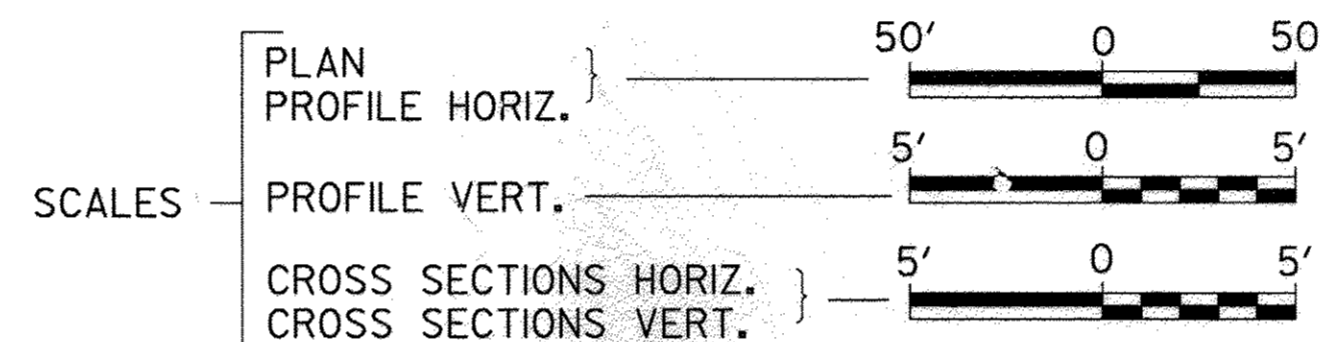
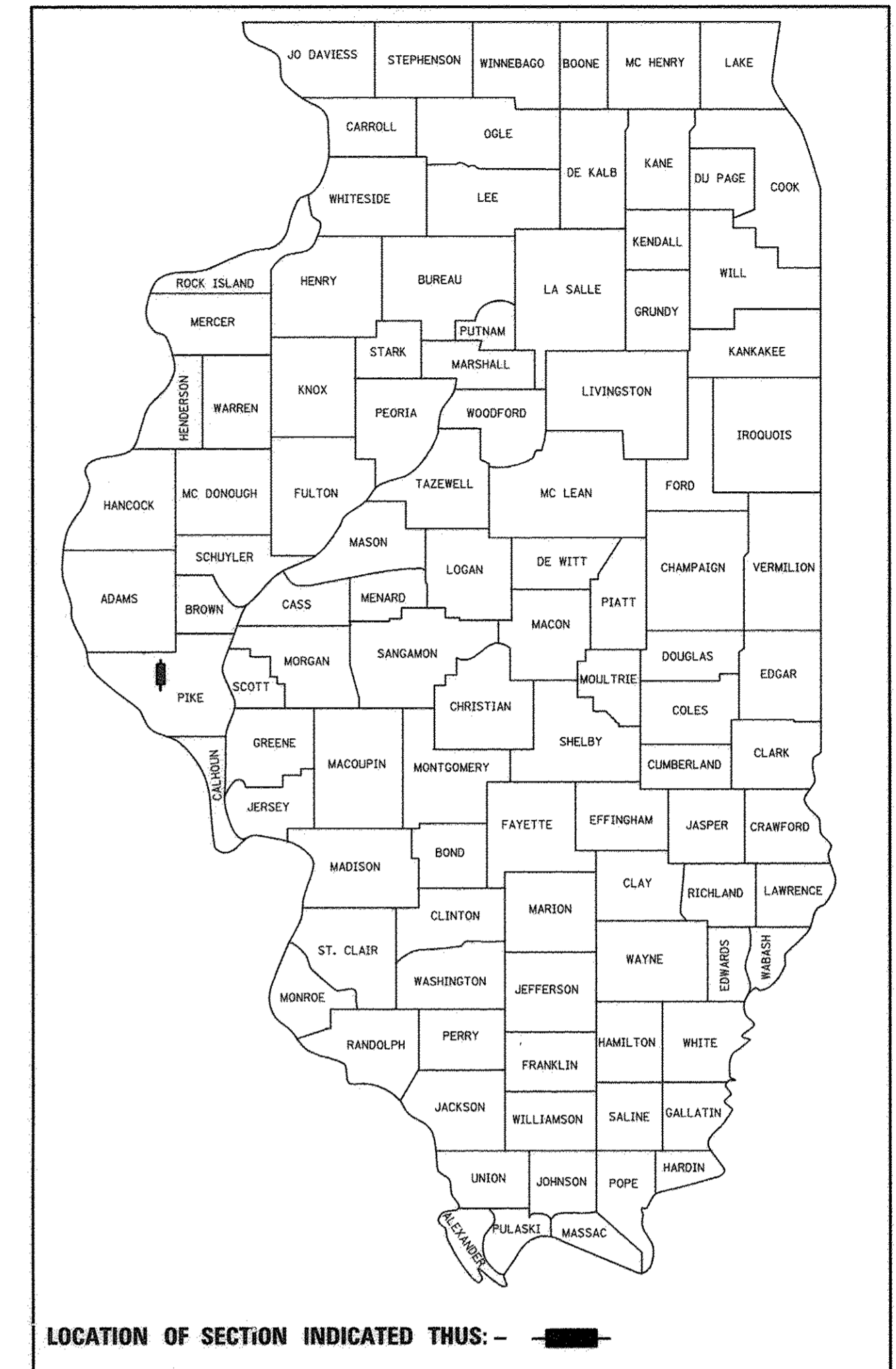


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	10-00087-00-BR	PIKE	38	1
FED. ROAD DIST. NO. 7		ILLINOIS	CONTRACT NO. 93697	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
MAJOR BRIDGE PROGRAM
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (CH 4) OVER HADLEY CREEK
PROJECT NO. BRS-0596(107)
JOB NUMBER C-96-226-16**

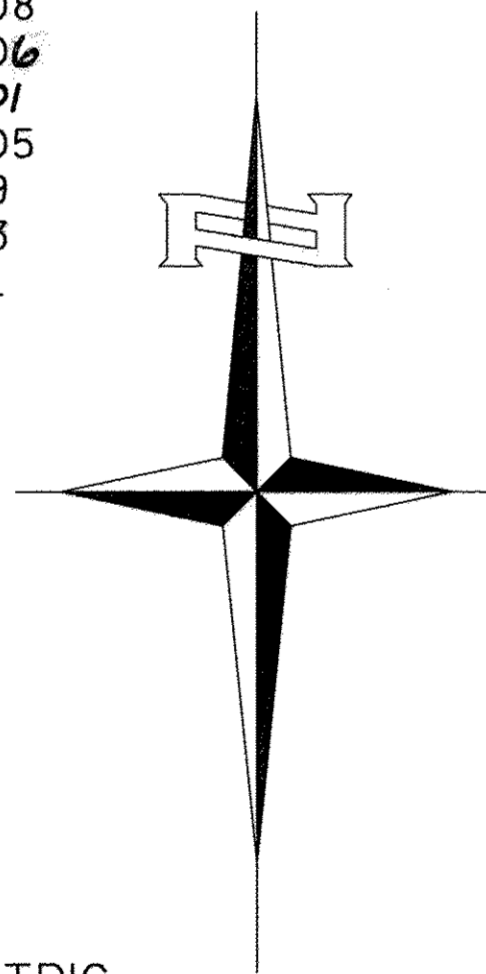
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, TYPICAL SECTIONS, PAVEMENT DESIGN INFORMATION, DETAILS
3.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL PLAN
5.	EROSION CONTROL PLAN
6.	PLAN AND PROFILE
7.-22.	STRUCTURE PLANS
23.-35.	EXISTING STRUCTURE PLANS
36.-38.	CROSS SECTIONS

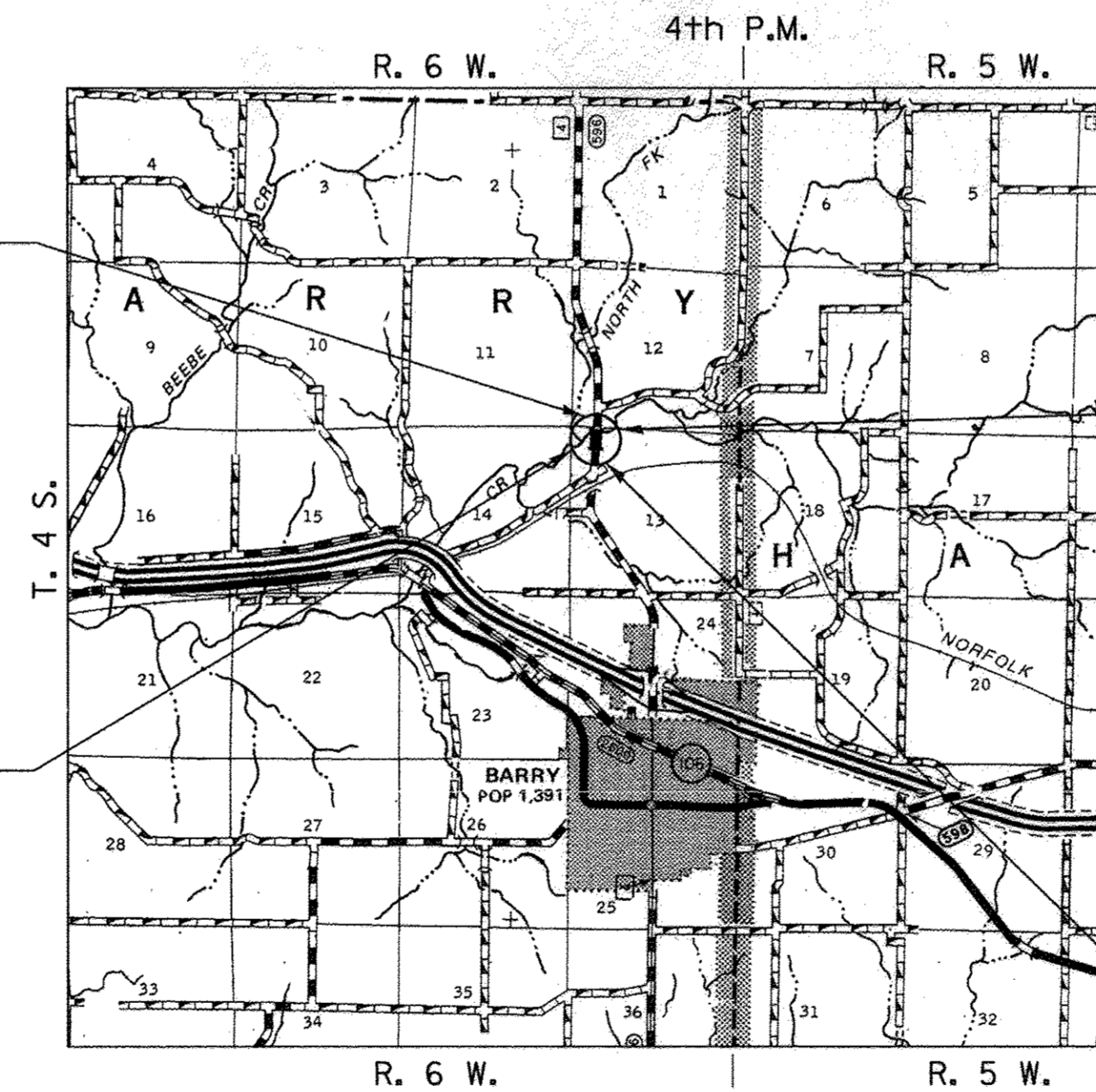


REQUIRED HIGHWAY STANDARDS

- 000001-06
- 280001-07
- 515001-03
- 601101-02
- 630001-11
- 630301-06
- 631032-08
- 701901-06
- 725001-01
- 780001-05
- BLR 21-9
- BLR 26-3
- BLR 27-1



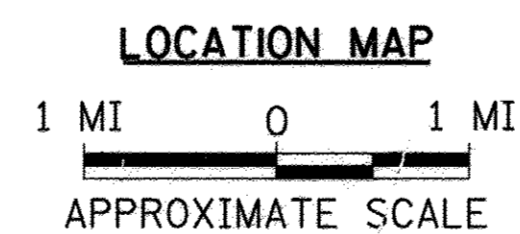
SECTION 10-00087-00-BR
ENDS
STATION 21+75.00



EXISTING STRUCTURE SN 075-3001
THREE SPAN PPC DECK BEAM SUPERSTRUCTURE ON CONCRETE SPILL THRU ABUTMENTS AND PIERS WITH REINFORCED CONCRETE CAPS AND PILES OF PRECAST CONCRETE PILES WITH CONCRETE CURTAIN WALLS, 161'-9" BK. TO BK., 28'-0" O. TO O., SKEW 27° RT. AH. (TO BE REMOVED)

PROPOSED STRUCTURE SN 075-3329
THREE SPAN STEEL W-BEAM WITH A REINFORCED CONCRETE DECK SUPERSTRUCTURE ON CONCRETE ENCASED PILE BENT PIERS AND CONCRETE INTEGRAL ABUTMENTS, 175'-0" BK TO BK, AND 32'-0" O TO O DECK, 25° SKEW RT. AH.

SECTION 10-00087-00-BR
BEGINS
STATION 18+25.00



NET LENGTH OF PROJECT = 350.00 FEET = 0.066 MILES

DESIGN CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
DESIGN ADT = 905 (37)
DESIGN SPEED = 50 MPH

UTILITY COMPANIES

ILLINOIS RURAL ELECTRIC
WINCHESTER, ILLINOIS

PIKE COUNTY WATER DISTRICT
PITTSFIELD, ILLINOIS

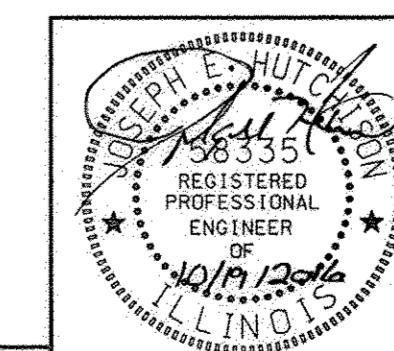
FRONTIER COMMUNICATIONS
JACKSONVILLE, ILLINOIS

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

CONTRACT NO. 93697

Hutchison Engineering, Inc.
JACKSONVILLE-SHOREWOOD-PEORIA

2016 JOB#3881



Signature of Joseph E. Hutchison

ENGINEER'S SEAL

APPROVED	<u>10-19</u>	2016
	<i>Ch. R. [Signature]</i>	PIKE COUNTY ENGINEER
PASSED	<u>October 28, 2016</u>	2016
	<i>Susan J. Graham</i>	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS
PASSED	<u>November 1</u>	2016
	<i>Ron [Signature]</i>	DISTRICT SIX ENGINEER OF CONSTRUCTION
Released For Bid Based on Limited Review	<u>October 28,</u>	2016
	<i>Jeffrey M. South</i>	REGION FOUR ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

PLAN QUANTITIES FOR TREE REMOVAL HAVE BEEN BASED ON ALL TREES WITHIN THE EXISTING RIGHT OF WAY. THIS QUANTITY MAY BE REVISED DURING CONSTRUCTION, AT THE DIRECTION OF THE ENGINEER, BY DELETING FROM THE TREE REMOVAL QUANTITIES, SUCH TREES THAT DO NOT INTERFERE WITH THE PROPOSED CONSTRUCTION.

THE REMOVAL OF EXISTING HOT-MIX ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE NEW BRIDGE SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED OR ADJUSTED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED AT THE CONTRACTOR'S EXPENSE.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

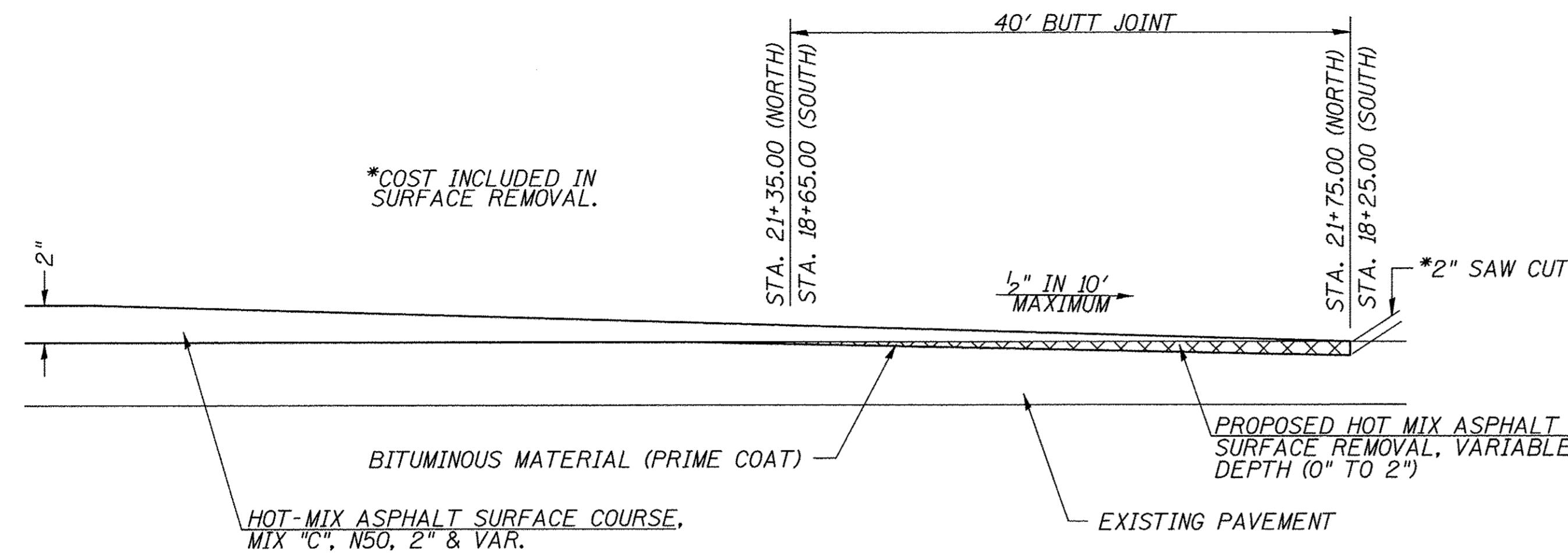
THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

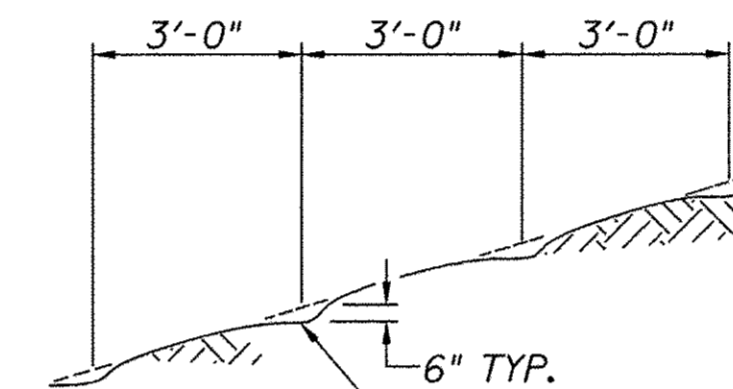
ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE	SURFACE (MIX "C")
AC/PG	PG 64-22
DESIGN AIR VOIDS	4% @ N50
MIX COMPOSITION	IL-9.5

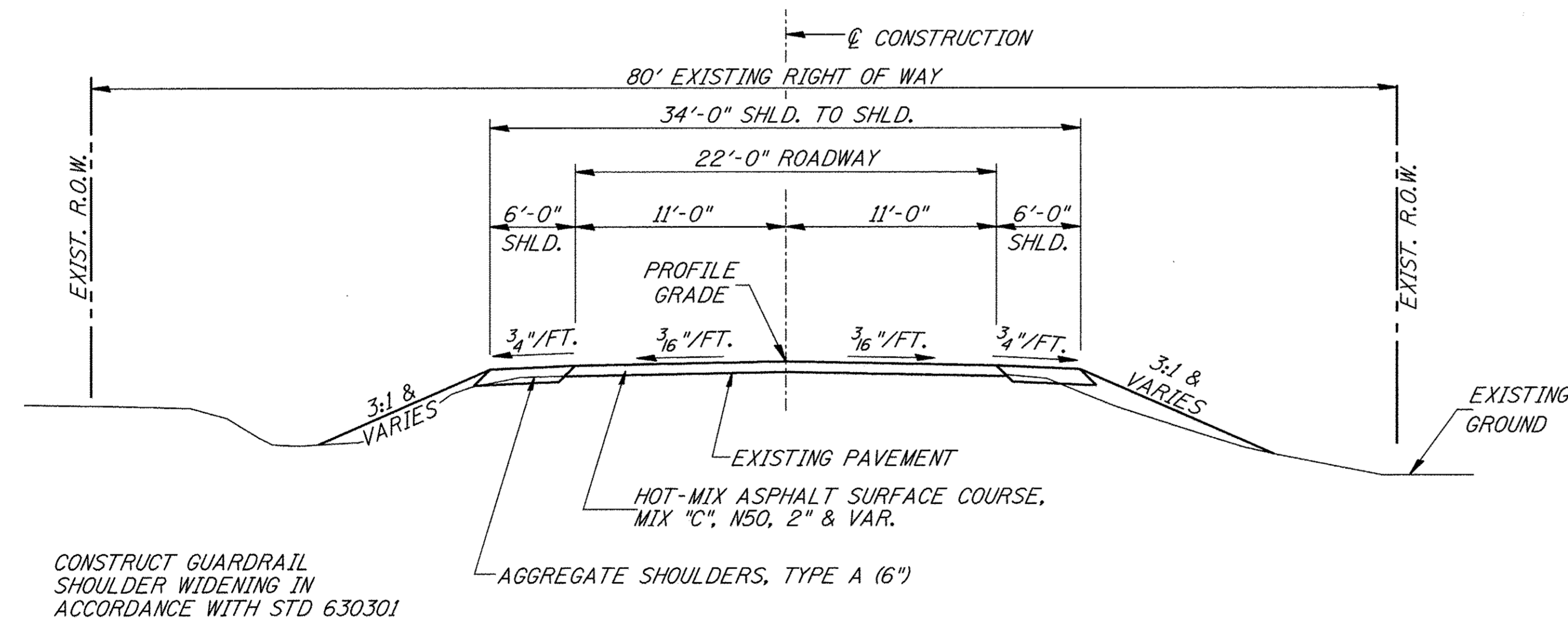


BUTT JOINT DETAILS



NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL, COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

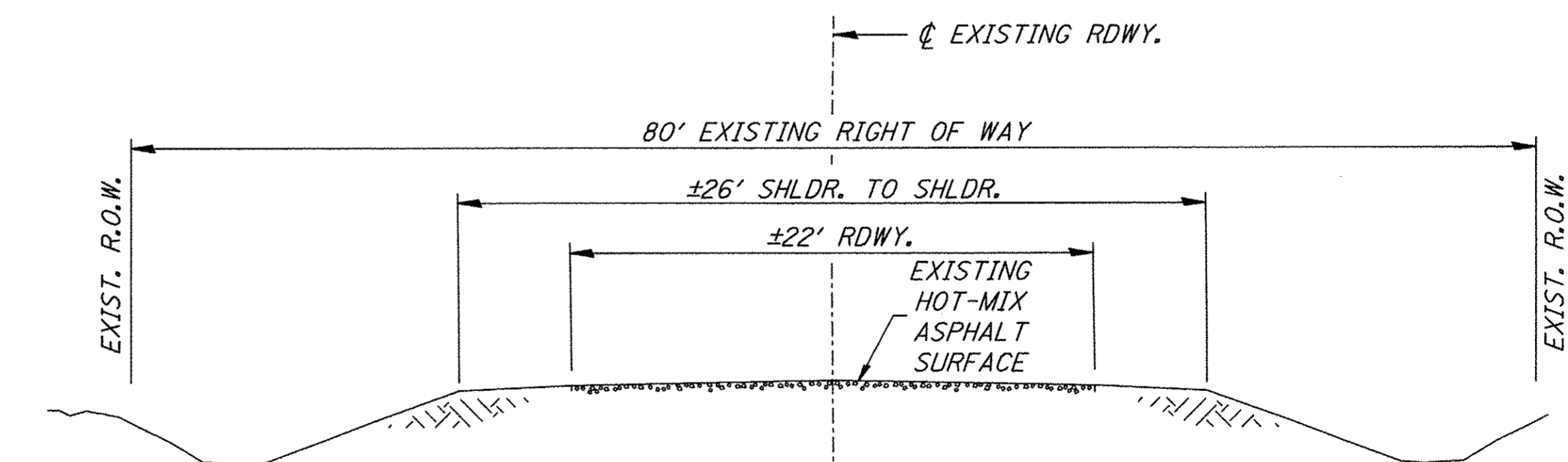
DETAIL OF CONTOUR PLOWING



PROPOSED TYPICAL SECTION

STA. 18+25.00 TO STA. 19+12.50
STA. 20+87.50 TO STA. 21+75.00
EXCEPT TRANSITIONS

BRIDGE OMISSION
STA. 19+12.50 TO STA. 20+87.50



EXISTING TYPICAL SECTION

FILE NAME = V:\Bridge\3881-Pike\3881t001.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER HADLEY CREEK	GENERAL NOTES, TYPICAL SECTIONS, PAVEMENT DESIGN INFORMATION, DETAILS	F.A.S. RTE. 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 2	
PLOT SCALE = 1:8000 1/2 in.	CHECKED -	REVISED -	SCALE: NONE			SHEET NO. 1 OF 1 SHEETS	STA. 18+25.00 TO STA. 21+75.00	CONTRACT NO. 93697			
PLOT DATE = 10/18/2016	DATE -	REVISED -				FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT NO. BRS-0596(107)					

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	13
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	21
20200100	EARTH EXCAVATION	CU YD	25
20300100	CHANNEL EXCAVATION	CU YD	1,020
20400800	FURNISHED EXCAVATION	CU YD	210
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	250
28000400	PERIMETER EROSION BARRIER	FOOT	465
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	196
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	196
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	57
48100100	AGGREGATE SHOULDERS, TYPE A	TON	70
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50104650	SLOPE WALL REMOVAL	SQ YD	495
50200100	STRUCTURE EXCAVATION	CU YD	240
50200300	COFFERDAM EXCAVATION	CU YD	50
50201101	COFFERDAM (TYPE 1) (LOCATION-1)	EACH	1
50201102	COFFERDAM (TYPE 1) (LOCATION-2)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	153.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	176.6
50300260	BRIDGE DECK GROOVING	SQ YD	583
50300300	PROTECTIVE COAT	SQ YD	677
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	3,555
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	61,340
51201400	FURNISHING STEEL PILES HP10X42	FOOT	344
51201610	FURNISHING STEEL PILES HP12X63	FOOT	384
51202305	DRIVING PILES	FOOT	728
51203400	TEST PILE STEEL HP10X42	EACH	2
51203610	TEST PILE STEEL HP12X63	EACH	2
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	40
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	60
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	157.5
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	1
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1
* 63200310	GUARDRAIL REMOVAL	FOOT	319
67100100	MOBILIZATION	L SUM	1
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	438
① X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2
① X2810210	STONE RIPRAP, CLASS A5 (SPECIAL)	TON	1,115
① X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	105
① X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
* XX006199	STEEL BRIDGE RAIL, TYPE SM (SPECIAL)	FOOT	350
① Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	132

① SEE SPECIAL PROVISIONS

* SPECIALTY ITEMS

CONSTRUCTION CODE TYPE: 0011
BRIDGE CODE TYPE: X070

GUARDRAIL REMOVAL

STATION TO STATION	SIDE	FOOT
18+23.79 - 19+13.55	LEFT	90
18+26.21 - 19+26.90	RIGHT	101
20+86.00 - 21+78.45	RIGHT	92
21+38.01 - 21+73.79	LEFT	36
TOTAL		319

PAINT PAVEMENT MARKING - LINE 4"

STATION TO STATION	SIDE	DESCRIPTION	FOOT
18+25 - 21+75	RIGHT	SOLID YELLOW	350
18+25 - 21+75	LEFT	YELLOW SKIP-DASH	88
TOTAL			438

TREE REMOVAL

STATION	OFFSET	SIDE	6 TO 15 UNITS	OVER 15 UNITS
18+53	36'	LEFT	13	
19+25	39'	LEFT		21
TOTAL			13	21

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
18+25 - 19+03	LEFT	105
18+25 - 19+23	RIGHT	125
20+77 - 21+75	LEFT	120
20+97 - 21+83	RIGHT	115
TOTAL		465

AGGREGATE SHOULDERS, TYPE A

STATION TO STATION	SIDE	WIDTH	LENGTH	TON
18+25.00 - 18+50.00	LEFT	4.50' AVG.	25.00'	4
18+25.00 - 18+50.00	RIGHT	4.74' AVG.	25.00'	4
18+50.00 - 19+05.97	LEFT	6.00'	55.97'	12
18+50.00 - 19+19.03	RIGHT	6.00'	69.03'	14
20+80.97 - 21+50.00	LEFT	6.00'	69.03'	14
20+94.03 - 21+50.00	RIGHT	6.00'	55.97'	12
21+50.00 - 21+75.00	LEFT	4.74' AVG.	25.00'	4
21+50.00 - 21+79.22	RIGHT	6.00'	29.22'	6
TOTAL				70

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

STATION TO STATION	WIDTH	LENGTH	SQ YD
18+25.00 - 18+65.00	22.00'	40.00'	98
21+35.00 - 21+75.00	22.00'	40.00'	98
TOTAL			196

EARTHWORK SUMMARY

STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	COFFERDAM EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
RDWY 18+25.00 - 19+12.50	10				128	(121)
RDWY 20+87.50 - 21+75.00	14				97	(87)
CHANNEL		1,020				
STRUCTURE			240			
COFFERDAM				50		
TOTAL	24	1,020	240	50	225	(208)
USE	25	1,020	240	50	-	(210)

(@ 25% SHRINKAGE)

PAVEMENT SCHEDULE

STATION TO STATION	WIDTH	THICKNESS	LENGTH	PRIME COAT POUND 0.05 LBS/SQ FT	HOT-MIX ASPHALT SURF CSE, MIX "C", N50 TON 112#/SQ YD/IN
18+25.00 - 18+65.00	22.34'	---	40.00'	45	
18+65.00 - 19+12.50	22.50' AVG.	---	47.50'	53	
20+87.50 - 21+35.00	22.38' AVG.	---	47.50'	53	
21+35.00 - 21+75.00	22.34'	---	40.00'	45	
18+25.00 - 18+65.00	22.17'	0.17"	40.00'		11
18+65.00 - 19+12.50	22.25' AVG.	0.25' AVG.	47.50'		20
20+87.50 - 21+35.00	22.19' AVG.	0.19' AVG.	47.50'		15
21+35.00 - 21+75.00	22.17'	0.17"	40.00'		11
TOTAL				196	57

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

SIDE	STATION TO STATION	FOOT
LEFT	18+23.79 - 18+61.29	37.5
RIGHT	18+26.21 - 18+76.21	50
RIGHT	21+08.22 - 21+28.22	20
LEFT	21+23.79 - 21+73.79	50
TOTAL		157.5

TRAFFIC BARRIER TERMINAL, TYPE 6A

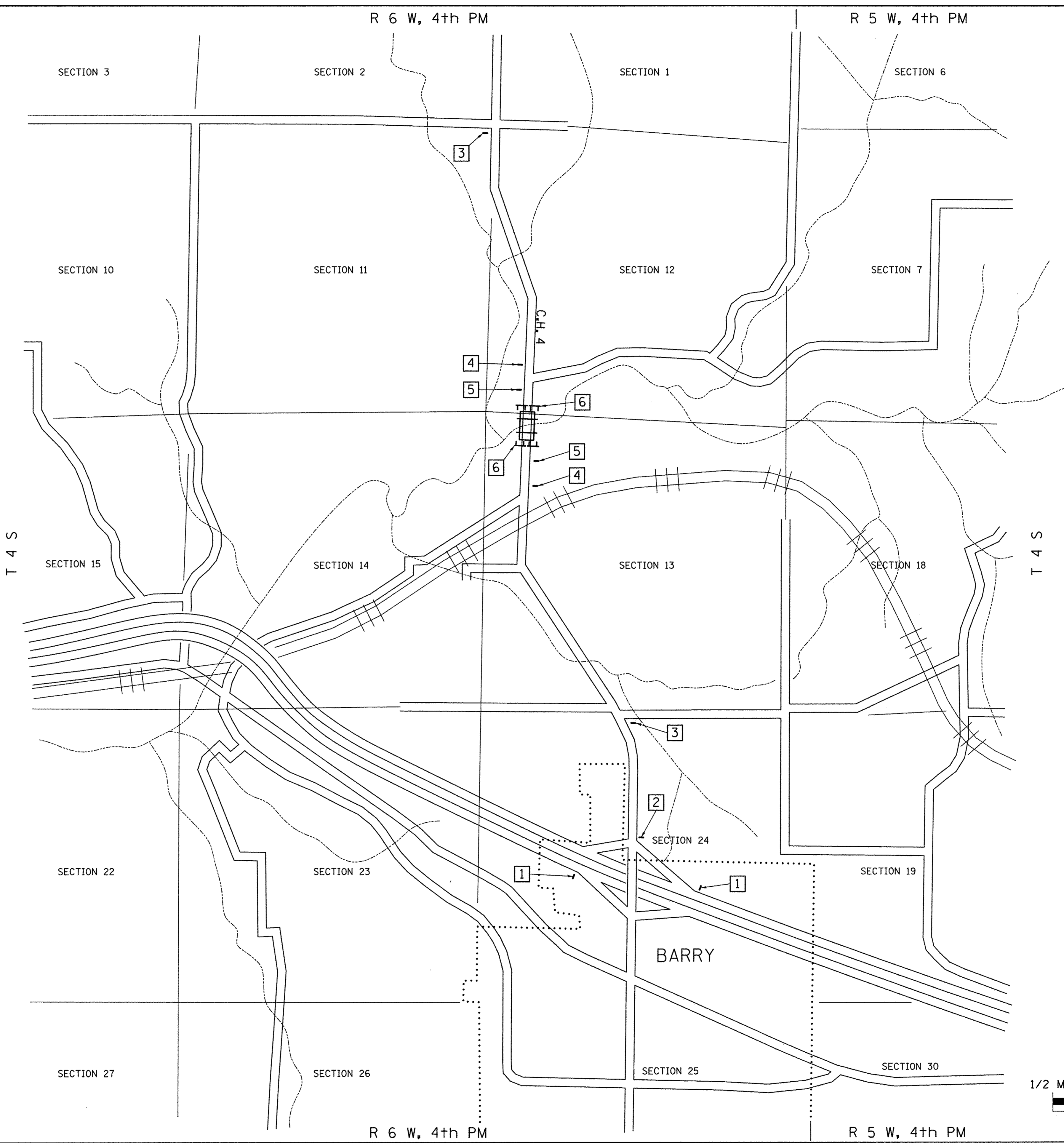
SIDE	STATION TO STATION	EACH
LEFT	18+61.29 - 19+05.04	1
RIGHT	18+76.21 - 19+19.96	1
LEFT	20+80.04 - 21+23.79	1
TOTAL		3

TRAFFIC BARRIER TERMINAL, TYPE 5A

SIDE	STATION TO STATION	EACH
RIGHT	20+94.97 - 21+08.22	1
TOTAL		1

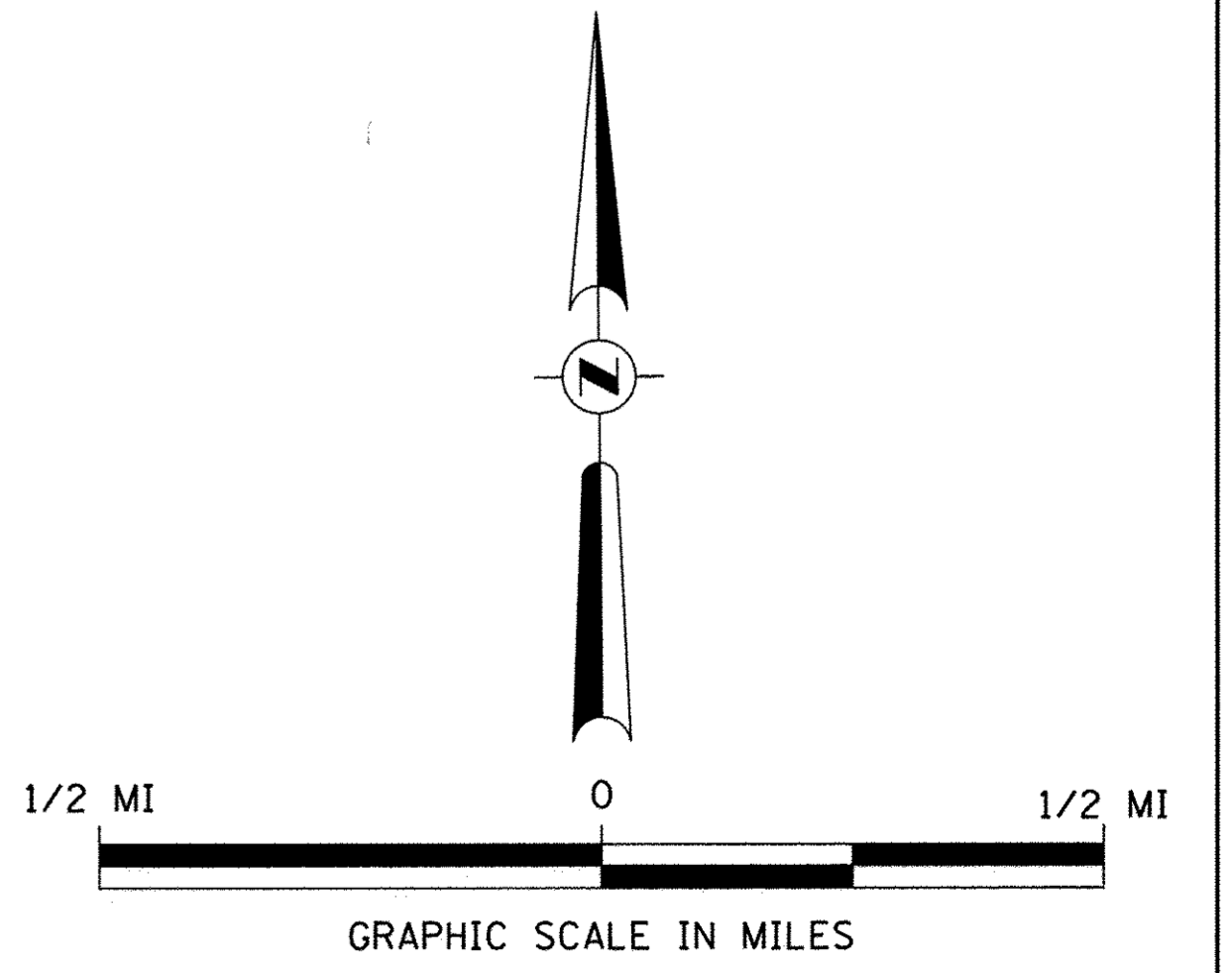
TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

SIDE	STATION TO STATION	EACH
RIGHT	21+28.22 - 21+78.22	1
TOTAL		1



- | | |
|---|--|
| <p>1 COUNTY HIGHWAY 4
CLOSED 1 1/2
MILES NORTH</p> <p>36" x 84"
5D LETTERS
BLACK LEGEND
ORANGE BACKGROUND</p> | <p>COUNTY HIGHWAY 4
CLOSED 1 1/2
MILES NORTH</p> |
|---|--|
- | | |
|--|---|
| <p>2 ROAD CLOSED
1 1/2 MILES AHEAD
LOCAL TRAFFIC ONLY</p> <p>R11-3</p> | <p>ROAD CLOSED
1 1/2 MILES AHEAD
LOCAL TRAFFIC ONLY</p> |
|--|---|
- | | |
|---|--|
| <p>3 ROAD CLOSED
1 MILE AHEAD
LOCAL TRAFFIC ONLY</p> <p>R11-3</p> | <p>ROAD CLOSED
1 MILE AHEAD
LOCAL TRAFFIC ONLY</p> |
|---|--|
- | | |
|---|------------------------------|
| <p>4 ROAD
CLOSED
AHEAD</p> <p>W20-3</p> | <p>ROAD CLOSED
AHEAD</p> |
|---|------------------------------|
- | | |
|--|-------------------------------|
| <p>5 ROAD
CLOSED
500 FT</p> <p>W20-3</p> | <p>ROAD CLOSED
500 FT</p> |
|--|-------------------------------|
- | | |
|--|----------------------------|
| <p>6 </p> | <p>TYPE III BARRICADES</p> |
|--|----------------------------|

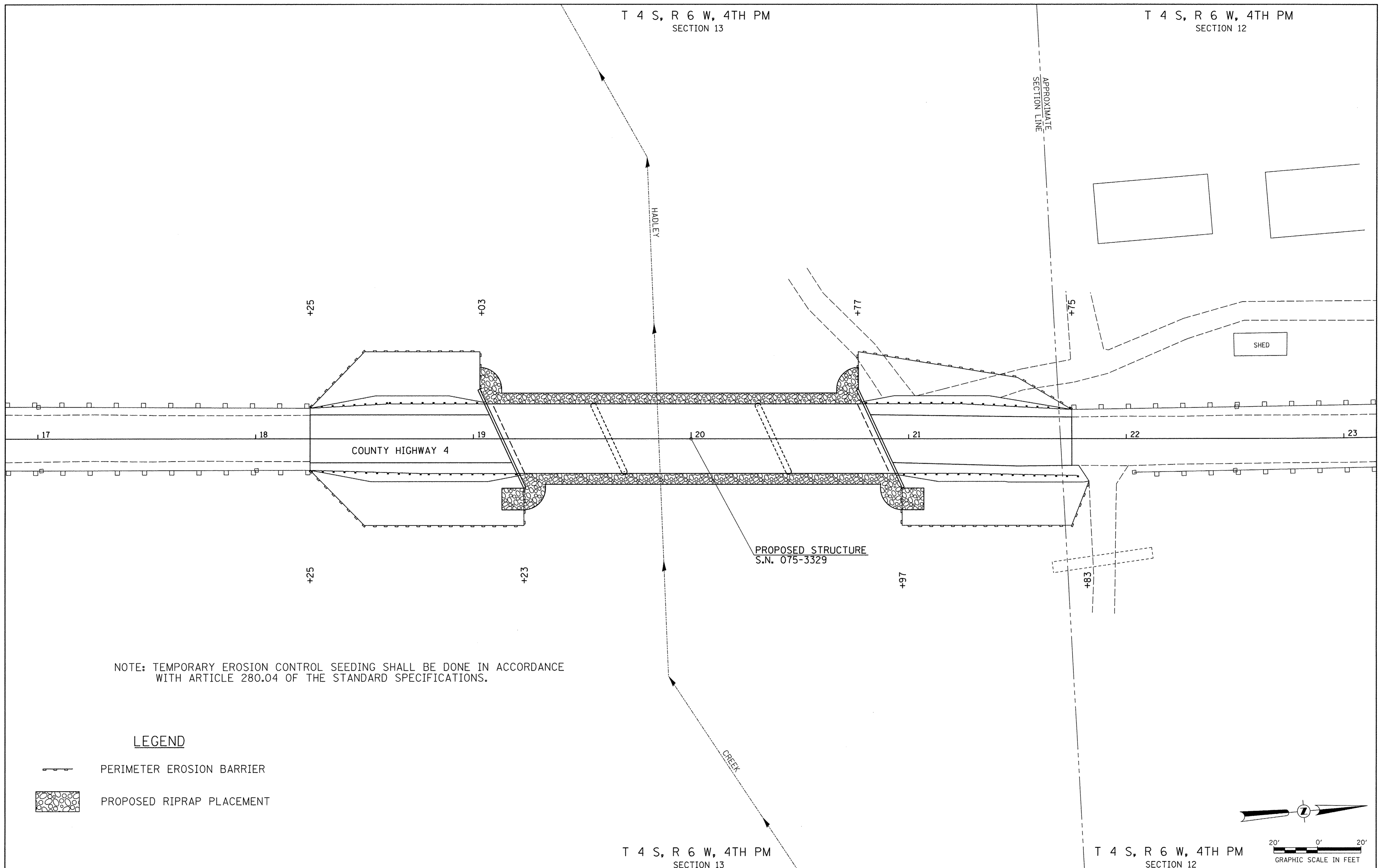
SEE STANDARD BLR 21
AND SPECIAL PROVISIONS



FILE NAME = V:\Bridges\3881-Pike\3881h201.dgn	USER NAME = JHutzhson	DESIGNED -	REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER HADLEY CREEK	TRAFFIC CONTROL PLAN	F.A.S. RTE. 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 4
PLOT SCALE = 1:8000' / 1 in.	PLOT DATE = 10/18/2016	CHECKED -	REVISIED -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+25.00	TO STA. 21+75.00	FED. ROAD DIST. NO. 7 ILLINOIS	CONTRACT NO. 93697 FED. AID PROJECT BRS-0596(107)	

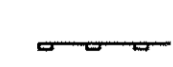
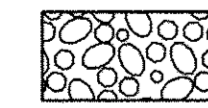
T 4 S, R 6 W, 4TH PM
SECTION 13

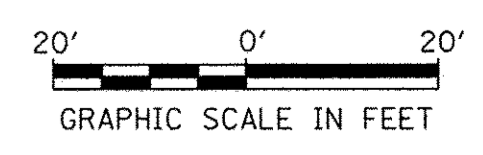
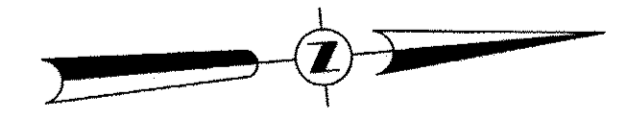
T 4 S, R 6 W, 4TH PM
SECTION 12



NOTE: TEMPORARY EROSION CONTROL SEEDING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 280.04 OF THE STANDARD SPECIFICATIONS.

LEGEND

-  PERIMETER EROSION BARRIER
-  PROPOSED RIPRAP PLACEMENT



T 4 S, R 6 W, 4TH PM
SECTION 13

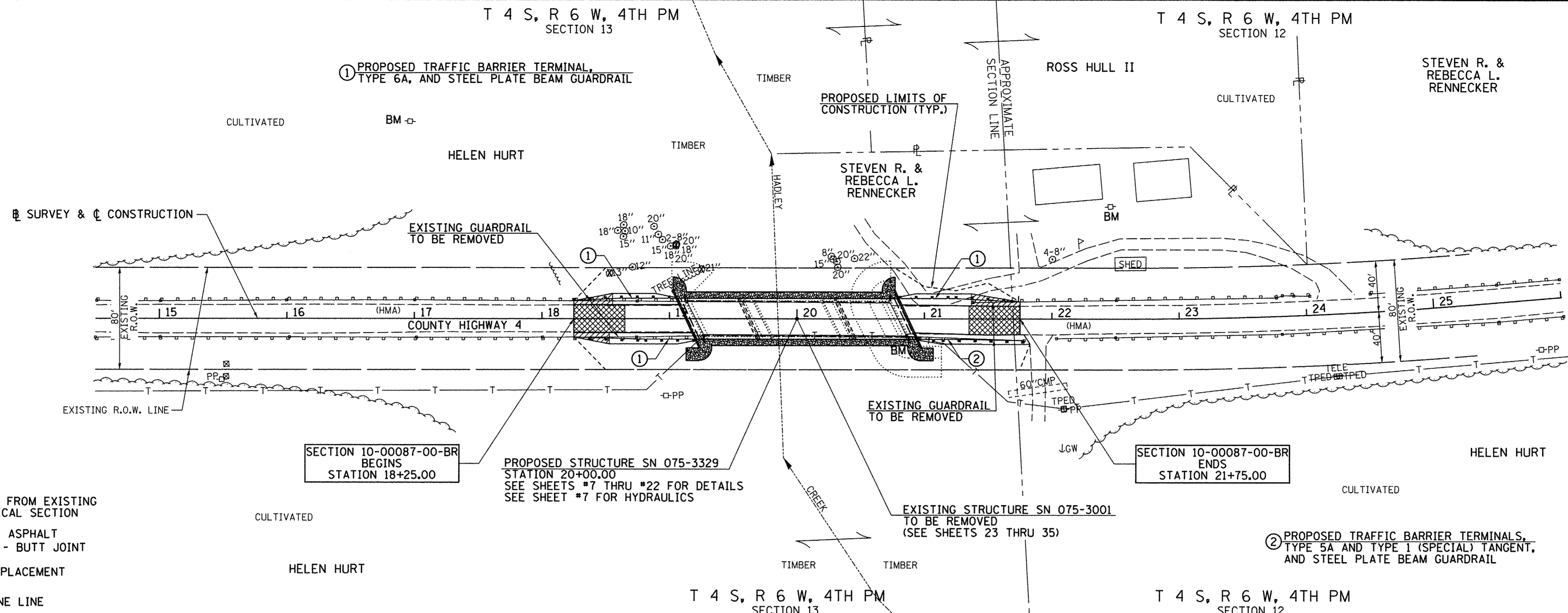
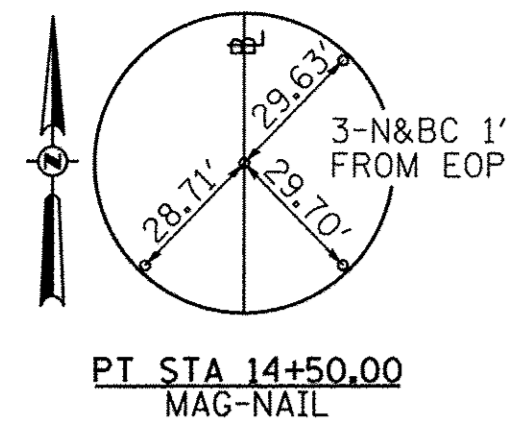
T 4 S, R 6 W, 4TH PM
SECTION 12

FILE NAME = V:\Bridge\3881-Pike\3881S001.dgn	USER NAME = JHutcheon	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20,0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/18/2016	DATE -	REVISED -

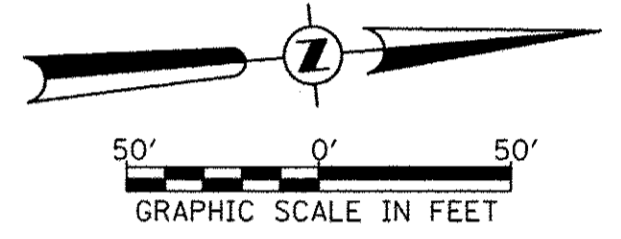
**PIKE COUNTY
COUNTY HIGHWAY 4 OVER
HADLEY CREEK**

EROSION CONTROL PLAN
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 18+25.00 TO STA. 21+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	10-00087-00-BR	PIKE	38	5
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)	
CONTRACT NO. 93697				

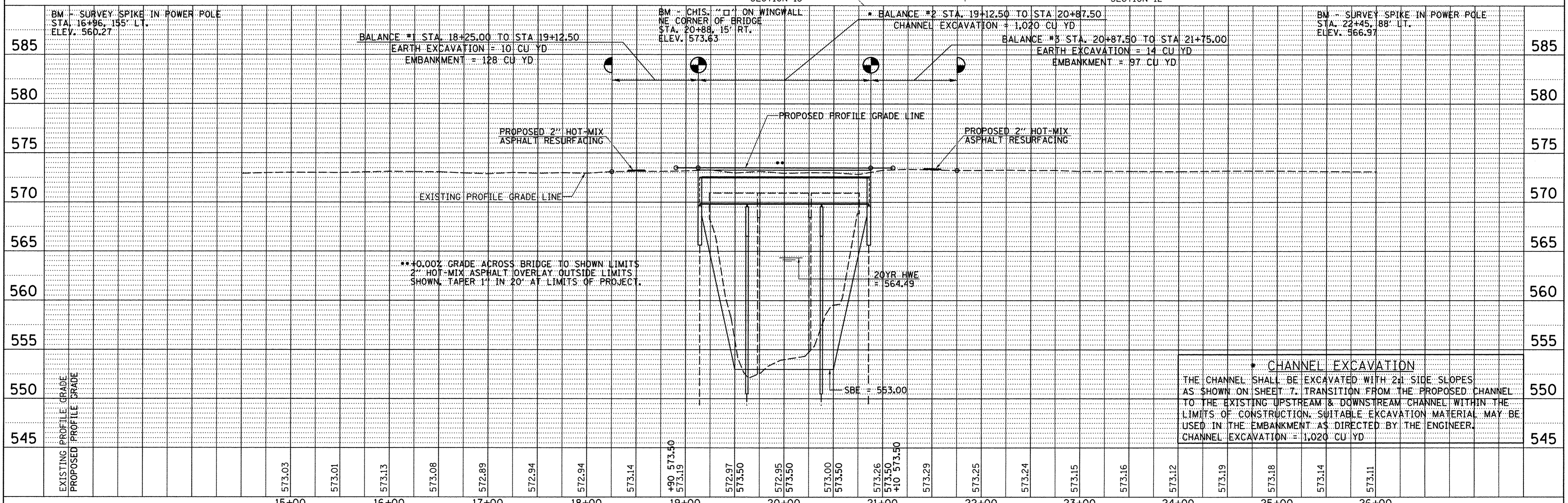


- LEGEND**
- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL SECTION
 - PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
 - PROPOSED RIPRAP PLACEMENT
 - EXISTING TELEPHONE LINE



DATE	
BY	
PLANNED	
NOTED	
NO.	
FILE NAME	

DATE	
BY	
PROFILE	
NOTED	
NO.	
STRUCTURE NOTATIONS CHRD	



FILE NAME = V:\B-ridge\3881-Pike\3881p001.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER HADLEY CREEK										PLAN AND PROFILE				F.A.S. RTE. 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 6
PLOT SCALE = 50.0000' / 1in.	CHECKED -	REVISED -	REVISED -															SCALE: 1"=50'	SHEET NO. 1 OF 1 SHEETS	STA. 18+25.00 TO STA. 21+75.00	FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-0596(107)
PLOT DATE = 10/18/2016	DATE -	REVISED -	REVISED -																			

B.M.: Survey Spike in Power Pole Sta. 16+96, 155' Lt. Elev. 560.27
 Survey Spike in Power Pole Sta. 22+45, 88' Lt. Elev. 566.97

Note:
 See Sheet 2 of 16 for Total Bill of Materials and Section A-A.

Existing Structure:

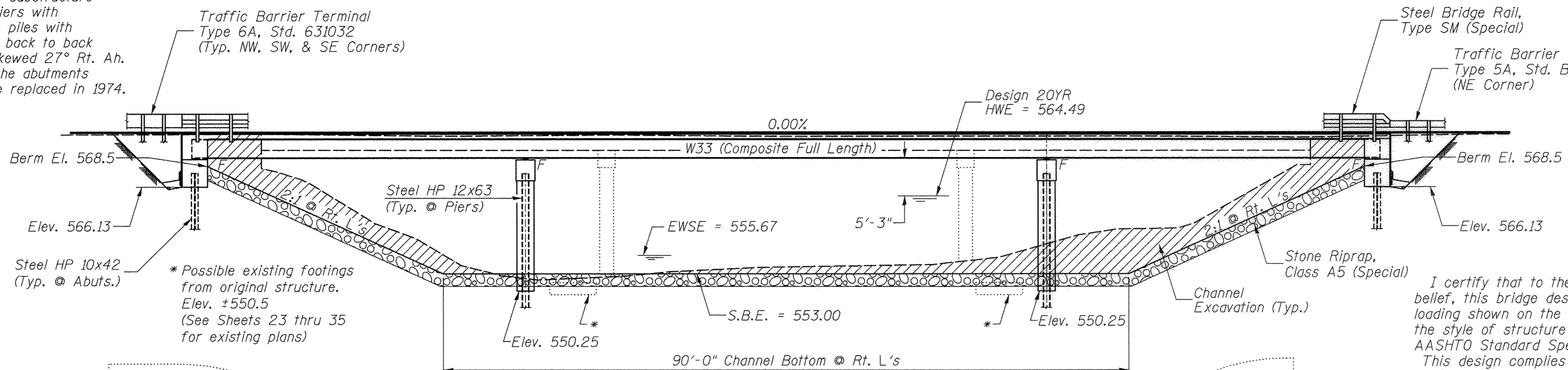
Three span PPC deck beam superstructure. The substructure consists of concrete spill thru abutments and piers with reinforced concrete caps atop precast concrete piles with concrete curtain walls. The structure is 161'-9" back to back of abutments, 28'-0" out to out deck, and is skewed 27° Rt. Ah. The original structure was built in 1959, while the abutments were reused, the piers and superstructure were replaced in 1974. Str. No. 075-3001

Salvage: None

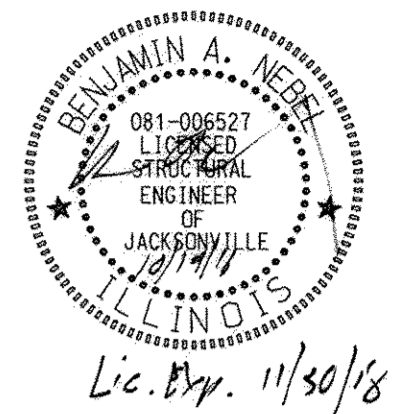
Road to be closed to traffic during construction.

INDEX OF SHEETS

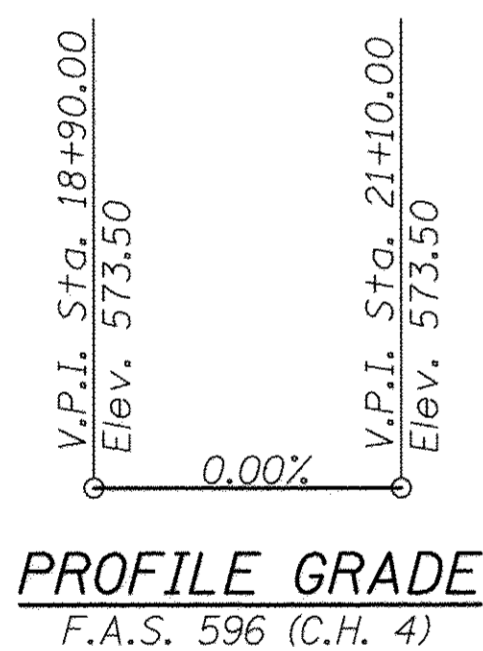
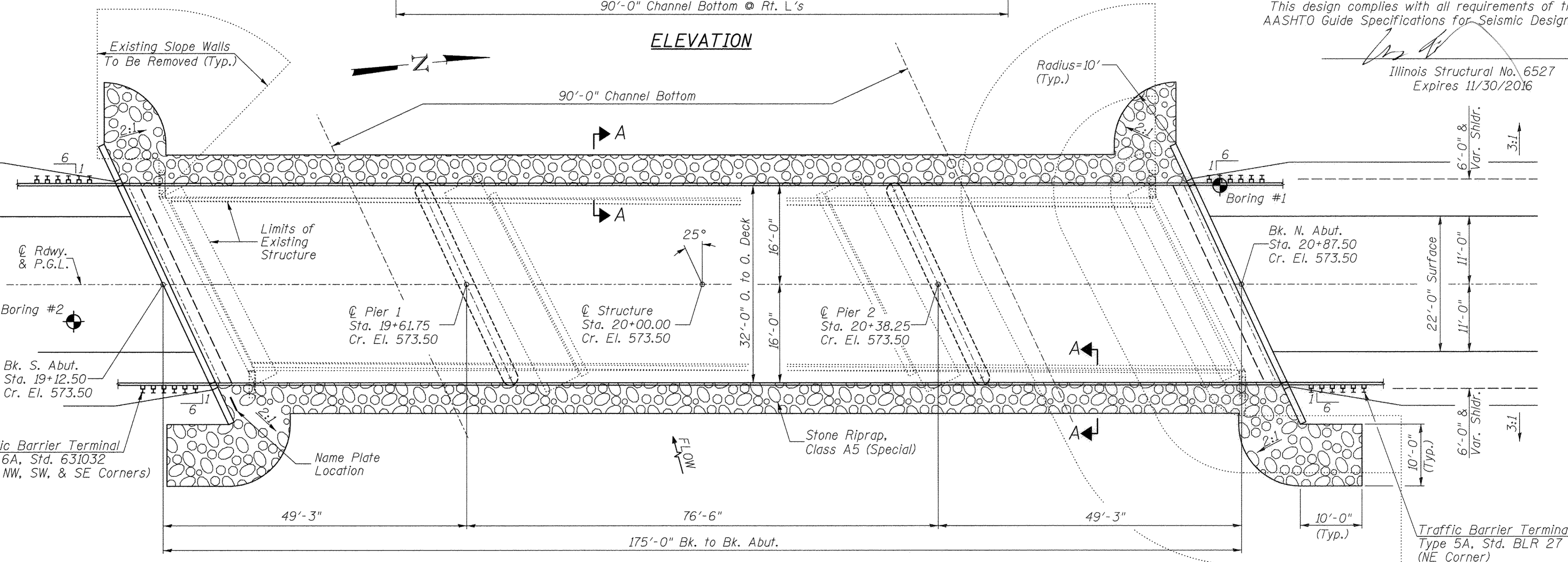
SHEET #'s	DESCRIPTION
1	General Plan and Elevation
2	General Notes, Details, Bill of Materials, & Footing Layout
3-5	Top of Slab Elevations
6	Superstructure
7	Superstructure Details
8	Diaphragm Details
9-10	Steel Bridge Rail, Type SM (Special)
11	Framing Plan
12	Structural Steel Details
13	Bearing Details
14	Abutments
15	Piers
16	HP Pile Details



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.



Illinois Structural No. 6527 Expires 11/30/2016



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)					Item 113
	S. Abut.	Pier 1	Pier 2	N. Abut.	
Q100	566.1	547.6	547.6	566.1	8
Q200	566.1	547.6	547.6	566.1	
Design	566.1	547.6	547.6	566.1	
Check	566.1	547.6	547.6	566.1	

WATERWAY INFORMATION

Drainage Area = 31.03 Sq. Mi.		Low Grade Elev. = 572.89 @ Sta. 17+00.00							
Flood Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Nat. Prop. H.W.E.	Head - Ft. Exist.	Prop. Exist.	Headwater El. Exist.	Prop. Exist.		
Design	20	7,196	973	1,244	564.49	0.68	0.68	565.17	565.17
Base	100	10,025	1,081	1,368	565.42	1.58	1.43	567.00	566.85

DESIGN STRESSES

(FIELD UNITS)
 f'c = 3,500 psi (Substructure)
 f'c = 5,000 psi (Superstructure)
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (M270 Grade 50W)

LOADING HL-93

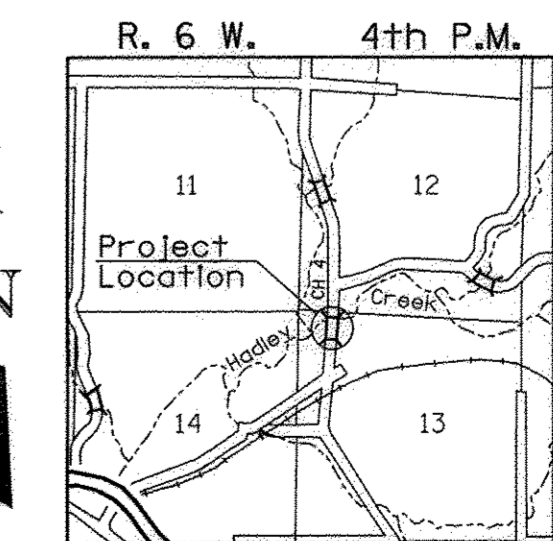
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 & 2016 Interims

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.132g
 Design Spectral Acceleration at 0.2 sec. (SD5) = 0.216g
 Soil Site Class = D



LOCATION SKETCH

GENERAL PLAN & ELEVATION
 F.A.S. 596 (C.H. 4)
 OVER HADLEY CREEK
 SECTION 10-00087-00-BR
 PIKE COUNTY
 STATION 20+00.00
 STRUCTURE NO. 075-3329

DESIGNED	S.T.M.
CHECKED	B.A.N.
DRAWN	S.T.M.
CHECKED	B.A.N.

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

Hutchison Engineering, Inc.
 JACKSONVILLE-SHOREWOOD-PEORIA

SHEET NO. 1
 16 SHEETS

F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	10-00087-00-BR	PIKE	38	7
SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0596(107)		

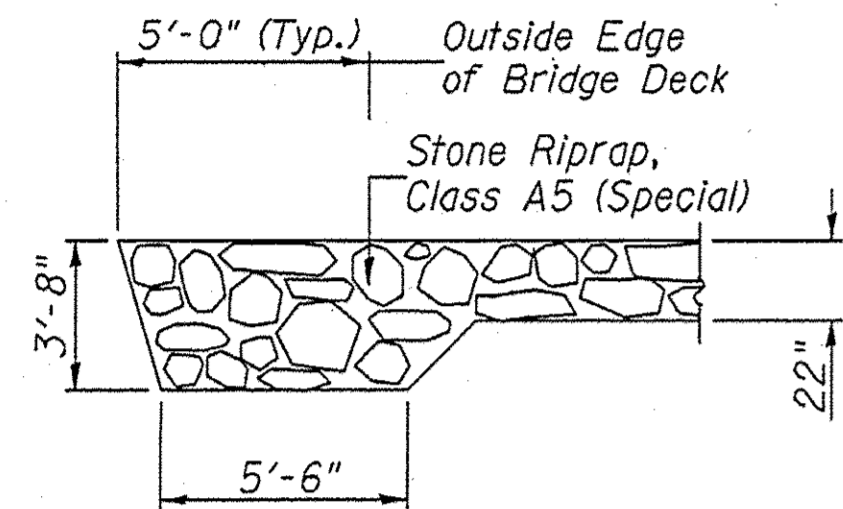
2016

JOB#3881

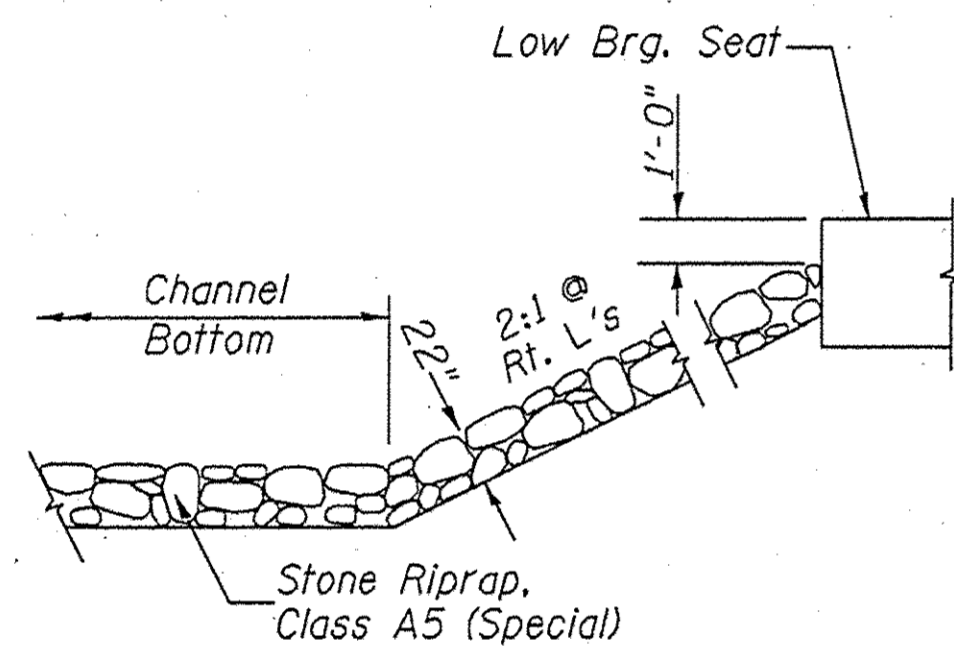
HADLEY CREEK
 BUILT 201 BY
 PIKE COUNTY
 SEC. 10-00087-00-BR
 C.H. 4 STATION 20+00.00
 F.A. PROJ. BRS-0596(107)
 STR. NO. 075-3329 LOADING HL-93

NAME PLATE

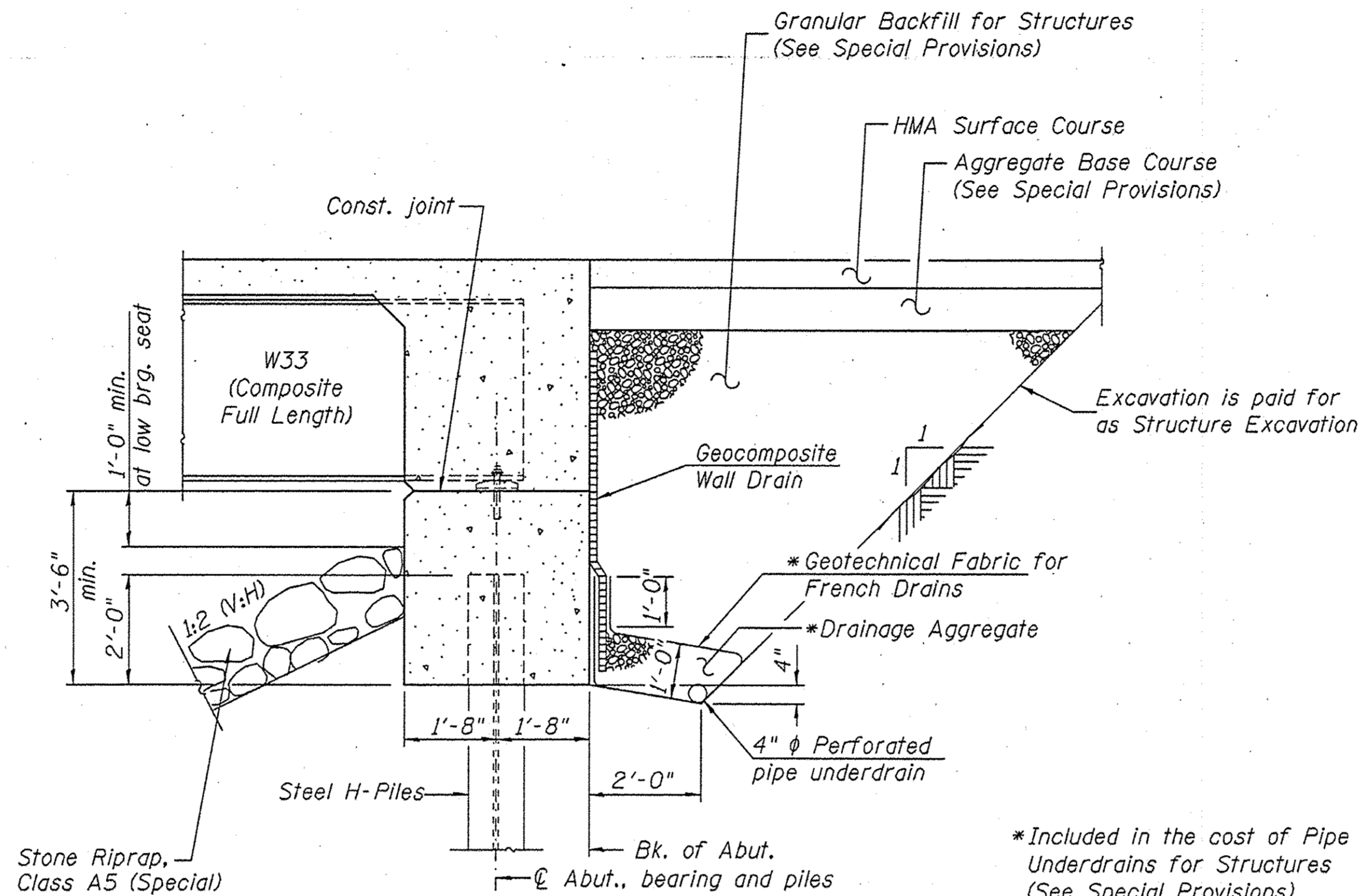
Locate Name Plate at S.E. Wingwall
 Corner of Bridge (See Std. 515001)



SECTION A-A

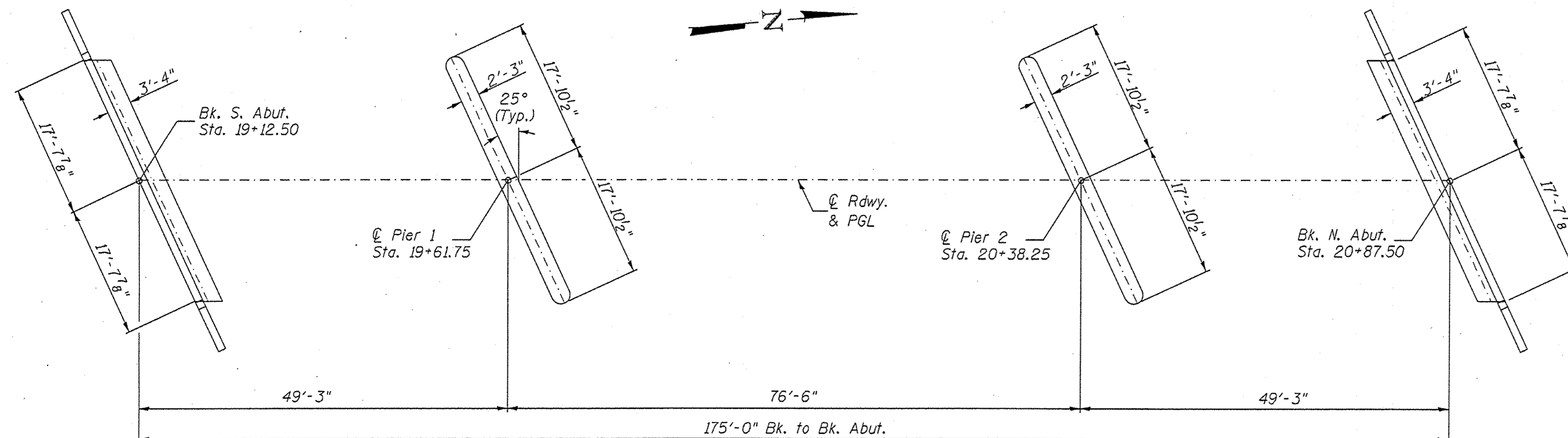


STONE RIPRAP DETAIL



SECTION THRU INTEGRAL ABUTMENT
 (At Right Angles)

Note:
 All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



FOOTING LAYOUT

GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
 Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 type 3 in unpainted areas. Bolts 7/8" φ, holes 15/16" φ, unless otherwise noted.
 Calculated weight of Structural Steel = 118,330 lb (AASHTO M270 Gr. 50W)
 All structural steel shall be AASHTO M270 Gr. 50W.
 No field welding is permitted except as specified in the contract documents. Reinforcement bars designated (E) shall be epoxy coated.
 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.
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
 Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Protective Coat shall be applied to the top and sides of the bridge deck. Bridge Deck Grooving is figured 1'-0" from the face of the rail. It shall be applied to the bridge deck.
 For Soil Boring Logs, See Special Provisions.

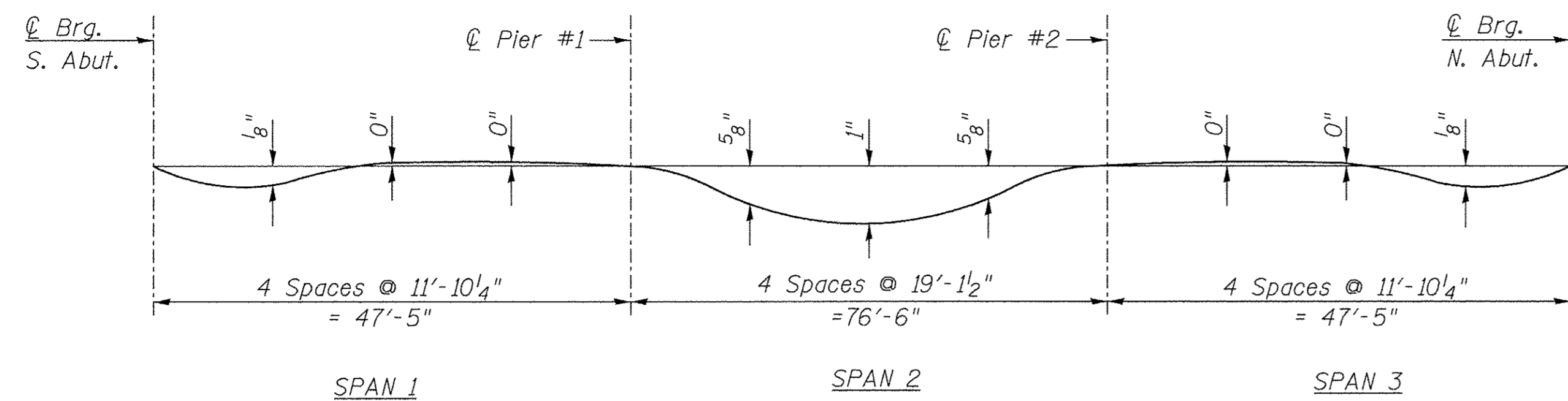
TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	---	1,020	1,020
① Granular Backfill for Structures	CU YD	---	105	105
① Stone Riprap, Class A5 (Special)	TON	---	1,115	1,115
Slope Wall Removal	SQ YD	---	495	495
① Removal of Existing Structures	EACH	---	---	1
Structure Excavation	CU YD	---	240	240
Cofferdam Excavation	CU YD	---	50	50
Cofferdam (Type 1) (Location-1)	Pier #1	---	1	1
Cofferdam (Type 1) (Location-2)	Pier #2	---	1	1
Concrete Structures	CU YD	---	153.8	153.8
Concrete Superstructure	CU YD	176.6	---	176.6
Bridge Deck Grooving	SQ YD	583	---	583
Protective Coat	SQ YD	677	---	677
Furnishing and Erecting Structural Steel	L SUM	1	---	1
Stud Shear Connectors	EACH	3,555	---	3,555
Reinforcement Bars, Epoxy Coated	POUND	46,580	14,760	61,340
Steel Bridge Rail, Type SM (Special)	FOOT	350	---	350
Furnishing Steel Piles HP10x42	FOOT	---	344	344
Furnishing Steel Piles HP12x63	FOOT	---	384	384
Driving Piles	FOOT	---	728	728
Test Pile Steel HP10x42	EACH	---	2	2
Test Pile Steel HP12x63	EACH	---	2	2
Name Plates	EACH	---	1	1
Anchor Bolts, 1"	EACH	40	---	40
Geocomposite Wall Drain	SQ YD	---	60	60
① Pipe Underdrains For Structures 4"	FOOT	---	132	132

① See Special Provisions

GENERAL NOTES, DETAILS, BILL
 OF MATERIALS, & FOOTING LAYOUT
 PIKE COUNTY
 SECTION 10-00087-00-BR
 F.A.S. 596 (C.H. 4)
 OVER HADLEY CREEK

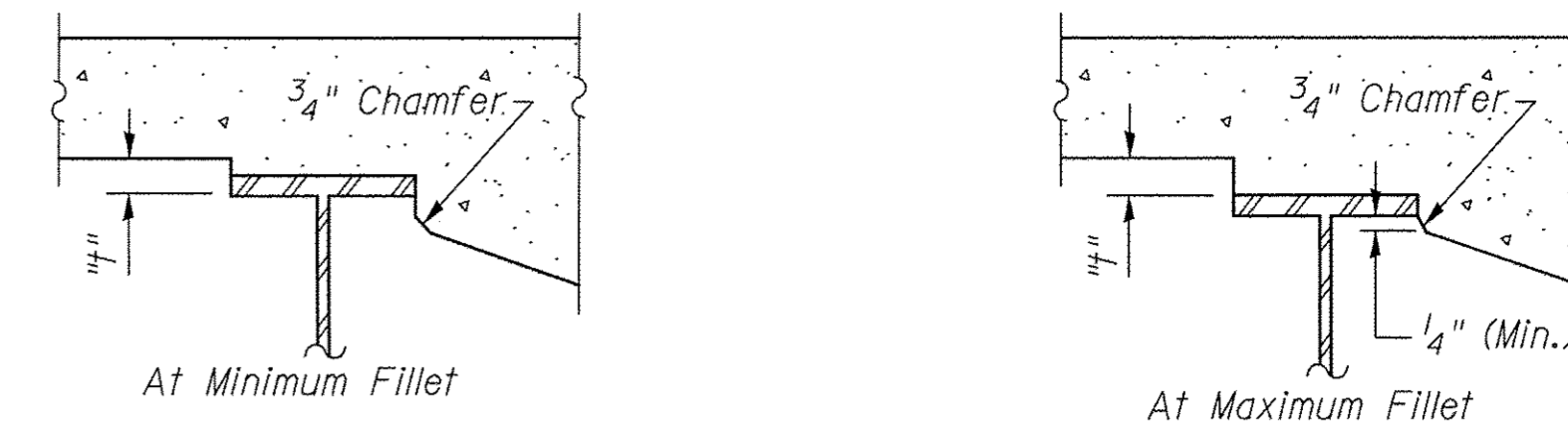
SHEET NO. 2	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16 SHEETS	596	10-00087-00-BR	PIKE	38	8
		SN 075-3329		CONTRACT NO. 93697	
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0596(107)		



DEAD LOAD DEFLECTION DIAGRAM

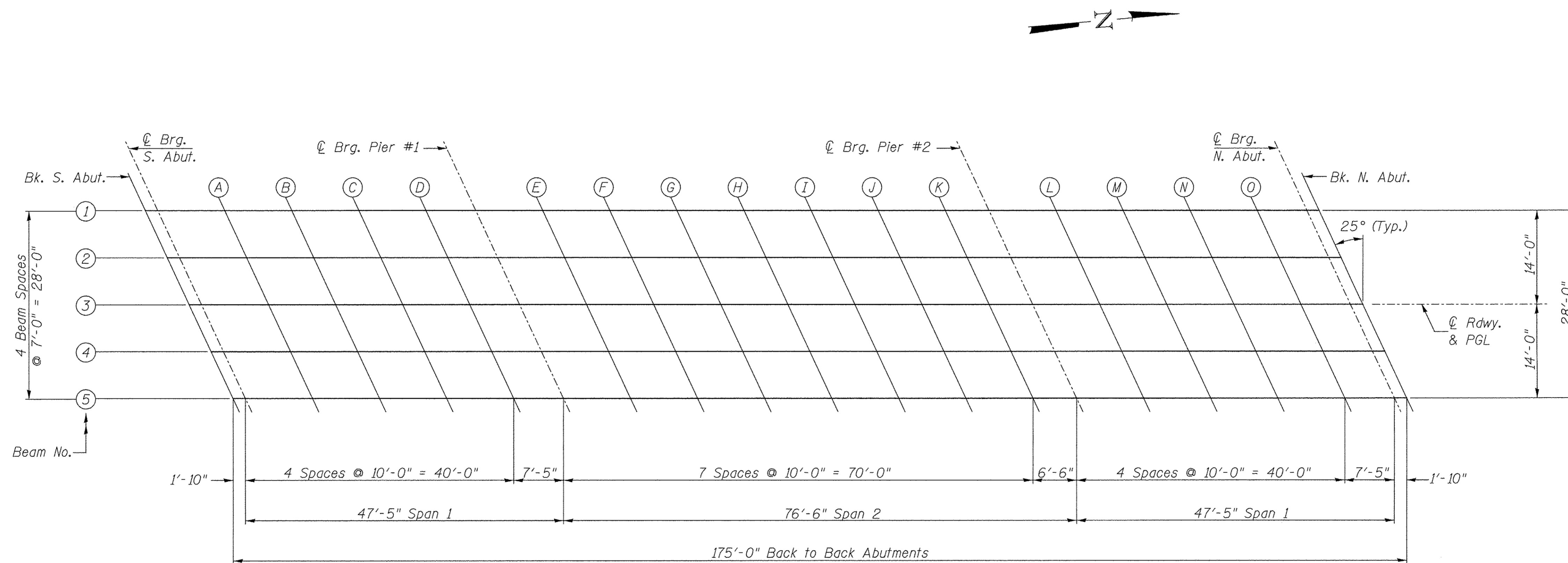
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the tables on Sheets 4 & 5 of 16.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" Shown in the tables on Sheets 4 & 5 of 16, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

**TOP OF SLAB ELEVATIONS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

SHEET NO. 3	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	9
16 SHEETS	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0596(107)		

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	19+05.97	-14.00	573.27	573.27
CL Brg. S. Abutment	19+07.81	-14.00	573.27	573.27
A	19+17.81	-14.00	573.27	573.28
B	19+27.81	-14.00	573.27	573.28
C	19+37.81	-14.00	573.27	573.27
D	19+47.81	-14.00	573.27	573.27
CL Brg. Pier #1	19+55.22	-14.00	573.27	573.27
E	19+65.22	-14.00	573.27	573.29
F	19+75.22	-14.00	573.27	573.32
G	19+85.22	-14.00	573.27	573.35
H	19+95.22	-14.00	573.27	573.35
I	20+05.22	-14.00	573.27	573.34
J	20+15.22	-14.00	573.27	573.31
K	20+25.22	-14.00	573.27	573.28
CL Brg. Pier #2	20+31.72	-14.00	573.27	573.27
L	20+41.72	-14.00	573.27	573.27
M	20+51.72	-14.00	573.27	573.27
N	20+61.72	-14.00	573.27	573.28
O	20+71.72	-14.00	573.27	573.27
CL Brg. N. Abutment	20+79.13	-14.00	573.27	573.27
Bk. N. Abutment	20+80.97	-14.00	573.27	573.27

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	19+09.24	-7.00	573.39	573.39
CL Brg. S. Abutment	19+11.07	-7.00	573.39	573.39
A	19+21.07	-7.00	573.39	573.40
B	19+31.07	-7.00	573.39	573.40
C	19+41.07	-7.00	573.39	573.39
D	19+51.07	-7.00	573.39	573.39
CL Brg. Pier #1	19+58.49	-7.00	573.39	573.39
E	19+68.49	-7.00	573.39	573.41
F	19+78.49	-7.00	573.39	573.44
G	19+88.49	-7.00	573.39	573.47
H	19+98.49	-7.00	573.39	573.47
I	20+08.49	-7.00	573.39	573.46
J	20+18.49	-7.00	573.39	573.43
K	20+28.49	-7.00	573.39	573.40
CL Brg. Pier #2	20+34.99	-7.00	573.39	573.39
L	20+44.99	-7.00	573.39	573.39
M	20+54.99	-7.00	573.39	573.39
N	20+64.99	-7.00	573.39	573.40
O	20+74.99	-7.00	573.39	573.39
CL Brg. N. Abutment	20+82.40	-7.00	573.39	573.39
Bk. N. Abutment	20+84.24	-7.00	573.39	573.39

BEAM #3, C RDWY, & PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	19+12.50	0.00	573.50	573.50
CL Brg. S. Abutment	19+14.34	0.00	573.50	573.50
A	19+24.34	0.00	573.50	573.51
B	19+34.34	0.00	573.50	573.51
C	19+44.34	0.00	573.50	573.50
D	19+54.34	0.00	573.50	573.50
CL Brg. Pier #1	19+61.75	0.00	573.50	573.50
E	19+71.75	0.00	573.50	573.52
F	19+81.75	0.00	573.50	573.55
G	19+91.75	0.00	573.50	573.58
H	20+01.75	0.00	573.50	573.58
I	20+11.75	0.00	573.50	573.57
J	20+21.75	0.00	573.50	573.54
K	20+31.75	0.00	573.50	573.51
CL Brg. Pier #2	20+38.25	0.00	573.50	573.50
L	20+48.25	0.00	573.50	573.50
M	20+58.25	0.00	573.50	573.50
N	20+68.25	0.00	573.50	573.51
O	20+78.25	0.00	573.50	573.50
CL Brg. N. Abutment	20+85.66	0.00	573.50	573.50
Bk. N. Abutment	20+87.50	0.00	573.50	573.50

**TOP OF SLAB ELEVATIONS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

SHEET NO. 4	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	10
16 SHEETS	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(107)		

BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	19+15.76	7.00	573.39	573.39
CL Brg. S. Abutment	19+17.60	7.00	573.39	573.39
A	19+27.60	7.00	573.39	573.40
B	19+37.60	7.00	573.39	573.40
C	19+47.60	7.00	573.39	573.39
D	19+57.60	7.00	573.39	573.39
CL Brg. Pier #1	19+65.01	7.00	573.39	573.39
E	19+75.01	7.00	573.39	573.41
F	19+85.01	7.00	573.39	573.44
G	19+95.01	7.00	573.39	573.47
H	20+05.01	7.00	573.39	573.47
I	20+15.01	7.00	573.39	573.46
J	20+25.01	7.00	573.39	573.43
K	20+35.01	7.00	573.39	573.40
CL Brg. Pier #2	20+41.51	7.00	573.39	573.39
L	20+51.51	7.00	573.39	573.39
M	20+61.51	7.00	573.39	573.39
N	20+71.51	7.00	573.39	573.40
O	20+81.51	7.00	573.39	573.39
CL Brg. N. Abutment	20+88.92	7.00	573.39	573.39
Bk. N. Abutment	20+90.76	7.00	573.39	573.39

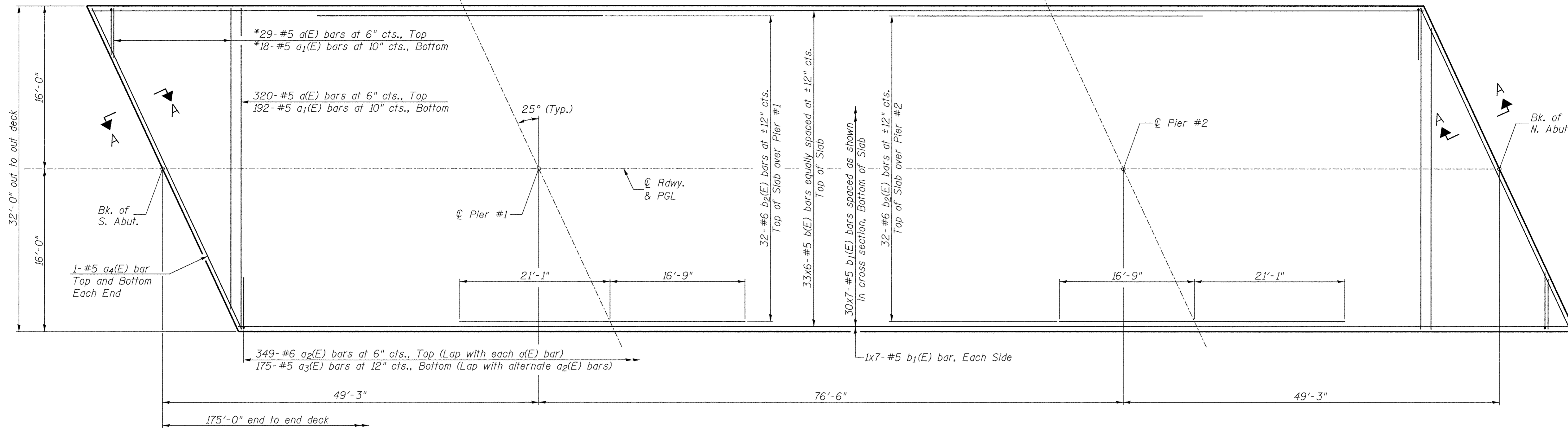
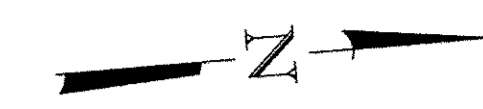
BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	19+19.03	14.00	573.27	573.27
CL Brg. S. Abutment	19+20.87	14.00	573.27	573.27
A	19+30.87	14.00	573.27	573.28
B	19+40.87	14.00	573.27	573.28
C	19+50.87	14.00	573.27	573.27
D	19+60.87	14.00	573.27	573.27
CL Brg. Pier #1	19+68.28	14.00	573.27	573.27
E	19+78.28	14.00	573.27	573.29
F	19+88.28	14.00	573.27	573.32
G	19+98.28	14.00	573.27	573.35
H	20+08.28	14.00	573.27	573.35
I	20+18.28	14.00	573.27	573.34
J	20+28.28	14.00	573.27	573.31
K	20+38.28	14.00	573.27	573.28
CL Brg. Pier #2	20+44.78	14.00	573.27	573.27
L	20+54.78	14.00	573.27	573.27
M	20+64.78	14.00	573.27	573.27
N	20+74.78	14.00	573.27	573.28
O	20+84.78	14.00	573.27	573.27
CL Brg. N. Abutment	20+92.19	14.00	573.27	573.27
Bk. N. Abutment	20+94.03	14.00	573.27	573.27

TOP OF SLAB ELEVATIONS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK

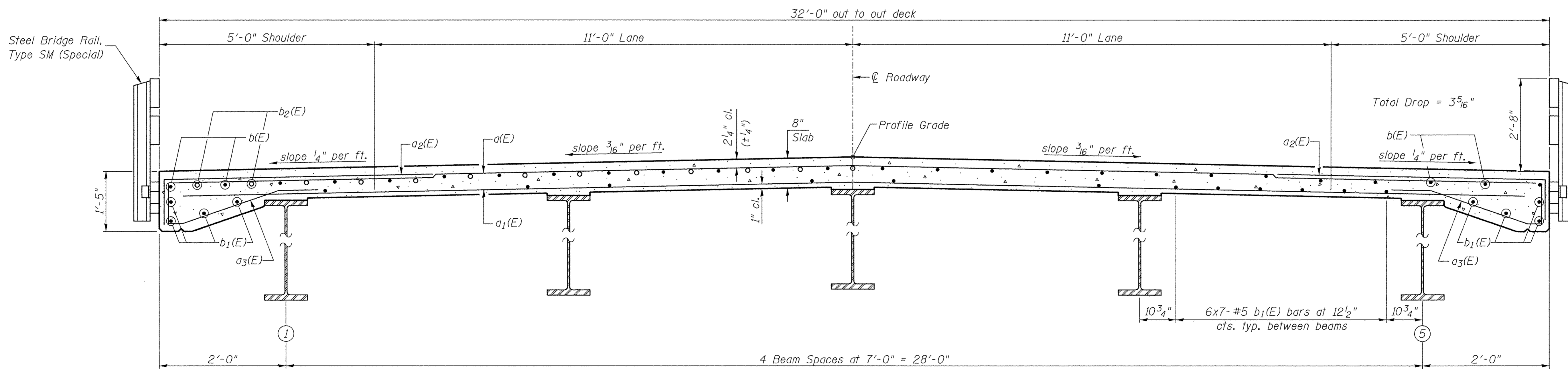
SHEET NO. 5	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	11
16 SHEETS	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(107)		

* Order a(E) and a₁(E) bars full length.
Cut to fit skew and use remainder of
bars in opposite end.



PLAN

MIN. BAR LAP
(Deck)
#5 bar = 3'-6"



NEAR PIER

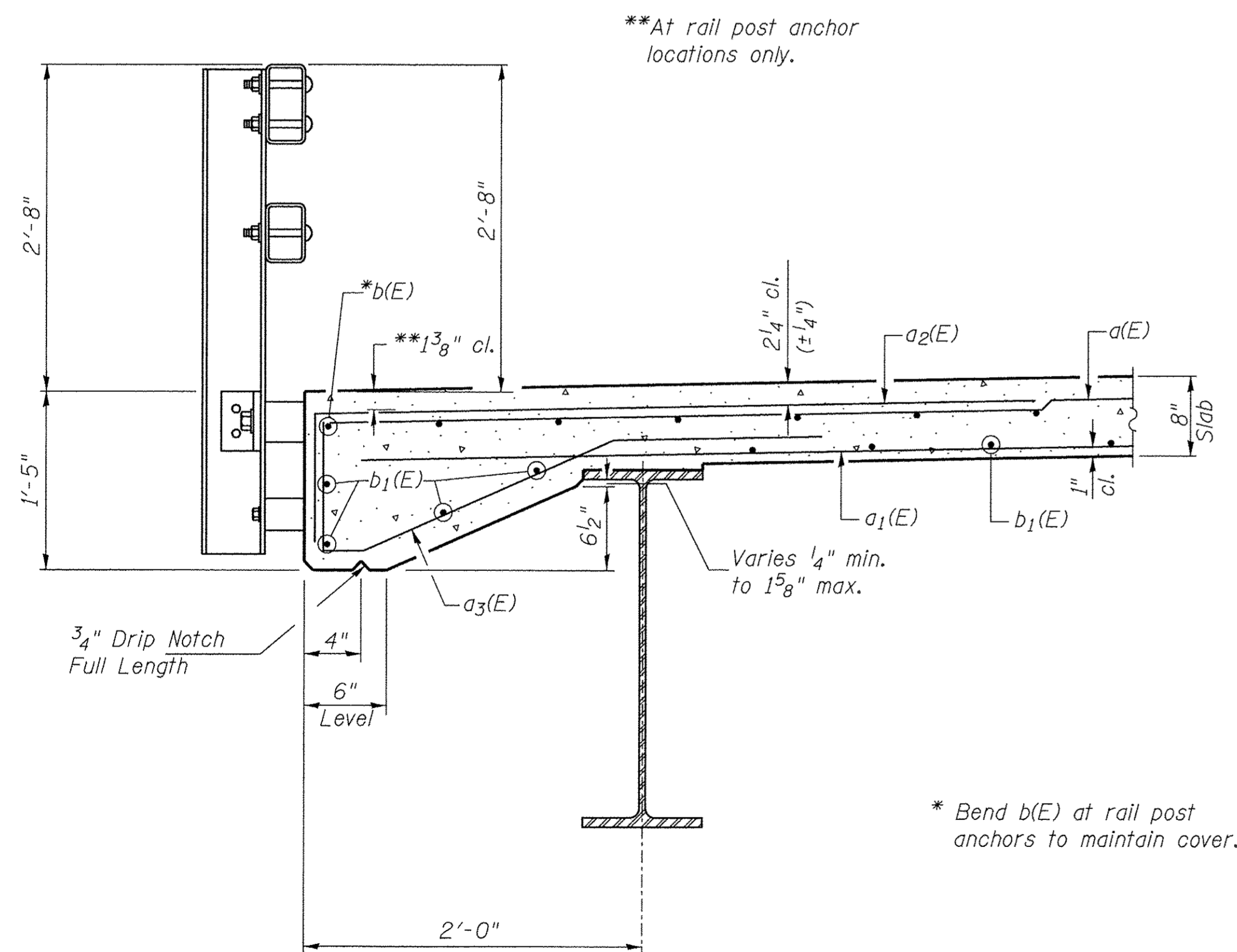
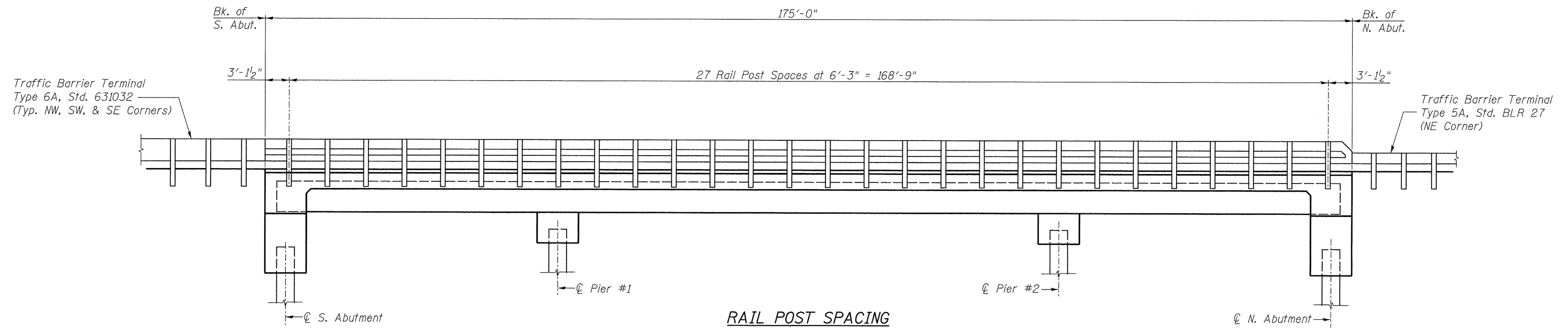
CROSS SECTION
(Looking North)

NEAR MIDSPAN

SUPERSTRUCTURE
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK

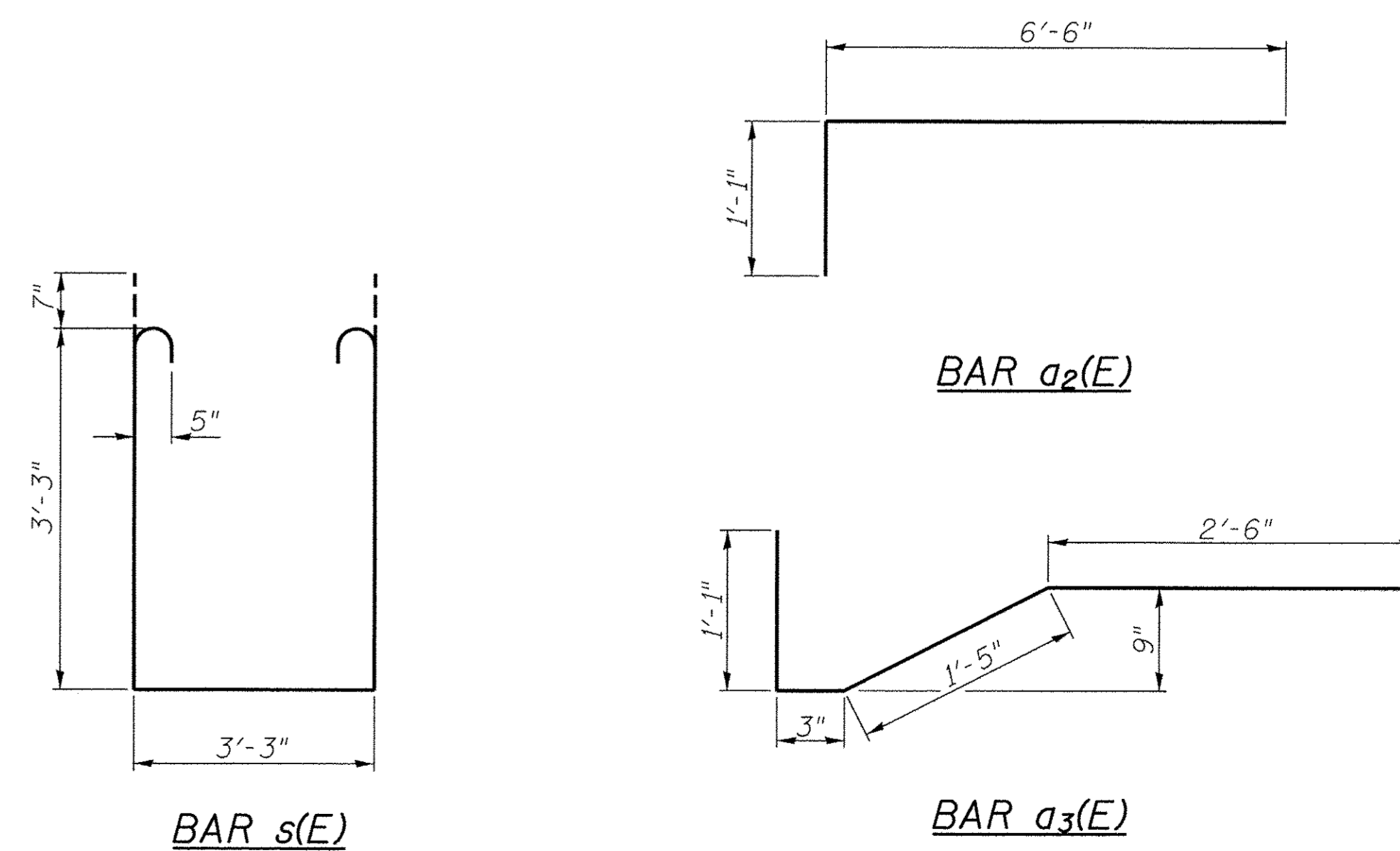
Notes:
See Sheet 7 of 16 for Superstructure Details
and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See Sheet 8 of 16 for Section A-A and
Diaphragm Details.
See Sheet 9 & 10 of 16 for Rail Details.

SHEET NO. 6 16 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	12
SN 075-3329			CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(107)		



**At rail post anchor locations only.

* Bend b(E) at rail post anchors to maintain cover.



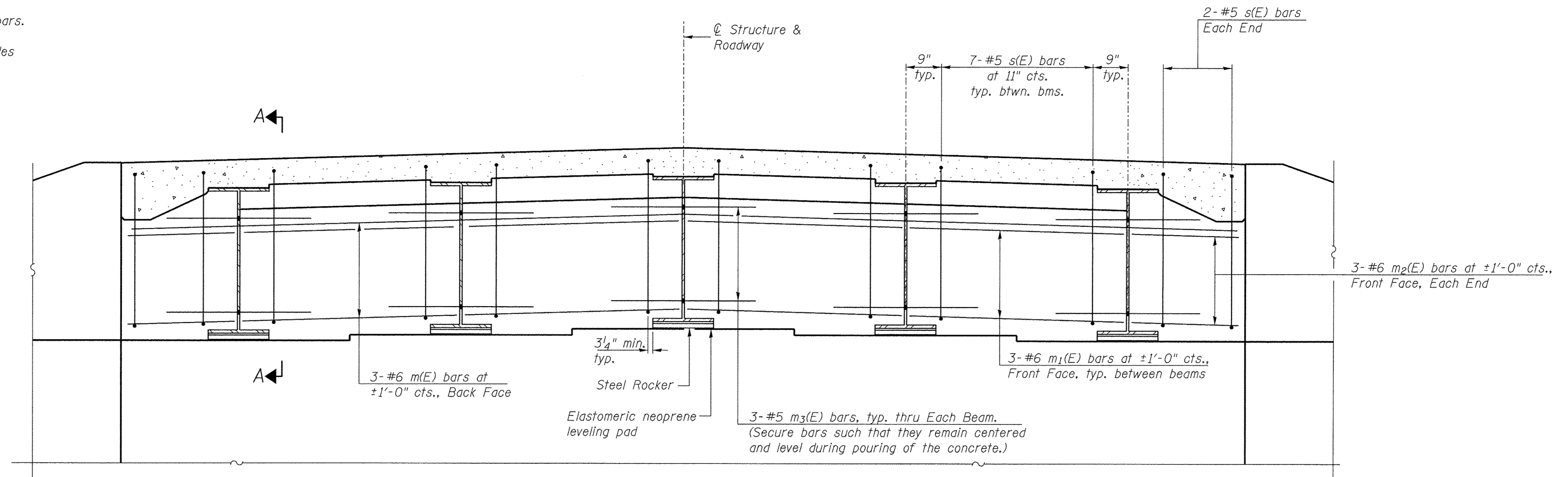
**SUPERSTRUCTURE
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	349	#5	31'-9"	—
a ₁ (E)	210	#5	30'-9"	—
a ₂ (E)	698	#6	7'-7"	—
a ₃ (E)	350	#5	5'-3"	—
a ₄ (E)	4	#5	35'-0"	—
b(E)	198	#5	32'-1"	—
b ₁ (E)	224	#5	28'-0"	—
b ₂ (E)	64	#6	37'-10"	—
m(E)	6	#6	35'-0"	—
m ₁ (E)	24	#6	7'-4"	—
m ₂ (E)	12	#6	1'-10"	—
m ₃ (E)	30	#5	4'-0"	—
s(E)	64	#5	10'-11"	□
Reinforcement Bars, Epoxy Coated			POUND	46,580
Concrete Superstructure			CU YD	176.6

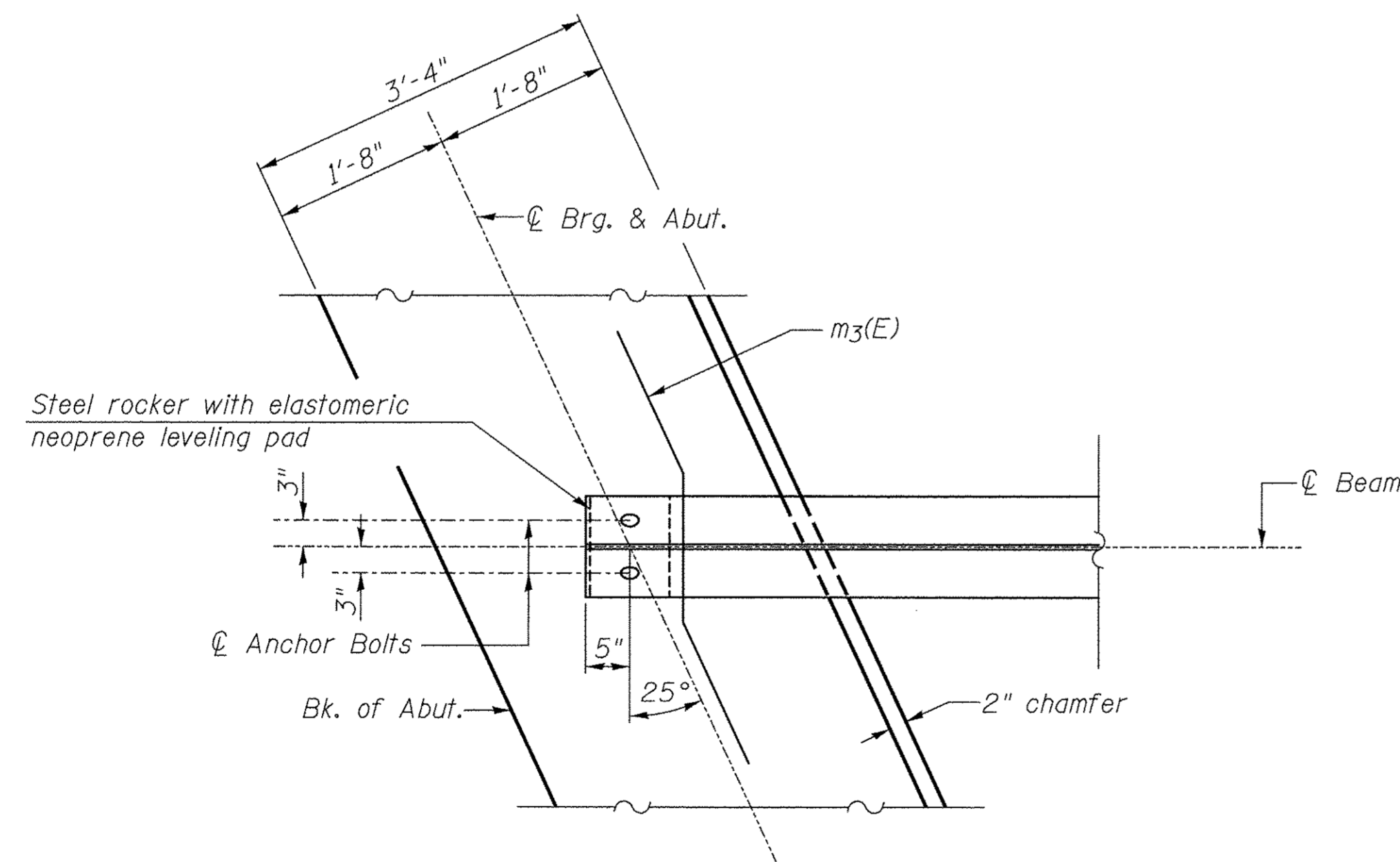
**SUPERSTRUCTURE DETAILS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

SHEET NO. 7 16 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	13
SN 075-3329			CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)			

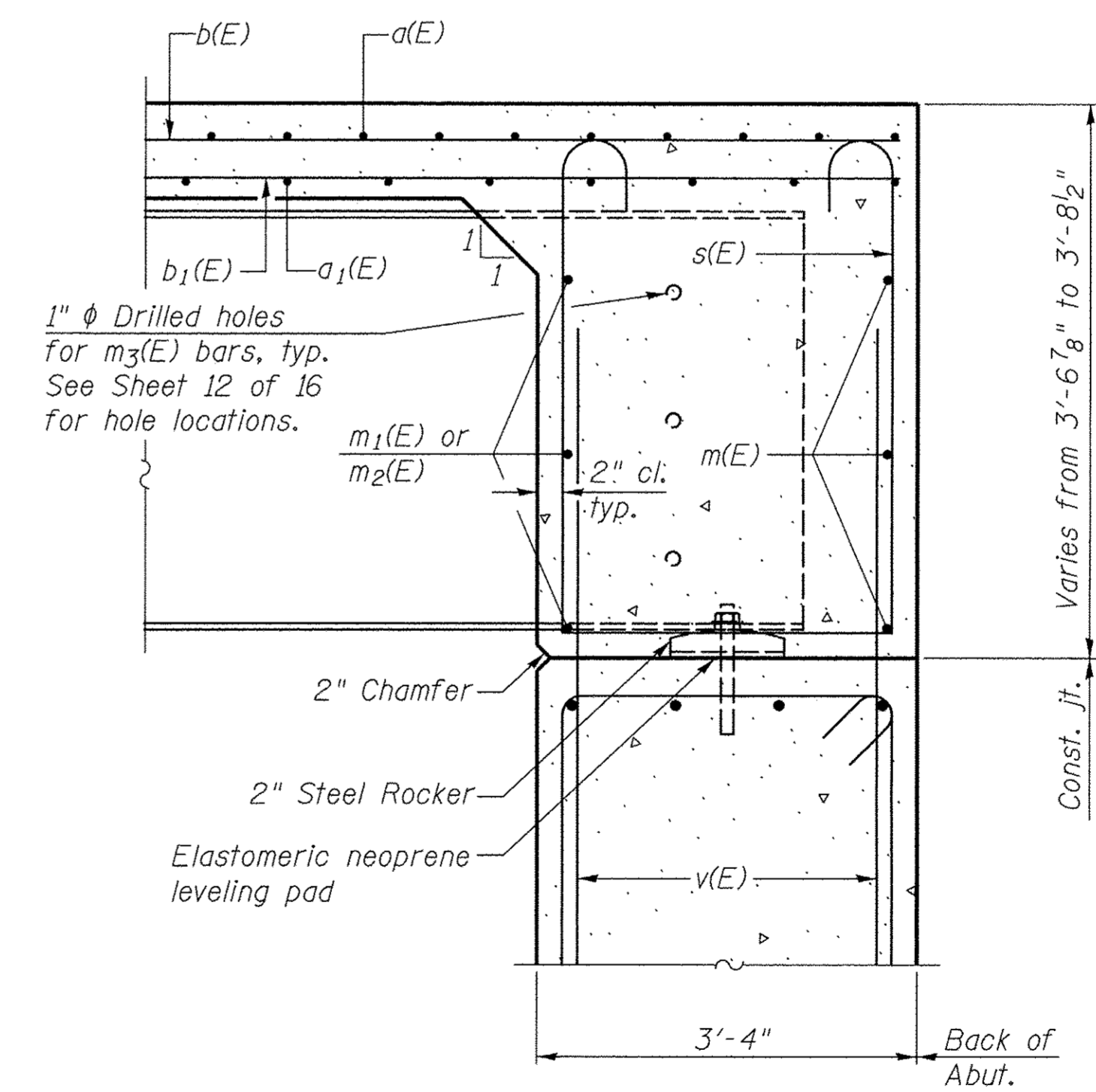
Notes:
 Reinforcement bars in diaphragm are billed with superstructure on Sheet 7 of 16.
 Concrete in diaphragm is included with Concrete Superstructure on Sheet 7 of 16.
 See Sheet 7 of 16 for details of s(E) and m₃(E) bars.
 The s(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 See Sheet 13 of 16 for bearing details.
 See Sheet 14 of 16 for placement of v(E) bars.



DIAPHRAGM ELEVATION AT ABUTMENTS



PARTIAL PLAN AT ABUTMENTS
 (Showing bottom flange of beam)

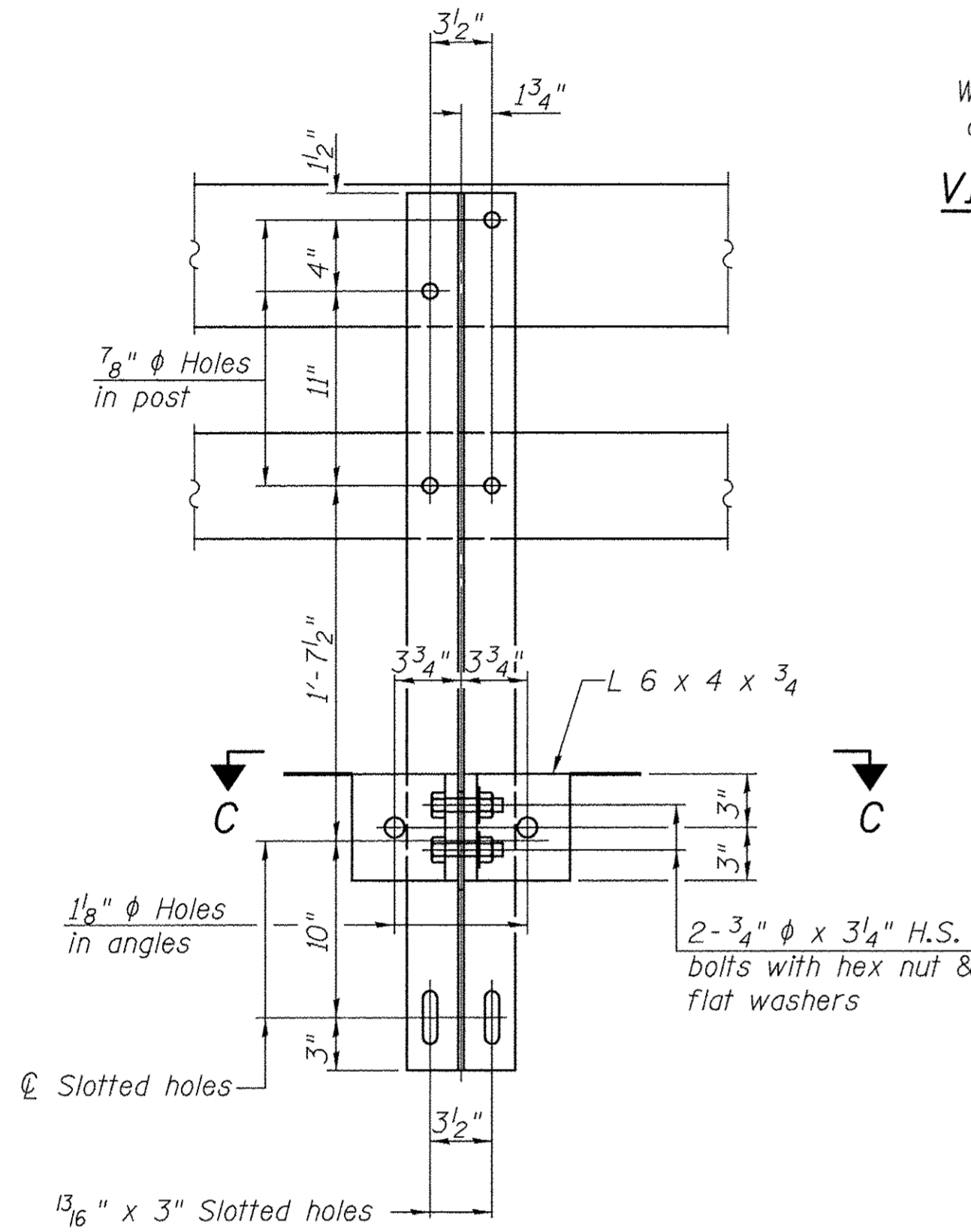
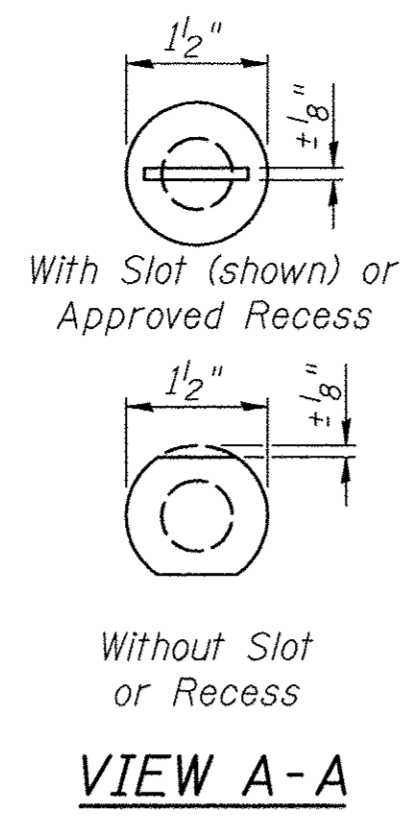
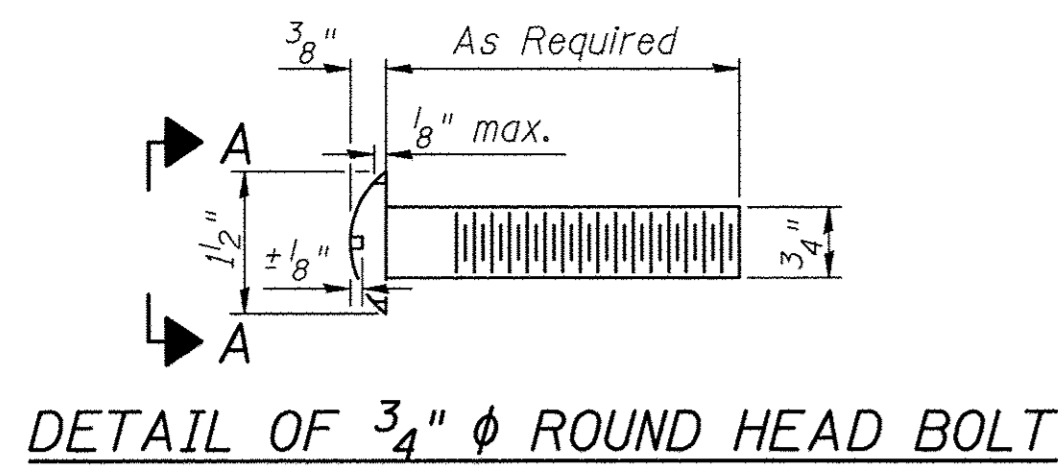


SECTION A-A
 (at Rt. L's)

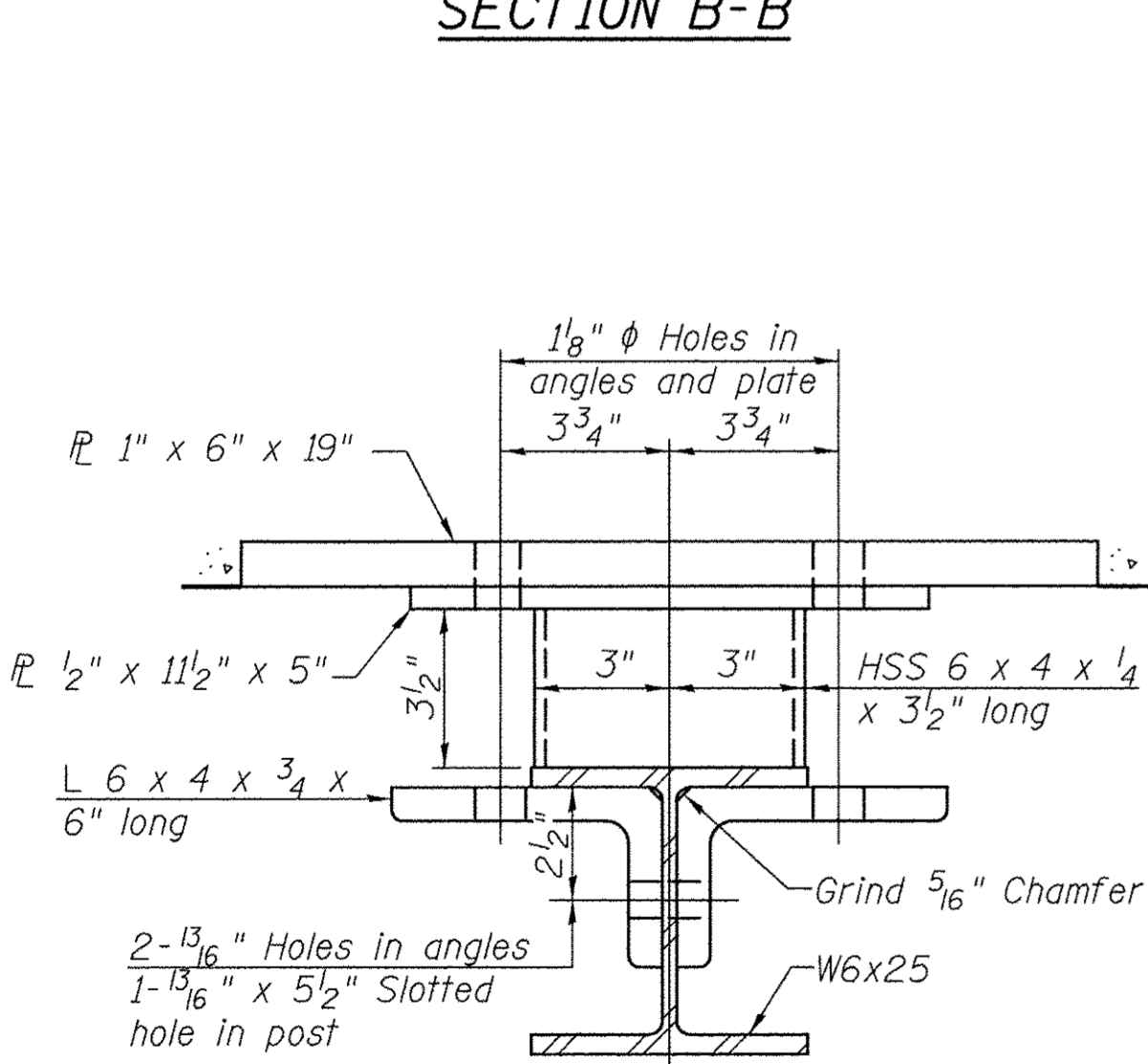
DIAPHRAGM DETAILS
 PIKE COUNTY
 SECTION 10-00087-00-BR
 F.A.S. 596 (C.H. 4)
 OVER HADLEY CREEK

SHEET NO. 8 16 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	14
	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)		

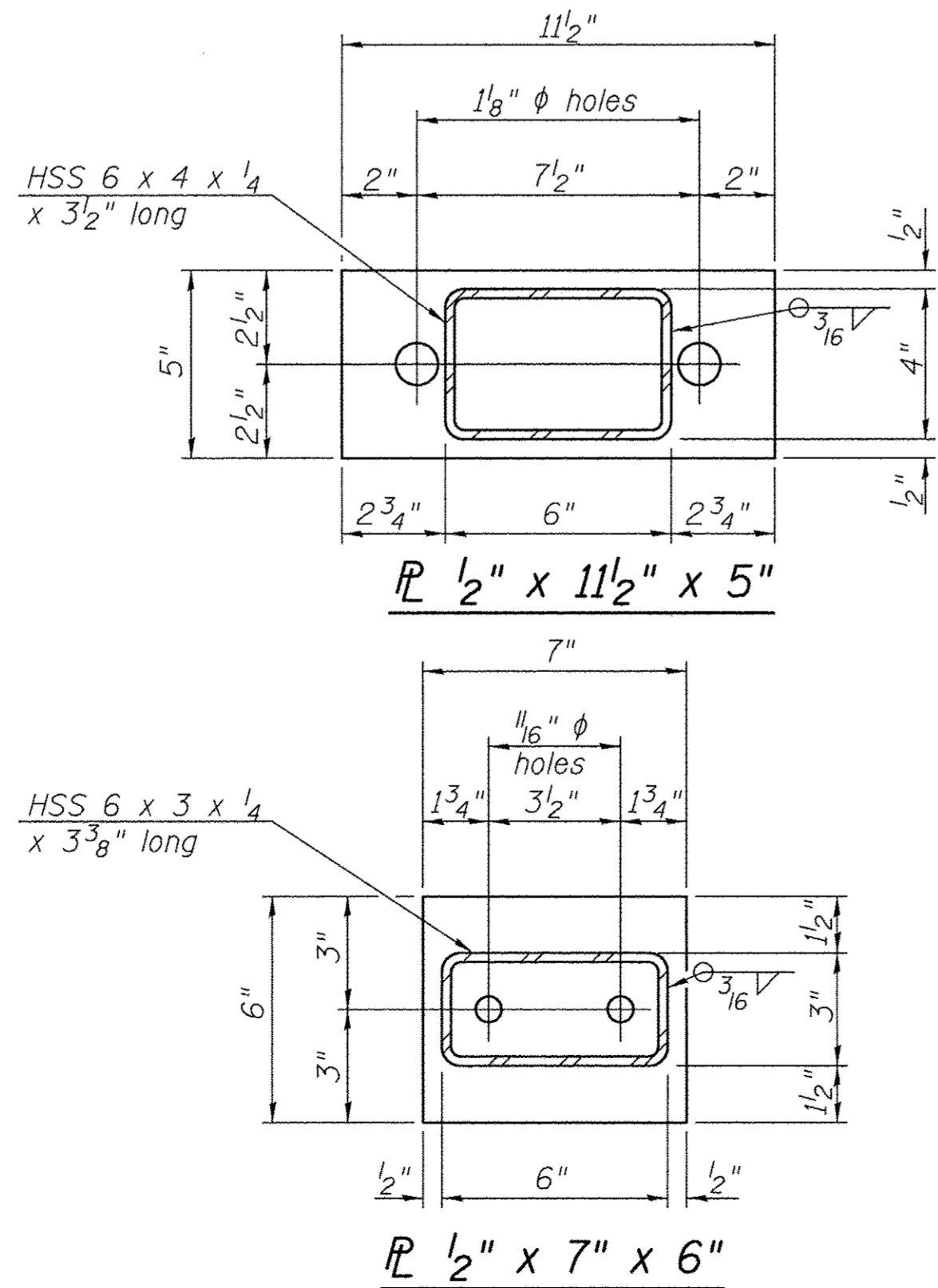
FOR RAIL POST SPACING SEE SHEET 7 OF 16.



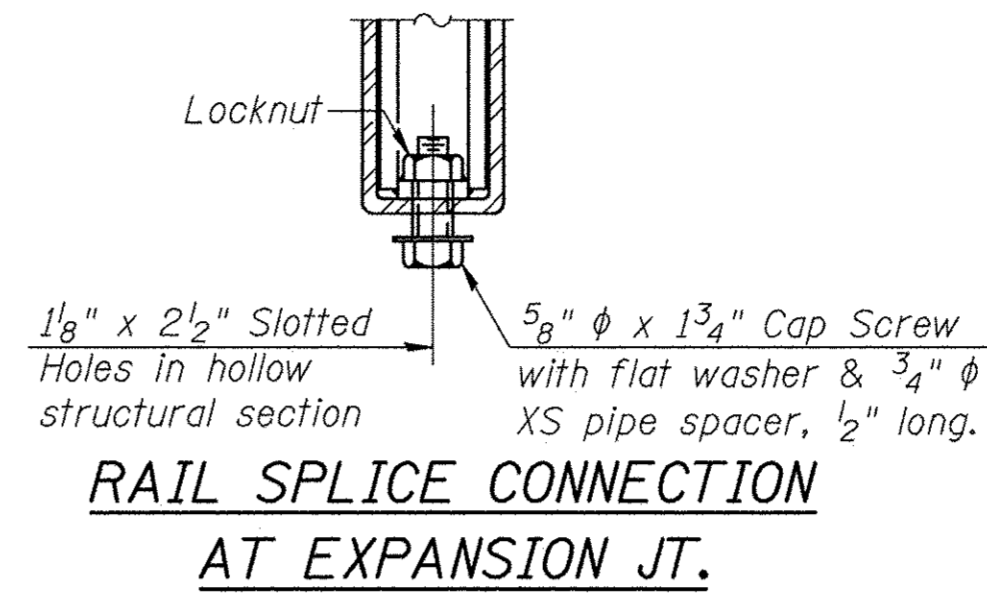
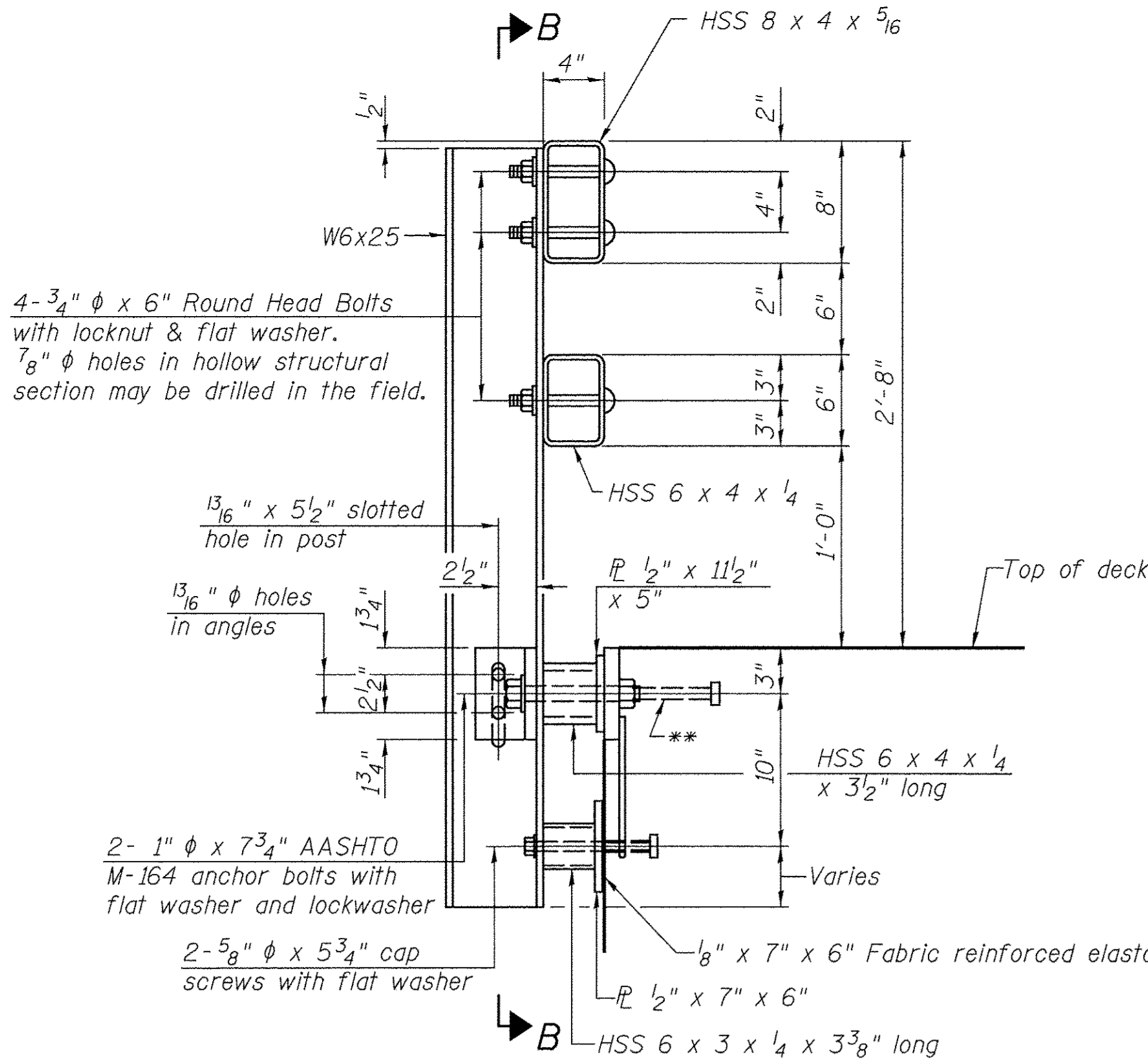
SECTION B-B



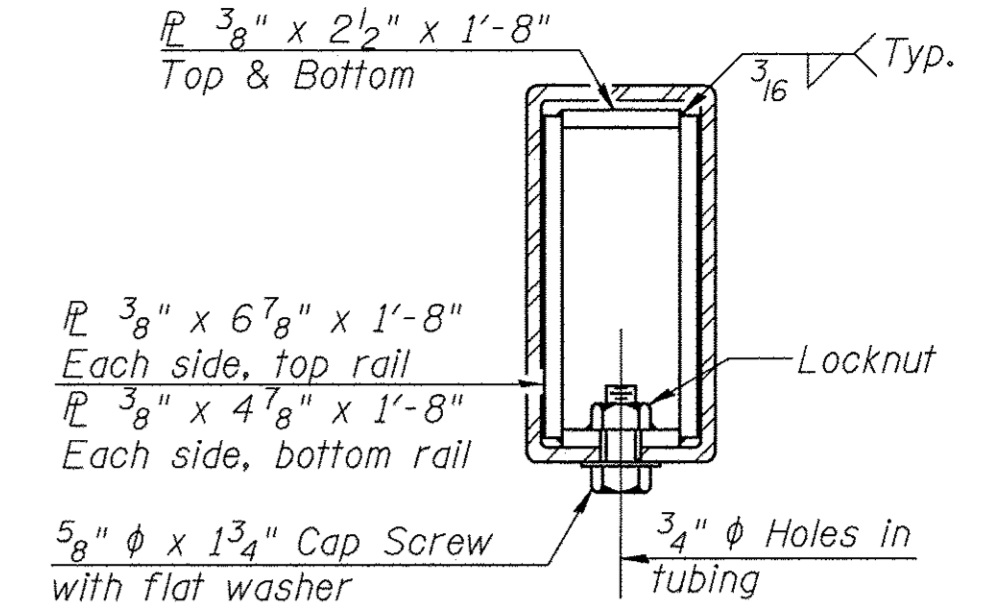
SECTION C-C



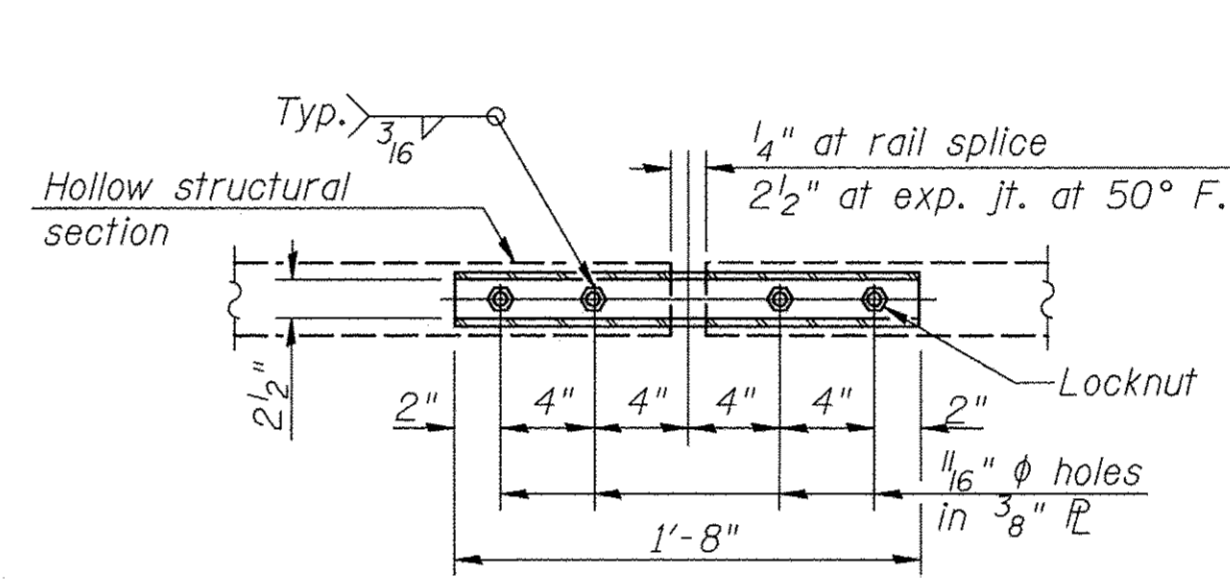
SECTION AT RAIL POST



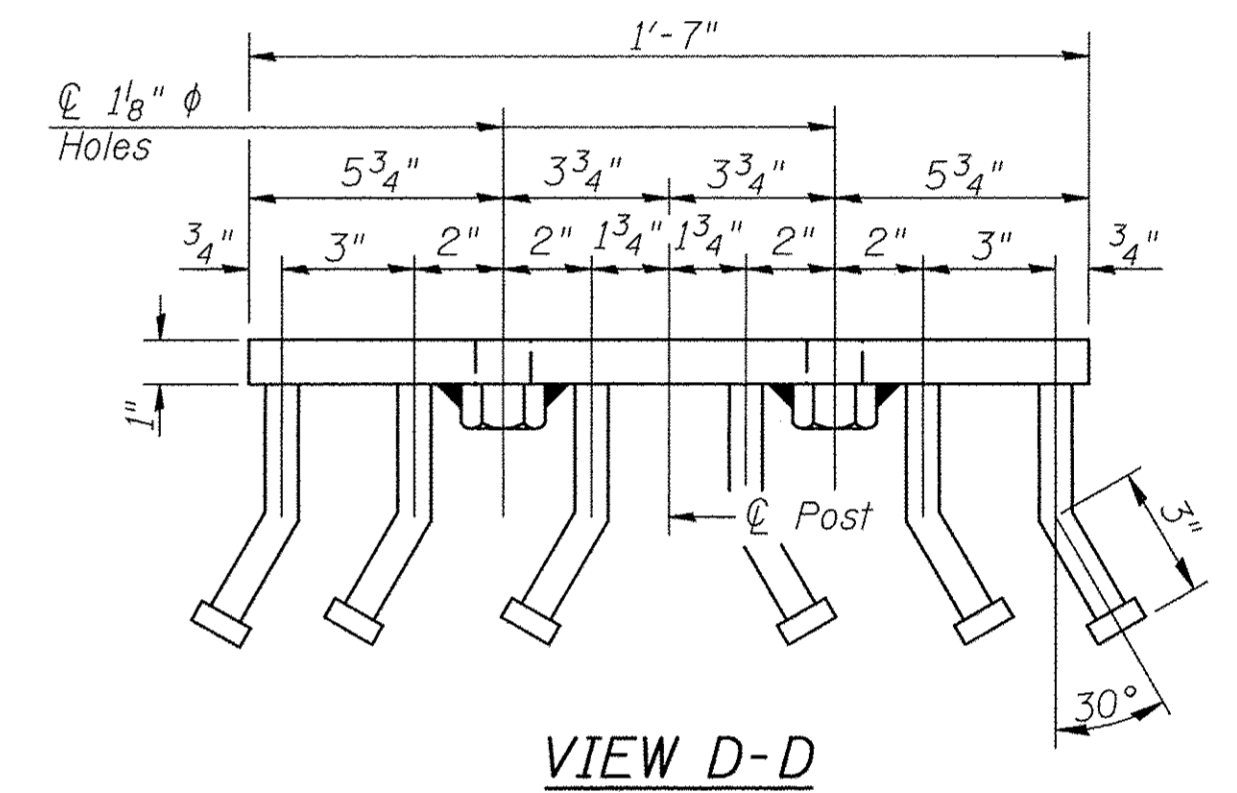
RAIL SPLICE CONNECTION AT EXPANSION JT.



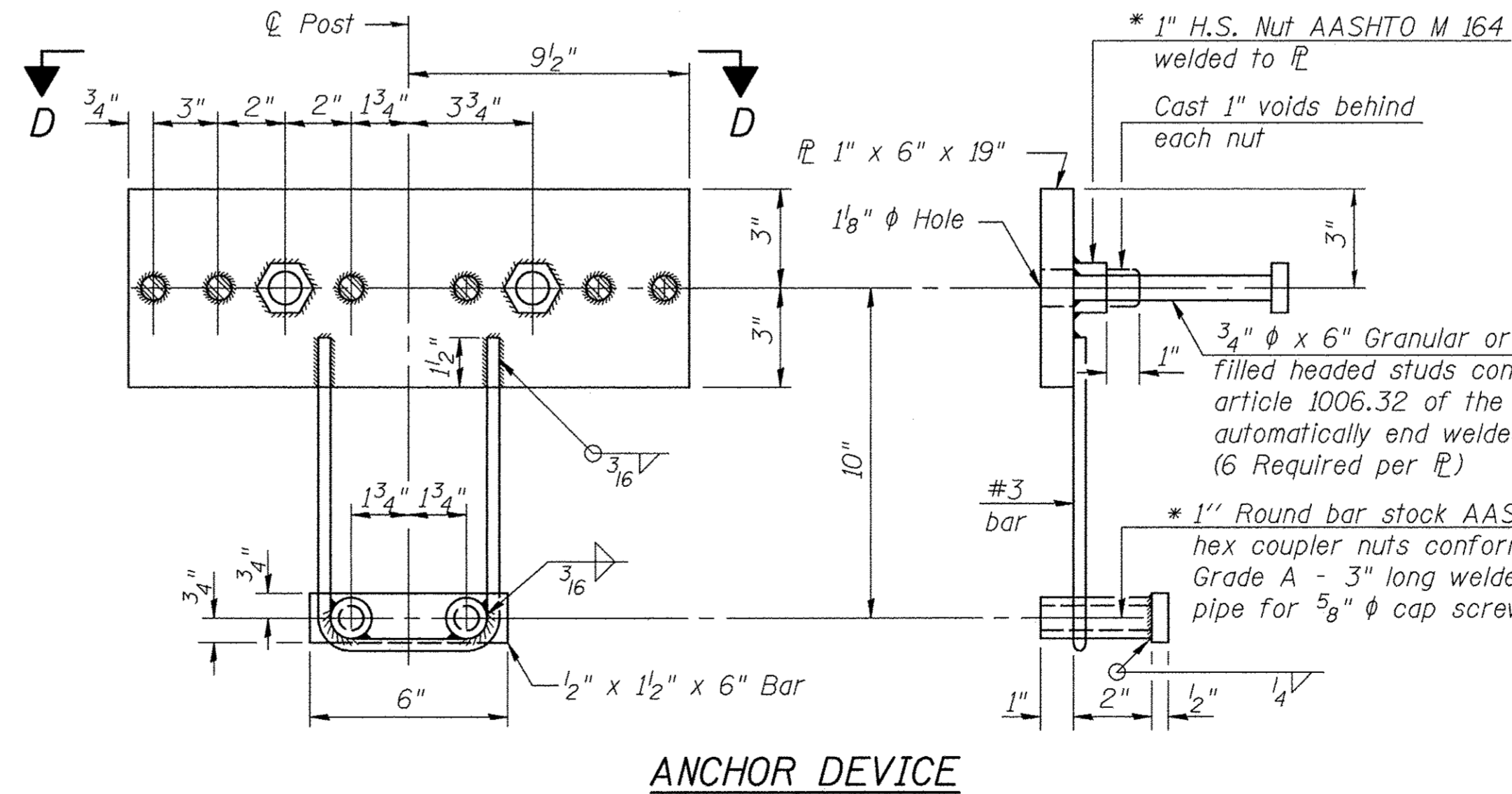
SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE P TYPICAL



VIEW D-D



ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during pouring of deck. Galvanized after fabrication.

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4\"/>

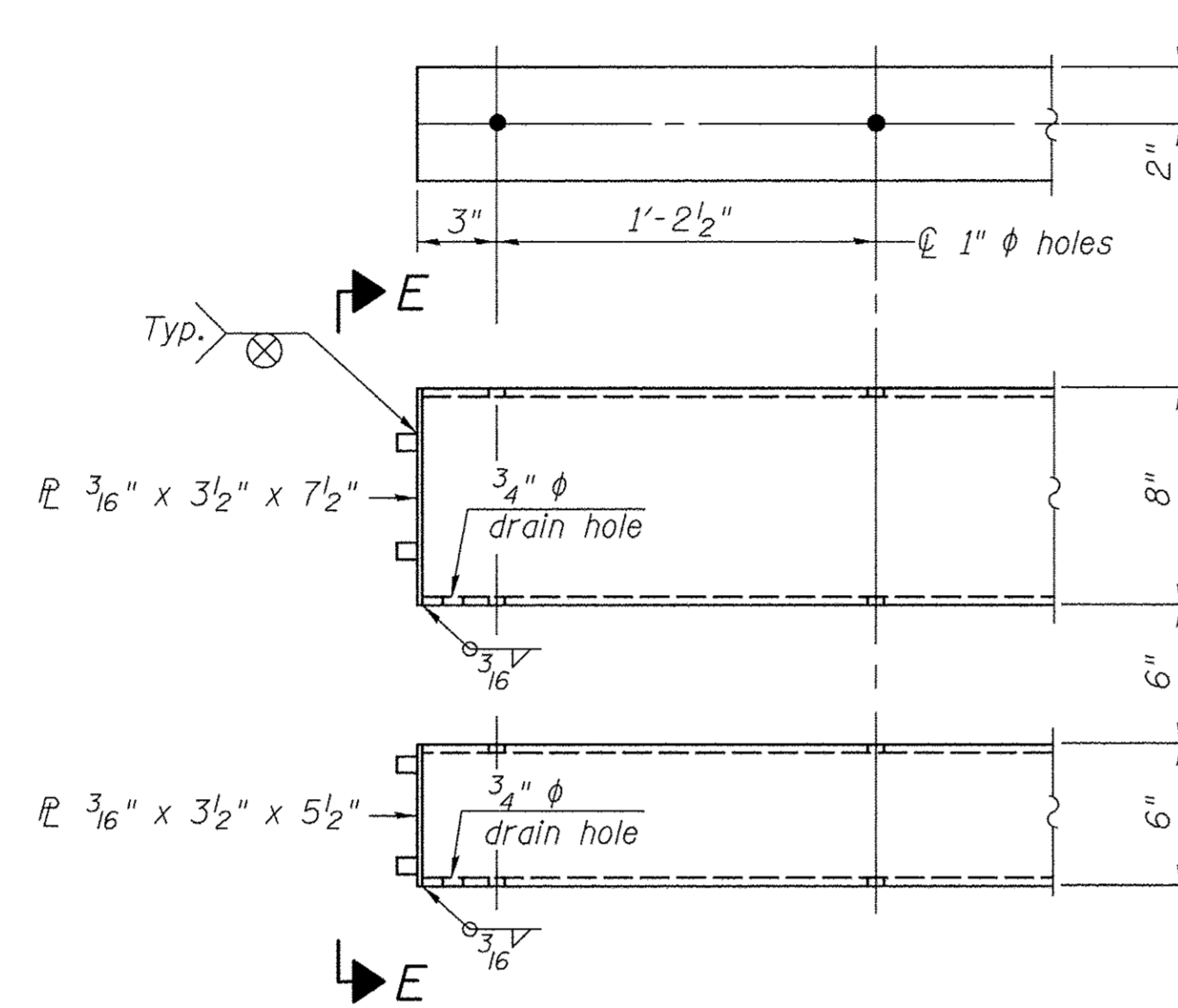
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Steel Bridge Rail, Type SM (Special)	FOOT	350

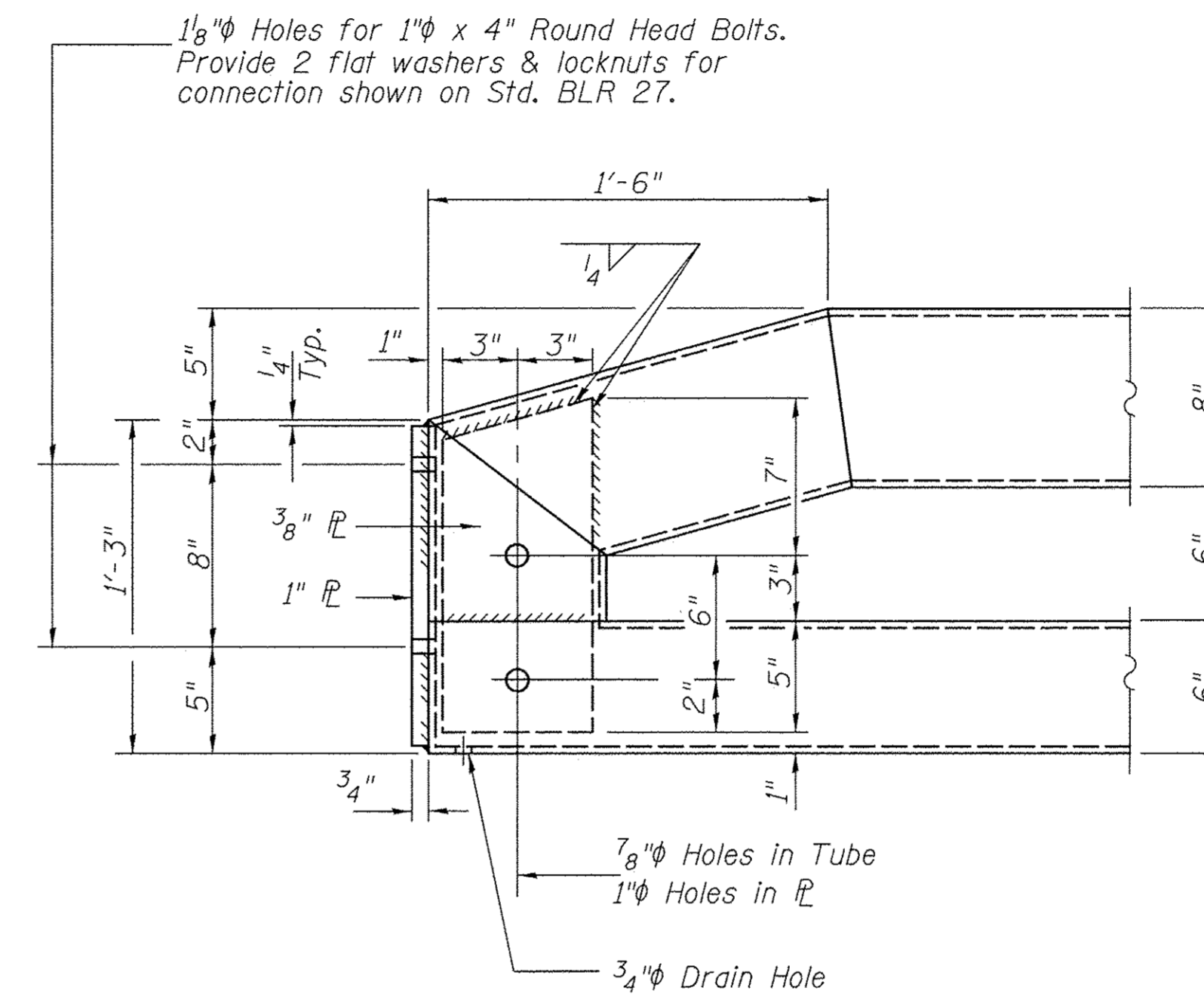
**STEEL BRIDGE RAIL, TYPE SM (SPECIAL)
 PIKE COUNTY
 SECTION 10-00087-00-BR
 F.A.S. 596 (C.H. 4)
 OVER HADLEY CREEK**

SHEET NO.	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9	596	10-00087-00-BR	PIKE	38	15
16 SHEETS		SN 075-3329		CONTRACT NO. 93697	
		FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0596(107)	

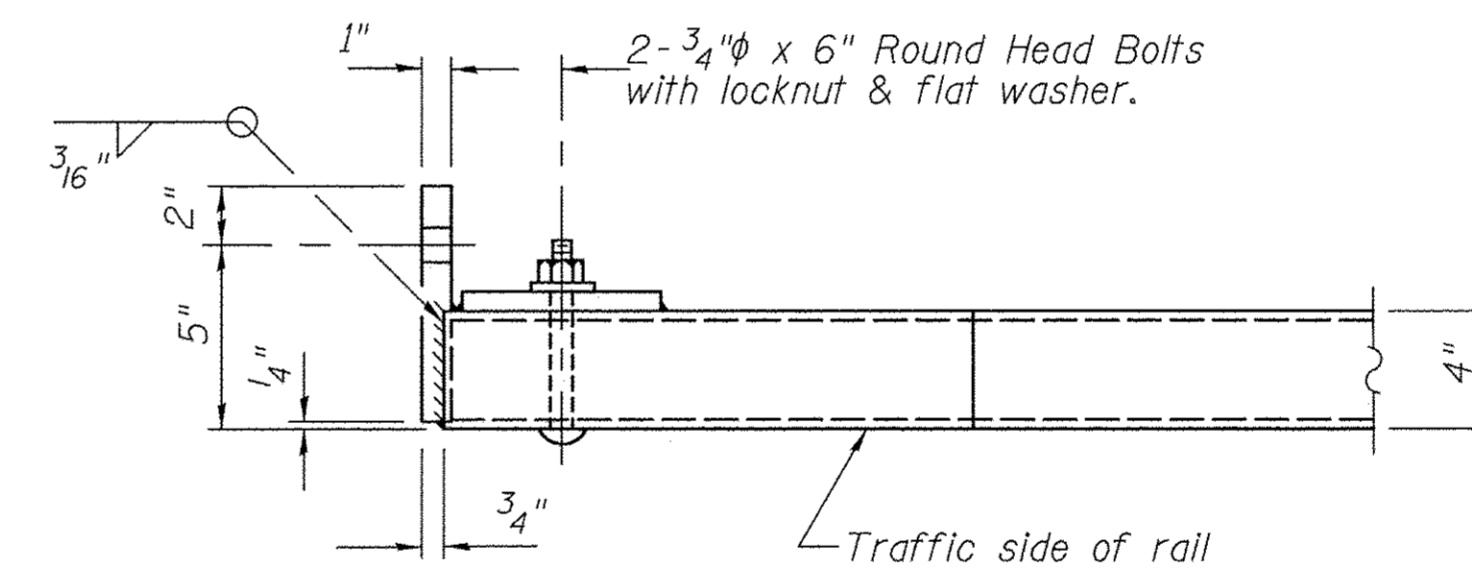
(Sheet 1 of 2)



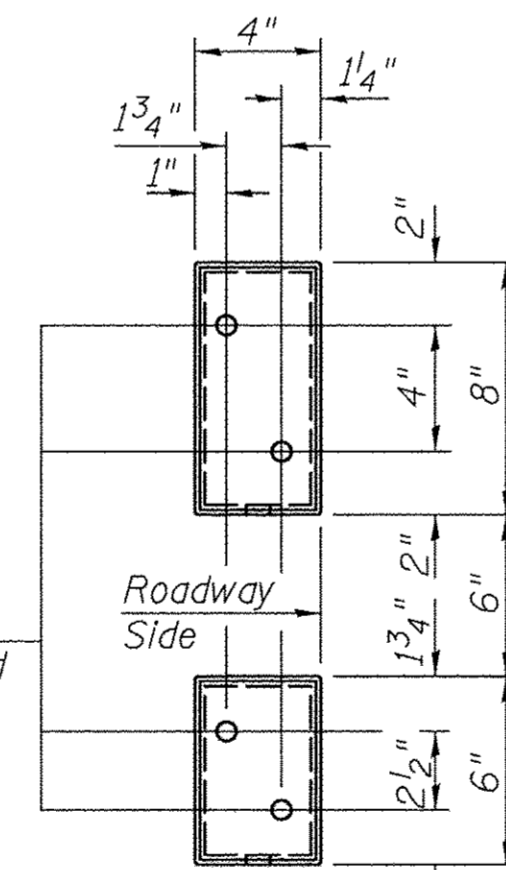
**END OF RAIL DETAILS
NW, SW, & SE CORNERS**



**END OF RAIL DETAILS
NE CORNER**



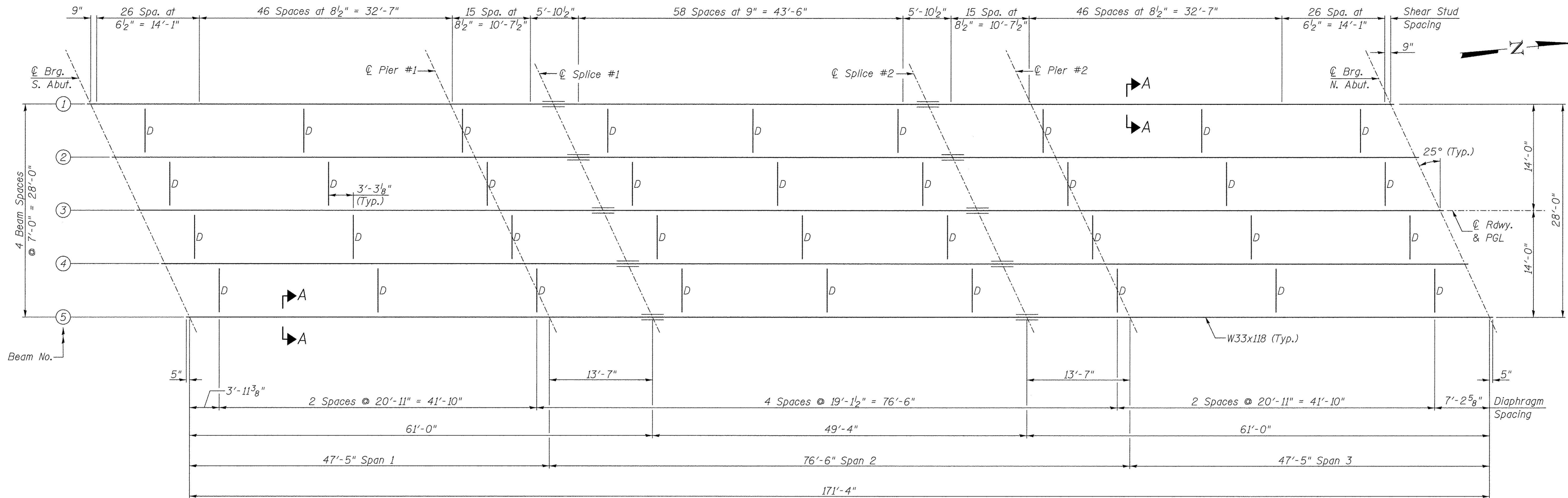
Ø - 5/8" reduced base welded studs. Provide 4-5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



VIEW E-E

**STEEL BRIDGE RAIL, TYPE SM (SPECIAL)
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

SHEET NO. 10	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16 SHEETS	596	10-00087-00-BR	PIKE	38	16
SN 075-3329			CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(107)		



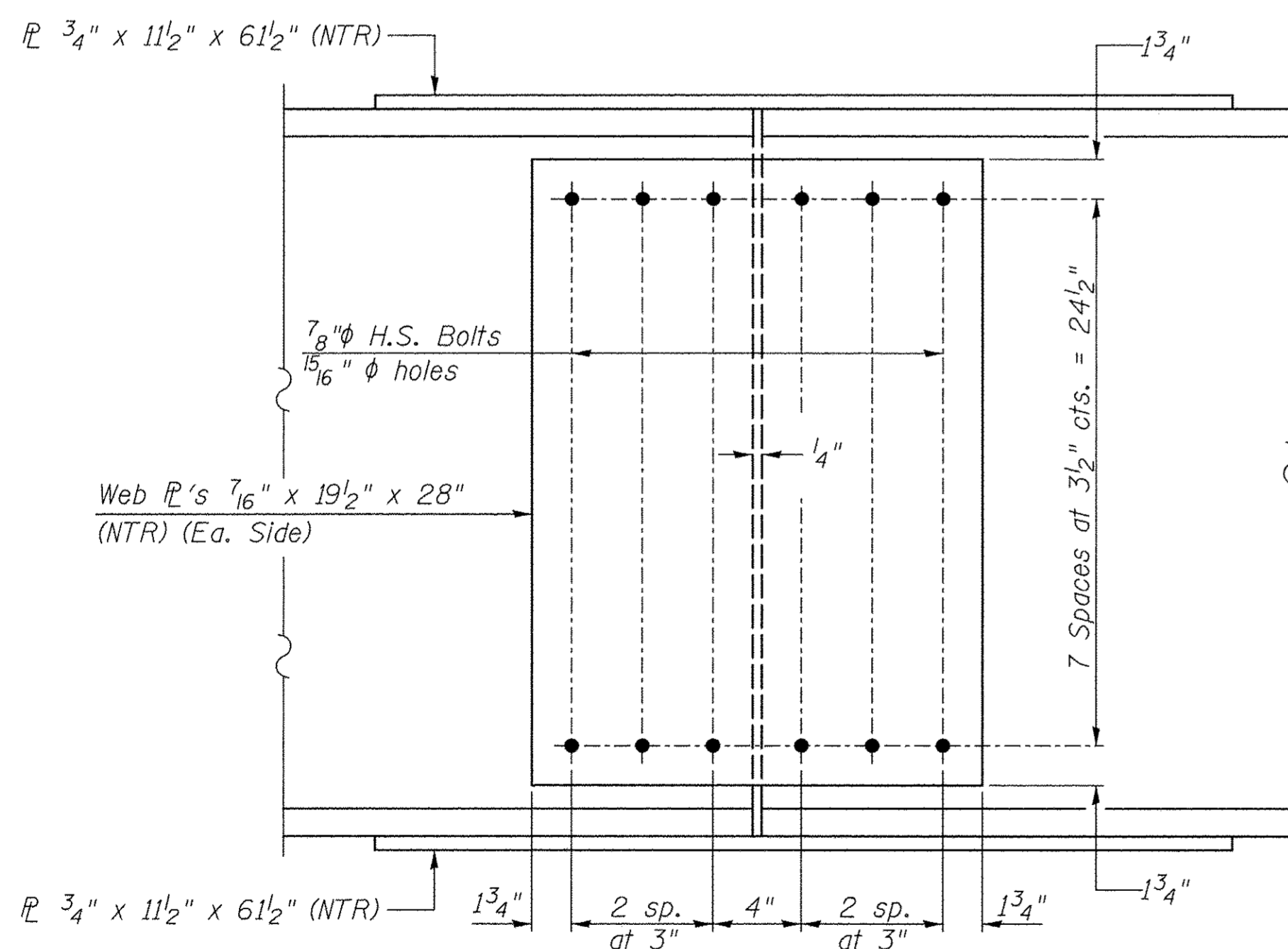
FRAMING PLAN

All beams shall be AASHTO M270, Gr. 50W (NTR)

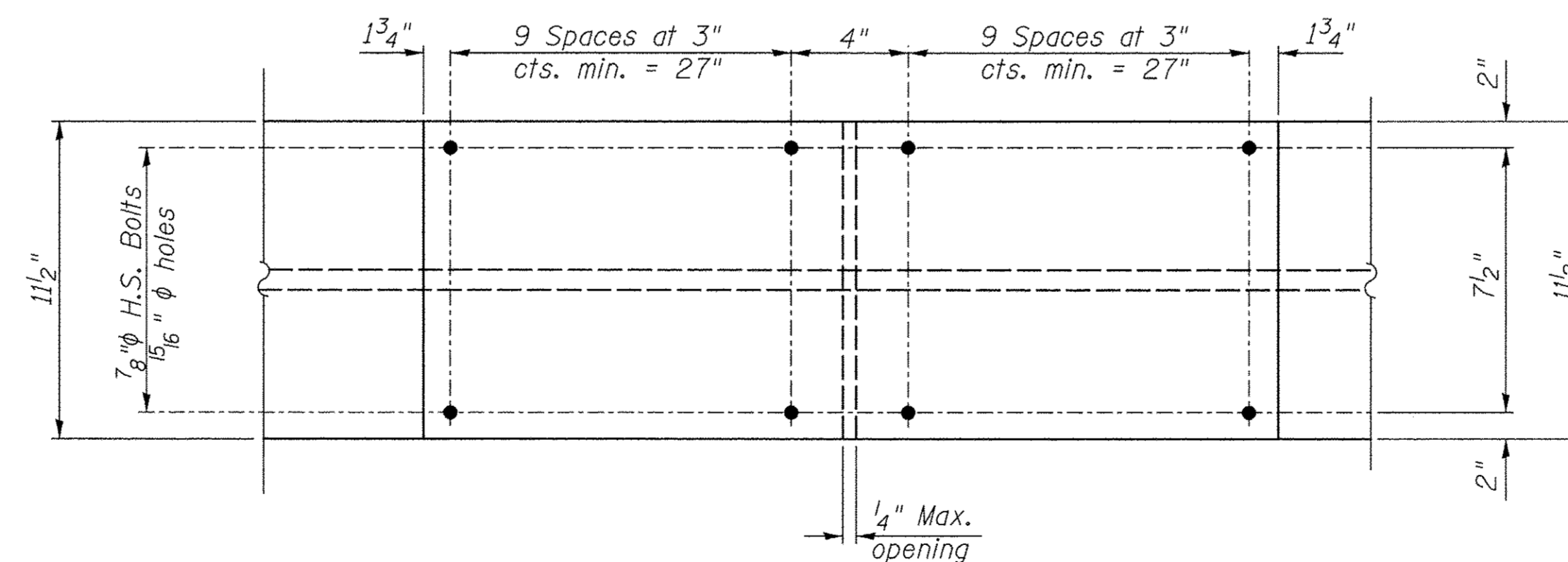
*** TOP OF BEAM ELEVATIONS**

Beam No.	℄ Brg. South Abut.	℄ Brg. Pier #1	℄ Splice #1	℄ Splice #2	℄ Brg. Pier #2	℄ Brg. North Abut.
1	572.55	572.53	572.53	572.53	572.53	572.55
2	572.68	572.66	572.66	572.66	572.66	572.68
3	572.79	572.77	572.77	572.77	572.77	572.79
4	572.68	572.66	572.66	572.66	572.66	572.68
5	572.55	572.53	572.53	572.53	572.53	572.55

*For Fabrication Only.

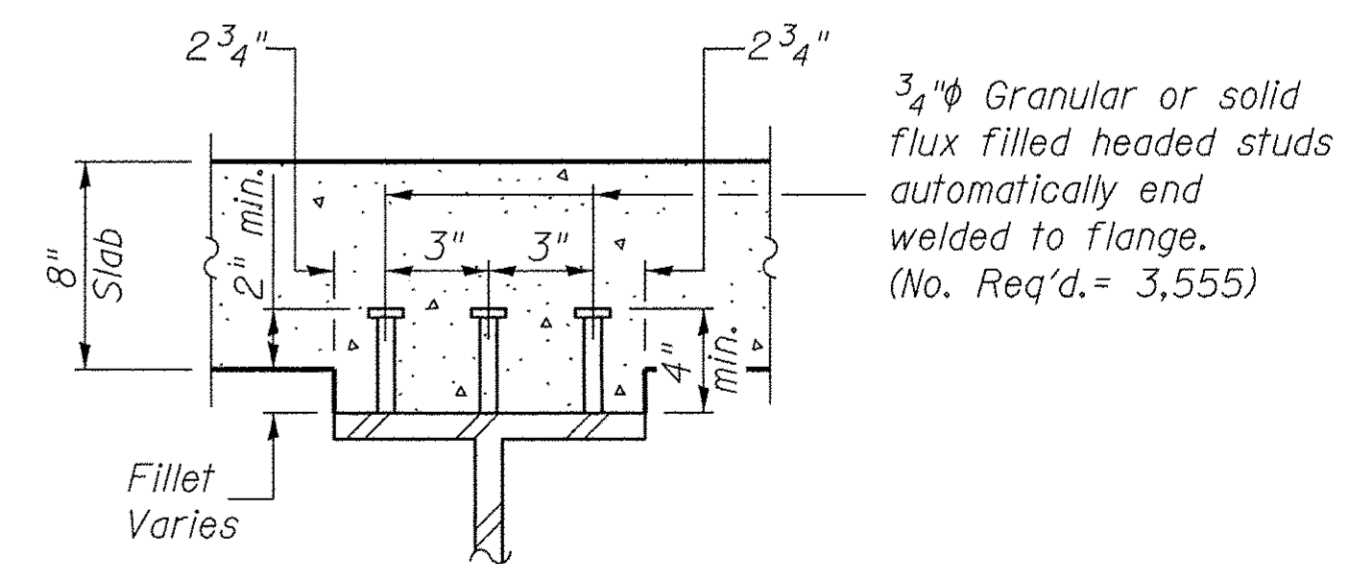


ELEVATION



FLANGE SPLICE PLATE

(Top and Bottom Flange)



SECTION A-A

3/4" Granular or solid flux filled headed studs automatically end welded to flange. (No. Req'd. = 3,555)

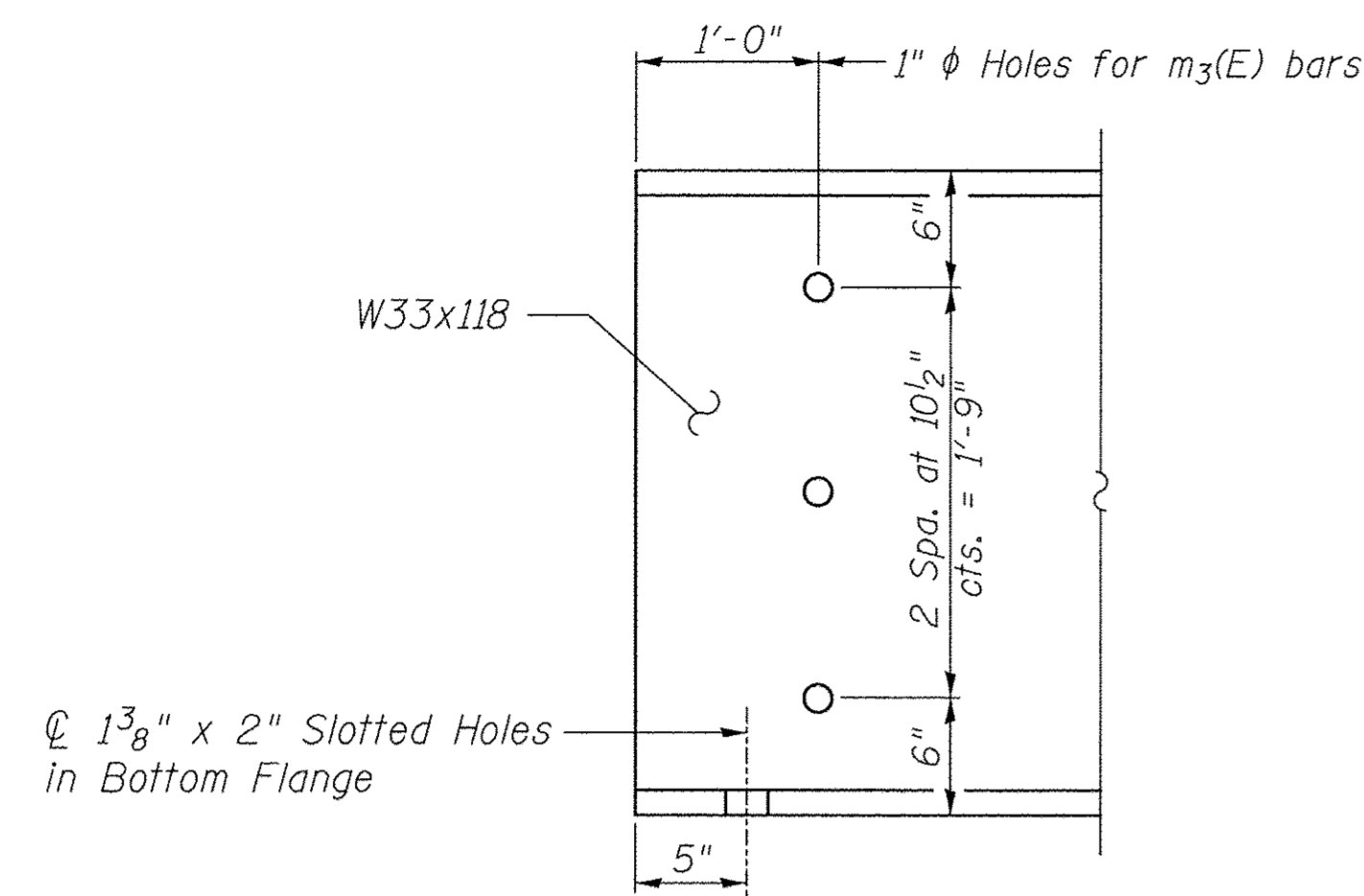
Note:
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
See Sheet 12 of 16 for additional Structural Steel Details.

FIELD SPLICE DETAILS

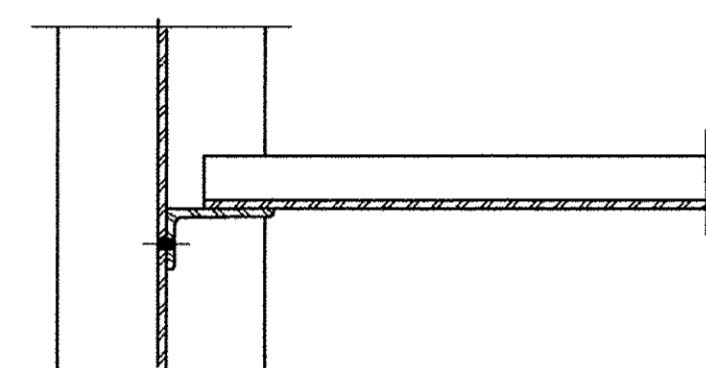
(10 req'd)
All plates shall be AASHTO M270, Grade 50W (NTR)

**FRAMING PLAN
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

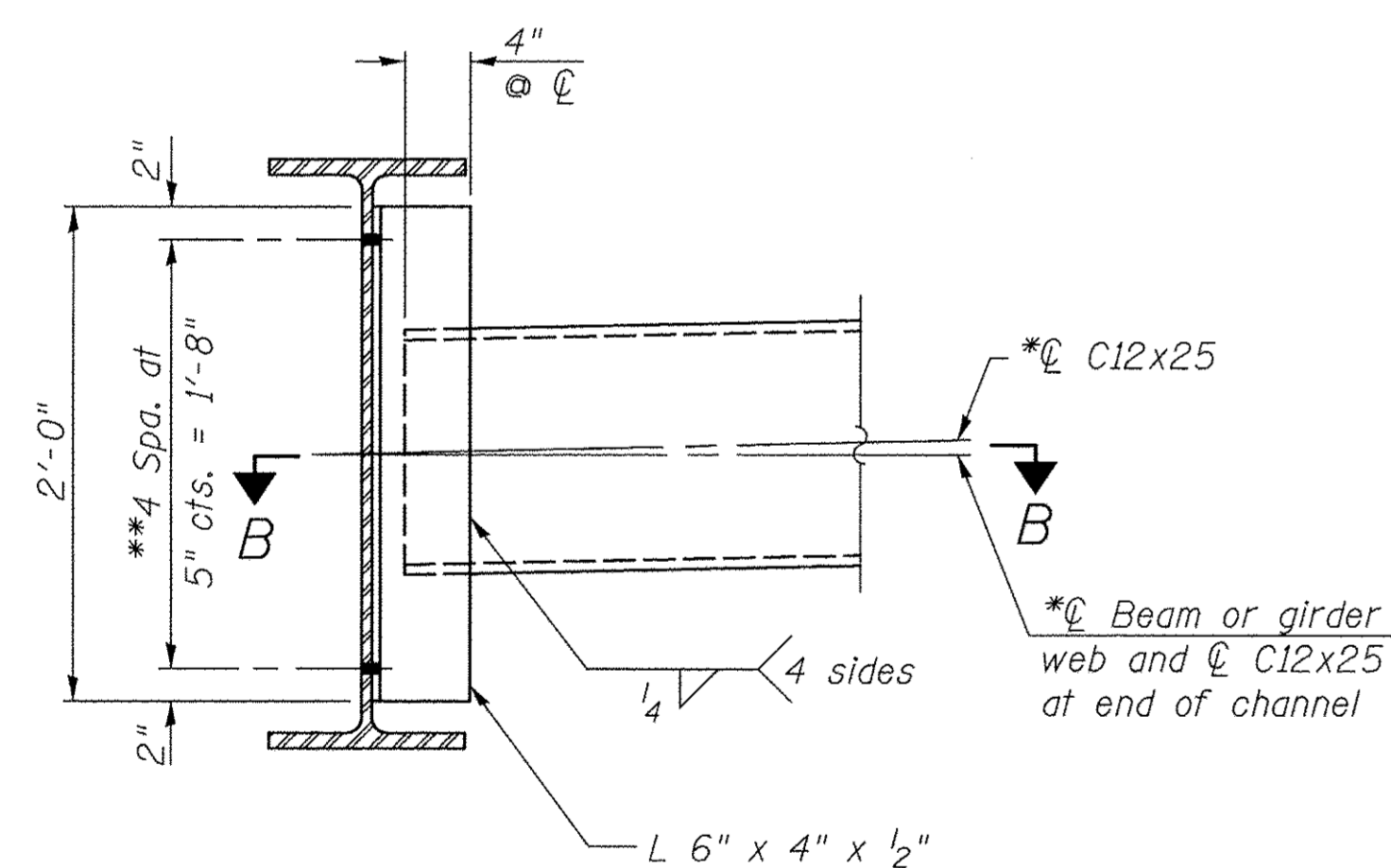
SHEET NO. 11 16 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	17
SN 075-3329			CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)			



TYPICAL END OF BEAM DETAIL



SECTION B-B



INTERIOR DIAPHRAGM
(36 Required)

Notes:

Two hardened washers required for each set of oversized holes.

*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

The alternate, C12x30, if utilized, shall be provided at no additional cost to the Department.

**3/4" ϕ HS bolts, 1 5/16" ϕ holes.

All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

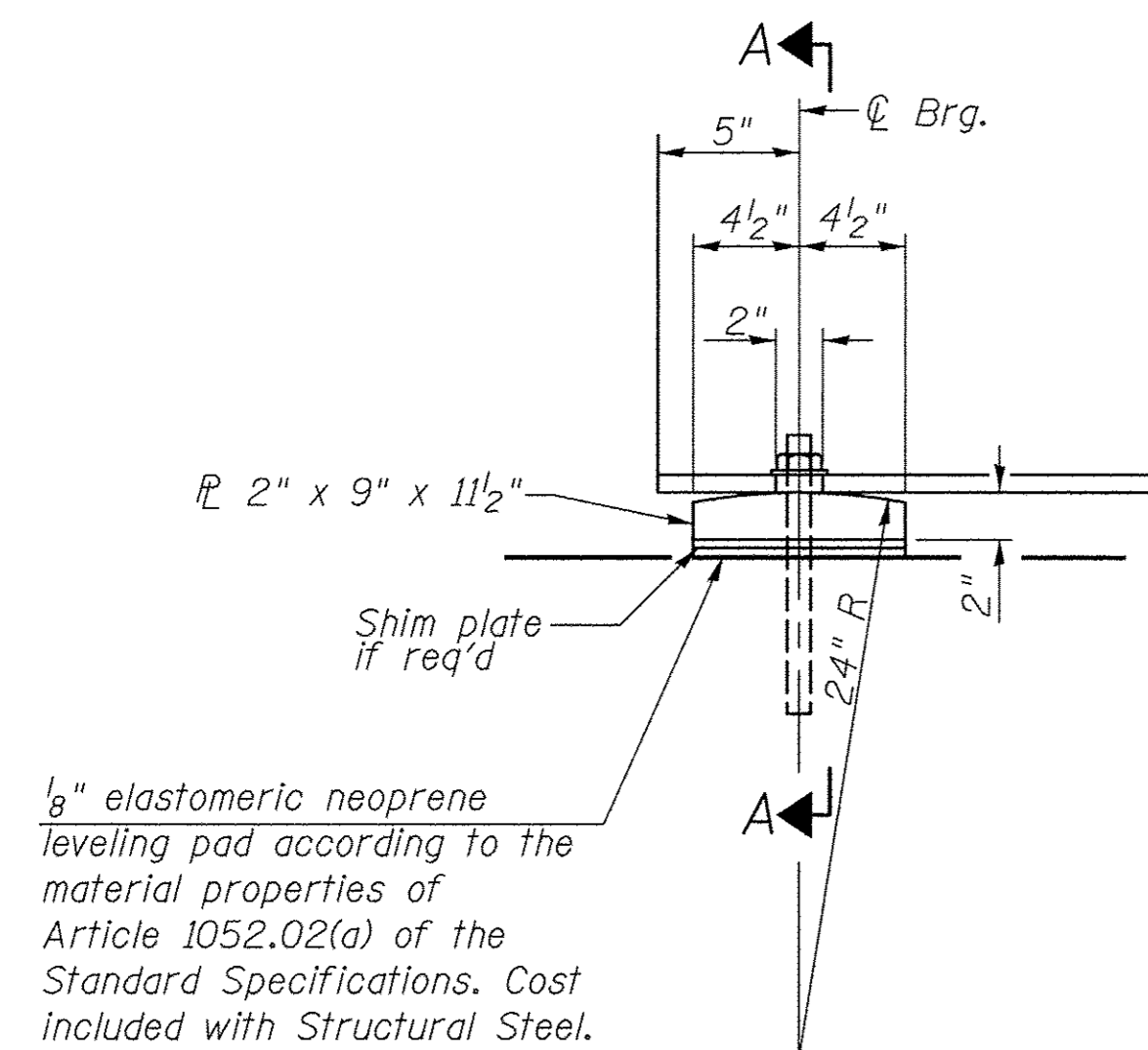
INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 & 0.6 Sp. 3	Pier 1 & Pier 2	0.5 Sp. 2
I_s	(in ⁴)	5,900	5,900	5,900
$I_c(n)$	(in ⁴)	16,206	16,206	16,206
$I_c(3n)$	(in ⁴)	12,094	12,094	12,094
$I_c(cr)$	(in ⁴)	-	8,381	-
S_s	(in ³)	359	359	359
$S_c(n)$	(in ³)	533	533	533
$S_c(3n)$	(in ³)	484	484	484
$S_c(cr)$	(in ³)	-	421	-
DC1	(k/')	0.846	0.846	0.846
MDC1	(k)	92	358	261
DC2	(k/')	0.04	0.04	0.04
MDC2	(k)	4	17	12
DW	(k/')	0.35	0.35	0.35
MDW	(k)	38	148	108
$M_{\xi} + IM$	(k)	517	597	668
M_u (Strength I)	(k)	1,082	1,736	1,672
$\phi_r M_n$	(k)	2,825	1,881	2,672
f_s DC1	(ksi)	3.08	11.97	8.72
f_s DC2	(ksi)	0.10	0.42	0.30
f_s DW	(ksi)	0.94	3.67	2.68
f_s ($\xi + IM$)	(ksi)	11.64	13.44	15.04
f_s (Service II)	(ksi)	19.25	33.53	31.25
$0.95R_n F_y f$	(ksi)	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-
$\phi_r F_n$	(ksi)	-	-	-
V_f	(k)	23.6	26.9	21.0

INTERIOR GIRDER REACTION TABLE			
	S. Abut. & N. Abut.	Pier 1 & Pier 2	
R_{DC1}	(k)	12.5	60.0
R_{DC2}	(k)	0.6	2.1
R_{DW}	(k)	5.2	24.8
$R_{\xi} + IM$	(k)	71.8	104.2
R_{Total}	(k)	90.1	191.1

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to long-term composite (superimposed) dead loads (in⁴ and in³).
- $I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total - Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_{\xi} + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 $M_{\xi} + IM$
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
- f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1 / S_{nc}
- f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2 / $S_c(3n)$ or MDC2 / $S_c(cr)$ as applicable.
- f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW / $S_c(3n)$ or MDW / $S_c(cr)$ as applicable.
- f_s ($\xi + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
 $M_{\xi} + IM$ / $S_c(n)$ or $M_{\xi} + IM$ / $S_c(cr)$ as applicable.
- f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (\xi + IM)$
- $0.95R_n F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 ($f_{sDC1} + f_{sDC2}$) + 1.5 $f_{sDW} + 1.75 f_s (\xi + IM)$
- $\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- V_f : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

STRUCTURAL STEEL DETAILS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK

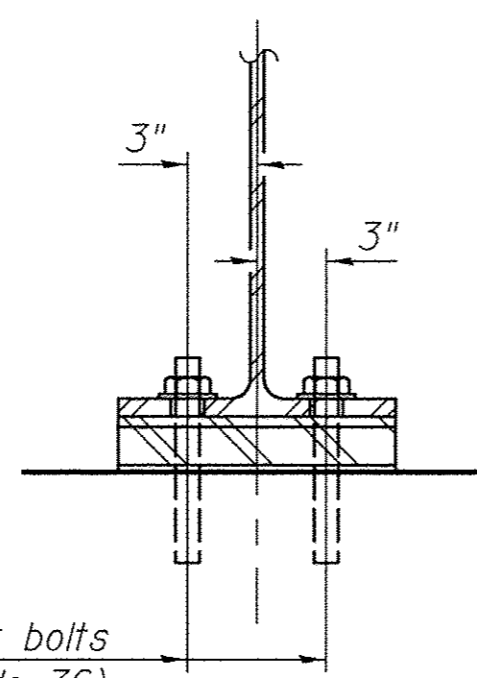
SHEET NO. 12	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16 SHEETS	596	10-00087-00-BR	PIKE	38	18
		SN 075-3329	CONTRACT NO. 93697		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-0596(107)		



ELEVATION AT ABUTMENT

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

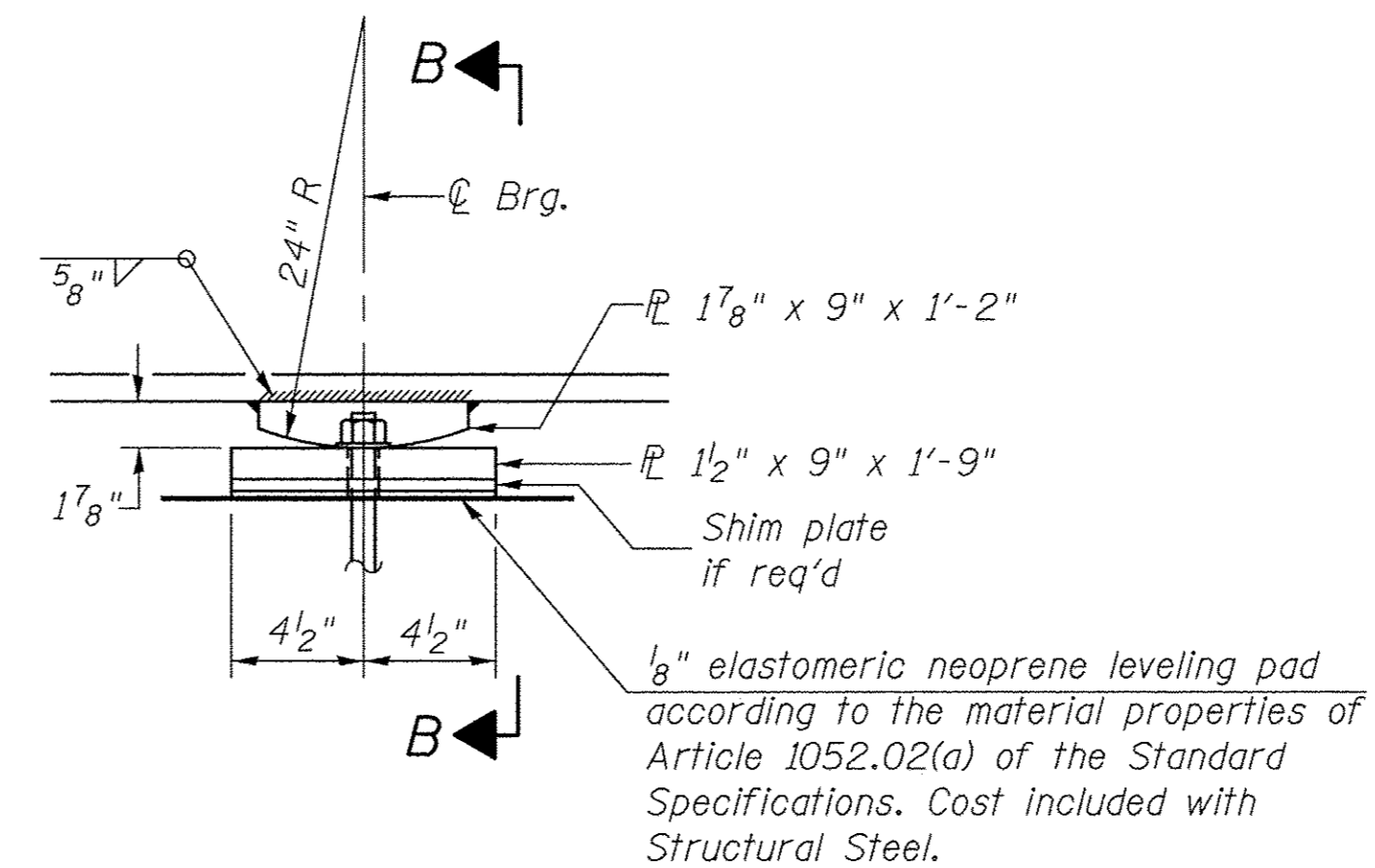
1" x 12" anchor bolts (ASTM F1554, Grade 36) with 2 1/4" x 2 1/4" x 5/16" washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2" holes in bearing plate.



SECTION A-A

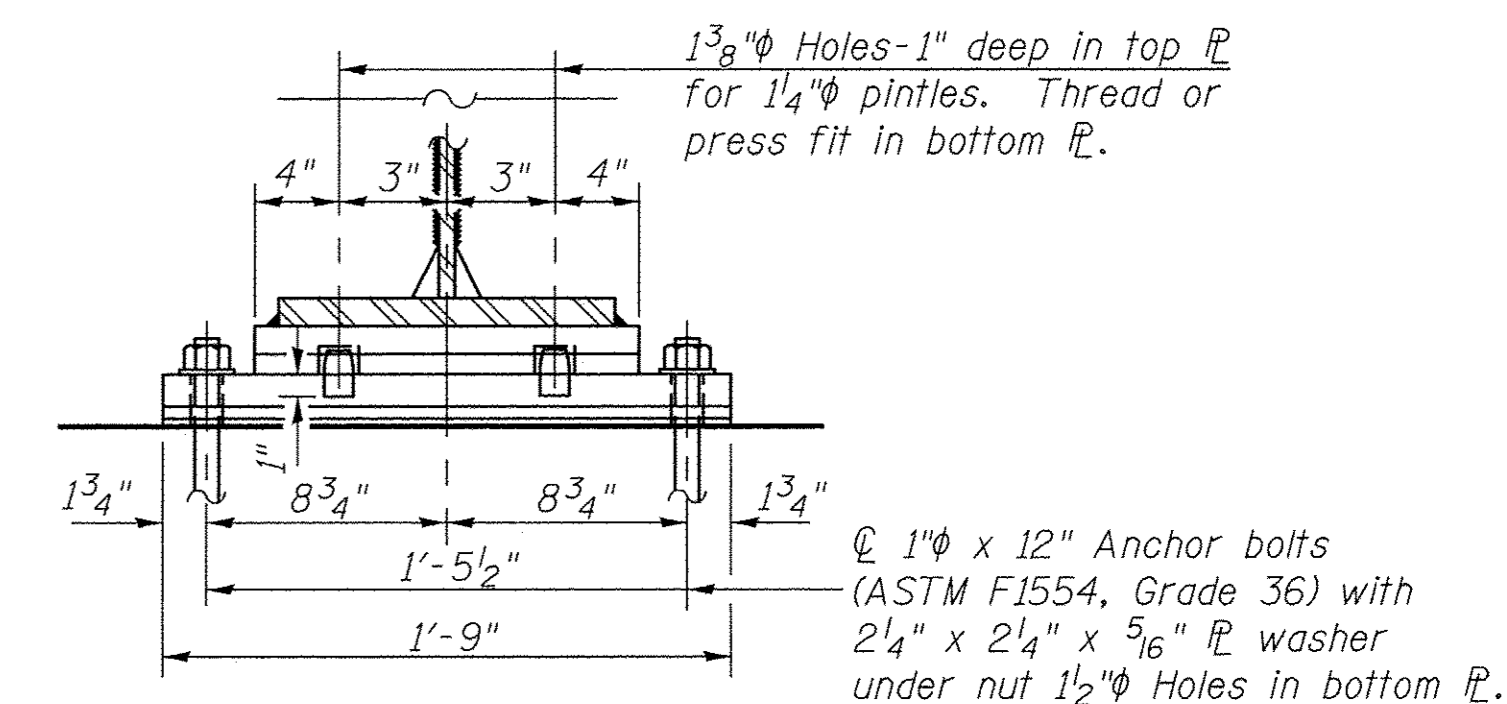
FIXED BEARING AT ABUTMENTS

(10 Required)



ELEVATION AT PIER

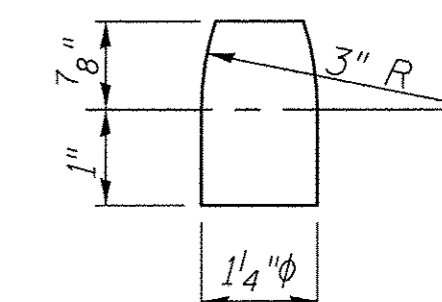
1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.



SECTION B-B

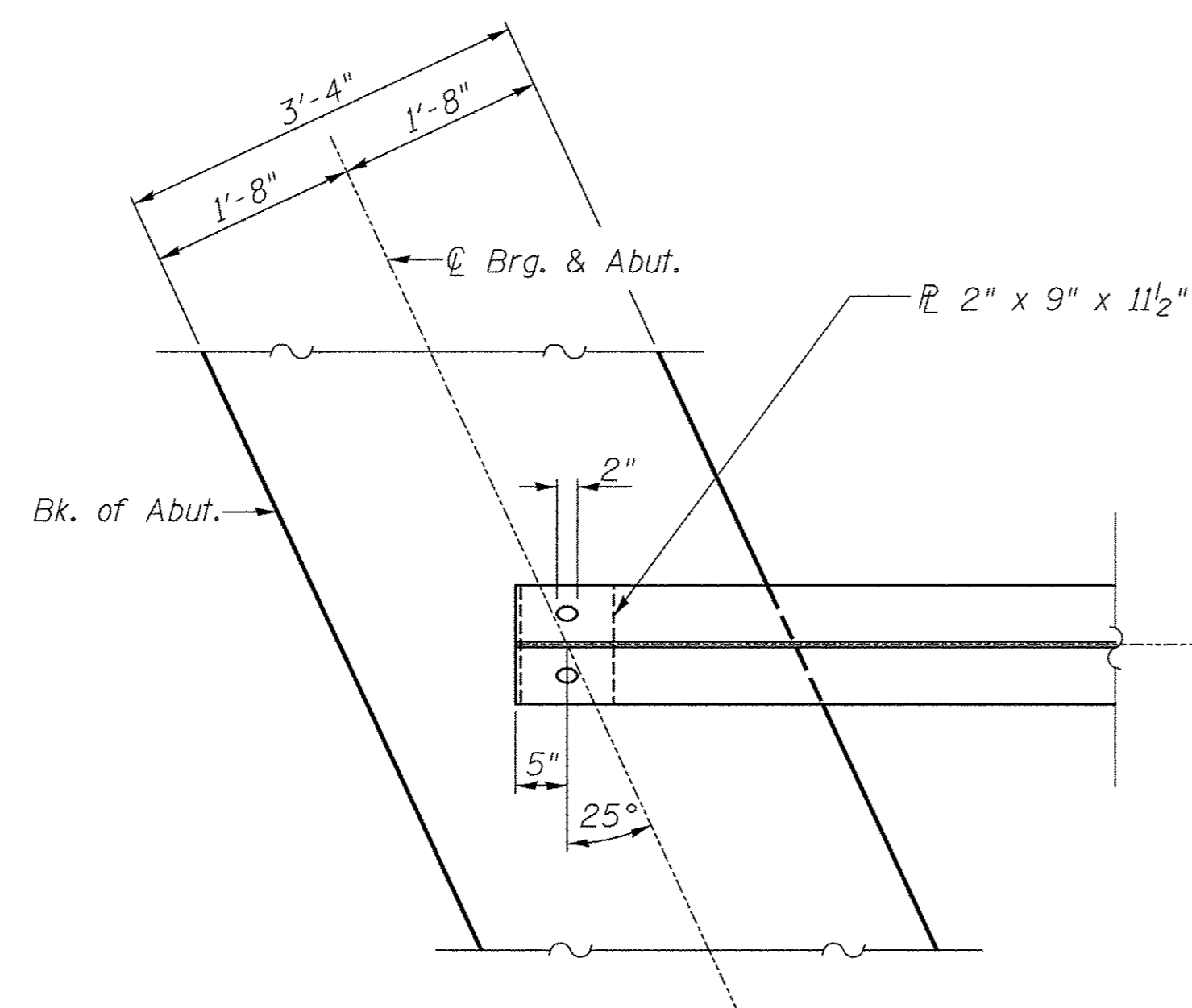
FIXED BEARING AT PIERS

(10 Required)

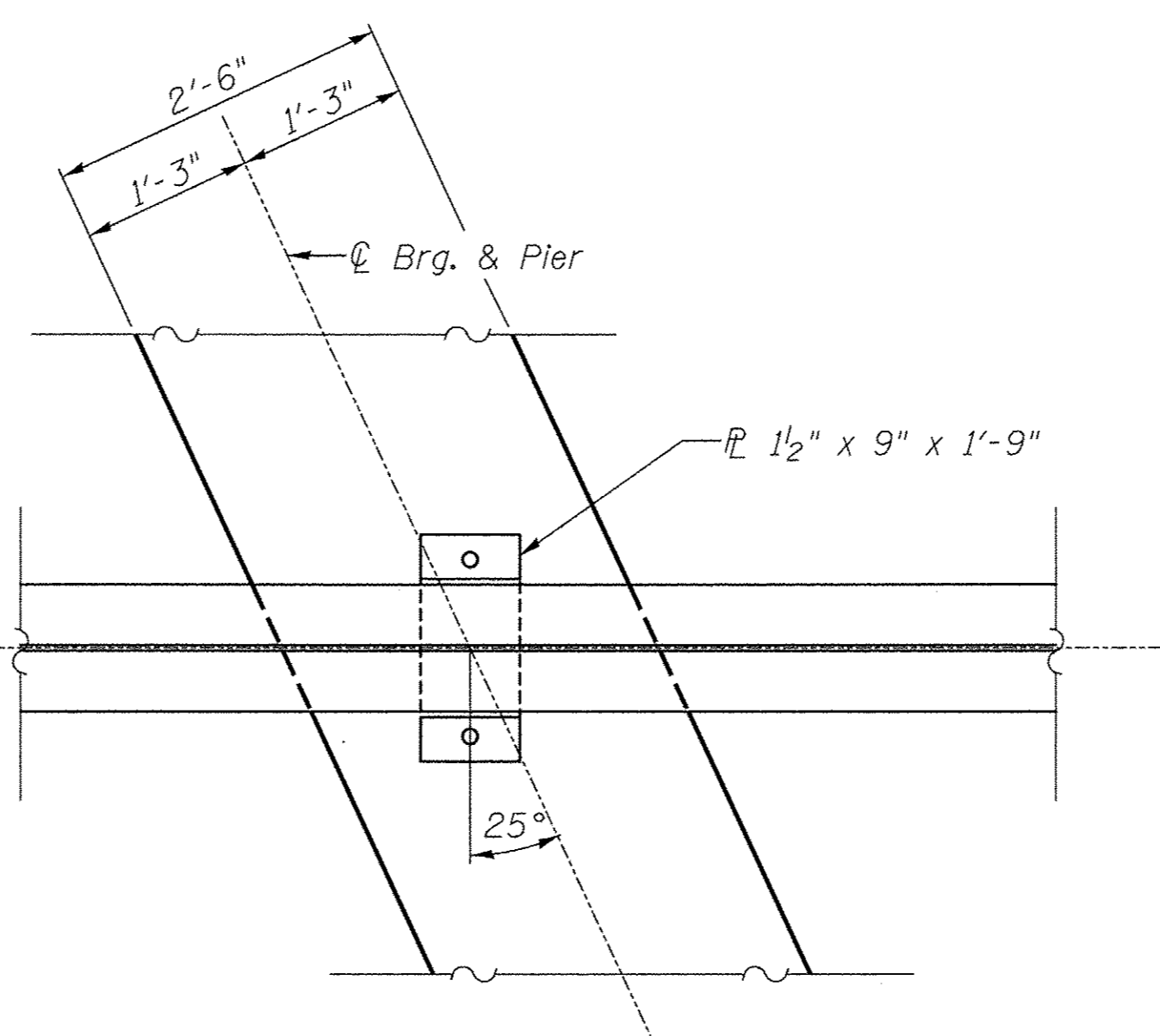


PINTLE

(M270 Grade 50W)



PARTIAL PLAN AT ABUTMENTS



PARTIAL PLAN AT PIERS

Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 The structural steel bearing plates shall conform to the requirements of AASHTO M270 Grade 50W.
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
 Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

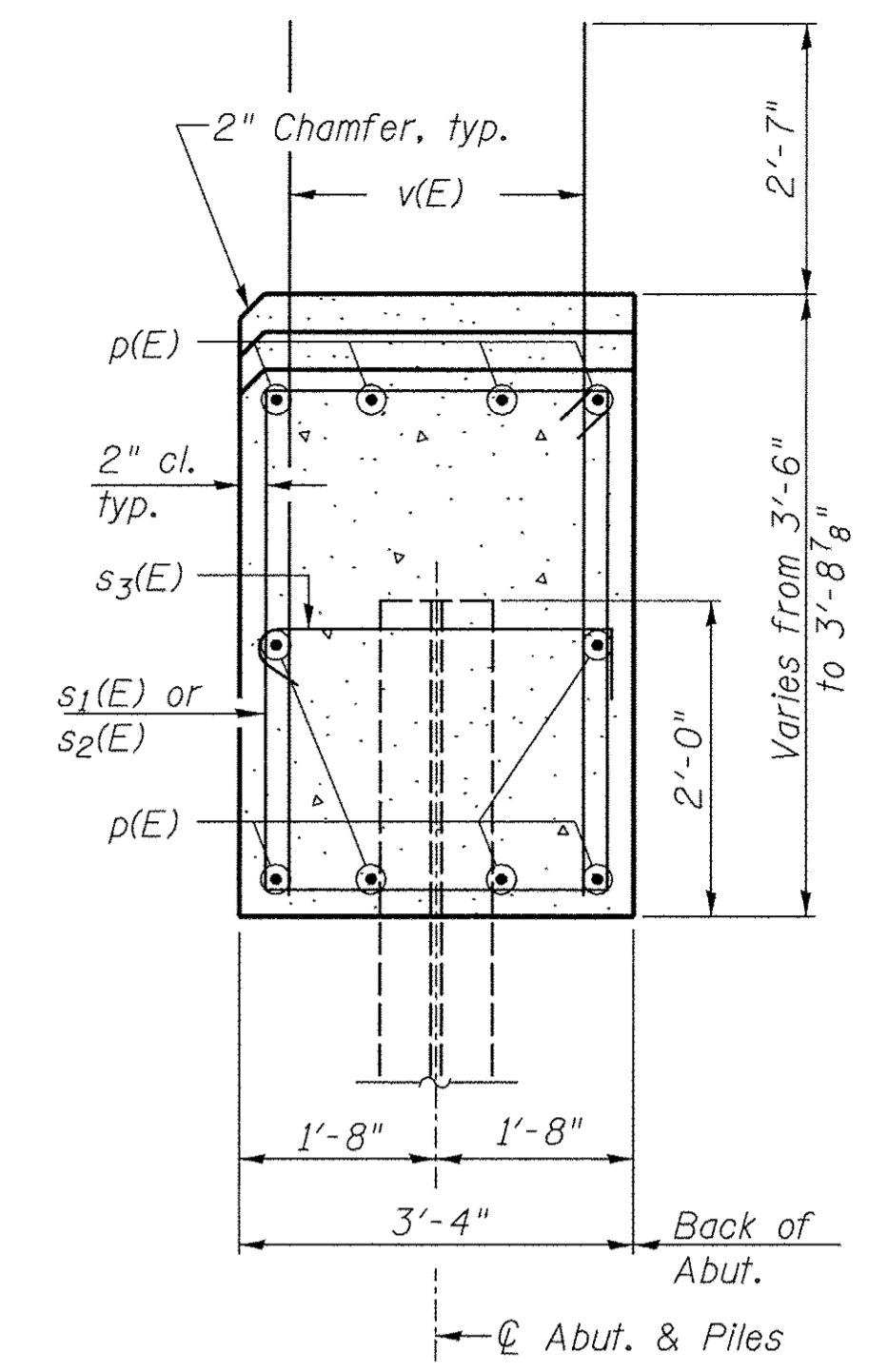
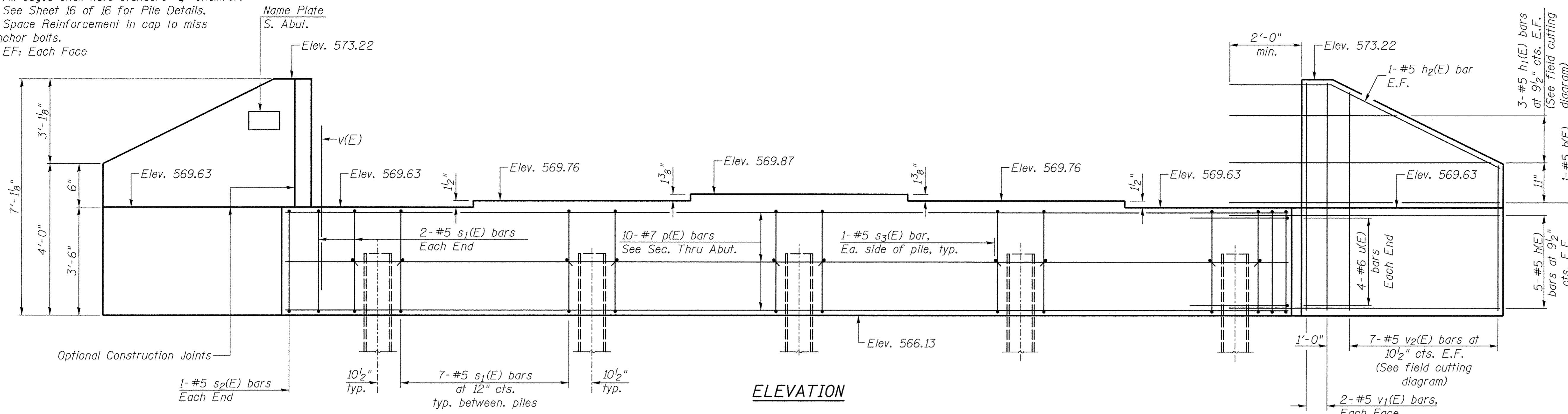
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	EACH	40

BEARING DETAILS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK

SHEET NO. 13	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16 SHEETS	596	10-00087-00-BR	PIKE	38	19
SN 075-3329			CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(107)		

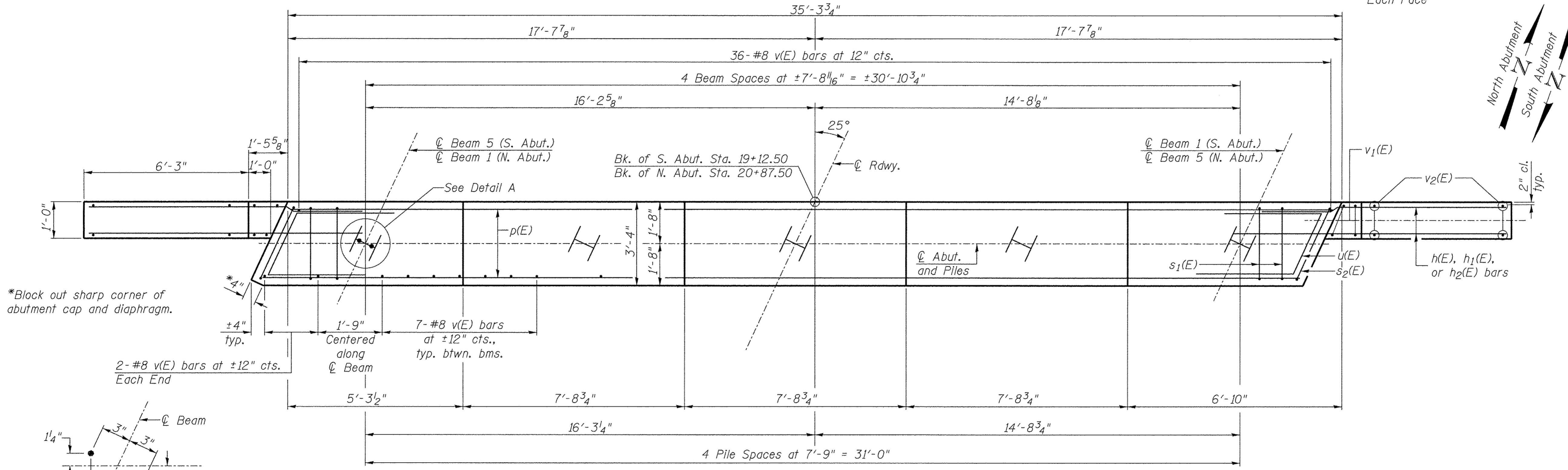
Notes:
 Pour steps monolithically with cap.
 All edges shall have standard $\frac{3}{4}$ " chamfer.
 See Sheet 16 of 16 for Pile Details.
 Space Reinforcement in cap to miss anchor bolts.
 EF: Each Face



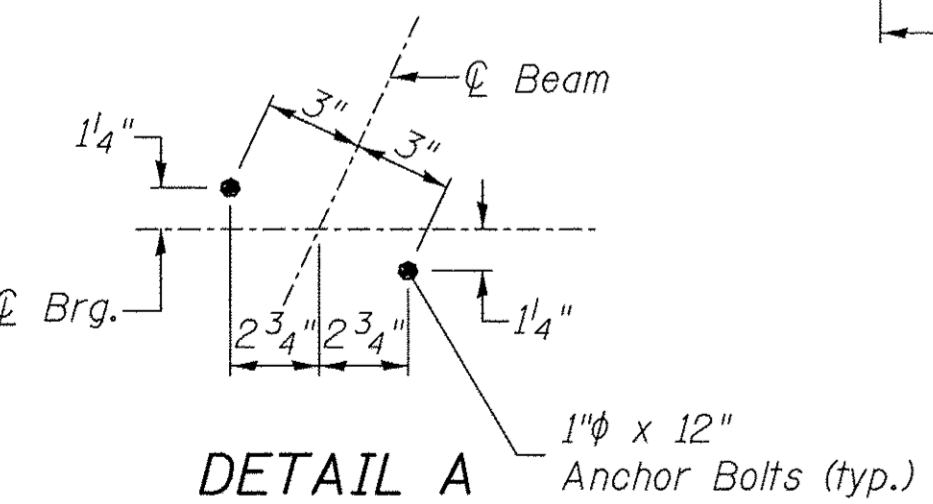
SEC. THRU ABUT.
 (At Right Angles)

BILL OF MATERIAL
TWO ABUTMENTS

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	48	#5	9'-7"	—
h1(E)	12	#5	13'-2"	—
h2(E)	8	#5	10'-4"	—
p(E)	20	#7	34'-11"	—
s1(E)	64	#5	13'-3"	□
s2(E)	4	#5	13'-9"	□
s3(E)	20	#5	4'-0"	—
u(E)	16	#6	10'-11"	—
v(E)	136	#8	5'-11"	—
v1(E)	16	#5	6'-9"	—
v2(E)	28	#5	10'-1"	—
Structure Excavation		CU YD	240	
Concrete Structures		CU YD	37.9	
Reinforcement Bars, Epoxy Coated		POUND	6,000	
Name Plates		EACH	1	
Furnishing Steel Piles HP10x42		FOOT	344	
Driving Piles		FOOT	344	
Test Pile Steel HP10x42		EACH	2	

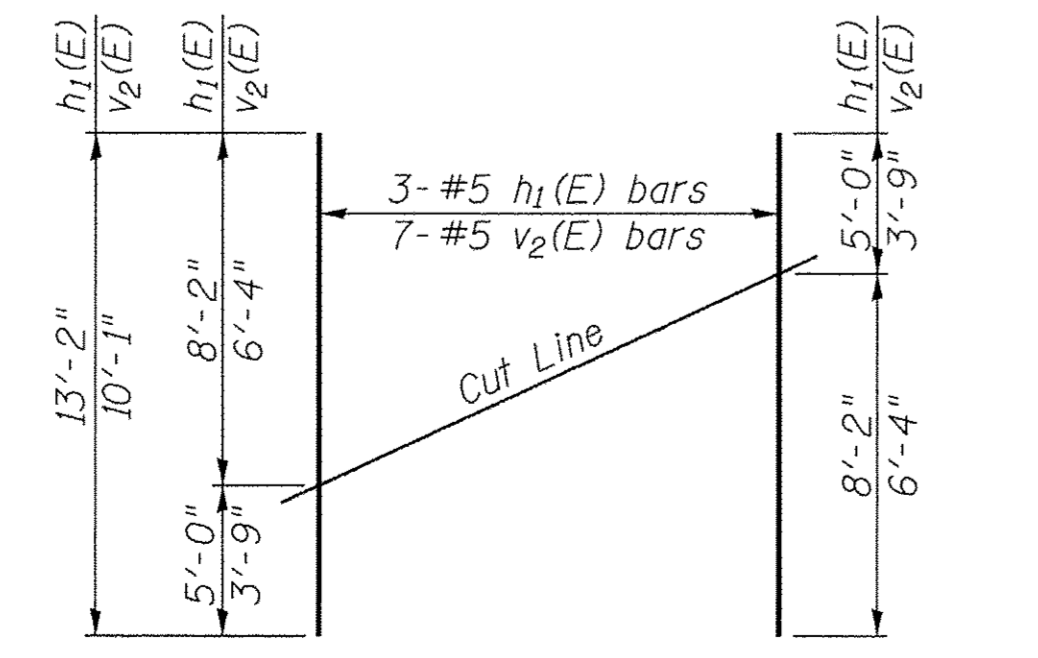


*Block out sharp corner of abutment cap and diaphragm.

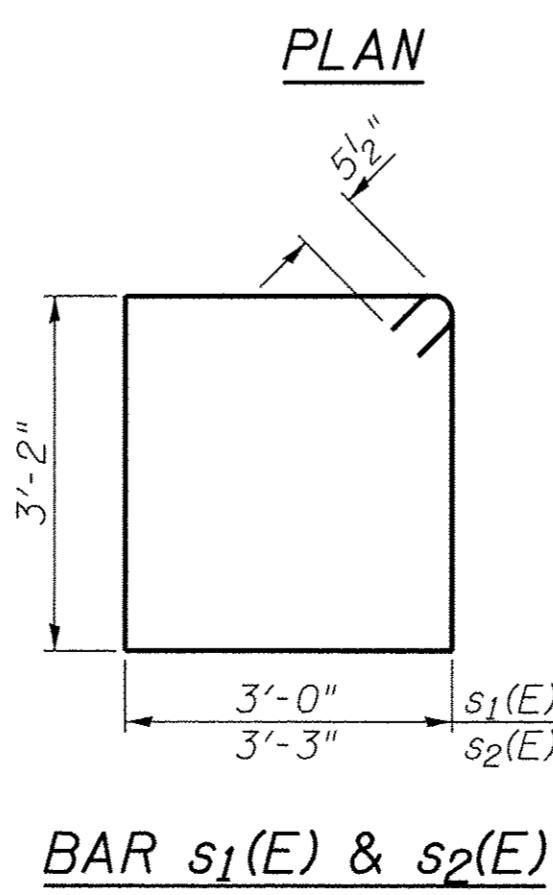


DETAIL A
 1"φ x 12" Anchor Bolts (typ.)

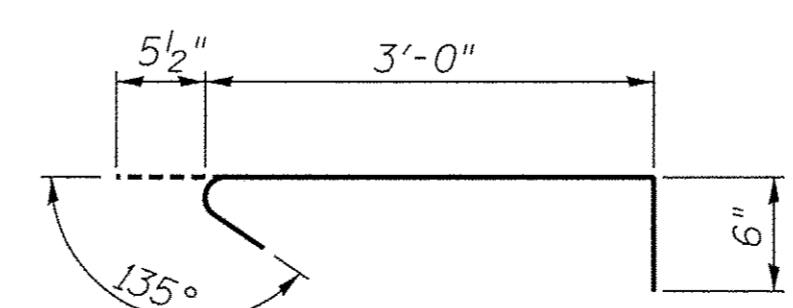
PILE DATA
 Type: Steel HP 10x42
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 184 kips
 Est. Length: 42' S. Abutment
 44' N. Abutment
 No. Required: 10 (Includes 1 Test Pile at Each Abut.)



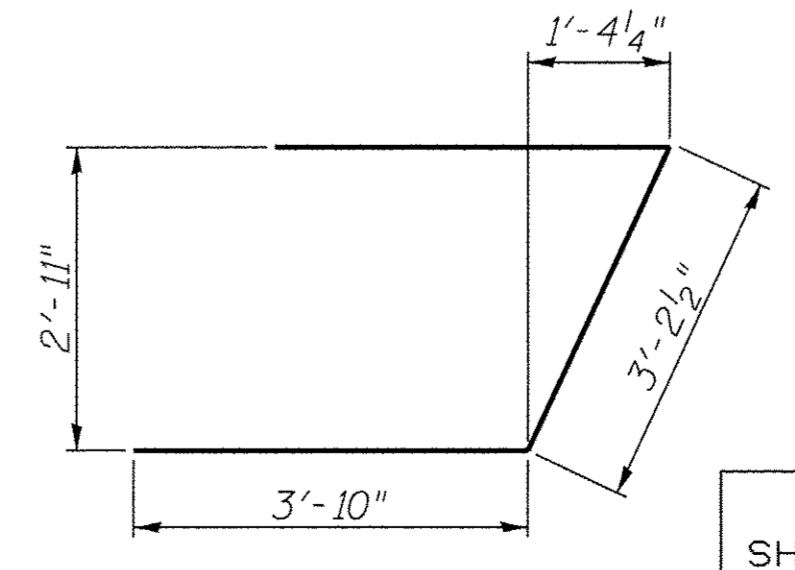
FIELD CUTTING DIAGRAM
 Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite face.



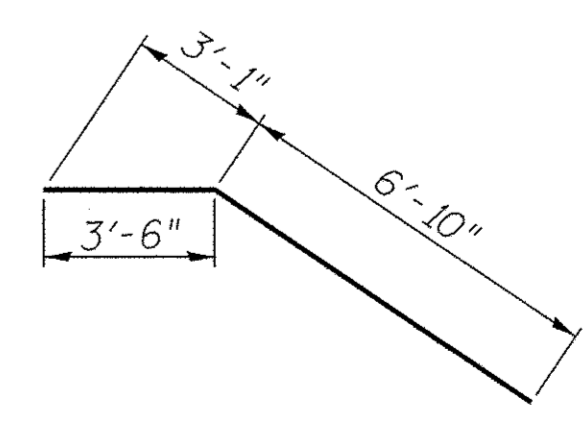
BAR s1(E) & s2(E)



BAR s3(E)



BAR u(E)

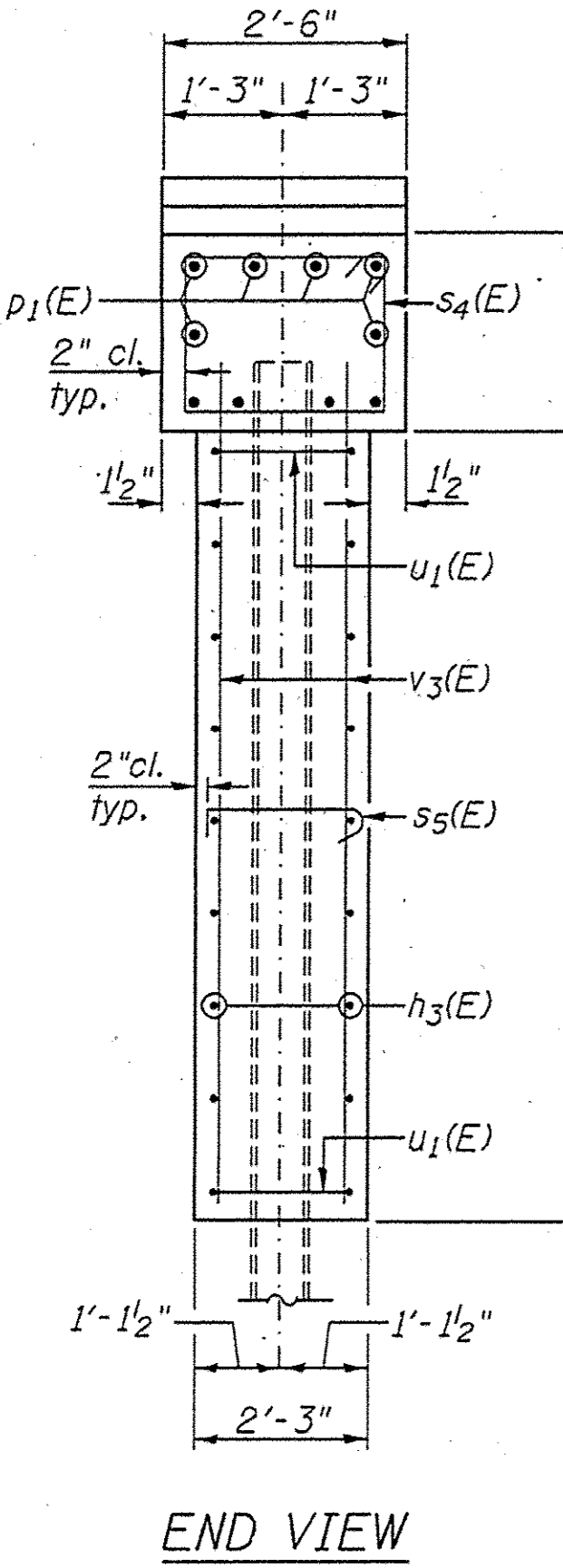
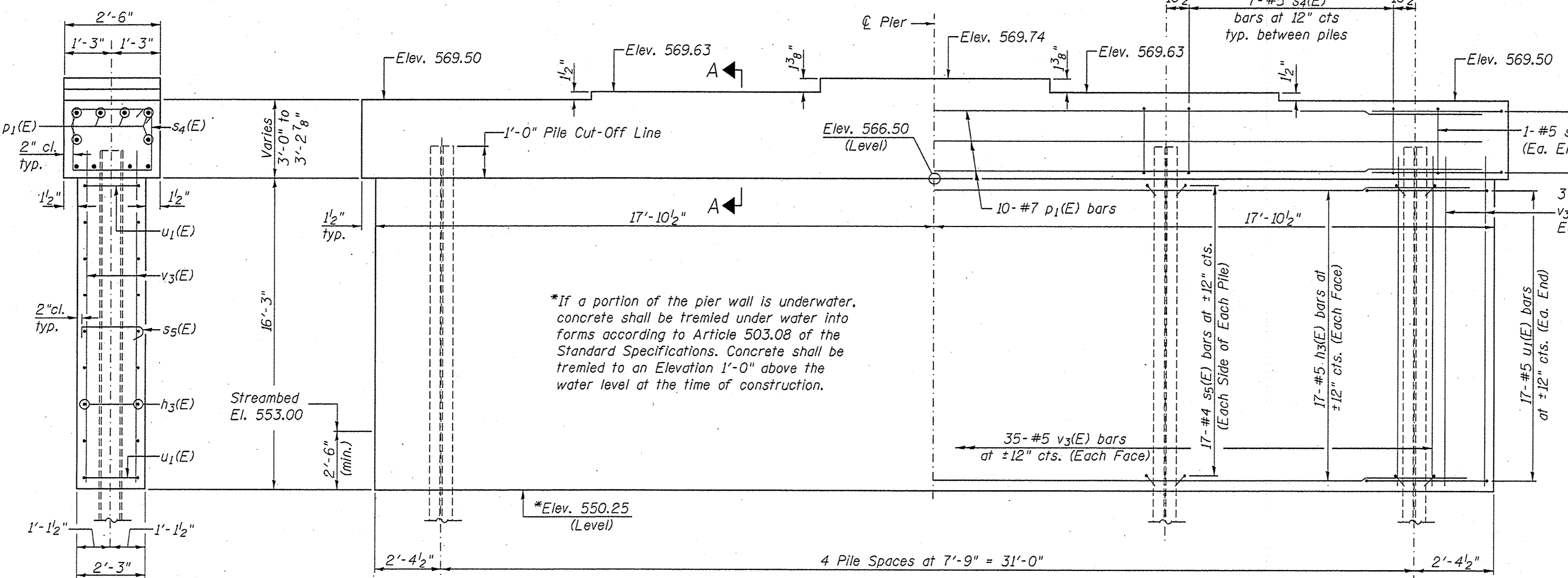
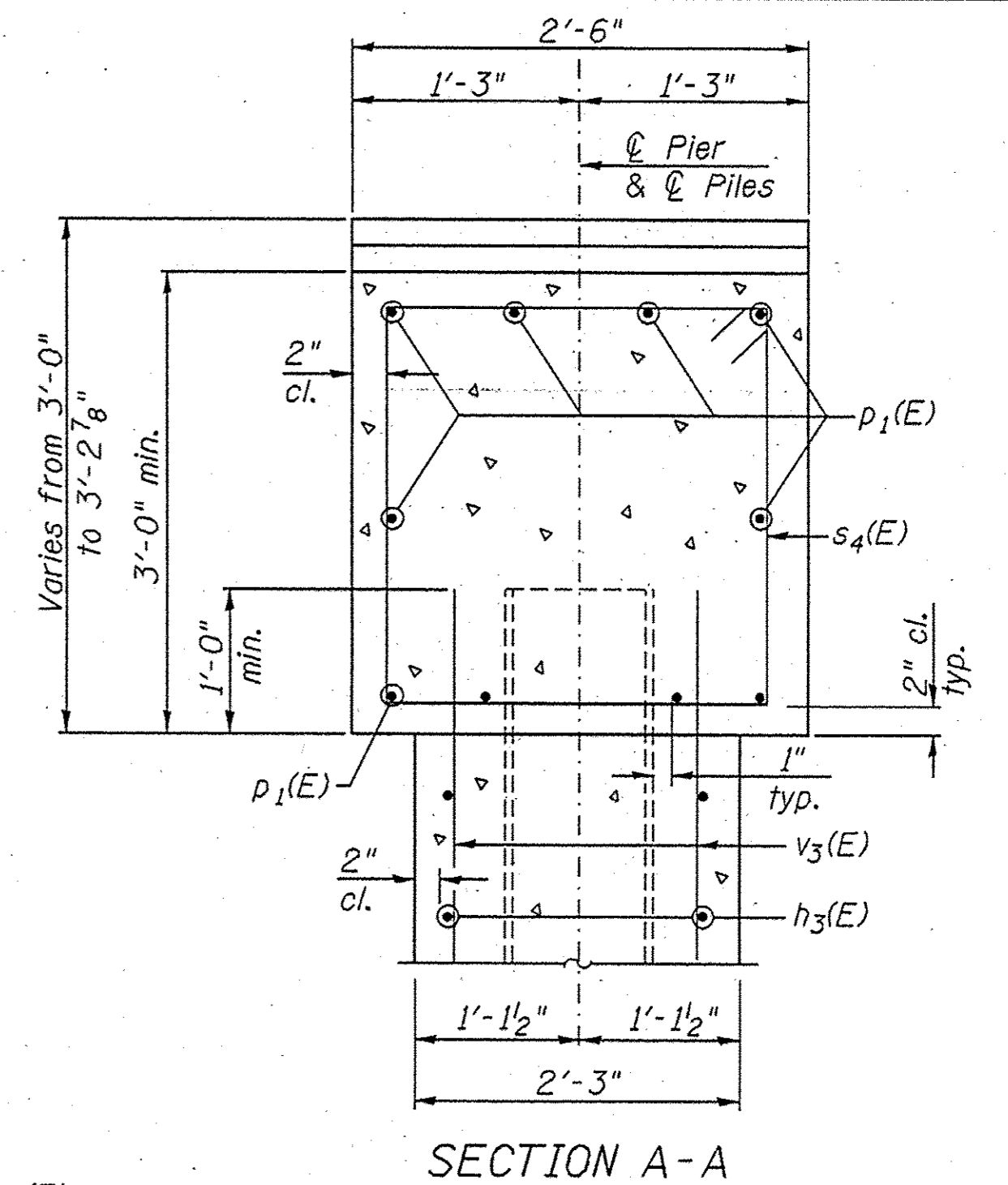
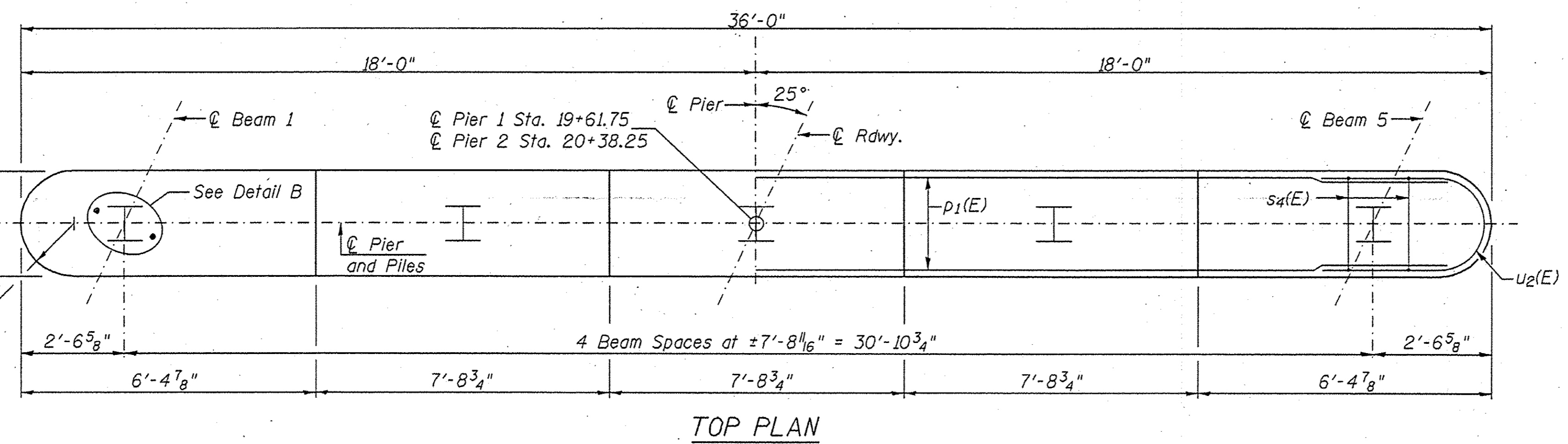
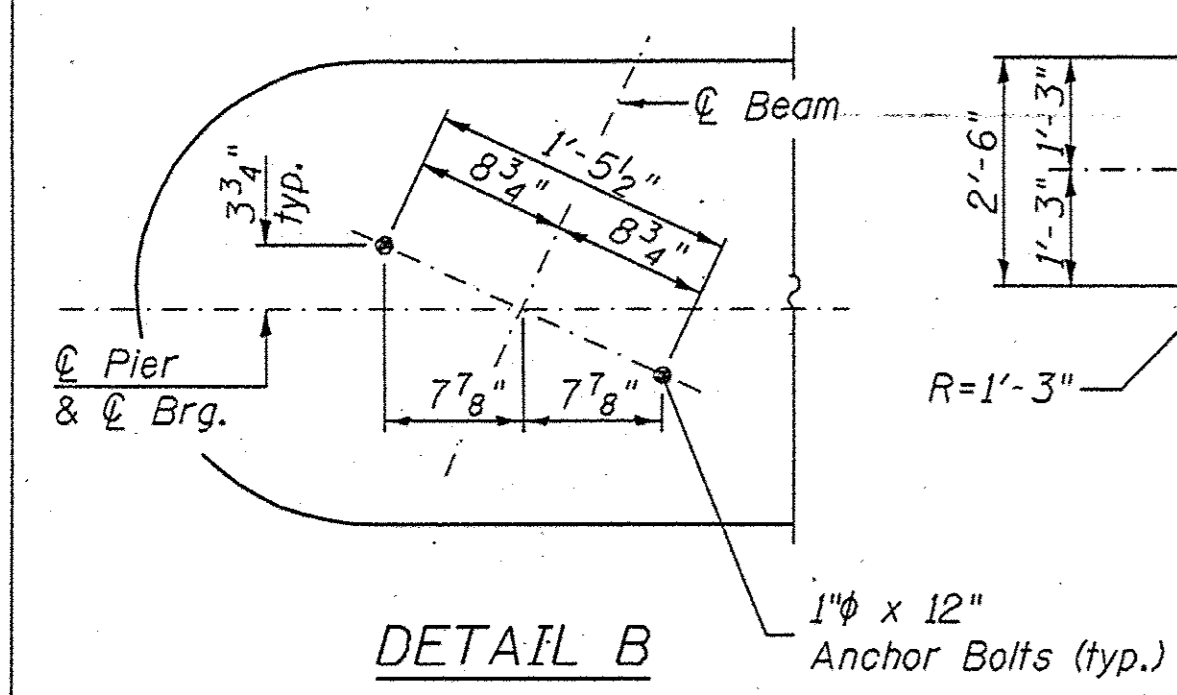


BAR h2(E)

ABUTMENTS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK

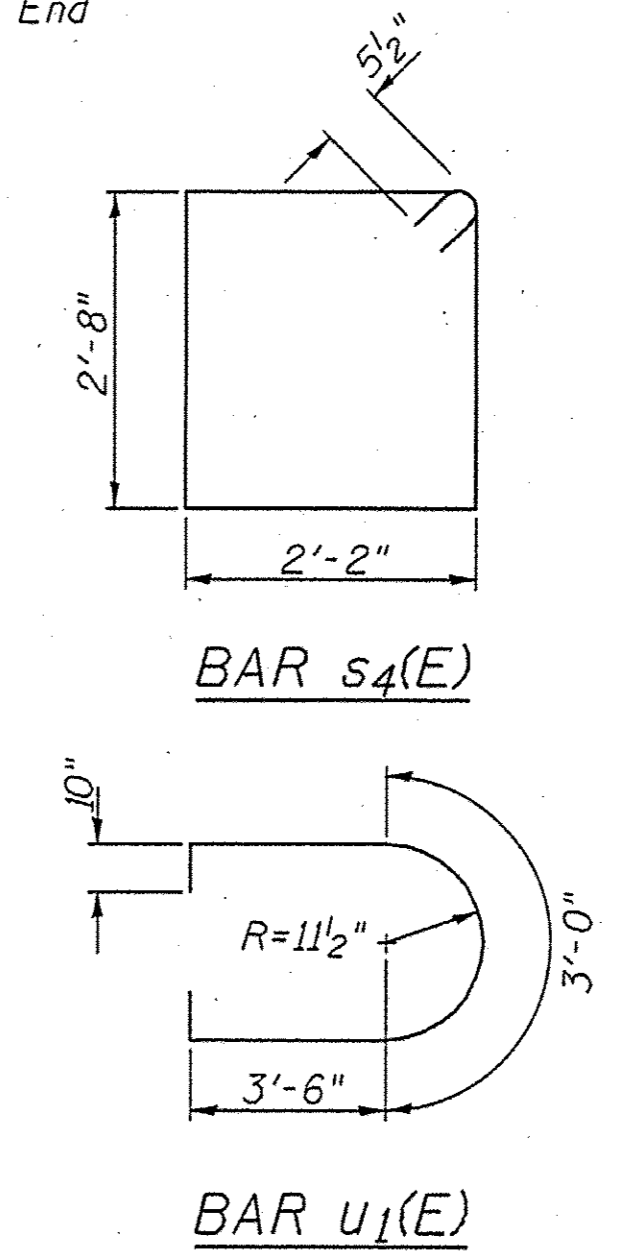
SHEET NO. 14 16 SHEETS	F.A.S. ROUTE 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 20
	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(107)		

Notes:
 Four steps monolithically with cap.
 All edges shall have standard $\frac{3}{4}$ " chamfer.
 See Sheet 16 of 16 for Pile Details.
 Space Reinforcement in cap to miss anchor bolts.

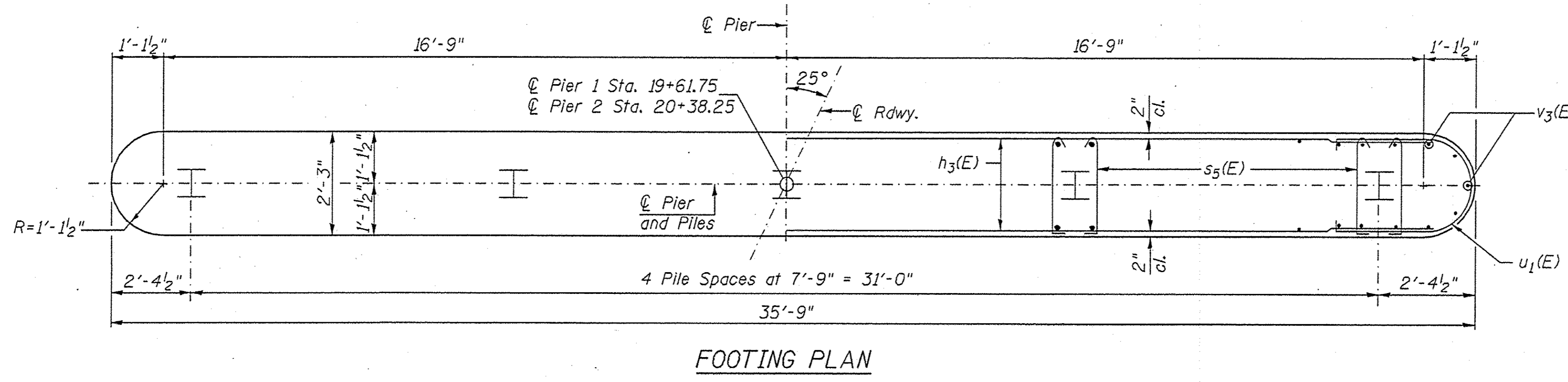


**BILL OF MATERIAL
TWO PIERS**

BAR	NO.	SIZE	LENGTH	SHAPE
h ₃ (E)	68	#5	33'-6"	—
p ₁ (E)	20	#7	33'-6"	—
s ₄ (E)	60	#5	10'-7"	⌊
s ₅ (E)	340	#4	2'-9"	⌊
u ₁ (E)	68	#5	11'-8"	⌋
u ₂ (E)	12	#6	10'-5"	⌋
v ₃ (E)	152	#5	17'-1"	—
Concrete Structures		CU YD	115.9	
Cofferdam Excavation		CU YD	50	
Reinforcement Bars, Epoxy Coated		POUND	8,760	
Furnishing Steel Piles HP12x63		FOOT	384	
Driving Piles		FOOT	384	
Test Pile Steel HP12x63		EACH	2	
Cofferdam (Type 1) (Location-1)		EACH	1	
Cofferdam (Type 1) (Location-2)		EACH	1	

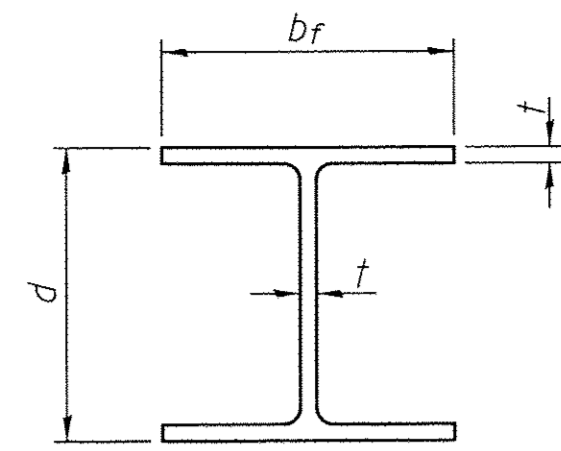


PILE DATA
 Type: Steel HP 12x63
 Nominal Required Bearing: 497 kips
 Factored Resistance Available: 273 kips
 Est. Length: 45' Pier 1
 51' Pier 2
 No. Required: 10 (Includes 1 Test Pile at Each Pier)



**PIERS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

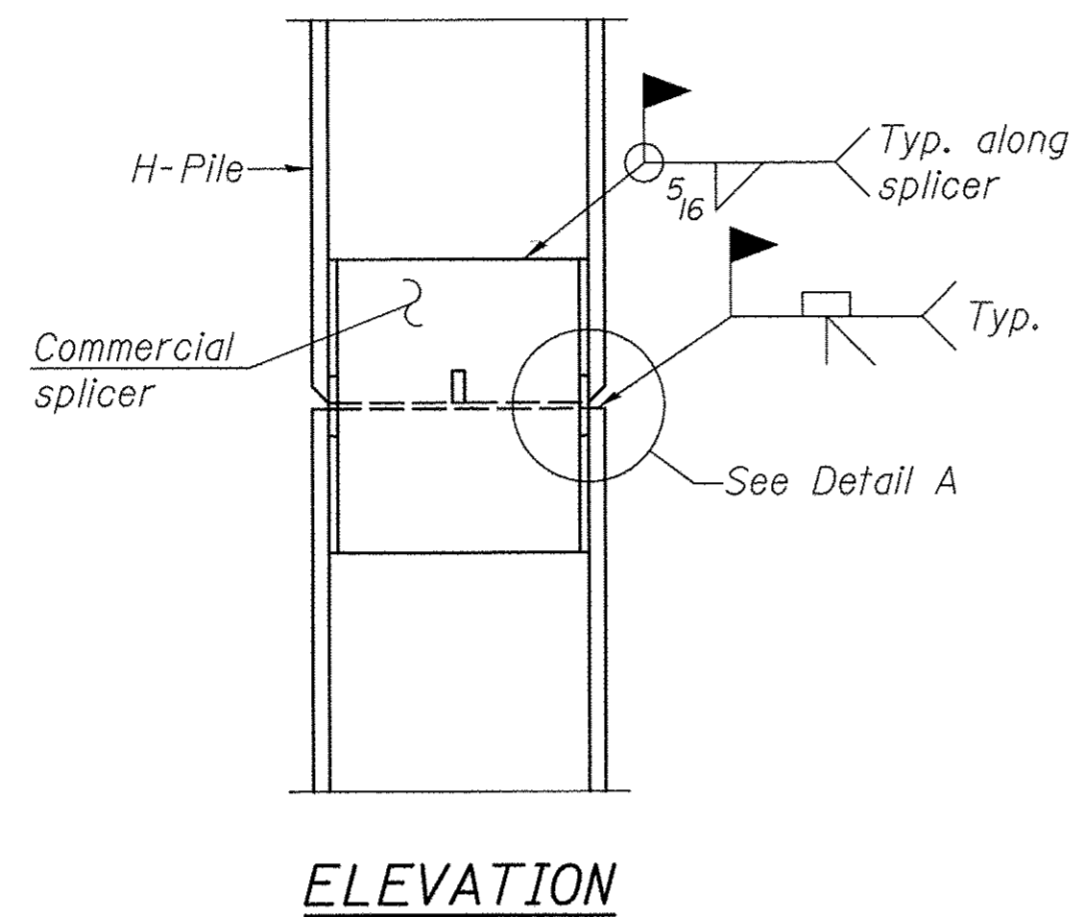
SHEET NO. 15	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	21
16 SHEETS	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)		



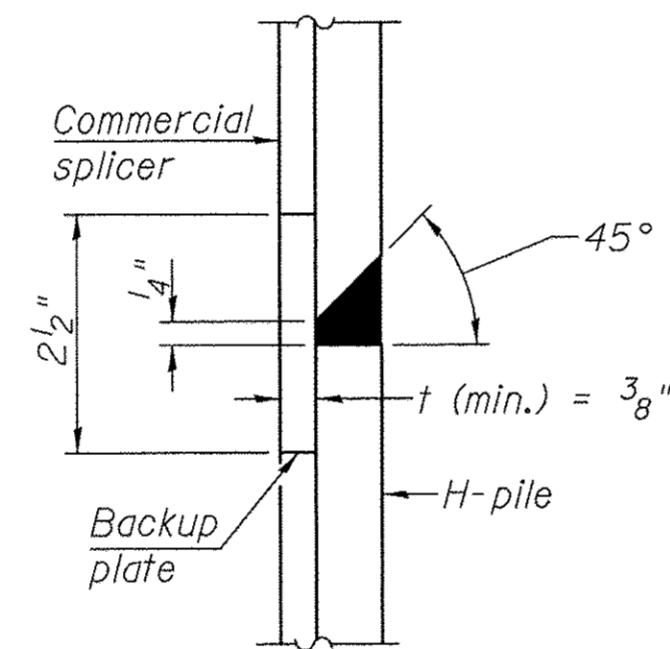
STEEL PILE TABLE

Designation	Depth <i>d</i>	Flange width <i>b_f</i>	Web and Flange thickness <i>t</i>	Encasement diameter
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

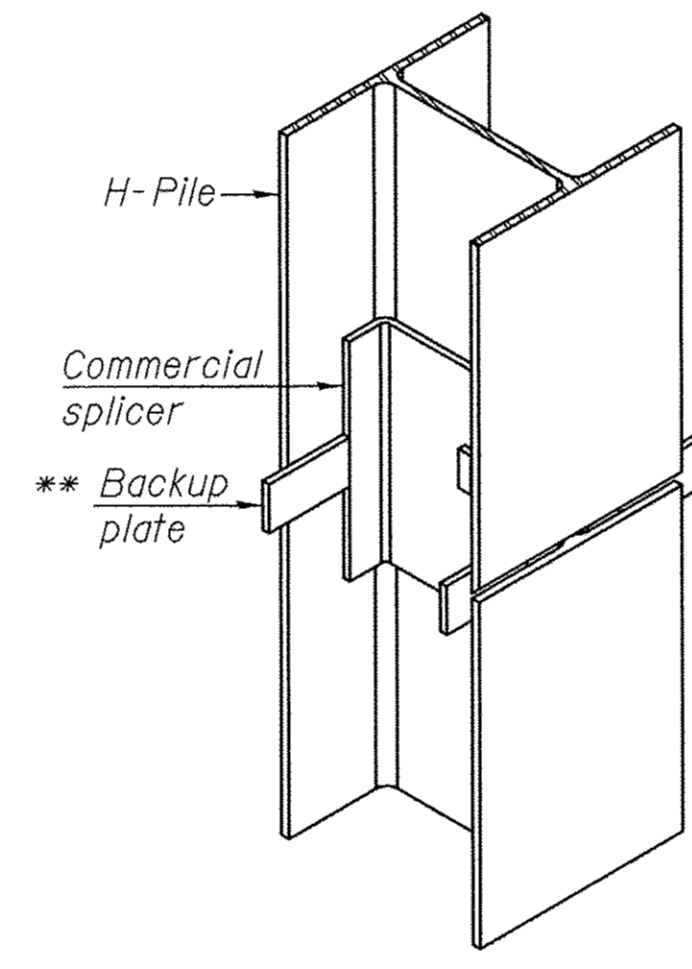
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

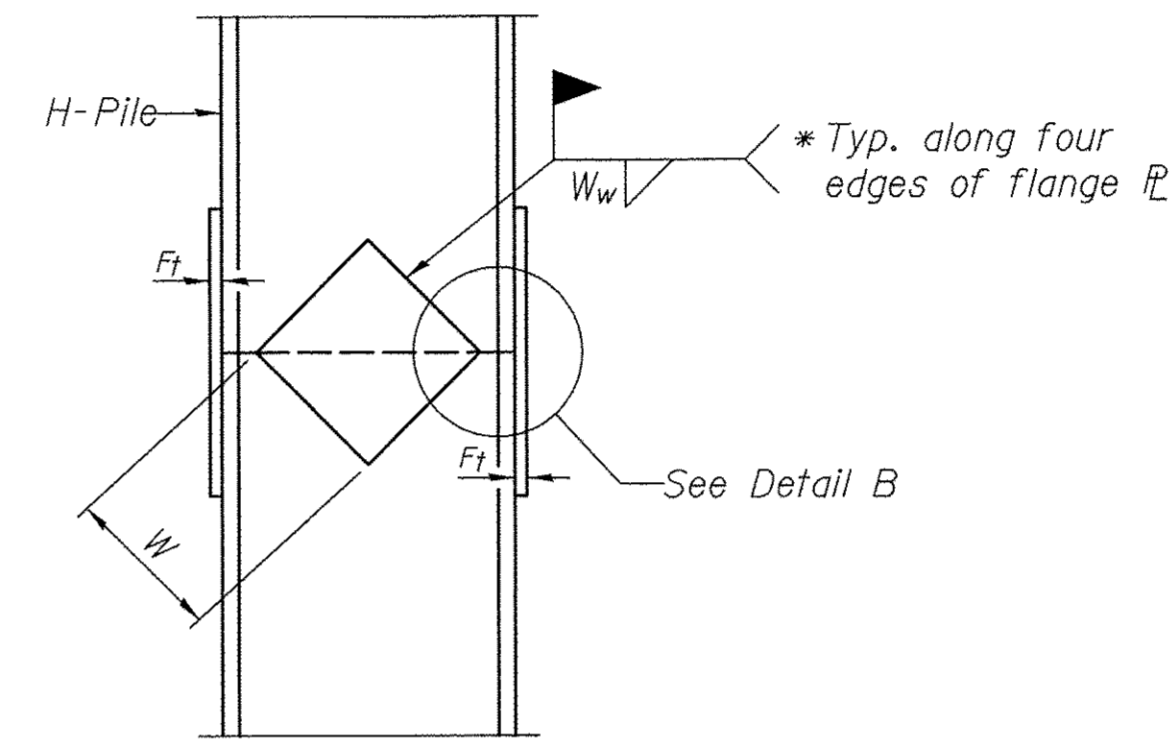


DETAIL A

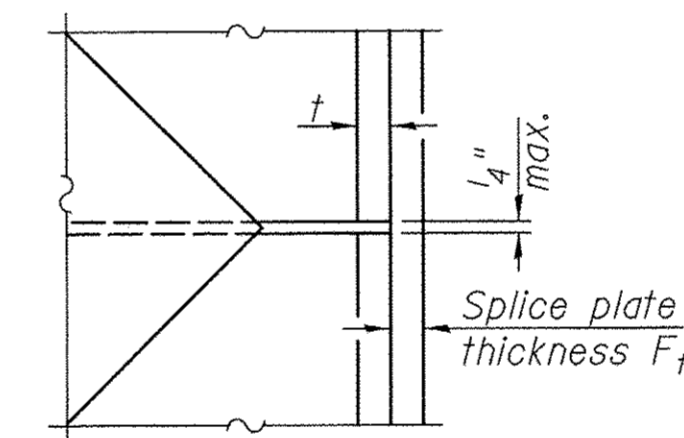


ISOMETRIC VIEW

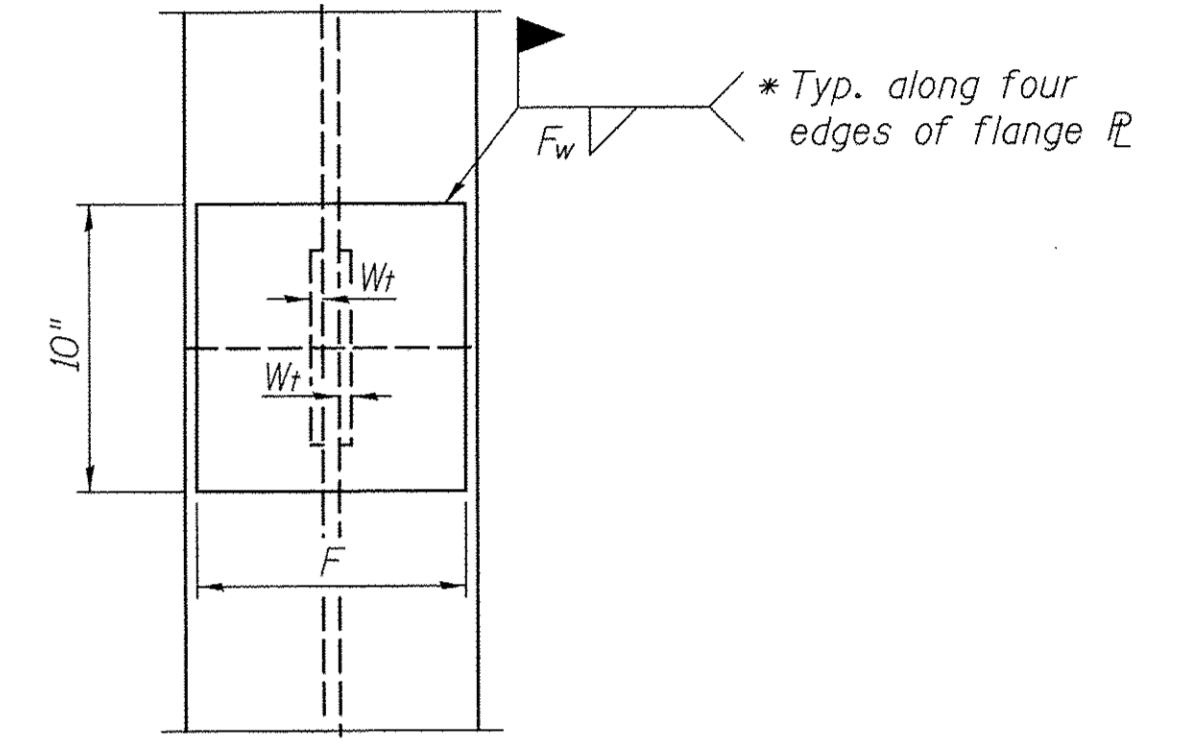
WELDED COMMERCIAL SPLICE



ELEVATION



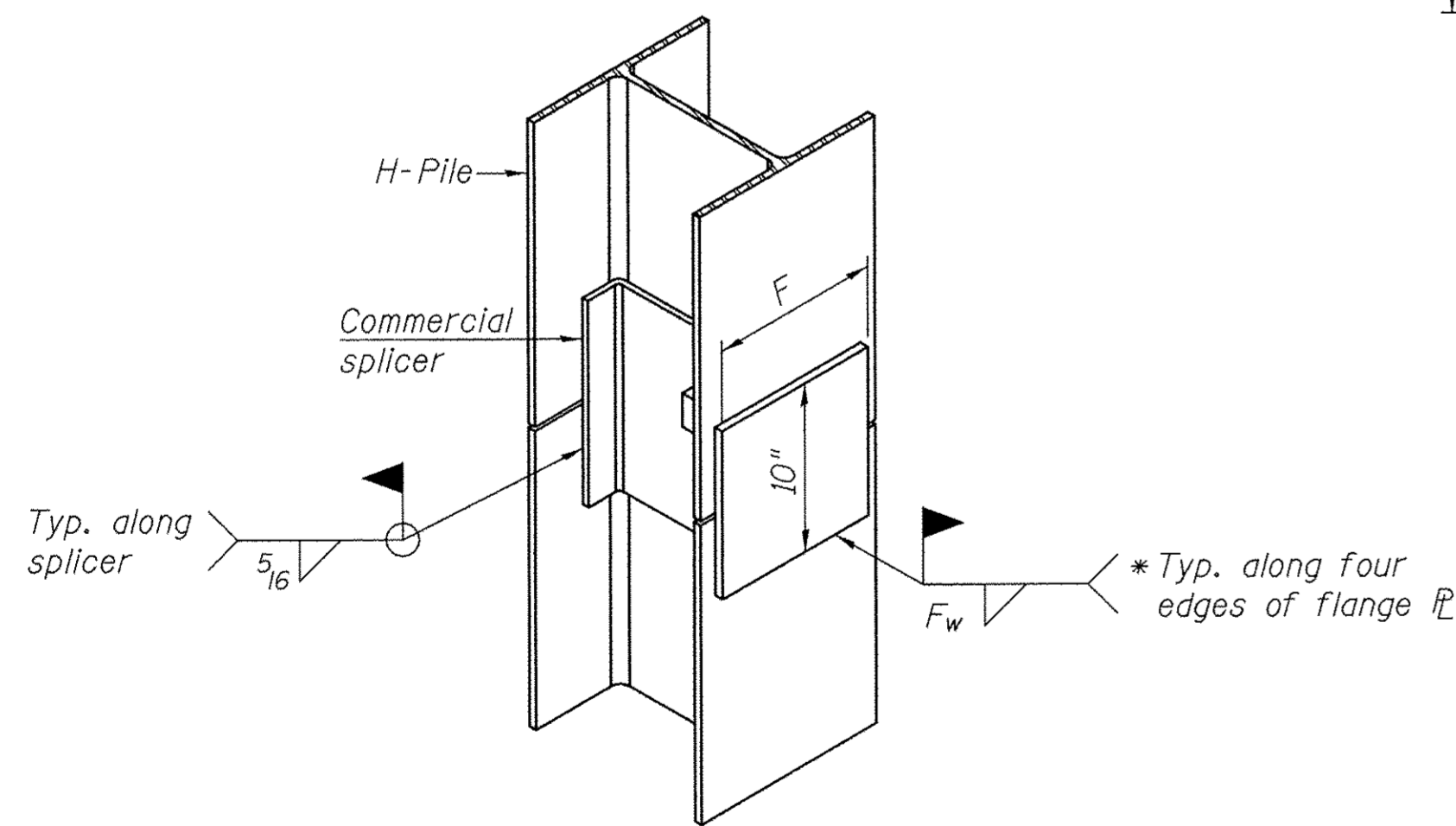
DETAIL B



END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds 1/4" from end of web and/or each flange.
** Remove portions of backup plates that extend outside the flanges.

**HP PILE DETAILS
PIKE COUNTY
SECTION 10-00087-00-BR
F.A.S. 596 (C.H. 4)
OVER HADLEY CREEK**

SHEET NO. 16	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16 SHEETS	596	10-00087-00-BR	PIKE	38	22
		SN 075-3329	CONTRACT NO. 93697		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-0596(107)		

F.A.S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SH.
596	39B	PIKE	17	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT BR 0596(107)				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
FEDERAL-AID SECONDARY PROJECT**

- INDEX OF SHEETS**
- 1 COVER SHEET
 - 2 PLAN AND PROFILE
 - 3 BRIDGE PLAN AND ELEVATION
 - 4 21" P.P.C. DECK BEAMS
 - 5 PIERS AND ABUTMENTS
 - 6 ALUMINUM RAILING
 - 7 PILE DETAILS
 - 8-13 PLANS OF EXIST. BRIDGE TO BE REMOVED
 - 14-17 STANDARDS: 2113-1
2230-7
2298-3
2299-4

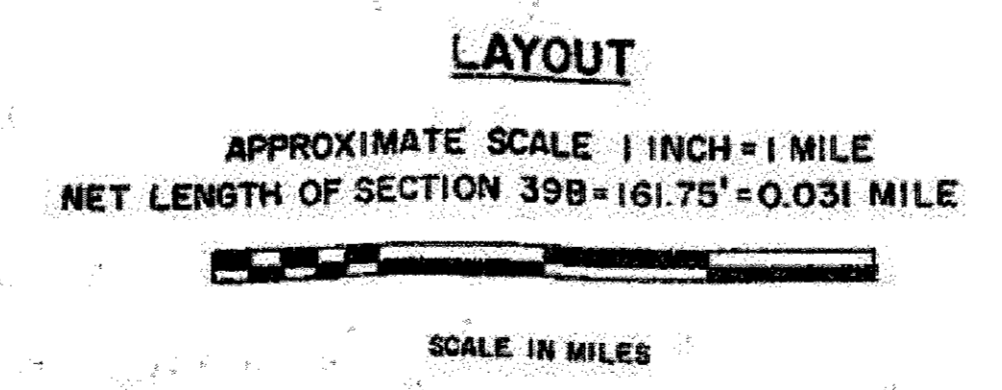
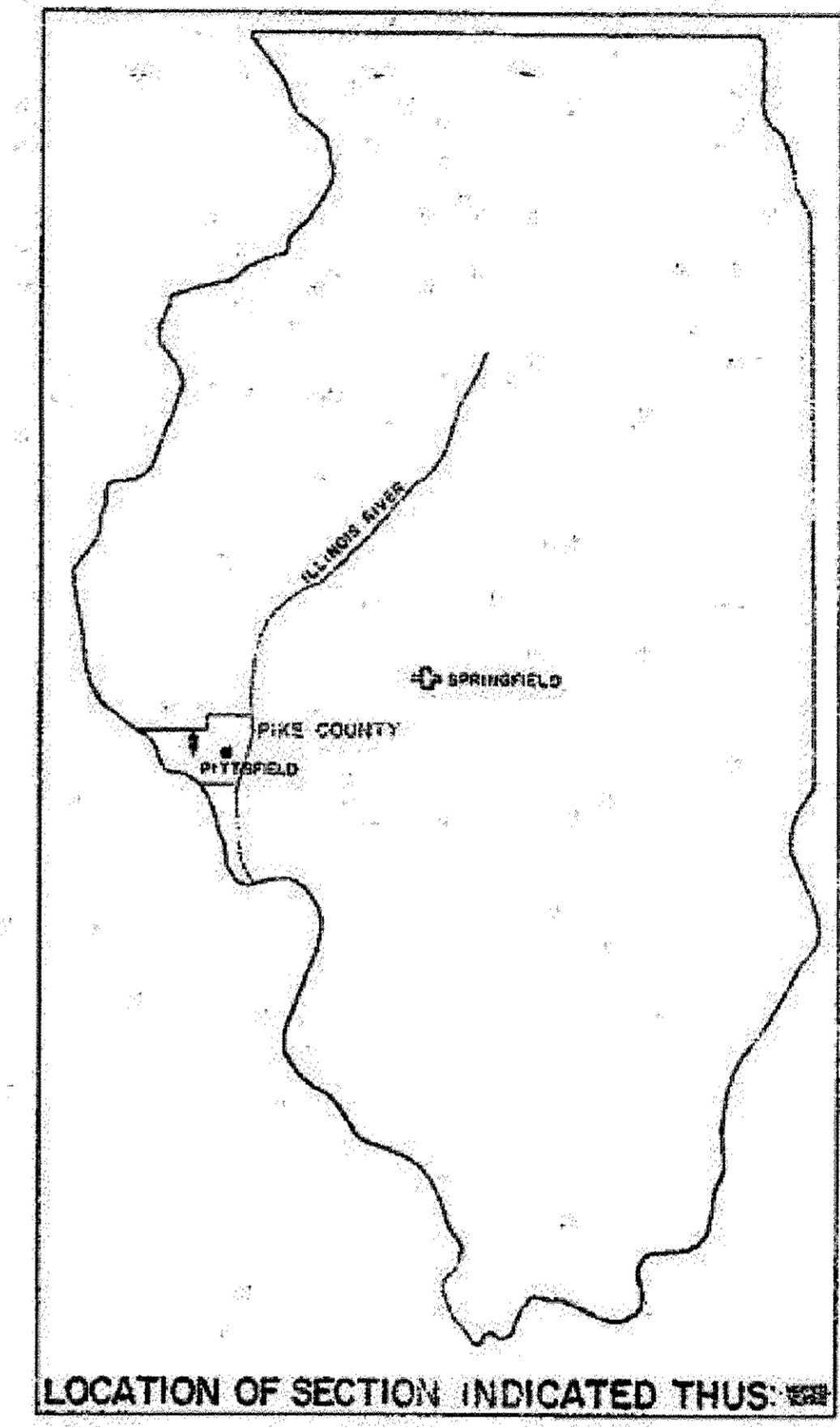
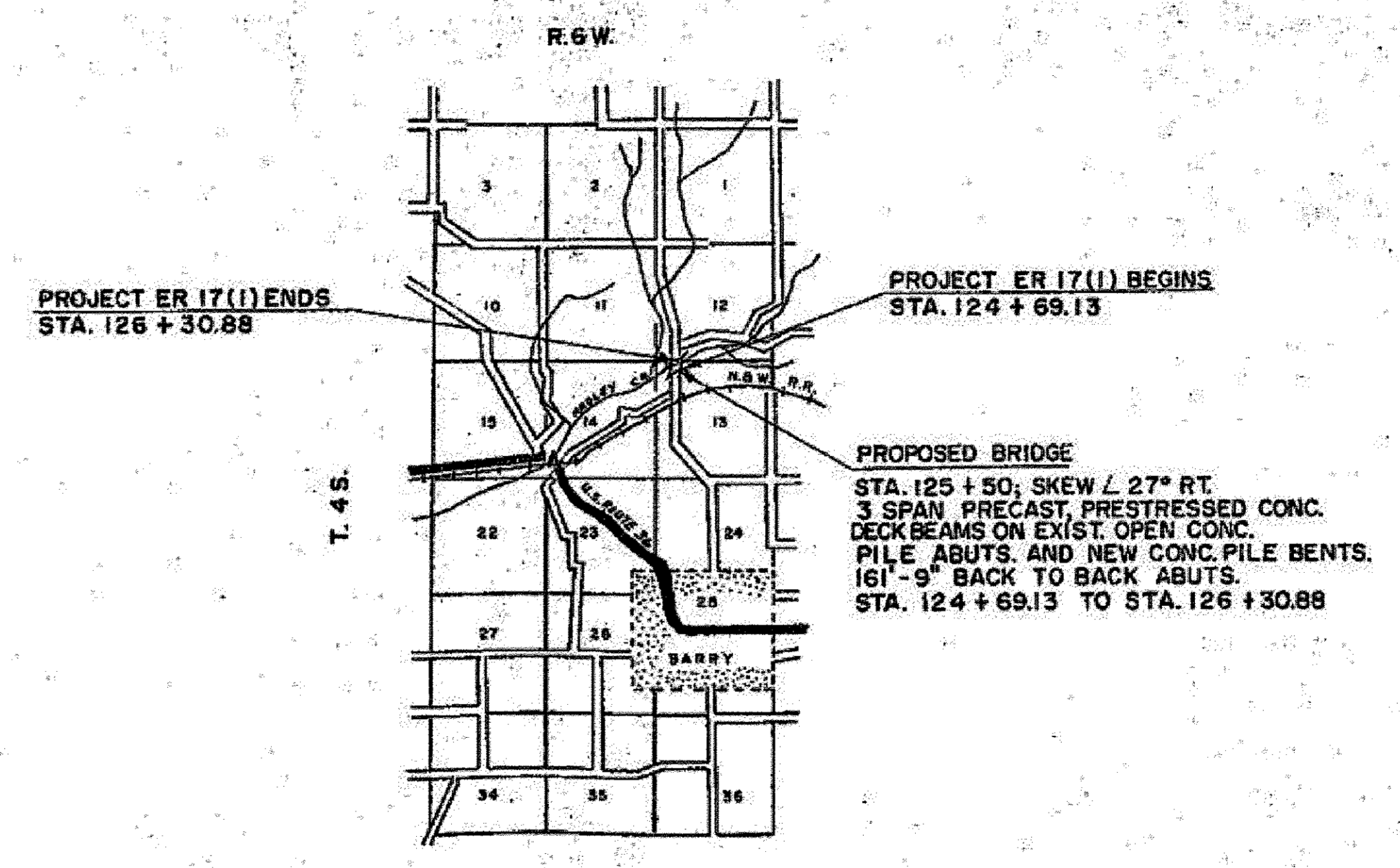
SCALES

PLAN 1 INCH = 100 FEET
 PROFILE HOR. 1 INCH = 100 FEET
 PROFILE VERT. 1 INCH = 10 FEET
 CROSS SECTIONS 1 INCH = 5 FEET

F.A.S. ROUTE 596 SECTION 39B PIKE COUNTY
PROJECT ER 17(I)

SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM	CODE NO.
1190	CU. YD.	BORROW EXCAVATION	204001
43	TON	BITUMINOUS CONC. SURFACE COURSE, CLASS I	408008
1	EACH	REMOVAL OF EXISTING STRUCTURES	501001
44	EACH	EXPANSION BOLTS 3/4 INCH	501026
118	SQ. YD.	PROTECTIVE COAT	503004
85.2	CU. YD.	CLASS X CONCRETE	504003
4452	SQ. FT.	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	505005
314	LIN. FT.	ALUMINUM RAILING	508005
7529	POUND	REINFORCEMENT BARS	512001
418	LIN. FT.	FURNISHING CONCRETE PILES	513021
418	LIN. FT.	DRIVING CONCRETE PILES	513027
1	EACH	TEST PILE (CONCRETE)	513041
1	EACH	NAME PLATES	514001
768	SQ. YD.	STONE RIPRAP	601001
78	LIN. FT.	STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL	628001
65	LIN. FT.	STEEL PLATE BEAM GUARD RAIL REMOVAL, S.R.	633006
0.1	ACRE	SEEDING, CLASS III	642003
1	EACH	ENGINEER'S FIELD OFFICE, TYPE B	646002
440	SQ. YD.	COAL TAR INTERLAYER PROTECTIVE COAT	710178



JOB NO. PRC-96-001-73
CONTRACT NO. 27589

PLANS SUBMITTED BY: *Russell H. ...* PIKE COUNTY SUPT. OF HIGHWAYS

APPROVED

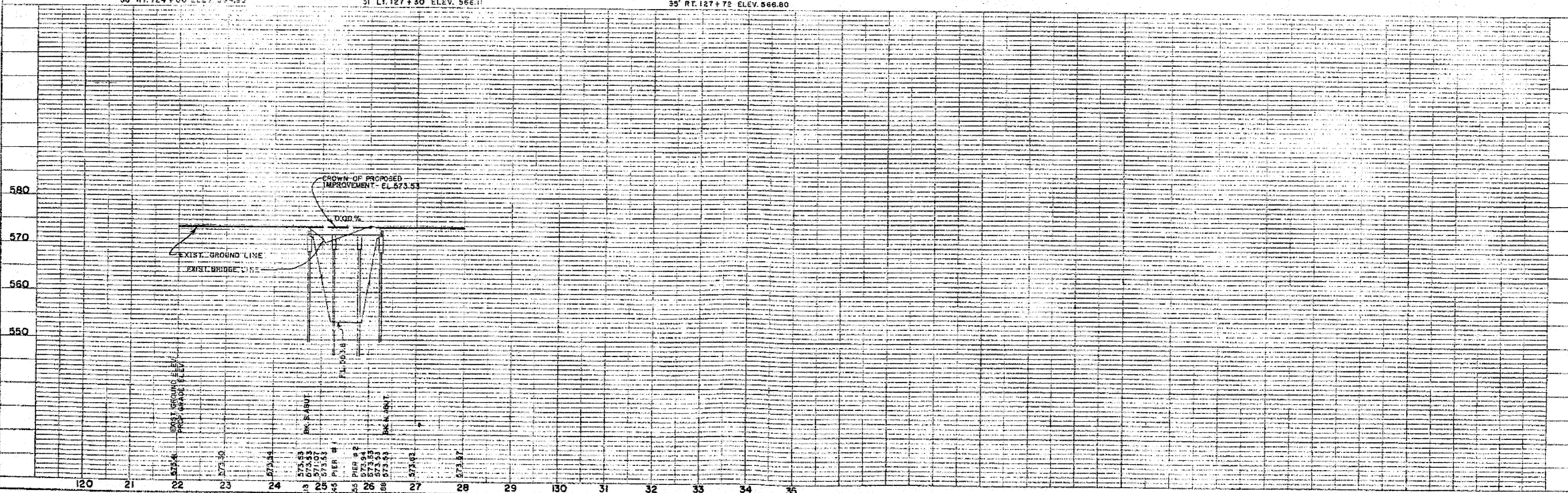
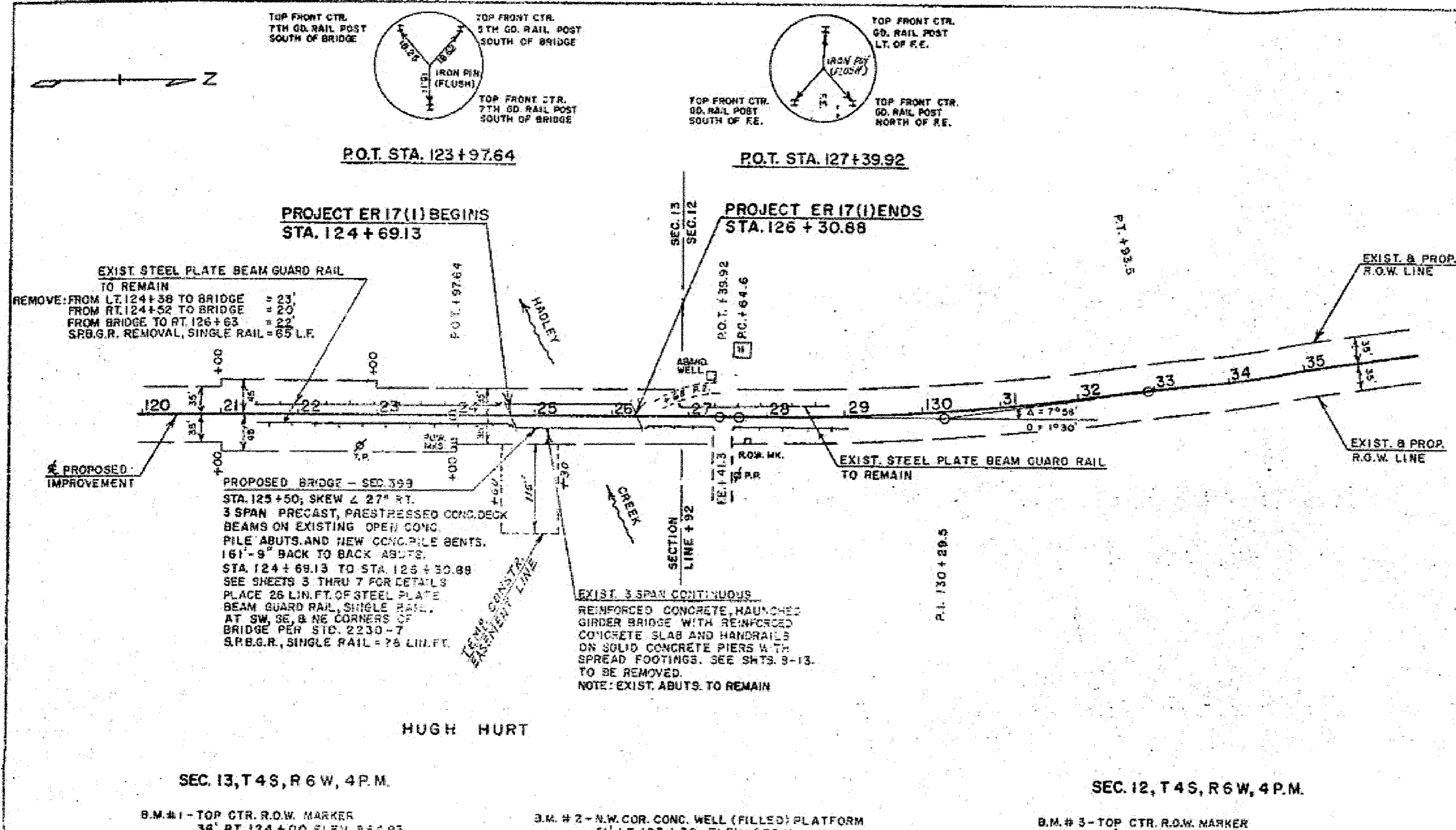
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED: *Aug 27, 79*
R. H. ...
 PASSED: *Sept 11, 1979*
W. ...
 ENGINEER OF LOCAL ROADS AND STREETS
 APPROVED: *Sept 14, 1979*
Charles F. ...
 ACTING CHIEF TRANSPORTATION ENGINEER

EXISTING PLANS

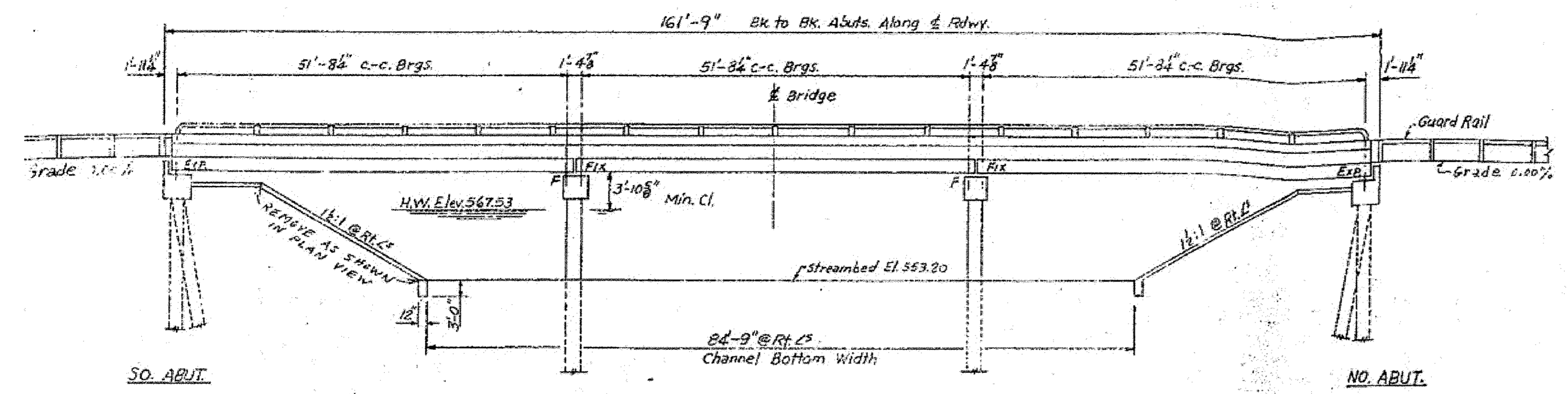
SHEET NO. 1	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	23
13 SHEETS	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BR5-0596(107)		

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
596	39B	PIKE	38	24

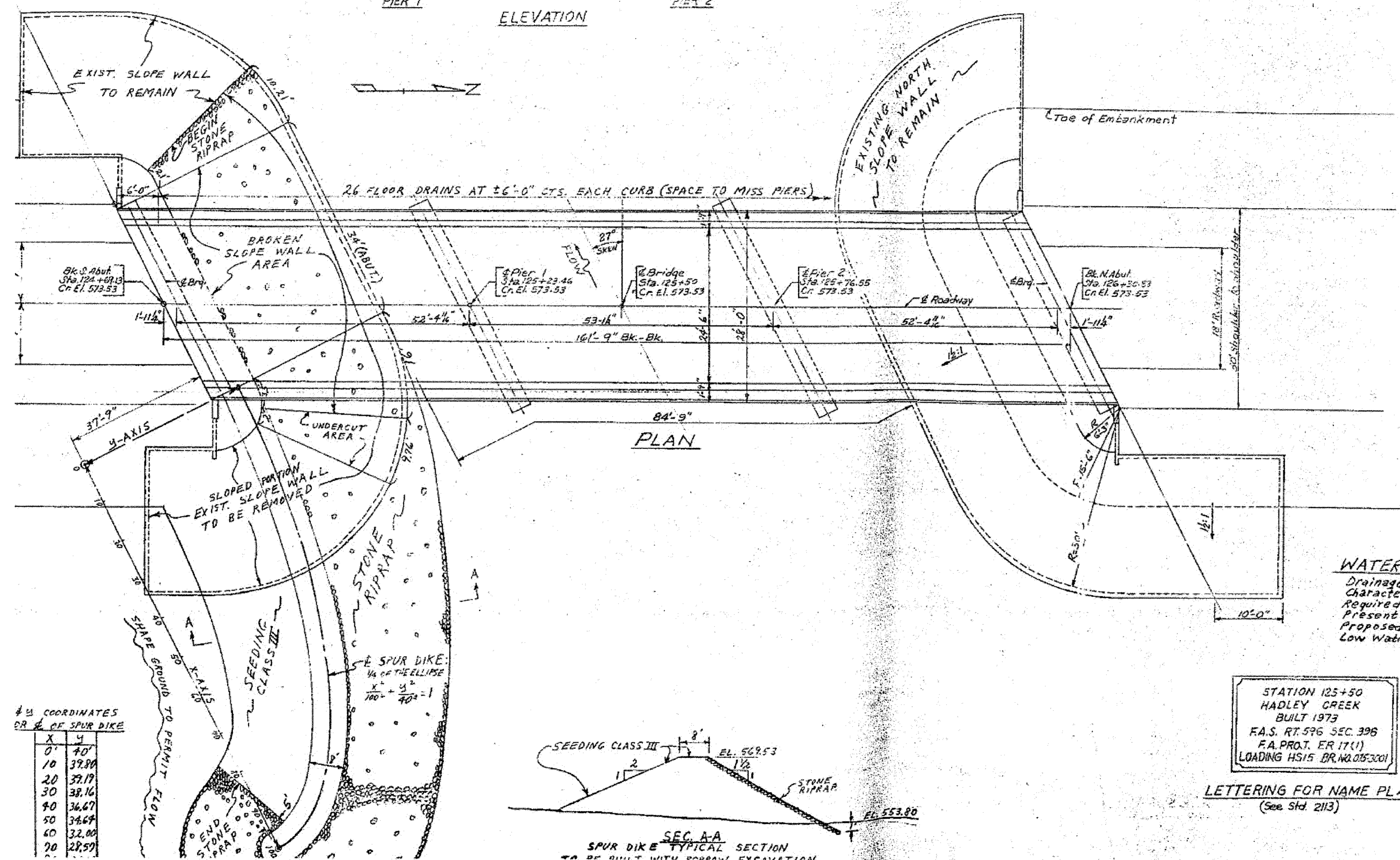


EXISTING PLANS

SHEET NO. 2 13 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	24
	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)		



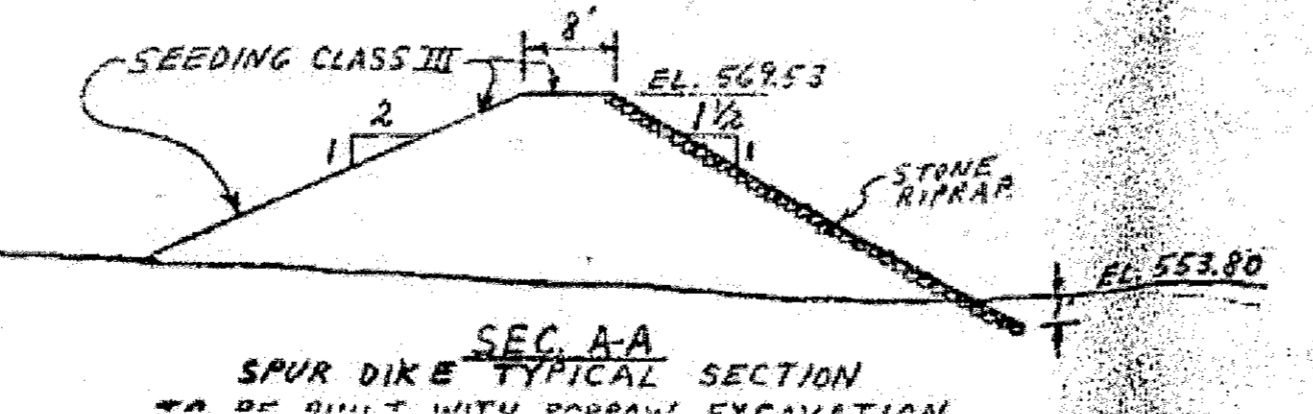
ELEVATION



PLAN

of COORDINATES OR # OF SPUR DIKE

X	Y
0'	40'
10	39.89
20	39.19
30	38.16
40	36.67
50	34.69
60	32.00
70	28.59



SPUR DIKE TYPICAL SECTION

STATION 125+50
HADLEY CREEK
BUILT 1973
F.A.S. RT. 596 SEC. 396
F.A. PROT. ER 17(1)
LOADING HS15 BR. NO. 015-3001

LETTERING FOR NAME PLATE
(See Std. 2113)

GENERAL NOTES

- Class X Concrete Shall Be Used Throughout
- It Shall Be The Responsibility Of The Contractor To Verify All Dimensions And Conditions Existing In The Field Prior To Construction And Ordering Of Materials
- All Reinforcement Bars Shall Be Lap Spliced Unless Otherwise Shown
- The Concrete Part Section Above The Mainline Channel Joint At The Top Of The Beam Shall Be Constructed In Class Concrete, Except The Aggregate Shall Conform To The Requirements Of Handrail Concrete
- The Contractor Shall Drive One Concrete Test Pier At Each Location At Pier No. 1 As Indicated By The Engineer Before Ordering The Remainder Of Piers
- Crown Elevations Shown Are To Top Of Deck Slab
- Protective Coat Shall Not Be Applied To Spots To Which Coal Tar Interlayer Protective Coat Is Applied
- Expansion Guards Which Are Not Cast In The Precast Units Shall Be Fabricated And Erected In Accordance With Article 502.07 Of The Standard Specifications

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
Removal of Existing Structure	Each	1	-	-
Class X Concrete	cu yd	24.51	57.25	1403.83
Reinforcement	lb	12,500	0.15	1875.00
Precast Prestressed Concrete Bridge	Each	1	1200.00	1200.00
3rd Expansion	Each	1	100.00	100.00
Furnishing Concrete Piles	Lin. Ft.	415	1.50	622.50
Driving Concrete Piles	Lin. Ft.	415	1.50	622.50
Test Piles	Each	1	500.00	500.00
Aluminum	Each	1	100.00	100.00
Name Plating	Each	1	100.00	100.00
Boarding	sq yd	100	1.00	100.00
Seeding Class III	sq yd	100	1.00	100.00
Protective Coat	sq yd	100	1.00	100.00
Coal Tar Interlayer Protective Coat	sq yd	100	1.00	100.00
Bituminous Concrete Surface Course, Class I	sq yd	100	1.00	100.00
Seeding Class III	Acres	1.0	1.00	1.00

DESIGN STRESSES

FIELD UNITS
 $f_c = 20,000$ psi (Rein)
 $f_c = 14,500$ psi (Super & Deck)
 $n = 10$
 Loading HS15-44

PRESTRESSED UNITS

$f_c = 5000$ psi
 $f_{sp} = 4000$ psi
 $f_c = 270,000$ psi (21" dia. 37)
 $f_{sp} = 188,700$ psi (21" dia. 37)

WATERWAY INFORMATION

Drainage Area 31.54 Miles
 Character Hilly
 Required Opening (15 Yr. Flood) 1400 Sq. Ft.
 Present Opening 1370 Sq. Ft.
 Proposed Opening 1414 Sq. Ft.
 Low Water Elevation 553.8

GENERAL PLAN & ELEVATION

F.A.S. RT. 596 SEC. 31E

PIKE COUNTY

STATION 125+50

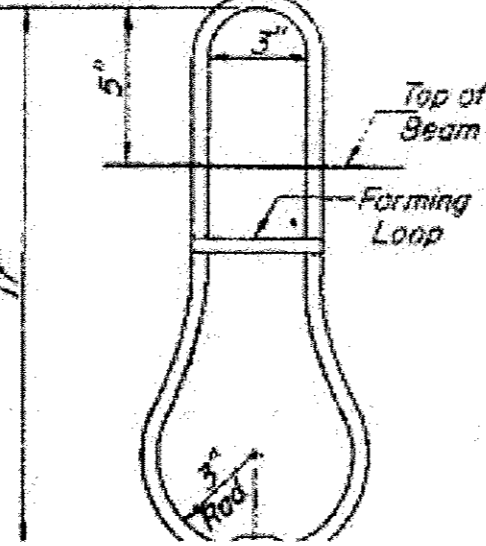
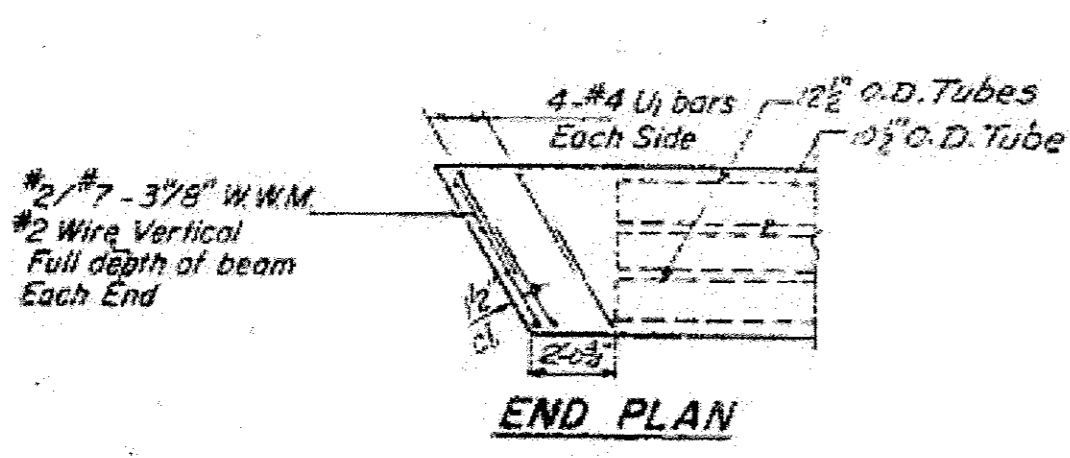
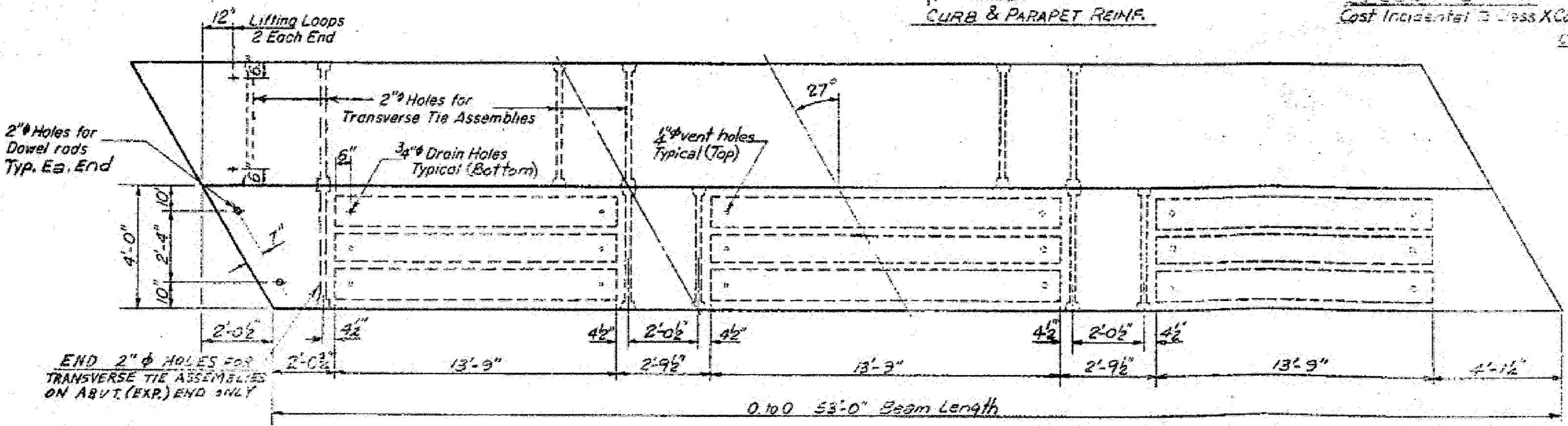
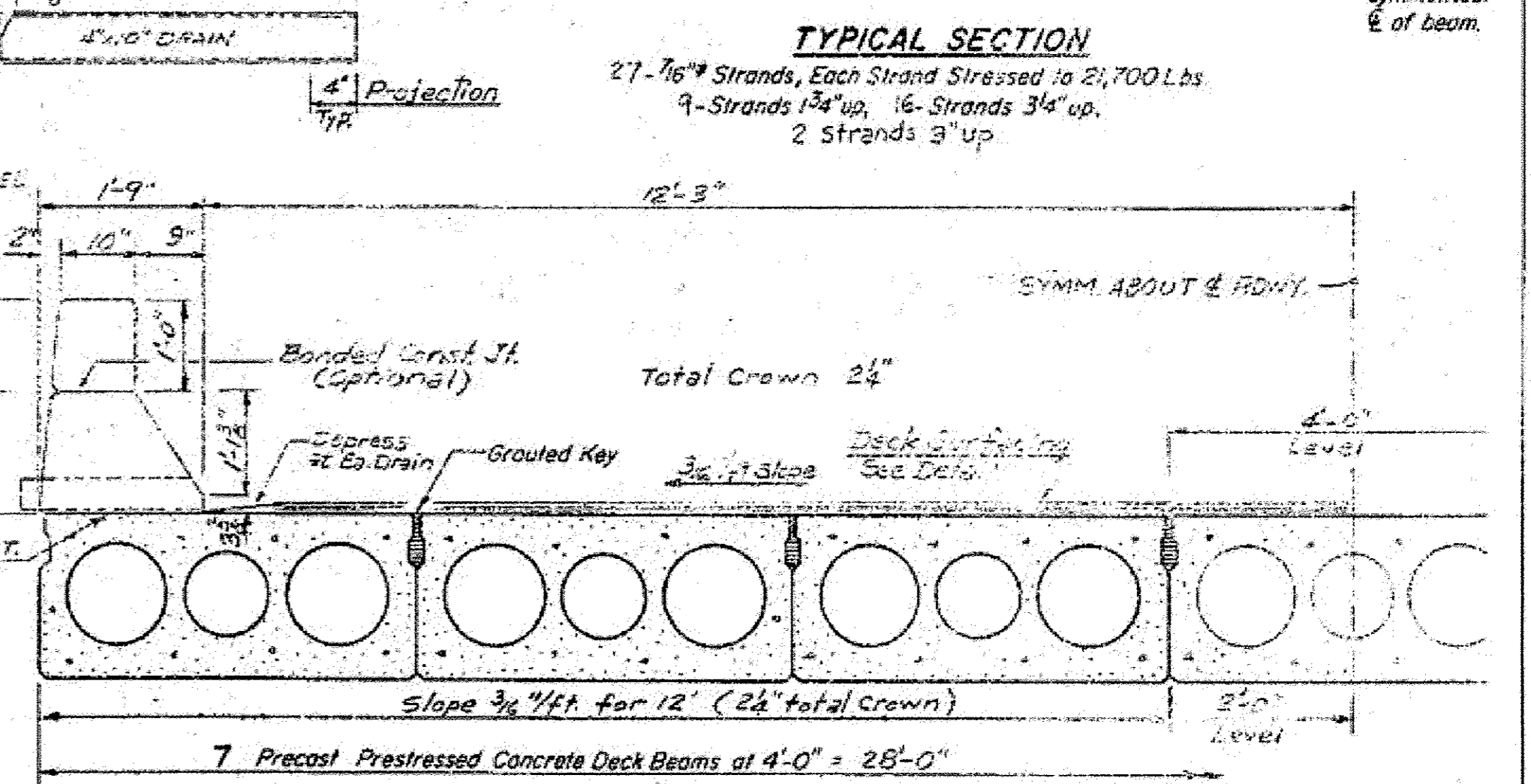
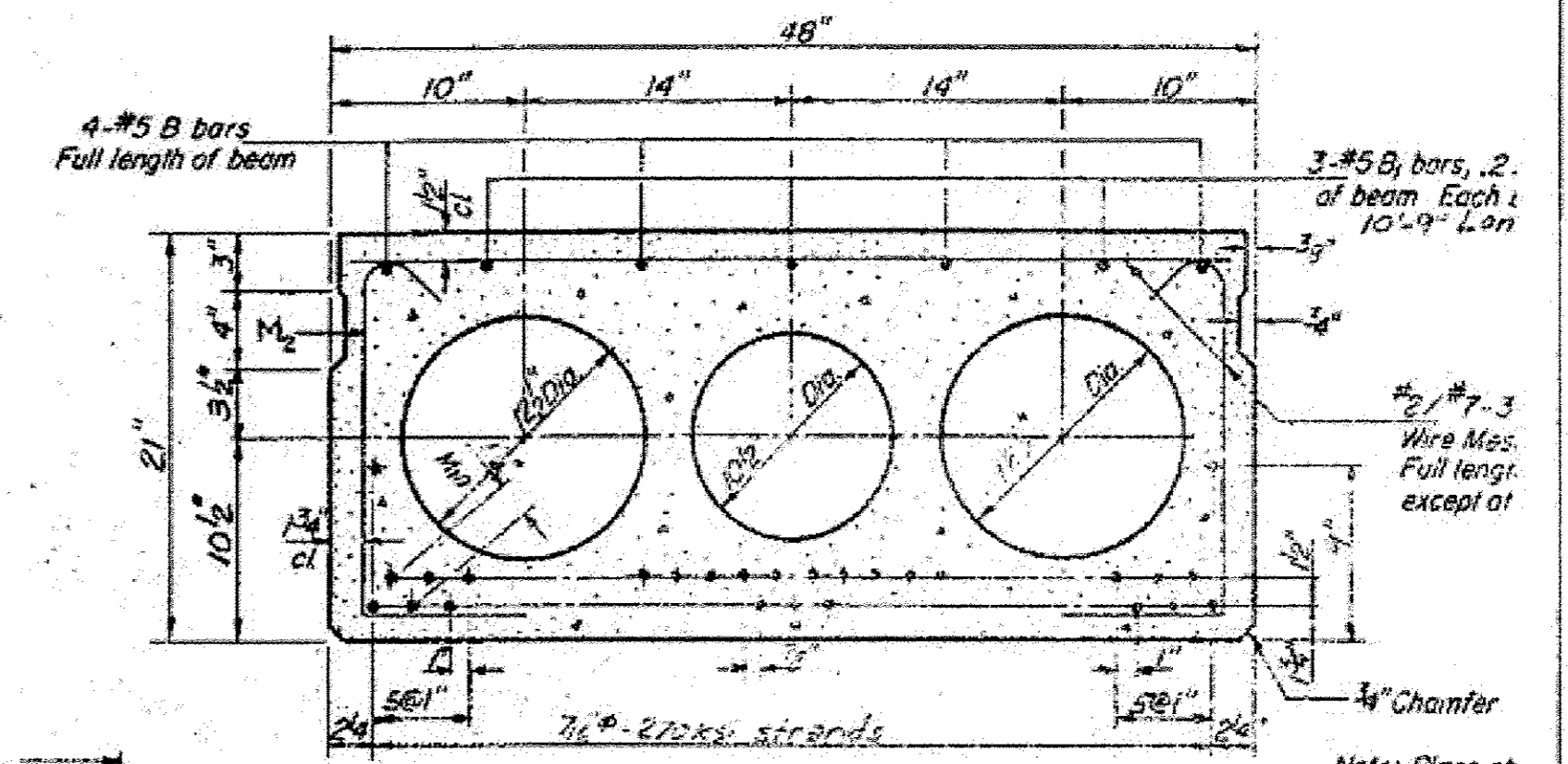
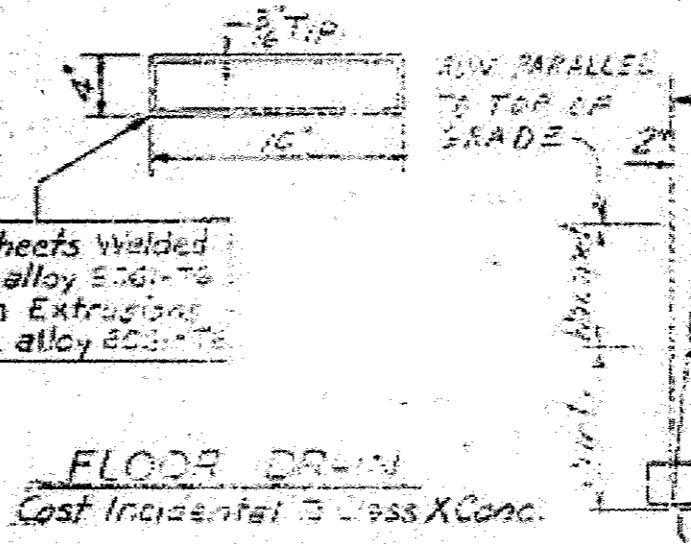
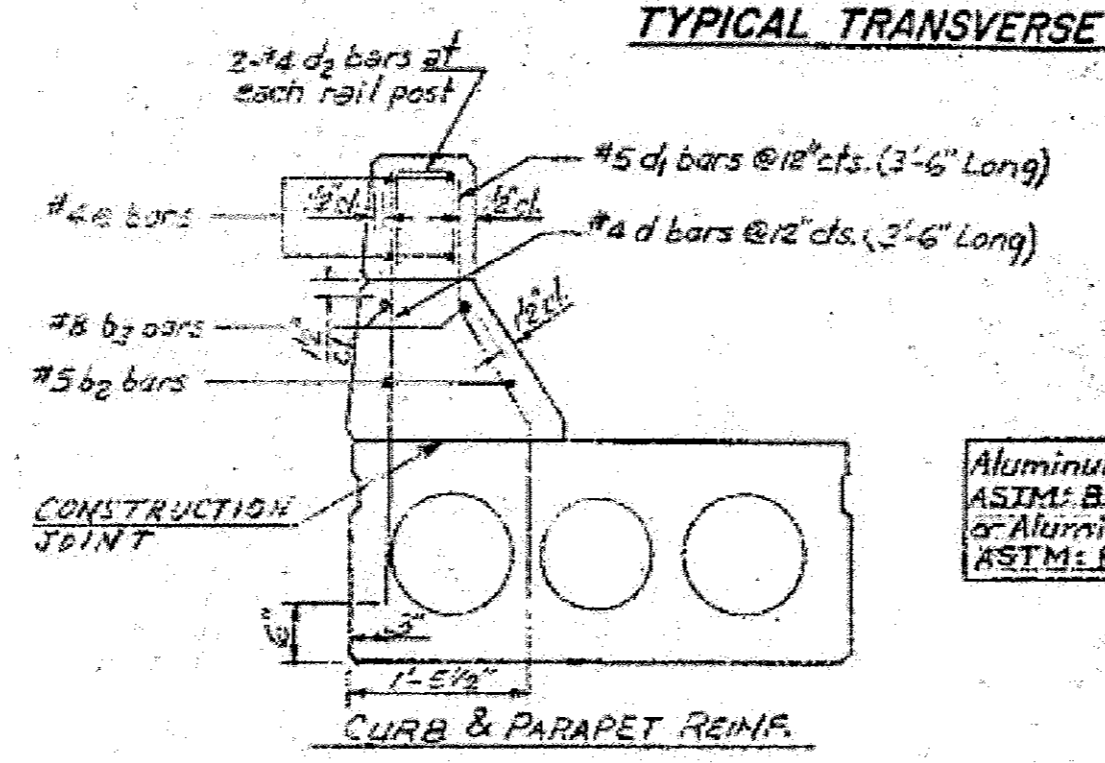
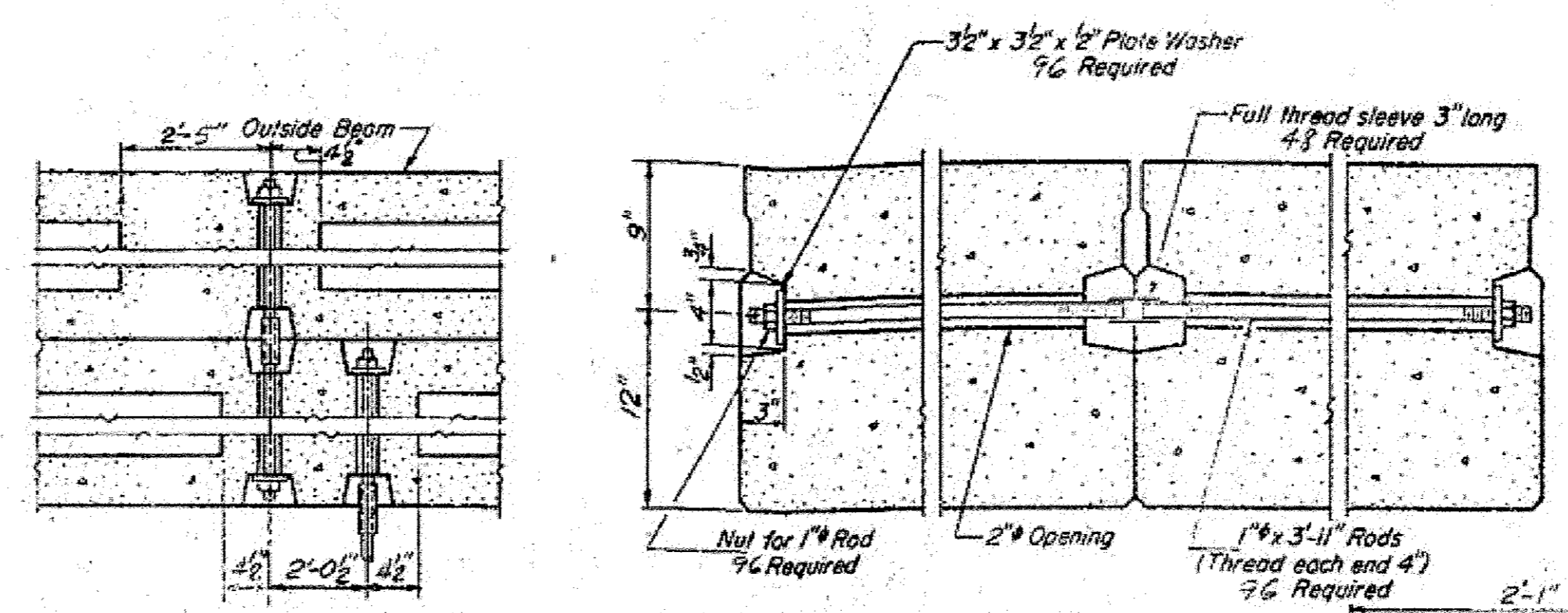
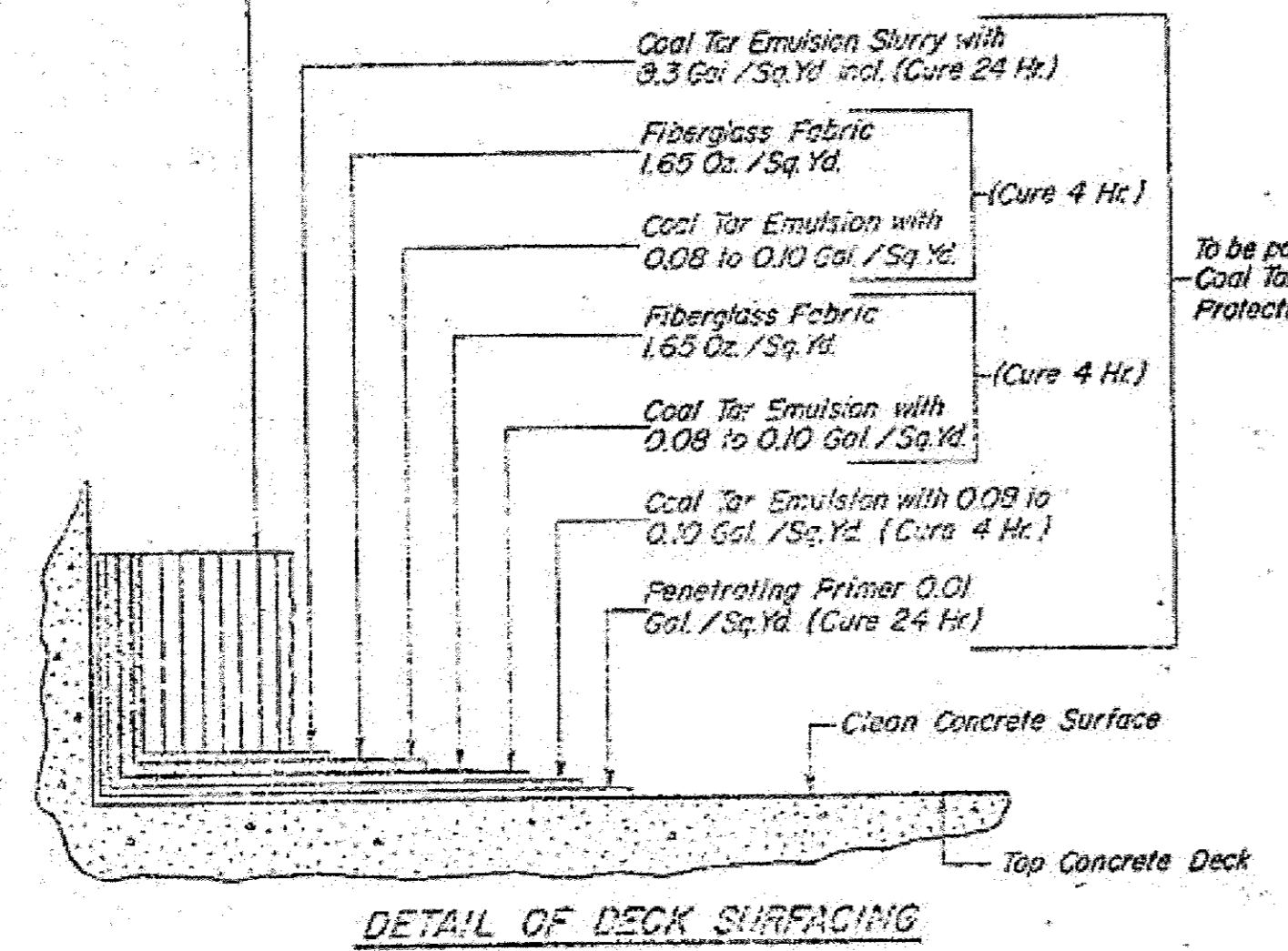
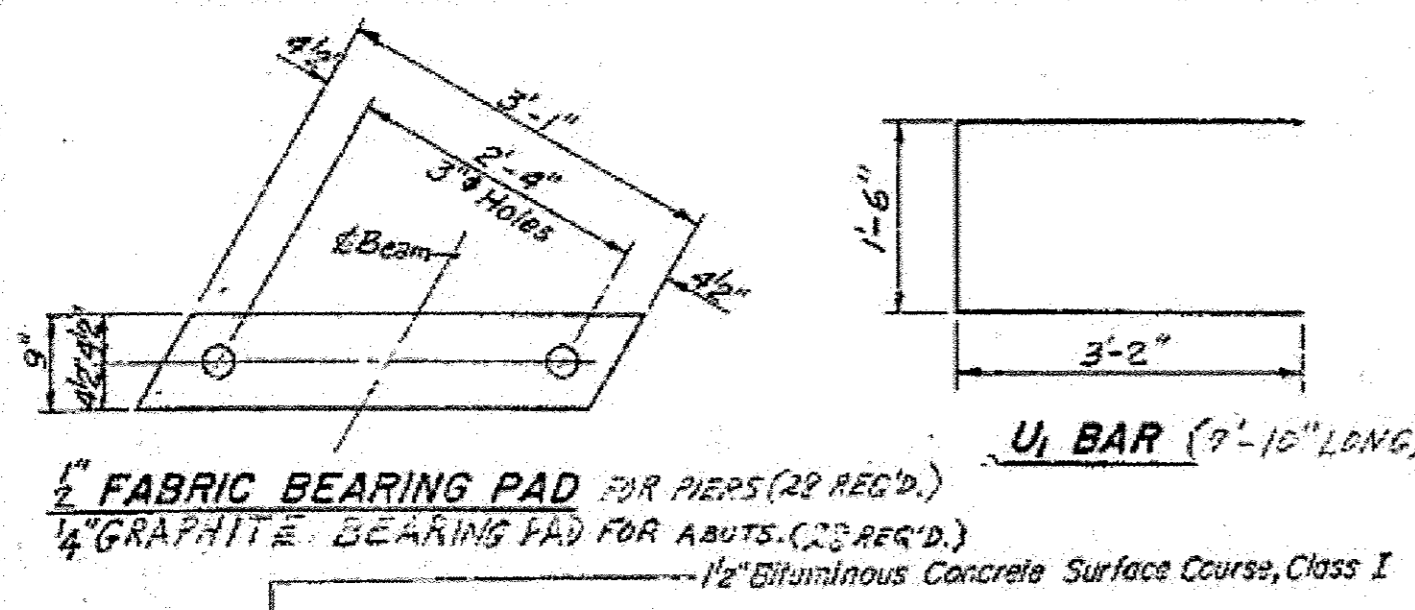
REVISIONS		
NO.	DATE	BY

EXISTING PLANS

SHEET NO. 3	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	25
13 SHEETS	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 596	39	PIKE	17	4
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR-0596(107)				



#2/7-3" x 8" WIRE MESH

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 7/16" and the nominal cross-sectional area shall be 0.115 sq. in. Lifting loops shall be 2" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 47,500 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place. Dowel rods shall be A.S.T.M. A-306 or A.S.T.M. A-615. Transverse tie rods shall be A.S.T.M. A-306, Grade 70-80. After fabrication the transverse tie assemblies (the rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with ASTM Designation A-153. Cast of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams."

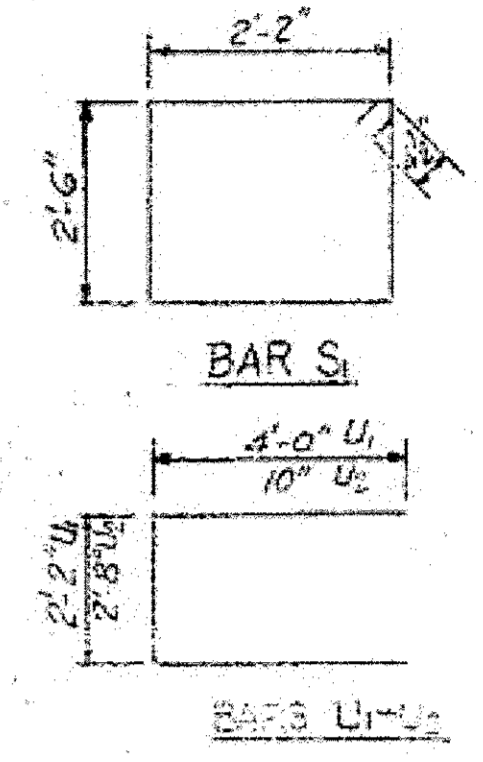
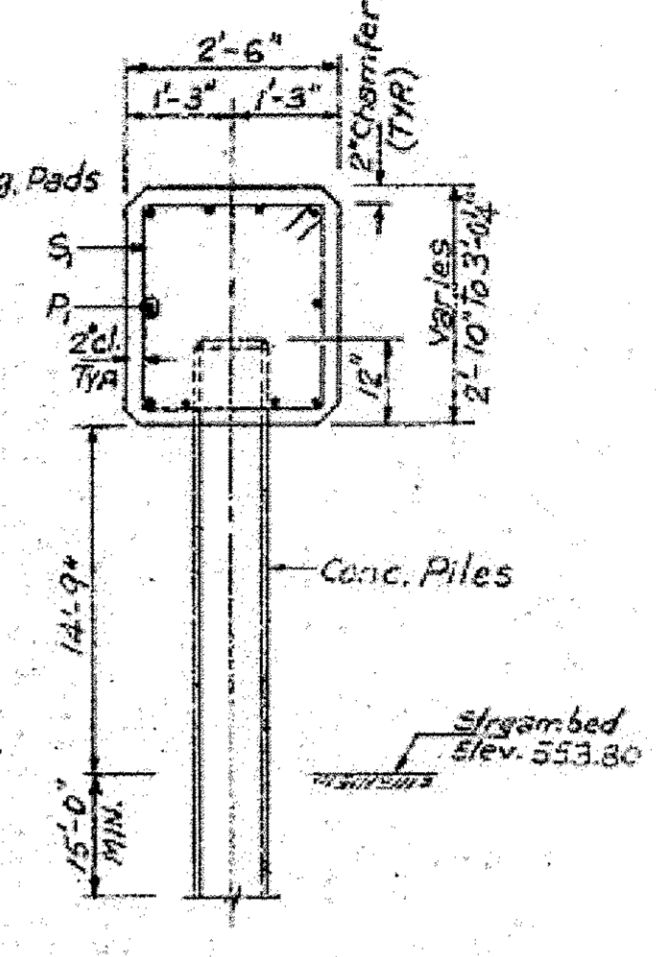
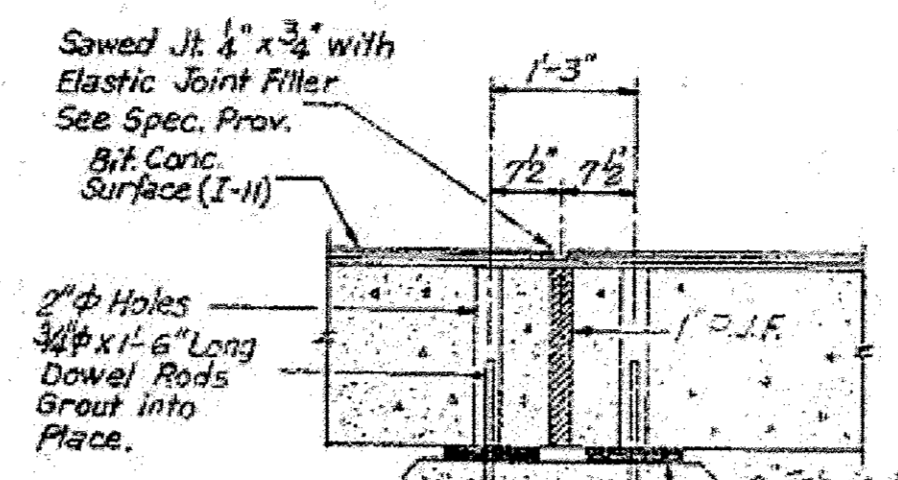
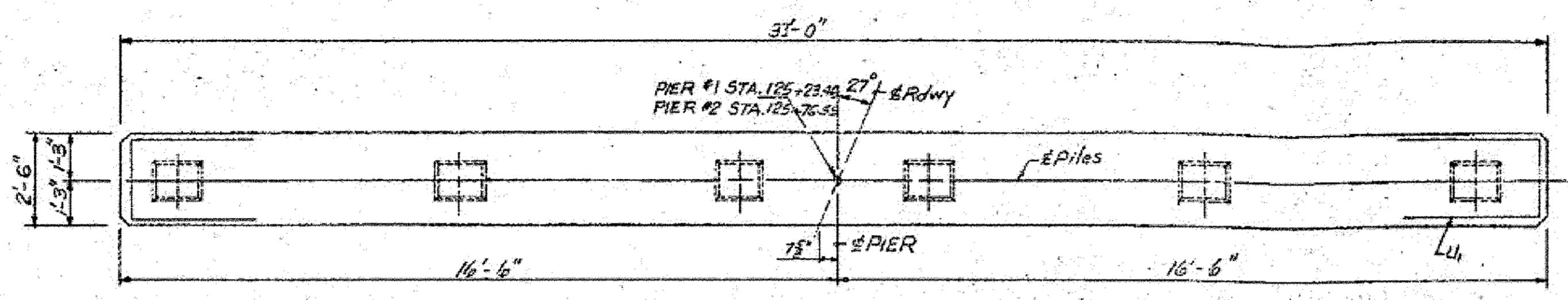
BILL OF MATERIAL

Bar	No.	Size	Length	Sq.
B2	24	#5	27'-0"	
B3	24	#8	27'-6"	
Precast Prestressed Concrete Deck Beams (21") Sq. Ft. 44				
Class X Concrete Cu. Yd. 2				
Reinforcement Bars Lb. 24				

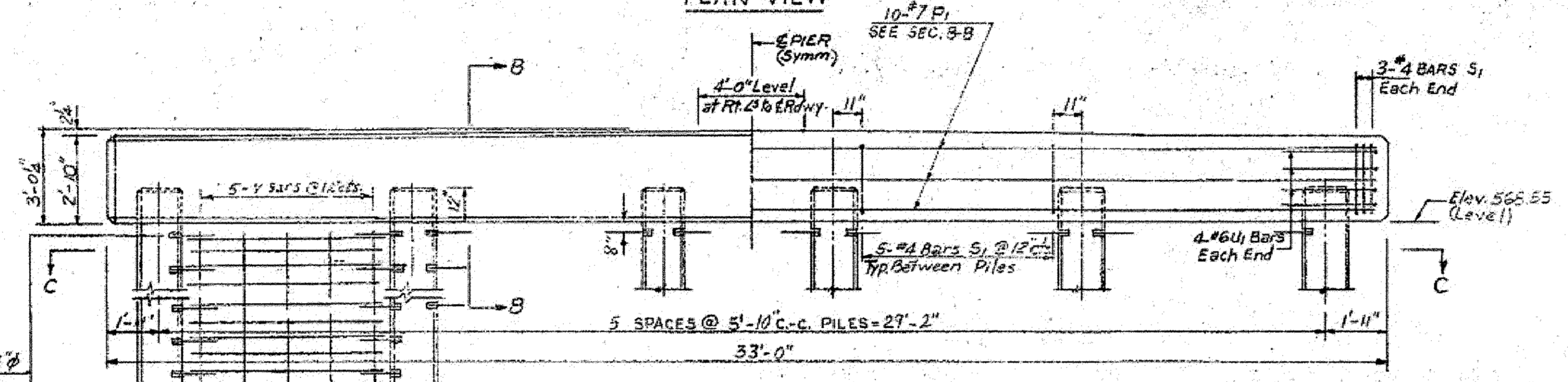
F.A. PROJ. ER 17(1)

EXISTING PLANS

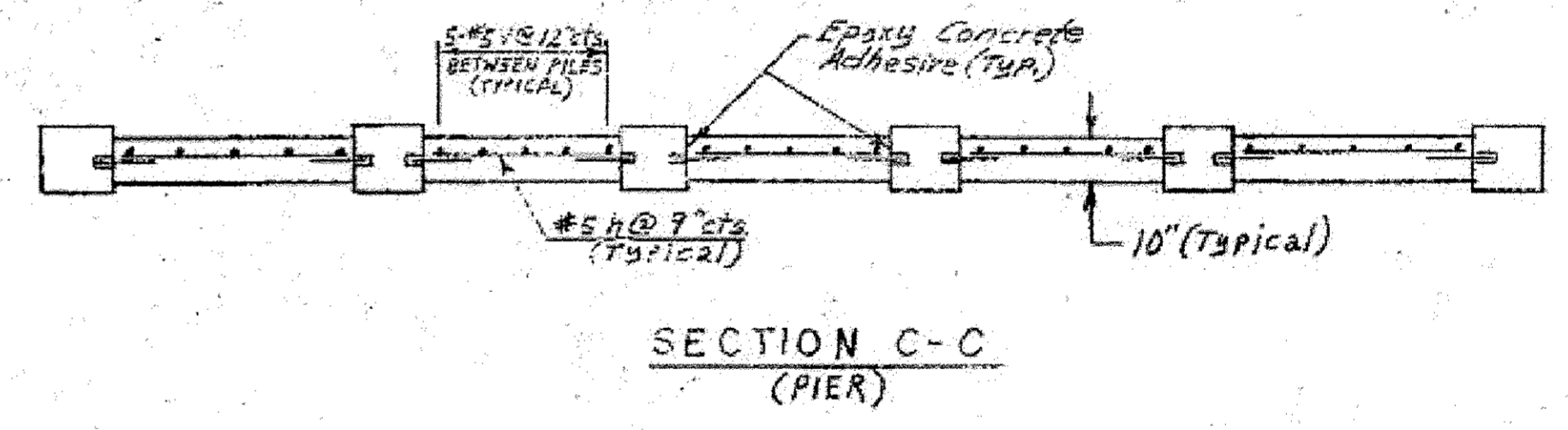
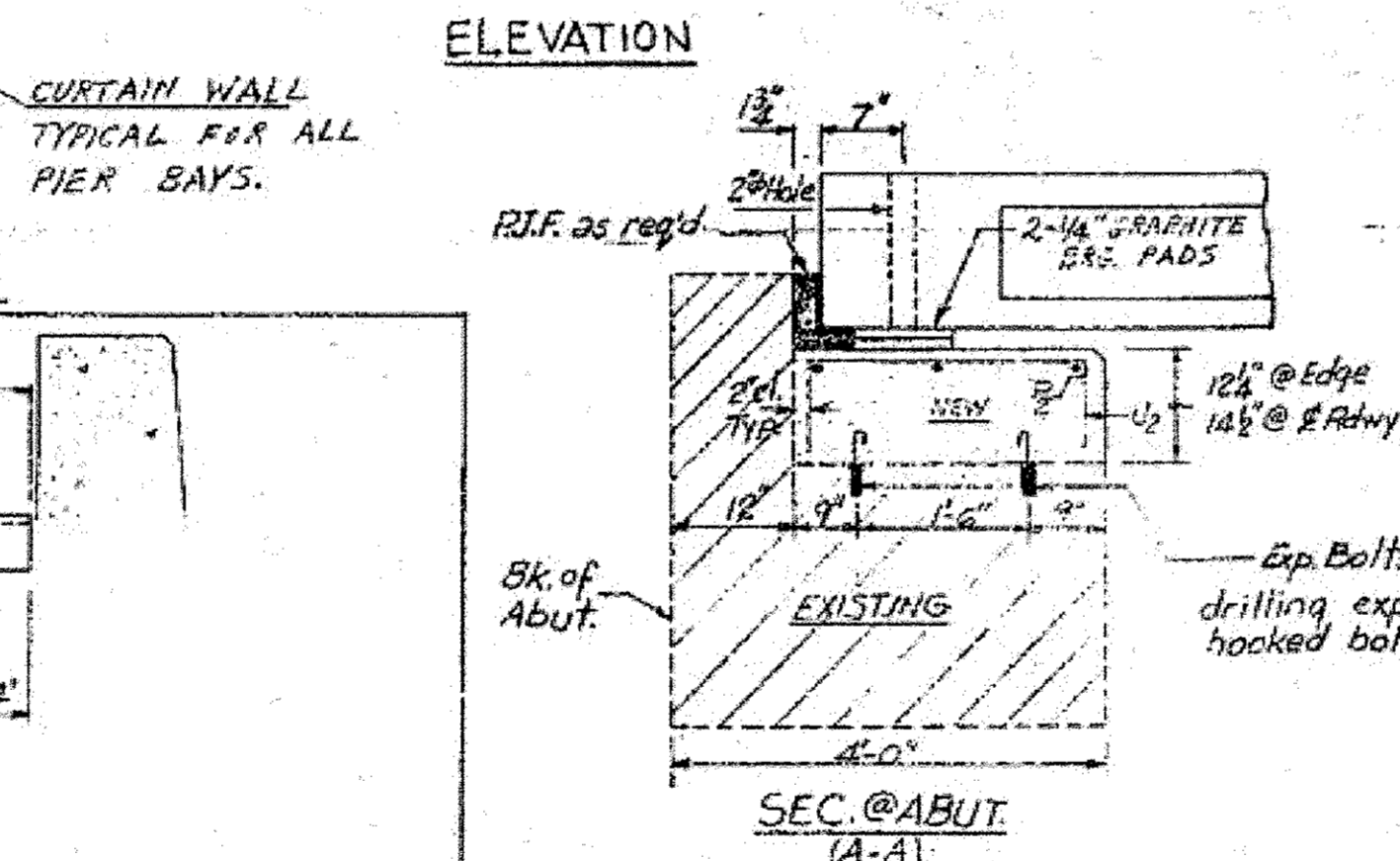
SHEET NO.	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	596	10-00087-00-BR	PIKE	38	26
13 SHEETS SN 075-3329 CONTRACT NO. 93697					
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR-0596(107)		



File Data:
 Type: Concrete
 No. Req'd: 6 Pier 2
 Est. Length: 38 Feet
 Min. Capacity: 37 Tons/Pile
 Min. Penetration Saw Strands: 15 Feet



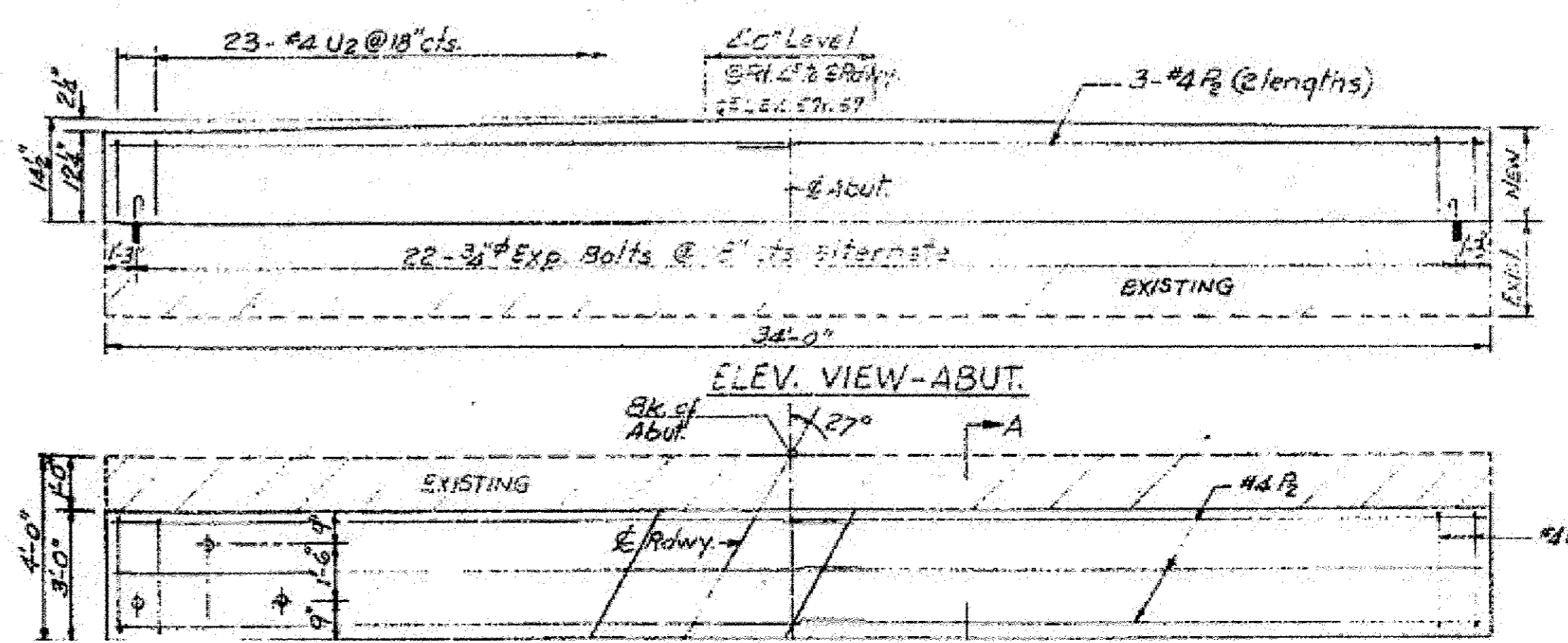
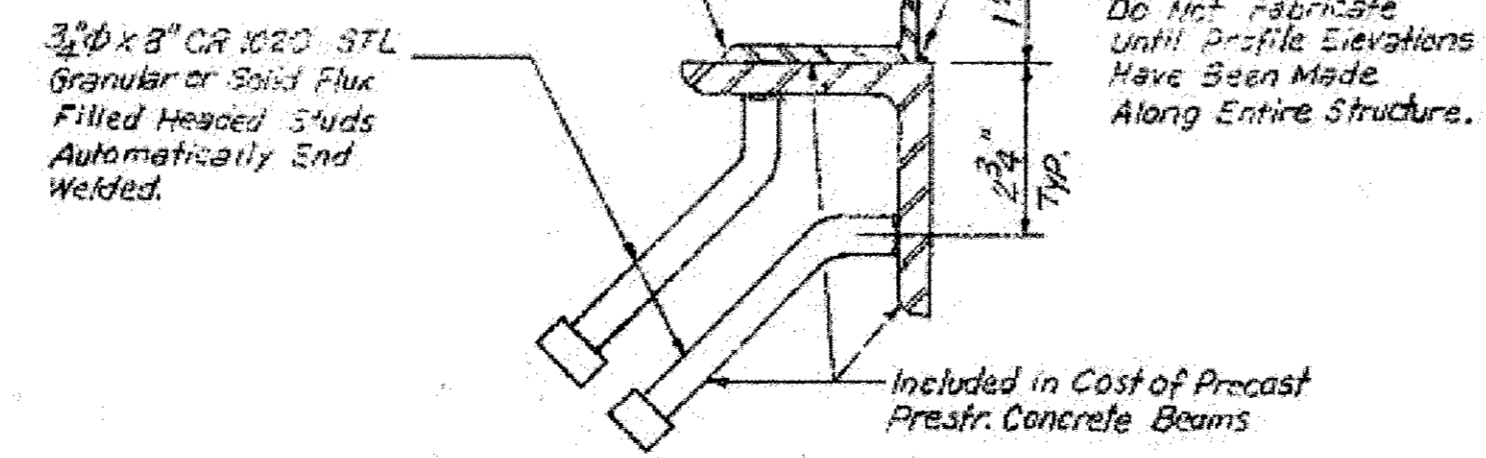
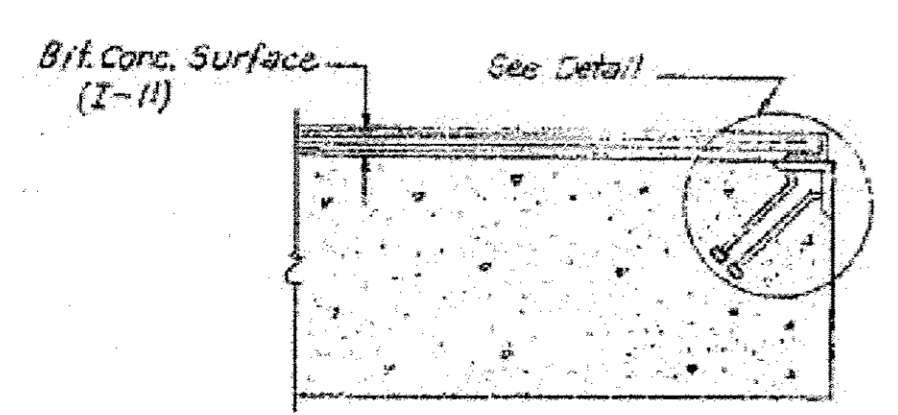
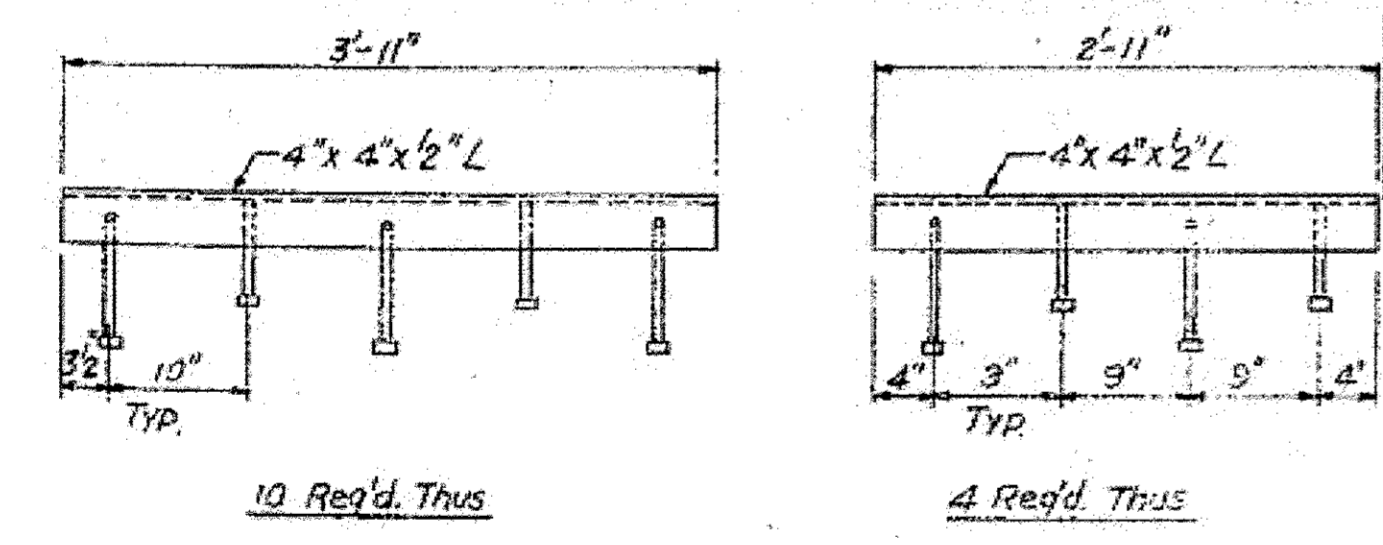
12-3/4" φ x 3" INSERTS WITH 3/4" φ x 1'-6" THREADED RODS @ 18" CTS. ON ONE SIDE FOR EXTERIOR PILES & ON BOTH SIDES FOR INTERIOR PILES. COST OF INSERTS AND THREADED RODS TO BE INCLUDED IN PRICE OF CONCRETE PILES.



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	QTY
P1	20	#7	38'-0"	1
F1	12	#7	17'-0"	1
S1	62	#4	10'-11"	1
U1	16	#6	16'-2"	1
U2	46	#4	4'-2"	1
h	240	#5	4'-4"	1
v	50	#5	17'-0"	1

CLASS X CONCRETE (CU. YDS.) 57
 REINFORCEMENT BARS (LBS.) 711
 CONCRETE PILES (LIN. FT.) 4
 TEST PILES (CONC.) EACH 4
 1/2" EXPANSION BOLTS EACH 4



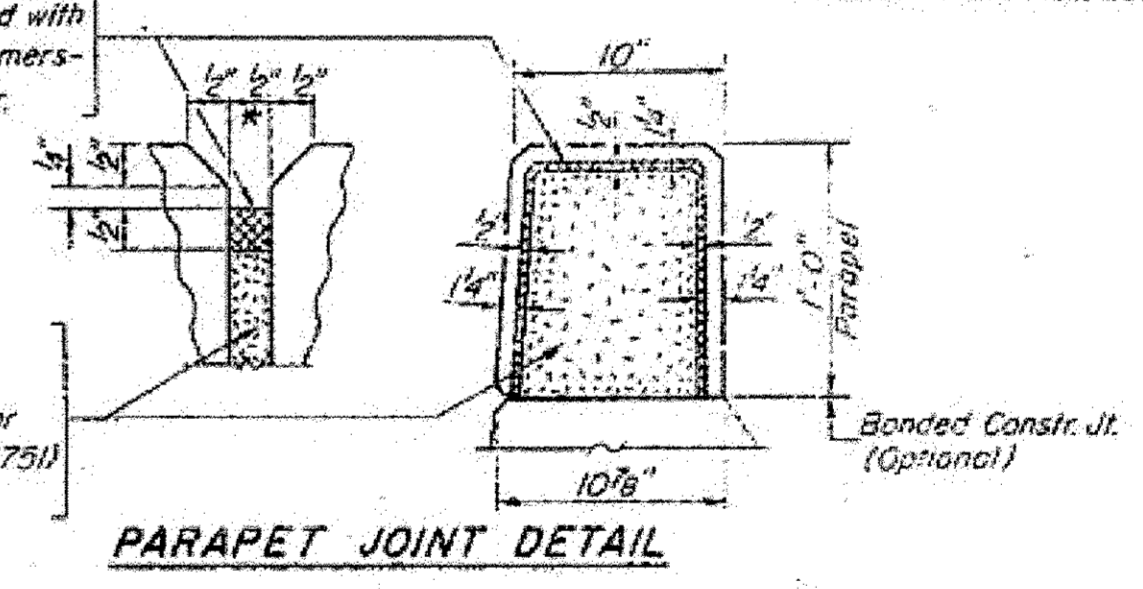
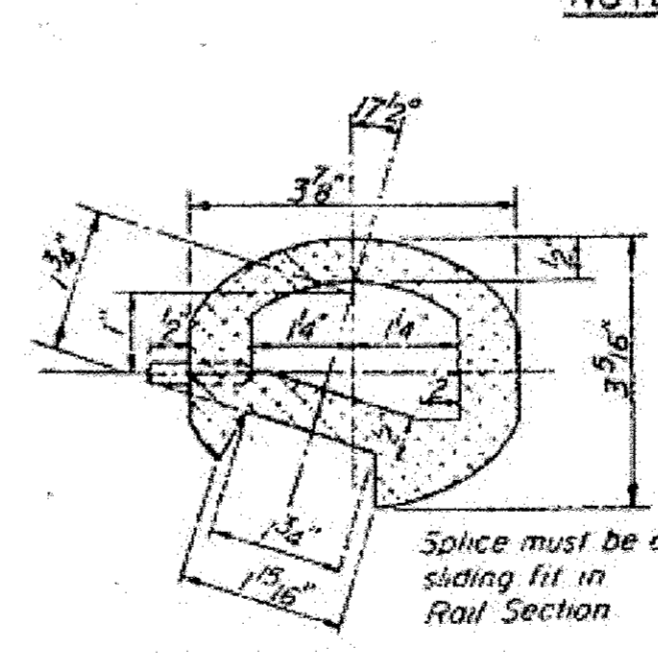
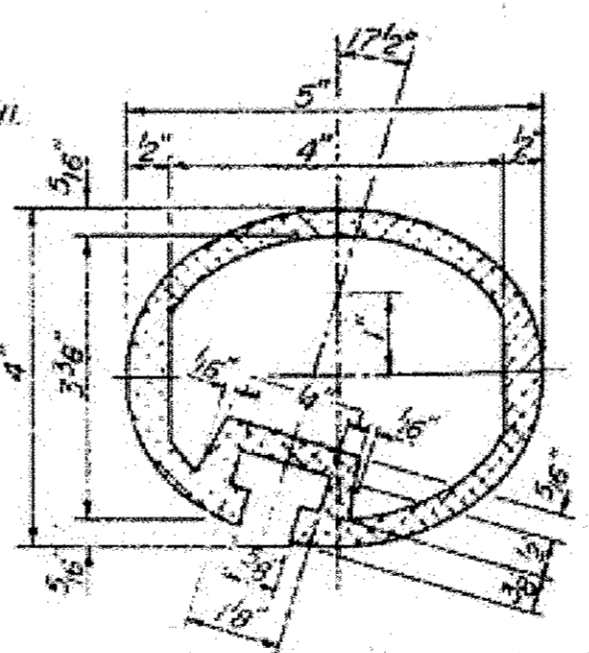
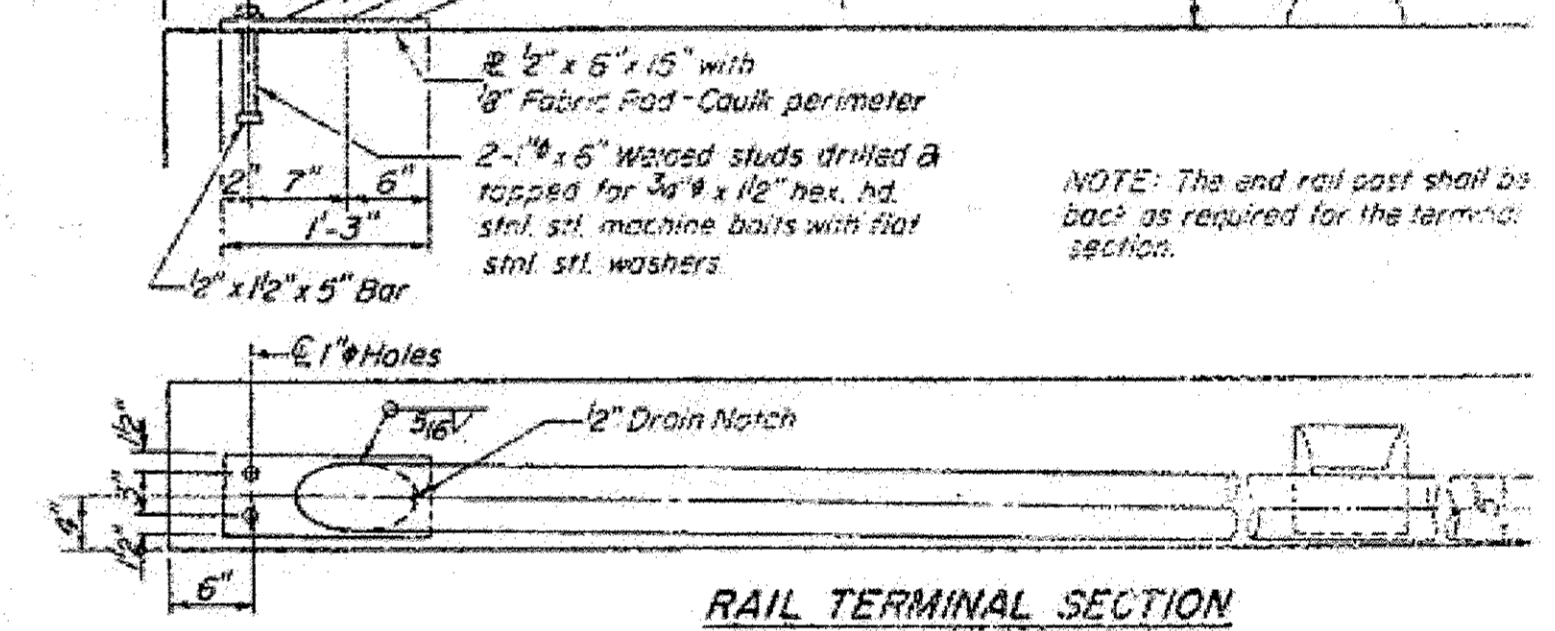
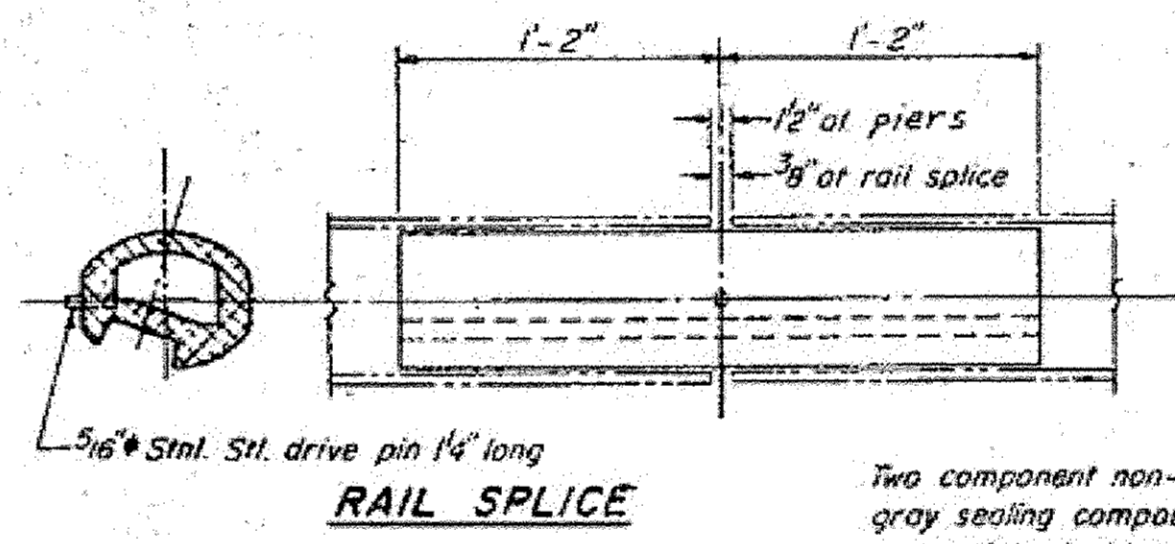
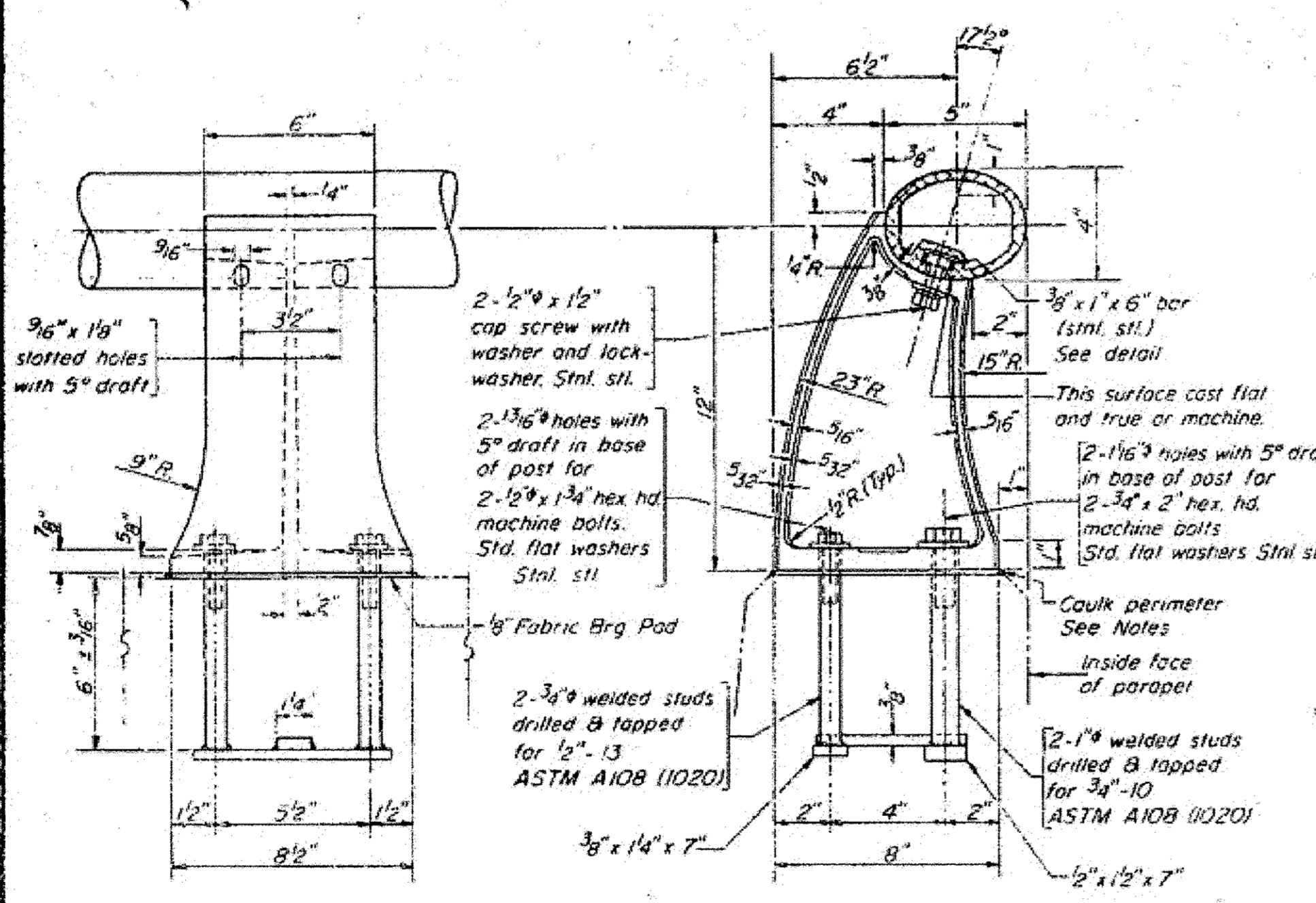
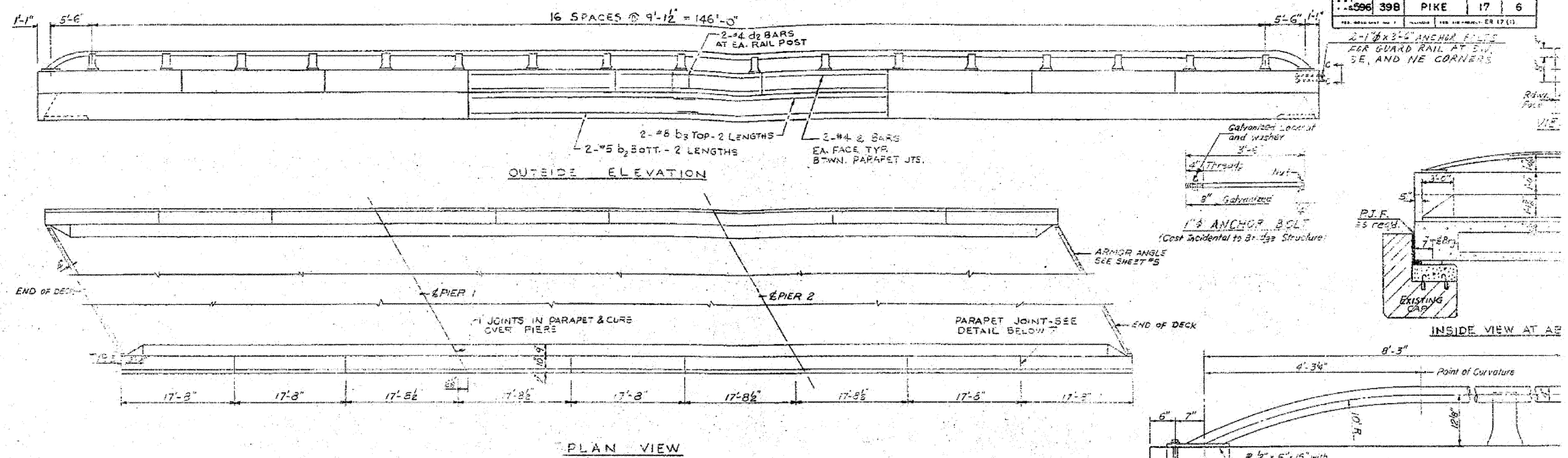
MINIMUM CONCRETE COVER OVER RE. BARS 2" EXCEPT AS NOTED.

EXISTING PLANS

SHEET NO. 5 13 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	27
	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)		

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	398	PIKE	17	6



PARAPETS & R. BILL OF MATER

Bar	No.	Size	Length
de	63	#2	2'-1"
e	72	#4	17'-4"

***Reinforcement Bars Lbs.
 ***Glass X Concrete Cu. Yd.
 ***Aluminum Railing L.in. F.
 ***For Parapets only use 6061-T6 ALUMINUM RAIL

NOTES:
 All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
 All joints in rail shall be spliced per detail.
 Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.
 Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.
 Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min yield 35 ksi min tensile 38 ksi and

DESIGNED
CHECKED
DRAWN
CHECKED

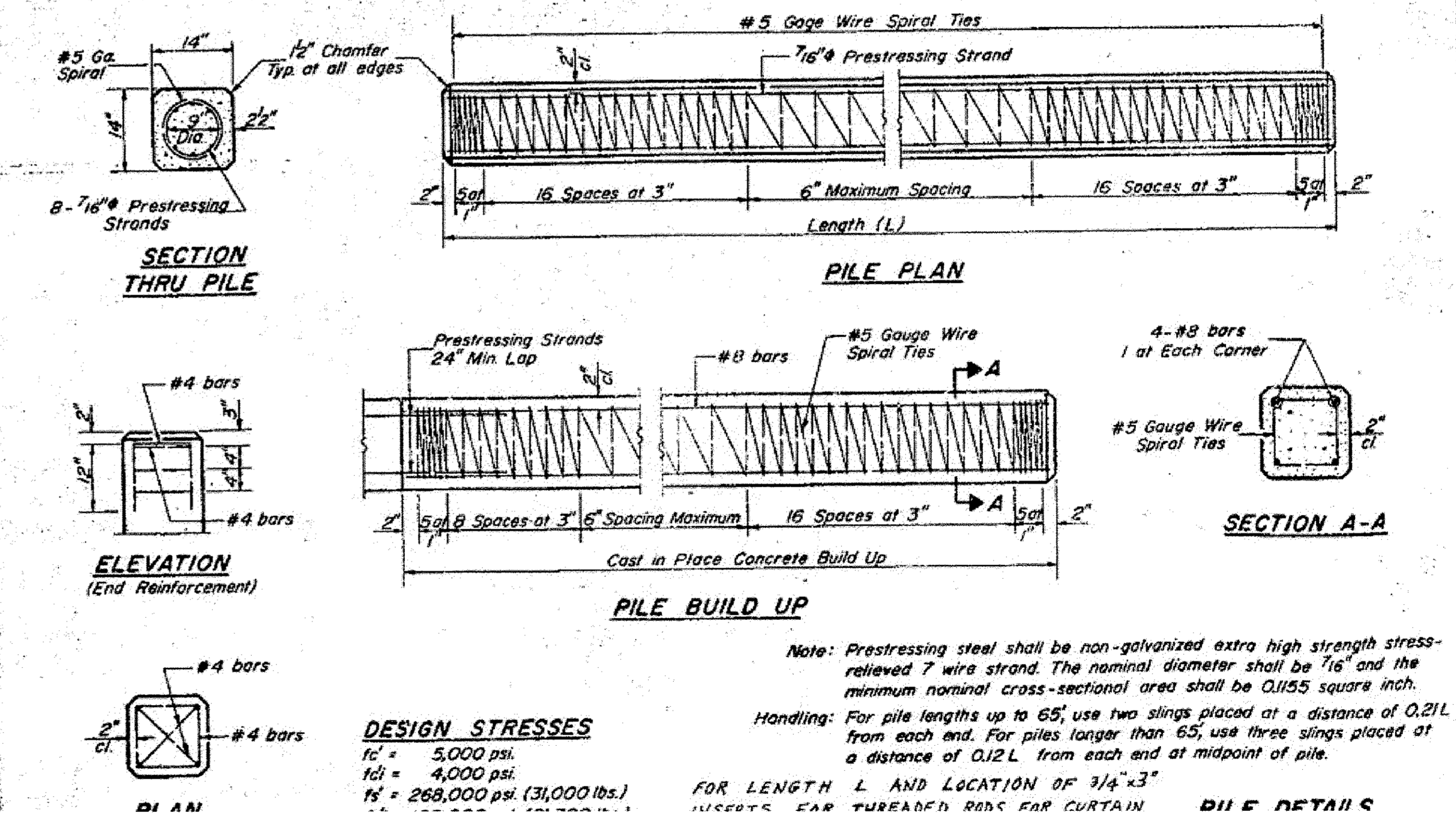
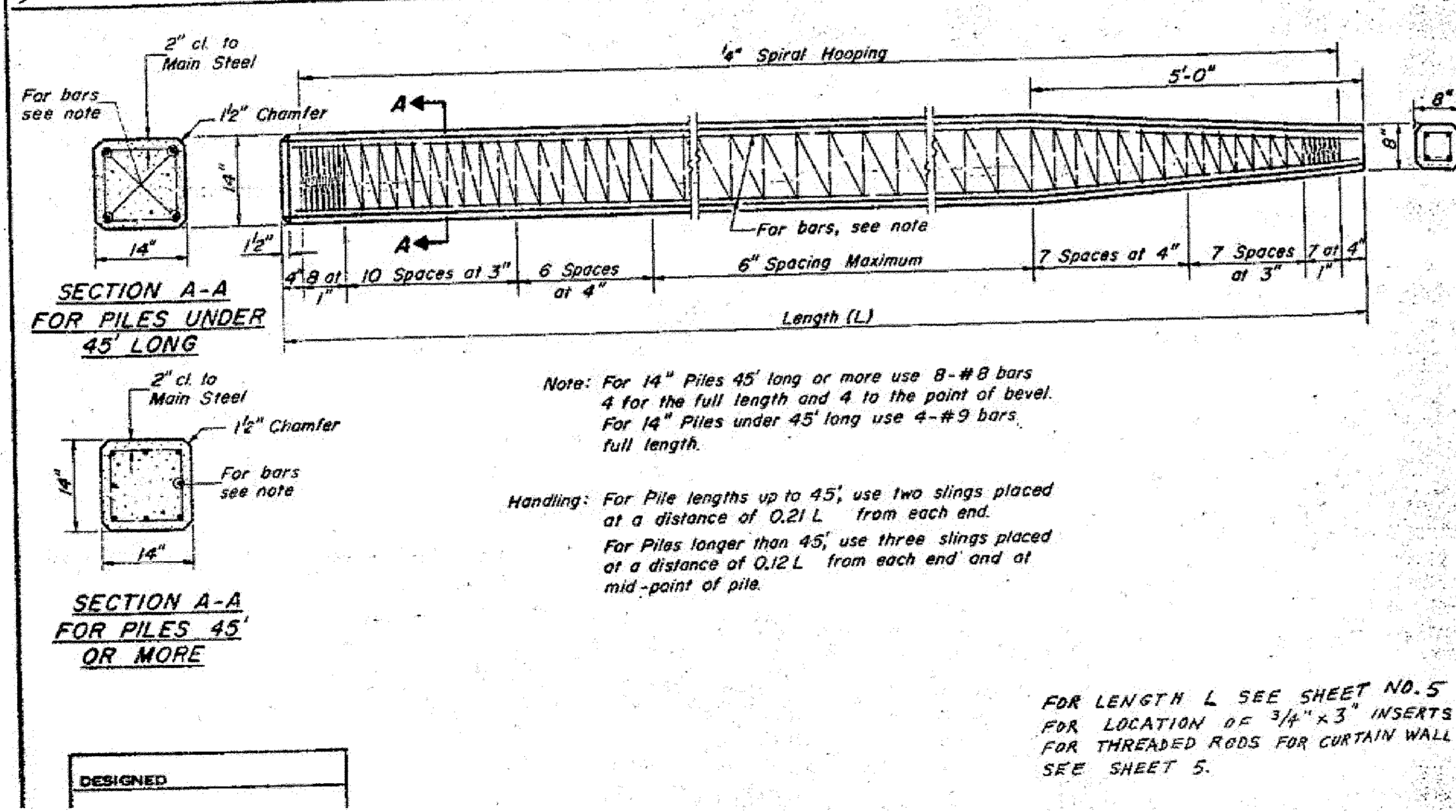
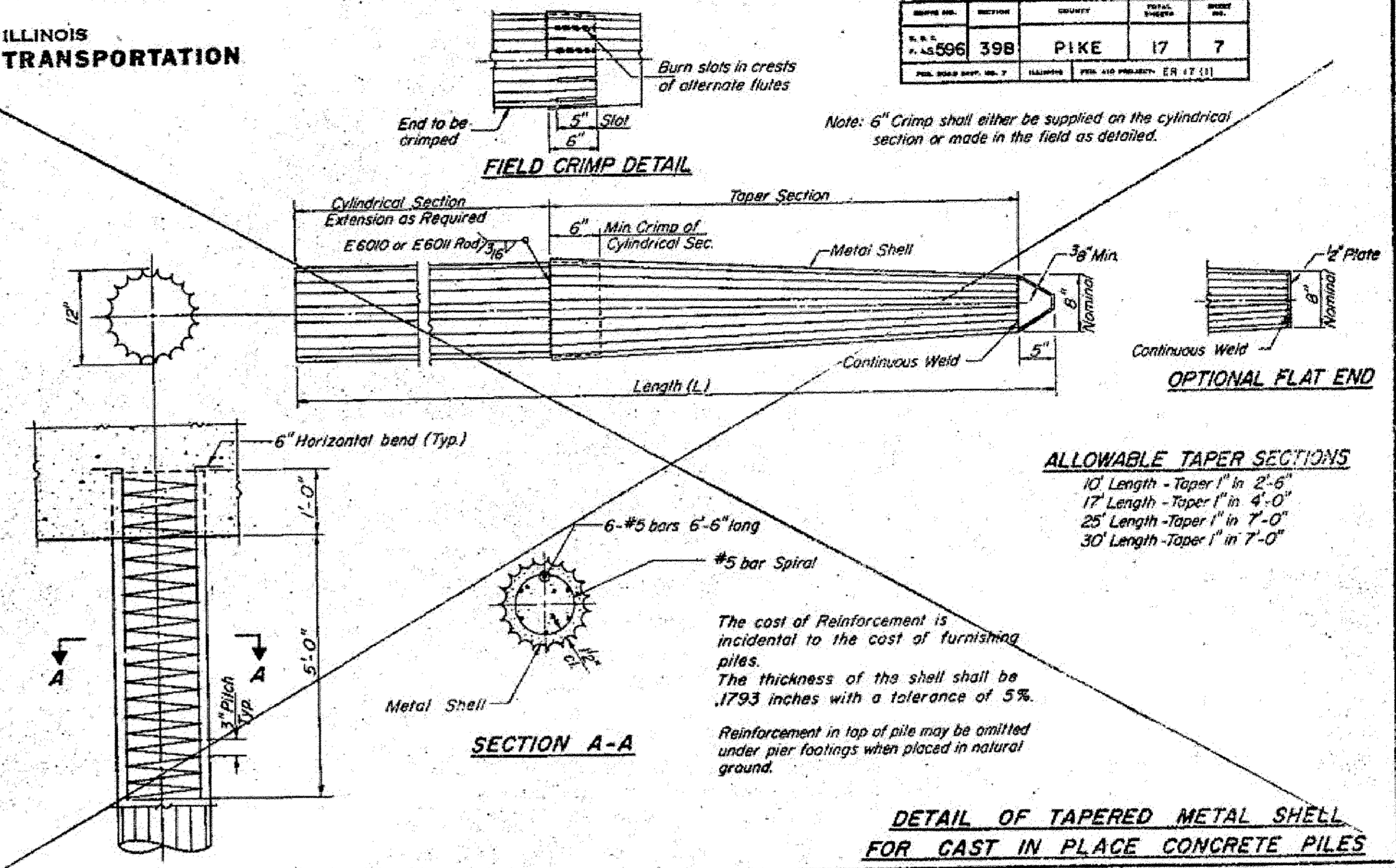
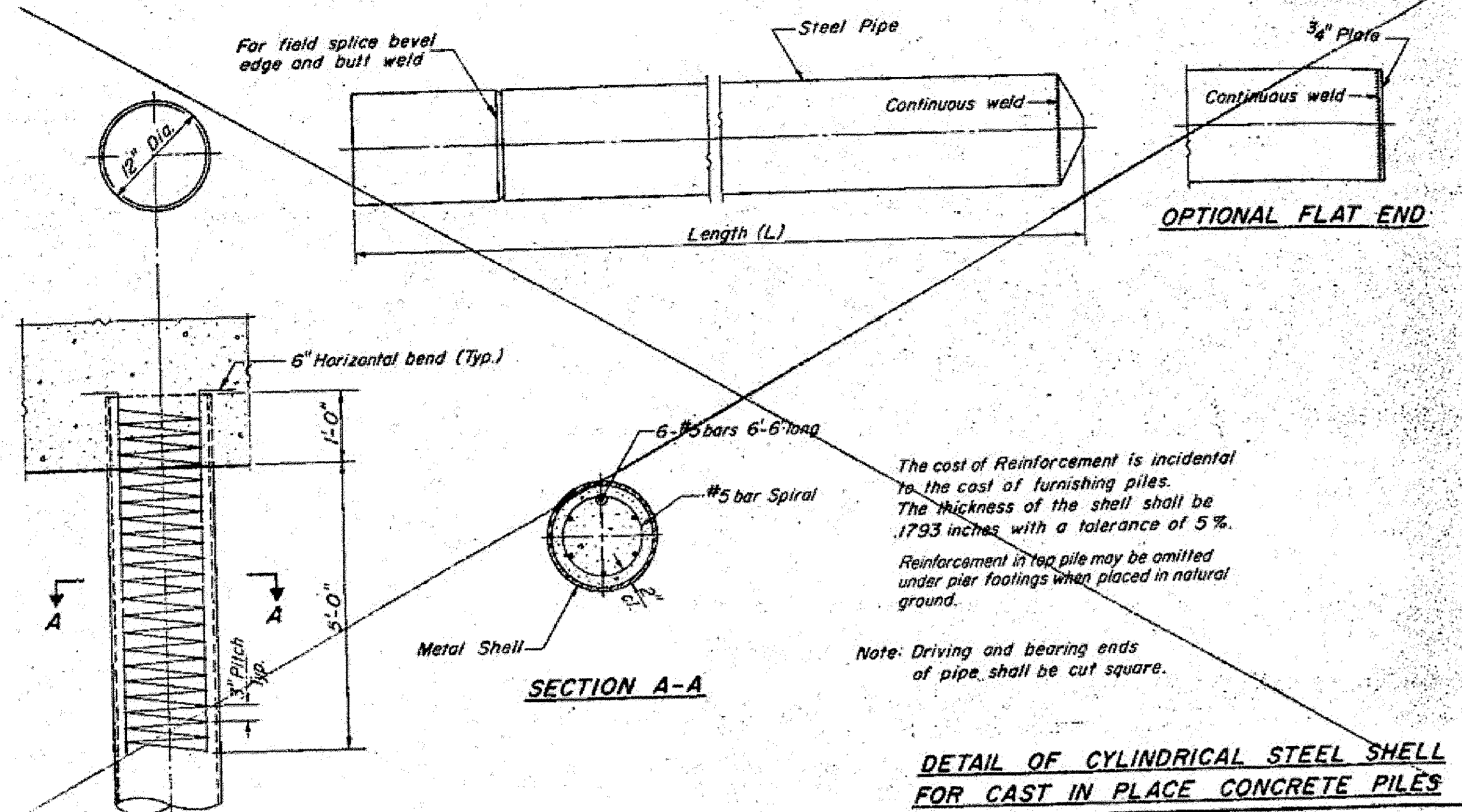
F.A.S. RT. 596 SEC
 PIKE COUNTY
 STA. 125+50

EXISTING PLANS

SHEET NO.	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	596	10-00087-00-BR	PIKE	38	28
13 SHEETS		SN 075-3329	CONTRACT NO. 93697		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-0596(107)		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
596	39B	PIKE	17	7
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT: ER 17 (1)				

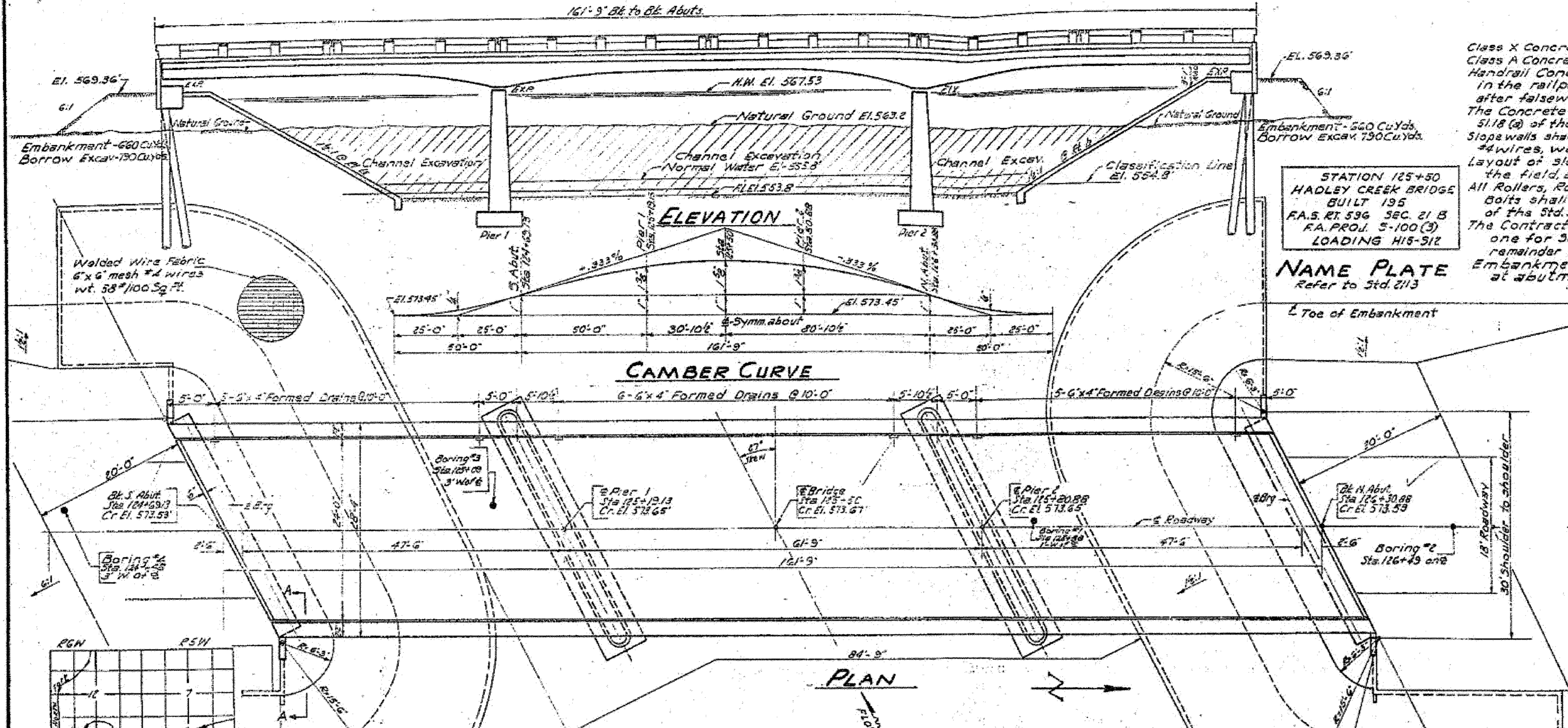


FOR LENGTH L SEE SHEET NO. 5 FOR LOCATION OF 3/4"x3" INSERTS FOR TYPED RODS FOR CURTAIN SEE SHEET 5.

SHEET NO. 7 13 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	29
	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)		

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

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
1-596	39B	PIKE	17	8

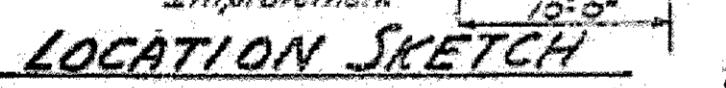
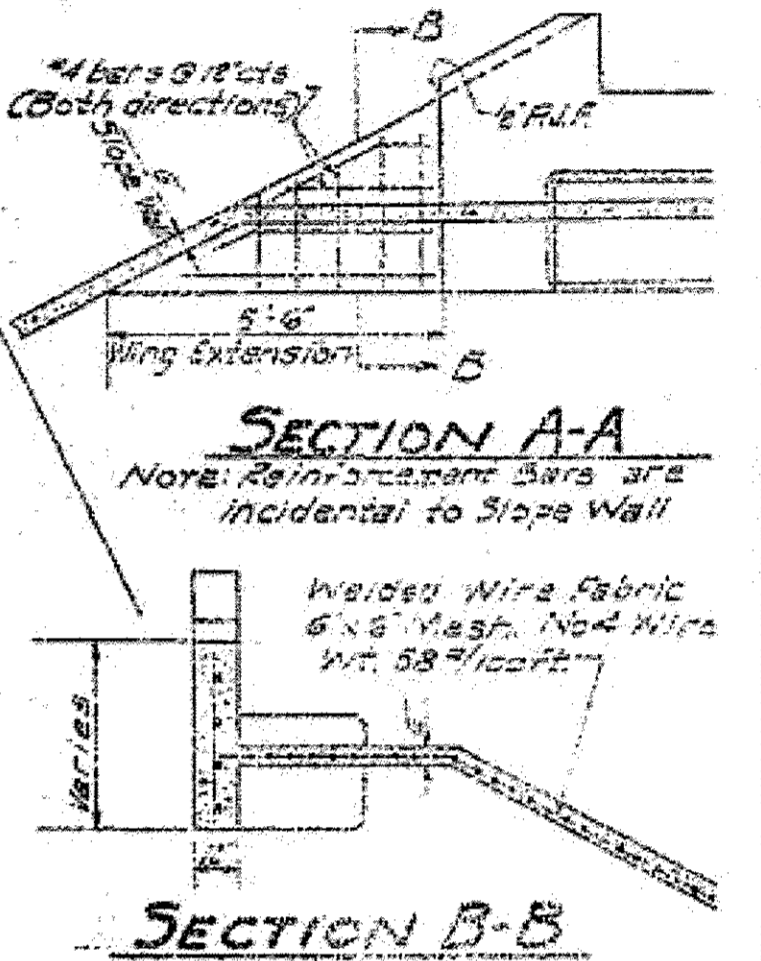


GENERAL NOTES

Class X Concrete shall be used throughout except in handrails and plan. Class A Concrete shall be used in piers. Handrail Concrete shall be used in handrails. The handrail concrete in the railposts and railing shall be poured in separate operation after falsework has been removed. The Concrete Floor Slab shall be finished in accordance with Article 5118 (a) of the Standard Specifications. Slope walls shall be reinforced with welded wire fabric 6"x6" mesh, #4 wires, weighing 53# per 100 Sq. Ft. Layout of slope walls may be varied to suit ground conditions in the field, as directed by the Engineer. All Rollers, Rockers, Bearing Plates, Lead Plates, Pintles and Anchor Bolts shall be fabricated and set in accordance with Article 5114 of the Std. Specs. and are included for payment as Structural Steel. The Contractor shall drive 2 test piles, one for North Abut and one for South Abut, as directed by the Engineer before ordering remainder of piles. Embankment shall be in place before driving piles at abutments.

STATION 125+50
HADLEY CREEK BRIDGE
BUILT 195
F.A.S. RT 596 SEC. 21 B
P.A. PROJ. S-100(3)
LOADING HIS-312

NAME PLATE
Refer to Std. 2113



STATION	SURFACE	SOIL DESCRIPTION	DEPTH (ft)
563.2	SURFACE	Soft brown sandy clay loam	0-5.0
		Loose brown sand & gravel	5.0-10.0
		Water	10.0
		Water	10.0
563.1	SURFACE	Soft brown sandy clay loam	0-5.0
		Loose brown sand & gravel	5.0-10.0
		Water	10.0
		Water	10.0
563.1	SURFACE	Soft brown sandy clay loam	0-5.0
		Loose brown sand & gravel	5.0-10.0
		Water	10.0
		Water	10.0

WATERWAY INFORMATION

Drainage Area 31 Sq. Miles
Character Hilly
Required Opening (5 Yr. Flood) 1400 Sq. Ft.
Present Opening 1300 Sq. Ft. (Approx)
Proposed Opening 1390 Sq. Ft.
Low Water Elevation 553.8

DESIGN STRESSES

f_c = 1400 p.s.i. Super
f_c = 800 p.s.i. Sub.
f_s = 20,000 p.s.i. Rein.
f_s = 18,000 p.s.i. Struct.
n = 10
Fig. Pressure Max. = 2.12 Tons
LOADING HIS-312-44

TOTAL BILL OF MATERIAL

ITEM	QUANTITY	UNIT	TOTAL
Class X Concrete	2112	Cu. Yds.	2112
Class A Concrete	1475	Cu. Yds.	1475
Handrail Concrete	77	Cu. Yds.	77
Borrow Excavation	152	Cu. Yds.	152
Reinforcement Bars	62450	Lbs.	62450
Structural Steel	7080	Lbs.	7080
Name Plates	1	No.	1
Precast Concrete Piles	360	No.	360
Test Piles (Concrete)	2	No.	2
Channel Excavation	281	Cu. Yds.	281
Class A Excav. for Str.	120	Cu. Yds.	120
Class B Excav. for Str.	120	Cu. Yds.	120
Slope Wall	100	Sq. Yds.	100

PROPOSED CHANNEL CHANGE
2350 Cu. Yds. within R.O.W. by Bridge Contractor
23,680 Cu. Yds. outside R.O.W.

BORING #1 Sta. 125+08
BORING #2 Sta. 125+13
BORING #3 Sta. 125+09
BORING #4 Sta. 125+48

DESIGNED: Carl S. ...
CHECKED: J. H. ...
DRAWN: J. H. ...
CHECKED: J. H. ...
EXAMINED: MARCH 25, 1957
PASSED: ...
APPROVED: ...

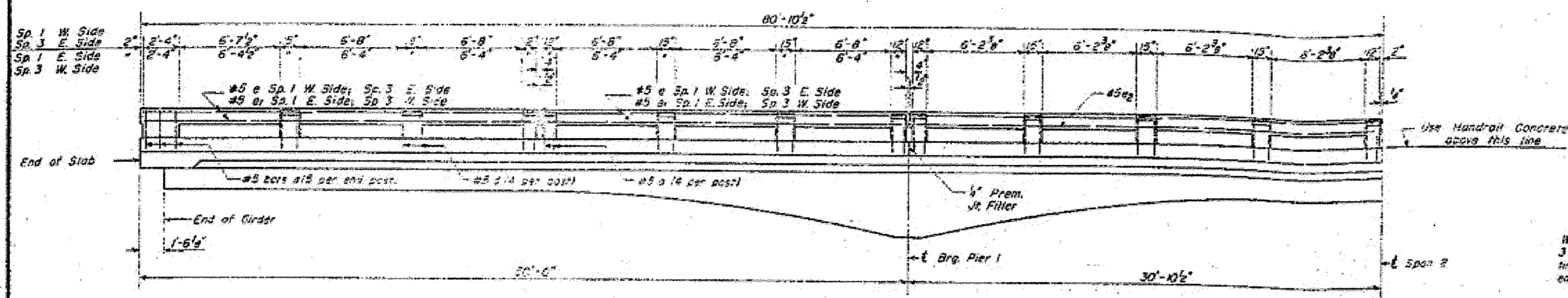
GENERAL PLAN & ELEVATION
HADLEY CREEK BRIDGE
PROJECT S-100(3)
F.A.S. RT 596 SEC. 21 B
PIKE COUNTY
STATION 125+50

SHEET NO. 8	F.A.S. ROUTE 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 30
13 SHEETS	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)		

EXISTING PLANS

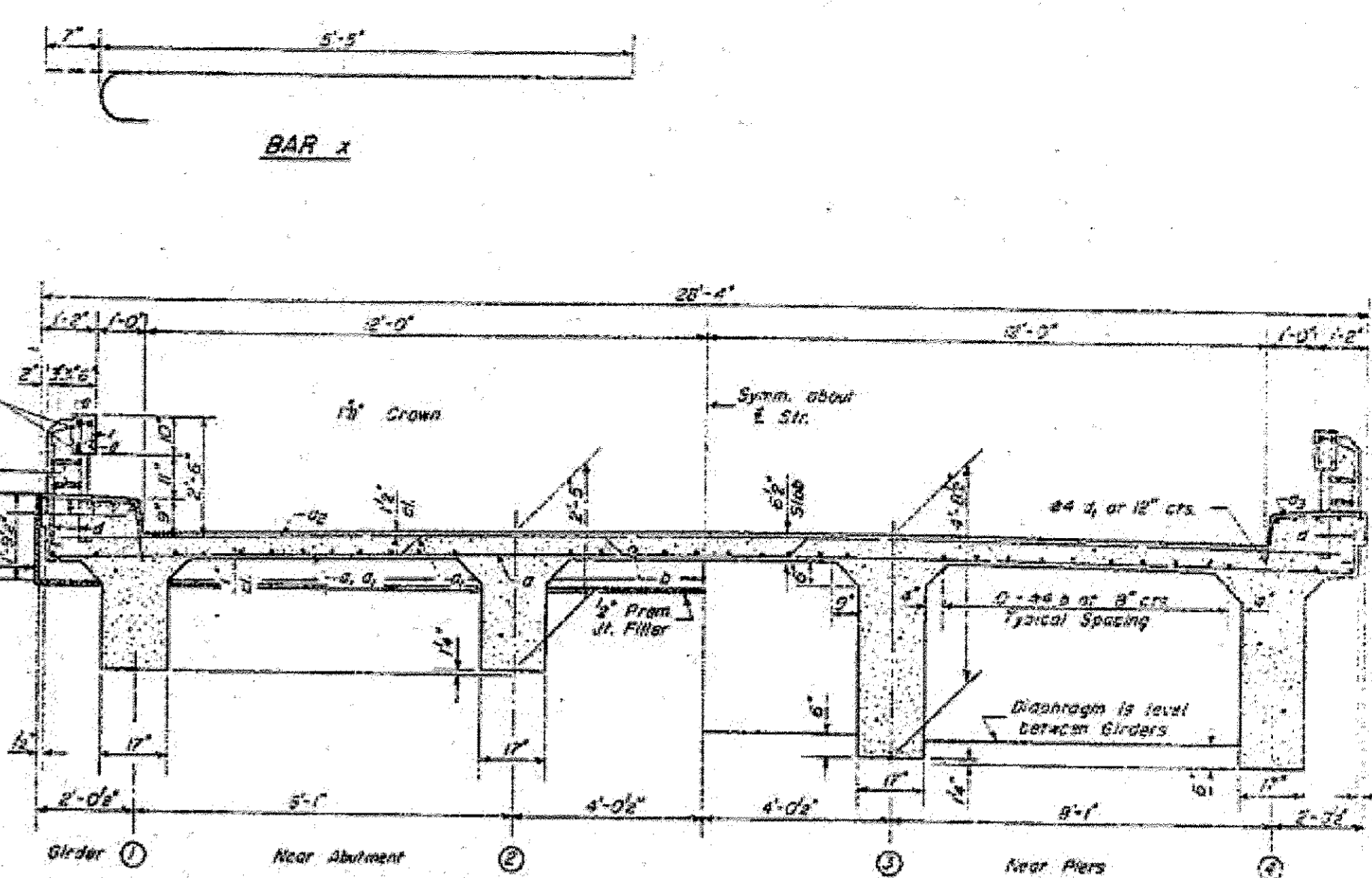
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
A.A. 596	398	PIKE	17	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0596(107)		

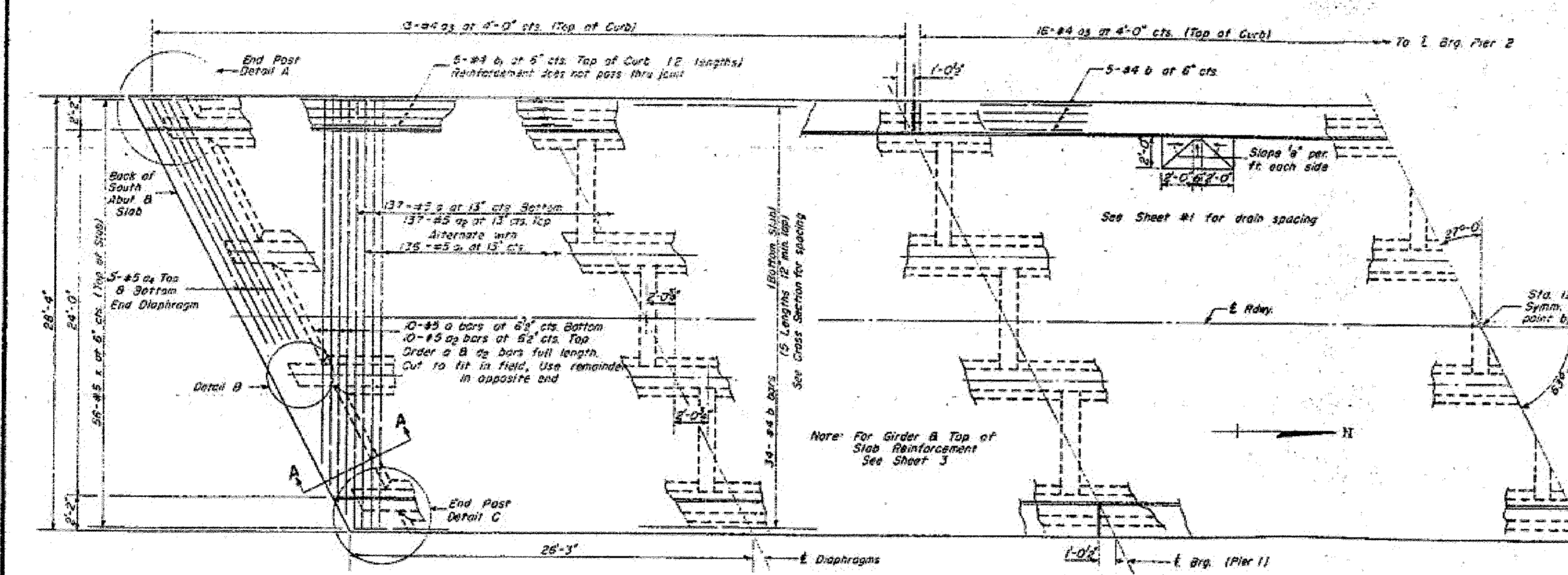


Note: See Std. 2070 RB Type 3B For Handrail Details

HALF ELEVATION
Along E Row

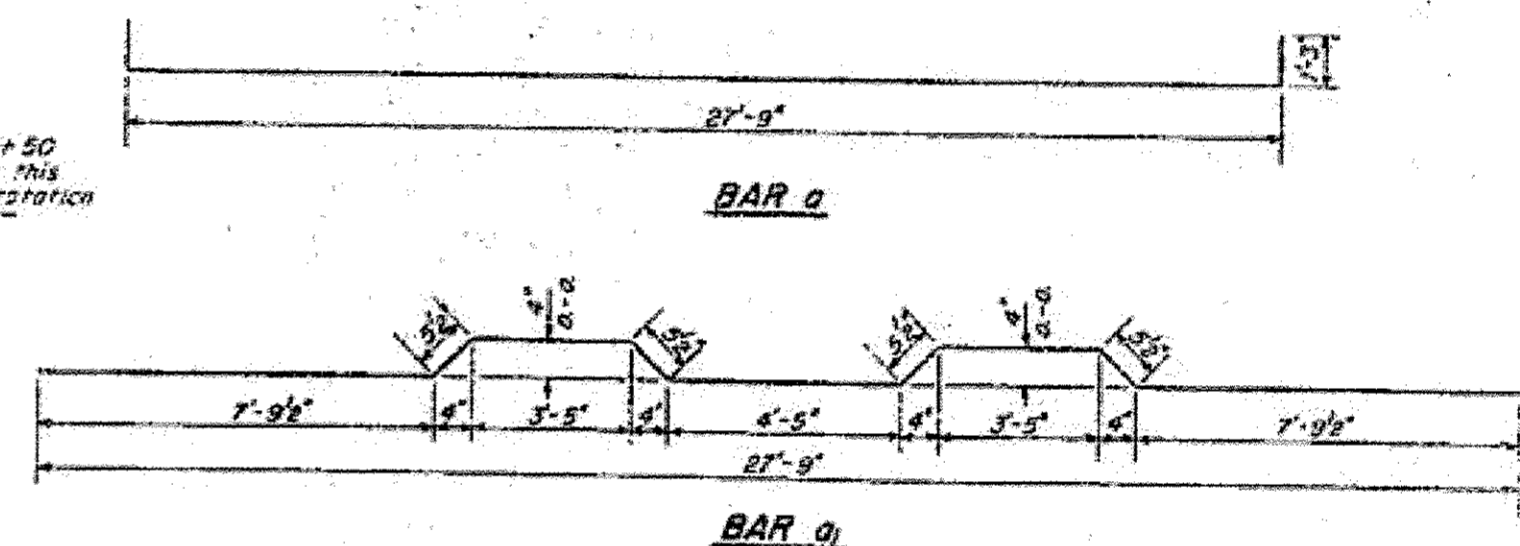


CROSS SECTION
At Rt. 25 to E. Row



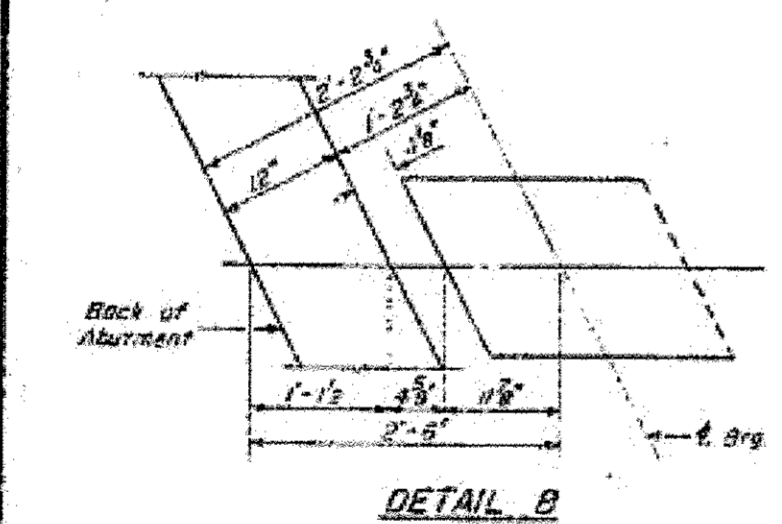
Note: For Girder B Top of Slab Reinforcement See Sheet 3

HALF PLAN
Showing Deck Reinforcements & Dimensions

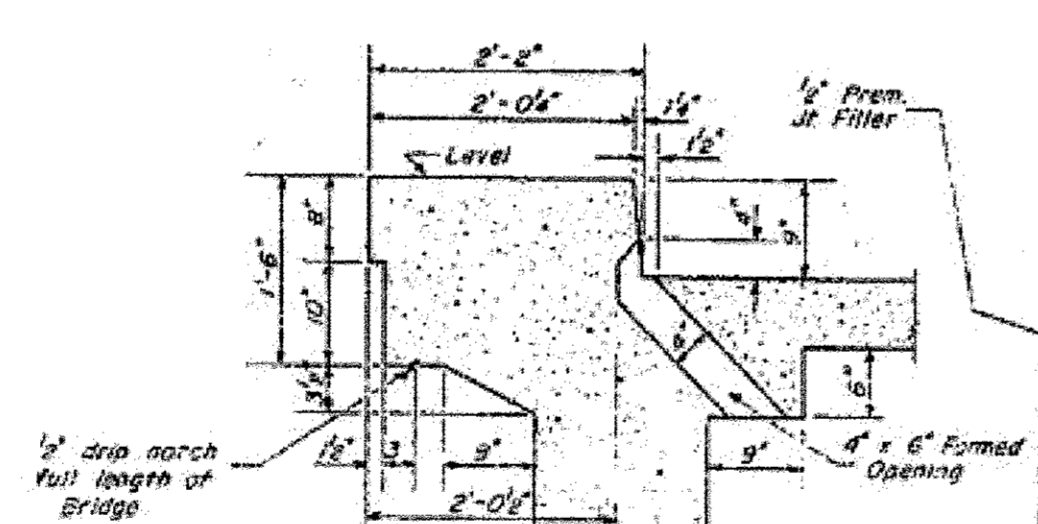


BAR a

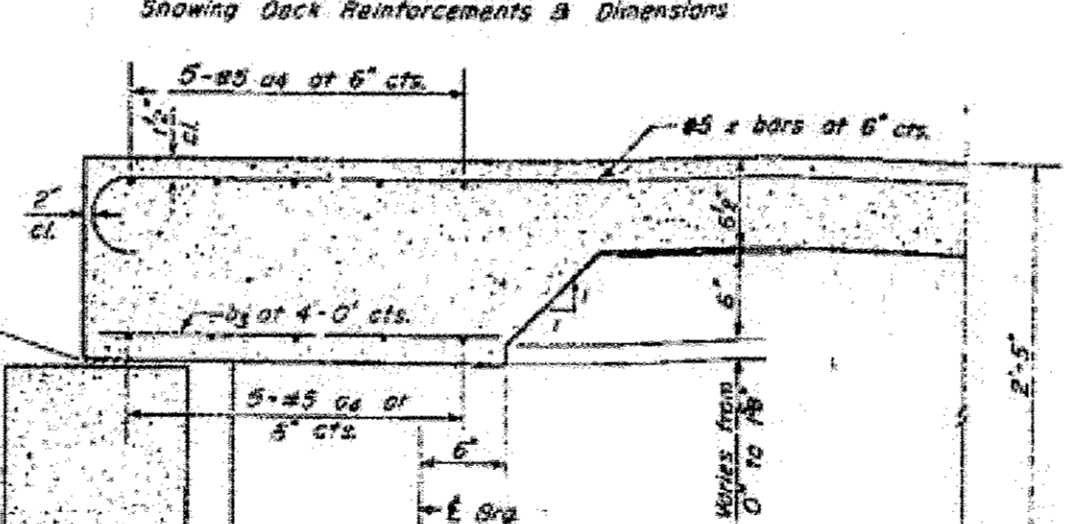
BAR b



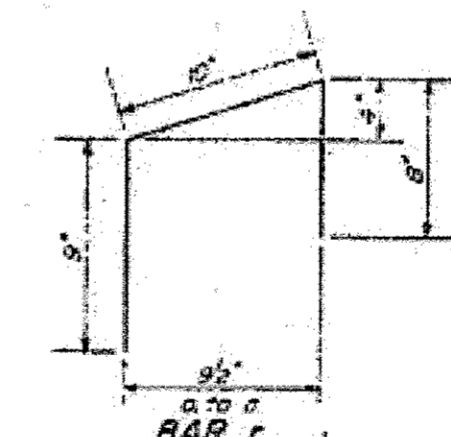
DETAIL B



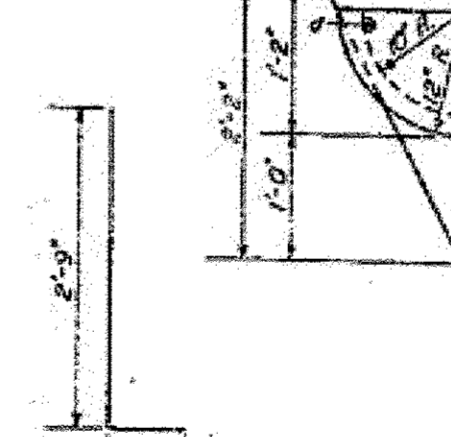
DRAIN DETAIL
Reinforcement not shown



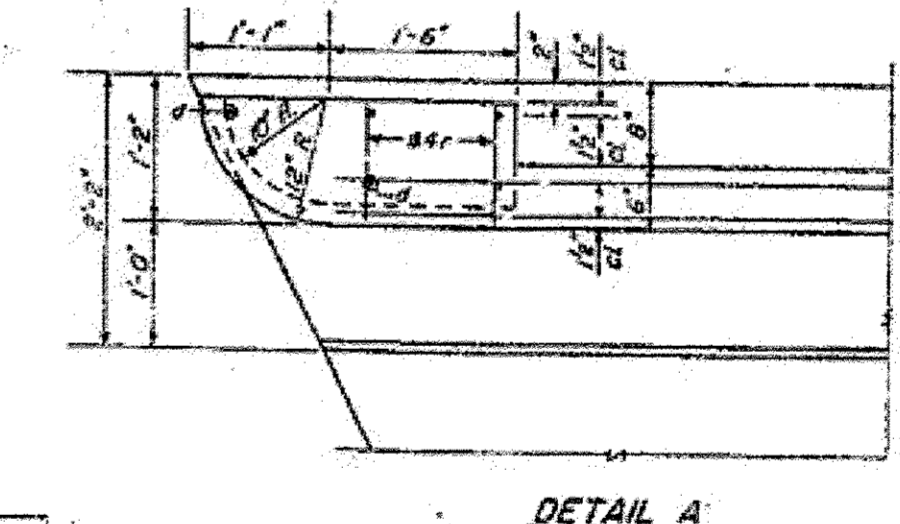
SECTION A-A



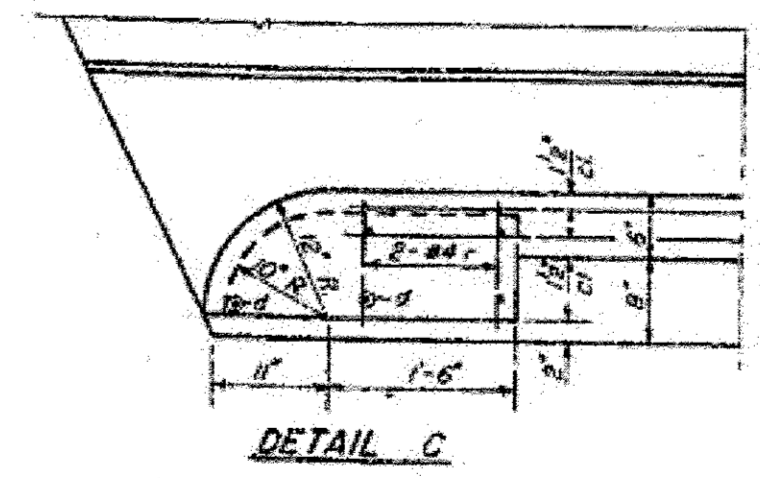
BAR c



BAR d



DETAIL A



DETAIL C

BILL OF MATERIAL

Bar	No.	Size	Length
a	147	#5	30'-3"
b	139	#5	28'-3"
c	147	#5	27'-3"
d	84	#4	2'-0"
e	20	#5	31'-6"
f	18	#4	3'-0"
g	212	#5	3'-3"
h	324	#4	1'-6"
i	16	#5	24'-6"
j	16	#5	23'-6"
k	16	#5	30'-5"
l	104	#4	2'-3"
m	13	#5	6'-0"

Class X Concrete
Handrail Concrete
Reinforcement Bars
Name Plates
Structural Steel

SUPERSTRUCTURE
HADLEY CREEK BRIDGE
F.A.S. RT. 596 SECTION 3
PIKE COUNTY
STATION 125+50

DESIGNED: *W. S. ...*
CHECKED: *J. ...*
DRAWN: *J. W. A. ...*
CHECKED: *J. ...*

EXAMINED: *W. ...*
PROPOSED: *...*
APPROVED: *...*

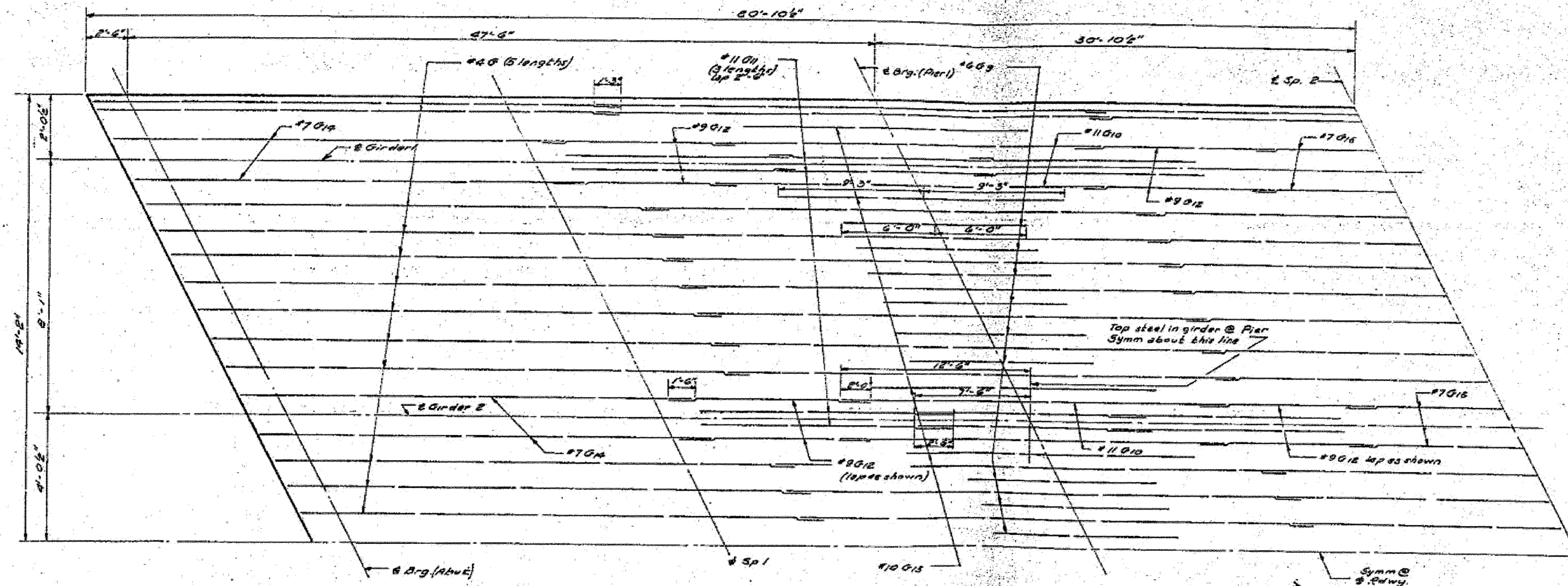
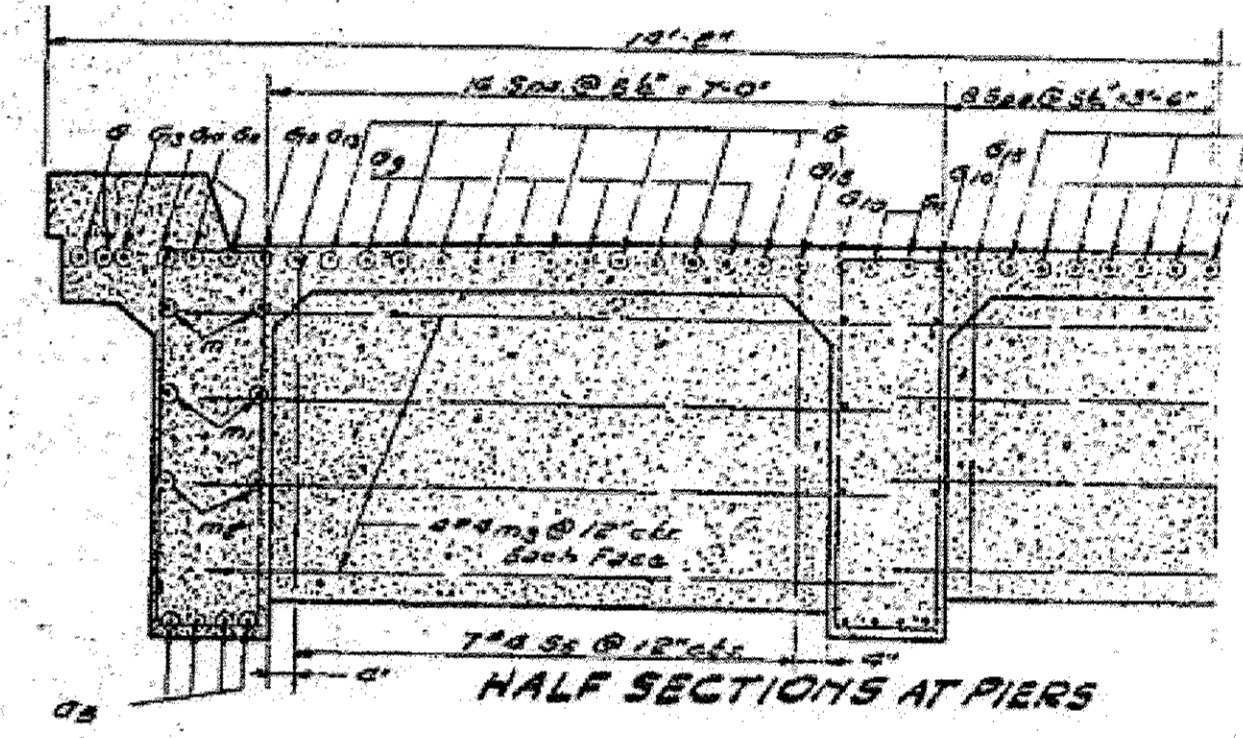
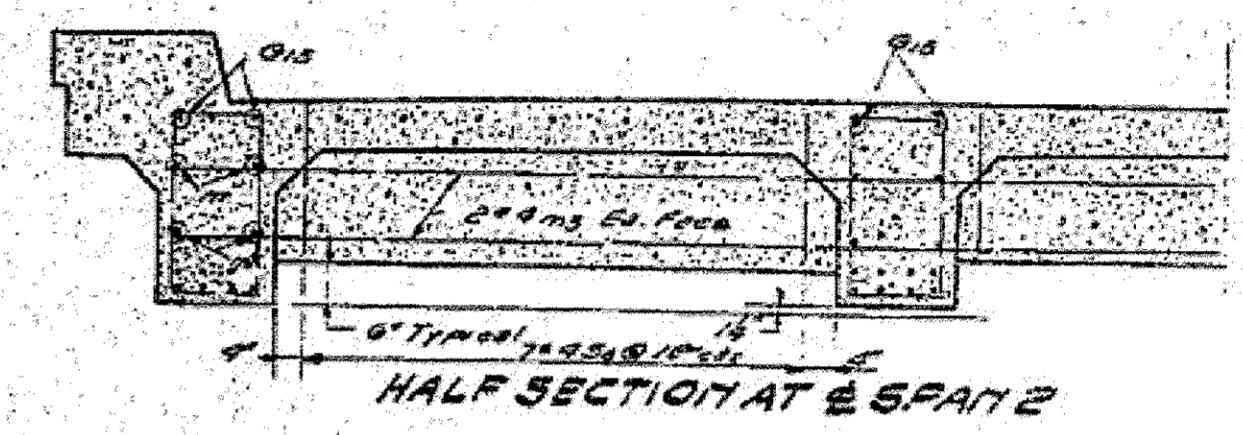
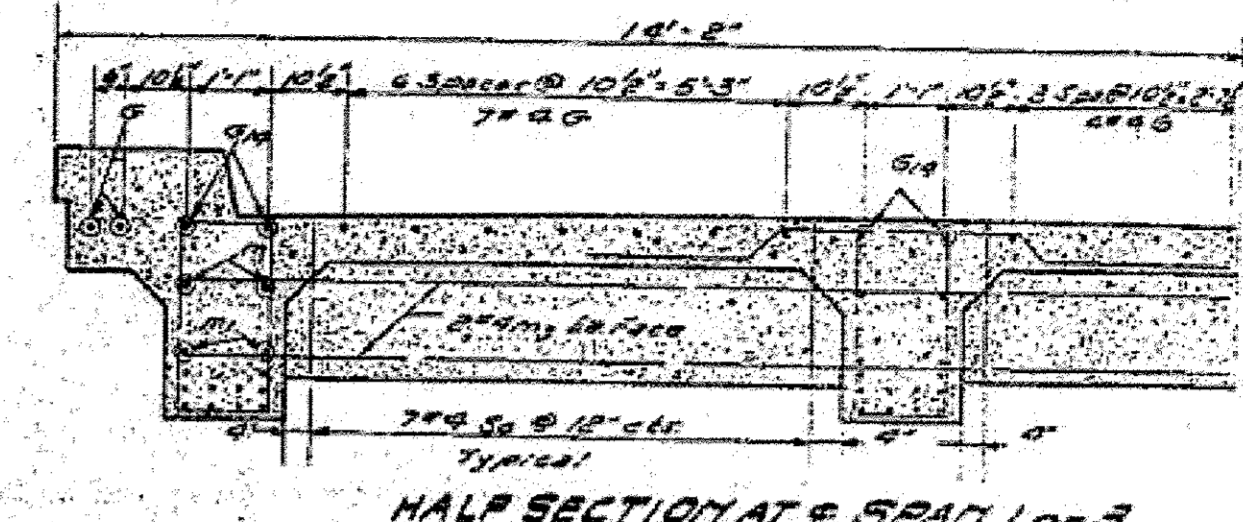
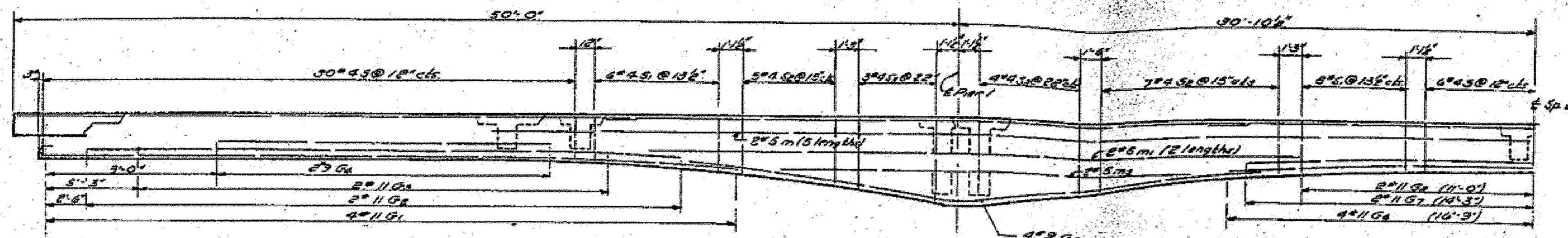
EXISTING BRIDGE

EXISTING PLANS

SHEET NO. 9 13 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	31
	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)			

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

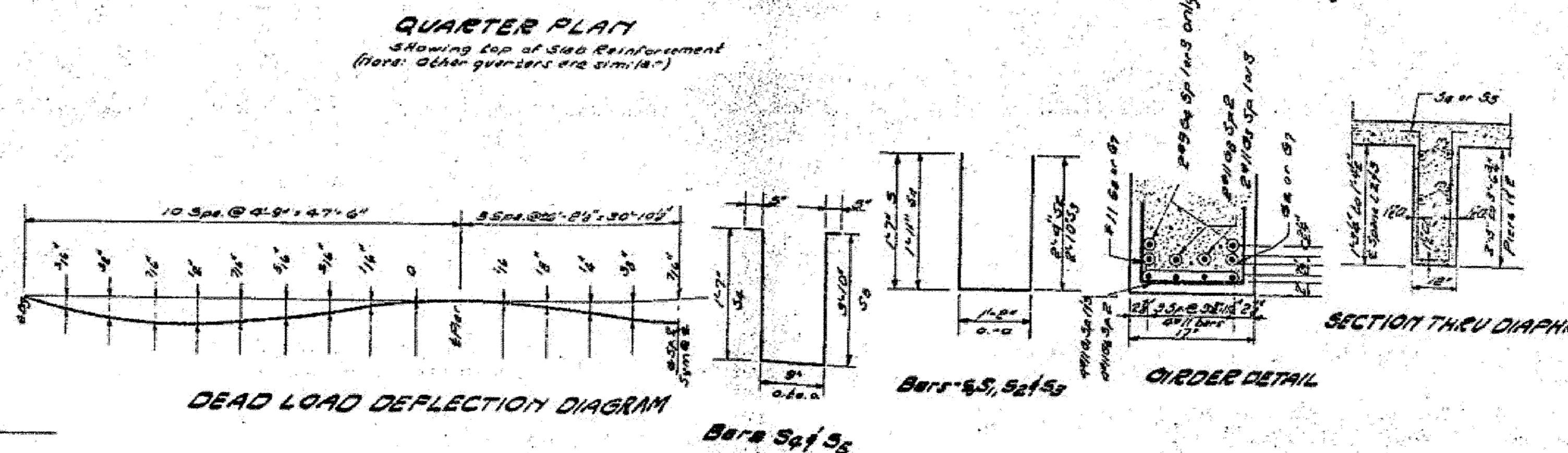
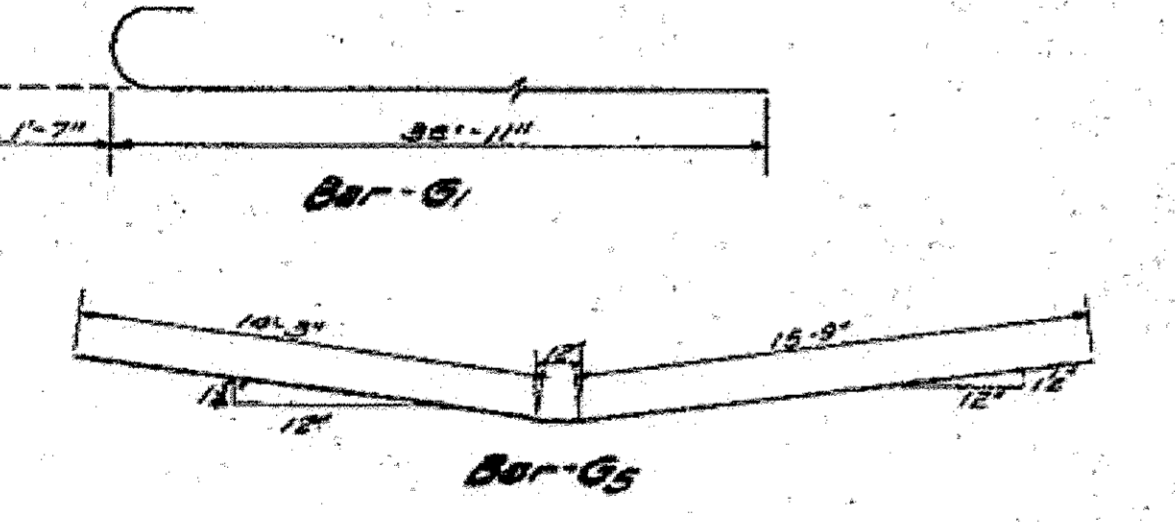
SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	39B	PIKE	17	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	BR-596(107)	



BAR LIST

BAR	No.	SIZE	LENGTH	SHAPE	BAR	No.	SIZE	LENGTH	SHAPE
1	125	#4	33'-0"	—	m	40	#5	3'-0"	—
2	32	#11	37'-5"	—	m1	32	#5	6'-0"	—
3	18	#11	23'-6"	—	m2	16	#5	25'-0"	—
4	16	#7	25'-0"	—	m3	36	#5	8'-0"	—
5	16	#3	16'-0"	—					
6	32	#3	31'-0"	—	s	548	#3	4'-6"	□
7	16	#11	25'-0"	—	s1	224	#4	5'-0"	□
8	8	#7	28'-6"	—	s2	192	#4	5'-0"	□
9	8	#7	22'-0"	—	s3	112	#4	4'-0"	□
10	36	#6	12'-0"	—	s4	63	#4	4'-9"	□
11	16	#11	25'-0"	—	s5	42	#4	3'-2"	□
12	48	#7	15'-0"	—					
13	32	#9	11'-3"	—					
14	16	#10	18'-6"	—					
15	16	#7	28'-9"	—					
16	8	#7	21'-3"	—					

NOTE: These bars are included in Bill of Material on sheet 8



DESIGNED *Walter S. Mangrum*
CHECKED *J.P. [Signature]*
DRAWN *H.S.M. [Signature]*
CHECKED *J.P. [Signature]*

EXAMINED *M.A. [Signature]*
PASSED *[Signature]*
APPROVED *M.A. [Signature]*

MAR 25 1957

GIRDER DETAILS
HADLEY CREEK BRIDGE
R.A.S. RT. 596 SEC. 21 B
PIKE COUNTY
STA. 125+50

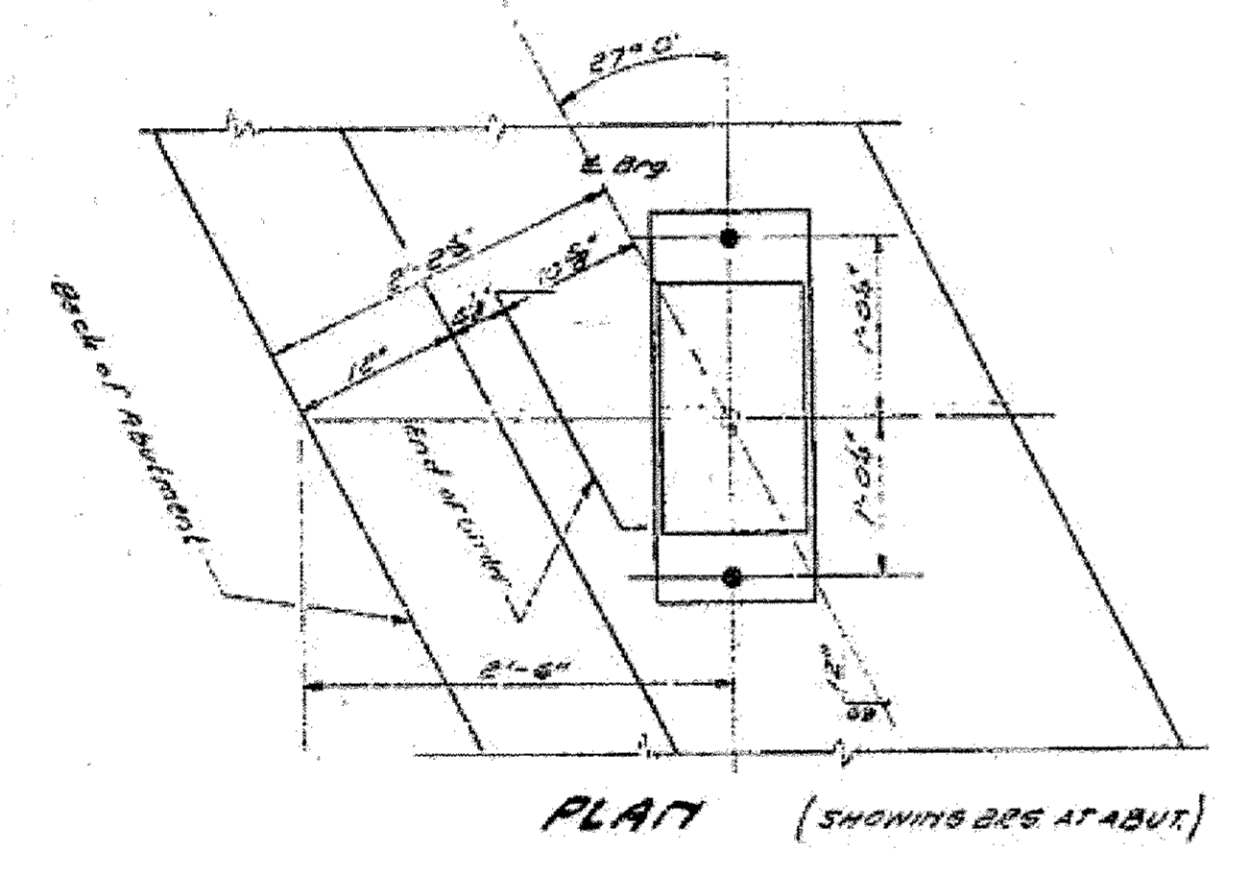
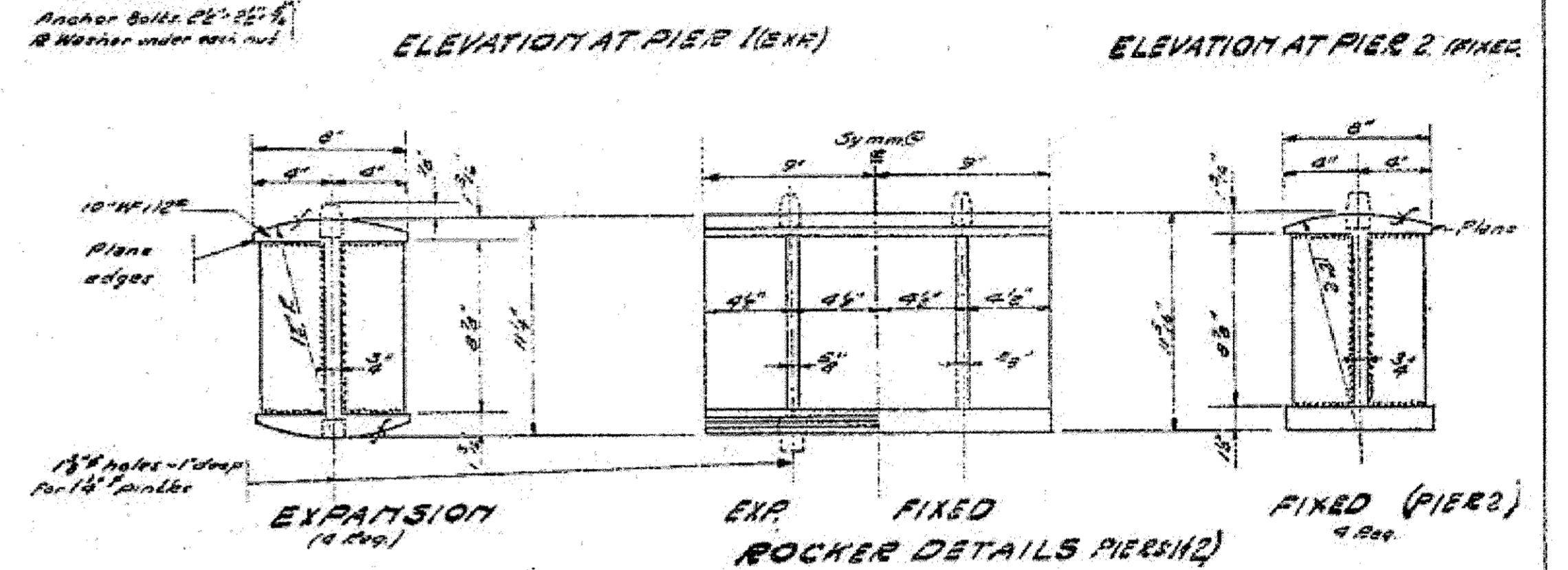
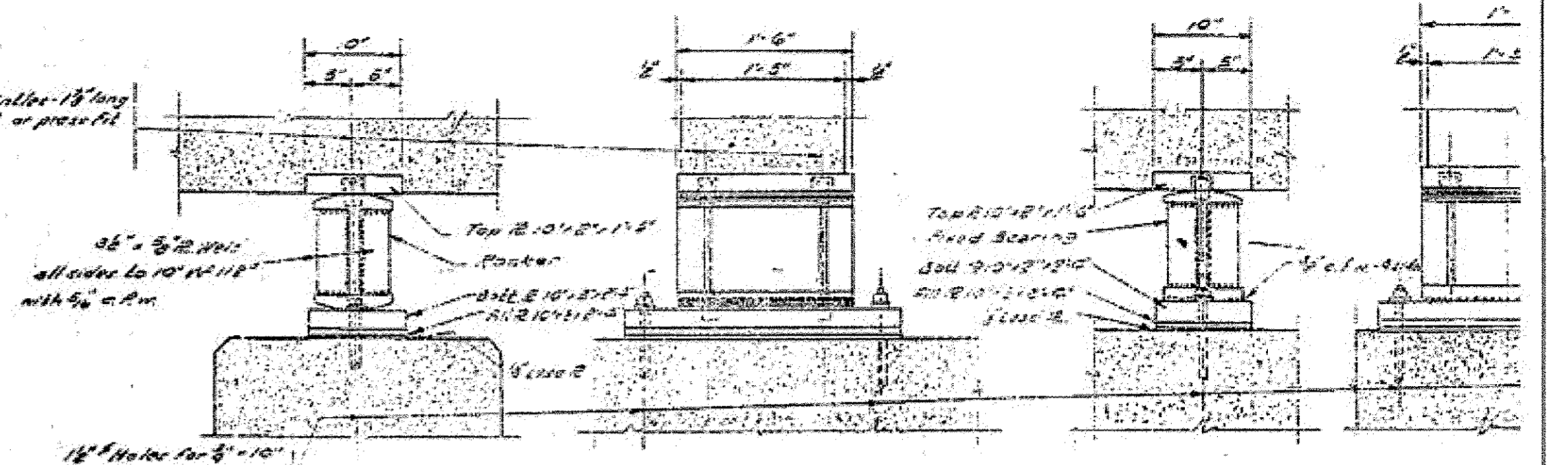
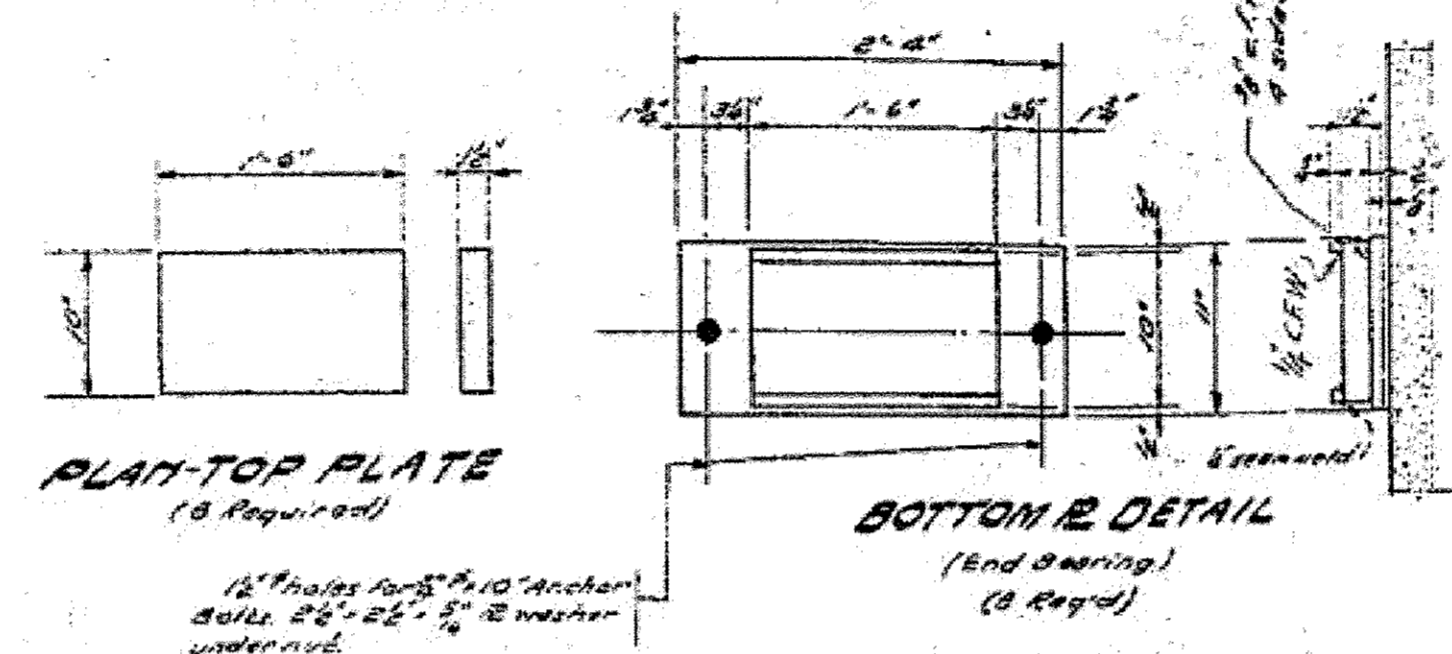
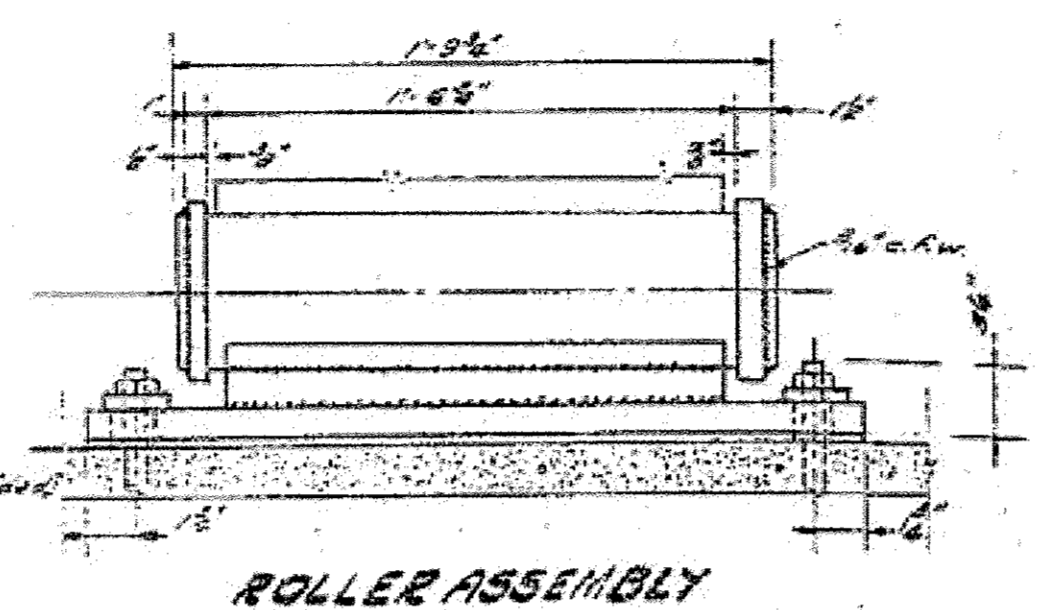
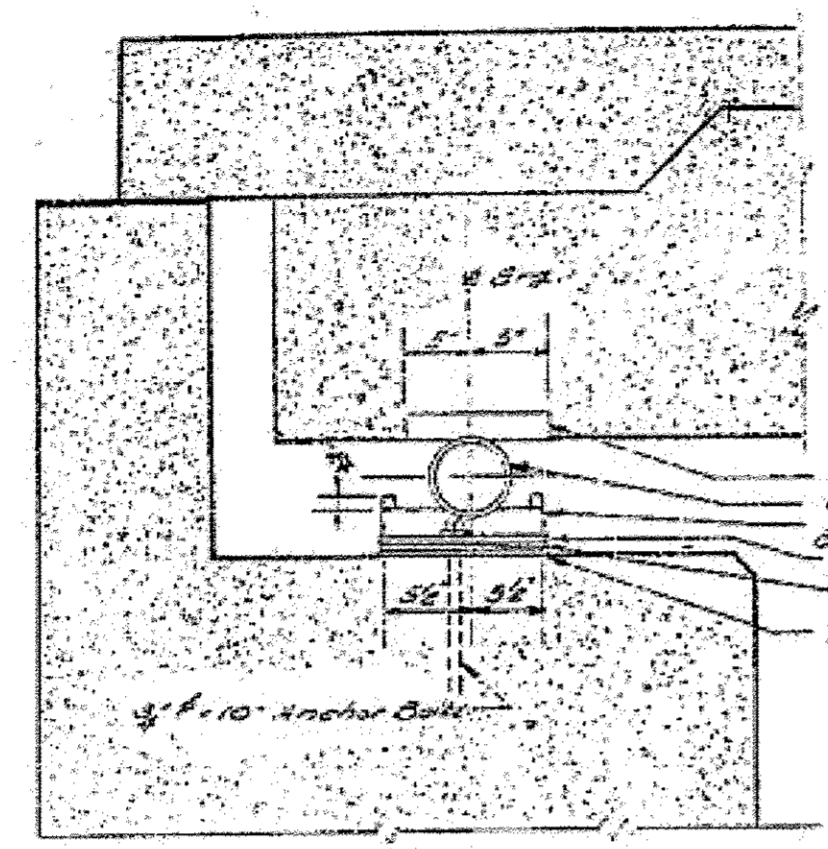
EXISTING BRIDGE

EXISTING PLANS

SHEET NO. 10	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13 SHEETS	596	10-00087-00-BR	PIKE	38	32
SN 075-3329			CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)		

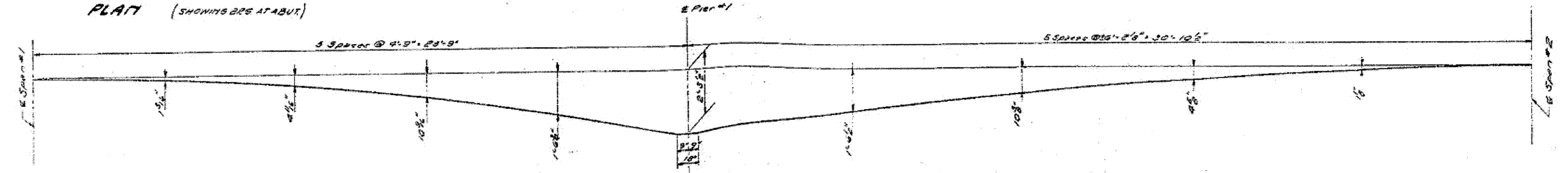
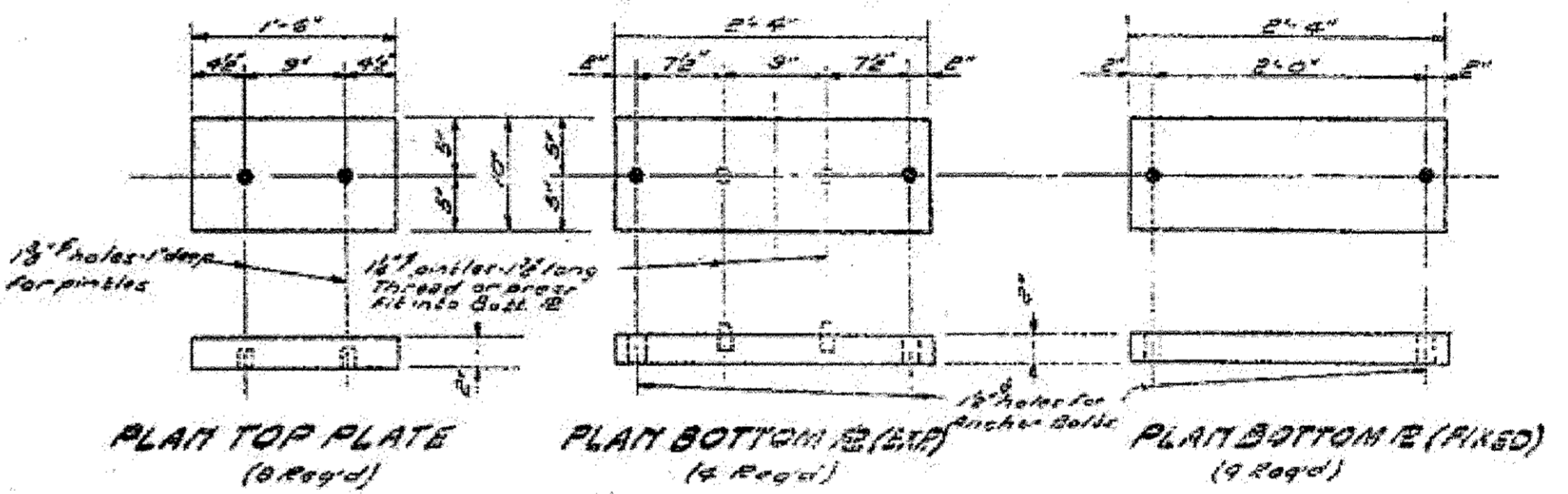
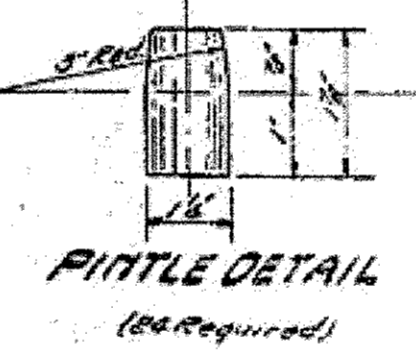
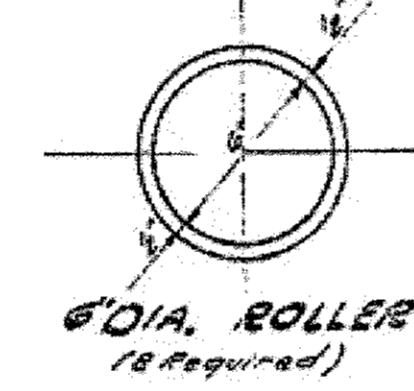
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	39B	PIKE	17	11
FED. ROAD DIST. NO. 7		FED. AID PROJECT BRS-0596(107)		



DIMENSIONS "0"

SURGE	ABUT	PIER 1	PIER 2	PIER 3	PIER 4
1	0'	0'	0'	0'	0'
2	0'	0'	0'	0'	0'
3	1'	1'	0'	0'	0'
4	0'	0'	0'	0'	0'



DESIGNED: *Harold S. England*
CHECKED: *J. H. ...*
DRAWN: *J. H. ...*
CHECKED: *J. H. ...*

EXAMINED: *W. H. ...*
PASSED: *...*
APPROVED: *...*

MAP 25 19 57

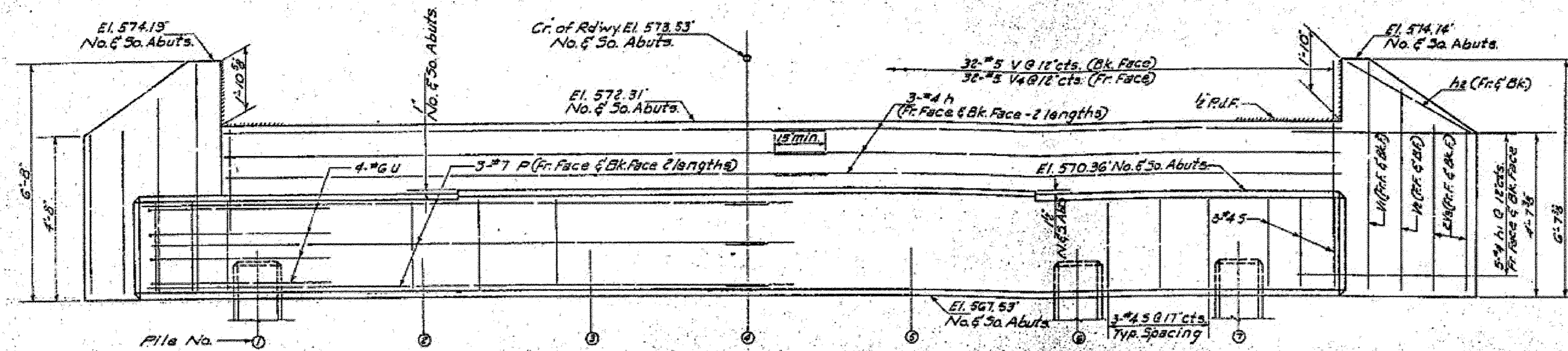
NOTE: Structural Steel included in Bill of Material on Sheet 2 is 2000 lbs. for Bearing R's, Rockers, Rollers, Lead R's and Anchor Bolts.

BEARINGS DETAILS
HADLEY CREEK BRIDGE
F.A.S. RT. 596 35% 21/2
PIKE COUNTY
STA. 125+50

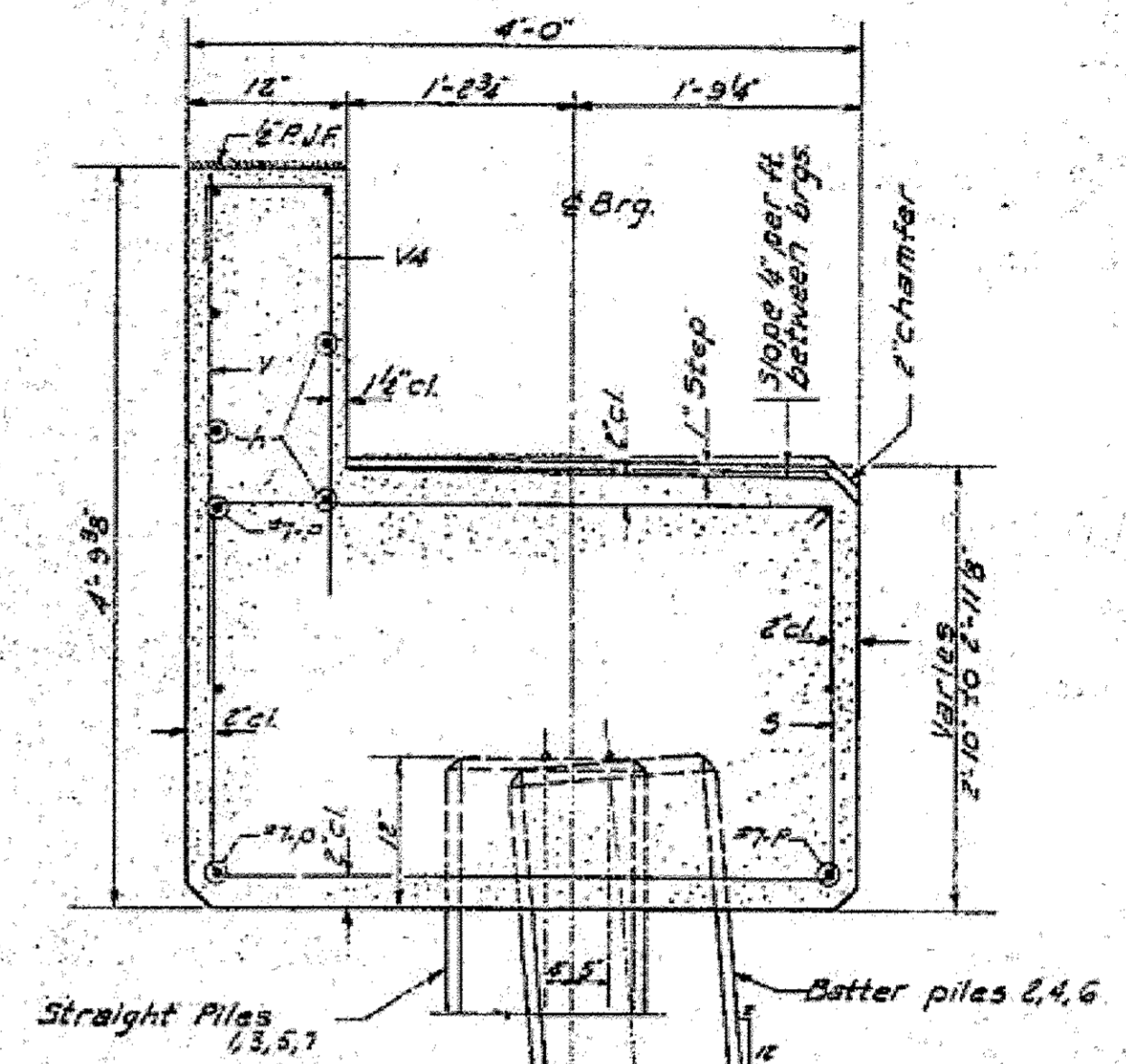
EXISTING

EXISTING PLANS

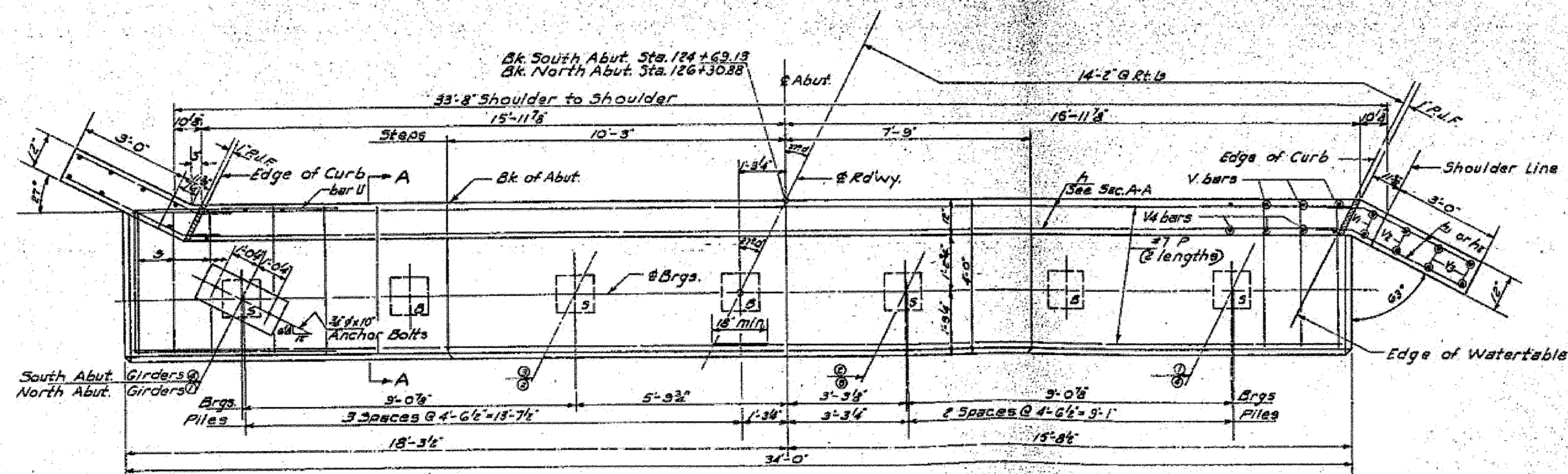
SHEET NO. 11 13 SHEETS	F.A.S. ROUTE 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 33
	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)		



ELEVATION OF ABUTMENT
North & South Abutments are similar
Structure is symm. except as noted

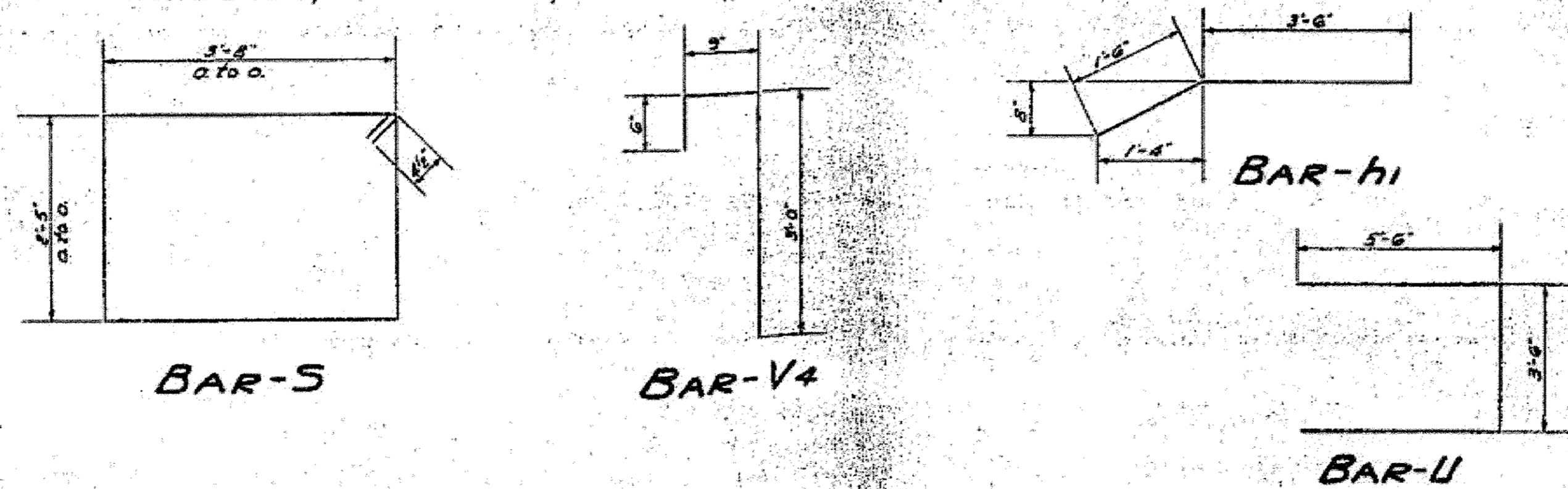


SECTION A-A



PLAN OF ABUTMENT
Structure is symm. @ E Abut. except as noted.

PILE DATA
14 - 16" Precast Piles - Capacity 45 Tons
required for 2 Abutments
Estimated Length:
30'-0" North Abut.
30'-0" South Abut.
Drive one Test Pile in each Abut.



BILL OF MATERIAL
2 ABUTMENTS

BAR	NO.	SIZE	LENGTH	SHAPE
h	24	#4	17'-9"	—
h1	40	#4	5'-0"	—
h2	8	#4	4'-0"	—
p	24	#7	17'-9"	—
v	50	#8	3'-3"	—
v1	8	#5	6'-3"	—
v2	8	#5	5'-6"	—
v3	16	#5	4'-8"	—
v4	84	#5	4'-8"	—
s	48	#4	18'-11"	□
u	16	#6	14'-6"	□
Class X Concrete				Cu. Yds. 37.9
Reinforcement Bars				Lbs. 2740
Piles (15' Conc.)				Lin. Ft. 360
Test Piles (6' Precast)				ES. 2

DESIGNED: *Harold S. Moughlin*
CHECKED: *V. S. ...*
DRAWN: *H. S. M. J. Sandoval*
CHECKED: *V. S. ...*

MAR 25 1957
EXAMINED: *[Signature]*
PASSED: *[Signature]*
APPROVED: *[Signature]*

ABUTMENTS
HADLEY CREEK BRIDGE
F.A.S. RT. 596 SEC. 21 B
PIKE COUNTY
STATION 125+50

EXISTING BRIDGE

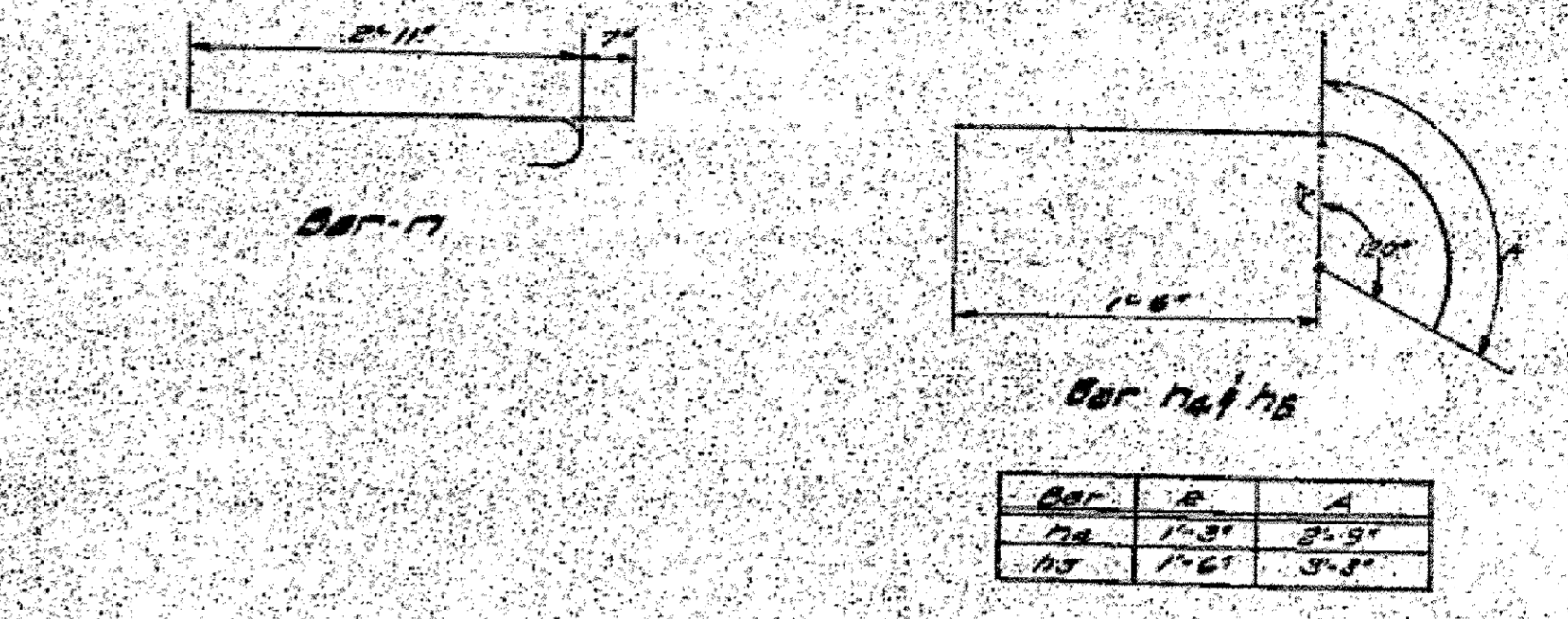
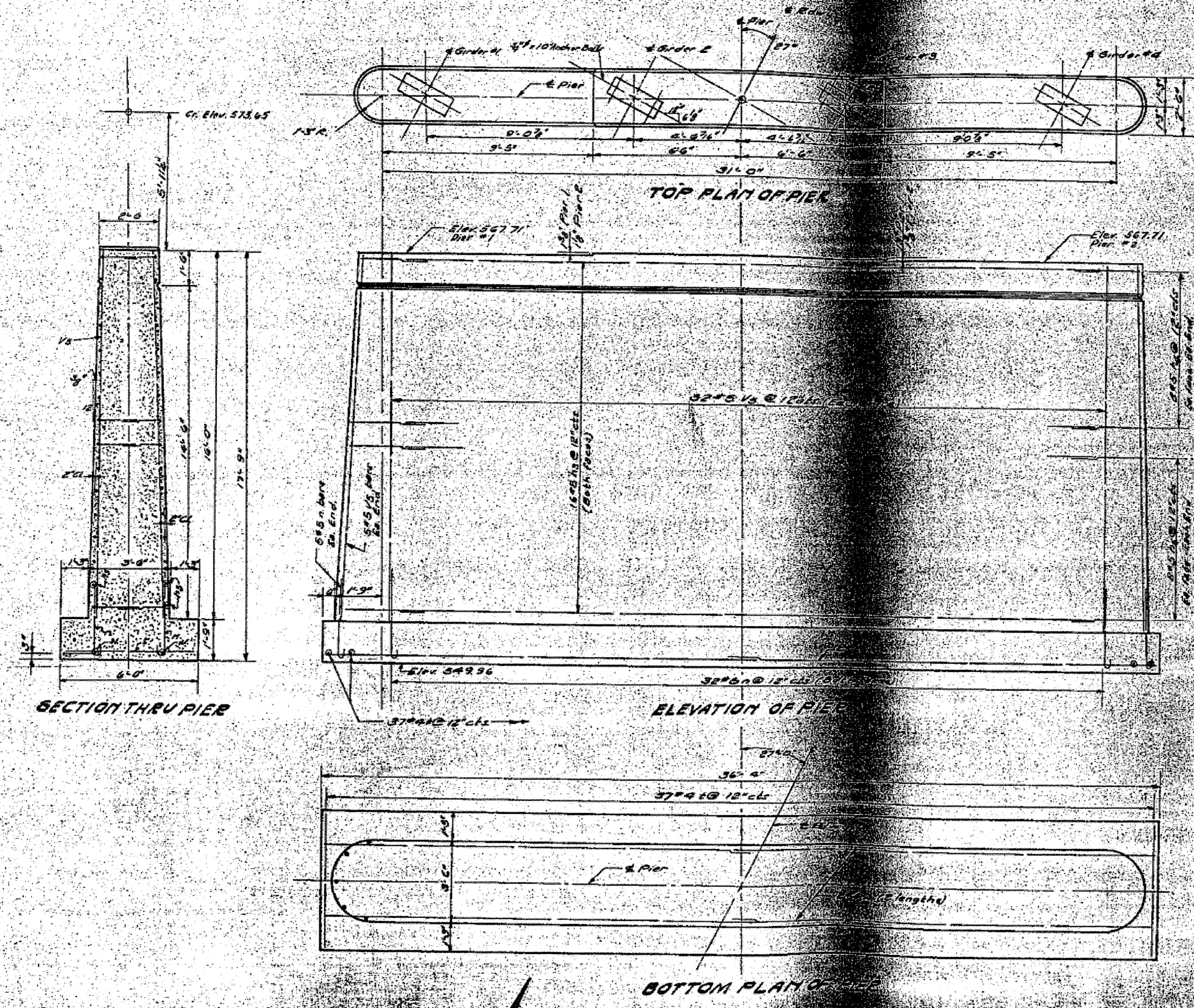
12

EXISTING PLANS

SHEET NO. 12	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	34
13 SHEETS	SN 075-3329		CONTRACT NO. 93697		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(107)		

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	398	PIKE	17	13



BILL OF MATERIAL (PIERS)

BAR	NO.	SIZE	LENGTH	SHAPE
11	64	#5	31'-9"	—
14	24	#5	4'-3"	—
15	64	#5	4'-9"	—
17	148	#5	5'-6"	—
18	148	#5	15'-3"	—
2	76	#4	5'-6"	—
4	8	#4	18'-9"	—
Class 4" concrete cu. yds. 107.5				
Reinforcement Bars Lbs. 6070				
Class 8" Econ. B-5K. cu. yds. 120				

DESIGNED: *Walter S. Mangels*
 CHECKED: *J. N. Hill*
 DRAWN: *H.S.M. F. Morand's P.*
 CHECKED: *J.N.H.*

MAR 25 1957
 EXAMINED: *T.M. ...*
 PASSED: *E. ...*
 APPROVED: *M. ...*

PIERS
HADLEY CREEK BRIDGE
R.A.S. RT. 596 SEC. 21 B
PIKE COUNTY
STA 125+50

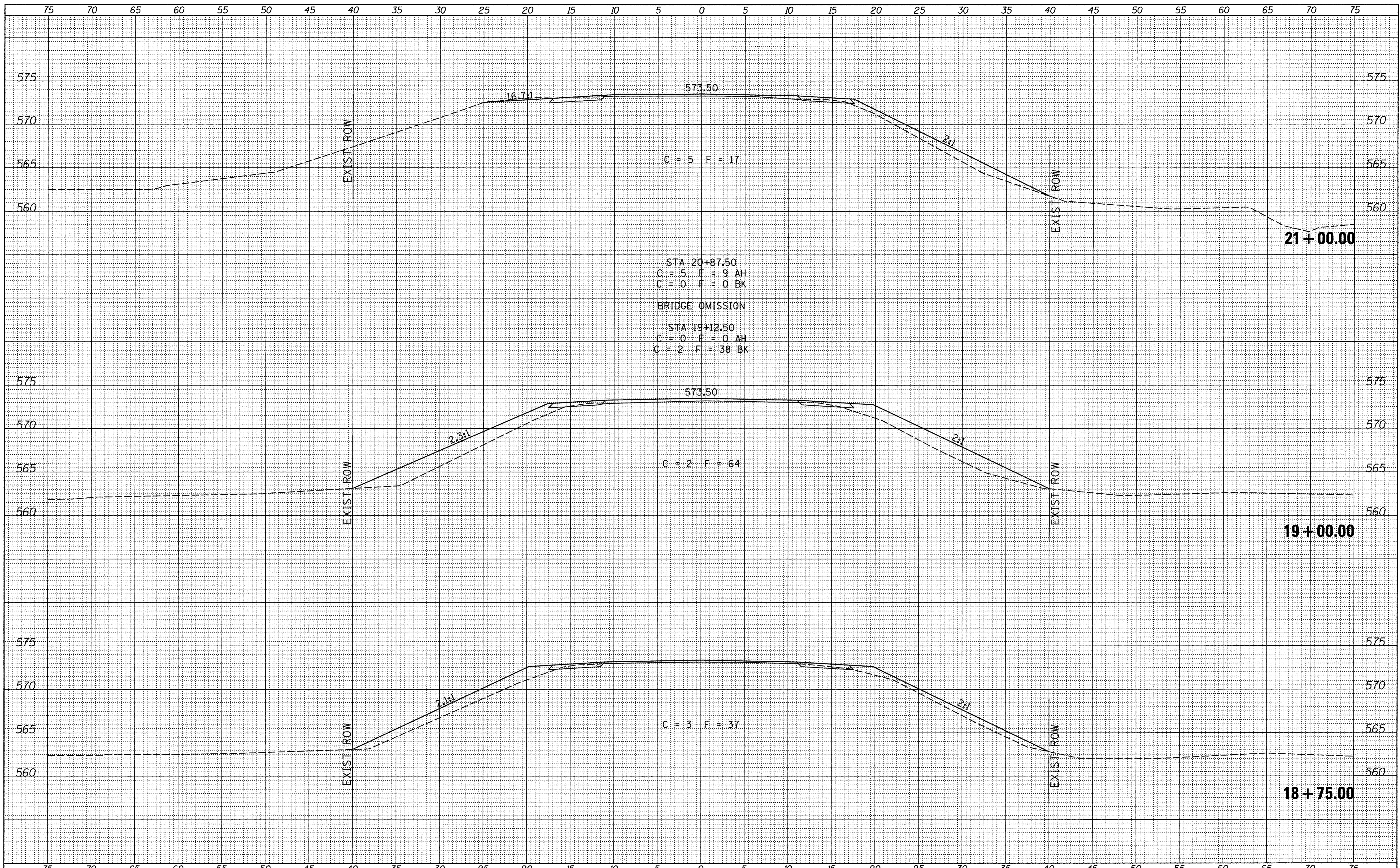
EXISTING BRIDGE

EXISTING PLANS

SHEET NO. 13 13 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	596	10-00087-00-BR	PIKE	38	35
	SN 075-3329		CONTRACT NO. 93697		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(107)		

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

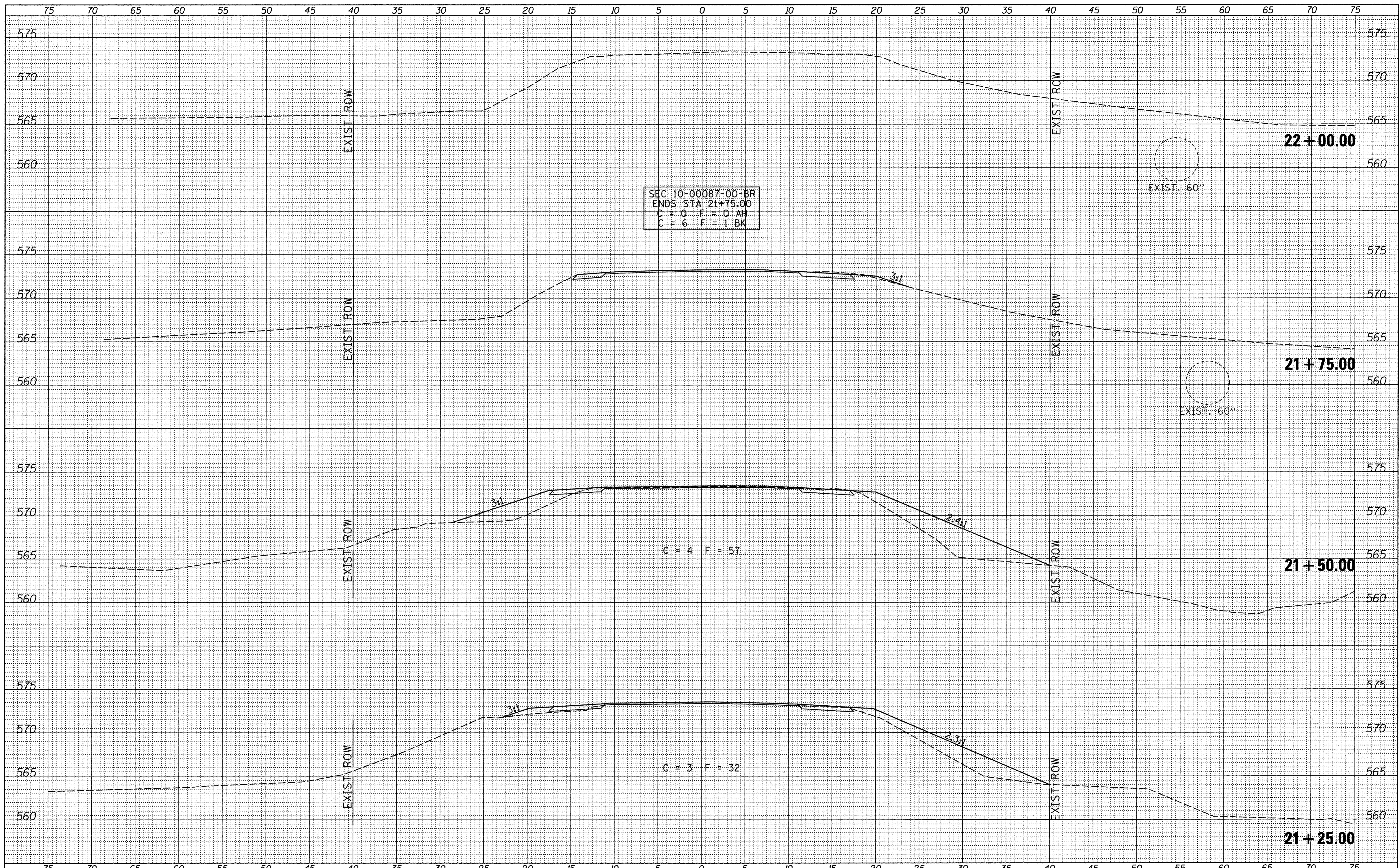
BY	DATE
ORIGINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED



FILE NAME = V:\Bridges\3881-Pike\3881xhsts.dgn	USER NAME = JHutchison	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER HADLEY CREEK	CROSS SECTIONS SCALE: 1"=5' SHEET 2 OF 3 SHEETS STA. 18+75.00 TO STA. 21+00.00		F.A.S. RTE. 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 37
#MODELNAME#	PLOT SCALE = 5.00000' / in.				FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BRS-05961071		CONTRACT NO. 93697				

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

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



SEC 10-00087-00-BR
 ENDS STA 21+75.00
 C = 0 F = 0 AH
 C = 6 F = 1 BK

FILE NAME = V:\Bridges\3881-Pike\3881xhts.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER HADLEY CREEK	CROSS SECTIONS			F.A.S. RTE. 596	SECTION 10-00087-00-BR	COUNTY PIKE	TOTAL SHEETS 38	SHEET NO. 38
MODELNAME	PLOT SCALE = 5,0000' / 1in.	DRAWN -	REVISED -		SCALE: 1"=5'	SHEET 3	OF 3 SHEETS	STA. 21+25.00	TO STA. 22+00.00	CONTRACT NO. 93697		
	PLOT DATE = 10/18/2016	CHECKED -	REVISED -		FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BRS-05961071							
		DATE -	REVISED -									