

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	**	FRANKLIN	7	1

(FAI 57, FAP 853, FAP 873, FAU 9493)
 ** D-9 TRAFFIC SIGNAL FY 06-1

D-99-020-06

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

SIGNAL MODIFICATION
 VARIOUS ROUTES
 (FAI-57 (I-57) & FAP 869 (IL 14) /

FAP 873 (IL 149) & FAU 9493 (ORIENT ROAD/PERSHING ROAD))

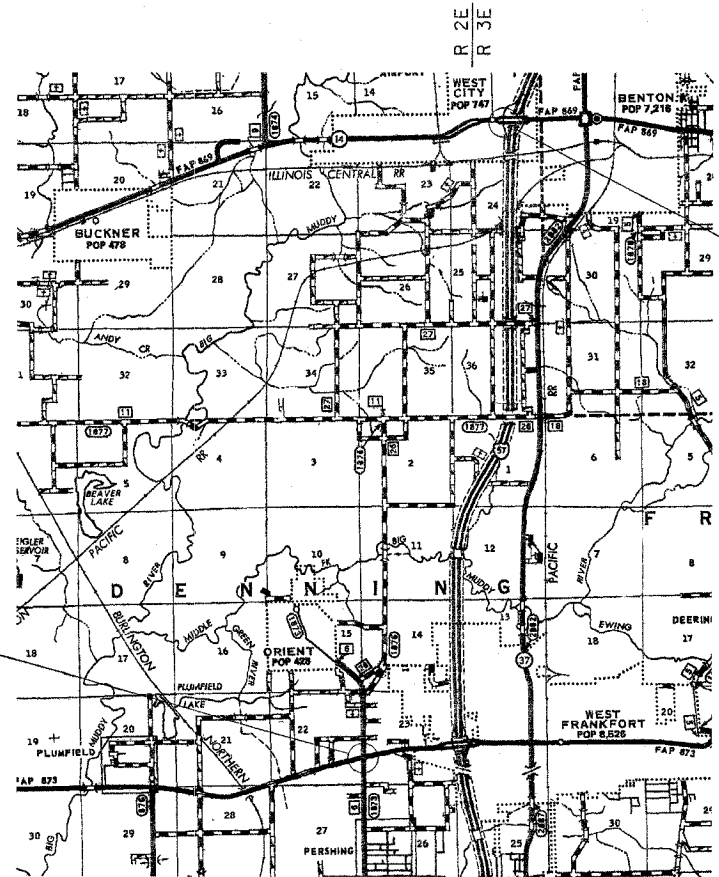
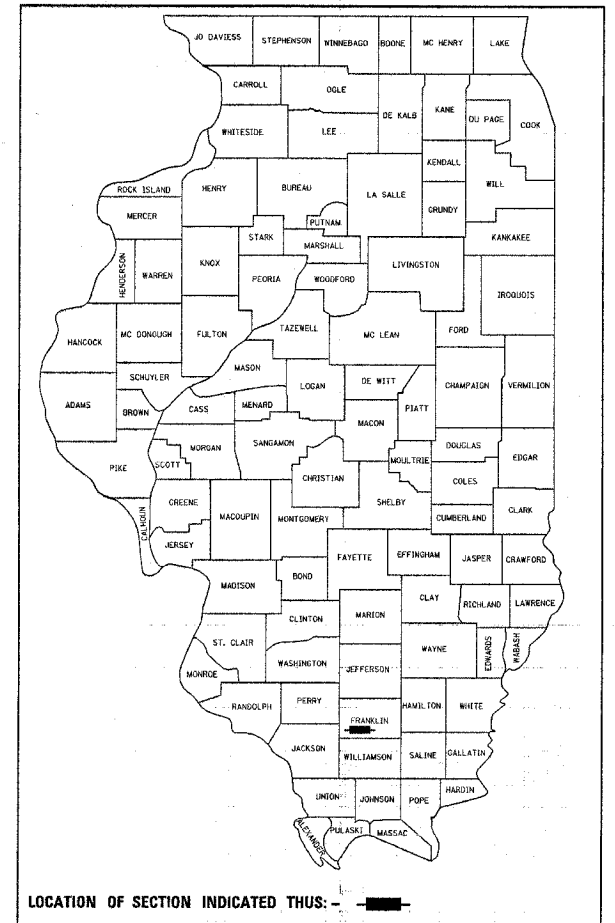
SECTION D-9 TRAFFIC SIGNAL FY-06-1

FRANKLIN CO.

C-99-016-06

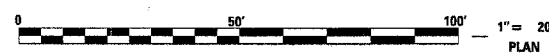
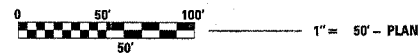
FOR INDEX OF SHEETS, SEE SHEET NO. 2

LOCATION	ADT	% TRUCKS
FAI-57 (I-57) NB ON RAMP	2750(2004)	5%
FAI-57 (I-57) NB OFF RAMP	1550(2004)	6%
FA 869 (IL 14)	14800(2003)	1%
FAP 873 (IL 149)	7200(2003)	11%
ORIENT ROAD	1150(2004)	0%
PERSHING ROAD	1650(2004)	0%



LOCATION 2
 FAI-57 (I-57) & FAP 869 (IL 14)

LOCATION 1
 FAP 873 (IL 149) &
 FAU 9493 (ORIENT ROAD/PERSHING ROAD)



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DENNING & BROWNING TOWNSHIPS
CONTRACT NO. 98965

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED Feb 9 2006
Mary C. Lamic
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 24, 2006
Nike N. [Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

March 24, 2006
Milton P. See, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

PHONE NO. (618) 549-2171
 CENTREX NO. 782-4554
 PROJECT LEADER: SUSAN POE
 DESIGN LEADER: SUSAN POE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	FRANKLIN	7	2
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

* FAI 57, FAP 869, FAP 873, FAU 9493
 ** D-9 TRAFFIC SIGNAL FY 06-1

GENERAL NOTES

THE FURNISHING AND INSTALLATION OF THE 1 1/2" CONDUIT WITH ITS TRENCHING AND BACKFILL FROM THE LOOP SAWCUT TO THE SPLICE POINT SHALL BE INCLUDED IN THE LOOP INSTALLATION UNLESS SHOWN OTHERWISE ON THE PLANS.

THE INDUCTION LOOP WIRE AND LEAD-IN WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

SHIELDED CABLE TO LOOP LEADS SHALL BE GROUNDED AT THE CONTROLLER TERMINAL ONLY.

ALL DETECTOR LOOP CORNERS SHALL BE CORE DRILLED 2 IN. MINIMUM DIAMETER.

WHILE SIGNAL HEADS ARE MOUNTED IN PLACE, BUT NOT YET IN OPERATION, THEY SHALL BE SECURELY COVERED IN WHITE PLASTIC.

EXISTING SURFACE DISTURBED DURING EXCAVATION FOR FOUNDATIONS AND PUSH PITS SHALL BE RESTORED TO THE LIMITS AND CONDITION SPECIFIED BY THE ENGINEER OR AS SHOWN ON THE PLANS. UNLESS NOTED OTHERWISE ON THE PLANS THE REMOVAL AND RESTORATION SHALL BE INCLUDED IN THE CONTRACT.

CABLE QUANTITIES ARE MEASURED IN PLAN VIEW.

THE LOCATION OF THE DETECTOR LOOPS AND TRAFFIC SIGNAL FOUNDATIONS, AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER OF TRAFFIC OPERATIONS.

EVERY EFFORT SHOULD BE MADE TO MAINTAIN OPERATION OF THE EXISTING DETECTOR LOOPS TO THE GREATEST EXTENT POSSIBLE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF TRAFFIC OPERATIONS 72 HOURS PRIOR TO THE SHUT-DOWN OR CUTTING OF EXISTING DETECTOR LOOPS.

RELOCATED TRAFFIC SIGNAL POSTS WILL BE LOCATED NO CLOSER THAN 4 FT. FROM THE FACE OF CURB TO CENTER OF POST.

STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-01	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701101-01	OFF-ROAD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701106-01	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701001-06	TRAFFIC CONTROL DEVICES
805001	ELECTRICAL SERVICE INSTALLATION DETAILS
814001	CONCRETE HANDHOLES
857001	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
873001	TRAFFIC SIGNAL GROUNDING
878001-04	CONCRETE FOUNDATION DETAILS
880006	TRAFFIC SIGNAL MOUNTING DETAILS
886001	DETECTOR LOOP INSTALLATIONS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES, INDEX OF SHEETS, STANDARDS
- 3 SUMMARY OF QUANTITIES
- 4 FLASHING BEACON PLANS - ILLINOIS 149 AND ORIENT ROAD/PERSHING ROAD
- 5 TRAFFIC SIGNAL PLAN NB I-57 RAMPS AND ILLINOIS 14
- 6 WIRING DIAGRAM NB I-57 RAMPS AND ILLINOIS 14
- 7 DETAILS: SIDE VIEW SIGN; SERVICE INSTALLATION TYPE A (SPECIAL); DETAIL OF DETECTOR LOOPS

Prepared By:	<i>Joe Zelenka</i> DISTRICT STUDIES & PLANS ENGINEER
Examined By:	<i>James Harris</i> DISTRICT LAND ACQUISITION ENGINEER
Examined By:	<i>Conni Nulan</i> DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:	<i>Jim Amato</i> DISTRICT OPERATIONS ENGINEER
Examined By:	<i>Joseph L...</i> DISTRICT CONSTRUCTION ENGINEER
Examined By:	<i>Bruce...</i> DISTRICT MATERIALS ENGINEER
Examined By:	<i>...</i> DISTRICT PROJECT SUPERVISION ENGINEER
Approved By:	<i>...</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
DATE	10/19/06

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR #	**	FRANKLIN	7	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

(• FAI 57, FAP 869, FAP 873, FAU 9493)
 ** D-9 TRAFFIC SIGNAL FY 06-1

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	CONSTRUCTION TYPE CODE		VARIOUS ROUTES	
		UNIT	TOTAL QUANTITIES	Y031-1F	Y031-1F
				100% STATE	LOCATION 2
				ILLINOIS 149 & ORIENT RD /PERSHING ROAD	NORTHBOUND I-57 RAMP AND ILLINOIS 14
44003800	MEDIAN SURFACE REMOVAL	SQ FT	288		288
60618300	CONCRETE MEDIAN SURFACE 4"	SQ FT	288		288
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1		1
80300100	LOCATING UNDERGROUND CABLE	FOOT	40		40
80400105	ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH	1	1	
80500100	SERVICE INSTALLATION, TYPE A	EACH	2	1	1
80801500	WOOD POLE, 25 FT., CLASS 5	FOOT	1	1	
81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	240	47	193
81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	42		42
81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	65		65
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	10		10
81021550	CONDUIT, AUGERED, 2" DIA., PVC	FOOT	98		98
81021560	CONDUIT, AUGERED, 2 1/2" DIA., PVC	FOOT	107		107
81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL	FOOT	18	18	
81400100	HANDHOLE	EACH	3		3
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	357	47	310
86000100	MASTER CONTROLLER	EACH	1		1
86600010	GULFBOX JUNCTION	EACH	2		2
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	85	85	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	FOOT	708		708
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	274		274
87301305	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR	FOOT	710		710
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	6		6
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	3		3
87900100	DRILL EXISTING FOUNDATION	EACH	2		2
88500100	INDUCTIVE LOOP DETECTOR	EACH	3		3
88600100	DETECTOR LOOP, TYPE 1	FOOT	387		387
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	3		3
89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	2		2
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1
X0300737	RADIO TRANSCEIVER	EACH	1		1
X8801100	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 1-SECTION, POST MOUNTED	EACH	2	2	
XX004683	RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER AND CABINET COMPLETE	EACH	1		1

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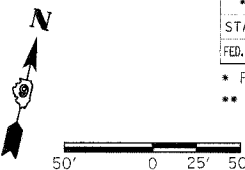
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*	**	FRANKLIN	7	4

STA. TO STA.

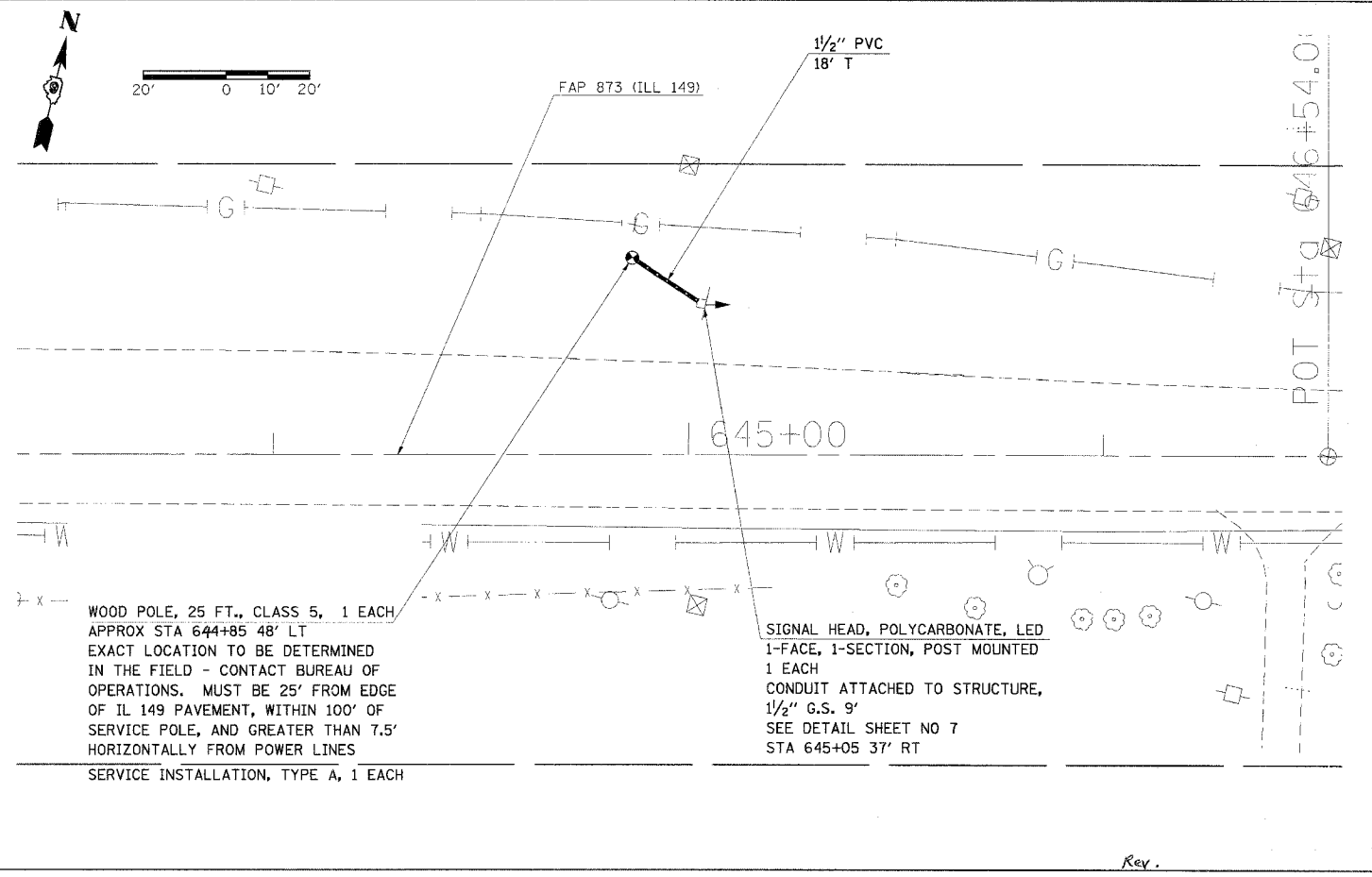
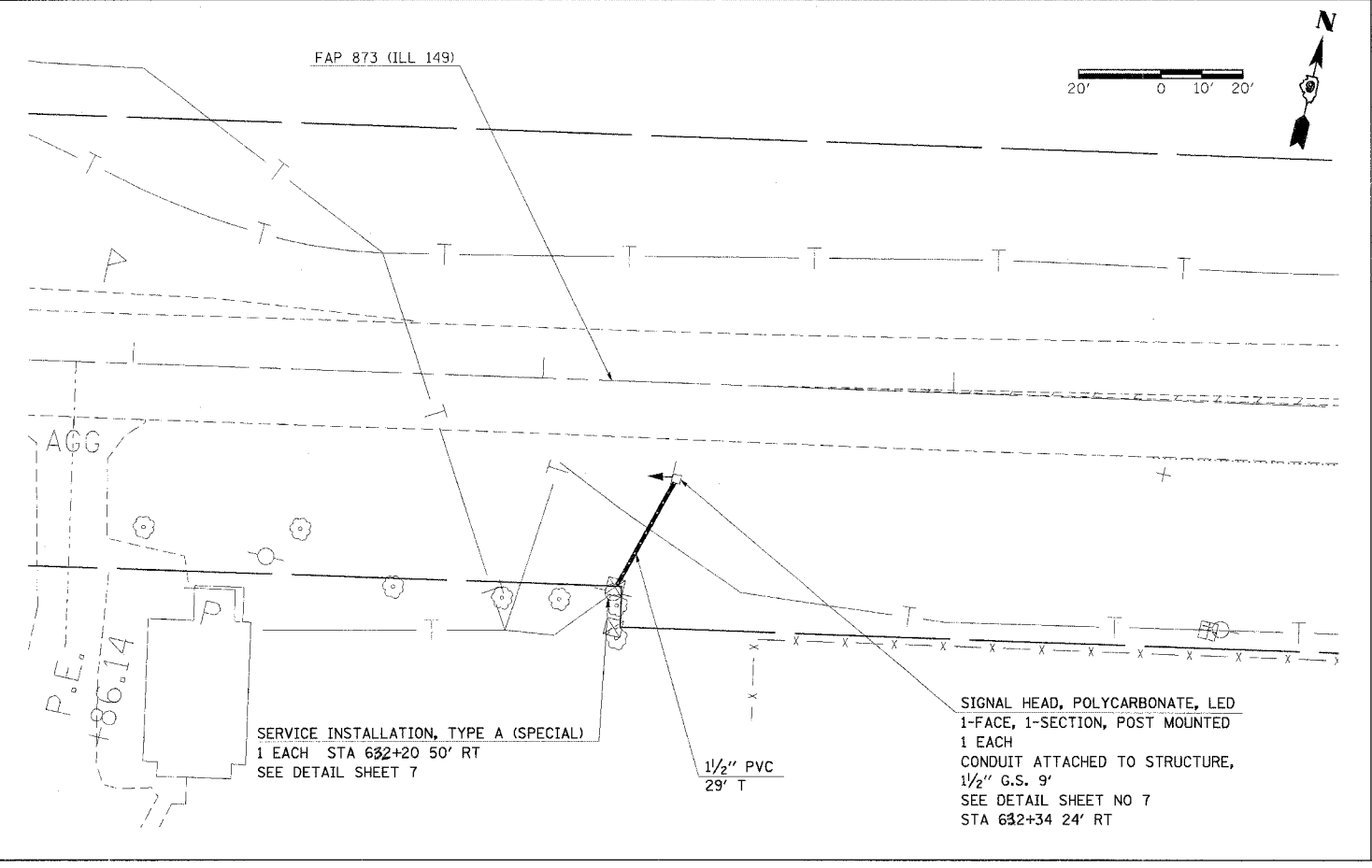
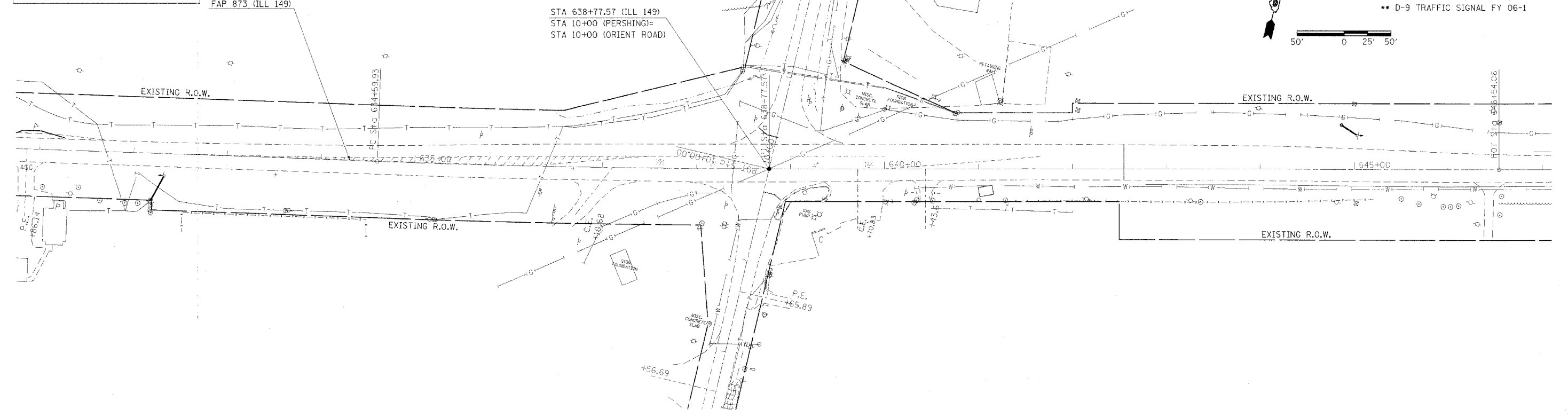
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

* FAI 57, FAP 869, FAP 873, FAU 9493

** D-9 TRAFFIC SIGNAL FY 06-1



BEFORE BEGINNING WORK CONTACT
MIKE HUMPHREY (AMEREN CIPS)
(618) 439-5829 FOR SERVICE DETAILS.



SERVICE INSTALLATION, TYPE A (SPECIAL)
1 EACH STA 632+20 50' RT
SEE DETAIL SHEET 7

SIGNAL HEAD, POLYCARBONATE, LED
1-FACE, 1-SECTION, POST MOUNTED
1 EACH
CONDUIT ATTACHED TO STRUCTURE,
1/2" G.S. 9'
SEE DETAIL SHEET NO 7
STA 632+34 24' RT

WOOD POLE, 25 FT., CLASS 5, 1 EACH
APPROX STA 644+85 48' LT
EXACT LOCATION TO BE DETERMINED
IN THE FIELD - CONTACT BUREAU OF
OPERATIONS. MUST BE 25' FROM EDGE
OF IL 149 PAVEMENT, WITHIN 100'
OF SERVICE POLE, AND GREATER THAN 7.5'
HORIZONTALLY FROM POWER LINES
SERVICE INSTALLATION, TYPE A, 1 EACH

SIGNAL HEAD, POLYCARBONATE, LED
1-FACE, 1-SECTION, POST MOUNTED
1 EACH
CONDUIT ATTACHED TO STRUCTURE,
1/2" G.S. 9'
SEE DETAIL SHEET NO 7
STA 645+05 37' RT

Rev.

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	FRANKLIN	7	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

* FAI 57, FAP 853, FAP 873, FAU 9493
 ** D-9 TRAFFIC SIGNAL FY 06-1

GENERAL NOTES

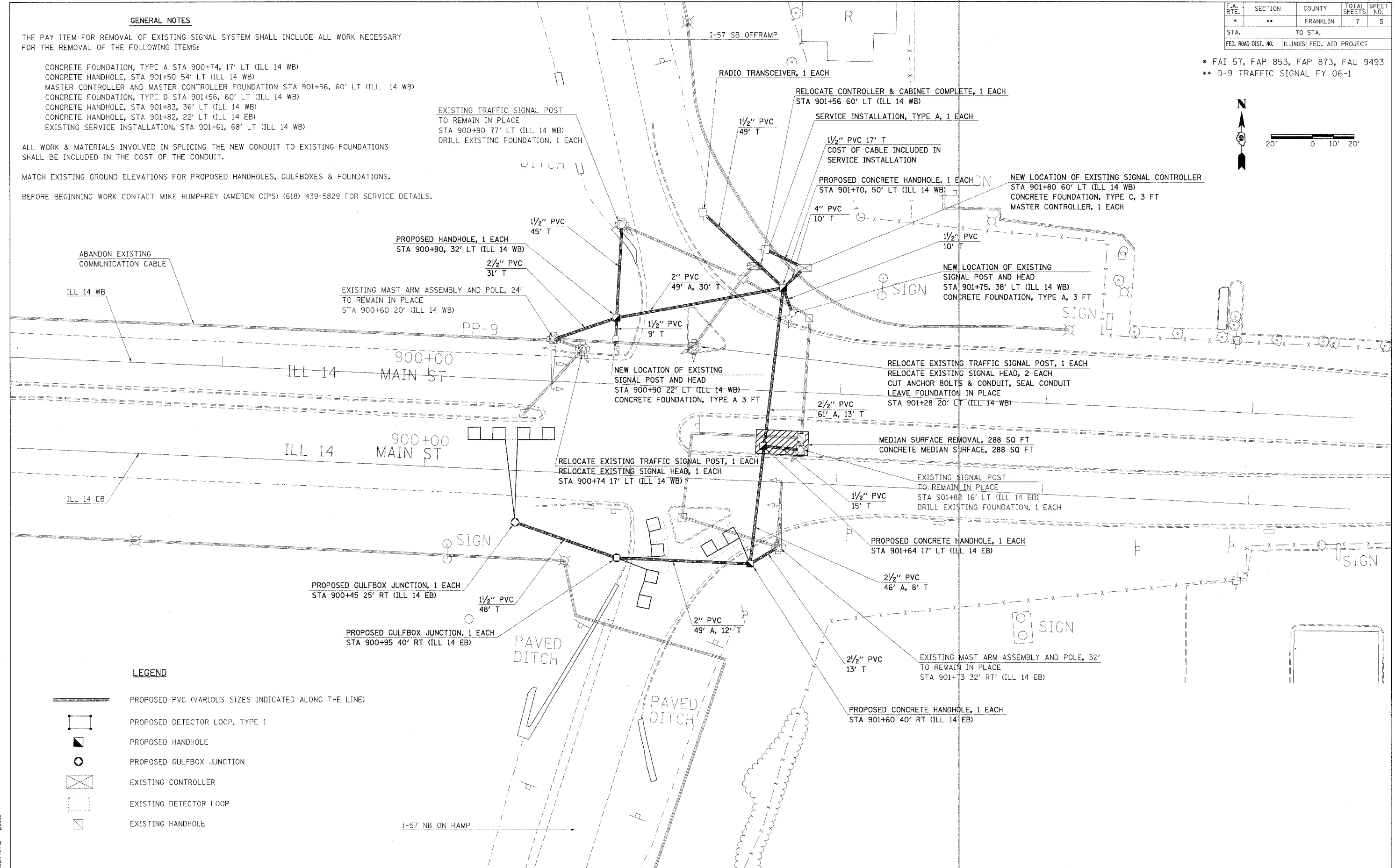
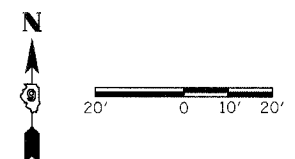
THE PAY ITEM FOR REMOVAL OF EXISTING SIGNAL SYSTEM SHALL INCLUDE ALL WORK NECESSARY FOR THE REMOVAL OF THE FOLLOWING ITEMS:

- CONCRETE FOUNDATION, TYPE A STA 900+74, 17' LT (ILL 14 WB)
- CONCRETE HANDHOLE, STA 901+50 54' LT (ILL 14 WB)
- MASTER CONTROLLER AND MASTER CONTROLLER FOUNDATION STA 901+56, 60' LT (ILL 14 WB)
- CONCRETE FOUNDATION, TYPE D STA 901+56, 60' LT (ILL 14 WB)
- CONCRETE HANDHOLE, STA 901+83, 36' LT (ILL 14 WB)
- CONCRETE HANDHOLE, STA 901+82, 22' LT (ILL 14 WB)
- EXISTING SERVICE INSTALLATION, STA 901+61, 68' LT (ILL 14 WB)

ALL WORK & MATERIALS INVOLVED IN SPlicing THE NEW CONDUIT TO EXISTING FOUNDATIONS SHALL BE INCLUDED IN THE COST OF THE CONDUIT.

MATCH EXISTING GROUND ELEVATIONS FOR PROPOSED HANDHOLES, GULFBXES & FOUNDATIONS.

BEFORE BEGINNING WORK CONTACT MIKE HUMPHREY (AMEREN CIPS) (618) 439-5829 FOR SERVICE DETAILS.



LEGEND

- PROPOSED PVC (VARIOUS SIZES INDICATED ALONG THE LINE)
- PROPOSED DETECTOR LOOP, TYPE 1
- PROPOSED HANDHOLE
- PROPOSED GULFBX JUNCTION
- EXISTING CONTROLLER
- EXISTING DETECTOR LOOP
- EXISTING HANDHOLE

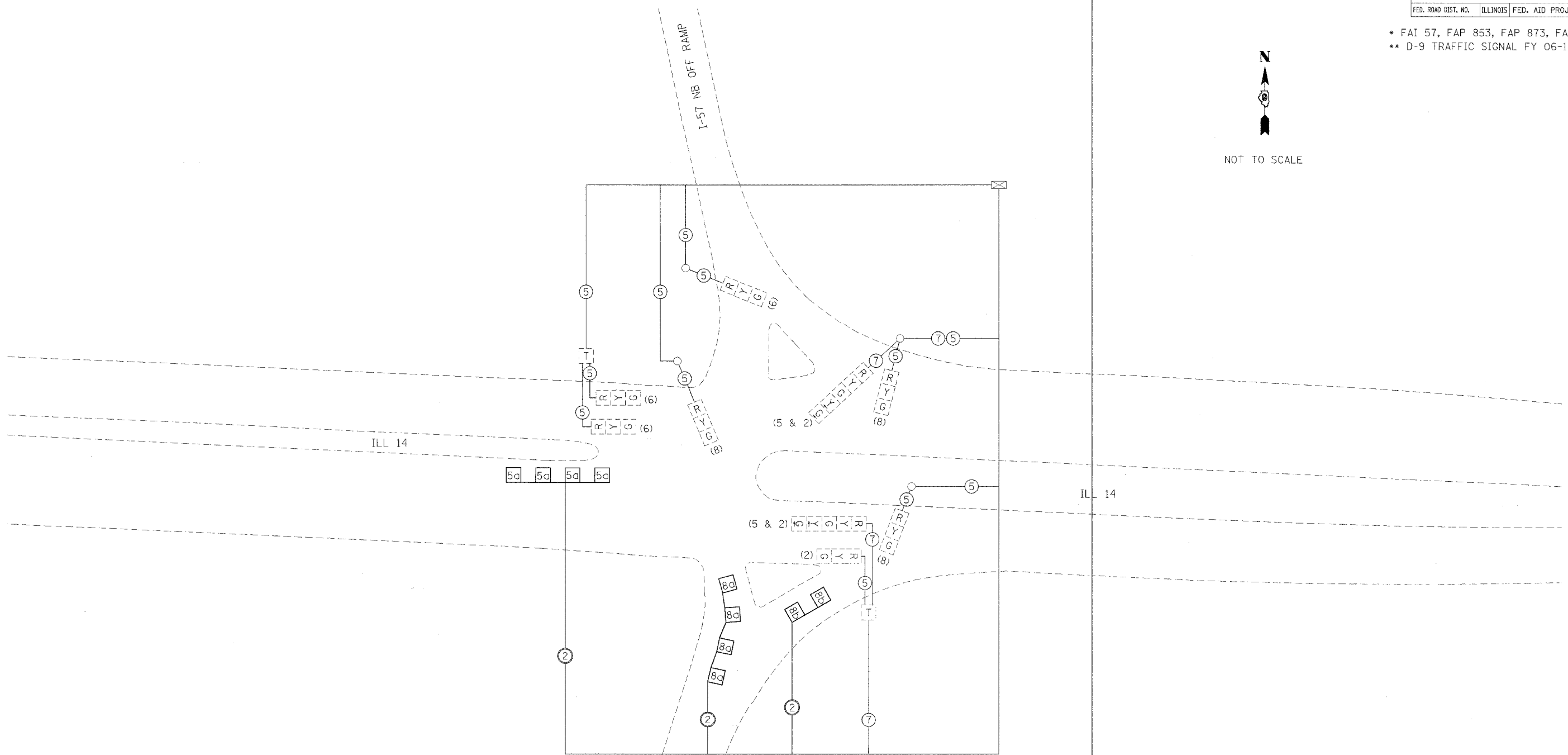
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	FRANKLIN	7	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* FAI 57, FAP 853, FAP 873, FAU 9493
 ** D-9 TRAFFIC SIGNAL FY 06-1



NOT TO SCALE



LEGEND

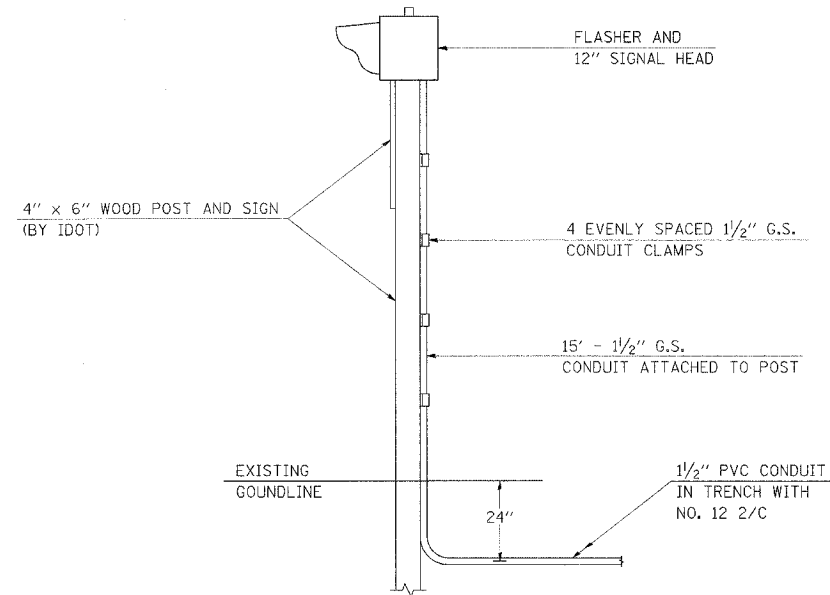
- INDICATES EXISTING TERMINAL BLOCK IN MAST ARM POLE BASE
- INDICATES PROPOSED 6' X 6' DETECTOR LOOP WITH 2" CORE DRILLED CORNERS
- RELOCATED TRAFFIC SIGNAL CONTROLLER AND CABINET
- INDICATES 2/C TWISTED, SHIELDED CABLE IN CONDUIT
- NUMBER IN CIRCLE INDICATES NUMBER OF CONDUCTORS IN THAT CABLE ALL CABLES SHALL BE A.W.G. #14 UNLESS OTHERWISE NOTED
- EXISTING SIGNAL FACE TO REMAIN IN PLACE

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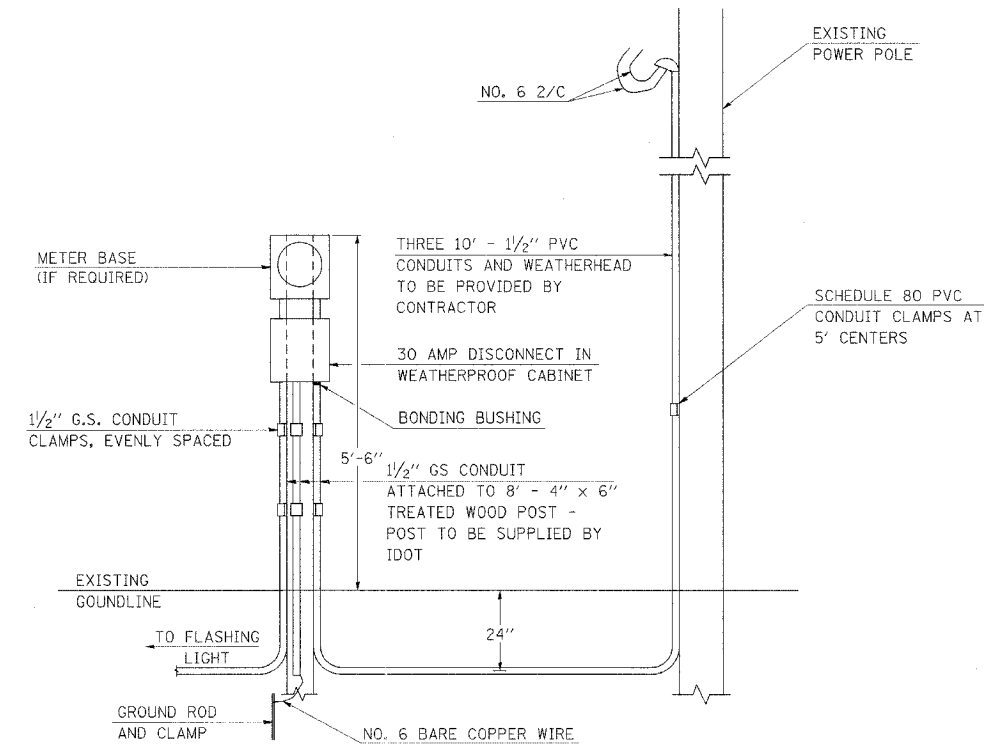
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•	••	FRANKLIN	7	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

- FAI 57, FAP 869, FAP 873, FAU 9493
- D-9 TRAFFIC SIGNAL FY 06-1

SIDE VIEW SIGN



SERVICE INSTALLATION, TYPE A (SPECIAL)



DETAIL OF DETECTOR LOOPS

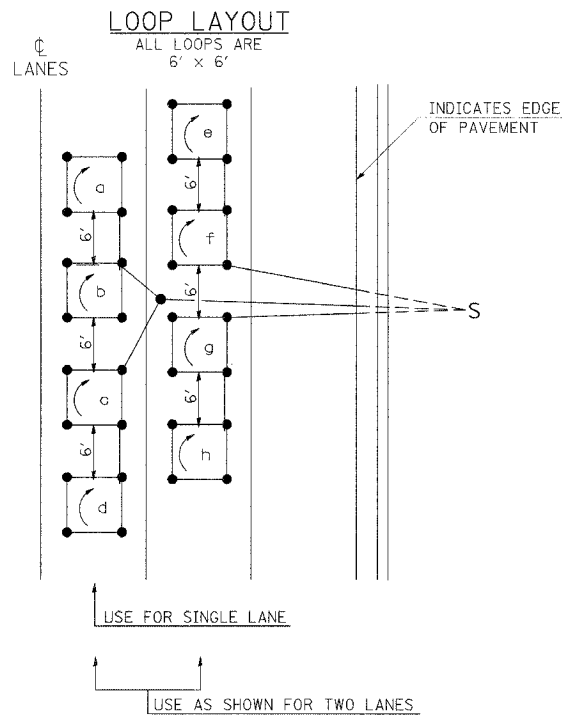
NOTES

(APPLIES TO 6' x 6' LOOPS ONLY)

1. THE DETECTOR LOOPS SHALL BE TYPE I. EACH DETECTOR LOOP SHALL HAVE 3 TURNS OF LOOP WIRE AND BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 886 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
2. BEGINNING LEAD WIRES SHALL BE CONNECTED TO THE BLACK LEAD AND THE ENDING LEAD WIRES SHALL BE CONNECTED TO THE WHITE LEAD OF THE TWIN TWISTED FEED CABLES AT THE SPLICE POINT.
3. WHERE THE LOOPS ARE INSTALLED PRIOR TO RESURFACING, THE LOOP CORNERS SHALL BE DIAGONALLY CUT.

LOOP LEGEND

- ⤵ CLOCKWISE ROTATION FOR LOOP WIRES
- S INDICATES SPLICE POINT FOR DETECTOR LOOP LEAD
- INDICATES 2" CORE-DRILL



DETAIL 6' x 6' DETECTOR LOOPS

STD. 9-92

REVISIONS	
REDRAWN	5-13-02
REVISED	10-27-05
REVISED	
REVISED	

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