

09-19-14 LETTING ITEM 066

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SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	50.00
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	25.00
20200100	EARTH EXCAVATION	CU YD	20.00
20300100	CHANNEL EXCAVATION	CU YD	177.00
20400800	FURNISHED EXCAVATION	CU YD	327.00
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	310.00
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	270.00
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1.00
50300225	CONCRETE STRUCTURES	CU YD	23.40
50300280	CONCRETE ENCASEMENT	CU YD	2.80
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1320.00
50800105	REINFORCEMENT BARS	POUND	2590.00
50900205	STEEL RAILING, TYPE S1	FOOT	107.00
51201400	FURNISHING STEEL PILES 10X42	FOOT	175.00
51202305	DRIVING PILES	FOOT	175.00
51203400	TEST PILE STEEL HP10X42	EACH	1.00
51500100	NAME PLATES	EACH	1.00
54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	40.00
67100100	MOBILIZATION	L SUM	1.00
78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	4.00
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.20
Z0068900	STONE LINED DITCH	TON	73.00

SPECIALTY ITEMS

DESIGN DESIGNATION:
 DESIGN SPEED: 30 MPH
 HIGHWAY CLASS - LOCAL ROAD
 EXISTING STRUCTURE NO.: 097-3065
 PROPOSED STRUCTURE NO.: 097-3284
 CURRENT A.D.T. = 75
 CONTRACT NO. 99532



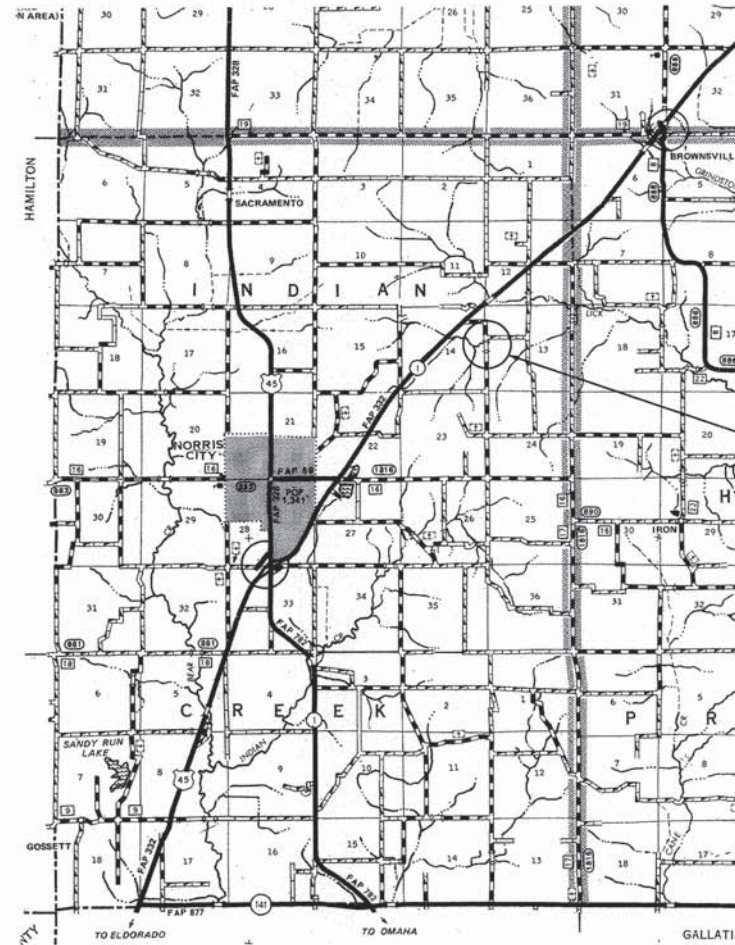
Know what's below.
 Call before you dig.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
**PLANS FOR PROPOSED
 FEDERAL AID - S.T.P. BRIDGE**

T.R. 130 WHITE COUNTY SECTION 11-08143-00-BR

PROJECT NO. BROS-193(064) JOB NO. C-99-531-12

CONTRACT # 99532 LICK CREEK



LAYOUT
 APPROXIMATE SCALE 1 INCH = 1 MILE



GROSS LENGTH	426.00 FT	0.081 MILES
OMISSIONS	0.00 FT	0.000 MILES
NET LENGTH	426.00 FT	0.081 MILES

PLAN	1" = 50'	
PROFILE	1" = 50'	
PROFILE VERT.	1" = 5'	
CROSS SECTION	1" = 5'	

SECTION 11-08143-00-BR
 BEGINS STATION 2+14

STATION 5+00, STRUCTURE NO. 097-3284
 A 55' LONG SINGLE SPAN PRECAST PRESTRESSED
 CONCRETE DECK BEAM BRIDGE (21" DEPTH),
 24' ROADWAY, 0.00% GRADE, 20° RT. FWD. SKEW.

SECTION 11-08143-00-BR
 ENDS STATION 6+40

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

APPROVED July 7, 2014
Kevin A. Keirn
 COUNTY ENGINEER

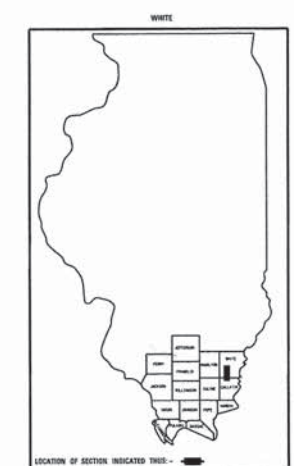
PASSED July 15, 2014
Dennis W. Hillmann
 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID July 15, 2014
 BASED ON LIMITED REVIEW: Jeffrey L. Keirn

JEFFREY L. KEIRN, P.E.
 ACTING DEPUTY DIRECTOR OF HIGHWAYS
 REGION FIVE ENGINEER

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	1
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT	
PROJECT # BROS-193(064)		CONTRACT # 99532		
JOB # C-99-531-12		LICK CREEK		
LEC JOB # H131004NH				

323 W. 3RD ST.
 P.O. BOX 160
 MT. CARMEL, IL 62863
 PHONE: (618)-262-8651
 FAX: (618)-263-3327



PROFESSIONAL DESIGN FIRM
 LAND SURVEY &
 PROFESSIONAL ENGINEERING CORPORATION
 184-00687
 (62-032435)(35-002769)



AARON M. MEFFORD
 NAME
 SIGNATURE
 DATE
 11-30-15 EXPIRES

TOWNSHIP ROUTE 130
 OVER LICK CREEK
 WHITE COUNTY, ILLINOIS

SHEET TITLE:
 TITLE SHEET

SCALE:	VARS
BY:	AMM
DATE:	7/14
REV:	

1 OF 12
 SHEETS
 SHEET NO.
 1

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	2
FED. ROAD DIST. NO. 9 ILLINOIS		LICK CREEK		
PROJECT * BR05-1930641		CONTRACT * 99532		
LEC JOB * H131004MH				

323 W. 3RD ST.
P.O. BOX 140
MT. CARMEL, IL
62863
PHONE:
(618)-262-8651
FAX:
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PROFESSIONAL DESIGN FIRM
LAND SURVEY & PROFESSIONAL ENGINEERING CORPORATION
184-00887
(62-032435)(35-002769)



AARON M. MEFFORD
NAME
SIGNATURE
7-7-14
DATE
11-30-15 EXPIRES

TOWNSHIP ROUTE 130
OVER LICK CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE:

PLAN & PROFILE

SCALE: VRES
BY: AMM
DATE: 4/94
REV:

2 OF 12 SHEETS

SHEET NO. 2

GENERAL NOTES:

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012.

THE WORK INVOLVED ON THIS SECTION CONSISTS OF THE REMOVAL OF THE EXISTING STRUCTURE, THE CONSTRUCTION OF A 55 FOOT LONG SINGLE SPAN PRECAST, PRESTRESSED CONCRETE DECK BEAM BRIDGE, EARTH APPROACHES, AGGREGATE SURFACE COURSE AND OTHER MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THIS SECTION.

ALL ELEVATIONS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.

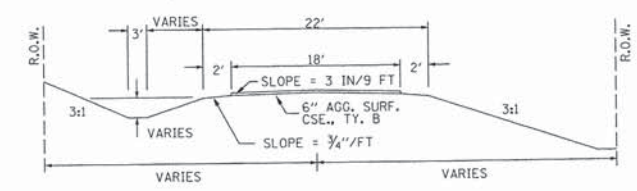
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL THE UTILITIES, AFFECTING THE PROJECT, PRIOR TO CONSTRUCTION.

THE DECK BEAMS SHALL REMAIN THE PROPERTY OF THE COUNTY.

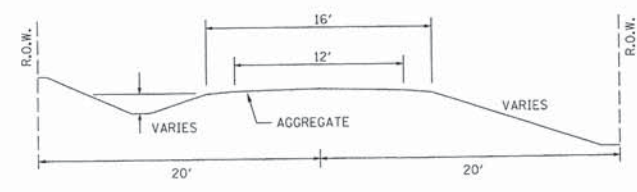
NOTE: CONSTRUCTION TRANSITION
STA 2+14 TO STA 3+00
STA 5+50 TO STA 6+40

ALL QUANTITIES ARE INCLUDED IN THE PROPOSAL

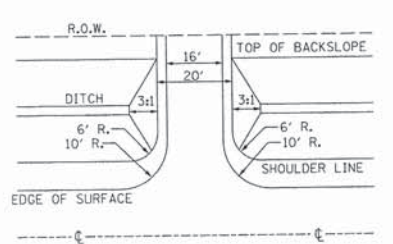
TYPICAL CROSS SECTION PROPOSED



TYPICAL CROSS SECTION EXISTING



FIELD ENTRANCE DETAIL

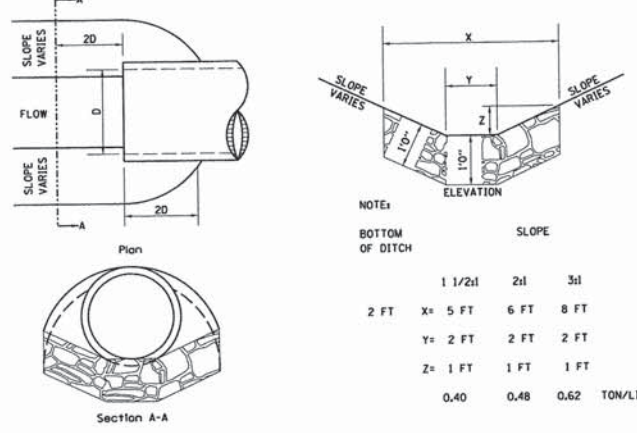


NOTE: CONSTRUCT SPECIAL DITCH
STA 2+14 TO STA 2+50 LT
STA 4+35 TO STA 4+80 LT
STA 5+35 TO STA 6+40 LT

NOTE: CONSTRUCT STONE LINED DITCH
STA 2+14 TO STA 2+50 LT (0.62 TON/LIN FT)
STA 4+35 TO STA 4+80 LT (0.62 TON/LIN FT)
STA 5+35 TO STA 5+67 LT (0.62 TON/LIN FT)
STA 6+07 TO STA 6+12 LT (0.62 TON/LIN FT)
73 TON STONE LINED DITCH ALLOWED IN PROPOSAL.

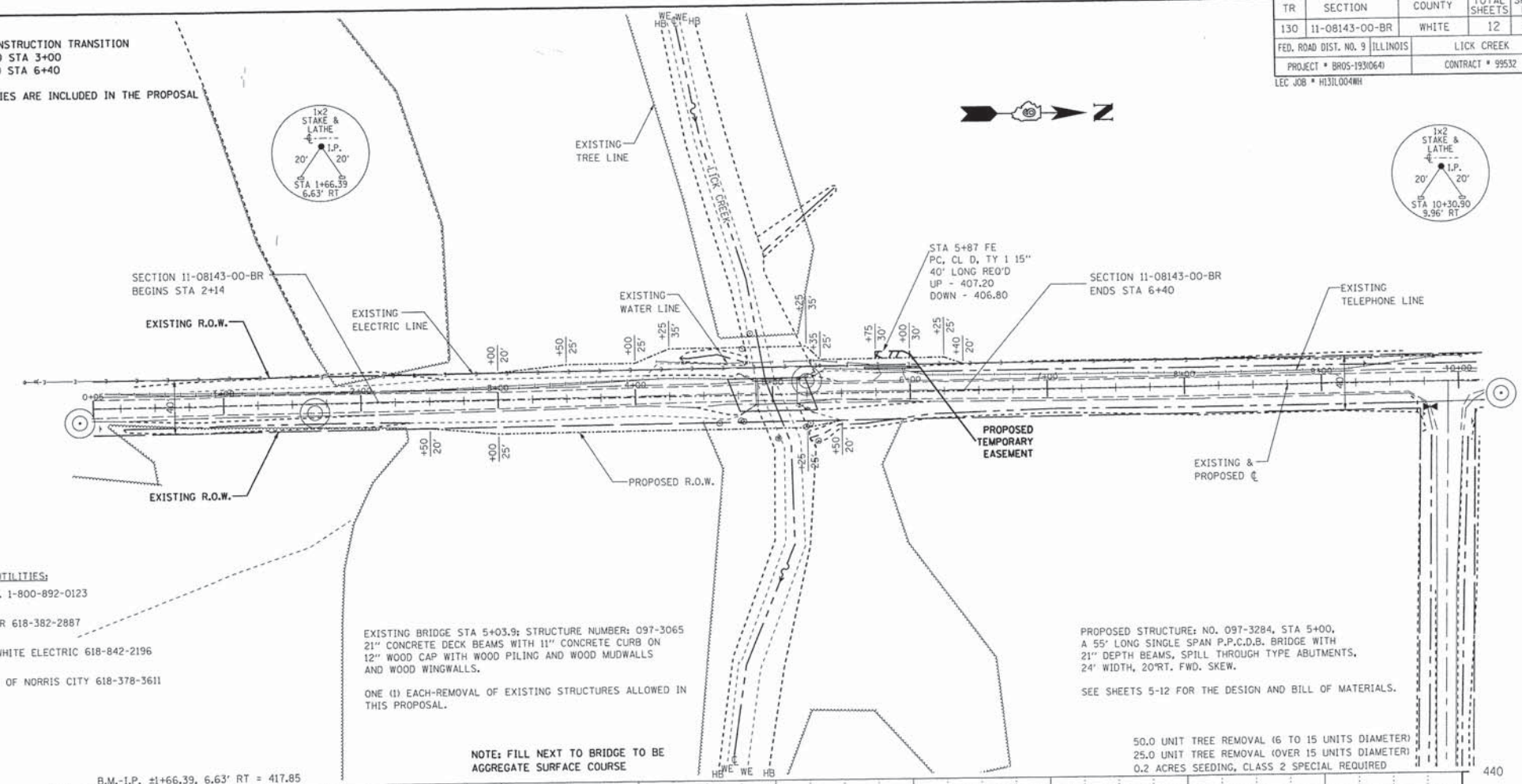
SEE STONE LINED DITCH DETAIL.

STONE LINED DITCH DESIGN



NOTE:	SLOPE	
BOTTOM OF DITCH	1 1/2:1	2:1
2 FT	x = 5 FT	6 FT
	y = 2 FT	2 FT
	z = 1 FT	1 FT
	0.40	0.48
	0.62	TON/LIN. FT

NOTE: FOR PLACEMENT, QUALITY GRADATION AND OTHER MISCELLANEOUS REQUIREMENTS FOR STONE LINED DITCH-SEE SPECIAL PROVISIONS.



UTILITIES:
J.U.L.I.E. 1-800-892-0123
FRONTIER 618-382-2887
WAYNE-WHITE ELECTRIC 618-842-2196
VILLAGE OF NORRIS CITY 618-378-3611

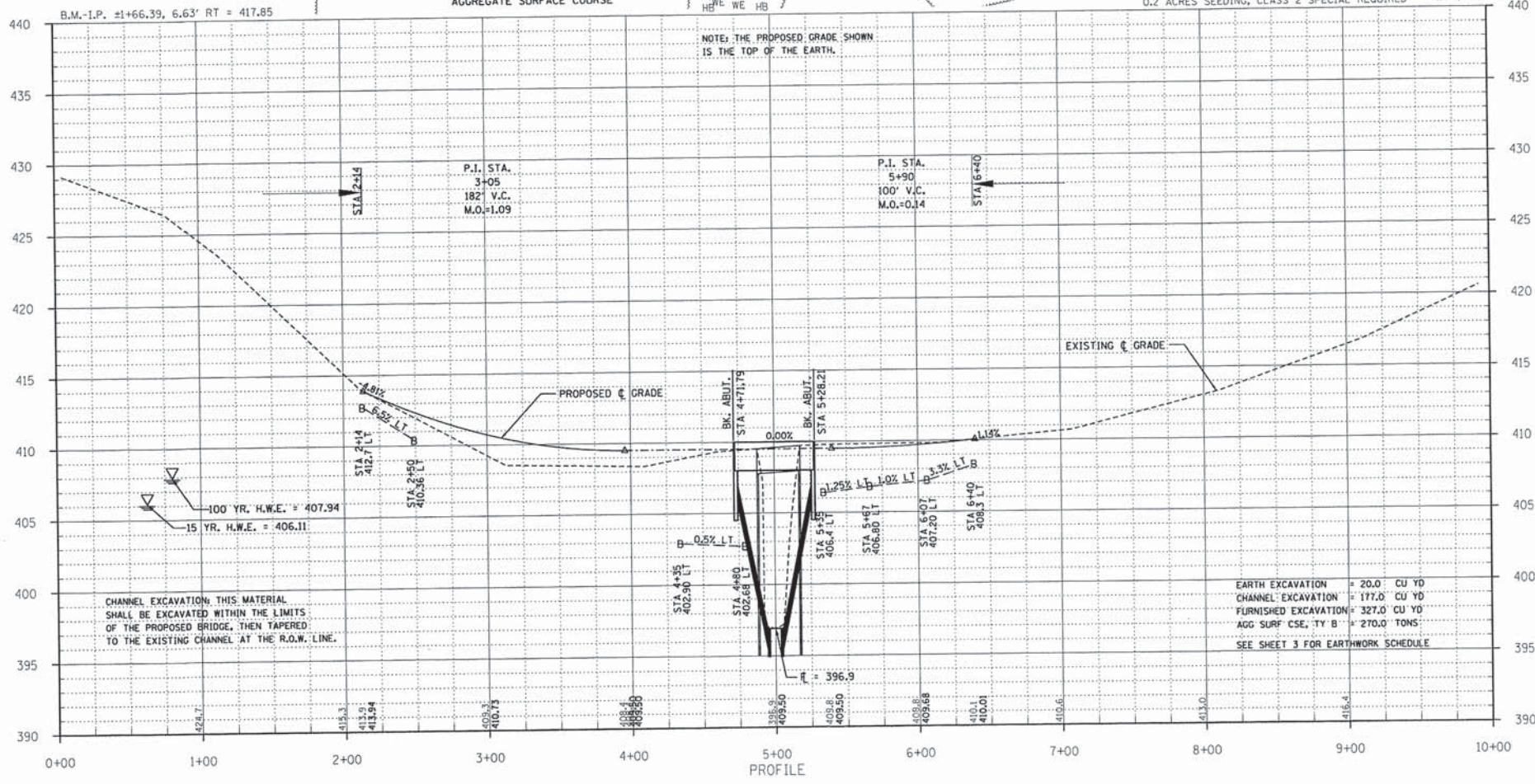
EXISTING BRIDGE STA 5+03.9; STRUCTURE NUMBER: 097-3065
21" CONCRETE DECK BEAMS WITH 11" CONCRETE CURB ON 12" WOOD CAP WITH WOOD PILING AND WOOD MUDWALLS AND WOOD WINGWALLS.

ONE (1) EACH-REMOVAL OF EXISTING STRUCTURES ALLOWED IN THIS PROPOSAL.

PROPOSED STRUCTURE: NO. 097-3284, STA 5+00,
A 55' LONG SINGLE SPAN P.P.C.D.B. BRIDGE WITH 21" DEPTH BEAMS, SPILL THROUGH TYPE ABUTMENTS, 24' WIDTH, 20' RT. FWD. SKEW.

SEE SHEETS 5-12 FOR THE DESIGN AND BILL OF MATERIALS.

50.0 UNIT TREE REMOVAL (6 TO 15 UNITS DIAMETER)
25.0 UNIT TREE REMOVAL (OVER 15 UNITS DIAMETER)
0.2 ACRES SEEDING, CLASS 2 SPECIAL REQUIRED



CHANNEL EXCAVATION: THIS MATERIAL SHALL BE EXCAVATED WITHIN THE LIMITS OF THE PROPOSED BRIDGE, THEN TAPERED TO THE EXISTING CHANNEL AT THE R.O.W. LINE.

EARTH EXCAVATION = 20.0 CU YD
CHANNEL EXCAVATION = 177.0 CU YD
FURNISHED EXCAVATION = 327.0 CU YD
AGG SURF CSE, TY B = 270.0 TONS
SEE SHEET 3 FOR EARTHWORK SCHEDULE

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	3
FED. ROAD DIST. NO. 9 ILLINOIS		FED. AID PROJECT		
PROJECT# BROS-19310641		CONTRACT# 99532		
JOB NO. C-99-531-12		LICK CREEK		
LEC JOB # H31L004WH				

323 W 3RD ST.
P.O. BOX 160
MT. CARMEL, IL
62863
PHONE:
(618)-262-8661
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DESIGN FIRM
LAND SURVEY &
PROFESSIONAL
ENGINEERING
CORPORATION
184-000887
(62-032435)(35-002769)



AARON M. MEFFORD
NAME
SIGNATURE
7-7-14
DATE
11-30-16
EXPIRES

TOWNSHIP ROUTE 130
OVER LICK CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE:

CROSS-SECTIONS

SCALE: 1" = 5'
BY: AMM
DATE: 4/94
REV:

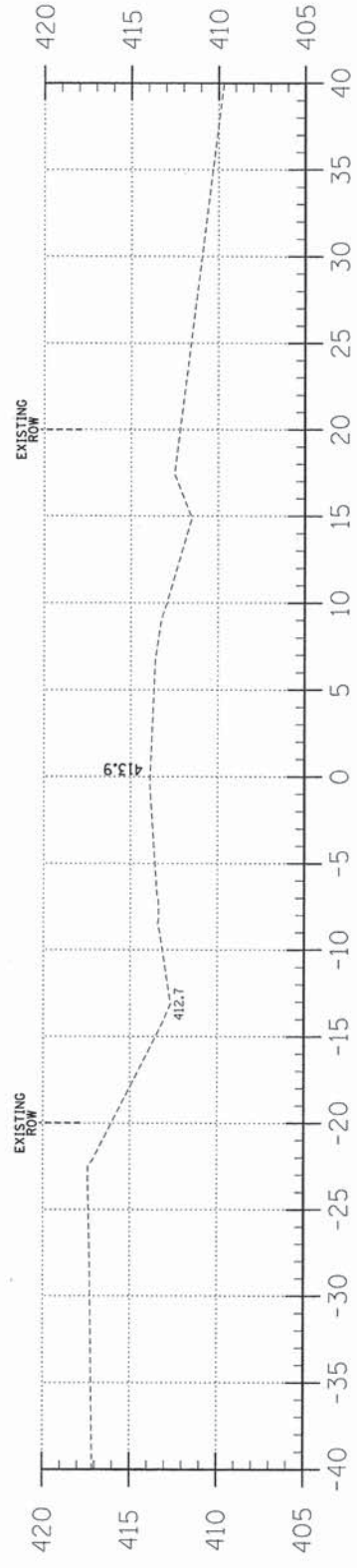
3 OF 12
SHEETS

SHEET NO.
3

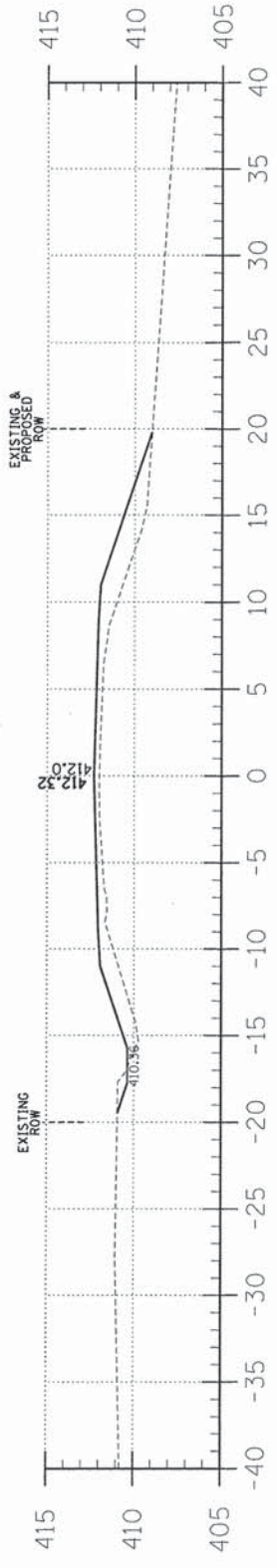
LOCATION	EARTH EXCAVATION		CHANNEL EXCAVATION		ESTIMATED UNSUITABLE MATERIAL		SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE		EMBANKMENT		EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA 0+00 TO 4+71.8	3.9	0.0	0.0	0.0	0.0	2.9	392.9	-390.0				
STA 4+71.8 TO 5+28.2	0.0	177.0	88.5	66.4	0.0	66.4	0.0	66.4				
STA 5+28.2 TO 10+00	16.0	0.0	0.0	12.0	0.0	12.0	11.3	0.7				
I FIELD ENTRANCE	0.0	0.0	0.0	0.0	0.0	0.0	4.0	-4.0				
TOTAL	19.8	177.0	88.5	81.3	88.5	408.2	-326.9					

EARTHWORK SCHEDULE

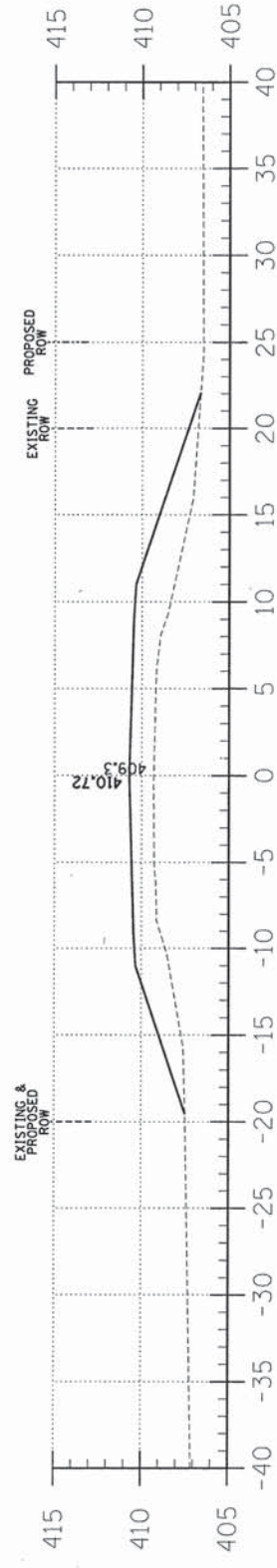
2+14



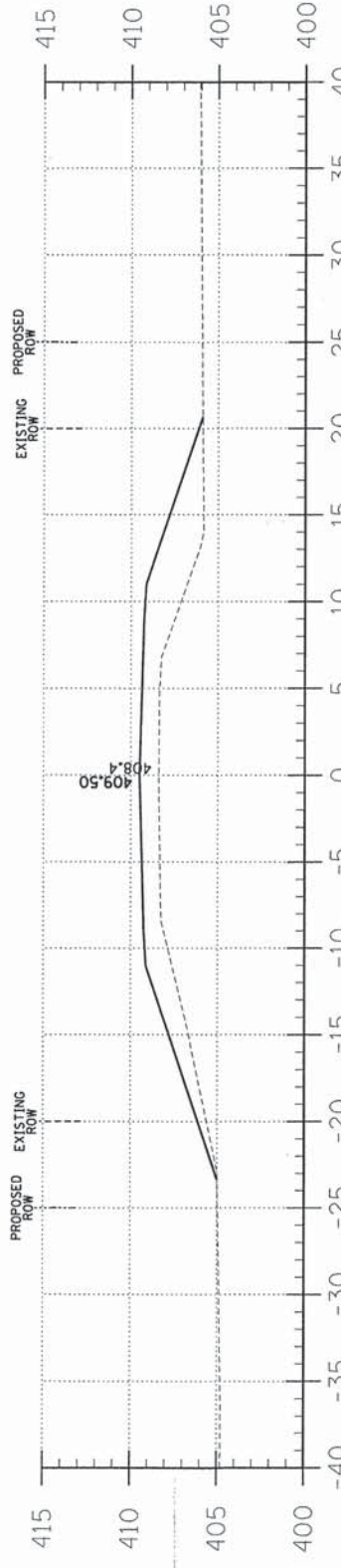
2+50



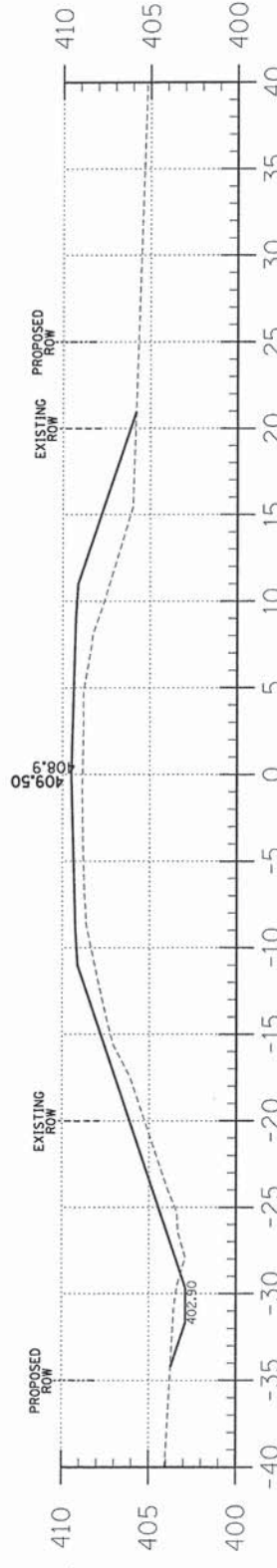
3+00



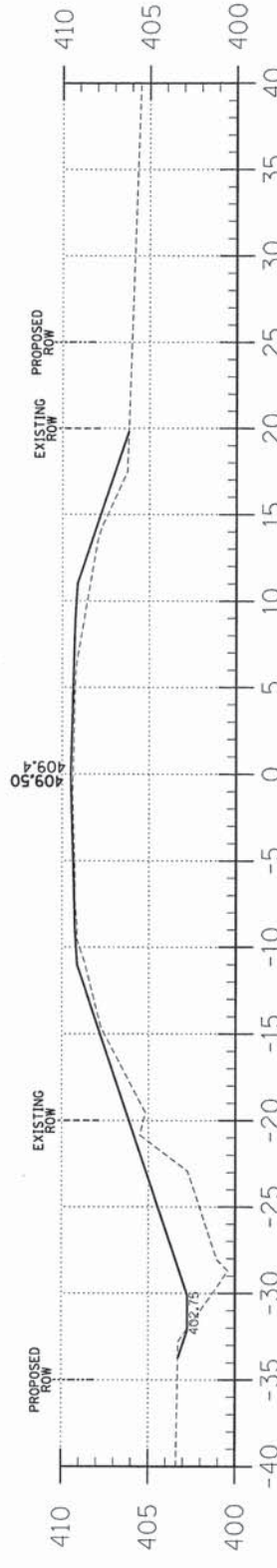
4+00



4+35



4+65



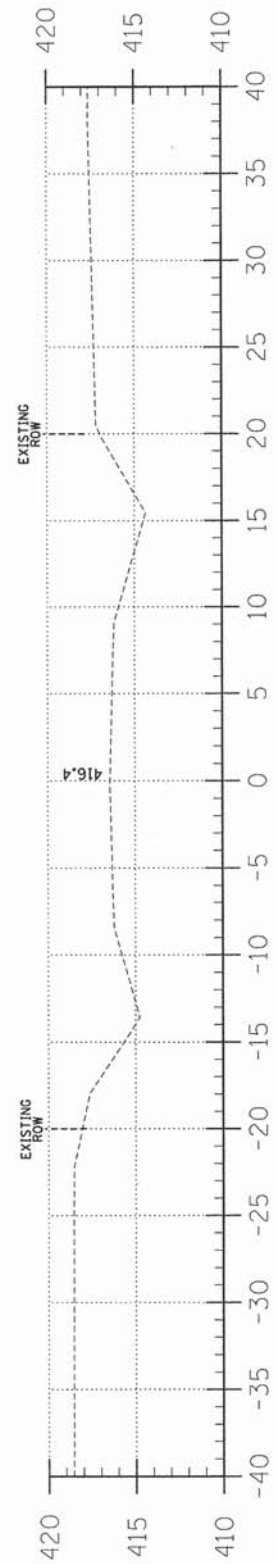
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F = 34.3

C = 2.4
F = 42.5

C = 0.0
F = 51.6

C = 0.0
F = 56.7

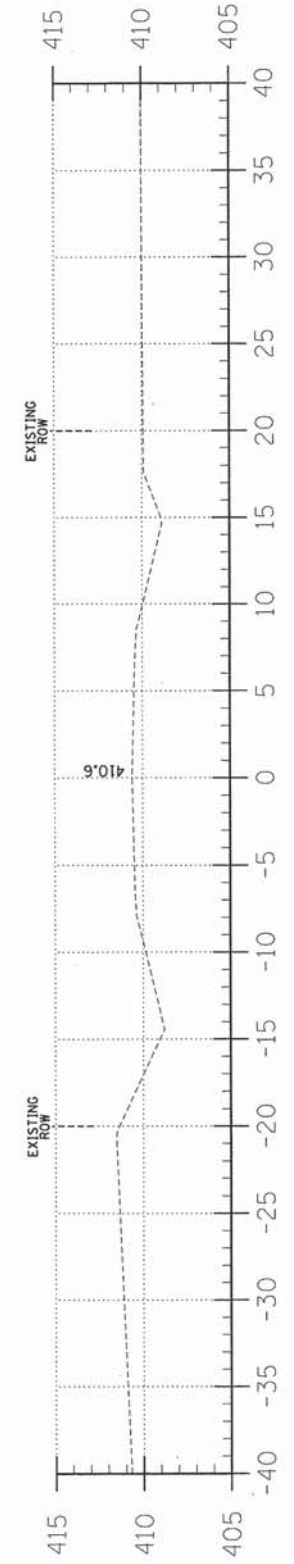
C = 0.7
F = 23.1



9+00



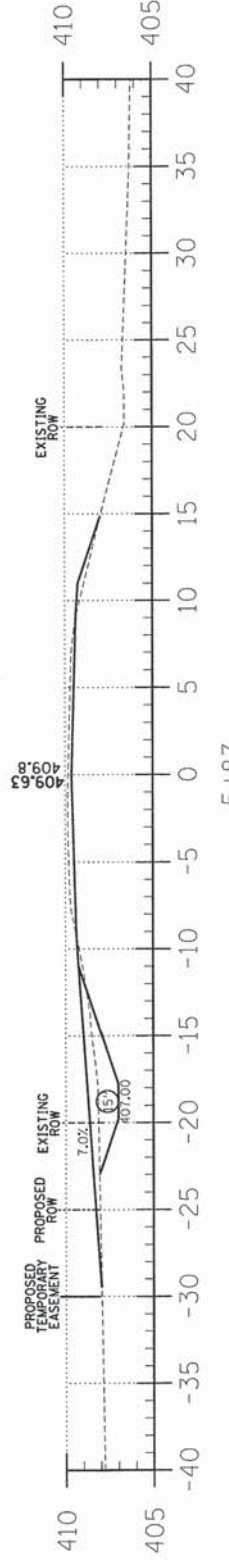
8+00



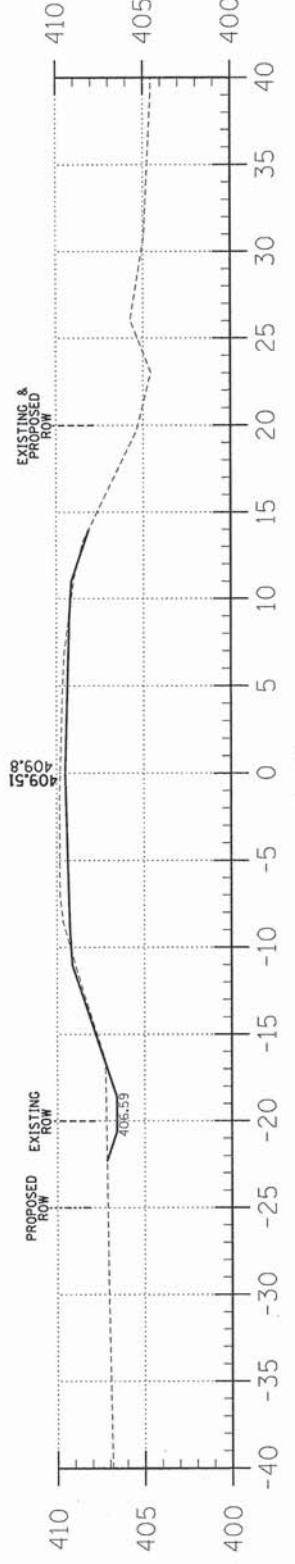
7+00



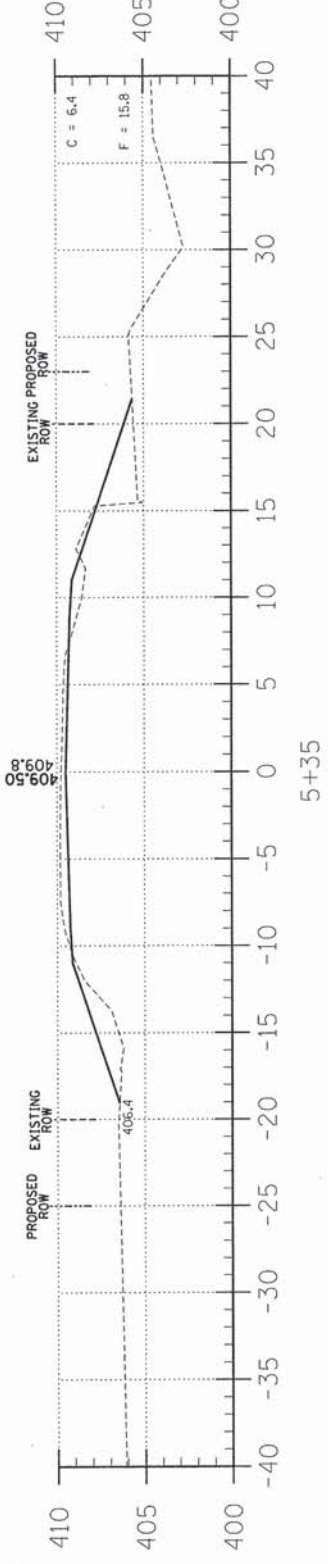
6+40



5+87



5+50



5+35

C = 4.0
F = 1.4

C = 8.5
F = 0.8

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	4
FED. ROAD DIST. NO. 9 ILLINOIS		FED. AID PROJECT		
PROJECT # BROS-19310643		CONTRACT # 99532		
JOB NO. C-99-531-12		LICK CREEK		
LEC JOB # H131004MH				

323 W. 3RD ST.
P.O. BOX 160
MT. CARMEL, IL
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184-000887
(62-032435)(35-002769)



AARON M. MEFFORD
NAME
SIGNATURE
7-7-14
DATE
11-30-15
EXPIRES

TOWNSHIP ROUTE 130
OVER LICK CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE:

CROSS-SECTIONS

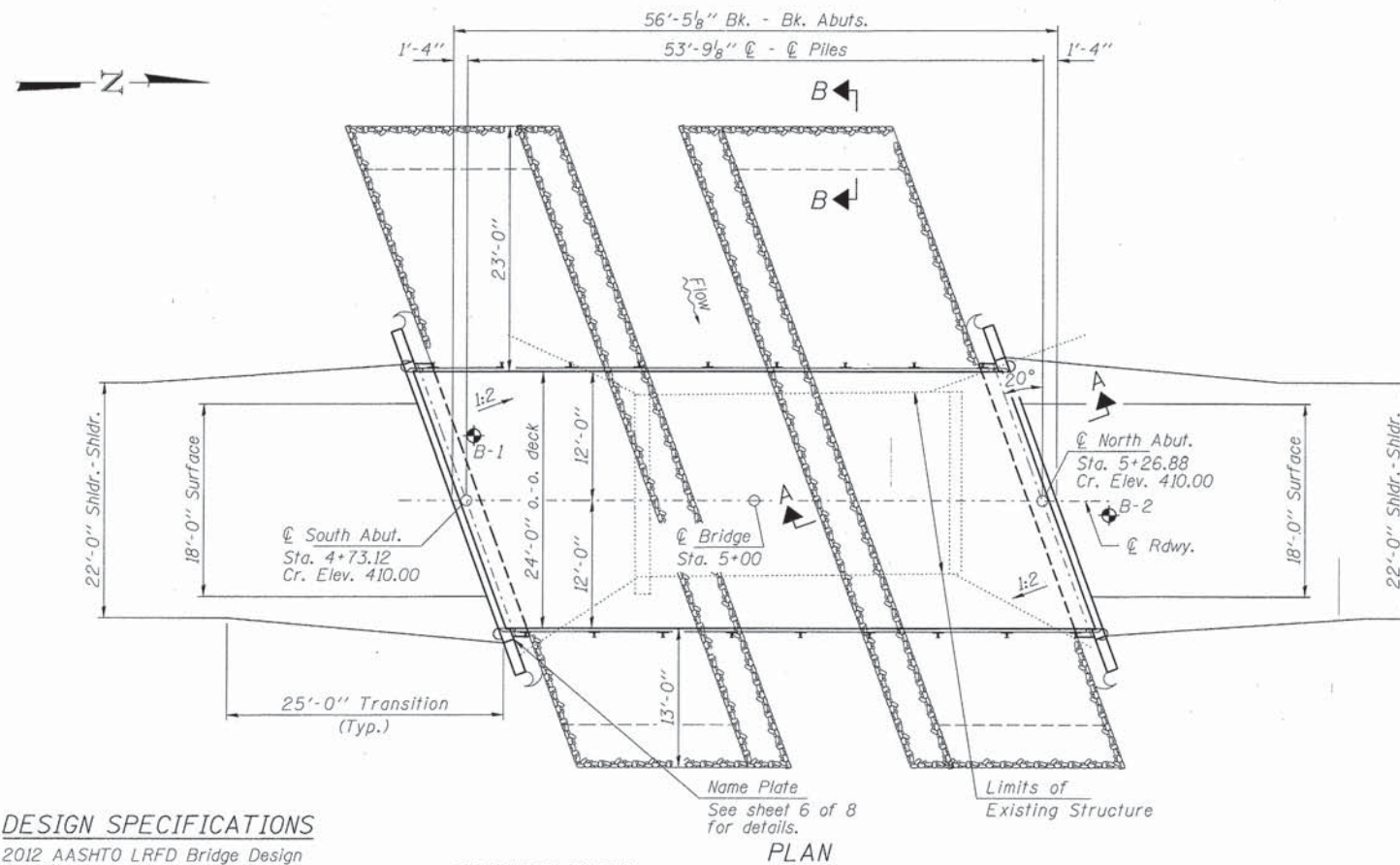
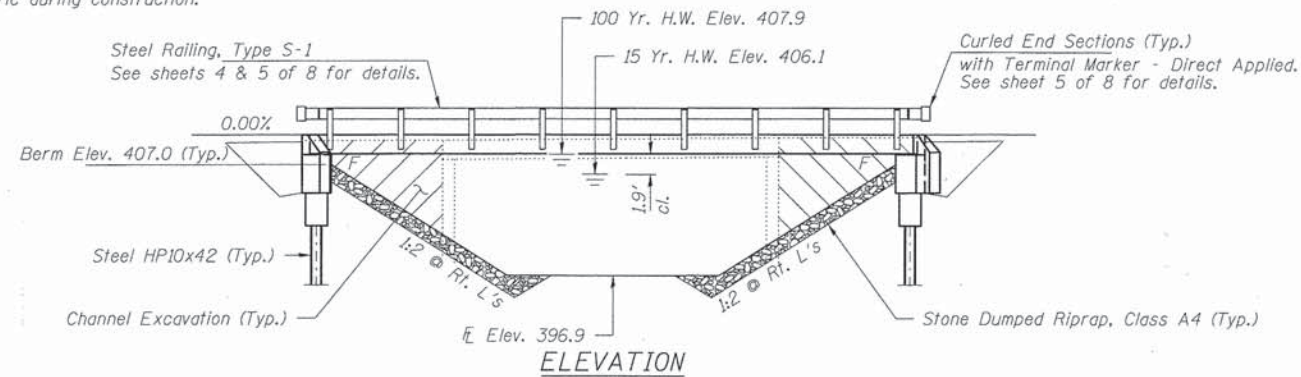
SCALE: 1" = 5'
BY: AMM
DATE: 4/9/14
REV:

4 OF 12
SHEETS

SHEET NO.
4

EXISTING STRUCTURE: Structure No. 097-3065; Sta. 5+03.9 - Single span precast slab beam bridge on closed timber abutments and wingwalls. 28.0' fc.-fc. abut., 17.0' o.-o. deck.

Structure closed to traffic during construction.



DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with all applicable interims.

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (1/2" low lax. strands)
fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.308g
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.728g
Soil Site Class = D

Design Scour Elevations (ft.)		
	S. Abut.	N. Abut.
0.100	404.4	404.4

WATERWAY INFORMATION

Drainage Area = 1.87 Sq. Mi.		Existing Low Grade Elev. 408.4 @ Sta. 4+00		Proposed Low Grade Elev. 409.5 @ Sta. 4+00		
Flood	Freq. Yr.	Q C.F.S.	Opening Exist. Sq. Ft.	Natural H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	15	1167	229	240	406.11	
Base	100	2090	279	330	407.94	0.70 0.27 408.64 408.21

15 Year Velocity Through Existing Bridge = 5.1 fps 15 Year Velocity Through Proposed Bridge = 4.9 fps

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 LRFD Specifications."

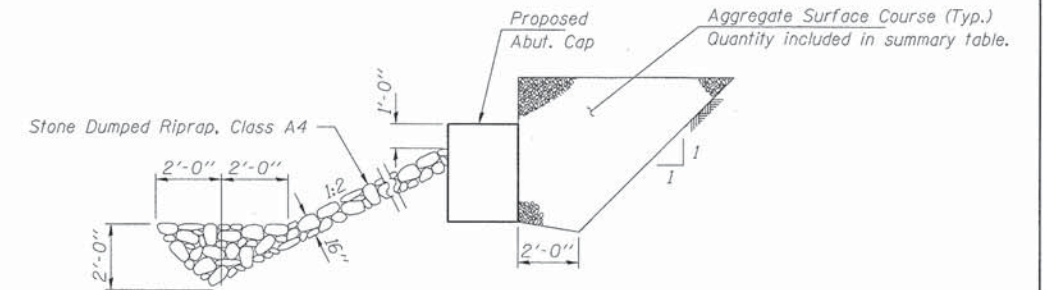
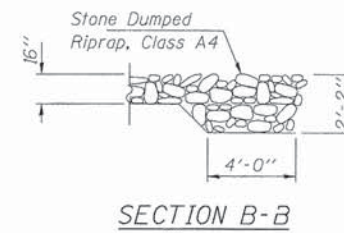
Steven W. Megginson 07/01/2014
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2014

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the South Abutment or approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation. All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

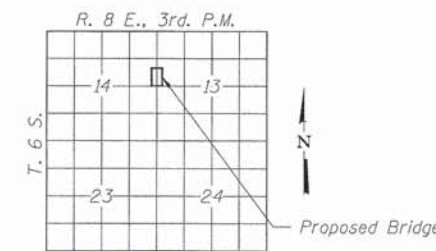


SECTION A-A

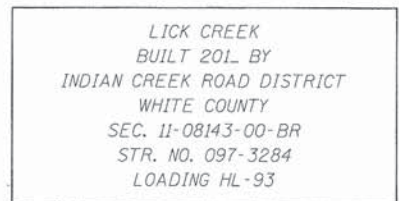
Note: See Special Provisions for Stone Dumped Riprap, Class A4.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 21"x48" PPC Deck Beam
3. 21"x48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. Steel HP Pile Details
8. Borings



LOCATION SKETCH



NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			177
Stone Dumped Riprap, Class A4	Ton			310
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		23.4	23.4
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,320		1,320
Reinforcement Bars	Pound		2,590	2,590
Steel Railing, Type S-1	Foot	107		107
Furnishing Steel HP10x42	Foot		175	175
Driving Piles	Foot		175	175
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1
Terminal Marker - Direct Applied	Each		4	4

FILE NAME = 138046-shr-bridge.dgn USER NAME = #USER#
HAMPTON, LENZINI AND RENWICK, INC.
 308 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62733
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS/P/E/SE CORP. 184-000009

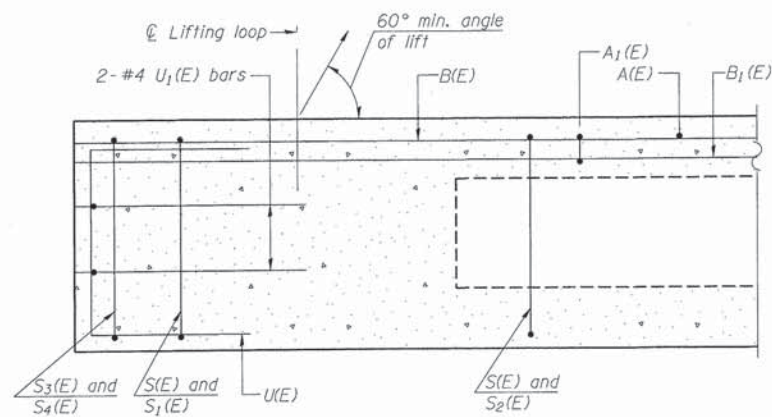
DESIGNED - L.A.P.	REVISIONS -
CHECKED - S.W.M.	REVISIONS -
DRAWN - R.D.H.	REVISIONS -
CHECKED - S.W.M.	REVISIONS -

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

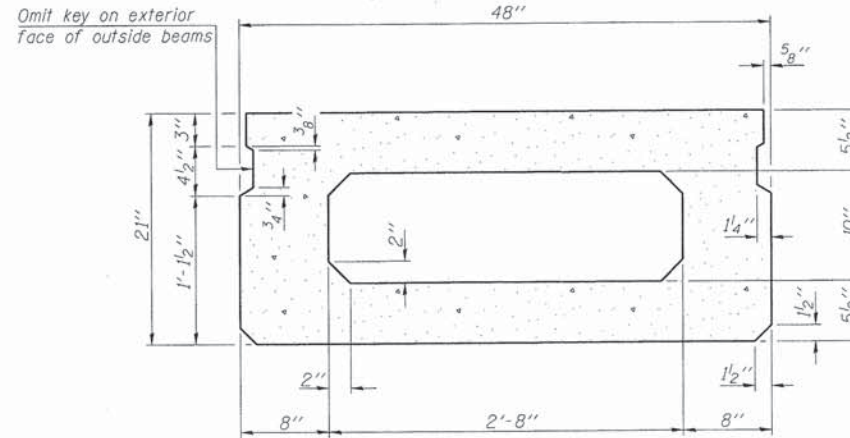
GENERAL PLAN & ELEVATION
STRUCTURE NO. 097-3284

SHEET NO. 1 OF 8 SHEETS

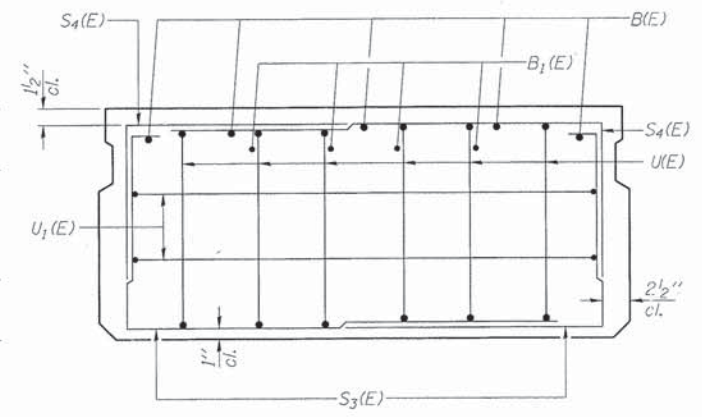
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	5
INDIAN CREEK ROAD DISTRICT			CONTRACT NO. 99532	
ILLINOIS FED. AID PROJECT				



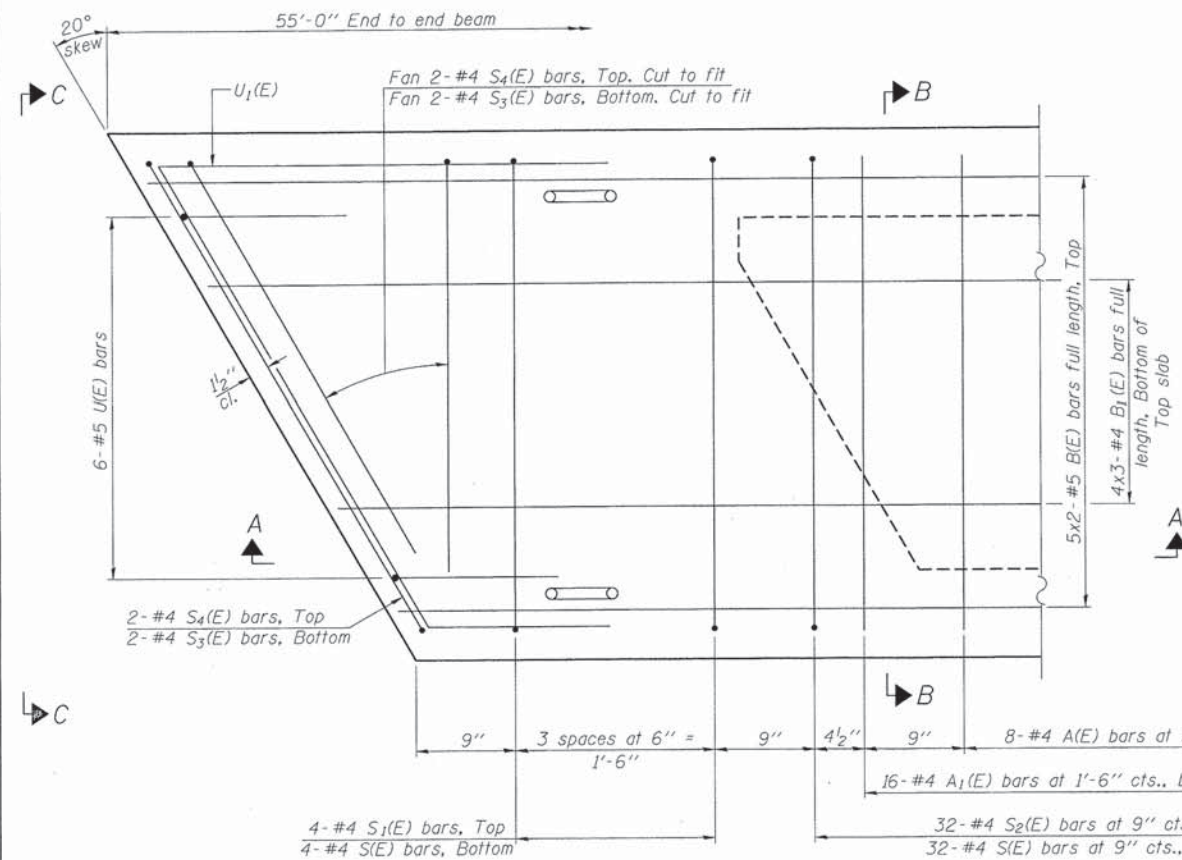
SECTION A-A



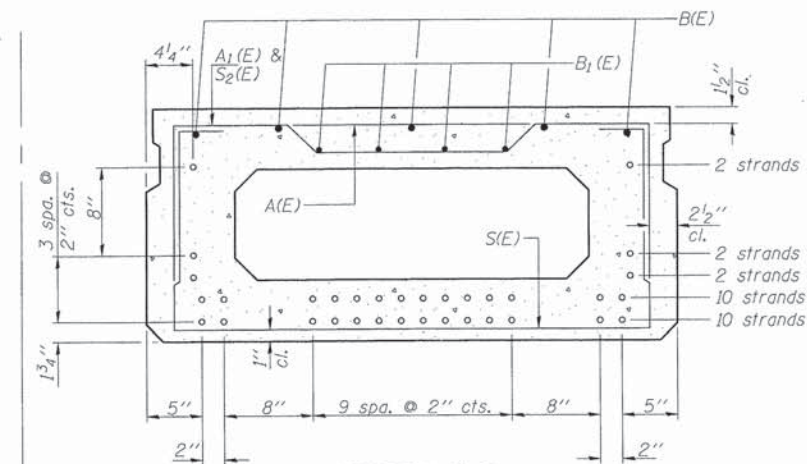
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Similar about cl

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	17	#4	3'-7"	—
A1(E)	33	#4	3'-10"	—
B(E)	10	#5	28'-8"	—
B1(E)	12	#4	19'-7"	—
S(E)	73	#4	7'-5"	⌈
S1(E)	8	#4	5'-11"	⌈
S2(E)	65	#4	6'-2"	⌈
S3(E)	8	#4	4'-9"	⌈
S4(E)	8	#4	4'-0"	⌈
U(E)	12	#5	4'-0"	⌈
U1(E)	4	#4	7'-6"	⌈

Note: See sheet 3 & 4 of 8 for additional details and Bill of Material.

MINIMUM BAR LAP

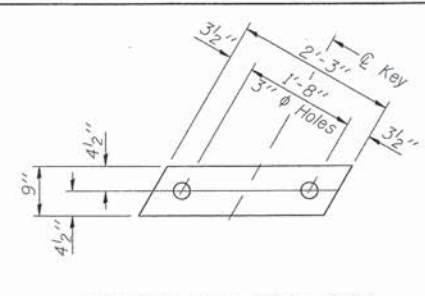
#4 bar = 2'-0"
#5 bar = 2'-6"

Notes:
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.
Bars indicated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

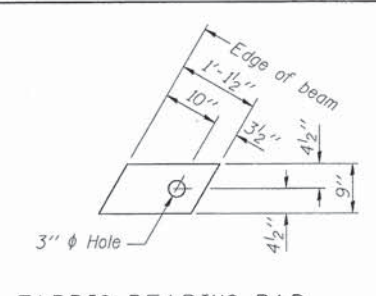
PD-2148-R

7-1-10

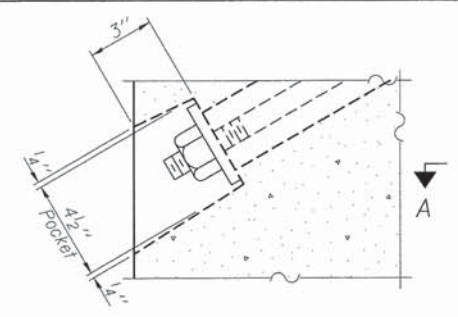
FILE NAME = 130046-sh1-bridge.dgn	USER NAME = #USER#	DESIGNED - L.A.P.	REVISED -	STATE OF ILLINOIS WHITE COUNTY HIGHWAY DEPARTMENT	21" x 48" PPC DECK BEAM STRUCTURE NO. 097-3284	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 300 STEVENSON DRIVE, SUITE 301 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P3 / S3 COMP. 194-000598	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -			130	11-08143-00-BR	WHITE	12	6
PLOT DATE = 7/1/2014		DRAWN - R.D.H.	REVISED -			INDIAN CREEK ROAD DISTRICT		CONTRACT NO. 99532		
		CHECKED - S.W.M.	REVISED -			SHEET NO. 2 OF 8 SHEETS		[ILLINOIS] FED. AID PROJECT		



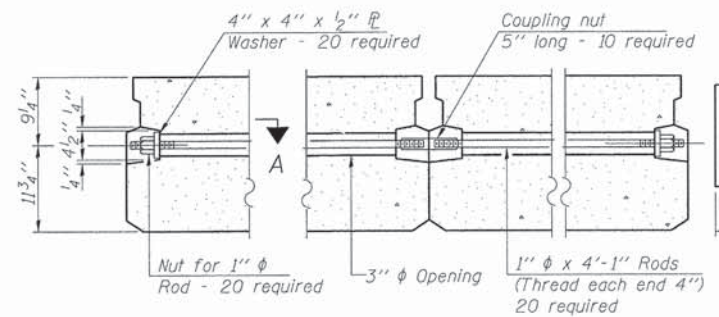
FABRIC BEARING PAD
(Interior - 10 Req'd.)



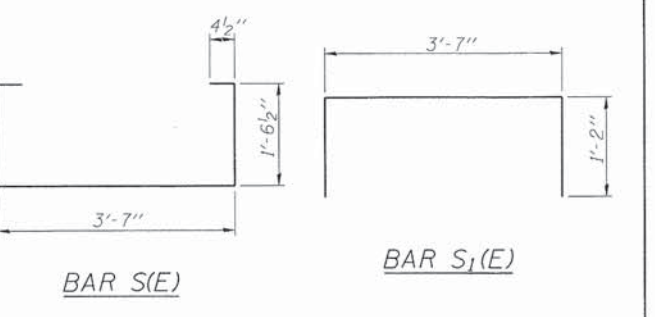
FABRIC BEARING PAD
(Exterior - 4 Req'd.)



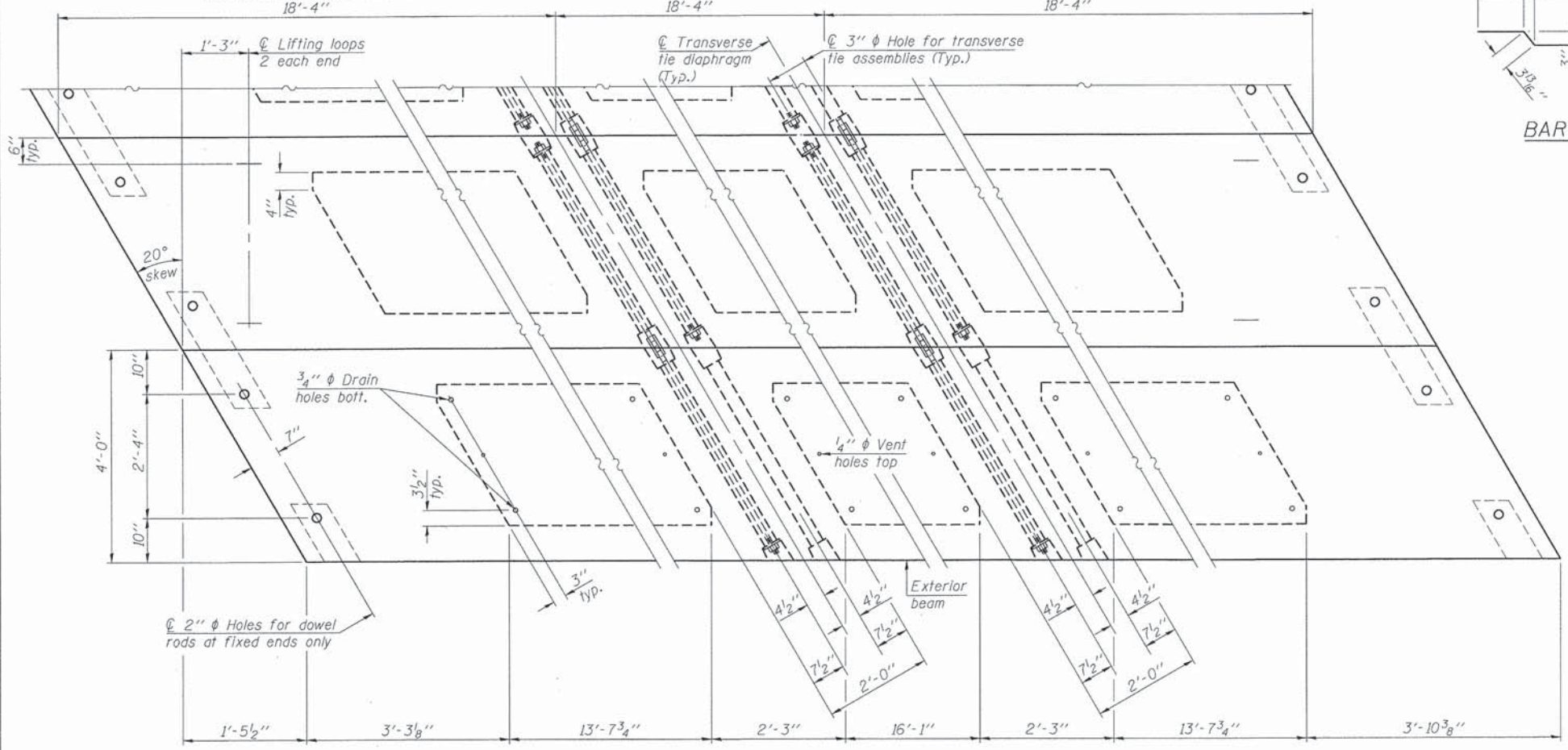
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.
18'-4"

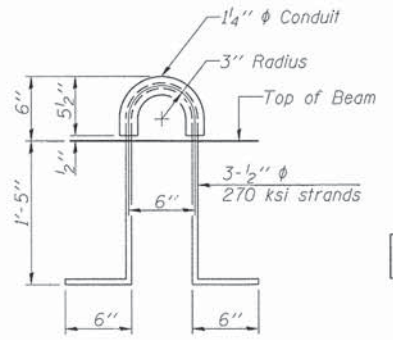


PLAN VIEW

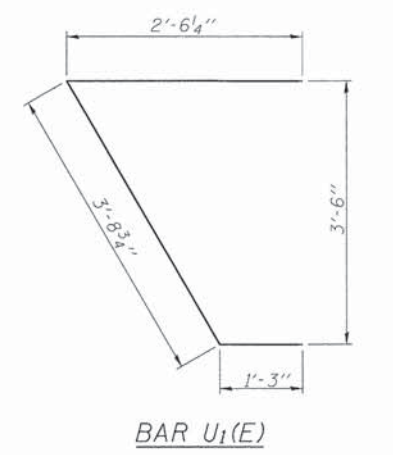
Note: Connect beams in pairs with the transverse tie configuration shown.

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" diameter 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. (See Special Provisions).
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" diameter lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.07 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.
Reinforcement bars designated (E) shall be epoxy coated.



LIFTING LOOP DETAIL



BAR U1(E)

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1,320
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PD-2148-RD 7-1-10

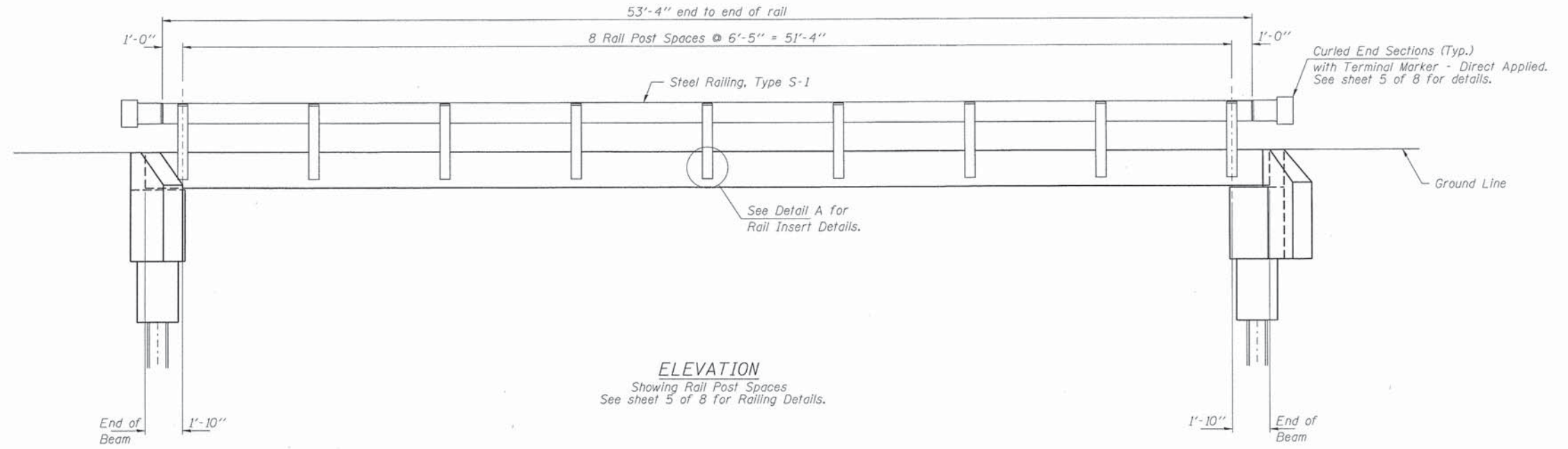
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HAMPTON, LENZINI AND RENWICK, INC. 3080 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62733	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. F.P.E. & CO. INC. 184-000009	PLOT DATE = 7/1/2014	DRAWN - R.D.H.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

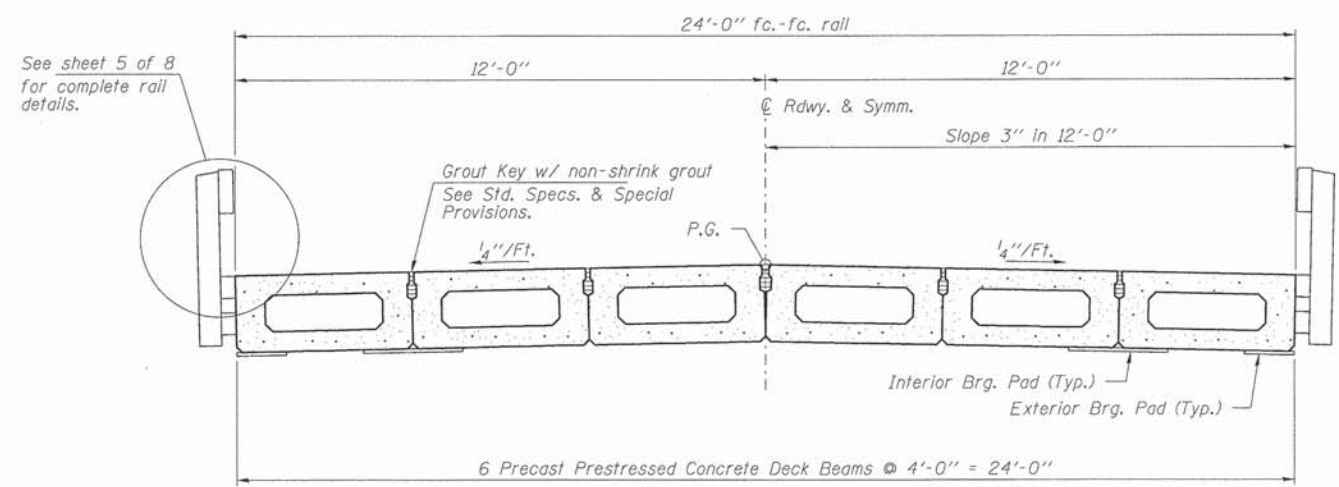
21" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 097-3284

SHEET NO. 3 OF 8 SHEETS

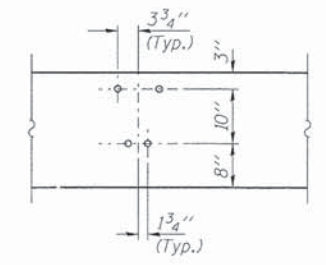
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	7
INDIAN CREEK ROAD DISTRICT			CONTRACT NO. 99532	
ILLINOIS FED. AID PROJECT				



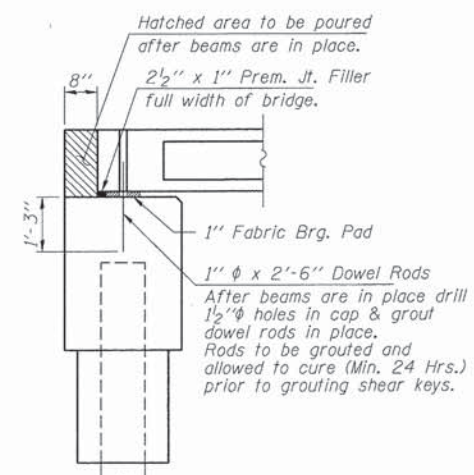
ELEVATION
Showing Rail Post Spaces
See sheet 5 of 8 for Railing Details.



CROSS SECTION
See sheets 2 & 3 of 8 for Superstructure.

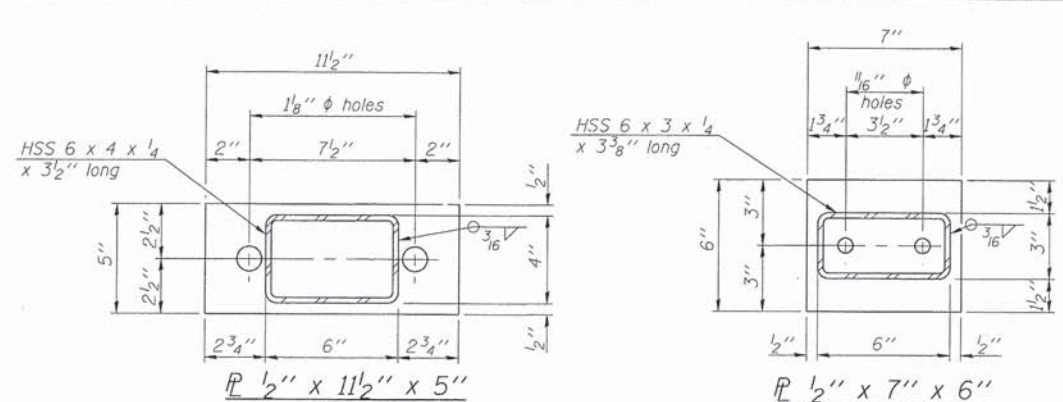
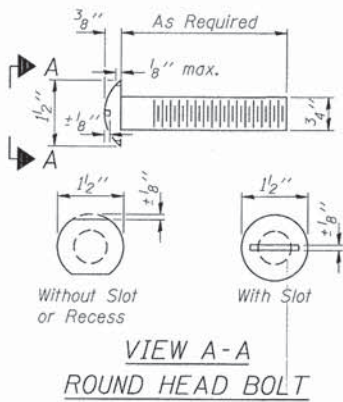


DETAIL A

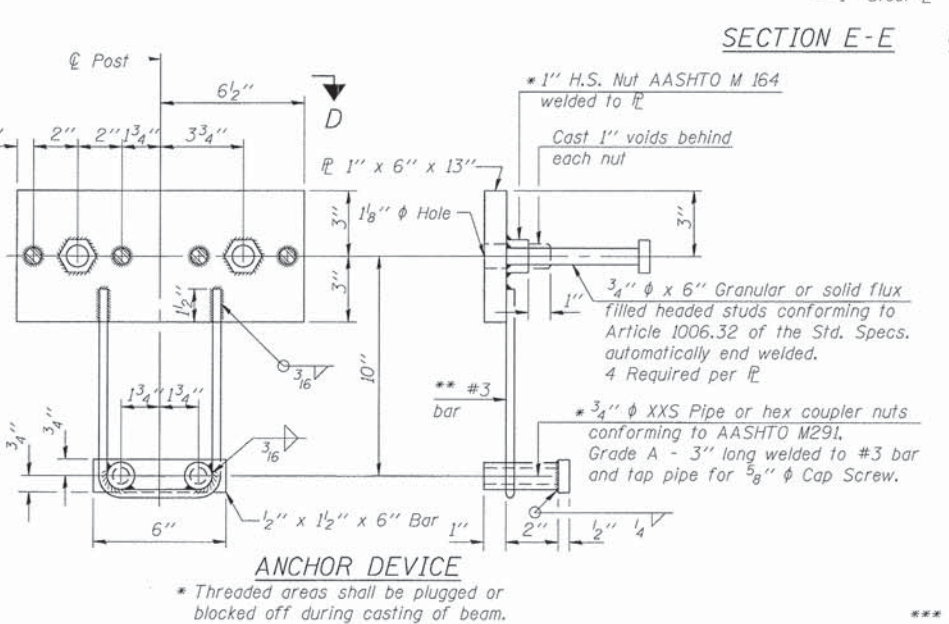
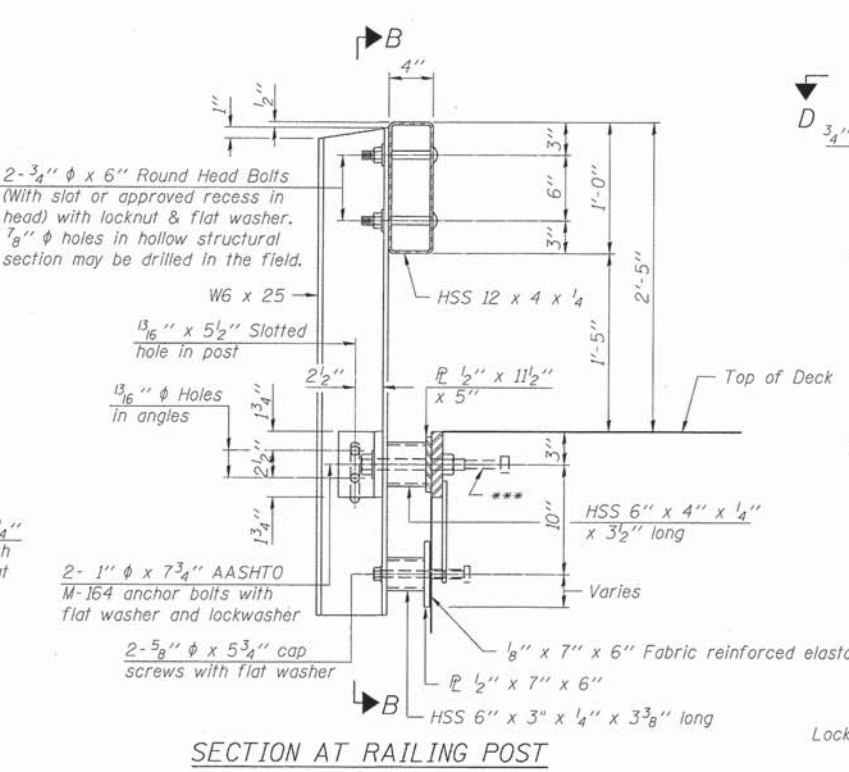
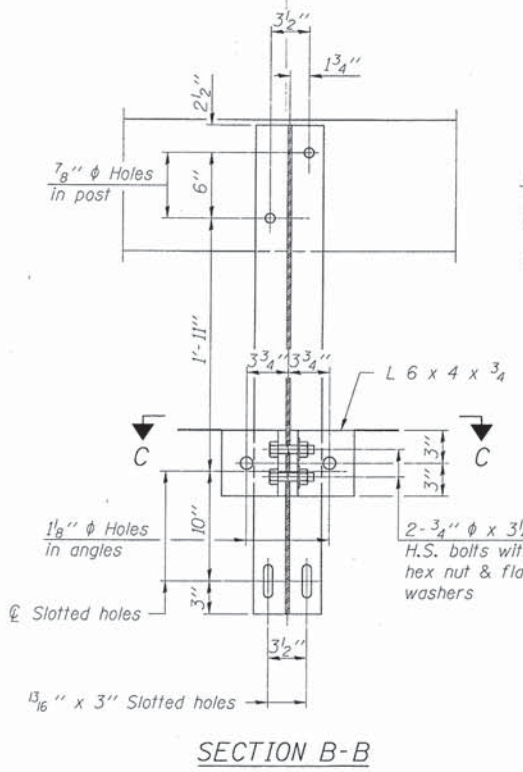
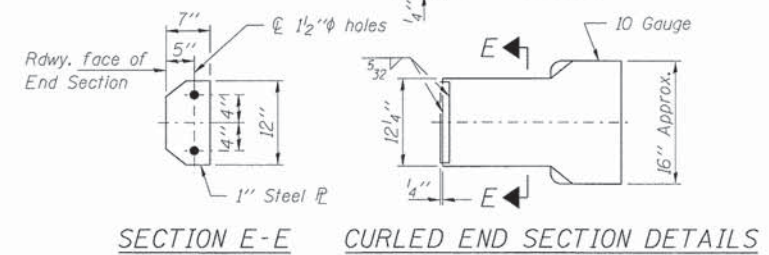


SECTION AT ABUTMENTS

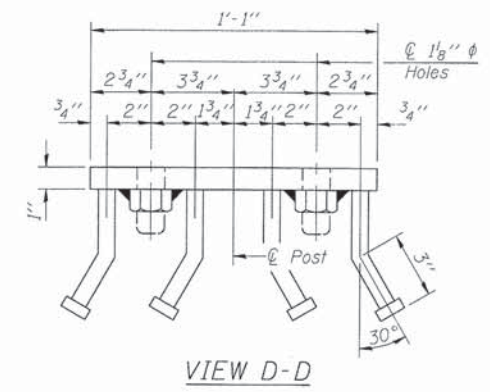
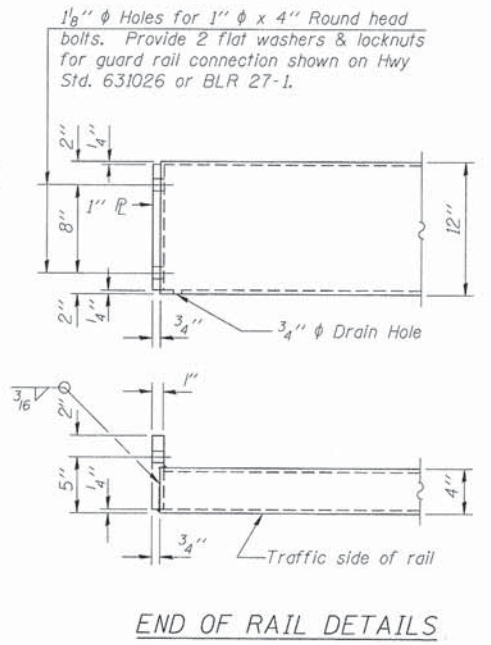
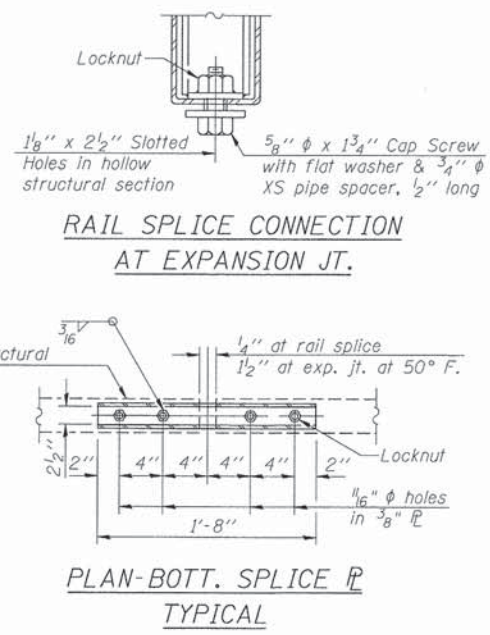
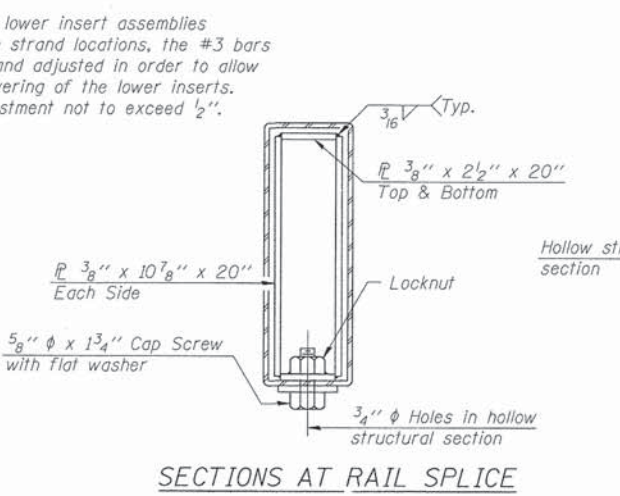
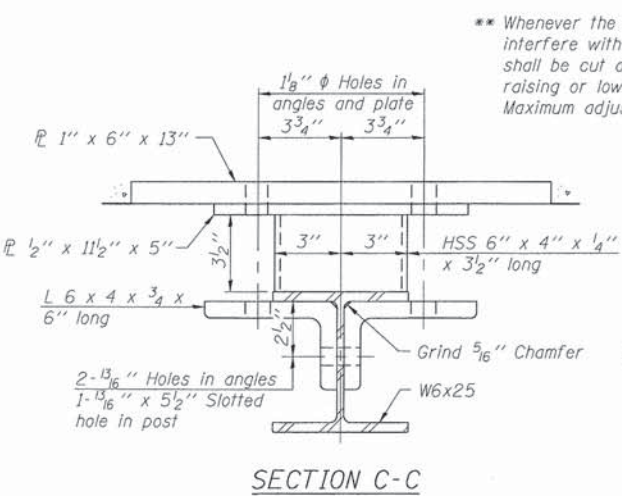
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HAMPTON, LENZINI AND RENWICK, INC. 200 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L31 PE / SE CORP. 184-000958	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -			130	11-08143-00-BR	WHITE	12	8
PLOT DATE = 7/1/2014		DRAWN - R.D.H.	REVISED -			INDIAN CREEK ROAD DISTRICT		CONTRACT NO. 99532		
		CHECKED - S.W.M.	REVISED -			SHEET NO. 4 OF 8 SHEETS		ILLINOIS FED. AID PROJECT		



Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)



Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
 All steel rail elements 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 Railing, Type S-1	Foot	107

R-23A 7-1-10 (10'-9" Maximum Post Spacing)

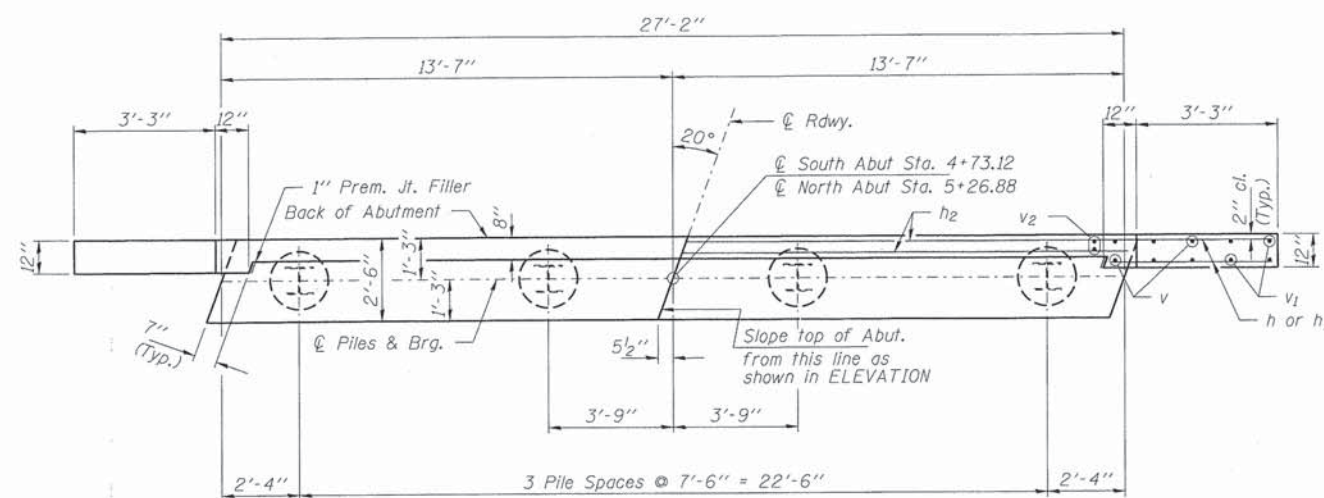
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HAMPTON, LENZINI AND RENWICK, INC. 2005 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62768 ILLINOIS PROFESSIONAL DESIGN FIRM L9 / PE / SE COMP. 184.000958	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 7/1/2014	DRAWN - R.D.H.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
 WHITE COUNTY HIGHWAY DEPARTMENT

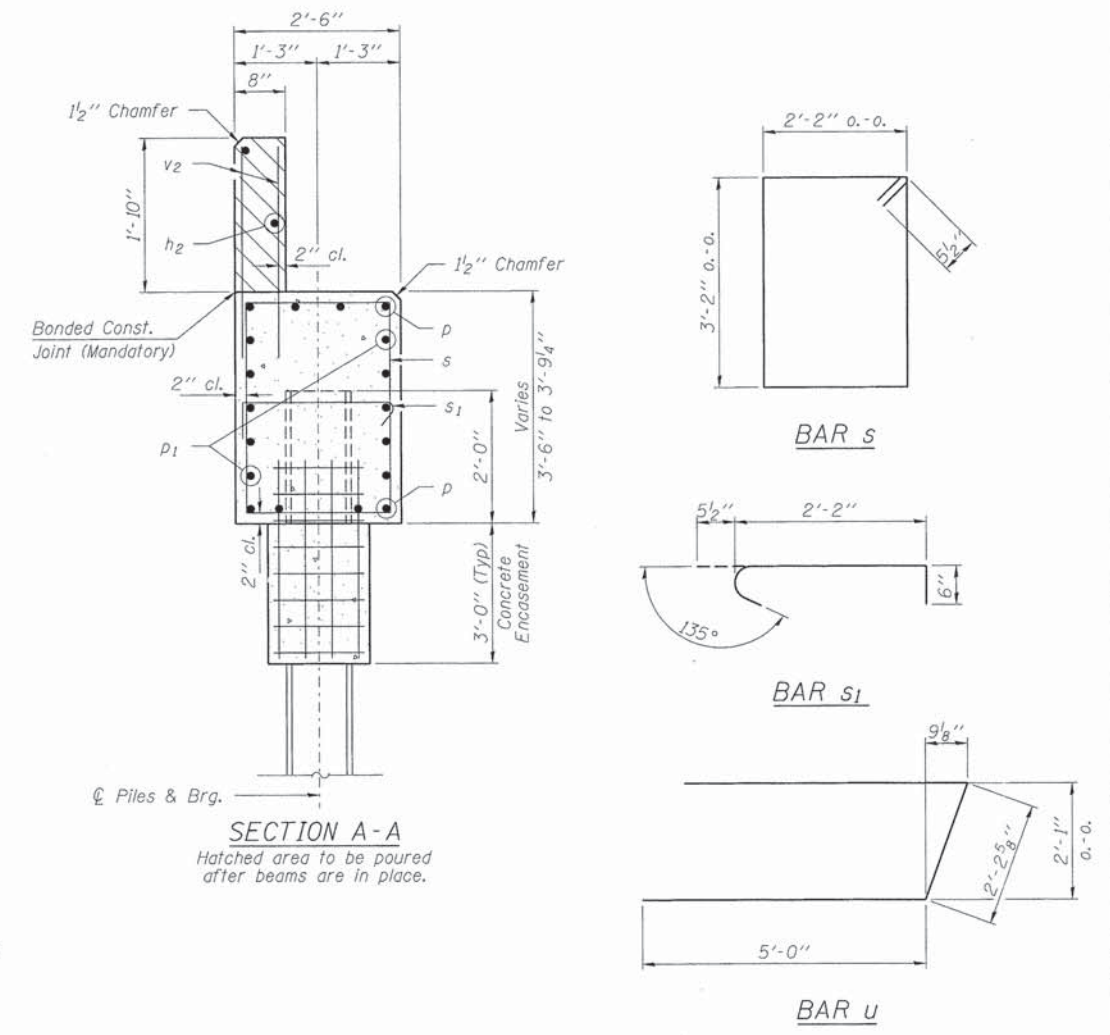
STEEL RAILING, TYPE S-1
 STRUCTURE NO. 097-3284

SHEET NO. 5 OF 8 SHEETS

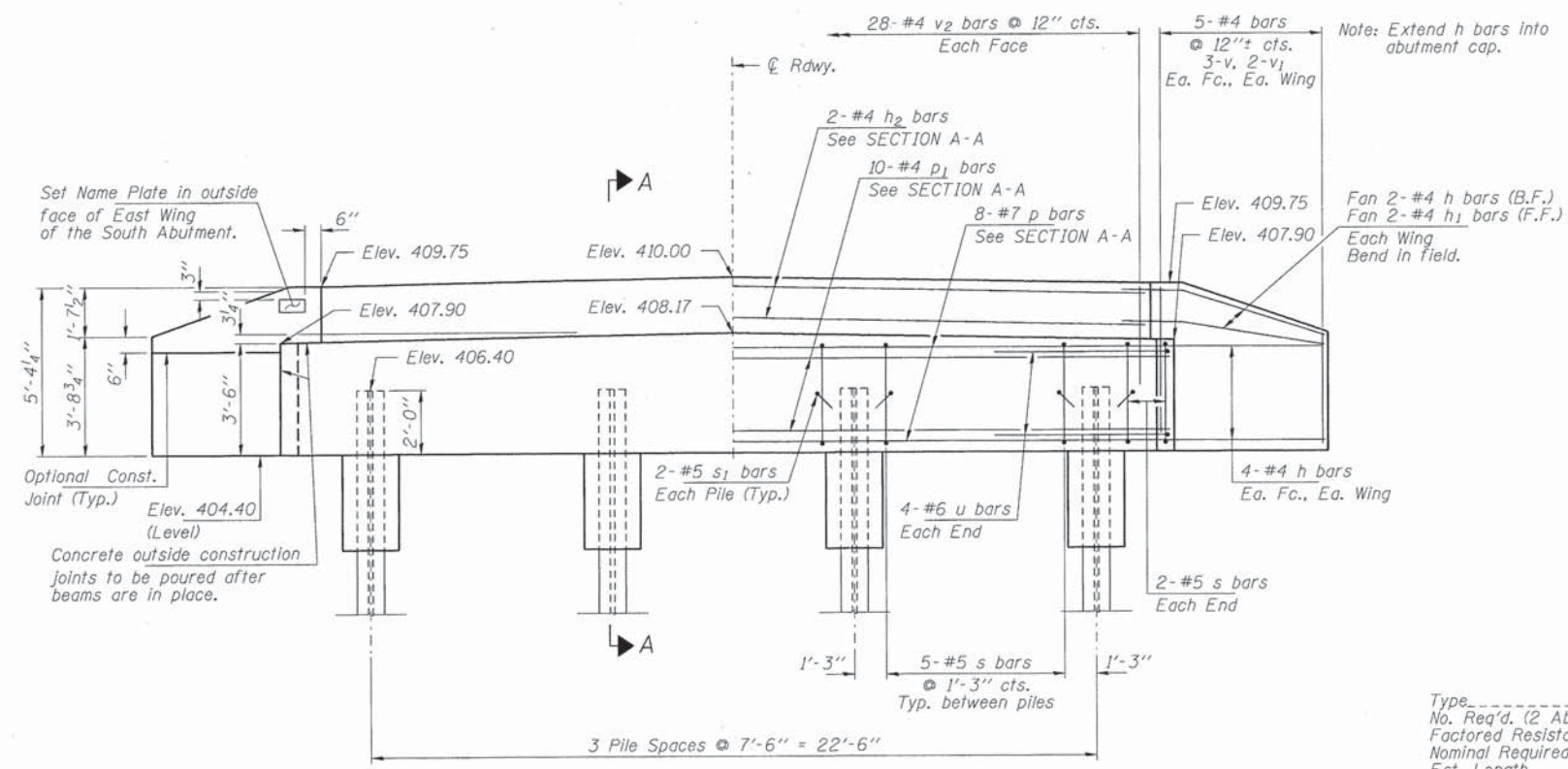
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	9
INDIAN CREEK ROAD DISTRICT			CONTRACT NO. 99532	
[ILLINOIS] FED. AID PROJECT				



PLAN



SECTION A-A



ELEVATION

PILE DATA

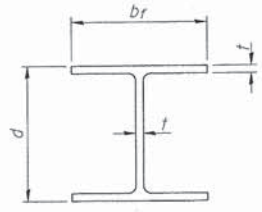
Type ----- Steel HP10x42
 No. Req'd. (2 Abuts.) ----- 8
 Factored Resistance Available (RT) ----- 184 Kips/Pile
 Nominal Required Bearing (Rn) ----- 335 Kips/Pile
 Est. Length ----- 25 Ft/Pile

Notes: * Includes one test pile to be driven in permanent location at the South Abutment.

The test piles shall be driven to 110 percent of the Nominal Required Bearing Indicated in the pile data information.

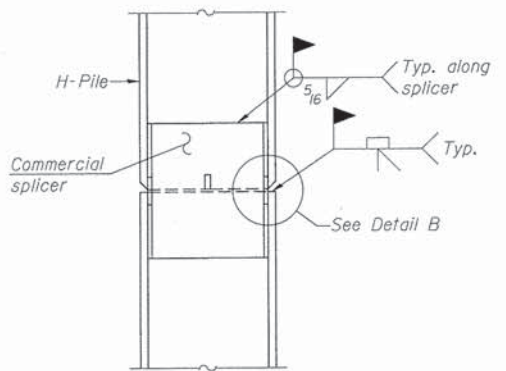
BILL OF MATERIAL - 2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	5'-6"	—
h1	8	#4	4'-0"	—
h2	4	#4	26'-10"	—
p	16	#7	26'-10"	—
p1	20	#4	26'-10"	—
s	38	#5	11'-7"	□
s1	16	#5	3'-2"	┌
u	16	#6	12'-3"	▭
v	24	#4	4'-5"	—
v1	16	#4	3'-6"	—
v2	112	#4	2'-8"	—
Concrete Structures			Cu. Yd.	23.4
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars			Pound	2,590
Steel Piles HP10x42			Foot	175
Test Pile Steel HP10x42			Each	1
Name Plates			Each	1

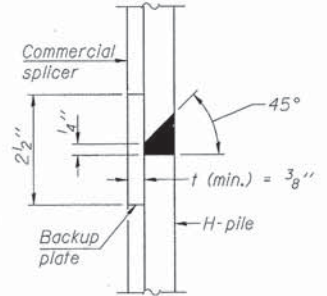


STEEL PILE TABLE

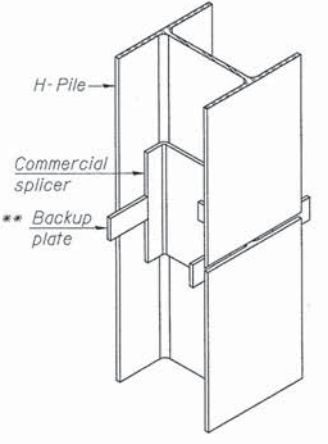
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 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 3/8"	7/16"	18"



ELEVATION

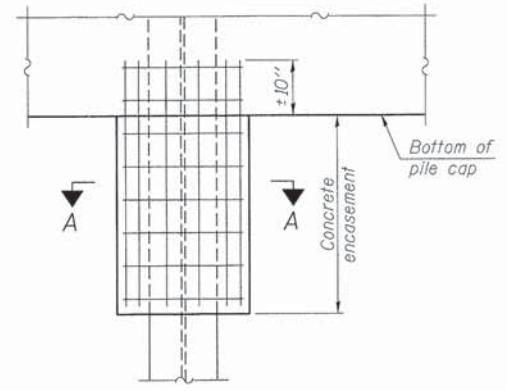


DETAIL "B"



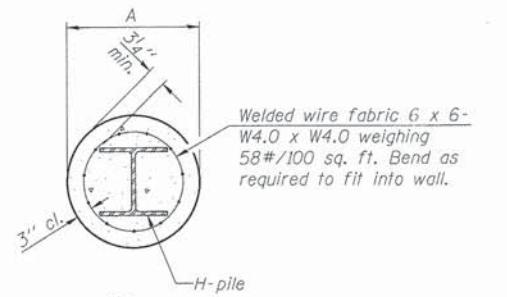
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



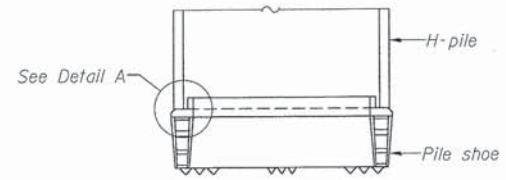
ELEVATION

PILE ENCASEMENT

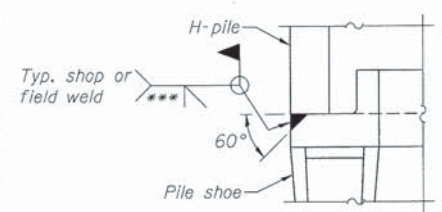


SECTION A-A

Note: Forms for encasement may be omitted when soil conditions permit.

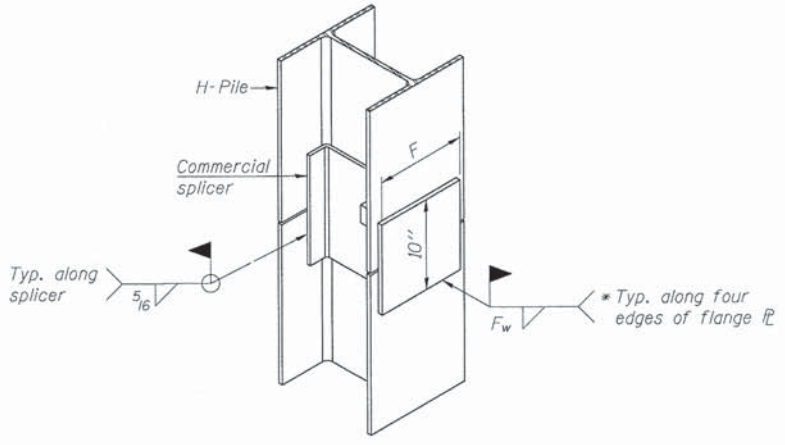


ELEVATION



DETAIL A

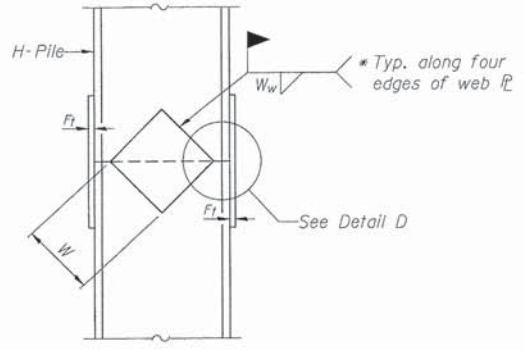
H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

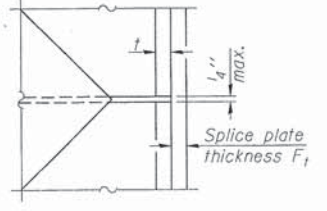
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

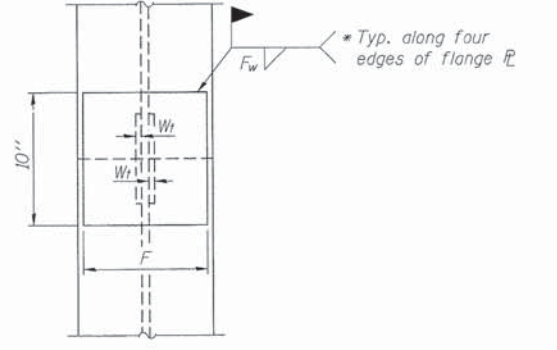


ELEVATION

WELDED PLATE FIELD SPLICE



DETAIL D



END VIEW

Designation	F	Ft	Fw	W	Wt	Ww
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"

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

F-HP 1-27-12

FILE NAME = 138046-sh-t-br-ridge.dgn	USER NAME = #USER#	DESIGNED - L.A.P.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.	308 STEVENSON DRIVE, SUITE 201	CHECKED - S.W.M.	REVISED -
SPRINGFIELD, ILLINOIS 62703	ILLINOIS PROFESSIONAL DESIGN FIRM	DRAWN - R.D.H.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM	111 FIVE BE CONY, 1M 00999	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

HP PILE DETAILS
STRUCTURE NO. 097-3284
SHEET NO. 7 OF 8 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
130	11-08143-00-BR	WHITE	12	11
INDIAN CREEK ROAD DISTRICT			CONTRACT NO. 99532	
[ILLINOIS] FED. AID PROJECT				

