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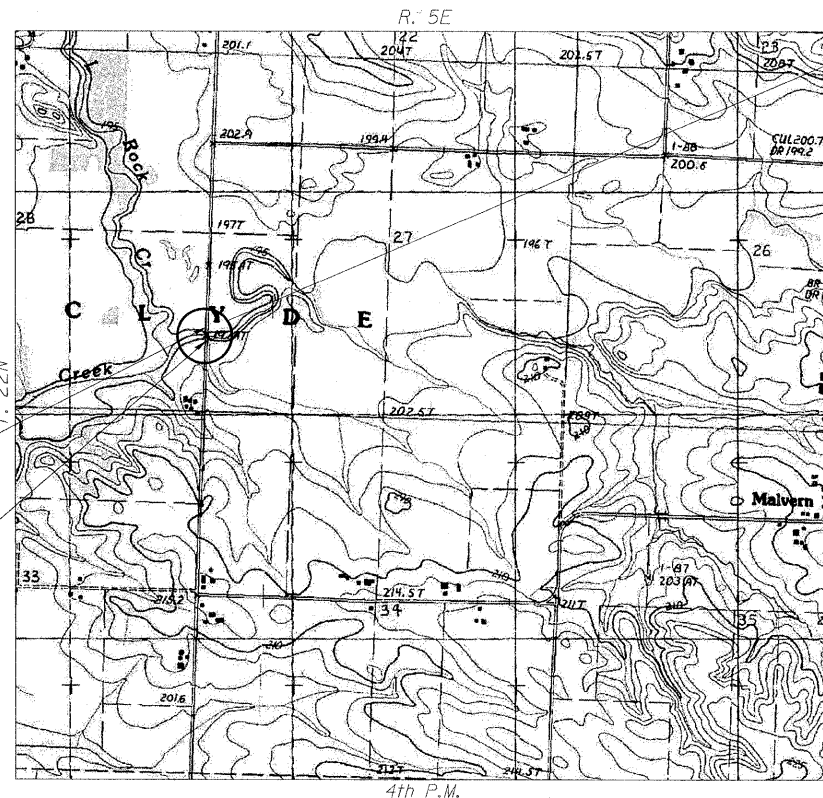
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

**PLANS FOR PROPOSED  
BRIDGE REPLACEMENT PROJECT  
F.A.S. ROUTE 76 (LYNDON ROAD)  
COUNTY HIGHWAY 7  
OVER ROCK CREEK**

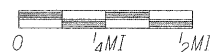
**SECTION 06-00183-00-BR  
WHITESIDE COUNTY  
PROJECT BRS-0076(104)  
JOB NUMBER C-92-102-09**



**PROPOSED IMPROVEMENTS**  
REMOVAL AND REPLACEMENT OF EXISTING TWO-SPAN BRIDGE OVER ROCK CREEK. NEW STRUCTURE CONSISTS OF A THREE-SPAN PPC DECK BEAM SUPERSTRUCTURE ON PILE BENT PIERS AND SPILL-THRU ABUTMENTS.



**LOCATION PLAN**

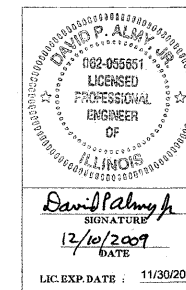


SCALE OF LAYOUT  
NET LENGTH = 580 FEET (0.11 MI)

**TRAFFIC DATA**  
HIGHWAY CLASSIFICATION: COLLECTOR  
2008 ADT: 650 6% TRUCKS  
DESIGN SPEED: 50 MPH  
POSTED SPEED: 55 MPH  
CLOSED ROAD ADT = 5

**811 TOLL FREE**  
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (J.U.L.I.E.) TELEPHONE NUMBER  
1-800-892-0123 or 811  
Know what's below. Call before you dig.

**UTILITY NOTE**  
THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED AMONG THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS, ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



**APPROVED** Dec 14 20 09  
*Steve J. Harris*  
COUNTY ENGINEER

**PASSED** DEC 28 20 09  
*Jason T. Nelson, LLC*  
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

**RELEASING FOR BID BASED ON LIMITED REVIEW** DEC 28 20 09  
*Greg F. Brown, LLC*  
DEPUTY DIRECTOR OF HIGHWAYS/REGION 2 ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 0810156	DATE 12/11/09	© Copyright Hanson Professional Services Inc. 2009 <b>HANSON</b>	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY WHITESIDE	TOTAL SHEETS 21	SHEET NO. 1
Corporate License Number 184-001-084						CONTRACT NO. 85506	
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT							

12/08/2009  
 SJK 09/22/09  
 EDW/WHH 12/08/09  
 REVIEWED SJK/DPAL 12/08/09  
 LAYOUT  
 DRAWN  
 CHECKED

**CONTRACT NO. - 85506**

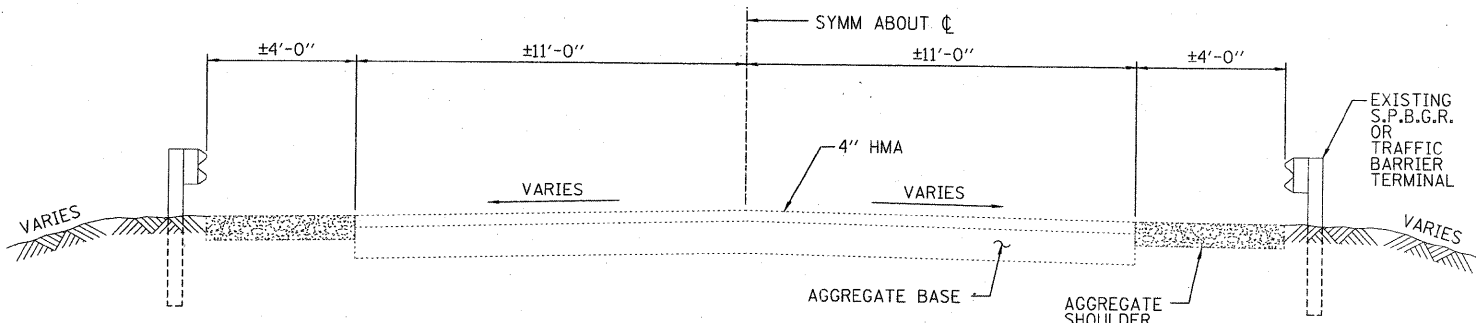
**GENERAL NOTES**

1. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH, AND SIZE OF EXISTING AND PROPOSED STORM SEWER LINES PRIOR TO ORDERING AND FABRICATION OF DRAINAGE STRUCTURES OR SEWERS.
2. WHERE SECTION, SUBSECTION, SUBDIVISION, OR PROPERTY MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS UNTIL AN OWNER OR AUTHORIZED SURVEYOR HAS WITNESSED OR REFERENCED THEIR LOCATION.
3. CONTRACTORS BIDDING THIS PROJECT SHALL VISIT THE SITE BEFORE BIDDING.
4. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.
6. ALL SECTIONS, DETAILS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.
7. ANY EXISTING ROADWAY SIGNS OR POSTS IN CONFLICT WITH CONSTRUCTION ACTIVITY MUST BE CAREFULLY REMOVED AND REINSTALLED BY THE CONTRACTOR. ANY SIGNS OR POSTS DAMAGED BY THE CONTRACTOR MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. THIS WORK IS CONSIDERED INCIDENTAL TO CONSTRUCTION.
8. TRENCH BACKFILL SHALL BE USED IN ALL LOCATIONS WHERE THE EDGE OF THE EXCAVATION TRENCH FOR UTILITY EXCAVATION IS WITHIN 2 FEET OF PROPOSED ROADWAY, CURB AND/OR SIDEWALK. QUANTITY FOR TRENCH BACKFILL WAS CALCULATED FROM IDOT "TRENCH BACKFILL TABLE" BASED ON A THEORETICAL TRENCH WIDTH. ADDITIONAL TRENCH BACKFILL THAT IS NECESSARY DUE TO OVER EXCAVATION OF TRENCH WILL NOT BE PAID FOR.
9. SAWING OF JOINTS SHALL COMMENCE AS SOON AS POSSIBLE AND SHALL CONTINUE UNTIL COMPLETE, REGARDLESS OF WEATHER OR TIME OF DAY.
10. ADJUSTMENT OF PROPOSED GRADES TO MATCH EXISTING ENTRANCES OR OTHER FIELD CONDITIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
11. ANY DAMAGE TO THE EXISTING PAVEMENT TO REMAIN DURING ANY CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
12. THE OWNER RESERVES THE RIGHT TO REDUCE ANY QUANTITY OR DELETE ANY PAY ITEMS FROM THIS CONTRACT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
13. IN ACCORDANCE WITH SECTION 602 OF STANDARD SPECIFICATIONS, THE CONNECTION OF EXISTING DRAIN TILES, PIPE UNDERDRAINS, PIPE CULVERTS, AND STORM SEWERS TO THE PROPOSED DRAINAGE SYSTEM STRUCTURES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE PAY ITEMS PROVIDED.
14. ALL ELEVATIONS, STATIONS, AND OFFSETS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
15. THE CONSTRUCTION SHALL BE GOVERNED BY THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", CURRENT EDITION.
16. ALL REFERENCES TO THE "DEPARTMENT" OR "ENGINEER" IN THE I.D.O.T. STANDARD SPECIFICATIONS SHALL BE CONSTRUED TO MEAN THE OWNER OR HIS AGENT.
17. ALL PAVEMENT REMOVALS SHALL BE FULL DEPTH SAW CUT AT THE LIMITS TO BE REMOVED.
18. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
19. ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES DURING ALL STAGES OF CONSTRUCTION.
20. EXCESS MATERIAL, IF NOT USED FOR OTHER ON-SITE PURPOSES, SHALL BE HAULED OFF-SITE AT CONTRACTOR'S EXPENSE.
21. THE WORK AREA SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.
22. THE CONTRACTOR SHALL USE ANY ON SITE MATERIAL DEEMED SUITABLE BY THE ENGINEER BEFORE ANY NEW FILL IS HAULED TO THE SITE.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATION.

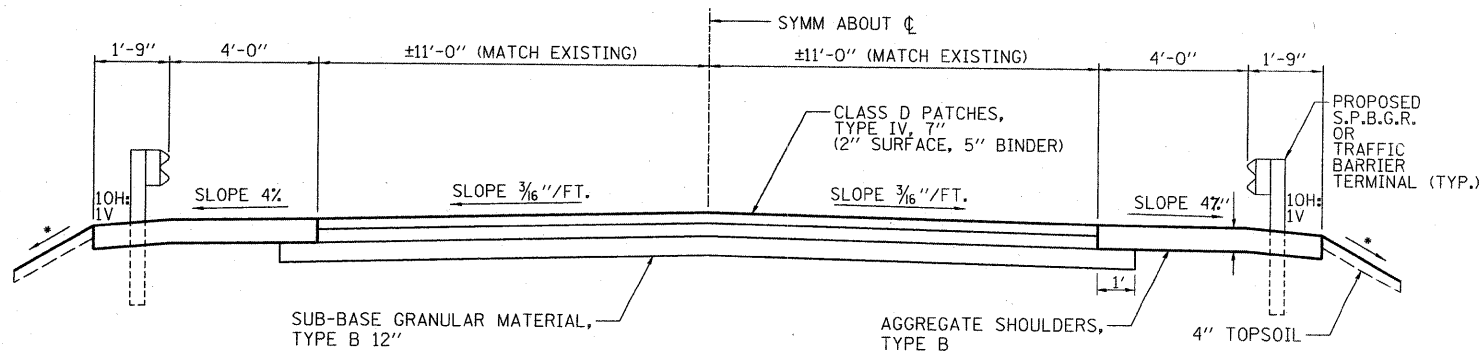
**SUMMARY OF QUANTITIES**

CODED PAY ITEM NUMBER	CONSTRUCTION TYPE CODE : X081-2A ITEM	UNIT	TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	815
25100630	EROSION CONTROL BLANKET	SQ YD	625
28000400	PERIMETER EROSION BARRIER	FOOT	730
28100109	STONE RIPRAP, CLASS A5	SQ YD	720
28200200	FILTER FABRIC	SQ YD	720
31101810	SUB - BASE GRANULAR MATERIAL, TYPE B 12"	SQ YD	262
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	550
40600100	BIT. MATERIALS (PRIME COAT)	GAL	120
40603310	HOT - MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	53
44201735	CLASS D PATCHES, TYPE IV, 7 INCH	SQ YD	239
48101200	AGGREGATE SHOULDERS, TYPE B	TON	208
50100200	REMOVAL OF EXISTING STRUCTURES	L SUM	1
50200100	STRUCTURE EXCAVATION	CU YD	93
50300225	CONCRETE STRUCTURE	CU YD	115
50300280	CONCRETE ENCASUREMENT	CU YD	6
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	4,103
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	8,800
50901050	STEEL RAILING, TYPE SM	FOOT	278
51200958	FURNISHING METAL SHELL PILES 14"X0.250"	FOOT	1,200
51202305	DRIVING PILES	FOOT	1,200
51203200	TEST PILE METAL SHELLS	EACH	4
51500100	NAME PLATES	EACH	1
54200685	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 60"	FOOT	50
54215595	METAL END SECTIONS 60"	EACH	2
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	457.0
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	1,231
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	30
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6' POSTS	FOOT	287.5
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	565
66700095	PERMANENT SURVEY MARKERS	EACH	1
67100100	MOBILIZATION	L SUM	1
70103700	TRAFFIC CONTROL COMPLETE	L SUM	1
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	777
78200410	GUARDRAIL MARKERS, TYPE A	EACH	10
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	2
XX002053	LANDSCAPE RESTORATION	L SUM	1

Δ SPECIALTY ITEMS



**EXISTING TYPICAL SECTION**



**PROPOSED TYPICAL SECTION**

STA 222+66.50 TO STA 223+16.50  
 STA 224+55.50 TO STA 226+27.00  
 STA 221+70.00 TO STA 223+16.50  
 STA 224+55.50 TO STA 226+02.00

**MIXTURE REQUIREMENTS**

MIXTURE USES	HMA SURFACE	HMA BINDER
PG GRADE	PG58-28	PG58-28
DESIGN AIR VOIDS	4% @ N50	4% @ N50
MIXTURE COMPOSITION	IL-9.5 OR IL-12.5	IL-19.0
FRICTION AGGREGATE	MIXTURE C	
MIXTURE WEIGHT	112 LB/SQ YD/IN	112 LB/SQ YD/IN

**UTILITY CONTACTS**

UTILITY NAME	TYPE	PHONE NUMBER
MIKE LENOX COMED 123 ENERGY AVENUE ROCKFORD, IL 61109	ELECTRIC	(815) 490-2320
DAVE DAY FRONTIER COMMUNICATIONS 684 NORTH BROAD PO BOX 12 LANARK, IL 61046	TELEPHONE	(815) 493-1101



LAYOUT: MWH 02/23/09  
 DRAWN: MWH 12/11/09  
 CHECKED: DPA 12/11/09  
 REVISIONS: MWH 02/23/09  
 MWH 12/11/09  
 DPA 12/11/09

USER NAME = MWH	DESIGNED - DPA	REVISED -
PLOT SCALE =	DRAWN - MWH	REVISED -
PLOT DATE = 12/18/2009	CHECKED - DPA	REVISED -
	DATE - 12/11/09	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, TYPICAL SECTIONS & SUMMARY OF QUANTITIES  
LYNDON ROAD BRIDGE**

SCALE: AS SHOWN SHEET NO. OF 21 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
76	09-000183-00-BR	WHITESIDE	21	2
CONTRACT NO. 85506				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

**ROADWAY SCHEDULE OF QUANTITIES**

**EARTHWORK**

20200100 - EARTH EXCAVATION	815 CU YD
FILL	360 CU YD
FILL (INCLUDES 25% SHRINKAGE FACTOR)	450 CU YD

**25100630 - EROSION CONTROL BLANKET**

STA 222+50.00 TO 223+50.00, LT (SW BLANKET)	65 SQ YD
STA 224+10.00 TO 225+70.00, LT (NW BLANKET)	150 SQ YD
STA 220+30.00 TO 223+00.00, RT (SE BLANKET)	350 SQ YD
STA 224+55.00 TO 225+40.00, RT (NE BLANKET)	60 SQ YD
	<u>625 SQ YD</u>

**28000400 - PERIMETER EROSION BARRIER**

STA. 222+76 TO STA 223+60, LT (SEE PLAN)	115 FOOT
STA 224+15 TO STA 225+75, LT (SEE PLAN)	180 FOOT
STA 220+80 TO STA 223+10, RT (SEE PLAN)	285 FOOT
STA 224+12 TO STA 225+40, RT (SEE PLAN)	150 FOOT
	<u>730 FOOT</u>

**31101810 - SUB-BASE GRANULAR MATERIAL, TYPE B 12"**

STA 222+66.50 TO STA 223+16.50	131 SQ YD
STA 224+55.50 TO STA 225+05.50	131 SQ YD
	<u>262 SQ YD</u>

**40200800 - AGGREGATE SURFACE COURSE, TYPE B**

STA 220+41 RT	550 TONS
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**40600100 - BITUMINOUS MATERIALS (PRIME COAT)**

STA 222+66.50 TO STA 223+16.50	60 GAL
STA 224+55.50 TO STA 225+05.50	60 GAL
	<u>120 GAL</u>

**40603310 - HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50**

STA 223+16.50 TO STA 224+55.50	53 TONS
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**44201735 - CLASS D PATCHES, TYPE IV, 7 INCH**

STA 222+66.50 TO STA 223+16.50	119.5 SQ YD
STA 224+55.50 TO STA 225+05.50	119.5 SQ YD
	<u>239 SQ YD</u>

**48101200 - AGGREGATE SHOULDERS, TYPE B**

STA 220+47.00 TO STA 223+16.50, RT	82 TONS
STA 221+70.89 TO STA 223+16.50, LT	38 TONS
STA 224+55.50 TO STA 226+27.41, RT	47 TONS
STA 224+55.50 TO STA 226+01.88, LT	41 TONS
	<u>208 TONS</u>

**54200685 - PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 60"**

STA 220+41 RT	50 FOOT
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**54215595 - METAL END SECTIONS 60"**

STA 220+31, 48' RT	1 EACH
STA 220+81, 48' RT	1 EACH
	<u>2 EACH</u>

**63200310 - GUARDRAIL REMOVAL**

STA 222+39, 18' LT TO STA 223+39, 15' LT	100 FOOT
STA 224+64, 16' LT TO STA 225+59, 18' LT	96 FOOT
STA 220+64, 17' RT TO STA 223+39, 14' RT	275 FOOT
STA 224+64, 14' RT TO STA 225+57, 16' RT	94 FOOT
	<u>565 FOOT</u>

**\*78200410 - GUARDRAIL MARKERS, TYPE A**

STA 220+60 TO 225+87, RT	6 EACH
STA 223+23 TO 225+62, LT	4 EACH
	<u>10 EACH</u>

**\*78201000 - TERMINAL MARKER - DIRECT APPLIED**

STA 222+22.75 LT	1 EACH
STA 220+60.2, RT	1 EACH
STA 225+61.75 LT	1 EACH
STA 225+86.75 RT	1 EACH
	<u>4 EACH</u>

**PROPOSED GUARDRAIL / TRAFFIC BARRIER TERMINAL**

SEE GUARDRAIL PLAN SHEET 6 OF 21 FOR PAY ITEMS 63000001, 63100045, 63100087, AND 63100167.

**\*66700095 - PERMANENT SURVEY MARKERS**

SOUTHEAST WINGWALL OF NEW BRIDGE	1 EACH
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**78001110 - PAINT PAVEMENT MARKING - LINE 4"**

STA 222+66 TO STA 225+05, RT (SOLID WHITE)	239 FOOT
STA 222+66 TO STA 225+05, LT (SOLID WHITE)	239 FOOT
STA 222+66 TO STA 225+05, LT (NO PASSING LT - YELLOW)	299 FOOT
	<u>777 FOOT</u>

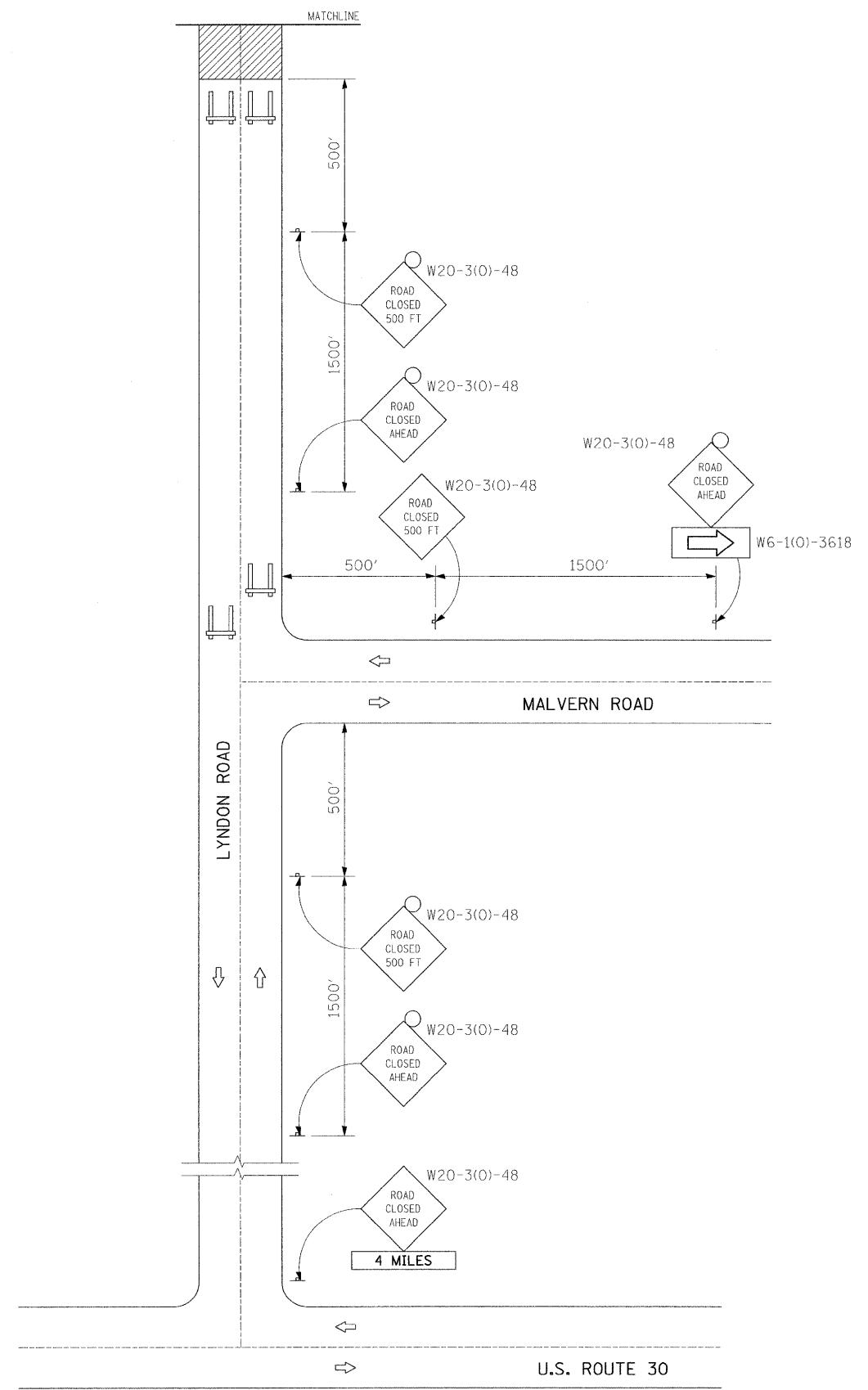


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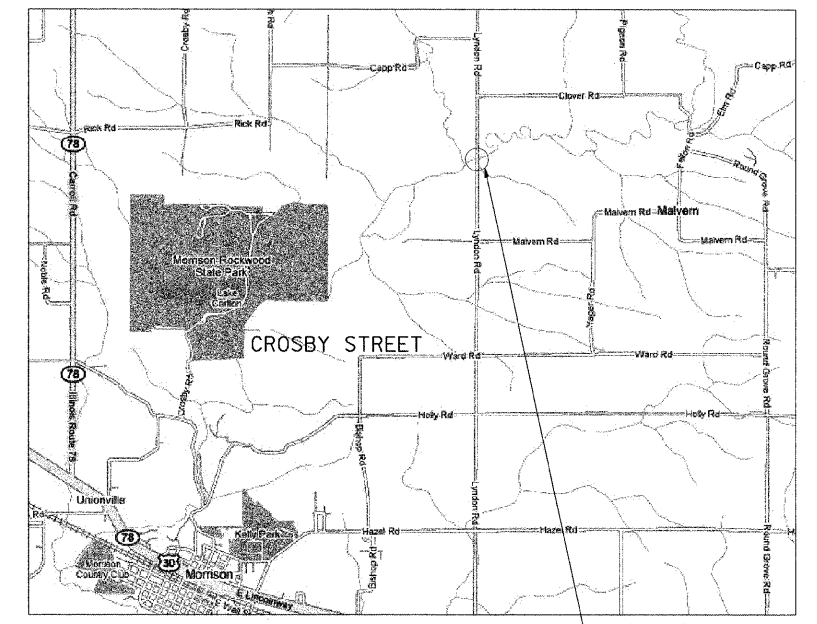
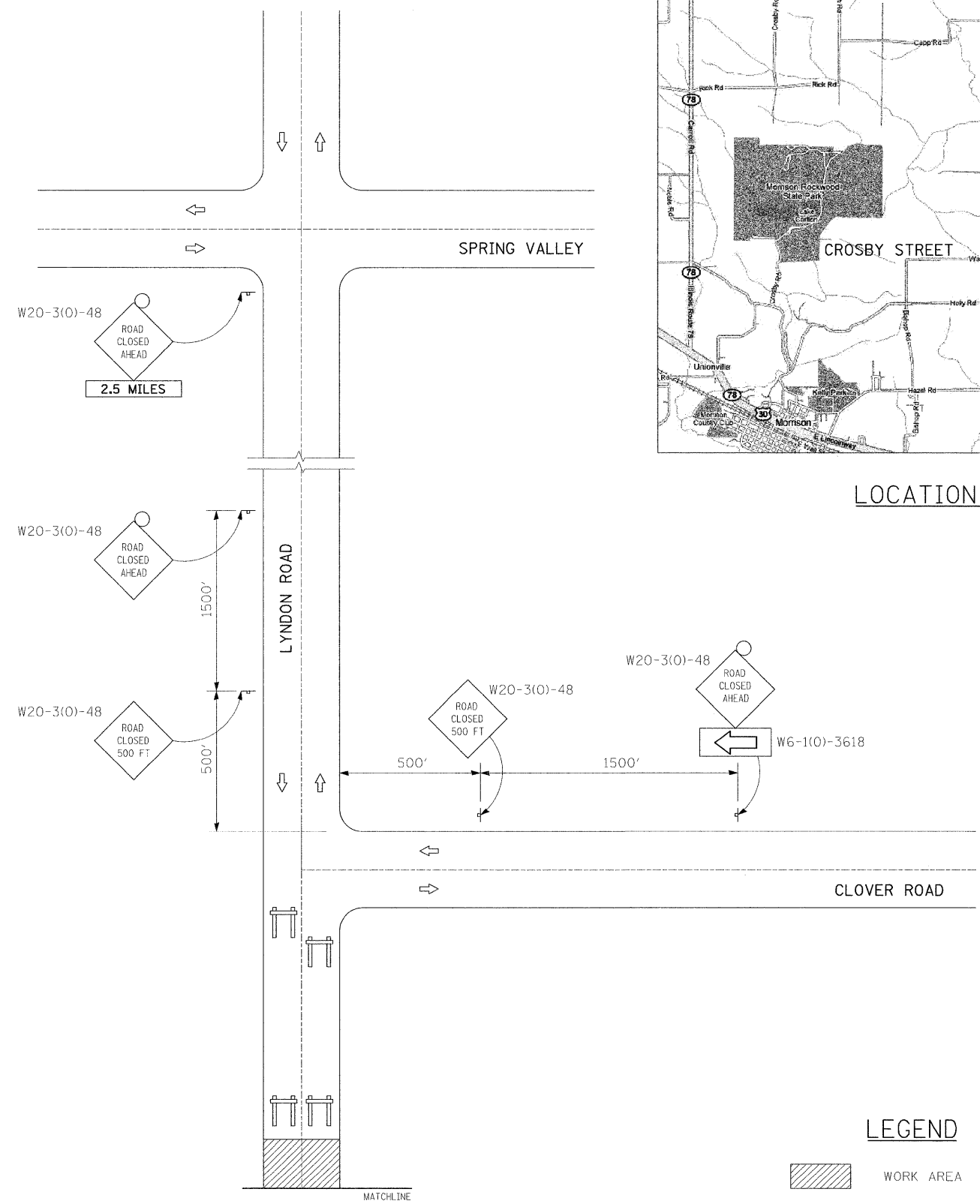
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	PLOT SCALE =	DRAWN - MWH	REVISED -		SCALE:	SHEET NO. 3 OF 21 SHEETS	STA.	TO STA.	CONTRACT NO. 85506				
	PLOT DATE = 12/10/2009	CHECKED - DPA	REVISED -		ILLINOIS FED. AID PROJECT								
		DATE - 12/11/09	REVISED -										



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 REVIEWED: DPA 12/11/09 14:08:00PM  
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LYNDON ROAD PLAN



LOCATION MAP

**LEGEND**

- WORK AREA
- TYPE III BARRICADE WITH TYPE A FLASHERS
- SIGN WITH TYPE A FLASHER



USER NAME = MWH	DESIGNED - DPA	REVISED -
DRAWN - MWH	CHECKED - DPA	REVISED -
DATE - 12/11/09	REVIEWED -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL PLAN  
LYNDON ROAD BRIDGE**

SCALE: AS SHOWN SHEET NO. OF 21 SHEETS STA. TO STA.

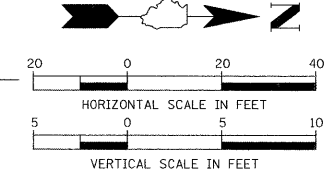
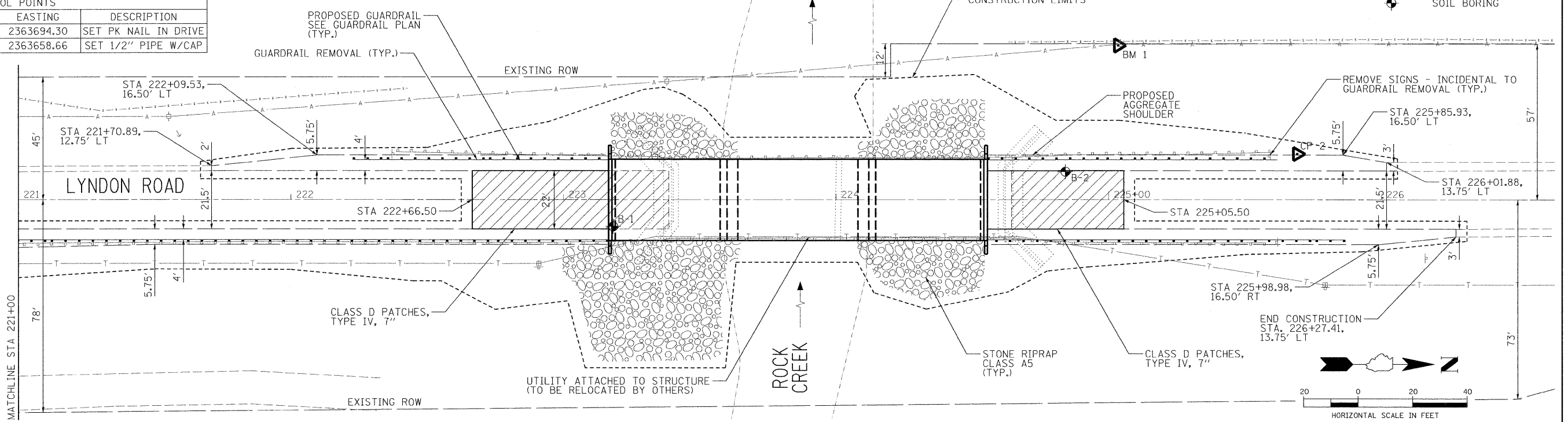
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
76	09-000183-00-BR	WHITESIDE	21	4
CONTRACT NO. 85506				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

BENCHMARK				
BENCHMARK	STATION	OFFSET	DESCRIPTION	ELEVATION
BM 1	225+03.47	56.4' LT	SPIKE IN POWERPOLE, NORTHWEST OF BRIDGE.	641.237

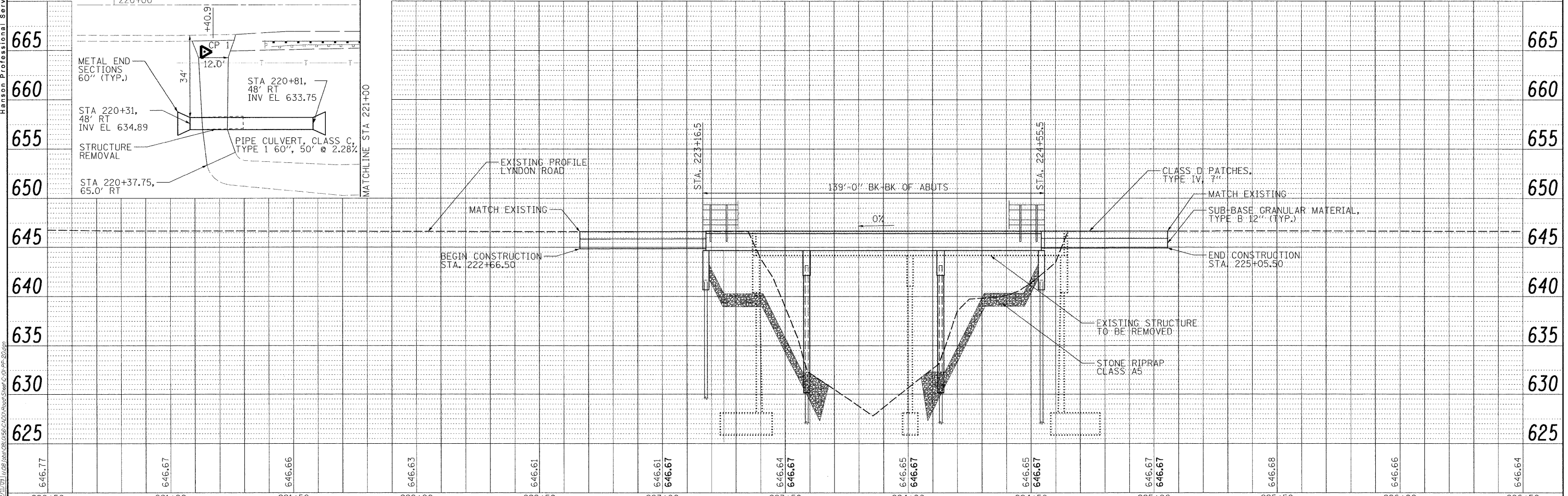
ALIGNMENT DATA		
ALIGNMENT STA	NORTHING	EASTING
STA 220+00	1891937.04	2363675.35
STA 227+00	1892637.04	2363675.63

CONTROL POINTS			
POINT	NORTHING	EASTING	DESCRIPTION
CP 1	1891972.91	2363694.30	SET PK NAIL IN DRIVE
CP 2	1892506.21	2363658.66	SET 1/2" PIPE W/CAP

LEGEND	
	PAVEMENT REMOVAL
	SOIL BORING



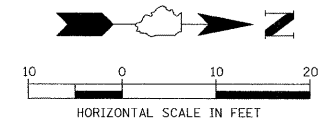
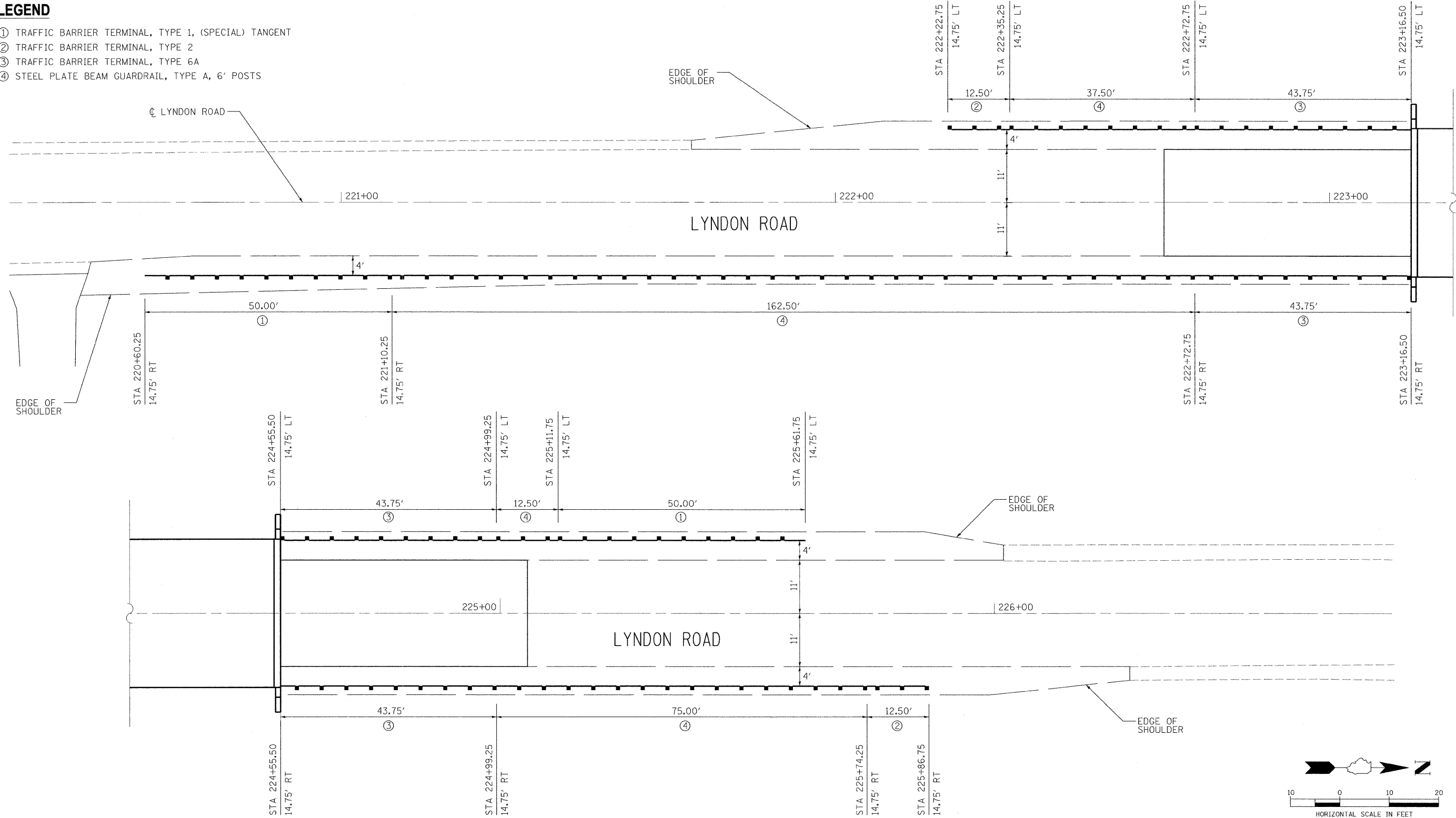
**HANSON**  
Hanson Professional Services Inc.



FILE NAME: C:\01-PP-28.dgn	USER NAME: Hussu00411	DESIGNED: DPA	REVISIONS:	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LYNDON ROAD BRIDGE</b>	F.A.S. RTE.: 76	SECTION: 06-00183-00-BR	COUNTY: WHITESIDE	TOTAL SHEETS: 21	SHEET NO.: 5
PLOT SCALE: = 20.0000' / 1"	CHECKED: DPA	DATE: 12/11/09	CONTRACT NO. 85506							
PLOT DATE: = 12/10/2009	SCALE: SHEET NO. 5 OF 21 SHEETS	STA. 220+00 TO STA. 227+00	ILLINOIS FED. AID PROJECT							

**LEGEND**

- ① TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT
- ② TRAFFIC BARRIER TERMINAL, TYPE 2
- ③ TRAFFIC BARRIER TERMINAL, TYPE 6A
- ④ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' POSTS



**TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT**

STA 220+60.25, 14.75' RT TO STA 221+10.25, 14.75' RT	1 EACH
STA 225+11.75, 14.75' LT TO STA 225+61.75, 14.75' LT	1 EACH
	2 EACH

**TRAFFIC BARRIER TERMINAL, TYPE 2**

STA 222+22.75, 14.75' LT TO STA 222+35.25, 14.75' LT	1 EACH
STA 225+74.25, 14.75' RT TO STA 225+86.75, 14.75' RT	1 EACH
	2 EACH

**TRAFFIC BARRIER TERMINAL, TYPE 6A**

STA 222+72.75, 14.75' LT TO STA 223+16.50, 14.75' LT	1 EACH
STA 222+72.75, 14.75' RT TO STA 223+16.50, 14.75' RT	1 EACH
STA 224+55.50, 14.75' LT TO STA 224+99.25, 14.75' LT	1 EACH
STA 224+55.50, 14.75' RT TO STA 224+99.25, 14.75' RT	1 EACH
	4 EACH

**STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' POSTS**

STA 220+60.25, 14.75' RT TO STA 221+10.25, 14.75' RT	37.5 LF
STA 222+35.25, 14.75' LT TO STA 222+72.75, 14.75' LT	162.5 LF
STA 224+99.25, 14.75' LT TO STA 225+11.75, 14.75' LT	12.5 LF
STA 224+99.25, 14.75' RT TO STA 225+74.25, 14.75' RT	75.0 LF
	287.5 LF

LAYOUT: MWH 11/20/09  
 DRAWN: MWH 12/11/09  
 REVIEWED: DPA 12/21/09  
 FILE NAME: C:\104-G\_RAIL.dgn

FILE NAME = C:\104-G_RAIL.dgn	USER NAME = HUSSEI00411	DESIGNED - DPA	REVISIONS	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GUARDRAIL PLAN LYNDON ROAD BRIDGE</b>			F.A.S. RTE. 76	SECTION 06-00183-00-BR	COUNTY WHITESIDE	TOTAL SHEETS 21	SHEET NO. 6
	PLOT SCALE = 10.0000' / 1" =	DRAWN - MWH	REVISIONS		SCALE:	SHEET NO. 6 OF 21 SHEETS	STA. TO STA.	CONTRACT NO. 85506				
	PLOT DATE = 12/11/09	CHECKED - DPA	REVISIONS		ILLINOIS FED. AID PROJECT							
		DATE - 12/11/09	REVISIONS									

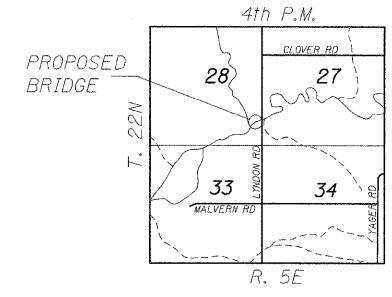


B.M. - Spike in power pole, Northwest of bridge. Elev. 641.237

Existing Structure - Structure Number 098-0036. Original structure built under sections KB1 and KC1 in 1932 as a single-span truss bridge. Pier added and superstructure replaced under Section (KB1-MFT) BR in 1976. Existing bridge consists of two-span PPC deck beam superstructure on closed concrete abutments and concrete wall pier. Pier footing is founded on concrete piles; abutment footing support is unknown. Structure length is 128 feet, back-to-back of abutments. Structure width is 30 feet, out-to-out.

Salvage - Existing Bridge Name Plate and existing Steel Bridge Railing.

ROCK CREEK  
BUILT 2010 BY  
WHITESIDE COUNTY  
SECTION 06-00183-00-BR  
F.A.S. RT. 76 STATION 203+86  
STR. NO. 098-3077 LOADING HL93



LOCATION SKETCH

**NAME PLATE**

Locate Name Plate at Southeast Corner of Bridge (See Std. 515001)

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	640.4	624.1	624.1	640.4

**DESIGN SPECIFICATIONS**

2007 AASHTO LRFD Bridge Design Specifications - 4th edition

**LOADING HL-93**

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

**DESIGN STRESSES**

Super:  $f'_c = 6,000$  p.s.i. (P.P.C. Deck Beams)  
 $f'_{ci} = 5,000$  p.s.i.  
 $f'_s = 270,000$  p.s.i. ( $\frac{1}{2}$ "  $\phi$  Strand)  
 $f'_{si} = 201,960$  p.s.i. ( $\frac{1}{2}$ "  $\phi$  Strand)  
 $f_y = 60,000$  p.s.i.  
Sub:  $f'_c = 3,500$  p.s.i.  
 $f_y = 60,000$  p.s.i.

**WATERWAY INFORMATION**

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	20	5400	812	883	643.03	0.15	0.15	643.18	643.18	
Base	100	7790	974	1070	644.48	0.41	0.32	644.89	644.80	

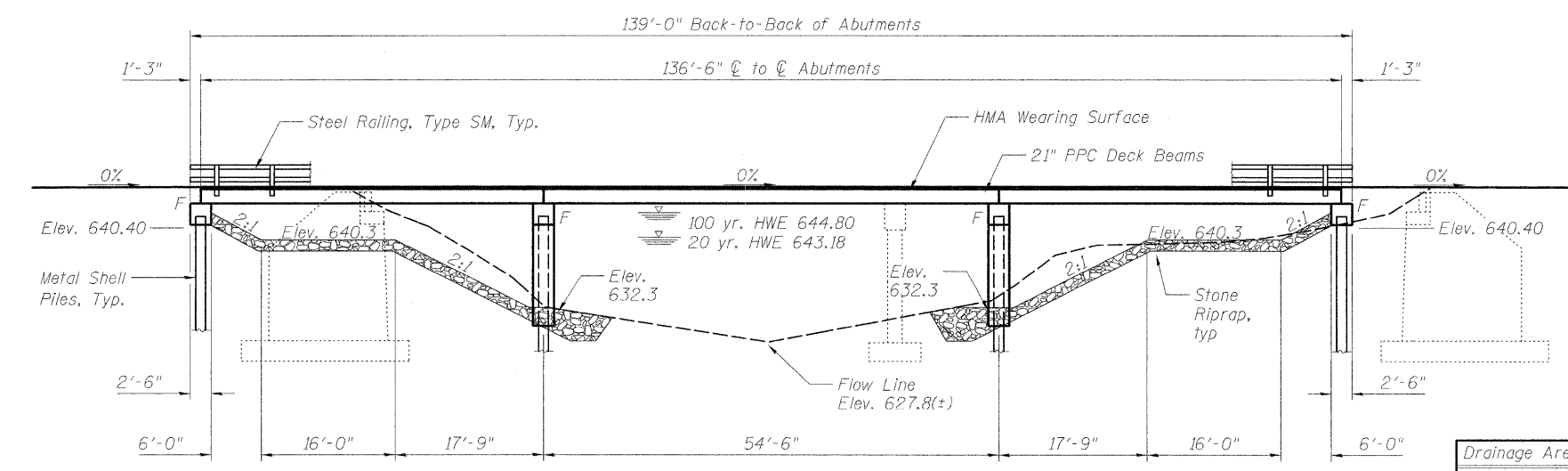
Drainage Area = 112.9 Sq. Mi. Low Grade Elev. = 646.67

**SEISMIC DATA**

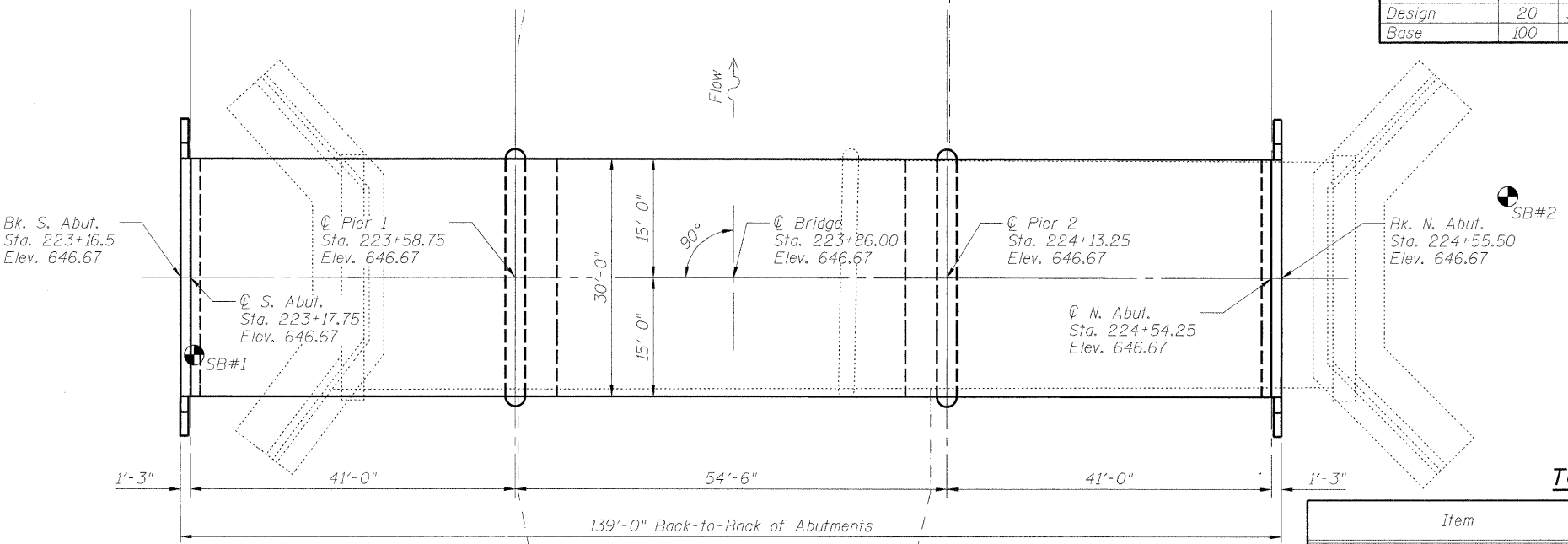
Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec (SD1) = 0.121  
Design Spectral Acceleration at 0.2sec (SDs) = 0.204  
Soil Site Class = E

**INDEX OF BRIDGE SHEETS**

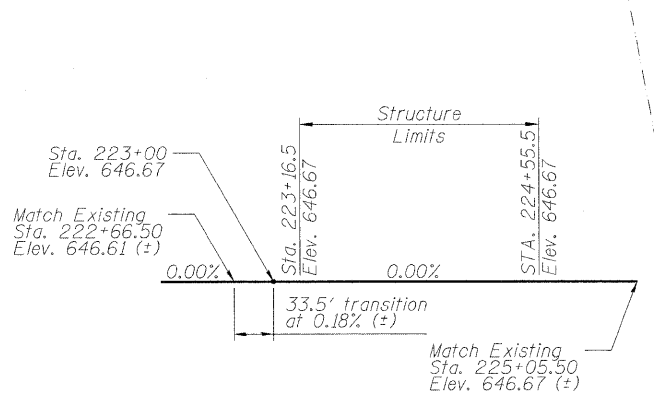
1. General Plan & Elevation
2. General Notes and Rip Rap Details
3. P.P.C. Deck Beam Superstructure
4. P.P.C. Deck Beam - Spans 1 & 3
5. P.P.C. Deck Beam - Span 2
6. P.P.C. Deck Beam Details
7. Steel Railing, Type SM
8. Pile Bent Abutment Details
9. Pile Bent Pier Details
10. Concrete Pile Details
11. Boring Logs



ELEVATION



PLAN



PROFILE GRADE  
(Along  $\phi$  Roadway)

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub.	Total
Stone Riprap, Class A5	Sq. Yd.	—	720	720
Filter Fabric	Sq. Yd.	—	720	720
Structure Excavation	Cu. Yd.	—	93	93
Concrete Structures	Cu. Yd.	—	115.0	115.0
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	4102.5	—	4102.5
Steel Bridge Rail, Type SM	Foot	278	—	278
Reinforcement Bars, Epoxy Coated	Pound	—	8800	8800
Furnishing Metal Shells 14" X 0.250"	Foot	—	1200	1200
Driving Piles	Foot	—	1200	1200
Test Pile, Metal Shell	Each	—	4	4
Name Plates	Each	1	—	1
Concrete Encasement	Cu. Yd.	—	6.0	6.0
Underwater Structure Excavation Protection	Each	—	2	2
PC Mortar Fairing Course	Foot	1231	—	1231
Waterproofing Membrane System	Sq. Yd.	456.5	—	456.5
Hot Mix Asphalt Surface Cse, Mix "C", N50	Ton	53	—	53

STUART M. KEMP  
081-064897  
STATE OF ILLINOIS  
Professional Engineer  
Signature: Stuart M. Kemp  
Date: 12/10/09  
Lic. Exp. Date: 11/30/2010

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges.'"

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08L0156  
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12/11/09  
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**GENERAL PLAN & ELEVATION**

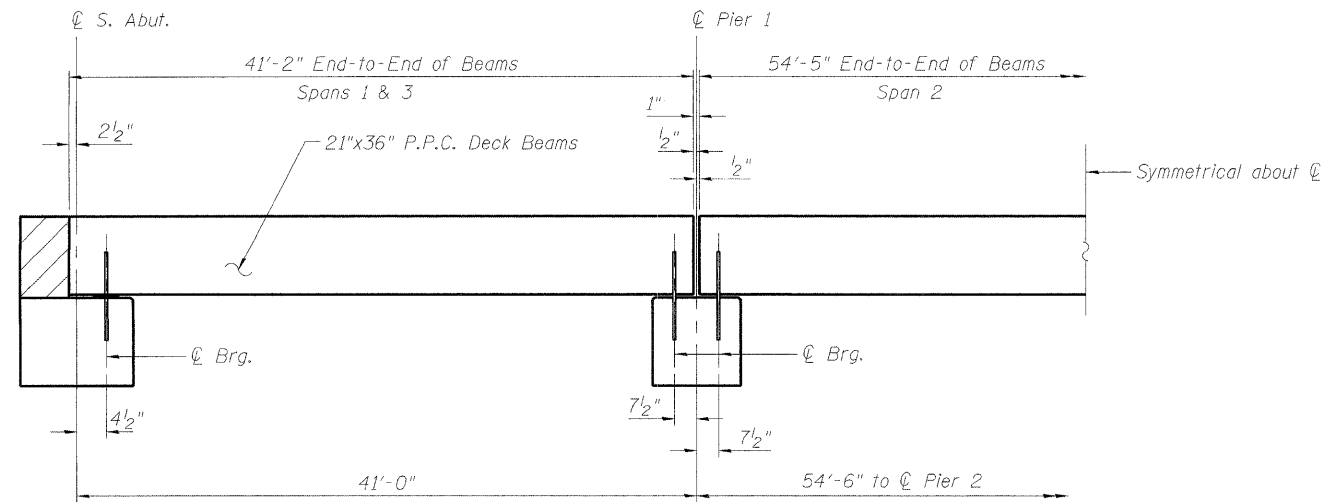
LYNDON ROAD BRIDGE  
OVER ROCK CREEK  
F.A.S. ROUTE 76  
SECTION 06-00183-00-BR  
WHITESIDE COUNTY, ILLINOIS  
STRUCTURE NUMBER 098-3077  
STATION 223+86.00

SHEET NO. 1	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY Whiteside	TOTAL SHEETS 21	SHEET NO. 8
CONTRACT NO. 85506					
FED. ROAD DIST. NO. 2   ILLINOIS FED. AID PROJECT					

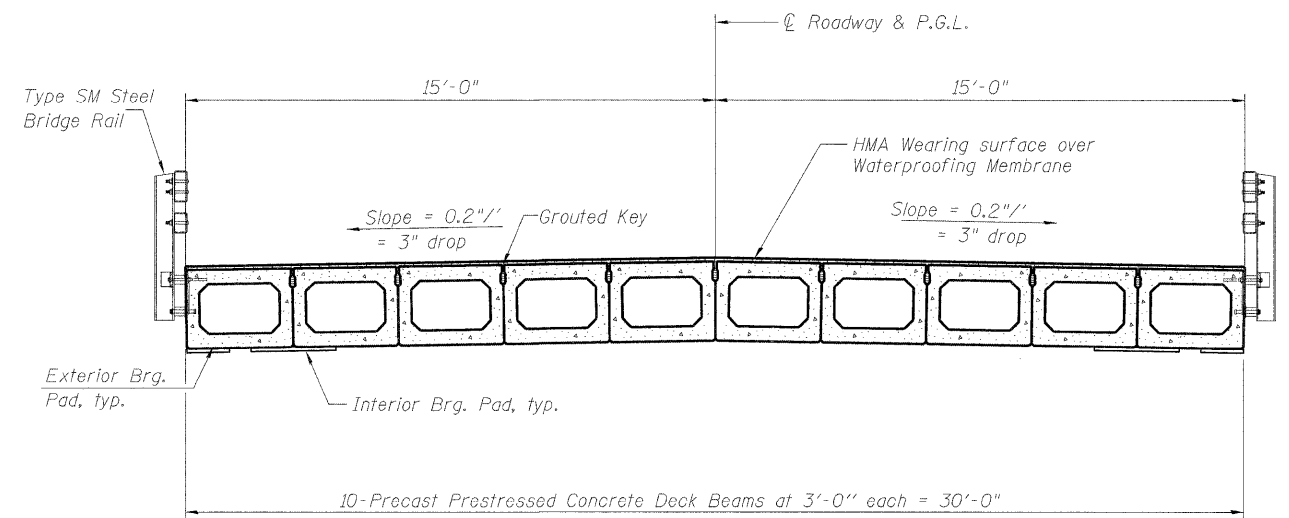
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 DRAWN: JIM 12/11/09  
 REVISIONS: SMK 12/11/09  
 12/10/2009  
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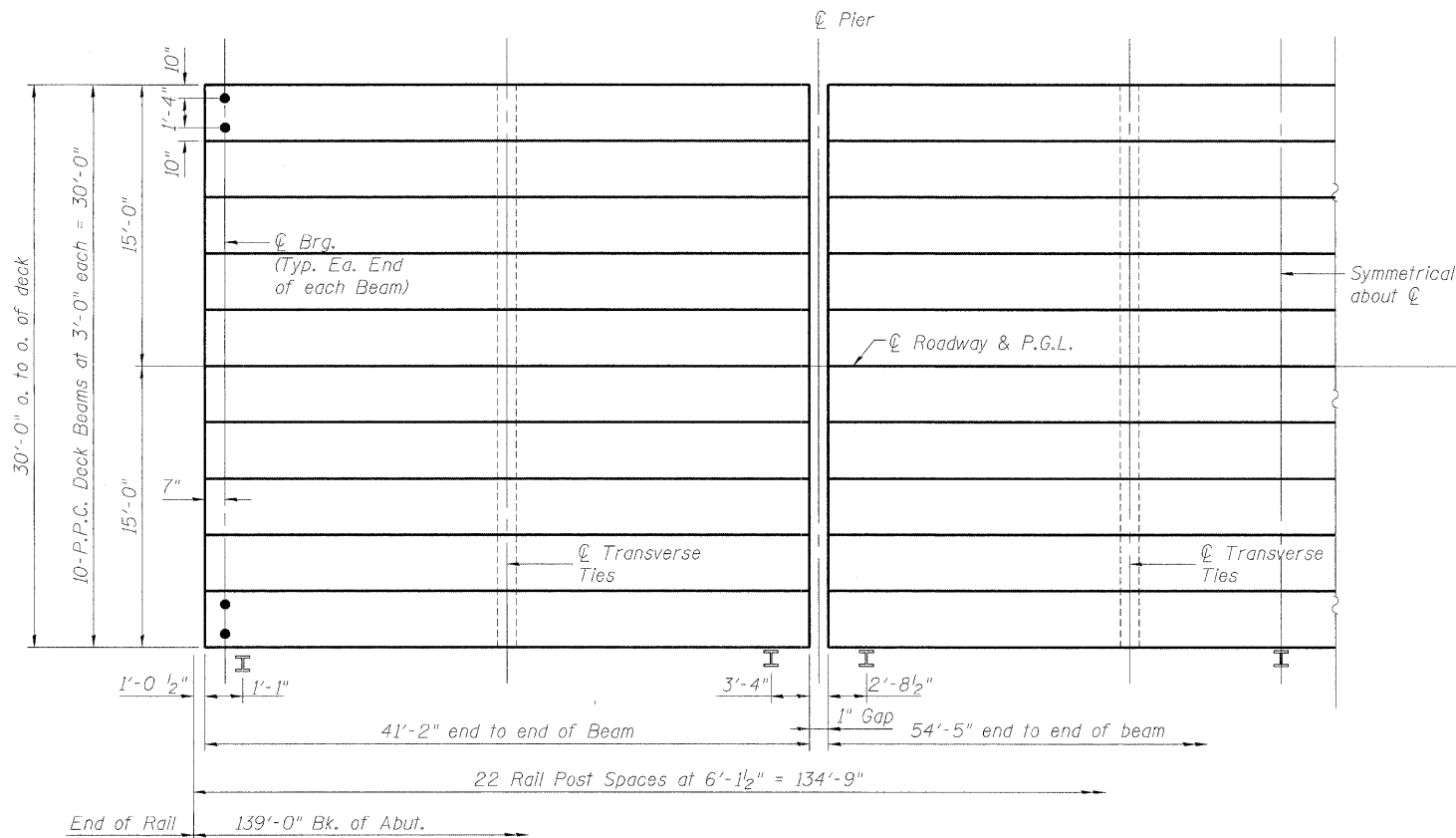




**ELEVATION**



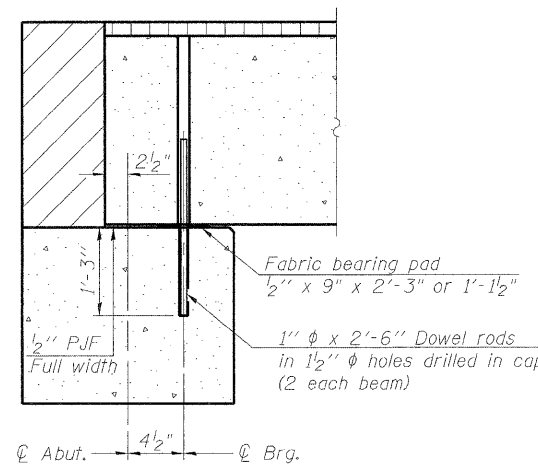
**CROSS SECTION**



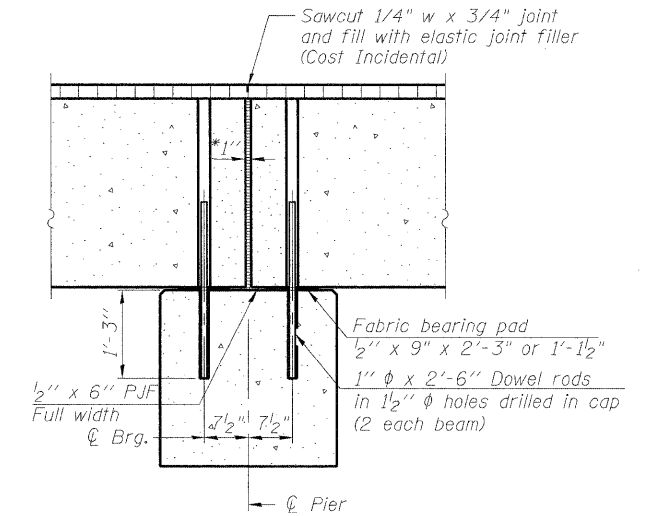
**PLAN**

**NOTES**

After beams have been erected, holes shall be drill into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hours prior to grouting the shear keys. Longitudinal keys shall be grouted. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. See sheet 6 of 11 for bearing pad details. Hatched area to be poured after deck beams are in place, and will be paid for as Concrete Structures.



**SECTION THRU ABUTMENT**



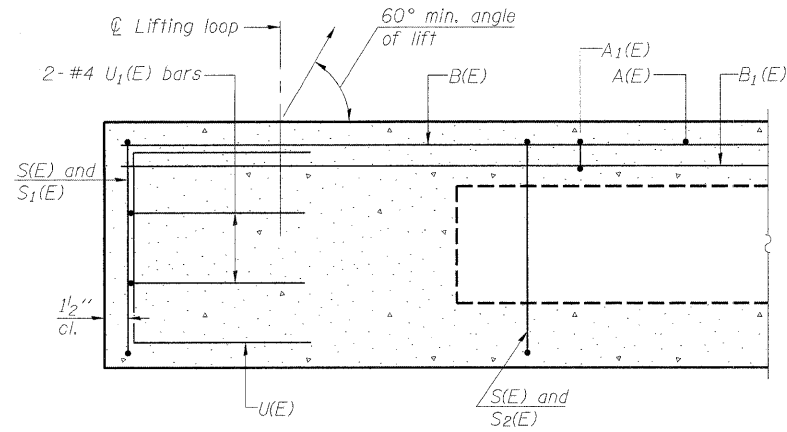
**SECTION THRU FIXED PIER**

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

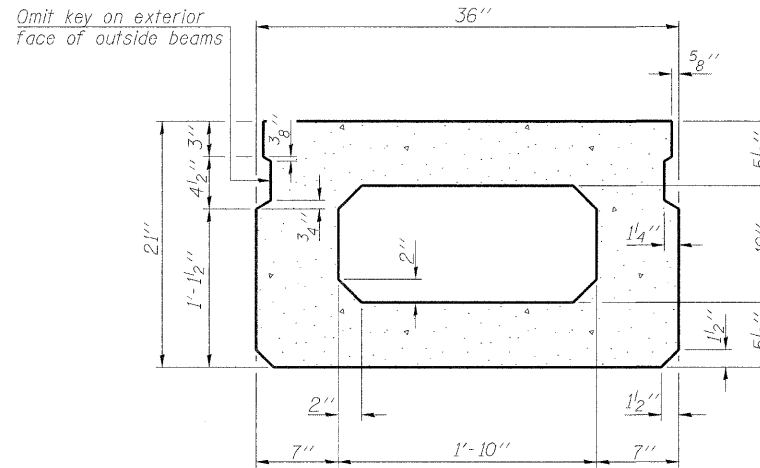
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 DRAWN: JDM 12/11/09  
 REVIEWED: SMK 12/11/09

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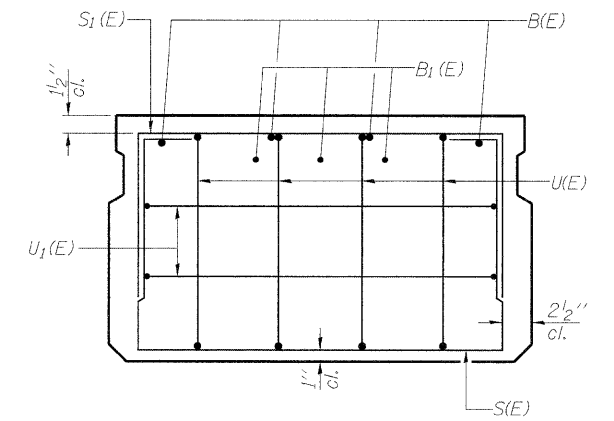
PCC DECK BEAM SUPERSTRUCTURE					
LYNDON ROAD BRIDGE OVER ROCK CREEK F.A.S. ROUTE 76 SECTION 06-00183-00-BR WHITESIDE COUNTY, ILLINOIS STRUCTURE NUMBER 098-3077 STATION 223+86.00					
SHEET NO. 3 11 SHEETS	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY Whiteside	TOTAL SHEETS 21	SHEET NO. 10
FED. ROAD DIST. NO. 2 (ILLINOIS) FED. AID PROJECT					



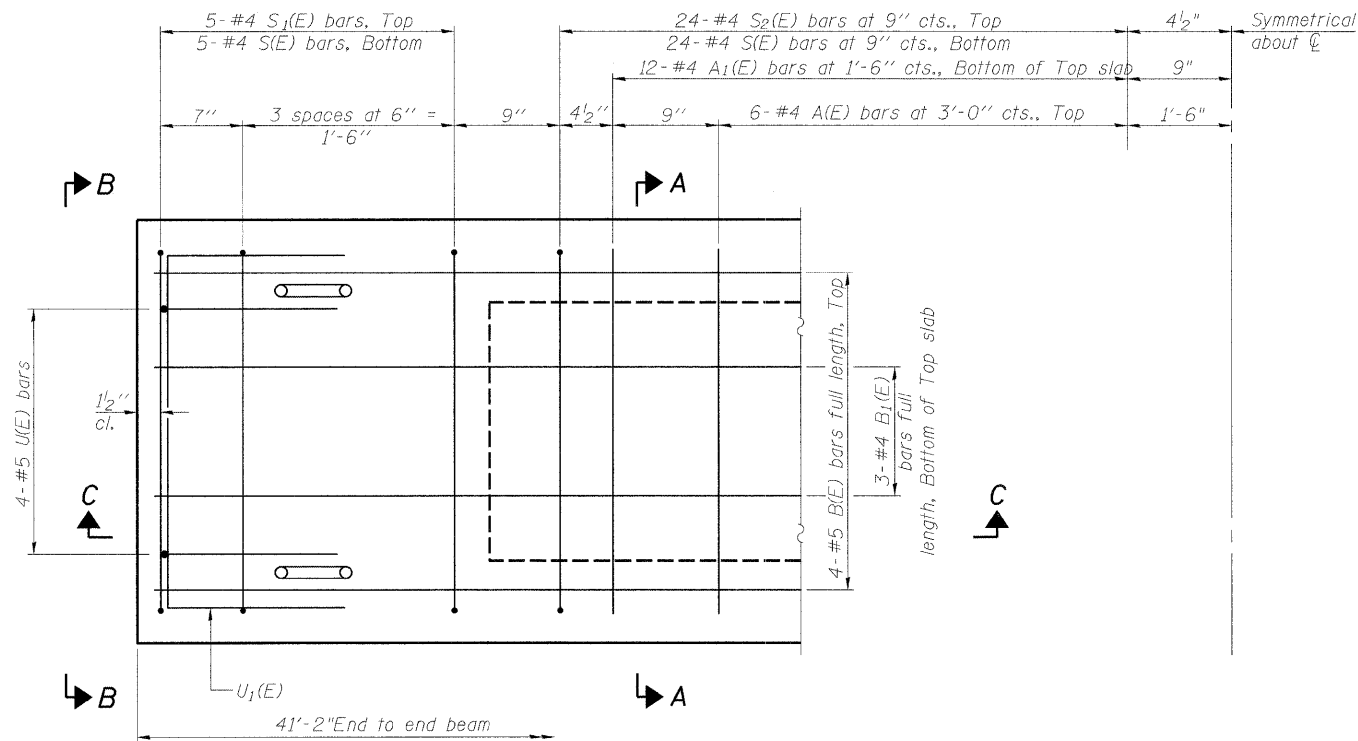
SECTION C-C



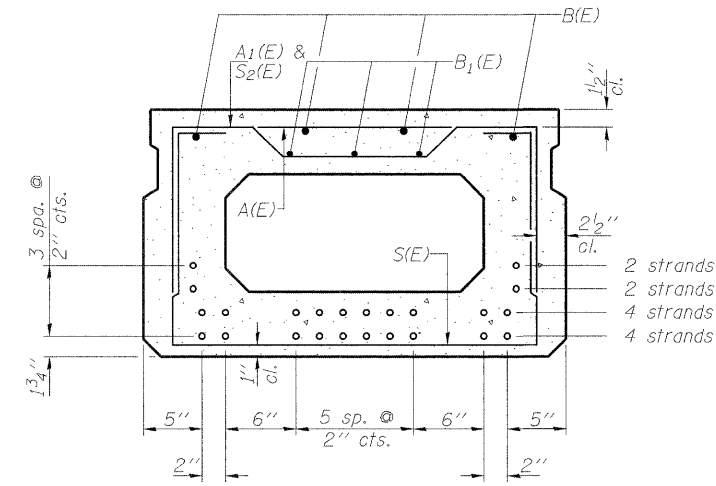
SECTION A-A  
(Showing dimensions)



VIEW B-B



PLAN VIEW



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

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

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	—
A1(E)	24	#4	2'-10"	~
B(E)	4	#5	40'-10"	—
B1(E)	3	#4	40'-10"	—
S(E)	58	#4	6'-5"	□
S1(E)	10	#4	4'-11"	□
S2(E)	48	#4	5'-2"	□
U(E)	8	#5	4'-0"	□
U1(E)	4	#4	5'-0"	□

Note: See sheet 6 of 11 for additional details and Bill of Material.

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.

12/11/09  
 I:\09\09\08\0156\CADD\Struct\Sheet\AS-004-PPC Deck Beams 1-3.dgn  
 SAK 09/11/09  
 JEM 12/11/09  
 SAK 12/11/09

Corporate License Number 184-001-084

08L0156  
12/11/09

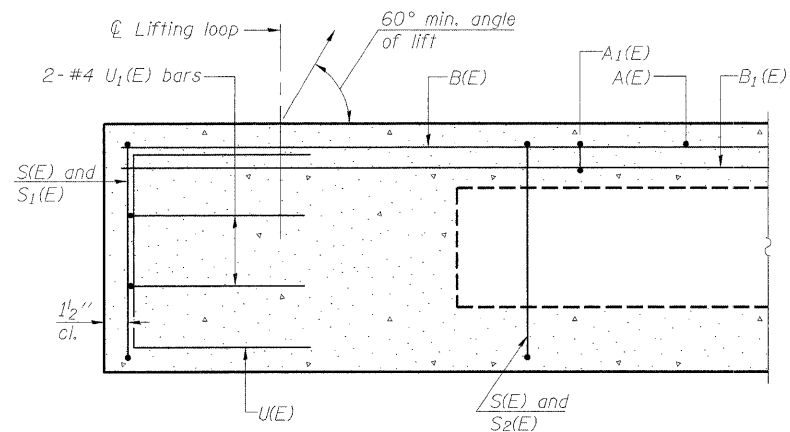


SHEET NO. 4  
11 SHEETS

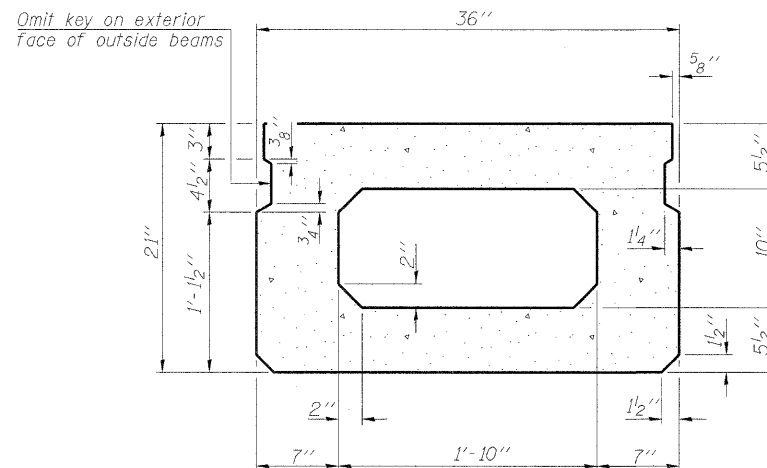
F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
76	06-00183-00-BR	Whiteside	21	11
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT			CONTRACT NO. 85506	

**PPC DECK BEAM - SPANS 1 & 3**

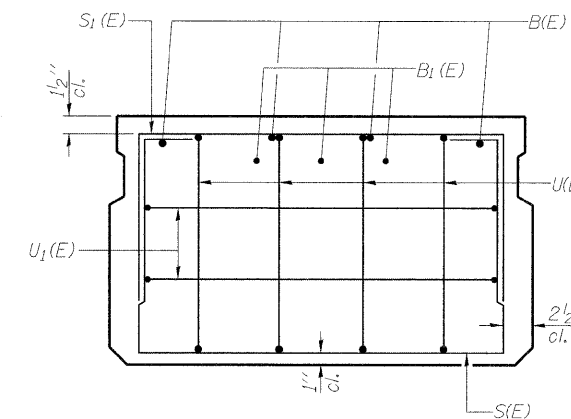
**LYNDON ROAD BRIDGE  
OVER ROCK CREEK  
F.A.S. ROUTE 76  
SECTION 06-00183-00-BR  
WHITESIDE COUNTY, ILLINOIS  
STRUCTURE NUMBER 098-3077  
STATION 223+86.00**



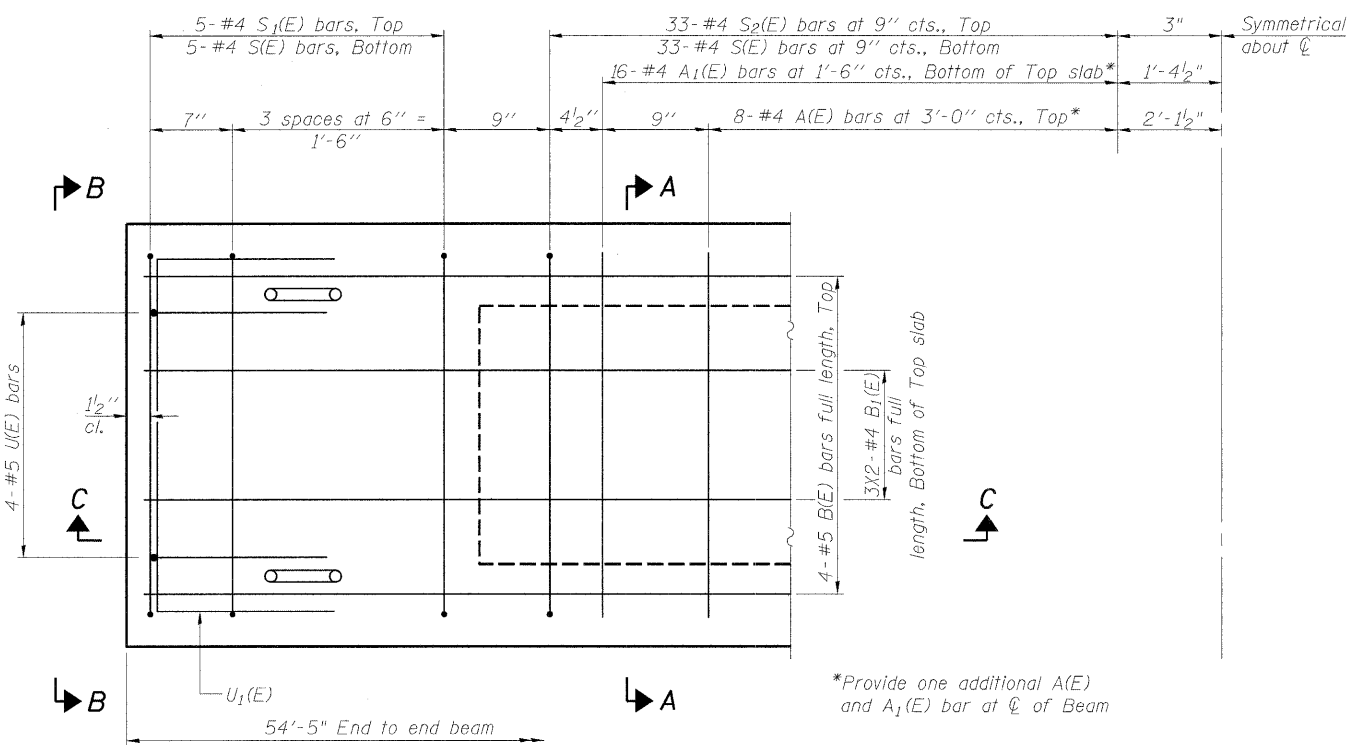
**SECTION C-C**



**SECTION A-A**  
(Showing dimensions)

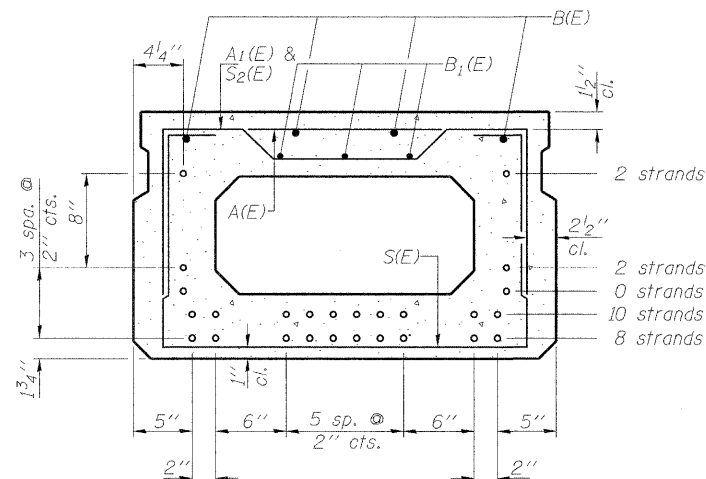


**VIEW B-B**



**PLAN VIEW**

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



**SECTION A-A**  
(Showing reinforcement and permissible strand locations)

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

**BAR LIST**  
**ONE BEAM ONLY**

(For information only)

Bar	No.	Size	Length	Shape
A(E)	17	#4	2'-7"	—
A1(E)	33	#4	2'-10"	—
B(E)	4	#5	54'-1"	—
B1(E)	6	#4	28'-0"	—
S(E)	76	#4	6'-5"	□
S1(E)	10	#4	4'-11"	□
S2(E)	66	#4	5'-2"	□
U(E)	8	#5	4'-0"	□
U1(E)	4	#4	5'-0"	□

Note: See sheet 6 of 11 for additional details and Bill of Material.

**PPC DECK BEAM - SPAN 2**

**LYNDON ROAD BRIDGE  
OVER ROCK CREEK  
F.A.S. ROUTE 76  
SECTION 06-00183-00-BR  
WHITESIDE COUNTY, ILLINOIS  
STRUCTURE NUMBER 098-3077  
STATION 223+86.00**

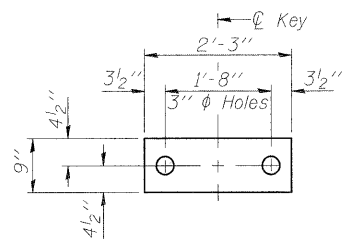
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REVIEWED SKM 12/11/09  
LAYOUT SKM 09/11/09  
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12/11/09

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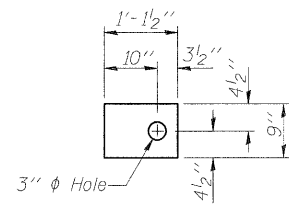
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SHEET NO. 5	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY Whiteside	TOTAL SHEETS 21	SHEET NO. 12
11 SHEETS	CONTRACT NO. 85506			FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT	



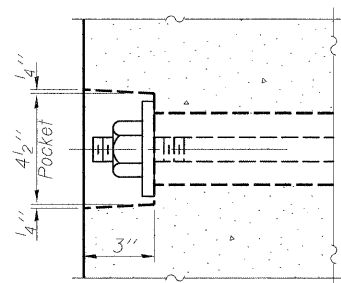
**FABRIC BEARING PAD**  
(Interior)



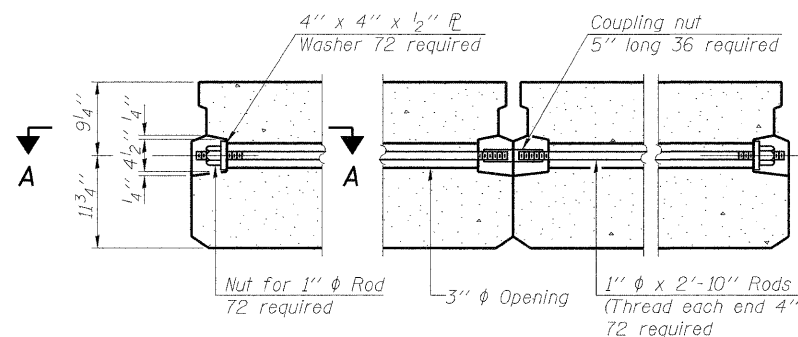
**FABRIC BEARING PAD**  
(Exterior)

**FIXED**

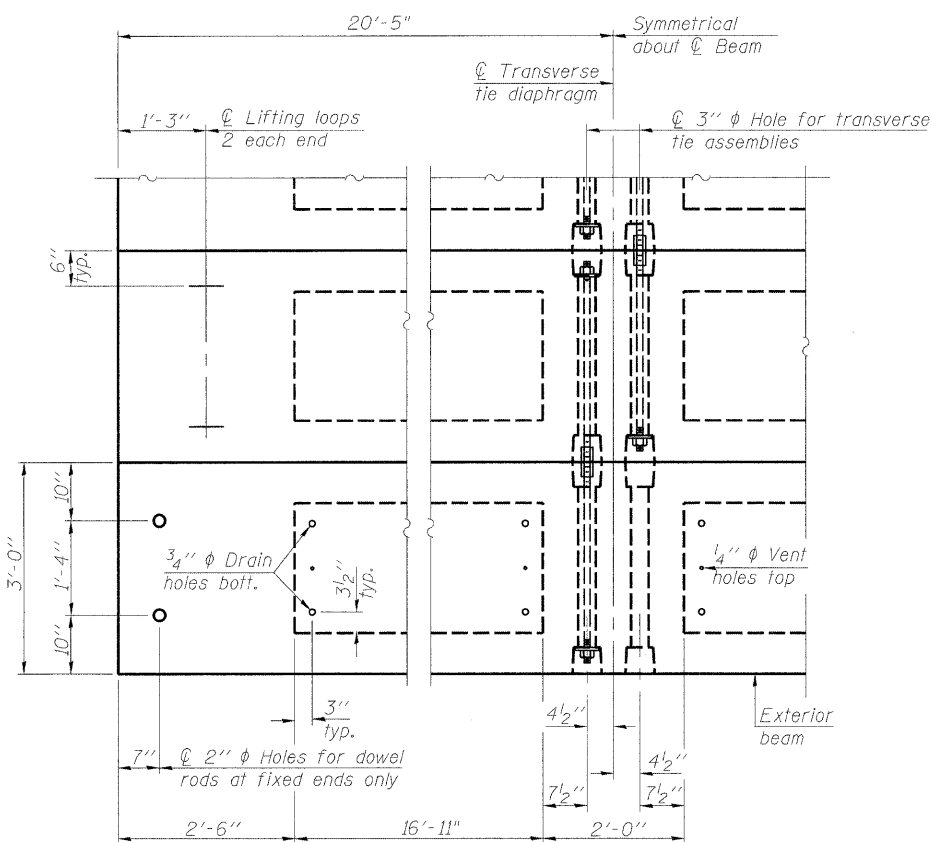
Note: Omit holes when using expansion bearings.



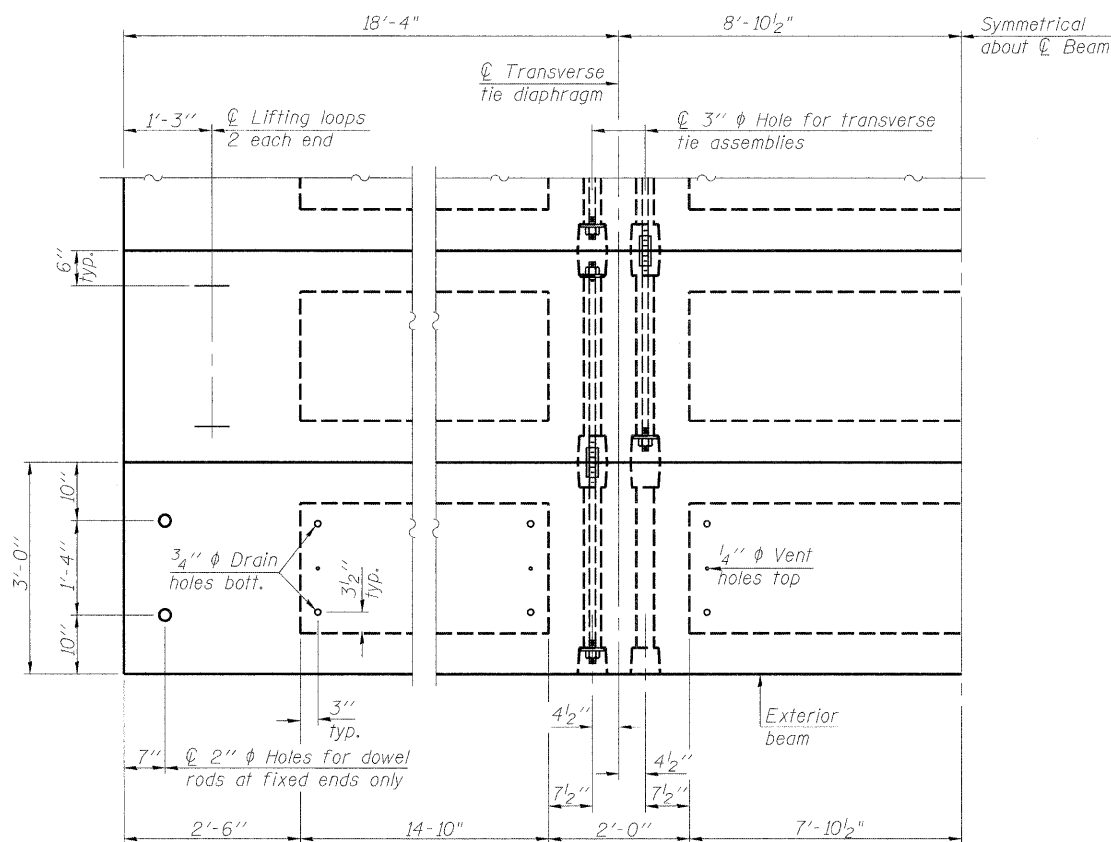
**SECTION A-A**



**TYPICAL TRANSVERSE TIE ASSEMBLY**



**PLAN VIEW - SPANS 1 & 3**

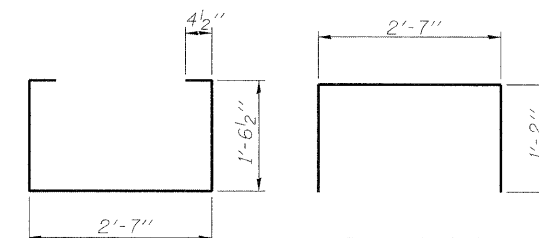


**PLAN VIEW - SPAN 2**

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

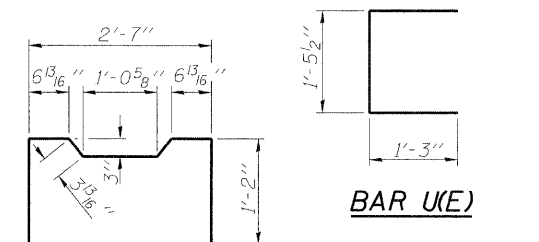
**NOTES**

- 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"  $\phi$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2"  $\phi$  lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 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.



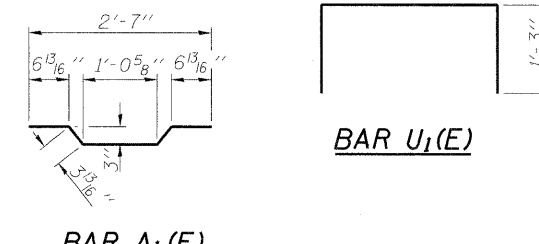
**BAR S(E)**

**BAR S<sub>1</sub>(E)**



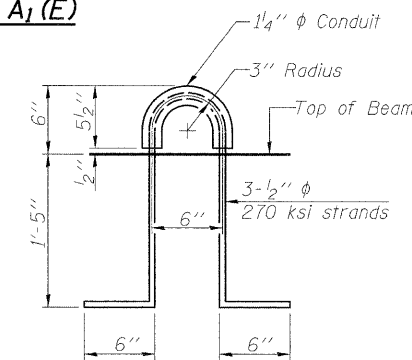
**BAR S<sub>2</sub>(E)**

**BAR U(E)**



**BAR A<sub>1</sub>(E)**

**BAR U<sub>1</sub>(E)**



**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

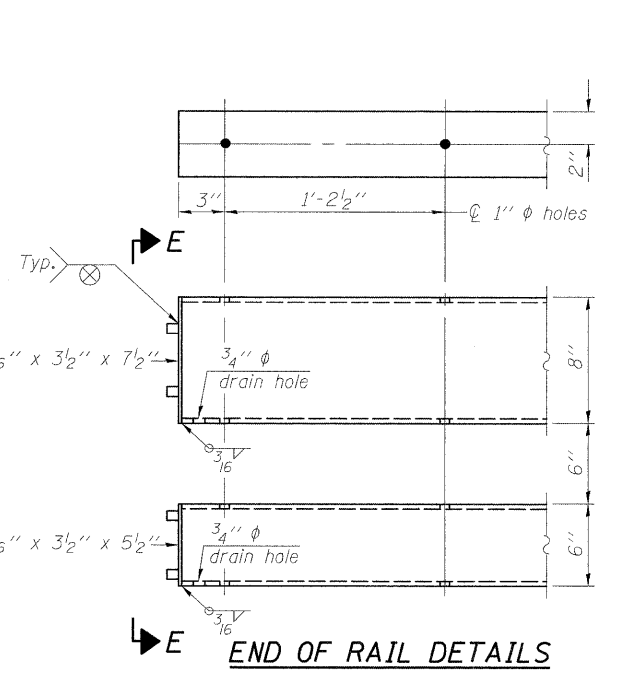
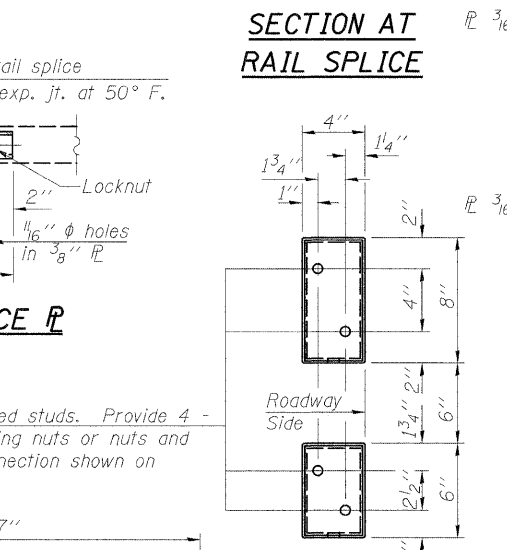
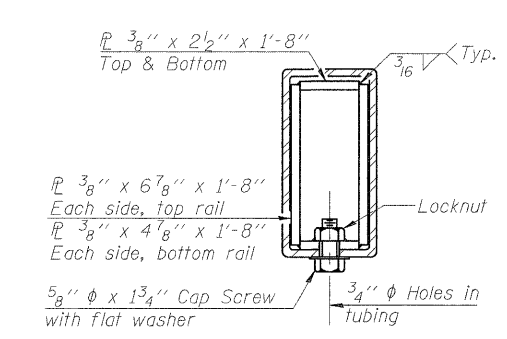
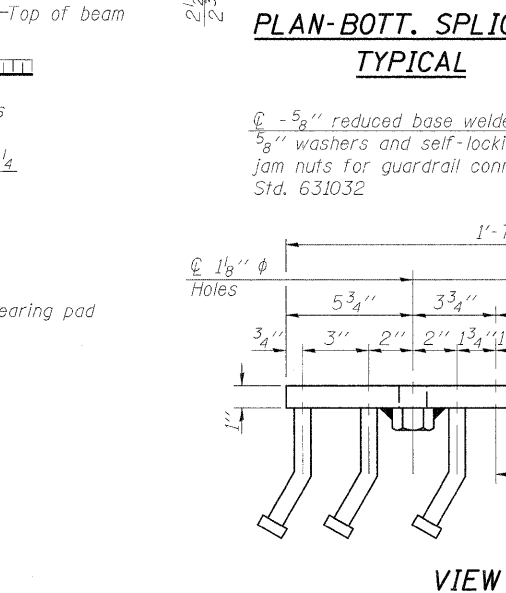
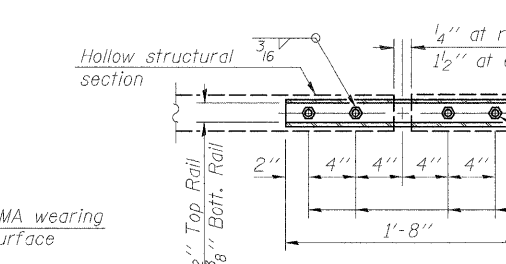
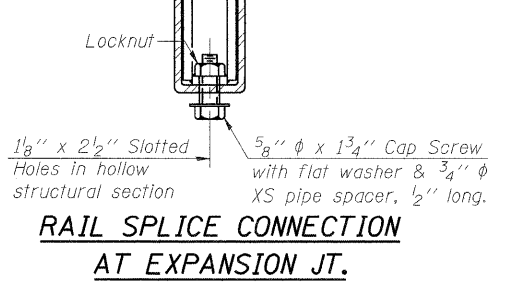
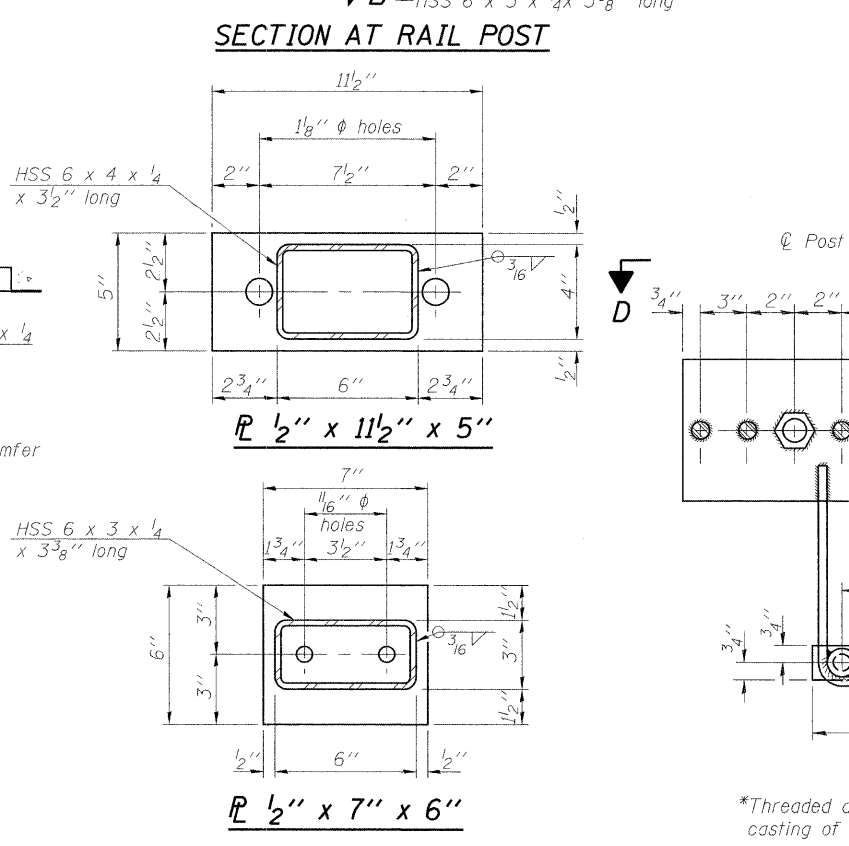
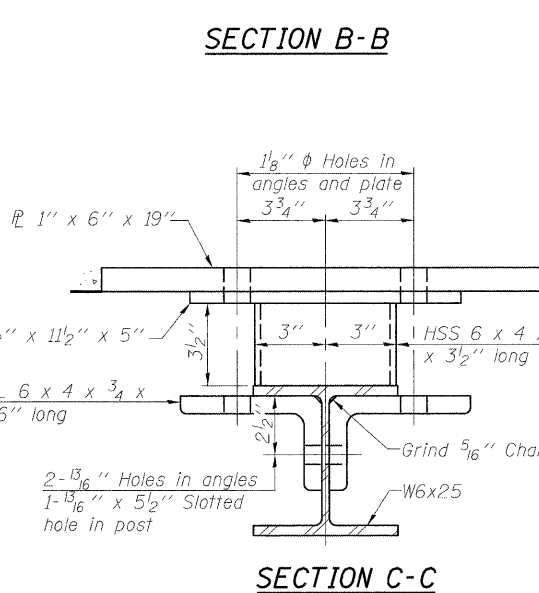
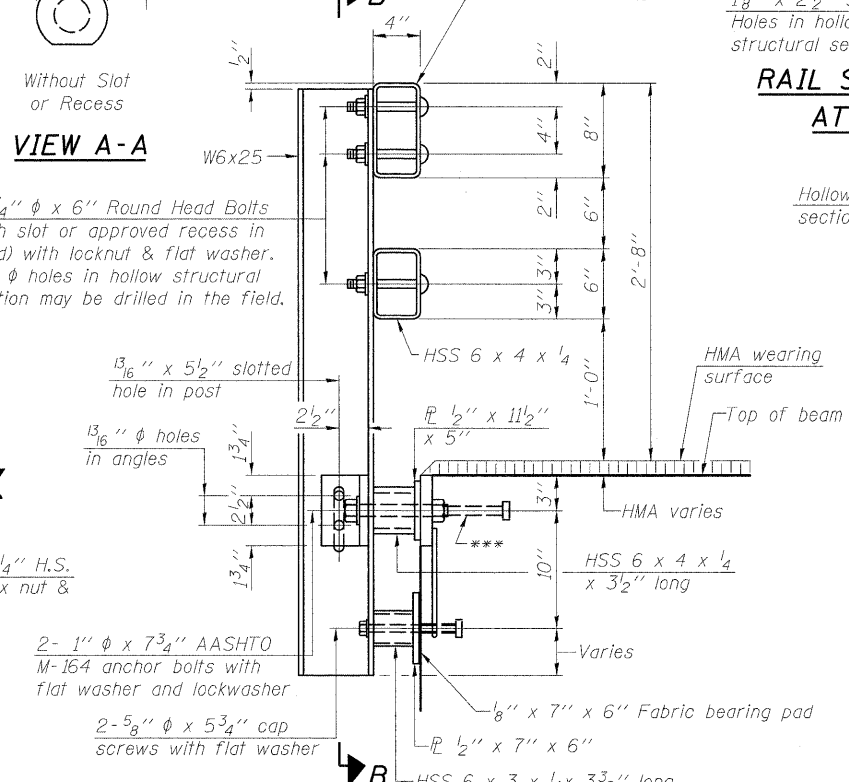
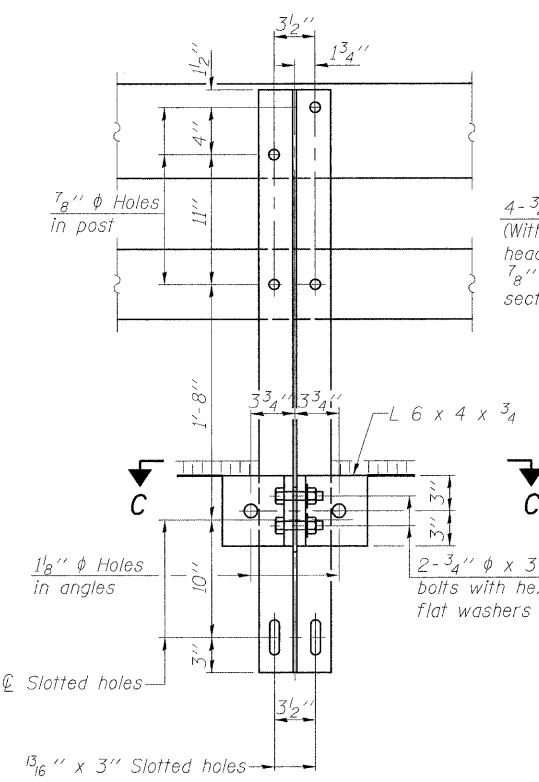
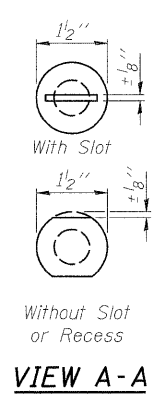
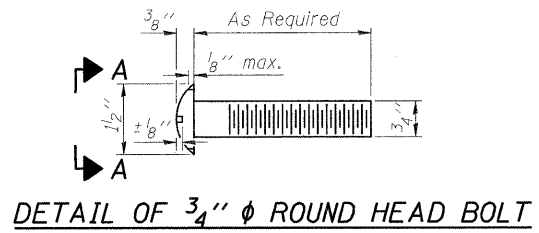
Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft. 4102.5
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**PPC DECK BEAM DETAILS**

LYNDON ROAD BRIDGE  
OVER ROCK CREEK  
F.A.S. ROUTE 76  
SECTION 06-00183-00-BR  
WHITESIDE COUNTY, ILLINOIS  
STRUCTURE NUMBER 098-3077  
STATION 223+86.00

DATE: 12/11/09	08L0156	Corporate License Number 184-001-084 © Copyright Hanson Professional Services Inc. 2009	11 SHEETS	SHEET NO. 6	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY Whiteside	TOTAL SHEETS 21	SHEET NO. 13
				CONTRACT NO. 85506		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT			

12/10/2009  
 I:\08\09\08\0156\CADD\Struct\Sheet\AS-006-PPC Deck Beam Details.dgn  
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 DRAWN JMM 12/11/09  
 REVIEWED SMK 12/11/09

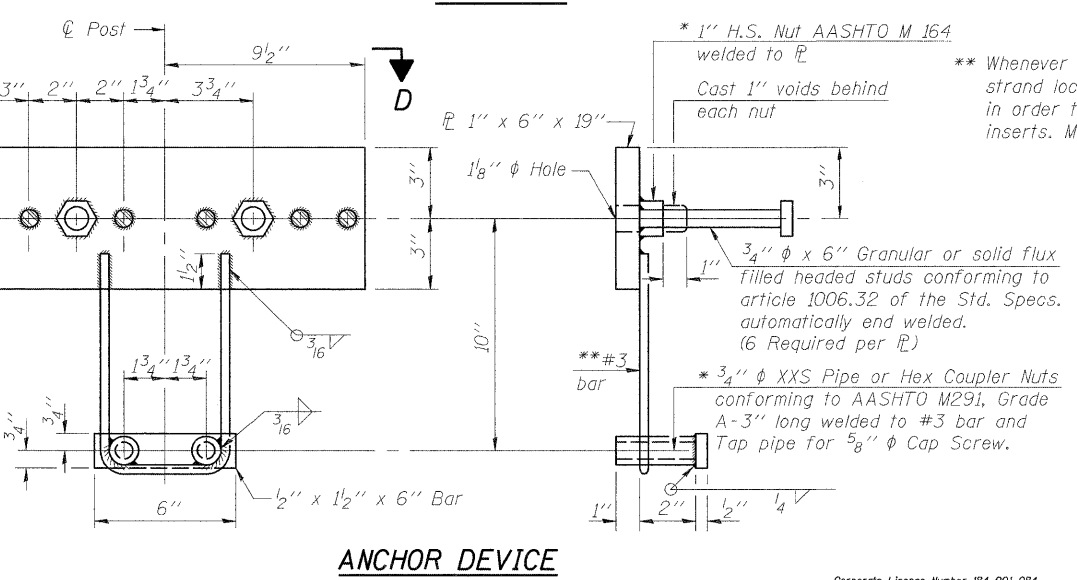


Notes:  
 All field drilled holes shall be coated with an approved zinc rich paint before erection.  
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.  
 All steel rail members 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.  
 \*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

**BILL OF MATERIAL**

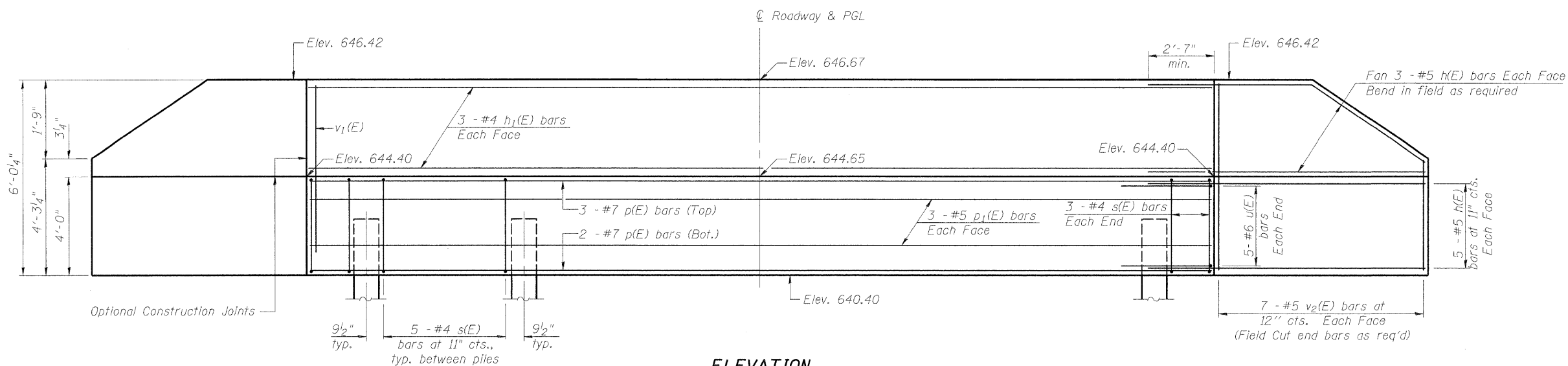
Item	Unit	Quantity
Steel Railing, Type SM	Foot	278

**STEEL RAILING, TYPE SM**  
 LYNDON ROAD BRIDGE  
 OVER ROCK CREEK  
 F.A.S. ROUTE 76  
 SECTION 06-00183-00-BR  
 WHITESIDE COUNTY, ILLINOIS  
 STRUCTURE NUMBER 098-3077  
 STATION 223+86.00

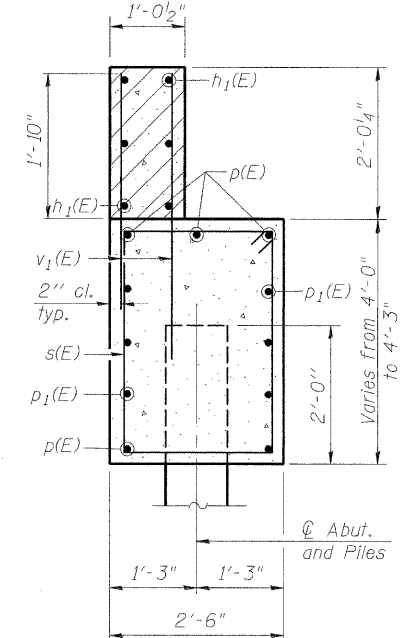


\*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

12/10/2009  
 1:08:10 AM  
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 12/11/09



**ELEVATION**

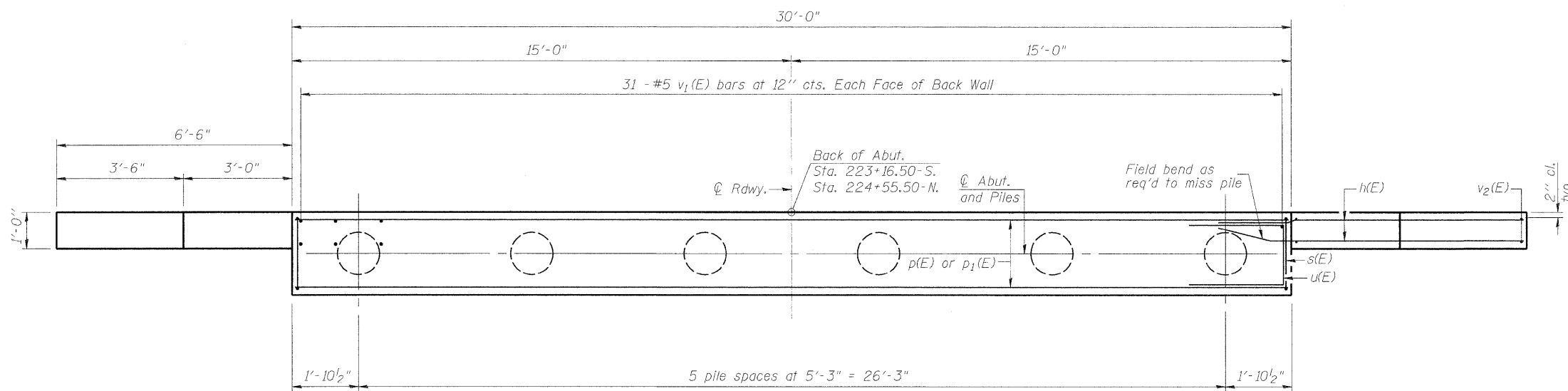


**SEC. THRU ABUT.**

**BILL OF MATERIAL FOR TWO ABUTMENTS**

Bar	No.	Size	Length	Shape
h(E)	64	#5	9'-0"	
h <sub>1</sub> (E)	12	#4	29'-8"	
p(E)	10	#7	29'-8"	
p <sub>1</sub> (E)	12	#5	29'-8"	
s(E)	62	#4	12'-5"	□
u(E)	20	#6	9'-7"	▭
v <sub>1</sub> (E)	124	#5	3'-0"	
v <sub>2</sub> (E)	56	#5	5'-8"	
Structure Excavation			Cu. Yd.	93
Concrete Structures			Cu. Yd.	31.8
Reinforcement Bars, Epoxy Coated			Pound	3340
Furnishing Metal Shells			Foot	420
Driving Piles			Foot	420
Test Pile, Metal Shell			Each	2

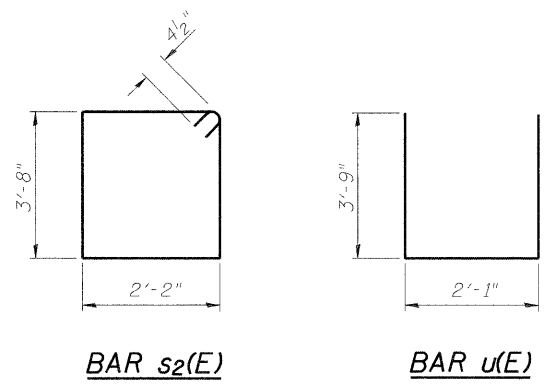
For details of piles and Metal Shell Reinforcement, see sheet 10 of 11.  
Space cap reinforcement to miss Dowel Rods. Hatched area to be poured after deck beams are in place.



**PLAN**

**PILE DATA**

Type: Metal Shell - 14" dia. x 0.25" wall  
Nominal Required Bearing: 276 kips  
Factored Resistance Available: 138 kips  
Est. Length: 42 ft.  
No. Production Piles: 8 (4 at each abut.)  
No. Test Piles: 2 (1 at each abut.)



12/11/09 SMK 09/11/09  
 12/11/09 JDM 12/11/09  
 12/11/09 SMK 12/11/09  
 LAYOUT SMK  
 DRAWN JDM  
 REVIEWED SMK  
 12/11/09

**PILE BENT ABUTMENT DETAILS**

**LYNDON ROAD BRIDGE  
 OVER ROCK CREEK  
 F.A.S. ROUTE 76  
 SECTION 06-00183-00-BR  
 WHITESIDE COUNTY, ILLINOIS  
 STRUCTURE NUMBER 098-3077  
 STATION 223+86.00**

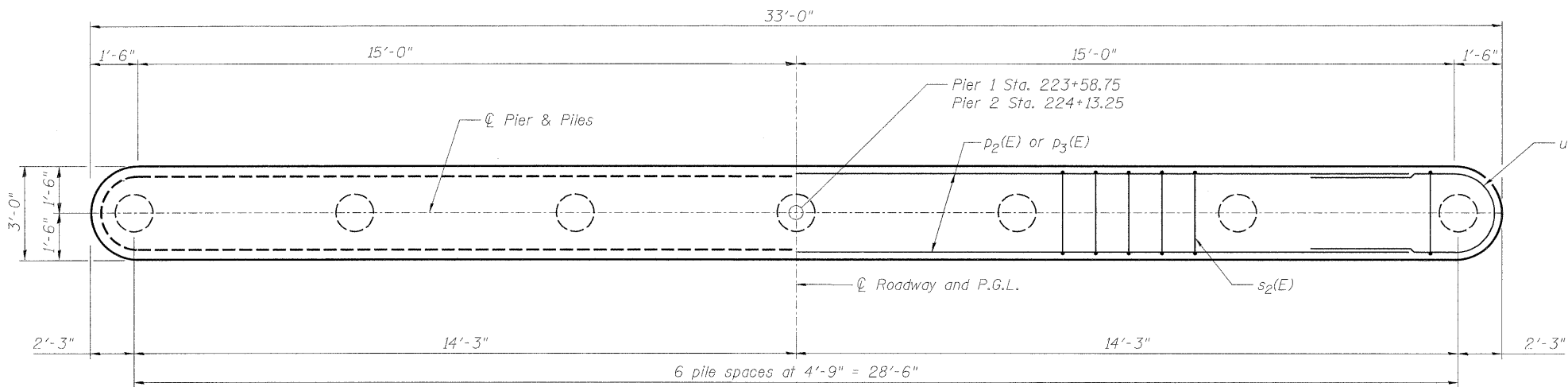
DATE: 12/11/09	PROJECT NO: 08L0156	SECTION: 06-00183-00-BR	COUNTY: Whiteside	TOTAL SHEETS: 21	SHEET NO.: 15
SHEET NO. 8 11 SHEETS				CONTRACT NO. 85506 FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT	



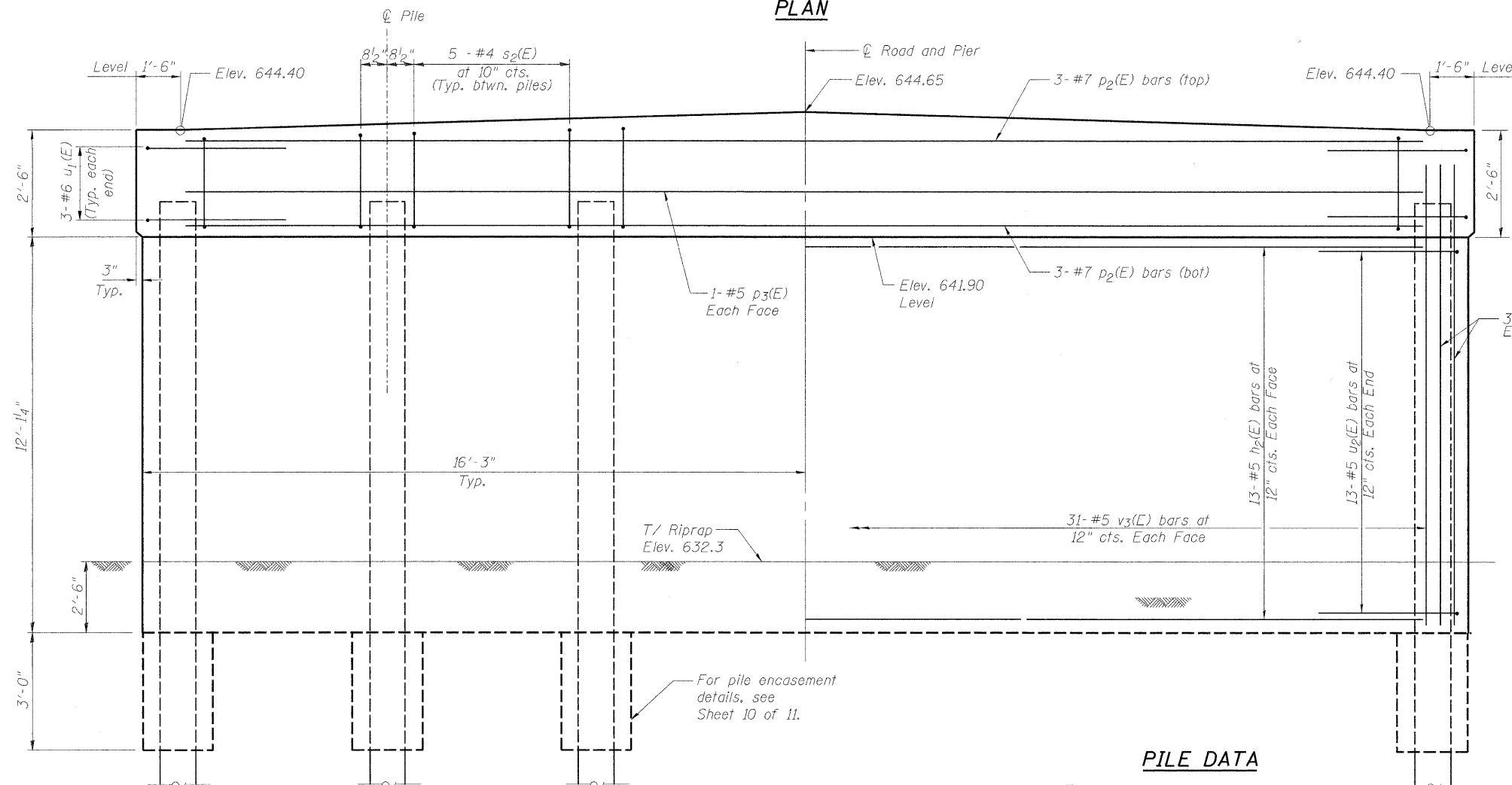
**BILL OF MATERIAL  
FOR TWO PIERS**

Bar	No.	Size	Length	Shape
$h_2(E)$	52	#5	30'-0"	—
$p_2(E)$	12	#7	30'-0"	—
$p_3(E)$	4	#5	30'-0"	—
$s_2(E)$	60	#4	10'-5"	□
$u_1(E)$	12	#6	9'-11"	U
$u_2(E)$	52	#5	8'-5"	U
$v_3(E)$	136	#5	13'-6"	—
Reinforcement Bars, Epoxy Coated		Pound	5460	
Concrete Structures		Cu. Yd.	83.2	
Concrete Encasement		Cu. Yd.	6.0	
Furnishing Metal Shells		Foot	780	
Driving Piles		Foot	780	
Test Pile, Metal Shell		Each	2	
Underwater Structure Excavation Protection - Location 1		Each	2	

**MIN. BAR LAP**  
#5 - 1'-8"



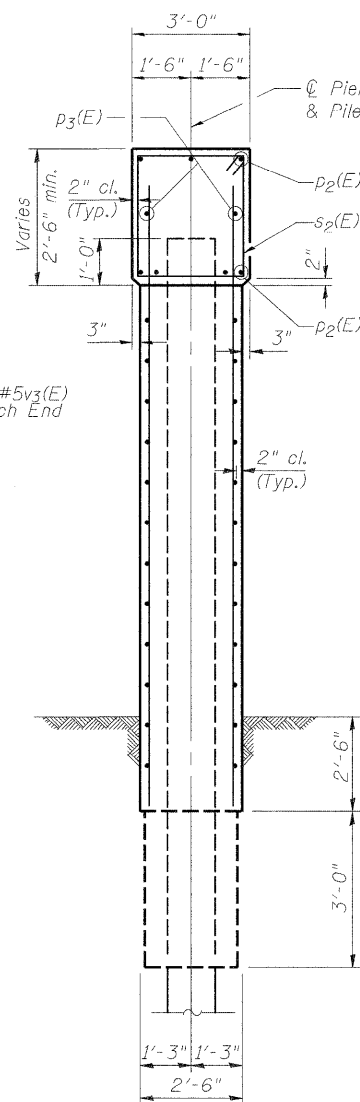
**PLAN**



**ELEVATION**

**PILE DATA**

Type: Metal Shell - 14" dia. x 0.25" wall  
Nominal Required Bearing: 401 kips  
Allowable Resistance Available: 183 kips  
Est. Length: 65 ft.  
No. Production Piles: 12 (6 at each Pier)  
No. Test Piles: 2 (One at each Pier)



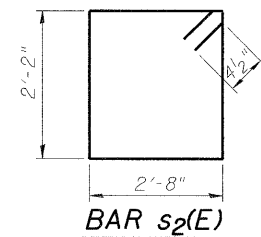
**SECTION THRU PIER**

**NOTES:**

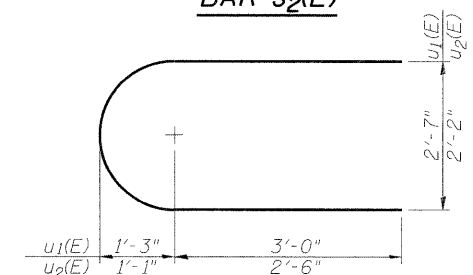
See Sheet 10 of 11 for Pile Details.

Space cap reinforcement to miss Dowel Rods.

If a portion of the pier wall or concrete encasement is underwater, 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 line at the time of construction.



**BAR  $s_2(E)$**



**BAR  $u_1(E)$  &  $u_2(E)$**

**PILE BENT PIER DETAILS**

LYNDON ROAD BRIDGE  
OVER ROCK CREEK  
F.A.S. ROUTE 76  
SECTION 06-00183-00-BR  
WHITESIDE COUNTY, ILLINOIS  
STRUCTURE NUMBER 098-3077  
STATION 223+86.00

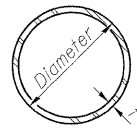
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DRAWN	JDM	12/11/09
REVIEWED	SMK	12/11/09

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**HANSON**

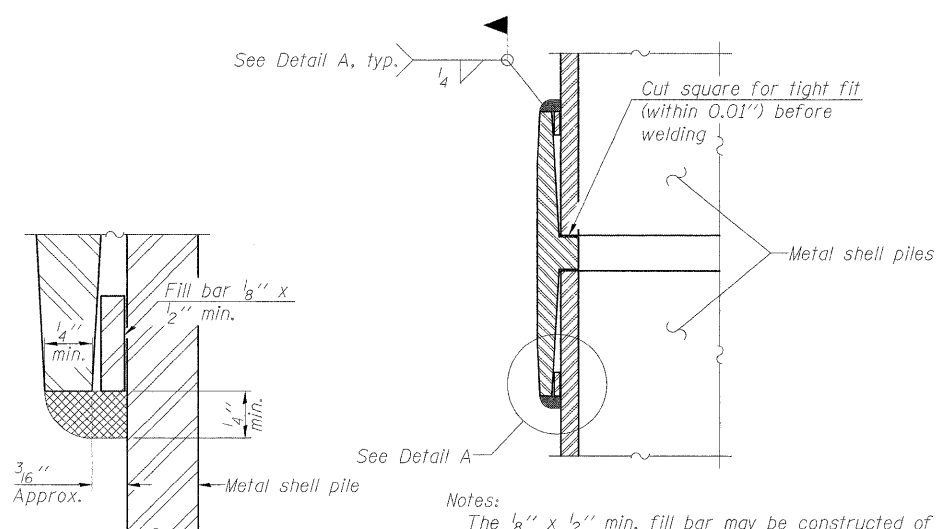
SHEET NO. 9	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY Whiteside	TOTAL SHEETS 21	SHEET NO. 16
11 SHEETS	CONTRACT NO. 85506			FED. ROAD DIST. NO. 2 [ILLINOIS] FED. AID PROJECT	





**METAL SHELL PILE TABLE**

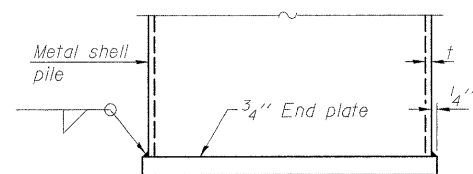
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



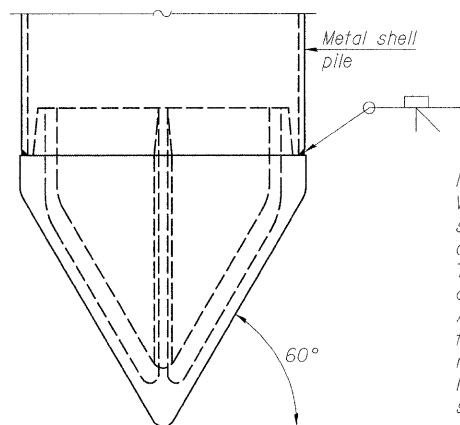
**DETAIL A**

Notes:  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



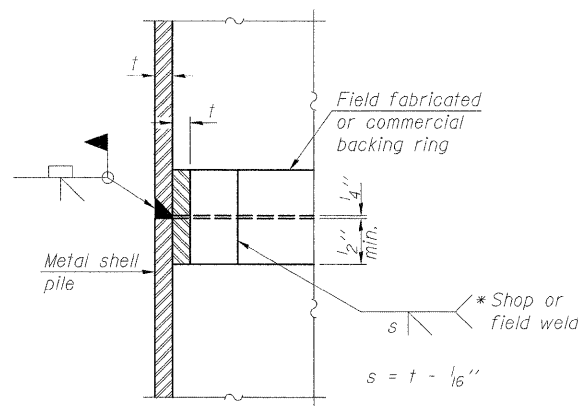
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

(See Note A)

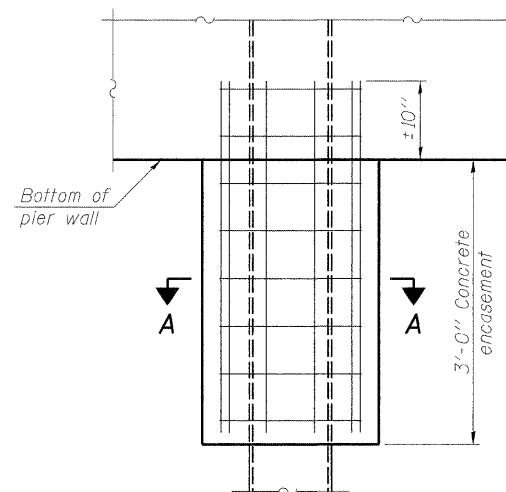
Note A:  
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



**COMPLETE PENETRATION WELD SPLICE**

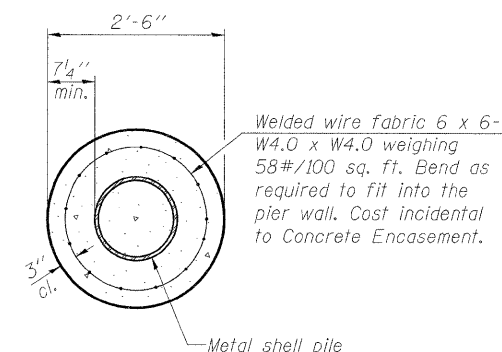
\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:  
 The metal shell piles shall be according to ASTM A 252 Grade 3.



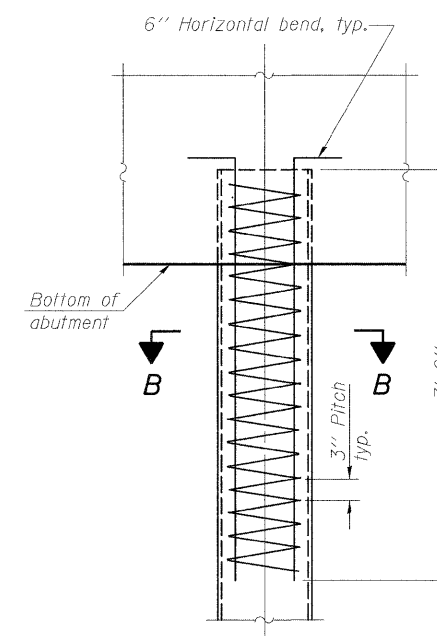
**ELEVATION**

**CONCRETE ENCASEMENT AT PIERS**



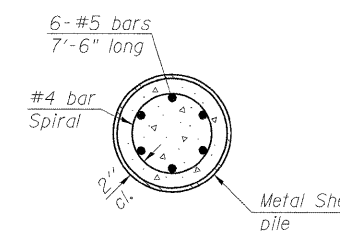
**SECTION A-A**

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



**ELEVATION**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**



**SECTION B-B**

**CONCRETE PILE DETAILS**

LYNDON ROAD BRIDGE  
 OVER ROCK CREEK  
 F.A.S. ROUTE 76  
 SECTION 06-00183-00-BR  
 WHITESIDE COUNTY, ILLINOIS  
 STRUCTURE NUMBER 098-3077  
 STATION 223+86.00

12/10/2009  
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 LAYOUT SHK 09/11/09  
 DRAWN JDM 12/11/09  
 REVIEWED SHK 12/11/09

JOB NO. 08L0156 DATE 12/11/09	Corporate License Number 184-001-084 © Copyright Hanson Professional Services Inc. 2009 	SHEET NO. 10 11 SHEETS	F.A.S. ROUTE 76	SECTION 06-00183-00-BR	COUNTY Whiteside	TOTAL SHEETS 21	SHEET NO. 17
			CONTRACT NO. 85506		FED. ROAD DIST. NO. 2   ILLINOIS FED. AID PROJECT		

LOG OF BORING NO. 1										Page 1 of 3	
CLIENT		PROJECT									
Hanson Professional Services, Inc.		Lyndon Road Bridge over Rock Creek									
SITE		SITES									
Lyndon Road Clyde Township, Whiteside County, Illinois		CLAYEY SAND dark gray, loose									
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT, N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT. pcf	UNCONFINED STRENGTH, pcf	TESTS		
0.33	PA										
2.5	CLML 2	SS	10	4	32	1500*					
5	CLML 3	SS	10	6	22	2000*					
8	CLML 4	SS	10	5	30	2000*					
13.5	SM 6	SB	10	4	24				O.C. 5.6%		
16	SW 7	SS	10	8	20				O.C. 1.1%		
17.5	SW 8	SS	10	9	17						
22.5	SW 9	SS	12	10	14						
28.5	CLSC 10	SS	10	9	14	3000*					

LOG OF BORING NO. 1										Page 2 of 3	
CLIENT		PROJECT									
Hanson Professional Services, Inc.		Lyndon Road Bridge over Rock Creek									
SITE		SITES									
Lyndon Road Clyde Township, Whiteside County, Illinois		SANDY CLAY brown, loose									
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT, N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT. pcf	UNCONFINED STRENGTH, pcf	TESTS		
33.5	SP 11	SS	10	9	13						
38.5	SW 12	SS	12	18	21						
43.5	SW 13	SS	10	15	16						
48.5	SW 14	SS	12	14	15						
53.5	CLSC 16	SS	12	21	13	127	4851				
58.5	CLSC 16	SS	12	22	13	129	5377				

LOG OF BORING NO. 1										Page 3 of 3	
CLIENT		PROJECT									
Hanson Professional Services, Inc.		Lyndon Road Bridge over Rock Creek									
SITE		SITES									
Clyde Township, Whiteside County, Illinois		SANDY CLAY TRACE GRAVEL gray, stiff to very stiff									
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT, N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT. pcf	UNCONFINED STRENGTH, pcf	TESTS		
63.5	CLSC 17	SS	10	22	12	126	4638				
68.5	CLSC 18	SS	10	24	15	127	4951				
73.5	CLSC 19	SS	12	23	14		5900*				

LOG OF BORING NO. 2										Page 1 of 3	
CLIENT		PROJECT									
Hanson Professional Services, Inc.		Lyndon Road Bridge over Rock Creek									
SITE		SITES									
Clyde Township, Whiteside County, Illinois		SANDY CLAY dark gray, medium stiff									
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT, N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT. pcf	UNCONFINED STRENGTH, pcf	TESTS		
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5	CLSC 2	SS	10	6	24	2000*					
10	CLSC 3	SS	10	7	28	2000*					
15	CLSC 4	SS	8	8	17	2000*					
20	CLSC 6	SS	12	6	28	2000*					
25	CLML 6	SS	10	4	29	1500*					
30	SM 7	SS	10	6	31				O.C. 3.6%		
35	SM 8	SS	12	4	28						
40	SW 9	SS	10	28	10						
45	SW 10	SS	10	23	10						

LOG OF BORING NO. 2										Page 2 of 3	
CLIENT		PROJECT									
Hanson Professional Services, Inc.		Lyndon Road Bridge over Rock Creek									
SITE		SITES									
Clyde Township, Whiteside County, Illinois		FINE TO COARSE SAND brown, medium dense									
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT, N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT. pcf	UNCONFINED STRENGTH, pcf	TESTS		
33.5	SP 11	SS	12	16	16						
38.5	SP 12	SS	10	22	16						
43.5	SP 13	SS	12	15	16						
48.5	CLC 14	SS	12	14	16		4000*				
53.5	CLSC 15	SS	10	13	12		5000*				
58.5	CLSC 16	SS	11	21	12		8000*				

LOG OF BORING NO. 2										Page 3 of 3	
CLIENT		PROJECT									
Hanson Professional Services, Inc.		Lyndon Road Bridge over Rock Creek									
SITE		SITES									
Clyde Township, Whiteside County, Illinois		SANDY CLAY gray, very stiff									
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT, N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT. pcf	UNCONFINED STRENGTH, pcf	TESTS		
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68.5	CLSC 18	SS	10	21	12	130	6681				
73.5	CLSC 18	SS	12	22	14	130	8000*				

**BORING LOGS**

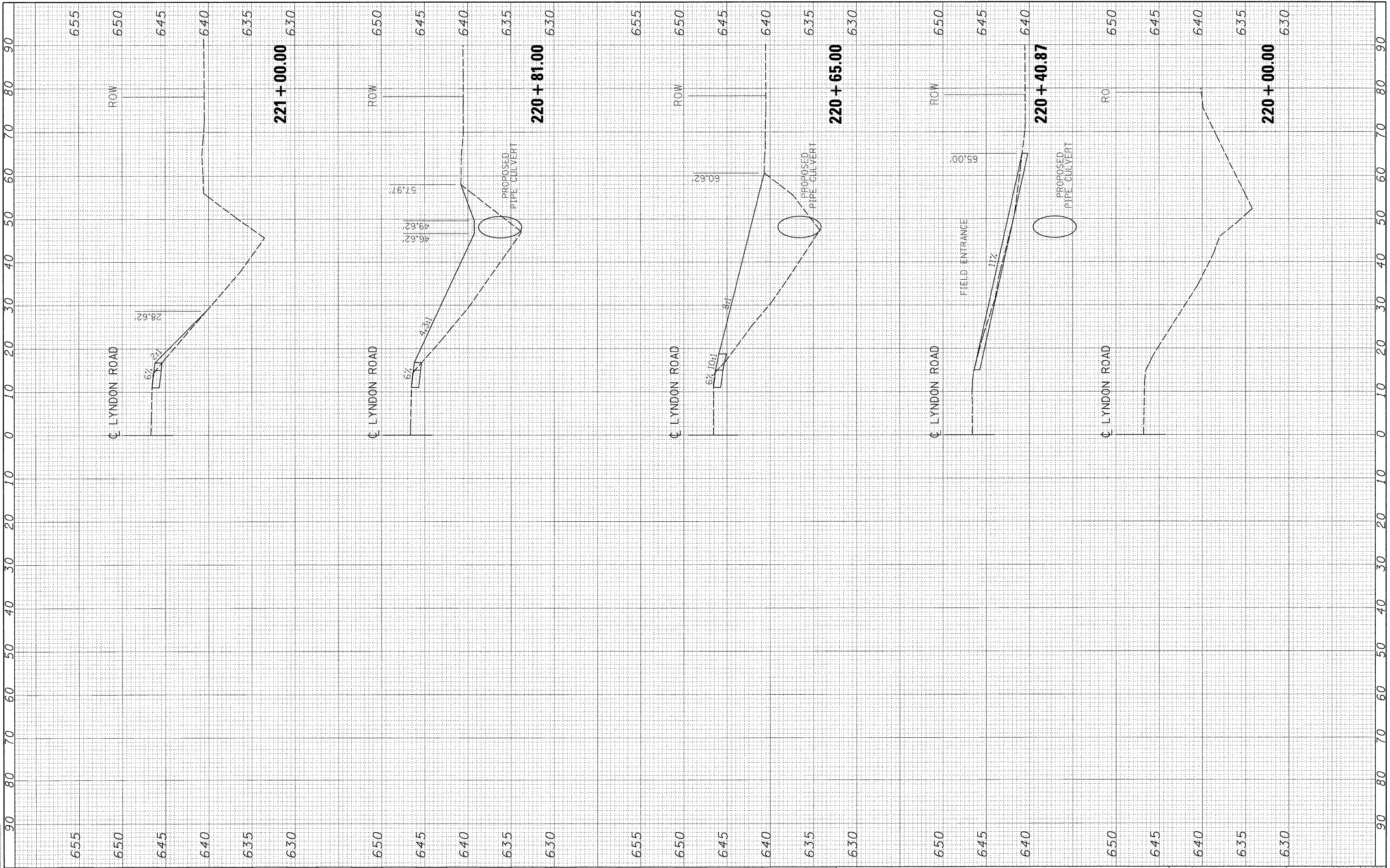
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OVER ROCK CREEK  
F.A.S. ROUTE 76  
SECTION 06-00183-00-BR  
WHITESIDE COUNTY, ILLINOIS  
STRUCTURE NUMBER 098-3077  
STATION 223+86.00

DATE	08/10/16		SECTION	06-00183-00-BR	COUNTY	Whiteside	TOTAL SHEETS	21	SHEET NO.	18
DRAWN	JDW		DATE	12/11/09	FED. ROAD DIST. NO. 2 [ILLINOIS] FED. AID PROJECT			CONTRACT NO.	85506	
REVIEWED	SKM		11 SHEETS							

12/NOV/2009 09:11/09 SKM  
 12/11/09 12:11/09 JDW  
 12/17/09 12:17/09 SKM

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LAYOUT MWH 09/03/09  
DRAWN MWH 12/17/09  
REVIEWED DPA 12/17/09



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REVISOR -

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PLOT DATE = 12/10/2009

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REVISOR -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

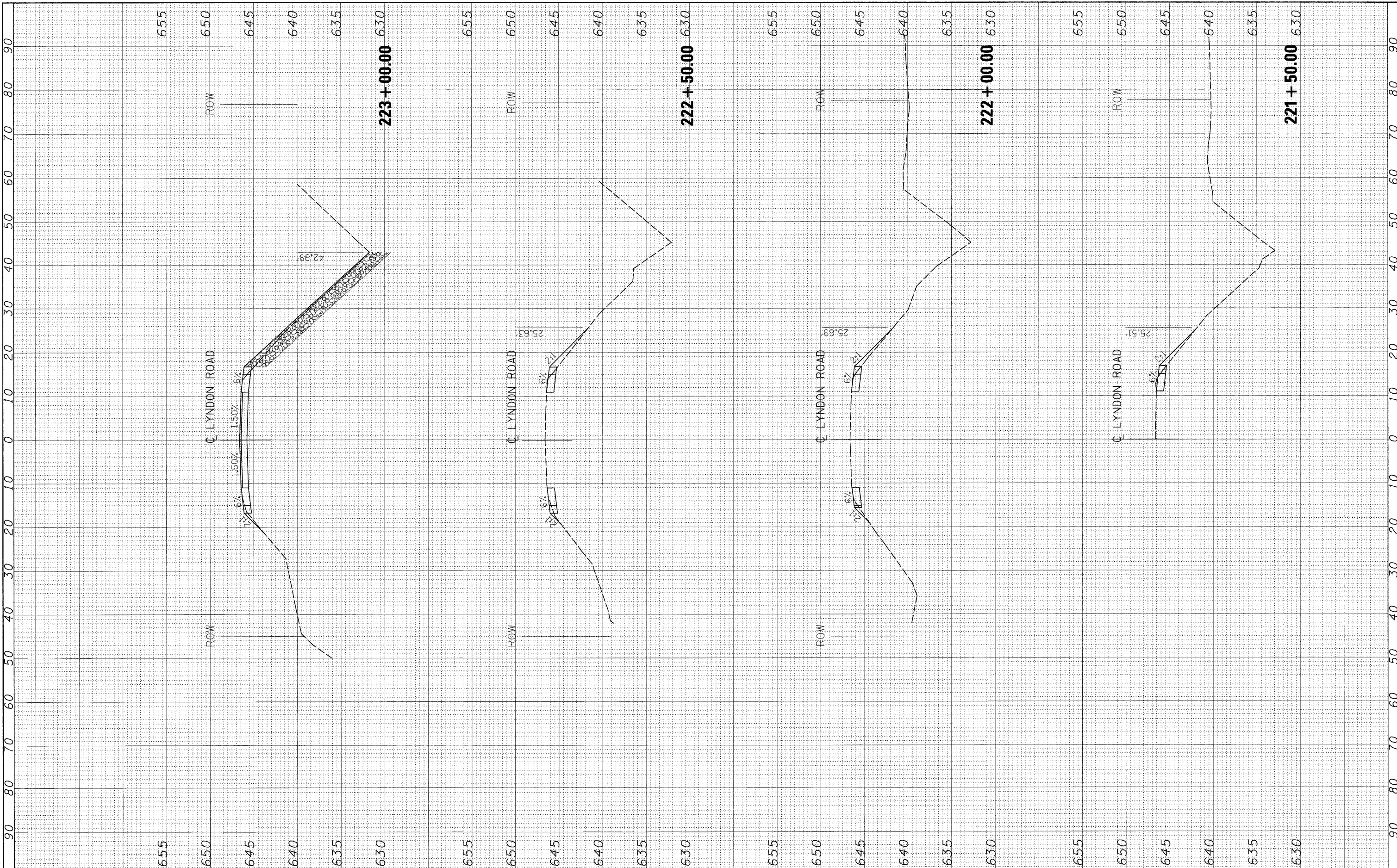
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CROSS SECTIONS**

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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 85506	



LAYOUT: MWH 09/03/09  
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 REVIEWED: DPA 12/11/09



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 DATE - 12/11/09

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

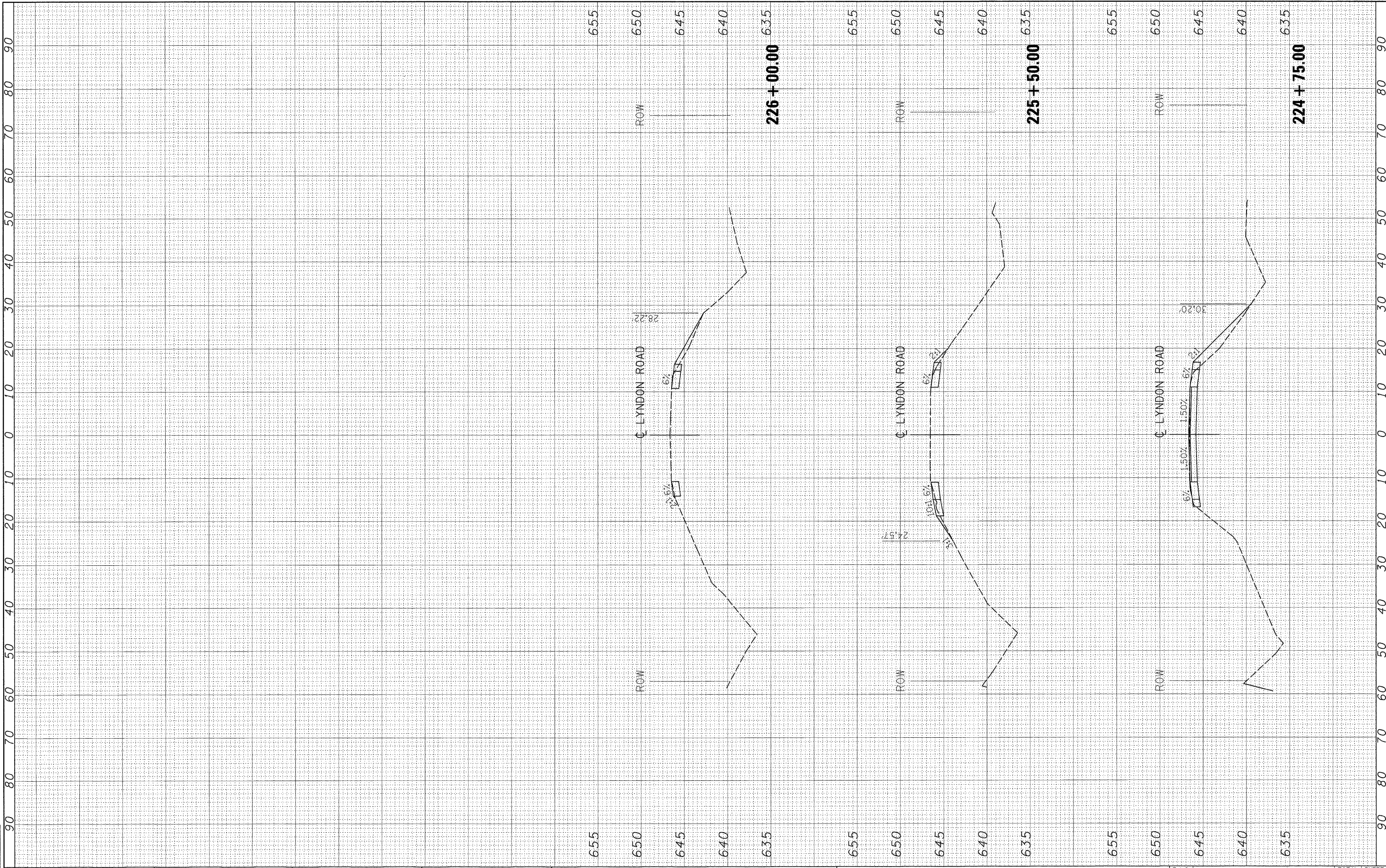
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 CROSS SECTIONS**

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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
CONTRACT NO. 85506				



LAYOUT	MWH	09/03/09
DRAWN	MWH	12/17/09
REVIEWED	DPA	12/17/09



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CHECKED - DPA

REVISED -

PLLOT DATE = 12/10/2009

DATE - 12/11/09

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LYNDON ROAD BRIDGE  
CROSS SECTIONS

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. 224+75.00 TO STA. 226+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
76	06-000183-00-BR	WHITESIDE	21	21
CONTRACT NO. 85506				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		