

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7989	*	SANGAMON	7	1
STA.		TO STA.		
		ILLINOIS		93419

* 04-00441-00-TL

INDEX OF SHEETS

1. COVER SHEET
2. SUMMARY OF QUANTITIES
3. INTERSECTION DESIGN STUDY
4. TRAFFIC SIGNAL PLAN
5. CABLE PLAN
6. TYPICAL DETAILS
7. VIDEO DETECTION SYSTEM

CITY OF SPRINGFIELD, ILLINOIS

DEPARTMENT OF PUBLIC WORKS

TRAFFIC SIGNALS INSTALLATION

HAZARD ELIMINATION SAFETY PROGRAM

(FAU7989)SOUTH GRAND AVE. AND WHEELER AVE.

SECTION 04-00441-00-TL

PROJECT HS - 7989 (005)

JOB NUMBER C - 96 - 202 - 05

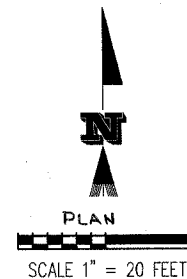
STANDARD SIGNAL SYMBOLS

	PROPOSED
CONTROLLER	— [Symbol]
HANDHOLE	— [Symbol]
DOUBLE HANDHOLE	— [Symbol]
JUNCTION BOX, SPECIAL	— [Symbol]
DETECTOR	— [Symbol]
SIGNAL HEAD	— [Symbol]
MAST ARM ASSEMBLY AND POLE	— [Symbol]
PVC CONDUIT	— [Symbol]

40'-T
3'-P

STANDARDS

- 424001-04
- 606001-02
- 701501-03
- 701606-04
- 701801-03
- 702001-06
- 720016-01
- 805001
- 813001-01
- 814001
- 814006
- 857001
- 873001
- 877001-02
- 877011-02
- 878001-04
- 880006



JUL.I.E. - THE TOLL FREE TELEPHONE NUMBER FOR JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION IS 800-892-0123

UTILITY COMPANIES:
CITY WATER LIGHT & POWER - ELECTRIC
10TH & MILLER
SPRINGFIELD, ILLINOIS

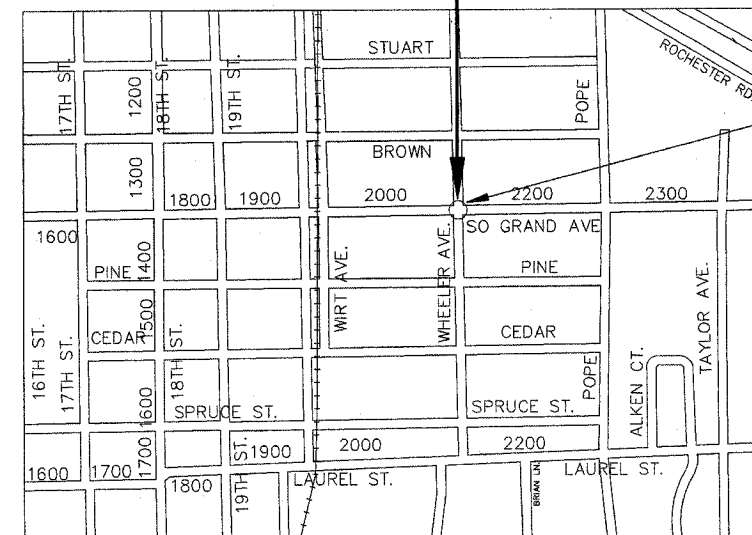
CITY WATER LIGHT & POWER - WATER
11 TH & MASON
SPRINGFIELD, ILLINOIS

AMEREN CILCO-GAS
825 N. MACARTHUR BLVD
SPRINGFIELD, ILLINOIS

AT&T / SBC TELEPHONE CO.
529 S. 7TH ST.
SPRINGFIELD, ILLINOIS

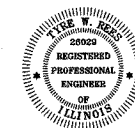
INSIGHT CABLE TELEVISION
711 S. DIRKSEN PKWY.
SPRINGFIELD, ILLINOIS

PROPOSED IMPROVEMENT LOCATION (FAU 7989) SOUTH GRAND AVE. AND WHEELER AVE.



FAU 7989 SOUTH GRAND AVE.-ARTERIAL 30MPH
WHEELER AVE.-30MPH

PLANS PREPARED BY
TRAFFIC ENGINEERING DIVISION
SPRINGFIELD, ILLINOIS



EXPIRES 11-30-07

APPROVED	<i>[Signature]</i>	2006 April 6 th
	CITY TRAFFIC ENGINEER	
APPROVED	<i>[Signature]</i>	2006 April 7 th
	CITY ENGINEER	
PASSED	<i>[Signature]</i>	2006 APRIL 13
	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS	
PASSED	<i>[Signature]</i>	2006 APRIL 13
	DISTRICT SIX ENGINEER OF CONSTRUCTION	
RELEASING FOR BID BASED ON LIMITED REVIEW	<i>[Signature]</i>	2006 APRIL 13
	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER	
	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

CONTRACT No. 93419

SUMMARY OF QUANTITIES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7989	*	SANGAMON	7	2
STA.		TO STA.		
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* 04-00441-00-TL

CODE NO.	ITEM	UNITS	TOTAL QUANTITY
* 42400420	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH, SPECIAL	SQ. FT.	446
△ 44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	86
* 44000600	SIDEWALK REMOVAL	SQ. FT.	462
* 44000900	BITUMINOUS CONCRETE REMOVAL	SQ. YD.	66
△ 60604400	COMBINATION, CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	128
67100100	MOBILIZATION	L. SUM.	1
* 70103700	TRAFFIC CONTROL COMPLETE	L. SUM.	1
72000100	SIGN PANEL - TYPE I	SQ. FT.	36
* 80501000	SERVICE INSTALLATION, SPECIAL	EACH	1
* 81012500	CONDUIT IN TRENCH, 1-1/2" DIA., PVC	FOOT	449
* 81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	6
* 81012700	CONDUIT IN TRENCH, 2-1/2" DIA., PVC	FOOT	4
* 81012800	CONDUIT IN TRENCH, 3" DIA., PVC	FOOT	37
* 81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	16
* 81021540	CONDUIT AUGERED, 1-1/2" DIA., PVC	FOOT	345
* 81021550	CONDUIT AUGERED, 2" DIA., PVC	FOOT	36
* 81021560	CONDUIT AUGERED, 2-1/2" DIA., PVC	FOOT	25
* 81021570	CONDUIT AUGERED, 3" DIA., PVC	FOOT	114
* 81021590	CONDUIT AUGERED, 4" DIA., PVC	FOOT	76
* 81306100	JUNCTION BOX, (SPECIAL)	EACH	3
81400400	CONCRETE HANDHOLE	EACH	4
81400600	CONCRETE DOUBLE HANDHOLE	EACH	1
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	512
* 82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250WATT	EACH	2
* 85700200	FULL-ACTUATED CONTROLLER, AND TYPE IV CABINET	EACH	1
* 86400100	TRANSCEIVER-FIBER OPTIC	EACH	1
* 87100110	FIBER OPTIC CABLE IN CONDUIT, 62.5/125 6F	FOOT	914
* 87301125	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12, 3C	FOOT	398
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 3C	FOOT	529
* 87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 5C	FOOT	335
* 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 7C	FOOT	714
* 87301265	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 9C	FOOT	324
* 87301275	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 12C	FOOT	405
* 87301525	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18, 6 PAIR	FOOT	689
* 87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6. 2C	FOOT	64
87502680	TRAFFIC SIGNAL POST, ALUMINUM, 14 FT.	EACH	2
87502700	TRAFFIC SIGNAL POST, ALUMINUM, 16 FT.	EACH	2
87700170	STEEL, MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
87700200	STEEL, MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
* 87702860	STEEL COMBINATION, MAST ARM ASSEMBLY AND POLE, 26 FT	EACH	1
* 87702890	STEEL COMBINATION, MAST ARM ASSEMBLY AND POLE, 32 FT	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	3
87800400	CONCRETE FOUNDATION, TYPE E, 30 INCH DIAMETER	FOOT	47
87900200	DRILL EXISTING HANDHOLE	EACH	1
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	15
* 88800100	PEDESTRIAN PUSH-BUTTON	EACH	8
* X0320872	VIDEO VEHICLE DETECTION SYSTEM	EACH	1
* X0322929	CAMERA MOUNTING ASSEMBLY	EACH	4
* X0323153	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)	FOOT	3402
* X8801300	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE 3-SECTION, BRACKET MOUNTED	EACH	4
* X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE 3-SECTION, MAST ARM MOUNTED	EACH	6
* X8801415	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE 3-SECTION, BRACKET MOUNTED	EACH	4
* XX006533	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED, COUNTDOWN TIMER	EACH	6
* XX006558	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, BRACKET MOUNTED, COUNTDOWN TIMER	EACH	1

* - SEE SPECIAL PROVISIONS
 △ - SPECIALTY ITEMS

CONSTRUCTION TYPE CODE: Y031 - 1F

SECTION 04-00441-00-TL
 SOUTH GRAND AVE. AND WHEELER AVE.
 TRAFFIC SIGNALS INSTALLATION
SUMMARY OF QUANTITIES

CITY OF SPRINGFIELD, ILLINOIS
 OFFICE OF PUBLIC WORKS
 TRAFFIC ENGINEERING

CAPACITY DESIGN STUDY				
2 PHASE	AREA NON CBD	PEAK HOUR FACTOR	0.95	
60 SEC CYCLE	AVERAGE INTERSECTION DELAY	A.M. 6.8 SEC.	INTERSECTION LEVEL	
SIGNAL TYPE ACTUATED	PROGRAM USED HCM/CINEMA 5.05	P.M. 9.1 SEC.	OF SERVICE	
APPROACH	A (SOUTH BOUND)	B (WEST BOUND)	C (NORTH BOUND)	D (EAST BOUND)
BUS STOP CONDITION	-	-	-	-
PARKING MANUEVER/HR.	NONE	-	-	-
PEDESTRIANS	NONE	-	-	-
ARRIVAL TYPE	3	3	3	3
LANE UTILIZATION FACTOR	1.0	0.95	1.0	0.95
BASE SATURATION FLOW	1900	1900	1900	1900
D - DISTANCE	79	168	57	216
LANE GROUP	LTR	LTR	LTR	LTR
LANE WIDTHS	12	2@10	11	2@10
GREEN TIME (SECONDS)	A.M. 14.0	38.0	14.0	38.0
	P.M. 14.0	38.0	14.0	38.0
G/C RATIO	A.M. 0.233	0.633	0.233	0.633
	P.M. 0.233	0.633	0.233	0.633
LANE GROUP DELAY (SECONDS)	A.M. 18.4	6.7	17.9	5.1
	P.M. 19.3	5.4	18.8	9.4
V/C RATIO	A.M. 0.147	0.572	0.058	0.313
	P.M. 0.296	0.379	0.208	0.751
LEVEL OF SERVICE	A.M. B	A	B	A
	P.M. B	A	B	A
2025 30TH MAX. HOUR TRAFFIC	A.M. 121	700	88	1384
	P.M. 29	492	11	266
2005 8TH MAX. HOURLY TRAFFIC	A.M. 56	321	40	634
	P.M.			

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FAU 7989	*	SANGAMON	7	3
STA.		TO	STA.	
		ILLINOIS	PROJECT	

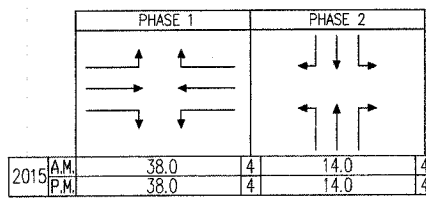
* 04-00441-00-TL 98419

ELEMENTS CONTROLLING DESIGN

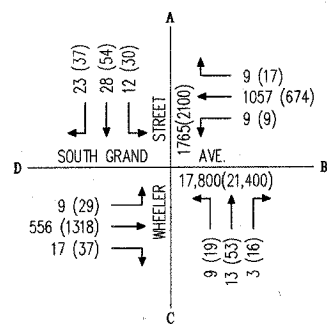
- DESIGN DESIGNATION FAU RTE 7989 (SOUTH GRAND AVE.) MINOR ARTERIAL 17,800(21,400) 30MPH WITH WHEELER AVE. URBAN COLLECTOR 1765(2100) 30MPH
- FAU RTE 7989 (SOUTH GRAND AVE.) IS THE PREFERENCE ROUTE
- ANTICIPATED YEAR OF CONSTRUCTION 2005
- TRAFFIC CONTROL TO BE SIGNALS INSTALLED UNDER WARRANT #3
- THIS INTERSECTION LISTED AS A "HIGH ACCIDENT LOCATION" IN 2002
- THE INTERSECTION IS LOCATED IN A RESIDENTIAL AREA. THE EXISTING RADIUS ACCOMMODATE AN SU 30 DESIGN VEHICLE. THERE ARE SCHOOL BUS MOVEMENTS FROM THE NORTH AND SOUTH LEGS TO THE WEST LEG. THE INTERSECTION ACCOMMODATES THESE MOVEMENTS WITHOUT ENCROACHMENTS.

GENERAL NOTES

- PROFILES ARE NOT PROVIDED, SINCE APPROACH GRADES ARE LESS THAN 1%
- TYPE B-6.18 CURB AND GUTTER TO BE USED ON OUTER EDGES OF PAVEMENT
- TYPE NA CURB AND GUTTER TO BE USED ON CHANNEL ISLAND
- ALL DIMENSIONS ARE SHOWN E-F OF PAVEMENT UNLESS OTHERWISE NOTED
- NEW HANDICAPPED RAMES TO BE INSTALLED TO A.D.A. GUIDELINES

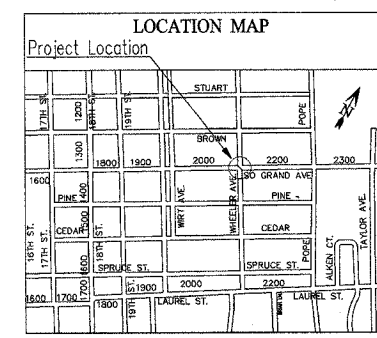
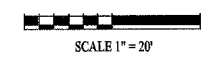
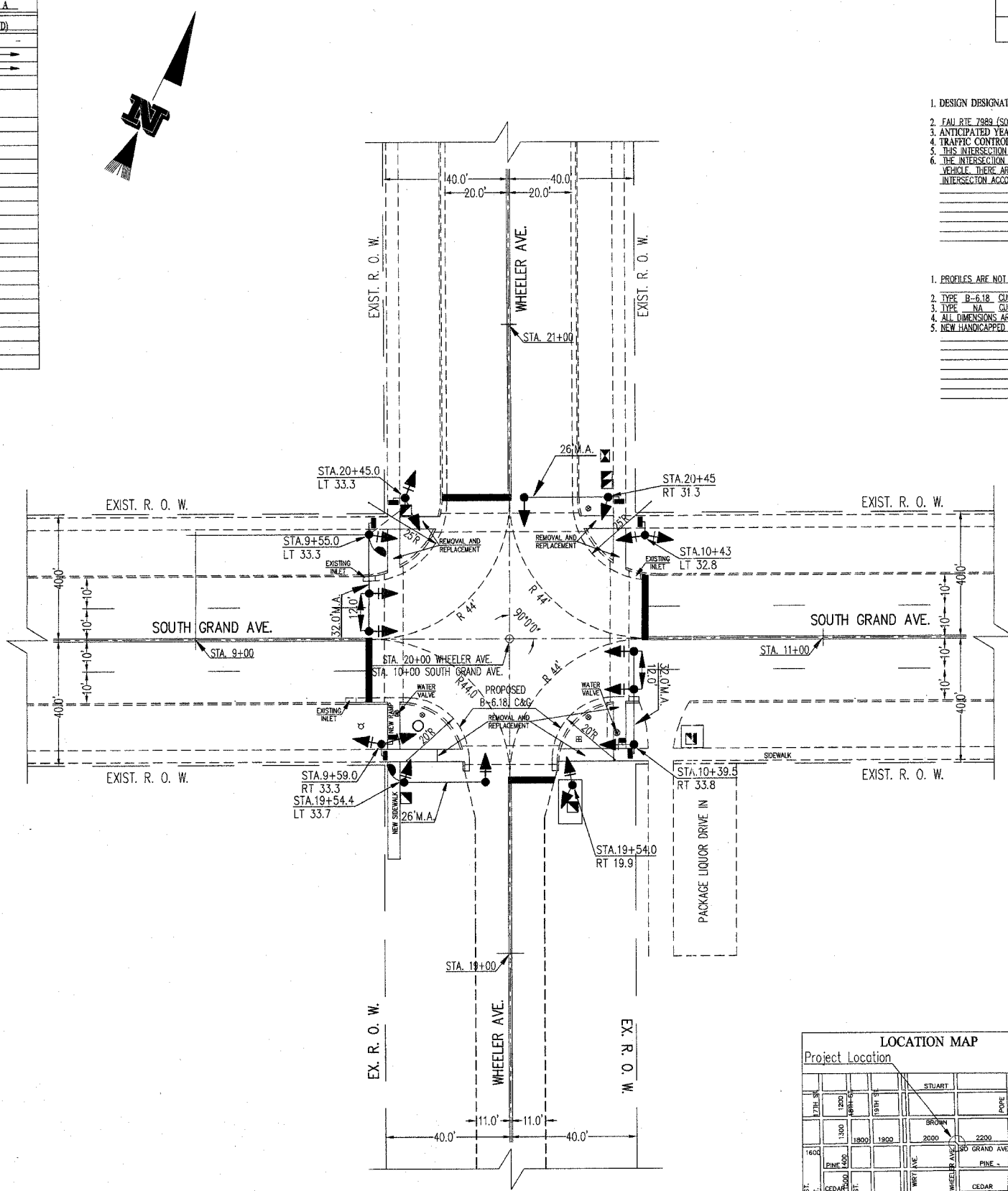


PHASING DIAGRAM



2025 DHV AM. (P.M.) ADT'S 2005 (2025)

MOVEMENT	YEAR 2005 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC MAX HOUR	ESTIMATED PERCENT INCREASE BY	YEAR 2015 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2025 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.			A.M.	P.M.		A.M.	P.M.
A B	10	25	2		11	28		12	30
A D	19	31	2		21	34		23	37
A C	23	45	2		25	50		28	54
B A	7	14	2		8	15		9	17
B C	7	7	2		8	8		9	9
B D	881	562	2		969	618		1057	674
C D	2	13	2		2	14		3	16
C A	11	44	2		12	48		13	53
C B	7	16	2		8	18		9	19
D C	7	24	2		8	26		9	29
D B	463	1098	2		509	1208		556	1318
D A	14	31	2		15	34		17	37
TOTAL A	84	190			92	209		101	228
TOTAL B	1375	1722			1513	1894		1650	2066
TOTAL C	58	149			64	164		70	179
TOTAL D	1385	1757			1524	1933		1662	2108



INTERSECTION DESIGN STUDY

FAU ROUTE 7989 (SOUTH GRAND AVE.) WITH ROUTE (WHEELER AVE.)

SEC. NO. 04-00441-00-TL PROJ. NO. _____
 SCALE 1:20 COUNTY SANGAMON
 SN: _____ REV. NO. _____

DESIGNED BY J.FRY DATE 05-16-05

SATISFACTORY _____ CITY ENGINEER DATE _____
 SATISFACTORY _____ DISTRICT GRAPHICS ENGINEER DATE _____
 SATISFACTORY _____ DISTRICT PROGRAM DEVELOPMENT ENGINEER DATE _____
 SATISFACTORY _____ DISTRICT OPERATIONS ENGINEER DATE _____
 APPROVED _____ DISTRICT ENGINEER DATE _____

* DEN SPEC *
 ** DATE TIME *
 *** REF. ***

LIST OF QUANTITIES

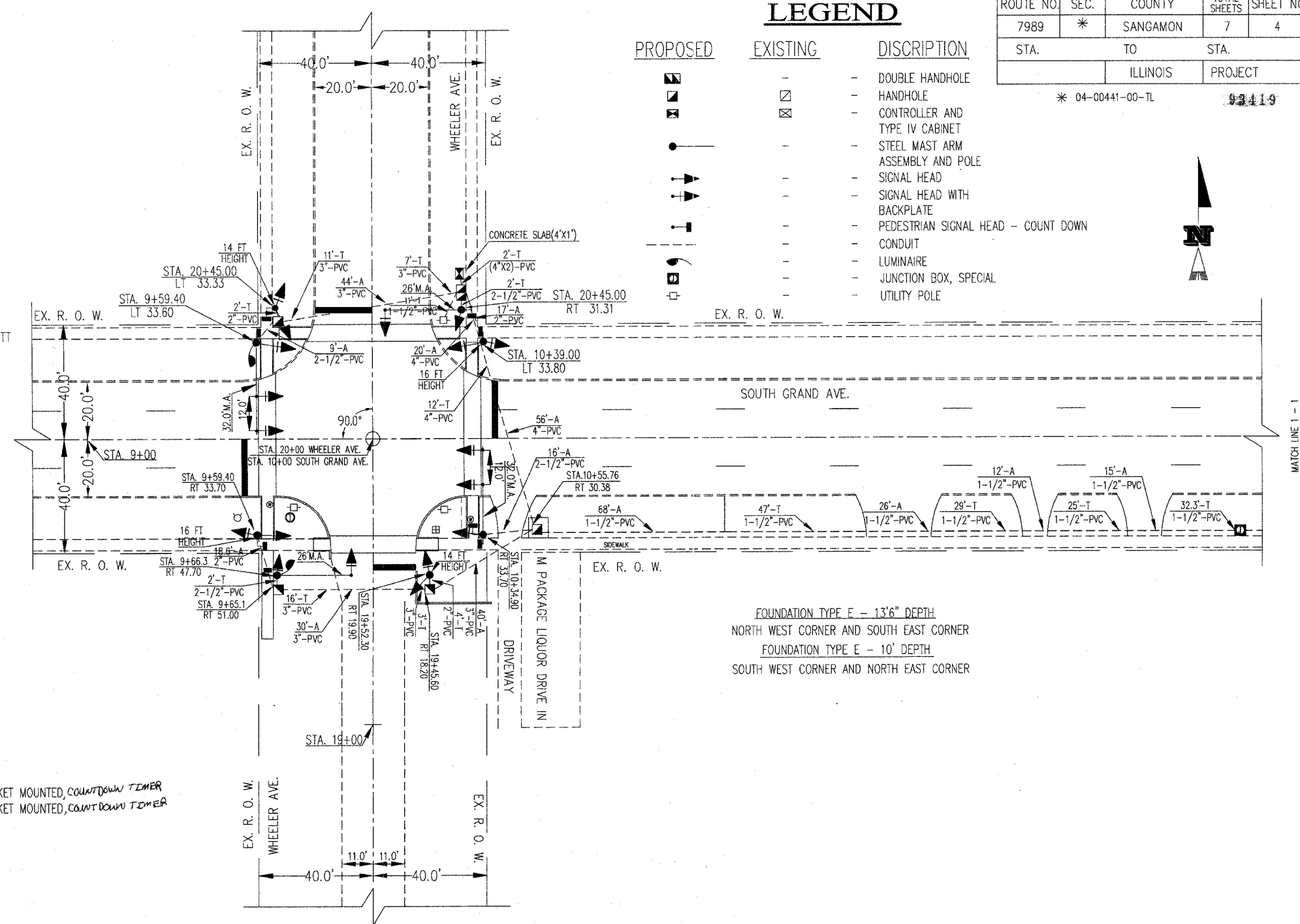
QUANTITY	UNIT	ITEM
36	SQ. FT.	SIGN PANEL - TYPE 1
1	EACH	SERVICE INSTALLATION, SPECIAL
449	FOOT	CONDUIT IN TRENCH, 1-1/2" DIA., PVC
6	FOOT	CONDUIT IN TRENCH, 2" DIA., PVC
4	FOOT	CONDUIT IN TRENCH, 2-1/2" DIA., PVC
37	FOOT	CONDUIT IN TRENCH, 3" DIA., PVC
16	FOOT	CONDUIT IN TRENCH, 4" DIA., PVC
345	FOOT	CONDUIT AUGERED, 1-1/2" DIA., PVC
36	FOOT	CONDUIT AUGERED, 2" DIA., PVC
25	FOOT	CONDUIT AUGERED, 2-1/2" DIA., PVC
114	FOOT	CONDUIT AUGERED, 3" DIA., PVC
76	FOOT	CONDUIT AUGERED, 4" DIA., PVC
3	EACH	JUNCTION BOX (SPECIAL)
4	EACH	CONCRETE HANDHOLE
1	EACH	CONCRETE DOUBLE HANDHOLE
512	FOOT	TRENCH AND BACKFILL FOR ELECTRIC WORK
2	EACH	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250WATT
1	EACH	FULL-ACTUATED CONTROLLER, AND TYPE IV CABINET
1	EACH	FIBER OPTIC TRANSCIEVER
398	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12, 3C
529	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 3C
335	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 5C
714	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 7C
324	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 9C
405	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 12C
689	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18, 6 PAIR
64	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
3402	FOOT	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)
2	EACH	TRAFFIC SIGNAL POST, ALUMINUM, 14 FT
2	EACH	TRAFFIC SIGNAL POST, ALUMINUM, 16 FT
1	EACH	STEEL COMBINATION, MAST ARM ASSEMBLY AND POLE, 32FT
1	EACH	STEEL COMBINATION, MAST ARM ASSEMBLY AND POLE, 26FT
1	EACH	STEEL, MAST ARM ASSEMBLY AND POLE, 32 FT
1	EACH	STEEL, MAST ARM ASSEMBLY AND POLE, 26 FT
12	FOOT	CONCRETE FOUNDATION, TYPE A
3	FOOT	CONCRETE FOUNDATION, TYPE D
47	FOOT	CONCRETE FOUNDATION, TYPE E, 30 INCH DIA. (2-10' DEPTH, 2-13'6" DEPTH)
15	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	VIDEO VEHICLE DETECTION SYSTEM
4	EACH	CAMERA MOUNTING ASSEMBLY
914	FOOT	FIBER OPTIC CABLE IN CONDUIT, 62.5/125 6F
4	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE 3-SECTION, BRACKET MOUNTED
6	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE 3-SECTION, BRACKET MOUNTED
6	EACH	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED, COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, BRACKET MOUNTED, COUNTDOWN TIMER
1	EACH	DRILL EXISTING HANDHOLE

LEGEND

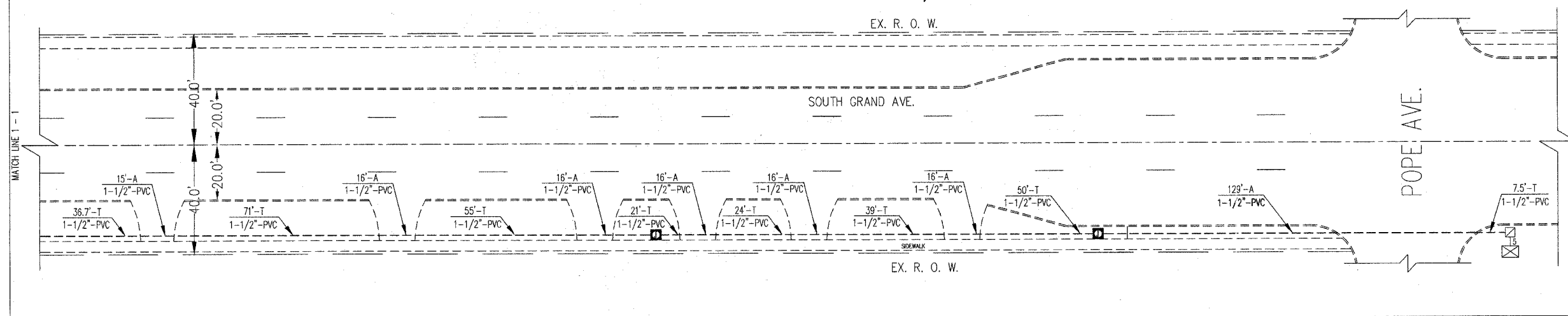
PROPOSED	EXISTING	DISCRPTION
	-	DOUBLE HANDHOLE
	-	HANDHOLE
	-	CONTROLLER AND TYPE IV CABINET
	-	STEEL MAST ARM ASSEMBLY AND POLE
	-	SIGNAL HEAD
	-	SIGNAL HEAD WITH BACKPLATE
	-	PEDESTRIAN SIGNAL HEAD - COUNT DOWN
	-	CONDUIT
	-	LUMINAIRE
	-	JUNCTION BOX, SPECIAL
	-	UTILITY POLE

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* 04-00441-00-TL 92419



FOUNDATION TYPE E - 13'6" DEPTH
 NORTH WEST CORNER AND SOUTH EAST CORNER
 FOUNDATION TYPE E - 10' DEPTH
 SOUTH WEST CORNER AND NORTH EAST CORNER



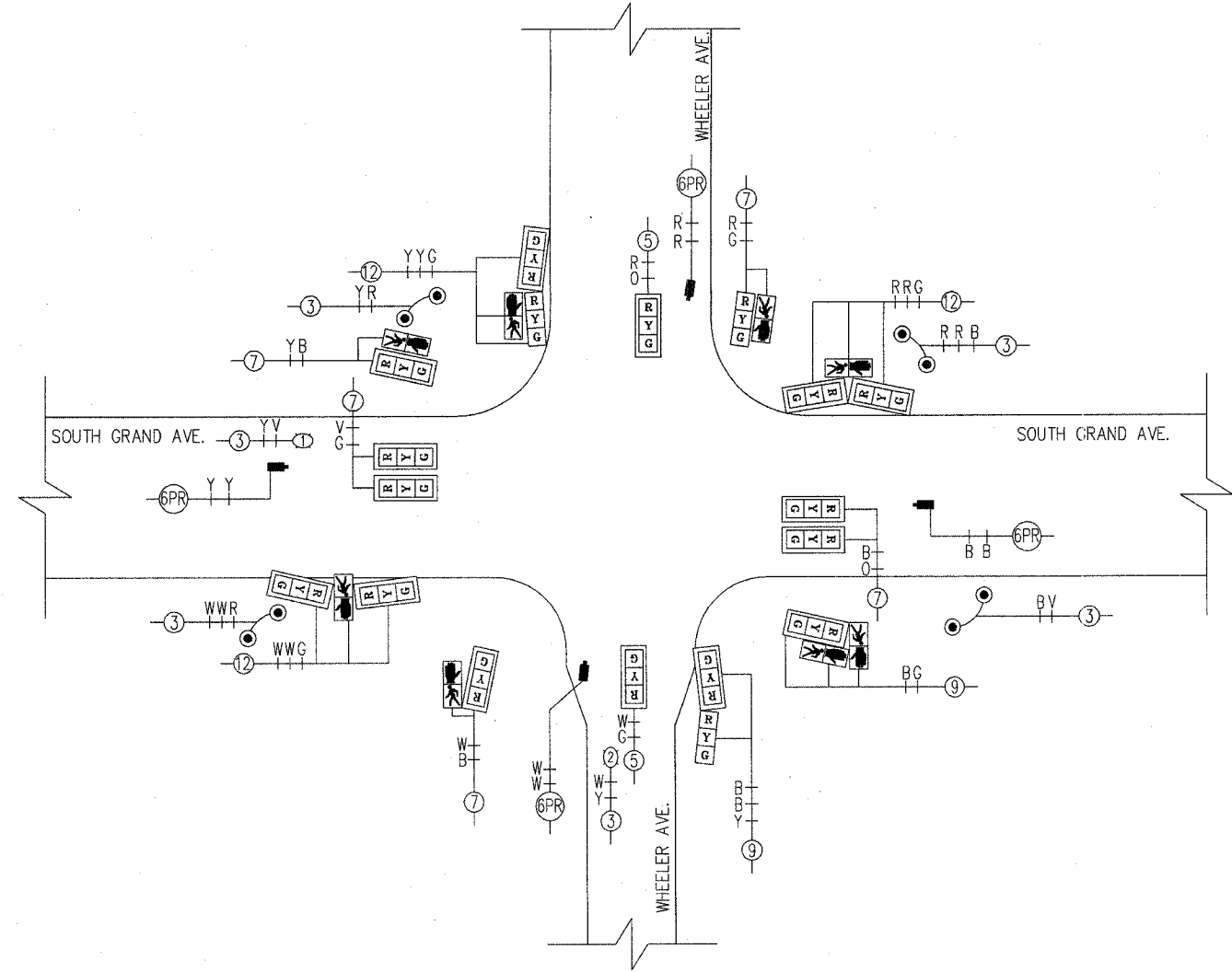
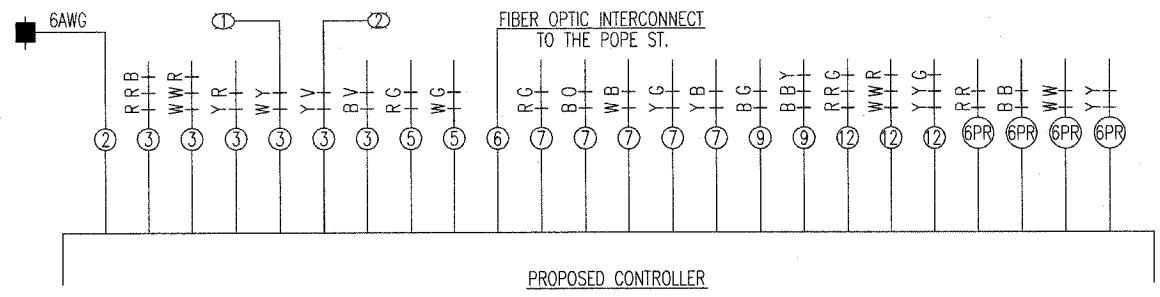
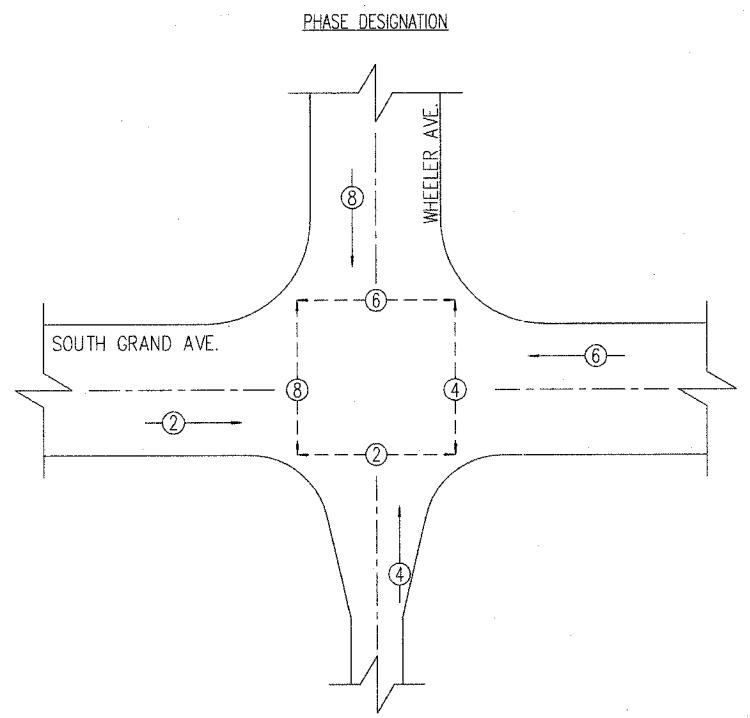
TRAFFIC SIGNAL PLAN
 SOUTH GRAND AVE. AND WHEELER AVE.
 CITY OF SPRINGFIELD, ILLINOIS
 OFFICE OF PUBLIC WORKS
 TRAFFIC ENGINEERING

DESIGNED BY:	SCALE: 1:20	SHEET 4
DRAWN BY:		OF
CHECKED BY:	DATE:	7 OF SHEETS
PROTOTYPED/LEGEND DWG		

QUANTITY EACH	FORMAT	LETTER SIZE	LOCATION	SIGN SIZE			SIGN PANEL	
				WIDTH	HEIGHT	SQ. FT.	TYPE I	TYPE II
							SQ. FT.	SQ. FT.
2	So. Grand Ave.	8/6D	SOUTHBOUND NORTHBOUND	72"	18"	9	18	
2	Wheeler Ave.	8/6D	EASTBOUND WESTBOUND	72"	18"	9	18	

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STA.	TO STA.		PROJECT	

* 04-00441-00-TL 9-3-19



LEGEND

- | PROPOSED | DISCRIPTION |
|----------|-----------------------------------|
| | LUMINAIRE |
| | PEDESTRIAN PUSHBUTTON |
| | PEDESTRIAN SIGNAL HEAD-COUNT DOWN |
| | SIGNAL HEAD |
| | SIGNAL HEAD WITH BACKPLATE |
| | VIDEO DETECTION CAMERA |
| | MAST ARM MOUNTED SIGNS |

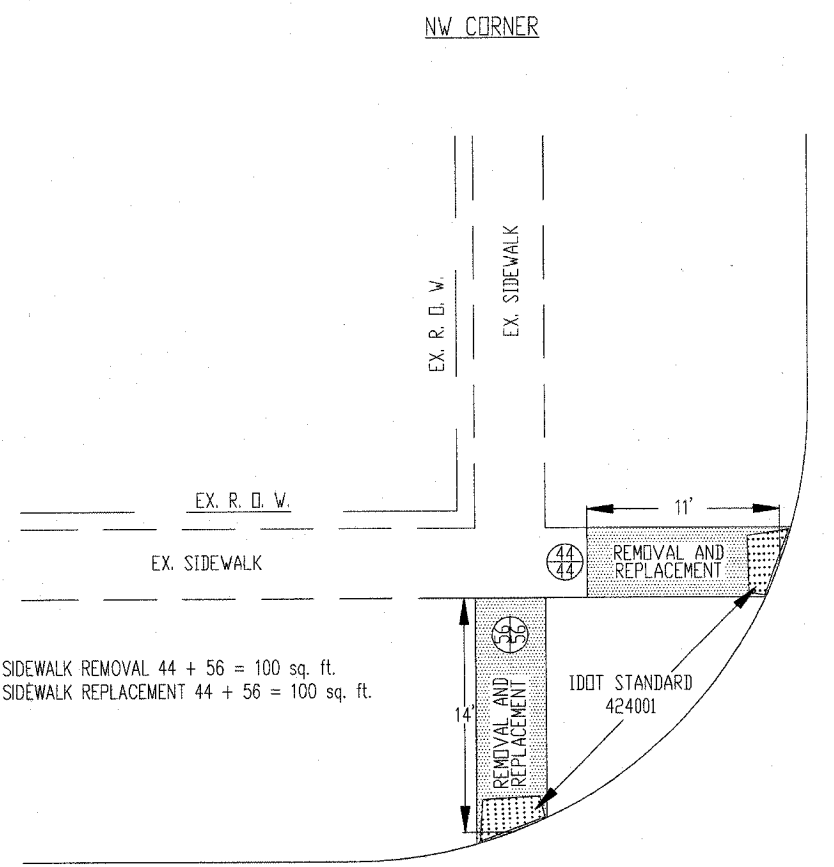
CABLE PLAN
SOUTH GRAND AVE. AT WHEELER AVE.
 CITY OF SPRINGFIELD, ILLINOIS
 OFFICE OF PUBLIC WORKS
 TRAFFIC ENGINEERING

DESIGNED BY:	SCALE: 1:20	SHEET 5
DRAWN BY:		OF 7 SHEETS
CHECKED BY:	DATE:	

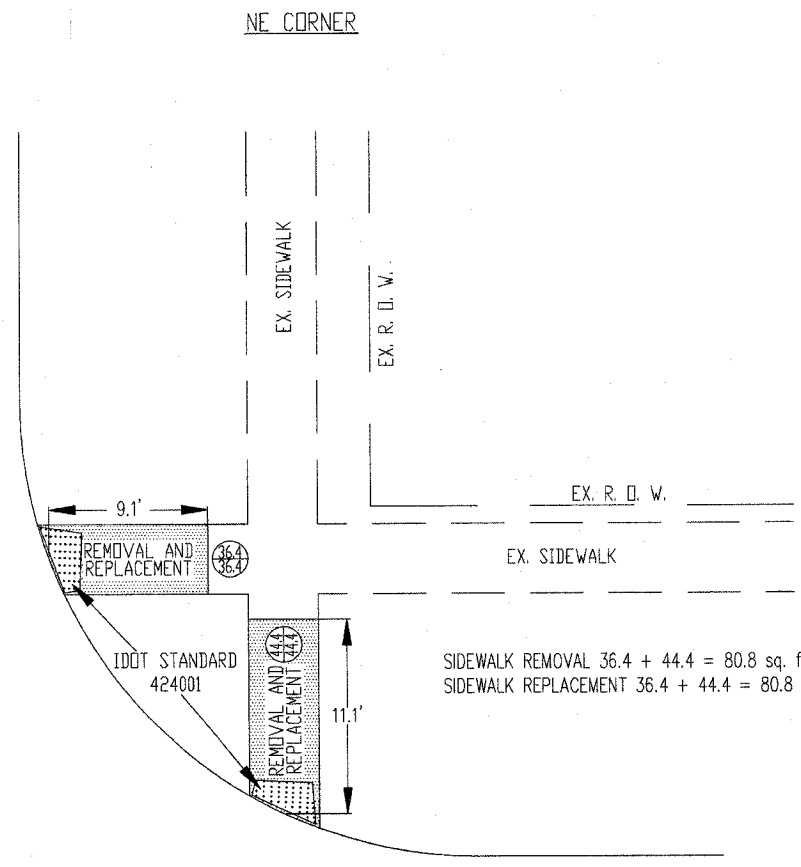
1\PROTOTYPE\LEGEND.DWG

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7989	*	SANGAMON	7	6
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* 04-00441-00-TL
33419
25418



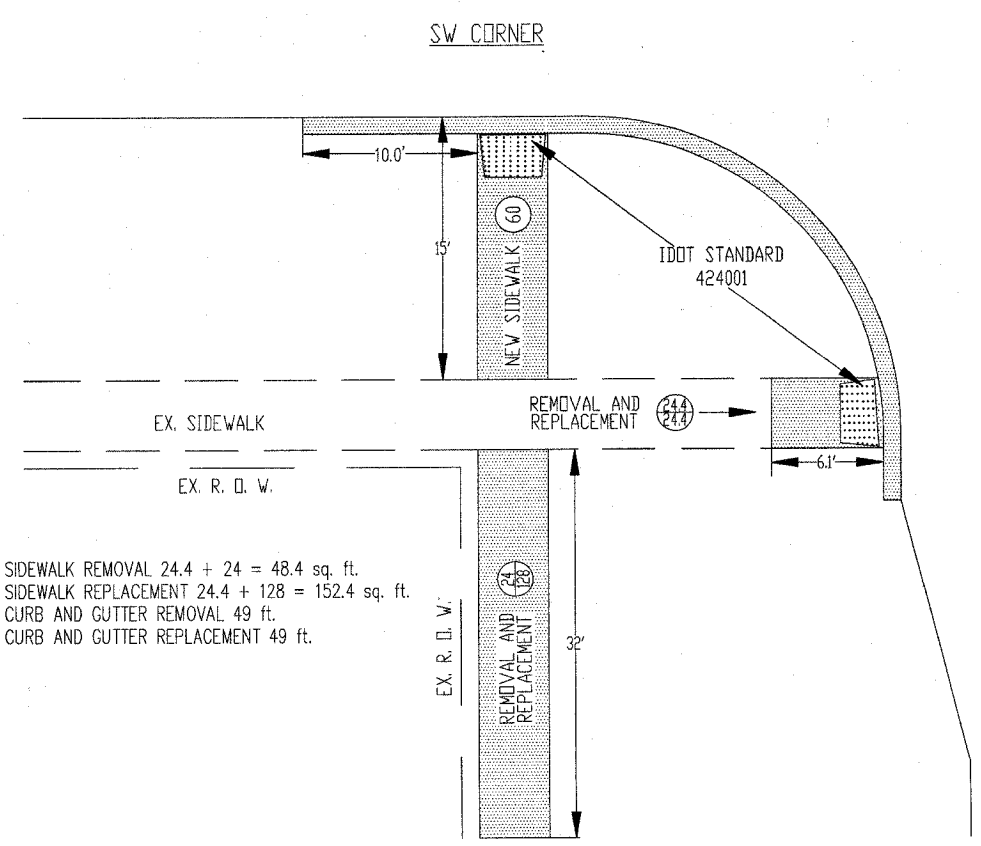
SIDEWALK REMOVAL 44 + 56 = 100 sq. ft.
 SIDEWALK REPLACEMENT 44 + 56 = 100 sq. ft.



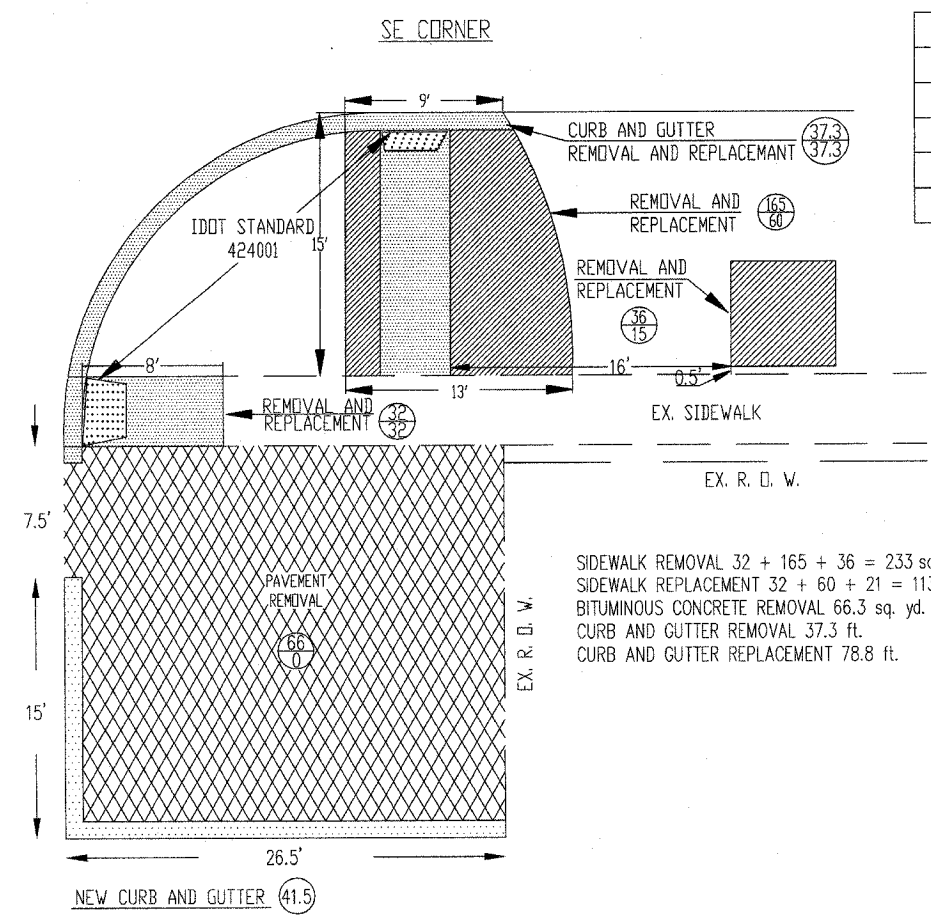
SIDEWALK REMOVAL 36.4 + 44.4 = 80.8 sq. ft.
 SIDEWALK REPLACEMENT 36.4 + 44.4 = 80.8 sq. ft.

LEGEND

PROPOSED	DISCRPTION
⊖	- SQ. FT. SIDEWALK REMOVAL
▨	- SQ. FT. P.C.C. SIDEWALK, 4"
▩	- SIDEWALK, CURB AND GUTTER TO BE REMOVED
▧	- SIDEWALK, CURB AND GUTTER TO BE REPLACED
▩	- BITUMINOUS CONCRETE REMOVAL



SIDEWALK REMOVAL 24.4 + 24 = 48.4 sq. ft.
 SIDEWALK REPLACEMENT 24.4 + 128 = 152.4 sq. ft.
 CURB AND GUTTER REMOVAL 49 ft.
 CURB AND GUTTER REPLACEMENT 49 ft.



SIDEWALK REMOVAL 32 + 165 + 36 = 233 sq. ft.
 SIDEWALK REPLACEMENT 32 + 60 + 21 = 113 sq. ft.
 BITUMINOUS CONCRETE REMOVAL 66.3 sq. yd.
 CURB AND GUTTER REMOVAL 37.3 ft.
 CURB AND GUTTER REPLACEMENT 78.8 ft.

	NE CORNER	NW CORNER	SW CORNER	SE CORNER	TOTAL
SIDEWALK REMOVAL	80.8	100	48.4	233	462.2 SQ.FT.
SIDEWALK REPLACEMENT	80.8	100	152.4	113	446.2 SQ. FT.
BITUMINOUS CONCRETE REMOVAL				66.3 SQ. YD.	66.3 SQ. YD.
CURB AND GUTTER REMOVAL			49	37.3	86.3 FT.
CURB AND GUTTER REPLACEMENT			49	78.8	127.8 FT.

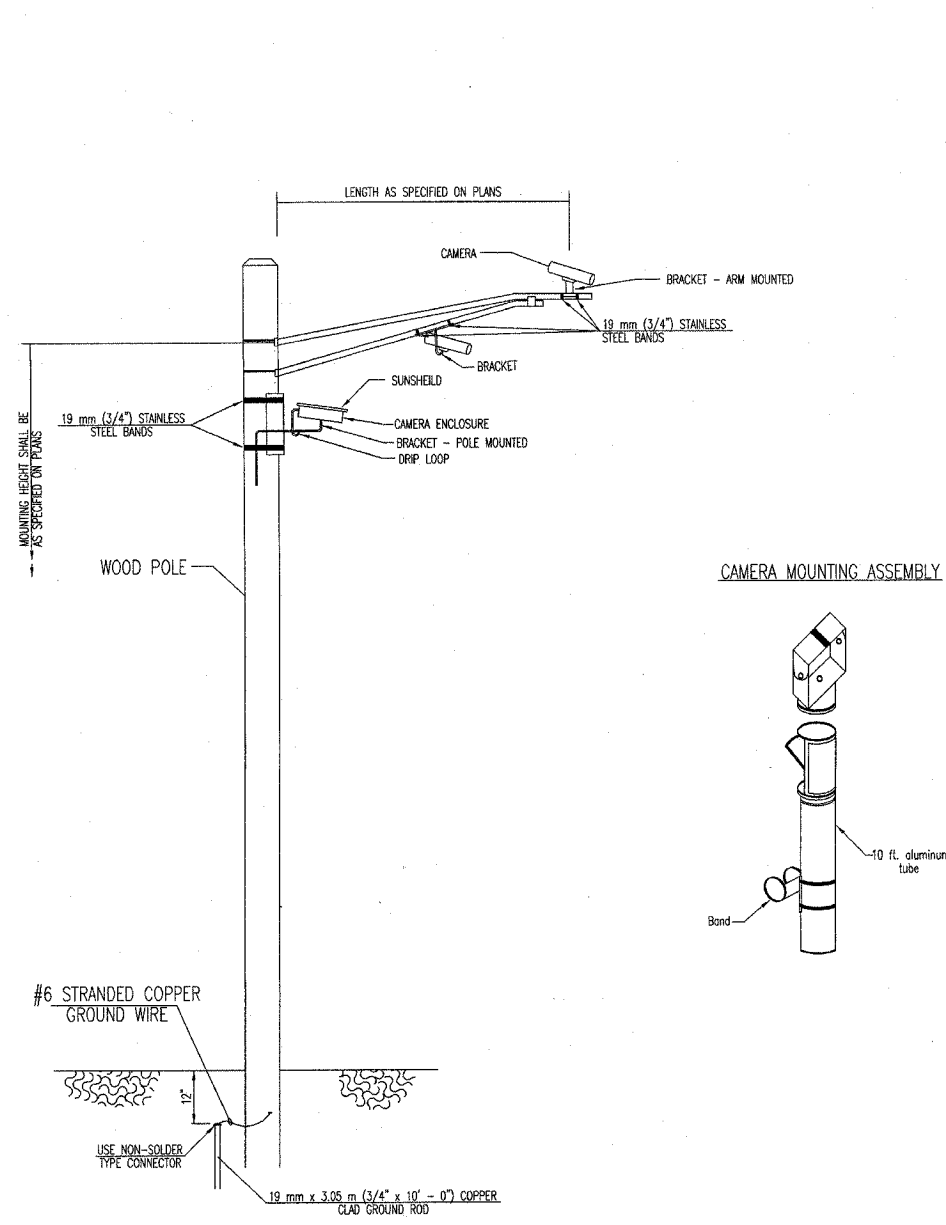
DETAIL PLAN
SOUTH GRAND AVE. AND WHEELER AVE.

CITY OF SPRINGFIELD, ILLINOIS
 OFFICE OF PUBLIC WORKS
 TRAFFIC ENGINEERING

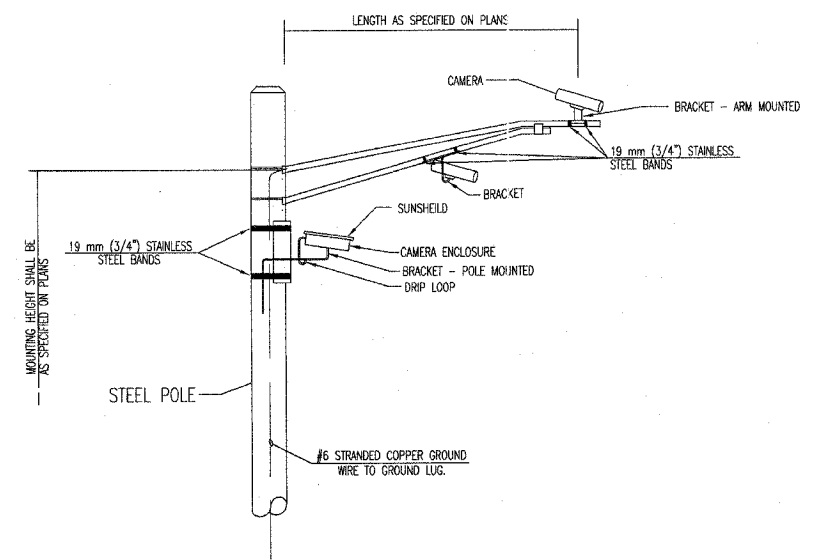
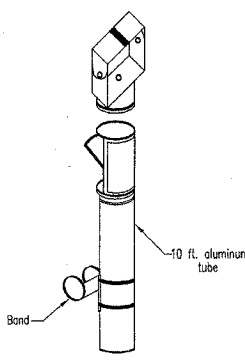
DESIGNED BY:	SCALE: 1:20	SHEET 6
DRAWN BY:		OF
CHECKED BY:	DATE:	7 SHEETS
PROTOTYPE/LEGEND DWG		

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7989	*	SANGAMON	7	7
STA.		TO STA.		
		ILLINOIS		

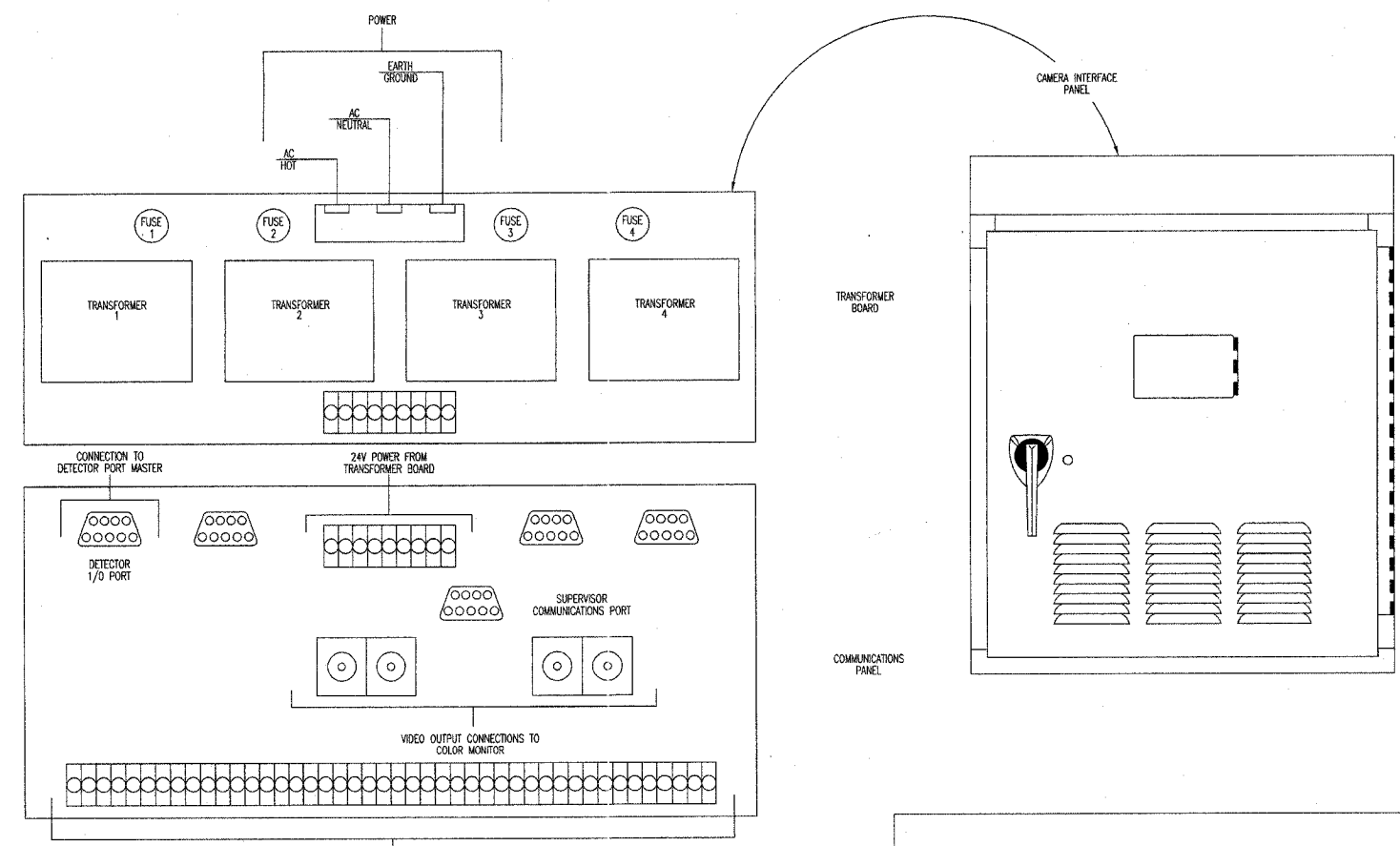
* 04-00441-00-TL 93419



CAMERA MOUNTING ASSEMBLY



VIDEO DETECTION SYSTEM INSTALLATION
ARM MOUNTED OR POLE MOUNTED CAMERA



WCD 310C197

VIDEO DETECTION SYSTEM
INSTALLATION DETAIL

DATE: MARCH 12, 1996
DRAWN BY CADD
CHECKED BY WCD