

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

FAP 0369 (75TH STREET)
RANCHVIEW DRIVE TO JANES AVENUE

AND

FAP 0362 (COUNTY FARM ROAD)
BIRCHBARK TRAIL TO SCHICK ROAD

AND

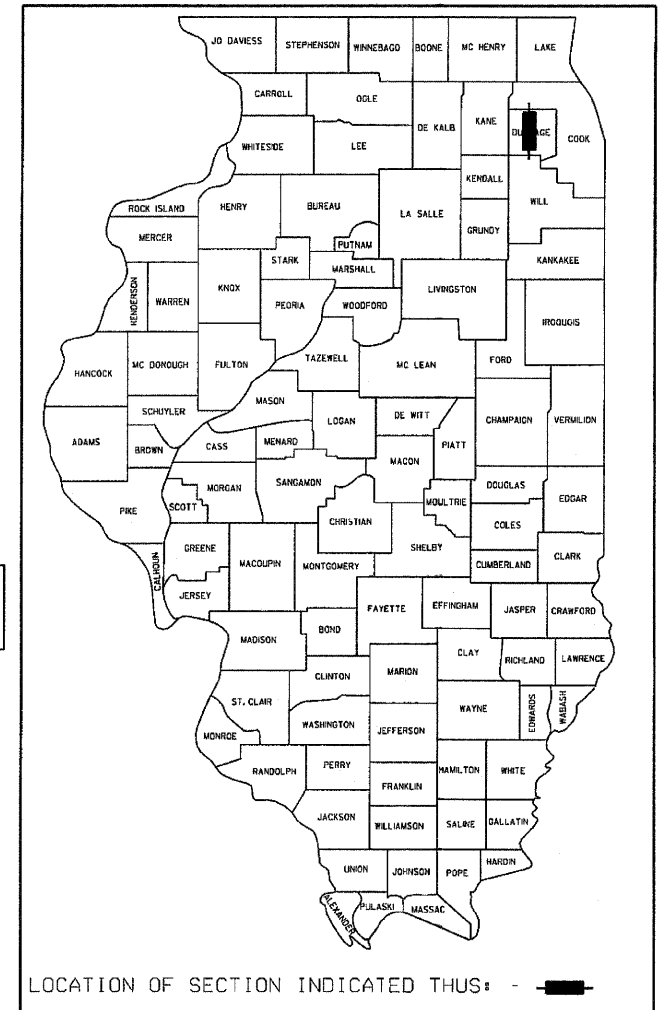
FAP 0367 (ARMY TRAIL ROAD)
SPRING VALLEY DRIVE TO MERBACH DRIVE

FEDERAL PROJECT NO: CMM-9003(566)
SECTION 09-00168-08-TL
FIBER OPTIC COMMUNICATIONS NETWORK
DUPAGE COUNTY
C-91-332-10

PROJECT IS LOCATED
IN DUPAGE COUNTY

LOCATION MAP (NOT TO SCALE)

F.A.P. RTE. 0369/ 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 1
FED. ROAD DIST. NO. 1		ILLINOIS		CONTRACT NO. 63484



INDEX OF SHEETS

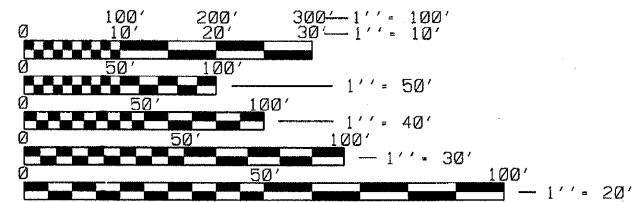
- 1 COVER SHEET
- 2 GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 TRAFFIC SIGNAL LEGEND
- 5 75TH ST MAP, SCHED. OF QUANTS.
- 6-10 75TH ST INTERCONNECT PLAN
- 11 75TH ST INTERCONNECT SCHEMATIC
- 12 75TH ST & ILL RTE 53 TRAFFIC SIGNAL PLAN
- 13 75TH ST & ILL RTE 53 CABLE DIAGRAM
- 14 75TH ST & WOODRIDGE DR TRAFFIC SIGNAL PLAN
- 15 75TH ST & WOODRIDGE DR CABLE DIAGRAM
- 16 75TH ST & JANES AVE TRAFFIC SIGNAL PLAN
- 17 75TH ST & JANES AVE CABLE DIAGRAM
- 18 COUNTY FARM ROAD MAP, SCHED. OF QUANTS.
- 19-24 COUNTY FARM ROAD / ARMY TRAIL ROAD INTERCONNECT PLAN
- 25 COUNTY FARM ROAD / ARMY TRAIL ROAD INTERCONNECT SCHEMATIC
- 26 COUNTY FARM ROAD & BIRCHBARK TR TRAFFIC SIGNAL PLAN
- 27 COUNTY FARM ROAD & BIRCHBARK TR CABLE DIAGRAM
- 28 COUNTY FARM ROAD & LIES RD TRAFFIC SIGNAL PLAN
- 29 COUNTY FARM ROAD & LIES RD CABLE DIAGRAM
- 30 COUNTY FARM ROAD & ARMY TRAIL RD TRAFFIC SIGNAL PLAN
- 31 COUNTY FARM ROAD & ARMY TRAIL RD CABLE DIAGRAM
- 32 ARMY TRAIL RD & WOODLAKE RD TRAFFIC SIGNAL PLAN
- 33 ARMY TRAIL RD & WOODLAKE RD CABLE DIAGRAM
- 34-38 TS-05 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
- 39 TC-10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS AND INTERSECTIONS

STANDARDS

701301-03, 701601-06, 701701-06, 701801-04, 701901-01, 805001-01, 814001-02, 814006-02, 857001-01, 873001-02, 877001-04, 877011-04, 878001-08, 880006-01, 000001-05

PROJECT LOCATIONS

LOCATION 1:	GROSS LENGTH(FT)	NET LENGTH(FT)
75TH STREET - RANCHVIEW DR TO JANES AVE (O.P.A. / 45 MPH / 38000 ADT)	14800	14800
LOCATION 2:		
COUNTY FARM ROAD-BIRCHBARK TR TO SCHICK RD (O.P.A. / 40 MPH / 31000 ADT)	10600	10600
ARMY TRAIL ROAD-SPRING VALLEY RD TO MERBACH DR (O.P.A. / 45 MPH / 28500 ADT)	5100	5100
TOTAL	30500	30500



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
OR 811

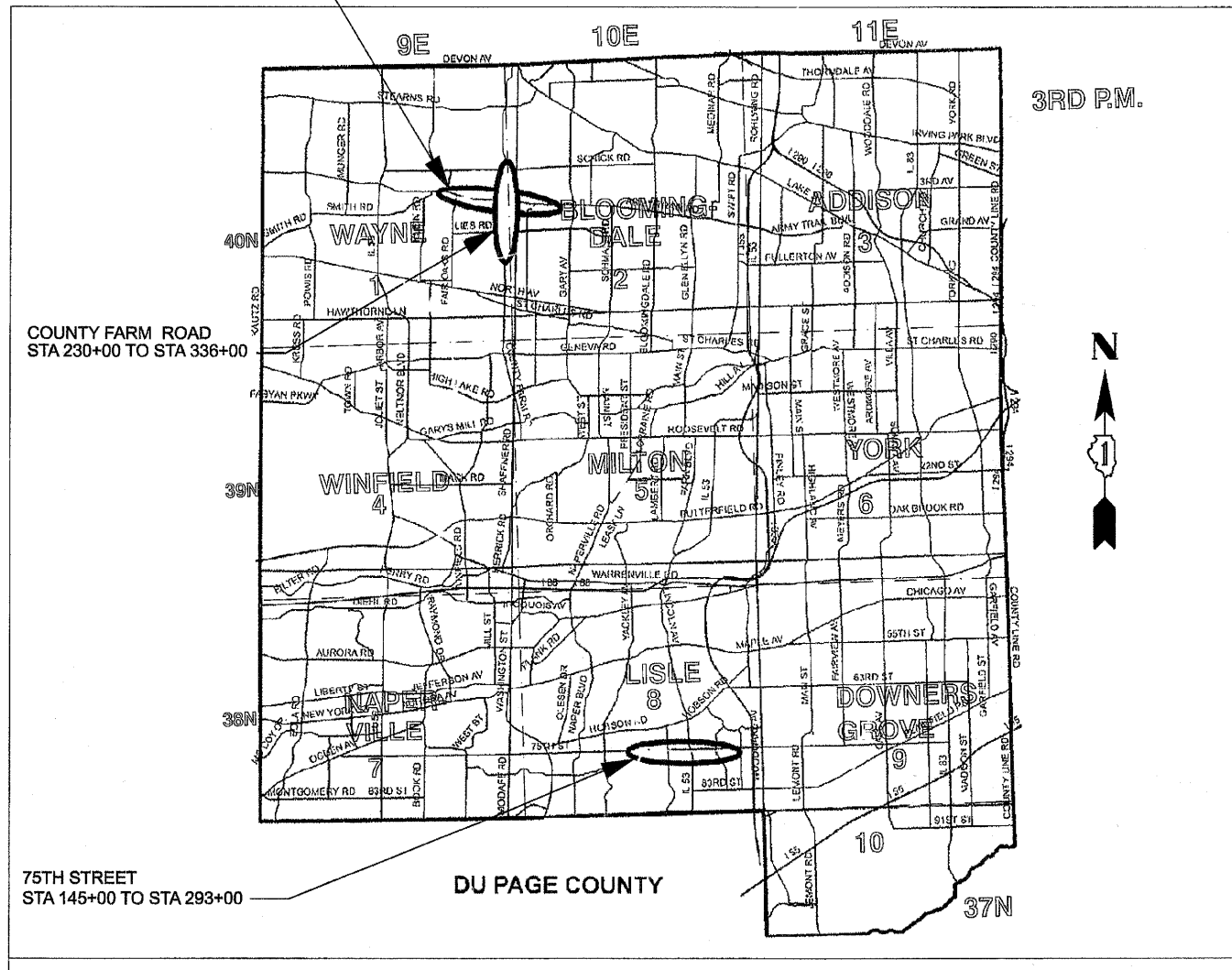
PROJECT ENGINEER THOMAS HARDY-DUPAGE COUNTY DOT
PROJECT MANAGER DAVE ZIESEMER-DUPAGE COUNTY DOT

CONTRACT NO. 63484

ARMY TRAIL ROAD
STA 151+00 TO STA 202+00

COUNTY FARM ROAD
STA 230+00 TO STA 336+00

75TH STREET
STA 145+00 TO STA 293+00



DU PAGE COUNTY

3RD P.M.



ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED June 3 2010

Charles F. Pobanski
DUPAGE COUNTY, COUNTY ENGINEER

PASSED JUNE 7 2010

C. H. H. H. H. H.
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED REVIEW

JUNE 7 2010

Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER



Thomas Hardy
06-03-10

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FIELD ENGINEER: MARILIN SOLOMON (847)-705-4407

FUNDING CODE YO31-1F(80% CMAQ / 20% DUPAGE COUNTY)

PAY CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITIES	FUNDING CODE															
				75TH STREET INTERCONNECT	75TH ST & RANCHVIEW DR	75TH ST & GREENE RD	75TH ST & ILL RTE E3	75TH ST & WOODRIDGE DR	75TH ST & JAMES AVE	COUNTY FARM ROAD INTERCONNECT	COUNTY FARM RD & BIRCHBARK TR	COUNTY FARM RD & LIES RD	COUNTY FARM RD & KELLY DR	COUNTY FARM RD & ARMY TRAIL RD	COUNTY FARM RD & ILLINOIS CENTRAL RR	COUNTY FARM RD & SCHICK RD	ARMY TRAIL & SPRING VALLEY DR	ARMY TRAIL & WOODLAKE DR	
67100100	MOBILIZATION	L SUM	1	0.11	0.06	0.06	0.06	0.06	0.06	0.11	0.06	0.06	0.06	0.06	0.06	0.06	0.06		
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	0.11	0.06	0.06	0.06	0.06	0.06	0.11	0.06	0.06	0.06	0.06	0.06	0.06	0.06		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.11	0.06	0.06	0.06	0.06	0.06	0.11	0.06	0.06	0.06	0.06	0.06	0.06	0.06		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.11	0.06	0.06	0.06	0.06	0.06	0.11	0.06	0.06	0.06	0.06	0.06	0.06	0.06		
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	24383	12557						11826									
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	20					20											
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	1798	834						1164									
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	27					27											
81019100	CONDUIT PUSHED, 6" DIA., GALVANIZED STEEL	FOOT	120											120					
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	120	120															
81300720	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" X 12" X 8"	EACH	2	2															
81400100	HANDHOLE	EACH	49	22						27									
81400200	HEAVY-DUTY HANDHOLE	EACH	8	8															
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	24383	12557						11826									
82102310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT	EACH	4										4						
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	12		1	1	1	1	1		1	1	1	1		1	1		
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	6				1		1		1	1		1			1		
88400100	TRANSCEIVER - FIBER OPTIC	EACH	9		1	1	1	1	1		1	1		1		1	1		
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	45				45												
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	11					4	4					3					
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	2					2											
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT	EACH	3											3					
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16					16											
87900200	DRILL EXISTING HANDHOLE	EACH	16		1	2	2	2	1		1	2	1		1	1	2		
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	12					6	6										
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2					2											
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4						4										
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6					4	2										
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2						2										
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	10					2	4					4					
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	5					2	1					2					
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	16					6	10										
88500100	INDUCTIVE LOOP DETECTOR	EACH	66				12	10	10		8	8		10			8		
88800100	PEDESTRIAN PUSH BUTTON	EACH	28					6	6					8			8		
88500100	RELOCATE EXISTING SIGNAL HEAD	EACH	9											9					
89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	4					2						2					
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	7				1	1	1		1	1		1			1		
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	1644					804	240					800					
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	11		1	1	1	1	1		1	1	1	1	1	1	1		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	4					4											
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	31330	15890						15440									
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	3								1		1			1			
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	7		1	1	1	1	1					1		1	1		
X8820020	UNINTERRUPTIBLE POWER SUPPLY	EACH	3					1	1					1					
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	852		56	45	71	165		21		273	120		25	32	44		
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	14		1	1	1	1	3	1	1	1	1		1	1	1		
XX003865	REBUILD EXISTING HANDHOLE TO DOUBLE HANDHOLE	EACH	1					1											
XX006654	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	31330	15890						15440									
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1											1					

*SPECIALTY ITEMS

DUPAGE COUNTY DIVISION OF TRANSPORTATION	
SUMMARY OF QUANTITIES	
SCALE: NONE	DATE: 4/23/10
DESIGNED BY: []	CHECKED BY: []
DRAWN BY: []	IN CHARGE: []

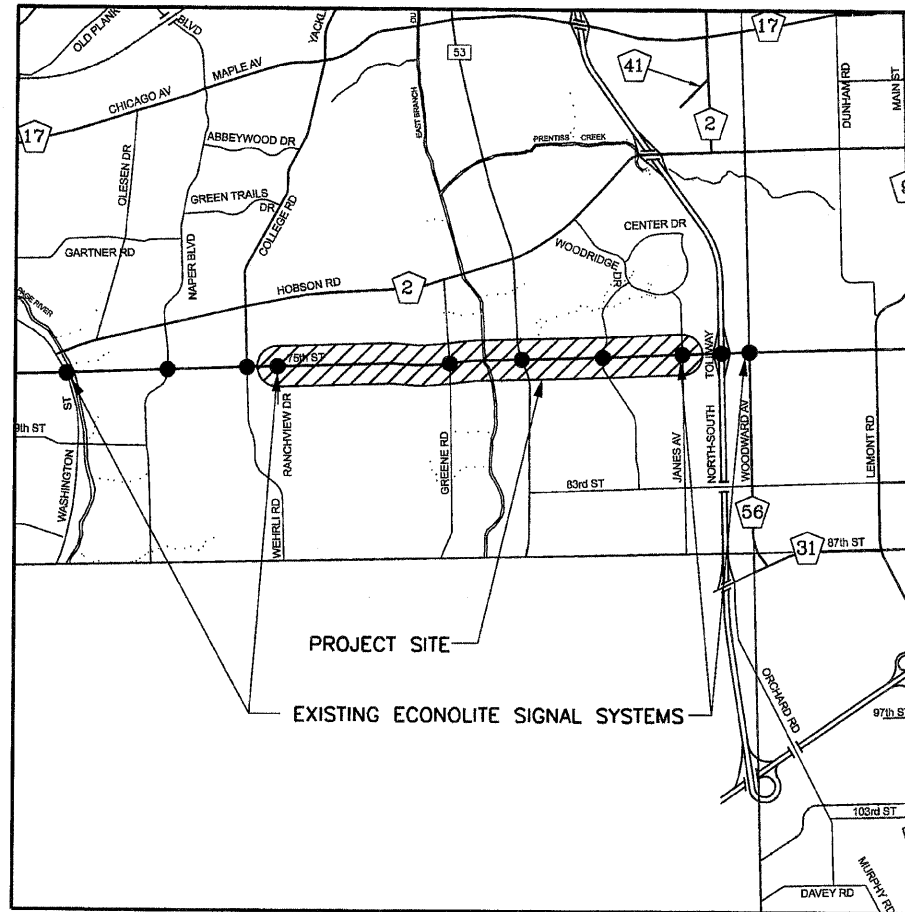
TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MMI2F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MMI2F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MMI2F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			12" (300mm) TRAFFIC SIGNAL SECTION			
SIGNAL HEAD				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				SIGNAL FACE			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				SIGNAL FACE				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD			
SIGNAL HEAD WITH BACKPLATE				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
SIGNAL HEAD OPTICALLY PROGRAMMED				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				RADIO INTERCONNECT				RADIO REPEATER			
PEDESTRIAN SIGNAL HEAD				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)			
PEDESTRIAN PUSHBUTTON DETECTOR											
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR											
ILLUMINATED SIGN "NO LEFT TURN"											
ILLUMINATED SIGN "NO RIGHT TURN"											
DETECTOR LOOP, TYPE I											
PERFORMED DETECTOR LOOP											
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

75TH STREET SYSTEM MAP



HANDHOLE TABLE

NUMBER	TYPE	STATION	OFFSET(FT)
S1	HEAVY-DUTY	152+00	103 LT
S2	HEAVY-DUTY	156+00	104 LT
S3	HEAVY-DUTY	160+00	84 LT
S4	REGULAR	164+00	87 LT
S5	REGULAR	168+00	107 LT
S6	REGULAR	172+00	105 LT
S7	REGULAR	176+00	108 LT
S8	REGULAR	180+30	107 LT
S9	REGULAR	184+00	106 LT
S10	REGULAR	188+00	107 LT
S11	REGULAR	192+00	107 LT
S12	REGULAR	196+00	110 LT
S13	HEAVY-DUTY	205+00	80 RT
S14	HEAVY-DUTY	209+00	80 RT
S15	HEAVY-DUTY	212+50	46 RT
S16	HEAVY-DUTY	216+00	46 RT
S17	HEAVY-DUTY	220+50	60 RT
S18	REGULAR	236+00	88 LT
S19	REGULAR	240+00	88 LT
S20	REGULAR	244+00	88 LT
S21	REGULAR	248+00	88 LT
S22	REGULAR	252+00	88 LT
S23	REGULAR	256+00	88 LT
S24	REGULAR	265+00	44 RT
S25	REGULAR	269+00	44 RT
S26	REGULAR	273+00	45 R
S27	REGULAR	277+00	44 RT
S28	REGULAR	281+00	44 RT
S29	REGULAR	285+00	54 RT
S30	REGULAR	288+50	65 RT

SCHEDULE OF QUANTITIES

67100100	MOBILIZATION	L SUM	0.11
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.11
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	12557
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	634
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	120
81300720	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" X 12" X 8"	EACH	2
81400100	HANDHOLE	EACH	22
81400200	HEAVY-DUTY HANDHOLE	EACH	8
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	12557
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	15890
XX006654	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	15890

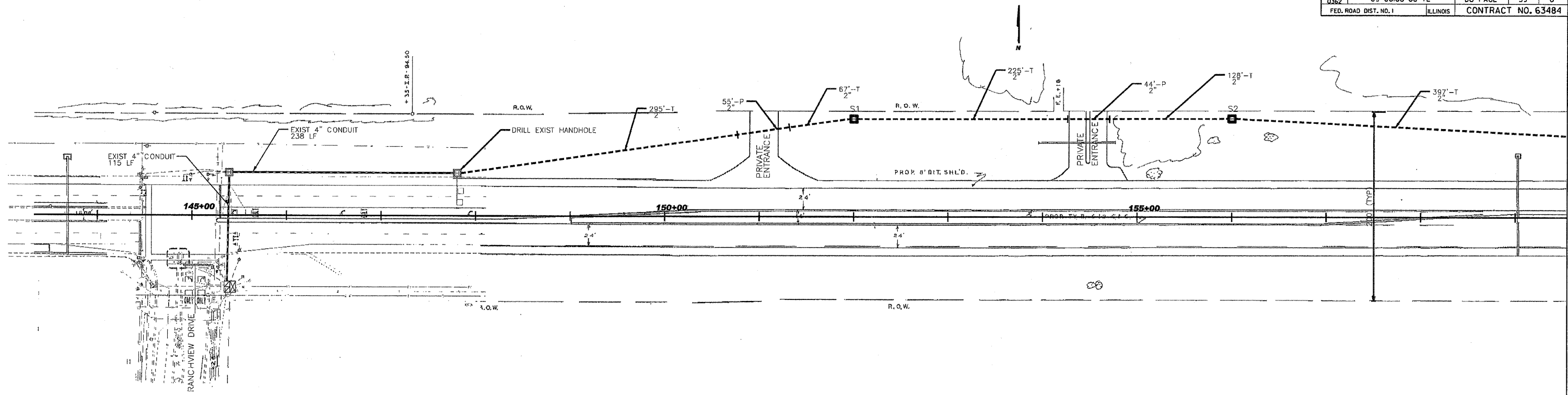
REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
**75TH STREET INTERCONNECT PLAN,
 HANDHOLE TABLE AND
 SCHEDULE OF QUANTITIES**

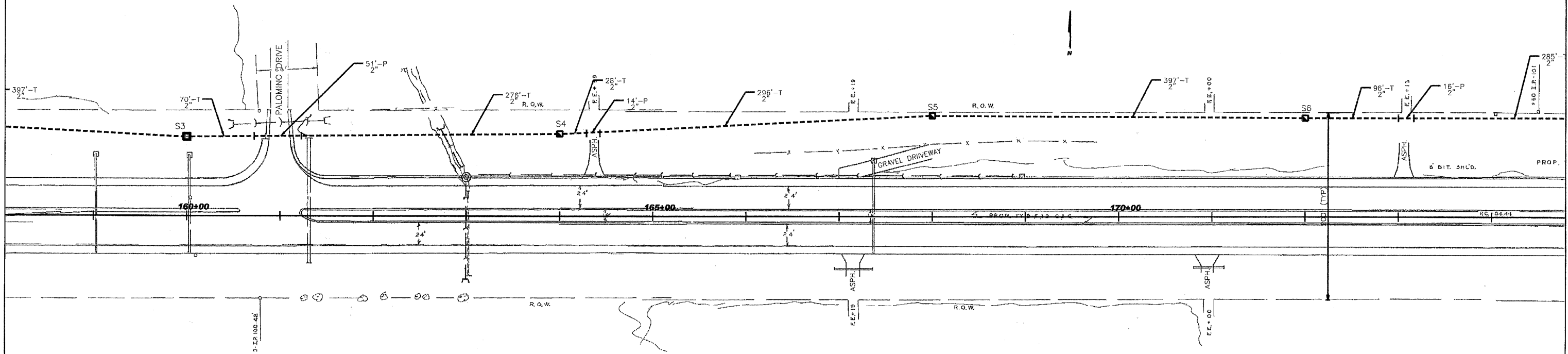
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DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	09-0068-08-TL	DU PAGE	39	6
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 63484	



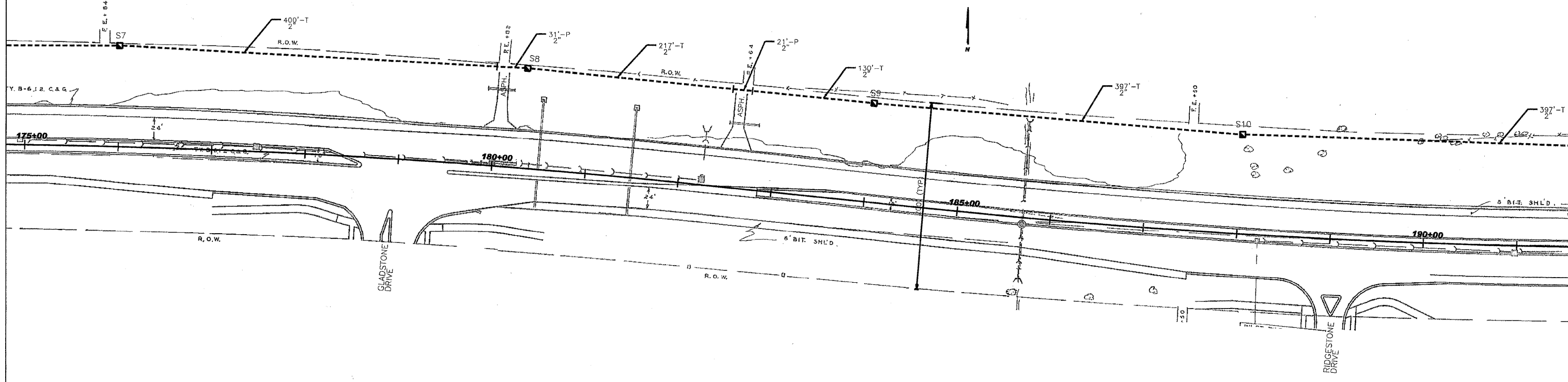
NOTE: SEE SHEET 11 FOR PROPOSED HANDHOLE STATIONS AND OFFSETS.



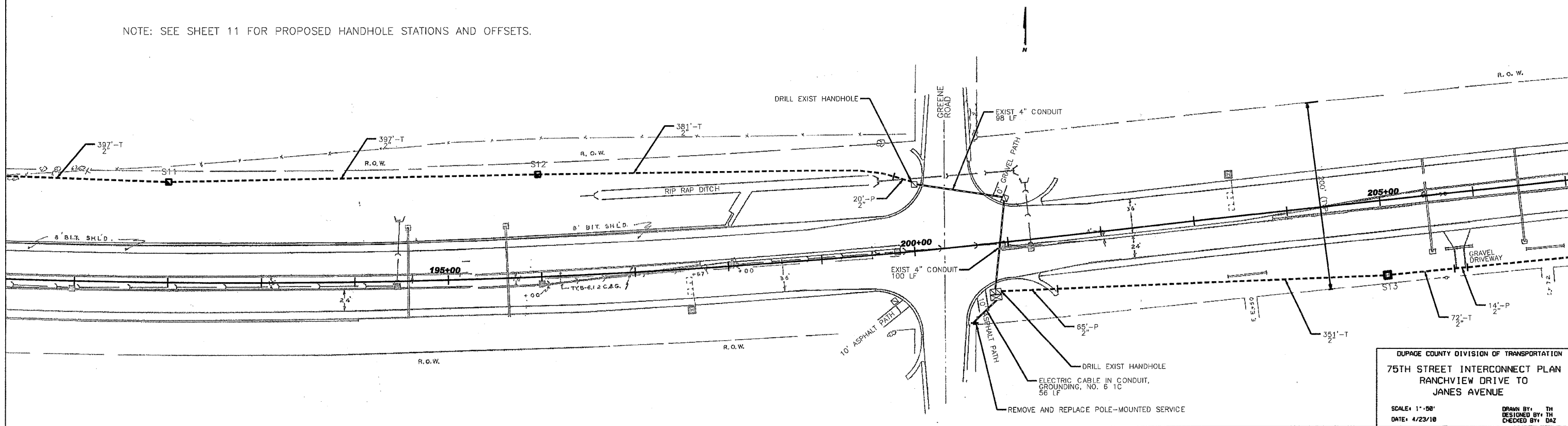
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 PLOT SCALE = #SCALE#
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DUPAGE COUNTY DIVISION OF TRANSPORTATION
 75TH STREET INTERCONNECT PLAN
 RANCHVIEW DRIVE TO
 JANES AVENUE
 SCALE: 1"=50'
 DATE: 4/23/18
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

F.A.P. RTE. 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 7
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63484		



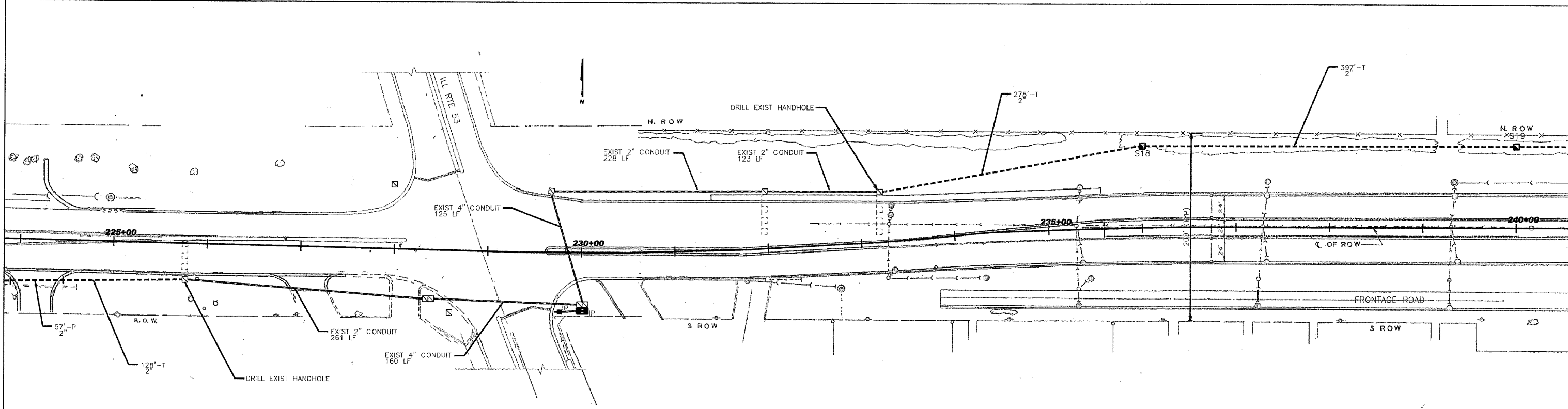
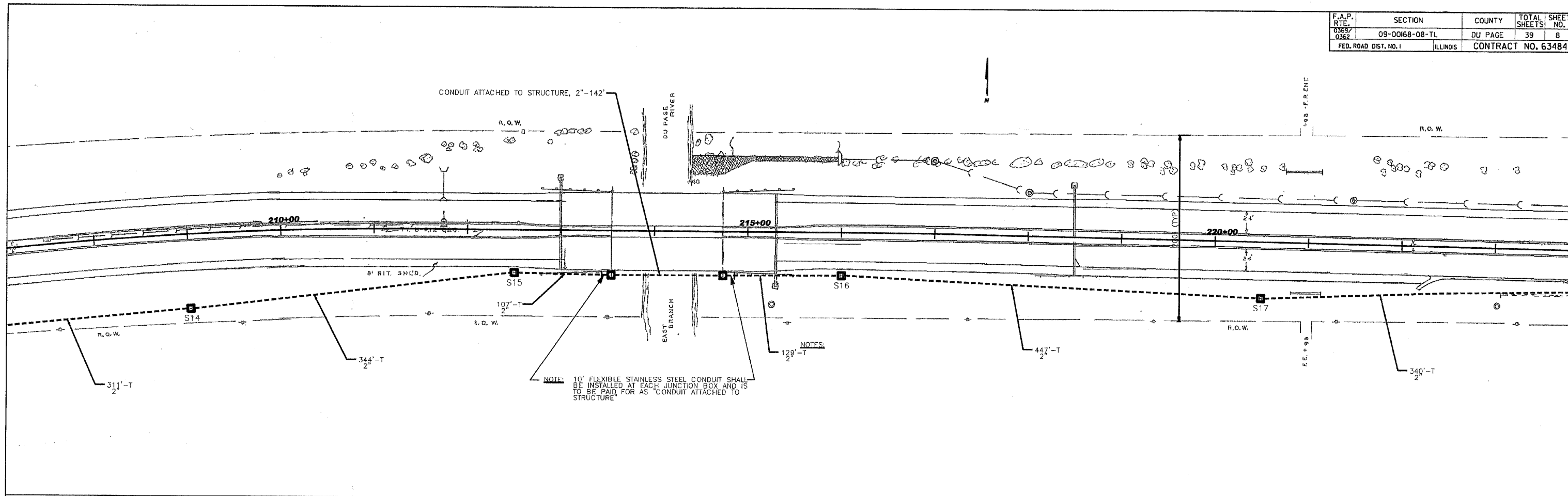
NOTE: SEE SHEET 11 FOR PROPOSED HANDHOLE STATIONS AND OFFSETS.



PLOT DATE = 4/23/10
 PLOT SCALE = AS SHOWN
 USER NAME = AUSER

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET INTERCONNECT PLAN
 RANCHVIEW DRIVE TO
 JANES AVENUE
 SCALE: 1"=50'
 DATE: 4/23/10
 DESIGNED BY: TH
 CHECKED BY: DAZ

F.A.P. RTE. 0369/ 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 8
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63484		

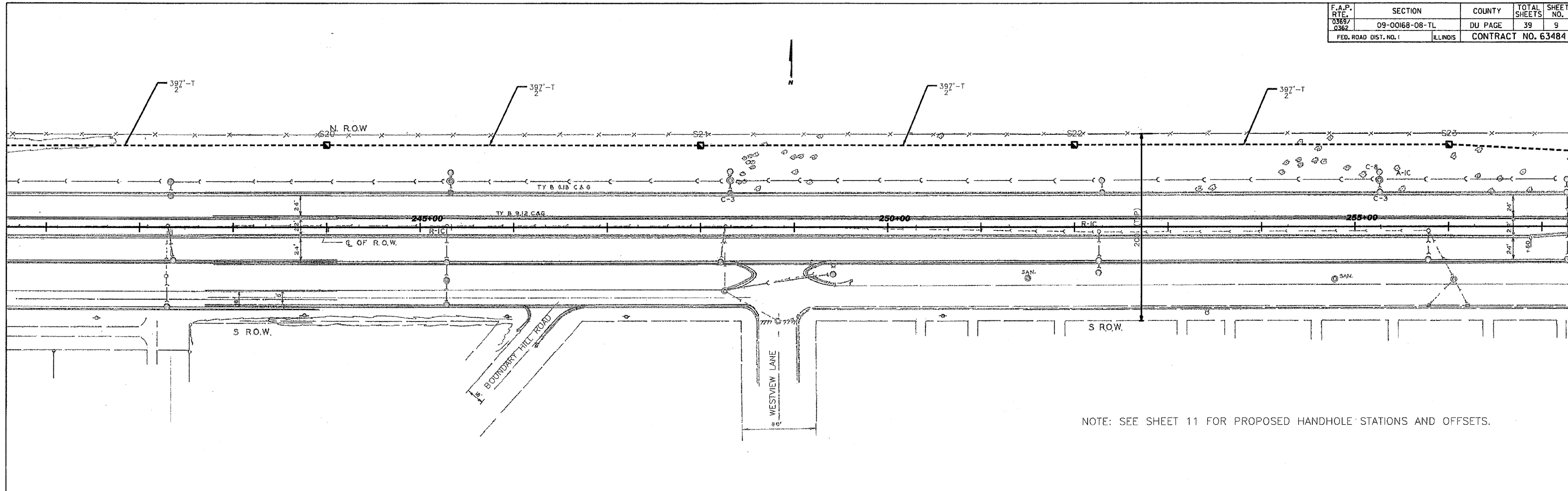


NOTE: SEE SHEET 11 FOR PROPOSED HANDHOLE STATIONS AND OFFSETS.

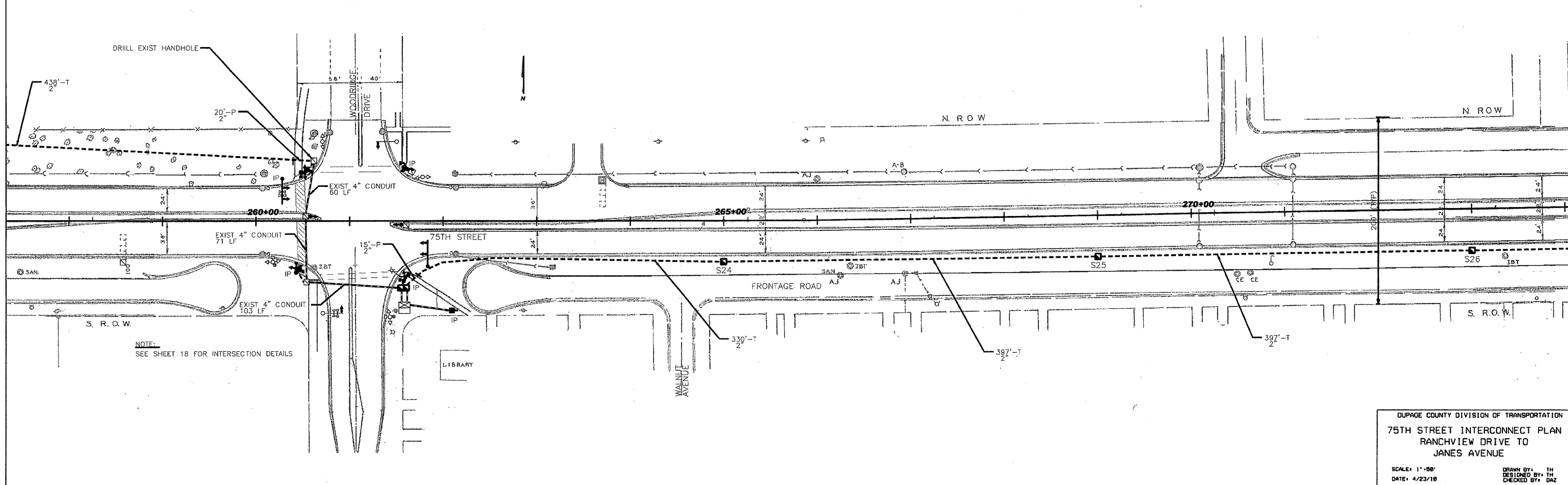
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DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET INTERCONNECT PLAN
RANCHVIEW DRIVE TO
JANES AVENUE
SCALE: 1"=50'
DATE: 4/23/18
DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: DZ

F.A.P. RTE. 0387/0382	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 9
FED. ROAD DIST. NO. 1		ILLINOIS		CONTRACT NO. 63484



NOTE: SEE SHEET 11 FOR PROPOSED HANDHOLE STATIONS AND OFFSETS.

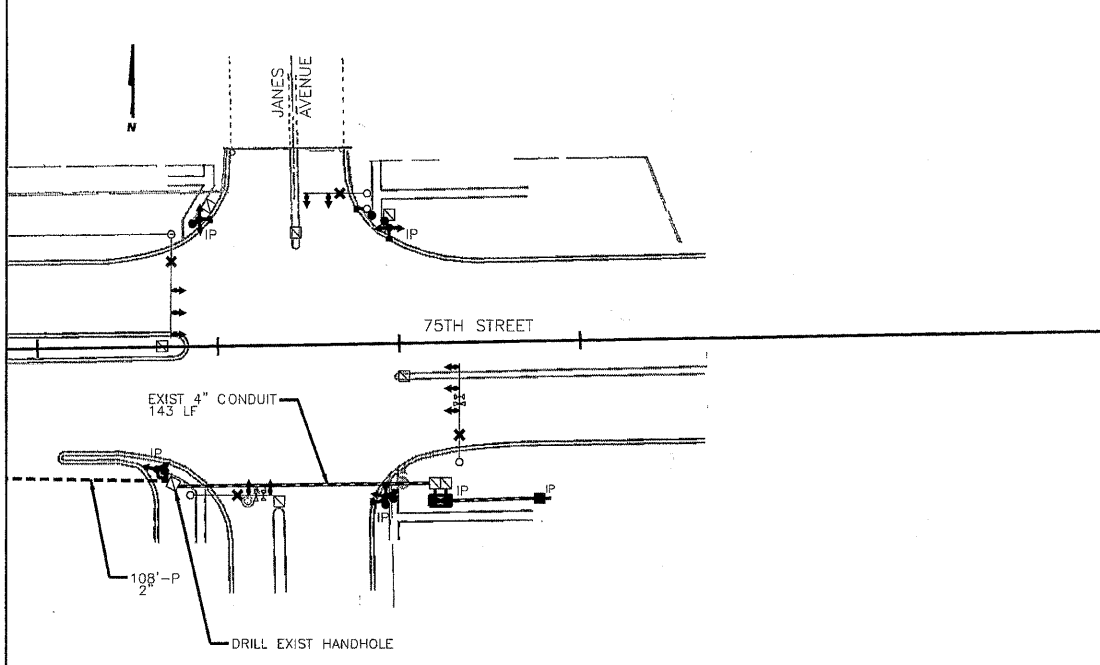
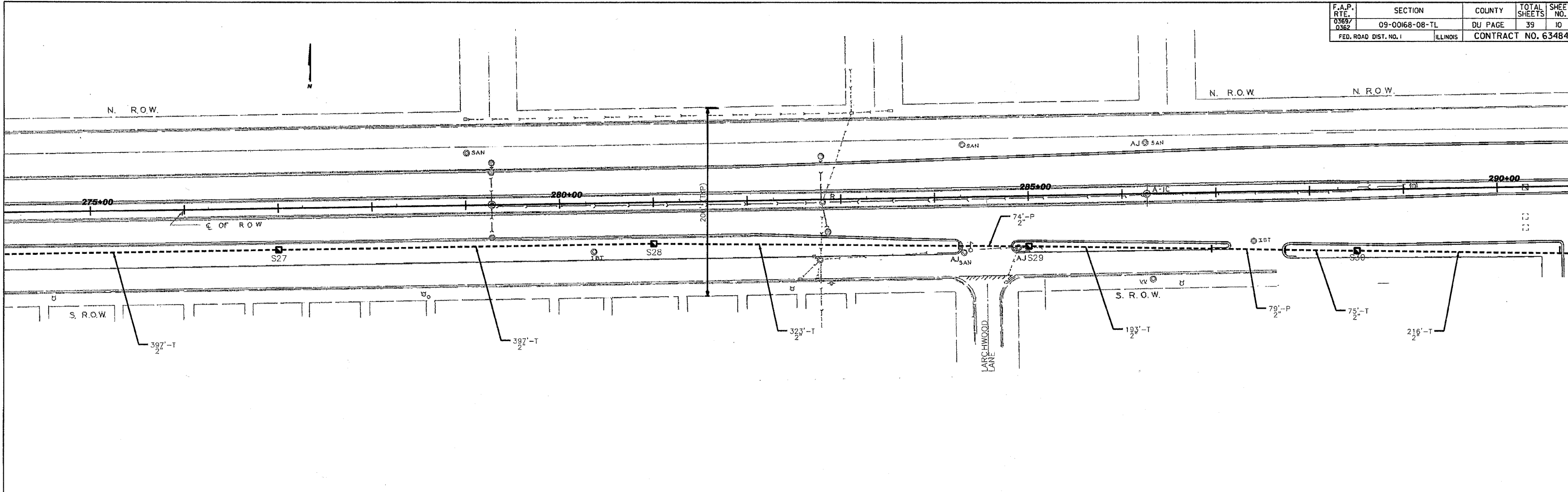


NOTE:
SEE SHEET 18 FOR INTERSECTION DETAILS

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET INTERCONNECT PLAN
 RANCHVIEW DRIVE TO
 JANES AVENUE
 SCALE: 1"=50'
 DATE: 4/23/18
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

PLOT DATE = 04/23/18
 SCALE = 1"=50'
 USER NAME = DAZ

F.A.P. RTE. 0367 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 10
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 63484	



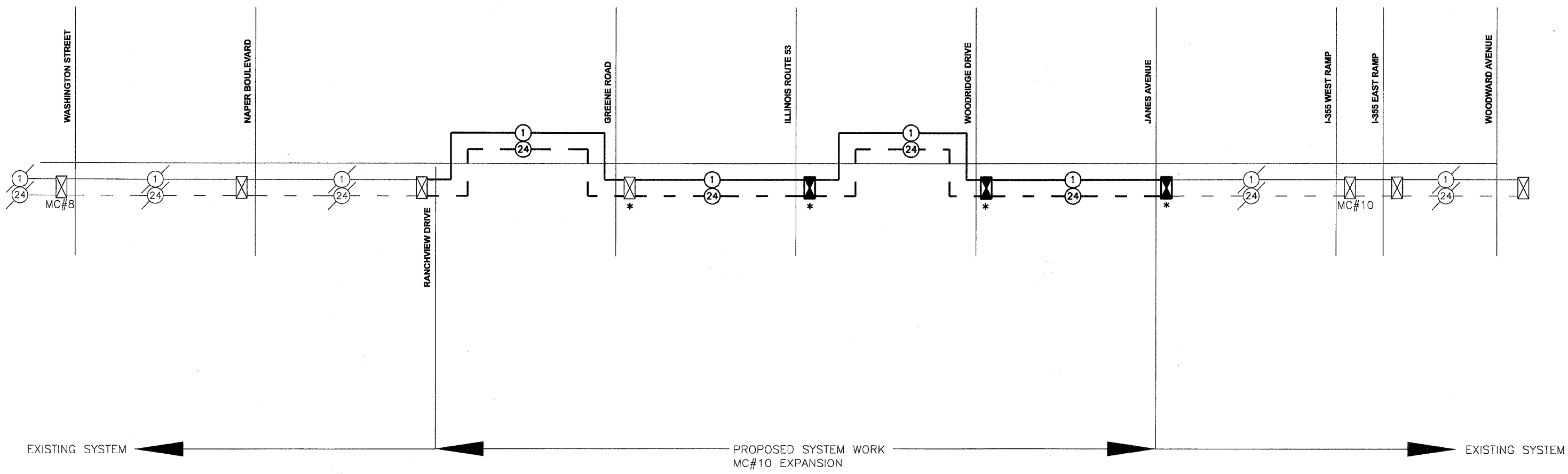
NOTE: SEE SHEET 11 FOR PROPOSED HANDHOLE STATIONS AND OFFSETS.

PLOT DATE = 04/23/10
 FILE NAME = 09-00168-08-TL-10.dwg
 PLOT SCALE = 1/8\"/>

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET INTERCONNECT PLAN
 RANCHVIEW DRIVE TO
 JANES AVENUE
 SCALE: 1"=50'
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

SHEET 17 SYMBOLS AND ABBREVIATIONS

MC#8 EXISTING MASTER CONTROLLER AND CONTROLLER NUMBER
 * RE-OPTIMIZE LEVEL II



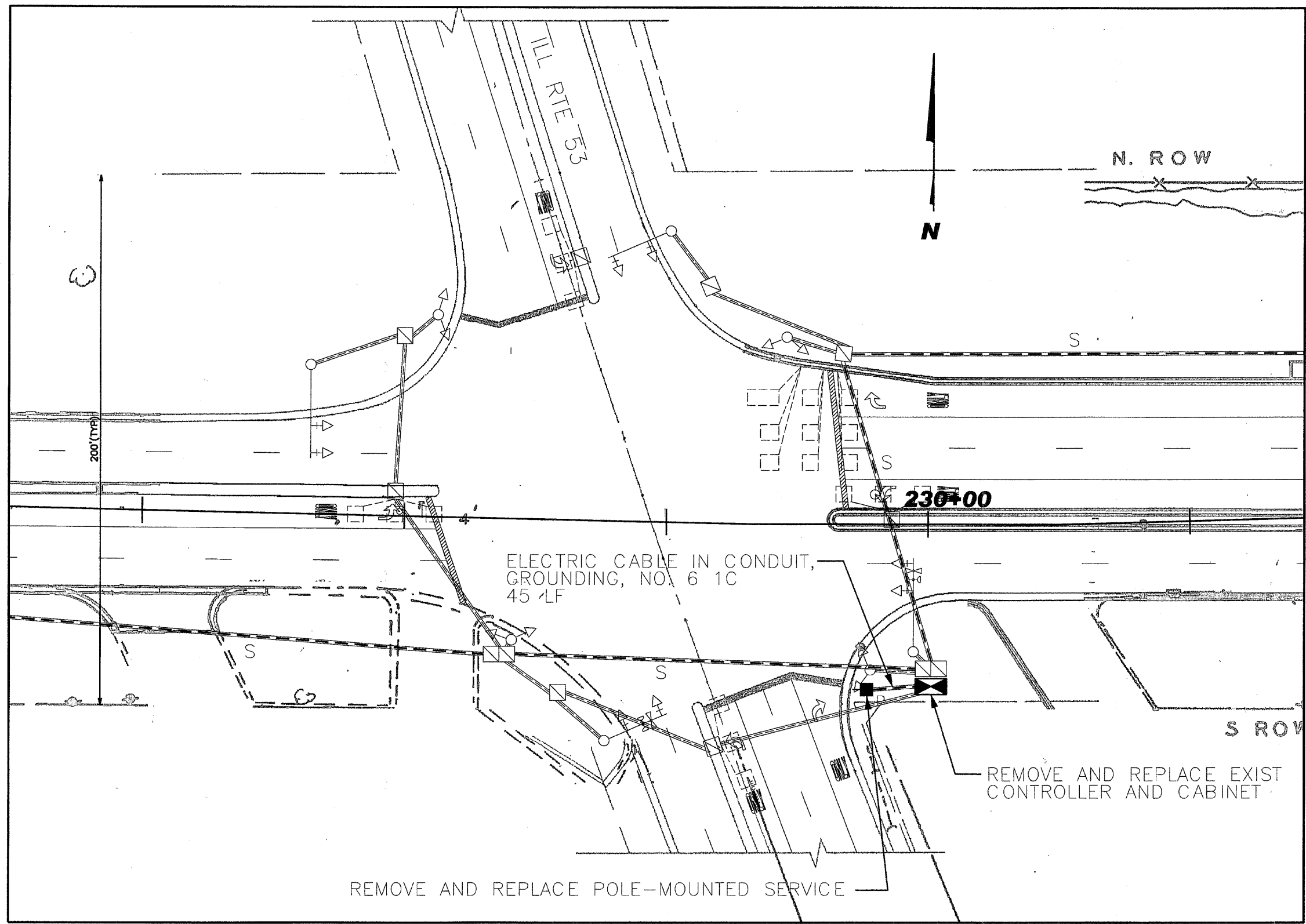
REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION

75TH STREET INTERCONNECT SCHEMATIC

SCALE: NONE
 DATE: 4/23/10

DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ



TRAFFIC SIGNAL EQUIPMENT
REMOVAL SCHEDULE

- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 1 EACH SERVICE INSTALLATION, POLE MOUNT

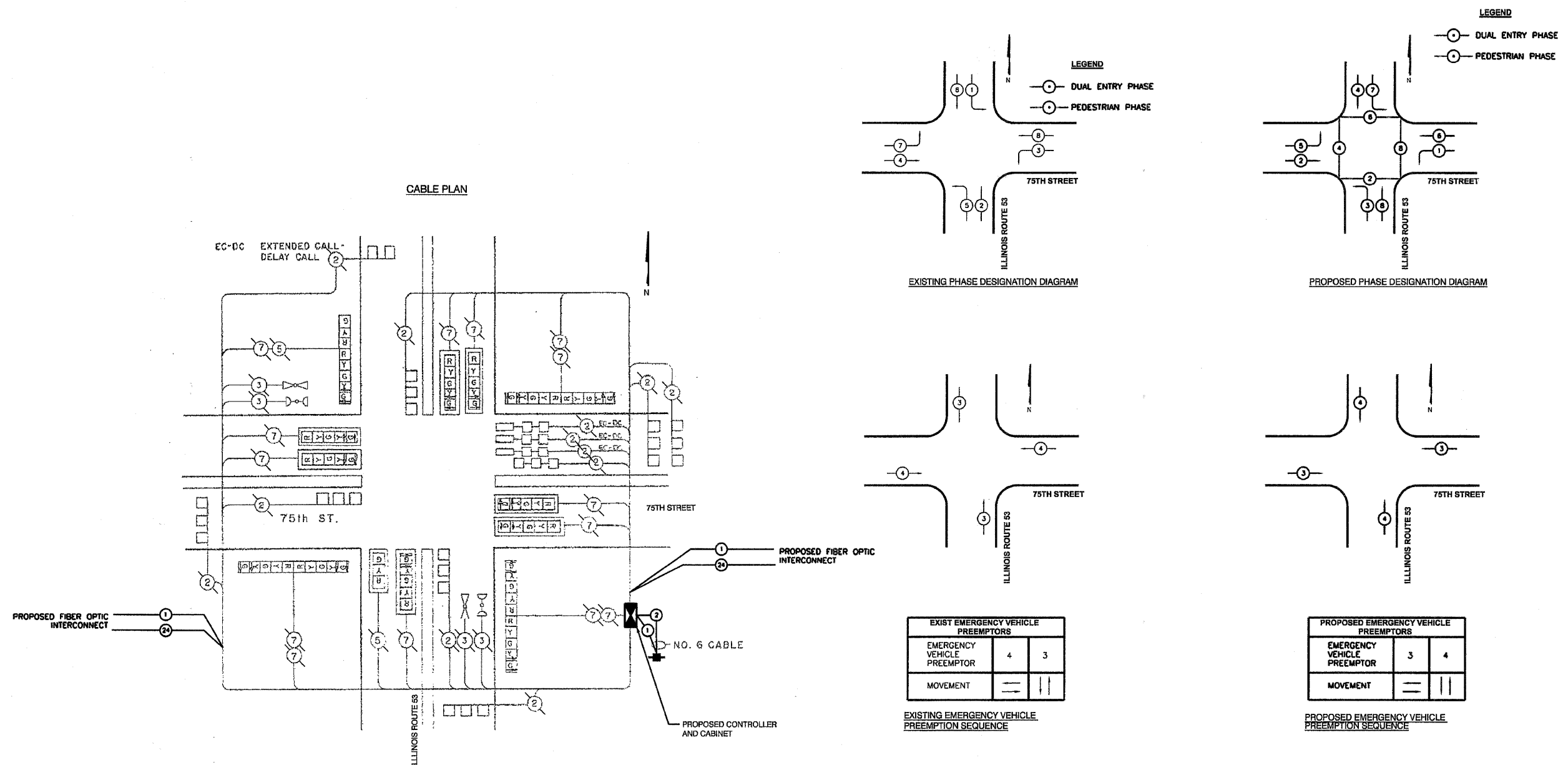
REMOVE AND REPLACE POLE-MOUNTED SERVICE

REMOVE AND REPLACE EXIST CONTROLLER AND CABINET

ELECTRIC CABLE IN CONDUIT,
GROUNDING, NO. 6 1C
45 LF

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET & ILLINOIS ROUTE 53
EXISTING AND PROPOSED
TRAFFIC SIGNAL PLAN
SCALE: 1"=20'
DATE: 4/23/10
DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: OAZ



I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	1080
(YELLOW)	16	135	25	0.25	540
(GREEN)	16	135	15	0.25	540
ARROW	28	135	12	0.10	378
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
VIDEO CAMERA			15	1.00	
LUMINAIRE		310		0.50	
TOTAL=					2638

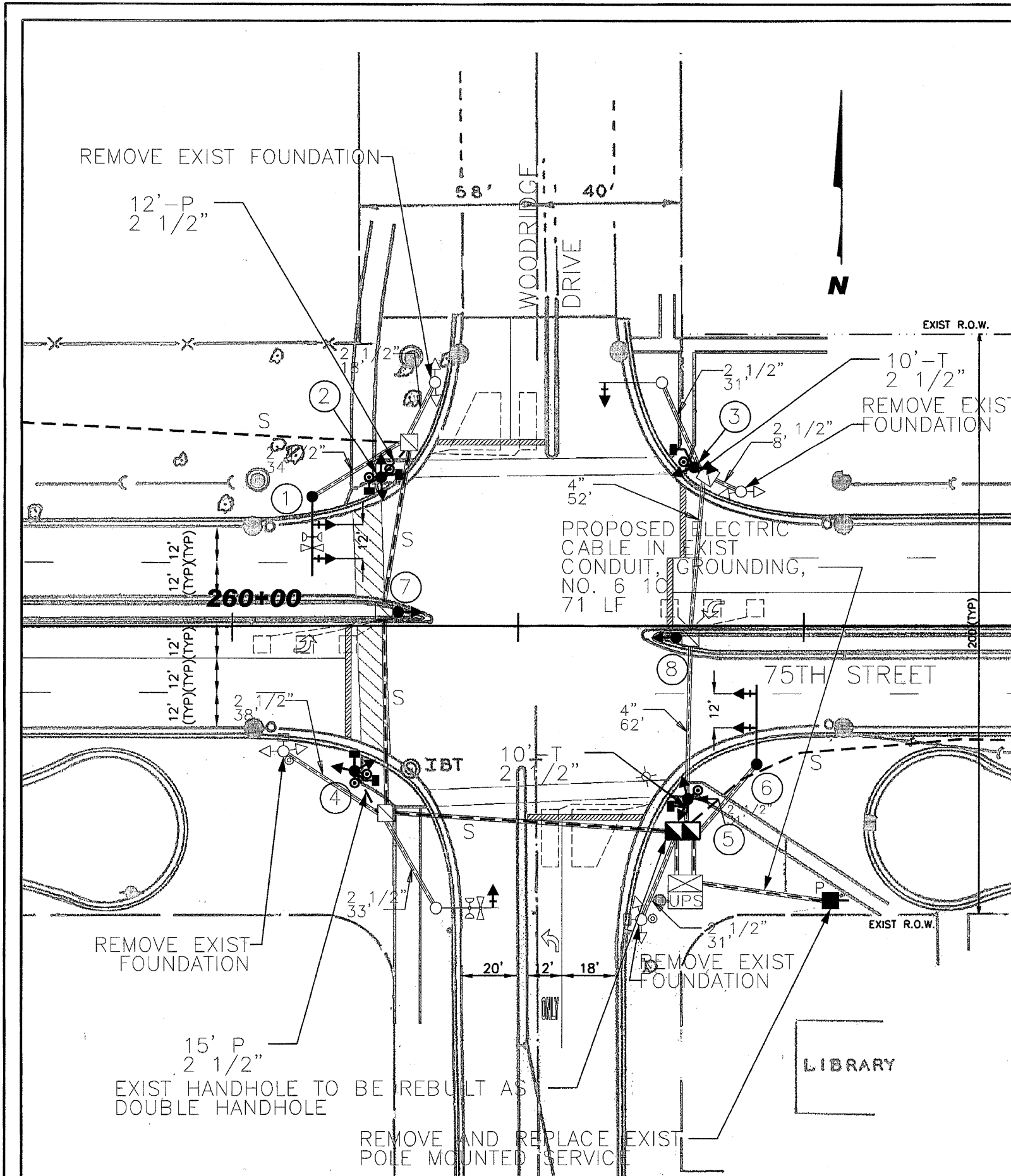
SCHEDULE OF QUANTITIES			
67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	45
87900200	DRILL EXISTING HANDHOLE	EACH	2
88500100	INDUCTIVE LOOP DETECTOR	EACH	12
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
X8050015	SERVICE INSTALLATION, POLE MOUNT	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	45
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	1

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75th ST & ILL RTE 53
EXIST AND PROPOSED CABLE DIAGRAM,
PHASING DIAGRAM AND SCHEDULE
OF QUANTITIES

SCALE: NONE
DATE: 4/23/10

DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: OAZ



TRAFFIC SIGNAL NOTES

1. ALL EXISTING PAINTED TRAFFIC SIGNAL POSTS SHALL BE REMOVED AND REPLACED WITH GALVANIZED STEEL POSTS ON THE EXISTING POST FOUNDATIONS. THE EXISTING GALVANIZED STEEL POSTS AT THE NORTHEAST AND SOUTHWEST QUADRANTS SHALL BE MOVED AS SHOWN ON THE PLANS AND SET ON NEW FOUNDATIONS AT THE PROPOSED LOCATIONS. THE EXISTING FOUNDATIONS SHALL BE REMOVED AND THE CONDUITS ABANDONED IN PLACE. THE EXISTING EAST AND WESTBOUND MAST ARMS ARE TO BE REMOVED AND REPLACED ON THE EXISTING FOUNDATIONS AS SHOWN ON THE PLANS. THE EXISTING NORTH AND SOUTHBOUND MAST ARMS ARE TO REMAIN IN PLACE.
2. THE NEW MAST ARMS SHALL FIT THE EXISTING 15 INCH BOLT CIRCLE. THE NEW ANCHOR BOLTS SHALL MATCH THE EXISTING 1.25 INCH BOLT DIAMETER.
3. ALL SIGNAL HEADS, PEDESTRIAN HEADS AND PUSH BUTTONS SHALL BE REPLACED.
4. THE EXISTING LOOP DETECTION IS TO REMAIN IN PLACE.
5. THE CONTRACTOR SHALL CONTACT THE DU PAGE COUNTY DIVISION OF TRANSPORTATION (630/407-6900) FOR TRAFFIC SIGNAL CABLE LOCATION, A MINIMUM OF 48 HOURS IN ADVANCE (SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED) AT ANY LOCATION WITHIN THE RIGHT-OF-WAY.
6. CONTACT THE DU PAGE COUNTY TRAFFIC SIGNAL COORDINATOR (630/407-6900) TO APPROVE LOCATIONS OF LOOPS, SIGNAL FOUNDATIONS AND SIGNAL HEADS.

PROPOSED POST AND MAST ARM SCHEDULE

STATION/OFFSET	POST TYPE	COMMENTS
① 260+28 46' LT	28' GALVANIZED STEEL MAST ARM AND POLE	NEW MAST ARM AND POLE ON EXIST FOUNDATION
② 260+52 52' LT	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	NEW POST AND FOUNDATION
③ 261+62 56' LT	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	REUSE EXIST POST ON NEW FOUNDATION
④ 260+48 50' RT	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	REUSE EXIST POST ON NEW FOUNDATION
⑤ 261+59 60' RT	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	NEW POST AND FOUNDATION
⑥ 261+84 48' RT	28' GALVANIZED STEEL MAST ARM AND POLE	NEW MAST ARM AND POLE ON EXIST FOUNDATION
⑦ 260+57 5' LT	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	NEW POST ON EXISTING FOUNDATION
⑧ 261+55 4' RT	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	NEW POST ON EXISTING FOUNDATION

REMOVAL SCHEDULE

- 4 EACH TRAFFIC SIGNAL POST
- 2 EACH STEEL MAST ARM ASSEMBLY AND POLE, 24 FEET
- 6 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
- 6 EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED
- 6 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, POLE-MOUNTED

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION

75TH STREET & WOODRIDGE DRIVE
EXISTING AND PROPOSED
TRAFFIC SIGNAL PLAN

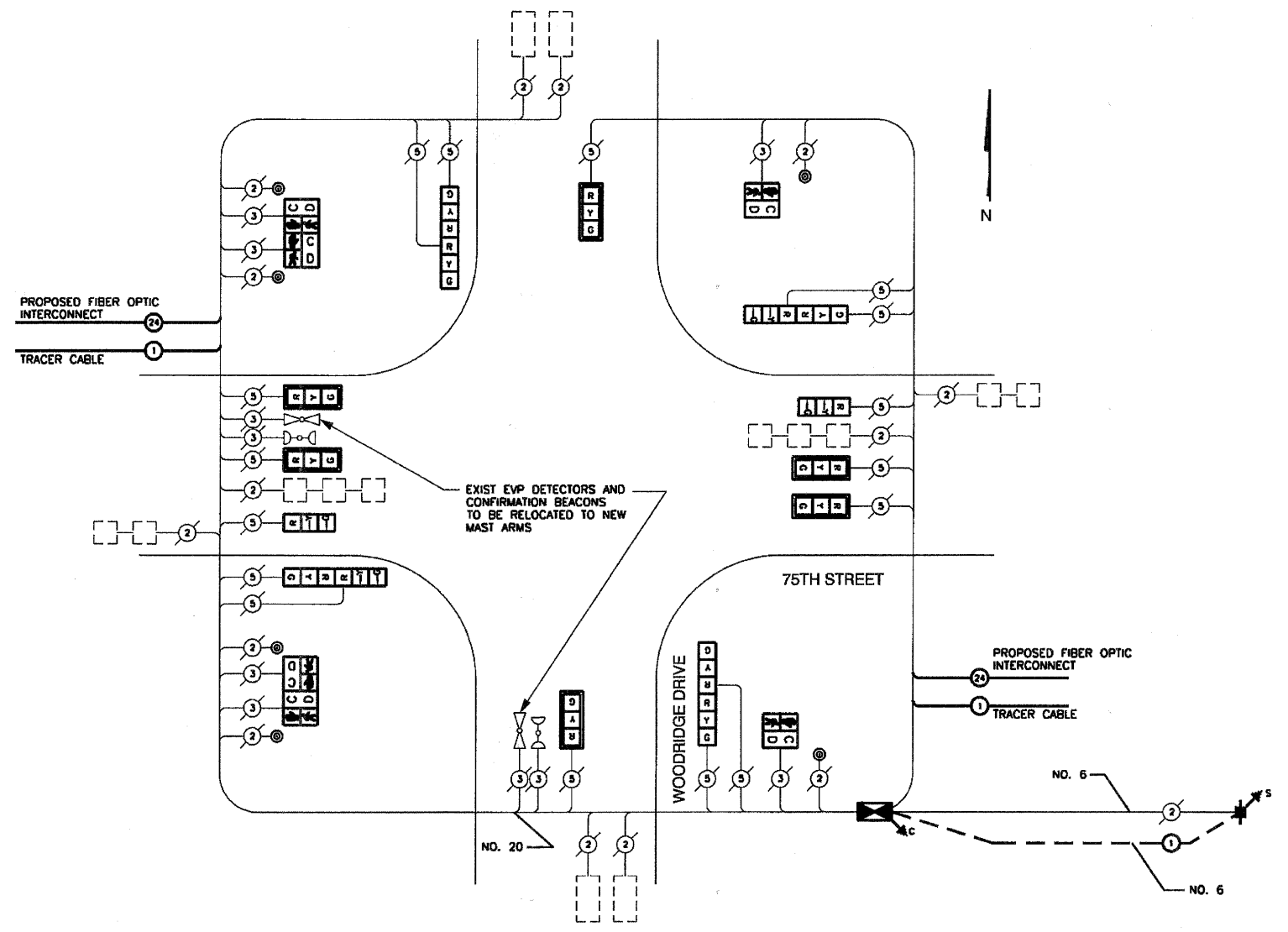
SCALE: 1"=20'
DATE: 4/23/10

DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: OAZ

SCHEDULE OF QUANTITIES

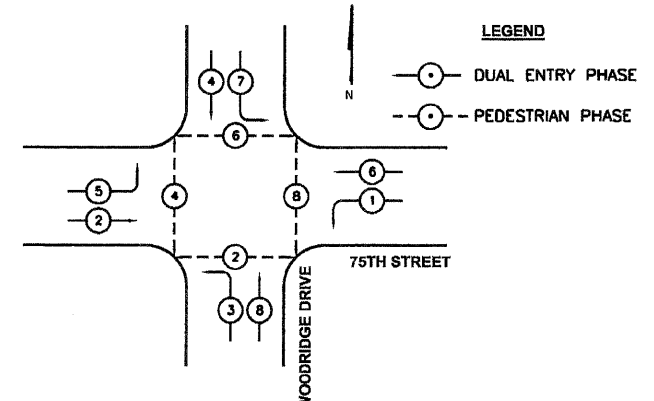
67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	20
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	27
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT	EACH	4
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	2
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87900200	DRILL EXISTING HANDHOLE	EACH	2
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	6
88500100	INDUCTIVE LOOP DETECTOR	EACH	10
88800100	PEDESTRIAN PUSH BUTTON	EACH	6
89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	604
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	71
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
XX003665	REBUILD EXISTING HANDHOLE TO DOUBLE HANDHOLE	EACH	1

CABLE PLAN



EXIST EVP DETECTORS AND CONFIRMATION BEACONS TO BE RELOCATED TO NEW MAST ARMS

LEGEND



EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	⇐	⇐⇐

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

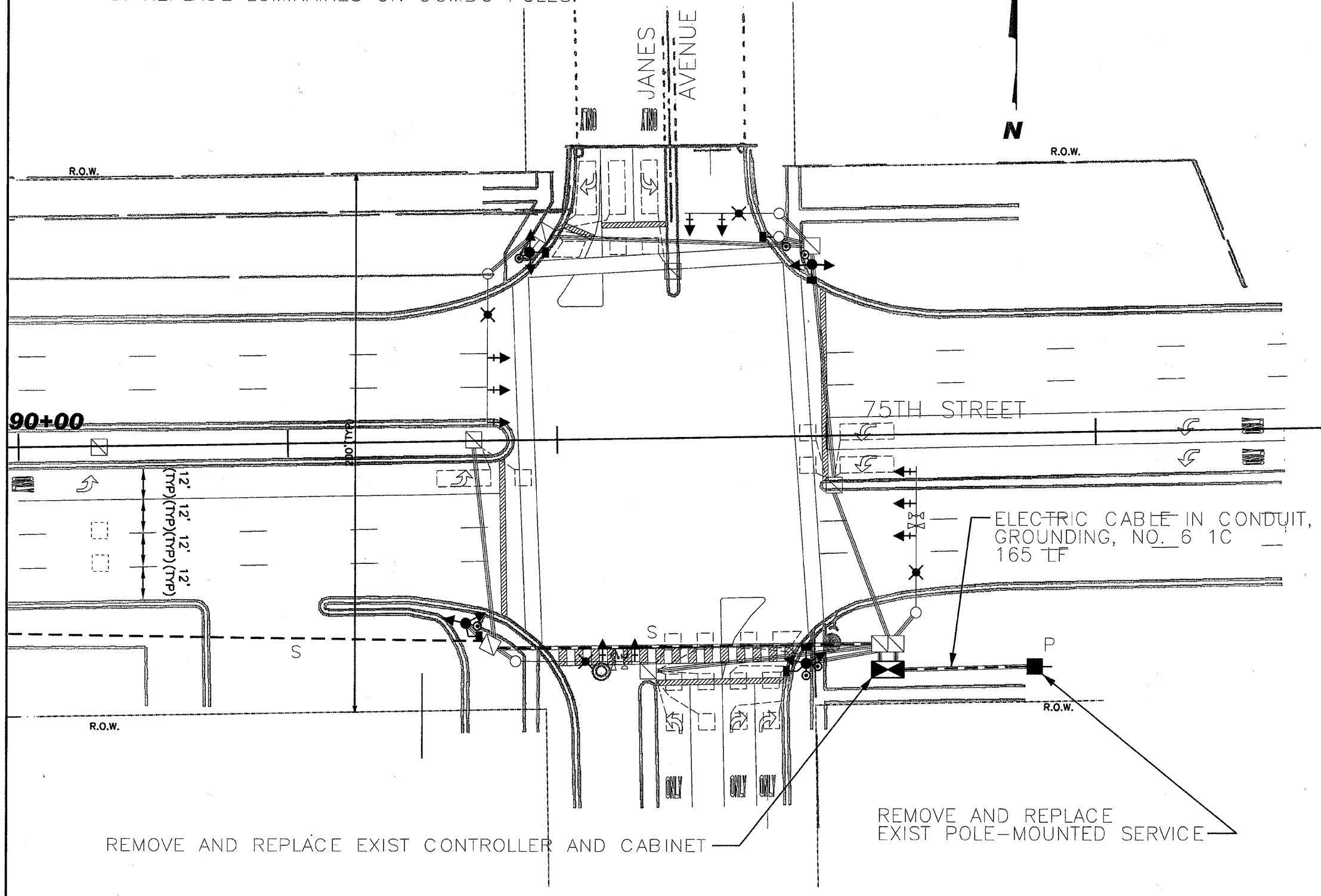
DU PAGE COUNTY D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	
		INCAND.	LED		
RED BALL	18	135	10	0.80	108
YELLOW BALL	14	135	22	0.03	9
GREEN BALL	14	135	12	0.37	62
RED ARROW		135	5	0.85	
YELLOW ARROW	4	135	10	0.02	1
GREEN ARROW	4	135	5	0.13	2.6
PED - WALK	6	90	5	0.05	1.5
PED - DON'T WALK	6	90	6	0.95	34
CONTROLLER	1	100		1.00	100
LUMINAIRE		310		0.50	
TOTAL=					318

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET & WOODRIDGE DRIVE
PROPOSED CABLE PLAN,
PHASE DIAGRAM AND
AND SCHEDULE OF QUANTITIES
SCALE: NONE
DATE: 4/23/10
DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: OAZ

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0369/0362	09-00168-08-TL	DU PAGE	39	16
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63484		

- NOTE: 1. REPLACE ALL EXIST SIGNAL HEADS, PEDESTRIAN HEADS AND PUSH BUTTONS.
 2. REPLACE ALL PAINTED POSTS WITH GALVANIZED STEEL POSTS.
 3. REPLACE LUMINAIRES ON COMBO POLES.

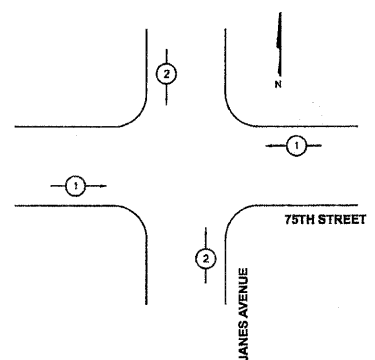
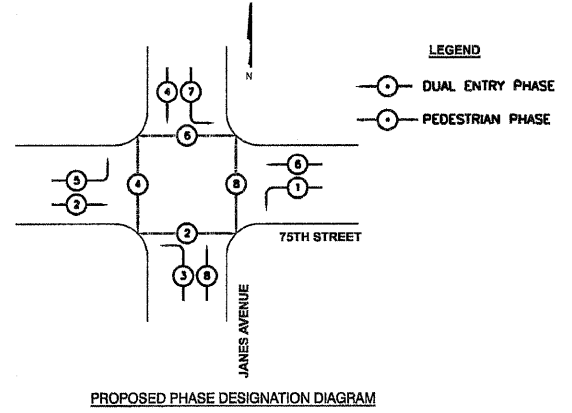
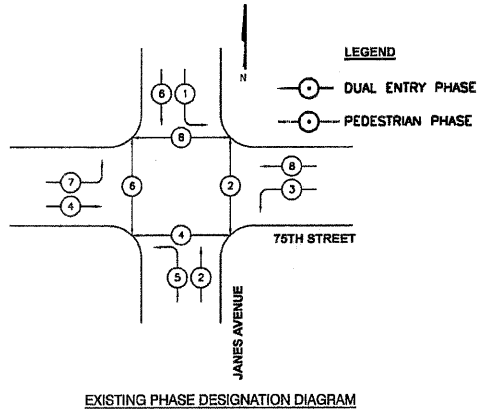
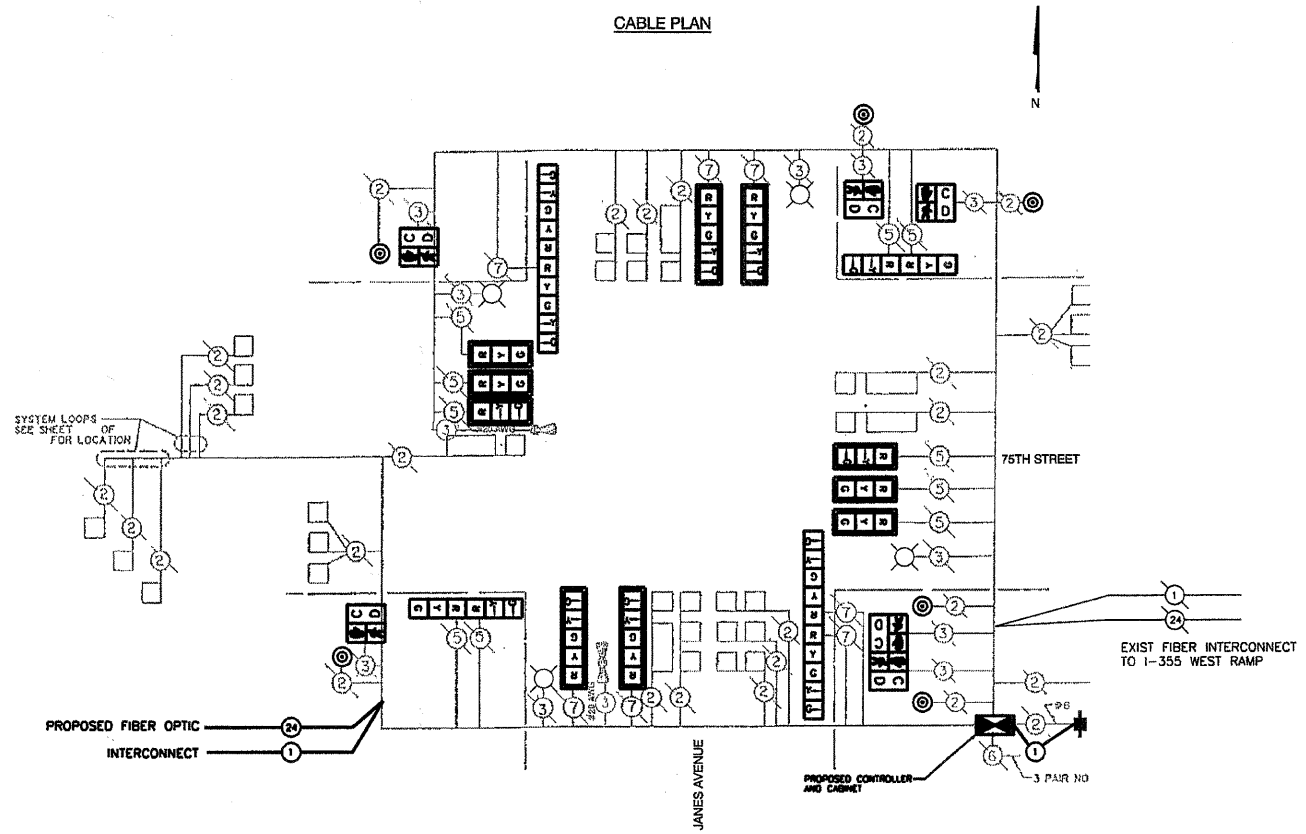


TRAFFIC SIGNAL EQUIPMENT
REMOVAL SCHEDULE

- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 4 EACH 16' TRAFFIC SIGNAL POST, PAINTED
- 6 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED
- 2 EACH SIGNAL HEAD, 2-FACE, 5-SECTION, BRACKET MOUNTED
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
- 10 EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED
- 6 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, POLE MOUNT

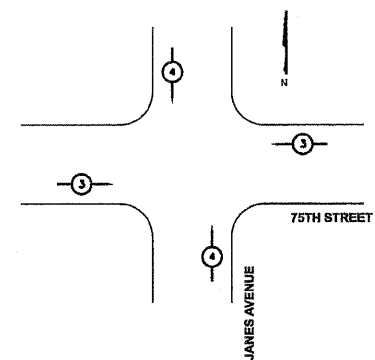
REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
75TH STREET & JANES AVENUE
 EXISTING AND PROPOSED
 TRAFFIC SIGNAL PLAN
 SCALE: 1"=20'
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: OAZ



EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	←	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

NOTE: EQUIPMENT SHALL BE PROVIDED TO CONTROL THE 4 310 WATT LUMINAIRES MOUNTED ON THE COMBO POLES. EQUIPMENT SHALL INCLUDE A BREAKER BOX MOUNTED INSIDE THE CABINET. THE COST SHALL BE INCIDENTAL TO THE CONTROLLER AND CABINET.

SCHEDULE OF QUANTITIES

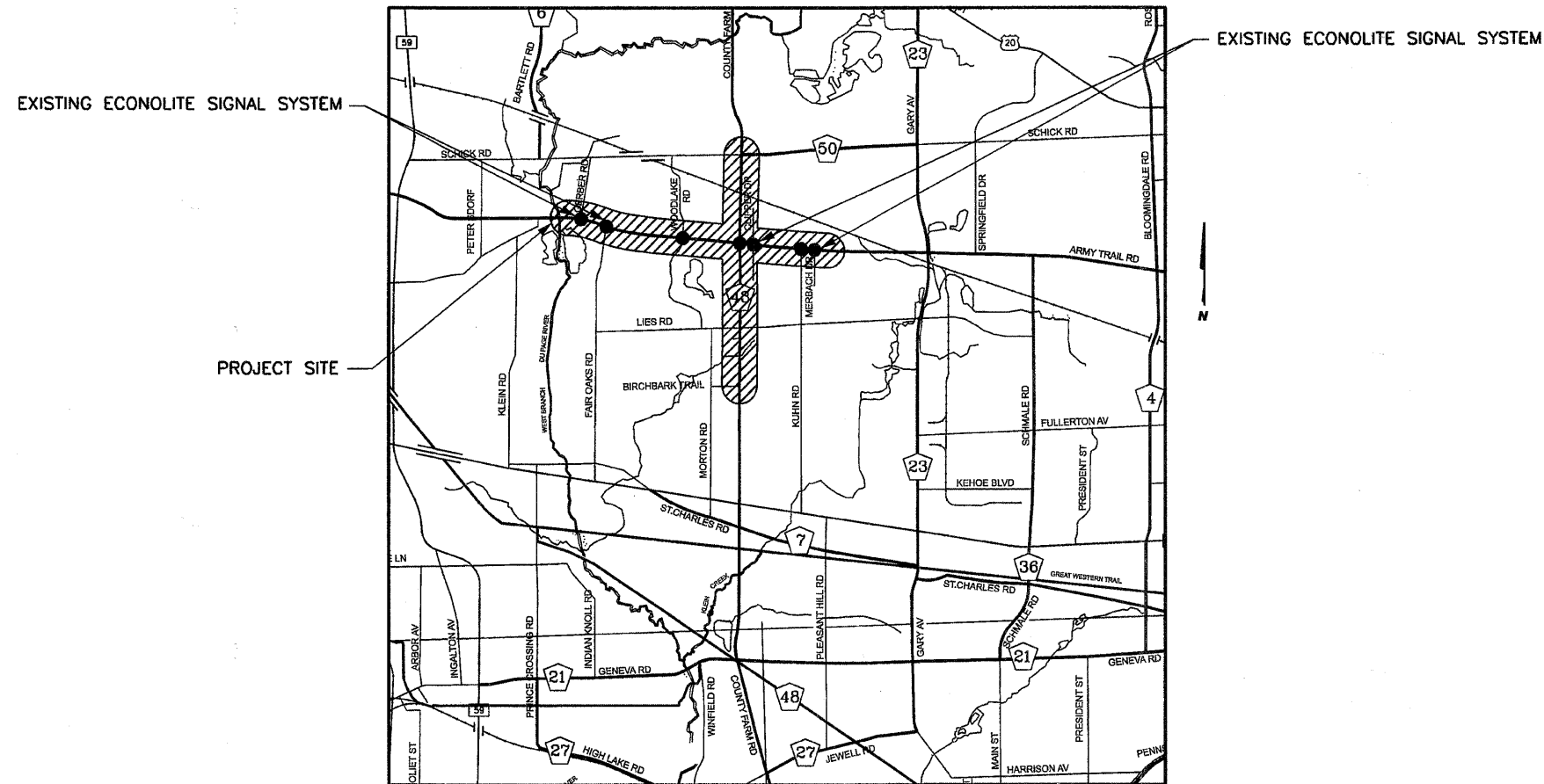
67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	4
87900200	DRILL EXISTING HANDHOLE	EACH	1
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	10
88500100	INDUCTIVE LOOP DETECTOR	EACH	10
88800100	PEDESTRIAN PUSH BUTTON	EACH	6
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	240
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
X8050015	SERVICE INSTALLATION, POLE MOUNT	EACH	1
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	165
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	1

TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	TOTAL WATTAGE
		INCAND.	LED		
RED BALL	18	135	10	0.60	108
YELLOW BALL	14	135	22	0.03	9
GREEN BALL	14	135	12	0.37	62
RED ARROW		135	5	0.85	
YELLOW ARROW	11	135	10	0.02	2.2
GREEN ARROW	11	135	5	0.13	7.1
PED - WALK	6	90	5	0.05	1.5
PED - DON'T WALK	6	90	6	0.95	34
CONTROLLER	1	100		1.00	100
LUMINAIRE		310		0.50	
TOTAL=					324

NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
EXIST AND PROPOSED CABLE PLAN AND PHASE DIAGRAM
75TH STREET & JANES AVENUE
 SCALE: NONE
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

COUNTY FARM RD / ARMY TRAIL RD SYSTEM MAP



COUNTY FARM ROAD HANDHOLE TABLE

NUMBER	TYPE	STATION	OFFSET(FT)
C1	REGULAR	238+00	28 LT
C2	REGULAR	242+00	28 LT
C3	REGULAR	246+00	28 LT
C4	REGULAR	250+00	28 LT
C5	REGULAR	254+00	34 LT
C6	REGULAR	264+00	36 LT
C7	REGULAR	268+00	40 LT
C8	REGULAR	272+00	40 LT
C9	REGULAR	276+00	37 LT
C10	REGULAR	280+50	37 LT
C11	REGULAR	300+00	42 RT
C12	REGULAR	304+00	41 RT
C13	REGULAR	308+50	42 RT
C14	REGULAR	313+00	36 RT
C15	REGULAR	318+50	37 RT
C16	REGULAR	319+35	37 RT
C17	REGULAR	324+00	52 RT
C18	REGULAR	328+00	43 RT
C19	REGULAR	332+00	42 RT

ARMY TRAIL ROAD HANDHOLE TABLE

NUMBER	TYPE	STATION	OFFSET(FT)
A1	REGULAR	156+00	35 RT
A2	REGULAR	160+00	34 RT
A3	REGULAR	164+50	36 RT
A4	REGULAR	169+00	35 RT
A5	REGULAR	180+50	36 RT
A6	REGULAR	185+00	40 RT
A7	REGULAR	189+50	43 RT
A8	REGULAR	195+00	38 RT

LOCATION 2 SCHEDULE OF QUANTITIES

67100100	MOBILIZATION	L SUM	0.11
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.11
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	11826
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	1164
81400100	HANDHOLE	EACH	27
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	11826
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	15440
* X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	3
XX006654	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	15440

* **NOTE:** THE THREE TRAFFIC SIGNALS AT ARMY TRAIL ROAD AT GERBER ROAD, FAIR OAKS ROAD AND SPRING VALLEY DRIVE ARE INCLUDED IN THESE QUANTITIES.

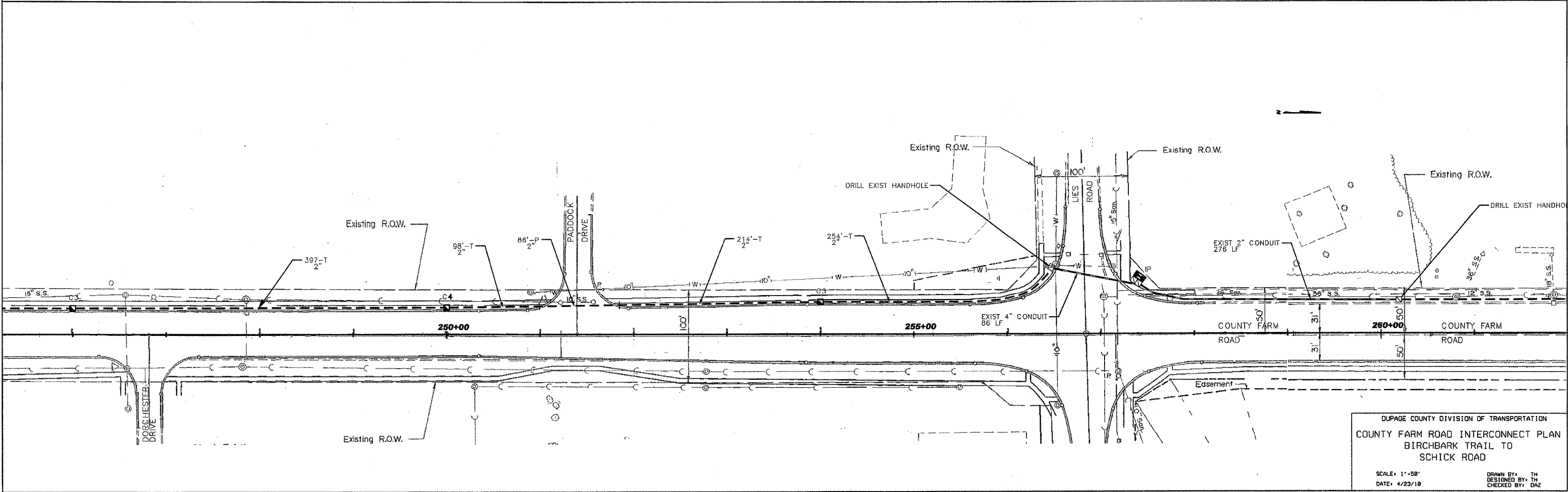
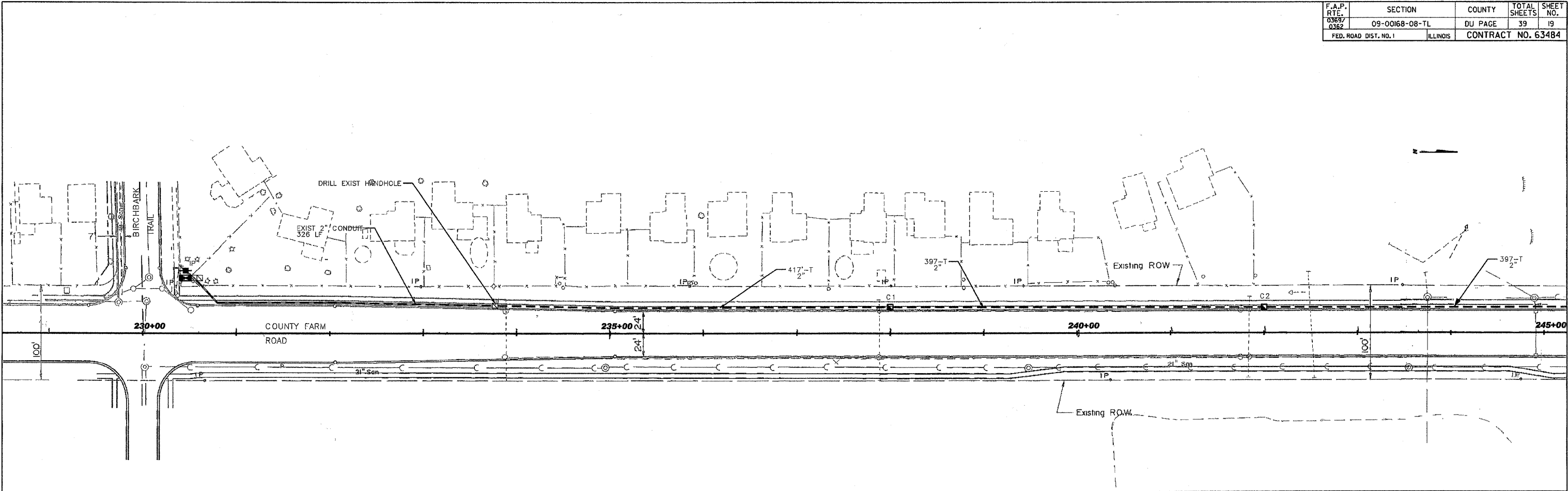
REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
**COUNTY FARM ROAD AND
 ARMY TRAIL ROAD LOCATION MAP,
 HANDHOLE TABLE AND
 SCHEDULE OF QUANTITIES**

SCALE: NONE
 DATE: 4/23/10

DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

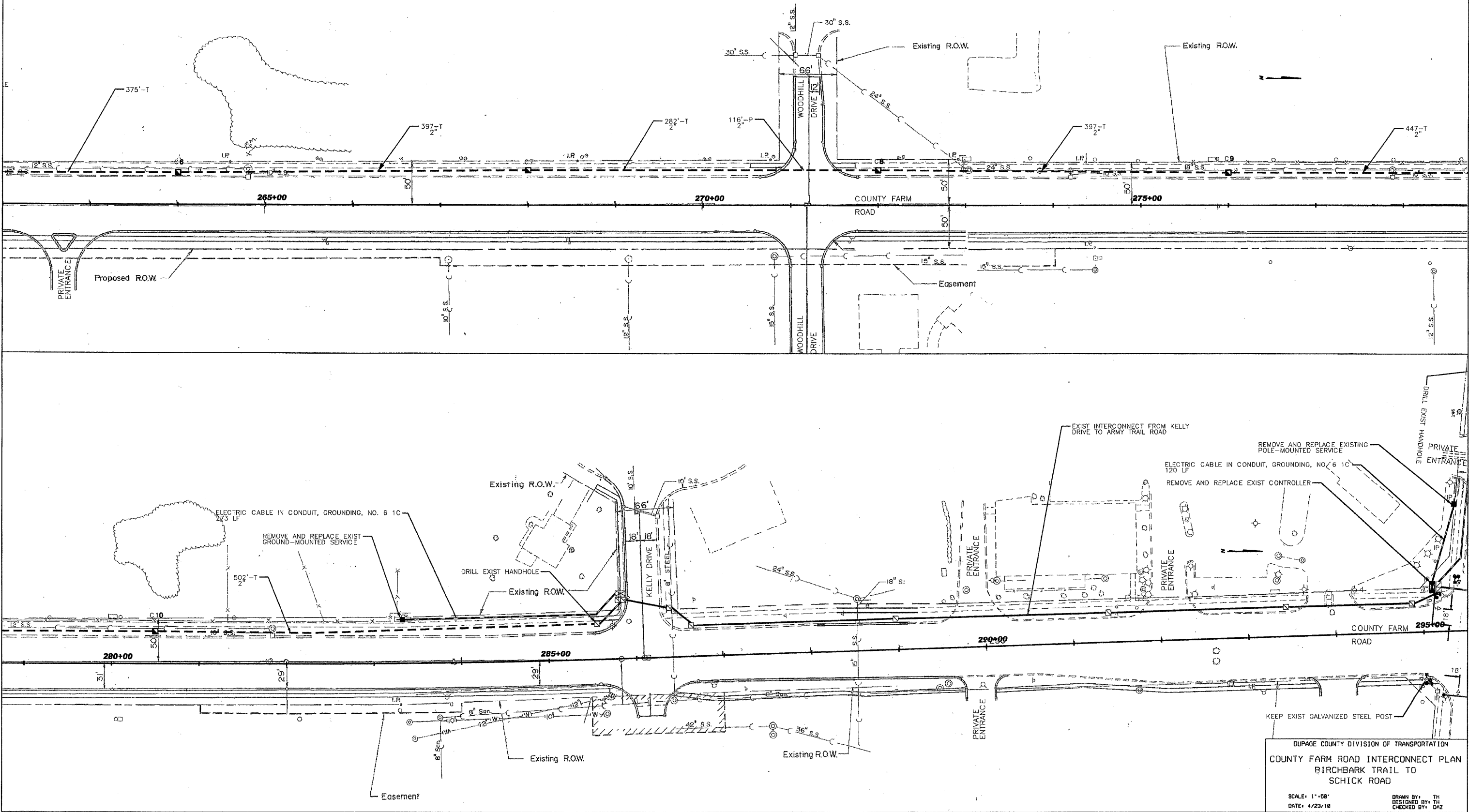
F.A.P. RTE. 03697 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 19
FED. ROAD DIST. NO. 1		ILLINOIS		CONTRACT NO. 63484



PLOT DATE * * * * *
FILE NAME * * * * *
PLOT SCALE * * * * *
USER NAME * * * * *

DUPAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM ROAD INTERCONNECT PLAN
BIRCHBARK TRAIL TO
SCHICK ROAD
SCALE: 1"=50'
DATE: 4/23/10
DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: DAZ

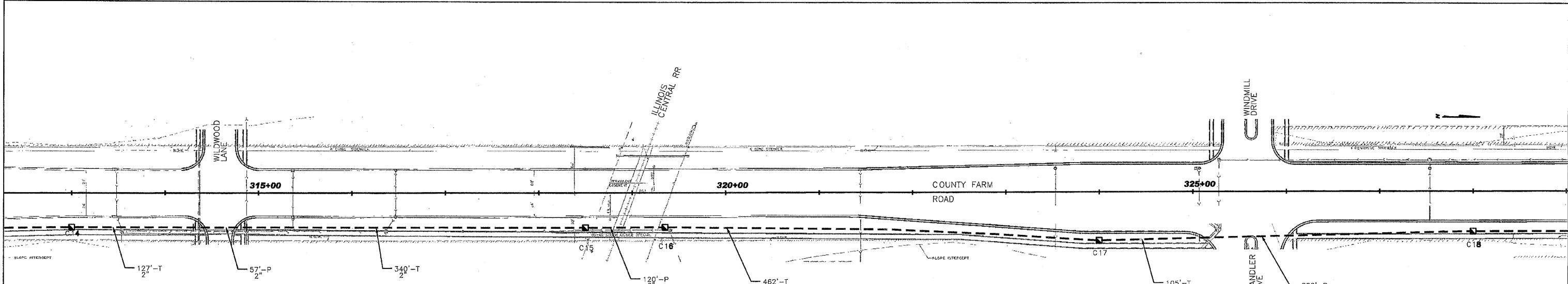
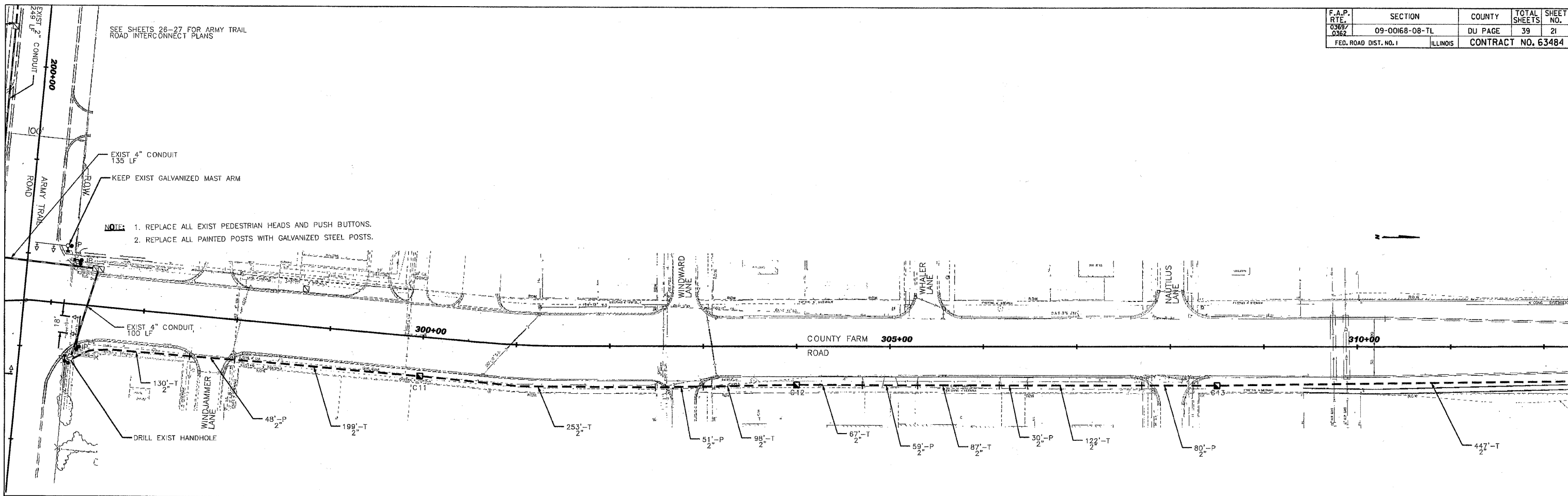
F.A.P. RTE. 03697 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 20
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 63484	



PLOT DATE = 04/23/18
FILE NAME = #FILEL#
PLOT SCALE = #SCALE#
USER NAME = #USER#

DUPAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM ROAD INTERCONNECT PLAN
BIRCHBARK TRAIL TO
SCHICK ROAD
SCALE: 1"=50'
DATE: 4/23/18
DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: DAZ

F.A.P. RTE. 03687 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 21
FED. ROAD DIST. NO. 1		ILLINOIS		CONTRACT NO. 63484



NOTE:
 PROVIDE A 6" GALVANIZED STEEL CONDUIT AT 60" WITH 2" UNIT DUCT FOR FIBER OPTIC CABLE. THE COST OF UNIT DUCT INSTALLATION SHALL BE INCLUDED IN THE PRICE OF THE GALVANIZED STEEL CONDUIT. ALL WORK IS TO BE PERFORMED OUTSIDE THE RAILROAD RIGHT OF WAY. NOTIFY THE ILLINOIS CENTRAL RR AT 1-800-465-9239 FOR REQUIRED PERMIT AND INSPECTION COSTS AT LEAST 30 DAYS IN ADVANCE OF WORK. ADDITIONAL RAILROAD COSTS NOT COVERED UNDER ARTICLE 107 OF THE STANDARD SPECIFICATIONS WILL BE PAID FOR UNDER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

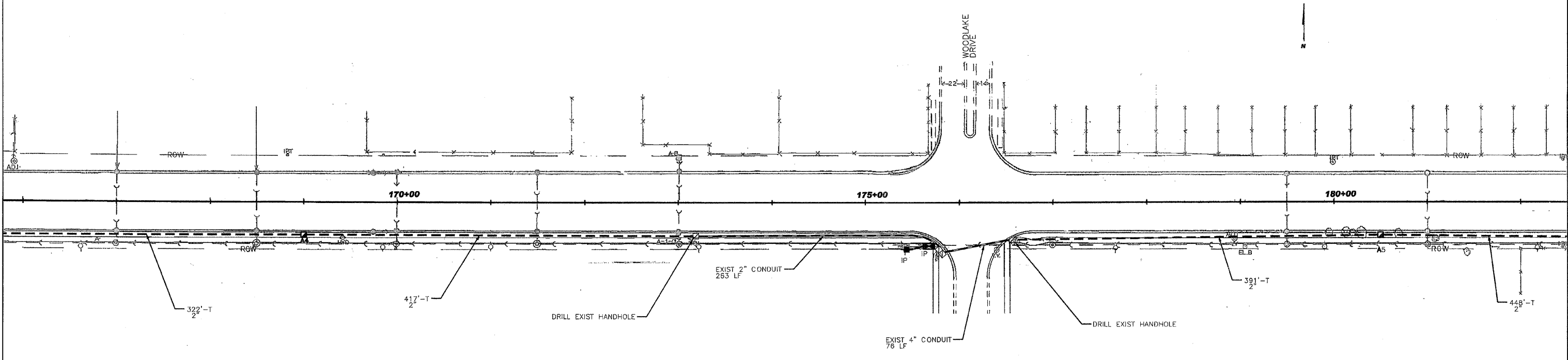
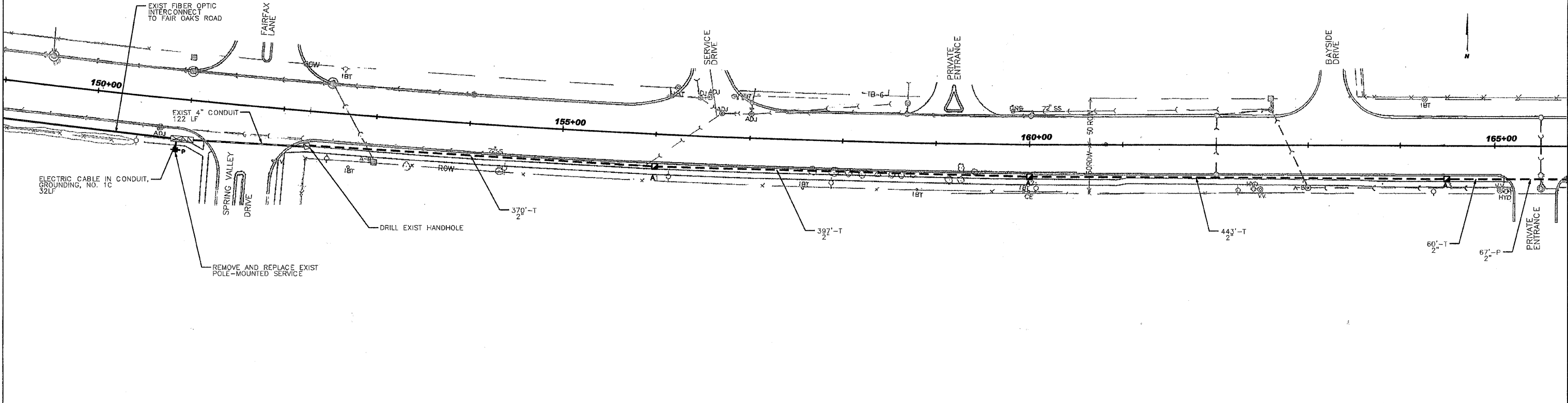
SEE SHEETS 26-27 FOR ARMY TRAIL ROAD INTERCONNECT PLANS

NOTE:
 1. REPLACE ALL EXIST PEDESTRIAN HEADS AND PUSH BUTTONS.
 2. REPLACE ALL PAINTED POSTS WITH GALVANIZED STEEL POSTS.

PLOT DATE = 04/18/18
 FILE NAME = 0911684
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = 015888

DUPAGE COUNTY DIVISION OF TRANSPORTATION
 COUNTY FARM ROAD INTERCONNECT PLAN
 BIRCHBARK TRAIL TO
 SCHICK ROAD
 SCALE: 1"=50'
 DATE: 4/23/18
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

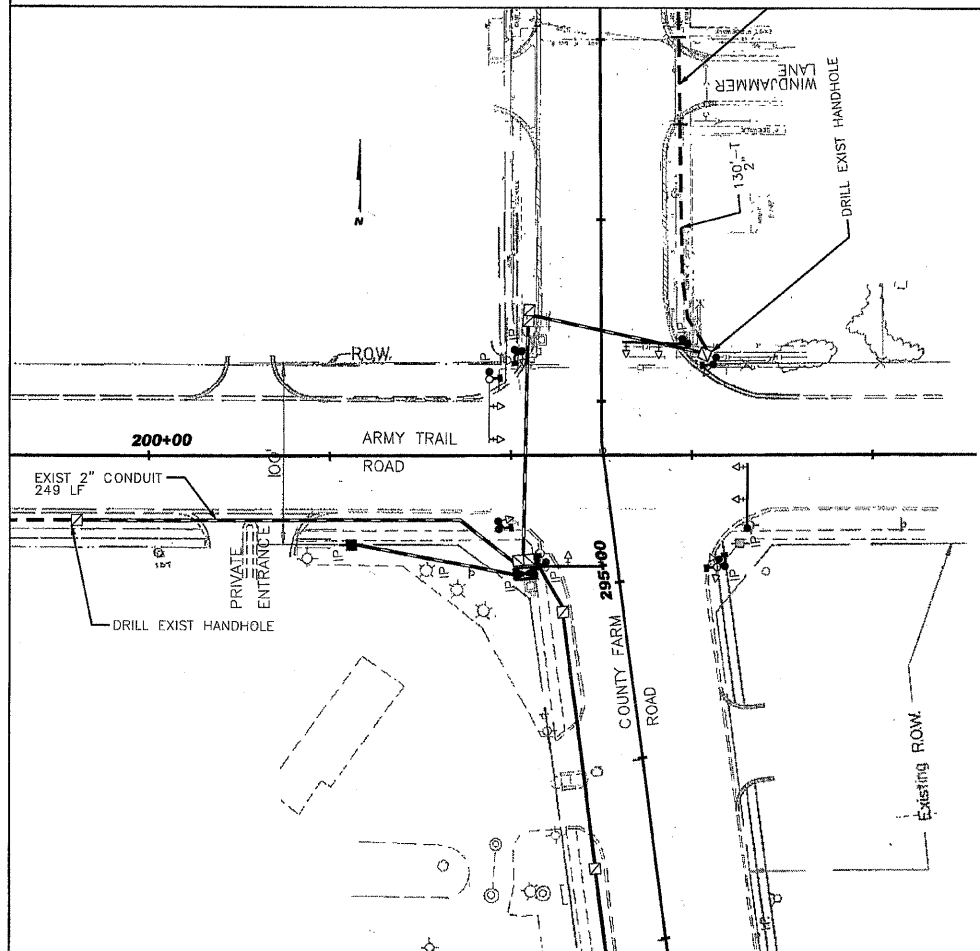
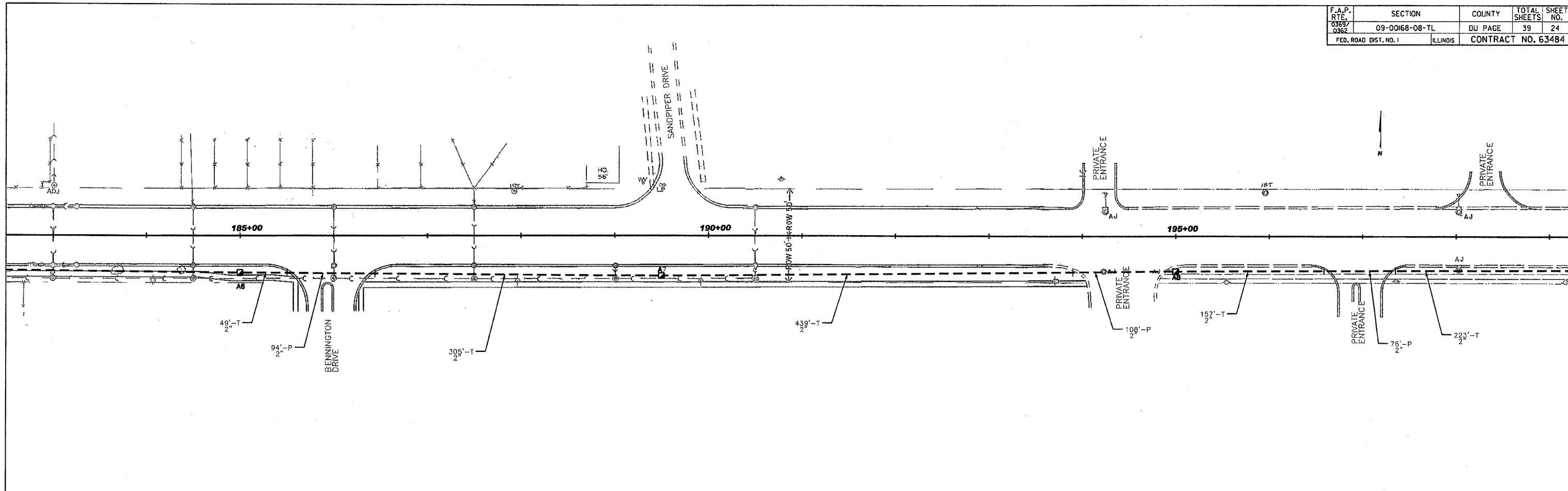
F.A.P. RTE. 03657 03652	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 23
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 63484	



PLOT DATE = 04/15/10
 FILE NAME = SFILES
 PLOT SCALE = 1"=50'
 USER NAME = RUSER

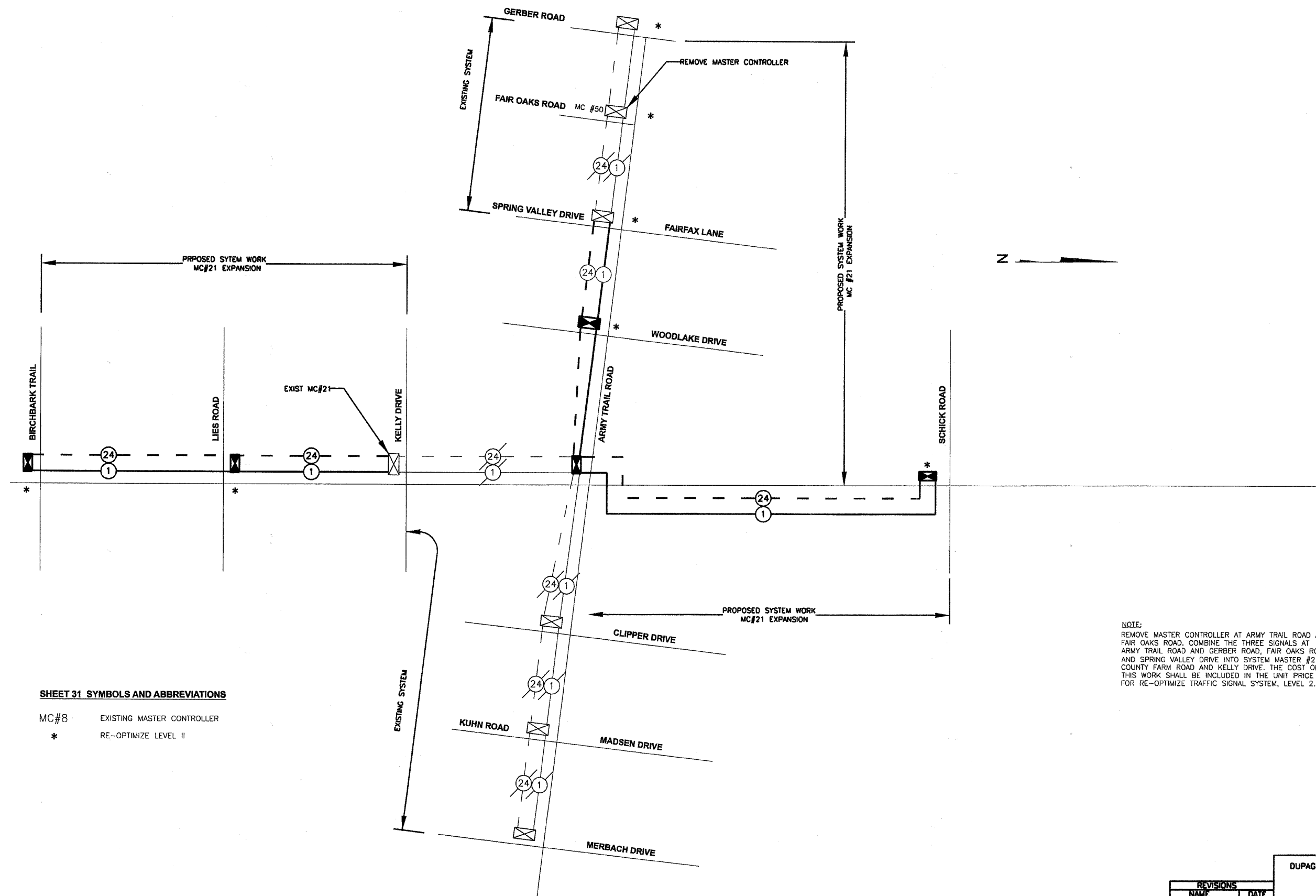
DUPAGE COUNTY DIVISION OF TRANSPORTATION
 ARMY TRAIL ROAD INTERCONNECT PLAN
 SPRING VALLEY DRIVE TO
 COUNTY FARM ROAD
 SCALE: 1"=50'
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0359/0362	09-00168-08-TL	DU PAGE	39	24
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 63484	



PLOT DATE = 04/23/18
 PLOT NAME = 09-00168-08-TL
 PLOT SCALE = 1"=50'
 USER NAME = RUSERS

DUPAGE COUNTY DIVISION OF TRANSPORTATION
 ARMY TRAIL ROAD INTERCONNECT PLAN
 SPRING VALLEY DRIVE TO
 COUNTY FARM ROAD
 SCALE: 1"=50'
 DATE: 4/23/18
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ



SHEET 31 SYMBOLS AND ABBREVIATIONS

- MC#8 EXISTING MASTER CONTROLLER
- * RE-OPTIMIZE LEVEL II

NOTE:
 REMOVE MASTER CONTROLLER AT ARMY TRAIL ROAD AND FAIR OAKS ROAD. COMBINE THE THREE SIGNALS AT ARMY TRAIL ROAD AND GERBER ROAD, FAIR OAKS ROAD AND SPRING VALLEY DRIVE INTO SYSTEM MASTER #21 AT COUNTY FARM ROAD AND KELLY DRIVE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2.

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION

COUNTY FARM ROAD & ARMY TRAIL ROAD INTERCONNECT SCHEMATIC

SCALE: NONE DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: OAZ

DATE: 4/23/10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0369/0362	09-00168-08-TL	DU PAGE	39	26
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63484		

TRAFFIC SIGNAL EQUIPMENT
REMOVAL SCHEDULE

- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 1 EACH SERVICE INSTALLATION, POLE MOUNT

REMOVE AND REPLACE EXIST SERVICE

REMOVE AND REPLACE EXIST CONTROLLER AND CABINET

BIRCHBARK TRAIL

ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6

230+00

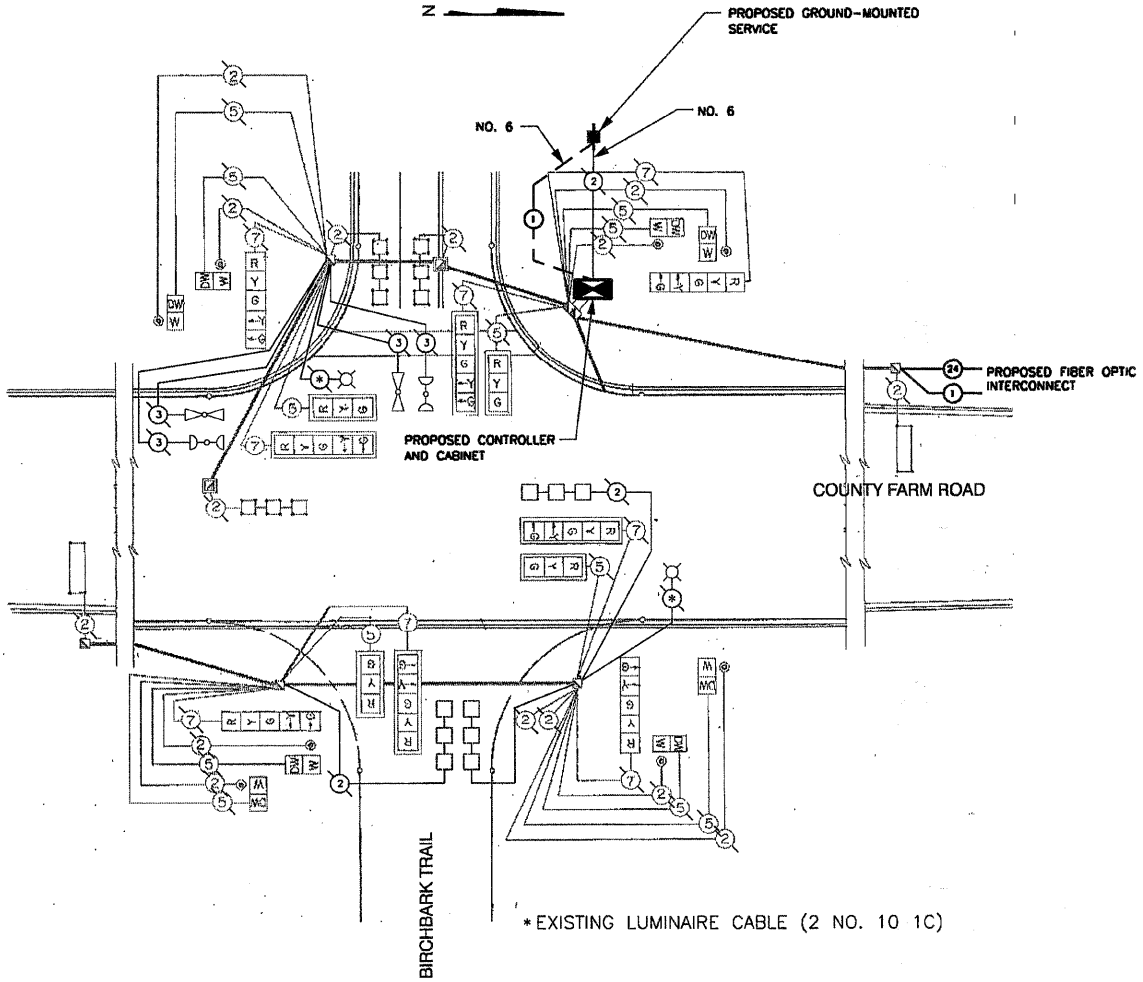
COUNTY FARM ROAD

21" San

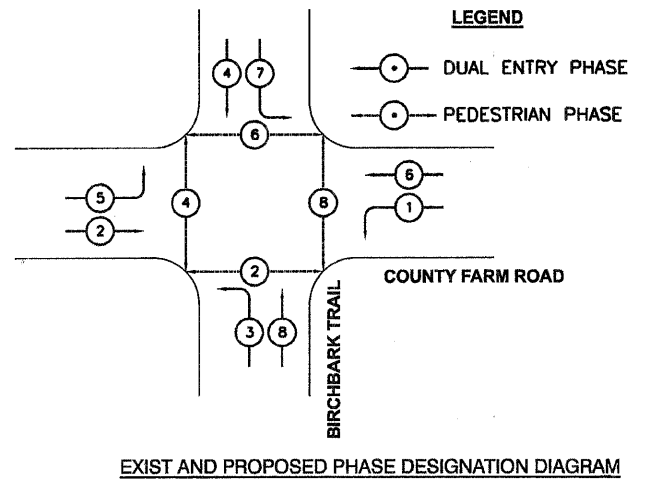
REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM RD & BIRCHBARK TR
EXISTING AND PROPOSED
TRAFFIC SIGNAL PLAN
 SCALE: 1"=20'
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

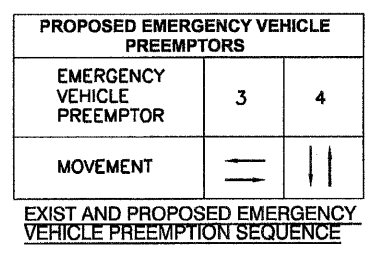
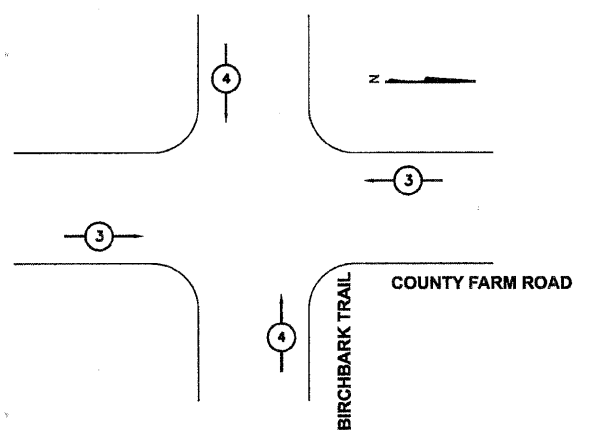
CABLE PLAN



NOTE: EQUIPMENT SHALL BE PROVIDED TO CONTROL THE (2) 310 WATT LUMINAIRES MOUNTED ON THE COMBO POLES. EQUIPMENT SHALL INCLUDE A BREAKER BOX MOUNTED INSIDE THE CABINET. THE COST SHALL BE INCIDENTAL TO THE CONTROLLER AND CABINET.



EXIST AND PROPOSED PHASE DESIGNATION DIAGRAM



DU PAGE COUNTY D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	
		INCAND.	LED		
RED BALL	12	135	10	0.60	972
YELLOW BALL	12	135	22	0.03	49
GREEN BALL	12	135	12	0.37	599
RED ARROW		135	5	0.85	
YELLOW ARROW	8	135	10	0.02	22
GREEN ARROW	8	135	5	0.13	140
PED - WALK	8	90	5	0.05	54
PED - DON'T WALK	8	90	6	0.95	1026
CONTROLLER	1	100		1.00	100
LUMINAIRE	2	310		0.50	310
TOTAL=					3272

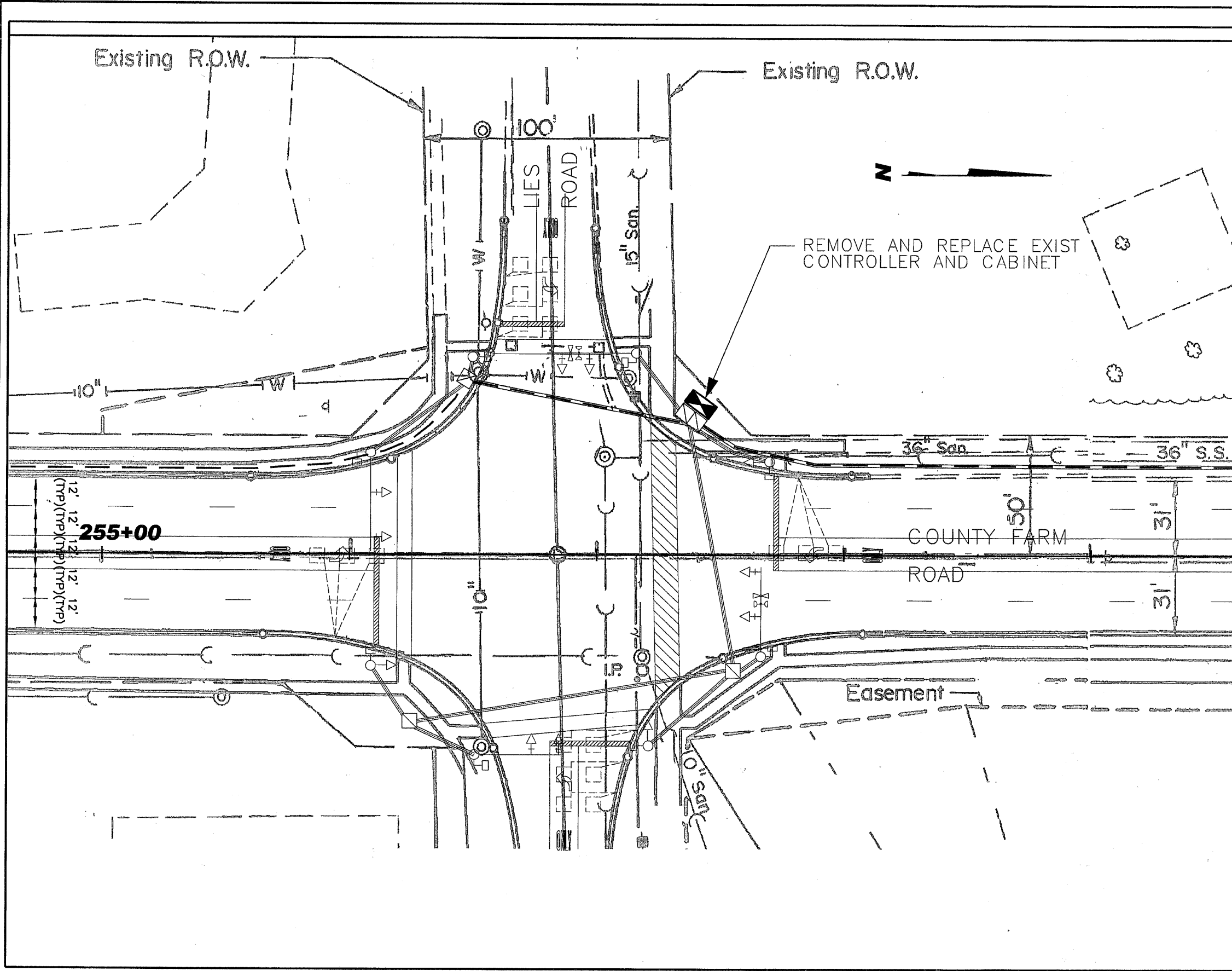
SCHEDULE OF QUANTITIES

67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1
87900200	DRILL EXISTING HANDHOLE	EACH	1
88500100	INDUCTIVE LOOP DETECTOR	EACH	8
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
X8050010	SERVICE INSTALLATION, GROUND MOUNT	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	21
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	1

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM RD & BIRCHBARK TR
 EXIST AND PROPOSED CABLE DIAGRAM,
 PHASING DIAGRAM AND SCHEDULE OF
 QUANTITIES
 SCALE: NONE
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

F.A.P. RTE. 0369/0362	SECTION 09-00168-08-TL	COUNTY ILLINOIS	TOTAL SHEETS 39	SHEET NO. 28
FED. ROAD DIST. NO. 1		CONTRACT NO. 63484		



TRAFFIC SIGNAL EQUIPMENT
REMOVAL SCHEDULE

1 EACH FULL-ACTUATED CONTROLLER
AND TYPE IV CABINET

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION

COUNTY FARM RD & LIES RD
EXISTING AND PROPOSED
TRAFFIC SIGNAL PLAN

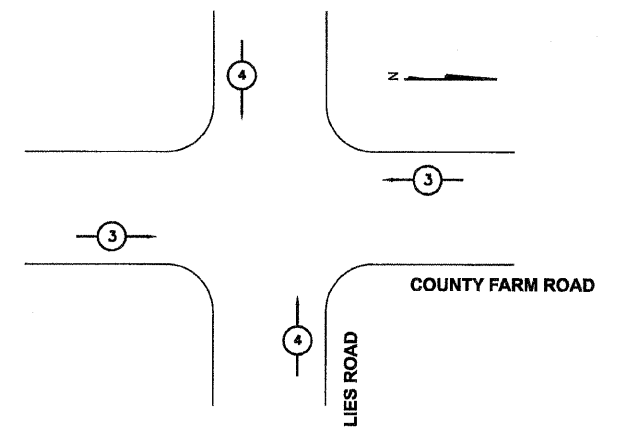
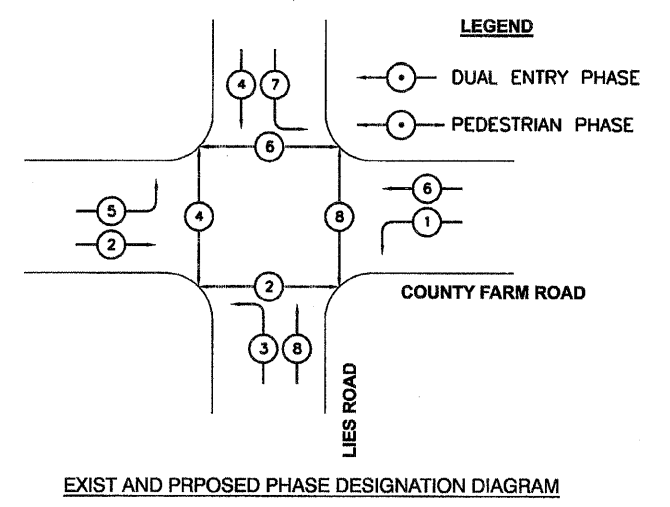
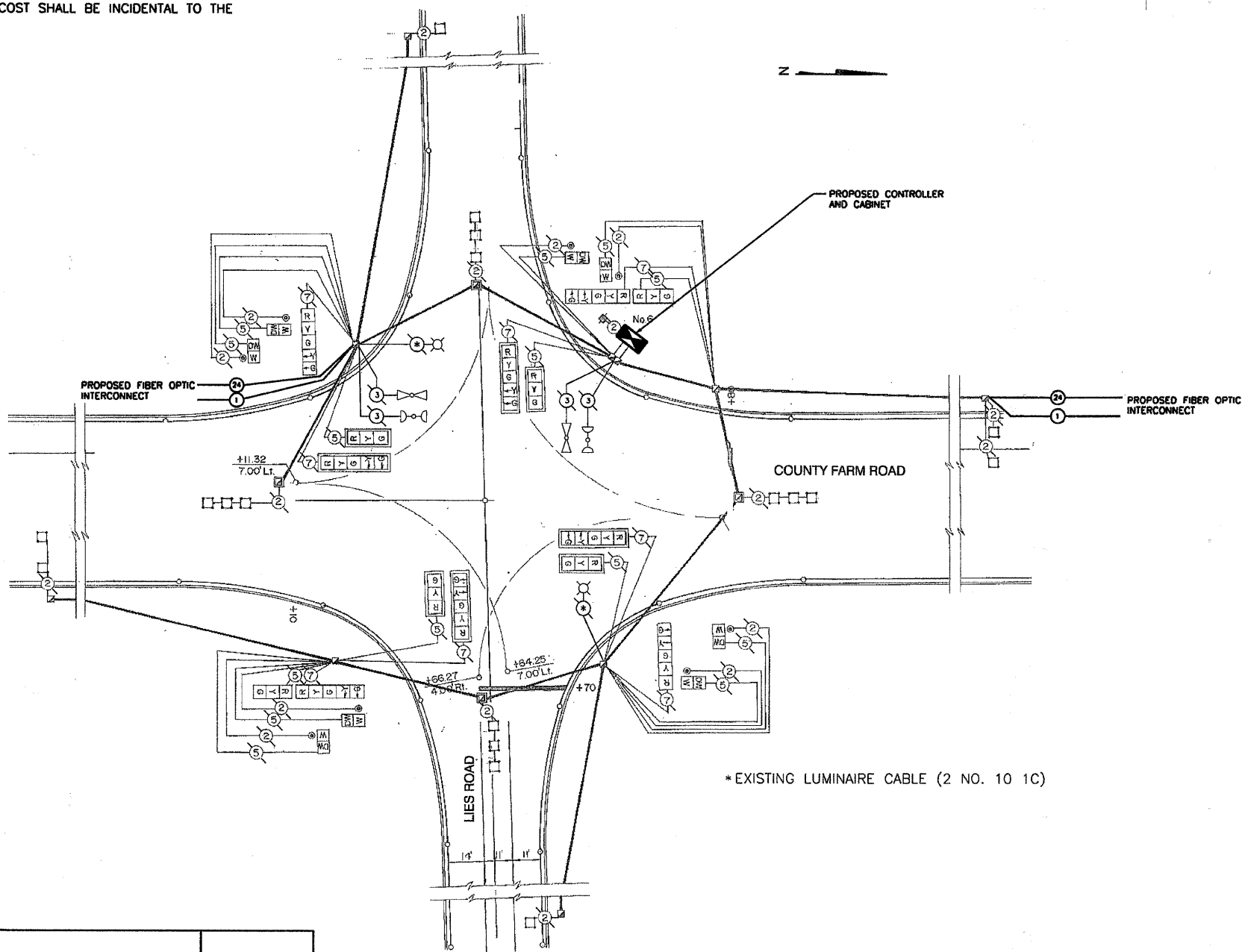
SCALE: 1"=20'

DATE: 4/23/10

DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: DAZ

NOTE: EQUIPMENT SHALL BE PROVIDED TO CONTROL THE (2) 310 WATT LUMINAIRES MOUNTED ON THE COMBO POLES. EQUIPMENT SHALL INCLUDE A BREAKER BOX MOUNTED INSIDE THE CABINET. THE COST SHALL BE INCIDENTAL TO THE CONTROLLER AND CABINET.

CABLE PLAN



PROPOSED EMERGENCY VEHICLE PREEPTORS		
EMERGENCY VEHICLE PREEPTOR	3	4
MOVEMENT	←	↑

DU PAGE COUNTY D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	
		INCAND.	LED		
RED BALL	16	135	10	0.60	1296
YELLOW BALL	16	135	22	0.03	65
GREEN BALL	16	135	12	0.37	799
RED ARROW		135	5	0.85	
YELLOW ARROW	8	135	10	0.02	22
GREEN ARROW	8	135	5	0.13	140
PED - WALK	8	90	5	0.05	36
PED - DON'T WALK	8	90	6	0.95	684
CONTROLLER	1	100		1.00	100
LUMINAIRE	2	310		0.50	310
TOTAL=					3452

SCHEDULE OF QUANTITIES

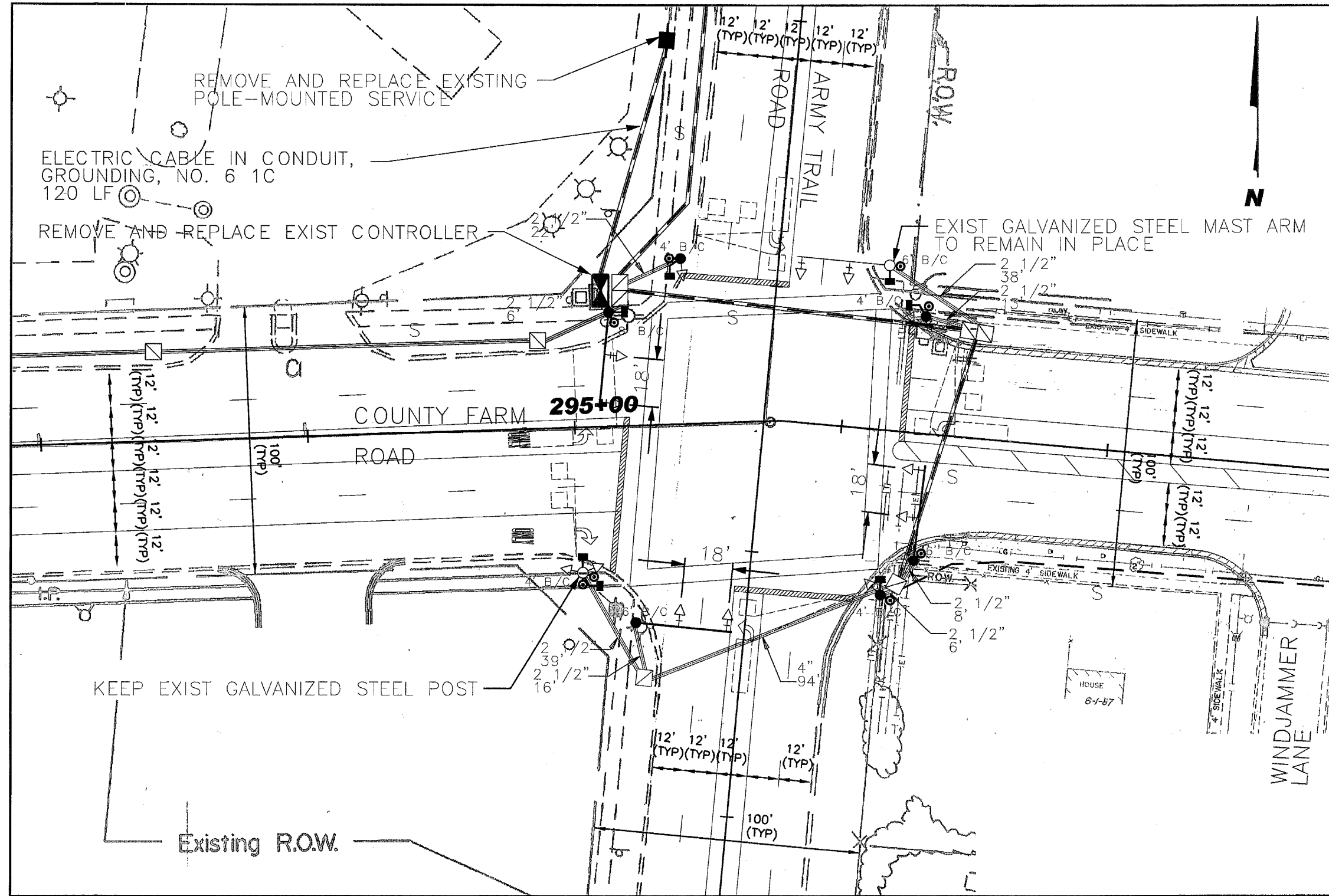
67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86400100	TRANSCIEVER - FIBER OPTIC	EACH	1
87900200	DRILL EXISTING HANDHOLE	EACH	2
88500100	INDUCTIVE LOOP DETECTOR	EACH	8
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	1

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM RD & LIES RD
 EXIST AND PROPOSED CABLE DIAGRAM,
 PHASING DIAGRAM AND SCHEDULE OF
 QUANTITIES

SCALE: NONE
 DATE: 4/23/10

DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ



TRAFFIC SIGNAL EQUIPMENT
REMOVAL SCHEDULE

- 4 EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT
- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 3 EACH 16' TRAFFIC SIGNAL POST, PAINTED
- 3 EACH COMBINATION MAST ARM ASSEMBLY AND POLE, PAINTED
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
- 8 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, POLE MOUNT

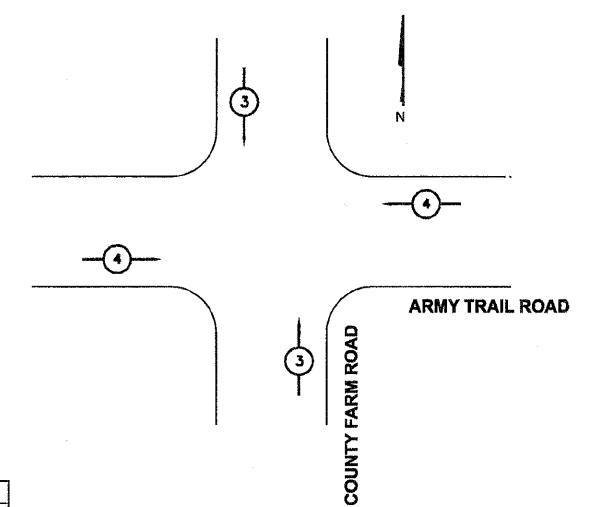
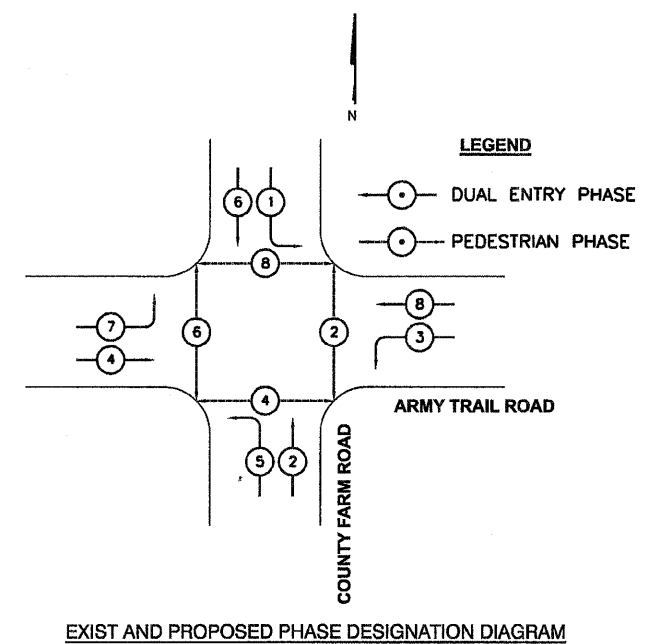
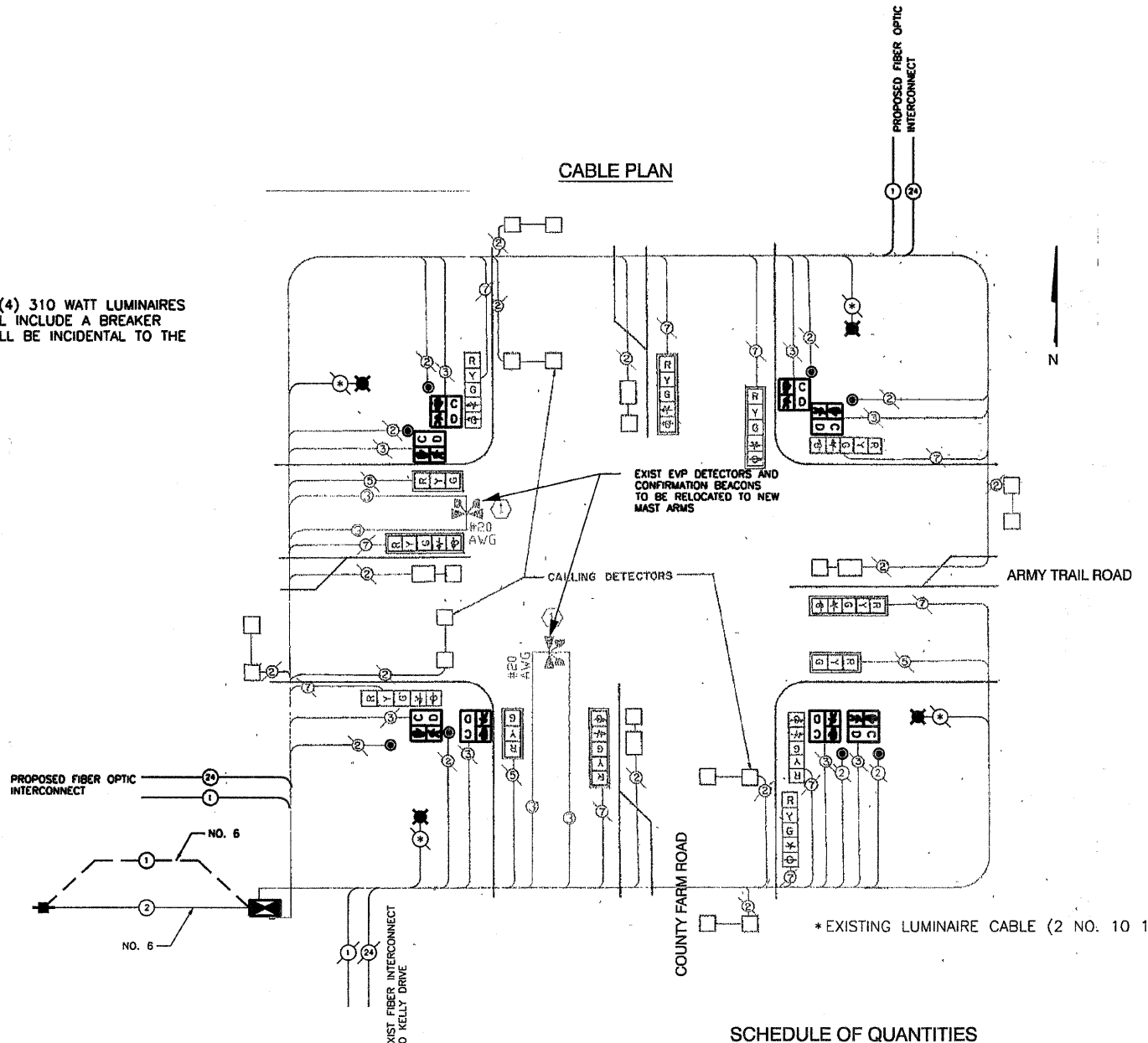
NOTES:

1. REPLACE ALL EXIST PEDESTRIAN HEADS AND PUSH BUTTONS.
2. REPLACE ALL PAINTED POSTS WITH GALVANIZED STEEL POSTS ON THE EXISTING FOUNDATIONS.
3. REPLACE ALL PAINTED COMBINATION MAST ARMS AND POLES WITH GALVANIZED STEEL COMBINATION MAST ARMS AND POLES ON THE EXISTING FOUNDATIONS.
4. REPLACE ALL 4 EXISTING LUMINAIRES ON COMBINATION MAST ARMS.

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM RD & ARMY TRAIL RD
 EXISTING AND PROPOSED
 TRAFFIC SIGNAL PLAN
 SCALE: 1"=20'
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

NOTE: EQUIPMENT SHALL BE PROVIDED TO CONTROL THE (4) 310 WATT LUMINAIRES MOUNTED ON THE COMBO POLES. EQUIPMENT SHALL INCLUDE A BREAKER BOX MOUNTED INSIDE THE CABINET. THE COST SHALL BE INCIDENTAL TO THE CONTROLLER AND CABINET.



SCHEDULE OF QUANTITIES

67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
82102310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT	EACH	4
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	3
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT	EACH	3
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
88500100	INDUCTIVE LOOP DETECTOR	EACH	10
88800100	PEDESTRIAN PUSH BUTTON	EACH	8
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	9
89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	800
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
X8050015	SERVICE INSTALLATION, POLE MOUNT	EACH	1
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	120
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	1

DU PAGE COUNTY D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	
		INCAND.	LED		
RED BALL	13	135	10	0.60	78
YELLOW BALL	13	135	22	0.03	8.6
GREEN BALL	13	135	12	0.37	58
RED ARROW		135	5	0.85	
YELLOW ARROW	10	135	10	0.02	2
GREEN ARROW	10	135	5	0.13	6.5
PED - WALK	8	90	5	0.05	1.5
PED- DON'T WALK	8	90	6	0.95	46
CONTROLLER	1	100		1.00	100
LUMINAIRE	4	310		0.50	620
TOTAL=					921

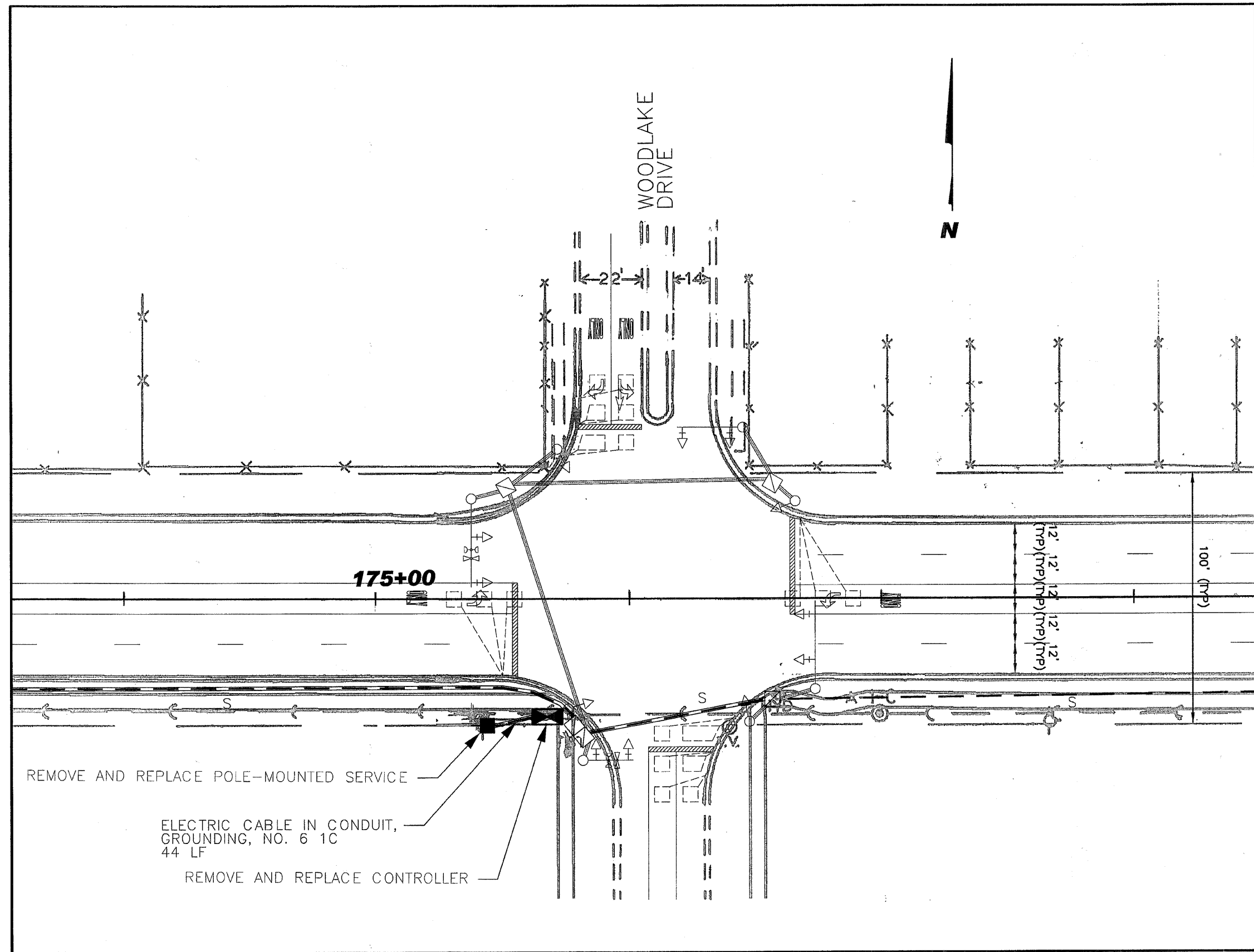
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	4	3
MOVEMENT	←	↑

EXIST AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

REVISIONS	
NAME	DATE

DU PAGE COUNTY DIVISION OF TRANSPORTATION
COUNTY FARM RD & ARMY TRAIL RD
 EXIST AND PROPOSED CABLE DIAGRAM,
 PHASING DIAGRAM AND SCHEDULE OF
 QUANTITIES
 SCALE: NONE
 DATE: 4/23/10
 DRAWN BY: TH
 DESIGNED BY: TH
 CHECKED BY: DAZ

F.A.P. RTE. 0369/ 0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 32
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63484		



TRAFFIC SIGNAL EQUIPMENT
REMOVAL SCHEDULE

- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 1 EACH SERVICE INSTALLATION, POLE MOUNT

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION

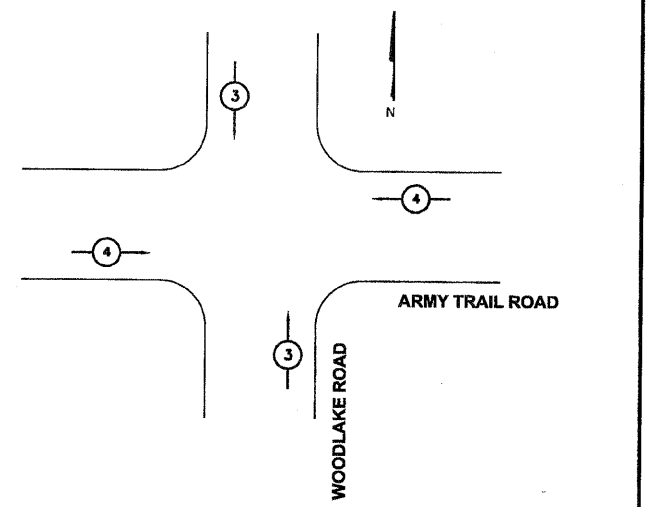
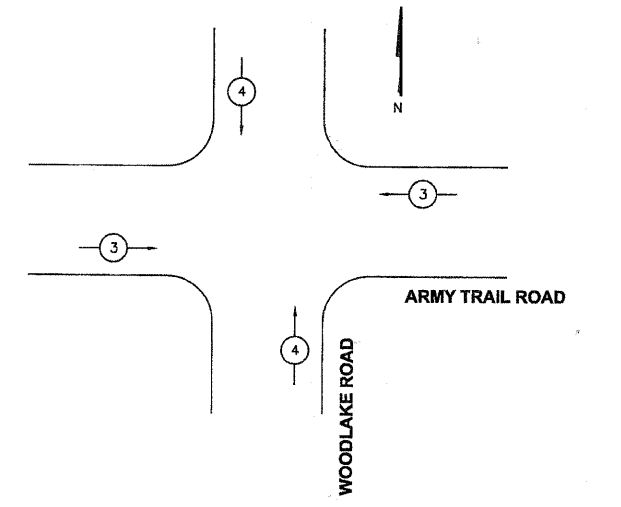
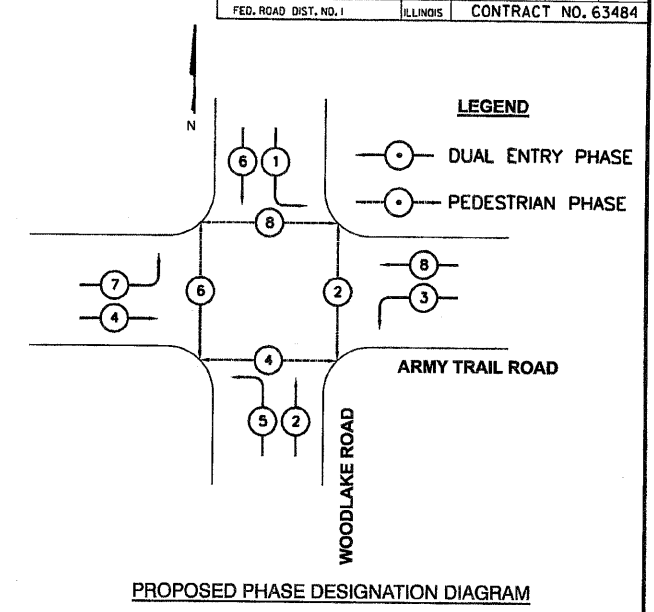
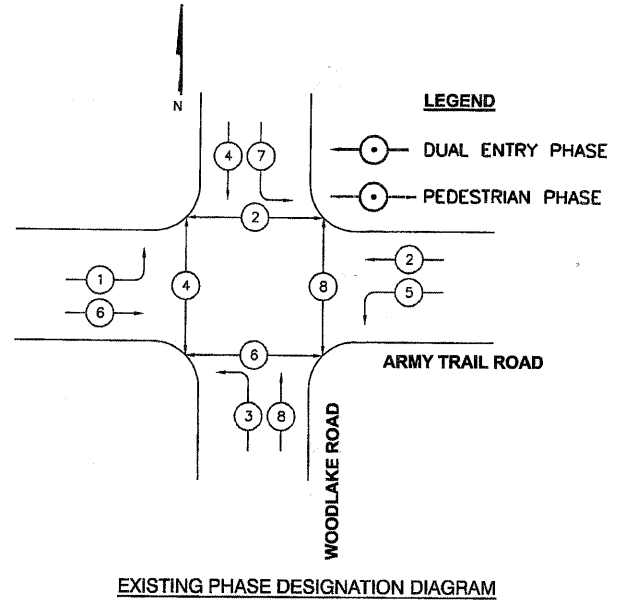
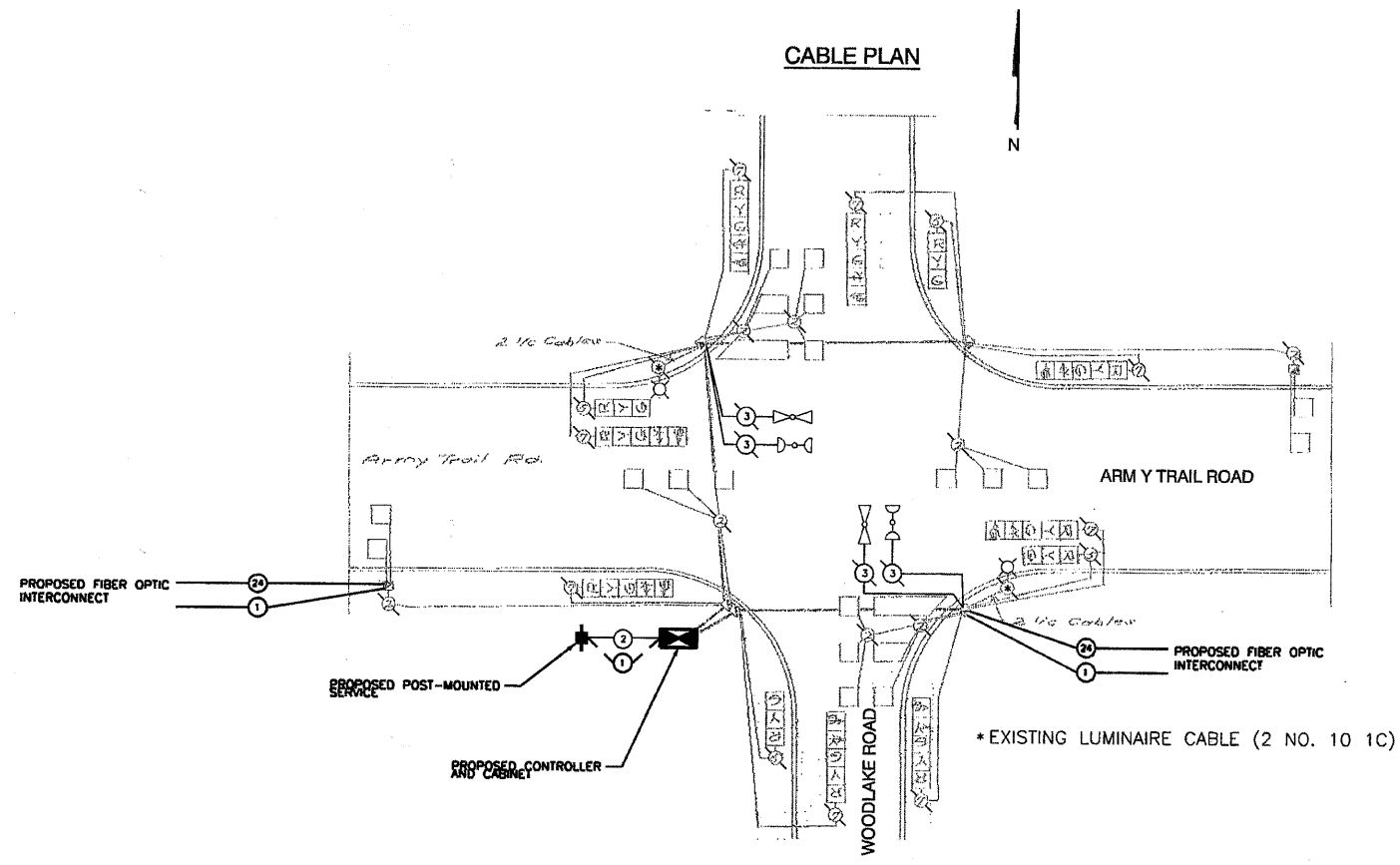
**ARMY TRAIL RD & WOODLAKE RD
EXISTING AND PROPOSED
TRAFFIC SIGNAL PLAN**

SCALE: 1"=20'
DATE: 4/23/10

DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: OAZ

NOTE: EQUIPMENT SHALL BE PROVIDED TO CONTROL THE (2) 310 WATT LUMINAIRES MOUNTED ON THE COMBO POLES. EQUIPMENT SHALL INCLUDE A BREAKER BOX MOUNTED INSIDE THE CABINET. THE COST SHALL BE INCIDENTAL TO THE CONTROLLER AND CABINET.

F.A.P. RTE. 0369/0362	SECTION 09-00168-08-TL	COUNTY DU PAGE	TOTAL SHEETS 39	SHEET NO. 33
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 63484	

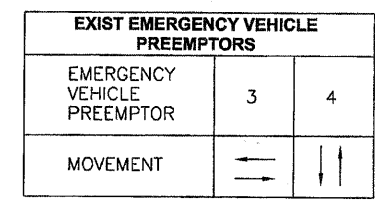


SCHEDULE OF QUANTITIES

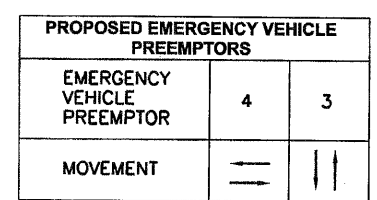
67100100	MOBILIZATION	L SUM	0.06
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.06
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.06
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.06
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86400100	TRANSCIVER - FIBER OPTIC	EACH	1
87900200	DRILL EXISTING HANDHOLE	EACH	2
88500100	INDUCTIVE LOOP DETECTOR	EACH	8
88800100	PEDESTRIAN PUSH BUTTON	EACH	8
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
X8050015	SERVICE INSTALLATION, POLE MOUNT	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	44
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2	EACH	1

**DU PAGE COUNTY D.O.T
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		OPERATION (%)	TOTAL WATTAGE
		INCAND.	LED		
RED BALL	12	135	10	0.60	972
YELLOW BALL	12	135	22	0.03	49
GREEN BALL	12	135	12	0.37	599
RED ARROW		135	5	0.85	
YELLOW ARROW	8	135	10	0.02	22
GREEN ARROW	8	135	5	0.13	140
PED - WALK		90	5	0.05	
PED - DON'T WALK		90	6	0.95	
CONTROLLER	1	100		1.00	100
LUMINAIRE	2	310		0.50	310
TOTAL=					2192



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

REVISIONS	
NAME	DATE

DUPAGE COUNTY DIVISION OF TRANSPORTATION
ARMY TRAIL RD & WOODLAKE RD
EXIST AND PROPOSED CABLE DIAGRAM,
PHASING DIAGRAM AND SCHEDULE OF
QUANTITIES

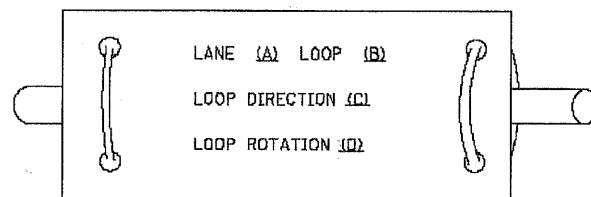
SCALE: NONE
DATE: 4/23/10

DRAWN BY: TH
DESIGNED BY: TH
CHECKED BY: DAZ

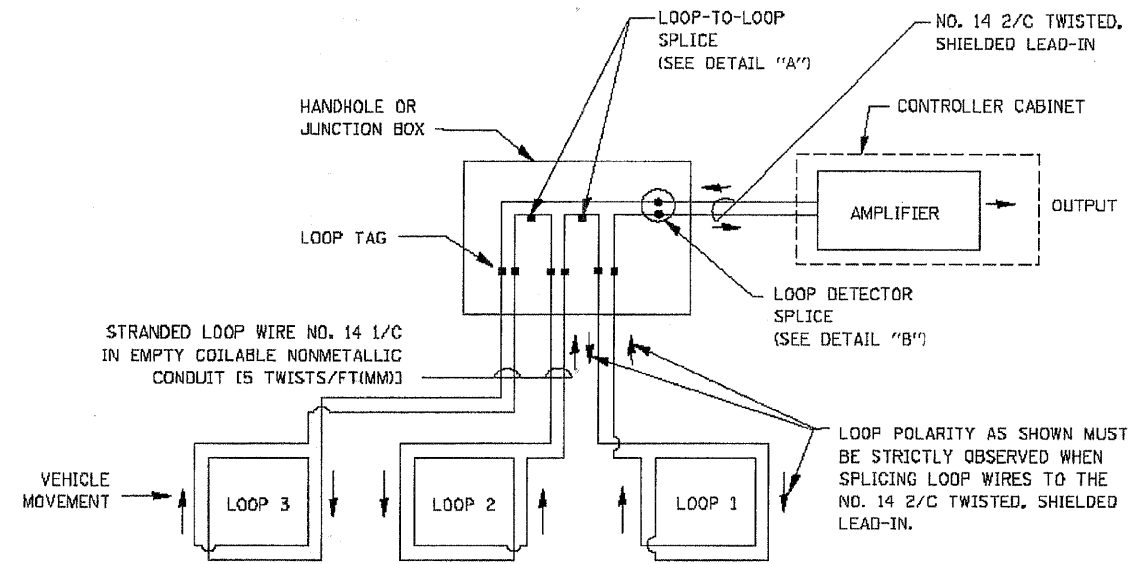
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

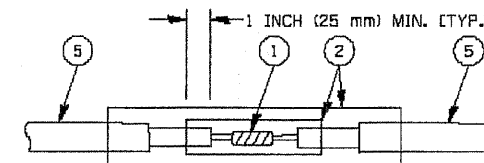


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

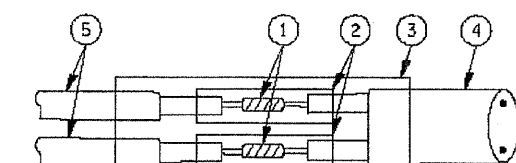


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

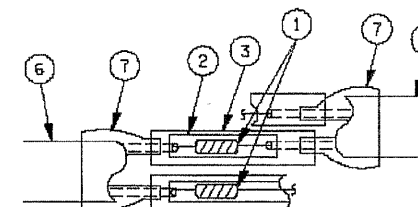


DETAIL "A" LOOP-TO-LOOP SPLICE

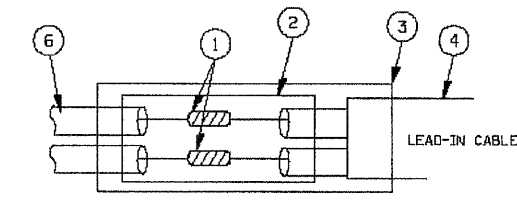


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = konthaphazayba	DESIGNED - DAD	REVISED -
or\pwwork\PM\DOT\KONTRAPH\KAYBC\011261	or\pwwork\PM\DOT\KONTRAPH\KAYBC\011261	DRAWN - BCK	REVISED -
	PLOT SCALE = 20.0000 / 1 DL	CHECKED - DAD	REVISED -
	PLOT DATE = 10/28/09	DATE - 10/28/09	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

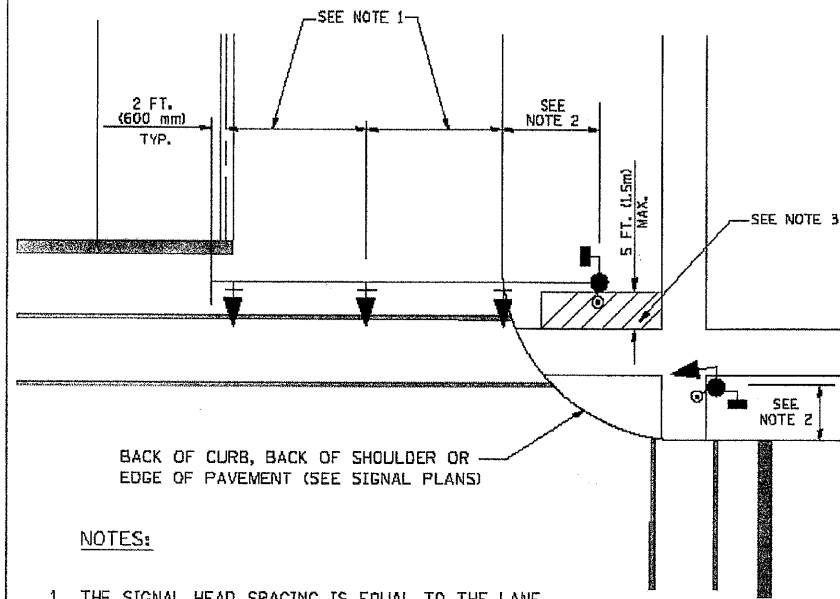
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: SHEET NO. 1 OF 5 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00168-08-TL	DUPAGE	39	34
TS-05		CONTRACT NO.	63484	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

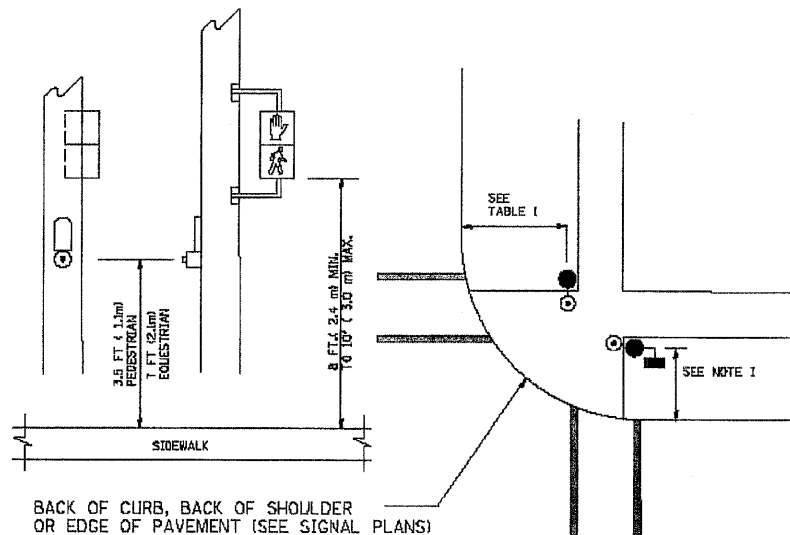
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

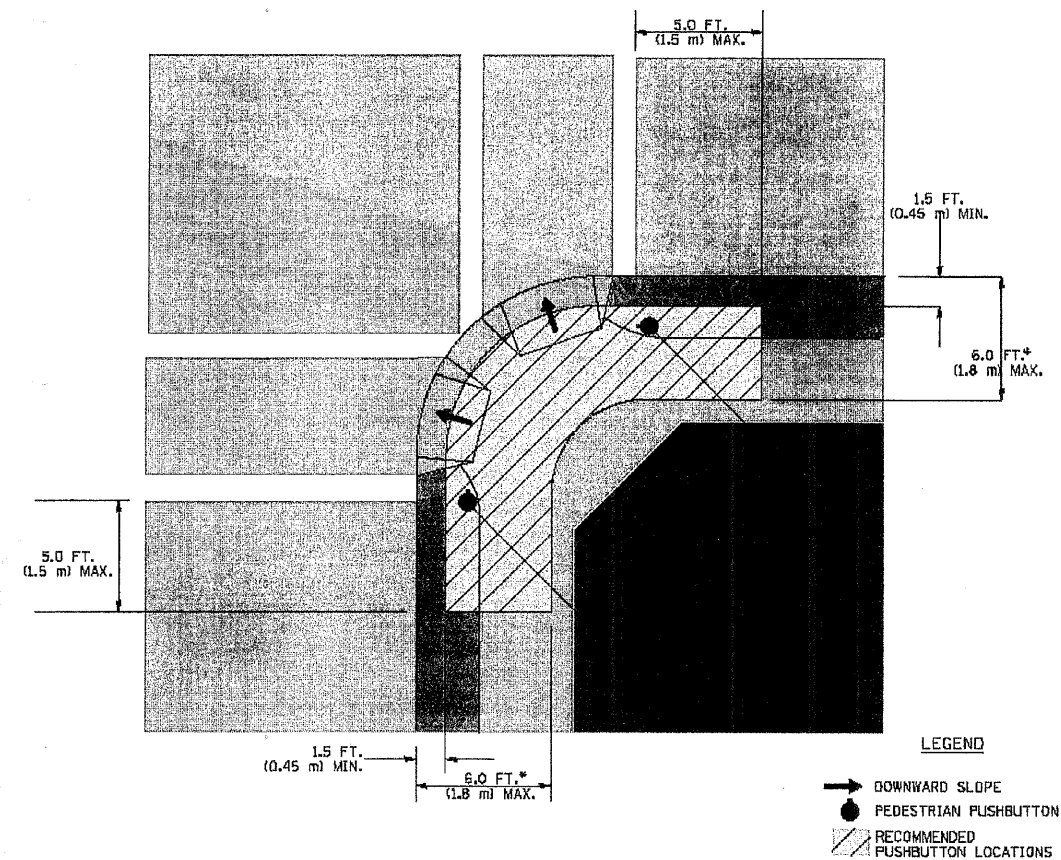
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- * WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- ** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

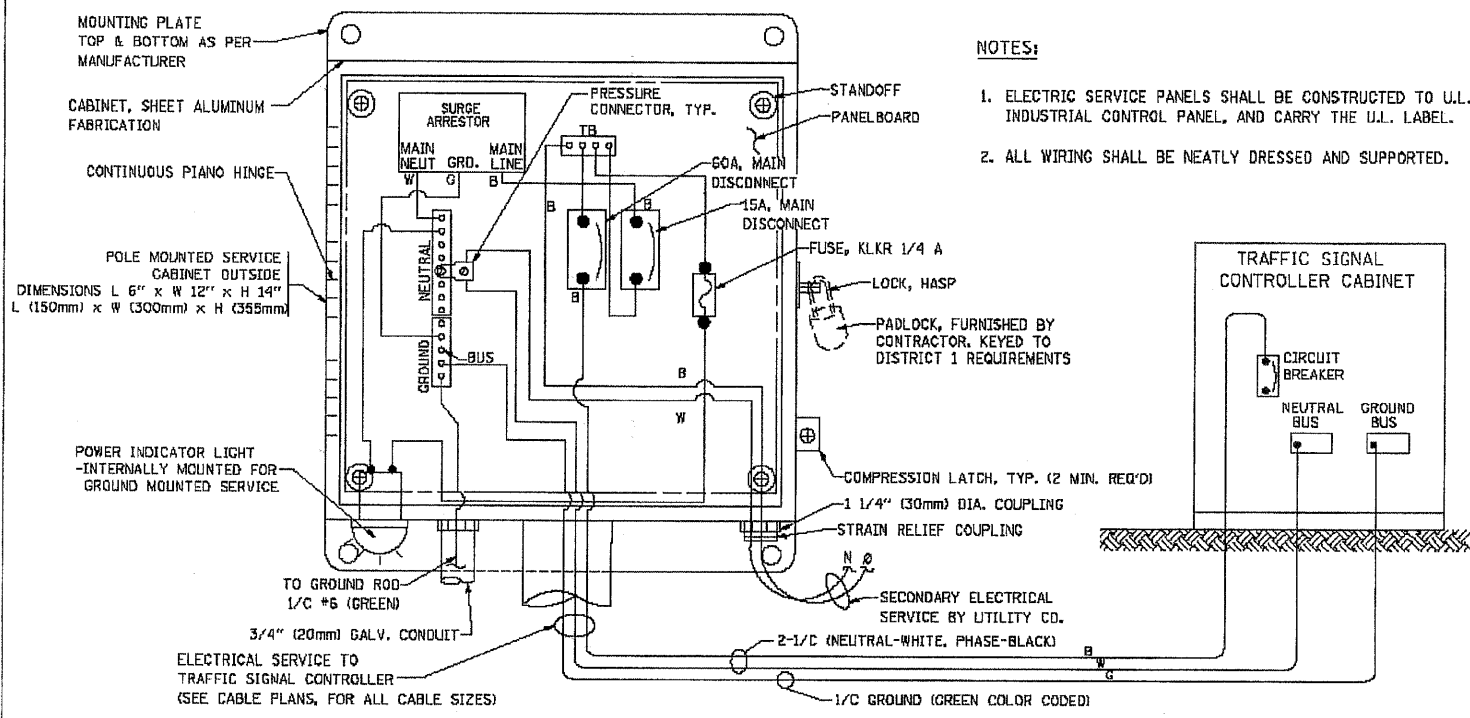
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

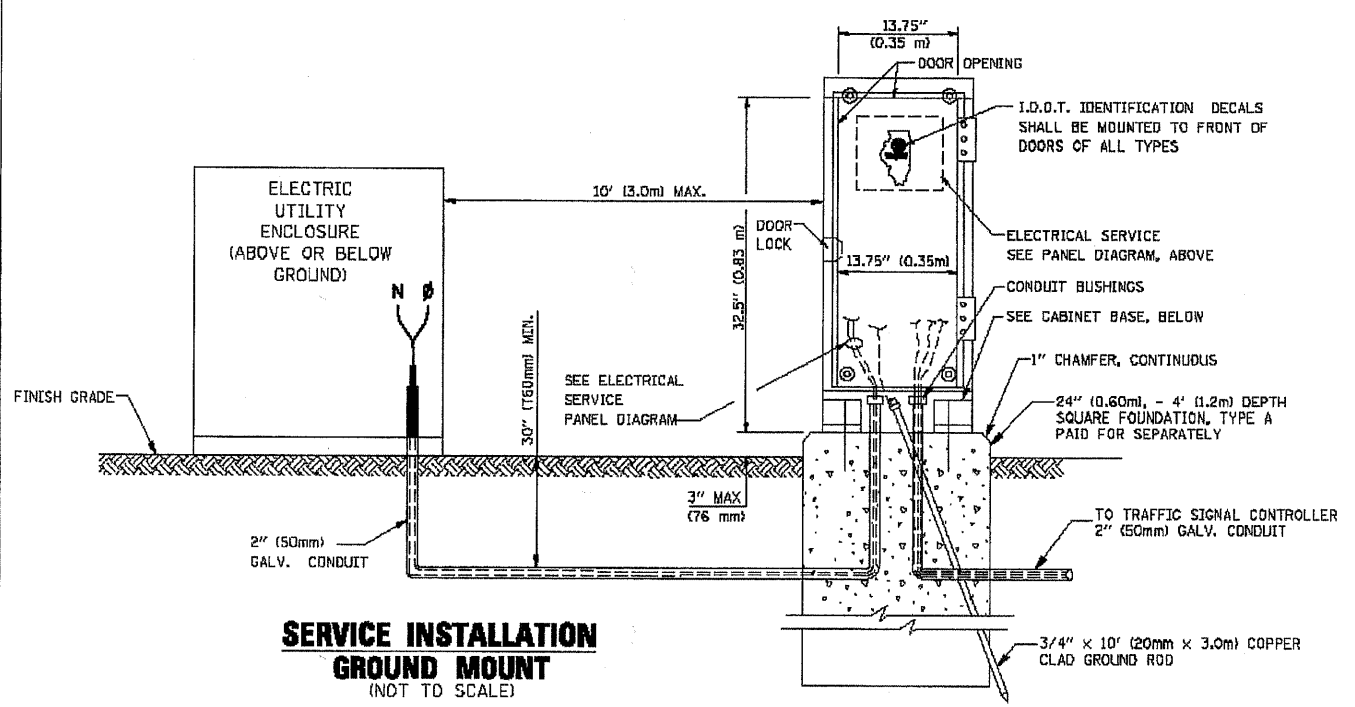
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

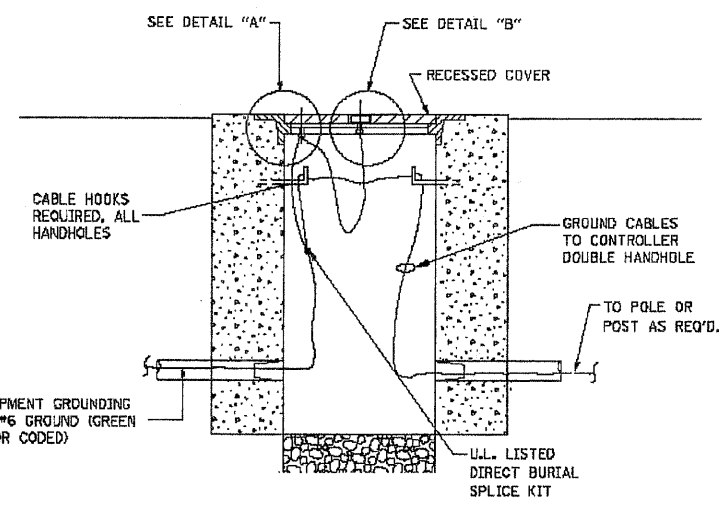
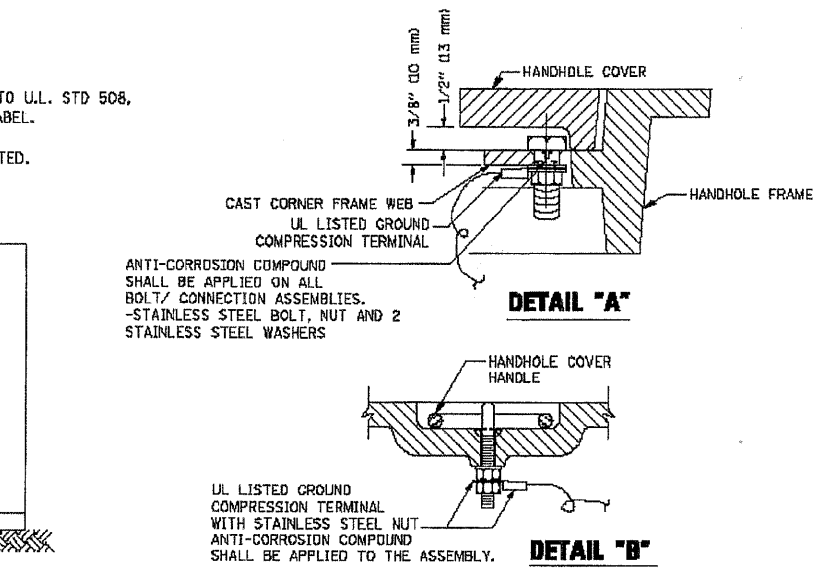
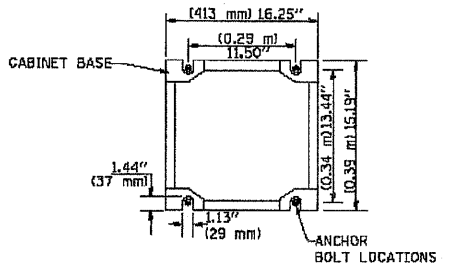


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

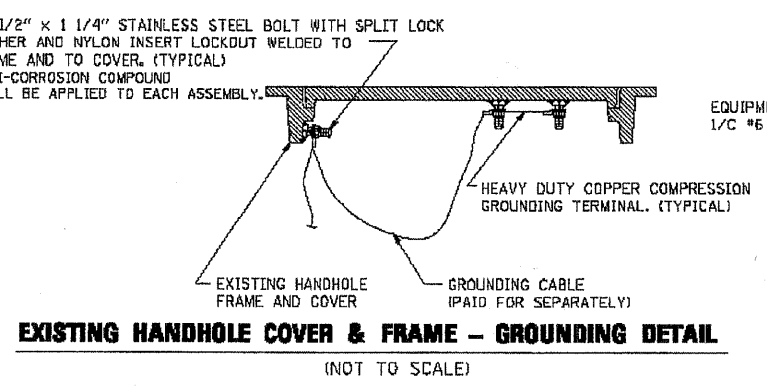


SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

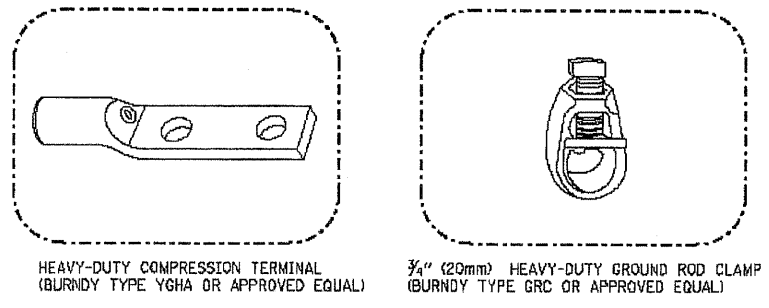
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

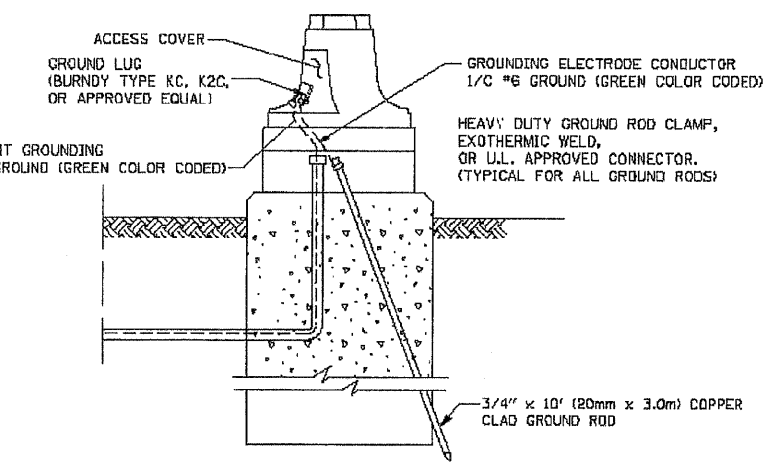


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)



NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

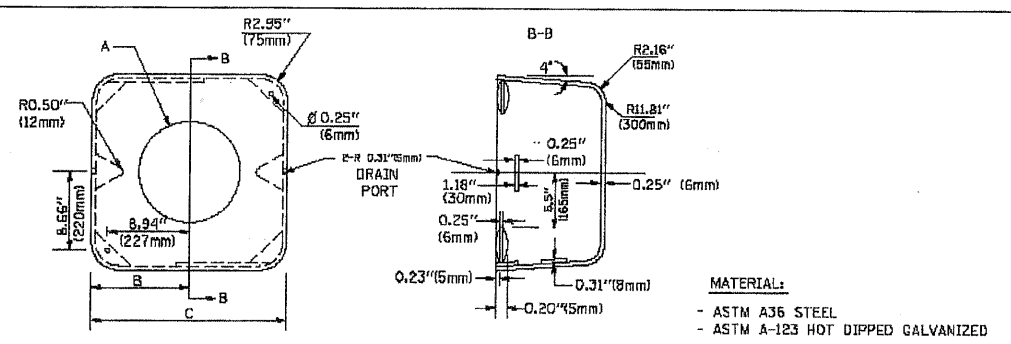
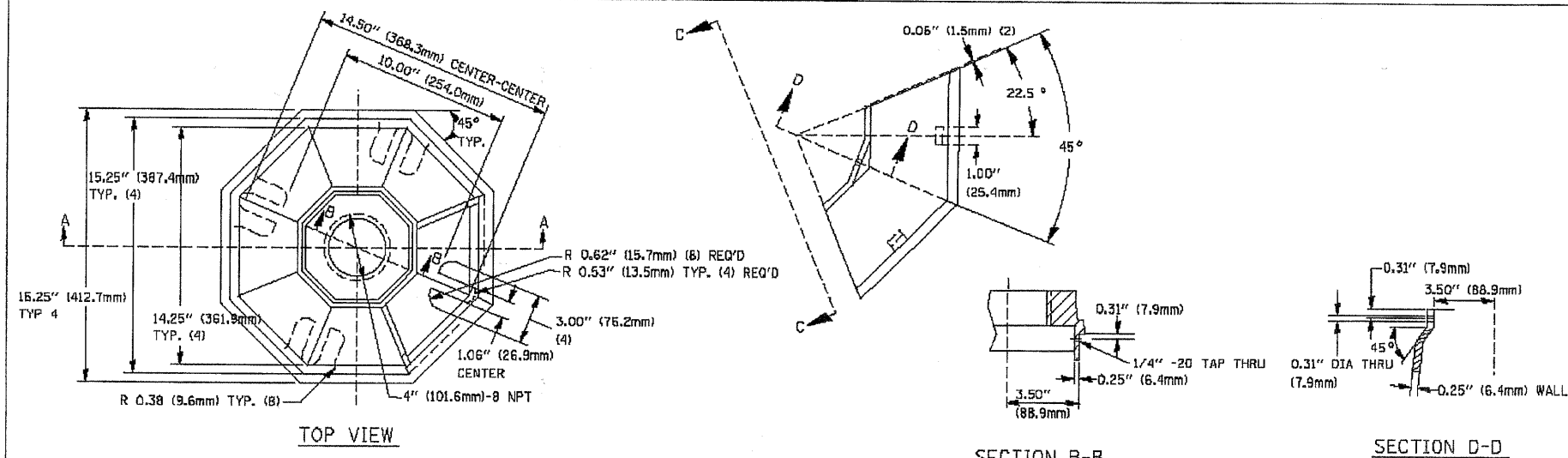


MAST ARM POLE /POST-GROUNDING DETAIL
 (NOT TO SCALE)

NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

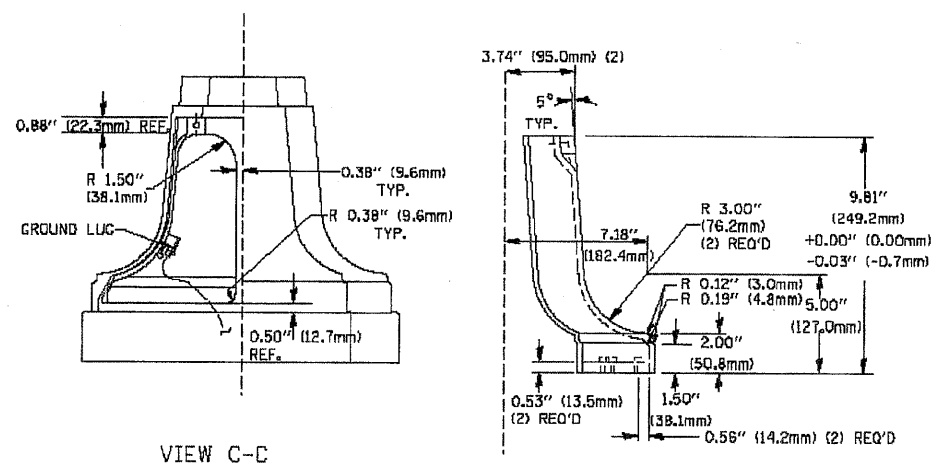
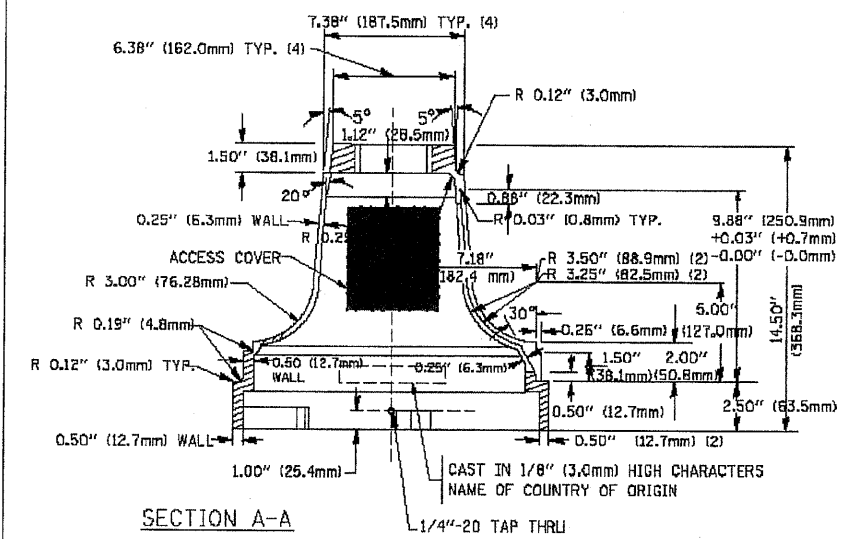


A	B	C	HEIGHT	WEIGHT
VARIES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) - 12\" (300mm)	126 lbs (57 kg)

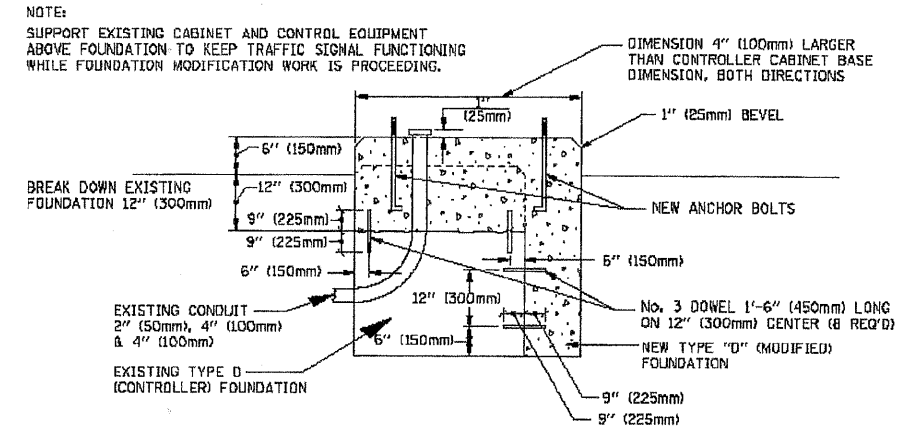
SHROUD

NOTES:

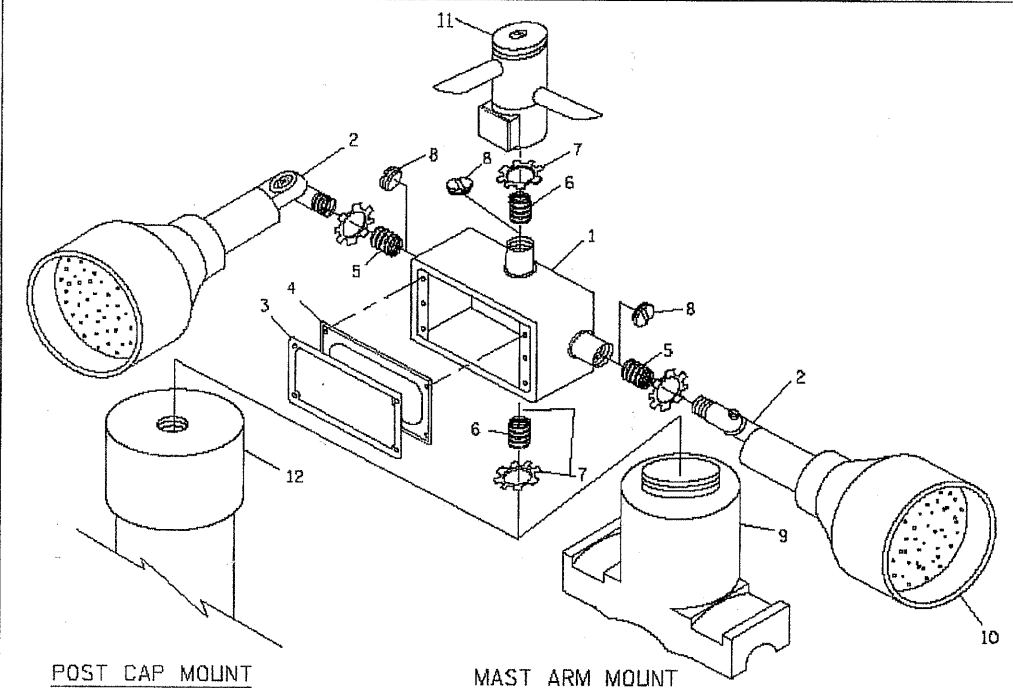
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



MODIFY EXISTING TYPE "D" FOUNDATION

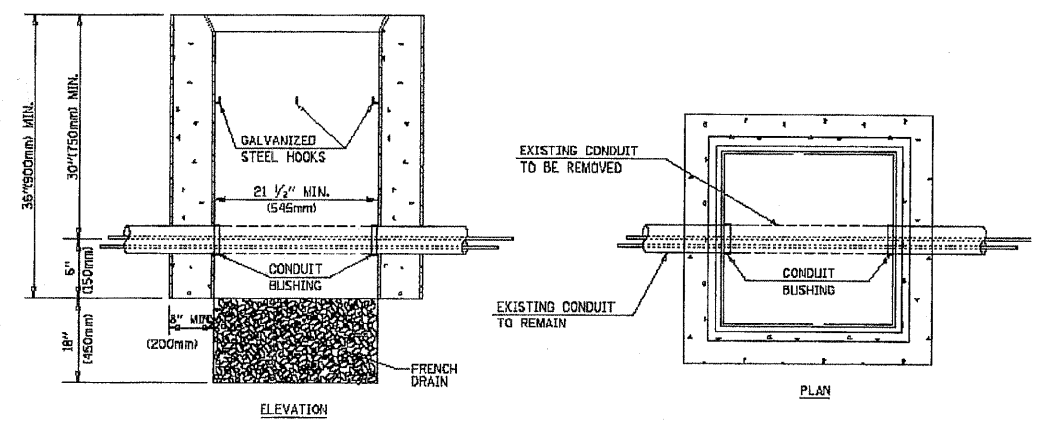


EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

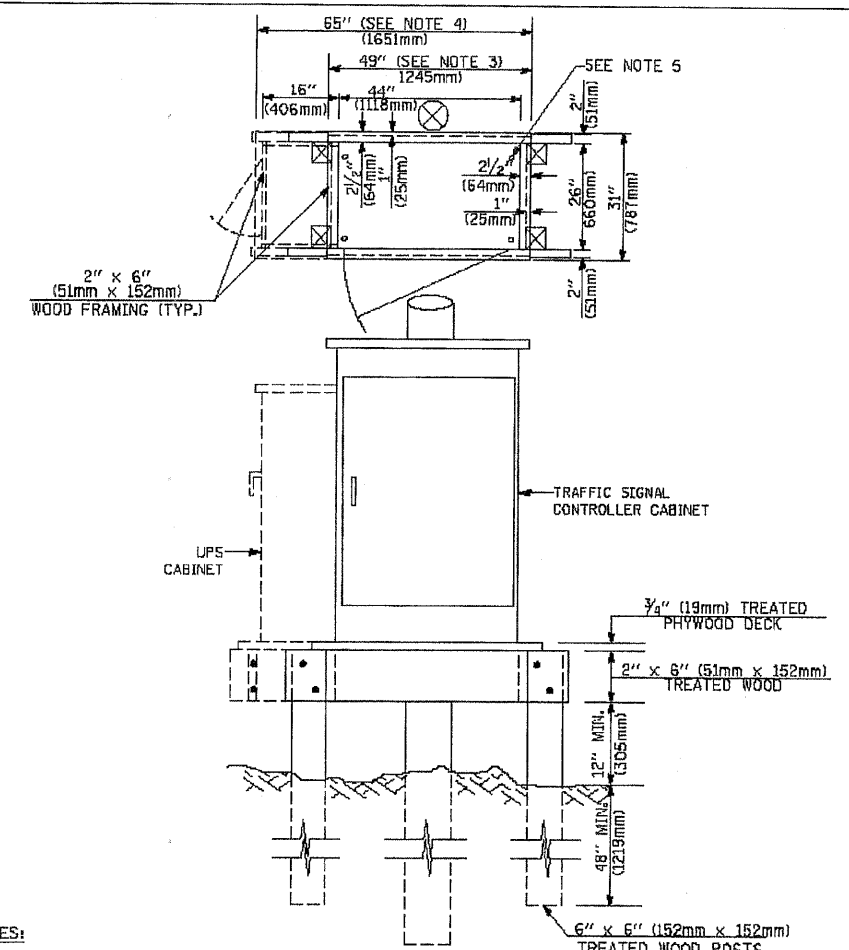
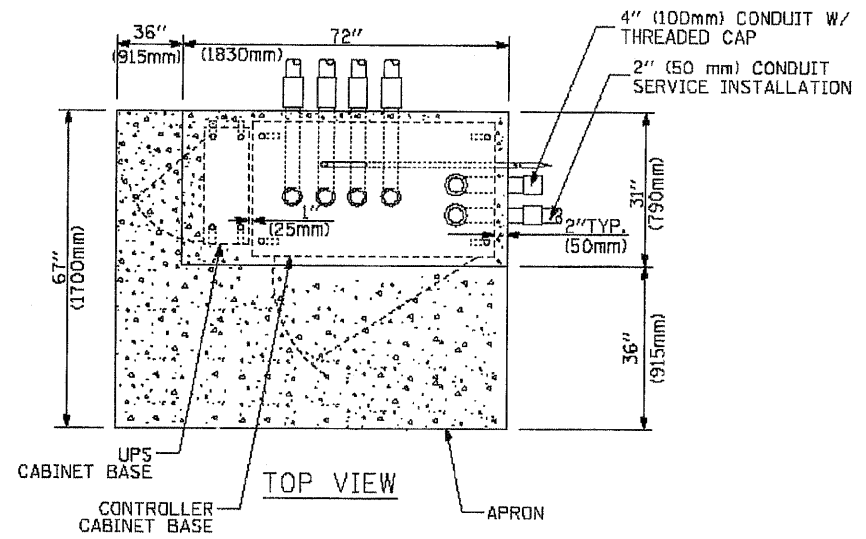
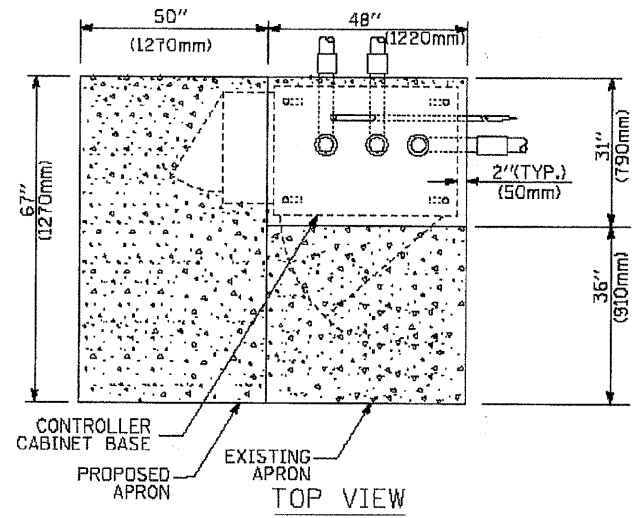
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



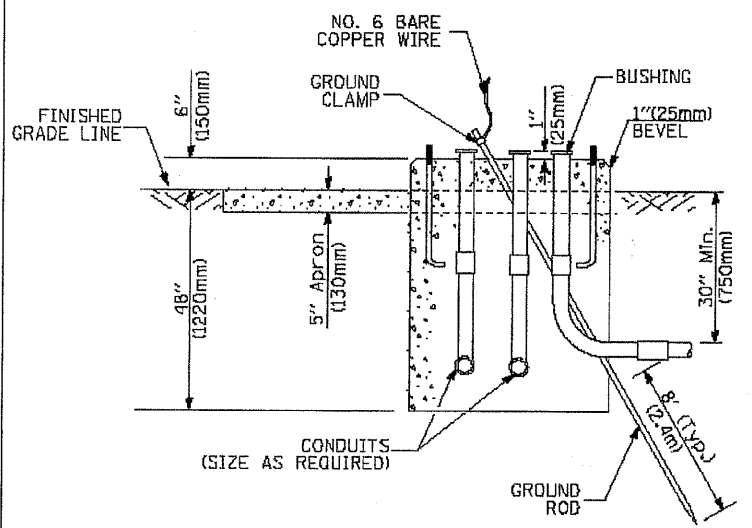
NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

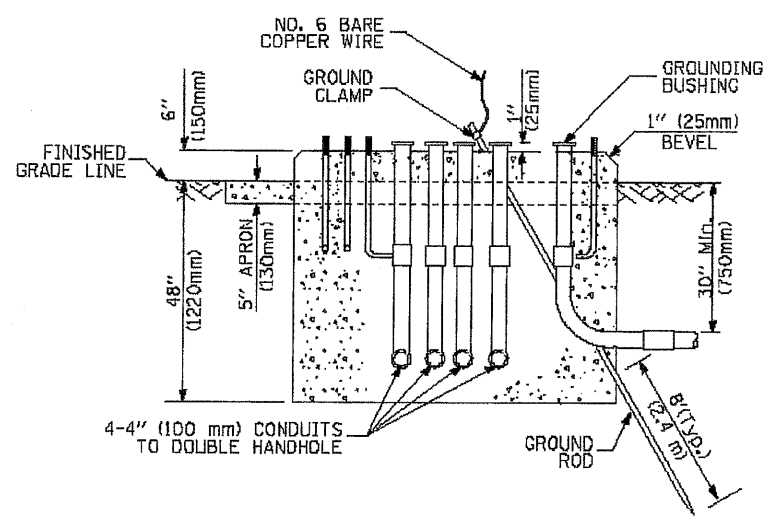
HANDHOLE TO INTERCEPT EXISTING CONDUIT



- NOTES:
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.



TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.5

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0-L	5.0-L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

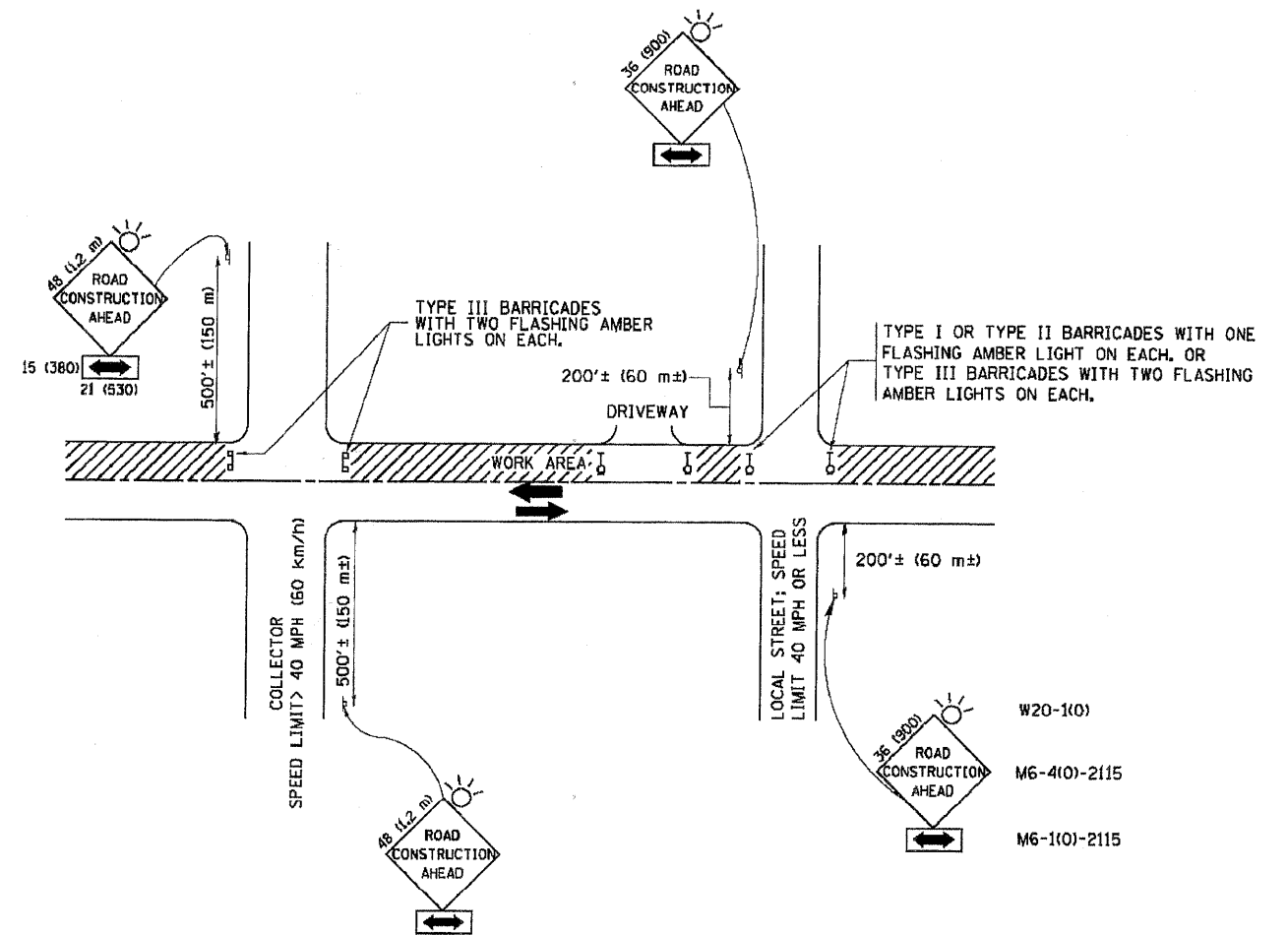
FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft. With an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
 2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 4. For mast arm assemblies with dual arms refer to state standard B78001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = M:\d\stake\22x34\1010.dgn	USER NAME = gegliant	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50:200 / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00168-08-TL	DUPAGE	39	39
TC-10			CONTRACT NO. 63484	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				