

FOR INDEX OF SHEETS AND HIGHWAY STANDARDS, SEE SHEET NO. 2
 PROJECT LOCATED IN JOHNSBURG, IL

11-17-2017 LETTING ITEM 063

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0167	14-00439-00-BR	McHENRY	35	1
		ILLINOIS	CONTRACT NO. 61E11	

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847-705-4406) SCHAUMBURG, IL
RS&H
 525 DUNHAM ROAD, SUITE 20
 ST. CHARLES, IL 60174

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU ROUTE 0167 (CHAPEL HILL ROAD)
 OVER FOX RIVER
 BRIDGE REHABILITATION
 SECTION 14-00439-00-BR
 PROJECT NO.: C5XQ (354)
 McHENRY COUNTY DIVISION
 OF TRANSPORTATION

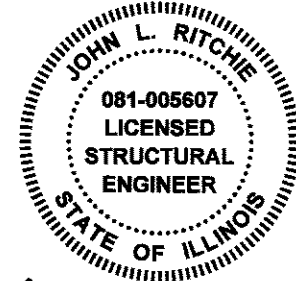
McHENRY COUNTY JOB NO.: C-91-281-15



RS&H
 525 DUNHAM ROAD, SUITE 20
 ST. CHARLES, IL 60174



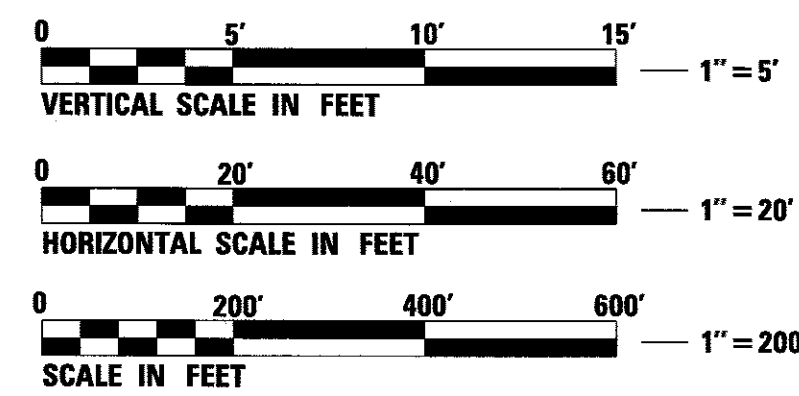
BY: *[Signature]* DATE: 8/1/17
MICHAEL J. MARTIN, P.E.
 LICENSE EXPIRES 11/30/2017
 DRAWINGS 1-9, 35



BY: *[Signature]* DATE: 8/1/17
JOHN L. RITCHIE, P.E., S.E.
 LICENSE EXPIRES 11/30/2018
 DRAWINGS 10-34

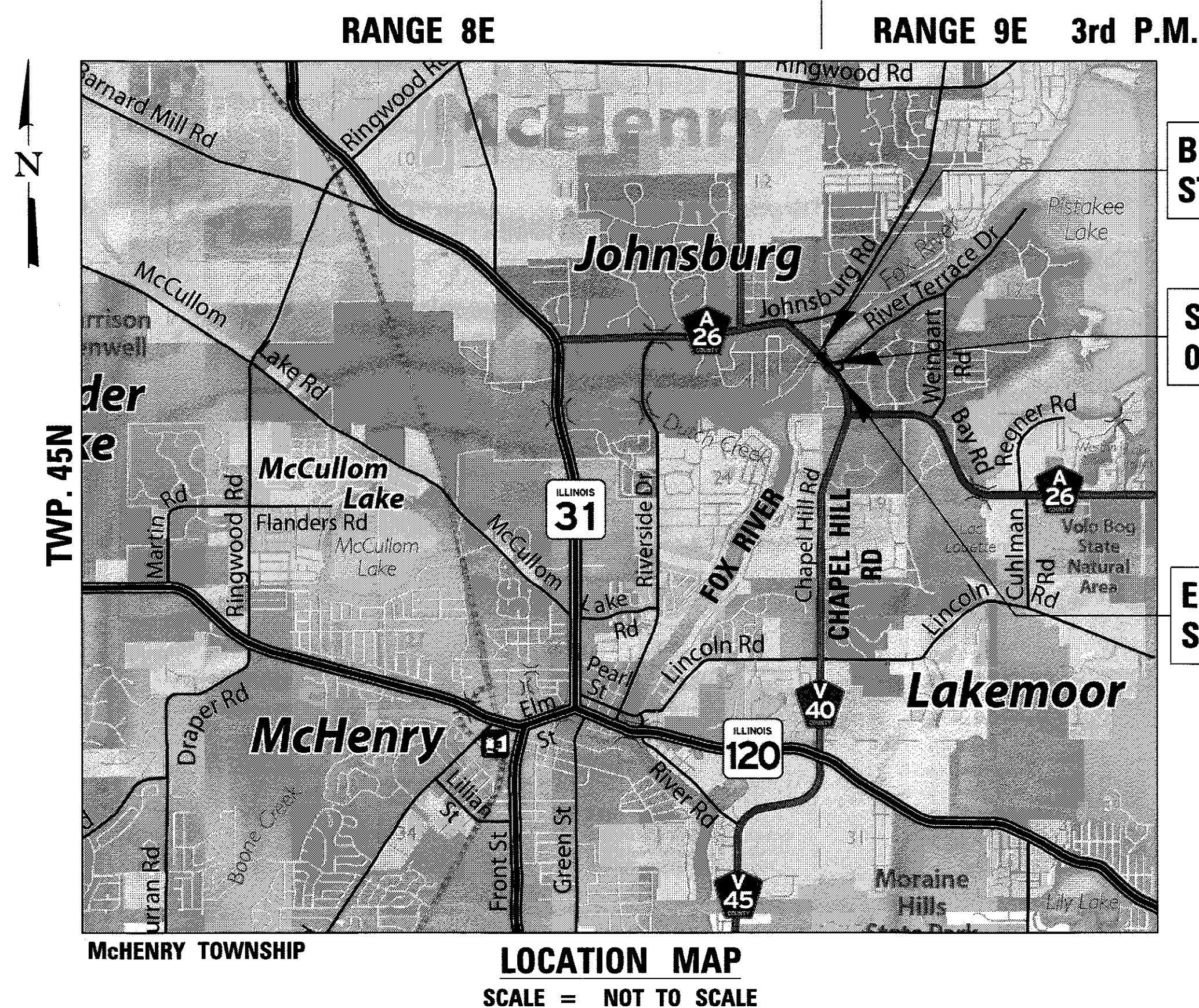
TRAFFIC DATA

CHAPEL HILL ROAD (V-40)
 URBAN MINOR ARTERIAL
 2013 ADT = 8,100
 2040 ADT = 10,597
 DESIGN SPEED = 35 MPH
 POSTED SPEED = 30 MPH



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811



BEGIN IMPROVEMENT
 STA. 16 + 08.09

STRUCTURE NO.
 056-3134

END IMPROVEMENT
 STA. 21 + 30.59

LOCATION MAP
 SCALE = NOT TO SCALE

GROSS LENGTH OF IMPROVEMENTS = 519.69 FEET = 0.098 MILE
 NET LENGTH OF IMPROVEMENTS = 519.69 FEET = 0.098 MILE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

APPROVED August 1 20 17
[Signature]
 McHENRY COUNTY DIVISION OF TRANSPORTATION,
 COUNTY ENGINEER

PASSED August 31 2017
[Signature]
 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW SEPTEMBER 1 20 17
[Signature]
 REGIONAL ENGINEER

CONTRACT NO. 61E11

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES AND INDEX OF HIGHWAY STANDARDS
3	SUMMARY OF QUANTITIES
4	ALIGNMENT, TIES, AND BENCHMARKS
5-7	PLAN AND PROFILE
8-9	SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
10-34	STRUCTURE 056-3134 SHEETS
35	IDOT DISTRICT 1 STANDARD DETAIL

INDEX OF HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-06	TRAFFIC CONTROL DEVICES

DISTRICT ONE STANDARD DETAILS

TC-21	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS
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GENERAL NOTES

- ANY REFERENCE TO "STANDARDS" THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE CURRENT IDOT HIGHWAY STANDARD REVISION AND SHALL TAKE PRECEDENCE OVER EARLIER REVISIONS THAT MAY BE REFERRED TO ELSEWHERE IN THE PLANS OR SPECIAL PROVISIONS. SHOULD A REVISED STANDARD EXIST THAT SUPERCEDES STANDARDS REFERENCED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SEEK CLARIFICATION FROM THE ENGINEER PRIOR TO ORDERING MATERIALS, SCHEDULING PERSONNEL, AND PERFORMING THE WORK. THE CONTRACTOR SHALL IDENTIFY THE CORRECT STANDARD BEFORE PERFORMING WORK.
- NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET, AS SET FORTH IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON PRIVATE OR COUNTY PROPERTY WITHOUT WRITTEN PERMISSION FROM OWNER.
- ALL RELEVANT SCHOOL DISTRICTS, LOCAL POLICE, LOCAL HOSPITALS, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. SEE "PUBLIC SERVICES CONTACTS" ON THIS SHEET FOR CONTACT INFORMATION OF RELEVANT PARTIES.
- THE CONTRACTOR'S SUPERINTENDENT OR AUTHORIZED AGENT AS DEFINED IN ARTICLE 105.06 OF THE STANDARD SPECIFICATIONS MUST BE AVAILABLE IN CASE OF EMERGENCIES ON A TWENTY-FOUR (24) HOUR BASIS.
- AT THE TIME OF THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL OF THE PROPOSED CONCRETE TRUCK WASHOUT LOCATIONS. RUNOFF FROM WASH AREAS SHALL BE CONTAINED IN DESIGNATED AREAS SO THAT RUNOFF DOES NOT REACH THE STORM SEWER, DITCH, OR MCHENRY COUNTY CONSERVATION DISTRICT PROPERTY.
- ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE RESIDENT ENGINEER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO BIDDING ON THE PROJECT AND ORDERING OF MATERIALS.
- OFFSET LOCATIONS IN THE PLANS ARE FROM THE EXISTING BASELINE, UNLESS OTHERWISE NOTED.

UTILITIES

- THE CONTRACTOR SHALL USE HAND DIGGING TO FIRST EXPOSE ANY UNDERGROUND UTILITY WITHIN 2 FEET OF AN EXCAVATION LOCATION.
- THE CONTRACTOR SHALL PROTECT EXISTING AND NEW UTILITIES WHEN CONSIDERED NECESSARY BY METHODS APPROVED BY THE ENGINEER, AND SHALL BRACE AND SUPPORT THE UTILITIES PROPERLY TO PREVENT SETTLEMENT, DISPLACEMENT, OR DAMAGE TO THE UTILITIES.
- THE CONTRACTOR SHALL BE MADE AWARE THAT ALL CONSTRUCTION VEHICLES SHALL BE LIMITED TO 15 FEET ABOVE EXISTING GRADE WHILE CROSSING UNDER COMMONWEALTH EDISON'S TRANSMISSION LINES. THE CONTRACTOR SHALL USE EXTRA CAUTION AND VIGILANCE IN OPERATING CRANES AND OTHER CONSTRUCTION EQUIPMENT NEAR OVERHEAD ELECTRICAL FACILITIES IN THE VICINITY OF THE WORK AREA.

COMMITMENTS

NONE.

PUBLIC SERVICE CONTACTS

JOHNSBURG POLICE DEPARTMENT
 3611 CHAPEL HILL ROAD
 JOHNSBURG, IL 60051
 (815) 385-6024

MCHENRY COUNTY SHERIFF'S OFFICE
 2200 NORTH SEMINARY AVENUE
 WOODSTOCK, IL 60098
 (815) 338-2144

MCHENRY COUNTY FIRE PROTECTION DISTRICT
 3610 WEST ELM STREET
 MCHENRY, IL 60050
 (815) 385-0075

CENTEGRA HOSPITAL - MCHENRY
 4201 WEST MEDICAL CENTER DRIVE
 MCHENRY, IL 60050
 (815) 344-5000

JOHNSBURG SCHOOL DISTRICT 12
 2222 WEST CHURCH STREET
 JOHNSBURG, IL 60051
 (815) 385-6916

ST. JOHN THE BAPTIST CATHOLIC SCHOOL
 2304 WEST CHURCH STREET
 JOHNSBURG, IL 60051
 (815) 385-3959



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PLOT DATE = 9/6/2017	DATE - 04/27/2017	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CHAPEL HILL ROAD OVER FOX RIVER
 GENERAL NOTES AND INDEX OF HIGHWAY STANDARDS**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	2
				CONTRACT NO. 61E11
ILLINOIS FED. AID PROJECT				



S.P.	ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODES		
					BRIDGE 0014	ROADWAY 0004	TRAINEES 0042
	50102400	CONCRETE REMOVAL	CU YD	41.3	41.3		
	50300225	CONCRETE STRUCTURES	CU YD	43.1	43.1		
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5,680	5,680		
SP	52000030	PREFORMED JOINT SEAL 2 1/2"	FOOT	84	84		
SP	52000325	NEOPRENE EXPANSION JOINT 2 1/2"	FOOT	84	84		
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	36	36		
	52100505	ANCHOR BOLTS, 5/8"	EACH	72	72		
	58700300	CONCRETE SEALER	SQ FT	1,775	1,775		
	59000200	EPOXY CRACK INJECTION	FOOT	683	683		
	67100100	MOBILIZATION	LSUM	1		1	
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1		1	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1		1	
GBSP	X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	20	20		
SP	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1		1	
BDE	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	140		140	
GBSP	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	12	12		
SP	Z0001905	STRUCTURAL STEEL REPAIR	POUND	1,456	1,456		
SP	Z0003802	REMOVAL OF EXISTING BEARINGS	EACH	24	24		
* GBSP	Z0007114	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES	LSUM	1	1		
* GBSP	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	LSUM	1	1		
GBSP	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	409	409		
GBSP	Z0032300	JACKING EXISTING SUPERSTRUCTURE	LSUM	1	1		
SP	Z0073400	TEMPORARY SUPPORT SYSTEM	EACH	2	2		
BDE	Z0076600	TRAINEES	HOUR	500			500
SP	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500			500

* SPECIALTY ITEM

LEGEND FOR S.P. COLUMN

SP INDICATES SPECIAL PROVISION
 BDE INDICATES IDOT BDE SPECIAL PROVISION
 GBSP INDICATES IDOT GUIDE BRIDGE SPECIAL PROVISION



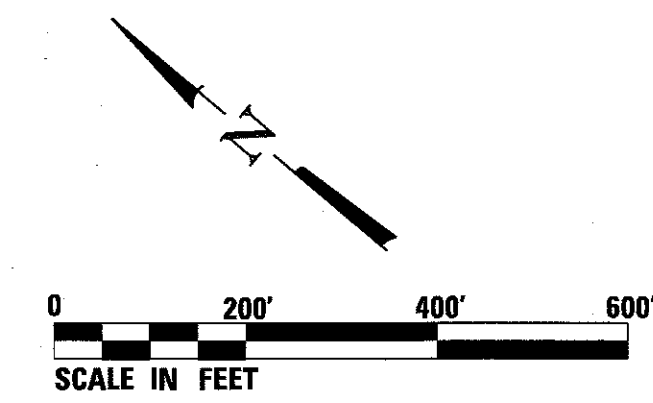
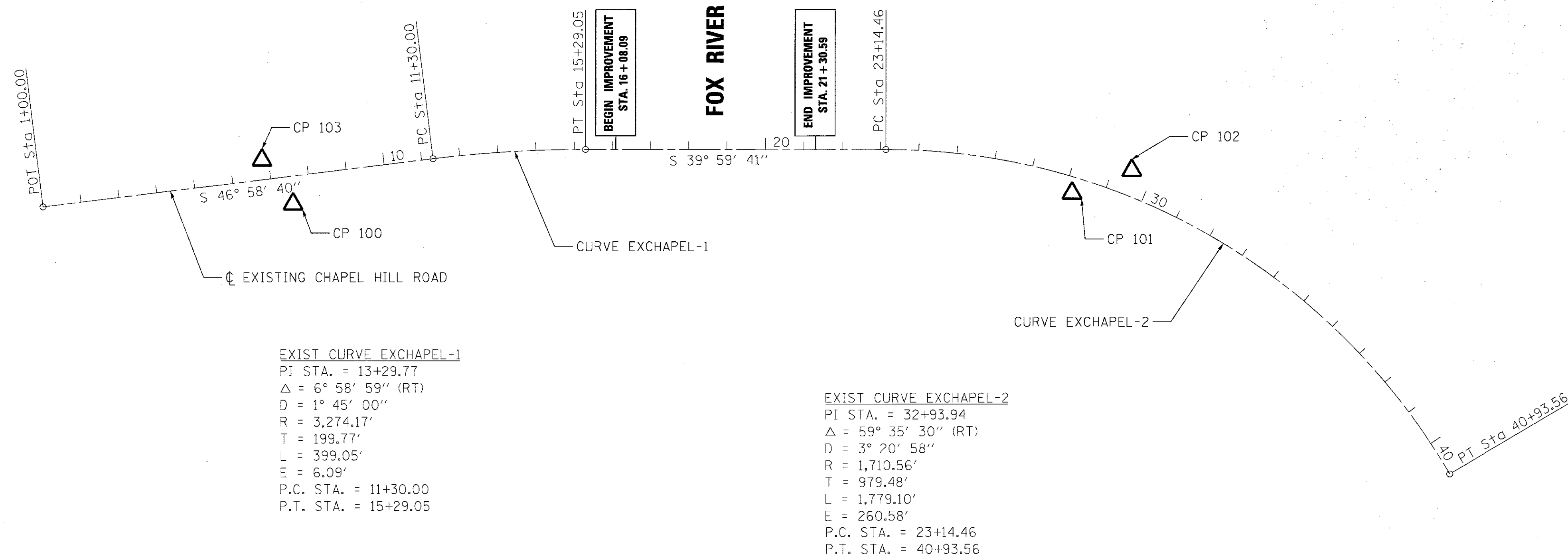
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	DATE - 04/27/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAPEL HILL ROAD OVER FOX RIVER
SUMMARY OF QUANTITIES

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	3
			CONTRACT NO. 61E11	
ILLINOIS FED. AID PROJECT				



EXIST CURVE EXHAPEL-1
 PI STA. = 13+29.77
 $\Delta = 6^\circ 58' 59''$ (RT)
 $D = 1^\circ 45' 00''$
 $R = 3,274.17'$
 $T = 199.77'$
 $L = 399.05'$
 $E = 6.09'$
 P.C. STA. = 11+30.00
 P.T. STA. = 15+29.05

EXIST CURVE EXHAPEL-2
 PI STA. = 32+93.94
 $\Delta = 59^\circ 35' 30''$ (RT)
 $D = 3^\circ 20' 58''$
 $R = 1,710.56'$
 $T = 979.48'$
 $L = 1,779.10'$
 $E = 260.58'$
 P.C. STA. = 23+14.46
 P.T. STA. = 40+93.56

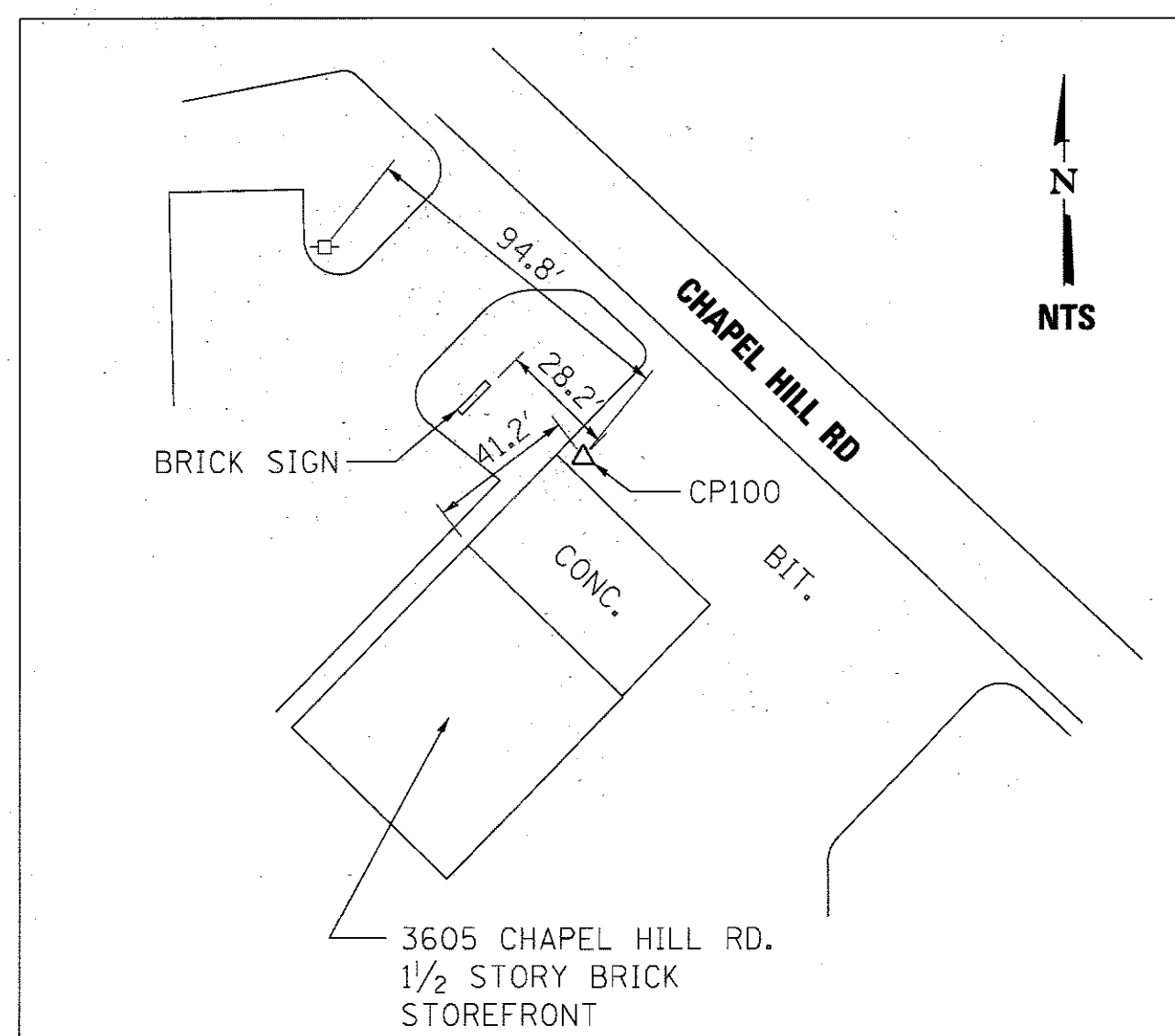
CHAPEL HILL ROAD ALIGNMENT COORDINATES			
	STATION	NORTHING	EASTING
POT	1+00.00	2,081,130.87	1,008,976.05
PC	11+30.00	2,080,428.12	1,009,428.12
PT	15+29.05	2,080,138.78	1,010,003.52
PC	23+14.46	2,079,537.07	1,010,508.32
PT/POT	40+93.56	2,077,863.95	1,010,809.33

NOTE: ALL COORDINATE VALUES FOR SURVEY POINTS ARE IN ILLINOIS STATE PLANE SYSTEM USING THE NORTH AMERICAN VERTICAL DATUM (NAVD88), ILLINOIS EAST ZONE 1201.

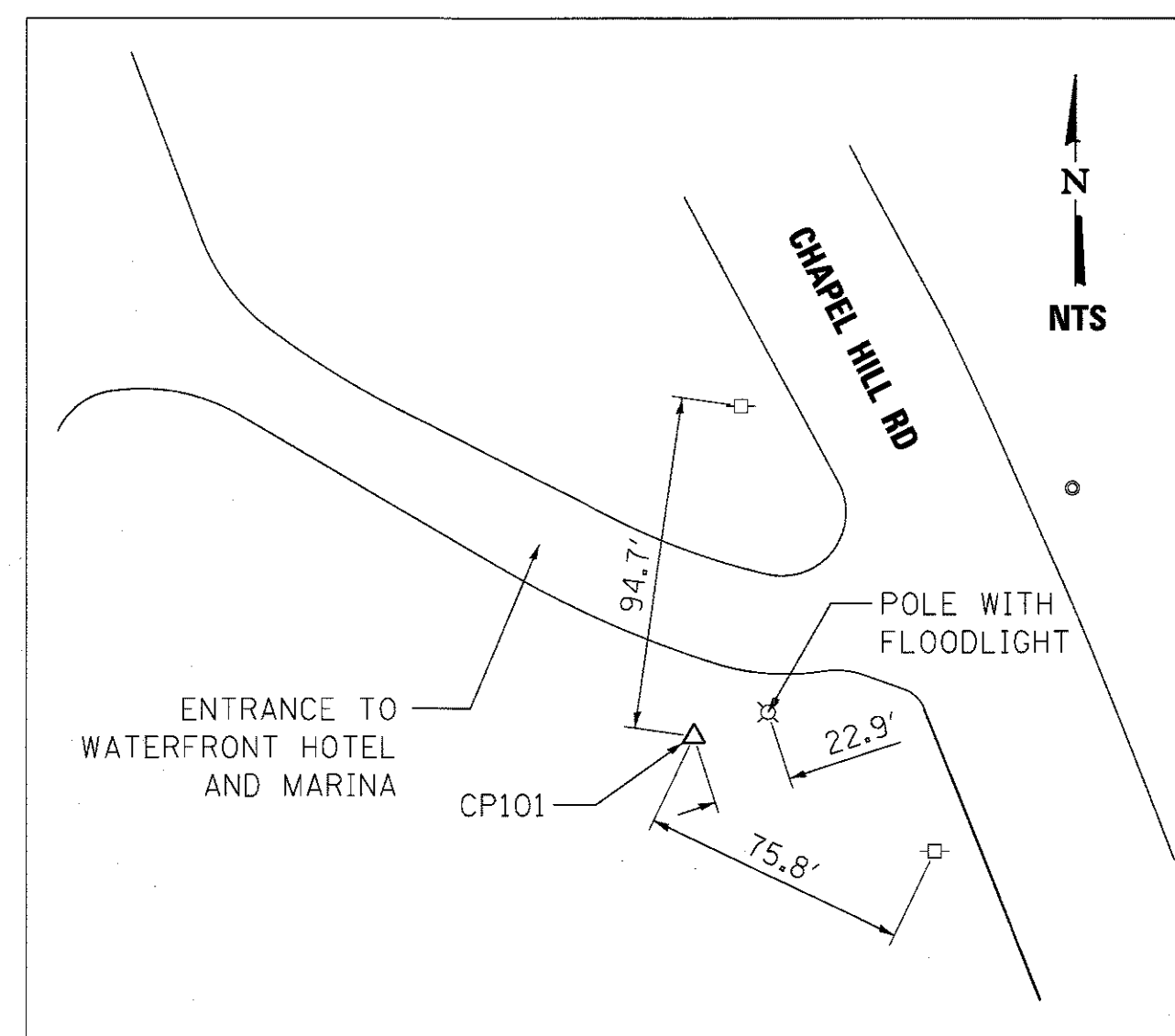
BENCHMARKS

BM 3 - EL. 747.74 - BM SPIKE SET ON EAST FACE OF LIGHT POLE +/- 163 FT. SOUTH OF BAY ROAD ON WEST SIDE OF CHAPEL HILL.

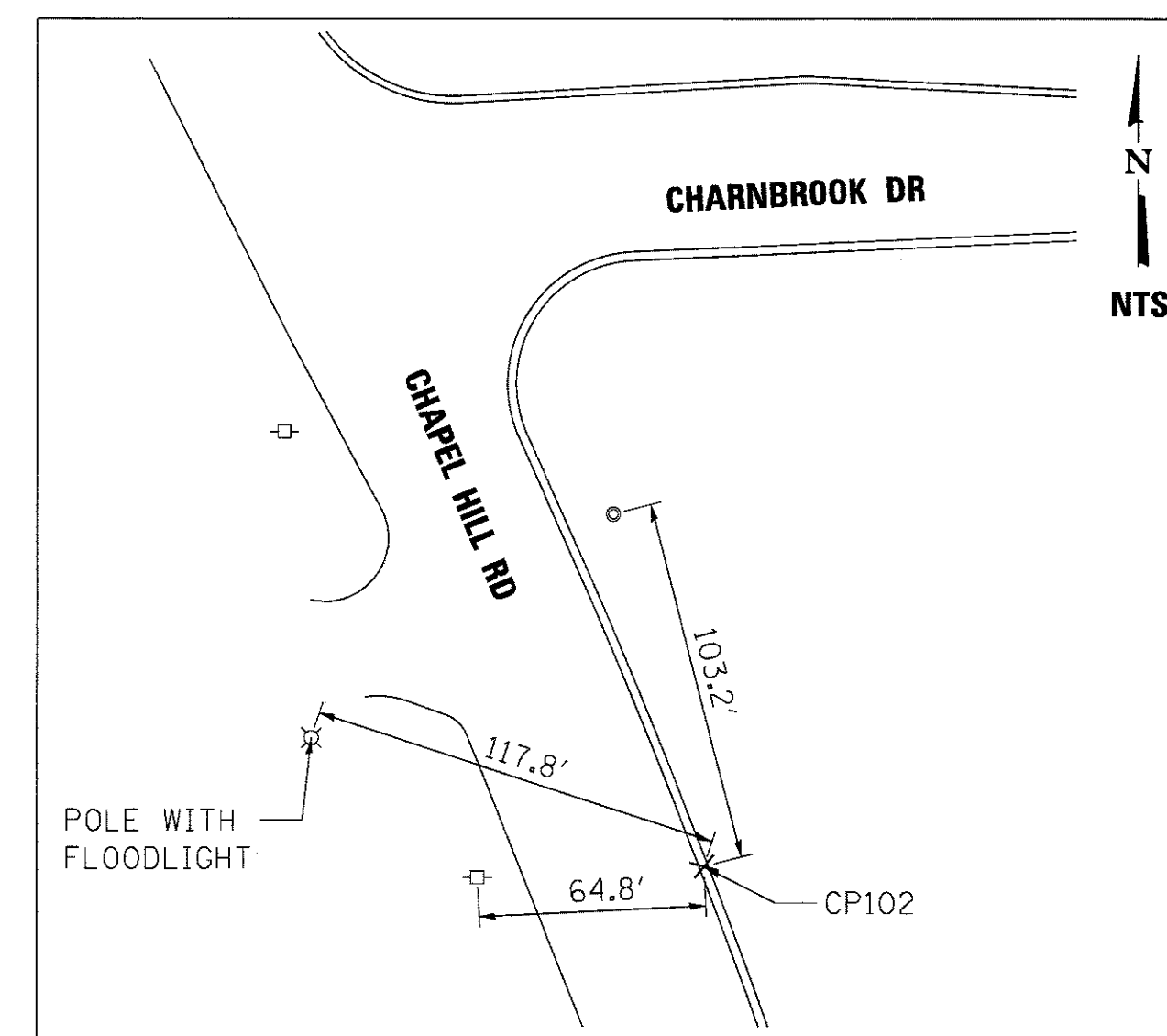
BM 5 - EL. 746.10 - RAILROAD SPIKE IN LIGHT POLE AT NORTHWEST CORNER OF CHAPEL HILL AND SALEM AVE.



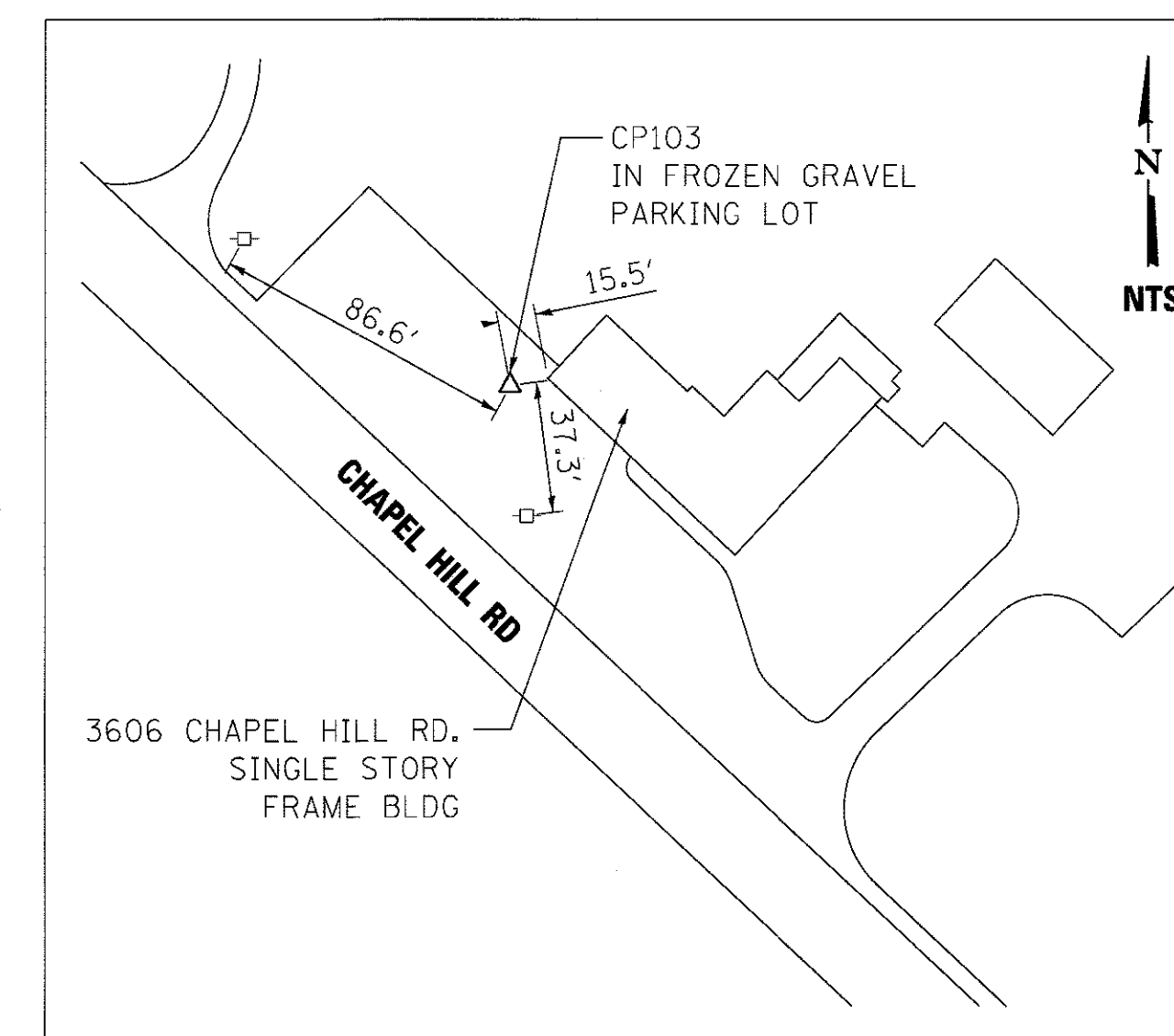
CONTROL POINT 100
 MAG NAIL
 STATION 7+50.92
 N 2,080,643.882
 E 1,009,411.907
 ELEVATION 750.606



CONTROL POINT 101
 IRON ROD
 STATION 28+19.23
 N 2,079,073.032
 E 1,010,688.360
 ELEVATION 745.807



CONTROL POINT 102
 CHISELED CROSS
 STATION 29+47.78
 N 2,078,996.260
 E 1,010,840.446
 ELEVATION 748.401



CONTROL POINT 103
 MAG NAIL
 STATION 6+83.38
 N 2,080,769.536
 E 1,009,436.788
 ELEVATION 752.656

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	DATE - 04/27/2017	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 61E11
ILLINOIS FED. AID PROJECT				

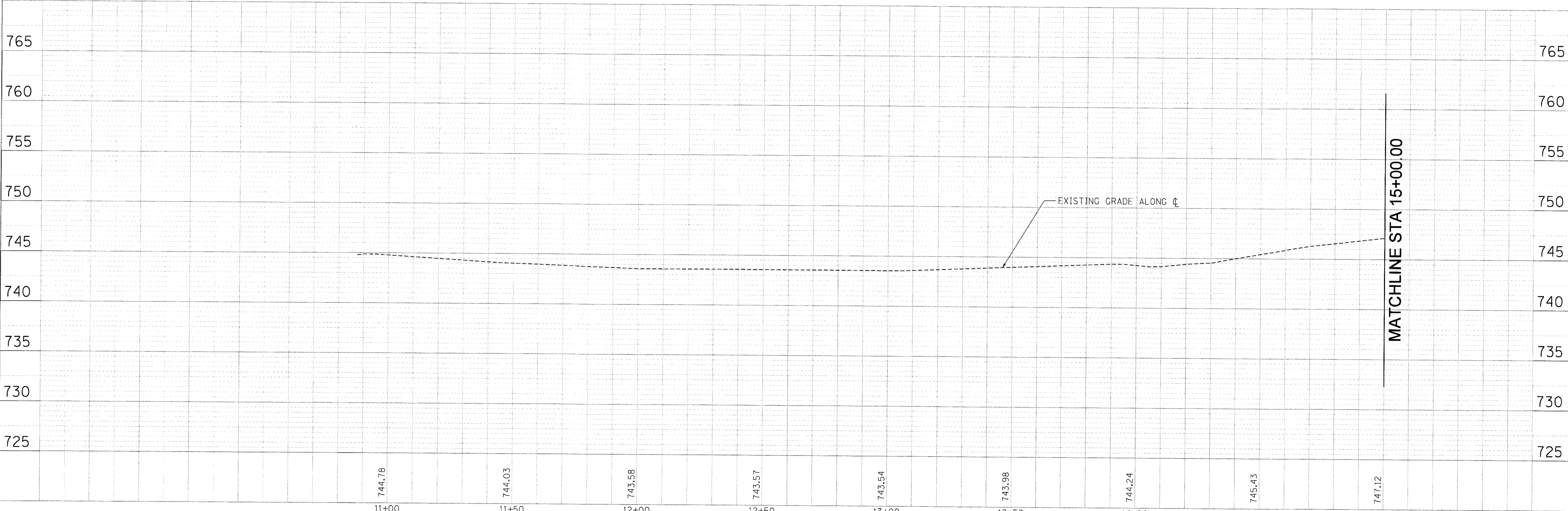
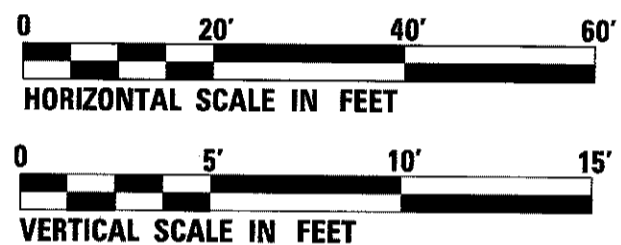
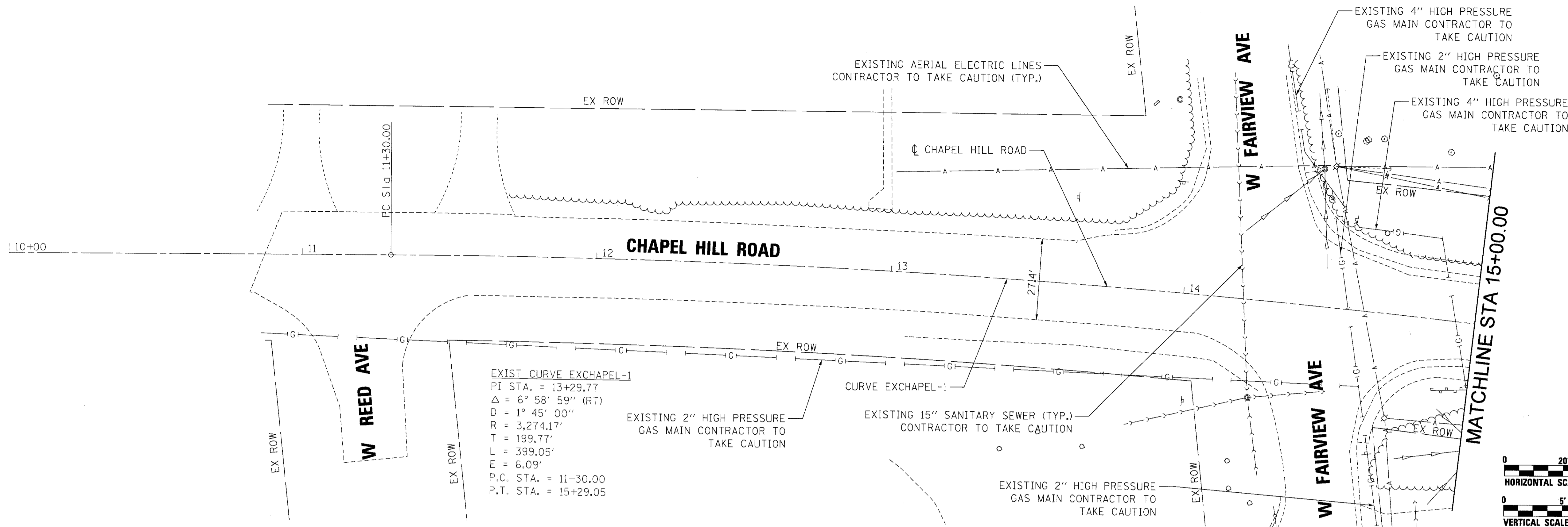
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525 DUNHAM ROAD, SUITE 20
ST. CHARLES, IL 60174

RS&H

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	B.M. NOTED	
	STRUCTURE NOTATIONS OK'D	
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RS&H

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PLOT DATE = 9/6/2017	CHECKED - MXF	REVISED -
	DATE - 04/27/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAPEL HILL ROAD OVER THE FOX RIVER
PLAN AND PROFILE

SCALE: 1" = 20' SHEET 1 OF 3 SHEETS STA. 10+00.00 TO STA. 15+00.00

F.A.U. RTE. 167	SECTION 14-00439-00-BR	COUNTY MCHENRY	TOTAL SHEETS 35	SHEET NO. 5
CONTRACT NO. 61E11				ILLINOIS FED. AID PROJECT

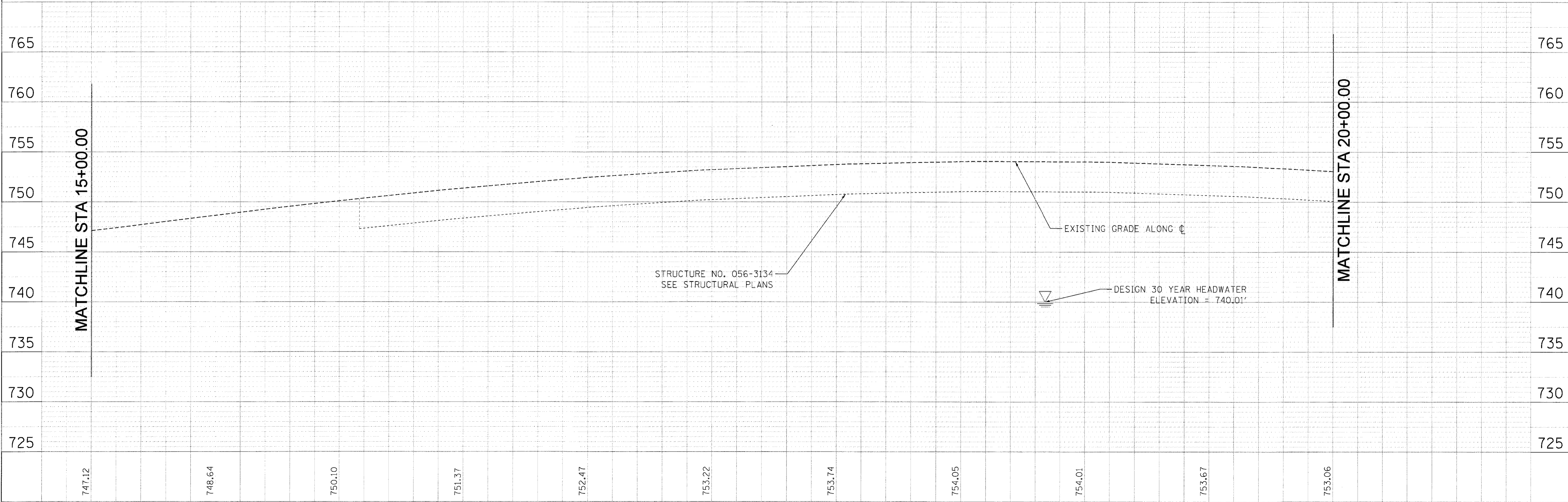
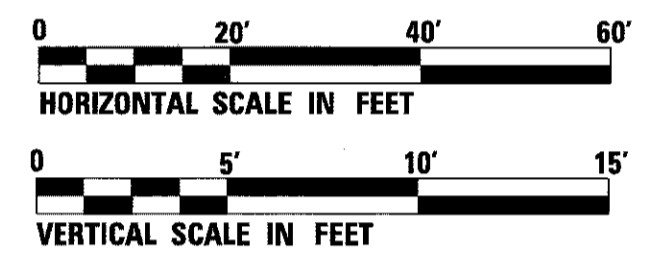
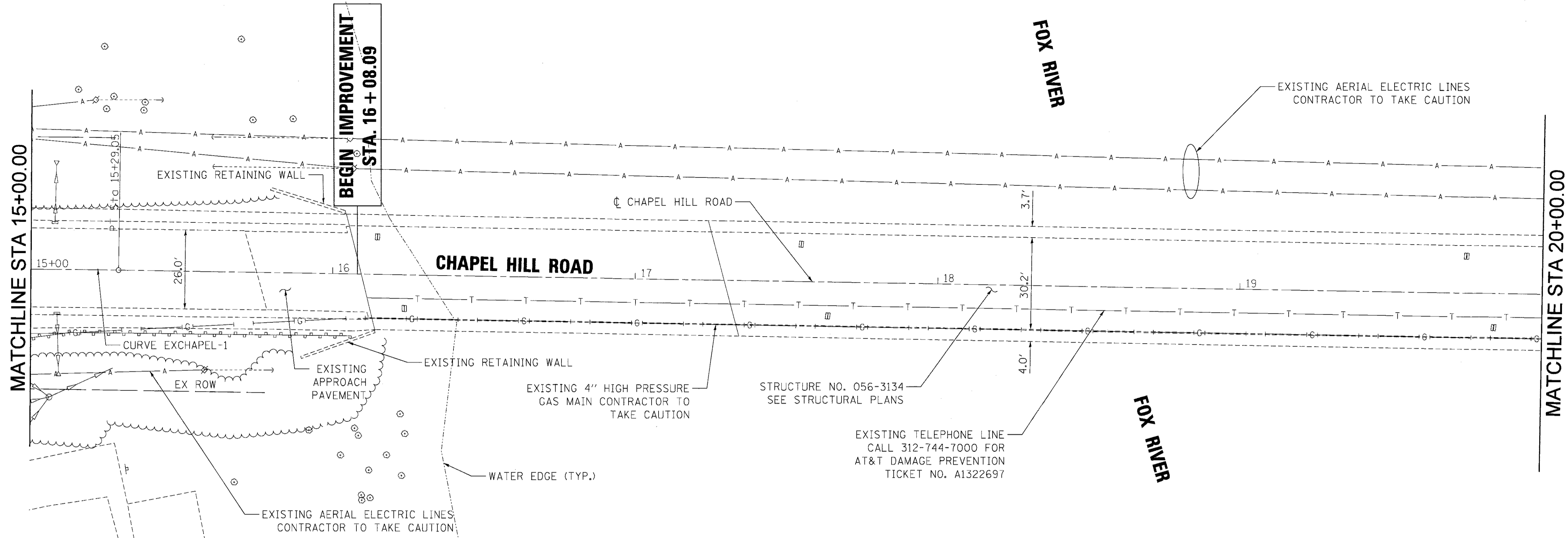
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525 DUNHAM ROAD, SUITE 20
ST. CHARLES, IL 60174

RS&H

PROFILE	SURVEYED	BY	DATE
	GRADES		
	CHECKED		
	STRUCTURE		
	NOTATIONS		
	CHKD		
	NO.		

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15+00	15+50	16+00	16+50	17+00	17+50	18+00	18+50	19+00	19+50	20+00																																															
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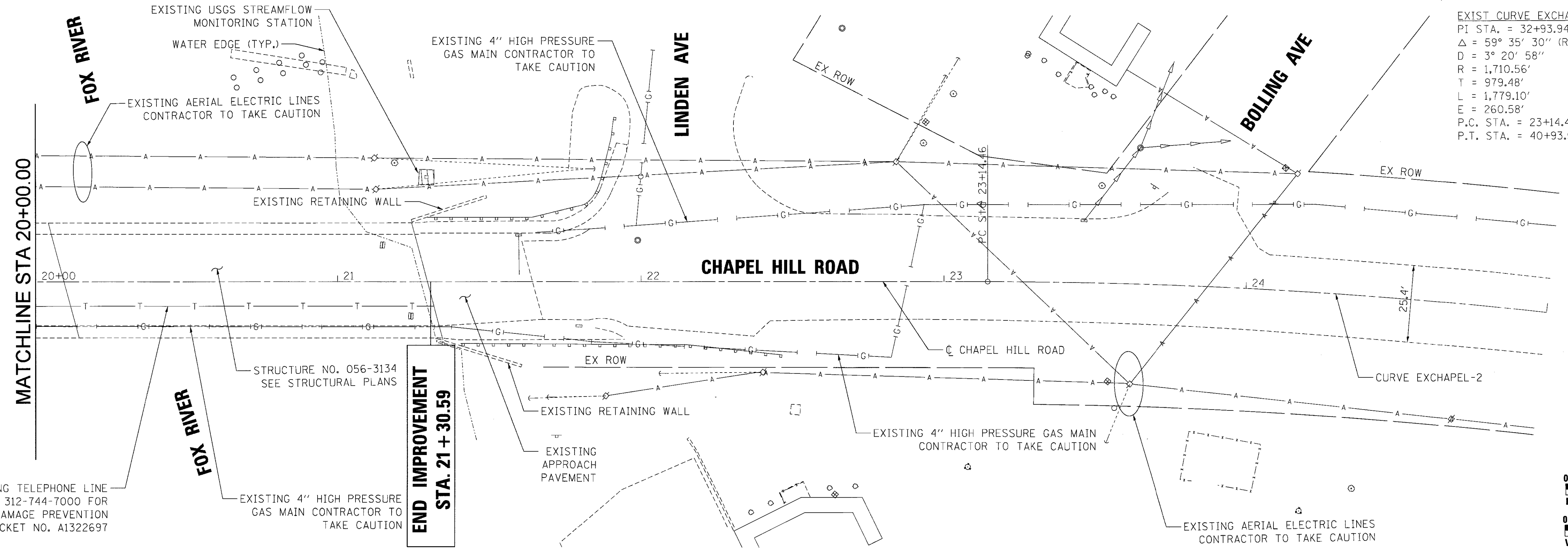
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ST. CHARLES, IL 60174

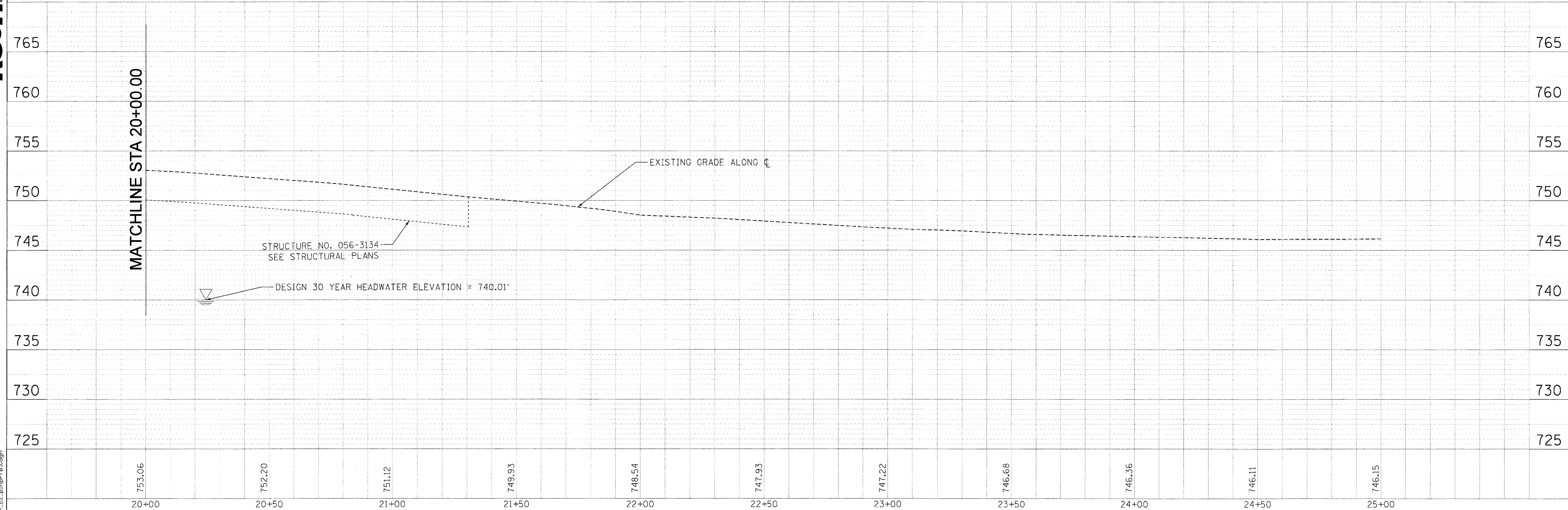
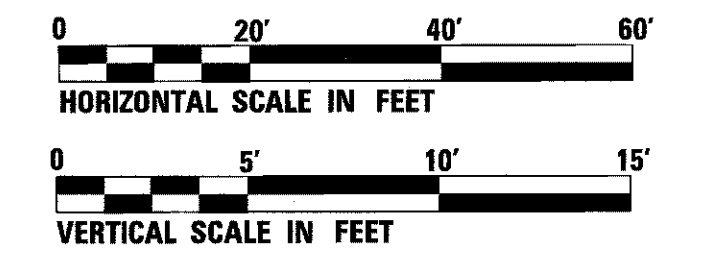
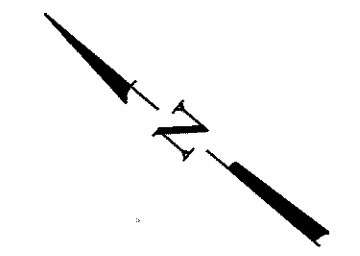


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	CHECKED		
	RT. OF WAY CHECKED		
	NO. _____		
	STRUCTURE NOTATIONS CHKD		

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EXIST CURVE EXCHAPEL-2
PI STA. = 32+93.94
Δ = 59° 35' 30" (RT)
D = 3° 20' 58"
R = 1,710.56'
T = 979.48'
L = 1,779.10'
E = 260.58'
P.C. STA. = 23+14.46
P.T. STA. = 40+93.56



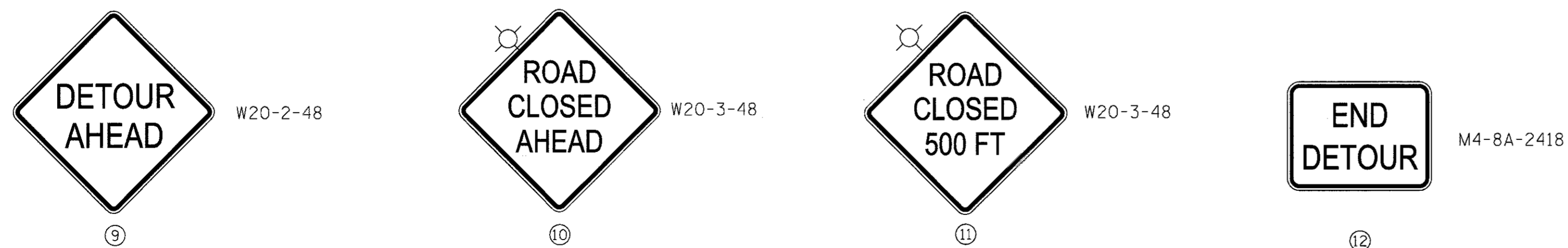
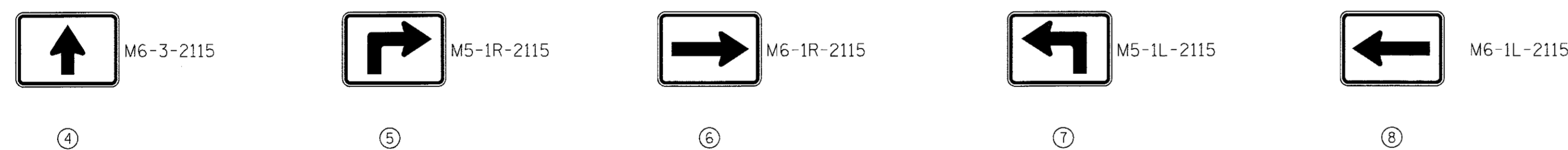
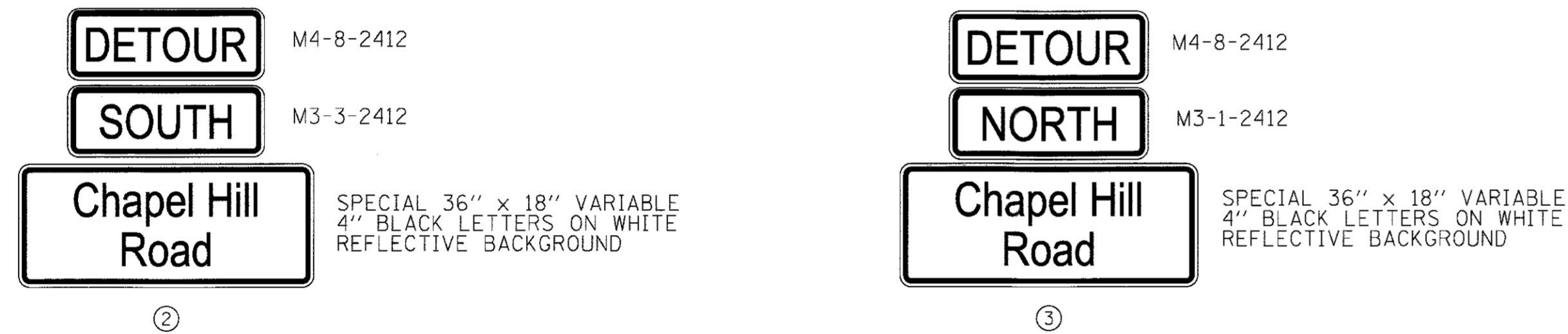
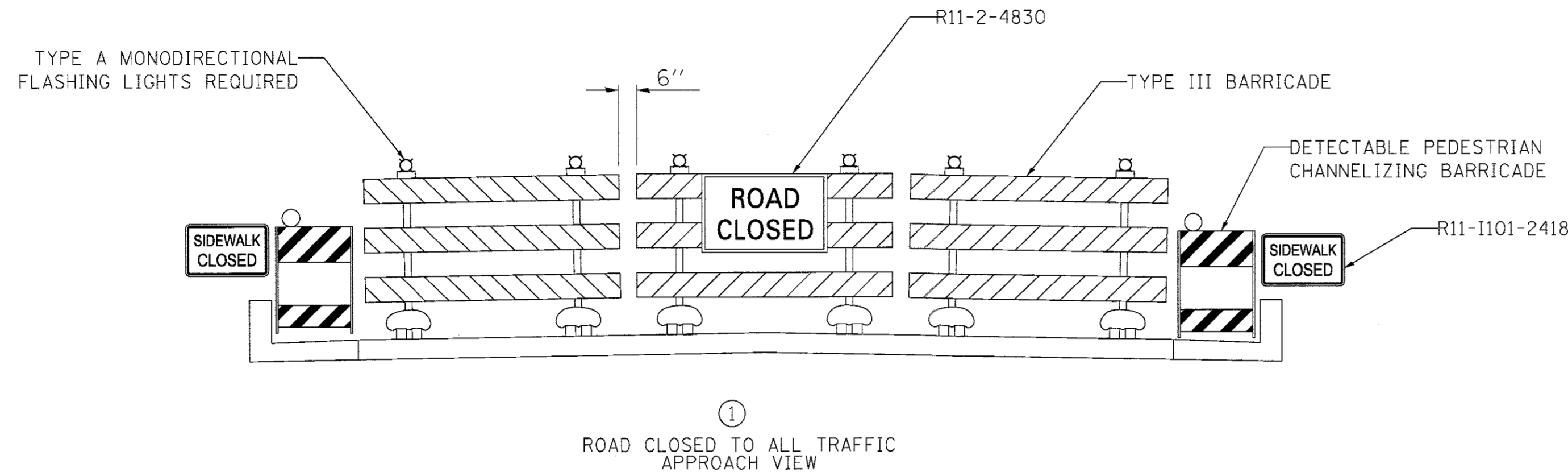
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PLOT DATE = 9/6/2017	CHECKED - MXF	REVISED -
	DATE - 04/27/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAPEL HILL ROAD OVER THE FOX RIVER	
PLAN AND PROFILE	
SCALE: 1" = 20'	SHEET 3 OF 3 SHEETS
STA. 20+00.00 TO STA. 25+00.00	

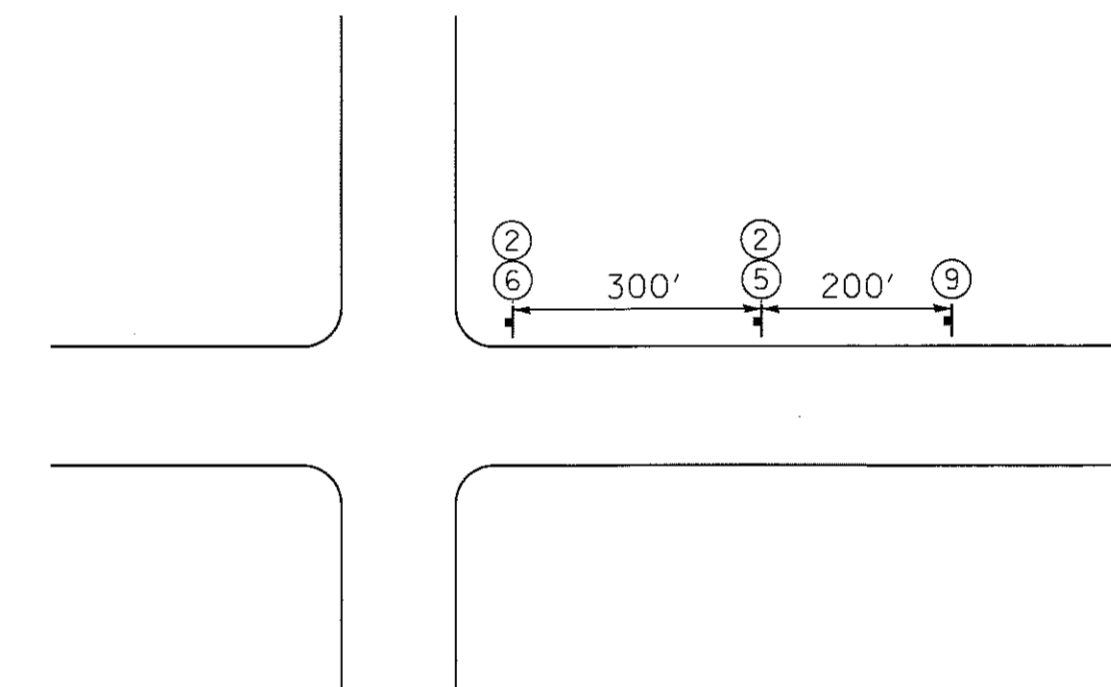
F.A.U. RTE. 167	SECTION 14-00439-00-BR	COUNTY MCHENRY	TOTAL SHEETS 35	SHEET NO. 7
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				

SIGN LEGEND



GENERAL NOTES FOR TRAFFIC CONTROL

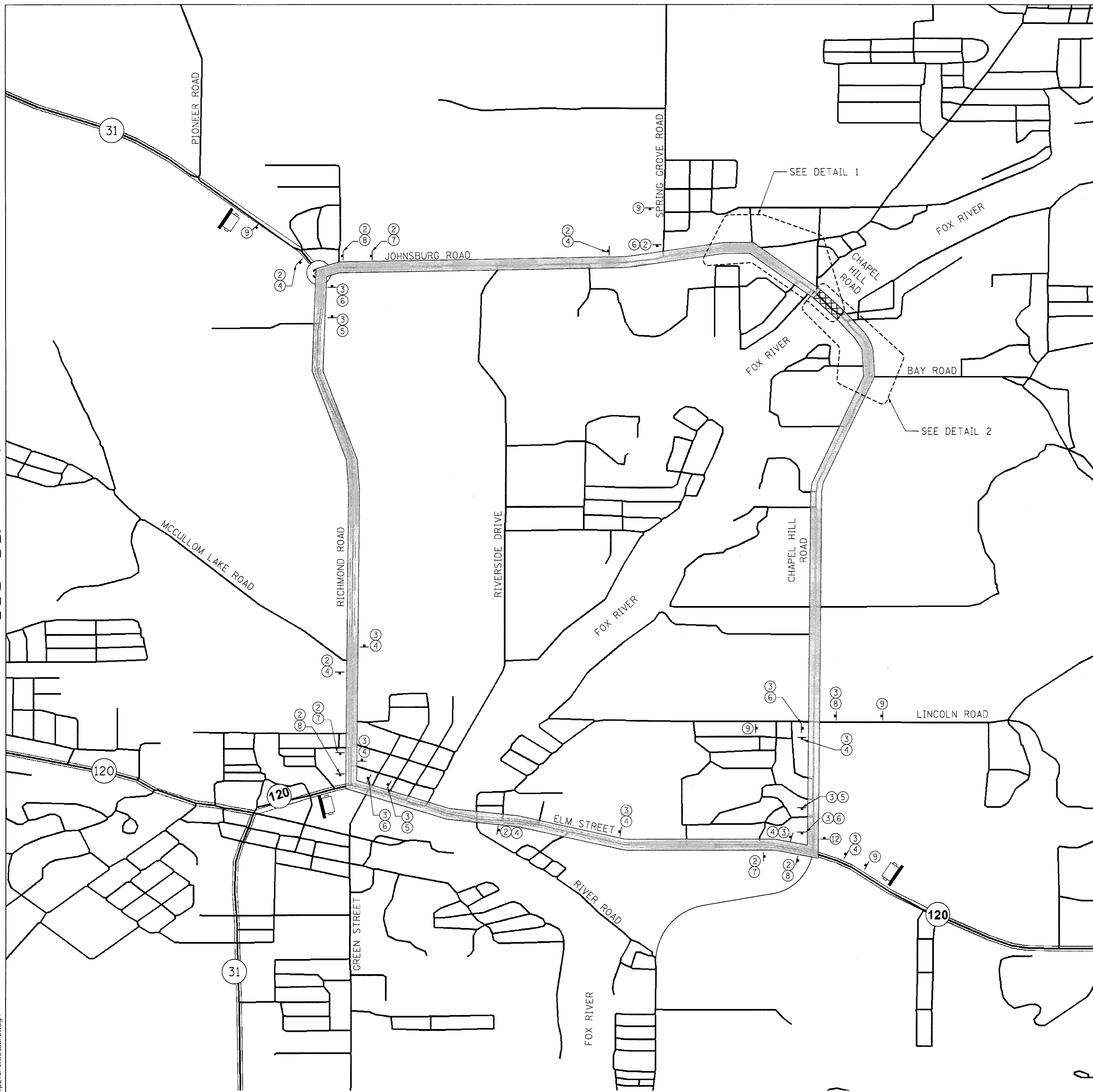
1. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE DAYS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER SHALL DETERMINE THE HOUR OF CLOSURE.
2. IF DEEMED NECESSARY BY THE ENGINEER A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR SHALL BE HELD AT LEAST TWO WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT.
3. THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF THE CONTRACTOR'S REPRESENTATIVES ON THE CONSTRUCTION SITE AND THE CONTRACTOR'S REPRESENTATIVE RESPONSIBLE FOR THE TRAFFIC CONTROL SIGNING PRIOR TO THE START OF THE WORK.
4. LONGITUDINAL DIMENSIONS SHOWN ON THESE TRAFFIC CONTROL PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS, WITH THE APPROVAL OF THE ENGINEER.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED BY THE CONTRACTOR ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.
6. ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE DETOUR IS IN EFFECT SHALL BE COMPLETELY COVERED IN A MANNER APPROVED BY THE ENGINEER. DETOUR SIGNS MUST BE COVERED OR REMOVED WHEN THE DETOUR IS NOT IN EFFECT.
7. THE CONTRACTOR SHALL MAINTAIN ONE SIDEWALK OPEN TO PEDESTRIAN TRAFFIC ACROSS THE BRIDGE DURING CONSTRUCTION, EXCEPT WHEN THE COMPLETE BRIDGE CLOSURE AND DETOUR IS IN EFFECT.
8. THE TRAILER MOUNTED PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE USED TO DISPLAY THE STATUS OF THE BRIDGE DURING THE PROJECT. THE MESSAGES SHALL BE AS DETERMINED BY THE ENGINEER.



TYPICAL SIGN SPACING FOR DETOUR PLAN

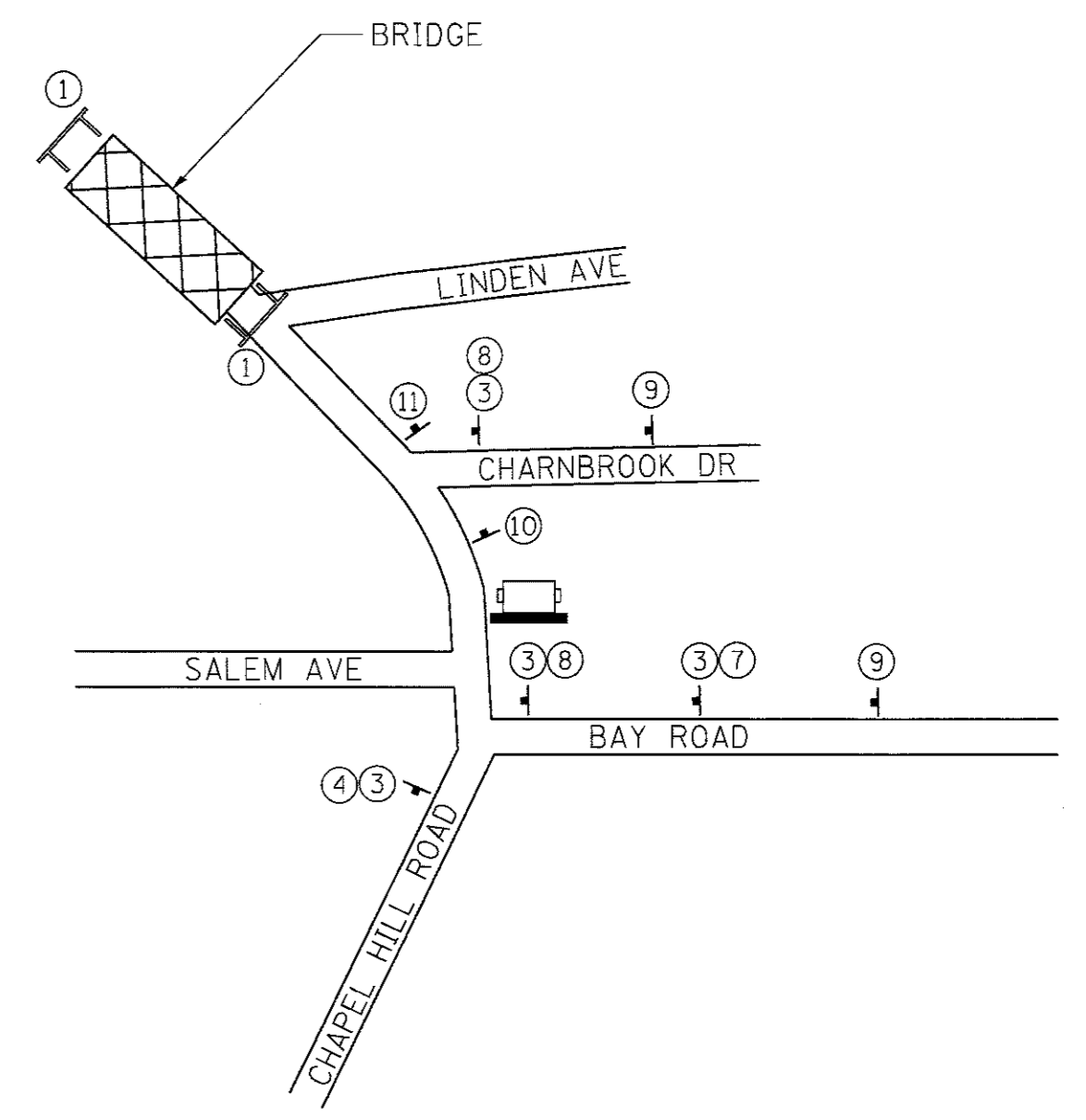
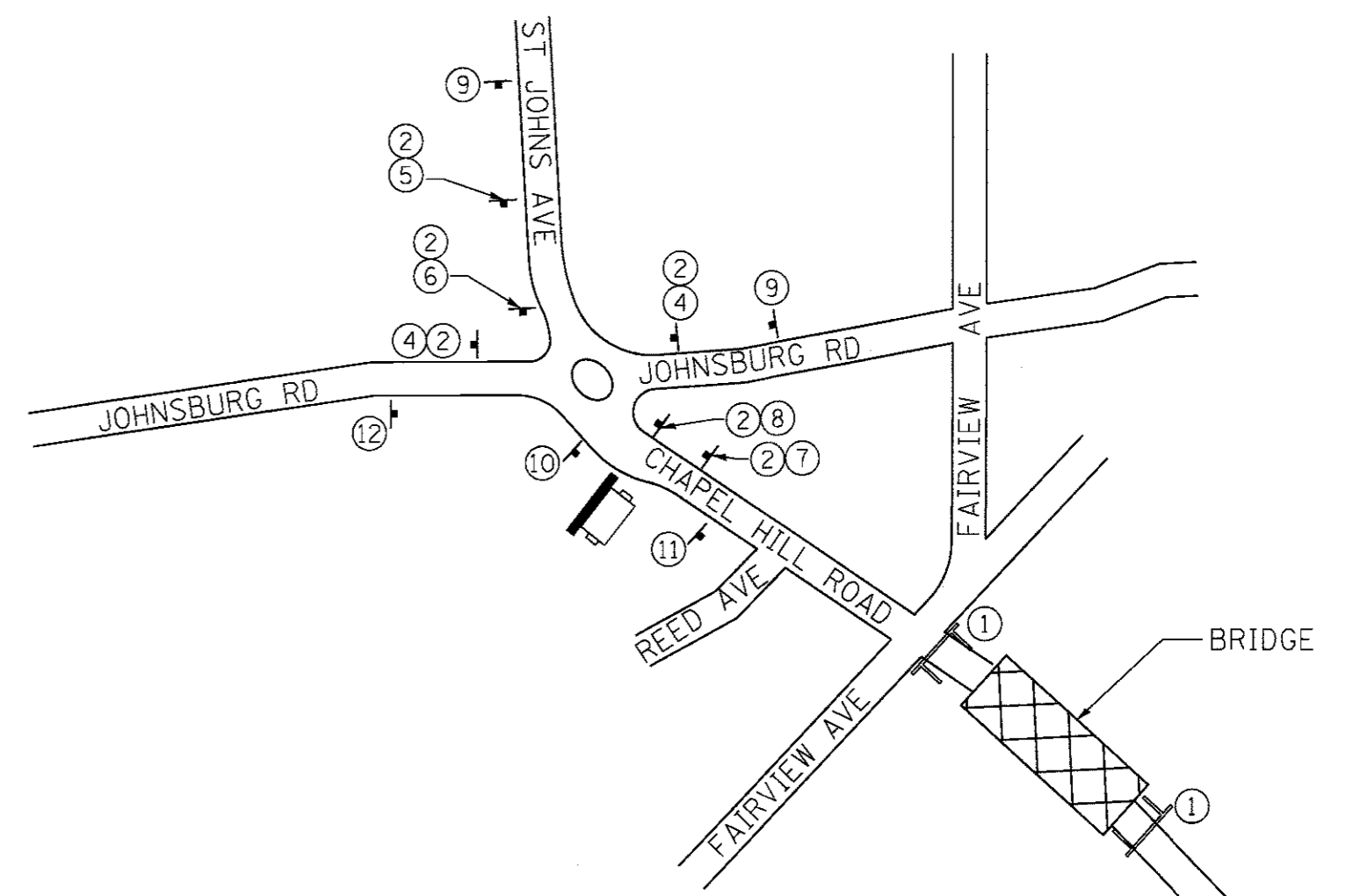
RS&H 525 DUNHAM ROAD, SUITE 20
ST. CHARLES, IL 60174

FILE NAME = CH_p2_sht_debour@l.dgn



LEGEND

- DETOUR ROUTE
- ROAD CLOSURE
- DETOUR SIGN
- TYPE III BARRICADE
- TRAILER MOUNTED PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN ASSEMBLY DESIGNATION SEE SIGN LEGEND ON SHEET 8



USER NAME = martinn	DESIGNED - MAW	REVISED -
PLOT SCALE = 20,0000 "/>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAPEL HILL ROAD OVER THE FOX RIVER
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL

SCALE: NTS SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE. 167	SECTION 14-00439-00-BR	COUNTY MCHENRY	TOTAL SHEETS 35	SHEET NO. 9
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				

EXISTING STRUCTURE: S.N. 056-3134

Originally built in 1938 as S.A. 22 under Section 9-B. The existing structure consists of eight continuous spans (59'-3", 60'-0", 62'-7", 77'-6", 77'-6", 62'-7", 60'-0", 59'-3") with Steel I-Beams and a reinforced concrete deck. The structure is 522'-6" back to back of abutments and 40'-0" out to out bridge width. The structure is on closed concrete abutments and multi-column piers on spread footings. Structure is skewed 15° ahead right. The structure is to be rehabilitated. Road shall be open to traffic during construction with some stage closures.

No Salvage.

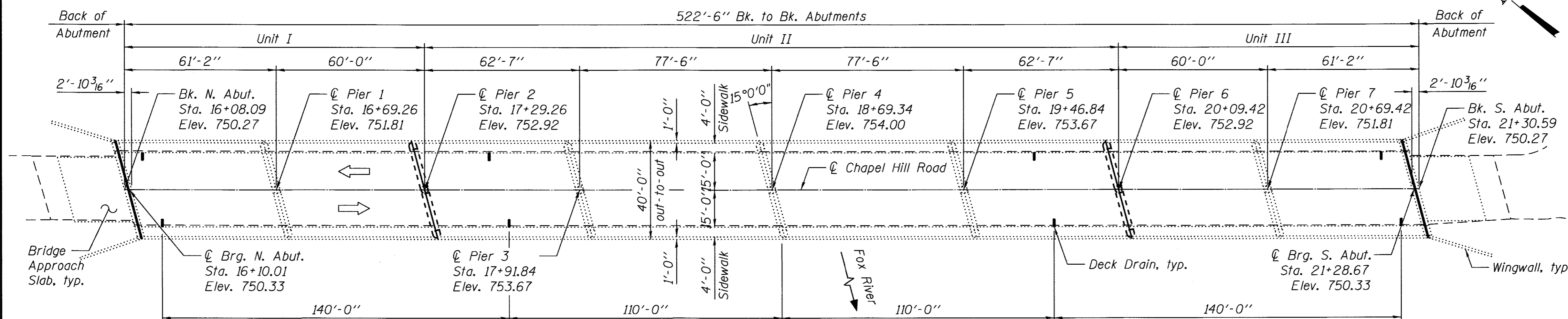
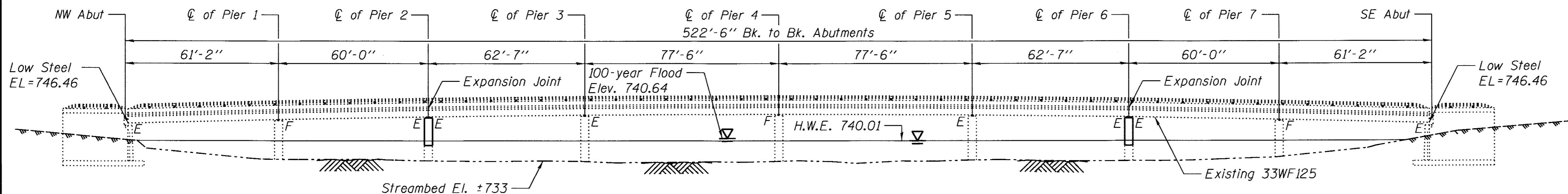
See Sheet 4 for Benchmarks.

SCOPE OF WORK

1. Proposed repairs at Piers #2 and #6.
2. Replacement of Roller Bearings with Elastomeric Bearings at N. Abut., N. & S. sides of Piers #2 and #6, Piers #3 and #5, and S. Abut.
3. Replacement of deck expansion joint seals.
4. Miscellaneous structural steel repairs.
5. Repair cracks in bridge deck and parapets.
6. Clean and spot paint Structural Steel.

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
Design	30	5,800	3,338.5	-	740.01	-	0.00	-	740.01	-
Base	100	7,420	3,621.1	-	740.64	-	0.01	-	740.65	-
Scour Design Check	200	8,000	3,845.3	-	741.13	-	0.01	-	741.14	-
Overtop Existing										
Overtop Proposed										
Max. Calc.	500	10,110	4,090.1	-	741.67	-	0.02	-	741.69	-



DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS (New Construction)

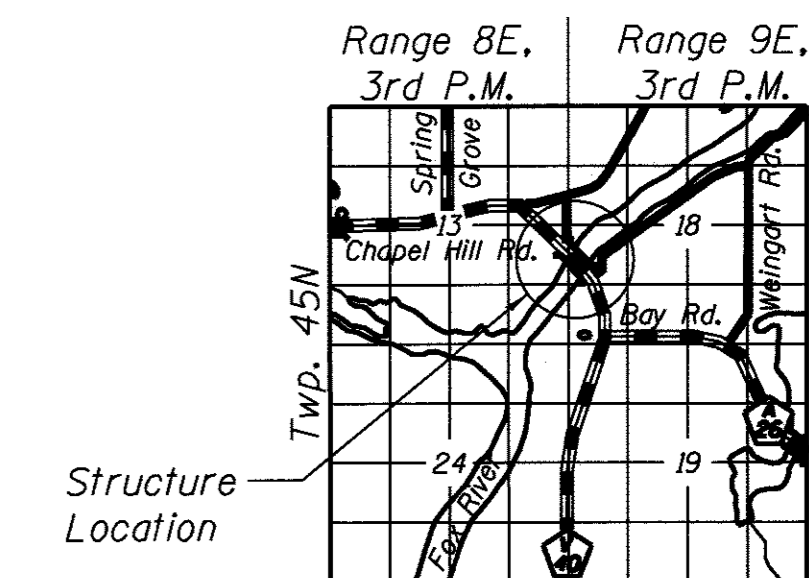
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (Existing)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fs = 20,000 psi (Structural Steel)
fs = 18,150 psi (Original Structural Steel)

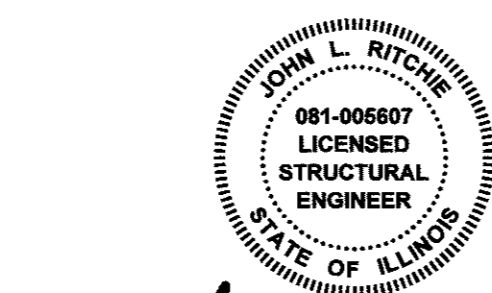
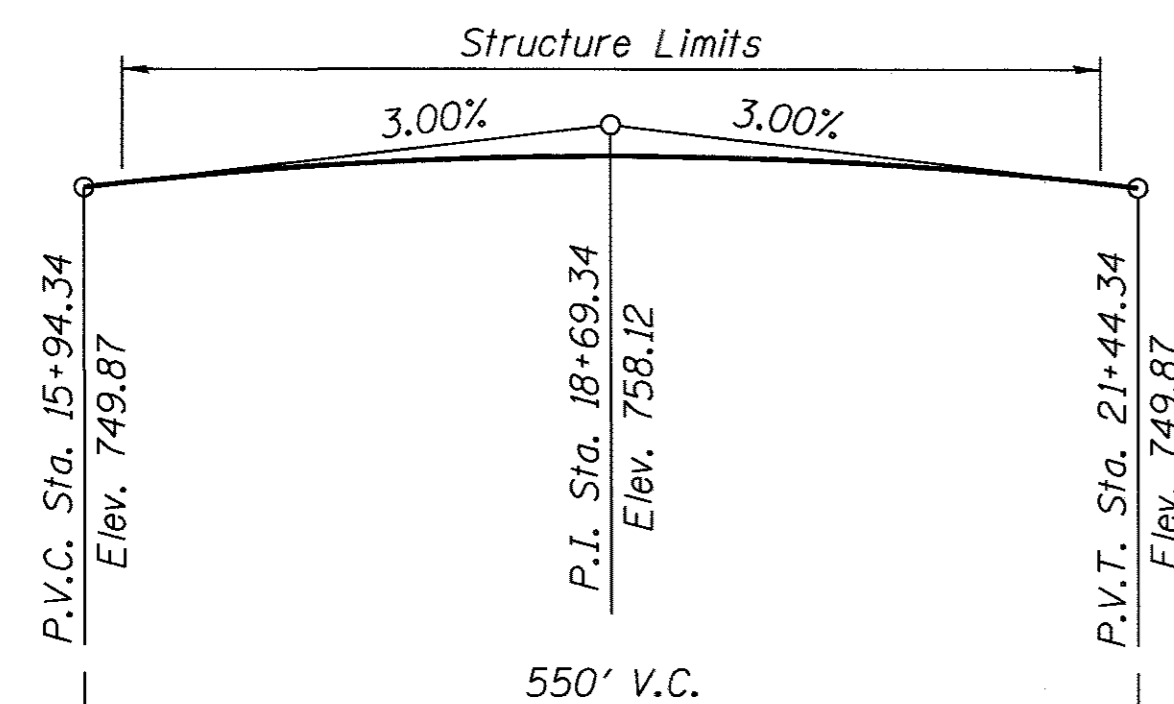
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) =
Design Spectral Acceleration at 0.2 sec. (SDS) =
Soil Site Class = B



**GENERAL PLAN AND ELEVATION
CHAPEL HILL ROAD OVER FOX RIVER**

(PUBLIC WATER)
SECTION 14-00439-00-BR
MCHENRY COUNTY
STATION 18+69.34
STRUCTURE NO. 056-3134



BY: *[Signature]* DATE: 9/7/17
JOHN L. RITCHIE, P.E., S.E.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Pier 6	Pier 7	S. Abut.
	728.55	728.80	728.15	727.70	727.40	728.27	728.90	733.36	740.06

GENERAL NOTES

1. All structural steel shall be AASHTO M270 Grade 50.
2. All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled ¹³/₁₆" dia. and reamed in the field to ¹⁵/₁₆" dia. for ⁷/₈" dia. bolts, unless otherwise noted.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. 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.
5. 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 shiming the bearings.
6. Concrete Sealer shall be applied to the designated areas of Piers 2 & 6.
7. No field welding is permitted except as specified in the contract documents.
8. Containment of cleaning residue is required to control nuisance dust. See special provisions.
9. Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along the beam) of either side of deck joints, and at other locations designated in the plans shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC-SP15.
10. The designated areas cleaned per Near White Blast Cleaning and per Commercial Grade Power Tool Cleaning shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsel No. 5B 7/1.
11. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type I.

INDEX OF SHEETS

1. General Plan And Elevation
2. General Data
3. Stage Construction Details
4. Temporary Support System Details
5. North Abutment Repairs
6. South Abutment Repairs
7. Pier 1 Repairs
8. Pier 2 Repairs
9. Pier 3 Repairs
10. Pier 4 Repairs
11. Pier 5 Repairs
12. Pier 6 Repairs
13. Pier 7 Repairs
14. Piers 2 & 6 Details
15. Approach Slab Repairs
16. Top of Deck Repairs, Sheet 1 of 3
17. Top of Deck Repairs, Sheet 2 of 3
18. Top of Deck Repairs, Sheet 3 of 3
19. Bottom of Deck Repairs, Sheet 1 of 3
20. Bottom of Deck Repairs, Sheet 2 of 3
21. Bottom of Deck Repairs, Sheet 3 of 3
22. Parapet Repairs, Sheet 1 of 3
23. Parapet Repairs, Sheet 2 of 3
24. Parapet Repairs, Sheet 3 of 3
25. Elastomeric Bearing Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		41.3	41.3
Concrete Structures	Cu. Yd.		43.1	43.1
Reinforcement Bars, Epoxy Coated	Pound		5,680	5,680
* Preformed Joint Seal, 2 1/2"	Foot	84		84
* Neoprene Expansion Joint 2 1/2"	Foot	84		84
Elastomeric Bearing Assembly, Type I	Each	36		36
Anchor Bolts, 5/8"	Each	72		72
Concrete Sealer	Sq. Ft.		1,775	1,775
Epoxy Crack Injection	Foot	683		683
* Polymer Modified Portland Cement Mortar	Sq. Ft.	20		20
* Jack and Remove Existing Bearings	Each	12		12
* Structural Steel Repair	Pound	1,456		1,456
* Removal of Existing Bearings	Each	24		24
* Containment and Disposal of Non-Lead Paint Cleaning Residues	Lsum	1		1
* Cleaning and Painting Steel Bridge No. 1	L. Sum	1		1
* Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		409	409
* Jacking Existing Superstructure	L. Sum	1		1
* Temporary Support System	Each		2	2

* Indicates Special Provision

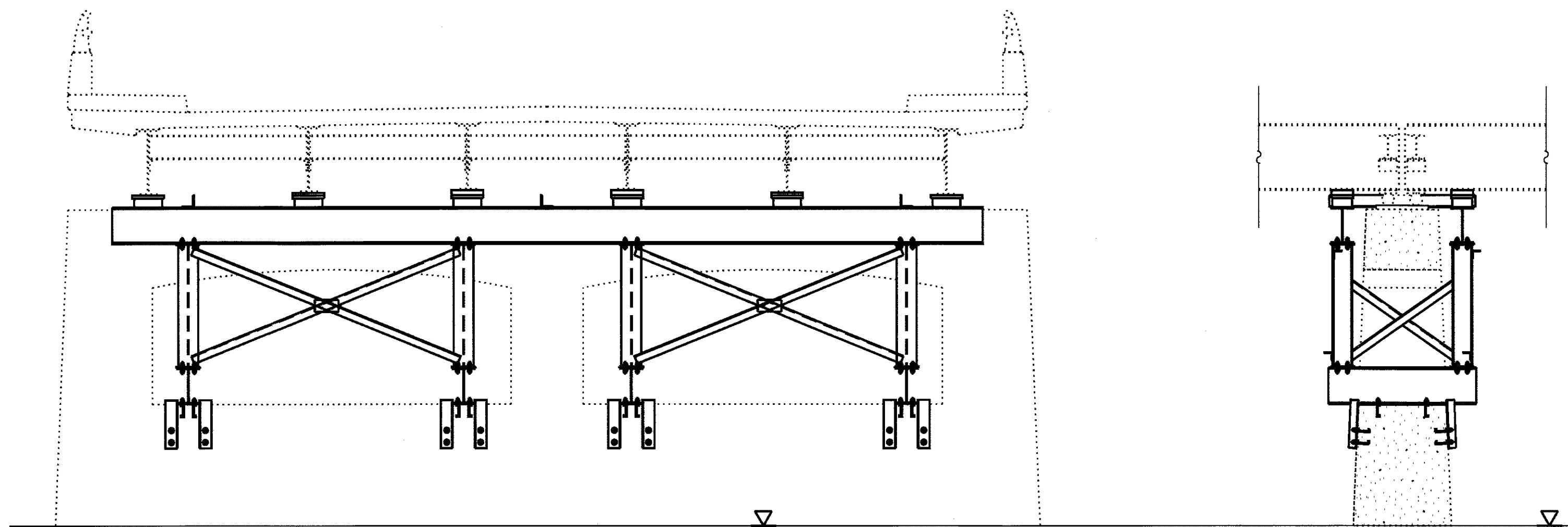


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

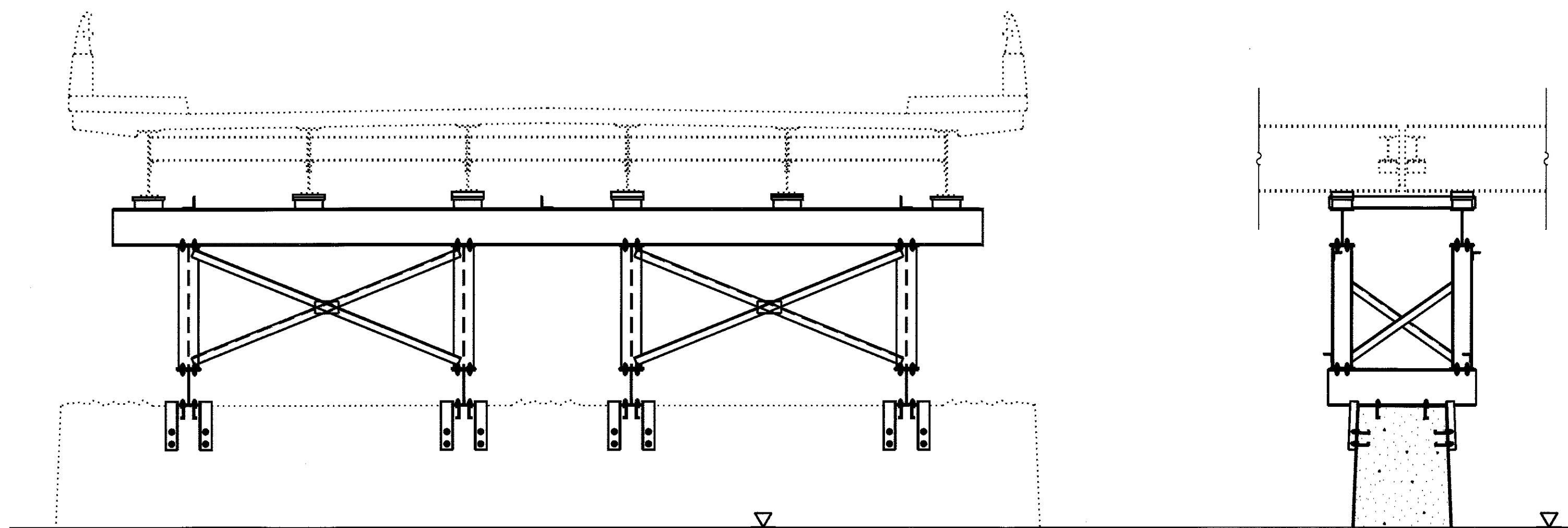
CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
GENERAL DATA

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



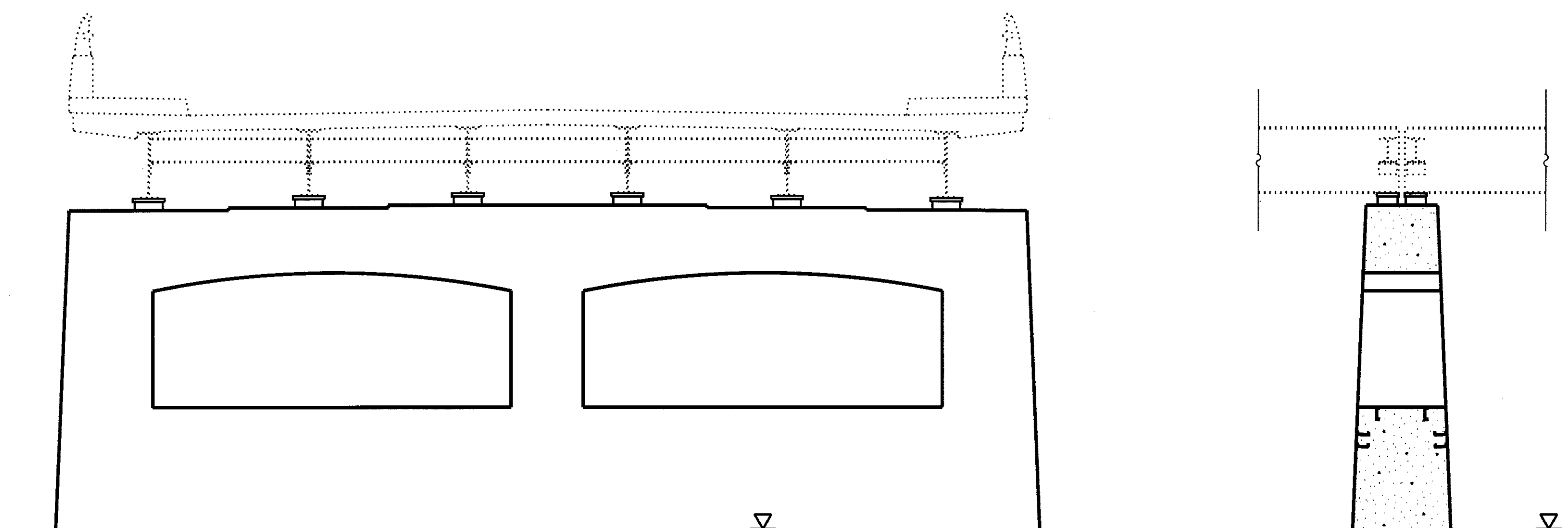
STAGE 1 - INSTALL SHORING

1. Install shoring on pier.
2. Jack bridge beams and install cribbing on header beam. Close bridge during jacking operation.
3. Remove existing bearings at pier.



STAGE 2 - RECONSTRUCT PIER CAP AND COLUMNS

1. Remove existing concrete pier cap and columns.
2. Reconstruct pier cap and columns.
3. Bridge is open to traffic during construction.



STAGE 3 - RESET BRIDGE BEAMS ON PIER

1. Jack bridge beams and install elastomeric bearings on bearing seats on pier. Close bridge during jacking operation.
2. Remove shoring.

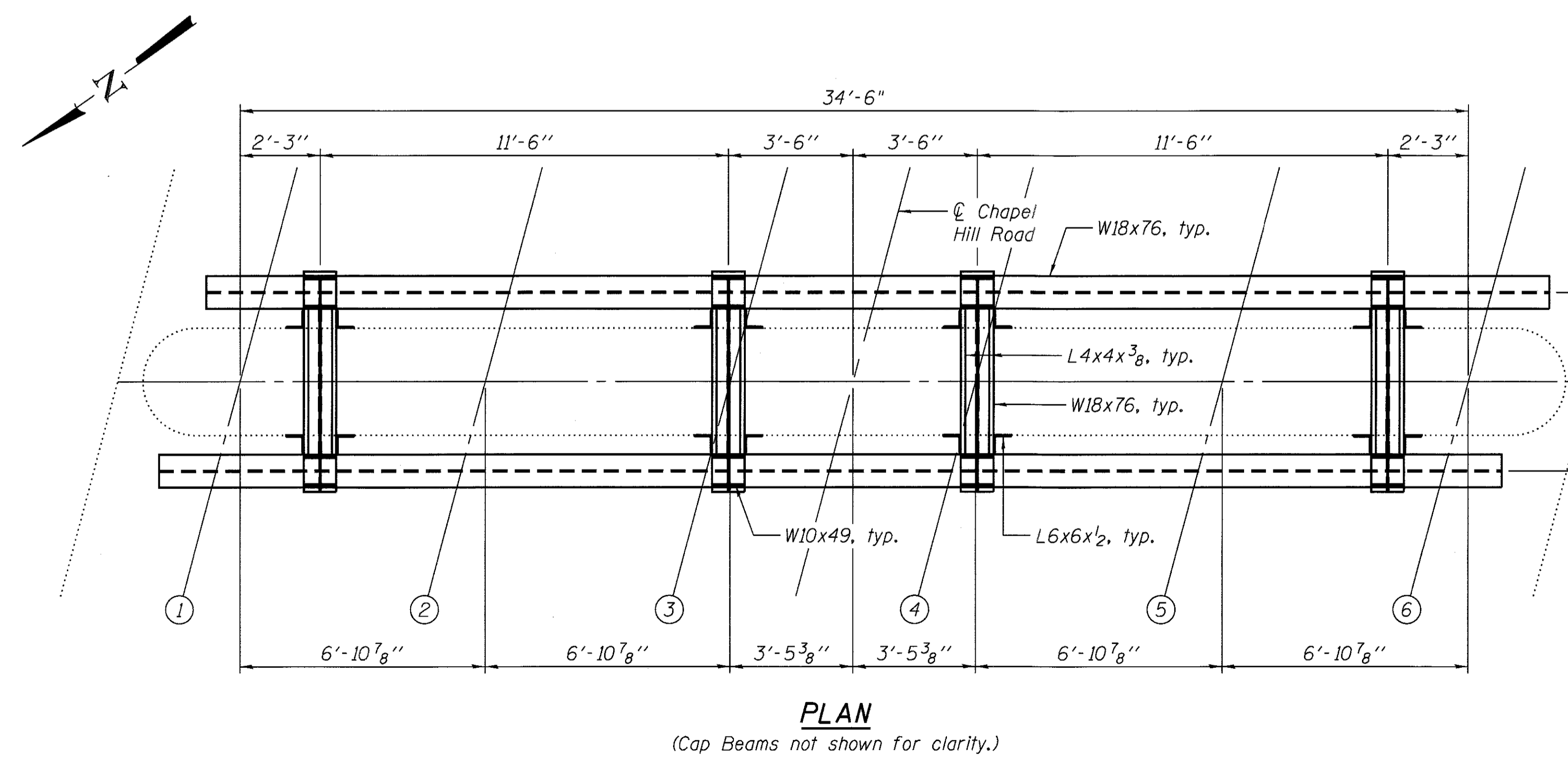
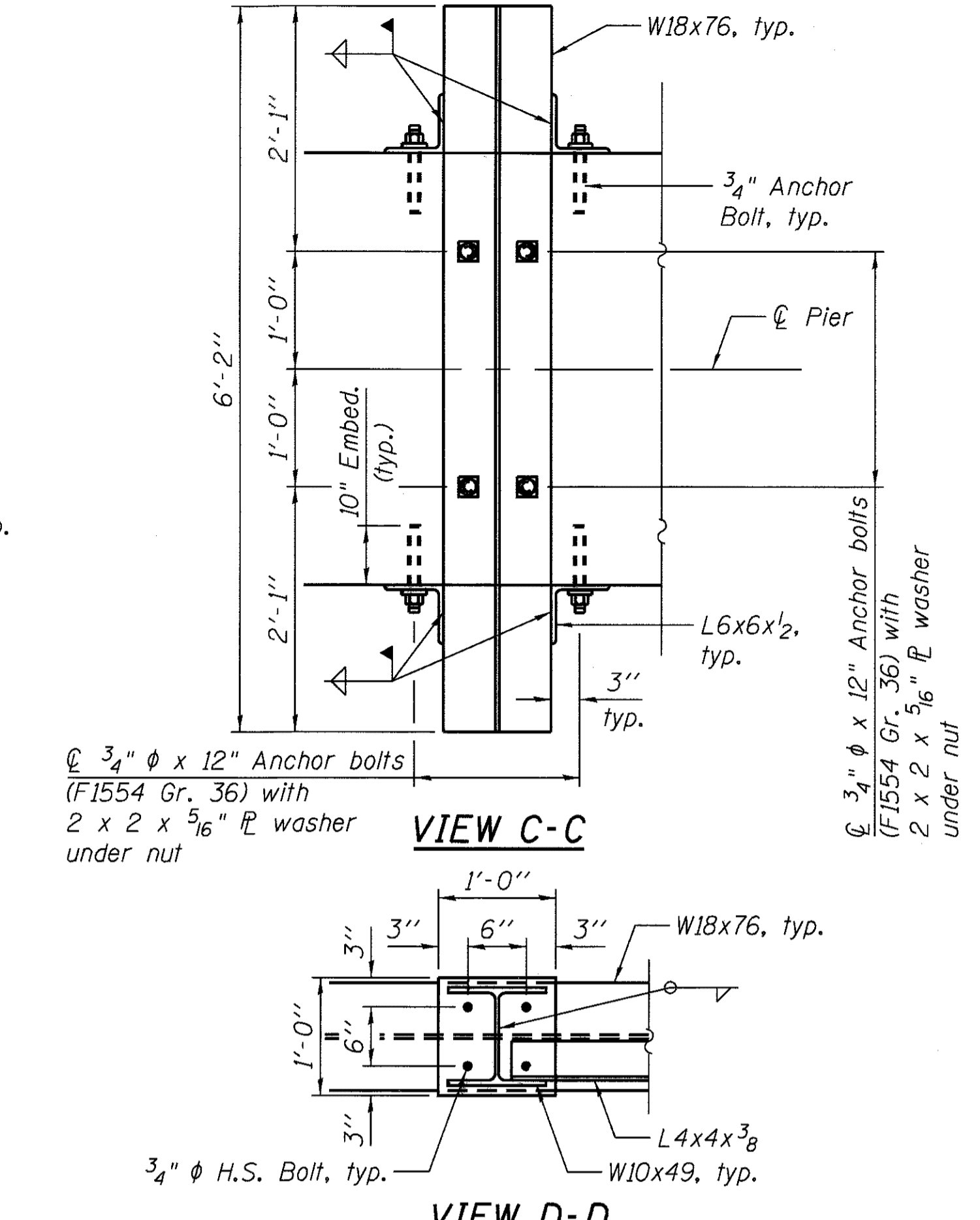
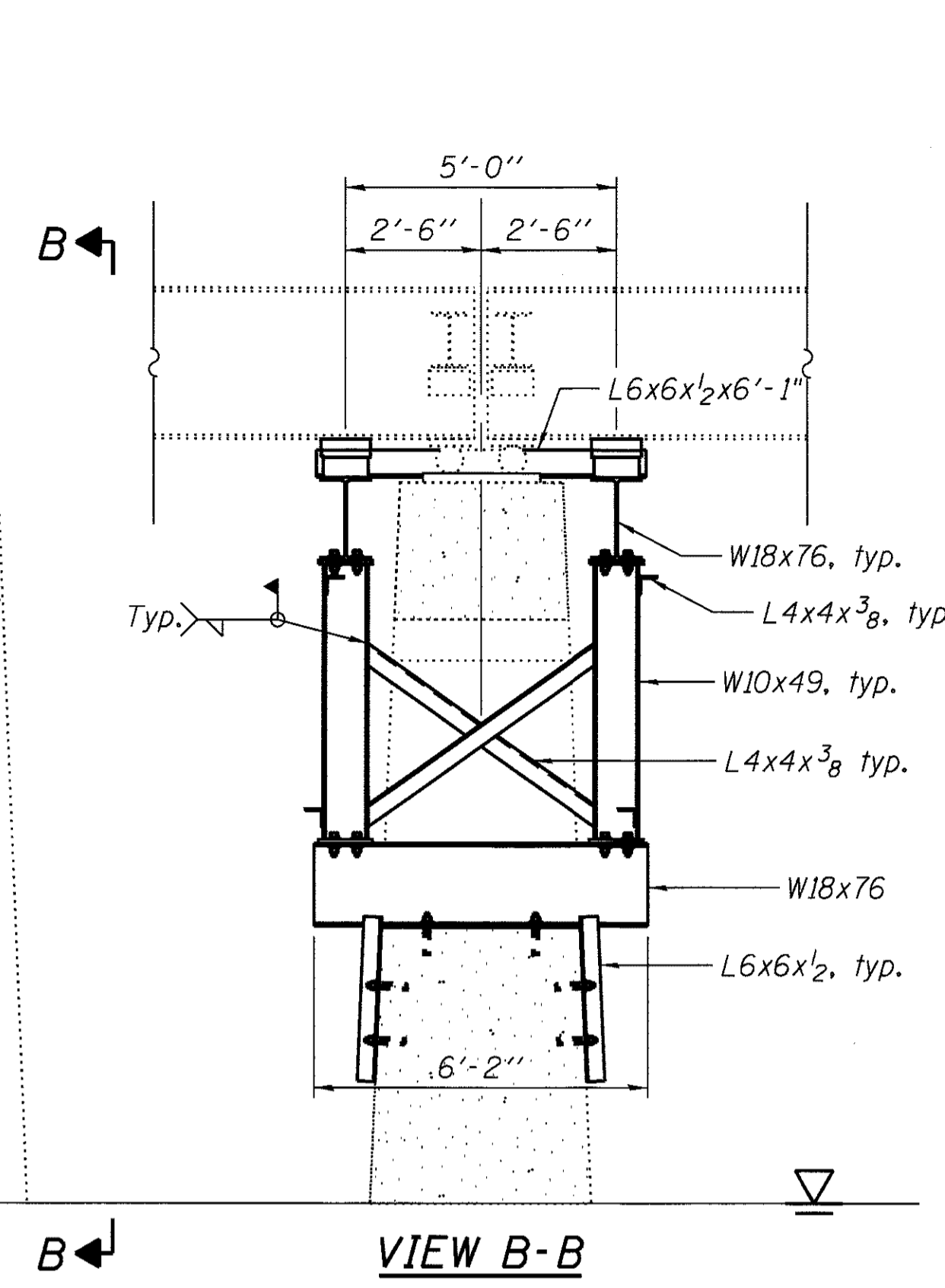
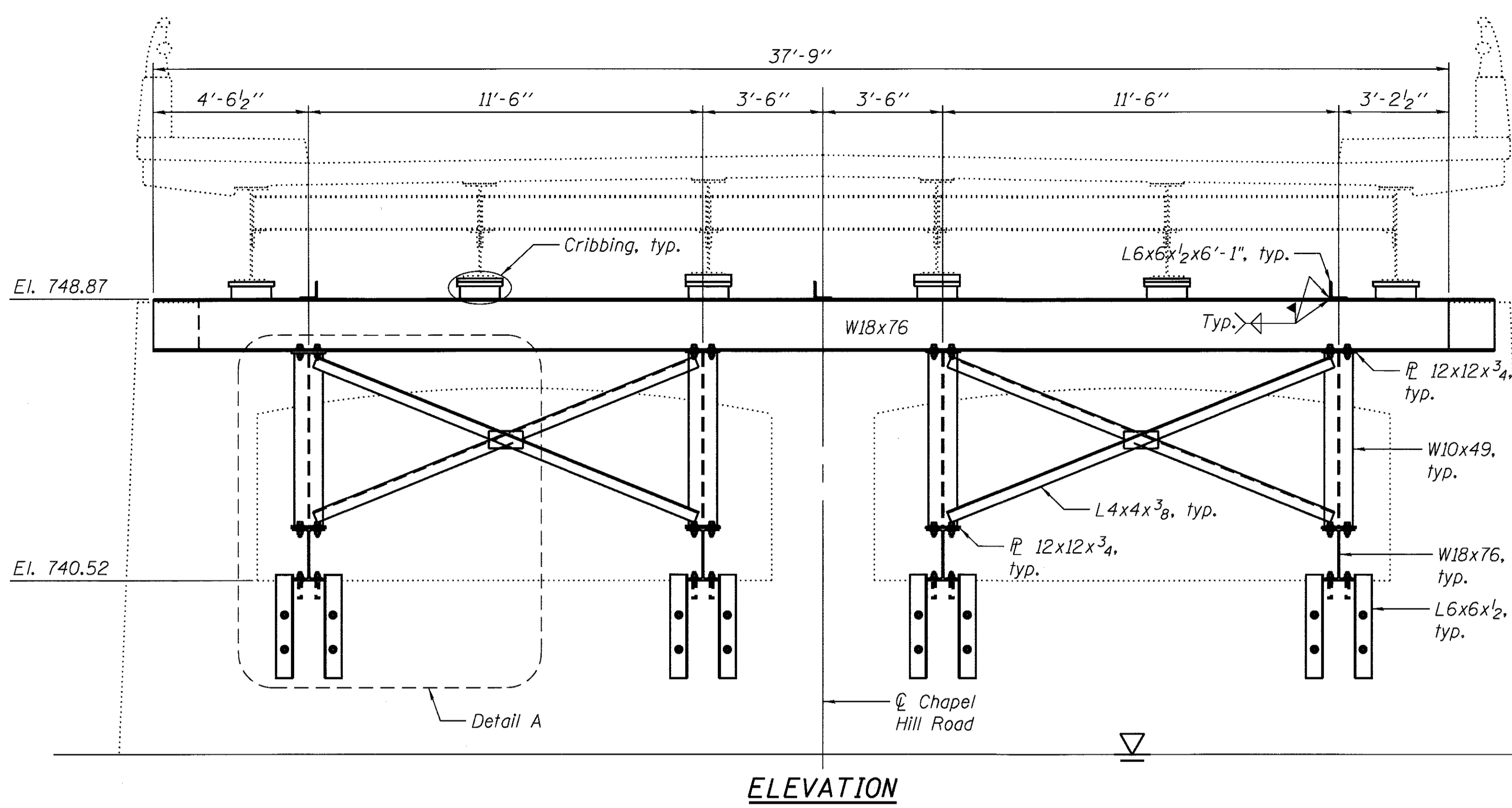
NOTES:

1. See Roadway Plans for Road Closure details.

F-11

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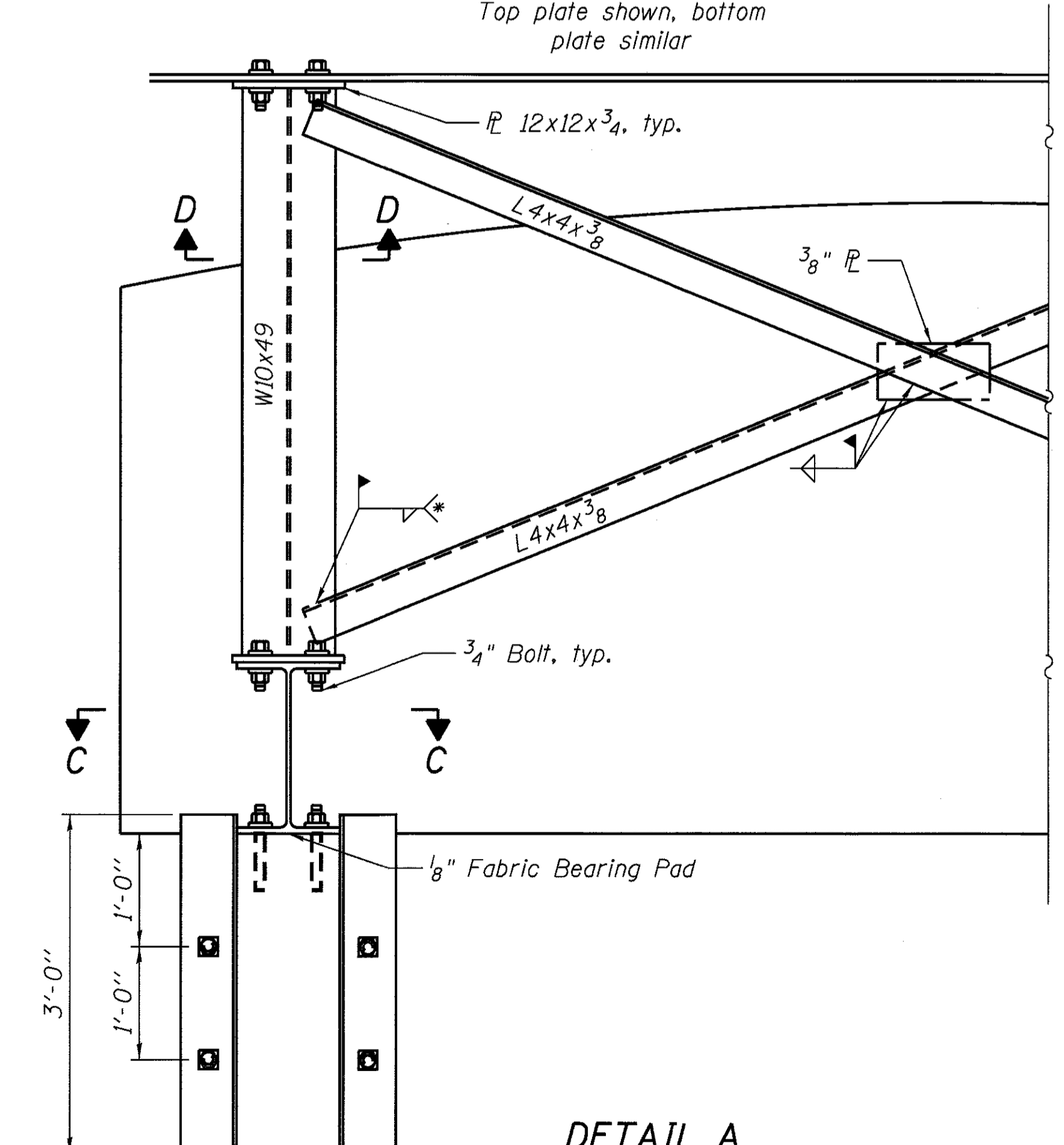
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167	14-00439-00-BR	MCHENRY	35	12
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



Notes:

Detail 1 5/16" φ holes for all 3/4" φ bolts.
Two hardened washers required for each set of oversized holes.
Anchor bolts shall be ASTM F1554 all thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drill and epoxy grout anchor bolts in drilled holes according to Section 584 of the IDOT Standard Specification.

* Fillet weld angles along 3 sides on one face of W10x49 beam flange.

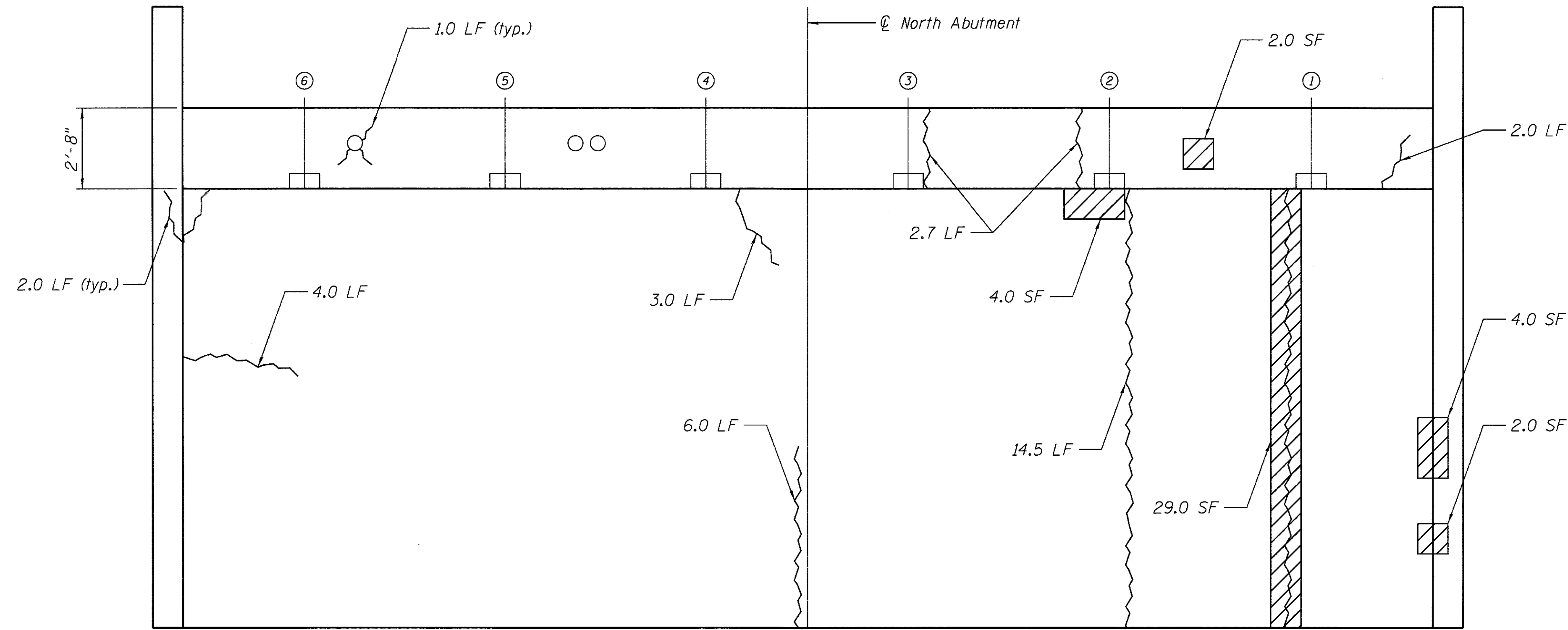


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F.A.U. RTE. 167	SECTION 14-00439-00-BR	COUNTY MCHENRY	TOTAL SHEETS 35	SHEET NO. 13
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	42
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	41
Concrete Sealer	Sq. Ft.	41



NORTH ABUTMENT ELEVATION

LEGEND

- Structural Repair of Concrete 1.0 SF
- Epoxy Crack Injection 1.0 LF



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PLOT DATE =

DESIGNED - JLR 10/02/2015
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

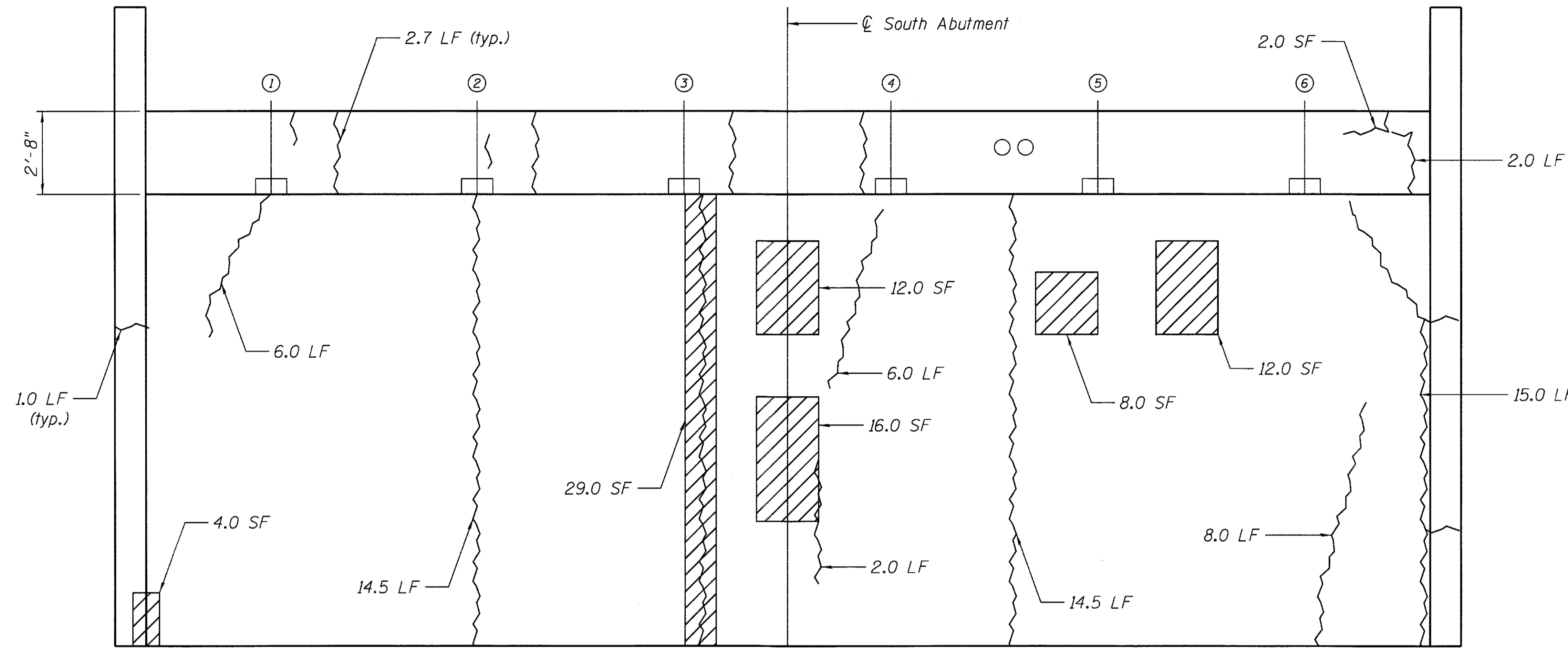
**CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
NORTH ABUTMENT REPAIRS**

SHEET NO. 5 OF 25 SHEETS

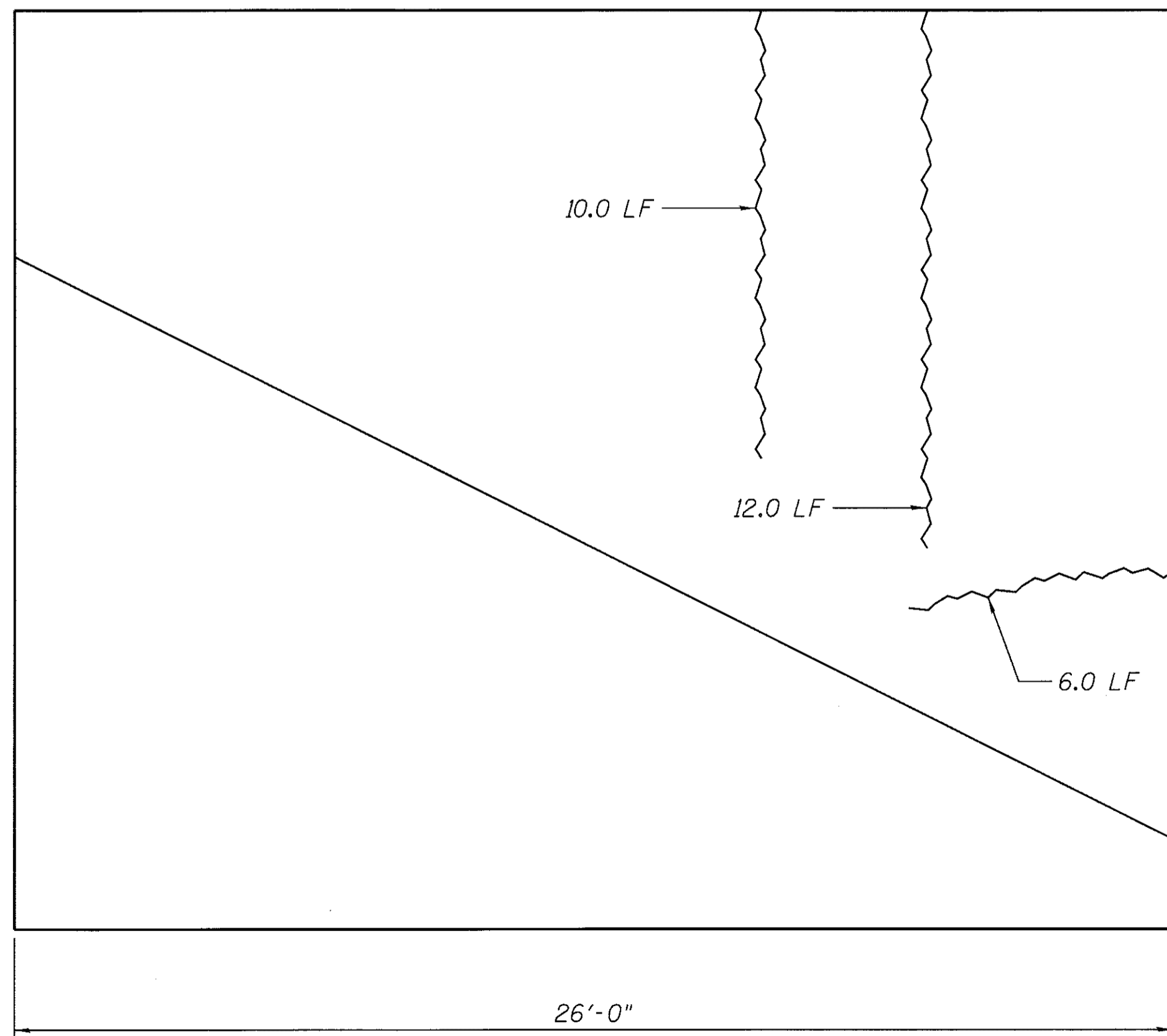
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CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				

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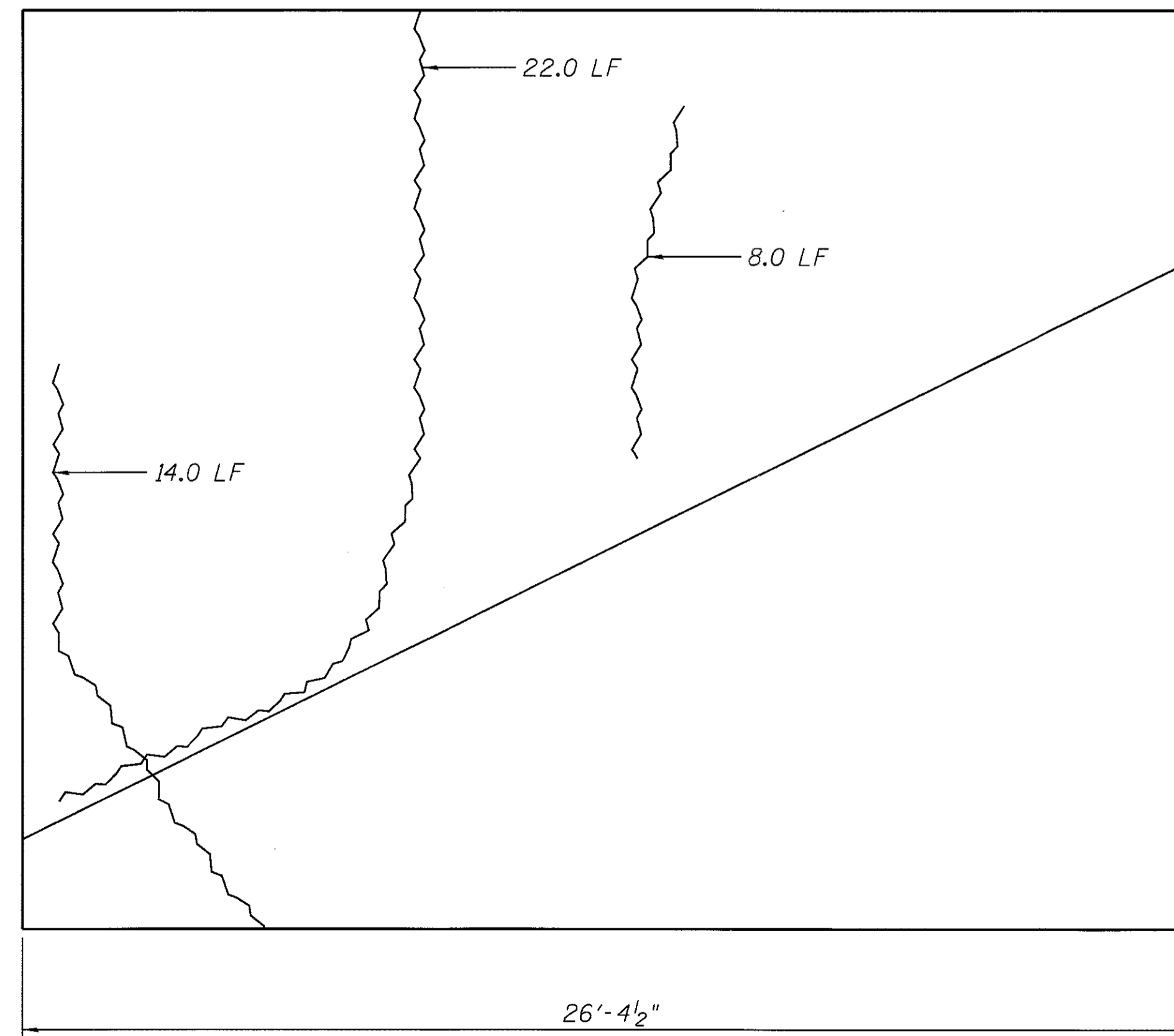
ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	158
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	81
Concrete Sealer	Sq. Ft.	81



SOUTH ABUTMENT ELEVATION



SOUTH EAST WINGWALL



SOUTH WEST WINGWALL

LEGEND

- Structural Repair of Concrete 1.0 SF
- Epoxy Crack Injection 1.0 LF



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PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
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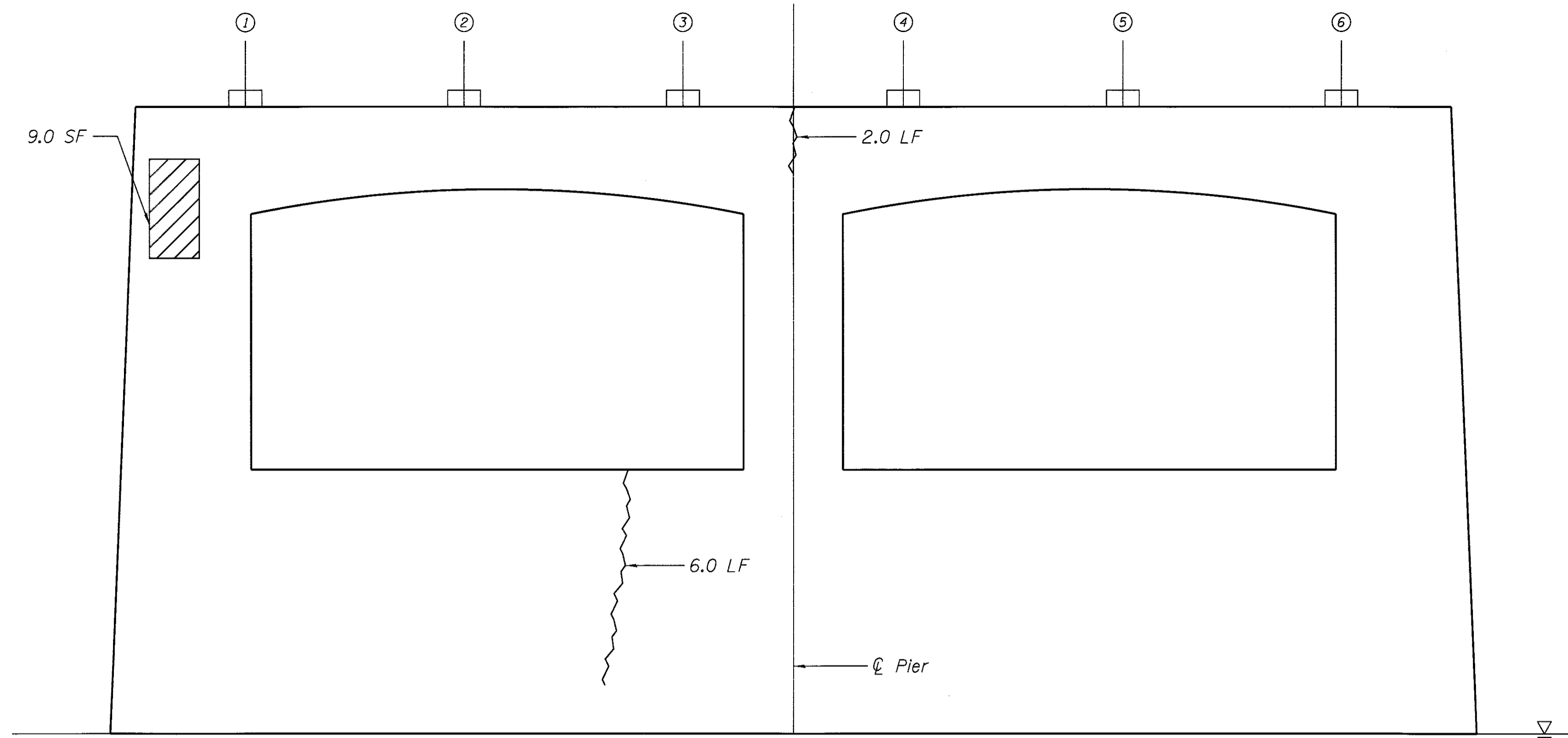
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
 SOUTH ABUTMENT REPAIRS**

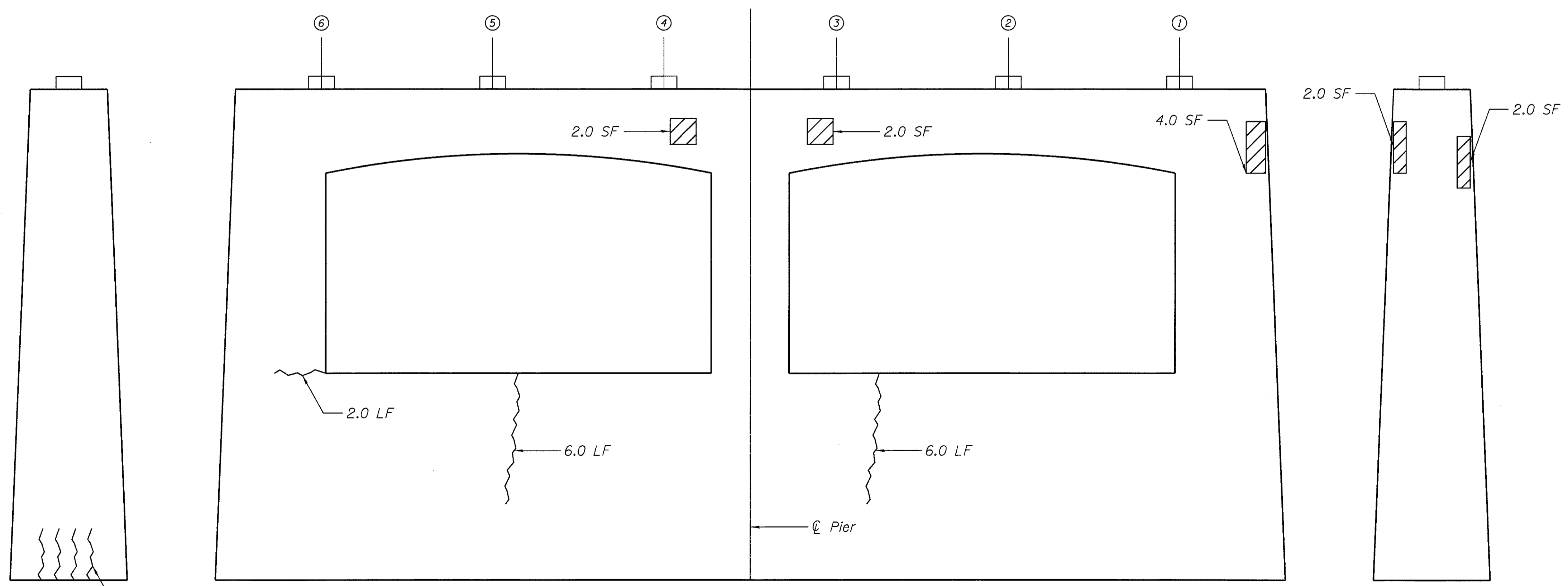
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CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	30
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	21
Concrete Sealer	Sq. Ft.	21



PIER 1 ELEVATION - LOOKING SOUTH



WEST END ELEVATION

PIER 1 ELEVATION - LOOKING NORTH

EAST END ELEVATION

LEGEND

- Structural Repair of Concrete (Depth Less than or Equal to 5") 1.0 SF
- Epoxy Crack Injection 1.0 LF



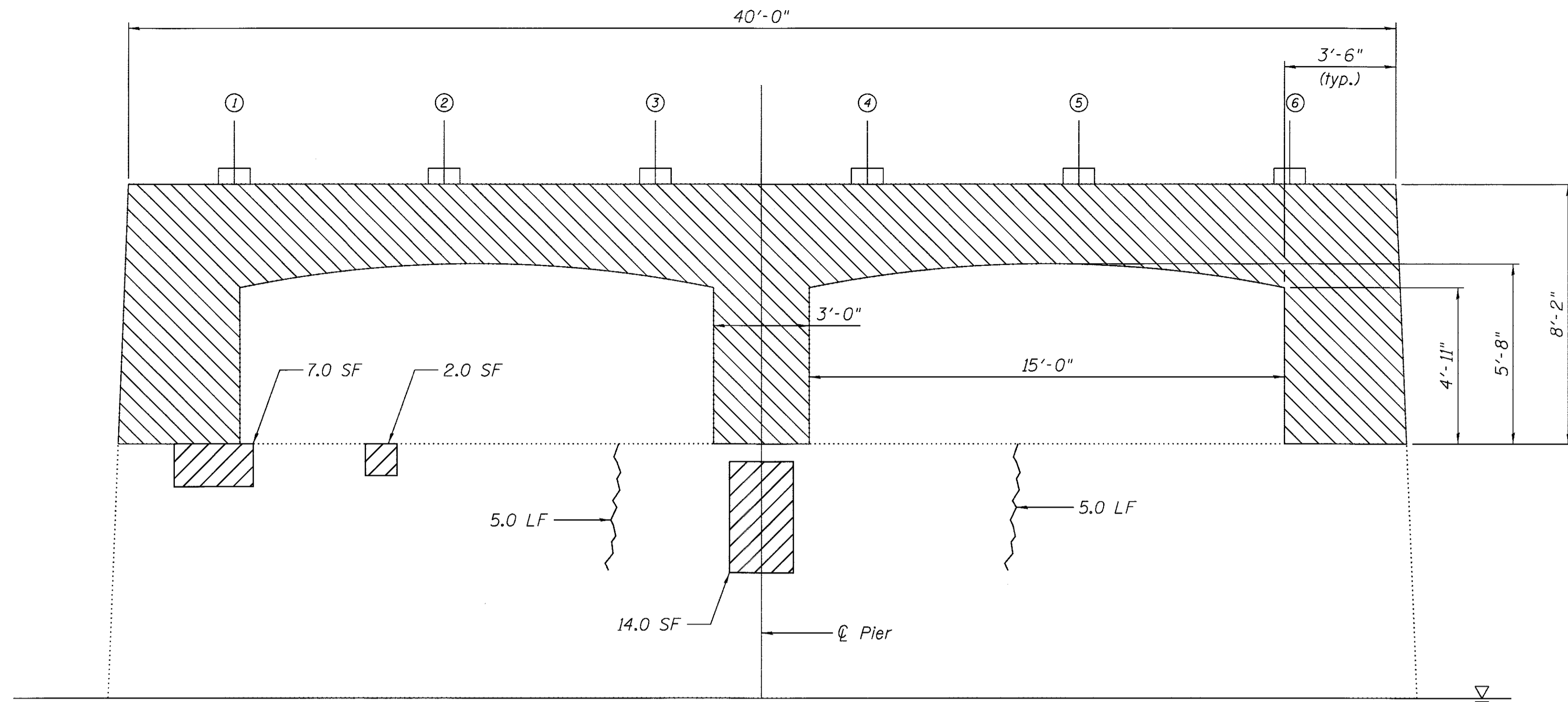
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

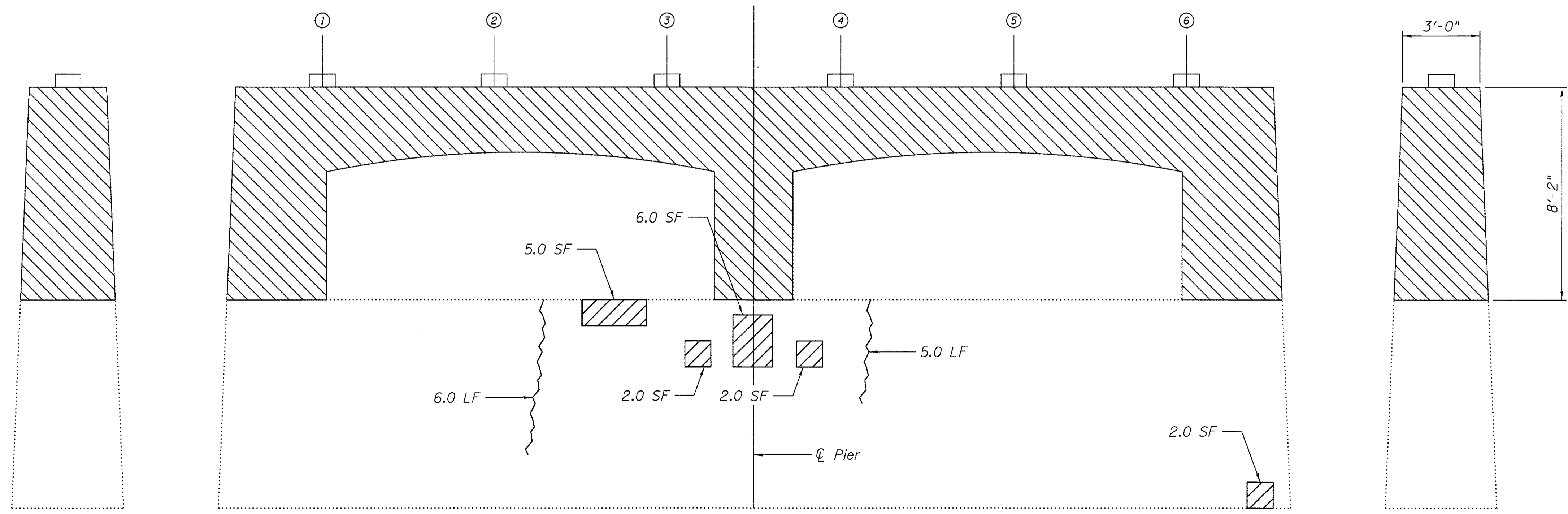
**CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
PIER 1 REPAIRS**

SHEET NO. 7 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	16
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



PIER 2 ELEVATION - LOOKING SOUTH



WEST END ELEVATION

PIER 2 ELEVATION - LOOKING NORTH

EAST END ELEVATION

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	20.6
Epoxy Crack Injection	Foot	21
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	40
Concrete Sealer	Sq. Ft.	40

NOTES:

- Existing reinforcement extending into new concrete shall be cleaned, straightened, and incorporated into the new construction. Cost included with Concrete Removal.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

LEGEND

- Concrete Removal
See Sheets 3 of 25 & 14 of 25) 1.0 SF
- Structural Repair of Concrete
(Depth Less than or Equal to 5") 1.0 SF
- Epoxy Crack Injection 1.0 LF



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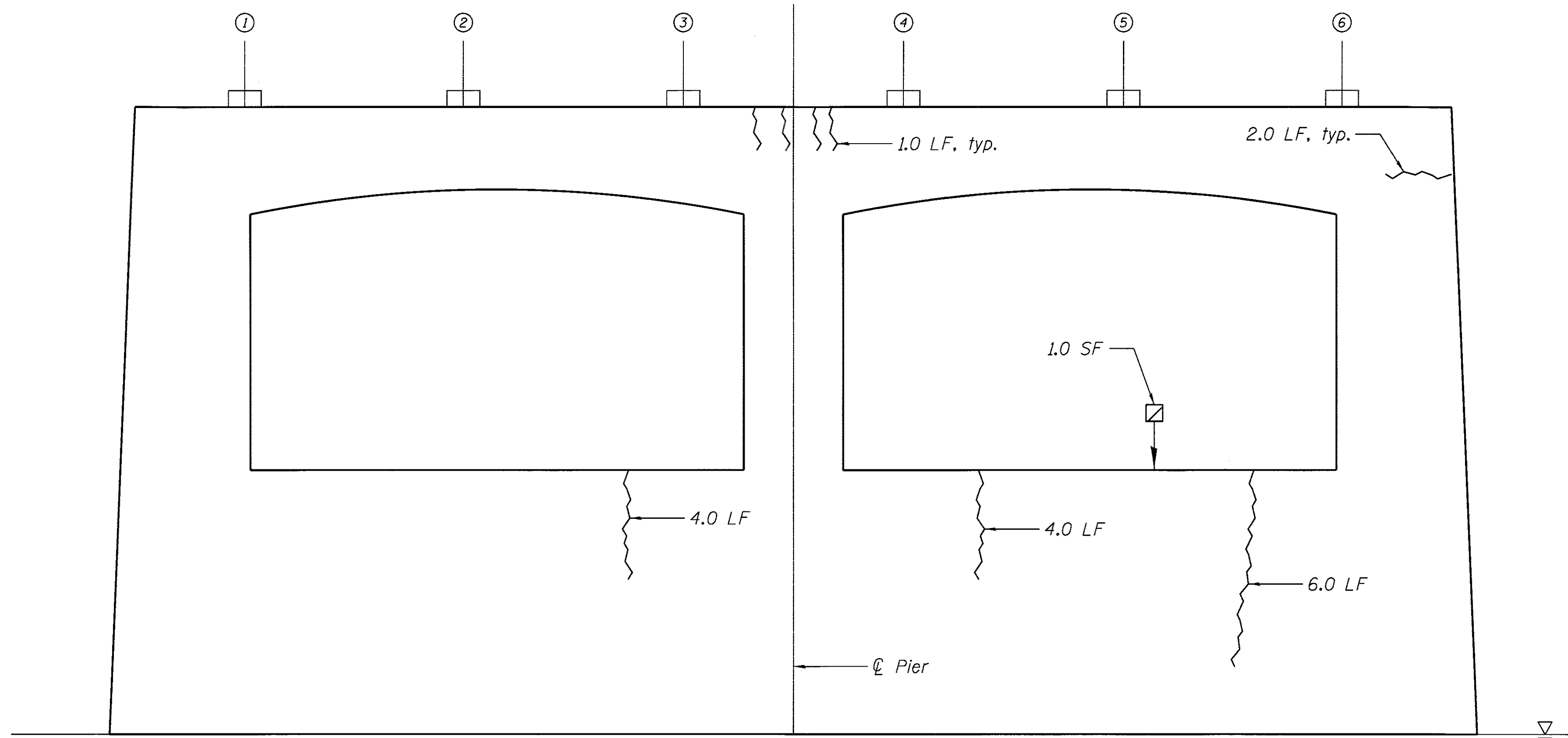
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
PIER 2 REPAIRS

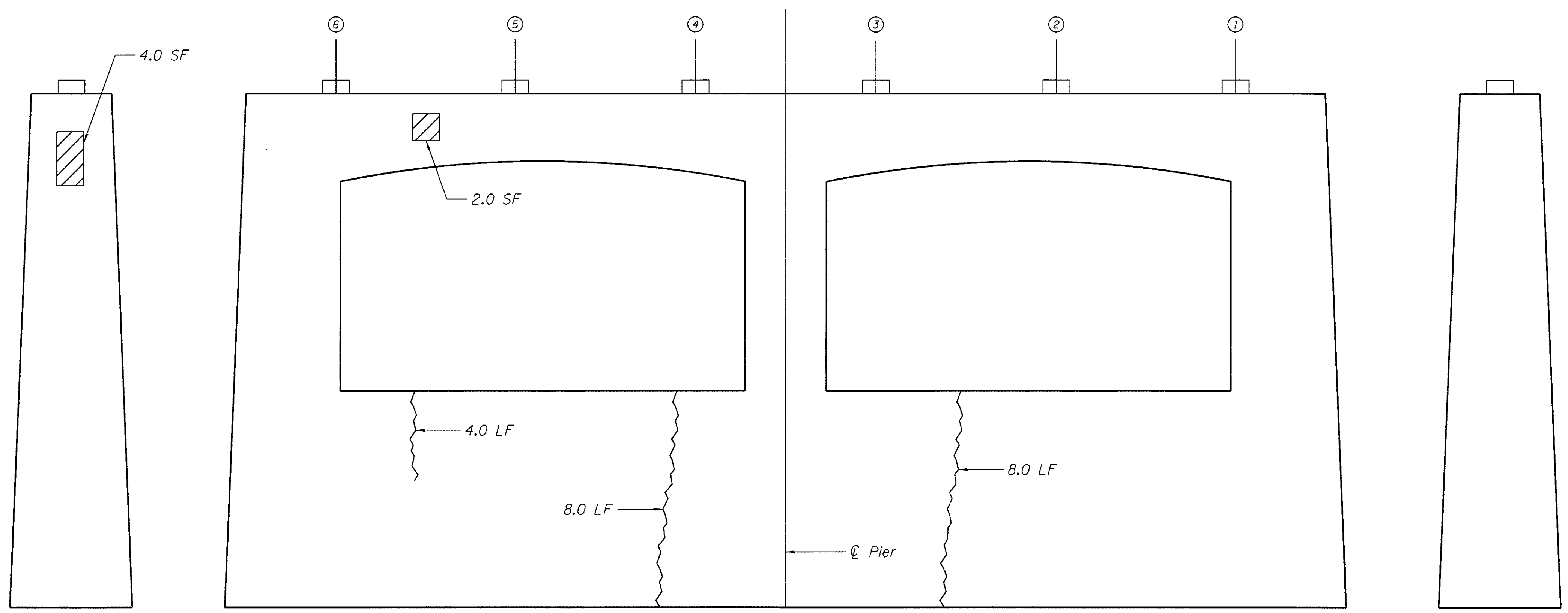
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	17
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	40
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	7
Concrete Sealer	Sq. Ft.	7



PIER 4 ELEVATION - LOOKING SOUTH



WEST END ELEVATION

PIER 4 ELEVATION - LOOKING NORTH

EAST END ELEVATION

LEGEND

- Structural Repair of Concrete (Depth Less than or Equal to 5") 1.0 SF
- Epoxy Crack Injection 1.0 LF

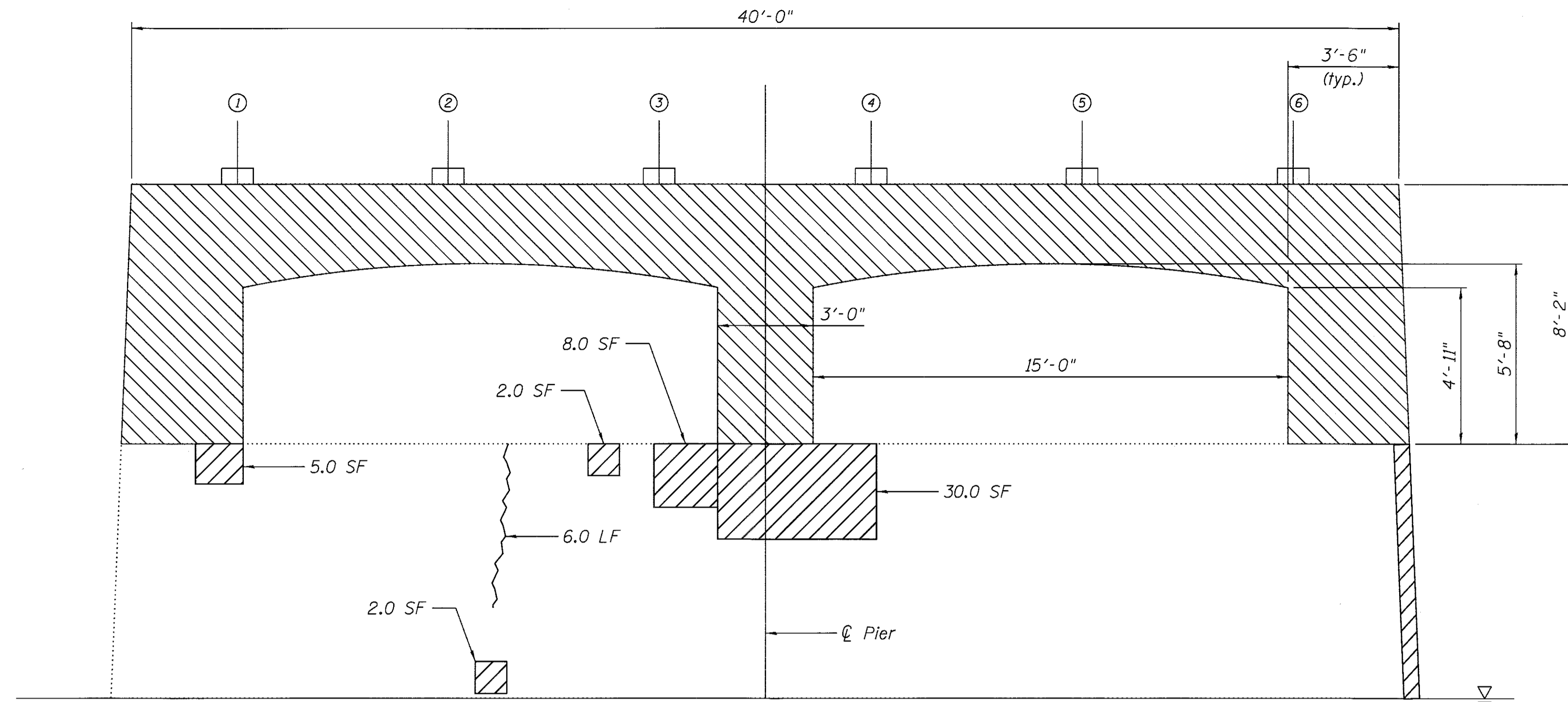


USER NAME = martin	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

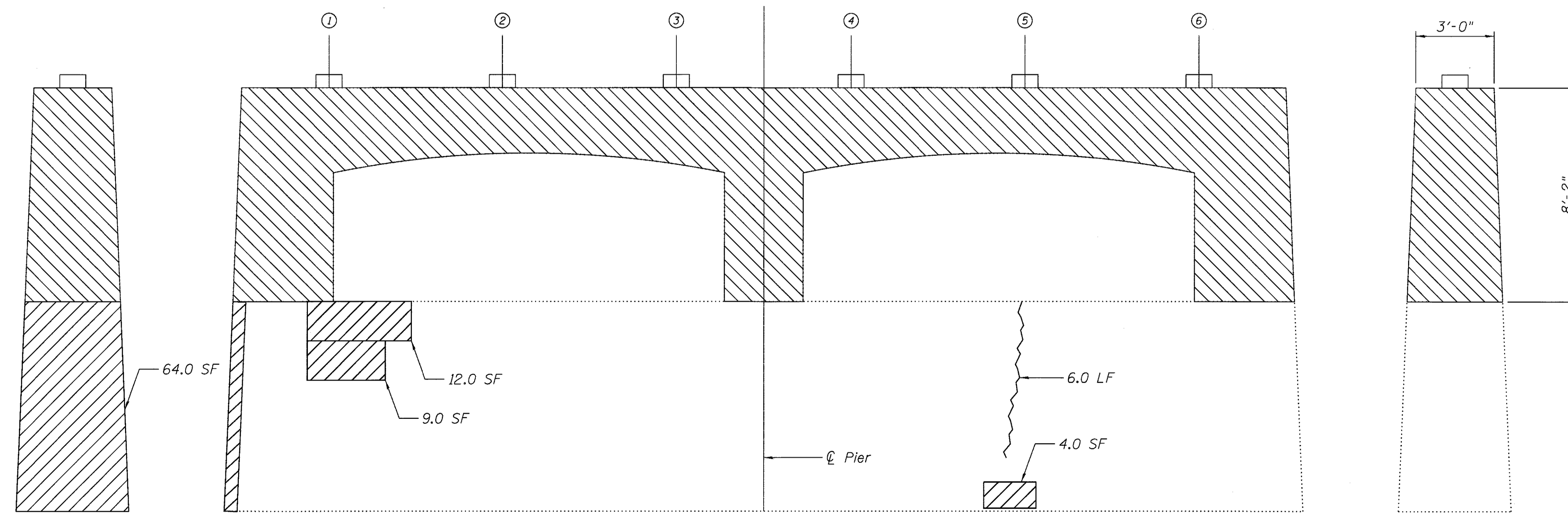
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
PIER 4 REPAIRS**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	19
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



PIER 6 ELEVATION - LOOKING SOUTH



WEST END ELEVATION

PIER 6 ELEVATION - LOOKING NORTH

EAST END ELEVATION

PIER 6 BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	20.6
Epoxy Crack Injection	Foot	12
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	136
Concrete Sealer	Sq. Ft.	136

NOTES:

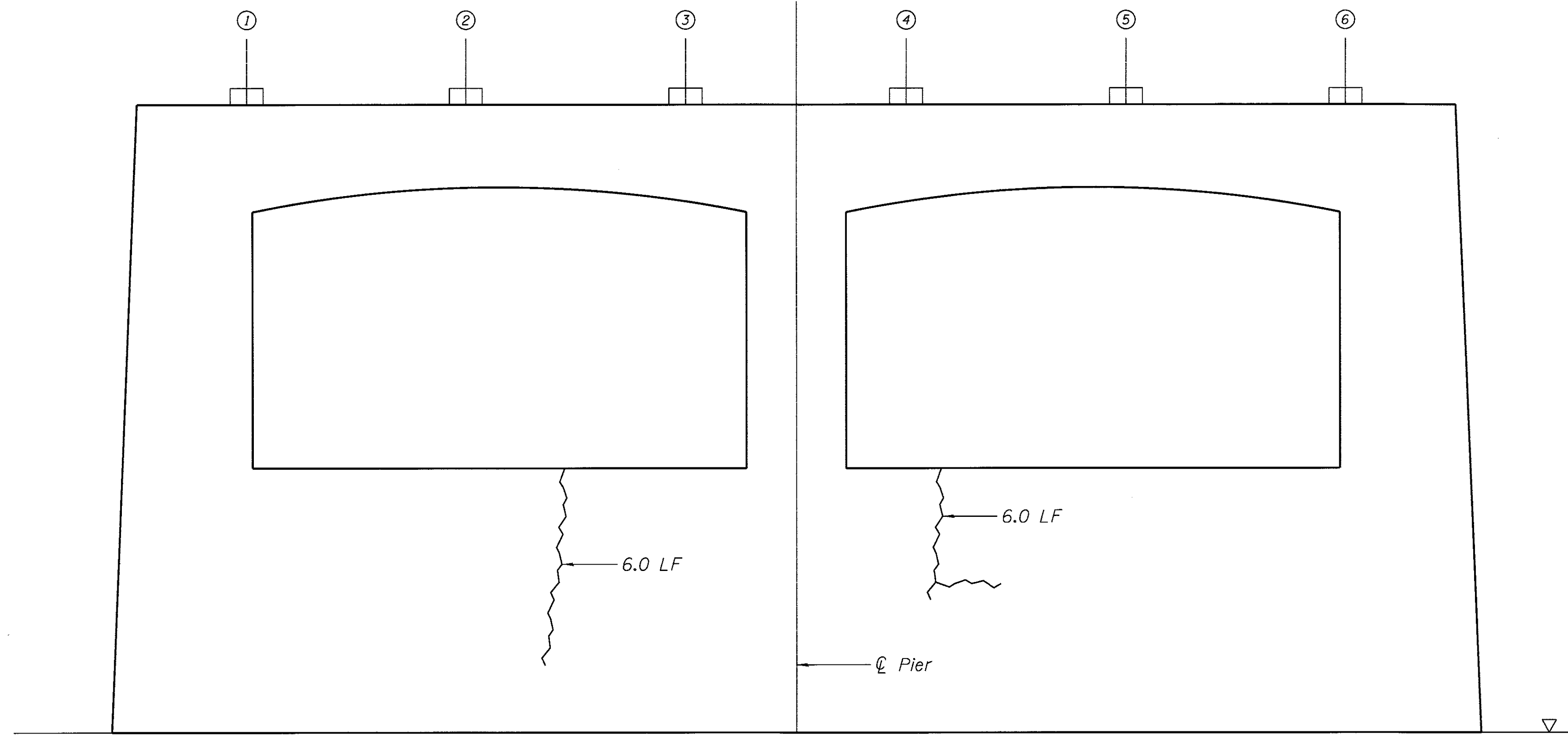
- Existing reinforcement extending into new concrete shall be cleaned, straightened, and incorporated into the new construction. Cost included with Concrete Removal.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

LEGEND

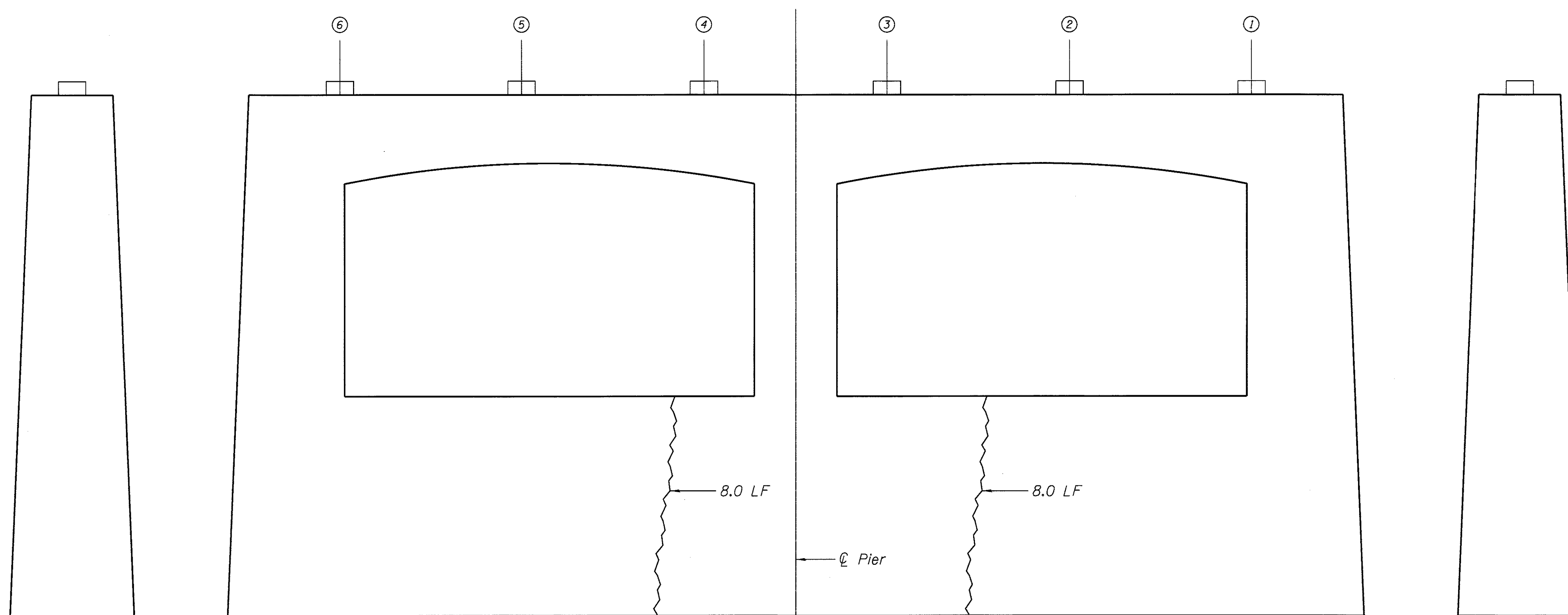
- Concrete Removal
(See Sheets 3 of 25 & 14 of 25) 1.0 SF
- Structural Repair of Concrete
(Depth Less than or Equal to 5") 1.0 SF
- Epoxy Crack Injection 1.0 LF

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	28



PIER 7 ELEVATION - LOOKING SOUTH



PIER 7 ELEVATION - LOOKING NORTH

WEST END ELEVATION

EAST END ELEVATION

LEGEND

Epoxy Crack Injection } 1.0 LF



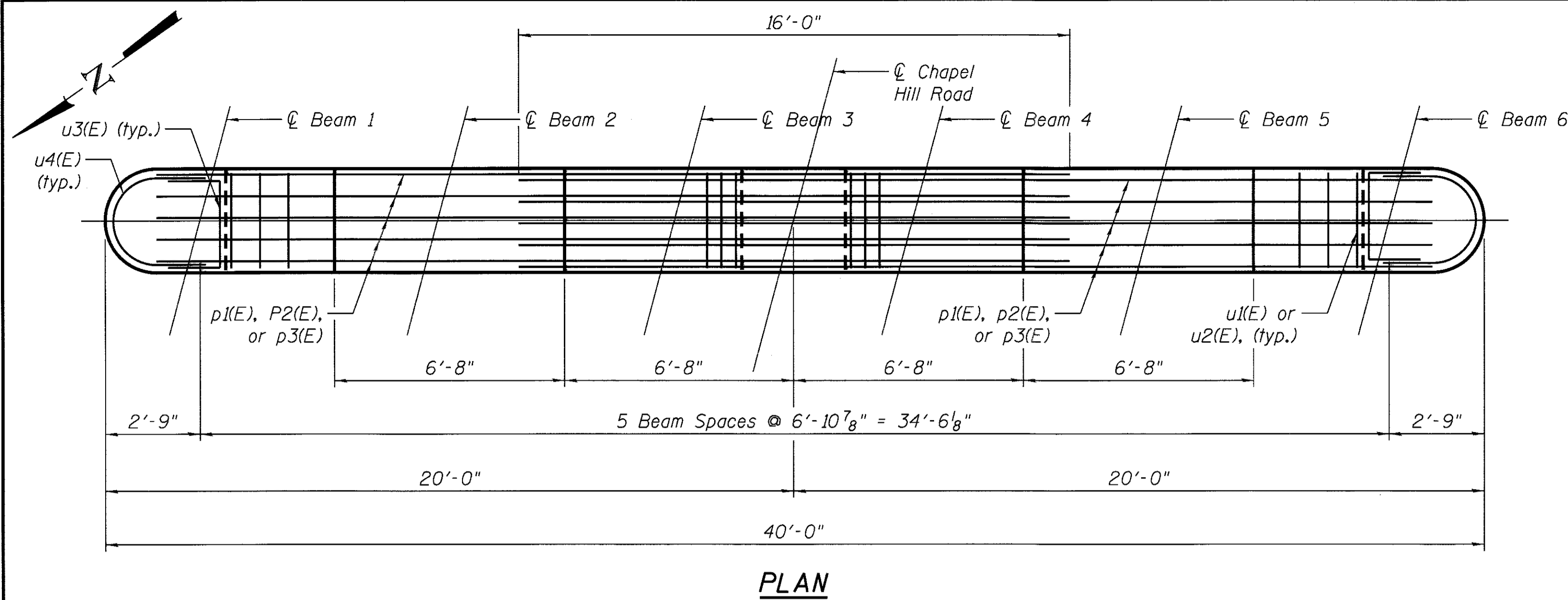
USER NAME = martin	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

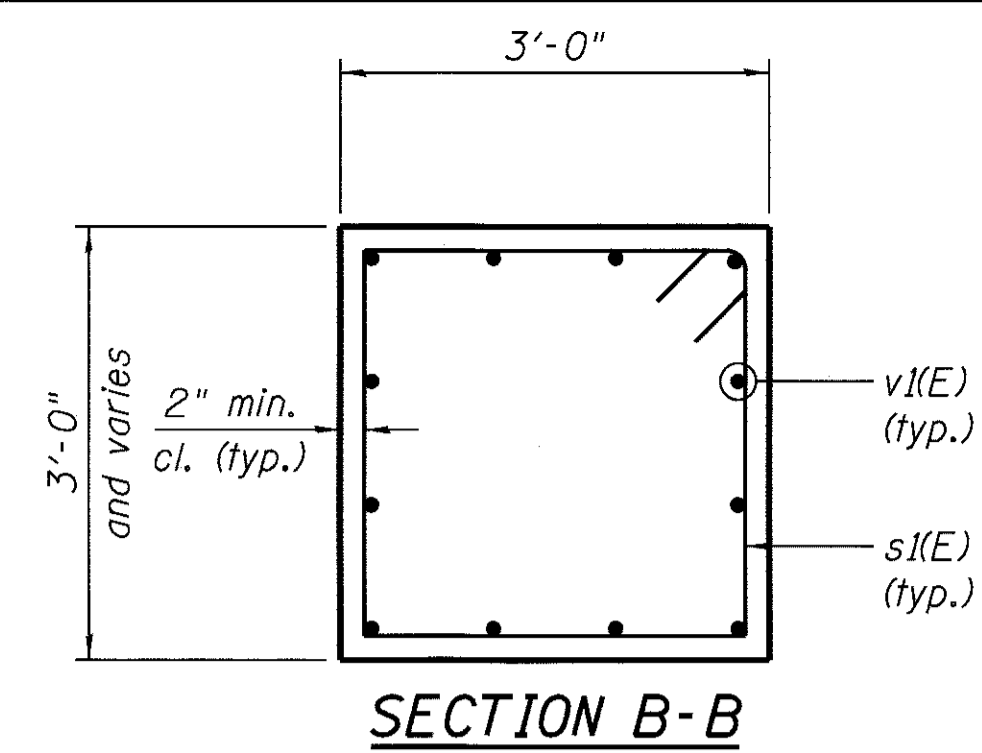
**CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
PIER 7 REPAIRS**

SHEET NO. 13 OF 25 SHEETS

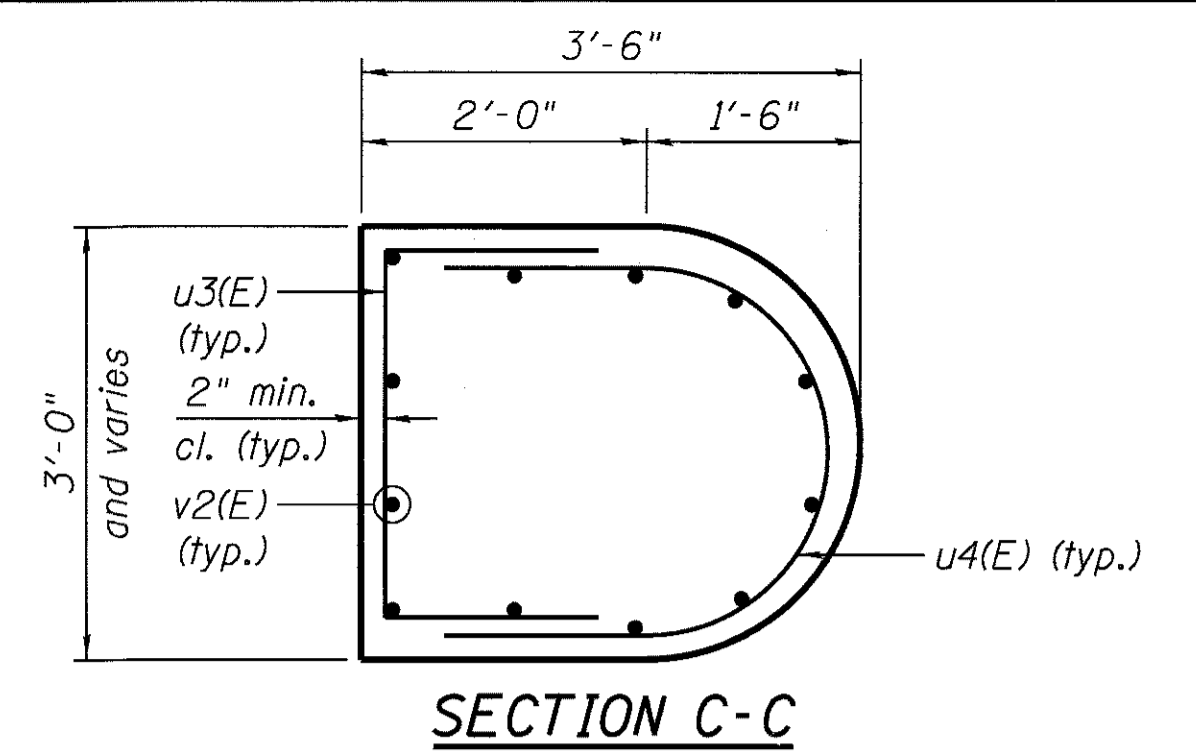
F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	22
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



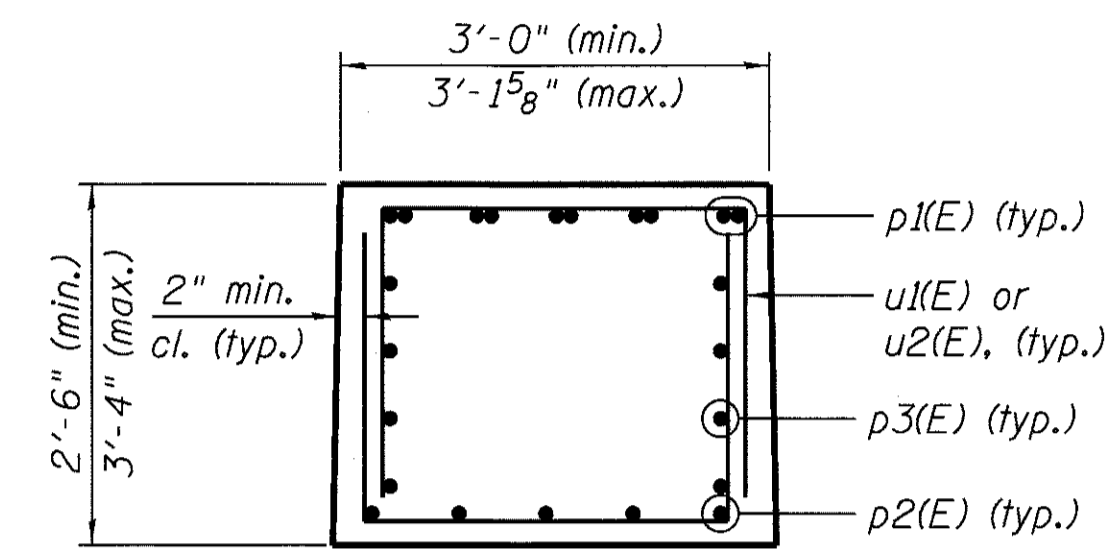
PLAN



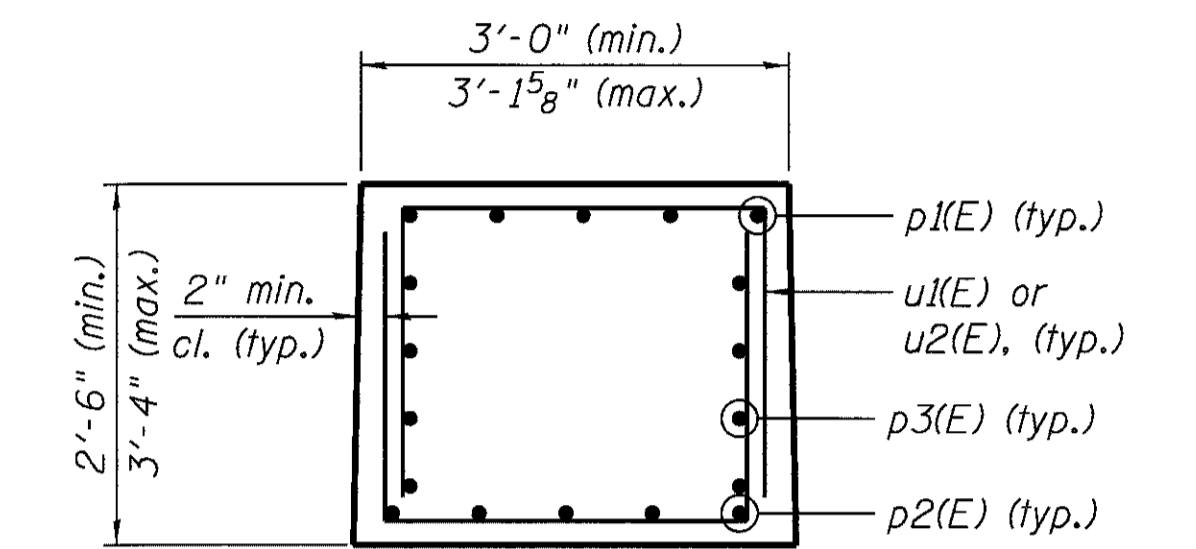
SECTION B-B



SECTION C-C



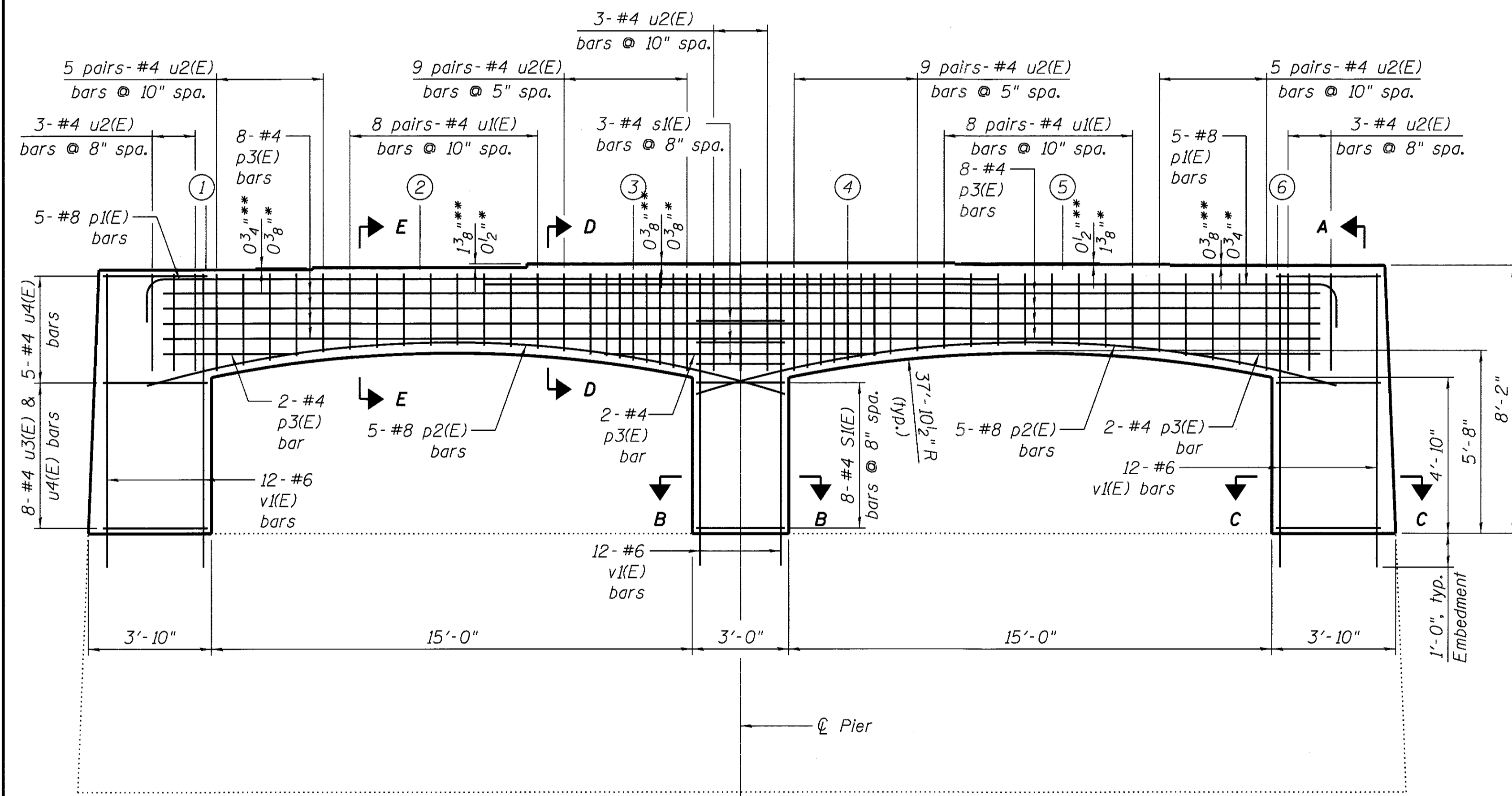
SECTION D-D



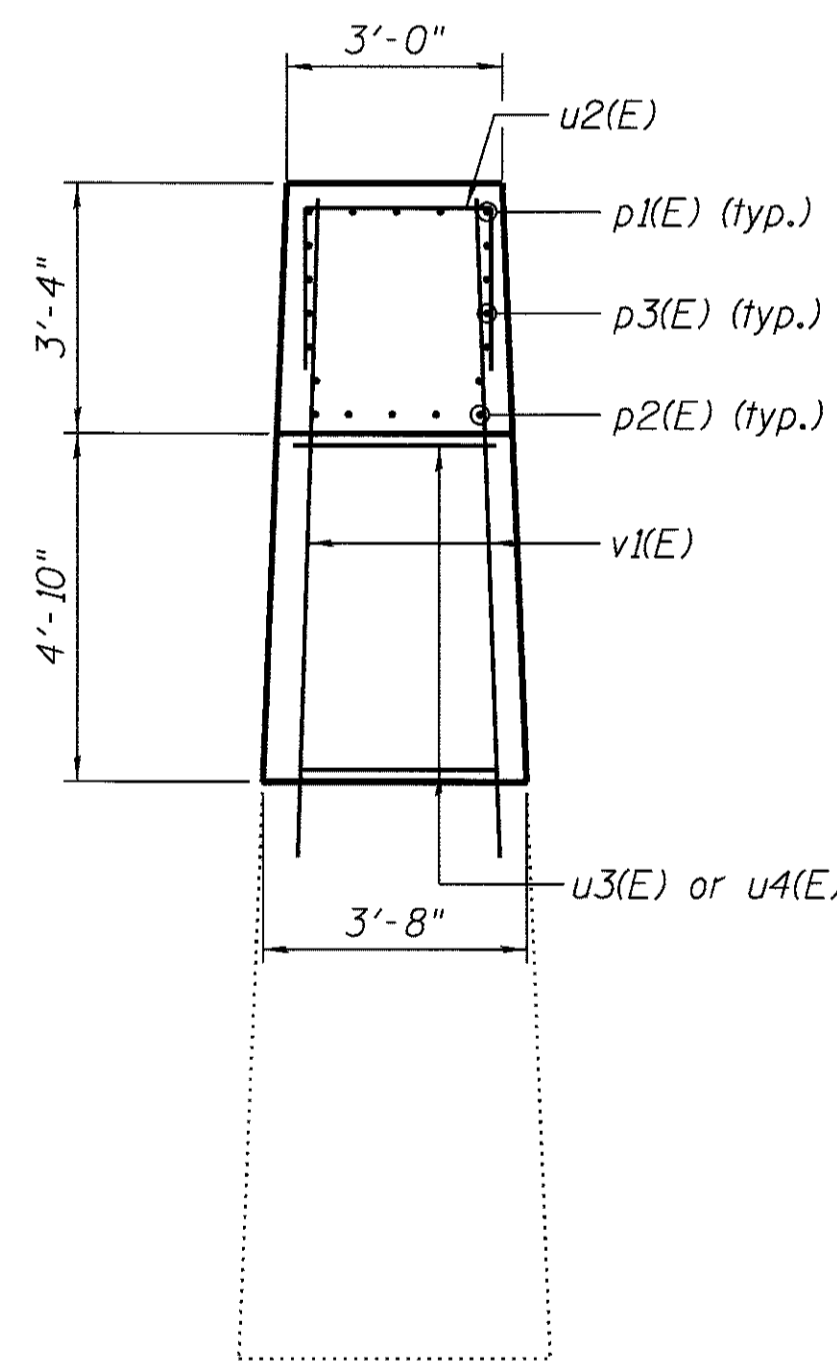
SECTION E-E

NOTES:

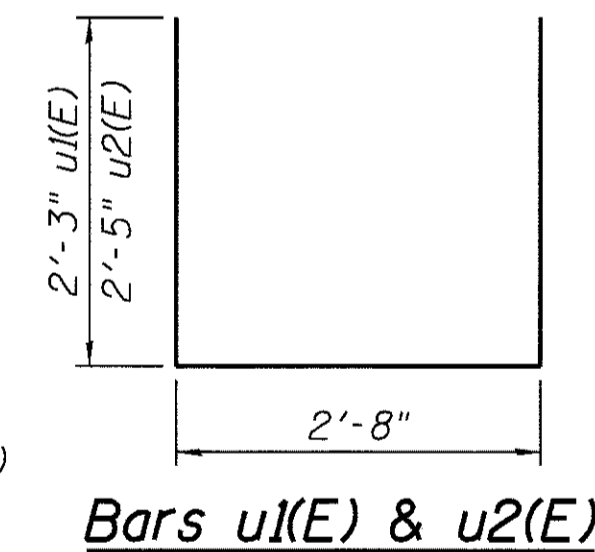
1. Drill and epoxy grout bars in drilled holes according to Section 584 of the IDOT Standard Specifications. The cost of drilling and grouting shall be included with Concrete Structures.
2. Existing vertical reinforcement bars which extend into the removal areas shall be cleaned and incorporated into new construction.
3. Quantities shown are for a single pier. Piers 2 and 6 similar.
4. 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.
5. Concrete Sealer shall be applied to all new concrete surfaces.



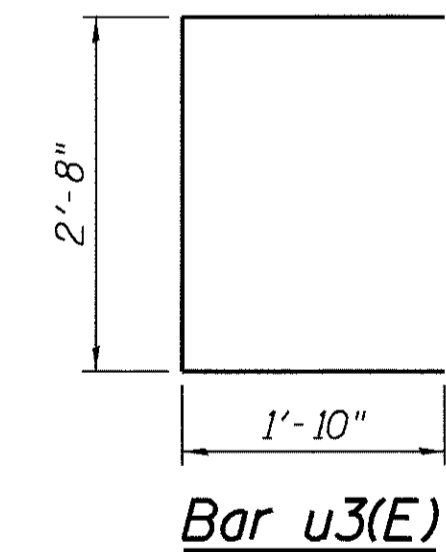
ELEVATION VIEW



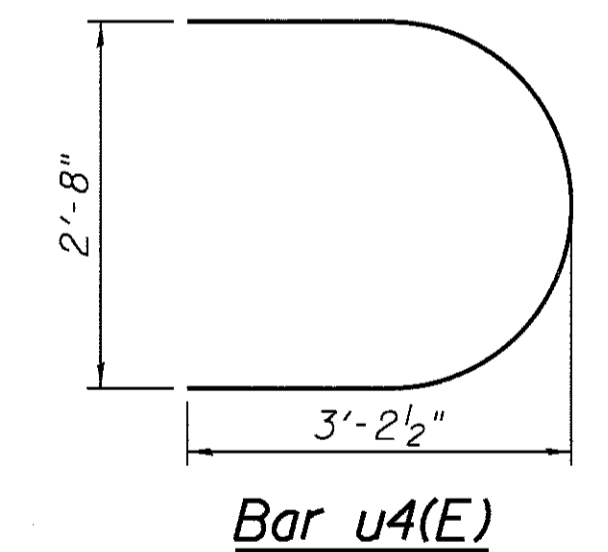
SECTION A-A



Bars u1(E) & u2(E)



Bar u3(E)

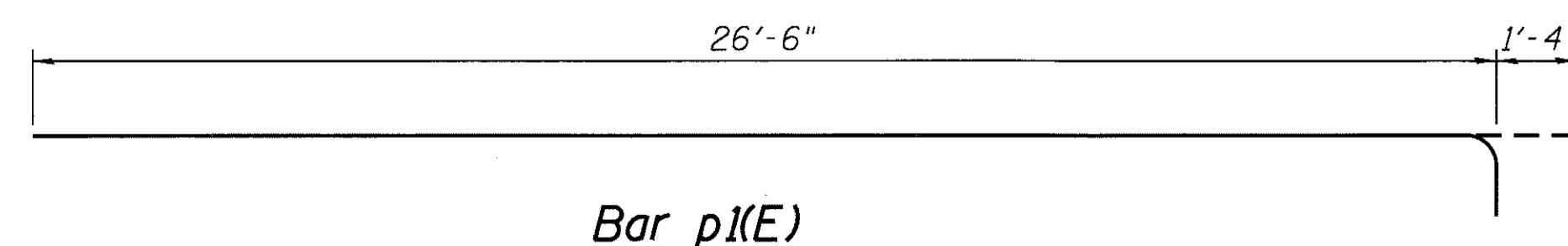


Bar u4(E)

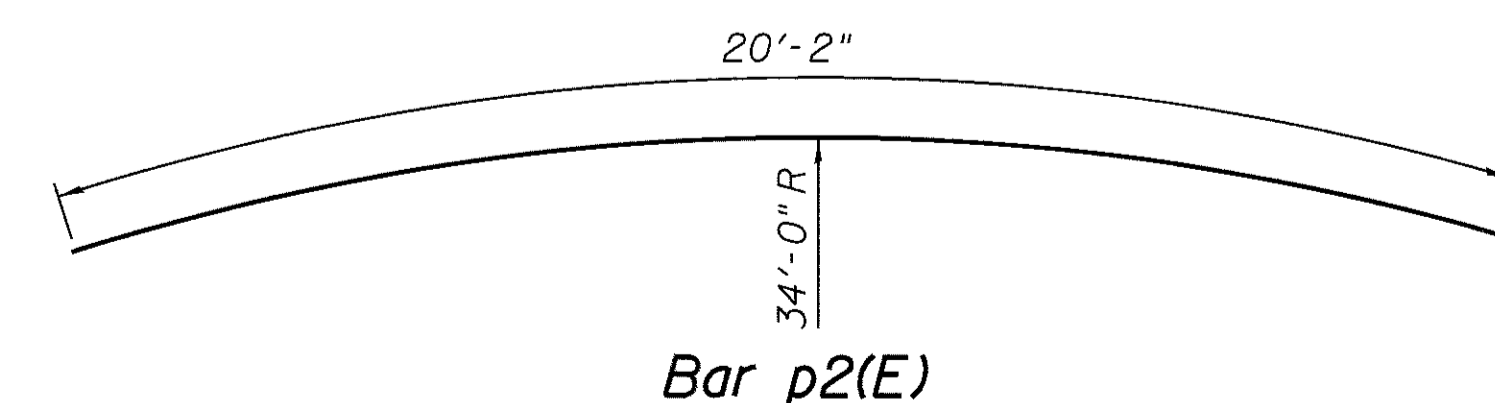
* Pier 2
** Pier 6

Bearing Seat Elevations

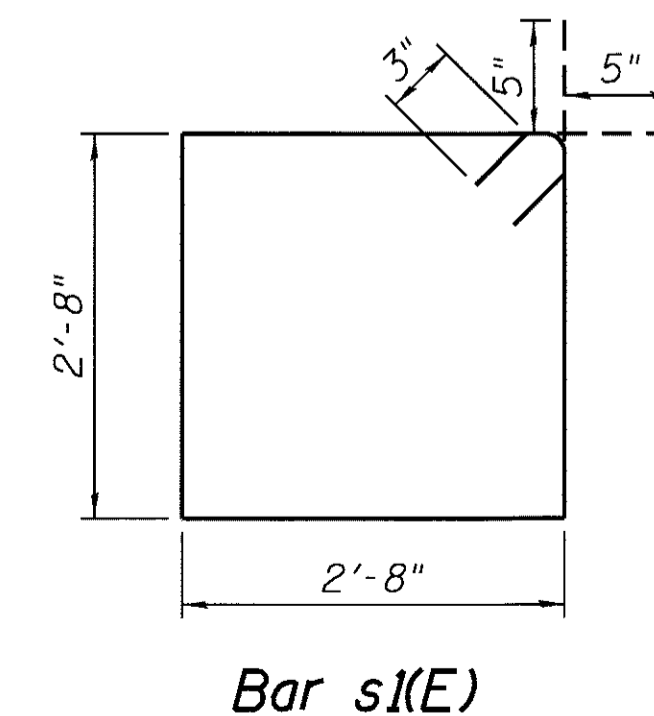
Beam	Pier 2 Elev.	Pier 6 Elev.
1	748.49	748.62
2	748.55	748.66
3	748.67	748.70
4	748.70	748.67
5	748.66	748.55
6	748.62	748.49



Bar p1(E)



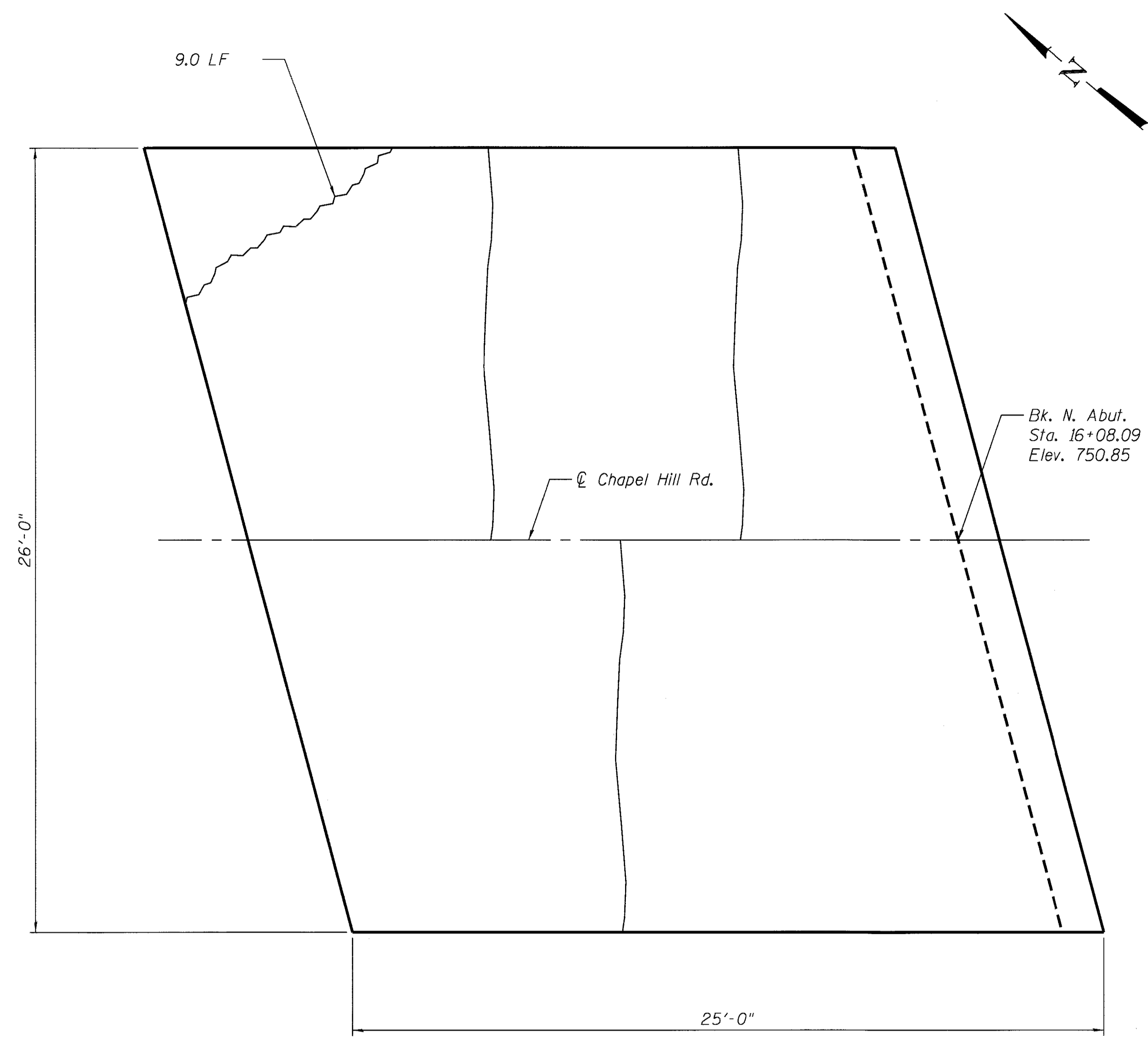
Bar p2(E)



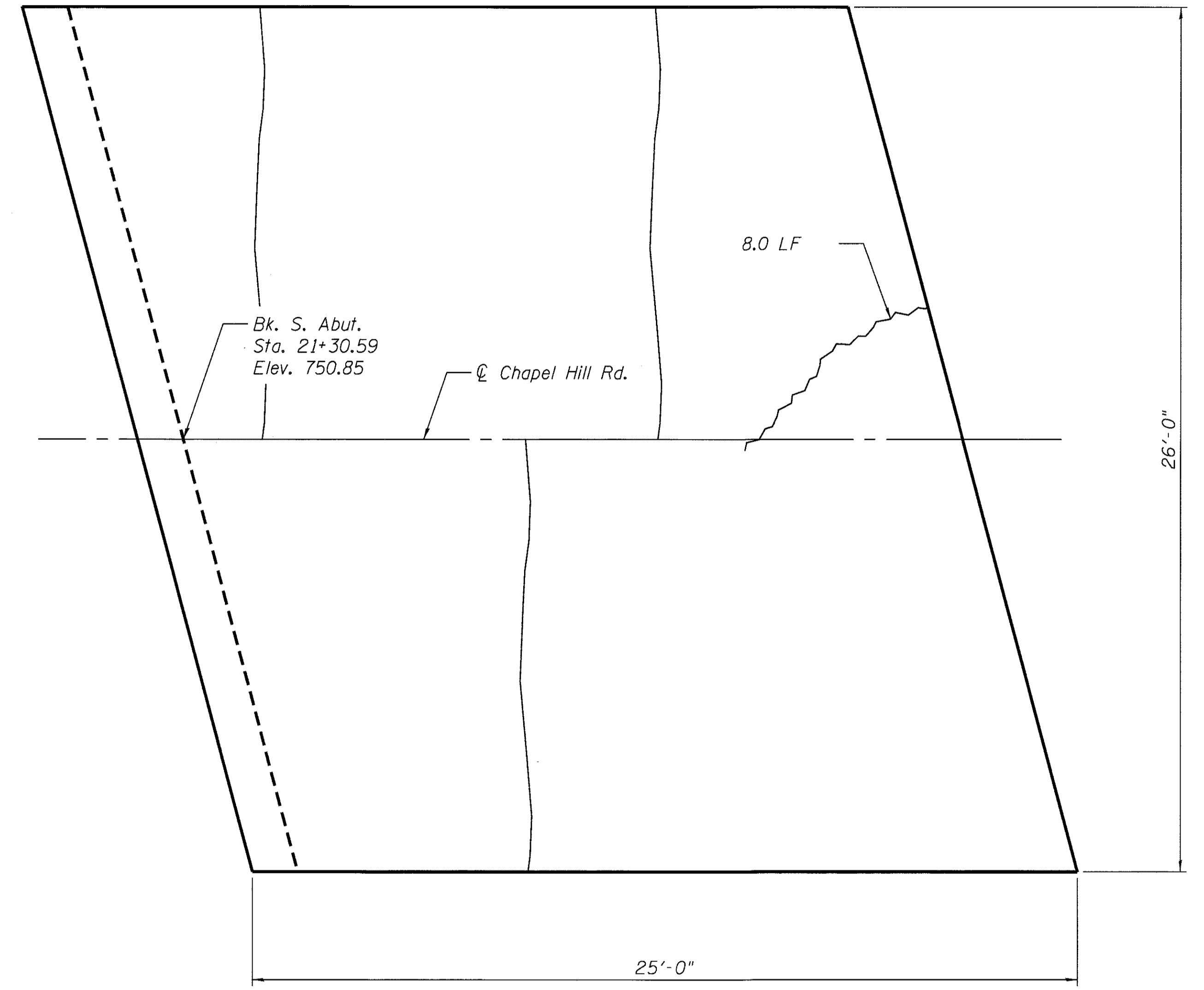
Bar s1(E)

SINGLE PIER BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p1(E)	10	#8	27'-10"	—
p2(E)	10	#8	20'-2"	—
p3(E)	22	#4	20'-7"	—
s1(E)	11	#4	11'-6"	□
u1(E)	32	#4	7'-2"	U
u2(E)	65	#4	7'-6"	U
u3(E)	16	#4	6'-4"	U
u4(E)	26	#4	7'-11"	U
v1(E)	36	#6	9'-0"	—
Concrete Structures			Cu Yd	21.5
Reinforcement Bars, Epoxy Coated			Pound	2,840
Concrete Sealer			Sq Ft	688



NORTH APPROACH SLAB



SOUTH APPROACH SLAB

LEGEND

- Crack 1.0 LF
- Hairline Crack

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	17



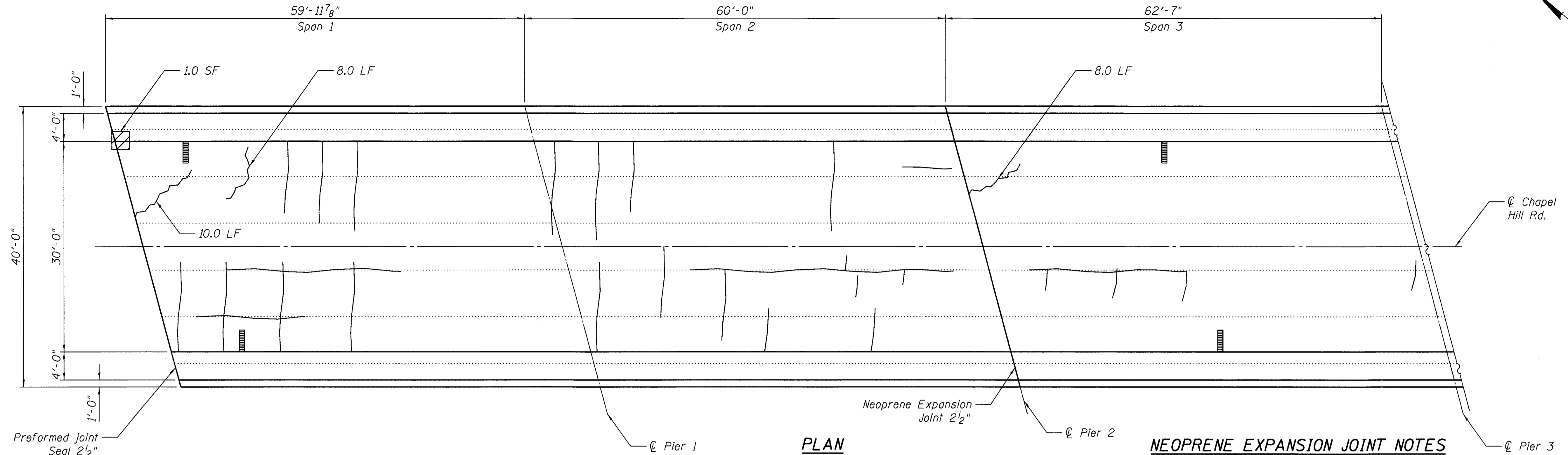
USER NAME = martim	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHapel Hill Road Over Fox River - SN 056-3134
APPROACH SLAB REPAIRS

SHEET NO. 15 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	24
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



PLAN

NEOPRENE EXPANSION JOINT NOTES

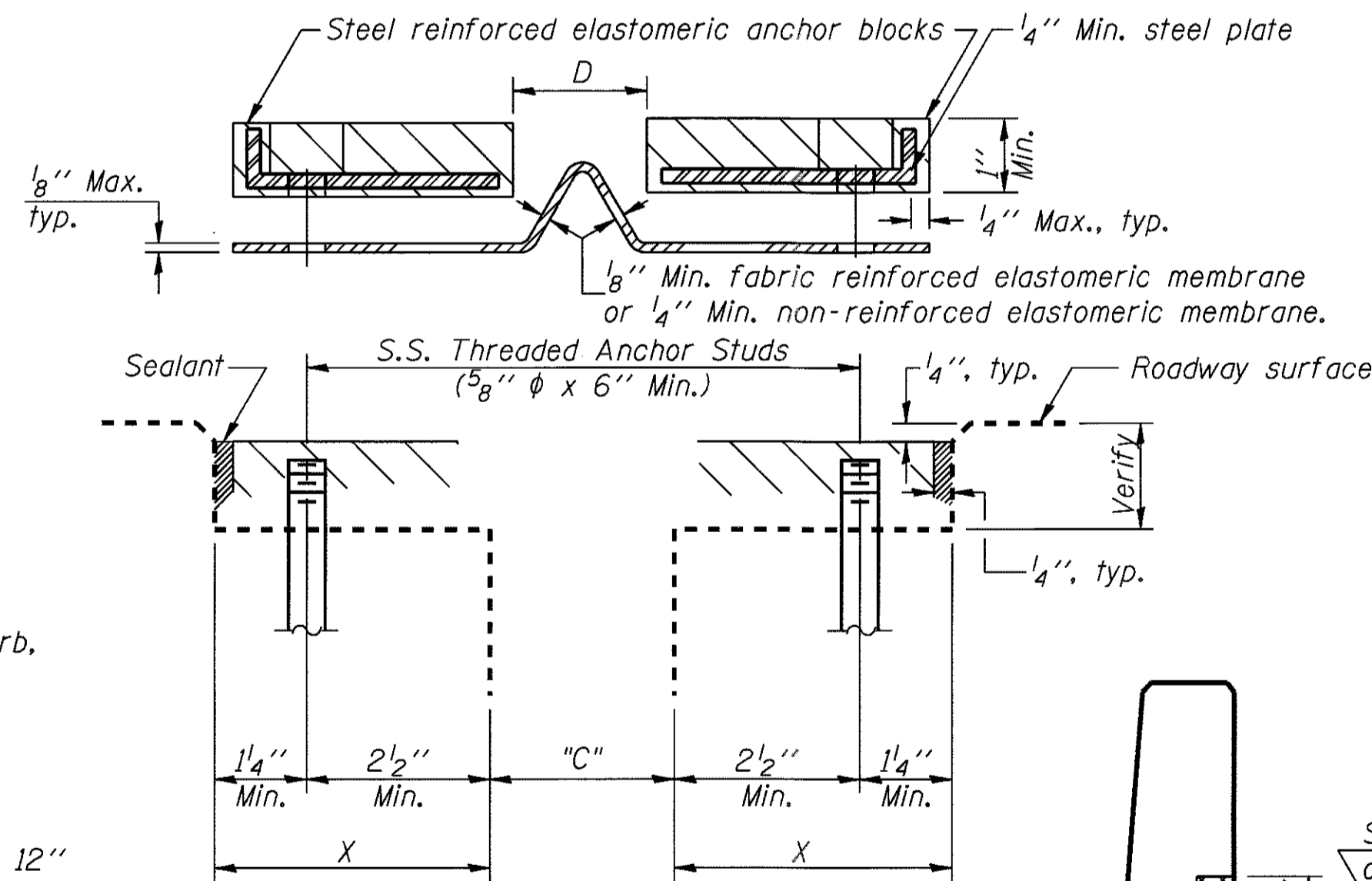
1. Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.
2. The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.
3. The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.
4. The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.
5. All existing anchor bolts shall be cut off flush or below concrete surface. Any projection shall be ground off flush.
6. New 5/8" x 6" Stainless Steel Threaded Anchor Studs shall be drilled and epoxy grouted in accordance with Article 584 of the Standard Specifications at locations to fit new Neoprene Anchor Blocks. Layout of studs shall result in 3" minimum spacing from existing anchor bolts.
7. Contractor shall verify depth of existing joint block-out prior to ordering material. Top of joint anchor blocks shall be 1/4" below existing deck surface.
8. Before installing new joint, concrete surfaces shall be cleaned to bare concrete by sandblasting. Loose concrete shall be removed and the surface repaired with POLYMER MODIFIED PORTLAND CEMENT MORTAR.

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

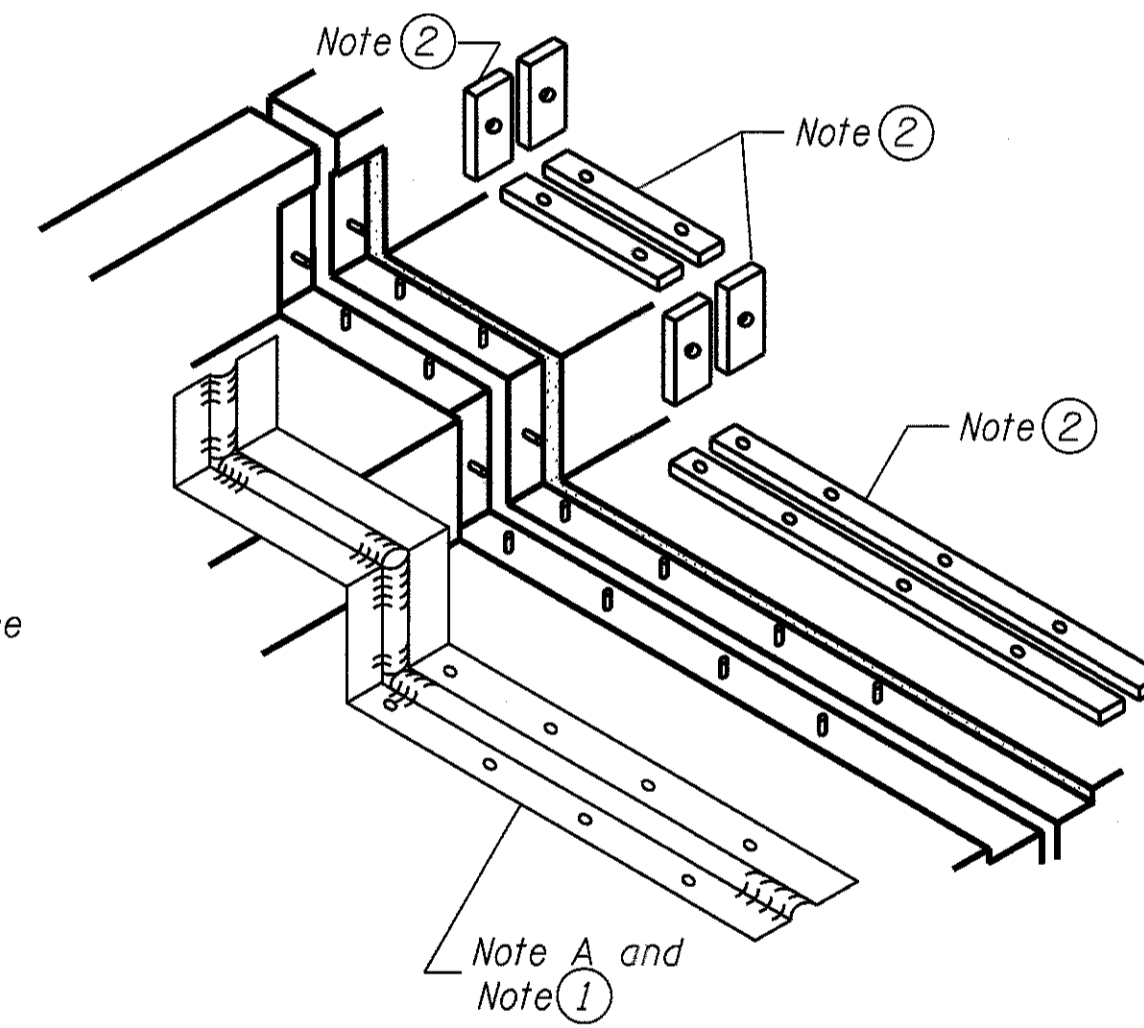
INSTALLATION NOTES

1. Install continuous seal in roadway, parapet, curb, and sidewalk.
2. Install anchor blocks as indicated.

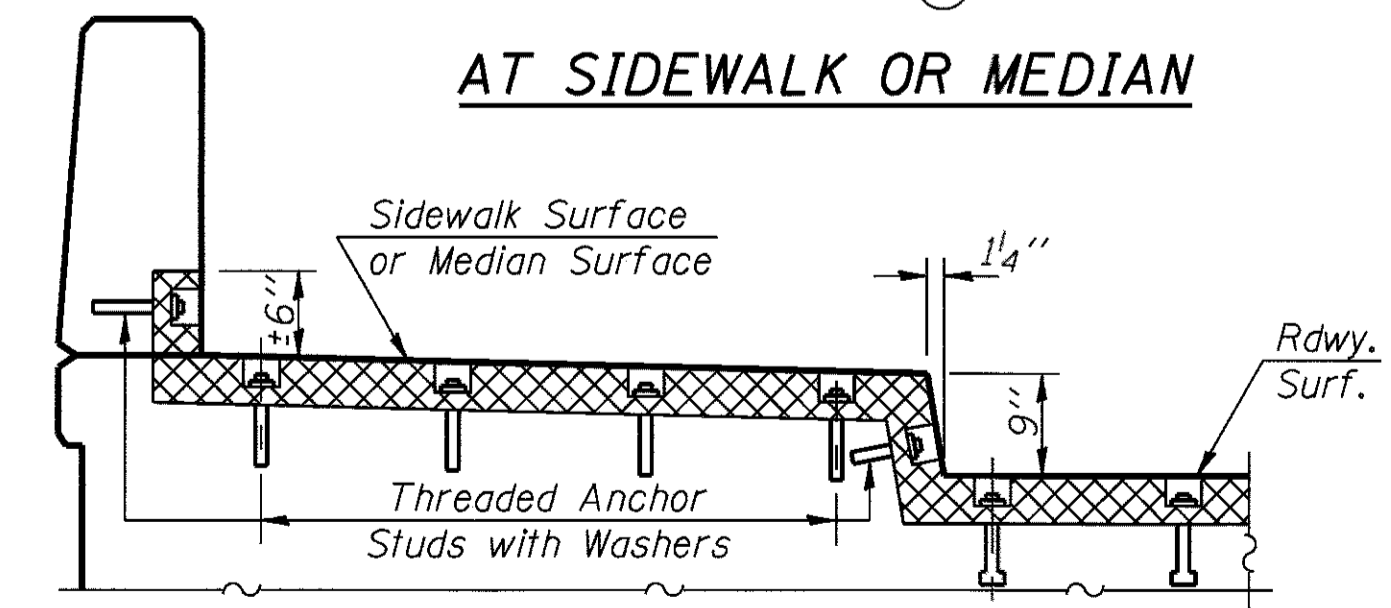
Note A:
Maximum spacing of S.S. anchor studs shall be 12" centers.



CROSS SECTION



AT SIDEWALK OR MEDIAN



AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS

BILL OF MATERIAL

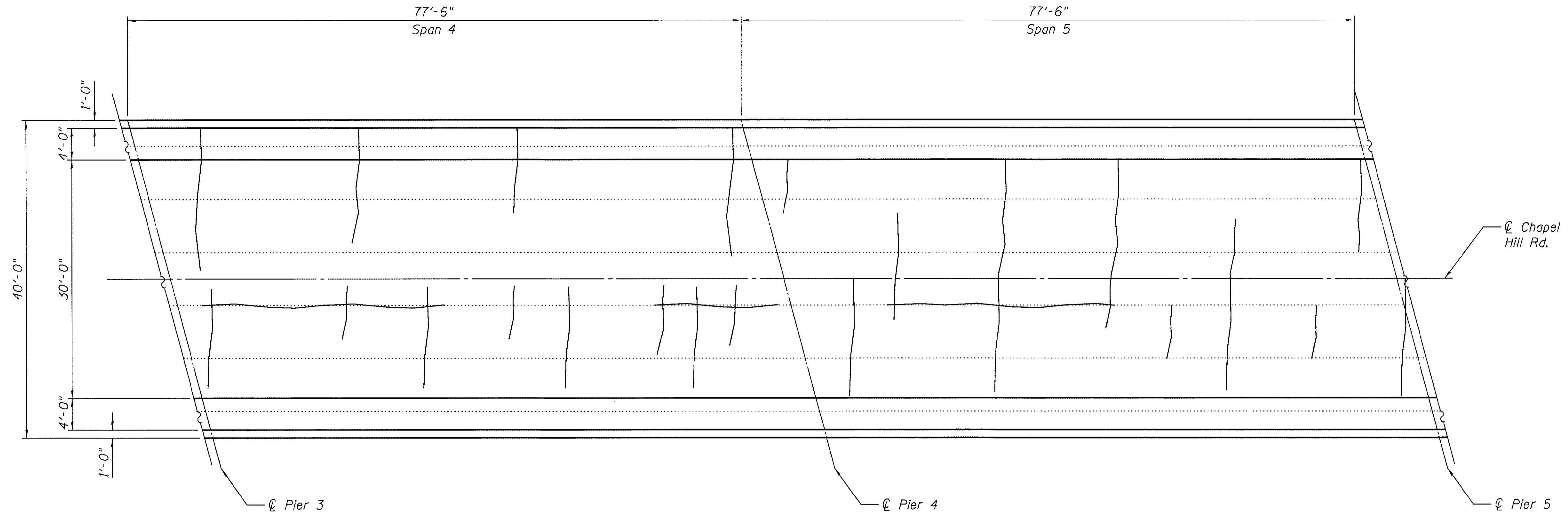
ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	26
Structural Repair of Concrete (Depth Less than or Equal to 5")	Sq. Ft.	1.0
Preformed Joint Seal, 2 1/2"	Foot	42
Neoprene Expansion Joint 2 1/2"	Foot	42
Polymer Modified Portland Cement Mortar	Sq. Ft.	10.0

LEGEND

- Structural Repair of Concrete (Depth Less than or Equal to 5") [Hatched pattern] 10.0 SF
- Epoxy Crack Injection [Wavy line] 3.0 LF
- Hairline Crack [Dashed line]

USER NAME = martinm	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

F.A.U. RTE. 167	SECTION 14-00439-00-BR	COUNTY MCHENRY	TOTAL SHEETS 35	SHEET NO. 25
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



PLAN

LEGEND

Hairline Crack



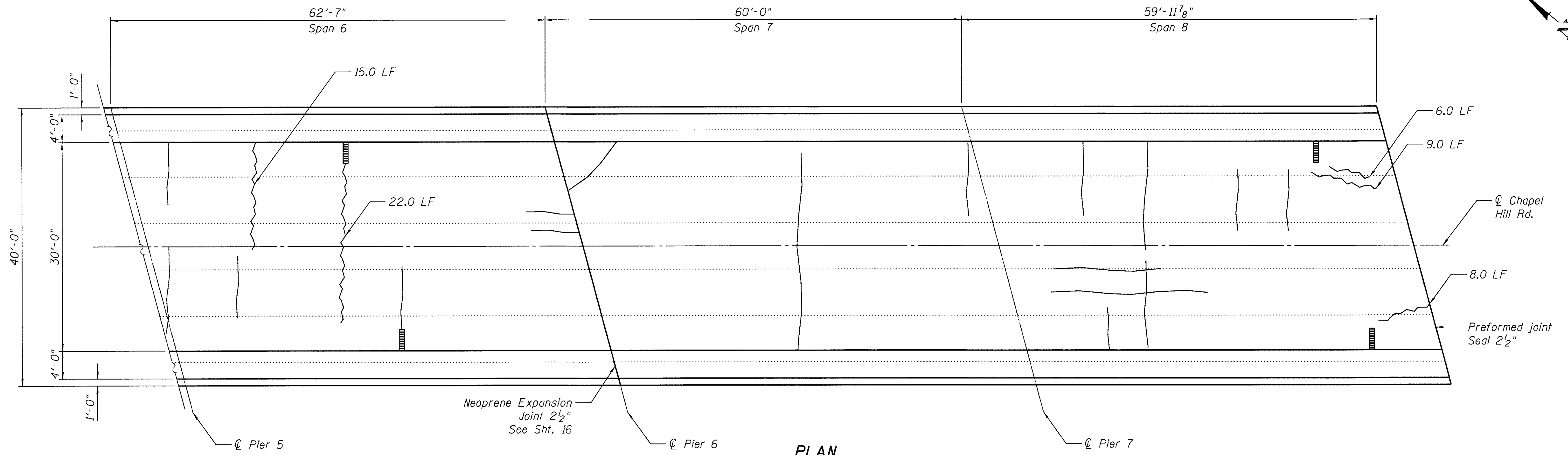
USER NAME = martin	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

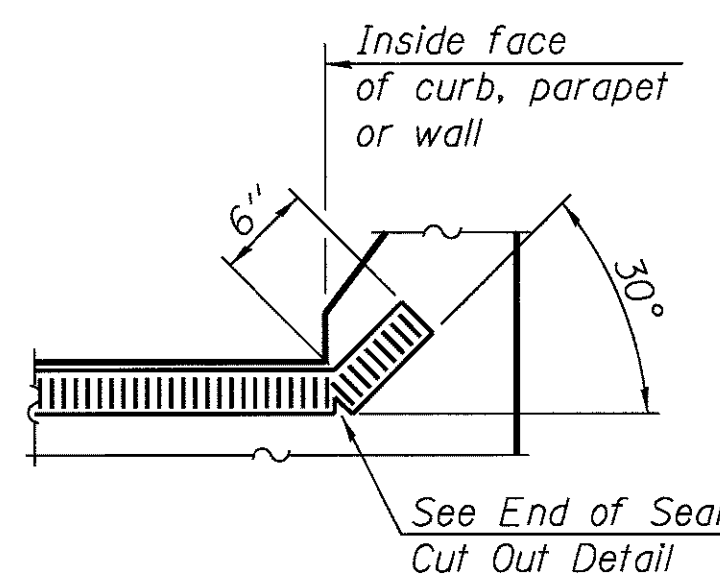
CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
TOP OF DECK REPAIRS (2 OF 3)

SHEET NO. 17 OF 25 SHEETS

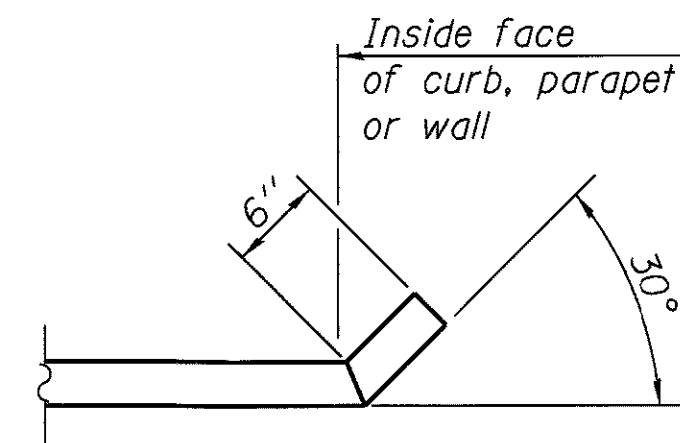
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	26
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



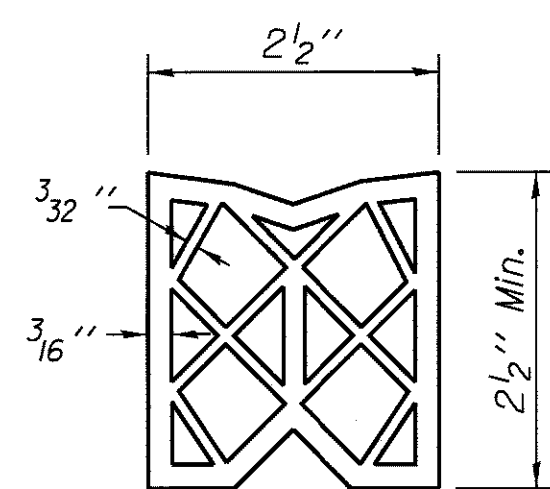
PLAN



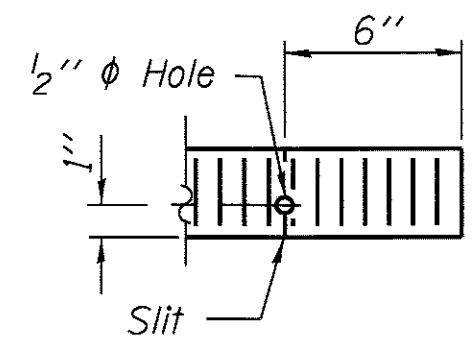
END OF SEAL



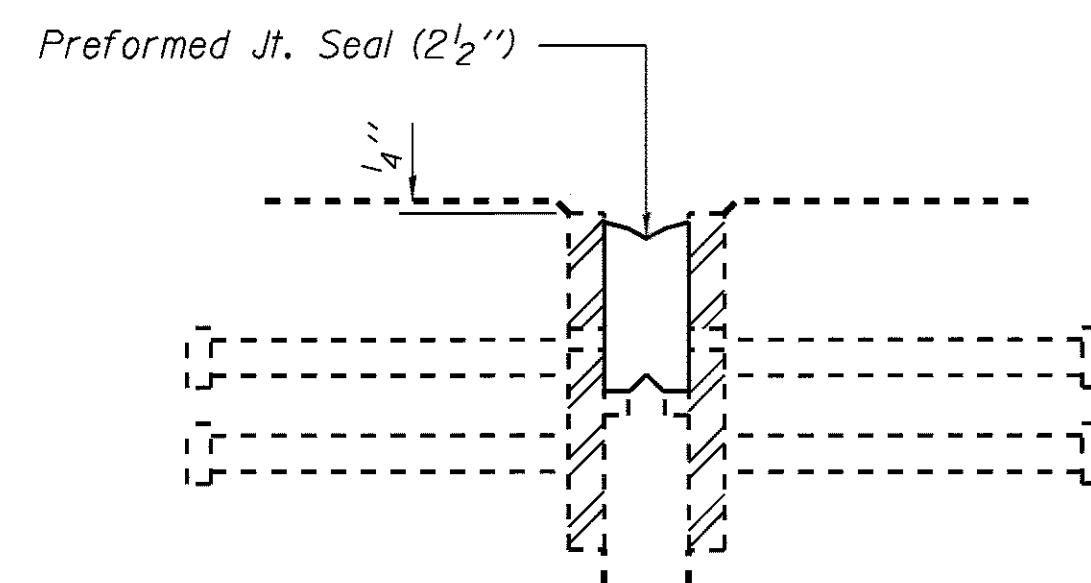
END OF PLATE



PREFORMED JOINT SEAL (2 1/2")



SEAL CUT-OUT



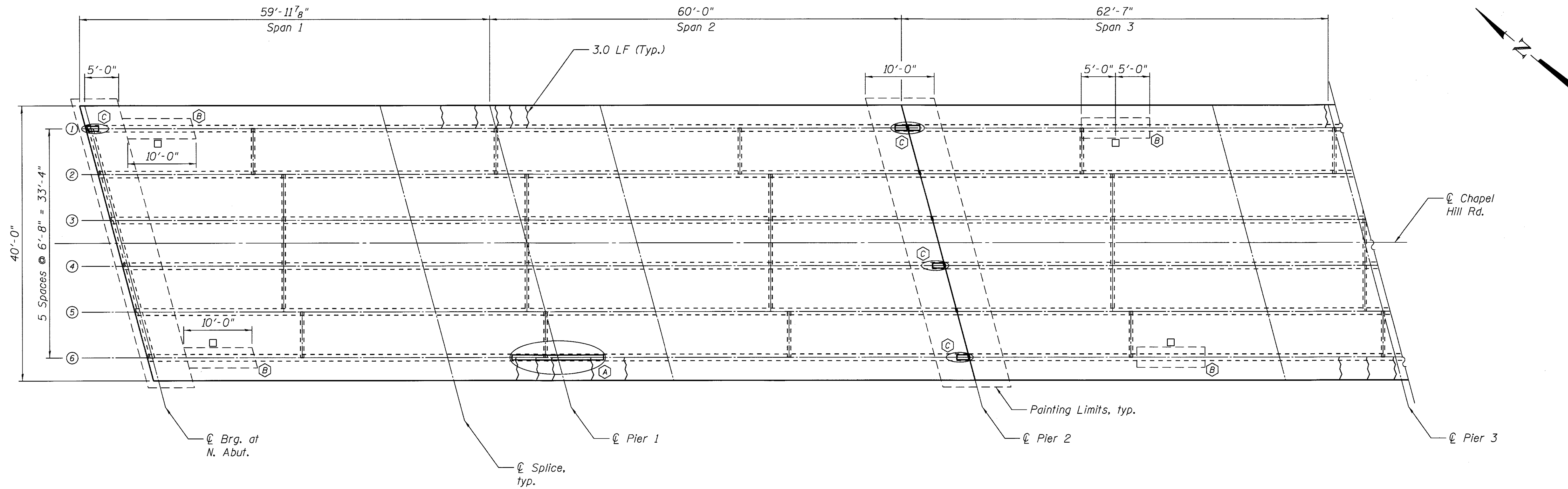
DETAIL A

LEGEND

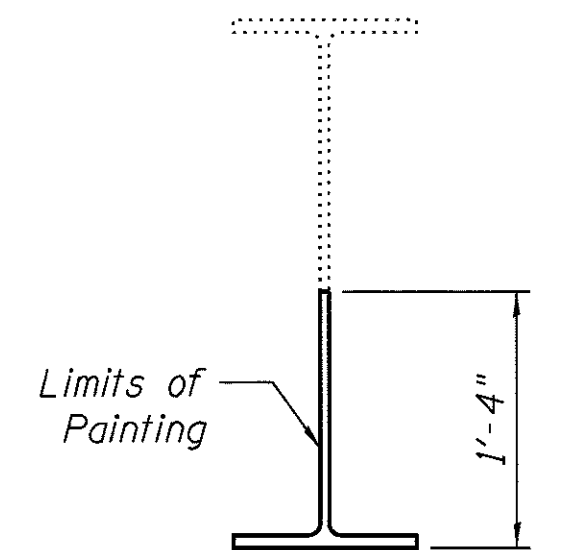
- Epoxy Crack Injection {--- 3.0 LF
- Hairline Crack {~~~~~

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	60
Preformed Joint Seal, 2 1/2"	Foot	42
Neoprene Expansion Joint 2 1/2"	Foot	42
Polymer Modified Portland Cement Mortar	Sq. Ft.	10.0



PLAN

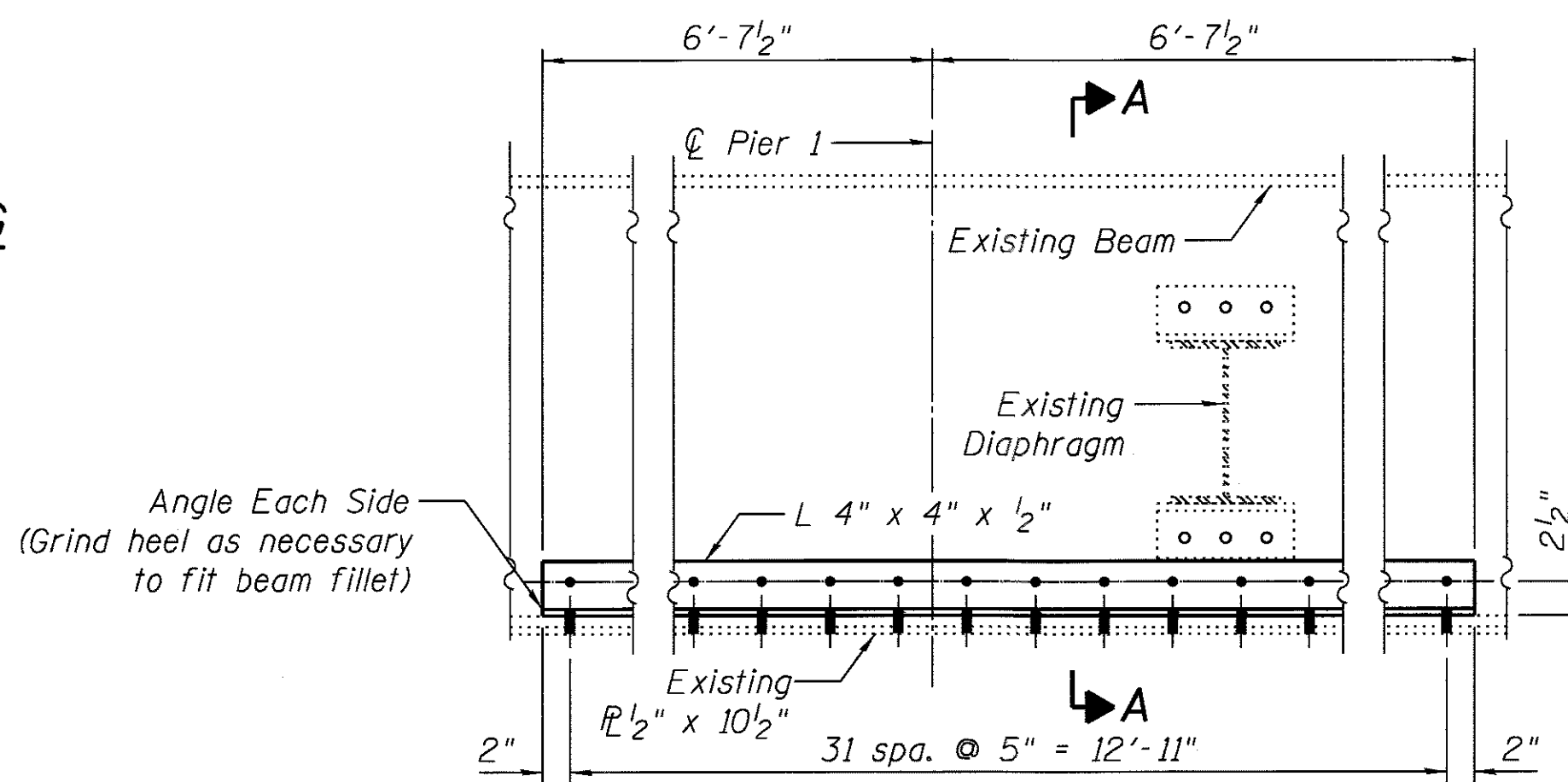


(B) GIRDER PAINTING

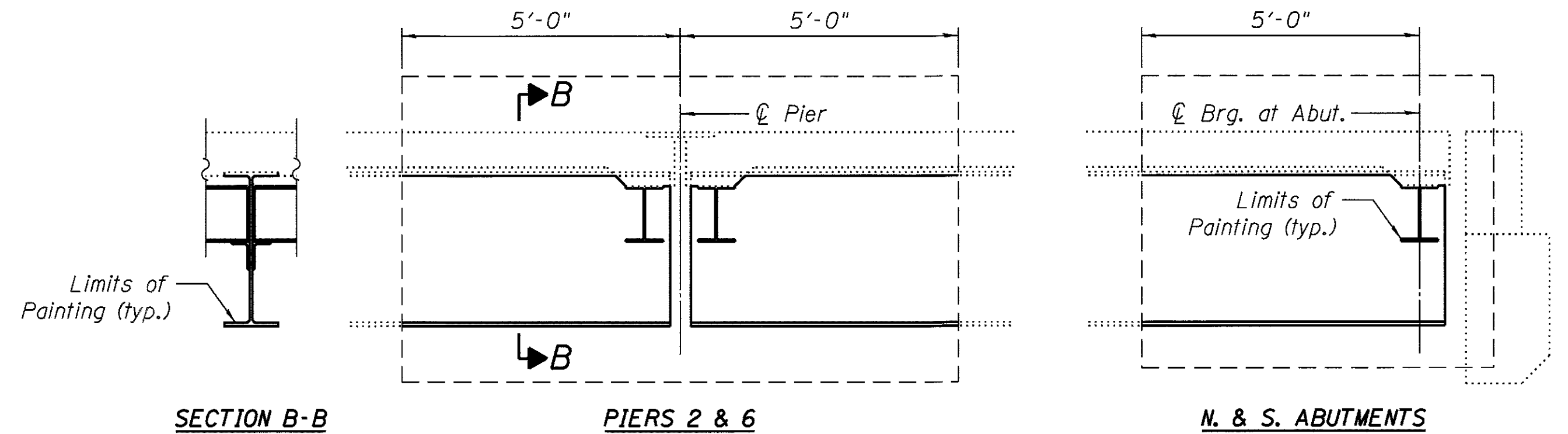
LEGEND

Epoxy Crack Injection { 3.0 LF

- (A) Bottom flange and cover plate repair
- (B) Girder painting
- (C) Beam end repair



(A) GIRDER 6 - ELEVATION AT PIER 1

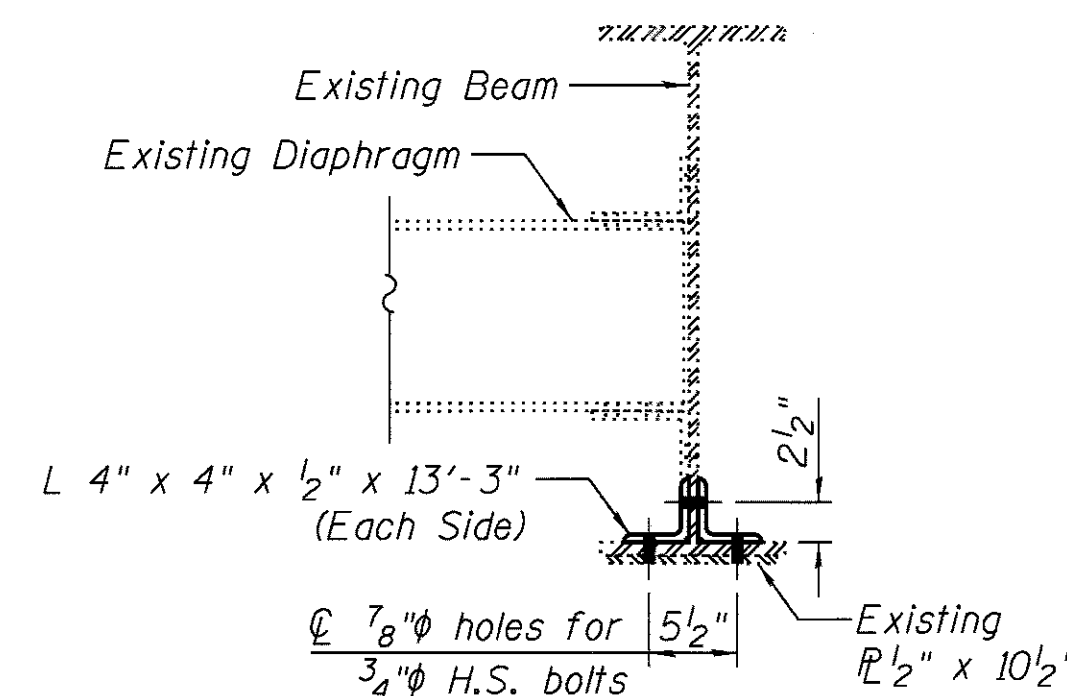


SECTION B-B

PIERS 2 & 6

N. & S. ABUTMENTS

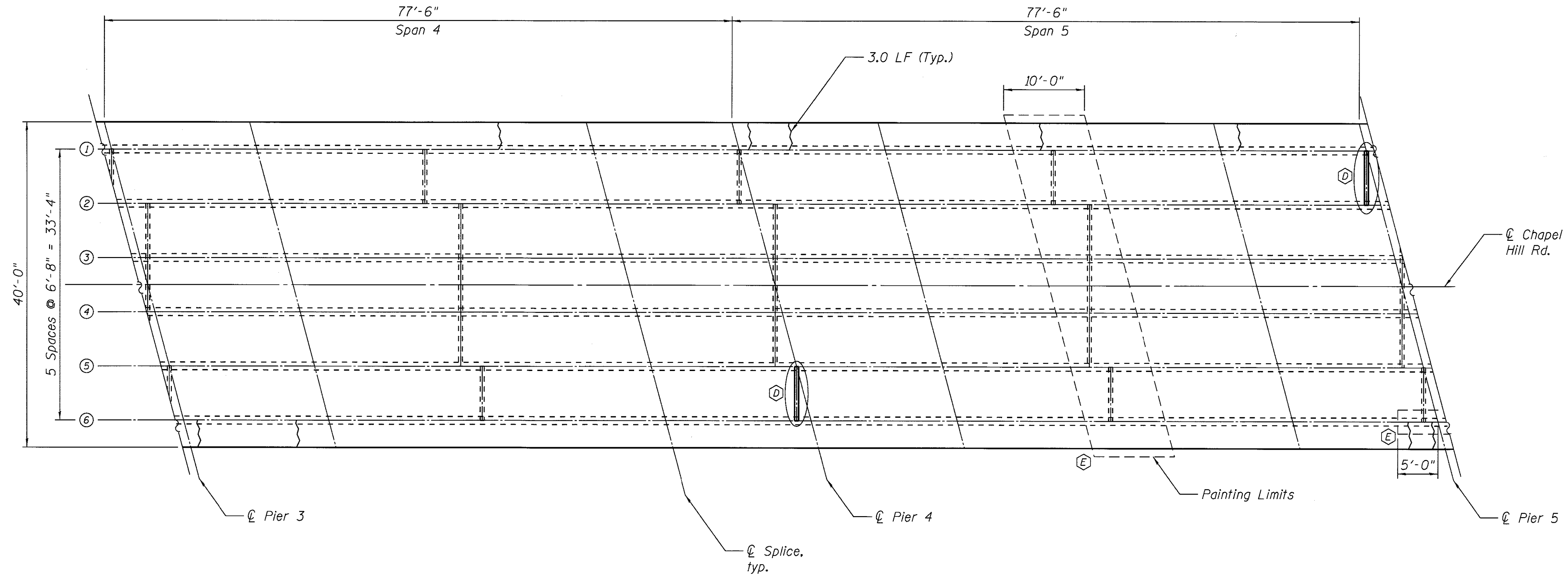
PAINTING LIMITS



SECTION A-A

BILL OF MATERIAL

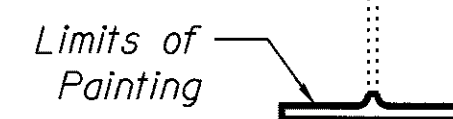
ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	42
Structural Steel Repair	Pound	680



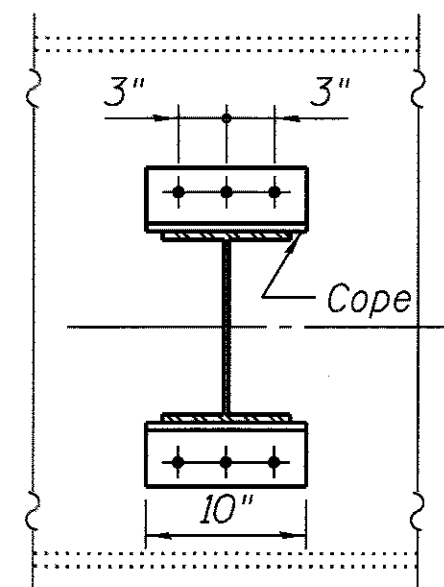
PLAN

LEGEND

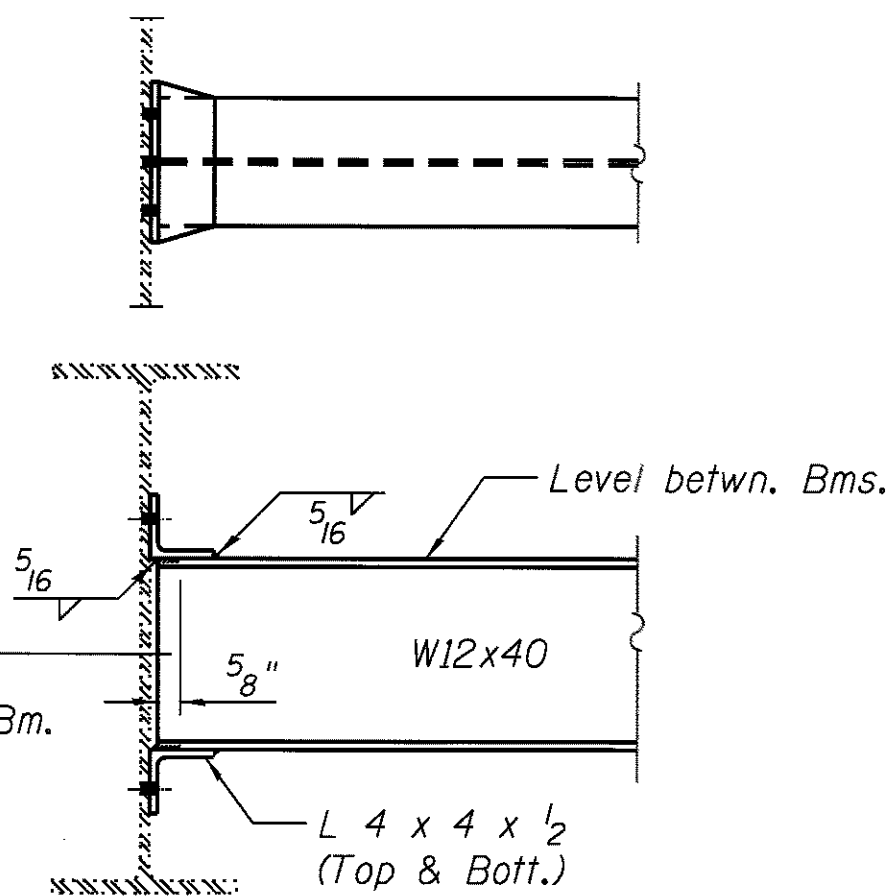
Epoxy Crack Injection } 3.0 LF



E BOTTOM FLANGE PAINTING

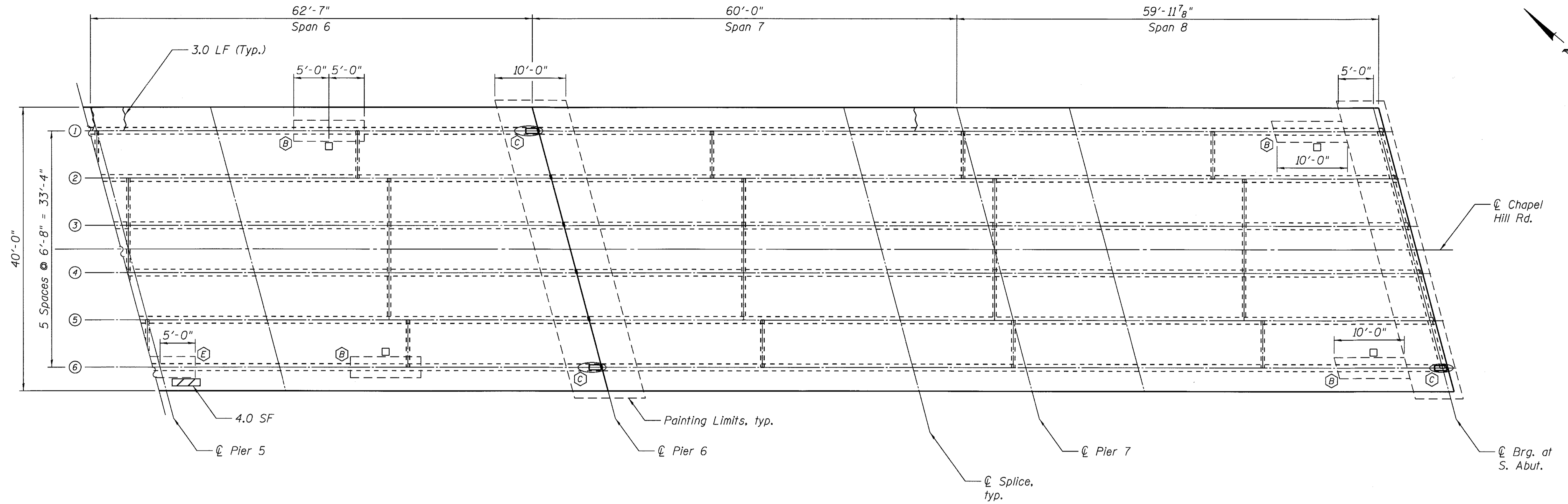


D DIAPHRAGM REPLACEMENT
2 Required



BILL OF MATERIAL

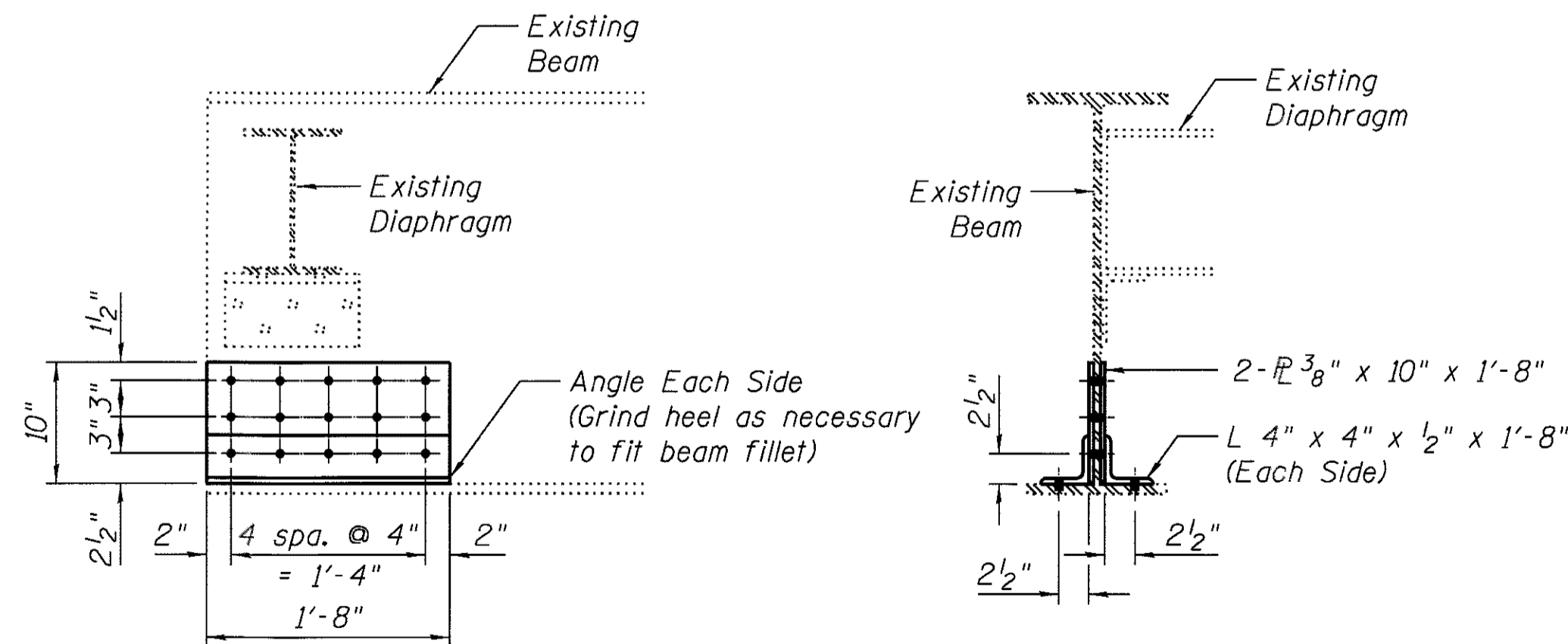
ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	27
Structural Steel Repair	Pound	520



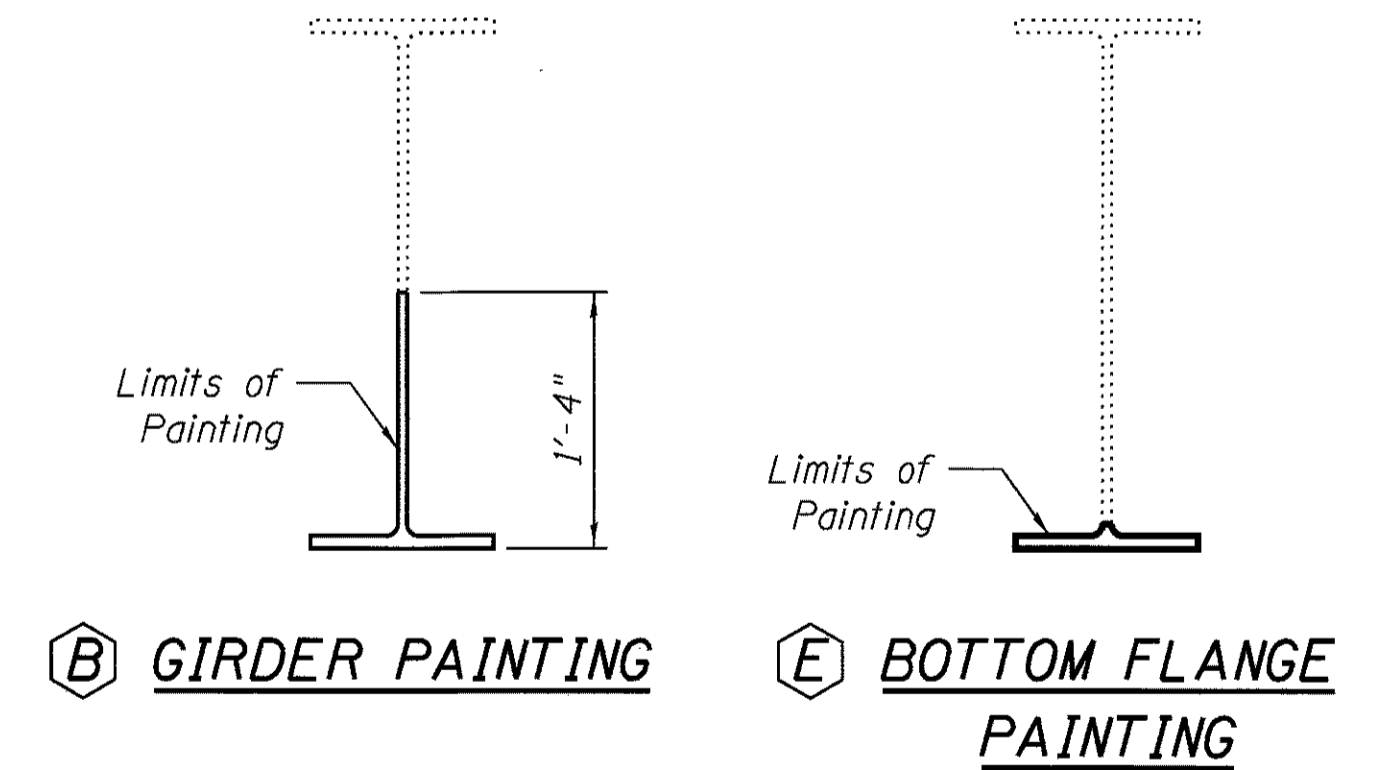
PLAN

LEGEND

- Structural Repair of Concrete 10.0 SF
- Epoxy Crack Injection 3.0 LF
- Girder Painting
- Beam end repair
- Bottom flange painting

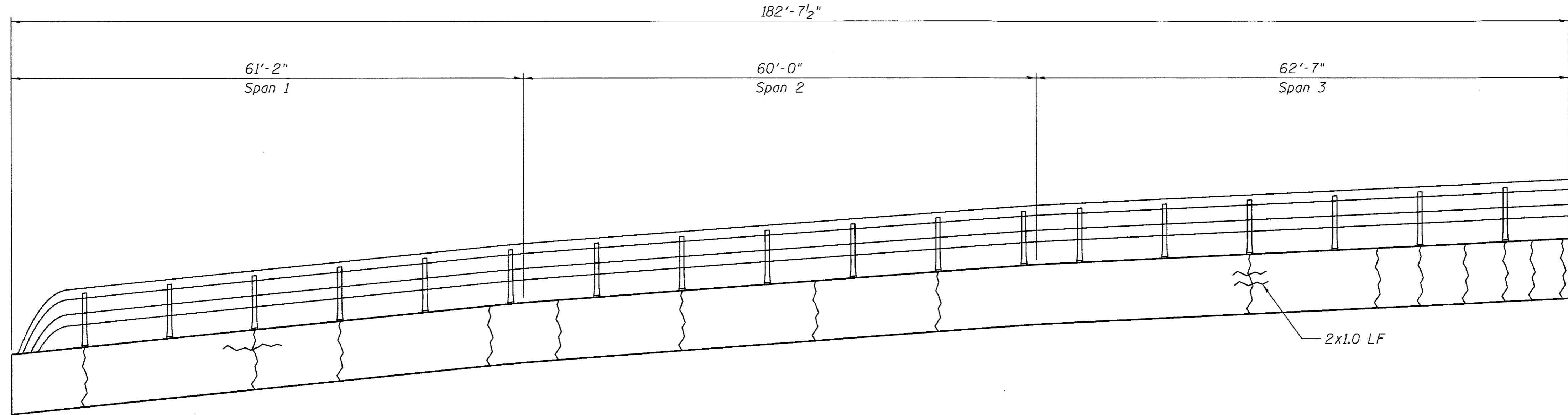


- GIRDERS 1, 4, & 6 - ELEVATION AT PIER 2
- GIRDERS 1 & 6 - ELEVATION AT PIER 6

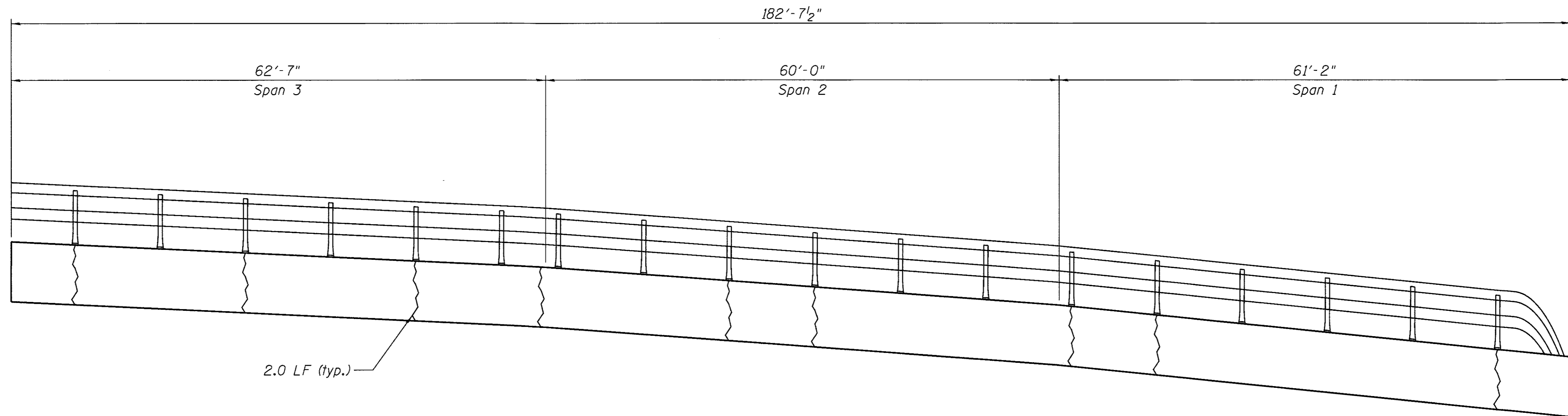


BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Less than or Equal to 5")	Sq Ft	4
Epoxy Crack Injection	Foot	9
Structural Steel Repair	Pound	256



NORTHEASTERLY PARAPET
(Looking East)



SOUTHWESTERLY PARAPET
(Looking West)

BILL OF MATERIAL

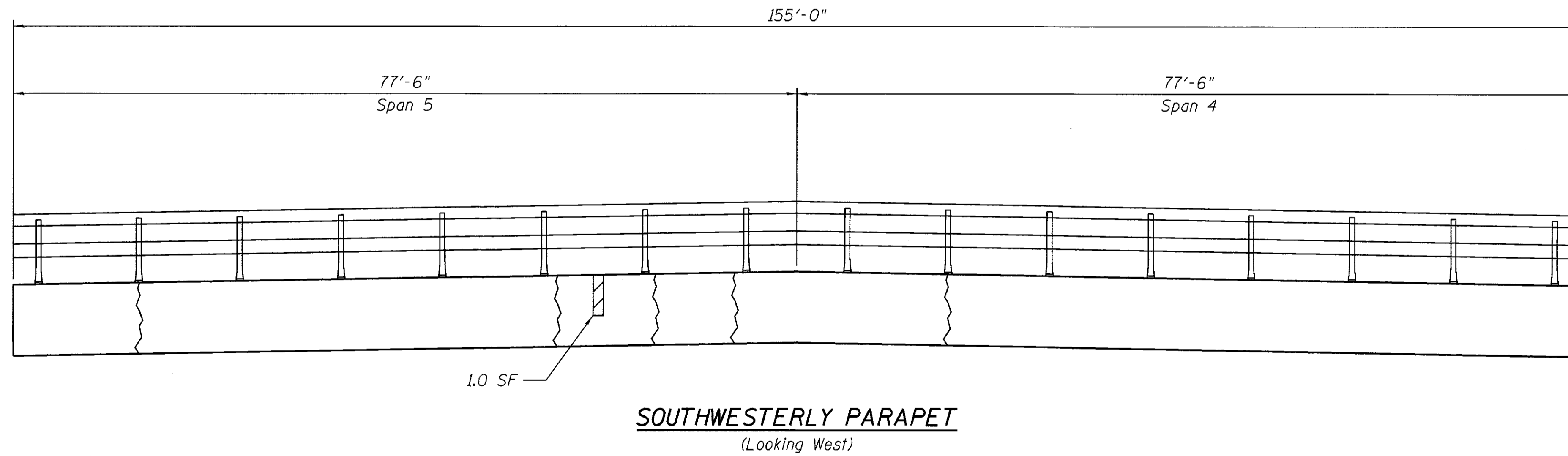
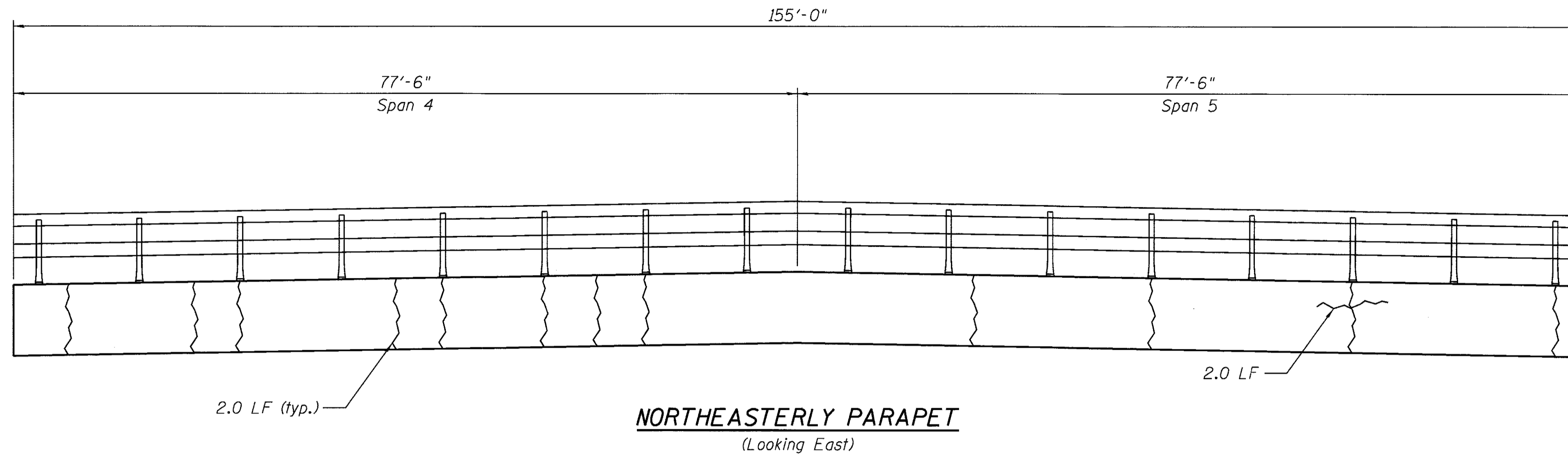
ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	52

LEGEND

Epoxy Crack Injection { 1.0 LF

USER NAME = martin	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	31
CONTRACT NO. 61E11				
<small>ILLINOIS FED. AID PROJECT</small>				



LEGEND

- Structural Repair of Concrete 1.0 SF
- Epoxy Crack Injection 1.0 LF

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	36
Structural Repair of Concrete (Depth Less than or Equal to 5")	Sq Ft	1.0



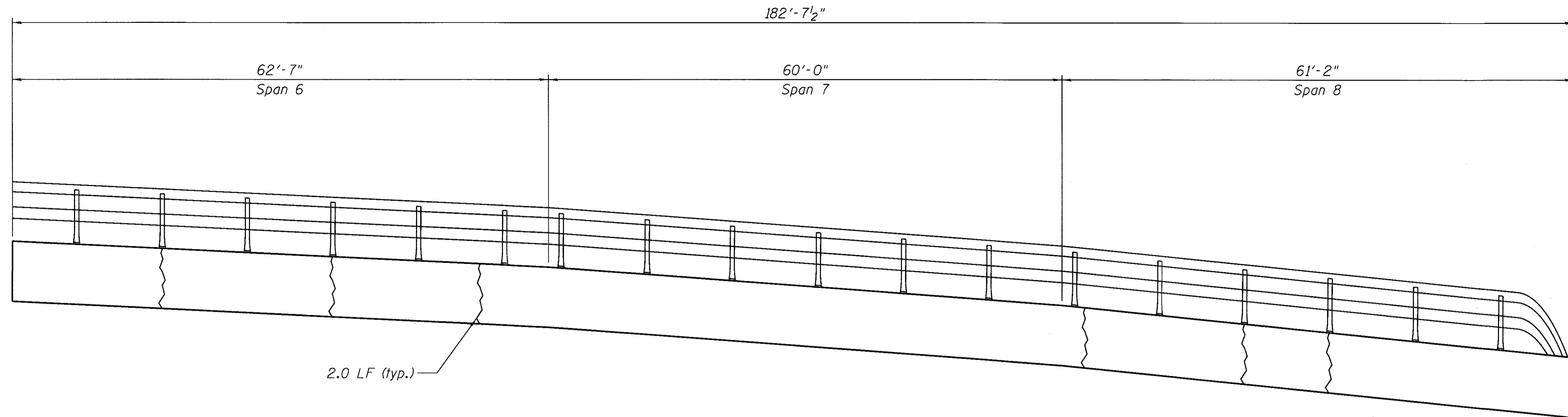
USER NAME = martim	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

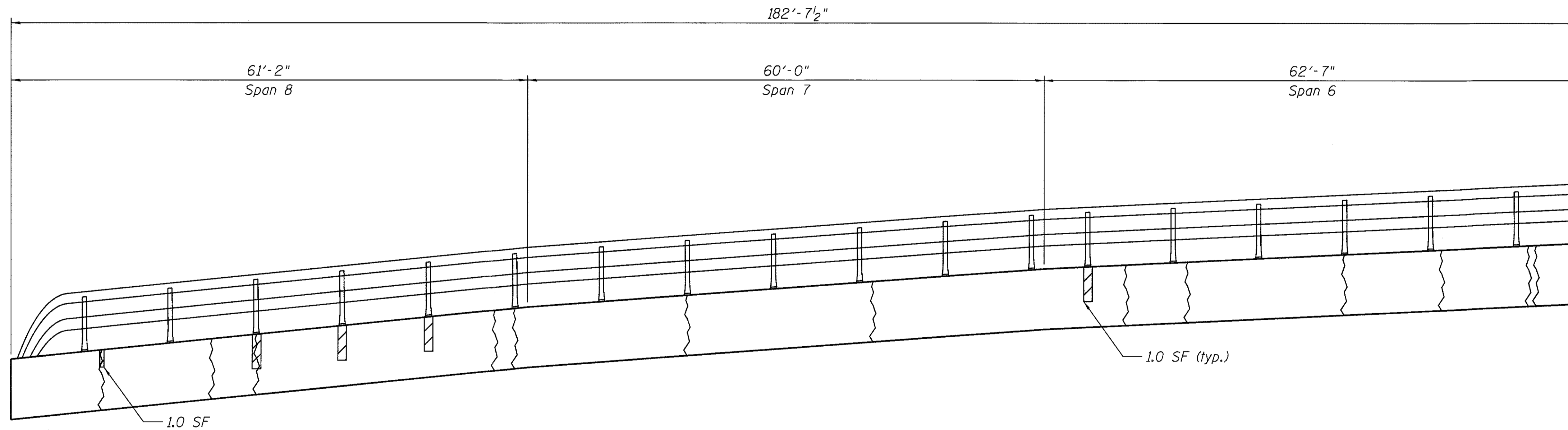
CHAPEL HILL ROAD OVER FOX RIVER - SN 056-3134
PARAPET REPAIRS (2 OF 3)

SHEET NO. 23 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	MCHENRY	35	32
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



NORTHEASTERLY PARAPET
(Looking East)



SOUTHWESTERLY PARAPET
(Looking West)

LEGEND

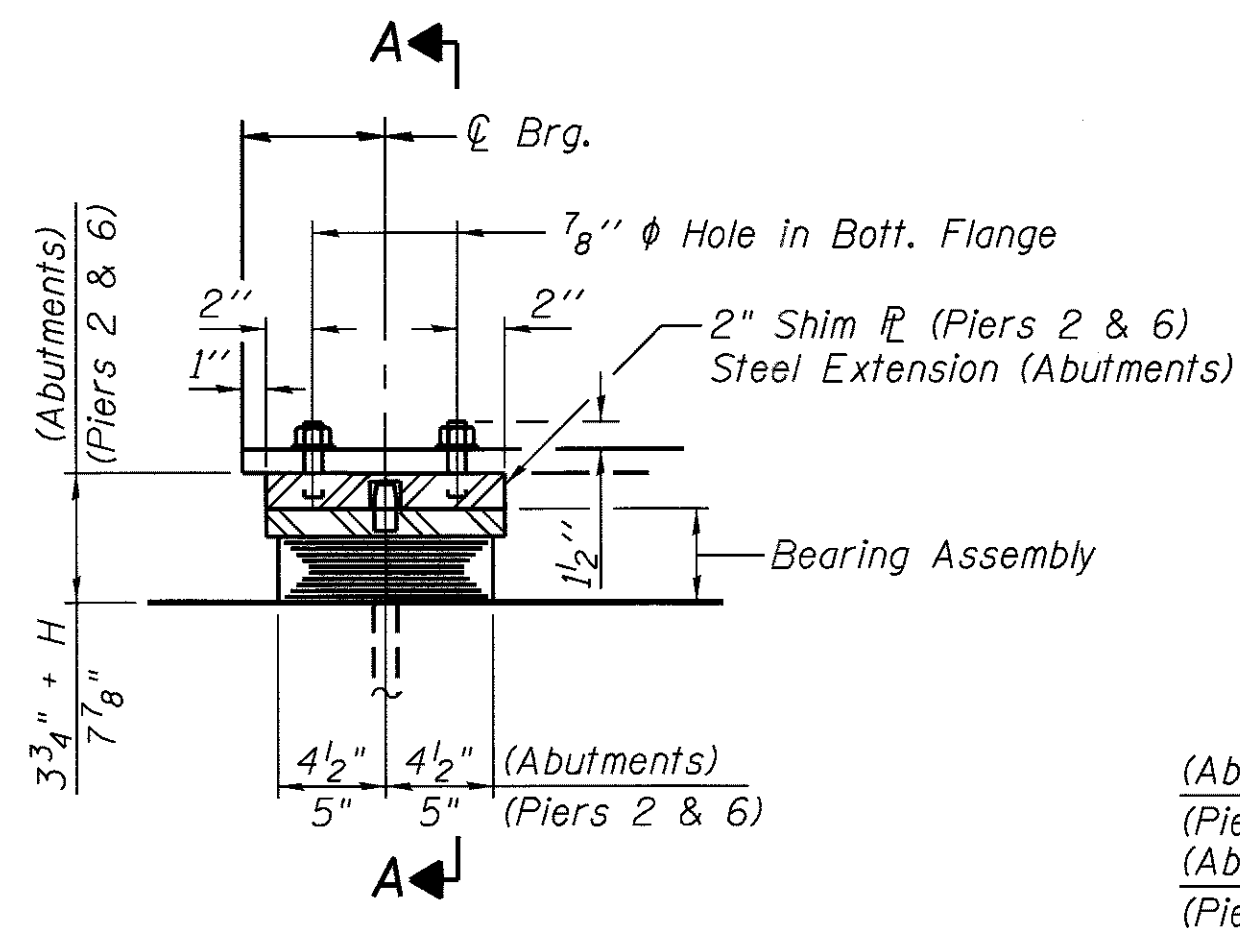
- Structural Repair of Concrete 1.0 SF
- Epoxy Crack Injection 1.0 LF

BILL OF MATERIAL

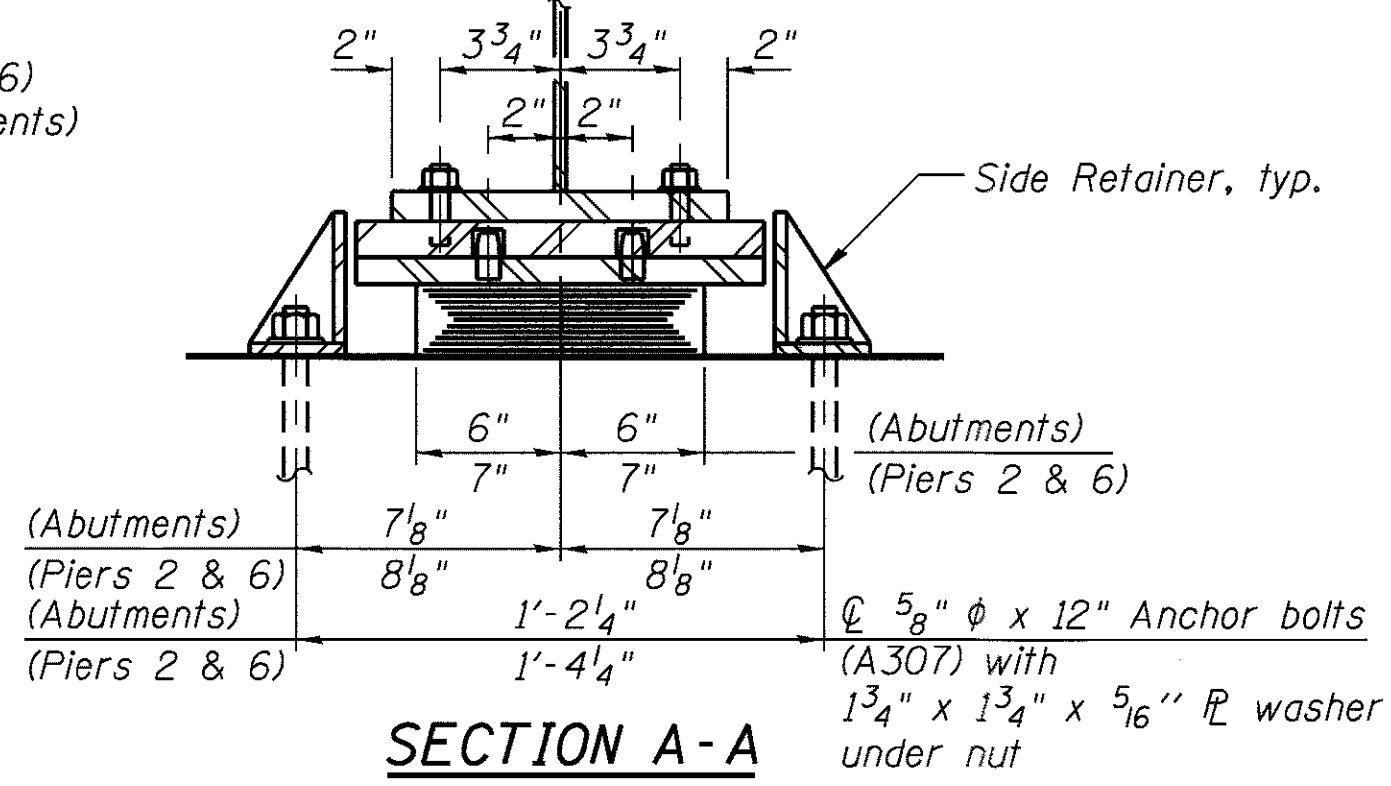
ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	38
Structural Repair of Concrete (Depth Less than or Equal to 5")	Sq Ft	5.0

USER NAME = martim	DESIGNED - JLR 10/02/2015	REVISED
	CHECKED - LM 06/20/2015	REVISED
PLOT SCALE =	DRAWN - JIK 10/02/2015	REVISED
PLOT DATE =	CHECKED - JLR 06/20/2015	REVISED

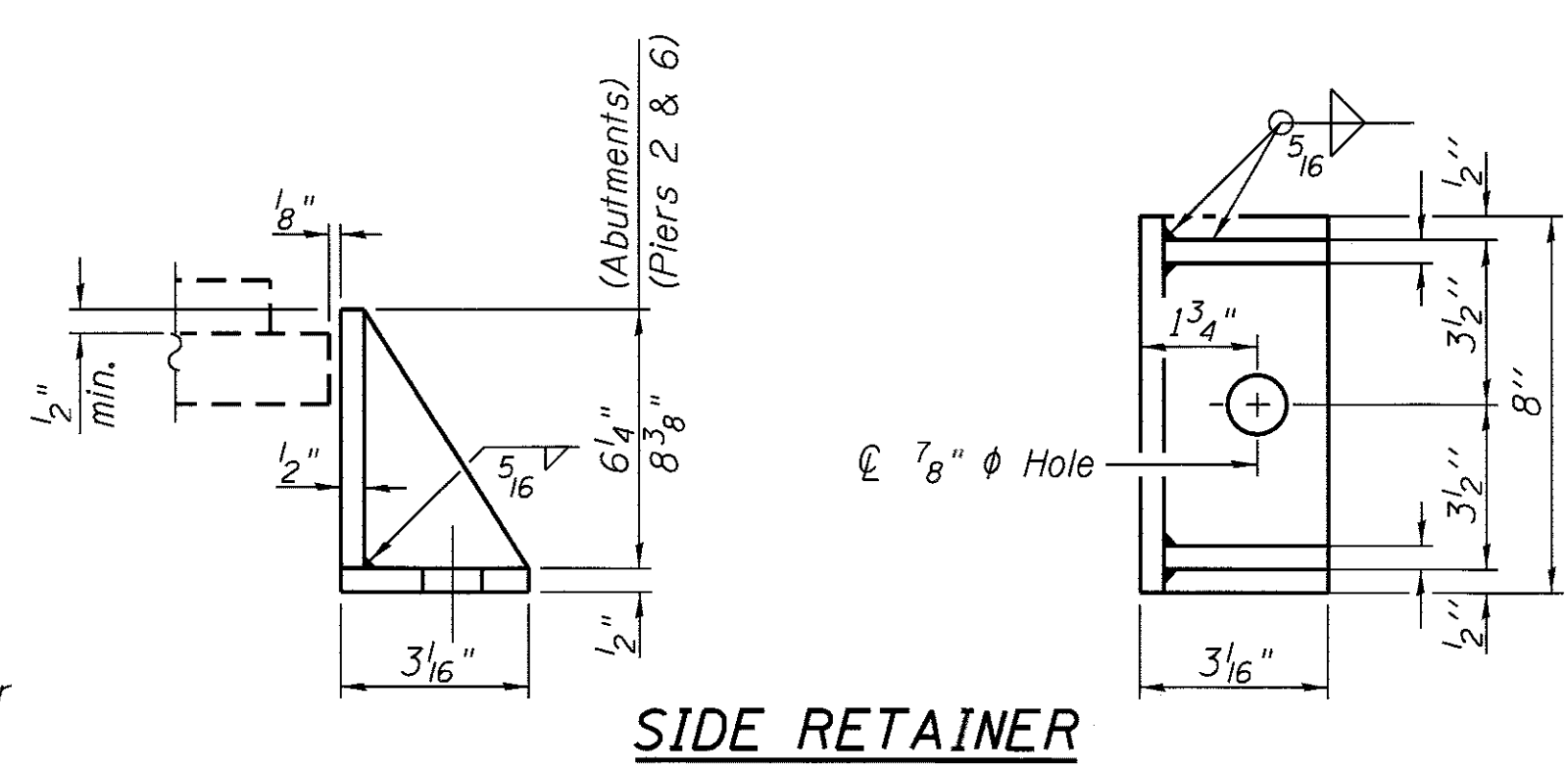
F.A.U. RTE. 167	SECTION 14-00439-00-BR	COUNTY MCHENRY	TOTAL SHEETS 35	SHEET NO. 33
CONTRACT NO. 61E11				
ILLINOIS FED. AID PROJECT				



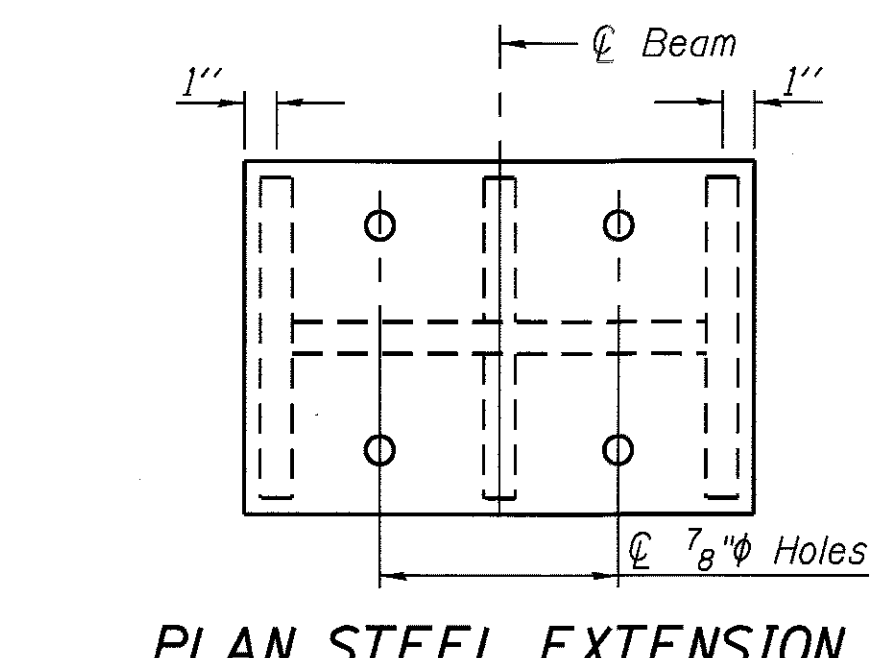
ELEVATION AT PIER



SECTION A-A

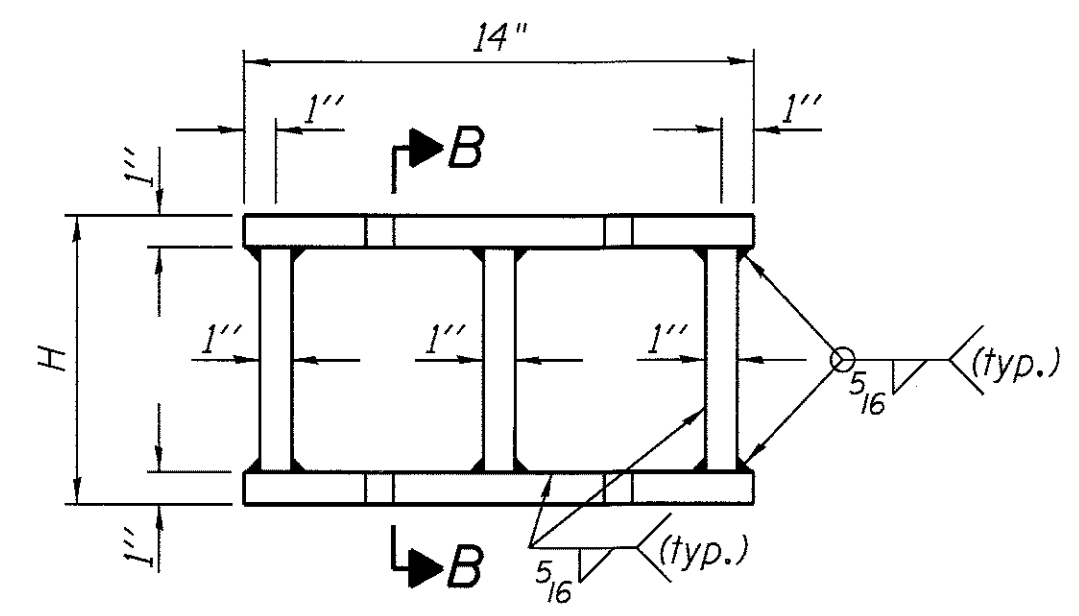


SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

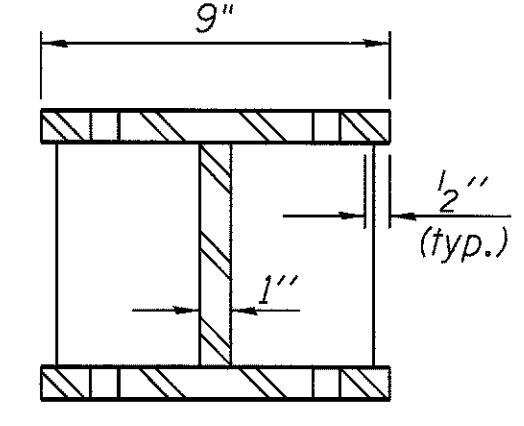


PLAN STEEL EXTENSION

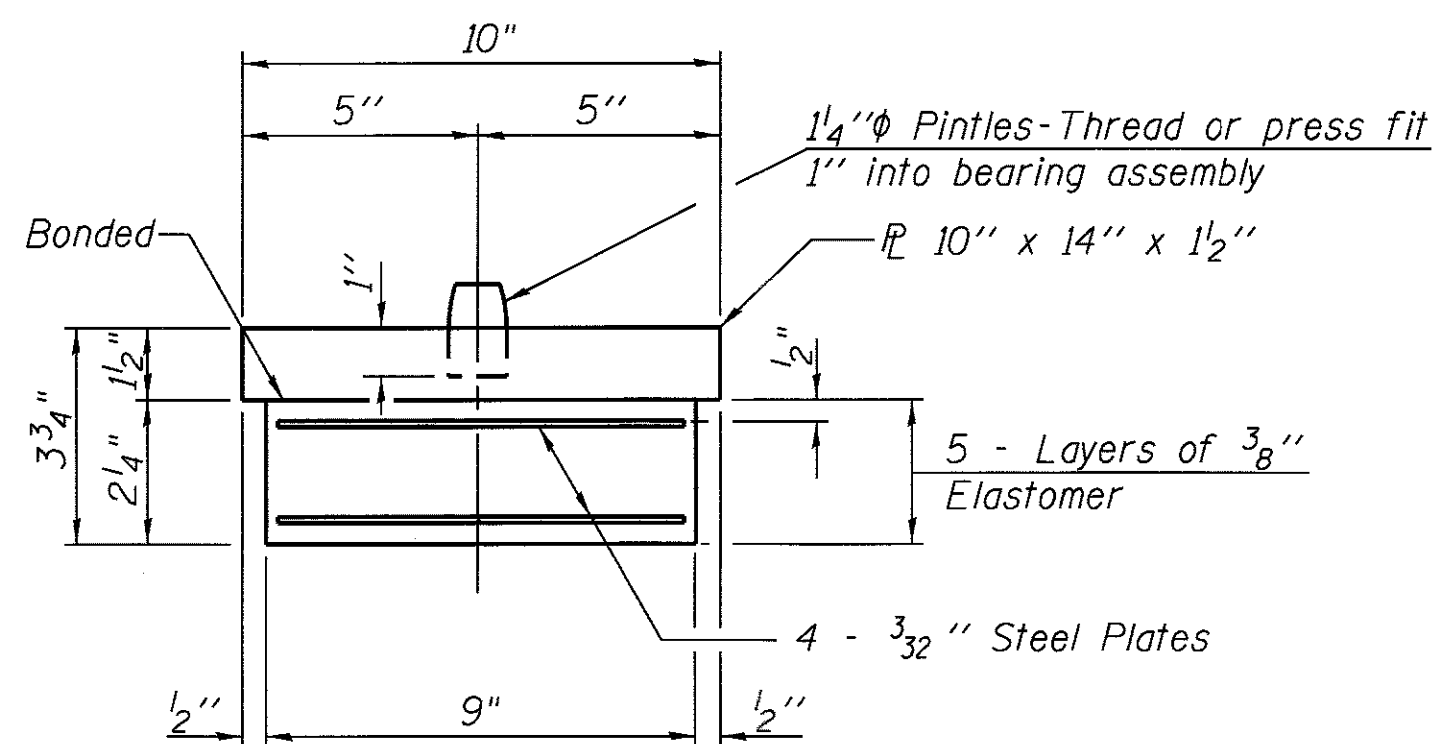
STEEL EXTENSION HEIGHT TABLE	
H (in)	Locations
6.250	N. Abut. Beam 2 S. Abut. Beam 5
7.375	S. Abut. Beams 1 & 4
7.750	N. Abut. Beams 3, 5, & 6 S. Abut. Beam 3
8.250	N. Abut. Beam 4 S. Abut. Beam 2



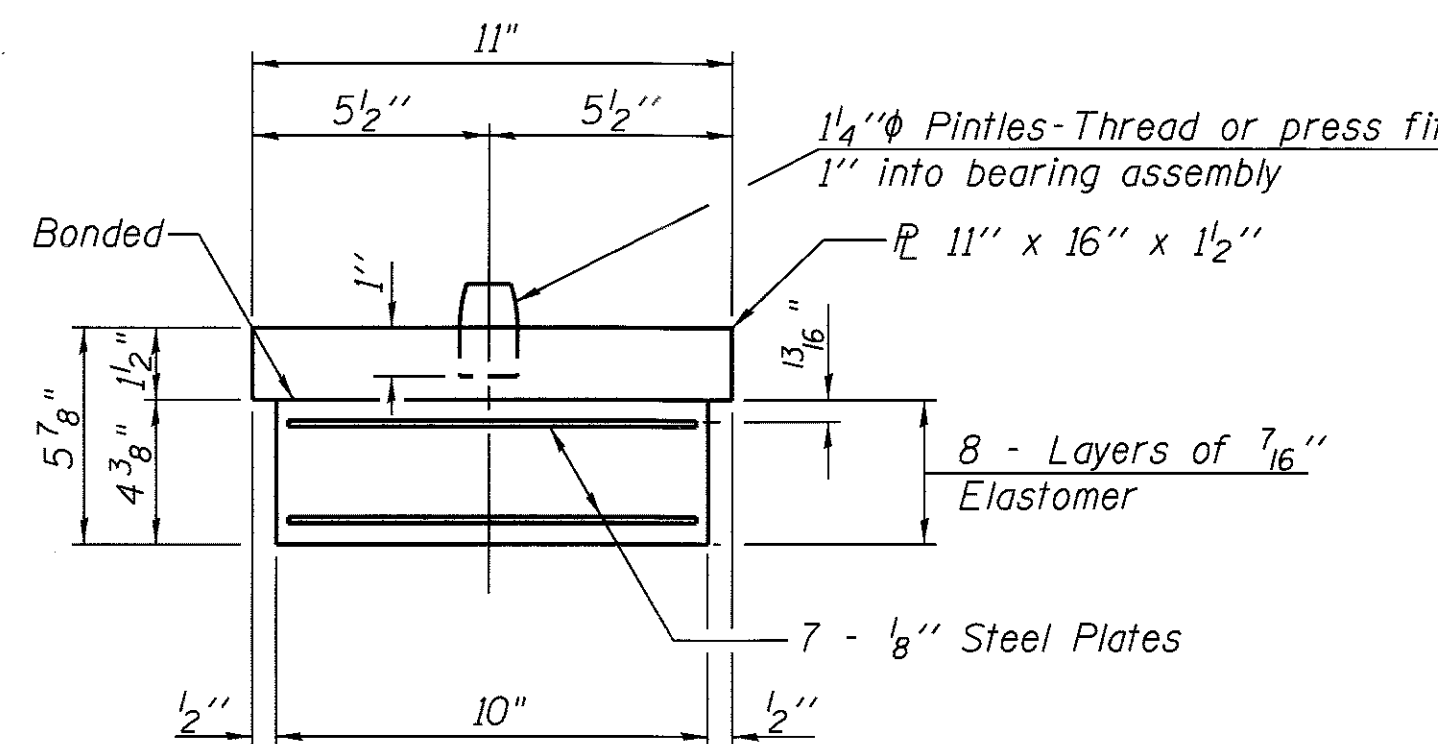
ELEVATION STEEL EXTENSION



SECTION B-B

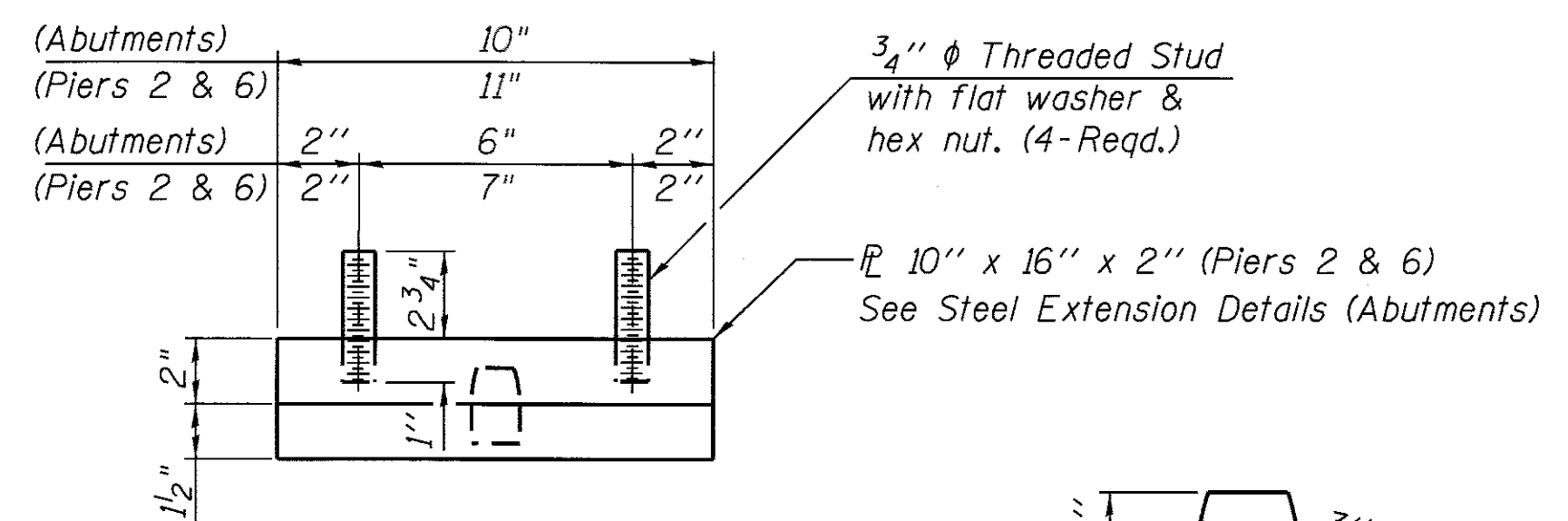


BEARING ASSEMBLY
(Abutments)

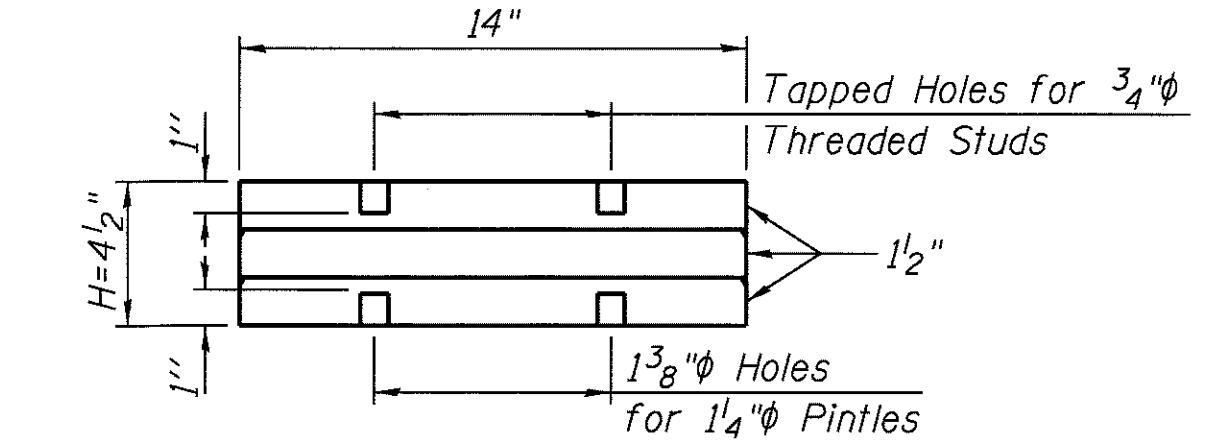


BEARING ASSEMBLY
(Piers 2 & 6)

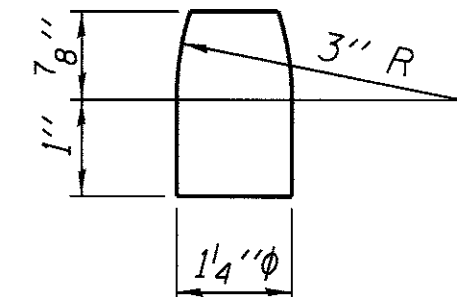
Note:
Shim plates shall not be placed under Bearing Assembly.



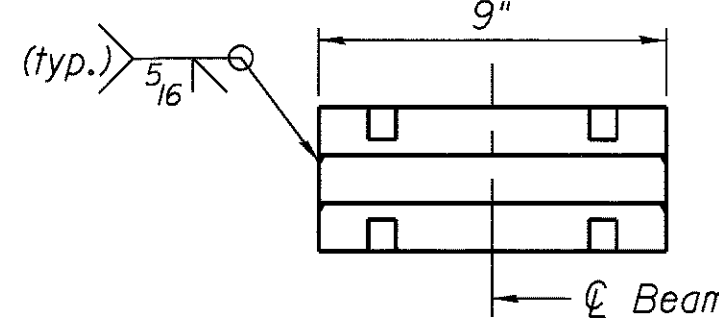
SHIM PLATE



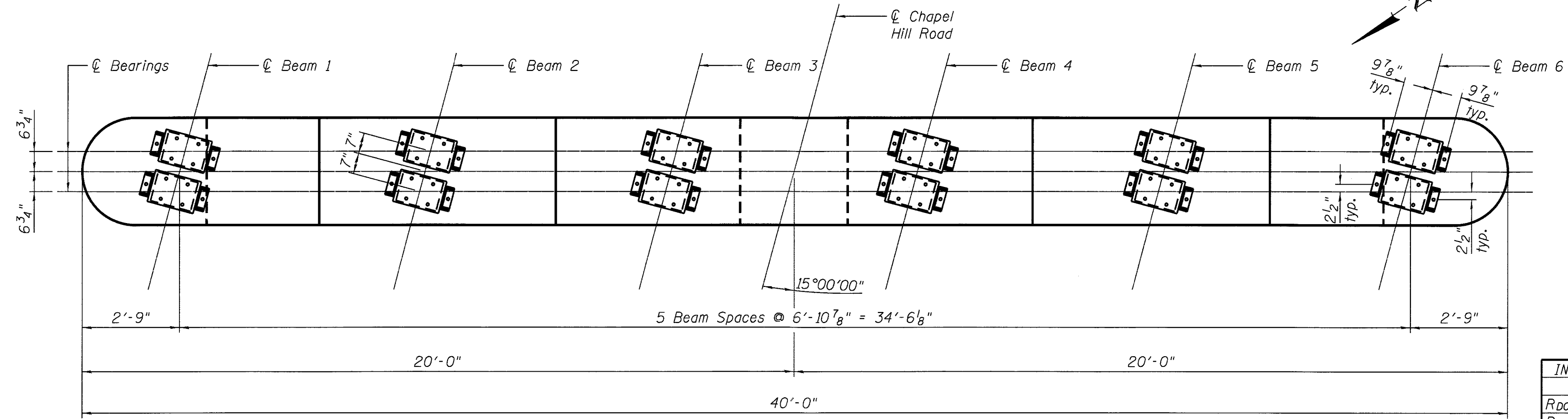
ELEVATION STEEL EXTENSION
(For N. Abut. Beam 1 & S. Abut. Beam 6)



PINTLE



END VIEW STEEL EXTENSION
(For N. Abut. Beam 1 & S. Abut. Beam 6)



BEARING PLAN AT PIER 2
(Pier 6 similar)

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Two 5/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R _{DC1} (k)	17.8	18.3
R _{DC2} (k)	5.9	6.1
R _{DW} (k)	5.5	5.6
R _{4 + IM} (k)	63.4	64.2
R _{Total} (k)	92.6	94.2

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	36
Anchor Bolts, 5/8"	Each	72

ROUTE MARKERS

FOR U.S. ROUTES
M1-40-2424

FOR ILLINOIS ROUTES
M1-50-2424

R.R. UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

ARROWS SIGNS

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

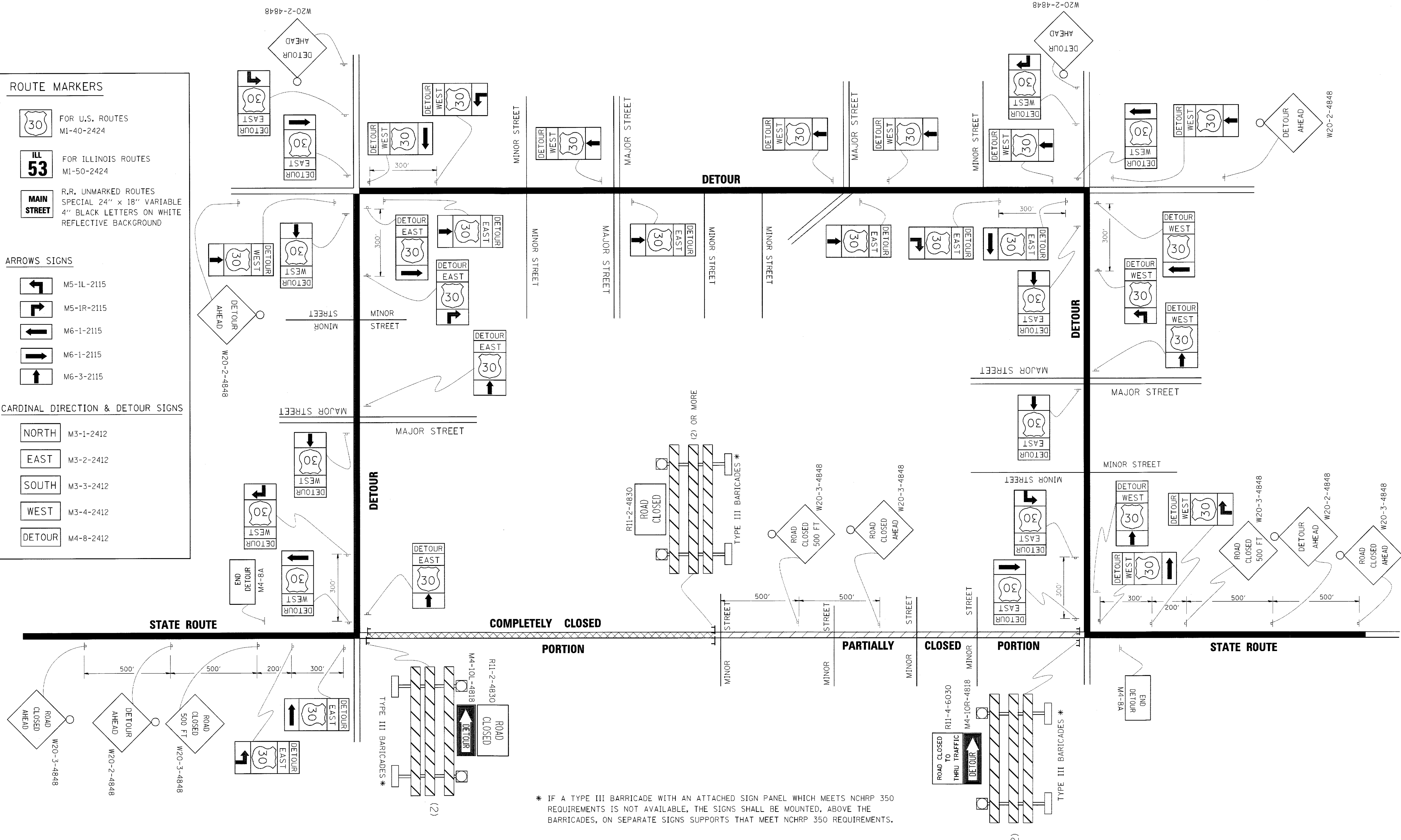
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
c:\pw_work\p\DOT\DRIVAKOSGN\d2188315\21.dgn		DRAWN -	REVISED - R. BORO 09-14-09
		PLOT SCALE = 49.9999 / IN.	REVISED -
		PLOT DATE = 9/14/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
167	14-00439-00-BR	McHENRY	35	35
TC-21			CONTRACT NO. 61E11	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				