

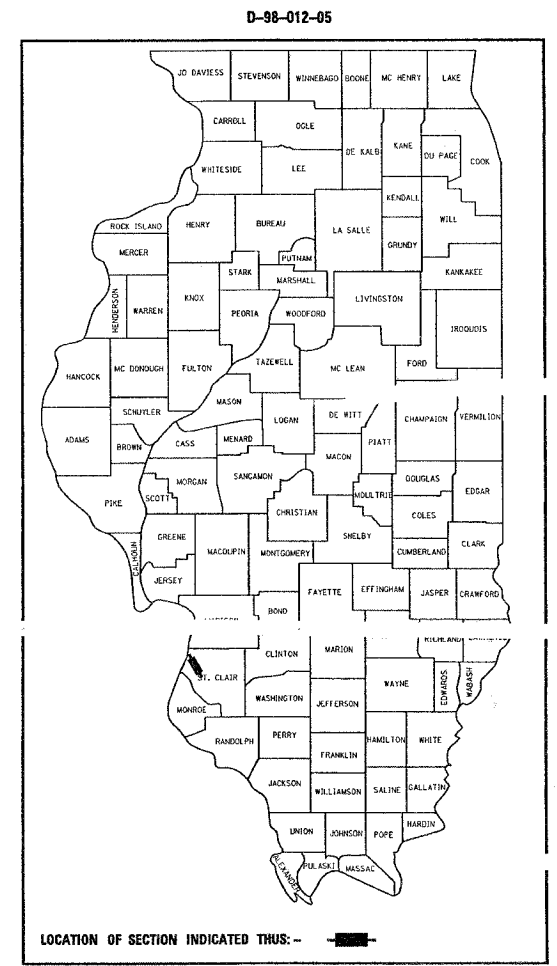
FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-2	ST. CLAIR	13	1

CONTRACT NO. 76862

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

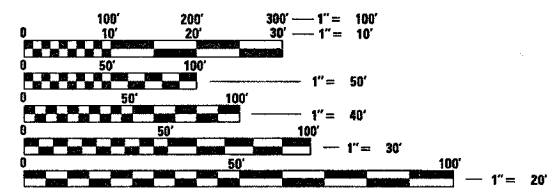
**PROPOSED
HIGHWAY PLANS**
FAP ROUTE 609 (IL 163)
SECTION 76-1BR-2
PROJECT NO. (ACBHF)-0609(015)
SUPERSTRUCTURE REPLACEMENT
ST. CLAIR COUNTY
C-98-030-05

FOR INDEX OF SHEETS, SEE SHEET NO. 2



PROJECT ENGINEER: PATTI LeBEAU (618) 346-3179
SQUAD CONTACT: ART MUEHLFELD (618) 346-3209

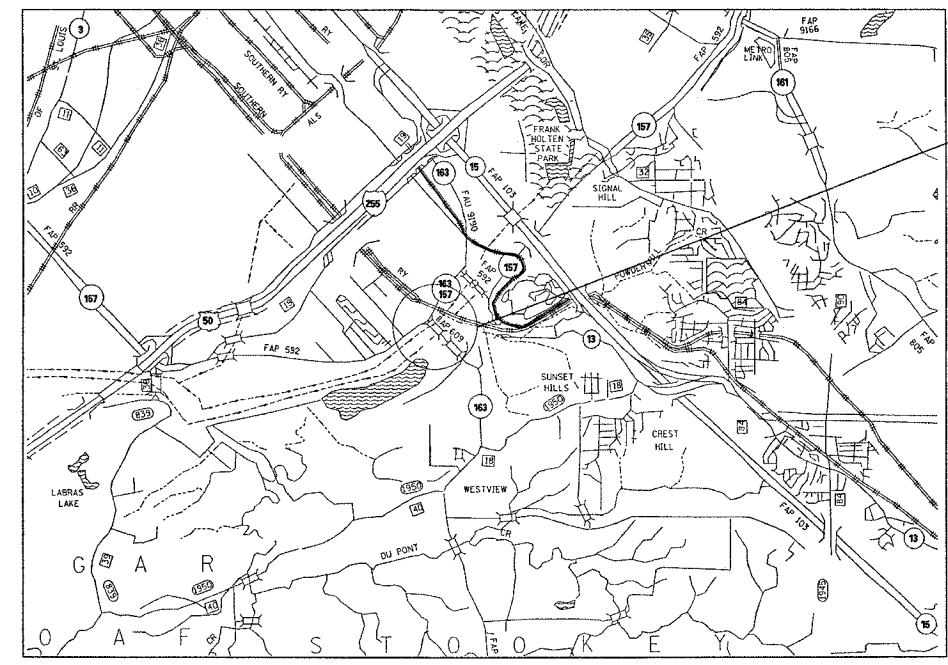
MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS



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.

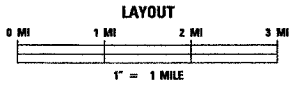
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

CONTRACT NO. 76862



PROJECT LOCATION
IL 163 OVER HARDING DITCH
STA. 10+09.68 TO STA. 12+99.45
TOTAL LENGTH - 127.5' (S.N. 082-0213)

TRAFFIC DATA
ADT = 3900 (2005)
ADT = 4500 (2025)
SU = 1.6%
MU = 3.7%



LAYOUT
LATITUDE X: 38.5562
LONGITUDE Y: 90.1102

GROSS LENGTH = .024 MI.
NET LENGTH = .024 MI.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 31 2005
Udy O'Rami
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

October 14 2005
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT

October 14 2005
Eric E. Hara
DEPUTY DIRECTOR, DIVISION OF HIGHWAYS

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

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-2	ST. CLAIR	13	2
STA.		TO STA.		
		CONTRACT NO.: 76862		

EROSION AND SEDIMENT CONTROL PLAN

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES AND TRANSITION DETAIL
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTIONS
5. TIE POINTS & SCHEDULES
6. PLAN AND ELEVATION
7. PAVEMENT MARKING SHEET
8. DETOUR SIGNING SHEET
- 9.-13. BRIDGE PLANS S.N. 082-0213

HIGHWAY STANDARDS

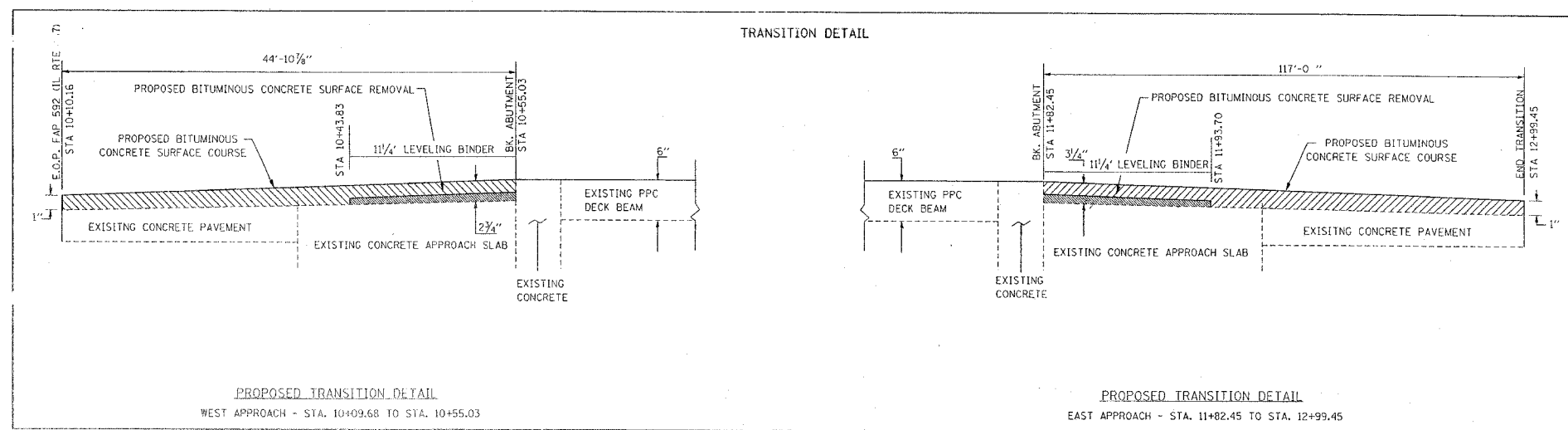
000001-04	635006-02
001001	635011-01
001006	701006-02
420401-05	701011-01
515001-02	702001-05
630001-05	780001-01
631032-01	781001-02
	B.L.R. 21-6

MIXTURE TYPE	AGGREGATE	LEVELING COURSE
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	10%	15%
DESIGN AIR VOID	4% Ndes=70	4% Ndes=70
MIX COMPOSITION (GRADATION MIXTURE)		
FRICTION AGG	MIXTURE "C"	MIXTURE "C"

GENERAL NOTES:

1. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
3. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING BY CALLING J.U.L.I.E. AND BY NOTIFYING NON-J.U.L.I.E. MEMBERS INDIVIDUALLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - AMERINIP
 - AMERIN-UE
 - CHARTER COMMUNICATIONS, INC.
 - COMMONFIELD OF CAHOKIA PUBLIC WATER DISTRICT
 - ILLINOIS AMERICAN WATER CO.
 - MCI NETWORK SERVICES, INC.
 - NETWORKS, 360
 - SBC
 - VERIZON NORTH, INC.
MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY *. NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL WOOD SIGN SUPPORTS IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS; HOWEVER, INSTALLATION BY METHOD 'A' (ARTICLE 730.04(a)) SHALL BE THE ONLY METHOD PERMITTED.
5. SAW CUTTING ON ALL EDGES FOR REMOVAL ITEMS SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEM AS INDICATED AND ACCORDING TO SECTION 440 OF THE STANDARD SPECIFICATIONS.
6. THE THICKNESS OF THE BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
7. AN ESTIMATED QUANTITY OF 50 CU YD OF FURNISHED EXCAVATION HAS BEEN ADDED TO THE CONTRACT FOR ADDITIONAL EARTH BEHIND THE GUARDRAIL.
8. THE EXISTING BEAMS SHALL BE CAREFULLY REMOVED AND DISPOSED OF OUTSIDE OF THE JOB SITE.

1. PLANS INCLUDE ESTIMATED QUANTITIES FOR TEMPORARY EROSION AND SEDIMENT CONTROL. THESE ARE WORST CASE ESTIMATES. DISTURBANCE OF AREAS BEYOND THE LIMITS OF ACTUAL IMPROVEMENT IS TO BE HELD TO A MINIMUM.
2. TEMPORARY SEEDING AND MULCH SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS EXCEPT THAT MULCH AND TEMPORARY SEEDING SHALL BE PAID FOR AS TEMPORARY EROSION CONTROL SEEDING AND NO OTHER PAYMENT WILL BE PERMITTED.
3. ALL AREAS DISTURBED FOR ANY REASON SHALL BE SEEDED WITH CLASS 2 SEEDING AS DIRECTED BY THE ENGINEER. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04 EXCEPT FERTILIZER NUTRIENTS WILL NOT BE PAID FOR SEPARATELY AS INCLUDED IN THE COST OF CLASS 2 SEEDING.
4. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.
5. EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
6. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR 'EARTH EXCAVATION' AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES AND TRANSITION DETAIL
 FAP ROUTE 609 (IL 163)
 SECTION 76-1BR-2
 ST. CLAIR COUNTY

PLOT DATE = #DATE#
 FILE NAME = #FILE#
 PLOT SCALE = #SCALE#
 REFERENCE = #REF#

SUMMARY OF QUANTITIES

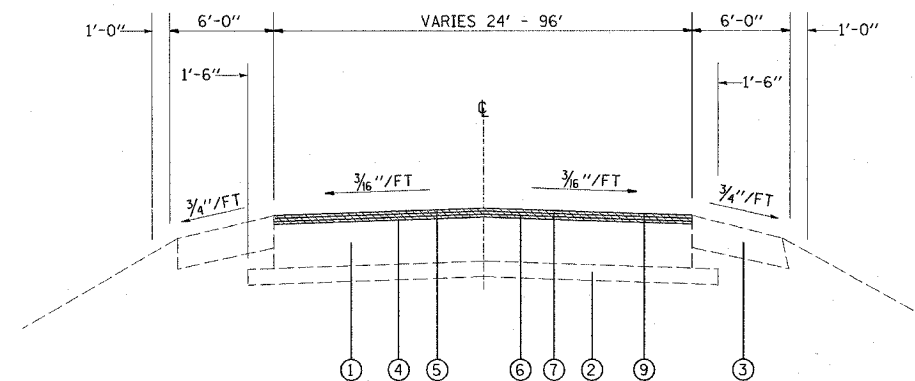
PROJECT	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-2	ST. CLAIR	13	3
STA.		TO STA.		
CONTRACT NO. 76862				

SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL		CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT	QUANTITIES	BRIDGE X080-2A		
				SN 082-0213		
20400800	FURNISHED EXCAVATION	CU YD	50	50		
25000210	SEEDING, CLASS 2A	ACRE	0.5	0.5		
25100105	MULCH, METHOD 1	ACRE	0.5	0.5		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100	100		
40600300	BITUMINOUS MATERIAL (PRIME COAT)	TON	0.2	0.2		
44000030	BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	416	416		
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	11	11		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	6	6		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1		
50102400	CONCRETE REMOVAL	CU YD	18.7	18.7		
50104000	BRIDGE RAIL REMOVAL	FOOT	255	255		
50300225	CONCRETE STRUCTURES	CU YD	18.7	18.7		
50300800	PROTECTIVE COAT	SQ YD	450	450		
50300260	BRIDGE DECK GROOVING	SQ YD	405	405		
50301245	FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	8	8		
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	4092	4092		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7810	7810		
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	255	255		
51500100	NAME PLATES	EACH	1	1		
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	125	125		
63301210	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	25	25		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	619	619		
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	18	18		
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	500	500		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	7	7		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	6		
X0320887	POLYMER CONCRETE	CU FT	2.3	2.3		
X0322932	SILICONE JOINT SEALER, 1.5"	FOOT	67	67		
X0324952	DETOUR SIGNING	L. SUM	1	1		
X4066416	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N70	TON	20	20		
X4066770	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N70	TON	20	20		
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	456	456		
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	38	38		

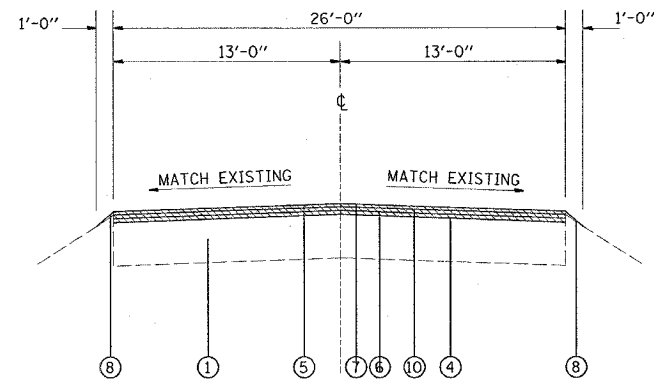
*SPECIALTY ITEMS

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-1	ST. CLAIR	13	4
STA. _____ TO STA. _____		CONTRACT NO.: 76862		

PLAN	DATE
BY	
DESIGNED	
PLOTTED	
INSTRUMENTED	
NOTED	
NO. _____	
CADD FILE NAME	

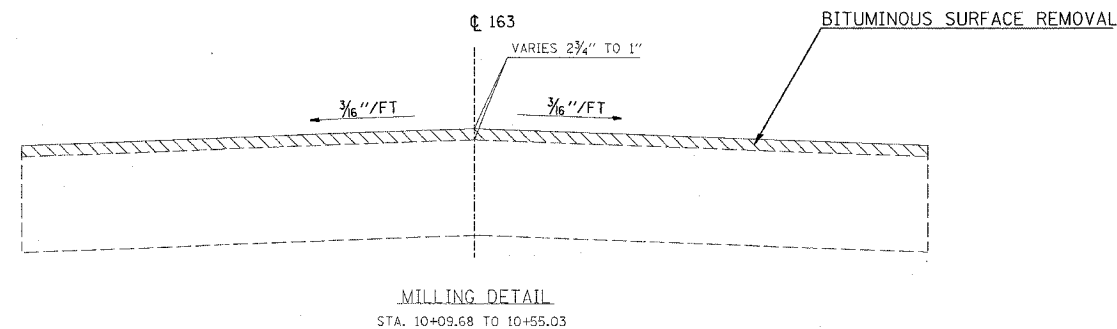


TANGENT SECTION
STA. 10+09.68 TO STA. 10+55.03

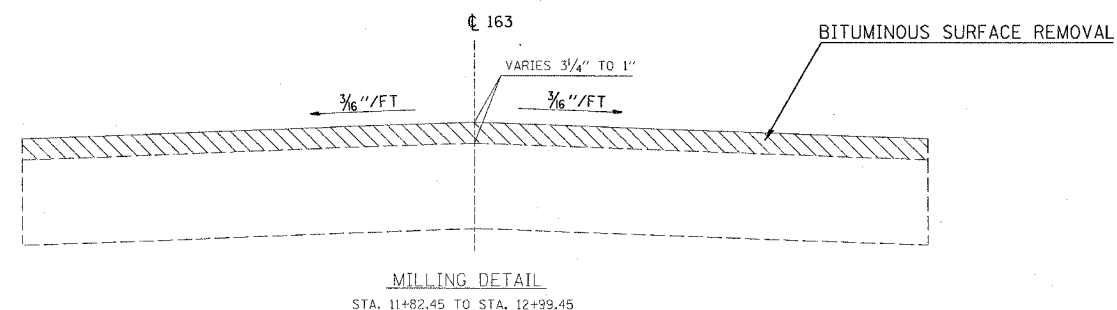


TANGENT SECTION
STA. 11+82.45 TO STA. 12+99.45

- LEGEND**
- ① EXISTING CONCRETE PAVEMENT 9-6-9
 - ② EXISTING STABILIZED SUB-BASE, 4"
 - ③ EXISTING BITUMINOUS SHOULDERS 6"
 - ④ EXISTING BITUMINOUS CONCRETE SURFACE, VARIES
 - ⑤ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
 - ⑥ PROPOSED LEVELING BINDER (MACHINE METHOD)
 - ⑦ PROPOSED BITUMINOUS SURFACE COURSE, SUPERPAVE, VARIES
 - ⑧ PROPOSED AGGREGATE SHOULDER TYPE B - 2"
 - ⑨ PROPOSED BITUMINOUS SURFACE REMOVAL, VARIES
 - ⑩ PROPOSED BITUMINOUS SURFACE REMOVAL, VARIES



MILLING DETAIL
STA. 10+09.68 TO STA. 10+55.03



MILLING DETAIL
STA. 11+82.45 TO STA. 12+99.45



NOTE: SEE TRANSITION DETAILS, SHEET NO. 2 FOR ADDITIONAL INFORMATION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
FAP ROUTE 609 (IL ROUTE 163)
SECTION 76-1BR-2
ST. CLAIR COUNTY
DRAWN BY:

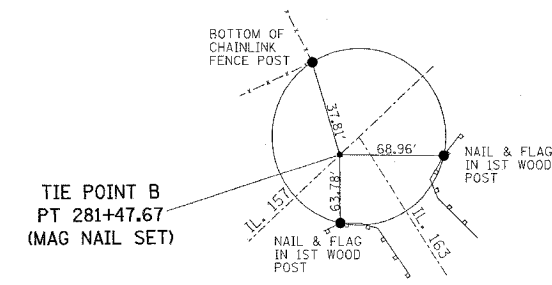
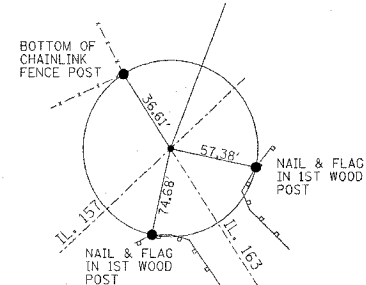
PLOT DATE: *DATE-TIME*

BOATERS
DATE-TIME
DIR-SPEC
REF

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-1	ST. CLAIR	13	5
STA.		TO STA.		
CONTRACT NO. 76862				

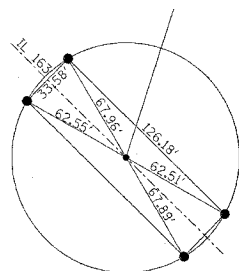
PLAN	DATE	BY
SURVEYED		
NOTE BOOK		
NO.		
ALIGNED CHECKED		
PLotted CHECKED		
FILED		

TIE POINT A
 STA. 281+63.20 IL 157
 STA. 9+80.08 IL 163
 (MAG NAIL SET)

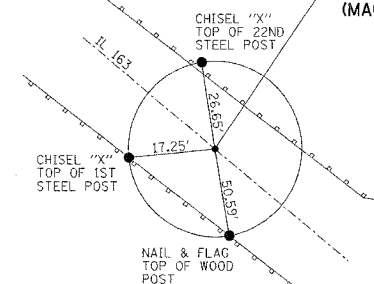


TIE POINT B
 PT 281+47.67
 (MAG NAIL SET)

CHISEL "X"
 CENTER OF
 BRIDGE
 STA. 11+18.44



TIE POINT
 POT STA 17+80.00
 (MAG NAIL SET)



RESURFACING SCHEDULE

LOCATION	BITUMINOUS CONCRETE SURFACE COARSE, SUPERPAVE MIX "C", N70	BITUMINOUS MATERIALS (PRIME COAT)	LEVELING BINDER SUPERPAVE, IL-19.0 N70
	TON	TON	TON
STA. 10+09.68 TO STA. 10+55.03	6	0.1	6
STA. 11+82.45 TO STA. 12+99.45	14	0.1	14
TOTALS	20	0.2	20

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TIE POINTS &
 SCHEDULE

FAP ROUTE 609 (IL ROUTE 163)
 SECTION 76-1BR-2
 ST. CLAIR COUNTY

DRAWN BY:

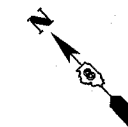
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FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-2	ST. CLAIR	13	6
STA.		TO STA.		
CONTRACT NO. 76862				

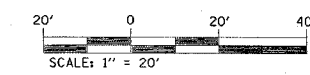
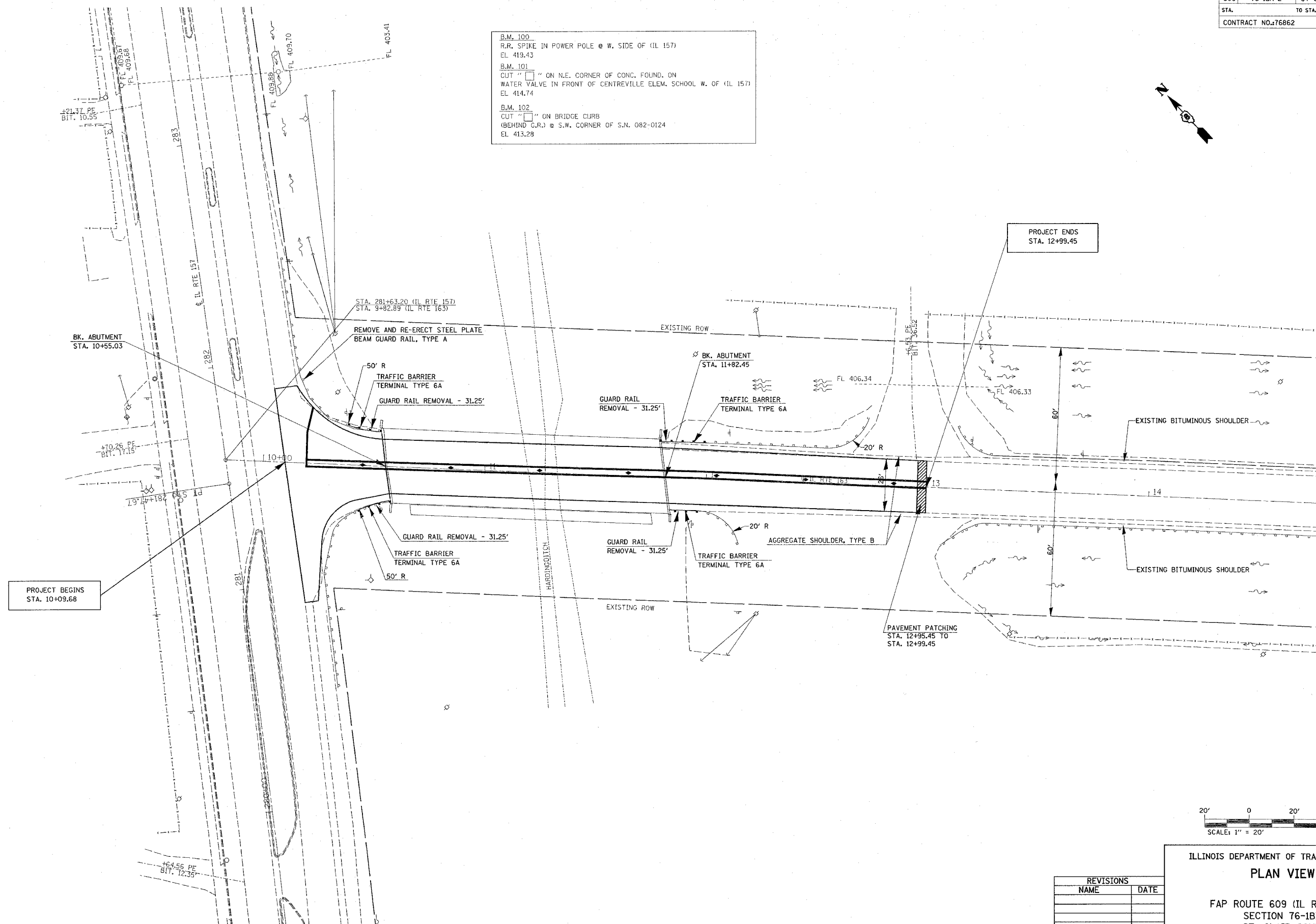
B.M. 100
R.R. SPIKE IN POWER POLE @ W. SIDE OF (IL 157)
EL. 419.43

B.M. 101
CUT " " ON N.E. CORNER OF CONC. FOUND. ON
WATER VALVE IN FRONT OF CENTREVILLE ELEM. SCHOOL W. OF (IL 157)
EL. 414.74

B.M. 102
CUT " " ON BRIDGE CURB
(BEHIND C.R.) @ S.W. CORNER OF S.N. 082-0124
EL. 413.28



PLAN	SURVEYED	DATE
NOTE BOOK	ALIGNED	
NO.	CHECKED	
	BY	
	FILE NAME	
	CHECKED	



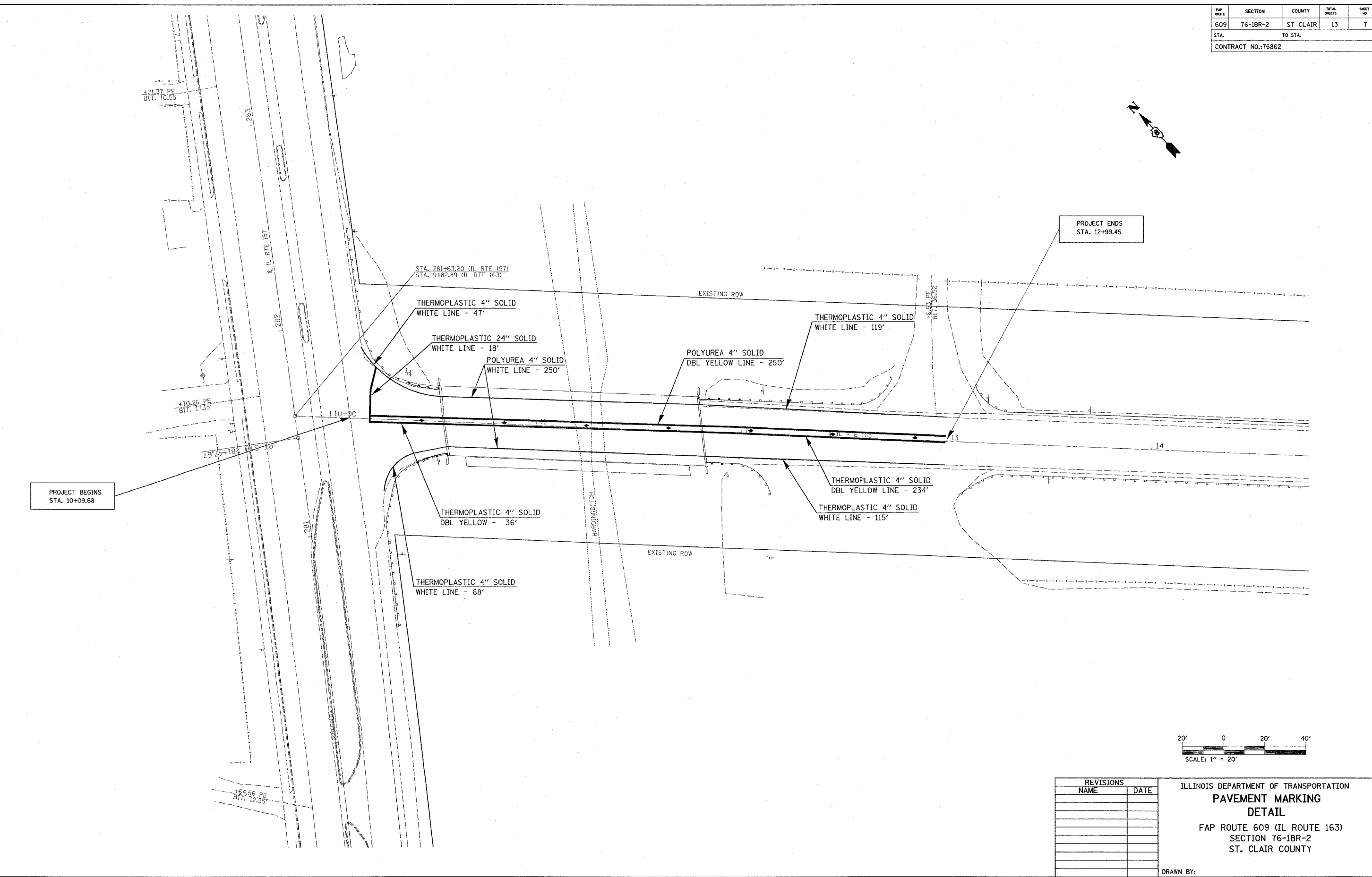
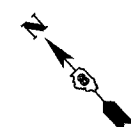
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN VIEW
FAP ROUTE 609 (IL ROUTE 163)
SECTION 76-1BR-2
ST. CLAIR COUNTY

DRAWN BY:
PLOT DATE: *DATE-TIME*

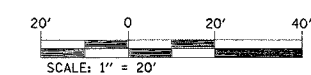
DATE
DATE-TIME
CON-SPEC
REF

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
609	76-1BR-2	ST CLAIR	13	7
STA.		TO STA.		
CONTRACT NO.: 76862				



PROJECT BEGINS
STA. 10+09.68

PROJECT ENDS
STA. 12+99.45



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKING
 DETAIL**
 FAP ROUTE 609 (IL ROUTE 163)
 SECTION 76-1BR-2
 ST. CLAIR COUNTY

DRAWN BY:
 PLOT DATE: *DATE-TIME*

DATE-TIME
 CON-SPEC
 REF

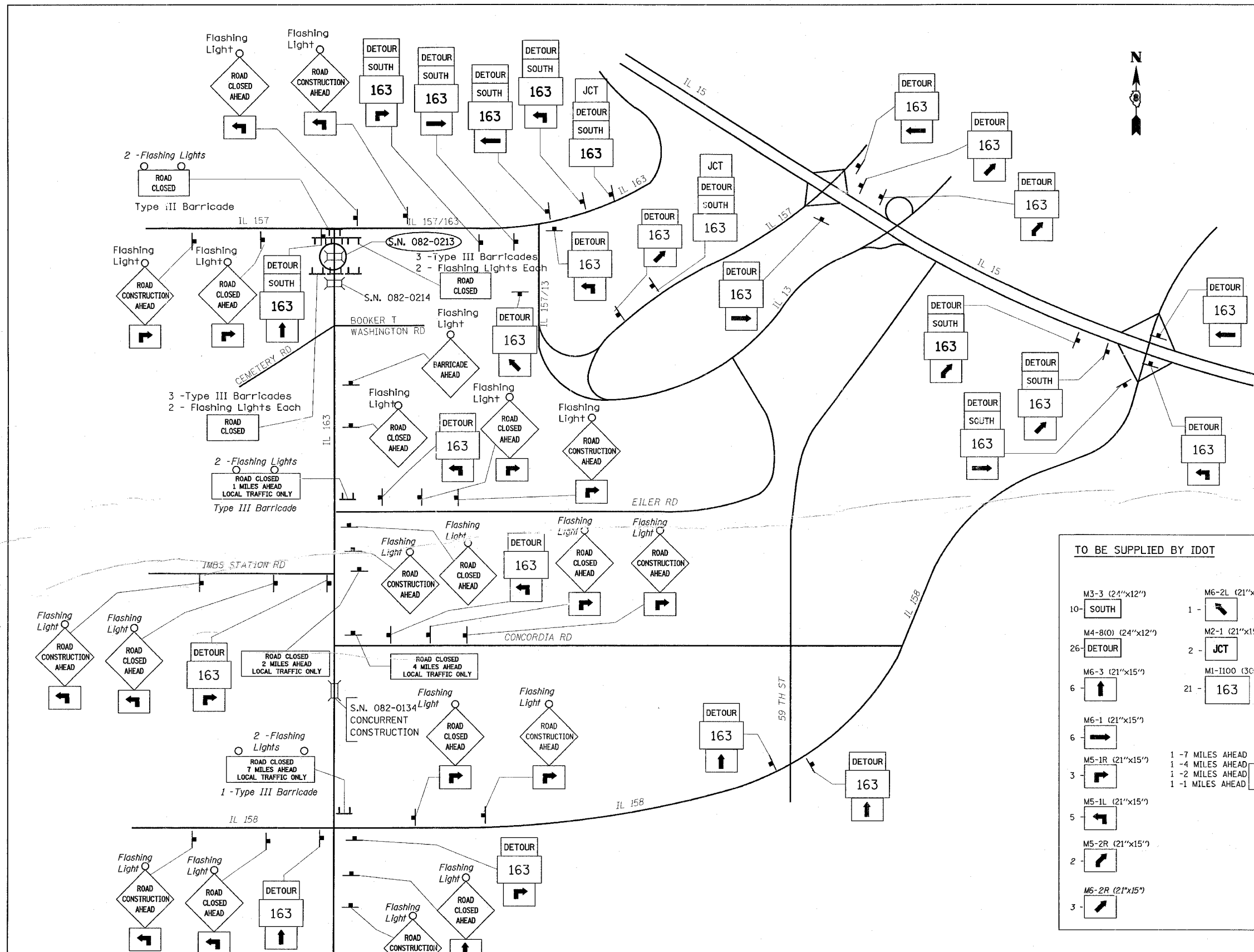
FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
609	76-1BR-2	ST. CLAIR	30	8
STA.	TO STA.			
EXISTING CONDITIONS:				

NOTES:

- SIGNS REQUIRED SHALL BE SUPPLIED BY I.D.O.T. AND BY THE CONTRACTOR, AS NOTED BELOW. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR THE SIGNS WHICH SHALL BE SUPPLIED BY I.D.O.T. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE TM BUILDING AT 9601 ST. CLAIR AVE. IN FAIRVIEW HEIGHTS.
- THE CONTRACTOR SHALL REMOVE AND RETURN THE SIGNS THAT WERE SUPPLIED BY I.D.O.T. TO THE TM BUILDING IN FAIRVIEW HEIGHTS AFTER THE CONTRACT HAS BEEN COMPLETED.
- THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR DETOUR SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED, EXCEPT FOR PAYMENT OF SIGNS THAT WILL BE SUPPLIED BY THE CONTRACTOR.
- THE SIGNS THAT ARE TO BE SUPPLIED BY THE CONTRACTOR SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21
- SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
- THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.



DATE	
BY	
DESIGNED	
PLANNED	
CHECKED	
FILE NAME	
NO.	



TO BE SUPPLIED BY IDOT		TO BE SUPPLIED BY CONTRACTOR	
M3-3 (24"x12") 10- SOUTH	M6-2L (21"x15") 1 -	R11-2 (48"x30") 2 - ROAD CLOSED	M5-1R(O) (24"x24") 6 -
M4-8(O) (24"x12") 26- DETOUR	M2-1 (21"x15") 2 - JCT	W20-1(O) (48"x48") 6 - ROAD CONSTRUCTION AHEAD	M5-1L(O) (24"x24") 4 -
M6-3 (21"x15") 6 -	M1-1100 (30"x24") 21 - 163	ww20-3(O) (48"x48") 7 - ROAD CLOSED AHEAD	9 - TYPE III BARRICADES
M6-1 (21"x15") 6 -	M5-1R (21"x15") 3 -	W21-1100(O) (48"x48") 1 - BARRICADE AHEAD	38 - FLASHING LIGHTS
M5-1R (21"x15") 3 -	M5-1L (21"x15") 5 -		
M5-1L (21"x15") 5 -	M5-2R (21"x15") 2 -		
M5-2R (21"x15") 2 -	M6-2R (21"x15") 3 -		
M5-1R (21"x15") 3 -			

NOT TO SCALE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETOUR SIGNING
S.N. 082-0213
 FAP ROUTE 609 (IL ROUTE 163)
 SECTION 76-1BR-2
 ST. CLAIR COUNTY
 DRAWN BY:
 PLOT DATE: 9/13/2005

9/13/2005
 9:43:11 AM
 c:\pfr\01601\68e0c012059p\ang@h01205a.dgn
 *REF.
 *REF.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		St. Clair		9
SHEET NO. 1 5 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
Contract Number: --- 76862				

GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

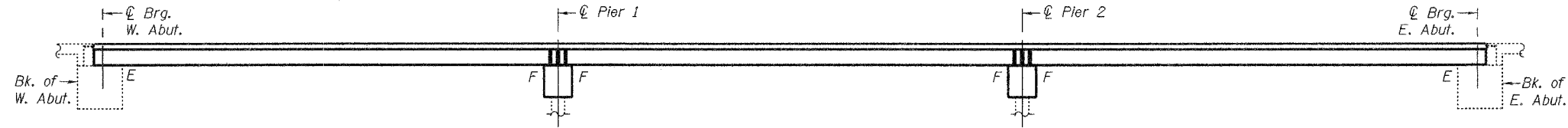
The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber. Reinforcement bars shall conform to AASHTO M31 or M322, Grade 60. Existing name plate shall be cleaned and relocated adjacent to the new name plate. Cost included with Name Plates.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of each fascia beam. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

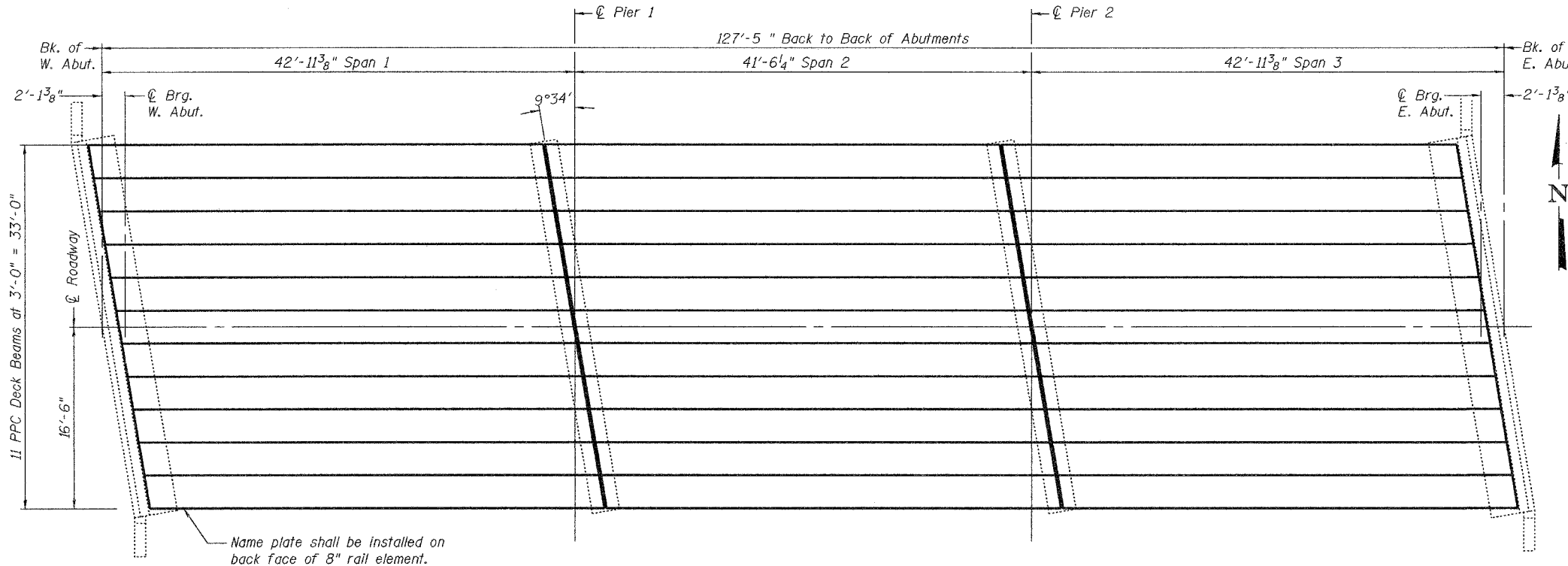
All construction joints shall be bonded. No instream work will be allowed on this project. Repair of the substructure shall be completed prior to placement of the new deck beams.

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

If the contractors procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. If cranes or other heavy equipment will be placed on new beams prior to placement of the concrete wearing surface, it shall be done after the dowel rods are grouted and cured for 24 hours minimum and prior to grouting the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.



ELEVATION



PLAN

LOADING HS20-44
No allowance for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" φ low lax strands)
f'si = 201,960 psi (1/2" φ low lax strands)

STATION 11+18.75
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 609 SEC. 76-1BR-2
LOADING HS20
STR. NO. 082-0213

NAME PLATE
(See Std. 515001)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing Superstructures	Each	1
PPC Deck Beams (17" Depth)	Sq. Ft.	4,092
Concrete Structures	Cu. Yd.	18.7
Asbestos Bearing Pad Removal	Each	38
Reinforcement Bars, Epoxy Coated	Pound	7810
Steel Bridge Rail, Type SM	Foot	255
Polymer Concrete	Cu. Ft.	2.3
Silicone Joint Sealer, 1 1/2"	Foot	67
Concrete Wearing Surface, 5"	Sq. Yd.	456
Bridge Deck Grooving	Sq. Yd.	405
Formed Concrete Repair (≤5")	Sq. Ft.	8
Name Plates	Each	1
Concrete Removal	Cu. Yd.	18.7
Protective Coat	Sq. Yd.	456

PLAN AND ELEVATION
IL 163 / HARDING DITCH

F.A.P. RT. 609
SEC. 76-1BR-2
ST. CLAIR COUNTY
STA. 11+18.75
SN 082-0213

DESIGNED	<i>Paul Johnson</i>
CHECKED	<i>Adrian T. Holloway</i>
DRAWN	<i>PSJ</i>
CHECKED	<i>PSJ ATH</i>

September 22, 2005
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES



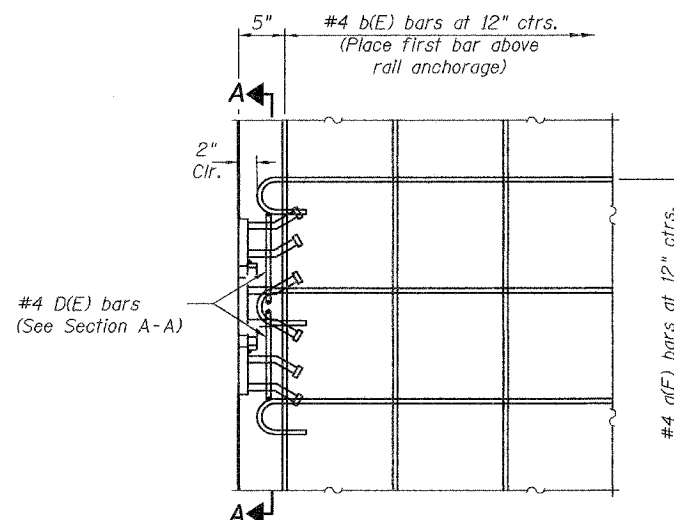
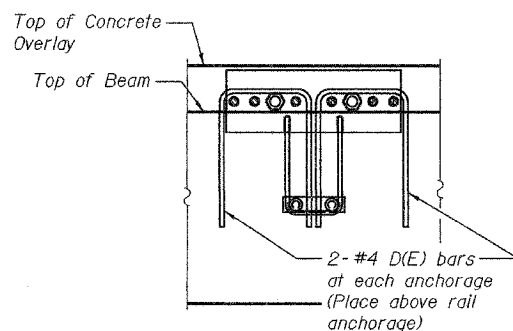
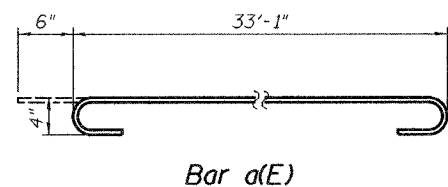
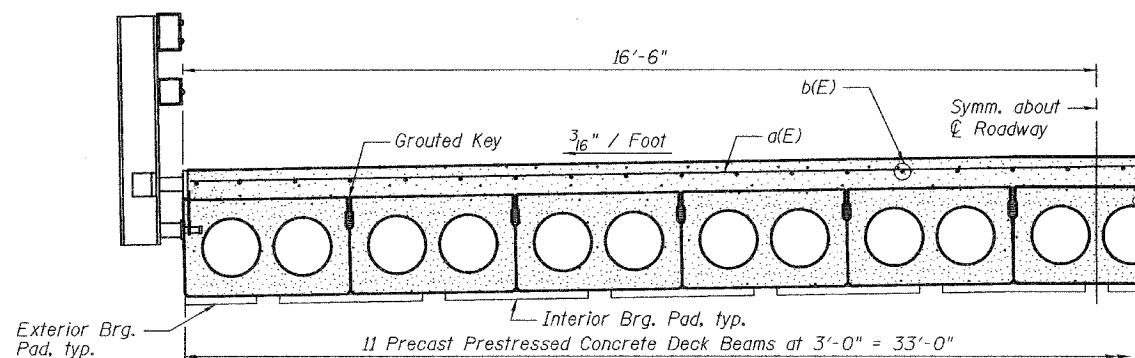
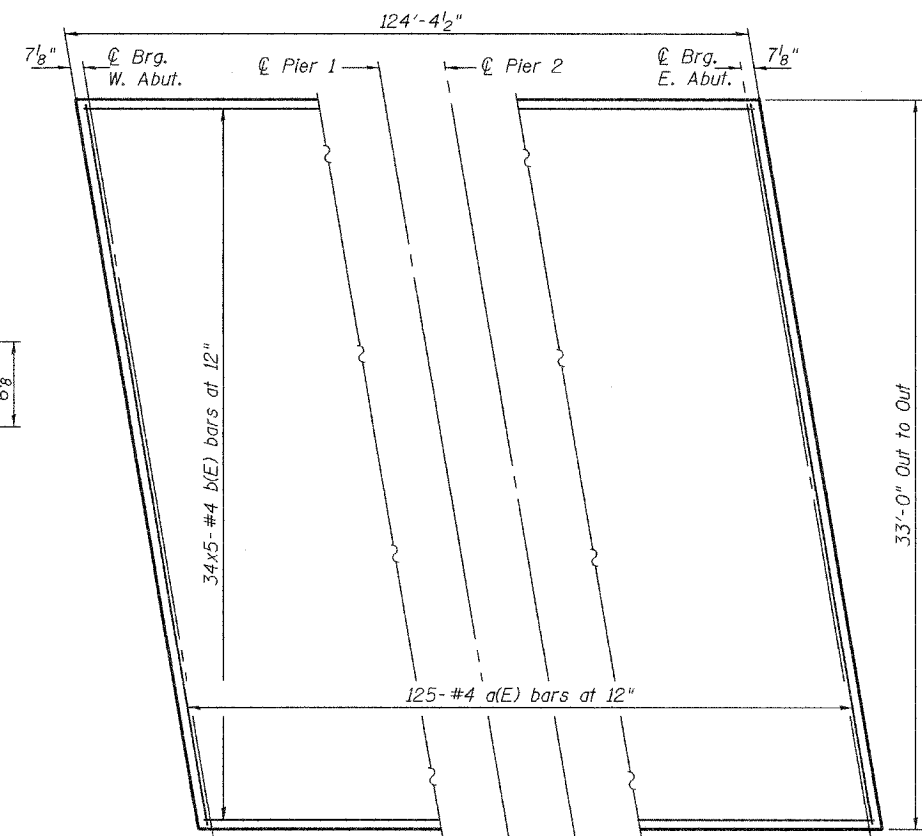
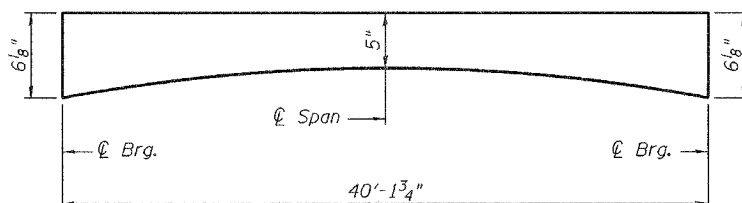
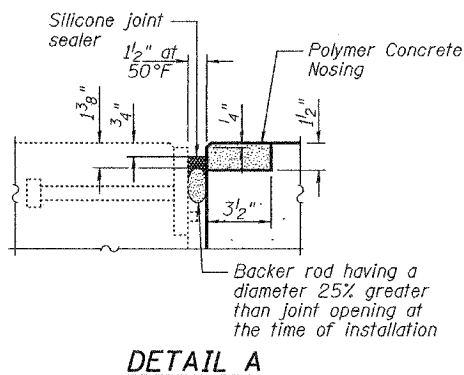
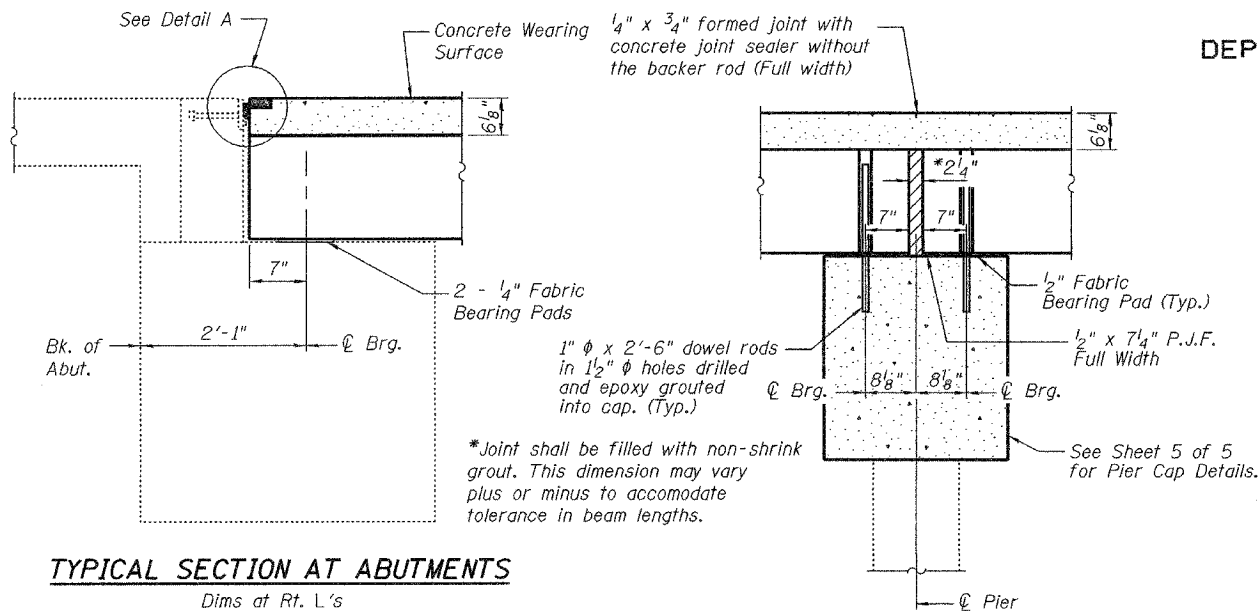
Expires: November 30, 2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		St. Clair	10	2
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract Number: 76862

Notes:
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed 1'-3" Minimum into existing caps. 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.



MIN. BAR LAP
#4 = 1'-4"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	125	#4	34'-1"	
b(E)	170	#4	26'-0"	
Reinforcement Bars, Epoxy Coated			Pound	5,800

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

OVERLAY AND JOINT DETAILS
F.A.P. RT. 609
ST. CLAIR COUNTY
SN 082-0213

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	P.S.J. A.T.H.

September 20, 2005
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

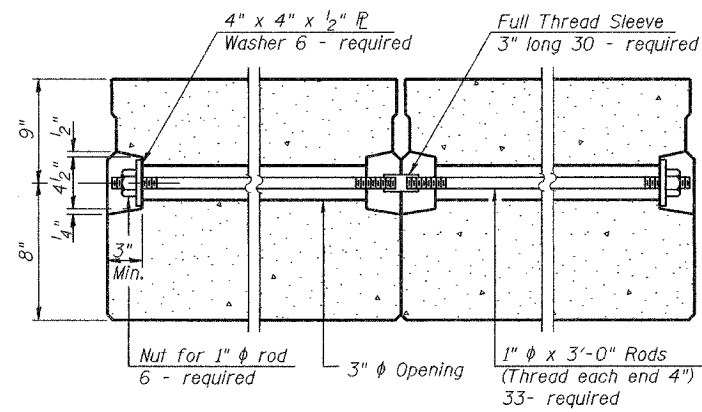
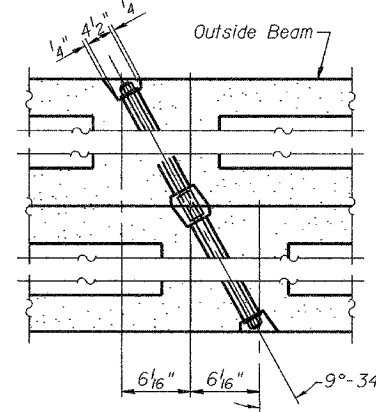
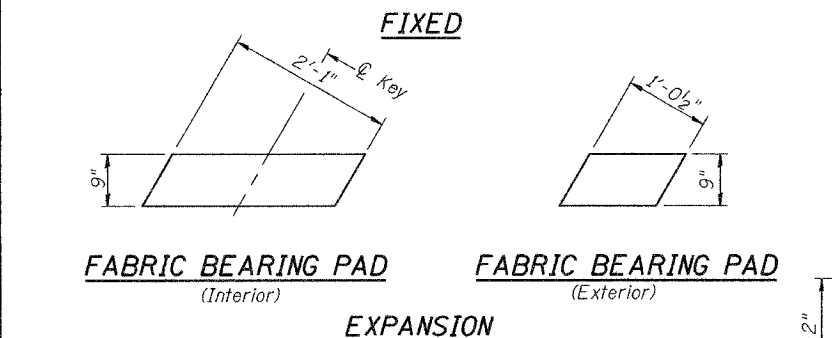
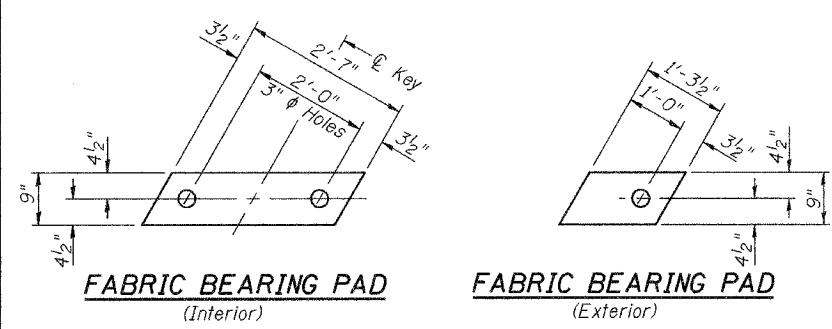
SECTION A-A

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

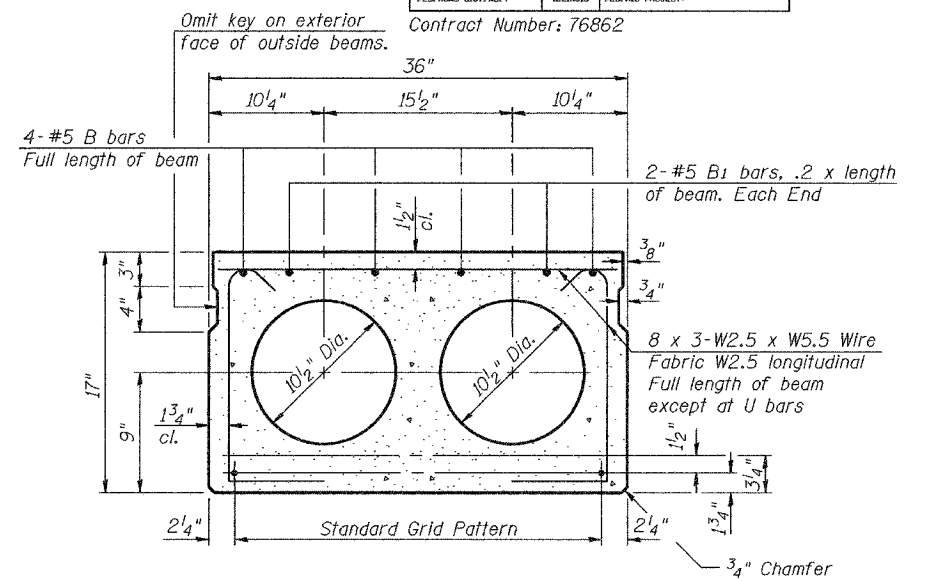
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		St. Clair	11	11
FED. ROAD DIST. NO. 7		BLANKET	FED. AID PROJECT	

SHEET NO. 3
5 SHEETS

Contract Number: 76862

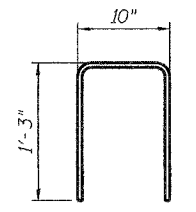
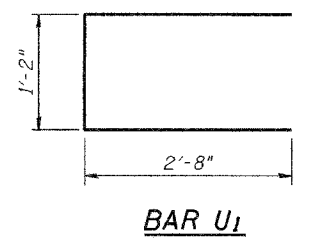


TYPICAL TRANSVERSE TIE ASSEMBLY

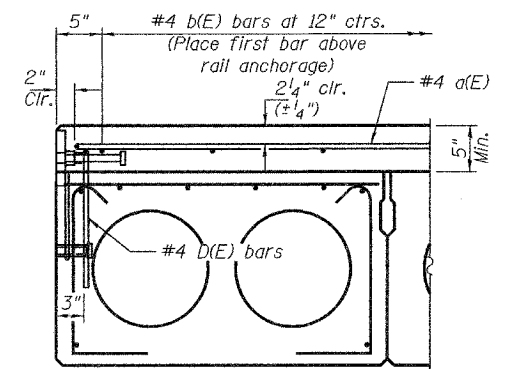


TYPICAL SECTION

1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 1 3/4" up, 4-Strands 3/4" up, 2-Strands 12" up
Note: Place strands symmetrically about ϕ of beam.

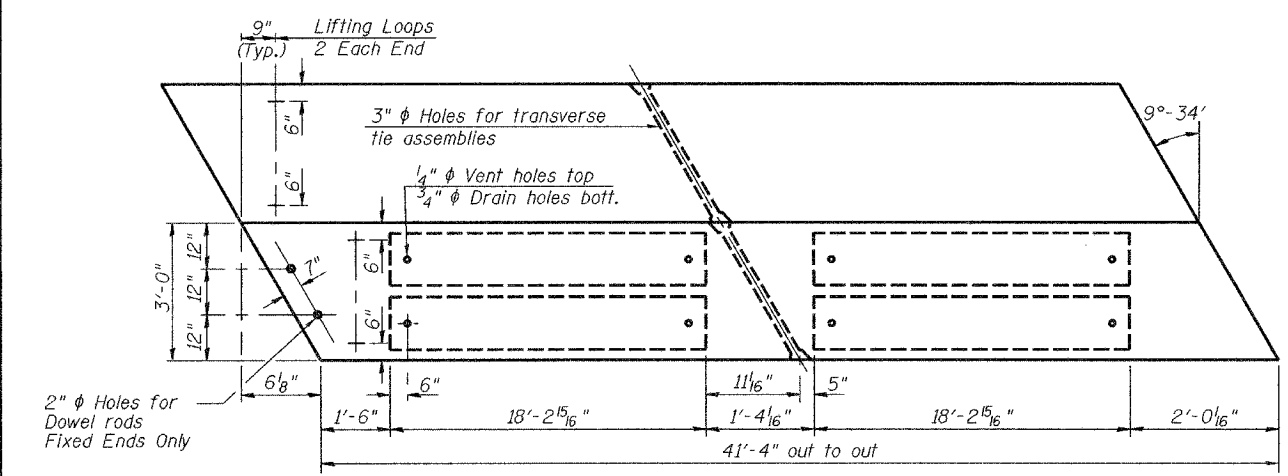


BAR D(E)

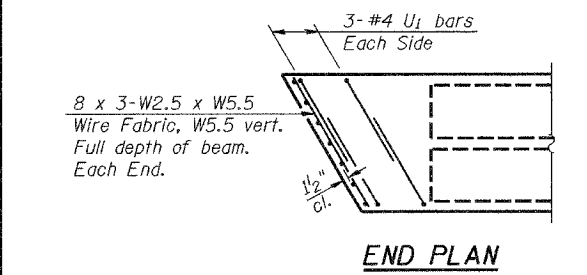


TYPICAL SECTION AT FASCIA BEAM

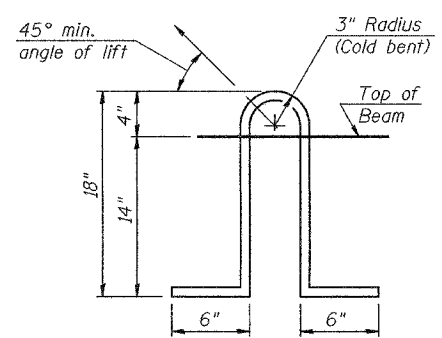
See section thru Interior Beams for strand pattern, dimensions and bar call outs.
Bridge rail inserts shall be cast in precast beams.



PLAN



END PLAN



LIFTING LOOP DETAIL

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. Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to AASHTO M-31 or M-322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	4,092		

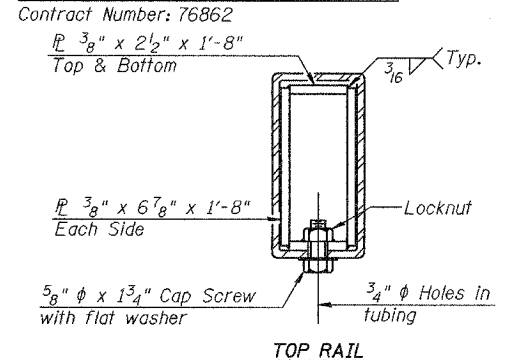
BEAM DETAILS
F.A.P. RT. 609
ST. CLAIR COUNTY
SN 082-0213

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	P.S.J. A.T.H.

September 20, 2005
EXAMINED John A. Morris ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		St. Clair	12	4
SHEET NO. 4 5 SHEETS				



SECTIONS AT RAIL SPLICE

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

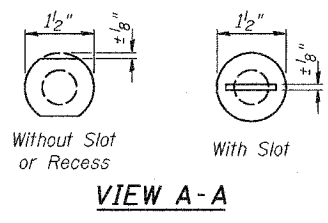
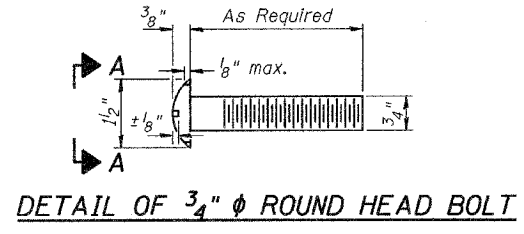
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

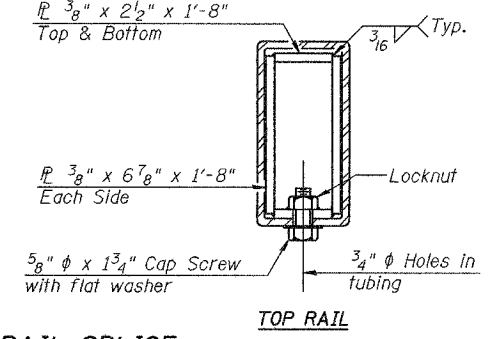
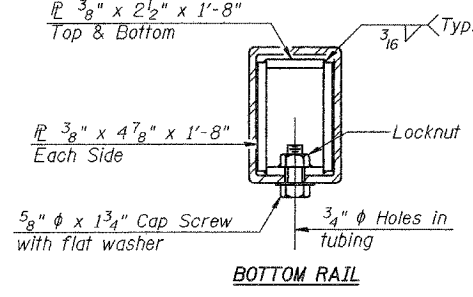
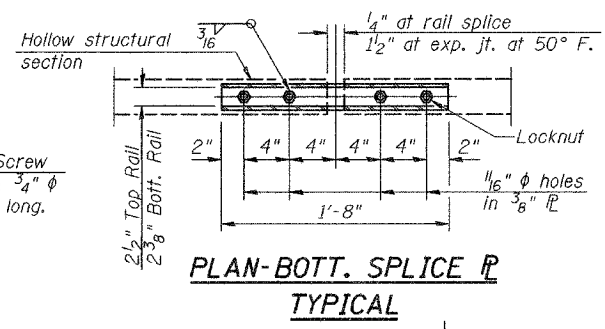
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.

The 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pads between the plates and concrete.

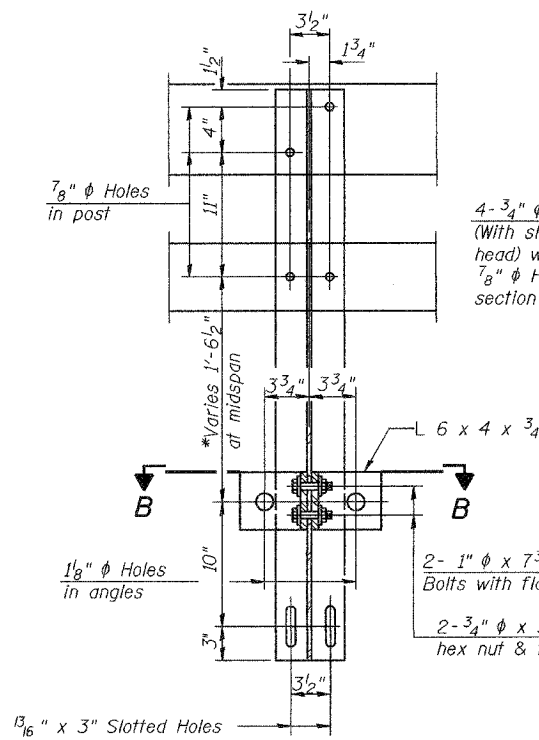
The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.



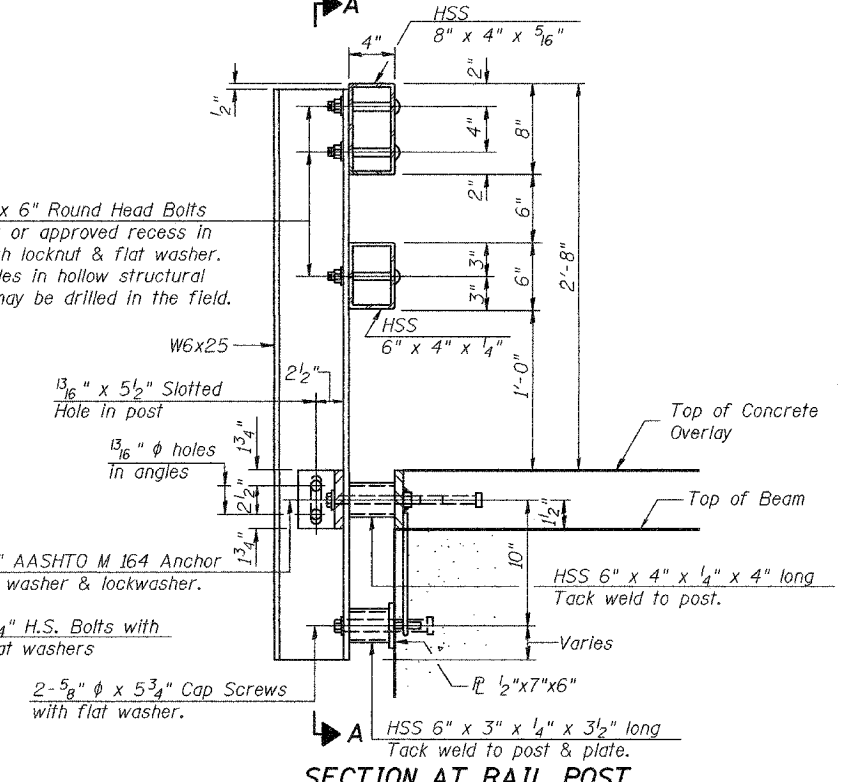
RAIL SPLICE CONNECTION
AT EXPANSION JT.



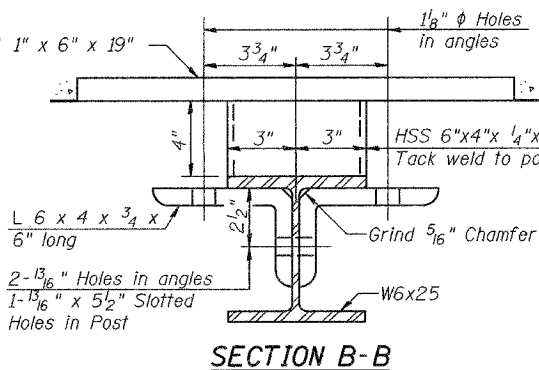
*Dimension is based on a 5" wearing surface thickness at midspan.



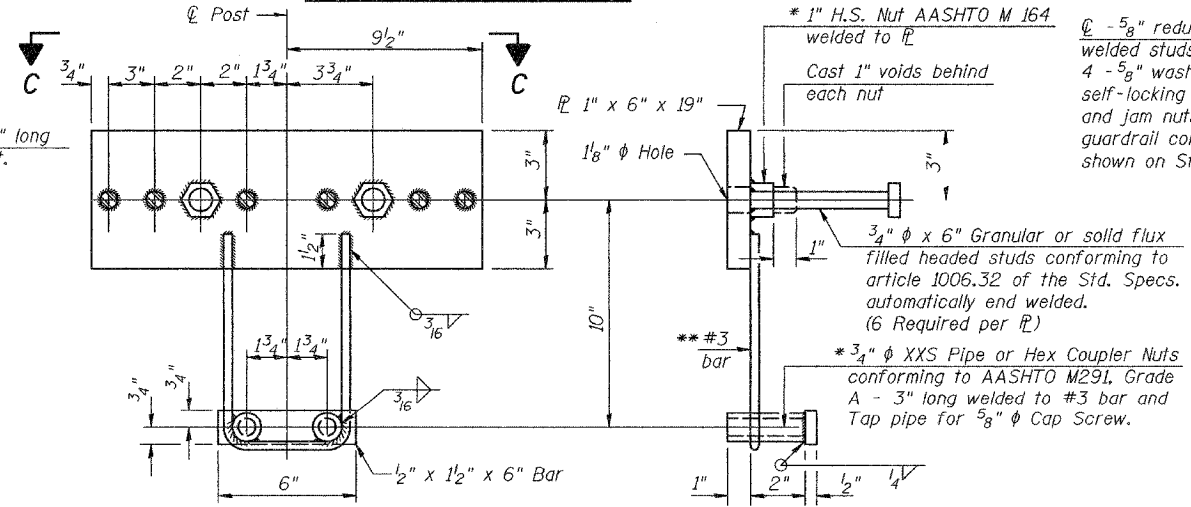
SECTION A-A



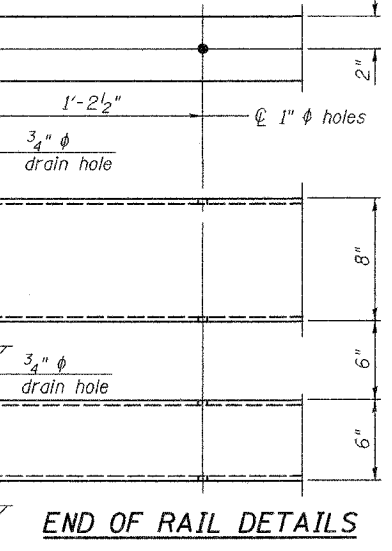
SECTION AT RAIL POST



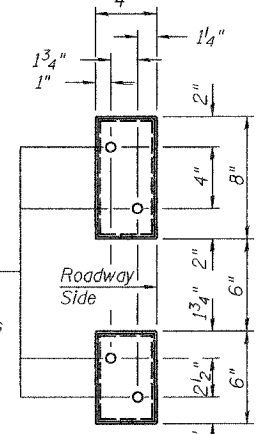
SECTION B-B



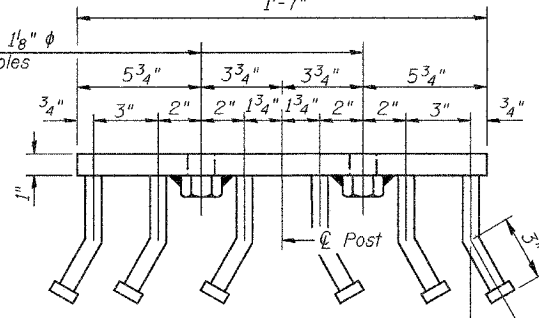
ANCHOR DEVICE



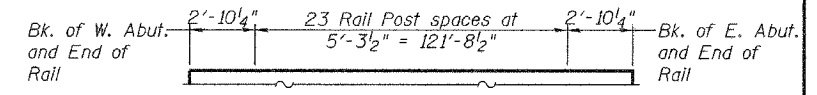
END OF RAIL DETAILS



VIEW B-B



VIEW C-C



RAIL POST SPACING

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	255

SIDE MOUNT BRIDGE
RAIL DETAILS
F.A.P. RT. 609
ST. CLAIR COUNTY
SN 082-0213

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	P.S.J. A.T.H.

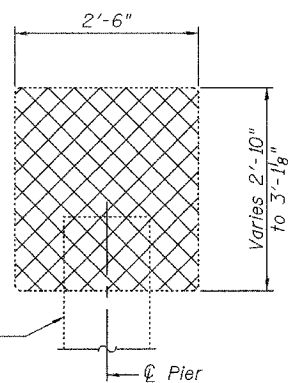
September 20, 2005
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

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

(6'-3" Max Post Spacing)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

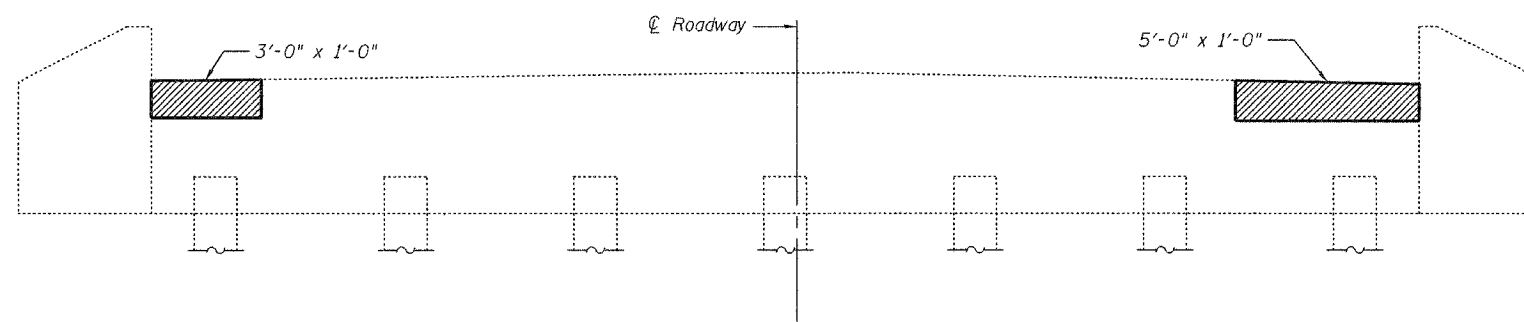
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 5 SHEETS
		St. Clair		13	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract Number: ---76862		



Care shall be taken during pier cap removal as not to damage existing piles.

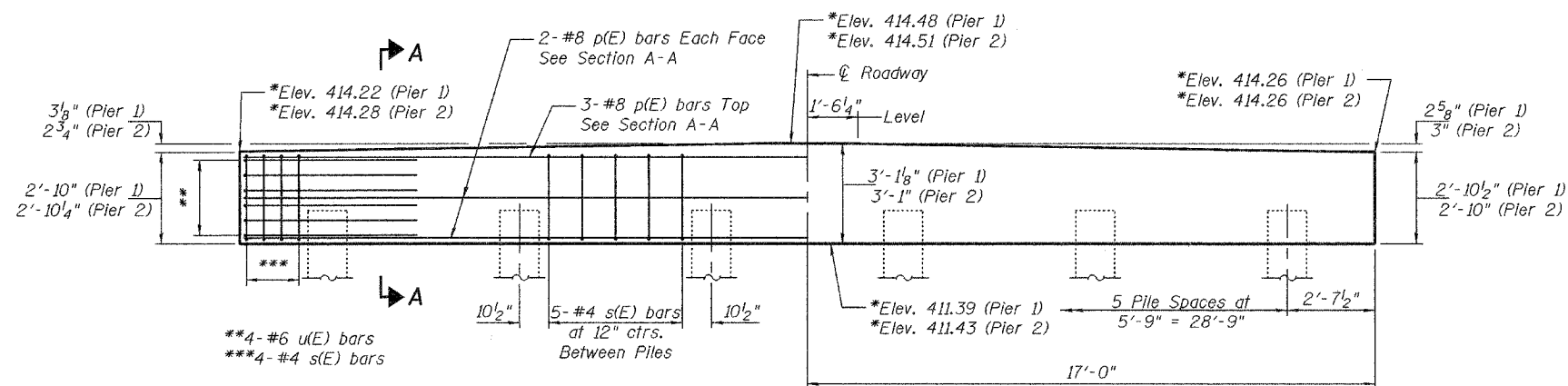
**SECTION A-A
SHOWING REMOVAL**

Note:
Cross hatched area indicates areas of concrete removal.



**WEST ABUTMENT ELEVATION
(Looking West)**

Note
Hatched area indicates approximate area of Formed Concrete Repair. Exact repair area to be determined by Engineer.



SHOWING REINFORCING

SHOWING DIMENSIONS

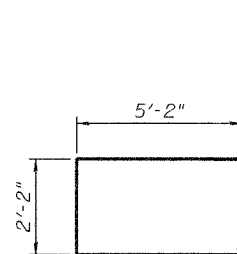
**TYPICAL PIER CAP ELEVATION
(Looking East)**

*Elevations shown have been obtained from existing plans and are provided for **INFORMATION ONLY**. It is the contractor's responsibility to mark the elevation of the existing pier caps so that new caps can be built to the exact same elevation.

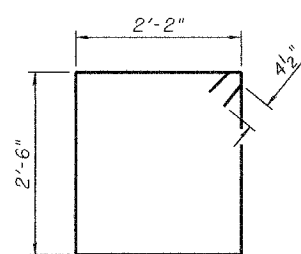
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	14	#8	33'-9"	—
s(E)	66	#4	10'-1"	□
u(E)	16	#6	12'-6"	—
Reinforcement Bars, Epoxy Coated			Pound	2,010

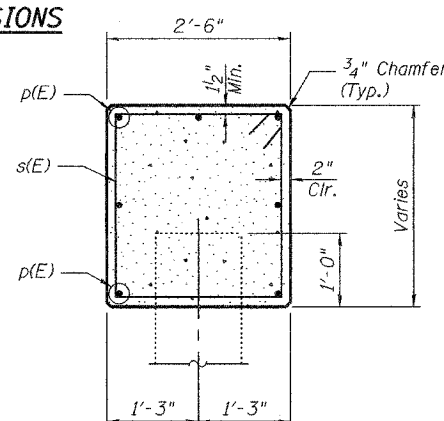
Reinforcement bars designated (E) shall be epoxy coated.



BAR u(E)



BAR s(E)



SECTION A-A

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	P.S.J. A.T.H.

September 20, 2005
 EXAMINED *John A. Morris*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

**PIER CAP REPLACEMENT AND
FORMED CONCRETE DETAILS**
 F.A.P. RT. 609
 ST. CLAIR COUNTY
 SN 082-0213