CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	1

11-17-06 Letting, Item 010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

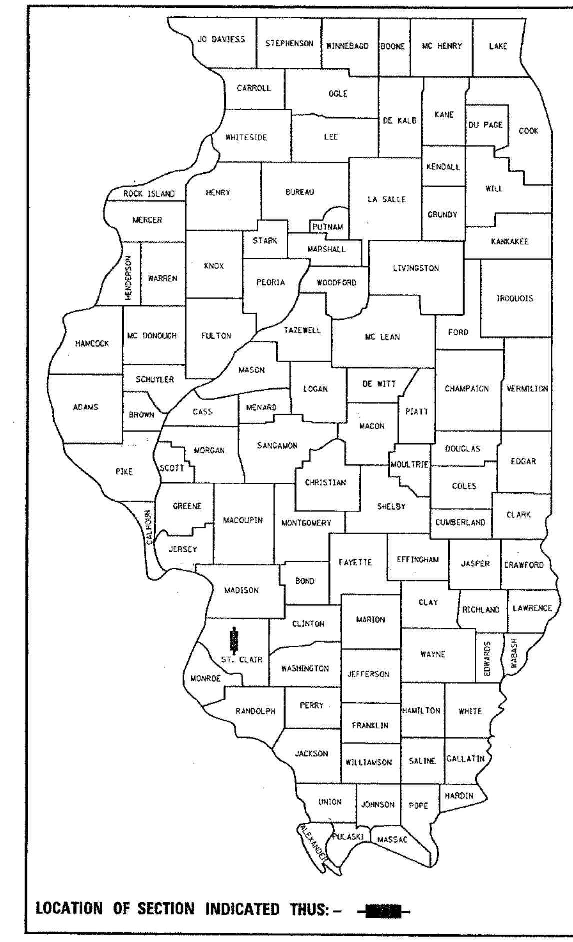
PROPOSED HIGHWAY PLANS

FAP ROUTE 600 (IL ROUTE 159)
SECTION 1-1BR-1
PROJECT : BHF-0600(059)
SUPERSTRUCTURE REPLACEMENT
ST. CLAIR COUNTY

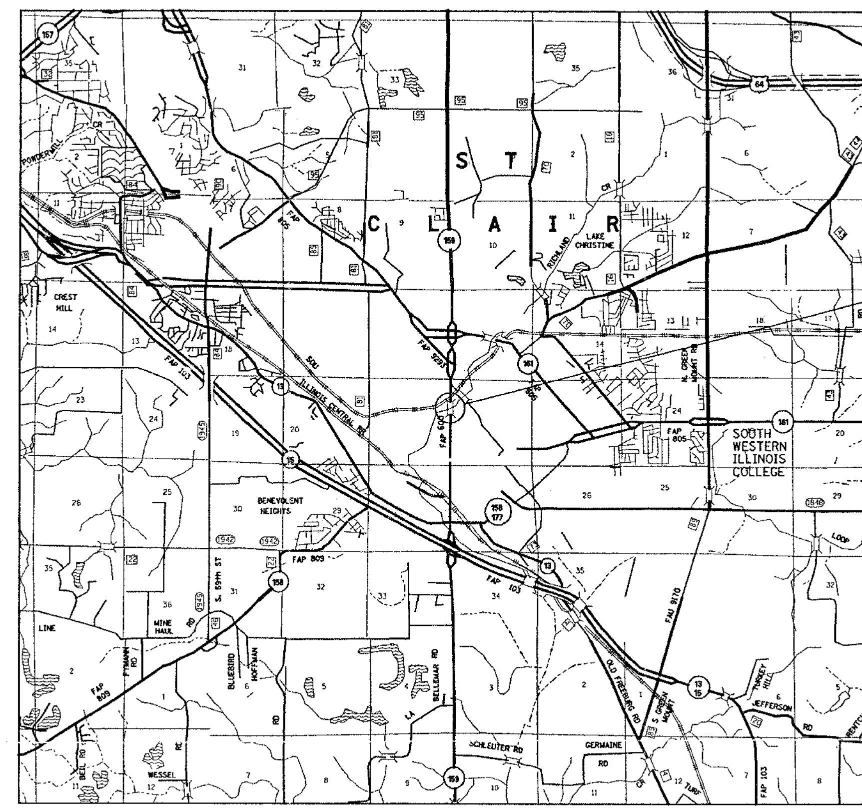
FOR INDEX OF SHEETS, SEE SHEET NO. 2

C-98-130-05

D-98-103-05



LOCATION OF SECTION INDICATED THUS:-



TRIPLE SPAN PPC DECK BEAMS TO BE REPLACED WITH PPC DECK BEAMS AT STA. 158+08 (110.17 FT) OVER RICHLAND CREEK
SN 082-0265
BEGIN STA 157+00
END STA 159+15

LAYOUT

0 MI 1 MI 2 MI 3 MI

1" = 1 MILE

LATITUDE	38.52183
LONGITUDE	89.98420

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

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

0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

DESIGN DESIGNATION

NA

FAP ROUTE 600 (IL ROUTE 159)

ADT = 17,200 (2007)
ADT = 21,000 (2027)
SU = 6.2%
MU = 2.4%

GROSS LENGTH = 0.021 MILES
NET LENGTH = 0.021 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 24 2006
Mary Lamie
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER
October 13, 2006
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT
October 13, 2006
Milton R. Sees, P.E.
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 76962

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-04	701311-02
515001-02	701602-02
606001-02	701801-03
631051-01	702001-06
635011-01	704001-02
701011-01	780001-01
701306-01	781001-02

GENERAL NOTES

1. THE STANDARDS AND REVISIONS 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 ALL 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:
   - AMERENIP (ELECTRIC & GAS)
   - CITY OF BELLEVILLE (SANITARY SEWER)
   - CHARTER COMMUNICATIONS, INC (CABLE TV)
   - ILLINOIS AMERICAN WATER CO. (WATER)
   - McLEOD USA TELECOMMUNICATIONS, INC. (COMMUNICATIONS)
   - AT&T ILLINOIS (COMMUNICATIONS)

   (MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY •. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.)

4. THE THICKNESS OF 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.

5. THE WIDTHS OF BITUMINOUS SURFACE REMOVAL SHOWN ON THE PLANS ARE THE NOMINAL WIDTHS. IRREGULARITIES IN THE SURFACE WIDTH MAY OCCUR THROUGHOUT THE LENGTH OF THE SECTION. BITUMINOUS SURFACE REMOVAL WILL BE PAID FOR IN SQUARE YARDS BASED UPON THE NOMINAL WIDTHS INDICATED.

6. THE VARIOUS THICKNESS OF BITUMINOUS SURFACE REMOVAL SHOWN ON THE PLANS ARE THE AVERAGE THICKNESS BASED UPON CONTROLLING THICKNESS AS INDICATED. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE. BITUMINOUS SURFACE REMOVAL HAS BEEN INCLUDED IN THE PLANS FOR THE PURPOSE OF REMOVING HIGH IRREGULARITIES AND TO ESTABLISH CROSS SLOPE.

7. 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.

8. 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.

9. ROAD CONSTRUCTION AHEAD SIGNS SHALL BE REQUIRED AT INTERSECTING SIDE ROADS THROUGHOUT THE PROJECT. COST TO BE INCLUDED IN BID PRICES FOR TRAFFIC CONTROL AND PROTECTION.

10. A QUANTITY OF 862.5 FEET OF "TEMPORARY PAVEMENT MARKING - LINE 6 INCH" YELLOW AND 112.5 FEET OF "TEMPORARY PAVEMENT MARKING - LINE 6 INCH" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.

11. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES DONE TO THE FENCE, STONE WALL, OR THE CONCRETE UNDER THE STRUCTURE DUE TO CONSTRUCTION ACTIVITIES.

12. THE COST OF ANY SUB-BASE NEEDED UNDER THE RAISED SIDEWALK AND CURB & GUTTER SHALL BE INCLUDED IN THE COST OF "PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH" AND "COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24"; RESPECTIVELY.

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. ANY AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE SEEDED (TEMPORARY AND PERMANENT) AT NO ADDITONAL COST TO THE DEPARTMENT AND NO OTHER COMPENSATION WILL BE PERMITTED.

2. 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.

3. 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. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRE.

4. EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

5. FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE WITH CLASS 2 SEEDING.

COMMITMENTS

ALL CONSTRUCTION ACTIVITIES SHALL REMAIN OUTSIDE THE WETLAND AREA AND AT NO TIME SHALL THE CONTRACTOR DISTURB THE WETLAND. THIS WET MEADOW IS LOCATED ABOUT 69 FT EAST FROM THE CENTERLINE OF IL RT. 159 AND ALONG THE SOUTH BANK OF RICHLAND CREEK. THIS SITE POSSESSES HYDROPHYTIC VEGETATION, HYDRIC SOIL AND WETLAND HYDROLOGY; THEREFORE, THIS SITE IS A WETLAND.

THE CITY OF BELLEVILLE SHALL BE NOTIFIED TWO WEEKS PRIOR TO THE COMMENCEMENT OF THE RICHLAND CREEK GREENWAY TRAIL DETOUR. AT THAT TIME, THE CITY WILL BE ADVISED AS TO THE TENTATIVE DATES THAT THIS DETOUR WILL BE IN EFFECT.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 8/22/2006
FILE NAME = c:\projects\ed10305\plan\pln10305a.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X080-2A	SFTY-3N	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.2	0.2		
40600300	AGGREGATE (PRIME COAT)	TON	1	1		
40600990	TEMPORARY RAMP	SQ YD	179	179		
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	1290	1290		
44000006	BITUMINOUS SURFACE REMOVAL 1 1/2"	SQ YD	547	547		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	214.5	214.5		
44000600	SIDEWALK REMOVAL	SQ FT	1290	1290		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1		
50102400	CONCRETE REMOVAL	CU YD	7.3	7.3		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	62.3	62.3		
50300260	BRIDGE DECK GROOVING	SQ YD	607	607		
50300300	PROTECTIVE COAT	SQ YD	840	840		
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	767	767		
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	6891	6891		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	17550	17550		
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	248	248		
51401600	TEMPORARY BRIDGE RAIL	FOOT	220	220		
51500100	NAME PLATES	EACH	1	1		
60260100	INLETS TO BE ADJUSTED	EACH	2	2		
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	214.5	214.5		
* 63100110	TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	42	42		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	14	14		
67100100	MOBILIZATION	L SUM	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1		
70102672	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602, SPECIAL	L SUM	1	1		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	60	60		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3615	3615		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	975	975		
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	356	356		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1570	1570		

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X080-2A	SFTY-3N	
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	550	550		
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	337.5	337.5		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1042	1042		
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	229	229		
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	545	545		
* 78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	127	127		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10		
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	11	11		
* 78100300	REPLACEMENT REFLECTOR	EACH	16	16		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	574	574		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	37	37		
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	276	276		
X4066428	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N90	TON	46	46		
X4066775	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N90	TON	33	33		
X7200200	WIDE LOAD SIGNING	L SUM	1	1		
Z0002600	BAR SPLICERS	EACH	234	234		
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2		2	
Z0030255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	1		1	
Z0030320	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 2	EACH	1		1	
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2		2	

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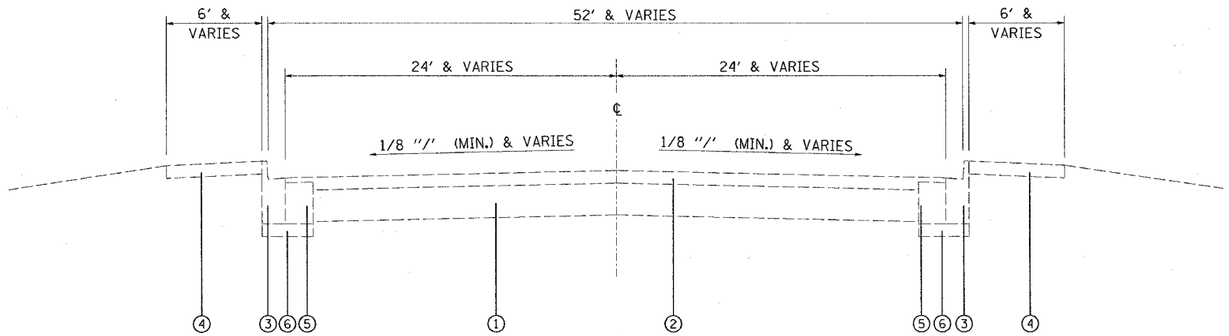
REFERENCE = REF

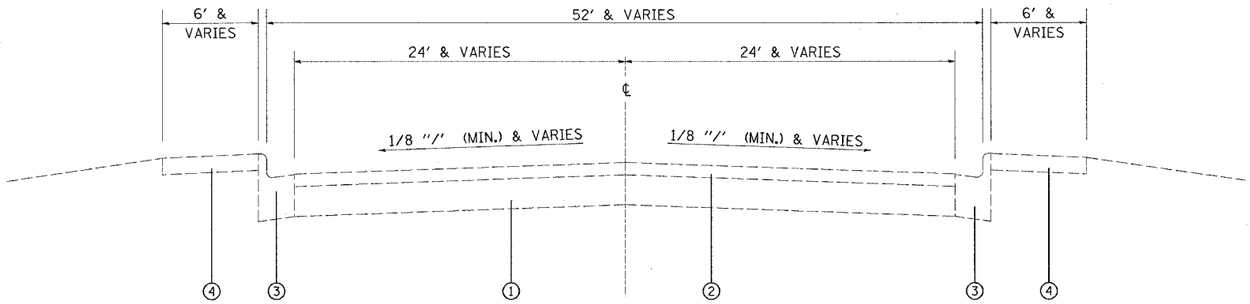
Rev.

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL SECTION
STA. 157+00 TO STA. 157+54



TYPICAL SECTION
STA. 158+63 TO STA. 159+15

LEGEND

1. EXISTING CONCRETE PAVEMENT
2. EXISTING RESURFACING 3"
3. EXISTING CONCRETE CURB AND GUTTER
4. EXISTING CONCRETE SIDEWALK
5. EXISTING BITUMINOUS CONCRETE BINDER COURSE - 12.5"
6. EXISTING SUBBASE GRANULAR MATERIAL
7. PROPOSED BITUMINOUS SURFACE REMOVAL - 1/2"
8. PROPOSED BITUMINOUS PRIME COAT
9. PROPOSED AGGREGATE PRIME COAT
10. PROPOSED LEVELING BINDER, SUPERPAVE - 3 1/2" & VARIES
11. PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE - 1 1/2"
12. PROPOSED SIDEWALK REMOVAL
13. PROPOSED PCC SIDEWALK - 4"
14. PROPOSED COMBINATION CURB & GUTTER REMOVAL
15. PROPOSED COMBINATION CURB & GUTTER

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 8/24/2006
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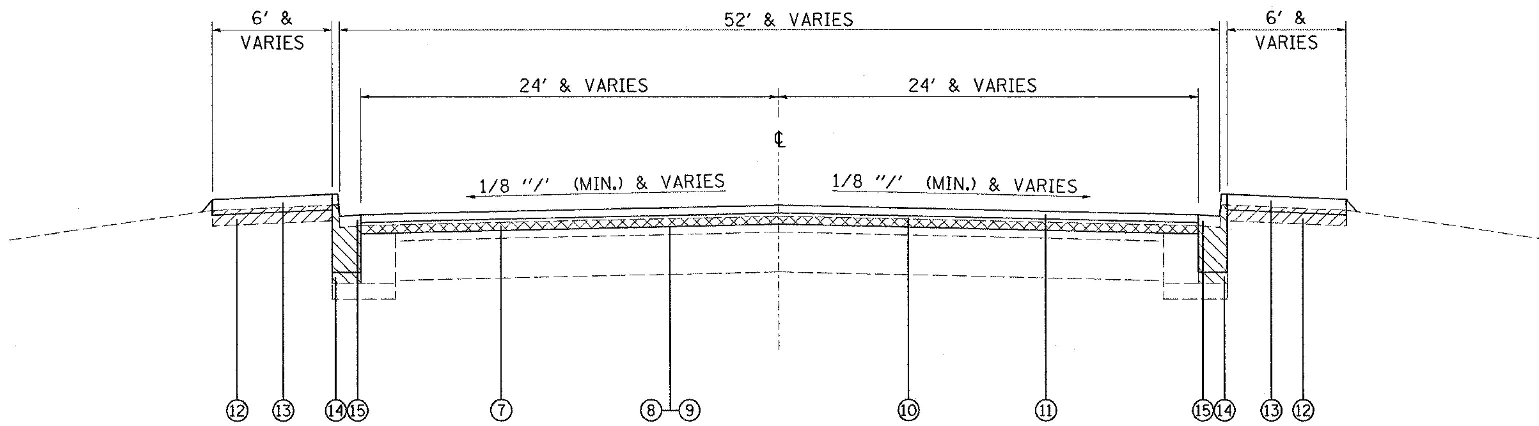
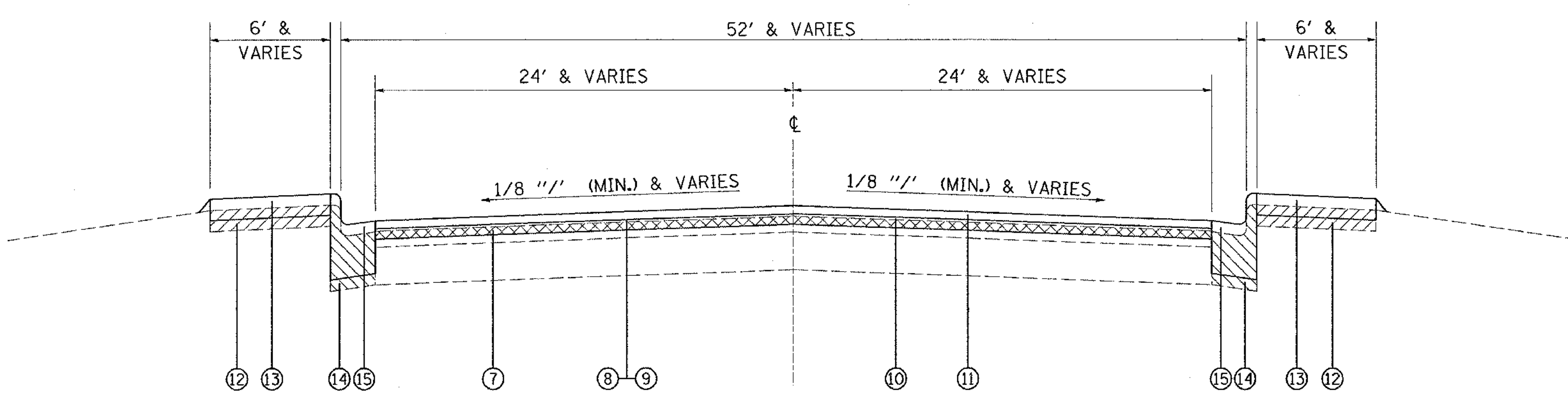


TYPICAL SECTION
STA. 157+00 TO STA. 157+54



TYPICAL SECTION
STA. 158+63 TO STA. 159+15

BITUMINOUS MIXTURE REQUIREMENTS

MIXTURE USE	SURFACE	LEVEL BINDER
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	10%	10%
DESIGN AIR VOIDS	4.0% @ Ndes=90	4.0% @ Ndes=90
MIX COMPOSITION		
(GRADATION MIXTURE)	IL 9.5	IL 19.0
FRICTION AGG	MIXTURE "D"	MIXTURE "C"

LEGEND

1. EXISTING CONCRETE PAVEMENT
2. EXISTING RESURFACING 3"
3. EXISTING CONCRETE CURB AND GUTTER
4. EXISTING CONCRETE SIDEWALK
5. EXISTING BITUMINOUS CONCRETE BINDER COURSE - 12.5"
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7. PROPOSED BITUMINOUS SURFACE REMOVAL - 1/2"
8. PROPOSED BITUMINOUS PRIME COAT
9. PROPOSED AGGREGATE PRIME COAT
10. PROPOSED LEVELING BINDER, SUPERPAVE - 3 1/2" & VARIES
11. PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE - 1 1/2"
12. PROPOSED SIDEWALK REMOVAL
13. PROPOSED PCC SIDEWALK - 4"
14. PROPOSED COMBINATION CURB & GUTTER REMOVAL
15. PROPOSED COMBINATION CURB & GUTTER

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

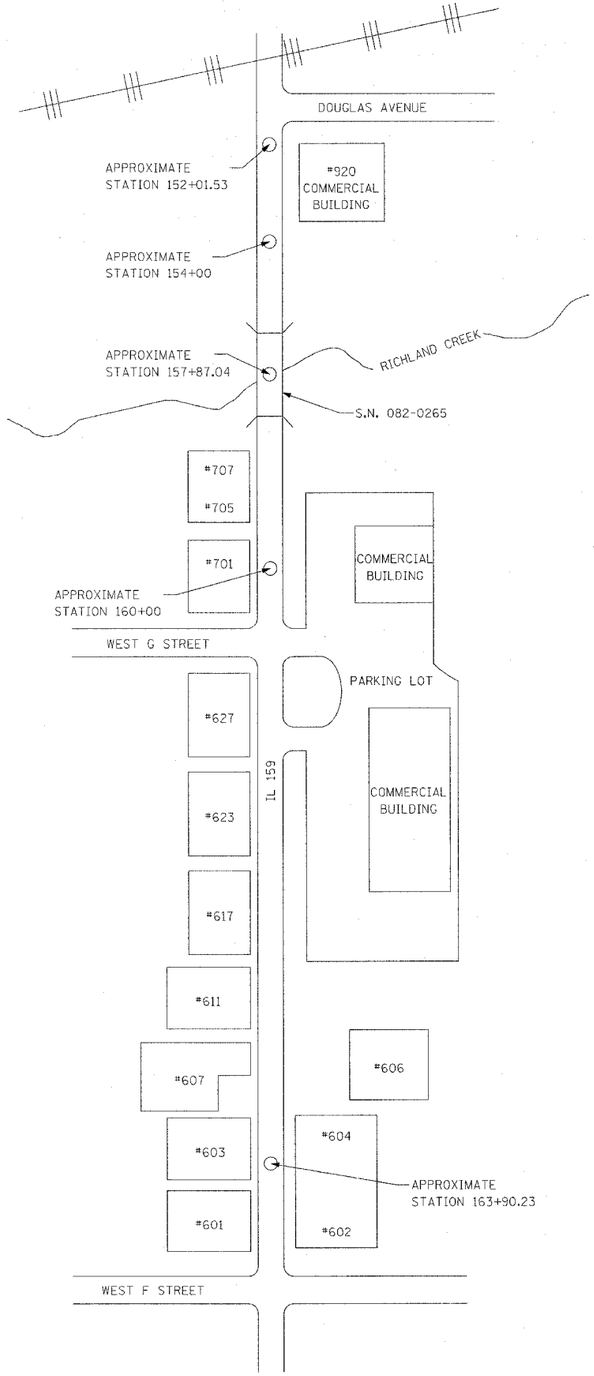
PROPOSED TYPICAL SECTIONS

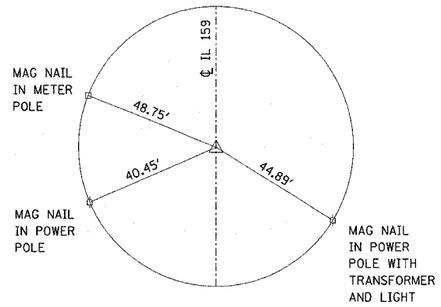
FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

CONTRACT NO. 76962

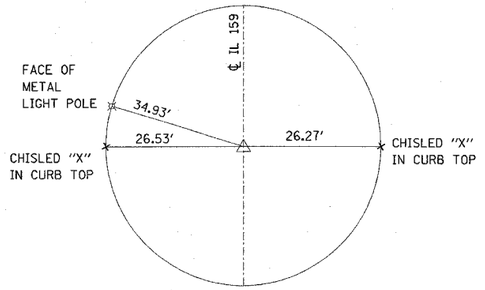
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





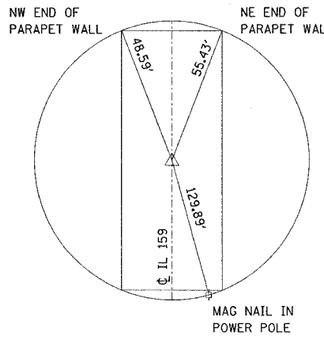
TIE POINT

MAG NAIL
STA. 152+01.53



TIE POINT

MAG NAIL
STA. 154+00



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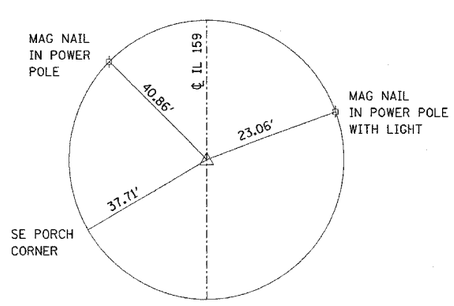
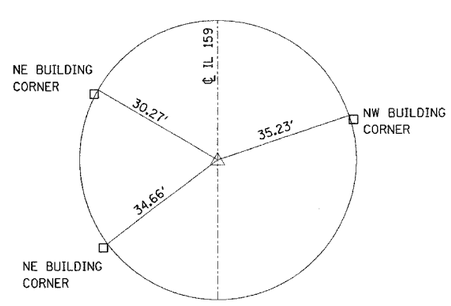
STA. 157+87.04



TIE POINT

MAG NAIL
STA. 160+00



TIE POINT

MAG NAIL
STA. 163+90.23

TEMPORARY BENCHMARKS

TBM-1 - A CHISELED "□" ON SW CORNER OF CONCRETE TRAFFIC SIGNAL CONTROL HANDHOLE ON NE CORNER OF IL 159 & EAST "F" STREET
ELEV = 514.841

TBM-2 - "X" CUT ON WNW TOP FLANGE BOLT OF FIRE HYDRANT ON E SIDE OF IL 159 APPROX. 90' SOUTH OF SN 082-0265
ELEV =505.181

TBM-3 - A CHISELED "□" ON SE CORNER OF CONCRETE FOUNDATION FOR 5' TALL METAL CONTROLLER BOX ON SW CORNER OF INTERSECTION OF RAILROAD TRACKS & IL 159 ACROSS FROM DOUGLAS AVE.
ELEV = 497.974

TBM-4 - RR SPIKE IN W SIDE OF POWER POLE ON E SIDE OF IL 159 APPROX. 500' S OF BOUL AVENUE APPROX. 125' N OF BUS STOP SHELTER ON N SIDE OF SWANSEA POLICE STATION
ELEV = 508.170

TBM-5 - A CHISELED "□" ON SW CORNER OF CONCRETE TRAFFIC SIGNAL HANDHOLE BOX ON S SIDE OF IL 161 APPROX. 150' W OF IL 159 CENTERLINE AND IN MIDDLE OF SIDEWALK.
ELEV = 542.267

BENCHMARK

BM R-114 - A STANDARD DISK SET IN CONCRETE ON THE NW CORNER OF "A" STREET & 1ST STREET IN BELLEVILLE
ELEV = 521.406

NOTE: ALL MEASUREMENTS ARE PULLED DIRECT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TIE POINTS & BENCHMARKS

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE

LOCATION	TEMPORARY PAVEMENT MARKING LINE - 4"				TEMPORARY PAVEMENT MARKING LINE - 12"	SHORT-TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	THERMOPLASTIC PAVEMENT MARKING -4"				THERMOPLASTIC PAVEMENT MARKING -12"		PAVEMENT MARKING REMOVAL						POLYUREA PAVEMENT MARKING TYPE I-LINE 4"	POLYUREA PAVEMENT MARKING TYPE I-LINE 12"
								SOLID LINE	SKIP-DASH LANE LINE	SKIP-DASH LANE LINE	EDGE LINE			SOLID LINE	SKIP-DASH LANE LINE	SKIP-DASH LANE LINE	EDGE LINE	SOLID 12"			
	STAGE I	STAGE II	STAGE III	FINAL				YELLOW	YELLOW	WHITE	SB	YELLOW	WHITE	4" YELLOW		4" WHITE		YELLOW	WHITE		
STATION TO STATION	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT
STA 154+02.0 TO STA 156+50.0	248.0		232.0	219.3	62.5		295.8			11.0	2+15.00		62.5			3.3	69.5		62.5		
STA 156+50.0 TO STA 157+00.0	50.0	100.0	118.0	163.3	25.5		169.6	100.0		13.5	50.0		25.5	33.3		4.5	16.7		25.5		
STA 157+00.0 TO STA 157+21.0	21.0	42.0	42.0	69.1	14.4	12	74.2	42.0		6.3	21.0		14.4	14.0		2.2	7.0		14.4		
STA 157+21.0 TO STA 157+53.7		39.0	65.4	106.7	32.0	12	103.9	65.4		9.2	32.7		32.1	21.8		3.1	10.9		32.1		
STA 157+53.7 TO STA 158+62.5			217.6	544.3	127.3	12	382.8				1.5						0.5			545.0	127.0
STA 158+62.5 TO STA 158+85.0			45.0	68.0	26.9	12	66.3	45.0			20.6	7.7	19.2	15.0			6.9	7.7	19.2		
STA 158+85.0 TO STA 159+15.0	30.0		90.0	90.0	39.2	12	110.7	60.0			30.0	13.9	25.5	20.0			10.0	13.9	25.5		
STA 159+15.0 TO STA 160+05.0	141.0		418.0	294.5	28.2		312.9	183.9	20.0		90.0	28.2		61.3	6.7		30.0	28.2			
STA 160+05.0 TO STA 160+33.0	24.0		112.0	25.0			53.9				25.0						8.3				
SUB-TOTAL	514.0	181.0	1340.0	1580.0				496.3	20.0	40.0	485.8	49.8	179.2	165.4	6.7	13.1	159.8	49.8	179.2		
TOTAL	3615				356	60	1570	1042				229		574						545	127

STAGING SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 11	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	TEMPORARY PAVEMENT MARKING LINE 6"	TEMPORARY BRIDGE RAIL	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE)	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE)	IMPACT ATTENUATOR, TEMPORARY (FULLY-REDIRECTIVE)	IMPACT ATTENUATOR, RELOCATE (FULLY-REDIRECTIVE)
	EACH	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH
STAGE I				500		2			
STAGE II	4	550	262.5	475	220		1	1 *	
STAGE III			75				1		1
TOTAL	4	550	337.5	975	220	2	2	1	1

* MAXIMUM WIDTH OF 2'-11" AND A MAXIMUM LENGTH OF 24'.

RESURFACING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	BITUMINOUS SURFACE REMOVAL 1 1/2"	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE	LEVEL BINDER (MACHINE METHOD), SUPERPAVE
STATION TO STATION	TON	TON	SQ YD	TON	TON
STA 157+00.00 TO STA 157+53.70	0.1	0.5	286.8	24.1	17.3
BRIDGE OMISSION					
STA 158+62.80 TO STA 159+15.00	0.1	0.5	260.2	21.9	15.7
TOTAL	0.2	1	547	46	33

RAISED REFLECTIVE PAVEMENT MARKERS SCHEDULE

LOCATION	RAISED REFLECTIVE PAVEMENT MARKER		RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	REPLACEMENT REFLECTOR		RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
	2-WAY AMBER	WHITE	2-WAY AMBER	2-WAY AMBER	WHITE	
STATION TO STATION	EACH	EACH	EACH	EACH	EACH	EACH
STA 154+02.0 TO STA 156+50.0					1	1
STA 156+50.0 TO STA 157+00.0				3	1	4
STA 157+00.0 TO STA 157+21.0	1	1				2
STA 157+21.0 TO STA 157+53.7	2					2
STA 157+53.7 TO STA 158+62.5			11			11
STA 158+62.5 TO STA 158+85.0	3					3
STA 158+85.0 TO STA 159+15.0	3					3
STA 159+15.0 TO STA 160+05.0				11		11
STA 160+05.0 TO STA 160+33.0						0
SUB-TOTAL	9	1		14	2	
TOTAL	10		11	16		37

SIDEWALK AND CURB & GUTTER SCHEDULE

LOCATION	SIDEWALK REMOVAL	PCC SIDEWALK 4 IN	COMBINATION CURB & GUTTER REMOVAL	COMBINATION CURB & GUTTER, TYPE B-6.24
STATION TO STATION	SQ FT	SQ FT	FT	FT
NORTHEAST QUADRANT				
STA 157+00.00 TO STA 157+51.00	328.6	328.6	51.0	51.0
NORTHWEST QUADRANT				
STA 157+00.00 TO STA 157+57.70	358.2	358.2	57.8	57.8
BRIDGE OMISSION				
SOUTHEAST QUADRANT				
STA 158+58.80 TO STA 159+15.00	315.4	315.4	56.3	56.3
SOUTHWEST QUADRANT				
STA 158+65.60 TO STA 159+15.00	287.8	287.8	49.4	49.4
TOTAL	1290	1290	214.5	214.5

TEMPORARY RAMP SCHEDULE

LOCATION	WIDTH	LENGTH	TEMPORARY RAMP
	FOOT	FOOT	SQ YD
STA 157+00.0	48	5	26.8
STA 159+10.0	41.75	5	23.3
STA 157+41.6	48	12.1	64.7
STA 158+62.8	47.6	12.1	64.2
TOTAL			179

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULES

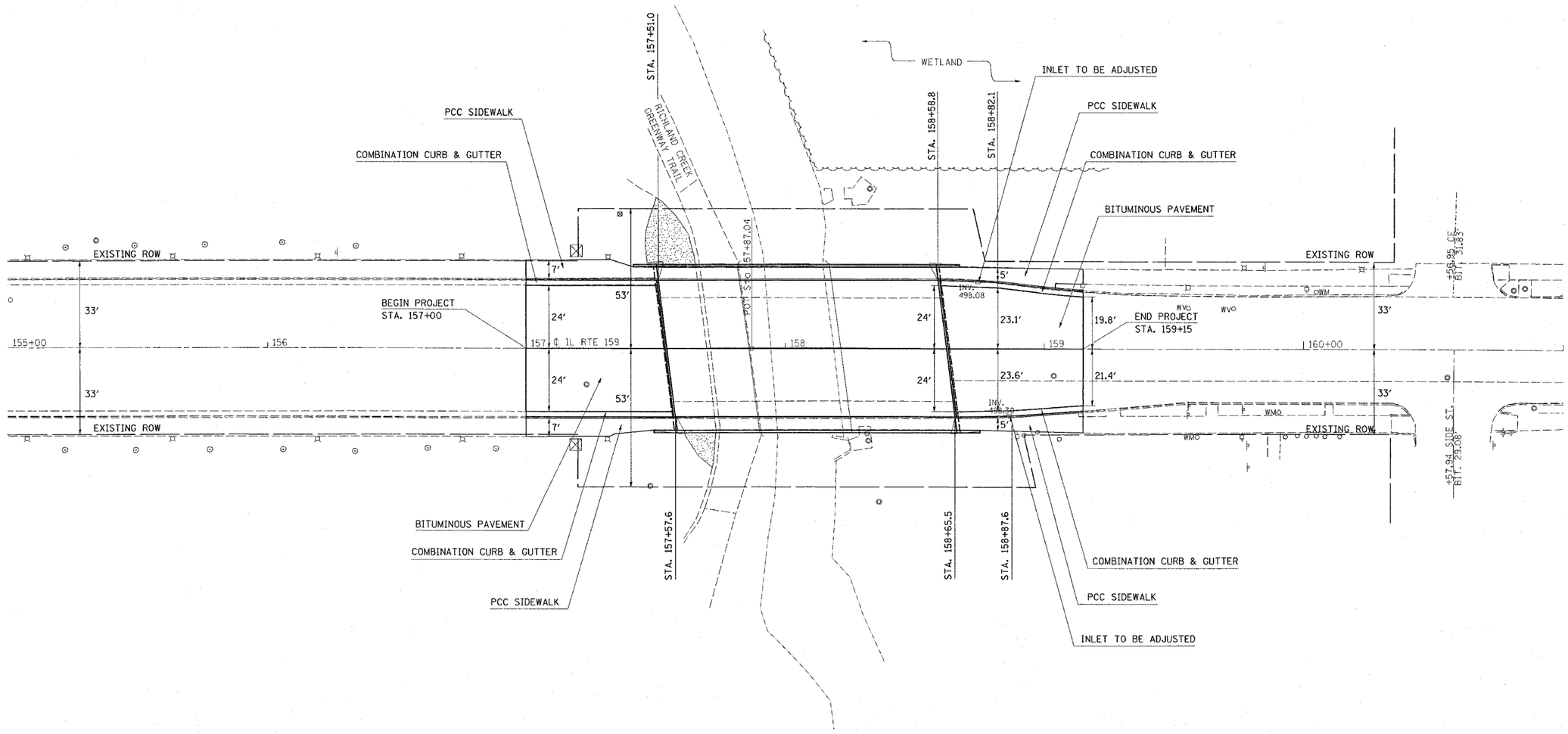
FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

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

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	8
STA. 155+00	TO STA. 161+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN VIEW

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 8/25/2006
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PLOT SCALE = 20.0000 ' / IN.
REFERENCE = REF

CONTRACT NO. 76962

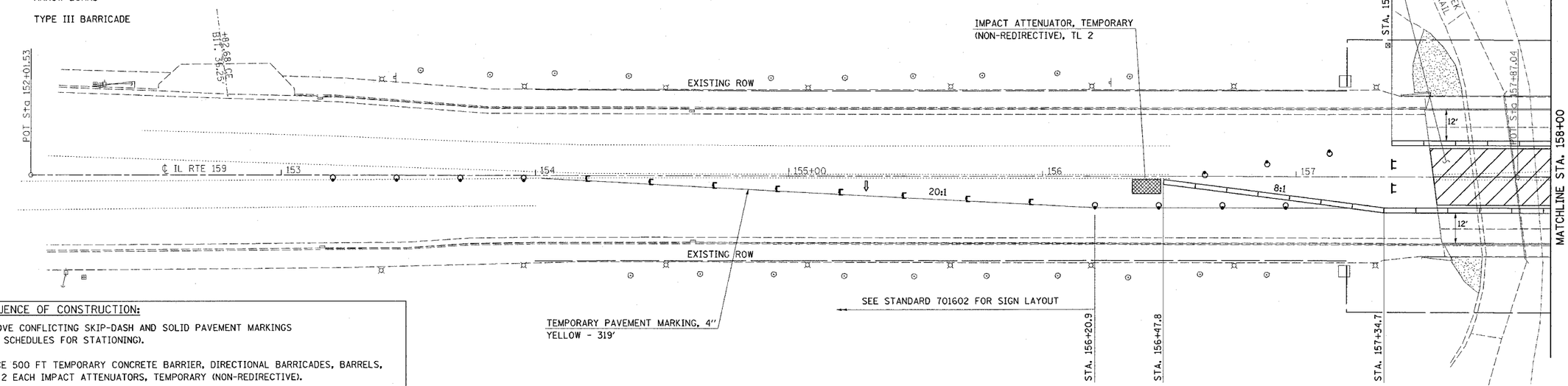
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	9
STA. 152+00	TO STA. 164+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND

- BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
- DIRECTIONAL BARRICADE WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- ARROW BOARD
- TYPE III BARRICADE

2100 1400 1400 700
2100 1400 1400

SAND BARRELL LAYOUT
(IF OPTION USED)



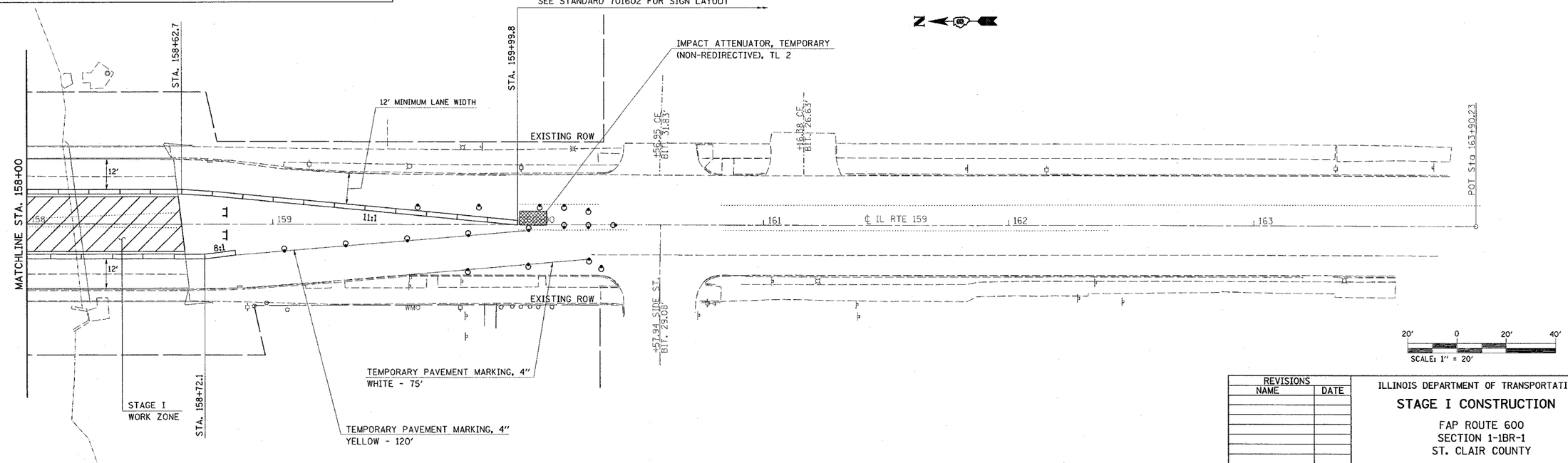
SEQUENCE OF CONSTRUCTION:

REMOVE CONFLICTING SKIP-DASH AND SOLID PAVEMENT MARKINGS (SEE SCHEDULES FOR STATIONING).

PLACE 500 FT TEMPORARY CONCRETE BARRIER, DIRECTIONAL BARRICADES, BARRELS, AND 2 EACH IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE).

SEE STANDARD 701602 FOR SIGN LAYOUT.

PERFORM ALL NECESSARY BRIDGE WORK IN STAGE I WORK ZONE, INCLUDING INSTALLATION OF TEMPORARY RAMPS ON BOTH ENDS OF STRUCTURE.



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USER NAME = #USER#

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

CONTRACT NO. 76962

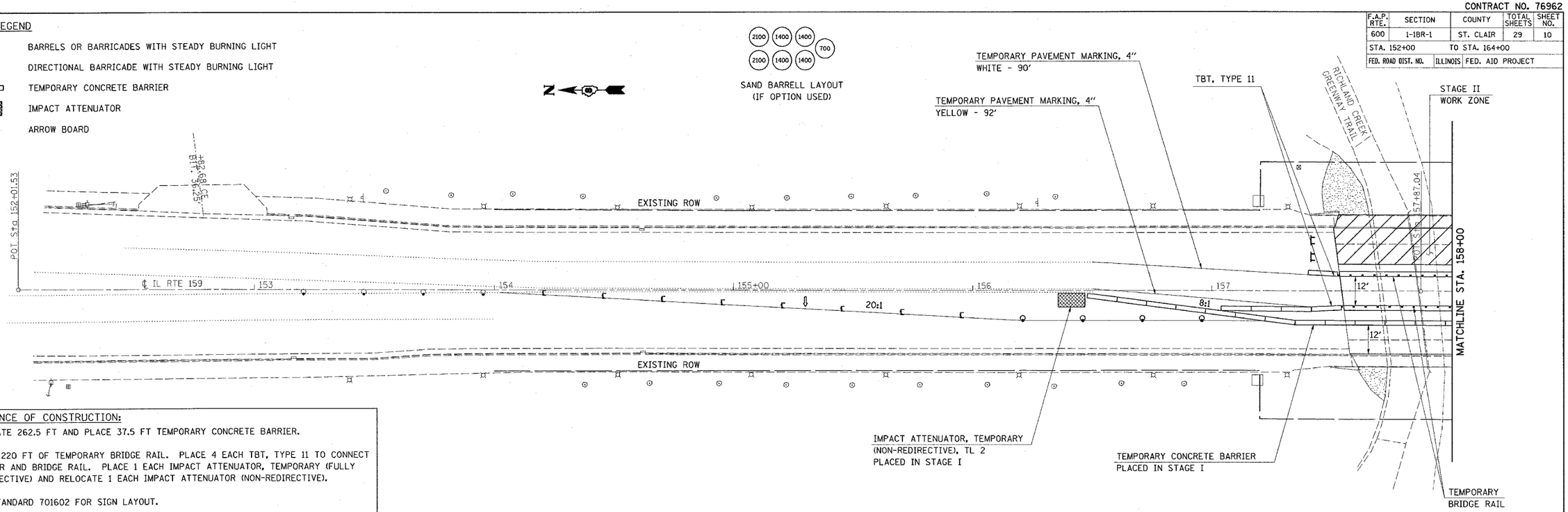
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	10
STA. 152+00	TO STA. 164+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND

- BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
- DIRECTIONAL BARRICADE WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- ARROW BOARD

2100 1400 1400 700
2100 1400 1400

SAND BARRELL LAYOUT
(IF OPTION USED)



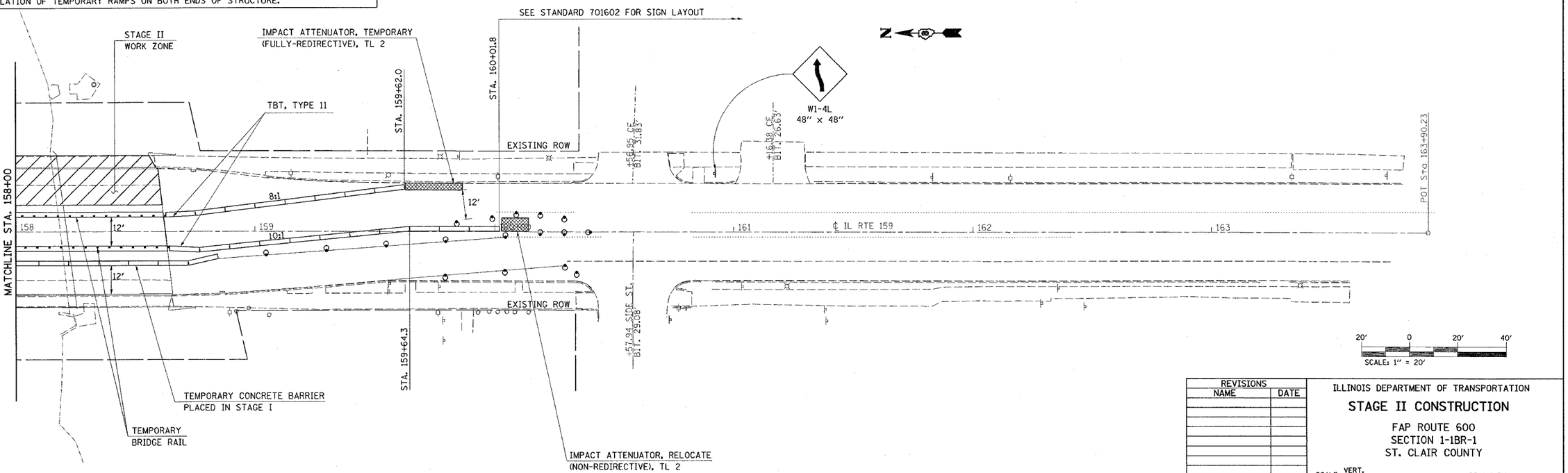
SEQUENCE OF CONSTRUCTION:

RELOCATE 262.5 FT AND PLACE 37.5 FT TEMPORARY CONCRETE BARRIER.

PLACE 220 FT OF TEMPORARY BRIDGE RAIL. PLACE 4 EACH TBT, TYPE 11 TO CONNECT BARRIER AND BRIDGE RAIL. PLACE 1 EACH IMPACT ATTENUATOR, TEMPORARY (FULLY RE-DIRECTIVE) AND RELOCATE 1 EACH IMPACT ATTENUATOR (NON-REDIRECTIVE).

SEE STANDARD 701602 FOR SIGN LAYOUT.

PERFORM ALL NECESSARY BRIDGE WORK IN STAGE II WORK ZONE, INCLUDING INSTALLATION OF TEMPORARY RAMPS ON BOTH ENDS OF STRUCTURE.



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USER NAME = $USER$

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

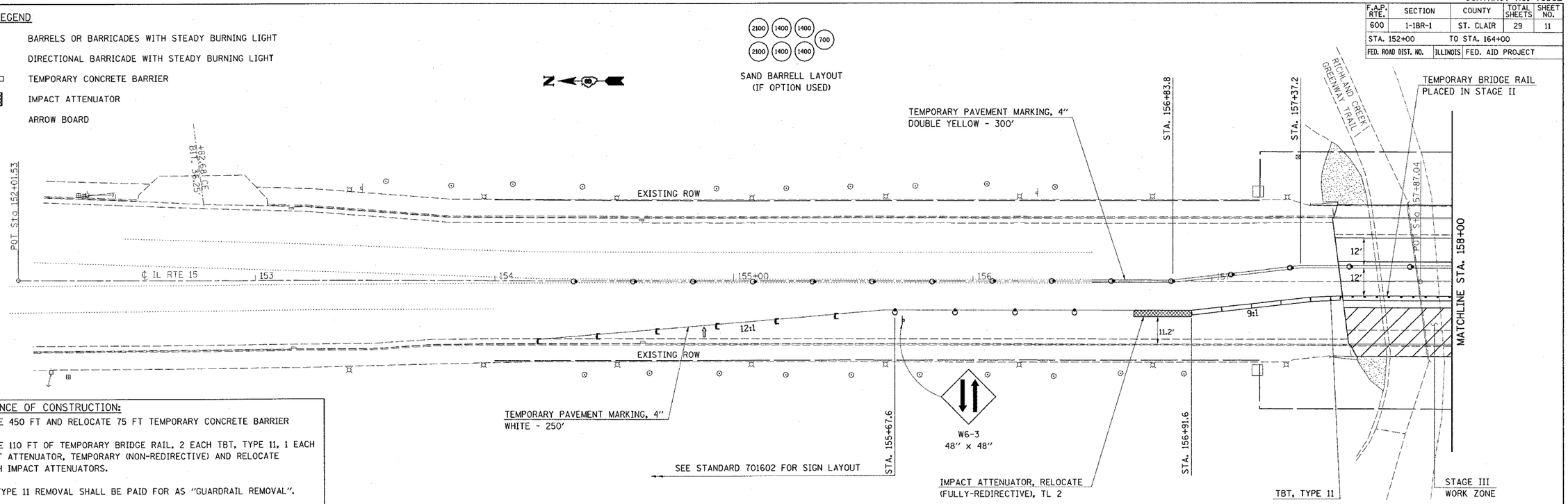
CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	11
STA. 152+00	TO STA. 164+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND

- BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
- DIRECTIONAL BARRICADE WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- ARROW BOARD

SAND BARRELL LAYOUT
(IF OPTION USED)



SEQUENCE OF CONSTRUCTION:

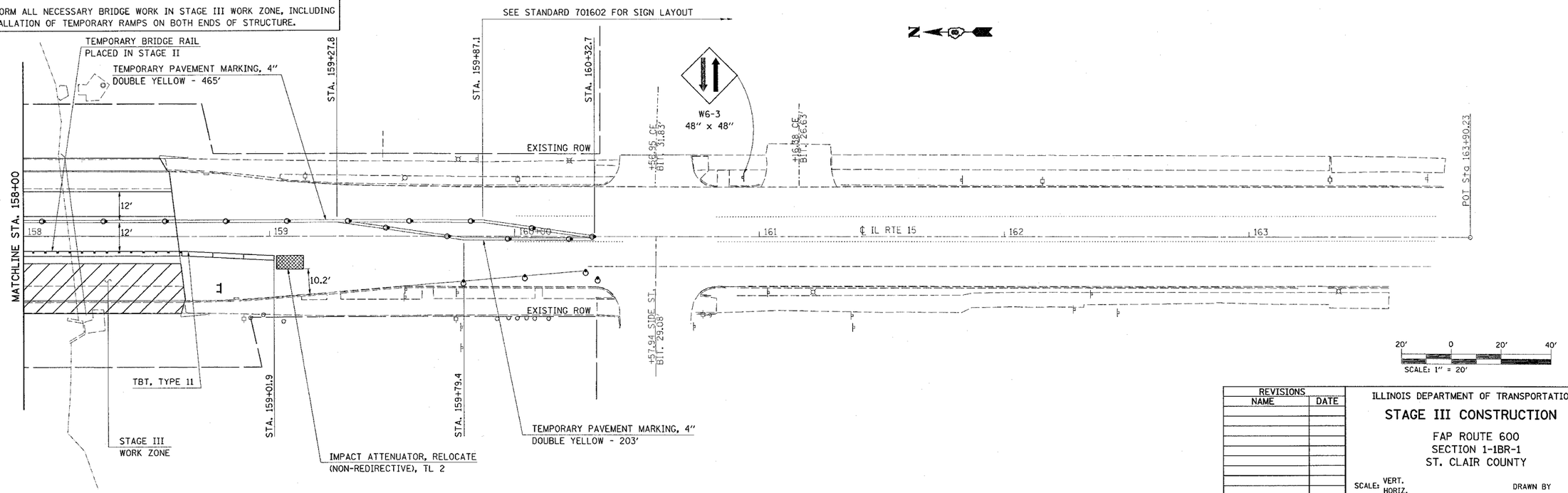
REMOVE 450 FT AND RELOCATE 75 FT TEMPORARY CONCRETE BARRIER

REMOVE 110 FT OF TEMPORARY BRIDGE RAIL, 2 EACH TBT, TYPE 11, 1 EACH IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE) AND RELOCATE 2 EACH IMPACT ATTENUATORS.

TBT, TYPE 11 REMOVAL SHALL BE PAID FOR AS "GUARDRAIL REMOVAL".

SEE STANDARD 701602 FOR SIGN LAYOUT.

PERFORM ALL NECESSARY BRIDGE WORK IN STAGE III WORK ZONE, INCLUDING INSTALLATION OF TEMPORARY RAMPS ON BOTH ENDS OF STRUCTURE.



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

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE III CONSTRUCTION

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

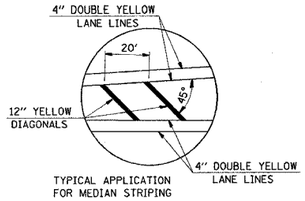
SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

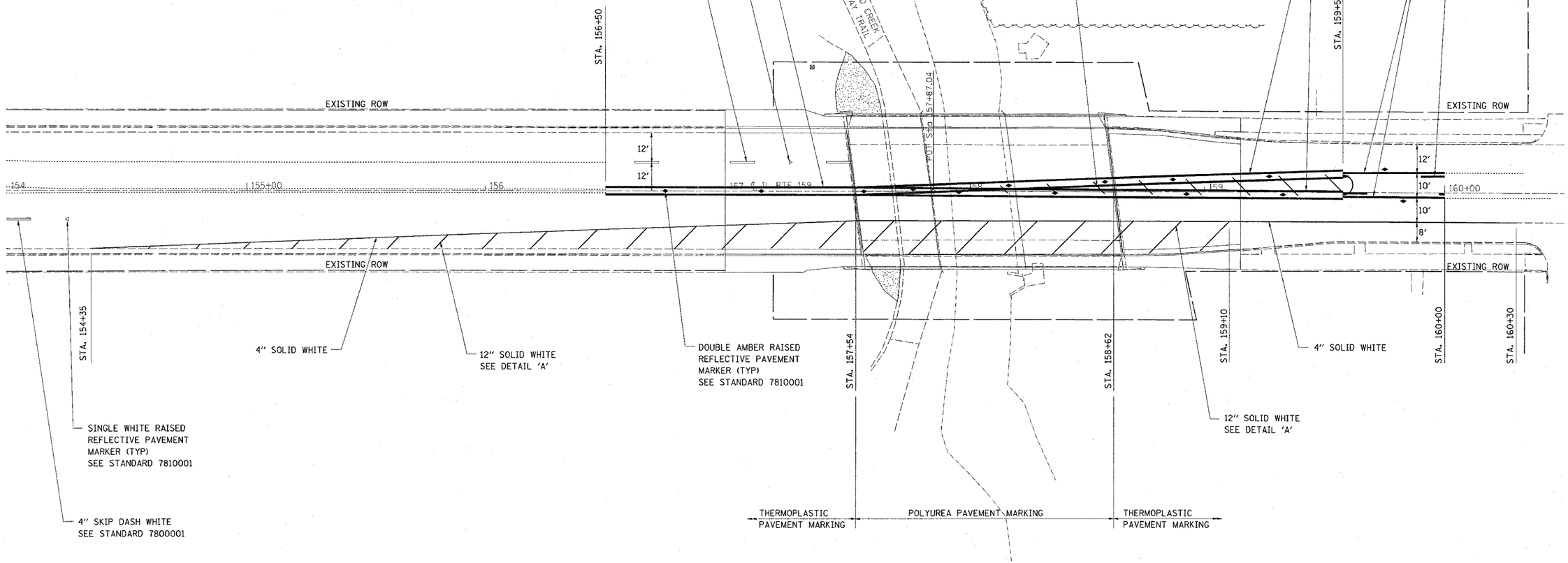
CONTRACT NO. 76962

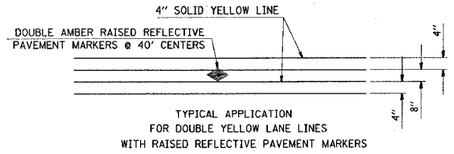
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL APPLICATION FOR MEDIAN STRIPING

DETAIL 'A'
NOT TO SCALE





TYPICAL APPLICATION
FOR DOUBLE YELLOW LANE LINES
WITH RAISED REFLECTIVE PAVEMENT MARKERS

DETAIL 'B'

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

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

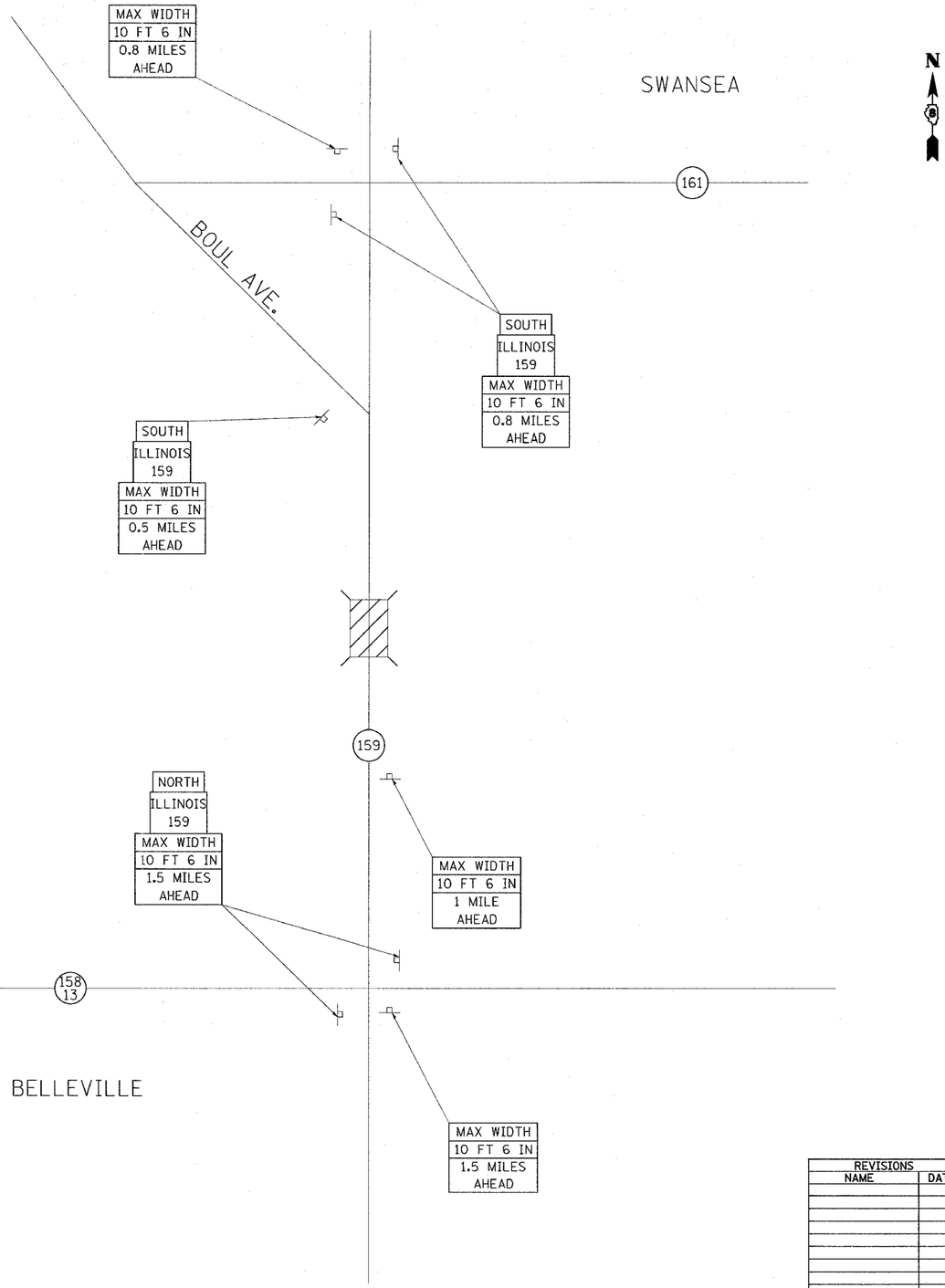
PLOT DATE = 8/23/2006
FILE NAME = c:\projects\ed10305\plan\plan10305sd.dgn
PLOT SCALE = 20.0000 ' / IN.
REFERENCE = 4REF4

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. 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.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HGTS., AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR "WIDE LOAD SIGNING" AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT AT THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 7'.



SIGNS REQUIRED

MAX WIDTH 10 FT 6 IN 0.5 MILES AHEAD	(1)	NORTH	(2)
MAX WIDTH 10 FT 6 IN 0.8 MILES AHEAD	(3)	SOUTH	(3)
MAX WIDTH 10 FT 6 IN 1 MILE AHEAD	(1)	ILLINOIS 159	(5)
MAX WIDTH 10 FT 6 IN 1.5 MILES AHEAD	(3)		

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

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

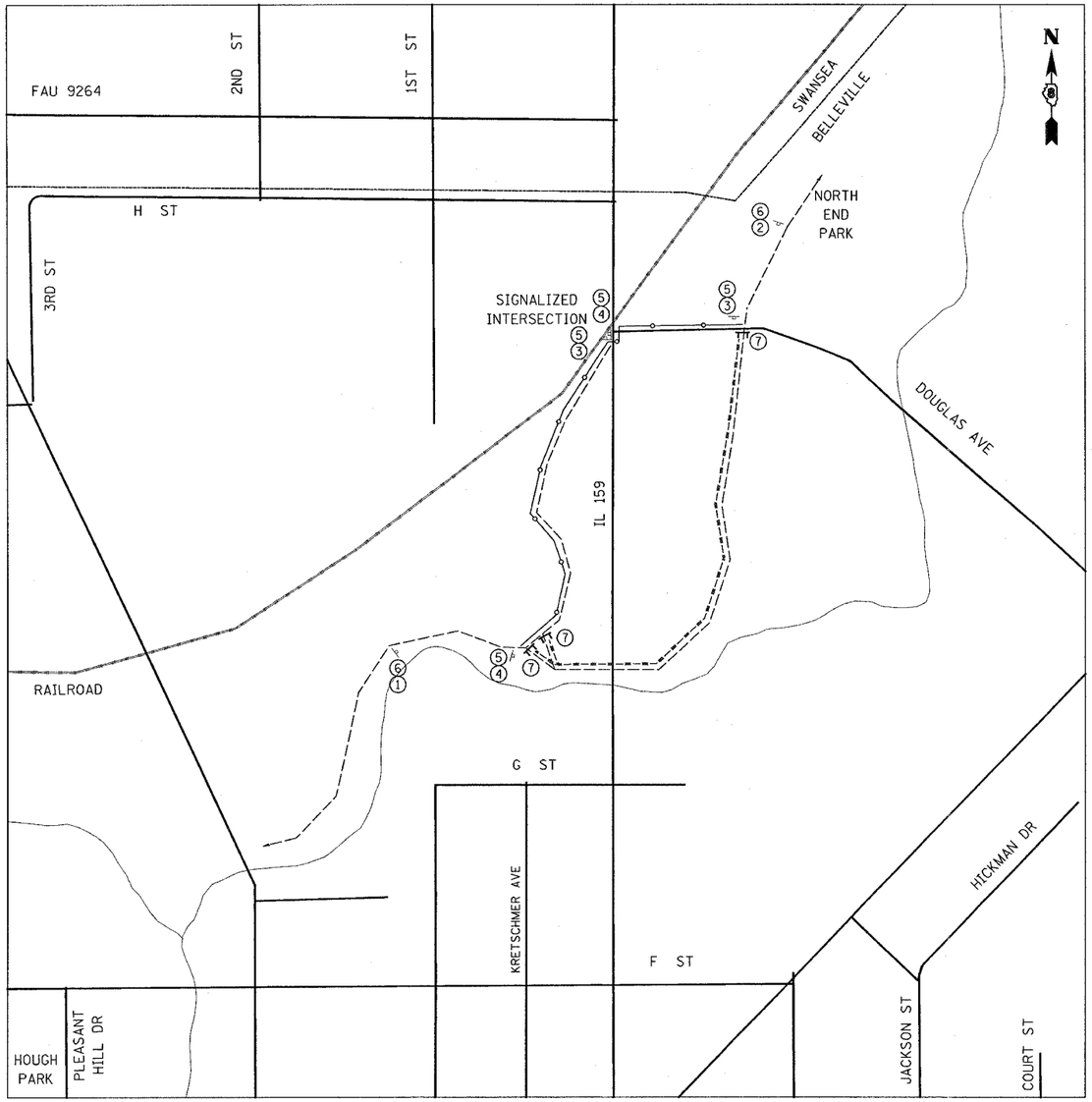
WIDE LOAD SIGNING

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING TRAIL

TEMPORARY TRAIL CLOSURE (APPROX. 930')

PROPOSED TRAIL DETOUR (APPROX 1185')

TYPE III BARRICADES

THE CROSSINGS AT IL 159 AND DOUGLAS AVE ARE SIGNALIZED.

THE PROPOSED TRAIL DETOUR DISTANCES (APPROX.):
NORTH END PARK TO IL 159 - 355'
CROSSING DOUGLAS AVENUE - 60'
CROSSING IL 159 - 70'
IL 159 TO "Y" INTERSECTION - 690'

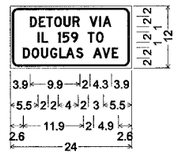
THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR "TRAFFIC CONTROL & PROTECTION 701602 (SPECIAL)" AND NO OTHER COMPENSATION WILL BE ALLOWED.

THE HEIGHT AT THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 7' UNLESS OTHERWISE DIRECTED BY THE R.E./R.T.

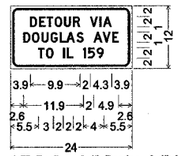
SIGNS REQUIRED

① (1)



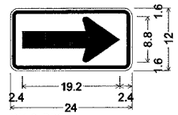
1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange;
[DETOUR VIA] D;
[IL 159 TO] D;
[DOUGLAS AVE] D;

② (1)



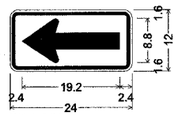
1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange;
[DETOUR VIA] D;
[DOUGLAS AVE] D;
[TO IL 159] D;

③ (2)



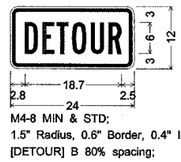
W1-6 BIKE;
1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
Standard Arrow Custom 19.3" X 8.8" 0°;

④ (2)



W1-6 BIKE;
1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
Standard Arrow Custom 19.3" X 8.8" 180°;

⑤ (4)



M4-8 MIN & STD;
1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
[DETOUR] B 80% spacing;

⑥ (2)

18.0" across sides 1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
[TRAIL] C;
[CLOSED] C;
[AHEAD] C;

⑦ (3)

R11-2;
1.9" Radius, 0.8" Border, 0.5" Indent, Black on White;
[TRAIL] D 82% spacing;
[CLOSED] D 83% spacing;

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAIL DETOUR MAP

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 8/23/2006
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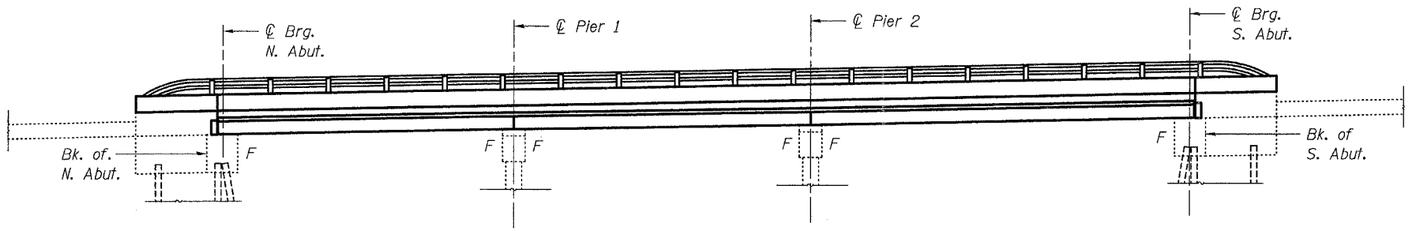
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

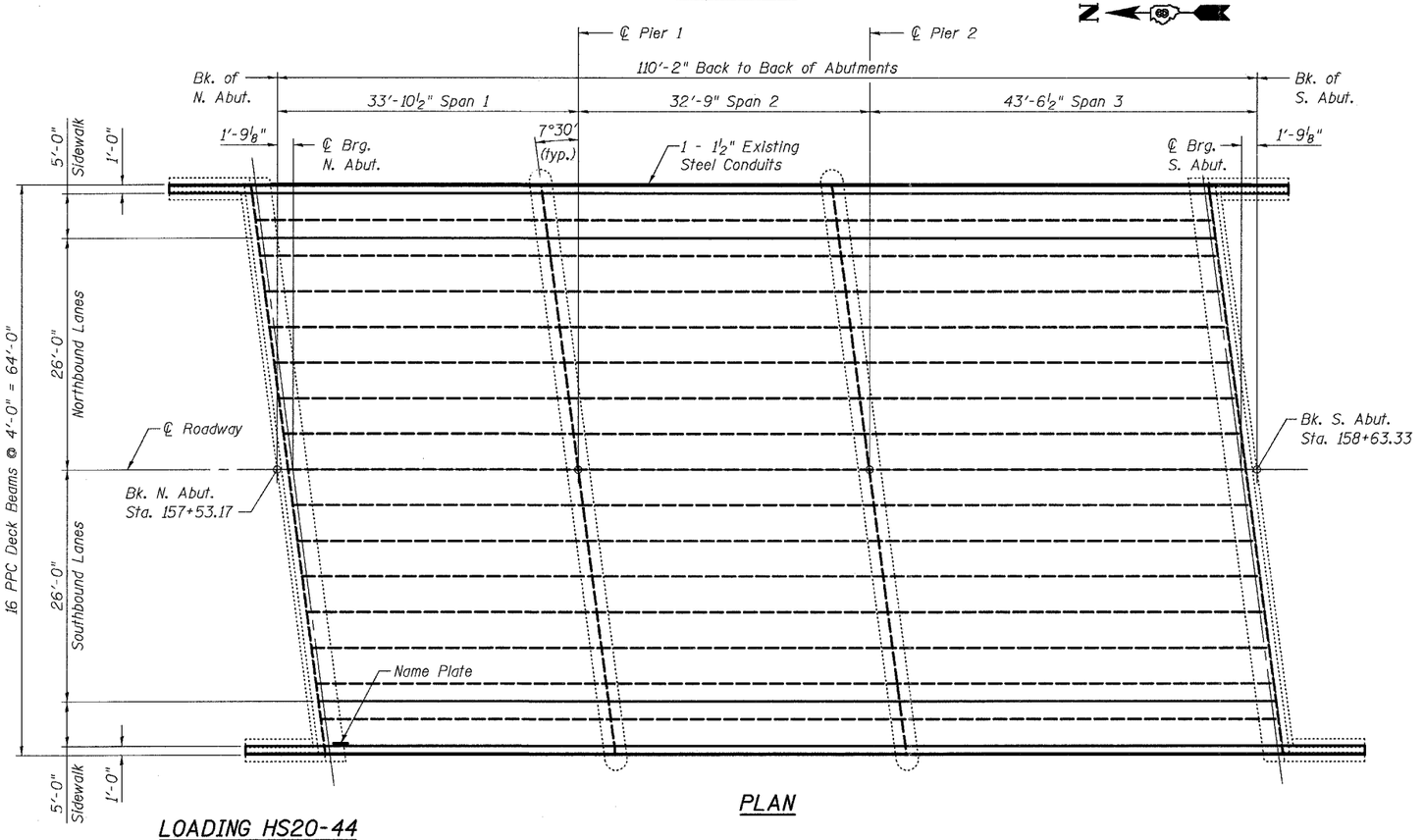
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	15
FED. ROAD DESY. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET 13 SHE

Contract # 76962



ELEVATION



PLAN

LOADING HS20-44

No allowance for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

FIELD UNITS

f'_c = 5,000 psi (Concrete Wearing Surface)
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

DESIGN STRESSES

PRECAST PRESTRESSED UNITS (SPANS 1 & 2)

f'_c = 5,000 psi
f'_{ci} = 4,000 psi
f'_s = 270,000 psi ($\frac{1}{2}$"ϕ low lax. strands)
f_{si} = 201,960 psi ($\frac{1}{2}$"ϕ low lax. strands)

PRECAST PRESTRESSED UNITS (SPAN 3)

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi ($\frac{1}{2}$"ϕ low lax. strands)
f_{si} = 201,960 psi ($\frac{1}{2}$"ϕ low lax. strands)

WATERWAY INFORMATION

Drainage Area = 14.2 Sq. Mi. Low Grade Elev. 495.8 @ Sta. 154+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	8,020	1,443		497.0	0.6		497.6	
Base	100	9,060	1,878		497.9	0.5		498.4	
Overtopping	30	7,350	1,162		496.1	0.2		496.3	
Max. Calc.	500								

STATION 158+08
BUILT 200 BY
STATE OF ILLINOIS
FAP ROUTE 600 - SEC 1-1BR-1
LOADING HS20
STR. NO. 082-0265

NAME PLATE

See Std. 515001

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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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 A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the 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 the fascia beams. The sealer s be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

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 Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructu

If the Contractor's procedure for existing beam removal or placement of new beams involves pla 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 th new beams. To distribute load to multiple beams and protect the concrete, in all cases a double lay mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in down position. If necessary, shims shall be used under the crane mat to ensure uniform contact w the underlying beams. Prior to placement of the timber mats the following shall be done: placement tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fas beams at expansion ends of beams to prevent movement of the beams.

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures.

The minimum thickness of concrete overlay shall be 5" and varies as required to adjust for the profile grade and camber.

No instream work will be allowed on this project.

All construction joints shall be bonded.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1	—	1
Concrete Removal	Cu. Yd.	7.3	—	7.3
Concrete Superstructure	Cu. Yd.	62.3	—	62.3
Bridge Deck Grooving	Sq. Yd.	607	—	607
Protective Coat	Sq. Yd.	840	—	840
Concrete Wearing Surface, 5"	Sq. Yd.	767	—	767
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	—	276	276
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	6,891	—	6,891
Reinforcement Bars, Epoxy Coated	Pound	17,700	—	17,700
Temporary Bridge Rail	Foot	220	—	220
Name Plates	Each	1	—	1
Bar Splicers	Each	234	—	234
Removing and Re-Erecting Existing Railing	Foot	248	—	248

Plans Prepared By:
Oates Associates, Inc.

LICENSED STRUCTURAL ENGINEER
BRUCE P. SCHOPP
081-005158
COLLINSVILLE, ILLINOIS
STATE OF ILLINOIS

Bruce P. Schopp
8/22/06
EXPIRES 11/30/06

GENERAL PLAN & ELEVATION
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

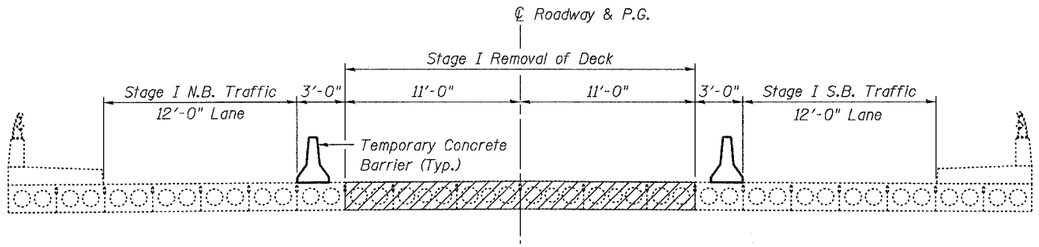
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

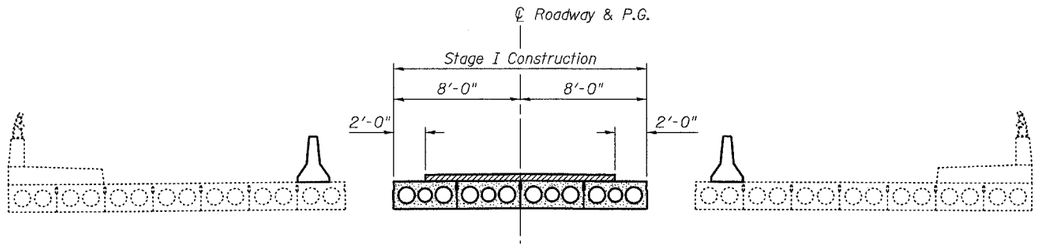
SHEET 13 SHE

Contract # 76962



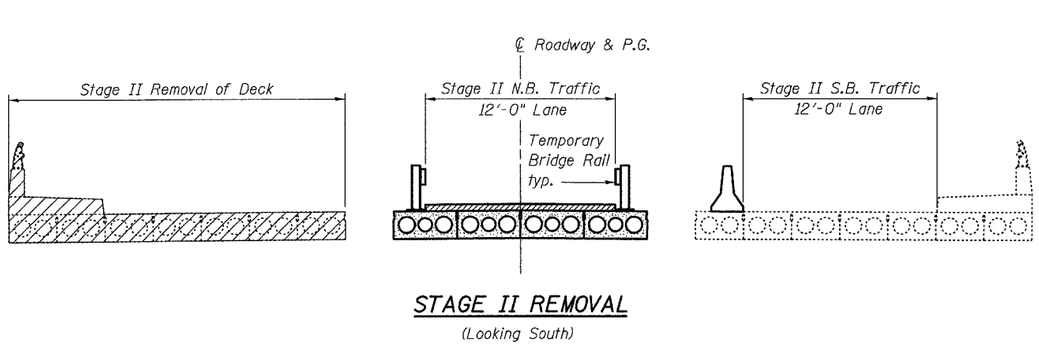
STAGE I REMOVAL

(Looking South)



STAGE I CONSTRUCTION

(Looking South)



STAGE II REMOVAL

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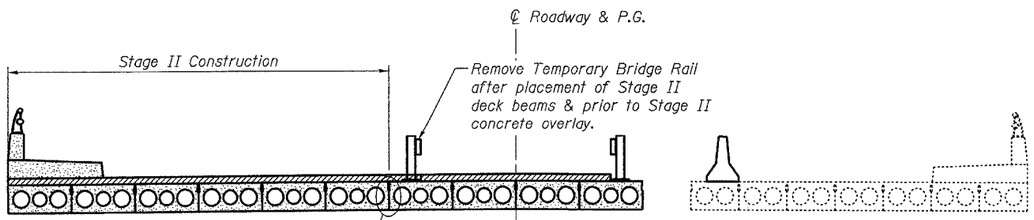
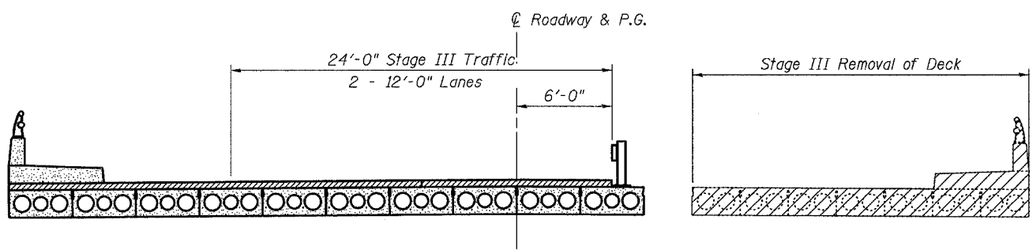


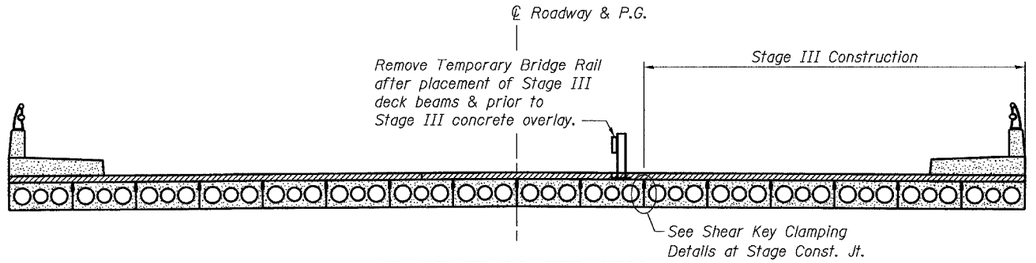
STAGE II CONSTRUCTION

(Looking South)



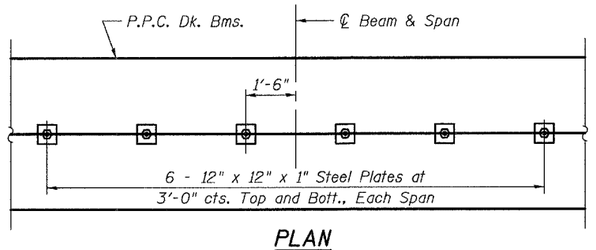
STAGE III REMOVAL

(Looking South)

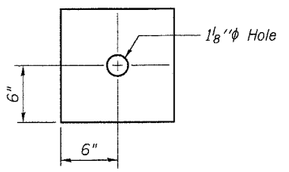


STAGE III CONSTRUCTION

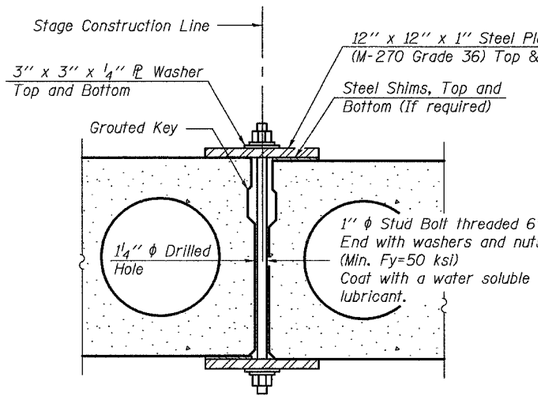
(Looking South)



PLAN



CLAMPING PLATE



SECTION

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Notes:
1. For quantity of Temporary Concrete Barrier, see roadway plans.
2. For details of Temporary Bridge Rail, see sheet 4 of 13 .
3. For details of Temporary Concrete Barrier, see sheet 3 of 13.
4. See Special Provisions for Stage Construction Precast Prestressed Concrete Deck Beams.
5. Cost of shear key clamps is included with Precast Prestressed Concrete Deck Beams (17" Depth).

STAGE CONSTRUCTION DETAILS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

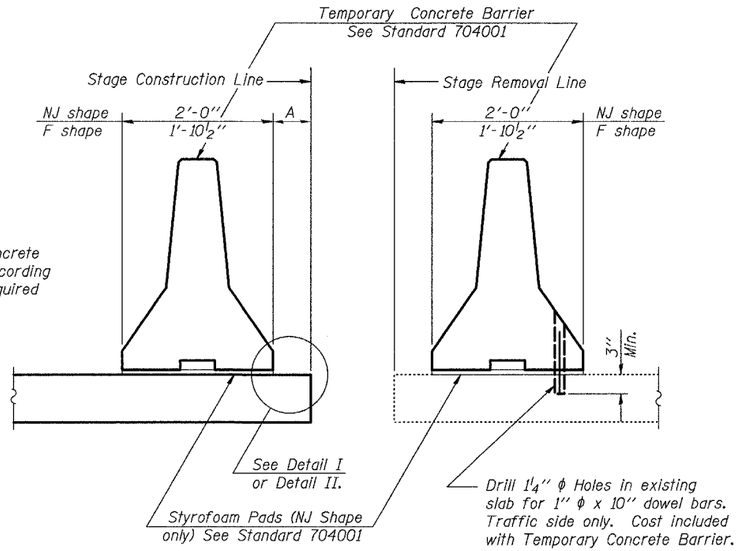
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET 13 SHE

Contract # 76962



NEW SLAB EXISTING SLAB

SECTIONS THRU SLAB

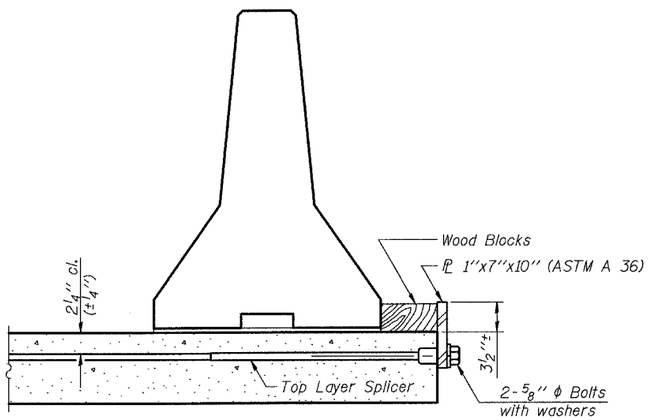
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

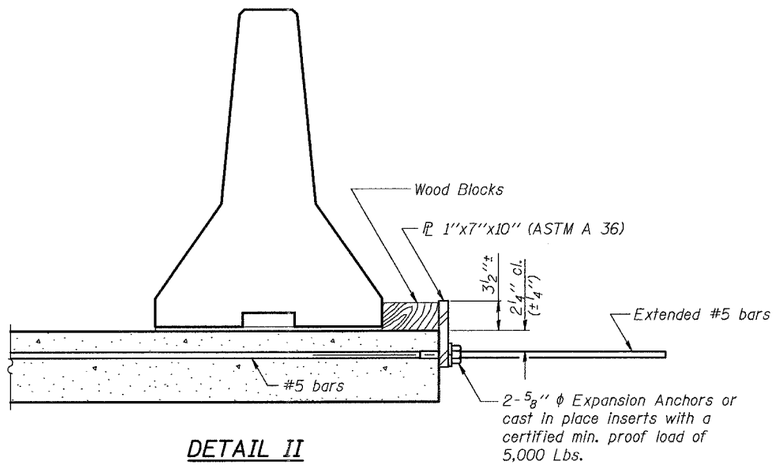
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.



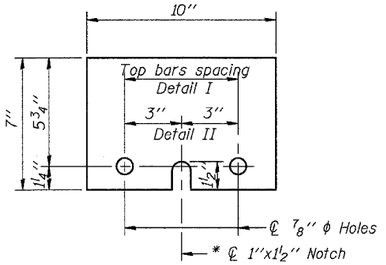
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



ℙ 1"x7"x10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

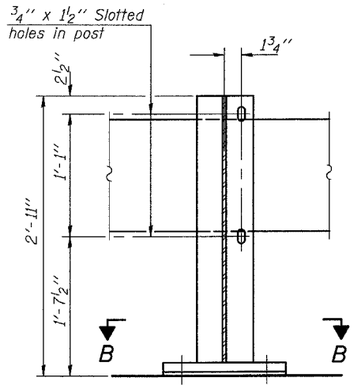
10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-IBR-1	ST. CLAIR	29	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

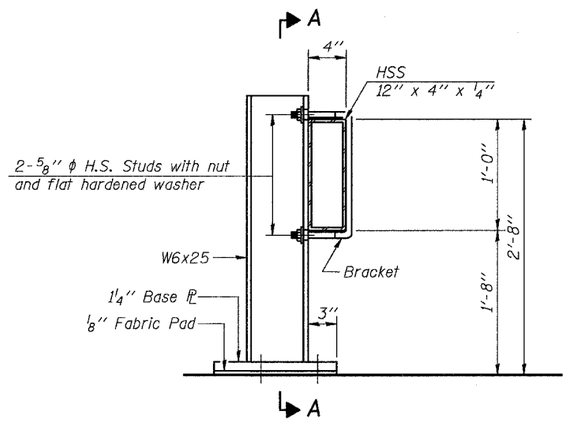
SHEET 13 SHE

Contract # 76962

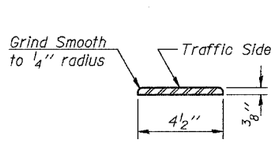
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



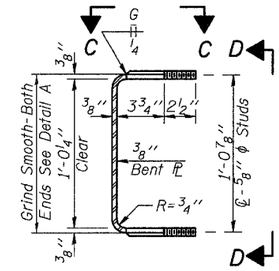
SECTION A-A



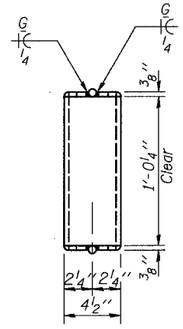
SECTION AT RAIL POST



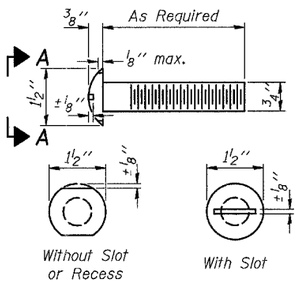
DETAIL A



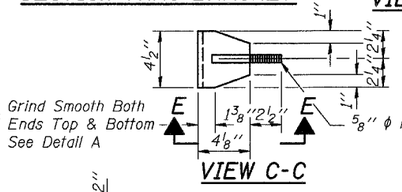
SECTION THRU BRACKET



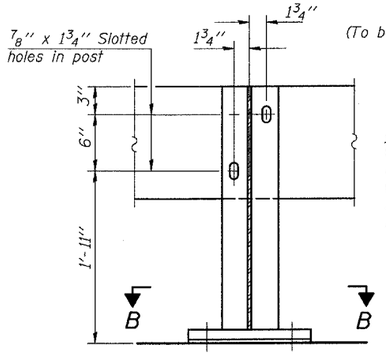
VIEW D-D



VIEW A-A ROUND HEAD BOLT



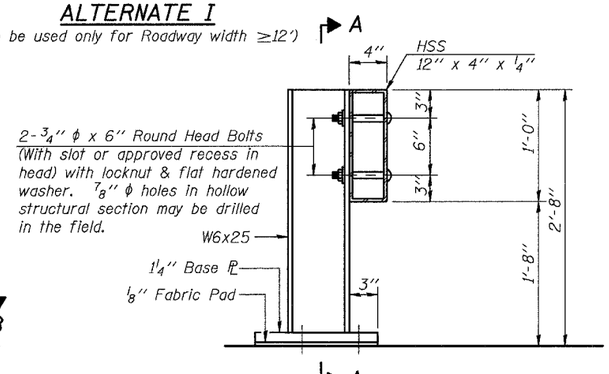
VIEW C-C



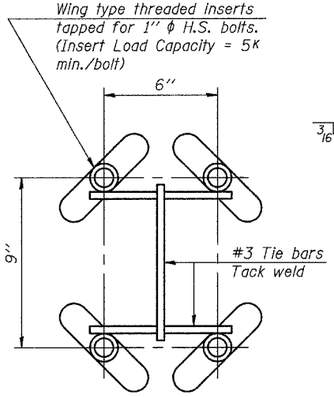
SECTION A-A

ALTERNATE I

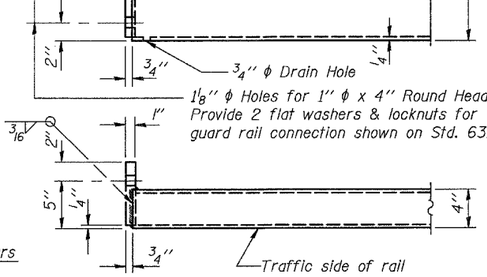
(To be used only for Roadway width ≥12')



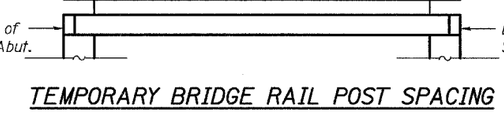
SECTION AT RAIL POST



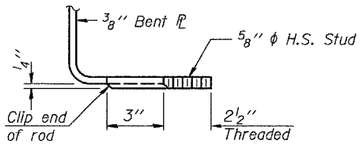
INSERT DETAIL



END OF RAIL DETAILS



TEMPORARY BRIDGE RAIL POST SPACING



VIEW E-E

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing.

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

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

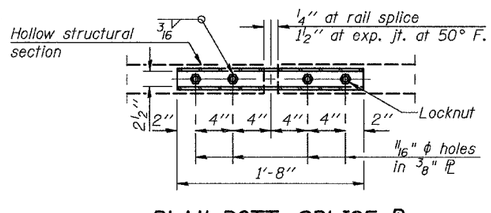
The bridge rail shall receive one shop coat of a steel prime pa

The 1" ϕ high strength bolts or threaded rods used to connect railposts shall be tightened according to Article 505.04(f)(2) of th Standard Specifications.

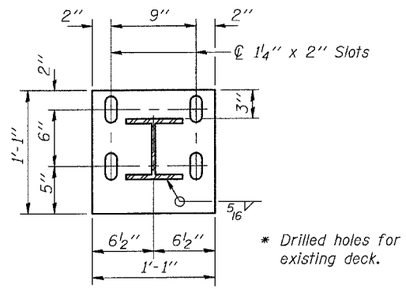
Temporary Bridge Rail shall be according to Section 514 of the Standard Specifications, except as noted, and will be paid for at contract unit price per foot for Temporary Bridge Rail.

The contact surfaces between post flange, rail and inside face bracket for Alternate I shall be free of all lubricants.

The nut for 5/8" ϕ high strength studs used in Alternate I to c bracket to post shall be tightened to a snug fit and given an addi one half turn.

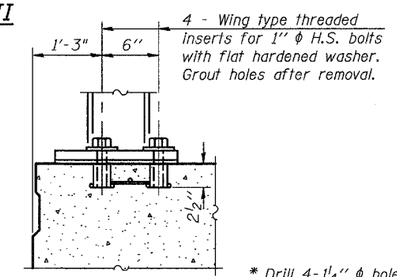


PLAN-BOTT. SPLICE PL TYPICAL

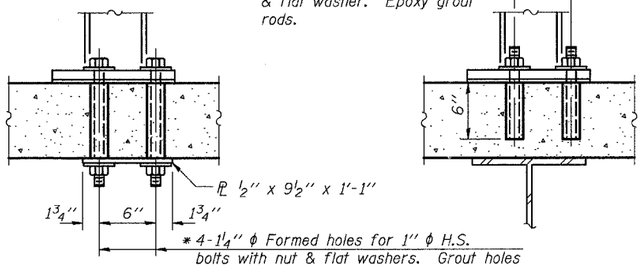


SECTION B-B

ALTERNATE II

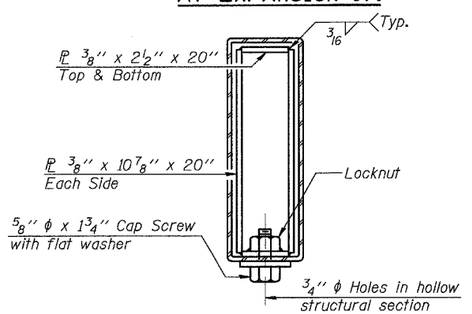


P.P.C. DECK BEAMS

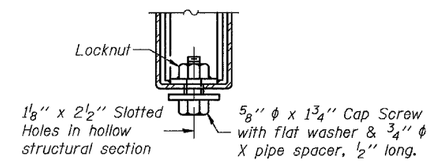


NEW & EXISTING DECKS

ANCHORAGE DETAILS



SECTION AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Bridge Rail	Foot	220

(10'-9" Maximum Post Spacing)

TEMPORARY BRIDGE RAIL
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

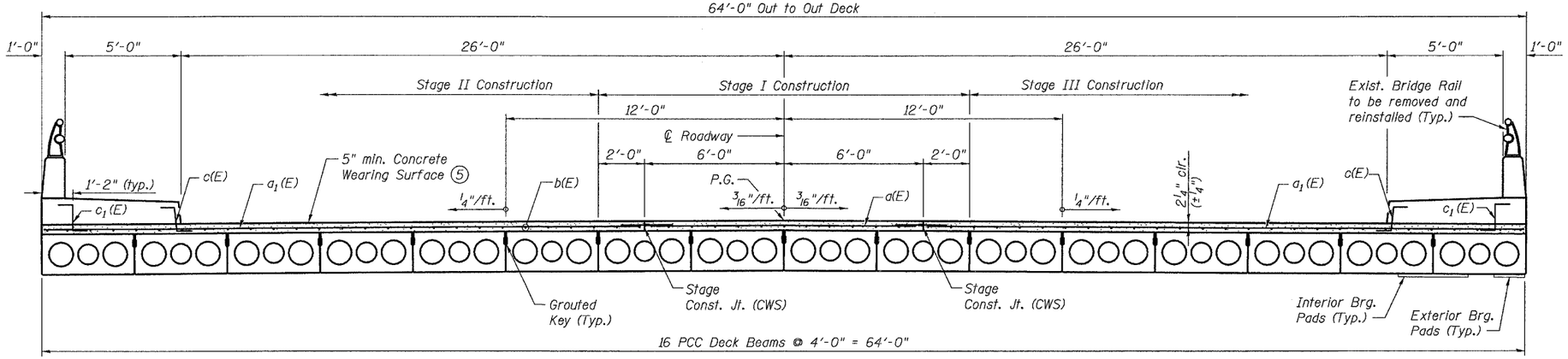
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

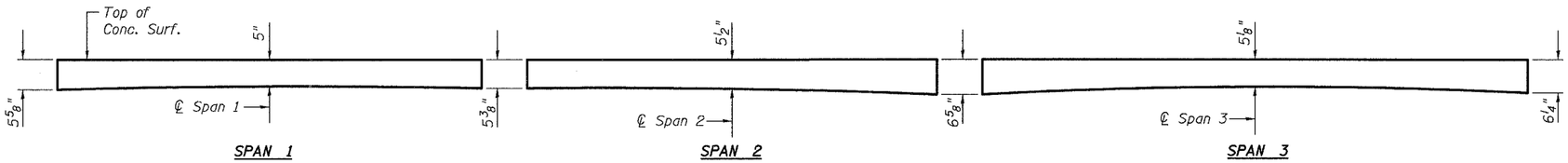
SHEET I
13 SHE

Contract #76962



CROSS SECTION

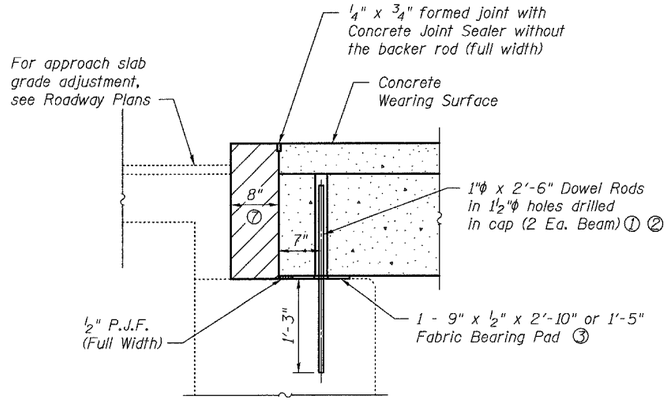
(Looking South)



REINFORCED CONCRETE WEARING SURFACE PROFILE

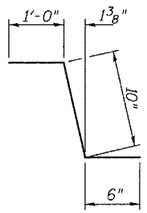
Notes :

1. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of bea and allowed to cure min. 24 hrs. prior to grouting the shear keys.
2. Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (17" depth).
3. See sheet 7 of 13 for bearing pad details.
4. Reinforcement bars designated (E) shall be epoxy coate
5. Concrete wearing surface to be poured after grouting the shear keys.
6. 1" Jt. shall be filled with non-shrink grout. 1" dimensi may vary to accommodate tolerance in beam lengths.
7. Hatched area to be poured after Concrete Wearing Surface is in place. Pour to match overlay cross-slope See sheet 9 of 13 for details and reinforcing.
8. Bars indicated thus 27x4 - #4 etc. indicates 27 lines of bars with 4 lengths per line.
9. Temporary Bridge Rail inserts shall be cast into PPC De Beam. See sheet 4 of 13 for location of rail anchors.
10. Min. lap length #4 - 1'-8"

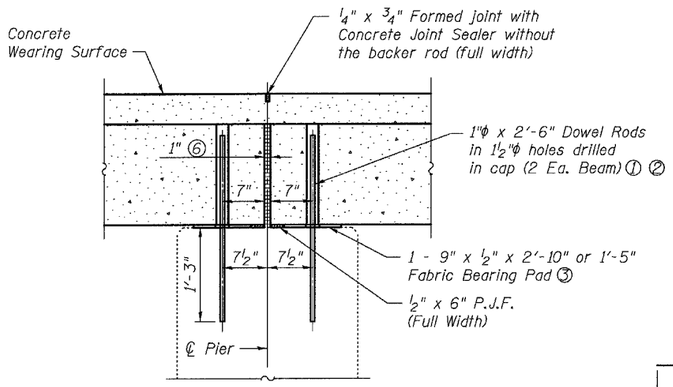


SECTION THRU ABUTMENT

(Dimensions at right L's to beam ends)

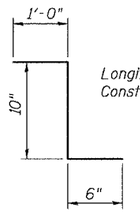


BAR c(E)

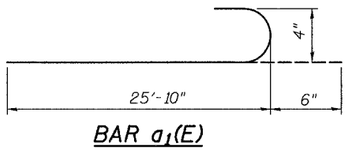


SECTION THRU PIER

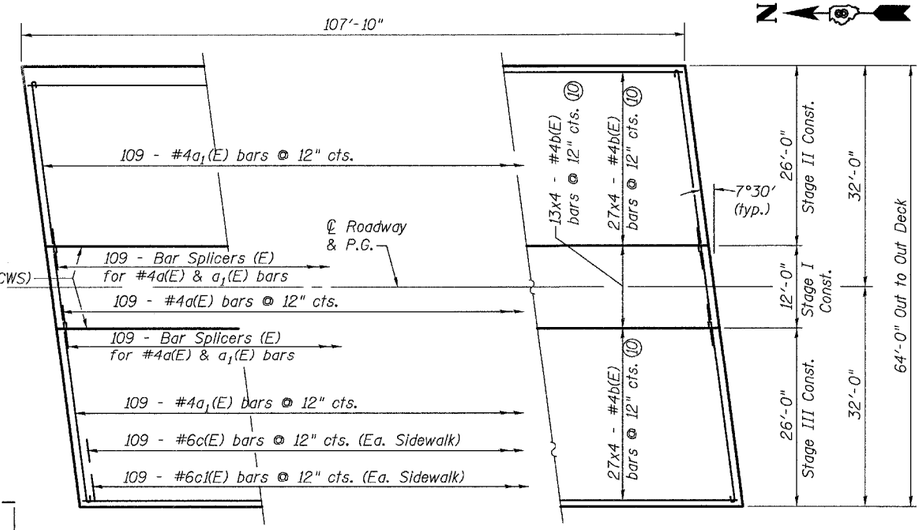
(Dimensions at right L's to beam ends)



BAR c1(E)



BAR a1(E)



CONCRETE OVERLAY PARTIAL PLAN

(PPC Deck Beams, Sidewalk, and Parapet not shown for clarity.)

SUPERSTRUCTURE BILL OF MATERIA

Bar	No.	Size	Length	Shape
a(E)	109	#4	11'-9"	——
a1(E)	218	#4	26'-4"	——⊃
b(E)	268	#4	28'-3"	——
b1(E)	32	#5	32'-3"	——
b2(E)	16	#5	42'-0"	——
c(E)	218	#6	2'-4"	⌐
c1(E)	218	#6	2'-4"	⌐
c2(E)	218	#5	5'-8"	——
d(E)	218	#4	3'-9"	L
d1(E)	218	#6	3'-1"	L
d2(E)	52	#4	2'-0"	⊓
e(E)	48	#4	16'-0"	——
e1(E)	36	#4	13'-9"	——
Concrete Superstructure		Cu. Yd.	53.7	
Concrete Wearing Surface		Sq. Yd.	767	
Reinforcement Bars, Epoxy Coated		Pound	16,810	

SUPERSTRUCTURE DETAILS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

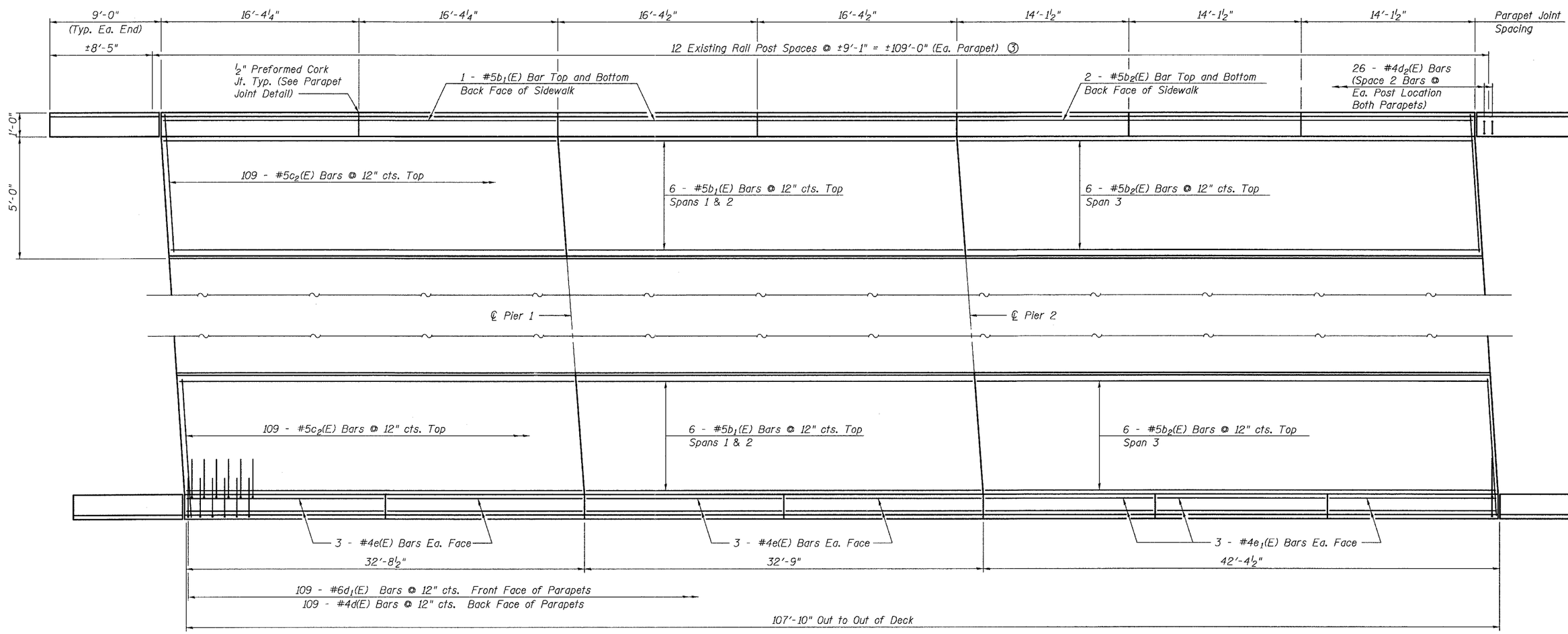
PLOT DATE = &DATE&
FILE NAME = &FILEL&
PLOT SCALE = &SCALE&
USER NAME = &USER&

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

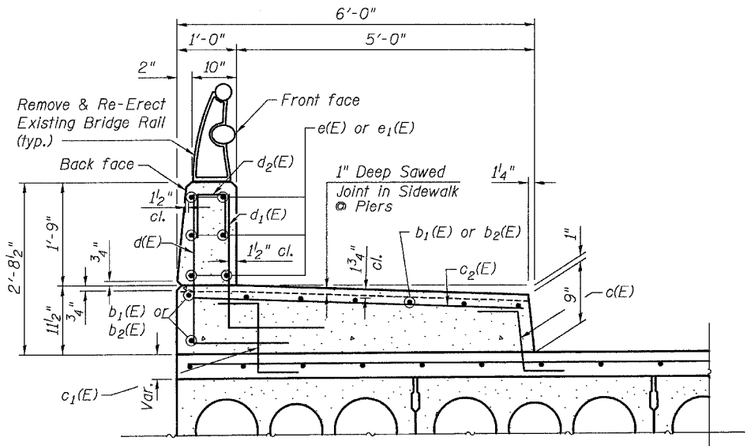
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	20
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET 13 SHE

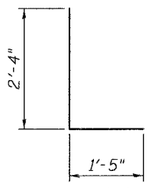
Contract # 76962



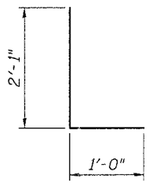
SIDEWALK AND PARAPET PLAN



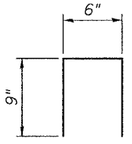
SECTION THRU SIDEWALK & PARAPET



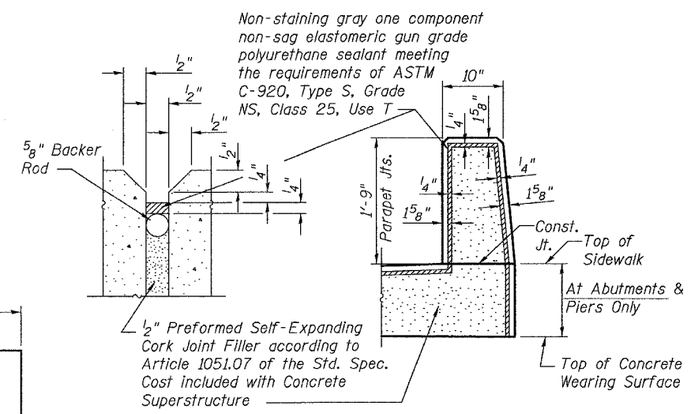
BAR d(E)



BAR d1(E)



BAR d2(E)



PARAPET JOINT DETAIL

Notes :
1. Reinforcement bars designated (E) shall be epoxy
2. See sheet 5 of 13 for Bill of Materials.
3. Contractor shall verify existing rail post spacing to placement of rail anchorage.

SIDEWALK & PARAPET DETAILS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

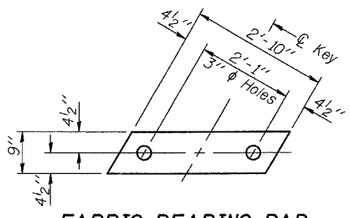
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

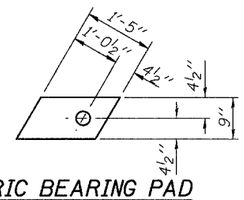
SHEET 13 SHE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Contract # 76962

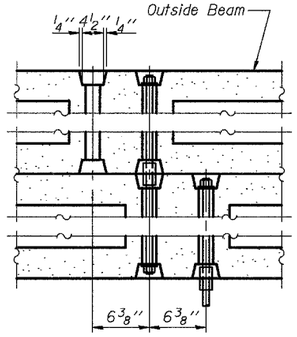


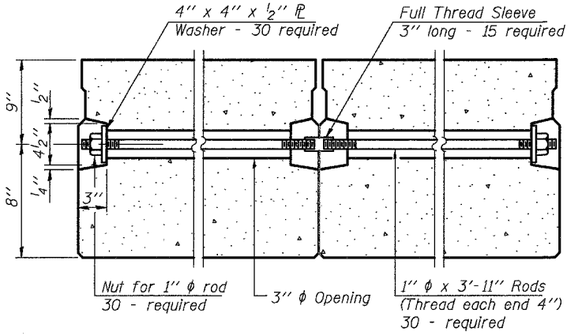
FABRIC BEARING PAD
(Interior)
(90 Required)

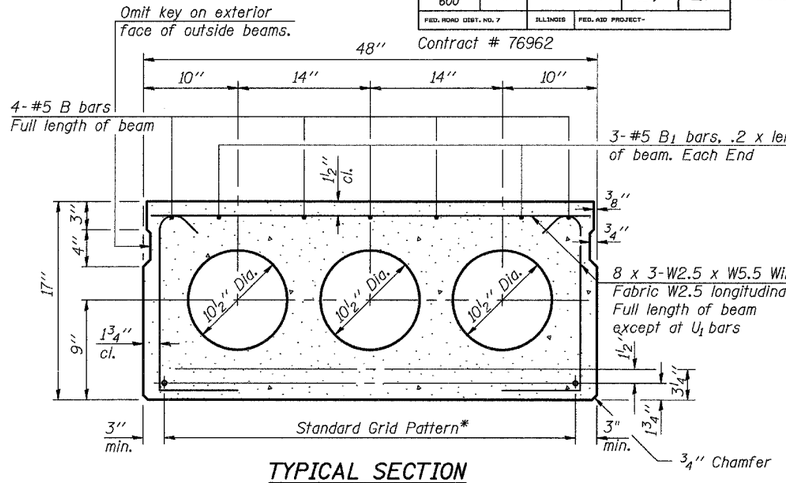


FABRIC BEARING PAD
(Exterior)
(12 Required)

FIXED





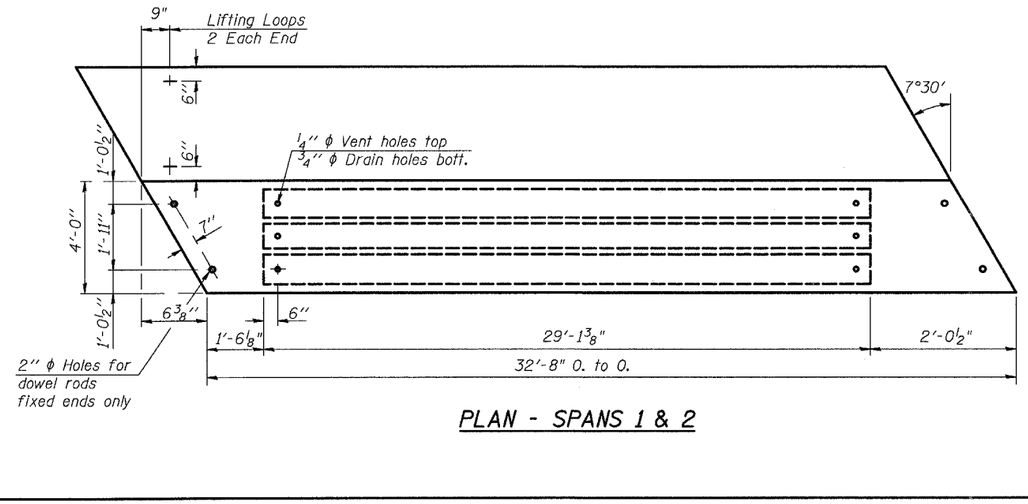


TYPICAL TRANSVERSE TIE ASSEMBLY

TYPICAL SECTION

½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
Spans 1 and 2 - 9-Strands 1¾" up, 2-Strands 3¼" up
Span 3 - 12-Strands 1¾" up, 8-Strands 3¼" up, 2-Strands 12" up

PLAN - SPAN 3



PLAN - SPANS 1 & 2

END PLAN

BAR U1

LIFTING LOOP DETAIL

* Transverse Strand Placement Guidelines

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all direction shall be 2".
3. The minimum clearance from strand to dowel hole shall be ½".
4. The minimum clearance from strand to void shall be 1½".

Vertical placement of strands shall not be adjusted to satisfy the above guidelines.

BILL OF MATERIAL

Item	Unit	Quant
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	6,89

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be 2 - ½" 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.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" 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 4,000 p.s.i. for Spans 1 & 2 and 5,000 p.s.i. for Span 3.

SUPERSTRUCTURE DETAILS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

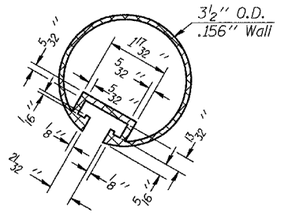
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

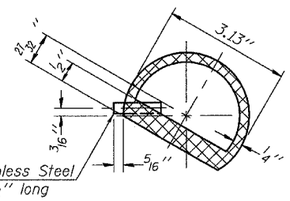
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET 13 SHE

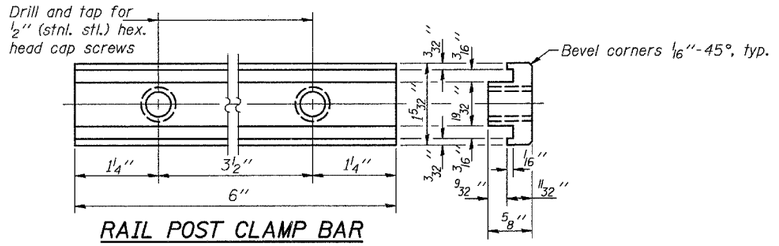
Contract # 76962



SECTION THRU TOP RAIL

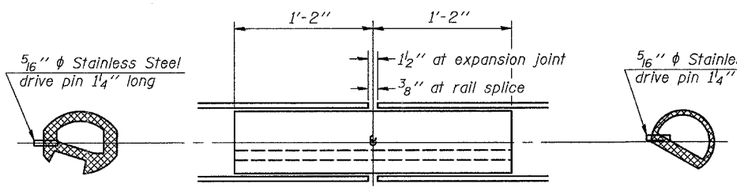


SECTION THRU SPLICE
For Top Rail



RAIL POST CLAMP BAR
For Top Rail

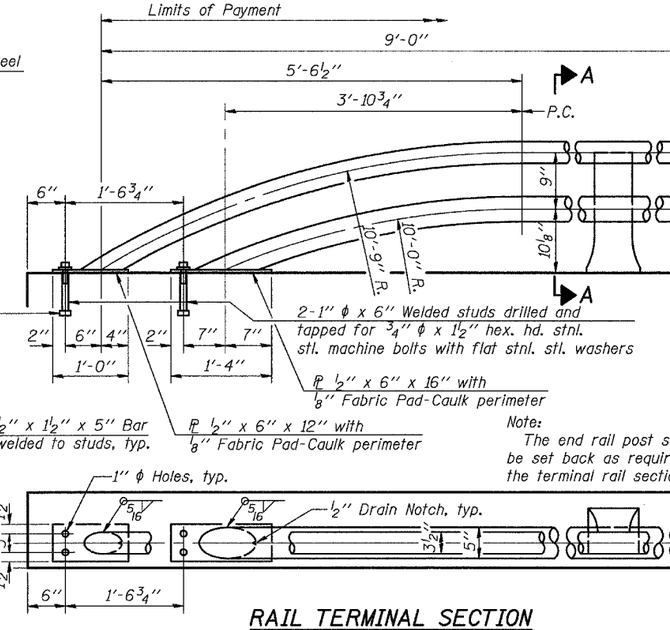
Notes:
All Posts shall be normal to parapet.
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge where the rail shall be attached to a minimum of 2 posts. If the rail horizontal curve of 2300 foot radius or less, the modular lengths may reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.
Provide 1-⅛" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.
Existing Bridge Handrail shall be removed and re-erected on top of the proposed parapet, and will be paid for at the contract unit pric per foot for REMOVING AND RE-ERECTING EXISTING RAILING.



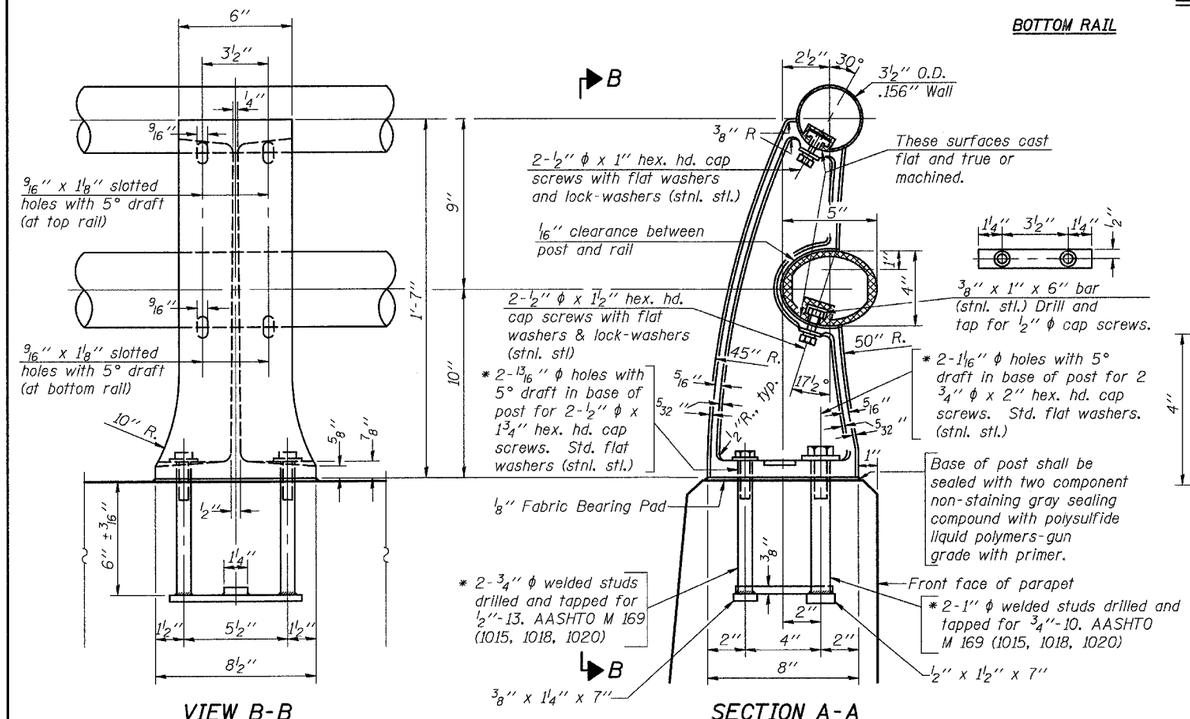
BOTTOM RAIL

RAIL SPLICE

TOP RAIL



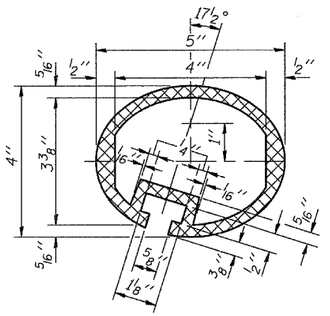
RAIL TERMINAL SECTION



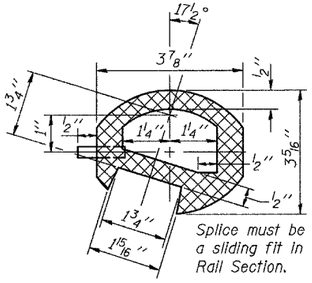
VIEW B-B

SECTION A-A

RAIL POST DETAILS



SEC. THRU ELLIPTICAL RAIL SECTION



Splice must be a sliding fit in Rail Section.

SEC. THRU SPLICE

Contractor to provide anchorage of existing bridge rail in accordance with this sheet. All other details are shown for information only.

BILL OF MATERIAL

Item	Unit	Quantity
Removing and Re-Erecting Existing Railing	Foot	248

* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting stainless steel anchor rods of the same diameter and grade as the specified cap screws. Embedment shall be according to the manufacturer's specifications.

TYPE L ALUMINUM RAILING
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

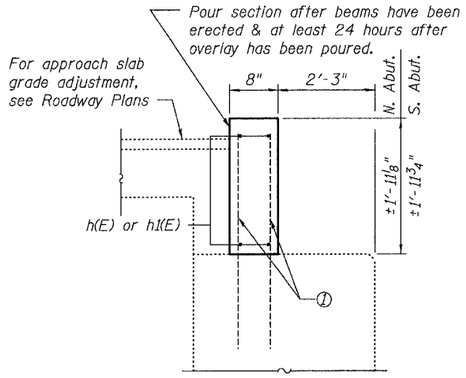
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

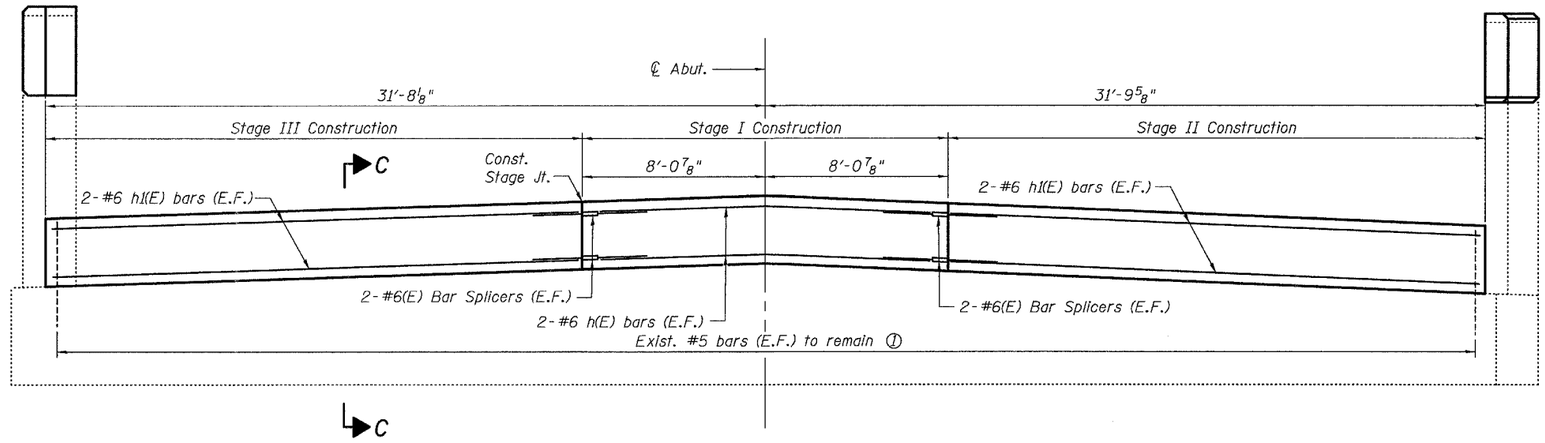
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET 13 SHE

Contract # 76962



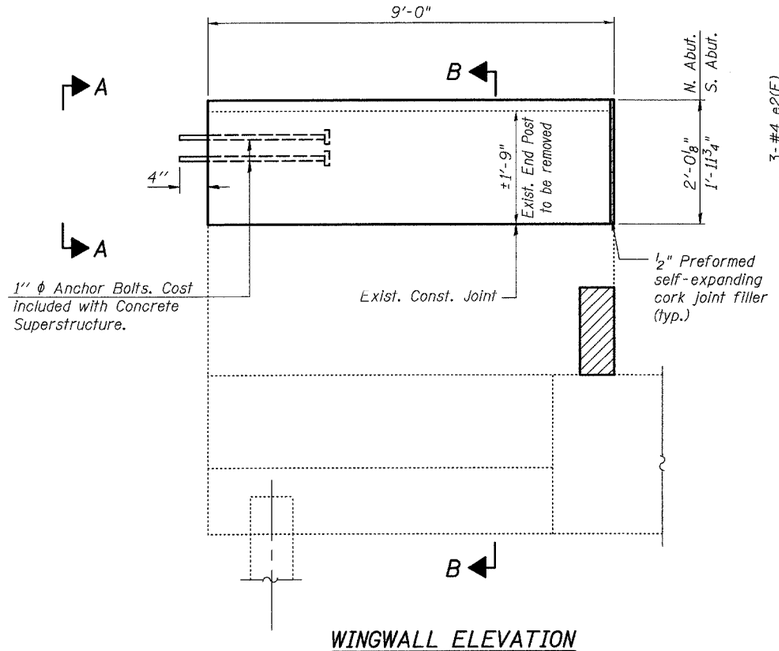
SECTION C-C
(Dimensions at right L's to beam ends)



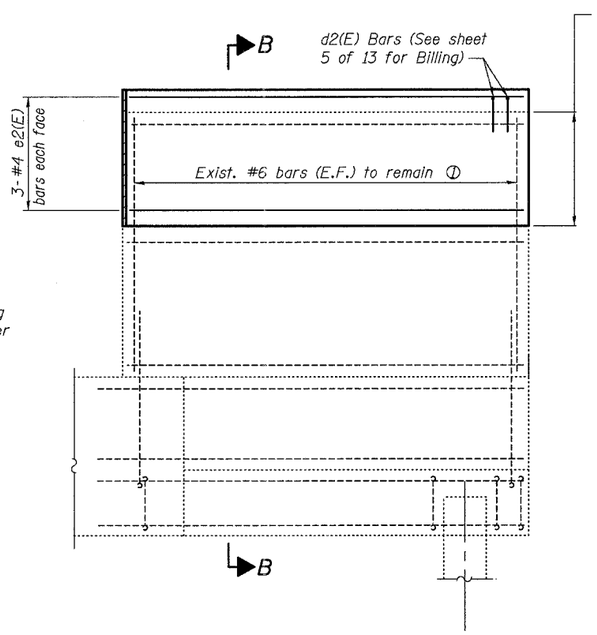
ABUTMENT ELEVATION
(North abutment shown looking north, South Abutment opposite hand)

BILL OF MATERIAL
(Two Abutments)

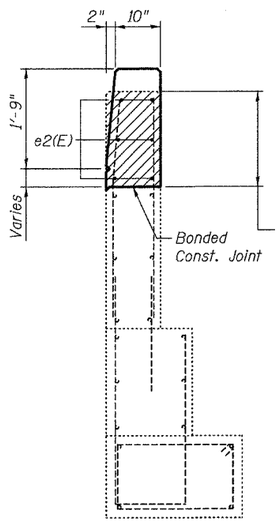
Bar	No.	Size	Length	Shape
e2(E)	24	#4	8'-7"	——
h(E)	8	#6	15'-9"	——
h1(E)	16	#6	23'-3"	——
Reinforcement Bars, Epoxy Coated			Pound	890
Concrete Superstructure			Cu. Yd.	8.6
Concrete Removal			Cu. Yd.	7.3



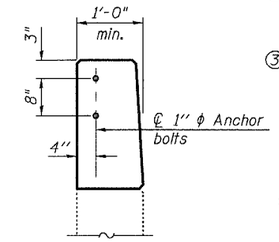
WINGWALL ELEVATION
Showing Dimensions



WINGWALL ELEVATION
Showing Reinforcement



SECTION B-B



VIEW A-A

Notes:
① Existing reinforcement bars shown are to be cleaned incorporated into new construction.
② Any reinforcement bars that are damaged during cor removal operations shall be repaired or replaced usin approved bar splicer or anchorage system. Cost inc with Concrete Removal.
③ E.F. denotes each face.

ABUTMENT & WINGWALL DETAILS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

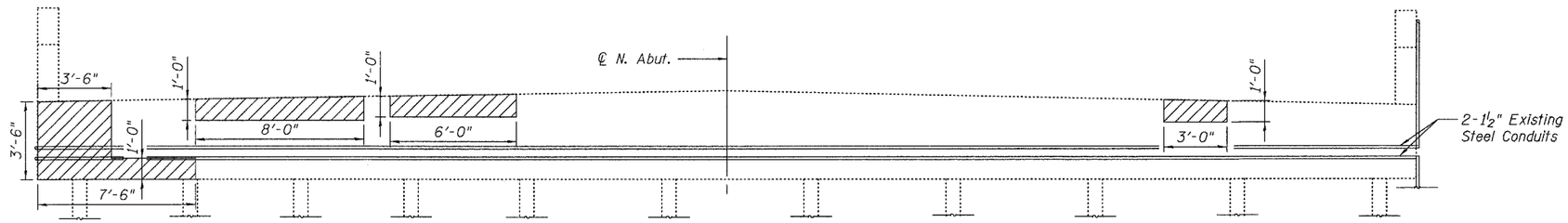
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

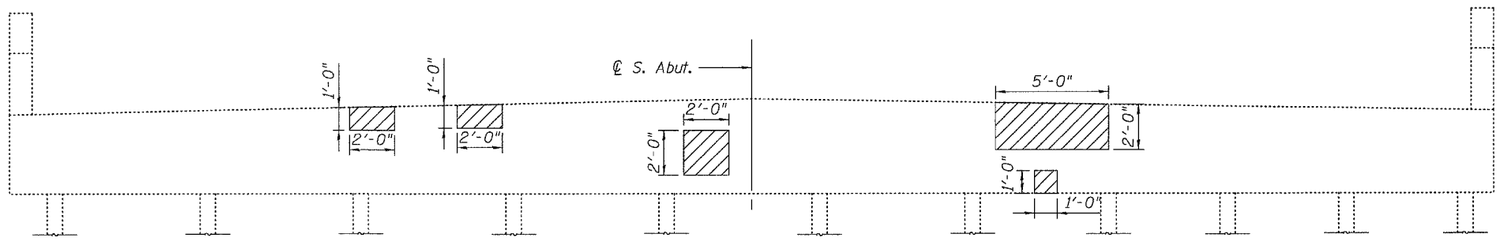
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	24
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET 13 SHE

Contract # 76962



NORTH ABUTMENT
(Looking North)



SOUTH ABUTMENT
(Looking South)

BILL OF MATERIAL

Structural Repair of Concrete (≤ 5")	Sq. Ft.	52

Note:
Hatched area indicates approximate area of Structura
Repair of Concrete. Exact repair area to be determ
by Engineer.

NORTH & SOUTH ABUTMENT
FORMED CONCRETE REPAIRS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

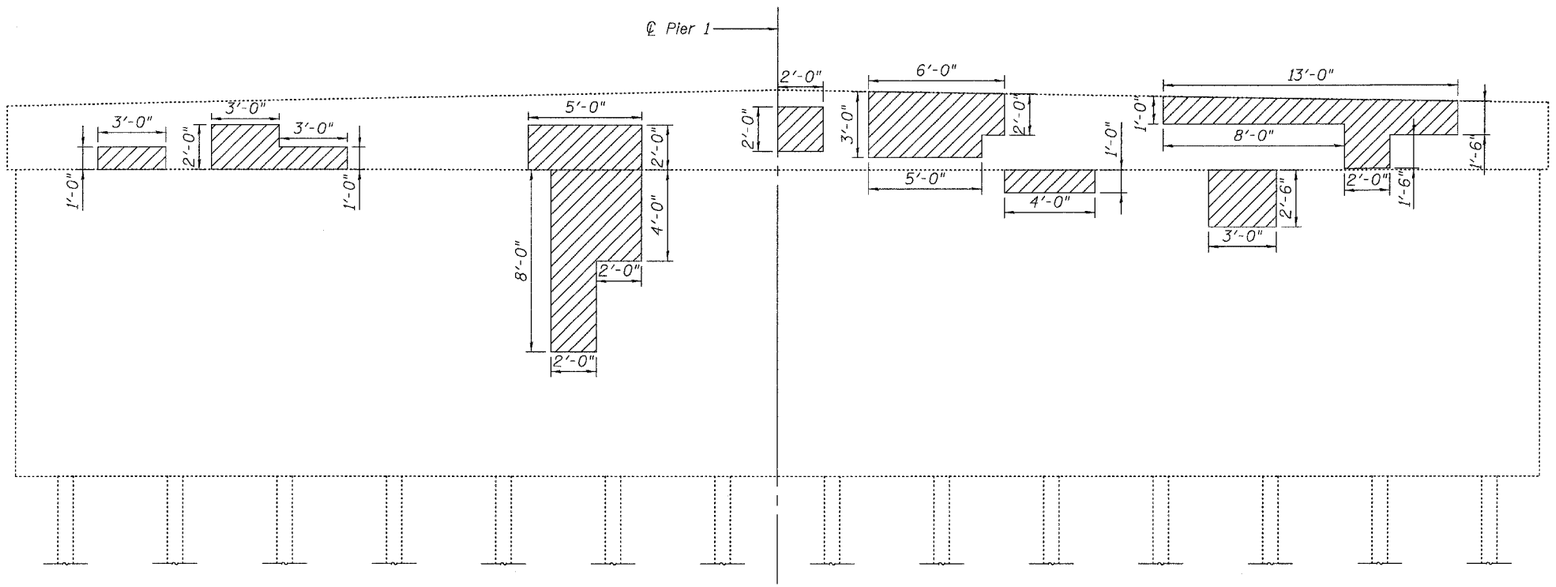
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	25
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET 13 SHE

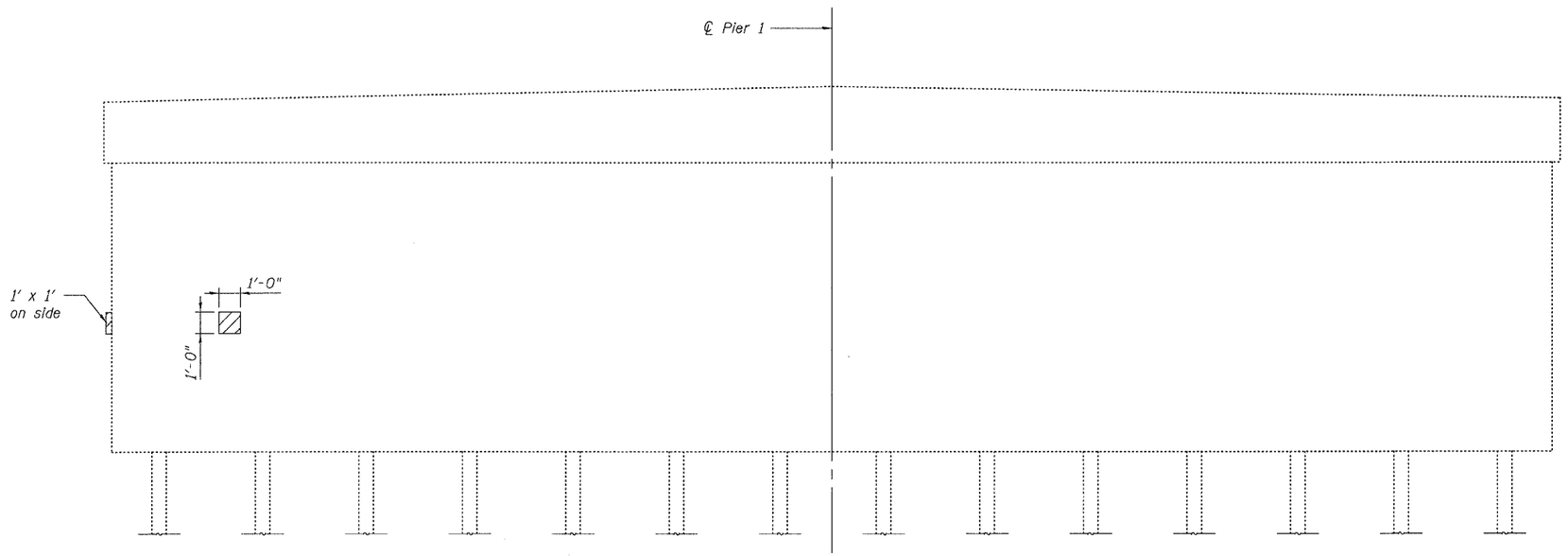
Contract # 76962

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NORTH SIDE PIER 1

(Looking South)



SOUTH SIDE PIER 1

(Looking North)

BILL OF MATERIAL

Structural Repair of Concrete (≤ 5")	Sq. Ft.	99

Note:
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determine by Engineer.

PIER 1 FORMED CONCRETE REPAIRS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

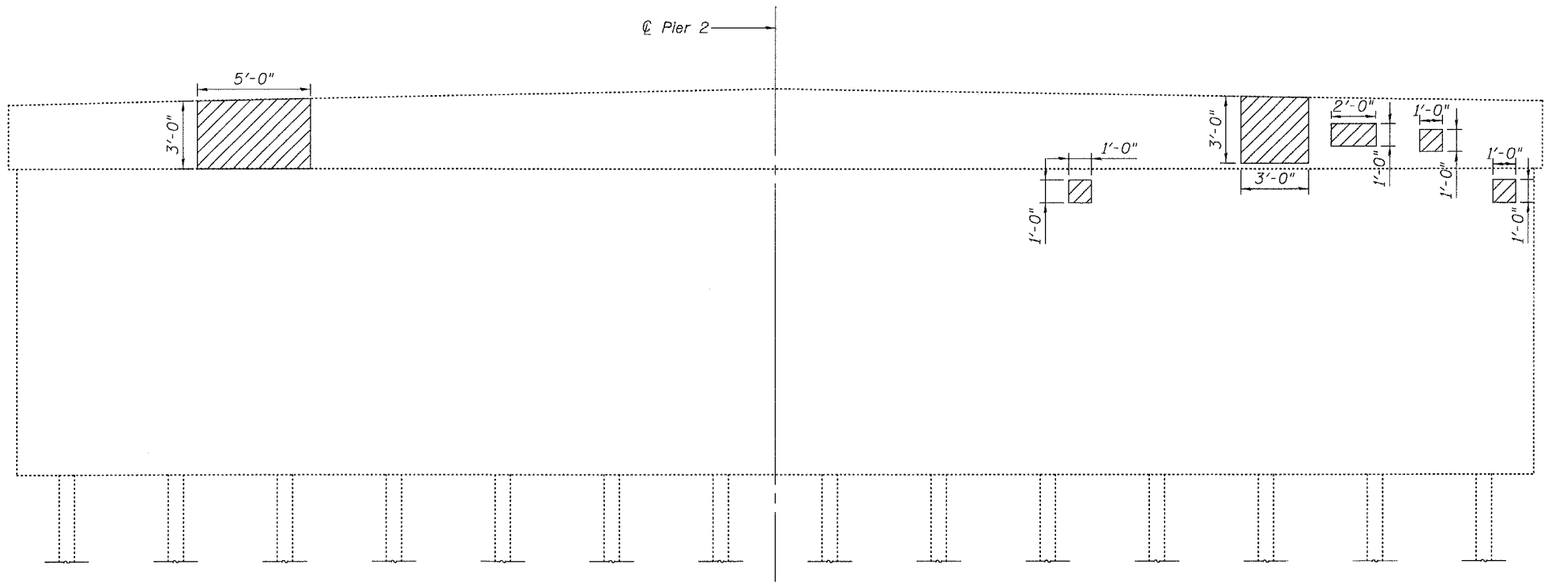
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

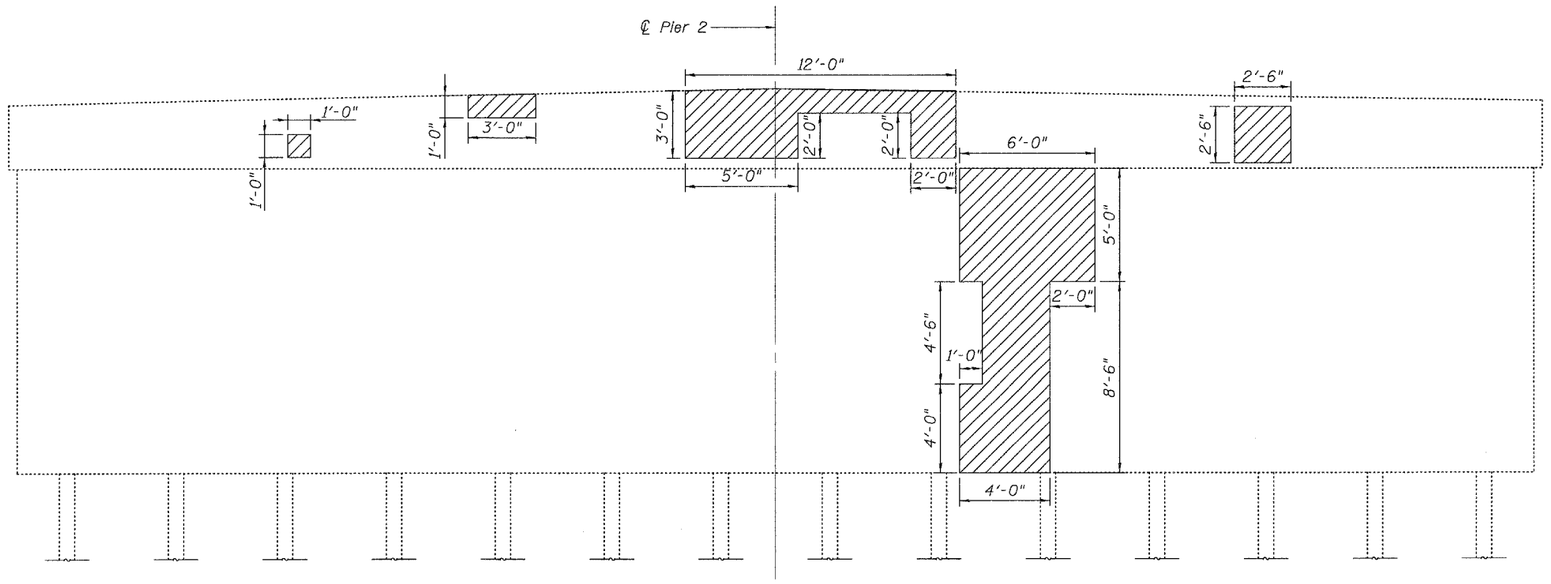
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-IBR-1	ST. CLAIR	29	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET N
13 SHEE

Contract # 76962



NORTH SIDE PIER 2
(Looking South)



SOUTH SIDE PIER 2
(Looking North)

BILL OF MATERIAL

Structural Repair of Concrete (≤ 5")	Sq. Ft.	125

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

PIER 2 FORMED CONCRETE REPAIRS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

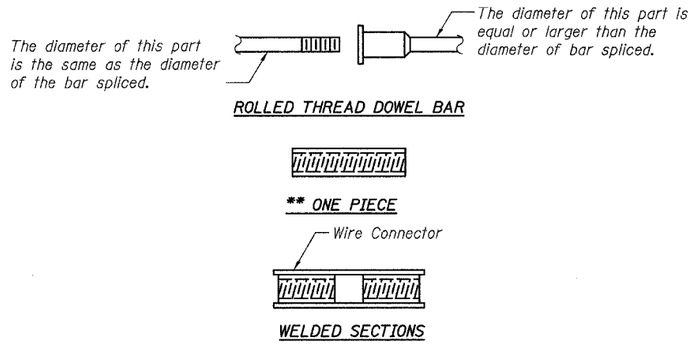
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 600	1-1BR-1	ST. CLAIR	29	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

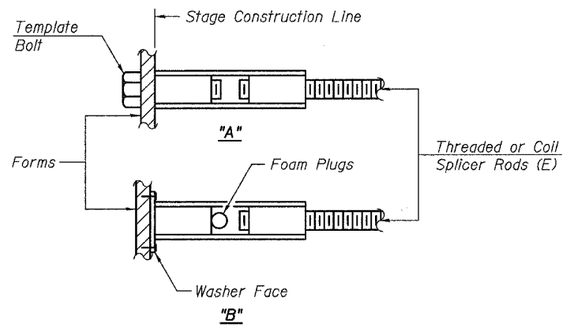
SHEET N
13 SHE

Contract # 76962



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

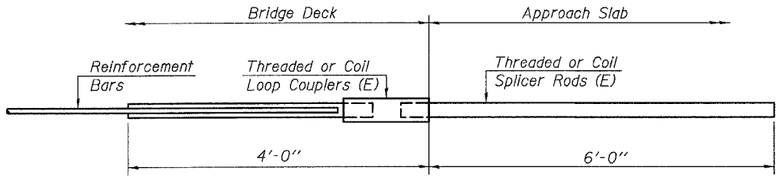
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

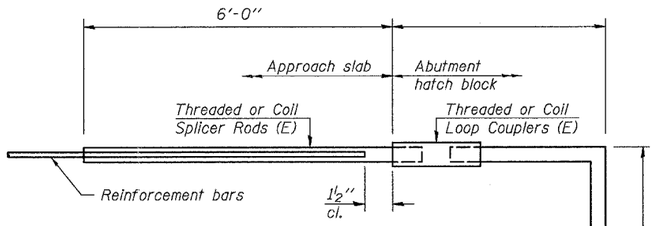
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



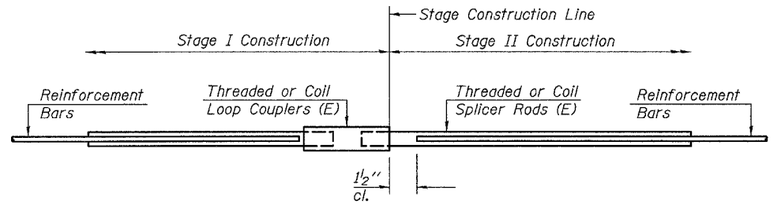
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#4	218	Conc. Wearing Surface
#6	8	N. Abut.
#6	8	S. Abut.

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 159 OVER RICHLAND CREE
F.A.P. ROUTE 600 - SECTION 1-1BR-
ST. CLAIR COUNTY
STA. 158+08
STRUCTURE NO. 082-0265

PLOT DATE = #DATE#
FILE NAME = #FILE1#
PLOT SCALE = #SCALE#
USER NAME = #USER#

BSD-1 10-22-04

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

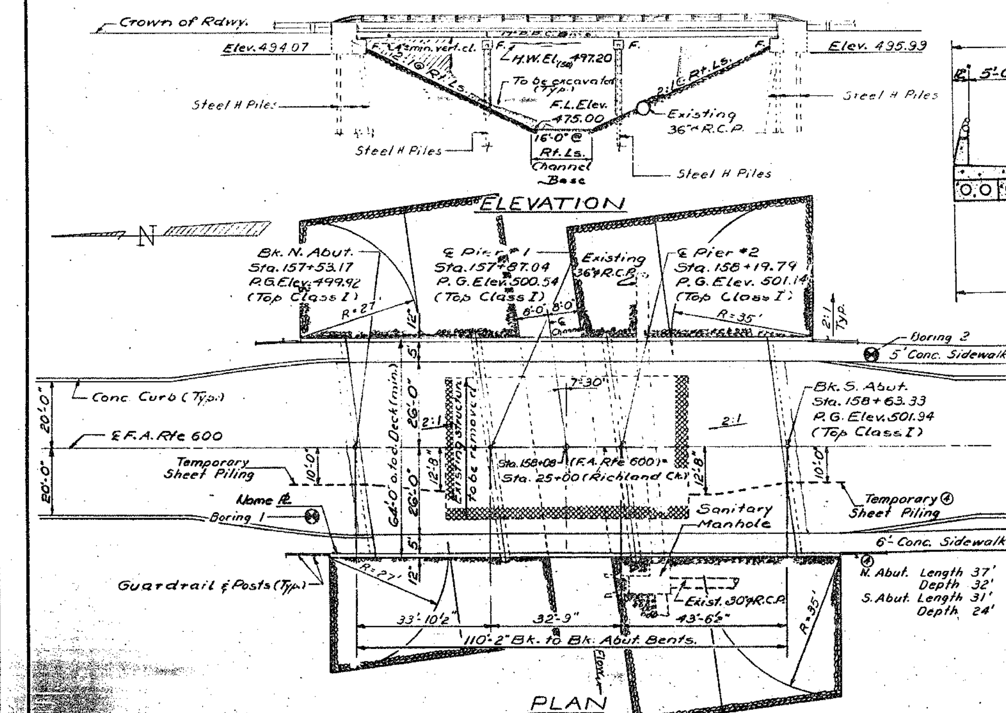
B.M.: Bronze plug on ℄ Ill. Rte. 159 at Sta. 148+24.6
Elev. 500.21
Existing structure: No 082-0069, sta. 158+11.15, built as N. Illinois street over Richland creek in 1923. The existing 61'-10" simple span with built up I-beams superstructure on stone closed abutments shall be removed utilizing Stage Construction, as shown in the Planes.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

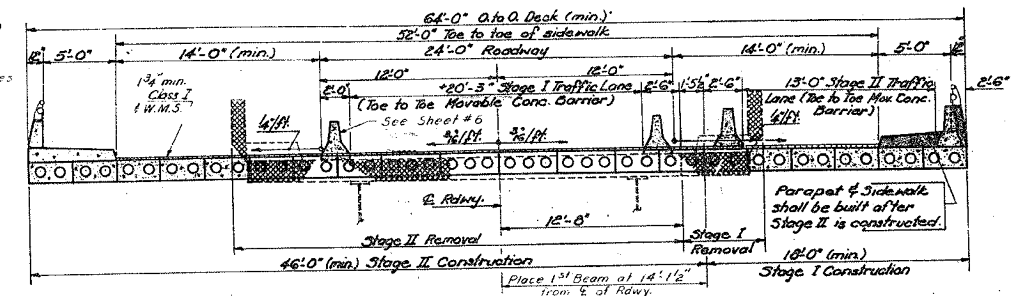
		ST. CLAIR	17	5

SHEET NO. 1
10 SHEETS



ELEVATION

PLAN



CROSS SECTION
Showing Traffic Lanes during Stage Const. (Looking South)
Dimensions are at Rt. Ls to ℄ of Rdwy.

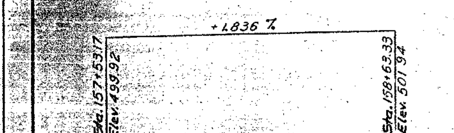
GENERAL NOTES

See Proposal for Boring Data.
It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction & ordering of materials.
The top surface of the beams shall be finished in accordance with Art. 505.06 of the Std. Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.
The concrete rail section above the mandatory const. joint at the top of the sidewalk shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
Layout of riprap slopewalls may be varied in the field to suit ground conditions as directed by the Engineer.
All reinforcement bars shall conform to the requirements of AASHTO M31 or M53, Grade 60.
The Contractor shall drive one (1) Steel test pile, HP8x36 at Pier 1 in a permanent location as directed by the Engineer before ordering the remainder of piles.
The contractor will be held responsible for any damages incurred to the 36" ⌀ combined sewer through his negligence. Damages incurred during normal construction procedures will be paid for in accordance with Section 109 of the Standard Specifications.

TOTAL BILL OF MATERIAL

Item		Super	Sub	Total
Waterproofing Membrane System	Sq.Yds.	623		623
P.C. Mortar Fairing Course	Lin.Ft.	2,049		2,049
Protective Coat	Sq.Yds.	212		212
Class X Concrete	Cu.Yds.	62.4	293.7	356.1
P.P.C. Deck Beams (17")	Sq.Ft.	6,891		6,891
Reinforcement Bars	Lbs.	5,670	22,780	28,450
Structure Excavation	Cu.Yds.		282	282
Temporary Sheet Piling	Sq.Ft.		1,950	1,950
Bituminous Concrete Surface Course Class I	Tons	83		83
Name Plates	Each	1		1
Stone Rip Rap	Sq.Yds.		1,524	1,524
Aluminum Railing Type L	Lin.Ft.	248		248
Movable Double Concrete Barrier	Lin.Ft.	220		220
② Removal of Existing Structures	Eq.			1
Channel Excavation	Cu.Yds.		1,660	1,660
Steel Piles HP8x36	Lin.Ft.		1,424	1,424
Test Piles Steel HP8x36	Each		1	1
③ Setting Piles in Rock	Each		17	17
Pavement Replacement	Sq.Yds.	43		43
Pavement Removal	Sq.Yds.	166		166

② Sidewalk Removal is incidental to the cost of the Removal of Existing Structures.
③ See Special Provisions.



PROFILE EXISTING F.A. RTE. 600
(North Illinois Ave.)

STATION 158+08.00
BUILT 197 BY
STATE OF ILLINOIS
F.A. RT. 600 SEC. 1-1BR
F.A. PROJECT F-600(16)
LOADING HS 20
STR. No. ①

NAME PLATE
See Std. 2113

① Str. No. to be supplied by the District

WATERWAY INFORMATION

Drainage area 16 Sq.Mi.
Existing opening 680 Sq.Ft.
Required opening 270 Sq.Ft.
Proposed opening 1270 Sq.Ft. (below 50yr. HWE)
High Water El. (50yr) = 497.20 – (100yr) = 498.70
Q(50) = 5300 c.f.s. – Q(100) = 7180 c.f.s.
Created Head = 0.7' – Created Head = 0.99'
All Time H.W. El. = 497.30

FIELD UNITS

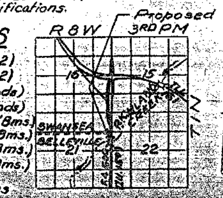
f'c = 3500 psi
fy = 60,000 psi (Reinf.)
fs = 20,000 psi (Struct.)

LOADING HS20-44

PRESTRESSED UNITS

f'c = 5000 psi (Spans 1 & 2)
f'ci = 4000 psi (Spans 1 & 2)
f's = 270,000 psi (1/2" ⌀ Strands)
f'si = 189,000 psi (1/2" ⌀ Strands)
f'c = 6000 psi (Span 3 - 36" Bms.)
f'c = 5000 psi (Span 3 - 48" Bms.)
f'ci = 4600 psi (Span 3 - 36" Bms.)
f'ci = 4100 psi (Span 3 - 48" Bms.)

Design Specification 1977 AASHTO & '78 Interims
Allow 25#/Sq.Ft. for future W.S.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A. RTE. 600 OVER RICHLAND CREEK
F.A. RTE. 600 SECTION 1-1B
ST. CLAIR COUNTY
STA. 158+08.00 (℄ CHANNEL)

DESIGNED	
CHECKED	
DRAWN	A. Barrozo
CHECKED	

FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING STRUCTURE PLANS

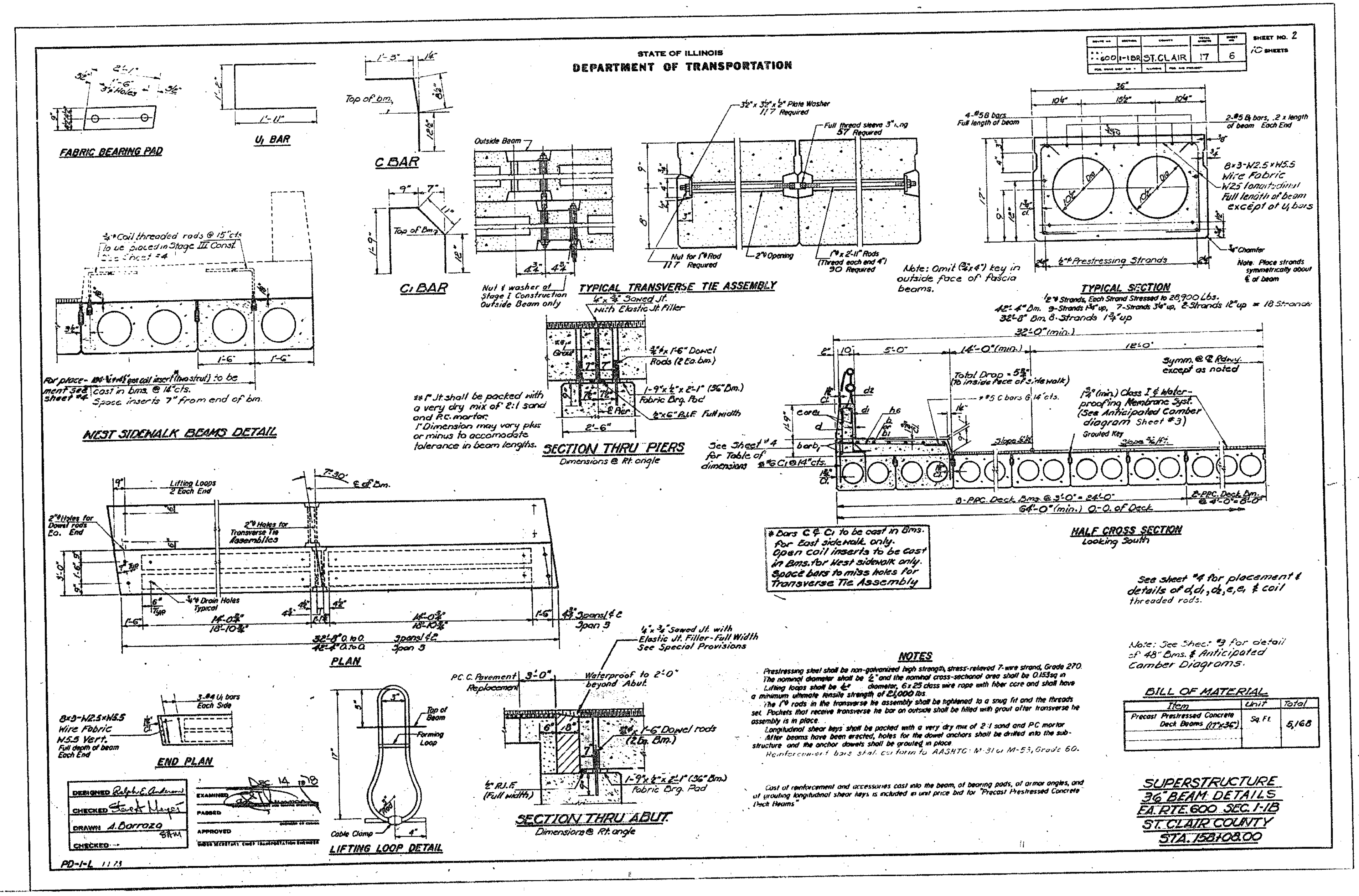
FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 8/17/2006
FILE NAME = c:\projects\ed0305\plan\pln0305a.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = #REF#

CONTRACT NO. 76962

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	1-1BR-1	ST. CLAIR	29	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

FAP ROUTE 600
SECTION 1-1BR-1
ST. CLAIR COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 8/17/2005
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF