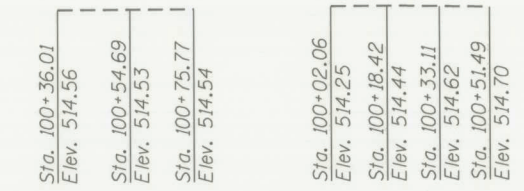
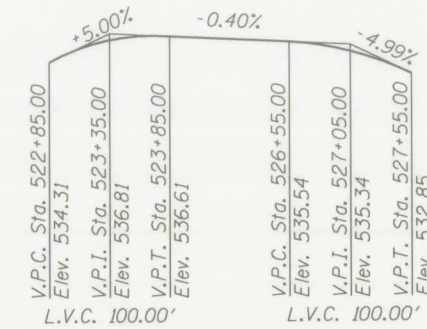
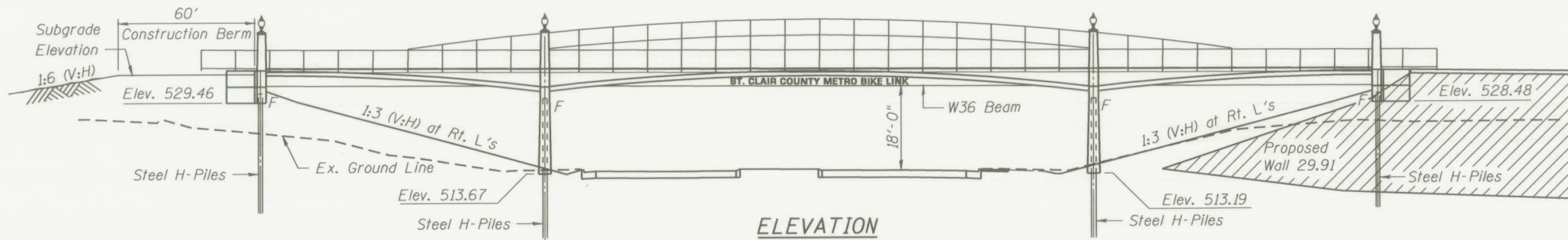


Benchmark: Permanent benchmarks to be set by Engineer prior to construction.

Existing Structure: None.



DESIGN SPECIFICATIONS

1997 Guide Specification for Design of Pedestrian Bridges

AASHTO Standard Specifications for Highway Bridges, 16th Ed.

DESIGN STRESSES

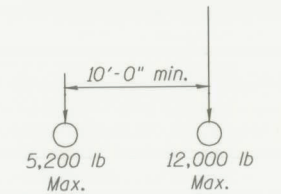
FIELD UNITS

Concrete $f'_c = 3,500$ psi
 Reinforcement $f_y = 60,000$ psi
 Structural Steel
 M 270 Gr. 50 $f_y = 50,000$ psi
 M 270 Gr. 36 $f_y = 36,000$ psi
 ASTM A 500 Gr. B $f_y = 46,000$ psi
 Timber Deck - No. 1 Southern Pine
 $f_b = 1,250$ psi
 $E = 29,000$ psi

LOADING

Pedestrian Live Load according to Art. 1.2.1.1 of the Guide Specifications (Max. = 85#/sq. ft.)
 Main Members: 65#/sq. ft.
 Floorbeams, Stringers & Deck: 85#/sq. ft.

Metro Maintenance Vehicle Loading:
 17,200 lb gross vehicle with the following axle load configuration:



INDEX OF SHEETS

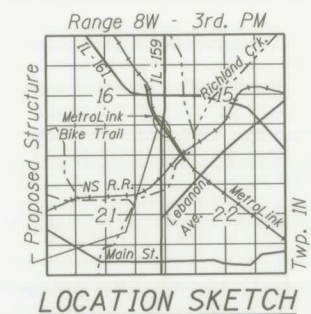
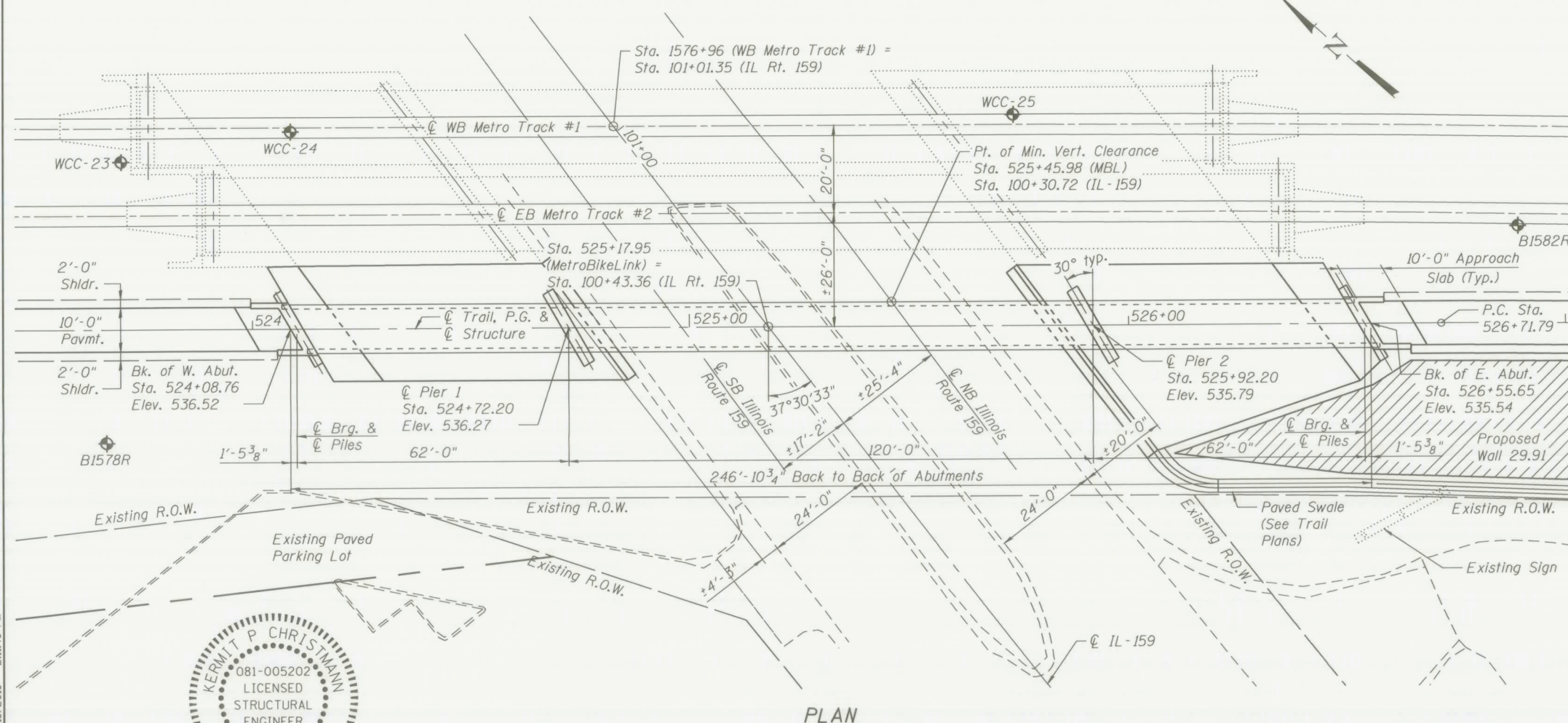
- 1 General Plan and Elevation
- 2 General Data
- 3 Superstructure Details
- 4 Framing Plan & Framing Elevation
- 5-7 Structural Steel Details
- 8 Bearing Details
- 9-10 Abutment Details
- 11 Pier Details
- 12 Approach Slab
- 13 Pile Details
- 14-18 Architectural Details
- 19-23 Soil Boring Logs

SEISMIC DATA

Seismic Performance Category (SPC) = B
 Bedrock Acceleration Coefficient (A) = 0.12g
 Site Coefficient (S) = 1.0

HIGHWAY CLASSIFICATION

(F.A.P. Rte. 600) - IL Rte. 159
 Functional Class: Urban Principal Arterial
 ADT: 17,300 (2008)
 ADTT: 600 (2008)
 Posted Speed: 35 m.p.h.



GENERAL PLAN AND ELEVATION

IL-159 (F.A.P. RTE. 600)
 STA. 524+08.76 TO 526+55.65
 STRUCTURE B29.85 (082-7000)

2/18/2010 2:11:45 PM
 DESIGNED MJJ
 CHECKED JWS/KPC
 DRAWN MJJ
 CHECKED JWS/KPC
 DATE 2/10/2010

KERMIT P. CHRISTMANN
 081-005202
 LICENSED STRUCTURAL ENGINEER OF ILLINOIS
 EXPIRES 11/30/2010

THOUVENOT, WADE & MOERCHEN, INC.
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 4940 Old Collinsville Road
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 Tel: 618.624.4488
 Fax: 618.624.6688

TWM
 EXCEPTIONAL SERVICE. NOTHING LESS.

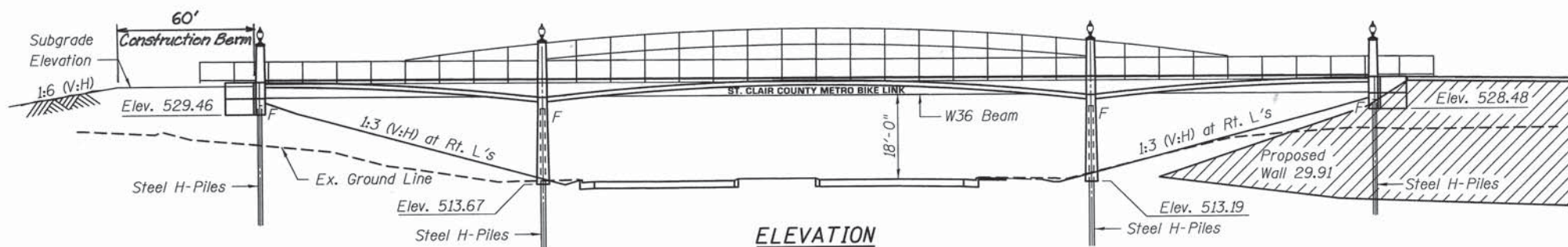
SCTD
 St Clair County Transit District

M Bi-State Development Agency

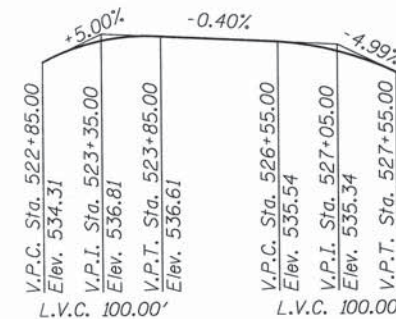
SHEET NO. 1 23 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		96-0001-00-EG	ST. CLAIR	218	51
MetroBikeLink - Swansea Section			CONTRACT NO.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

Benchmark: Permanent benchmarks to be set by Engineer prior to construction.

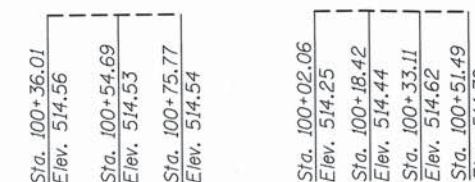
Existing Structure: None.



ELEVATION



PROFILE GRADE
(along MetroBikeLink)



PROFILE GRADE PROFILE GRADE
Surveyed @ SB IL Rte. 159 Surveyed @ NB IL Rte. 159

DESIGN SPECIFICATIONS

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DESIGN STRESSES

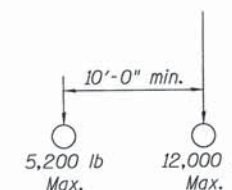
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INDEX OF SHEETS

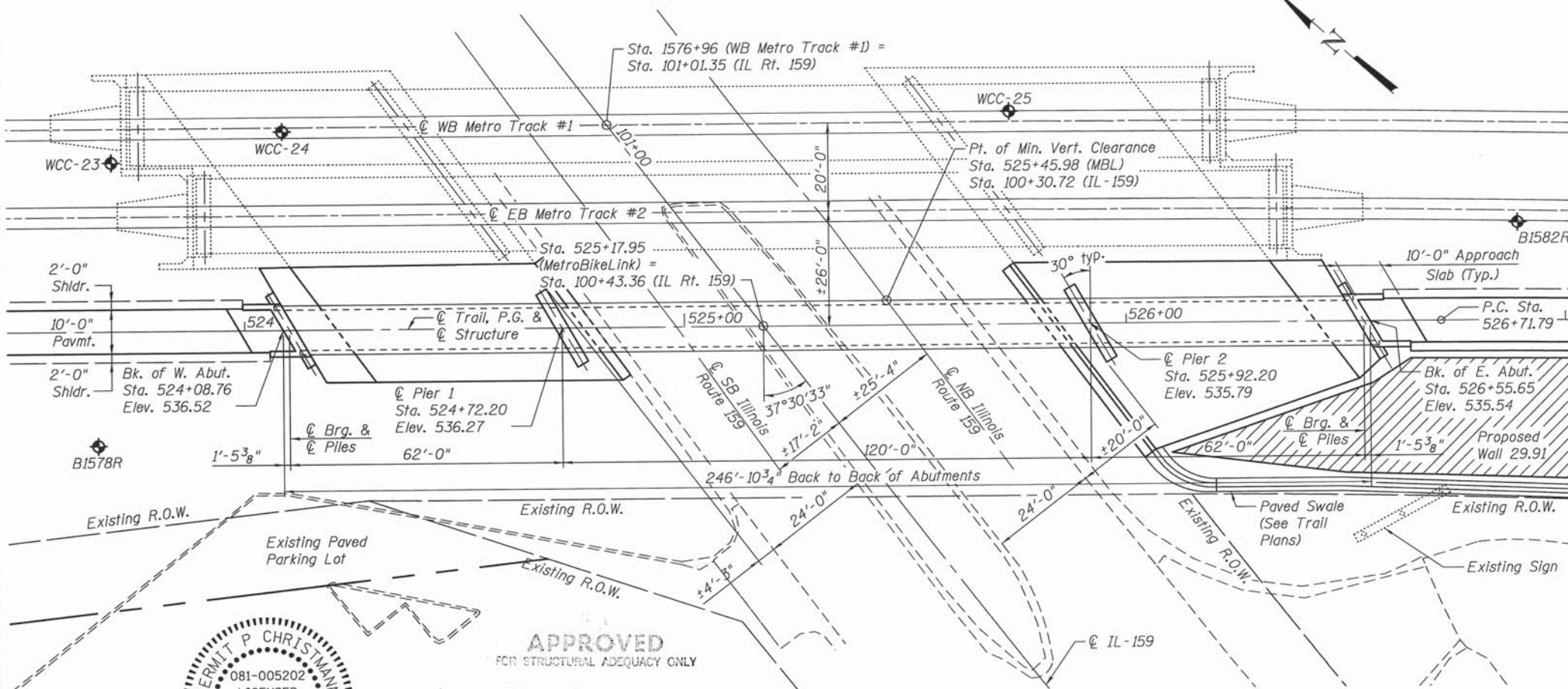
- 1 General Plan and Elevation
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SEISMIC DATA

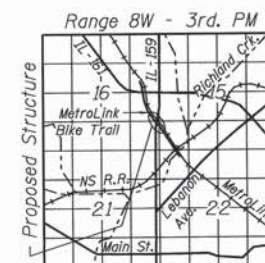
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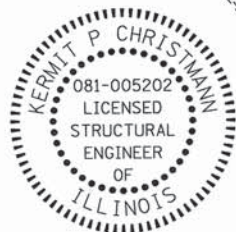
PLAN



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL - 159 (F.A.P. RTE. 600)
STA. 524+08.76 TO 526+55.65
STRUCTURE B29.85 (082-7000)

Plotted by: m/loest 1/19/2010 10:58:40 AM



APPROVED FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (SE)

DESIGNED M.J.J.
 CHECKED JWS/KPC
 DRAWN M.J.J.
 CHECKED JWS/KPC
 DATE 2/10/2010

Kermit P. Christmann
 EXPIRES 11/30/2010

THOUVENOT, WADE & MOERCHEN, INC.
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Bi-State Development Agency

SHEET NO. 1
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	51
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

Except as otherwise specified, fasteners shall be AASHTO M253 Type 1, mechanically galvanized bolts. Bolts in standard size holes, unless otherwise noted. Calculated Weight of Structural Steel:

- Alternative 1:
 AASHTO M270 Grade 50 = 77,870
 AASHTO M270 Grade 36 = 14,500
 ASTM A 500 Grade B = 446
- Alternative 2:
 AASHTO M270 Grade 50 = 78,233
 AASHTO M270 Grade 36 = 15,015
 ASTM A 500 Grade B = 446

Hot rolled structural steel W and WT shapes and splice plates shall be AASHTO M270 Grade 50.

Hot rolled C shapes, angles, plates and bars shall be AASHTO M270 Grade 36. HSS shall be ASTM A 500, Grade B

No Field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See special provisions.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel. The paint may be shop or field applied except touch up of damaged areas. The color of the final finish coat for all steel surfaces shall be Blue, Federal Color Standard 595 35052. See Special Provision for "Cleaning and Painting New Metal Structures (Special)".

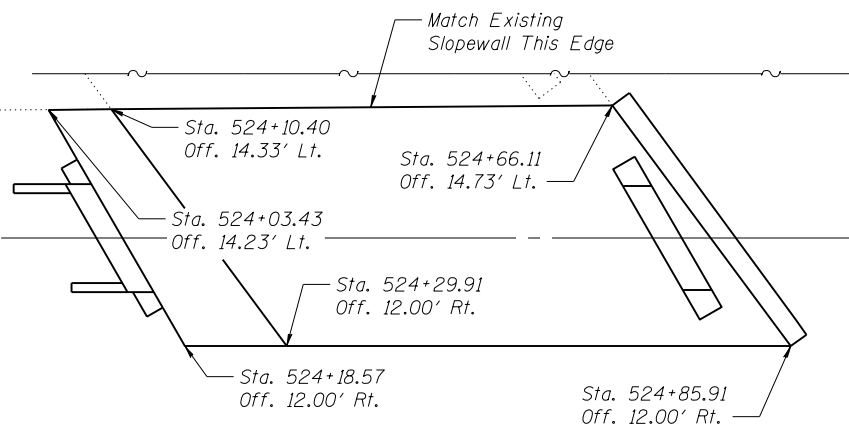
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The contractor shall select Alternative 1 or Alternative 2 for structural steel fabrication and erection. The contractor shall submit one price for Furnishing and Erecting Structural Steel, L. Sum regardless of the alternative chosen, and the contractor is not required to indicate the chosen alternative at the time of bidding.

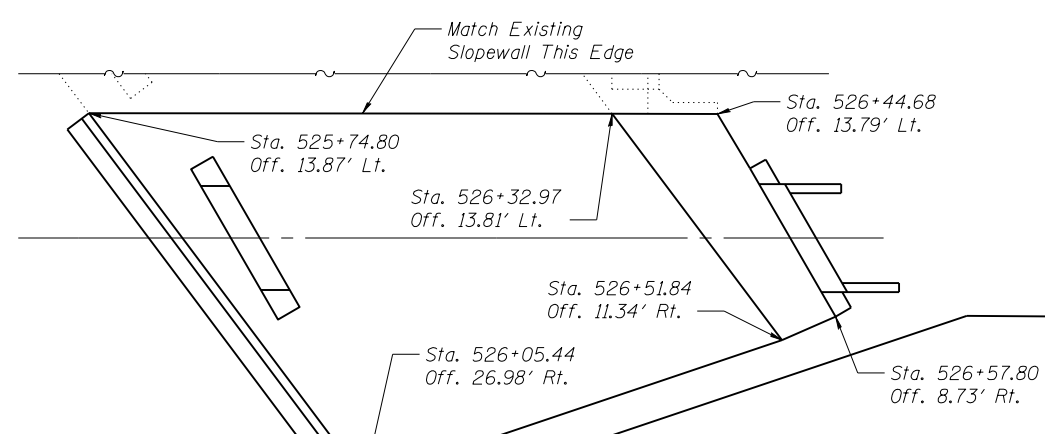
Alternative 1 - Each span is assembled in the shop, delivered to the site and set as a two girder unit.

Alternative 2 - Same as Alternative 1 except each span may be assembled at the site.

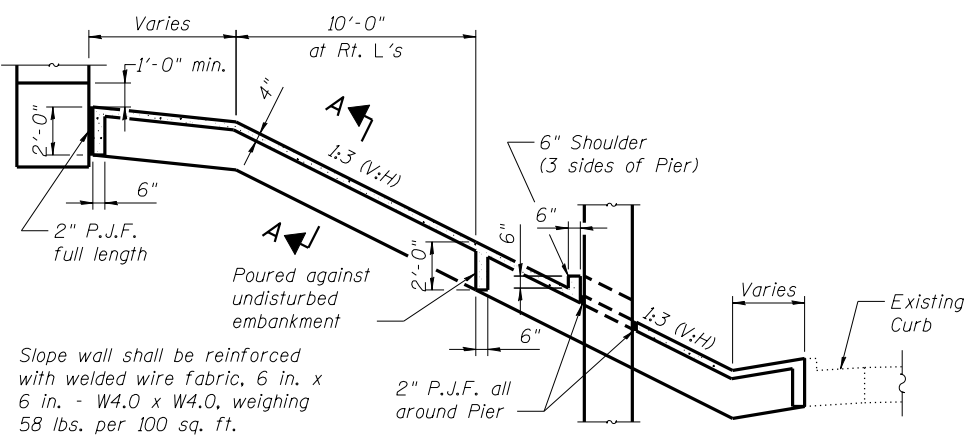
Piles shall be driven prior to construction of RSS at east abutment.



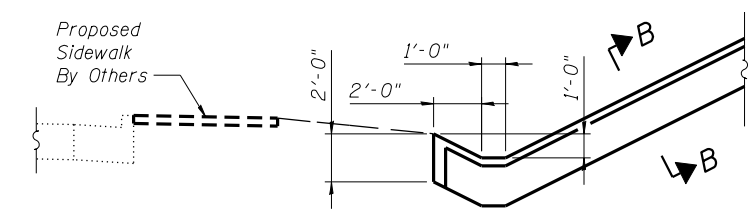
PLAN - WEST SLOPEWALL



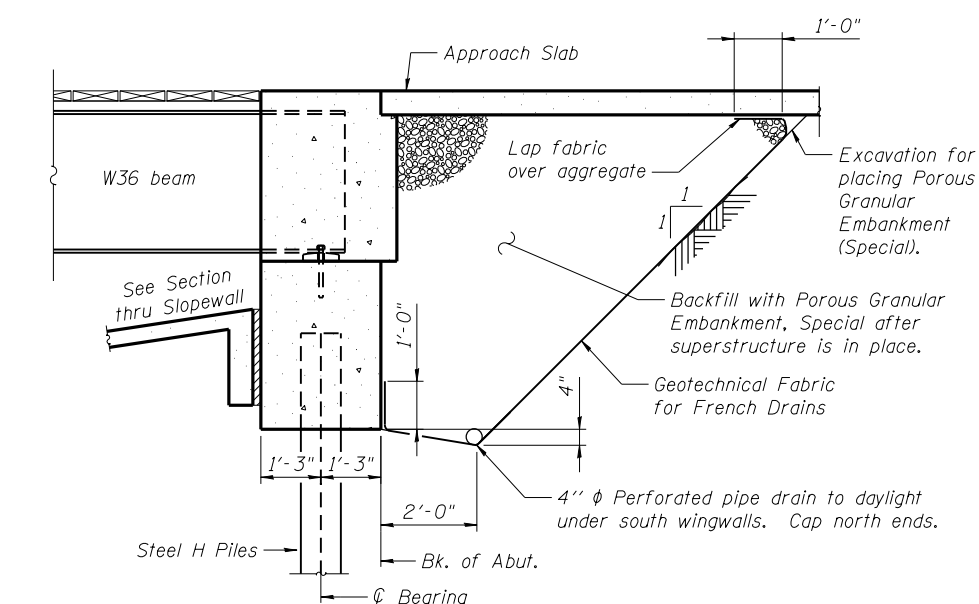
PLAN - EAST SLOPEWALL



SECTION THRU WEST CONCRETE SLOPEWALL



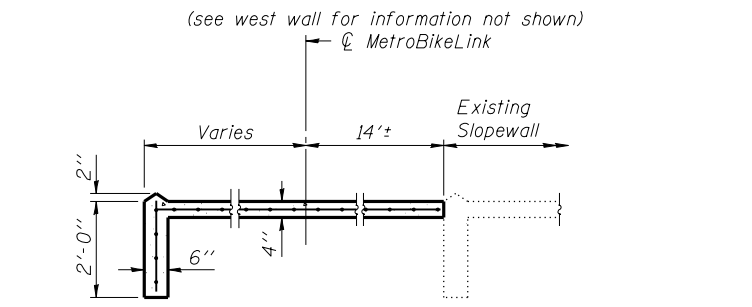
PARTIAL SECTION THRU EAST CONCRETE SLOPEWALL



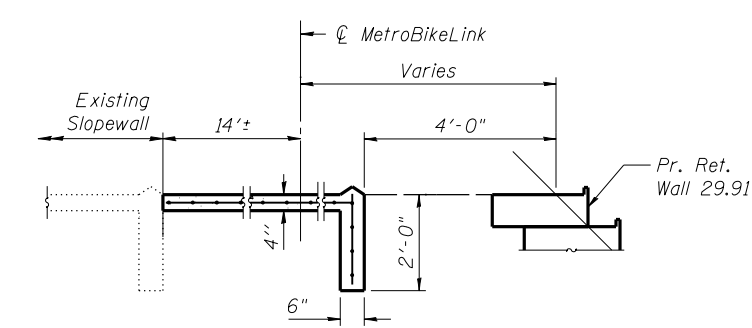
SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)
 Geotechnical fabric for french drains shall be incidental to Porous Granular Embankment.

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



SECTION A-A



SECTION B-B

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	-	32	32
Structure Excavation	Cu. Yd.	-	81	81
Concrete Structures	Cu. Yd.	-	107.8	107.8
Concrete Encasement	Cu. Yd.	-	4.2	4.2
Treated Timber	F.B.M.	9340	-	9340
Hardware	Pound	230	-	230
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Reinforcement Bars	Pound	-	7580	7580
Slopewall 4 Inch	Sq. Yd.	-	468	468
Furnishing Steel Piles HP 10x42	Foot	-	240	240
Furnishing Steel Piles HP 12x63	Foot	-	528	528
Driving Piles	Foot	-	768	768
Pile Shoes	Each	-	12	12
Anchor Bolt 1"	Each	-	-	16
Pipe Underdrains for Structures 4"	Foot	-	36	36
Bicycle Railing (Special - B29.85)	Foot	540	-	540
Form Liner Textured Surface (Special)	Sq. Ft.	-	1684	1684
Furnishing and Erecting Precast Concrete Panels	L. Sum	1	-	1
Sign Panels (Special) Type 1	L. Sum	1	-	1
Sign Panels (Special) Type 2	L. Sum	1	-	1
Staining Concrete	L. Sum	-	-	1

**GENERAL DATA
 STRUCTURE B29.85 (082-7000)**

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 Plotted by: mjpost

DESIGNED	MJJ
CHECKED	KPC/JWS
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

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 Tel: 618.624.4488
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TWM
 EXCEPTIONAL SERVICE.
 NOTHING LESS.

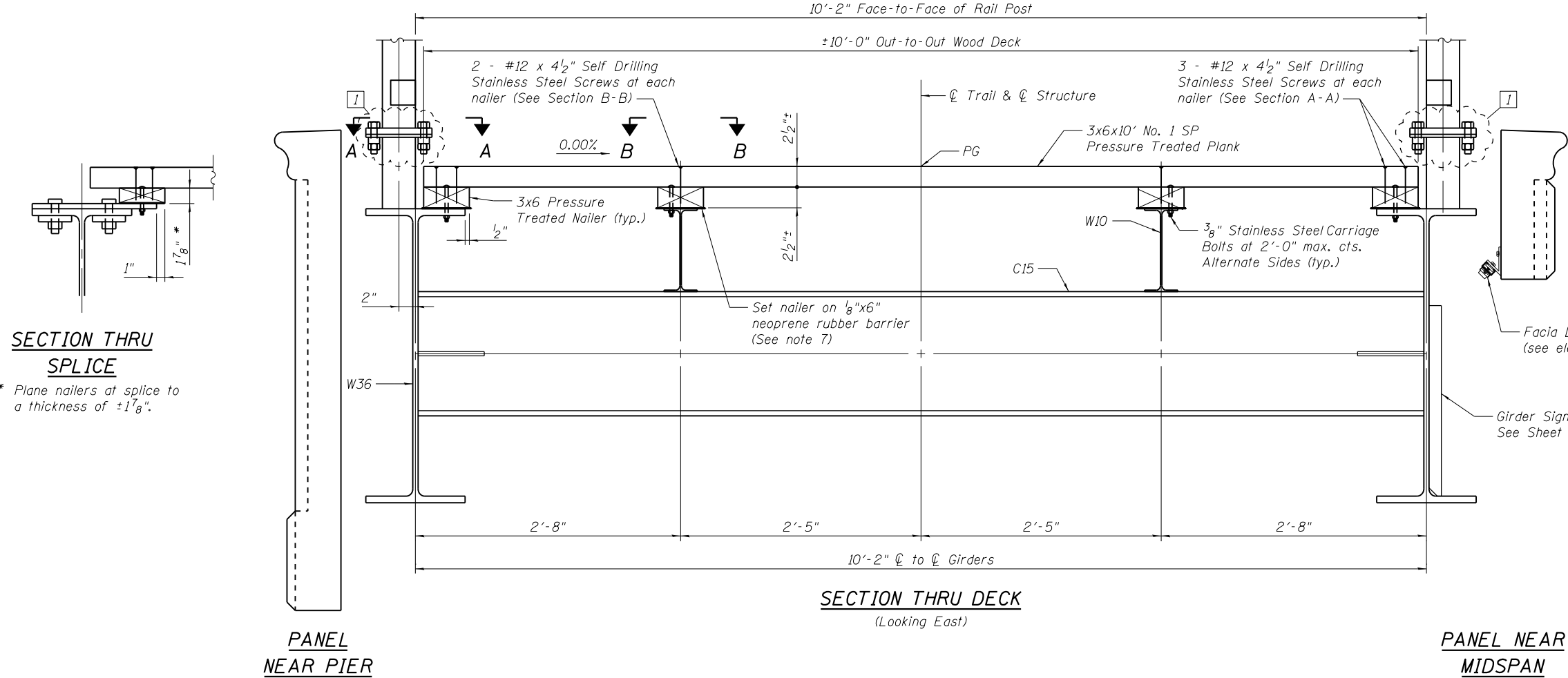
SCD
 St Clair County Transit District

M
 Bi-State Development Agency

SHEET NO. 2
 23 SHEETS

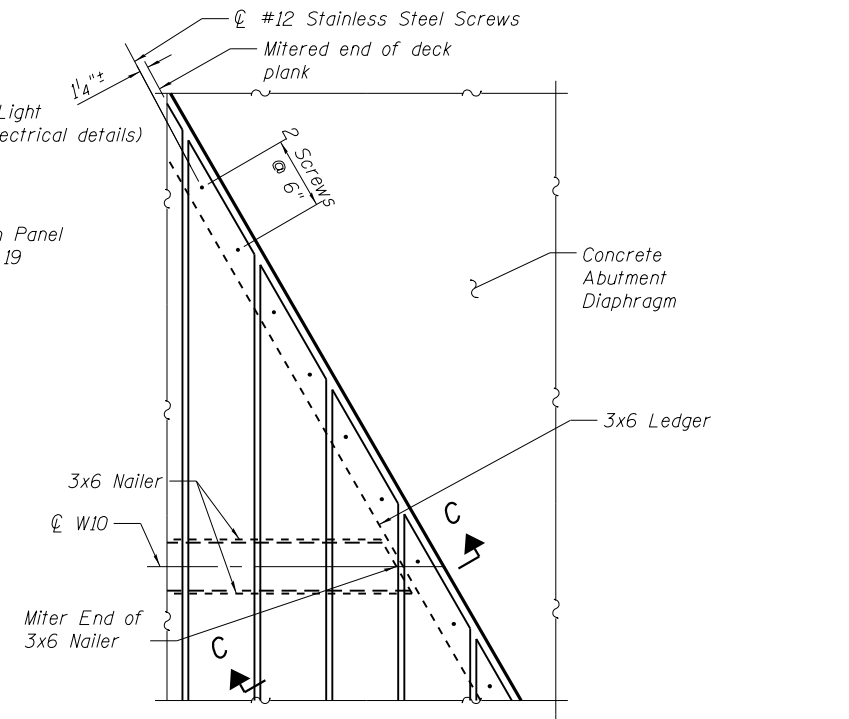
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	96-00001-00-EG	ST. CLAIR	218	52
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

- NOTES:
1. Stainless steel carriage bolts and screws shall be Type 304 Stainless Steel.
 2. Treated Timber construction shall be in accordance with Section 507 of the Standard Specification except as modified by these plans.
 3. Nailers shall be installed in lengths such that each piece is fastened with a minimum of 2 carriage bolts.
 4. The maximum moisture content of Treated Timber shall be 20% at the time of installation.
 5. Pressure treatment shall be Mocronized Copper Azole with a minimum retention of 0.23 pcf.
 6. Submit pressure treatment specifications prior to ordering timber. Pressure treatment specifications shall include type of treatment and retention level.
 7. Pressure treated lumber shall not contact any metal except stainless steel fasteners. Material and labor cost for rubber barrier shall be included in Treated Timber.
 8. The neoprene rubber barrier shall meet the material requirements of section 1052.02 (a) of the Standard Specifications.
 9. Screws shall be driven such that boards are tightly clamped. Where screw threads in the top board push the boards apart screws shall be backed out and re-driven until the boards are tightly clamped. If re-driving does not tightly clamp boards other methods such as pre-drilling top boards shall be used.

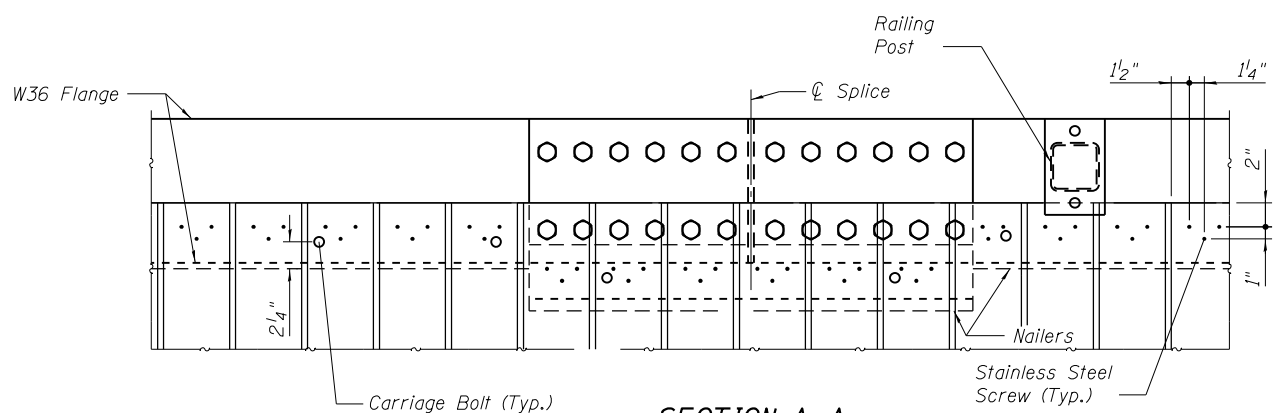


SECTION THRU SPLICE

* Plane nailers at splice to a thickness of ±1 7/8".

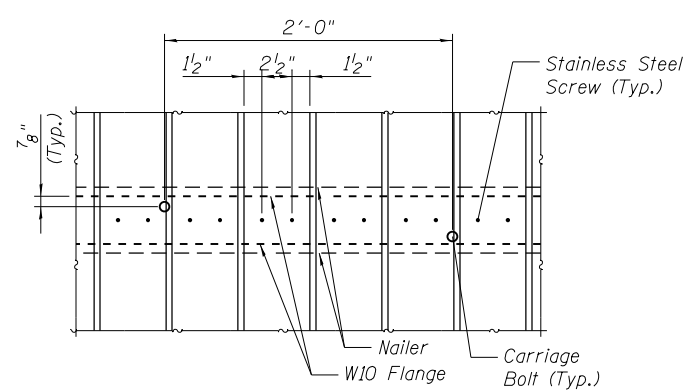


PLAN - DECK AT ABUTMENTS
(Ledger anchors not shown)



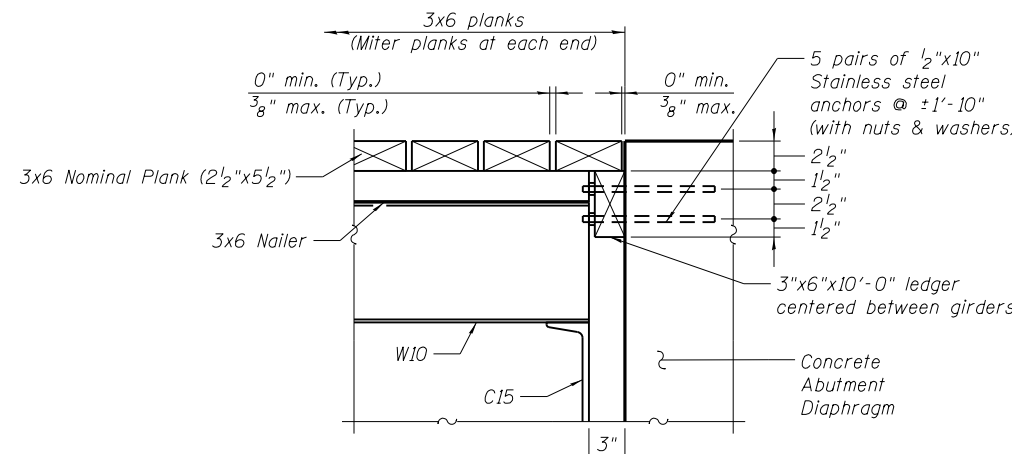
SECTION A-A

Fastener Pattern at W36 Girder



SECTION B-B

Fastener Pattern at W10 Stringers



C-C SUPERSTRUCTURE STRUCTURE B29.85 (082-7000)

1/7/2011 11:19:41 AM

DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010
Revised	1/7/11 MJJ

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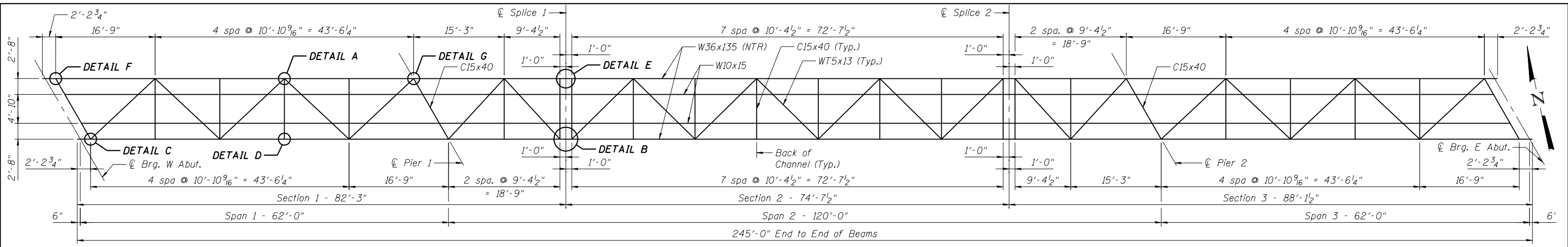
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SCD
 St Clair County Transit District

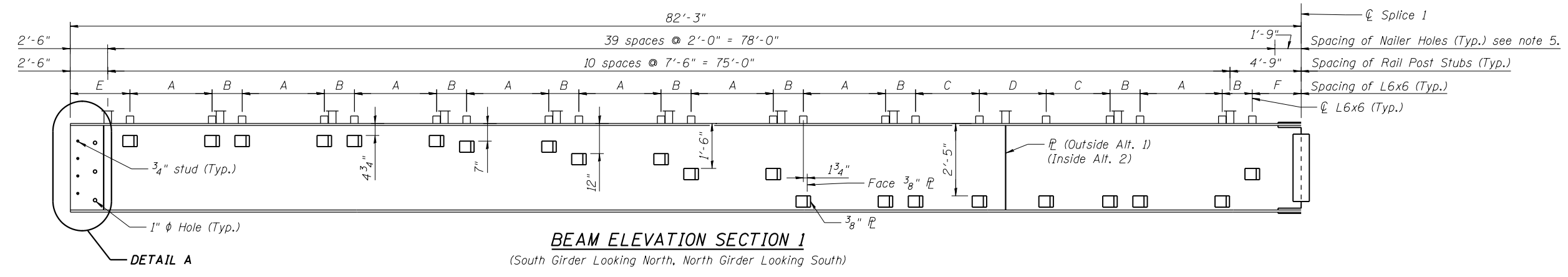
M Bi-State Development Agency
Metro

SHEET NO. 3
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

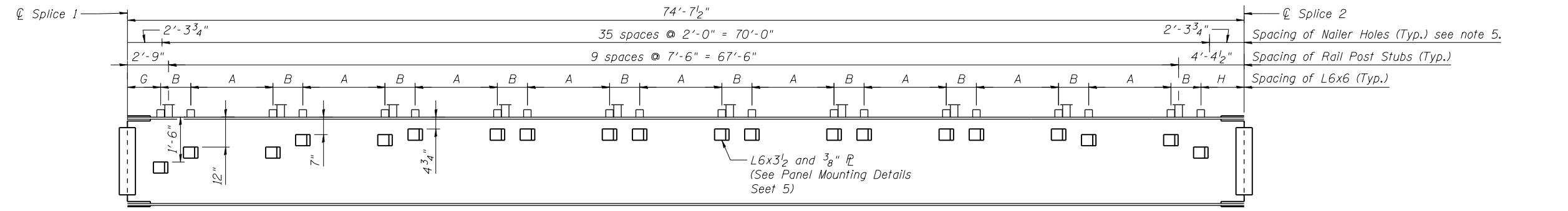


STEEL FRAMING PLAN



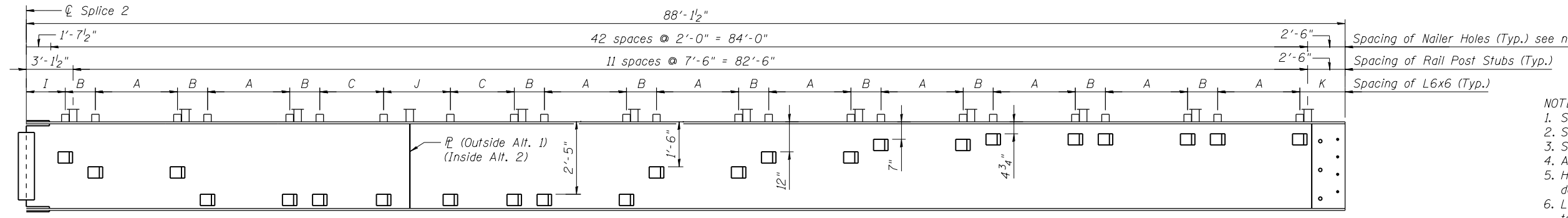
BEAM ELEVATION SECTION 1

(South Girder Looking North, North Girder Looking South)



BEAM ELEVATION SECTION 2

(South Girder Looking North, North Girder Looking South)



BEAM ELEVATION SECTION 3

(South Girder Looking North, North Girder Looking South)

ELEVATION DIMENSIONS	
A	5'-5 7/8"
B	2'-0 1/8"
C	4'-3 1/4"
D	4'-5 7/16"
E	3'-11 13/16"
F	3'-3 1/8"
G	2'-2 3/4"
H	2'-10 5/8"
I	2'-7 1/4"
J	4'-5 3/8"
K	3'-0 1/4"

- NOTES:**
1. See Sheet 5 for Steel Details for both alternatives.
 2. See Sheet 6 for Framing Alternative 1 - Details A thru G.
 3. See Sheet 7 for Framing Alternative 2 - Details A thru G.
 4. All bolts are 7/8" unless otherwise noted.
 5. Holes for nailer carriage bolts shall be 7/16" diameter. See details on Sheet 3.
 6. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

**FRAMING PLAN
STRUCTURE B29.85 (082-7000)**

DESIGNED MJJ
 CHECKED DJH
 DRAWN MJJ/JTH
 CHECKED KPC
 DATE 2/10/2010

**THOUVENOT,
WADE &
MOERCHEN, INC.**
 SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

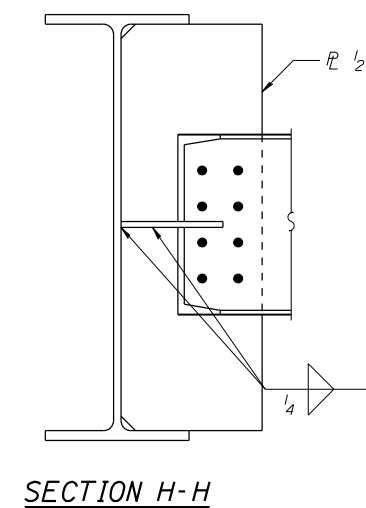
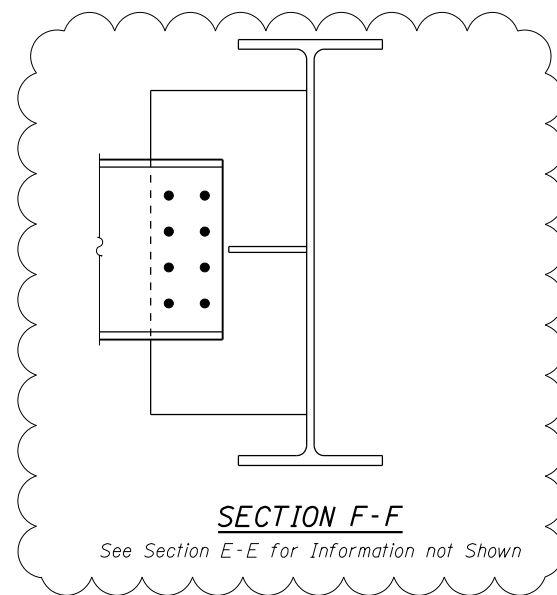
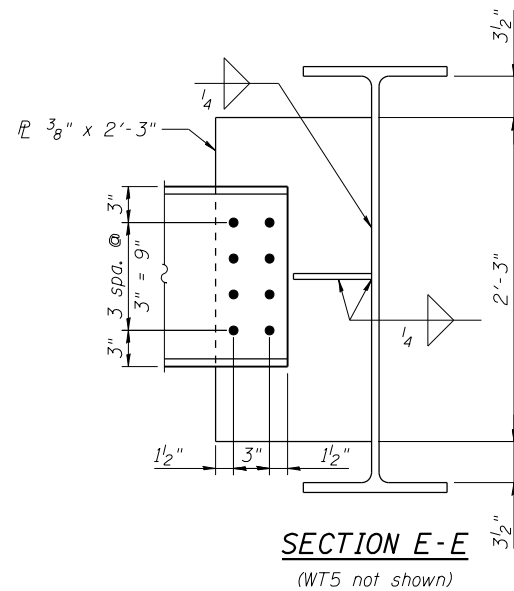
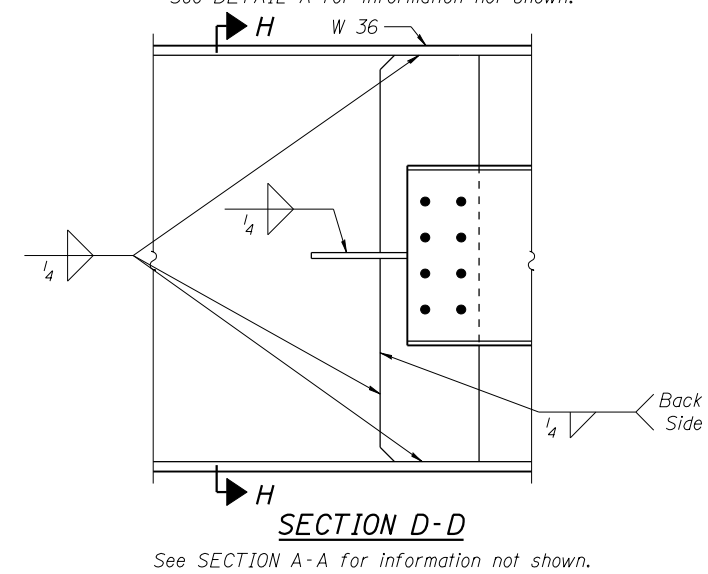
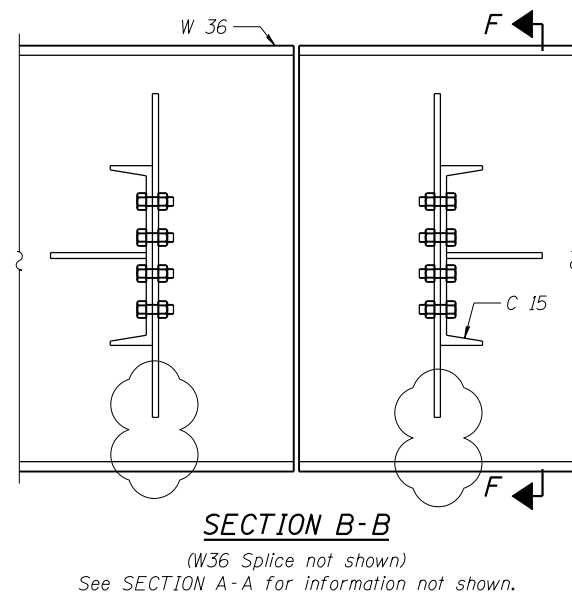
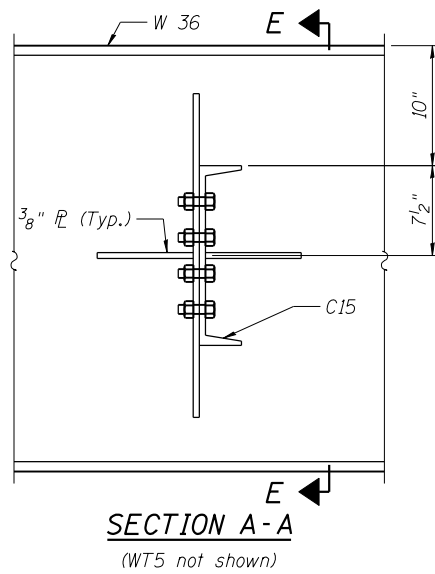
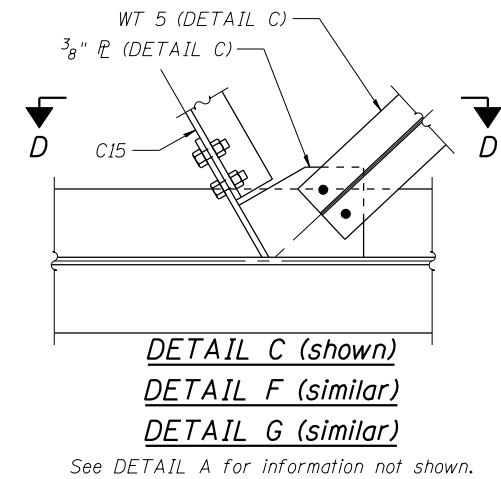
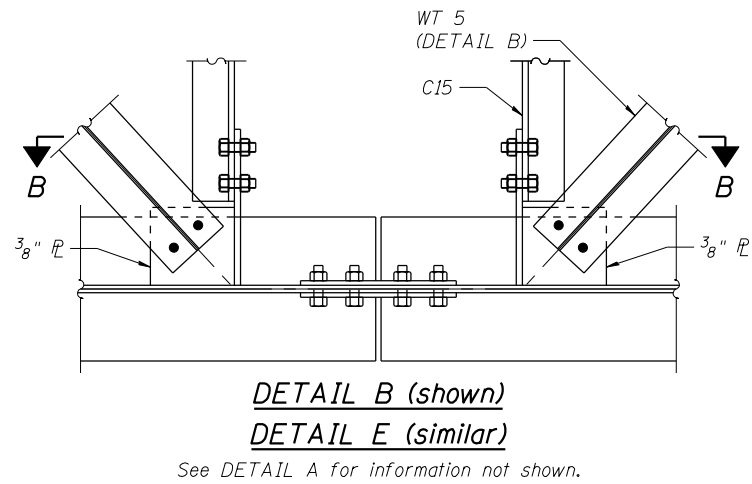
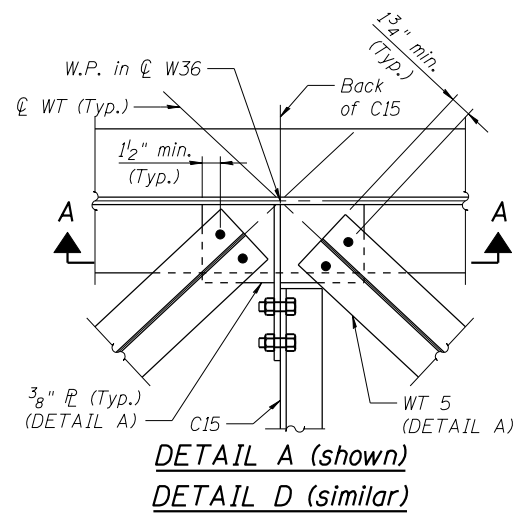
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 4940 Old Collinsville Road
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SHEET NO. 4
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	54
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

2/18/2010 2:11:52 PM
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Note: Fasteners in C15 members shall be AASHTO M164 Type 1.

**STRUCTURAL STEEL DETAILS
ALTERNATIVE 2
STRUCTURE B29.85 (082-7000)**

8/9/2010 10:06:58 AM

DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

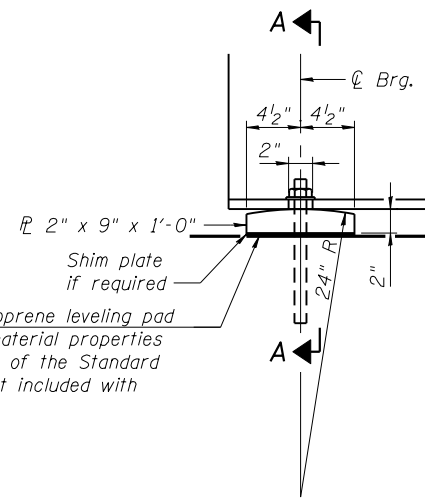
**THOUVENOT,
WADE &
MOERCHEN, INC.**
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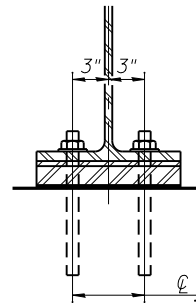
SHEET NO. 7
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	57
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

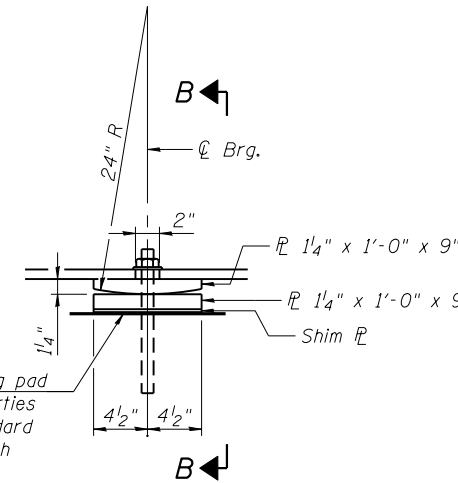


1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

ELEVATION **SECTION A-A**
FIXED BEARING AT ABUTMENT

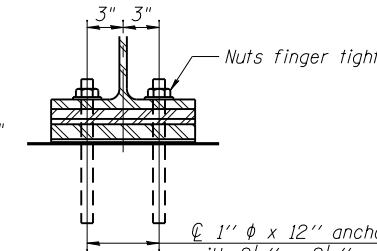


1" ϕ x 12" anchor bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 5/16" washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2" ϕ holes in bearing plate.



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

ELEVATION **SECTION B-B**
FIXED BEARING AT PIER



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

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolt 1"	Each	16

BEARING DETAILS
STRUCTURE B29.85 (082-7000)

2/18/2010 2:11:58 PM

DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

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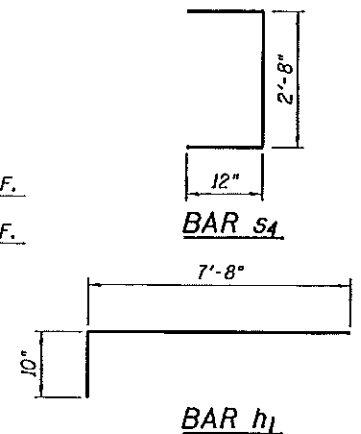
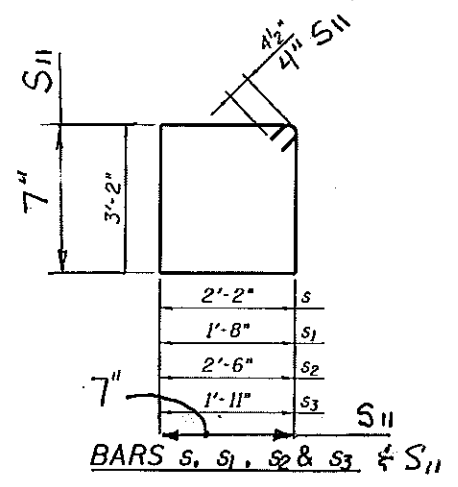
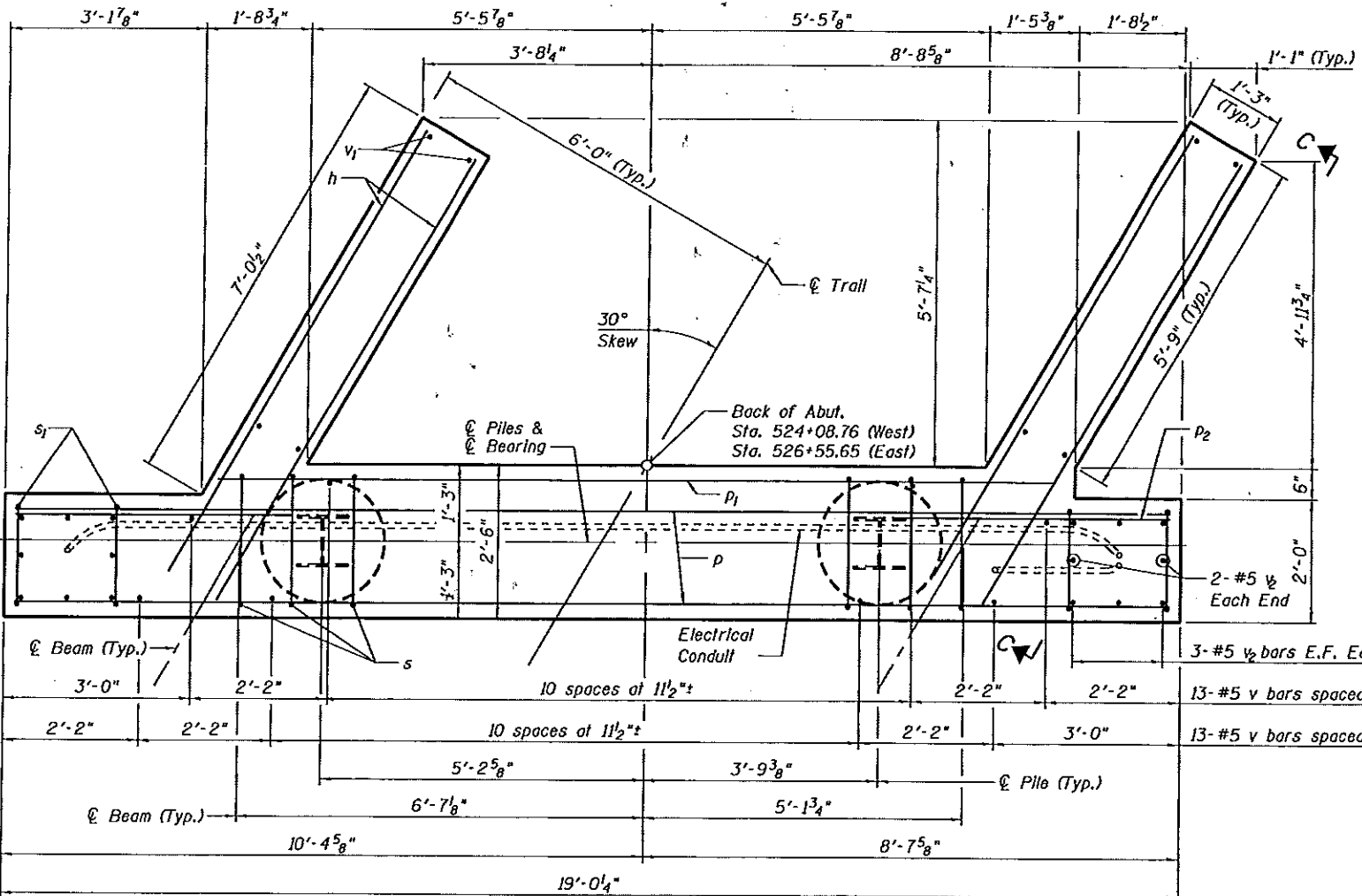
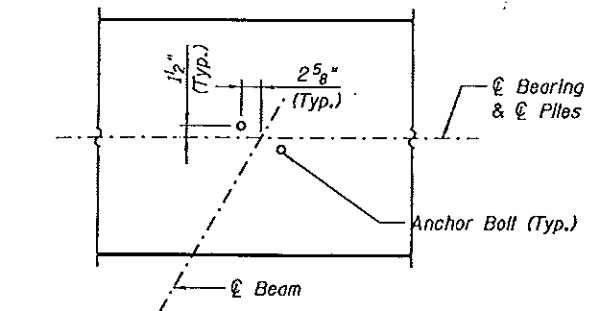
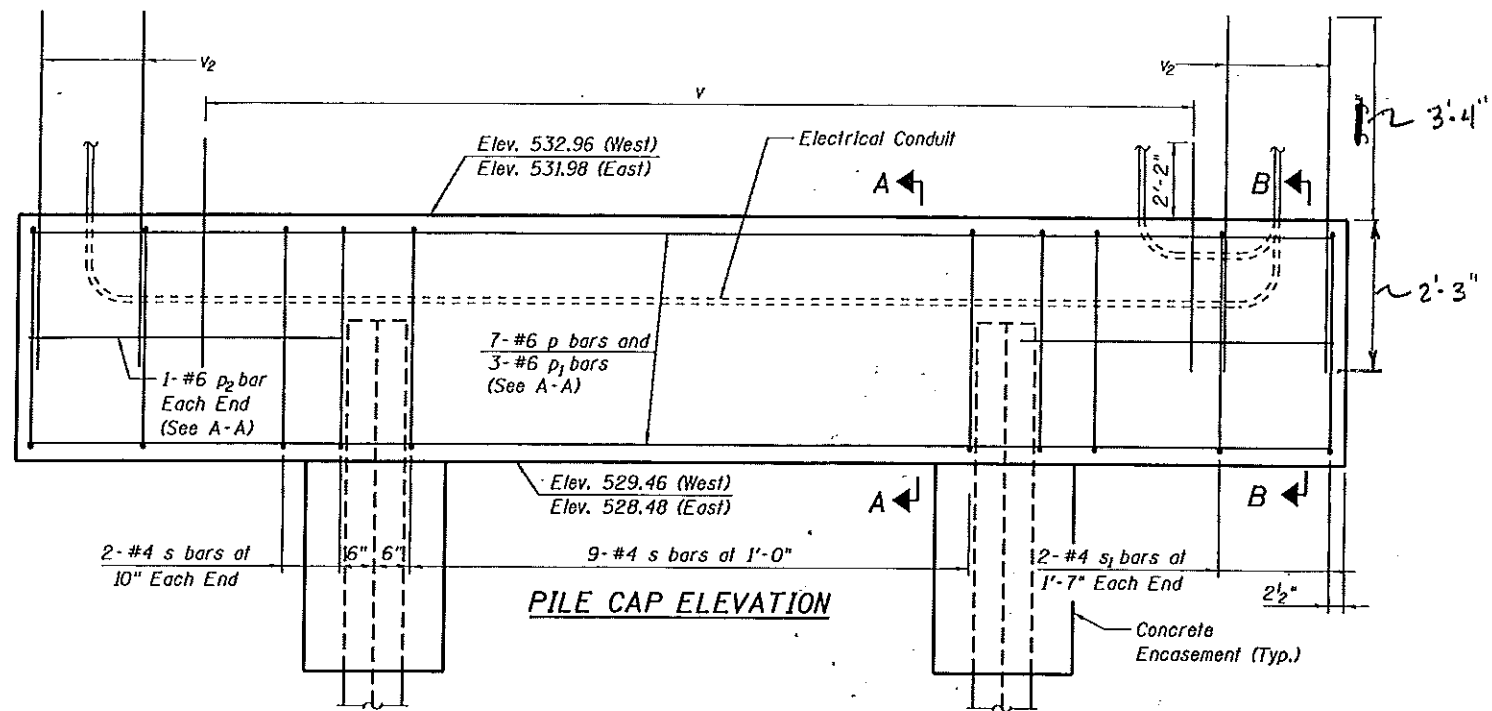
TWM
 EXCEPTIONAL SERVICE.
 NOTHING LESS.

SCD
 St Clair County Transit District

M
 Bi-State Development Agency

SHEET NO. 8
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	58
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BILL OF MATERIAL (2 ABUT.)

Bar	No.	Size	Length	Shape
h	48	#5	8'-3"	—
h ₁	16	#5	8'-6"	—
m	14	#5	18'-8"	—
m ₁	2	#5	13'-6"	—
m ₂	6	#5	10'-8"	—
m ₃	26	#5	4'-6"	—
p	14	#6	18'-8"	—
p ₁	6	#6	13'-6"	—
p ₂	4	#6	4'-6"	—
S ₁₁	8	#3	3'-0"	□
s	26	#4	11'-5"	□
s ₁	16	#4	10'-5"	□
s ₂	22	#4	12'-1"	□
s ₃	4	#4	10'-11"	□
s ₄	22	#4	4'-8"]
V ₇	16	#5	3'-8"	—
v	52	#5	4'-4"	—
v ₁	48	#5	6'-8"	—
v ₂	32	#5	5'-7"	—
Structure Excavation	Cu. Yd.		30	
Concrete Structures	Cu. Yd.		32.4	
Concrete Encasement	Cu. Yd.		1.4	
Reinforcement Bars	Pound		5010	
Furnishing - Piles, HP 10x42	Foot		240	
Driving Piles	Foot		240	
Pile Shoes	Each		4	

ABUTMENT PILE CAP STRUCTURE B29.85 (082-7000)

PILE DATA

Type: HP 10x42 w/ pile shoes
 Nominal Required Bearing: 335 kips
 Allowable Resistance Available: 112 kips
 Est. Length: 62 ft. - W. Abutment
 58 ft. - E. Abutment

ORDERED 2-30' WITH SHOES AND 2-35' WITHOUT.
 ORDERED 2-30' WITH SHOES AND 2-30' WITHOUT.

- NOTES:**
- See Sheet 10 for Sections A-A thru C-C.
 - See Sheet 13 for Pile Details.
 - Coordinate Conduit location with Electrical Details.

ABUTMENT PILE CAP STRUCTURE B29.85 (082-7000)

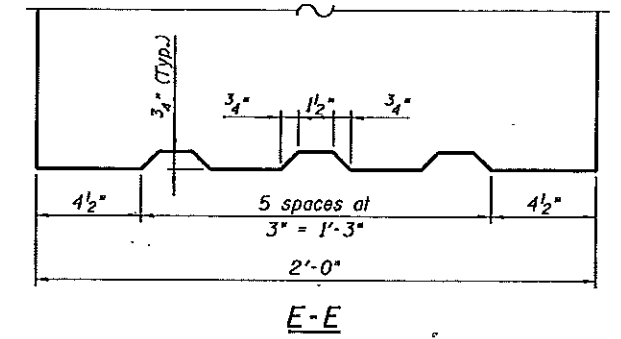
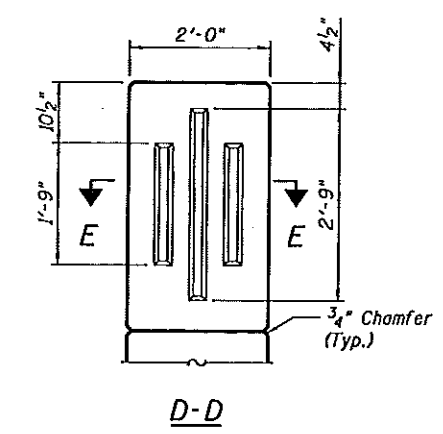
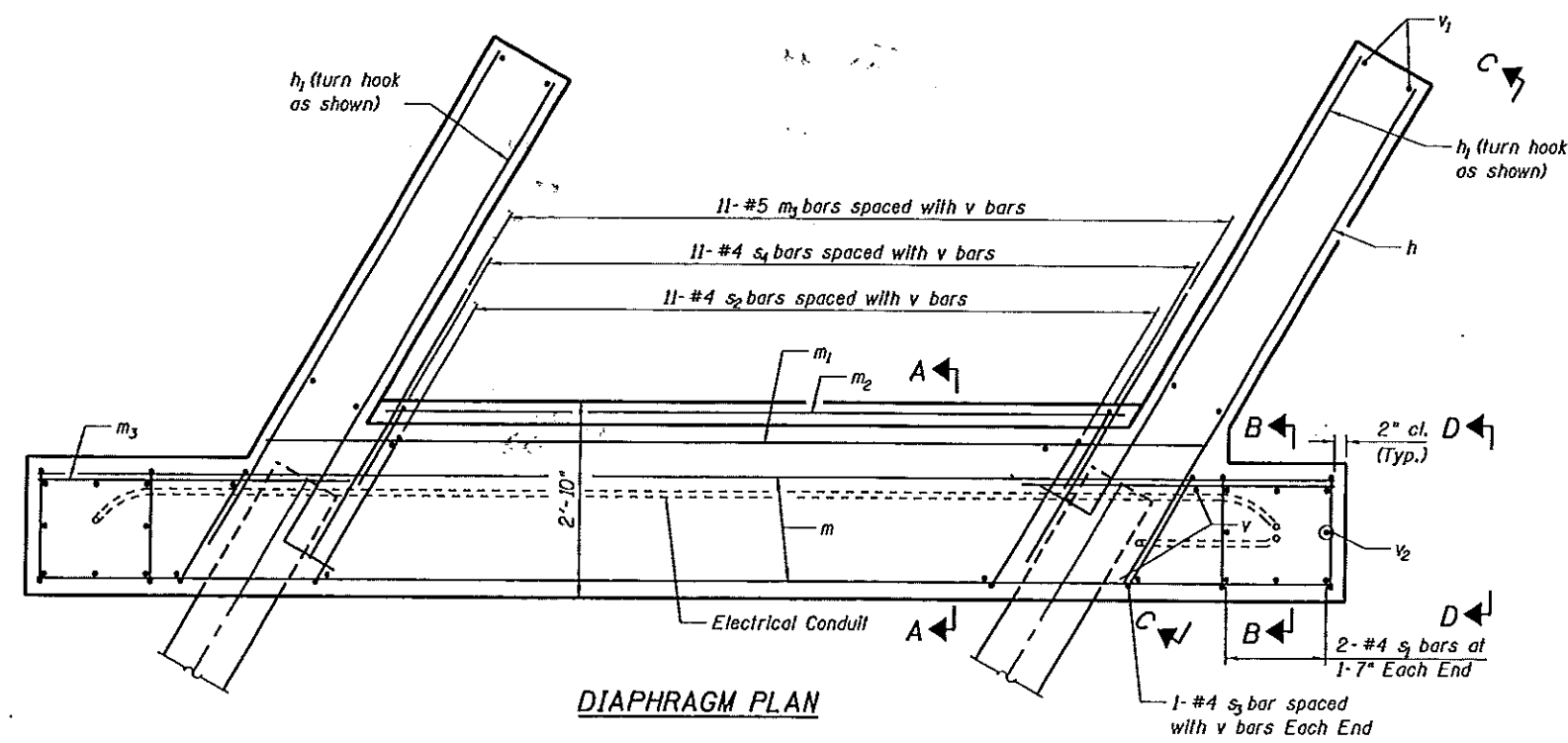
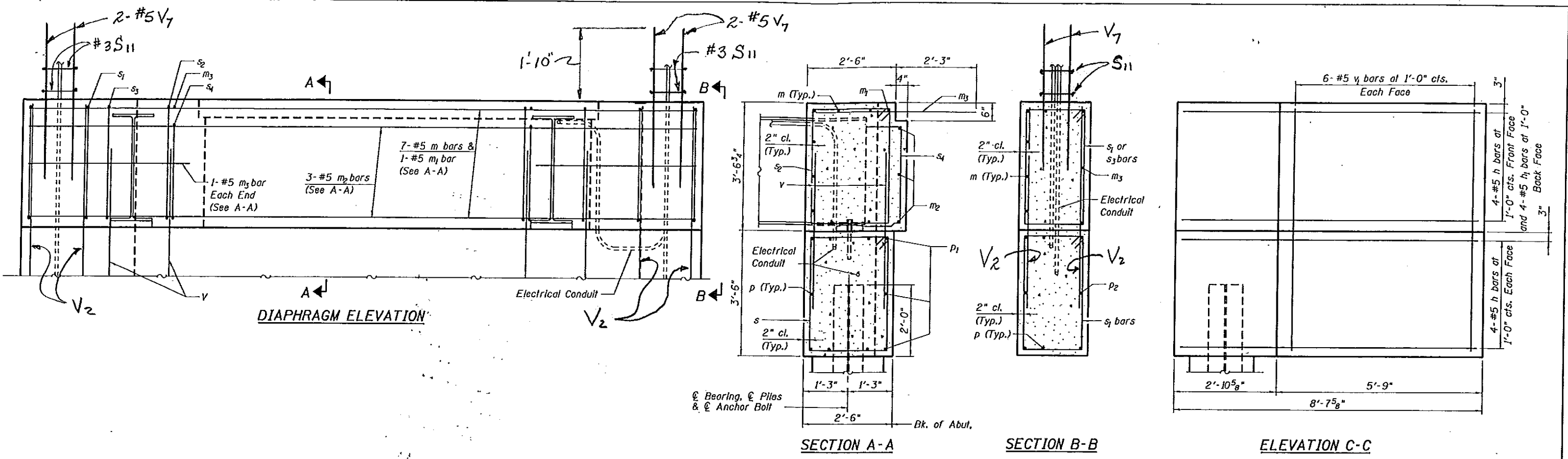
DESIGNED MJJ
 CHECKED KPC
 DRAWN MJJ/JTH
 CHECKED KPC
 DATE 2/10/2010

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SHEET NO. 9
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	59
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:
Reinforcement bars in diaphragm are billed with substructure on Sheet 9.

DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ/JTH
CHECKED	KPC
DATE	2/10/2010

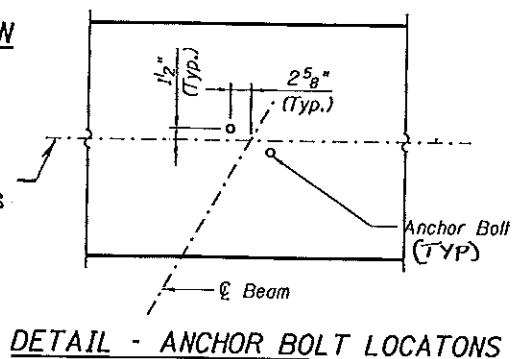
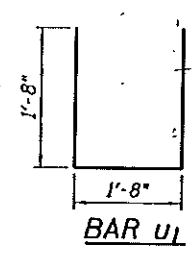
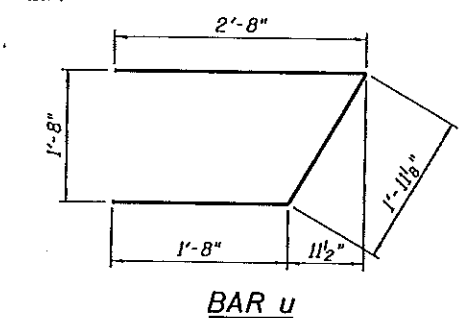
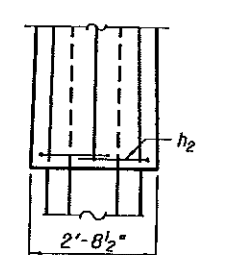
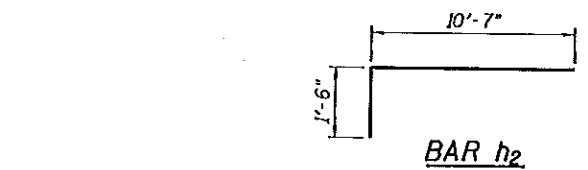
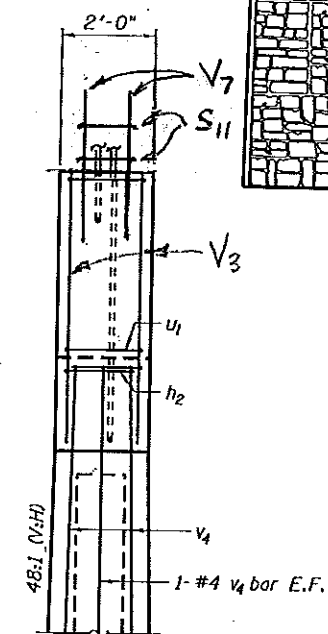
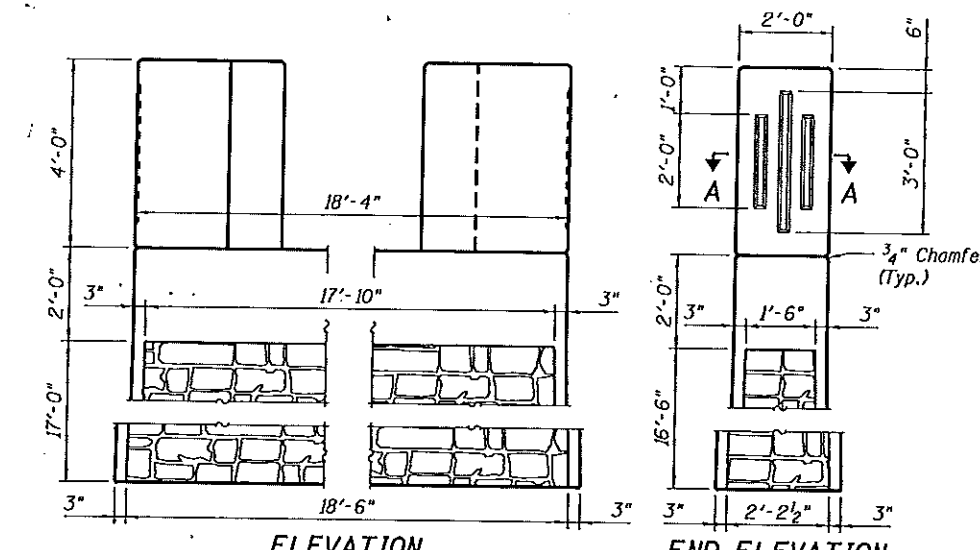
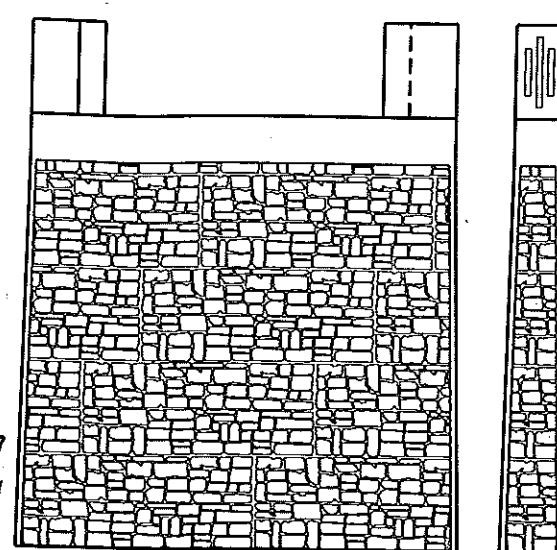
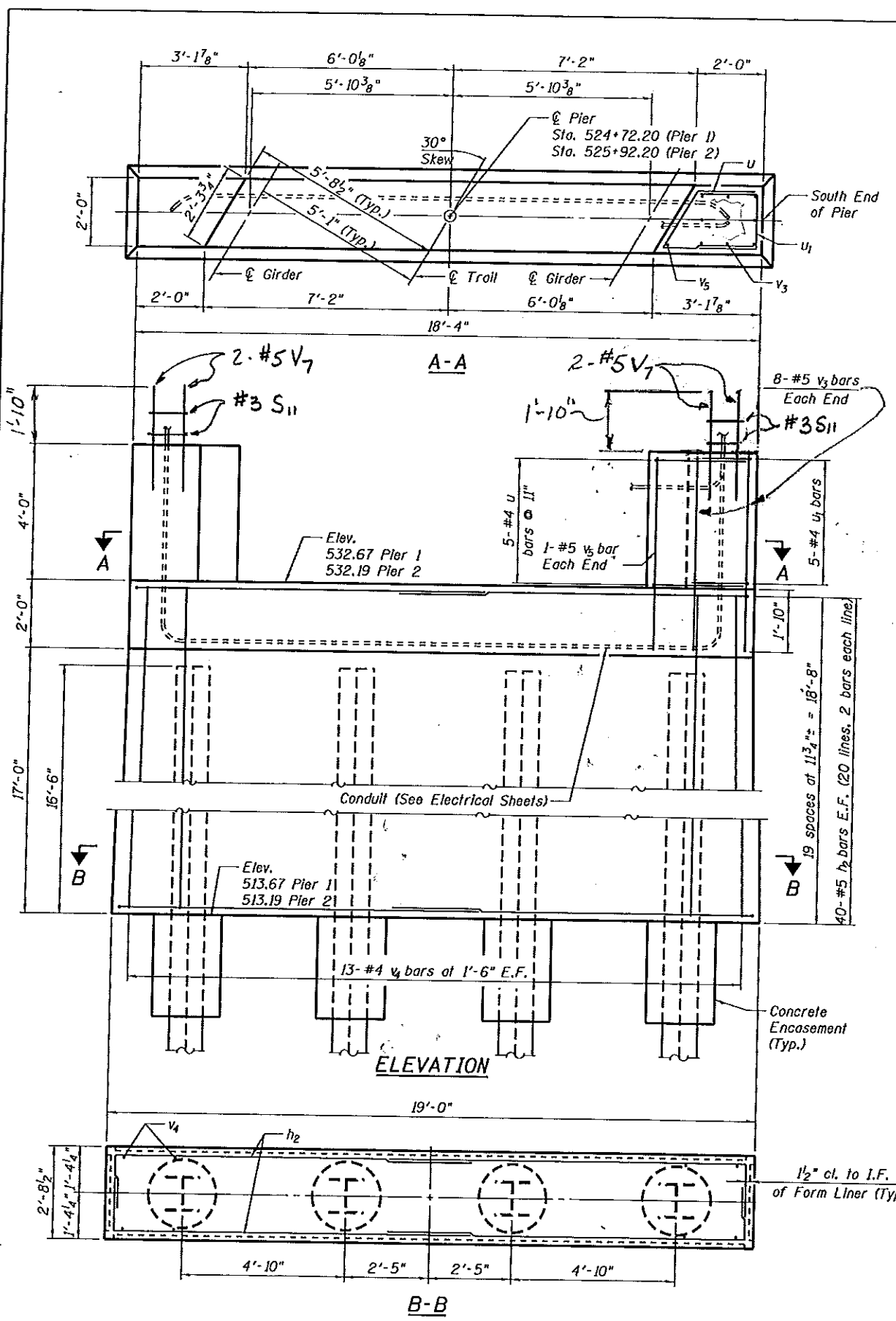
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SHEET NO. 10
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	60
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PILE ORDERED: **BILL OF MATERIAL (2 PIERS)**

PIER 1:
 4 - 30' w/SHOES
 4 - 35' WITHOUT
PIER 2:
 4 - 35' w/SHOES
 4 - 35' WITHOUT

Bar	No.	Size	Length	Shape
h2	160	#5	12'-1"	┌
U	20	#5	6'-3"	┌
U1	20	#5	5'-0"	┌
S11	8	#3	3'-0"	┌
V3	32	#5	5'-7"	—
V4	56	#4	18'-8"	—
V5	4	#5	5'-6"	—
V7	16	#5	3'-8"	—
Structure Excavation	Cu. Yd.	14		
Concrete Structures	Cu. Yd.	63.8		
Concrete Encasement	Cu. Yd.	2.8		
Reinforcement Bars	Pound	3048		
Form Liner Textured Surface	Sq. Ft.	1364		
Furnishing - Piles, HP 12x63	Foot	528		
Driving Piles	Foot	528		
Pile Shoes	Each	8		

PILE DATA
 Type: HP 12x63 w/ Pile Shoes
 Nominal Required Bearing: 497 kips
 Allowable Resistance Available: 166 kips
 Est. Length: 62 ft. - Pier 1
 70 ft. - Pier 2

NOTES:
 1. See Sheet 13 for Pile Details.
 2. See Special Provision for information on the Formliner pattern.

MINIMUM BAR LAPS
 #5 bars 2'-5"

PIER 3230
STRUCTURE B29.85 (082-7000)

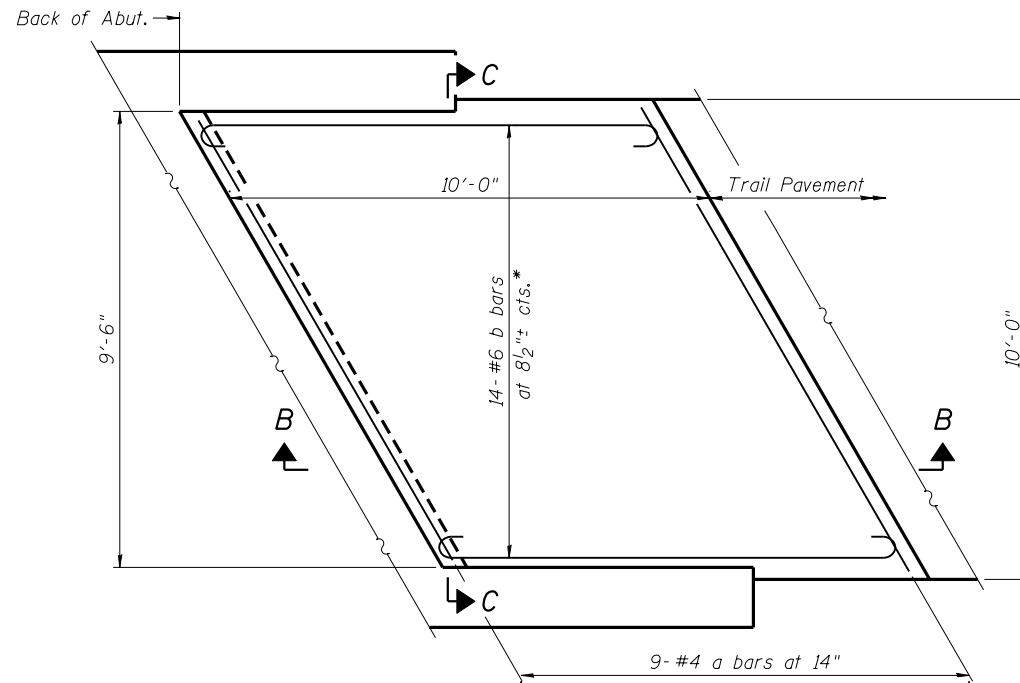
DESIGNED MJJ
 CHECKED KPC
 DRAWN MJJ
 CHECKED KPC
 DATE 2/10/2010
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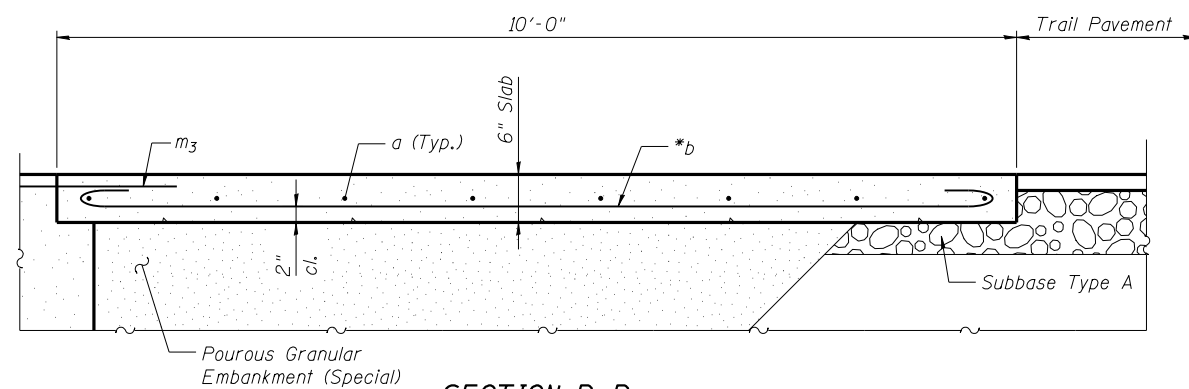
SHEET NO. 11
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	61
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



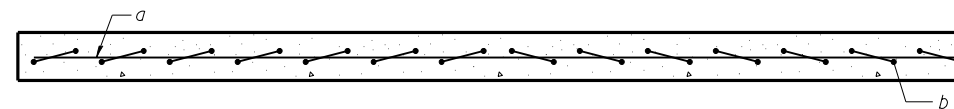
PLAN

* Tilt #6 b bars as required to maintain clearance.

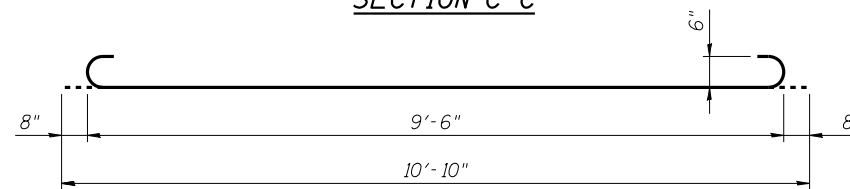


SECTION B-B

* Tilt #6 b bars as required to maintain clearance.



SECTION C-C



BAR b

**BILL OF MATERIAL
(2 APPROACHES)**

Bar	No.	Size	Length	Shape
a	18	#4	10'-7"	—
b	28	#6	10'-10"	⌋
Concrete Structures			Cu. Yd.	3.6
Reinforcement Bars			Pound	580

**APPROACH SLAB
STRUCTURE B29.85 (082-7000)**

2/18/2010 2:12:06 PM

DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

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WADE &
MOERCHEN, INC.**
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Swansea, Illinois 62226
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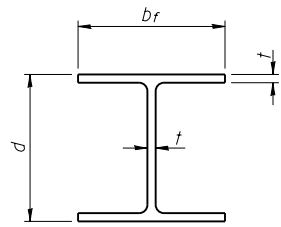
TWM
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NOTHING LESS.

StCtD
St Clair County Transit District

M
Bi-State
Development
Agency

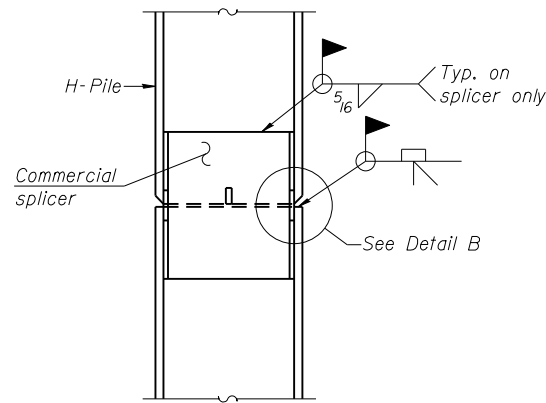
SHEET NO. 12
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	62
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

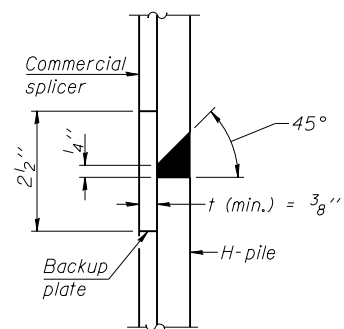


STEEL PILE TABLE

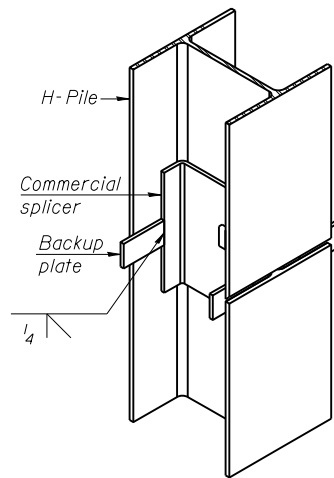
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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



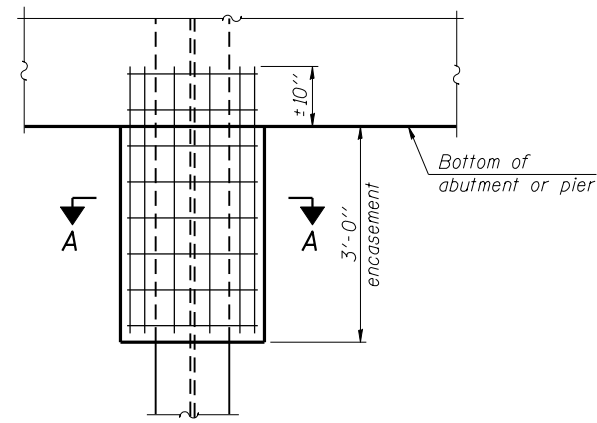
ELEVATION



DETAIL "B"

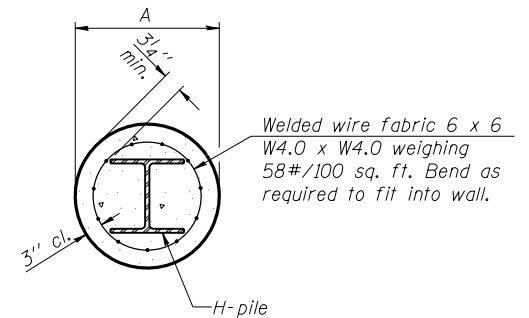


ISOMETRIC VIEW



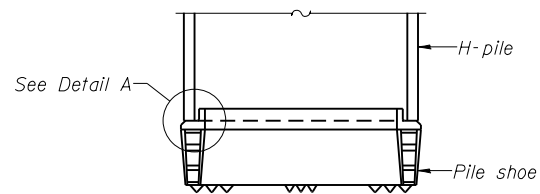
ELEVATION

PILE ENCASEMENT

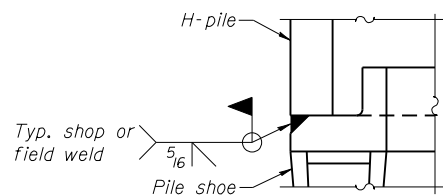


SECTION A-A

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

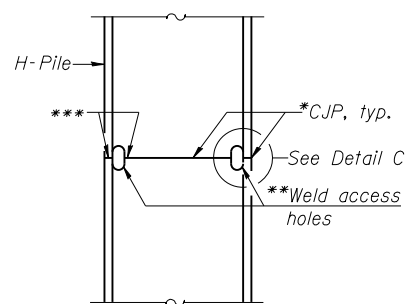


ELEVATION



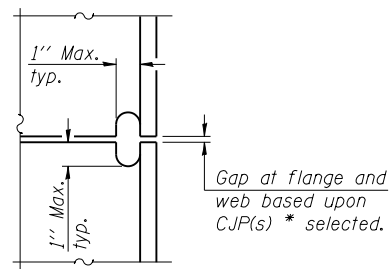
DETAIL A

H-PILE SHOE ATTACHMENT



ELEVATION

COMPLETE PENETRATION WELD SPLICE

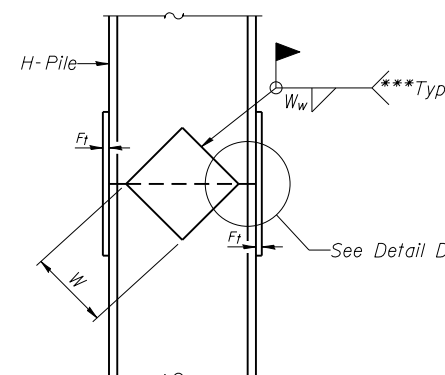


DETAIL C

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code-Steel.

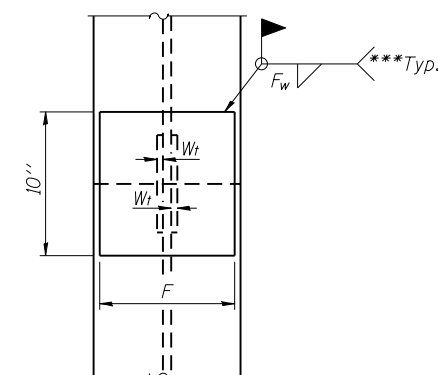
**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code-Steel.

***Interrupt welds 1/4" from end of each pile.

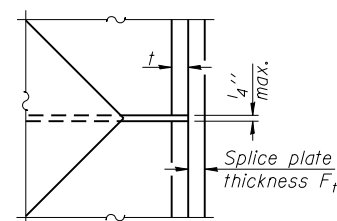


ELEVATION

WELDED PLATE FIELD SPLICE



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 1/2"	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.

**PILE DETAILS
STRUCTURE B29.85 (082-7000)**

2/18/2010 2:12:07 PM

F-HP 5-16-08

DESIGNED
CHECKED
DRAWN
CHECKED
DATE 2/10/2010

P:\080461\4-CADD\4.3-ST\Swansea Section\Bridge 29.85\B29.85-013-Steel H Piles (F-HP).dgn

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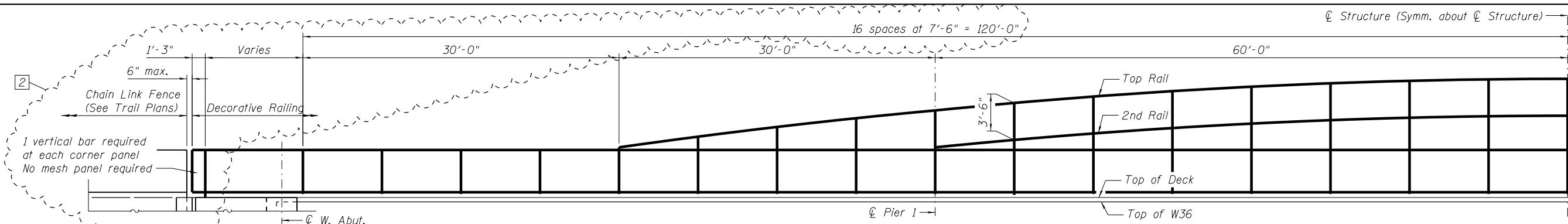
TWM
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 NOTHING LESS.

SCD
 St Clair County Transit District

M
 Bi-State Development Agency
 Metro

SHEET NO. 13
23 SHEETS

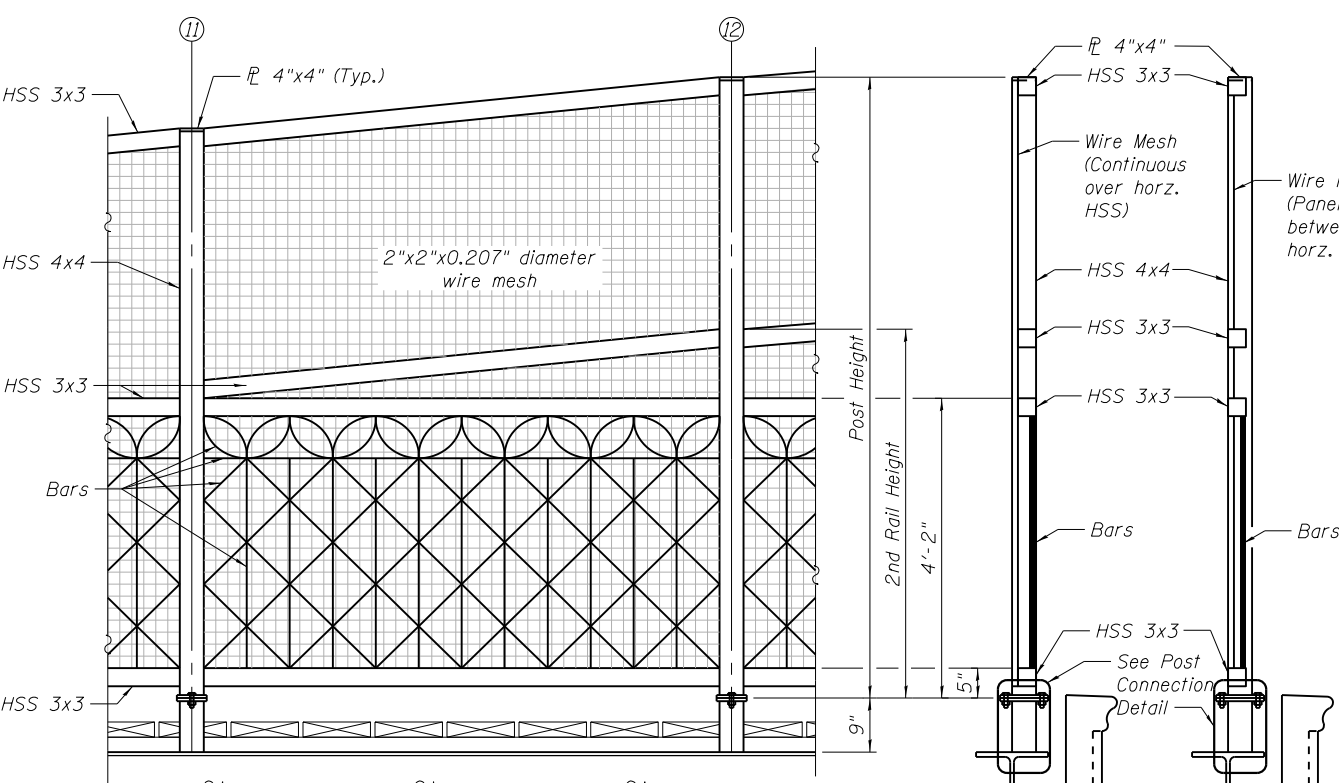
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	63
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Post Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Post Height**	4'-6"	4'-2"	4'-2"	4'-2"	4'-2"	4'-5"	5'-5 1/4"	6'-4 1/4"	7'-2 1/4"	7'-11"	8'-8 1/2"	9'-2 3/4"	9'-9"	10'-2"	10'-6"	10'-8 3/4"	10'-10 1/2"	10'-11"
2nd Rail Height*	-	-	-	-	-	-	-	-	-	4'-5"	5'-2 1/2"	5'-8 3/4"	6'-3"	6'-8"	7'-0"	7'-2 3/4"	7'-4 1/2"	7'-5"

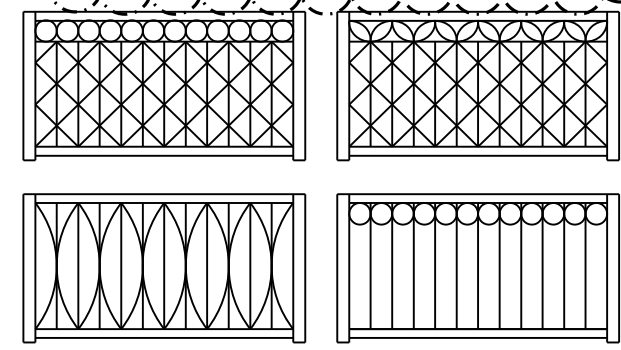
* See Cross Section
** Measured above Rail Post Stub beam or concrete.

ELEVATION - POST & RAIL ELEMENTS



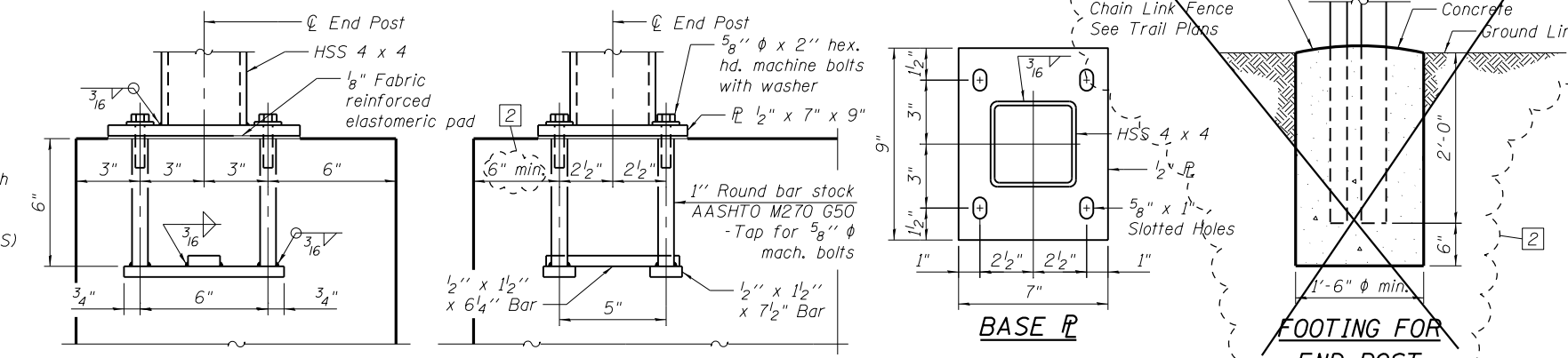
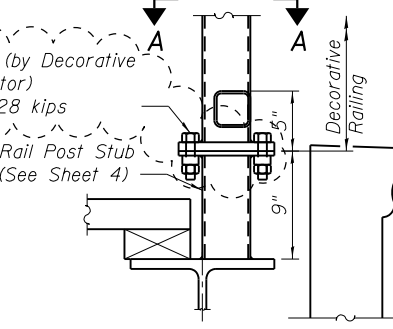
OUTSIDE ELEVATION - FENCE PANEL

The thickness of the bars (perpendicular to the plane of the railing) shall be 1/2". The width of the bars shall be 3/4".



ALT. 1 ALT. 2 CROSS SECTION - FENCE

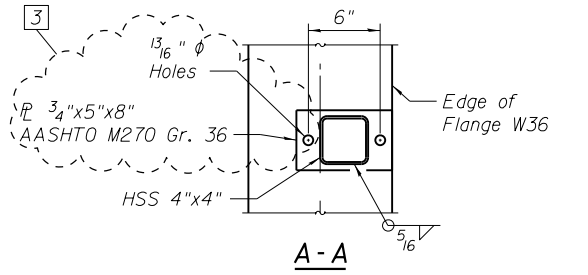
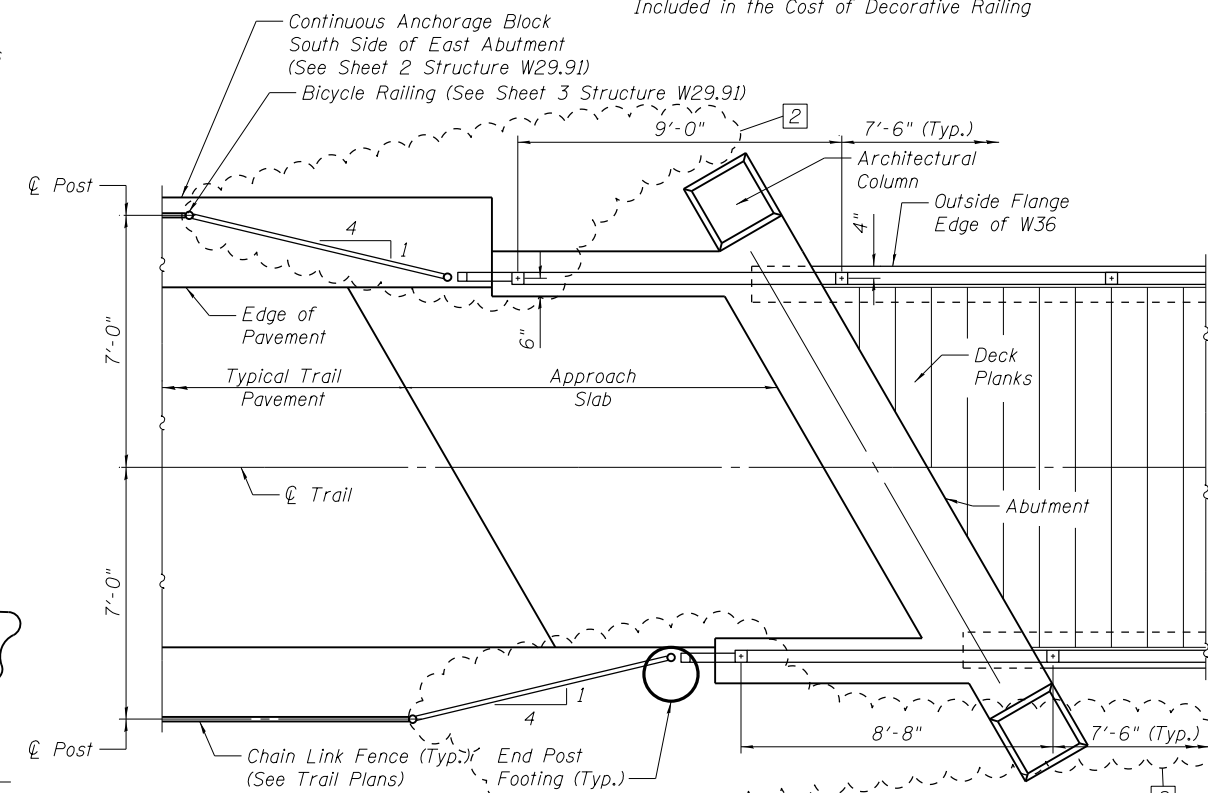
(Post 12 Shown)



ANCHOR BOLT DETAILS

WINGWALL POST ANCHORAGE DETAILS

Included in the Cost of Decorative Railing



- NOTES:
- Contractor shall choose Wire Mesh Alternative 1 or 2. Wire Mesh Alternative is independent of the Structural Steel Alternative chosen.
 - In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 1/2" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications or 6" whichever is greater.
 - See Special Provision.

Item	Unit	Quantity
Bicycle Railing (Special - B29.85)	Foot	540

BICYCLE RAILING (SPECIAL - B29.85) STRUCTURE B29.85 (082-7000)

DESIGNED MJJ
CHECKED DJH
DRAWN MJJ
CHECKED KPC
DATE 2/10/2010

1 Addendum 6/8/10 MJJ
2 Revised 12/9/10 MJJ
3 Revised 1/7/11 MJJ

THOUVENOT, WADE & MOERCHEN, INC.
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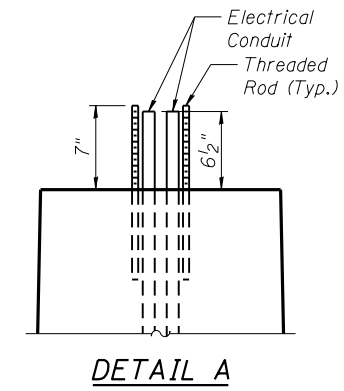
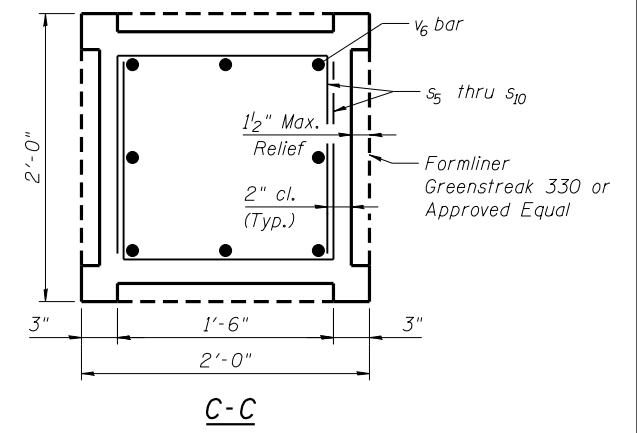
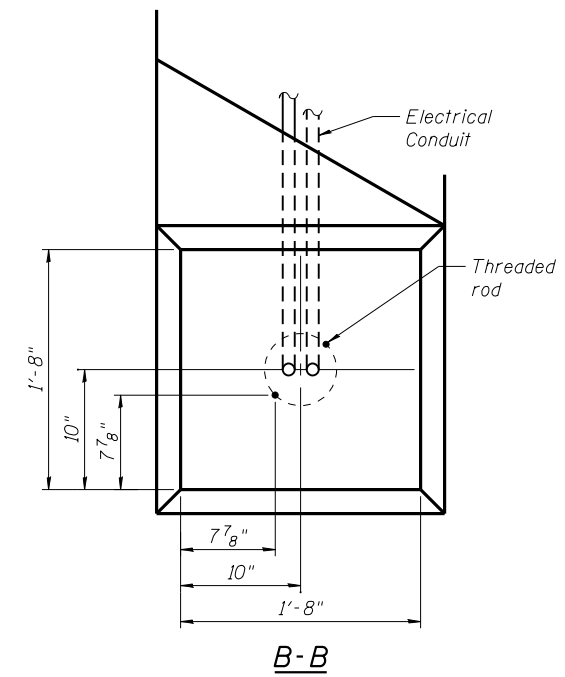
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4940 Old Collinsville Road
Swansea, Illinois 62226
Tel: 618.624.4488
Fax: 618.624.6688



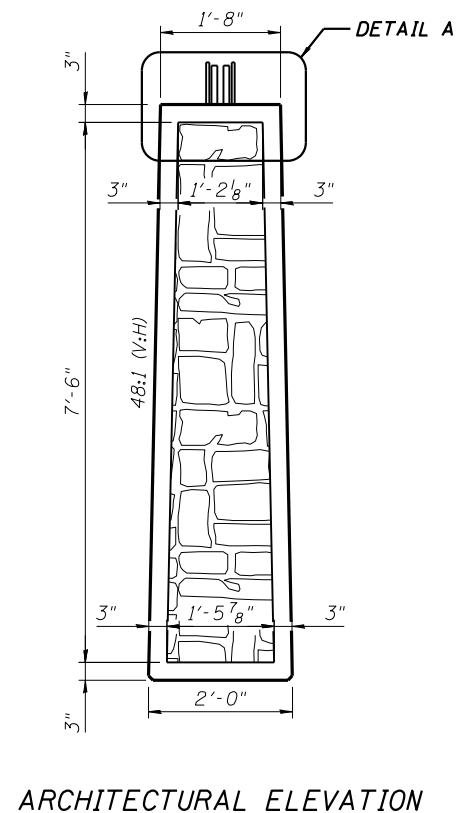
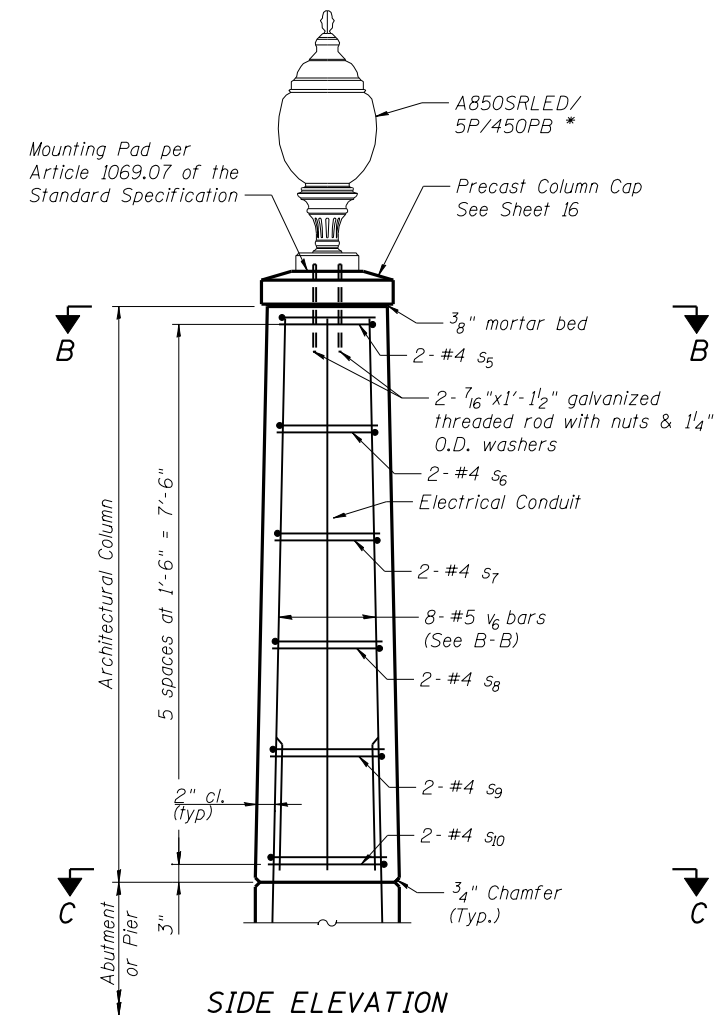
SHEET NO. 14
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Bar	A	Length
s ₅	1'-1 1/8"	3'-3"
s ₆	1'-1 7/8"	3'-6"
s ₇	1'-2 5/8"	3'-8"
s ₈	1'-3 3/8"	3'-10"
s ₉	1'-4 1/8"	4'-0"
s ₁₀	1'-4 7/8"	4'-3"



BILL OF MATERIAL (8 COLUMNS)

Bar	No.	Size	Length	Shape
s ₅	16	#4	3'-3"	□
s ₆	16	#4	3'-6"	□
s ₇	16	#4	3'-8"	□
s ₈	16	#4	3'-10"	□
s ₉	16	#4	4'-0"	□
s ₁₀	16	#4	4'-3"	□
v ₆	64	#5	7'-8"	—
Concrete Structures		Cu. Yd.		8.0
Form Liner Textured Surface		Sq. Ft.		320
Reinforcement Bars		Pound		750

NOTES:
 Offset form liner to pattern symmetry.
 Position formliner on architectural columns to minimize large blocks.
 Cost of precast column cap and mortar bed is included in the cost of precast concrete panels. See Sheet 16 for Section A-A.
 * Sternberg Lighting Model Numbers shown. Alternative lighting to be approved by Engineer. See Electrical Plans and Special Provision.

**PIER & ABUTMENT COLUMNS
 STRUCTURE B29.85 (082-7000)**

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DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

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 Swansea, Illinois 62226
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 Fax: 618.624.6888

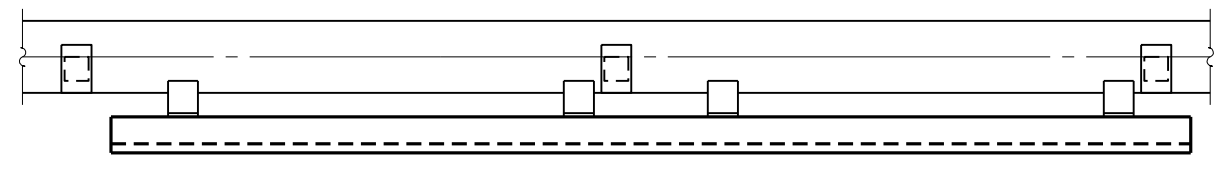
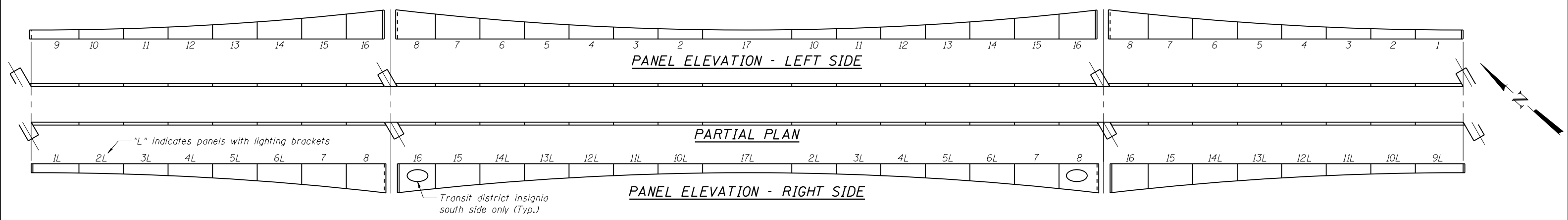
TWM
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 NOTHING LESS.

SCD
 St Clair County Transit District

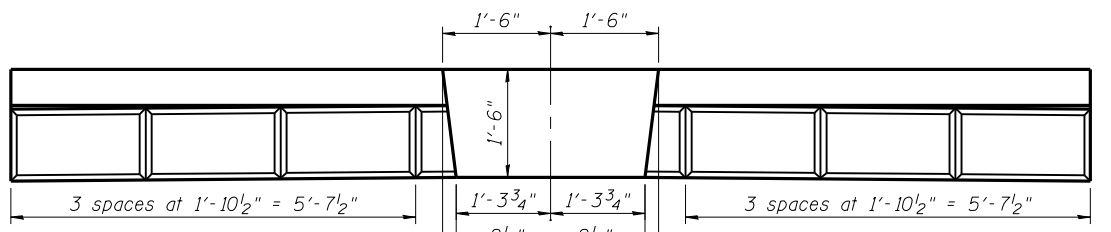
M
 Bi-State Development Agency

SHEET NO. 15
 23 SHEETS

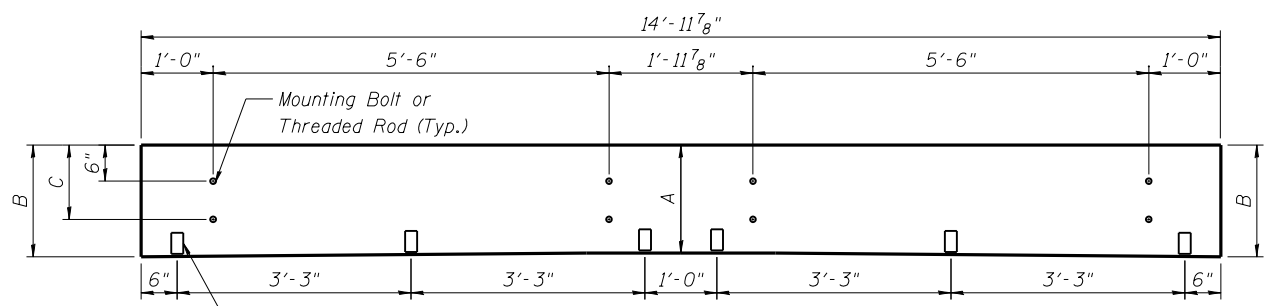
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	96-00001-00-EG	ST. CLAIR	218	65
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP OF PANEL 17

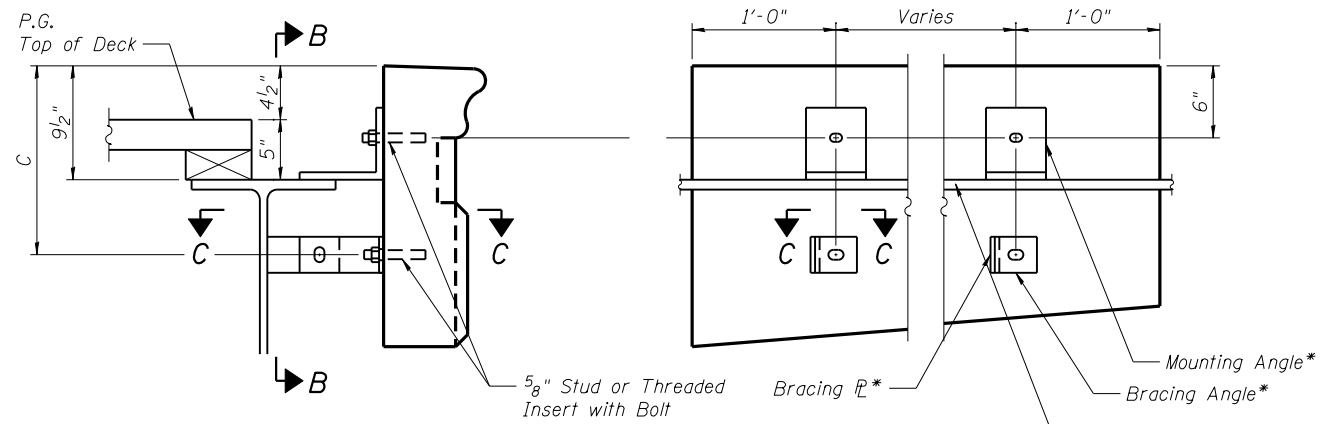


FRONT OF PANEL 17



BACK OF PANEL 17

(See Sheet 17 for dimensions A, B & C)

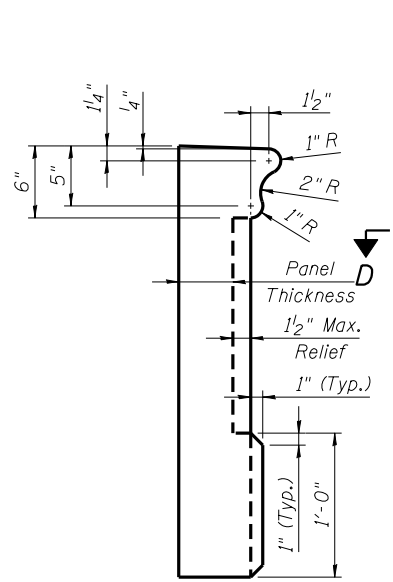


MOUNTING SECTION

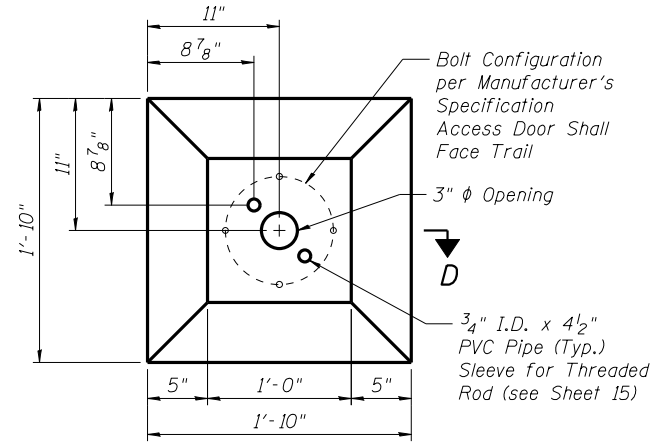
See Sheets 4 and 5 for Steel Details

*By Steel Fabricator

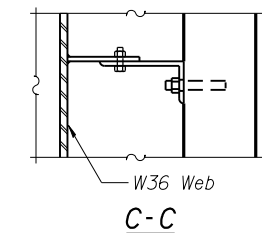
Panel	Allowable Weight (lbs)
1 & 9	940
2 & 10	940
3 & 11	1040
4 & 12	1210
5 & 13	1420
6 & 14	1690
7 & 15	2020
8 & 16	2060
17	1760



TYPICAL SECTION

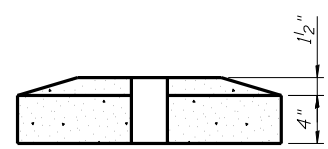


A-A PRECAST COLUMN CAP

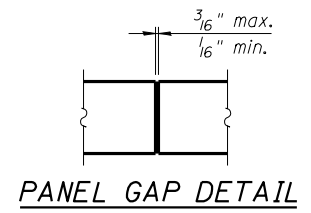


C-C

NOTES:
 See Sheet 17 for additional Panel Details.
 Approximate Area of Panels = 1,250 Sq. Ft. Panels shall be paid for as a Lump Sum.
 Panel manufacturer may combine panel units to make larger units. All connection points shown shall be provided.
 Panel manufacturer should account for expansion, contraction and construction tolerances.
 Panels shall be designed to resist a wind pressure of 50 psf.
 Stone pattern shall match across panel joints.



D-D



PANEL GAP DETAIL

ARCHITECTURAL PANELS
 STRUCTURE B29.85 (082-7000)

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 Plotted by: mjoost
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DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

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 Tel: 618.624.4488
 Fax: 618.624.6888

TWM
 EXCEPTIONAL SERVICE. NOTHING LESS.

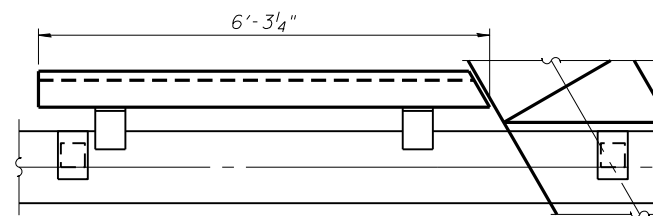
S&TD
 St Clair County Transit District

M
 Bi-State Development Agency

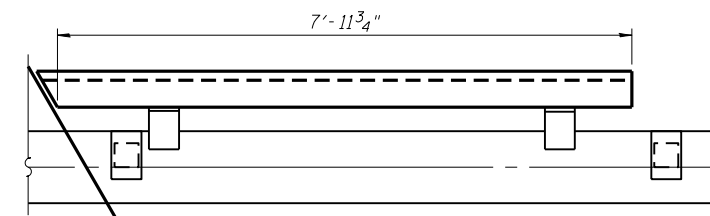
SHEET NO. 16
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

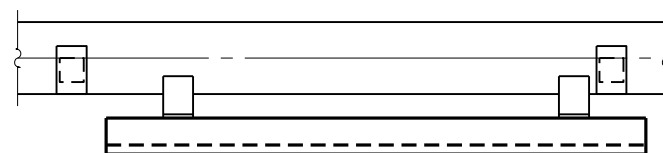
Panels	A	B	C
1 & 9	1'-6"	1'-6 ⁵ / ₈ "	1'-3 ³ / ₄ "
2, 10 & 17	1'-6 ⁵ / ₈ "	1'-8 ⁵ / ₈ "	1'-3 ³ / ₄ "
3 & 11	1'-8 ⁵ / ₈ "	1'-11 ⁷ / ₈ "	1'-3 ³ / ₄ "
4 & 12	1'-11 ⁷ / ₈ "	2'-4 ¹ / ₂ "	1'-6"
5 & 13	2'-4 ¹ / ₂ "	2'-10 ³ / ₈ "	1'-11"
6 & 14	2'-10 ³ / ₈ "	3'-5 ⁵ / ₈ "	2'-5"
7 & 15	3'-5 ⁵ / ₈ "	4'-2 ¹ / ₈ "	3'-4"
8 & 16	4'-2 ¹ / ₈ "	4'-10 ¹ / ₂ "	3'-7 ¹ / ₂ "



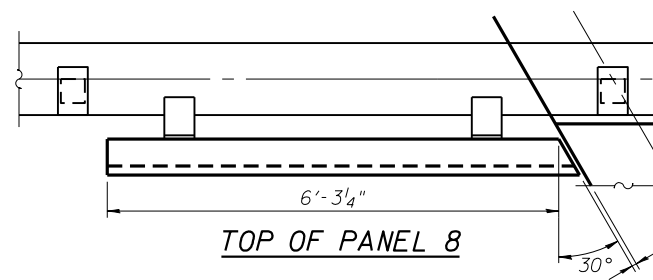
TOP OF PANEL 16



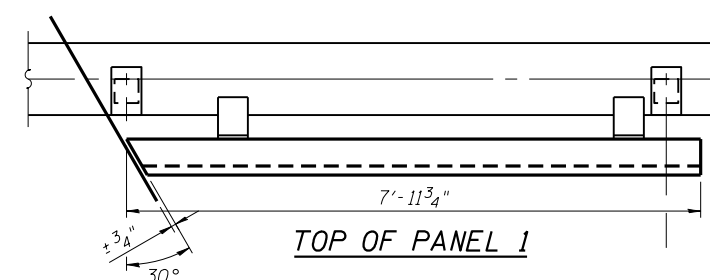
TOP OF PANEL 9



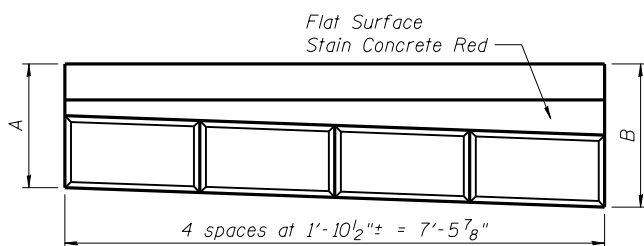
TOP OF PANELS 2 TO 7 & 10 TO 15



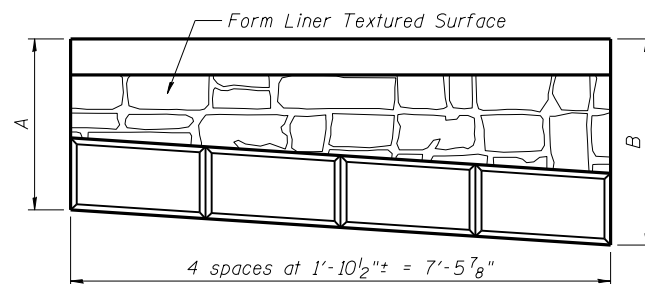
TOP OF PANEL 8



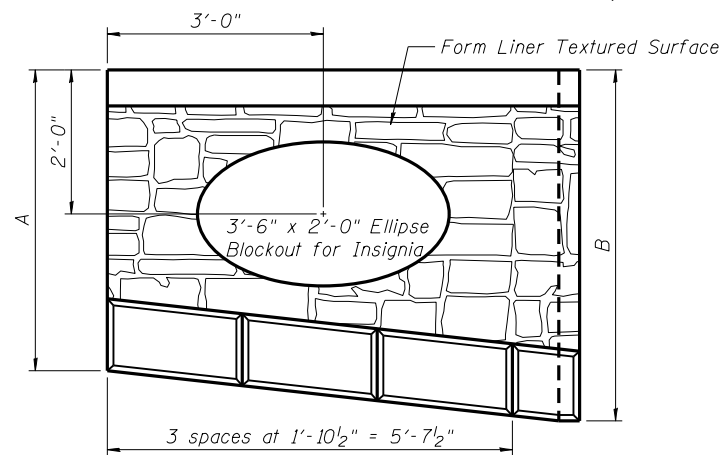
TOP OF PANEL 1



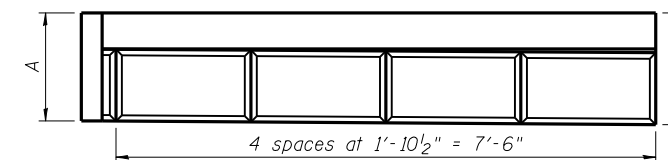
FRONT OF PANELS 2, 3, 10, 11 & 17



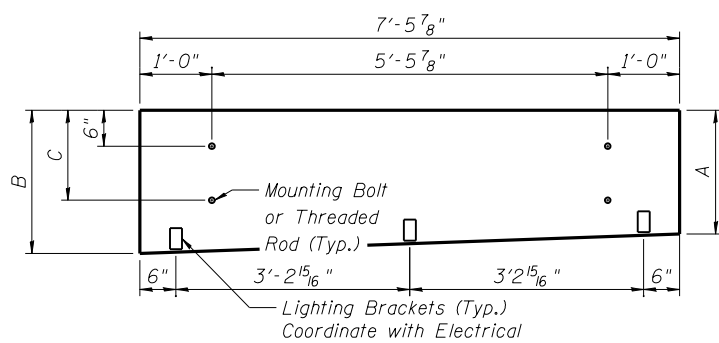
FRONT OF PANELS 4 TO 7 & 12 TO 15



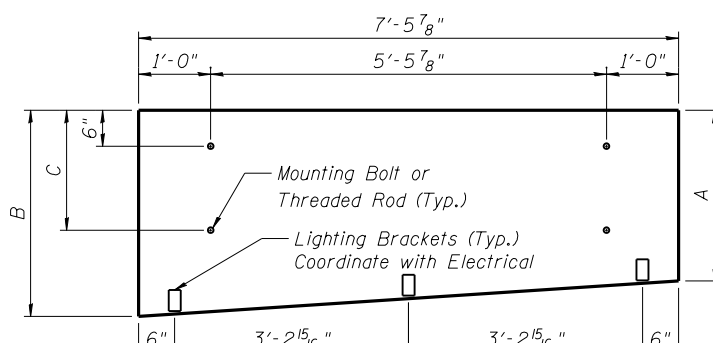
FRONT OF PANEL 8 (16 similar)



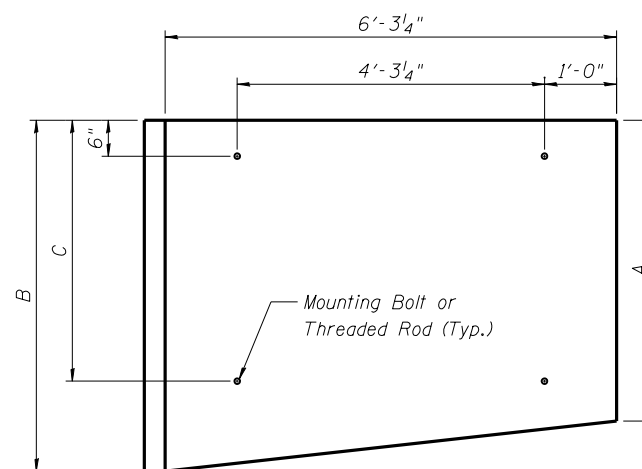
FRONT OF PANEL 1 (9 similar)



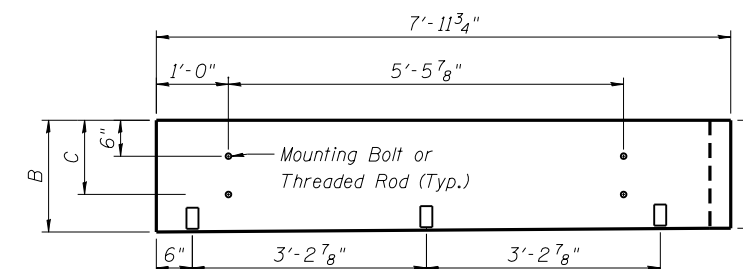
BACK OF PANELS 2, 3, 10, 11 & 17



BACK OF PANELS 4 TO 7 & 12 TO 15



BACK OF PANEL 8 (16 similar)



BACK OF PANEL 1 (9 similar)

ARCHITECTURAL PANELS
STRUCTURE B29.85 (082-7000)

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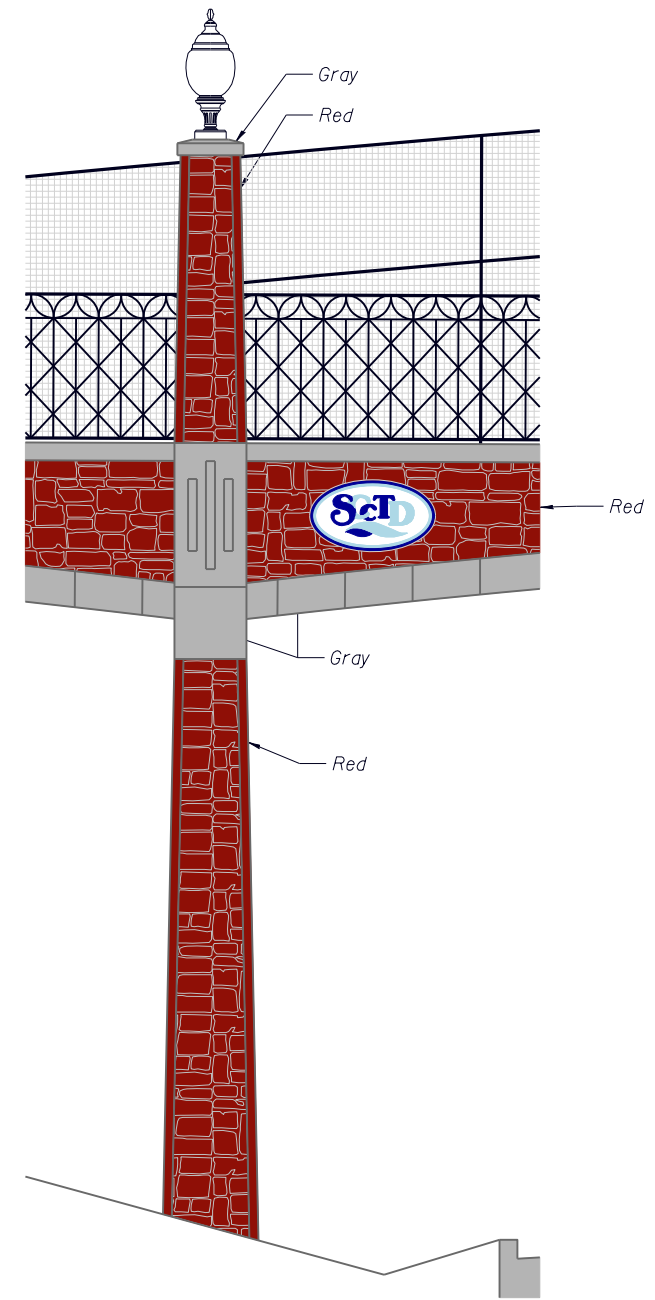
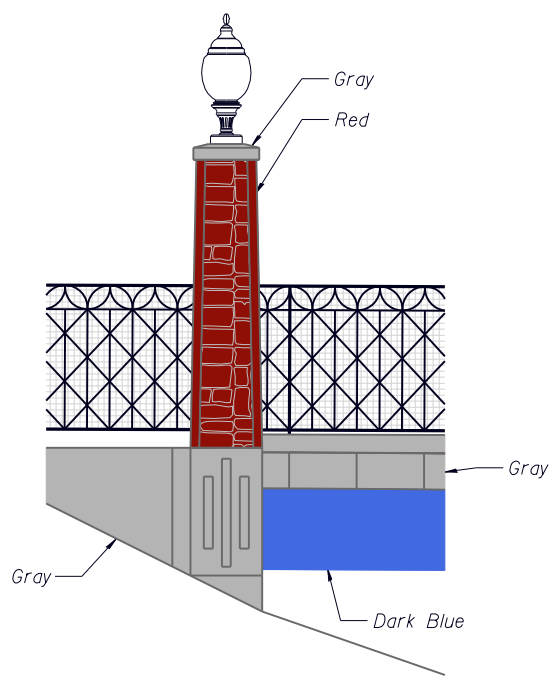
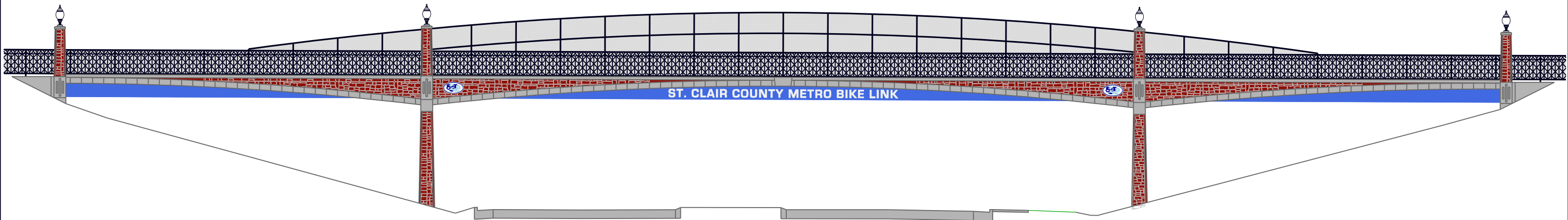
DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

**THOUVENOT,
WADE &
MOERCHEN, INC.**
SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

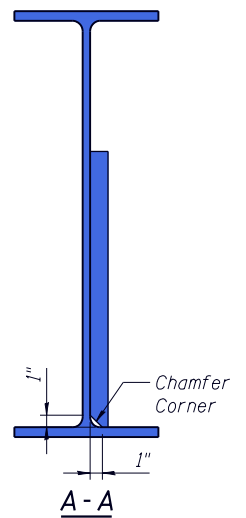
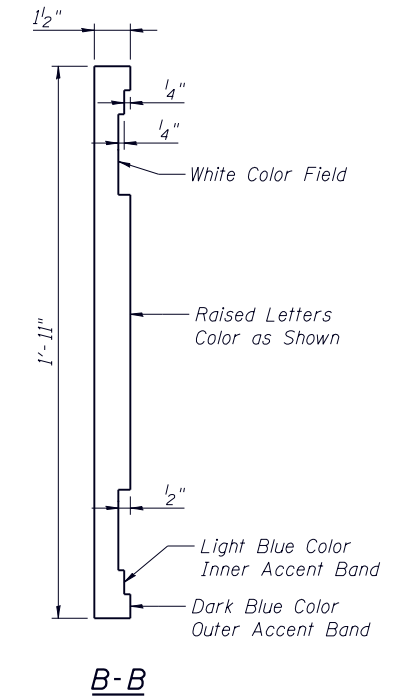
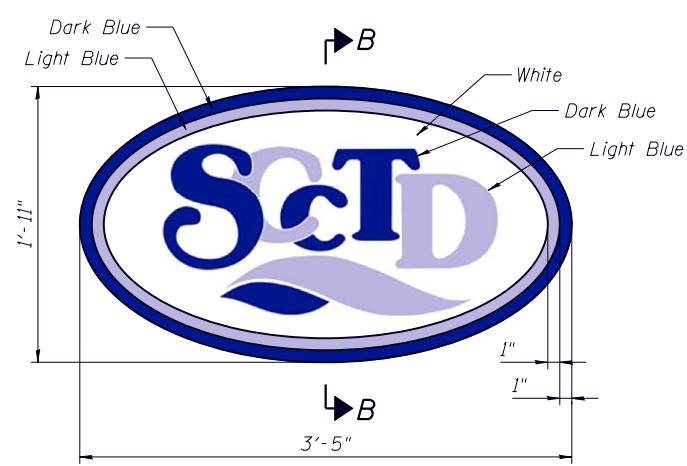
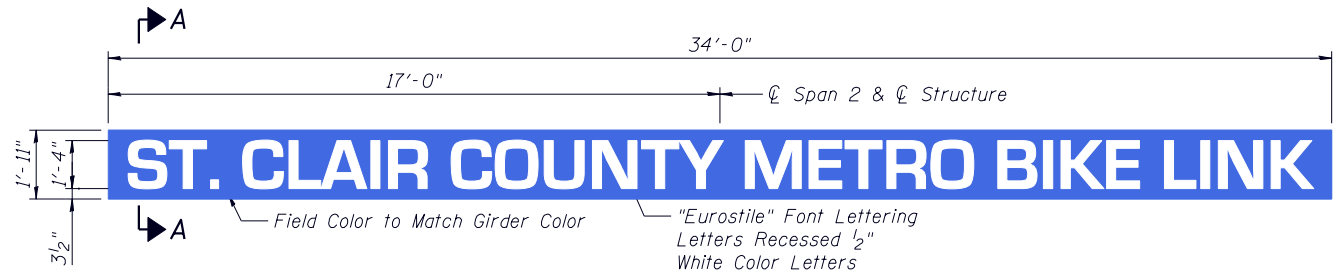


SHEET NO. 17
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	67
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Staining Concrete Notes:
 Cast-in-place concrete may be stained integrally or after the concrete has cured. Precast concrete panels may be stained in one of the following ways.
 1. Stain concrete gray integrally. Stain red areas after concrete has cured. Multiple coats of red stain may need to be applied in order to match the red color of the cast-in-place concrete to the Owner's satisfaction.
 2. Stain both gray and red areas after the concrete has cured.



Notes:
 Specified Colors shall match the following Federal Color Standard 595:
 White 37925 or equal
 Dark Blue 35052 or 35056
 Light Blue 35231 or 35240
 Red 31136 or 31140
 Gray 36280
 When different items have the same specified color, the finished color of each item shall match to the satisfaction of the Owner. Color samples and mockups shall be provided as described in the special provisions.

Sign Panel Notes:
 Sign panel manufacturer shall determine thickness of panel, size of individual panel units, and location of joints between panels.
 Sign panels shall be attached to girders and according to the manufacturer's specification. Any changes to the structural steel or precast concrete panels shall be approved by the Engineer.

**ARCHITECTURAL ELEVATIONS
 STRUCTURE B29.85 (082-7000)**

DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	2/10/2010

Plotted by: mjpost
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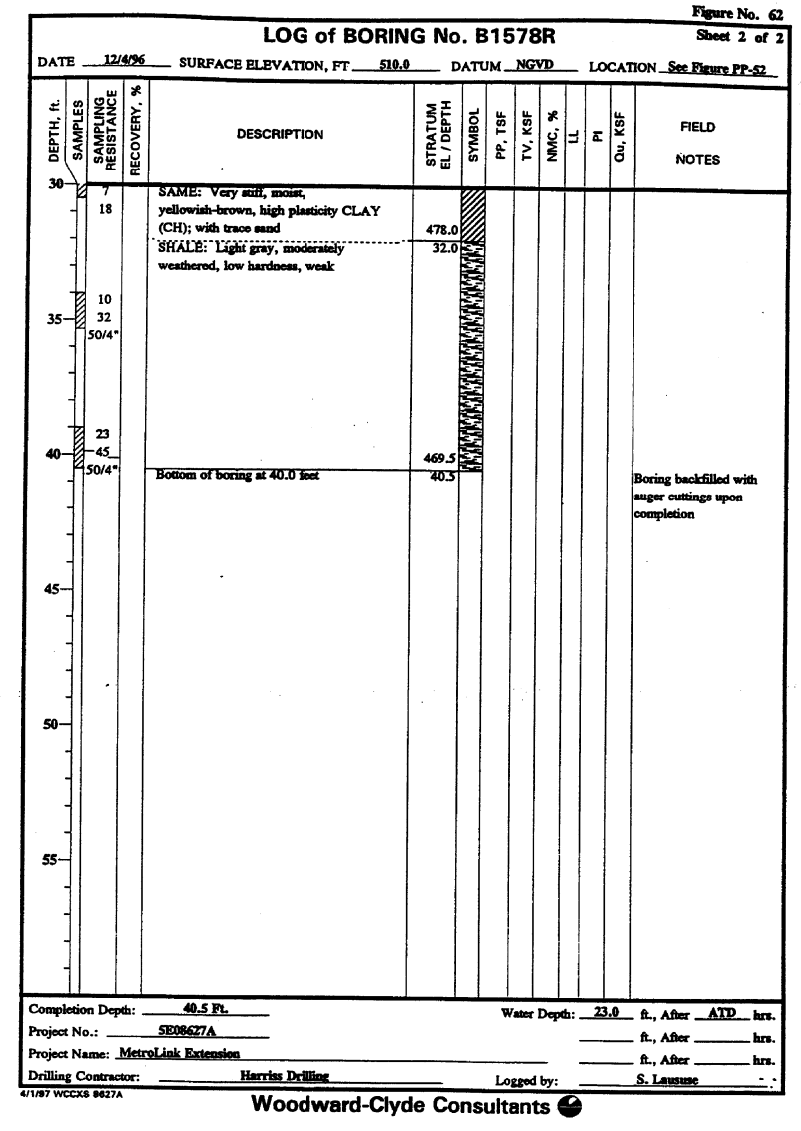
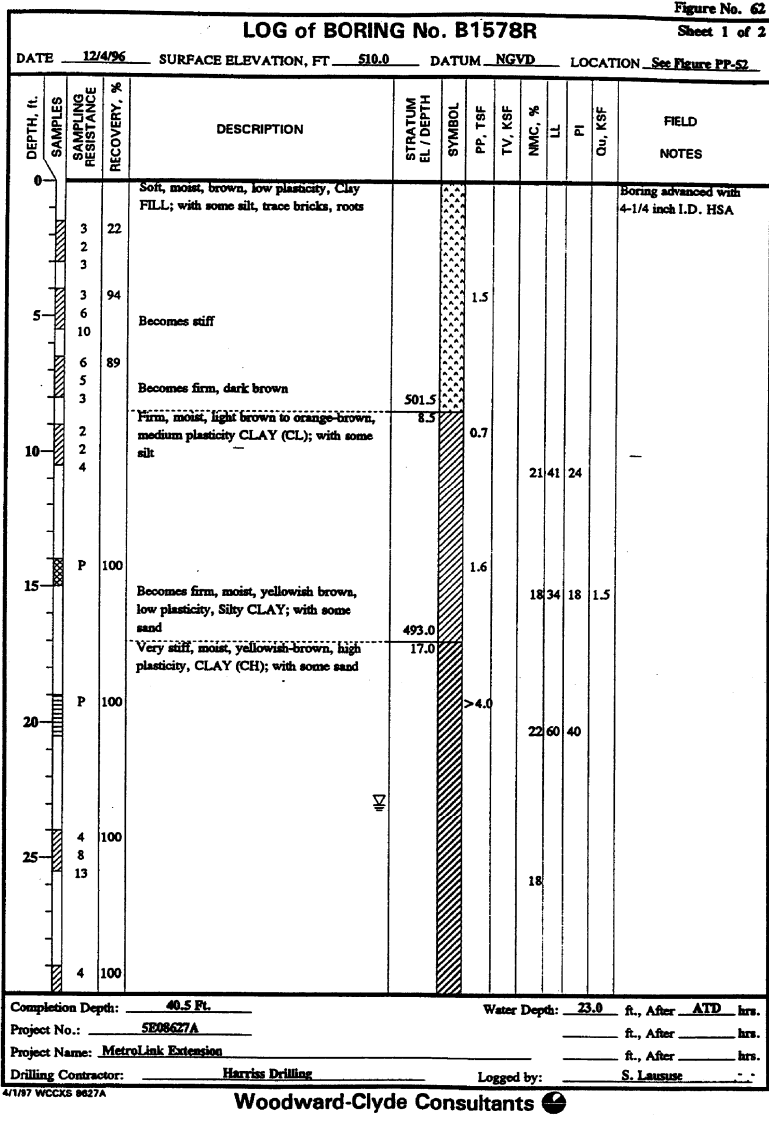
TWM
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 NOTHING LESS.

SCTD
 St Clair County Transit District

M
 Metro
 Bi-State
 Development
 Agency

SHEET NO. 18
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	219	68
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BORING LOG B1578R
STRUCTURE B29.85 (082-7000)

DESIGNED
CHECKED
DRAWN
CHECKED
DATE 2/10/2010

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SHEET NO. 19
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Figure No. B-23

LOG of BORING No. WCC-23 Sheet 1 of 2

DATE 1/22/96 SURFACE ELEVATION, FT 513.9 DATUM NGVD LOCATION See Figure 1

DEPTH, ft.	SAMPLES	SAMPLING RESISTANCE	RECOVERY, %	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	PP, TSF	TV, TSF	NMC, %	LL	PI	QU, KSF	FIELD NOTES
0				Gray-black, very coarse, gravel FILL									Boring advanced with 4-1/4 inch I.D. HSA
6	67			Becomes medium dense, coarse, sand FILL						11			
5	56			Firm, moist, brown, silty, medium plastic CLAY (CL)	508.9				25	50	30		
2	56			Becomes stiff, with trace fine sand	5.0		1.5		22				
2	56			Becomes firm, gray									
10	78			Becomes stiff, brown with dark mottling			0.8		26				
15	100						1.5						
20	100			With thin lens of fine brown sand			2.0						
25	100			Becomes very stiff			3.0						
25	100			With trace fine gravel/coarse sand			3.0						

Completion Depth: 51.7 Ft. Water Depth: _____ ft., After _____ hrs.
 Project No.: 5E08627 _____ ft., After _____ hrs.
 Project Name: MetroLink _____ ft., After _____ hrs.
 Drilling Contractor: Roberts Env. Drilling Logged by: _____ E. Page _____

Woodward-Clyde Consultants

Figure No. B-23

LOG of BORING No. WCC-23 Sheet 2 of 2

DATE 1/22/96 SURFACE ELEVATION, FT 513.9 DATUM NGVD LOCATION See Figure 1

DEPTH, ft.	SAMPLES	SAMPLING RESISTANCE	RECOVERY, %	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	PP, TSF	TV, TSF	NMC, %	LL	PI	QU, KSF	FIELD NOTES
30	11			SAME: Very stiff, moist, brown, silty, low plastic CLAY (CL); with trace fine gravel/coarse sand			4.0						
15	15				480.9								
35	17	100		Hard, moist, brown, medium plastic CLAY (CL) (weathered shale)	33.0		<4.0			16	40	16	
35	50/5*												
19	44			COAL: black	475.4					35			
23	30				38.5								
40	30			SHALE: hard, gray-green, thinly laminated, slightly weathered	473.9								
40	30				40.0								
45	100			With some maroon color									
50	16			With 45 degree fracture	462.2								
50	16				51.7								
55	16			Possible LIMESTONE									
55	16			Bottom of boring at 51.7 feet									

Completion Depth: 51.7 Ft. Water Depth: _____ ft., After _____ hrs.
 Project No.: 5E08627 _____ ft., After _____ hrs.
 Project Name: MetroLink _____ ft., After _____ hrs.
 Drilling Contractor: Roberts Env. Drilling Logged by: _____ E. Page _____

Woodward-Clyde Consultants

NX Core Run #1
 Start: 47.3 feet
 Stop: 51.7 feet
 Run: 4.4 feet
 Rec: 4.0 feet
 Lost: 0.4 feet
 DWL: 0%
 Boring backfilled with auger cuttings upon completion

BORING LOG WCC-23
STRUCTURE B29.85 (082-7000)

2/18/2010 2:12:23 PM

DESIGNED
CHECKED
DRAWN
CHECKED
DATE 2/10/2010

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SHEET NO. 20
 23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	70
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Figure No. B-24

LOG of BORING No. WCC-24 Sheet 1 of 2

DATE 1/22/96 SURFACE ELEVATION, FT 513.2 DATUM NGVD LOCATION See Figure 1

DEPTH, ft.	SAMPLES	SAMPLING RESISTANCE	RECOVERY, %	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	PP, TSF	TV, TSF	NMC, %	LL	PI	Qu, KSF	FIELD NOTES
0				Moist, black, coarse, gravel FILL									Boring advanced with 4-1/4 inch I.D. HSA
2	44			Becomes sandy				37					
5	78			Firm, moist, brown, silty, low plastic CLAY (CL)	508.2			28	40	23	1.3		
2	67			Grades some fine sand			1.0	27					
2	83			Becomes stiff, gray			0.5	27					
15	100			Becomes stiff, gray			1.0						
20	100			Stiff, moist, gray-brown, high plastic CLAY (CH)	495.2								
20	100			Becomes wet	18.0								
25	100			Stiff, wet, brown, fine, sandy, low plastic CLAY (CL)	491.2								Switch to mud rotary drilling with roller bit
25	100			Becomes firm, silty, sandy CLAY	22.0								

Completion Depth: 47.8 Ft. Water Depth: 20.0 ft., After ATD hrs.

Project No.: 5E08627 ft., After _____ hrs.

Project Name: MetroLink ft., After _____ hrs.

Drilling Contractor: Roberts Env. Drilling Logged by: E. Page

2/28/96 WCCXS 68827 Woodward-Clyde Consultants

Figure No. B-24

LOG of BORING No. WCC-24 Sheet 2 of 2

DATE 1/22/96 SURFACE ELEVATION, FT 513.2 DATUM NGVD LOCATION See Figure 1

DEPTH, ft.	SAMPLES	SAMPLING RESISTANCE	RECOVERY, %	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	PP, TSF	TV, TSF	NMC, %	LL	PI	Qu, KSF	FIELD NOTES
30				SAME: Firm, wet, brown, silty, sandy, low plastic CLAY (CL)									
11	100			Becomes hard, wet, brown, medium plastic CLAY (CL); trace fine gravel/coarse sand			>4.0		20	43	19		Drilling very hard
35	50			SHALE: Gray, thinly laminated, soft, slightly weathered	476.2								Drilling easier
40	100			Becomes black, hard	37.0				20	45	23		Drilling very hard
45	100												NX Core Run #1 Start: 43.2 feet Stop: 47.8 feet Run: 4.6 feet Rec: 4.6 feet DWL: 0%
50	100			Bottom of boring at 47.8 feet	465.4								Boring backfilled with auger cuttings upon completion

Completion Depth: 47.8 Ft. Water Depth: 20.0 ft., After ATD hrs.

Project No.: 5E08627 ft., After _____ hrs.

Project Name: MetroLink ft., After _____ hrs.

Drilling Contractor: Roberts Env. Drilling Logged by: E. Page

2/28/96 WCCXS 68827 Woodward-Clyde Consultants

BORING LOG WCC-24
STRUCTURE B29.85 (082-7000)

DESIGNED
CHECKED
DRAWN
CHECKED
DATE <u>2/10/2010</u>

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SHEET NO. 21
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	71
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Figure No. B-25

LOG of BORING No. WCC-25 Sheet 1 of 2

DATE 1/25/96 SURFACE ELEVATION, FT 512.2 DATUM NGVD LOCATION See Figure 1

DEPTH, ft.	SAMPLES SAMPLING RESISTANCE RECOVERY, %	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	PP, TSF	TV, TSF	NMC, %	LL	PI	QU, KSF	FIELD NOTES
0		Soft to firm, moist, dark brown, gravelly, clay FILL.									Boring advanced with 4-1/4 inch I.D. HSA
2	0		508.2								
2	2	Firm, moist, brown, high plastic CLAY (CH)	4.0		1.0	27	51	33			
5	67		505.2								
3	3	Firm, moist, brown, silty, low plastic CLAY (CL)	7.0		1.5	28					
4	2										
2	2	Becomes stiff			3.5	22					
2	2										
10	100										
2	2				2.0						
3	3				2.5						
6	100		494.2								
2	2	Stiff, moist, gray-brown, high plastic CLAY (CH); trace fine gravel	18.0								
3	3										
20	100		490.2		2.0						Switch to rotary drilling with roller bit
4	4	Loose, wet, brown, clayey, fine to medium SAND (SC); trace fine gravel	22.0								
3	3										
25	100		486.2								
3	3	Firm, wet, gray, Silty CLAY (CL)	26.0								
2	2										
30	4										

Completion Depth: 58.0 Ft. Water Depth: _____ ft., After _____ hrs.
 Project No.: 5E08627 _____ ft., After _____ hrs.
 Project Name: MetroLink _____ ft., After _____ hrs.
 Drilling Contractor: Roberts Env. Drilling Logged by: E. Page

Woodward-Clyde Consultants

Figure No. B-25

LOG of BORING No. WCC-25 Sheet 2 of 2

DATE 1/25/96 SURFACE ELEVATION, FT 512.2 DATUM NGVD LOCATION See Figure 1

DEPTH, ft.	SAMPLES SAMPLING RESISTANCE RECOVERY, %	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	PP, TSF	TV, TSF	NMC, %	LL	PI	QU, KSF	FIELD NOTES
28	100	Becomes hard, wet, brown, medium to high plastic CLAY (CL)									
50/4*											
35		Becomes gray-brown									
9	100							19	49	31	
20	37										
40											
23	100		466.2								
38	38	SHALE: Gray-green, hard, thinly laminated, slightly weathered	46.0								
50/5*											
36	100										
50/5*	90	Becomes dark red									NX Core Run #1 Start: 48.0 feet Stop: 54.0 feet Run: 6.0 feet Lost: 0.6 feet DWL: 0%
RQD	47	Becomes gray-green									
55	100	LIMESTONE: Gray, thinly bedded, slightly weathered, strong with thin shale partings, trace stylolites	458.2								
15	15		54.0								NX Core Run #2 Start: 54.0 feet Stop: 58.0 feet Run: 4.0 feet Lost: 0 feet DWL: 0%
3	3	Small, clay-filled vug, becoming fresh	454.2								
2	2	Bottom of boring at 58.0 feet	58.0								Boring backfilled with auger cuttings upon completion

Completion Depth: 58.0 Ft. Water Depth: _____ ft., After _____ hrs.
 Project No.: 5E08627 _____ ft., After _____ hrs.
 Project Name: MetroLink _____ ft., After _____ hrs.
 Drilling Contractor: Roberts Env. Drilling Logged by: E. Page

Woodward-Clyde Consultants

BORING LOG WCC-25
STRUCTURE B29.85 (082-7000)

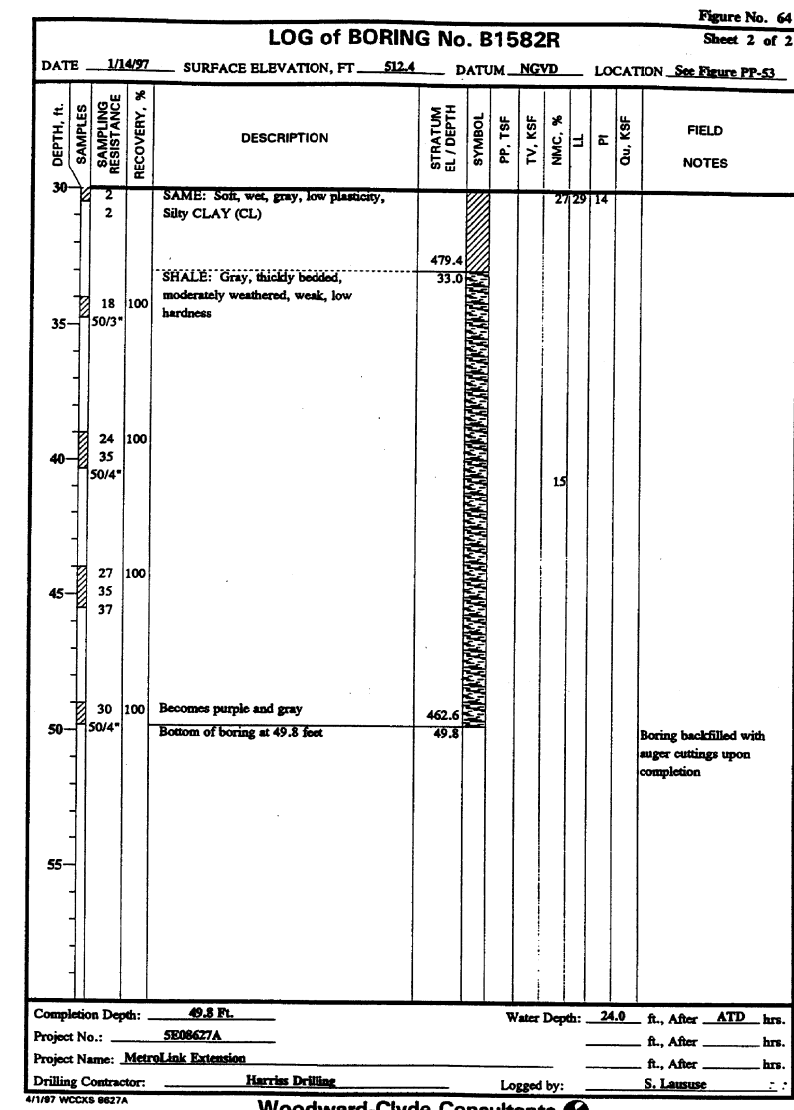
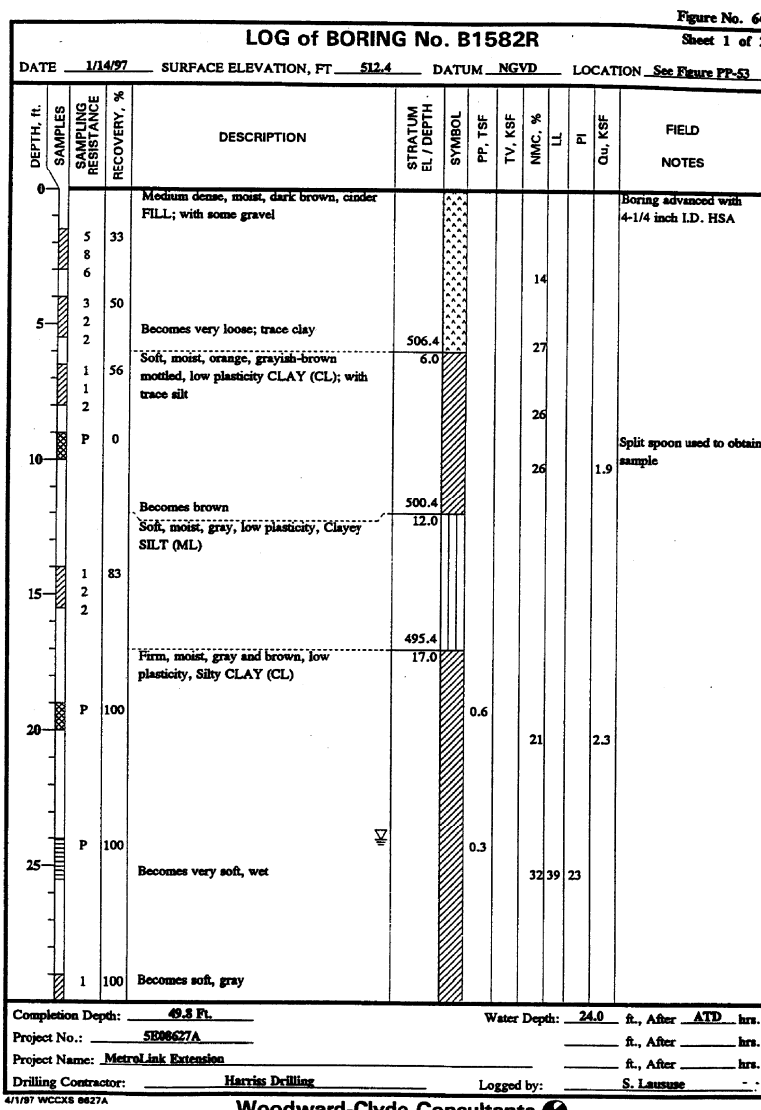
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DATE <u>2/10/2010</u>

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SHEET NO. 22	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		96-00001-00-EG	ST. CLAIR	218	72
23 SHEETS	MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

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BORING LOG B1582R
STRUCTURE B29.85 (082-7000)

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SHEET NO. 23
23 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00001-00-EG	ST. CLAIR	218	73
MetroBikeLink - Swansea Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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