

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(15R)TS	DEKALB-KENDALL	6	1

INDEX OF SHEETS

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2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TRAFFIC SIGNAL PLAN
5. CABLE PLAN
6. TRAFFIC SIGNAL DETAILS

HIGHWAY STANDARDS

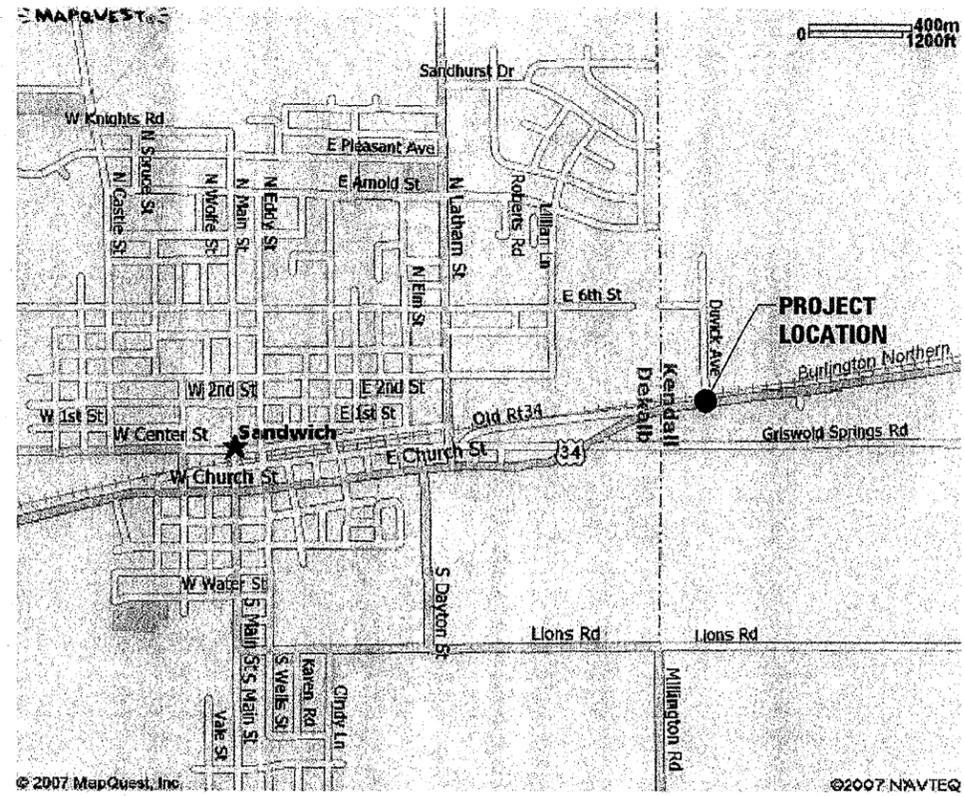
- 000001-04 Standard Symbols, Abbreviations, and Patterns
- 701006-02 Off-Road Operations, 2L, 2W, 4.5m (15') to 600mm (24") From Pavement Edge
- 701311-02 Lane Closure 2L, 2W, Moving Operations - Day Only
- 701501-03 Urban Lane Closure, 2L, 2W, Undivided
- 701701-04 Urban Lane Closure, Multilane Intersection
- 702001-06 Traffic Control Devices
- 780001-01 Typical Pavement Markings
- 857001 Standard Phase Designation Diagrams and Phase Sequences
- 862001 Uninterruptible Power Supply (UPS)
- 873001-01 Traffic Signal Grounding
- 880006 Traffic Signal Mounting Details
- 886001 Detector Loop Installations
- 886006 Typical Layout for Detection Loops

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP 591 (US 34)
SECTION (15R)TS
KENDALL COUNTY
C-93-080-07

TRAFFIC SIGNAL MODERNIZATION
US ROUTE 34 AND DUVICK AVENUE



LOCATION MAP
SPOT IMPROVEMENT



LOCATION OF SECTION INDICATED THIS: - [black rectangle]

OTHER PRINCIPAL ARTERIAL
FAP 591 (US 34)
ADT = 14,700 (2005)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 07/03 20 07

George F. Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 17, 20 07
Eric E. Harshbarger
 ENGINEER OF DESIGN AND ENVIRONMENT

August 17, 20 07
Milton R. Seay, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

6-29-2007
 date

JORGE L. SANCHEZ
 LICENSED PROFESSIONAL ENGINEER
 NO. 062-065412
 STATE OF ILLINOIS

expires 11-30-2007

George J. Sanchez
 signature
 PROFESSIONAL DESIGN FIRM
 LICENSE NO. 184-001717

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

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: TOM HUFNAGEL
UNIT CHIEF: DAN DEVINE

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

CHAMLIN & ASSOCIATES
 PERU ILLINOIS MORRIS

CONTRACT NO. 66724

DEKALB-KENDALL COUNTY

SECTION: (15R)TS

ROUTE: FAP 591 (US 34)

JORGE SANCHEZ
 CHAMLIN & ASSOCIATES
 (815)223-3344

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(15R)TS	DEKALB-KENDALL	6	2
STA.		TO STA.		
FED. ROAD DIST. NO. -		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (615-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.
2. ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.
3. MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE: COM ED, COMCAST, NICOR GAS
4. ALL TRAFFIC SIGNAL HEADS SHALL BE 12" UNLESS OTHERWISE NOTED.
5. ALL CONDUIT IN TRENCH SHALL BE P.V.C. ALL CONDUIT PUSHED MAY BE GALVANIZED STEEL OR P.V.C. CONDUIT ATTACHED TO STRUCTURES SHALL BE GALVANIZED STEEL.
6. A 1/4" DIAMETER CONTINUOUS NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER AS INCIDENTAL TO THE RESPECTIVE CONDUIT PAY ITEM.
7. THE PROPOSED TRAFFIC SIGNAL CONTROL CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CORD WITHIN THE POLICE DOOR COMPARTMENT AS INCIDENTAL TO THE CONTROL CABINET PAY ITEM.
8. THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON, INCIDENTAL TO THE CONTROLLER PAY ITEM.
9. THE DEPARTMENT OF TRANSPORTATION (615-434-8505) SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE TURNING ON OF THE CONTROLLER UNIT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING THE NEW ELECTRICAL LOADS FOR THE UNMETERED SERVICES ON THIS IMPROVEMENT TO THE UTILITY COMPANY AND AGENCY RESPONSIBLE FOR ENERGY CHARGES: CITY OF SANDWICH, 144 E. RAILROAD STREET, SANDWICH, IL. 60548.
11. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FEET MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
12. ALL MAST ARM SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE "RED" INDICATIONS ARE LEVEL WITH EACH OTHER.
13. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES, AS NECESSARY, INCIDENTAL TO THE CONDUIT PAY ITEM.
15. ALL THREADS OF BOLTS USED IN TRAFFIC COMPONENT ASSEMBLIES SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
16. BACK PLATES MUST BE POLYCARBONATE WITH A DEEP BACK FLANGE.
17. THE CONTRACTOR SHALL PROVIDE 3 FEET SLACK CABLE IN EACH TRAFFIC SIGNAL STRUCTURE: MAST ARM, POST, CONTROLLER. THE SLACK, WHICH IS IN ADDITION TO THE VERTICAL LENGTH OF CABLE DEFINED IN THE SPECIFICATIONS, SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH CABLE.
18. AT ALL LOCATIONS WHERE DETECTOR LOOPS ARE TO BE INSTALLED OVER EXISTING DETECTOR LOOPS, THE CONTRACTOR SHALL BE REQUIRED TO MAKE TWO SEPARATE SAW CUTS THROUGH EACH EXISTING DETECTOR LOOP TO PREVENT THE POSSIBILITY OF THE EXISTING LOOP SHORTING TO CREATE A CLOSED CIRCUIT. THIS WORK SHALL BE INCIDENTAL TO THE DETECTOR LOOP PAY ITEM.
19. ALL GROUNDING MATERIALS FOR TRAFFIC SIGNAL CONCRETE FOUNDATIONS SHALL REFER TO SECTION 807 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2007.
20. THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.
21. SIGNAL AND PEDESTRIAN HEADS SHALL HAVE BLACK HOUSING AND BLACK POLYCARBONATE BRACKETS.

THE UNINTERRUPTABLE POWER SUPPLY SHALL BE EQUIPPED WITH AN ALPHAGUARD MONITOR

COMMITMENTS

NONE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT THREE

PREPARED BY: James A. Wucher
DISTRICT OPERATIONS ENGINEER

DATE: July 3, 2007

EXAMINED BY: Herbert K. Jensen
DISTRICT CONSTRUCTION ENGINEER

James R. Hendry
DISTRICT MATERIALS ENGINEER

Red Powell
DISTRICT STUDIES & PLANS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
FAP 591 (US 34)
SECTION (15R)TS
DEKALB-KENDALL COUNTY

SCALE: VERT. _____ HORIZ. _____
DATE 5/07 DRAWN BY ARR
CHECKED BY JLS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(15R)TS	DEKALB-KENDALL	6	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONSTRUCTION NOTES:

REMOVE AND REPLACE CONTROLLER AND CABINET ON EXISTING FOUNDATION. INSTALL UNINTERRUPTIBLE POWER SUPPLY, EXTENDED AND LIGHTING CONTROLLER PHOTOCELL RELAY.

REMOVE FOUR (4) BRACKET MOUNTED AND NINE (9) MAST ARM MOUNTED 3-SECTION HEADS AND REPLACE WITH LED HEADS.

REMOVE FOUR (4) BRACKET MOUNTED AND FOUR (4) MAST ARM MOUNTED 5-SECTION HEADS AND REPLACE WITH LED HEADS.

REMOVE FOUR (4) ILLUMINATED SIGNS AND REPLACE WITH LED ILLUMINATED SIGNS.

REMOVE AND REPLACE ALL EXISTING SIGNAL CABLE. INCLUDING SIGNAL CABLE BETWEEN THE INTERSECTION, TRAFFIC SIGNAL CONTROLLER, AND ADJACENT B.N.S.F. RAILROAD GATE CONTROLLER.

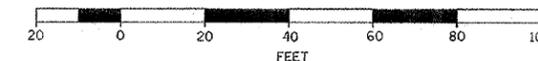
PERFORM LOOP DETECTOR TESTING AND REPLACE LOOPS AS REQUIRED. (A CONTINGENT PAY ITEM QUANTITY HAS BEEN INCLUDED.)

REMOVAL OF THE FOLLOWING ITEMS SHALL BE PAID FOR AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH - CONTROLLER AND CABINET W/ ALL CONTENTS
- 4 EACH - SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
- 9 EACH - SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
- 4 EACH - SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED
- 4 EACH - SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 4 EACH - ILLUMINATED SIGN

THE TRAFFIC SIGNAL CONTROLLER FURNISHED FOR THIS PROJECT SHALL BE THE MOST CURRENT EAGLE BRAND AND B.N.S.F. RAILROAD APPROVED.

GRAPHIC SCALE

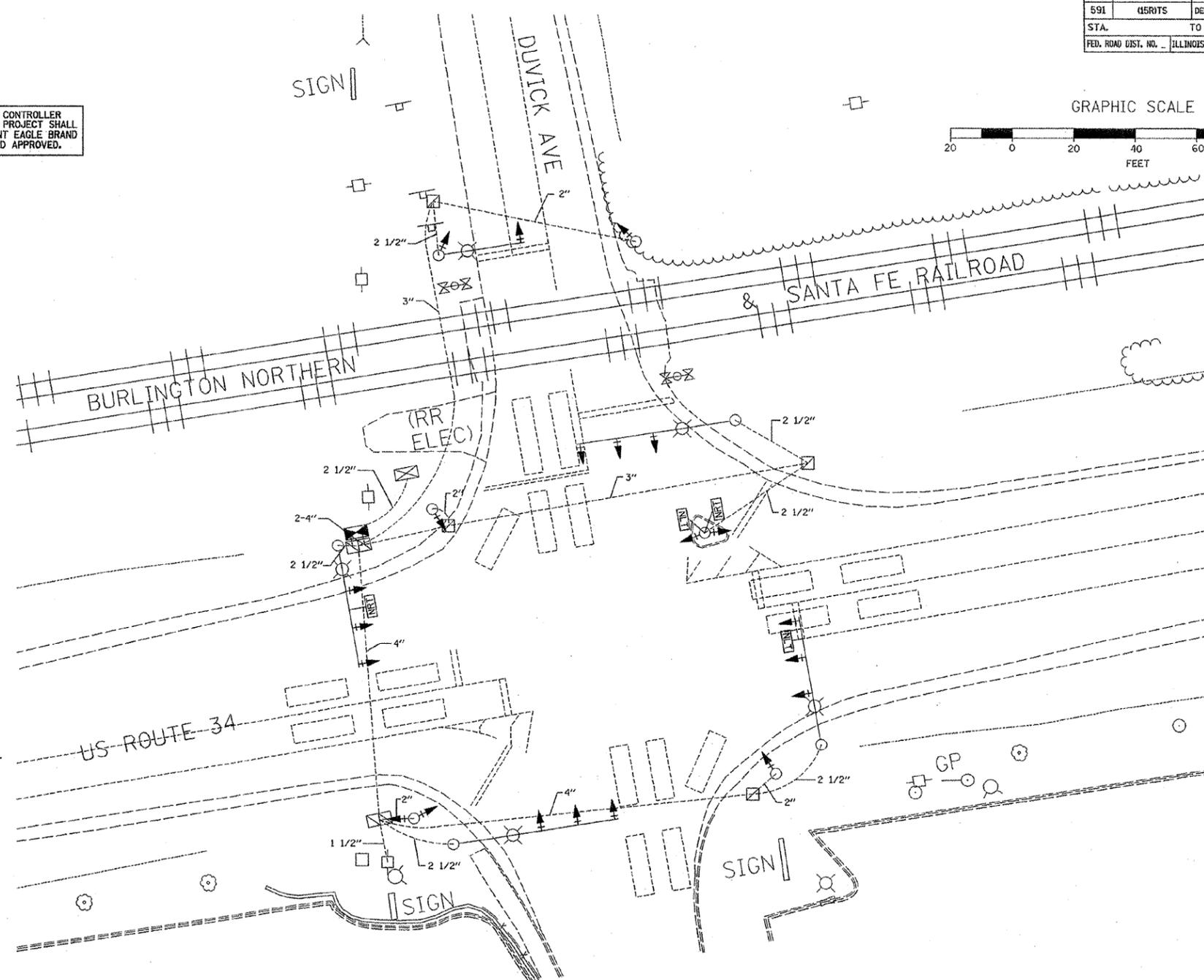


TRAFFIC SIGNALS LEGEND

EXISTING	PROPOSED	
		SERVICE INSTALLATION
		CONTROLLER CABINET
		CONDUIT
		SIGNAL HEAD WITH BACKPLATE
		STEEL MAST ARM
		TRAFFIC SIGNAL POST
		HANDHOLE
		DOUBLE HANDHOLE
		LIGHTING LUMINAIRE
		ILLUMINATED SIGN - R3-1 LED BLANK OUT
		ILLUMINATED SIGN - R3-2 LED BLANK OUT

SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	TOTAL QUANTITY
MOBILIZATION	L SUM	1
TRAFFIC CONTROL AND PROTECTION STANDARD 701501	L SUM	1
TRAFFIC CONTROL AND PROTECTION STANDARD 701701	L SUM	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/2 C NO. 10	FOOT	2670
LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	893
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3033
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1659
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	263
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	141
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	9
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	21
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE 1	FOOT	245
ILLUMINATED SIGN, LED	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	8659
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	898
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 3 PAIR, TWISTED AND SHIELDED	FOOT	28
LOOP DETECTOR TESTING	EACH	1
RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1

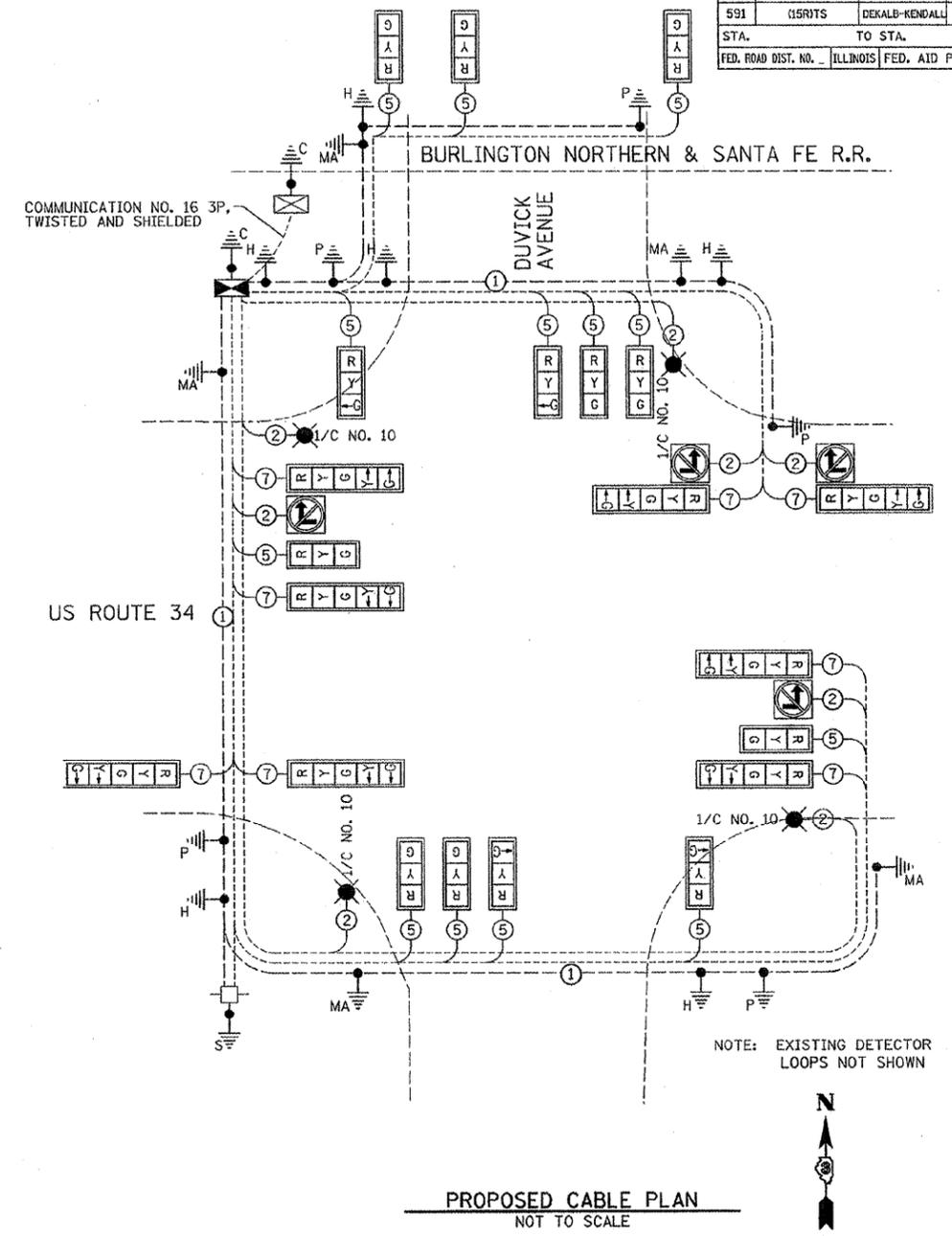
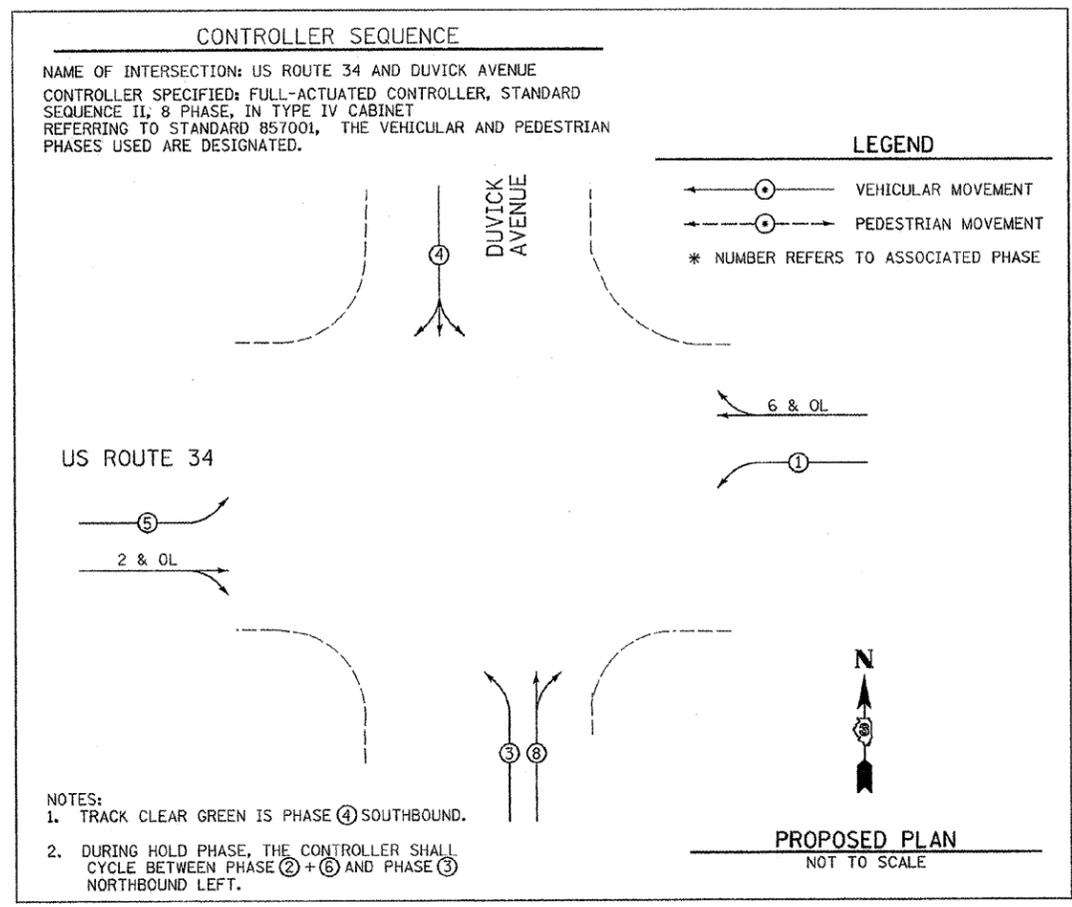


PLOT DATE = 5/07
 FILE NAME = TSP.LANDON
 SHEET NO. = 28
 USER NAME = ARR

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL PLAN
 FAP 591 (US 34)
 SECTION (15R)TS
 DEKALB-KENDALL COUNTY

SCALE: VERT. 1" = 20'
 HORIZ. 1" = 20'
 DATE 5/07
 DRAWN BY ARR
 CHECKED BY JLS



TRAFFIC SIGNALS LEGEND

	DETTOTES NUMBER OF CONDUCTORS (NEW) ALL CABLE NO. 14 EXCEPT AS INDICATED
	EXISTING SERVICE INSTALLATION
	PROPOSED CONTROLLER CABINET WITH LIGHTING CONTROLLER PHOTOCELL RELAY
	ILLUMINATED SIGN - R3-1 LED BLANK OUT
	ILLUMINATED SIGN - R3-2 LED BLANK OUT
	EXISTING RAILROAD CONTROLLER
	RIGHT TURN YELLOW
	RIGHT TURN GREEN
	LEFT TURN YELLOW
	LEFT TURN GREEN
	SIGNAL SECTION 12"
	250 WATT HPS LUMINAIRE
	TRAFFIC SIGNAL BACKPLATE
	GROUND ROD AT POST (P) OR MAST ARM (MA) OR CONTROLLER (C) OR SERVICE INSTALLATION (S) OR HANDHOLE (H)

PLOT DATE = 6/27
 FILE NAME = CABLE.DGN
 PLOT SCALE = ARR
 USER NAME = ARR

REVISIONS	
NAME	DATE

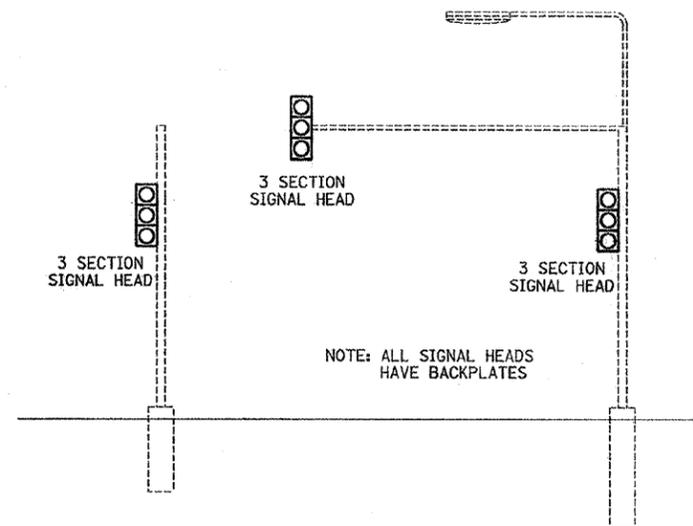
ILLINOIS DEPARTMENT OF TRANSPORTATION
 CABLE PLAN
 FAP 591 (US 34)
 SECTION 15R1TS
 DEKALB-KENDALL COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE 5/07

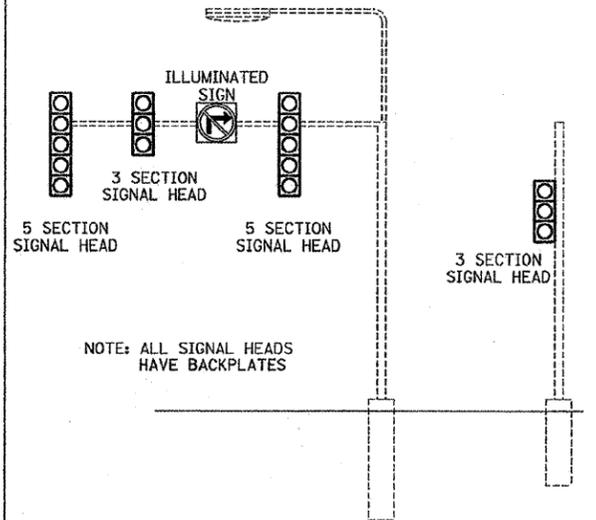
DRAWN BY ARR
 CHECKED BY JLS

ELECTRICAL LOAD FOR INTERSECTION				
STREET NAME	COMPONENT	NUMBER	WATTAGE EACH	BURNTIME %
US ROUTE 34	RED	10	10	74
	YELLOW	10	19	5
	GREEN	10	14	21
	YELLOW ARROW-LT.	4	9	5
	GREEN ARROW-LT.	4	3.4	21
	YELLOW ARROW-RT.	4	9	5
	GREEN ARROW-RT.	4	3.4	21
	R3-1 LED BLANK OUT	2	10	5
	R3-2 LED BLANK OUT	2	10	5
DUVICK AVENUE	RED	11	10	68
	YELLOW	11	19	5
	GREEN	7	14	27
TRAFFIC SIGNAL CABINET	CONTROLLER	1	6	100
	VEHICLE DETECTORS	10	4	100
	UPS	1	50	100
HIGHWAY LIGHTING	HPS LUMINAIRE	5	250	50

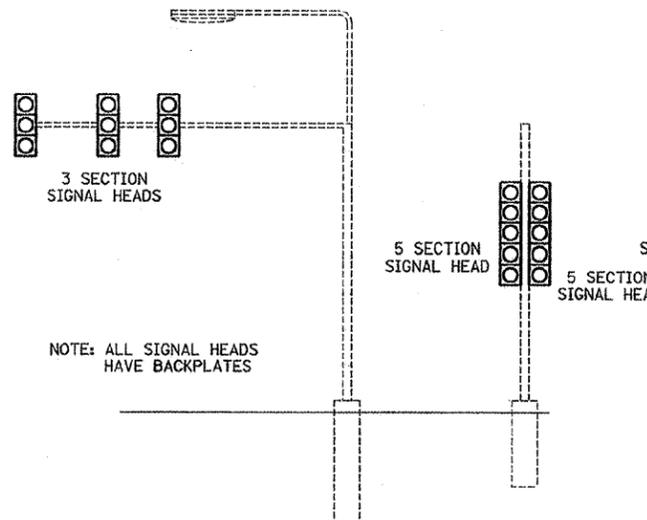
AGENCY RESPONSIBLE FOR TRAFFIC SIGNAL ENERGY CHARGES: CITY OF SANDWICH
 (NOTE: SEPERATE ENERGY BILLS FOR HIGHWAY LIGHTING AND TRAFFIC SIGNALS SHALL BE SUBMITTED TO THE CITY OF SANDWICH.
 144 E. RAILROAD STREET
 SANDWICH, IL. 60548
 (815)786-9321



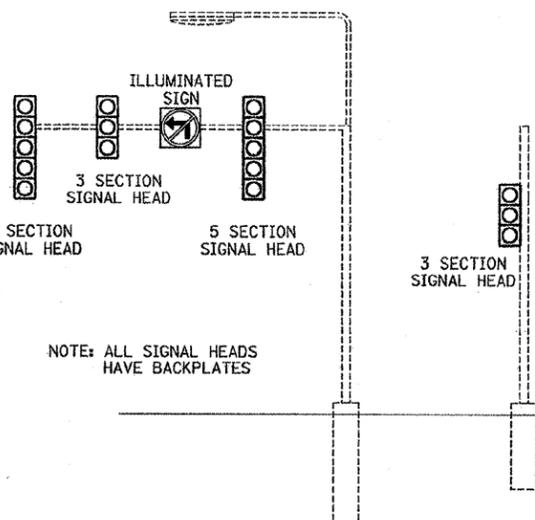
SOUTHBOUND (NORTH OF RAILROAD TRACKS)
NOT TO SCALE



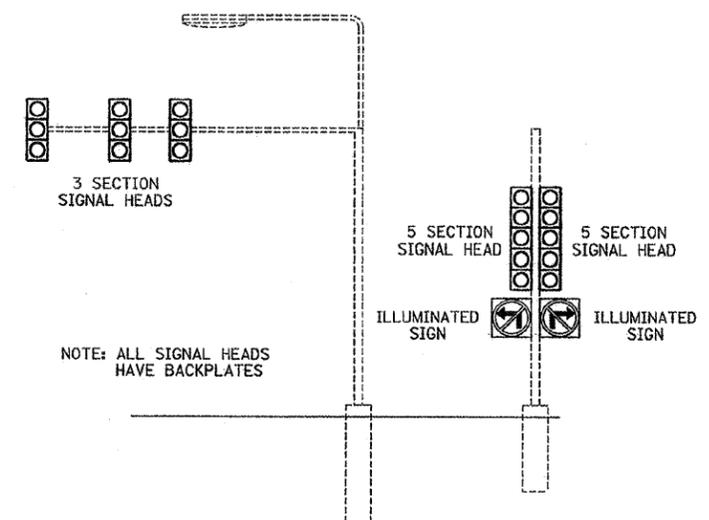
NORTHWEST CORNER
NOT TO SCALE



SOUTHWEST CORNER
NOT TO SCALE



SOUTHEAST CORNER
NOT TO SCALE



NORTHEAST CORNER
NOT TO SCALE

US ROUTE 34 / DUVICK AVENUE

PLOT DATE = 5/07
 FILE NAME = TSDET.DGN
 PLOT SCALE = 1" = 20'
 USER NAME = ARR

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL DETAILS
 FAP 591 (US 34)
 SECTION (15R) TS
 DEKALB-KENDALL COUNTY
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