

# PLANS FOR PROPOSED SURFACE TRANSPORTATION PROGRAM - BRIDGE

## T.R. 13 MELMS ROAD OVER COON CREEK PROPOSED STRUCTURE NO. 019-4212 SECTION 13-06121-00-BR DEKALB COUNTY - GENOA ROAD DISTRICT PROJECT BROS-0037(064)

JOB NO. C-93-069-15

TR ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO
T.R. 13	*	DEKALB	19	1
ILLINOIS PROJECT BROS-0037(064)				
* 13-06121-00-BR				

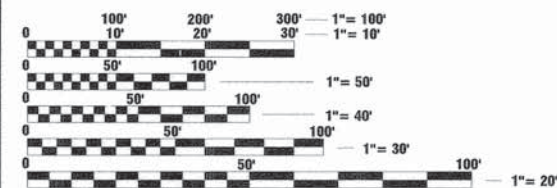
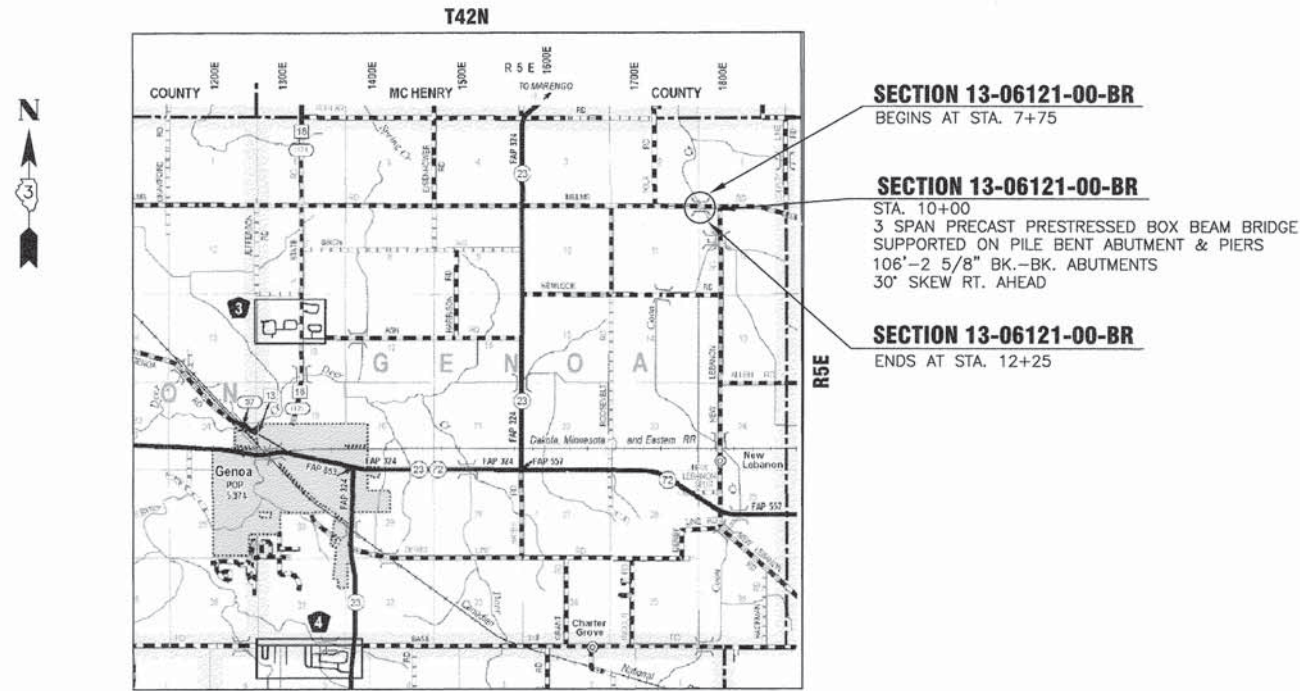


**INDEX OF SHEETS**

1	COVER SHEET
2	SCHEDULE OF QUANTITIES
3	PLAN AND PROFILE
4	GENERAL PLAN & ELEVATION
5	GENERAL DATA
6-8	DECK BEAM DETAILS
9	SUPERSTRUCTURE
10	ABUTMENTS
11	PIERS
12	HP PILE DETAILS
13	STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
14-15	CROSS SECTIONS
16	EROSION CONTROL & GRADING PLAN
17-19	SOIL BORINGS

**STANDARDS**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701901-05	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

**TOWNSHIP: GENOA**  
**CONTRACT NO. 87618**

**LOCATION MAP**  
GROSS LENGTH OF SECTION = 450 FEET (0.085 MILE)  
NET LENGTH OF SECTION = 450 FEET (0.085 MILE)

**DESIGN CRITERIA**

ROADWAY	DESIGN CLASSIFICATION	ADT 2015	DESIGN SPEED
MELMS ROAD	LOCAL ROAD	1650	50
	3R GUIDELINES	3% TRUCKS	



SCOTT A. BROWN  
DIXON, ILLINOIS  
ILLINOIS LICENSED PROFESSIONAL ENGINEER NO. 062-053649  
EXPIRES 11-30-2017



GROUND BREAKING SOLUTIONS  
engineers · surveyors · scientists  
www.wendlergs.com ph: 815.288.2261  
Illinois Professional Design Firm No. 184-000648

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED 4-1 20 16

Kent RB  
TOWNSHIP HIGHWAY COMMISSIONER

SUBMITTED 4-1 20 16

Wth Wth  
COUNTY ENGINEER

PASSED 4-8 20 16

Dal RE  
DISTRICT 3 ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW 4-8 20 16

Paul Latre  
REGION 2 ENGINEER

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**

**SUMMARY OF QUANTITIES**  
FUNDING CODE: 0011

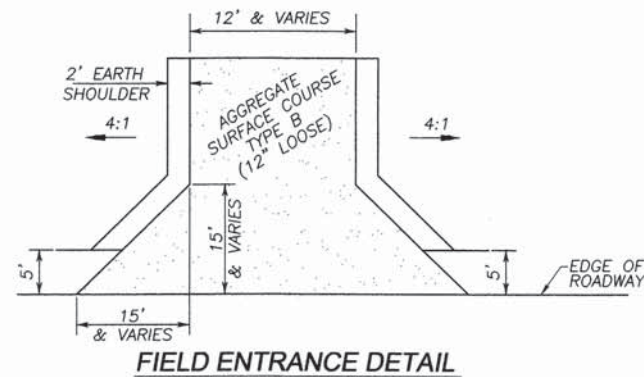
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
25100630	EROSION CONTROL BLANKET	SQ YD	709
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	250
28000400	PERIMETER EROSION BARRIER	FOOT	615
28000500	INLET AND PIPE PROTECTION	EACH	2
28100709	STONE DUMPED RIPRAP, CLASS A5	SQ YD	430
28200200	FILTER FABRIC	SQ YD	430
35101400	AGGREGATE BASE COURSE, TYPE B	TON	938
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	50
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,064
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	380
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	248
48101200	AGGREGATE SHOULDERS, TYPE B	TON	105
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	153
50200300	COFFERDAM EXCAVATION	CU YD	109
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	127.6
50300260	BRIDGE DECK GROOVING	SQ YD	354
50300300	PROTECTIVE COAT	SQ YD	399
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	3,135
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	18,133
50901050	STEEL RAILING, TYPE SM	FOOT	213
51201600	FURNISHING STEEL PILES HP12X53	FOOT	1,105
51202305	DRIVING PILES	FOOT	1,105
51203600	TEST PILE STEEL HP12X53	EACH	2
51500100	NAME PLATES	EACH	1
54215550	METAL END SECTIONS 15"	EACH	2
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	56
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	50
67100100	MOBILIZATION	LSUM	1
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	6
X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	688
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.15
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	349
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	46
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1
Z0013798	CONSTRUCTION LAYOUT	LSUM	1
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	126

**QUANTITY NOTES:**

△ SPECIALTY ITEMS

SEE SPECIAL PROVISIONS

PERIMETER EROSION BARRIER AND TEMPORARY EROSION CONTROL SEEDING ARE ESTIMATED QUANTITIES. LOCATIONS ARE TO BE DETERMINED IN FIELD BY THE ENGINEER



**SCHEDULE OF QUANTITIES**

**BITUMINOUS MATERIALS (PRIME COAT)**

LOCATION	POUND
STA. 7+75 - STA. 9+46.6	1032
STA. 10+53.4 - STA. 12+25	1032
<b>TOTAL</b>	<b>2064 POUND</b>

**BITUMINOUS MATERIALS (TACK COAT)**

LOCATION	POUND
STA. 7+75 - STA. 9+46.6	190
STA. 10+53.4 - STA. 12+25	190
<b>TOTAL</b>	<b>380 POUND</b>

**AGGREGATE SHOULDERS, TYPE B**

LOCATION	TON
LT. STA. 7+75 - LT. STA. 9+08	21.5
RT. STA. 7+75 - RT. STA. 9+53	30.2
LT. STA. 10+70 - LT. STA. 12+25	26.1
RT. STA. 10+60 - RT. STA. 12+25	27.3
<b>TOTAL</b>	<b>105 TON</b>

**AGGREGATE BASE COURSE, TYPE B**

LOCATION	TON
STA. 7+75 - STA. 9+46.6	469
STA. 10+53.4 - STA. 12+25	469
<b>TOTAL</b>	<b>938 TON</b>

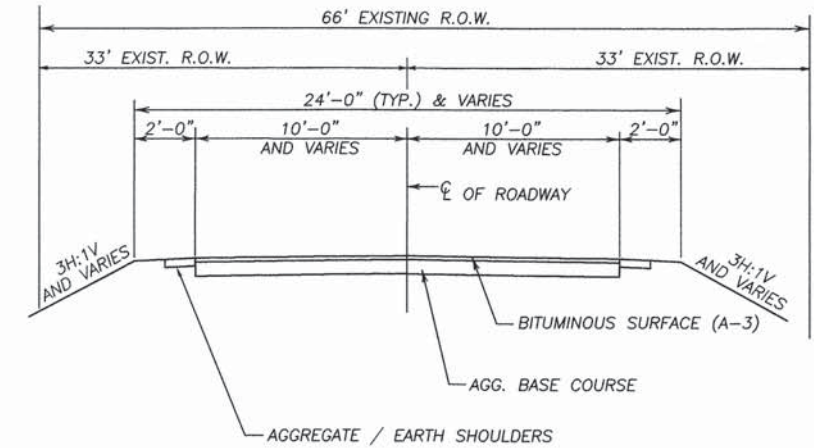
**AGGREGATE SURFACE COURSE, TYPE B**

LOCATION	TON
FIELD ENTRANCE LT. STA. 9+25	27.8
FIELD ENTRANCE LT. STA. 10+60	22.3
<b>TOTAL</b>	<b>50 TON</b>

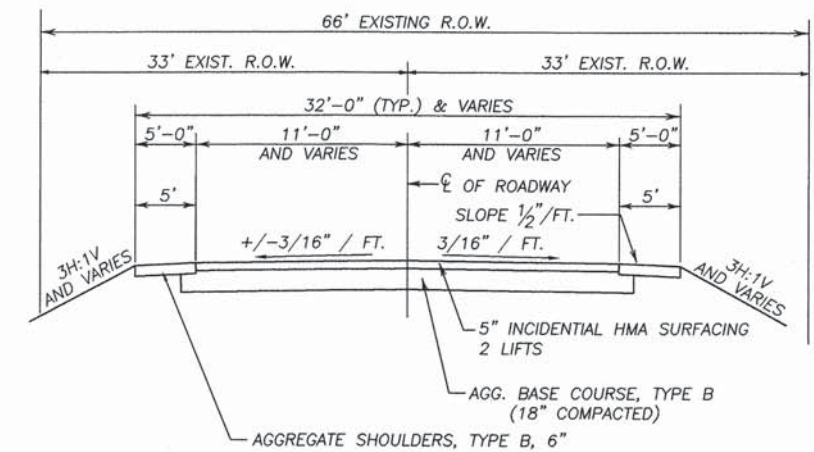
	SURFACE/INCIDENTAL HMA
PG GRADE **	PG 64-22
DESIGN AIR VOIDS	4.0% @ N50
MIXTURE COMPOSITION	IL 9.5
FRICTION AGGREGATE	MIXTURE C
DENSITY TEST METHOD	SATISFACTION OF ENGINEER
MIXTURE WEIGHT	112# / SQ.YD. / IN.
QUALITY MANAGEMENT PROGRAM	QC/QA
SUBLOT SIZE	N/A
LOCATION(S)	ENTIRE PROJECT

\* Slight field adjustments may be made to achieve the desired air void content. Any changes to the HMA mixture shall be discussed with the Engineer prior to placement.

\*\* When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25% ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to PG 58-28).



**EXISTING TYPICAL SECTION**



**PROPOSED TYPICAL SECTION**

STA. 7+75 TO STA. 12+25  
(BRIDGE OMISSION FROM STA. 9+46.5 TO STA. 10+53.7)

S.N. 019-4212  
**SCHEDULE OF QUANTITIES**  
SECTION 13-06121-00-BR  
MELMS ROAD  
DEKALB COUNTY



USER NAME = bryan hartmann	DESIGNED - SAB	REVISED -
PLOT SCALE =	DRAWN - DJV	REVISED -
PLOT DATE = 15/4/2016	CHECKED -	REVISED -
FILE NAME = schedule.dwg	DATE - 12-01-2015	REVISED -

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

**SUMMARY & SCHEDULE OF QUANTITIES**

SCALE: - SHEET - OF - SHEETS STA. - TO STA. -

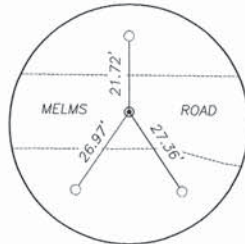
F.A. - RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-06121-00-BR	DEKALB	19	2
CONTRACT NO.				87618
ILLINOIS FED. AID PROJECT				

### BENCHMARK INFORMATION

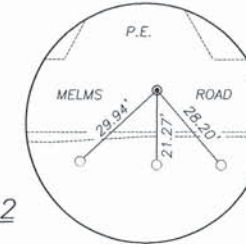
B.M. "A" - FOUND CHISELED "□" ON N.W. CORNER OF EXISTING STRUCTURE.  
ELEV=820.42

B.M. "B" - SET 60d NAIL IN N.E. FACE OF 1ST. POWER POLE EAST OF EXISTING STRUCTURE. SOUTH SIDE OF MELMS ROAD.  
ELEV=817.98

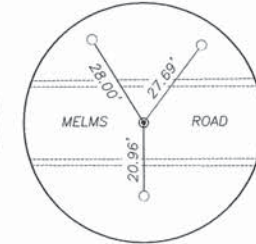
B.M. "C" - SET 60d NAIL IN NORTH FACE OF 1ST. POWER POLE WEST OF EXISTING STRUCTURE. SOUTH SIDE OF MELMS ROAD.  
ELEV=819.16



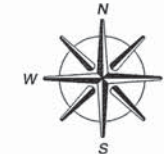
**CONTROL POINT #6**  
SET SURVEY NAIL  
ALL TIES ARE SET 5/8" REBAR



**CONTROL POINT #13**  
SET SURVEY NAIL  
ALL TIES ARE SET 5/8" REBAR



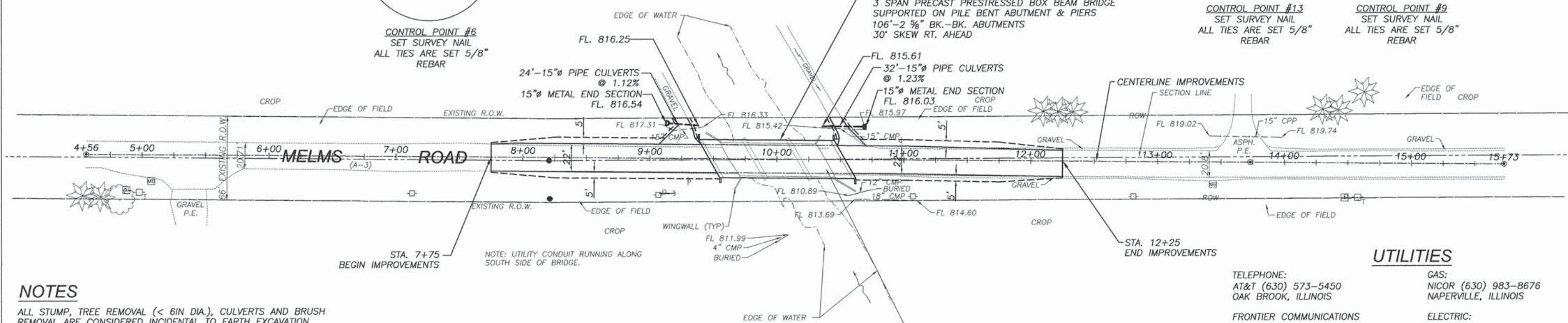
**CONTROL POINT #9**  
SET SURVEY NAIL  
ALL TIES ARE SET 5/8" REBAR



0 20' 40'  
SCALE: 1"=40'

### PROPOSED STRUCTURE S.N. 019-4212

STA. 10+00  
3 SPAN PRECAST PRESTRESSED BOX BEAM BRIDGE  
SUPPORTED ON PILE BENT ABUTMENT & PIERS  
106'-2 5/8" BK.-BK. ABUTMENTS  
30' SKEW RT. AHEAD



### NOTES

ALL STUMP, TREE REMOVAL (< 6IN DIA.), CULVERTS AND BRUSH REMOVAL ARE CONSIDERED INCIDENTAL TO EARTH EXCAVATION.

ALL FENCES DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RELOCATED AND RESTORED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. (COST CONSIDERED INCIDENTAL TO THE CONTRACT)

REQUIRED PAVEMENT SAWCUTS SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION.

### UTILITIES

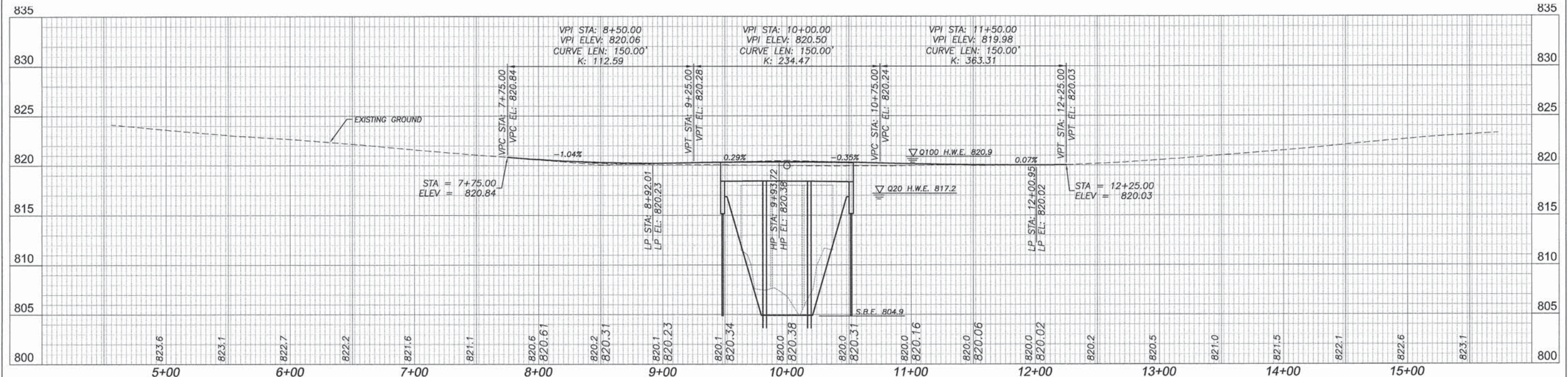
TELEPHONE:  
AT&T (630) 573-5450  
OAK BROOK, ILLINOIS

FRONTIER COMMUNICATIONS  
(815) 895-1515  
SYCAMORE, ILLINOIS

GAS:  
NICOR (630) 983-8676  
NAPERVILLE, ILLINOIS

ELECTRIC:  
COMMONWEALTH EDISON COMPANY  
(630) 576-7094  
OAK BROOK TERRACE, ILLINOIS

THE LOCATIONS OF UTILITY FACILITIES AS SHOWN ON THESE PLANS ARE AN ESTIMATE AND NOT INTENDED AS FIELD LOCATIONS FOR CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES PRIOR TO CONSTRUCTION AND CALLING J.U.L.I.E. AT 800-892-0123 FOR CONFIRMATION OF EXISTING UTILITY LOCATIONS.



USER NAME = bryan hartmann  
PLOT SCALE = 1"=40'  
PLOT DATE = 4/31/2016  
FILE NAME = survey-2150276.dwg

DESIGNED - SAB  
DRAWN - DJV  
CHECKED -  
DATE - 12-02-2015

REVISED -  
REVISED -  
REVISED -  
REVISED -

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

**PLAN & PROFILE S.N. 019-4212**

SCALE: 1"=40' SHEET - OF - SHEETS STA. - TO STA. -

F.A. - RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-06121-00-BR	DEKALB	19	3
CONTRACT NO. 87618			ILLINOIS FED. AID PROJECT	

**BENCHMARKS**

B.M. "A" - FOUND CHISELED "□" ON N.W. CORNER OF EXISTING STRUCTURE. ELEV=820.42

B.M. "B" - SET 60d NAIL IN N.E. FACE OF 1ST. POWER POLE EAST OF EXISTING STRUCTURE. SOUTH SIDE OF MELMS ROAD. ELEV=817.98

B.M. "C" - SET 60d NAIL IN NORTH FACE OF 1ST. POWER POLE WEST OF EXISTING STRUCTURE. SOUTH SIDE OF MELMS ROAD. ELEV=819.16

**EXISTING STRUCTURE:**  
3 SPAN PRECAST PRESTRESSED BOX BEAM BRIDGE SUPPORTED ON CLOSED CONCRETE ABUTMENT & PILE BENT PIERS ±76'-6" BK.-BK. ABUTMENTS 30° SKEW

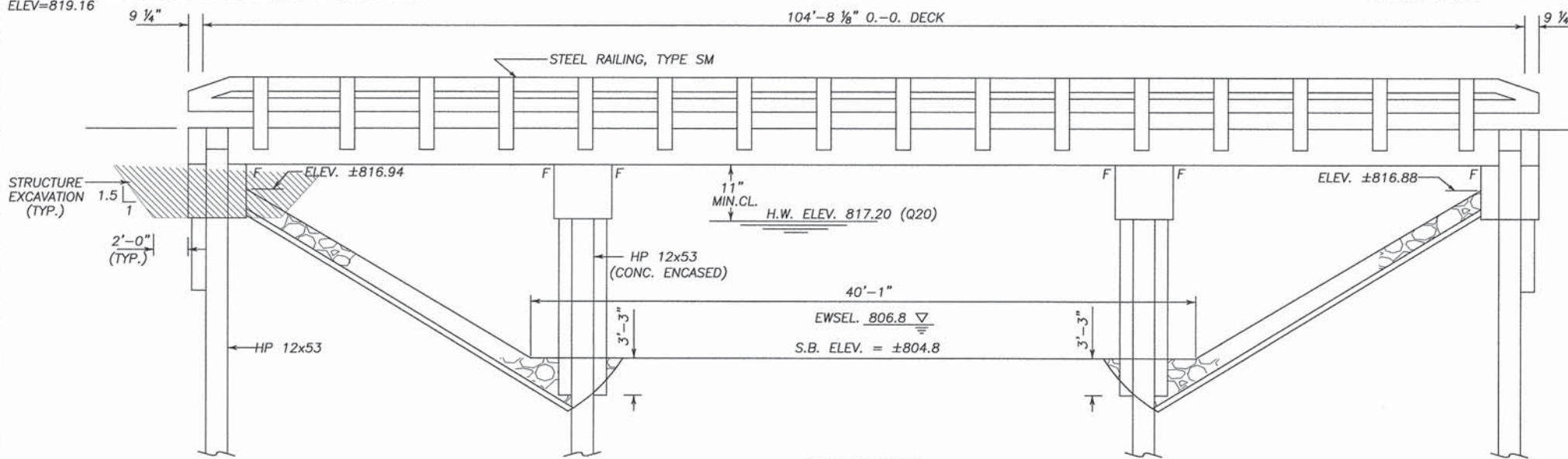
**SALVAGE:** NONE

COON CREEK  
BUILT 2016 BY  
DEKALB COUNTY AND GENOA TOWNSHIP  
DEKALB COUNTY  
SEC. 13-06121-00-BR  
STA. 10+00  
STR. NO. 019-4212 LOADING HL-93

**NAME PLATE**  
See Std. 515001

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER.	SUB.	TOTAL
REMOVAL OF EXISTING STRUCTURES	Each			1
STRUCTURE EXCAVATION	Cu. Yd.		153	153
COFFERDAM EXCAVATION	Cu. Yd.		109	109
COFFERDAM (TYPE 1) (LOCATION -1)	Each		1	1
COFFERDAM (TYPE 1) (LOCATION -2)	Each		1	1
CONCRETE STRUCTURES	Cu. Yd.		127.6	127.6
BRIDGE DECK GROOVING	Sq. Yd.	354		354
PROTECTIVE COAT	Sq. Yd.	399		399
PRECAST PRESTRESSED CONCRETE DECK BEAMS - 17"	Sq. Ft.	3135		3135
REINFORCEMENT BARS, EPOXY COATED	Pound	5220	12913	18133
STEEL RAILING, TYPE SM	Foot	213		213
FURNISHING STEEL PILES HP 12x53	Foot		1105	1105
DRIVING STEEL PILES	Foot		1105	1105
TEST PILE, STEEL HP 12x53	Each		2	2
NAME PLATES	Each	1		1
GEOCOMPOSITE WALL DRAIN	Sq. Yd.		50	50
CONCRETE WEARING SURFACE	Sq. Yd.	349		349
PIPE UNDERDRAINS FOR STRUCTURES 4"	Foot		126	126



**DESIGN SCOUR ELEVATION TABLE**

Event/Limit State	Design Scour Elevations (ft.)			
	W. Abut.	Pier 1	Pier 2	E. Abut.
Q100	813.84	801.7	801.7	813.78
Q200	813.74	801.6	801.6	813.68
Design	815.06	801.7	801.7	815.03
Check	815.06	801.6	801.6	815.03

**DESIGN STRESSES**

**FIELD UNITS**  
f'c = 5,000 psi (Wearing Surface)  
f'c = 4,000 psi (Substructure)  
fy = 60,000 psi (Reinforcement)

**PRECAST UNITS**  
f'c = 6,000 psi (Deck Beams)  
f'ci = 5,000 psi (Release)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (S<sub>d1</sub>) = .086g  
Design Spectral Acceleration at 0.2 sec. (S<sub>d5</sub>) = .155g  
Soil Site Class = D

**DESIGN SPECIFICATIONS**

AASHTO LRFD Bridge Design Specifications  
7th Edition and 2016 Interims

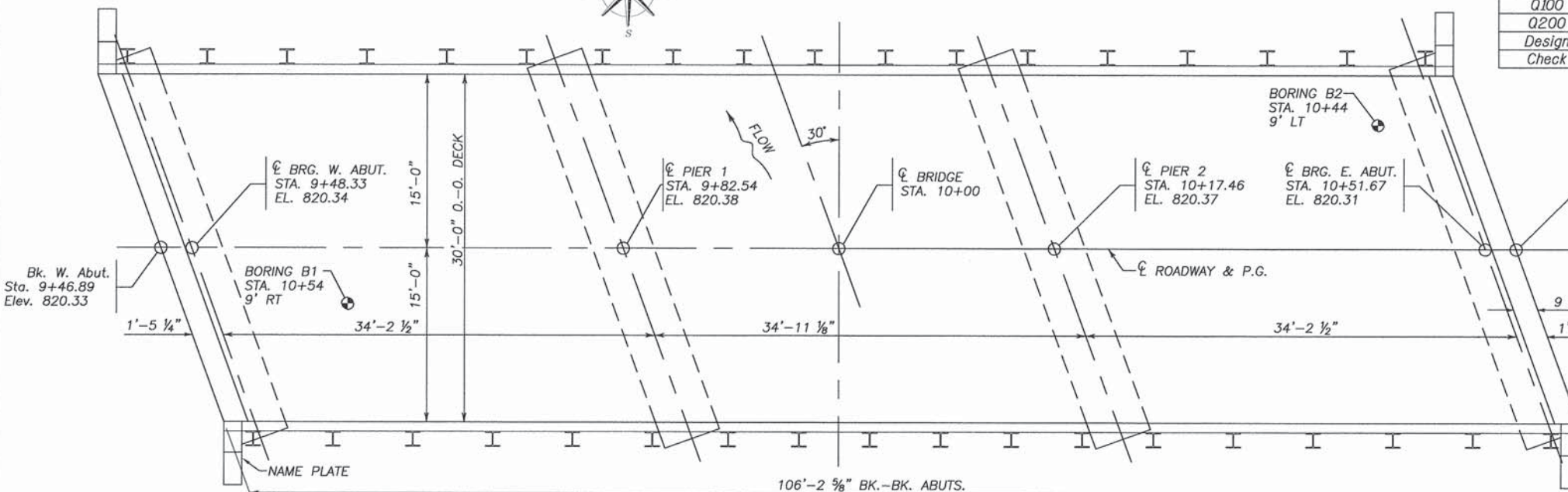
**LOADING HL-93**

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

**HIGHWAY CLASSIFICATION**

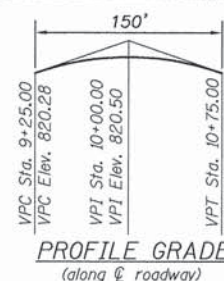
Functional Class: Local Road  
ADT: 1650 (2016); 2531 (2036)  
Design Speed: 50 m.p.h.  
Two-Way Traffic

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO LRFD SPECIFICATIONS FOR HIGHWAY BRIDGES".



**WATERWAY INFORMATION**

Drainage Area = 57.24 sq. miles		Low Grade Elev. = 819.99		at Roadway Sta. 11+75		
Flood Year	Frequency	Q (cfs)	Opening Sq. Ft.	Natural H.W.E.	Head-Ft.	Headwater El.
			Existing	Proposed	Existing	Proposed
Design	20	2190	664	863	817.2	817.2
Base	100	3010	724*	978*	821.0	821.1
	500	3770			821.5	821.5



**WENDLER ENGINEERING SERVICES, INC.**  
Illinois Professional Design  
Firm No. 184-000848

SCOTT A. BROWN  
081-005981  
STATE OF ILLINOIS

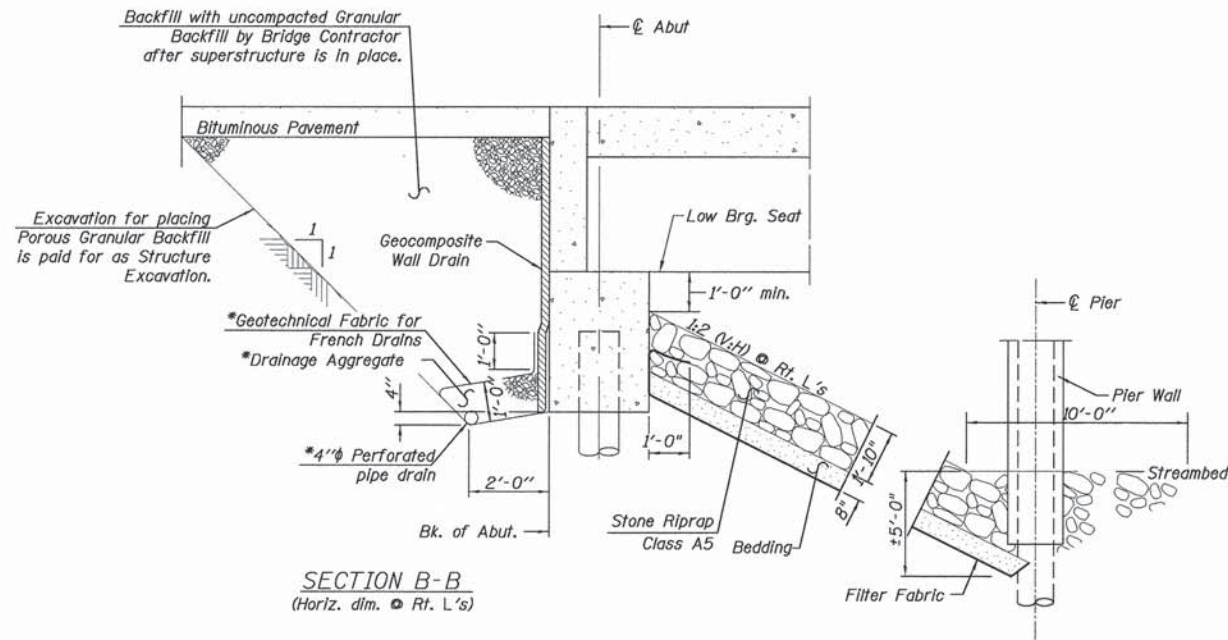
SCOTT A. BROWN  
DIXON, ILLINOIS  
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-005981  
EXPIRES 11-30-2016

**GENERAL PLAN & ELEVATION**  
S.N. 019-4212

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	4
			CONTRACT NO. 87618	
ILLINOIS FED. AID PROJECT				

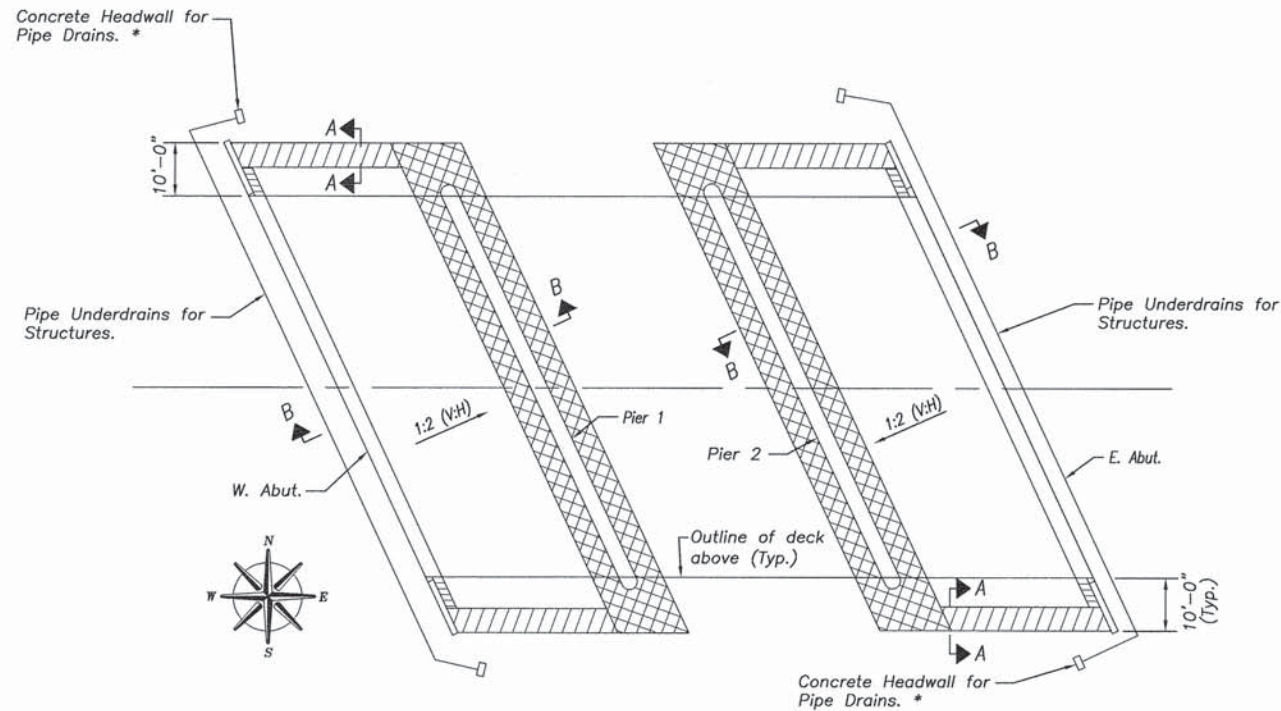
**DEKALB COUNTY HIGHWAY DEPARTMENT**

USER NAME	DESIGNED	REVISED
dan_vacok	DAB	-
PLOT SCALE	DRAWN	REVISED
-	DJV	-
PLOT DATE	CHECKED	REVISED
03-31-2016	-	-
FILE NAME	DATE	REVISED
bridge sheets-2150276.dwg	03/31/2016	-



\*Included in the cost of Pipe Underdrains for Structures.

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 60110).



**RIPRAP LAYOUT PLAN**  
\*Included in the cost of Pipe Underdrains for Structures.

**GENERAL NOTES**

Concrete from the existing structure shall not be buried within 200 feet of the proposed structure.

Plans of the existing structure are available by written request from DeKalb County.

The utilities shown on the plans are shown in approximate location only. The contractor shall determine exact locations of all utilities within the project limits before beginning construction. The contractor shall coordinate all construction activities with affected utilities and by contacting J.U.L.I.E. at 1-800-892-0123. The contractor shall be responsible for contacting the utilities prior to construction.

Reinforcement bars designated (E) shall be epoxy coated.

Protective Coat shall be applied to top and side of superstructure and on top of back walls and on top of flat portion of wingwalls.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

Backfill shall be placed behind the abutments after the superstructure has been poured and the falsework removed. See Article 502.10 of the Standard Specifications.

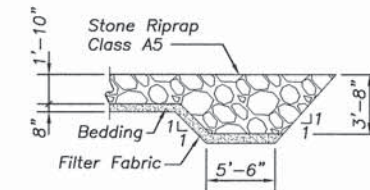
The contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

The contractor shall drive one test pile in a permanent location at Pier 1, and one test pile at the East abutment as directed by the engineer before ordering the remainder of piles.

All construction joints shall be bonded.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.



**SECTION A-A**  
**FLANK STONE RIPRAP DETAIL**



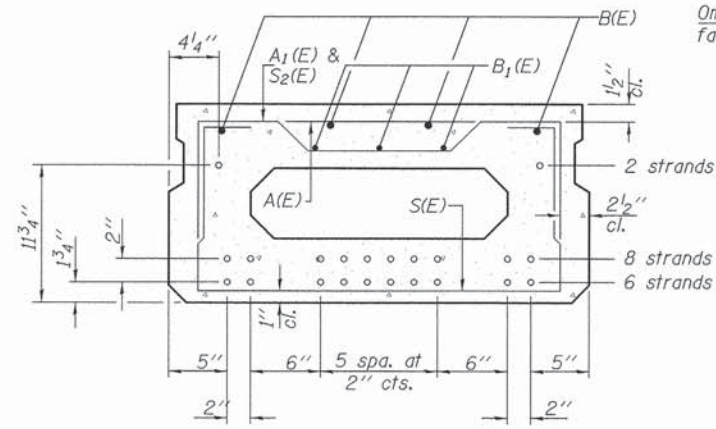
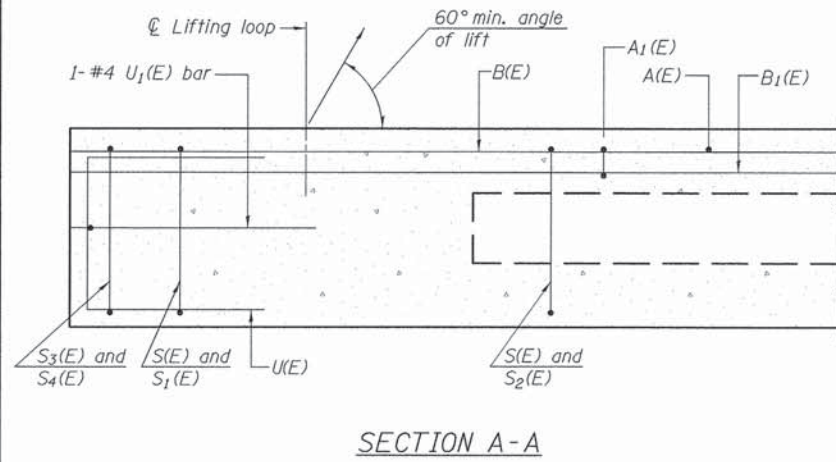
USER NAME	brigan hartmann	DESIGNED	DAB	REVISED	-
PLOT SCALE	-	DRAWN	DJV	REVISED	-
PLOT DATE	03-31-2016	CHECKED	-	REVISED	-
FILE NAME	general_data.dwg	DATE	03/31/2016	REVISED	-

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

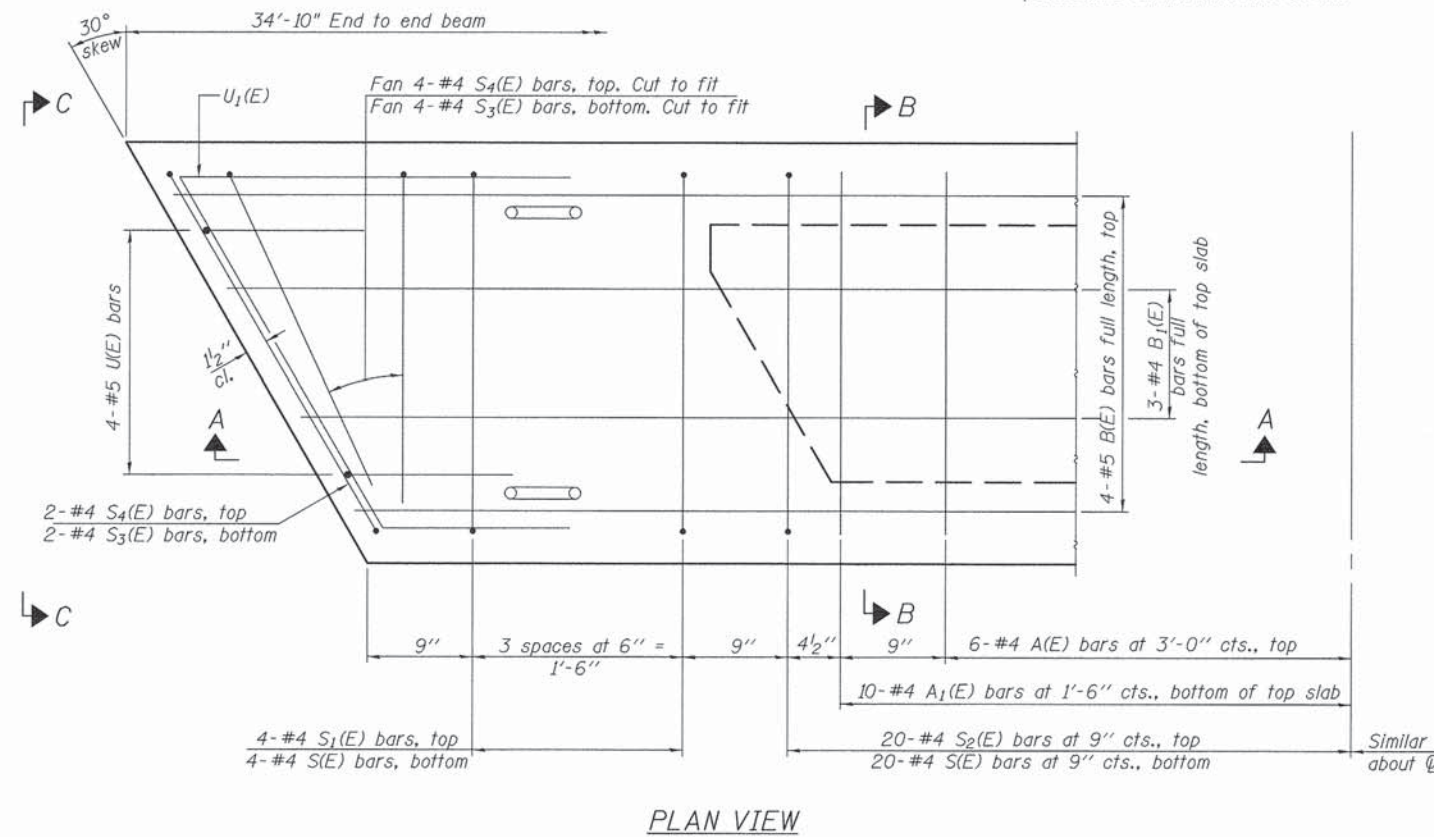
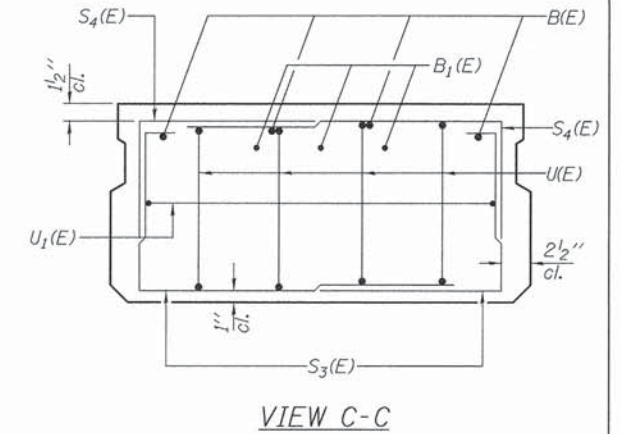
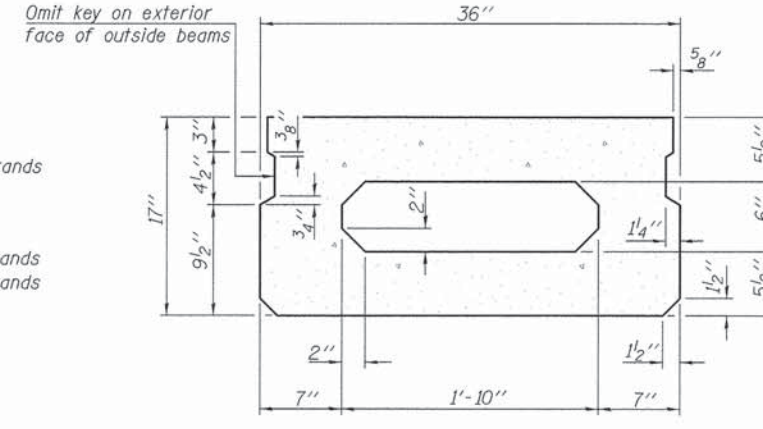
**GENERAL DATA  
S.N. 019-4212**

SCALE: - SHEET - OF - SHEETS STA. 10+00

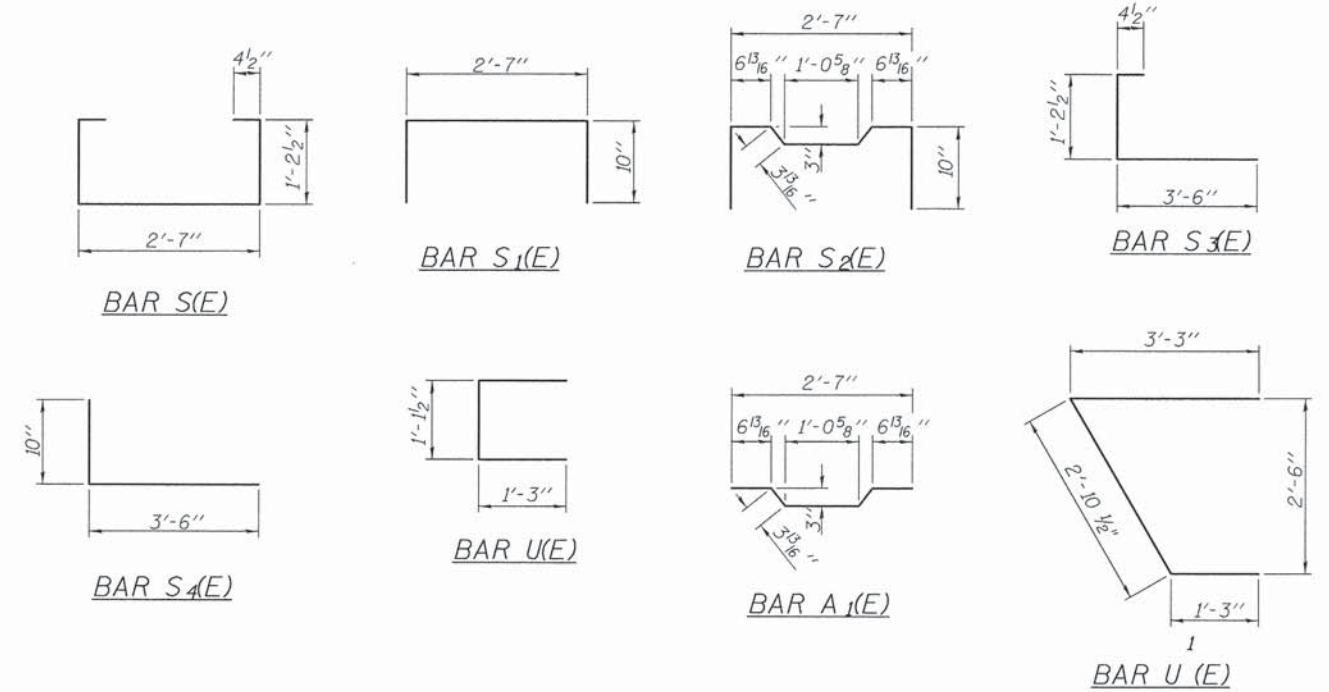
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	5
CONTRACT NO. 87618			ILLINOIS FED. AID PROJECT	



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



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



Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	—
A1(E)	20	#4	2'-10"	—
B(E)	4	#5	34'-7"	—
B1(E)	3	#4	34'-7"	—
S(E)	48	#4	5'-9"	□
S1(E)	8	#4	4'-3"	□
S2(E)	40	#4	4'-6"	□
S3(E)	12	#4	5'-1"	□
S4(E)	12	#4	4'-4"	□
U(E)	8	#5	3'-8"	□
U1(E)	2	#4	7'-4"	□

Note: See sheet 7 of 19 for additional details and Bill of Material.

**MINIMUM BAR LAP**  
 #4 bar = 1'-11"  
 #5 bar = 2'-6"

Note: D (E) bars shown on sheet 8 of 19.

PD-1736-R

6-8-15



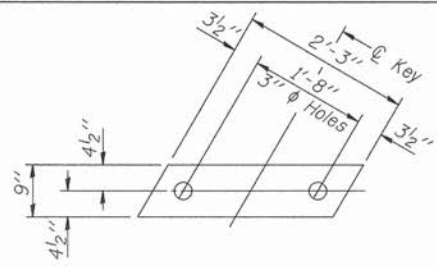
USER NAME = don_vacch	DESIGNED = DAB	REVISED =
PLOT SCALE =	DRAWN = DJV	REVISED =
PLOT DATE = 03-31-2016	CHECKED =	REVISED =
FILE NAME = bridge_sheets-2150276.dwg	DATE = 03/31/2016	REVISED =

**DEKALB COUNTY  
 HIGHWAY DEPARTMENT**

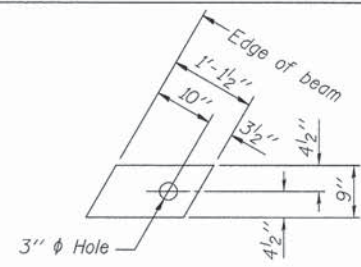
**17" x 36" PPC DECK BEAM  
 STRUCTURE NO. 019-4212**

SCALE: - SHEET - OF - SHEETS STA. 10+00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	6
CONTRACT NO. 87618			ILLINOIS FED. AID PROJECT	



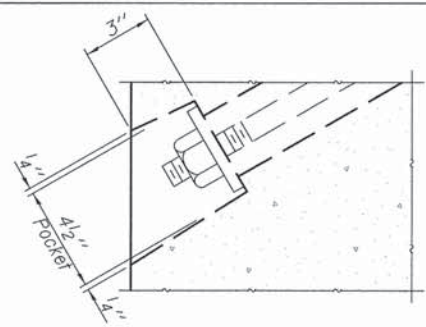
**FABRIC BEARING PAD**  
(Interior)



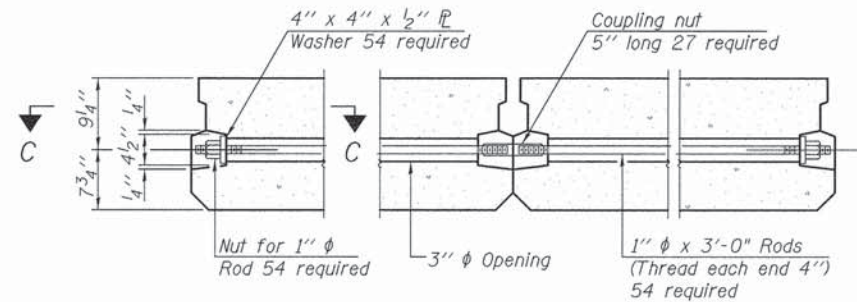
**FABRIC BEARING PAD**  
(Exterior)

**FIXED**

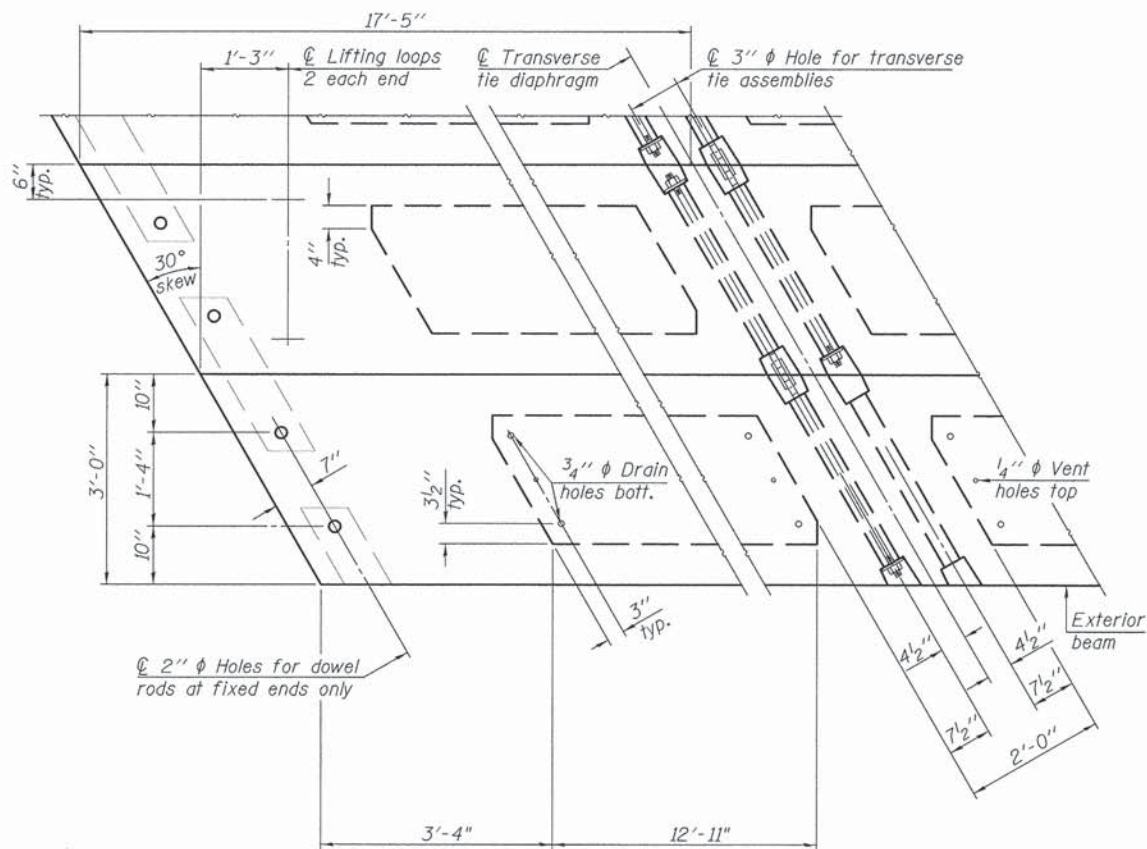
Notes:  
All bearing pads shall be 1" thick.



**SECTION C-C**



**TYPICAL TRANSVERSE TIE ASSEMBLY**

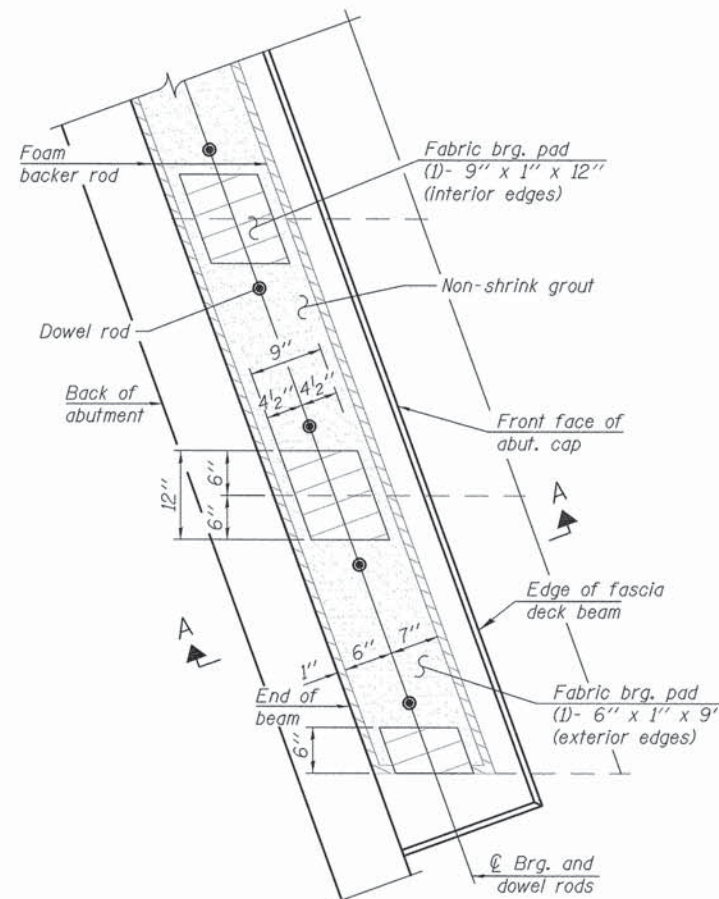


**PLAN VIEW**

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

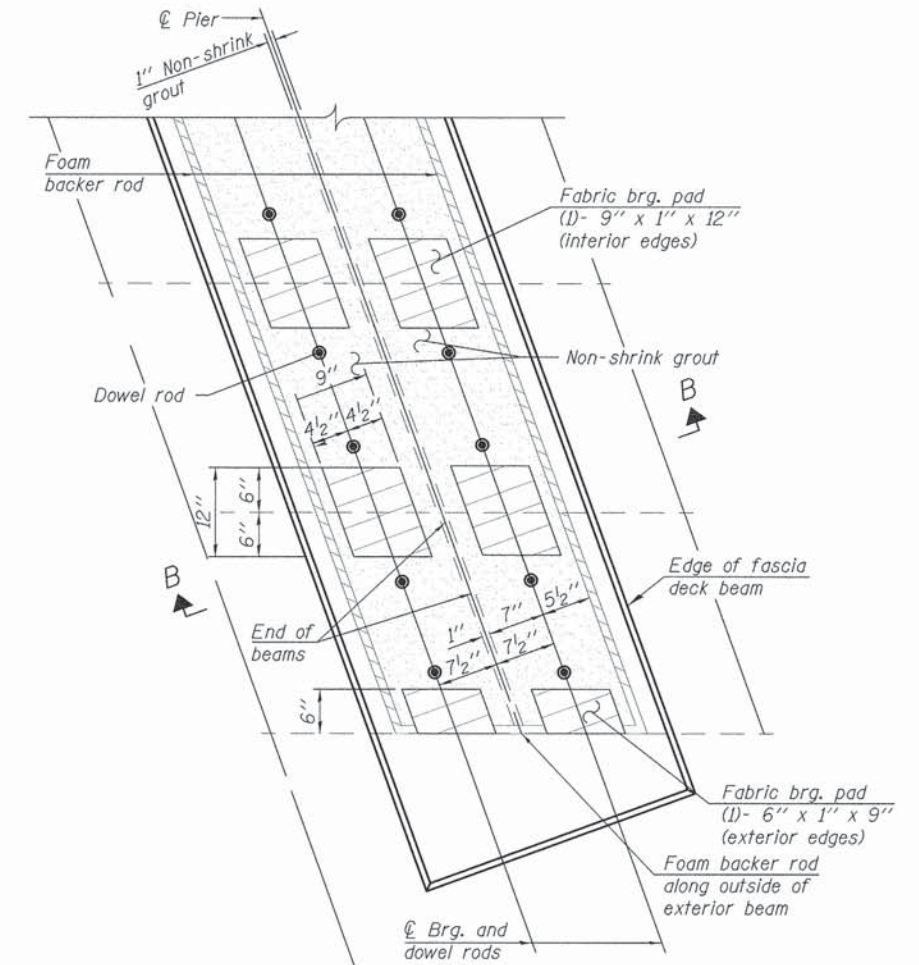
**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" phi lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



**ABUTMENT PLAN**

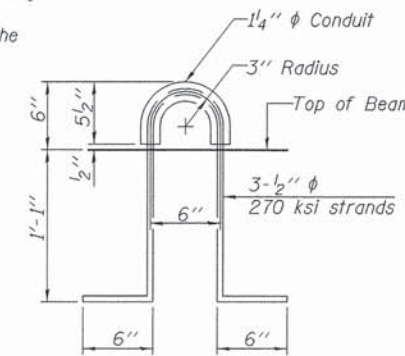
Notes:  
The bearing seat surfaces shall be adjusted by shimming the bearing to assure firm and even bearing prior to placement of grout. 2-1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shown shall be provided for each bearing.



**PIER PLAN**

Notes:  
The bearing seat surfaces shall be adjusted by shimming the bearing to assure firm and even bearing prior to placement of grout. 2-1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shown shall be provided for each bearing.

See sheet 9 of 19 for Section A-A and Section B-B



**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	3135
---	---------	------

PD-1736-RD

1-28-16



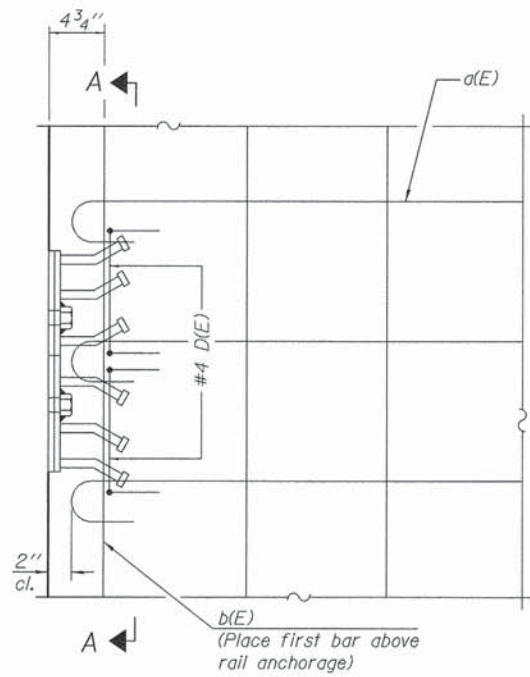
USER NAME = dan_vacek	DESIGNED = DAB	REVISED =
PLOT SCALE =	DRAWN = DJV	REVISED =
PLOT DATE = 03-31-2016	CHECKED =	REVISED =
FILE NAME = bridge sheets-2150276.dwg	DATE = 03/31/2016	REVISED =

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

**17" x 36" PPC DECK BEAM DETAILS  
STRUCTURE NO. 019-4212**

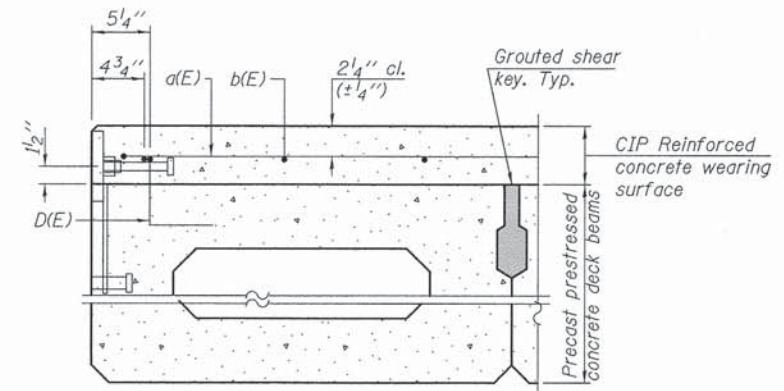
SCALE: - SHEET - OF - SHEETS STA. 10+00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	7
				CONTRACT NO. 87618
ILLINOIS FED. AID PROJECT				

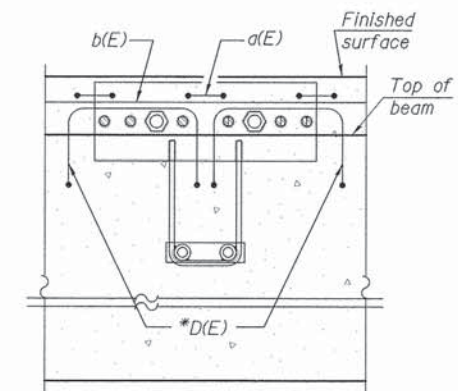


PLAN

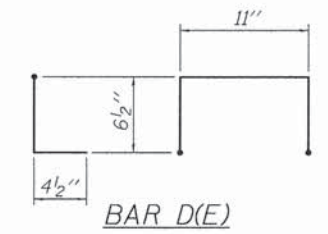
Notes:  
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



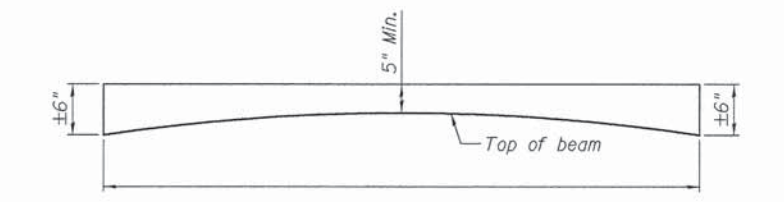
SECTION THRU FASCIA BEAM



SECTION A-A



\* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.



ANTICIPATED CONCRETE WEARING SURFACE PROFILE  
(For information only)

PDS-S-R34-D 1-27-12



USER NAME = dan.vacak	DESIGNED = DAB	REVISION =
PLOT SCALE =	DRAWN = DJV	REVISION =
PLOT DATE = 03-31-2016	CHECKED =	REVISION =
FILE NAME = bridge sheet-2158276.dwg	DATE = 03/31/2016	REVISION =

DEKALB COUNTY  
HIGHWAY DEPARTMENT

17"x 36" PPC DECK BEAM DETAILS  
S.N. 019-4212

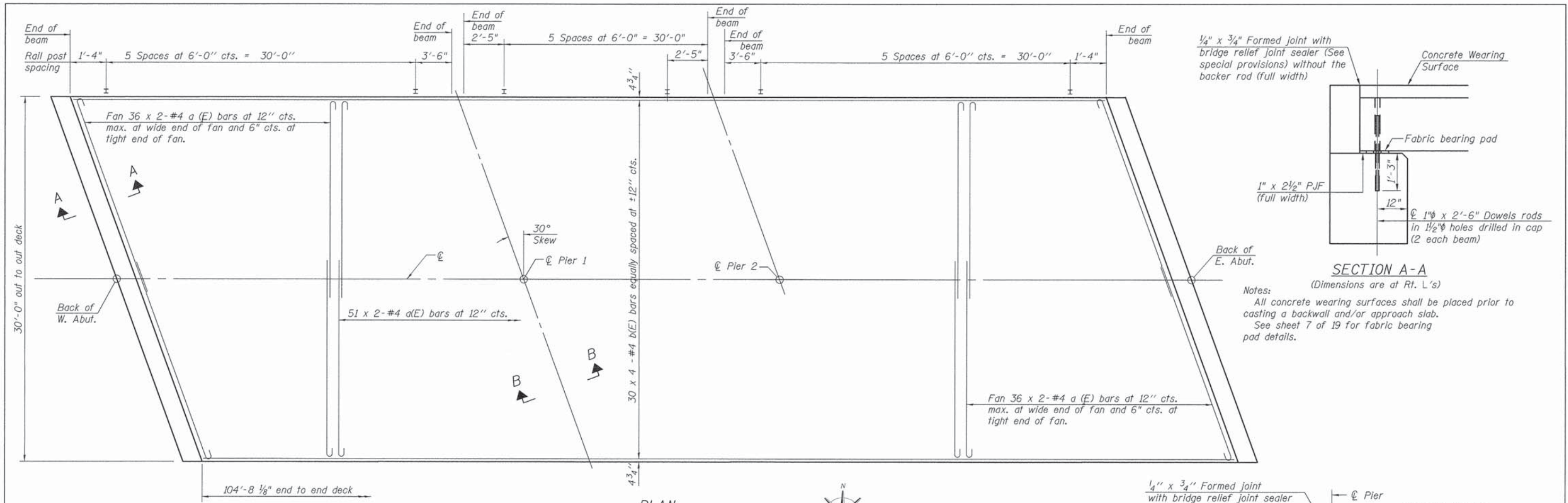
SCALE: - SHEET - OF - SHEETS STA. 10+00

Note: See sheet 9 of 19 for post locations.

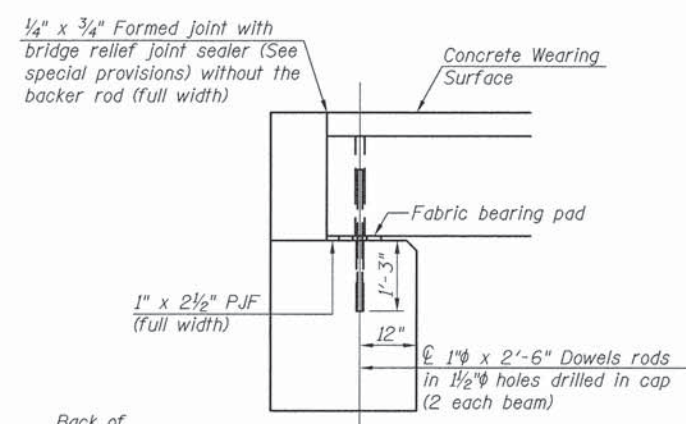
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	8
CONTRACT NO. 87618				
ILLINOIS FED. AID PROJECT				

F:\2015 Jobs\2150276\CIVIL\Bridge sheets-2150276.dwg, 4/1/2016 9:10:56 AM



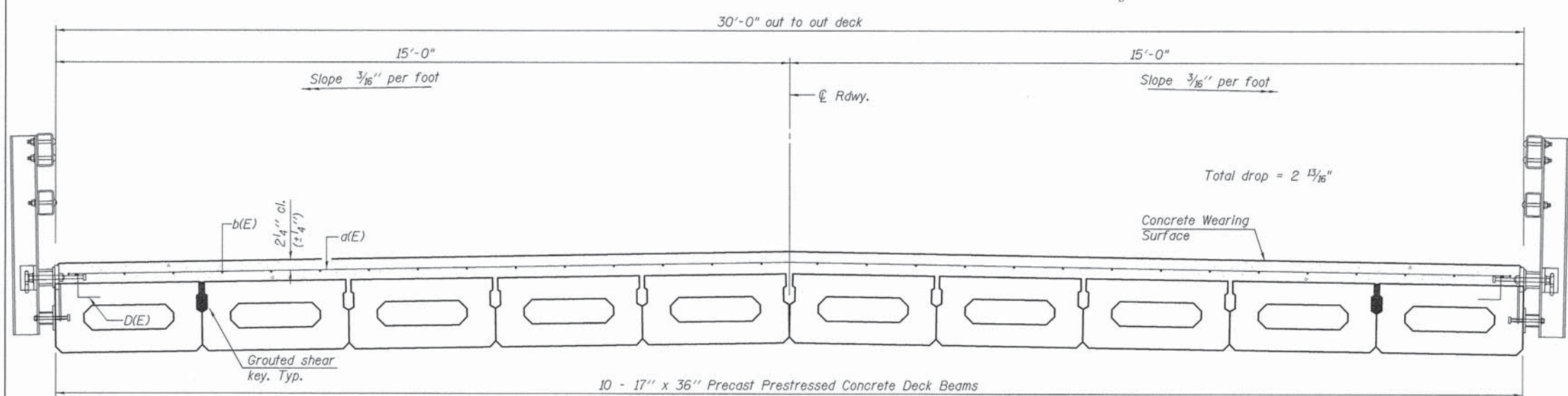


PLAN

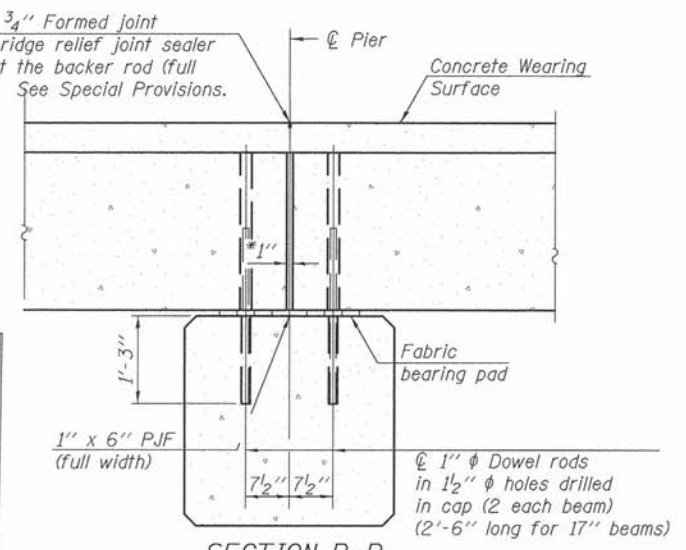


SECTION A-A

(Dimensions are at Rt. L's)  
 Notes:  
 All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.  
 See sheet 7 of 19 for fabric bearing pad details.



CROSS SECTION  
(Looking East)



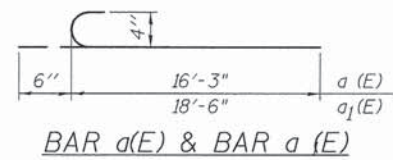
SECTION B-B

\*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	102	#4	16'-9"	C
a <sub>1</sub> (E)	144	#4	19'-0"	C
b(E)	120	#4	28'-1"	—
Bridge Deck Grooving		Sq. Yd.	354	
Reinforcement Bars, Epoxy Coated		Pound	5220	
Concrete Wearing Surface, 5"		Sq. Yd.	349	

Bars indicated thus 1 x 4 -#4 etc. indicates 1 line of bars with 4 lengths per line.

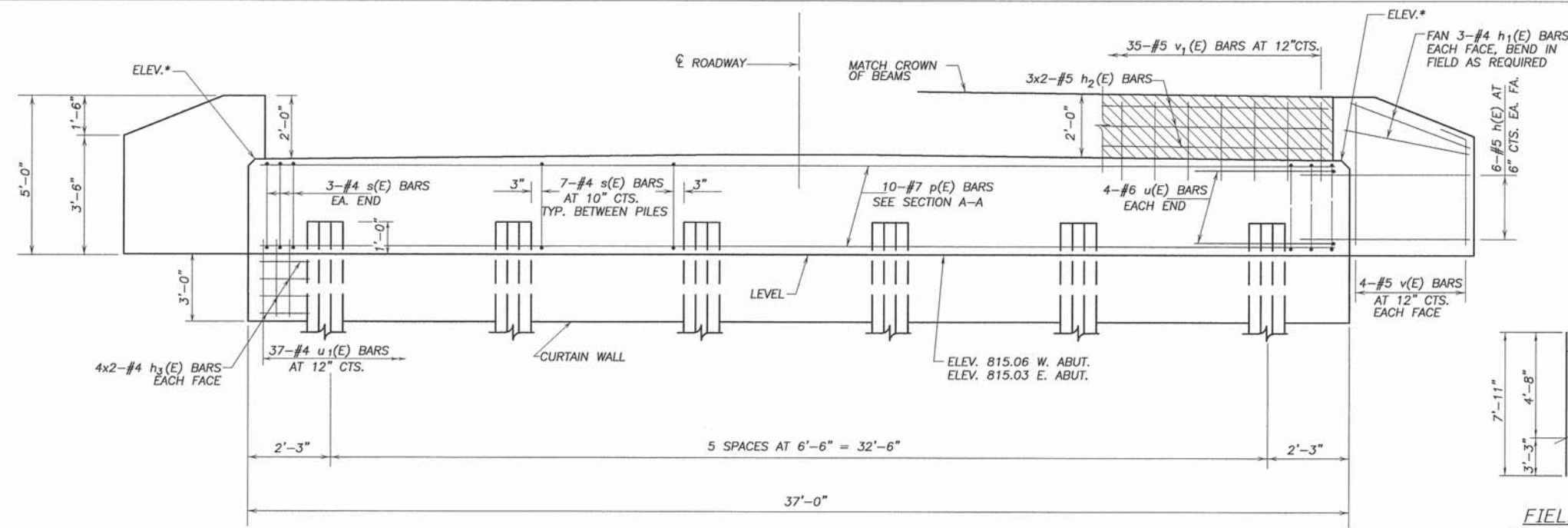


MINIMUM BAR LAP  
#4 bar = 2'-8"

Notes:  
 See sheet 6, 7 & 8 of 19 for Superstructure Details and Bill of Material.  
 Bars indicated thus 20 x 2-#4 etc. indicates 20 lines of bars with 2 lengths per line.  
 Spacing of a(E) bars shall be measured along the  $\phi$  of structure.

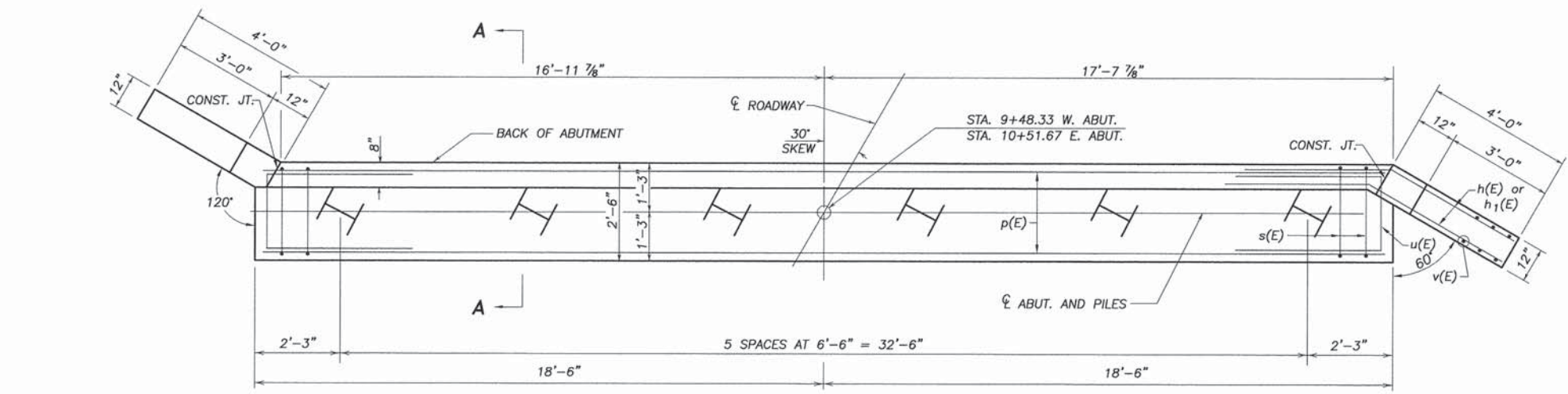
PDS-M-R34-R 6-8-15

	USER NAME = dan_vocck	DESIGNED = DNB	REVISED =	<b>DEKALB COUNTY HIGHWAY DEPARTMENT</b>	<b>SUPERSTRUCTURE S.N. 019-4212</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN = DJV	REVISED =			13	13-06121-00-BR	DEKALB	19	9
	PLOT DATE = 03-31-2016	CHECKED =	REVISED =			CONTRACT NO. 87618		ILLINOIS FED. AID PROJECT		
	FILE NAME = br-tdgo-shoots-2158276.dwg	DATE = 03/31/2016	REVISED =							

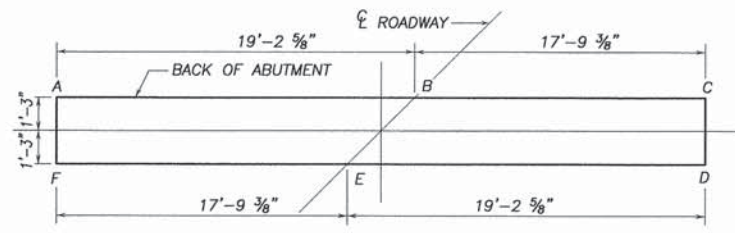


**ELEVATION**

\* SEE TABLE BELOW FOR BRIDGE SEAT ELEVATIONS

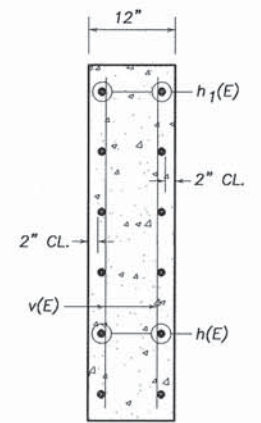


**PLAN**



LOCATION	ELEV.	A	B	C	D	E	F
WEST ABUT.		818.09	818.33	818.07	818.06	818.34	818.11
EAST ABUT.		818.07	818.31	818.04	818.03	818.31	818.09

**BRIDGE SEAT ELEVATIONS**



**SECTION THRU WINGWALL**

**W. ABUT. PILE DATA**

Type: Steel HP 12x53  
 Nominal required bearing: 418 kips  
 Factored resistance available: 418 kips  
 Est. Length: 44'  
 No. Production Piles: 6  
 No. Test Piles: 0  
 The test piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data.

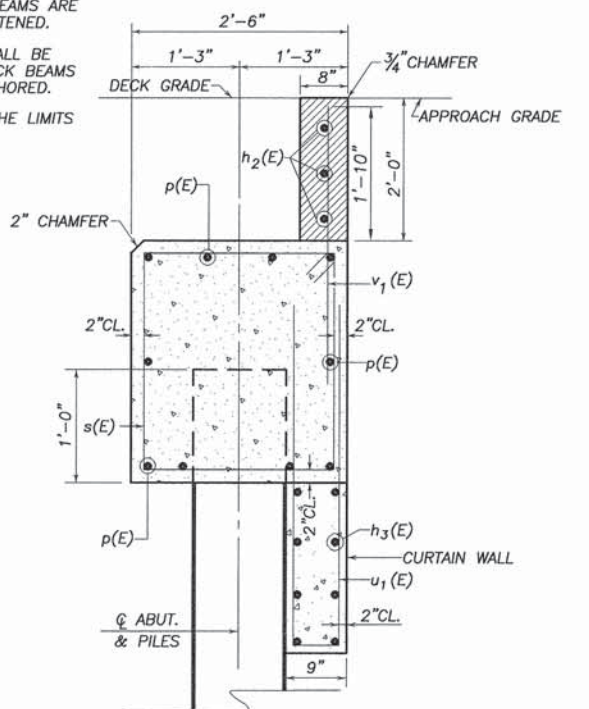
**E. ABUT. PILE DATA**

Type: Steel HP 12x53  
 Nominal required bearing: 418 kips  
 Factored resistance available: 418 kips  
 Est. Length: 41'  
 No. Production Piles: 5  
 No. Test Piles: 1  
 The test piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data.

**MINIMUM BAR LAP**

#4 bar 2'-5"  
 #5 bar 3'-1"

NOTE: WINGWALLS ABOVE TOP OF CAP SHALL NOT BE POURED UNTIL THE DECK BEAMS ARE IN PLACE AND FASTENED.  
 HATCHED AREA SHALL BE POURED AFTER DECK BEAMS ARE SET AND ANCHORED.  
 WIDTH SHALL BE THE LIMITS OF THE CAP.

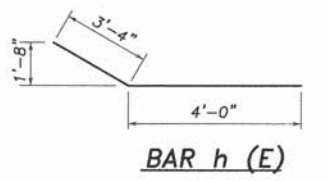


**SECTION A-A**

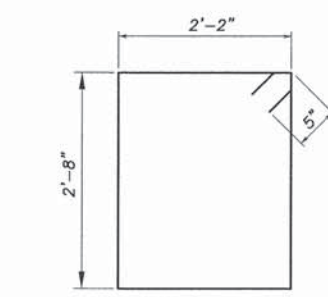
(DIMENSIONS ARE AT RT. <'S)

\* POUR CURTAIN WALL CONCRETE SOLID AGAINST PILES

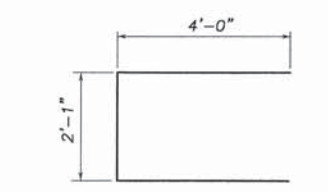
**FIELD CUTTING DIAGRAM**  
 Order v(E) full length. Cut as shown and use remainder of bars in opposite face.



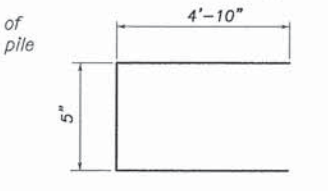
**BAR h (E)**



**BAR s (E)**



**BAR u (E)**



**BAR u1 (E)**

**BILL OF MATERIAL - 2 ABUTMENTS**

BAR	NO.	SIZE	LENGTH	SHAPE	
h (E)	48	# 5	7' - 4"	—	
h1 (E)	24	# 4	3' - 8"	—	
h2 (E)	12	# 5	19' - 11"	—	
h3 (E)	32	# 4	19' - 7"	—	
p (E)	20	# 7	36' - 8"	—	
s (E)	82	# 4	10' - 6"	□	
u (E)	16	# 6	10' - 1"	—	
u1 (E)	74	# 4	10' - 1"	—	
v (E)	16	# 5	7' - 11"	—	
v1 (E)	70	# 5	4' - 7"	—	
ITEM				UNIT	QUANTITY
Reinforcement Bars, Epoxy Coated				Pound	4,375
Concrete Structures				Cu.Yd.	33.4
Furnishing Steel Piles HP12x53				Foot	466
Driving Piles				Foot	466
Test Pile, Steel HP12x53				Each	1
Structure Excavation				Cu.Yd.	153

AD-1721-R

7-1-10



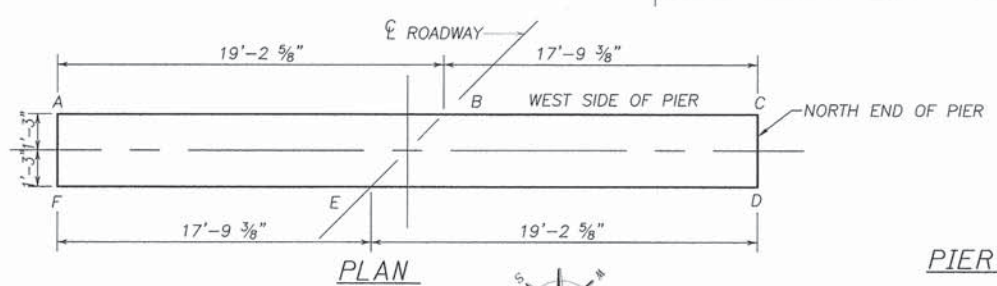
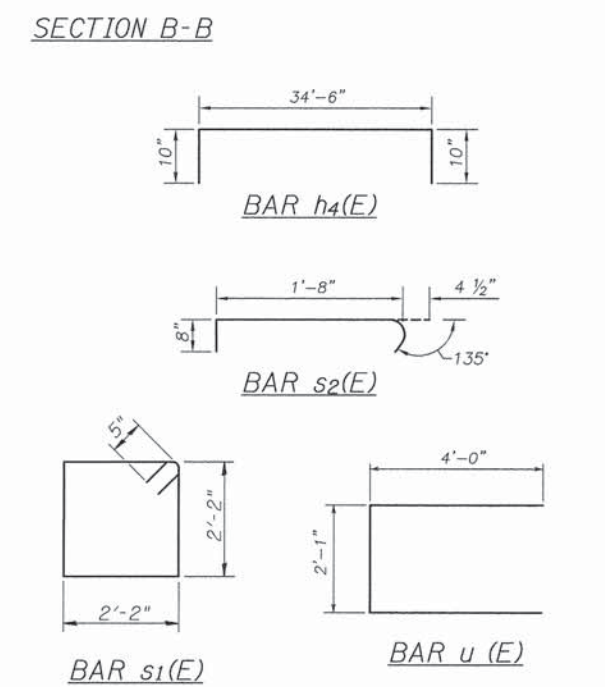
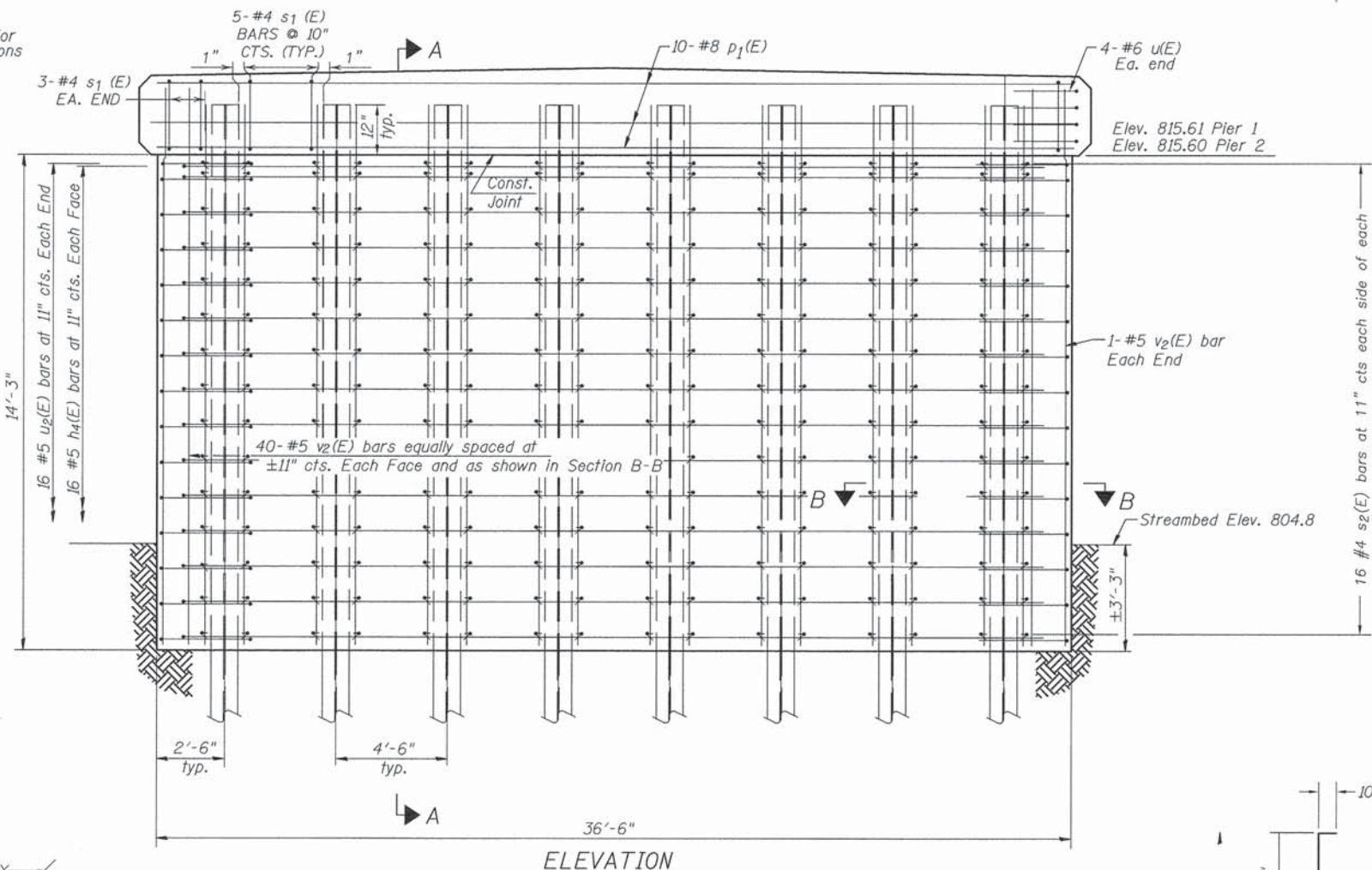
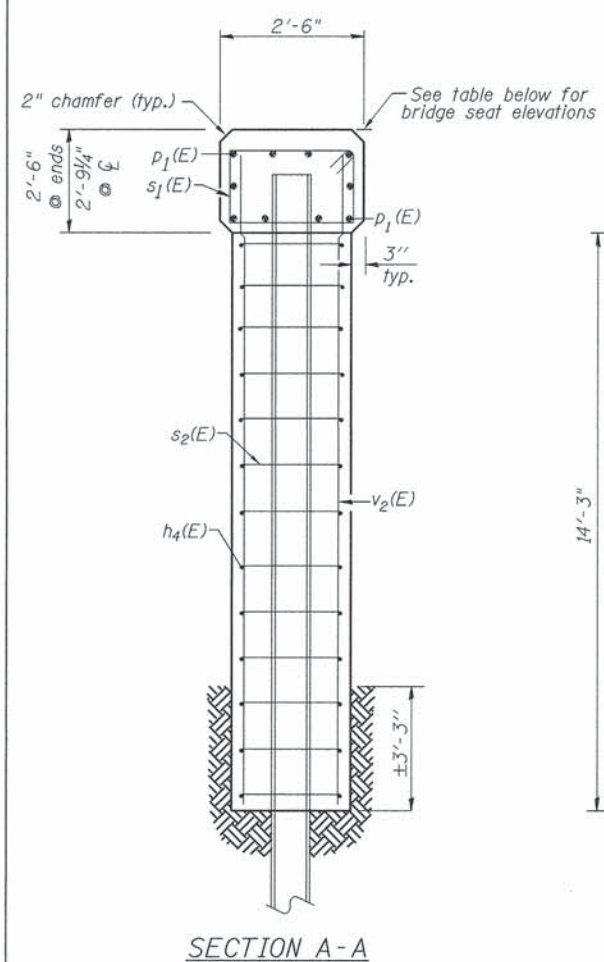
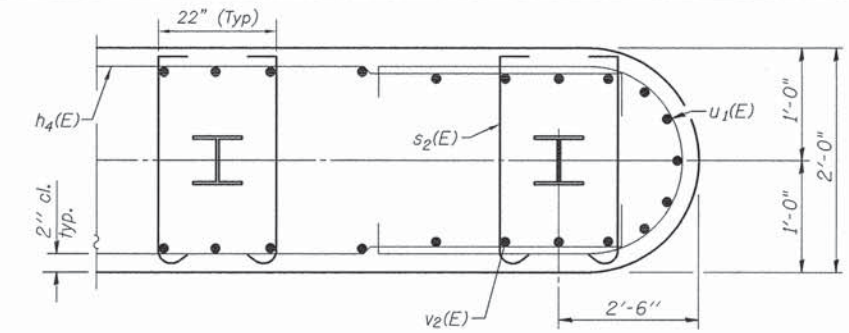
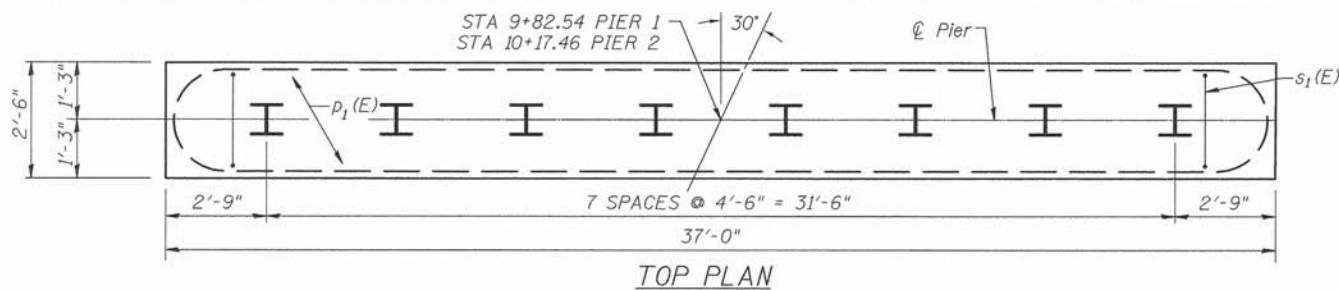
USER NAME = bryon hartmann	DESIGNED = DAB	REVISIONS =
PLOT SCALE = -	DRAWN = DJV	REVISIONS =
PLOT DATE = 03-31-2016	CHECKED = -	REVISIONS =
FILE NAME = abutments.dwg	DATE = 03/31/2016	REVISIONS =

**DEKALB COUNTY HIGHWAY DEPARTMENT**

**ABUTMENTS S.N. 019-4212**

SCALE: - SHEET - OF - SHEETS STA. 10+00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	10
CONTRACT NO. 87618				
ILLINOIS FED. AID PROJECT				



LOCATION	ELEV.	A	B	C	D	E	F
PIER 1		818.12	818.38	818.13	818.11	818.38	818.14
PIER 2		818.10	818.37	818.14	818.12	818.37	818.12

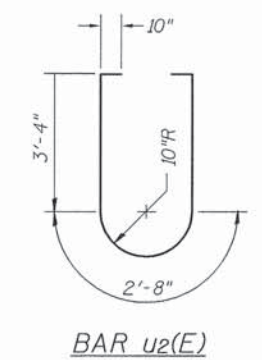
BRIDGE SEAT ELEVATIONS

PIER 1 PILE DATA

Type: Steel - HP 12x53  
 Nominal required bearing: 418 kips  
 Factored resistance available: 418 kips  
 Est. Length: 41'  
 No. Production Piles : 7  
 No. Test Piles : 1  
 The test piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data information.

PIER 2 PILE DATA

Type: Steel - HP 12x53  
 Nominal required bearing: 418 kips  
 Factored resistance available: 418 kips  
 Est. Length: 44'  
 No. Production Piles : 8  
 No. Test Piles : 0  
 The test piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data information.



BILL OF MATERIAL - 2 PIERS

BAR	NO.	SIZE	LENGTH	SHAPE	
h 4 (E)	64	# 5	36' - 2"	□	
p 1 (E)	20	# 8	36' - 8"	—	
s 1 (E)	82	# 4	9' - 6"	□	
s 2 (E)	512	# 4	2' - 9"	□	
u (E)	16	# 6	10' - 1"	U	
u 2 (E)	64	# 5	9' - 4"	U	
v 2 (E)	164	# 5	16' - 3"	—	
ITEM				UNIT	QUANTITY
Reinforcement Bars, Epoxy Coated				Pound	7,724
Concrete Structures				Cu.Yd.	94.2
Furnishing Steel Piles HP12x53				Foot	639
Driving Piles				Foot	639
Test Pile, Steel HP12x53				Each	1
Cofferdam (Type 1) (Location -1)				Each	1
Cofferdam (Type 1) (Location -2)				Each	1
Cofferdam Excavation				Cu.Yd.	109

If a portion of the concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water at the time of construction.

F:\2015\Jobs\2150276\CIVIL\Bridge sheets-2150276.dwg, 4/1/2016 9:03:12 AM

P-DSSW 11-26-12

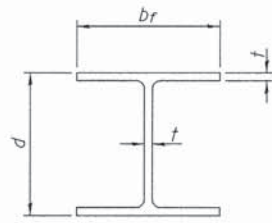
wendler engineering services, inc. geotechnical and civil engineering-surveyors-architects

DEKALB COUNTY HIGHWAY DEPARTMENT

PIERS S.N. 019-4212

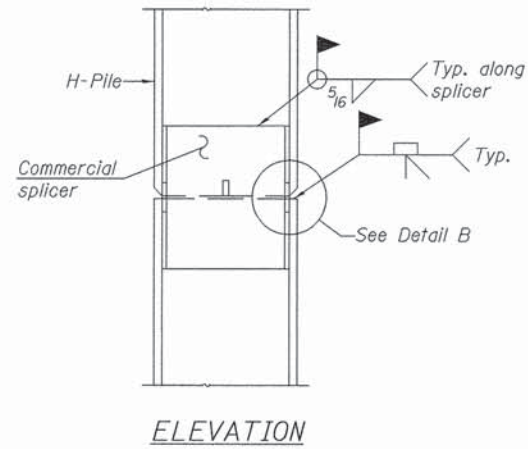
T.R. SECTION COUNTY TOTAL SHEETS SHEET NO. 13 13-06121-00-BR DEKALB 19 11 CONTRACT NO. 87618 ILLINOIS FED. AID PROJECT

SCALE: - SHEET - OF - SHEETS STA. 10+00

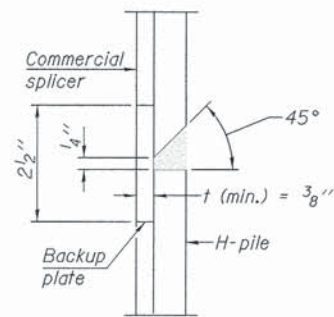


STEEL PILE TABLE

Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 3/8"	7/16"	18"

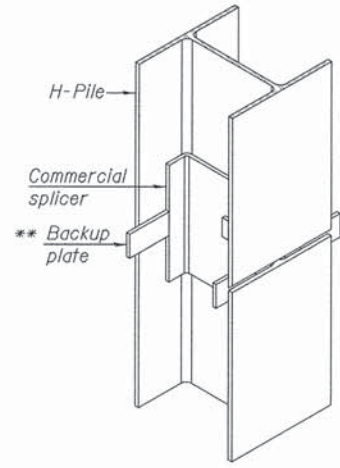


ELEVATION

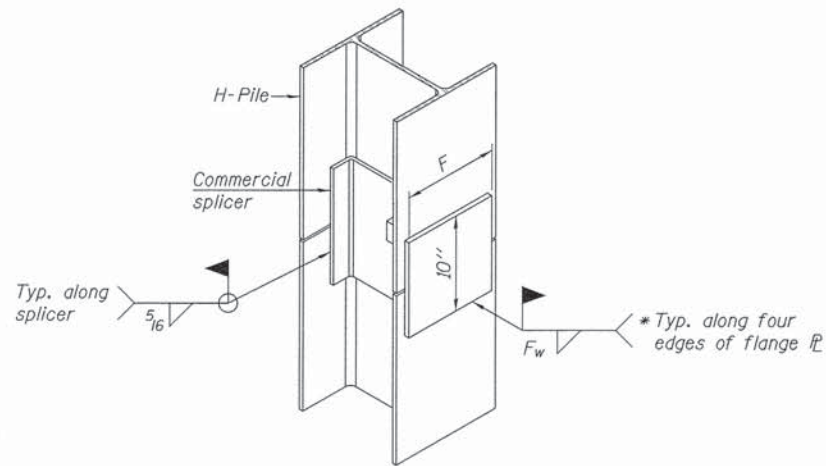


DETAIL "B"

WELDED COMMERCIAL SPLICE



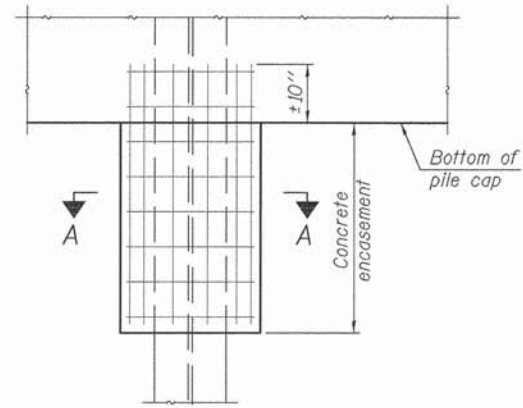
ISOMETRIC VIEW



ISOMETRIC VIEW

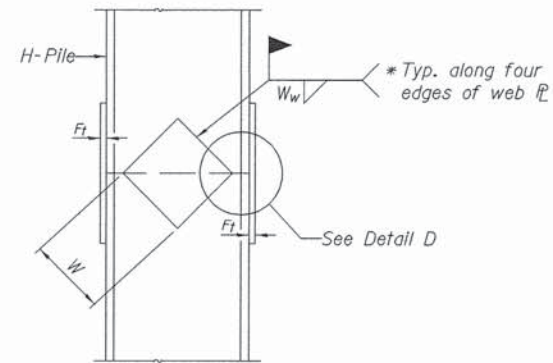
WELDED COMMERCIAL SPLICE ALTERNATE

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

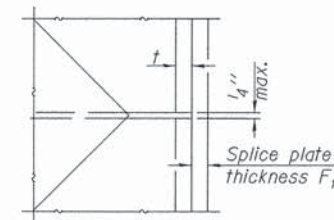


ELEVATION

PILE ENCASEMENT

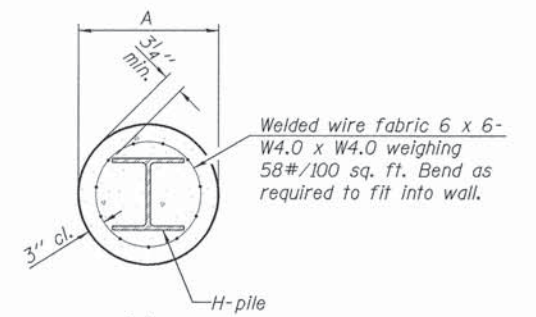


ELEVATION



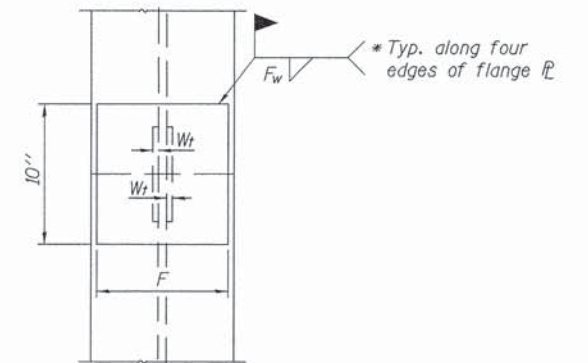
DETAIL D

WELDED PLATE FIELD SPLICE



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

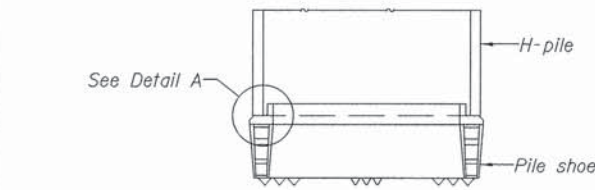
SECTION A-A



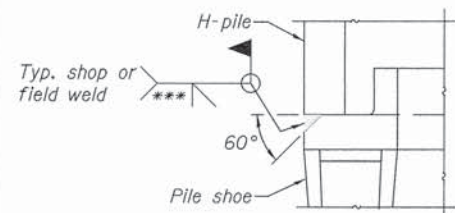
END VIEW

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"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

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



ELEVATION



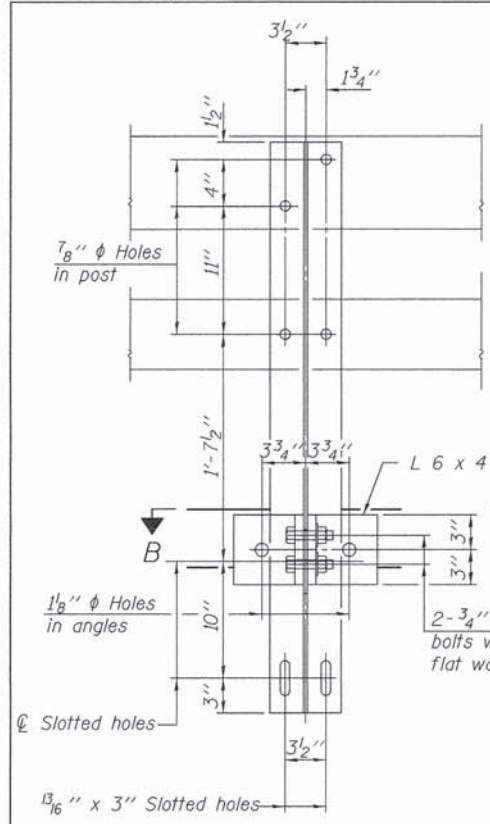
DETAIL A

H-PILE SHOE ATTACHMENT

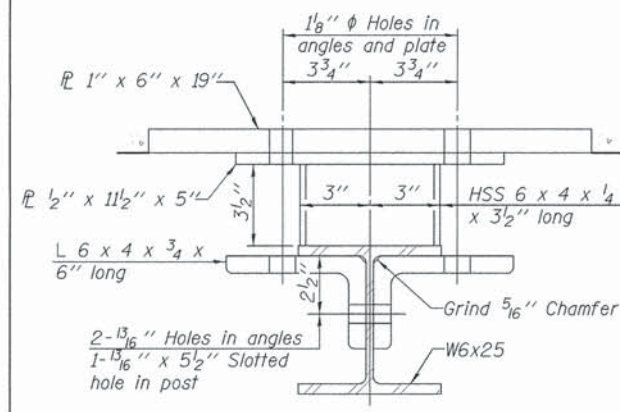
F-HP 1-27-12

	USER NAME = dan_vacek	DESIGNED = DAG	REVISED =	<b>DEKALB COUNTY HIGHWAY DEPARTMENT</b>	<b>HP PILE DETAILS STRUCTURE NO. 019-4212</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN = GJV	REVISED =			13	13-06121-00-BR	DEKALB	19	12
www.wendlers.com	PLOT DATE = 03-31-2016	CHECKED =	REVISED =	SCALE: -	SHEET - OF - SHEETS	STA. 10+00	CONTRACT NO. 87618		ILLINOIS FED. AID PROJECT	
	FILE NAME = br:ridge_shoe ts-2150276.dwg	DATE = 03/31/2016	REVISED =							

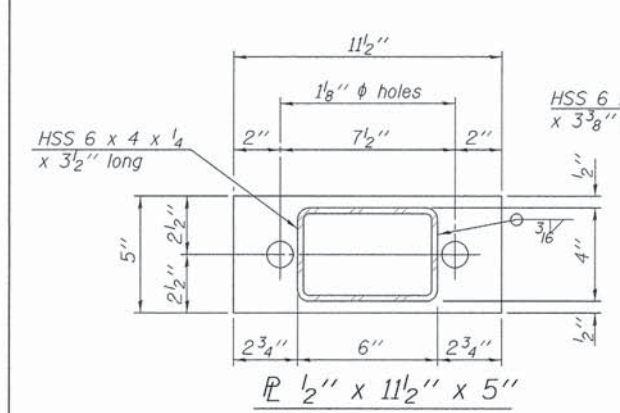
F:\2015 Jobs\2150276\CIVIL\BRIDGE sheets-2150276.dwg, 4/1/2016 10:00:21 AM



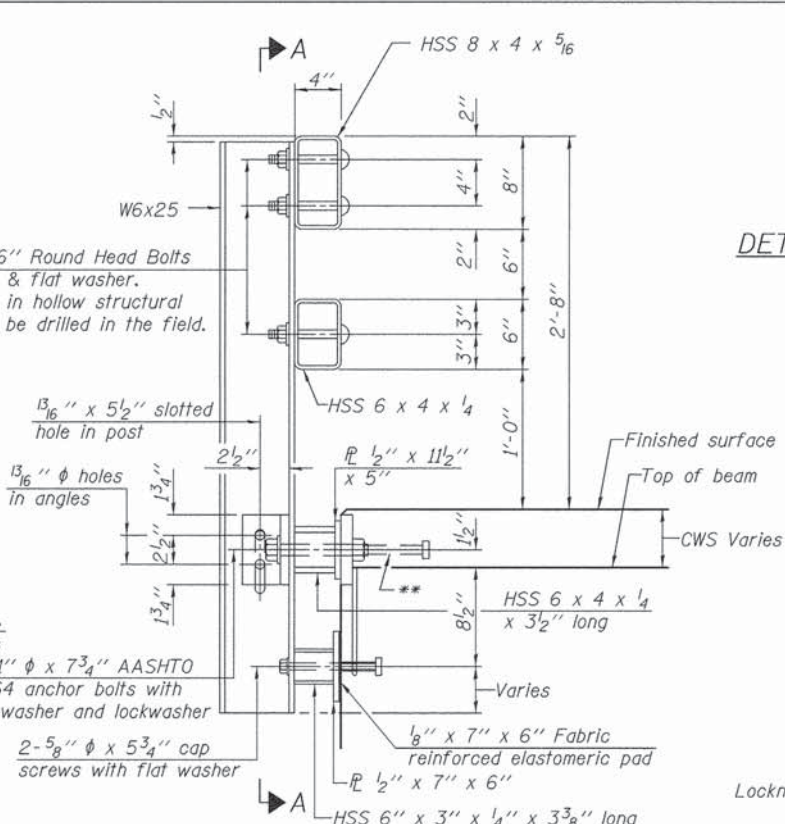
SECTION A-A



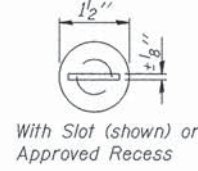
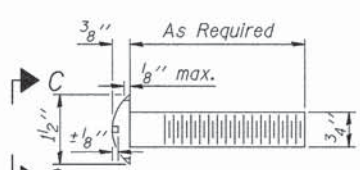
SECTION B-B



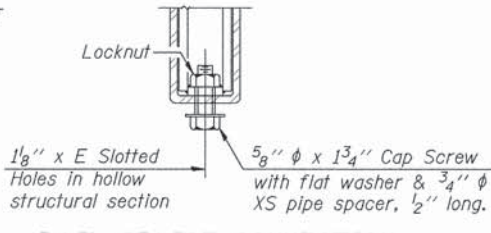
SECTION AT RAIL POST



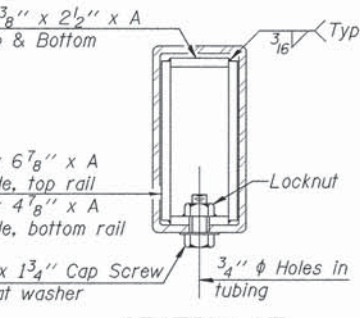
DETAIL OF 3/4" φ ROUND HEAD BOLT



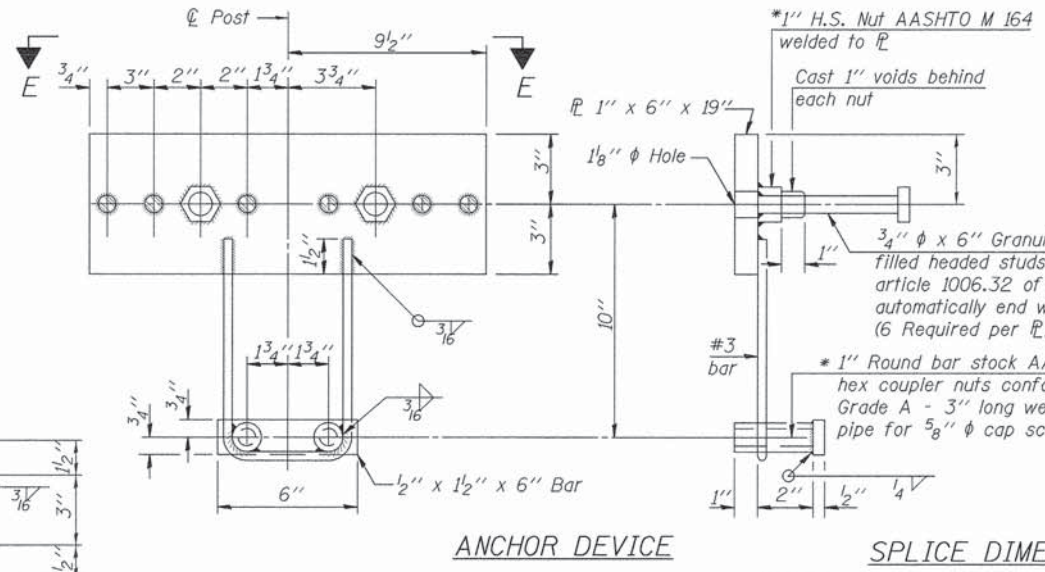
VIEW C-C



RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



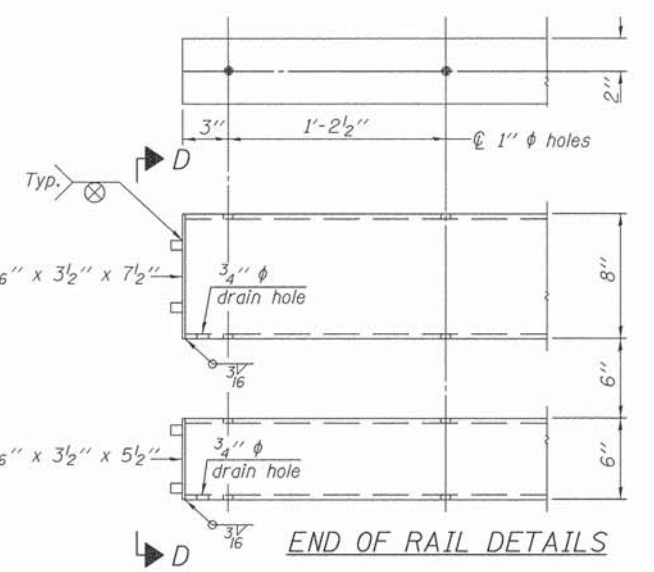
ANCHOR DEVICE

\*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

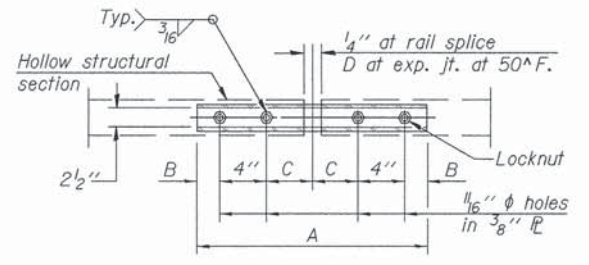
SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

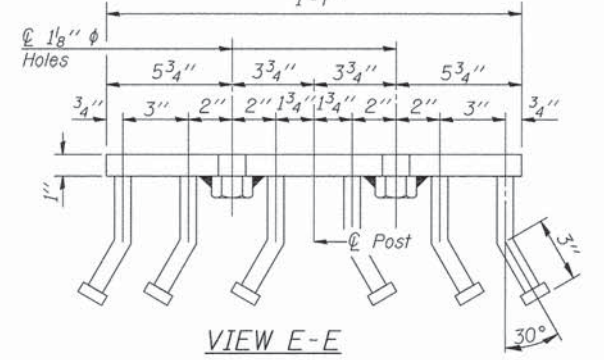
T = Total movement at expansion joint as shown on the design plans.



END OF RAIL DETAILS



PLAN-BOTT. SPLICE P TYPICAL



VIEW E-E

Notes:  
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.  
 Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.  
 \*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	213

R-34CWS 1-12-15 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)



USER NAME	DESIGNED	REVISION
dan_vacok	DAB	-
PLOT SCALE	DJV	-
PLOT DATE	-	-
FILE NAME	DATE	REVISION
bridge sheets-2158/276.dwg	03/31/2016	-

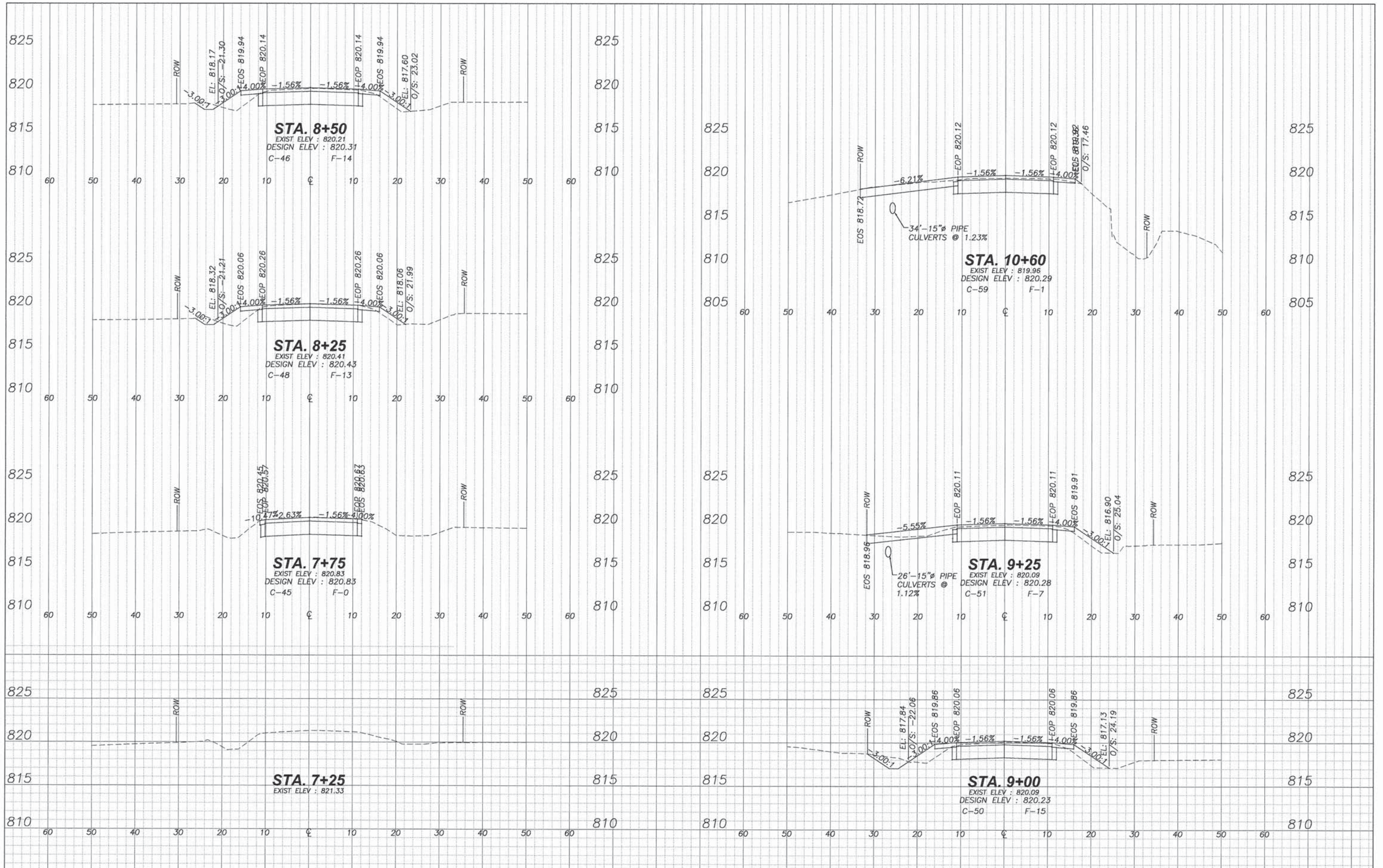
DEKALB COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE STRUCTURE NO. 019-4212

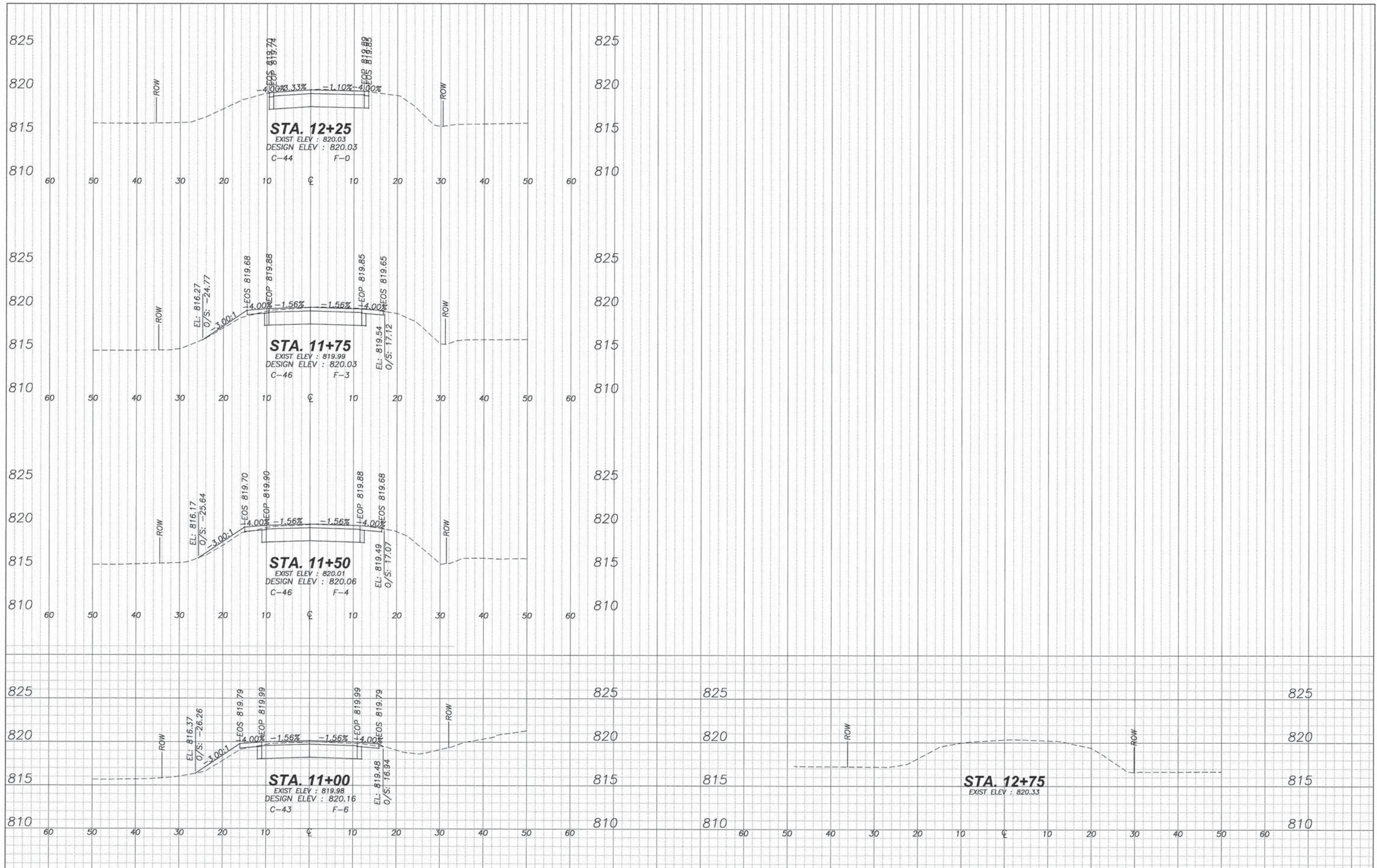
SCALE: - SHEET - OF - SHEETS STA. 10+00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	13
				CONTRACT NO. 87618
ILLINOIS FED. AID PROJECT				

F:\2015\Jobs\2150276\CIVIL\Xsec-2150276.dwg, 3/31/2016 1:59:24 PM, BH



	USER NAME = bryan hartmann	DESIGNED = SAB	REVISED =	<b>DEKALB COUNTY HIGHWAY DEPARTMENT</b>	<b>CROSS SECTIONS</b>	F.A.- RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN = BDS/BEH	REVISED =			-	13-06121-00-BR	DEKALB	19	14
	PLOT DATE = 5/3/2016	CHECKED =	REVISED =			CONTRACT NO. 87618		ILLINOIS FED. AID PROJECT		
	FILE NAME = xsec-2150276.dwg	DATE = 3/10/2016	REVISED =		SCALE: -	SHEET -	OF -	SHEETS	STA. -	TO STA. -



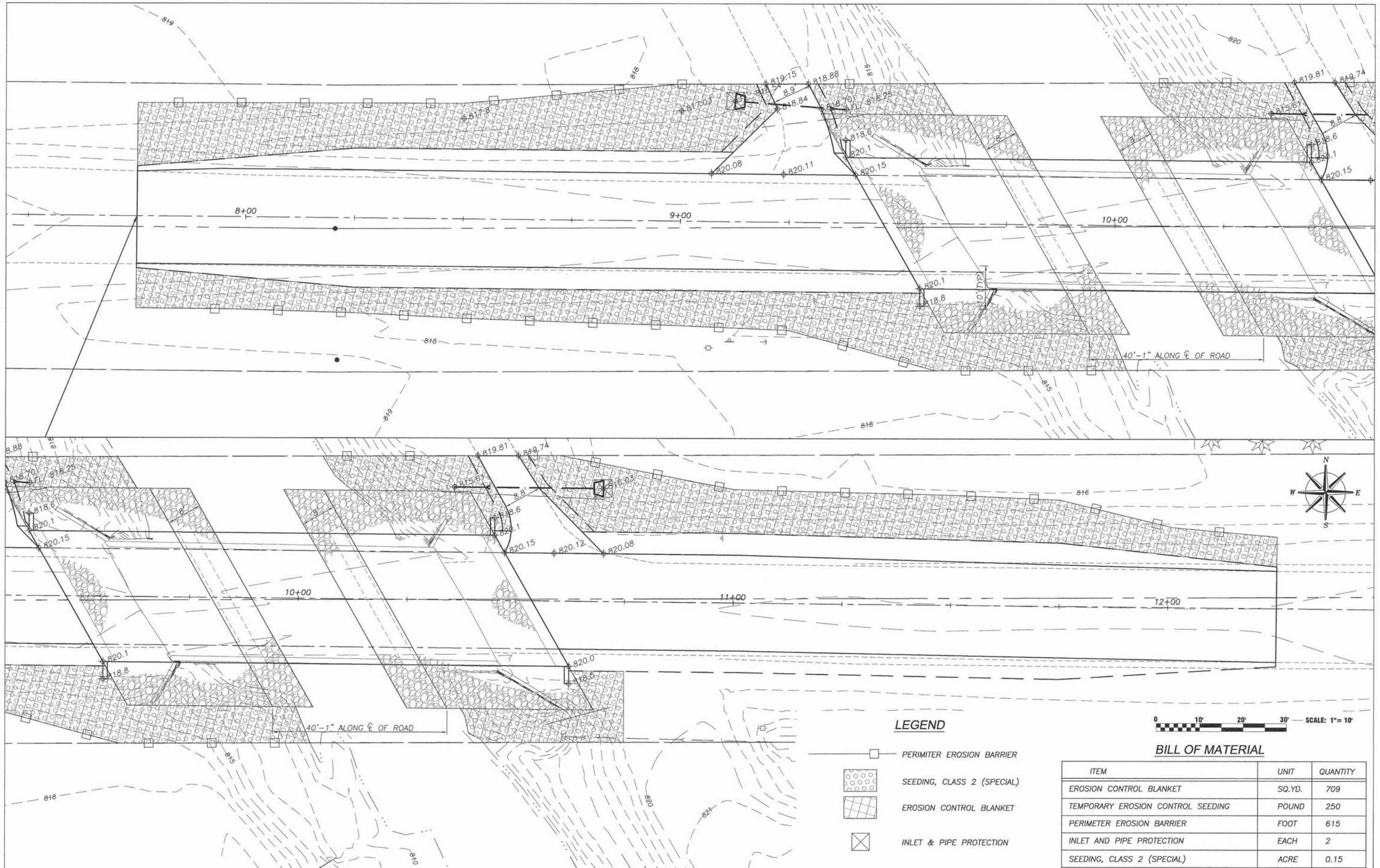
USER NAME = bryan hartmann	DESIGNED = SAB	REVISED =
PLOT SCALE = -	DRAWN = BDS/BEH	REVISED =
PLOT DATE = 5/31/2016	CHECKED = -	REVISED =
FILE NAME = xsec-2150276.dwg	DATE = 3/10/2016	REVISED =

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**





**CROSS SECTIONS**

SCALE: - SHEET - OF - SHEETS STA. - TO STA. -

F.A. - RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-06121-00-BR	DEKALB	19	15
CONTRACT NO. 87618				
ILLINOIS FED. AID PROJECT				



**LEGEND**

-  PERIMETER EROSION BARRIER
-  SEEDING, CLASS 2 (SPECIAL)
-  EROSION CONTROL BLANKET
-  INLET & PIPE PROTECTION



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
EROSION CONTROL BLANKET	SQ.YD.	709
TEMPORARY EROSION CONTROL SEEDING	POUND	250
PERIMETER EROSION BARRIER	FOOT	615
INLET AND PIPE PROTECTION	EACH	2
SEEDING, CLASS 2 (SPECIAL)	ACRE	0.15



USER NAME = bryan hartmann	DESIGNED = SAB	REVISED =
PLOT SCALE =	DRAWN = DJV	REVISED =
PLOT DATE = 4/83/2016	CHECKED =	REVISED =
FILE NAME = survey-2150276.dwg	DATE = 12-01-2015	REVISED =

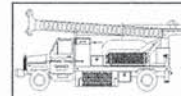
**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

**EROSION CONTROL & GRADING PLAN**

SCALE: 1"=10' SHEET - OF - SHEETS STA. - TO STA. -

F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RTE. -	13-06121-00-BR	DEKALB	19	16
CONTRACT NO. 87618			ILLINOIS FED. AID PROJECT	





**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Wendler Engineering Services, Inc.  
Project Name: Sec. No.: 13-06121-00-BR SN: 019-4200  
Project Site: Br. on Melms Rd. over Coon Creek  
Genoa Twp. DeKalb County, IL

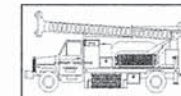
Boring No. B-1  
Surface Elev. 100.08  
Auger Depth 51.00 Rotary Depth NA  
Start Date 01/14/16 Finish Date 01/14/16

Location: West Abutment Boring  
46' W. of Center and 9' S. of Centerline

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
100.08	5" Asphalt										
99.08	17" Aggregate		1								
98.08			2								
97.08	Stiff Black/Gray Silty Clay		3	1	SS	1.0	9	B	16		
96.08			4								
95.08			5								
94.08			6	2	SS	1.0	10	B	15		
93.08	Stiff Gray Silty Clay with Gravel & Cobbles		7								
92.08			8	3	SS	1.2	9	B	14		
91.08	Stiff Gray Silty Clay		9								
90.08			10	4	SS	1.5	11	B	14		
89.08			11								
88.08	Loose Gray Sand & Gravel		12								
87.08			13	5	SS	---	8	---	---		
86.08			14								
85.08	Stiff Gray Silty Clay Till		15	6	SS	1.8	10	B	14		
84.08			16								
83.08			17								
82.08	Medium Dense Gray Fine Sand		18	7	SS	---	10	---	---		
81.08			19								
80.08			20	8	SS	---	16	---	---		

Groundwater Data: Water after auger removal 11-feet below top of ground elevation.  
Comments: Assumed center of Bridge Deck to be elevation 100.0.

Water



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Wendler Engineering Services, Inc.  
Project Name: Sec. No.: 13-06121-00-BR SN: 019-4200  
Project Site: Br. on Melms Rd. over Coon Creek  
Genoa Twp. DeKalb County, IL

Boring No. B-1  
Surface Elev. 100.08  
Auger Depth 51.00 Rotary Depth NA  
Start Date 01/14/16 Finish Date 01/14/16

Location: West Abutment Boring  
46' W. of Center and 9' S. of Centerline

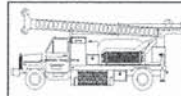
(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
79.08											
78.08	Medium Dense Gray Fine Sand		22								
77.08			23	9	SS	---	19	---	---		
76.08			24								
75.08	Hard Gray Silty Clay Loam Till		25								
74.08			26	10	SS	4.0	31	B/S	12		
73.08			27								
72.08			28								
71.08			29								
70.08	Very Dense Gray Fine Clayey Sand		30								
69.08			31	11	SS	---	55	---	12		
68.08			32								
67.08			33								
66.08			34								
65.08	Hard Gray Loam Till with Sand Seams		35								
64.08			36	12	SS	5.4	55	S	10		
63.08			37								
62.08			38								
61.08			39								
60.08	Hard Limestone		40								
59.08			41	13	SS	---	---	---	---		

Groundwater Data: Water after auger removal 11-feet below top of ground elevation.  
Comments: Assumed center of Bridge Deck to be elevation 100.0.

Refusal with Slitspoon and Hollow Stem Augers, switched to Straight Augers with Rock Bit at 40'

F:\2015 Jobs\12150276\CIVIL\Bridges sheets-2150276.dwg, 4/1/2016 9:36:18 AM

	USER NAME : dan_vacak	DESIGNED : DAB	REVISED : -	<b>DEKALB COUNTY HIGHWAY DEPARTMENT</b>	<b>SOIL BORINGS STRUCTURE NO. 019-4212</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : -	DRAWN : DJV	REVISED : -			13	13-06121-00-BR	DEKALB	19	17
	PLOT DATE : 03-31-2016	CHECKED : -	REVISED : -			CONTRACT NO. 87618				
	FILE NAME : bridge sheets-2150276.dwg	DATE : 03/31/2016	REVISED : -			ILLINOIS FED. AID PROJECT				



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Sheet 3 of 3

Client: Wendler Engineering Services, Inc.  
Project Name: Sec. No.: 13-06121-00-BR SN: 019-4200  
Project Site: Br. on Melms Rd. over Coon Creek  
Genoa Twp. DeKalb County, IL

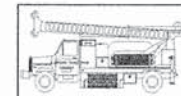
Boring No. B-1  
Surface Elev. 100.08  
Auger Depth 51.00 Rotary Depth NA  
Start Date 01/14/16 Finish Date 01/14/16

Location: West Abutment Boring  
46' W. of Center and 9' S. of Centerline

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
58.08											
57.08	Hard Limestone		43								
56.08			44								
55.08			45								
54.08			46								
53.08			47								
52.08			48								
51.08			49								
50.08			50								
49.08			51								
48.08			52								
47.08		53									
46.08		54									
45.08		55									
44.08		56									
43.08		57									
42.08		58									
41.08		59									
40.08		60									
39.08		61									
38.08		62									

Groundwater Data: Water after auger removal 11-feet below top of ground elevation.  
Comments: Assumed center of Bridge Deck to be elevation 100.0.

Boring Terminated



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Sheet 1 of 3

Client: Wendler Engineering Services, Inc.  
Project Name: Sec. No.: 13-06121-00-BR SN: 019-4200  
Project Site: Br. on Melms Rd. over Coon Creek  
Genoa Twp. DeKalb County, IL

Boring No. B-2  
Surface Elev. 99.83  
Auger Depth 51.00 Rotary Depth NA  
Start Date 01/14/16 Finish Date 01/14/16

Location: East Abutment Boring  
44' E. of Center and 9' N. of Centerline

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
99.83											
98.83	5" Asphalt		1								
97.83	19" Aggregate		2								
96.83	Stiff Black/Gray Silty Clay		3	1	SS	1.0	9	B	16		
95.83			4								
94.83	Stiff Gray Silty Clay with Gravel & Cobbles		5	2	SS	1.0	9	B	16		
93.83			6								
92.83	Stiff Gray Silty Clay		7								
91.83			8	3	SS	---	10	---	14		
90.83	Stiff Gray Silty Clay		9								
89.83			10	4	SS	1.5	10	B	14		
88.83	Loose Gray Sand & Gravel		11								
87.83			12								
86.83	Stiff Gray Silty Clay Till with Sand Seams		13	5	SS	---	8	---	---		
85.83			14								
84.83	Stiff Gray Silty Clay Till with Sand Seams		15	6	SS	1.8	12	B	14		
83.83			16								
82.83	Medium Dense Gray Fine Sand		17	7	SS	1.6	12	B/S	15		
81.83			18								
80.83			19								
79.83			20	8	SS	---	17	---	---		

Groundwater Data: Water after auger removal 11-feet below top of ground elevation.  
Comments: Assumed center of Bridge Deck to be elevation 100.0.

Water

F:\2015\Jobs\2150276\CIVIL\Bridges\2150276.dwg, 4/11/2016 9:38:27 AM



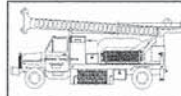
USER NAME = don_vrecek	DESIGNED = DAB	REVISED =
PLOT SCALE =	DRAWN = DJV	REVISED =
PLOT DATE = 03-31-2016	CHECKED =	REVISED =
FILE NAME = bridge sheets-2150276.dwg	DATE = 03/31/2016	REVISED =

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

**SOIL BORINGS  
STRUCTURE NO. 019-4212**

SCALE: - SHEET - OF - SHEETS STA. -

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	18
CONTRACT NO. 87618			ILLINOIS FED. AID PROJECT	



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

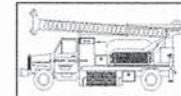
Client: Wendler Engineering Services, Inc.  
Project Name: Sec. No.: 13-06121-00-BR SN: 019-4200  
Project Site: Br. on Melms Rd. over Coon Creek  
Genoa Twp. DeKalb County, IL

Boring No. B-2  
Surface Elev. 99.83  
Auger Depth 51.00 Rotary Depth NA  
Start Date 01/14/16 Finish Date 01/14/16

Location: East Abutment Boring  
44' E. of Center and 9' N. of Centerline

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)
78.83												
77.83	Medium Dense Gray Fine Sand		22									
76.83			23	9	SS	---	16	---	---			
75.83			24									
74.83			25	10	SS	3.9	30	B/S	12			
73.83			26									
72.83			27									
71.83	Very Stiff to Hard Gray Silty Clay Loam Till with Sand Seams		28									
70.83			29									
69.83			30	11	SS	---	35	---	12			
68.83			31									
67.83			32									
66.83			33									
65.83			34									
64.83			35	12	SS	5.0	52	S	10			
63.83			36									
62.83	Hard Gray Loam Till with Sand Seams		37									
61.83			38									
60.83			39									
59.83			40	13	SS	5.1	45	B/S	11			
58.83			41									

Groundwater Data: Water after auger removal 11-feet below top of ground elevation.  
Comments: *Assumed center of Bridge Deck to be elevation 100.0.*



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 3 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Wendler Engineering Services, Inc.  
Project Name: Sec. No.: 13-06121-00-BR SN: 019-4200  
Project Site: Br. on Melms Rd. over Coon Creek  
Genoa Twp. DeKalb County, IL

Boring No. B-2  
Surface Elev. 99.83  
Auger Depth 51.00 Rotary Depth NA  
Start Date 01/14/16 Finish Date 01/14/16

Location: East Abutment Boring  
44' E. of Center and 9' N. of Centerline

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)
57.83												
56.83	Hard Gray Loam Till with Sand Seams		43									
55.83			44									
54.83	Hard Limestone		45									
53.83	Refusal with Hollow Stem Augers, switched to Straight Augers with Rock Bit at 42.5'		46									
52.83			47									
51.83			48									
50.83			49									
49.83			50									
48.83			51									
47.83	Boring Terminated		52									
46.83			53									
45.83			54									
44.83			55									
43.83			56									
42.83			57									
41.83			58									
40.83			59									
39.83			60									
38.83			61									
37.83			62									

Groundwater Data: Water after auger removal 11-feet below top of ground elevation.  
Comments: *Assumed center of Bridge Deck to be elevation 100.0.*

F:\2015\Jobs\2150276\CIVIL\Bridges\2150276.dwg, 4/11/2016 9:40:50 AM



USER NAME = don_vocck	DESIGNED = DAB	REVISED =
PLOT SCALE =	DRAWN = DJV	REVISED =
PLOT DATE = 03-31-2016	CHECKED =	REVISED =
FILE NAME = br\bdgs\sheet ta-2150276.dwg	DATE = 03/31/2016	REVISED =

**DEKALB COUNTY  
HIGHWAY DEPARTMENT**

**SOIL BORINGS  
STRUCTURE NO. 019-4212**

SCALE: - SHEET - OF - SHEETS STA. -

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	13-06121-00-BR	DEKALB	19	19
CONTRACT NO. 87618			ILLINOIS FED. AID PROJECT	