

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	(BX-1)TS-2	CLARK	8	1

• F.A.P. RTE. 332 AND F.A.S. RTE. 1707

D-97-082-06

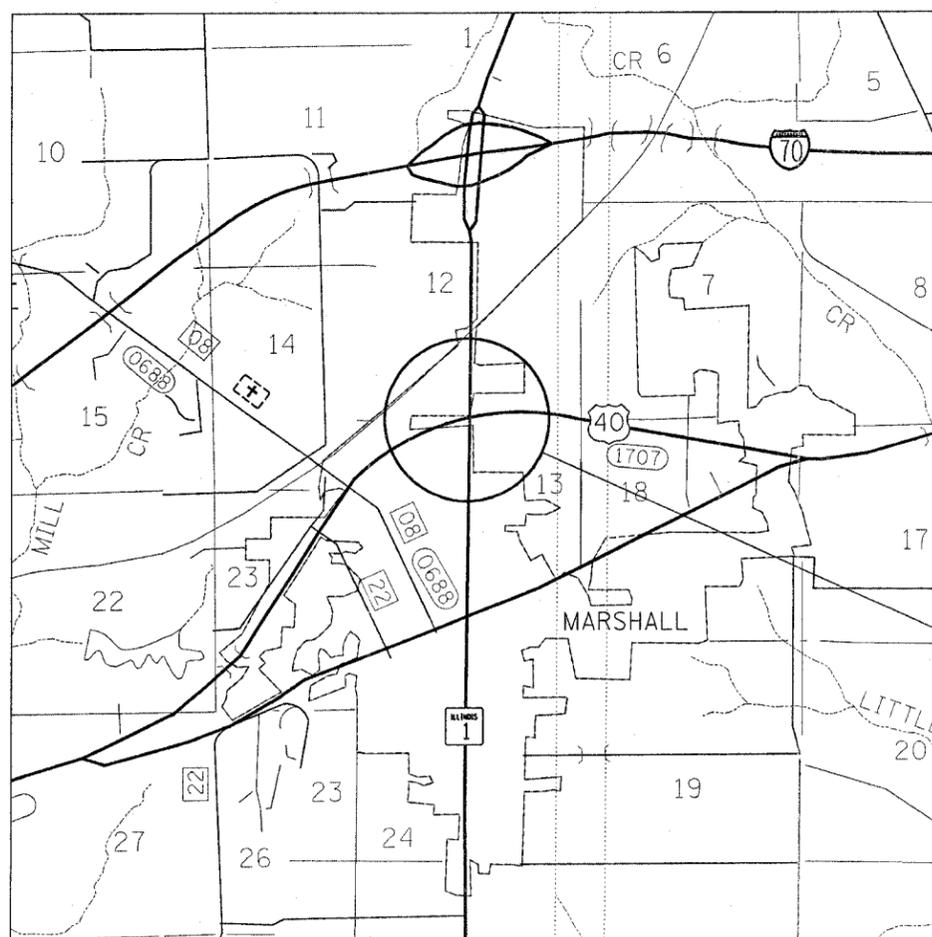
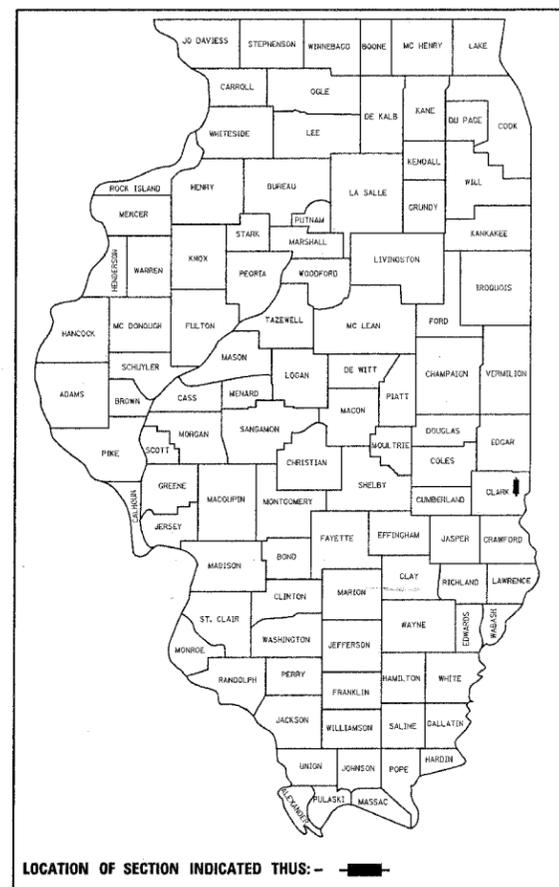
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 332 (IL. RTE. 1) AT FAS ROUTE 1707 (U.S. ROUTE 40)
SECTION (BX-1)TS-2
PROJECT: HSIP-0332(086)
CLARK COUNTY

C-97-128-06

FOR INDEX OF SHEETS, SEE SHEET NO. 2



LOCATION OF PROJECT
IL. RTE. 1 AND U.S. RTE. 40
IN MARSHALL

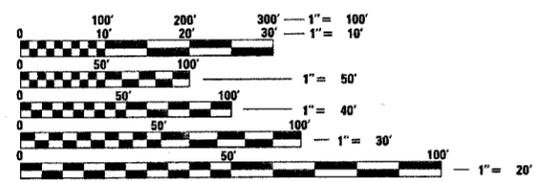
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct. 17, 2006
Christy H. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 8, 2006
Eric E. Hamrick
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

December 8, 2006
Milton R. Sees, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**



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. 74209

swartzrw
10/12/2006
c:\projects\74209a\d08206pa.dgn

PROJECT ENGINEER : ROB MACKLIN
SQUAD LEADER :
DESIGNER : LYNN MCCLELLAN
TELEPHONE : 217/342-3951 EX 245

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	(BX-1)TS-2	CLARK	8	2

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

• F.A.P. RTE. 332 AND F.A.S. RTE. 1707

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2007; AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED AT THE INTERSECTION OF FAP ROUTE 332 (IL RTE 1) & FAS ROUTE 1707 (US RTE 40) IN THE CITY OF MARSHALL, IN CLARK COUNTY. THE WORK INCLUDED IN THIS SECTION CONSISTS OF INSTALLING TRAFFIC AND PEDESTRIAN SIGNALS AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

THE EXISTING UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CALL J.U.L.I.E. AT 1-800-892-0123.

THE TRAFFIC OPERATIONS UNIT CHIEF (MIKE WORTHY) AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE NOTIFIED AT 217-342-8284 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNIT.

THE SIZE OF THE CABLE SUPPLIED SHALL BE EQUAL TO OR GREATER THAN THE SIZE OF THE CABLE REQUIRED TO CARRY THE LOAD BETWEEN THE CONTROLLER AND THE SERVICE INSTALLATION.

THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNALS ARE TURNED ON. THE REPRESENTATIVE SHALL MAKE CERTAIN THAT ALL EQUIPMENT OPERATES TO THE SATISFACTION OF THE ENGINEER.

A 2 FOOT MINIMUM, 6 FOOT DESIRABLE, HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE BACK OF CURB TO THE EDGE OF HANDHOLES, JUNCTION BOXES AND SIGNAL POST FOUNDATIONS. A 5 FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE BACK OF THE CURB TO ALL MAST ARM FOUNDATIONS. CONTROLLER FOUNDATIONS SHALL BE LOCATED AS FAR FROM THE BACK OF THE CURB AS POSSIBLE TO PROTECT THE CONTROLLER CABINET.

ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED. CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.

ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.

NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FOOT MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.

THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE TRENCH AND BACKFILL FOR ELECTRICAL WORK PAY ITEM.

THE NUMBER OF CONDUCTORS FOR ELECTRIC CABLES AS SHOWN ON THE PLANS SHALL BE THE MINIMUM NUMBER OF CONDUCTORS FURNISHED FOR EACH LOCATION. THE CONTRACTOR MAY SUBSTITUTE AN ELECTRIC CABLE WITH MORE CONDUCTORS THAN SPECIFIED BUT NO ADDITIONAL COMPENSATION WILL BE MADE FOR THE EXTRA CONDUCTORS.

ALL NEW TRAFFIC AND PEDESTRIAN SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN HANDHOLES WILL NOT BE ALLOWED.

ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.

TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED WITH THE COST OF THE ASSOCIATED SIGNAL HEAD PAY ITEMS.

ALL TRAFFIC SIGNAL MAST ARM ASSEMBLIES (STANDARD, COMBINATION, OR DUAL) MUST BE DESIGNED FOR THE LOADINGS SHOWN ON THE HIGHWAY STANDARDS OR THESE SIGNAL PLANS, WHICHEVER IS GREATER.

THE EXISTING TRAFFIC SIGNAL DETECTOR LOOPS ARE TO REMAIN IN PLACE AND BE UTILIZED FOR THE PROPOSED TRAFFIC SIGNALS.

THE EXISTING ELECTRICAL SERVICE, CONTROLLER CABINET AND DOUBLE HANDHOLE WILL BE UTILIZED FOR THE THIS PROJECT. ALL OTHER APPURTENANCES WILL BE REMOVED. ALL GUY WIRES ATTACHED TO THE WOOD POLES USED FOR THE EXISTING TRAFFIC SIGNAL HEADS SHALL BE REMOVED TO A POINT SO AS NOT TO INTERFERE WITH THE PROPOSED WORK.

THERE ARE EIGHT (8) EXISTING LOAD SWITCHES AT THE INTERSECTION OF IL 1 & US 40 THAT WILL NEED TO BE REMOVED AND REPLACED. ONE (1) ADDITIONAL LOAD SWITCH WILL BE INSTALLED DUE TO PHASE CHANGING AT THE INTERSECTION. ALL NINE (9) LOAD SWITCHES WILL BE INCLUDED WITH THE MODIFY CONTROLLER CABINET PAY ITEM.

ALL EXISTING EQUIPMENT THAT IS TO BE REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CITY OF MARSHALL. THE CONTRACTOR SHALL CONTACT THE CITY AND MAKE ARRANGEMENTS FOR THE DELIVERY OF THE EQUIPMENT.

CITY OF MARSHALL CONTACT:
 GEORGE SMITH
 DEPARTMENT OF PUBLIC WORKS
 201 S. MICHIGAN AVE
 MARSHALL, IL 62441
 PHONE: (217) 826-8087

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 SIGNAL LAYOUT
- 5 CABLE LAYOUT
- 6 REMOVAL & REPLACEMENT ITEMS
- 7 DETAILS
- 8 BORING LOGS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 8:

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701006-02	OFF-RD OPERATIONS, 2L, 2W, 15' TO 2' FROM EDGE OF PAVEMENT
701101-01	OFF-RD OPERATIONS, MULTILANE, 15' TO 2' FROM EDGE OF PAVEMENT
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-03	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
702001-06	TRAFFIC CONTROL DEVICES
720001	SIGN PANEL MOUNTING DETAILS
720006-01	SIGN PANEL ERECTION DETAILS
720016-01	MAST ARM MOUNTED STREET NAME SIGNS
814001-01	HANDHOLES
814006-01	DOUBLE HANDHOLES
857001	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
873001-01	TRAFFIC SIGNAL GROUNDING & BONDING
877001-02	STEEL MAST ARM ASSEMBLY AND POLE
878001-05	CONCRETE FOUNDATION DETAILS
880006	TRAFFIC SIGNAL MOUNTING DETAILS

PLOT DATE = 10/12/2006
 PLOT SCALE = 24.0000 / IN.
 USER NAME = bmartin

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & INDEX OF SHEETS

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	(BX-1)TS-2	CLARK	8	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• F.A.P. RTE. 332 AND F.A.S. RTE. 1707				

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 90% FED. / 10% STATE Y031-1F
CODE NO	ITEM	UNIT		
* 42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH.	SO FT	189	189
* 44000600	SIDEWALK REMOVAL	SO FT	179	179
67100100	MOBILIZATION	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
* 72000100	SIGN PANEL - TYPE 1	SO FT	16	16
* 72000200	SIGN PANEL - TYPE 2	SO FT	28	28
81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	194	194
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	110	110
81013200	CONDUIT IN TRENCH, 6" DIA., PVC	FOOT	10	10
81021590	CONDUIT, AUGERED 4" DIA., PVC	FOOT	269	269
81400100	HANDHOLE	EACH	4	4
81400300	DOUBLE HANDHOLE	EACH	1	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	314	314
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	234	234
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	845	845
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2225	2225
87502660	TRAFFIC SIGNAL POST, ALUMINUM 12 FT.	EACH	2	2
87502700	TRAFFIC SIGNAL POST, ALUMINUM 16 FT.	EACH	4	4
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1	1

SUMMARY OF QUANTITIES (Cont'd)			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 90% FED. / 10% STATE Y031-1F
CODE NO	ITEM	UNIT		
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1	1
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	2	2
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	18	18
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	50	50
87900200	DRILL EXISTING HANDHOLE	EACH	1	1
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4	4
88040160	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	5	5
88040260	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED	EACH	3	3
88040290	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1	1
88102810	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED	EACH	2	2
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	17	17
88800100	PEDESTRIAN PUSH-BUTTON	EACH	2	2
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	1	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	853	853

* SPECIALTY ITEMS

PLOT DATE = 10/12/2006
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REVISIONS	
NAME	DATE

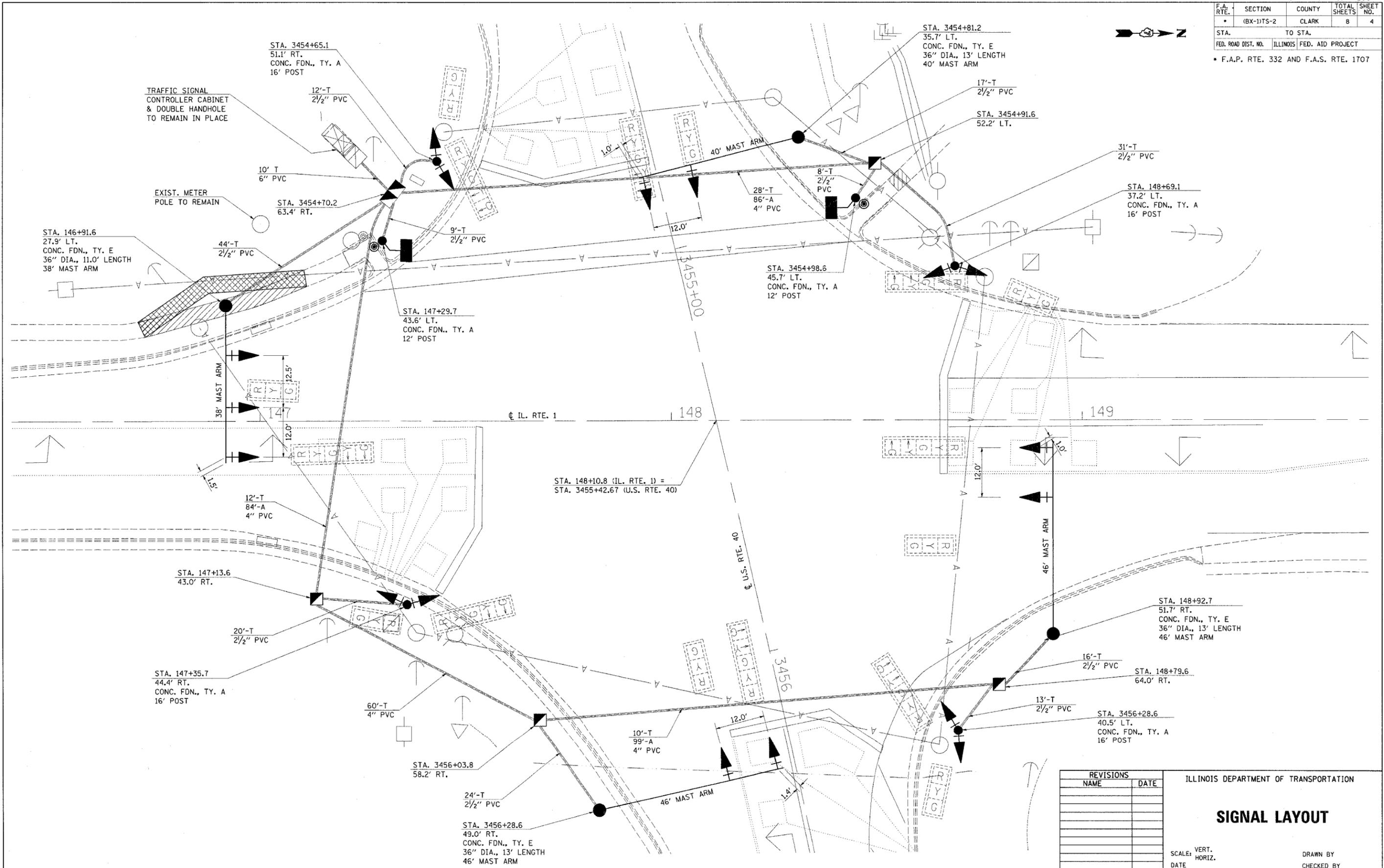
ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

DRAWN BY _____
 CHECKED BY _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(BX-1)TS-2	CLARK	8	4
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* F.A.P. RTE. 332 AND F.A.S. RTE. 1707				



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

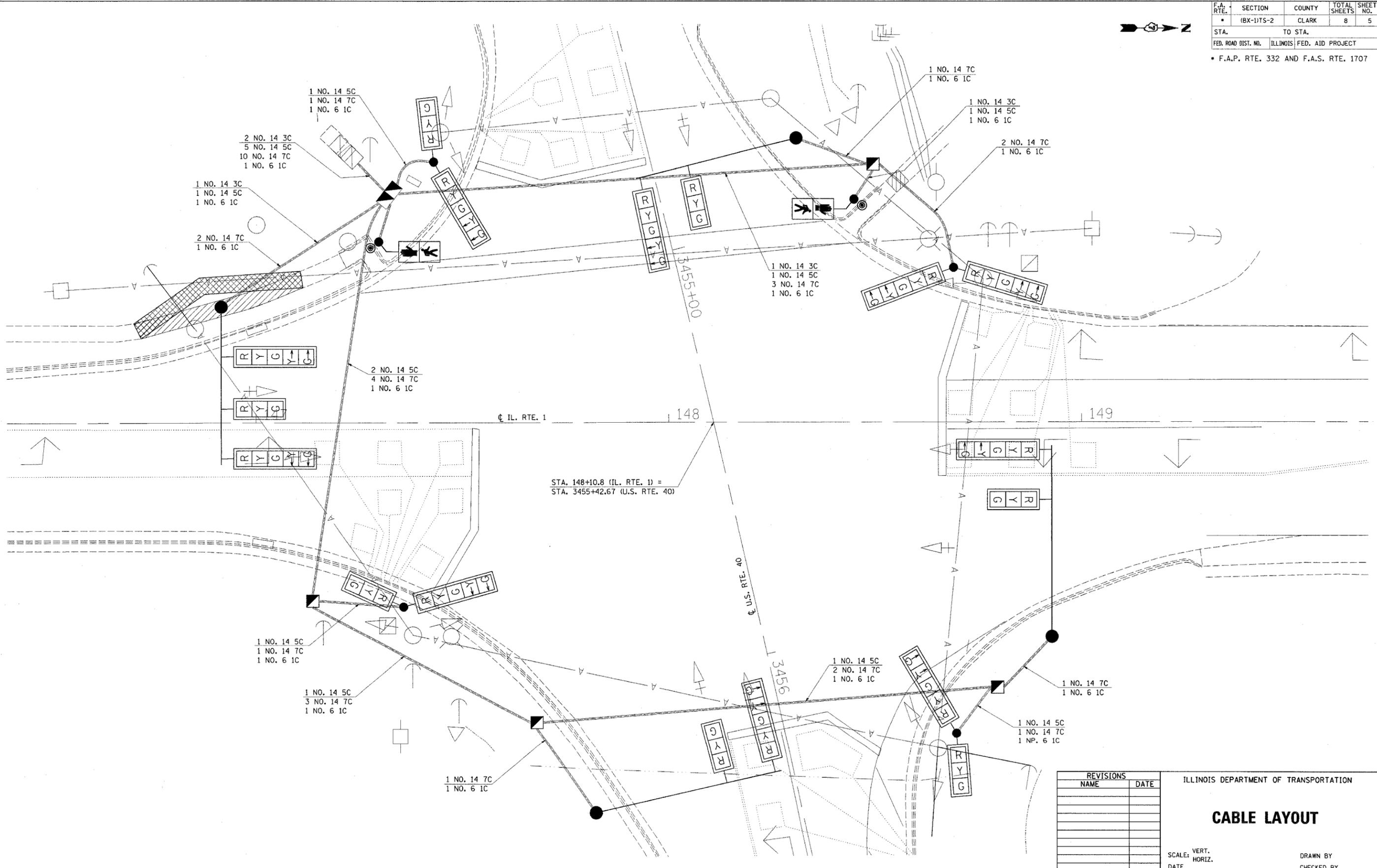
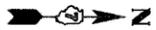
SIGNAL LAYOUT

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

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 PLOT TIME = 10:45:00
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 USER NAME = ewertm

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	(BX-1)TS-2	CLARK	8	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• F.A.P. RTE. 332 AND F.A.S. RTE. 1707				



STA. 148+10.8 (IL. RTE. 1) =
STA. 3455+42.67 (U.S. RTE. 40)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

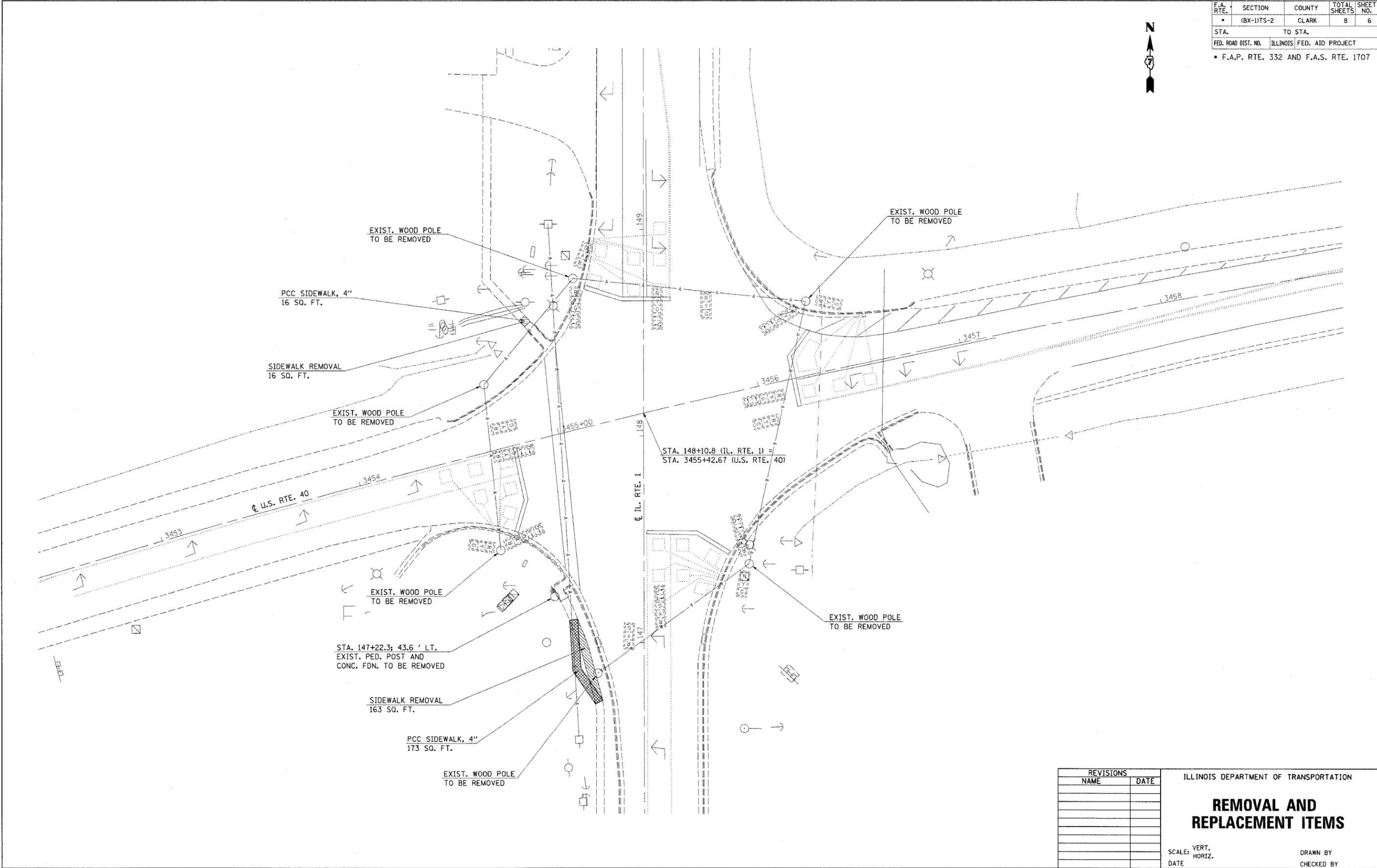
CABLE LAYOUT

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 10/12/2006
PLOT SCALE = 1/8"=1'-0"
USER NAME = smartcar

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	(BX-1)TS-2	CLARK	8	6
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• F.A.P. RTE. 332 AND F.A.S. RTE. 1707				



PLOT DATE = 10/12/2005
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL AND REPLACEMENT ITEMS

SCALE: VERT. DATE
HORIZ. CHECKED BY

DRAWN BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(BX-1)TS-2	CLARK	8	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* F.A.P. RTE. 332 AND F.A.S. RTE. 1707				

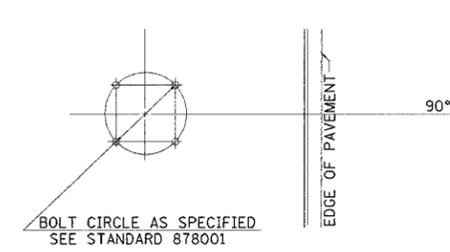
STREET NAME SIGNS



STREET NAME SIGNS

NOTES:

1. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND.
2. LETTER SIZE 8D.



**DETAIL OF MAST ARM FOUNDATION
BOLT PATTERN**

PLOT DATE = 10/12/2006
 FILE NAME = c:\pvc\pca\74209\486206.dgn
 PLOT SCALE = 20.0000 / 1 IN.
 USER NAME = merritt

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**STREET NAME
 AND
 MAST ARM FOUNDATION
 BOLT PATTERN DETAIL**

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

