

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2012." THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

2. THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH ALL UTILITIES WITHIN THE PROJECT LIMITS. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT ARE NOT GUARANTEED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THEIR EXACT LOCATIONS FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION. THE CONTRACTOR IS REQUIRED TO CONTACT J.U.L.I.E. AT, 1-800-892-0123, PRIOR TO PROCEEDING WITH ANY EXCAVATION AND WORK ON THE PROJECT.

3. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES...

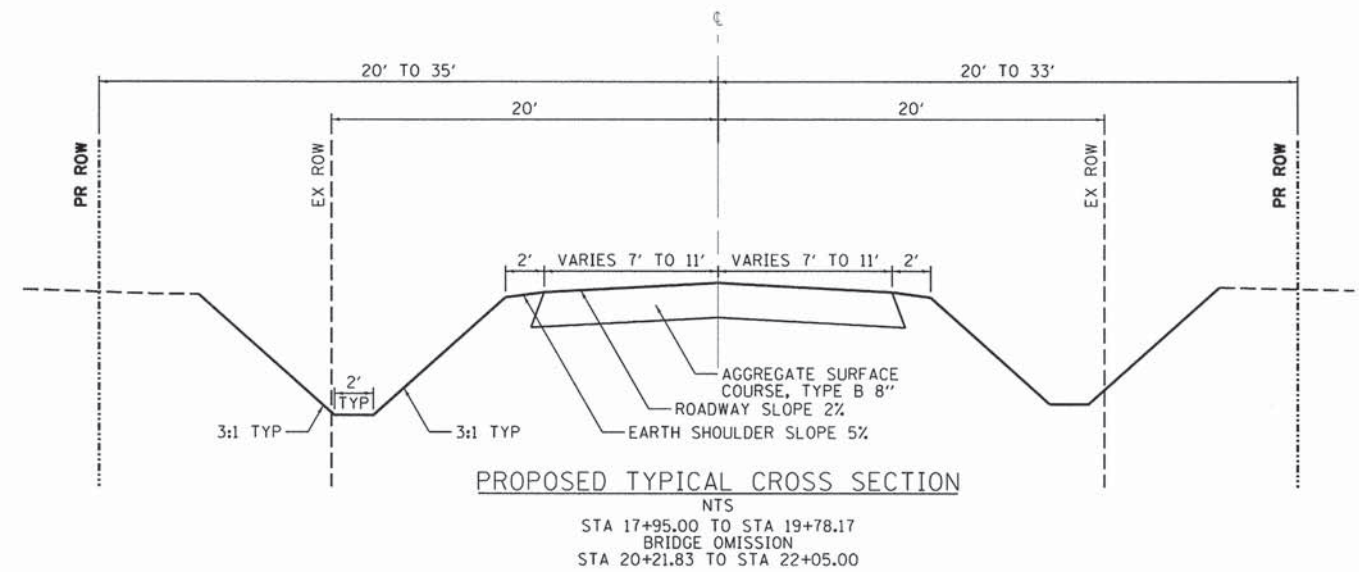
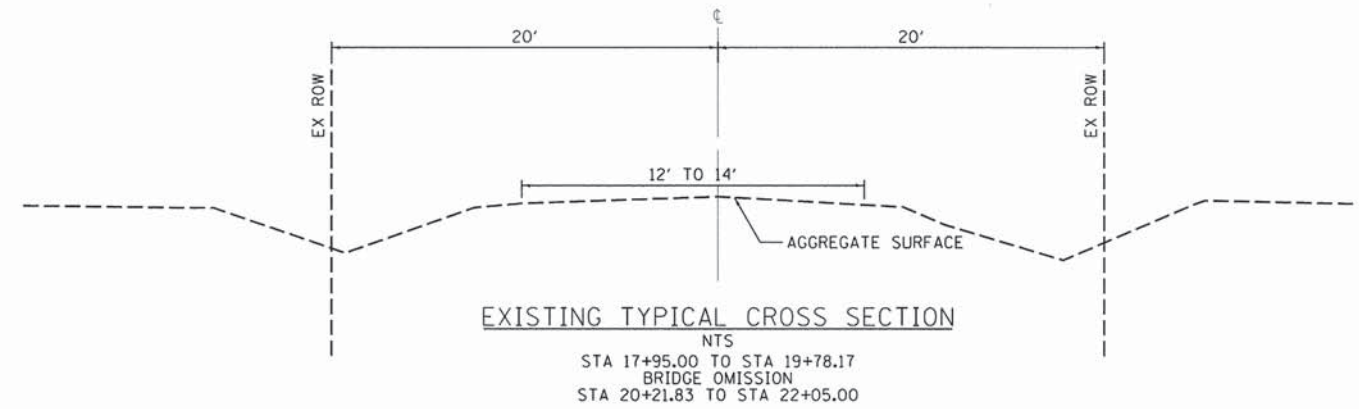
- AGGREGATE SURFACE COURSE, TYPE B - 1.8 TON/CU YD
- MULCH METHOD - 2.0 TON/ACRE
- TEMPORARY SEEDING - 100LB/ACRE
- Rip Rap - 1.65 TON/50 YD

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

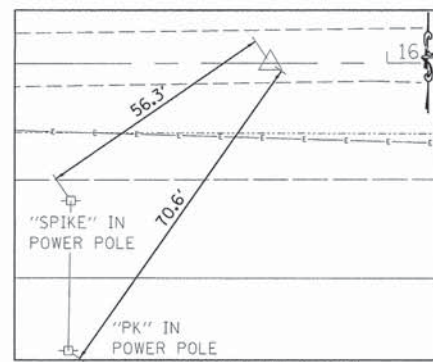
STANDARD NO. DESCRIPTION

000001-06	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701901-03	TRAFFIC CONTROL DEVICES
BLR-21-9	TYP APP OF TRAFFIC CONTROL DEVICES, CONSTRUCTION ON RURAL LOCAL HIGHWAYS

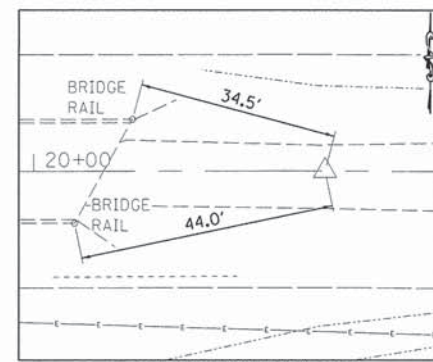
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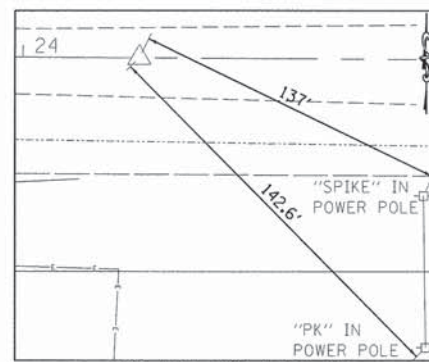
ALIGNMENT AND TIES



SET 5/8" IRON PIN & CAP
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 E: 1146419.3900
 STA 15+80.00



SET 5/8" IRON PIN & CAP
 N: 1213935.4220
 E: 1146889.3890
 STA 20+50.0
 0.16' LT



SET 5/8" IRON PIN & CAP
 N: 1213933.3270
 E: 1147259.3800
 STA 24+20.0

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NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

SUMMARY OF QUANTITIES

SP	PAY CODE	ITEM	UNITS	TOTAL QUANTITY
	20200100	EARTH EXCAVATION	CU YD	185
	20300100	CHANNEL EXCAVATION	CU YD	138
	25000200	SEEDING, CLASS 2	ACRE	0.30
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	27
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	27
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	27
	25100115	MULCH, METHOD 2	ACRE	0.30
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	30
*	28000305	TEMPORARY DITCH CHECKS	FOOT	54
	28100207	STONE RIPRAP, CLASS A4	TON	172
	40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	314
*	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50105220	PIPE CULVERT REMOVAL	FOOT	78
	50200100	STRUCTURE EXCAVATION	CU YD	111
	50300225	CONCRETE STRUCTURES	CU YD	31.1
	50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	1117
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4210
Δ	50900205	STEEL RAILING, TYPE S1	FOOT	88
	51201800	FURNISHING STEEL PILES HP14X73	FOOT	465
	51202305	DRIVING PILES	FOOT	465
	51203800	TEST PILE STEEL HP14X73	EACH	2
	51204650	PILE SHOES	EACH	12
	51500100	NAME PLATES	EACH	1
*	542C0223	PIPE CULVERTS, CLASS C, TYPE 1 18"	FOOT	40
	59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	55
	67100100	MOBILIZATION	L SUM	1
	70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
Δ	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1
*	XX004566	CONCRETE CUT-OFF WALL	CU YD	8.5

* Denotes Special Provision
 Δ Specialty Items

EARTHWORK SCHEDULE

STATION	CUT		FILL		TOTAL CU YD
	SQ FT	CU YD	SQ FT	CU YD	
17+95	10.5		0.8		
18+25	12.4	12.7	1.3	1.2	13.9
18+50		12.0		2.5	14.5
18+75	13.6		4.1		
19+00		13.2		5.3	18.5
19+25	14.9		7.4		
19+50		15.7		10.0	25.7
19+80	19.0		14.2		
20+24	19.0	19.6		14.7	34.3
20+50	23.3		17.5		
20+75		24.4		15.7	40.2
21+00	29.5		16.5		
21+25		26.1		18.9	45.0
21+50	17.5		17.5		
BRIDGE OMISSION					
20+24	21.4		18.1		
20+50		20.1		15.0	35.1
20+75	20.3		13.1		
21+00		10.1		16.0	26.2
21+25	1.6		21.5		
21+50		4.6		20.2	24.9
21+75	8.4		22.2		
22+05		6.3		17.0	23.2
22+25	5.1		14.5		
22+50		4.2		8.8	13.1
22+75	4.0		4.6		
23+00		5.3		2.7	8.0
23+25	7.4		1.2		
23+50		9.6		0.7	10.3
23+75	9.9		0.0		
TOTAL CUT EARTH EXCAVATION (20200100)					
		185 CU YD	TOTAL FILL EMBANKMENT		150 CU YD
			TOTAL EARTHWORK		335 CU YD

Structure Excavation shall be used for any
 Furnished Excavation needed.

AGGREGATE SURFACE

STATION	TO	STATION	(40200800) AGG SURF CSE, TY B TON
17+95.00	-	19+78.17	148
20+21.83	-	22+05.00	148
F.E. Sta 20+75.0			18
TOTAL :			314

PIPE CULVERT REMOVAL

STATION	OFFSET	TO	STATION	OFFSET	SIDE	(50105220) PIPE CULVERT REMOVAL (FOOT)
19+54.20	17.3	-	19+70.50	18.1	RT	16
20+03.40	18.1	-	20+34.90	17.9	RT	32
20+53.0	14.7	-	20+83.0	14.0	LT	30
TOTAL :						78

TEMP DITCH CHECKS

STATION	OFFSET	SIDE	(28000305) TEMPORARY DITCH CHECK (FOOT)
18+50.00	15.9	RT	6.0
18+60.00	16.3	LT	6.0
19+05.00	194.0	RT	6.0
19+25.00	20.6	LT	6.0
19+65.00	22.3	RT	6.0
19+90.00	23.2	LT	6.0
20+40.00	22.9	LT	6.0
20+95.00	20.0	LT	6.0
21+50.00	16.2	LT	6.0
TOTAL :			54

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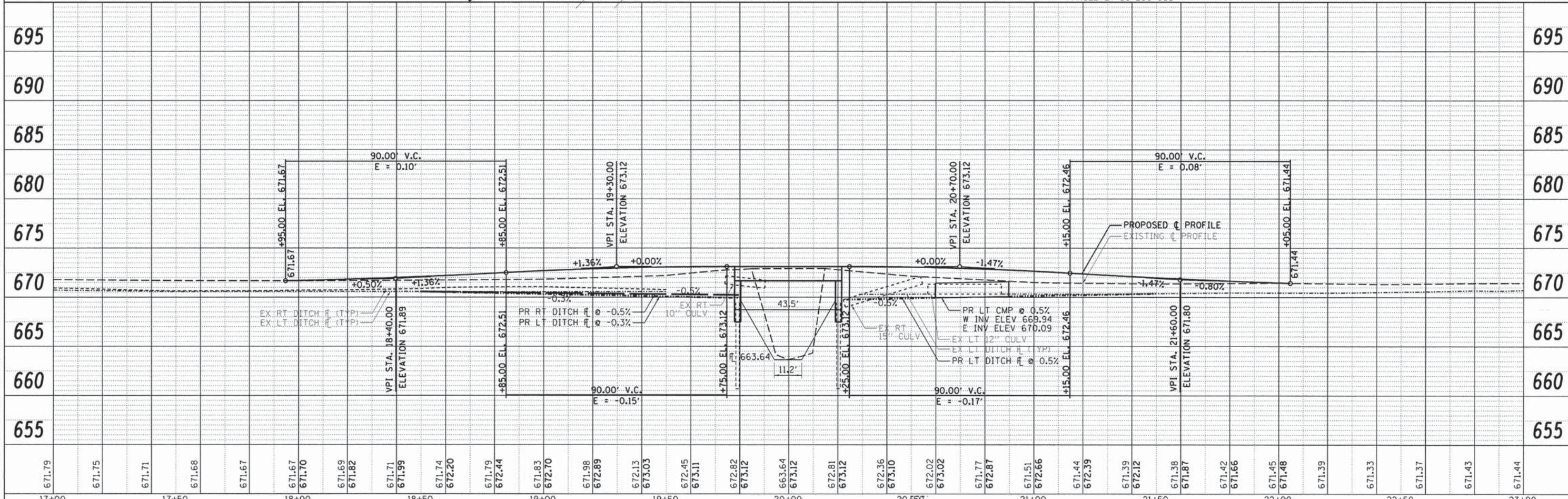
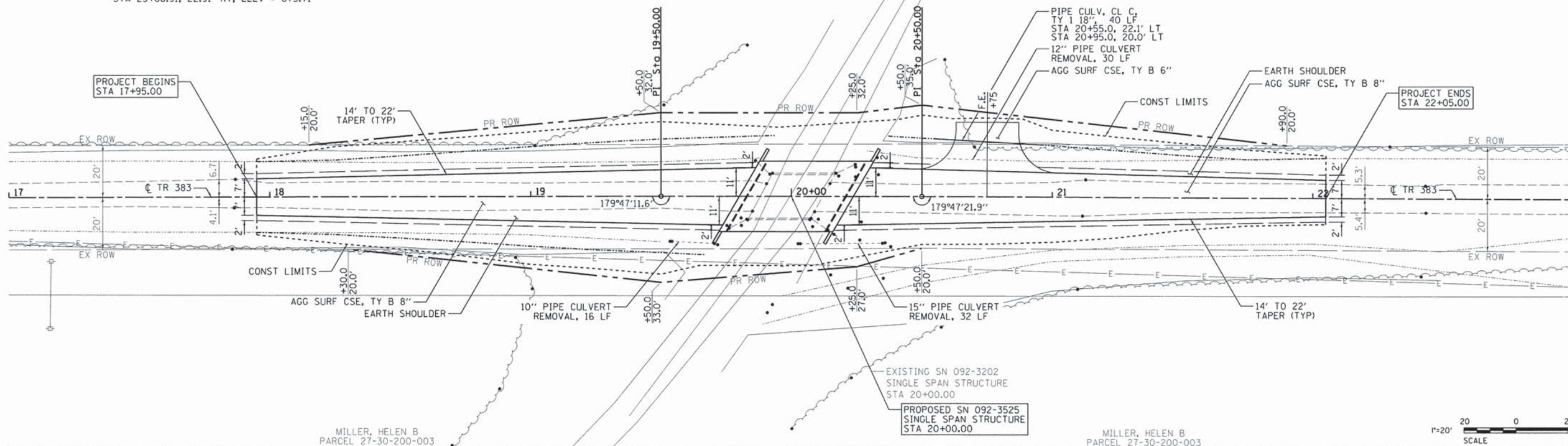
NO	DATE	DESCRIPTION OF REVISIONS	NO	DATE	DESCRIPTION OF REVISIONS

BENCH MARK #1 - SPIKE IN NORTH POWER POLE
 STA 17+15.04, 23.43' RT, ELEV = 673.70
 BENCH MARK #1 - CHISELED I ON SOUTHEAST CORNER OF EX STRUCTURE
 STA 20+07.08, 8.64' RT, ELEV = 673.33
 BENCH MARK #1 - SPIKE IN NORTH POWER POLE
 STA 23+68.91, 22.91' RT, ELEV = 673.71

CRAWFORD, SCOTT
 PARCEL 27-19-400-005

CRAWFORD, SCOTT
 PARCEL 27-19-400-005

CONTRACT NUMBER: 91488



NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

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 753 WINDSOR ROAD
 CHARLESTON, IL 61920
 (217) 348-1909
 WWW.ESICONSULTANTS.LTD.COM
 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184-003685

VERMILION COUNTY
 2732 Batestown Road
 Oakwood, IL 61858
 (217) 431-6682 Ext. 101

ESI PROJECT NO: 13-533
 FILE: 04_383_PlnPrf.ALT
 DATE: 04-15-2014
 ENGR: JEK
 DRAWN BY: JEK
 QC/QA: PAT DF

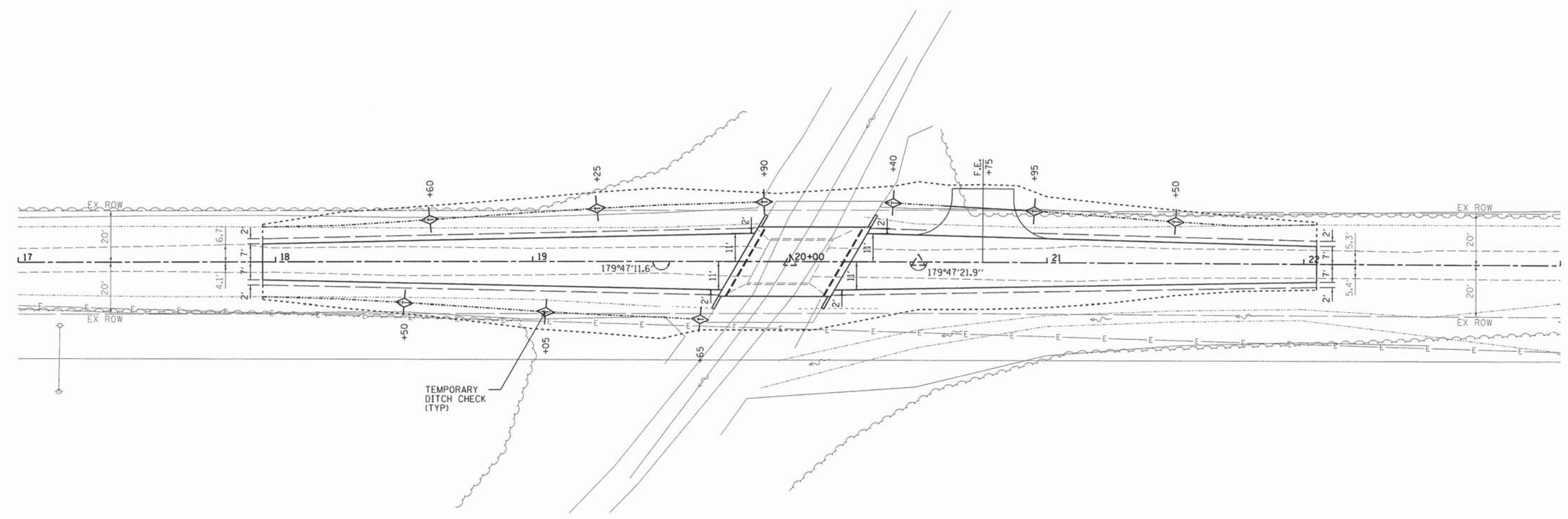
TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY

PLAN & PROFILE
 SHEET 1 OF 1 OF 16

PRINTED DATE: 5/22/2014
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INTENDED SEQUENCE

1. REMOVAL OF THE EXISTING STRUCTURE
2. CONSTRUCTION OF THE PROPOSED STRUCTURE
3. CONSTRUCTION OF THE PROPOSED ROADWAY AND SHOULDERS
4. CONSTRUCTION OF THE PROPOSED DITCHES
5. PLACEMENT OF TEMPORARY DITCH CHECKS
6. SEEDING



NOTE:
 DITCH CHECKS ARE SHOWN TO ACCOMMODATE AN ASSUMED HEIGHT OF 1.5'. DITCH CHECKS SHALL NOT BE SPACED ANY GREATER THAN THE HEIGHT OF DITCH CHECK DIVIDED BY THE DITCH SLOPE.



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 PLOT: 05.383.EroCtrl.dwg
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 PLOT BY: JEH

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 753 WINDSOR ROAD
 CHARLESTON, IL 61820
 (217) 348-1920
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 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184-003695

VERMILION COUNTY
 2732 BALESTOWN ROAD
 OAKWOOD, IL 61858
 (217) 431-6682 Ext. 101

NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

ESI PROJECT NO: 13-533
 FILE: 05.383.EroCtrl
 DATE: 04-15-2014
 ENGR: JEH
 DRAWN BY: JEH
 QCOA: PAT
 DF

TR 383 OVER SWANK CREEK
10-09124-00-BR
 JAMAICA TOWNSHIP - VERMILION COUNTY

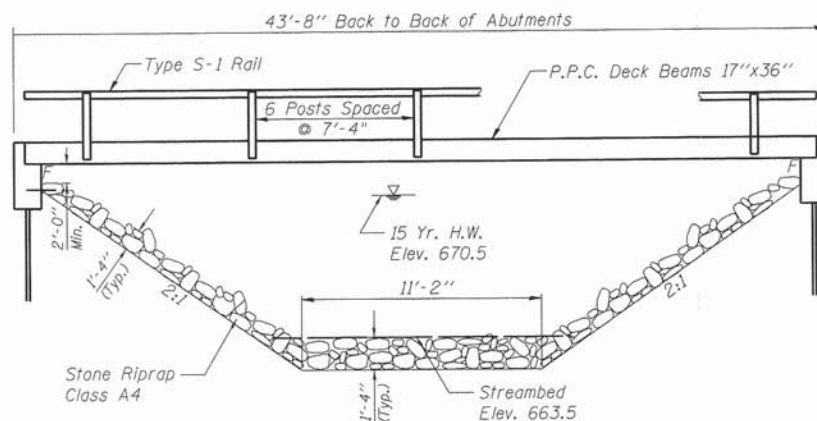
EROSION CONTROL

SHEET NUMBER
05
 SHEET 1 OF 1 OF 16

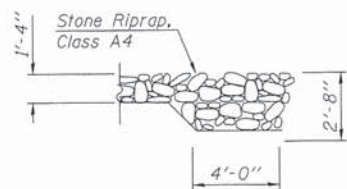
B.M. #1 - Sta. 17+15.04, 23.43' Right, Survey Spike in Power Pole, Elev. 673.70
 B.M. #2 - Sta. 20+07.08, 8.64' Right, Chisled [] Southeast corner of Structure, Elev. 673.33
 B.M. #3 - Sta. 23+68.91, 22.91' Right, Survey Spike in North Power Pole, Elev. 673.71

Existing Structure - Structure 092-3202 consists of a two span reinforced concrete deck on steel I-beams on Timber pile abutments. The bk. to bk. of abutments length is 24' and the out-to-out width is 18.1'. The existing structure shall be completely replaced. Road closure shall be used during construction.

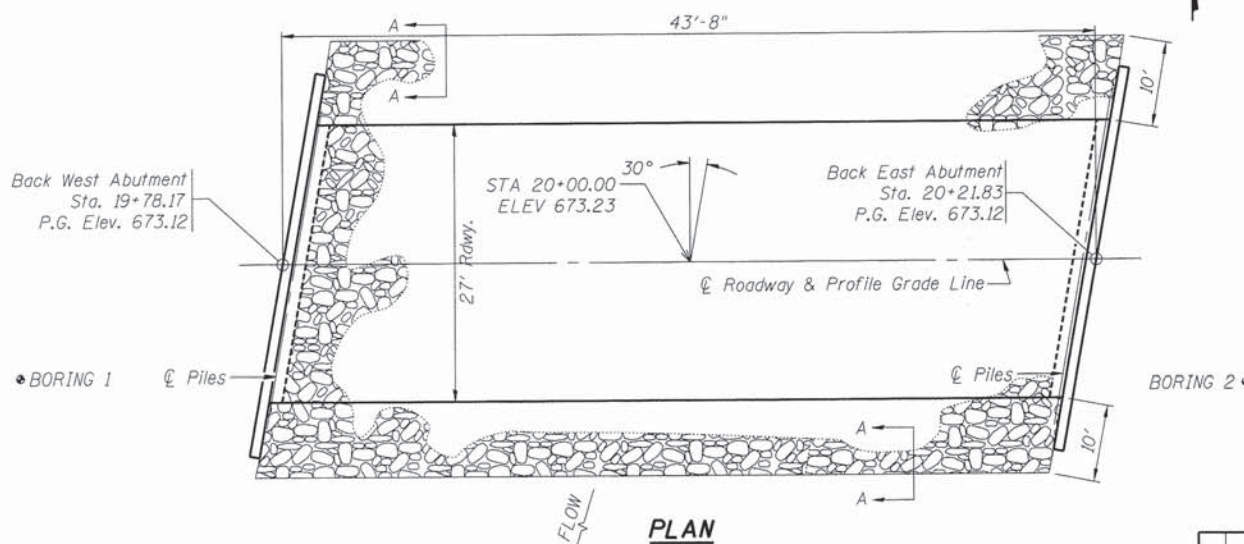
Salvage - Any material deemed salvageable by the Engineer shall be stockpiled on the R.O.W. and shall become the property of Jamaica Township. The Contractor shall dispose of all remaining material.



ELEVATION



SECTION A-A



PLAN



PROFILE GRADE

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 Fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
 f'ci = 5,000 psi
 F's = 270,000 psi (1/2 low relax. strands)
 Fsi = 201,960 psi (1/2 low relax. strands)

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications - 6th ed., with 2012 & 2013 Interims

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.098
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.183
 Soil Site Class = C

PILE DATA (2-ABUTS.)

Type Metal Shell, 12"x0.250"
 Nominal Required Bearing 279 kips
 Factored Resistance Available 153 kips
 Estimated Pile Length 23' East Abt.
 27' West Abt.
 Number of Production Piles 10
 Number of Test Piles 2

SWANK CREEK
 BUILT 201_ BY
 VERMILION COUNTY
 SEC. 10-09124-00-BR
 JAMAICA ROAD DISTRICT
 TR 383 STA. 20+00
 STR. NO. 092-3525 LOADING HL-93

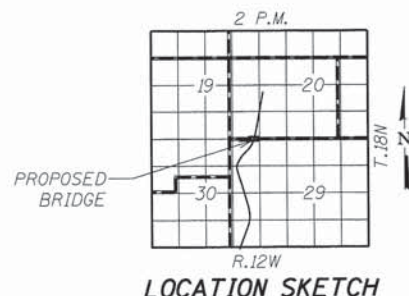
LETTERING FOR NAME PLATE

Locate Name Plate on the outside face of the Southwest Wingwall.

WATERWAY INFORMATION

Drainage Area = 1.87 SQ MI Low Grade Elev. = 671.37 @ Sta. 22+23.70

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	15	378	139.7	158.2	670.5	0.0	0.0	670.5	670.5
Base	100	614	167.0	191.6	672.3	0.4	0.1	672.7	672.4
Overtopping									
Max. Calc.									



LOCATION SKETCH

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
3. The Contractor shall drive 1 test pile at each abutment, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub-Abut.	Total
Removal of Existing Structures	Each	-	-	1
Concrete Structures	Cu. Yd.	31.1	-	31.1
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1117	-	1117
Steel Bridge Railing, Type S-1	Foot	88	-	88
Reinforcement Bars, Epoxy Coated	Pound	-	4210	4210
Furnishing Steel Piles HP14x73	Foot	-	465	465
Driving Piles	Foot	-	465	465
Name Plates	Each	1	-	1
Concrete Cut-Off Wall	Cu. Yd.	-	8.5	8.5
Structure Excavation	Cu. Yd.	-	111	111
Stone Riprap Class A4	Ton	-	-	172
Channel Excavation	Cu. Yd.	-	138	138
Controlled Low-Strength Material	Cu. Yd.	-	55	55
Test Pile Steel HP14x73	Each	-	2	2
Pile Shoes	Each	-	12	12

INDEX OF SHEETS

1. General Plan & Elevation
2. Superstructure
3. Superstructure Details
4. Steel Railing
5. Abutment Details
6. Pile Details
7. Boring Logs



Daniel Feuerborn
 Daniel Feuerborn
 License Expires 11-30-2015
 Date 5/22/14

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 Specifications for Highway Bridges.

GENERAL PLAN & ELEVATION
 TOWNSHIP ROUTE 383 OVER SWANK CREEK

SEC. 10-09124-00-BR

VERMILION COUNTY

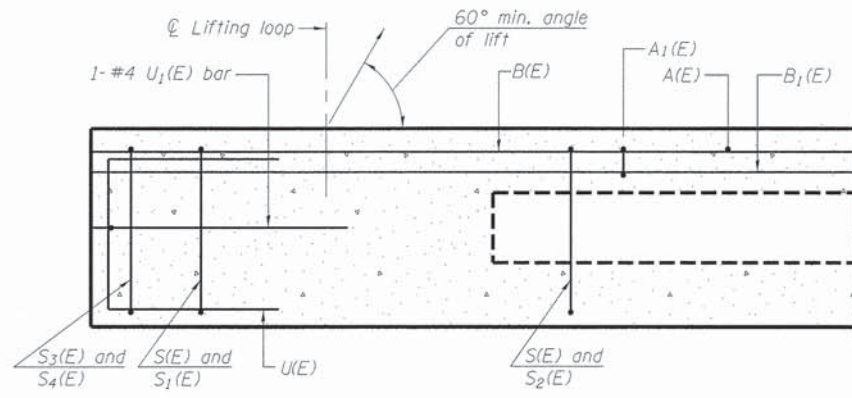
STATION 20+00.00

STRUCTURE NO. 092-3525

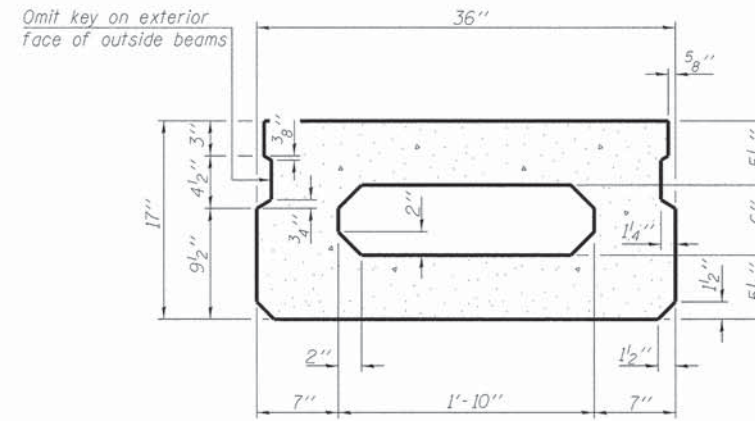
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 FILE: 06_383_GPE
 DATE: 04-15-2014
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 QCQA: PAT DF

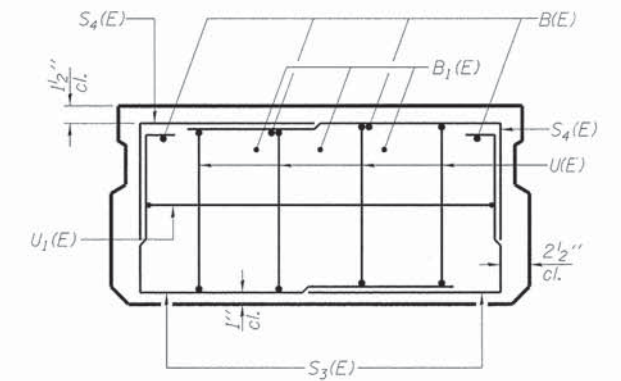
TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY



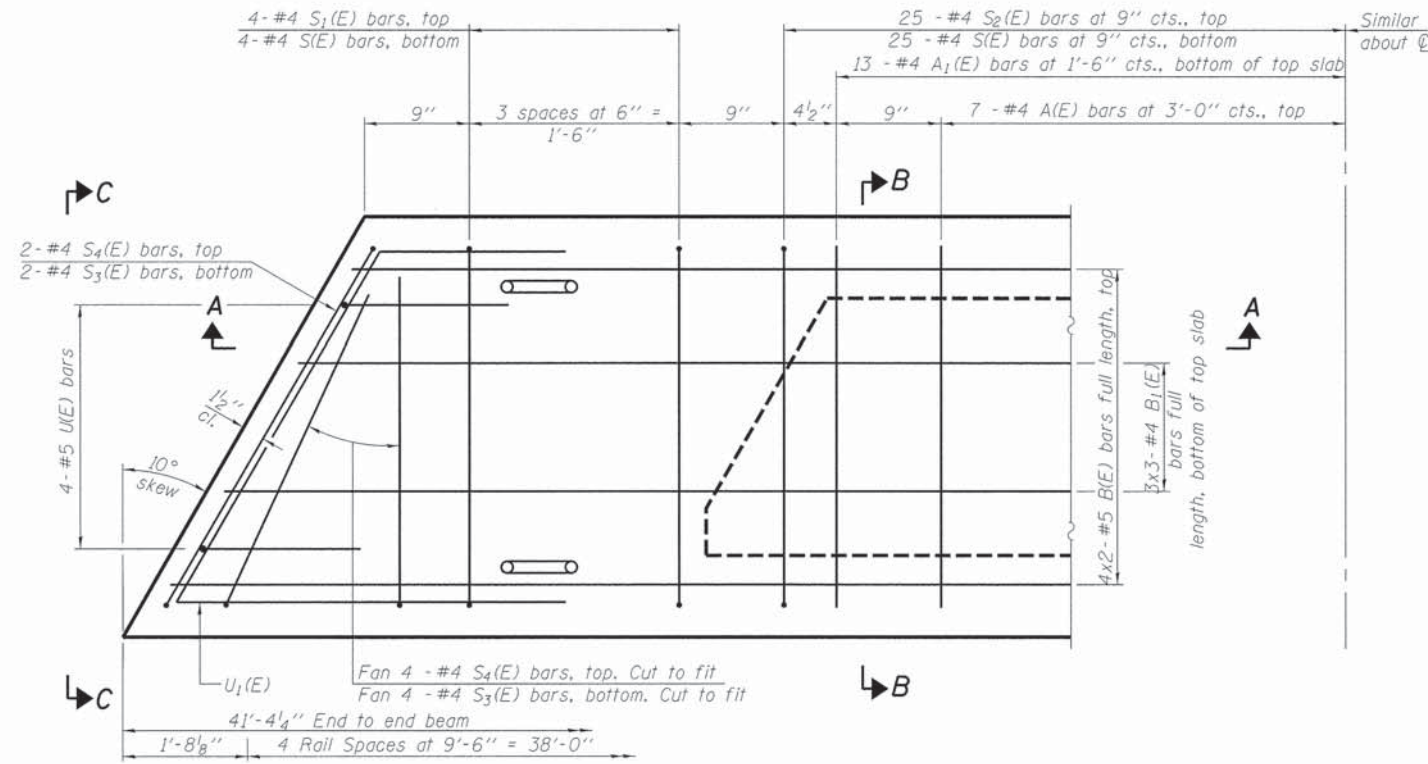
SECTION A-A



SECTION B-B
(Showing dimensions)

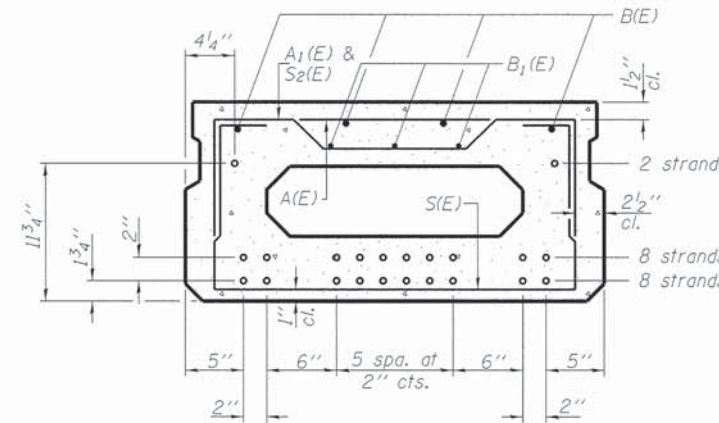


VIEW C-C



PLAN VIEW

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.



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.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	13	#4	2'-7"	—
A1(E)	25	#4	2'-10"	—
B(E)	8	#5	21'-10"	—
B1(E)	9	#4	15'-9"	—
S(E)	57	#4	5'-9"	U
S1(E)	8	#4	4'-3"	U
S2(E)	49	#4	4'-6"	U
S3(E)	12	#4	4'-1"	U
S4(E)	12	#4	3'-4"	U
U(E)	8	#5	3'-8"	U
U1(E)	2	#4	8'-2"	U

Note: See sheet 3 of 7 for additional details and Bill of Material.

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

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PD-1736-L

7-1-10

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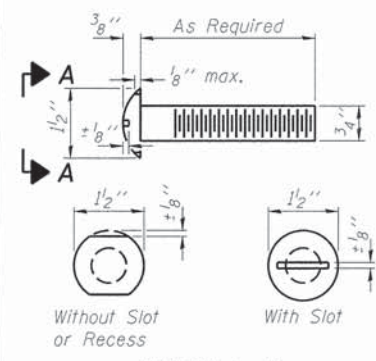
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FILE: 07_383_Super
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ENGR: JEH
DRAWN BY: JEH
QCQA: PAT DF

TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY

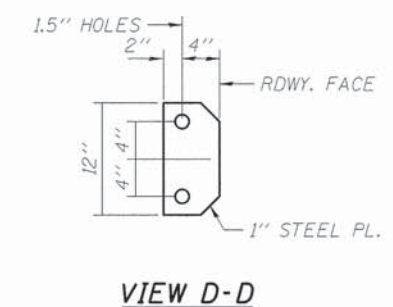
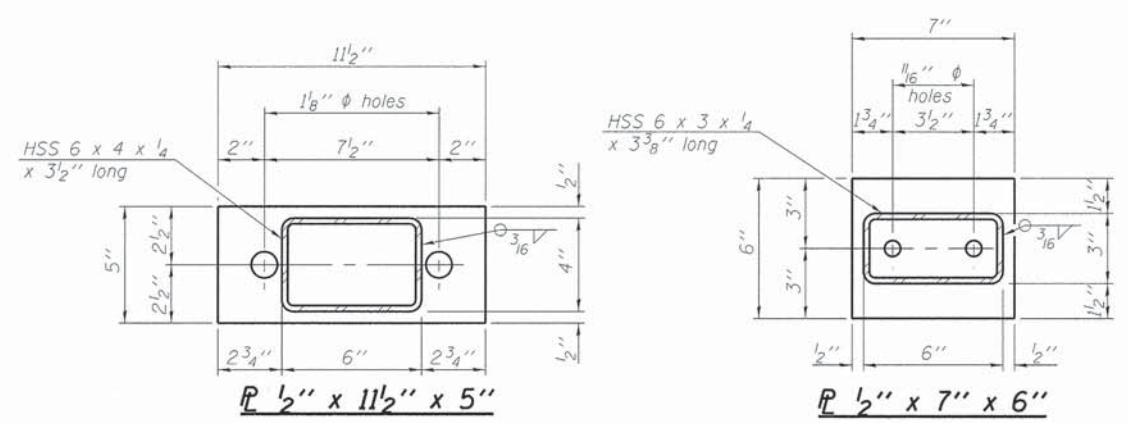
17" x 36" PPC DECK BEAM
STRUCTURE NO. 092-3525

SHEET 2 OF 7

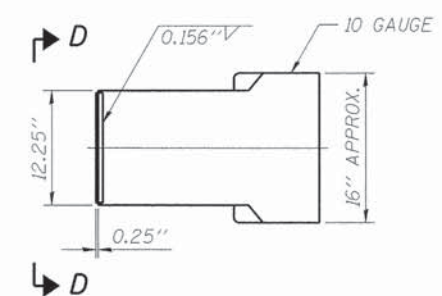
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07
OF 16



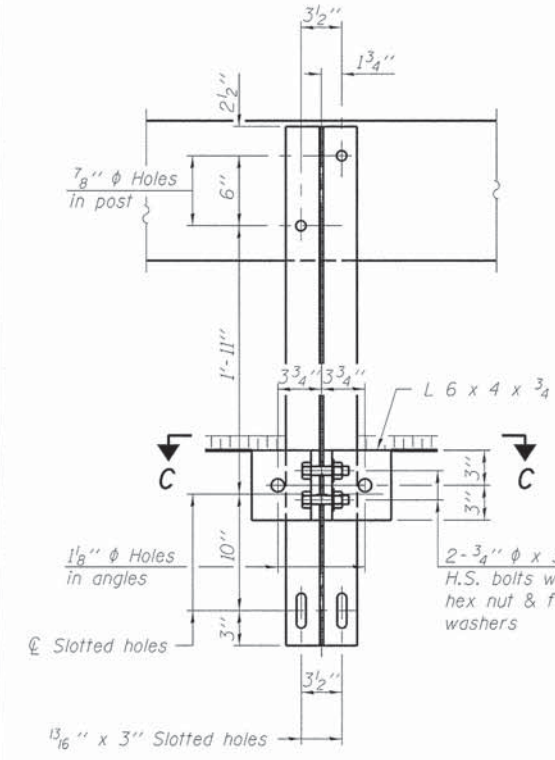
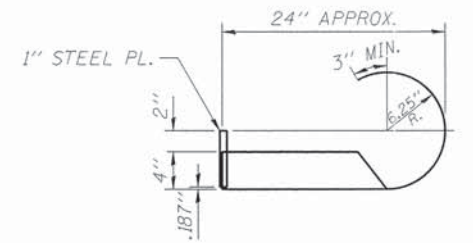
**VIEW A-A
ROUND HEAD BOLT**



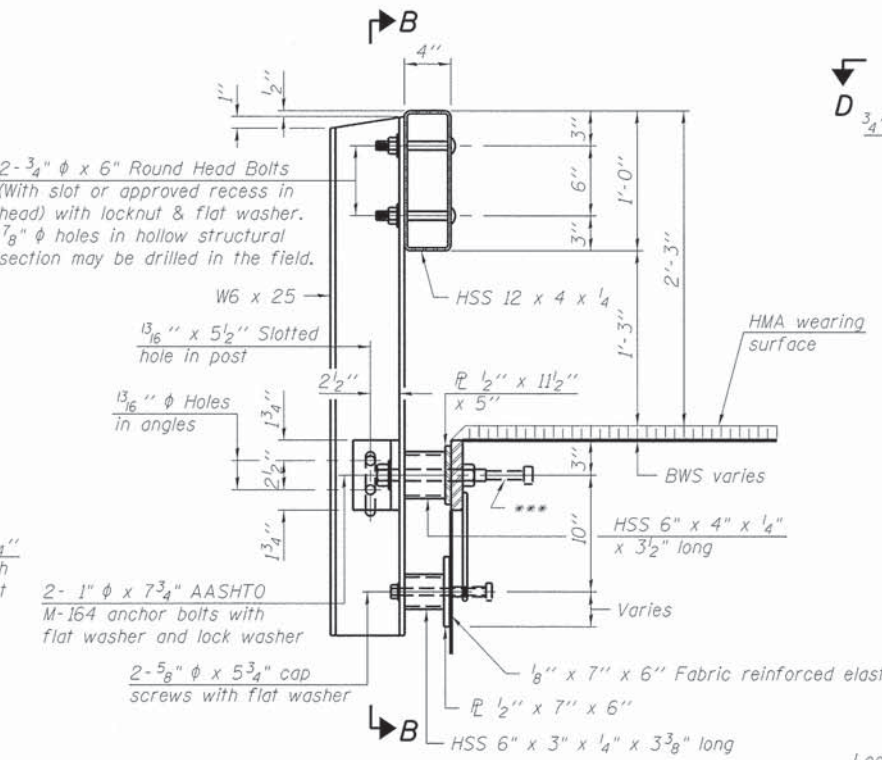
VIEW D-D



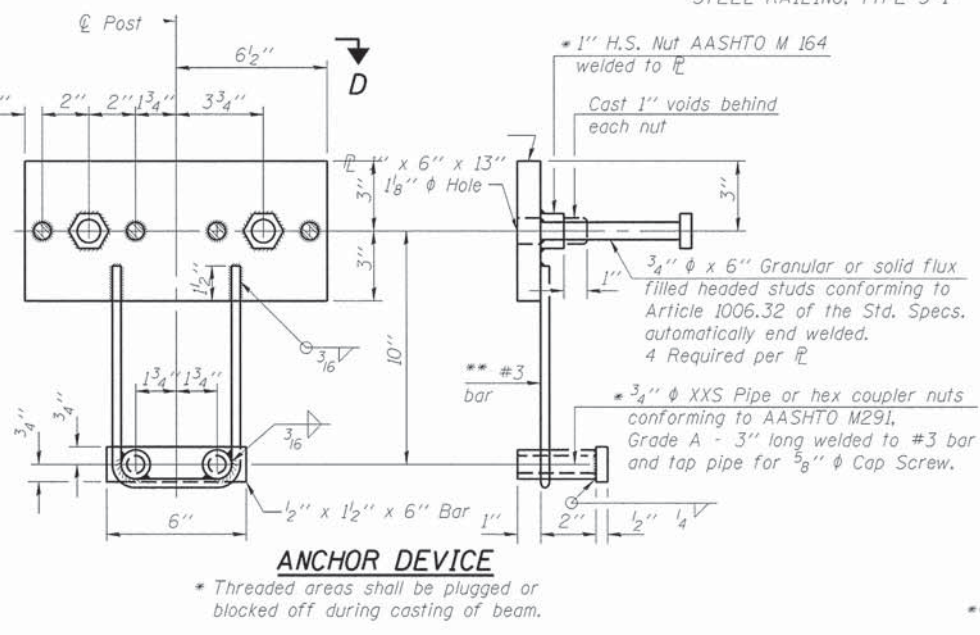
CURLLED END SECTION DETAILS



SECTION B-B

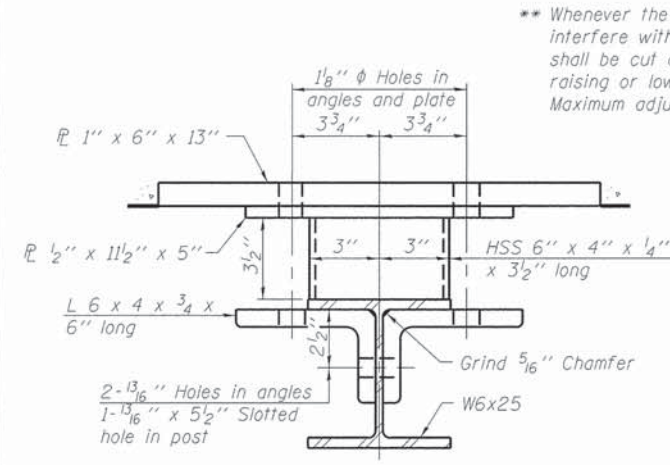


SECTION AT RAILING POST

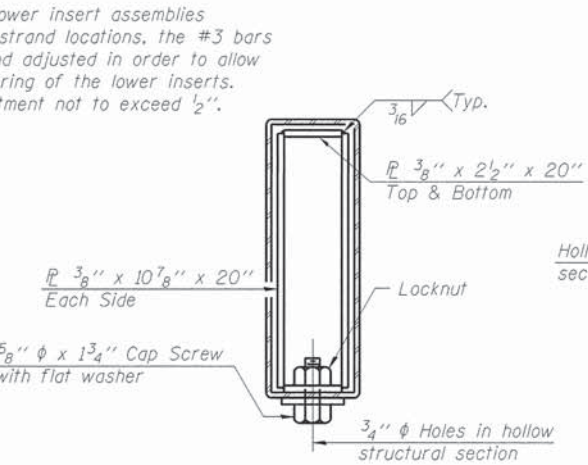


ANCHOR DEVICE

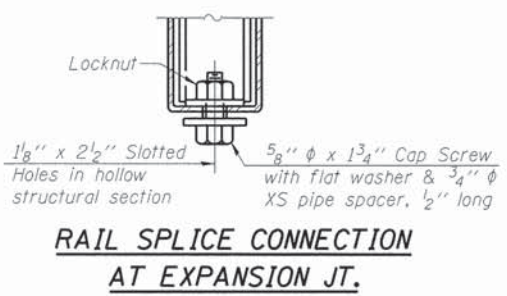
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
All steel rail elements shall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



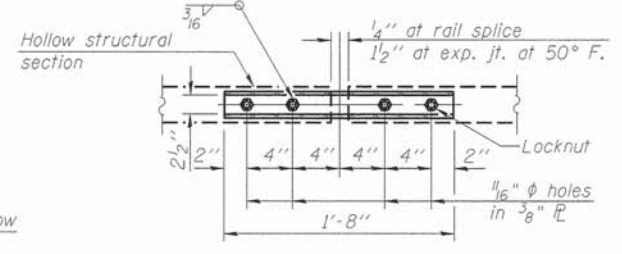
SECTION C-C



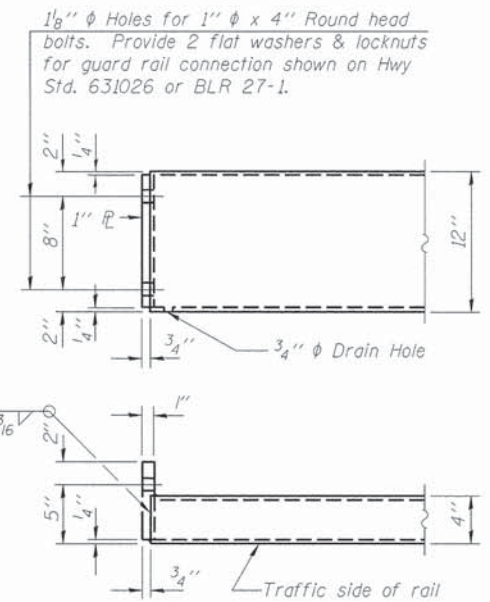
SECTIONS AT RAIL SPLICE



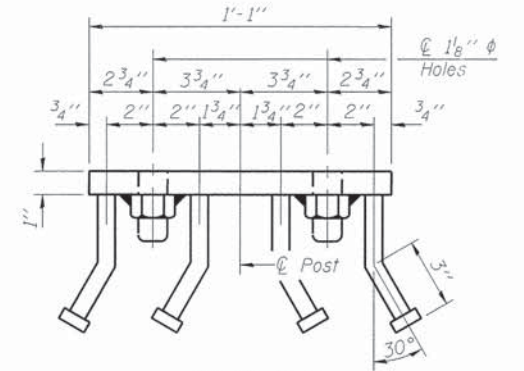
**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE
TYPICAL**



END OF RAIL DETAILS



VIEW D-D

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	88

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

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VERMILION COUNTY
2732 Batesown Road
Oakwood, IL 61858
(217) 431-6682 Ext. 101

NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

ESI PROJECT NO: 13-533
FILE: 09. 383. Roll
DATE: 04-15-2014

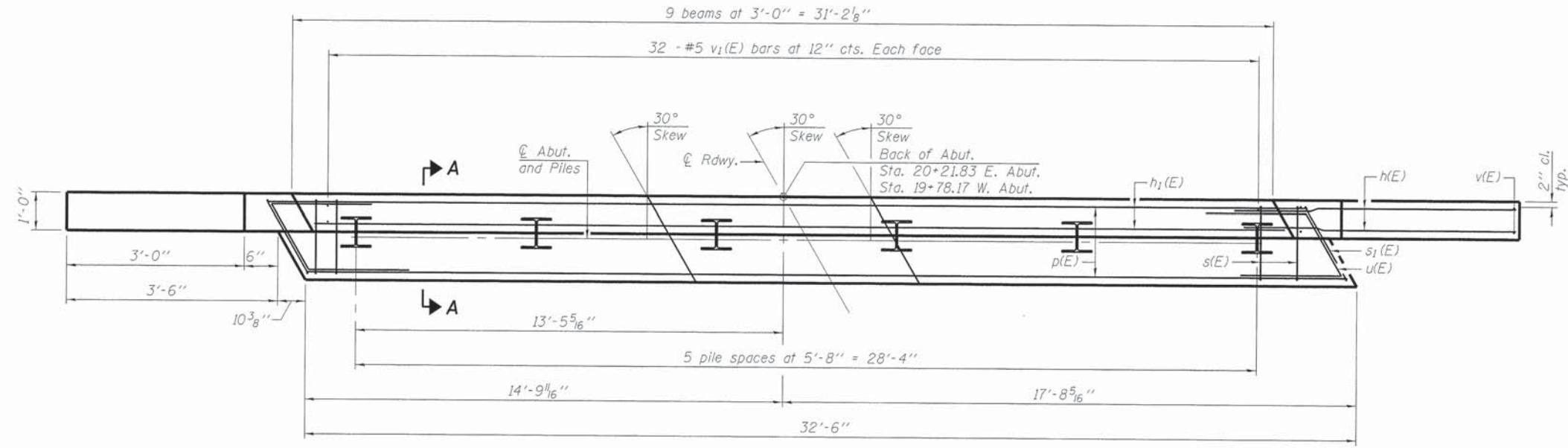
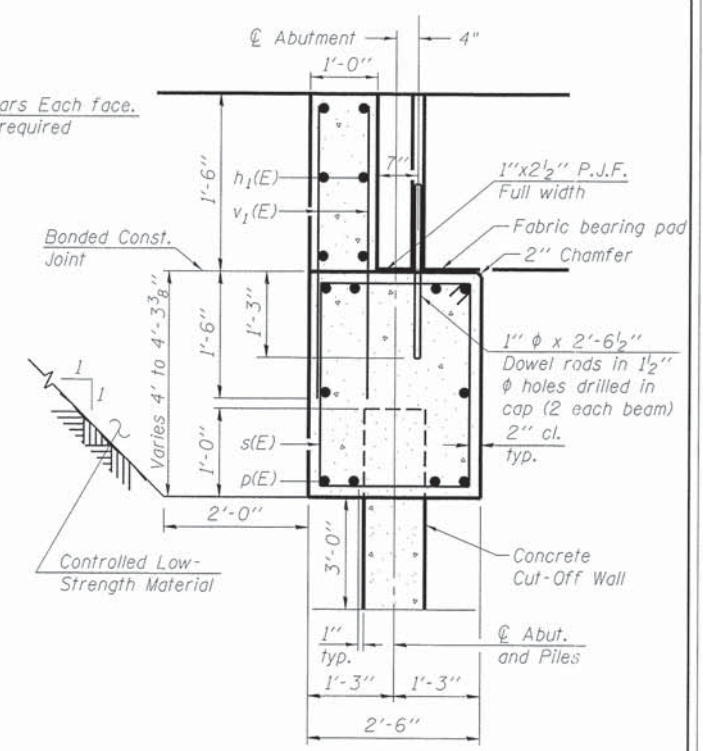
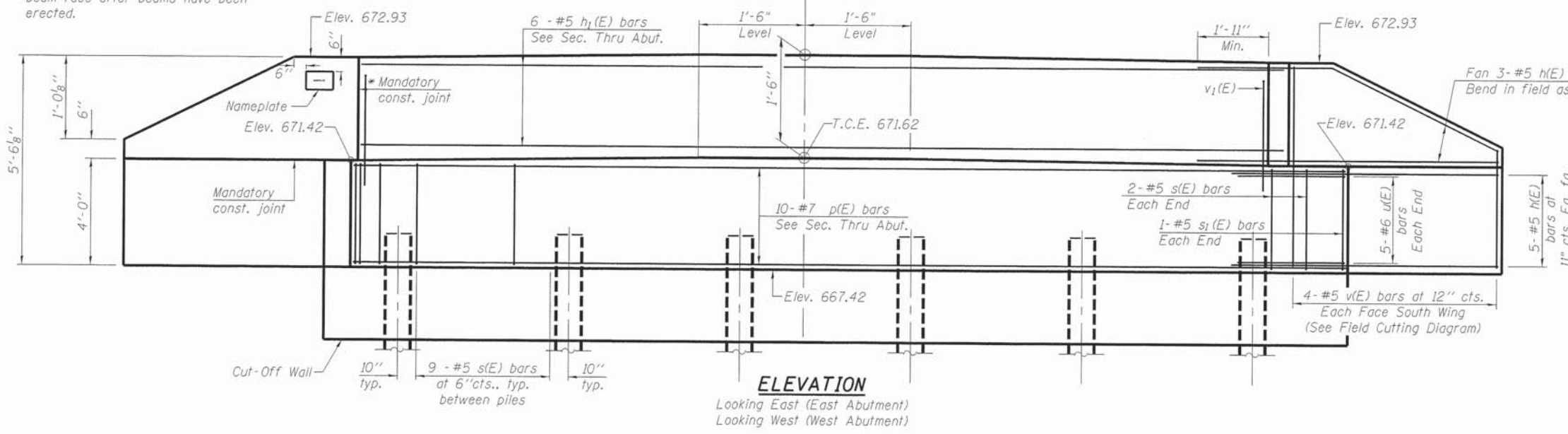
TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY

STEEL RAILING, TYPE S-1
STRUCTURE NO. 092-3525

SHEET NUMBER
09
SHEET 4 OF 7 OF 16

PRINTED DATE: 5/22/2014 BY: VPC/ESICONSULTANTS/LLP Co. Highway Dept. 13-533 TR383 Over Swank Creek/CADD/Drawings/Sheets/09-383-091.dgn

* Cast top of wingwall flush with exterior beam face after beams have been erected.



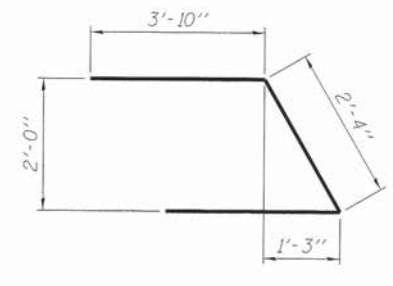
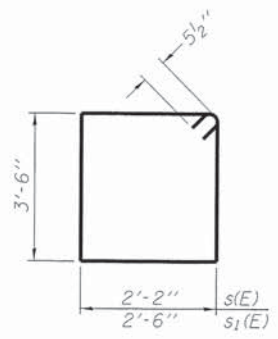
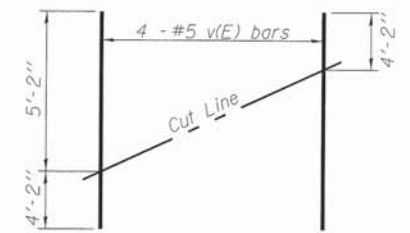
BILL OF MATERIAL

(Two Abutments)

Bar	No.	Size	Length	Shape
h(E)	64	#5	5'-7"	—
h ₁ (E)	12	#5	31'-0"	—
p(E)	20	#7	32'-2"	—
s(E)	98	#5	12'-3"	□
s ₁ (E)	4	#5	12'-11"	□
u(E)	20	#6	10'-0"	┘
v(E)	16	#5	9'-4"	—
v ₁ (E)	128	#5	2'-9"	—
Structure Excavation			Cu. Yd.	111
Concrete Structures			Cu. Yd.	31.1
Reinforcement Bars, Epoxy Coated			Pound	4210
Furnishing Steel Piles HP14x73			Foot	465
Driving Piles			Foot	465
Test Pile Steel HP14x73			Each	2
Controlled Low-Strength Material			Cu. Yd.	55
Concrete Cut-Off Wall			Cu. Yd.	8.5
Pile Shoes			Each	12

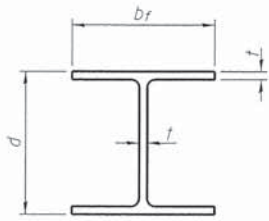
PILE DATA

Type: Steel, HP 14"x73"
 Nominal Required Bearing: 269 kips
 Factored Resistance Available: 148 kips
 Estimated Pile Length: 48' East Abt., 45' West Abt.
 Number of Production Piles: 10
 Number of Test Piles: 2



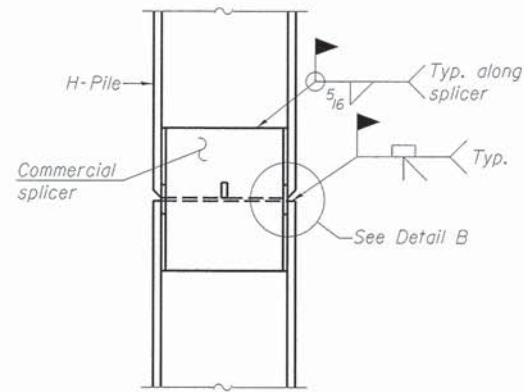
Notes:
 For details of piles and Concrete Encasement, see sheet 6 of 7.
 Cast backwall after beams and concrete wearing surface, if applicable, have been erected.

NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

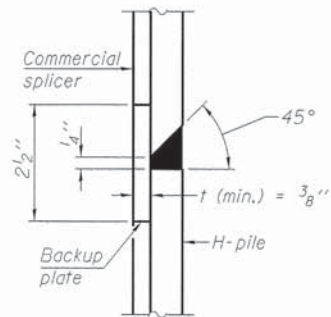


STEEL PILE TABLE

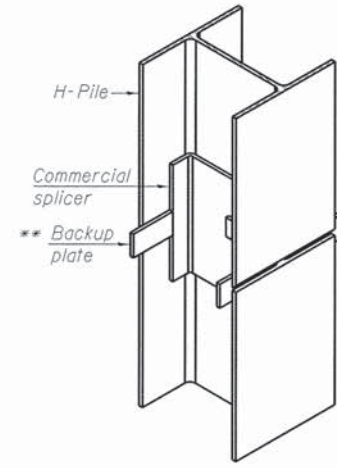
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x17	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 3/8"	12 1/4"	5/8"	24"
x63	12"	12 3/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 3/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

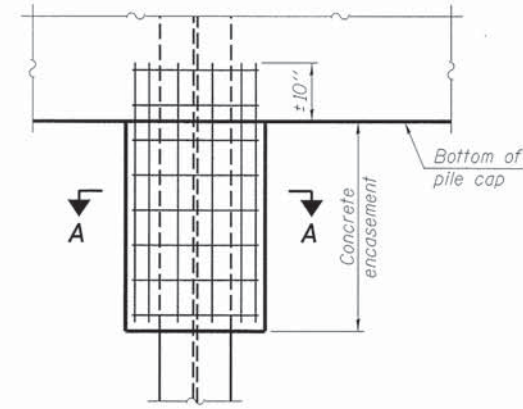


DETAIL "B"



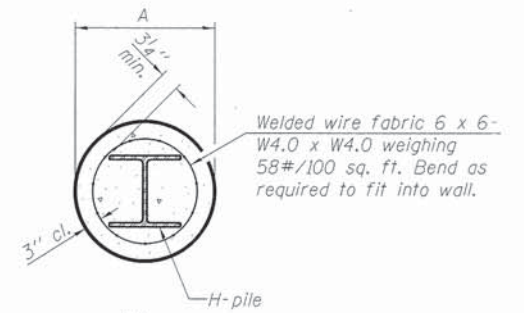
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



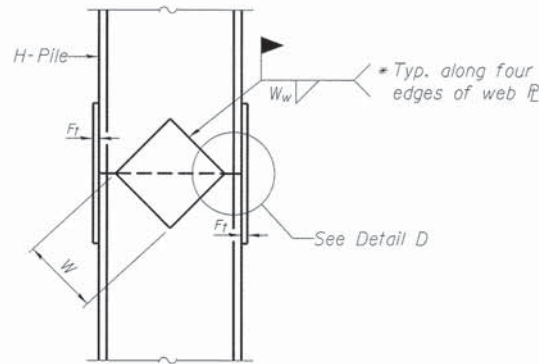
ELEVATION

PILE ENCASEMENT

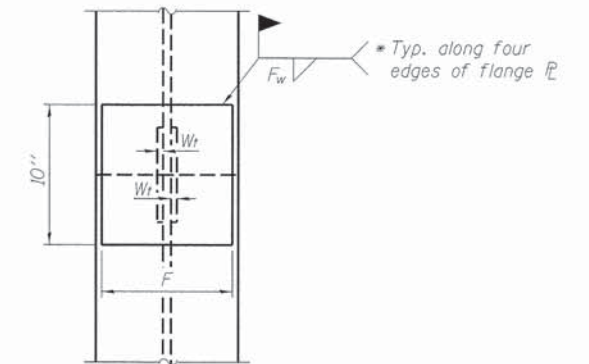


SECTION A-A

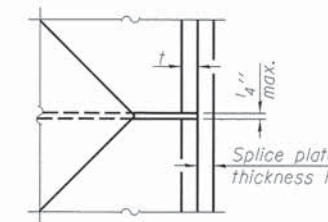
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



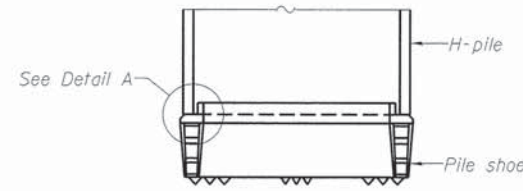
END VIEW



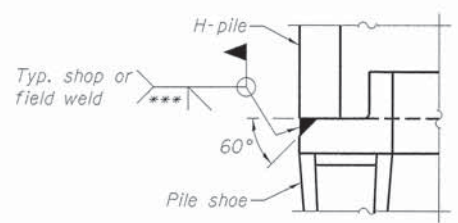
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x17	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"

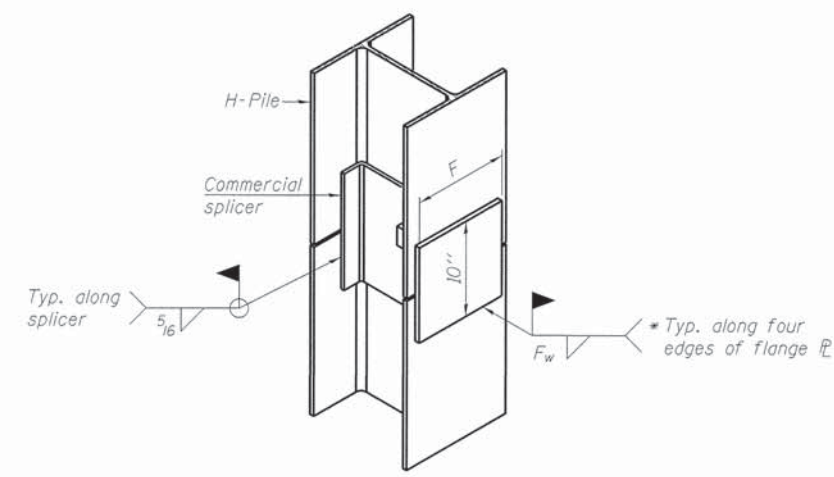


ELEVATION



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.).

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

PRINTED DATE: 5/22/2014
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 Plot Size: 36x48
 Plot Style: esd.ctb
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 Plot Color: Black
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 Plot Scale: 1.00
 Plot Units: Feet
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 Plot Pen: No
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 Plot Name: 11.383_Pile_Details.dwg
 Plot Sheet: 1 of 1
 Plot Status: Success

F-HP 1-27-12

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VERMILION COUNTY
 2732 Batestown Road
 Oakwood, IL 61858
 (217) 431-6682 Ext. 101

NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

ESI PROJECT NO: 13-533
 ENGR: JEH
 FILE: 11. 383, Pile Det
 DRAWN BY: JEH
 DATE: 04-15-2014
 QCQA: PAT
 DF

TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY

HP PILE DETAILS
STRUCTURE NO. 092-3525
 SHEET 6 OF 7

HOLCOMB FOUNDATION ENGINEERING INC.
P.O. Box 88 618-529-5262
Carbondale, Il. 62903 618-457-8991 fax Page 1 of 2

Bridge Foundation Boring Log

Project: H-14021 Bridge Co Rd 900 N over Swank Creek Date: 3/11/2014
Section: 10-09124-00-BR Station _____ Bored by: B. Schwartz
Structure: _____ Checked By: J. Holcomb
County: Vermillion

Boring No.	Elevation	N	Qu tsf	Surface Water Elev.	Elevation	N	Qu tsf
1							
Station							
Offset							
Ground Surface	98.5	0		Surface Water Elev.			
1' of Topsoil				During Drilling			
Brown Sandy CLAY (A-6)				Upon Completion			
	9	2.78	21				
	-25						
	4	1.28	25				
	-5						
	8	3.68	15				
	-30						
90.0							
Gray Silty CLAY (A-6) with sand and pebbles							
	8	1.28	13				
	-10						
	12	1.48	13				
	-35						
	11	1.78	11				
	-15						
	10	1.95	11				
	-40						
	14	2.88	12				
	-20						
77.3							
Gray Silty CLAY (A-6) with pebbles							
	64	11.58	8				

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
Qu - Unconfined Compressive Strength in tons/sq.ft.
w - Water Content - percentage of oven dry weight - %
B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
P.O. Box 88 618-529-5262
Carbondale, Il. 62903 618-457-8991 fax Page 2 of 2

Bridge Foundation Boring Log

Project: H-14021 Bridge Co Rd 900 N over Swank Creek Date: 3/11/2014
Section: 10-09124-00-BR Station _____ Bored by: B. Schwartz
Structure: _____ Checked By: J. Holcomb
County: Vermillion

Boring No.	Elevation	N	Qu tsf	Surface Water Elev.	Elevation	N	Qu tsf
1							
Station							
Offset							
Ground Surface				Surface Water Elev.			
1' of Topsoil				During Drilling			
silty clay (continued)				Upon Completion			
	49	77	8.05				
	-70						
48.5							
37		4.15	11				
	-50						
End of Boring @ -50.0'							
	-55						
	-60						
	-65						

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
Qu - Unconfined Compressive Strength in tons/sq.ft.
w - Water Content - percentage of oven dry weight - %
B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
P.O. Box 88 618-529-5262
Carbondale, Il. 62903 618-457-8991 fax Page 1 of 1

Bridge Foundation Boring Log

Project: H-14021 Bridge Co Rd 900 N over Swank Creek Date: 3/11/2014
Section: 10-09124-00-BR Station _____ Bored by: B. Schwartz
Structure: _____ Checked By: J. Holcomb
County: Vermillion

Boring No.	Elevation	N	Qu tsf	Surface Water Elev.	Elevation	N	Qu tsf
2							
Station							
Offset							
Ground Surface	99.9	0		Surface Water Elev.			
1' of Topsoil				During Drilling			
Brown to Gray Sandy CLAY (A-6)				Upon Completion			
	8	2.68	21				
	-25						
	6	1.78	22				
	-5						
	3	1.38	24				
	-30						
91.4							
Brown SAND (A-2-4)							
	11	1.18	19				
	-10						
88.9							
Gray Sandy CLAY (A-6) with pebbles							
	12	2.65	12				
	-35						
	13	2.85	12				
	-15						
	10	1.85	12				
	-40						
81.4							
Gray Sandy CLAY (A-6) with gravel							
	10	1.68	13				
	-20						
	42	8.18	9				

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
Qu - Unconfined Compressive Strength in tons/sq.ft.
w - Water Content - percentage of oven dry weight - %
B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

PRINTED DATE: 5/22/2014 8:37:12 AM D:\Projects\383\383 TR383 Over Swank Creek\CAD\Drawings\BoreLogs\12_383_Bore_Logs.dwg

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VERMILION COUNTY
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NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

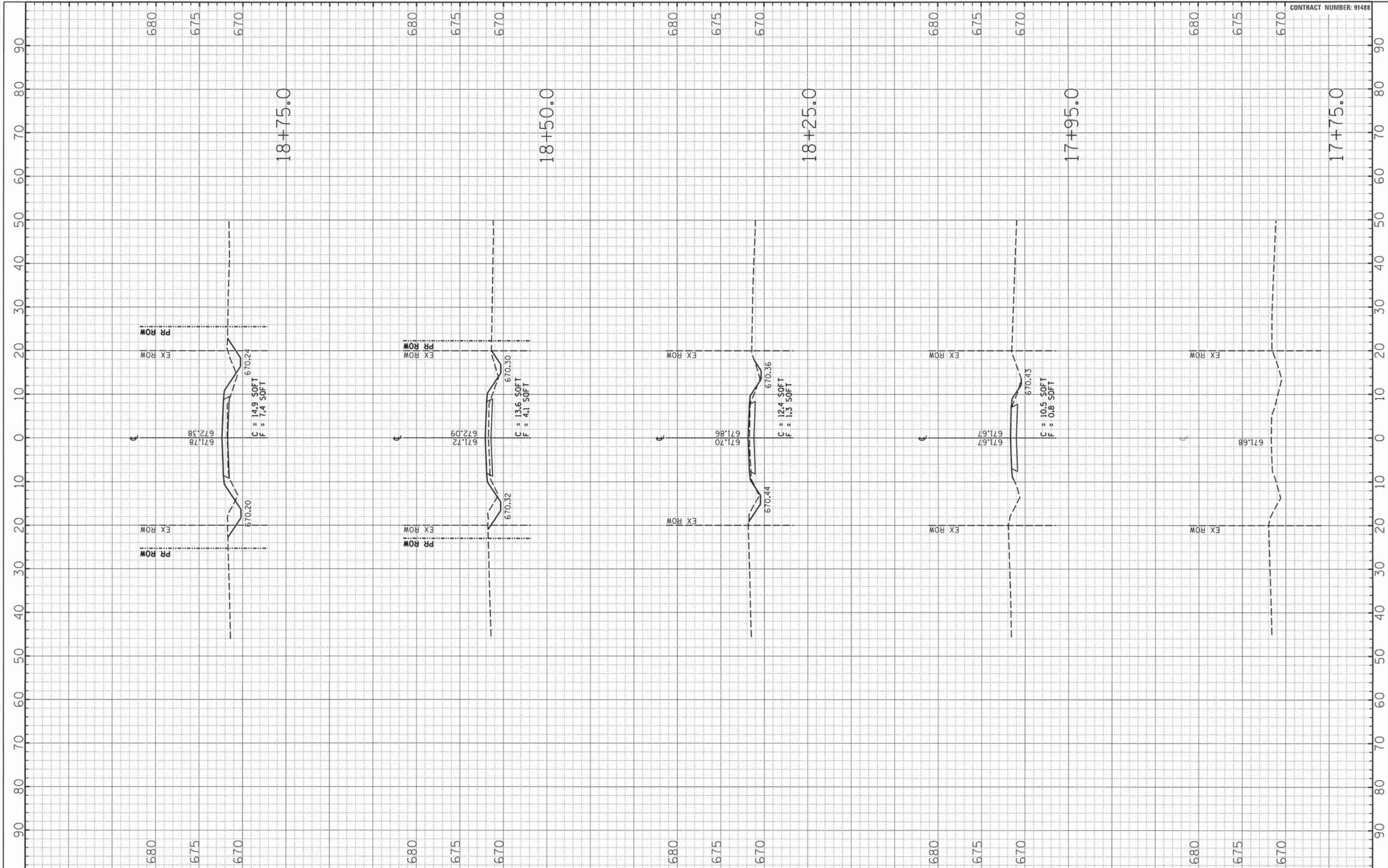
ESI PROJECT NO: 13-533
FILE: 12. 383. Bore Logs
DATE: 04-15-2014

TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY

BORING LOGS
STRUCTURE NO. 092-3525
SHEET 7 OF 7

12
OF 16

PRINTED DATE: 5/22/2014
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VERMILION COUNTY
 2732 Batesown Road
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NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

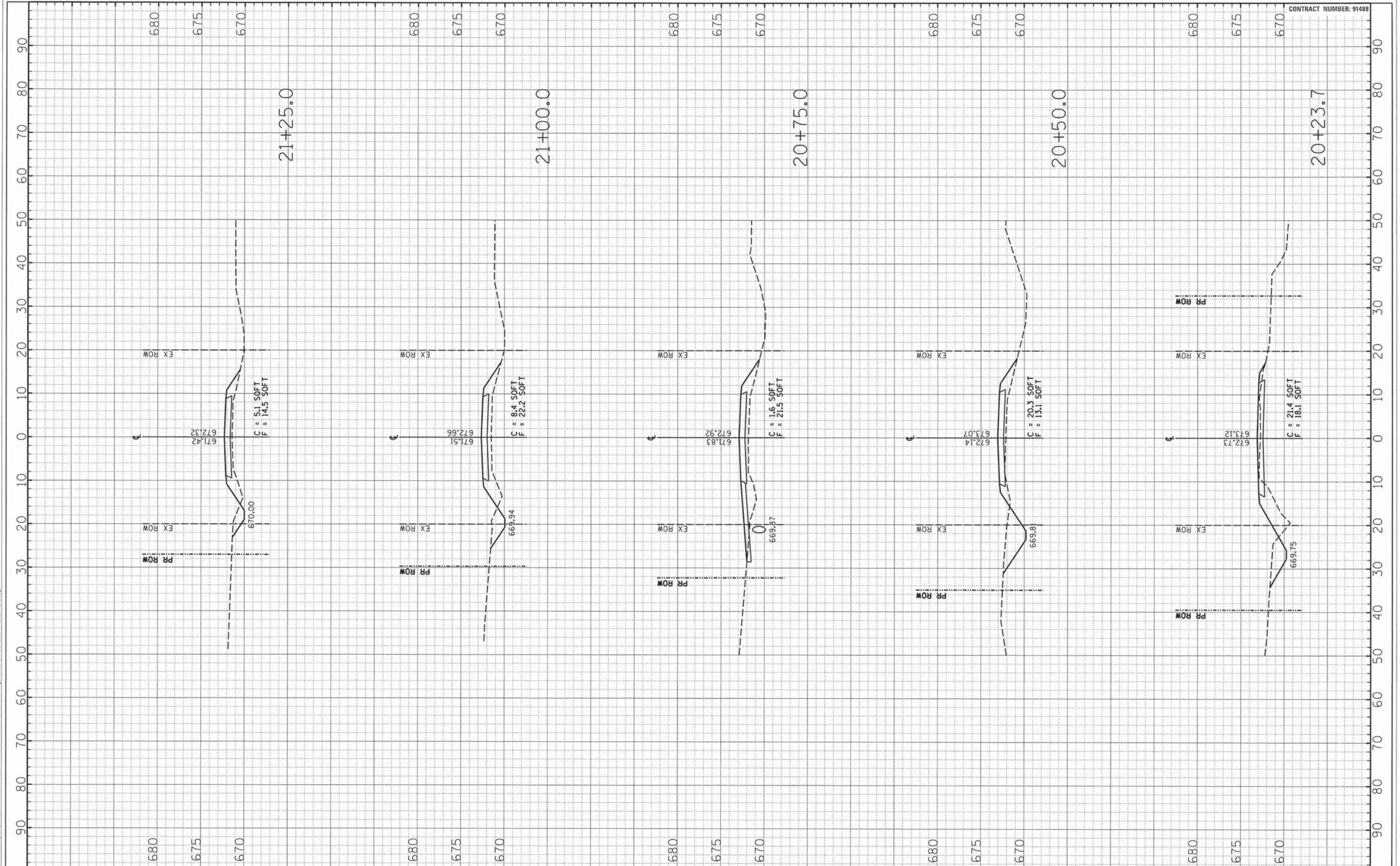
ESI PROJECT NO: 13-533
 FILE: 13. 383. X-Sections
 DATE: 04-15-2014
 ENGR: JEH
 DRAWN BY: JEH
 QCOA: PAT
 DF

TR 383 OVER SWANK CREEK
10-09124-00-BR
 JAMAICA TOWNSHIP - VERMILION COUNTY

CROSS-SECTIONS
 STA 17+95.0 TO STA 18+75.0

SHEET NUMBER
13
 OF 16

PRINTED DATE: 5/22/2014
X:\Projects\91488\Drawings\10-09124-00-Br\10-09124-00-Br-X-Section.dgn



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 2732 Batestown Road
 Oakwood, IL 61858
 (217) 431-6682 Ext. 101

NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

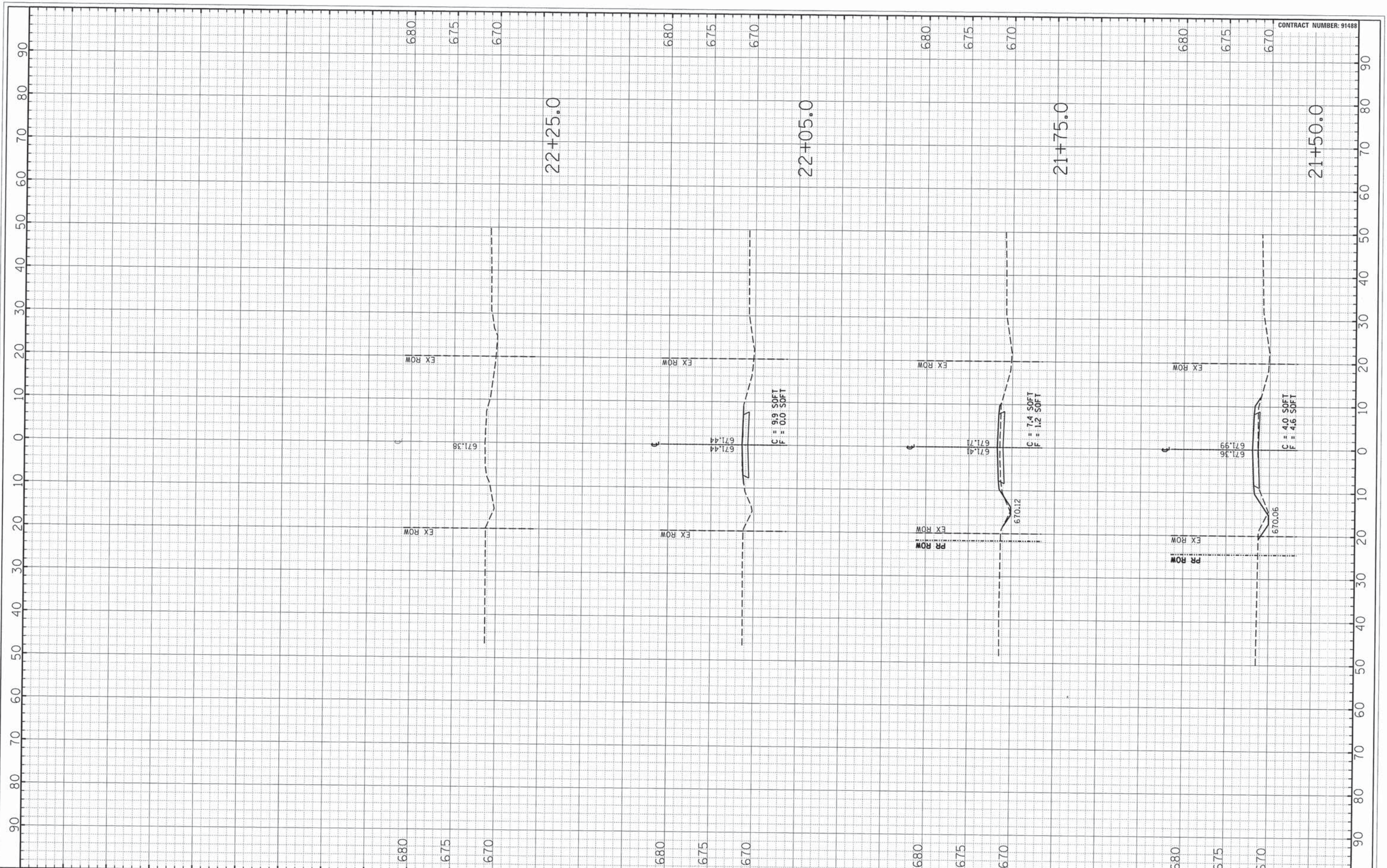
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 FILE: 13, 383, X-Sections
 DATE: 04-15-2014

ENGR: JEH
 DRAWN BY: JEH
 QCQA: PAT
 DF

TR 383 OVER SWANK CREEK
10-09124-00-BR
JAMAICA TOWNSHIP - VERMILION COUNTY

CROSS-SECTIONS
 STA 20+23.7 TO STA 21+25.0

SHEET NUMBER
15
 OF 16



PRINTED DATE: 5/22/2014
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VERMILION COUNTY
 2732 Batestown Road
 Oakwood, IL 61858
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NO.	DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS

ESI PROJECT NO: 13-533
 FILE: 13_383_X-Sections
 DATE: 04-15-2014
 ENGR: JEH
 DRAWN BY: JEH
 QCQA: PAT
 DF

TR 383 OVER SWANK CREEK
10-09124-00-BR
 JAMAICA TOWNSHIP - VERMILION COUNTY

CROSS-SECTIONS
 STA 21+50.0 TO STA 22+25.0