

03-09-12 LETTING ITEM 112

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	11-00089-00-BR	PIKE	28	1
FED. ROAD DIST. NO. 7		ILLINOIS	CONTRACT NO. 93564	

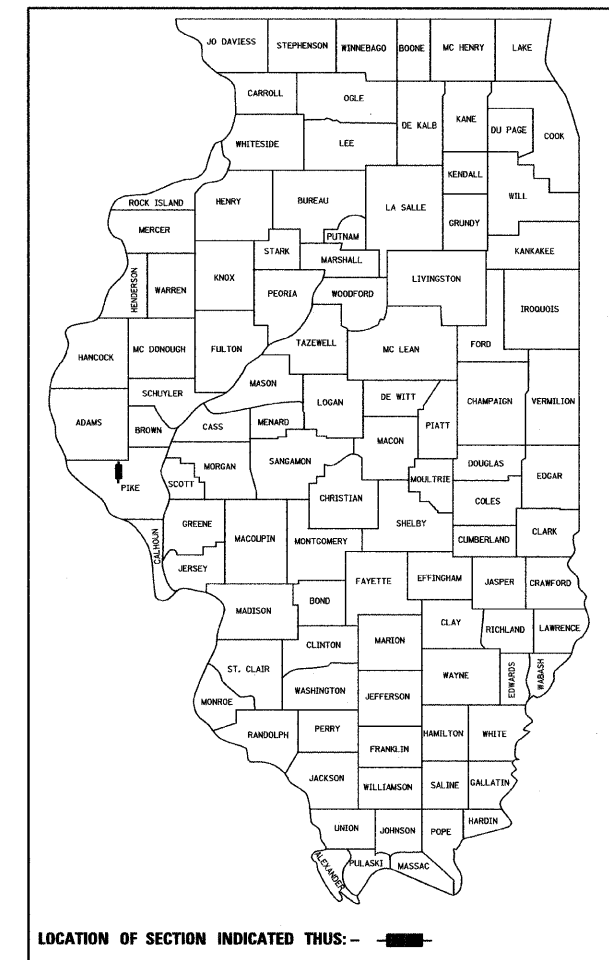
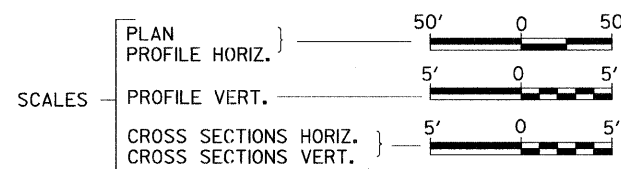
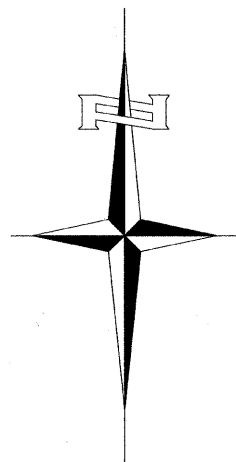
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
PIKE COUNTY
SECTION 11-00089-00-BR
F.A.S. 596 (CH 4) OVER
NORTH FORK HADLEY CREEK
PROJECT NO. BRS-0596(105)
JOB NUMBER C-96-209-12

INDEX OF SHEETS

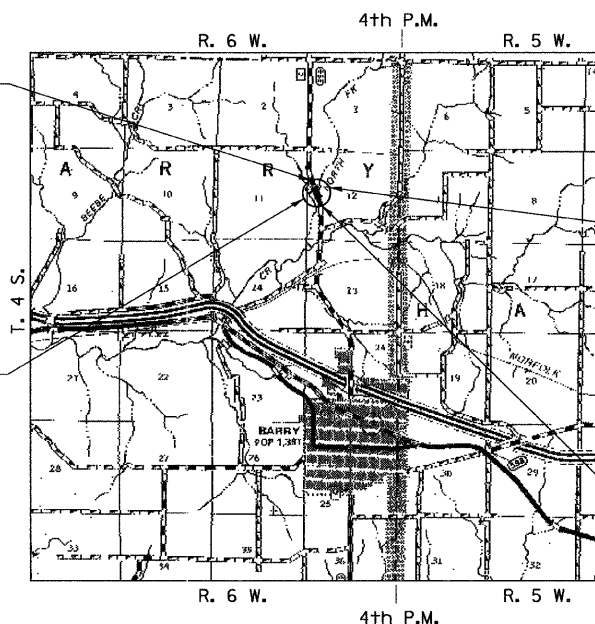
SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, TYPICAL SECTIONS
3.	DETAILS
4.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
5.	TRAFFIC CONTROL PLAN
6.	EROSION CONTROL PLAN
7.	PLAN AND PROFILE
8.-18.	STRUCTURE PLANS
19.-24.	EXISTING STRUCTURE PLANS
25.-28.	CROSS SECTIONS

REQUIRED HIGHWAY STANDARDS

- 000001-06
- 280001-06
- 515001-03
- 630301-05
- 631032-07
- 635006-03
- 701901-02
- 780001-03
- BLR 21-9



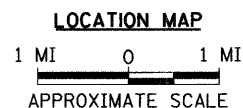
SECTION 11-00089-00-BR
ENDS
STATION 21+75.00



PROPOSED STRUCTURE SN 075-3324
THREE SPAN 17" PPC DECK BEAM SUPERSTRUCTURE ON CONCRETE ENCASED PILE BENT PIERS AND CONCRETE SPILL THRU PILE BENT ABUTMENTS, 105'-0" BK TO BK, AND 32'-0" O TO O DECK, SKEW 30° RT AH

EXISTING STRUCTURE 075-3000
TWO SPAN CONCRETE T-BEAM SUPERSTRUCTURE WITH CONCRETE RAIL ON A STEM PIER AND CONCRETE CLOSED ABUTMENTS, 90'-0" BK. TO BK., 28'-4" O. TO O., SKEW 30° RT AH (TO BE REMOVED)

SECTION 11-00089-00-BR
BEGINS
STATION 18+25.00



UTILITY COMPANIES

ILLINOIS RURAL ELECTRIC
WINCHESTER, ILLINOIS

FRONTIER COMMUNICATIONS
JACKSONVILLE, ILLINOIS

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

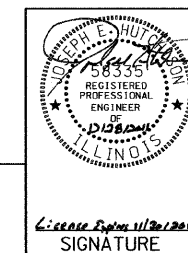
CONTRACT NO. 93564

NET LENGTH OF PROJECT = 350.00 FEET = 0.066 MILES
DESIGN CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
DESIGN ADT = 650 (32)
DESIGN SPEED = 50 MPH

Hutchison Engineering, Inc.
JACKSONVILLE ILLINOIS

2011

JOB#3063

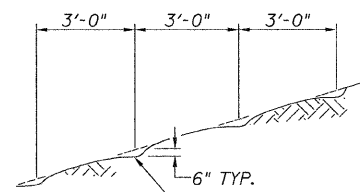
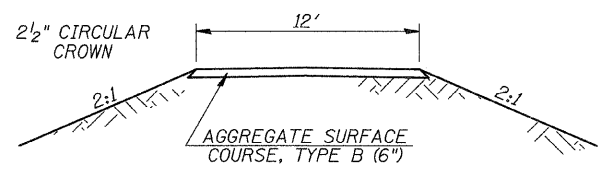
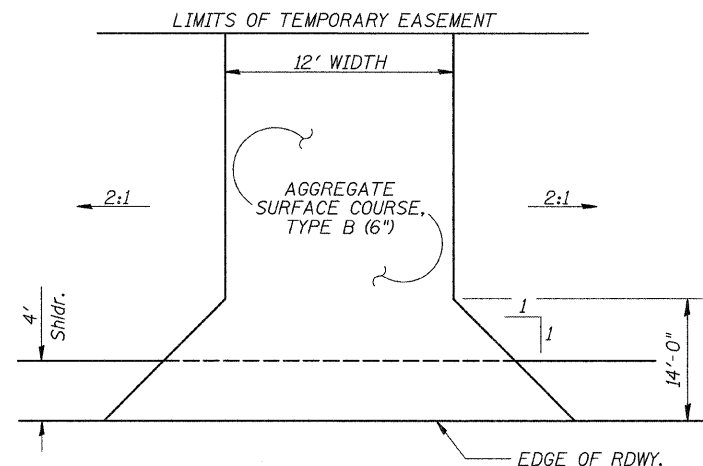


License Expires 11/28/2015
SIGNATURE

ENGINEER'S SEAL

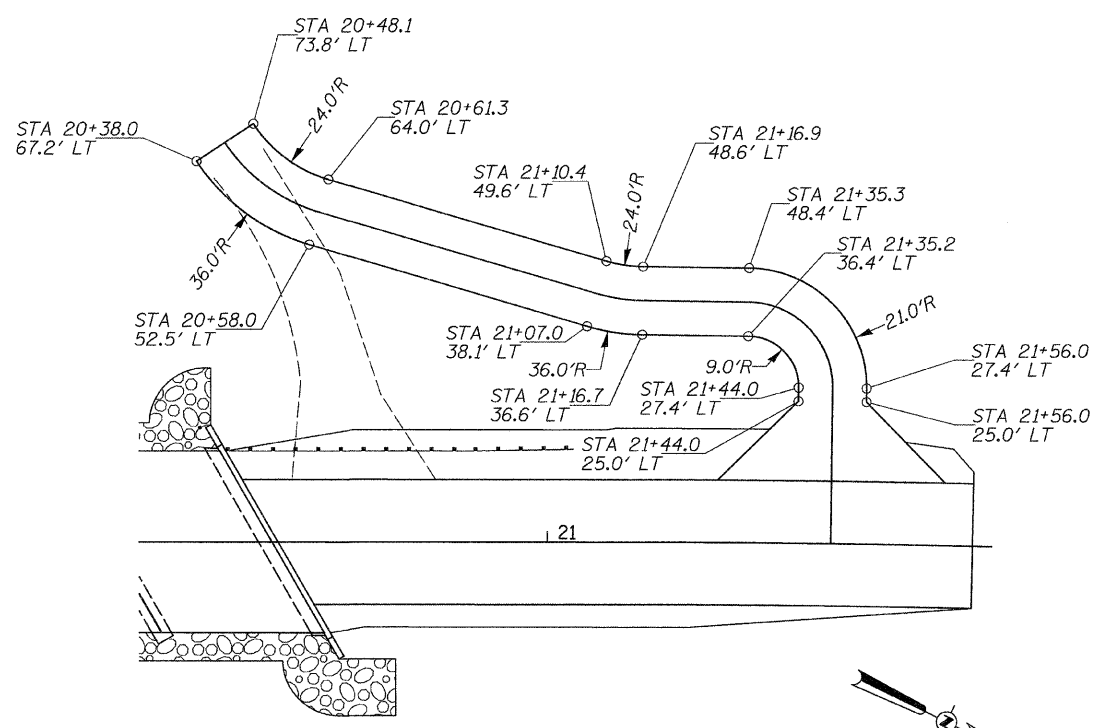
APPROVED	12-29	2011
	<i>Ch. R. De...</i>	PIKE COUNTY ENGINEER
PASSED	1/6	2012
	<i>Tom...</i>	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS
PASSED	1-6	2012
	<i>Ron Archambault</i>	DISTRICT SIX ENGINEER OF CONSTRUCTION
Released For Bid Based on Limited Review	1/6	2012
	<i>Roger J. Dieball</i>	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER
		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

3063E001

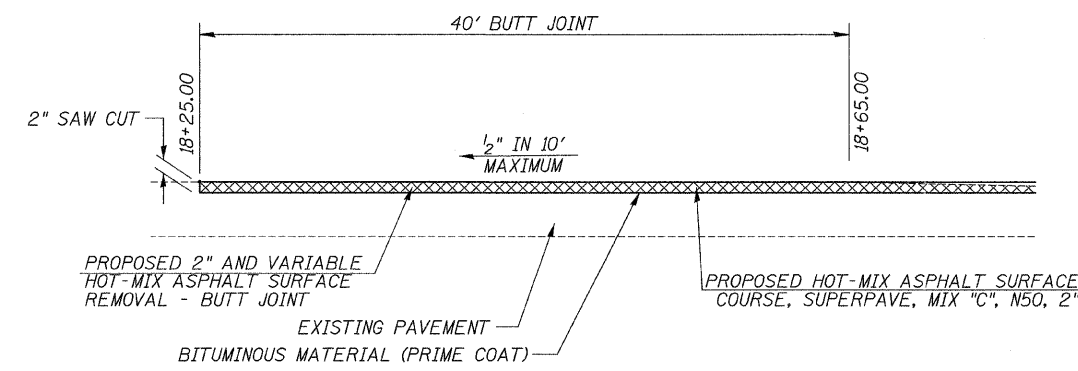


NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL. COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

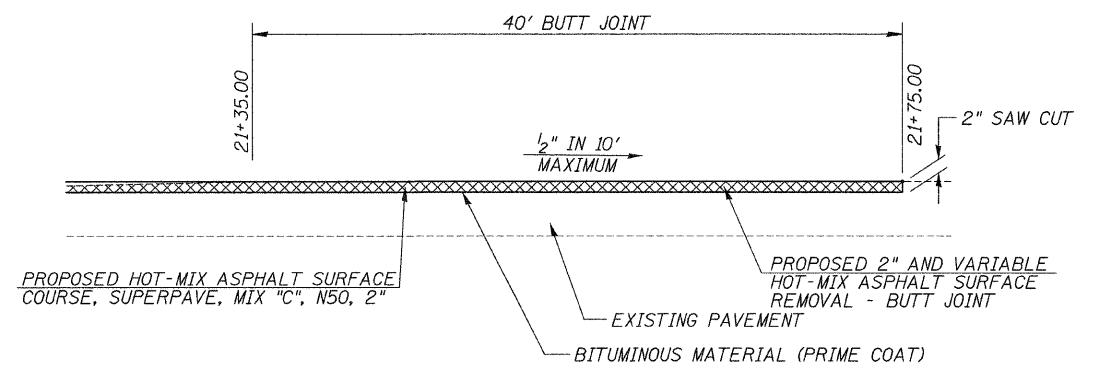
DETAIL OF CONTOUR PLOWING



PROPOSED PRIVATE ENTRANCE DETAIL
STA 21+50 LT



SOUTH END



NORTH END

BUTT JOINT DETAILS

FILE NAME = V:\Bridge\3063-Pike\3063d001.dgn	USER NAME = jhutchison	DESIGNED -	REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER NORTH FORK HADLEY CREEK	DETAILS		F.A.S. RTE. 596	SECTION 11-00089-00-BR	COUNTY PIKE	TOTAL SHEETS 28	SHEET NO. 3	
	PLOT SCALE = 1,000.00 Ft / IN.	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+25.00 TO STA. 21+75.00	CONTRACT NO. 93564				
	PLOT DATE = 12/27/2011	CHECKED -	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT NO. BR05-0596(105)							
		DATE -	REVISED -									

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	85
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	76
20200100	EARTH EXCAVATION	CU YD	10
20300100	CHANNEL EXCAVATION	CU YD	300
① 20400800	FURNISHED EXCAVATION	CU YD	510
25100630	EROSION CONTROL BLANKET	SQ YD	60
① 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	250
28000305	TEMPORARY DITCH CHECKS	FOOT	36
28000400	PERIMETER EROSION BARRIER	FOOT	550
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	69
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	60
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	196
① 40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	119
48101200	AGGREGATE SHOULDERS, TYPE B	TON	38
① 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	80
50200300	COFFERDAM EXCAVATION	CU YD	55
① 50201101	COFFERDAM (TYPE 1) (LOCATION-1)	EACH	1
① 50201102	COFFERDAM (TYPE 1) (LOCATION-2)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	106.2
50300280	CONCRETE ENCASEMENT	CU YD	19.6
① 50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	3,286
50800105	REINFORCEMENT BARS	POUND	9,380
51201400	FURNISHING STEEL PILES HP10x42	FOOT	531
51202305	DRIVING PILES	FOOT	225
51203400	TEST PILE STEEL HP10x42	EACH	2
51500100	NAME PLATES	EACH	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	373
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	225
① 59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	23.2
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
67100100	MOBILIZATION	L SUM	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	700
* ① 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
① X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4
① X2810228	STONE RIPRAP, CLASS B4 (SPECIAL)	TON	415
① X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
① Z0065000	SETTING PILES IN ROCK	EACH	12
* ① XX006199	STEEL BRIDGE RAIL, TYPE SM (SPECIAL)	FOOT	210

① SEE SPECIAL PROVISIONS
* SPECIALTY ITEMS

CONSTRUCTION CODE TYPE: 0011
BRIDGE CODE TYPE: X080

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+47.50	4					168 (165)
RDWY 20+52.50 - 21+75.00	8				349	(343)
CHANNEL		300				
STRUCTURE			80			
COFFERDAM				55		
TOTAL	12	300	80	55	517	(508)
USE	10	300	80	55	-	(510)

(@ 25% SHRINKAGE)

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

SIDE	STATION TO STATION	EACH
RIGHT	18+62.99 - 19+12.99	1
LEFT	20+87.01 - 21+37.01	1
TOTAL		2

TRAFFIC BARRIER TERMINAL, TYPE 6A

SIDE	STATION TO STATION	EACH
RIGHT	19+12.99 - 19+56.74	1
LEFT	20+43.26 - 20+87.01	1
TOTAL		2

EROSION CONTROL BLANKET

STATION TO STATION	SIDE	WIDTH	LENGTH	AREA (SQ YD)
20+60 - 21+50	LEFT	6'	90'	60
TOTAL				60

TEMPORARY DITCH CHECKS

STATION	SIDE	FOOT
20+60	RIGHT	12
20+90	RIGHT	12
21+20	RIGHT	12
TOTAL		36

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
18+25 - 19+36	LEFT	135
18+25 - 19+59	RIGHT	165
20+41 - 21+75	LEFT	215
21+50 - 21+75	RIGHT	35
TOTAL		550

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

PAINT PAVEMENT MARKING - LINE 4"

STATION TO STATION	SIDE	DESCRIPTION	FOOT
18+25.00 - 21+75.00	℄	DOUBLE YELLOW	700
TOTAL			700

PAVEMENT SCHEDULE

STATION TO STATION	WIDTH	LENGTH	PRIME COAT GALLON 0.10 GAL/SQ YD	HOT-MIX ASPHALT SURF CSE, MIX "C", N50 TON 112#/SQ YD/IN
18+25.00 - 19+47.50	22.00'	122.50'	30	
20+52.50 - 21+75.00	22.00'	122.50'	30	
18+25.00 - 19+47.50	22.00'	122.50'		34
BRIDGE DECK	32.00'	105.00'		51
20+52.50 - 21+75.00	22.00'	122.50'		34
TOTAL			60	119

AGGREGATE SURFACE COURSE, TYPE B

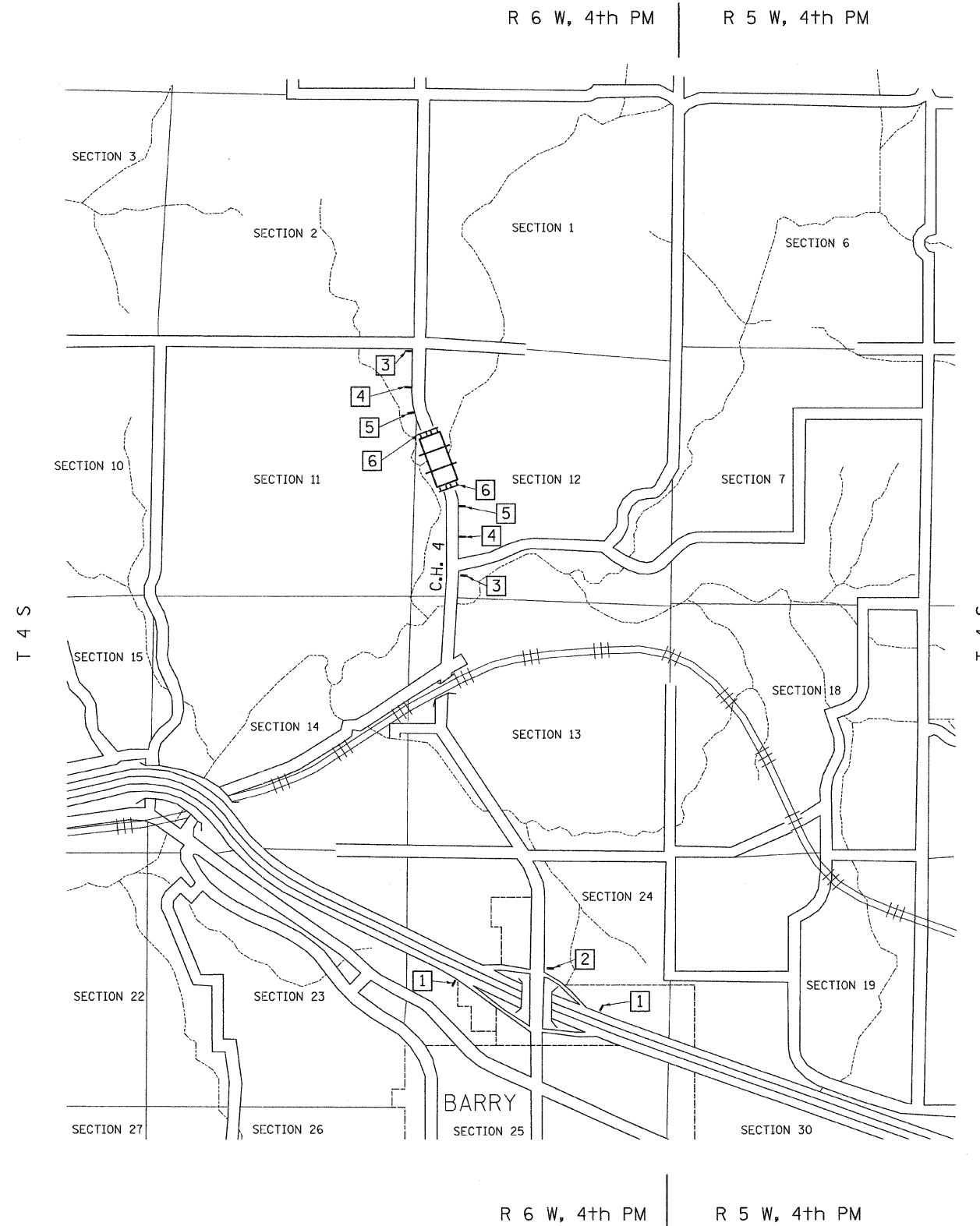
STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
ENTR. - 21+50.00 LT	0.50'	12' & VAR.	140.0'	69
TOTAL				69

TREE REMOVAL

STATION	OFFSET	SIDE	6 TO 15 UNITS	OVER 15 UNITS
19+73	38'	RIGHT	8	
19+95	36'	RIGHT	12	
20+10	39'	RIGHT	10	
20+80	37'	RIGHT	12	
21+08	54'	LEFT		18
21+11	48'	LEFT	15	
21+13	45'	LEFT	8	
21+22	46'	LEFT	10	
21+22	46'	LEFT	10	
21+23	36'	LEFT		18
21+44	50'	LEFT		18
21+57	33'	RIGHT		22
TOTAL			85	76

AGGREGATE SHOULDERS, TYPE B

STATION TO STATION	SIDE	WIDTH	LENGTH	TON
18+25.00 - 18+75.00	LEFT	3.06' AVG.	50.00'	4
18+25.00 - 18+75.00	RIGHT	3.39' AVG.	50.00'	4
18+75.00 - 19+39.99	LEFT	4.00'	64.99'	6
18+75.00 - 19+55.01	RIGHT	4.00'	80.01'	7
20+44.99 - 21+32.00	LEFT	4.00'	87.01'	8
20+60.01 - 21+25.00	RIGHT	4.00'	64.99'	6
21+25.00 - 21+75.00	RIGHT	2.00' AVG.	50.00'	2
21+68.00 - 21+75.00	LEFT	3.00' AVG.	7.00'	1
TOTAL				38



- 1

COUNTY HIGHWAY 4
CLOSED 2 1/4
MILES NORTH

36" x 84"
5D LETTERS
BLACK LEGEND
ORANGE BACKGROUND

COUNTY HIGHWAY 4
CLOSED 2 1/4
MILES NORTH
- 2

ROAD CLOSED
2 1/4 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3

ROAD CLOSED
2 1/4 MILES AHEAD
LOCAL TRAFFIC ONLY
- 3

ROAD CLOSED
1/2 MILE AHEAD
LOCAL TRAFFIC ONLY

R11-3

ROAD CLOSED
1/2 MILE AHEAD
LOCAL TRAFFIC ONLY
- 4

ROAD CLOSED
AHEAD

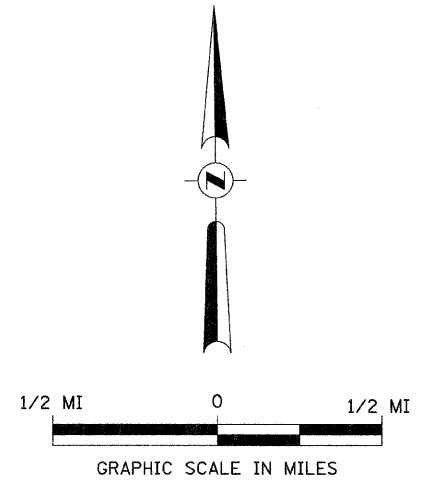
W20-3
- 5

ROAD CLOSED
500 FT

W20-3
- 6

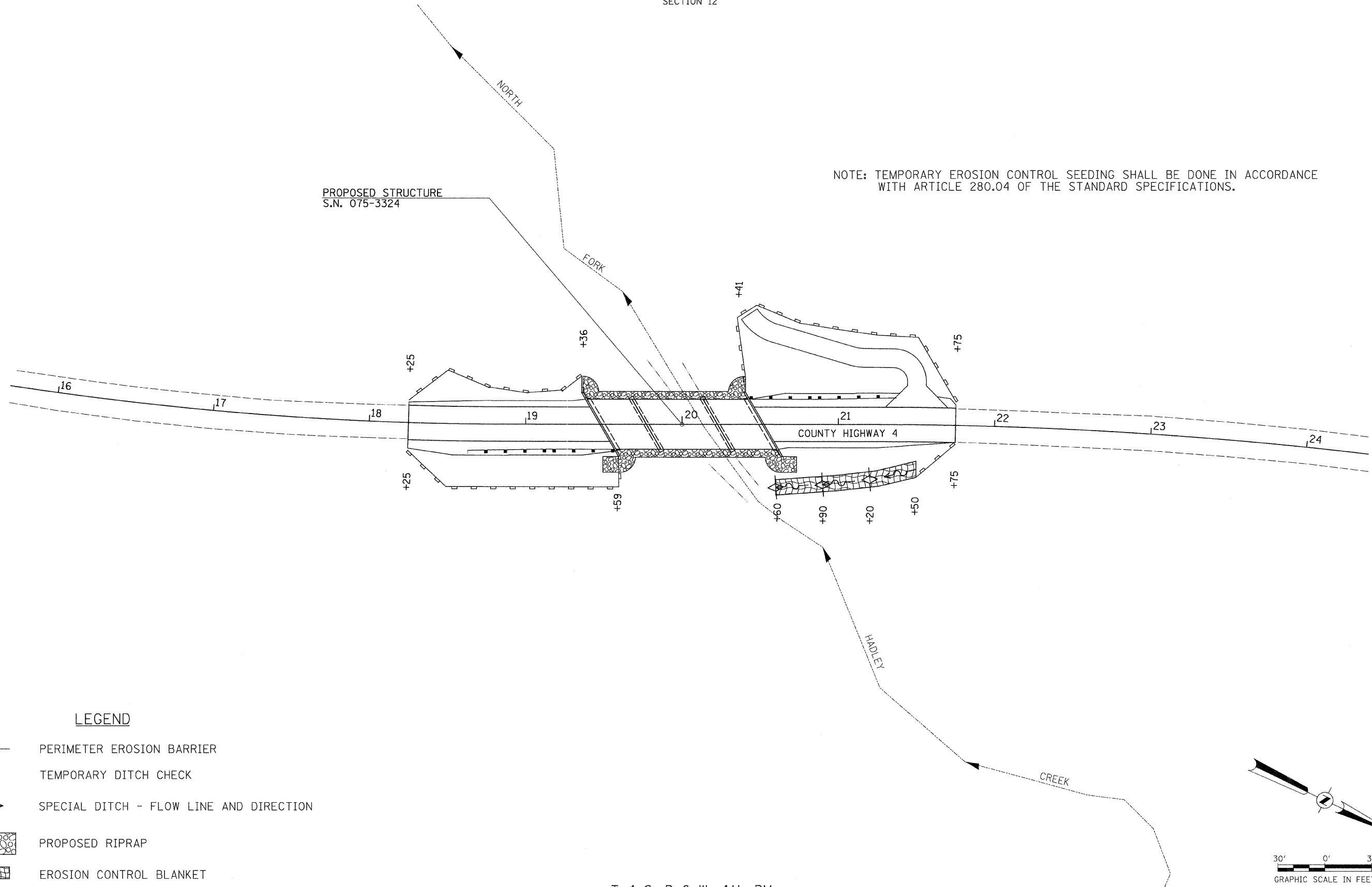
TYPE III BARRICADES

SEE STANDARD BLR 21
AND SPECIAL PROVISIONS








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PLOT SCALE = 1,0000' / IN.				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		CONTRACT NO. 93564		
PLOT DATE = 12/27/2011				DATE = 03/02/09		STA. 18+25.00 TO STA. 21+75.00		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0596(105)		

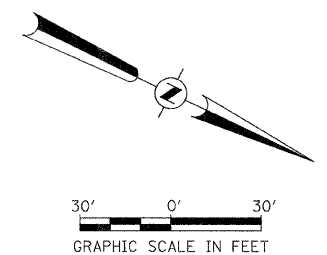
T 4 S, R 6 W, 4th PM
SECTION 12



LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  PROPOSED RIPRAP
-  EROSION CONTROL BLANKET

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



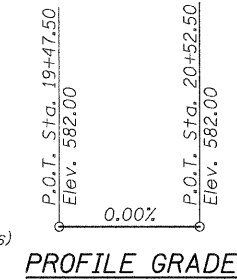
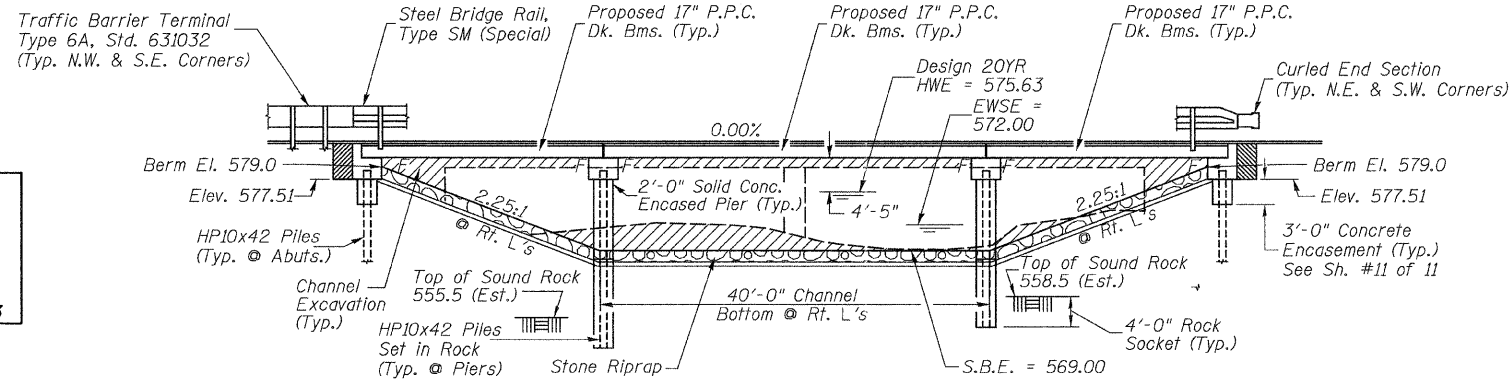
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	PLOT SCALE = 30.0000' / IN.	CHECKED -	REVISED -		SCALE: 1"=30'	SHEET NO. 1 OF 1 SHEETS	STA. 18+25.00 TO STA. 21+75.00	CONTRACT NO. 93564				
	PLOT DATE = 12/27/2011	DATE -	REVISED -				FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)			

B.M.: RR Spike in Power Pole
Sta. 17+01, 91' Rt.
Elev. 575.62

RR Spike in 15" Tree
Sta. 22+70, 25' Lt.
Elev. 578.53

Existing Structure:
Two span concrete T-beam on a stem pier and concrete closed abutments. The structure is 90'-0" back to back of abutments, 28'-4" out to out deck, and is skewed 30°. Str. No. 075-3000

Salvage: None
Road to be closed to traffic during construction.

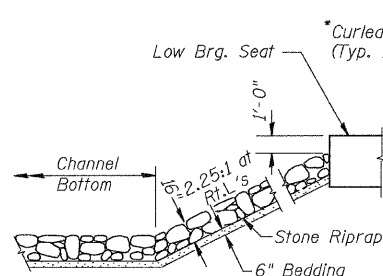


**NORTH FORK HADLEY CREEK
BUILT 20L BY
PIKE COUNTY
SEC. 11-00089-00-BR
C.H. 4 STATION 20+00.00
F.A. PROJ. BRS-0596(105)
STR. NO. 075-3324 LOADING HL-93**

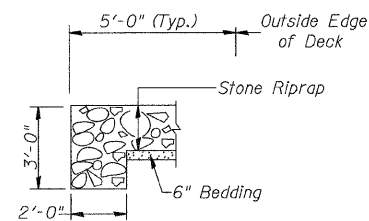
NAME PLATE

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

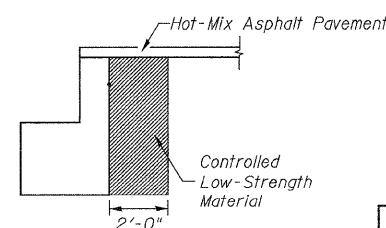
*Terminal Marker-Direct Applied to be placed on Curled End Sections in accordance with Std. 635006



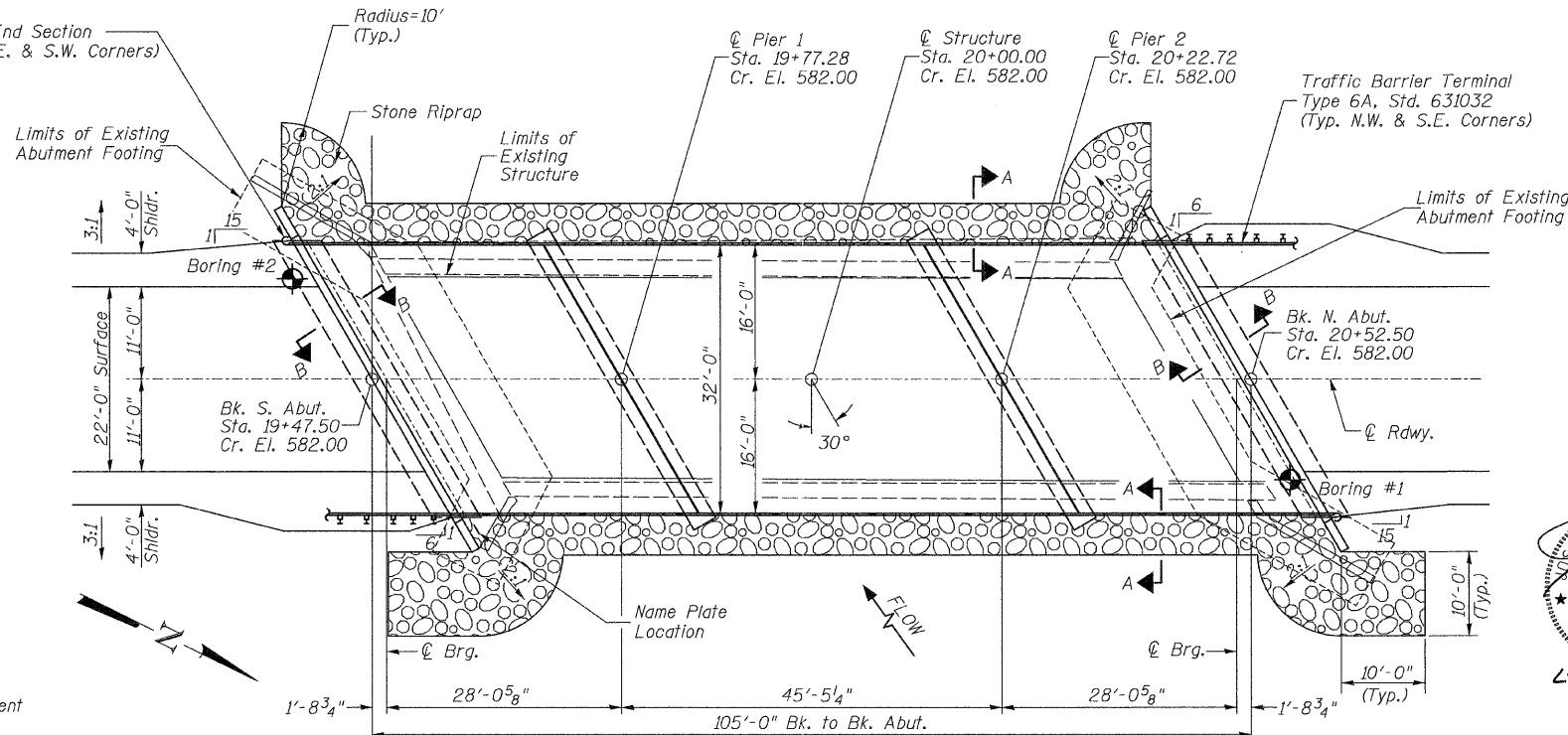
STONE RIPRAP DETAIL



SECTION A-A



SECTION B-B



PLAN

DESIGN SCOUR TABLE

Location	S. Abut	Pier 1	Pier 2	N. Abut
Design Scour Elevation	577.51	555.50	558.50	577.51

WATERWAY INFORMATION

Drainage Area = 5.35 Sq. Mi.		Low Grade Elev. = 578.52 @ Sta. 15+00.00							
Flood Yr.	Q	Opening	Nat. Head - Ft.	Headwater El.					
	C.F.S.	Sq. Ft.	Exist. Prop.	Exist. Prop.					
Design	20	1,685	299	337	575.63	0.48	0.29	576.11	575.92
Base	100	2,470	342	378	576.24	0.92	0.59	577.16	576.83

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with Interims

DESIGN STRESSES

(FIELD UNITS) $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (Rein.)

(PRECAST PRESTRESSED UNITS) $f'_c = 6,000$ p.s.i.
 $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " Strands)
 $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " Strands)

LOADING HL-93

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

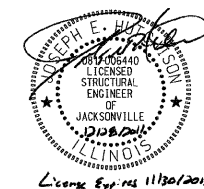
GENERAL NOTES

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.
For Soil Boring Logs, See Special Provisions.
For Existing Structure Plans, See Sheets 12-17.
A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications.
Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated.
Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
Excavation behind existing abutment walls shall be done before removing existing Superstructure.
The existing structural steel coating may contain lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

TOTAL BILL OF MATERIAL

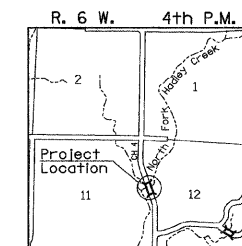
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	---	300	300
Stone Riprap, Class B4 (Special)	TON	---	415	415
Removal of Existing Structures	EACH	---	---	1
Structure Excavation	CU YD	---	80	80
Cofferdam Excavation	CU YD	---	55	55
Concrete Structures	CU YD	---	106.2	106.2
Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	3,286	---	3,286
Reinforcement Bars	POUND	---	9,380	9,380
Steel Bridge Rail, Type SM (Special)	FOOT	210	---	210
Furnishing Steel Piles HP10x42	FOOT	---	531	531
Driving Piles	FOOT	---	225	225
Test Pile Steel HP10x42	EACH	---	2	2
Setting Piles in Rock	EACH	---	12	12
Concrete Encasement	CU YD	---	19.6	19.6
Name Plates	EACH	---	1	1
Waterproofing Membrane System	SQ YD	373	---	373
Portland Cement Mortar Fairing Course	FOOT	225	---	225
Controlled Low-Strength Material	CU YD	---	23.2	23.2
Cofferdam (Type I) (Location-1) (Pier #1)	EACH	---	1	1
Cofferdam (Type I) (Location-2) (Pier #2)	EACH	---	1	1
Hot-Mix Asphalt Surface Course, Mix "C", N50	TON	51	---	51

See Special Provisions



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. 6440
Expires 11/30/2012

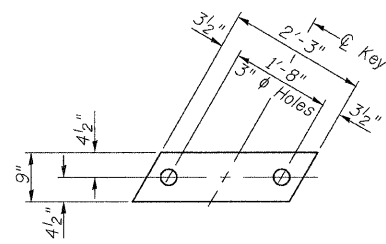


LOCATION SKETCH

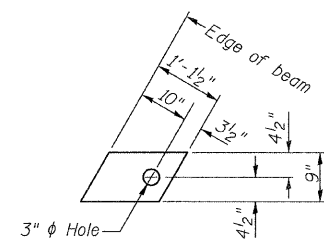
**GENERAL PLAN & ELEVATION
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK**

DESIGNED	S.T.M.
CHECKED	J.E.H.
DRAWN	S.T.M.
CHECKED	J.E.H.

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	CH 4	11-00089-00-BR	PIKE	28	8
S.N. 075-3324			CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(105)		

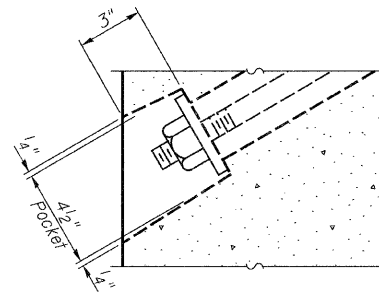


1/2" FABRIC BEARING PAD
(Interior) 28 Required

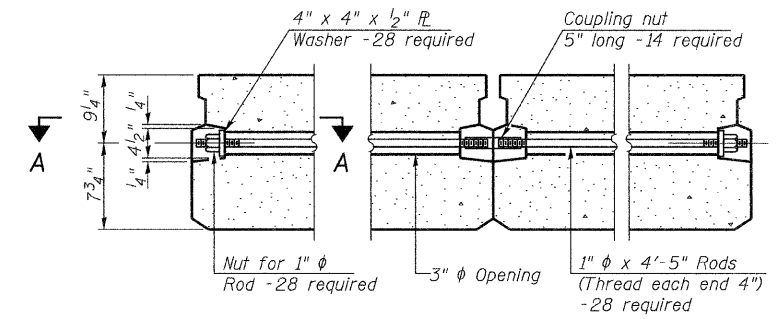


1/2" FABRIC BEARING PAD
(Exterior) 8 Required

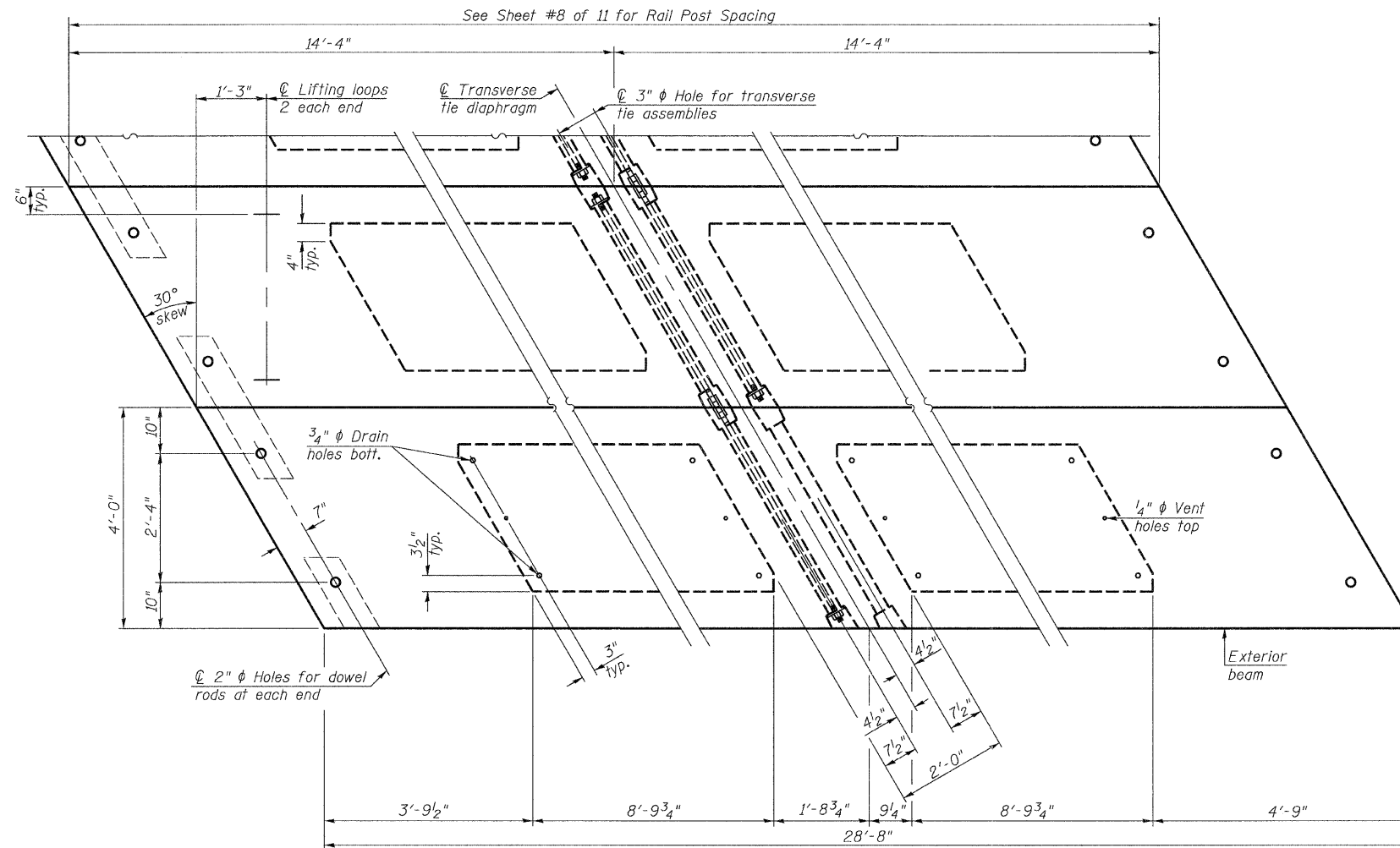
FIXED



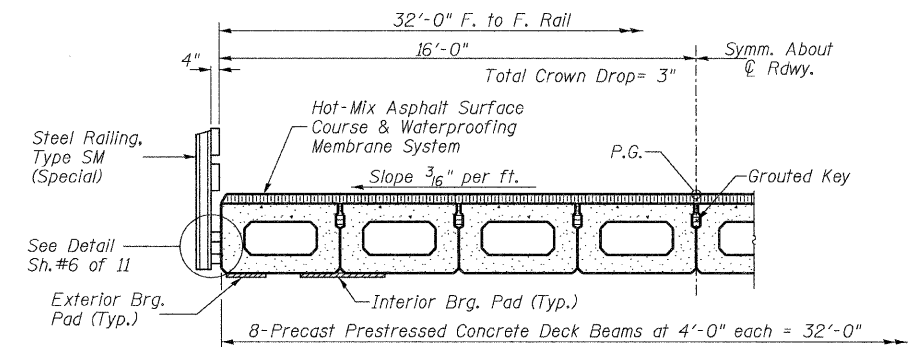
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW



HALF CROSS SECTION

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
① Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	1,835

① See Special Provisions

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

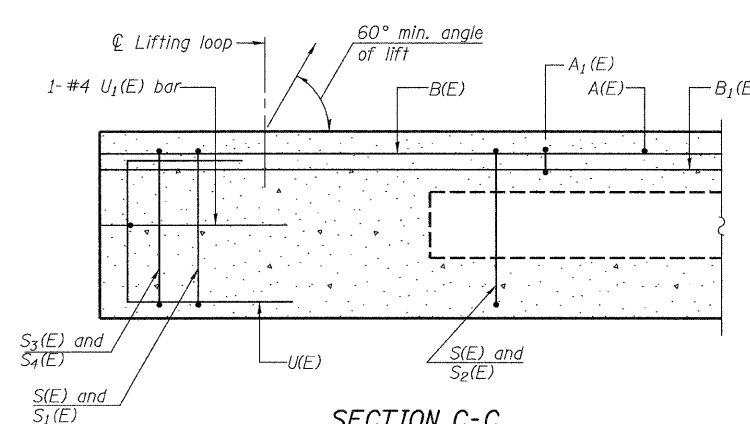
Reinforcement bars shall conform to ASTM A 706, Grade 60. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

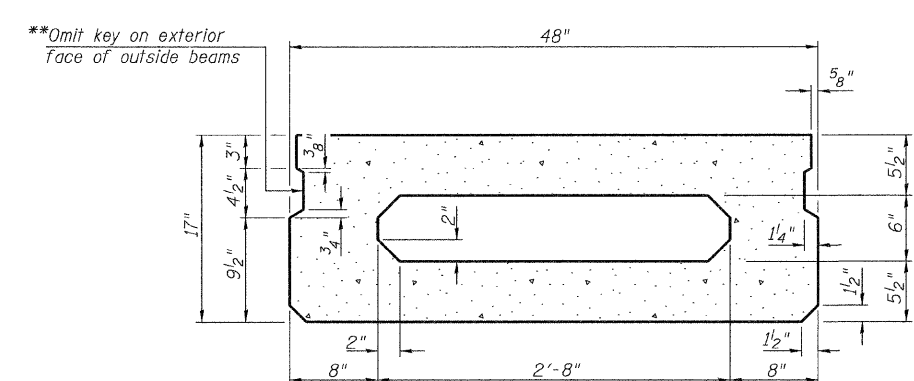
Compressive strength of prestressed concrete, $f'c$, shall be 6000 psi. Compressive strength of prestressed concrete at release, $f'ci$, shall be 5000 psi.

SUPERSTRUCTURE - SPANS 1 & 3
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

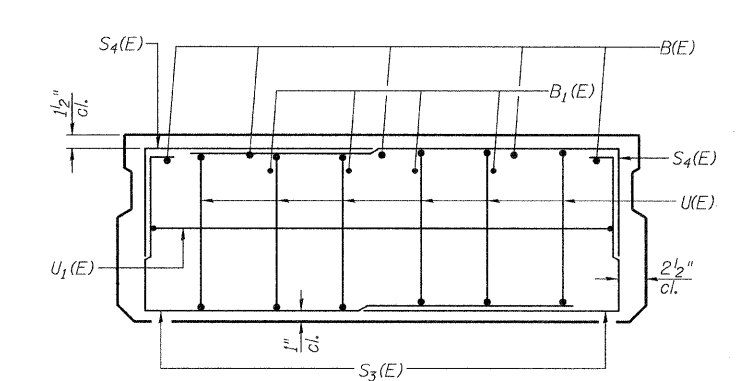
SHEET NO. 2 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	9
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)			



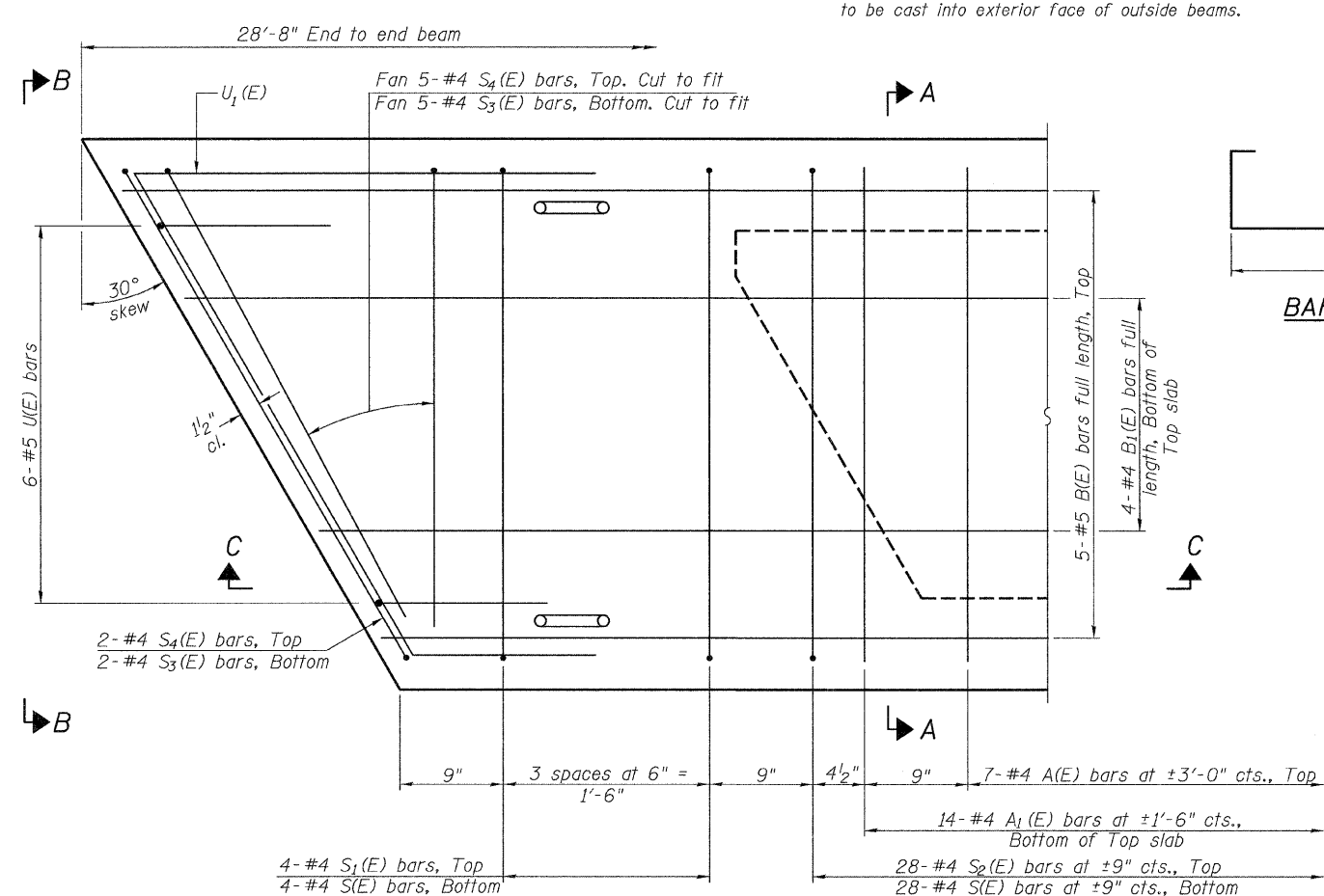
SECTION C-C



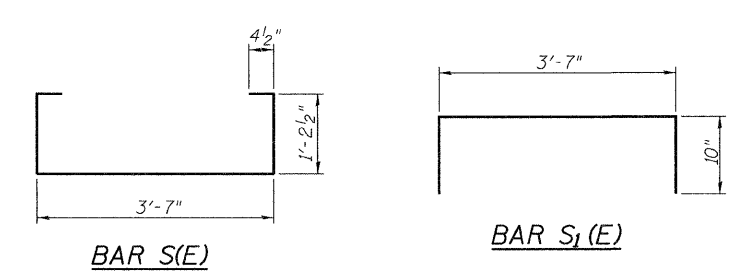
SECTION A-A
(Showing dimensions)



VIEW B-B

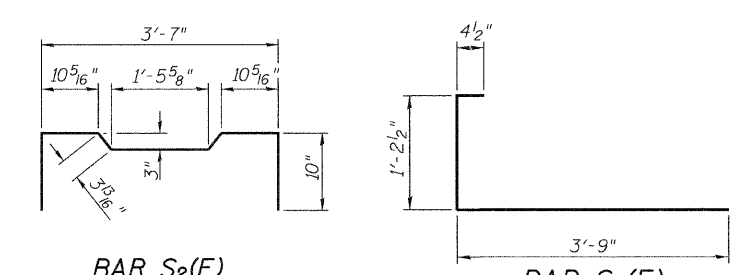


PLAN VIEW



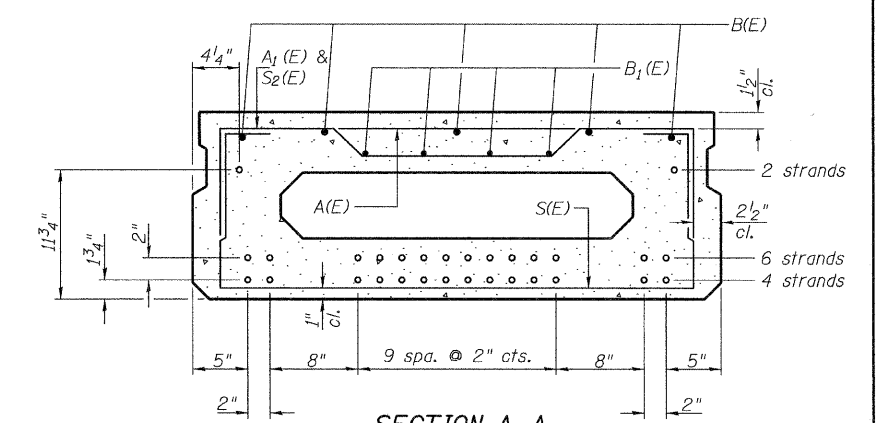
BAR S(E)

BAR S1(E)



BAR S2(E)

BAR S3(E)



SECTION A-A

12-1/2" Strands Each Strand Stressed to 30,900 Lbs.
4-Strands 1 3/4" up, 6-Strands 3 3/4" up, 2-Strands 1 3/4" up
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST-ONE BEAM ONLY
(For information only)

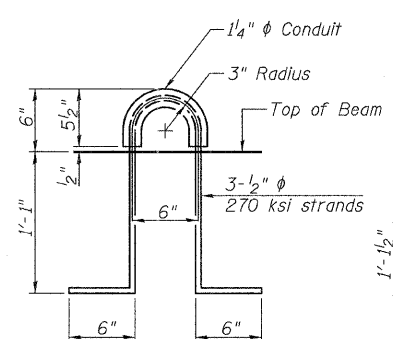
Bar	No.	Size	Length	Shape
A(E)	7	#4	3'-7"	—
A1(E)	14	#4	3'-10"	—
B(E)	5	#5	*28'-5"	—
B1(E)	4	#4	*28'-5"	—
S(E)	36	#4	6'-9"	□
S1(E)	8	#4	5'-3"	□
S2(E)	28	#4	5'-6"	□
S3(E)	14	#4	5'-4"	□
S4(E)	14	#4	4'-7"	□
U(E)	12	#5	3'-8"	□
U1(E)	2	#4	8'-7"	□

*Total Length, Lap as Necessary.

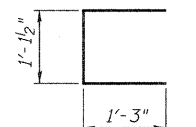
Note: See sheet 2 of 11 for additional details and Bill of Material.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

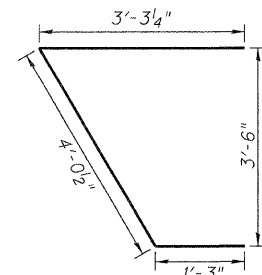
MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"



LIFTING LOOP DETAIL



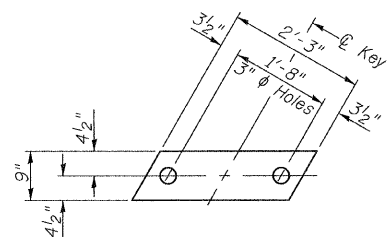
BAR U(E)



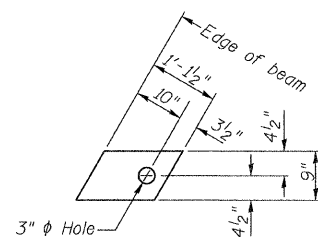
BAR U1(E)

SUPERSTRUCTURE DETAILS - SPANS 1 & 3
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 3 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	10
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(105)		

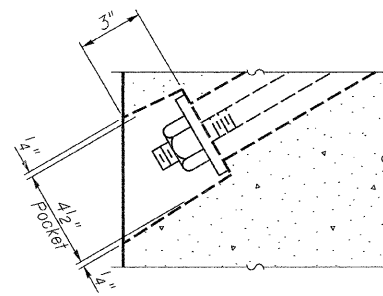


1/2" FABRIC BEARING PAD
(Interior) 14 Required

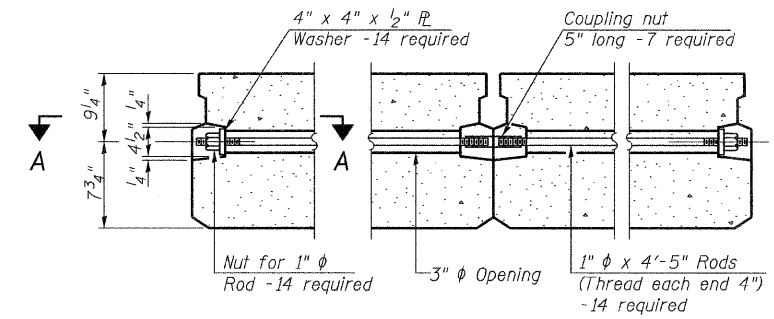


1/2" FABRIC BEARING PAD
(Exterior) 4 Required

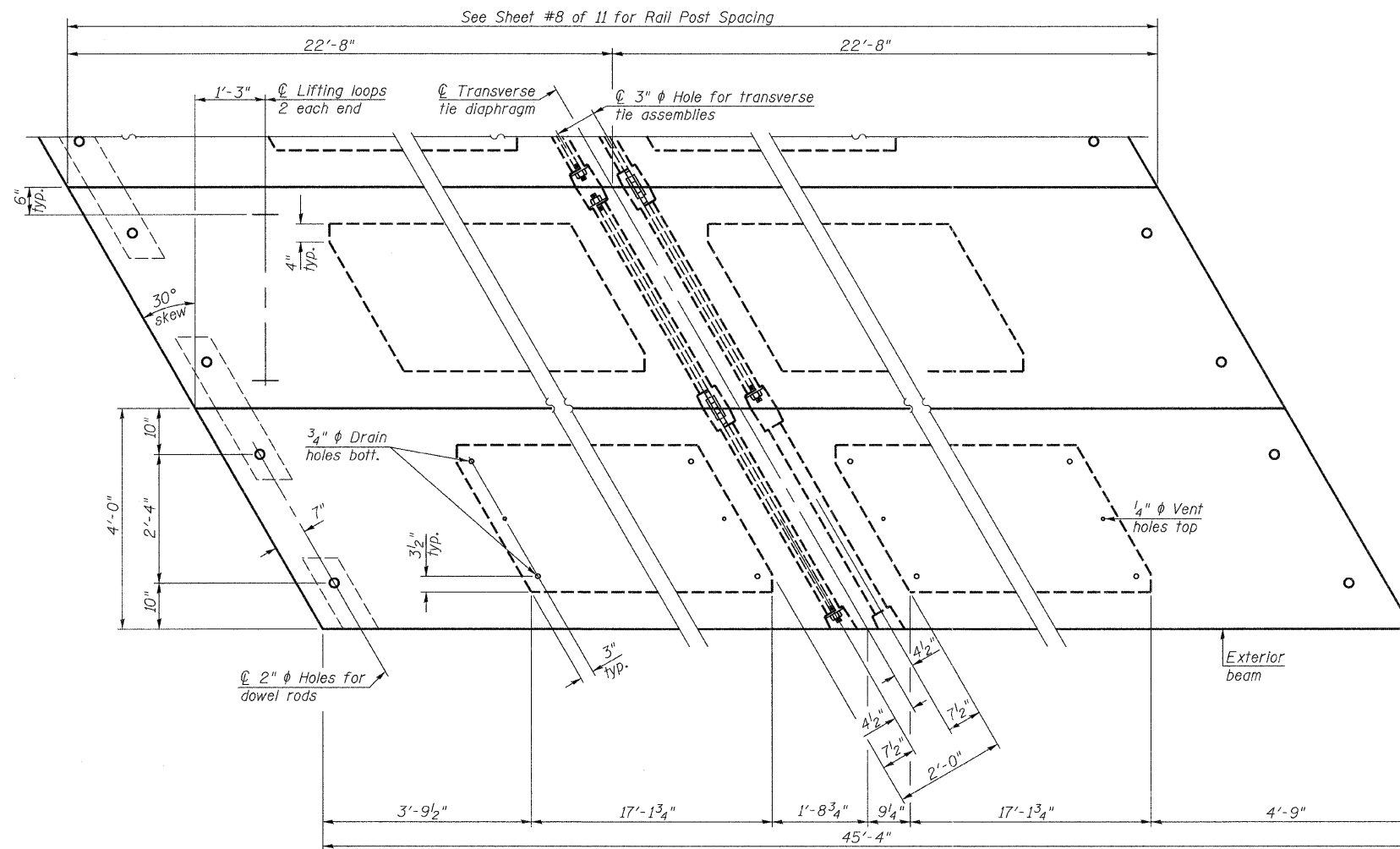
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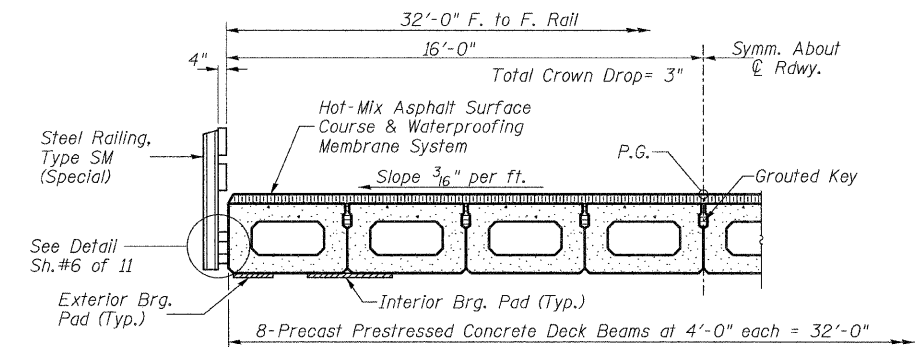
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW



HALF CROSS SECTION

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
① Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	1,451

② See Special Provisions

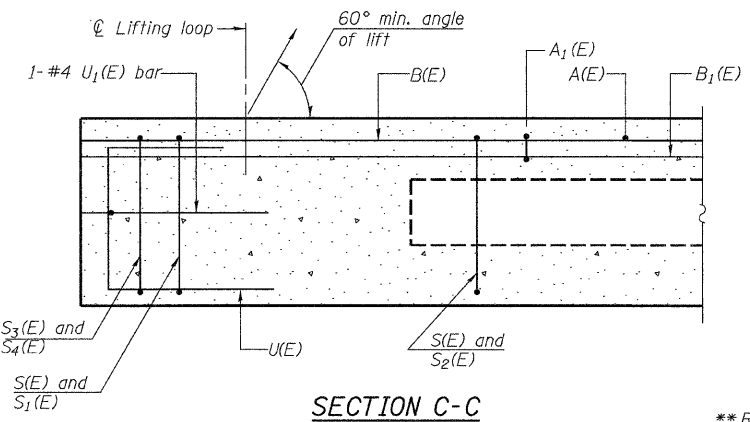
Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

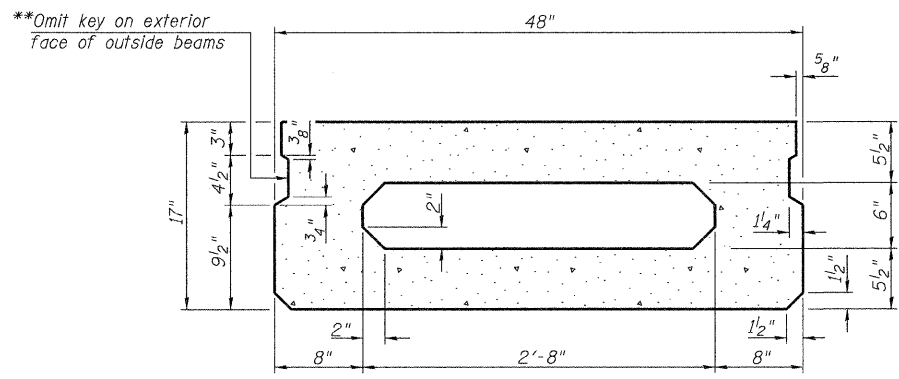
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

SUPERSTRUCTURE - SPAN 2
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

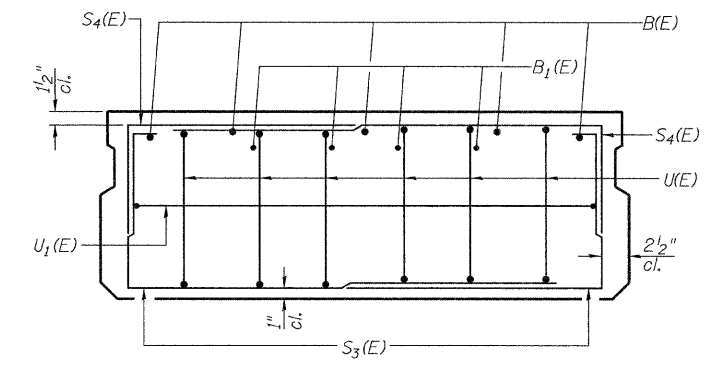
SHEET NO. 4 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	11
S.N. 075-3324			CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)			



SECTION C-C

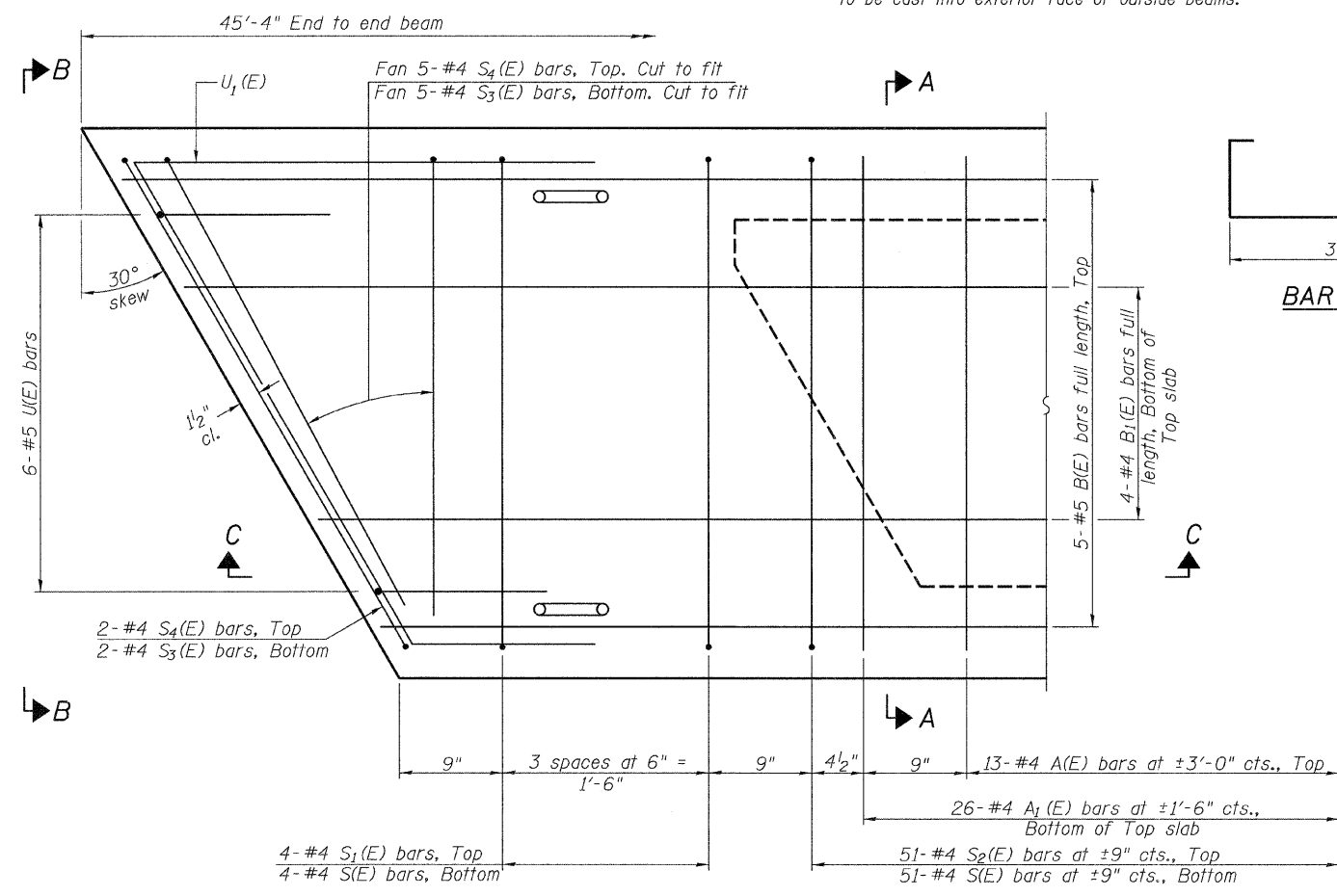


SECTION A-A
(Showing dimensions)

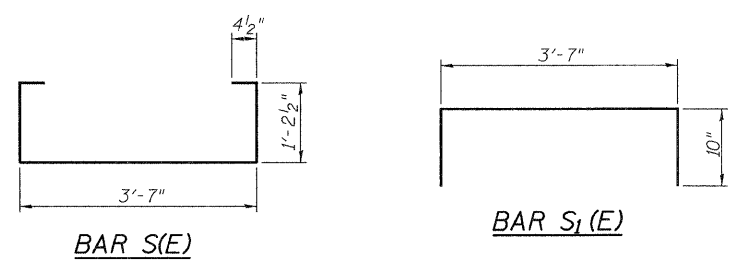


VIEW B-B

**Rail post anchor devices (Sheet 6 of 11) to be cast into exterior face of outside beams.

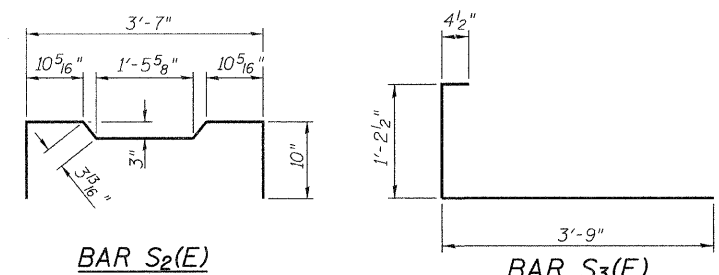


PLAN VIEW



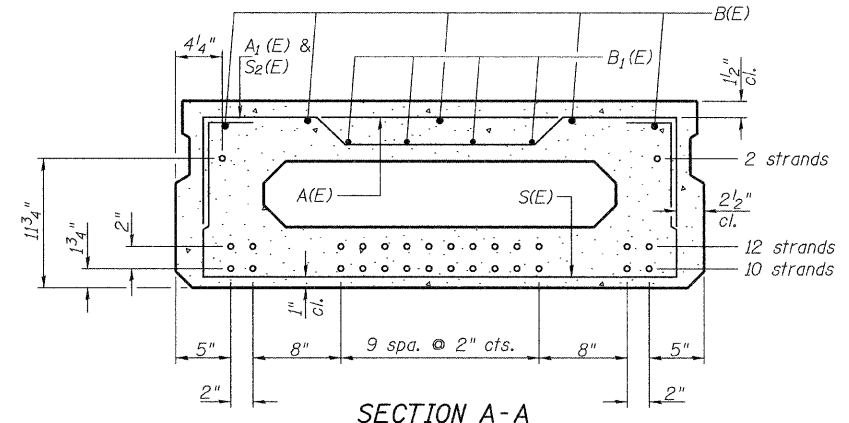
BAR S(E)

BAR S1(E)



BAR S2(E)

BAR S3(E)



SECTION A-A

24-1/2" Strands Each Strand Stressed to 30,900 Lbs.
10-Strands 1 3/4" up, 12-Strands 3 3/4" up, 2-Strands 11 3/4" up
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

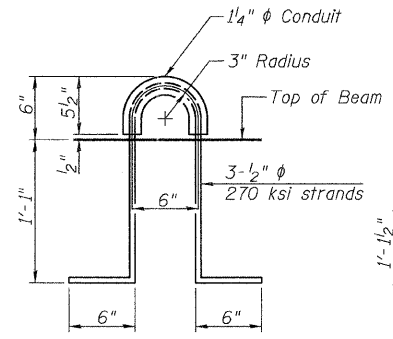
BAR LIST-ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	13	#4	3'-7"	—
A1(E)	26	#4	3'-10"	—
B(E)	5	#5	*45'-1"	—
B1(E)	4	#4	*45'-1"	—
S(E)	59	#4	6'-9"	□
S1(E)	8	#4	5'-3"	□
S2(E)	51	#4	5'-6"	□
S3(E)	14	#4	5'-4"	□
S4(E)	14	#4	4'-7"	□
U(E)	12	#5	3'-8"	□
U1(E)	2	#4	8'-7"	□

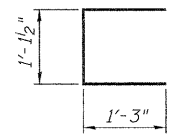
*Total Length, Lap as Necessary.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

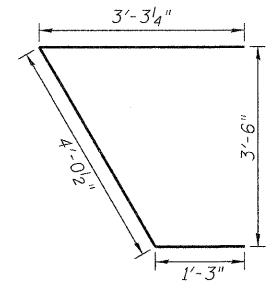
MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"



LIFTING LOOP DETAIL



BAR U(E)

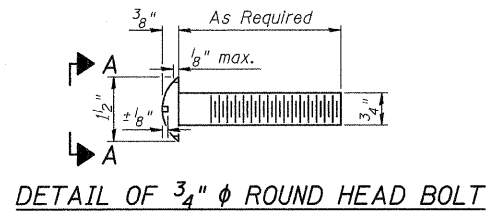


BAR U1(E)

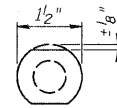
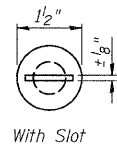
Note: See sheet 4 of 11 for additional details and Bill of Material.

SUPERSTRUCTURE DETAILS - SPAN 2
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

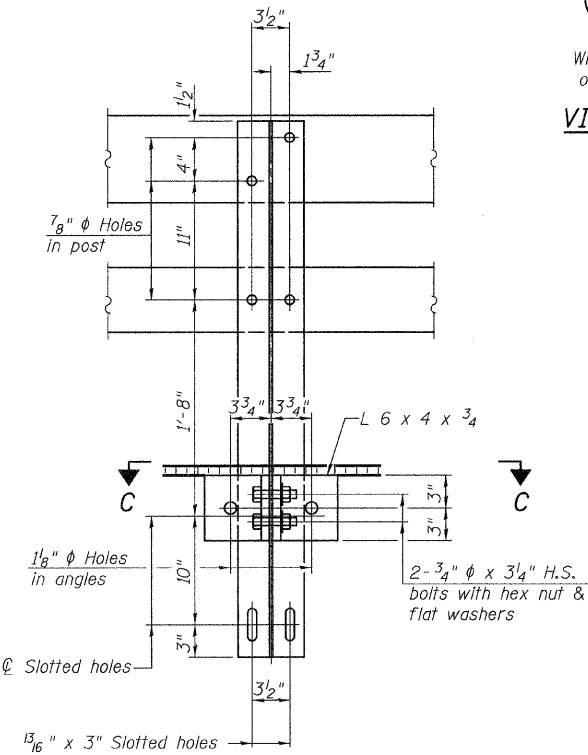
SHEET NO. 5 17 SHEETS	ROUTE NO. CH 4	SECTION 11-00089-00-BR	COUNTY PIKE	TOTAL SHEETS 28	SHEET NO. 12
	S.N. 075-3324		CONTRACT NO. 93564		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)		



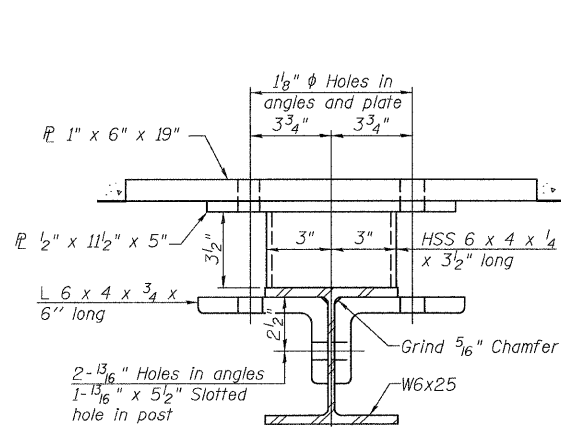
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



VIEW A-A
Without Slot or Recess

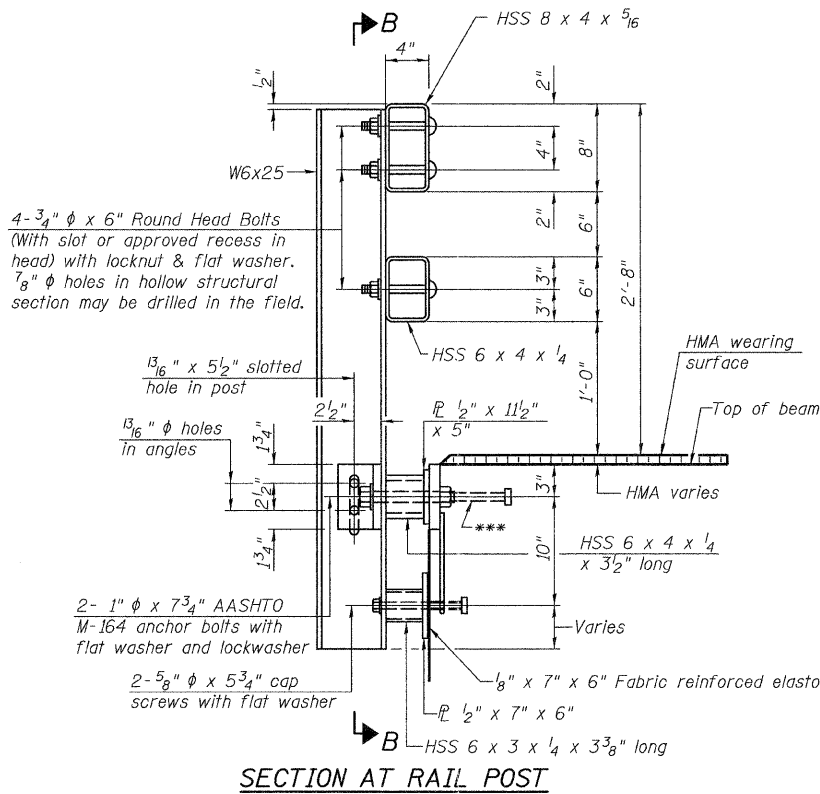


SECTION B-B

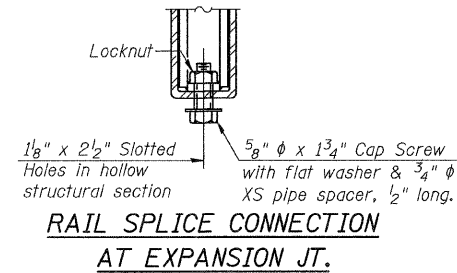


SECTION C-C

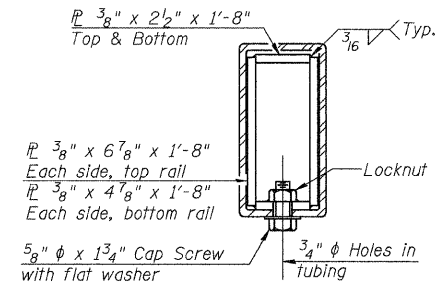
FOR RAIL POST SPACING SEE SH.#8 OF 11



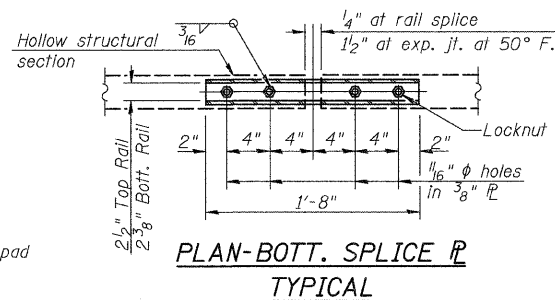
SECTION AT RAIL POST



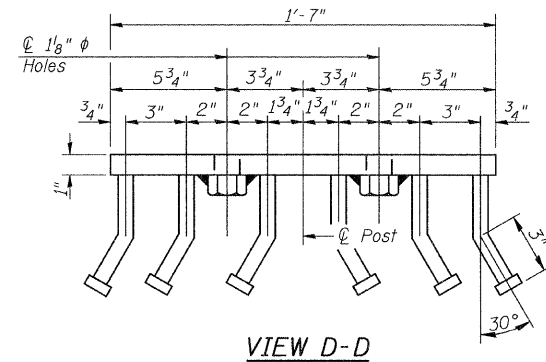
RAIL SPLICE CONNECTION AT EXPANSION JT.



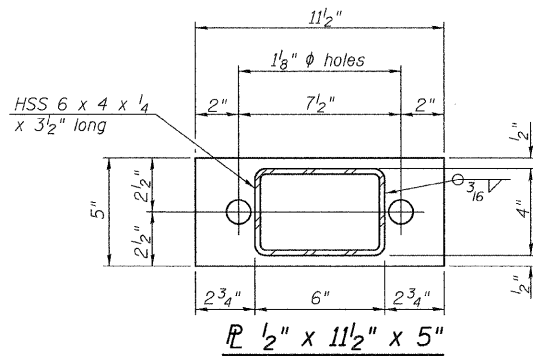
SECTION AT RAIL SPLICE



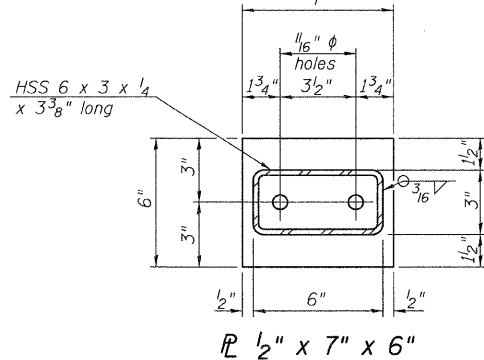
PLAN-BOTT. SPLICE P TYPICAL



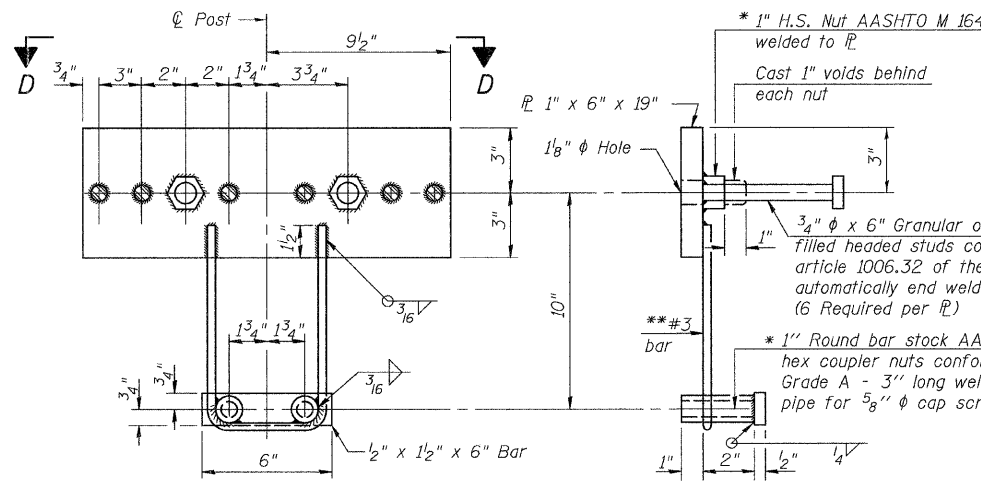
VIEW D-D



Anchor Device Dimensions



Anchor Device Dimensions



ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. 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" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM (Special).
All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

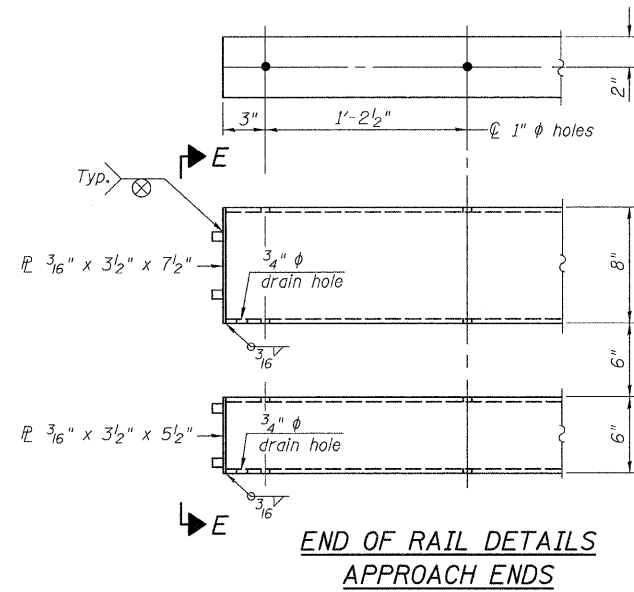
Item	Unit	Quantity
Steel Bridge Rail, Type SM (Special)	FOOT	210

STEEL BRIDGE RAIL, TYPE SM (SPECIAL)
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 6 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	13
S.N. 075-3324			CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(105)		

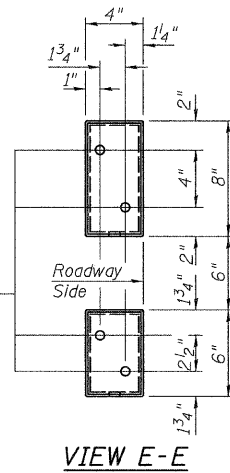
(Sheet 1 of 2)

FOR RAIL POST SPACING SEE SH.#8 OF 11

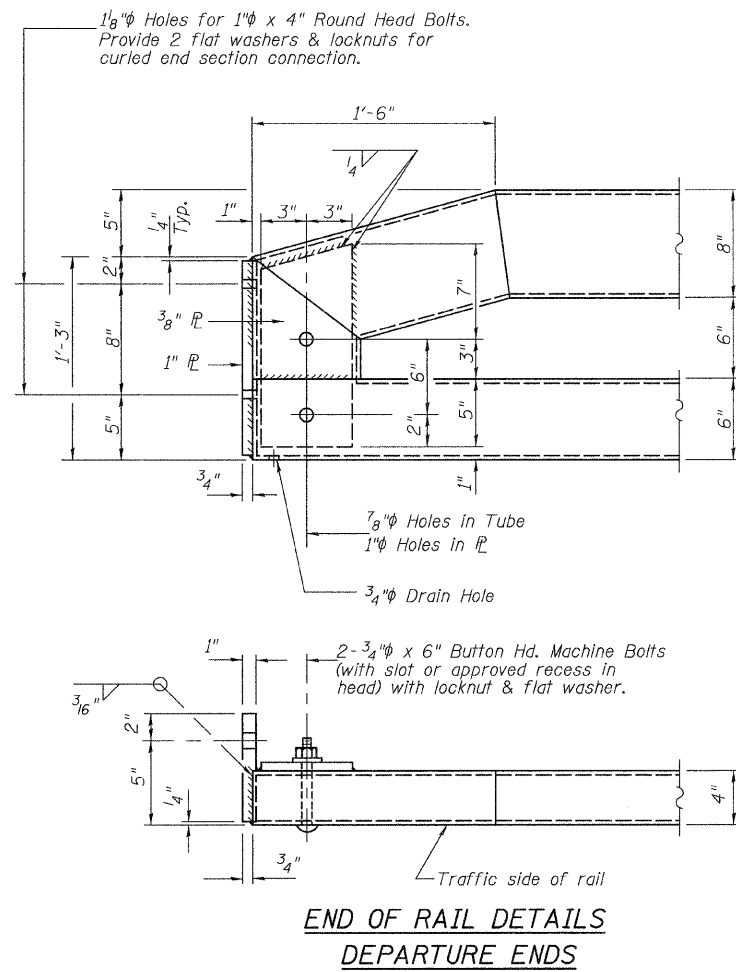


**END OF RAIL DETAILS
APPROACH ENDS**

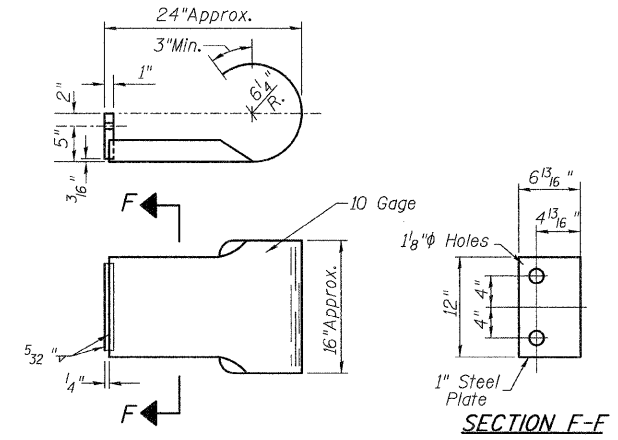
4 - 5/8\" reduced base welded studs. Provide 4 - 5/8\" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



VIEW E-E



**END OF RAIL DETAILS
DEPARTURE ENDS**



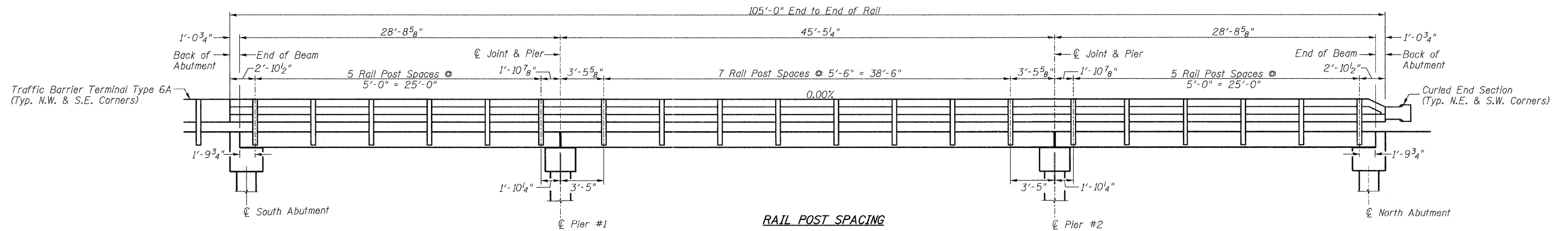
CURLED END SECTION

(2 Req'd) Cost Included with Steel Bridge Rail, Type SM (Special). Terminal Markers - Direct Applied shall be placed on end of each Curled End Section. (N.E. & S.W. Corners)

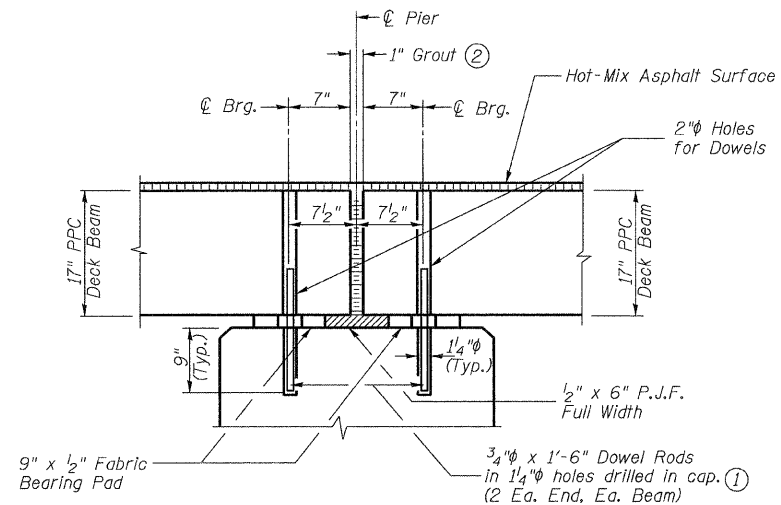
(Sheet 2 of 2)

STEEL BRIDGE RAIL, TYPE SM (SPECIAL)
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

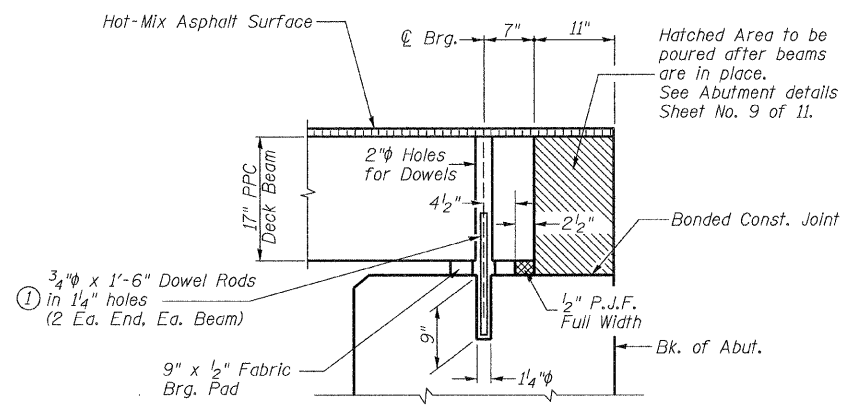
SHEET NO. 7 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	14
	S.N. 075-3324			CONTRACT NO. 93564	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0596(105)		



RAIL POST SPACING

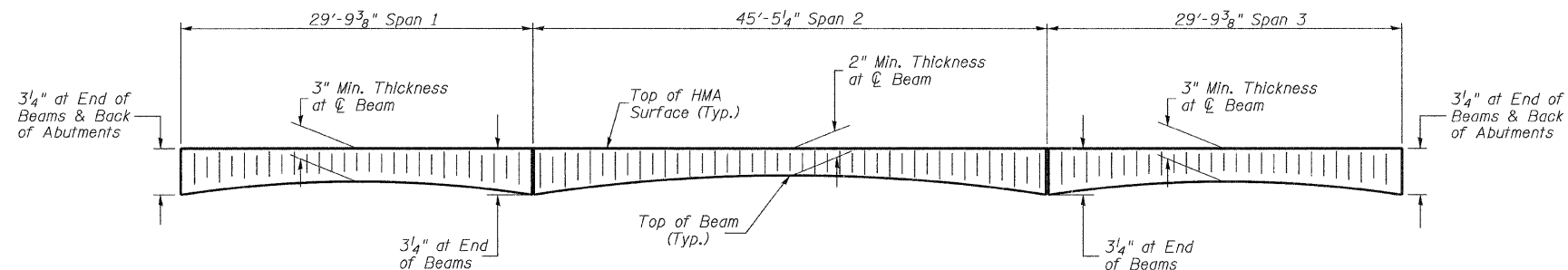


SECTION THRU PIERS
(At Right Angles)



SECTION THRU ABUTMENTS
(At Right Angles)

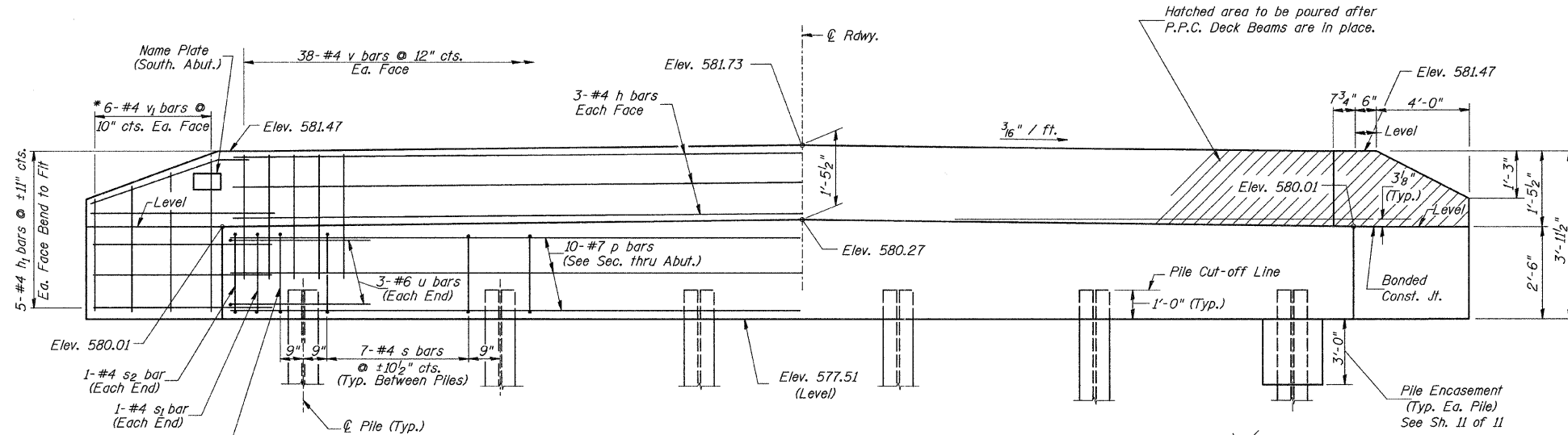
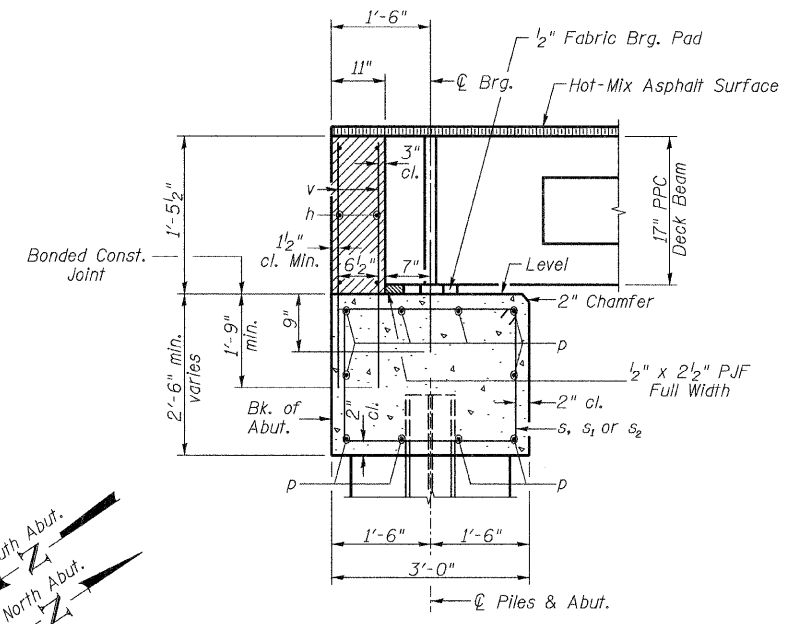
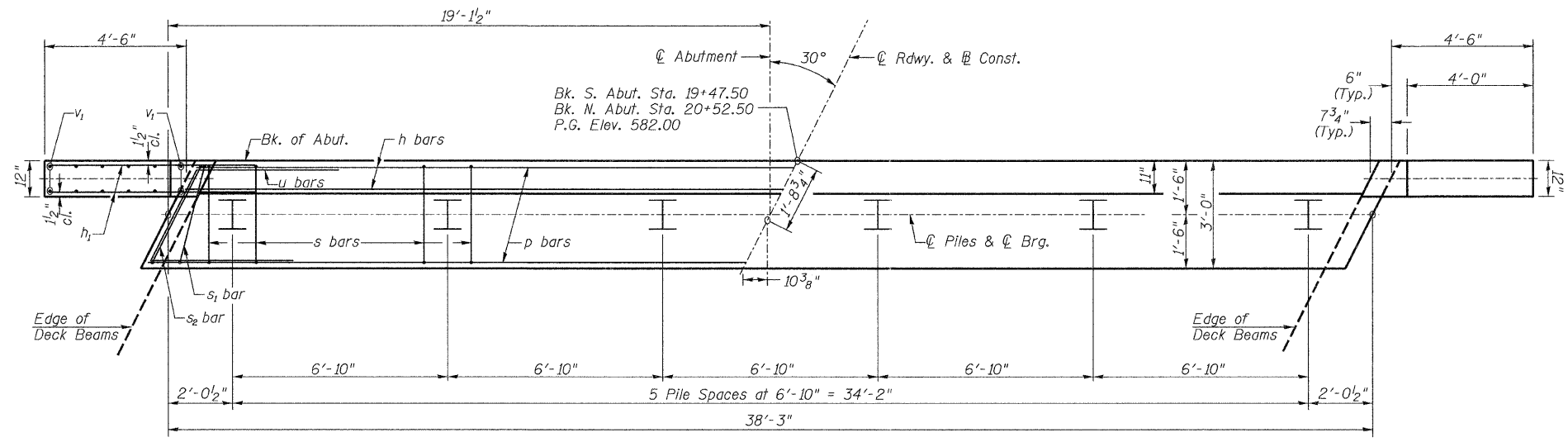
- ① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.
- ② 1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar. 1" Dimension may vary plus or minus to accommodate tolerance in beam lengths.



HOT-MIX ASPHALT SURFACE PROFILE
Includes Waterproofing Membrane System

RAIL POST SPACING AND SUPERSTRUCTURE DETAILS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 8 17 SHEETS	ROUTE NO. CH 4	SECTION 11-00089-00-BR	COUNTY PIKE	TOTAL SHEETS 28	SHEET NO. 15
	S.N. 075-3324		CONTRACT NO. 93564		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)		



TWO ABUTMENTS
BILL OF MATERIAL

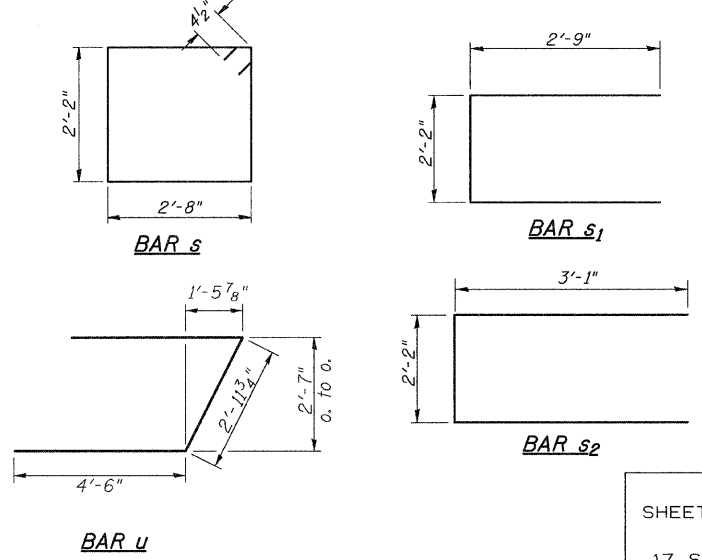
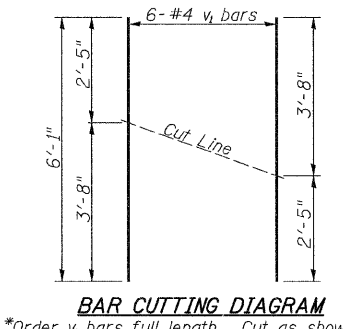
BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	38'-0"	—
h ₁	40	#4	6'-6"	—
p	20	#7	38'-0"	—
s	74	#4	10'-5"	□
s ₁	4	#4	7'-8"	□
s ₂	4	#4	8'-4"	□
u	12	#6	12'-0"	□
v	152	#4	3'-2"	—
v ₁	24	#4	6'-1"	—
Concrete Structures	CU YD	28.4		
Reinforcement Bars	POUND	3,220		
Structure Excavation	CU YD	80		
Name Plates	EACH	1		
Furnishing Steel Piles HP10x42	FOOT	225		
Driving Piles	FOOT	225		
Test Pile Steel HP10x42	EACH	2		
Concrete Encasement	CU YD	4.2		

① See Special Provisions

DESIGN STRESSES
f'_c = 3,500 p.s.i.
f_y = 60,000 p.s.i.

- NOTES**
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
 - Reinforcement bars shall conform to ASTM A706 Grade 60.

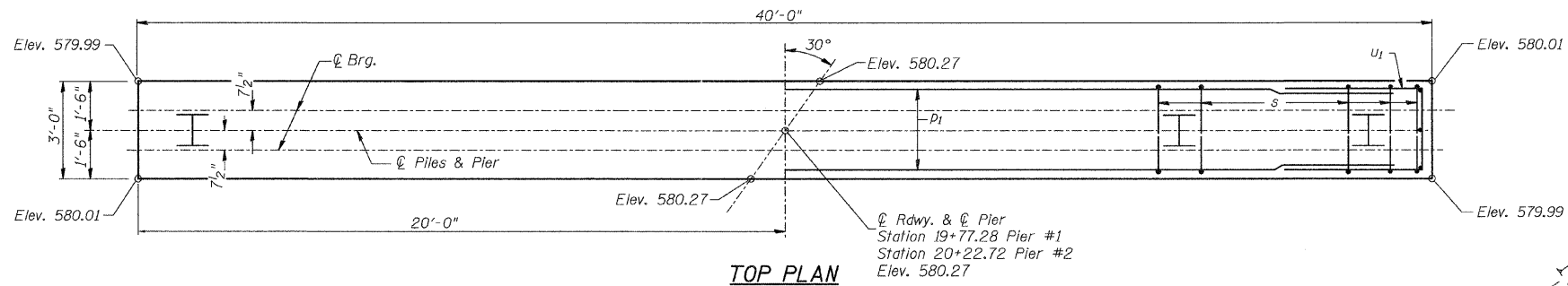
PILE DATA
Type & Size: Steel HP10x42
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 21' North Abutment
24' South Abutment
No. Req'd.: 12 (Includes 1 Test Pile at Each Abut.)



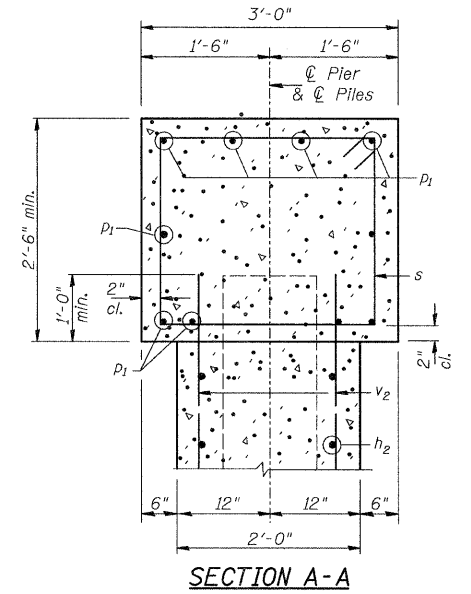
ABUTMENTS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 9 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	16
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)			

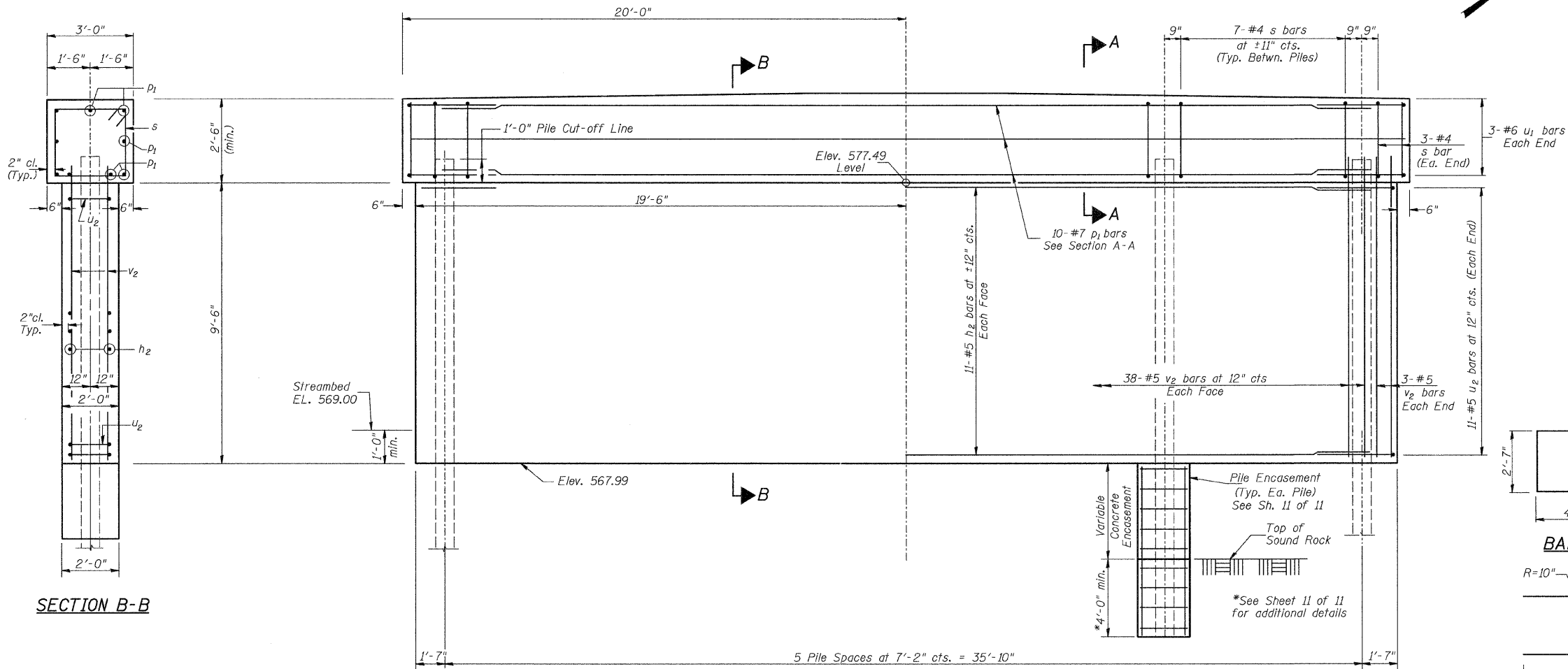
NOTES:
All edges shall have standard 3/4" chamfer.



TOP PLAN

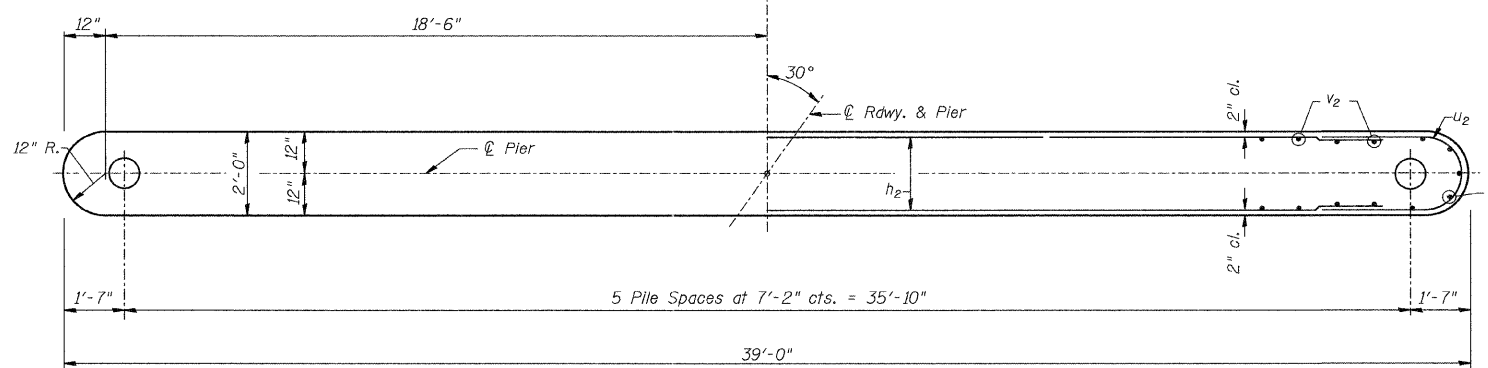


SECTION A-A



ELEVATION
(Looking Upstation)

SECTION B-B

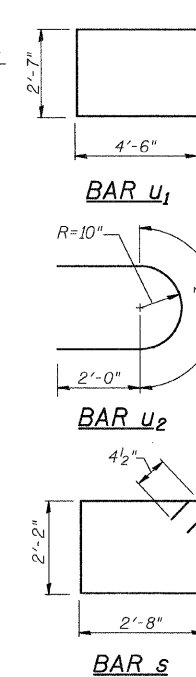


FOOTING PLAN

**TWO PIERS
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h ₂	44	#5	36'-8"	—
p ₁	20	#7	39'-9"	—
s	82	#4	10'-5"	□
u ₁	12	#6	11'-7"	⊓
u ₂	44	#5	6'-8"	⊓
v ₂	164	#5	10'-4"	—
Concrete Structures			CU YD	77.8
Reinforcement Bars			POUND	6,160
Cofferdam Excavation			CU YD	55
Furnishing Steel Piles HPI0x42			FOOT	306
Setting Piles in Rock			EACH	12
Concrete Encasement			CU YD	15.4
Cofferdam (Type 1) (Location-1)			EACH	1
Cofferdam (Type 1) (Location-2)			EACH	1

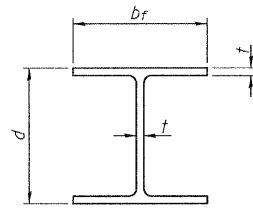
① See Special Provisions



PILE DATA
Type & Size: Steel HP10x42
Nominal Required Bearing: Set in Rock (335 kips)
Factored Resistance Available: Set in Rock (184 kips)
Est. Length: 27' Pier #1
24' Pier #2
No. Req'd.: 12

**PIERS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK**

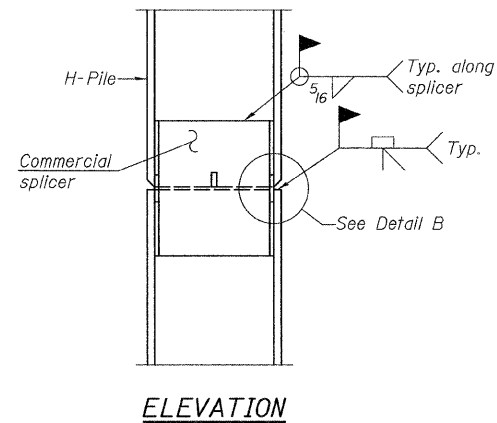
SHEET NO. 10 17 SHEETS	ROUTE NO. CH 4	SECTION 11-00089-00-BR	COUNTY PIKE	TOTAL SHEETS 28	SHEET NO. 17
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)			



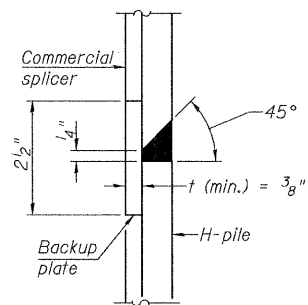
STEEL PILE TABLE

Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/6"	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"	1/6"	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"

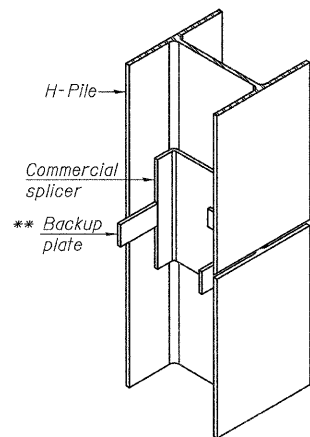
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

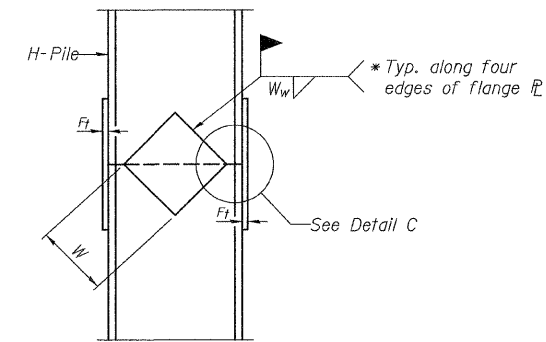


DETAIL "B"

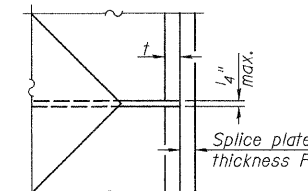


ISOMETRIC VIEW

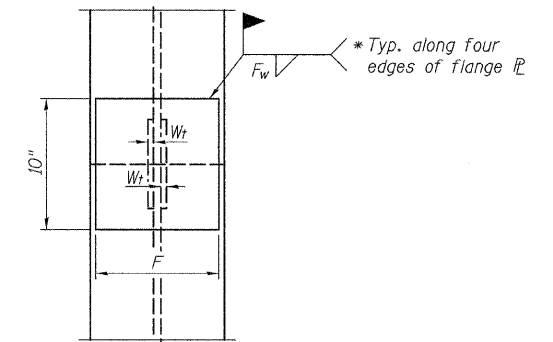
WELDED COMMERCIAL SPLICE



ELEVATION

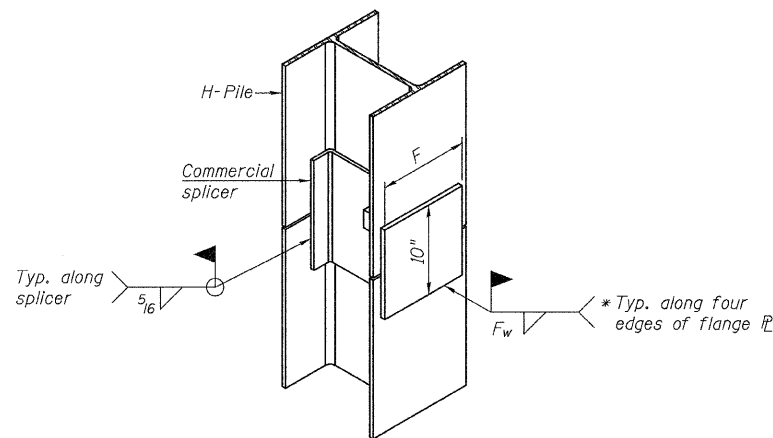


DETAIL C



END VIEW

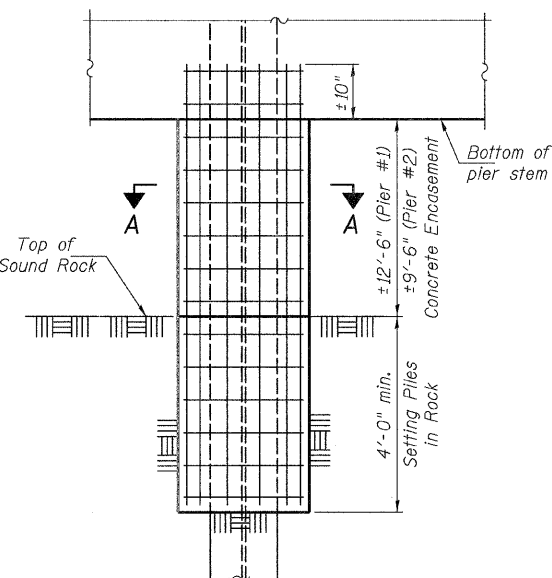
Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8"	1 1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8"	1 1/2"
x89	12 1/2"	3/4"	1/6"	7 3/4"	5 8"	1 1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8"	1 1/2"
HP 12x84	10"	7/8"	1/6"	6 1/2"	5 8"	1 1/2"
x74	10"	7/8"	1/6"	6 1/2"	5 8"	1 1/2"
x63	10"	5/8"	1/2"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



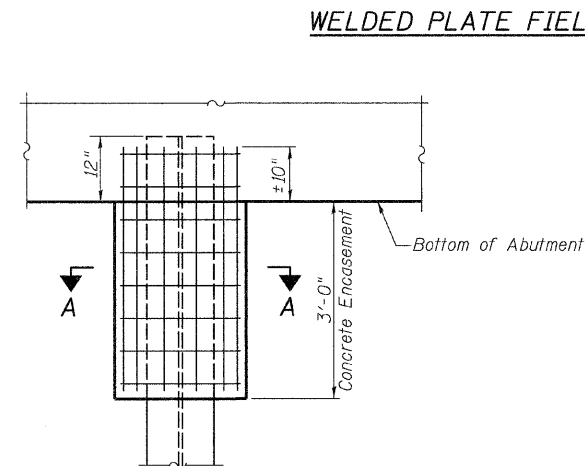
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

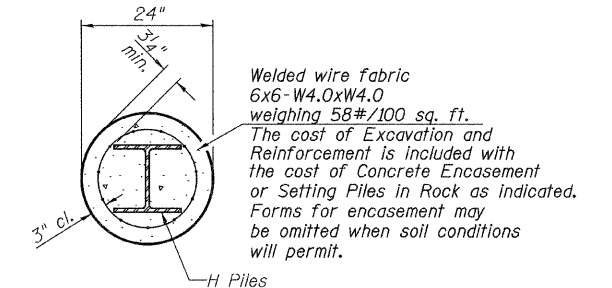
* Interrupt welds 1/4" from end of web and/or each flange.
** Remove portions of backup plates that extend outside the flanges.



PIER ELEVATION



ABUTMENT ELEVATION



SECTION A-A

**PILE DETAILS
PIKE COUNTY**

SECTION 11-00089-00-BR

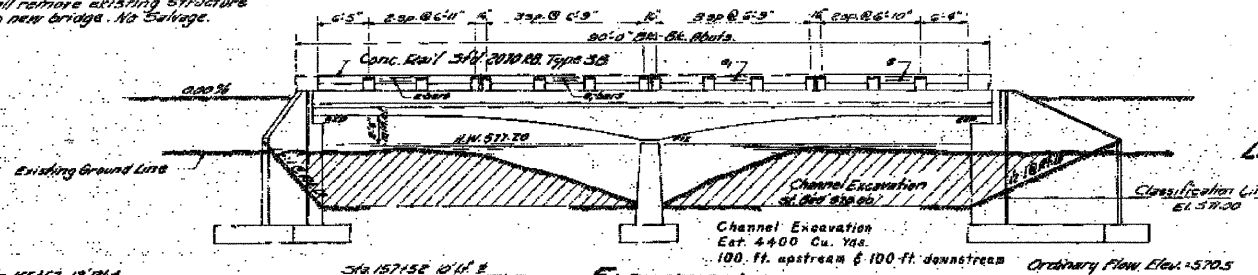
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 11 17 SHEETS	ROUTE NO. CH 4	SECTION 11-00089-00-BR	COUNTY PIKE	TOTAL SHEETS 28	SHEET NO. 18
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(105)		

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	21 B	PIKE	14	9
FILE NO.		3-100 (3)		

B.M. Top R.O.W. Marker 25' E of Sta. 157117 (Last Sta. 99)
Existing Structure Concrete Thru Girder
Span @ 39.6' Concrete Abutments
Contractor shall remove existing structure
before building new bridge. No Salvage.



Station 157117
BUILT 185
I.A.S. RT. 596 SEC. 21 B
I.A.S. PROJ. 5-100 (3)
LANSING 115-312

LETTERING FOR NAME PLATE
See Sta. 213

GENERAL NOTES
Class I Concrete shall be used throughout except in handrails and pier.
Class II Concrete shall be used in piers.
Handrail concrete shall be used in handrails.
The concrete floor slab shall be finished in accordance with Article 51.11(6) of the Standard Specifications.
The handrail concrete in Rail Posts & Chairs shall be poured in separate operations.
Sanding plates, lead plates and anchor bolts shall be fastened and set in accordance with Article 51.11 of the Standard Specifications and are included for payment as structural steel.
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint See Article 52.1 of the Standard Specifications.
The cement shall be furnished and applied by the Contractor.
The following surfaces of the bridge shall be waterproofed: bed of abutment from top of footing to top of abutment & backs of wingwalls from top of footing to one foot below top of wingwalls. Waterproofing shall be done in accordance with Article 51.6 of the Standard Specifications.

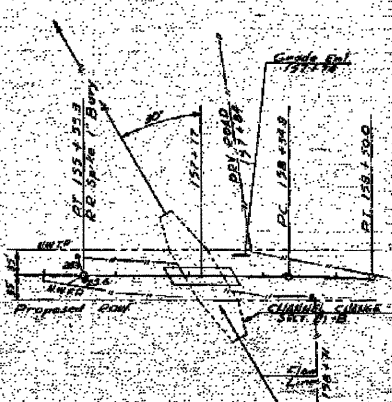
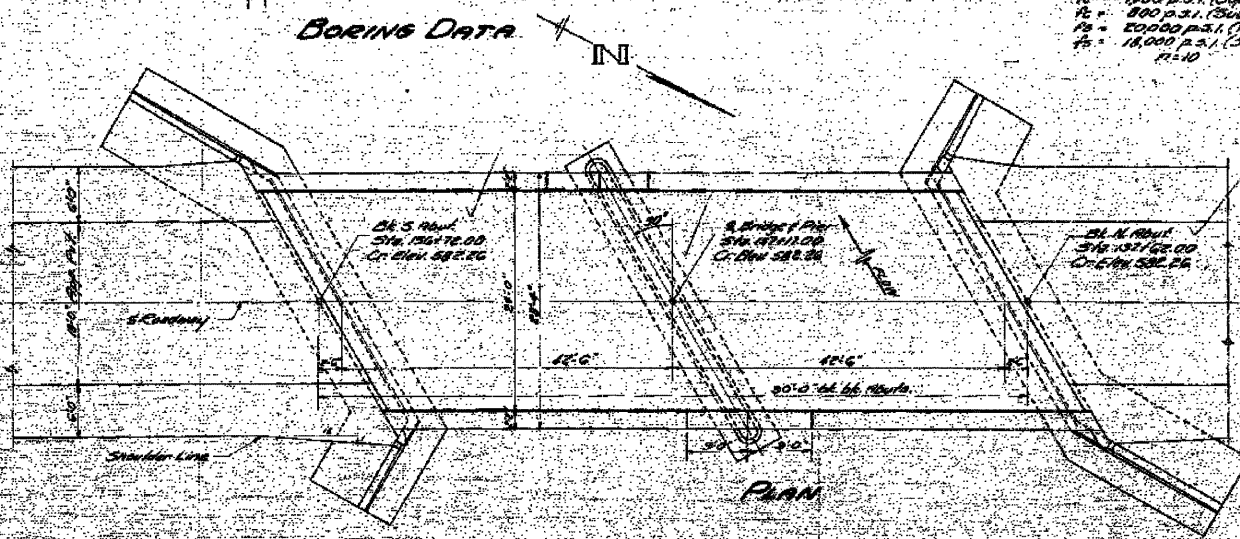
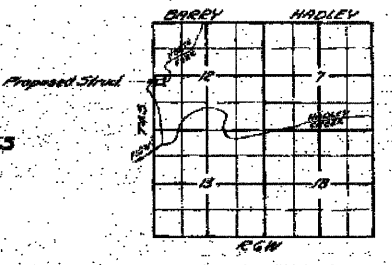
Sta. 157117 12' R.L.E.
Elev. of Ground 575.5
Loose brown sand & gravel
Under 1/2" filter limestone shale
outwash, medium and fine
570.0
Flow Line
570.0
555.5
553.0
552.0
Medium brown coarse sand
Imbedded gravel & shell

Sta. 157156 10' L.E.
Elev. of Ground 576.5
Loose brown sand & gravel
Gravel in place, limestone shale
outwash with several large pieces
571.0
569.0
565.5
563.0
Medium White Stone Sand
Limestone

ELEVATION
Channel Excavation
Est. 4400 Cu. Yds.
100 ft. upstream & 100 ft. downstream
Ordinary Flow Elev. 570.5

WATERWAY INFORMATION
Drainage Area..... 6.32 Sq. Mi.
Character..... hilly
Rapid Opening (sur. load)..... 500 Sq. Ft.
Frequent Opening..... 200 Sq. Ft.
Proposed Opening..... 300 Sq. Ft.

DESIGN STRESSES
f_c = 1000 p.s.i. (Comp.)
f_s = 8000 p.s.i. (Steel)
f_s = 20000 p.s.i. (Rein.)
f_s = 18,000 p.s.i. (Struct.)
n = 10



TOTAL BILL OF MATERIAL

Item	Unit	Quantity	Subtotal	Total
Class I Concrete	Cu Yds	106.2	154.01	154.01
Class II Concrete	Cu Yds	52.7	52.7	52.7
Handrail Concrete	Cu Yds	4.5	4.5	4.5
Reinforcement Bars	Lbs	30860	14452	14910
Structural Steel	Lbs	3480	3480	3480
Welding Rods	Each	1	1	1
Class II Cement for Structure	Cu Yds	210	210	210
Class II Cement for Structures	Cu Yds	382	382	382
Channel Excavation	Cu Yds	4400	4400	4400
Rock Excavation for Structure	Cu Yds	50	50	50
Removal of Exist. Structures	Each	1	1	1

DESIGNED: [Signature]
CHECKED: [Signature]
DRAWN: [Signature]
APPROVED: [Signature]



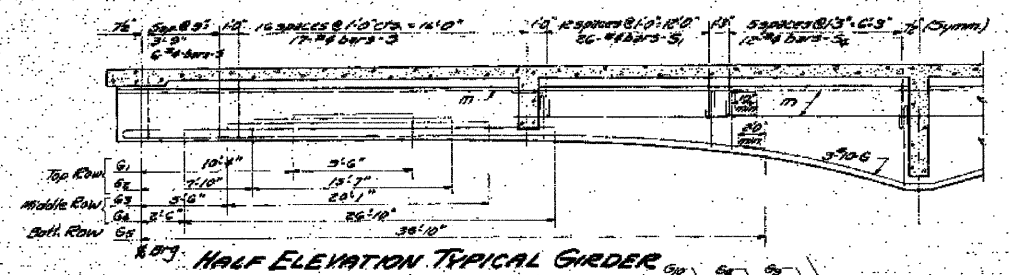
I.A.S. PROJ. 5-100 (3)
I.A.S. RT. 596 SEC. 21 B
BRIDGE OVER
NORTH FORK OF HADLEY CREEK
PIKE COUNTY
STA. 157117

EXISTING STRUCTURE PLANS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

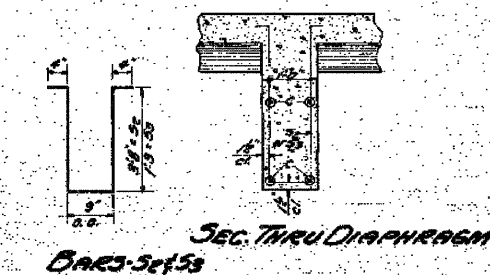
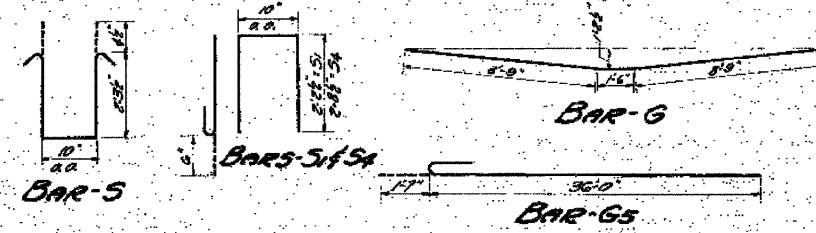
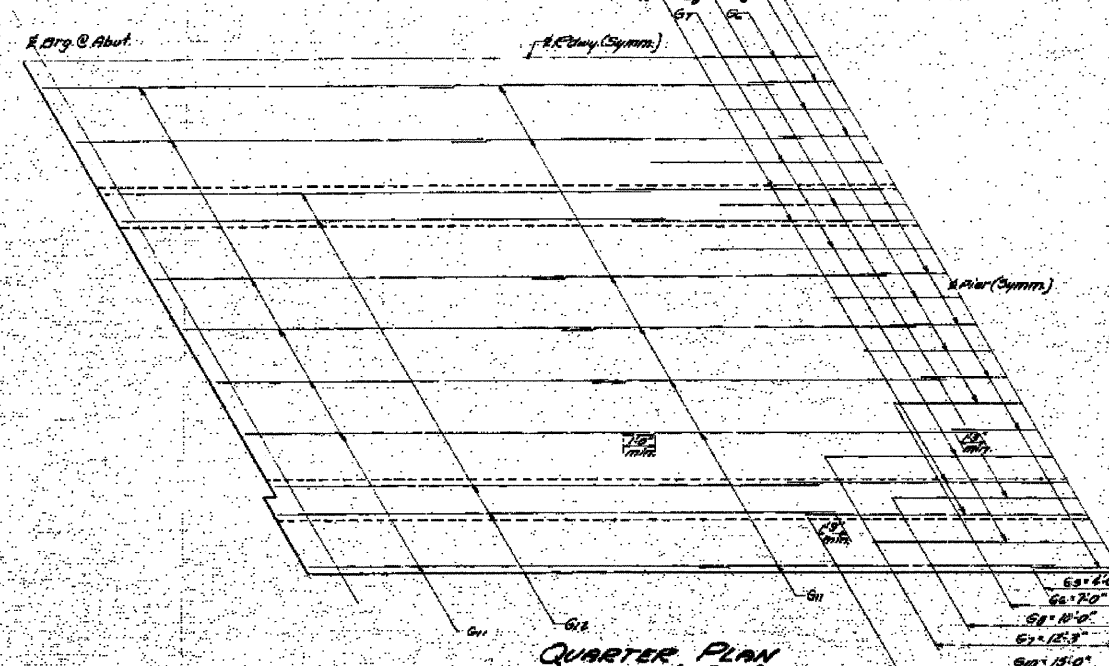
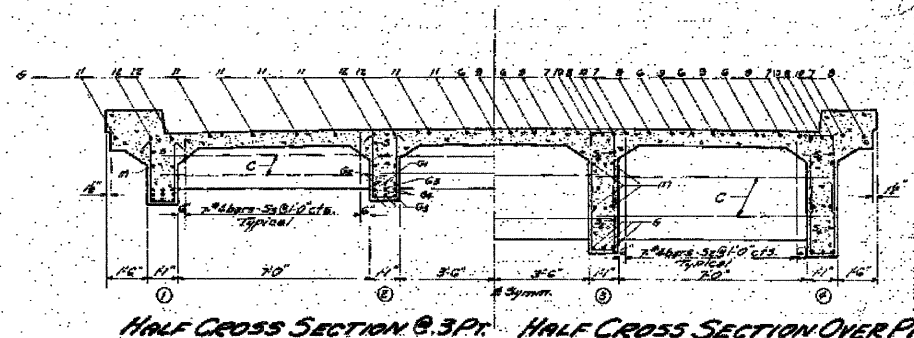
SHEET NO. 12	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	19
17 SHEETS	S.N. 075-3324		CONTRACT NO. 93564		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)		

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-596 RT-B	PIKE	14	10	
SHEET NO. 13 OF 17				

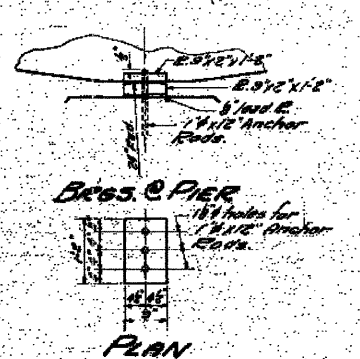
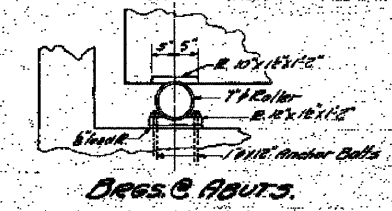
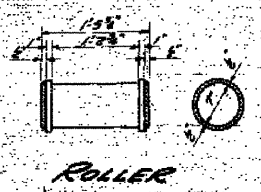


LOCATION OF G BARS



BAR LIST

Bar	No.	Size	Length	Shape
G	12	#10	18'-0"	U
G	8	#8	8'-6"	U
G ₁	16	#10	13'-7"	U
G ₂	8	#7	60'-7"	U
G ₃	16	#7	25'-10"	U
G ₄	24	#7	37'-7"	U
G ₅	8	#6	14'-0"	U
G ₆	8	#7	28'-0"	U
G ₇	4	#7	20'-0"	U
G ₈	12	#7	9'-0"	U
G ₉	8	#7	30'-0"	U
G ₁₀	16	#8	24'-0"	U
G ₁₁	16	#8	30'-0"	U
S	104	#4	6'-0"	U
S	228	#4	6'-0"	U
S ₁	21	#4	8'-0"	U
S ₂	42	#4	8'-0"	U
S ₃	96	#4	7'-0"	U
M	48	#4	22'-0"	U
C	36	#4	9'-0"	U
Reinforcement Bars 200 #40 Structural Steel 120 #40				



DESIGNED: Robert B. Weber
CHECKED: Harry P. Bielecki
DRAWN: R. J. [Signature]
CHECKED: H.P.B.

EXAMINED: [Signature]
APPROVED: [Signature]

MAR 25 1957

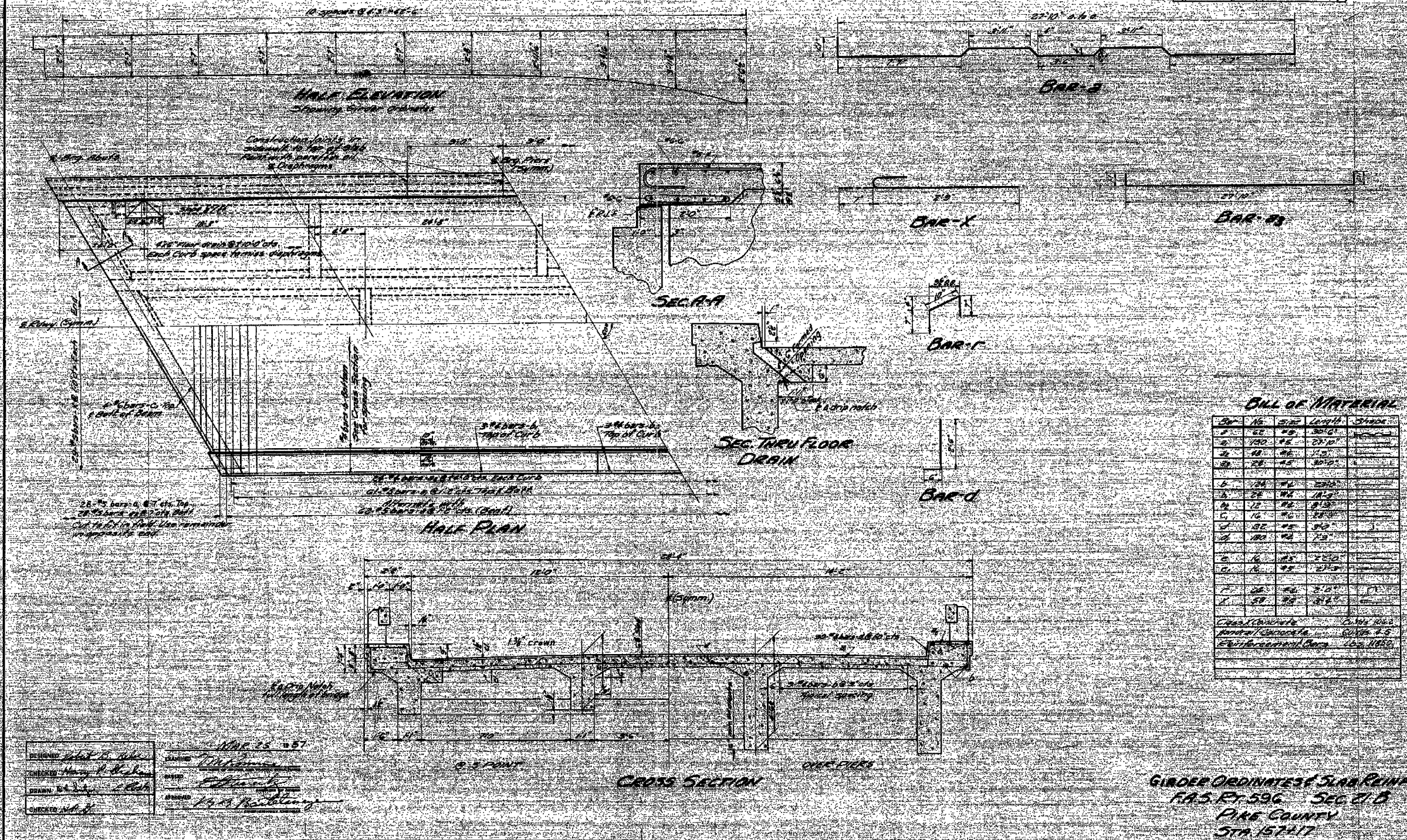
BEARINGS & GIRDER REINF.
F.A.S. RT. 596 SEC. 21 B
PIKE COUNTY
STA. 157+17

EXISTING STRUCTURE PLANS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 13 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	20
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0596(105)		

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 4	11-00089-00-BR	PIKE	28	21



BILL OF MATERIAL

Bar No.	Size	Length	Shape
1	60	48	30"0"
2	100	48	20"0"
3	48	48	15"
4	28	48	30"0"
5	24	48	20"0"
6	24	48	16"0"
7	12	48	8"0"
8	16	48	28"0"
9	16	48	21"0"
10	82	48	9"0"
11	100	48	7"0"
12	16	48	25"0"
13	16	48	21"0"
14	24	48	5"0"
15	50	48	22"0"

Girder Ordinates: 1/4" dia. 10'0" long
 Slab Reinforcement: 1/4" dia. 10'0" long
 Embedment Bars: 1/4" dia. 10'0" long

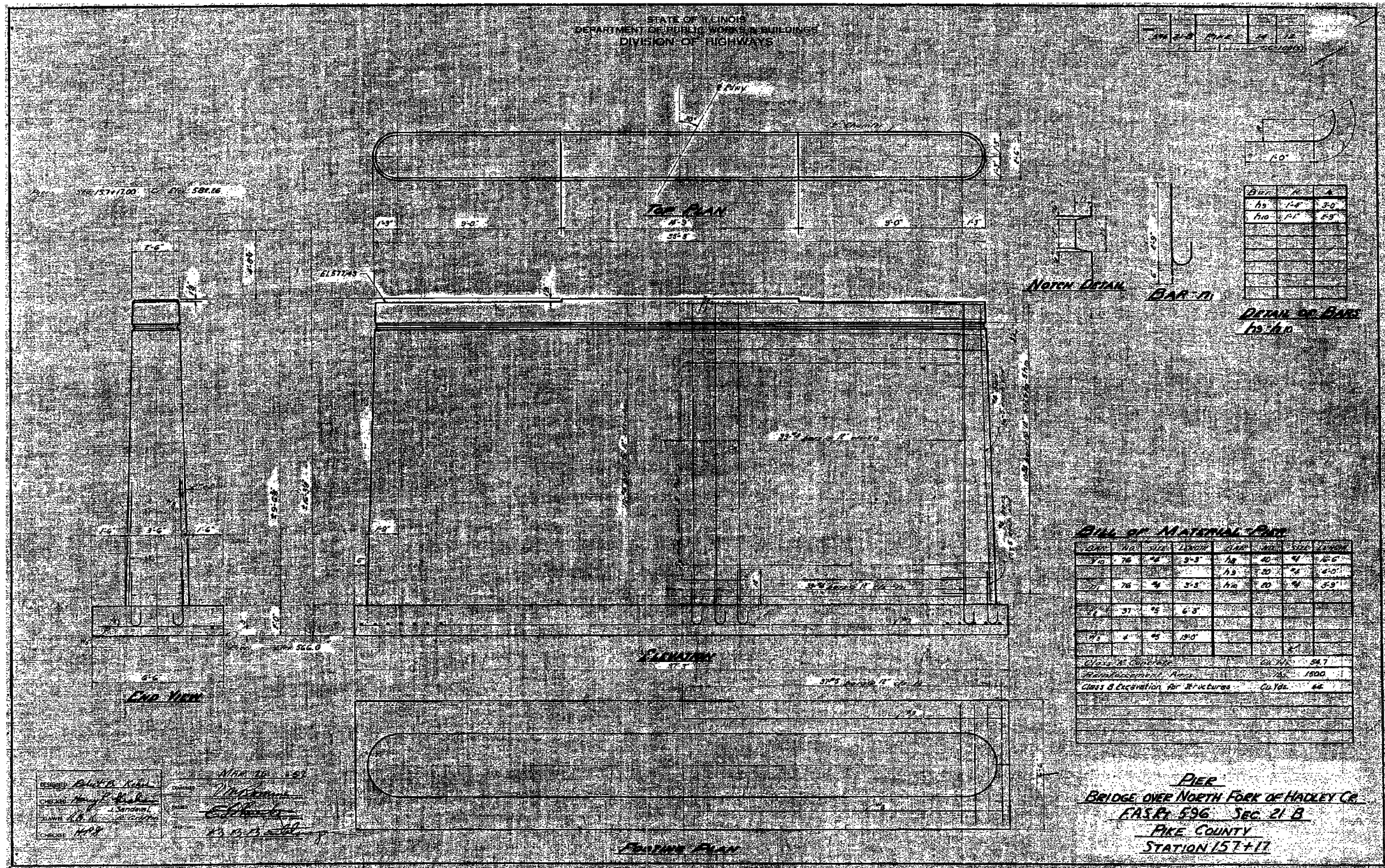
DESIGNED BY: *[Signature]*
 CHECKED BY: *[Signature]*
 DRAWN BY: *[Signature]*
 DATE: *[Signature]*
 APPROVED: *[Signature]*

GIRDER ORDINATES SLAB REIN.
 RA 5 FT. 596 SEC 21 B
 PIKE COUNTY
 STA 157+17

EXISTING STRUCTURE PLANS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 14 17 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	21
	S.N. 075-3324		CONTRACT NO. 93564		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)			

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



DESIGNED: *Paul D. Kohn*
CHECKED: *Harold J. ...*
DATE: *11/15/54*

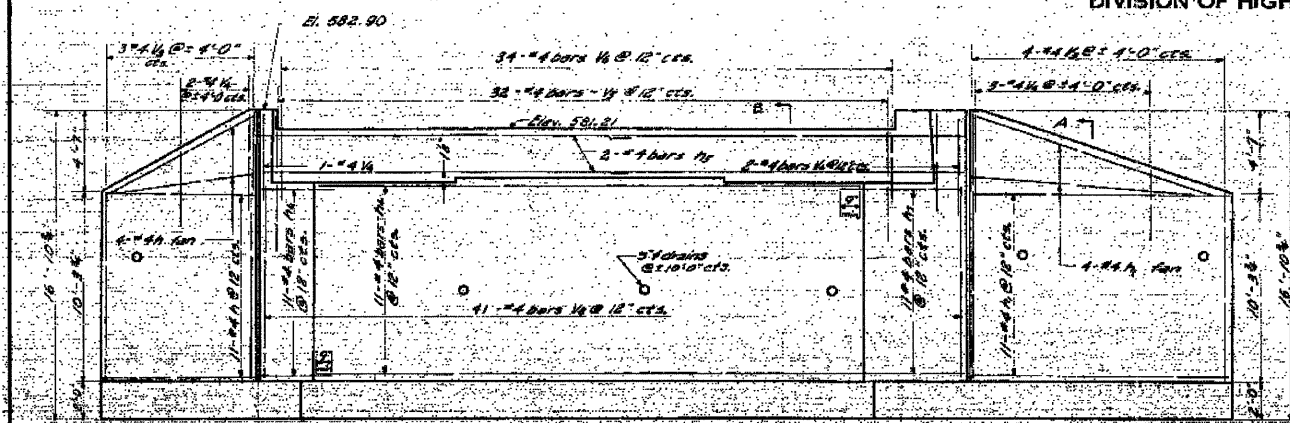
APPROVED: *[Signature]*
DATE: *11/15/54*

EXISTING STRUCTURE PLANS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

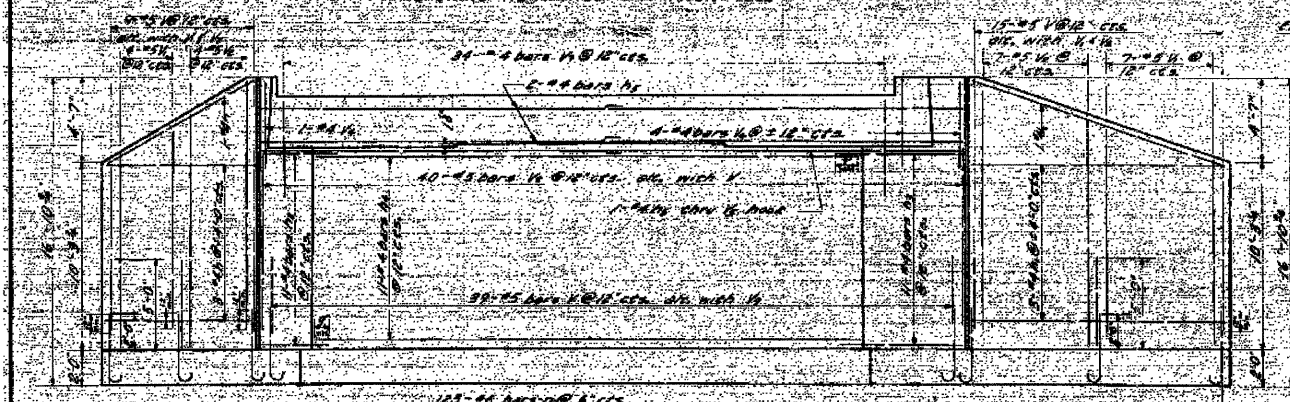
SHEET NO. 15	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	22
17 SHEETS	S.N. 075-3324		CONTRACT NO. 93564		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)		

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

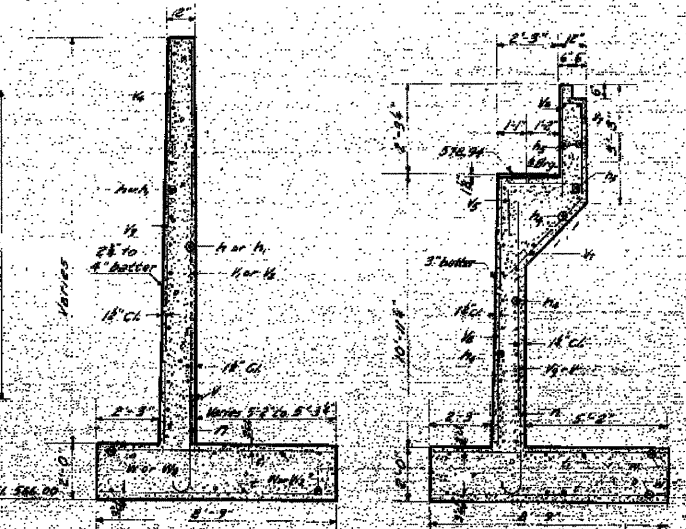
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
157-11	21-B	PIKE	14	13
FED. ROAD DIST. NO. 7		ILLINOIS		



ELEVATION
SHOWING REINFORCEMENT FRONT FACE

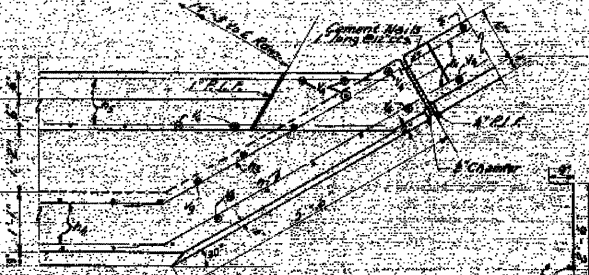


ELEVATION
SHOWING REINFORCEMENT BACK FACE

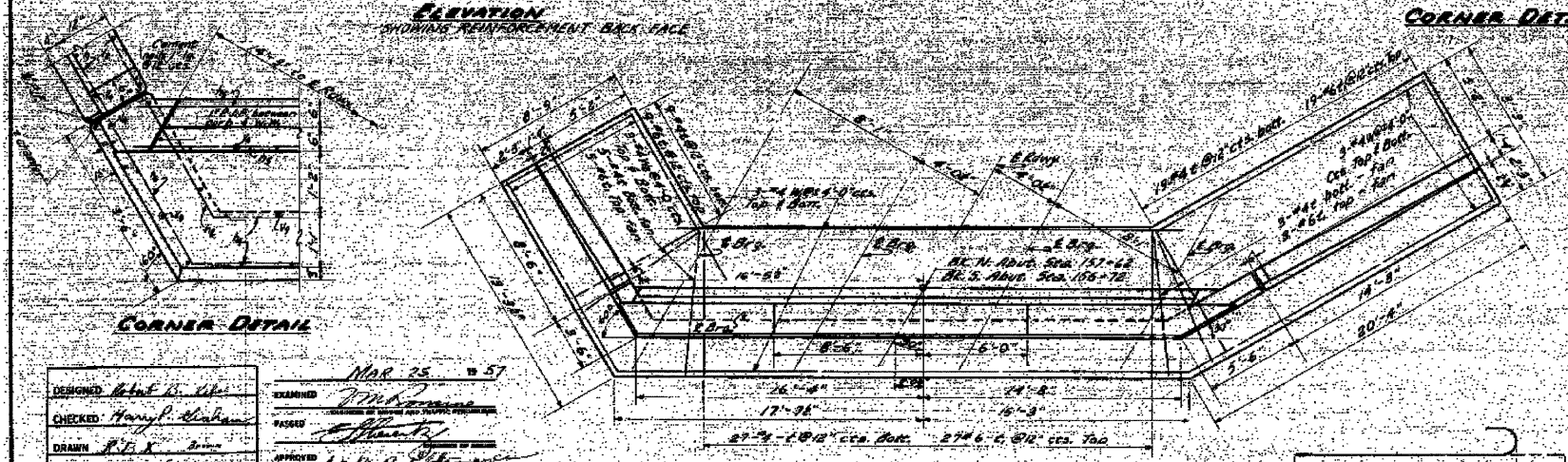


SECTION A-A
Taken @ Right Angles

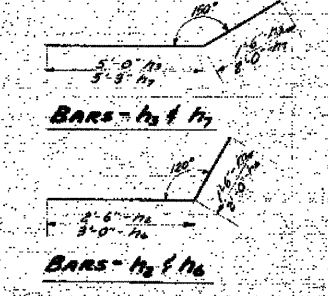
SECTION B-B
Taken @ Right Angles



CORNER DETAIL



PLAN



BAR# 5 & 6

BAR# 5 & 6

BILL OF MATERIAL
TWO ABUTMENTS

Bar	No.	Size	Length	Shape
1	98	#4	8'-0"	
2	30	#4	12'-0"	
3	22	#4	14'-0"	
4	22	#4	6'-6"	
5	44	#4	25'-0"	
6	20	#4	10'-6"	
7	22	#4	5'-0"	
8	22	#4	7'-6"	
9	250	#6	4'-5"	
10	120	#4	8'-6"	
11	106	#6	8'-6"	
12	126	#6	5'-0"	
13	22	#6	10'-0"	
14	22	#6	12'-6"	
15	14	#6	10'-0"	
16	26	#4	5'-0"	
17	66	#4	5'-5"	
18	68	#4	5'-0"	
19	68	#4	10'-6"	
20	80	#6	8'-5"	
21	12	#4	20'-0"	
22	24	#4	17'-0"	
23	12	#4	18'-0"	

Class I Concrete Cu Yds. 560
Reinforcement Bars Tons 3050
Class A Filler for Struts Cu Yds. 270
Class B Filler for Struts Cu Yds. 280

DESIGNED: *W.H. G. G.*
CHECKED: *Harry P. ...*
DRAWN: *R.D. ...*
CHECKED: *H.A.B.*

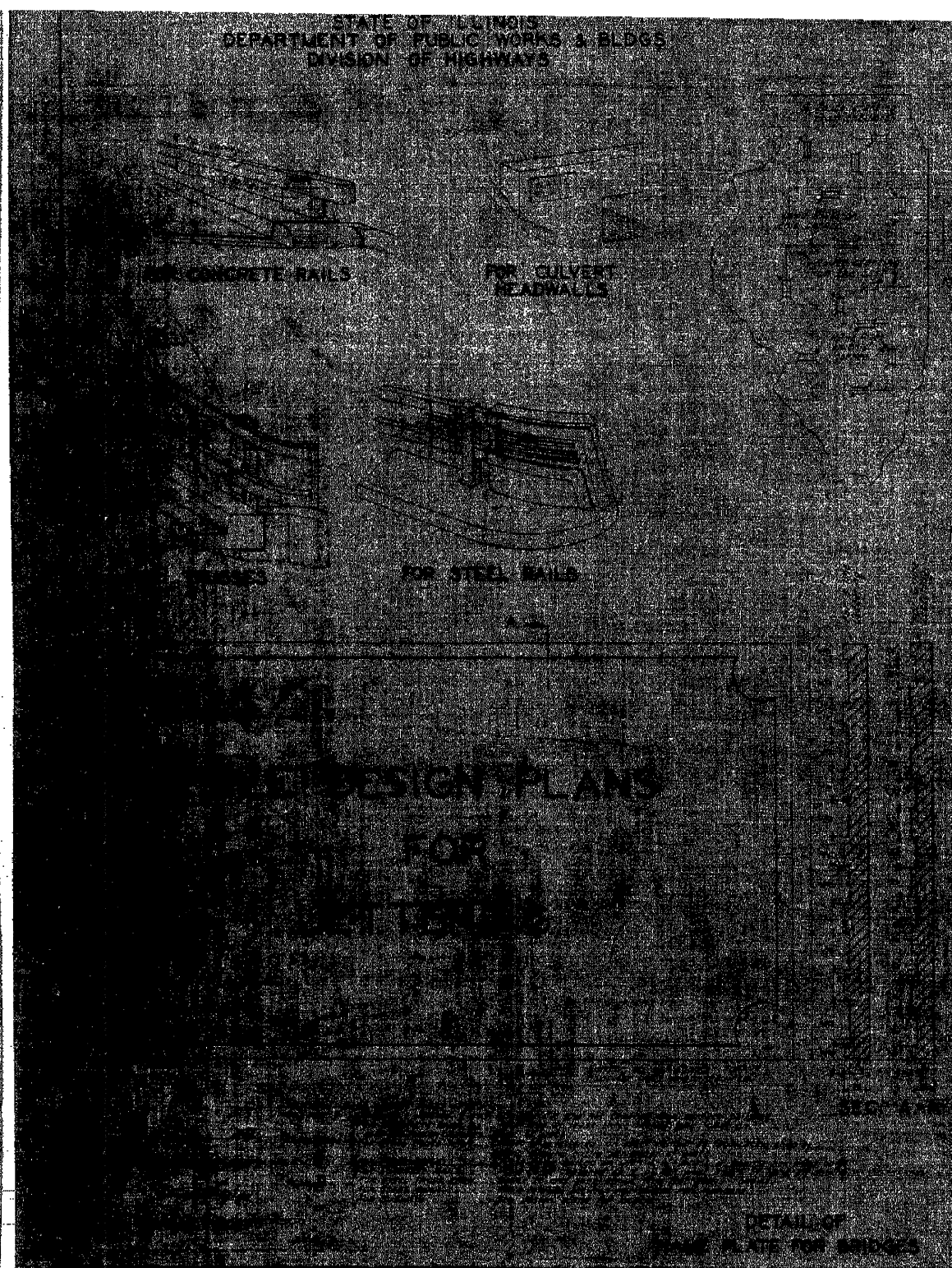
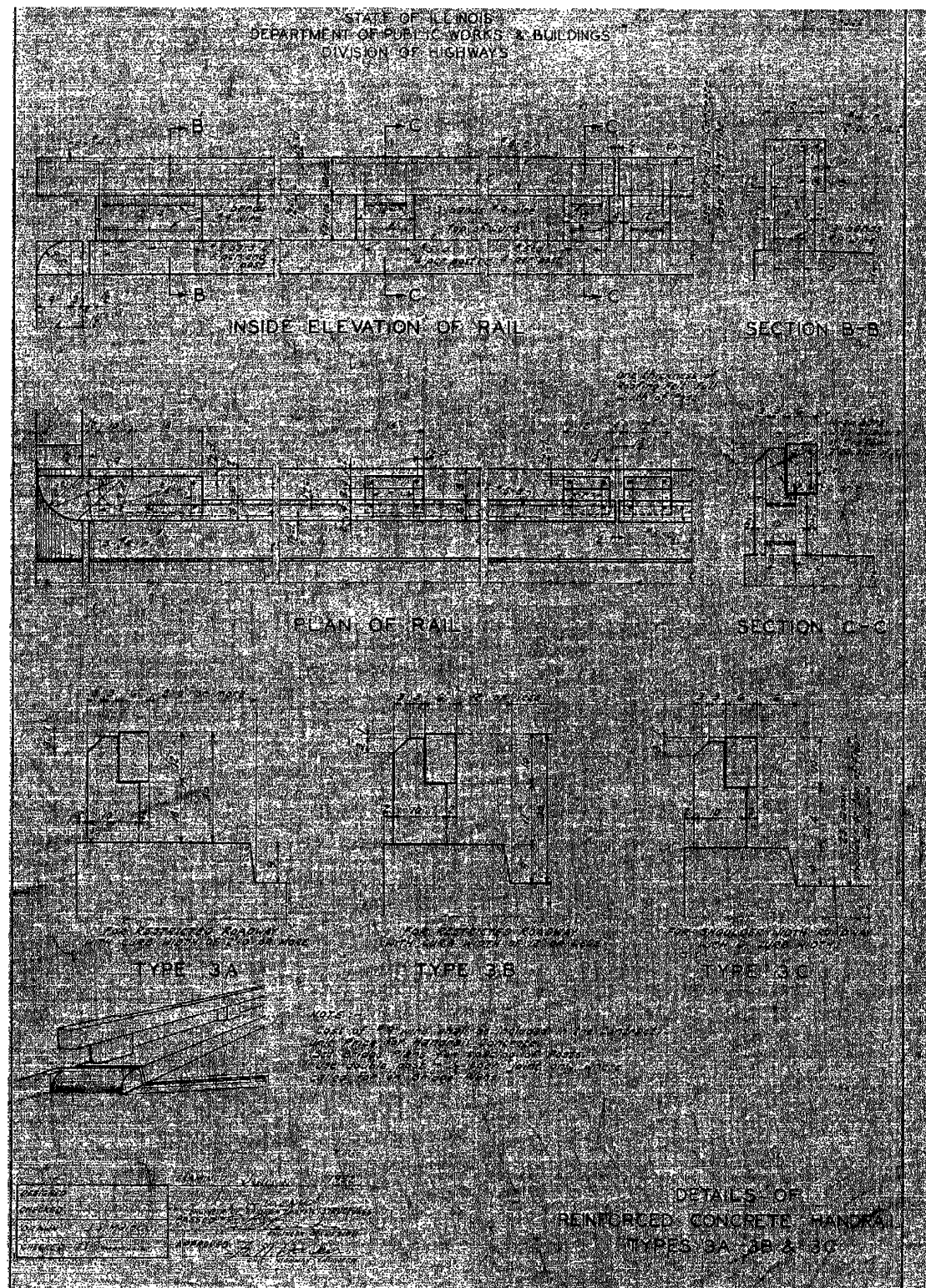
DATE: *NOR 25 1957*

APPROVED: *[Signature]*

ABUTMENTS
BRIDGE OVER NORTH FORK OF HADLEY CREEK
R.A.S. RT. 596 SEC. 21 B
PIKE COUNTY
STATION 157+17

EXISTING STRUCTURE PLANS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 16	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	23
17 SHEETS	S.N. 075-3324		CONTRACT NO. 93564		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)		



EXISTING STRUCTURE PLANS
PIKE COUNTY
SECTION 11-00089-00-BR
C.H. 4 OVER NORTH FORK HADLEY CREEK

SHEET NO. 17	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 4	11-00089-00-BR	PIKE	28	24
17 SHEETS	S.N. 075-3324		CONTRACT NO. 93564		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596(105)		

STA 20+52.50
 C = 0 F = 2 AH
 C = 0 F = 0 BK
 BRIDGE OMISSION
 STA 19+47.50
 C = 0 F = 0 AH
 C = 1 F = 30 BK

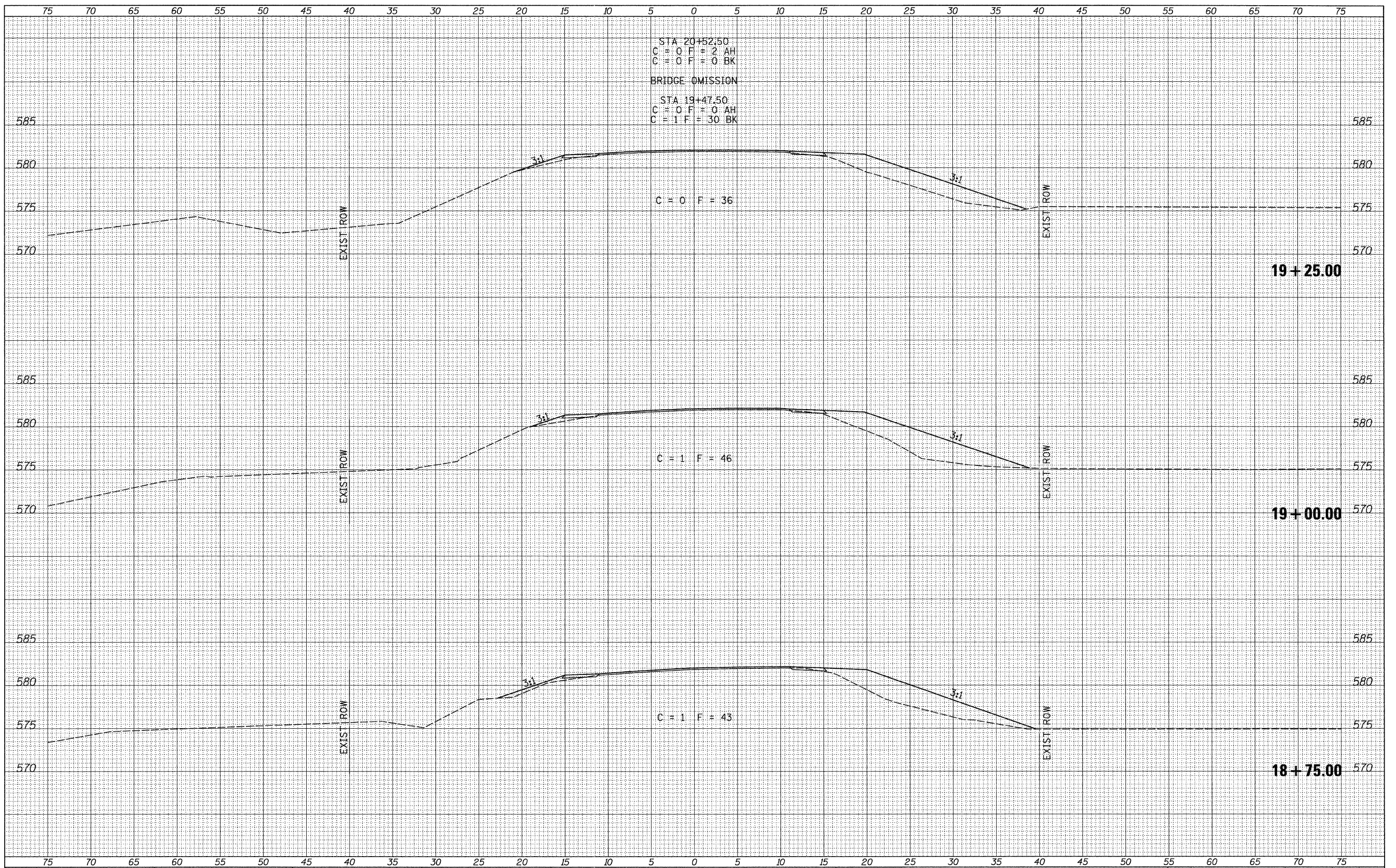
C = 0 F = 36

C = 1 F = 46

C = 1 F = 43

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

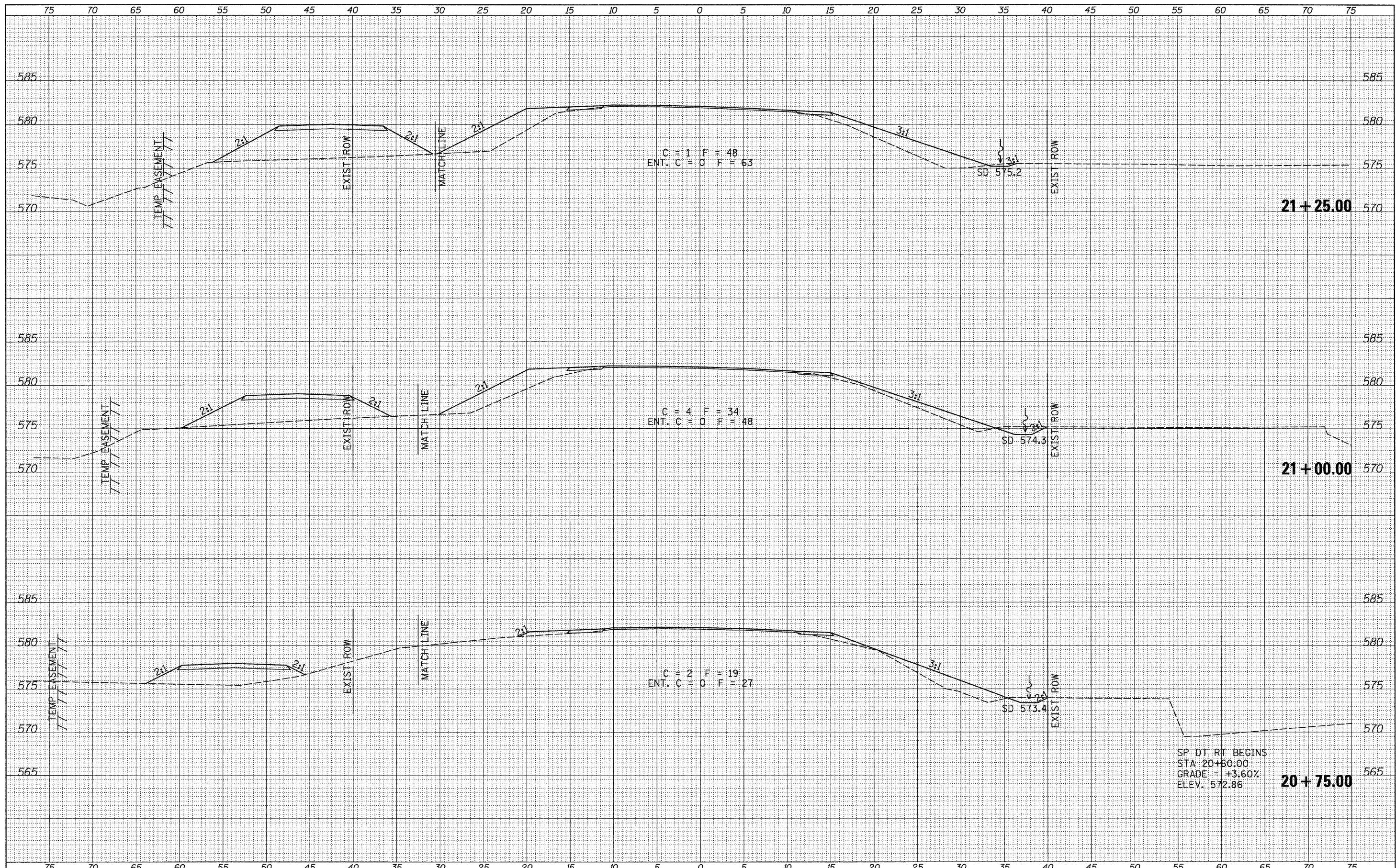
DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	DATE
	AREAS CHECKED



FILE NAME = V:\Bridge\3863-Pike\3863xshts.dgn	USER NAME = jhutchison	DESIGNED -	REVISED -	PIKE COUNTY COUNTY HIGHWAY 4 OVER NORTH FORK HADLEY CREEK	CROSS SECTIONS		F.A.S. RTE. 596	SECTION 11-00089-00-BR	COUNTY PIKE	TOTAL SHEETS 28	SHEET NO. 26
PLOT SCALE = 5.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 93564								
PLOT DATE = 12/27/2011	DATE -	REVISED -	SCALE: 1" = 5'		SHEET NO. 2 OF 4 SHEETS	STA. 18+75.00 TO STA. 19+25.00	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-059611051		

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

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



FILE NAME =
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USER NAME = jhutchison
 PLOT SCALE = 5.0000' / IN.
 PLOT DATE = 12/27/2011

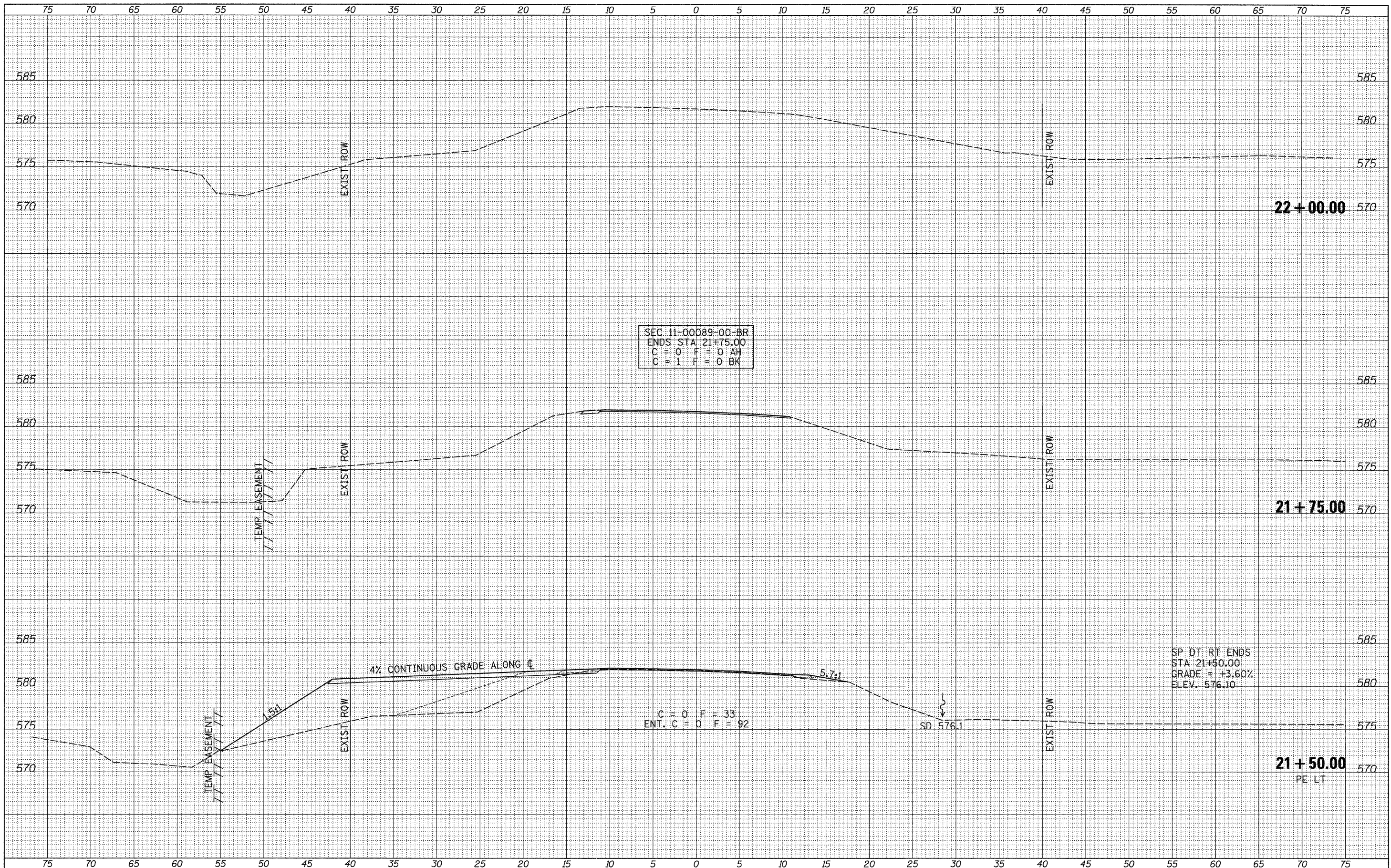
DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

PIKE COUNTY
COUNTY HIGHWAY 4 OVER
NORTH FORK HADLEY CREEK

CROSS SECTIONS
 SCALE: 1" = 5'
 SHEET NO. 3 OF 4 SHEETS
 STA. 20+75.00 TO STA. 21+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	11-00089-00-BR	PIKE	28	27
CONTRACT NO. 93564			FED. ROAD DIST. NO. 7 ILLINOIS	
FED. AID PROJECT BRS-0596(105)				



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

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

SEC 11-00089-00-BR
 ENDS STA 21+75.00
 C = 0 F = 0 AH
 C = 1 F = 0 BK

SP. DT. RT. ENDS
 STA 21+50.00
 GRADE = +3.60%
 ELEV. 576.10

C = 0 F = 33
 ENT. C = 0 F = 92

SD: 576.1

FILE NAME =
 V:\Bridges\3063-Pike\3063.shx.dgn

USER NAME = jutohison	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 5.0000' / IN.	CHECKED -	REVISED -
PLOT DATE = 12/27/2011	DATE -	REVISED -

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

CROSS SECTIONS
 SCALE: 1" = 5'
 SHEET NO. 4 OF 4 SHEETS
 STA. 21+50.00 TO STA. 22+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
596	11-00089-00-BR	PIKE	28	28
CONTRACT NO. 93564				
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0596105		