F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 62738		

D-91-172-04

INDEX OF SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

DISTRICT 1

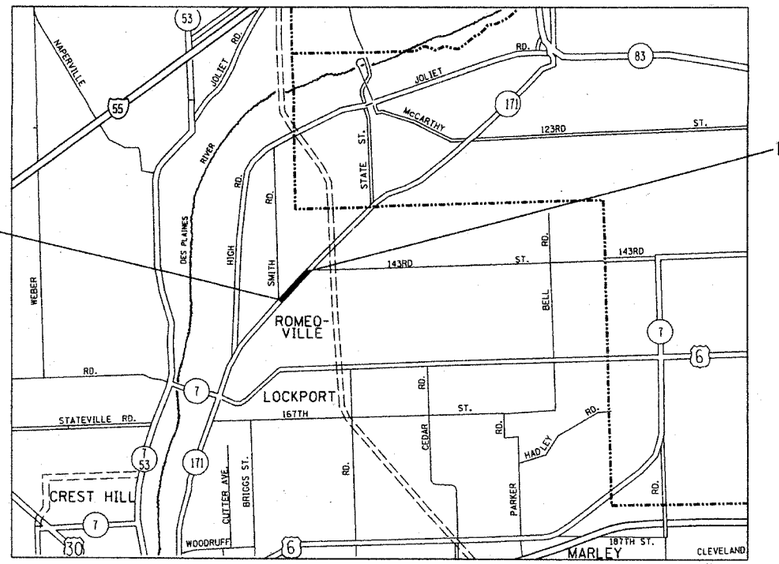
CONGESTION MITIGATION AIR QUALITY FIBER OPTIC COMMUNICATIONS NETWORK

IL. RTE. 171 (ARCHER AVE.) FROM 143RD STREET TO SMITH ROAD

F.A.P. ROUTE 577
SECTION: 2004-019 TS
WILL COUNTY
C-91-172-04
PROJECT: ACCMM-019 TS

LOCATION OF SECTION INDICATED THUS: –

N



HOMER TOWNSHIP

STANDARD DRAWINGS

(701006-02)	(701011-01)	(701101-01)	(701301-02)	(701901)
424001-04	(720001)	813001-01	(814001-01)	814006
(857001)	(877001-03)	877006-02	877011-02	(878001-06)
880001	(880006)	886001		
701201-02	701316-03	701321-08	701400-02	701406-04
(701501-04)	701502-01	701606-04	701601-04	(701701-05)
701801-03				

NOTE: STANDARD DRAWNINGS REQUIRED (CIRCLED).

PREPARED BY: Steven Travia 4/16/08
TRAFFIC ENGINEER DATE

SCALES: PLAN 1" = 20'
INTERCONNECT 1" = 50'

CONTRACT NO. 62738

DISTRICT 1 – BUREAU OF TRAFFIC: STEVE TRAVIA / DARYLE DREW: (847) 705-4420

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 4 20 08
Deana M. Brooks PE
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
May 9, 20 08
Eric E. Harm PE
Interim ENGINEER OF DESIGN AND ENVIRONMENT
May 9, 20 08
Christine M. Reed PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

CALL J.U.L.I.E. TOLL FREE 800-892-0123
48 – HOURS BEFORE DIGGING

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	2
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

CONTRACT NO. 62738

SUMMARY OF QUANTITIES

URBAN 80% FED. 20% STATE

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: SMITH RD. Y031 1F	143rd ST. Y031 1F	INTERCONNECT Y031 1F
	X0325890	RBOPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL I	EACH	1	1		
	67100100	MOBILIZATION	L SUM	1	0.45	0.10	0.45
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.33	0.33	0.34
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.33	0.33	0.34
**	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	50	50		
	81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	1545			1545
	81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	570			570
	81400200	HEAVY-DUTY HANDHOLE	EACH	3			3
	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1545			1545
	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	1	1	
	85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1		
	86400100	TRANSCEIVER - FIBER OPTIC	EACH	1	1		
✳	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	731	731		
	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	808	808		
	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	316	316		
	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	475	475		
	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	35	35		
	87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	2	2		
	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30	30		
	87900200	DRILL EXISTING HANDHOLE	EACH	4	3		1
	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6	6		
	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2		

SUMMARY OF QUANTITIES

URBAN 80% FED. 20% STATE

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: SMITH RD. Y031 1F	143rd ST. Y031 1F	INTERCONNECT Y031 1F
	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2	2		
	88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	2		
	88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8	8		
	88500100	INDUCTIVE LOOP DETECTOR	EACH	6	6		
✳	88700200	LIGHT DETECTOR	EACH	2	2		
✳	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1		
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	85	85		
	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1		
	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	2	2		
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102.8	51.4	51.4	
	X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2100			2100
	X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	1		
	X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1	1		
	X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	2100			2100
	X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	35	35		
✳	X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	731	731		

✳ 100% COST WILL BE PAY BY NORTHWEST HOMER FIRE PROTECTION DISTRICT - Y031-3D

** Specialty Items

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

IL. 171 (ARCHER AVE.) FROM 143rd Street to SMITH Road

PLOT DATE: 3/31/2008

3/31/2008
c:\projects\100404d\100404sq001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	3
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62738

LOOP DETECTOR NOTES

1. 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.

2. 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.

3. 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.

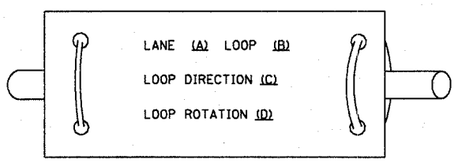
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. 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.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

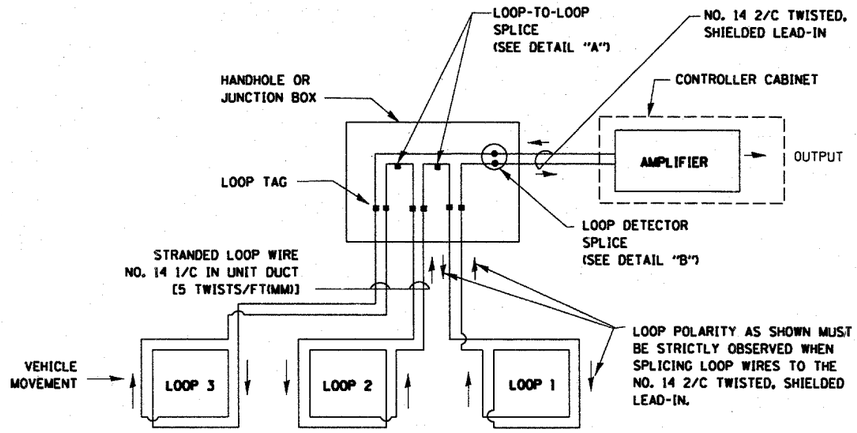


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

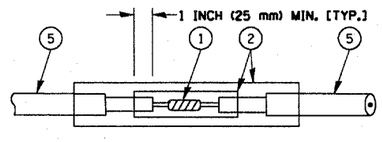
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

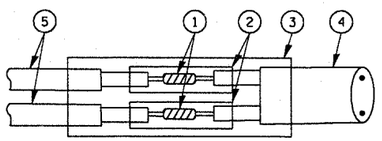


DETECTOR LOOP WIRING SCHEMATIC

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



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

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 1 OF 4

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3/27/2008
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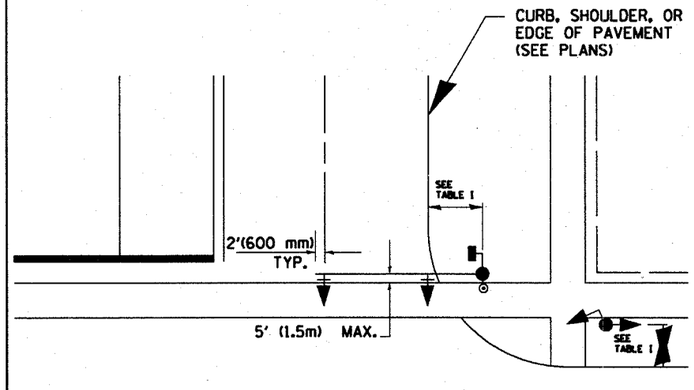
E.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	4
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

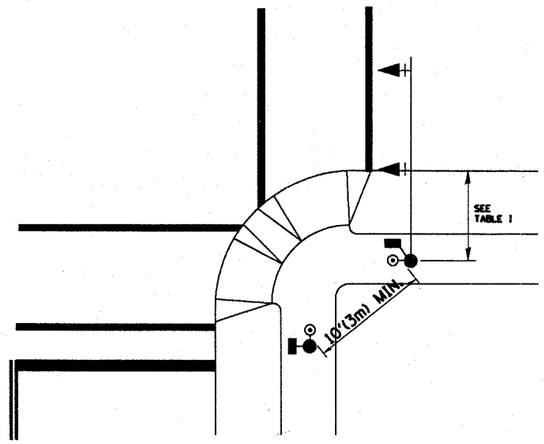
CONTRACT NO. 62738

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:

1. 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

2. 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.

3. 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.

4. 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

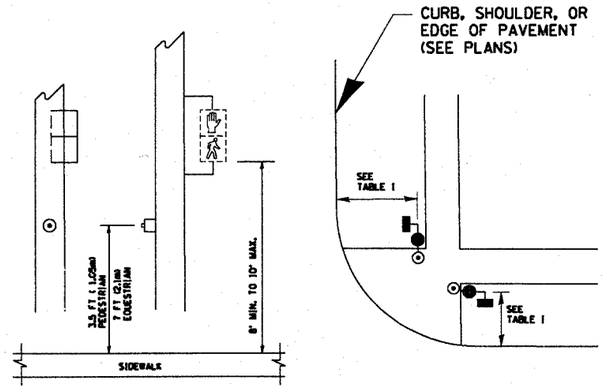


TABLE I

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

TS05

3/27/2008
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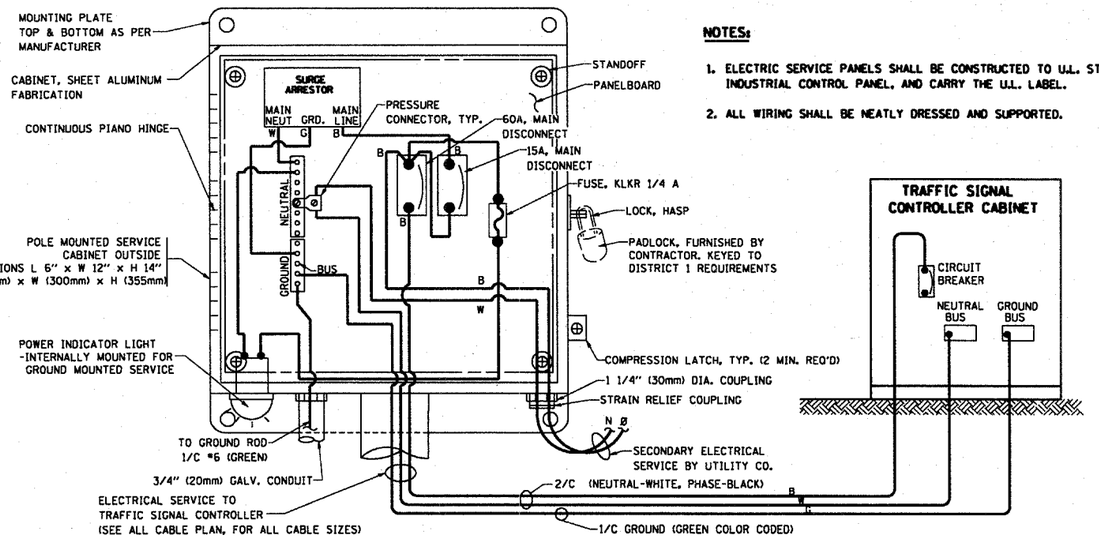
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62738				



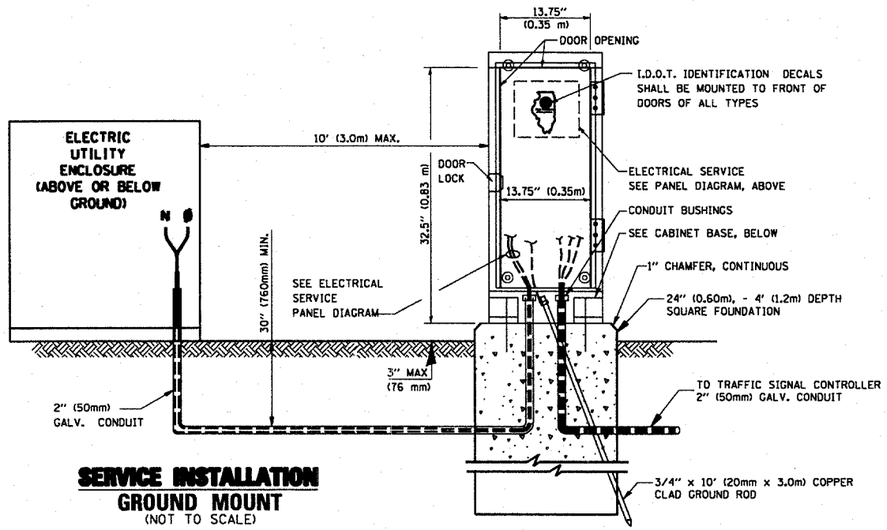
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

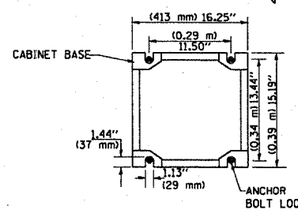
SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



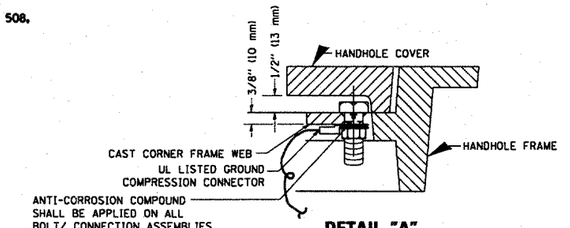
SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)



CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



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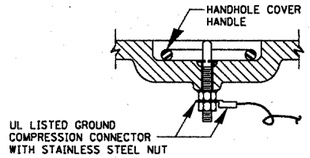

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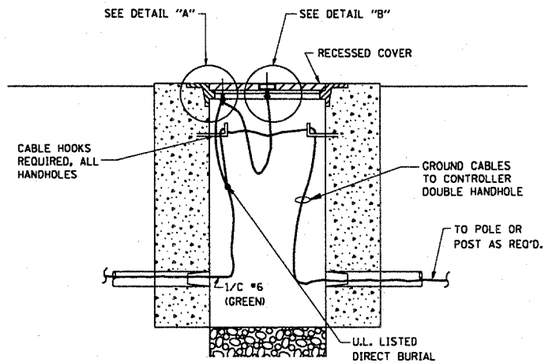
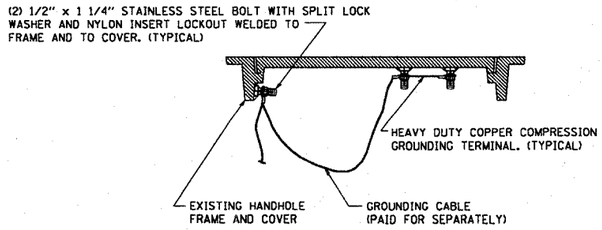


HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



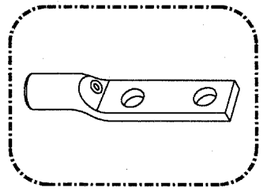
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

NOTES:

GROUNDING SYSTEM

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

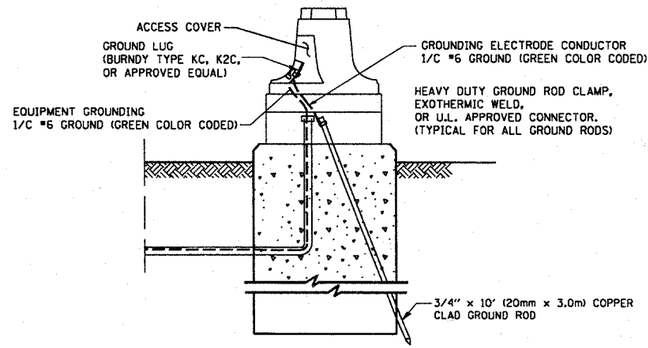


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

NOTES:

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



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

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

TS05

c:\projects\t000404\t00404aa.dgn
3/27/2008
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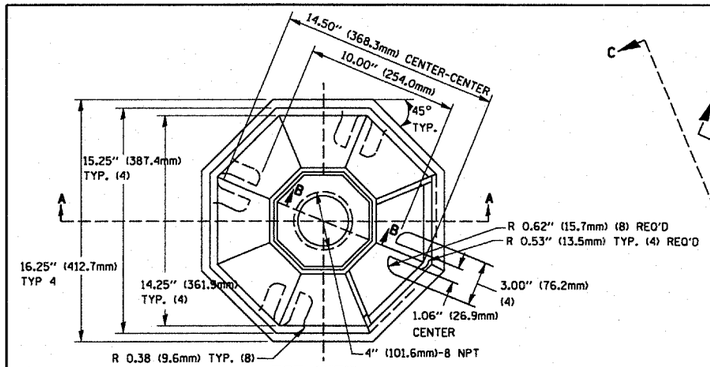
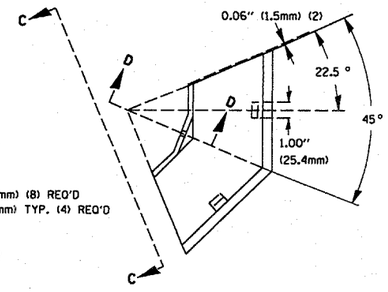
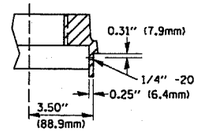
...\projects\t000404\t00404aa.dgn 3/27/2008 5:17:23 PM User=nguyensm

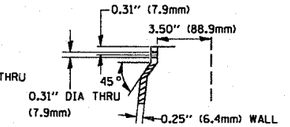


TOP VIEW

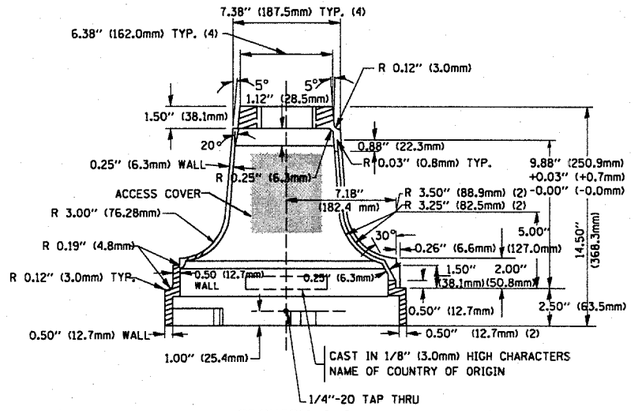




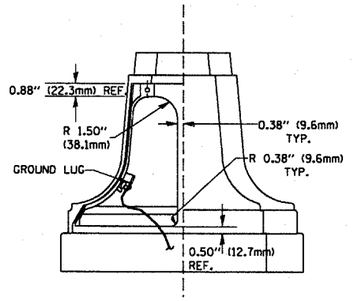
SECTION B-B



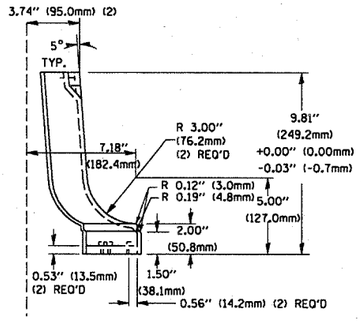
SECTION D-D



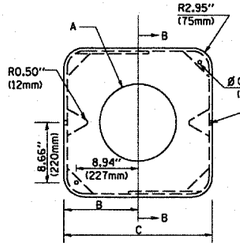
SECTION A-A

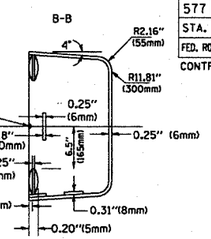


VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



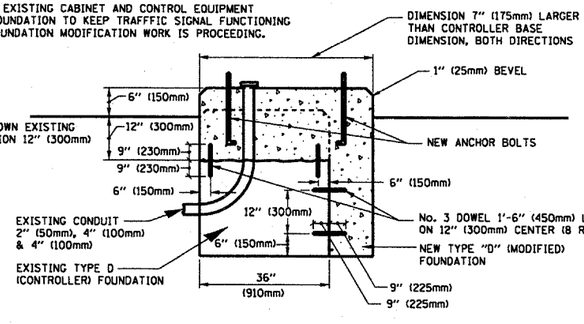


MATERIAL:
- ASTM A48 CLASS 30 GREY IRON
- ASTM A123 HOT DIPPED GALVANIZED

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

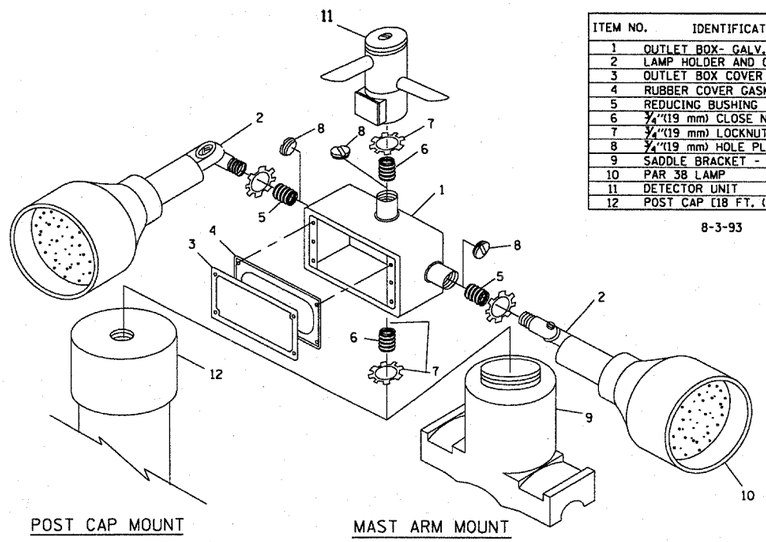
SHROUD DETAIL

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



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



POST CAP MOUNT

MAST ARM MOUNT

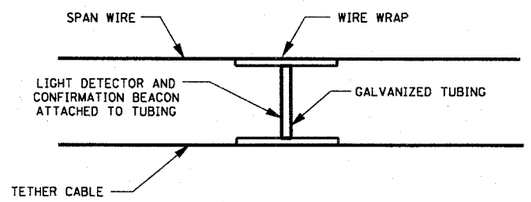
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(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.)

8-3-93

NOTES:

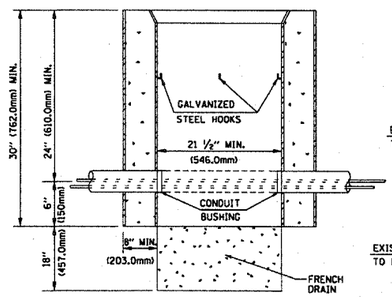
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(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.

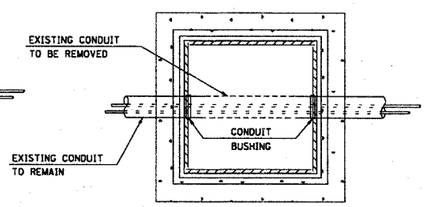


LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)

NOTES:
1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.





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.
DATE 1-01-02

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

TS05

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019-TS	WILL	13	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62738

3/27/2008
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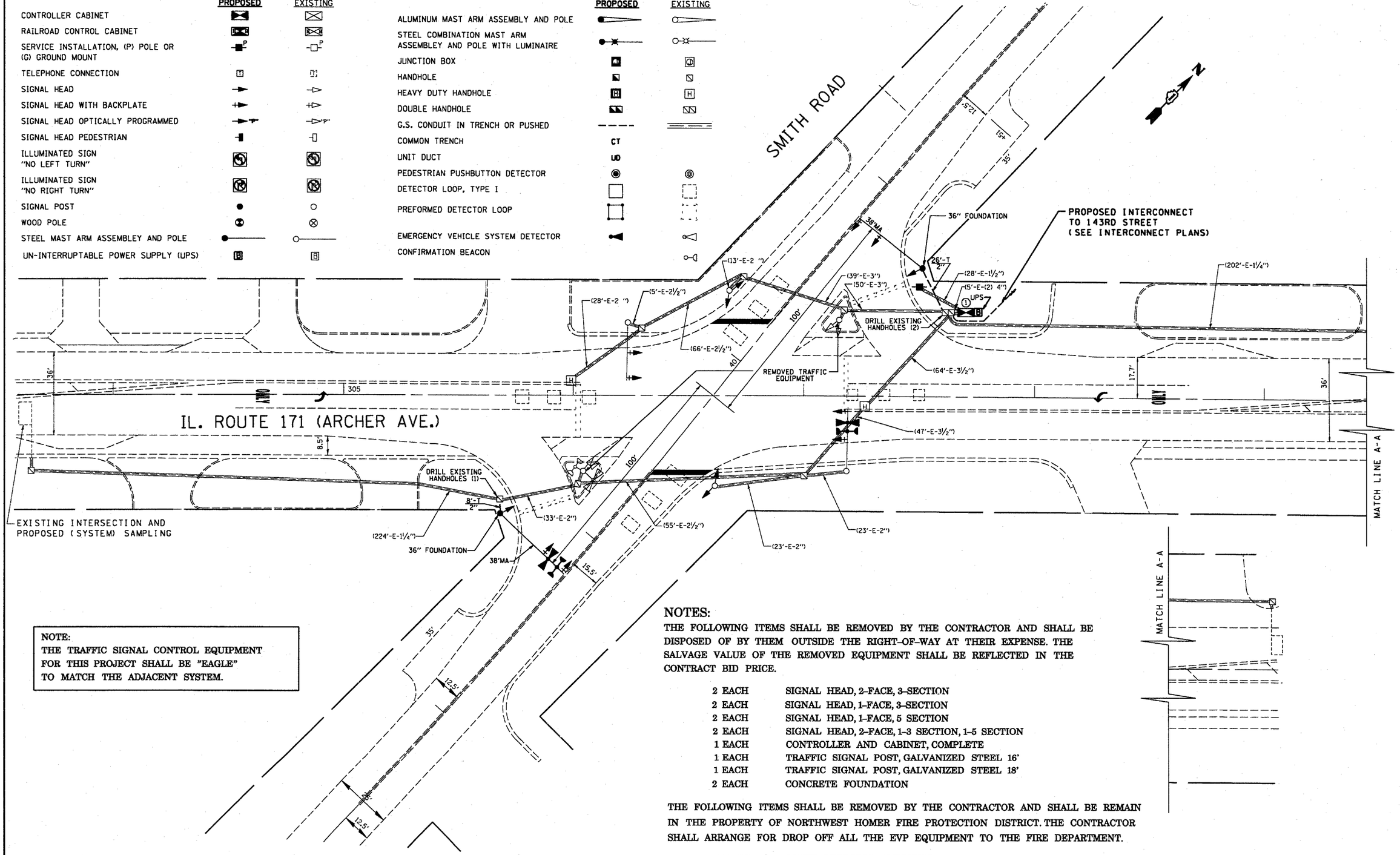
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	▬	▭
RAILROAD CONTROL CABINET	▬	▭
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	P	P
TELEPHONE CONNECTION	T	T
SIGNAL HEAD	→	→
SIGNAL HEAD WITH BACKPLATE	→	→
SIGNAL HEAD OPTICALLY PROGRAMMED	→ "P"	→ "P"
SIGNAL HEAD PEDESTRIAN		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST	●	○
WOOD POLE	⊗	⊗
STEEL MAST ARM ASSEMBLEY AND POLE	● —	○ —
UN-INTERRUPTABLE POWER SUPPLY (UPS)	B	B

	PROPOSED	EXISTING
ALUMINUM MAST ARM ASSEMBLY AND POLE	● —	○ —
STEEL COMBINATION MAST ARM ASSEMBLEY AND POLE WITH LUMINAIRE	● —	○ —
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED	----	═══
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR	◉	◎
DETECTOR LOOP, TYPE I	□	□
PREFORMED DETECTOR LOOP	□	□
EMERGENCY VEHICLE SYSTEM DETECTOR	◀	◁
CONFIRMATION BEACON		



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

NOTES:

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	SIGNAL HEAD, 2-FACE, 3-SECTION
2 EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2 EACH	SIGNAL HEAD, 1-FACE, 5 SECTION
2 EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
1 EACH	CONTROLLER AND CABINET, COMPLETE
1 EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16'
1 EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18'
2 EACH	CONCRETE FOUNDATION

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE REMAIN IN THE PROPERTY OF NORTHWEST HOMER FIRE PROTECTION DISTRICT. THE CONTRACTOR SHALL ARRANGE FOR DROP OFF ALL THE EVP EQUIPMENT TO THE FIRE DEPARTMENT.

1 EACH	LIGHT DETECTOR AMPLIFIER
2 EACH	LIGHT DETECTOR

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	PLOT DATE = 3/31/2008	DATE - 3/27/2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION
IL. 171 (ARCHER AVE.) @ SMITH ROAD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	7
		CONTRACT NO. 62738		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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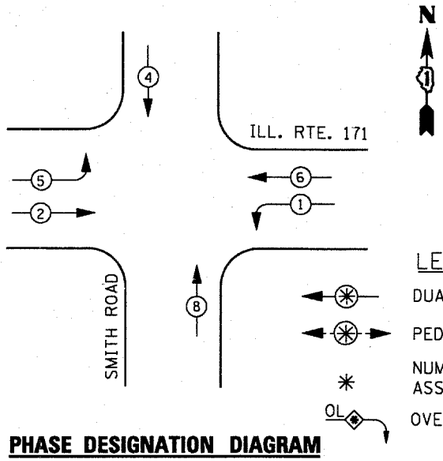
CONTROLLER SEQUENCE

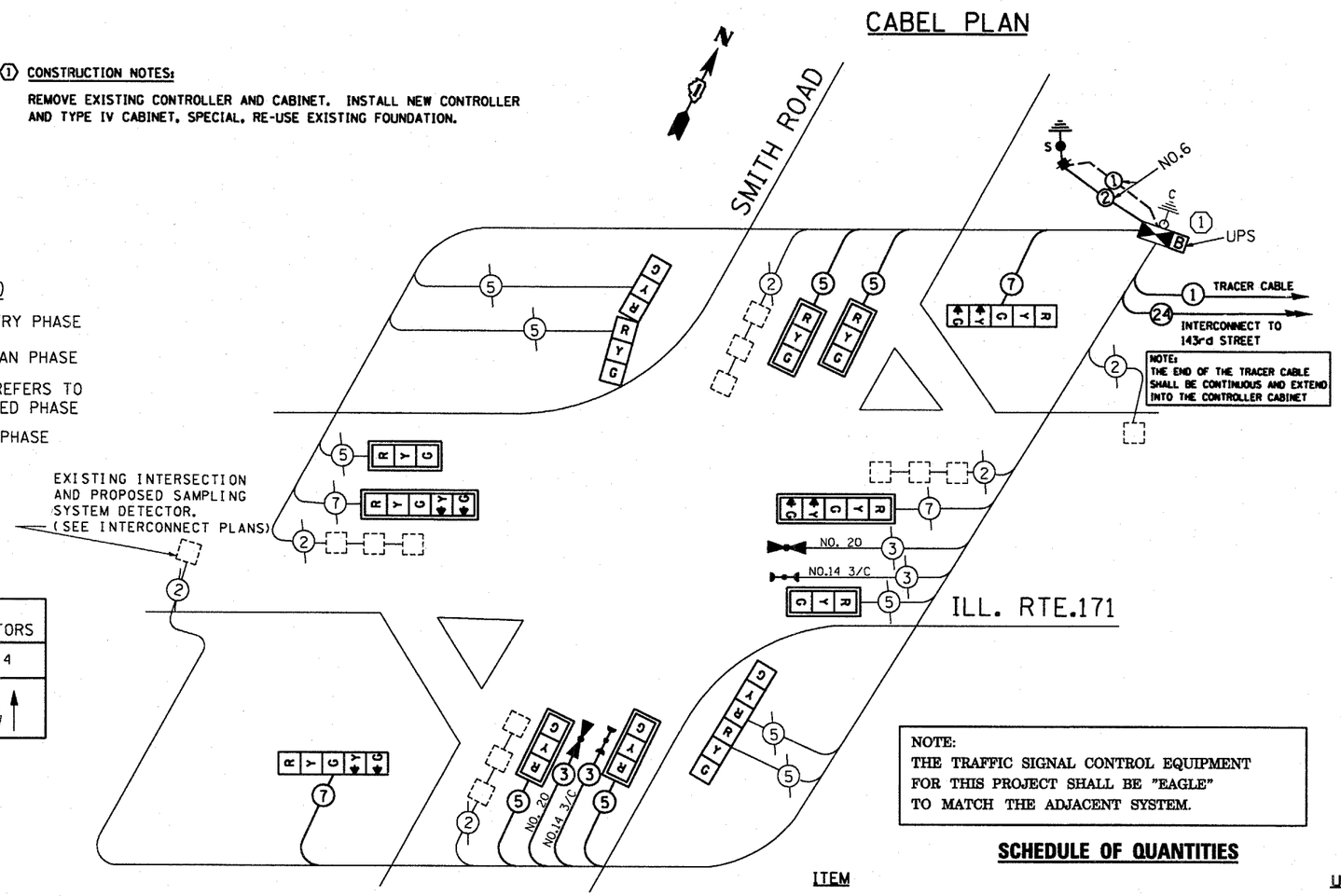


PHASE DESIGNATION DIAGRAM

① CONSTRUCTION NOTES:

REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET, SPECIAL. RE-USE EXISTING FOUNDATION.

CABEL PLAN



CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	■	▣
RAILROAD CONTROL CABINET	■	▣
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	■	▣
TELEPHONE CONNECTION	T	T
GROUND ROD AT (C) CONTROLLER, (H)HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	24	24
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	2	2
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	1	1
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	R Y G ↓Y ↓G	R Y G ↓Y ↓G "P"
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G
12" (300mm) TRAFFIC SIGNAL SECTION	R	R
12" (300mm) PEDESTRIAN SIGNAL SECTION		OR
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
PUSHBUTTON DETECTOR	◉	◉
DETECTOR LOOP	□	□
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR	M	M
VIDEO DETECTOR	V	V
CLOSED CIRCUT TV	C	C
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UN-INTERRUPTABLE POWER SUPPLY (UPS)	B	B

EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY (UPS)	EACH	1
DRILL EXISTING HANDHOLES	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	2

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TEMPORARY INFORMATION SIGNING	SQ. FT.	102.8
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	50
CONCRETE FOUNDATION, TYPE "E" 36" DIAMETER	FOOT	30
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	85
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	475
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT	35
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	35
✳ ELECTRIC CABLE IN CONDUIT NO. 20 3C, TWISTED, SHIELDED	FOOT	731
✳ ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	731
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	808
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	316
✳ LIGHT DETECTOR	EACH	2
✳ LIGHT DETECTOR AMPLIFIER	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TRANSCEIVER-FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	6
SERVICE INSTALLATION, POLE MOUNT	EACH	1

✳ 100% COST WILL BE PAY BY NORTHWEST HOMER FIRE PROTECTION DISTRICT

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	135	17	0.50	119.00
(YELLOW)	14	135	25	0.25	87.50
(GREEN)	14	135	15	0.25	52.50
ARROW	8	135	12	0.10	9.60
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
				TOTAL =	368.60

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY CONTACT: HARRY JOHNS
PHONE: (815) 724-5057
COMPANY: COMMONWEALTH EDISON

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)
		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)

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	PLOT DATE = 3/31/2008	DATE - 3/27/2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE SEQUENCE AND SCHEDULE OF QUANTITIES
IL. 171 (ARCHER AVE.) @ SMITH ROAD

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	8
		CONTRACT NO. 62738		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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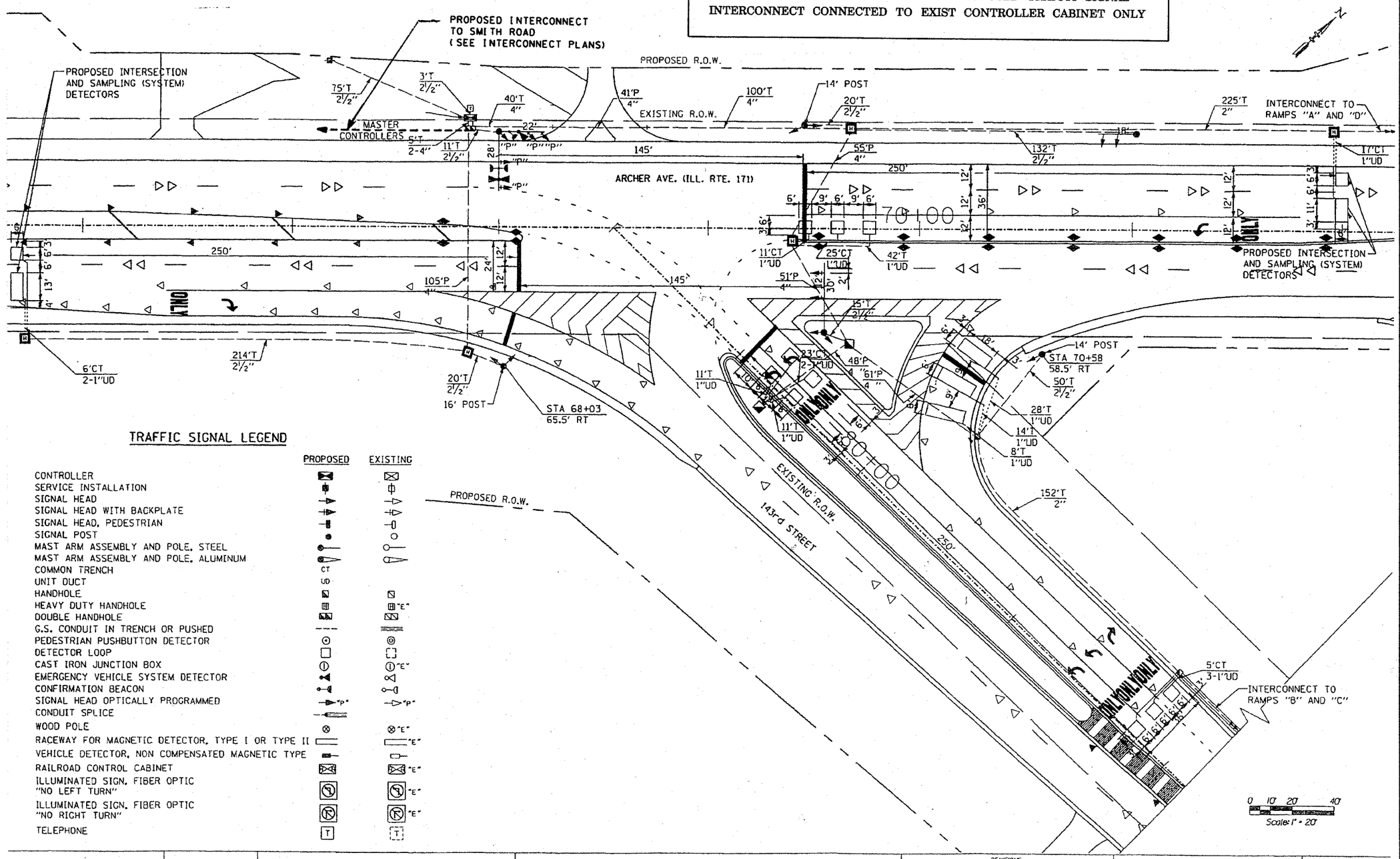
INFORMATION ONLY

THIS SHEET IS USED TO SHOW THE PROPOSED TRAFFIC SIGNAL INTERCONNECT CONNECTED TO EXIST CONTROLLER CABINET ONLY



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	⊠	⊠
SERVICE INSTALLATION		
SIGNAL HEAD	→	→
SIGNAL HEAD WITH BACKPLATE	→	→
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST	●	○
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMMON TRENCH	CT	
UNIT DUCT	UD	
HANDHOLE		
HEAVY DUTY HANDHOLE		"E"
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		"E"
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		"E"
TELEPHONE	T	T

DRAWN PAW | DATE FEBRUARY 2007
CHECKED DMJ | SCALE 1"-20'

T·Y·LIN INTERNATIONAL

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY
2700 OGDEN AVENUE
DOWNERS GROVE, ILLINOIS 60515

REVISIONS		
NO.	DATE	DESCRIPTION

CONTRACT NO. I-05-7723
TRAFFIC SIGNAL INSTALLATION
ILL. RTE. 171 AT 143rd ST.
SHEET 1 OF 2

DRAWING NO. - -

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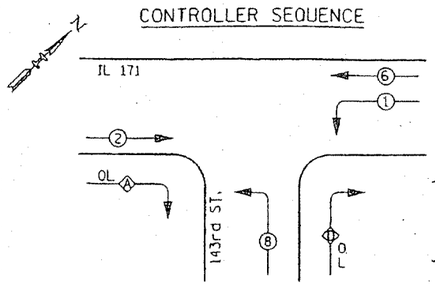
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN
IL. 171 (ARCHER AVE.) @ 143rd ST.

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	9
		CONTRACT NO. 62738		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTROLLER SEQUENCE

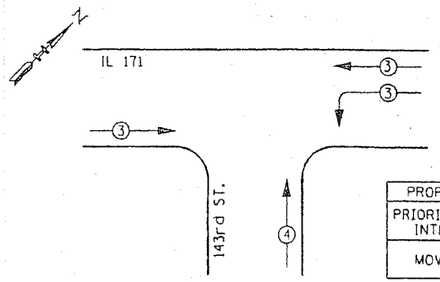


LEGEND

- DUAL ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE

*NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



RIGHT TURN OVERLAP PHASE DESIGNATION

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

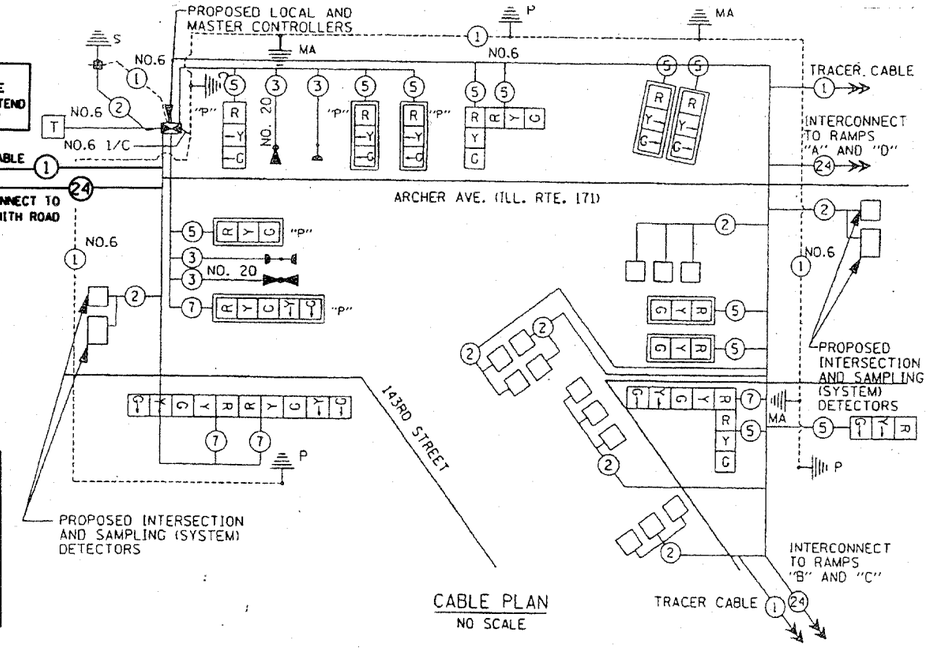
PROPOSED PRIORITY LANES		
PRIORITY LANE INTERVAL	3	4
MOVEMENT	←	↑

EMERGENCY VEHICLE PREEMPTION SEQUENCE

INFORMATION ONLY

THIS SHEET IS USED TO SHOW THE PROPOSED TRAFFIC SIGNAL INTERCONNECT CONNECTED TO EXIST CONTROLLER CABINET ONLY

NOTE:
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET



CABLE PLAN
NO SCALE

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 CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
(2)	(2)	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
"P"	"P"	SIGNAL FACE WITH BACKPLATE. " P" INDICATES PROGRAMMED HEAD

EXISTING	PROPOSED	
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
C	C	GROUND ROD AT CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(1)	(1)	GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 2-MM12F & SM12F
		HANDHOLE/DOUBLE HANDHOLE WITH GROUNDED FRAME AND COVER

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

TYPE	NO. OF LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	20	135	25	0.25	125
(GREEN)	20	135	15	0.25	75
ARROW	0	135	12	0.10	0
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252		0.05	
FLASHER				0.05	
ENERGY COSTS TO:				TOTAL =	470

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: TONY COX
PHONE: (815) 724-5010
COMPANY: COMED

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1

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 = (6m+L-0.6m)
E - MAST ARM POLE		SIGNAL POST	2 (1.0)		
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)
		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)

DRAWN PAW
CHECKED DMJ
DATE FEBRUARY 2007
SCALE N.T.S.

TY·LIN INTERNATIONAL

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY
2700 OGDEN AVENUE
DOWNERS GROVE, ILLINOIS 60515

REVISIONS		
NO.	DATE	DESCRIPTION

CONTRACT NO. I-05-7723
TRAFFIC SIGNAL INSTALLATION
ILL. RTE. 171 AT 143rd ST.
SHEET 2 OF 2

FILE NAME = c:\projects\t000404\t00404ee.dgn
USER NAME = nguyensm
PLOT SCALE = 40.0000 ' / IN.
PLOT DATE = 3/27/2008

DESIGNED	- SN	REVISED -
DRAWN	- SN	REVISED -
CHECKED	- DAD	REVISED -
DATE	- 3/27/2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE SEQUENCE AND SCHEDULE OF QUANTITIES
IL. 171 (ARCHER AVE.) @ 143rd St.

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	10
		CONTRACT NO. 62738		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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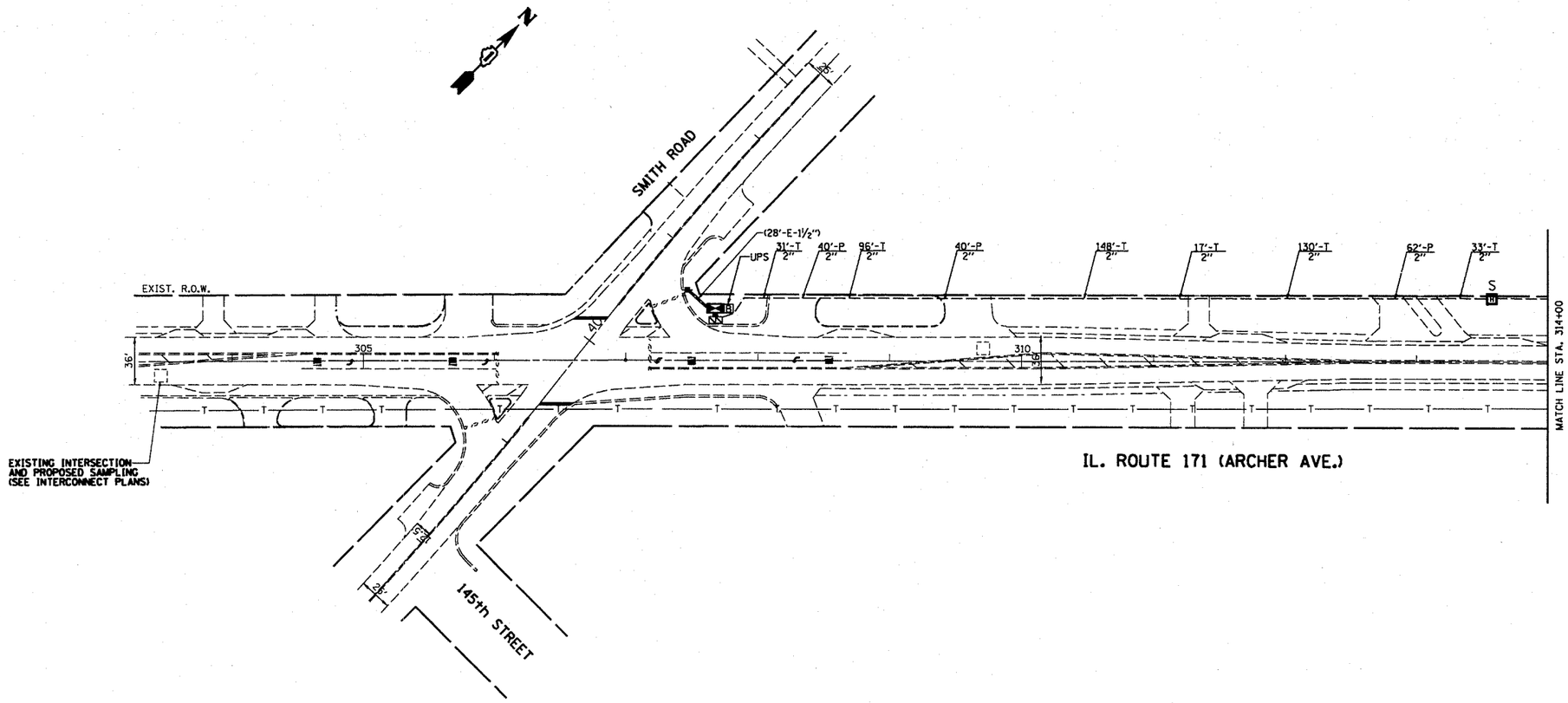

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	▣	⊠
HANDHOLE	▪	▫
DOUBLE HANDHOLE	▬	▭
HEAVY DUTY HANDHOLE	H	H
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	------	═══
DETECTOR LOOP	□	⬚
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
TELEPHONE CONNECTION	T	T
UN-INTERRUPTIBLE POWER SUPPLY	B	B

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	PLOT DATE = 3/27/2008	DATE - 3-27-2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
IL. 171 (ARCHER AVE.) FROM 143RD STREET TO SMITH ROAD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	11
		CONTRACT NO. 62738		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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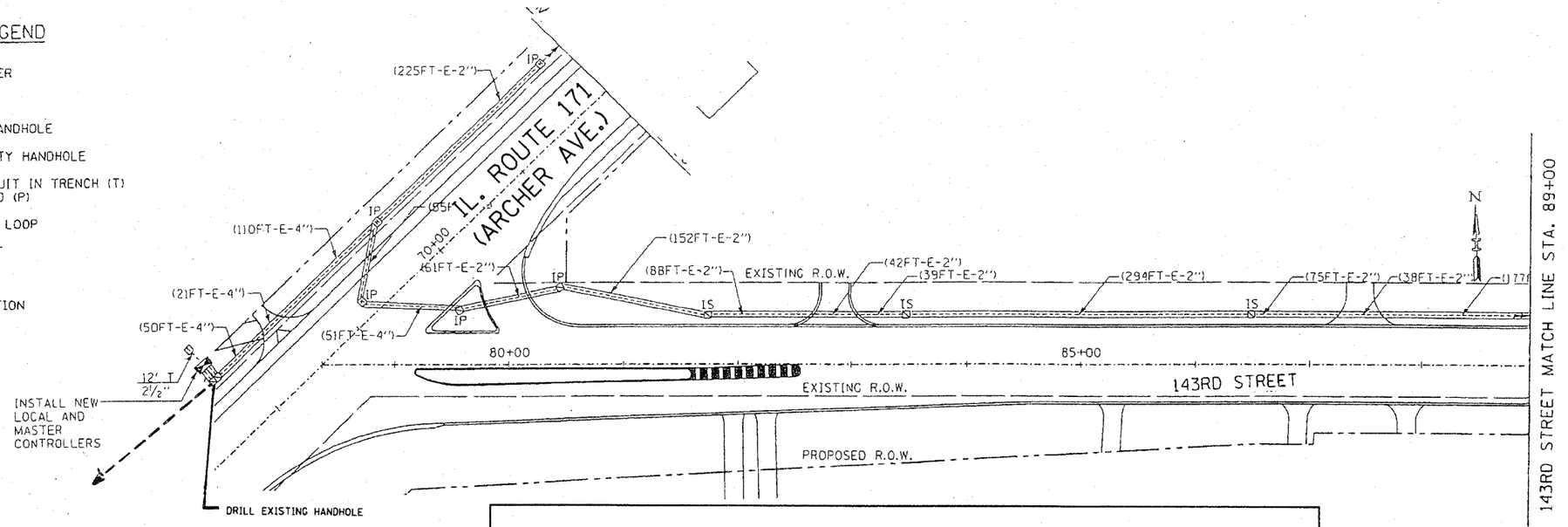
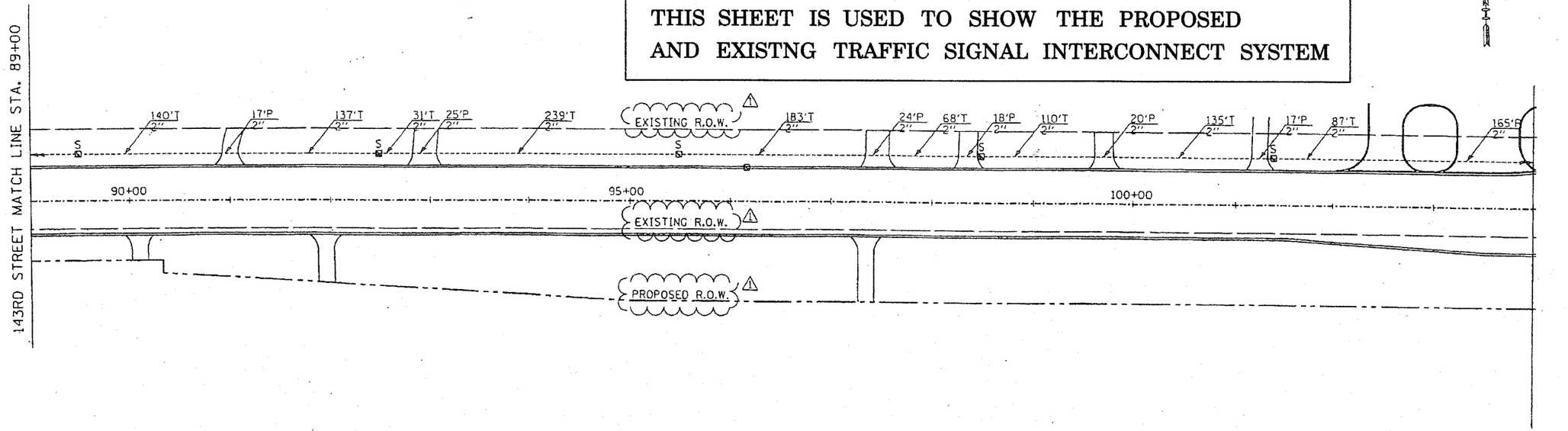
INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
▣	▣	CONTROLLER
▪	▪	HANDHOLE
▬	▬	DOUBLE HANDHOLE
▣	▣ H	HEAVY DUTY HANDHOLE
———	═══	G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
□	⬚	DETECTOR LOOP
UD		UNIT DUCT
S	IS	SYSTEM
IP	I	INTERSECTION



INFORMATION ONLY

THIS SHEET IS USED TO SHOW THE PROPOSED AND EXISTNG TRAFFIC SIGNAL INTERCONNECT SYSTEM



0 25' 50' 100'
Scale: 1" = 50'

DRAWN PZ	DATE JULY 2006	T·Y·LIN INTERNATIONAL	THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY 2700 OGDEN AVENUE DOWNERS GROVE, ILLINOIS 60515	REVISIONS: NO. / DATE / DESCRIPTION 1 / 08/18/06 / ADDENDUM NO. 1 REVISIONS	CONTRACT NO. I-05-7710 TRAFFIC SIGNAL INTERCONNECTS 143RD ST. STA. 79+00 TO 104+00	DRAWING NO. OF
CHECKED RS	SCALE 1"=50'					

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		DRAWN - SN	REVISED -					CONTRACT NO. 62738		
	PLOT SCALE = 100.0000 ' / IN.	CHECKED - DAD	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
	PLOT DATE = 3/27/2008	DATE - 3-27-2008	REVISED -							

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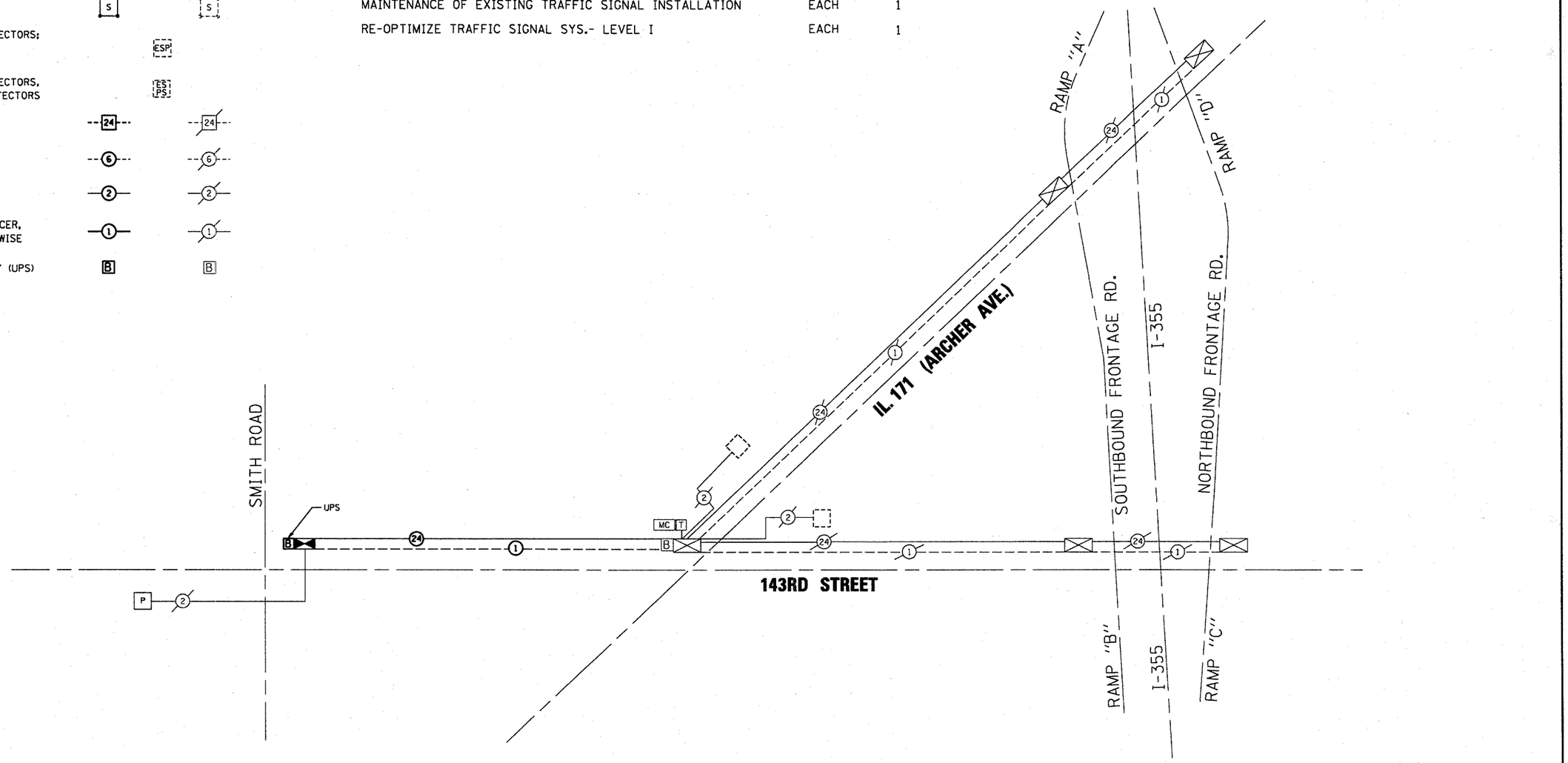
INTERCONNECT SCHEMATIC LEGEND

	PROPOSED	EXISTING
INTERSECTION CONTROLLER	⊠	⊠
MASTER CONTROLLER	MC	EMC
MASTER MASTER CONTROLLER	MMC	EMMC
TELEPHONE CONNECTION	T	T
INTERSECTION & SAMPLING (SYSTEM) DETECTORS	□	□
PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	□	□
EXISTING INTERSECTION LOOP DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS	P	
SAMPLING (SYSTEM) DETECTORS	S	S
SAMPLING (SYSTEM) PREFORMED DETECTORS	S	S
EXISTING SAMPLING (SYSTEM) DETECTORS; PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.	ESP	
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS	ES PS	
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	24	24
INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	6	6
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PAIR	2	2
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE	1	1
UN-INTERRUPTABLE POWER SUPPLY (UPS)	B	B

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
CONDUIT IN TRENCH, 2" DIA. GALVANIZED STEEL	FOOT	1545
CONDUIT IN PUSHED, 2" DIA. GALVANIZED STEEL	FOOT	570
HEAVY-DUTY HANDHOLE	EACH	3
TRENCH AND BACK FILL FOR ELECTRICAL WORK	FOOT	1545
DRILL EXISTING HANDHOLES	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	2100
ELECTRIC CABLE IN CONDUIT TRACER NO. 14 1C	FOOT	2100
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYS.- LEVEL I	EACH	1



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		DRAWN - BCK	REVISED -		
	PLOT SCALE=0.0000 ' / IN.	CHECKED - DAD	REVISED -		
	PLOT DATE =3/31/2008	DATE - 3/31/2008	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2004-019 TS	WILL	13	13
		CONTRACT NO. 62738		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

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