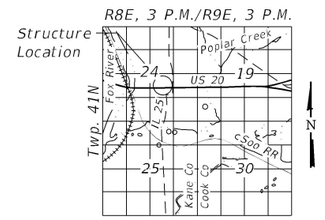


453

PARTIAL PLAN

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- NAW — Noise Abatement Wall
- Exist. Light Pole
- Exist. Advertising Sign
- Exist. Fence
- Exist. Fiber Optic
- Exist. Gasline



LOCATION SKETCH

GENERAL PLAN & ELEVATION
NOISE ABATEMENT WALL B14
F.A.P. RTE. 345-SEC 345-23-BR
COOK COUNTY
STATION 452+00.45 to 469+08.87
STRUCTURE NO. 016-N1002

MODEL: Default
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3/20/2024 5:00:11 PM

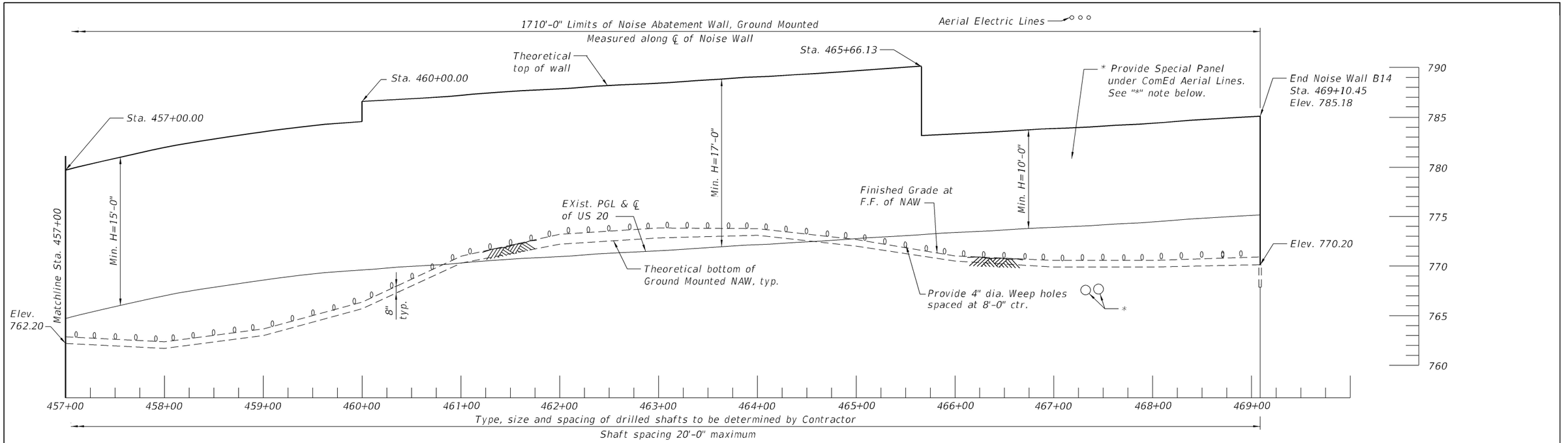
TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk		DESIGNED - ZC		REVISED -	
		CHECKED - JK		REVISED -	
PLOT SCALE = 100.0000 ' / in.		DRAWN - JK		REVISED -	
PLOT DATE = 3/20/2024		CHECKED - ZC		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

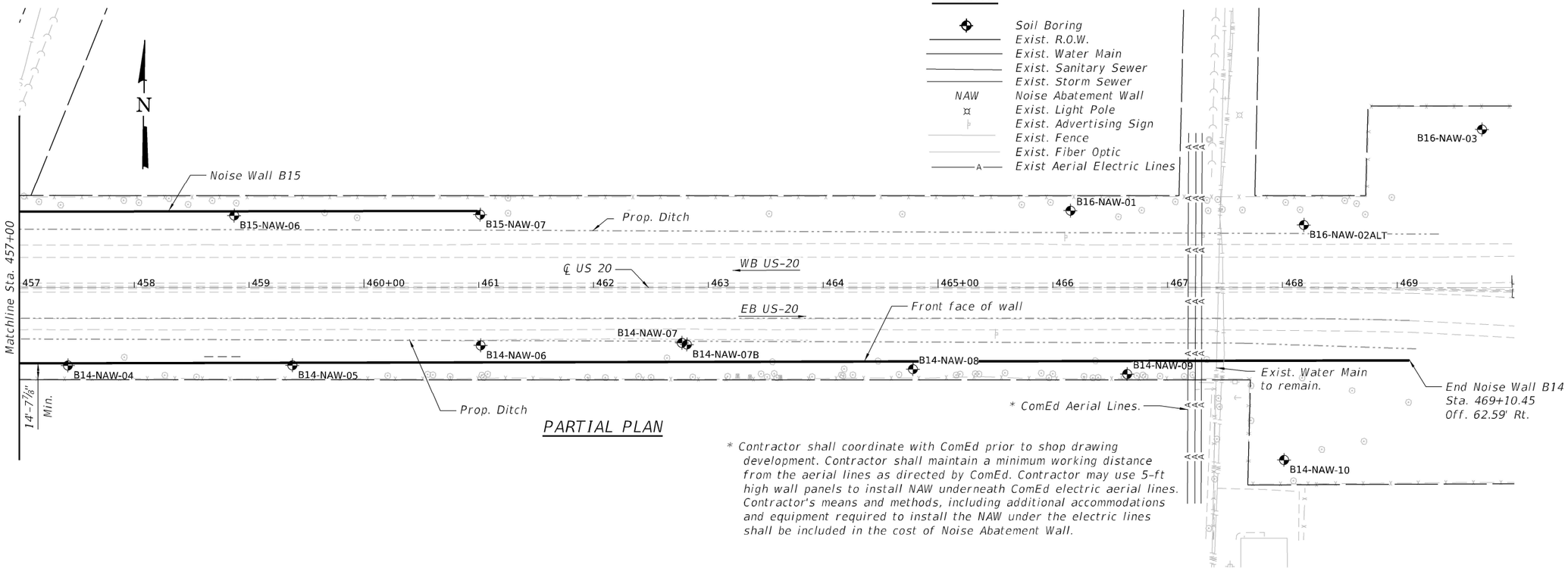
GENERAL PLAN & ELEVATION I
STRUCTURE NO. 016-N1002
SHEET 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	284
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	



REFLECTED PARTIAL ELEVATION

*Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.



PARTIAL PLAN

* Contractor shall coordinate with ComEd prior to shop drawing development. Contractor shall maintain a minimum working distance from the aerial lines as directed by ComEd. Contractor may use 5-ft high wall panels to install NAW underneath ComEd electric aerial lines. Contractor's means and methods, including additional accommodations and equipment required to install the NAW under the electric lines shall be included in the cost of Noise Abatement Wall.

MODEL: Default
FILE NAME: pw://gfnet-pw.bentley.com:gfnet-pw-01/Documents/Projects/68096/Project Working/A_CADD/62U83-Contract1/Sheets/NAWB14-62U83-002-GPE2.dgn
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TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION II STRUCTURE NO. 016-N1002	
	CHECKED - JK	REVISED -			
PLOT SCALE = 100.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 2 OF 9 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	285
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of the proposed noise wall.

2. 4" Ø weep hole shall be provided through wall panels at the ground level at a spacing of 8 ft as required to facilitate surface drainage. Location to be determined by the Engineer. Cost included with Noise Abatement Wall, of the type specified.

3. Type, size and spacing of posts, noise wall panels, drilled shaft and size embedment length, reinforcement details, lifting bars and wall limits including top and bottom of wall shall be determined by the Contractor and shall be designed to avoid conflicts with the existing facilities. Cost included with Noise Abatement Wall, of the type specified.

4. The contractor shall review the maintenance of traffic plans. The Construction of Noise Abatement Wall may need to be sequenced to match the roadway sequence of construction. and the Contractor may not be able to construct the NAW in one continuos operation. Additional mobilization/demobilization required will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

5. The Contractor shall verify locations of all existing utilities and structures and shall take all necessary precautions to perform the work in such a manner as to not damage existing utilities or structures, located near or beneath the Noise Abatement Wall. Any damage to existing utilities or structures shall be repaired at no cost to the Department.

6. It is anticipated that temporary casing is required for each drilled shaft foundation due to soil condition. The temporary casing will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified.

7. It shall be the Contractor's responsibility to field verify existing ground elevations at the locations of the proposed ground mounted noise abatement walls and compare to that shown on the plans. Adjustments to NAW heights as required to accommodate actual field conditions shall be made by the Contractor at no additional cost. Cost to comply with this requirement is included in the cost of Noise Abatement Wall, of the type specified.

8. A Geotechnical Memorandum for Noise Abatement Walls, by Gannett Fleming is available upon request. Please allow 30 days time for distribution.

9. See special provisions for additional requirements.

10. In addition to the special provisions, the panels shall be designed to be vertically supported between foundations such that the excavation beneath the panels does not require additional supports. When panels span a utility crossing, the maximum post spacing shall be used to maximize the horizontal clearance between the posts and the utility. The cost for this work shall be included in the cost of Noise Abatement Wall of the type specified.

AESTHETIC FINISH GENERAL NOTES:

1. Precast Concrete Noise Abatement Wall Random Ashlar Limestone Formliner Pattern.

   The formliner used to create the random ashlar limestone pattern shall be of high quality and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. The liner shall be made from high-strength elastomeric urethane material which shall not compress more than 0.02 feet when poured at a rate of 10 vertical feet per hour. The form release agents shall be non-staining, non-residual and non-reactive.

   Precast Concrete Noise Abatement Wall Panels shall be constructed with a square cut random ashlar rusticated limestone surface with a maximum relief along each side as shown the details. The panel(s) height selected by the Fabricator should be compatible with Random Ashlar Limestone Formliner Pattern.

   The maximum architectural aesthetic surface treatment thickness along one side cannot exceed ¾ inches. The relief, on each side of precast concrete panel, is permitted to vary from 0 to ¾ inches, but the total architectural relief thickness, on both sides of the precast concrete panel, must not be greater than 1½ inches.

   Angular distortion with regards to panel squareness, defines as the difference between the two diagonals, shall not exceed ½ in. Panel dimensions shall be within ¼ in. all hardware embedded in panels shall be within ¼ in.

   The Random Ashlar Limestone Pattern shall be continuous for the full height of a wall section except the top 1'-0", regardless of the number of panels in a wall section. All exposed concrete edges shall have a ¾" chamfer except at horizontal edges between successive panels.

2. The color of the wall panels and support posts is identified by Federal Standard 595-B color number 30372.

3. Formliner treatment will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

4. Aesthetic finish for the precast panels and staining for the panels and steel posts will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified. The stain color and aesthetic textured finish pattern shall be approved by the Roadside Development Unit prior to ordering materials or beginning fabrication. Submittal shall be made 30 days in advance prior to ordering materials.

NOISE REDUCTION DATA TABLE

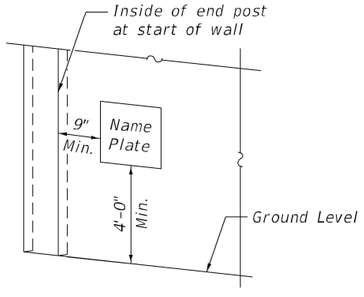
Noise Wall Structure Number	Face	From Sta.	To Sta.	Noise Reduction Coefficient
016-N1002	Front Face	452+00.45	469+10.45	Reflective
	Back Face	452+00.45	469+10.45	Reflective

TOTAL BILL OF MATERIAL

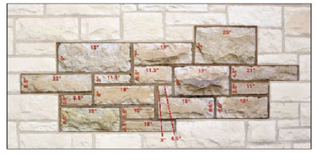
Item	Unit	Total
Noise Abatement Wall, Ground Mounted	Sq. Ft.	26,665
Name Plates	Each	1

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.P. RTE. 345
SEC 345-23-BR
FROM STA. 452+00.45 TO STA. 469+08.87
STRUCTURE NO. 016-N1002

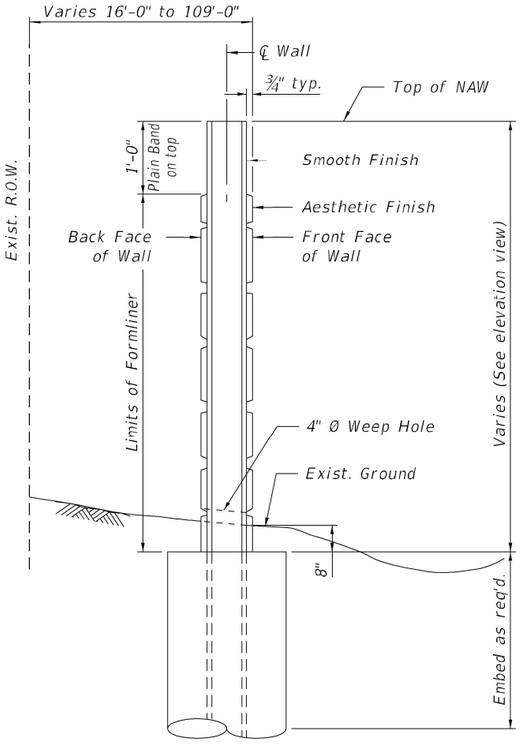
NAME PLATE
See Std. 515001



NAME PLATE LOCATION



FORMLINER PATTERN DETAIL



TYPICAL SECTION
Looking West

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BORING LOG B14-NAW-01

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 749.99 ft
North: 1949955.74 ft
East: 1005270.37 ft
Station: 451+91.85
Offset: 65.70 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	749.3	8-inch thick, black SILTY CLAY --TOPSOIL--						
		Loose, brown SANDY LOAM, trace gravel; moist --RDR 2--			1	4 3 3	NP	20
	747.0	Medium stiff, dark gray SILTY CLAY to SILTY CLAY LOAM, trace organic matter and gravel; moist --RDR 2--	5		2	4 10 18	0.50 P	41
	744.5	Medium dense, brown Gravelly SAND; damp --RDR 2--			3	9 10 10	NP	4
	740.7	Medium dense to dense, brown, fine to coarse SAND, trace to some gravel; damp --RDR 2-3--	10		4	13 14 15	NR	
					5	10 11 12	NP	4
			15		6	10 10 14	NP	3
					7	12 15 16	NP	4
	732.0	Medium dense, brown, coarse SAND, trace gravel; damp --RDR 2--			8	9 7 3	NP	9
	730.0	Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 03-23-2022 Complete Drilling: 03-23-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B14-NAW-01

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BORING LOG B14-NAW-02

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 755.32 ft
North: 1949954.03 ft
East: 1005448.76 ft
Station: 453+70.61
Offset: 69.73 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	754.3	12-inch thick, black SILTY CLAY --TOPSOIL--						
		Soft, black and brown SILTY CLAY, trace gravel; moist --RDR 2--			1	4 4 5	0.49 B	37
	751.5	Medium dense to dense, brown, fine to medium SAND, trace to little gravel; damp to moist --RDR 2--	5		2	9 8 10	NP	5
					3	16 16 15	NP	4
			10		4	10 12 15	NP	3
					5	7 5 7	NP	3
			15		6	9 8 10	NP	3
	739.8	Stiff to hard, gray SILTY CLAY LOAM to CLAY LOAM, trace gravel, few sand seams; moist --RDR 2--			7	8 14 19	NP	13
	735.3	Boring terminated at 20.00 ft	20		8	10 12 12	NP	17

GENERAL NOTES

Begin Drilling: 03-23-2022 Complete Drilling: 03-23-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

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BORING LOG B14-NAW-03

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 762.14 ft
North: 1949960.30 ft
East: 1005637.93 ft
Station: 455+58.71
Offset: 64.27 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	761.1	12-inch thick, black SILTY CLAY --TOPSOIL--						
	760.5	Medium stiff, black SILTY CLAY, trace gravel; moist --RDR 2--			1	5 6 6	0.49 B	41
		Medium dense to dense, brown, medium SAND, trace gravel; damp to moist --RDR 2--	5		2	6 7 8	NP	5
					3	13 13 13	NP	5
			10		4	10 15 21	NP	3
					5	15 14 17	NP	4
	749.1	Medium dense to dense, brown, coarse SAND, trace gravel; damp to moist --RDR 2--			6	14 15 17	NP	4
			15		7	15 13 11	NP	4
					8	14 13 12	NP	3
	742.1	Boring terminated at 20.00 ft	20					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-23-2022	Complete Drilling	03-23-2022	While Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

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BORING LOG B14-NAW-04

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 762.84 ft
North: 1949961.94 ft
East: 1005819.70 ft
Station: 457+42.22
Offset: 67.46 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	762.5	4-inch thick, black SILTY CLAY --TOPSOIL--						
		Medium stiff to stiff, brown, gray and black SILTY CLAY, trace gravel; moist --RDR 2--			1	5 4 8	1.07 B	23
		--Qu: 0.50P--						
	758.6	Medium dense, brown, fine to medium SAND, trace to little gravel; damp --RDR 2--	5		2	7 6 9	NP	12
					3	13 14 12	NP	5
			10		4	9 11 9	NP	3
					5	11 12 17	NP	4
			15		6	10 12 14	NP	6
	747.3	Dense to very dense, brown, coarse SAND, trace to little gravel; damp --RDR 2--			7	14 16 18	NP	10
					8	15 25 25	NP	11
	742.8	Boring terminated at 20.00 ft	20					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-23-2022	Complete Drilling	03-23-2022	While Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

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BORING LOG B14-NAW-05

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 764.18 ft
North: 1949965.75 ft
East: 1006015.70 ft
Station: 459+37.71
Offset: 67.30 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	763.9	4-inch thick, black SILTY CLAY --TOPSOIL--						
		Medium stiff to stiff, black to brown SILTY CLAY, trace gravel; moist --RDR 2--			1	4 4 4	0.57 B	26
			5		2	3 3 4	1.64 B	29
	757.9	Medium dense to dense, brown, fine to medium SAND, trace to little gravel; damp --RDR 2--			3	7 8 11	NP	9
			10		4	10 13 13	NP	7
					5	11 11 8	NP	6
			15		6	11 10 13	NP	7
					7	10 13 20	NP	5
	746.2	Dense, brown, coarse SAND, little gravel; damp --RDR 2--			8	12 14 16	NP	5
	744.2	Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 03-24-2022 Complete Drilling: 03-24-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1210301.GPJ WANGENG.GDT 9/1/22

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BORING LOG B14-NAW-06

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 768.53 ft
North: 1949982.94 ft
East: 1006180.56 ft
Station: 461+01.63
Offset: 50.11 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		Medium stiff, black SILTY CLAY LOAM --TOPSOIL--						
	767.1	Medium dense to dense, brown, fine to coarse SAND, trace gravel; damp --RDR 2-3-- --silt seam--			1	8 13 12	0.50 P	24
			5		2	11 9 13	NP	6
					3	7 9 8	NP	9
			10		4	6 9 9	NP	4
					5	7 10 10	NP	4
			15		6	8 16 20	NP	3
					7	6 6 10	NP	4
	748.5				8	5 11 15	NP	4
		Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 04-04-2022 Complete Drilling: 04-04-2022
Drilling Contractor: Wang Testing Services Drill Rig: 18D25A [85%]
Driller: PH&AG Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1210301.GPJ WANGENG.GDT 9/1/22

BORING LOG B14-NAW-06

MODEL: Default
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3/20/2024 5:00:36 PM

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS III STRUCTURE NO. 016-N1002	
	CHECKED - JK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 6 OF 9 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	289
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

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BORING LOG B14-NAW-07

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 770.36 ft
North: 1949987.85 ft
East: 1006355.85 ft
Station: 462+76.98
Offset: 47.94 RT

Elev (ft)	Depth (ft)	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
769.7	0	8-inch thick, black SILTY CLAY LOAM --TOPSOIL--					
768.5	1	Stiff, brown SILTY CLAY LOAM, trace gravel ; damp to moist --FILL--		1	9 11 16	1.07 B	15
		Medium dense, brown SANDY GRAVEL to Gravelly SAND; damp to moist --RDR 2-4-- --rig chatter--		2	10 13 16	NP	8
	5			3	8 6 8	NP	5
762.4		Medium dense, brown, fine to coarse SAND, trace to some gravel; moist --RDR 2--		4	5 9 11	NP	6
	10			5	6 7 10	NP	7
757.4		Medium dense to dense, brown SANDY GRAVEL to Gravelly SAND; moist --RDR 2--		6	10 15 15	NP	5
	15			7	12 14 13	NP	5
				8	10 12 12	NP	5
750.4	20	Boring terminated at 20.00 ft					

GENERAL NOTES

Begin Drilling: **03-31-2022** Complete Drilling: **03-31-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **20D25A [83%]**
Driller: **PH&AG** Logger: **D. You** Checked by: **CLM**
Drilling Method: **2.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
At Completion of Drilling: **DRY**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

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BORING LOG B14-NAW-07B

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 769.14 ft
North: 1949989.40 ft
East: 1006367.45 ft
Station: 462+81.36
Offset: 49.36 RT

Elev (ft)	Depth (ft)	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
768.7	0	5-inch thick, black SILTY CLAY --TOPSOIL--					
		Medium dense, brown Gravelly SAND, trace concrete fragments; damp --FILL--		1	8 10 11	NP	7
766.1		--RDR 2-- Medium dense, brown, fine to coarse SAND, trace gravel; damp to moist --FILL--		2	7 8 13	NP	8
	5	--RDR 2-3--		3	5 6 7	NP	6
	10			4	4 5 5	NP	6
		--trace concrete fragments--		5	5 6 7	NP	5
	15			6	4 11 11	NP	5
753.6		Medium dense, brown Gravelly SAND, trace concrete fragments; damp --FILL--		7	7 12 14	NP	4
751.1		--RDR 2-3-- Medium dense, brown, fine to medium SAND, trace concrete fragments; damp --FILL--		8	6 12 13	NP	4
749.1	20	--RDR 2-- Boring terminated at 20.00 ft					

GENERAL NOTES

Begin Drilling: **04-13-2022** Complete Drilling: **04-13-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **21GeoT[92%]**
Driller: **AG&CB** Logger: **M. Rojo** Checked by: **CLM**
Drilling Method: **3.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
At Completion of Drilling: **DRY**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B14-NAW-07B

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BORING LOG B14-NAW-08

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 775.55 ft
North: 1949968.94 ft
East: 1006558.26 ft
Station: 464+78.20
Offset: 70.61 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	774.6	12-inch thick, black SILTY CLAY						
		--TOPSOIL--						
		Soft to stiff, black and brown SILTY CLAY, trace gravel; moist			1	5 4 4	0.25 B	18
		--RDR 2--						
		--trace organic matter--	5		2	2 4 5	1.50 P	32
					3	4 6 9	1.15 S	25
	767.6	Medium dense to very dense, brown, fine to medium SAND, trace to some gravel; damp			4	19 27 30	NP	4
		--RDR 2-3--	10		5	17 22 25	NP	2
			15		6	12 16 18	NP	3
					7	9 13 21	NP	5
					8	10 10 10	NP	4
	755.6	Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 03-24-2022 Complete Drilling: 03-24-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030T.GPJ WANGENG.GDT 9/1/22

BORING LOG B14-NAW-08

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BORING LOG B14-NAW-09

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 770.94 ft
North: 1949973.79 ft
East: 1006733.62 ft
Station: 466+64.76
Offset: 74.87 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	769.9	12-inch thick, black SILTY CLAY						
		--TOPSOIL--						
		Soft to stiff, black SILTY CLAY, trace gravel; moist			1	2 4 5	0.25 B	40
		--RDR 2--						
		--Qu: 1.00P--						
	766.9	Medium dense to dense, brown and gray, fine to medium SAND, trace to little gravel; damp	5		2	9 9 10	NP	4
		--RDR 2-3--						
		--possible cobbles--			3	16 19 25	NP	5
			10		4	7 15 7	NP	3
					5	13 14 14	NP	4
			15		6	8 13 18	NP	4
					7	10 12 10	NP	4
					8	15 16 17	NP	4
	750.9	Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 03-24-2022 Complete Drilling: 03-24-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030T.GPJ WANGENG.GDT 9/1/22

BORING LOG B14-NAW-09

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B14-NAW-10

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 769.35 ft
North: 1949897.14 ft
East: 1006879.76 ft
Station: 468+01.44
Offset: 149.89 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	768.4	12-inch thick, black SILTY CLAY --TOPSOIL--						
		Soft to stiff, black and brown SILTY CLAY, trace gravel; moist --RDR 2--			1	2 3 7	1.50 P	42
					2	6 7 12	0.41 B	30
	763.9	Medium dense to dense, brown, fine to coarse SAND, trace to little gravel; damp --RDR 2-3--	5		3	16 21 16	NP	3
					4	12 22 21	NP	3
			10		5	17 20 18	NP	4
					6	9 16 20	NP	4
			15		7	11 9 16	NP	4
					8	9 11 21	NP	2
	749.4	Boring terminated at 20.00 ft	20					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-24-2022	Complete Drilling	03-24-2022	While Drilling ▽	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling ▼	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Checked by	CLM			Depth to Water ▼	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

WANGENGINC 121030 GPJ WANGENG.GDT 9/1/22

BORING LOG B14-NAW-10

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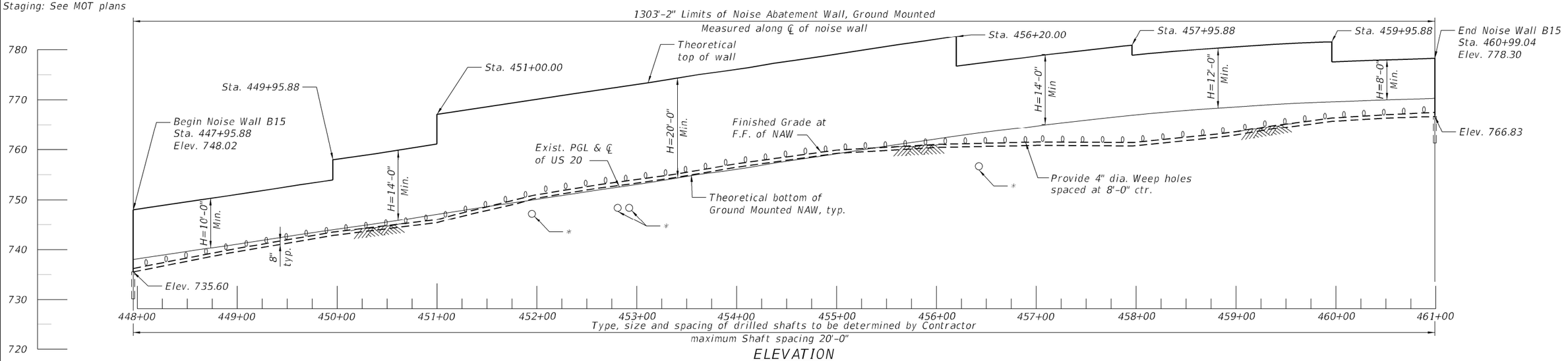
3/20/2024 5:00:52 PM

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS VI STRUCTURE NO. 016-N1002	
	CHECKED - JK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 9 OF 9 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	292
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Cut "Γ" on NW corner of Pier 1 on E side of St. Charles St. & 38 feet N ℄ of US 20. Elev. = 737.093
Existing Structure: None
Staging: See MOT plans



ELEVATION

* Exist. utility to remain. Depth of utility to be confirmed by the Contractor prior to starting work.

WALL ELEVATION INFORMATION

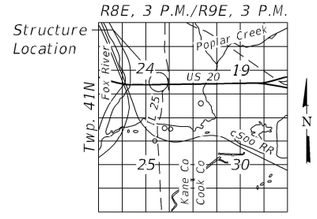
Station	Offset	Theo. Top of NAW Elev. (ft)	Theo. Bottom of NAW Elev. (ft)	Finished Grade at F.F. of NAW Elev. (ft)	Exist. P.G.L. Elev. at ℄ US 20 (ft)
447+95.88	63.98' Lt.	748.02	735.60	736.27	738.02
449+00.00	64.17' Lt.	751.09	739.58	740.25	741.09
449+95.88	64.35' Lt.	753.96	742.83	743.50	743.96
449+95.88	64.35' Lt.	757.96	742.83	743.50	743.96
451+00.00	64.54' Lt.	761.10	745.40	746.07	747.10
451+00.00	64.54' Lt.	767.10	745.40	746.07	747.10
451+95.88	64.72' Lt.	770.00	750.20	750.87	750.00
453+00.00	64.91' Lt.	773.07	753.33	754.00	753.07
454+00.00	65.09' Lt.	776.08	756.50	757.17	756.08
455+00.00	65.27' Lt.	779.14	759.20	759.87	759.14

WALL ELEVATION INFORMATION

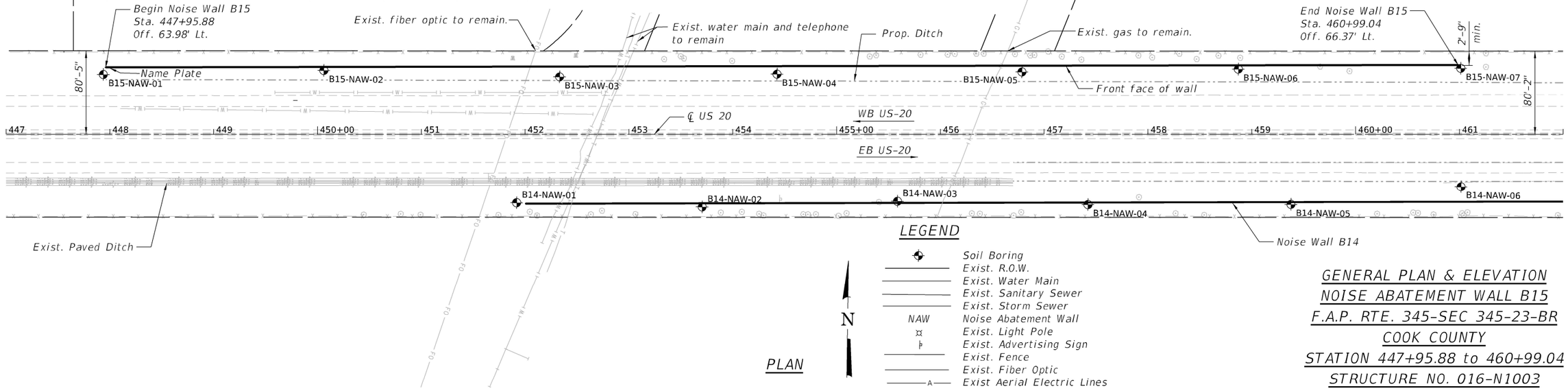
Station	Offset	Theo. Top of NAW Elev. (ft)	Theo. Bottom of NAW Elev. (ft)	Finished Grade at F.F. of NAW Elev. (ft)	Exist. P.G.L. Elev. at ℄ US 20 (ft)
456+20.00	65.49' Lt.	782.70	760.40	761.07	762.70
456+20.00	65.49' Lt.	776.70	760.40	761.07	762.70
457+00.00	65.64' Lt.	778.73	760.83	761.50	764.73
457+95.88	65.81' Lt.	780.92	760.70	761.37	766.92
457+95.88	65.81' Lt.	778.92	760.70	761.37	766.92
459+00.00	66.00' Lt.	780.59	762.90	763.57	768.59
459+95.88	66.18' Lt.	781.58	765.70	766.37	769.58
459+95.88	66.18' Lt.	777.58	765.70	766.37	769.58
460+99.04	66.37' Lt.	778.30	766.83	767.50	770.30

INDEX OF SHEETS

1 - General Plan & Elevation
2 - Section & Details
3 - Soil Boring Logs I
4 - Soil Boring Logs II
5 - Soil Boring Logs III
6 - Soil Boring Logs IV



LOCATION SKETCH



PLAN

LEGEND

- Soil Boring
- Exist. R.O.W.
- Exist. Water Main
- Exist. Sanitary Sewer
- Exist. Storm Sewer
- NAW — Noise Abatement Wall
- Exist. Light Pole
- Exist. Advertising Sign
- Exist. Fence
- Exist. Fiber Optic
- A — Exist Aerial Electric Lines

GENERAL PLAN & ELEVATION
NOISE ABATEMENT WALL B15
F.A.P. RTE. 345-SEC 345-23-BR
COOK COUNTY
STATION 447+95.88 to 460+99.04
STRUCTURE NO. 016-N1003

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 016-N1003
	CHECKED - JK	REVISED -		
PLOT SCALE = 100.0000 ' / in.	DRAWN - JK	REVISED -		SHEET 1 OF 6 SHEETS
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	293
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

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3/20/2024 5:00:58 PM

GENERAL NOTES:

1. Stations and Offsets are measured from ℄ US 20 to front face of the proposed noise wall.

2. 4" Ø weep hole shall be provided through wall panels at the ground level at a spacing of 8 ft as required to facilitate surface drainage. Location to be determined by the Engineer. Cost included with Noise Abatement Wall, of the type specified.

3. Type, size and spacing of posts, noise wall panels, drilled shaft and size embedment length, reinforcement details, lifting bars and wall limits including top and bottom of wall shall be determined by the Contractor and shall be designed to avoid conflicts with the existing facilities. Cost included with Noise Abatement Wall, of the type specified.

4. The contractor shall review the maintenance of traffic plans. The Construction of Noise Abatement Wall may need to be sequenced to match the roadway sequence of construction. and the Contractor may not be able to construct the NAW in one continuos operation. Additional mobilization/demobilization required will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

5. The Contractor shall verify locations of all existing utilities and structures and shall take all necessary precautions to perform the work in such a manner as to not damage existing utilities or structures, located near or beneath the Noise Abatement Wall. Any damage to existing utilities or structures shall be repaired at no cost to the Department.

6. It is anticipated that temporary casing is required for each drilled shaft foundation due to soil condition. The temporary casing will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified.

7. It shall be the Contractor's responsibility to field verify existing ground elevations at the locations of the proposed ground mounted noise abatement walls and compare to that shown on the plans. Adjustments to NAW heights as required to accommodate actual field conditions shall be made by the Contractor at no additional cost. Cost to comply with this requirement is included in the cost of Noise Abatement Wall, of the type specified.

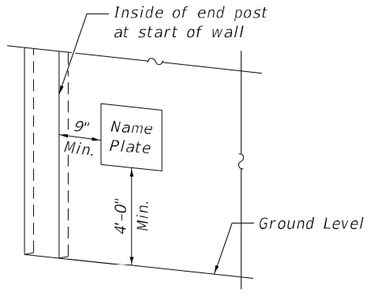
8. A Geotechnical Memorandum for Noise Abatement Walls, by Gannett Fleming is available upon request. Please allow 30 days time for distribution.

9. See special provisions for additional requirements.

10. In addition to the special provisions, the panels shall be designed to be vertically supported between foundations such that the excavation beneath the panels does not require additional supports. When panels span a utility crossing, the maximum post spacing shall be used to maximize the horizontal clearance between the posts and the utility. The cost for this work shall be included in the cost of Noise Abatement Wall of the type specified.

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.P. RTE. 345
SEC 345-23-BR
FROM STA. 447+95.88 TO STA. 460+99.04
STRUCTURE NO. 016-N1003

NAME PLATE
See Std. 515001



NAME PLATE LOCATION

AESTHETIC FINISH GENERAL NOTES:

1. Precast Concrete Noise Abatement Wall Random Ashlar Limestone Formliner Pattern.

   The formliner used to create the random ashlar limestone pattern shall be of high quality and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. The liner shall be made from high-strength elastomeric urethane material which shall not compress more than 0.02 feet when poured at a rate of 10 vertical feet per hour. The form release agents shall be non-staining, non-residual and non-reactive.

   Precast Concrete Noise Abatement Wall Panels shall be constructed with a square cut random ashlar rusticated limestone surface with a maximum relief along each side as shown the details. The panel(s) height selected by the Fabricator should be compatible with Random Ashlar Limestone Formliner Pattern.

   The maximum architectural aesthetic surface treatment thickness along one side cannot exceed ¾ inches. The relief, on each side of precast concrete panel, is permitted to vary from 0 to ¾ inches, but the total architectural relief thickness, on both sides of the precast concrete panel, must not be greater than 1½ inches.

   Angular distortion with regards to panel squareness, defines as the difference between the two diagonals, shall not exceed ½ in. Panel dimensions shall be within ¼ in. all hardware embedded in panels shall be within ¼ in.

   The Random Ashlar Limestone Pattern shall be continuous for the full height of a wall section except the top 1'-0", regardless of the number of panels in a wall section. All exposed concrete edges shall have a ¾" chamfer except at horizontal edges between successive panels.

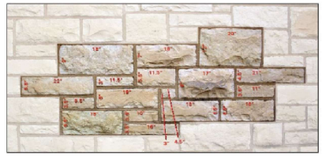
2. The color of the wall panels and support posts is identified by Federal Standard 595-B color number 30372.

3. Formliner treatment will not be measured for payment, but shall be included in the cost of Noise Abatement Wall, of the type specified.

4. Aesthetic finish for the precast panels and staining for the panels and steel posts will not be measured separately for payment, and shall be included in the cost of Noise Abatement Wall, of the type specified. The stain color and aesthetic textured finish pattern shall be approved by the Roadside Development Unit prior to ordering materials or beginning fabrication. Submittal shall be made 30 days in advance prior to ordering materials.

NOISE REDUCTION DATA TABLE

Noise Wall Structure Number	Face	From Sta.	To Sta.	Noise Reduction Coefficient
016-N1003	Front Face	447+95.88	460+99.04	Reflective
	Back Face	447+95.88	460+99.04	Reflective



FORMLINER PATTERN DETAIL

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c= 4,000 psi
fy= 60,000 psi (Reinforcement)
fy= 50,000 psi (M270 Grade 50, posts)
fy= 36,000 psi (M270 Grade 36, all other structural steel)

PRECAST UNITS

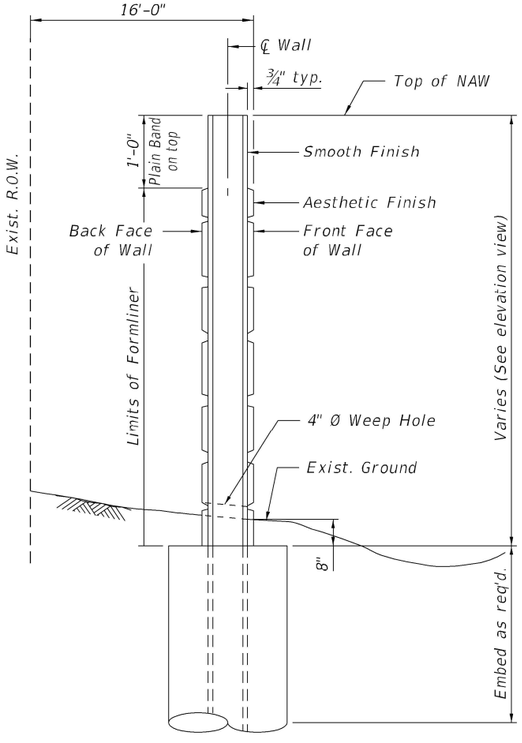
f'c= 4,500 psi
fy= 60,000 psi (Reinforcement)
fy= 65,000 psi (Welded Wire Reinforcement)

DESIGN LOADING

Strength III or V Wind: 35 psf
Service I Wind: 15 psf

TOTAL BILL OF MATERIAL

Item	Unit	Total
Noise Abatement Wall, Ground Mounted	Sq. Ft.	22,398
Name Plates	Each	1



TYPICAL SECTION
Looking East

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Lombard, IL 60148
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Fax: 630-953-9928

BORING LOG B15-NAW-01

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 735.58 ft
North: 1950070.29 ft
East: 1004871.16 ft
Station: 447+93.75
Offset: 57.69 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	734.6	12-inch thick, black SANDY LOAM --TOPSOIL--						
	734.0	Stiff, black SILTY CLAY, trace gravel; moist --RDR 2--			1	5 11 10	1.50 P	32
	732.6	Medium dense, brown SANDY GRAVEL; damp --RDR 2--						
		Medium dense, brown, fine to medium SAND, trace to little gravel; damp --RDR 2-3--	5		2	8 8 7	NP	4
					3	4 5 5	NP	1
			10		4	5 8 10	NP	3
					5	9 11 13	NP	3
	722.6	Loose to medium dense, brown, medium to coarse SAND; some gravel; damp to saturated --RDR 2-3--			6	6 6 5	NP	5
			15		7	3 4 4	NP	8
					8	9 7 7	NP	18
	715.6	Boring terminated at 20.00 ft	20					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-15-2022	Complete Drilling	03-15-2022	While Drilling	14.00 ft
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	14.00 ft
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-01

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Fax: 630-953-9928

BORING LOG B15-NAW-02

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 743.24 ft
North: 1950077.52 ft
East: 1005083.45 ft
Station: 450+06.13
Offset: 61.6 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	742.2	12-inch thick, black SILTY CLAY --TOPSOIL--						
		Stiff, black SILTY CLAY, trace gravel; moist --disturbed sample-- --RDR 2--			1	6 8 9	1.50 P	21
	740.2	Dense, brown and tan, SILTY CLAY and GRAVEL; damp to moist --RDR 2--	5		2	14 15 15	NP	16
	737.7	Medium dense, brown, fine to medium SAND, trace gravel: damp --RDR 2--			3	12 9 7	NP	3
	735.2	Loose, brown, medium to coarse SAND, some gravel; damp --RDR 2--	10		4	4 4 4	NP	3
	732.7	Loose to medium dense, brown, fine to medium SAND, trace to little gravel; damp to saturated --RDR 2--			5	3 3 4	NP	3
			15		6	6 5 3	NP	6
					7	2 4 6	NP	29
			20		8	12 8 8	NP	21
	721.4	Very Stiff, gray SILTY CLAY LOAM to CLAY LOAM, trace gravel; moist --RDR 2--			9	21 11 10	2.00 P	15
	718.2	Boring terminated at 25.00 ft	25		10	9 11 13	2.79 B	12
			30					
			35					
			40					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	03-15-2022	Complete Drilling	03-15-2022	While Drilling	16.00 ft
Drilling Contractor	Wang Testing Services	Drill Rig	21D50A [84%]	At Completion of Drilling	DRY
Driller	KS&AP	Logger	A. Scifers	Time After Drilling	NA
Drilling Method	2.25" ID HSA; boring backfilled upon completion	Checked by	CLM	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-02

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TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS I STRUCTURE NO. 016-N1003	
	CHECKED - JK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 3 OF 6 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	295
			CONTRACT NO. 62U83	
		ILLINOIS	FED. AID PROJECT	

3/20/2024 5:01:08 PM

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BORING LOG B15-NAW-03

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 750.53 ft
North: 1950074.92 ft
East: 1005310.65 ft
Station: 452+33.26
Offset: 55.452 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	749.0	Stiff, black SILTY CLAY, trace gravel --TOPSOIL--						
		Medium dense, brown, medium to coarse SAND, some gravel; damp			1	10 12 10	1.50 P	35
	747.5	--RDR 2-- Medium dense to dense, brown, fine to medium SAND, little gravel; damp	5		2	14 12 12	NP	4
		--RDR 2--			3	12 16 12	NP	3
			10		4	17 17 18	NP	3
					5	14 14 14	NP	4
			15		6	4 5 11	NP	4
					7	12 15 18	NP	3
			20		8	19 15 15	NP	3
	730.0	Medium dense, gray SILT to SILTY LOAM, trace gravel; wet --RDR 2--			9	10 7 6	NP	20
	727.5	Very stiff, gray CLAY LOAM, trace gravel; moist --RDR 2--	25		10	12 9 13	3.12 B	11
	725.5	Boring terminated at 25.00 ft						
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: **03-14-2022** Complete Drilling: **03-14-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **21D50A [84%]**
Driller: **KS&AP** Logger: **A. Scifers** Checked by: **CLM**
Drilling Method: **2.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: ▽ **DRY**
At Completion of Drilling: ▼ **DRY**
Time After Drilling: **NA**
Depth to Water: ▼ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-03

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Lombard, IL 60148
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Fax: 630-953-9928

BORING LOG B15-NAW-04

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 756.75 ft
North: 1950080.80 ft
East: 1005519.97 ft
Station: 454+42.65
Offset: 58.062 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	755.1	Stiff, black SILTY CLAY --TOPSOIL--						
		Medium dense, brown, fine to medium SAND, trace to little gravel; damp			1	10 8 7	1.50 P	44
		--RDR 2--			2	8 8 8	NP	5
			5		3	14 12 9	NP	5
	748.8	Medium dense, brown, medium to coarse SAND, little gravel; damp			4	10 9 8	NP	4
		--RDR 2--	10					
	746.3	Medium dense to dense, brown, fine to medium SAND, trace to little gravel; damp			5	8 8 5	NP	3
		--RDR 2--						
		--silty clay seem--	15		6	17 16 10	NP	3
					7	14 15 11	NP	3
			20		8	16 17 16	NP	2
	731.8	Boring terminated at 25.00 ft	25		9	11 10 11	NP	3
					10	19 18 16	NP	3
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: **03-14-2022** Complete Drilling: **03-14-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **21D50A [84%]**
Driller: **KS&AP** Logger: **A. Scifers** Checked by: **CLM**
Drilling Method: **2.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: ▽ **DRY**
At Completion of Drilling: ▼ **DRY**
Time After Drilling: **NA**
Depth to Water: ▼ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-04

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B15-NAW-05

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 761.86 ft
North: 1950086.63 ft
East: 1005755.84 ft
Station: 456+78.58
Offset: 60.2 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	760.9	12-inch thick, black SILTY CLAY --TOPSOIL--						
		Very soft to very stiff (2.0P), brown SILTY CLAY LOAM, trace gravel; moist --RDR 2--			1	4 10 10	0.16 B	18
	758.9	Medium dense, brown, medium to coarse SAND, trace gravel; damp --RDR 2--	5		2	15 15 12	NP	5
	756.4	Medium dense to dense, brown, fine to medium SAND, trace to little gravel; damp --RDR 2-3--			3	17 21 15	NP	4
			10		4	17 17 12	NP	3
					5	10 16 14	NP	3
			15		6	16 11 10	NP	3
	746.4	Dense to very dense, brown, medium to coarse SAND, trace to little gravel; damp --RDR 2--			7	14 16 17	NP	3
			20		8	15 16 14	NP	3
	736.9	Boring terminated at 25.00 ft	25		9	13 30 24	NP	4
			30		10	22 19 15	NP	3
			35					
			40					

GENERAL NOTES

Begin Drilling: **03-14-2022** Complete Drilling: **03-14-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **21D50A [84%]**
Driller: **KS&AP** Logger: **A. Scifers** Checked by: **CLM**
Drilling Method: **2.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
At Completion of Drilling: **DRY**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-05

BORING LOG B15-NAW-06

WEI Job No.: 121-03-01

Client: **Gannett Fleming**
Project: **US Route 20 From Randall Rd to Shales Parkway**
Location: **Elgin, Illinois**

Datum: NAVD 88
Elevation: 763.16 ft
North: 1950092.56 ft
East: 1005964.25 ft
Station: 458+87.06
Offset: 62.879 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	762.2	12-inch thick, black SILTY CLAY --TOPSOIL--						
		Very stiff, black and brown CLAY to SILTY CLAY, trace gravel; moist --RDR 2--			1	5 9 10	3.77 B	24
	760.2	Very soft to medium stiff, dark brown to brown SILTY CLAY, trace gravel; moist --RDR 2--	5		2	7 7 6	0.82 B	25
					3	4 8 5	0.82 B	30
			10		4	5 7 4	< 0.25 P	27
	751.8	Medium dense, brown SANDY LOAM, little to some gravel; damp --RDR 2--			5	11 12 16	NP	7
	750.2	Medium dense to dense, brown, medium to coarse SAND, trace to little gravel; damp to moist --RDR 2--	15		6	14 14 10	NP	7
					7	11 18 18	NP	5
			20		8	6 21 20	NP	5
	738.2	Boring terminated at 25.00 ft	25		9	5 16 15	NP	8
			30		10	14 15 15	NP	5
			35					
			40					

GENERAL NOTES

Begin Drilling: **03-14-2022** Complete Drilling: **03-14-2022**
Drilling Contractor: **Wang Testing Services** Drill Rig: **21D50A [84%]**
Driller: **KS&AP** Logger: **A. Scifers** Checked by: **CLM**
Drilling Method: **2.25" ID HSA; boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
At Completion of Drilling: **DRY**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-06

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3/20/2024 5:01:19 PM

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS III STRUCTURE NO. 016-N1003	
	CHECKED - JK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 5 OF 6 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	297
		CONTRACT NO. 62U83		
		ILLINOIS	FED. AID PROJECT	

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG B15-NAW-07

WEI Job No.: 121-03-01

Client: Gannett Fleming
Project: US Route 20 From Randall Rd to Shales Parkway
Location: Elgin, Illinois

Datum: NAVD 88
Elevation: 767.07 ft
North: 1950096.69 ft
East: 1006178.45 ft
Station: 461+01.30
Offset: 63.662 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	766.1	12-inch thick, brown SANDY LOAM --TOPSOIL--						
		Medium dense to dense, brown Gravelly SAND; damp --RDR 2-3--			1	17 20 12	NP	6
					2	11 12 11	NP	4
	761.6	Medium dense, brown, fine to medium SAND, trace to little gravel; damp --RDR 2--	5		3	12 12 9	NP	12
					4	9 13 10	NP	3
			10		5	7 10 13	NP	3
					6	9 15 11	NP	3
	751.6	Dense, brown, medium to coarse SAND, some gravel; damp --RDR 2--	15		7	19 25 22	NP	3
	749.1	Medium dense, brown, medium SAND, little gravel; damp --RDR 2--			8	8 13 13	NP	2
	747.1	Boring terminated at 20.00 ft	20					

GENERAL NOTES

Begin Drilling: 03-14-2022 Complete Drilling: 03-14-2022
Drilling Contractor: Wang Testing Services Drill Rig: 21D50A [84%]
Driller: KS&AP Logger: A. Scifers Checked by: CLM
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 121030I.GPJ WANGENG.GDT 9/1/22

BORING LOG B15-NAW-07

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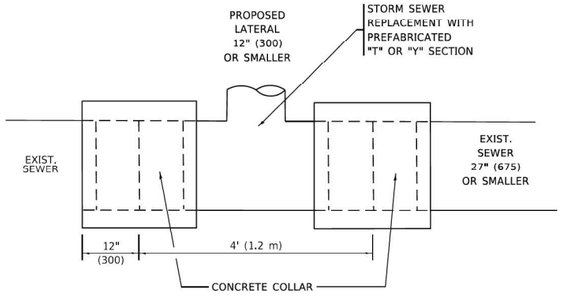
3/20/2024 5:01:25 PM

TranSmart
100 S. Wacker Drive Suite 400
Chicago, Illinois 60606

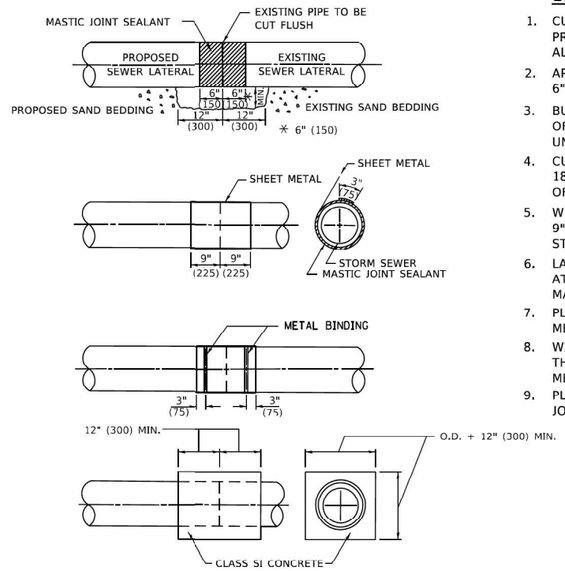
USER NAME = jstarzyk	DESIGNED - ZC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS IV STRUCTURE NO. 016-N1003	
	CHECKED - JK	REVISED -			
PLOT SCALE = 2.0000 ' / in.	DRAWN - JK	REVISED -			
PLOT DATE = 3/20/2024	CHECKED - ZC	REVISED -		SHEET 6 OF 6 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345-23-BR	COOK/KANE	379	298
		CONTRACT NO. 62U83		
	ILLINOIS	FED. AID PROJECT		



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER

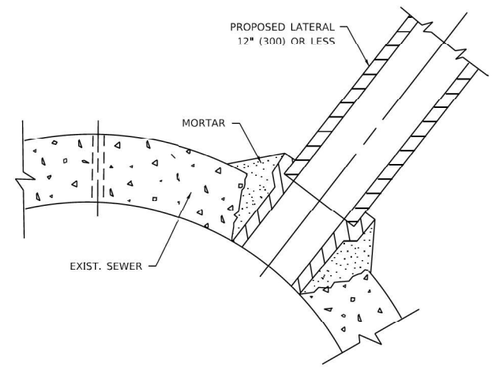


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

NOTES:

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
- A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
- B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

1. CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

2. CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

1. TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION. FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

2. REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

3. TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

4. CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

* ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = Lawrence,DeManche	DESIGNED - M. DE YONG	REVISED - R. SHAH 09-09-94
	DRAWN -	REVISED - R. SHAH 10-25-94
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. SHAH 06-12-96
PLOT DATE = 11/18/2022	DATE - 07-25-90	REVISED - K. SMITH 11-18-22

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD500-01 (BD-07)	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

GANNETT FLEMING

USER NAME = jstarzyk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.167 ' / In.	CHECKED -	REVISED -
PLOT DATE = 3/20/2024	DATE - 3/20/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 20: GRACE STREET TO SHALES
DISTRICT ONE STANDARDS

SCALE: NTS | SHEET 1 OF 16 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345 23 BRIDGE	COOK/KANE	379	299
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			

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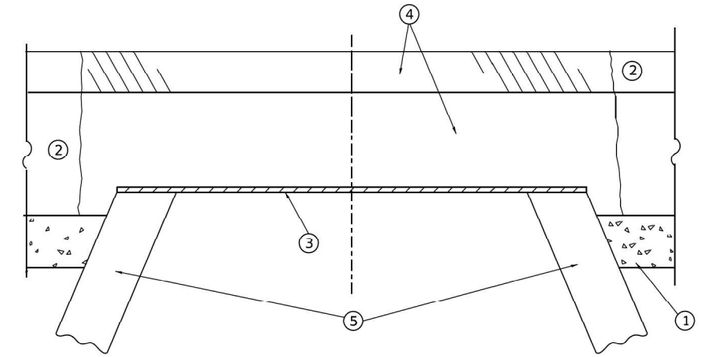

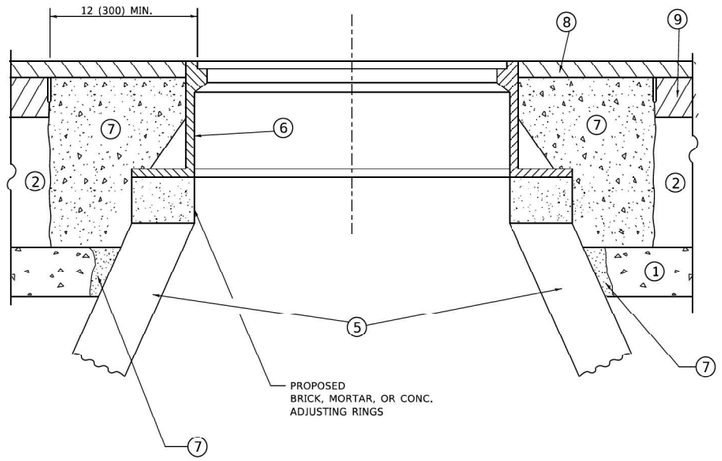

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

NOTES

1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

2. IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

3. CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

5. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.

B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.

C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.

D) BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.

B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.

C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. 36 (900) DIAMETER METAL PLATE
4. PROPOSED CRUSHED STONE AND HMA SURFACE MIX
5. EXISTING STRUCTURE
6. FRAME AND LID (SEE NOTES)
7. CLASS PP-2* CONCRETE
8. PROPOSED HMA SURFACE COURSE
9. PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT

1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - R. BORO 12-06-11	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - K. SMITH 11-18-22	
PLOT DATE = 9/15/2023	DATE - 10-25-94	REVISED - K. SMITH 09-15-23	

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD600-03 (BD-08)	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

USER NAME = Jstarzyk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = 0.167 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2024	DATE - 3/20/2024	REVISED -	

US 20: GRACE STREET TO SHALES
DISTRICT ONE STANDARDS

SCALE: NTS | SHEET 2 OF 16 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	FAP 345 23 BRIDGE	COOK/KANE	379	300
		CONTRACT NO. 62U83		
	ILLINOIS FED. AID PROJECT			

GANNETT FLEMING

MODEL: Default
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