

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-21	ST. CLAIR	10	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

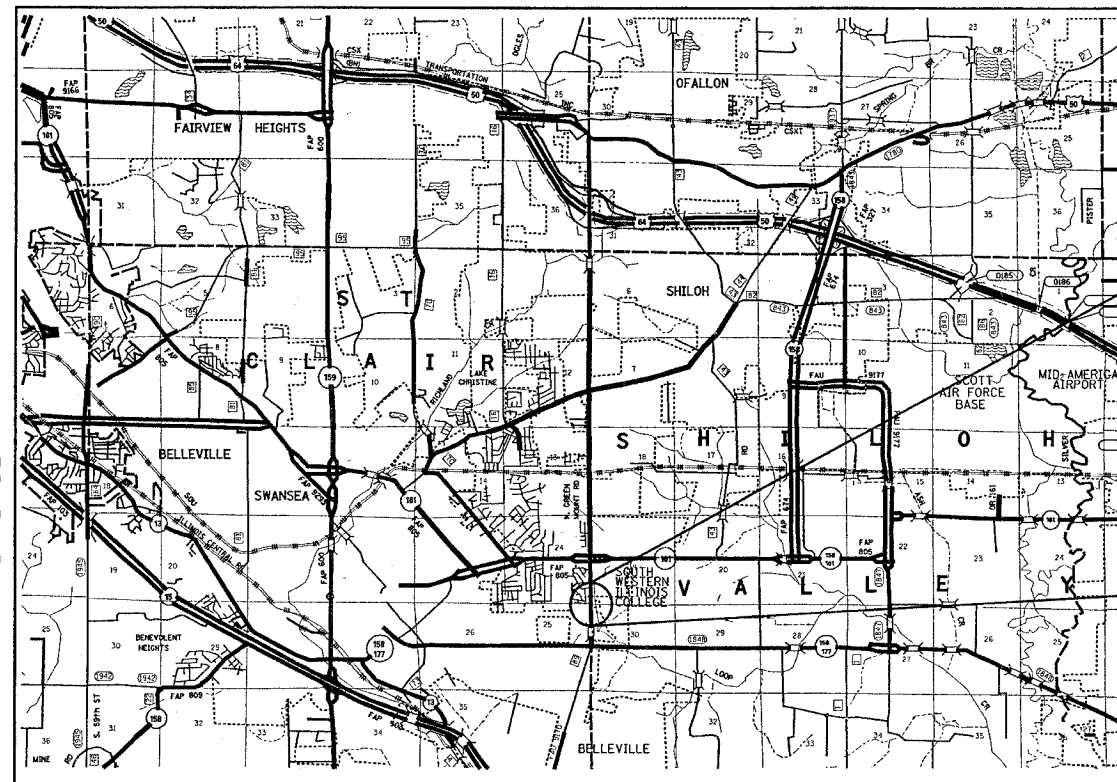
**PROPOSED
HIGHWAY PLANS**

FAU ROUTE 9170 (GREENMOUNT ROAD)
SECTION 124-21

~~PROJECT F-9170~~
ST. CLAIR COUNTY

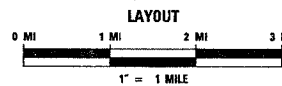
C-98-102-05

R 8 W



BEGIN
STA 135+74.02
LAT. = 38.51343
LONG. = 89.92848

END
STA 136+09.02
LAT. = 38.51518
LONG. = 89.92855



DESIGN DESIGNATION

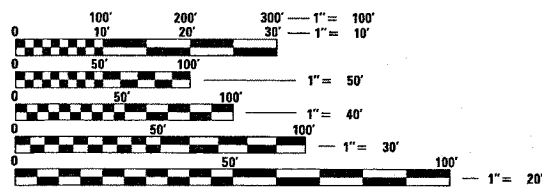
GREENMOUNT ROAD - URBAN MINOR ARTERIAL
ADT 2005 (17,700)
SU = 4.5%
MU = 1.6%

GROSS LENGTH - 35'
NET LENGTH - 35'

INDEX OF SHEETS

PAGE	TITLE
1	COVER SHEET
2	TYPICAL SECTION, GENERAL NOTES, COMMITMENTS AND HIGHWAY STANDARDS
3 - 4	SUMMARY OF QUANTITIES
5	ALIGNMENT TIES
6	PLAN SHEET
7 - 8	STAGE CONSTRUCTION AND TRAFFIC CONTROL
9 - 10	PRECAST BOX CULVERT DETAILS

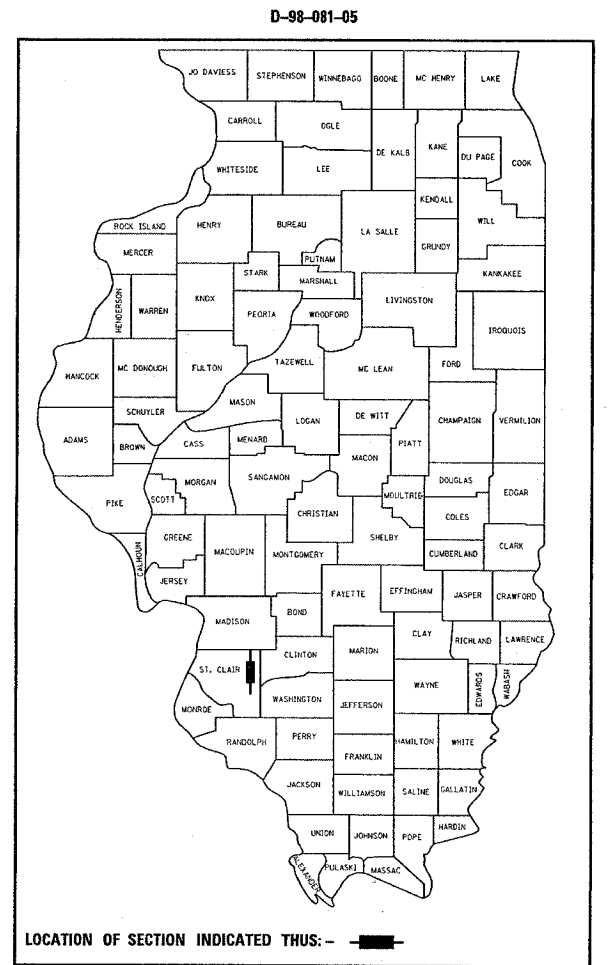
MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS



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. 76938



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 27, 2006
Max C. Romi
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER
May 12, 2006
Mike Hene
ENGINEER OF DESIGN AND ENVIRONMENT
May 12, 2006
Nelson R. Sees, P.E.
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PROJECT ENGINEER: PATTI LEBEAU (618-346-3179)
SQUAD LEADER: CHERYL KEPLAR (618-346-3186)

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-2I	ST. CLAIR	10	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

- 1 SAW CUTTING ON ALL EDGES FOR REMOVAL ITEMS SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEM AS INDICATED AND IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS.
- 2 IF ANY SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED OR RESURFACED OVER. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- 3 MIXTURES FOR JOINTS, CRACKS, AND FLANGWAYS SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
- 4 THE THICKNESS OF THE BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- 5 ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - AMEREN IP
 - CHARTER COMMUNICATION, INC.
 - ILLINOIS AMERICAN WATER CO.
 - MCLEOD USA TELECOMMUNICATIONS, INC.
 - SBC

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

- 6 ALL SHORT TERM PAVEMENT MARKINGS WILL BE PLACED IN SUCH A MANNER SO AS NOT TO INTERFERE WITH THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 7 HIGH EARLY STRENGTH CONCRETE MIX SHALL BE USED FOR ALL PCC PATCHING.
- 8 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 9 THE EXISTING CONCRETE BARRICADES AND SAND BARREL IMPACT ATTENUATORS ARE THE PROPERTY OF THE DEPARTMENT AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE SCOTT SALT DOME AT IL 158 AND US 50 IN ST. CLAIR COUNTY. THE DELIVERY SHALL BE COORDINATED WITH THE OPERATIONS FIELD ENGINEER JOE MONROE (618-346-3279). THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF SAND MODULE IMPACT ATTENUATOR TO BE REMOVED AND CONCRETE BARRIER REMOVAL.
- 10 THE QUANTITY PROVIDED FOR CONTROLLED LOW STRENGTH MATERIAL SHALL BE USED TO FILL ANY VOIDS, TO THE SATISFACTION OF THE ENGINEER, DUE TO EROSION UNDER THE PAVEMENT AND PROPOSED CULVERT SUB-GRADE. THIS WORK SHALL BE PERFORMED AFTER THE REMOVAL OF THE EXISTING CULVERT AND PRIOR TO THE INSTALLATION OF THE PROPOSED PRECAST BOX CULVERT.
- 11 ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURE FOR THE USE SPECIFICS IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATE 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'S RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.
- 12 STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER, AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSTOR, URETHANE FOAM/GEOTEXTILE/SILT WEDGES, EARTH MEDIAN AND/OR OTHER MATERIAL APPROVED BY THE ENGINEER AND SEDIMENT CONTROL COORDINATOR.

LIST OF STANDARDS

280001-02	701301-02
420001-06	701306-01
420701-01	701311-02
442101-05	701326-02
482006-01	702001-06
701001-01	780001-01
701006-02	781001-02
701011-01	000001-04
701201-02	001001
701206-01	001006

EROSION CONTROL SCHEDULE

STA to Sta	Offset	Length (ft)	Avg. Width (ft)	SEEDING CL 2A (ac)	NITROGEN FERTILIZER NUTRIENT (lb)	PHOSPHORUS FERTILIZER NUTRIENT (lb)	POTASSIUM FERTILIZER NUTRIENT (lb)	MULCH METHOD 2 (ac)
135+10 to 135+92	RT	82	36	0.07	6.3	6.3	6.3	0.07
135+92 to 136+60	RT	68	36	0.06	5.4	5.4	5.4	0.06
135+40 to 135+60	LT	20	35	0.02	1.8	1.8	1.8	0.02
135+60 to 136+60	LT	100	35	0.08	7.2	7.2	7.2	0.08
TOTAL =				0.23	20.7	20.7	20.7	0.23

SUB-BASE GRANULAR MATERIAL, TYPE B

LOCATION	SUB-BASE GRANULAR MATERIAL, TYPE B TONS
STA. 135+74 to STA. 136+09	234

FURNISHED EXCAVATION

LOCATION	FURNISHED EXCAVATION CU YD
STA. 135+10 to STA. 137+57	426

EARTH EXCAVATION

LOCATION	EARTH EXCAVATION (CY YDS)
STA. 135+50 to STA. 136+65	135

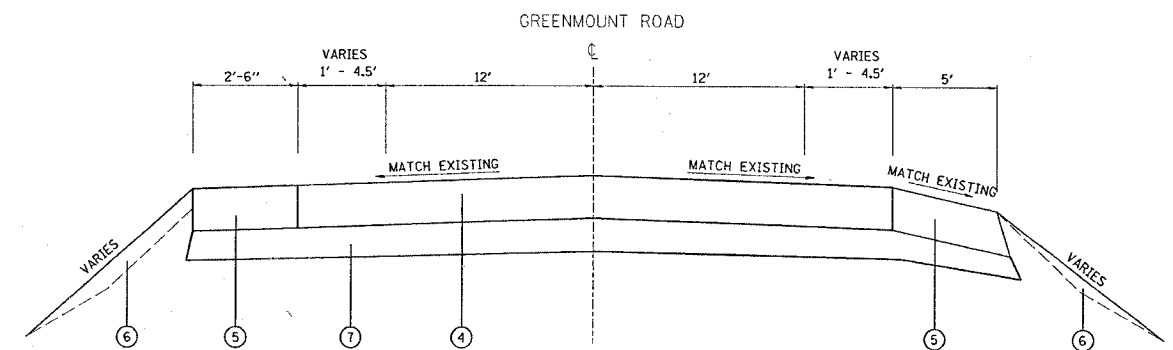
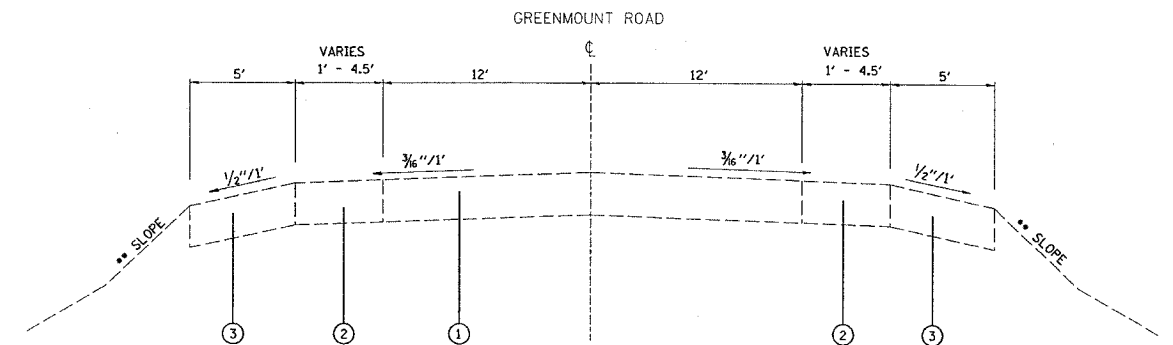
* EARTH EXCAVATION QUANTITY WAS NOT REDUCED FROM FURNISHED EXCAVATION. IT WAS DETERMINED IT WOULD BE DIFFICULT TO UTILIZE EARTH EXCAVATION FOR EMBANKMENT. THEREFORE, THE QUANTITY WAS NOT REDUCED.

COMMITMENTS

NONE

PERTINENT INFORMATION

FALL SESSION OF CLASSES START AUGUST 19, 2006 AT SWIC.



- LEGEND**
- ① EXISTING 8" PCC PAVEMENT
 - ② EXISTING PCC WIDENING 8"
 - ③ EXISTING 8" BIT. SHOULDER
 - ④ PROPOSED CLASS B PATCH TYPE IV - 8" (HIGH-EARLY-STRENGTH)
 - ⑤ PROPOSED BITUMINOUS SHOULDER - 8"
 - ⑥ PROPOSED FURNISHED EXCAVATION
 - ⑦ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B (12" THICKNESS)

MIXTURE REQUIREMENT CHART

MIXTURE USE	SHOULDERS	TEMP. BITUMINOUS OVERLAY
AC/PG	PG 58-22	PG 64-22
RAP % (MAX)	30%	15%
DESIGN AIR VOIDS	2.0% @ NDES=30	4.0% @ NDES=70
MIX COMPOSITION (GRADATION MIXTURE)		
FRICITION AGG	BAM	MIX C

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS, GENERAL NOTES, COMMITMENTS, AND HIGHWAY STANDARDS
FAU ROUTE 9170
SECTION 124-2I
ST. CLAIR COUNTY

PLOT DATE = 3/13/2006
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 REFERENCE = #REF#

SUMMARY OF QUANTITIES

F.A.U. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-21	ST. CLAIR	10	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		URBAN 100% STATE FOOT		
X0325427	CUT CONDUIT IN TRENCH	EACH	2	2		
20200100	EARTH EXCAVATION	CU YD	135	135		
20400800	FURNISHED EXCAVATION	CU YD	426	426		
25000210	SEEDING, CLASS 2A	ACRE	0.23	0.23		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	20.7	20.7		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	20.7	20.7		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	20.7	20.7		
25100115	MULCH, METHOD 2	ACRE	0.23	0.23		
28000300	TEMPORARY DITCH CHECKS	EACH	9	9		
28000500	INLET AND PIPE PROTECTION	EACH	1	1		
28100107	STONE RIPRAP, CLASS A4	SQ YD	55	55		
28200200	FILTER FABRIC	SQ YD	55	55		
31101000	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	234	234		
44001980	CONCRETE BARRIER REMOVAL	FOOT	125	125		
44004250	PAVED SHOULDER REMOVAL	SQ YD	175	175		
44200944	CLASS B PATCHES, TYPE IV, 8 INCH	SQ YD	105	105		
44201294	CLASS B PATCH-EXPANSION JOINT	FOOT	35	35		
44213100	PAVEMENT FABRIC	SQ YD	105	105		
44213200	SAW CUTS	FOOT	81	81		
48202600	BITUMINOUS SHOULDERS SUPERPAVE 8"	SQ YD	84	84		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50200100	STRUCTURE EXCAVATION	CU YD	276	276		
54010605	PRECAST CONCRETE BOX CULVERT 6' X 5'	FOOT	54	54		
67100100	MOBILIZATION	L SUM	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	149	149		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1	1		
* 80300100	LOCATING UNDERGROUND CABLE	FOOT	400	400		

*SPECIALTY ITEMS

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SUMMARY OF QUANTITIES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-21	ST. CLAIR	10	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

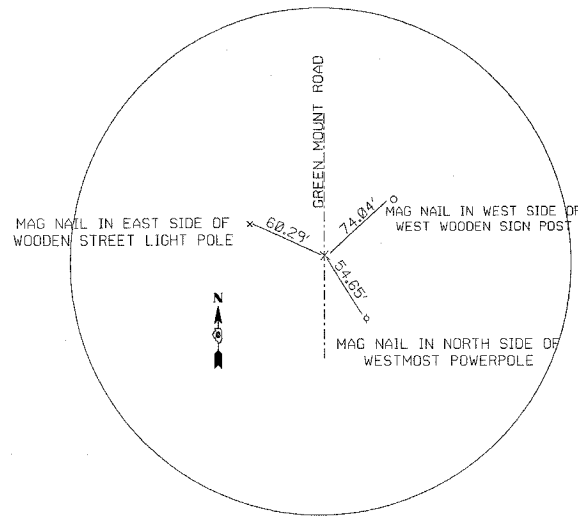
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		URBAN 100% STATE Y007	
* 81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	150	150	
* 81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	150	150	
* 89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	885	885	
X0987300	PRECAST CONCRETE BOX CULVERT END SECTIONS 6' X 5'	EACH	2	2	
X7015000	CHANGEABLE MESSAGE SIGN	CAL MO	2	2	
Z0013825	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	5	5	
Z0017202	DOWEL BARS 1 1/2"	EACH	24	24	
⊙ Z0056220	SAND MODULE IMPACT ATTENUATOR TO BE REMOVED	EACH	9	9	

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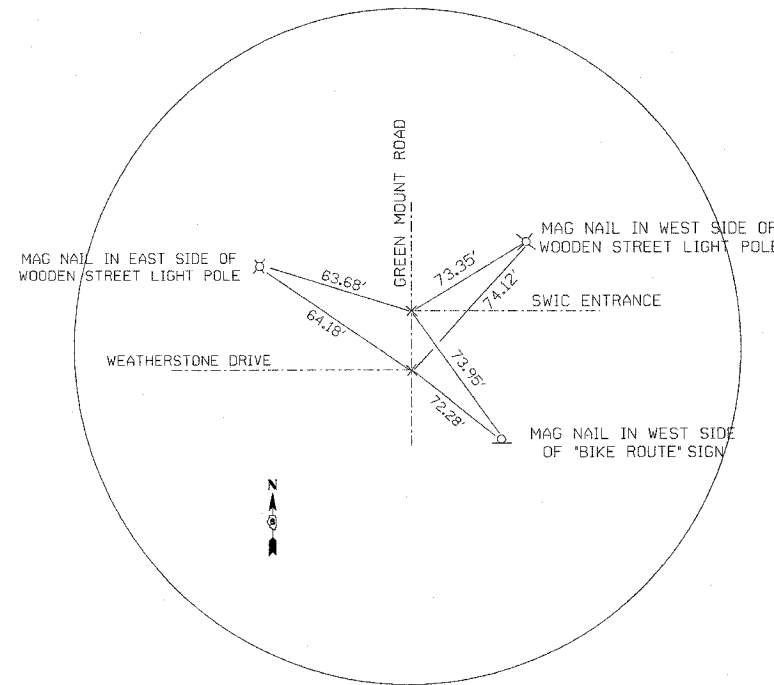
* SPECIALTY ITEMS
 ⊙ SFTY-3N

FAU ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-21	ST. CLAIR	10	5

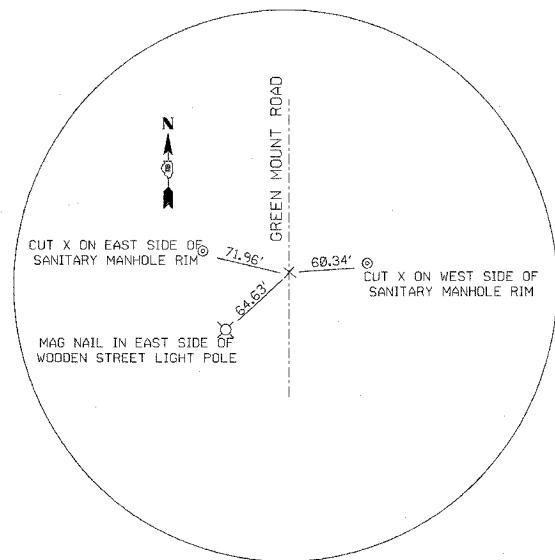
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SURVEYED	DATE
ALIGNED	BY
CHECKED	DATE
BY	DATE
FILE NAME	
NO.	



CENTER LINE STA. 129+59.00
(N672,543.54 E2,364,893.84)



C.L. 132+90.77 GREEN MOUNT ROAD = 0+74.73 WEATHERSTONE (N672,875.27 E2,364,888.19)
C.L. 132+92.54 GREEN MOUNT ROAD = 0+00.00 SWIC ENT. (N672,877.03 E2,364,888.16)



CENTER LINE STA. 136+61.39
(N673,245.83 E2,364,881.87)

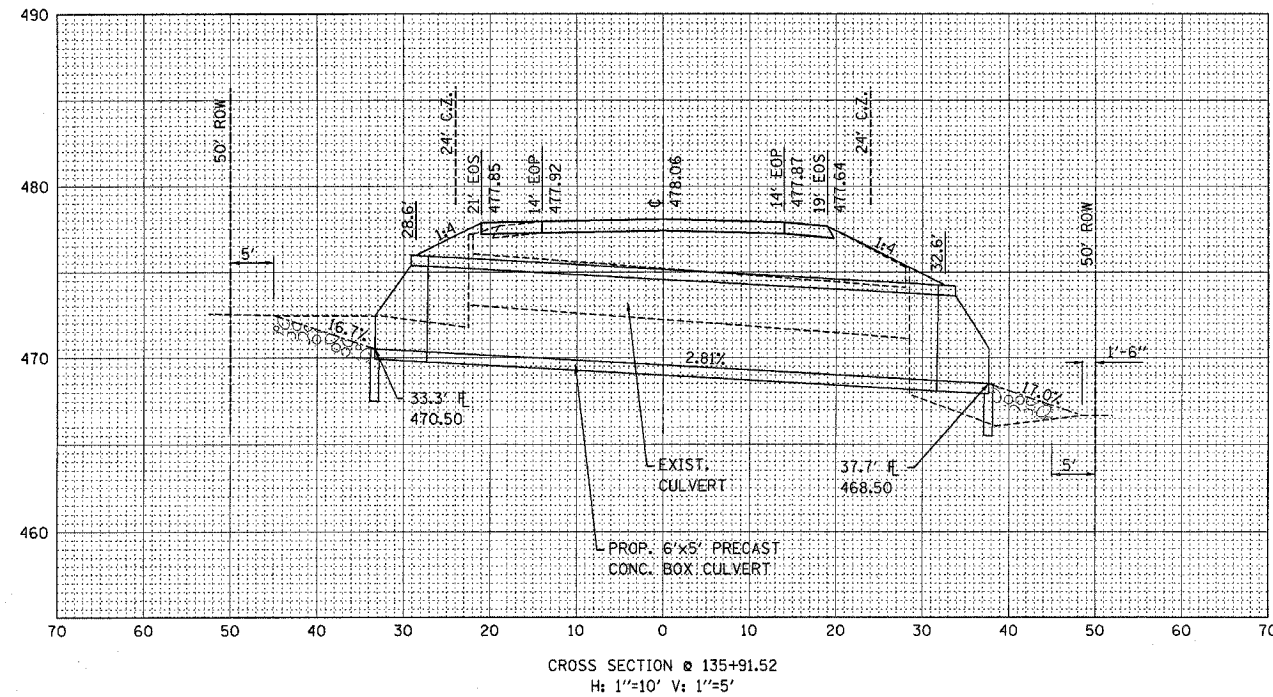
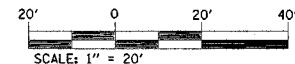
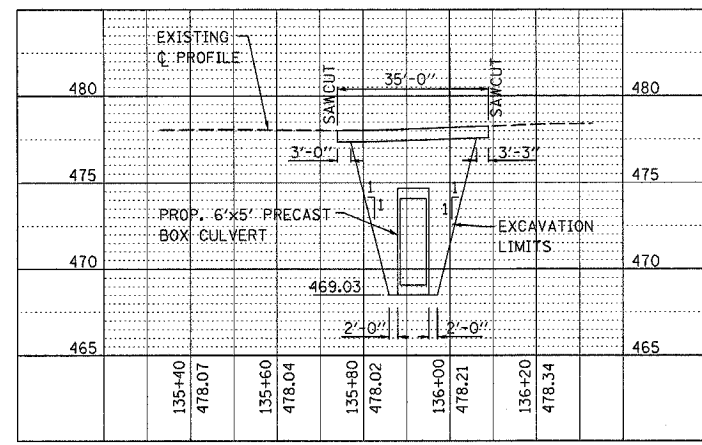
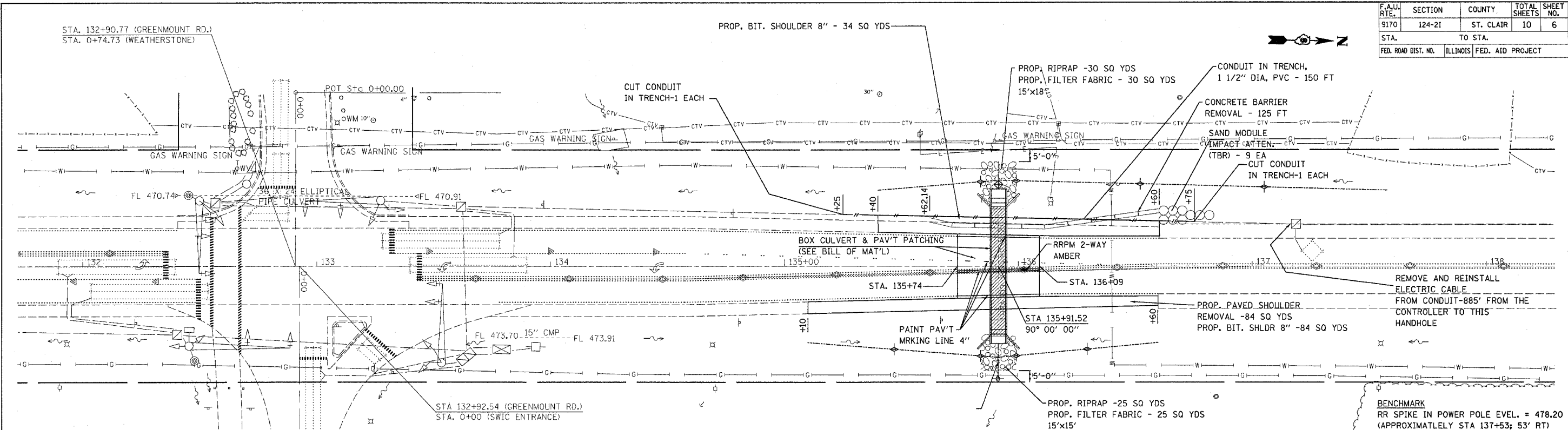
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ALIGNMENT TIES
FAU ROUTE 9170
SECTION 124-21
ST. CLAIR COUNTY
DRAWN BY:

PLOT DATE: 3/13/2006

DATE: 3/13/2006
DRAWN BY: [unreadable]
CHECKED BY: [unreadable]
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-2I	ST. CLAIR	10	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SN 082-2567
BILL OF MATERIALS

28000300	TEMPORARY DITCH CHECKS	EACH	9	9
28000500	INLET AND PIPE PROTECTION	EACH	1	1
44200944	CLASS B PATCHES, TYPE IV, 8 INCH	SQ YD	105	105
44213000	PATCHING REINFORCEMENT	SQ YD	105	105
44213200	SAW CUTS	FOOT	81	81
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
54010605	PRECAST CONCRETE BOX CULVERT 6' X 5'	FOOT	54	54
67100100	MOBILIZATION	L SUM	1	1
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	149	149
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1	1
80300100	LOCATING UNDERGROUND CABLE	FOOT	400	400
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	150	150
X0987300	PRECAST CONCRETE BOX CULVERT END SECTIONS 6' X 5'	EACH	2	2
70101800	TRAFFIC CONTROL AND PROTECTION, STANDARD (SPECIAL)	L SUM	1	1
Z0013825	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	5	5
Z0017202	DOWEL BARS 1 1/2"	EACH	24	24

CABLE/CONDUIT REMOVAL/REPLACEMENT NOTES

-PRIOR TO BOX CULVERT INSTALLATION

A. REMOVE [1] SWIC ENTRANCE SB CCO DETECTOR LOOP LEAD-IN CABLE AND [2] SWIC ENTRANCE/IL 161 INTERCONNECT CABLE, EACH, FROM THE SWIC ENTRANCE CONTROLLER TO THE SWIC ENTRANCE SB CCO HANDHOLE

B. LOCATE, EXPOSE, CUT, CAP AND PROTECT THE CONDUIT ENDS TO BE RETAINED AT STA.135+25 AND STA.136+75

-AFTER BOX CULVERT INSTALLATION

A. RE-ESTABLISHING THE REMOVED ITEM [1] CONDUIT AND REINSTALL THE ITEM [2] CABLES

REVISIONS		DATE
NAME	DATE	

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN VIEW
SN 082-2567
FAU ROUTE 9170
SECTION 124-2I
ST. CLAIR COUNTY

SCALE: VERT. 1" = 20'
HORIZ. 1" = 40'

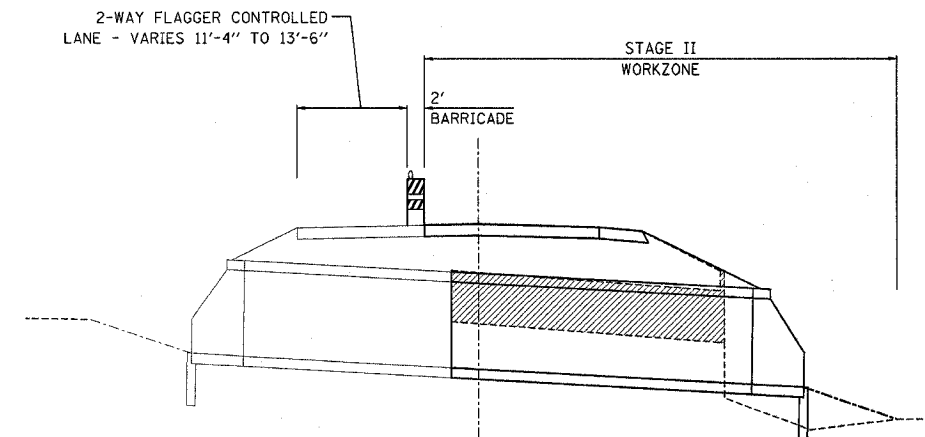
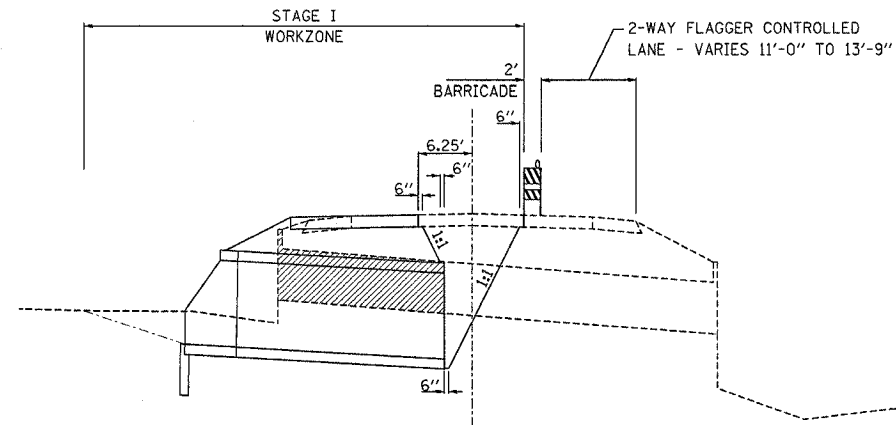
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-2I	ST. CLAIR	10	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TRAFFIC CONTROL GENERAL NOTES

1. THE TRAFFIC SIGNALS AT GREENMOUNT ROAD AND WEATHERSTONE/SWIC ENTRANCE SHALL BE PHASED TO FOUR WAY FLASHING RED DURING THE LANE CLOSURE. THE SIGNALS SHALL BE RESTORED TO THE ORIGINAL PHASING BEFORE THE LANE CAN BE OPENED TO TRAFFIC. THE COST OF THIS SHALL BE INCLUDED IN THE CONTRACT UNIT COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
2. NO DROP OFF GREATER THAN 3 INCHES SHALL BE LEFT OVERNIGHT AT THE EDGE OF AN OPEN TRAVEL LANE. DROP OFFS SHALL BE FILLED WITH AGGREGATE AT THE END OF THE WORK DAY.
3. ALL EXCAVATION ADJACENT TO THE EDGE OF PAVEMENT SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES AND APPROPRIATE LIGHTS DURING THE LANE CLOSURE.
4. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS, AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE.
5. FLAGMEN SHALL BE PRESENT DURING ALL CLOSURE HOURS, INCLUDING LUNCH HOUR, AND NO ADDITIONAL COMPENSATION SHALL BE APPLIED.
6. MESSAGE BOARDS SHALL BE IN PLACE, AT A MINIMUM, ONE (1) WEEK PRIOR TO STAGE I. THE LOCATION OF THE MESSAGE BOARDS SHALL BE APPROVED BY THE ENGINEER.



STAGE I

WORK- REMOVE AND REPLACE PORTION OF BOX CULVERT AS SHOWN IN STAGE I CROSS-SECTION (THIS SHEET).

TRAFFIC CONTROL AND PROTECTION - THE CONTRACTOR SHALL UTILIZE "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" FOR THIS STAGE OF THE PROJECT. THIS IS SHOWN ON SHEET NO. 7. AS STATED ON SHEET NO. 7, TRAFFIC CONTROL AND PROTECTION STANDARD 701201 (WITH ADDITIONS) SHALL BE UTILIZED DURING DAY-TIME WORK AND STANDARD 701206 (WITH ADDITIONS) SHALL BE UTILIZED AT NIGHT. AS STATED IN THE SPECIAL PROVISION "TRAFFIC CONTROL AND PROTECTION (SPECIAL)", STAGE I TRAFFIC CONTROL SHALL REMAIN IN-PLACE UNTIL STAGE I IS COMPLETED. THIS SHALL INCLUDE FILLING THE EXCAVATION WITH TEMPORARY AGGREGATE AND 3 INCHES OF BITUMINOUS CONCRETE. THIS SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER PRIOR TO THE OPENING OF THE LANE FOR TWO-WAY TRAFFIC. FOR STAGE I, THE ESTIMATED VOLUME OF AGGREGATE REQUIRED IS 116 CUBIC YARDS (232 TONS) AND 12 TONS OF BITUMINOUS CONCRETE. THE COST OF THE MATERIAL AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "TRAFFIC CONTROL AND PROTECTION (SPECIAL)".

STAGE II

WORK- REMOVE AND REPLACE PORTION OF BOX CULVERT AS SHOWN IN STAGE II CROSS-SECTION (THIS SHEET).

TRAFFIC CONTROL AND PROTECTION - THE CONTRACTOR SHALL UTILIZE "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" FOR THIS STAGE OF THE PROJECT. THIS IS SHOWN ON SHEET NO. 7. AS STATED ON SHEET NO. 7, TRAFFIC CONTROL AND PROTECTION STANDARD 701201 (WITH ADDITIONS) SHALL BE UTILIZED DURING DAY-TIME WORK AND STANDARD 701206 (WITH ADDITIONS) SHALL BE UTILIZED AT NIGHT. AS STATED IN THE SPECIAL PROVISION "TRAFFIC CONTROL AND PROTECTION (SPECIAL)", STAGE I TRAFFIC CONTROL SHALL REMAIN IN-PLACE UNTIL STAGE I IS COMPLETED. THIS SHALL INCLUDE FILLING THE EXCAVATION WITH TEMPORARY AGGREGATE AND 3 INCHES OF BITUMINOUS CONCRETE. THIS SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER PRIOR TO THE OPENING OF THE LANE FOR TWO-WAY TRAFFIC. FOR STAGE I, THE ESTIMATED VOLUME OF AGGREGATE REQUIRED IS 116 CUBIC YARDS (232 TONS) AND 12 TONS OF BITUMINOUS CONCRETE. THE COST OF THE MATERIAL AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "TRAFFIC CONTROL AND PROTECTION (SPECIAL)".

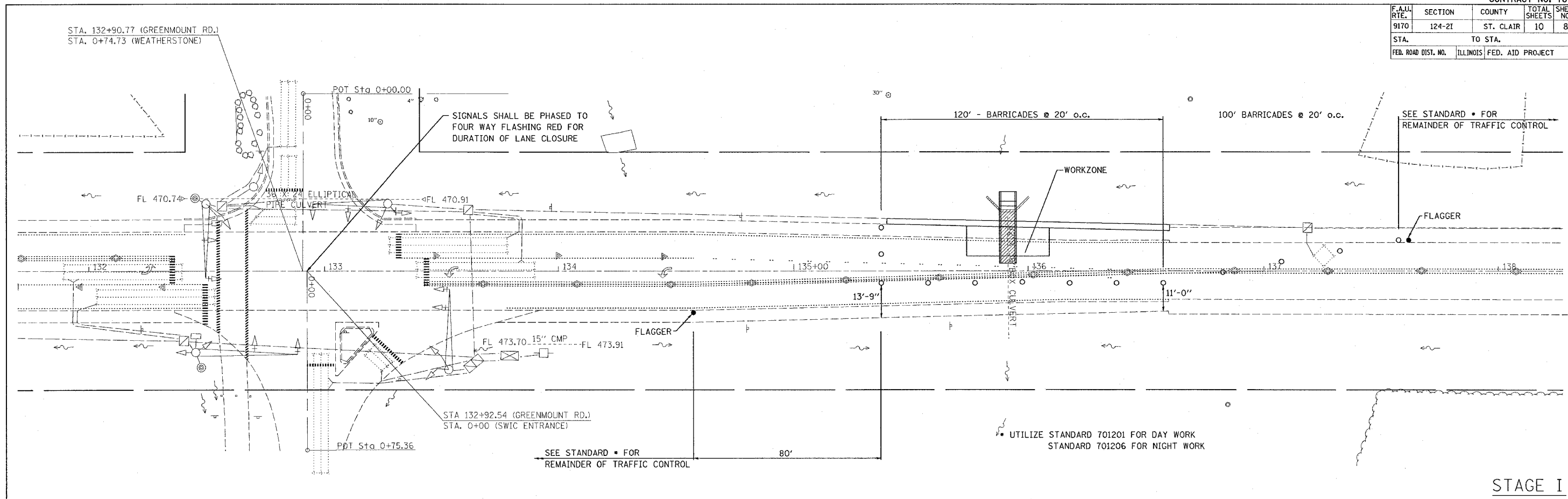
PLOT DATE = 3/17/2006
 PLOT SCALE = 20.0000 / IN.
 USER NAME = kerlanal

REVISIONS	
NAME	DATE

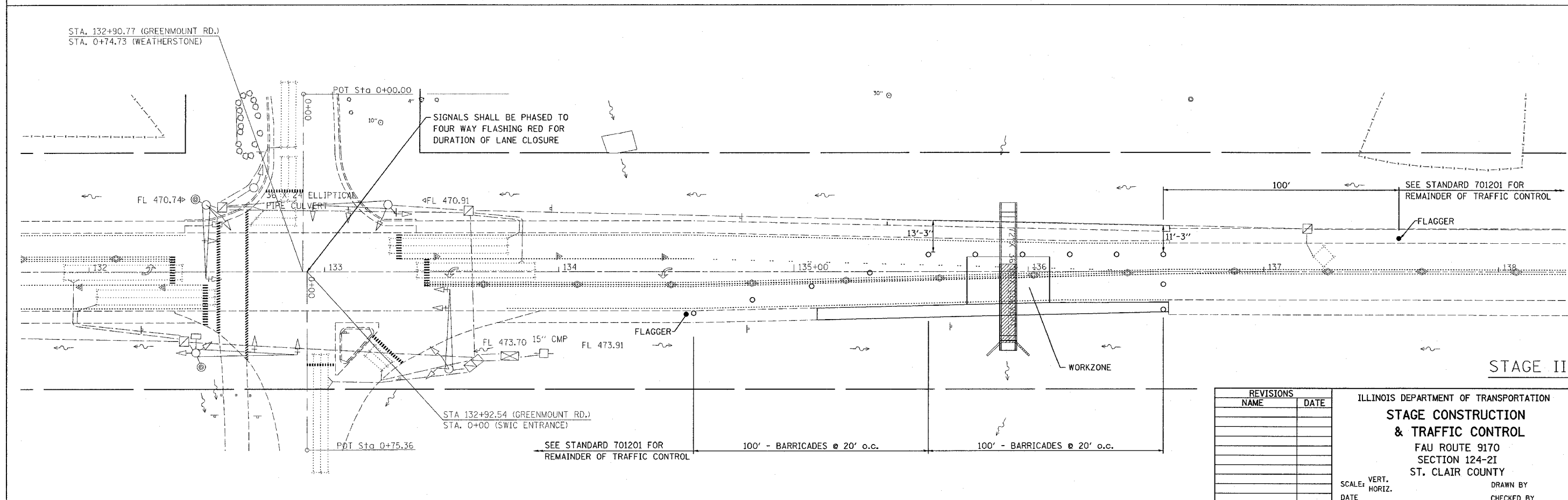
ILLINOIS DEPARTMENT OF TRANSPORTATION
**STAGE CONSTRUCTION
 & TRAFFIC CONTROL**
 FAU ROUTE 9170
 SECTION 124-2I
 ST. CLAIR COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE _____ DRAWN BY _____
 CHECKED BY _____

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-21	ST. CLAIR	10	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



STAGE I



STAGE II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**STAGE CONSTRUCTION
& TRAFFIC CONTROL**
FAU ROUTE 9170
SECTION 124-21
ST. CLAIR COUNTY

SCALE: VERT. DATE
HORIZ. DATE

DRAWN BY
CHECKED BY

PLOT DATE = 3/13/2006
FILE NAME = c:\proje\9170\plan\plan\81086a.dgn
PLOT SCALE = 20.0000 / IN.
USER NAME = krc10a1

FAU ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9170	124-21	ST. CLAIR	10	9
STA. TO STA.		CONTRACT NO.: 76938		

DETAIL OF PRECAST CONCRETE BOX CULVERT SECTION

(WITH COVER 2 FEET OR GREATER)
ASTM DESIGNATION C-789)
DESIGN LOADING: HS-20-44

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(A) OF THE STANDARD SPECIFICATIONS.

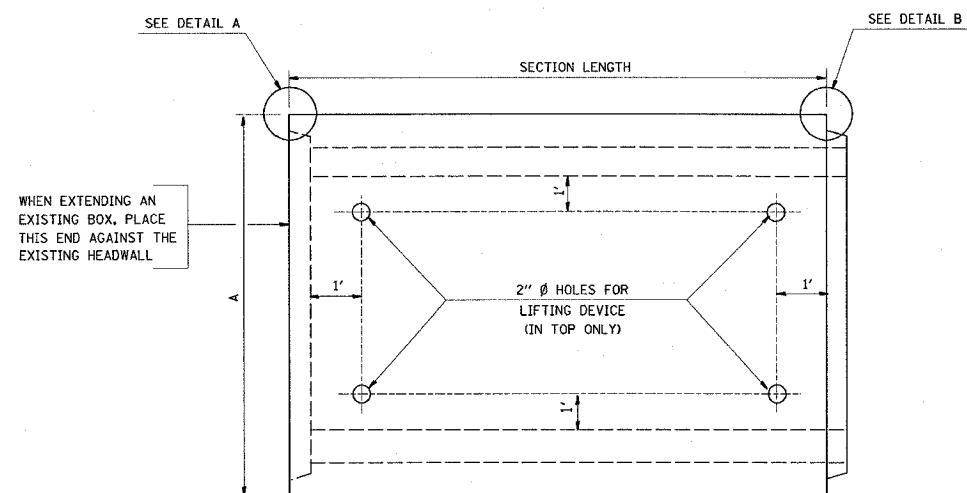
MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 755.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

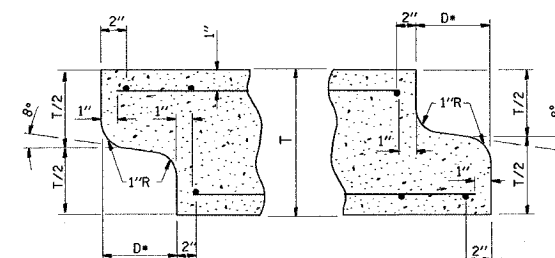
LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE BOX SECTIONS ARE IN PLACE.

THE TERMS AS1, AS2, AND AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C 789. REINFORCEMENT SHALL BE OF WELDED WIRE FABRIC CONFORMING TO ASTM SPECIFICATIONS S 185.

DRAINAGE OPENINGS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 503.12 OF THE STANDARD SPECIFICATIONS. LOCATION AND SPACING OF THE OPENINGS SHALL BE SHOWN ON THE SHOP DRAWINGS.

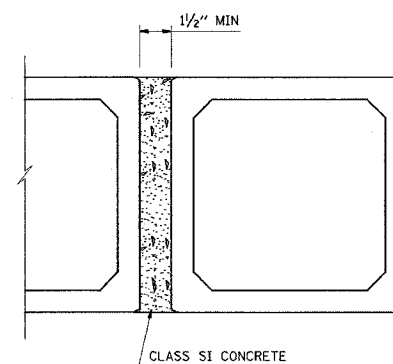


PLAN
LOCATION OF LIFTING HOLES MAY BE VARIED AS NEEDED TO CLEAR REINFORCEMENT.

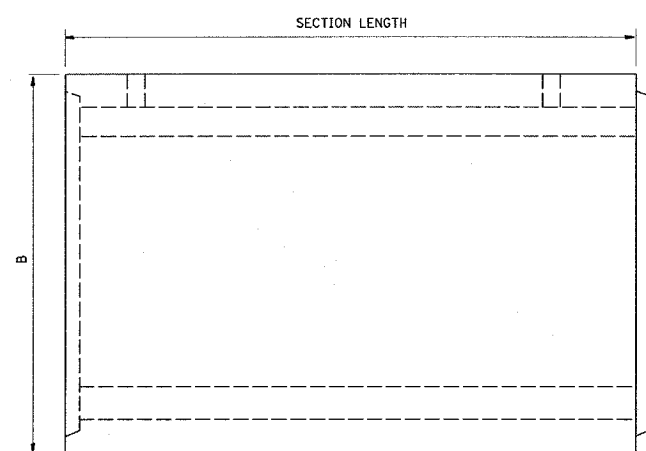


DETAIL A
(TYP INLET END) **DETAIL B**
(TYP OUTLET END)

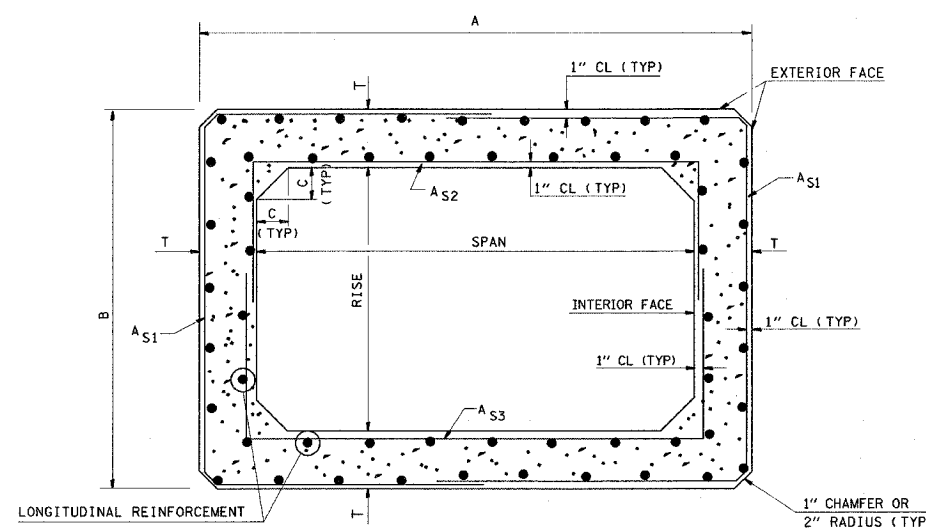
NOTE: INLET AND OUTLET ENDS SHALL BE COMPATIBLE
• THE D DIMENSION SHALL CONFORM TO THE MANUFACTURER'S STANDARDS.



MULTIPLE UNIT PLACEMENT



ELEVATION



CROSS SECTION

DIMENSIONS

SPAN X RISE	T	A	B	C	SPAN X RISE	T	A	B	C
	(INCHES)	(FT-IN)	(FT-IN)	(INCHES)		(INCHES)	(FT-IN)	(FT-IN)	(INCHES)
2' X2'	4	2-8	2-8	4	9' X5'	9	10-6	6-6	9
3' X2'	4	3-8	2-8	4	9' X6'	9	10-6	7-6	9
3' X3'	4	3-8	3-8	4	9' X7'	9	10-6	8-6	9
4' X2'	5	4-10	2-10	5	9' X8'	9	10-6	9-6	9
4' X3'	5	4-10	3-10	5	9' X9'	9	10-6	10-6	9
4' X4'	5	4-10	4-10	5					
5' X2'	6	6-0	3-0	6	10' X4'	10	11-8	5-8	10
5' X3'	6	6-0	4-0	6	10' X5'	10	11-8	6-8	10
5' X4'	6	6-0	5-0	6	10' X6'	10	11-8	7-8	10
5' X5'	6	6-0	6-0	6	10' X7'	10	11-8	8-8	10
6' X2'	7	7-2	3-2	7	10' X8'	10	11-8	9-8	10
6' X3'	7	7-2	4-2	7	10' X9'	10	11-8	10-8	10
6' X4'	7	7-2	5-2	7	10' X10'	10	11-8	11-8	10
6' X5'	7	7-2	6-2	7					
6' X6'	7	7-2	7-2	7	11' X4'	11	12-10	5-10	11
					11' X6"	11	12-10	7-10	11
					11' X8'	11	12-10	9-10	11
7' X4'	8	8-4	5-4	8	11' X10'	11	12-10	11-10	11
7' X5'	8	8-4	6-4	8	11' X11'	11	12-10	12-10	11
7' X6'	8	8-4	7-4	8					
7' X7'	8	8-4	8-4	8					
					12' X4'	12	14-0	6-0	12
8' X4'	8	9-4	5-4	8	12' X6'	12	14-0	8-0	12
8' X5'	8	9-4	6-4	8	12' X8'	12	14-0	10-0	12
8' X6'	8	9-4	7-4	8	12' X10'	12	14-0	12-0	12
8' X7'	8	9-4	8-4	8	12' X12'	12	14-0	14-0	12
8' X8'	8	9-4	9-4	8					

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**PRECAST CONCRETE
BOX CULVERT
SN 082-2567**

FAU ROUTE 9170
SECTION 124-21
ST. CLAIR COUNTY

DRAWN BY:

PLOT DATE: 3/13/2006

DATE	
BY	
DESIGNED	
CHECKED	
IN CHARGE	
NO.	
PLAN	
NOTE BOOK	
ALLOTTED	
FILE NO.	
ADD. FILE NAME	

DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04 (A) OF THE STANDARD SPECIFICATIONS.

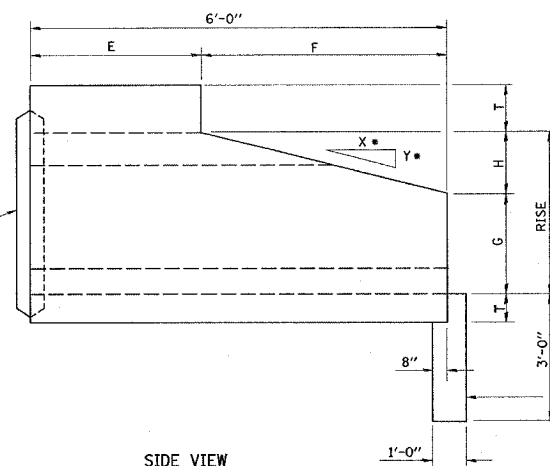
MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 755.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, AS3 AND AS4 DENOTES THE REQUIRED STEEL AREAS FOR REINFORCEMENTS AS SPECIFIED IN ASTM C 789. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO ASTM SPECIFICATIONS A 185.

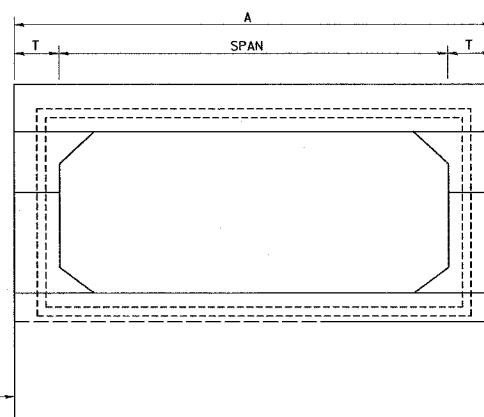
DATE	
BY	
PLANNED	
DESIGNED	
CHECKED	
APPROVED	

END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX TO HEADWALL)



SIDE VIEW

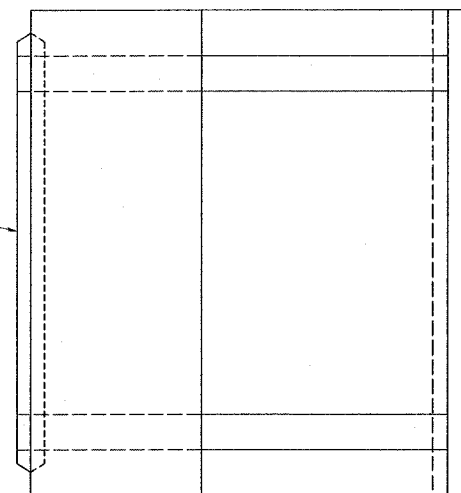
• 2:1 SLOPE MINIMUM



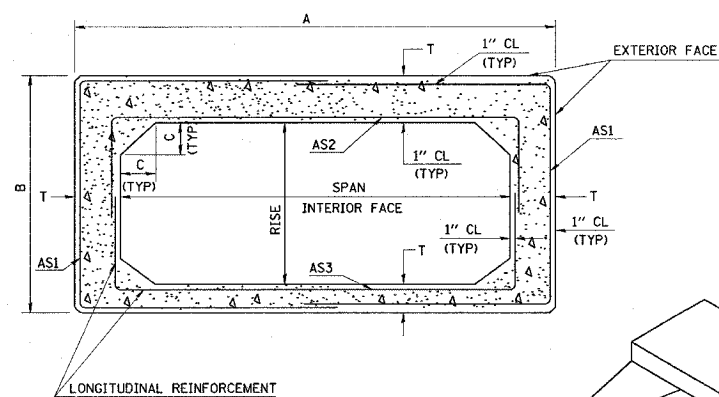
END VIEW

• NOTE: THE DIMENSIONS INDICATED ARE FOR END SECTIONS THAT ARE TO BE USED WITH PRECAST BOX CULVERT SECTIONS DESIGNED FOR 2' OR MORE OF FILL. THE DIMENSIONS MUST BE MODIFIED FOR THE END SECTION TO BE COMPATIBLE WITH PRECAST CULVERT SECTIONS DESIGNED FOR LESS THAN 2' OF FILL.

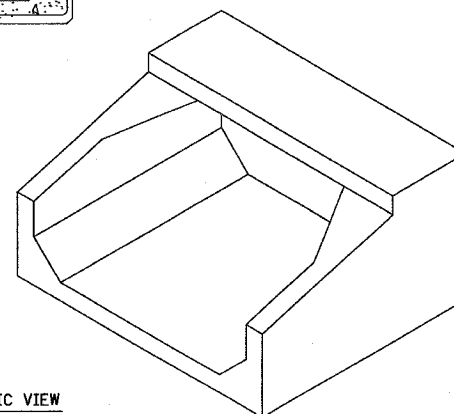
END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX TO HEADWALL)



PLAN



CROSS-SECTION



ISOMETRIC VIEW

SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)	E (FT-IN)	F (FT-IN)	G (FT-IN)	H (FT-IN)	SLOPE (X:Y)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	3:1
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	3:1
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	3:1
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	3:1
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	3:1
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	2:1
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	3:1
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	3:1
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	2:1
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	3:1
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	3:1
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	2:1
6' X 5'	7	7-2	6-2	7					
6' X 6'	7	7-2	7-2	7					
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	2:1
7' X 5'	8	8-4	6-4	8					
7' X 6'	8	8-4	7-4	8					
7' X 7'	8	8-4	8-4	8					
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	2:1
8' X 5'	8	9-4	6-4	8					
8' X 6'	8	9-4	7-4	8					
8' X 7'	8	9-4	8-4	8					
8' X 8'	8	9-4	9-4	8					
9' X 5'	9	10-6	6-6	9					
9' X 6'	9	10-6	7-6	9					
9' X 7'	9	10-6	8-6	9					
9' X 8'	9	10-6	9-6	9					
9' X 9'	9	10-6	10-6	9					
10' X 4'	10	11-8	5-8	10					
10' X 5'	10	11-8	6-8	10					
10' X 6'	10	11-8	7-8	10					
10' X 7'	10	11-8	8-8	10					
10' X 8'	10	11-8	9-8	10					
10' X 9'	10	11-8	10-8	10					
10' X 10'	10	11-8	11-8	10					
11' X 4'	11	12-10	5-10	11					
11' X 6'	11	12-10	7-10	11					
11 X 8'	11	12-10	9-10	11					
11' X 10'	11	12-10	11-10	11					
11' X 11'	11	12-10	12-10	11					
12' X 4'	12	14-0	6-0	12					
12' X 6'	12	14-0	8-0	12					
12' X 8'	12	14-0	10-0	12					
12' X 10'	12	14-0	12-0	12					
12' X 12'	12	14-0	14-0	12					

NOT TO SCALE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PRECAST CONCRETE
BOX CULVERT
SN 082-2567**

FAU ROUTE 9170
SECTION 124-21
ST. CLAIR COUNTY

DRAWN BY:

PLOT DATE: 3/13/2006