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**STANDARDS**

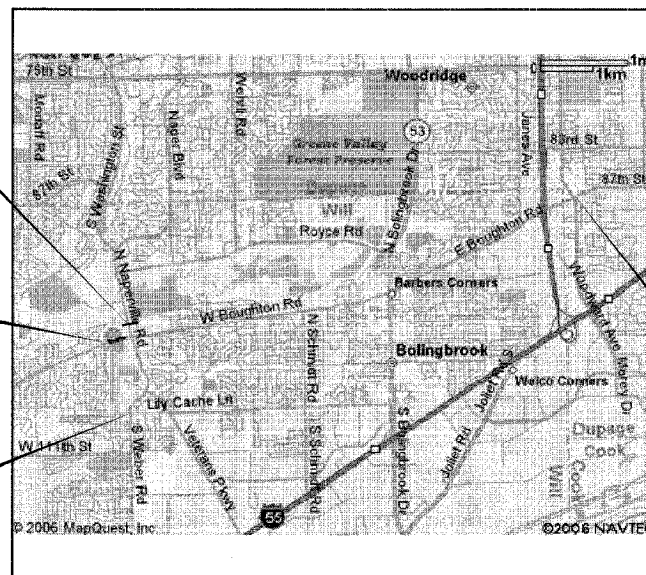
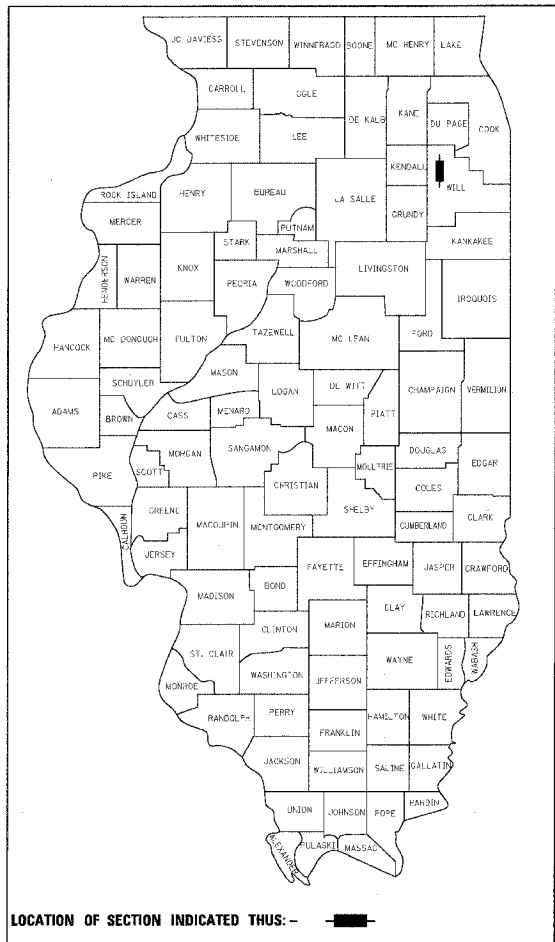
- 701006-02 OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO PVMT EDGE
- 701011-01 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701101-01 OFF-RD OPERATIONS, MULTILANE, 4.5 m (15') TO PVMT EDGE
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701701-04 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 702001-06 TRAFFIC CONTROL DEVICES
- 720001 SIGN PANEL MOUNTING DETAILS
- 814001 CONCRETE HANDHOLES
- 862001 UNINTERRUPTABLE POWER SUPPLY (UPS)

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PLANS FOR PROPOSED**  
**TRAFFIC SIGNAL INTERCONNECT**

**DISTRICT 1**  
**F.A.U. 3580 BOUGHTON ROAD**  
**FROM KINGS ROAD TO WOODWARD AVENUE**  
**AND F.A.P. 856 WEBER ROAD (C.H. 88)**  
**FROM LILY CACHE LANE TO COMMERCIAL ENT. DRIVE**  
**PROJECT NO.: CMM-8003 (482)**  
**SECTION 04-00043-00-TL**  
**WILL COUNTY**  
**C-91-106-05**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 83855				



LENGTH OF IMPROVEMENT = 8.5 MI.

FOR UNDERGROUND UTILITY LOCATIONS  
 CALL  
 J. U. L. I. E.  
 TOLL FREE  
 TEL. 800-892-0123

SCALES } INTERCONNECT 1" = 50'

GEORGE M. TEGLER  
 ILLINOIS REGISTRATION No. 062-045853  
 EXPIRATION DATE: 11-30-2007  
 PROFESSIONAL DESIGN FIRM No.: 184-001742

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

APPROVED April 5, 2006  
Michael J. Grey  
 LOCAL AGENCY OFFICIAL

PASSED APRIL 11, 2006  
Chris Holt  
 DISTRICT ENGINEER OF LOCAL ROADS AND STREETS

SIGNED April 11, 2006  
Diane M. O'Keefe/Cat  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

PRINTED BY AUTHORITY OF THE  
 STATE OF ILLINOIS

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018 (847) 823-0500

FEDERAL AID COORDINATOR: PHIL MARCYN (847) 705-4189

**CONTRACT NO.: 83855**

3/28/2006 N:\BOLINGBROOK\05559\Trc\Ffile\CVR\_05559.dgn

# SUMMARY OF QUANTITIES

## CONSTRUCTION TYPE CODE Y031-1F

F.A.U. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580.04-00043-00-TL	WILL	54	2
STA. TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855			

CODE NO.	ITEM	UNIT	Boughton Road @ Kings Road	Boughton Road @ Palmer Drive	Boughton Road @ Sunshine Drive	Boughton Road @ Meijer/Best Buy	Boughton Road @ Weber Road	Boughton Road @ Target Entrance	Boughton Road @ Kohl's/Brookwood	Boughton Road @ Brighton Lane	Boughton Road @ Lindsey Lane	Boughton Road @ Orchard Drive	Boughton Road @ Whitewater Drive	Boughton Road @ Schmidt Road	Boughton Road @ Delaware Drive	Boughton Road @ Aspen Drive	Boughton Road @ IL Route 53	Boughton Road @ Barbers Corner	Boughton Road @ Winston/Falconridge	Boughton Road @ Pinecrest Road	
67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO																			
67100100	MOBILIZATION	LSUM																			
70102635	TRAFFIC CONTROL AND PROTECTION, COMPLETE	LSUM																			
72000100	SIGN PANEL - TYPE 1	SQ FT					20										20				
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT																			
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT																			
81400100	HANDHOLE	EACH																			
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT																			
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1		1	1		1	1	1	1	1	1								
86300500	CONTROLLER CABINET TYPE V	EACH										1	1				1	1	1	1	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
87900200	DRILL EXISTING HANDHOLE	EACH																			
88500100	INDUCTIVE LOOP DETECTOR	EACH	10		8	10		8	8	8	12	10	10		8	8	16	7	4	4	4
89501100	RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER	EACH										1				1	1	1	1	1	1
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH																			
89502200	MODIFY EXISTING CONTROLLER	EACH		1										1							
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT																			
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1	1		1	1	1	1	1	1		1	1	1	1	1	1	1
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT															4				
X0323483	LED SIGNAL FACE RETROFIT, RED ARROW	EACH																			
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT																			
X8950100	RELOCATE EXISTING MASTER CONTROLLER	EACH					1														
86200200	UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1								1	1		1							
XX005799	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1		1	1		1	1	1	1	1	1		1	1	1	1	1	1	1
XX005800	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH			1	1		1	1	1		1									
Z0076600	TRAINEES	HOUR																			

CODE NO.	ITEM	UNIT	TOTAL	Boughton Road @ Preston Drive	Boughton Road @ Feather Sound Drive	Boughton Road @ Jones Avenue	Boughton Road @ I-355 West Ramp	Boughton Road @ I-355 East Ramp	Boughton Road @ Woodward Avenue	Weber Road @ Lilly Cache Lane	Weber Road @ Veterans Parkway	Weber Road @ Thackeray Drive	Weber Road @ Jennifer	Weber Road @ Jewel Entrance	Veterans Parkway @ Lilly Cache Lane	Interconnect
67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO	10													10
67100100	MOBILIZATION	LSUM	1													1
70102635	TRAFFIC CONTROL AND PROTECTION, COMPLETE	LSUM	1													1
72000100	SIGN PANEL - TYPE 1	SQ FT	70				10				20					
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	19278													19278
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	1345													1345
81400100	HANDHOLE	EACH	27													27
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	19278													19278
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	30	1	1	1	1	1	1	1	1	1	1	1	1	
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	17				1	1			1	1	1	1		
86300500	CONTROLLER CABINET TYPE V	EACH	5												1	
86400100	TRANSCEIVER - FIBER OPTIC	EACH	29	1	1	1	1	1	1	1	1	1	1	1	1	
87900200	DRILL EXISTING HANDHOLE	EACH	26													26
88500100	INDUCTIVE LOOP DETECTOR	EACH	209				6	7			12	16	9	6	22	
89501100	RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER	EACH	5	1	1	1			1		1	1	1	1	1	
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	5												1	
89502200	MODIFY EXISTING CONTROLLER	EACH	7												1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	20163													20163
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	22				1	1			1	1	1	1	1	
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	45366													45366
X0323483	LED SIGNAL FACE RETROFIT, RED ARROW	EACH	6					2								
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	45531													45531
X8950100	RELOCATE EXISTING MASTER CONTROLLER	EACH	2					1								
86200200	UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	7			1					1				1	
XX005799	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	17				1	1								
XX005800	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	17				1	1				1	1	1		
Z0076600	TRAINEES	HOUR	500													500

△ = Y080

PROFILE REVISED: GRADES CHECKED: STRUCTURE NOTATION OK'D  
 DATE: 10/1/2006  
 BY: JMB  
 9515 West Higgins Road, Suite 600  
 Chicago, Illinois 60638  
 (847) 823-0500  
**CB**  
 CHRISTOPHER B. BURKE ENGINEERING LTD.  
 PLAN  
 DATE: 10/1/2006  
 BY: JMB  
 9515 West Higgins Road, Suite 600  
 Chicago, Illinois 60638  
 (847) 823-0500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

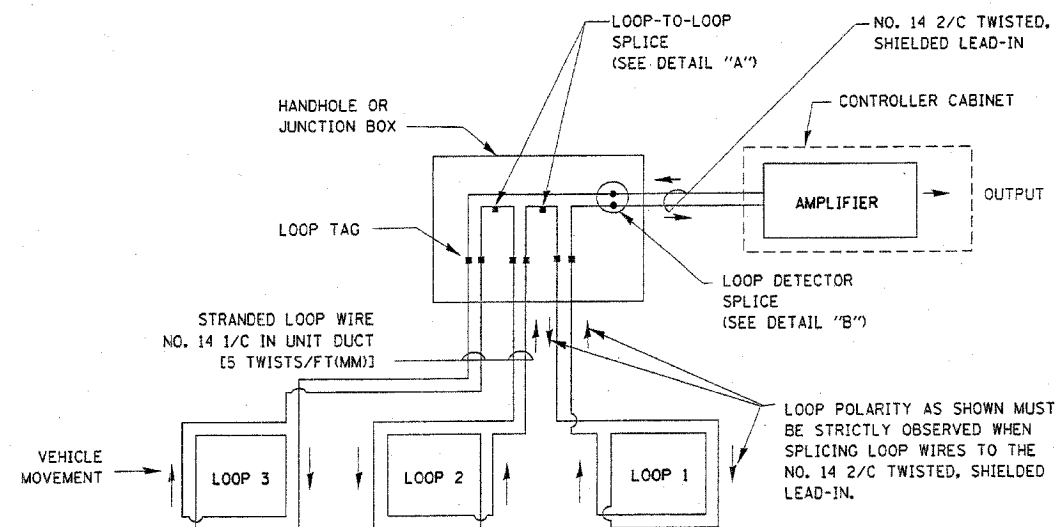
## SUMMARY OF QUANTITIES

BOUGHTON ROAD AND WEBER ROAD  
BOLINGBROOK, ILLINOIS

SCALE: N.T.S.      DRAWN BY: FCP/FPB  
 DATE: 4/7/2006      DESIGNED BY: MKW  
 CHECKED BY: MJT

### LOOP DETECTOR NOTES

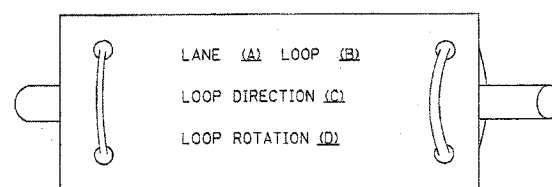
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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 DIVESHOLES 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.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



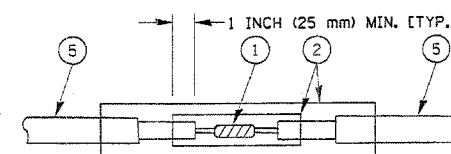
DETECTOR LOOP WIRING SCHEMATIC

- 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.

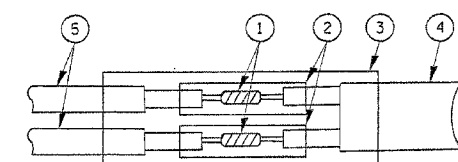
LOOP LEAD-IN CABLE TAG



- 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.



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.

REVISIONS	
NAME	DATE

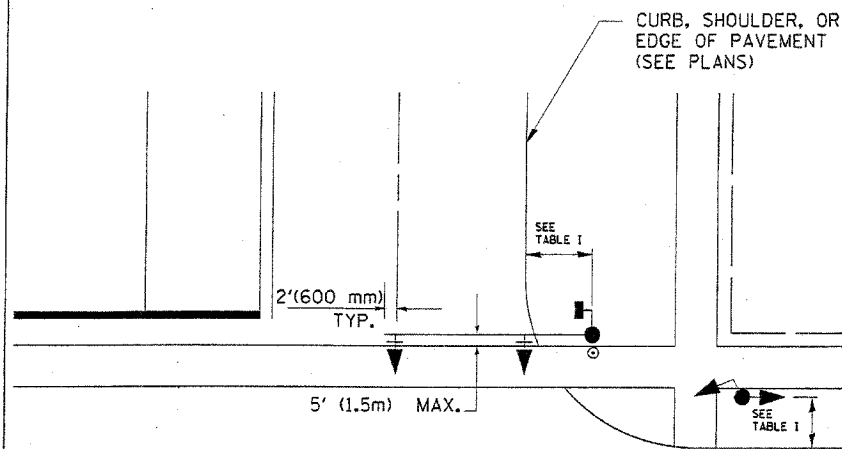
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

SCALE: VERT. NONE  
HORIZ. DATE 1-01-02  
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 1 OF 4

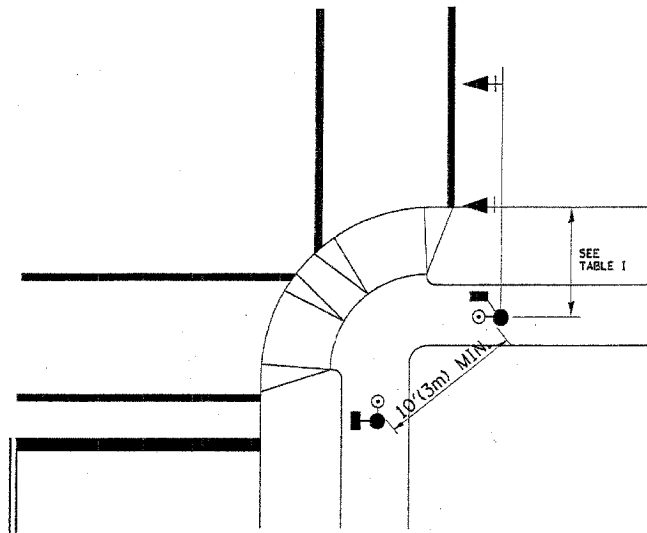
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04 00043 00-TU	WILL	54	4
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO.: 83855				

**TRAFFIC SIGNAL MAST ARM AND POST**

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



**PEDESTRIAN SIGNAL PUSHBUTTON**



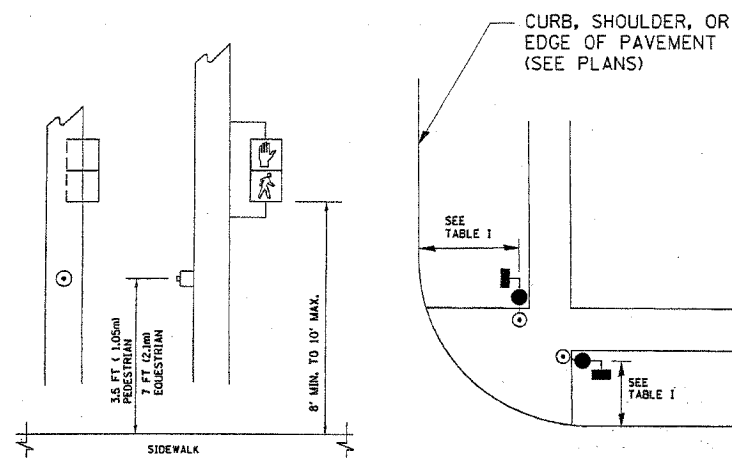
RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

**NOTES:**

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.  
  
AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.  
  
PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:  
A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.  
B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.  
C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.  
D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).  
E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION



**TABLE I**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

REVISIONS	
NAME	DATE

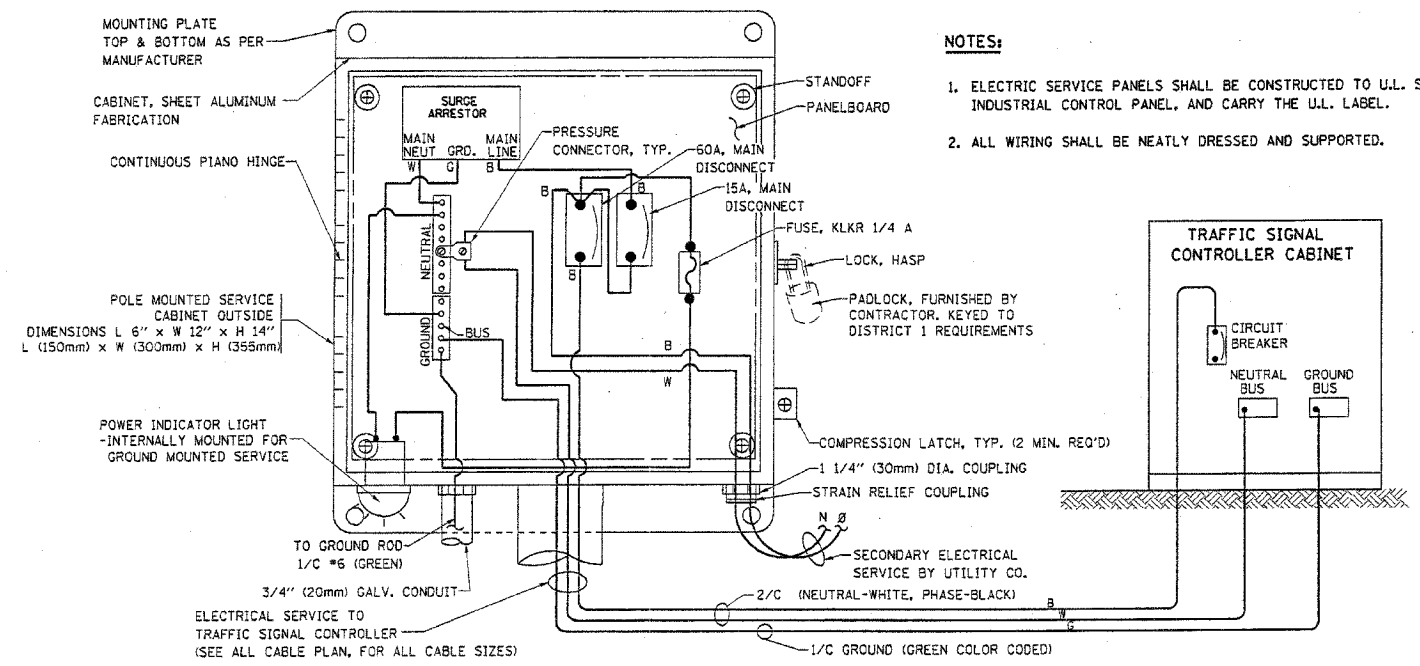
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT 1**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: VERT. NONE  
HORIZ. DATE 1-01-02  
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 2 OF 4

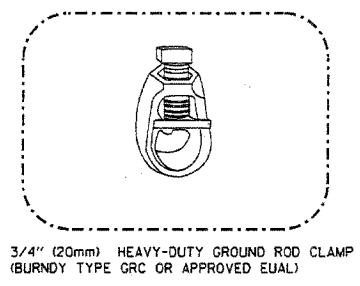
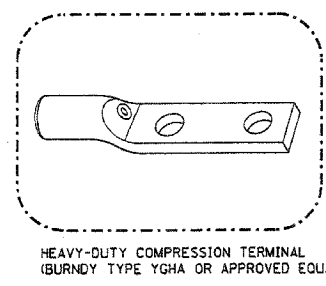
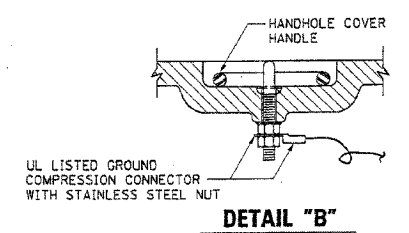
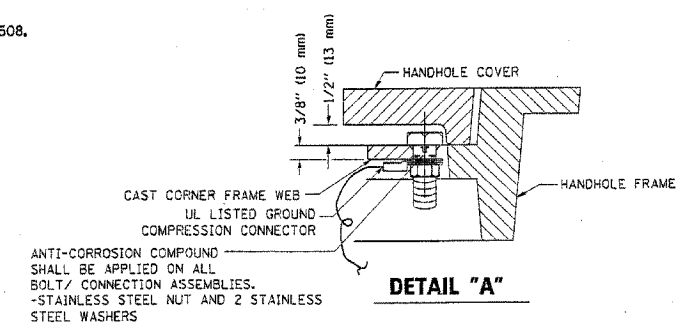
F.A.M. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL.	54	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

**NOTES:**  
**GROUNDING SYSTEM**

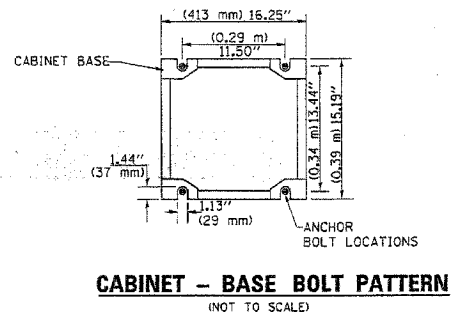
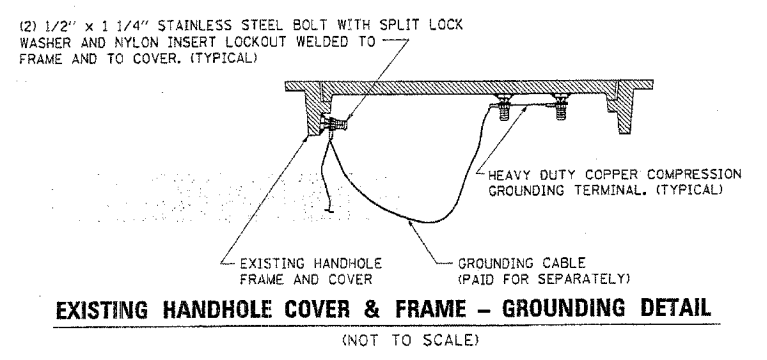
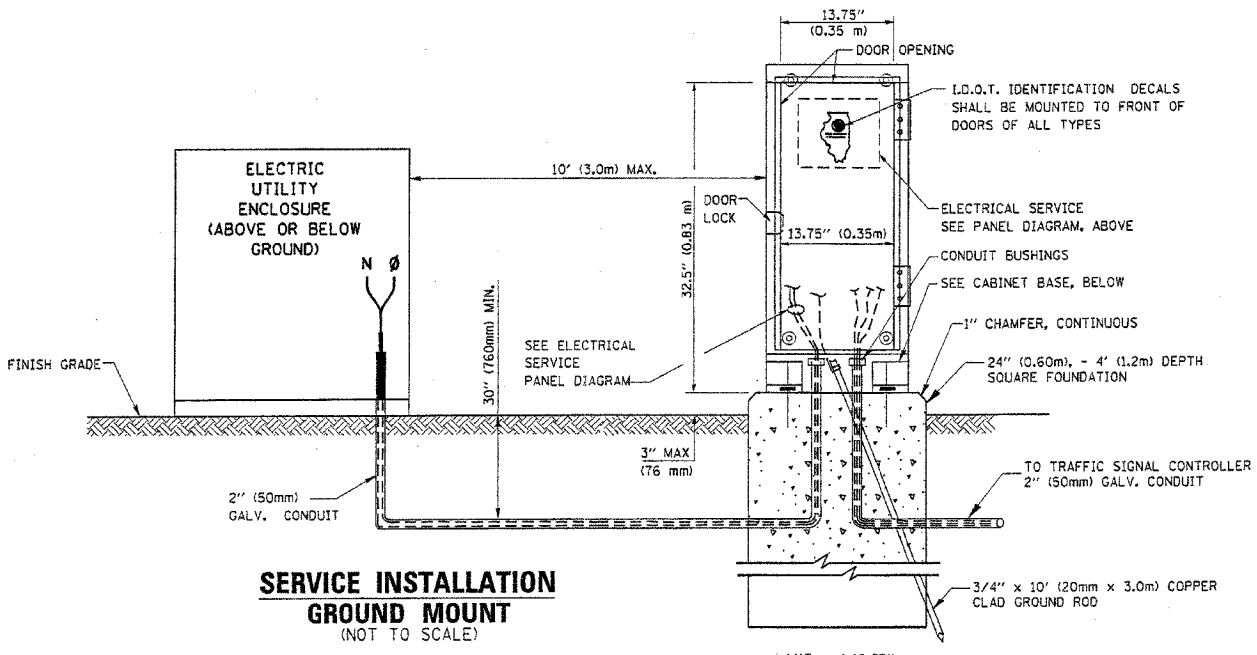
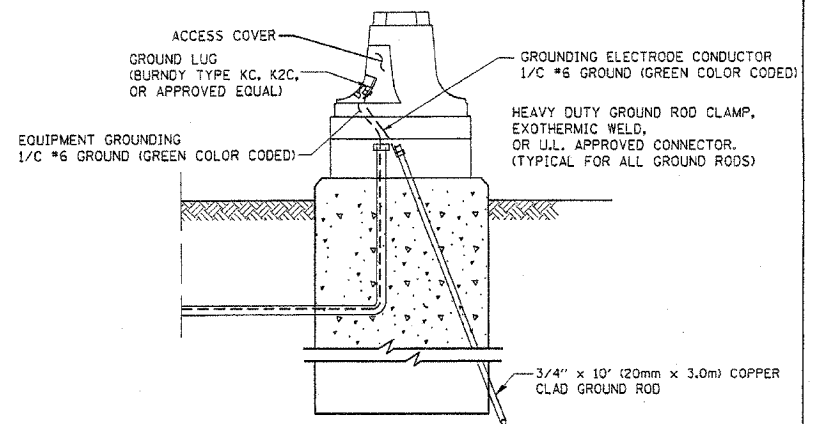
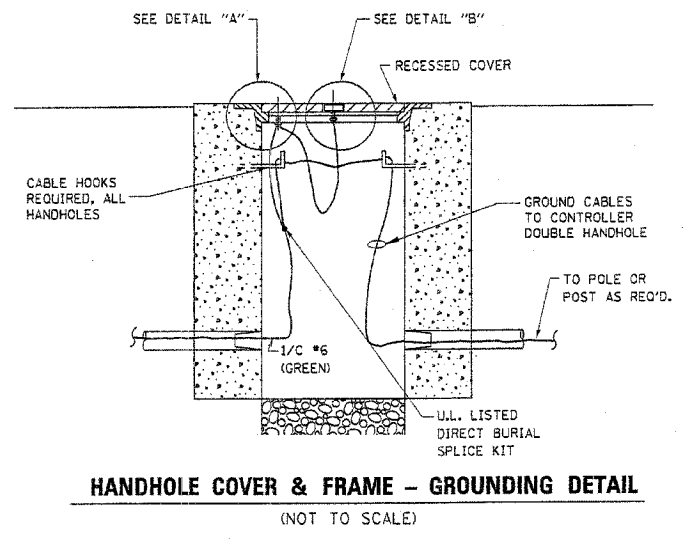
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, 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.



**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
(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.



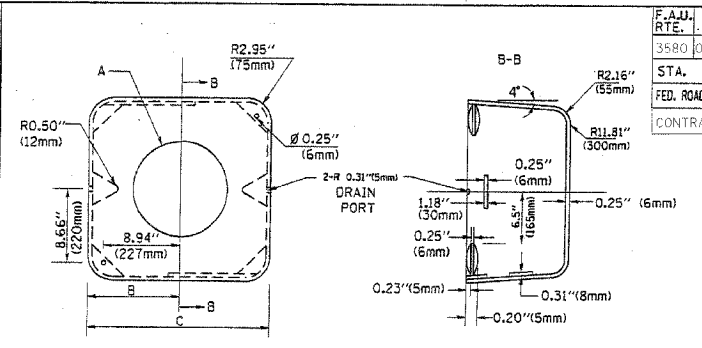
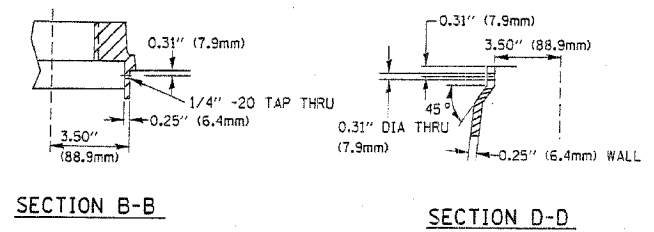
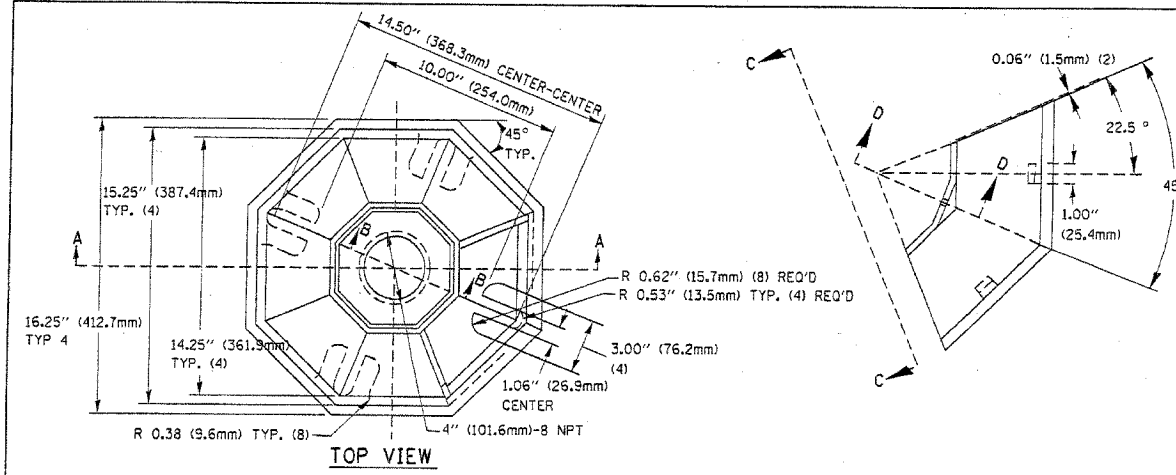
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT 1**  
**STANDARD TRAFFIC SIGNAL**  
**DESIGN DETAILS**

SCALE: VERT. NONE  
HORIZ. DATE 1-01-02

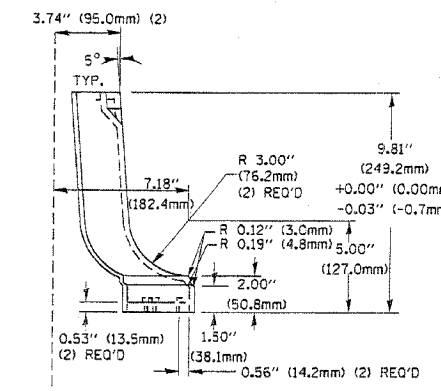
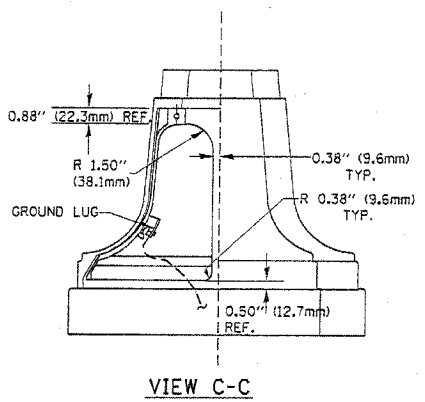
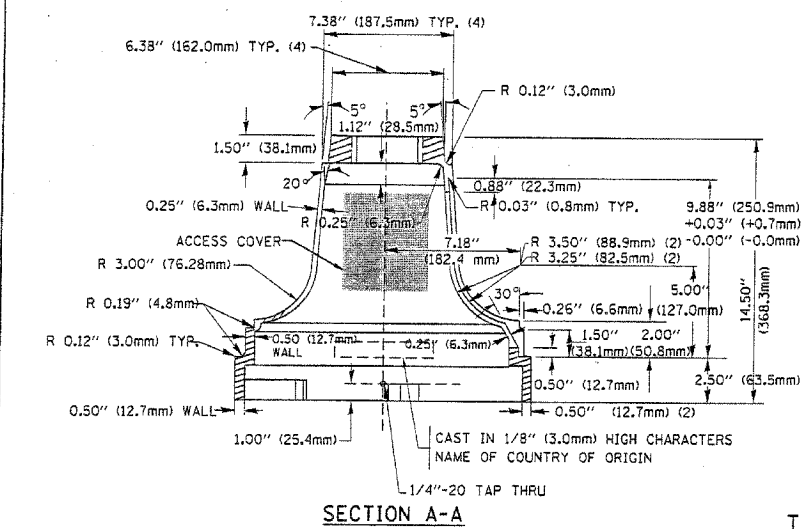
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 3 OF 4

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-T	WILL	54	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO.: 83855				

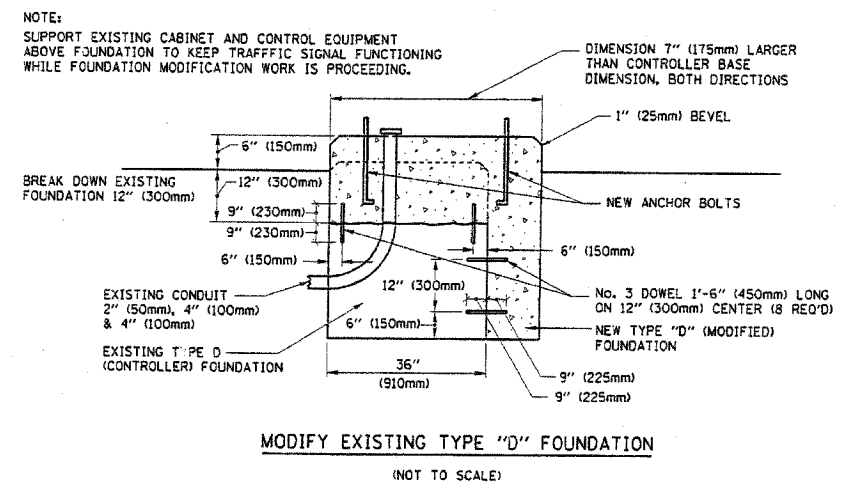


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\" (257mm)	9.5\" (241mm)	19\" (483mm)	12\" (300mm)	24kg
II	Ø 11.125\" (283mm)	10.75\" (273mm)	21.5\" (546mm)	12\" (300mm)	26kg

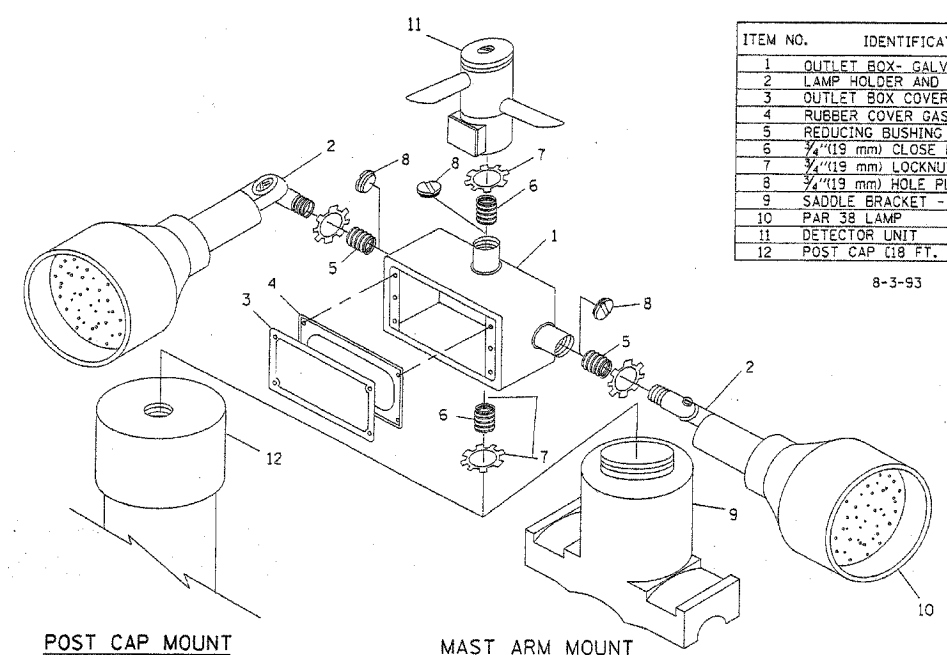
MATERIAL:  
 - ASTM A48 CLASS 30 GREY IRON  
 - ASTM A123 HOT DIPPED GALVANIZED



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

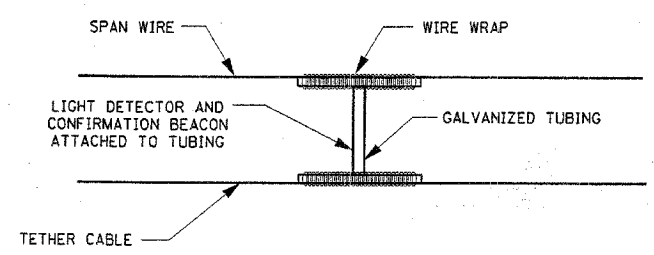


NOTE:  
 SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.

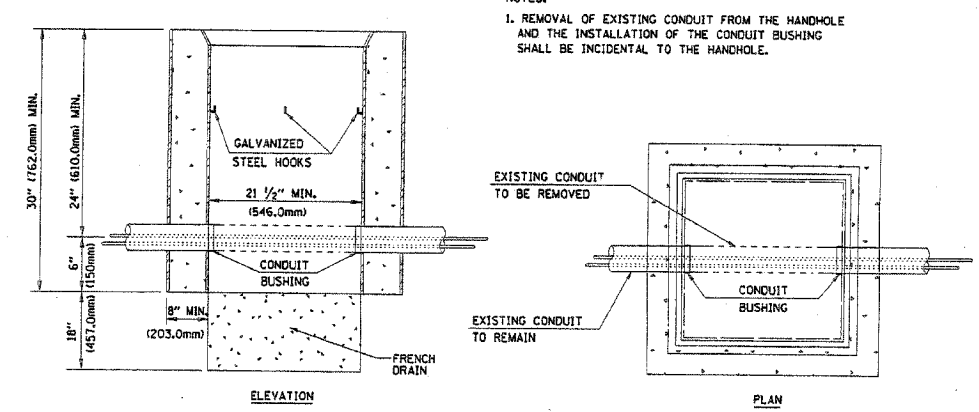


ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP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



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS (NOT TO SCALE)



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT 1  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS  
 SCALE: VERT. NONE  
 HORIZ. 1\"/>

DRAWN BY: RWP  
 DESIGNED BY: DAD  
 CHECKED BY: DAZ  
 SHEET 4 OF 4

FILES

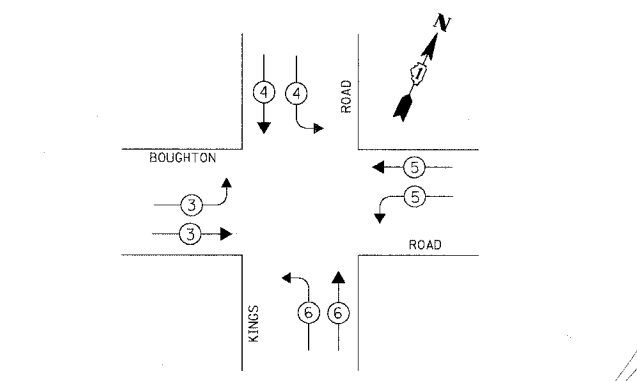
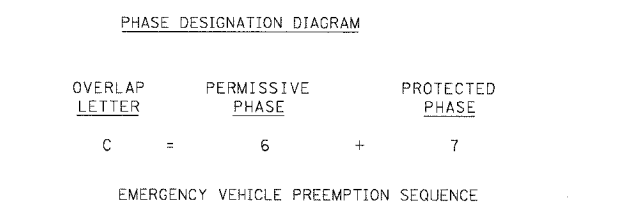
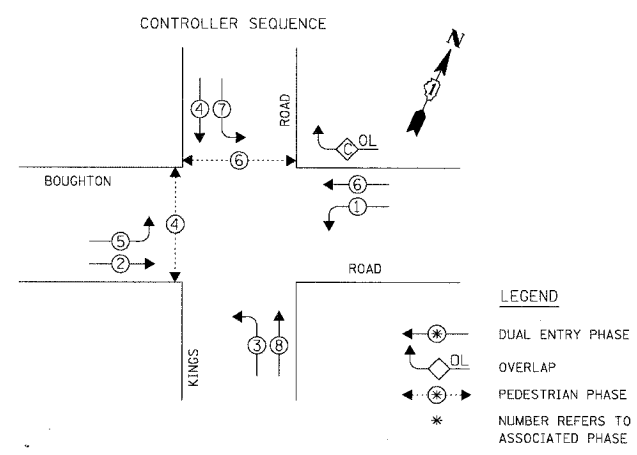
F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	10
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY STANDARD	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH MODEM

CABLE PLAN LEGEND		
EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTIVE LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS.
		ALL CABLE NO. 14 EXCEPT AS INDICATED.
		ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE.
		"P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN
		"NO LEFT TURN"
		ILLUMINATED SIGN
		"NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H),
		DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P)
		OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC
		SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	X % OPERATION	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	20		12	0.10	24.00
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
ILLUM. ST. NAME SIGN	3		60	0.50	90.00
LUMINAIRE	2	250		0.50	250.00
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 860.00

VILLAGE OF BOLINGBROOK

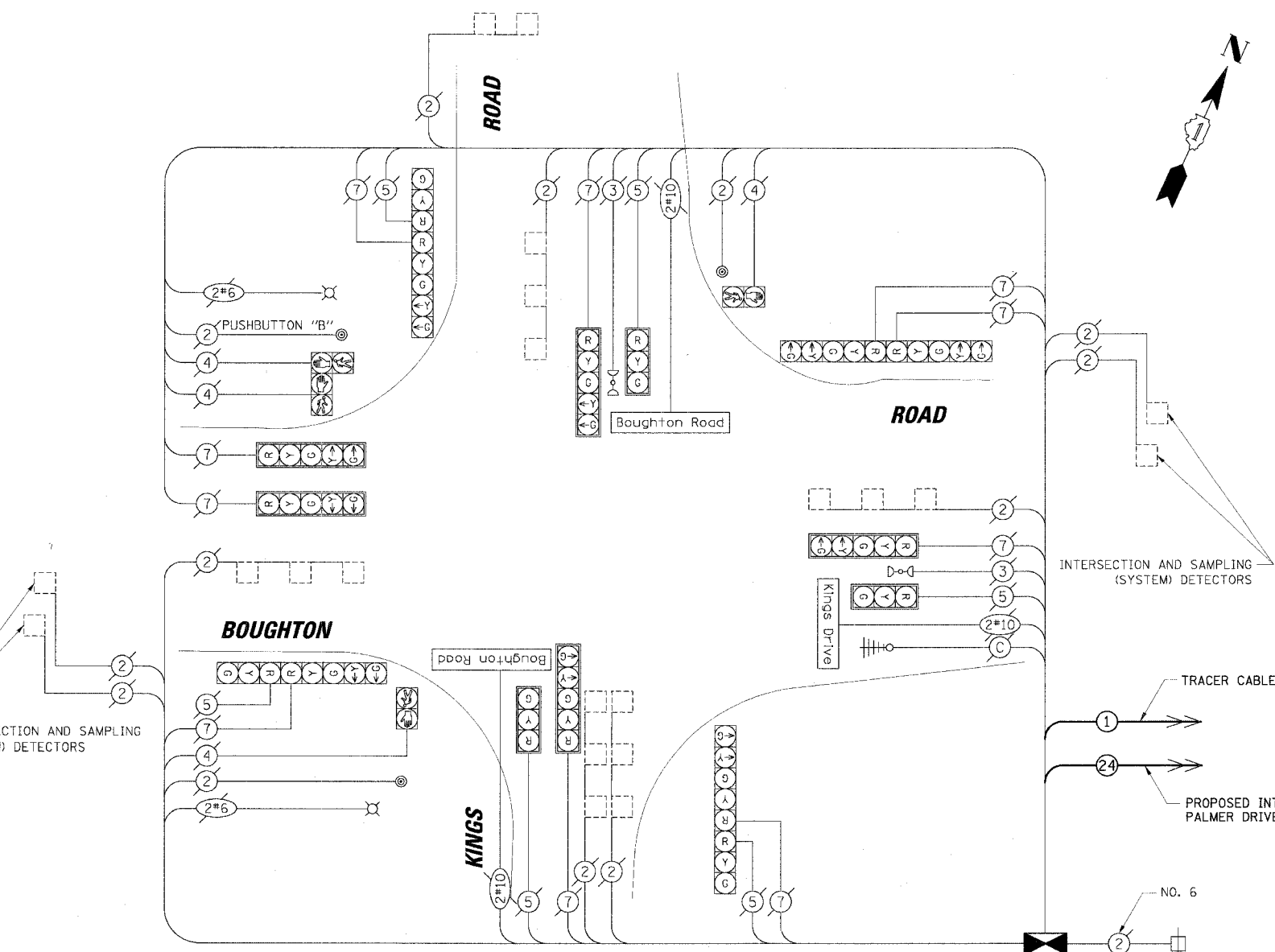
375 BRIARCLIFF ROAD

BOLINGBROOK, ILLINOIS 60440-0951

ENERGY SUPPLY: CONTACT: DALE BOLLINGER

PHONE: (815) 724-5717

COMPANY: COMED



NOTE: PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 6 AND 8.

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.5	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20'-H-2=	
E - M. ARM POLE			SIGNAL POST	2	(1.0)		(6m+L-0.6m)=	
	24"	(600mm)	CONTROLLER CAB.	1	(0.5)	BRACKET MOUNTED	13	(4.0)
	30"	(750mm)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	4	(1.2)
	36"	(900mm)	ELECTRIC SERVICE	1	(0.5)	ELECTRIC SERVICE	13.5	(4.1)
			GROUND CABLE	1	(0.5)	SERVICE TO GROUND	13.5	(4.1)
						POST MOUNTED	6	(1.8)

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, TECH POWER M-E SERIES UPS, AND FIBER OPTIC TRANSCIVER.
  - ② REMOVE PHONE LINE AND MODEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**

BOUGHTON ROAD AND KINGS DRIVE

BOLINGBROOK, ILLINOIS

SCALE: N.T.S.

DATE: 4/7/2006

DRAWN BY: FCP/FPB

DESIGNED BY: MKW

CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROJECT: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

PROFILE: SURVEY: \_\_\_\_\_ CHECKED: \_\_\_\_\_

NOTE BOOK: \_\_\_\_\_

STRUCTURE: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROJECT: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

PROFILE: SURVEY: \_\_\_\_\_ CHECKED: \_\_\_\_\_

NOTE BOOK: \_\_\_\_\_

STRUCTURE: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROJECT: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

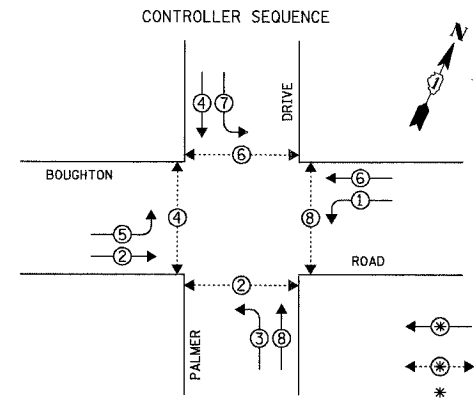
PROFILE: SURVEY: \_\_\_\_\_ CHECKED: \_\_\_\_\_

NOTE BOOK: \_\_\_\_\_

STRUCTURE: \_\_\_\_\_

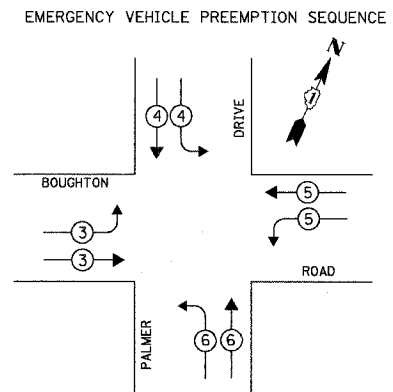
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1



CONTROLLER SEQUENCE

**LEGEND**  
 ⊕ DUAL ENTRY PHASE  
 ⊕ PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE



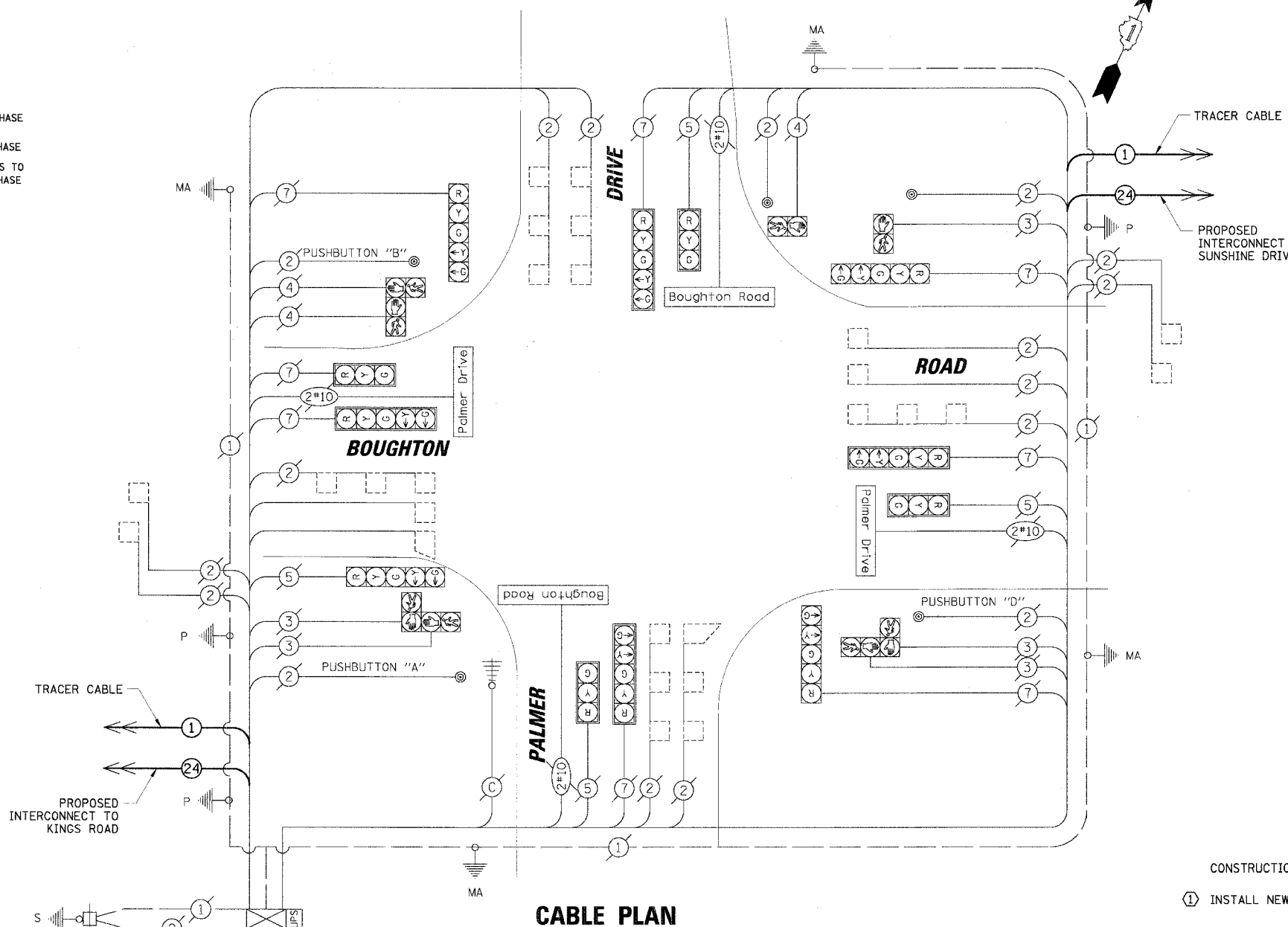
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	↖	↗

PROPOSED EMERGENCY VEHICLE PREEMPTORS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	% OPERATION	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
ILLUM. ST. NAME SIGN	4	60	0.50	120.00
FLASHER			0.50	
TOTAL =				661.20

ENERGY COSTS TO:  
**VILLAGE OF BOLINGBROOK**  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	BRACKET MOUNTED	13 (4.0)
		30" (750mm)	15 (4.6)	PED. PUSHBUTTON	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



CABLE PLAN

EXISTING	PROPOSED	CABLE PLAN LEGEND
⊕	⊕	8" (200mm) TRAFFIC SIGNAL SECTION
⊕	⊕	12" (300mm) TRAFFIC SIGNAL SECTION
⊕	⊕	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊕	⊕	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊕	⊕	CONTROLLER CABINET SERVICE INSTALLATION
⊕	⊕	TELEPHONE INSTALLATION
⊕	⊕	VEHICLE DETECTOR, INDUCTION LOOP
⊕	⊕	MAGNETIC DETECTOR
⊕	⊕	EMERGENCY VEHICLE LIGHT DETECTOR
⊕	⊕	CONFIRMATION BEACON
⊕	⊕	PUSHBUTTON DETECTOR
⊕	⊕	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊕	⊕	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊕	⊕	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
⊕	⊕	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
⊕	⊕	RAILROAD CONTROL CABINET
⊕	⊕	ILLUMINATED SIGN "NO LEFT TURN"
⊕	⊕	ILLUMINATED SIGN "NO RIGHT TURN"
⊕	⊕	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) OR MAST ARM POLE (MA)
⊕	⊕	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
⊕	⊕	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊕	⊕	ILLUMINATED STREET NAME SIGN
⊕	⊕	EMERGENCY VEHICLE SYSTEM ANTENNA
⊕	⊕	LUMINAIRE
⊕	⊕	COAXIAL CABLE
⊕	⊕	UNINTERRUPTABLE POWER SUPPLY

CONSTRUCTION NOTE:  
 ① INSTALL NEW FIBER OPTIC TRANSCEIVER.

NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND PALMER DRIVE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 DRAWING NO.: \_\_\_\_\_  
 SHEET NO.: \_\_\_\_\_



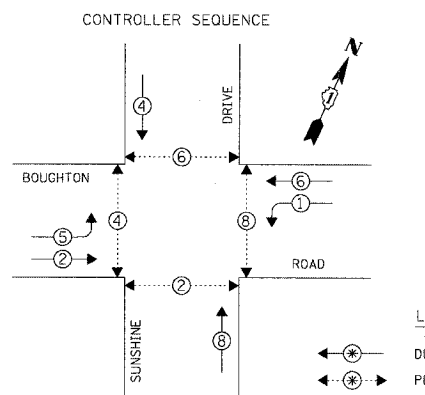
F.A.U. RTE. 1	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 D4-00043-00-TL	WILL	54	9	
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		CONTRACT NO. 83855		

SCHEDULE OF QUANTITIES	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

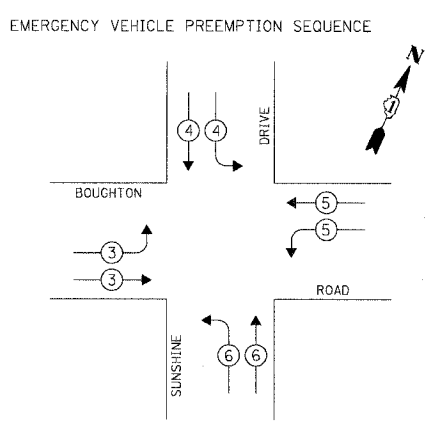
EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTABLE POWER SUPPLY



CONTROLLER SEQUENCE

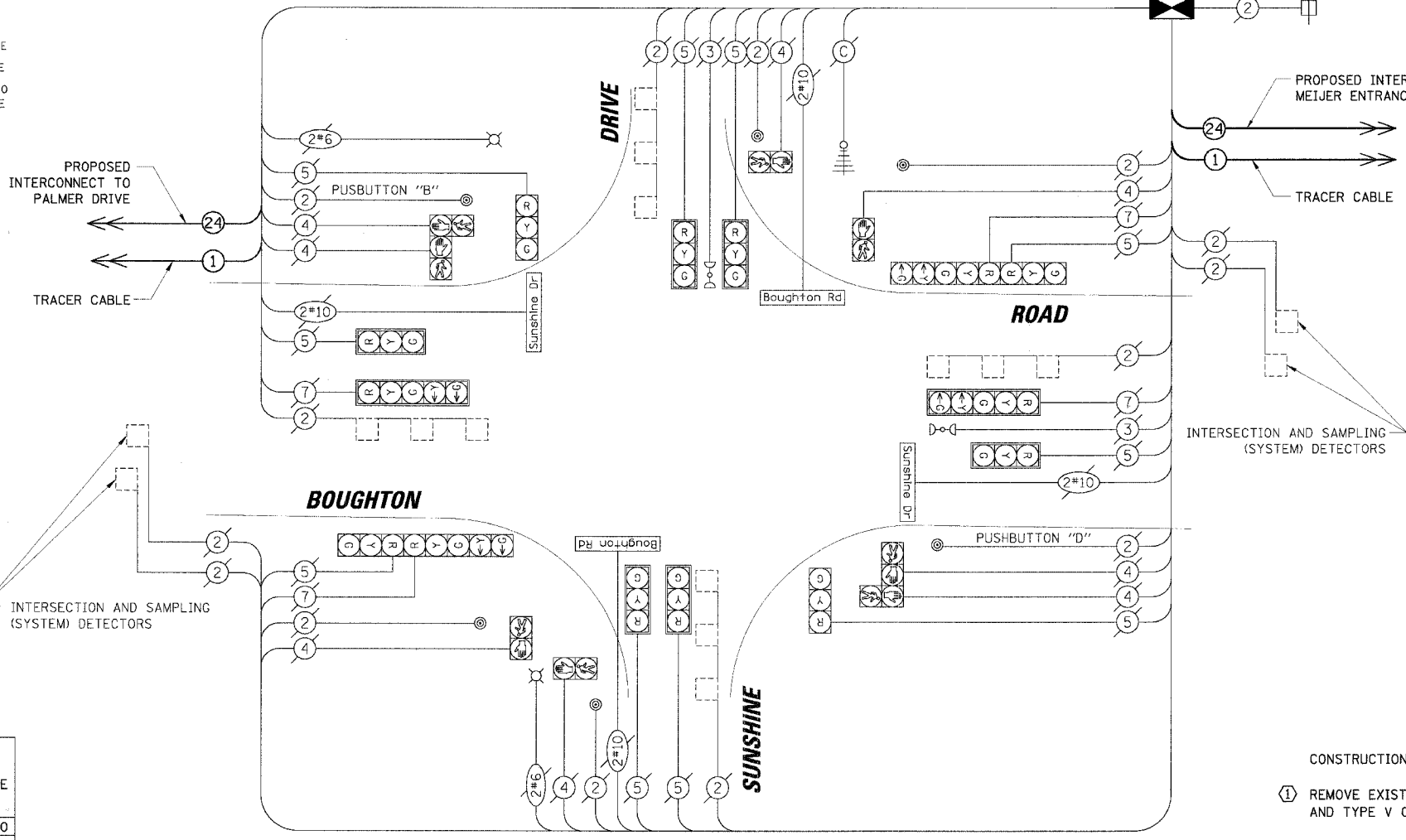
LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN

NOTE:  
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.
- ② RELOCATE EXISTING EVP AND UPS UNITS.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	14	17	0.50		119.00
(YELLOW)	14	25	0.25		87.50
(GREEN)	14	15	0.25		52.50
ARROW	8	12	0.10		9.60
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	4	60	0.50		120.00
LUMINAIRE	2	250	0.50		250.00
FLASHER	-	-	0.50		-
TOTAL =					938.60

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
BOUGHTON ROAD AND SUNSHINE DRIVE  
BOLINGBROOK, ILLINOIS

SCALE: N.T.S. DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

DATE	BY	REVISION

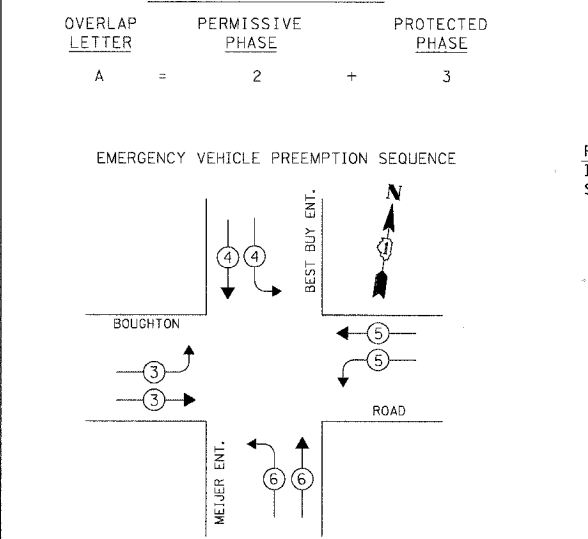
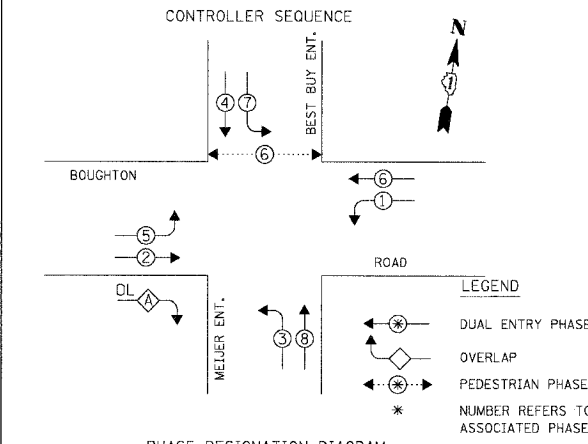
F.A.L. No.	SECTION	COUNTY	TOTAL SHEET NO.
3580 04-00043-00-TL	WILL	54	10
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855			

ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIEVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTORS	EACH	10
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

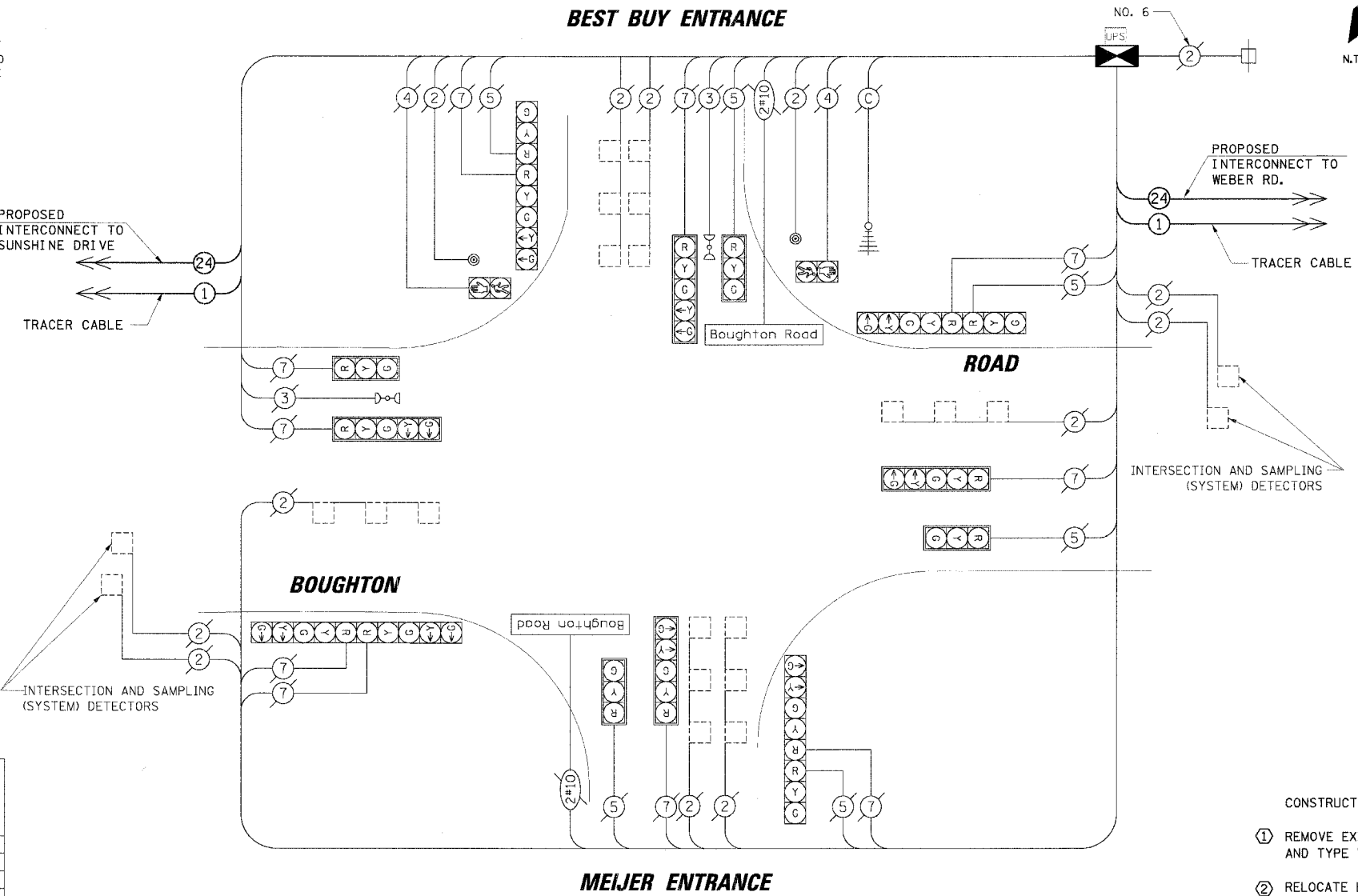
1 EACH CONTROLLER AND CABINET (COMPLETE)

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTIVE LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS.
		ALL CABLE NO. 14 EXCEPT AS INDICATED.
		ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE.
		"P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN
		"NO LEFT TURN"
		ILLUMINATED SIGN
		"NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H),
		DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P)
		OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC
		SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↔	↔	↔	↔

TYPE	NO. OF LAMPS	WATTAGE	TOTAL WATTAGE
SIGNAL (RED)	16	17	136.00
(YELLOW)	16	25	100.00
(GREEN)	16	15	60.00
ARROW	18	12	21.60
PED. SIGNAL	2	25	50.00
CONTROLLER	1	100	100.00
ILLUM. SIGN	-	25	0.05
ILLUM. ST. NAME SIGN	2	60	60
LUMINAIRES	-	250	0.50
FLASHER	-	-	0.50
TOTAL =			527.60



ENERGY COSTS TO: TOTAL = 527.60

VILLAGE OF BOLINGBROOK

375 BRIARCLIFF ROAD

BOLINGBROOK, ILLINOIS 60440-0951

ENERGY SUPPLY: CONTACT: DALE BOLLINGER

PHONE: (815) 724-5717

COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
E - M. ARM POLE	-	SIGNAL POST	2 (1.0)	-	(6m±L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
-	-	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
-	-	-	-	POST MOUNTED	6 (1.8)

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIEVER.
  - RELOCATE EXISTING EVP AND UPS UNITS.

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**

BOUGHTON ROAD AND BEST BUY ENT. / MEIJER ENT.

BOLINGBROOK, ILLINOIS

SCALE: N.T.S.

DATE: 4/7/2006

DRAWN BY: FCP/FPB

DESIGNED BY: MKW

CHECKED BY: MJT

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

PROJECT: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

PROFILE: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

PROJECT: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

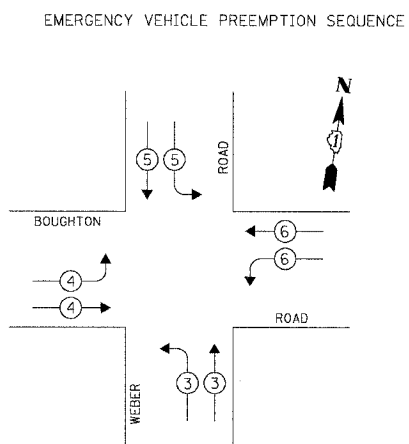
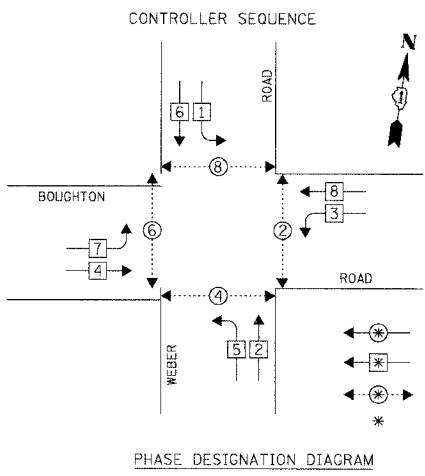
PROFILE: 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951

F.A.U. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	11
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855			

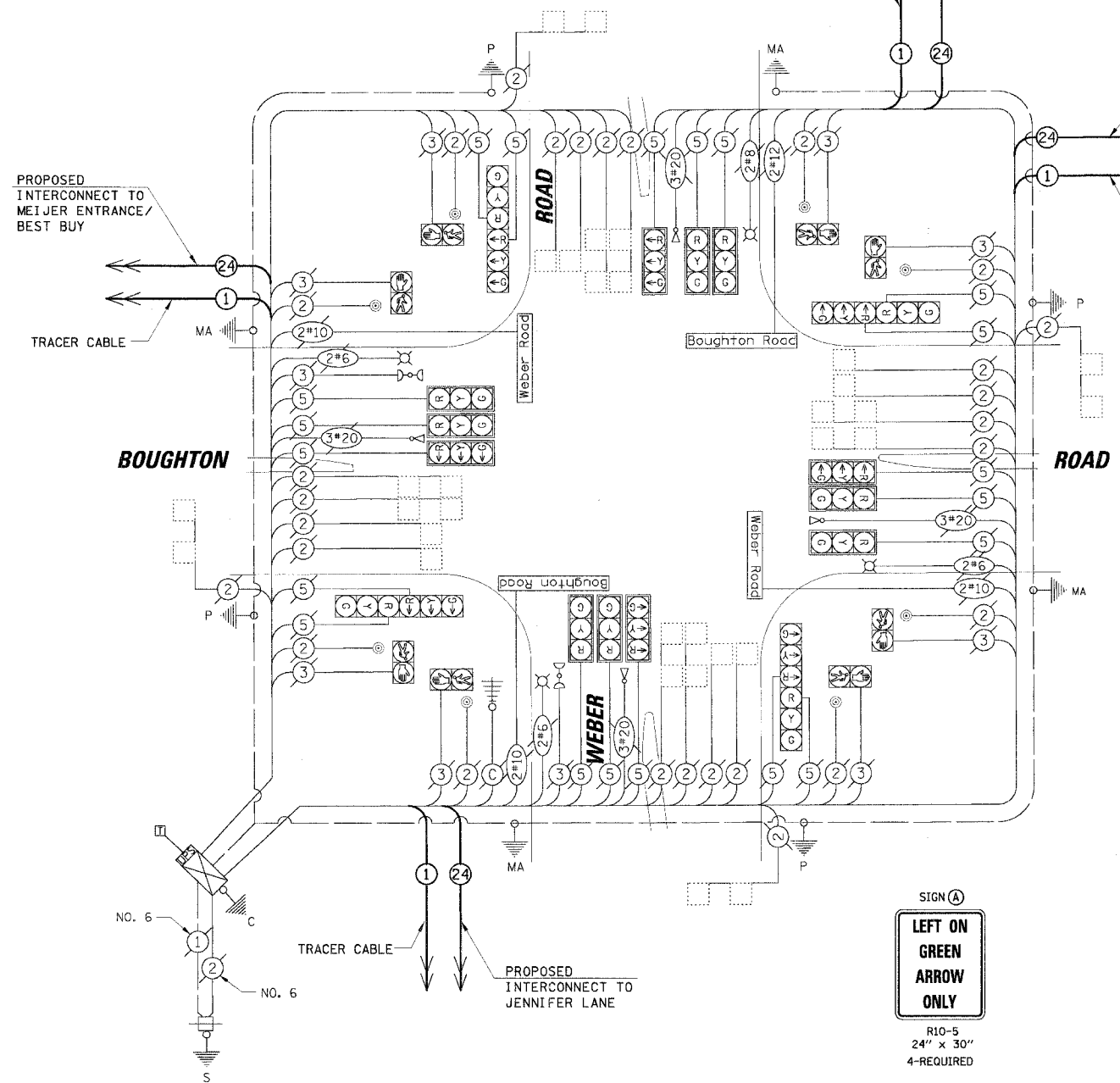
SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ. FT.	20
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
RELOCATE MASTER CONTROLLER	EACH	1

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4 EACH SIGN PANEL - TYPE 1



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	← ↑	→ ↑	→ ↓	← ↓



EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND ROD IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:
- RELOCATE MASTER CONTROLLER FROM BOUGHTON ROAD/TARGET ENTRANCE CABINET.
  - INSTALL FIBER OPTIC TRANSCIVER AND TWO TELEMETRY CHANNELS.
  - REPLACE LEFT TURN SIGNS WITH "LEFT ON GREEN ARROW ONLY" (4 REQUIRED)



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	% OPERATION	
SIGNAL (RED)	135	17	0.50	
(YELLOW)	135	25	0.25	
(GREEN)	135	15	0.25	
ARROW	135	12	0.10	
PED. SIGNAL	90	25	1.00	
CONTROLLER	100	100	1.00	
ILLUM. SIGN	252	25	0.05	
FLASHER			0.50	
TOTAL =				

ENERGY COSTS TO: TOTAL =

VILLAGE OF BOLINGBROOK  
375 BRIARCLIFF ROAD  
BOLINGBROOK, ILLINOIS 60440-0951  
ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
PHONE: (815) 724-5717  
COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m±L-0.6m)±
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				GROUND CABLE	1 (0.5)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
BOUGHTON ROAD AND WEBER ROAD  
BOLINGBROOK, ILLINOIS  
SCALE: N.T.S.  
DATE: 4/7/2006  
DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 EXISTING: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO.: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 NO.: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 NO.: \_\_\_\_\_

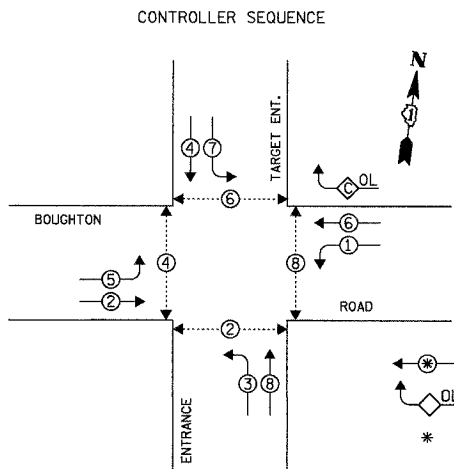
CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	NO.
3580 04-00043-00-TL		WILL	54	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83855				

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

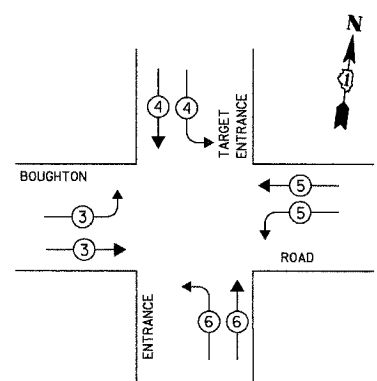


LEGEND  
 ⊕ DUAL ENTRY PHASE  
 ⊙ OVERLAP  
 \* NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6 + 7	

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

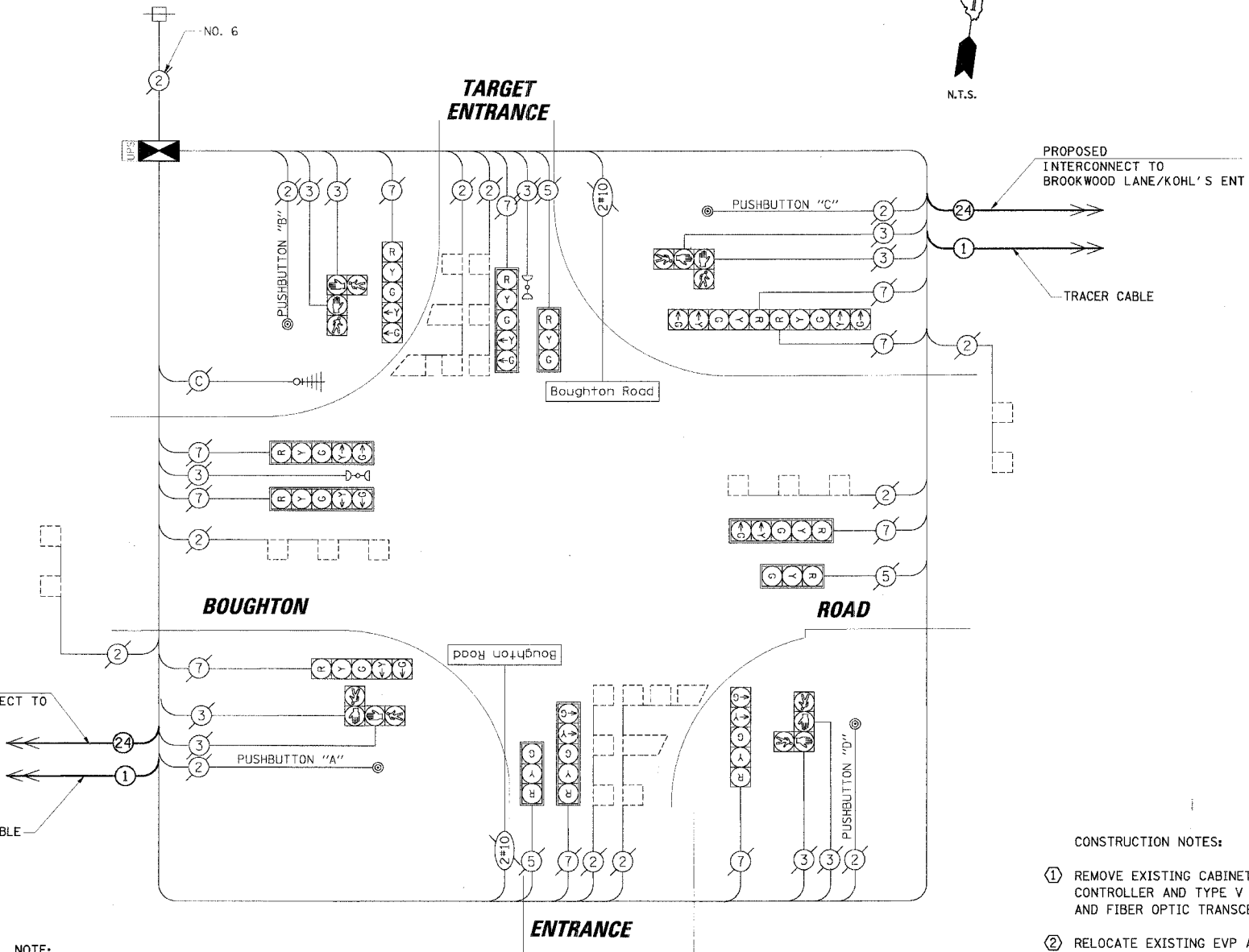
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	13		17	0.50	110.50
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	20		12	0.10	24.00
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
ILLUM. ST. NAME SIGN	2		60	0.50	60
LUMINAIRES	-	250		0.50	-
FLASHER	-			0.50	-
ENERGY COSTS TO:					TOTAL = 624.50

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'H-2" =
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6mH-0.6m) =
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				GROUND CABLE	1 (0.5)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - RELOCATE EXISTING EVP AND UPS UNITS. RELOCATE MASTER CONTROLLER AND MODEM TO BOUGHTON ROAD/WEBER ROAD CABINET.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND TARGET ENTRANCE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

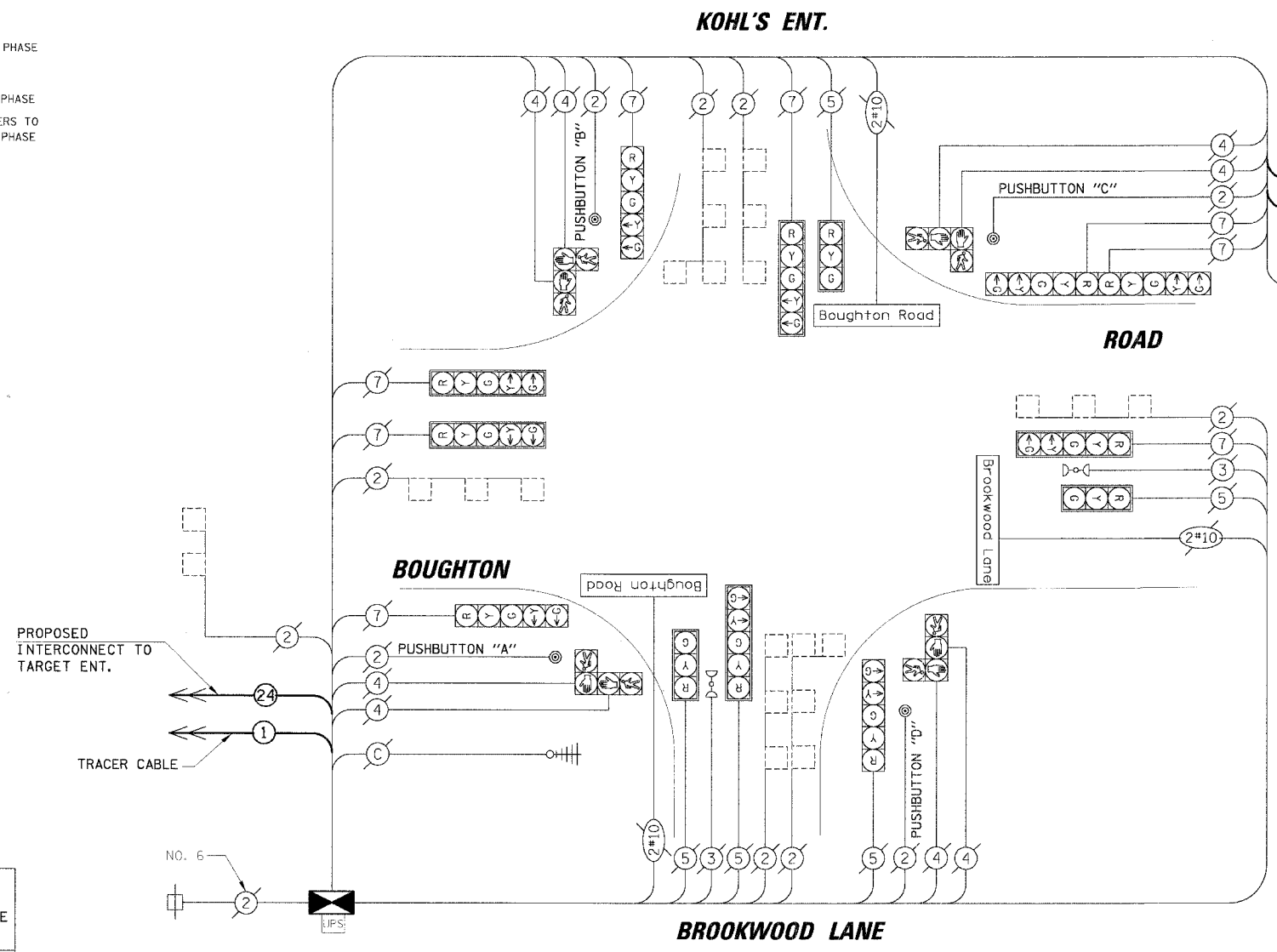
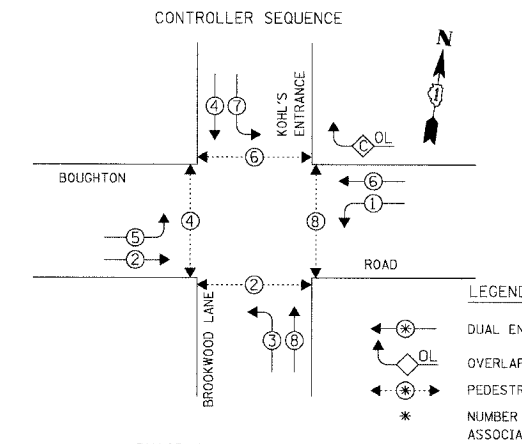
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 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 D4-00043-00-TL		WILL	54	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	13	17	0.50		110.50
(YELLOW)	13	25	0.25		81.25
(GREEN)	13	15	0.25		48.75
ARROW	20	12	0.10		24.00
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	3	60	0.50		90.00
FLASHER	-	250	0.50		-
TOTAL =					654.50

NOTES:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)±
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	ILLUMINATED STREET NAME SIGN
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM ANTENNA
[Symbol]	[Symbol]	LUMINAIRE
[Symbol]	[Symbol]	COAXIAL CABLE
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - RELOCATE EXISTING EVP AND UPS UNITS.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM BOUGHTON ROAD AND BROOKWOOD LANE / KOHL'S ENT. BOLINGBROOK, ILLINOIS
NAME	DATE	
		SCALE: N.T.S.
		DATE: 4/7/2006
		DRAWN BY: FCP/FPB
		DESIGNED BY: MKW
		CHECKED BY: MJT

PROFILE SURVEYED DATE: \_\_\_\_\_  
 PLOTTED CHECKED BY: \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 STRUCTURE NOTATIONS: \_\_\_\_\_  
 CHRISTOPHER B. BURKE ENGINEERING LTD.  
 3575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (630) 823-0600

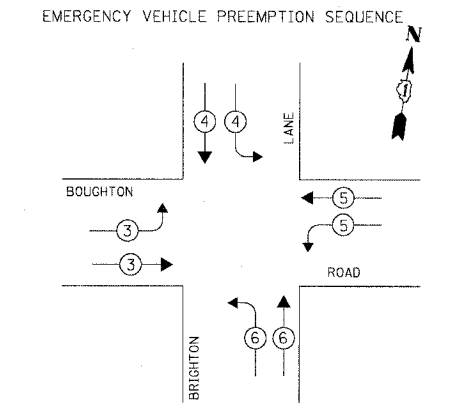
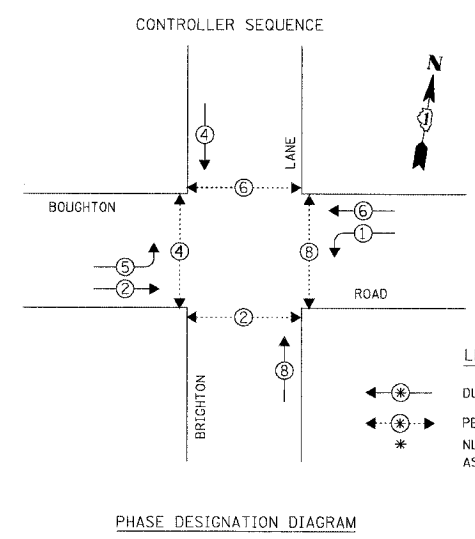
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

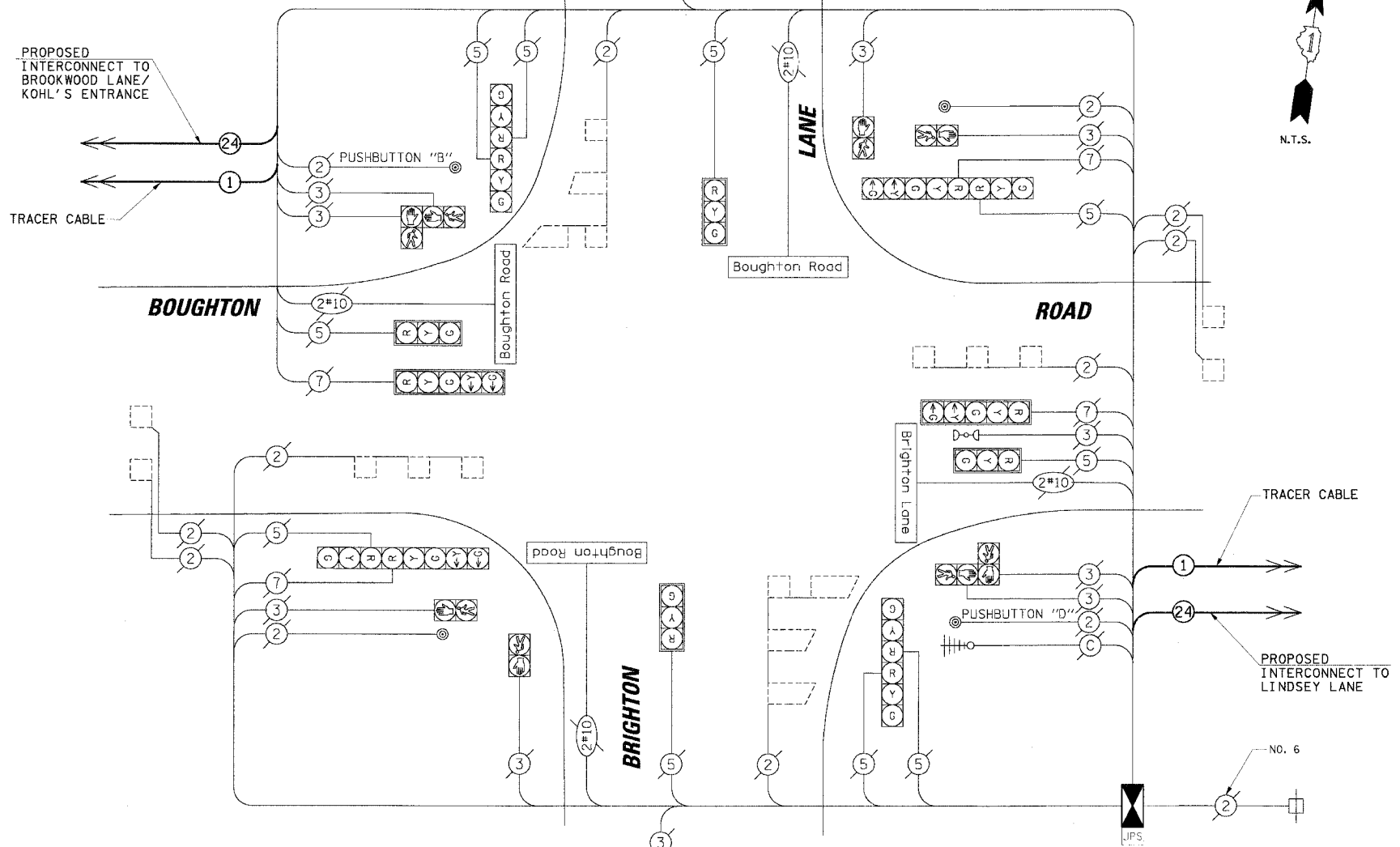
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

CABLE PLAN LEGEND	
EXISTING	PROPOSED



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	14	17	0.50		119.00
(YELLOW)	14	25	0.25		87.50
(GREEN)	14	15	0.25		52.50
ARROW	8	12	0.10		9.60
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	4	60	0.50		120.00
FLASHER	-	-	0.50		-
TOTAL =					688.00

NOTES:  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

CONSTRUCTION NOTES:  
 1 REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.  
 2 RELOCATE EXISTING EVP AND UPS UNITS.

ENERGY COSTS TO: TOTAL = 688.00  
 VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				GROUND CABLE	1 (0.5)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND BRIGHTON LANE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 3575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN NO.: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 FILE NAME: \_\_\_\_\_

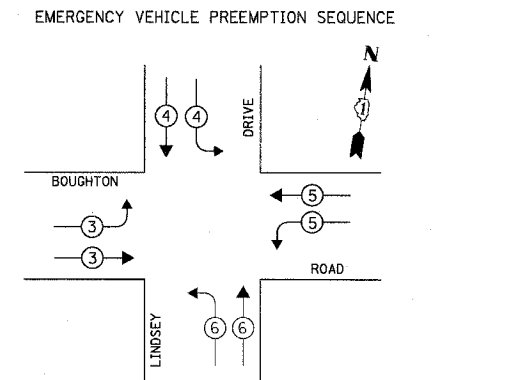
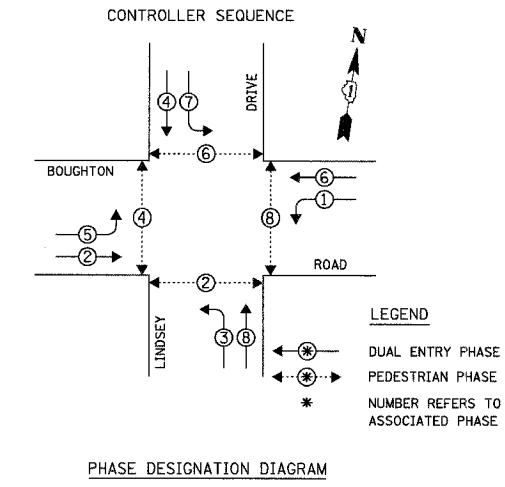
F.A.U. SECTION	COUNTY	TOTAL SHEET NO.
3580 04-00043-00-TL	WILL	54 15
STA.	TO STA.	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT
CONTRACT NO.: 83855		

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTORS	EACH	12
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1

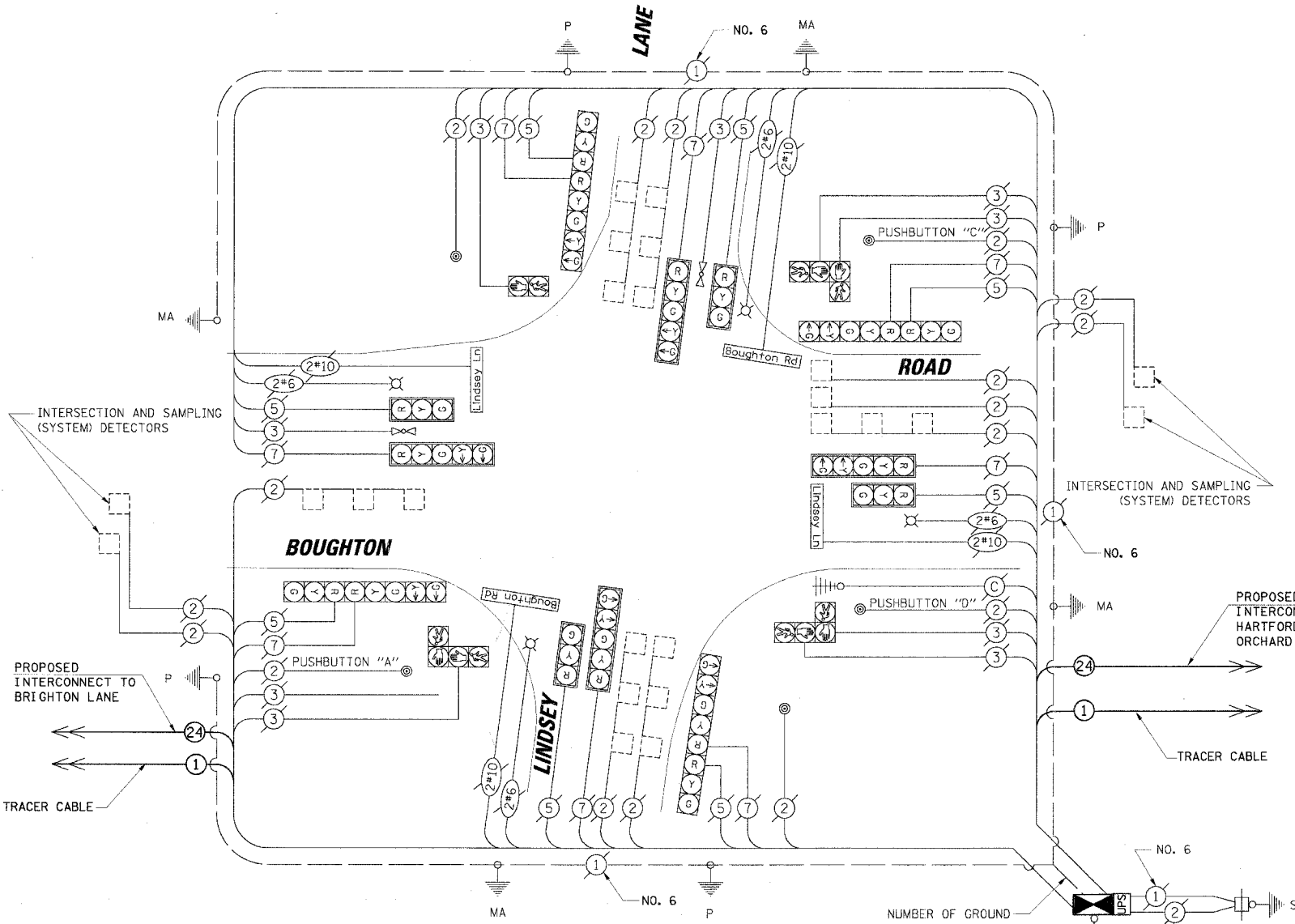
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTIVE LOOP
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑



**CABLE PLAN**

NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
LUMINAIRE	4	250		0.50	500.00
ILLUM. ST. NAME SIGN	4		60	0.50	120.00
FLASHER	-			0.50	120.00
ENERGY COSTS TO:					TOTAL = 1235.20

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m±L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, TECH POWER M-E SERIES UPS, AND FIBER OPTIC TRANSCEIVER.
  - RELOCATE EXISTING EVP UNIT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND LINDSEY LANE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

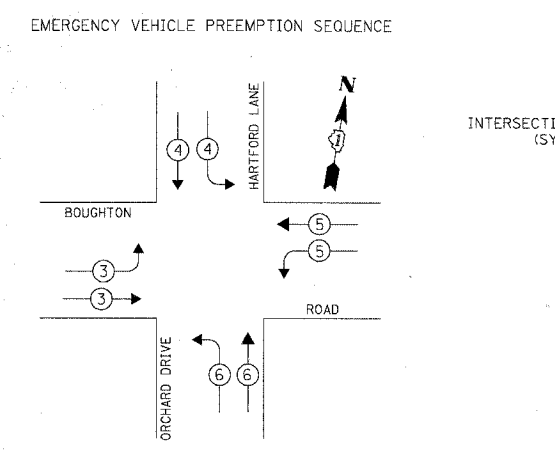
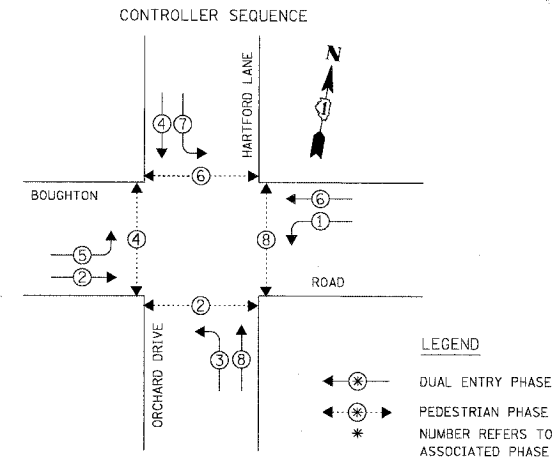
BY: CHRISTOPHER B. BURKE ENGINEERING LTD.  
 805 West Higgins Road, Suite 600  
 Bolingbrook, Illinois 60468  
 (815) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	16
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		CONTRACT NO. 83855		

SCHEDULE OF QUANTITIES			
ITEM	UNIT	TOTAL	
CONTROLLER CABINET TYPE V	EACH	1	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1
TRANSCIVER - FIBER OPTIC	EACH	1	1
INDUCTIVE LOOP DETECTOR	EACH	10	10
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER	EACH	1	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
UNINTERRUPTIBLE POWER SUPPLY STANDARD	EACH	1	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CABINET

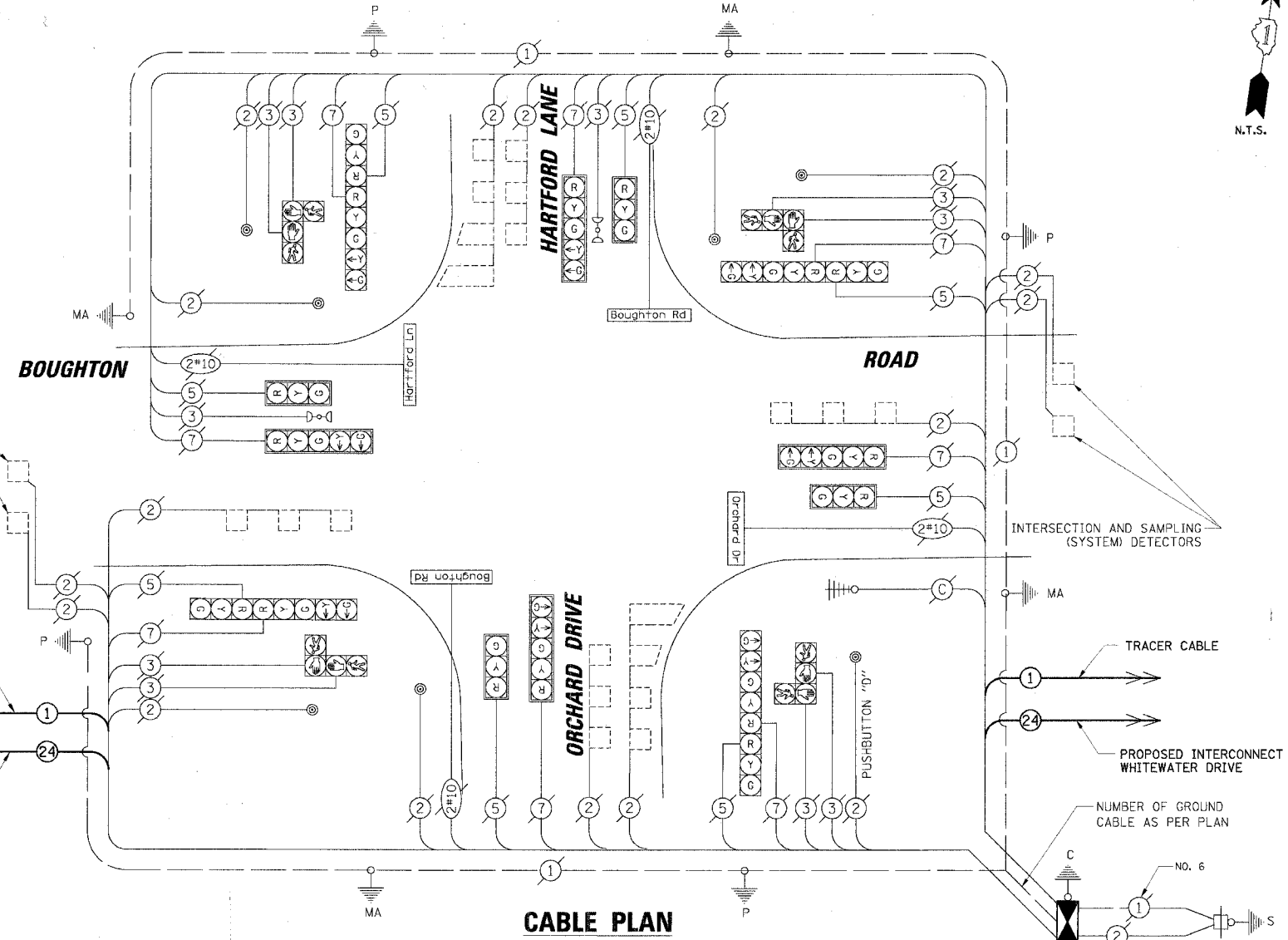


PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	↶	↷

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

TRACER CABLE

PROPOSED INTERCONNECT TO LINDSEY LANE



EXISTING		PROPOSED		
(Symbol)	(Symbol)	(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	(Symbol)	(Symbol)	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	(Symbol)	(Symbol)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY

CONSTRUCTION NOTES:

- REMOVE EXISTING CABINET. INSTALL NEW TYPE V CABINET ON EXISTING FOUNDATION, TECH POWER M-E SERIES UPS, AND FIBER OPTIC TRANSCIVER.
- RELOCATE EXISTING CONTROLLER AND EVP UNIT.

NOTE: PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
		X INCAND.	LED		
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
ILLUM. ST. NAME SIGN	4		60	0.50	120.00
FLASHER	-			0.50	-
TOTAL =					735.20

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	13 (4.0)
		30" (750mm)	15 (4.6)	FIBER OPTIC	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 735.20

VILLAGE OF BOLINGBROOK  
375 BRIARCLIFF ROAD  
BOLINGBROOK, ILLINOIS 60440-0951

ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
PHONE: (815) 724-5717  
COMPANY: COMED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**

BOUGHTON ROAD AND HARTFORD LANE/ORCHARD DRIVE  
BOLINGBROOK, ILLINOIS

SCALE: N.T.S. DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROFILE SURVEYED: \_\_\_\_\_

NOTE BOOK NO. \_\_\_\_\_

STRUCTURE NOTATION: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

NOTE BOOK NO. \_\_\_\_\_

STRUCTURE NOTATION: \_\_\_\_\_



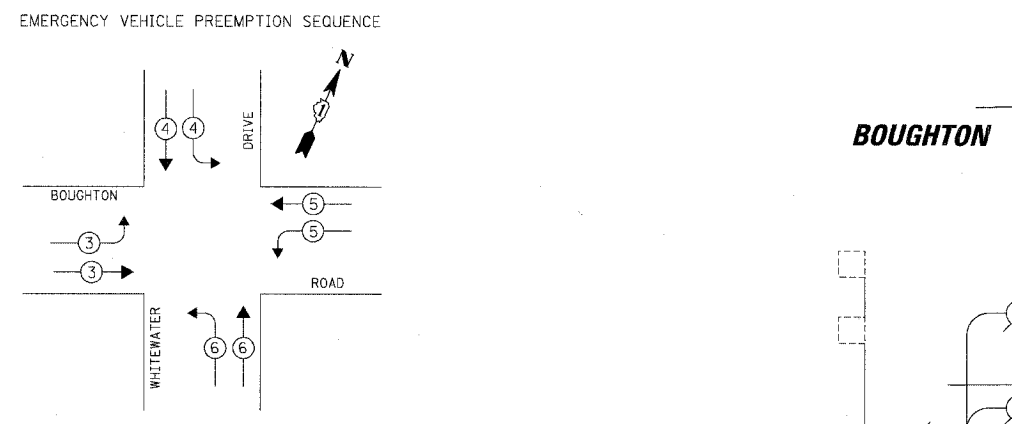
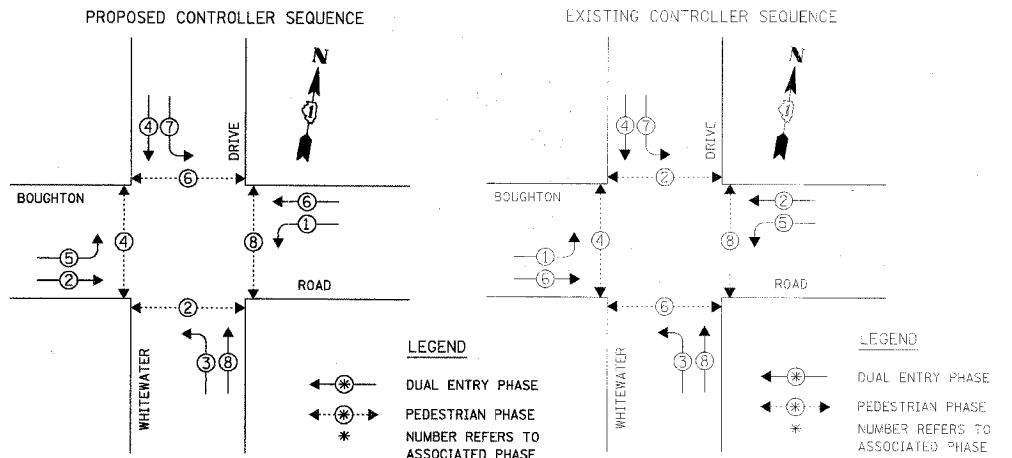
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET
3580 04-00043-00-TL		WILL	54 17
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
CONTRACT NO.: 83855			

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTORS	EACH	10
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

EXISTING		PROPOSED		CABLE PLAN LEGEND
	8"		8"	(200mm) TRAFFIC SIGNAL SECTION
	12"		12"	(300mm) TRAFFIC SIGNAL SECTION
	12"		12"	(300mm) PEDESTRIAN SIGNAL SECTION
	12"		12"	(300mm) PEDESTRIAN SIGNAL SECTION
				CONTROLLER CABINET
				SERVICE INSTALLATION
				TELEPHONE INSTALLATION
				VEHICLE DETECTOR, INDUCTIVE LOOP
				MAGNETIC DETECTOR
				EMERGENCY VEHICLE LIGHT DETECTOR
				CONFIRMATION BEACON
				PUSHBUTTON DETECTOR
				DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED, ALL LOOP DETECTOR CABLE TO BE SHIELDED.
				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
				FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
				RAILROAD CONTROL CABINET
				ILLUMINATED SIGN "NO LEFT TURN"
				ILLUMINATED SIGN "NO RIGHT TURN"
				GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
				GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
				GROUND ROD AT ELECTRIC SERVICE INSTALLATION
				ILLUMINATED STREET NAME SIGN
				EMERGENCY VEHICLE SYSTEM ANTENNA
				LUMINAIRE
				COAXIAL CABLE
				UNINTERRUPTIBLE POWER SUPPLY



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

PROPOSED INTERCONNECT TO HARTFORD LANE/ORCHARD DRIVE

NOTE:  
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

**CABLE PLAN**

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	17	0.50		136.00
(YELLOW)	16	25	0.25		100.00
(GREEN)	16	15	0.25		60.00
ARROW	16	12	0.10		19.20
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	4	60	0.50		120.00
LUMINAIRES	4	250	0.50		500.00
FLASHER	-	-	0.50		-
<b>ENERGY COSTS TO:</b>					<b>TOTAL = 1235.20</b>

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.5	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20'±L-2'	
E - M. ARM POLE			SIGNAL POST	2	(1.0)	(6m±L-0.6m)±		
			24" (600mm)	10	(3.0)	CONTROLLER CAB.	1	(0.5)
			30" (750mm)	15	(4.6)	FIBER OPTIC	13	(4.0)
			36" (900mm)	15	(4.6)	ELECTRIC SERVICE	1	(0.5)
						GROUND CABLE	1	(0.5)
						ELECTRIC SERVICE	13.5	(4.1)
						SERVICE TO GROUND	13.5	(4.1)
						POST MOUNTED	6	(1.8)

VILLAGE OF BOLINGBROOK  
375 BRIARCLIFF ROAD  
BOLINGBROOK, ILLINOIS 60440-0951  
ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
PHONE: (815) 724-5717  
COMPANY: COMED

- CONSTRUCTION NOTES:
- 1 REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - 2 RELOCATE EXISTING EVP AND UPS UNITS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
BOUGHTON ROAD AND WHITEWATER DRIVE  
BOLINGBROOK, ILLINOIS  
SCALE: N.T.S.  
DATE: 4/7/2006  
DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

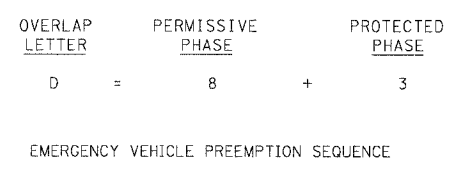
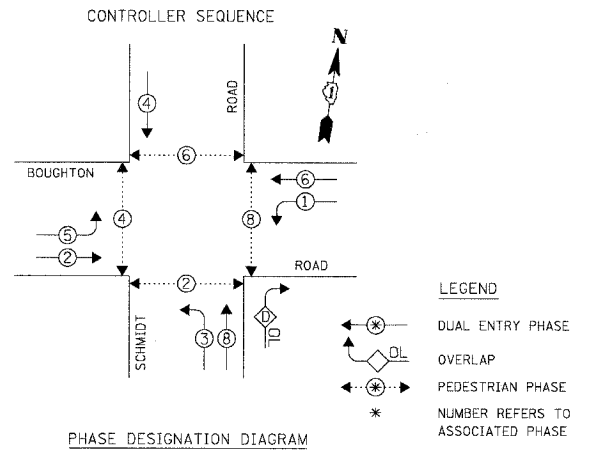
CHRISTOPHER B. BURKE ENGINEERING LTD.  
 3575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 825-0500  
 PROFILE: SUBMITTED FOR REVIEW AND APPROVAL BY THE VILLAGE OF BOLINGBROOK  
 DATE: 4/7/2006  
 FILE NO.: NGBROOK V05559 TRAFFIC/CAB/Whitewater.dgn

F.A.I.D. SECTION COUNTY TOTAL SHEETS SHEET NO.	3580 D4-00043-00-TL WILL 54 18
STA. TO STA.	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
CONTRACT NO. B3855	

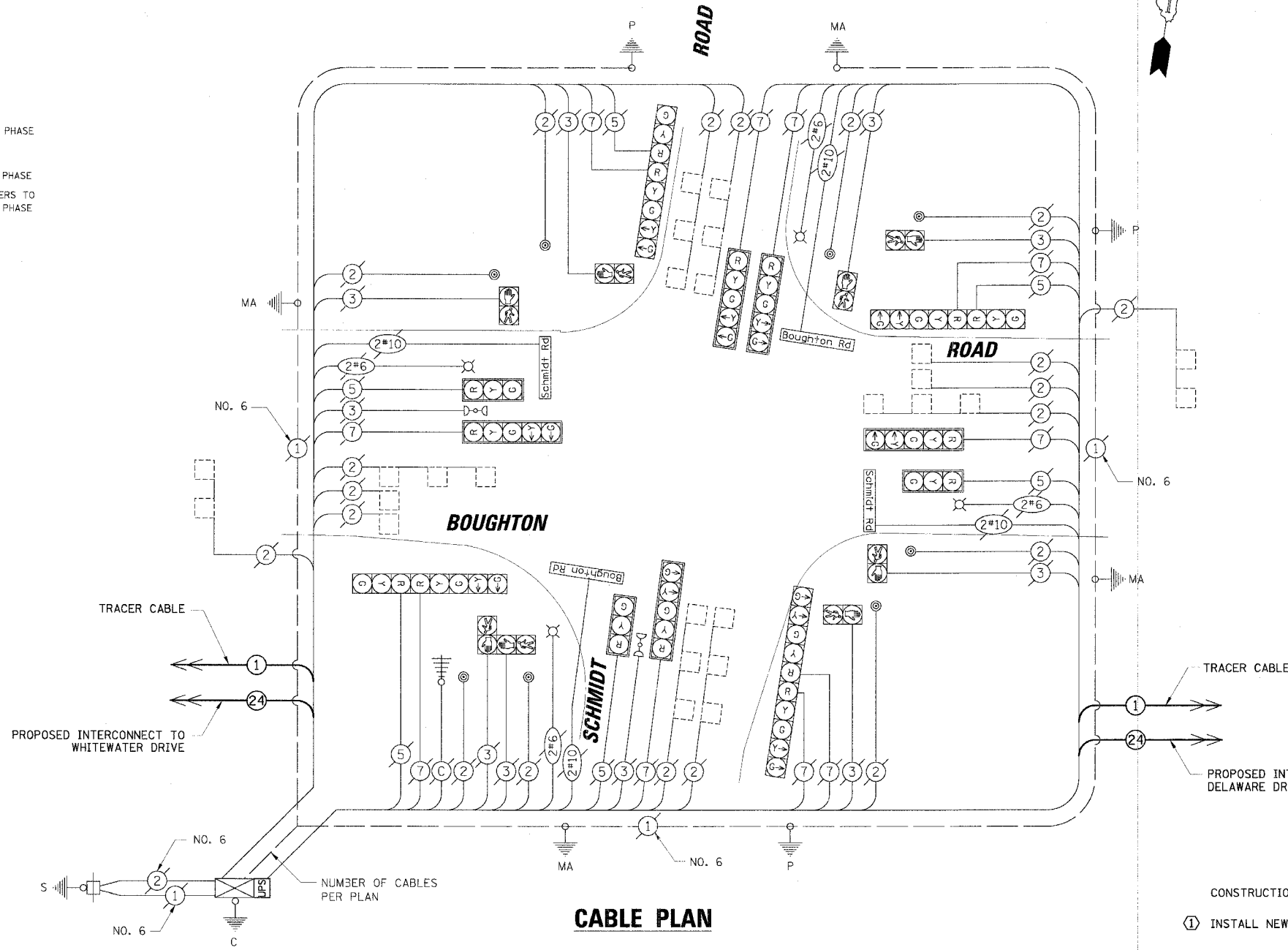
**CABLE PLAN LEGEND**

- |  |   |
|--|---|
|  | 8" (200mm) TRAFFIC SIGNAL SECTION   |
|  | 12" (300mm) TRAFFIC SIGNAL SECTION  |
|  | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
|  | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
|  | CONTROLLER CABINET  |
|  | SERVICE INSTALLATION  |
|  | TELEPHONE INSTALLATION  |
|  | VEHICLE DETECTOR, INDUCTION LOOP  |
|  | MAGNETIC DETECTOR   |
|  | EMERGENCY VEHICLE LIGHT DETECTOR  |
|  | CONFIRMATION BEACON   |
|  | PUSHBUTTON DETECTOR   |
|  | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|  | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F   |
|  | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.  |
|  | RAILROAD CONTROL CABINET  |
|  | ILLUMINATED SIGN "NO LEFT TURN"   |
|  | ILLUMINATED SIGN "NO RIGHT TURN"  |
|  | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD), OR CONTROLLER (C)   |
|  | GROUND ROD AT POST (P) OR MAST ARM POLE (MA)  |
|  | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
|  | ILLUMINATED STREET NAME SIGN  |
|  | EMERGENCY VEHICLE SYSTEM ANTENNA  |
|  | LUMINAIRE   |
|  | COAXIAL CABLE   |
|  | UNINTERRUPTIBLE POWER SUPPLY  |

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	16	17	0.50		136.00
(YELLOW)	16	25	0.25		100.00
(GREEN)	16	15	0.25		60.00
ARROW	20	12	0.10		24.00
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
LUMINAIRE	4	250	-	0.50	500.00
ILLUM. ST. NAME SIGN	4	60	0.50		120.00
FLASHER	-	-	0.50		-
TOTAL =					1240.00

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' ± L - 2' =
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m ± L - 0.6m) =
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	13 (4.0)
		30" (750mm)	15 (4.6)	FIBER OPTIC	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				GROUND CABLE	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:**
- ① INSTALL NEW FIBER OPTIC TRANSCEIVER AND TECH-POWER M-E SERIES UPS.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND SCHMIDT ROAD  
 BOLINGBROOK, ILLINOIS

SCALE: N.T.S. DATE: 4/7/2006

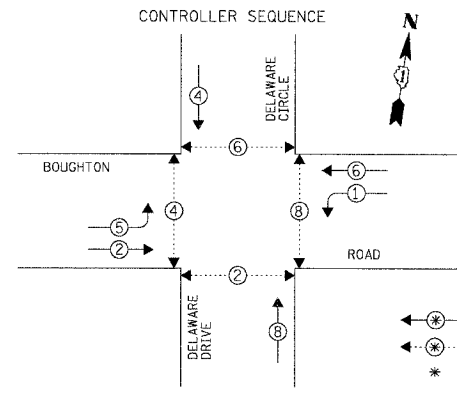
DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

BY: CHRISTOPHER B. BURKE ENGINEERING LTD.  
 375 BRIARCLIFF ROAD, BOLINGBROOK, ILLINOIS 60440-0951  
 (815) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIEVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH MODEM



LEGEND  
 \* DUAL ENTRY PHASE  
 ← \* → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE



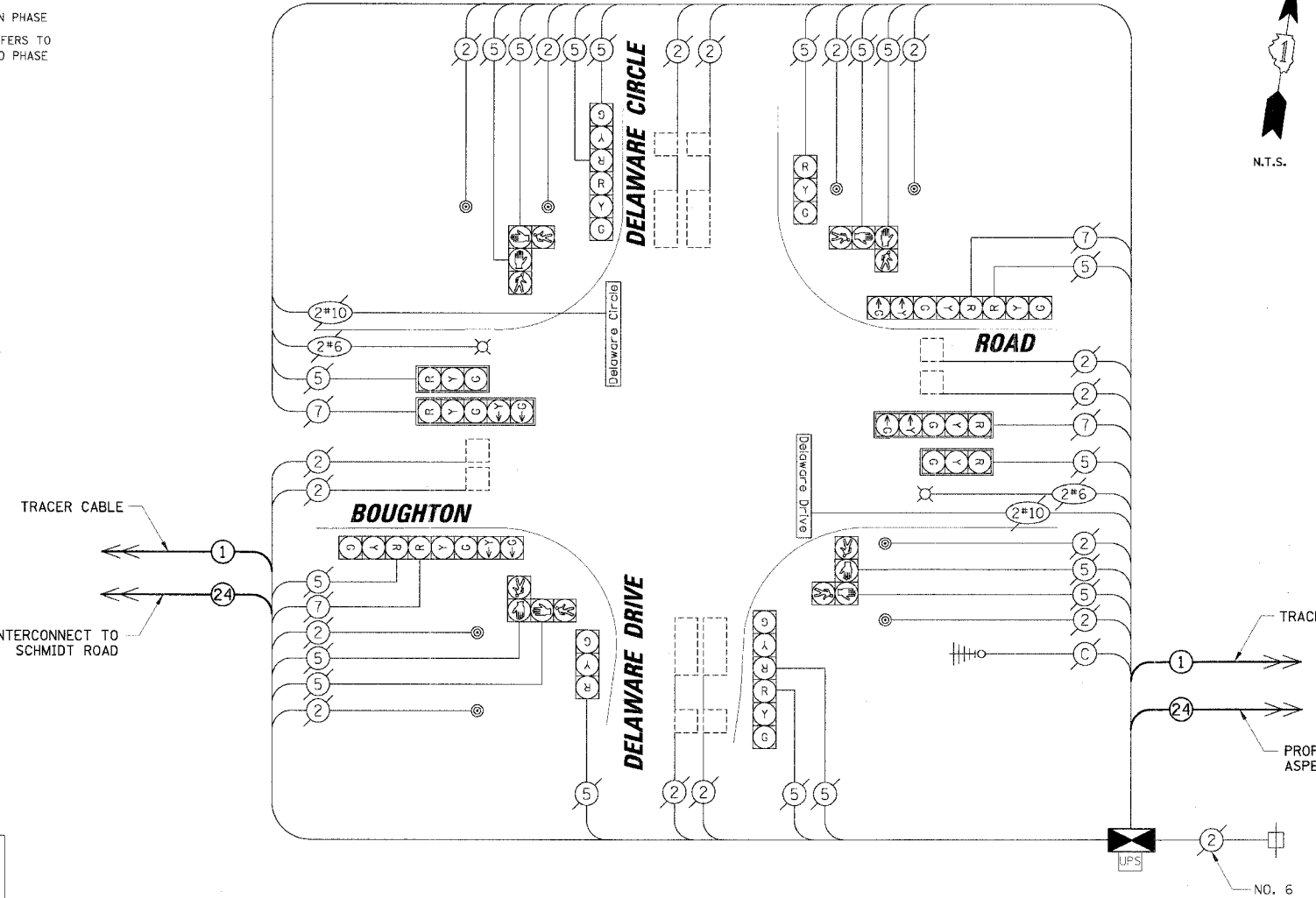
PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↘	↙	←

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	14	17	0.50		119.00
(YELLOW)	14	25	0.25		87.50
(GREEN)	14	15	0.25		52.50
ARROW	8	12	0.10		9.60
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
LUMINAIRE	2	250	-	0.50	250.00
ILLUM. ST. NAME SIGN	4	-	60	0.50	120.00
FLASHER	-	-	-	0.50	-
ENERGY COSTS TO:					TOTAL = 938.60

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.5	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20'+L-2'	
E - M. ARM POLE			SIGNAL POST	2	(1.0)		(6m+L-0.6m)	
	24"	(600mm)	CONTROLLER CAB.	1	(0.5)	BRACKET MOUNTED	13	(4.0)
	30"	(750mm)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	4	(1.2)
	36"	(900mm)	ELECTRIC SERVICE	1	(0.5)	ELECTRIC SERVICE	13.5	(4.1)
			GROUND CABLE	1	(0.5)	SERVICE TO GROUND	13.5	(4.1)
						POST MOUNTED	6	(1.8)

### CABLE PLAN



EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	DENOTES NUMBER OF CONDUCTORS.
(Symbol)	(Symbol)	ALL CABLE NO. 14 EXCEPT AS INDICATED.
(Symbol)	(Symbol)	ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	GROUND CABLE IN CONDUIT
(Symbol)	(Symbol)	NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT
(Symbol)	(Symbol)	NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE.
(Symbol)	(Symbol)	"P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY

#### CONSTRUCTION NOTES:

- 1 REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIEVER.
- 2 RELOCATE EXISTING EVP AND UPS UNITS.
- 3 REMOVE PHONE LINE AND MODEM.
- 4 FIBER OPTIC CABLE FROM ASPEN TO BE TERMINATED IN SPLICE BOX BUT NOT CONNECTED TO THIS CABINET.

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

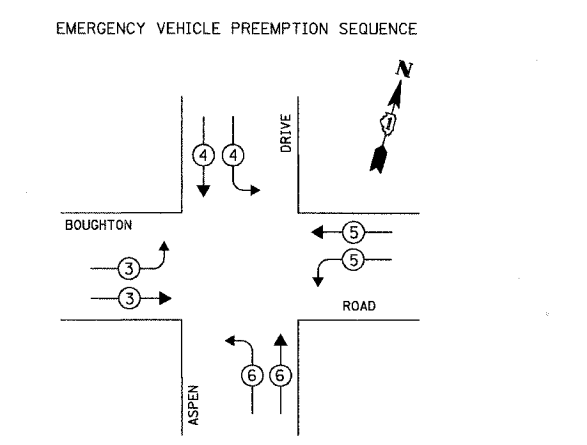
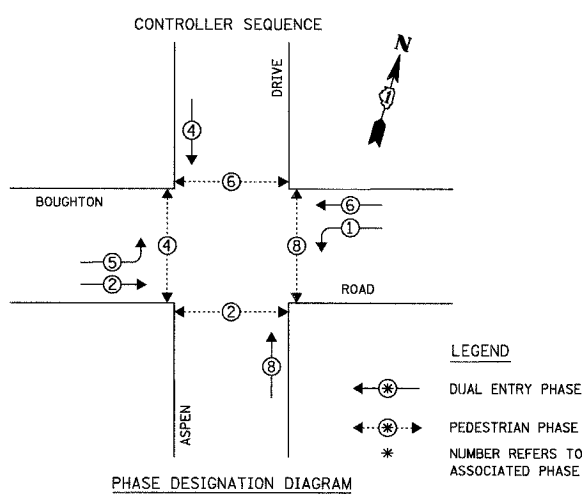
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND DELAWARE DRIVE / DELAWARE CIRCLE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	20
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

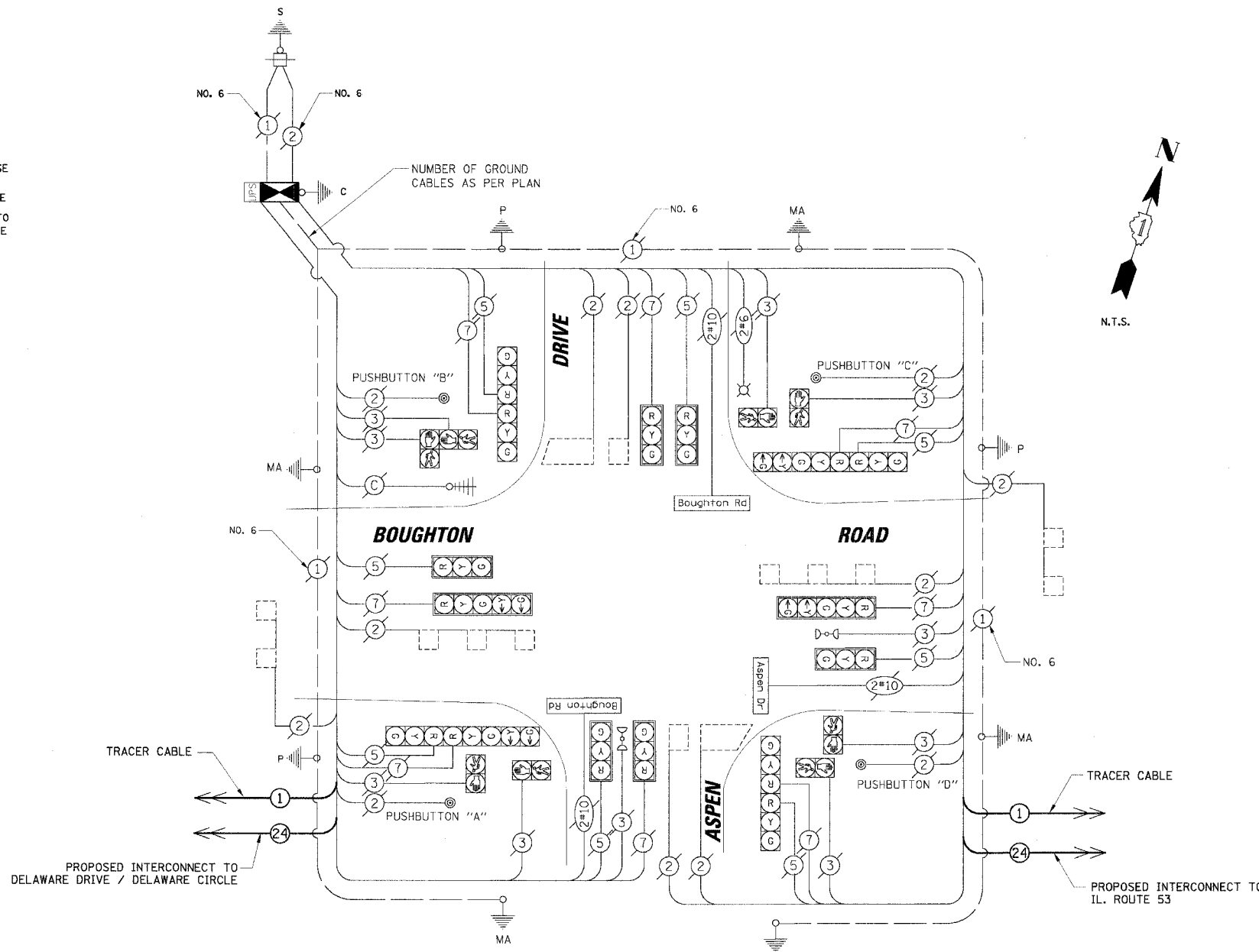
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CABINET

SCHEDULE OF QUANTITIES			
ITEM	UNIT	TOTAL	
CONTROLLER CABINET TYPE V	EACH	1	
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
TRANSCIVER - FIBER OPTIC	EACH	1	
INDUCTIVE LOOP DETECTOR	EACH	8	
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER	EACH	1	
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1	
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1	



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	←	→



NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

**CABLE PLAN LEGEND**

EXISTING	PROPOSED	8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS.
		ALL CABLE NO. 14 EXCEPT AS INDICATED.
		ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		1 GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		24 FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE.
		"P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
H/C		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UPS
		UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET. INSTALL NEW TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.
  - RELOCATE EXISTING CONTROLLER, EVP AND UPS UNITS.
  - FIBER OPTIC CABLE FROM DELAWARE DRIVE TO BE TERMINATED IN SPLICE BOX BUT NOT CONNECTED TO THIS INTERSECTION.

**I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50		136.00
(YELLOW)	16	25	0.25		100.00
(GREEN)	16	15	0.25		60.00
ARROW	4	12	0.10		4.80
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	3	60	0.50		90.00
FLASHER	-		0.50		-
TOTAL =					690.80

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	BRACKET MOUNTED	13 (4.0)
		30" (750mm)	15 (4.6)	PED. PUSHBUTTON	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**ENERGY COSTS TO:** TOTAL = 690.80

**VILLAGE OF BOLINGBROOK**  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951

ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**

BOUGHTON ROAD AND ASPEN DRIVE  
 BOLINGBROOK, ILLINOIS

SCALE: N.T.S.  
 DATE: 4/7/2006

DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROFILE: \_\_\_\_\_

NOTE: \_\_\_\_\_

STRUCTURE NOTATIONS: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PLAN: \_\_\_\_\_

NOTE: \_\_\_\_\_

STRUCTURE NOTATIONS: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PLAN: \_\_\_\_\_

NOTE: \_\_\_\_\_

STRUCTURE NOTATIONS: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PLAN: \_\_\_\_\_

NOTE: \_\_\_\_\_

STRUCTURE NOTATIONS: \_\_\_\_\_

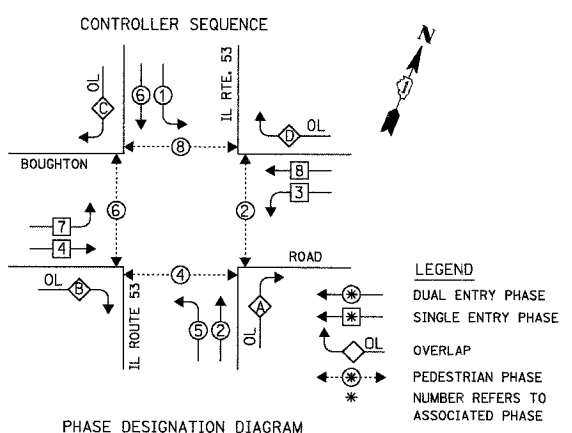
CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

F.A.I.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		UNIT	TOTAL
SIGN PANEL - TYPE 1		SQ FT	20
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION		EACH	1
CONTROLLER CABINET TYPE V		EACH	1
TRANSCEIVER - FIBER OPTIC		EACH	1
INDUCTIVE LOOP DETECTOR		EACH	16
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER		EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT		EACH	1
LED SIGNAL FACE RETROFIT, RED ARROW		EACH	4
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM		EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM		EACH	1

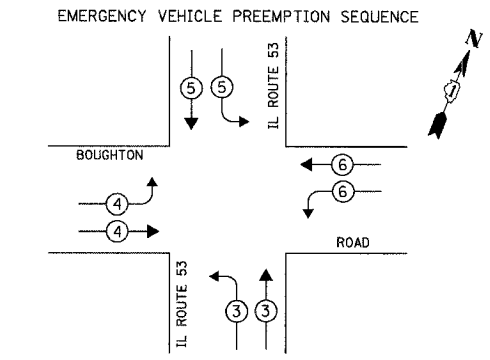
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CABINET
- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 4 EACH SIGN PANEL TYPE I
- 4 EACH LED SIGNAL FACE, RED BALL



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY	
A	"	2 +	3 -	2
B	"	4 +	7 -	4
C	"	6 +	7 -	6
D	"	8 +	7 -	8



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	[Arrow pointing right]	[Arrow pointing left]	[Arrow pointing right]	[Arrow pointing left]

**I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

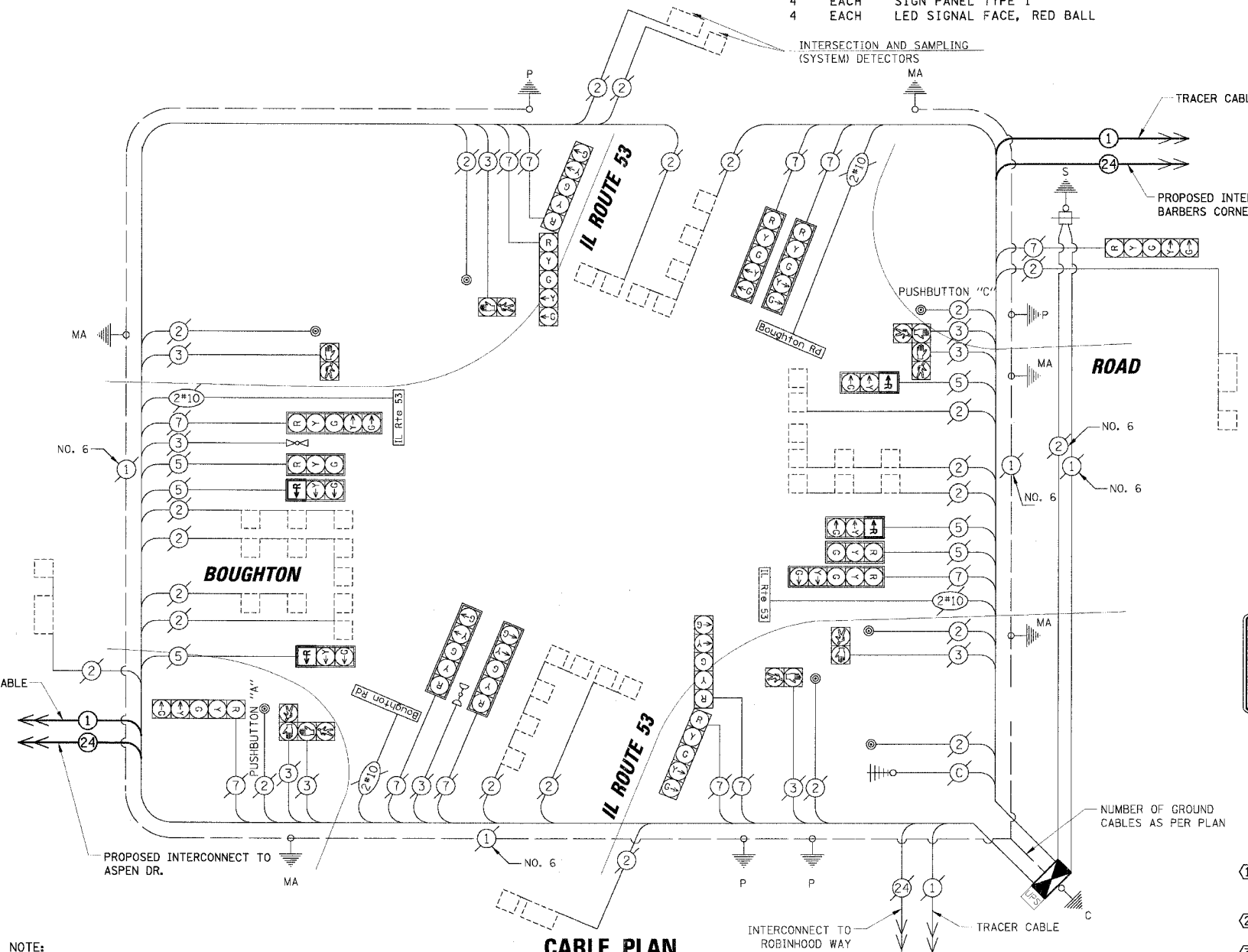
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	17	0.50		153.00
(YELLOW)	18	25	0.25		112.50
(GREEN)	18	15	0.25		67.50
ARROW	24	12	0.10		28.80
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	4	60	0.50		120.00
FLASHER					0.50
TOTAL =					781.80

ENERGY COSTS TO: TOTAL = 781.80

**VILLAGE OF BOLINGBROOK**  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' ± L-2 =
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m ± L - 0.6m) =	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE: PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 4 AND 6. PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 2 AND 8.



**CABLE PLAN**



**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	ILLUMINATED STREET NAME SIGN
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM ANTENNA
[Symbol]	[Symbol]	LUMINAIRE
[Symbol]	[Symbol]	COAXIAL CABLE
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:**
- 1 REMOVE EXISTING CABINET. INSTALL NEW TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - 2 RELOCATE EXISTING CONTROLLER, EVP AND UPS UNITS.
  - 3 REPLACE LEFT TURN SIGNS WITH "LEFT ON GREEN ARROW ONLY" AND LEFT TURN RED BALLS WITH RED ARROWS. (4 REQUIRED)

**REVISIONS**

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND IL. ROUTE 53  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 3575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

**CIB**  
 ELECTRICAL ENGINEERING

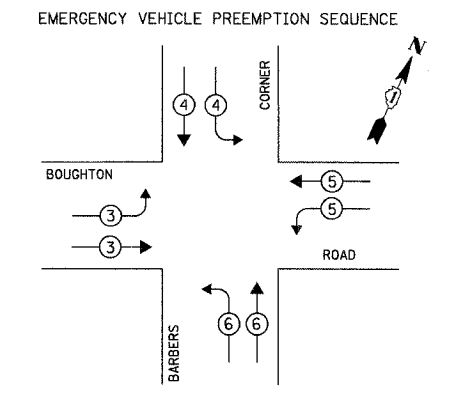
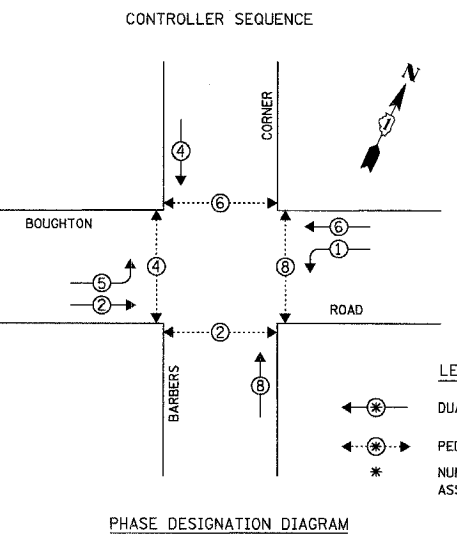
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F.A.U. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	22
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855				

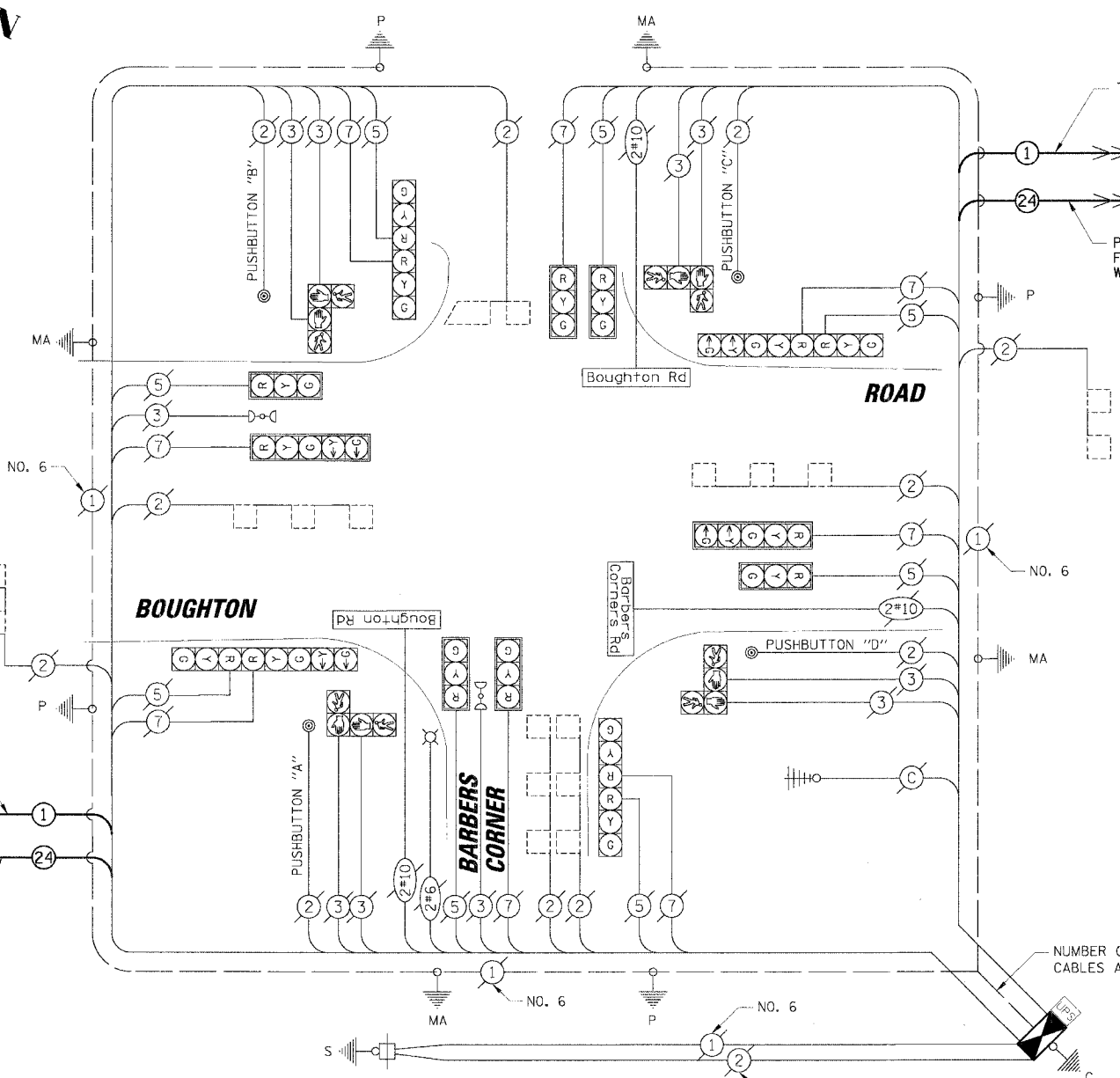
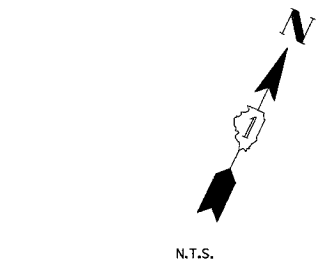
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CABINET

SCHEDULE OF QUANTITIES			
ITEM	UNIT	TOTAL	
CONTROLLER CABINET TYPE V	EACH	1	
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
TRANSCIEVER - FIBER OPTIC	EACH	1	
INDUCTIVE LOOP DETECTOR	EACH	7	
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER	EACH	1	
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1	
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1	



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑



EXISTING		PROPOSED		
[Symbol]	[Symbol]	[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTIVE LOOP
[Symbol]	[Symbol]	[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	[Symbol]	[Symbol]	2 DENOTES NUMBER OF CONDUCTORS.
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ALL CABLE NO. 14 EXCEPT AS INDICATED.
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT
[Symbol]	[Symbol]	[Symbol]	[Symbol]	NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT
[Symbol]	[Symbol]	[Symbol]	[Symbol]	NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE.
[Symbol]	[Symbol]	[Symbol]	[Symbol]	"P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED SIGN
[Symbol]	[Symbol]	[Symbol]	[Symbol]	"NO LEFT TURN"
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED SIGN
[Symbol]	[Symbol]	[Symbol]	[Symbol]	"NO RIGHT TURN"
[Symbol]	[Symbol]	[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H),
[Symbol]	[Symbol]	[Symbol]	[Symbol]	DOUBLE HANDHOLE (H), OR CONTROLLER (C)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED STREET NAME SIGN
[Symbol]	[Symbol]	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM ANTENNA
[Symbol]	[Symbol]	[Symbol]	[Symbol]	LUMINAIRE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	COAXIAL CABLE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	16	17	0.50		136.00
(YELLOW)	16	25	0.25		100.00
(GREEN)	16	15	0.25		60.00
ARROW	8	12	0.10		9.60
PED. SIGNAL	4	25	1.00		100.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	3	60	0.50		90.00
FLASHER			0.50		
ENERGY COSTS TO:					TOTAL = 595.60

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m±L-0.6m)±
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET. INSTALL NEW TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIEVER.
  - RELOCATE EXISTING CONTROLLER, EVP AND UPS UNITS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND BARBERS CORNER  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DRAWN BY: FCP/FPB  
 DATE: 4/7/2006 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROJECT: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 PROJECT NO.: 04-00043-00-TL SHEET NO.: 22  
 DRAWN BY: FCP/FPB  
 CHECKED BY: MJT  
 DATE: 4/7/2006

N:\BOLINGBROOK\05559\Traflic\CAB\_Barbers.dgn

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	23
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

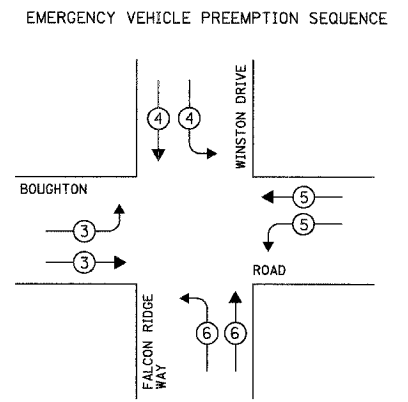
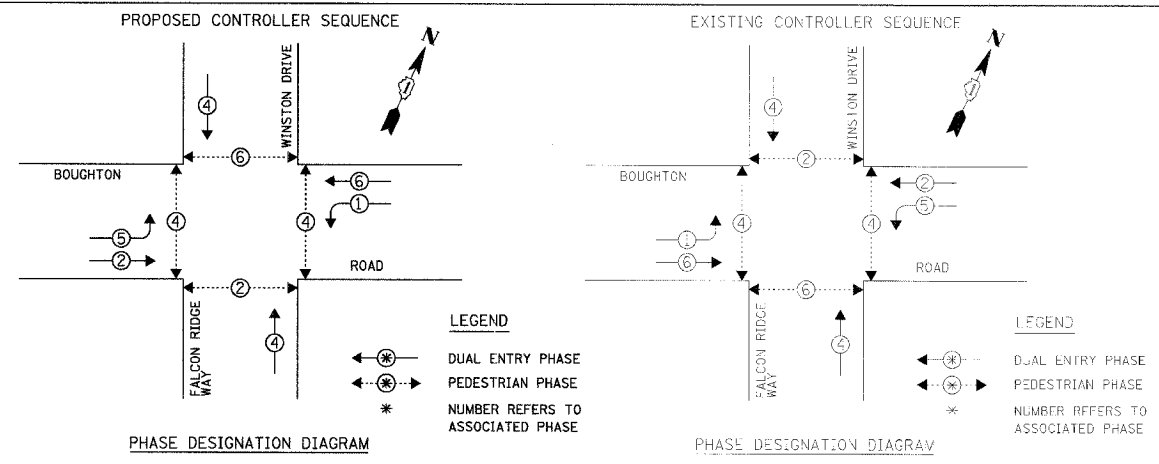
**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

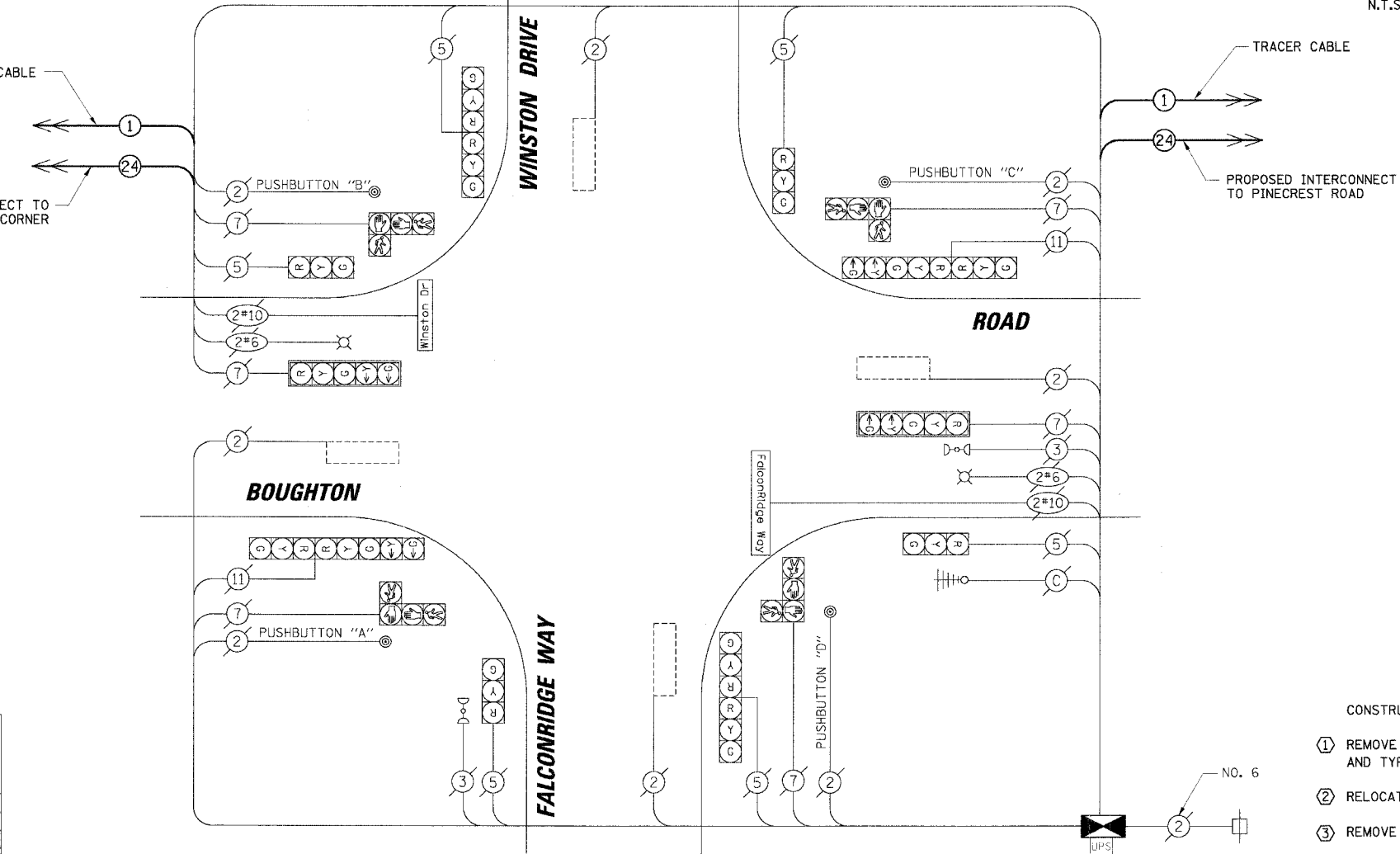
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH MODEM



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED x % OPERATION	
SIGNAL (RED)	14	17	0.50	119.00
(YELLOW)	14	25	0.25	87.50
(GREEN)	14	15	0.25	52.50
ARROW	8	12	0.10	9.60
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
LUMINAIRE	2	250	0.50	250.00
ILLUM. ST. NAME SIGN	2	-	0.50	60.00
FLASHER	-	-	0.50	-
ENERGY COSTS TO:				TOTAL = 878.60

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED



NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 4.

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
	24" (600mm)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
	36" (900mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - RELOCATE EXISTING EVP AND UPS UNITS.
  - REMOVE PHONE LINE AND MODEM.
  - FIBER OPTIC CABLE FROM PINECREST TO BE TERMINATED IN SPLICE BOX BUT NOT CONNECTED TO THIS INTERSECTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND FALCONRIDGE WAY/ WINSTON DRIVE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/1/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

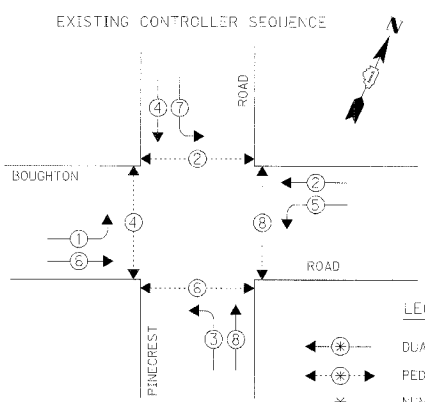
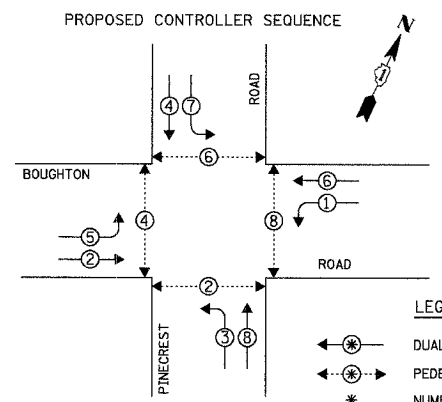
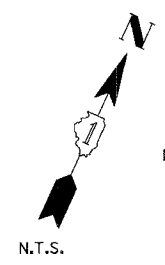
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_  
 STRUCTURE: \_\_\_\_\_  
 NOTATIONS: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_  
 STRUCTURE: \_\_\_\_\_  
 NOTATIONS: \_\_\_\_\_

F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

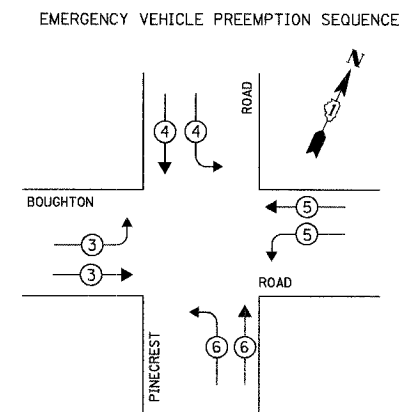


PHASE DESIGNATION DIAGRAM

PHASE DESIGNATION DIAGRAM

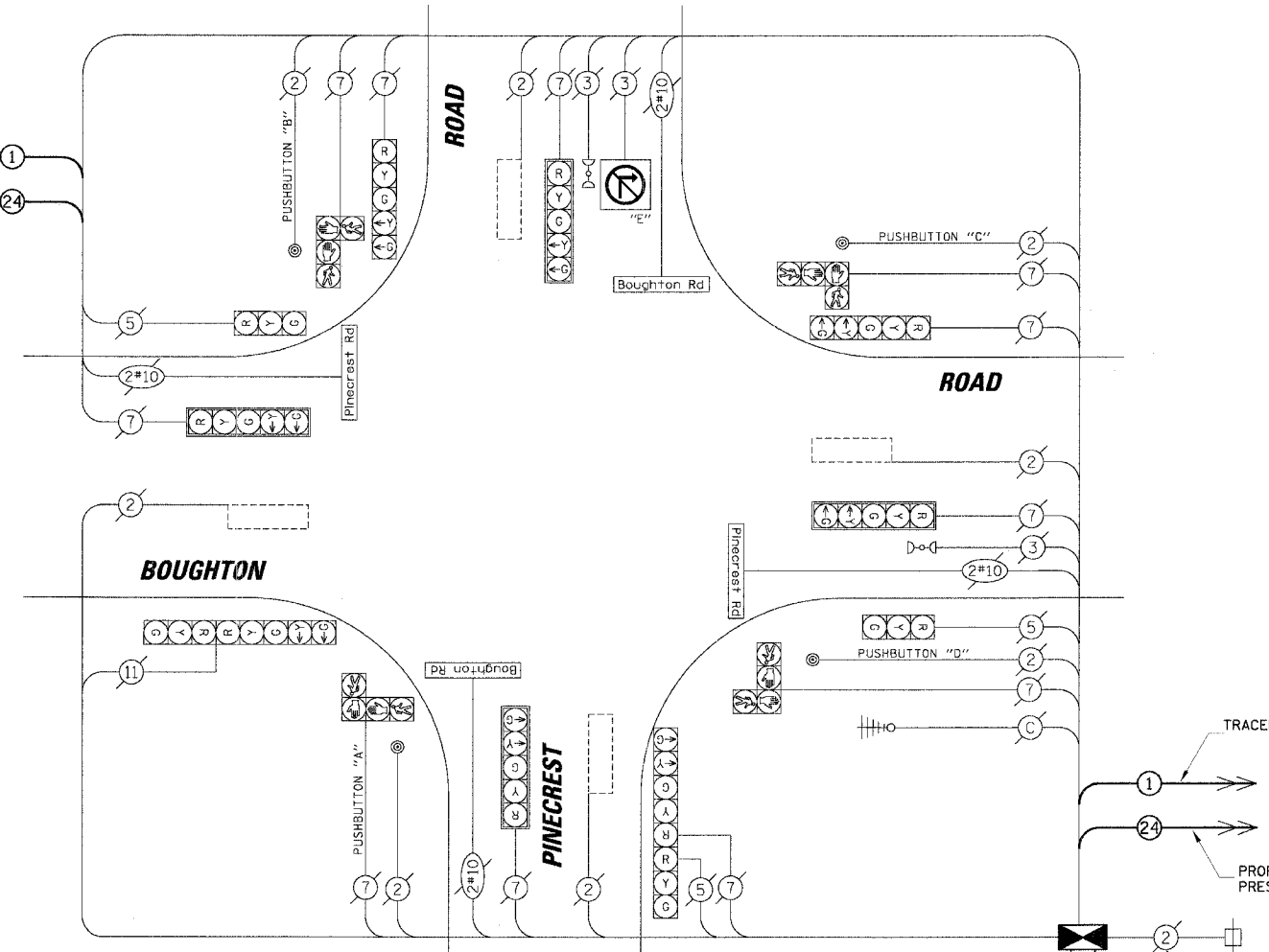
**LEGEND**  
 ← ⊙ → DUAL ENTRY PHASE  
 ← ⊙ → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

**LEGEND**  
 ← ⊙ → DUAL ENTRY PHASE  
 ← ⊙ → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	↔	↔

TRACER CABLE  
 PROPOSED INTERCONNECT TO FALCONRIDGE WAY/WINSTON DRIVE



CABLE PLAN

**NOTE:**  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	12	17	0.50		102.00
(YELLOW)	12	25	0.25		75.00
(GREEN)	12	15	0.25		45.00
ARROW	16	12	0.10		9.60
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	1	25	0.05		1.25
LUMINAIRE	-	-	-		-
ILLUM. ST. NAME SIGN	4	60	0.50		120.00
FLASHER	-	-	0.50		-
ENERGY COSTS TO:				TOTAL =	652.85

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m±L-0.6m)±
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVING TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

EXISTING	PROPOSED	CABLE PLAN LEGEND
⊙	⊙	8" (200mm) TRAFFIC SIGNAL SECTION
⊙	⊙	12" (300mm) TRAFFIC SIGNAL SECTION
⊙	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊙	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊙	⊙	CONTROLLER CABINET
⊙	⊙	SERVICE INSTALLATION
⊙	⊙	TELEPHONE INSTALLATION
⊙	⊙	VEHICLE DETECTOR, INDUCTION LOOP
⊙	⊙	MAGNETIC DETECTOR
⊙	⊙	EMERGENCY VEHICLE LIGHT DETECTOR
⊙	⊙	CONFIRMATION BEACON
⊙	⊙	PUSHBUTTON DETECTOR
⊙	⊙	⊙ DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊙	⊙	⊙ GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊙	⊙	⊙ FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SMI2F
⊙	⊙	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
⊙	⊙	RAILROAD CONTROL CABINET
⊙	⊙	ILLUMINATED SIGN "NO LEFT TURN"
⊙	⊙	ILLUMINATED SIGN "NO RIGHT TURN"
⊙	⊙	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
⊙	⊙	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
⊙	⊙	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊙	⊙	ILLUMINATED STREET NAME SIGN
⊙	⊙	EMERGENCY VEHICLE SYSTEM ANTENNA
⊙	⊙	LUMINAIRE
⊙	⊙	COAXIAL CABLE
⊙	⊙	UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.
  - RELOCATE EXISTING EVP AND UPS UNITS.
  - FIBER OPTIC CABLE FROM FALCONRIDGE WAY IS TO BE TERMINATED IN SPLICE BOX BUT NOT CONNECTED TO THIS INTERSECTION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND PINECREST ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DRAWN BY: FCP/FPB  
 DATE: 4/7/2006 DESIGNED BY: MKW  
 CHECKED BY: MJT

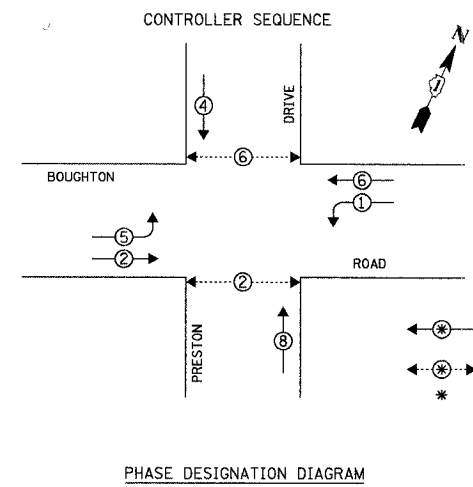
PROFILE SUBMITTED BY: CHRISTOPHER B. BURKE ENGINEERING LTD.  
 DATE: 03/08/06  
 DRAWN BY: FCP/FPB  
 CHECKED BY: MKW  
 DATE: 04/07/06  
 PROJECT NO.: 04-00043-00-TL  
 SHEET NO.: 24 OF 54  
 CONTRACT NO.: 83855



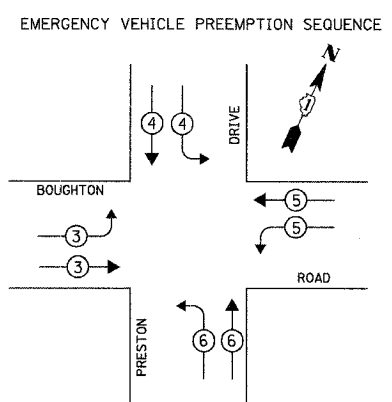
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-T1	WILL	54	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

EXISTING	PROPOSED	DESCRIPTION
(G)	(G)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(R)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(W)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(P)	(P)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(C)	(C)	CONTROLLER CABINET SERVICE INSTALLATION
(T)	(T)	TELEPHONE INSTALLATION
(V)	(V)	VEHICLE DETECTOR, INDUCTION LOOP
(M)	(M)	MAGNETIC DETECTOR
(E)	(E)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	CONFIRMATION BEACON
(P)	(P)	PUSHBUTTON DETECTOR
(2)	(2)	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(1)	(1)	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(24)	(24)	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(R)	(R)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Y)	(Y)	
(G)	(G)	
(Y)	(Y)	
(G)	(G)	
(P)	(P)	
(R)	(R)	RAILROAD CONTROL CABINET
(E)	(E)	ILLUMINATED SIGN "NO LEFT TURN"
(E)	(E)	ILLUMINATED SIGN "NO RIGHT TURN"
(H)	(H)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(S)	(S)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(I)	(I)	ILLUMINATED STREET NAME SIGN
(A)	(A)	EMERGENCY VEHICLE SYSTEM ANTENNA
(L)	(L)	LUMINAIRE
(C)	(C)	COAXIAL CABLE
(UPS)	(UPS)	UNINTERRUPTIBLE POWER SUPPLY

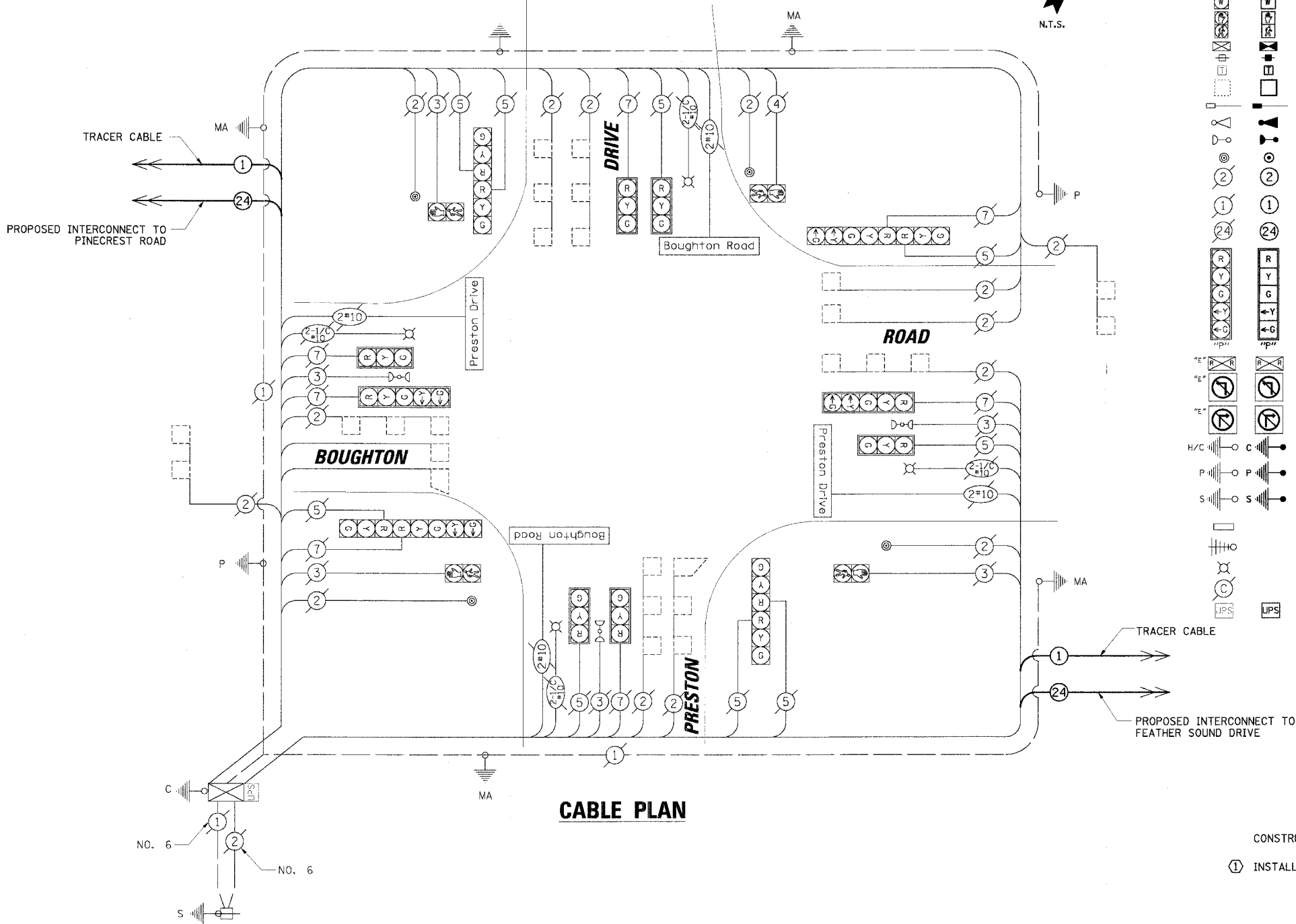
SCHEDULE OF QUANTITIES	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1



**LEGEND**  
 ← ⊙ → DUAL ENTRY PHASE  
 ← ⊙ → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	←	→



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
ILLUM. ST. NAME SIGN	4		60	0.50	120.00
LUMINAIRE	4	250		0.50	500.00
FLASHER				0.50	
TOTAL =					1125.60

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

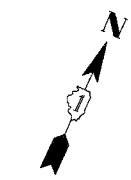
CONSTRUCTION NOTES:  
 ① INSTALL NEW FIBER OPTIC TRANSCEIVER.

REVISIONS	DATE
NAME	

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND PRESTON DRIVE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

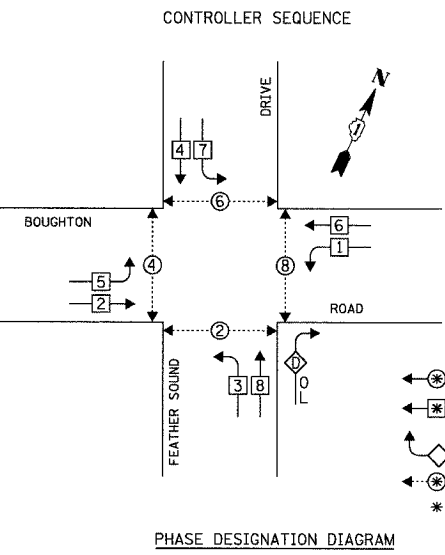
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 PROJECT: VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED  
 FILE NO. \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE NO. \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 NOTARIAL: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROJECT: VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED  
 FILE NO. \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE NO. \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 NOTARIAL: \_\_\_\_\_

F.A.U. SECTION	COUNTY	TOTAL SHEET SHEETS NO.
3580 04-00043-00-TL	WILL	54 26
STA.	TO STA.	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
CONTRACT NO.: 83855		



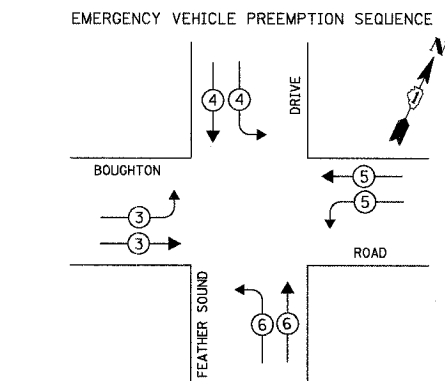
SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1

EXISTING	PROPOSED	CABLE PLAN LEGEND
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY

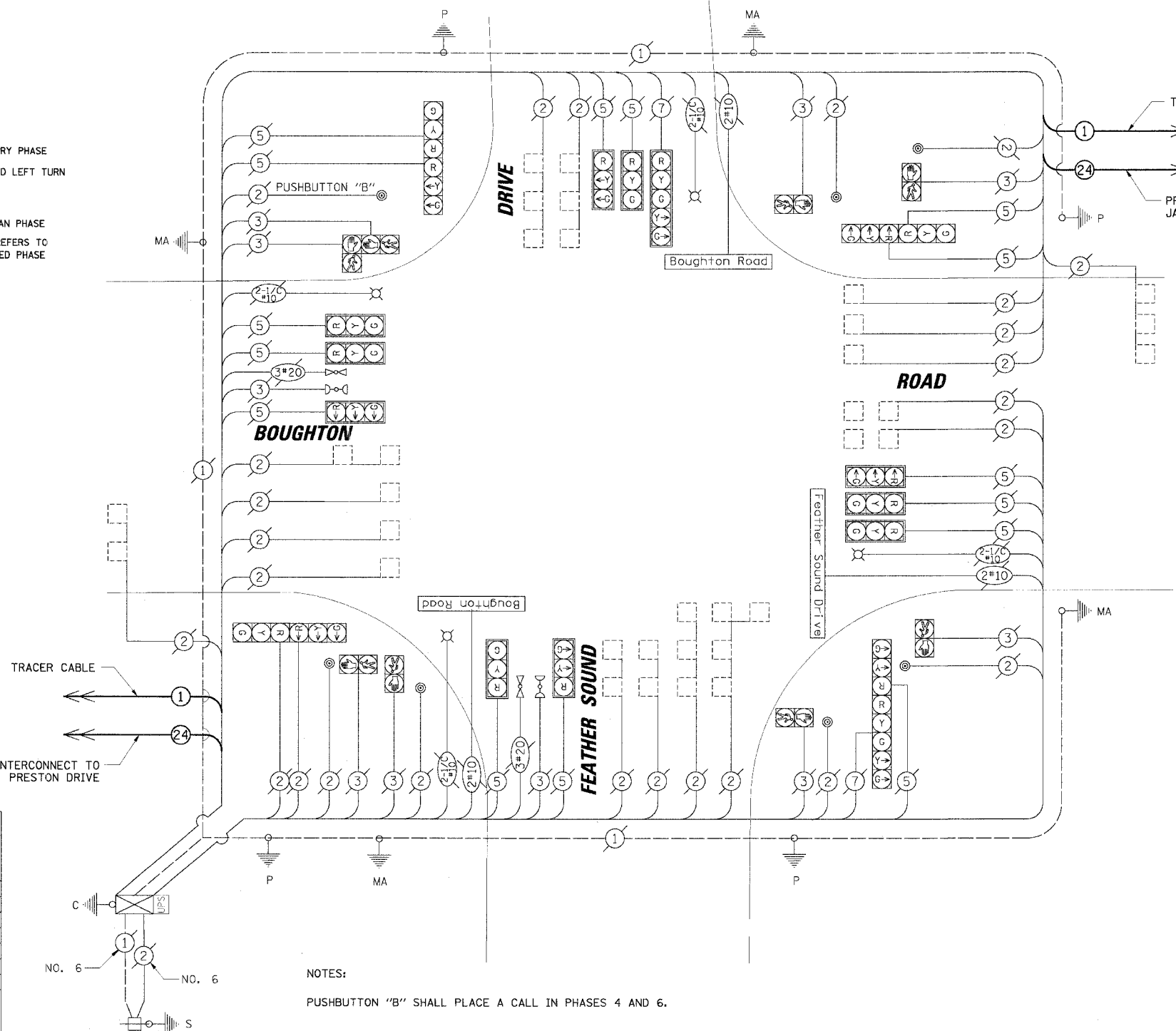


**LEGEND**

- DUAL ENTRY PHASE
- PROTECTED LEFT TURN PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



PROPOSED INTERCONNECT TO PRESTON DRIVE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND.	LED	% OPERATION	
SIGNAL (RED)	18		17	0.50	153.00
(YELLOW)	18		25	0.25	112.50
(GREEN)	18		15	0.25	67.50
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	300.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
ILLUM. ST. NAME SIGN	3		60	0.50	90.00
FLASHER				0.50	
TOTAL =					632.60

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	BRACKET MOUNTED	13 (4.0)
		30" (750mm)	15 (4.6)	PED. PUSHBUTTON	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTES:  
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CONSTRUCTION NOTES:  
① INSTALL NEW FIBER OPTIC TRANSCEIVER.

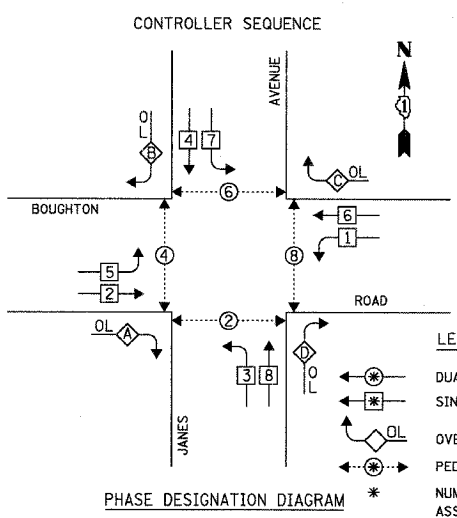
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
BOUGHTON ROAD AND FEATHER SOUND DRIVE  
BOLINGBROOK, ILLINOIS  
SCALE: N.T.S.  
DATE: 4/7/2006  
DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

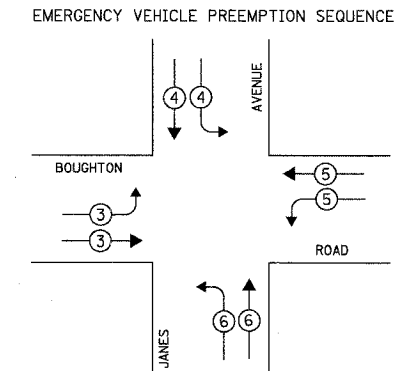
PROFILE SURVEYED BY: DATE: \_\_\_\_\_  
 PLOTTED BY: DATE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 STRUCTURE NOTATIONS: CTRD  
 CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Hickory Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	27
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A =	2	3
B =	4	5
C =	6	7
D =	8	1

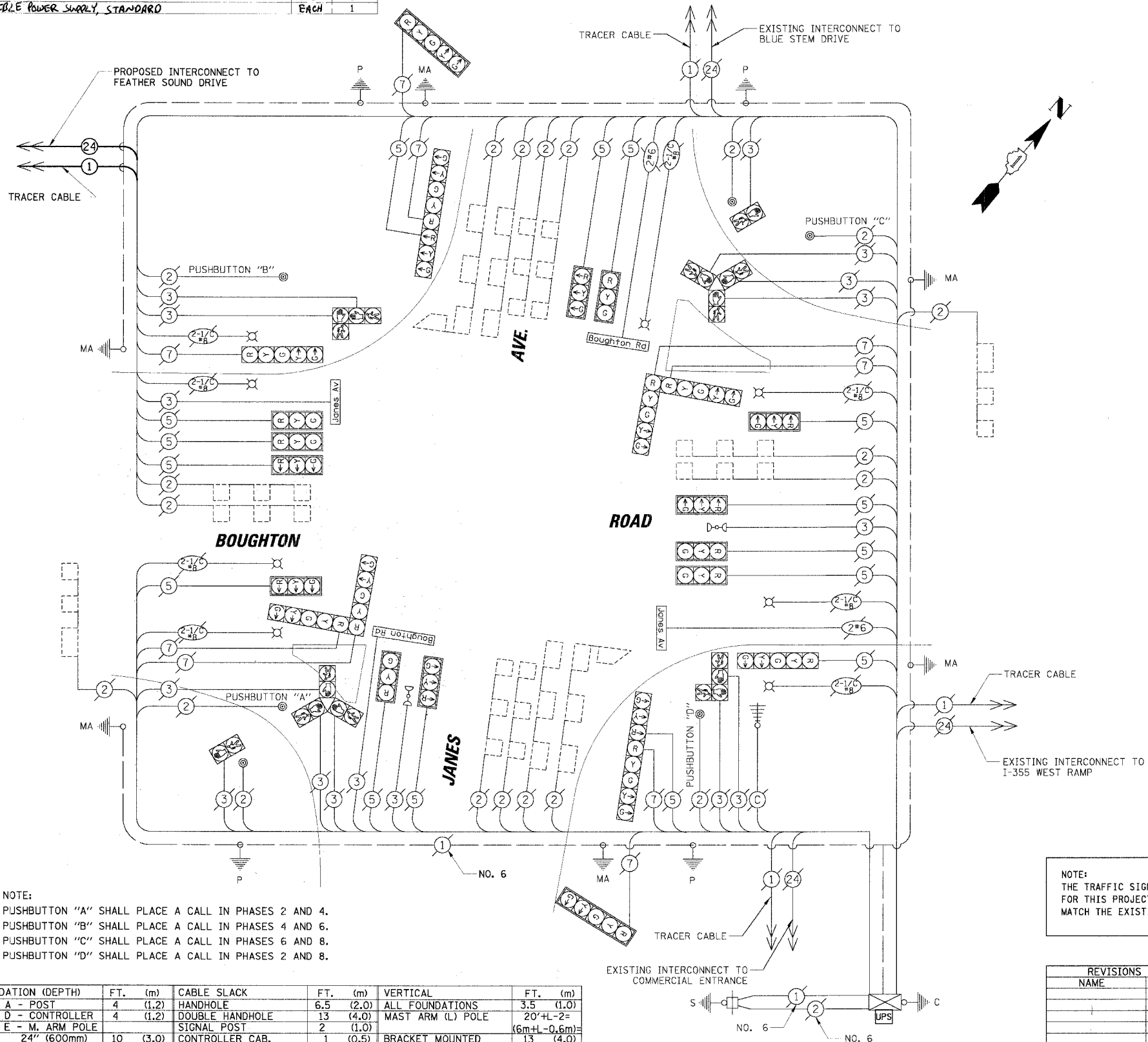


EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	↔	↔

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	24	17	0.50		204.00
(YELLOW)	24	25	0.25		150.00
(GREEN)	24	15	0.25		90.00
ARROW	20	12	0.10		24.00
PED. SIGNAL	12	25	1.00		300.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST. NAME SIGN	8	24 FLOURESCENT	0.50		96.00
FLASHER			0.50		964.00
ENERGY COSTS TO:				TOTAL =	515.20

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				GROUND CABLE	1 (0.5)
				BRACKET MOUNTED	13 (4.0)
				PED. PUSHBUTTON	4 (1.2)
				ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



- CABLE PLAN LEGEND**
- EXISTING: 8" (200mm) TRAFFIC SIGNAL SECTION, 12" (300mm) TRAFFIC SIGNAL SECTION, 12" (300mm) PEDESTRIAN SIGNAL SECTION, 12" (300mm) PEDESTRIAN SIGNAL SECTION
  - PROPOSED: CONTROLLER CABINET, SERVICE INSTALLATION, TELEPHONE INSTALLATION, VEHICLE DETECTOR, INDUCTION LOOP, MAGNETIC DETECTOR, EMERGENCY VEHICLE LIGHT DETECTOR, CONFIRMATION BEACON, PUSHBUTTON DETECTOR, RAILROAD CONTROL CABINET, ILLUMINATED SIGN "NO LEFT TURN", ILLUMINATED SIGN "NO RIGHT TURN", GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C), GROUND ROD AT POST (P) OR MAST ARM POLE (MA), GROUND ROD AT ELECTRIC SERVICE INSTALLATION, ILLUMINATED STREET NAME SIGN, EMERGENCY VEHICLE SYSTEM ANTENNA, LUMINAIRE, COAXIAL CABLE, UNINTERRUPTIBLE POWER SUPPLY

NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CONSTRUCTION NOTES:  
 ① INSTALL NEW TECH-POWER M-E SERIES UPS, AND FIBER OPTIC TRANSCEIVER.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND JAMES AVENUE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 STRUCTURE: \_\_\_\_\_  
**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_

PROFITE SUBMITTED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_

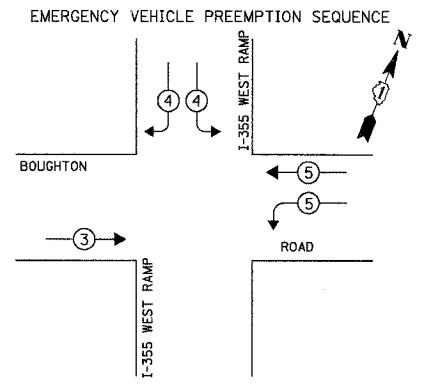
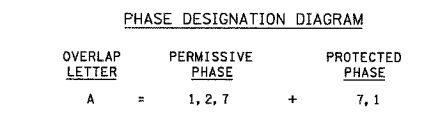
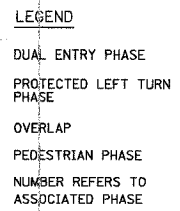
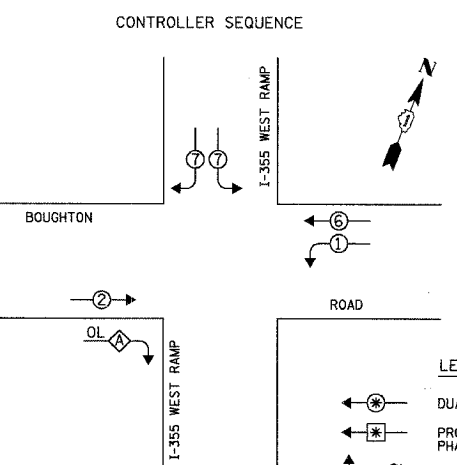
CHRISTOPHER B. BURKE ENGINEERING LTD.  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 (815) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	28
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION		EACH	1
TRANSCIVER - FIBER OPTIC		EACH	1
INDUCTIVE LOOP DETECTOR		EACH	6
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT		EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM		EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM		EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

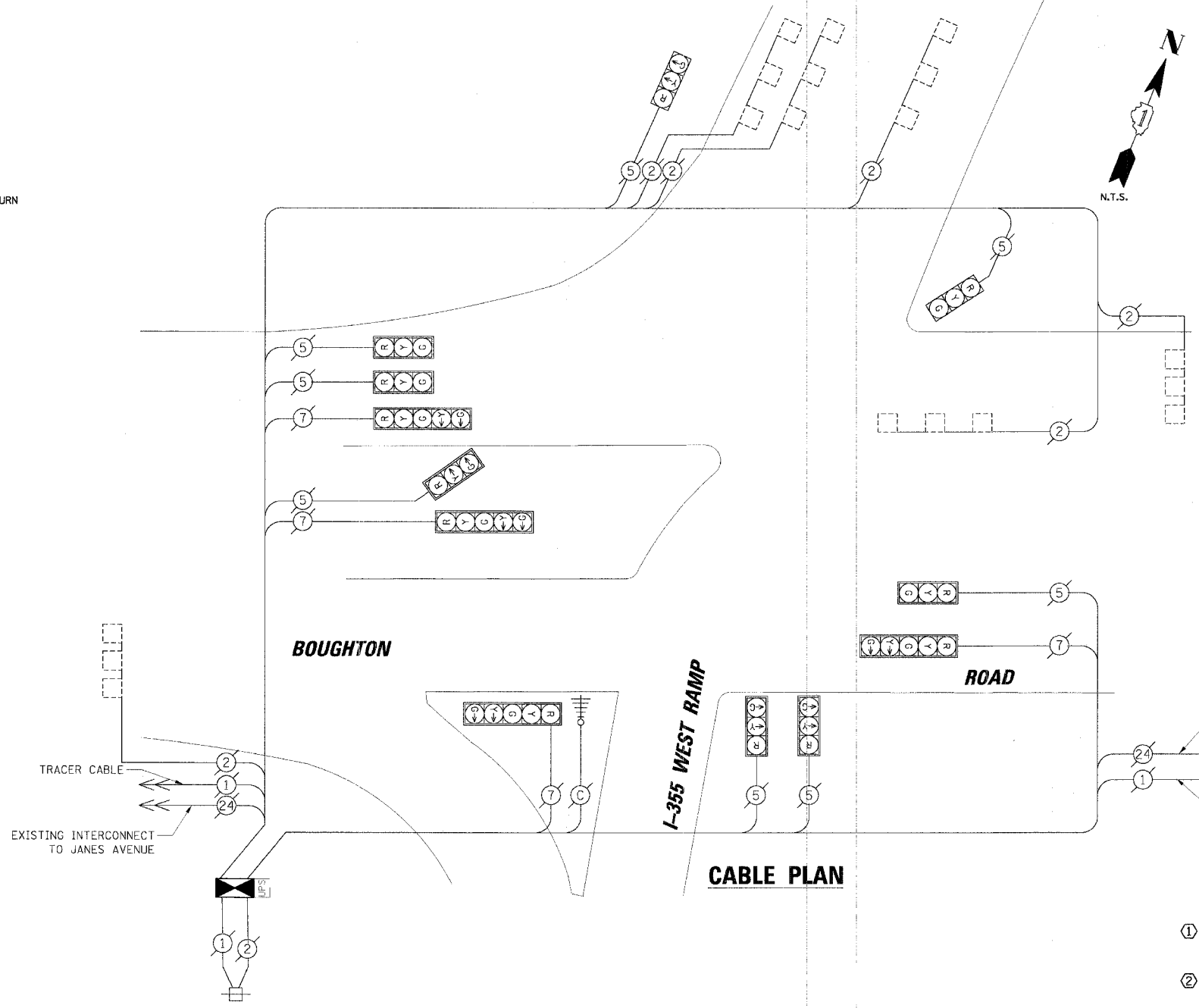
1 EACH CONTROLLER AND CABINET (COMPLETE)



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	↙	↘

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	8	12	0.10	9.690
PED. SIGNAL		25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
FLASHER	-		0.50	-
ENERGY COSTS TO:				TOTAL = 331.60

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED



EXISTING	PROPOSED	CABLE PLAN LEGEND
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY

CONSTRUCTION NOTES:

- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.
- RELOCATE EXISTING EVP AND UPS UNITS.

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND I-355 WEST RAMP  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 375 BRIARCLIFF ROAD, SUITE 600  
 BOLINGBROOK, ILLINOIS 60440-0951  
 (815) 823-0500

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL		WILL	54	29
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

**CABLE PLAN LEGEND**

- |  |   |
|--|---|
|  | 8" (200mm) TRAFFIC SIGNAL SECTION   |
|  | 12" (300mm) TRAFFIC SIGNAL SECTION  |
|  | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
|  | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
|  | CONTROLLER CABINET  |
|  | SERVICE INSTALLATION  |
|  | TELEPHONE INSTALLATION  |
|  | VEHICLE DETECTOR, INDUCTION LOOP  |
|  | MAGNETIC DETECTOR   |
|  | EMERGENCY VEHICLE LIGHT DETECTOR  |
|  | CONFIRMATION BEACON   |
|  | PUSHBUTTON DETECTOR   |
|  | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|  | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)  |
|  | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F   |
|  | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.  |
|  | RAILROAD CONTROL CABINET  |
|  | ILLUMINATED SIGN "NO LEFT TURN"   |
|  | ILLUMINATED SIGN "NO RIGHT TURN"  |
|  | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)  |
|  | GROUND ROD AT POST (P) OR MAST ARM POLE (MA)  |
|  | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
|  | ILLUMINATED STREET NAME SIGN  |
|  | EMERGENCY VEHICLE SYSTEM ANTENNA  |
|  | LUMINAIRE   |
|  | COAXIAL CABLE   |
|  | UNINTERRUPTIBLE POWER SUPPLY  |

SCHEDULE OF QUANTITIES		UNIT	TOTAL
ITEM			
SIGN PANEL - TYPE 1		SQ FT	10
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION		EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL		EACH	1
TRANSCEIVER - FIBER OPTIC		EACH	1
INDUCTIVE LOOP DETECTOR		EACH	7
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT		EACH	1
LED SIGNAL FACE RETROFIT, RED ARROW		EACH	2
RELOCATE EXISTING MASTER CONTROLLER		EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY GPS SYSTEM		EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM		EACH	1

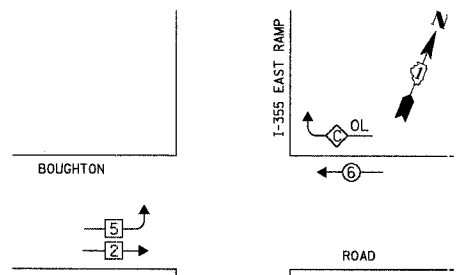
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

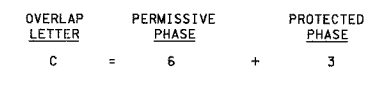
- 2 EACH SIGN PANEL - TYPE 1
- 2 EACH LED SIGNAL FACE, RED BALL

**CONTROLLER SEQUENCE**

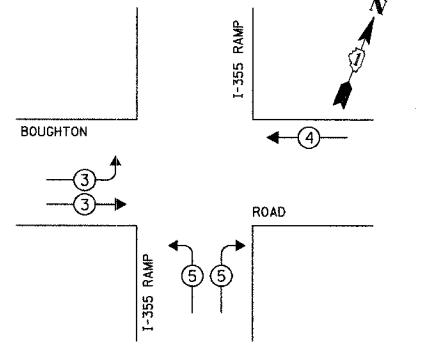


- LEGEND**
- DUAL ENTRY PHASE
  - PROTECTED LEFT TURN PHASE
  - OVERLAP
  - PEDESTRIAN PHASE
  - NUMBER REFERS TO ASSOCIATED PHASE

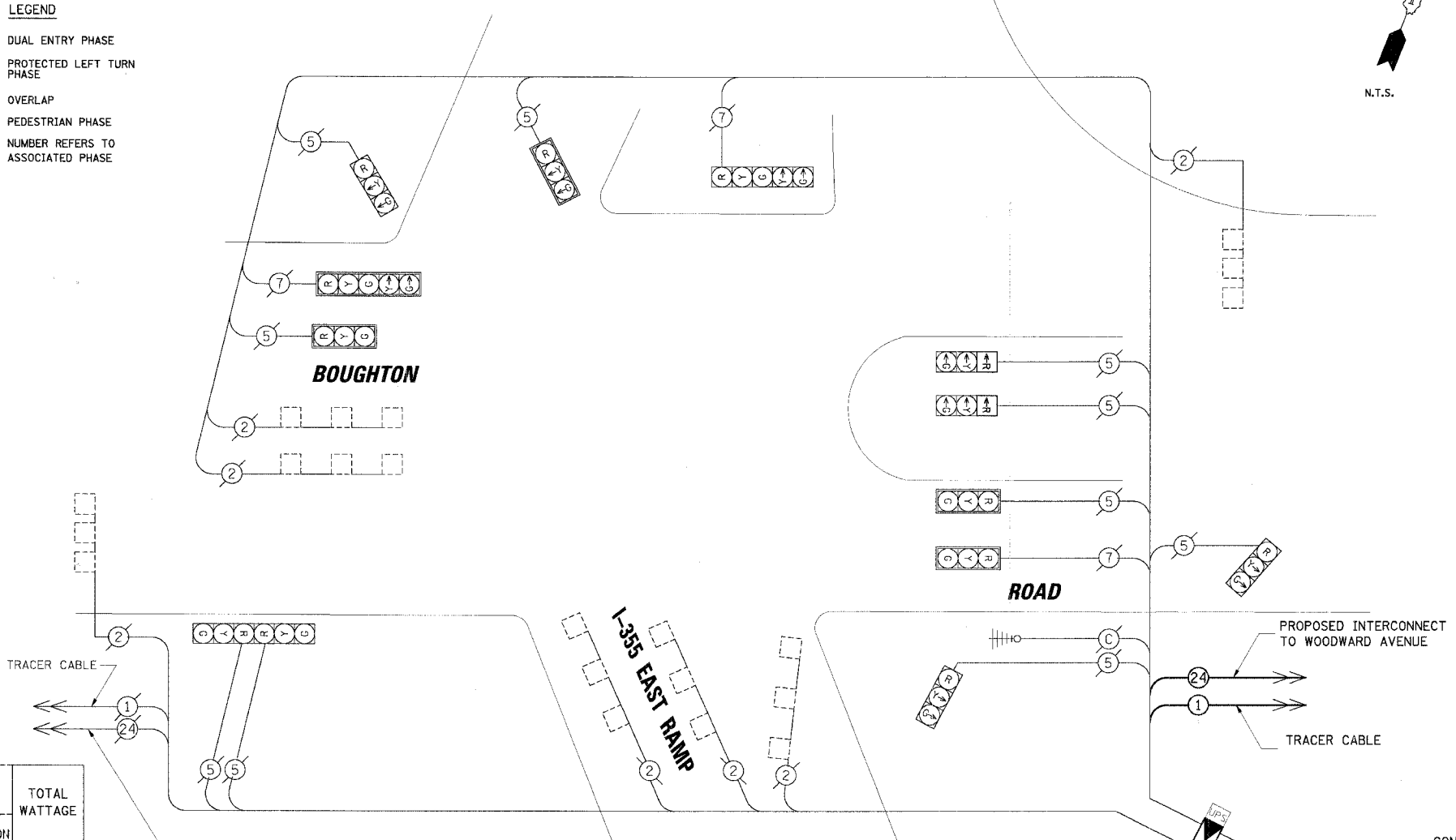
**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	X % OPERATION	
SIGNAL (RED)	13	17	0.50		110.50
(YELLOW)	13	25	0.25		81.25
(GREEN)	13	15	0.25		48.75
ARROW	4	12	0.10		4.80
PED. SIGNAL	-	25	1.00		-
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
FLASHER	-		0.50		-
ENERGY COSTS TO: TOTAL =					345.30

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m-H-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

**SIGN (A)**  
 LEFT ON GREEN ARROW ONLY  
 R10-5  
 24" x 30"  
 2-REQUIRED

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

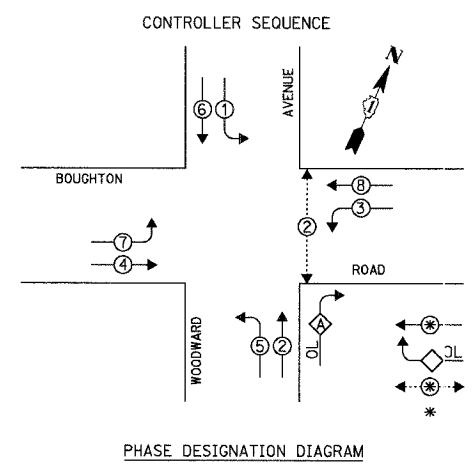
- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - RELOCATE EXISTING EVP AND UPS UNITS.
  - REPLACE SIGNS WITH "LEFT ON GREEN ARROW ONLY". REPLACE LEFT TURN RED BALLS WITH RED ARROWS (2 REQUIRED).

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 BOUGHTON ROAD AND I-355 EAST RAMP  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

F.A.I.L. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	30
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855			

SCHEDULE OF QUANTITIES			
ITEM	UNIT	TOTAL	
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
TRANSCEIVER - FIBER OPTIC	EACH	1	
MODIFY EXISTING CONTROLLER	EACH	1	

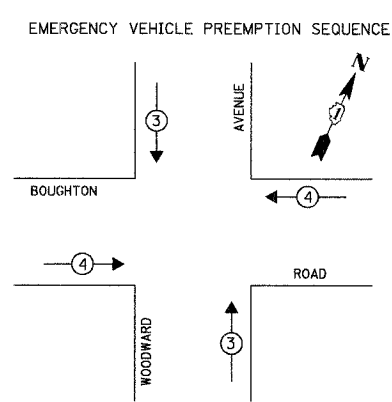


**LEGEND**

- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**OVERLAP LETTER**    **PERMISSIVE PHASE**    **PROTECTED PHASE**

A = 2 + 3



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	13		17	0.50	110.50
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	20		12	0.10	24.00
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
LUMINAIRE	4	250	-	0.50	500.00
FLASHER	-		-	0.50	-
<b>TOTAL =</b>					<b>864.50</b>

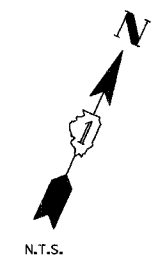
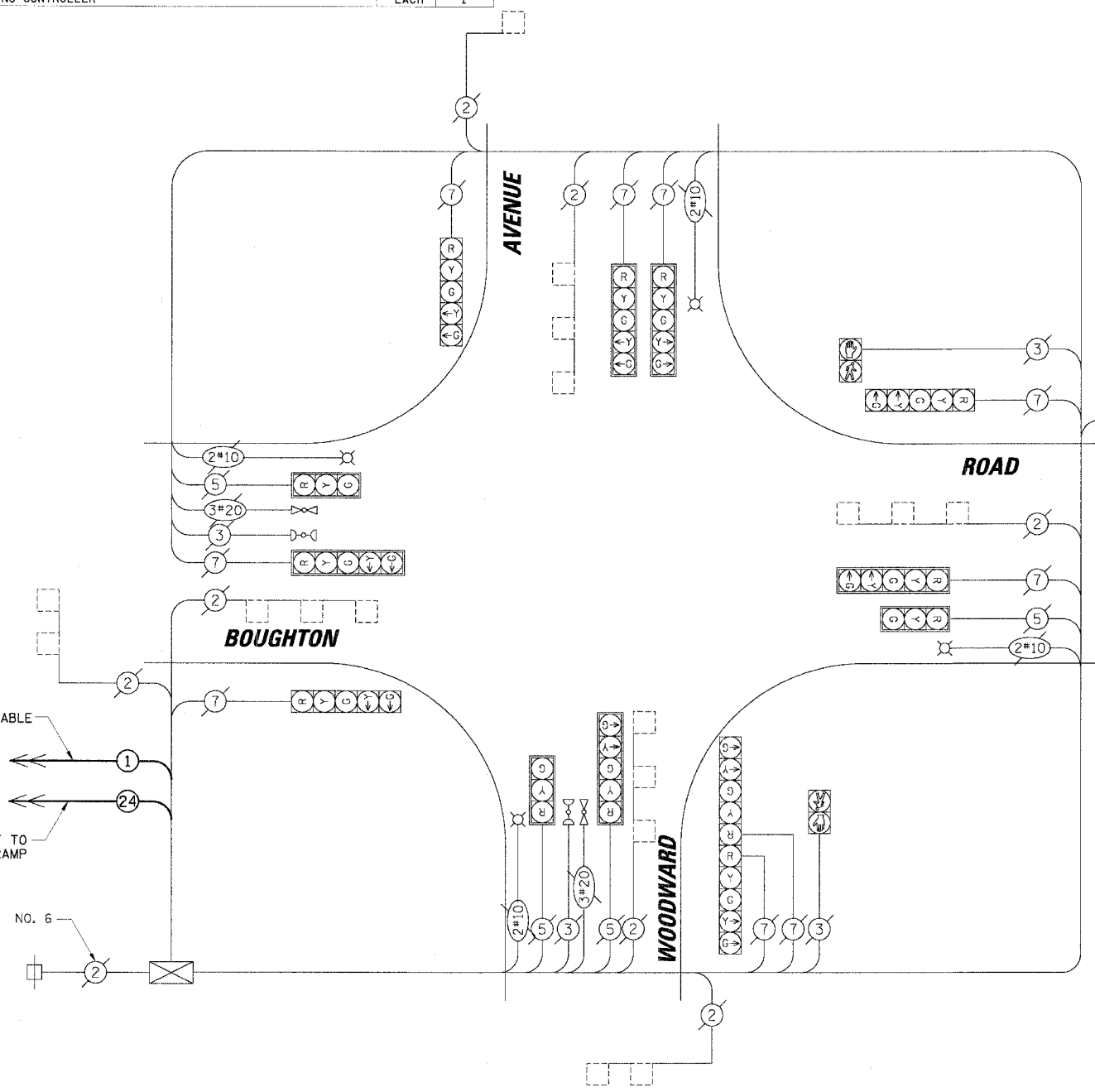
**ENERGY COSTS TO:**

**DuPAGE COUNTY**  
421 N. COUNTY FARM ROAD  
WHEATON, IL 60187

ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
PHONE: (815) 724-5717  
COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				GROUND CABLE	1 (0.5)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	ILLUMINATED STREET NAME SIGN
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM ANTENNA
[Symbol]	[Symbol]	LUMINAIRE
[Symbol]	[Symbol]	COAXIAL CABLE

CONSTRUCTION NOTES:  
① INSTALL NEW FIBER OPTIC TRANSCEIVER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**

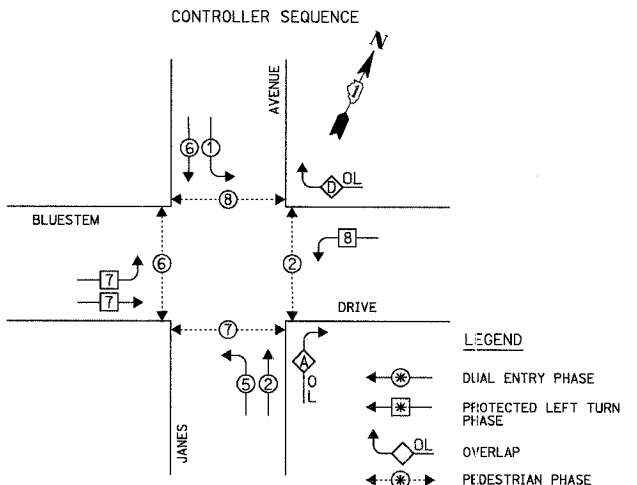
BOUGHTON ROAD AND WOODWARD AVENUE  
BOLINGBROOK, ILLINOIS

SCALE: N.T.S.  
DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

PLAN NO. 37  
 DATE 3/1/06  
 CHECKED BY: [Signature]  
 DESIGNED BY: [Signature]  
 DRAWN BY: [Signature]  
 DATE 3/1/06  
 PROJECT: 3580 04-00043-00-TL  
 CONTRACT NO.: 83855  
 SHEET NO.: 30 OF 54

F.A.U. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	31
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855			



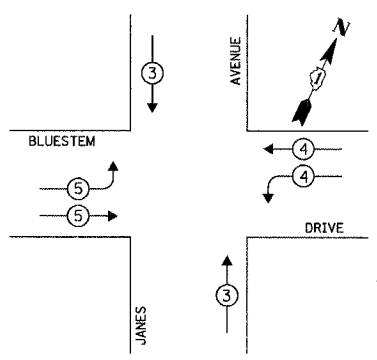
**LEGEND**

- DUAL ENTRY PHASE
- PROTECTED LEFT TURN PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A =	2 +	8
D =	8 +	1

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

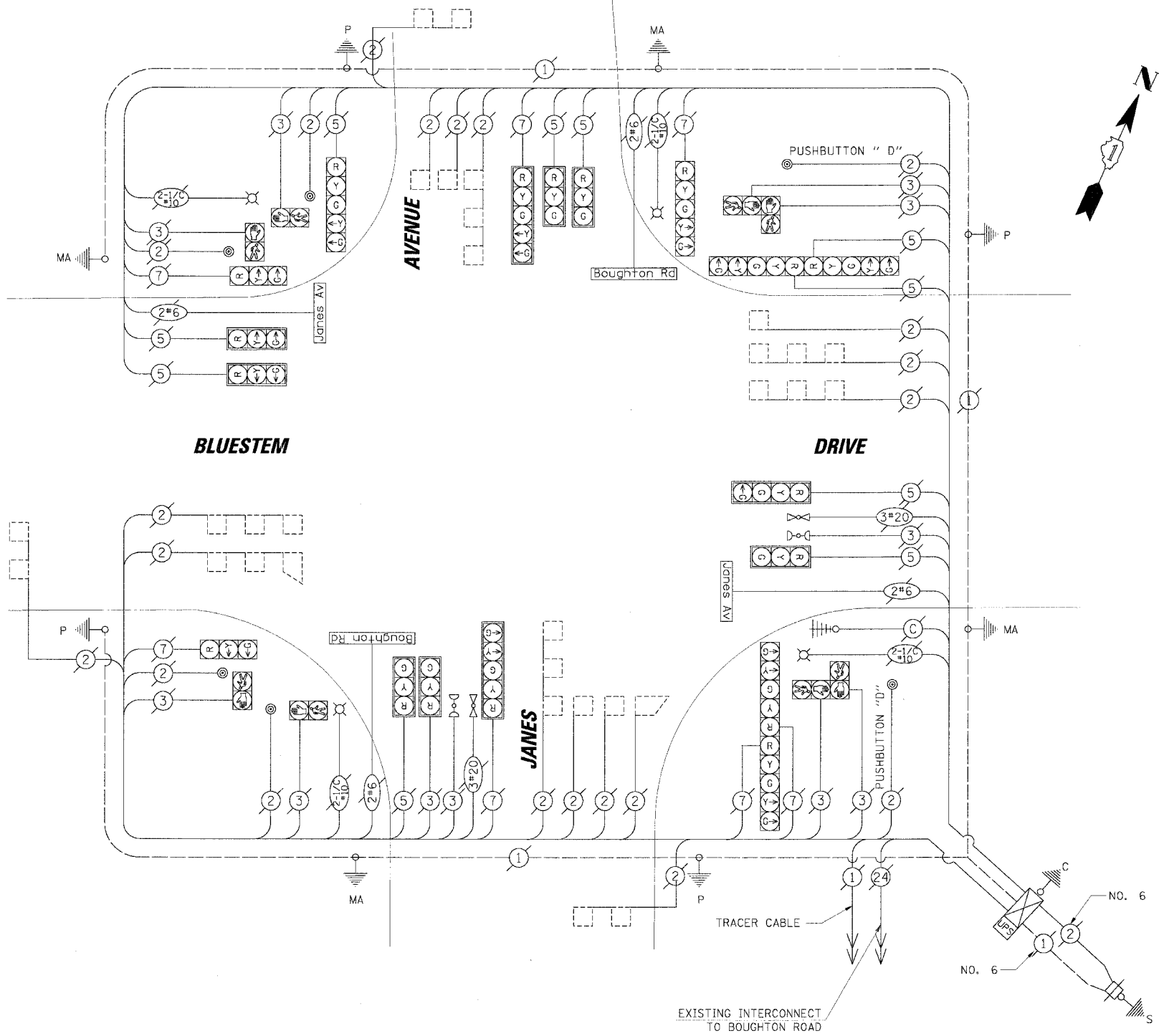
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↓	↑	↔

**I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	WATTAGE	TOTAL WATTAGE
SIGNAL (RED)	24	17	204.00
(YELLOW)	24	25	150.00
(GREEN)	24	15	90.00
ARROW	20	12	24.00
PED. SIGNAL	12	25	300.00
CONTROLLER	1	100	100.00
ILLUM. SIGN	-	25	-
ILLUM. ST. NAME SIGN	8	24 FLOURESCENT	96.00
FLASHER	-	0.50	964.00
TOTAL =			515.20

**VILLAGE OF BOLINGBROOK**  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	13 (4.0)
		30" (750mm)	15 (4.6)	FIBER OPTIC	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	DENOTES NUMBER OF CONDUCTORS.
(Symbol)	(Symbol)	ALL CABLE NO. 14 EXCEPT AS INDICATED.
(Symbol)	(Symbol)	ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	GROUND CABLE IN CONDUIT
(Symbol)	(Symbol)	NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT
(Symbol)	(Symbol)	NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE.
(Symbol)	(Symbol)	"P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY

**CONSTRUCTION NOTE:**  
 (1) NO MODIFICATIONS REQUIRED.

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**FOR INFORMATION ONLY**

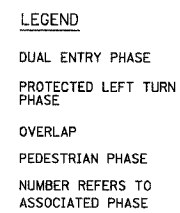
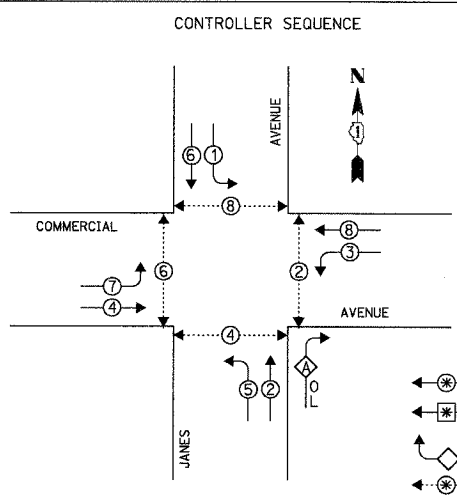
**REVISIONS**

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 JANES AVENUE AND BLUESTEM DRIVE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

PROFILE SURVEYED, PLOTTED, CHECKED, AND NOTED BY: [Name]  
 DATE: [Date]  
 PLAN SURVEYED, PLOTTED, CHECKED, AND NOTED BY: [Name]  
 DATE: [Date]  
 CRIB ENGINEERING LTD.  
 3575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

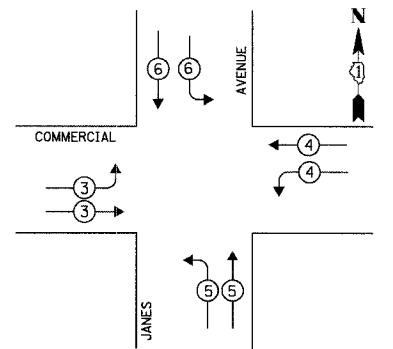
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO.: 83855				



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3

EMERGENCY VEHICLE PREEMPTION SEQUENCE



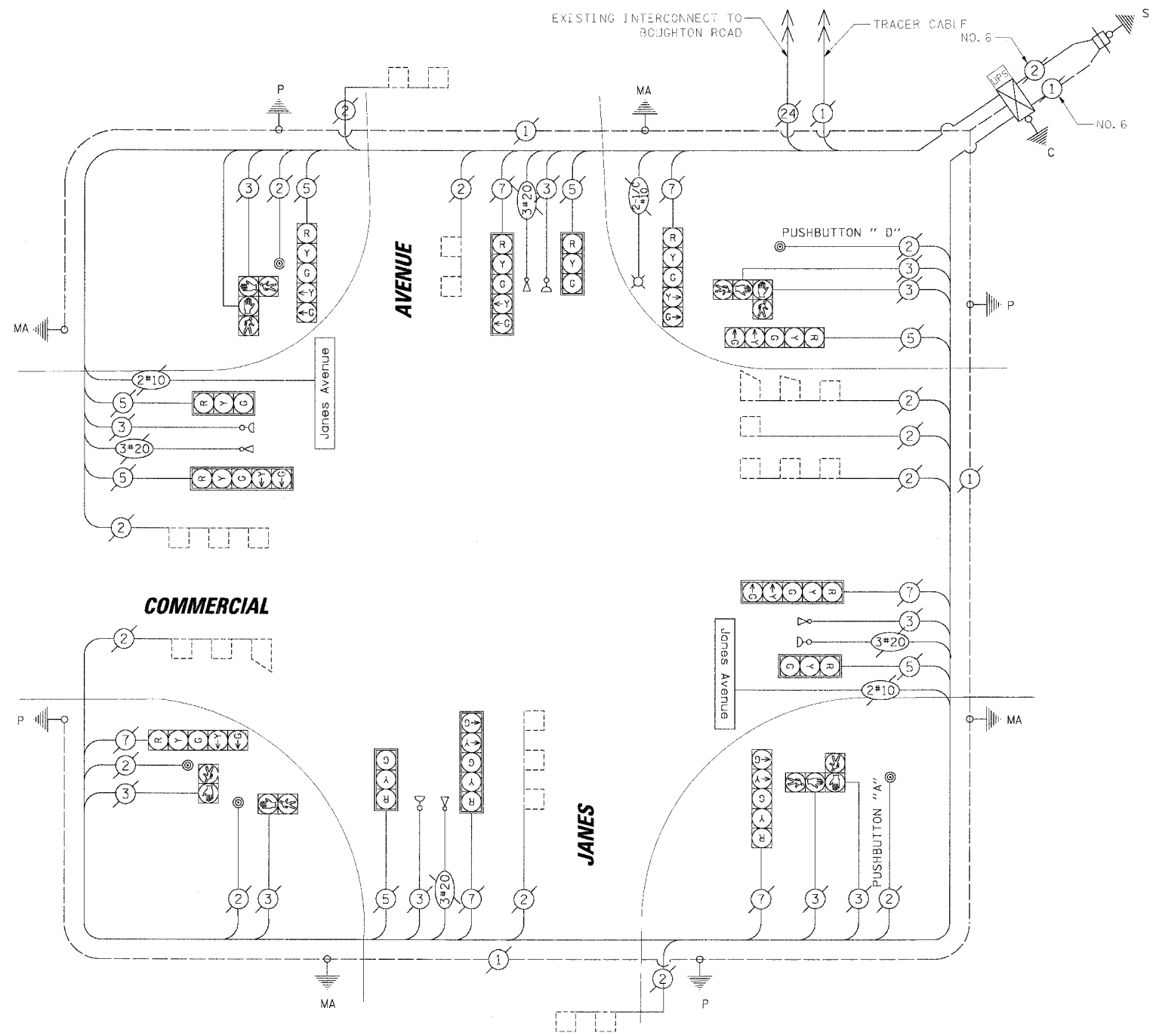
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	24	17	0.50	204.00
(YELLOW)	24	25	0.25	150.00
(GREEN)	24	15	0.25	90.00
ARROW	20	12	0.10	24.00
PED. SIGNAL	12	25	1.00	300.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
ILLUM. ST. NAME SIGN	8	24 FLOURES-CENT	0.50	96.00
FLASHER	-	0.50	0.50	964.00
ENERGY COSTS TO:				TOTAL = 515.20

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY



CONSTRUCTION NOTE:  
 ① NO MODIFICATIONS REQUIRED.

NAME	DATE

FOR INFORMATION ONLY  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 JAMES AVENUE AND COMERCIAL  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

BY: CHRISTOPHER B. BURKE ENGINEERING LTD.  
 805 West Higgins Road, Suite 600  
 Bolingbrook, IL 60440  
 (815) 823-0500



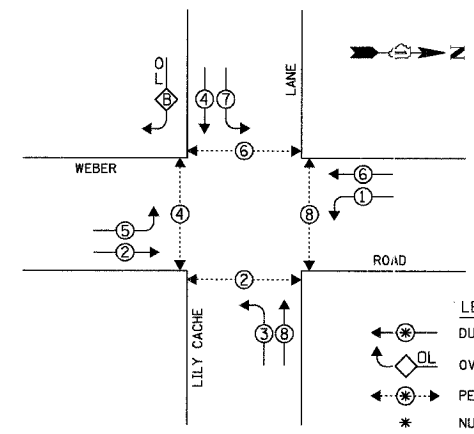
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	33
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES		UNIT	TOTAL
ITEM		EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION			

**CABLE PLAN LEGEND**

	<b>EXISTING</b>		<b>PROPOSED</b>	8" (200mm) TRAFFIC SIGNAL SECTION
				12" (300mm) TRAFFIC SIGNAL SECTION
				12" (300mm) PEDESTRIAN SIGNAL SECTION
				12" (300mm) PEDESTRIAN SIGNAL SECTION
				CONTROLLER CABINET
				SERVICE INSTALLATION
				TELEPHONE INSTALLATION
				VEHICLE DETECTOR, INDUCTION LOOP
				MAGNETIC DETECTOR
				EMERGENCY VEHICLE LIGHT DETECTOR
				CONFIRMATION BEACON
				PUSHBUTTON DETECTOR
				DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED.
				ALL LOOP DETECTOR CABLE TO BE SHIELDED.
				GROUND CABLE IN CONDUIT
				NO. 6 SOLID COPPER (GREEN)
				FIBER OPTIC CABLE IN CONDUIT
				NO. 62.5/125 2-MM12F SM12F
				SIGNAL FACE WITH BACKPLATE.
				"P" INDICATES PROGRAMMED HEAD.
				RAILROAD CONTROL CABINET
				ILLUMINATED SIGN
				"NO LEFT TURN"
				ILLUMINATED SIGN
				"NO RIGHT TURN"
				GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
				GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
				GROUND ROD AT ELECTRIC SERVICE INSTALLATION
				ILLUMINATED STREET NAME SIGN
				EMERGENCY VEHICLE SYSTEM ANTENNA
				LUMINAIRE
				COAXIAL CABLE
				UNINTERRUPTIBLE POWER SUPPLY

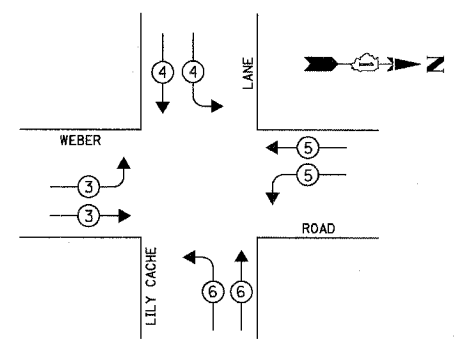
**PROPOSED CONTROLLER SEQUENCE**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING INTERCONNECT TO HASSERT BLVD. / BRADFORD PLACE DR.

TRACER CABLE

TRACER CABLE

PROPOSED INTERCONNECT TO WEBER ROAD/VETERANS PARKWAY

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED x % OPERATION		
SIGNAL (RED)	14		17	0.50	119.00
(YELLOW)	14		25	0.25	87.50
(GREEN)	14		15	0.25	52.50
ARROW	20		12	0.10	24.00
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
ILLUM. ST NAME SIGN	4		60	0.50	
LUMINAIRE	2	250		0.50	120.00
FLASHER				0.50	250.00
ENERGY COSTS TO:				TOTAL =	953.00

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.5	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20'+L-2'	
E - M. ARM POLE			SIGNAL POST	2	(1.0)		(6m+L-0.6m)	
			24" (600mm)	10	(3.0)	CONTROLLER CAB.	1	(0.5)
			30" (750mm)	15	(4.6)	FIBER OPTIC	13	(4.0)
			36" (900mm)	15	(4.6)	ELECTRIC SERVICE	1	(0.5)
						GROUND CABLE	1	(0.5)
						SERVICE TO GROUND	13.5	(4.1)
						POST MOUNTED	6	(1.8)

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**CONSTRUCTION NOTE:**

- 1 FIBER OPTIC CABLE FROM WEBER ROAD AND VETERANS PARKWAY TO BE TERMINATED IN SPLICE BOX BUT NOT CONNECTED TO THIS INTERSECTION.

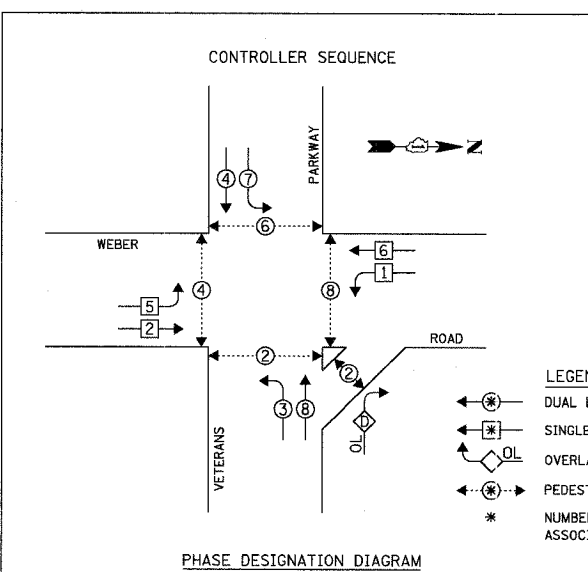
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 WEBER ROAD AND LILY CACHE LANE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 5575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 STRUCTURE NO.: \_\_\_\_\_  
 FILE NAME: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROFILL DRAWING  
 NOTE BOOK  
 NO. \_\_\_\_\_



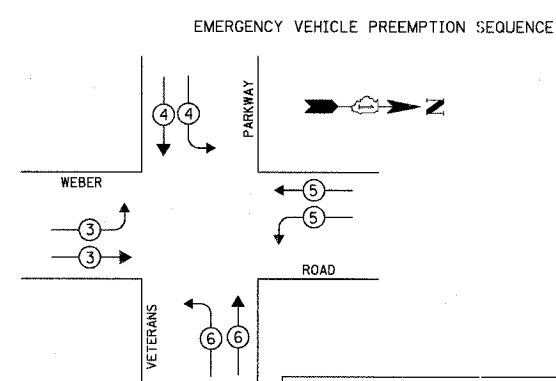
SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	20
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	12
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1

**LEGEND**

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	8	1



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

**I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	23	17	0.50	195.50
(YELLOW)	23	25	0.25	143.75
(GREEN)	23	15	0.25	86.25
ARROW	12	12	0.10	14.40
PED. SIGNAL	10	25	1.00	250.00
CONTROLLER		100	1.00	100.00
ILLUM. SIGN		25	0.05	
ILLUM. ST NAME SIGN	4	60	0.50	
LUMINAIRE	4	250	0.50	120.00
FLASHER		0.50		500.00
<b>ENERGY COSTS TO:</b>				<b>TOTAL = 1409.90</b>

**VILLAGE OF BOLINGBROOK**  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

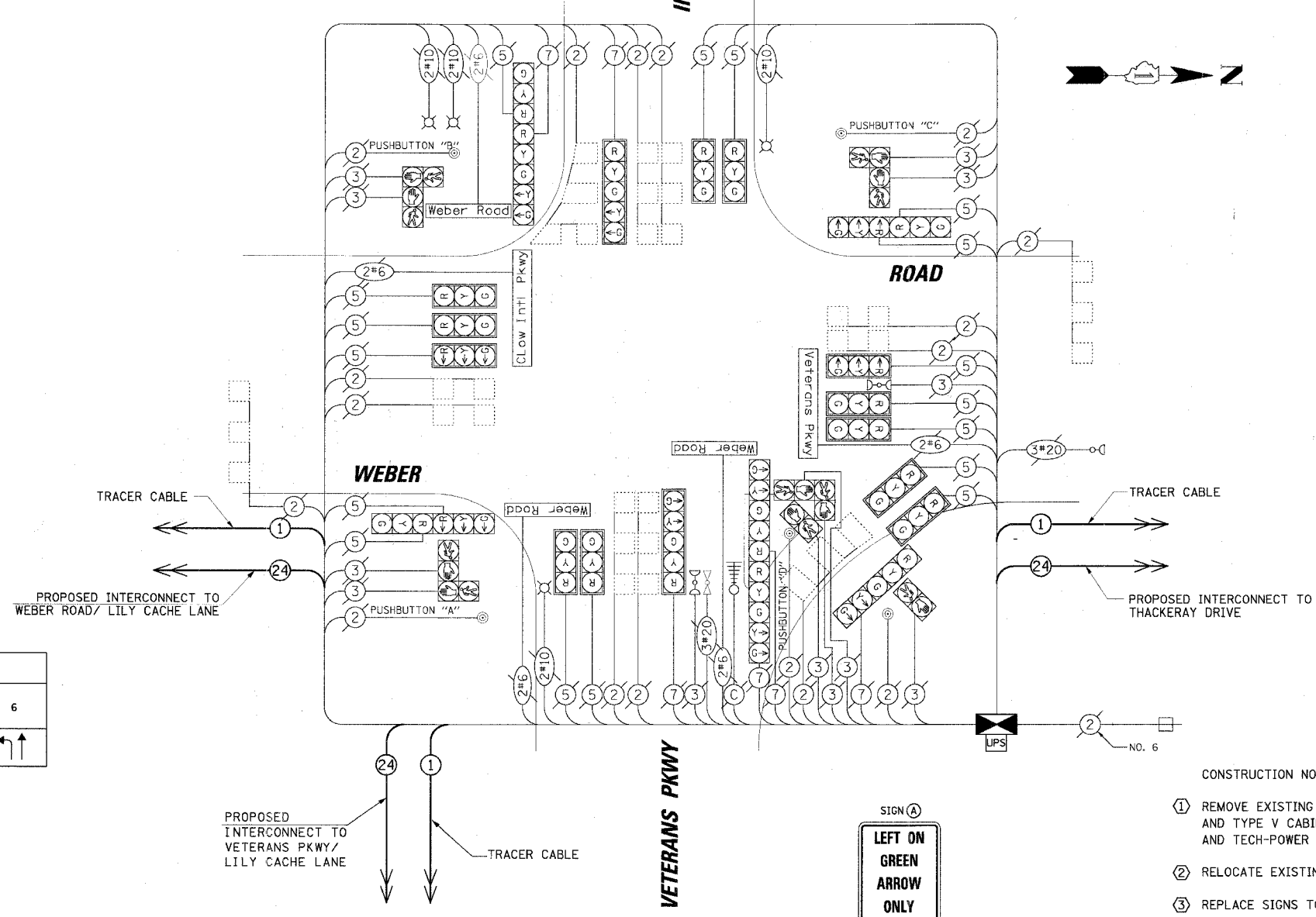
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

**NOTE:**  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 4 EACH SIGN PANEL - TYPE 1

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.



**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE INSTALLATION
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	ILLUMINATED STREET NAME SIGN
(Symbol)	(Symbol)	EMERGENCY VEHICLE SYSTEM ANTENNA
(Symbol)	(Symbol)	LUMINAIRE
(Symbol)	(Symbol)	COAXIAL CABLE
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, FIBER OPTIC TRANSCEIVER, AND TECH-POWER M-E SERIES UPS.
  - RELOCATE EXISTING EVP UNIT.
  - REPLACE SIGNS TO "LEFT ON GREEN ARROW ONLY" (4 REQUIRED).
  - FIBER OPTIC CABLE FROM WEBER ROAD AND LILY CACHE LANE TO BE TERMINATED IN THE SPLICE BOX BUT NOT CONNECTED TO THIS CONTROLLER.



**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**REVISIONS**

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 WEBER ROAD AND VETERANS PARKWAY  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

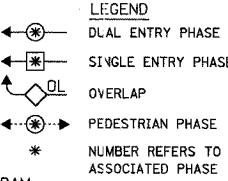
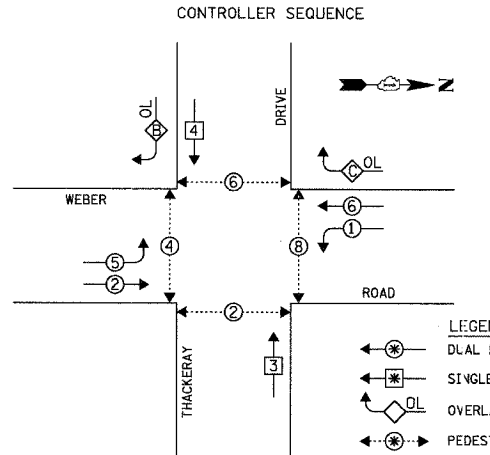
F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL		WILL	54	35
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

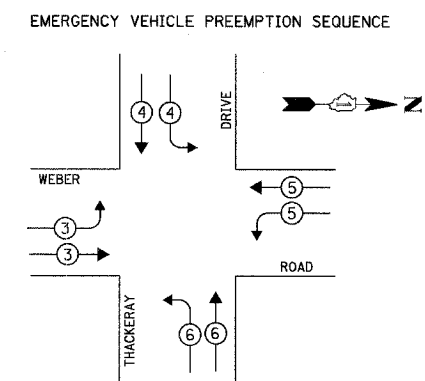
1 EACH CONTROLLER AND CABINET (COMPLETE)

ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	16
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND ROD IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
C	= 6	+ 4



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

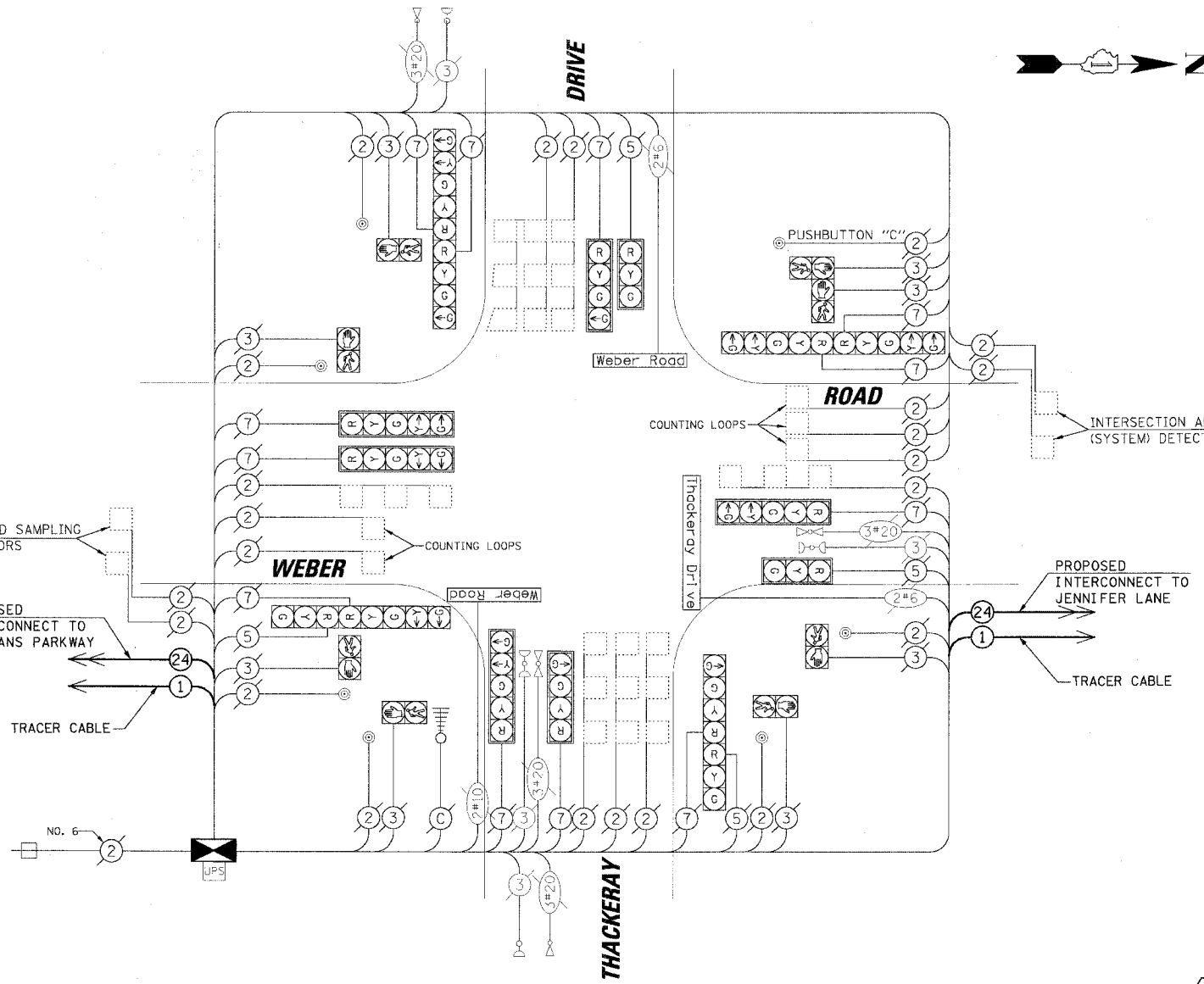
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	135	135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW	135	135	12	0.10	
PED. SIGNAL	90	90	25	1.00	
CONTROLLER	100	100		1.00	
ILLUM. SIGN	252	252	25	0.05	
FLASHER				0.50	
TOTAL =					

ENERGY COSTS TO: TOTAL =

VILLAGE OF BOLINGBROOK  
375 BRIARCLIFF ROAD  
BOLINGBROOK, ILLINOIS 60440-0951  
ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
PHONE: (815) 724-5717  
COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
	24" (600mm)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
	36" (900mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE: PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.



- CONSTRUCTION NOTES:
- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.
  - ② RELOCATE EXISTING EVP AND UPS UNITS.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
WEBER ROAD AND THACKERAY DRIVE  
BOLINGBROOK, ILLINOIS  
SCALE: N.T.S. DATE: 4/7/2006  
DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

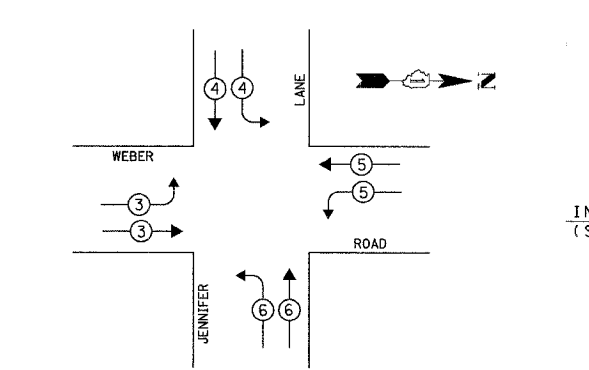
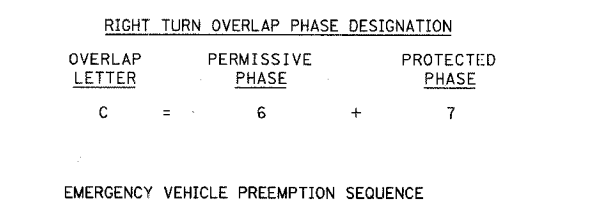
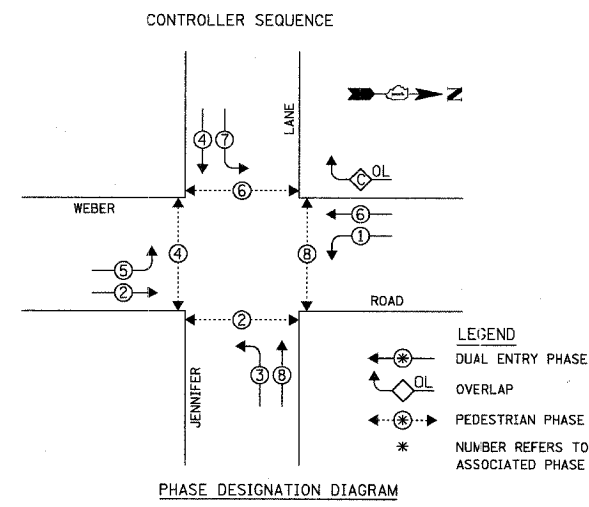
CHRISTOPHER B. BURKE ENGINEERING LTD.  
18471 823-0500  
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
DATE: \_\_\_\_\_ BY: \_\_\_\_\_

F.A.U. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	36
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	9
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1



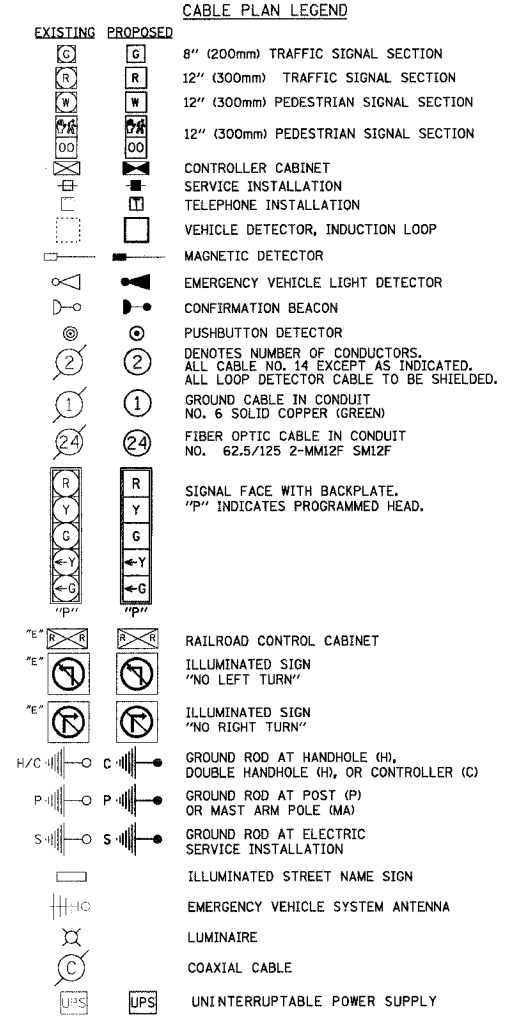
PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)		135	17		0.50
(YELLOW)		135	25		0.25
(GREEN)		135	15		0.25
ARROW		135	12		0.10
PED. SIGNAL		90	25		1.00
CONTROLLER		100	100		1.00
ILLUM. SIGN		252	25		0.05
FLASHER					0.50
ENERGY COSTS TO:					TOTAL =

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

NOTE: PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



- CONSTRUCTION NOTES:
- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCEIVER.
  - ② RELOCATE EXISTING EVP AND UPS UNITS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 WEBER ROAD AND JENNIFER LANE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

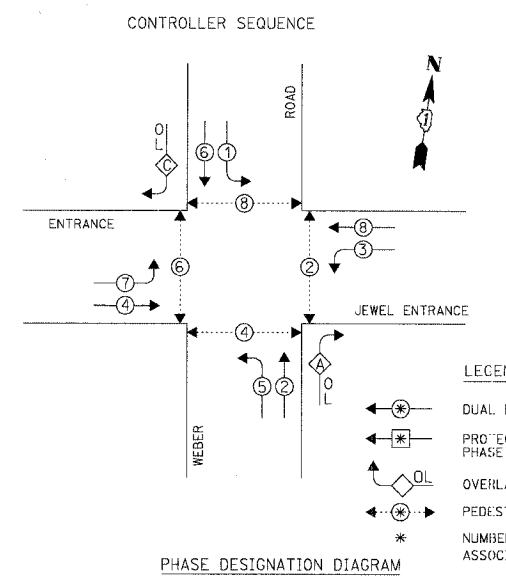
BY: DATE: CHRISTOPHER B. BURKE ENGINEERING L.L.C. 375 BRIARCLIFF ROAD, SUITE 600 BOLINGBROOK, ILLINOIS 60440-0951 (815) 823-0500  
 CHECKED: DATE: BY: DATE:

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	37
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				

SCHEDULE OF QUANTITIES	UNIT	TOTAL
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	6
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

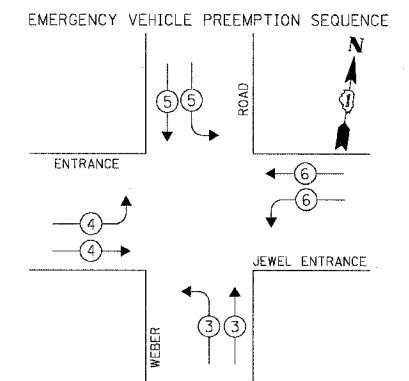
1 EACH CONTROLLER AND CABINET (COMPLETE)



**LEGEND**

- DUAL ENTRY PHASE
- PROTECTED LEFT TURN PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
C	= 6	+ 7



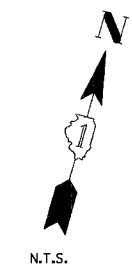
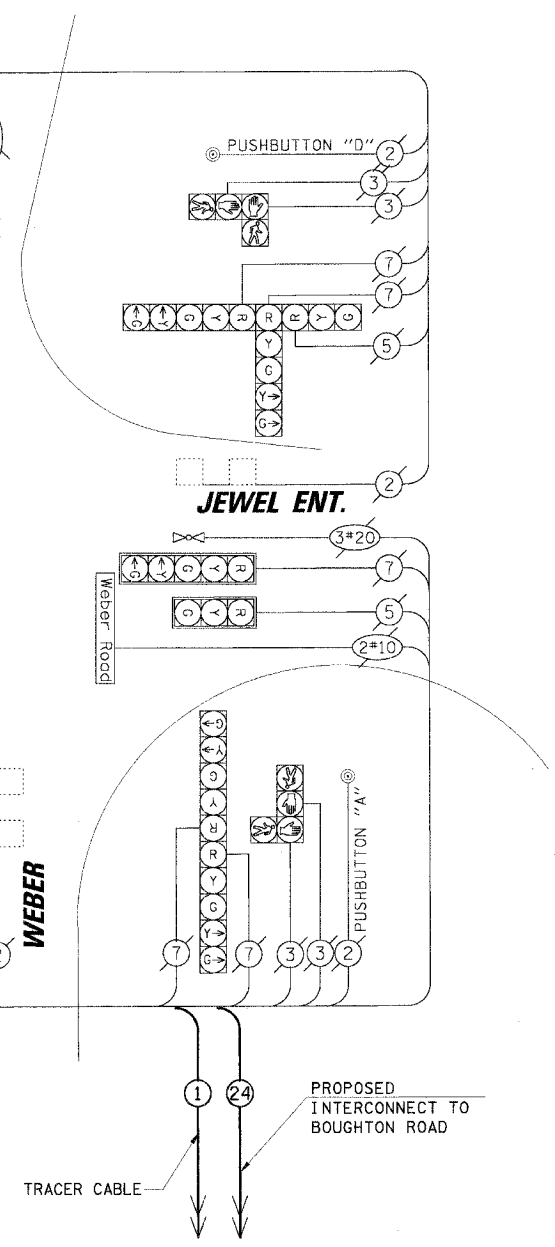
PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	←	→	↓	←

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	17	17	0.50		144.50
(YELLOW)	17	25	0.25		106.25
(GREEN)	17	15	0.25		63.75
ARROW	24	12	0.10		28.80
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
ILLUM. ST NAME SIGN	2	25	0.50		60.00
LUMINAIRES	2	250	0.50		250.00
FLASHER	-	0.50	-		-
ENERGY COSTS TO:					TOTAL = 953.30

VILLAGE OF BOLINGBROOK  
 375 BRIARCLIFF ROAD  
 BOLINGBROOK, ILLINOIS 60440-0951  
 ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
 PHONE: (815) 724-5717  
 COMPANY: COMED

**NOTE:**  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	13 (4.0)
		30" (750mm)	15 (4.6)	FIBER OPTIC	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				GROUND CABLE	1 (0.5)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY

- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION, AND FIBER OPTIC TRANSCIVER.
  - RELOCATE EXISTING EVP AND UPS UNITS.

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
 WEBER ROAD AND JEWEL ENTRANCE  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S. DRAWN BY: FCP/FPB  
 DATE: 4/7/2006 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_

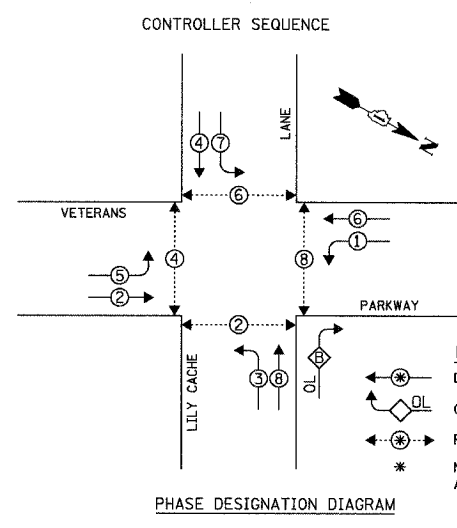
F.A.L.L. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	38
STA. TO STA.		ILLINOIS FED. AID PROJECT	
CONTRACT NO. 83855			

ITEM	UNIT	TOTAL
CONTROLLER CABINET TYPE V	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIEIVER - FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	22
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE VILLAGE OF BOLINGBROOK, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CABINET

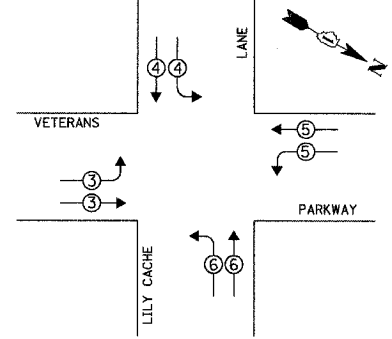
EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		ILLUMINATED STREET NAME SIGN
		EMERGENCY VEHICLE SYSTEM ANTENNA
		LUMINAIRE
		COAXIAL CABLE
		UNINTERRUPTIBLE POWER SUPPLY



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	8	1

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

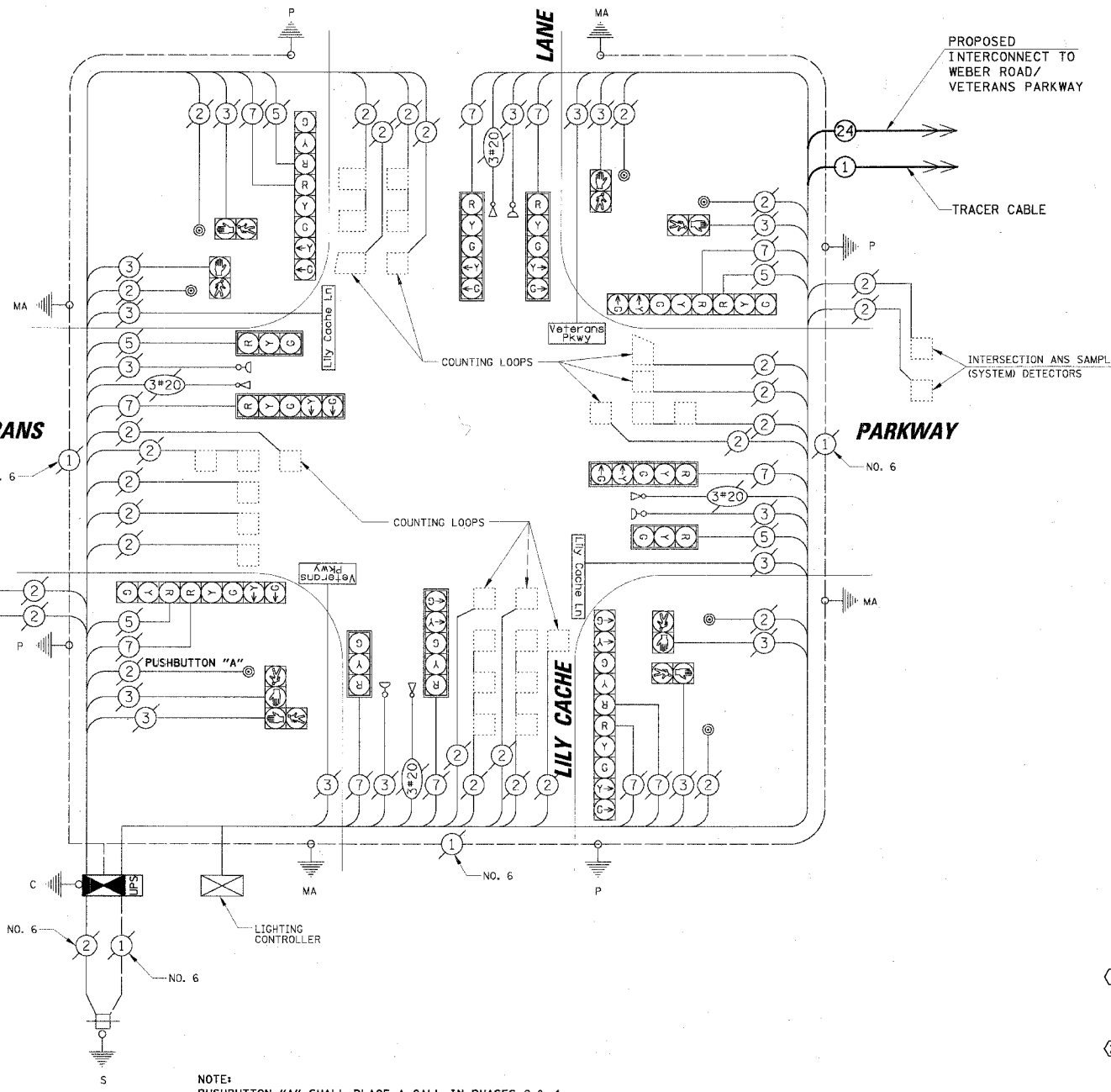
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED x % OPERATION	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	20	12	0.10	19.20
PED. SIGNAL	8	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
ILLUM. ST NAME SIGN	-	60	0.50	120.00
FLASHER	-	-	0.50	-
TOTAL =				740.00

ENERGY COSTS TO: TOTAL = 740.00

VILLAGE OF BOLINGBROOK  
375 BRIARCLIFF ROAD  
BOLINGBROOK, ILLINOIS 60440-0951

ENERGY SUPPLY: CONTACT: DALE BOLLINGER  
PHONE: (815) 724-5717  
COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)	
		24" (600mm)	10 (3.0)	CONTROLLER CAB.	13 (4.0)
		30" (750mm)	15 (4.6)	FIBER OPTIC	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



NOTE: PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 & 4.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CONSTRUCTION NOTES:

- REMOVE EXISTING CABINET. INSTALL NEW TYPE V CABINET ON EXISTING FOUNDATION, FIBER OPTIC TRANSCIEIVER, AND TECH-POWER M-E SERIES UPS.
- RELOCATE EXISTING CONTROLLER AND EVP UNIT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM**

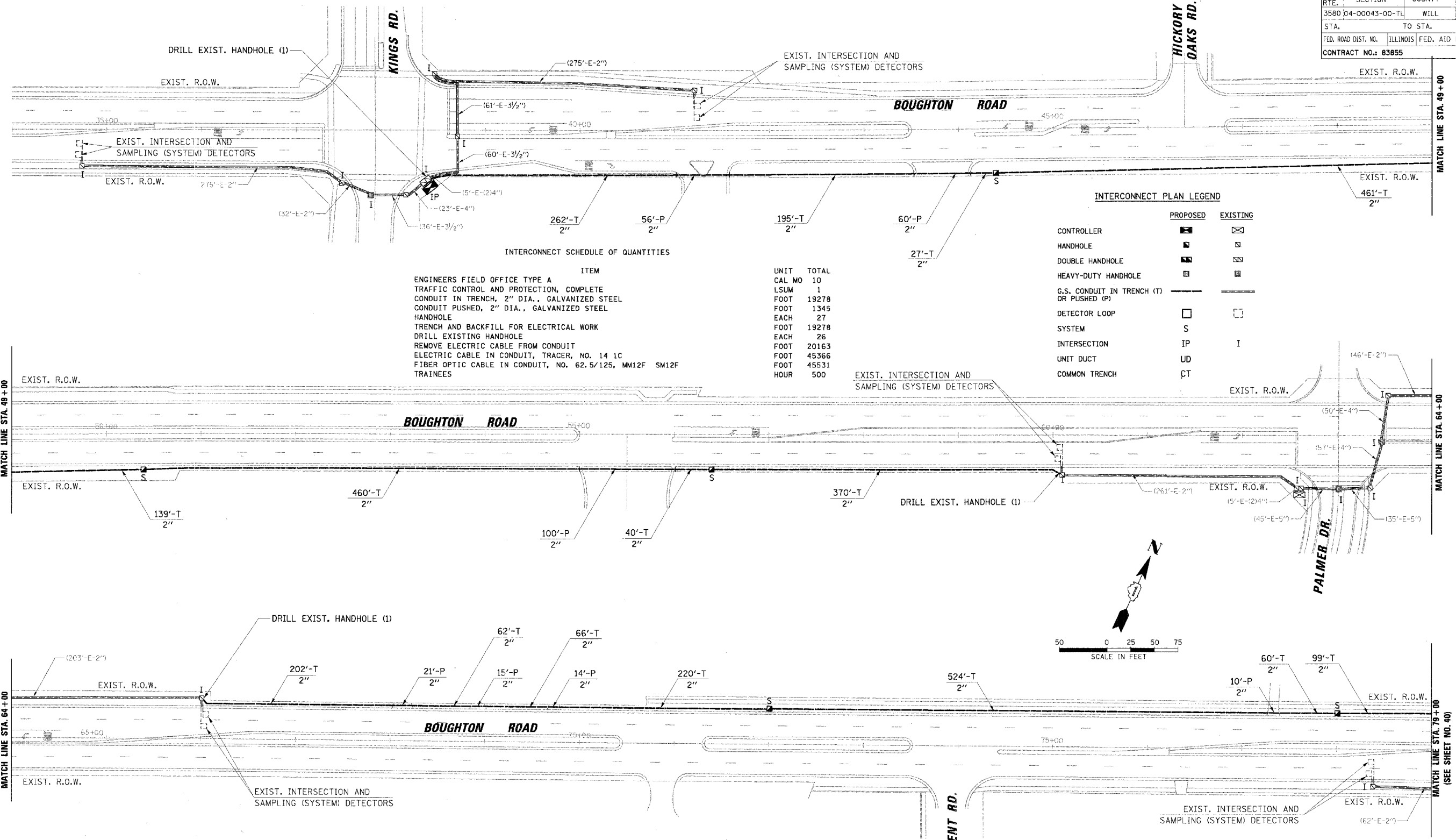
VETERANS PARKWAY AND LILY CACHE LANE  
BOLINGBROOK, ILLINOIS

SCALE: N.T.S.  
DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

CHRISTOPHER B. BURKE ENGINEERING LTD.  
575 West Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(847) 823-0500

F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
3580 04-00043-00-TL	WILL	54	39
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855			



INTERCONNECT SCHEDULE OF QUANTITIES

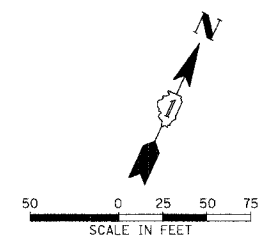
ITEM	UNIT	TOTAL
ENGINEERS FIELD OFFICE TYPE A TRAFFIC CONTROL AND PROTECTION, COMPLETE	CAL MO	10
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	LSUM	1
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	19278
HANDHOLE	FOOT	1345
TRENCH AND BACKFILL FOR ELECTRICAL WORK	EACH	27
DRILL EXISTING HANDHOLE	FOOT	19278
REMOVE ELECTRIC CABLE FROM CONDUIT	EACH	26
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	20163
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	45366
TRAINEES	FOOT	45531
	HOURL	500

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	☐	☒
HANDHOLE	◻	◻
DOUBLE HANDHOLE	◻	◻
HEAVY-DUTY HANDHOLE	◻	◻
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	—	—
DETECTOR LOOP	◻	◻
SYSTEM	S	I
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

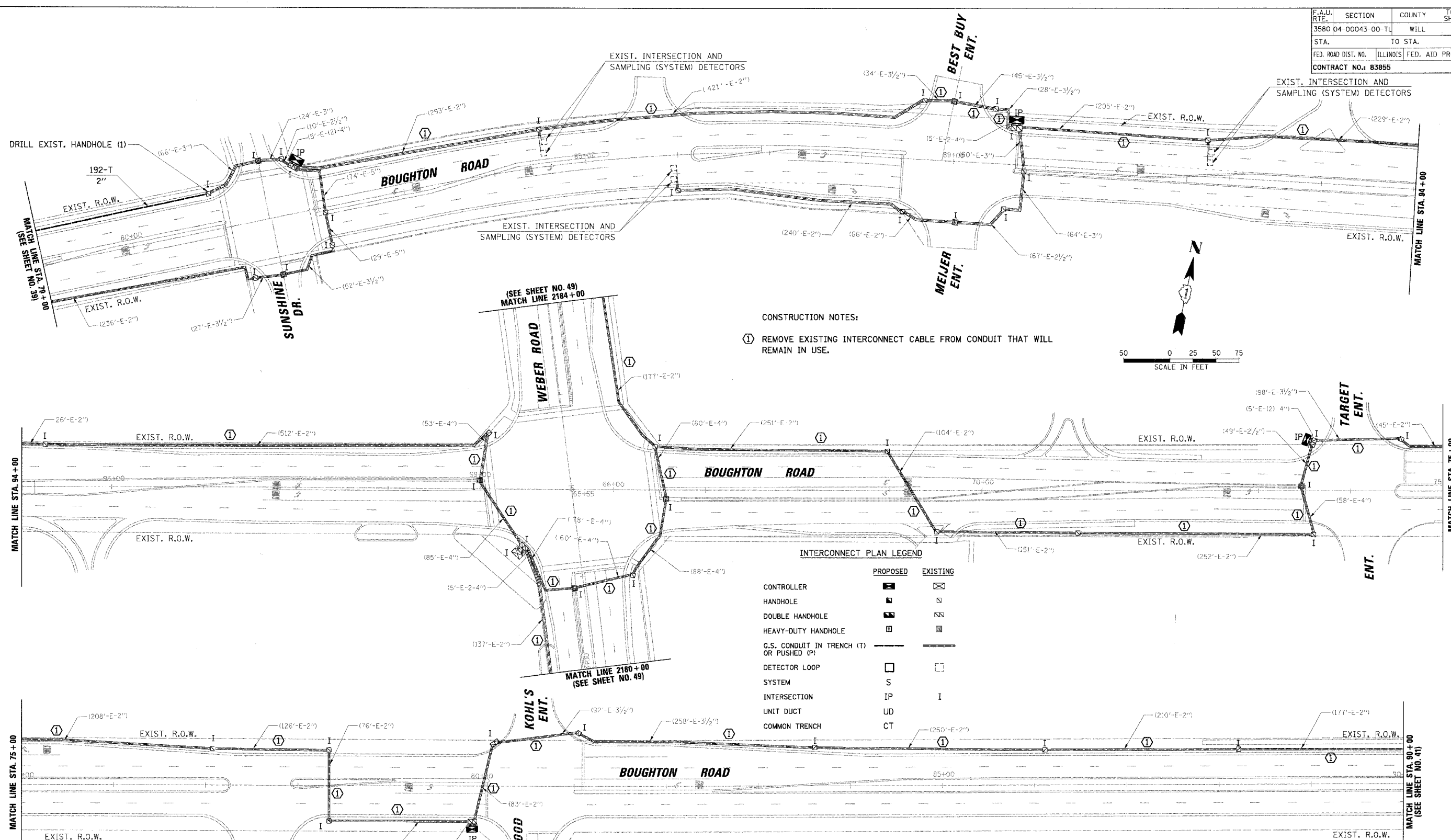
**INTERCONNECT PLAN**

BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS

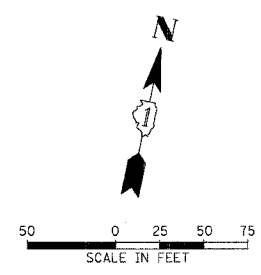
SCALE: 1" = 50'  
 DATE: 4/7/2006

DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

F.A.U. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	40
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855			



CONSTRUCTION NOTES:  
 ① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

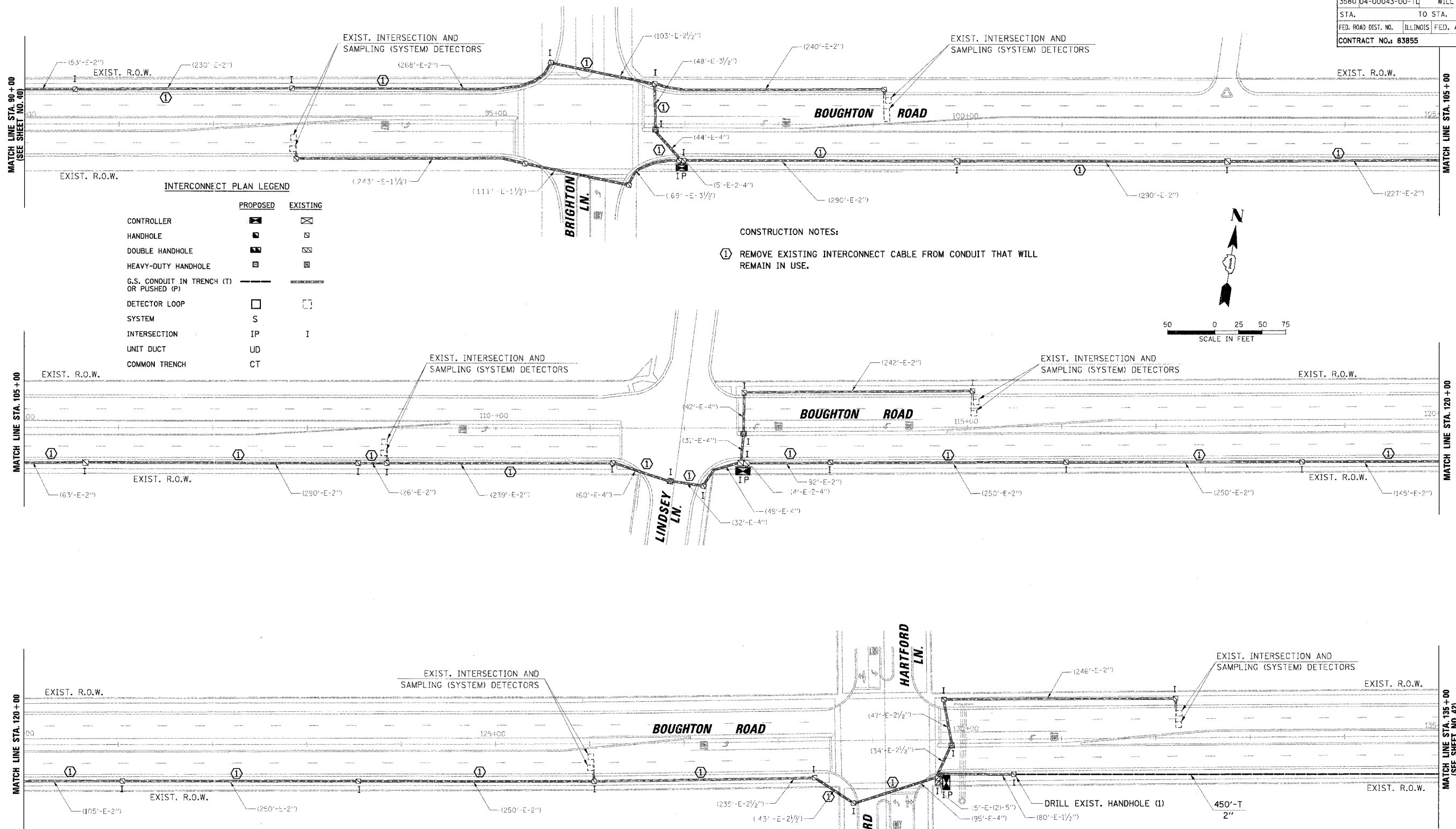
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
 BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: 1" = 50'  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_

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 Rosemont, Illinois 60018  
 (847) 823-0500



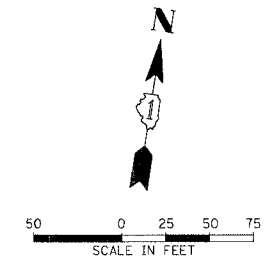
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	41
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	I
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

**CONSTRUCTION NOTES:**  
 ① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

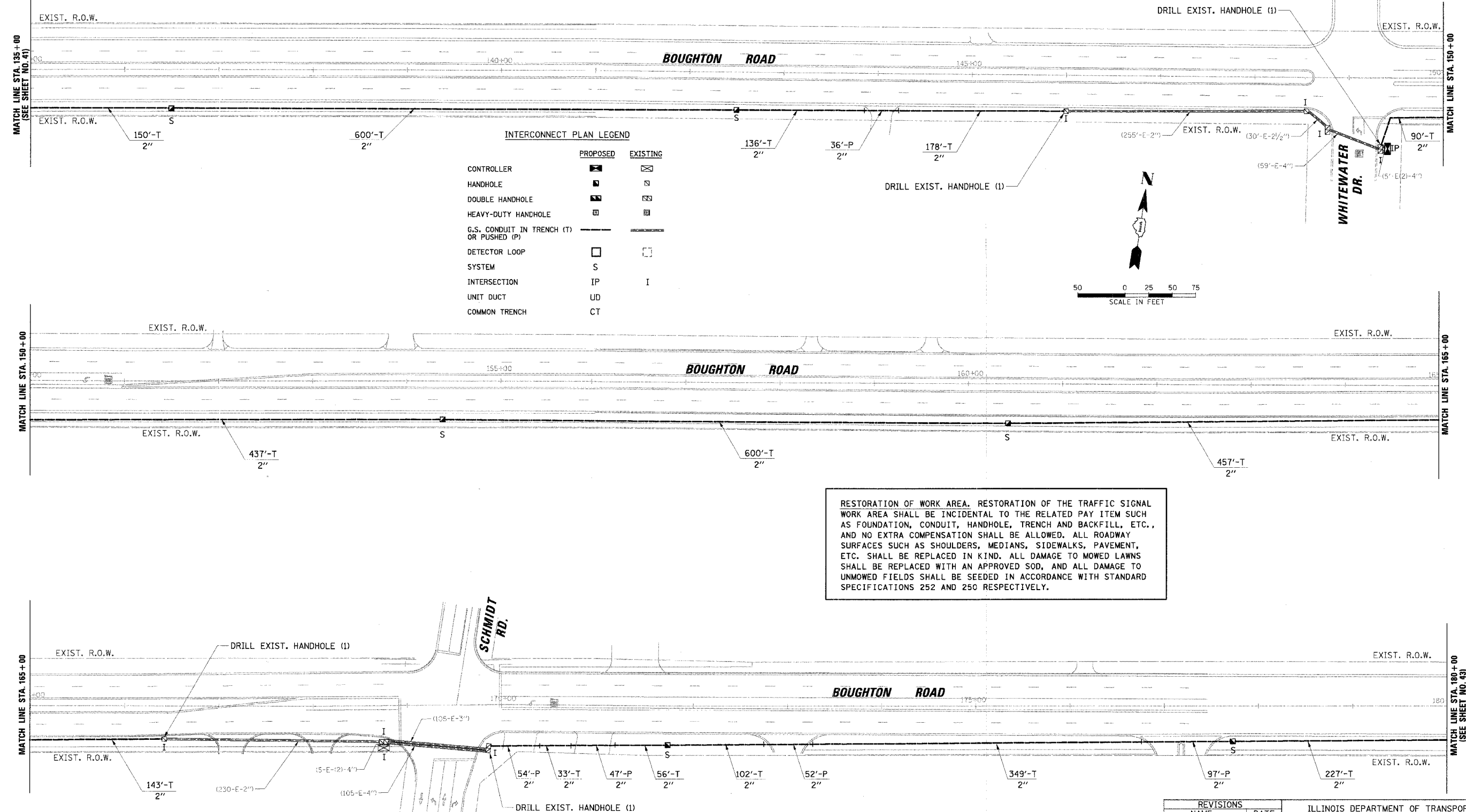
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
 BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: 1" = 50'  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO.: \_\_\_\_\_  
 STRUCTURE AND TRAFFIC CONTROL

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO.: \_\_\_\_\_  
 FILE NAME: \_\_\_\_\_

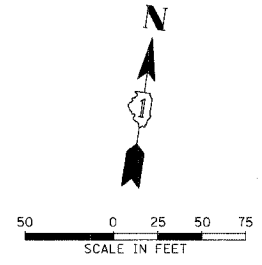
CHRISTOPHER B. BURKE ENGINEERING LTD.  
 2015 West Higgins Road, Suite 600  
 Bolingbrook, IL 60440  
 (815) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	42
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

PROFILE STARTED BY: DATE: \_\_\_\_\_  
 PLOTTED BY: DATE: \_\_\_\_\_  
 NOTE BOOK NO. AND TITLE: \_\_\_\_\_  
 STRUCTURE NOTATIONS: CH'D

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Highline Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

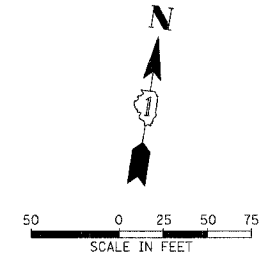
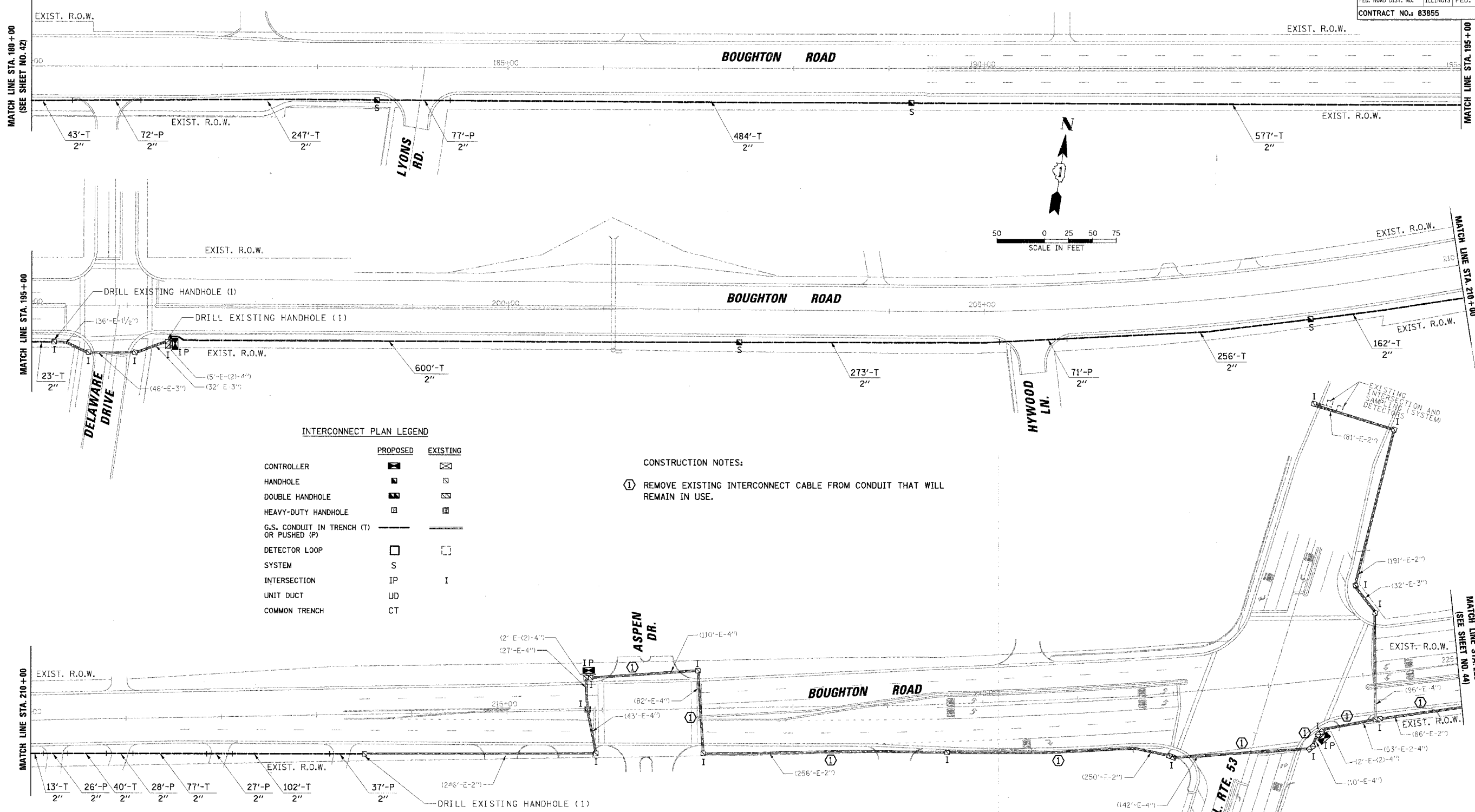
**INTERCONNECT PLAN**

BOUGHTON ROAD  
BOLINGBROOK, ILLINOIS

SCALE: 1" = 50'  
DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	D4-00043-00-TL	WILL	54	43
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

**CONSTRUCTION NOTES:**  
 ① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

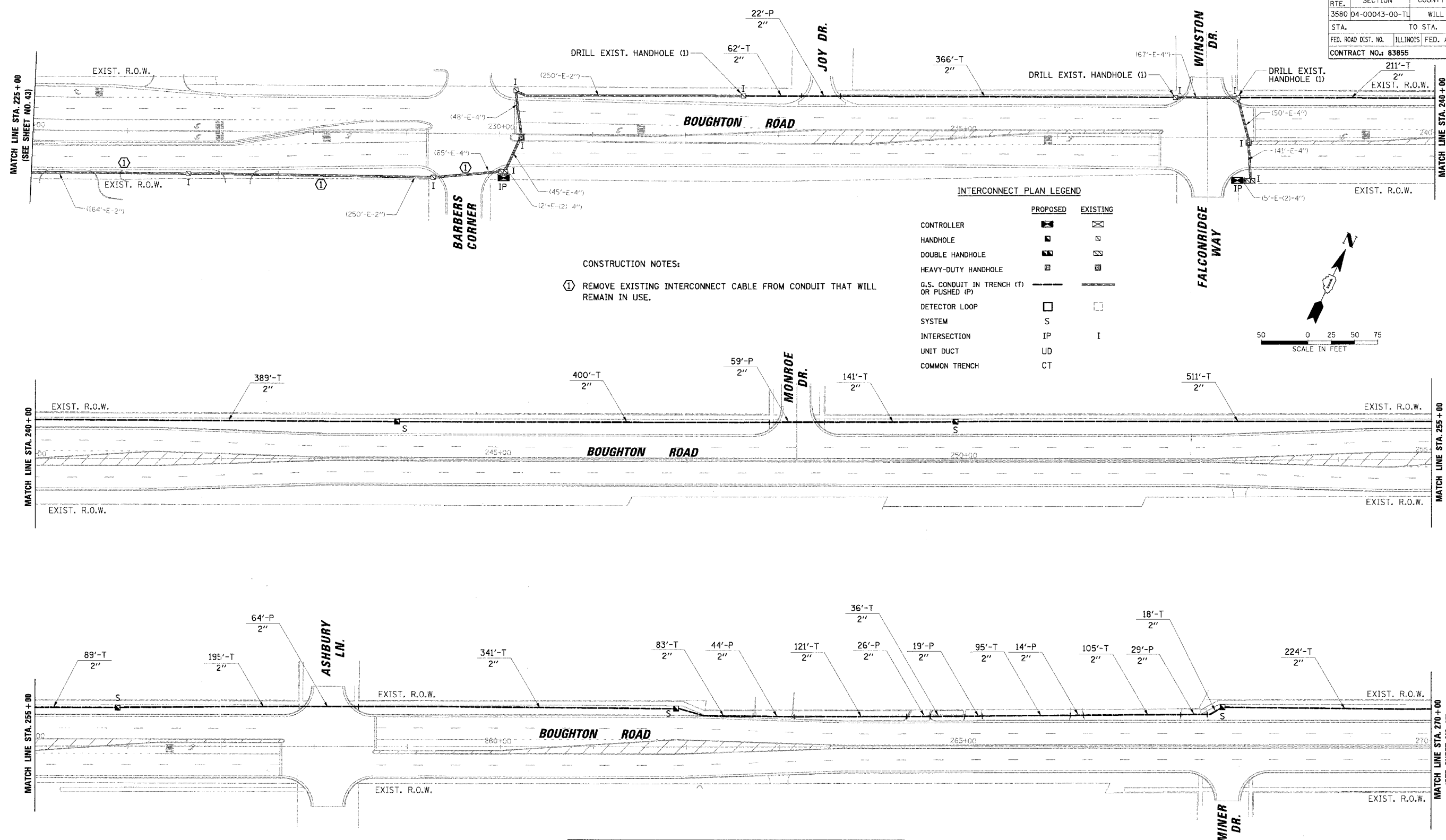
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
 BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: 1" = 50'  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

DATE: 3/27/06  
 BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: 3/27/06  
 PROJECT: BOUGHTON ROAD INTERCONNECT PLAN  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT  
 DATE: 4/7/2006

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

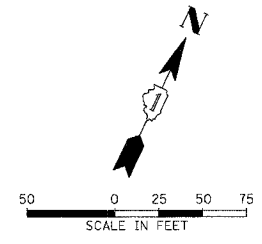
F.A.I.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	44
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



**CONSTRUCTION NOTES:**  
 ① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.

**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
SYSTEM	[Symbol]	[Symbol]
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	



PROFILE SURVEYED...  
 CHANGES CHECKED...  
 STRUCTURE NOTATION CHKD...  
 DATE...  
 BY...  
 PLAN...  
 NOTE BOOK NO...  
 NO...  
**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 9575 West Higgins Road, Suite 600  
 Chicago, Illinois 60618  
 (847) 823-0500  
 CBE

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

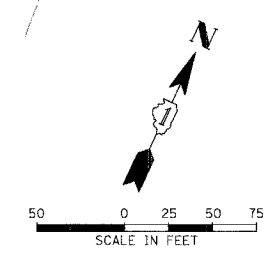
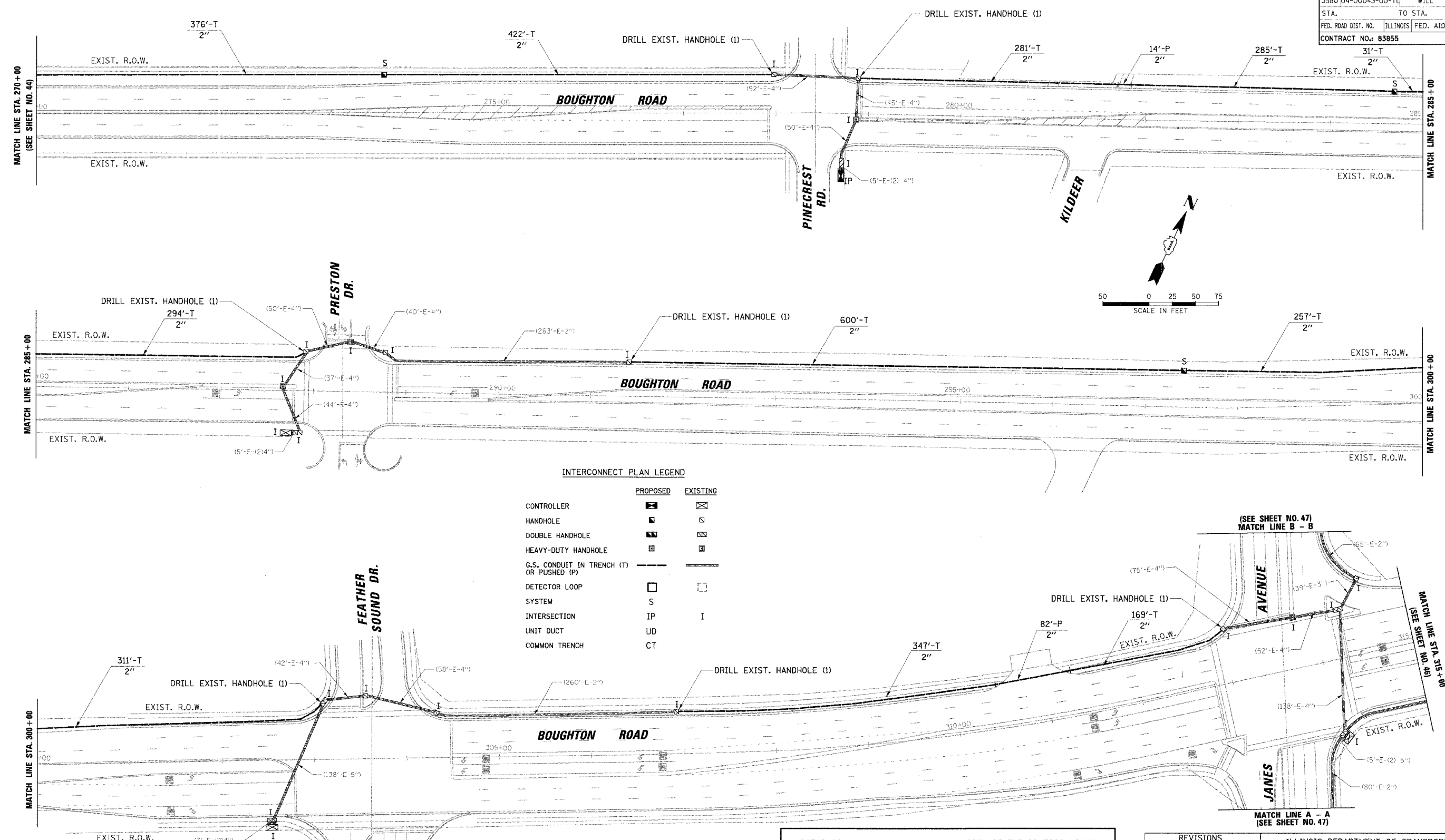
**INTERCONNECT PLAN**

BOUGHTON ROAD  
BOLINGBROOK, ILLINOIS

SCALE: 1" = 50'  
DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	45
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
SYSTEM	S	S
INTERSECTION	IP	I
UNIT DUCT	UD	UD
COMMON TRENCH	CT	CT

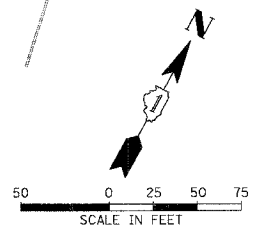
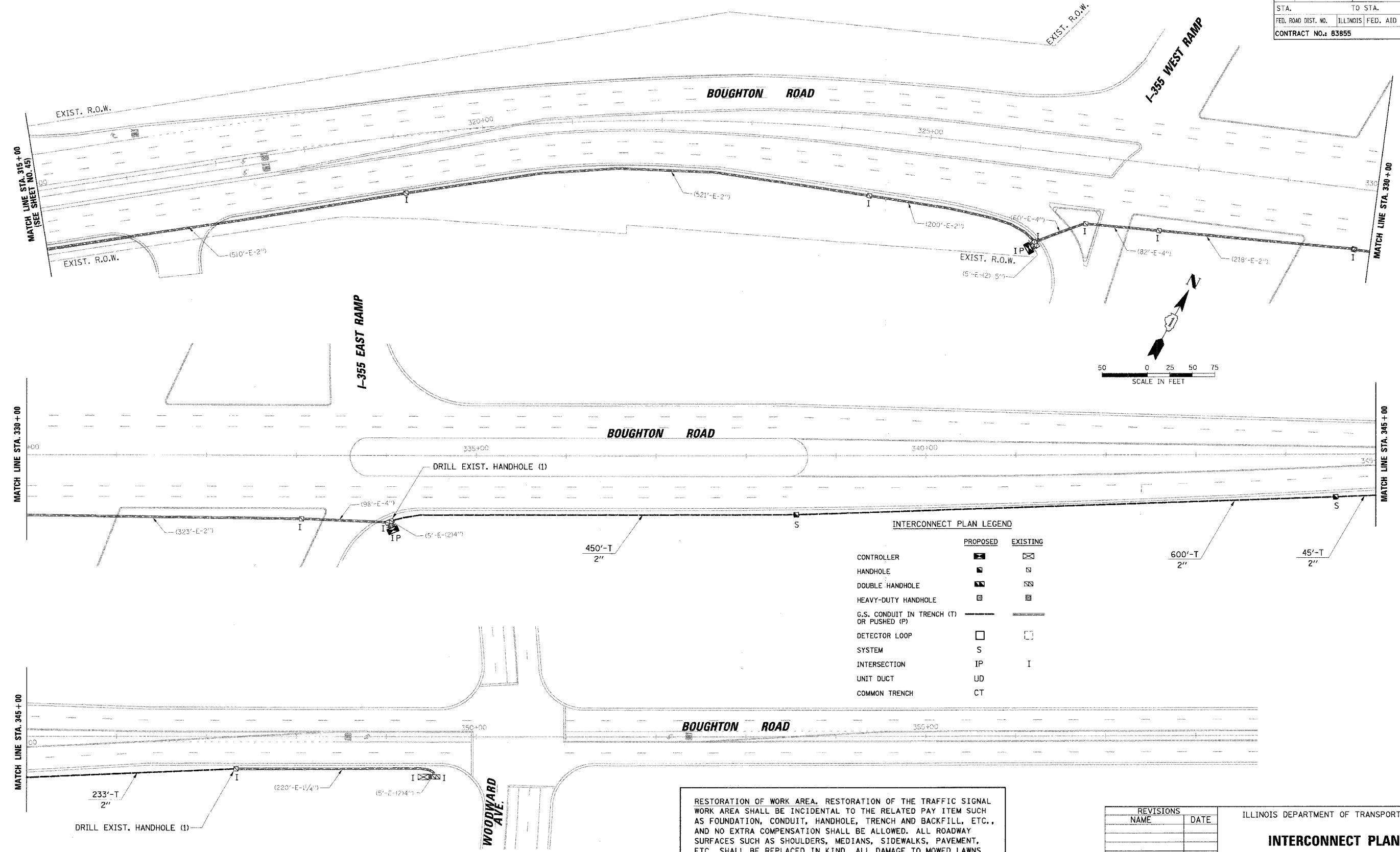
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
BOUGHTON ROAD  
BOLINGBROOK, ILLINOIS  
SCALE: 1" = 50'  
DATE: 4/7/2006  
DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
3015 West Higgins Road, Suite 600  
Bolingbrook, IL 60440  
(847) 823-0500  
  
**PLAN**  
NO. 100  
DATE: 4/7/2006  
SUBMITTED BY: FCP/FPB  
ALIGNED CHECKED: MKW  
FIELD FILE NAME: 05559.dgn  
  
**PROFILE**  
NO. 100  
DATE: 4/7/2006  
NOTICE: GRADES CHECKED  
STRUCTURE NOTATIONS: FCP/FPB

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	46
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

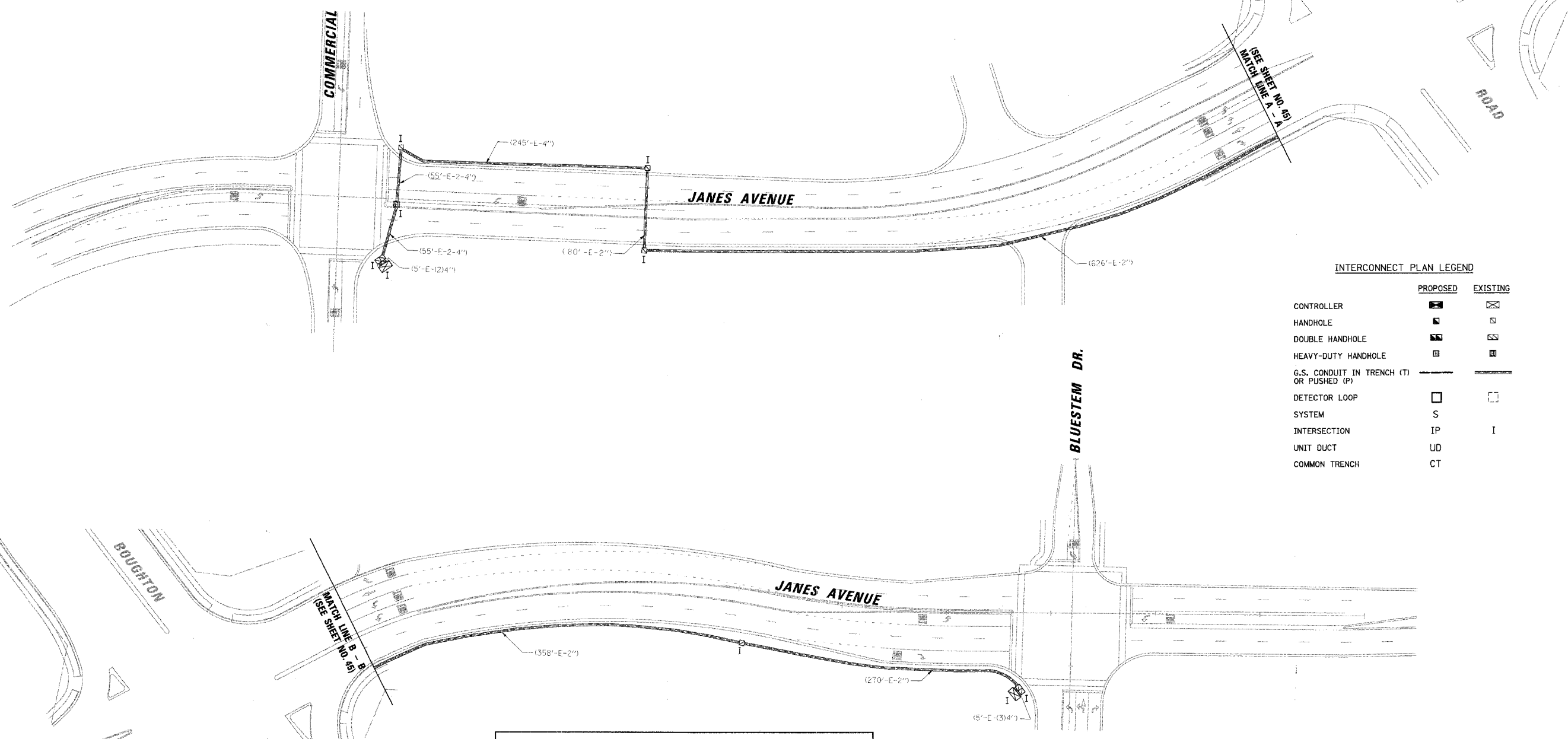
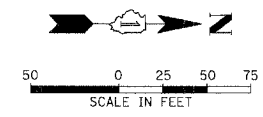
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
 BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: 1" = 50'  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

PROFILE: [ ] BY: [ ] DATE: [ ]  
 CHECKS CHECKED: [ ]  
 NOTE BOOK: [ ]  
 NO.: [ ]  
 DATE: [ ]  
 BY: [ ]  
 DATE: [ ]

CHRISTOPHER B. BURKE ENGINEERING LTD., PLAN  
 501 E. Lake Street, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	47	
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855				



**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**REVISIONS**

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERCONNECT PLAN**

BOUGHTON ROAD  
BOLINGBROOK, ILLINOIS

SCALE: 1" = 50'

DATE: 4/7/2006

DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

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DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

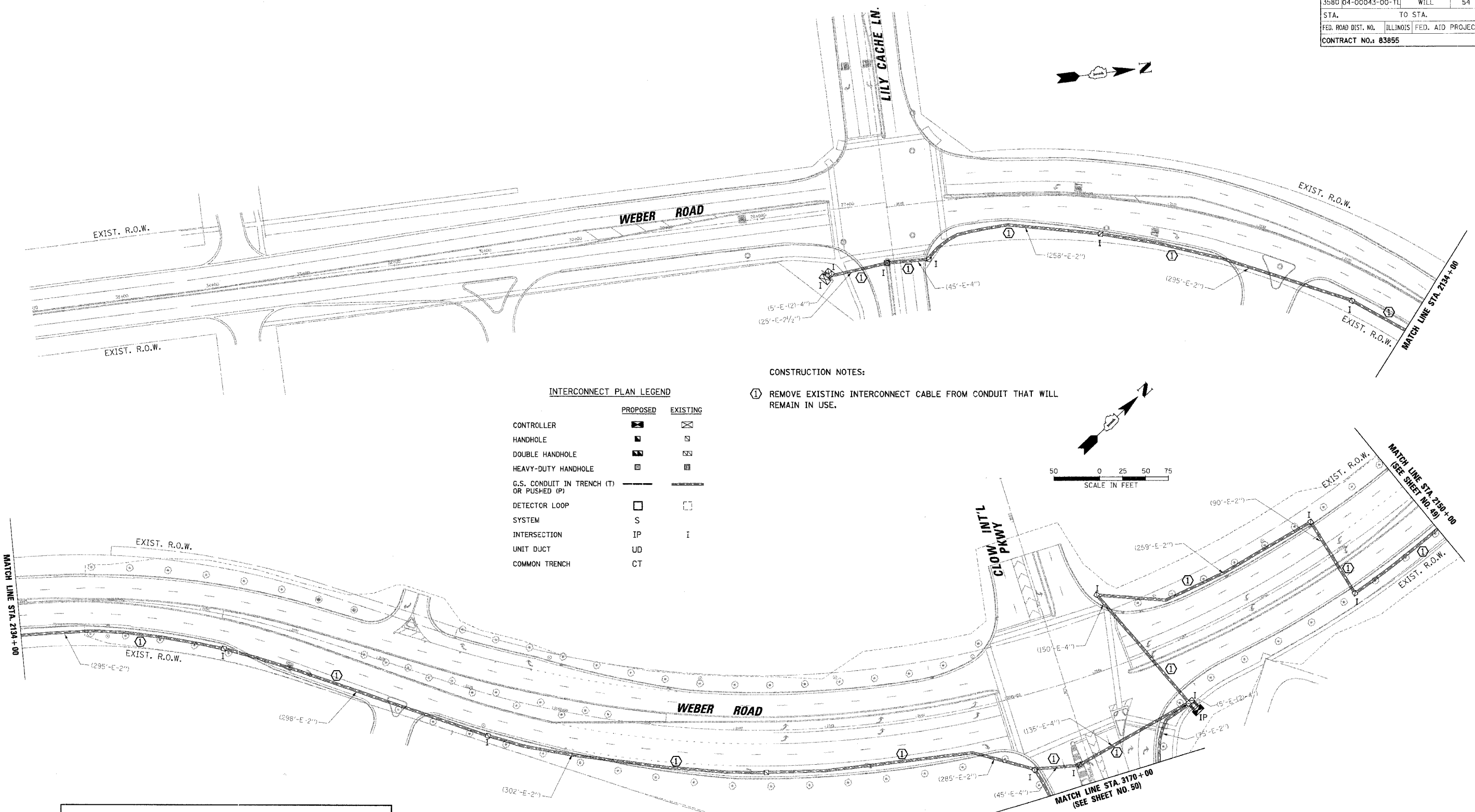
DATE: \_\_\_\_\_ BY: \_\_\_\_\_

**CHRISTOPHER B. BURKE**  
ENGINEERING LTD.  
1001 W. HAWKINS AVE., SUITE 600  
ROSEMONT, ILLINOIS 60018  
(847) 823-0600

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 04-00043-00-TL	WILL	54	48	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				

DATE	BY	NO.	DATE	BY	NO.
PROFILE REVISIONS GRADES CHECKED STRUCTURE NOTATIONS CHAS					
PLAN NOT BOOK NO. NO.					
ENGINEERING CHECKED DATE FILE NAME					

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 600 S. W. 10th St.  
 Rosemont, Illinois 60018  
 (847) 823-0600

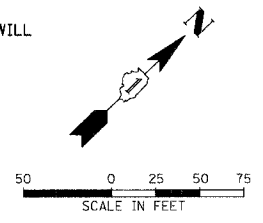


**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

**CONSTRUCTION NOTES:**

① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

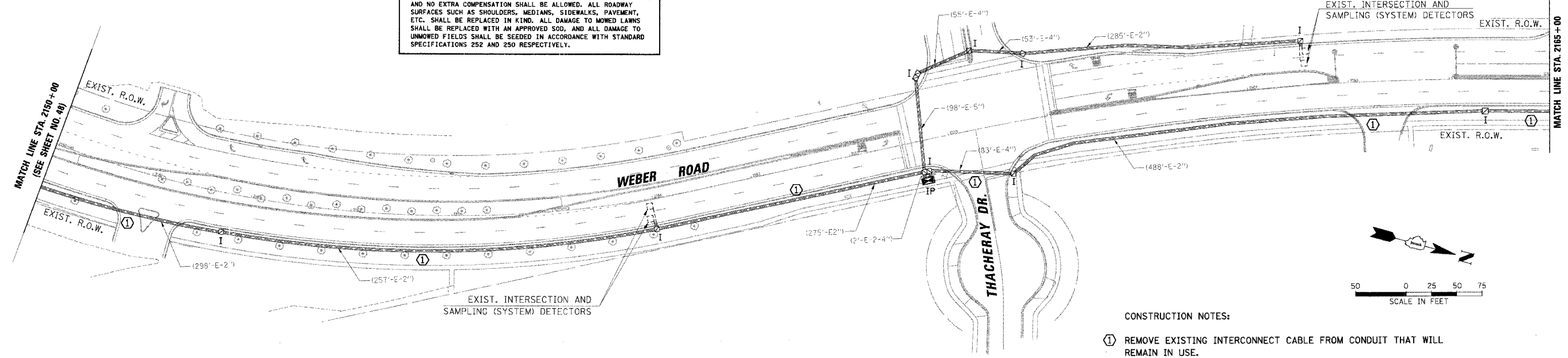
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
 WEBER ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: 1" = 50'  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

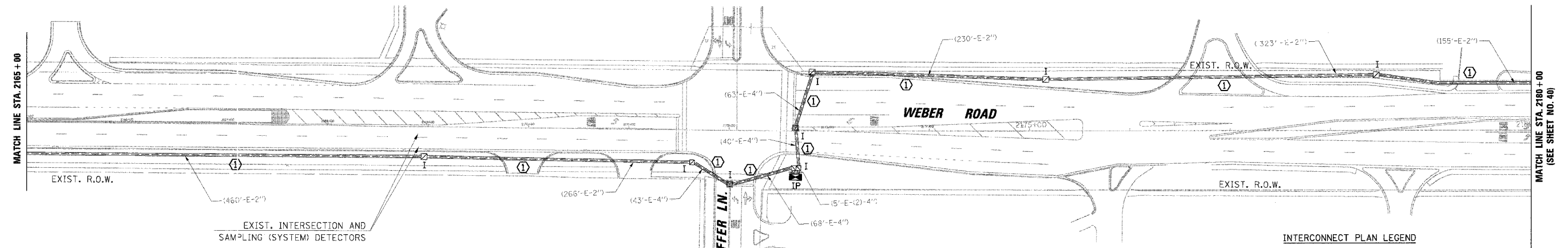


F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	49
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO.: 83855				

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

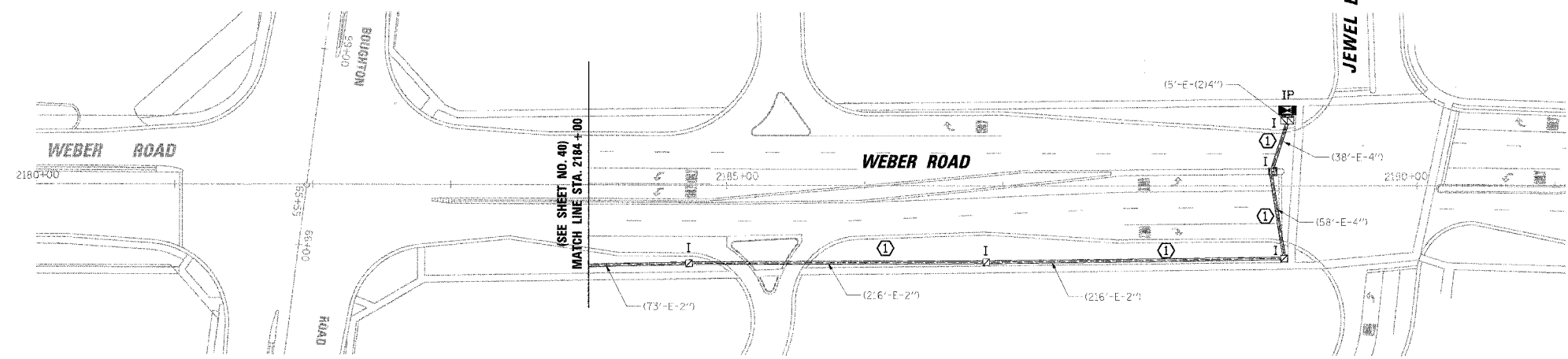


CONSTRUCTION NOTES:  
 ① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
SYSTEM	S	I
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	

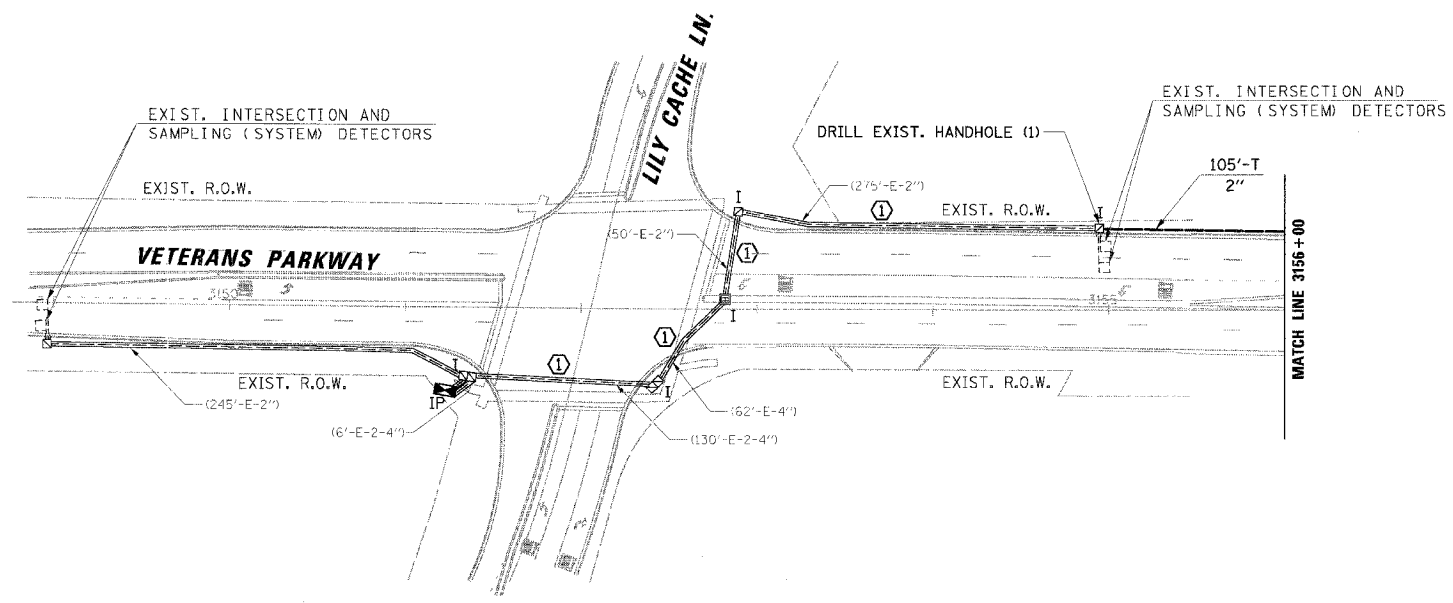


REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT PLAN**  
 WEBER ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: 1" = 50'  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

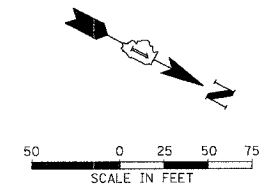
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SUPERVISOR: \_\_\_\_\_  
 ALTERNATE CHECKED: \_\_\_\_\_  
 RT. OF. MAN. CHECKED: \_\_\_\_\_  
 CAD FILE NAME: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (630) 823-9500  
 PROFILE: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SUPERVISOR: \_\_\_\_\_  
 ALTERNATE CHECKED: \_\_\_\_\_  
 RT. OF. MAN. CHECKED: \_\_\_\_\_  
 CAD FILE NAME: \_\_\_\_\_

F.A.I.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	50
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO.: 83855				



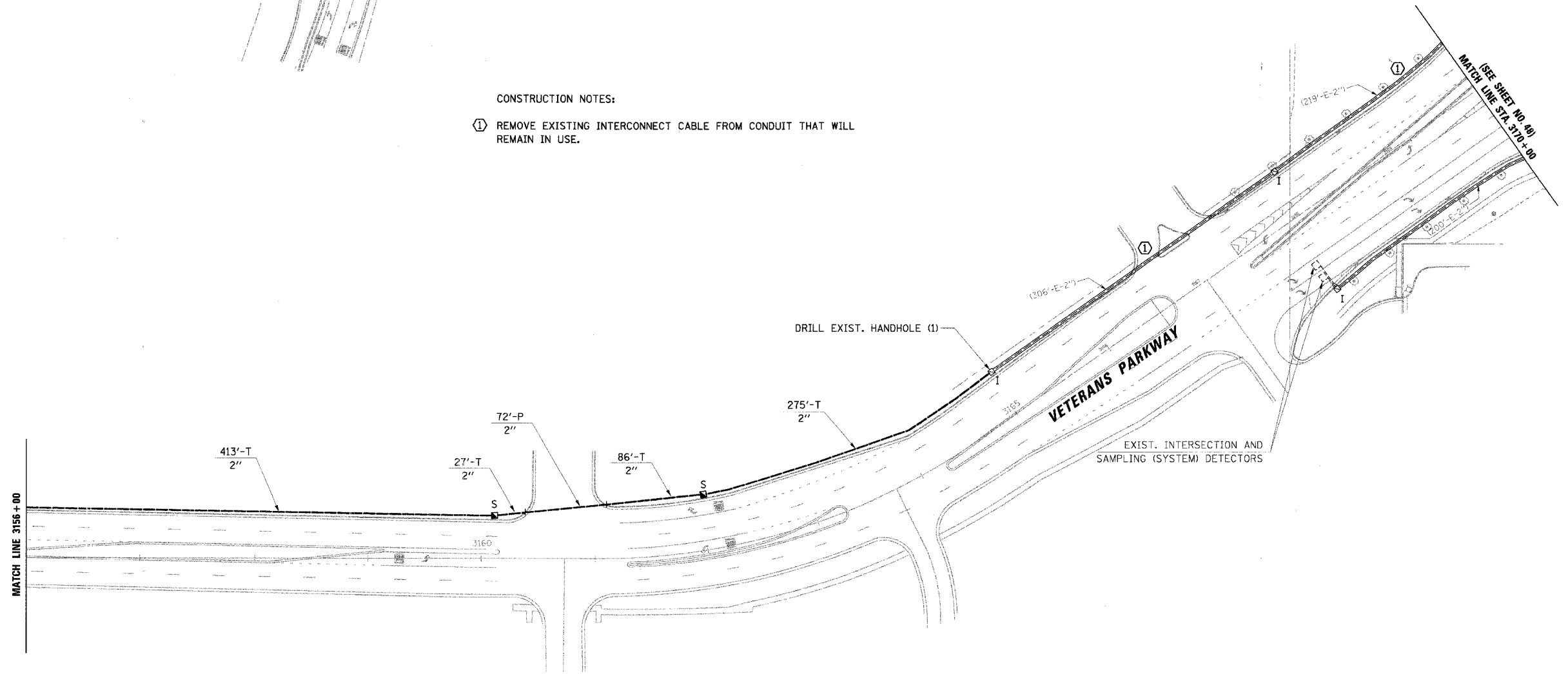
**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER	☒	☒
HANDHOLE	■	■
DOUBLE HANDHOLE	▣	▣
HEAVY-DUTY HANDHOLE	▣	▣
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	—	—
DETECTOR LOOP SYSTEM	□	□
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	



**CONSTRUCTION NOTES:**

① REMOVE EXISTING INTERCONNECT CABLE FROM CONDUIT THAT WILL REMAIN IN USE.



PROFILE  
 NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 DESIGNED BY \_\_\_\_\_  
 DATE \_\_\_\_\_

PLAN  
 NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 DESIGNED BY \_\_\_\_\_  
 DATE \_\_\_\_\_

REVISIONS  
 NAME \_\_\_\_\_ DATE \_\_\_\_\_

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 5015 West Ogden Road, Suite 600  
 Bolingbrook, IL 60440  
 (815) 823-0500

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

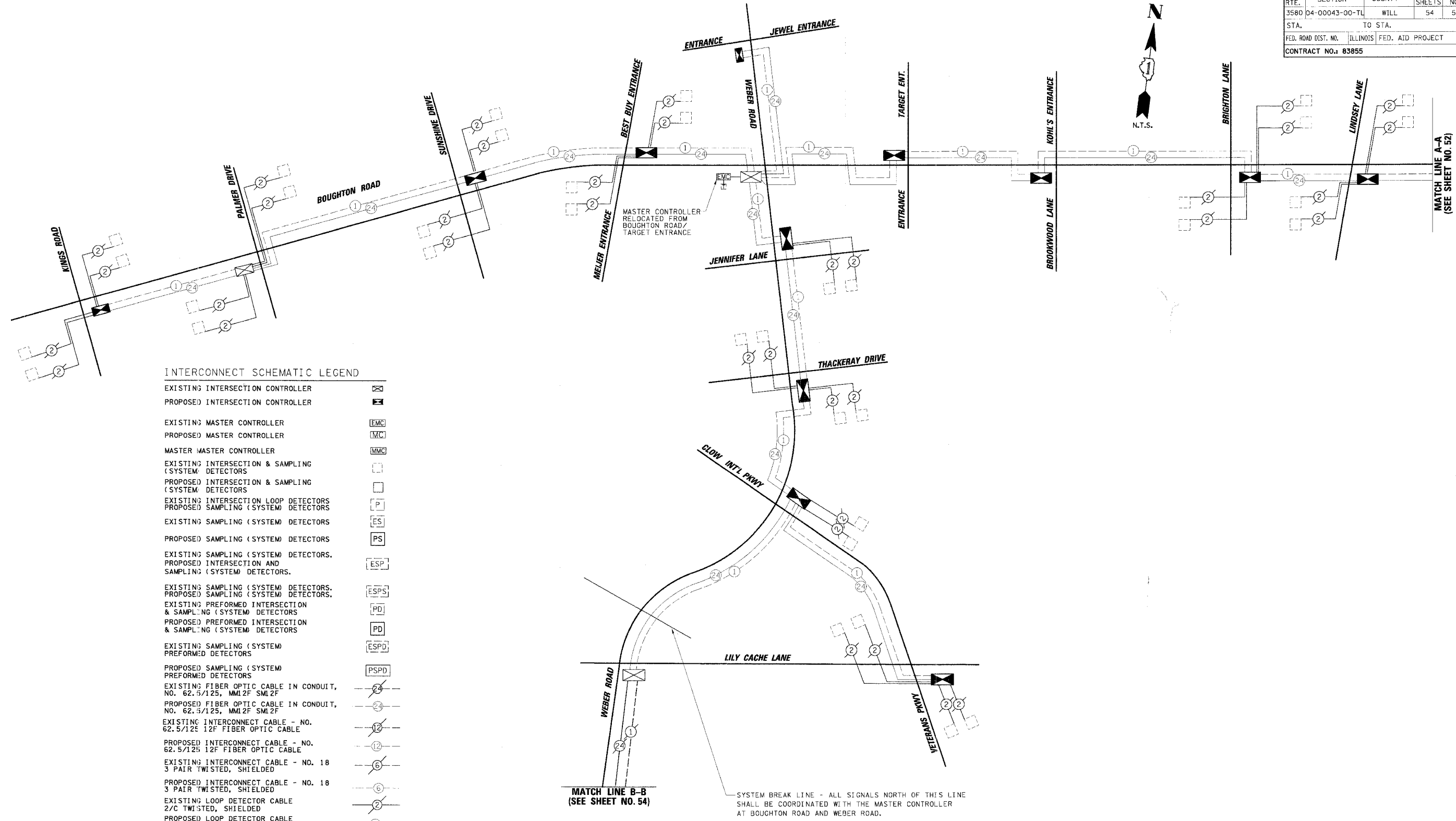
**INTERCONNECT PLAN**

VETERANS PARKWAY  
 BOLINGBROOK, ILLINOIS

SCALE: 1" = 50'  
 DATE: 4/7/2006

DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	51
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT SCHEMATIC LEGEND**

- EXISTING INTERSECTION CONTROLLER ☒
- PROPOSED INTERSECTION CONTROLLER ☒
  
- EXISTING MASTER CONTROLLER EMC
- PROPOSED MASTER CONTROLLER MCM
- MASTER MASTER CONTROLLER MMC
  
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS ☐
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS ☐
  
- EXISTING INTERSECTION LOOP DETECTORS P
- PROPOSED SAMPLING (SYSTEM) DETECTORS P
  
- EXISTING SAMPLING (SYSTEM) DETECTORS ES
- PROPOSED SAMPLING (SYSTEM) DETECTORS PS
  
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS. ESP
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS. ESP
  
- EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS PD
- PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS PD
  
- EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS ESPD
- PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS PSPD
  
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MML2F SML2F 24
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MML2F SML2F 24
  
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE 12
- PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE 12
  
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED 6
- PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED 6
  
- EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED 2
- PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED 2
  
- EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED) 1
- PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED) 1
  
- EXISTING TELEPHONE CONNECTION T
- PROPOSED TELEPHONE CONNECTION T

MATCH LINE B-B (SEE SHEET NO. 54)

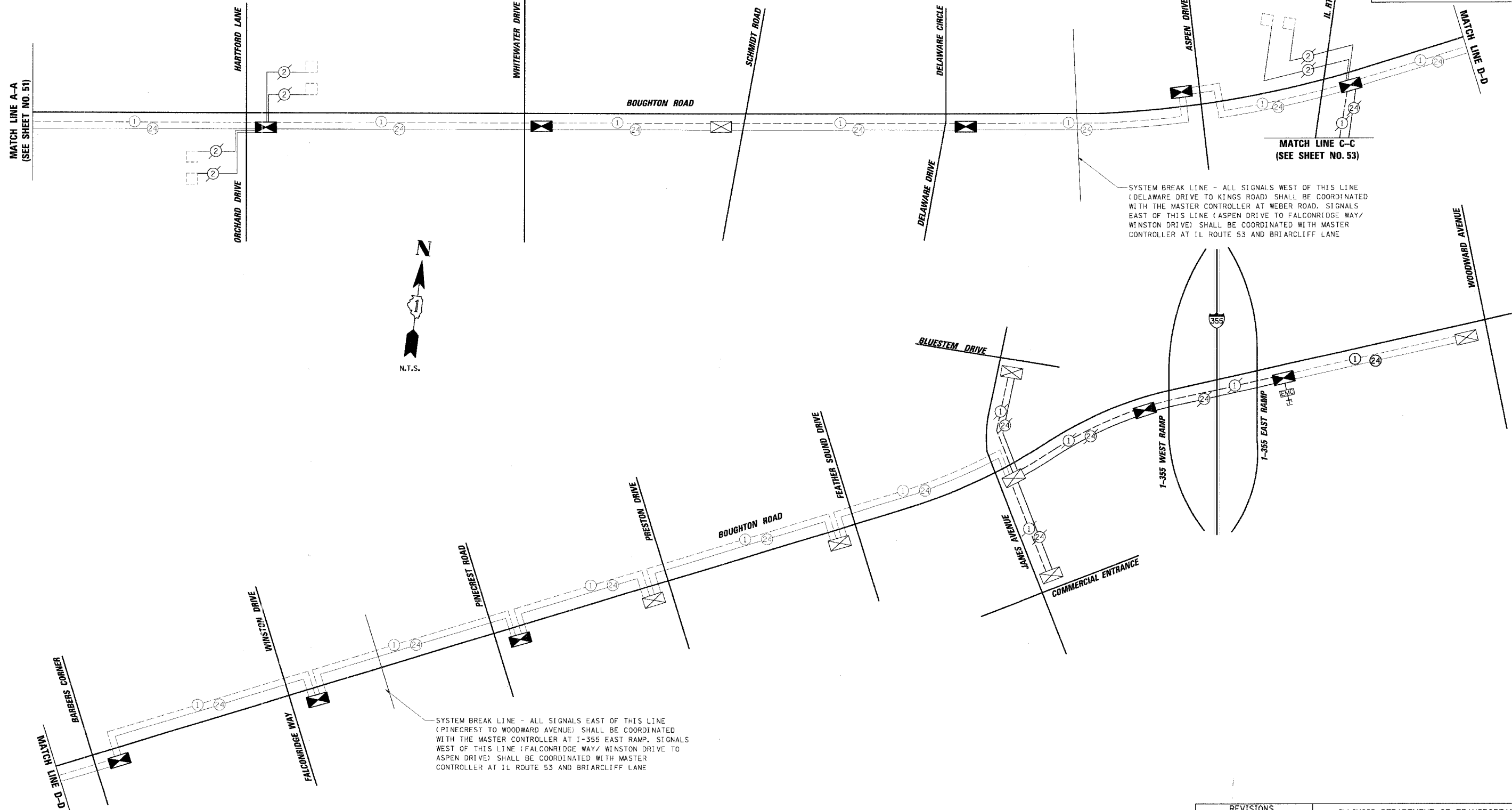
SYSTEM BREAK LINE - ALL SIGNALS NORTH OF THIS LINE SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT BOUGHTON ROAD AND WEBER ROAD.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT SCHEMATIC**  
 BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

PROFILE SURVEYED BY: DATE: \_\_\_\_\_  
 GRADES CHECKED: \_\_\_\_\_  
 STRUCTURE NOTATIONS CHECKED: \_\_\_\_\_  
 PLAN BY: DATE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 NO.: \_\_\_\_\_  
**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 115 West Ogden Road, Suite 600  
 Bolingbrook, IL 60440  
 (815) 822-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	52
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



SYSTEM BREAK LINE - ALL SIGNALS WEST OF THIS LINE (DELAWARE DRIVE TO KINGS ROAD) SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT WEBER ROAD. SIGNALS EAST OF THIS LINE (ASPEN DRIVE TO FALCONRIDGE WAY/ WINSTON DRIVE) SHALL BE COORDINATED WITH MASTER CONTROLLER AT IL ROUTE 53 AND BRIARCLIFF LANE

SYSTEM BREAK LINE - ALL SIGNALS EAST OF THIS LINE (PINECREST TO WOODWARD AVENUE) SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT I-355 EAST RAMP. SIGNALS WEST OF THIS LINE (FALCONRIDGE WAY/ WINSTON DRIVE TO ASPEN DRIVE) SHALL BE COORDINATED WITH MASTER CONTROLLER AT IL ROUTE 53 AND BRIARCLIFF LANE

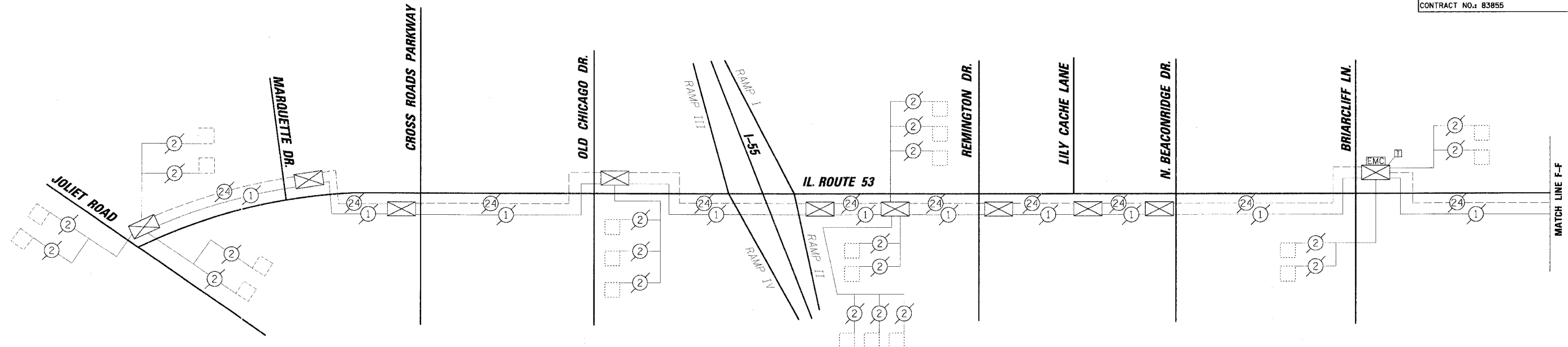
DATE	BY	REVISIONS
DATE	BY	REVISIONS
DATE	BY	REVISIONS

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 1000 S. SUPERIOR ST. SUITE 600  
 ROSEMONT, ILLINOIS 60018  
 (630) 823-0500

REVISIONS	
NAME	DATE

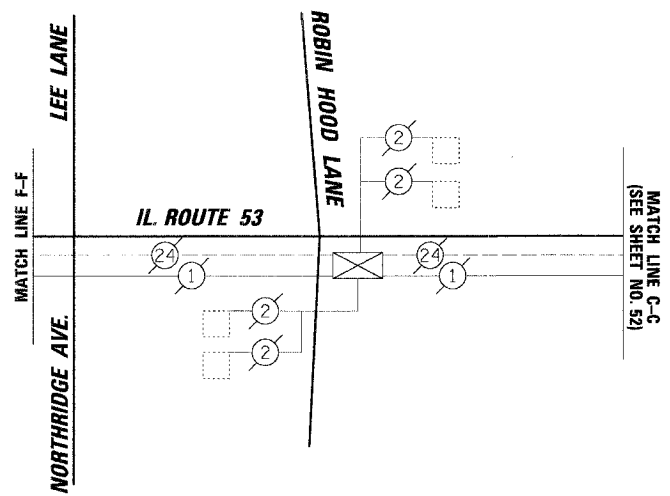
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT SCHEMATIC**  
 BOUGHTON ROAD  
 BOLINGBROOK, ILLINOIS  
 SCALE: N.T.S.  
 DATE: 4/7/2006  
 DRAWN BY: FCP/FPB  
 DESIGNED BY: MKW  
 CHECKED BY: MJT

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580 D4-00043-00-TL	WILL		54	53
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.: 83855				



**INTERCONNECT SCHEMATIC LEGEND**

EXISTING INTERSECTION CONTROLLER	☒
PROPOSED INTERSECTION CONTROLLER	☒
EXISTING MASTER CONTROLLER	EMC
PROPOSED MASTER CONTROLLER	MC
MASTER MASTER CONTROLLER	MMC
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS	☐
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	☐
EXISTING INTERSECTION LOOP DETECTORS	P
PROPOSED SAMPLING (SYSTEM) DETECTORS	P
EXISTING SAMPLING (SYSTEM) DETECTORS	ES
PROPOSED SAMPLING (SYSTEM) DETECTORS	PS
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.	ESP
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS.	ESPS
EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	PD
PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	PD
EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS	ESPD
PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS	PSPD
EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SMI2F	24
PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SMI2F	24
EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	12
PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	12
EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	5
PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	5
EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	2
PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	2
EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	1
PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	1
EXISTING TELEPHONE CONNECTION	T
PROPOSED TELEPHONE CONNECTION	T



PROFILE SURVEYED BY DATE  
 QUANTITIES CHECKED BY DATE  
 PLAN SURVEYED BY DATE  
 NOTE BOOK NO. FILE NAME  
 NO.

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8075 West Higgins Road, Suite 600  
 Chicago, Illinois 60638  
 (847) 823-0500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

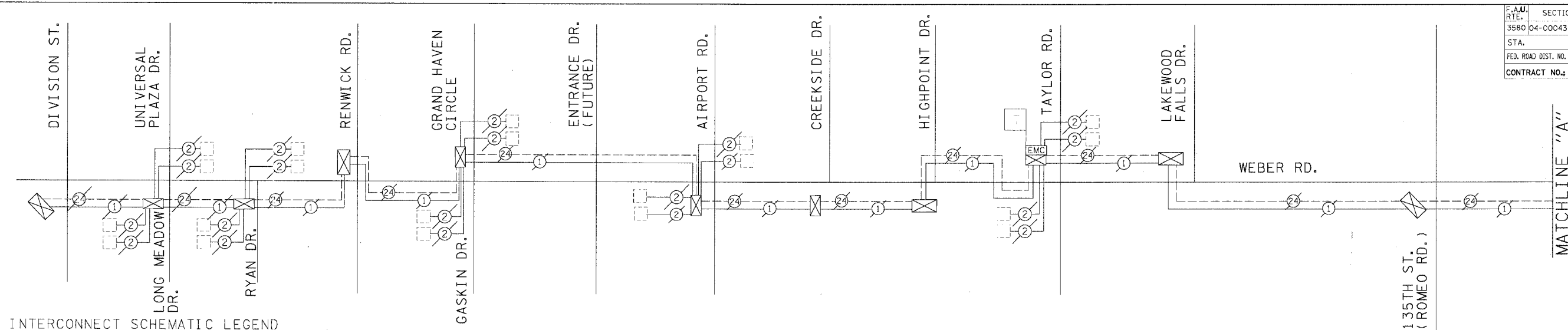
**INTERCONNECT SCHEMATIC**

IL ROUTE 53  
BOLINGBROOK, ILLINOIS

SCALE: N.T.S.  
DATE: 4/7/2006

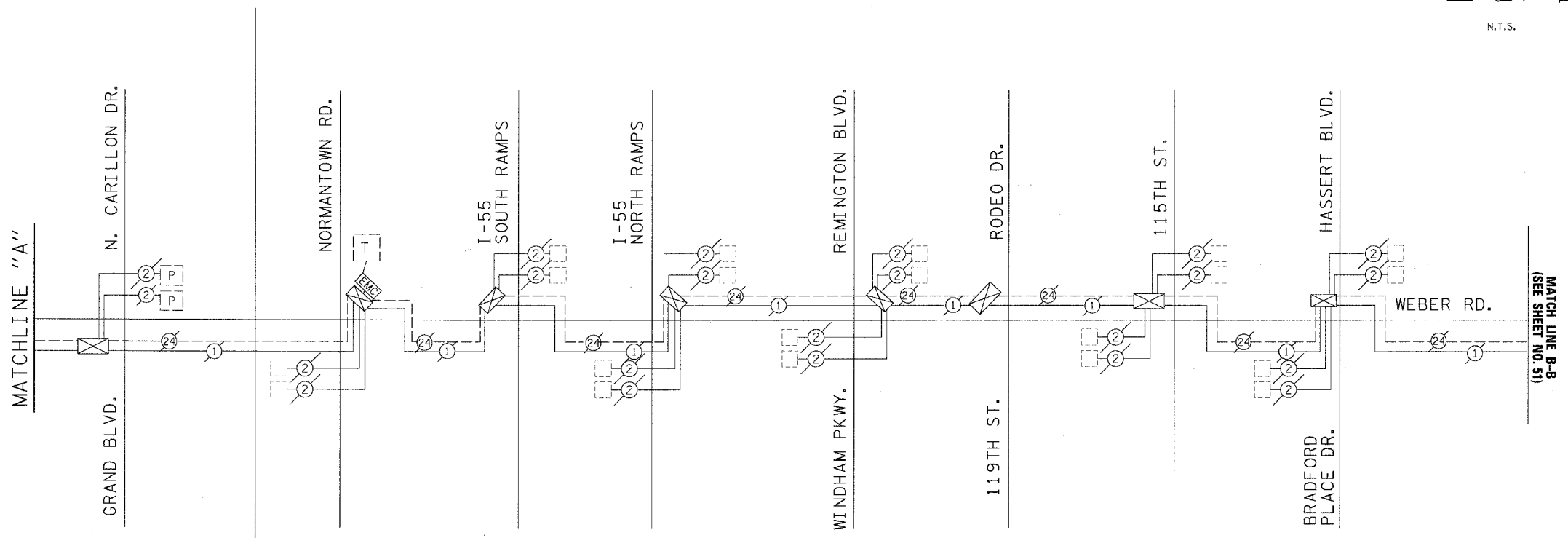
DRAWN BY: FCP/FPB  
DESIGNED BY: MKW  
CHECKED BY: MJT

F.A.M. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3580	04-00043-00-TL	WILL	54	54
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO.: 83855				



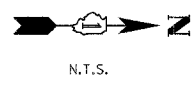
**INTERCONNECT SCHEMATIC LEGEND**

- EXISTING INTERSECTION CONTROLLER
- PROPOSED INTERSECTION CONTROLLER
- EXISTING MASTER CONTROLLER
- PROPOSED MASTER CONTROLLER
- MASTER MASTER CONTROLLER
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION LOOP DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS, EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS, PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS
- PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SMI2F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SMI2F
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
- PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
- EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)
- PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)
- EXISTING TELEPHONE CONNECTION
- PROPOSED TELEPHONE CONNECTION



SYSTEM BREAK LINE- ALL SIGNALS NORTH OF THIS LINE (NORMANTOWN RD. THROUGH LILY CACHE LN.) SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT NORMANTOWN RD. ALL SIGNALS SOUTH OF THIS LINE (DIVISION ST. THROUGH N. CARILLON DR./GRAND BLVD.) SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT TAYLOR RD.

NOTE:  
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



**FOR INFORMATION ONLY**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERCONNECT SCHEMATIC**  
WEBER ROAD FROM  
DIVISION STREET TO LILY CACHE LANE  
SCALE: NONE  
DATE: 4/1/2006  
DRAWN BY: DMS  
DESIGNED BY: DMS  
CHECKED BY: DMS