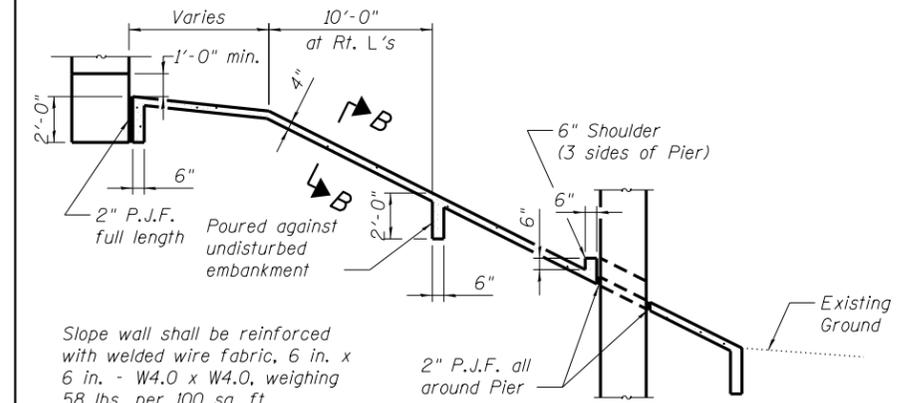
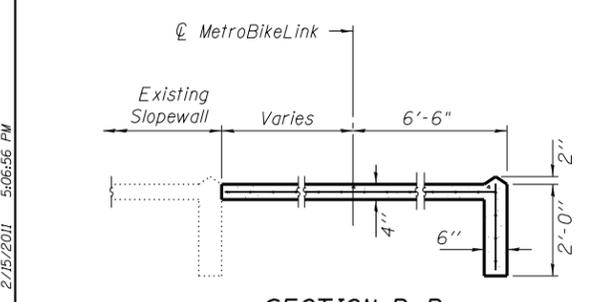


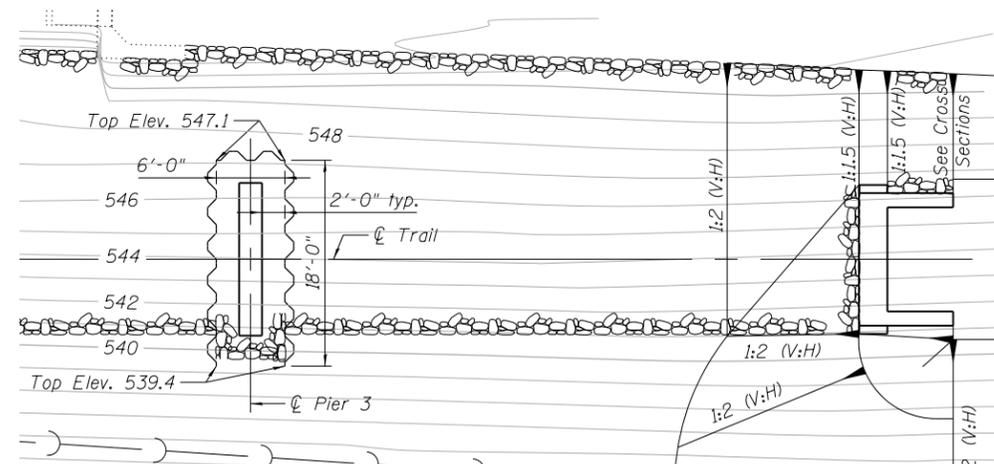
PLAN - WEST SLOPEWALL



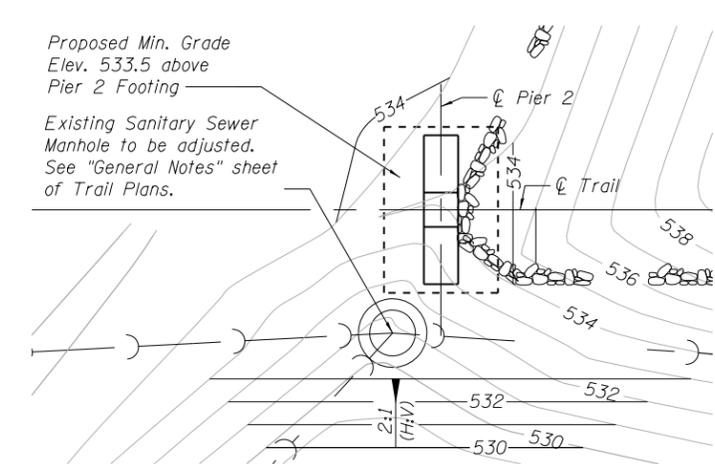
SECTION A-A THRU WEST CONCRETE SLOPEWALL



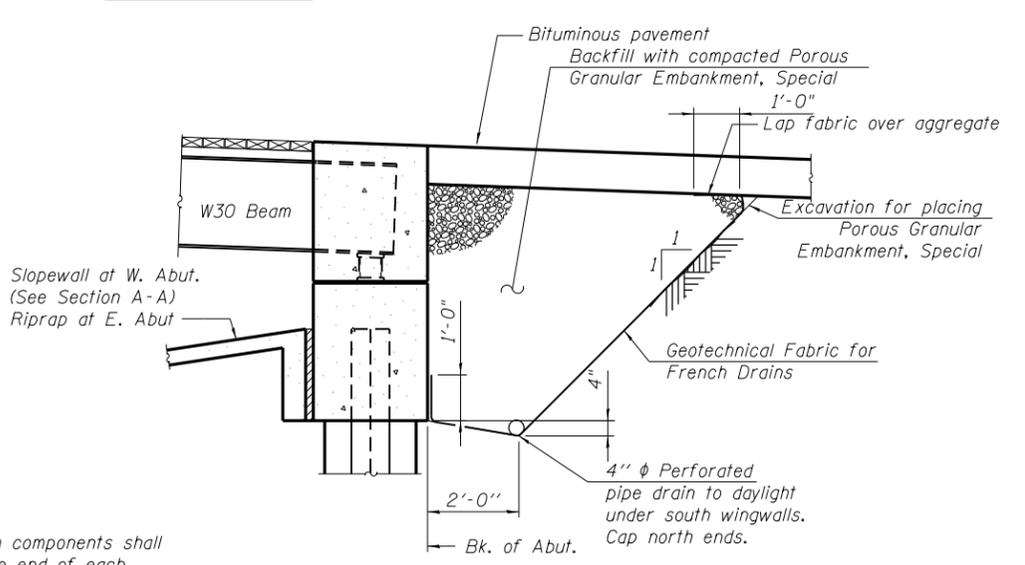
SECTION B-B



PLAN - PIER 3 & EAST ABUTMENT



PLAN - PIER 2



SECTION THRU ABUTMENT

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).

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

**GENERAL NOTES**

Except as otherwise specified, fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts in standard size holes, unless otherwise noted. See Schedule of Bolts.  
 Calculated Weight of Structural Steel:  
 AASHTO M270 Grade 50 = 79,030  
 AASHTO M270 Grade 36 = 15,750  
 ASTM A 500 Grade B = 420  
 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 structural steel surfaces shall be Blue, Federal Color Standard 595 35052. See Special Provision for "Cleaning and Painting New Metal Structures".  
 The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

**SCHEDULE OF BOLTS**

DESCRIPTION	DIAM.	BOLT TYPE	SHEET REF.
Abutment Anchor Bolt	3/4"	ASTM F1554 Gr. 36	6
Pier Anchor Bolt - Outside Girder	1 1/4"	ASTM F1554 Gr. 36	6
Pier Anchor Bolt - Inside Girder	3/4"	ASTM F1554 Gr. 36	6
Girder Splices	7/8"	AASHTO M164 Type 1	4
Channel End Connection	3/4"	AASHTO M253 Type 1	5
WT End Connection	3/4"	AASHTO M253 Type 1	5
Stringer End Connection	1 1/2"	ASTM A307 Gr. 36	5
Nailer Carriage Bolts	3/8"	Stainless Steel	3
Rail Post Stubs	3/4"	AASHTO M164 Type 1	4

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	-	18	18
Stone Riprap, Class A4	Sq. Yd.	-	451	451
Filter Fabric	Sq. Yd.	-	451	451
Structure Excavation	Cu. Yd.	-	167	167
Concrete Structures	Cu. Yd.	-	86.0	86.0
Treated Timber	F.B.M.	11,484	-	11,484
Concrete Encasement	Cu. Yd.	-	2.1	2.1
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Reinforcement Bars	Pound	-	10,620	10,620
Slopewall 4 Inch	Sq. Yd.	-	167	167
Furnishing Steel Piles HP 10x42	Ft.	-	163	163
Furnishing Steel Piles HP 12x53	Ft.	-	264	264
Driving Piles	Ft.	-	427	427
Test Pile Steel HP 10x42	Each	-	2	2
Pile Shoes	Each	-	14	14
Anchor Bolts, 3/4"	Each	-	12	12
Anchor Bolts, 1 1/4"	Each	-	6	6
Pipe Underdrain for Structures, 4"	Ft.	-	32	32
Temporary Soil Retention System	L. Sum	-	1	1
Railing, Special	Ft.	632	-	632
Sign Panels, Special - Type 1	Each	1	-	1
Sign Panels, Special - Type 2	Each	-	2	2

**GENERAL DATA  
STRUCTURE B28.96**

SHEET NO. 2 16 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			ST. CLAIR		
MetroBikeLink - Memorial Section			CONTRACT NO.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

DESIGNED MJJ/DJH  
 CHECKED DJH/MJJ  
 DRAWN MJJ/DJH  
 CHECKED DJH/MJJ  
 DATE

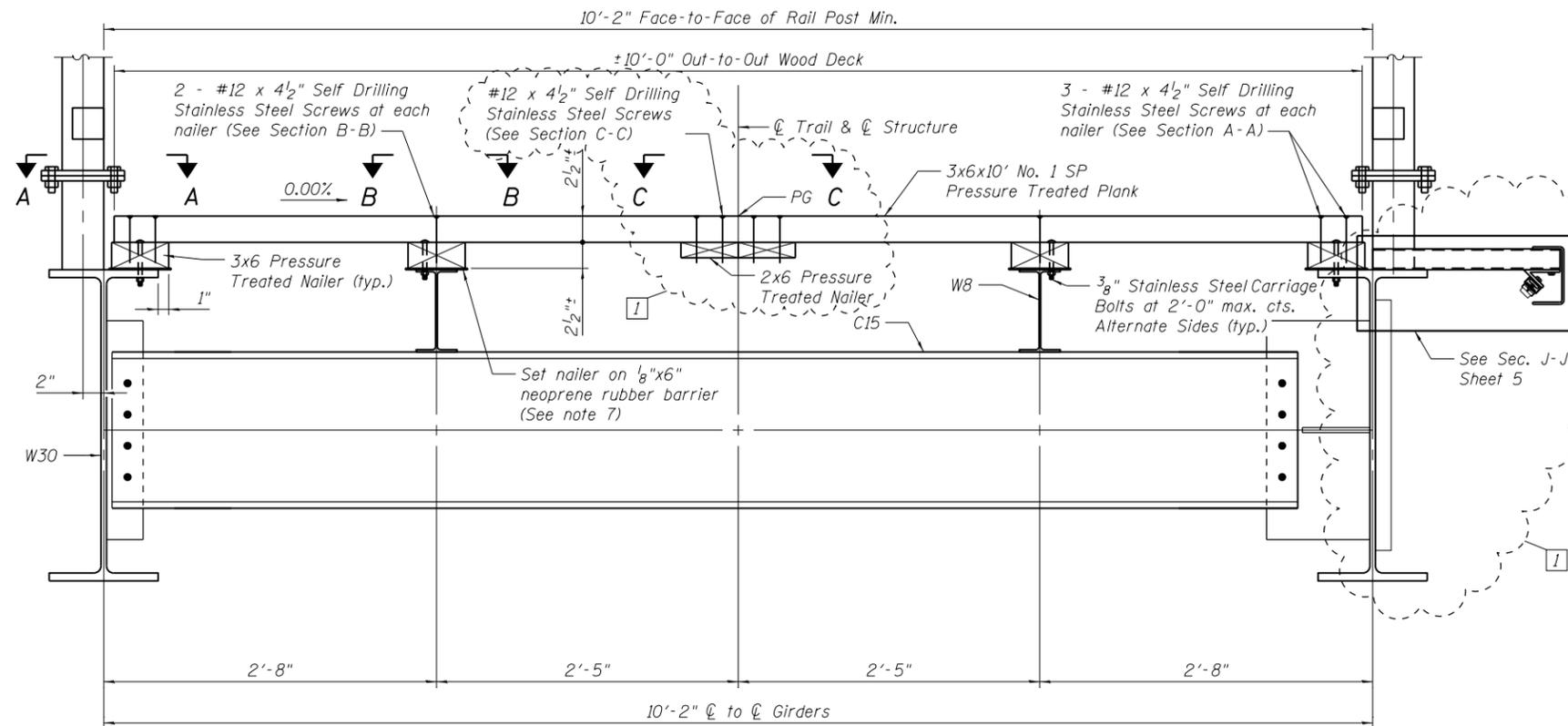
THOUVENOT, WADE & MOERCHEN, INC.  
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CORPORATE OFFICE  
 4940 Old Collinsville Road  
 Swansea, Illinois 62226  
 Tel: 618.624.4488  
 Fax: 618.624.6688

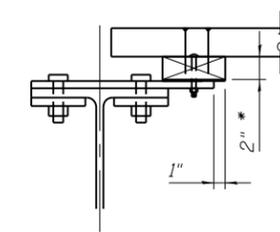
**TWM**  
 EXCEPTIONAL SERVICE.  
 NOTHING LESS.

**S&TD**  
 St Clair County Transit District

**M**  
 Bi-State Development Agency  
 Metro

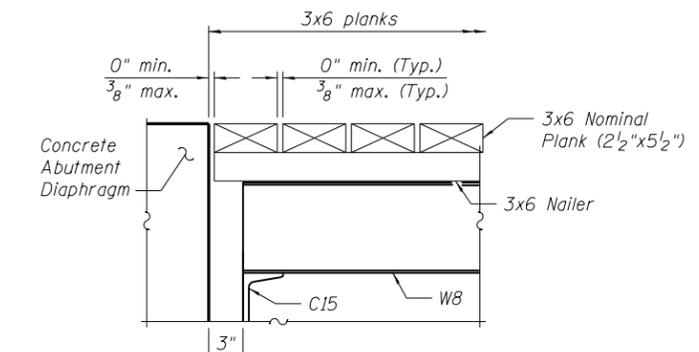


**SECTION THRU DECK**  
(Looking East)

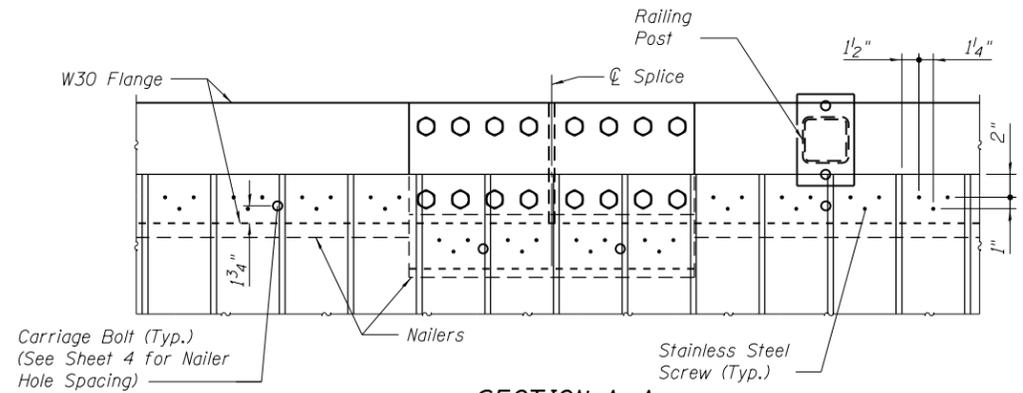


**SECTION THRU SPLICE**  
\* Plane nailers at splice to a thickness of ±2".

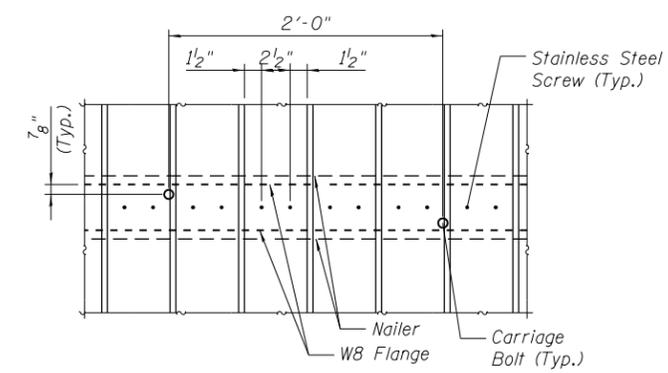
- NOTES:
1. Carriage bolts and screws shall be Stainless Steel. Cost for carriage bolts and screws shall be included in Treated Timber.
  2. Treated Timber construction shall be in accordance with Section 507 of the Standard Specification except as modified by these plans.
  3. Nailers shall be installed 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 Micronized 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.
  10. The minimum width of any deck plank shall be 3". Planks shall be ripped on a table saw or by a circular saw with a guide to produce a straight and clean edge. Free hand ripping with a circular saw will not be permitted.



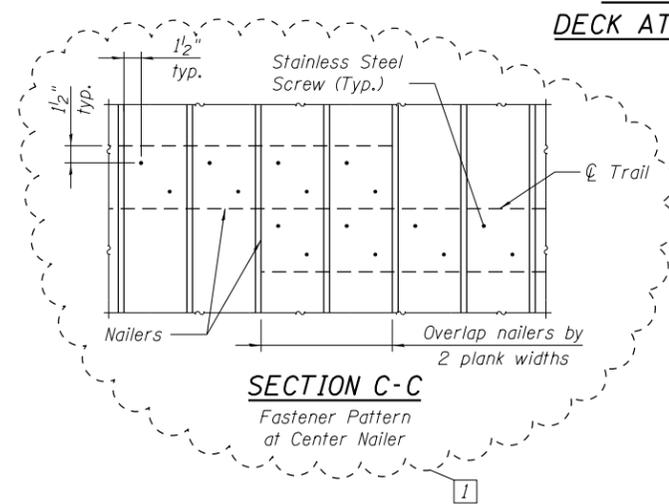
**SECTION THRU DECK AT ABUTMENTS**



**SECTION A-A**  
Fastener Pattern at W30 Girder



**SECTION B-B**  
Fastener Pattern at W8 Stringers



**SECTION C-C**  
Fastener Pattern at Center Nailer

**SUPERSTRUCTURE  
STRUCTURE B28.96**

10/13/2011 10:08:22 AM

DESIGNED	DJH
CHECKED	JTH/MJJ
DRAWN	DJH
CHECKED	MJJ
DATE	10/13/2011 MJJ

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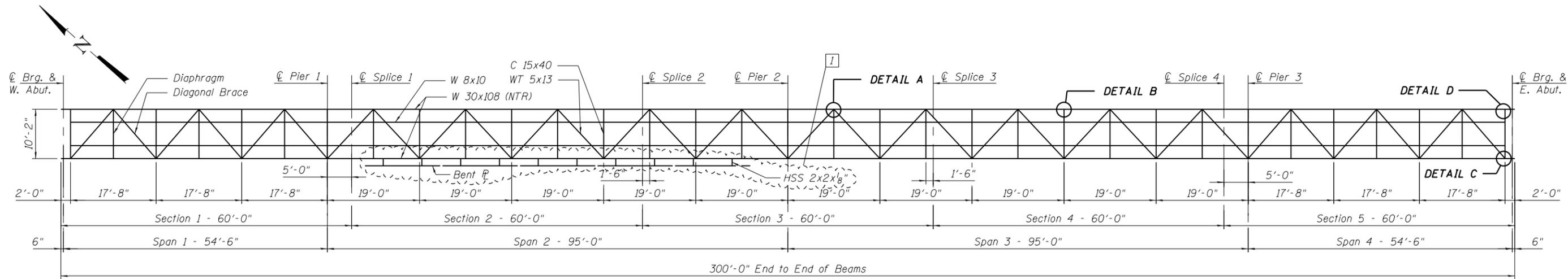
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**StCtD**  
St Clair County Transit District

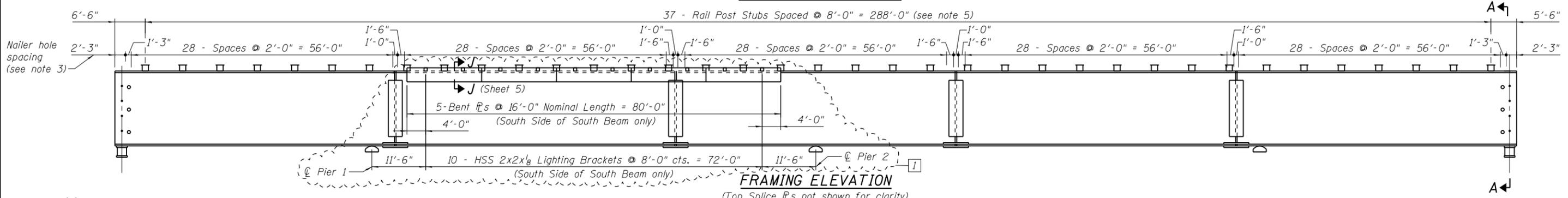
**M** Bi-State Development Agency  
**Metro**

SHEET NO. 3  
16 SHEETS

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

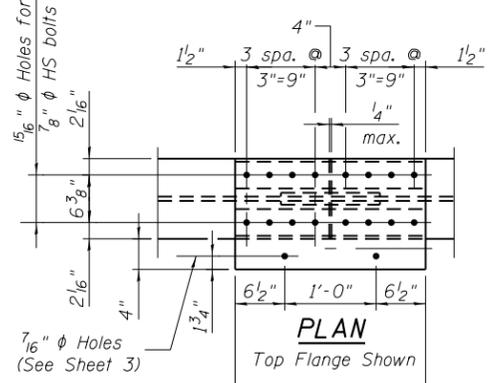


**STEEL FRAMING PLAN**



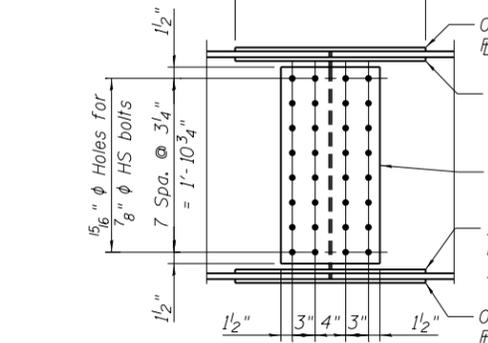
**FRAMING ELEVATION**

(Top Splice Pls not shown for clarity)



**PLAN**

Top Flange Shown

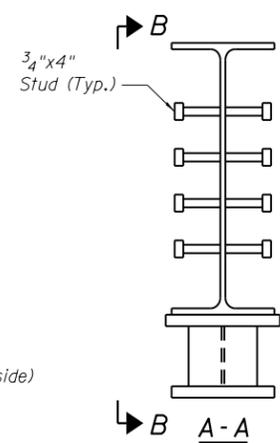


**ELEVATION**

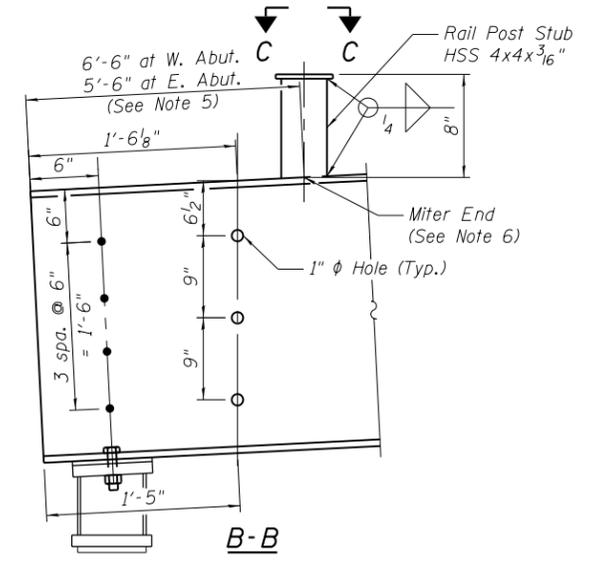
**SPLICE DETAIL**

(8 Required)

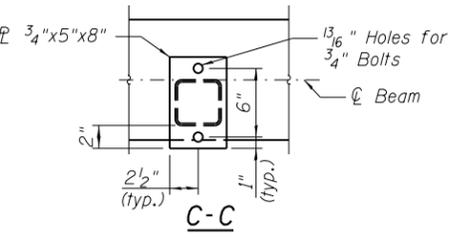
Splice Plates shall be AASHTO M270 Grade 50.



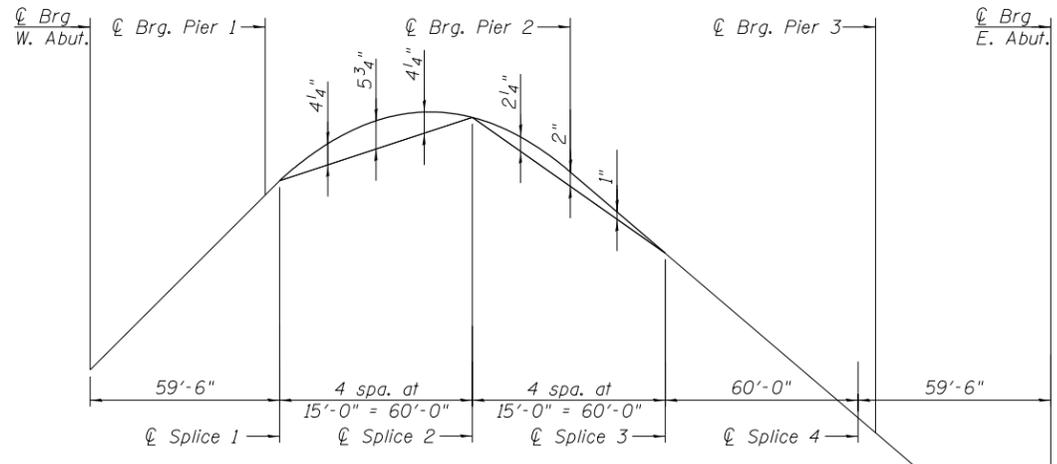
Note: Studs shall be granular or solid flux filled automatically end welded.



**B-B**



**C-C**



**CAMBER**

**NOTES:**

- See Sheet 5 for Details A Thru D.
- All bolts are 3/4" unless otherwise noted.
- Holes for nailer carriage bolts shall be 7/16" diameter. See Section A-A on Sheet 3.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- 8'-0" standard rail post spacing shown. Rail post spacing shall be between 6'-0" to 10'-0". Position of rail posts stubs to be coordinated with the Rail Fabricator. Rail post stubs shall not conflict with splices.
- Rail Post Stubs shall be plumb in the erected position.
- All structural steel shall be Dark Blue as shown on Sheet 13 except the Rail Post Stubs, Lighting Brackets and Bent Pls. These elements shall be Black.

**FRAMING PLAN & FRAMING ELEVATIONS  
STRUCTURE B28.96**

10/13/2011 10:07:51 AM  
Plotted by: mjoost

DESIGNED	DJH
CHECKED	JTH
DRAWN	DJH
CHECKED	MJJ
DATE	10/13/2011

Revised 10/13/2011 MJJ

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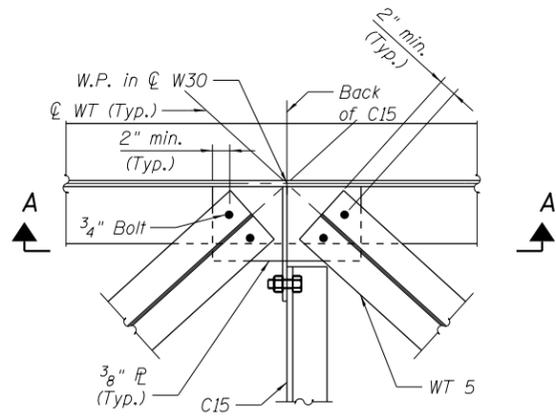
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 EXCEPTIONAL SERVICE.  
 NOTHING LESS.

**SCTD**  
 St Clair County Transit District

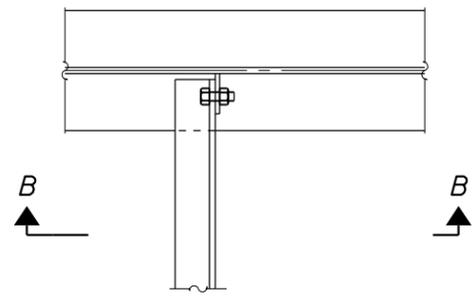
**M** Bi-State Development Agency  
**Metro**

SHEET NO.	4
TOTAL SHEETS	16 SHEETS

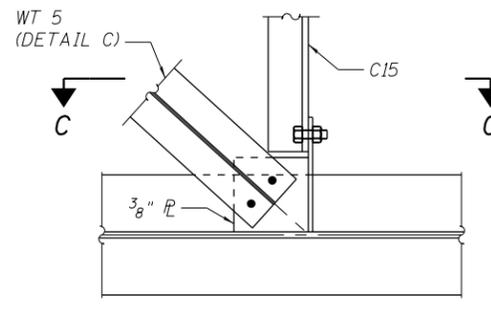
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		ST. CLAIR		
MetroBikeLink - Memorial Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**DETAIL A**

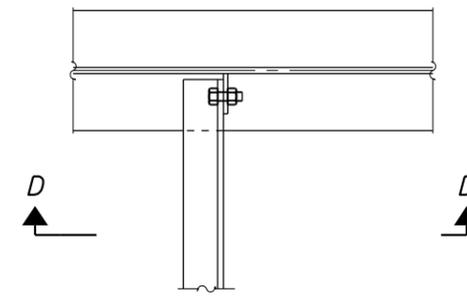


**DETAIL B**

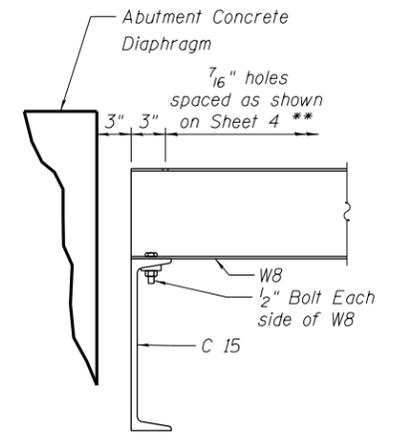


**DETAIL C (shown)**

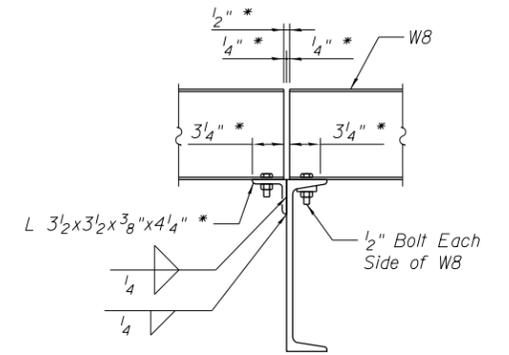
See DETAIL A for information not shown



**DETAIL D**



**AT ABUTMENTS**

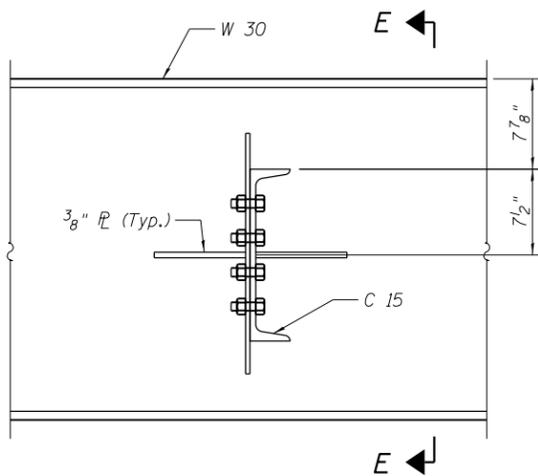


**BETWEEN PIERS &  
BETWEEN PIERS & ABUTMENTS**

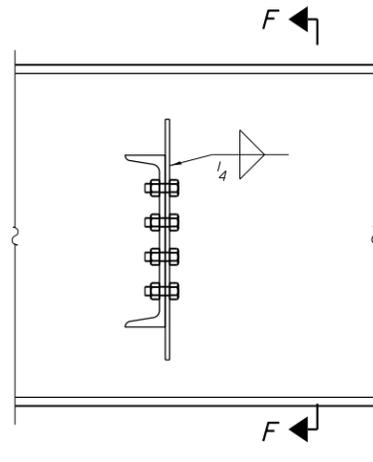
Note: Tapered washers required at flanges of C15 channels.

\* 3/2 x 3/2 Angle may be Eliminated Where W8 is Continuous Over Support Channel. Lengths of Individual Pieces of W8 Shall be Determined by the Contractor.

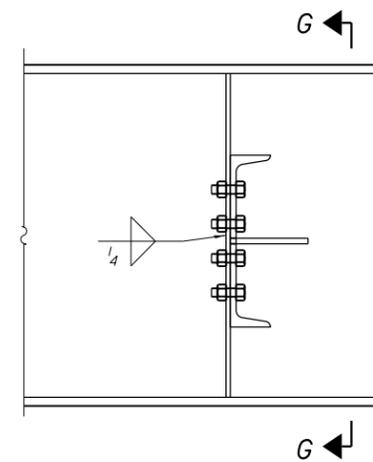
\*\* See Section thru Deck & Section B-B on Sheet 3 for carriage bolt holes.



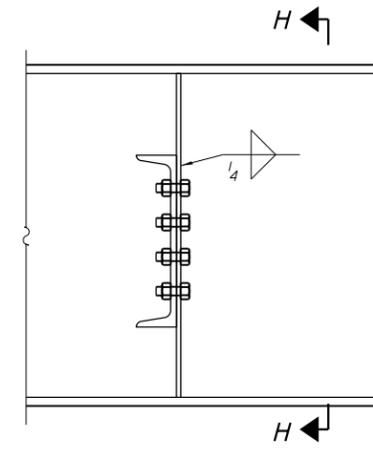
**SECTION A-A**



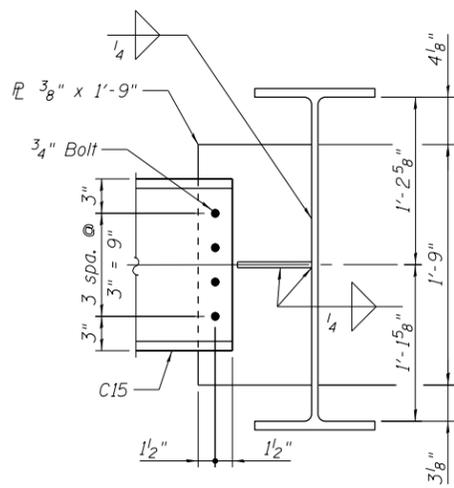
**SECTION B-B**



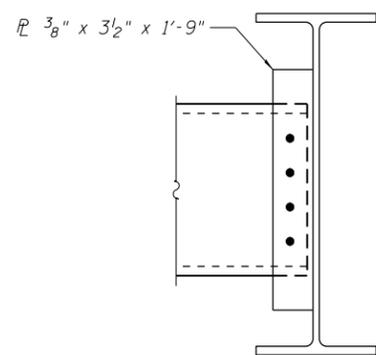
**SECTION C-C**



**SECTION D-D**

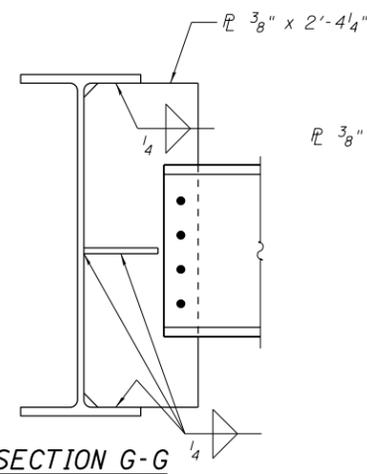


**SECTION E-E**



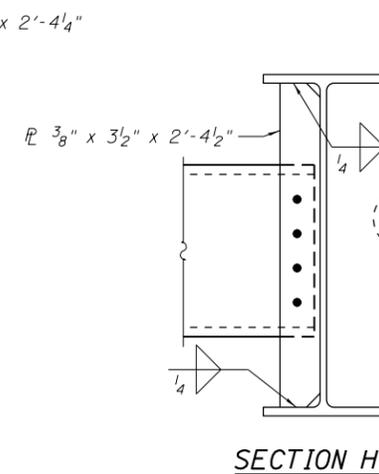
**SECTION F-F**

See Section E-E for Information not Shown



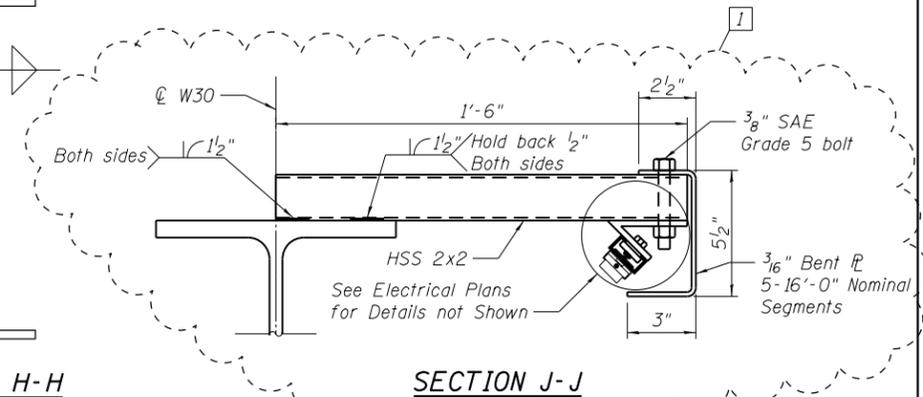
**SECTION G-G**

See Section E-E for Information not Shown



**SECTION H-H**

See Section E-E for Information not Shown



**SECTION J-J**

**STRUCTURAL STEEL DETAILS  
STRUCTURE B28.96**

10/13/2011 10:07:50 AM

DESIGNED	DJH
CHECKED	JTH
DRAWN	DJH/JTH
CHECKED	MJJ
DATE	

Revised 10/13/2011 MJJ

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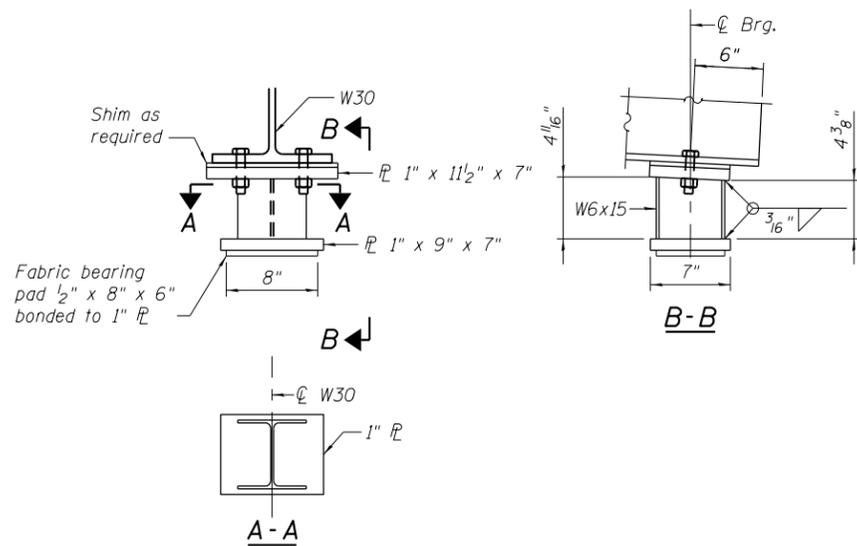
**TWM**  
EXCEPTIONAL SERVICE.  
NOTHING LESS.

**StClair**  
St Clair County Transit District

**M**  
Bi-State  
Development  
Agency

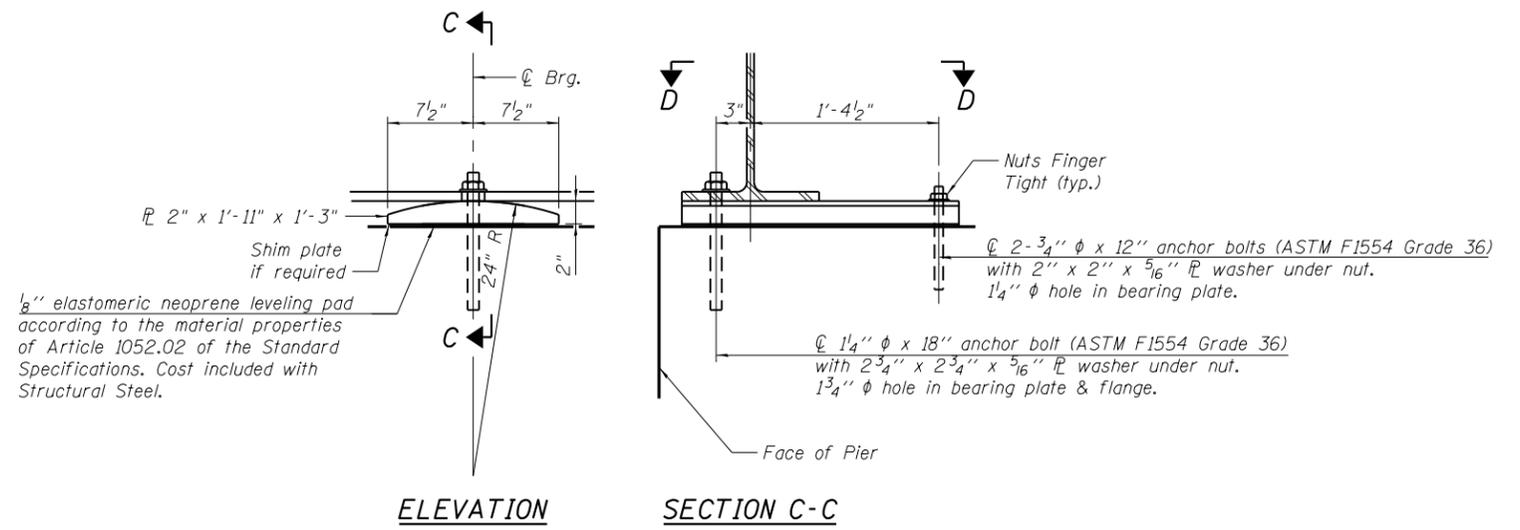
SHEET NO. 5
16 SHEETS

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



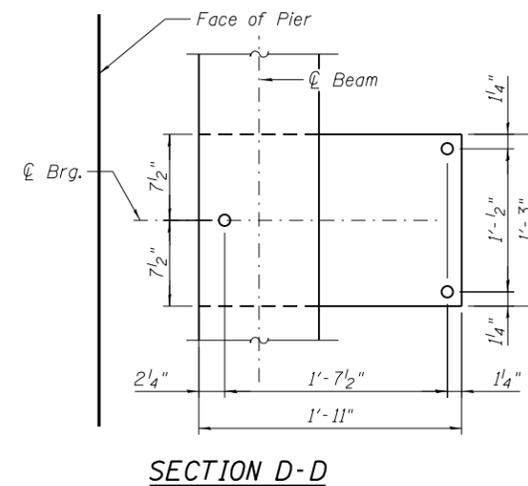
**BEARING ASSEMBLY AT ABUTMENT**

See Sheet 7 for additional information



**ELEVATION**

**SECTION C-C**



**SECTION D-D**

**FIXED BEARING AT PIER**

See Sheet 8 thru 10 for additional information

**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 3/4"	Each	12
Anchor Bolt 1/4"	Each	6

**BEARING DETAILS  
STRUCTURE B28.96**

2/15/2011 5:07:00 PM

DESIGNED	DJH
CHECKED	MJJ
DRAWN	DJH
CHECKED	MJJ
DATE	

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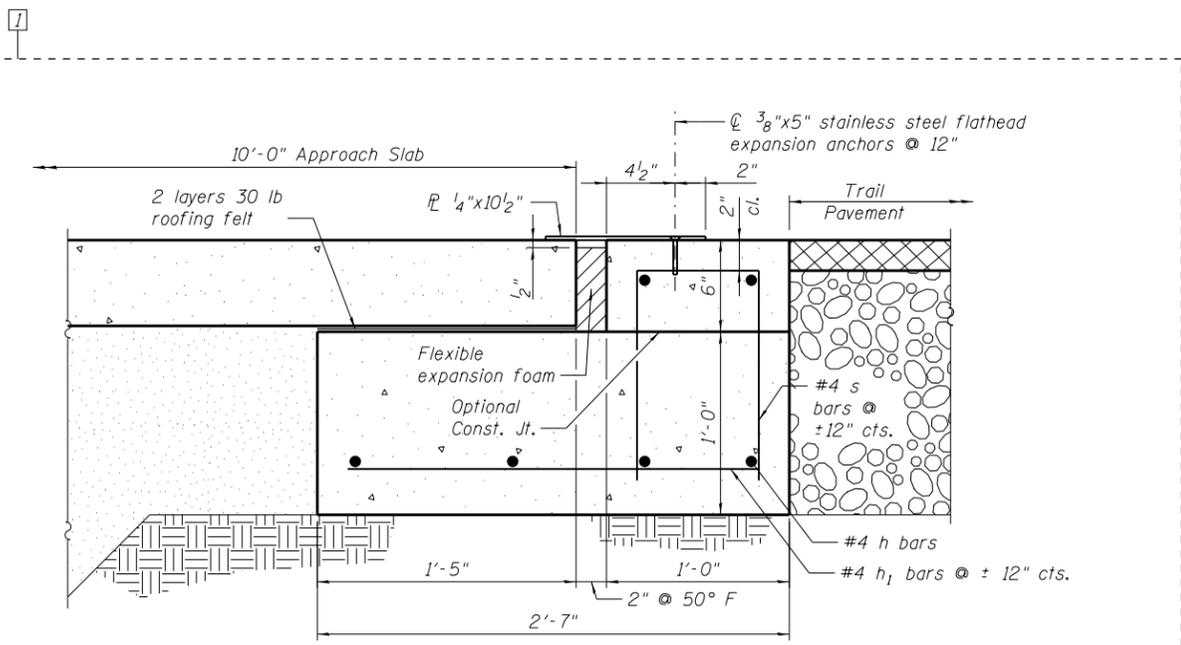
**TWM**  
EXCEPTIONAL SERVICE.  
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**SCD**  
St Clair County Transit District

**M**  
Bi-State  
Development  
Agency

SHEET NO. 6  
16 SHEETS

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

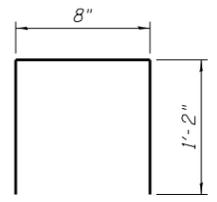


**DETAIL A**

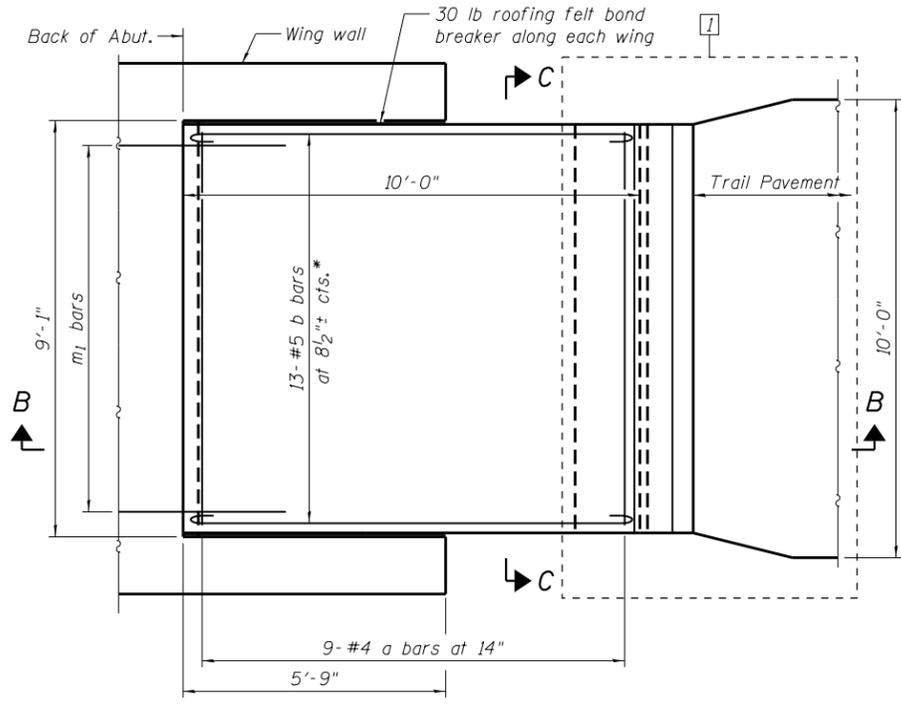
**BILL OF MATERIAL  
(2 SLEEPER SLABS)**

Bar	No.	Size	Length	Shape
h	12	#4	8'-9"	—
h <sub>1</sub>	18	#4	2'-3"	—
s	18	#4	3'-0"	□
Concrete Structures		Cu. Yd.	2.1	
Reinforcement Bars		Pound	130	

Flexible expansion foam, roofing felt, expansion anchors and steel  $\bar{L}$  to be included in the cost of Concrete Structures

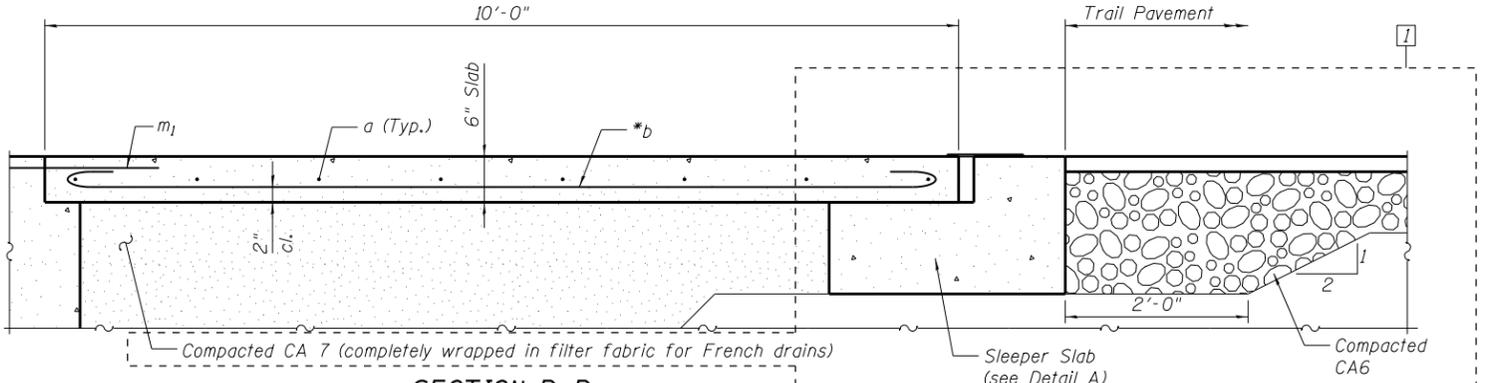


**BAR s**



**APPROACH SLAB PLAN**

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

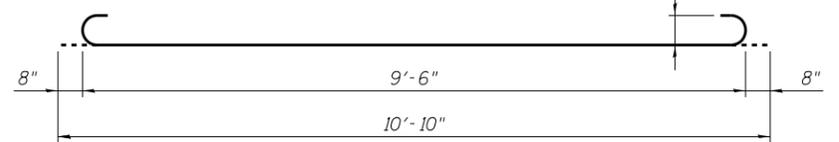


**SECTION B-B**

\* 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	8'-9"	—
b	26	#6	10'-10"	—
Concrete Structures		Cu. Yd.	3.4	
Reinforcement Bars		Pound	530	

**APPROACH SLAB  
STRUCTURE B28.96**

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DESIGNED	MJJ
CHECKED	KPC
DRAWN	MJJ
CHECKED	KPC
DATE	

Sheet Added 5/24/2012 MJJ  
Revised 7/23/2012 MJJ

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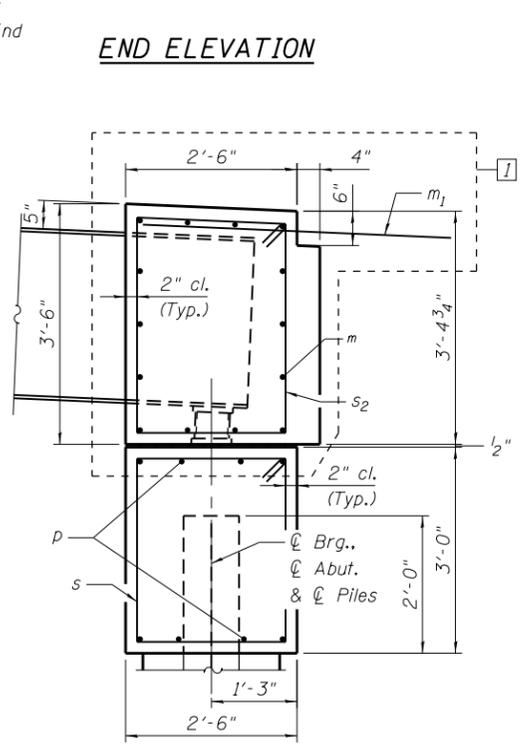
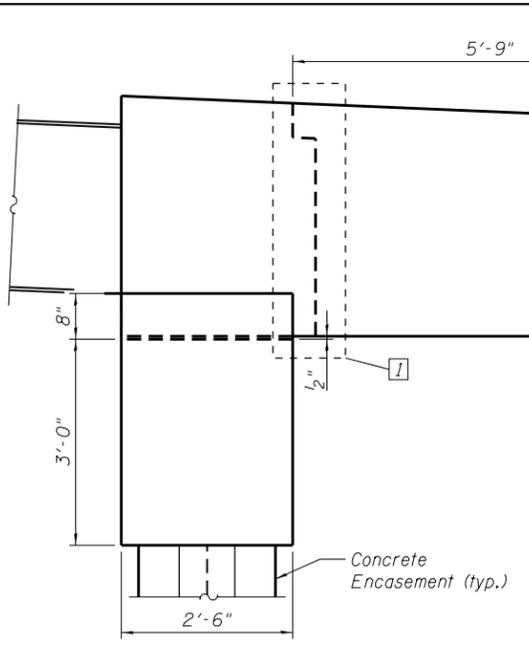
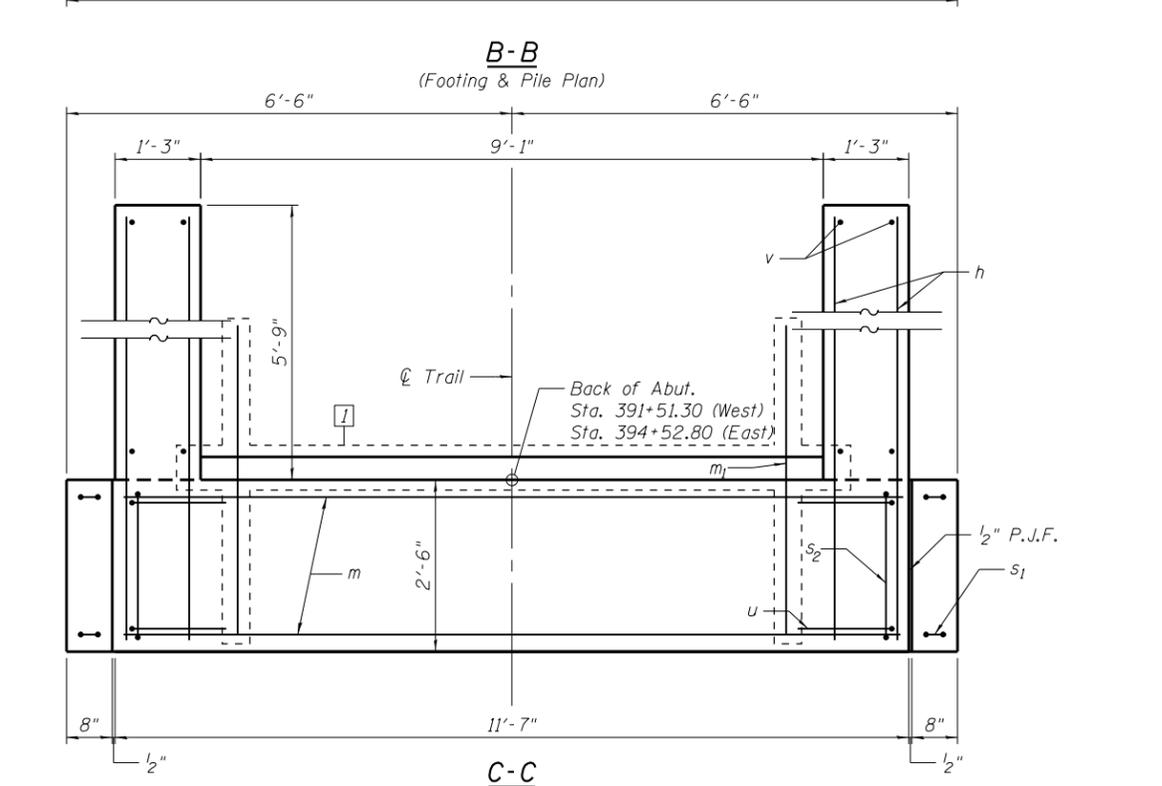
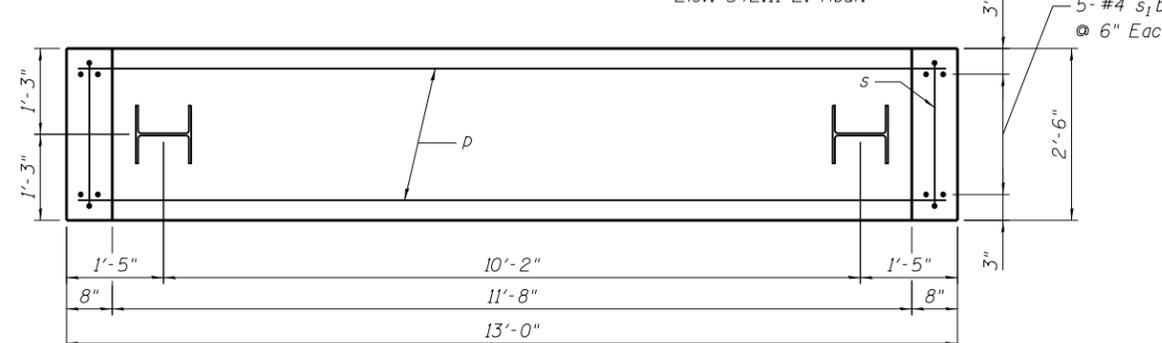
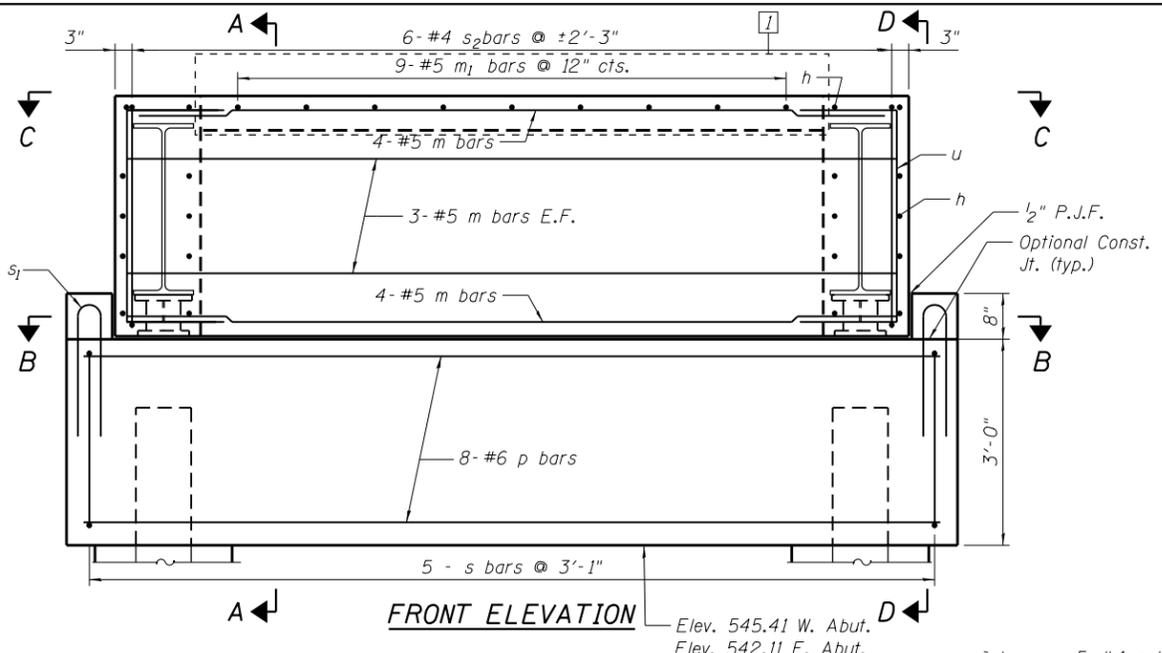
**TWM**  
EXCEPTIONAL SERVICE.  
NOTHING LESS.

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St Clair County Transit District

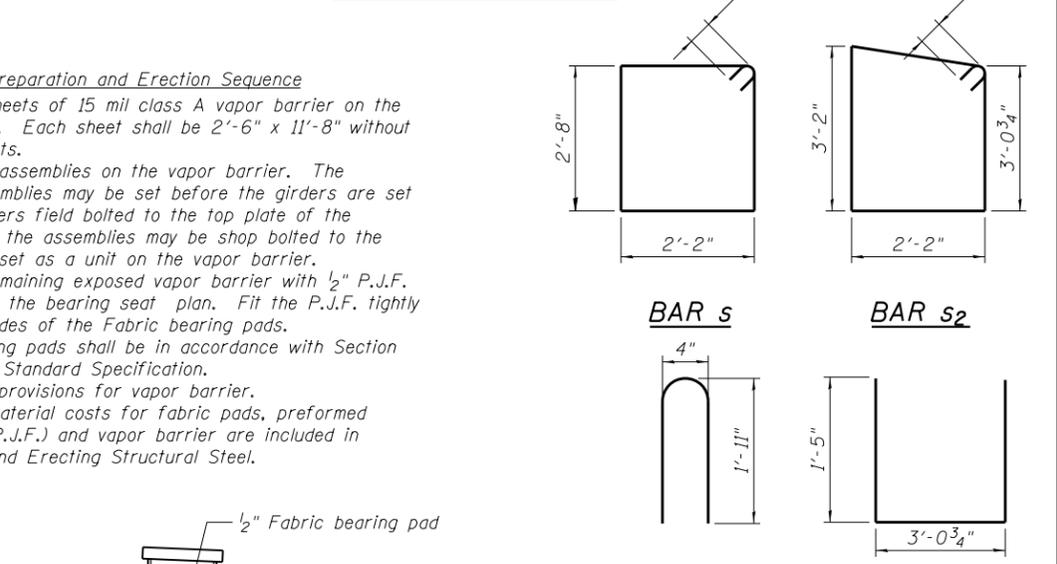
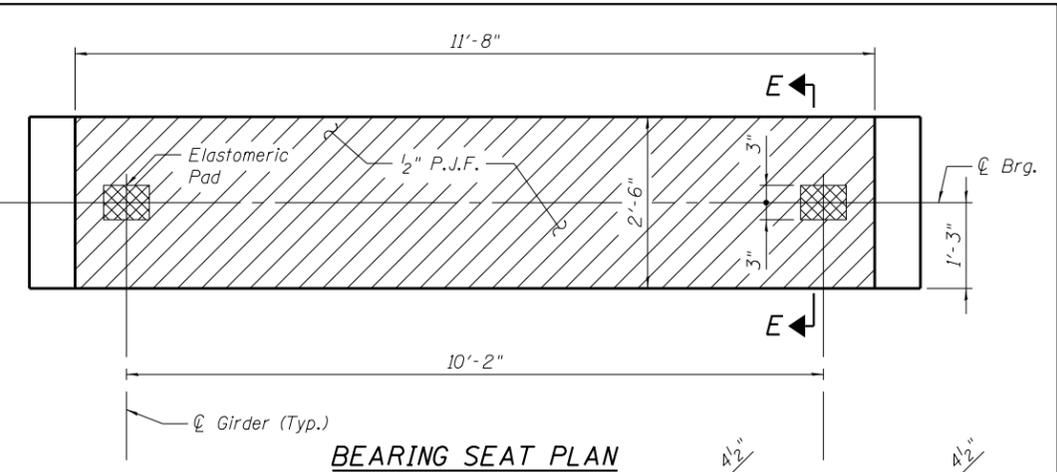
**M**  
Bi-State  
Development  
Agency

SHEET NO. 7 of  
16 SHEETS

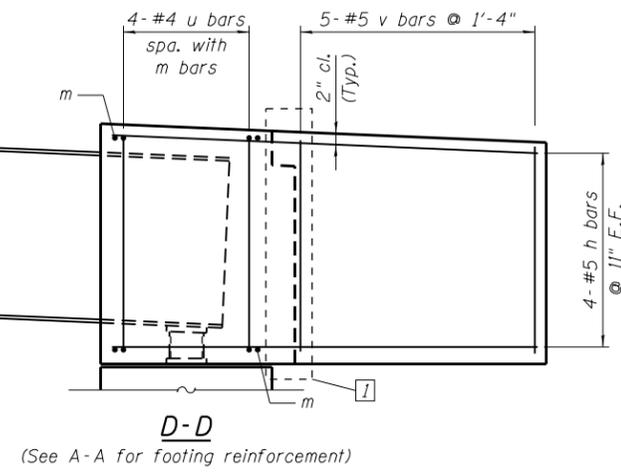
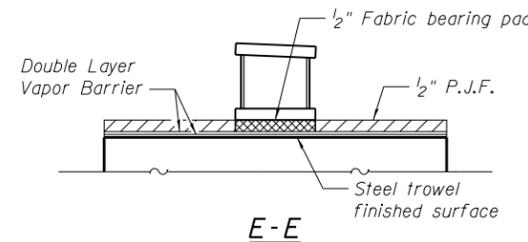
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		ST. CLAIR		
MetroBikeLink - Memorial Section		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**PILE DATA**  
 Type: HP 10x42 w/ pile shoes  
 Nominal Required Bearing: 335 kips  
 Allowable Resistance Available: 112 kips  
 Est. Length: 42 ft. - W. Abutment  
 39 ft. - E. Abutment  
 No. Production Piles: 1 at each Abutment  
 No. Test Piles: 1 at each Abutment  
 See Sheet 11 for Pile Details



- Bearing Seat Preparation and Erection Sequence**
- Place two sheets of 15 mil class A vapor barrier on the bearing seat. Each sheet shall be 2'-6" x 11'-8" without holes or joints.
  - Set bearing assemblies on the vapor barrier. The bearing assemblies may be set before the girders are set and the girders field bolted to the top plate of the assembly, or the assemblies may be shop bolted to the girders and set as a unit on the vapor barrier.
  - Cover the remaining exposed vapor barrier with 1/2" P.J.F. as shown on the bearing seat plan. Fit the P.J.F. tightly around all sides of the Fabric bearing pads.
  - Fabric bearing pads shall be in accordance with Section 1082 of the Standard Specification.
  - See special provisions for vapor barrier.
  - Labor and material costs for fabric pads, preformed joint filler (P.J.F.) and vapor barrier are included in Furnishing and Erecting Structural Steel.



**BILL OF MATERIAL (2 ABUT.)**

Bar	No.	Size	Length	Shape
h	40	#5	7'-11"	—
m	28	#5	11'-3"	—
m1	18	#5	4'-6"	—
p	16	#6	12'-8"	—
s	10	#4	10'-5"	U
s1	20	#4	4'-2"	U
s2	12	#4	11'-4"	U
u	16	#4	5'-11"	U
v	40	#4	2'-10"	—
Structure Excavation		Cu. Yd.	30	
Concrete Structures		Cu. Yd.	18.9	
Reinforcement Bars		Pound	1440	
Furnishing Steel Piles, HP 10x42		Foot	81	
Test Pile Steel, HP 10x42		Each	2	
Concrete Encasement		Cu. Yd.	1.4	
Driving Piles		Foot	81	
Pile Shoes		Each	2	

**WEST & EAST ABUTMENT DETAILS  
STRUCTURE B28.96**

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 Plotted by: mjoost

DESIGNED	DJH
CHECKED	MJJ
DRAWN	DJH
CHECKED	MJJ
DATE	5/24/2012 MJJ

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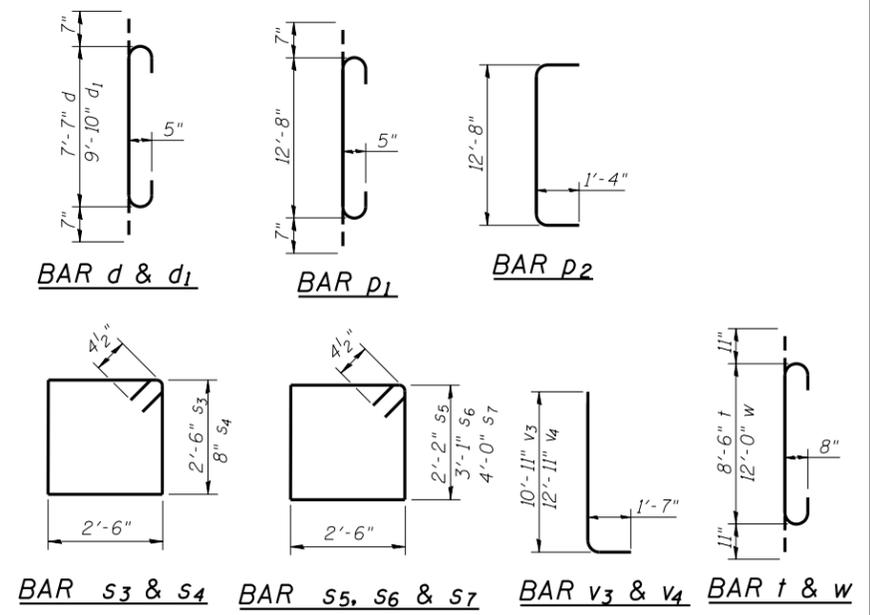
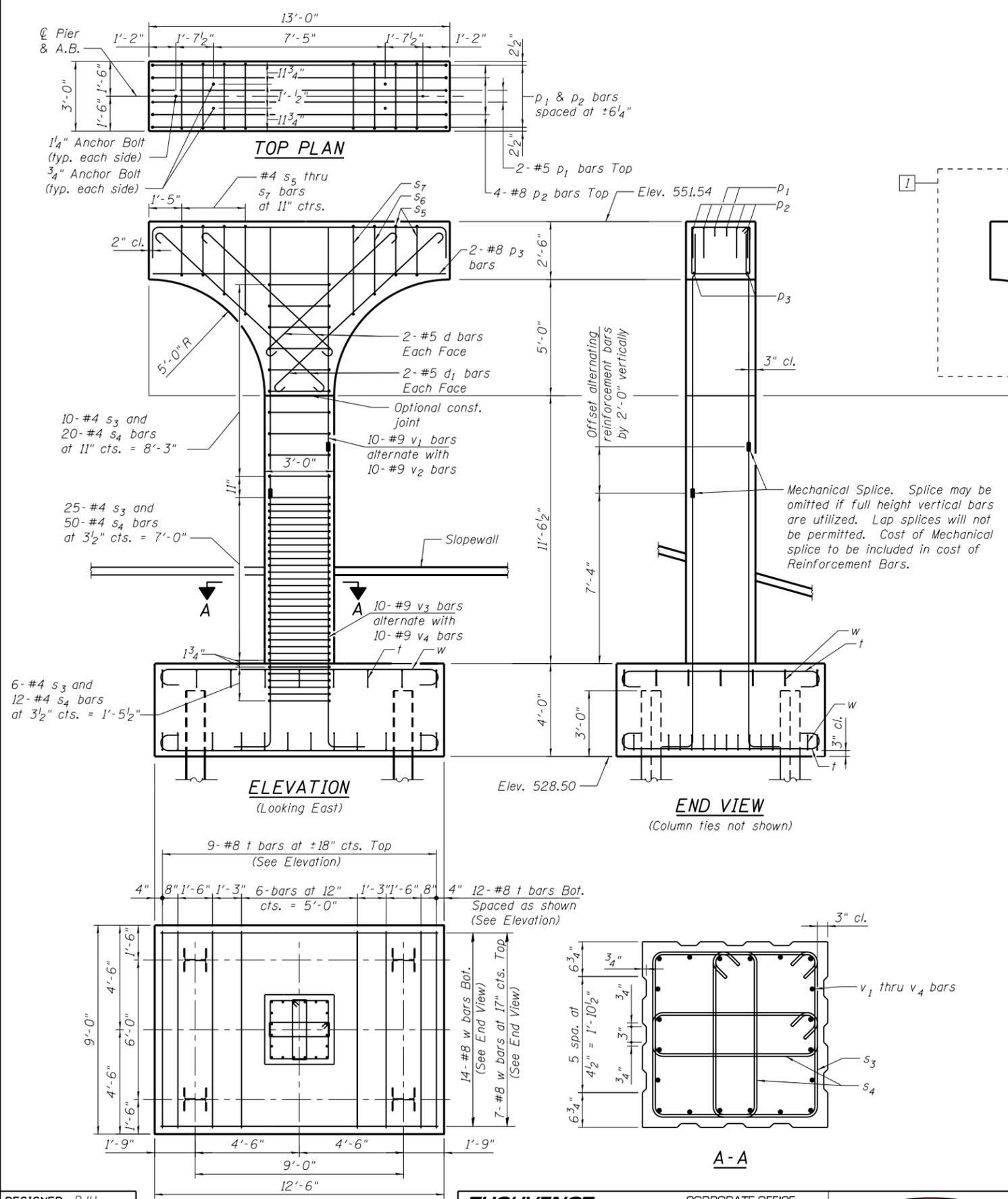
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**S&TD**  
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**M**  
 Bi-State Development Agency

SHEET NO. 7  
 16 SHEETS

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



**ARCHITECTURAL DETAILS**

Pier Side	A
North & South	5'-6"
East	6'-0"
West	5'-0"

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d	4	#5	8'-9"	U
d1	4	#5	11'-0"	U
p1	2	#5	13'-10"	U
p2	4	#8	15'-4"	U
p3	2	#8	12'-8"	—
s3	41	#4	10'-9"	□
s4	82	#4	7'-1"	□
s5	4	#4	10'-1"	□
s6	2	#4	11'-11"	□
s7	2	#4	13'-9"	□
t	21	#8	10'-4"	U
v1	10	#9	11'-6"	—
v2	10	#9	9'-6"	—
v3	10	#9	12'-6"	—
v4	10	#9	14'-6"	—
w	21	#8	13'-10"	U
Structure Excavation		Cu. Yd.	64	
Concrete Structures		Cu. Yd.	27.0	
Reinforcement Bars		Pound	4070	
Furnishing Steel Piles, HP 12x53		Foot	108	
Driving Piles		Foot	108	
Pile Shoes		Each	4	

**PILE DATA**

Type: HP 12x53 w/ Pile Shoes  
 Nominal Required Bearing: 419 kips  
 Allowable Resistance Available: 140 kips  
 Est. Length: 27 ft.

- Notes:  
 1. Space reinforcement in cap to miss anchor bolts.  
 2. For details of piles, see sheet 11.

**PIER 1 DETAILS  
STRUCTURE B28.96**

8/22/2011 4:50:37 PM

DESIGNED DJH	Revised 8/22/2011 MJJ
CHECKED MJJ	
DRAWN DJH	
CHECKED MJJ	
DATE	

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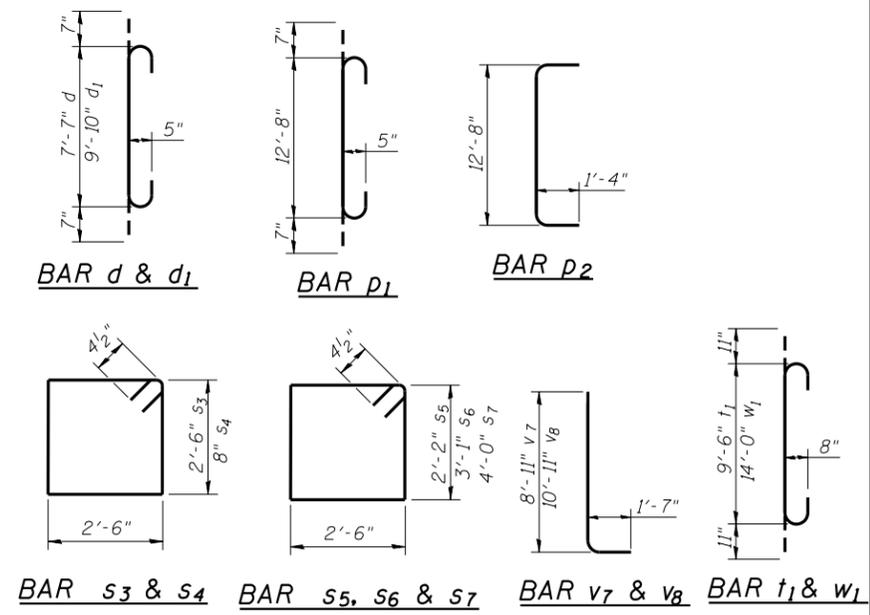
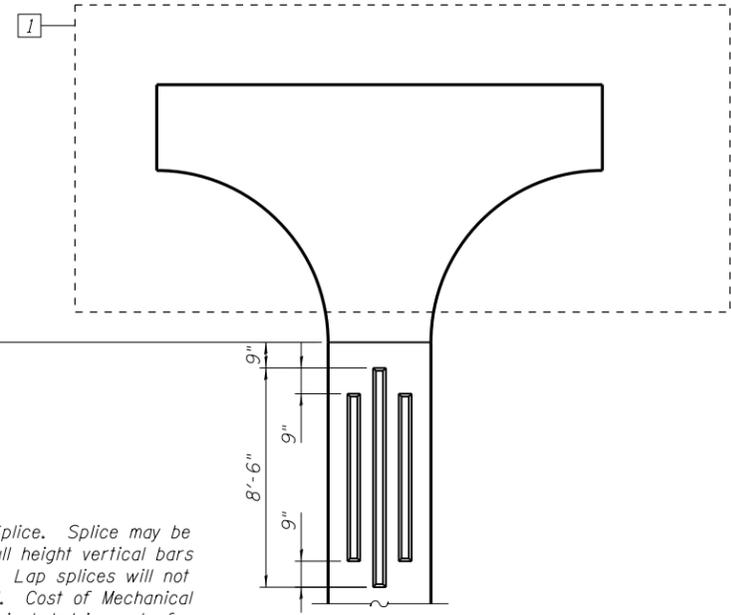
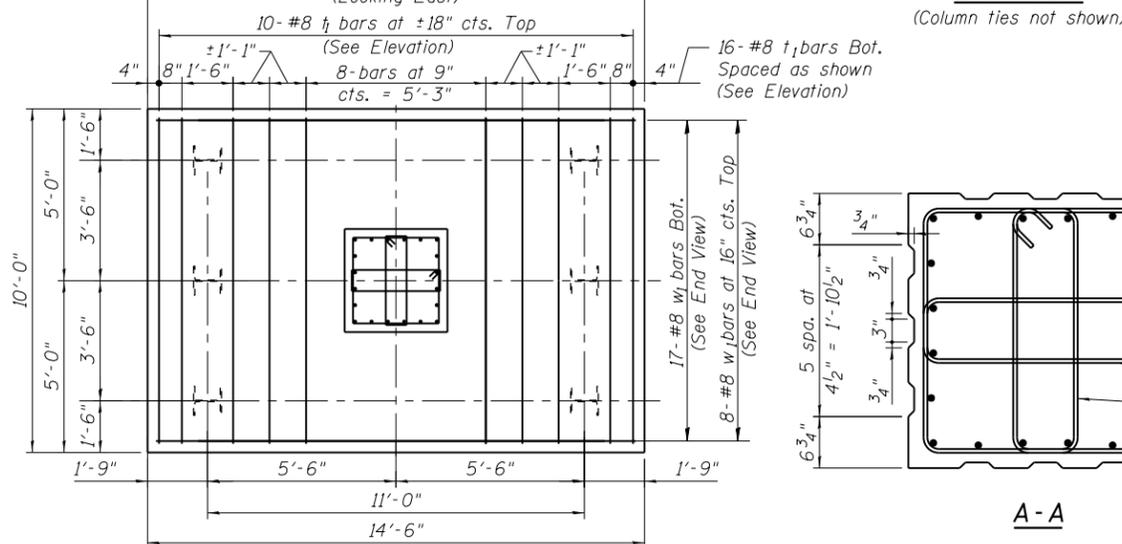
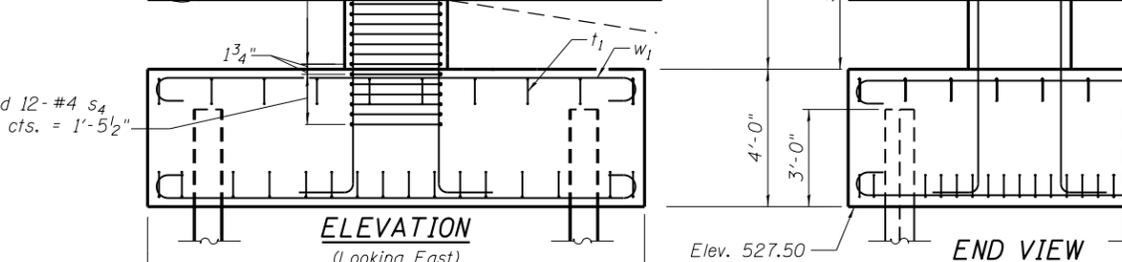
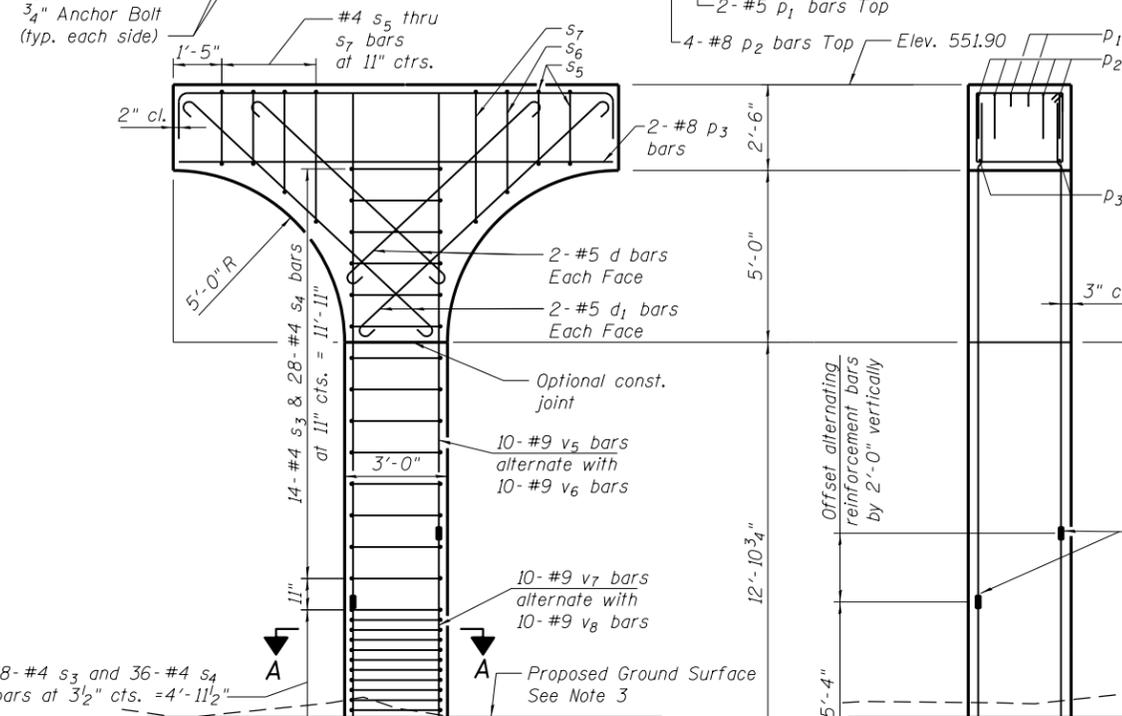
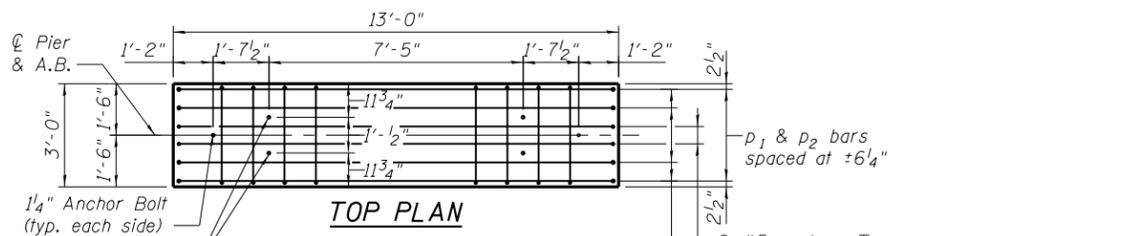
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**M**  
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SHEET NO. 8
16 SHEETS

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



Mechanical Splice. Splice may be omitted if full height vertical bars are utilized. Lap splices will not be permitted. Cost of Mechanical splice to be included in cost of Reinforcement Bars.

**ARCHITECTURAL DETAILS**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d	4	#5	8'-9"	U
d1	4	#5	11'-0"	U
p1	2	#5	13'-10"	U
p2	4	#8	15'-4"	U
p3	2	#8	12'-8"	—
s3	38	#4	10'-9"	□
s4	76	#4	7'-1"	□
s5	4	#4	10'-1"	□
s6	2	#4	11'-11"	□
s7	2	#4	13'-9"	□
t1	26	#8	11'-4"	U
v5	10	#9	14'-10"	—
v6	10	#9	12'-10"	—
v7	10	#9	10'-6"	—
v8	10	#9	12'-6"	—
w1	25	#8	15'-10"	U
Structure Excavation	Cu. Yd.		58	
Concrete Structures	Cu. Yd.		32.3	
Reinforcement Bars	Pound		4600	
Furnishing Steel Piles, HP 12x53	Foot		156	
Driving Piles	Foot		156	
Pile Shoes	Each		6	

**PILE DATA**

Type: HP 12x53 w/ Pile Shoes  
 Nominal Required Bearing: 419 kips  
 Allowable Resistance Available: 140 kips  
 Est. Length: 26 ft.

- Notes:  
 1. Space reinforcement in cap to miss anchor bolts.  
 2. For details of piles, see sheet 11.  
 3. For Grading at Pier 2, see sheet 2.

**PIER 2 DETAILS  
STRUCTURE B28.96**

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DESIGNED	DJH
CHECKED	MJJ
DRAWN	DJH
CHECKED	MJJ
DATE	8/22/2011

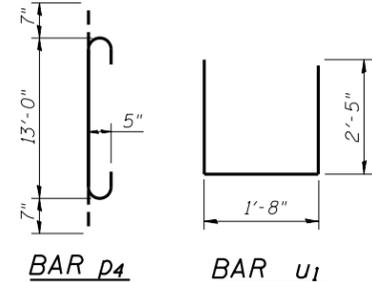
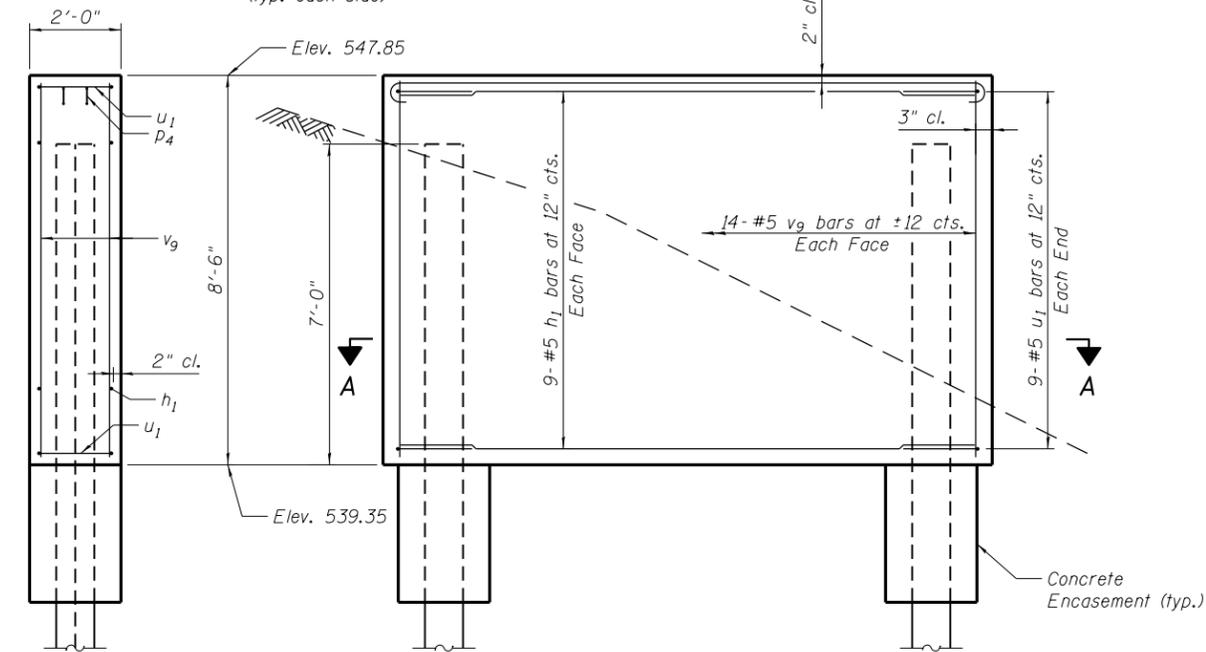
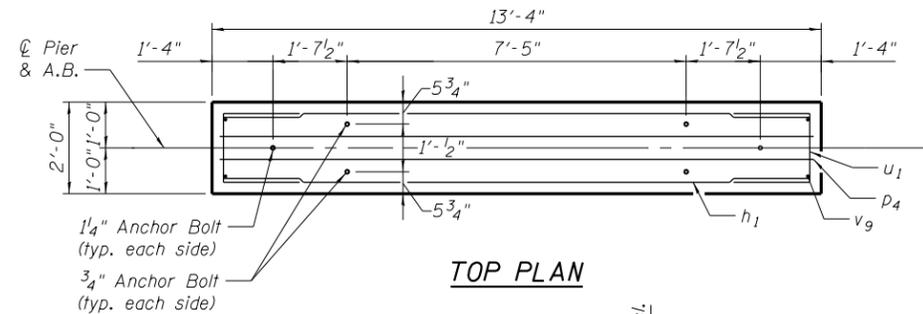
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SHEET NO. 9  
16 SHEETS

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



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>1</sub>	18	#5	12'-10"	—
p <sub>4</sub>	2	#5	14'-2"	U
u <sub>1</sub>	18	#5	6'-6"	U
v <sub>9</sub>	28	#5	8'-2"	—
Structure Excavation		Cu. Yd.	15	
Concrete Structures		Cu. Yd.	8.4	
Concrete Encasement		Cu. Yd.	0.7	
Reinforcement Bars		Pound	630	
Furnishing Steel Piles, HP 10x42		Foot	82	
Driving Piles		Foot	82	
Pile Shoes		Each	2	

**PILE DATA**

Type: HP 10x42 w/ Pile Shoes  
 Nominal Required Bearing: 335 kips  
 Allowable Resistance Available: 112 kips  
 Est. Length: 41 ft.

- Notes:  
 1. Space reinforcement in cap to miss anchor bolts.  
 2. For details of piles, see sheet 11.

**PIER 3 DETAILS  
 STRUCTURE B28.96**

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DESIGNED	DJH
CHECKED	MJJ
DRAWN	DJH
CHECKED	MJJ
DATE	

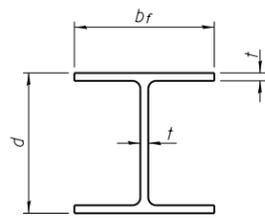
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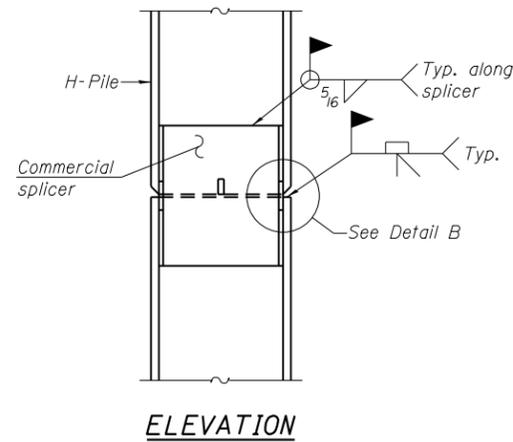
SHEET NO. 10  
 16 SHEETS

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

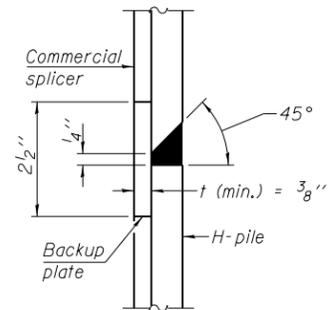


**STEEL PILE TABLE**

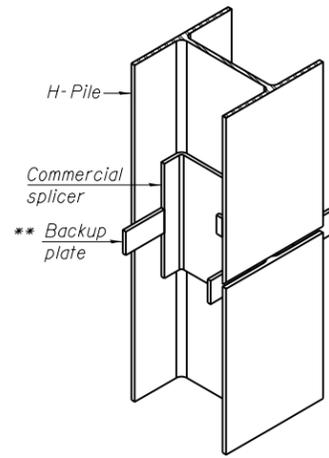
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HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	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**

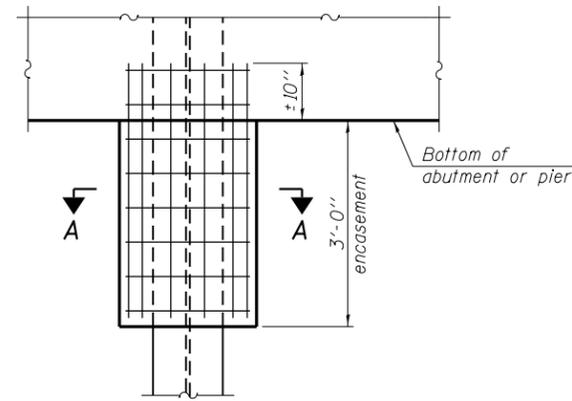


**DETAIL "B"**



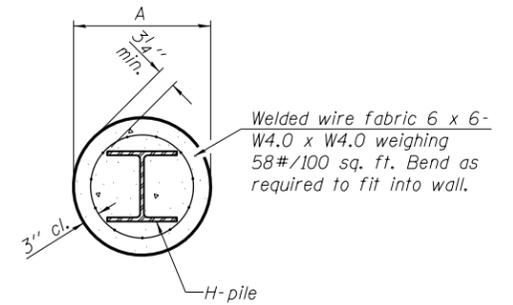
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



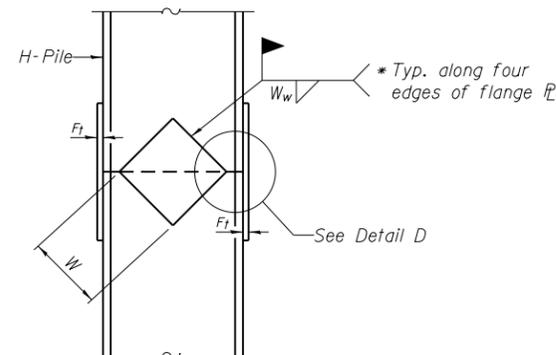
**ELEVATION**

**PILE ENCASEMENT**

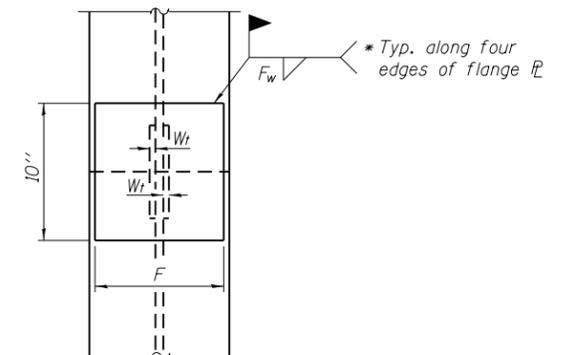


**SECTION A-A**

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

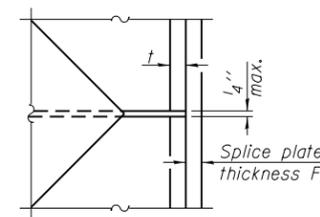


**ELEVATION**



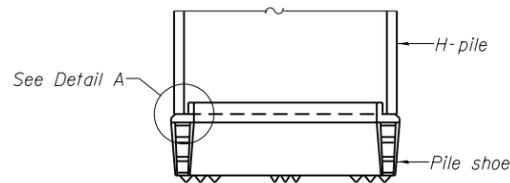
**END VIEW**

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
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"

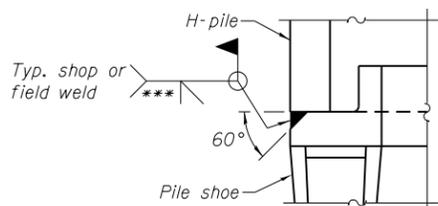


**DETAIL D**

**WELDED PLATE FIELD SPLICE**

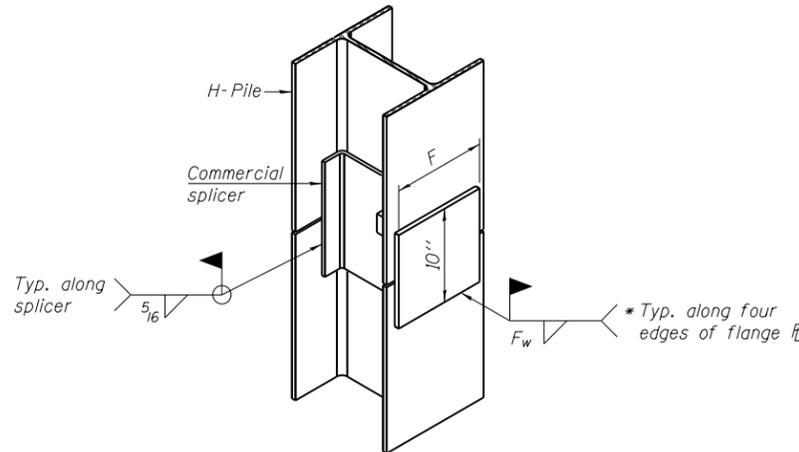


**ELEVATION**



**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 (3/16" min.).

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

**PILE DETAILS  
STRUCTURE B28.96**

DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	DJH
DATE	

F - HP 7-1-10

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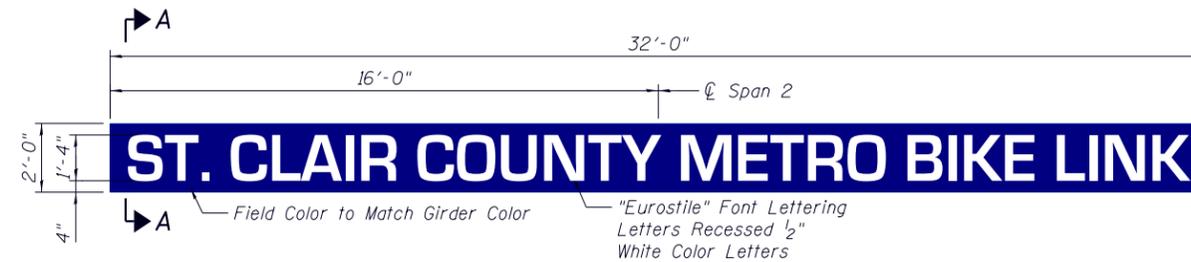
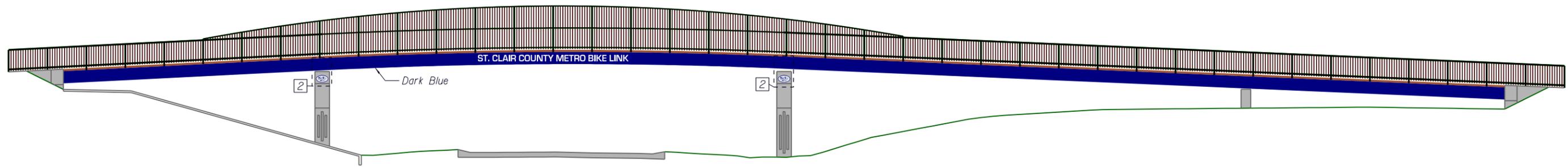
**SCTD**  
 St Clair County Transit District

**M**  
 Bi-State Development Agency

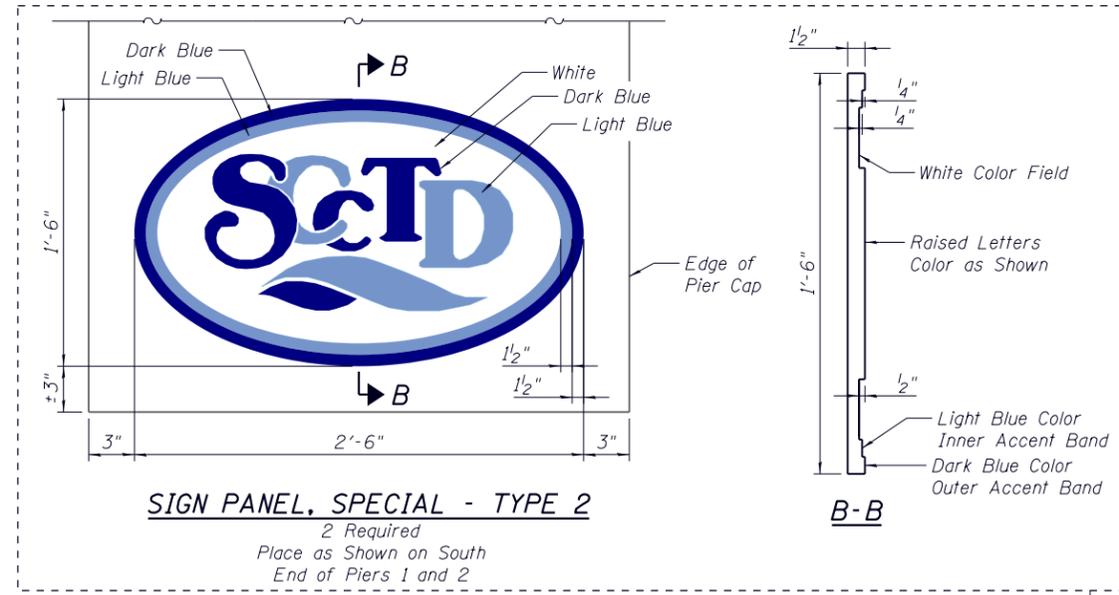
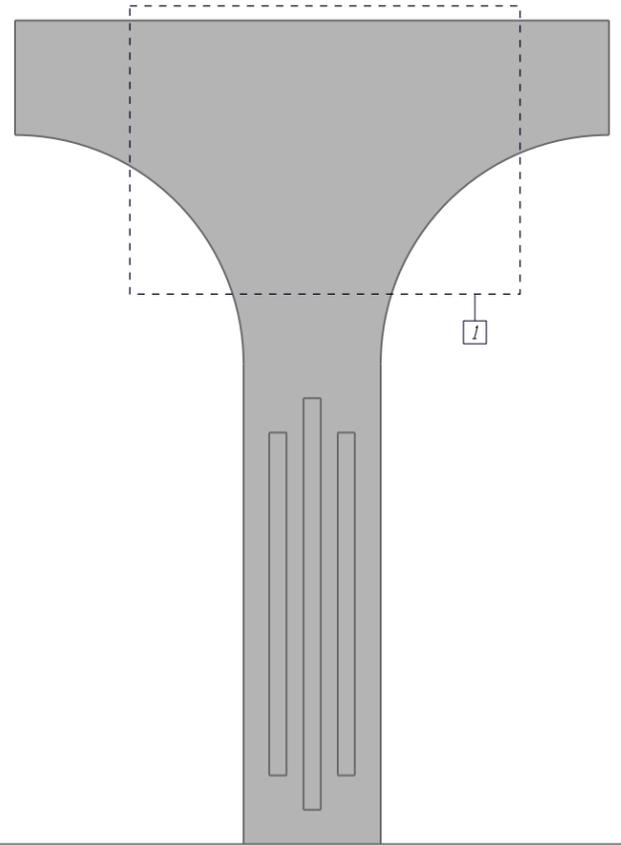
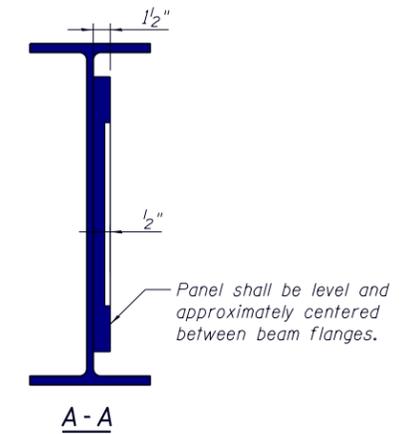
SHEET NO. 11
16 SHEETS

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





**SIGN PANEL, SPECIAL - TYPE 1**  
 1 Required  
 Centered on Facia of Span 2, South Beam



**SIGN PANEL, SPECIAL - TYPE 2**  
 2 Required  
 Place as Shown on South End of Piers 1 and 2

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  
 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:
1. Sign panel manufacturer shall determine thickness of panel. The "Sign Panel, Special - Type 1" may be furnished as several smaller panels at the discretion of the sign manufacturer.
  2. Sign panels shall be attached to the piers according to the manufacturer's specification. Any anchorage to concrete shall be spaced to miss reinforcement.
  3. See Electrical Plans for Lighting Details.

**ARCHITECTURAL ELEVATIONS  
 STRUCTURE B28.96**

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DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	DJH
DATE	

- 1 Revised 8/22/2011 MJJ
- 2 Revised 10/13/2011 MJJ

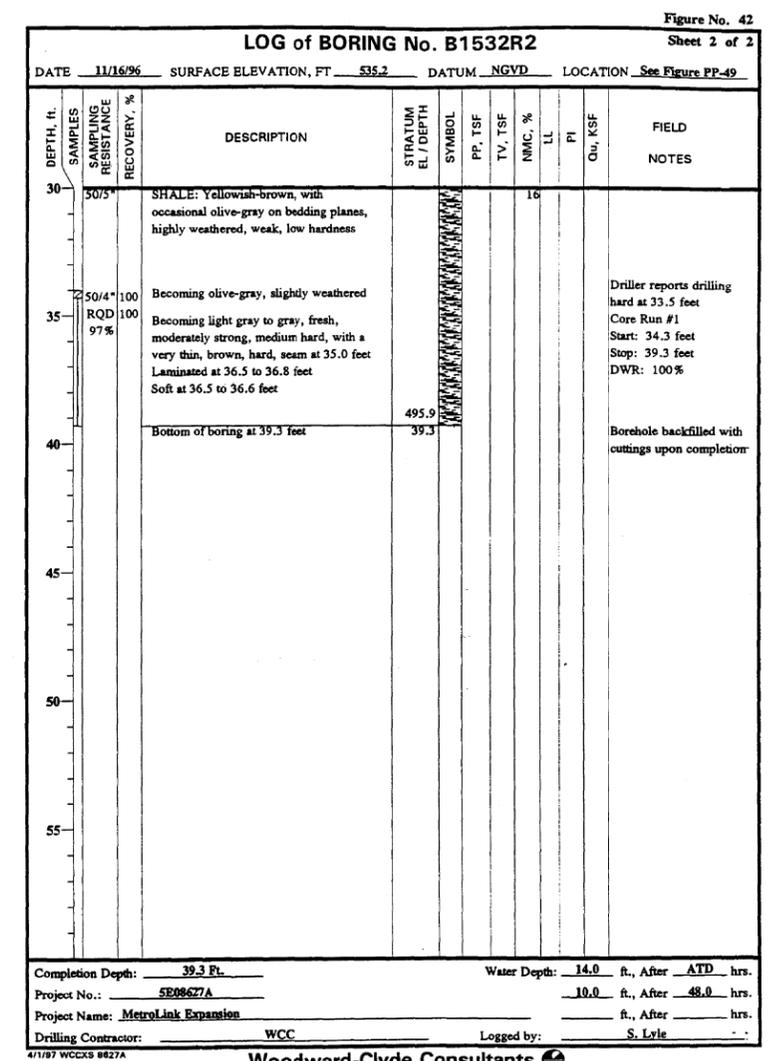
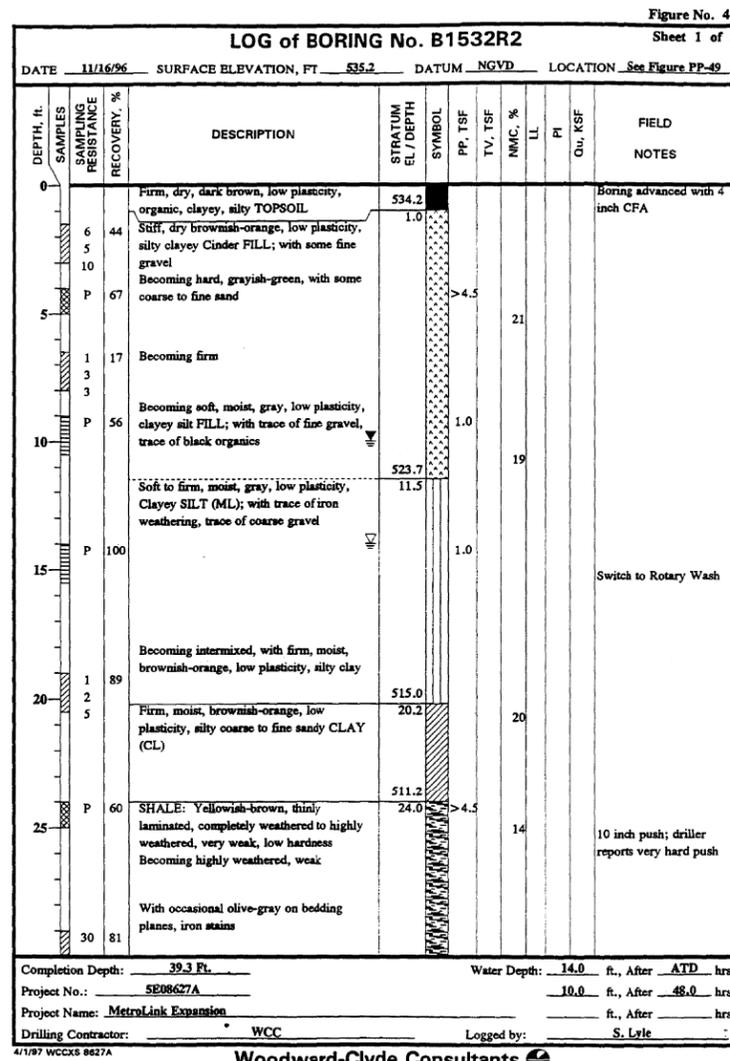
**THOUVENOT, WADE & MOERCHEN, INC.**  
 SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

CORPORATE OFFICE  
 4940 Old Collinsville Road  
 Swansea, Illinois 62226  
 Tel: 618.624.4488  
 Fax: 618.624.6688



SHEET NO. 13  
 16 SHEETS

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



**BORING LOG B1532R2**  
**STRUCTURE B28.96**

DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	DJH
DATE	

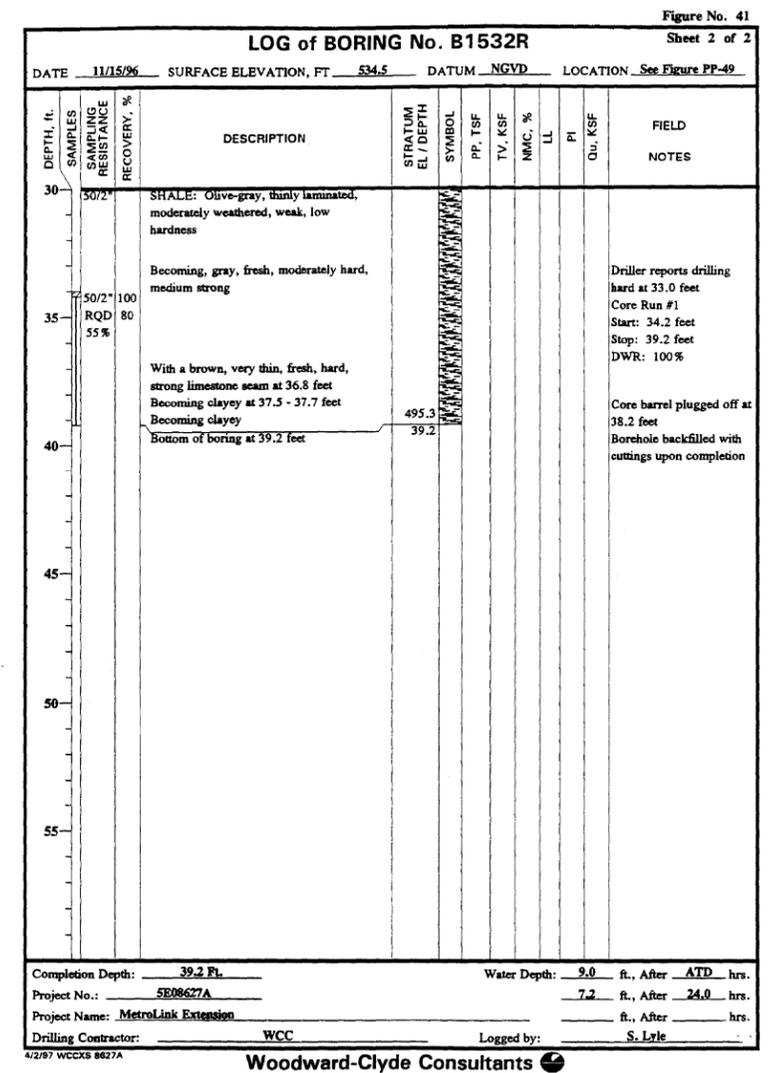
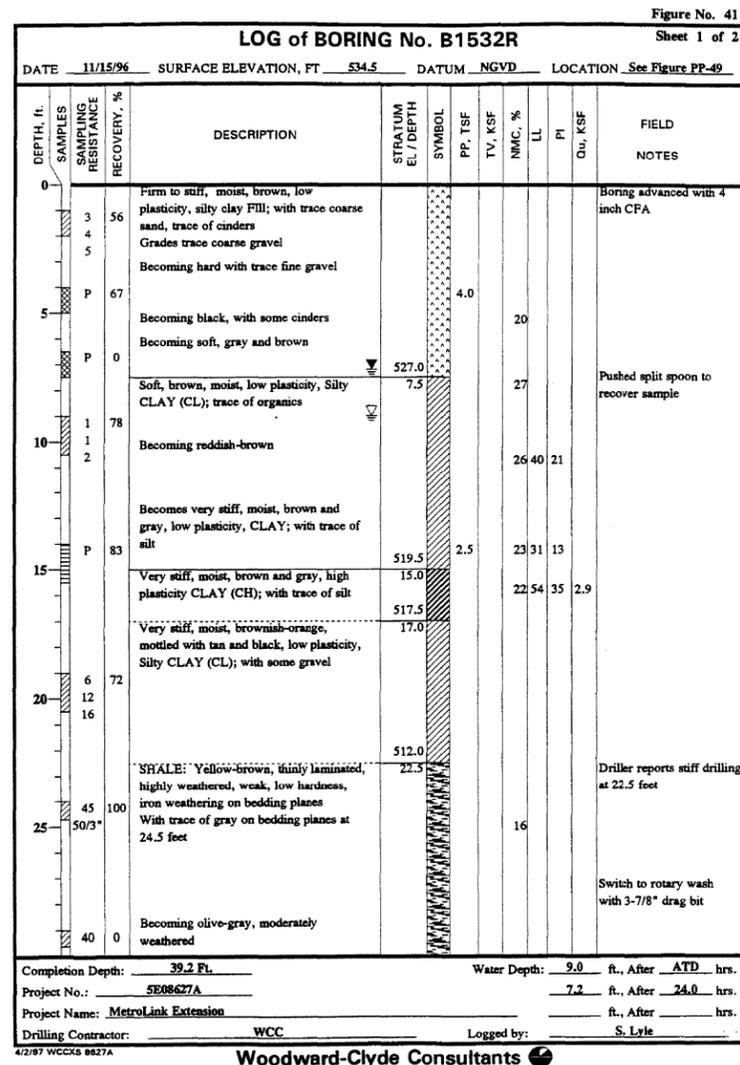
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SHEET NO. 14  
16 SHEETS

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

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**BORING LOG B1532R  
STRUCTURE B28.96**

DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	DJH
DATE	

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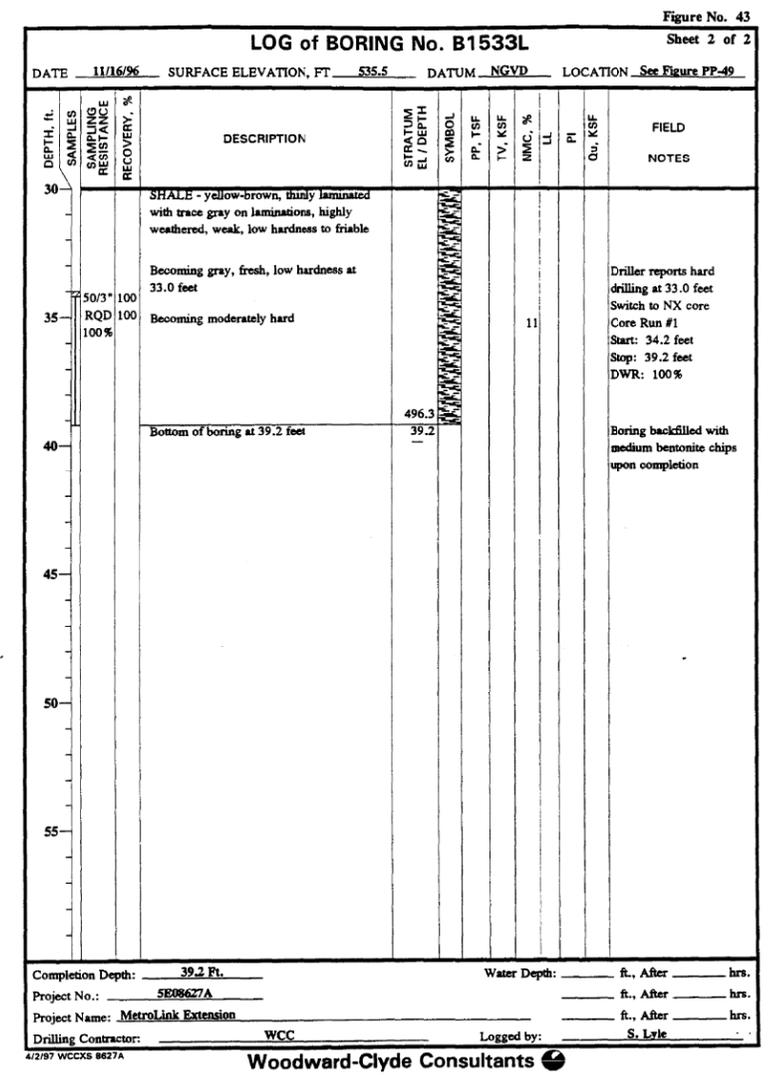
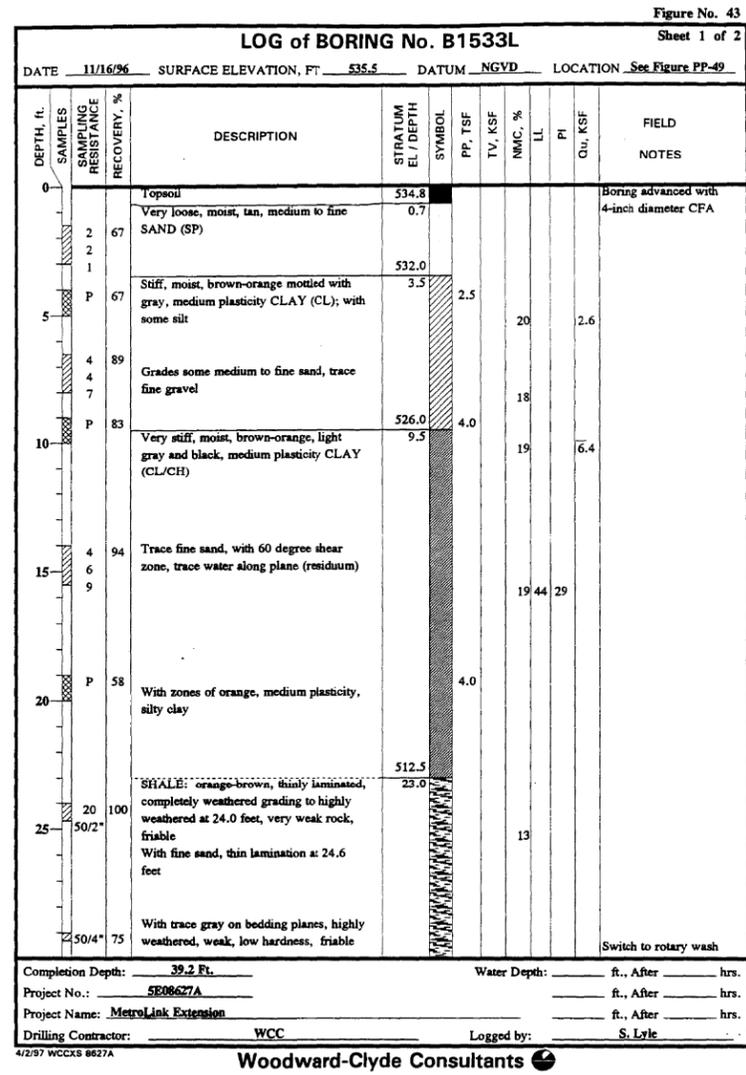
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SHEET NO. 15  
16 SHEETS

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

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**BORING LOG B1533L  
STRUCTURE B28.96**

DESIGNED	MJJ
CHECKED	DJH
DRAWN	MJJ
CHECKED	DJH
DATE	

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SHEET NO. 16  
16 SHEETS

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

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Plotted by: mjbost  
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