

CONSTRUCTION CODE

80% FED / 20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	S.N. 016-1006	S.N. 016-2454	S.N. 016-2456	S.N. 016-0985	S.N. 016-0987	S.N. 016-0487	S.N. 016-0489	S.N. 016-2408	SAFETY	S.N. 016-0671	S.N. 016-1197	SIGN STRUCTURES	TRAINEES	DRAINAGE		
				0004	0014	0014	0014	0014	0014	0014	0014	0014	0014	0014	0021	0040	0040	0040	0042	0044
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
50157300	PROTECTIVE SHIELD	SO YD	15100			1772	6855	2104		2359	330	1680								
50200100	STRUCTURE EXCAVATION	CU YD	1398			103	69	141		806	279									
50300100	FLOOR DRAINS	EACH	98					40		54	4									
50300225	CONCRETE STRUCTURES	CU YD	628.5			49.0	58.6	75.2		334.0	111.7									
50300255	CONCRETE SUPERSTRUCTURE	CU YD	5543.4 [△]			702.8	2226.8	817.9 [△]	15.1	1259.0 [△]	506.7	15.1								
50300260	BRIDGE DECK GROOVING	SO YD	15938			2116	6520	2354		3674	1274									
50300280	CONCRETE ENCASEMENT	CU YD	5.6					1.4		2.8	1.4									
50300300	PROTECTIVE COAT	SO YD	27690 [△]			1926	2565	8476	3001 [△]	3225	4641 [△]	1514	2342							
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1					0.30	0.30		0.35	0.05								
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	6840							6780		60								
50500505	STUD SHEAR CONNECTORS	EACH	42012			1642	13587	8856		12176	5751									
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,428,550 [△]			189680	556330	203580 [△]	1100	354860 [△]	120570	2430								
50800515	BAR SPLICERS	EACH	195			57		41		97										
50800530	MECHANICAL SPLICERS	EACH	36					36												

* SPECIALTY ITEM

Rev. 10-22-15

CONSTRUCTION CODE

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	S.N. 016-1006	S.N. 016-2454	S.N. 016-2456	S.N. 016-0985	S.N. 016-0987	S.N. 016-0487	S.N. 016-0489	S.N. 016-2408	SAFETY	S.N. 016-0671	S.N. 016-1197	SIGN STRUCTURES	TRAINEES	DRAINAGE		
				0004	0014	0014	0014	0014	0014	0014	0014	0014	0014	0014	0021	0040	0040	0040	0042	0044
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
K1005863	TREE ROOT PRUNING	EACH	15	15																
Z0000300	ADJUST ROCKER AND SOLE PLATE	EACH	8								8									
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	7				4	3												
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	68200			10140	16570	3670	16290	21530										
Z0001905	STRUCTURAL STEEL REPAIR	POUND	71840		3580	4700	51680		2000	3230	6460	190								
Z0004552	APPROACH SLAB REMOVAL	SO YD	887	887																
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1																	
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1																	
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1																	
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1																	
Z0007105	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1																	
Z0010400	CLEANING BRIDGE SEATS	SO FT	5238			854	1972	440		1448	524									
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	2912		153	318	1133	323	239	282	59	393		9	3					
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	591		31	64	227	65	50	57	12	85								

△

△ Rev. 10-22-15

14 * SPECIALTY ITEM

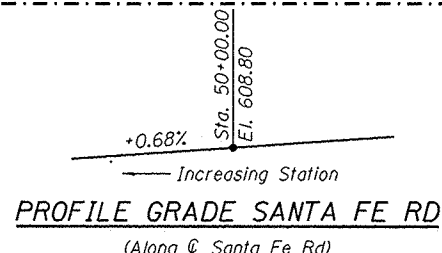
GENERAL NOTES

- All new fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the exposed faces of the reconstructed backwall and widened portions of the north abutment.
- The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel. Only Inorganic Zinc Rich Primer shall be applied to the new structural steel in the shop under this contract and is included in "Structural Steel Repair". The intermediate and top coats shall be applied under a separate painting contract.
- The existing structural steel coating contains lead. The Contractor shall take all precautions to deal with the presence of lead on this project.
- Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

13. The top of top flange of the existing structural steel is anticipated to have been painted. Areas of the top flange to receive stud shear connectors shall be cleaned as per the requirements for Primary Connections. See Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". Cost included with Stud Shear Connectors.



INDEX OF SHEETS

SB1	General Plan and Elevation
SB2	General Notes, Bill of Material, and Index of Sheets
SB3	Details
SB4-SB5	Stage Construction Details
SB6	Temporary Concrete Barrier for Stage Construction
SB7-SB11	Top of Slab Elevations
SB12	Top of Approach Slab Elevations
SB13-SB15	Superstructure
SB16-SB17	Superstructure Details
SB18	Concrete Parapet Slip Forming Option
SB19-SB20	Bridge Approach Slab Details
SB21	Preformed Joint Strip Seal
SB22	Drainage Scupper, DS-11
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SB26	Framing Plan
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SB28	North Abutment Concrete Removal and Repair Details
SB29-SB31	North Abutment Modification Details
SB32-SB33	Pier Concrete Repair and Drainage System removal Details
SB34	Bar Splicer Assembly Details

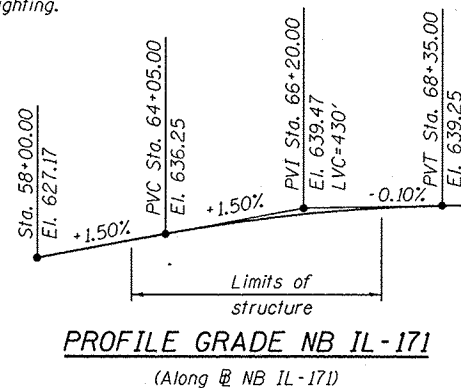
For Existing Bridge Plans, see Sheets SBX1 thru SBX14 immediately following Sheet SB34.

SCOPE OF WORK

- Remove existing concrete deck and microsilica concrete overlay and replace with new 8" reinforced concrete deck.
- Make new deck composite in positive moment areas only by adding shear studs to all girders and beams where not already installed.
- Remove and replace existing expansion joints.
- Remove and replace approach slab.
- Remove and replace backwall.
- Repair spalls, delaminations and open cracks in substructures using structural repair of concrete and epoxy crack injection as shown.
- Repair slopewall using epoxy crack injection as shown.
- Modify wingwalls and slopewall as shown for the new deck width.
- Retrofit steel superstructure fatigue prone details at cover plates as shown.
- Remove all bottom wind bracing lateral angles.
- Remove wind bracing gusset plates where shown.
- Remove and dispose of existing electrical conduits and junction boxes attached to the beams and/or deck.
- Remove and replace the existing closed drainage system at Pier 35.
- Remove the existing closed drainage systems at Piers 36 and 37.
- Perform miscellaneous repairs including repairing unseated anchor bolts, and removing debris and vegetation at slopewalls.
- Remove and replace existing roadway lighting. See electrical plans for cost.

CURVE DATA - @ RAMP J

P.I. Sta. = 116+72.53
 Δ = 11°05'22" (RT)
 D = 3°41'47"
 R = 1,550.00'
 L = 300.00'
 T = 150.47'
 E = 7.2865'
 P.C. Sta. = 115+22.06
 P.T. Sta. = 118+22.06
 S.E. = 3.9%



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		21.6	21.6
Removal of Existing Concrete Deck No. 1	Each	1		1
Protective Shield	Sq. Yd.	1,772		1,772
Structure Excavation	Cu. Yd.		103	103
Concrete Structures	Cu. Yd.		49.0	49.0
Concrete Superstructure	Cu. Yd.	702.8		702.8
Bridge Deck Grooving	Sq. Yd.	2,116		2,116
Protective Coat	Sq. Yd.	2,565		2,565
Stud Shear Connectors	Each	1,642		1,642
Reinforcement Bars, Epoxy Coated	Pound	185,110	4,570	189,680
Bar Splicers	Each	57		57
Slope Wall 4 Inch	Sq. Yd.		20	20
Name Plates	Each		1	1
Preformed Joint Strip Seal	Foot	168.0		168.0
Concrete Sealer	Sq. Yd.		299	299
Epoxy Crack Injection	Foot		72	72
Geocomposite Wall Drain	Sq. Yd.		44	44
Remove Conduit Attached to Structure	Foot	756		756
Granular Backfill for Structures	Cu. Yd.		103	103
Structural Steel Removal	Pound	10,140		10,140
Structural Steel Repair	Pound	4,700		4,700
Cleaning Bridge Seats	Sq. Ft.		854	854
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		318	318
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.		64	64
Drainage Scuppers, DS-11	Each		2	2
Drainage Scuppers, DS-33	Each	2		3
Drainage System	L. Sum	3		1
Pipe Underdrains for Structures 4"	Foot		64	64
Selective Clearing	Unit		1	1
Temporary Shoring and Cribbing	Each		3	3

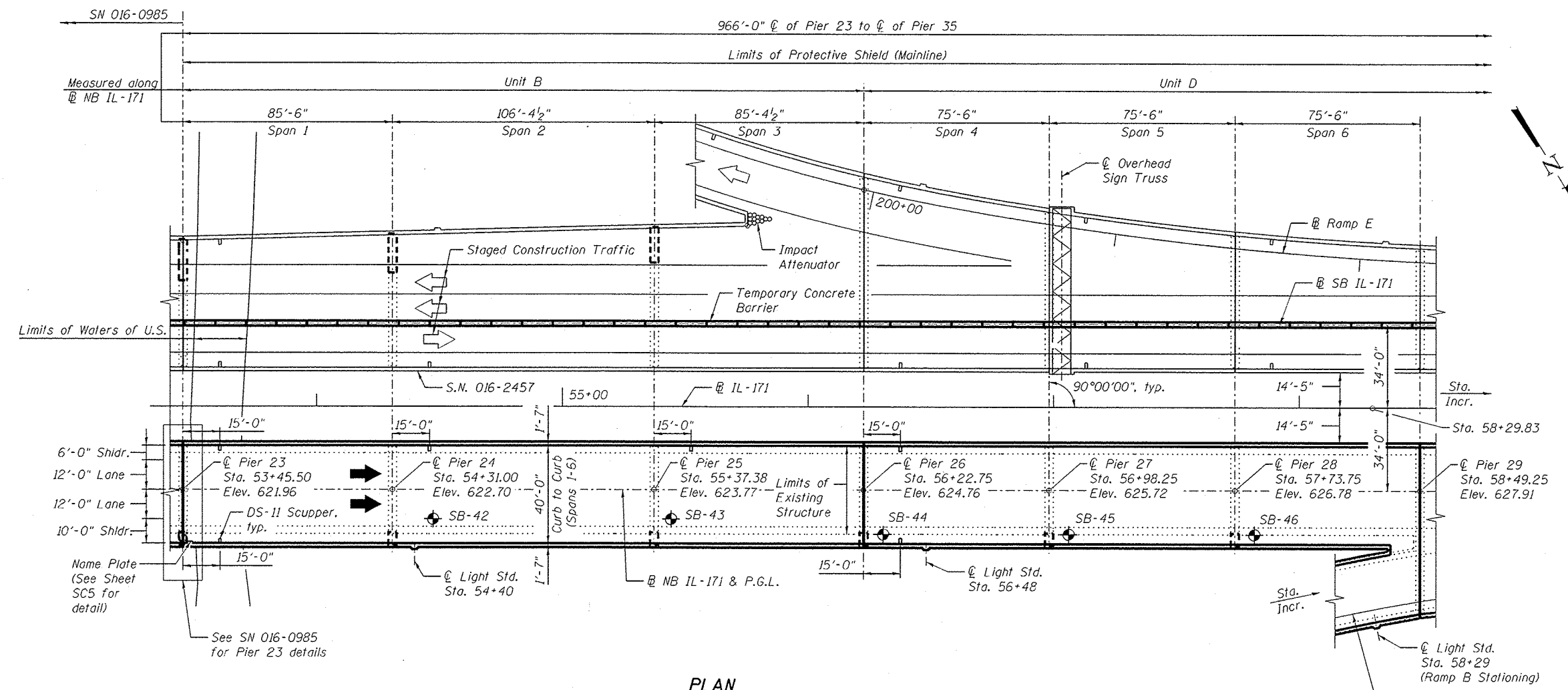
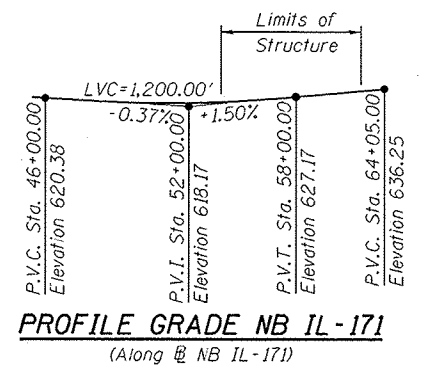
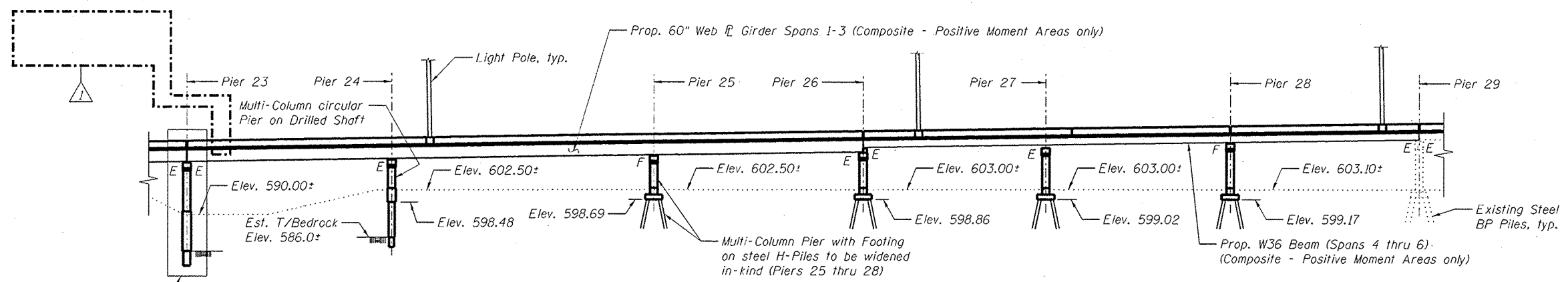
* Quantity includes a contingency (above the amounts shown in the bills of material) to account for uncertainties associated with the condition of the existing substructure and the age of the original inspection (2008-09). Actual repair areas will be determined by the Engineer in the field.

** The quantity for this work is estimated. The intent for this work is to remove accumulations of rubbish, vegetation, etc., on the existing slopewall. See special provisions.

STATION 65+07.40
 RE-BUILT 201_ BY
 STATE OF ILLINOIS
 F.A.P. RT. 372
 SEC. 2013-037B-R
 LOADING HS20
 STR. NO. 016-2454

NAME PLATE
 (See Std. 515001)

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



GENERAL PLAN AND ELEVATION
UNITS B & D
NB IL-171 OVER DES PLAINES RIVER VALLEY
FAP 372 - SECTION 2013-037B-R
COOK COUNTY
STATION 58+29.83
STRUCTURE NO. 016-2456

NOTE:
All elevations in the proposed plans are based on NAVD88 Datum. Elevations in the existing plans are based on the NGVD29 Datum. NGVD29 Elev. 584.50 = NAVD88 Elev. 584.22.

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engineers · scientists · planners

Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10093

FILE NAME = 0162456_60W75_002_gpe.dgn	USER NAME = jsurber	DESIGNED - JLS	REVISED - 10/21/2015 JLS
		CHECKED - AJK	REVISED -
	PLOT SCALE =	DRAWN - PRT/JDC	REVISED -
	PLOT DATE = 10/19/2015	CHECKED - AJK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. SC2 OF SC96 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-037B-R	COOK	787	314
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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GENERAL NOTES

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" dia., holes 15/16" dia., unless otherwise noted.
- Calculated weight of structural steel =
M270 Grade 36: 20,280 lbs.
M270 Grade 50: 87,210 lbs.
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant(PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" (0.01). Adjustment shall be made either by grinding the surface or shimming the bearings.
- Concrete sealer shall be applied to the designated areas of Pier 26 and the new bearing seat at Pier 29.
- The existing structural steel coating contains lead. The Contractor shall take all precautions to deal with the presence of lead on this project.
- The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel and the steel portions of new elastomeric bearings. Only Inorganic Zinc Rich Primer shall be applied to the new structural steel and the steel portions of the new elastomeric bearings in the shop under this contract and is included in the respective steel or bearing pay items. The intermediate and top coats shall be applied under a separate painting contract.
- Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

14. The top of top flange of the existing structural steel is anticipated to have been painted. Areas of the top flange to receive stud shear connectors shall be cleaned as per the requirements for Primary Connections. See Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". Cost included with Stud Shear Connectors.

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TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Concrete Deck No. 2	Each	1		1
Protective Shield	Sq Yd	6,855		6,855
Structure Excavation	Cu Yd		69	69
Concrete Structures	Cu Yd		58.6	58.6
Concrete Superstructure	Cu Yd	2,226.8		2,226.8
Bridge Deck Grooving	Sq Yd	6,520		6,520
Protective Coat	Sq Yd	8,476		8,476
Furnishing and Erecting Structural Steel	L Sum	0.30		0.30
Stud Shear Connectors	Each	13,587		13,587
Reinforcement Bars, Epoxy Coated	Pound	546,390	9,940	556,330
Furnishing Steel Piles HP14x73	Foot		281	281
Driving Piles	Foot		281	281
Test Pile Steel HP14x73	Each		2	2
Pile Shoes	Each		8	8
Name Plates	Each	1		1
Permanent Casing	Foot		13	13
Drilled Shaft in Soil	Cu Yd		2.3	2.3
Drilled Shaft in Rock	Cu Yd		0.5	0.5
Preformed Joint Strip Seal	Foot	233.5		233.5
Finger Plate Expansion Joint, 4"	Foot	40.0		40.0
Fabric Reinforced Elastomeric Trough	Foot	40.0		40.0
Elastomeric Bearing Assembly, Type I	Each	4		4
Elastomeric Bearing Assembly, Type II	Each	6		6
Anchor Bolts, 3/4"	Each	18		18
Anchor Bolts, 1"	Each	6		6
Concrete Sealer	Sq Ft		257	257
Jack and Remove Existing Bearings	Each	4		4
Structural Steel Removal	Pound	16,570		16,570
Structural Steel Repair	Pound	51,680		51,680
Cleaning Bridge Seats	Sq Ft		1,972	1,972
* Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft		1,133	1,133
* Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft		227	227
Drainage Scuppers, DS-II	Each	16		16
Temporary Shoring and Cribbing	Each		6	6
Temporary Support System	Each	4		4
Remove Conduit Attached to Structure	Foot	4,407		4,407

* Quantity includes a contingency (above the amounts shown in the bills of material) to account for uncertainties associated with the condition of the existing substructure and the age of the original inspection (2008-2009). Actual repair areas will be determined by the Engineer in the field.

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- SC82 Piers 56 and 57 Concrete Repair Details
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- SC96 Soil Boring Logs - Pier 28

For existing bridge plans, see Sheets SCX1 thru SCX33, immediately following Sheet SC96.

STATION 58+29.83
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 372
SEC. 2013-037B-R
LOADING HS20
STR. NO. 016-2456

NB NAME PLATE
(See Std. 515001)

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



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Chicago, Illinois 60601
312-565-0450 Job No. 10093

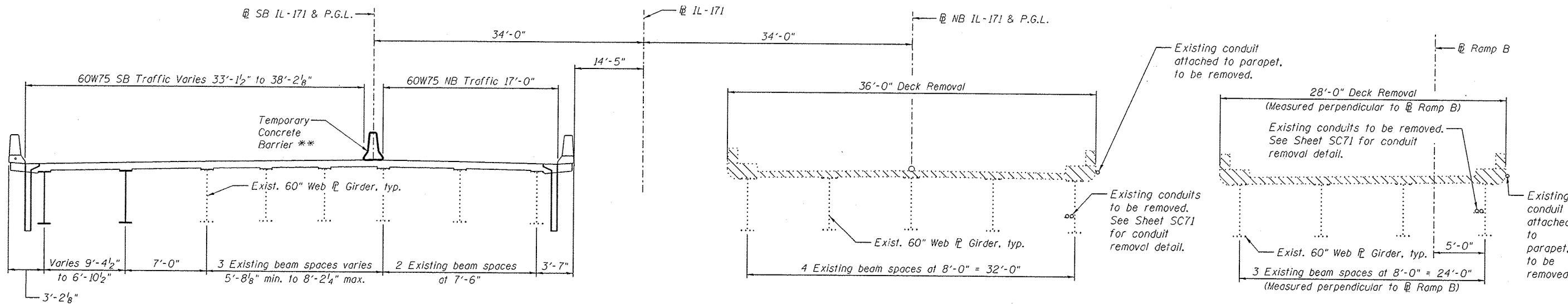
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-2456

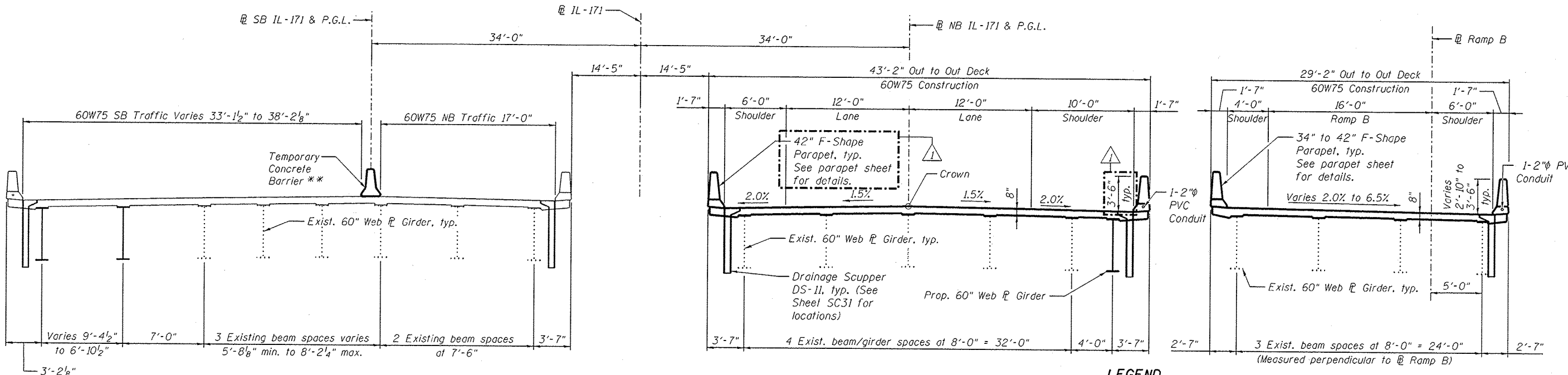
SHEET NO. SC5 OF SC96 SHEETS

F.A.P. RTE. 372	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 317
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	



CONTRACT 60W75 REMOVAL

(From Pier 23 to Pier 25, Mainline;
From Pier 55 to Pier 57, Ramp B)
(Looking North, Upstation @ IL-171)



CONTRACT 60W75 CONSTRUCTION

(From Pier 23 to Pier 25, Mainline;
From Pier 55 to Pier 57, Ramp B)
(Looking North, Upstation @ IL-171)

LEGEND

Indicates Removal of Existing Concrete Deck No. 2.

NOTES:

- Barrier widths are measured perpendicular from the edge of deck. Overhang widths are measured perpendicular from the fascia girders. Girder spacings are measured perpendicular from the east girder to the west girder at the centerline of bearing. All remaining deck dimensions are measured perpendicular to the IL-171 baseline shown unless noted otherwise.
- Do not anchor Temp. Concrete Barrier to existing deck.

** See Sheet SC12 and maintenance of traffic sheets for more information.

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FILE NAME :	USER NAME :	DESIGNED :	REVISIONS :
0162456.60W75.007_staging1.dgn	jwurber	JDC	10/21/2015 JLS
		CHECKED :	REVISIONS :
		JLS	
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		PRT/JDC	
		CHECKED :	REVISIONS :
		JLS	

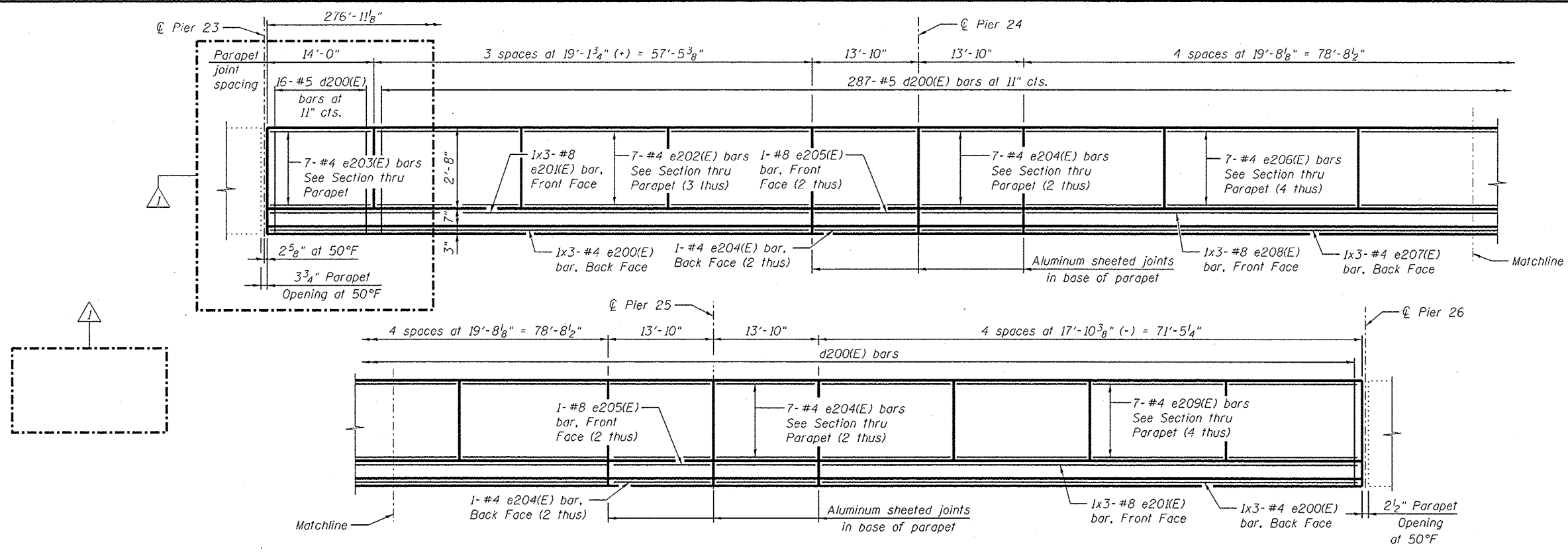
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS SPANS 1 AND 2
STRUCTURE NO. 016-2456**

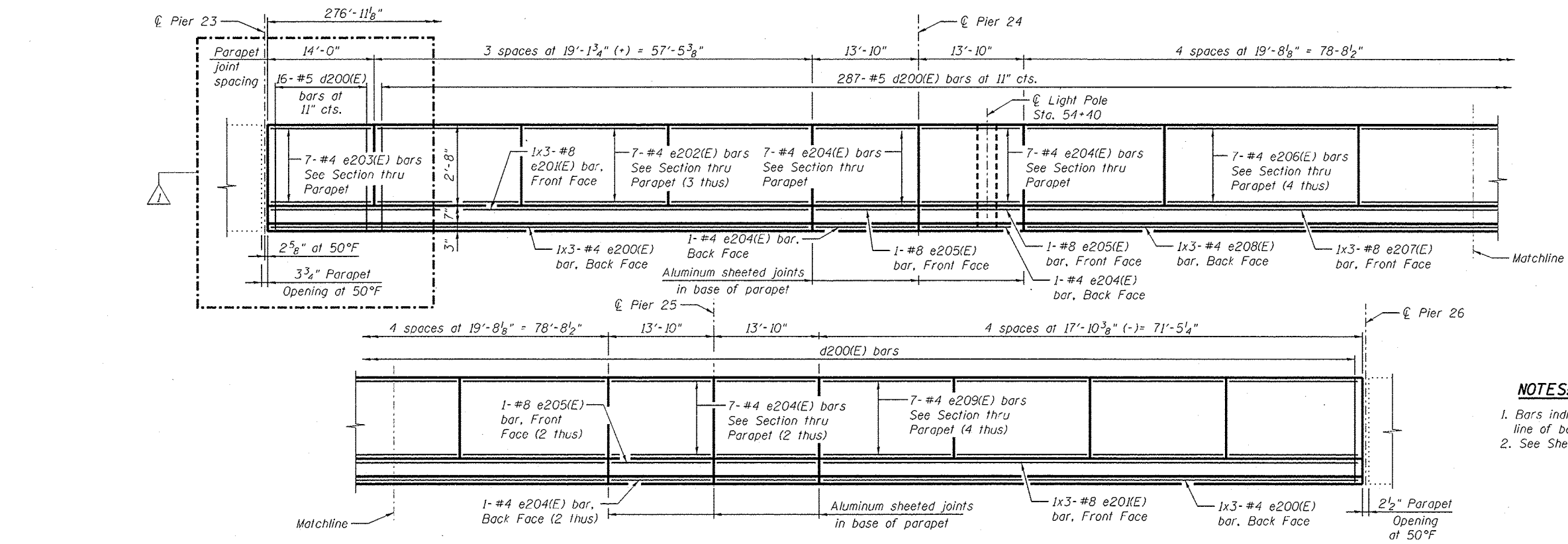
SHEET NO. SC7 OF SC96 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-037B-R	COOK	787	319
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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INSIDE ELEVATION OF NB IL-171 WEST PARAPET



INSIDE ELEVATION OF NB IL-171 EAST PARAPET
(Reflected View Shown)

MINIMUM BAR LAP

(Parapet)
 #4 bar = 2'-0"
 #8 bar = 5'-2"

NOTES:

1. Bars indicated thus 1x3-#8 etc., indicates 1 line of bars with 3 lengths per line.
2. See Sheet SC44 for Section Thru Parapet.

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PLD DATE = 10/19/2015		DRAWN - PRT/JDC	REVISED -
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





STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION UNIT B
STRUCTURE NO. 016-2456
 SHEET NO. SC40 OF SC96 SHEETS










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CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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















UNIT B BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	875	#5	42'-6"	
a201(E)	512	#6	6'-6"	
a202(E)	4	#6	42'-6"	
a203(E)	12	#6	8'-1"	
a204(E)	3	#6	4'-1"	
a205(E)	1	#6	35'-9"	
a206(E)	32	#5	1'-6"	
a207(E)	7	#6	7'-6"	
b200(E)	368	#5	37'-6"	
b201(E)	342	#5	33'-8"	
b202(E)	86	#6	53'-0"	
d200(E)	606	#5	6'-10"	
d201(E)	606	#5	8'-3"	
d202(E)	3	#6	5'-1"	
d203(E)	6	#6	8'-11"	
e200(E)	12	#4	25'-1"	
e201(E)	12	#8	27'-3"	
e202(E)	42	#4	18'-10"	
e203(E)	14	#4	13'-8"	
e204(E)	64	#4	13'-6"	
e205(E)	8	#8	13'-6"	
e206(E)	56	#4	19'-4"	
e207(E)	6	#4	27'-7"	
e208(E)	6	#8	29'-7"	
e209(E)	56	#4	17'-6"	
x200(E)	32	#5	6'-2"	
Concrete Superstructure	Cu. Yd.	392.2		
Reinforcement Bars, Epoxy Coated	Pound	92,040		








UNIT B RAMP B BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	792	#6	6'-6"	
a206(E)	16	#5	1'-6"	
a214(E)	1313	#5	28'-6"	
a260(E)	19	#5	29'-4"	
a261(E)	13	#5	30'-6"	
a262(E)	11	#5	28'-3"	
a263(E)	7	#5	31'-4"	
a264(E)	1	#6	25'-2"	
a265(E)	4	#6	30'-8"	
a266(E)	6	#6	8'-7"	
a267(E)	3	#6	7'-7"	
a268(E)	1	#5	36'-3"	
b260(E)	320	#5	46'-5"	
b261(E)	297	#5	42'-6"	
b262(E)	87	#6	26'-8"	
b263(E)	87	#6	23'-4"	
b264(E)	87	#6	22'-3"	
d200(E)	887	#5	6'-10"	
d201(E)	924	#5	8'-3"	
d202(E)	9	#6	5'-1"	
d203(E)	18	#6	8'-11"	
d205(E)	37	#5	6'-10"	
d206(E)	16	#5	5'-7"	
d207(E)	16	#5	7'-1"	
e203(E)	14	#4	13'-8"	
e257(E)	32	#4	15'-4"	
e260(E)	112	#4	18'-3"	
e261(E)	6	#4	30'-10"	
e262(E)	6	#8	32'-11"	
e263(E)	60	#4	17'-10"	
e264(E)	4	#8	17'-10"	
e265(E)	35	#4	19'-2"	
e266(E)	6	#4	33'-11"	
e267(E)	6	#8	36'-0"	
e268(E)	32	#4	16'-5"	
e269(E)	4	#8	16'-5"	
e270(E)	3	#8	27'-9"	
e271(E)	6	#4	26'-2"	
e272(E)	6	#8	28'-3"	
e273(E)	4	#8	15'-4"	
e274(E)	3	#4	22'-7"	
e275(E)	3	#8	24'-8"	
e277(E)	28	#4	19'-7"	
e278(E)	28	#4	15'-7"	
e279(E)	7	#4	17'-5"	
e282(E)	3	#4	25'-8"	
x200(E)	21	#5	6'-2"	
Concrete Superstructure	Cu. Yd.	454.7		
Reinforcement Bars, Epoxy Coated	Pound	109,040		






UNIT D SPANS 4-6 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	713	#5	42'-6"	
a201(E)	518	#6	6'-6"	
a202(E)	4	#6	42'-6"	
a203(E)	24	#6	8'-1"	
a204(E)	6	#6	4'-1"	
a205(E)	1	#6	35'-9"	
a206(E)	24	#5	1'-6"	
a210(E)	10	#6	37'-6"	
a211(E)	3	#5	4'-7"	
a212(E)	9	#5	5'-11"	
a213(E)	3	#5	5'-7"	
a214(E)	202	#5	28'-6"	
a215(E)	5	#5	31'-3"	
a216(E)	4	#5	30'-8"	
a217(E)	2	#5	35'-2"	
a218(E)	2	#5	32'-10"	
a219(E)	32	#5	21'-4"	
a220(E)	4	#5	29'-11"	
a221(E)	1	#5	24'-6"	
a222(E)	9	#5	5'-11"	
a223(E)	3	#5	6'-3"	
b210(E)	230	#5	47'-10"	
b211(E)	228	#5	40'-5"	
b212(E)	86	#6	47'-0"	
b213(E)	2	#5	12'-8"	
b214(E)	64	#5	41'-3"	
b215(E)	78	#5	28'-6"	
b245(E)	2	#4	36'-4"	
d200(E)	641	#5	6'-10"	
d201(E)	641	#5	8'-3"	
d202(E)	6	#6	5'-1"	
d203(E)	12	#6	8'-11"	
d204(E)	3	#5	11'-6"	
d208(E)	36	#4	3'-5"	
e202(E)	3	#4	18'-10"	
e203(E)	14	#4	13'-8"	
e209(E)	42	#4	17'-6"	
e215(E)	84	#4	15'-9"	
e216(E)	9	#4	22'-10"	
e217(E)	9	#8	25'-0"	
e218(E)	64	#4	10'-8"	
e219(E)	8	#8	10'-8"	
e220(E)	7	#4	27'-9"	
e221(E)	4	#8	29'-4"	
e222(E)	21	#4	17'-1"	
e223(E)	3	#8	20'-11"	
e224(E)	5	#6	11'-1"	
e225(E)	5	#6	9'-4"	
e253(E)	21	#4	16'-8"	
e272(E)	3	#8	29'-10"	
e280(E)	28	#4	16'-4"	
e281(E)	3	#4	23'-7"	
e282(E)	3	#8	25'-8"	
x200(E)	105	#5	6'-2"	
Concrete Superstructure	Cu. Yd.	410.1		
Reinforcement Bars, Epoxy Coated	Pound	93,630		










UNIT D SPAN 7 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a201(E)	142	#6	6'-6"	
a206(E)	16	#5	1'-6"	
a210(E)	10	#6	37'-6"	
a230(E)	133	#5	32'-11"	
a231(E)	47	#5	41'-3"	
a232(E)	86	#5	38'-2"	
a233(E)	107	#5	29'-8"	
a234(E)	38	#5	45'-2"	
a235(E)	69	#5	42'-2"	
a236(E)	10	#6	33'-3"	
a237(E)	30	#5	6'-1"	
a238(E)	18	#6	8'-5"	
a239(E)	6	#5	4'-4"	
b200(E)	148	#5	39'-7"	
b201(E)	59	#5	45'-7"	
b230(E)	59	#5	33'-7"	
b245(E)	8	#4	36'-4"	
d200(E)	167	#5	6'-10"	
d201(E)	167	#5	8'-3"	
d208(E)	142	#4	3'-5"	
e213(E)	3	#4	26'-6"	
e214(E)	3	#8	28'-7"	
e230(E)	28	#4	18'-6"	
e231(E)	28	#4	18'-7"	
e232(E)	3	#4	26'-8"	
e233(E)	3	#8	28'-9"	
x200(E)	106	#5	6'-2"	
Concrete Superstructure	Cu. Yd.	164.2		
Reinforcement Bars, Epoxy Coated	Pound	37,140		

UNIT D RAMP B SPAN 5B BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a201(E)	120	#6	6'-6"	
a206(E)	8	#5	1'-6"	
a214(E)	193	#5	28'-6"	
a280(E)	7	#5	32'-4"	
a281(E)	6	#5	30'-3"	
a282(E)	5	#5	31'-11"	
a283(E)	4	#5	31'-3"	
a284(E)	1	#5	24'-2"	
a285(E)	4	#5	29'-7"	
a286(E)	18	#5	6'-2"	
a287(E)	3	#5	5'-7"	
a288(E)	1	#5	25'-2"	
a289(E)	4	#5	30'-9"	
a290(E)	3	#5	6'-8"	
b215(E)	78	#5	28'-6"	
b216(E)	64	#5	41'-1"	
d200(E)	174	#5	6'-10"	
d201(E)	174	#5	8'-3"	
e206(E)	28	#4	19'-4"	
e208(E)	6	#8	29'-10"	
e220(E)	6	#4	27'-9"	
e283(E)	28	#4	19'-5"	
x200(E)	40	#5	6'-2"	
Concrete Superstructure	Cu. Yd.	87.8		
Reinforcement Bars, Epoxy Coated	Pound	17,480		

UNIT E BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a201(E)	771	#6	6'-6"	
a206(E)	24	#5	1'-6"	
a235(E)	661	#5	42'-2"	
a236(E)	10	#6	33'-3"	
a240(E)	762	#5	23'-4"	
a241(E)	409	#5	38'-8"	
a242(E)	5	#5	54'-8"	
a243(E)	575	#5	19'-10"	
a244(E)	267	#5	45'-8"	
a245(E)	4	#5	49'-9"	
a246(E)	10	#5	29'-2"	
a247(E)	24	#5	7'-3"	
a248(E)	9	#6	9'-1"	
a249(E)	9	#5	6'-5"	
b240(E)	585	#5	46'-1"	
b241(E)	610	#5	41'-11"	
b242(E)	372	#6	22'-11"	
b243(E)	372	#6	18'-11"	
b244(E)	4	#4	30'-10"	
b245(E)	4	#4	36'-4"	
d200(E)	843	#5	6'-10"	
d201(E)	843	#5	8'-3"	
d202(E)	6	#6	5'-1"	
d203(E)	12	#6	8'-11"	
d208(E)	129	#4	3'-5"	
e240(E)	56	#4	16'-1"	
e241(E)	6	#4	23'-4"	
e242(E)	6	#8	25'-5"	
e243(E)	64	#4	11'-5"	
e244(E)	8	#8	11'-5"	
e245(E)	63	#4	18'-1"	
e246(E)	8	#4	28'-8"	
e247(E)	8	#8	30'-3"	
e248(E)	64	#4	9'-8"	
e249(E)	8	#8	9'-8"	
e250(E)	56	#4	18'-8"	
e251(E)	4	#4	29'-6"	
e252(E)	1	#8	31'-2"	
e253(E)	35	#4	16'-7"	
e254(E)	3	#4	24'-0"	
e255(E)	3	#8	26'-2"	
e256(E)	7	#4	15'-0"	
e257(E)	21	#4	15'-4"	
e258(E)	3	#4	22'-3"	
e259(E)	3	#8	24'-4"	
x200(E)	110	#5	6'-2"	
Concrete Superstructure	Cu. Yd.	717.8		
Reinforcement Bars, Epoxy Coated	Pound	197,060		

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	PRT	JLS	
DATE :	CHECKED :	REVISIONS :	
10/19/2015	JLS		

GENERAL NOTES

- For new structural steel elements, fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" φ, holes 15/16" φ, unless otherwise noted.
- Calculated weight of Structural Steel =
 M 270 Grade 36: 5,800 lbs
 M 270 Grade 50: 115,960 lbs

- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.

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

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

6. 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.

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

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

9. Concrete Sealer shall be applied to the designated areas of the South Abutment and Pier 23.

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

11. The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel and the steel portions of new elastomeric bearings. Only Inorganic Zinc Rich Primer shall be applied to the new structural steel and the steel portions of the new elastomeric bearings in the shop under this contract and is included in the respective steel or bearing pay items. The intermediate and top coats shall be applied under a separate painting contract.

12. Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

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

14. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

15. The top of top flange of the existing structural steel is anticipated to have been painted. Areas of the top flange to receive stud shear connectors shall be cleaned as per the requirements for Primary Connections. See Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". Cost included with Stud Shear Connectors.

INDEX OF SHEETS

- SD1 General Plan and Elevation
- SD2 General Notes, Index of Sheets and Total Bill of Material
- SD3 Foundation Layout
- SD4 Stage Construction Details
- SD5 Temporary Concrete Barrier for Stage Construction
- SD6 Top of Slab Elevations Plan
- SD7 Top of Slab Elevations (1 of 3)
- SD8 Top of Slab Elevations (2 of 3)
- SD9 Top of Slab Elevations (3 of 3)
- SD10 Top of South Approach Slab Elevations
- SD11 Deck Reinforcement Plan
- SD12 Deck Cross Section and Details
- SD13 Deck Drainage and Finger Plate Details
- SD14 Parapet Details
- SD15 Superstructure Details and Bill of Material
- SD16 Concrete Parapet Slipforming Option
- SD17 Bridge Approach Slab Plan
- SD18 Bridge Approach Slab Details
- SD19 Preformed Joint Strip Seal
- SD20 Scupper Details
- SD21 Framing Plan
- SD22 Steel Plate Girder Elevation & Camber Diagram
- SD23 Splice Details and Moment & Reaction Table
- SD24 Steel Plate Girder Cross Frames
- SD25 Structural Steel Removal and Repairs
- SD26 Type II Elastomeric and Girder 6 Fixed Bearing Details
- SD27 Type I Elastomeric and Girder 5 Fixed Bearing Details
- SD28 Abutment Concrete Removal and Repair Details
- SD29 Abutment Widening Details (1 of 3)
- SD30 Abutment Widening Details (2 of 3)
- SD31 Abutment Widening Details (3 of 3)
- SD32 Piers 20 and 21 Concrete Removal and Repair Details
- SD33 Piers 22 and 23 Concrete Removal and Repair Details
- SD34 Piers 20 thru 22 Widening Details
- SD35 Pier 23 Widening Details
- SD36 Piers 20-23 Bar Details
- SD37 HP Pile Details
- SD38 Bar Splicer Assembly and Mechanical Splicer Details
- SD39-SD40 Soil Boring Logs

For existing bridge plans see Sheets SDX1-SDX13 immediately following Sheet SD40.

SCOPE OF WORK

- Remove existing concrete deck and microsilica concrete overlay and replace with new 8" reinforced concrete deck.
- Make new deck composite in positive moment areas only by adding shear studs to all existing and proposed girders.
- Remove and replace existing expansion joints and drainage scuppers.
- Remove and replace existing backwall.
- Widen abutment, piers and slope wall.
- Remove and replace approach slab and wingwalls.
- Repair spalls, delaminations and open cracks in substructure using formed concrete repair and epoxy crack injection. Replace failed slope wall panels.
- Add one additional steel girder line.
- Remove wind bracing from the structure.
- Perform miscellaneous repairs including debris/vegetation removal.
- Remove and dispose of existing electrical conduits and junction boxes attached to the girders and/or deck.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yd		35.1	35.1
Slope Wall Removal	Sq Yd		20	20
Removal of Existing Concrete Deck No. 3	Each	1		1
Protective Shield	Sq Yd	2,104		2,104
Structure Excavation	Cu Yd		141	141
Floor Drains	Each	40		40
Concrete Structures	Cu Yd		75.2	75.2
Concrete Superstructure	Cu Yd	817.9		817.9
Bridge Deck Grooving	Sq Yd	2,354		2,354
Concrete Encasement	Cu Yd		1.4	1.4
Protective Coat	Sq Yd	3,001		3,001
Furnishing and Erecting Structural Steel	L Sum	0.30		0.30
Stud Shear Connectors	Each	8,856		8,856
Reinforcement Bars, Epoxy Coated	Pound	190,410	13,170	203,580
Bar Splicers	Each		41	41
Mechanical Splicers	Each		36	36
Slope Wall 6 Inch	Sq Yd		48	48
Furnishing Steel Piles HP12x53	Foot		99	99
Driving Piles	Foot		99	99
Test Pile Steel HP12x53	Each		1	1
Pile Shoes	Each		4	4
Name Plates	Each	1		1
Permanent Casing	Foot		11	11
Drilled Shaft in Soil	Cu Yd		5.9	5.9
Drilled Shaft in Rock	Cu Yd		1.6	1.6
Preformed Joint Strip Seal	Foot	42.0		42.0
Elastomeric Bearing Assembly, Type I	Each		4	4
Elastomeric Bearing Assembly, Type II	Each		2	2
Anchor Bolts, 3/4"	Each		16	16
Concrete Sealer	Sq Ft		645	645
Epoxy Crack Injection	Foot		15	15
Geocomposite Wall Drain	Sq Yd		41	41
Jack and Remove Existing Bearings	Each		3	3
Structural Steel Removal	Pound	3,670		3,670
Cleaning Bridge Seats	Sq Ft		440	440
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft		323	323
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft		65	65
Drainage Scuppers, DS-11	Each	4		4
Pipe Underdrains for Structures 4"	Foot		58	58
Selective Clearing	Unit		1	1
Temporary Shoring and Cribbing	Each		2	2
Remove Conduit Attached to Structure	Foot	1,672		1,672
Granular Backfill for Structures	Cu Yd		97	97

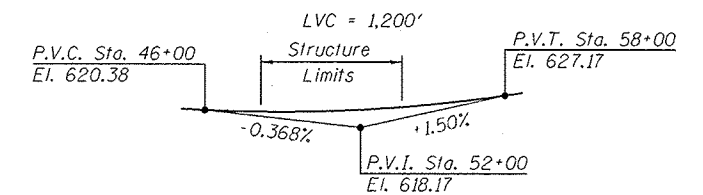
* Quantity includes a contingency (above the amounts shown in the individual bills of material) to account for uncertainties associated with the condition of the existing substructure and the age of the original inspection (2008-9). Actual repair areas will be determined by the Engineer in the field.
 ** The quantity for this item is estimated. The intent for this work is to remove accumulations of rubbish, vegetation, etc. on the existing slope wall.

STATION 50+80.50
 RE-BUILT 20__ BY
 STATE OF ILLINOIS
 F.A.P. RT. 372
 SEC. 2013-037B-R
 LOADING HS20
 STR. NO. 016-0985

NAME PLATE

See Std. 515001

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



PROFILE GRADE NB IL-171

(Along & of Roadway)



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 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10093

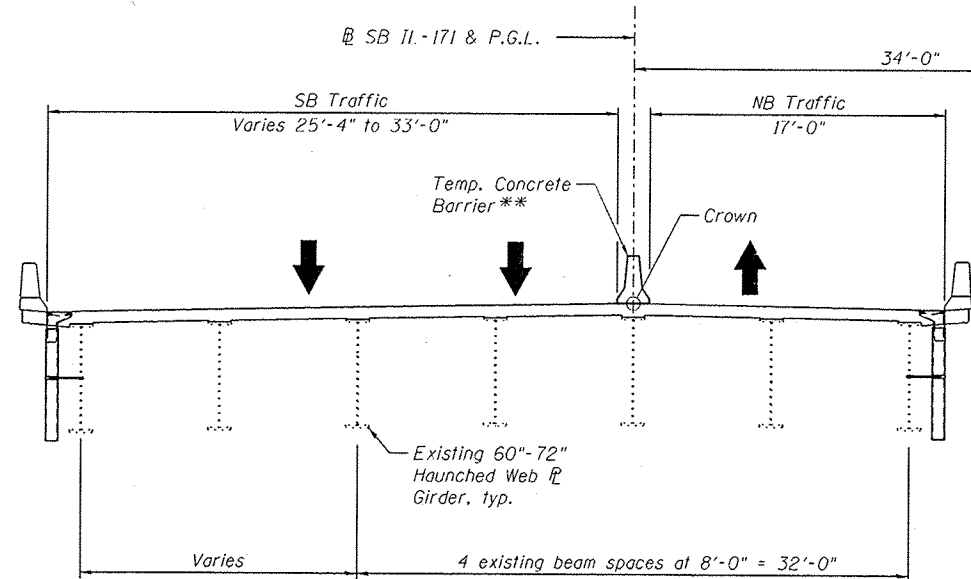
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

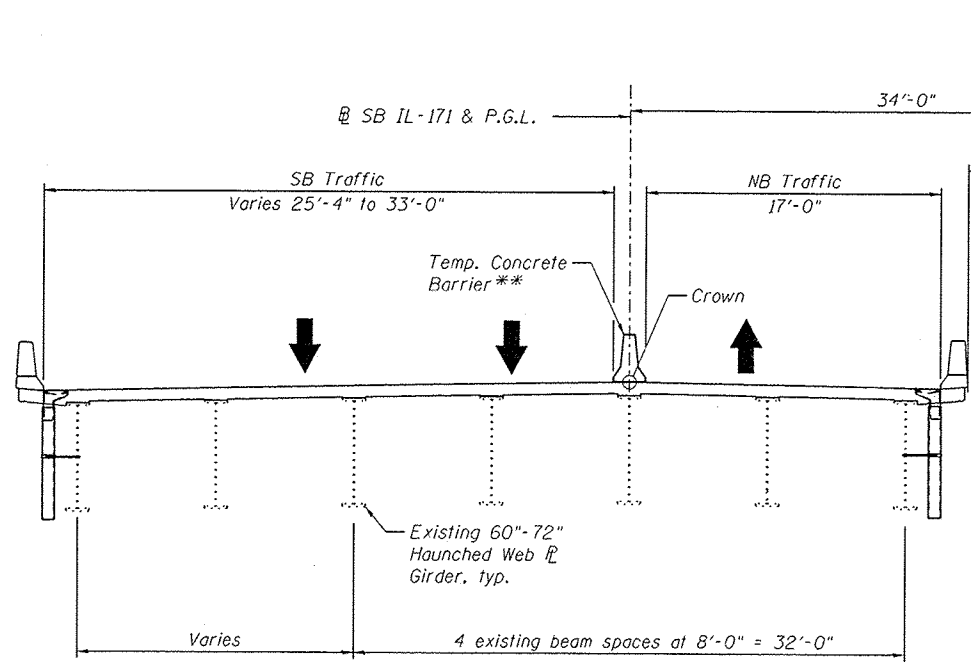
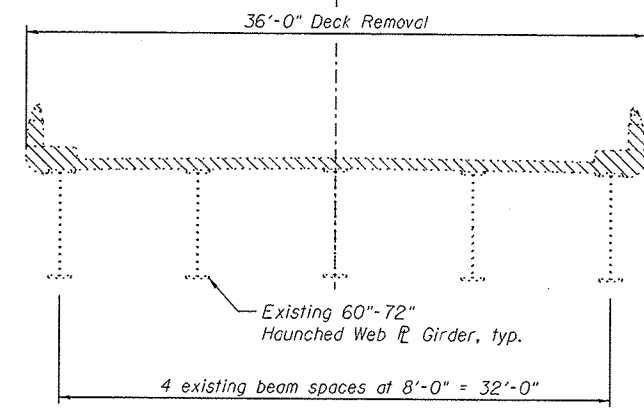
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SHEET NO. SD2 OF SD40 SHEETS

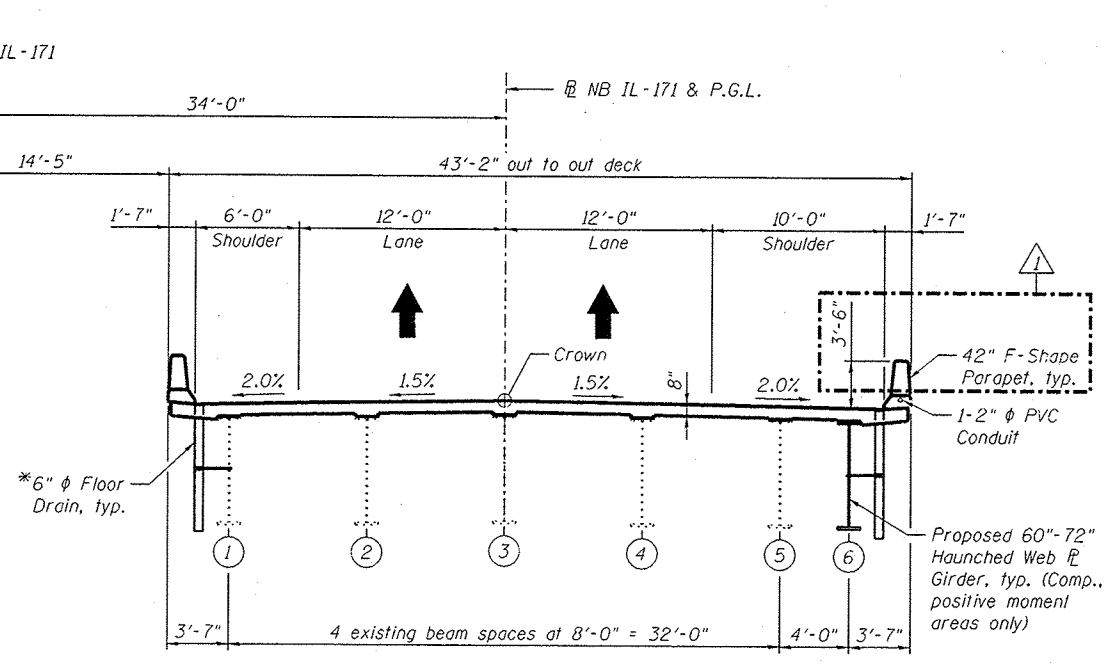
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CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	



CONTRACT 60W75 REMOVAL
(Looking Upstation/North)



CONTRACT 60W75 CONSTRUCTION
(Looking Upstation/North)



** See Sheet SD5 and maintenance of traffic sheets for more information.

* Floor drains shown, northbound drainage scuppers not shown for clarity. See Sheet SD1 for location of drainage scuppers and floor drains.

LEGEND

Indicates Removal of Existing Concrete Deck No. 3.

NOTE:

Temporary Concrete Barrier shall not be doweled into existing or proposed bridge decks.

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FILE NAME :	USER NAME :	DESIGNED -	REVISED -
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		DRAWN -	REVISED -
		RMC	
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		AJK	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-0985

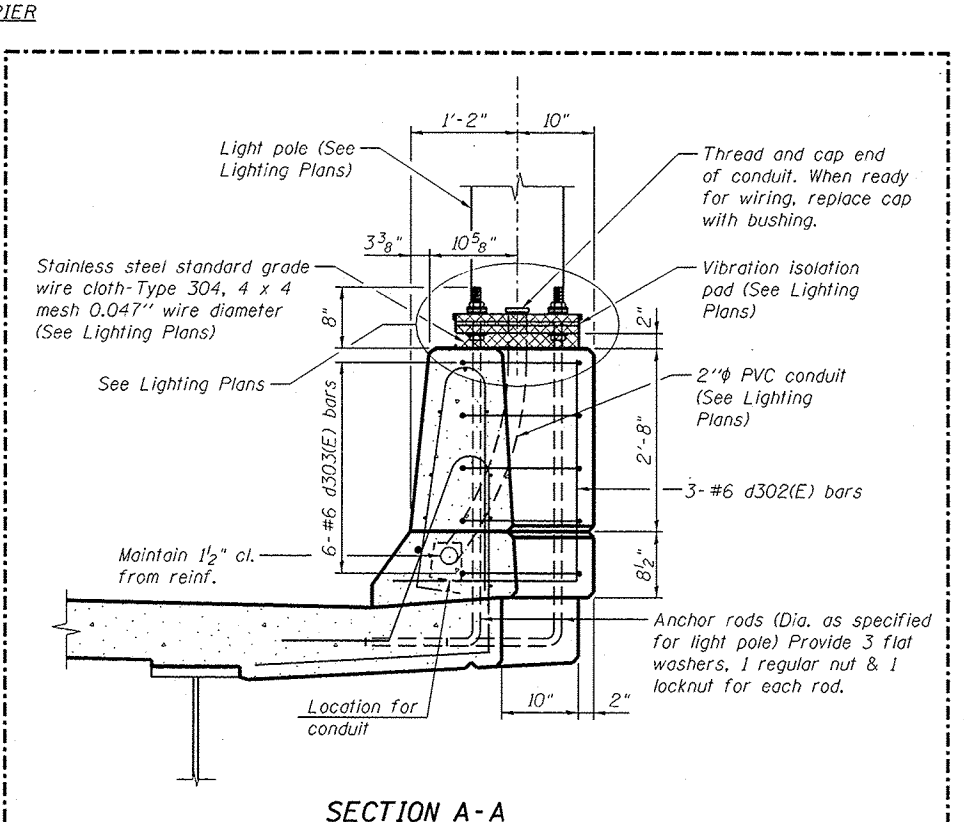
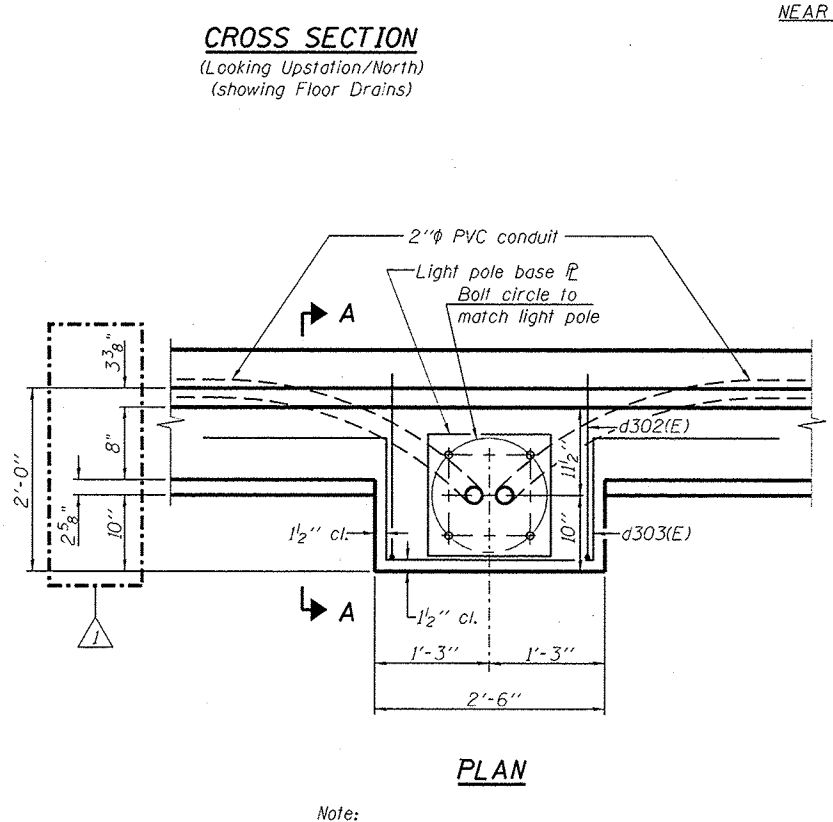
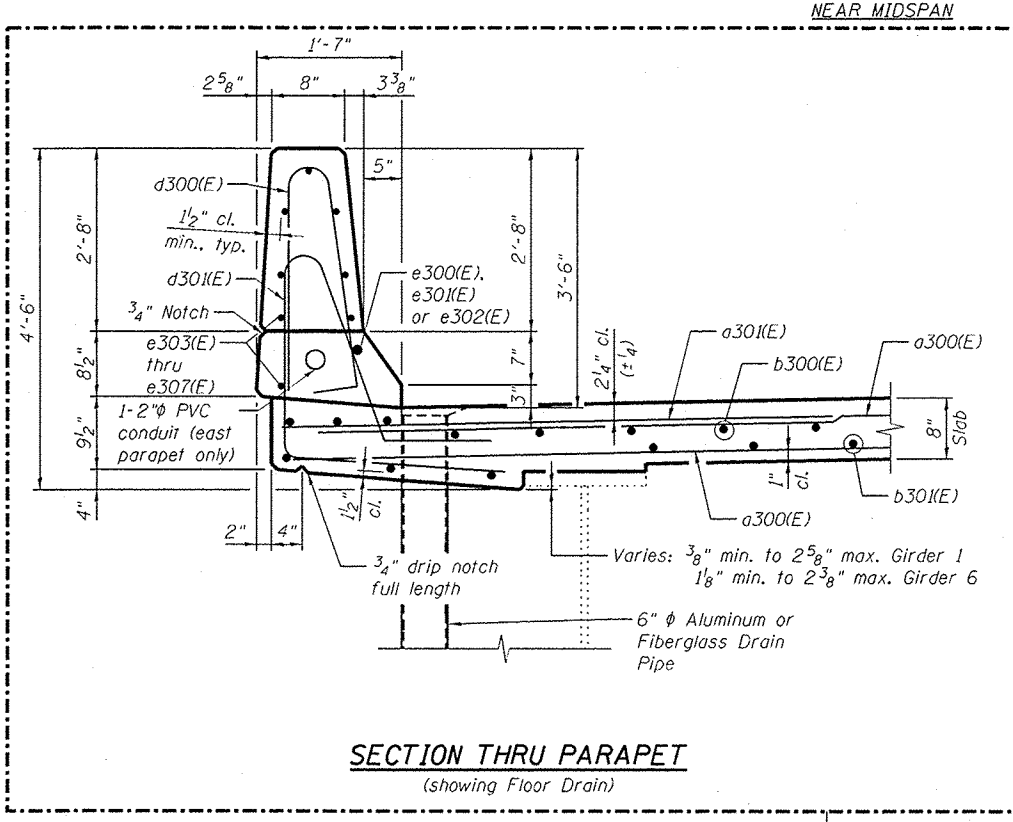
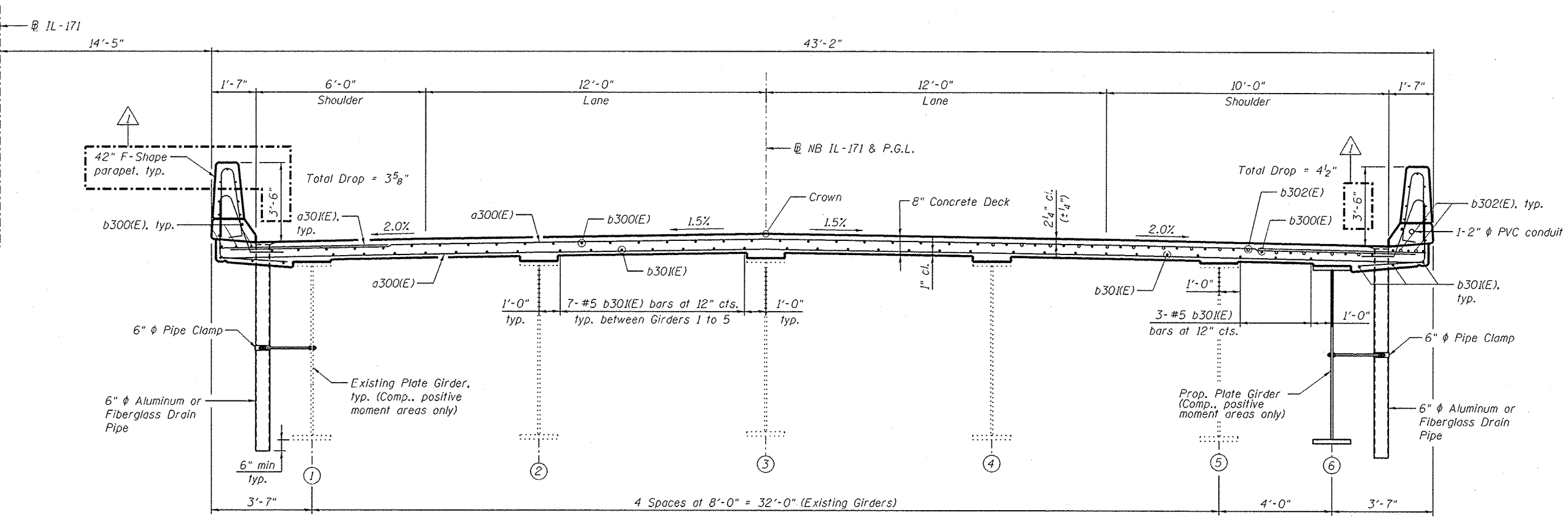
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10/19/2015



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

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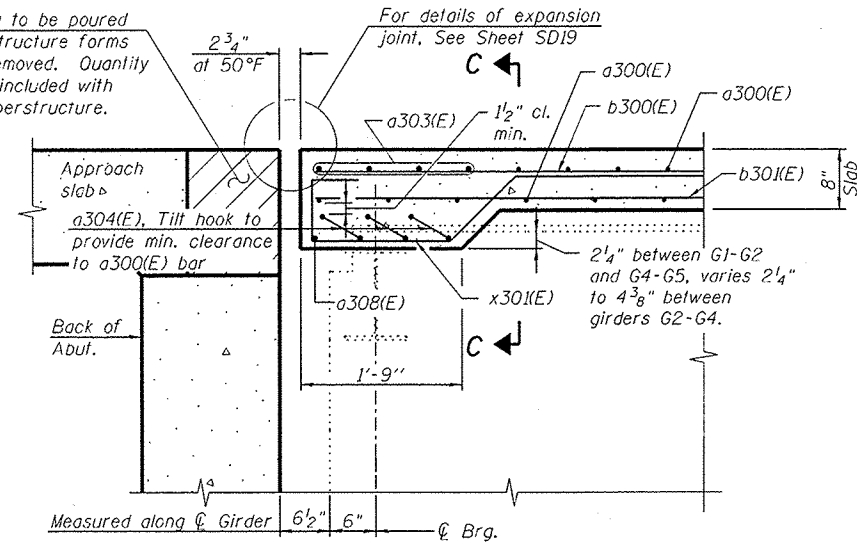
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION AND DETAILS
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SHEET NO. SD12 OF SD40 SHEETS

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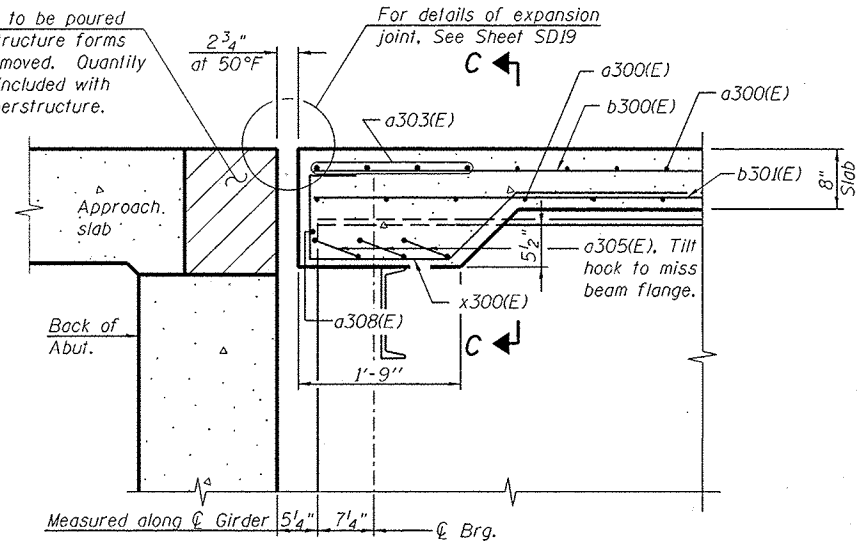
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



SECTION A-A

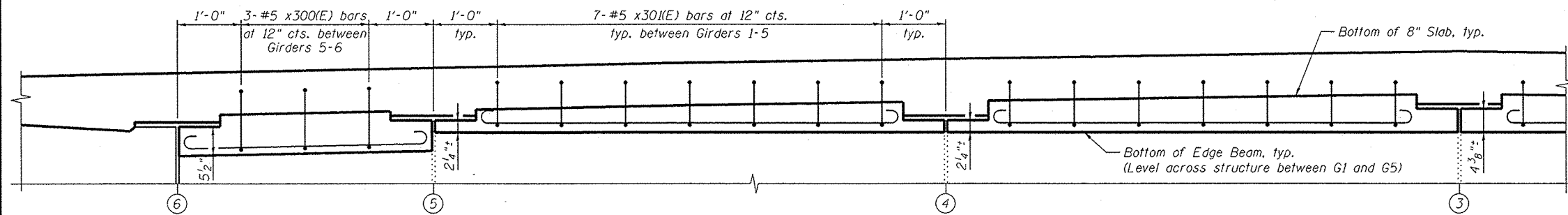
(Section applies to bays between G1 thru G5)

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



SECTION B-B

(Section applies to bay between G5 & G6)



SECTION C-C

(Reinforcement in 8" slab not shown for clarity)

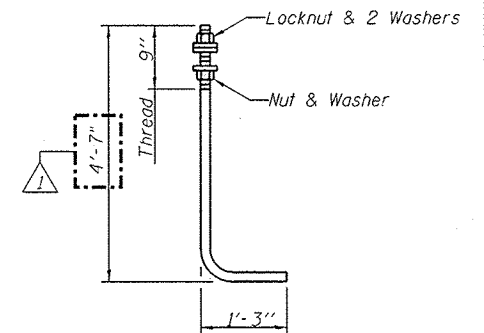
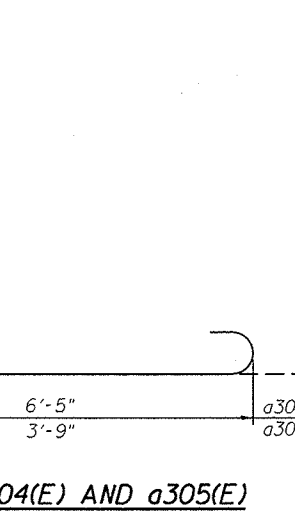
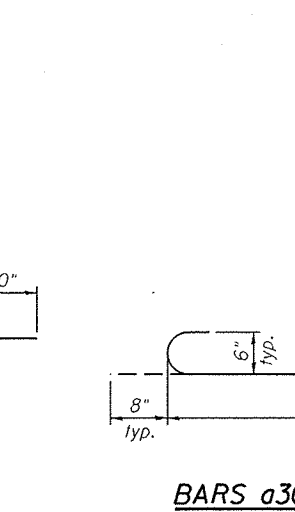
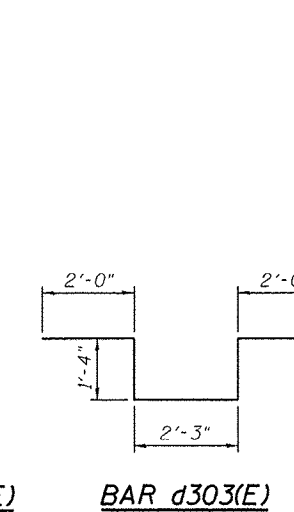
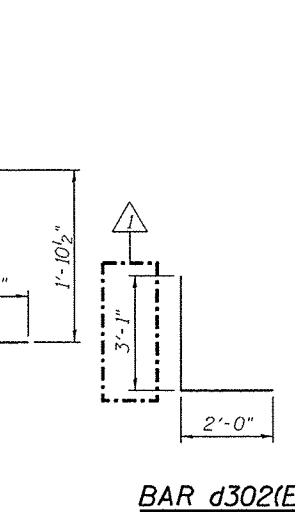
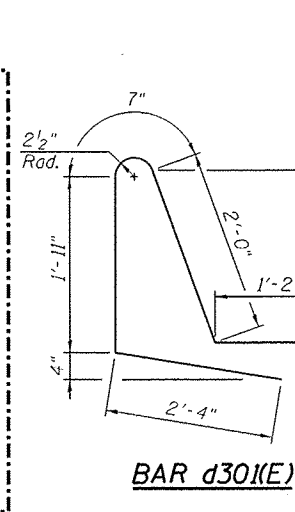
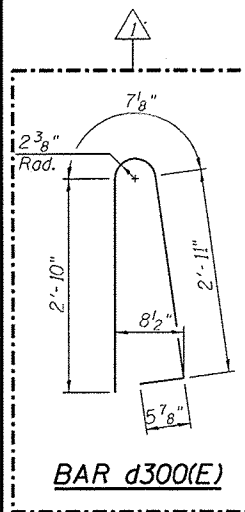
**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a300(E)	1665	#5	42'-6"	
a301(E)	970	#6	6'-6"	
a303(E)	4	#6	42'-6"	
a304(E)	12	#6	7'-9"	
a305(E)	3	#6	5'-1"	
a306(E)	23	#6	3'-8"	
a307(E)	32	#5	1'-6"	
a308(E)	1	#6	35'-0"	
b300(E)	736	#5	36'-0"	
b301(E)	555	#5	38'-2"	
b302(E)	387	#6	28'-8"	
d300(E)	1150	#5	6'-10"	
d301(E)	1150	#5	8'-0"	
d302(E)	9	#6	5'-1"	
d303(E)	18	#6	8'-11"	
e300(E)	12	#8	19'-8"	
e301(E)	12	#8	35'-9"	
e302(E)	12	#8	38'-9"	
e303(E)	96	#4	19'-8"	
e304(E)	140	#4	19'-1"	
e305(E)	168	#4	17'-4"	
e306(E)	12	#4	33'-8"	
e307(E)	12	#4	36'-8"	
x300(E)	3	#5	6'-5"	
x301(E)	28	#5	6'-2"	
Concrete Superstructure				Cu. Yd. 754.1
Bridge Deck Grooving				Sq. Yd. 2,227
Protective Coat				Sq. Yd. 2,841
Reinforcement Bars, Epoxy Coated				Pound 177,190

Bars indicated thus 40x16-#5 etc. indicates 40 lines of bars with 16 lengths per line.

NOTES:

- See Sheet SD11 for locations of Sections A-A & B-B.
- Concrete edge beam shall be placed from fascia beam to fascia beam.



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

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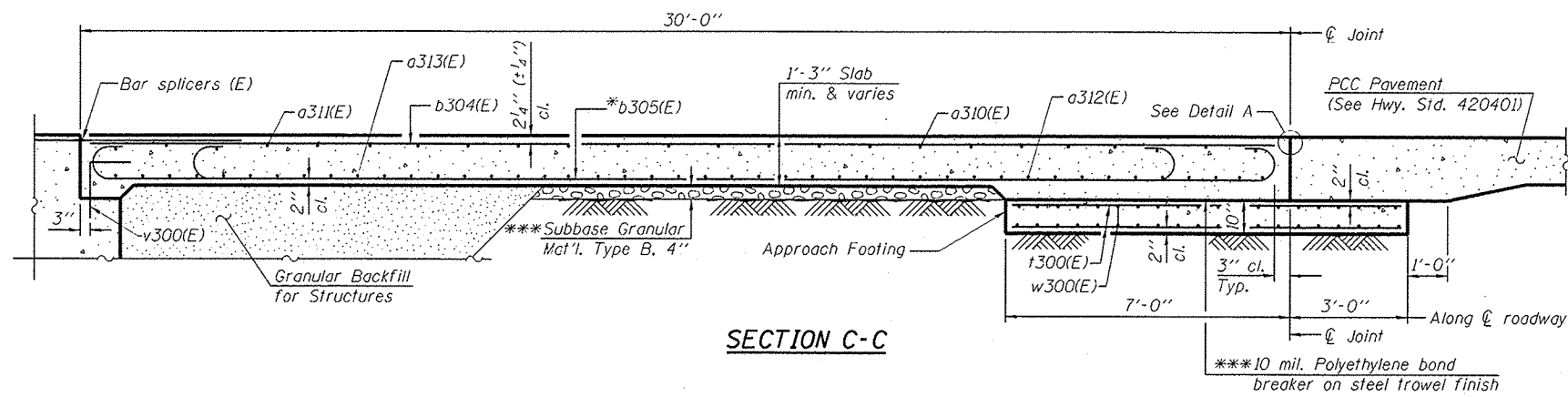
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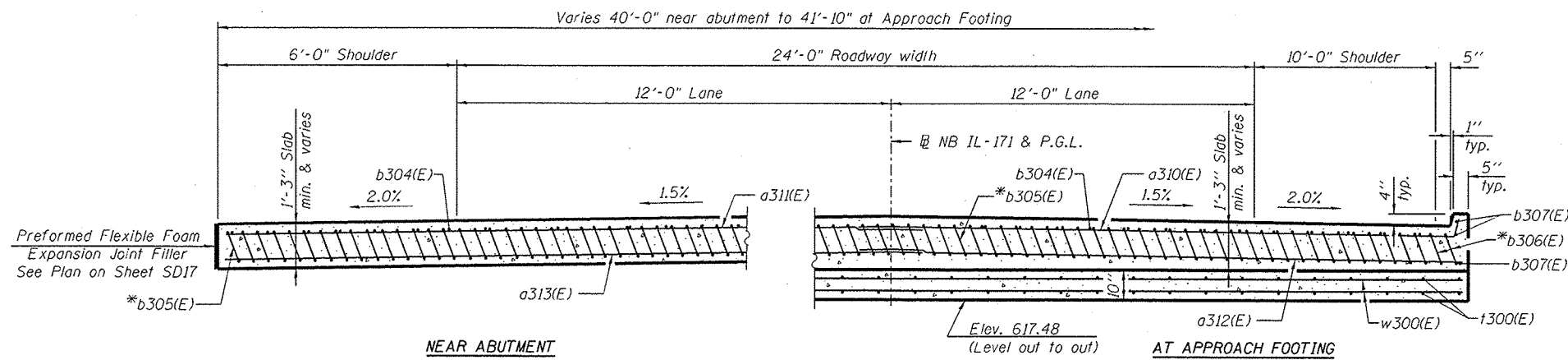
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STRUCTURE NO. 016-0985
SHEET NO. SD15 OF SD40 SHEETS

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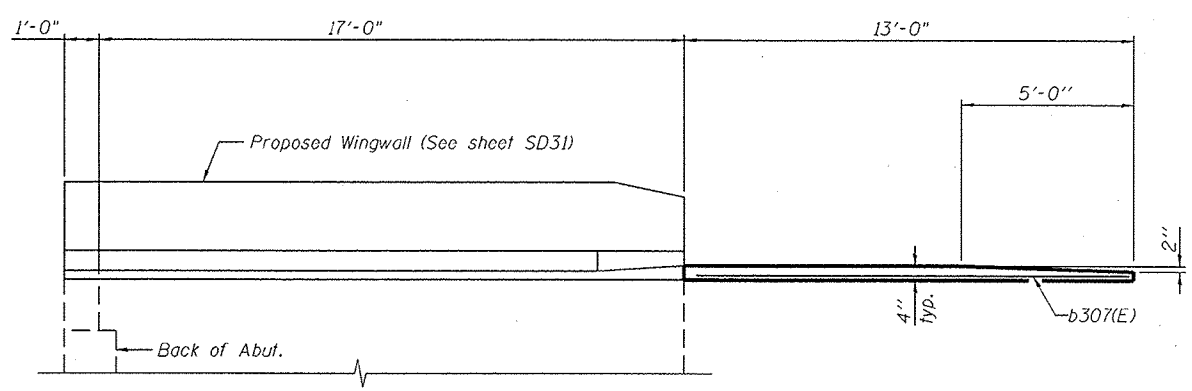
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SECTION C-C



SECTION D-D
(See Plan for dimensions not shown)

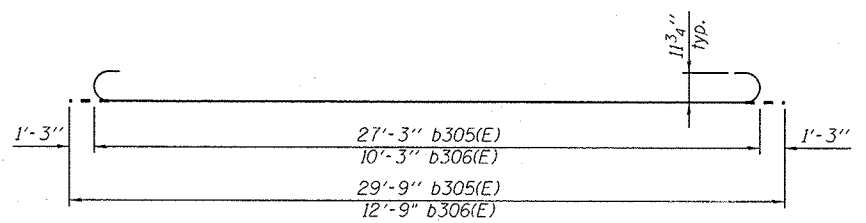


VIEW E-E

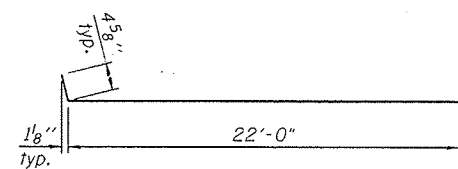
**ONE APPROACH
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a310(E)	22	#4	22'-5"	—
a311(E)	14	#4	39'-8"	—
a312(E)	20	#5	41'-6"	—
a313(E)	26	#5	39'-8"	—
b304(E)	32	#4	29'-8"	—
b305(E)	96	#9	29'-9"	—
b306(E)	4	#9	12'-9"	—
b307(E)	6	#4	12'-8"	—
t300(E)	84	#4	9'-8"	—
w300(E)	40	#5	41'-6"	—
Concrete Structures			Cu. Yd.	13.0
Concrete Superstructure			Cu. Yd.	59.1
Bridge Deck Grooving			Sq. Yd.	133
Protective Coat			Sq. Yd.	160
Reinforcement Bars, Epoxy Coated			Pound	15,500

* Till #9 b305(E) and b306(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.



BARS b305(E) AND b306(E)



BAR a310(E)

NOTES:

1. See Sheet SD17 for Detail A and View B-B.
2. Approach slab concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v300(E) bar details, see Sheet SD29.
6. The approach footing maximum applied service bearing pressure (Omax) = 2.0 ksf.
7. For bar splicer details, see Sheet SD38.
8. Cost of excavation for approach footing included with Concrete Structures.
9. For Granular Backfill for Structures and drainage treatment details, see Sheet SD30.

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PL01 SCALE :	PL01 DATE : 10/19/2015	CHECKED - DTS	REVISIONS -
		DRAWN - RMG	
		CHECKED - DTS	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-0985**

SHEET NO. SD18 OF SD40 SHEETS

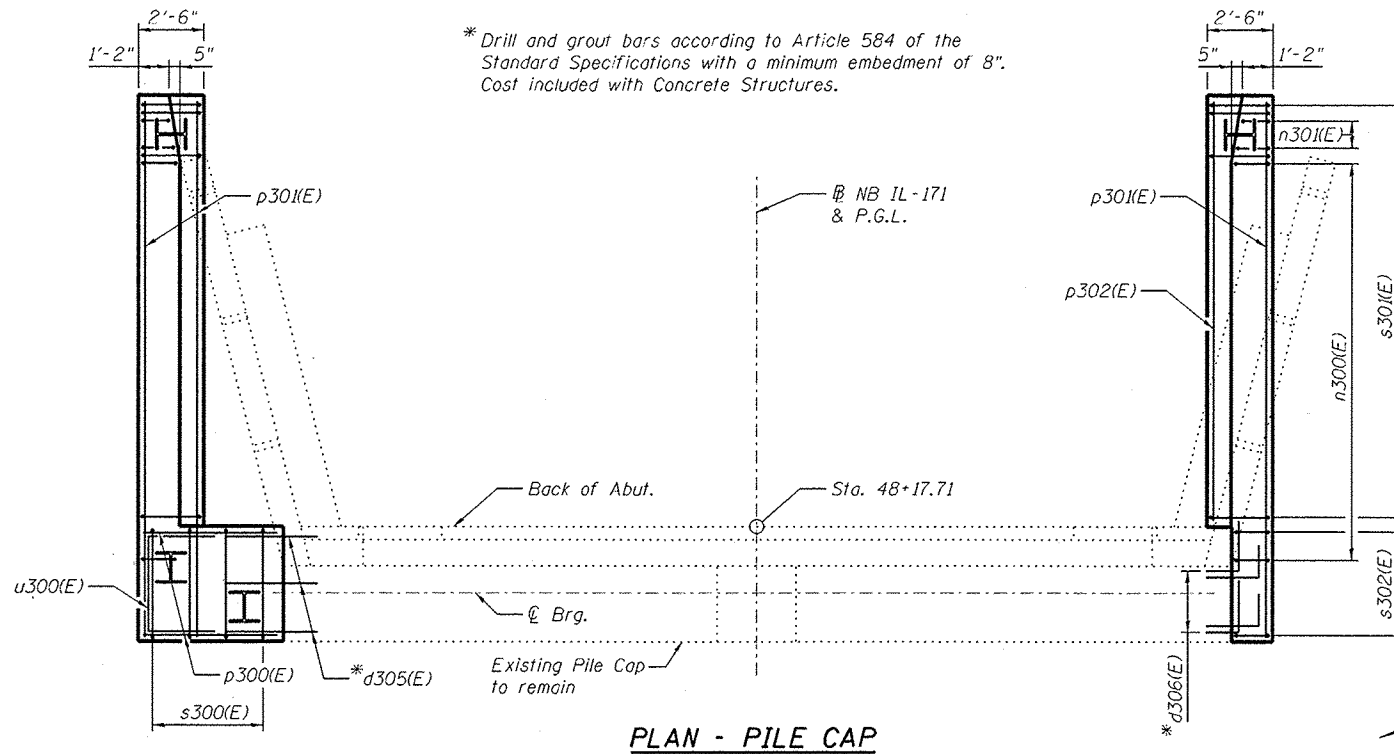
F.A.P. RTE. 372	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 459
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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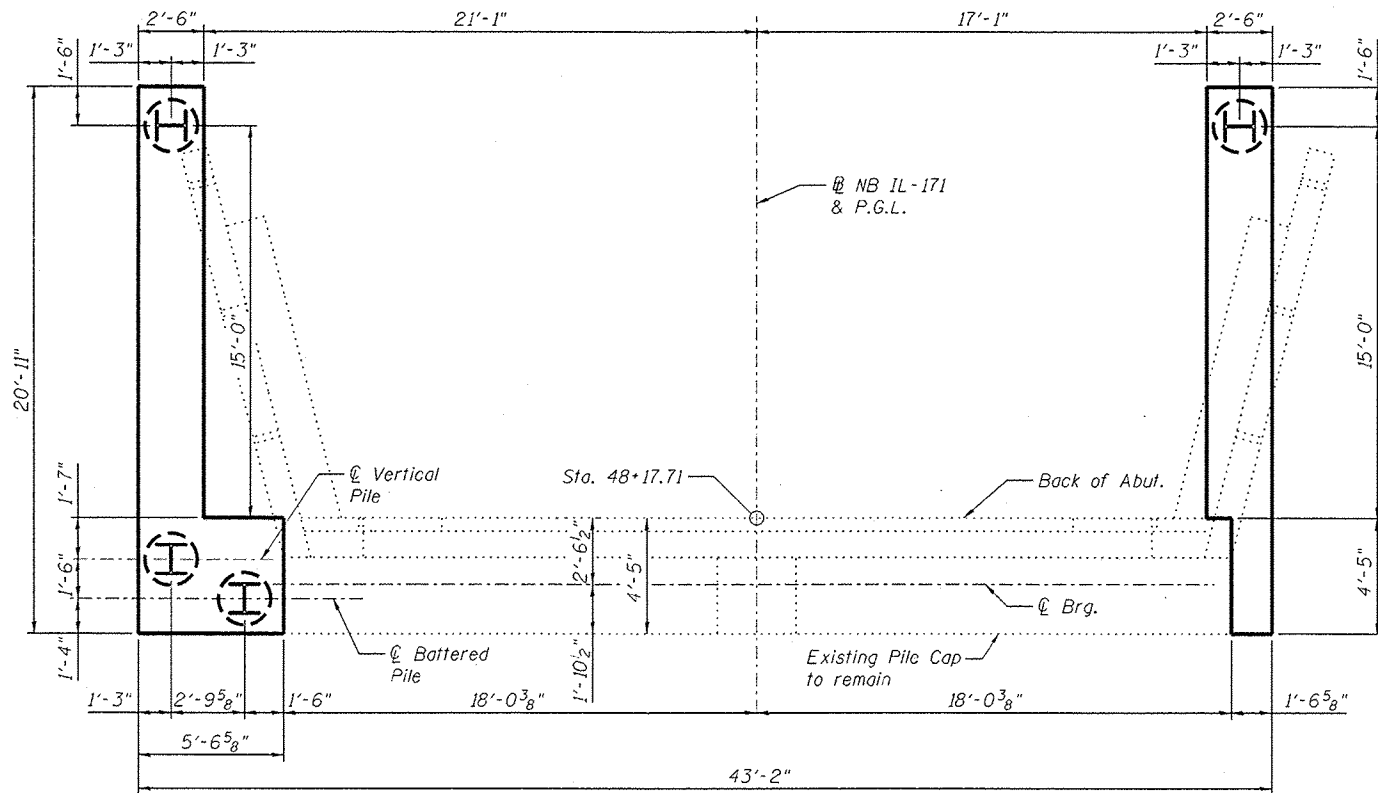
**ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d305(E)	8	#5	3'-6"	
d306(E)	8	#5	3'-0"	
h300(E)	32	#5	5'-6"	
h301(E)	24	#5	21'-9"	
h302(E)	8	#6	22'-0"	
h303(E)	34	#4	17'-6"	
h304(E)	22	#4	17'-9"	
n300(E)	32	#6	14'-4"	
n301(E)	12	#6	7'-2"	
p300(E)	8	#7	5'-2"	
p301(E)	9	#7	20'-5"	
p302(E)	3	#7	16'-0"	
s300(E)	6	#4	15'-11"	
s301(E)	38	#4	9'-5"	
s302(E)	5	#4	9'-5"	
u300(E)	5	#6	12'-1"	
v300(E)	41	#5	3'-9"	
v301(E)	41	#4	3'-5"	
v302(E)	5	#5	8'-0"	
v303(E)	5	#5	9'-9"	
v304(E)	36	#5	11'-9"	
v305(E)	36	#5	7'-2"	
v306(E)	19	#6	9'-8"	
v307(E)	3	#6	9'-8"	
v308(E)	16	#6	9'-10"	
v309(E)	19	#6	10'-1"	
v310(E)	3	#6	10'-1"	
v311(E)	16	#6	10'-3"	
Structure Excavation		Cu. Yd.	141	
Concrete Structures		Cu. Yd.	41.2	
Concrete Superstructure		Cu. Yd.	4.7	
Concrete Embedment		Cu. Yd.	1.4	
Reinforcement Bars, Epoxy Coated		Pound	5,700	
Furnishing Steel Piles HP12x53		Foot	99	
Driving Piles		Foot	99	
Test Pile Steel HP12x53		Each	1	
Pile Shoes		Each	4	
Concrete Sealer		Sq. Ft.	336	
Granular Backfill for Structures		Cu. Yd.	93	

*Drill and grout bars according to Article 584 of the Standard Specifications with a minimum embedment of 8". Cost included with Concrete Structures.



PLAN - PILE CAP



PLAN - PILE LAYOUT

BAR h304(E)

BAR v304(E)

**BARS d306(E)
AND h300(E)**

BAR v300(E)

**BARS v307(E)
AND v310(E)**

**BARS v308(E)
AND v311(E)**

**BARS n300(E)
AND u300(E)**

BAR n301(E)

**BARS s300(E), s301(E)
AND s302(E)**

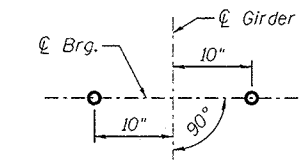
BAR v301(E)

PILE DATA

Type: HP12x53 with Pile Shoes
Nominal Required Bearing: 255 kips
Allowable Resistance Available: 85 kips
Est. Length: 33 ft.
No. Production Piles: 3
No. Test Piles: 1

**MINIMUM BAR LAP
(Abutment)**

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



ANCHOR BOLT DETAIL

NOTES:

- Backfill shall be placed behind the abutment after the superstructure has been poured and falsework removed. See Article 502.10 of the Standard Specifications.
- Space reinforcement to miss anchor bolts.
- Bars indicated thus 6x2-#5 etc. indicates 6 lines of bars with 2 lengths per line.

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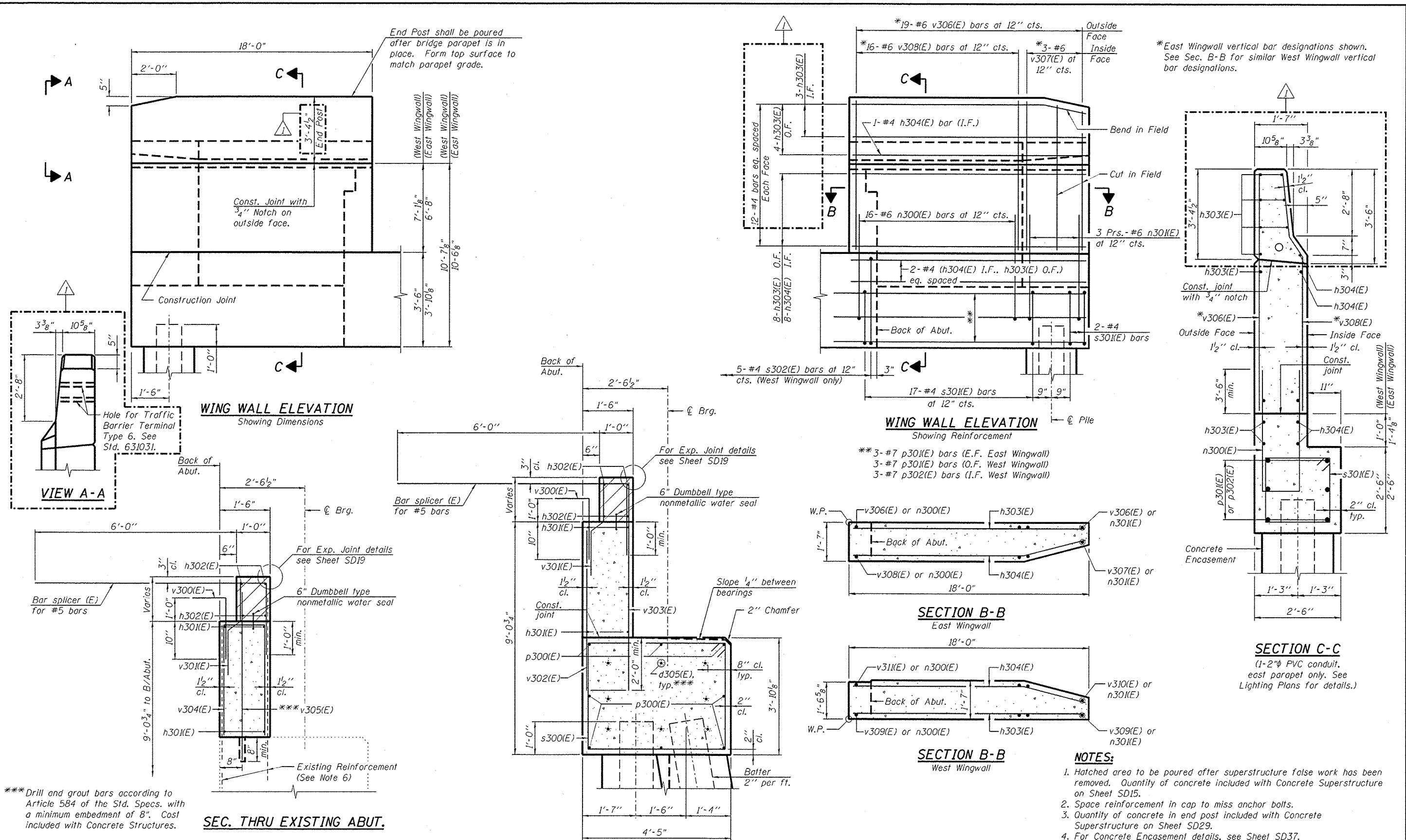
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT WIDENING DETAILS (1 OF 3)
STRUCTURE NO. 016-0985**

SHEET NO. SD29 OF SD40 SHEETS

F.A.P. RT. 372	SECTION 2013-0378-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 470
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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*** Drill and grout bars according to Article 584 of the Std. Specs. with a minimum embedment of 8". Cost included with Concrete Structures.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT WIDENING DETAILS (3 OF 3)
STRUCTURE NO. 016-0985
SHEET NO. SD31 OF SD40 SHEETS

F.A.P. RTE. 372	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 472
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

- NOTES:**
- Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure on Sheet SD15.
 - Space reinforcement in cap to miss anchor bolts.
 - Quantity of concrete in end post included with Concrete Superstructure on Sheet SD29.
 - For Concrete Encasement details, see Sheet SD37.
 - Existing reinforcement shall be cleaned and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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GENERAL NOTES

- 1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" dia., holes 1 1/8" dia., unless otherwise noted.
- 2. Calculated weight of structural steel =
M270 Grade 36: 13,450 lbs.
M270 Grade 50: 128,300 lbs.
- 3. No field welding is permitted except as specified in the contract documents.
- 4. The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- 5. Reinforcement bars designated (E) shall be epoxy coated.
- 6. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 7. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations 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.
- 8. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 9. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" (0.01). Adjustment shall be made either by grinding the surface or shimming the bearings.
- 10. Concrete Sealer shall be applied to the designated areas of both abutments and Piers 13, 16 and 18.
- 11. The existing structural steel coating contains lead. The Contractor shall take all precautions to deal with the presence of lead on this project.
- 12. The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel and the steel portions of new elastomeric bearings. Only Inorganic Zinc Rich Primer shall be applied to the new structural steel and the steel portions of the new elastomeric bearings in the shop under this contract and is included in the respective steel or bearing pay items. The intermediate and top coats shall be applied under a separate painting contract.
- 13. Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- 14. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- 15. The top of top flange of the existing structural steel is anticipated to have been painted. Areas of the top flange to receive stud shear connectors shall be cleaned as per the requirements for Primary Connections. See Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". Cost included with Stud Shear Connectors.

15. The top of top flange of the existing structural steel is anticipated to have been painted. Areas of the top flange to receive stud shear connectors shall be cleaned as per the requirements for Primary Connections. See Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". Cost included with Stud Shear Connectors.



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STATION 30+72.59
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 373
SEC. 2013-037B-R
LOADING HS20
STR. NO. 016-0487

NB NAME PLATE

(See Std. 515001)
Existing Name Plate shall be cleaned and relocated next to the new Name Plate. Cost included with Name Plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yd		37.9	37.9
Slope Wall Removal	Sq Yd		593	593
Removal of Existing Concrete Deck No. 4	Each	1		1
Protective Shield	Sq Yd	2,359		2,359
Structure Excavation	Cu Yd		806	806
Floor Drains	Each	51		51
Concrete Structures	Cu Yd		334.0	334.0
Concrete Superstructure	Cu Yd	1,259.0		1,259.0
Bridge Deck Grooving	Sq Yd	3,674		3,674
Concrete Encasement	Cu Yd		2.8	2.8
Protective Coat	Sq Yd	4,641		4,641
Furnishing and Erecting Structural Steel	L Sum	0.35		0.35
Stud Shear Connectors	Each	12,176		12,176
Reinforcement Bars, Epoxy Coated	Pound	274,850	80,010	354,860
Bar Splicers	Each		97	97
Slope Wall 4 Inch	Sq Yd		713	713
Furnishing Steel Piles HP12x53	Foot		706	706
Driving Piles	Foot		706	706
Test Pile Steel HP12x53	Each		4	4
Pile Shoes	Each		20	20
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu Yd		37.0	37.0
Preformed Joint Strip Seal	Foot	240.5		240.5
Elastomeric Bearing Assembly, Type I	Each	7		7
Elastomeric Bearing Assembly, Type II	Each	4		4
Anchor Bolts, 3/4"	Each	26		26
Anchor Bolts, 1"	Each	4		4
Concrete Sealer	Sq Ft		2,319	2,319
* Epoxy Crack Injection	Foot		100	100
Geocomposite Wall Drain	Sq Yd		70	70
Structural Steel Removal	Pound	21,530		21,530
Structural Steel Repair	Pound	3,230		3,230
Cleaning Bridge Seats	Sq Ft		1,448	1,448
* Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft		282	282
* Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft		57	57
Pipe Underdrains for Structures 4"	Foot		134	134
** Selective Clearing	Unit		2	2
Temporary Soil Retention System	Sq Ft		1,761	1,761
Temporary Shoring and Cribbing	Each		3	3
Remove Conduit Attached to Structure	Foot	1,689		1,689
Fender System	L Sum		0.75	0.75
Granular Backfill For Structures	Cu Yd		124	124

* Quantity includes a contingency (above the amounts shown in the bills of material) to account for uncertainties associated with the condition of the existing substructure and the age of the original inspection (2008-2009). Actual repair areas will be determined by the Engineer in the field.
** The quantity for this work is estimated. The intent for this work is to remove accumulations of rubbish, vegetation, etc. on the existing slopewalls.

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- SF80 Pier 17 Widening
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- SF96 Soil Boring Logs North Abutment

For existing bridge plans, see Sheets SFX1 thru SFX46 immediately following Sheet SF96.

SCOPE OF WORK

- 1. Remove existing concrete deck and microsilica concrete overlay and replace with new 8" reinforced concrete deck.
- 2. Retrofit steel superstructure fatigue prone details.
- 3. Remove wind bracing in spans 3 through 5 (bottom lateral angles).
- 4. Perform miscellaneous repairs including removing debris and installation and lightening of bearing anchor bolt nuts.
- 5. Replace damaged or corroded cross frame.
- 6. Install intermediate stiffeners in Unit B at Piers 13 and 16.
- 7. Install new girders, diaphragms and cross frames for widening.
- 8. Make new deck composite in positive moment areas only by adding shear studs to all girders and beams where not already installed.
- 9. Remove and dispose of abandoned electrical conduits and junction boxes attached to the beams and/or deck.
- 10. Repair spalls, delaminations and open cracks in substructure using formed concrete repair and epoxy crack injection.
- 11. Widen Piers 12 thru 21 and both abutments.
- 12. Remove and replace existing abutment backwalls and wingwalls.
- 13. Widen and repair existing slopewalls.
- 14. Remove and replace existing expansion joints.
- 15. Remove and replace approach slabs and drainage at abutments.
- 16. Remove and replace navigational lighting.
- 17. Repair timber fenders at Piers 3 & 4 of SN 016-0486 and Piers 14 & 15 of SN 016-0487.
- 18. Structural steel repair on the fascia girders in Span 11.

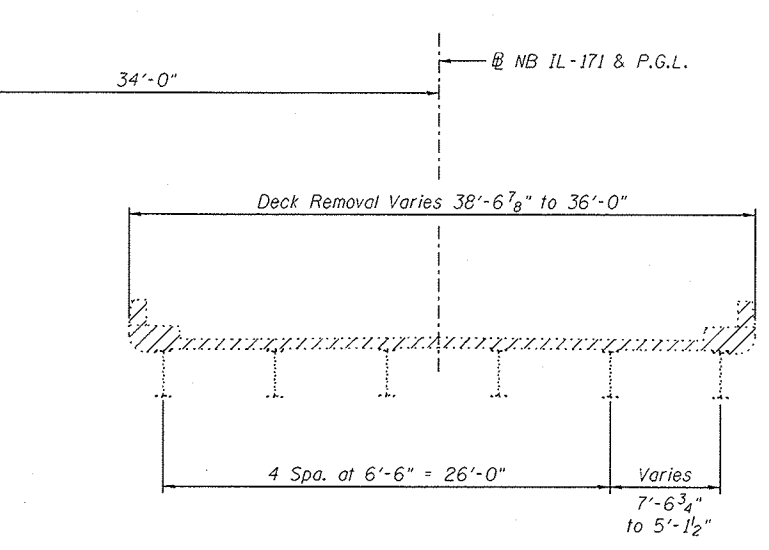
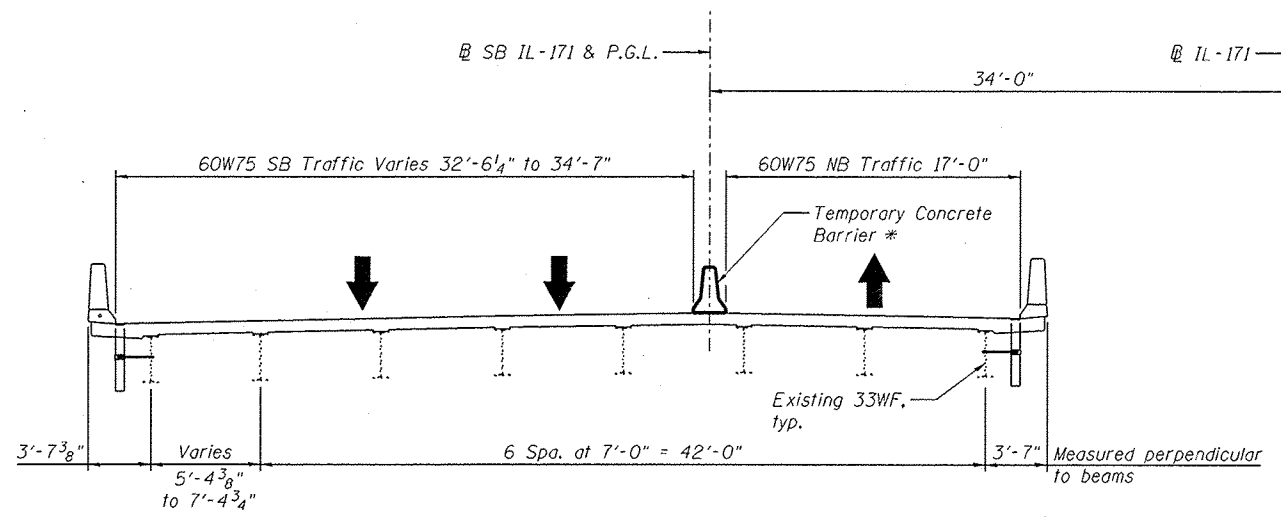
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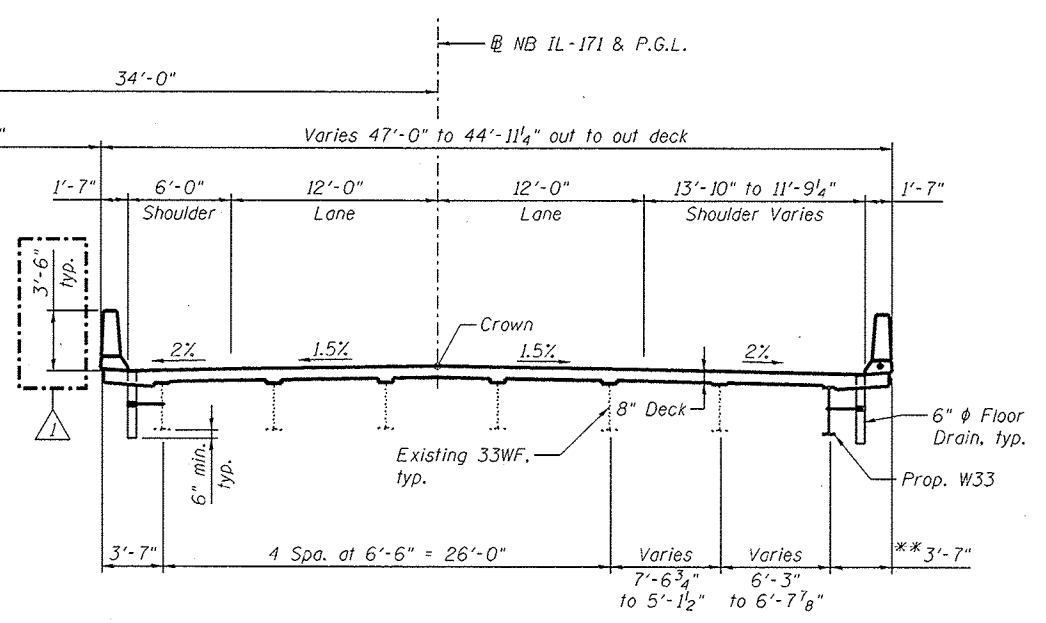
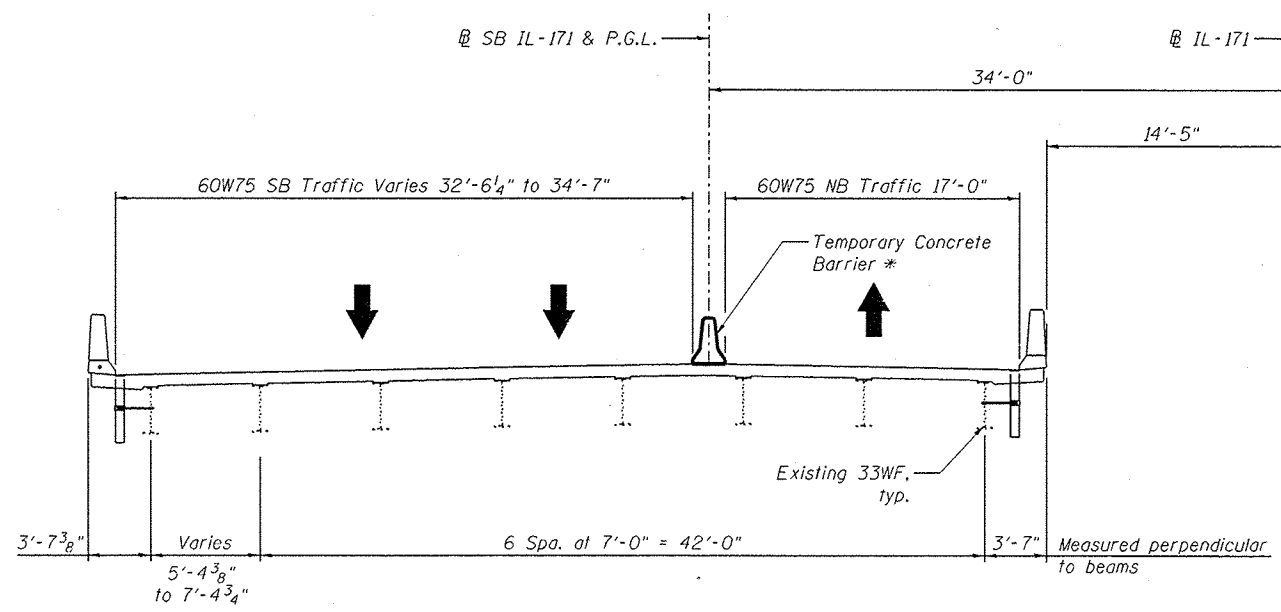
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STRUCTURE NO. 016-0487
SHEET NO. SF4 OF SF96 SHEETS

F.A.P. RTE. 373	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 530
CONTRACT NO. 60W75				
ILLINOIS FED. AID PROJECT				

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CONTRACT 60W75 REMOVAL
(Spans 1 & 2 Looking Upstation)



CONTRACT 60W75 CONSTRUCTION
(Spans 1 & 2 Looking Upstation)

**Measured perpendicular to fascia girder

LEGEND

Indicates Removal of Existing Concrete Deck No. 4.

NOTES:

- All dimensions are measured perpendicular to @ IL-171 unless noted otherwise.
- The existing conduit contains live electrical cables that power the existing navigation lighting attached to the fascia girder. Note that the navigation lighting must remain in service without interruption. See Lighting Plans for additional details and requirements. Coordinate the removal of the existing conduit with the installation of the new navigation lighting and corresponding new conduit and wiring. See Sheet SF44 for Conduit Removal Details.
- Do not anchor Temp. Concrete Barrier to existing deck.
- See Roadway Plans for quantity of "Temporary Concrete Barrier".

* See Sheet SF12 and maintenance of traffic sheets for more information.

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	PLOT DATE = 10/19/2015	CHECKED - JLS	REVISED -

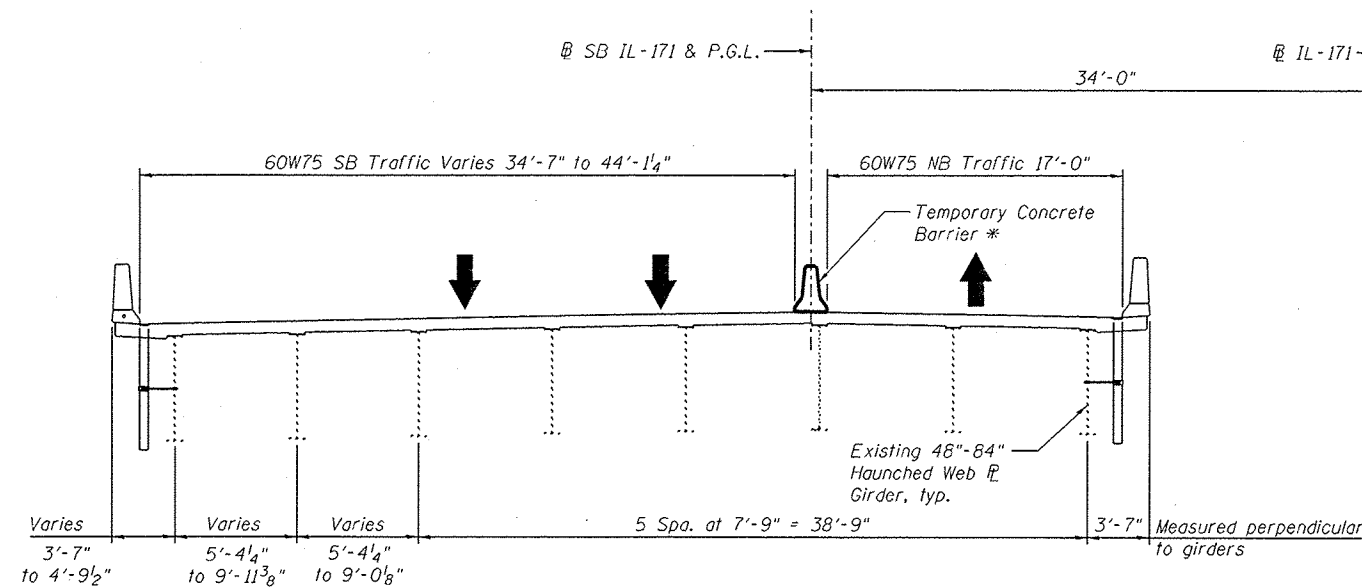
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STAGE CONSTRUCTION DETAILS SPANS 1 AND 2
STRUCTURE NO. 016-0487

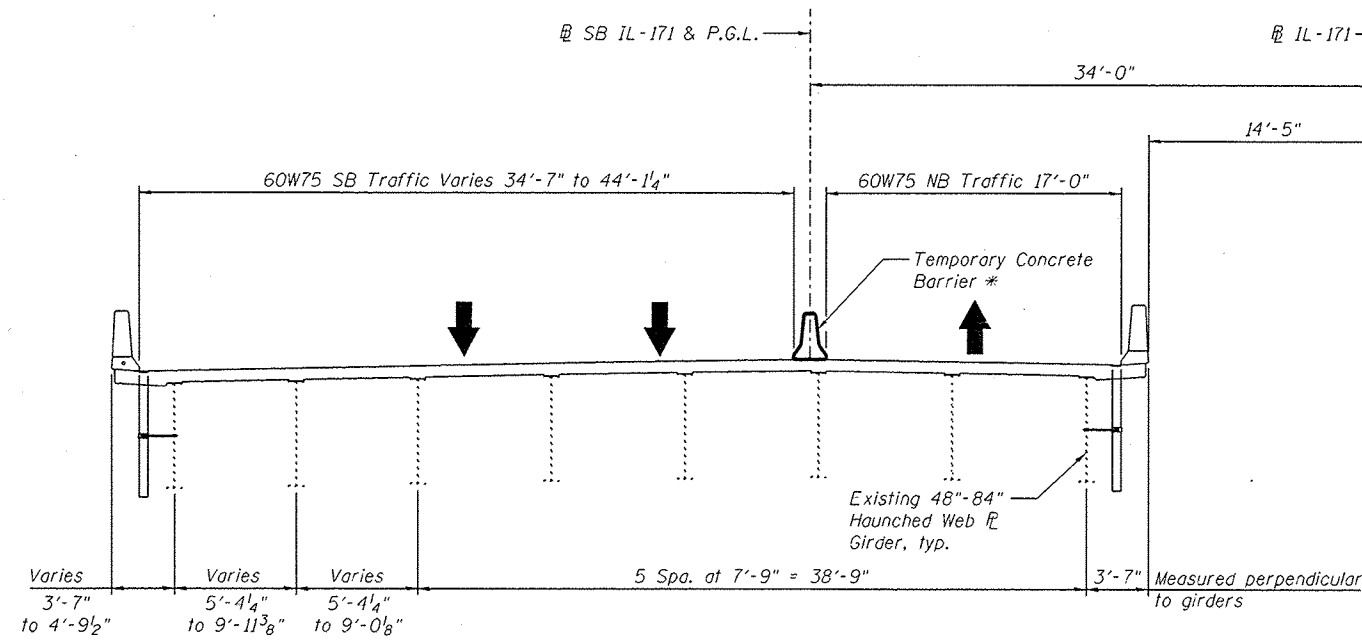
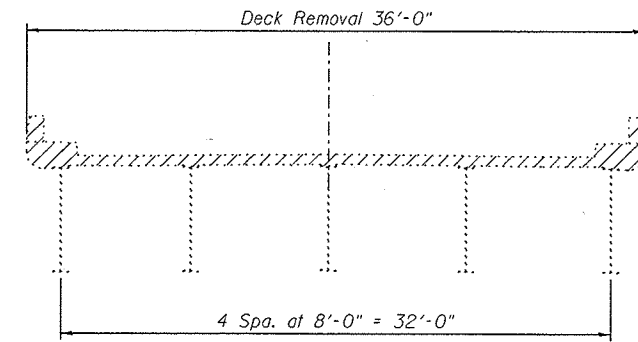
SHEET NO. SF8 OF SF96 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

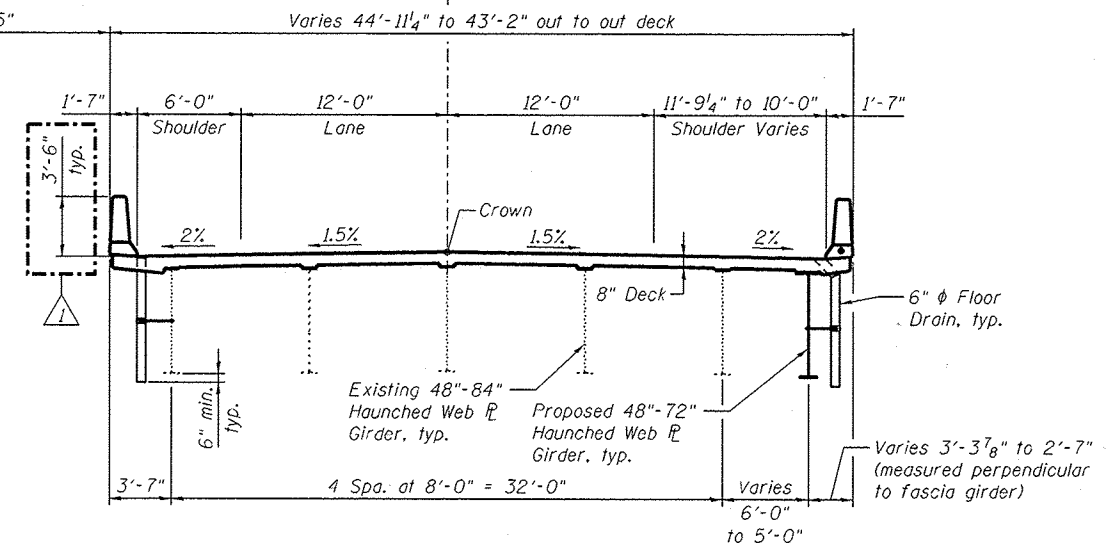
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CONTRACT 60W75 REMOVAL
(Spans 3 thru 5 Looking Upstation)



CONTRACT 60W75 CONSTRUCTION
(Spans 3 thru 5 Looking Upstation)



LEGEND

Indicates Removal of Existing Concrete Deck No. 4.

NOTES:

- All dimensions are measured perpendicular to @ IL-171 unless noted otherwise.
- The existing conduit contains live electrical cables that power the existing navigation lighting attached to the fascia girder. Note that the navigation lighting must remain in service without interruption. See Lighting Plans for additional details and requirements. Coordinate the removal of the existing conduit with the installation of the new navigation lighting and corresponding new conduit and wiring. See Sheet SF44 for Conduit Removal Details.
- Do not anchor Temp. Concrete Barrier to existing deck.
- See Roadway Plans for quantity of "Temporary Concrete Barrier".

* See Sheet SF12 and maintenance of traffic sheets for more information.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

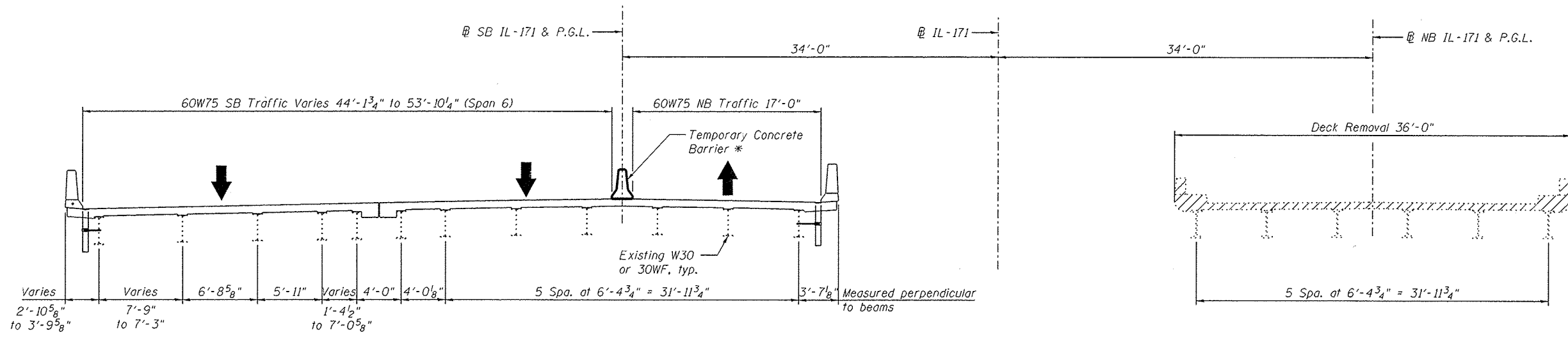
STAGE CONSTRUCTION DETAILS SPANS 3 THRU 5
STRUCTURE NO. 016-0487

SHEET NO. SF9 OF SF96 SHEETS

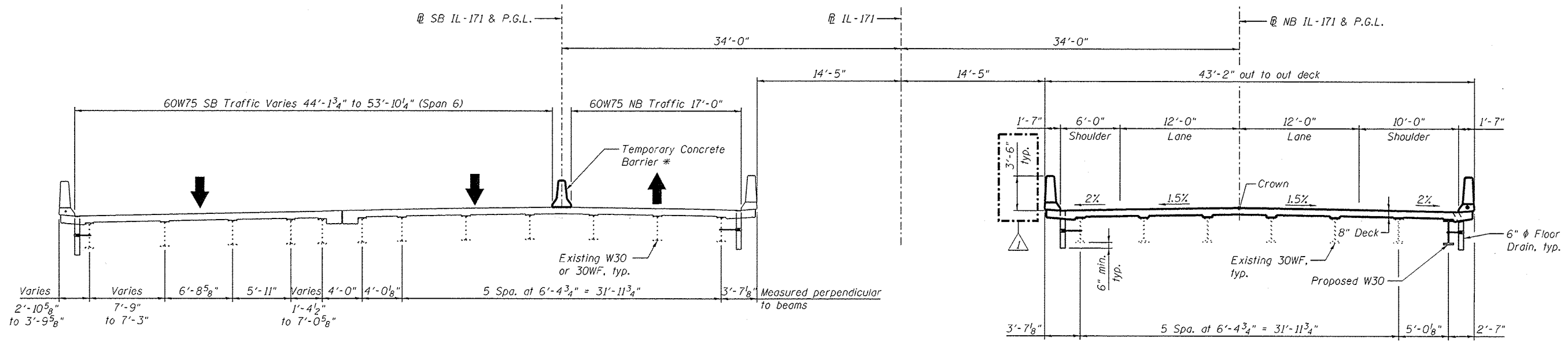
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CONTRACT 60W75 REMOVAL
(Spans 6 & 7 Looking Upstation)



CONTRACT 60W75 CONSTRUCTION
(Spans 6 & 7 Looking Upstation)

LEGEND

Indicates Removal of Existing Concrete Deck No. 4.

* See Sheet SF12 and maintenance of traffic sheets for more information.

NOTES:

1. All dimensions are measured perpendicular to @ IL-171 unless noted otherwise.
2. The existing conduit contains live electrical cables that power the existing navigation lighting attached to the fascia girder. Note that the navigation lighting must remain in service without interruption. See Lighting Plans for additional details and requirements. Coordinate the removal of the existing conduit with the installation of the new navigation lighting and corresponding new conduit and wiring. See Sheet SF44 for Conduit Removal Details.
3. Do not anchor Temp. Concrete Barrier to existing deck.
4. See Roadway Plans for quantity of "Temporary Concrete Barrier".

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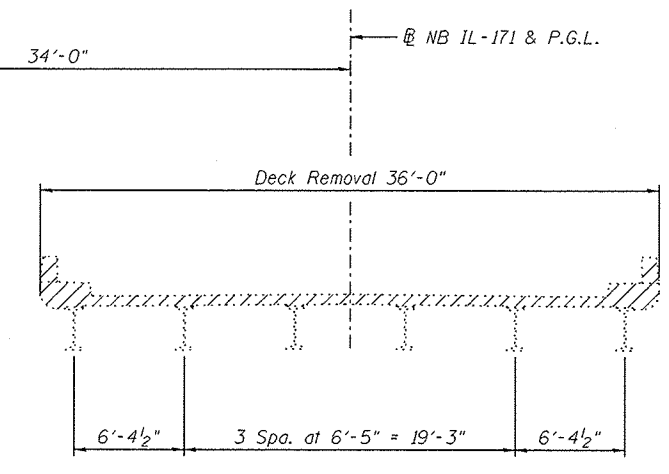
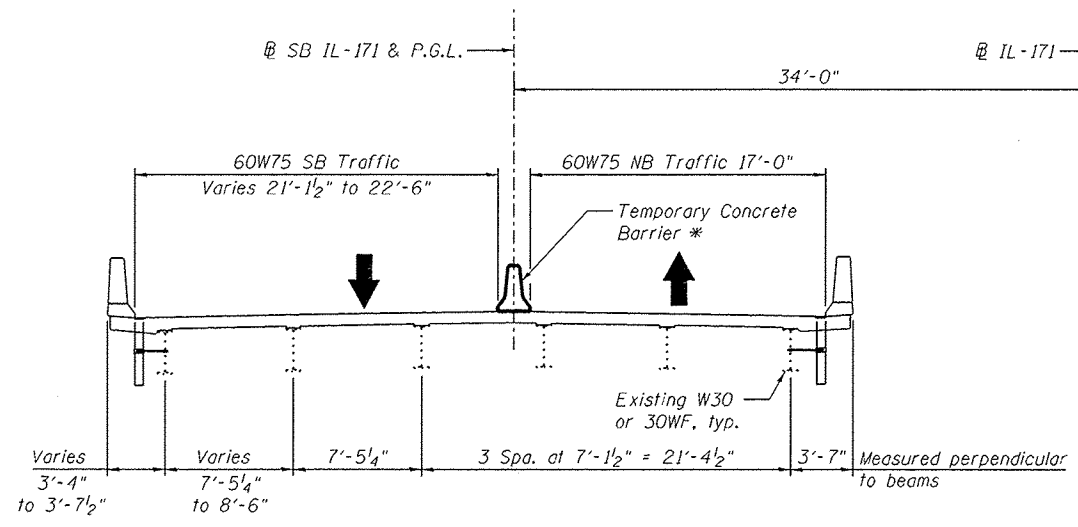
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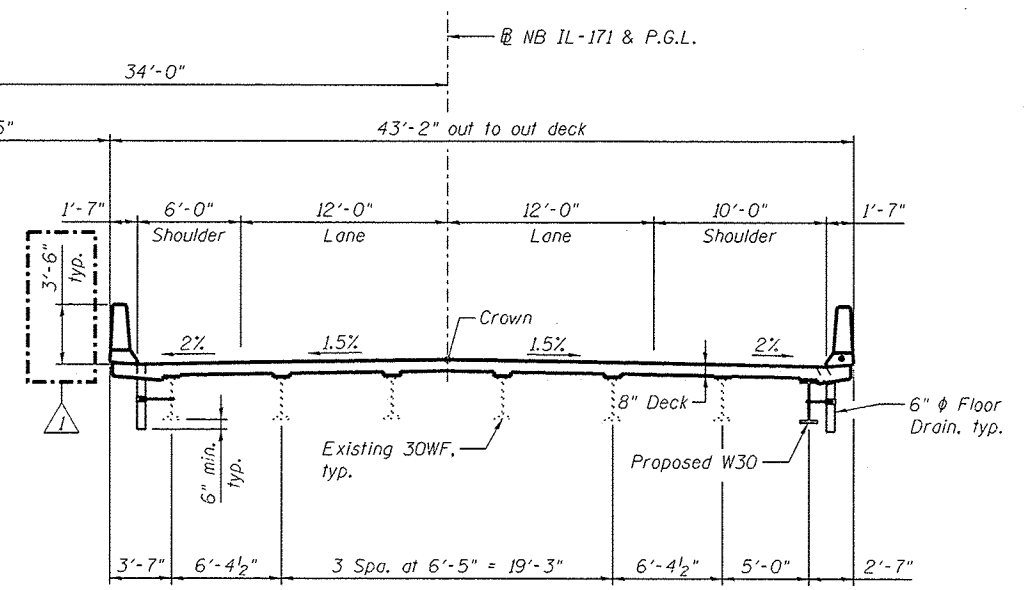
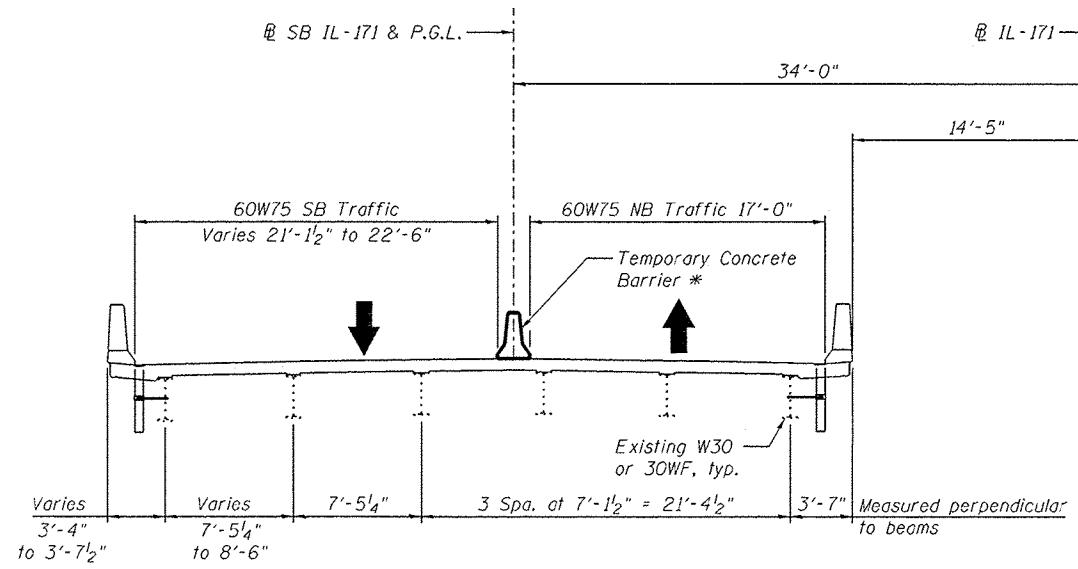
STAGE CONSTRUCTION DETAILS SPANS 6 AND 7
STRUCTURE NO. 016-0487

F.A.P. RTE. 373	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 536
CONTRACT NO. 60W75				
[ILLINOIS] FED. AID PROJECT				

SHEET NO. SF10 OF SF96 SHEETS



CONTRACT 60W75 REMOVAL
(Spans 8 thru 11 Looking Upstation)



CONTRACT 60W75 CONSTRUCTION
(Spans 8 thru 11 Looking Upstation)

LEGEND

Indicates Removal of Existing Concrete Deck No. 4.

* See Sheet SF12 and maintenance of traffic sheets for more information.

NOTES:

1. All dimensions are measured perpendicular to @ IL-171 unless noted otherwise.
2. The existing conduit contains live electrical cables that power the existing navigation lighting attached to the fascia girder. Note that the navigation lighting must remain in service without interruption. See Lighting Plans for additional details and requirements. Coordinate the removal of the existing conduit with the installation of the new navigation lighting and corresponding new conduit and wiring. See Sheet SF44 for Conduit Removal Details.
3. Do not anchor Temp. Concrete Barrier to existing deck.
4. See Roadway Plans for quantity of "Temporary Concrete Barrier".

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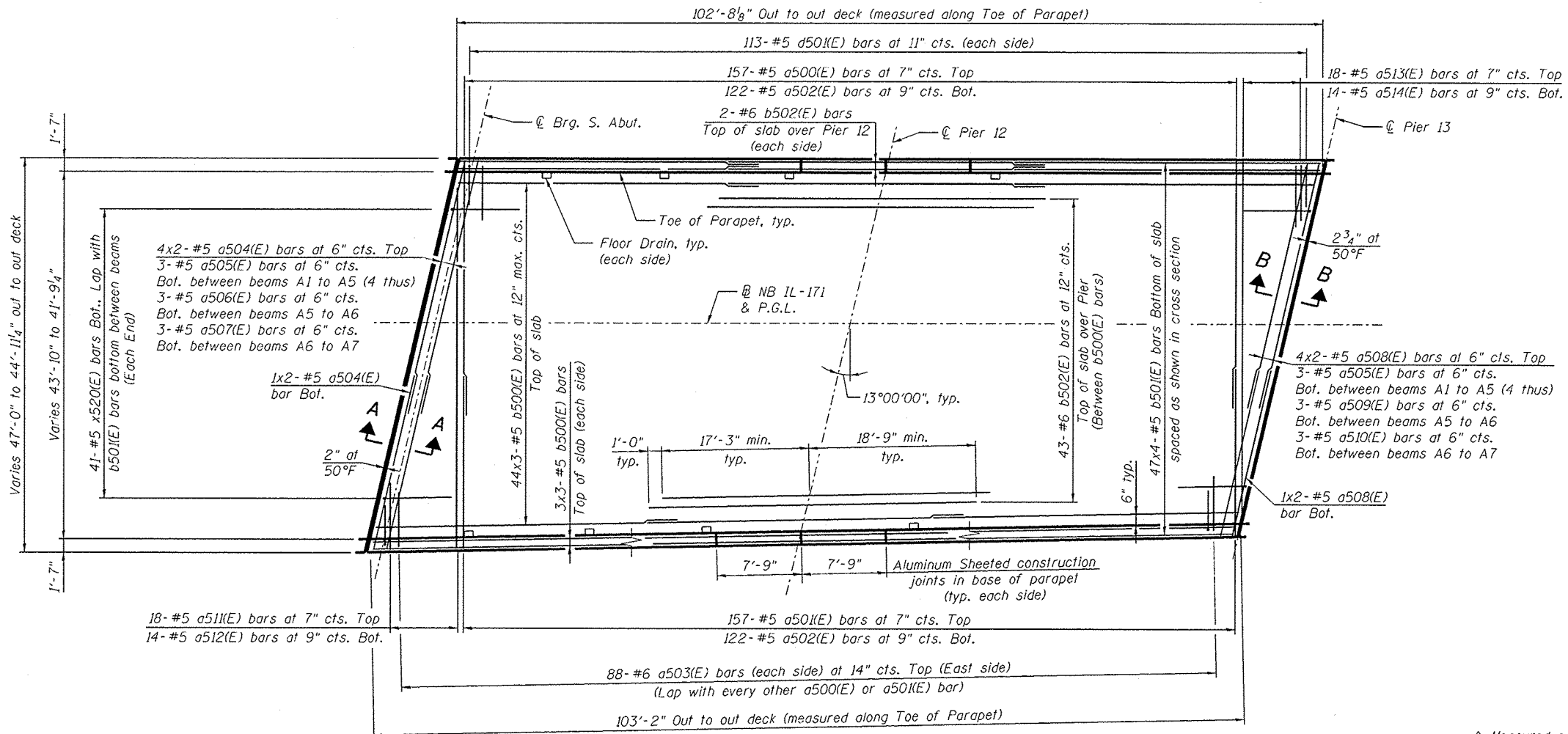
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STAGE CONSTRUCTION DETAILS SPANS 8 THRU 11
STRUCTURE NO. 016-0487
SHEET NO. SF11 OF SF96 SHEETS

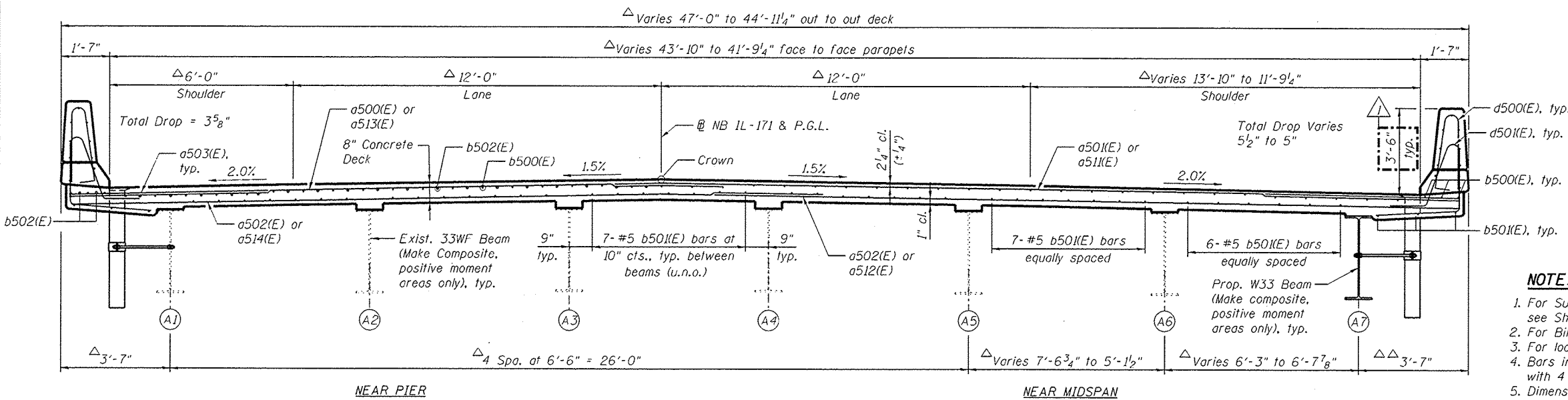
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PLAN

△ Measured perpendicular to NB IL-171
 △ Measured perpendicular to Beam A7



CROSS SECTION
 (Looking Upstation/North)

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

NOTES:

1. For Superstructure Details, Section A-A, and Section B-B, see Sheet SF34.
2. For Bill of Material and Bar Bends, see Sheet SF35.
3. For locations and spacing of Floor Drains, see Sheet SF2.
4. Bars indicated thus 47x4-#5 etc. indicates 47 lines of bars with 4 lengths per line.
5. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet SF37.

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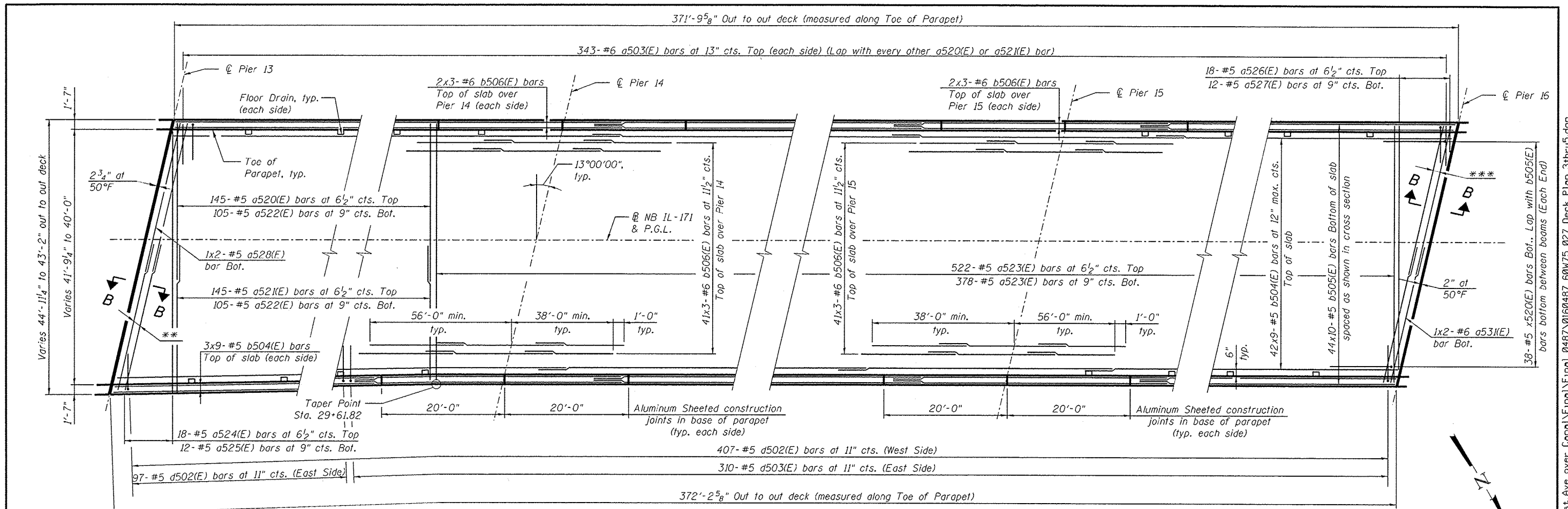
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DECK PLAN AND CROSS SECTION SPANS 1 AND 2
STRUCTURE NO. 016-0487

SHEET NO. SF26 OF SF96 SHEETS

F.A.P. RTE. 373	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 552
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

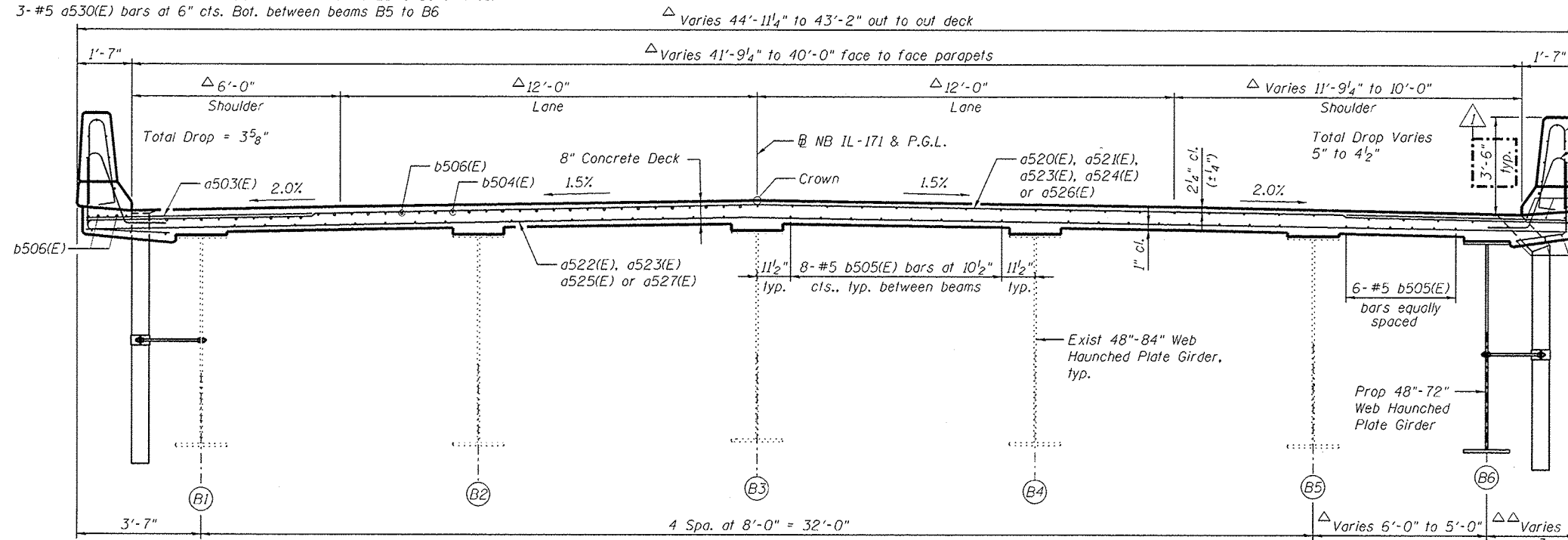
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PLAN

** 4x2-#5 a528(E) bars at 6" cts. Top
 3-#5 a529(E) bars at 6" cts. Bot. between beams B1 to B5 (4 thus)
 3-#5 a530(E) bars at 6" cts. Bot. between beams B5 to B6

*** 4x2-#5 a531(E) bars at 6" cts. Top
 3-#5 a529(E) bars at 6" cts. Bot. between beams B1 to B5 (4 thus)
 3-#5 a532(E) bars at 6" cts. Bot. between beams B5 to B6



CROSS SECTION

(Looking Upstation/North)

MINIMUM BAR LAP

(Slab)
 #5 bar = 3'-3"
 #6 bar = 3'-10"

NOTES:

1. For Superstructure Details, Section A-A, and Section B-B, see Sheet SF34.
2. For Bill of Material and Bar Bends, see Sheet SF35.
3. For locations and spacing of Floor Drains, see Sheet SF2.
4. Bars indicated thus 44x10-#5 etc. indicates 44 lines of bars with 10 lengths per line.
5. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet SF37.

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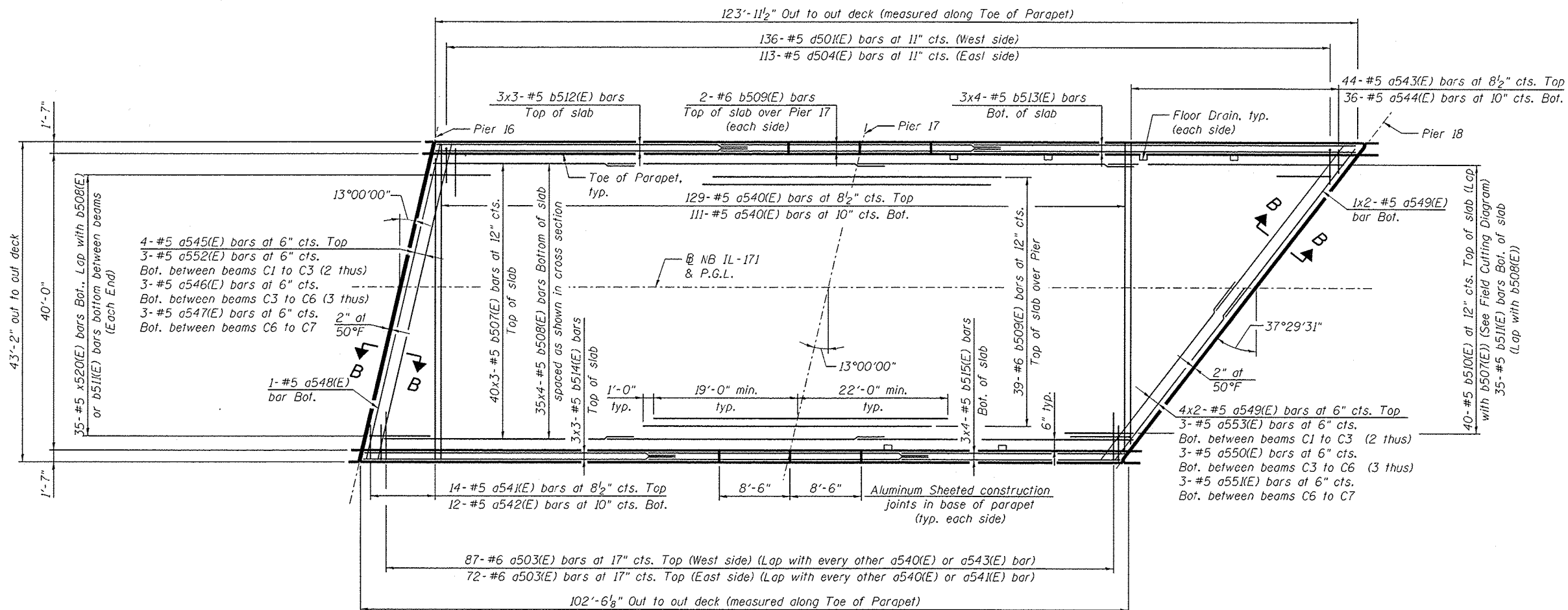
DECK PLAN AND CROSS SECTION SPANS 3 THRU 5
STRUCTURE NO. 016-0487

SHEET NO. SF27 OF SF96 SHEETS

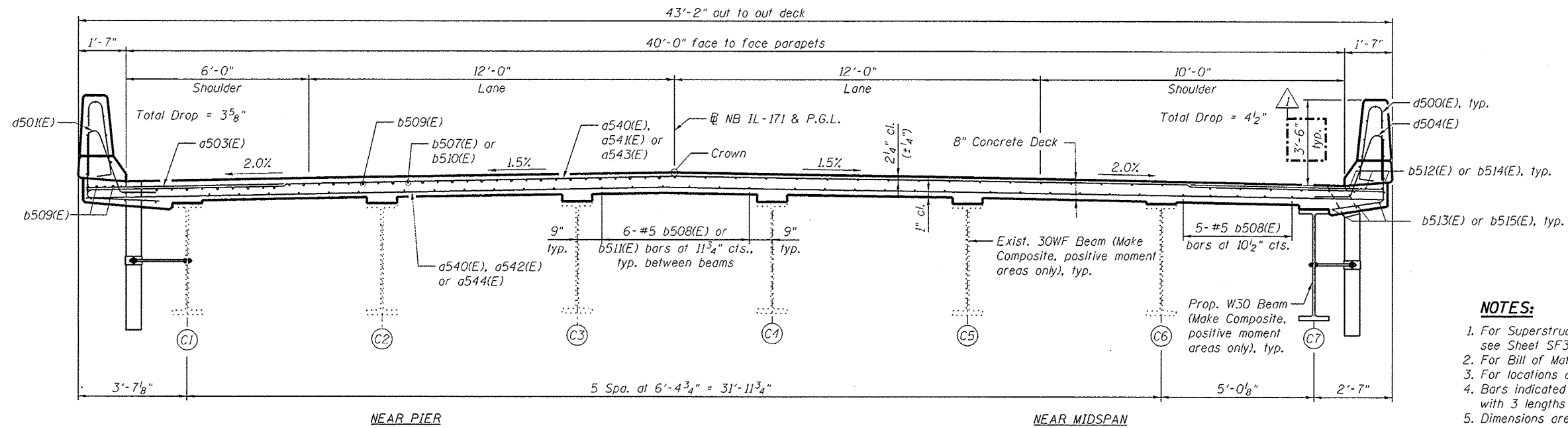
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CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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PLAN



CROSS SECTION
(Looking Upstation/North)

MINIMUM BAR LAP
(Slab)
#5 bar = 3'-3"
#6 bar = 3'-10"

- NOTES:**
1. For Superstructure Details, Section A-A, and Section B-B, see Sheet SF34.
 2. For Bill of Material and Bar Bends, see Sheet SF35.
 3. For locations and spacing of Floor Drains, see Sheet SF3.
 4. Bars indicated thus 54x3-#5 etc. indicates 54 lines of bars with 3 lengths per line.
 5. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet SF37.

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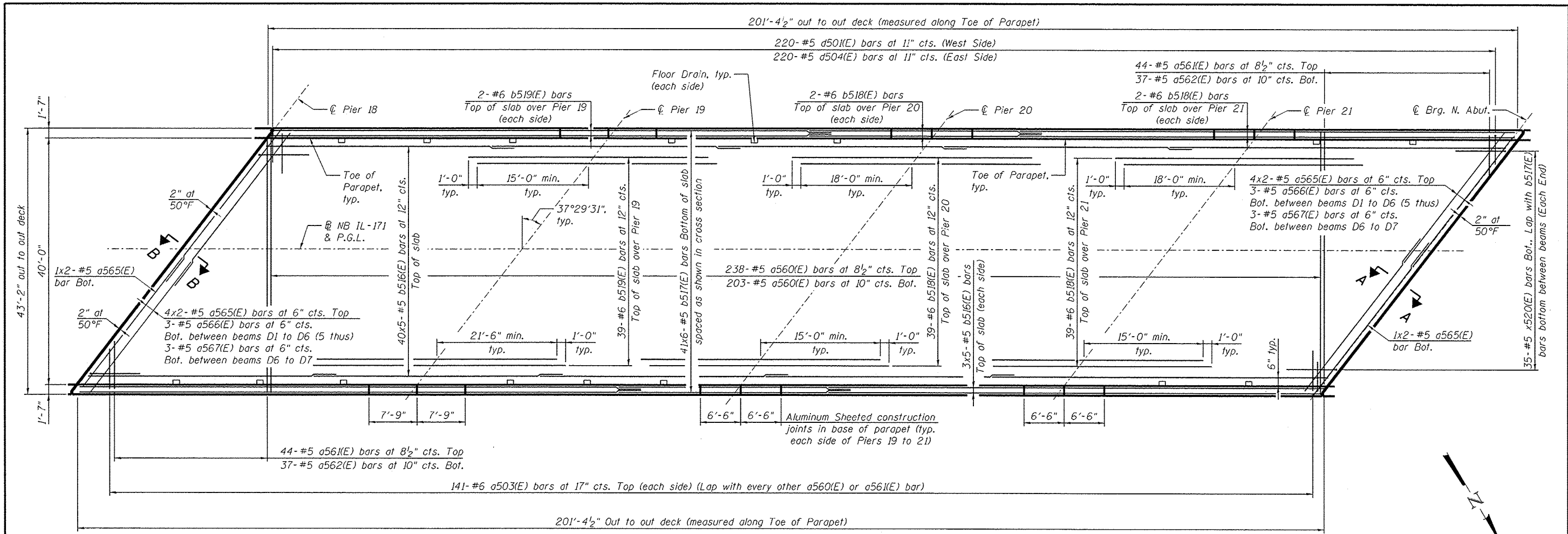
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DECK PLAN AND CROSS SECTION SPANS 6 AND 7
STRUCTURE NO. 016-0487

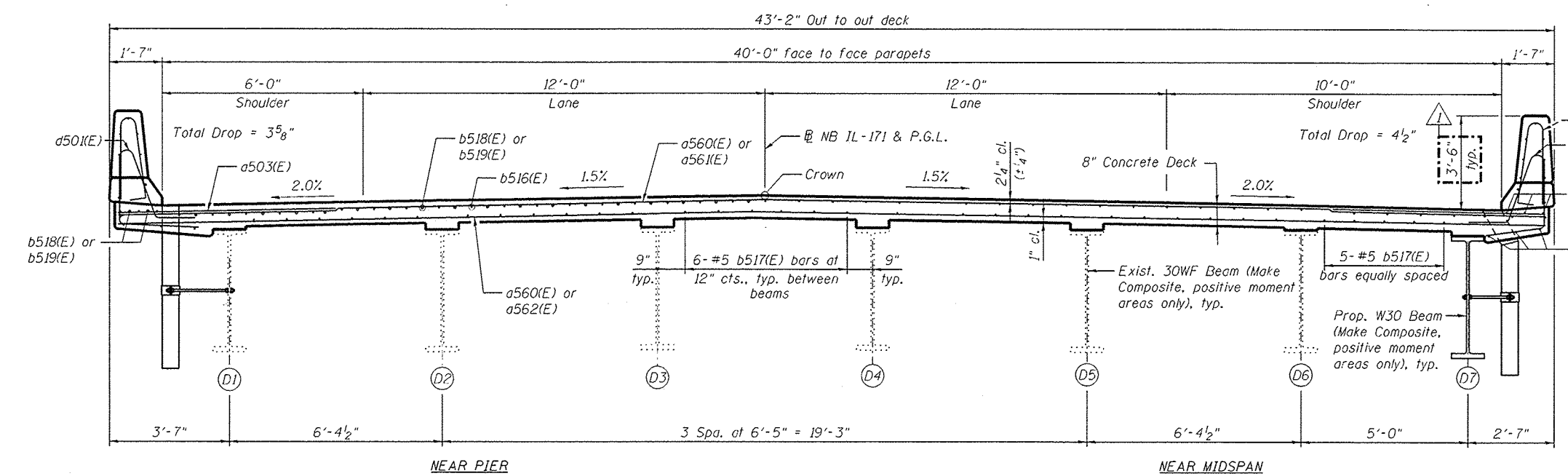
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SHEET NO. SF28 OF SF96 SHEETS

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PLAN



CROSS SECTION
(Looking Upstation/North)

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

- NOTES:**
1. For Superstructure Details, Section A-A, and Section B-B, see Sheet SF34.
 2. For Bill of Material and Bar Bends, see Sheet SF35.
 3. For locations and spacing of Floor Drains, see Sheet SF3.
 4. Bars indicated thus 54x3-#5 etc. indicates 54 lines of bars with 3 lengths per line.
 5. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet SF37.

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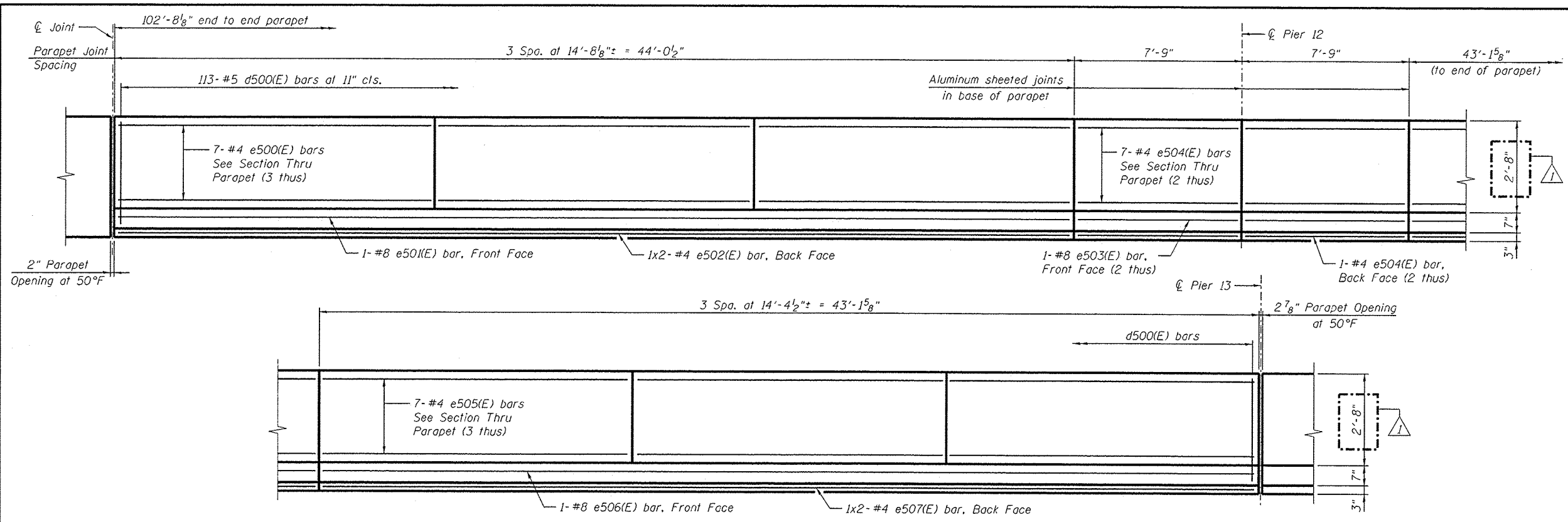
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DEPARTMENT OF TRANSPORTATION

DECK PLAN AND CROSS SECTION SPANS 8 THRU 11
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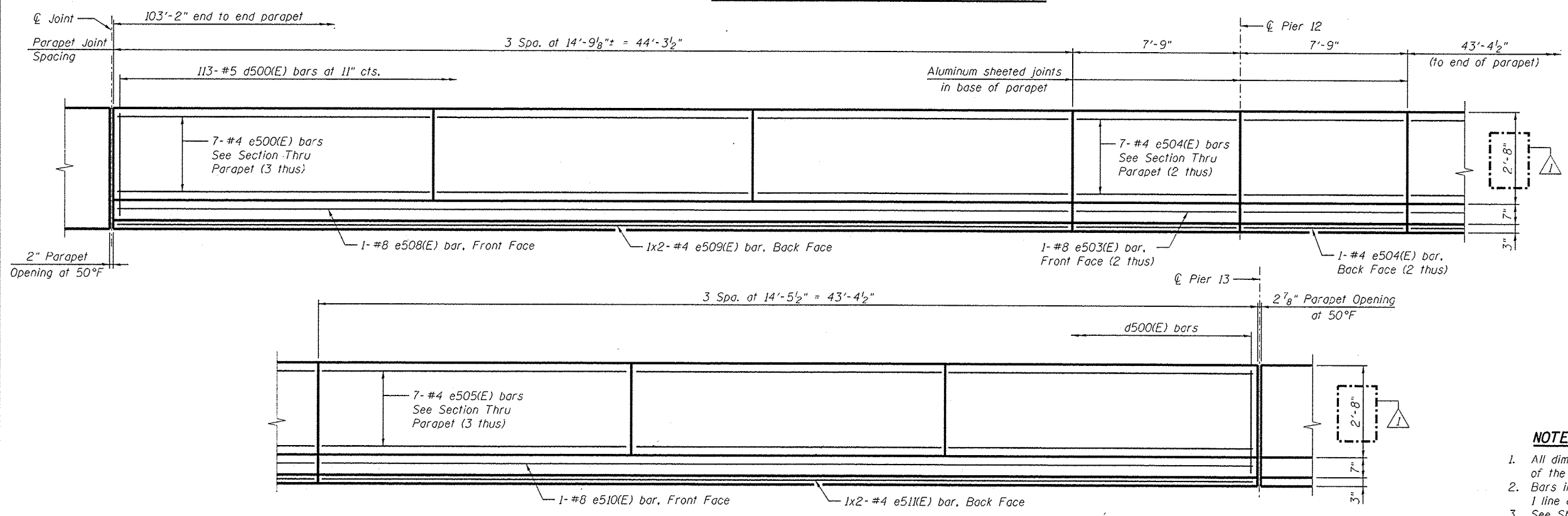
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INSIDE ELEVATION OF WEST PARAPET



INSIDE ELEVATION OF EAST PARAPET
(Reflected View Shown)

MINIMUM BAR LAP
#4 Bar = 2'-0"

- NOTES:**
1. All dimensions shown are along the toe of the parapet (gutterline).
 2. Bars indicated thus 1x2-#4 etc. indicates 1 line of bars with 2 lengths per line.
 3. See Sheet SF34 for cross section thru parapet and parapet joint details.

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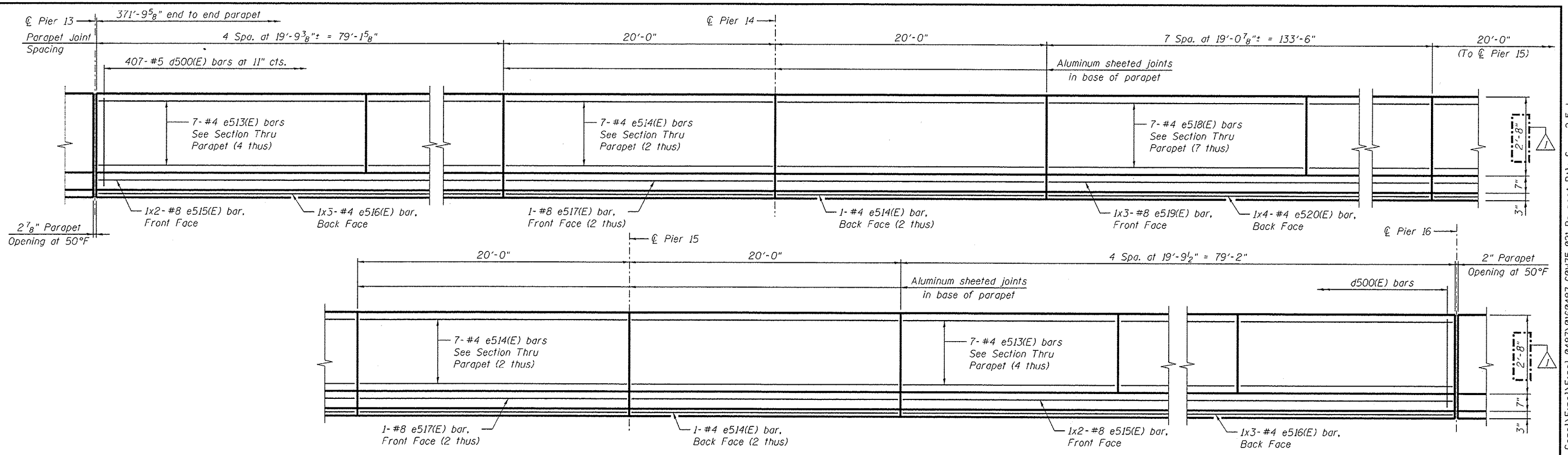
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DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS SPANS 1 AND 2
STRUCTURE NO. 016-0487

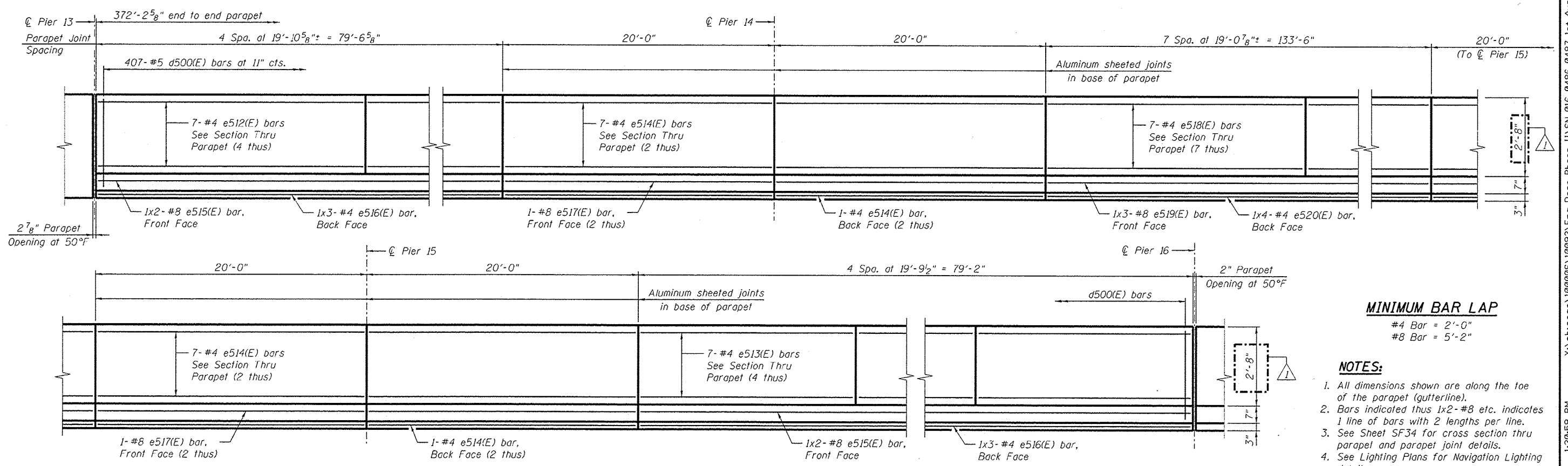
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INSIDE ELEVATION OF WEST PARAPET



INSIDE ELEVATION OF EAST PARAPET
(Reflected View Shown)

MINIMUM BAR LAP

#4 Bar = 2'-0"
#8 Bar = 5'-2"

NOTES:

1. All dimensions shown are along the toe of the parapet (gutterline).
2. Bars indicated thus 1x2-#8 etc. indicates 1 line of bars with 2 lengths per line.
3. See Sheet SF34 for cross section thru parapet and parapet joint details.
4. See Lighting Plans for Navigation Lighting details.

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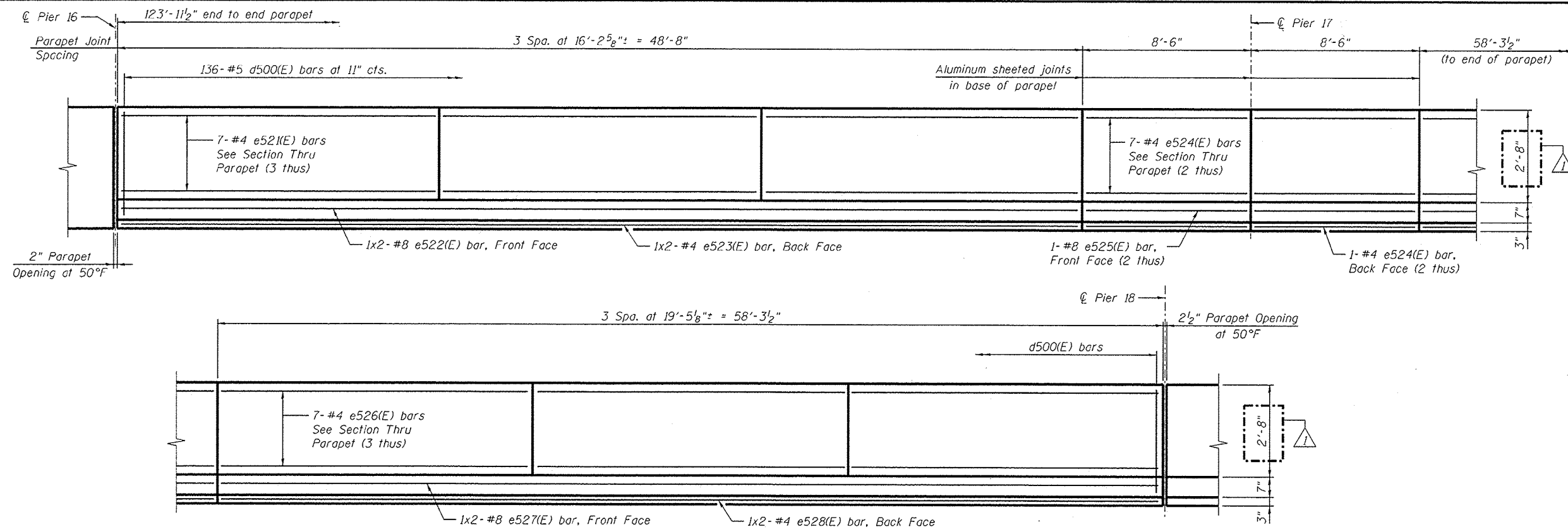
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PARAPET DETAILS SPANS 3 THRU 5
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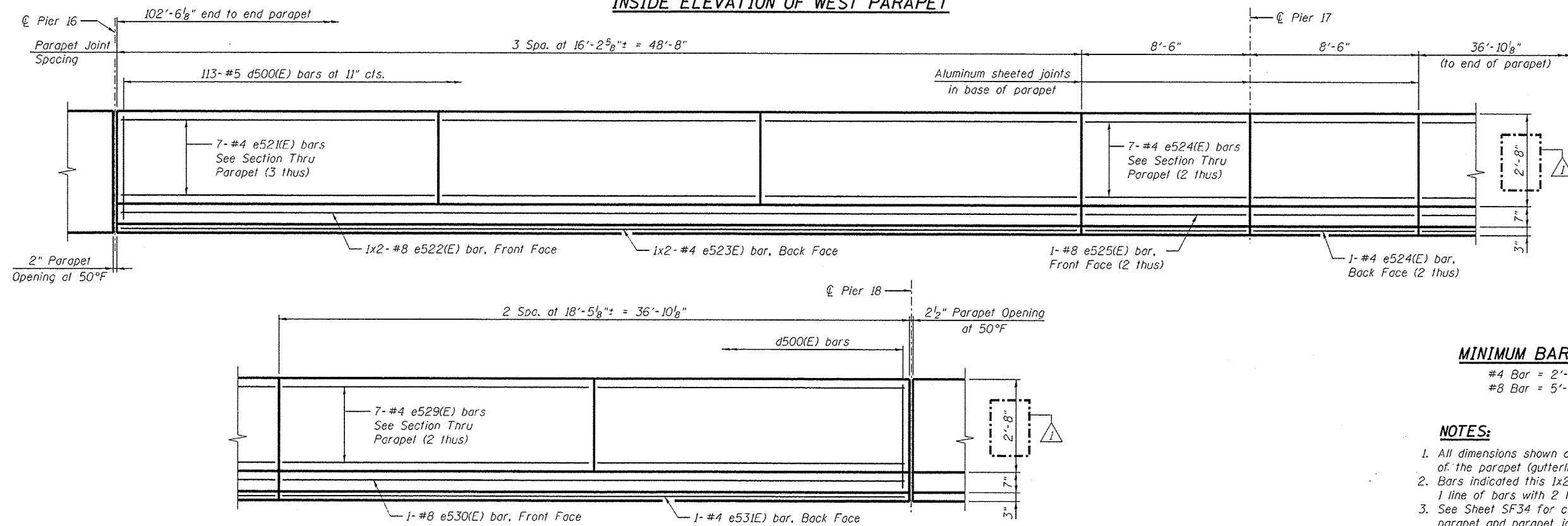
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ILLINOIS FED. AID PROJECT				

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INSIDE ELEVATION OF WEST PARAPET



INSIDE ELEVATION OF EAST PARAPET
(Reflected View Shown)

MINIMUM BAR LAP

- #4 Bar = 2'-0"
- #8 Bar = 5'-2"

NOTES:

1. All dimensions shown are along the toe of the parapet (gutterline).
2. Bars indicated this 1x2-#8 etc. indicates 1 line of bars with 2 lengths per line.
3. See Sheet SF34 for cross section thru parapet and parapet joint details.

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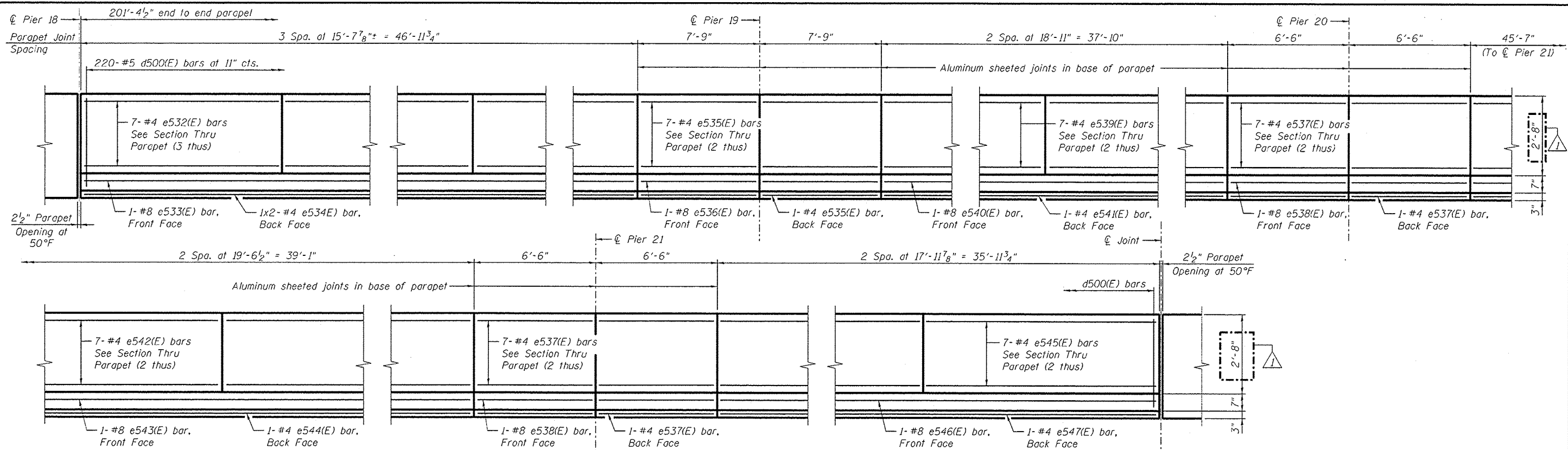
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DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS SPANS 6 AND 7
STRUCTURE NO. 016-0487

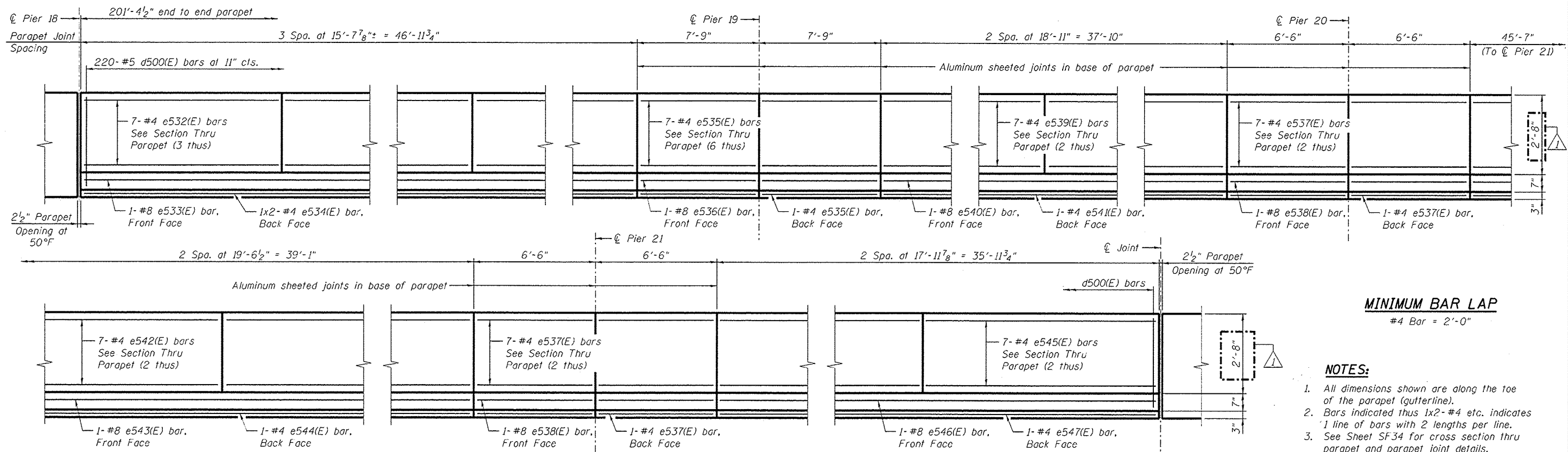
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CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

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INSIDE ELEVATION OF WEST PARAPET



INSIDE ELEVATION OF EAST PARAPET
(Reflected View Shown)

MINIMUM BAR LAP
#4 Bar = 2'-0"

- NOTES:**
1. All dimensions shown are along the toe of the parapet (gutterline).
 2. Bars indicated thus 1x2-#4 etc. indicates 1 line of bars with 2 lengths per line.
 3. See Sheet SF34 for cross section thru parapet and parapet joint details.

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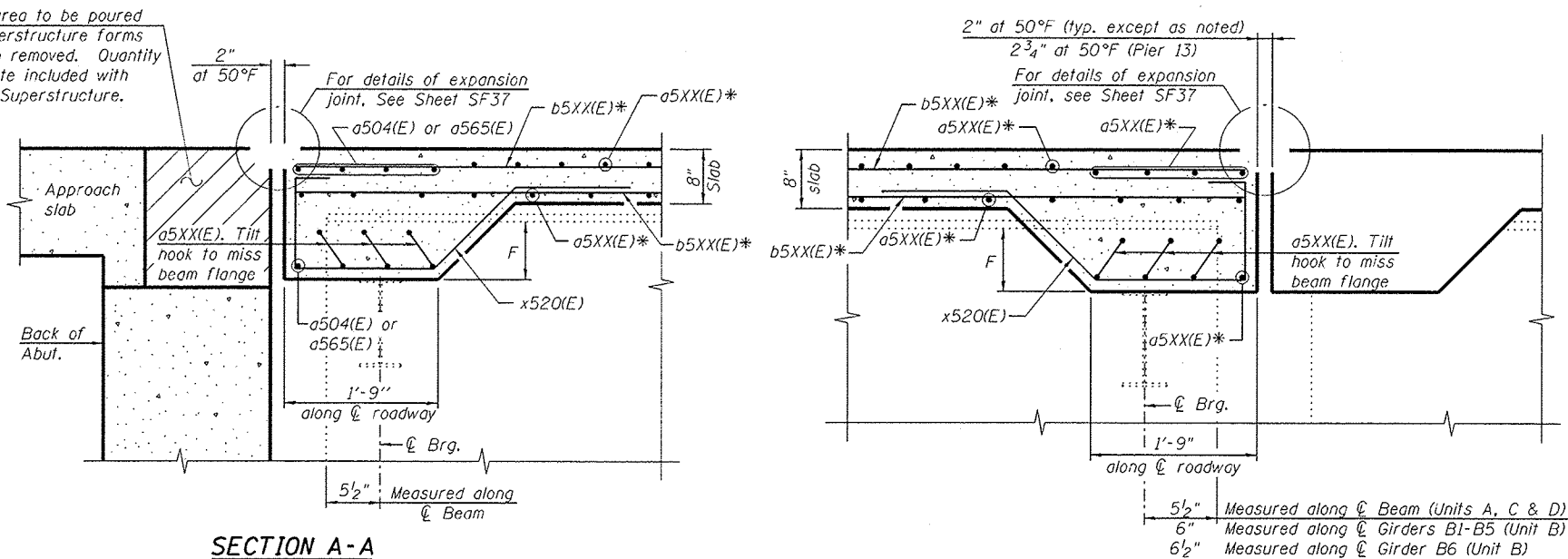
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SHEET NO. SF33 OF SF96 SHEETS

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

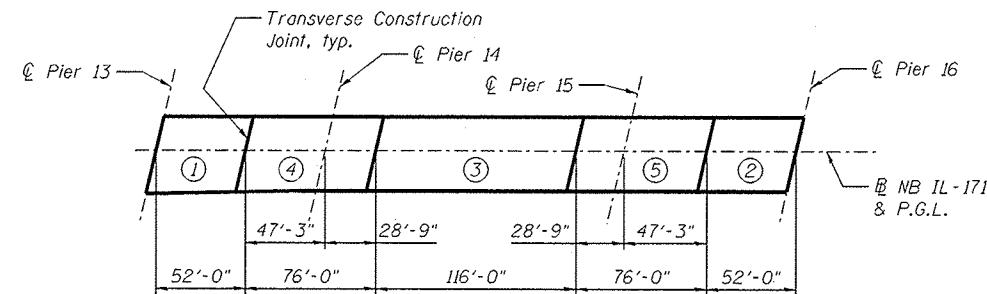


SECTION A-A

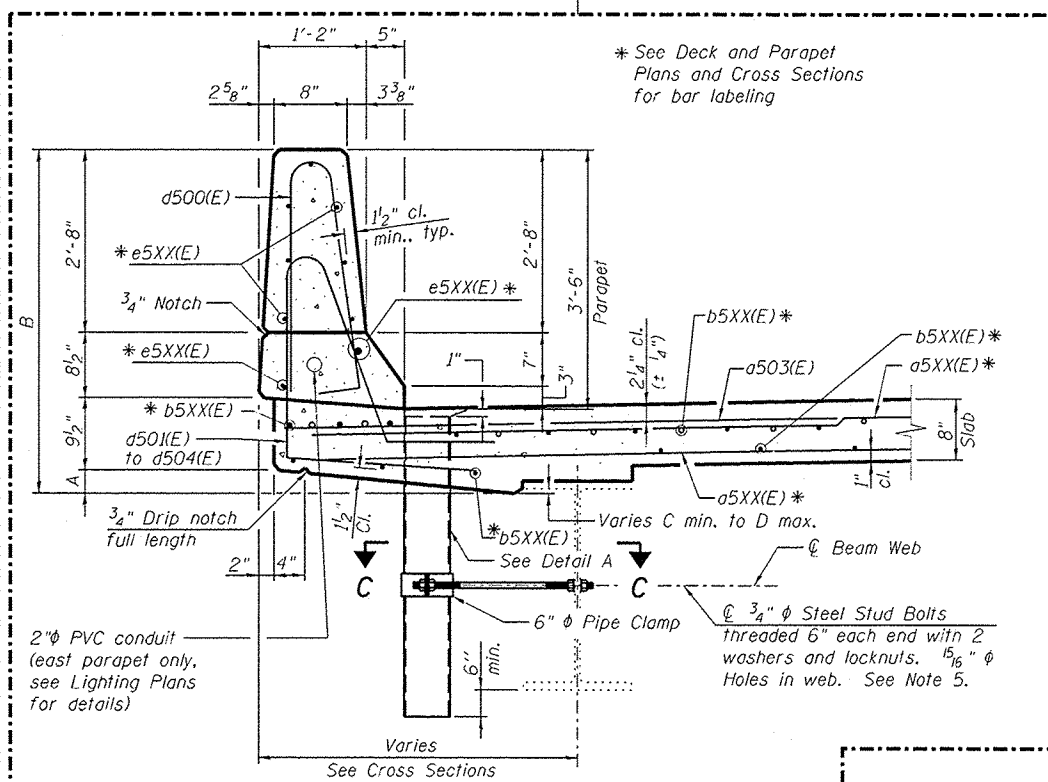
F Varies 2 1/2" to 5"

SECTION B-B

F Varies 2 1/2" to 5 1/2"

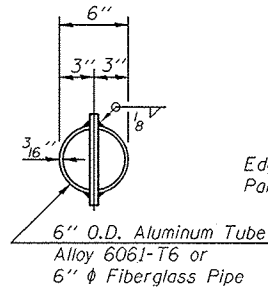


**SPANS 3 THRU 5
REQUIRED DECK POUR SEQUENCE**



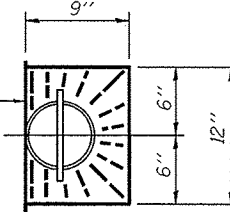
SECTION THRU PARAPET

Location	A	B	C	D
Spans 1-2	4"	4'-6"	1 1/2"	2 3/8"
Spans 3-5	5"	4'-7"	1"	3 3/8"
Spans 6-7	4"	4'-6"	1 1/4"	2 1/2"
Spans 8-11	4"	4'-6"	1 1/4"	2 5/8"

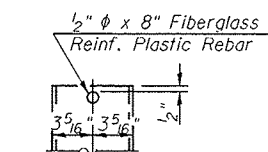


TOP PLAN

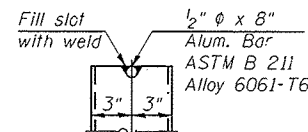
(Showing Aluminum Tube)



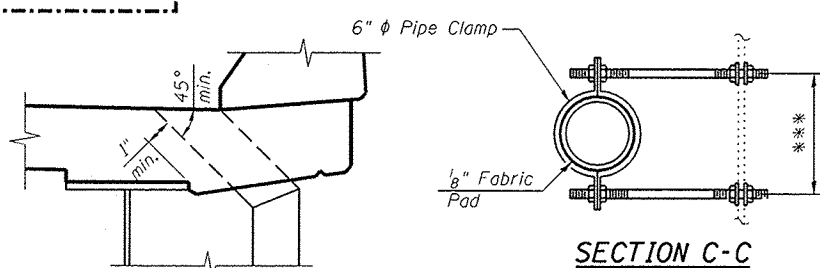
TOP PLAN



FIBERGLASS PIPE

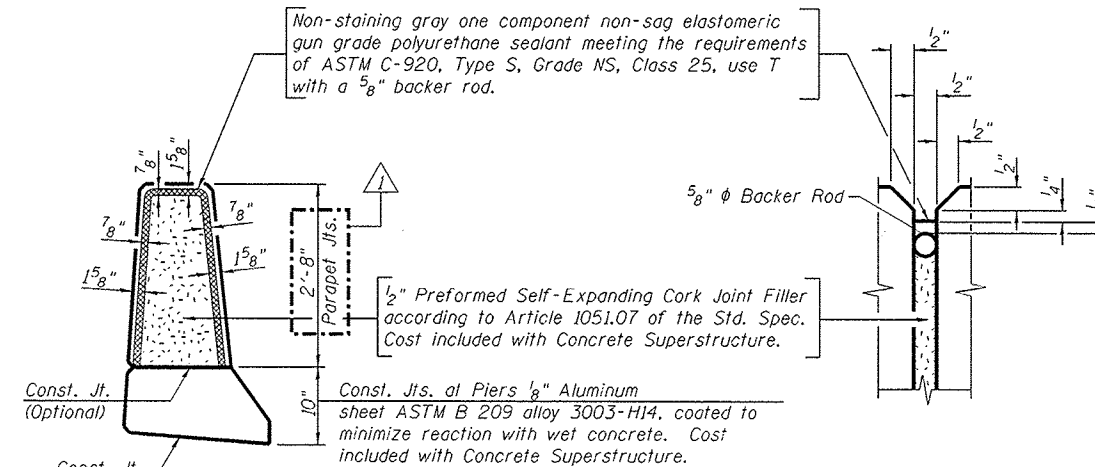


ALUMINUM TUBE



DETAIL A

(Angle drain when necessary to maintain 1" cl. as shown)



PARAPET JOINT DETAILS

NOTES:

- When the deck pour is stopped for the day at the transverse construction joints in the deck pouring sequence shown, the next pour shall not be made until both of the following are met:
 - At least 72 hours shall have elapsed from the end of the previous pour.
 - The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
- The Contractor is alerted that the dead load deflection values were developed based on the deck pouring sequence shown. Any deviation from this pouring sequence will result in changes to deck elevations. These changes shall be submitted to the Engineer to review and approve.
- Cleaning and painting of the exterior surfaces of the floor drains shall be performed under a separate painting contract.
- Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. Galvanize clamping device according to AASHTO M232. Cost of clamping device and galvanizing included with Floor Drains.
- Holes shall be drilled in field for existing beam and may be either field drilled or shop drilled for proposed beam.
- Floor drains shall be located clear of all diaphragms and cross frames.

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FILE NAME = 0162487_60W75_034_Deck_Details.dgn	USER NAME = jsuber	DESIGNED - JLS	REVISED - 10/21/2015 JLS
		CHECKED - AJK	REVISED -
		DRAWN - KMS	REVISED -
		CHECKED - AJK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-0487**

SHEET NO. SF34 OF SF96 SHEETS

F.A.P. RTE. 373	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 560
				CONTRACT NO. 60W75
ILLINOIS FED. AID PROJECT				

**SPANS 1 AND 2
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a500(E)	157	#5	21'-3"	
a501(E)	157	#5	28'-3"	
a502(E)	244	#5	24'-9"	
a503(E)	176	#6	6'-6"	
a504(E)	10	#5	25'-8"	
a505(E)	24	#5	6'-7"	
a506(E)	3	#5	7'-8"	
a507(E)	3	#5	6'-3"	
a508(E)	10	#5	24'-6"	
a509(E)	3	#5	5'-2"	
a510(E)	3	#5	6'-8"	
a511(E)	9	#5	47'-0"	
a512(E)	7	#5	46'-4"	
a513(E)	9	#5	46'-2"	
a514(E)	7	#5	47'-2"	
b500(E)	150	#5	36'-8"	
b501(E)	188	#5	28'-3"	
b502(E)	47	#6	37'-0"	

**SPANS 3 THRU 5
BILL OF MATERIAL**

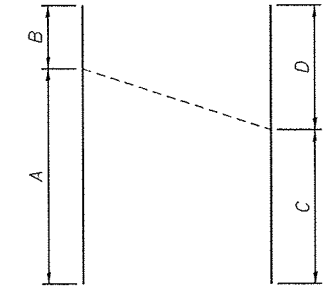
Bar	No.	Size	Length	Shape
a503(E)	686	#6	6'-6"	
a520(E)	145	#5	16'-11"	
a521(E)	145	#5	30'-6"	
a522(E)	210	#5	23'-8"	
a523(E)	900	#5	42'-6"	
a524(E)	9	#5	46'-5"	
a525(E)	6	#5	44'-4"	
a526(E)	9	#5	44'-10"	
a527(E)	6	#5	45'-2"	
a528(E)	10	#5	24'-6"	
a529(E)	24	#5	9'-1"	
a530(E)	3	#5	7'-0"	
a531(E)	10	#5	23'-8"	
a532(E)	3	#5	6'-0"	
b504(E)	432	#5	44'-5"	
b505(E)	440	#5	40'-4"	
b506(E)	270	#6	34'-3"	

**SPANS 6 AND 7
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a503(E)	159	#6	6'-6"	
a540(E)	240	#5	42'-6"	
a541(E)	7	#5	44'-10"	
a542(E)	6	#5	44'-8"	
a543(E)	22	#5	44'-0"	
a544(E)	18	#5	42'-5"	
a545(E)	4	#5	43'-8"	
a546(E)	9	#5	6'-6"	
a547(E)	3	#5	5'-1"	
a548(E)	1	#5	37'-7"	
a549(E)	10	#5	28'-6"	
a550(E)	9	#5	7'-10"	
a551(E)	3	#5	6'-1"	
a552(E)	6	#5	6'-2"	
a553(E)	6	#5	7'-4"	
b507(E)	120	#5	34'-0"	
b508(E)	140	#5	27'-5"	
b509(E)	43	#6	42'-0"	
b510(E)	20	#5	29'-9"	
b511(E)	18	#5	40'-3"	
b512(E)	9	#5	43'-6"	
b513(E)	12	#5	33'-6"	
b514(E)	9	#5	36'-5"	
b515(E)	12	#5	28'-1"	

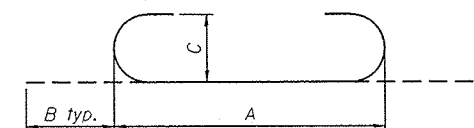
**SPANS 8 THRU 11
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a503(E)	282	#6	6'-6"	
a560(E)	441	#5	42'-6"	
a561(E)	44	#5	43'-10"	
a562(E)	37	#5	43'-7"	
a565(E)	20	#5	28'-6"	
a566(E)	30	#5	7'-10"	
a567(E)	6	#5	6'-1"	
b516(E)	230	#5	42'-11"	
b517(E)	246	#5	36'-4"	
b518(E)	86	#6	34'-0"	
b519(E)	43	#6	37'-6"	



CUTTING DIAGRAM
(See table for designations)

Bar	A	B	C	D
a511(E)	44'-10"	2'-2"	24'-9"	22'-3"
a512(E)	44'-2"	2'-2"	24'-9"	21'-7"
a513(E)	44'-1"	2'-1"	24'-4"	21'-10"
a514(E)	44'-1"	3'-1"	25'-2"	22'-0"
a524(E)	43'-1"	3'-4"	24'-5"	22'-0"
a525(E)	40'-0"	4'-4"	23'-9"	20'-7"
a526(E)	42'-4"	2'-6"	23'-8"	21'-2"
a527(E)	40'-6"	4'-8"	24'-2"	21'-0"
a541(E)	42'-4"	2'-6"	23'-11"	20'-11"
a542(E)	42'-2"	2'-6"	24'-1"	20'-7"
a543(E)	41'-10"	2'-2"	22'-6"	21'-6"
a544(E)	40'-2"	2'-3"	21'-9"	20'-8"
b510(E)	24'-6"	5'-3"	15'-3"	14'-6"
b511(E)	29'-9"	10'-6"	20'-6"	19'-9"
a561(E)	41'-9"	2'-1"	22'-5"	21'-5"
a562(E)	41'-4"	2'-3"	22'-4"	21'-3"



BAR DIAGRAM
(See table for designations)

Bar	A	B	C
a505(E)	5'-5"	7"	5"
a506(E)	6'-6"	7"	5"
a507(E)	5'-1"	7"	5"
a509(E)	4'-0"	7"	5"
a510(E)	5'-6"	7"	5"
a529(E)	7'-11"	7"	5"
a530(E)	5'-10"	7"	5"
a532(E)	4'-10"	7"	5"
a546(E)	5'-4"	7"	5"
a547(E)	3'-11"	7"	5"
a550(E)	6'-8"	7"	5"
a551(E)	4'-11"	7"	5"
a552(E)	5'-0"	7"	5"
a553(E)	6'-2"	7"	5"
a566(E)	6'-8"	7"	5"
a567(E)	4'-11"	7"	5"

d500(E)	226	#5	6'-10"	
d501(E)	226	#5	8'-3"	
e500(E)	42	#4	14'-4"	
e501(E)	1	#8	43'-8"	
e502(E)	2	#4	22'-10"	
e503(E)	4	#8	7'-5"	
e504(E)	32	#4	7'-5"	
e505(E)	42	#4	14'-0"	
e506(E)	1	#8	42'-9"	
e507(E)	2	#4	22'-5"	
e508(E)	1	#8	43'-11"	
e509(E)	2	#4	23'-0"	
e510(E)	1	#8	43'-0"	
e511(E)	2	#4	22'-6"	
x520(E)	82	#5	6'-5"	

d500(E)	814	#5	6'-10"	
d502(E)	504	#5	8'-0"	
d503(E)	310	#5	7'-1"	
e512(E)	28	#4	19'-7"	
e513(E)	84	#4	19'-5"	
e514(E)	64	#4	19'-8"	
e515(E)	8	#8	42'-0"	
e516(E)	12	#4	27'-8"	
e517(E)	8	#8	19'-8"	
e518(E)	98	#4	18'-9"	
e519(E)	6	#8	47'-10"	
e520(E)	8	#4	34'-10"	
x520(E)	76	#5	6'-5"	

d500(E)	249	#5	6'-10"	
d501(E)	136	#5	8'-3"	
d504(E)	113	#5	7'-4"	
e521(E)	42	#4	15'-10"	
e522(E)	4	#8	26'-9"	
e523(E)	4	#4	25'-2"	
e524(E)	32	#4	8'-2"	
e525(E)	4	#8	8'-2"	
e526(E)	21	#4	19'-1"	
e527(E)	2	#8	31'-7"	
e528(E)	2	#4	30'-0"	
e529(E)	14	#4	18'-1"	
e530(E)	1	#8	36'-6"	
e531(E)	1	#4	36'-6"	
x520(E)	70	#5	6'-5"	

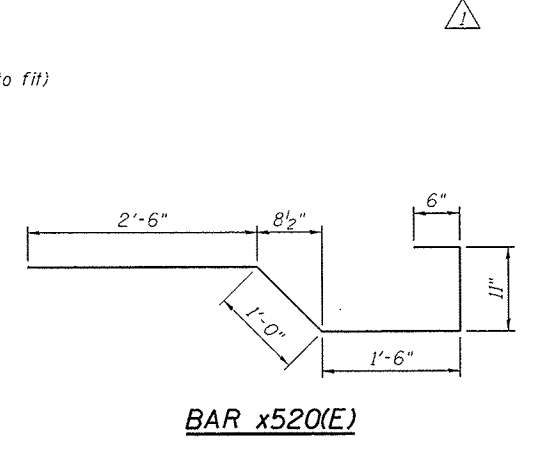
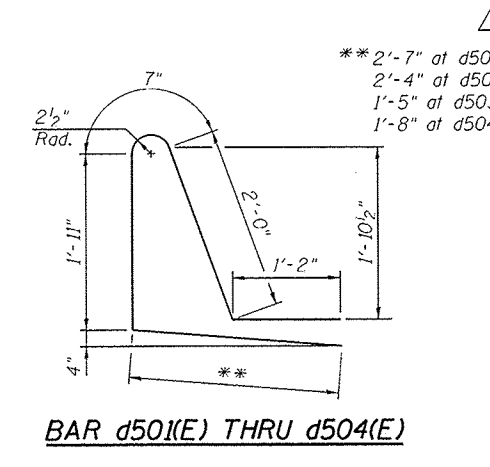
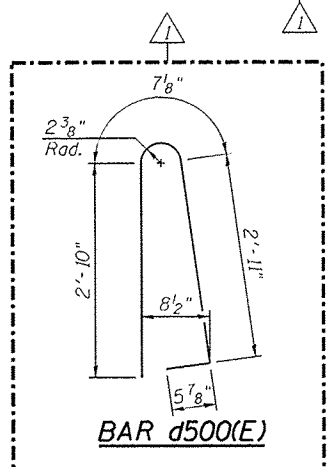
d500(E)	440	#5	6'-10"	
d501(E)	220	#5	8'-3"	
d504(E)	220	#5	7'-4"	
e532(E)	42	#4	15'-4"	
e533(E)	2	#8	46'-7"	
e534(E)	4	#4	24'-4"	
e535(E)	32	#4	7'-5"	
e536(E)	4	#8	7'-5"	
e537(E)	64	#4	6'-2"	
e538(E)	8	#8	6'-2"	
e539(E)	28	#4	18'-7"	
e540(E)	2	#8	37'-6"	
e541(E)	2	#4	37'-6"	
e542(E)	28	#4	19'-2"	
e543(E)	2	#8	38'-9"	
e544(E)	2	#4	38'-9"	
e545(E)	28	#4	17'-8"	
e546(E)	2	#8	35'-7"	
e547(E)	2	#4	35'-7"	
x520(E)	70	#5	6'-5"	

Concrete Superstructure	Cu. Yd.	155.2
Bridge Deck Grooving	Sq. Yd.	466
Protective Coat	Sq. Yd.	588
Reinforcement Bars, Epoxy Coated	Pound	38,060

Concrete Superstructure	Cu. Yd.	526.0
Bridge Deck Grooving	Sq. Yd.	1,607
Protective Coat	Sq. Yd.	2,047
Reinforcement Bars, Epoxy Coated	Pound	132,010

Concrete Superstructure	Cu. Yd.	156.3
Bridge Deck Grooving	Sq. Yd.	478
Protective Coat	Sq. Yd.	613
Reinforcement Bars, Epoxy Coated	Pound	35,350

Concrete Superstructure	Cu. Yd.	282.7
Bridge Deck Grooving	Sq. Yd.	85
Protective Coat	Sq. Yd.	1,089
Reinforcement Bars, Epoxy Coated	Pound	63,650



** 2'-7" at d501(E)
2'-4" at d502(E) (cut to fit)
1'-5" at d503(E)
1'-8" at d504(E)

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FILE NAME :	USER NAME : jmurber	DESIGNED - JLS	REVISOR - JLS
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	PLT DATE : 10/19/2015		

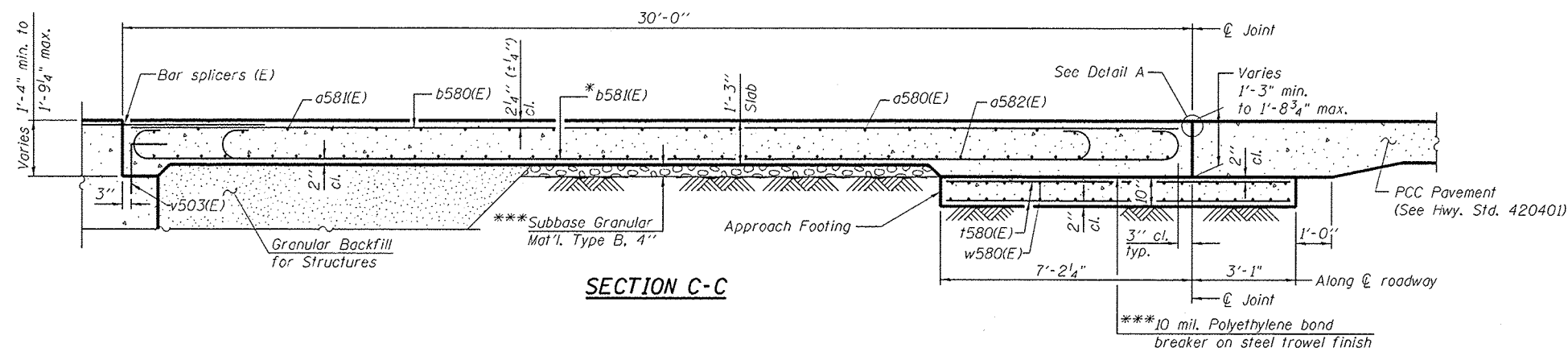
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REINFORCING BAR DETAILS AND BILL OF MATERIAL SPANS 1 THRU 11
STRUCTURE NO. 016-0487
SHEET NO. SF35 OF SF96 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	2013-0378-R	COOK	787	561
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

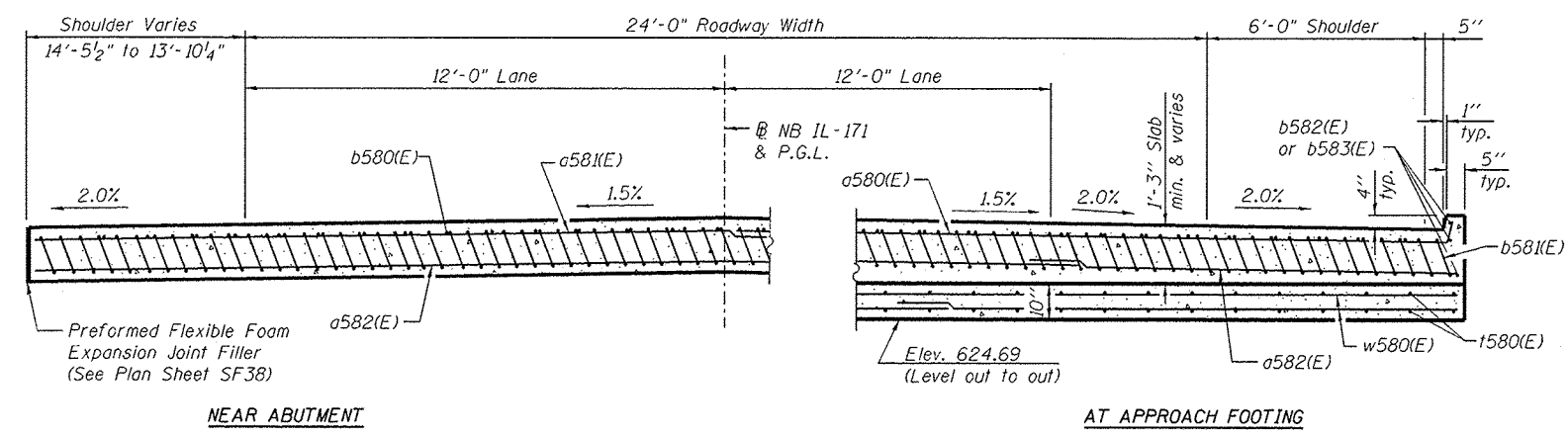
**ONE APPROACH
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a580(E)	26	#4	25'-5"	—	
a581(E)	24	#4	24'-0"	—	
a582(E)	92	#5	25'-5"	—	
b580(E)	36	#4	29'-8"	—	
b581(E)	105	#9	29'-9"	—	
b582(E)	3	#4	15'-6"	—	
b583(E)	3	#4	16'-1"	—	
t580(E)	94	#4	9'-11"	—	
w580(E)	80	#5	25'-4"	—	
Bridge Deck Grooving				Sq. Yd.	142
Protective Coat				Sq. Yd.	159
Concrete Superstructure				Cu. Yd.	70.6
Concrete Structures				Cu. Yd.	14.7
Reinforcement Bars, Epoxy Coated				Pound	17,410

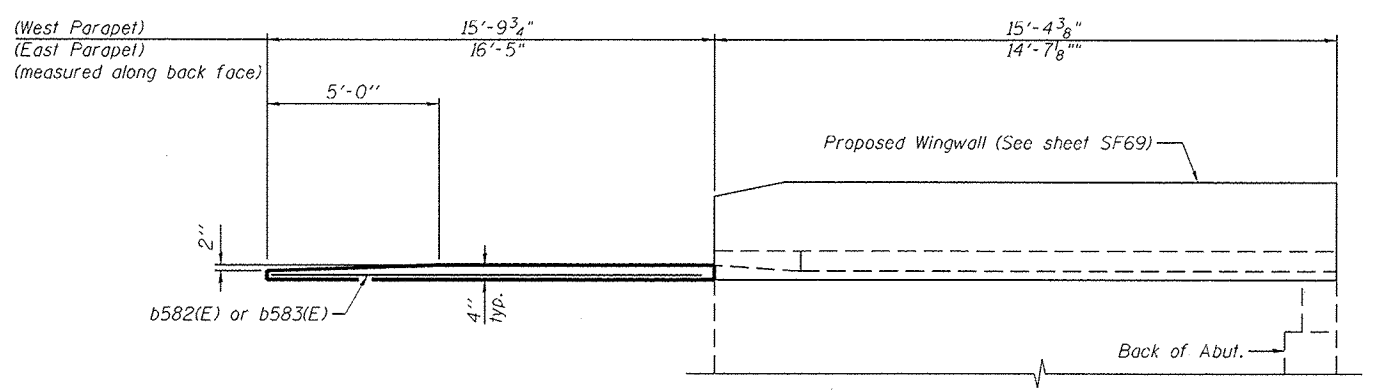
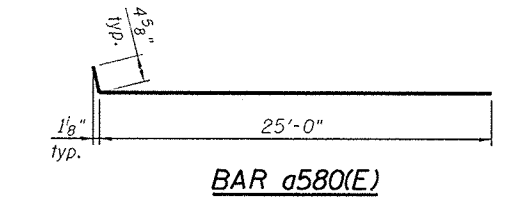
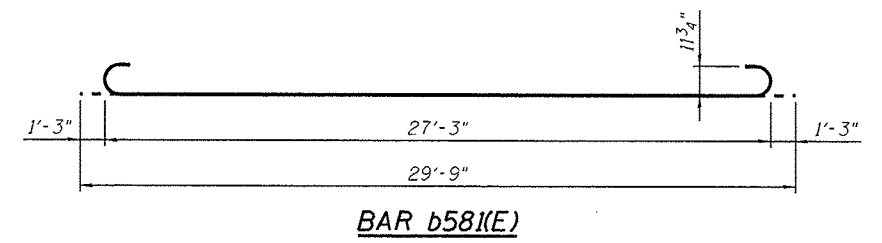


SECTION C-C

* Tilt #9 b581(E) bars as required to maintain clearance.
*** Cost included with "Concrete Superstructure".



SECTION D-D
(See Plan for dimensions not shown)



VIEW E-E

NOTES:

1. See sheet SF38 for Detail A.
2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v503(E) bar details, see sheets SF67, SF68 and SF73.
6. The approach footing maximum applied service bearing pressure (Omax) = 2.0 ksf.
7. For bar splicer details, see sheet SF86.
8. Cost of excavation for approach footing included with Concrete Structures.
9. For Granular Backfill for Structures and drainage treatment details, see sheet SF73.
10. For additional parapet details, see sheet SF69.

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FILE NAME : 0160487_60W75_039_Supprslabdet.dgn	USER NAME : jsuber	DESIGNED - MLM	REVISED - / 10/21/2015 JLS
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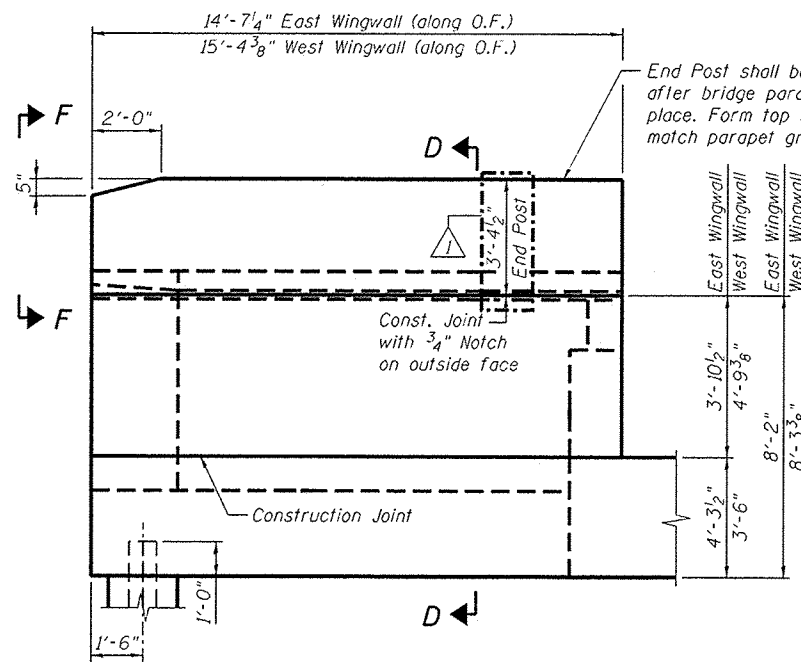
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTH BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-0487**

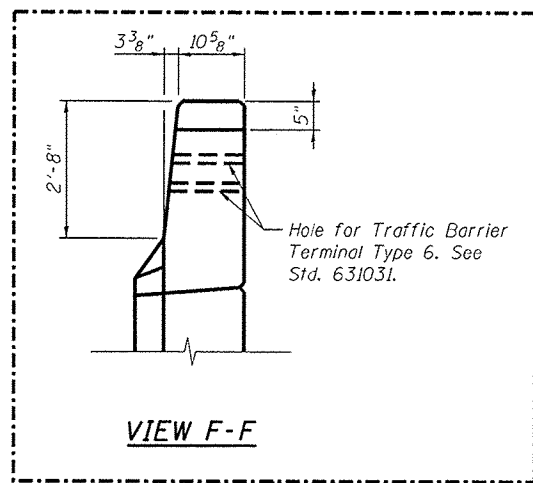
SHEET NO. SF39 OF SF96 SHEETS

F.A.P. RTE. 373	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 565
CONTRACT NO. 60W75				ILLINOIS FED. AID PROJECT

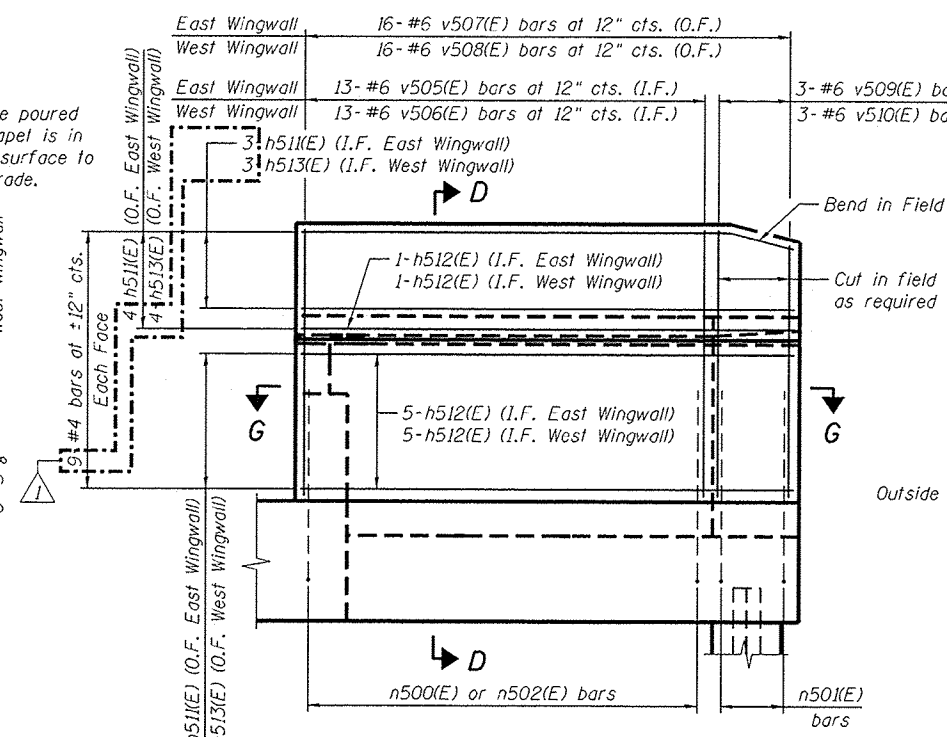
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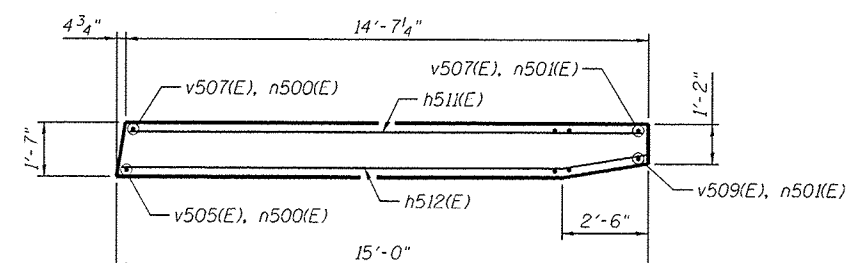
WINGWALL ELEVATION
Showing Dimensions



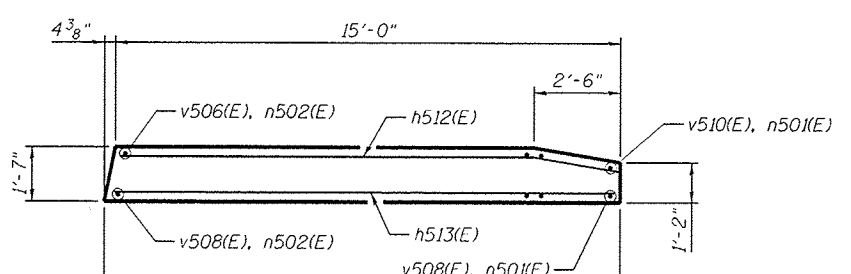
VIEW F-F



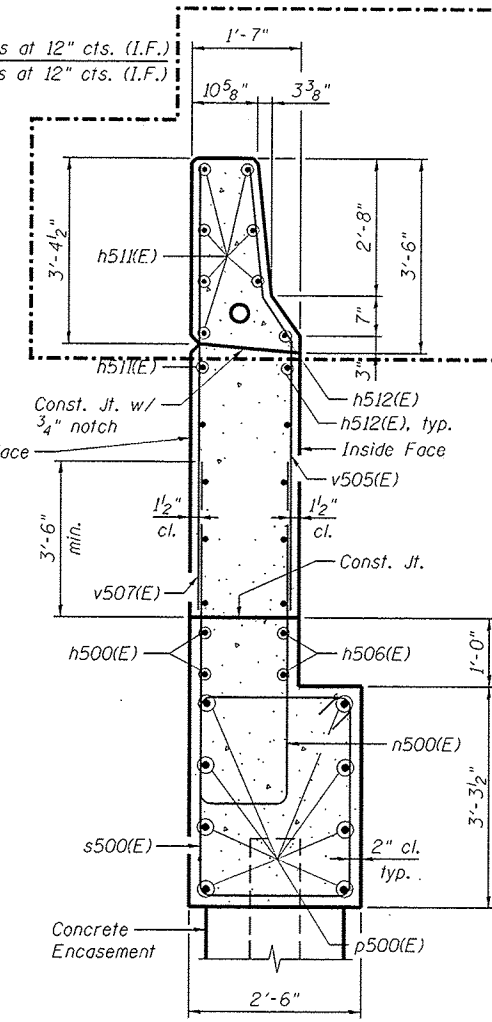
WINGWALL ELEVATION
Showing Reinforcement
(See Sheet SF67 for additional reinforcement in Wingwall Footings)



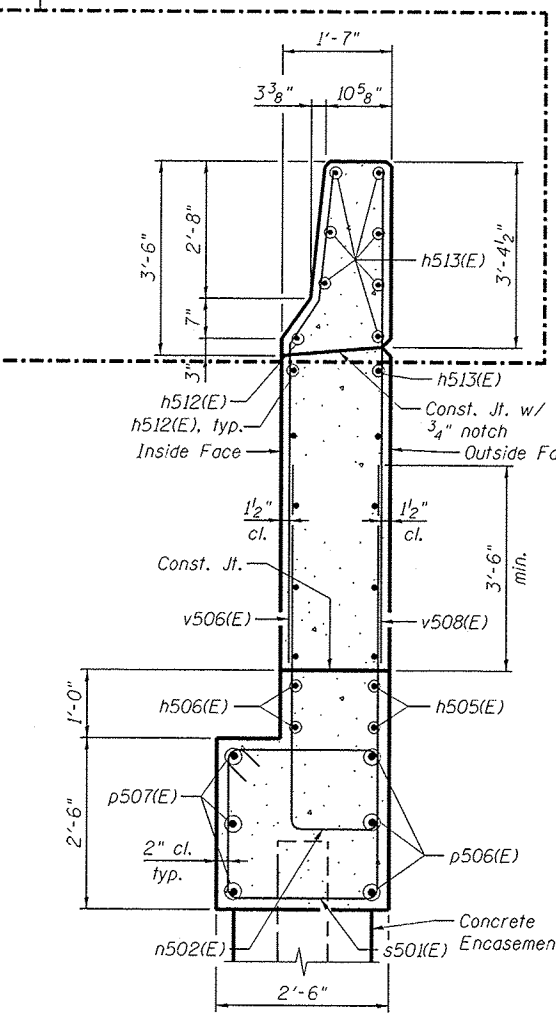
SECTION G-G
East Wingwall



SECTION G-G
West Wingwall



SECTION D-D
East Wingwall
(1-2" PVC Conduit. See Lighting Plans for details.)



SECTION D-D
West Wingwall

NOTE:
Quantity of concrete in end posts included with Concrete Superstructure on Sheet SF39.

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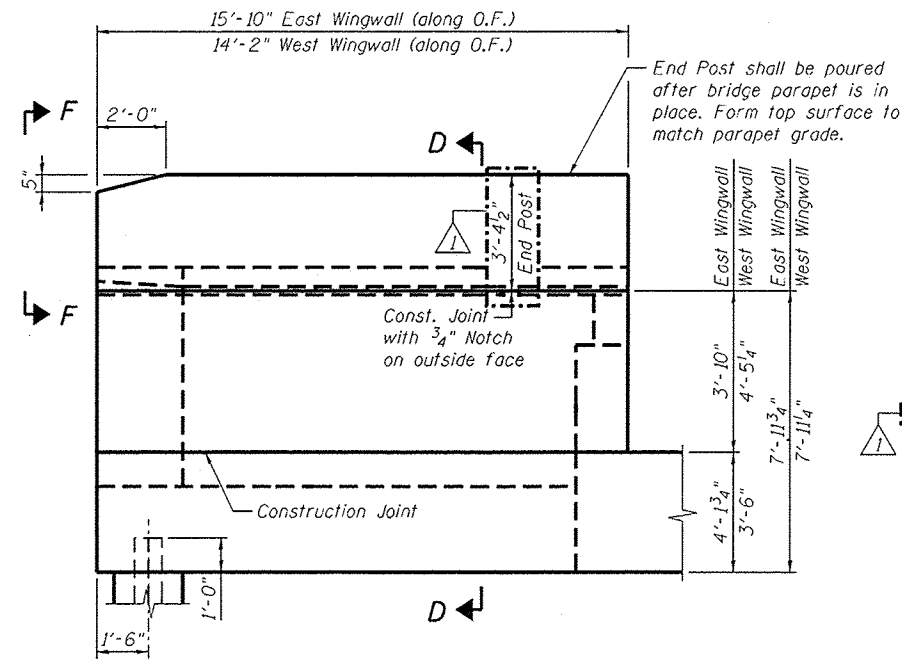
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		DRAWN - RMG	REVISI -
		CHECKED - AJK	REVISI -

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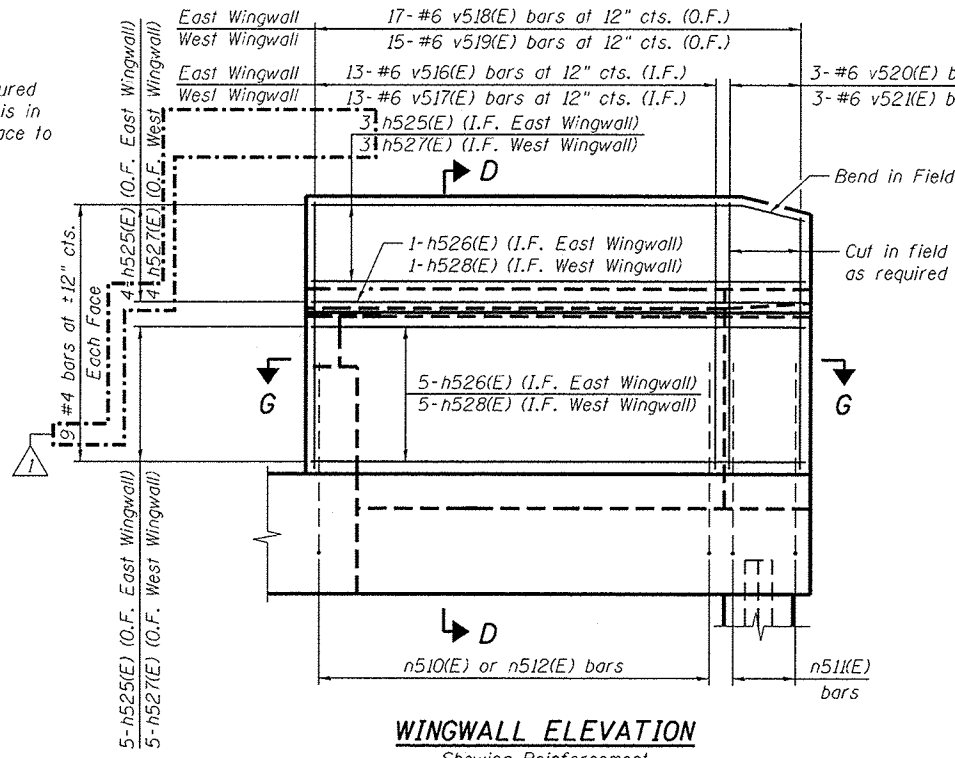
SOUTH ABUTMENT WIDENING DETAILS (3 OF 3)
STRUCTURE NO. 016-0487
SHEET NO. SF69 OF SF96 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	2013-0378-R	COOK	787	595
CONTRACT NO. 60W75			ILLINOIS FED. AID PROJECT	

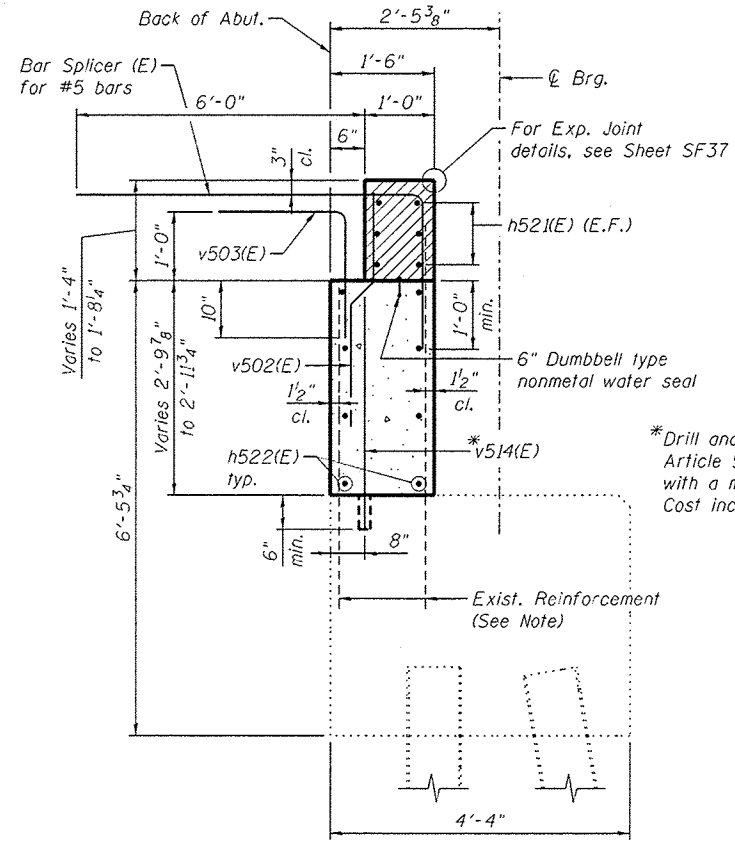
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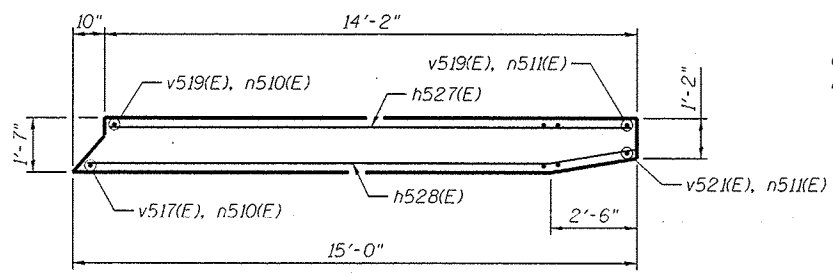
WINGWALL ELEVATION
Showing Dimensions



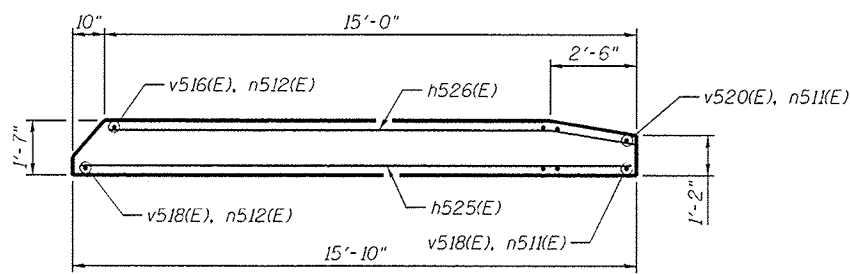
WINGWALL ELEVATION
Showing Reinforcement
(See Sheet SF70 for additional reinforcement in Wingwall Footings)



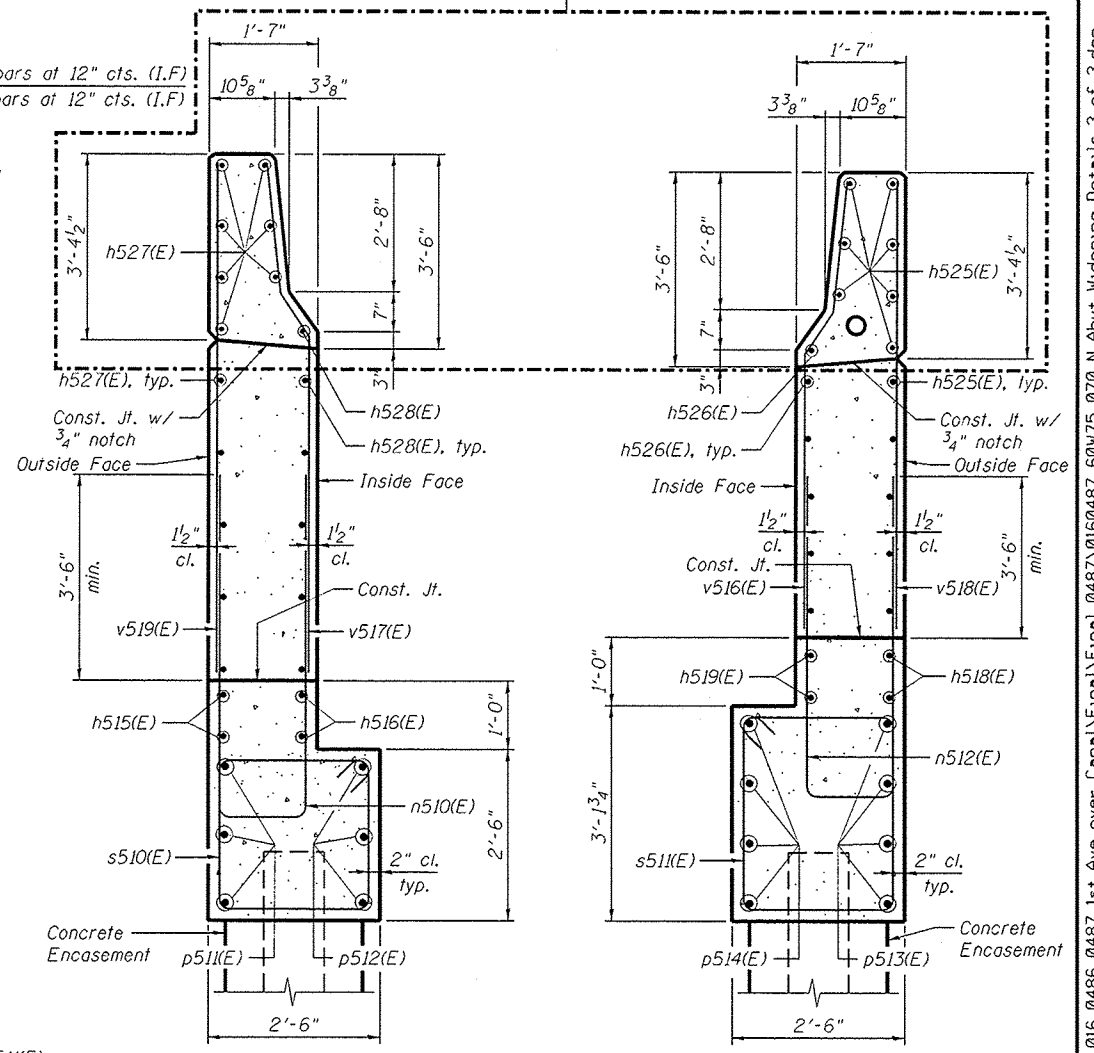
SECTION E-E
(Thru exist. Abutment)



SECTION G-G
West Wingwall

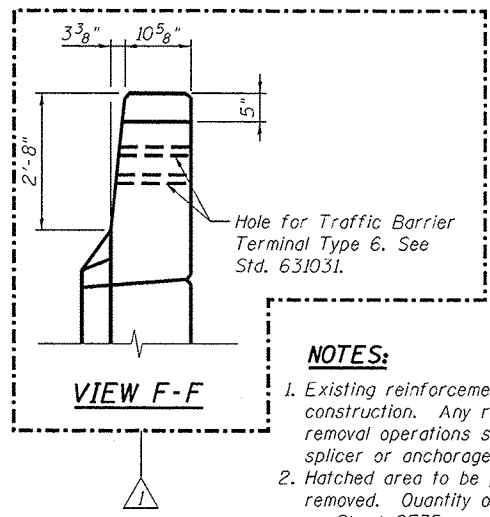


SECTION G-G
East Wingwall



SECTION D-D
West Wingwall

SECTION D-D
East Wingwall



VIEW F-F

- NOTES:**
- Existing reinforcement shall be cleaned and incorporated in the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
 - Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure on Sheet SF35.
 - Quantity of concrete in end posts included with Concrete Superstructure on Sheet SF41.

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312-565-0450 Job No. 10093

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0160487_60W75_070_N.Abut.Widening_Details		CHECKED - AJK	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - AJK	REVISED -

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NORTH ABUTMENT WIDENING DETAILS (3 OF 3)
STRUCTURE NO. 016-0487

SHEET NO. SF72 OF SF96 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	2013-037B-R	COOK	787	598
			CONTRACT NO. 60W75	
ILLINOIS FED. AID PROJECT				

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**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h500(E)	2	#5	17'-2"	
h501(E)	12	#6	24'-6"	
h503(E)	4	#5	5'-2"	
h504(E)	8	#5	24'-3"	
h505(E)	2	#5	17'-11"	
h506(E)	4	#5	17'-7"	
h507(E)	12	#5	9'-6"	
h508(E)	12	#5	9'-6"	
h511(E)	12	#4	14'-3"	
h512(E)	12	#4	14'-3"	
h513(E)	12	#4	15'-0"	
n500(E)	13	#6	14'-8"	
n501(E)	12	#6	7'-4"	
n502(E)	13	#6	12'-10"	
p500(E)	8	#7	17'-2"	
p503(E)	12	#7	5'-10"	
p504(E)	8	#7	4'-11"	
p505(E)	8	#7	4'-0"	
p506(E)	3	#7	17'-11"	
p507(E)	3	#7	12'-11"	
s500(E)	14	#4	10'-11"	
s501(E)	14	#4	9'-5"	
s502(E)	7	#4	16'-7"	
s503(E)	1	#4	10'-9"	
s504(E)	1	#4	10'-5"	
s505(E)	1	#4	10'-1"	
s506(E)	1	#4	9'-9"	
s507(E)	2	#4	9'-7"	
v500(E)	6	#5	7'-2"	
v501(E)	6	#5	5'-5"	
v502(E)	46	#5	3'-3"	
v503(E)	46	#5	3'-9"	
v504(E)	40	#5	3'-4"	
v505(E)	13	#6	7'-2"	
v506(E)	13	#6	8'-1"	
v507(E)	16	#6	7'-1"	
v508(E)	16	#6	8'-0"	
v509(E)	3	#6	6'-8"	
v510(E)	3	#6	7'-8"	
u500(E)	5	#5	10'-6"	
u501(E)	2	#5	13'-1"	
Structure Excavation	Cu. Yd.		139	
Concrete Structures	Cu. Yd.		29.8	
Reinforcement Bars, Epoxy Coated	Pound		4,500	
Furnishing Steel Piles HP12x53	Foot		123	
Driving Piles	Foot		123	
Test Pile Steel HP12x53	Each		1	
Pile Shoes	Each		4	
Concrete Encasement	Cu. Yd.		1.4	
Concrete Sealer	Sq. Ft.		264	
Granular Backfill for Structures	Cu. Yd.		60	

PILE DATA

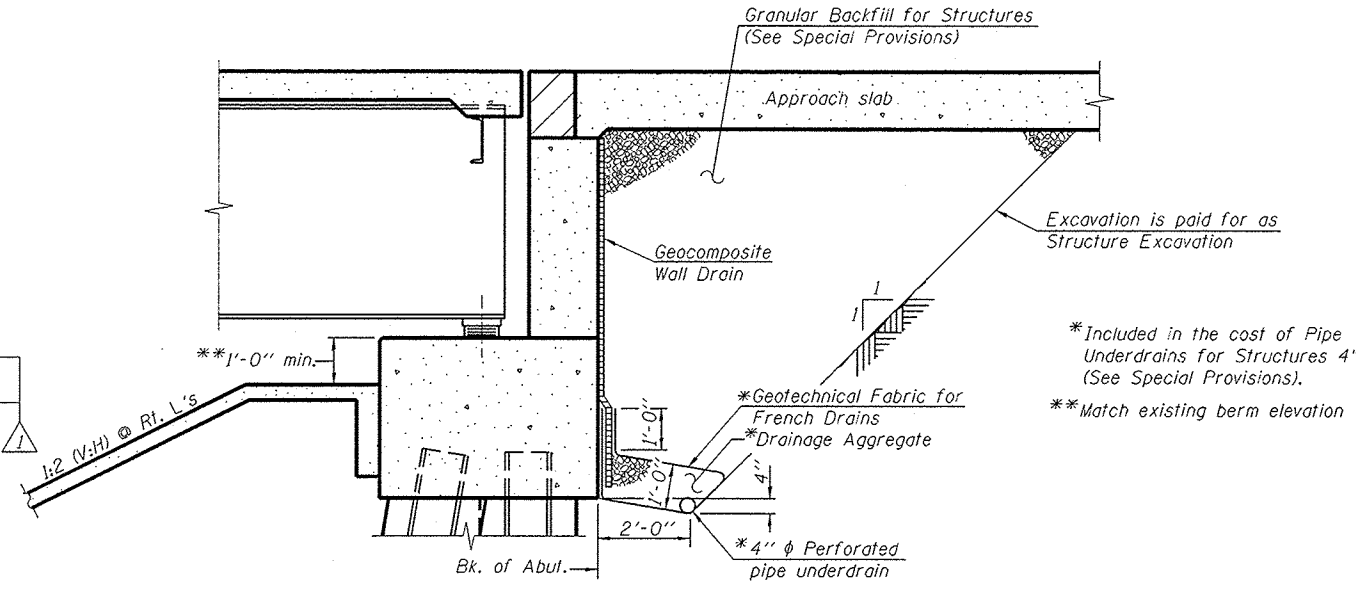
Type: HP12x53 with Pile Shoes
Nominal Required Bearing: 311 kips
Allowable Resistance Available: 104 kips
Est. Length: 41 ft.
No. Production Piles: 3
No. Test Piles: 1

**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h515(E)	2	#5	17'-0"	
h516(E)	2	#5	15'-5"	
h517(E)	5	#5	7'-0"	
h518(E)	2	#5	18'-1"	
h519(E)	2	#5	17'-11"	
h520(E)	6	#5	6'-3"	
h521(E)	12	#6	27'-3"	
h522(E)	8	#5	27'-0"	
h523(E)	12	#5	9'-6"	
h524(E)	12	#5	9'-6"	
h525(E)	12	#4	15'-6"	
h526(E)	6	#4	12'-5"	
h527(E)	12	#4	13'-10"	
h528(E)	6	#4	14'-7"	
n510(E)	12	#6	13'-4"	
n511(E)	12	#6	7'-2"	
n512(E)	13	#6	15'-4"	
p510(E)	12	#7	7'-8"	
p511(E)	3	#7	17'-0"	
p512(E)	3	#7	13'-3"	
p513(E)	4	#7	18'-1"	
p514(E)	4	#7	15'-6"	
p516(E)	8	#7	3'-4"	
p517(E)	8	#7	5'-2"	
s510(E)	15	#4	9'-5"	
s511(E)	16	#4	10'-7"	
s512(E)	7	#4	16'-3"	
v502(E)	51	#5	3'-3"	
v503(E)	51	#5	3'-9"	
v511(E)	6	#5	6'-0"	
v512(E)	6	#5	5'-0"	
v514(E)	45	#5	3'-2"	
v516(E)	13	#6	7'-1"	
v517(E)	13	#6	7'-8"	
v518(E)	17	#6	7'-0"	
v519(E)	15	#6	7'-7"	
v520(E)	3	#6	6'-8"	
v521(E)	3	#6	7'-3"	
u510(E)	1	#5	5'-2"	
u511(E)	1	#5	6'-8"	
u512(E)	1	#5	7'-2"	
u513(E)	5	#5	5'-9"	
Structure Excavation	Cu. Yd.		147	
Concrete Structures	Cu. Yd.		28.9	
Reinforcement Bars, Epoxy Coated	Pound		4,610	
Furnishing Steel Piles HP12x53	Foot		141	
Driving Piles	Foot		141	
Test Pile Steel HP12x53	Each		1	
Pile Shoes	Each		4	
Concrete Encasement	Cu. Yd.		1.4	
Concrete Sealer	Sq. Ft.		285	
Granular Backfill for Structures	Cu. Yd.		64	

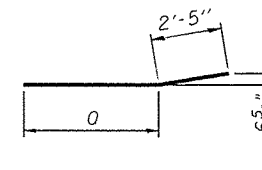
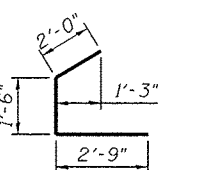
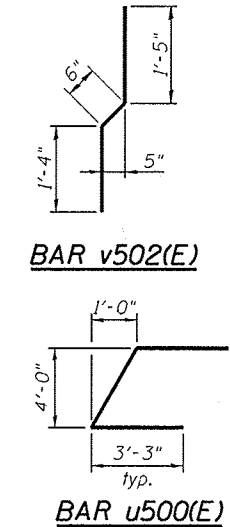
PILE DATA

Type: HP12x53 with Pile Shoes
Nominal Required Bearing: 241 kips
Allowable Resistance Available: 81 kips
Est. Length: 47 ft.
No. Production Piles: 3
No. Test Piles: 1



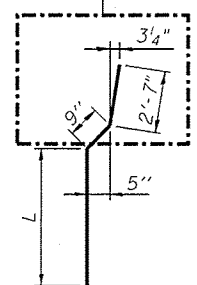
BACKFILL AND DRAINAGE DETAIL

Note:
All drainage system components shall extend parallel to the abutment backwall until they intersect the wingwalls. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

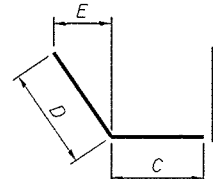


Bar	O
h506(E)	15'-2"
h512(E)	12'-3"
h516(E)	13'-0"
h519(E)	15'-6"
h526(E)	12'-4"
h528(E)	12'-2"

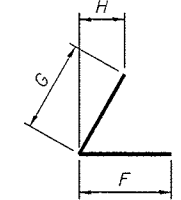
Bar	N	P
n500(E)	6'-8"	1'-4"
n502(E)	5'-9"	1'-4"
n510(E)	6'-0"	1'-4"
n512(E)	7'-0"	1'-4"
u501(E)	5'-0"	3'-1"
u510(E)	1'-0"	3'-2"
u511(E)	1'-9"	3'-2"
u512(E)	2'-0"	3'-2"
u513(E)	1'-0"	3'-9"



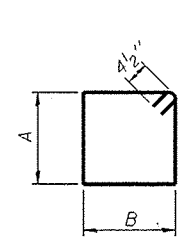
Bar	L
v505(E)	3'-10"
v506(E)	4'-9"
v516(E)	3'-9"
v517(E)	4'-4"



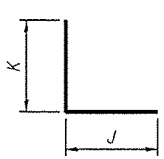
Bar	C	D	E
h508(E)	4'-9"	4'-9"	1'-0 3/4"
h523(E)	4'-9"	4'-9"	2'-10 3/4"
p516(E)	1'-4"	2'-0"	1'-3"



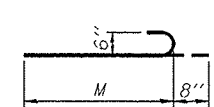
Bar	F	G	H
h503(E)	1'-11"	3'-3"	8 3/4"
h507(E)	4'-9"	4'-9"	1'-0 3/4"
h524(E)	4'-9"	4'-9"	2'-10 3/4"
p505(E)	2'-0"	2'-0"	5 1/2"



Bar	A	B
s500(E)	2'-11"	2'-2"
s501(E)	2'-2"	2'-2"
s502(E)	3'-11"	4'-0"
s503(E)	1'-10"	3'-2"
s504(E)	1'-8"	3'-2"
s505(E)	1'-6"	3'-2"
s506(E)	1'-4"	3'-2"
s507(E)	1'-3"	3'-2"
s510(E)	2'-2"	2'-2"
s511(E)	2'-9"	2'-2"
s512(E)	3'-9"	4'-0"



Bar	J	K
h517(E)	4'-0"	3'-0"
p504(E)	3'-9"	1'-2"
p517(E)	4'-0"	1'-2"
v503(E)	1'-11"	1'-10"



Bar	M
n501(E)	6'-8"
n511(E)	6'-6"

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CHECKED - AJK	REVISIONS -
DRAWN - RMG	REVISIONS -
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	REVISIONS -

DESIGNED - JLS	REVISOR - 10/21/2015 JLS
CHECKED - AJK	REVISIONS -
DRAWN - RMG	REVISIONS -
PLOT DATE = 10/19/2015	CHECKED - AJK
	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT BAR BENDS AND BILL OF MATERIAL
STRUCTURE NO. 016-0487
SHEET NO. SFT3 OF SF96 SHEETS

F.A.P. RTE. 373	SECTION 2013-037B-R	COUNTY COOK	TOTAL SHEETS 787	SHEET NO. 599
			CONTRACT NO. 60W75	
ILLINOIS FED. AID PROJECT				

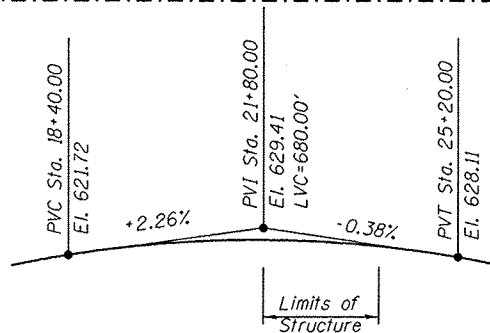
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GENERAL NOTES

- Fasteners shall be ASTM A325 Type I, mechanically galvanized bolts. Bolts 7/8" dia., holes 1 1/8" dia., unless otherwise noted.
- Calculated weight of Structural Steel =
M270 Grade 36: 1,340 lbs
M270 Grade 50: 18,920 lbs
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck and end diaphragms at the abutments, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

11. The top of top flange of the existing structural steel is anticipated to have been painted. Areas of the top flange to receive stud shear connectors shall be cleaned as per the requirements for Primary Connections. See Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". Cost included with Stud Shear Connectors.



CURVE RAMP D-1

P.I. STA = 24+31.17
 $\Delta = 10^{\circ}48'56''$ (RT)
 D = 3°56'58"
 R = 1,450.69'
 T = 137.33'
 L = 273.84'
 E = 6.49'
 e = 4.6%
 P.C. STA = 22+93.84
 P.C.C. STA = 25+67.68

- The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel and the steel portions of new elastomeric bearings. Only Inorganic Zinc Rich Primer shall be applied to the new structural steel and the steel portions of the new elastomeric bearings in the shop under this contract and is included in the respective steel or bearing pay items. The intermediate and top coats shall be applied under a separate painting contract.
- Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

INDEX OF SHEETS

SG1	General Plan and Elevation
SG2	General Notes, Bill of Material, and Index of Sheets
SG3	Details
SG4	Slopedwall Repair Details
SG5	Footing Layout
SG6	Stage Construction Details
SG7	Temporary Concrete Barrier for Stage Construction
SG8	Top of Slab Elevations Plan
SG9-SG11	Top of Slab Elevations
SG12-SG13	Top of Approach Slab Elevations
SG14	Superstructure
SG15-SG16	Superstructure Details
SG17	Concrete Parapet Slip Forming Option
SG18	Semi-Integral Abutment Diaphragm Details
SG19-SG21	Bridge Approach Slab Details
SG22	Framing Plan
SG23	Structural Steel Details
SG24	Abutment Bearing Details
SG25	Pier Bearing Details
SG26	Partial Abutment Removal and Repair Details
SG27-SG28	South Abutment Widening
SG29-SG30	North Abutment Widening
SG31	Pier Repair Details
SG32	Pier 1 Widening
SG33	Pier 2 Widening
SG34	HP Pile Details
SG35-SG38	Boring Logs

For existing bridge plans, see Sheets SGX1 thru SGX14 immediately following Sheet SG38.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		42.9	42.9
Slope Wall Removal	Sq. Yd.		661	661
Removal of Existing Concrete Deck No. 5	Each	1		1
Protective Shield	Sq. Yd.	330		330
Structure Excavation	Cu. Yd.		279	279
Floor Drains	Each	4		4
Concrete Structures	Cu. Yd.		111.7	111.7
Concrete Superstructure	Cu. Yd.	506.7		506.7
Bridge Deck Grooving	Sq. Yd.	1,274		1,274
Concrete Encasement	Cu. Yd.		1.4	1.4
Protective Coat	Sq. Yd.	1,514		1,514
* Furnishing and Erecting Structural Steel	L Sum	0.05		0.05
Stud Shear Connectors	Each	5,751		5,751
Reinforcement Bars, Epoxy Coated	Pound	111,450	9,120	120,570
Slope Wall 4 Inch	Sq. Yd.		802	802
Furnishing Steel Piles HP12x53	Foot		322	322
Driving Piles	Foot		322	322
Test Pile Steel HP12x53	Each		4	4
Pile Shoes	Each		14	14
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	2		2
Elastomeric Bearing Assembly, Type II	Each	1		1
Anchor Bolts, 3/4"	Each	4		4
Anchor Bolts, 1"	Each	2		2
** Epoxy Crack Injection	Foot		18	18
Geocomposite Wall Drain	Sq. Yd.		91	91
Remove Conduit Attached to Structure	Foot	498		498
Granular Backfill for Structures	Cu. Yd.		325	325
Adjust Rocker and Sole Plate	Each	8		8
Structural Steel Repair	Pound	6,460		6,460
*** Cleaning Bridge Seats	Sq. Ft.		524	524
*** Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		59	59
** Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.		12	12
Pipe Underdrains for Structures 4"	Foot		164	164
*** Selective Clearing	Unit		2	2
Temporary Soil Retention System	Sq. Ft.		781	781

- * Remainder of this item is installed with other structures in this Contract. See other structures for remaining quantity.
- ** Quantity includes a contingency (above the amounts shown in the individual bills of material) to account for uncertainties associated with the condition of the existing substructure and the age of the original inspections (2008-09). Actual repair areas will be determined by the Engineer in the field.
- *** The quantity for this work is estimated. The intent for this work is to remove accumulations of rubbish, vegetation, etc. on the existing slopedwalls. See Special Provisions.

