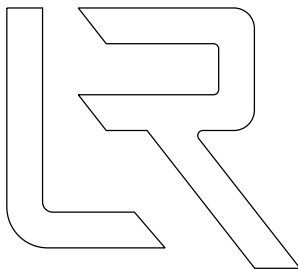


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		1	80
				JOB NO.		061468		
UNIVERSITY AVE.								
ASCT PLANS								



CITY OF LITTLE ROCK, AR
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

FIBER OPTIC COMMUNICATIONS &
ADAPTIVE SIGNAL CONTROL TECHNOLOGY (ASCT)
CONSTRUCTION PLANS

UNIVERSITY AVE FROM
I-30 EB RAMP TO CANTRELL RD (STATE HWY 10)

APPROVAL
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

APPROVED BY: _____
Jon Honeywell, Public Works Director

DATE: _____

BID NO.: _____



LIST OF PLAN SHEETS

- 1 TITLE SHEET
- 2 & 2A NOTES SHEET & SUMMARY OF QUANTITIES
- 3 KEY LAYOUT SHEET
- 4-22 COMMUNICATIONS PLAN SHEETS
- 23-69 INTERSECTION DETAIL SHEETS
- 70-77 INSTALLATION DETAILS
- 78-80 MAINTENANCE OF TRAFFIC

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM	UNIT	TOTAL
601	MOBILIZATION	LS	1
SS & 603	MAINTENANCE OF TRAFFIC	LS	1
SP&701	SYSTEM LOCAL CONTROLLER TS 2 - TYPE 2, E-NET (8 PHASE)	EA	23
SP	CONTROLLER CABINET	EA	3
SP & 701	CONTROLLER CABINET RELOCATION	EA	1
SP	FIBER OPTIC SPLICE	EA	258
SP	FIBER OPTIC CABLE, SM 72 (AERIAL)	LF	23100
SP	FIBER OPTIC CABLE, SM 36 (AERIAL)	LF	615
SP	FIBER OPTIC CABLE, SM 72 (UG)	LF	10846
SP	FIBER OPTIC SPLICE ENCLOSURE	EA	22
711	PULL BOX (FIBER OPTIC)	EA	47
SP	FIBER OPTIC DROP CABLE, PRETERMINATED	EA	16
SP	FIBER OPTIC TERMINATION CABINET	EA	1
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	LS	1
SP	FUSION SPLICER FOR RIBBON FIBER	EA	1
SP	SYSTEM SOFTWARE UPGRADE	EA	1
SP	FIBER CONNECTION INTEGRATION	LS	1
SP	ATCS INTERSECTION MODIFICATION	EA	24
SP	ATCS PROCESSING UNIT	EA	24
SP	VIDEO DETECTOR (IP)	EA	110
SP	NETWORK CABLE, EXTERIOR, CAT 5E	LF	19830
SP	ETHERNET SWITCH T100/1000 HARDENED (8 PORT Gb w/ 2 fiber ports)	EA	25
SP	POWER OVER ETHERNET EXTENDER	EA	15
SP&701	ETHERNET SWITCH MULTIPORT LAYER 3	EA	2
706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	EA	2
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	EA	20
708	TRAFFIC SIGNAL CABLE (20C)	L.F.	460
708	TRAFFIC SIGNAL CABLE (5C)	L.F.	1000
708	TRAFFIC SIGNAL CABLE (3C)	L.F.	19330
710	NON-METALLIC CONDUIT (3")	LF	1010
SP & 709	RISER ASSEMBLY	EA	7
SP&710	JACK AND BORE CONDUIT	LF	1010

ABBREVIATIONS

APPROX.	APPROXIMATELY	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AQ	AQUA	NO(S)	NUMBER(S)
ASSY(S)	ASSEMBLY(S)	N.T.S.	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	O.H.	OVERHEAD
BK	BLACK	OR	ORANGE
BL	BLUE	P	POWER
BR	BROWN	PB	PULL BOX
CCTV	CLOSED CIRCUIT TELEVISION	PTZ	PAN TILT AND ZOOM
COAX	COAXIAL	PVC	POLYVINYLCHLORIDE CONDUIT
COMM.	COMMUNICATIONS	RCV	RECEIVE
DET	DETECTOR	RD	RED
DIA	DIAMETER	RGS	RIGID GALVANIZED STEEL
EB	EAST BOUND	REFL.	REFLECTIVE
EOP	END OF PROJECT	REQ'D	REQUIRED
E.O.T.L.	EDGE OF TRAVEL LANE	RT	RIGHT
EXIST	EXISTING	SCH.	SCHEDULE
F	FIBERS	SHLD.	SHOULDER
FCC	FEDERAL COMMUNICATIONS COMMISSION	SL	SLATE
FO	FIBER OPTIC	SM	SINGLE MODE
GR	GREEN	STA.	STATION
HAR	HIGHWAY ADVISORY RADIO	TMC	TRANSPORTATION MANAGEMENT CENTER
HDPE	HIGH DENSITY POLYETHYLENE	TSP	TECHNICAL SPECIAL PROVISIONS
HEX	HEXAGONAL	TYP	TYPICAL
INFO	INFORMATION	UL	UNITED LABORATORIES
IP	INTERNET PROTOCOL	V	VOLTS
ITS	INTELLIGENT TRANSPORTATION SYSTEM	VI	VIOLET
LF	LINEAR FEET	W	WATTS
LT	LEFT	W/	WITH
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES	WB	WEST BOUND
		WH	WHITE
		YL	YELLOW



TRAFFIC SIGNAL NOTES

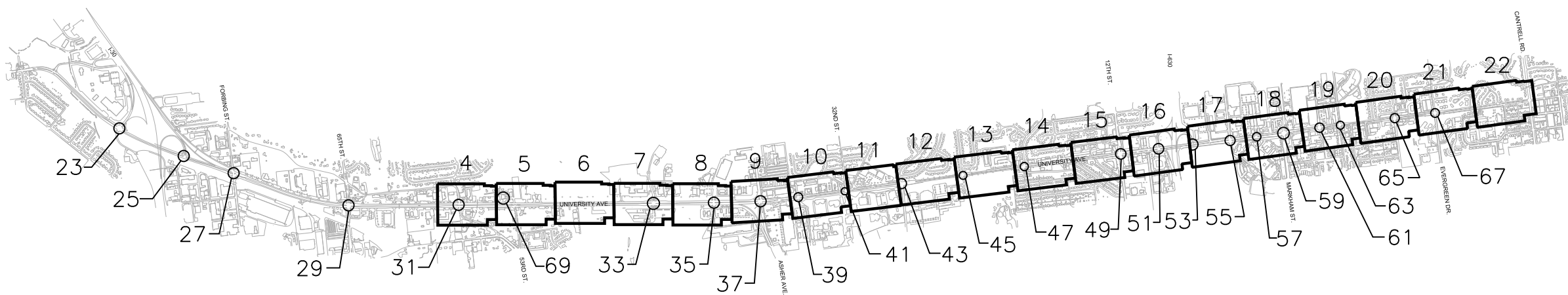
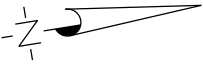
1. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2017) NATIONAL ELECTRICAL CODE, NFPA 101 (2015) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
2. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
3. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
4. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
5. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
6. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
7. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
8. TRAFFIC SIGNAL POLES SHALL BE GALVANIZED. BLACK BACKPLATES SHALL BE SUPPLIED FOR ALL SIGNAL HEADS.
9. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY.
10. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS.
11. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
12. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
13. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.

14. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING.
15. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
16. ONE VIDEO PROGRAMMNG MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
17. TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO PERFORMING ANY WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
18. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL TO WORK AS DESIRED BY THE ENGINEER/CITY OF LITTLE ROCK.
19. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
20. CONTRACTOR TO INSTALL NEW SIGNAL EQUIPMENT REQUIRED FOR ADAPTIVE SIGNAL SYSTEM FURNISHED BY SOFTWARE SUPPLIER. CONTRACTOR TO REPLACE EXISTING CONTROLLER, INSTALL VIDEO DETECTION SENSORS TO SUPPLY INFORMATION TO ADAPTIVE SOFTWARE.
21. CONTRACTOR TO REPLACE EXISTING 5 SECTION SIGNAL HEADS WITH 4 SECTION FLASHING YELLOW ARROW (FYA) SIGNAL HEADS. INSTALLATION OF FLASHING YELLOW ARROWS WILL REQUIRE CONTROLLER MODIFICATION TO ACCOMODATE NEW FYA. CONTRACTOR IS RESPONSIBLE FOR CABINET MODIFICATION AND ANY NECESSARY EQUIPMENT FOR FYA OPERATION.
22. EXISTING CONDUIT AND PULL BOXES SHALL BE USED TO RUN VIDEO DETECTION CABLES. ANY BROKEN OR DAMAGED CONDUIT THAT NEEDS TO BE REPLACED SHALL BE APPROVED BY THE ENGINEER.
23. CONTRACTOR TO CONTACT THE CITY OF LITTLE ROCK BEFORE REMOVING ANY CALBES. CONTRACTOR MAY USE OLD VIDEO/LOOP WIRING TO PULL NEW CABLES INTO EXISTING CONDUITS.
24. CONTRACTOR TO ENSURE MINIMAL DETECTION DOWNTIME. NEW VIDEO DETECTION SHALL BE INSTALLED PRIOR TO REMOVING EXISTING DETECTION.
25. USE EXISTING TRAFFIC SIGNAL CABLE FOR NEW FLASHING YELLOW ARROW SIGNAL INSTALLATION.
26. ADAPTIVE SYSTEM TO BE WIRED IN USING SPADE CABLES.
27. ADVANCE DETECTION INPUTS SHALL BE WIRED TO THE EXISTING D CONNECTOR PANEL IN THE CABINET AND THE SIGNAL CONTROLLER SHALL BE CONFIGURED FOR THE ADVANCE DETECTION AS SYSTEM/COUNT DETECTORS ONLY (NON-CALL DETECTION).
28. D CONNECTOR INPUTS FOR ADVANCED CAMERA DETECTION TO CONTROLLER ARE:
D1 & D2 = SB ADVANCED
D3 & D4 = NB ADVANCED
D5 & D6 = EB ADVANCED
D7 & D8 = WB ADVANCED

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		2A	80
				JOB NO.		061468		
UNIVERSITY AVE.								
NOTES								



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		3	80
				JOB NO.		061468		
				UNIVERSITY AVE.				



NOTE: SHEETS 4-22- COMMUNICATIONS CONSTRUCTION PLAN SHEETS
SHEETS 23-68-ASCT & SIGNAL CONSTRUCTION PLANS SHEETS

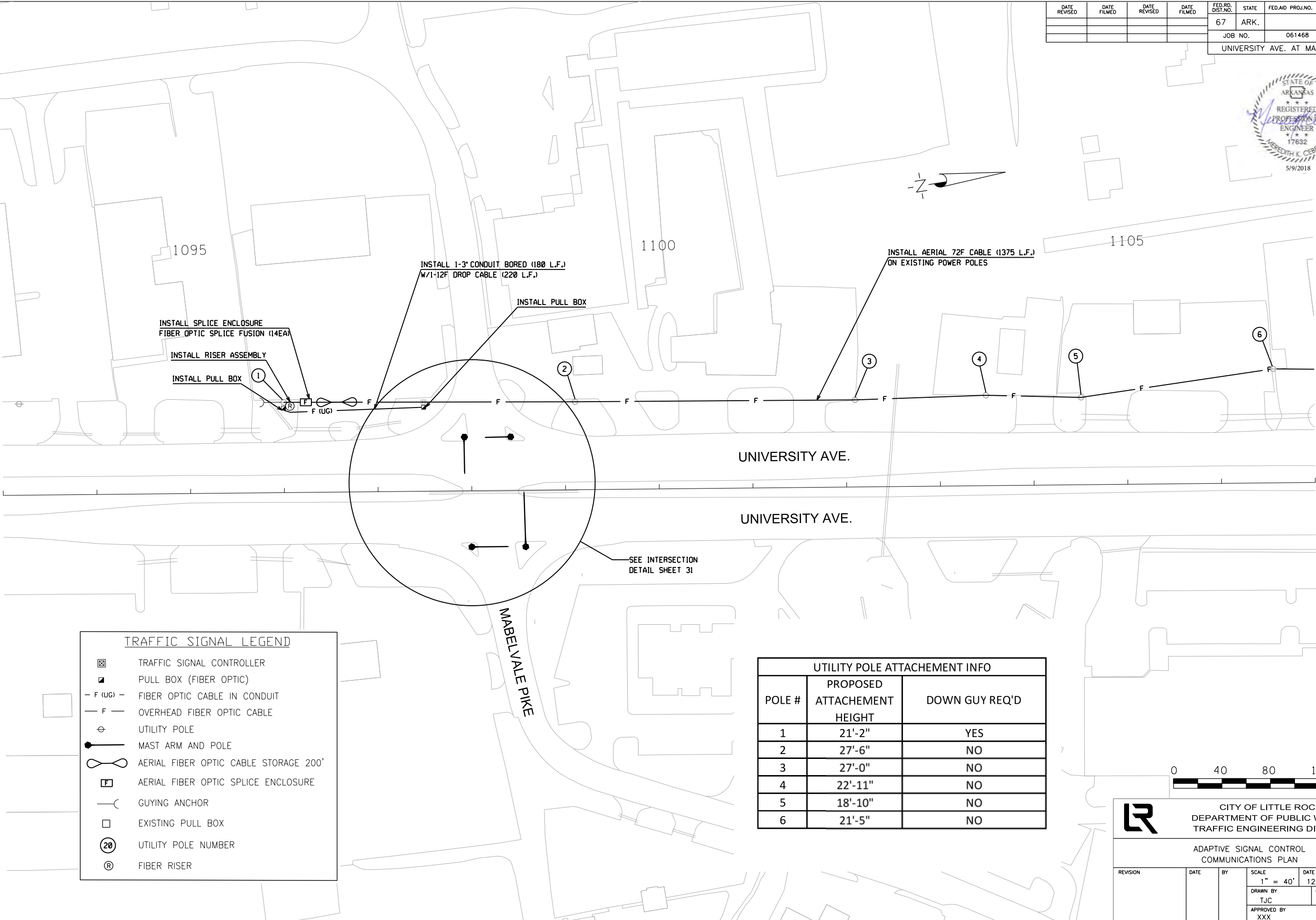
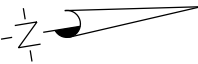


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL COMM PLAN
KEY LAYOUT SHEET

REVISION	DATE	BY	SCALE 1" = 3000'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 3	80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		4	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT MABELVALE PIKE				



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

UTILITY POLE ATTACHMENT INFO		
POLE #	PROPOSED ATTACHMENT HEIGHT	DOWN GUY REQ'D
1	21'-2"	YES
2	27'-6"	NO
3	27'-0"	NO
4	22'-11"	NO
5	18'-10"	NO
6	21'-5"	NO



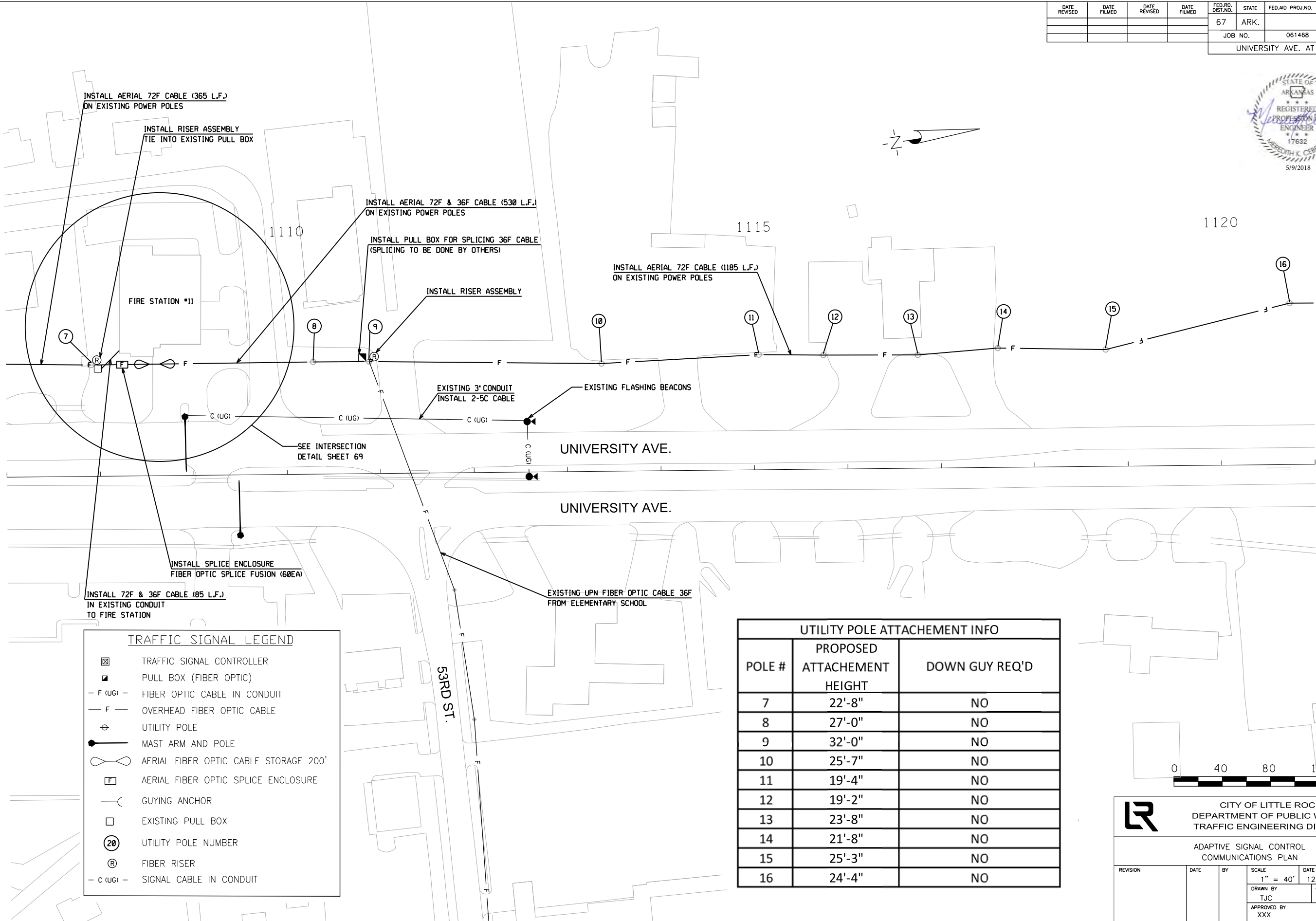


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 4 / 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		5	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT 53RD ST.				



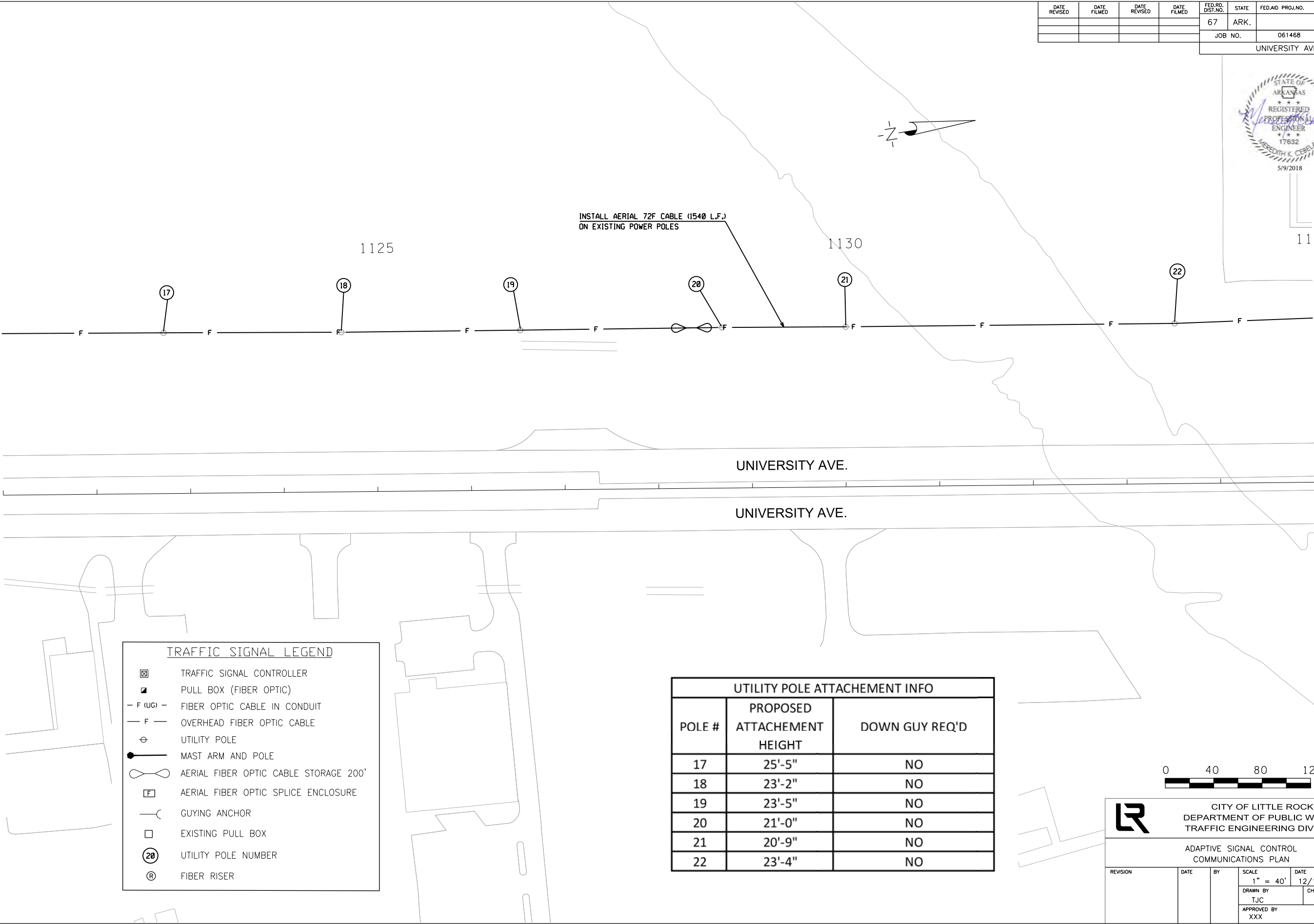
TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
- F (UG) -	FIBER OPTIC CABLE IN CONDUIT
- F -	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICING ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER
- C (UG) -	SIGNAL CABLE IN CONDUIT

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
7	22'-8"	NO
8	27'-0"	NO
9	32'-0"	NO
10	25'-7"	NO
11	19'-4"	NO
12	19'-2"	NO
13	23'-8"	NO
14	21'-8"	NO
15	25'-3"	NO
16	24'-4"	NO



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL COMMUNICATIONS PLAN					
REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 5 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		6	80
				JOB NO.		061468		
				UNIVERSITY AVE.				



TRAFFIC SIGNAL LEGEND

☒

TRAFFIC SIGNAL CONTROLLER

☒

PULL BOX (FIBER OPTIC)

- F (UG) -

FIBER OPTIC CABLE IN CONDUIT

- F -

OVERHEAD FIBER OPTIC CABLE

⊕

UTILITY POLE

●

MAST ARM AND POLE

∞

AERIAL FIBER OPTIC CABLE STORAGE 200'

[F]

AERIAL FIBER OPTIC SPLICE ENCLOSURE

—C

GUYING ANCHOR

□

EXISTING PULL BOX

⓪

UTILITY POLE NUMBER

Ⓡ

FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
17	25'-5"	NO
18	23'-2"	NO
19	23'-5"	NO
20	21'-0"	NO
21	20'-9"	NO
22	23'-4"	NO

0 40 80 120

LR

CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 6	80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		7	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT 1ST TEE WAY				



35

1140

1145

INSTALL AERIAL 72F CABLE (1095 L.F.)
ON EXISTING POWER POLES

INSTALL SPLICE ENCLOSURE
FIBER OPTIC SPLICE FUSION (4EA)

INSTALL AERIAL 72F CABLE (650 L.F.)
ON EXISTING POWER POLES

INSTALL AERIAL 12F DROP CABLE (90 L.F.)
TO EXISTING TRAFFIC SIGNAL POLE

INSTALL 12F DROP CABLE (180 L.F.)
INSIDE EXISTING 3" CONDUIT
TO TRAFFIC SIGNAL CABINET

SEE INTERSECTION
DETAIL SHEET 33

UNIVERSITY AVE.

UNIVERSITY AVE.

1ST TEE WAY

TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- PULL BOX (FIBER OPTIC)
- FIBER OPTIC CABLE IN CONDUIT
- OVERHEAD FIBER OPTIC CABLE
- UTILITY POLE
- MAST ARM AND POLE
- AERIAL FIBER OPTIC CABLE STORAGE 200'
- AERIAL FIBER OPTIC SPLICE ENCLOSURE
- GUYING ANCHOR
- EXISTING PULL BOX
- UTILITY POLE NUMBER
- FIBER RISER

UTILITY POLE ATTACHMENT INFO

POLE #	PROPOSED ATTACHMENT HEIGHT	DOWN GUY REQ'D
23	20'-9"	NO
24	20'-2"	NO
25	20'-2"	NO
26	20'-2"	NO
27	21'-11"	NO
28	21'-7"	NO
29	27'-0"	NO
30	25'-3"	YES
31	15'-2"	NO

0 40 80 120

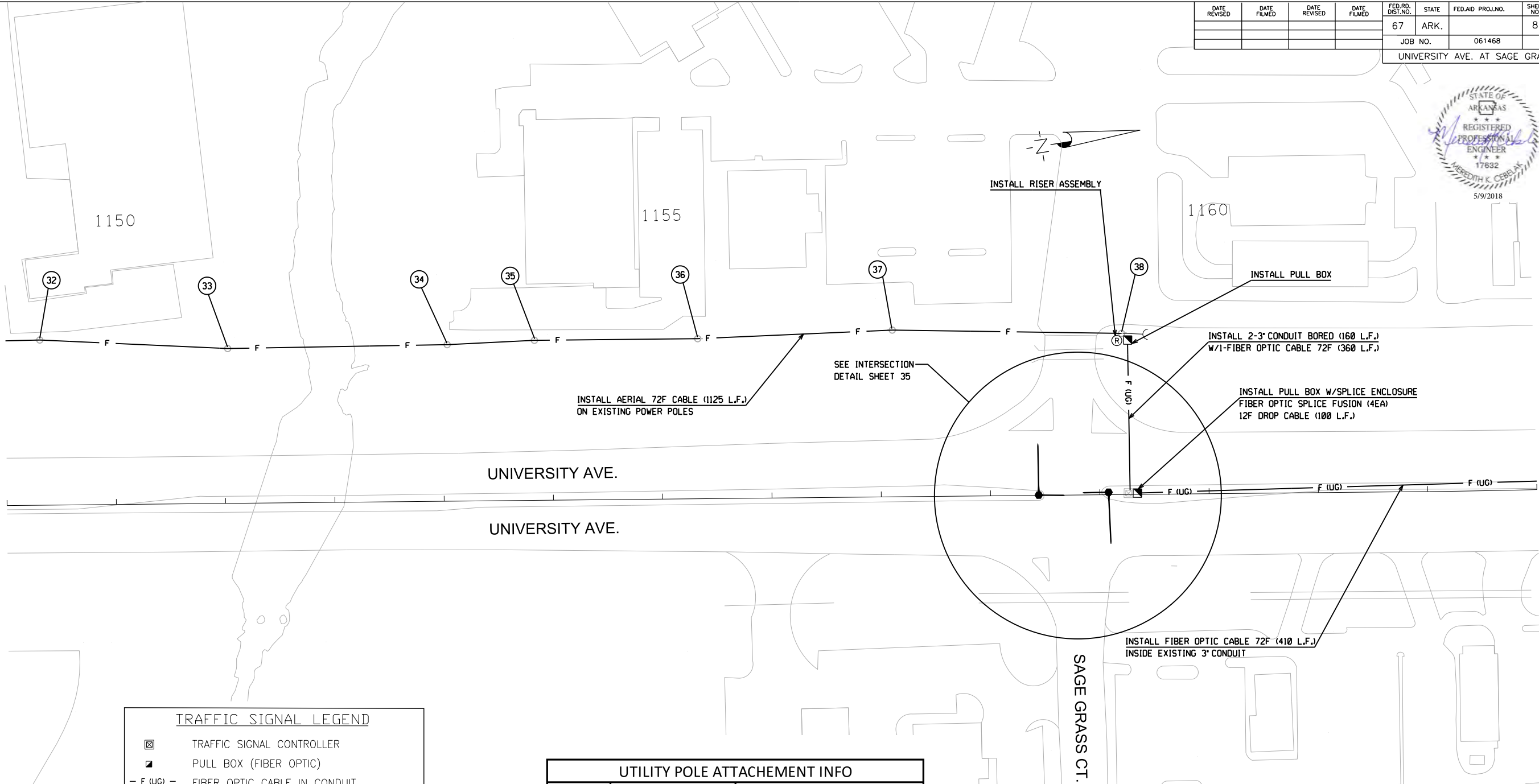


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 40'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 7 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		8	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT SAGE GRASS CT.				



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- PULL BOX (FIBER OPTIC)
- FIBER OPTIC CABLE IN CONDUIT
- OVERHEAD FIBER OPTIC CABLE
- UTILITY POLE
- MAST ARM AND POLE
- AERIAL FIBER OPTIC CABLE STORAGE 200'
- AERIAL FIBER OPTIC SPLICE ENCLOSURE
- GUYING ANCHOR
- EXISTING PULL BOX
- UTILITY POLE NUMBER
- FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
32	16'-2"	NO
33	16'-8"	NO
34	18'-5"	NO
35	20'-7"	NO
36	20'-10"	NO
37	18'-6"	NO
38	21'-9"	YES

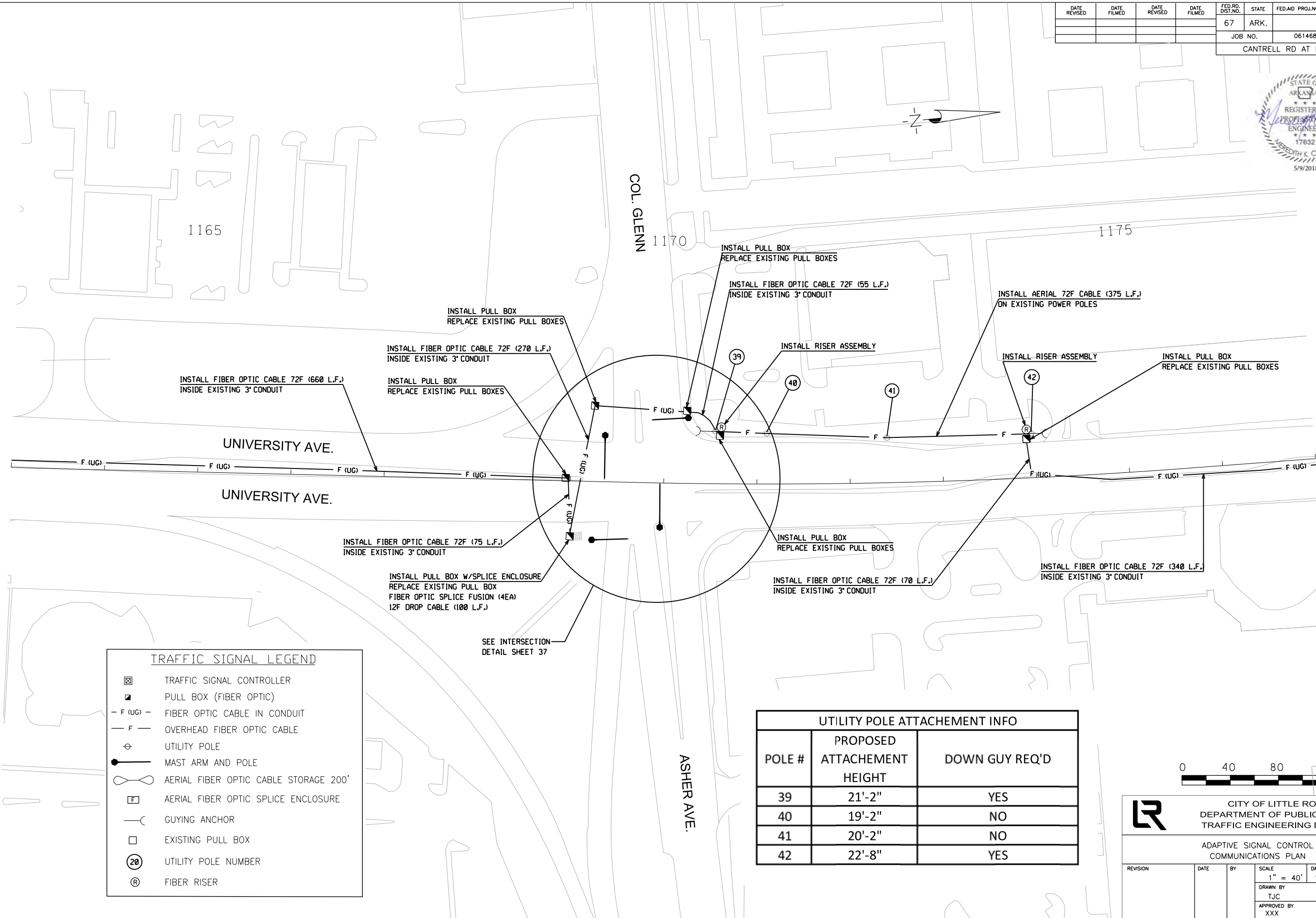


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 8 / 80		

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		9	80
				JOB NO.		061468		
				CANTRELL RD AT RANCH BLVD				



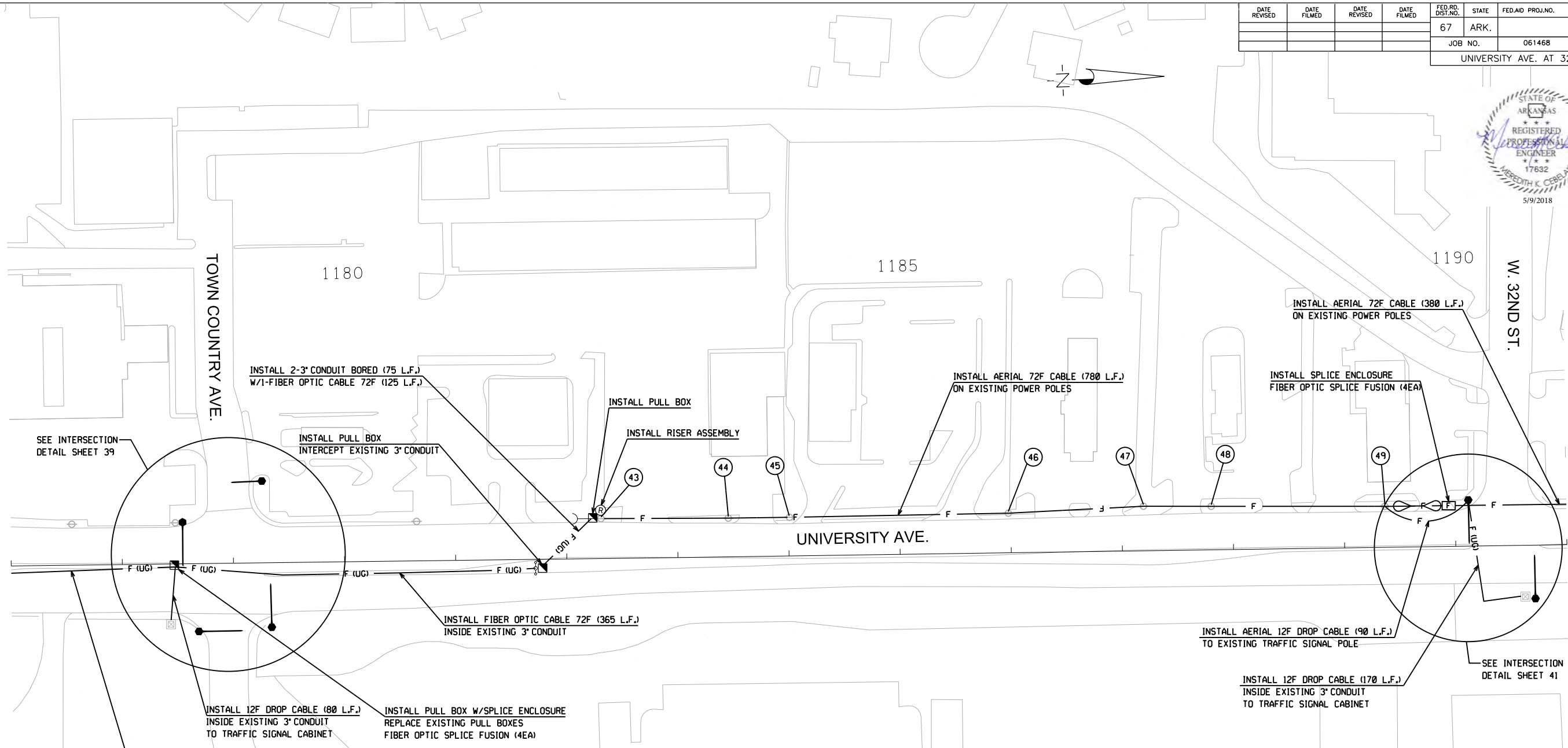
TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
39	21'-2"	YES
40	19'-2"	NO
41	20'-2"	NO
42	22'-8"	YES



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL COMMUNICATIONS PLAN					
REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 9/80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		10	80
				JOB NO.		061468		
UNIVERSITY AVE. AT 32ND AVE.								



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

UTILITY POLE ATTACHMENT INFO		
POLE #	PROPOSED ATTACHMENT HEIGHT	DOWN GUY REQ'D
43	21'-9"	YES
44	22'-2"	NO
45	20'-7"	NO
46	21'-9"	NO
47	19'-9"	NO
48	23'-6"	NO
49	22'-7"	NO

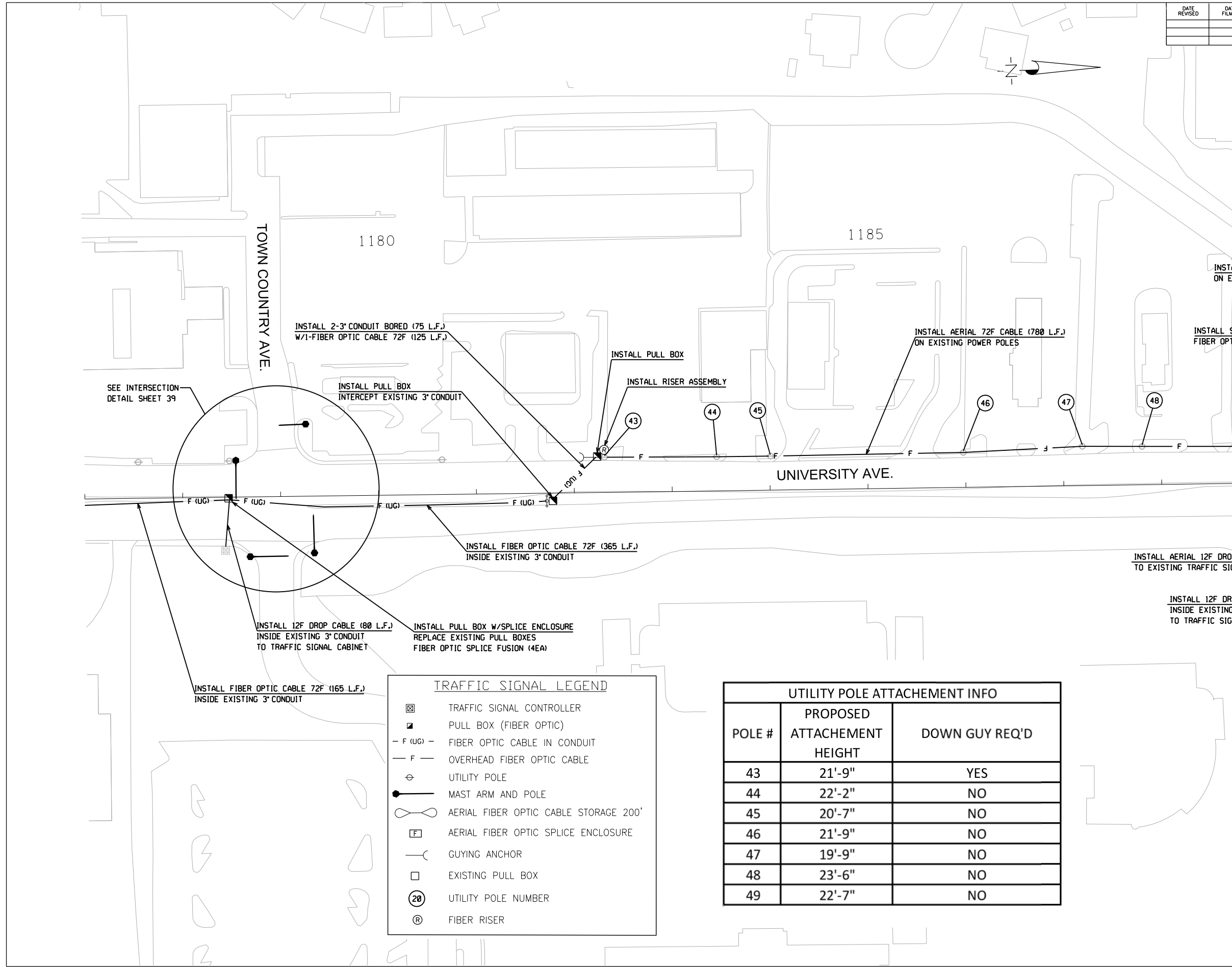




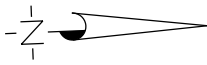
CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 10/80		



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		11	80
				JOB NO.		061468		
UNIVERSITY AVE AT LAKESHORE DR.								



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- PULL BOX (FIBER OPTIC)
- FIBER OPTIC CABLE IN CONDUIT
- OVERHEAD FIBER OPTIC CABLE
- UTILITY POLE
- MAST ARM AND POLE
- AERIAL FIBER OPTIC CABLE STORAGE 200'
- AERIAL FIBER OPTIC SPLICE ENCLOSURE
- GUYING ANCHOR
- EXISTING PULL BOX
- UTILITY POLE NUMBER
- FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
50	25'-8"	NO
51	25'-0"	NO
52	21'-9"	NO
53	26'-7"	NO
54	21'-1"	NO
55	23'-1"	NO

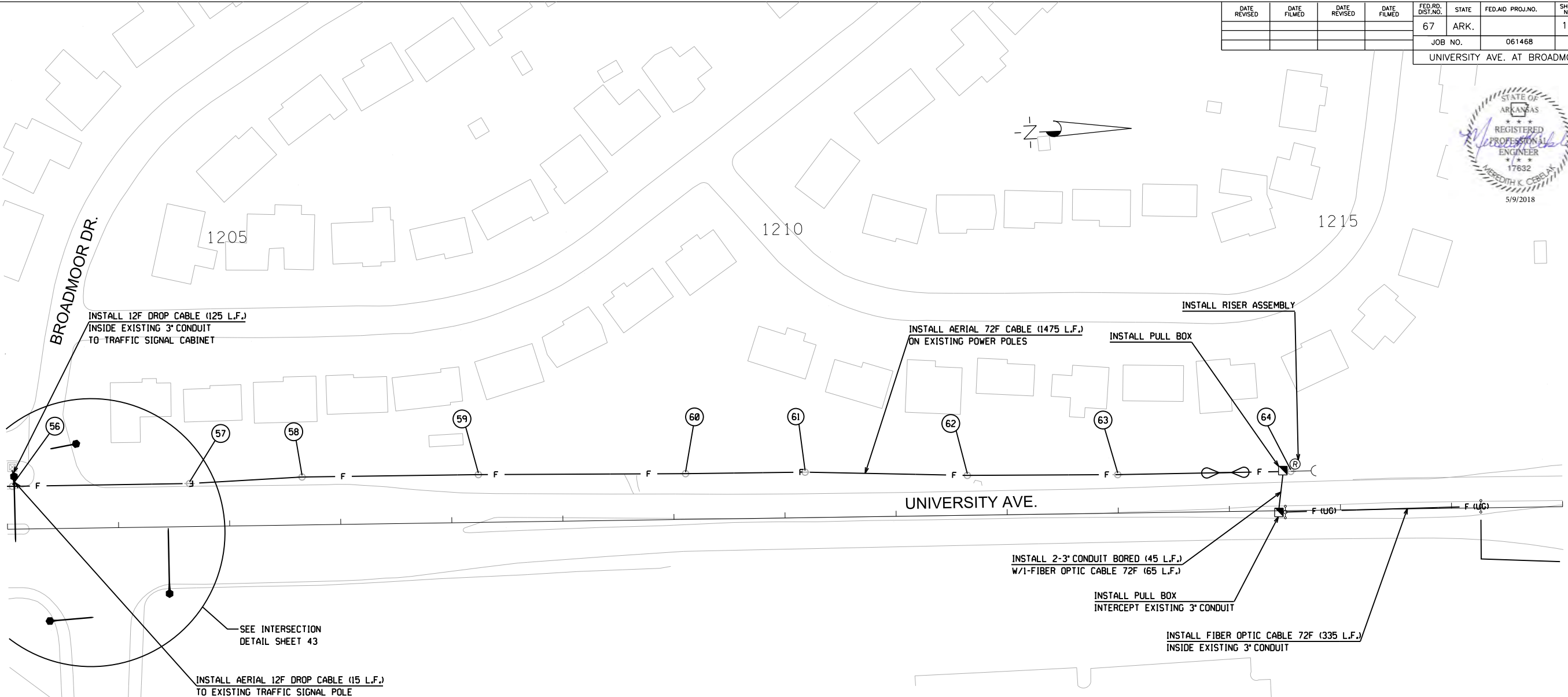


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 11	80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		12	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT BROADMOOR DR.				



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
56	22'-10"	NO
57	22'-3"	NO
58	27'-0"	NO
59	26'-11"	NO
60	17'-0"	NO
61	16'-11"	NO
62	15'-1"	NO
63	16'-6"	NO
64	17'-7"	YES



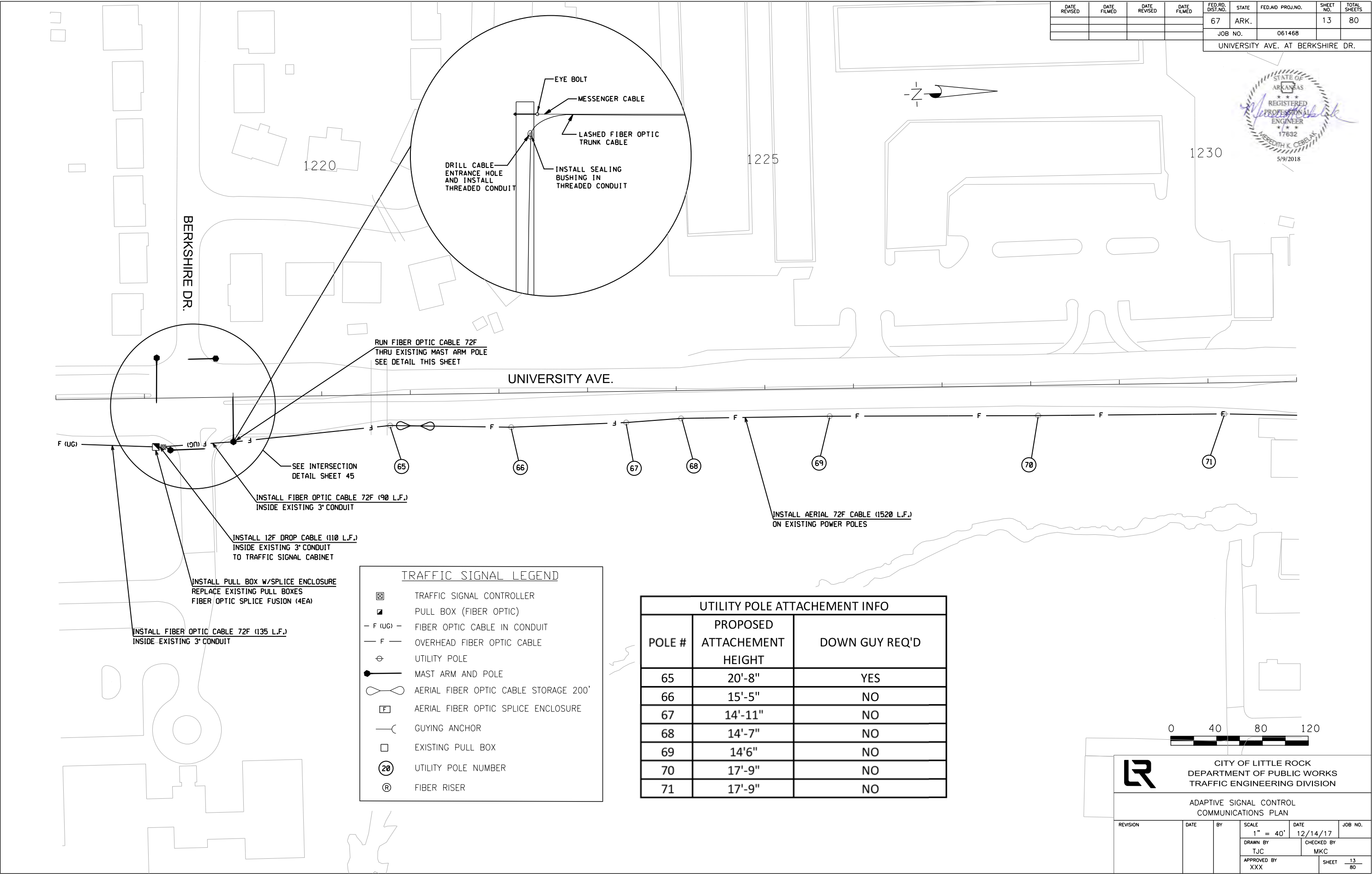


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 12 / 80		

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		13	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT BERKSHIRE DR.				



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
65	20'-8"	YES
66	15'-5"	NO
67	14'-11"	NO
68	14'-7"	NO
69	14'-6"	NO
70	17'-9"	NO
71	17'-9"	NO



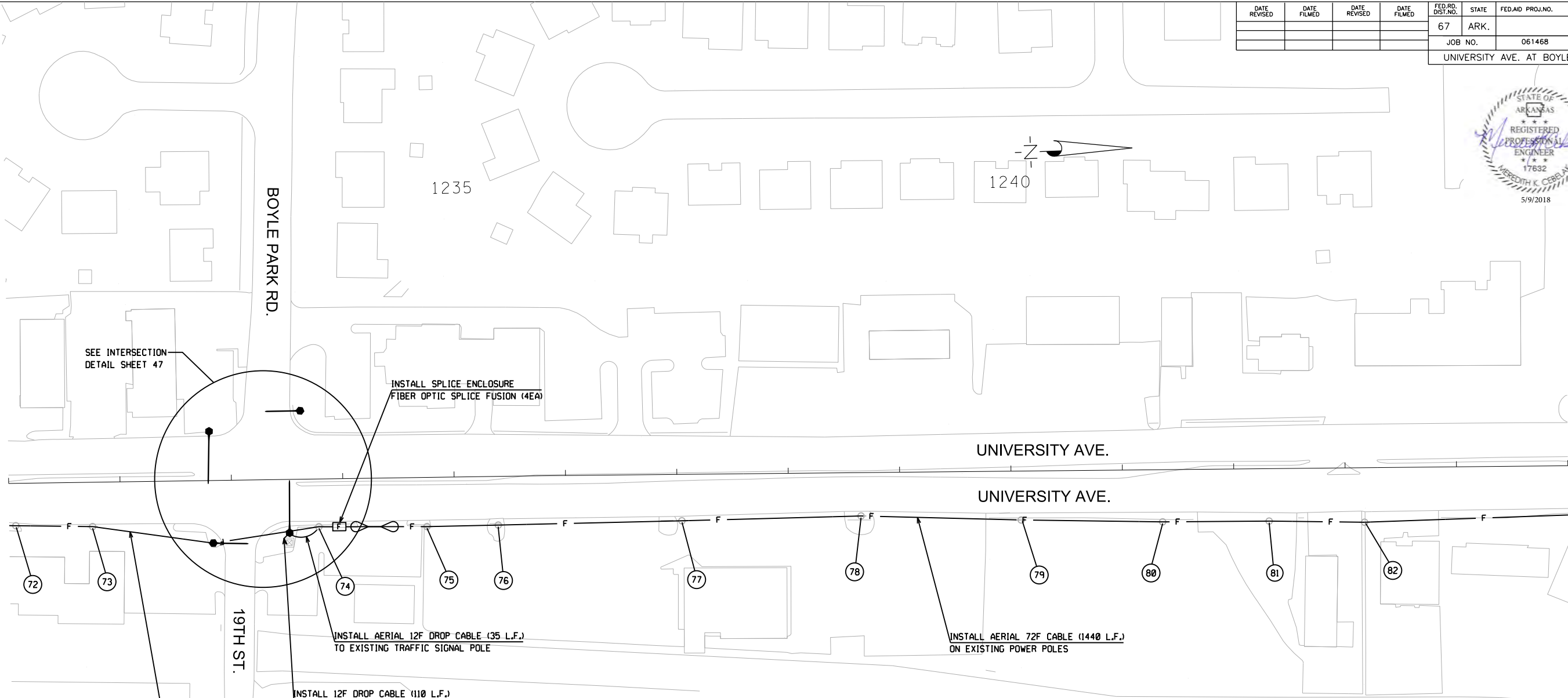


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 13 / 80		

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		14	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT BOYLE PARK RD.				



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- PULL BOX (FIBER OPTIC)
- FIBER OPTIC CABLE IN CONDUIT
- OVERHEAD FIBER OPTIC CABLE
- UTILITY POLE
- MAST ARM AND POLE
- AERIAL FIBER OPTIC CABLE STORAGE 200'
- AERIAL FIBER OPTIC SPLICE ENCLOSURE
- GUYING ANCHOR
- EXISTING PULL BOX
- UTILITY POLE NUMBER
- FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
72	16'-7"	NO
73	18'-6"	NO
74	21'-10"	NO
75	24'-10"	NO
76	20'-5"	NO
77	22'-3"	NO
78	29'-0"	NO
79	22'-2"	NO
80	18'-5"	NO
81	20'-7"	NO
82	24'-10"	NO



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 14 / 80		

SEE INTERSECTION
DETAIL SHEET 47

INSTALL SPLICE ENCLOSURE
FIBER OPTIC SPLICE FUSION (4EA)

INSTALL AERIAL 12F DROP CABLE (35 L.F.)
TO EXISTING TRAFFIC SIGNAL POLE

INSTALL 12F DROP CABLE (110 L.F.)
INSIDE EXISTING 3" CONDUIT
TO TRAFFIC SIGNAL CABINET

INSTALL AERIAL 72F CABLE (310 L.F.)
ON EXISTING POWER POLES

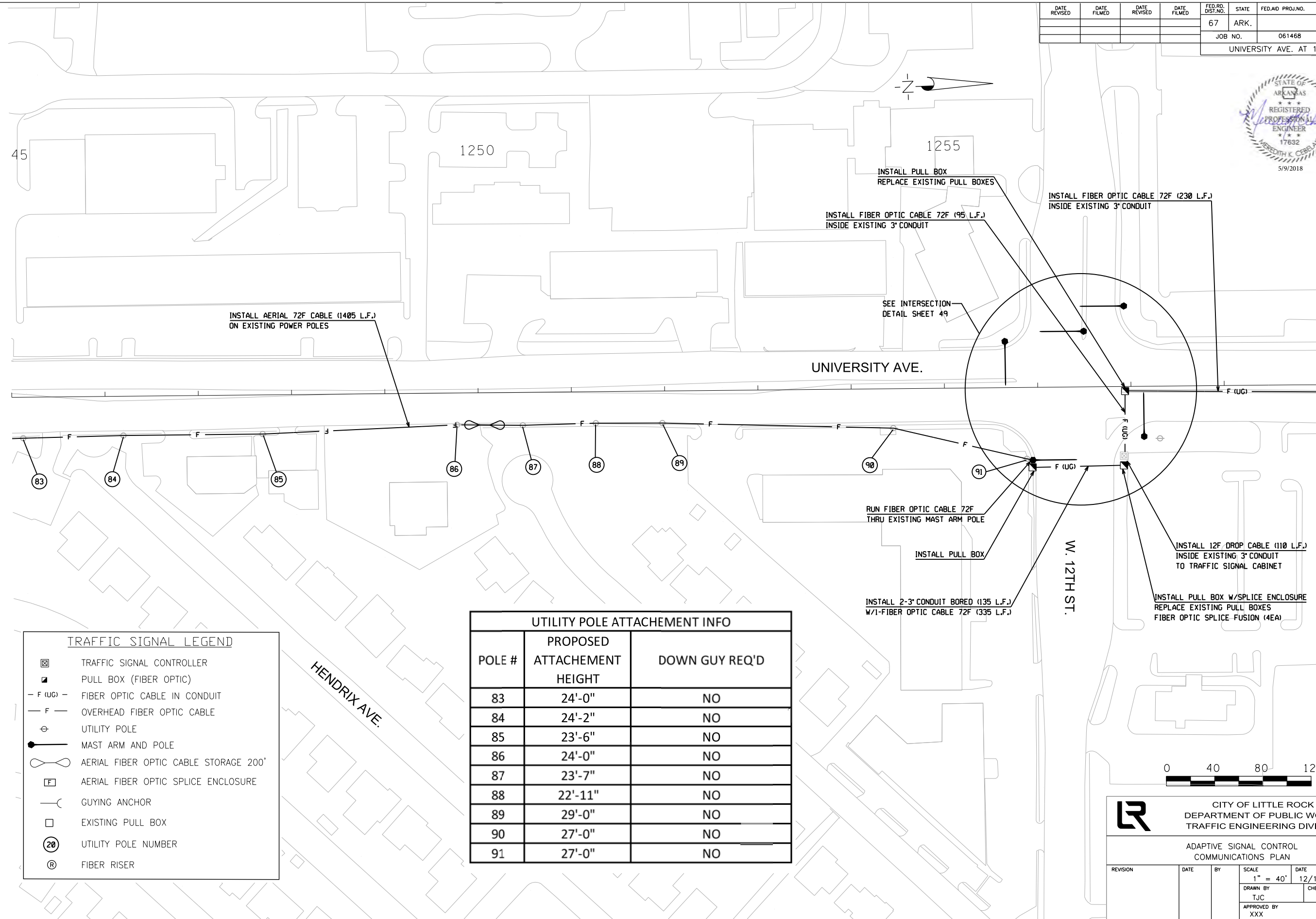
UNIVERSITY AVE.

UNIVERSITY AVE.

BOYLE PARK RD.

19TH ST.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		15	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT 12TH ST.				



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- PULL BOX (FIBER OPTIC)
- F (UG) - FIBER OPTIC CABLE IN CONDUIT
- F - OVERHEAD FIBER OPTIC CABLE
- UTILITY POLE
- MAST ARM AND POLE
- AERIAL FIBER OPTIC CABLE STORAGE 200'
- AERIAL FIBER OPTIC SPLICE ENCLOSURE
- GUYING ANCHOR
- EXISTING PULL BOX
- UTILITY POLE NUMBER
- FIBER RISER

UTILITY POLE ATTACHEMENT INFO

POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
83	24'-0"	NO
84	24'-2"	NO
85	23'-6"	NO
86	24'-0"	NO
87	23'-7"	NO
88	22'-11"	NO
89	29'-0"	NO
90	27'-0"	NO
91	27'-0"	NO

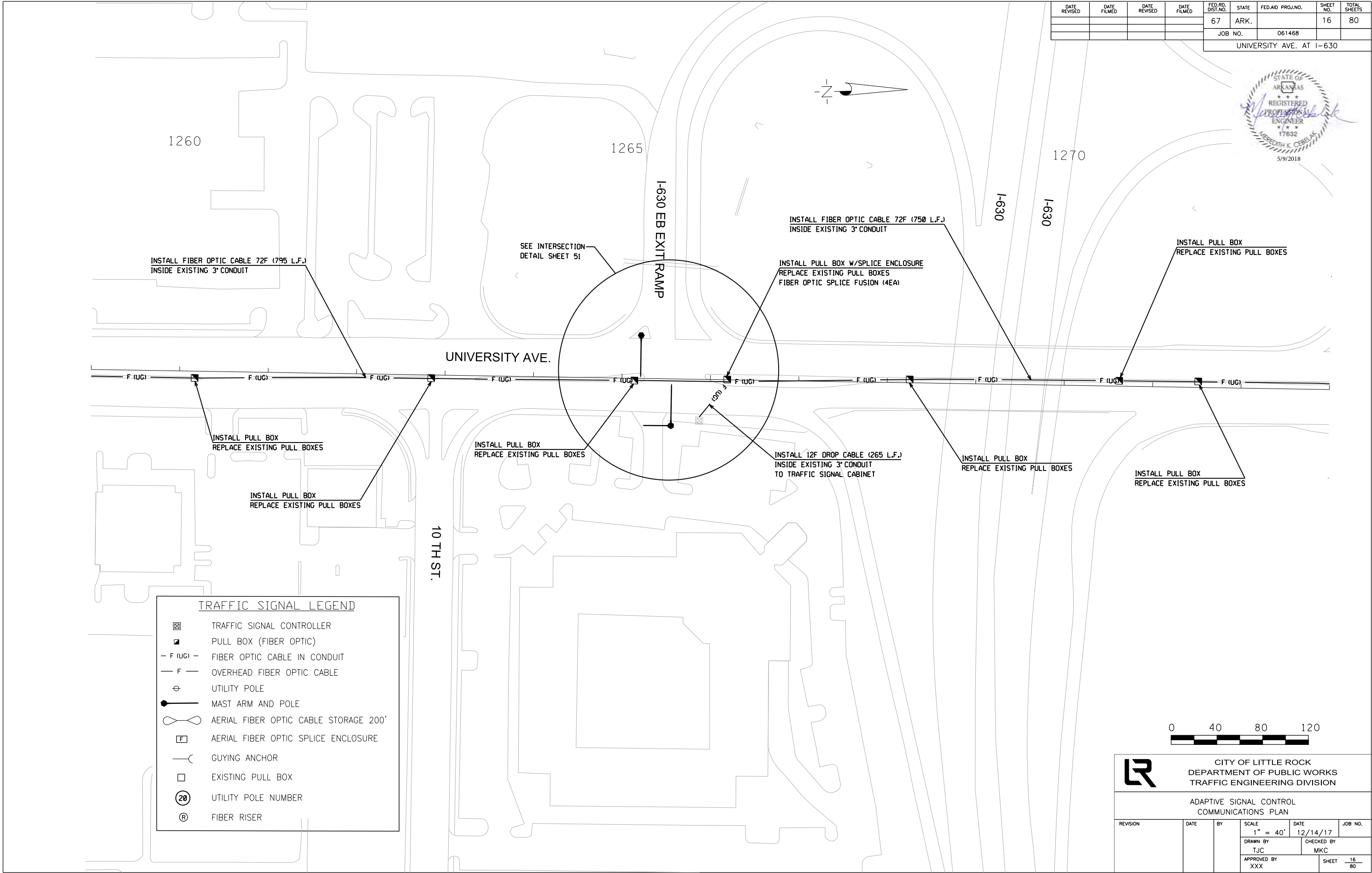


CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

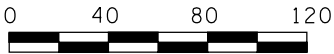
ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC		CHECKED BY MKC			
APPROVED BY XXX					SHEET 15 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		16	80
				JOB NO.		061468		
					UNIVERSITY AVE. AT I-630			

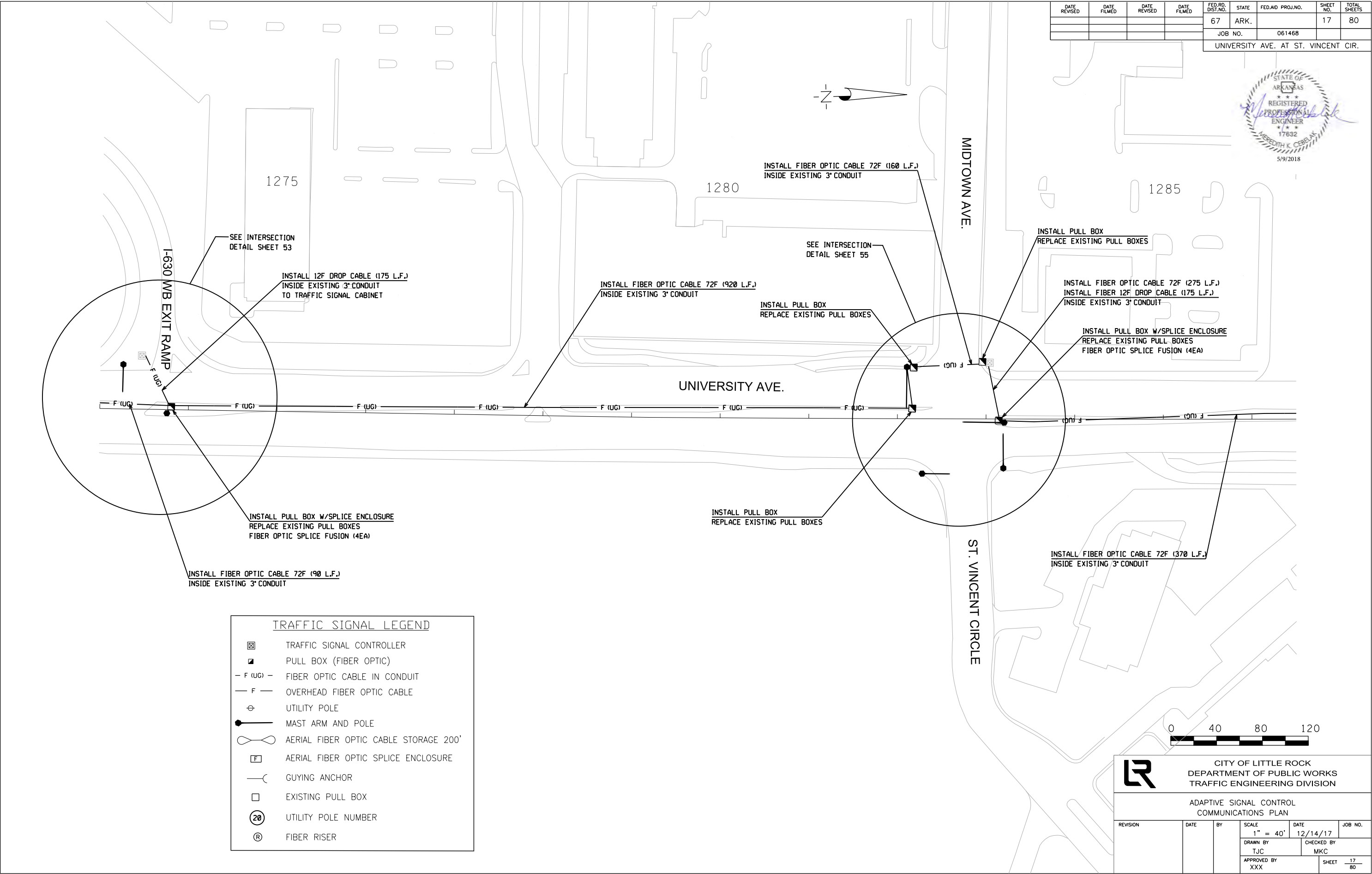


TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER



							CITY OF LITTLE ROCK				
							DEPARTMENT OF PUBLIC WORKS				
							TRAFFIC ENGINEERING DIVISION				
ADAPTIVE SIGNAL CONTROL											
COMMUNICATIONS PLAN											
REVISION	DATE	BY	SCALE		DATE		JOB NO.				
			1" = 40'		12/14/17						
			DRAWN BY		CHECKED BY						
			TJC		MKC						
				APPROVED BY				SHEET		16	
				XXX						80	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		17	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT ST. VINCENT CIR.				

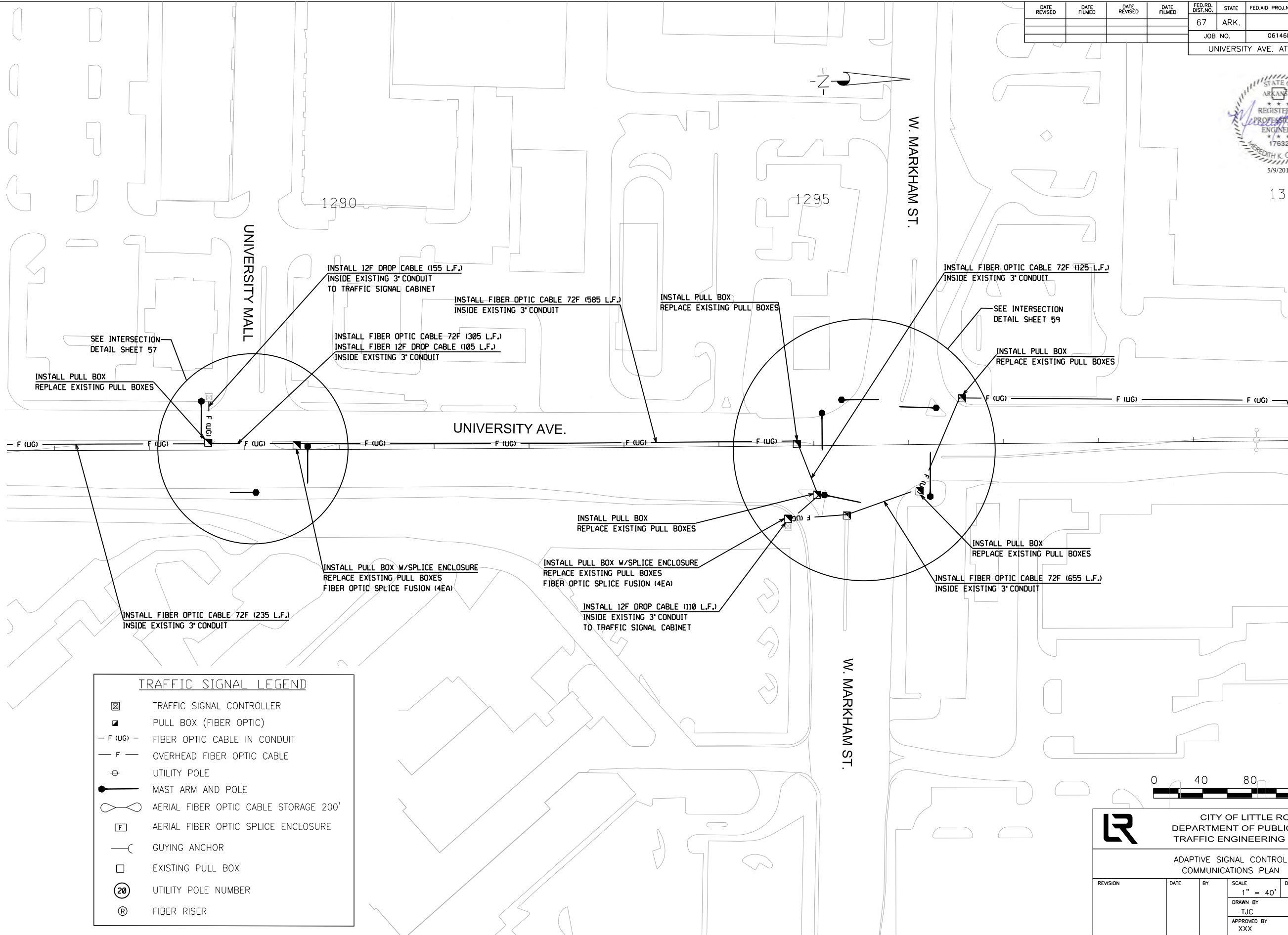


TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER



		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
		ADAPTIVE SIGNAL CONTROL COMMUNICATIONS PLAN			
REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 17	80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		18	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT MARKHAM ST.				



TRAFFIC SIGNAL LEGEND

TRAFFIC SIGNAL CONTROLLER

PULL BOX (FIBER OPTIC)

F (UG) FIBER OPTIC CABLE IN CONDUIT

F OVERHEAD FIBER OPTIC CABLE

UTILITY POLE

MAST ARM AND POLE

AERIAL FIBER OPTIC CABLE STORAGE 200'

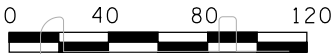
AERIAL FIBER OPTIC SPLICE ENCLOSURE

GUYING ANCHOR

EXISTING PULL BOX

UTILITY POLE NUMBER

FIBER RISER



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 18 80		

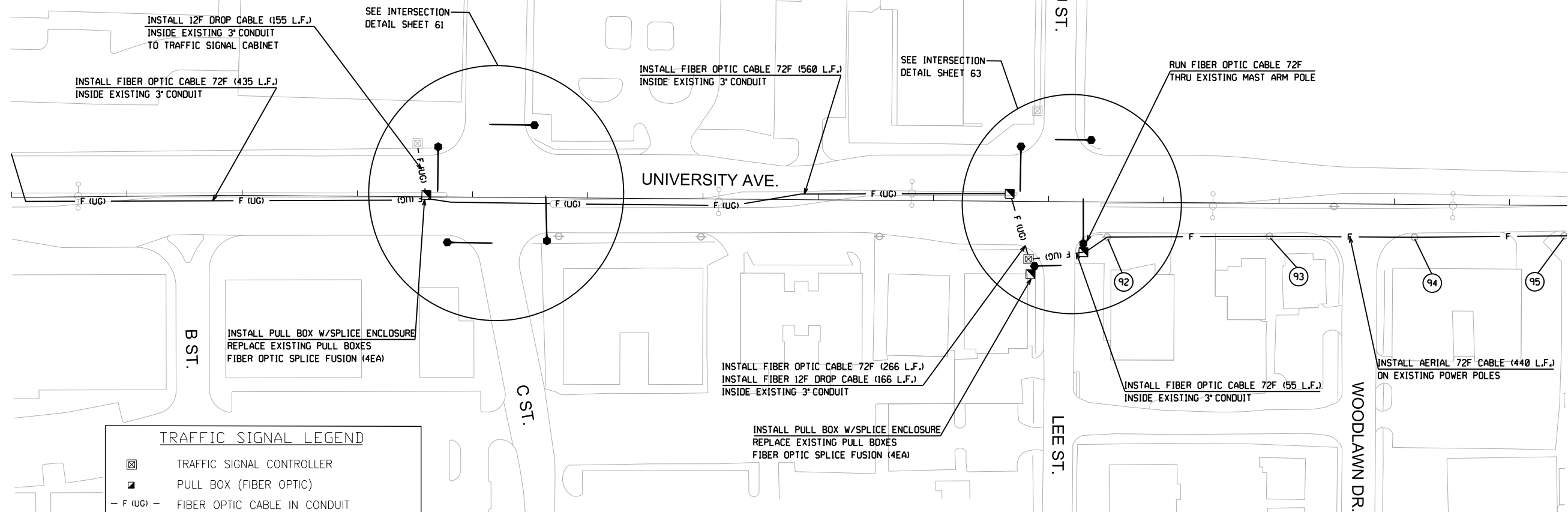
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		19	80
				JOB NO.		061468		
UNIVERSITY AVE. AT FATHER TRIBOU ST.								



00

1305

1310



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
92	23'-1"	NO
93	23'-5"	NO
94	20'-5"	NO
95	21'-1"	NO





CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

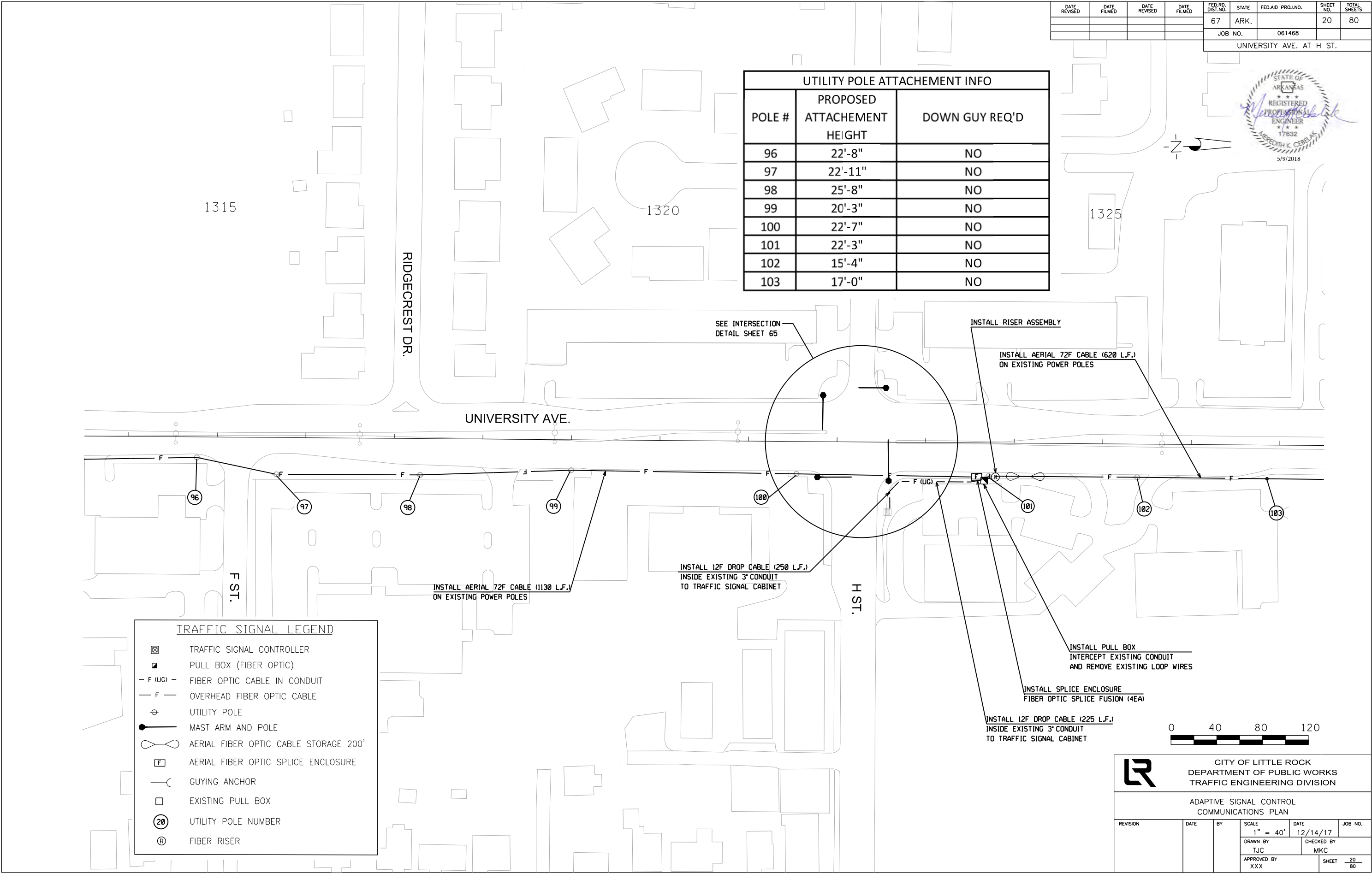
ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC		CHECKED BY MKC			
APPROVED BY XXX					SHEET 19 80

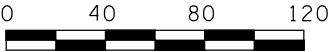
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		20	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT H ST.				



UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
96	22'-8"	NO
97	22'-11"	NO
98	25'-8"	NO
99	20'-3"	NO
100	22'-7"	NO
101	22'-3"	NO
102	15'-4"	NO
103	17'-0"	NO



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER

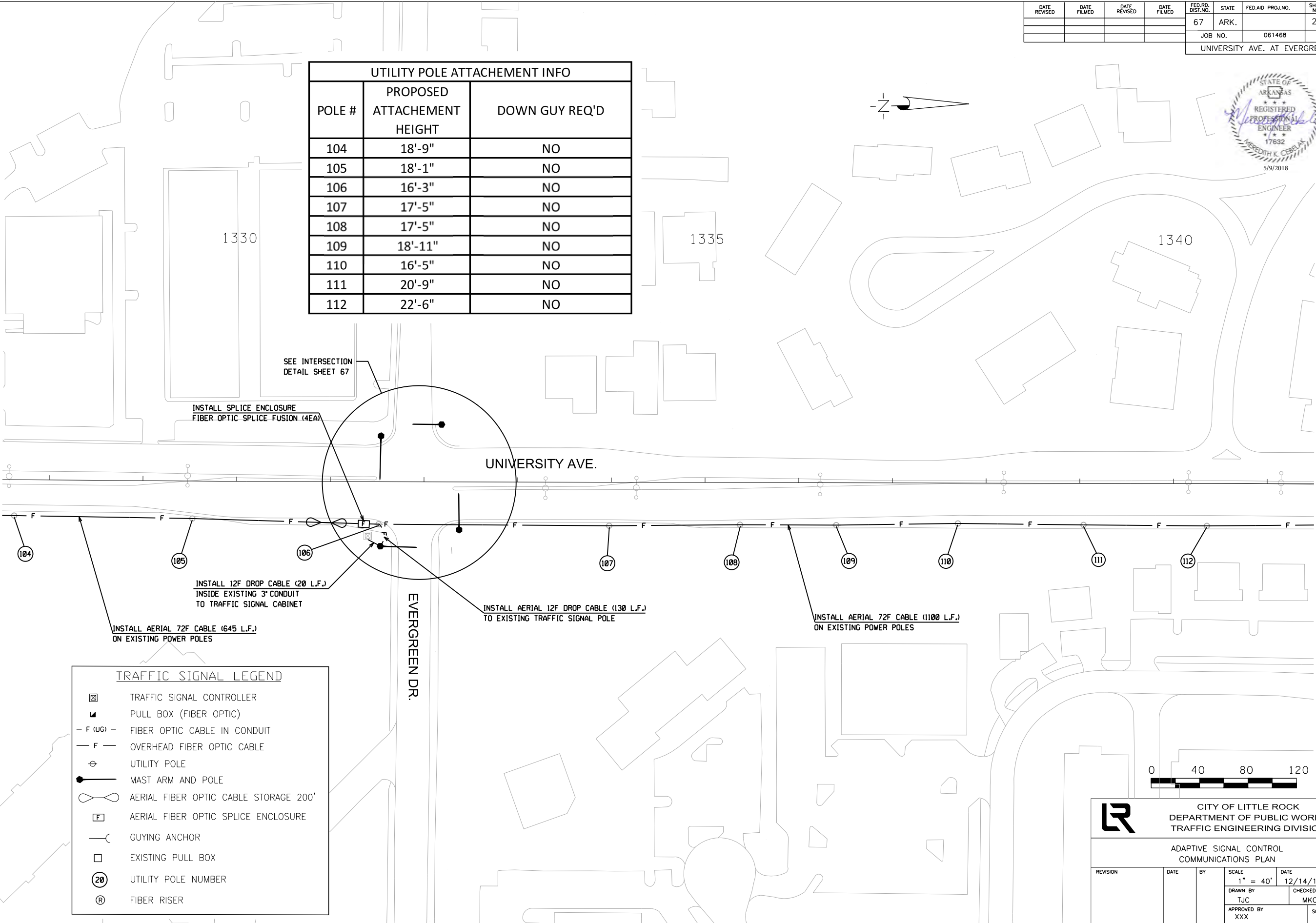


CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL COMMUNICATIONS PLAN					
REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 20/80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		21	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT EVERGREEN DR.				



UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
104	18'-9"	NO
105	18'-1"	NO
106	16'-3"	NO
107	17'-5"	NO
108	17'-5"	NO
109	18'-11"	NO
110	16'-5"	NO
111	20'-9"	NO
112	22'-6"	NO



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
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	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER



CITY OF LITTLE ROCK

DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL

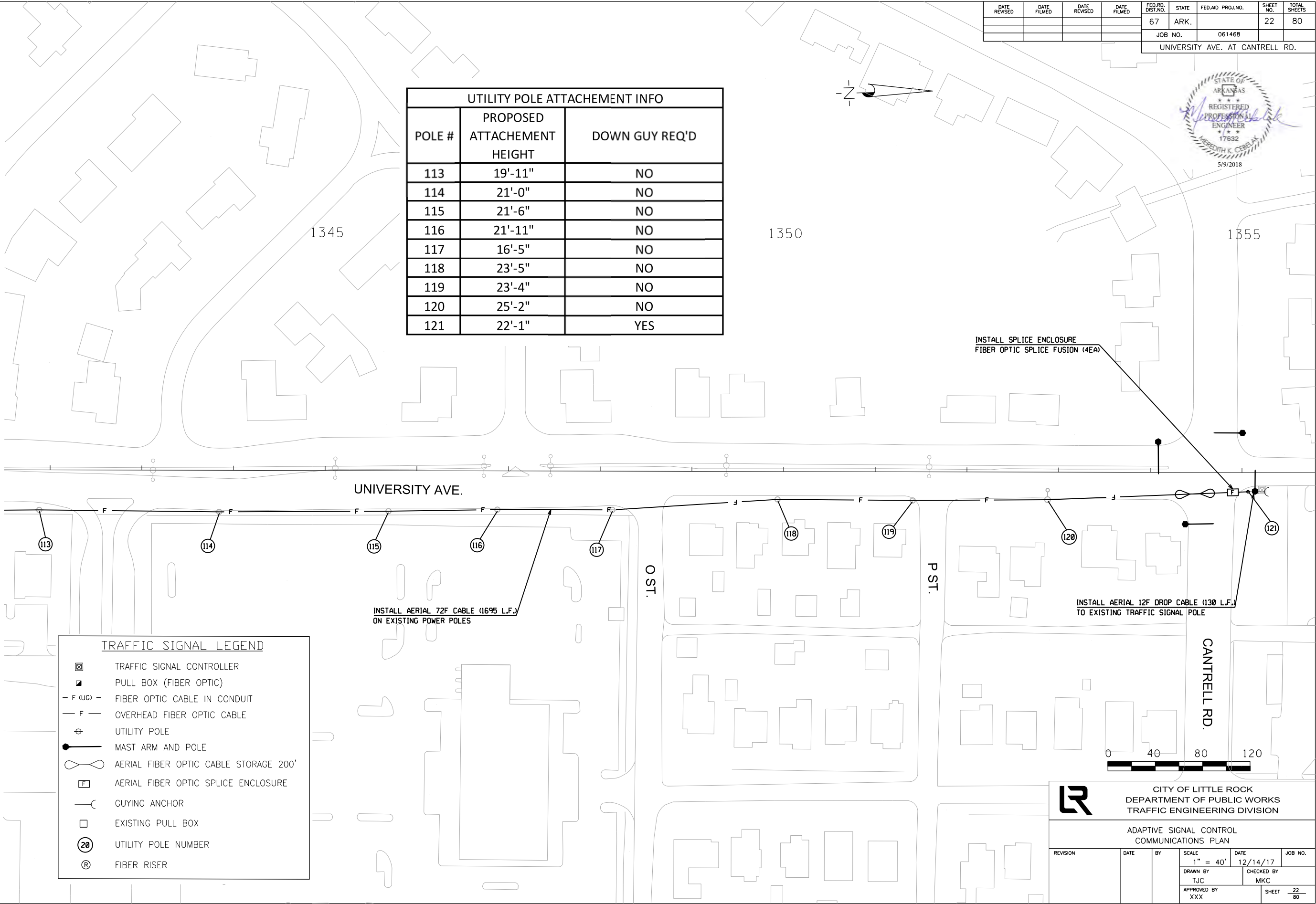
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 40'	12/14/17	
			DRAWN BY	CHECKED BY	
			TJC	MKC	
			APPROVED BY		
			XXX		
				SHEET	21
					80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		22	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT CANTRELL RD.				



UTILITY POLE ATTACHEMENT INFO		
POLE #	PROPOSED ATTACHEMENT HEIGHT	DOWN GUY REQ'D
113	19'-11"	NO
114	21'-0"	NO
115	21'-6"	NO
116	21'-11"	NO
117	16'-5"	NO
118	23'-5"	NO
119	23'-4"	NO
120	25'-2"	NO
121	22'-1"	YES



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	PULL BOX (FIBER OPTIC)
	FIBER OPTIC CABLE IN CONDUIT
	OVERHEAD FIBER OPTIC CABLE
	UTILITY POLE
	MAST ARM AND POLE
	AERIAL FIBER OPTIC CABLE STORAGE 200'
	AERIAL FIBER OPTIC SPLICE ENCLOSURE
	GUYING ANCHOR
	EXISTING PULL BOX
	UTILITY POLE NUMBER
	FIBER RISER



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

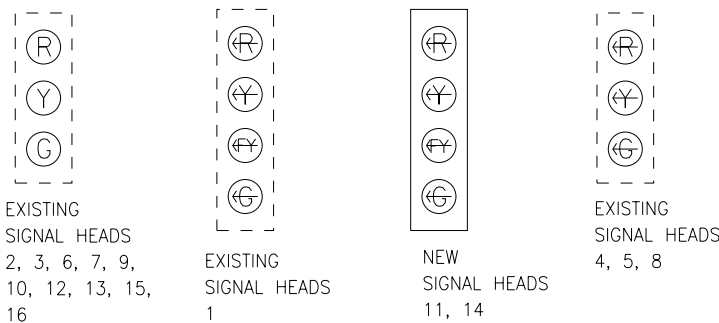
ADAPTIVE SIGNAL CONTROL
COMMUNICATIONS PLAN

REVISION	DATE	BY	SCALE 1" = 40'	DATE 12/14/17	JOB NO.
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 22 80		

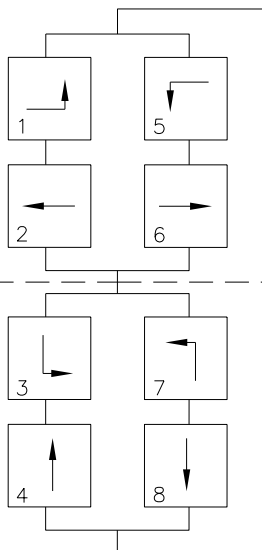
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		23	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-30 EB								



SIGNAL FACES



PHASING DIAGRAM

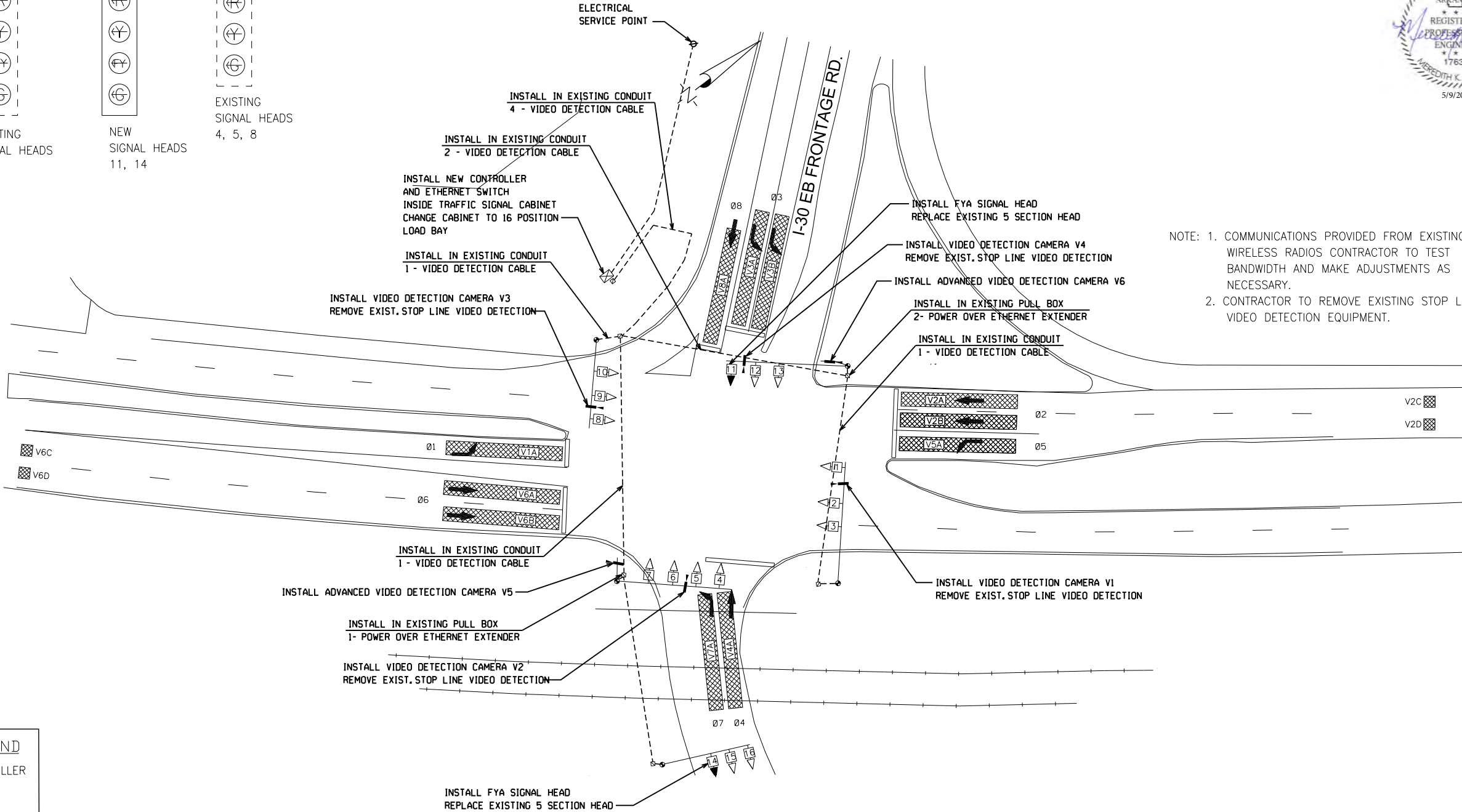


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
45 MPH EAST AND WEST APPROACH
NO BUS STOPS
RAILROAD TRACKS LOCATED 50 FEET EAST
OF I-30 FRONTAGE ROAD WESTBOUND
STOP LINE
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'
I-30EB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	NONE	60'



- NOTE: 1. COMMUNICATIONS PROVIDED FROM EXISTING WIRELESS RADIOS CONTRACTOR TO TEST BANDWIDTH AND MAKE ADJUSTMENTS AS NECESSARY.
2. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 23 80

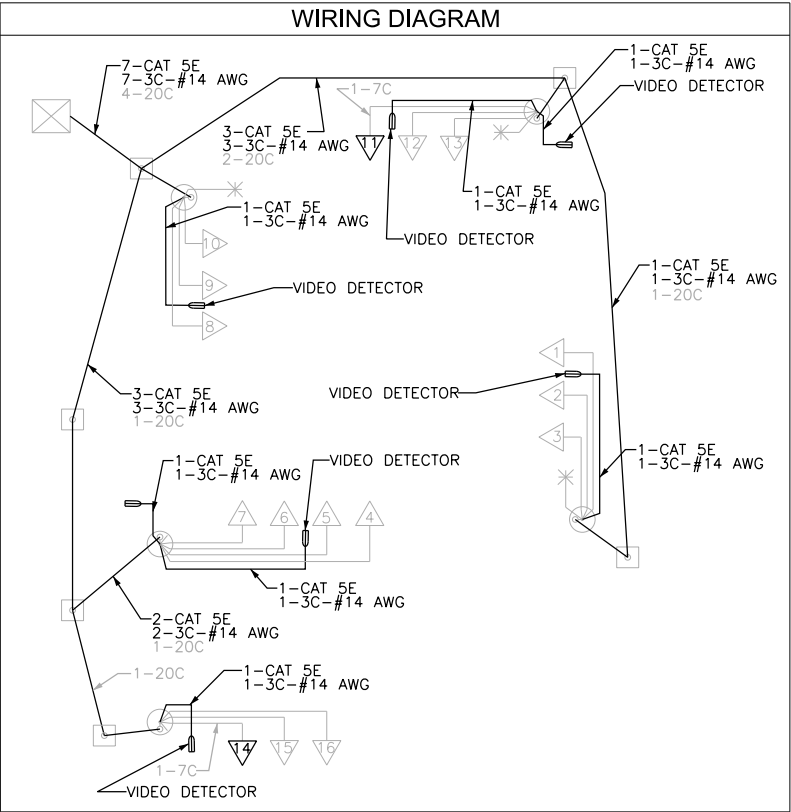
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		24	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-30 EB								



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /I-30 EB RAMP				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS LOCAL			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
V1A	NB LEFT TURN	LOCAL	1		2	V1	1				
V2A	SB THRU LANES	COMB.	2		6	V10	2	2			
V2B	SB THRU LANES	COMB.	3		6	V10	2	2			
V2C	SB ADV.	LOCAL	4		5	V2(D1)	2				
V2D	SB ADV.	LOCAL	5		5	V2(D2)	2				
V3A	EB LEFT TURN	LOCAL	6		10	V3	3				
V3B	EB LEFT TURN	LOCAL	7		10	V3	3				
V4A	WB THRU LANE	COMB.	8		14	V12	4	4			
V7A	WB LEFT TURN	LOCAL	9		16	V7	7				
V5A	SB LEFT TURN	LOCAL	10		8	V5	5				
V6A	NB THRU LANE	COMB.	11		4	V14	6	6			
V6B	NB THRU LANE	COMB.	12		4	V14	6	6			
V6C	NB ADV.	LOCAL	13		3	V6(D3)	6				
V6D	NB ADV.	LOCAL	14		3	V6(D4)	6				
V8A	EB THRU LANE	COMB.	15		12	V16	8	8			

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rythm Engineering.

SPARE: 1, 7, 9, 11, 13, 15



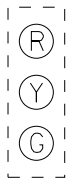
UNIVERSITY AVE AND I-30 EB FRONTAGE RD																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR		
1	G<-	*	G<-	*	FY<-	***	FY<-	***	R<-	R<-	R<-	R<-	R<-	R<-	R<-		R<-	
2 & 3	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R		R	
4 & 5	R<-	R<-	R<-	R<-	R<-	R<-	R<-	R<-	G<-	*	G<-	*	R<-	R<-	R<-		R<-	
6 & 7	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R	
8	G<-	*	R<-	R<-	G<-	*	R<-	R<-	R<-	R<-	R<-	R<-	R<-	R<-	R<-		R<-	
9 & 10	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R		R	
11 & 14	R<-	R<-	R<-	R<-	R<-	R<-	R<-	R<-	G<-	*	FY<-	***	G<-	*	FY<-	***	R<-	
12, 13, 15 & 16	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**	R	
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE								** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE									
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 24	80

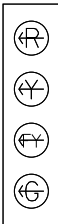
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		25	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-30 WB								



SIGNAL FACES

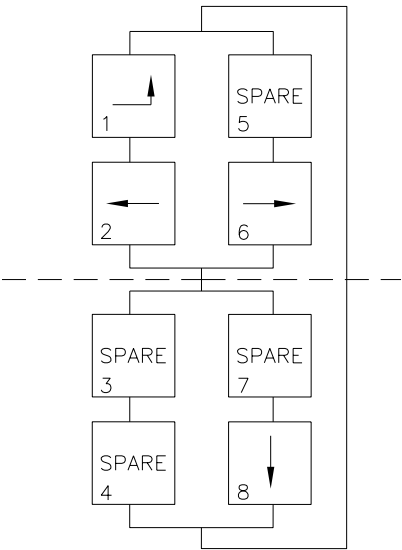


EXISTING
SIGNAL HEADS
2, 3, 4, ,5
6, 7



NEW
SIGNAL HEADS
1

PHASING DIAGRAM

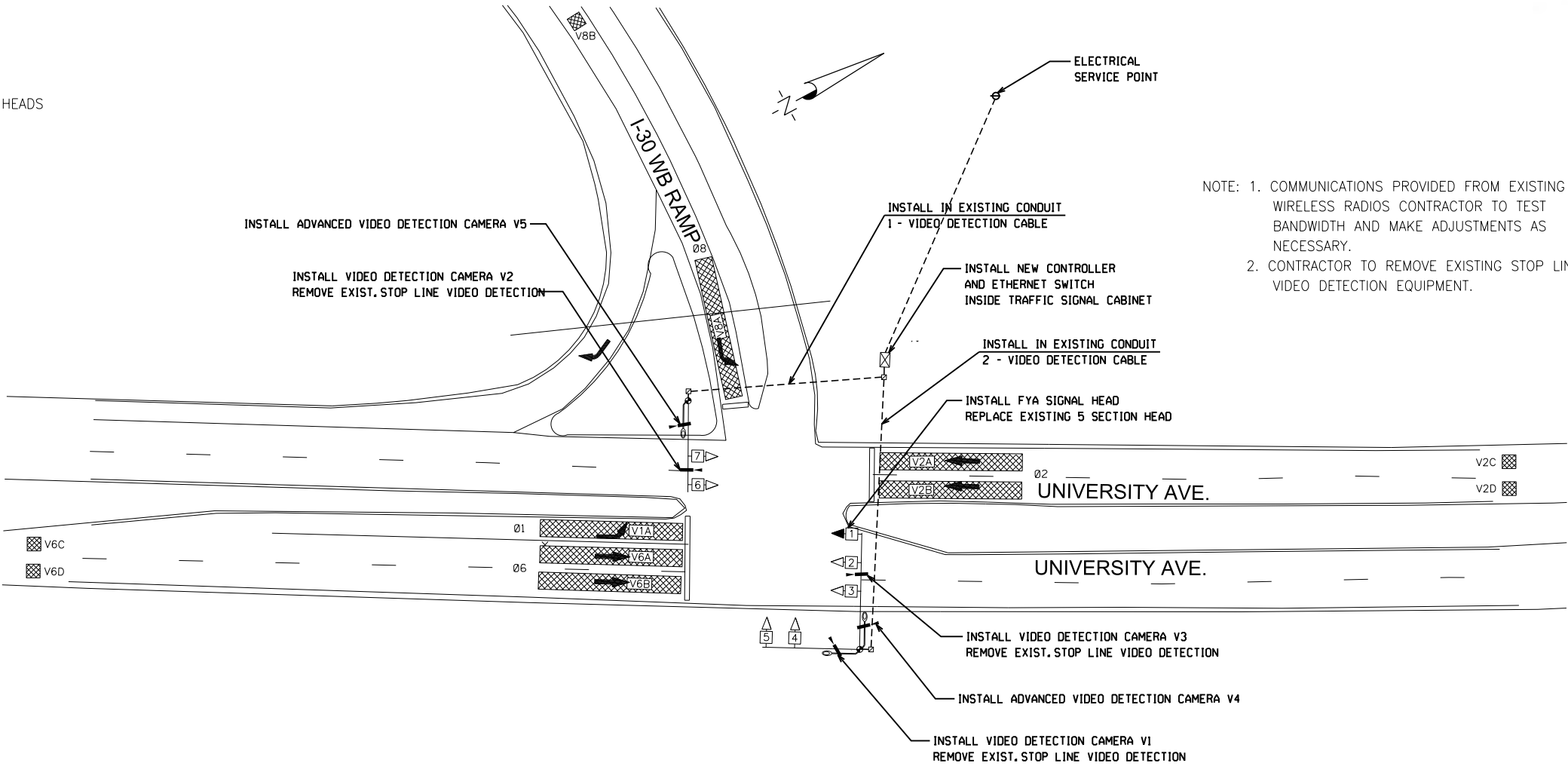


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
45 MPH EAST AND WEST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'
I-30WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'



NOTE: 1. COMMUNICATIONS PROVIDED FROM EXISTING WIRELESS RADIOS CONTRACTOR TO TEST BANDWIDTH AND MAKE ADJUSTMENTS AS NECESSARY.
2. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 25 80

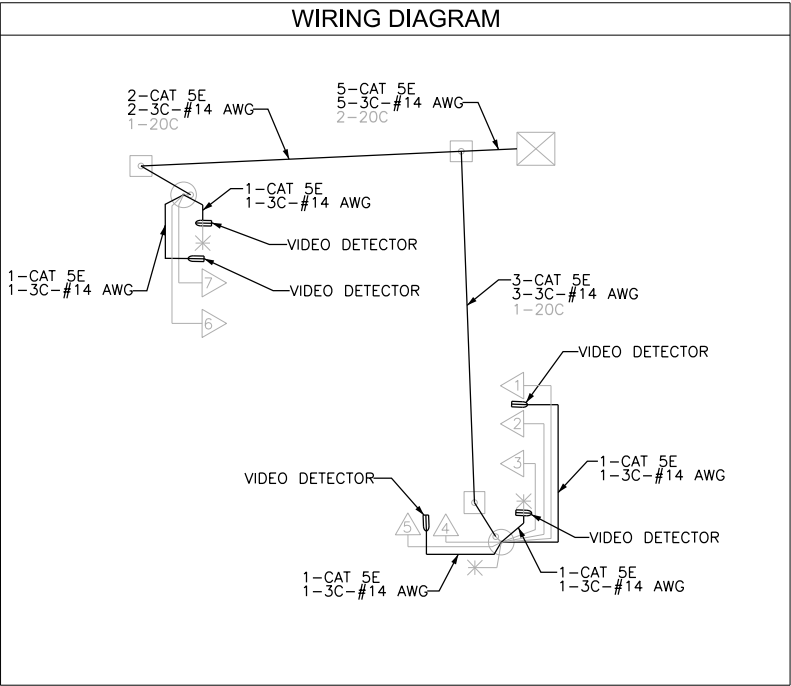
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				67	ARK.		26	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-30 WB								



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /I-30 WB RAMP				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	LOCAL		MASTER SYSTEM DETECTION NUMBERS		
							PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V3	23"
V2A	SB THRU LANES	COMB.	2		6	V10	2	2		CAMERA V2	23"
V2B	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V2	23"
V2C	SB ADV.	LOCAL	4		5	V2(D1)	2			CAMERA V4	23"
V2D	SB ADV.	LOCAL	5		5	V2(D2)	2			CAMERA V4	23"
V6A	NB THRU LANE	COMB.	6		4	V14	6	6		CAMERA V3	23"
V6B	NB THRU LANE	COMB.	7		4	V14	6	6		CAMERA V3	23"
V6C	NB ADV.	LOCAL	8		3	V3(D3)	6			CAMERA V5	23"
V6D	NB ADV.	LOCAL	9		3	V3(D4)	6			CAMERA V5	23"
V8A	EB LEFT TURN	LOCAL	10		12	V6	8	8		CAMERA V1	23"
V8A	EB ADV.	LOCAL	10		11	V8	8			CAMERA V1	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 1, 7-10, 13-16



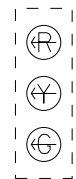
UNIVERSITY AVE AND I-30 WB RAMP							
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION						FLASH SEQ.
	1 & 6	CLR	2 & 6	CLR	8	CLR	
1	G <-	***	FY <-	***	R <-	R <-	R <-
2 & 3	G	**	G	**	R	R	R
4 & 5	R	R	R	R	G	**	R
6 & 7	R	R	G	**	R	R	R
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE							
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE							
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE							

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET		26 80			

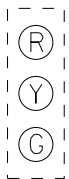
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		27	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT FORBING RD.				



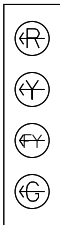
SIGNAL FACES



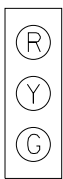
EXISTING
SIGNAL HEADS
1, 2, 7, 8, 9



EXISTING
SIGNAL HEADS
3, 4, 6, 10,
11, 13

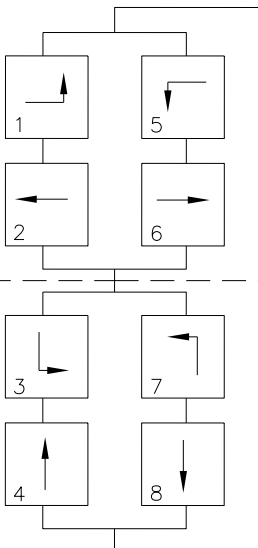


NEW
SIGNAL HEADS
5, 12



NEW
SIGNAL HEADS
14, 15

PHASING DIAGRAM

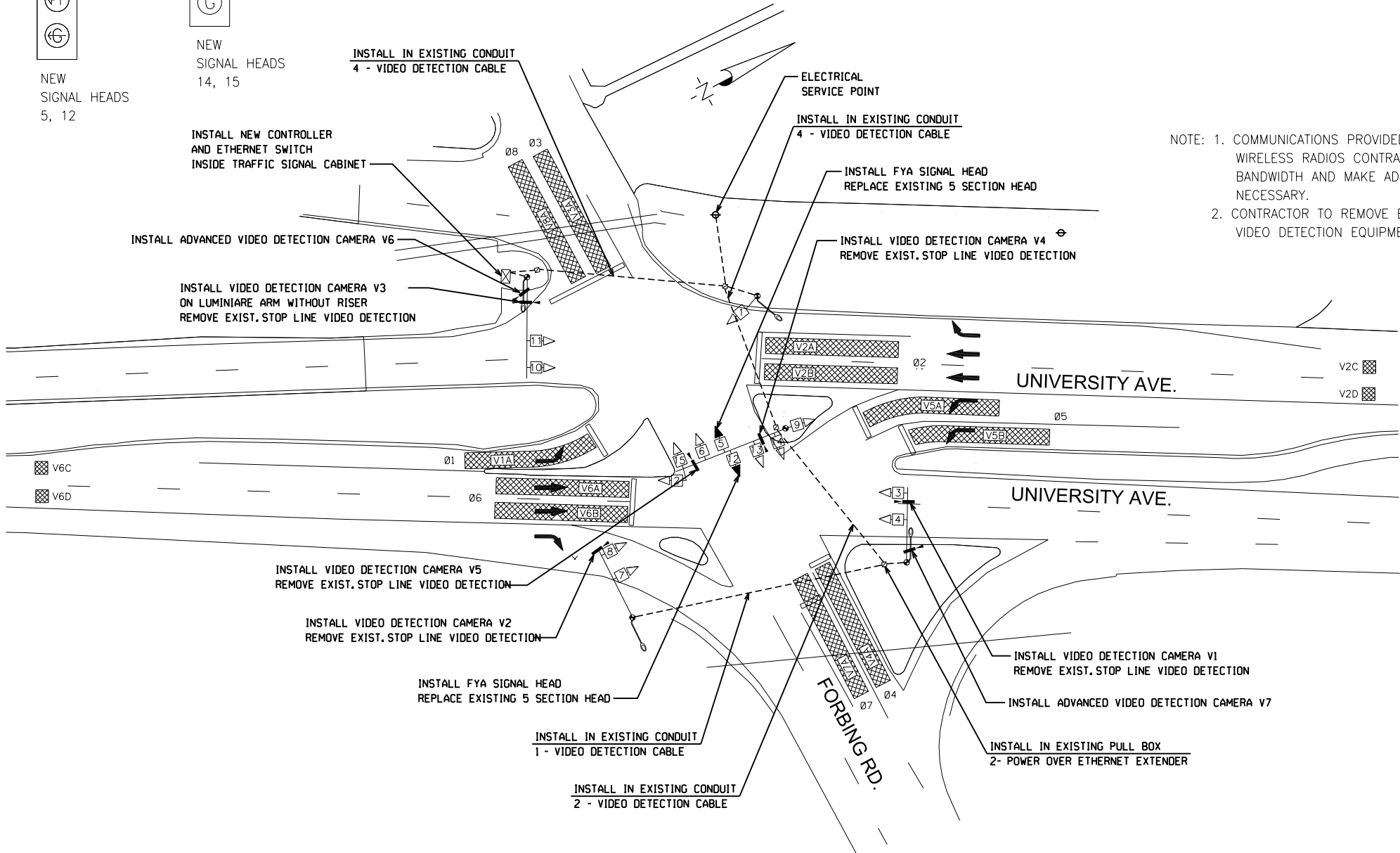


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
35 MPH EAST AND WEST APPROACH
NO BUS STOPS
RAILROAD TRACKS LOCATED 80 FEET EAST
OF FORBING ROAD WESTBOUND STOP LINE.
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'
FORBING		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
35 MPH	NONE	60'



- NOTE: 1. COMMUNICATIONS PROVIDED FROM EXISTING WIRELESS RADIOS CONTRACTOR TO TEST BANDWIDTH AND MAKE ADJUSTMENTS AS NECESSARY.
2. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK

DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY	CHECKED BY	
			TJC	MKC	
			APPROVED BY	SHEET	
			XXX	27	80

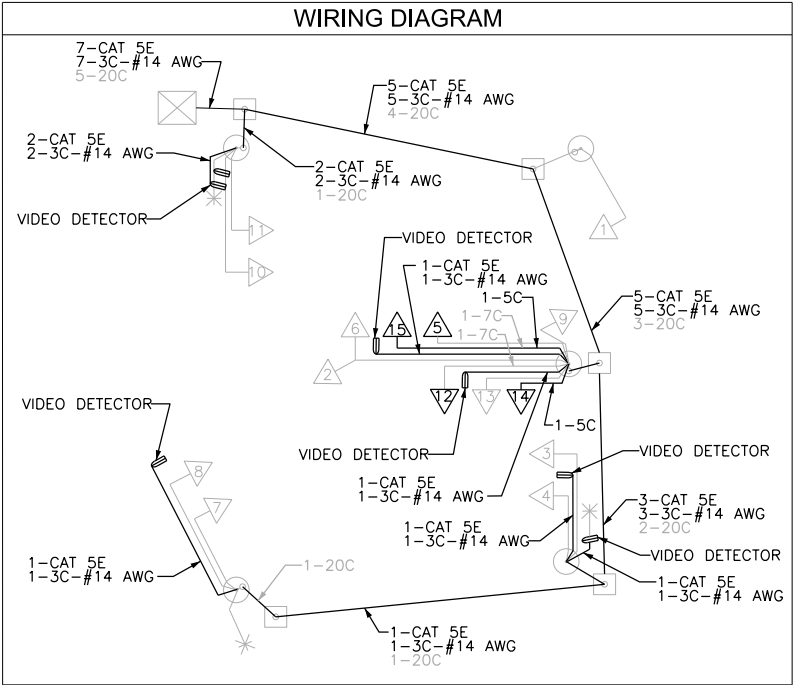
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		28	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT FORBING RD.				



DETECTOR SYSTEM DESCRIPTION										
PULASKI COUNTY - UNIVERSITY AVE. /FORBING				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS		COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.		
V1A	NB LEFT TURN	LOCAL	1		2	V1	1		CAMERA V1	23"
V2A	SB THRU LANES	COMB.	2		6	V10	2	2	CAMERA V3	23"
V2B	SB THRU LANES	COMB.	3		6	V10	2	2	CAMERA V3	23"
V2C	SB ADV.	LOCAL	4		5	V2(D1)	2		CAMERA V7	23"
V2D	SB ADV.	LOCAL	5		5	V2(D2)	2		CAMERA V7	23"
V3A	EB LEFT TURN	LOCAL	6		10	V3	3		CAMERA V5	23"
V4A	WB THRU LANE	COMB.	7		14	V12	4	4	CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	8		8	V5	5		CAMERA V2	23"
V5B	SB LEFT TURN	LOCAL	9		8	V5	5		CAMERA V2	23"
V6A	NB THRU LANE	COMB.	10		4	V14	6	6	CAMERA V1	23"
V6B	NB THRU LANE	COMB.	11		4	V14	6	6	CAMERA V1	23"
V6C	NB ADV.	LOCAL	12		3	V6(D3)	6		CAMERA V5	23"
V6D	NB ADV.	LOCAL	13		3	V6(D4)	6		CAMERA V5	23"
V7A	WB LEFT TURN	LOCAL	14		16	V7	7		CAMERA V4	23"
V8A	EB THRU LANE	COMB.	15		12	V16	8	8	CAMERA V5	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 1, 7, 9, 11, 13, 15



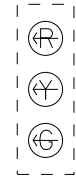
UNIVERSITY AVE AND FORBING RD																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR		
1 & 2	G <-	*	G <-	*	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	
3 & 4	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R	R	R	
5	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	G <-	*	G <-	*	FY<-	***	FY<-	***	R <-	
6 & 15	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R	
7, 8 & 9	G <-	*	R <-	R <-	G <-	*	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	
10 & 11	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R	
12	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	G <-	*	FY<-	***	G <-	*	FY<-	***	R <-	
13 & 14	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**	R	
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE									** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE									
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																		

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET 28 / 80					

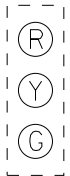
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		29	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT 65th ST.				



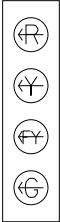
SIGNAL FACES



EXISTING
SIGNAL HEADS
1, 7, 10, 11,
14

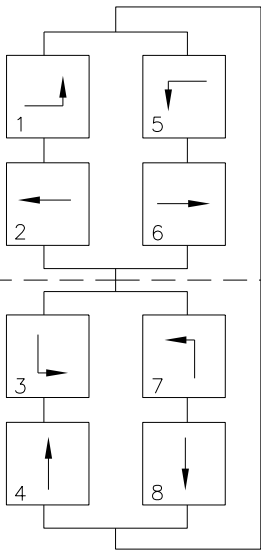


EXISTING
SIGNAL HEADS
2, 3, 5, 6, 8,
9, 12, 13



NEW
SIGNAL HEADS
4

PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
40 MPH EAST AND WEST APPROACH
NO BUS STOPS
RAILROAD TRACKS 365' FROM WB STOP LINE
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	50'
65TH		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	50'

- NOTE: 1. COMMUNICATIONS PROVIDED FROM EXISTING WIRELESS RADIOS CONTRACTOR TO TEST BANDWIDTH AND MAKE ADJUSTMENTS AS NECESSARY.
2. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
DRAWN BY TJC			CHECKED BY MKC		
APPROVED BY XXX			SHEET 29 80		

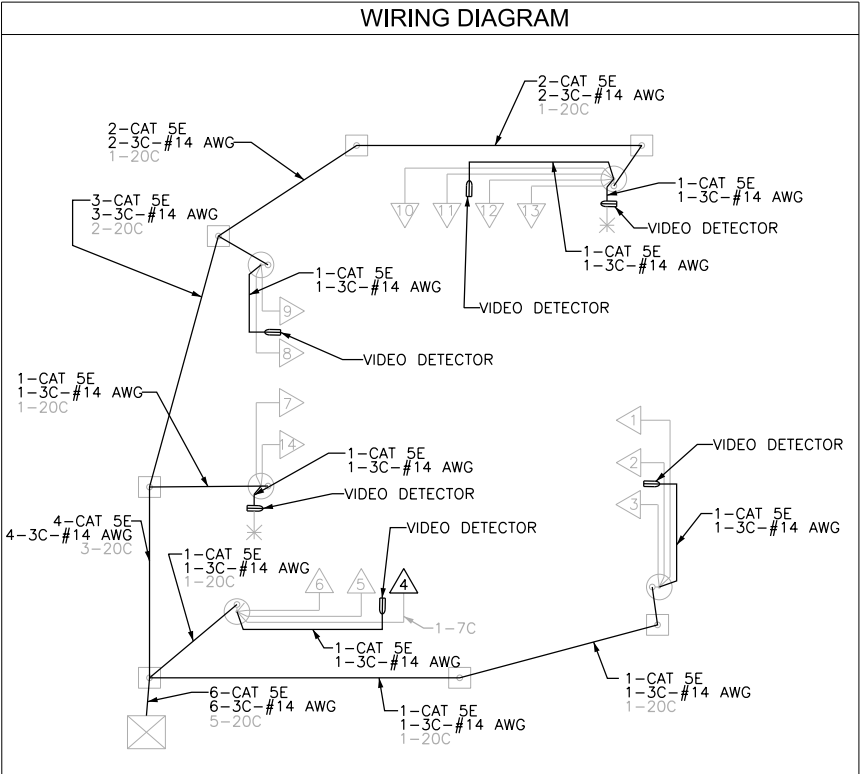
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		30	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT 65th ST.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /65TH				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCA.		MASTER SYSTEM DETECTION NUMBERS		
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V1	23"
V2A	SB THRU LANES	COMB.	2		6	V10	2	2		CAMERA V3	23"
V2B	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V3	23"
V2C	SB ADV.	LOCAL	4		5	V2(D1)	2			CAMERA V6	23"
V2D	SB ADV.	LOCAL	5		5	V2(D2)	2			CAMERA V6	23"
V3A	EB LEFT TURN	LOCAL	6		10	V3	3			CAMERA V2	23"
V4A	WB THRU LANE	COMB.	7		14	V12	4	4		CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	8		8	V5	5			CAMERA V3	23"
V5B	SB LEFT TURN	LOCAL	9		8	V5	5			CAMERA V3	23"
V6A	NB THRU LANE	COMB.	10		4	V14	6	6		CAMERA V1	23"
V6B	NB THRU LANE	COMB.	11		4	V14	6	6		CAMERA V1	23"
V6C	NB ADV.	LOCAL	12		3	V6(D3)	6			CAMERA V5	23"
V6D	NB ADV.	LOCAL	13		3	V6(D4)	6			CAMERA V5	23"
V7A	WB LEFT TURN	LOCAL	14		16	V7	7			CAMERA V4	23"
V7B	WB LEFT TURN	LOCAL	15		16	V7	7			CAMERA V4	23"
V8A	EB THRU LANE	COMB.	16		12	V16	8	8		CAMERA V2	23"
V8B	EB THRU LANE	COMB.	16		12	V16	8	8		CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

UNIVERSITY AVE AND 65TH ST																	
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ
1	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR	
	G <	*	G <	*	R <	R <	R <	R <	R <	R <	R <	R <	R <	R <	R <	R <	R <
2 & 3	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R	R	R
4	R <	R <	R <	R <	R <	R <	R <	R <	G <	*	G <	*	FY <	***	FY <	***	R <
5 & 6	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R
7 & 14	G <	*	R <	R <	G <	*	R <	R <	R <	R <	R <	R <	R <	R <	R <	R <	R <
8 & 9	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R
10 & 11	R <	R <	R <	R <	R <	R <	R <	R <	G <	*	R <	R <	G <	*	R <	R <	R <
12 & 13	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**	R
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE ** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE																	
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

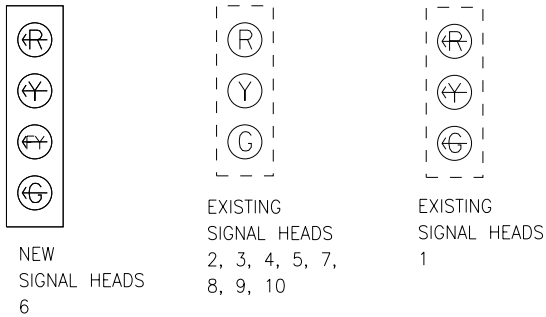


						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET 30/80					

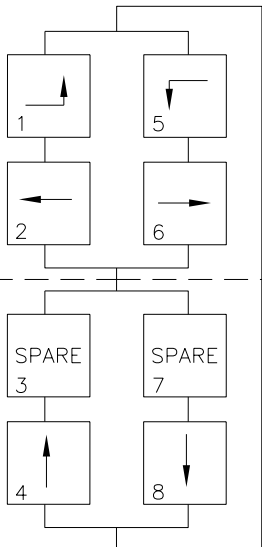
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		31	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT MABELVALE PK.				



SIGNAL FACES



PHASING DIAGRAM

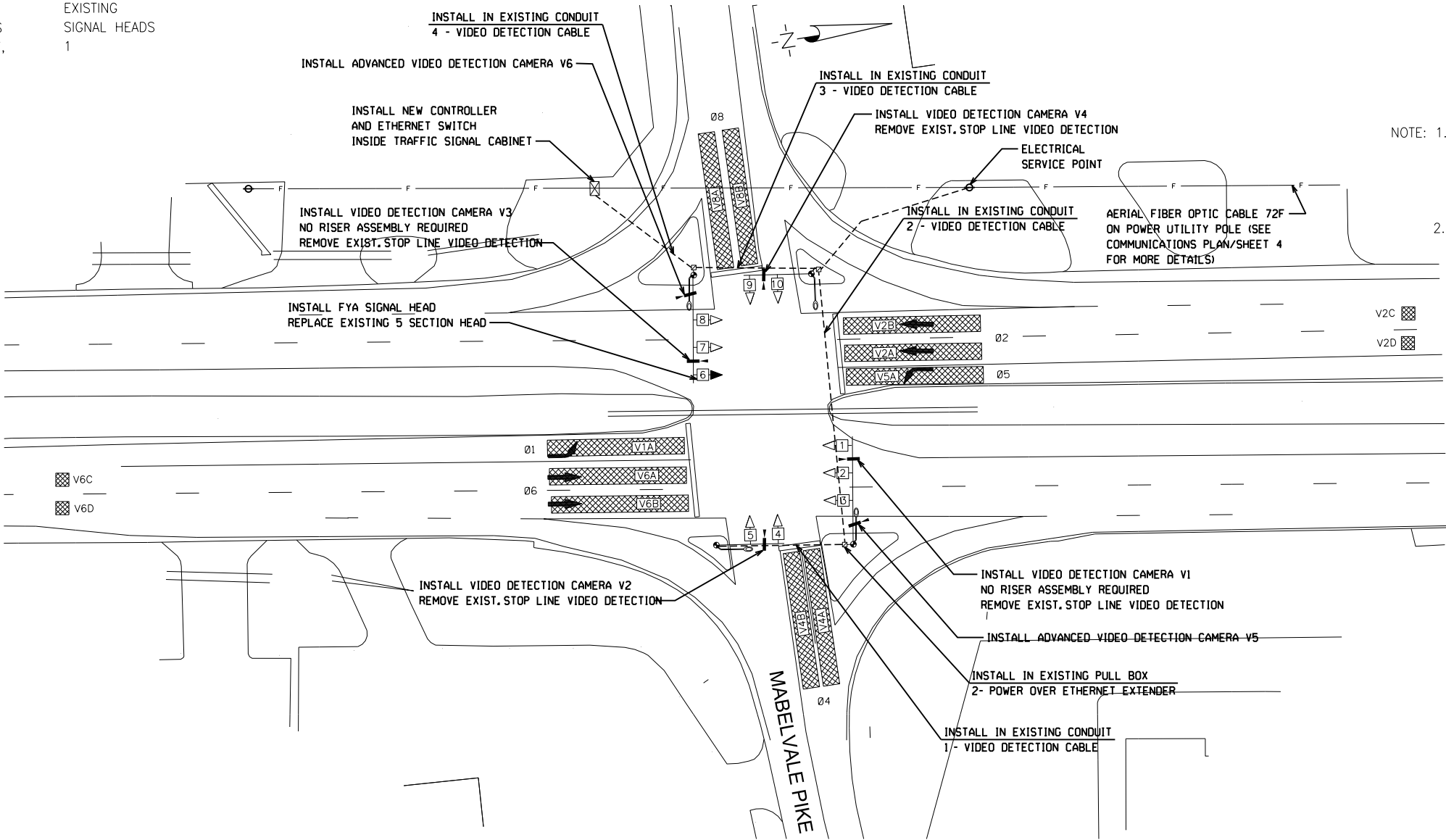


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
30 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 65 FEET NORTH OF
UNIVERSITY AVE SOUTHBOUND STOP LINE
NO RAILROAD TRACKS
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
SIGHT DISTANCE RESTRICTED BY
TREE & CURVE.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'
MABELVALE		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
30 MPH	NONE	60'



- NOTE: 1. THIS SIGNAL RECIEVES COMMUNICATIONS FROM EXISTING WIRELESS RADIOS SOUTH OF SIGNAL LOCATION. CONTRACTOR TO TEST BANDWIDTH AND MAKE ADJUSTMENTS AS NECESSARY.
2. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 31 80

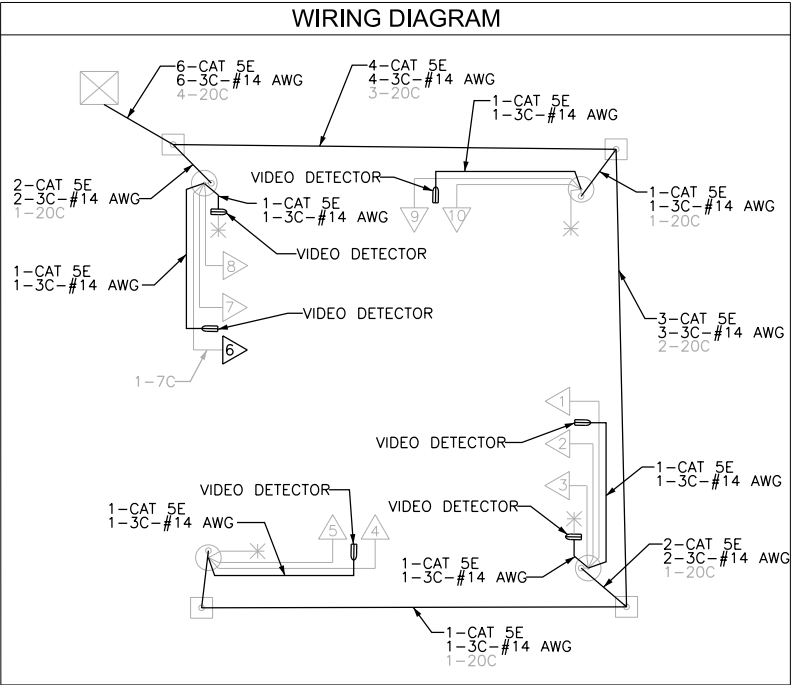
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		32	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT MABELVALE PK.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /MABELVALE				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTION NUMBERS		
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V1	23"
V2A	SB THRU LANES	COMB.	2		6	V10	2	2		CAMERA V3	23"
V2B	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V3	23"
V2C	SB ADV.	LOCAL	4		5	V2(D1)	2			CAMERA V5	23"
V2D	SB ADV.	LOCAL	5		5	V2(D2)	2			CAMERA V5	23"
V4A	WB THRU LANE	COMB.	6		14	V12	4	4		CAMERA V4	23"
V4B	WB THRU LANE	COMB.	7		14	V12	4	4		CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	8		8	V5	5			CAMERA V3	23"
V6A	NB THRU LANE	COMB.	9		4	V14	6	6		CAMERA V1	23"
V6B	NB THRU LANE	COMB.	10		4	V14	6	6		CAMERA V1	23"
V6C	NB ADV.	LOCAL	11		3	V6(D3)	6			CAMERA V6	23"
V6D	NB ADV.	LOCAL	12		3	V6(D4)	6			CAMERA V6	23"
V8A	EB THRU LANE	COMB.	13		12	V16	8			CAMERA V2	23"
V8B	EB THRU TURN	COMB.	14		12	V16	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input

Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



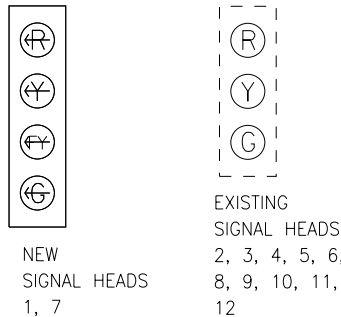
UNIVERSITY AVE AND MABELVALE PK											
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION										FLASH SEQ
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	4 & 8	CLR	
1	G <-	*	G <-	*	R <-	R <-	R <-	R <-	R <-	R <-	R <-
2 & 3	R	R	G	**	R	R	G	**	R	R	R
4 & 5	R	R	R	R	R	R	R	R	G	**	R
6	G <-	*	FY <-	***	G <-	*	FY <-	***	R <-	R <-	R <-
7 & 8	R	R	R	R	G	**	G	**	R	R	R
9 & 10	R	R	R	R	R	R	R	R	G	**	R
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE											
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE											
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE											

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			TJC	MKC							
			APPROVED BY XXX			SHEET 32/80					

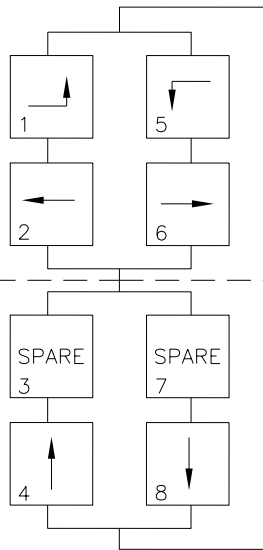
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		33	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT FIRST TEE WAY				



SIGNAL FACES



PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
30 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 200 FEET SOUTH OF UNIVERSITY AVE NORTHBOUND STOP LINE
NO RAILROAD TRACKS
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'
1ST TEE		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
30 MPH	NONE	60'

NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 33	80

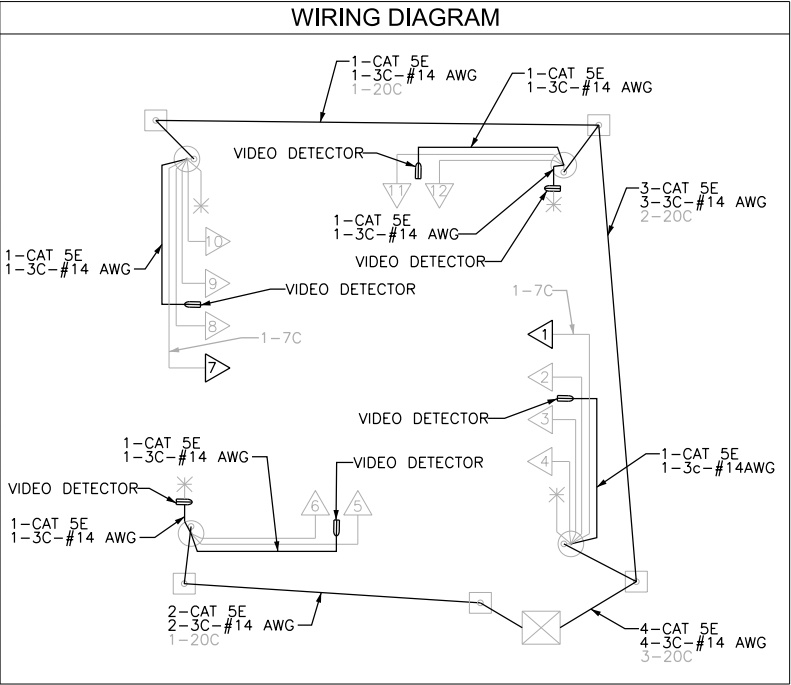
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		34	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT FIRST TEE WAY				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /1ST TEE				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	LOCAL		MASTER SYSTEM DETECTION NUMBERS		
							PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V1	23"
V2A	SB THRU LANES	COMB.	2		6	V10	2	2		CAMERA V3	23"
V2B	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V3	23"
V2C	SB THRU LANES	COMB.	4		6	V10	2	2		CAMERA V3	23"
V2D	SB ADV.	LOCAL	5		5	V2(D1)	2			CAMERA V5	23"
V2E	SB ADV.	LOCAL	6		5	V2(D2)	2			CAMERA V5	23"
V2F	SB ADV.	LOCAL	7		5	V2(D3)	2			CAMERA V5	23"
V4A	WB THRU LANE	COMB.	8		14	V12	4	4		CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	9		8	V3	5			CAMERA V3	23"
V6A	NB THRU LANE	COMB.	10		4	V14	6	6		CAMERA V1	23"
V6B	NB THRU LANE	COMB.	11		4	V14	6	6		CAMERA V1	23"
V6C	NB THRU LANE	COMB.	12		4	V14	6	6		CAMERA V1	23"
V6D	NB ADV.	LOCAL	13		3	V6(D4)	6			CAMERA V6	23"
V6E	NB ADV.	LOCAL	14		3	V6(D5)	6			CAMERA V6	23"
V6F	NB ADV.	LOCAL	15		3	V6(D6)	6			CAMERA V6	23"
V8A	EB THRU LANE	COMB.	16		12	V16	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 1, 7, 9 - 11, 13, 15 - 16



UNIVERSITY AVE AND FIRST TEE WAY											
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION										FLASH SEQ.
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	4 & 8	CLR	
1	G <-	*	G <-	*	FY <-	***	FY <-	***	R <-	R <-	R <-
2, 3 & 4	R	R	G	**	R	R	G	**	R	R	R
5 & 6	R	R	R	R	R	R	R	R	G	**	R
7	G <-	*	FY <-	***	G <-	*	FY <-	***	R <-	R <-	R <-
8, 9 & 10	R	R	R	R	G	**	G	**	R	R	R
11 & 12	R	R	R	R	R	R	R	R	G	**	R
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE											
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE											
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE											

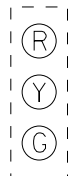


CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 34 80

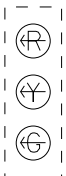
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		35	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT SAGE GRASS				



SIGNAL FACES

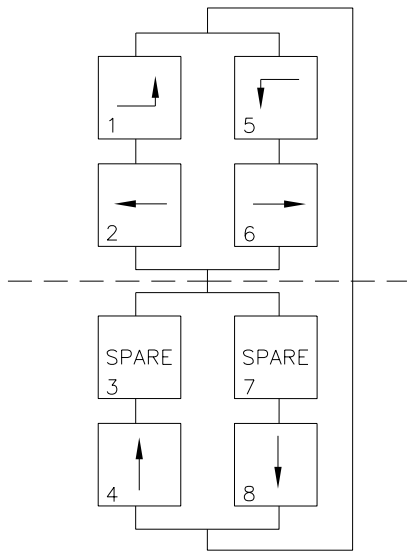


EXISTING
SIGNAL HEADS
2, 3, 4, 5,
6, 7, 9, 10



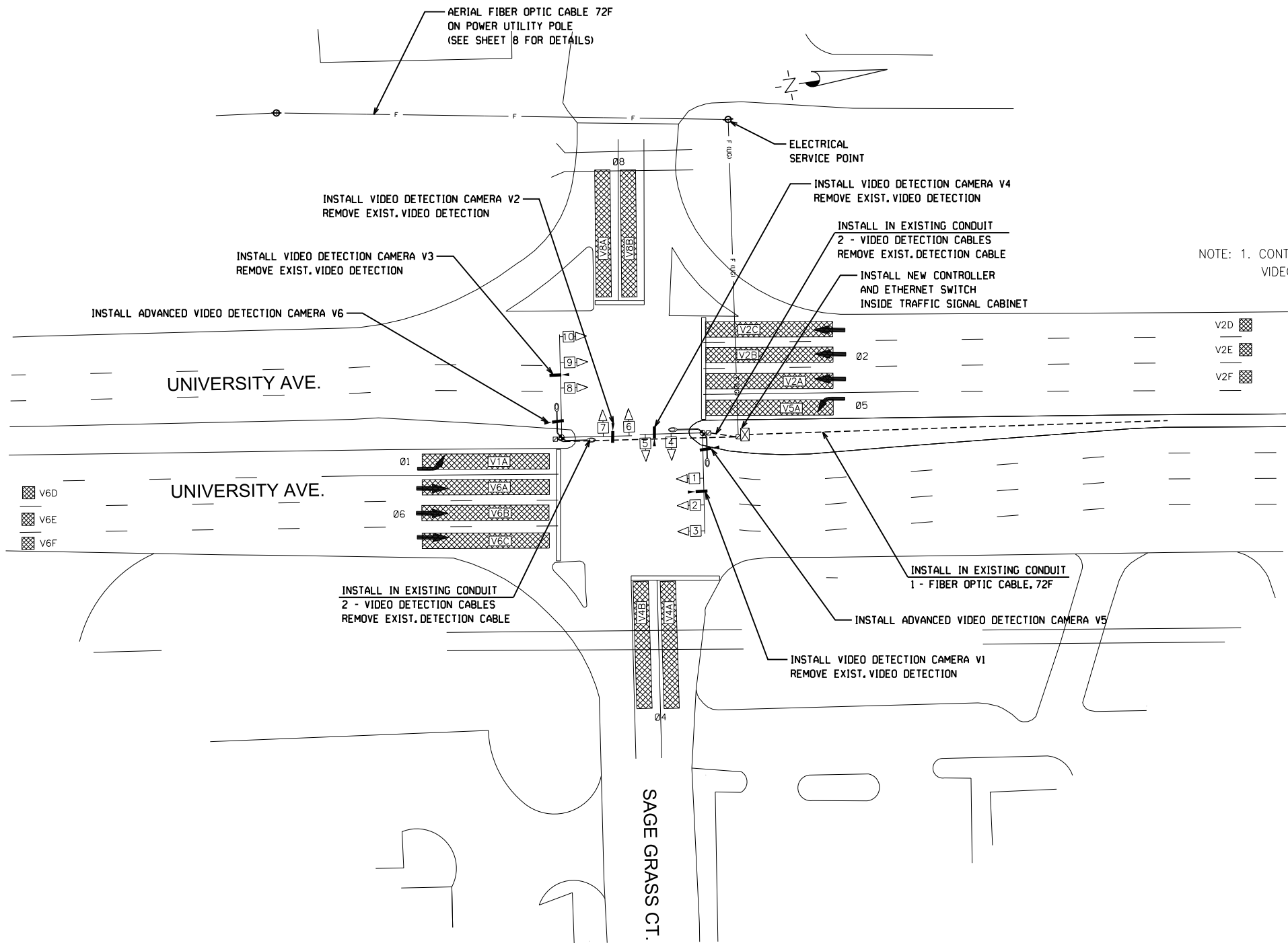
EXISTING
SIGNAL HEADS
1, 8

PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
30 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 250 FEET NORTH OF
UNIVERSITY AVE SOUTHBOUND STOP LINE
NO RAILROAD TRACKS
WIRELESS INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
45 MPH	260'	60'
SAGE GRASS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
30 MPH	NONE	60'



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY	CHECKED BY	
			TJC	MKC	
			APPROVED BY		
			XXX		
				SHEET	35 80

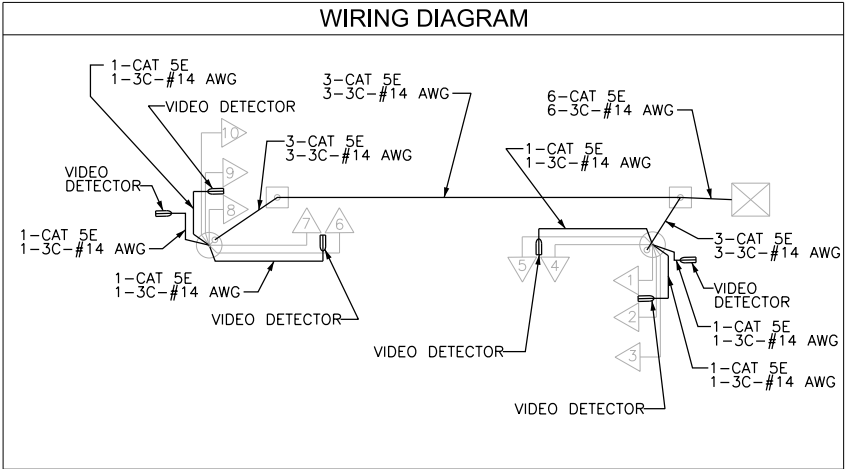
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		36	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT SAGE GRASS				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /SAGE GRASS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS		COMMENTS	TUBE LENGTHS	
							LOCAL				MASTER SYSTEM DETECTION NUMBERS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V1	23"
V2A	SB THRU LANES	COMB.	2		5	V10	2	2		CAMERA V3	23"
V2B	SB THRU LANES	COMB.	3		5	V10	2	2		CAMERA V3	23"
V2C	SB THRU LANES	COMB.	4		5	V10	2	2		CAMERA V3	23"
V2D	SB ADV.	LOCAL	5		5	V2(D1)	2			CAMERA V5	23"
V2E	SB ADV.	LOCAL	6		5	V2(D2)	2			CAMERA V5	23"
V2F	SB ADV.	LOCAL	7		5	V2(D3)	2			CAMERA V5	23"
V4A	WB THRU LANE	COMB.	8		14	V12	4	4		CAMERA V4	23"
V4B	WB THRU LANE	COMB.	8		14	V12	4	4		CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	10		3	V5	5			CAMERA V3	23"
V6A	NB THRU LANE	COMB.	11		4	V14	6	6		CAMERA V1	23"
V6B	NB THRU LANE	COMB.	12		4	V14	6	6		CAMERA V1	23"
V6C	NB THRU LANE	COMB.	13		4	V14	6	6		CAMERA V1	23"
V6D	NB ADV.	LOCAL	14		3	V6(D4)	6			CAMERA V6	23"
V6E	NB ADV.	LOCAL	15		3	V6(D5)	6			CAMERA V6	23"
V6F	NB ADV.	LOCAL	16		3	V6(D6)	6			CAMERA V6	23"
V8A	EB THRU LANE	COMB.	17		12	V16	8			CAMERA V2	23"
V8B	EB THRU LANE	COMB.	18		12	V16	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 1, 7, 9 - 11, 13, 15 - 16



UNIVERSITY AVE AND SAGE GRASS											
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION										FLASH SEQ.
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	4 & 8	CLR	
1	G <-	*	G <-	*	R <-	R <-	R <-	R <-	R <-	R <-	R <-
2 & 3	R	R	G	**	R	R	G	**	R	R	R
4 & 5	R	R	R	R	R	R	R	R	G	**	R
6 & 7	R	R	R	R	R	R	R	R	G	**	R
8	G <-	*	R <-	R <-	G	*	R <-	R <-	R <-	R <-	R <-
9 & 10	R	R	R	R	G	**	G	**	R	R	R
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE											
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE											
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE											

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET 36 / 80					

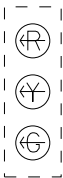
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		37	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT ASHER AVE./COL. GLENN RD.				



SIGNAL FACES

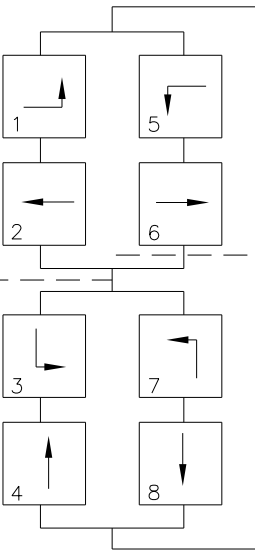


EXISTING
SIGNAL HEADS
3, 4, 7, 8, 10,
11, 14, 15



EXISTING
SIGNAL HEADS
1, 2, 5, 6, 9,
12, 13

PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACH
40 MPH EAST AND WEST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOCP
45 MPH	260'	60'
ASHER AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOCP
40 MPH	230'	60'



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 37 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		38	80
				JOB NO.		061468		

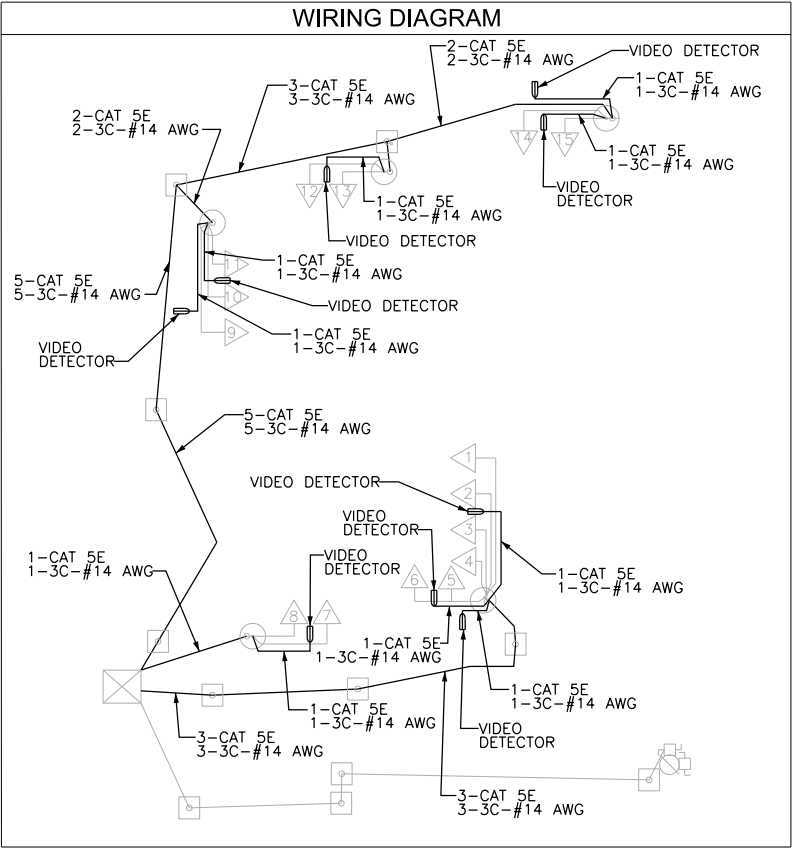
UNIVERSITY AVE. AT ASHER AVE./COL. GLENN RD.



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /ASHER				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS		MASTER SYSTEM DETECTION NUMBERS	COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V1	23"
V1B	NB LEFT TURN	LOCAL	2		2	V1	1			CAMERA V1	23"
V2A	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V4	23"
V2B	SB THRU LANES	COMB.	4		6	V10	2	2		CAMERA V4	23"
V2C	SB THRU LANES	COMB.	5		6	V10	2	2		CAMERA V4	23"
V3A	EB LEFT TURN	LOCAL	6		10	V3	3			CAMERA V2	23"
V3B	EB LEFT TURN	LOCAL	7		10	V3	3			CAMERA V2	23"
V4A	WB THRU LANE	COMB.	8		14	V12	4	4		CAMERA V6	23"
V4B	WB THRU LANE	COMB.	9		14	V12	4	4		CAMERA V6	23"
V4C	WB ADV.	LOCAL	10		13	V3(D7)	4			CAMERA V7	23"
V4D	WB ADV.	LOCAL	11		13	V3(D8)	4			CAMERA V7	23"
V5A	SB LEFT TURN	LOCAL	12		8	V5	5			CAMERA V4	23"
V6A	NB THRU LANE	COMB.	13		4	V14	6	6		CAMERA V1	23"
V6B	NB THRU LANE	COMB.	14		4	V14	6	6		CAMERA V1	23"
V6C	NB ADV.	LOCAL	15		3	V6(D3)	6			CAMERA V8	23"
V6D	NB ADV.	LOCAL	16		3	V6(D4)	6			CAMERA V8	23"
V7A	WB LEFT TURN	LOCAL	17		16	V7	7			CAMERA V5	23"
V7B	WB LEFT TURN	LOCAL	18		16	V7	7			CAMERA V5	23"
V8A	EB THRU LANE	COMB.	19		12	V16	8	8		CAMERA V3	23"
V8B	EB THRU LANE	COMB.	20		12	V16	8	8		CAMERA V3	23"
V8C	EB ADV.	LOCAL	21		11	V8(D5)	8			CAMERA V9	23"
V8D	EB ADV.	LOCAL	22		11	V8(D6)	8			CAMERA V9	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 1, 5, 7, 9, 15



UNIVERSITY AVE AND ASHER																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ.	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR		
1 & 2	G <-	*	G <-	*	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	
3 & 4	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R	R	R	
5 & 6	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	G <-	*	G <-	*	R <-	R <-	R <-	R <-	R <-	
7 & 8	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R	
9	G <-	*	R <-	R <-	G <-	*	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	
10 & 11	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R	
12 & 13	R <-	R <-	R <-	R <-	R <-	R <-	R <-	R <-	G <-	*	R <-	R <-	G <-	*	R <-	R <-	R <-	
14 & 15	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**	R	
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE																	
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

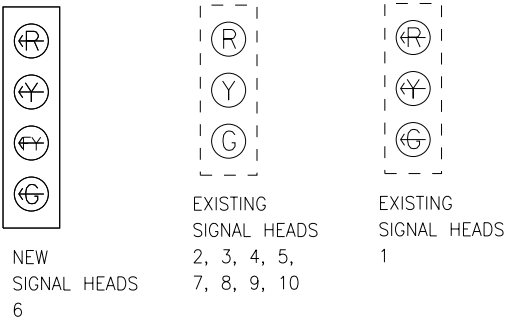
						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX								
				SHEET	38						
					80						

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		39	80
				JOB NO.		061468		

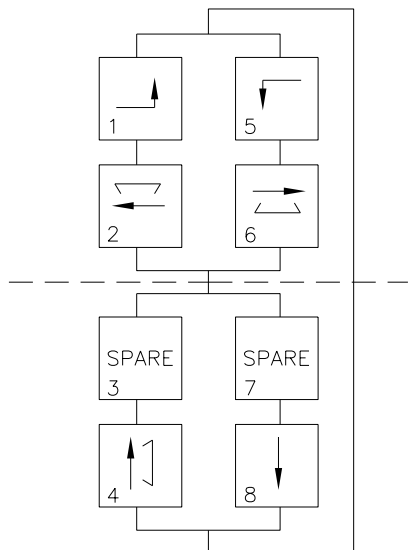
UNIVERSITY AVE. AT UNIVERSITY DR./TOWN AND COUNTRY



SIGNAL FACES

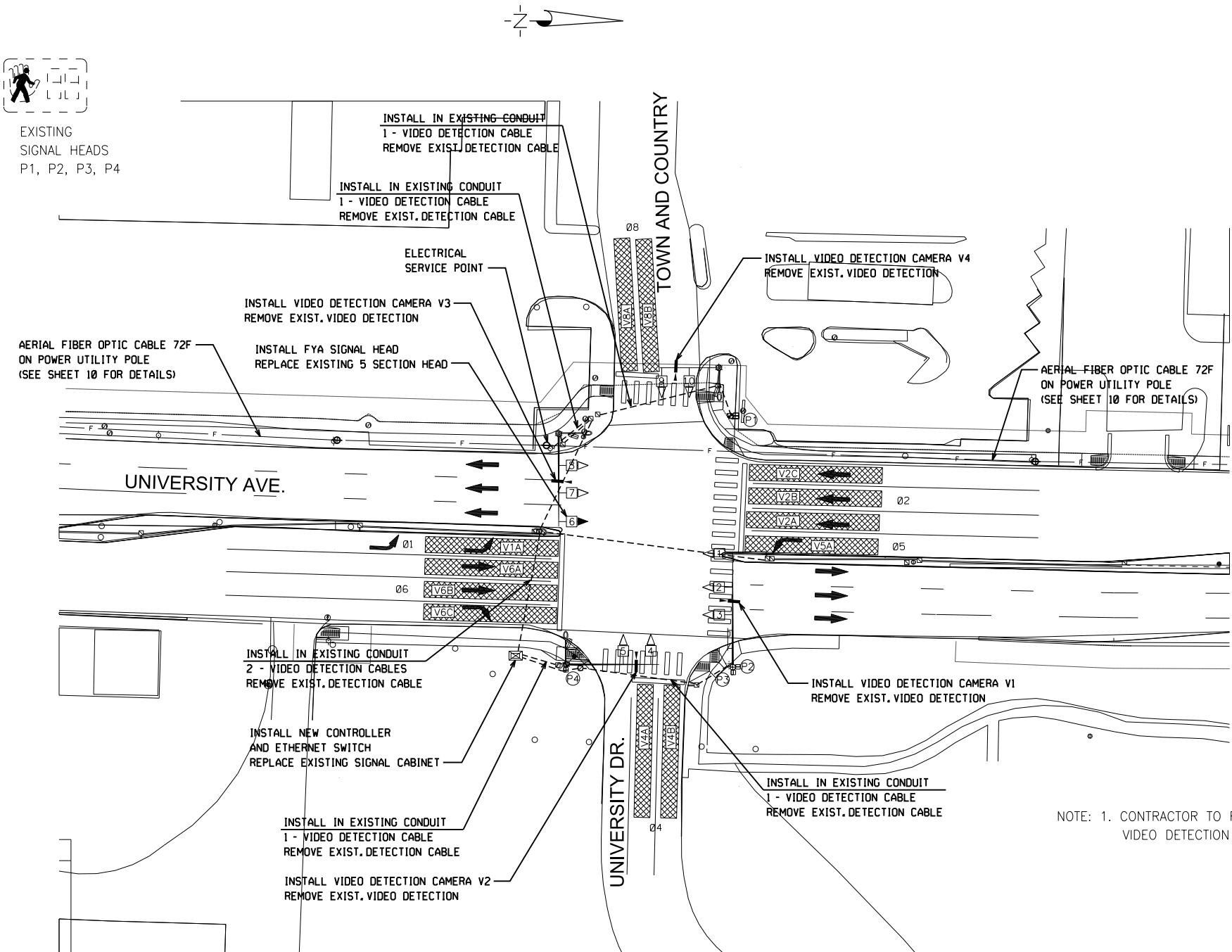


PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.

POSTED SPEED LIMIT:
25 MPH NORTH AND SOUTH APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'
UALR		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
10 MPH	NONE	60'



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 39 80

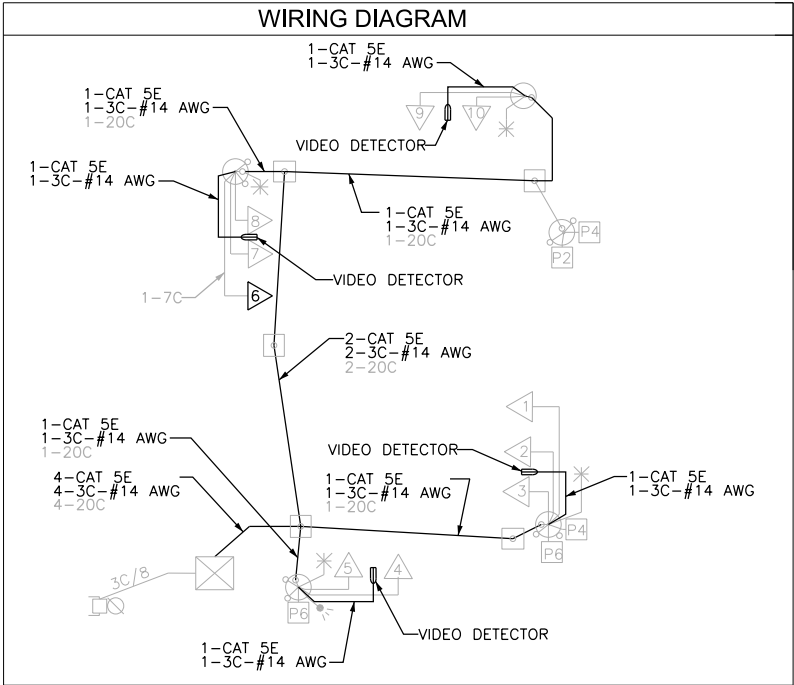
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				67	ARK.		40	80
				JOB NO.		061468		

UNIVERSITY AVE. AT UNIVERSITY DR./TOWN AND COUNTRY



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /UALR				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V4A	W/B THRU LANE	LOCAL	5			V5	4			CAMERA V4	23"
V4B	W/B THRU LANE	LOCAL	6			V6	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	7			V7	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"
V6C	NB THRU LANE	LOCAL	10			V10	6			CAMERA V1	23"
V8A	EB THRU LANE	LOCAL	11			V11	8			CAMERA V2	23"
V8B	EB THRU LANE	LOCAL	12			V12	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



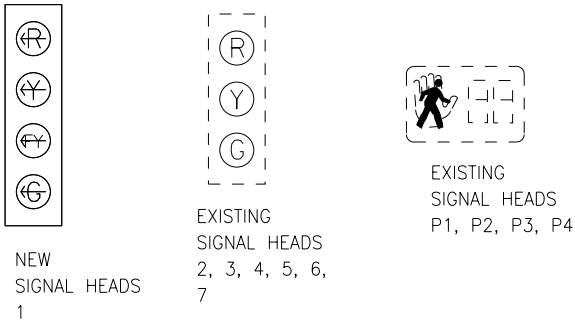
UNIVERSITY AVE AND UNIVERSITY DR. / TOWN AND COUNTRY																	
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ.
	1&5	CLR	1&G	CLR	2&5	CLR	2&G	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR	
1	G <-	*	G <-	*	FY <-	***	FY <-	***							R	R	R
2	R	R	G	**	R	R	G	**							R	R	R
3	R	R	G	**	R	R	G	**							R	R	R
4	R	R	R	R	R	R	R	R							G	**	R
5	R	R	R	R	R	R	R	R							G	**	R
6	G <-	*	R	R	G <-	*	R	R							R	R	R
7	R	R	R	R	G	**	G	**							R	R	R
8	R	R	R	R	G	**	G	**							R	R	R
9	R	R	R	R	R	R	R	R							G	**	R
10	R	R	R	R	R	R	R	R							G	**	R
P1	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW	
P2	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW	
P3	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW	
P4	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW	
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE ** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE																	
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 40 80

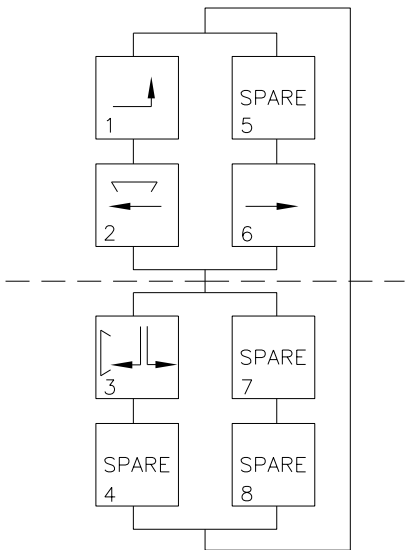
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		41	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. 32ND ST.				



SIGNAL FACES



PHASING DIAGRAM

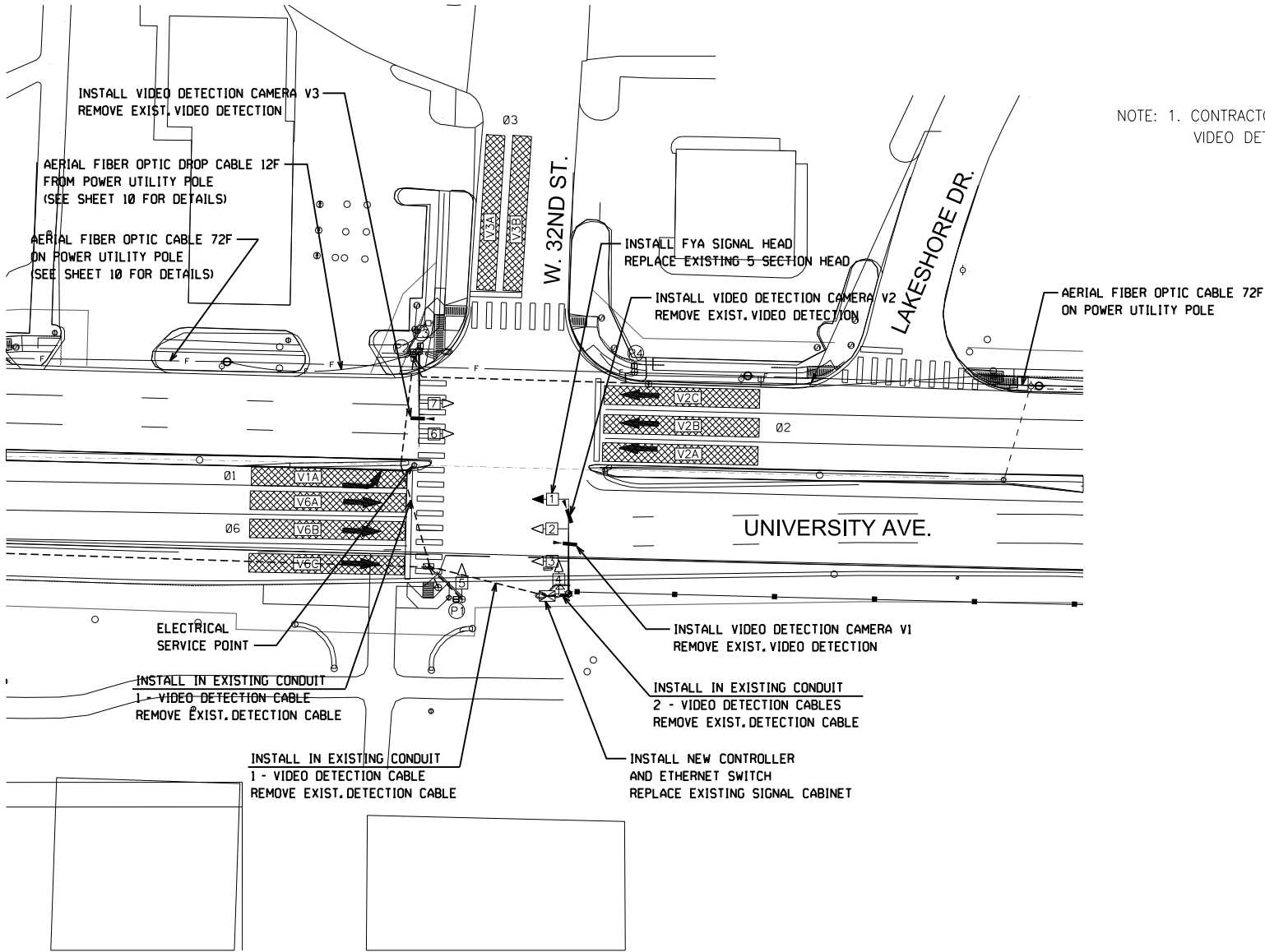


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
25 MPH NORTH AND SOUTH APPROACH
25 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 90 FEET SOUTH OF
UNIVERSITY AVE NORTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'
32ND		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

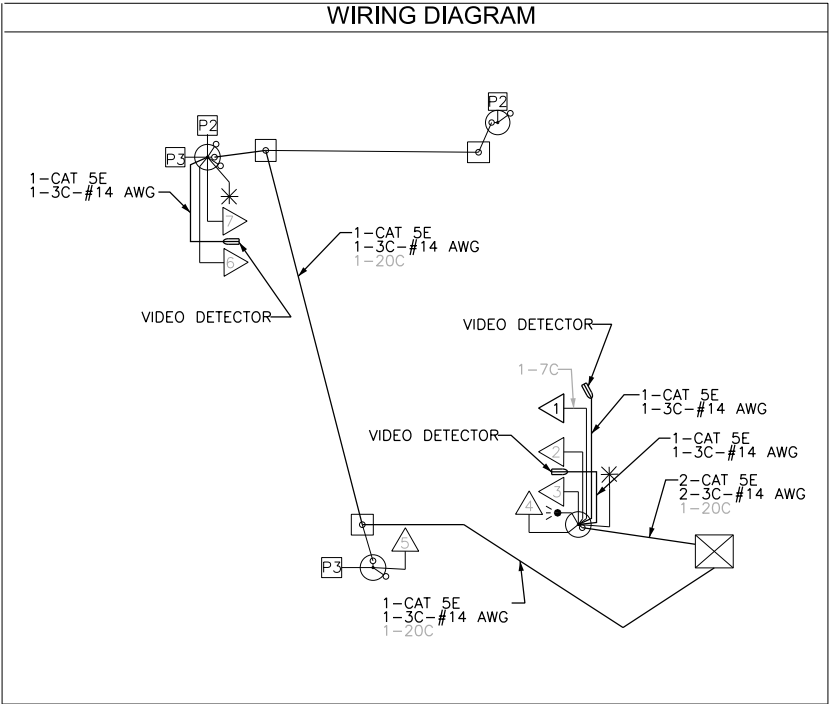
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 41 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		42	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. 32ND ST.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /32ND ST.				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CA3 TRM#	AMP CHN#	CON. INP#	LOCAL		MASTER SYSTEM DETECTION NUMBERS		
							PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V3A	EB THRU LANE	LOCAL	5			V5	3			CAMERA V2	23"
V3B	EB THRU LANE	LOCAL	6			V6	3			CAMERA V2	23"
V6A	NB THRU LANE	LOCAL	7			V7	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6C	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



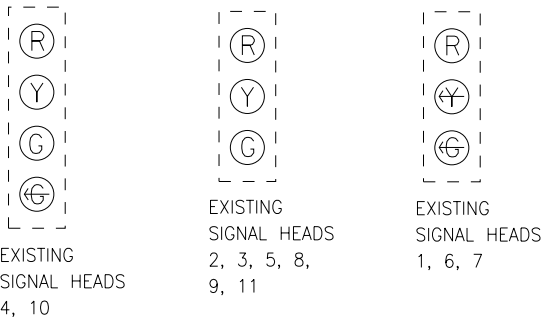
UNIVERSITY AVE AND 32ND ST																	
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR	
1			G <-	*	FY<-	***	FY<-	***							R	R	R
2			G	**	R	R	G	**							R	R	R
3			G	**	R	R	G	**							R	R	R
4			R	R	R	R	R	R							G	**	R
5			R	R	R	R	R	R							G	**	R
6			R	R	G	**	G	**							R	R	R
7			R	R	G	**	G	**							R	R	R
P1			DW	DW	DW	DW	DW	DW							W	FDW	
P2			DW	DW	DW	DW	DW	DW							W	FDW	
P3			DW	DW	W	FDW	W	FDW							DW	DW	
P4			DW	DW	W	FDW	W	FDW							DW	DW	
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE								** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE								
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET	42	80			

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		43	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. 28TH ST.				



SIGNAL FACES

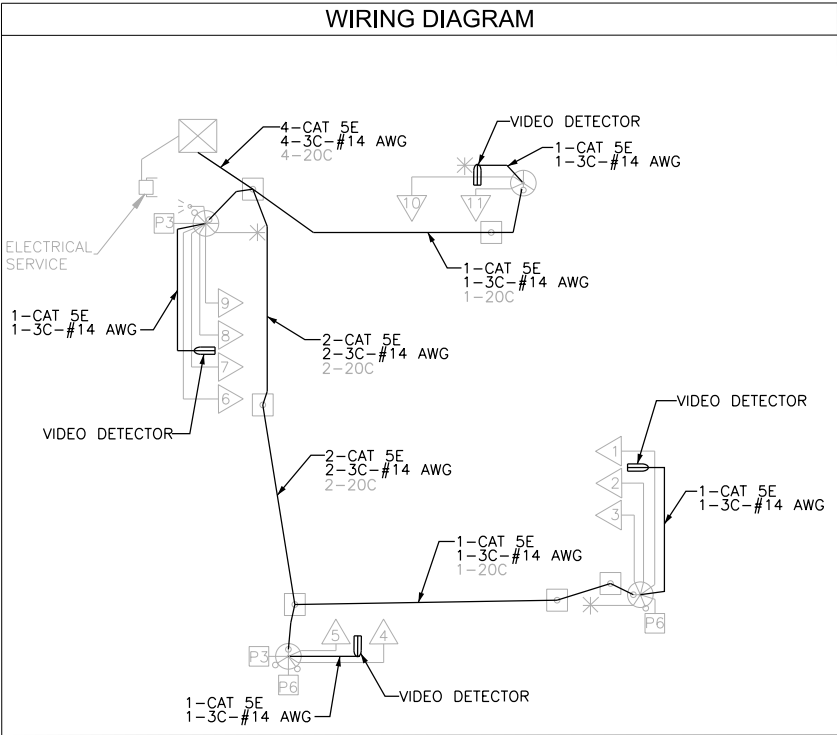


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		44	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. 28TH ST.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /BROADMOOR				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
				CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
DET. ID#	LOCATION DIRECTION	TYPE	DET.								
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V4A	WB THRU LANE	LOCAL	5			V5	4			CAMERA V4	23"
V4B	WB RIGHT TURN	LOCAL	5			V6	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	6			V7	5			CAMERA V3	23"
V5B	SB LEFT TURN	LOCAL	7			V8	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	8			V9	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V10	6			CAMERA V1	23"
V6C	NB THRU LANE	LOCAL	10			V11	6			CAMERA V1	23"
V8A	EB THRU LANE	LOCAL	11			V12	8			CAMERA V2	23"
V8B	EB THRU LANE	LOCAL	12			V13	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



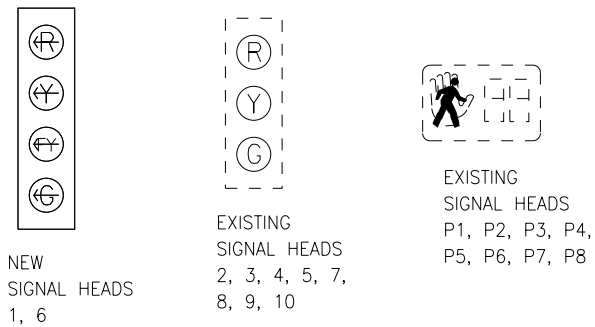
UNIVERSITY AVE AND 28TH ST																	
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8		
1	G <-	*	G <-	*	R	R	R	R							R	R	R
2	R	R	G	**	R	R	G	**							R	R	R
3	R	R	G	**	R	R	G	**							R	R	R
4	R	R	R	R	R	R	R	R							G	*/**	R
5	R	R	R	R	R	R	R	R							G	**	R
6	G <-	*	R	R	R	R	R	R							R	R	R
7	G <-	*	R	R	R	R	R	R							R	R	R
8	R	R	R	R	G	**	G	**							R	R	R
9	R	R	R	R	G	**	G	**							R	R	R
10	R	R	R	R	R	R	R	R							G	*/**	R
11	R	R	R	R	R	R	R	R							G	*/**	R
P1	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW	
P2	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW	
P3	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW	
P4	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW	
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE																
**	DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE																
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET	44 80				

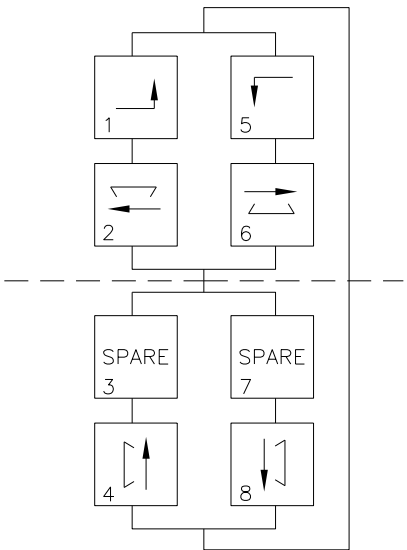
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		45	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT BERKSHIRE DR.				



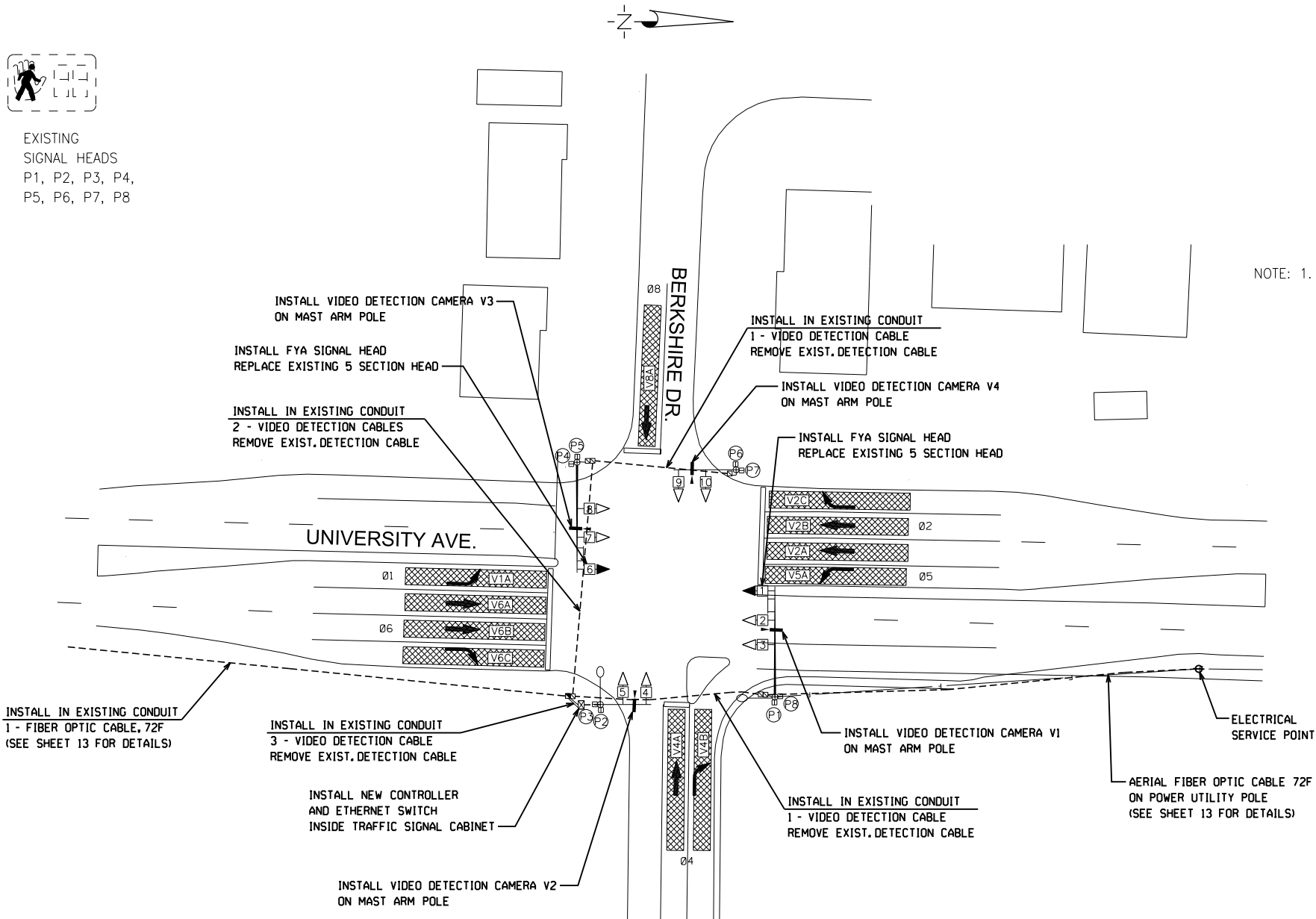
SIGNAL FACES



PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	JUNCTION BOX
	CONDUIT
	AERIAL FIBER OPTIC CABLE
	MAST ARM AND POLE
	PROPOSED FYA SIGNAL HEAD
	EXISTING SIGNAL HEAD
	COBRA HEAD STREET LIGHT
	TRAFFIC SIGN
	VIDEO DETECTOR
	VIDEO DETECTION ZONE



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE
VIDEO DETECTION EQUIPMENT.

POSTED SPEED LIMIT:
25 MPH NORTH AND SOUTH APPROACH
25 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 120 FEET SOUTH OF
UNIVERSITY AVE SOUTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'



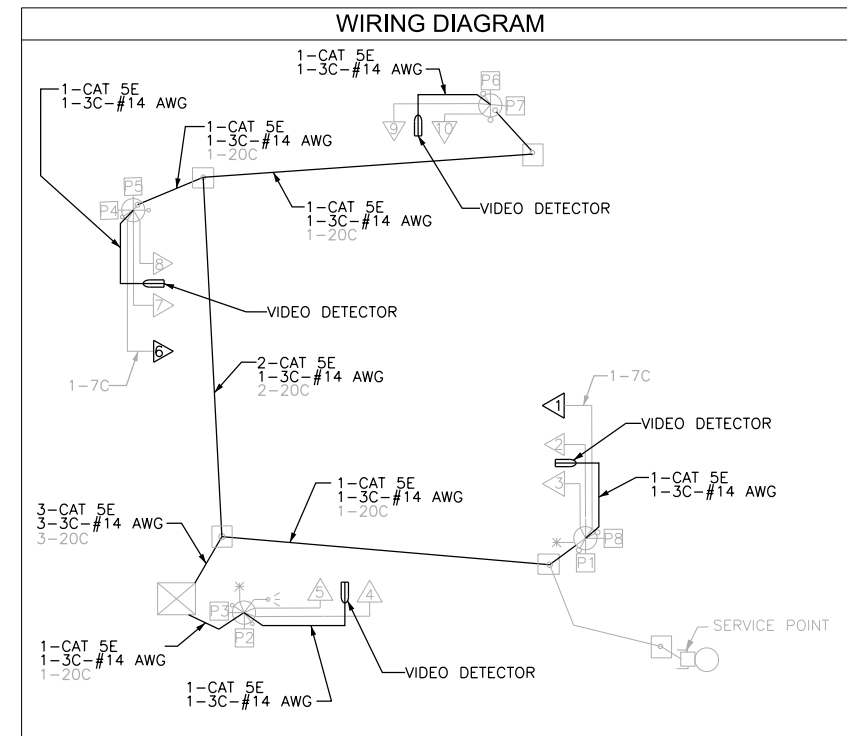
CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 45	80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		46	80
				JOB NO.		061468		
UNIVERSITY AVE. AT BERKSHIRE DR.								

DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /BERKSHIRE				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTION NUMBERS		
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DFT.			
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V4A	WB THRU LANE	LOCAL	5			V5	4			CAMERA V4	23"
V4B	WB RIGHT TURN	LOCAL	6			V6	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	7			V7	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"
V6C	NB THRU LANE	LOCAL	10			V10	6			CAMERA V1	23"
V8A	EB THRU LANE	LOCAL	11			V11	8			CAMERA V2	23"





CITY OF LITTLE ROCK

DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING DIVISION

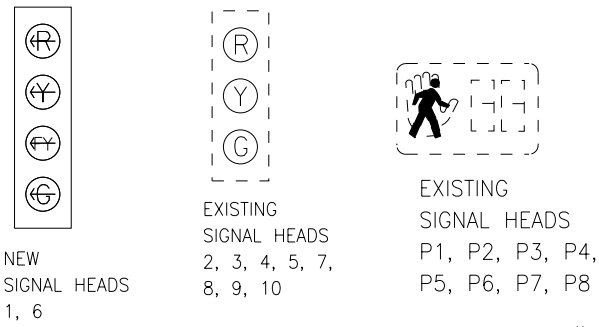
ADAPTIVE SIGNAL CONTROL

INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 46 80	

ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE N.T.S.	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET	$\frac{46}{80}$

SIGNAL FACES

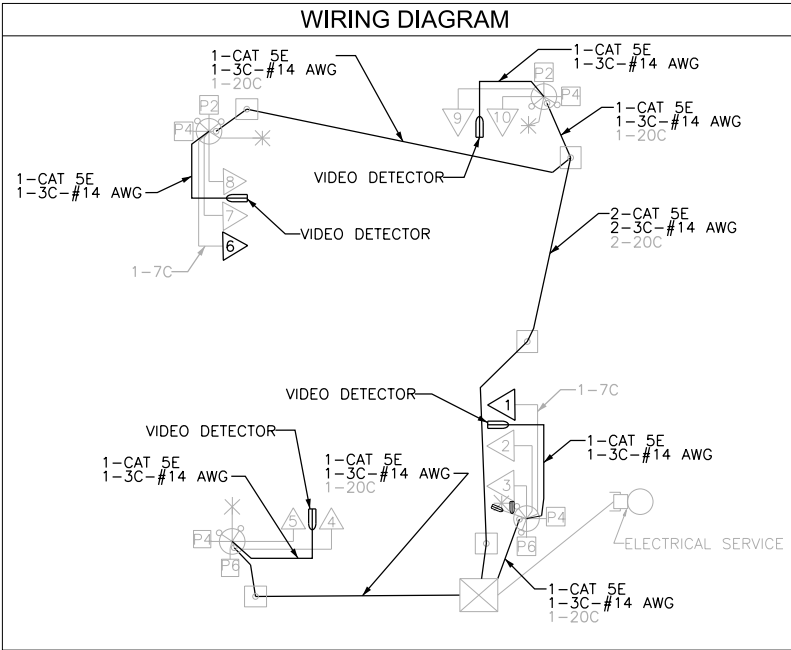


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		48	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT 19TH ST.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /19TH ST.				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS		MASTER SYSTEM DETECT ON NUMBERS	COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V4A	WB THRU LANE	LOCAL	5			V5	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	6			V6	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	7			V7	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6C	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"
V8A	EB THRU LANE	LOCAL	10			V10	8			CAMERA V2	23"
V8B	EB THRU LANE	LOCAL	11			V11	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



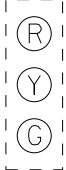
UNIVERSITY AVE AND 19TH ST																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR		
1	G <-	*	G <-	*	FY<-	***	FY<-	***							R	R	R	
2	R	R	G	**	R	R	G	**							R	R	R	
3	R	R	G	**	R	R	G	**							R	R	R	
4	R	R	R	R	R	R	R	R							G	**	R	
5	R	R	R	R	R	R	R	R							G	**	R	
6	G <-	*	FY<-	***	G <-	*	FY<-	***							R	R	R	
7	R	R	R	R	R	**	G	**							R	R	R	
8	R	R	R	R	G	**	G	**							R	R	R	
9	R	R	R	R	R	R	R	R							G	**	R	
10	R	R	R	R	R	R	R	R							G	**	R	
P1	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW		
P2	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW		
P3	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P4	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P5	DW	DW	DW	DW	W	FDW	W	FDW							DW	DW		
P6	DW	DW	DW	DW	W	FDW	W	FDW							DW	DW		
P7	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P8	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE								** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE									
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
DRAWN BY			CHECKED BY								
TJC			MKC								
APPROVED BY			SHEET								
XXX			48								
			80								

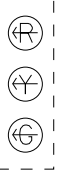
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		49	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. 12TH ST.				



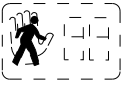
SIGNAL FACES



EXISTING
SIGNAL HEADS
2, 3, 6, 7, 9,
10, 13, 14

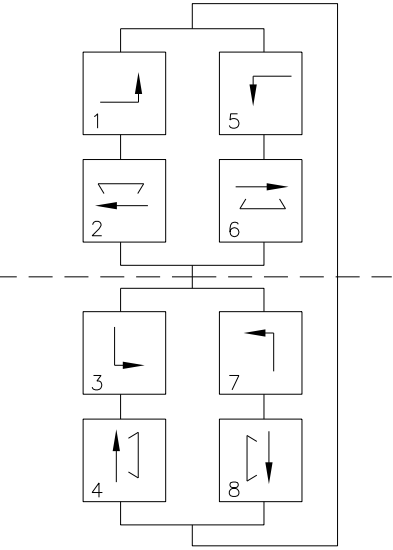


EXISTING
SIGNAL HEADS
1, 4, 5, 8, 11,
12



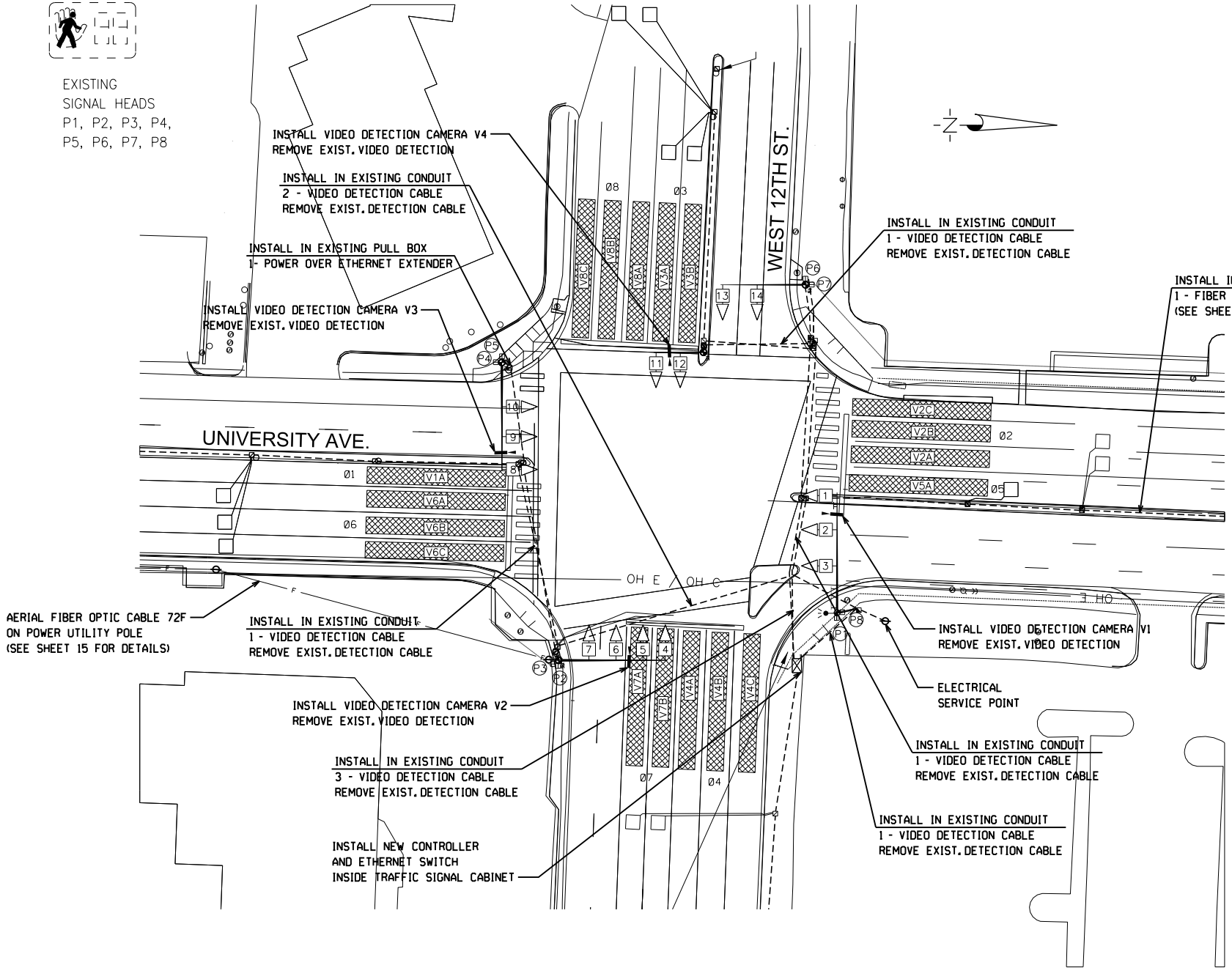
EXISTING
SIGNAL HEADS
P1, P2, P3, P4,
P5, P6, P7, P8

PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
35 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 50 FEET SOUTH OF
UNIVERSITY AVE NORTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	230'	60'
12TH ST.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
35 MPH	115'	60'



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

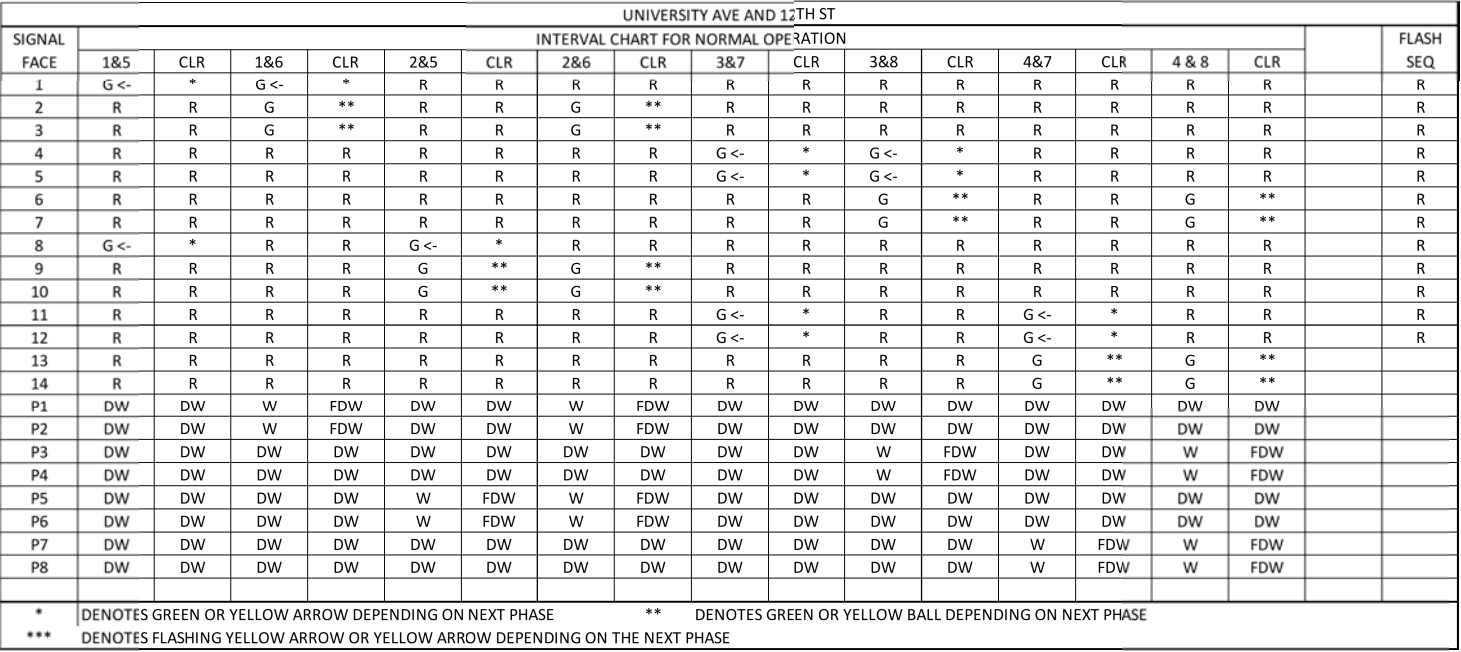
ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 49 80

STATE OF
ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
17632
MEREDITH K. CEBELAK
5/9/2018

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input

Add - Note: "Amp CHIN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



OF LITTLE ROCK
 NT OF PUBLIC WORKS
 ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET

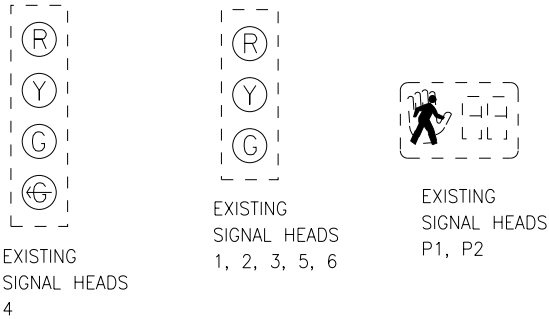
REVISION	DATE	BY	SCALE	DATE	JOB NO.	
			N.T.S.		12/14/17	
			DRAWN BY	CHECKED BY		
			TJC	MKC		
			APPROVED BY		SHEET	
			XXX		50	
					80	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		51	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-630 EB								

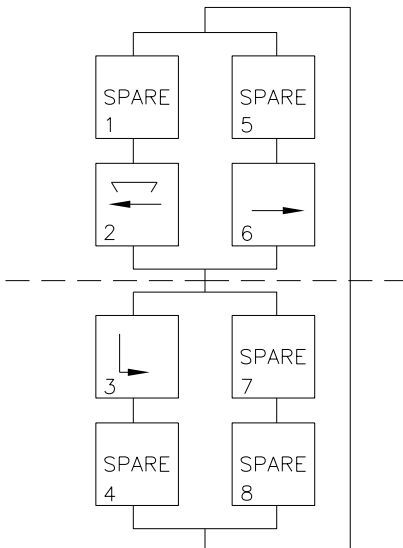


NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.

SIGNAL FACES



PHASING DIAGRAM

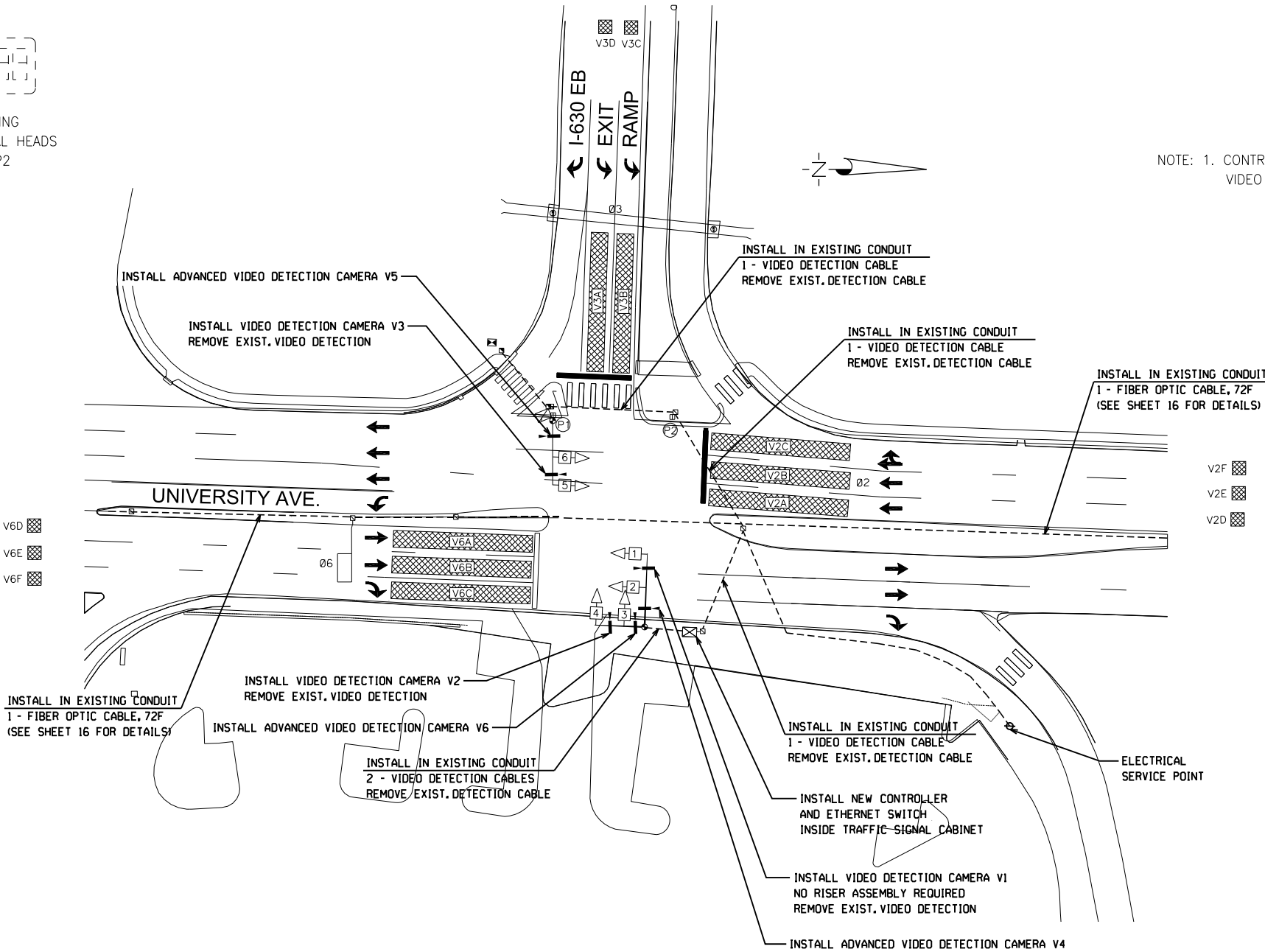


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
35 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 300 FEET SOUTH OF
UNIVERSITY AVE NORTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	230'	60'
I-630 EB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
35 MPH	115'	60'



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 51 80

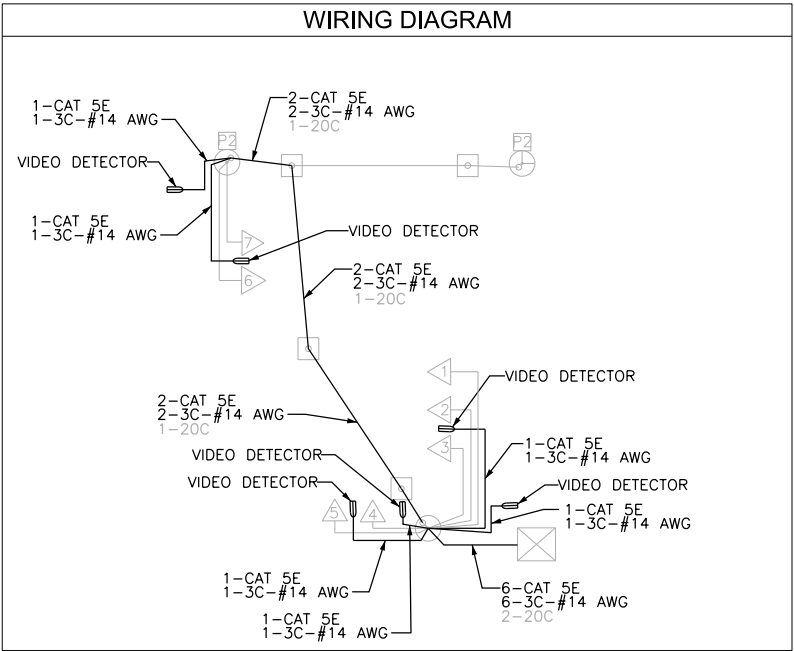
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		52	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-630 EB								



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /I-630 EB RAMP				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
V2A	SB THRU LANES	COMB.	1		6	V10	2	2		CAMERA V3	23"
V2B	SB THRU LANES	COMB.	2		6	V10	2	2		CAMERA V3	23"
V2C	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V3	23"
V2D	SB ADV.	LOCAL	4		5	V2(D1)	2			CAMERA V4	23"
V2E	SB ADV.	LOCAL	5		5	V2(D2)	2			CAMERA V4	23"
V2F	SB ADV.	LOCAL	6		5	V2(D3)	2			CAMERA V4	23"
V3A	EB LEFT TURN	LOCAL	7		10	V3	3			CAMERA V2	23"
V3B	EB LEFT TURN	LOCAL	8		10	V3	3			CAMERA V2	23"
V3C	EB ADV.	COMB.	9		9	V11(D7)	3	3		CAMERA V6	23"
V3D	EB ADV.	COMB.	10		9	V11(D8)	3	3		CAMERA V6	23"
V6A	NB THRU LANE	COMB.	11		4	V6	6	6		CAMERA V1	23"
V6B	NB THRU LANE	COMB.	12		4	V6	6	6		CAMERA V1	23"
V6C	NB THRU LANE	COMB.	13		4	V6	6	6		CAMERA V1	23"
V6D	NB ADV.	LOCAL	14		3	V14(D4)	6			CAMERA V5	23"
V6E	NB ADV.	LOCAL	15		3	V14(D5)	6			CAMERA V5	23"
V6F	NB ADV.	LOCAL	16		3	V14(D6)	6			CAMERA V5	23"
P1	West Leg	PED					P2	2			
P2	West Leg	PED					P2	2			

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 1 - 2, 7 - 8, 11 - 16



UNIVERSITY AVE AND I-630 EB					
SIGNAL	INTERVAL CHART FOR NORMAL OPERATION				FLASH SEQ
FACE	2&6	CLR	3	CLR	
1 & 2	G	**	R	R	R
3	R	R	G	**	R
4	R	R	G <-	**	R
5 & 6	G	**	R	R	R
P1	W	FDW	DW	DW	BLK
P2	W	FDW	DW	DW	BLK
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE					
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE					
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE					

 CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION						
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET						
REVISION	DATE	BY	SCALE	DATE	JOB NO.	
			N.T.S.	12/14/17		
			DRAWN BY	CHECKED BY		
			TJC	MKC		
			APPROVED BY	SHEET		
			XXX	52 80		

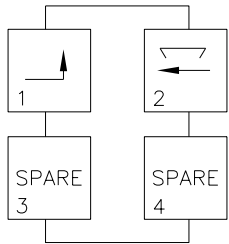
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		53	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-630 WB								



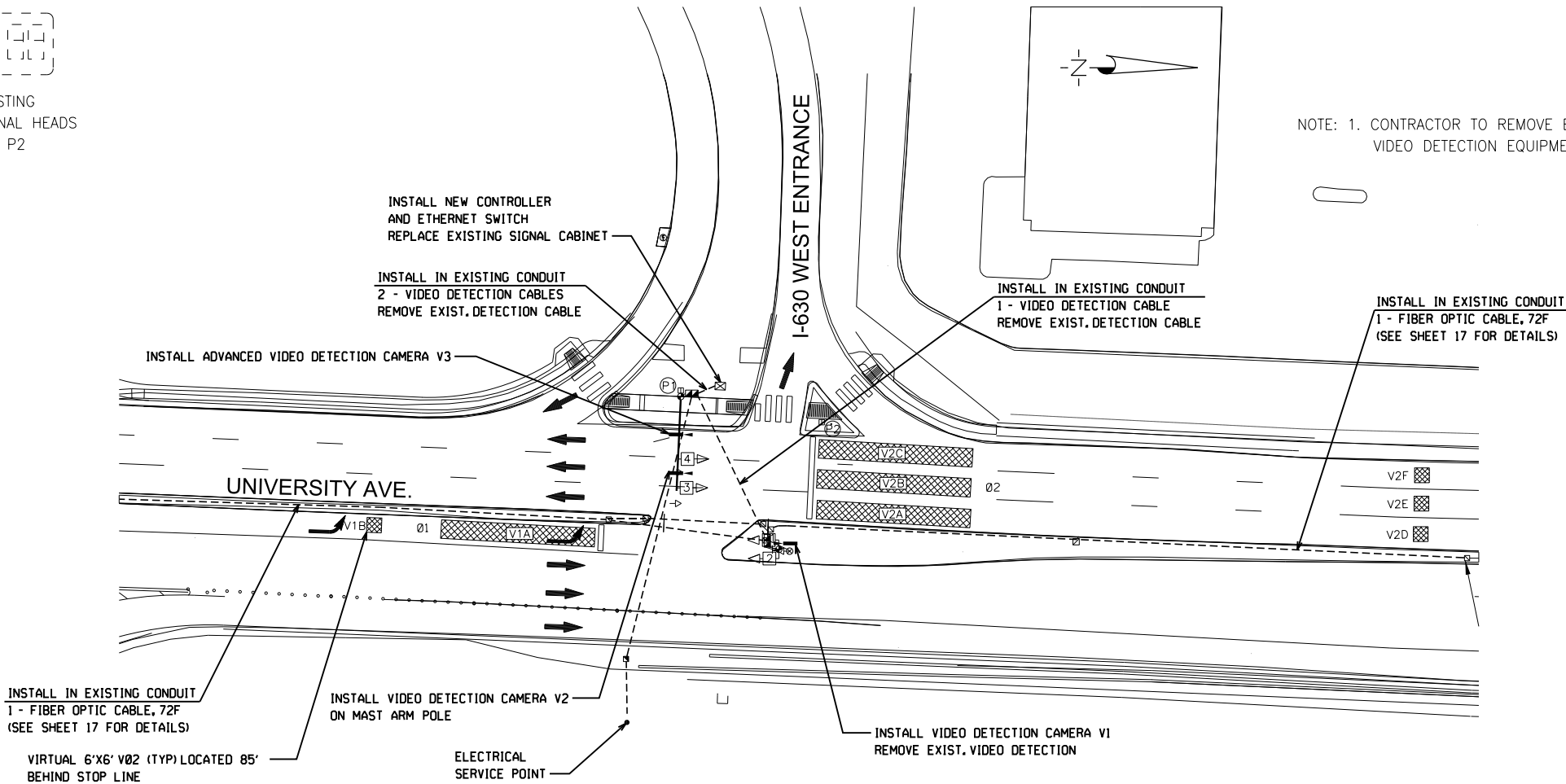
SIGNAL FACES



PHASING DIAGRAM



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
35 MPH EAST AND WEST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	230'	60'
I-630 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
35 MPH	NONE	60'





CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 53	80

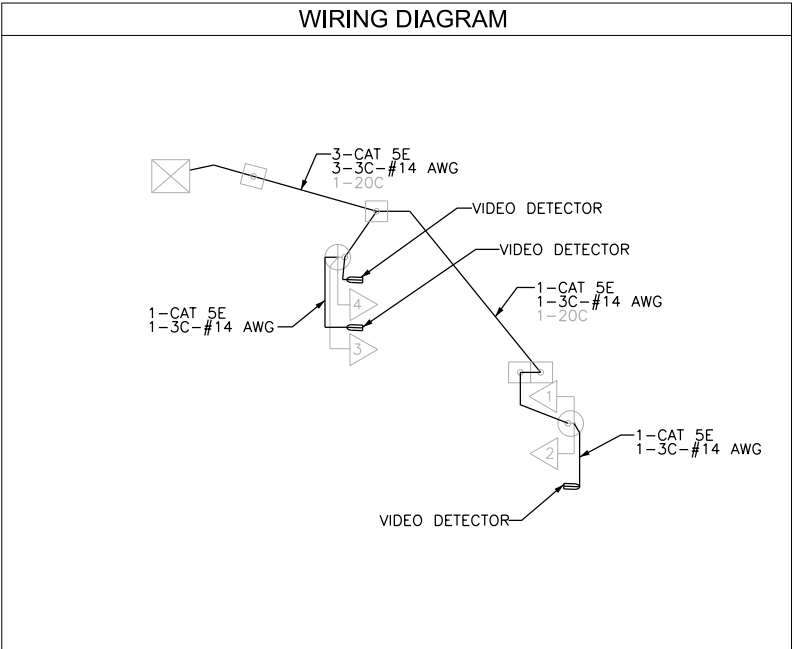
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		54	80
				JOB NO.		061468		
UNIVERSITY AVE. AT I-630 WB								



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /I-630 WB RAMP				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
V1A	NB LEFT TURN	LOCAL	1		2	V1	1			CAMERA V1	23"
V1B	NB LEFT TURN ADV.	COMB.	8		1	V9	1	1		CAMERA V1	23"
V2A	SB THRU LANES	COMB.	2		6	V10	2	2		CAMERA V2	23"
V2B	SB THRU LANES	COMB.	3		6	V10	2	2		CAMERA V2	23"
V2C	SB THRU LANES	COMB.	4		6	V10	2	2		CAMERA V2	23"
V2D	SB ADV.	LOCAL	5		5	V2	2			CAMERA V3	23"
V2E	SB ADV.	LOCAL	6		5	V2	2			CAMERA V3	23"
V2F	SB ADV.	LOCAL	7		5	V2	2			CAMERA V3	23"
P1	WEST LEG	PED				P2	2				
P2	WEST LEG	PED				P2	2				

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: 'Amp CHN#' refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.

SPARE: 3-4, 7-16



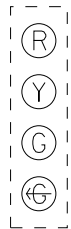
UNIVERSITY AVE AND I-630 WB					
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION				FLASH SEQ
1 & 2	1&5	CLR	2&6	CLR	R
3 & 4	R	R	G	**	R
P1	DW	DW	W	FDW	BLK
P2	DW	DW	W	FDW	BLK
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE					
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE					
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE					

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET	54 80

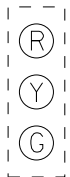
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		55	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT ST. VINCENT CIR.				



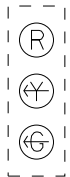
SIGNAL FACES



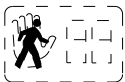
EXISTING
SIGNAL HEADS
5, 11



EXISTING
SIGNAL HEADS
3, 4, 6, 8, 9,
10



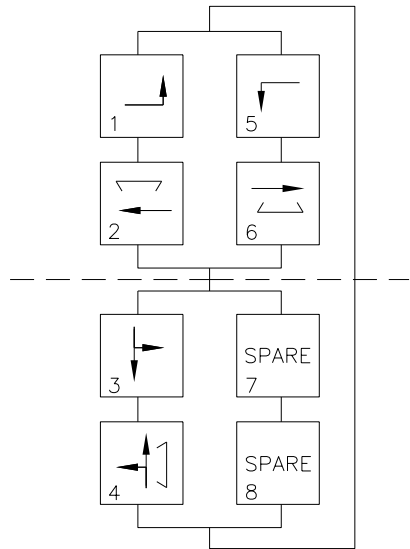
EXISTING
SIGNAL HEADS
1, 2, 7, 12



EXISTING
SIGNAL HEADS
P1, P2, P3, P4,
P5, P6, P7, P8



PHASING DIAGRAM

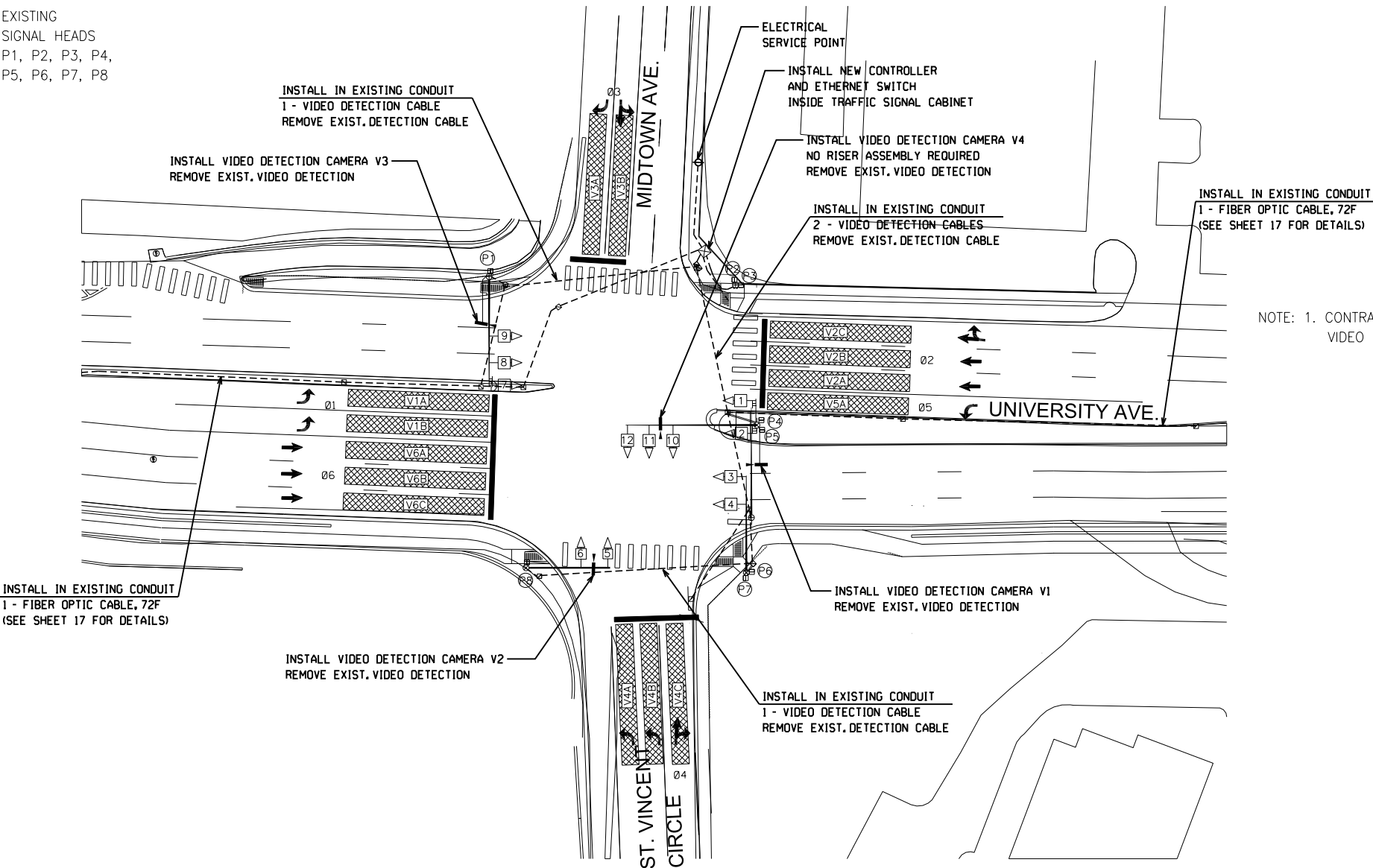


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
25 MPH EAST AND WEST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'
ST. VINCENT CIR.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.

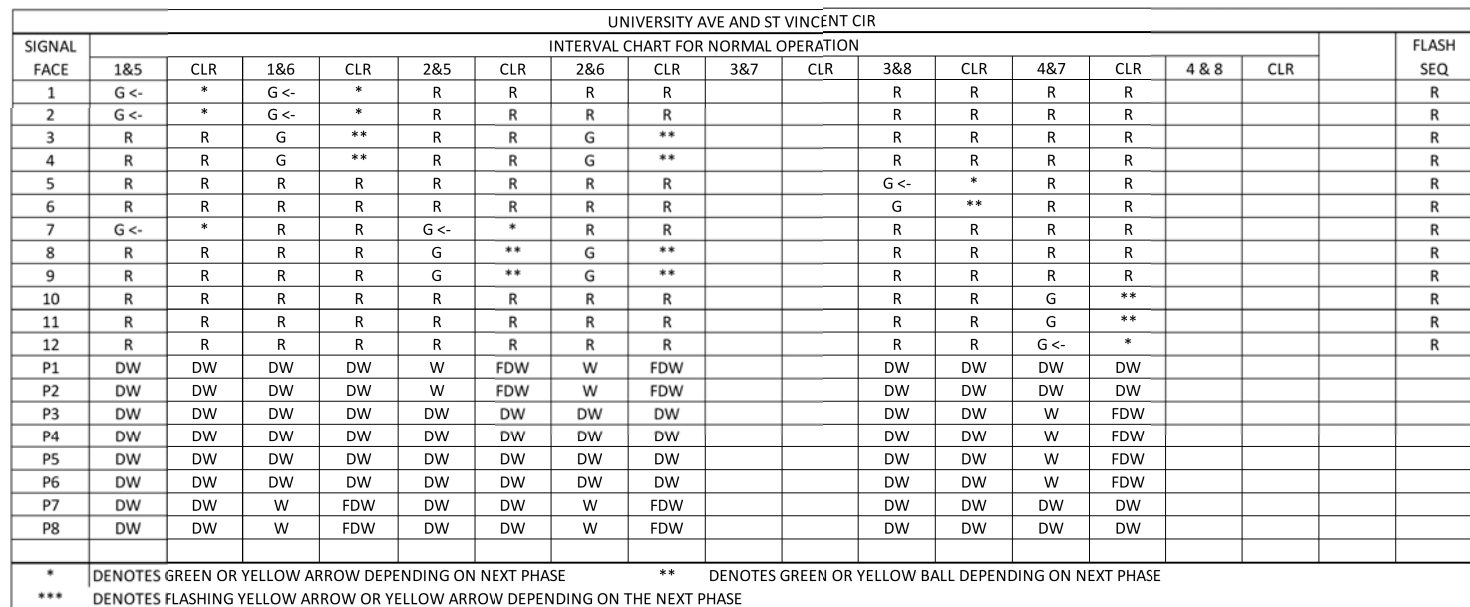


CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 55 80

STATE OF
ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
17632
MEREDITH K. CEBELAK
5/9/2018

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input

Add - Note: "Amp CHN#/" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.




 CITY OF LITTLE ROCK
 DEPARTMENT OF PUBLIC WORKS
 TRAFFIC ENGINEERING DIVISION

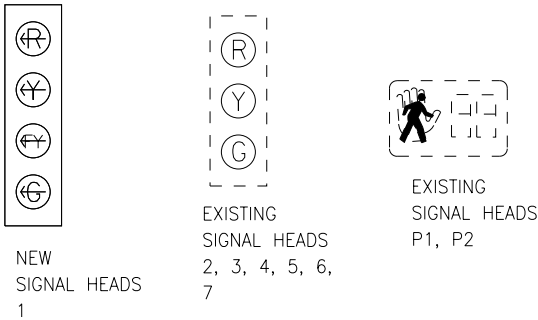
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET	56 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		57	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT UNIVERSITY MALL				

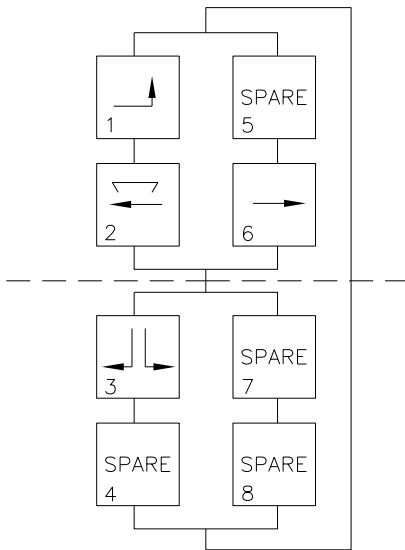


NOTE: 1. CONTRACTOR TO REMOVE EXISTING VIDEO DETECTION EQUIPMENT.

SIGNAL FACES



PHASING DIAGRAM

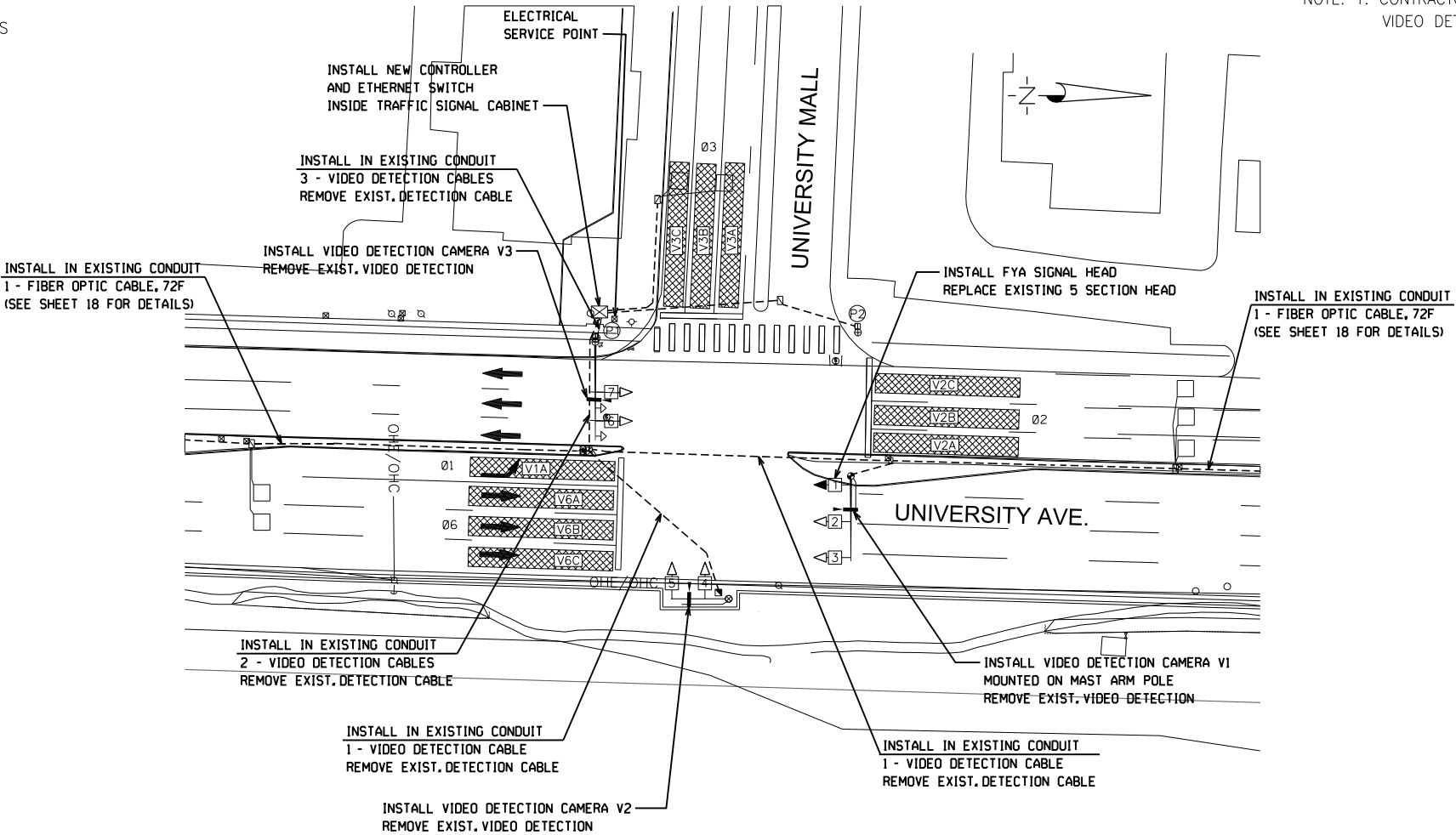


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
BUS STOPS LOCATED 250 FEET NORTH OF
UNIVERSITY AVE SOUTHBOUND STOP LINE &
250 FEET SOUTH OF UNIVERSITY AVE
NORTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'
UNIVERSITY MALL		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
10 MPH	NONE	60'



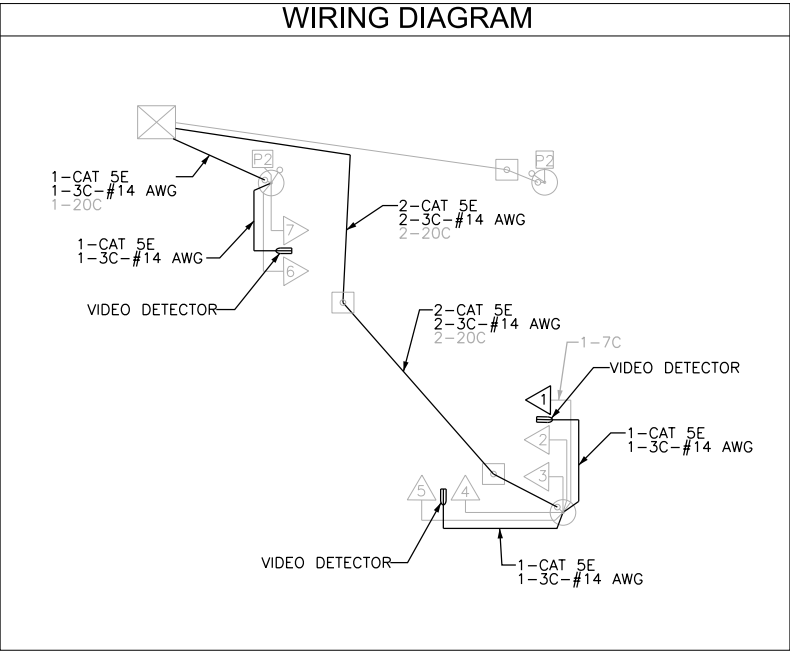
CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 57 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		58	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT UNIVERSITY MALL				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /UNIV. MALL				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
				CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V3A	EB LT TURN LANES	LOCAL	5			V5	3			CAMERA V2	23"
V3B	EB LT TURN LANES	LOCAL	6			V6	3			CAMERA V2	23"
V3C	EB RT TURN LANES	LOCAL	7			V7	3			CAMERA V2	23"
V6A	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"
V6C	NB THRU LANE	LOCAL	10			V10	6			CAMERA V1	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



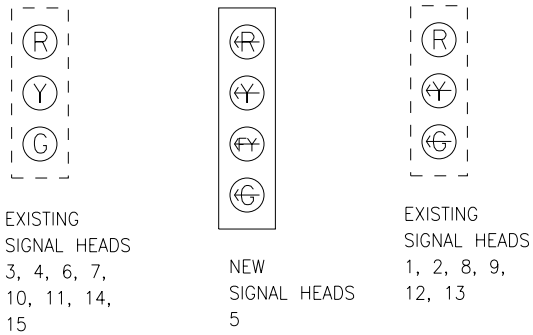
UNIVERSITY AVE AND UNIVERSITY MALL																
SIGNAL	INTERVAL CHART FOR NORMAL OPERATION															FLASH SEQ
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR
1			G <-	***			FY <-	***			R	R				R
2			G	**			G	**			R	R				R
3			G	**			G	**			R	R				R
4			R	R			R	R			G	Y				R
5			R	R			R	R			G	Y				R
6			R	R			G	**			R	R				R
7			R	R			G	**			R	R				R
P1			W	FDW			W	FDW			DW	DW				
P2			W	FDW			W	FDW			DW	DW				
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE ** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE																
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
		ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET			
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
APPROVED BY XXX			SHEET 58 80		

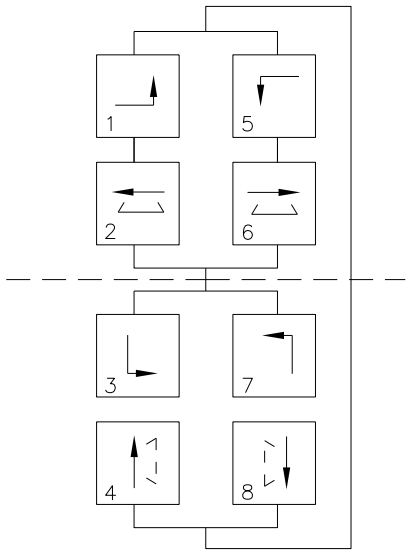
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		59	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. MARKHAM ST.				



SIGNAL FACES



PHASING DIAGRAM

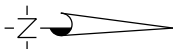


TRAFFIC SIGNAL LEGEND

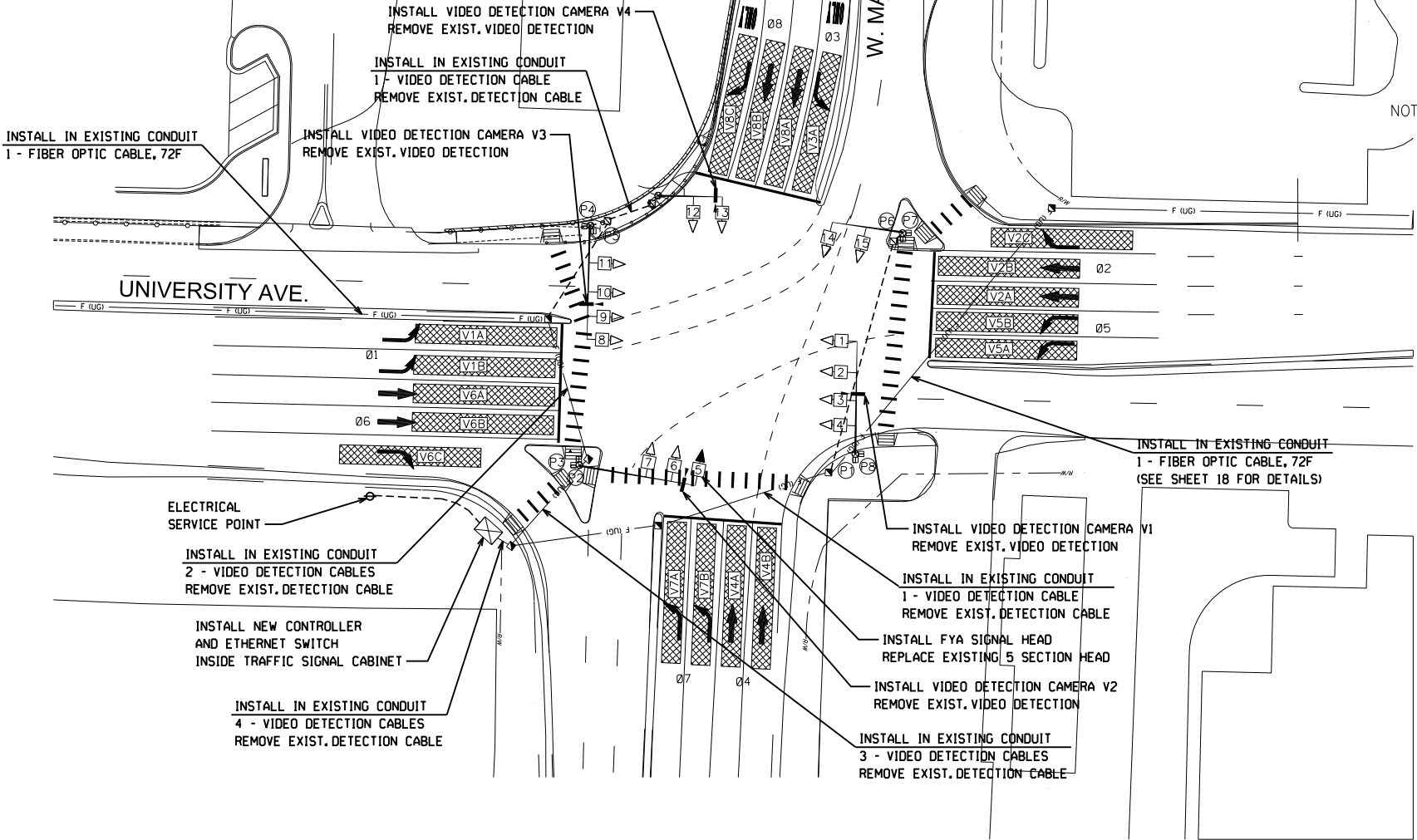
- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
40 MPH EAST AND WEST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'
W. MARKHAM ST.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'



EXISTING
SIGNAL HEADS
P1, P2, P3, P4,
P5, P6, P7, P8



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.
2. EXISTING INSYNC EQUIPMENT TO BE RETURNED TO THE CITY



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

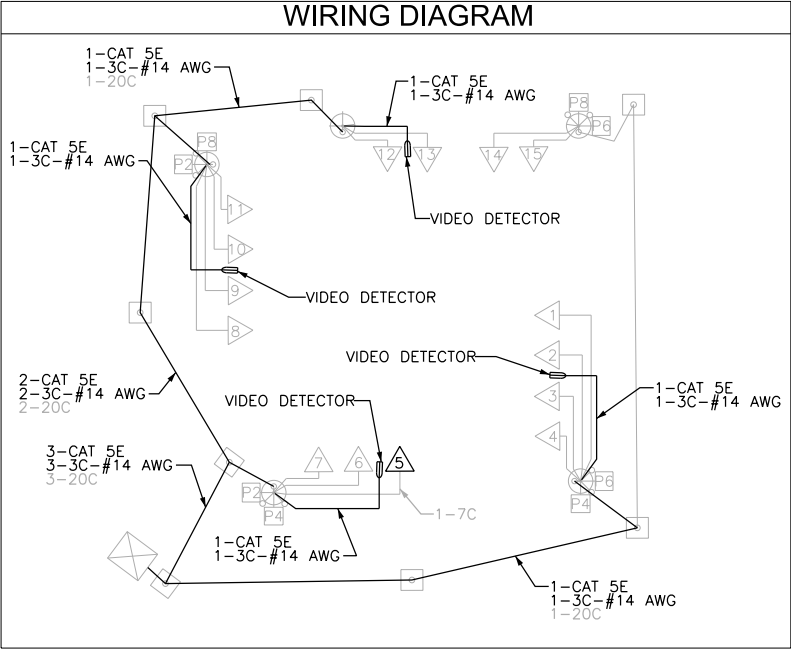
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
DRAWN BY		CHECKED BY			
TJC		MKC			
APPROVED BY				SHEET	
XXX				59 80	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		60	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT W. MARKHAM ST.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /MARKHAM				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
				CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
DET. ID#	LOCATION DIRECTION	TYPE	DET.								
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V1B	NB LEFT TURN	LOCAL	2			V2	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	4			V4	2			CAMERA V3	23"
V2C	SB RT TURN LANE	LOCAL	5			V5	2			CAMERA V3	23"
V3A	EB LEFT TURN	LOCAL	6			V6	3			CAMERA V2	23"
V4A	WB THRU LANE	LOCAL	7			V7	4			CAMERA V4	23"
V4B	WB THRU LANE	LOCAL	8			V8	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	9			V9	5			CAMERA V3	23"
V5B	SB LEFT TURN	LOCAL	10			V10	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	11			V11	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	12			V12	6			CAMERA V1	23"
V6C	NB RT TURN LANE	LOCAL	13			V13	6			CAMERA V1	23"
V7A	WB LEFT TURN	LOCAL	14			V14	7			CAMERA V4	23"
V7B	WB LEFT TURN	LOCAL	15			V15	7			CAMERA V4	23"
V8A	EB THRU LANE	LOCAL	16			V16	8			CAMERA V2	23"
V8B	EB THRU LANE	LOCAL	17			V17	8			CAMERA V2	23"
V8C	EB RT TURN LANE	LOCAL	18			V18	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



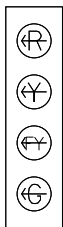
UNIVERSITY AVE AND MARKHAM ST																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR		
1	G <-	*	G <-	*	R	R	R	R	R	R	R	R	R	R	R	R	R	
2	G <-	*	G <-	*	R	R	R	R	R	R	R	R	R	R	R	R	R	
3	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R	R	R	
4	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R	R	R	
5	R	R	R	R	R	R	R	R	G <-	*/**	G <-	*/**	R	R	G	*/**	R	
6	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R	
7	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R	
8	G <-	*	R	R	G <-	*	R	R	R	R	R	R	R	R	R	R	R	
9	G <-	*	R	R	G <-	*	R	R	R	R	R	R	R	R	R	R	R	
10	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R	
11	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R	
12	R	R	R	R	R	R	R	R	G <-	*	R	R	G <-	*	R	R	R	
13	R	R	R	R	R	R	R	R	G <-	*	R	R	G <-	*	R	R	R	
14	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**		
15	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**		
P1	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
P2	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
P3	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	W	FDW		
P4	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	W	FDW		
P5	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW		
P6	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW		
P7	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	W	FDW			
P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	W	FDW			
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE								** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE									
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
		ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET			
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 60 80	

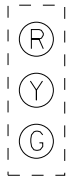
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		61	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT C ST.				



SIGNAL FACES



NEW
SIGNAL HEADS
1, 6

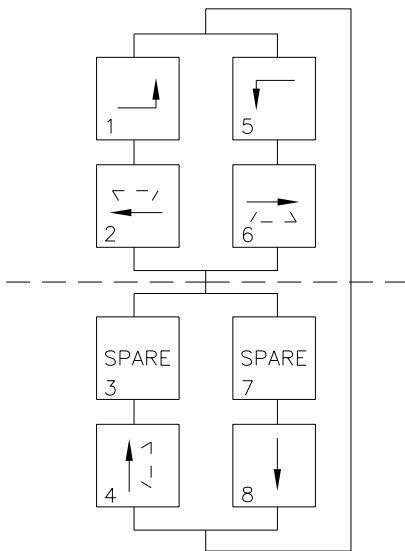


EXISTING
SIGNAL HEADS
2, 3, 4, 5, 7,
8, 9, 10



EXISTING
SIGNAL HEADS
P1, P2, P3, P4,
P5, P6

PHASING DIAGRAM

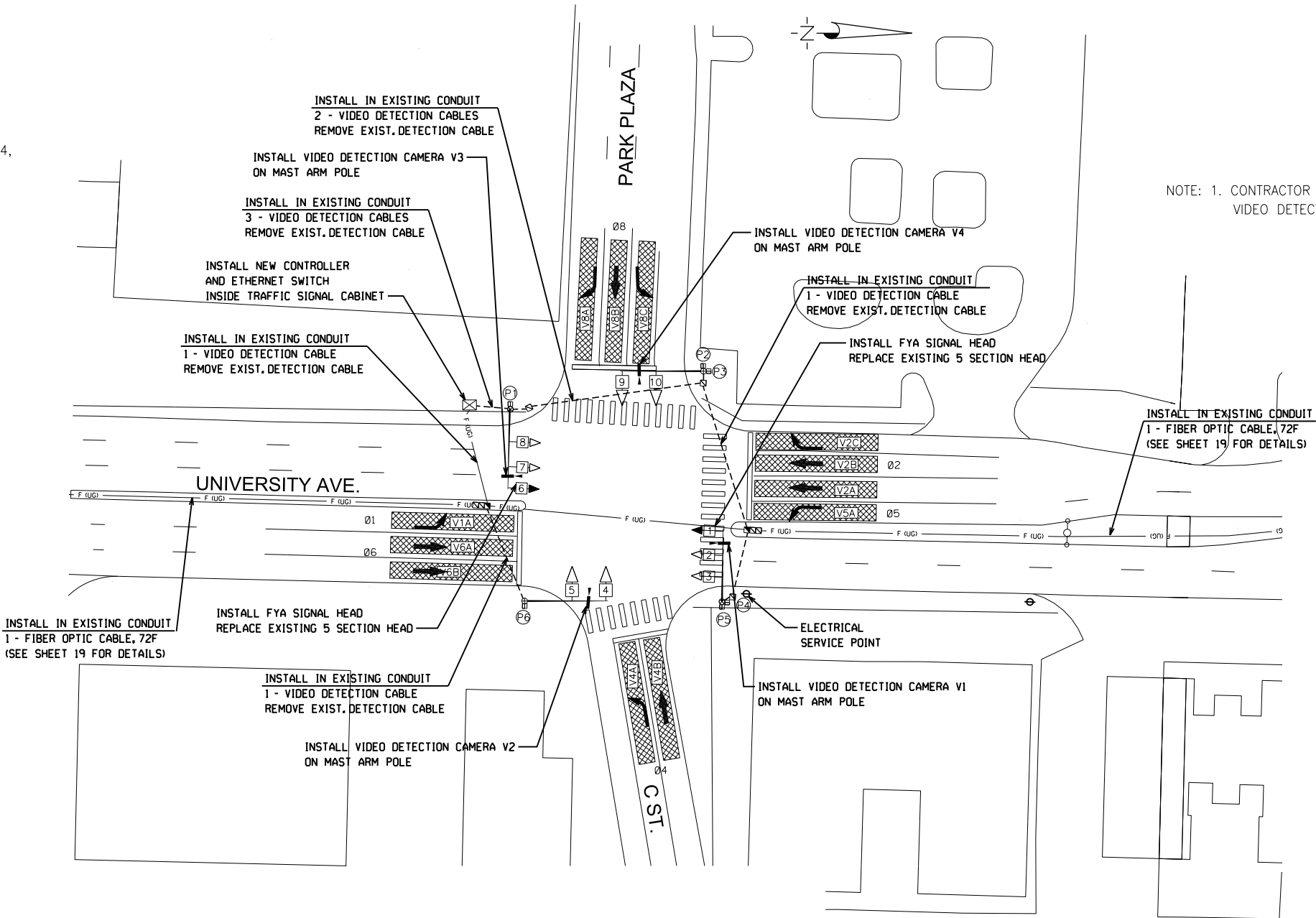


TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
20 MPH EAST AND WEST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'
C ST.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
20 MPH	NONE	60'



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

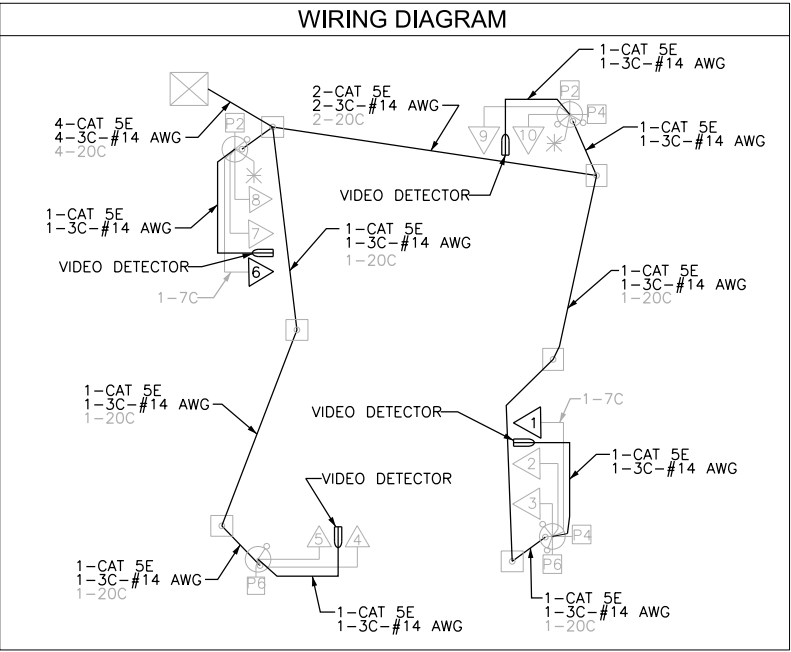
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
DRAWN BY		CHECKED BY			
TJC		MKC			
APPROVED BY				SHEET	
XXX				61 80	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		62	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT C ST.				



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /C ST.				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.	MASTER SYSTEM DETECTION NUMBERS		
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB RT TURN LANE	LOCAL	4			V4	2			CAMERA V3	23"
V4A	WB THRU LANE	LOCAL	5			V5	4			CAMERA V4	23"
V4B	WB THRU LANE	LOCAL	6			V6	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	7			V7	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"
V8A	EB RT TJRN LANE	LOCAL	11			V10	8			CAMERA V2	23"
V8B	EB THRU LANE	LOCAL	12			V11	8			CAMERA V2	23"
V8C	EB RT TJRN LANE	LOCAL	12			V12	8			CAMERA V2	23"

V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



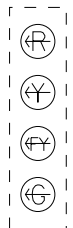
UNIVERSITY AVE AND C ST																	
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR	
1	G <-	*	G <-	*/**	FY<-	***	FY<-	***							R	R	R
2	R	R	G	**	R	R	G	**							R	R	R
3	R	R	G	**	R	R	G	**							R	R	R
4	R	R	R	R	R	R	R	R							G	**	R
5	R	R	R	R	R	R	R	R							G	**	R
6	G <-	*	FY<-	***	G <-	*	FY<-	***							R	R	R
7	R	R	R	R	G	**	G	**							R	R	R
8	R	R	R	R	G	**	G	**							R	R	R
9	R	R	R	R	R	R	R	R							G	**	R
10	R	R	R	R	R	R	R	R							G	**	R
P1	DW	DW	DW	DW	W	FDW	W	FDW							DW	DW	
P2	DW	DW	DW	DW	W	FDW	W	FDW							DW	DW	
P3	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW	
P4	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW	
P5	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW	
P6	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW	
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE										** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE						
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																

						CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET											
REVISION	DATE	BY	SCALE	DATE	JOB NO.						
			N.T.S.	12/14/17							
			DRAWN BY TJC	CHECKED BY MKC							
			APPROVED BY XXX			SHEET	62 80				

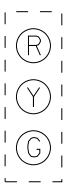
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		63	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT LEE ST.				



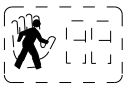
SIGNAL FACES



EXISTING
SIGNAL HEADS
1, 6

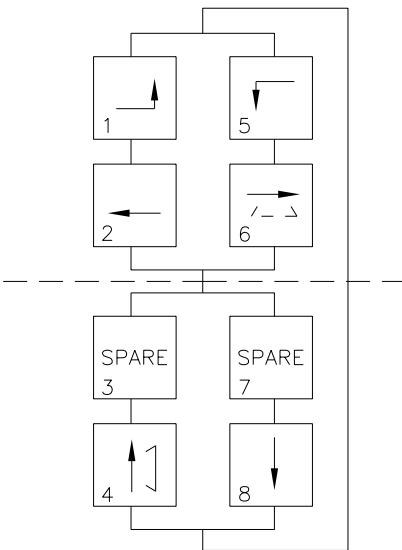


EXISTING
SIGNAL HEADS
2, 3, 4, 5, 7,
8, 9, 10

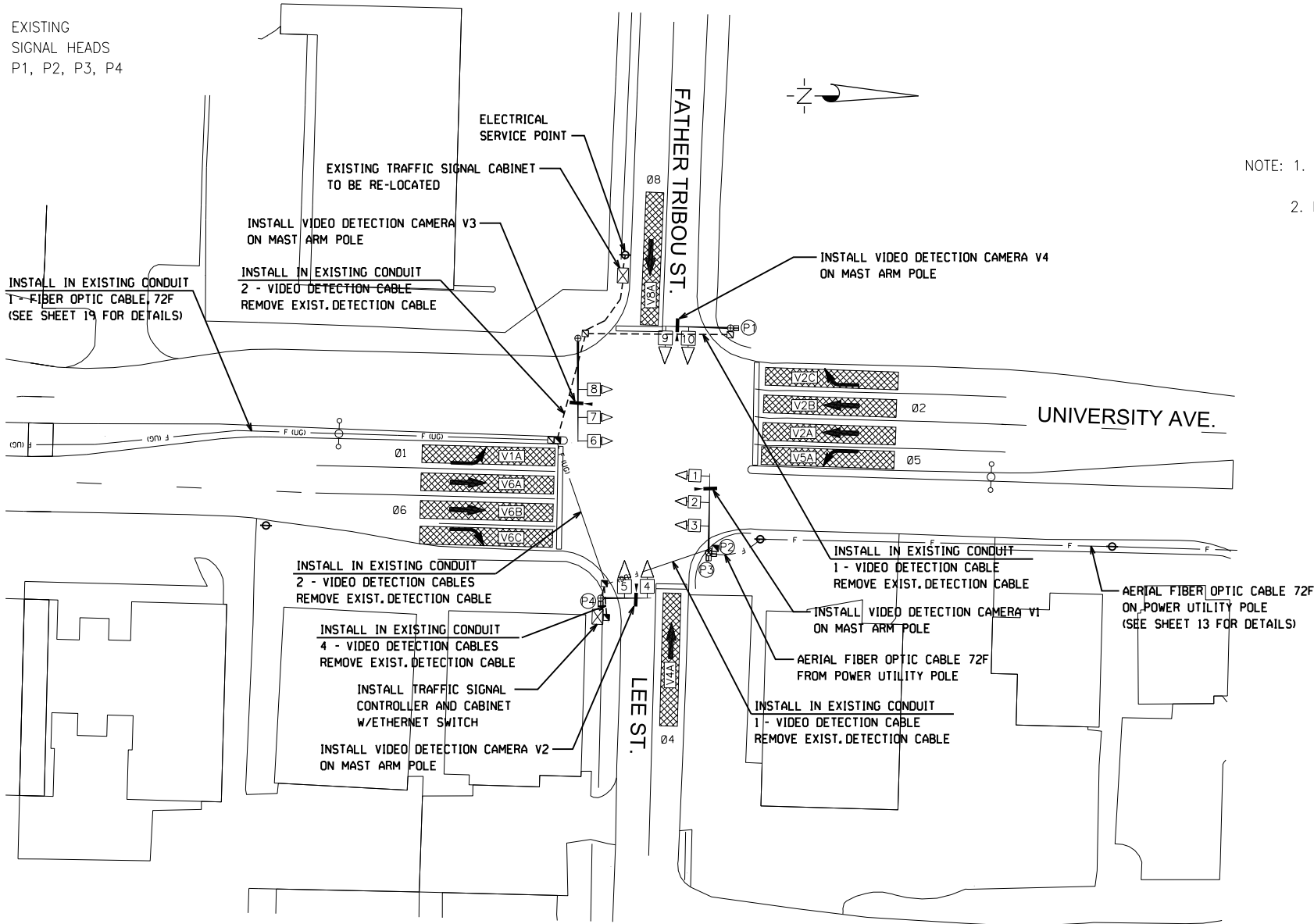


EXISTING
SIGNAL HEADS
P1, P2, P3, P4

PHASING DIAGRAM



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE
VIDEO DETECTION EQUIPMENT.
2. PHASING OF WORK TO MOVE TRAFFIC SIGNAL
CONTROLLER CABINET TO BE COORDINATED
WITH THE ENGINEER/CITY OF LITTLE ROCK.



NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE
VIDEO DETECTION EQUIPMENT.
2. PHASING OF WORK TO MOVE TRAFFIC SIGNAL
CONTROLLER CABINET TO BE COORDINATED
WITH THE ENGINEER/CITY OF LITTLE ROCK.

TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
30 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 100 FEET WEST OF
FATHER TRIBOU ST EASTBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'
FATHER TRIBOU ST.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
30 MPH	NONE	60'





CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

REVISION	DATE	BY	SCALE 1" = 30'	DATE 12/14/17	JOB NO.
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 63 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		64	80
				JOB NO.		061468		
UNIVERSITY AVE. AT LEE ST.								



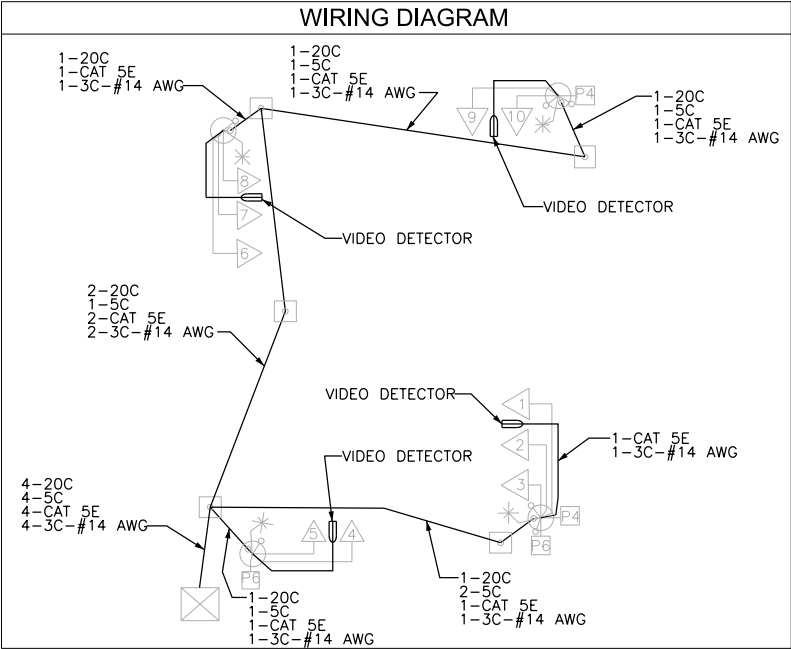
DETECTOR SYSTEM DESCRIPTION										
PULASKI COUNTY - UNIVERSITY AVE. /FATHER TRIBOU				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS		COMMENTS	TUBE LENGTHS
				CAB TRM#	AMP CHN#	CON. INP#	PHS	SYSTEM DET.		
DET. ID#	LOCATION DIRECTION	TYPE	DET.							
V1A	NB LEFT TURN	LOCAL	1			V1	1		CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2		CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2		CAMERA V3	23"
V2C	SB RT TURN LANE	LOCAL	4			V4	2		CAMERA V3	23"
V4A	WB THRU LANE	LOCAL	5			V5	4		CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	7			V6	5		CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	8			V7	6		CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V8	6		CAMERA V1	23"
V6C	NB RIGHT TURN	LOCAL	10			V9	6		CAMERA V1	23"
V8A	EB THRU LANE	LOCAL	6			V10	8		CAMERA V2	23"

V = Vehicle input

D = System or Auxiliary input

P = Pedestrian input

Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



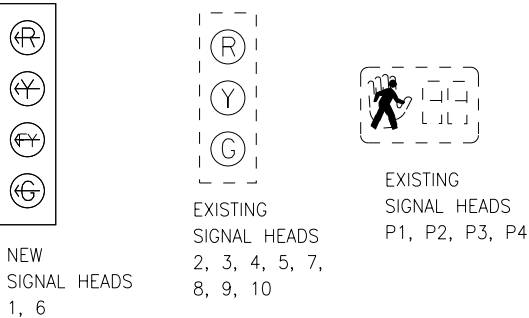
UNIVERSITY AVE AND LEE ST																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8	CLR		
1	G <-	*	G <-	*/**	FY<-	***	FY<-	***							R	R	R	
2	R	R	G	**	R	R	G	**							R	R	R	
3	R	R	G	**	R	R	G	**							R	R	R	
4	R	R	R	R	R	R	R	R							G	**	R	
5	R	R	R	R	R	R	R	R							G	**	R	
6	G <-	*	FY<-	***	G <-	*	FY<-	***							R	R	R	
7	R	R	R	R	G	**	G	**							R	R	R	
8	R	R	R	R	G	**	G	**							R	R	R	
9	R	R	R	R	R	R	R	R							G	**	R	
10	R	R	R	R	R	R	R	R							G	**	R	
P1	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P2	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P3	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW		
P4	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW		
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE								** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE									
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
		ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET			
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 64	80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		65	80
				JOB NO.		061468		
				UNIVERSITY AVE. AT H ST.				



SIGNAL FACES

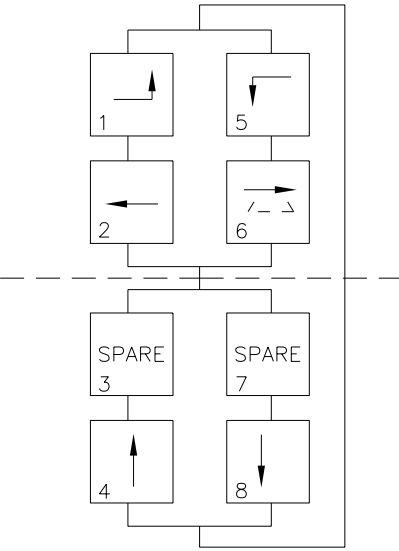


NEW
SIGNAL HEADS
1, 6

EXISTING
SIGNAL HEADS
2, 3, 4, 5, 7,
8, 9, 10

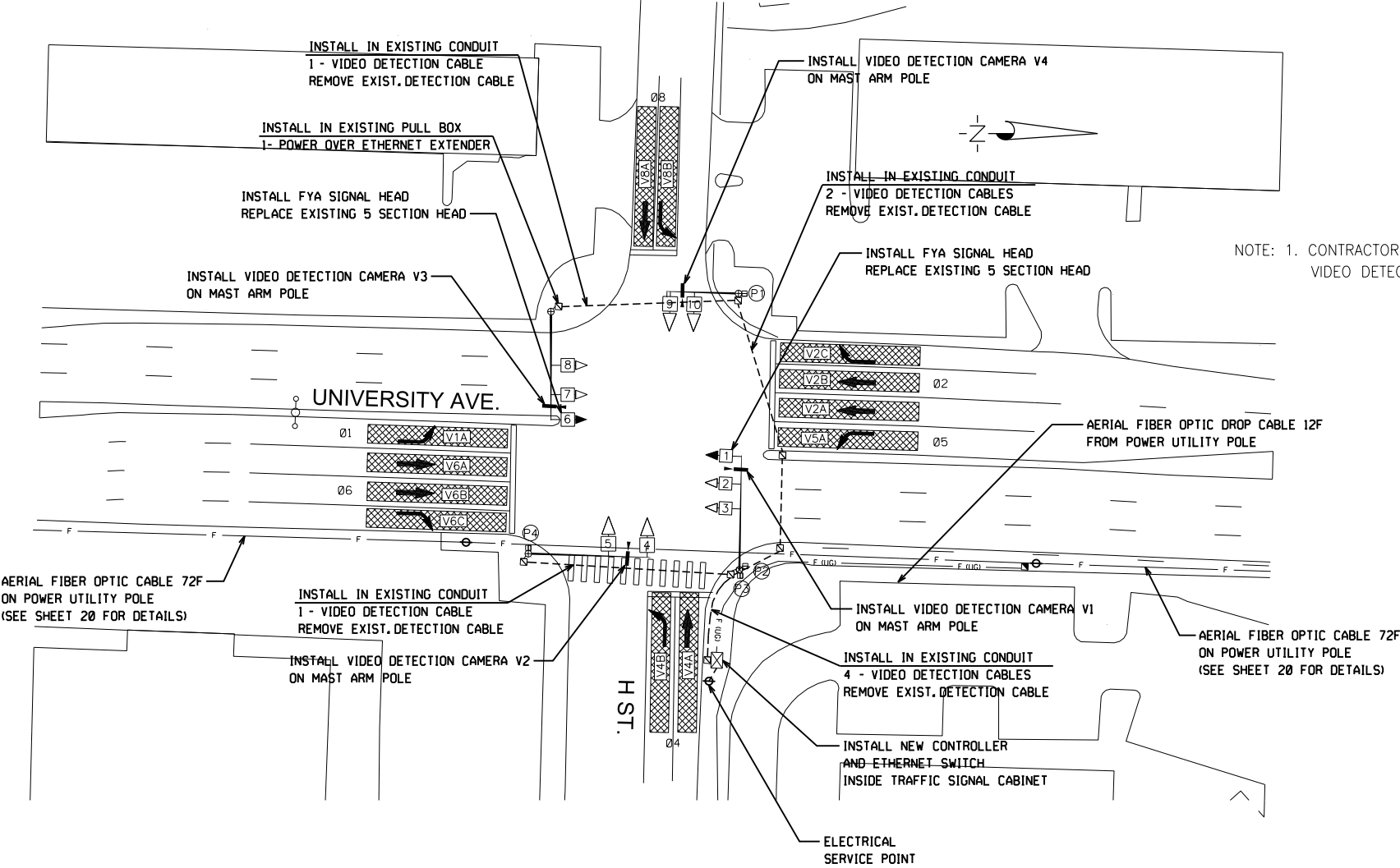
EXISTING
SIGNAL HEADS
P1, P2, P3, P4

PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL CONTROLLER
- JUNCTION BOX
- CONDUIT
- AERIAL FIBER OPTIC CABLE
- MAST ARM AND POLE
- PROPOSED FYA SIGNAL HEAD
- EXISTING SIGNAL HEAD
- COBRA HEAD STREET LIGHT
- TRAFFIC SIGN
- VIDEO DETECTOR
- VIDEO DETECTION ZONE



POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
25 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 100 FEET SOUTH OF
UNIVERSITY AVE NORTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS.

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
40 MPH	NONE	60'
H ST.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG LOOP
25 MPH	NONE	60'



CITY OF LITTLE ROCK
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

ADAPTIVE SIGNAL CONTROL
INTERSECTION DETAIL SHEET

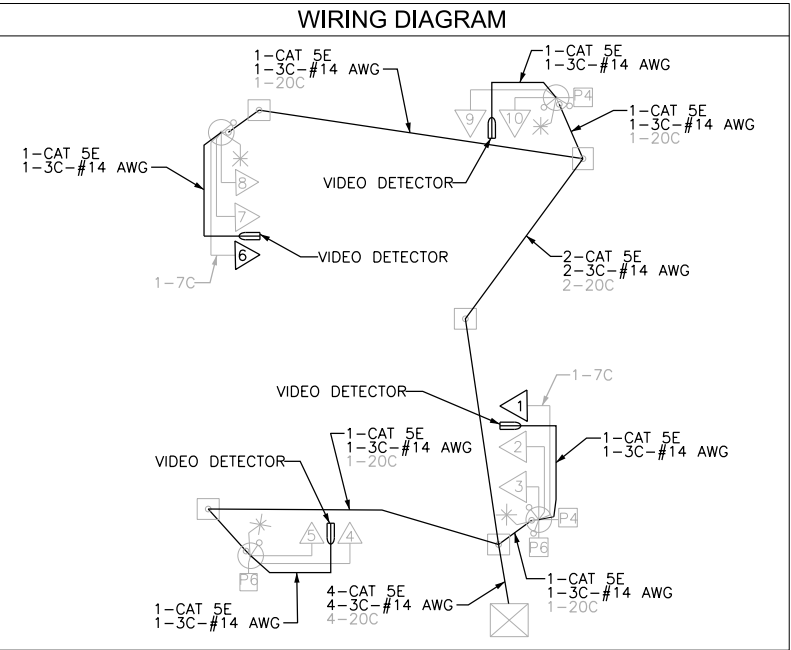
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		
				SHEET	65 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		66	80
				JOB NO.		061468		
UNIVERSITY AVE. AT H ST.								



DETECTOR SYSTEM DESCRIPTION											
PULASKI COUNTY - UNIVERSITY AVE. /H ST.				INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID#	LOCATION DIRECTION	TYPE	DET.	CAB TRM#	AMP CHN#	CON. INP#	LOCAL		MASTER SYSTEM DETECTION NUMBERS		
							PHS	SYSTEM DET.			
V1A	NB LEFT TURN	LOCAL	1			V1	1			CAMERA V1	23"
V2A	SB THRU LANES	LOCAL	2			V2	2			CAMERA V3	23"
V2B	SB THRU LANES	LOCAL	3			V3	2			CAMERA V3	23"
V2C	SB RIGHT TURN	LOCAL	4			V4	2			CAMERA V3	23"
V4A	WB THRU LANE	LOCAL	5			V5	4			CAMERA V4	23"
V4B	WB LT TURN LANE	LOCAL	6			V6	4			CAMERA V4	23"
V5A	SB LEFT TURN	LOCAL	7			V7	5			CAMERA V3	23"
V6A	NB THRU LANE	LOCAL	8			V8	6			CAMERA V1	23"
V6B	NB THRU LANE	LOCAL	9			V9	6			CAMERA V1	23"
V6C	NB RIGHT TURN	LOCAL	10			V10	6			CAMERA V1	23"
V8A	EB THRU LANE	LOCAL	11			V11	8			CAMERA V2	23"
V8B	EB LT TURN LANE	LOCAL	12			V12	8			CAMERA V2	23"

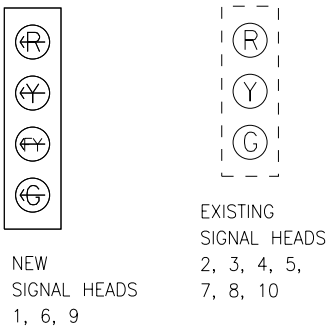
V = Vehicle input
D = System or Auxiliary input
P = Pedestrian input
Add - Note: "Amp CHN#" refers to the rack output position. This is wired to controller input detector number which is programmed to actuate the designated phase. Example V9 = system detector 1, V10 = system detector 2. Channel assignments for detection to be coordinated and configured with Rhythm Engineering.



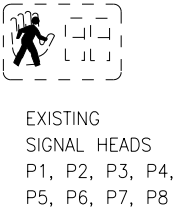
UNIVERSITY AVE AND H ST.																		
SIGNAL FACE	INTERVAL CHART FOR NORMAL OPERATION																FLASH SEQ	
	1&5	CLR	1&6	CLR	2&5	CLR	2&6	CLR	3&7	CLR	3&8	CLR	4&7	CLR	4 & 8			CLR
1	G <-	*	G <-	*	FY<-	***	FY<-	***		CLR	3&8	CLR	4&7	CLR	4 & 8	R	R	R
2	R	R	G	**	R	R	G	**							R	R	R	
3	R	R	G	**	R	R	G	**							R	R	R	
4	R	R	R	R	R	R	R	R							G	**	R	
5	R	R	R	R	R	R	R	R							G	**	R	
6	G <-	*	FY<-	***	G <-	*	FY<-	***							R	R	R	
7	R	R	R	R	R	**	G	**							R	R	R	
8	R	R	R	R	G	**	G	**							R	R	R	
9	R	R	R	R	R	R	R	R							G	**	R	
10	R	R	R	R	R	R	R	R							G	**	R	
P1	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P2	DW	DW	DW	DW	DW	DW	DW	DW							W	FDW		
P3	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW		
P4	DW	DW	W	FDW	DW	DW	W	FDW							DW	DW		
*	DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE								** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE									
***	DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON THE NEXT PHASE																	

		CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION			
		ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET			
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			N.T.S.	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX	SHEET 66	80

SIGNAL FACES

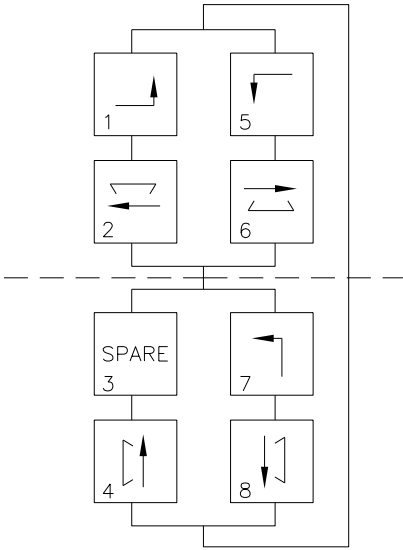


EXISTING
SIGNAL HEADS
2, 3, 4, 5,
7, 8, 10



EXISTING
SIGNAL HEADS
P1, P2, P3, P4,
P5, P6, P7, P8

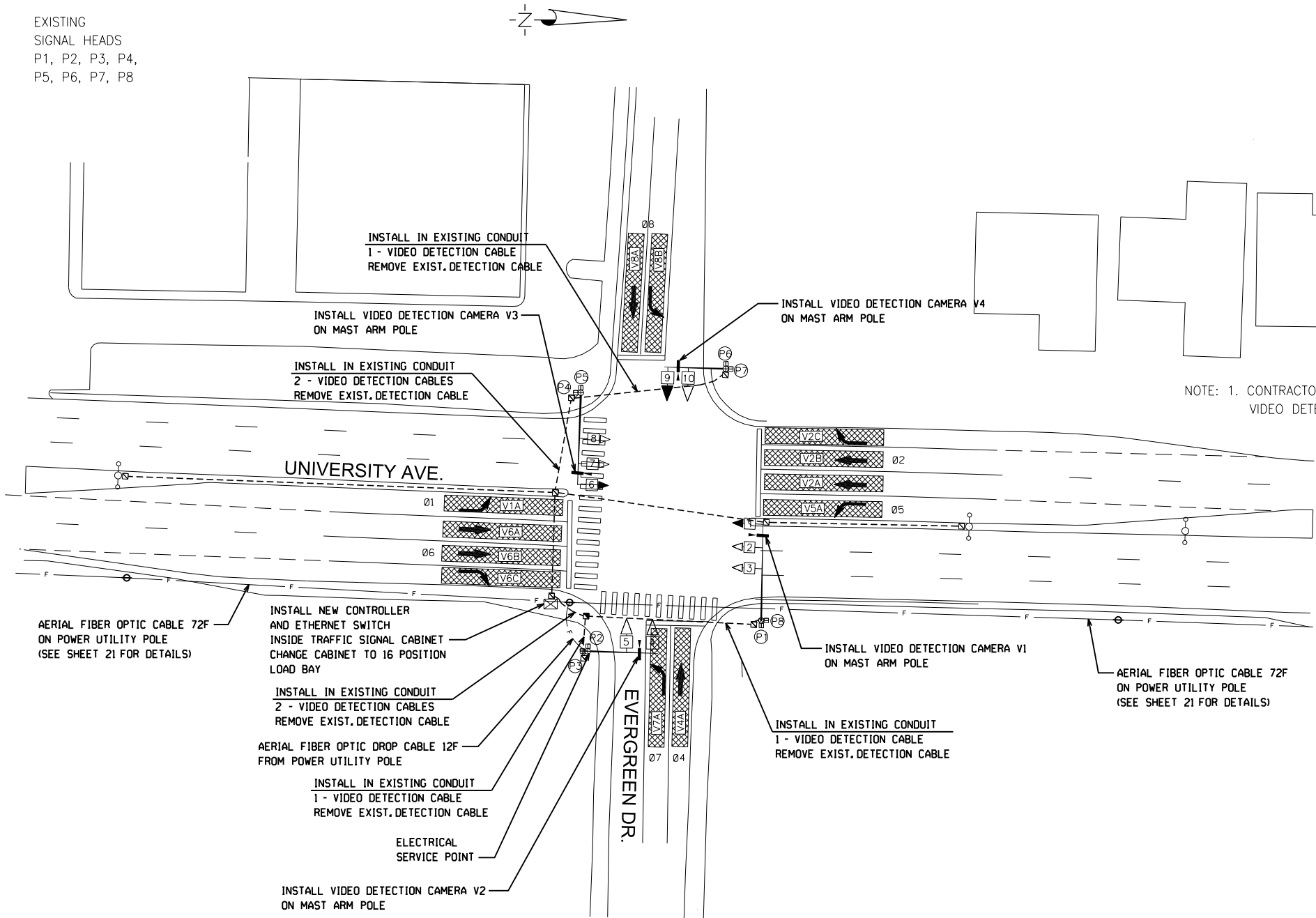
PHASING DIAGRAM



TRAFFIC SIGNAL LEGEND	
	TRAFFIC SIGNAL CONTROLLER
	JUNCTION BOX
	CONDUIT
	AERIAL FIBER OPTIC CABLE
	MAST ARM AND POLE
	PROPOSED FYA SIGNAL HEAD
	EXISTING SIGNAL HEAD
	COBRA HEAD STREET LIGHT
	TRAFFIC SIGN
	VIDEO DETECTOR
	VIDEO DETECTION ZONE

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACH
25 MPH EAST AND WEST APPROACH
BUS STOP LOCATED 70 FEET NORTH OF
UNIVERSITY AVE SOUTHBOUND STOP LINE
NO RAILROAD TRACKS
FIBER INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

DETECTOR SPACING CHART		
UNIVERSITY AVE.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	.AG LOOP
40 MPH	NONE	60'
H ST.		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	.AG LOOP
25 MPH	NONE	60'

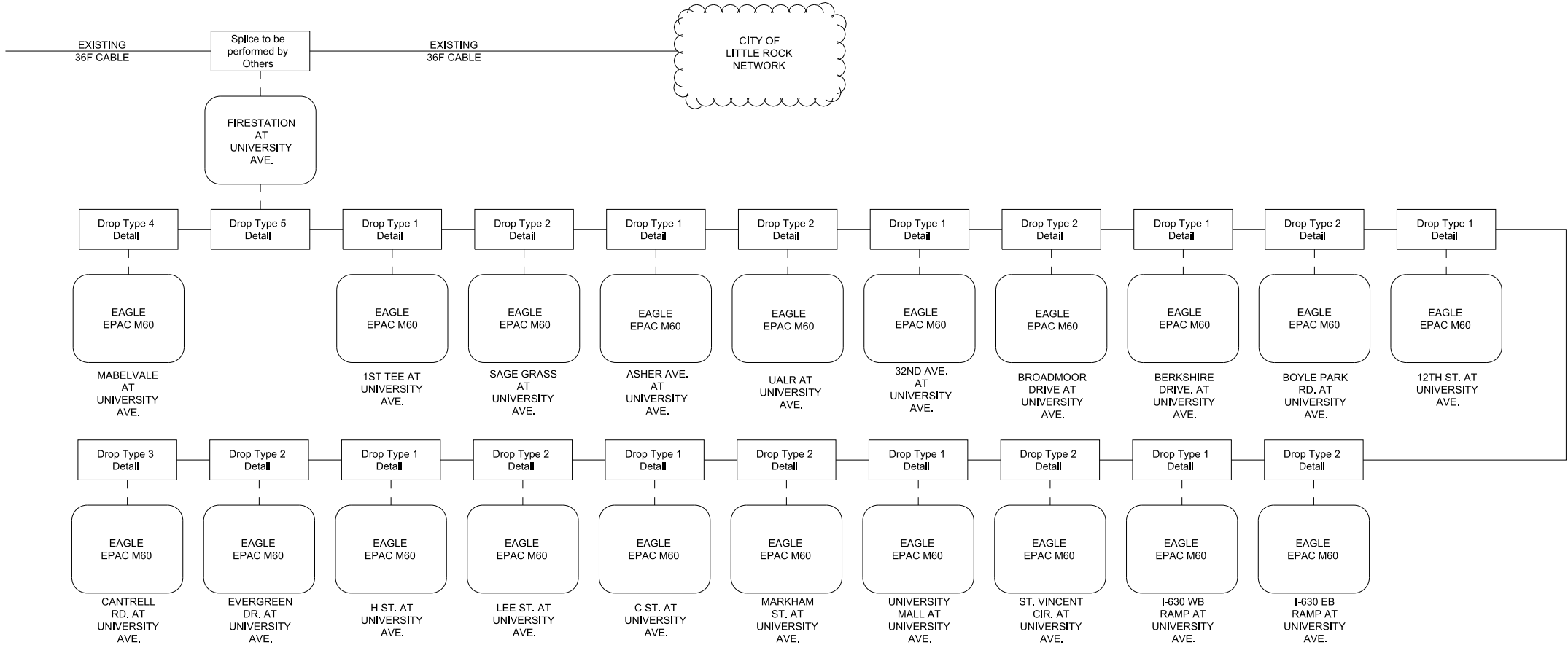


NOTE: 1. CONTRACTOR TO REMOVE EXISTING STOP LINE VIDEO DETECTION EQUIPMENT.



CITY OF LITTLE ROCK DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION					
ADAPTIVE SIGNAL CONTROL INTERSECTION DETAIL SHEET					
REVISION	DATE	BY	SCALE	DATE	JOB NO.
			1" = 30'	12/14/17	
			DRAWN BY TJC	CHECKED BY MKC	
			APPROVED BY XXX		SHEET 67 80

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		70	80
				JOB NO.		061468		
				UNIVERSITY AVE.				
				FIBER SPLICING DETAILS				



Legend

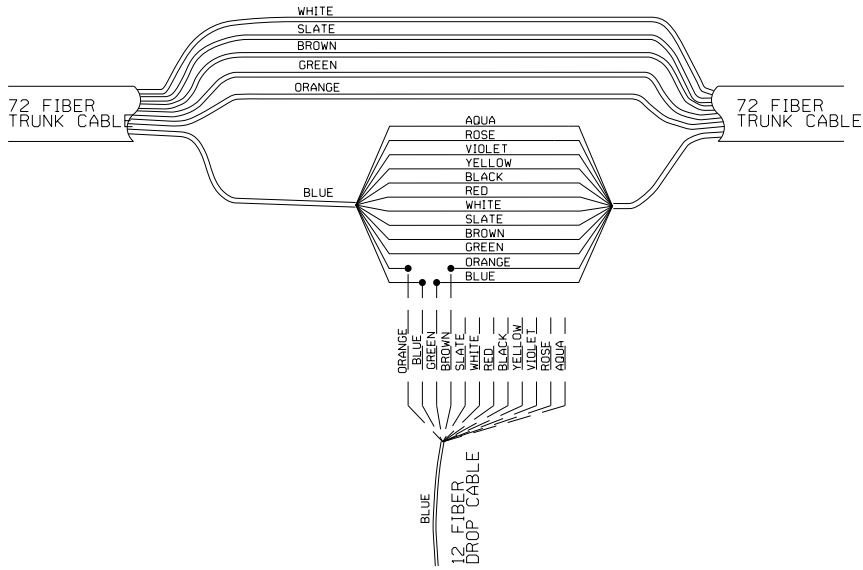
Trunk Cable

Drop Cable

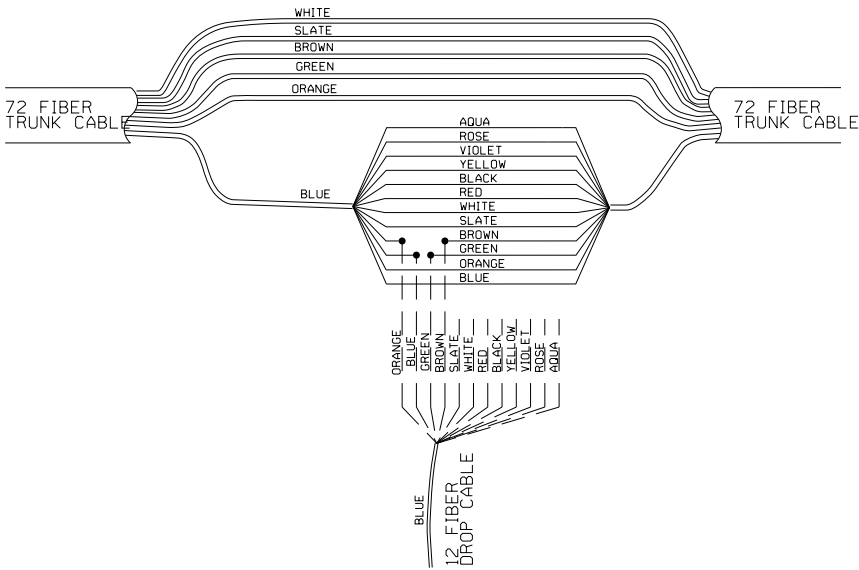
Splice Boot

Control Box

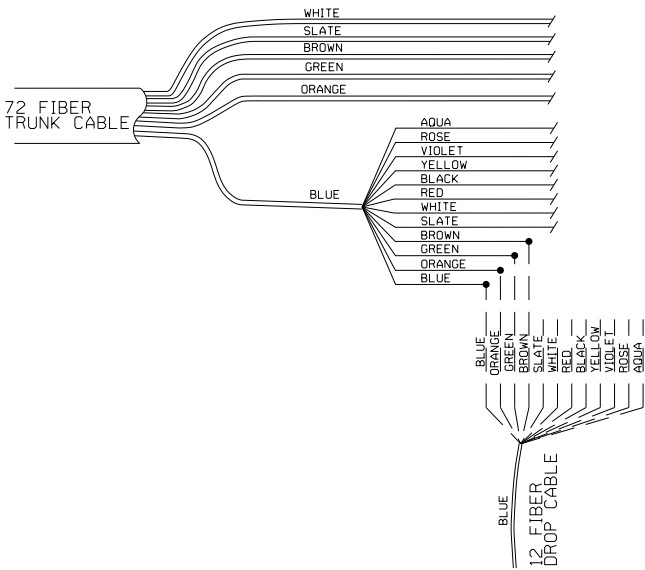
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				67	ARK.		71	80
				JOB NO.		061468		
				UNIVERSITY AVE.				
				FIBER SPLICING DETAILS				



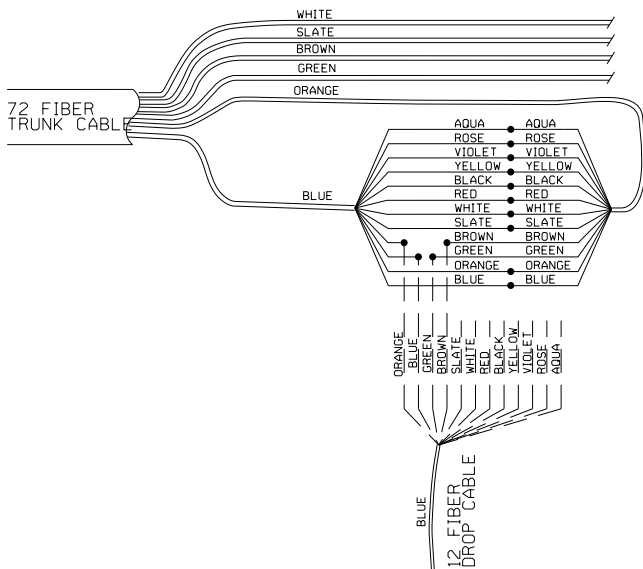
DROP TYPE 1



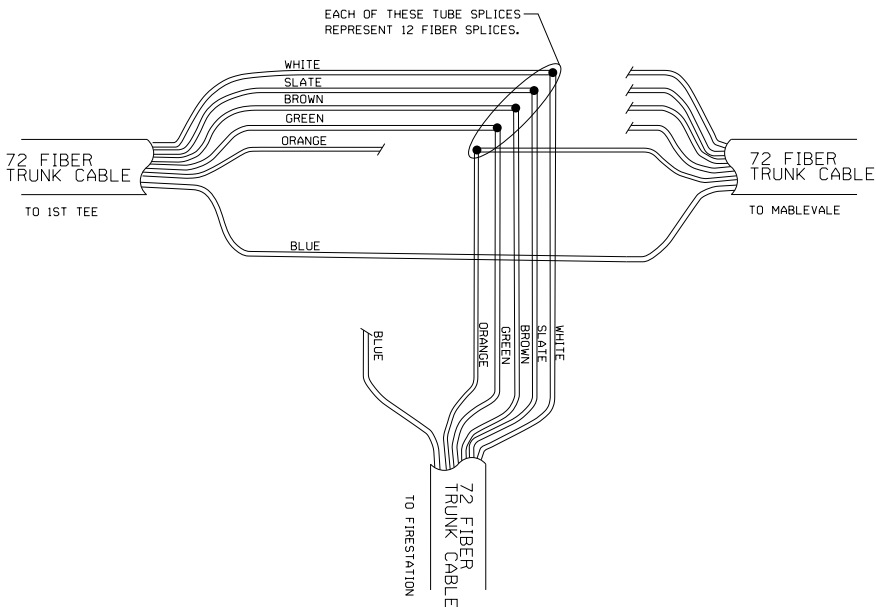
DROP TYPE 2



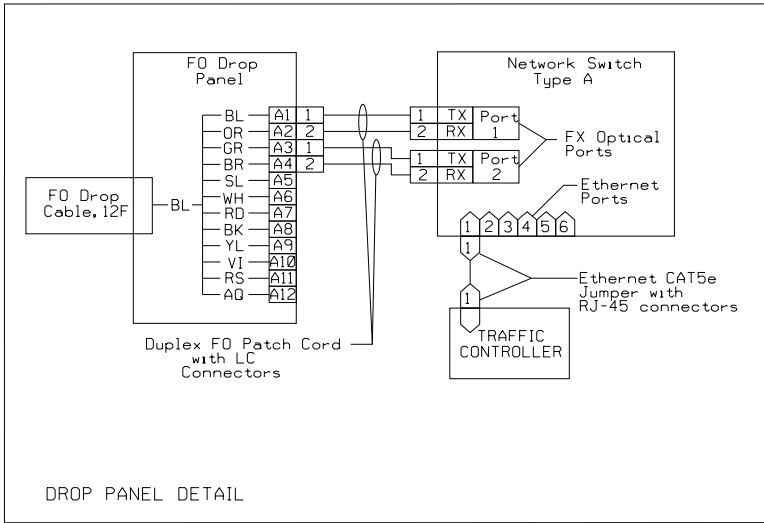
DROP TYPE 3



DROP TYPE 4

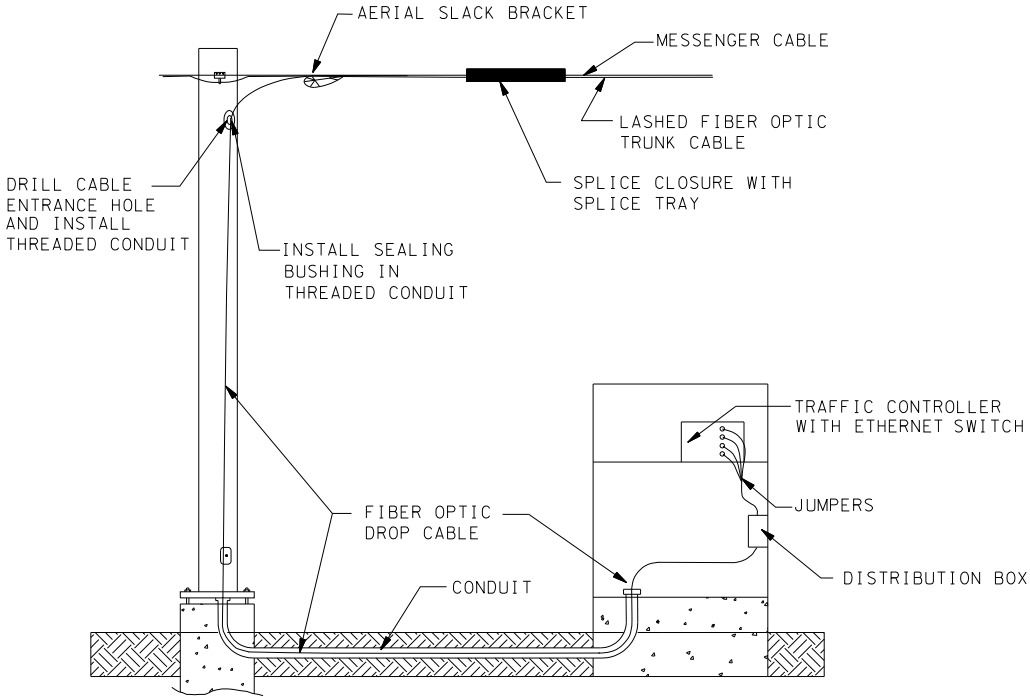


DROP TYPE 5

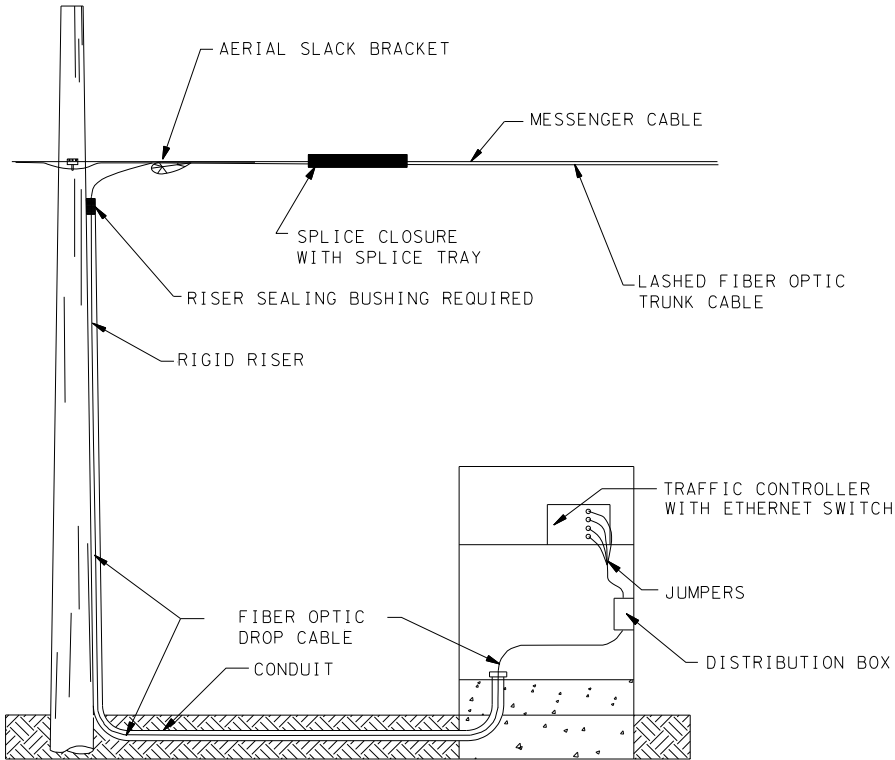


DROP PANEL DETAIL

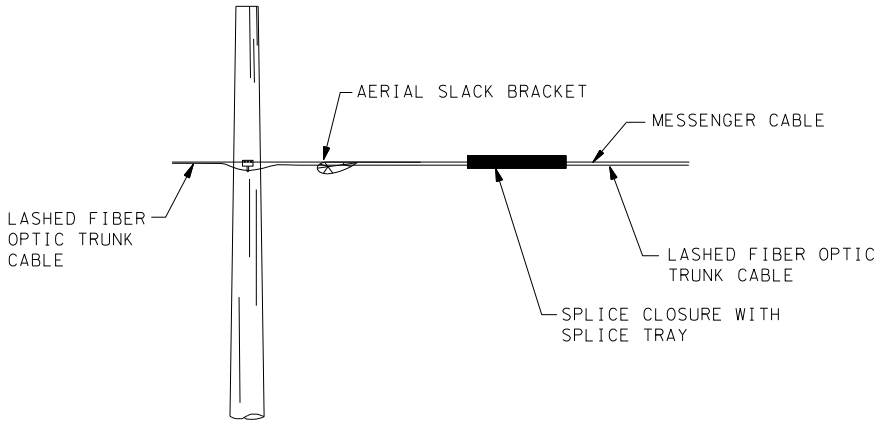
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		72	80
				JOB NO.		061468		
UNIVERSITY AVE.								
FIBER INSTALLATION DETAILS 1								



AERIAL ENTRANCE FOR
STEEL POLE INTO BASE MOUNTED CABINET
(EXTERNAL SPLICE)



AERIAL ENTRANCE FOR EMBEDDED
STEEL, CONCRETE, OR WOOD POLE
INTO BASE MOUNTED CABINET
(EXTERNAL SPLICE)

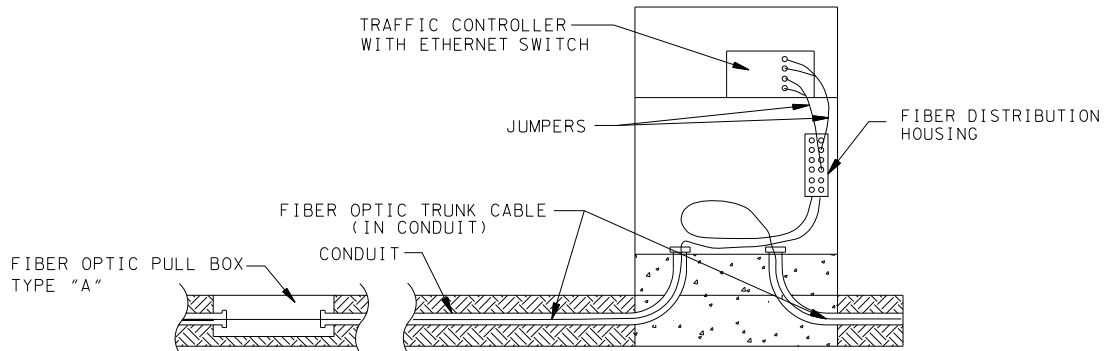


TYPICAL OVERHEAD SPLICE

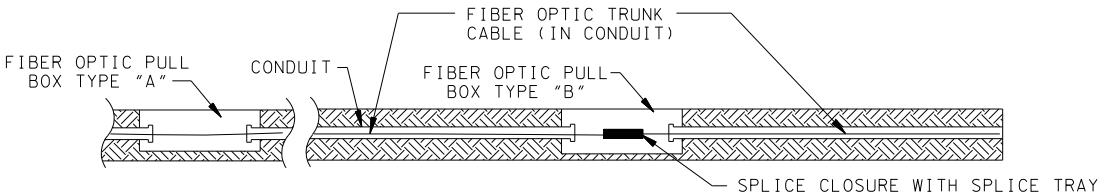
GENERAL NOTES

- (A) CONDUIT FOR FIBER OPTIC CABLE REQUIRED TO UTILIZE LARGE RADIUS BENDS (MINIMUM RADIUS 6 INCHES) NO ELBOW JOINTS ALLOWED.
- (B) ALL SPLICE CLOSURES TO CONTAIN SUFFICIENT SLACK FIBER TO PERFORM SPLICE ON GROUND IN MAINTENANCE VEHICLE (MINIMUM 25 FEET OF SLACK FOR EACH DROP CABLE).
- (C) ALL SPLICES TO BE FUSION UNLESS OTHERWISE NOTED.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				67	ARK.		73	80
				JOB NO.		061468		
				UNIVERSITY AVE.				
				FIBER INSTALLATION DETAILS 2				



UNDERGROUND ENTRANCE
INTO BASE MOUNTED CABINET
(INTERNAL SPLICE-MAX. 12 FIBER SPLICES)

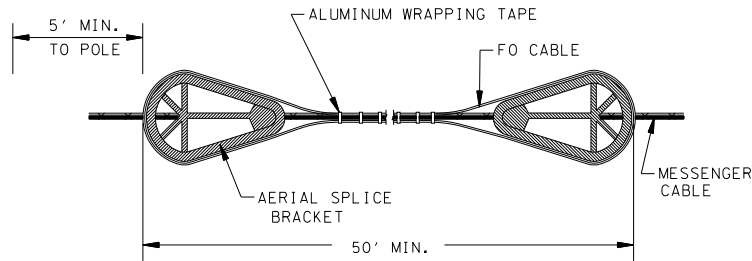


TYPICAL UNDERGROUND SPLICE

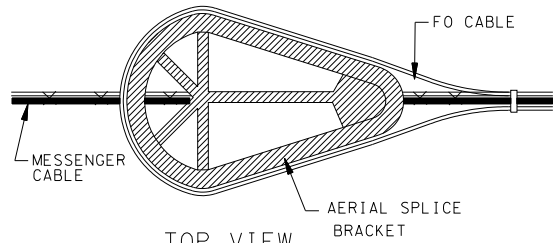
GENERAL NOTES

- (A) CONDUIT FOR FIBER OPTIC CABLE REQUIRED TO UTILIZE LARGE RADIUS BENDS (MINIMUM RADIUS 6 INCHES) NO ELBOW JOINTS ALLOWED.
- (B) ALL UNDERGROUND SPLICES IN PULL BOXES TO CONTAIN SUFFICIENT SLACK FIBER TO PERFORM SPLICE ON MAINTENANCE VEHICLE (MINIMUM 25 FEET OF SLACK FOR EACH CABLE).
- (C) ALL CABINET SPLICES TO CONTAIN SUFFICIENT SLACK TO PERFORM SPLICE IN MAINTENANCE VEHICLE (MINIMUM OF 25 FEET OF SLACK FOR EACH CABLE).
- (D) ALL SPLICES TO BE FUSION UNLESS OTHERWISE NOTED.

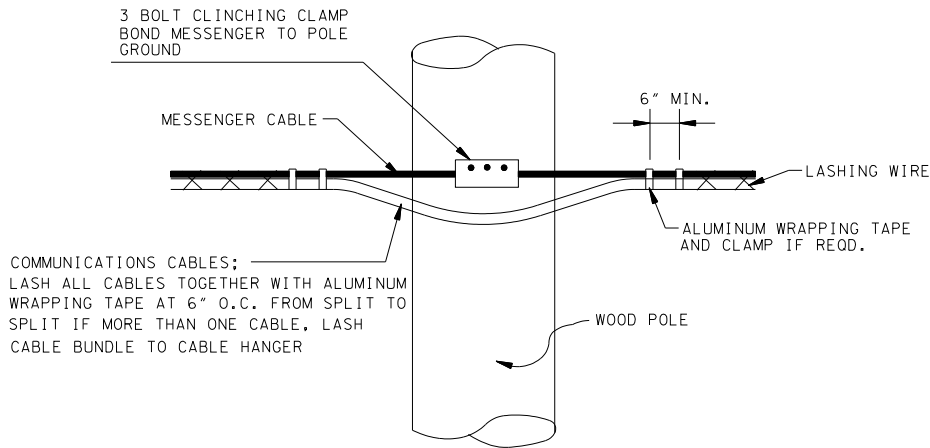
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						FIBER INSTALLATION DETAILS 3		



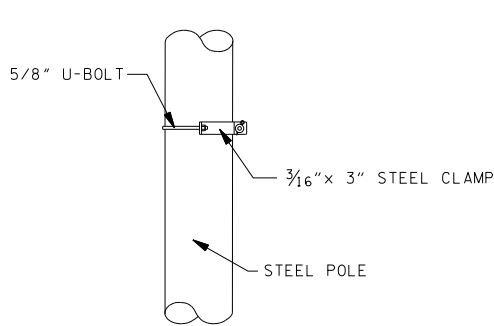
TYPICAL STRAND STORAGE
FOR FIBER OPTIC CABLES



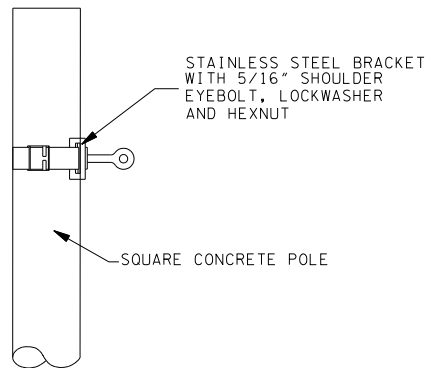
NOTE:
1. BRACKET RADIUS SHALL BE LARGER THAN CABLE MANUFACTURER'S MINIMUM BEND RADIUS FOR LONG TERM STORAGE OF LARGEST CABLE DIAMETER.



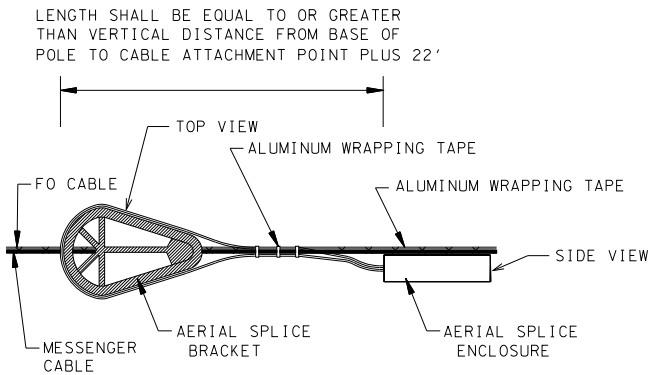
TYPICAL CABLE
CONTINUATION-SAME MESSENGER CABLE



TYPICAL POLE ATTACHMENT
FOR STEEL POLE

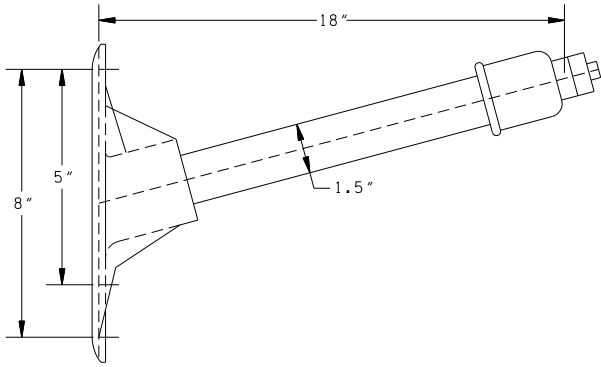


TYPICAL POLE ATTACHMENT FOR
SQUARE CONCRETE POLE

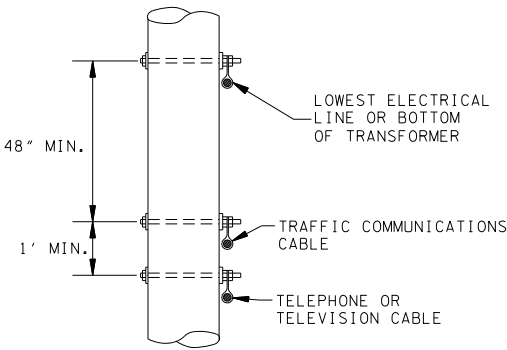


NOTE:
1. AERIAL SLACK BRACKETS SHALL BE USED AT ALL AERIAL SPLICE LOCATIONS.
2. ALL CABLES SHALL ENTER SPLICE ENCLOSURE AT SAME END.

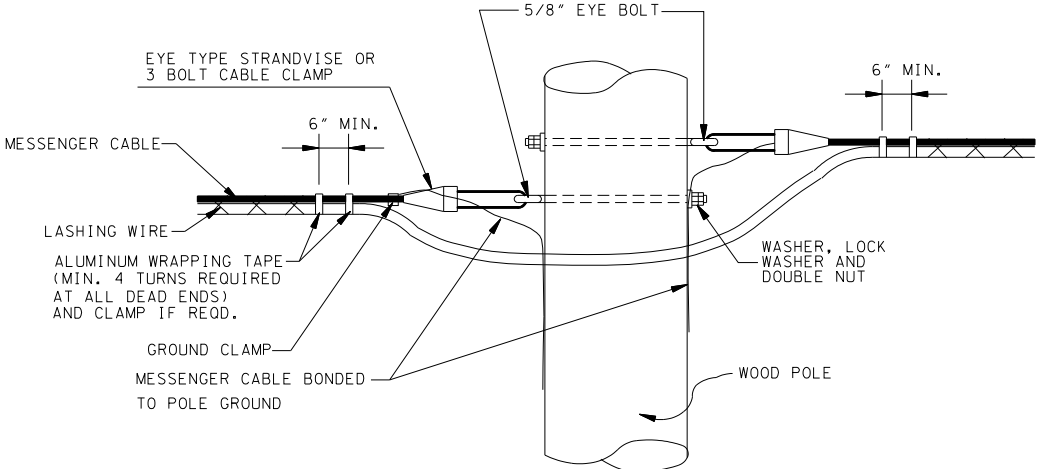
AERIAL SPLICE DETAIL



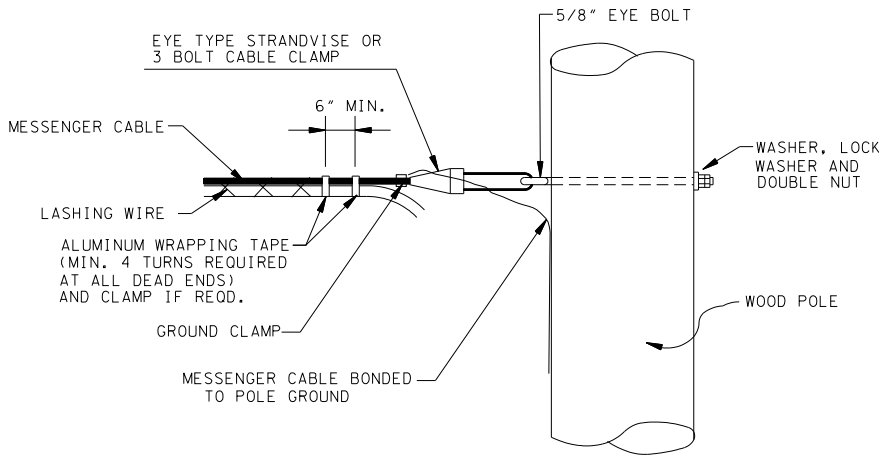
CABLE EXTENSION BRACKET
MEDIUM DUTY



MINIMUM CLEARANCE TO
TELEPHONE TELEVISION OR
ELECTRICAL CABLE

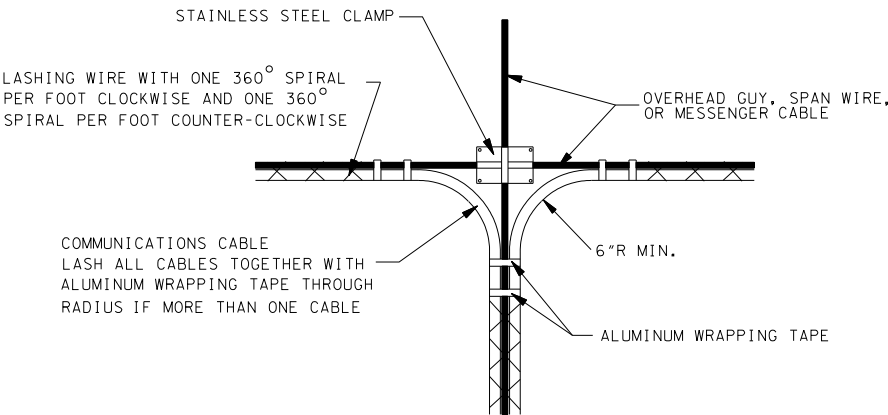


ALTERNATE CABLE CONTINUATION-SEPARATE
MESSENGER CABLE

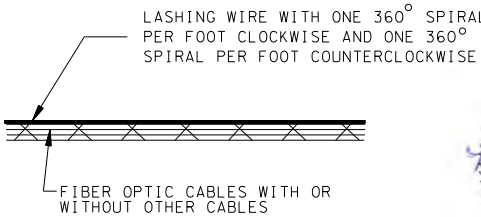


TYPICAL POLE ATTACHMENT DETAIL
FOR MESSENGER DEAD END OR TURNS

NOTE: DEAD END ATTACHMENTS TO BE UTILIZED ON ALL TRANSFERS FROM UTILITY POLES TO SIGNAL POLES.



CABLE LASHED TO OVERHEAD MESSENGER CABLE

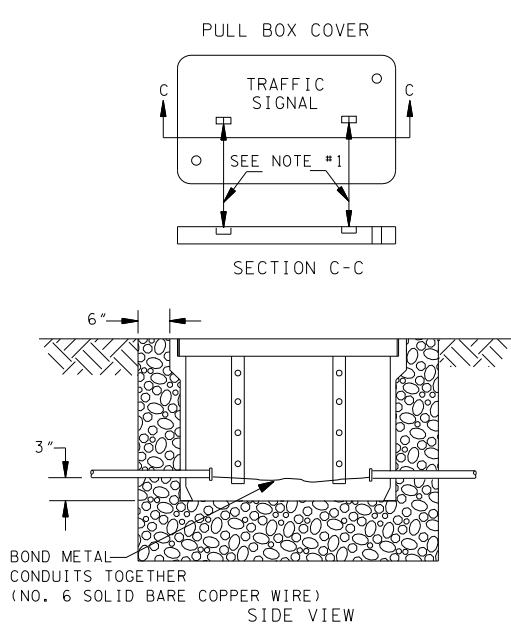


TYPICAL CABLE LASHING DETAIL
DOUBLE LASHING

NOTE: ALL FIBER TRUNK CABLE SHALL BE DOUBLE LASHED. DROP CABLE MAY BE SINGLE LASHED.

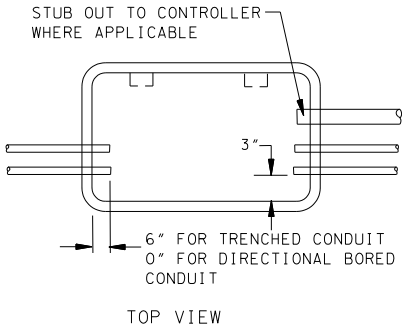


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						JOB NO. 061468		
						UNIVERSITY AVE.		
						FIBER INSTALLATION DETAILS 4		



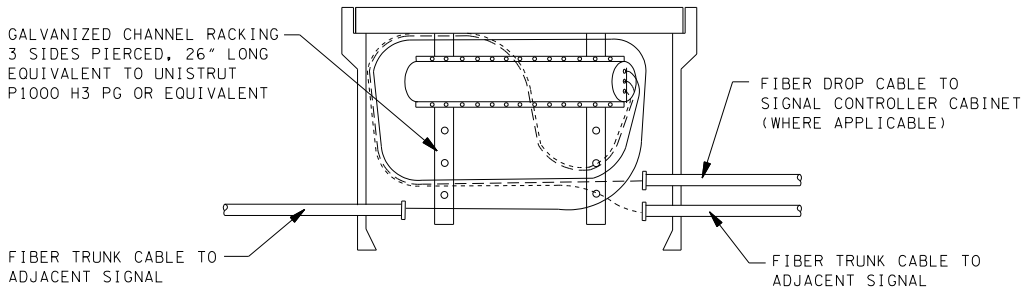
FIBER OPTIC PULLBOX MINIMUM DIMENSIONS			
TYPE	LENGTH	WIDTH	DEPTH
A	36"	26"	32"
B	49"	32"	36"

TYPE "A" FIBER OPTIC PULLBOXES ARE TO BE USED WHEN NO SPLICING IS REQUIRED IN THE PULLBOX.
TYPE "B" FIBER OPTIC PULLBOXES ARE TO BE USED WHEN SPLICING IS REQUIRED IN THE PULLBOX.



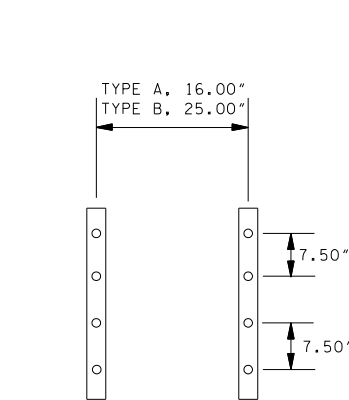
FIBER OPTIC PULLBOX DETAILS (TYPICAL)

- NOTES:
1. NOTCHES SHALL BE PROVIDED FOR REMOVING THE COVER.
 2. COVER SHALL BOLT DOWN.
 3. THE MESSAGE "TRAFFIC SIGNAL" IS TO BE INSCRIBED ON TOP OF THE COVER.
 4. ASSEMBLY SHALL BE RATED FOR A MINIMUM STATIC LOAD OF 15,000 lbs OVER A 10"x10" AREA AND PASS MINIMUM STATIC TEST LOAD OF 22,000 lbs.
 5. CONDUIT TO USE LARGE RADIUS BENDS.
 6. TYPE B COVER TO BE 2 PIECES.
 7. INSTALL CONDUIT OPPOSITE OF CHANNEL RACKING.
 8. INSTALL INCOMING CONDUIT BOTH VERTICALLY AND HORIZONTALLY PARALLEL TO CORRESPONDING EXITING CONDUIT.
 9. GROUT COMPLETELY AROUND ALL CONDUIT ENTRIES TO THE FULL THICKNESS OF THE BOX WALL.
 10. ALL CONDUIT SHALL ENTER THE PULL BOX LEVEL, STRAIGHT AND PERPENDICULAR TO THE WALL OF THE PULL BOX.
 11. CONDUIT SHALL SLOPE AWAY FROM SIDES OF PULL BOX TO BORE OR TRENCH GRADE.



FIBER OPTIC SPLICING CLOSURE TYPE B PULL BOX

- NOTES:
1. CABLES SHALL BE DRESSED IN A COMMON BUNDLE EVERY 3 FEET WITH UV RESISTANT NYLON CABLE TIES OR ELECTRICAL TAPE.
 2. SECURE CABLE SLACK AND CLOSURE TO CHANNEL RACKING VIA UV RESISTANT BLACK NYLON 120-LB (MIN.) TENSILE STRENGTH CABLE TIES.
 3. MAINTAIN MINIMUM BEND RADIUS (ACCORDING TO MANUFACTURERS SPECIFICATIONS FOR CABLE AT REST) FOR LARGEST CABLE IN BUNDLE.
 4. MAINTAIN 6 INCHES OF CLEARANCE BETWEEN TOP OF PULL BOX AND CABLE/ CLOSURE.
 5. ROUTE CABLE EXITING CONDUIT AS TO NOT INTERFERE WITH FUTURE USE OF EMPTY CONDUIT.

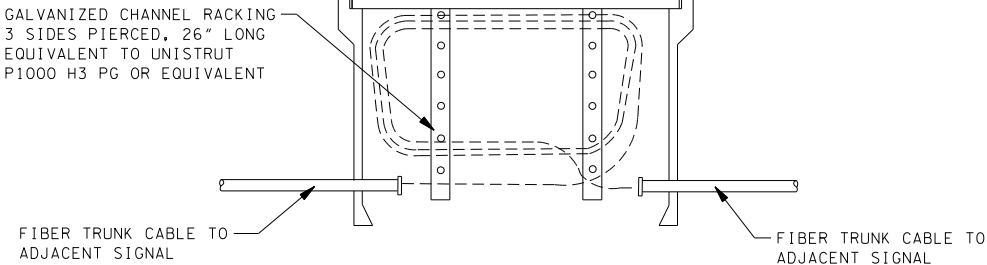


CHANNEL RACKING DETAILS

- NOTES:
1. INSERTS TO BE CENTERED ON ONE WALL OF TYPE A & B BOXES, 5.625" FROM THE TOP OF EACH BOX.
 2. TWO PIECE STEEL PIERCED CHANNEL 22" LONG. (UNISTRUT NO. P1000-H3 OR EQUAL) TO BE SUPPLIED WITH EACH BOX. CHANNEL TO BE PIERCED ON THREE SIDES.
 3. BOLTS TO BE 1/2" x 3/4" LONG STAINLESS STEEL 1/8" SPACERS TO BE PLACED BETWEEN CHANNELS AND WALL OF PULL BOX.
 4. CHANNEL RACKING TO BE FACTORY INSTALLED.

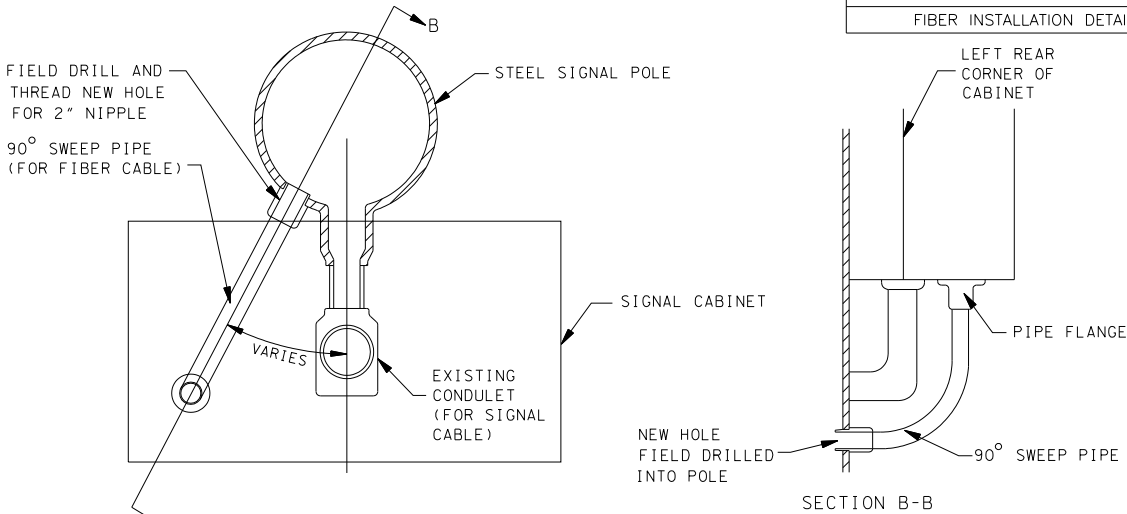
GENERAL NOTES

- Ⓐ CONDUIT FOR FIBER OPTIC CABLE REQUIRED TO UTILIZE LARGE RADIUS BENDS (MINIMUM RADIUS 6"). NO ELBOW JOINTS ALLOWED.
- Ⓑ FIBER OPTIC CABLE RUNS TO UTILIZE MIN. 1.5" CONDUIT.
- Ⓒ WHEN EXISTING PULLBOXES ARE TO BE REPLACED BY LARGER FIBER OPTIC PULLBOXES, THE COST OF REMOVAL IS TO BE INCLUDED IN ITEM FOR PULLBOX.
- Ⓓ THE COST OF ALL MODIFICATIONS, ADJUSTMENTS, MATERIALS, MOUNTING HARDWARE, ETC. TO BE INCLUDED IN OTHER ITEMS, UNLESS A DIRECT PAY ITEM IS PROVIDED.

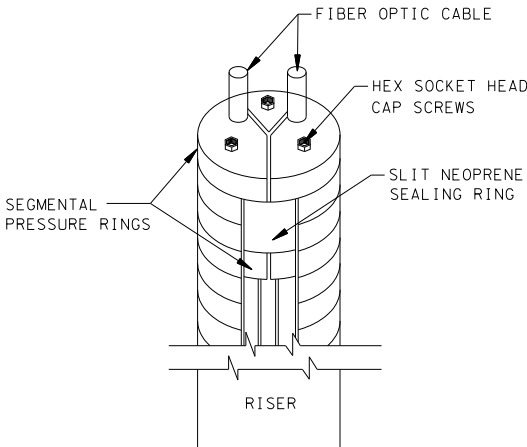


FIBER OPTIC CLOSURE TYPE A PULL BOX

- NOTES:
1. SECURE CABLE SLACK AND CLOSURE TO CHANNEL RACKING VIA UV RESISTANT BLACK NYLON 120-LB (MIN.) TENSILE STRENGTH CABLE TIES.
 2. MAINTAIN MINIMUM BEND RADIUS (ACCORDING TO MANUFACTURERS SPECIFICATIONS FOR CABLE AT REST) FOR LARGEST CABLE IN BUNDLE.
 3. MAINTAIN 6 INCHES OF CLEARANCE BETWEEN TOP OF PULL BOX AND CABLE/ CLOSURE.
 4. ROUTE CABLE EXITING CONDUIT AS TO NOT INTERFERE WITH FUTURE USE OF EMPTY CONDUIT.
 5. CABLE SLACK SHALL NOT BE STORED ON THE FLOOR OF THE PULL BOX.

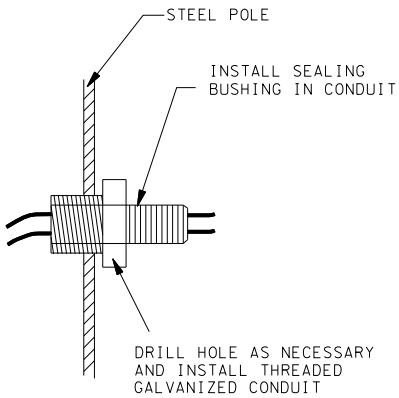


DETAIL OF NEW CONDUIT SWEEP INTO BOTTOM OF POLE MOUNTED CABINET ON STEEL OR CONCRETE POLE



RISER SEALING BUSHING FOR FIBER OPTIC CABLE

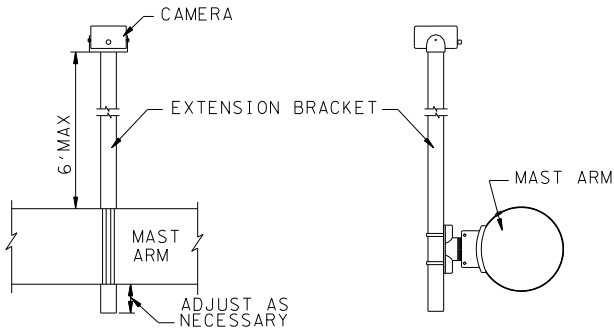
NOTE: TOP OF BUSHING SHALL BE APPROXIMATELY 1 INCH BELOW MESSENGER ATTACHMENT HEIGHT.



FIBER ENTRANCE TO EXISTING STEEL POLES



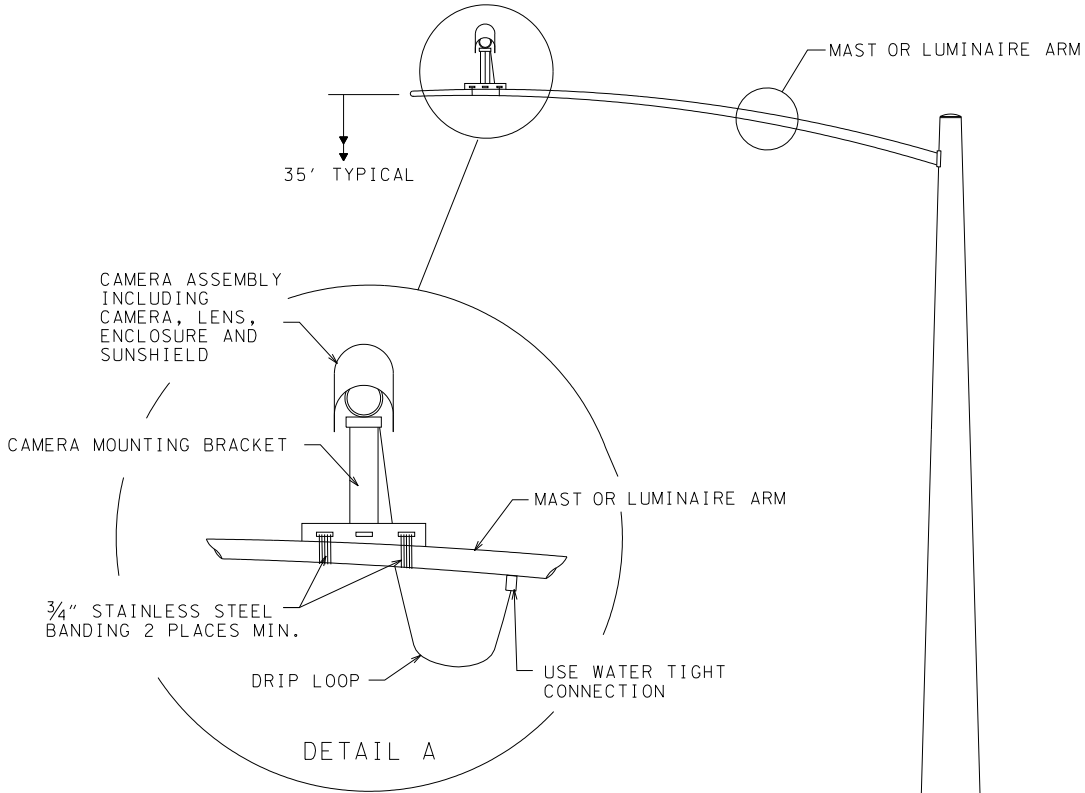
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				JOB NO.		061468		
				UNIVERSITY AVE.				
				VIDEO DETECTION DETAILS				



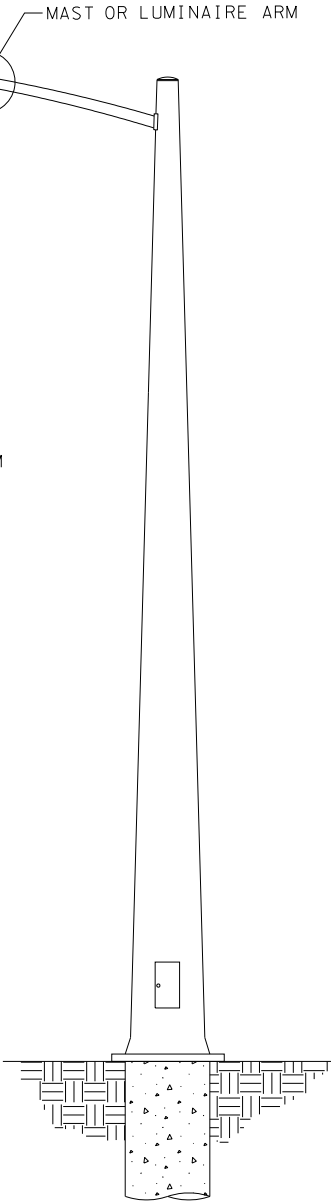
FRONT VIEW SIDE VIEW

ALTERNATE CAMERA MOUNTING DETAIL
(MAST ARM)

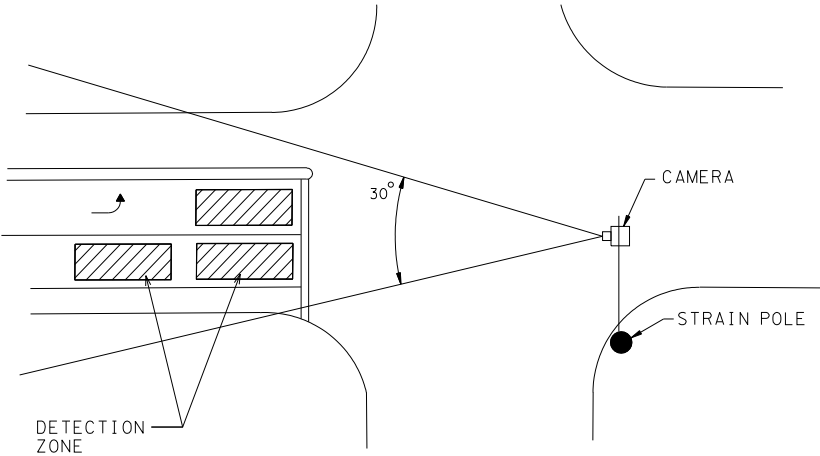
(TO EXTEND CAMERA
HEIGHT ABOVE MAST ARM)



- VIDEO DETECTION NOTES:
1. VIDEO DETECTOR SHALL BE RIGIDLY MOUNTED.
 2. USE 3/4" STAINLESS STEEL BANDING MATERIAL TO HOLD ALL CAMERA MOUNTS.
 3. WHEN AIMING CAMERA, HORIZON SHALL NOT BE VISIBLE IN THE FIELD OF VIEW.
 4. CAMERA ENCLOSURE ASSEMBLY SHALL BE ROTATABLE AFTER INSTALLATION TO PROVIDE PROPER ALIGNMENT.
 5. ALL CABLE ENTRY/EXIT POINTS IN THE POLE SHALL BE WATER TIGHT.
 6. CAMERA MOUNTING BRACKETS SHALL BE PINNED IF DIRECTED BY THE ENGINEER.
 7. SUNSHIELD SHALL BE EXTENDED UNTIL IT IS IN THE CAMERA FIELD OF VIEW. THE SUNSHIELD SHALL THEN BE RETRACTED UNTIL THE SUNSHIELD LEAVES THE FIELD OF VIEW.
 8. A VIDEO CAMERA MANUFACTURE REPRESENTATIVE SHALL BE PRESENT DURING CAMERA INSTALLATION AND SETUP.
 9. INSTALL USING ALL REQUIREMENTS AS STATED BY THE MANUFACTURER.



TYPICAL VIDEO DETECTION DETAIL



TYPICAL VIDEO DETECTOR PLACEMENT



NOTES:
PEDESTRIAN AND TRAFFIC SIGNAL HEAD SIGNS:
EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN THE SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)" TO BE USED AS A LEFT TURN INDICATION ONLY SHALL INCLUDE A SIGN (RIO-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

EACH PEDESTRIAN PUSHBUTTON SHALL HAVE ONE RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

GENERAL NOTES:
1. MAST ARM POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS SPECIFICATIONS CAN BE INSTALLED IN LIEU OF ROUND. ALL POLES AND ARMS IN A JOB MUST BE THE SAME SHAPE.

3. MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY IFOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS 65 MPH AND GREATER AT THE STRUCTURE LOCATION AND ON ROUTES WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY IIFOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH MAST ARMS LESS THAN 60' AND ON ROUTES WHERE THE SPEED LIMITS OF 45 MPH AND LESS WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY IIIFOR ALL STRUCTURES WHERE THE SPEED LIMIT IS 45 MPH AND LESS AND MAST ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS:
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH.

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN 1/2" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DEAD LOAD: AS A MINIMUM, DESIGN SHALL BE BASED ON THE FIXED ATTACHMENTS SHOWN BELOW OR AS MODIFIED IN THE PLANS.

ALL SIGNAL HEADS TO BE ONE WAY, TWELVE (12") INCH AND HAVE FIVE (5") INCH BACK PLATES:

SIGNAL HEADS AT THE END OF MAST ARM - ONE 4 SEC., 85 LB., 14.5 SQ. FT., ONE SIGN MOUNTED 3 FEET FROM SIGNAL HEAD (2'-0" X 2'-6" X 20 LB.) REMAINING SIGNAL HEADS SPACED AT 8 FT. (13 SEC., 56 LB., 8.3 SQ. FT.);
DESIGN TO ACCOMMODATE:
2 SIGNAL HEADS FOR MAST ARMS 10 FT. TO 16 FT.
3 SIGNAL HEADS FOR MAST ARMS 18 FT. TO 24 FT.
4 SIGNAL HEADS FOR MAST ARMS OVER 26 FT.

STREET NAME SIGN - 72" X 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAN 12 FT. FROM POLE, DEPENDING UPON POSITION OF SIGNAL HEAD ADJACENT TO POLE, SIGN MAY OVERLAP POLE SHAFT.
ROADWAY LUMINAIRES (WHERE REQUIRED ON PLAN SHEET) - VARIABLE ARM LENGTH (MAX. WT. 75 LB., 3.3 SQ. FT.)
PEDESTRIAN SIGNALS - TWO (2) SEC., 12 INCH MOUNTED 8 FT. FROM BASE OF POLE, POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

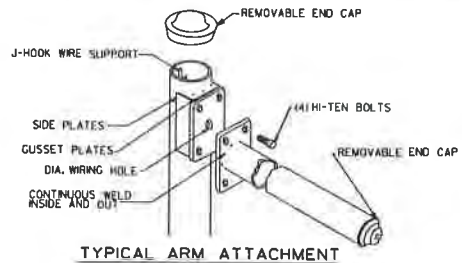
4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE - HAND HOLES SHALL BE 4 IN. X 6 IN. FOR STANDARD, AND 3 IN. X 5 IN. FOR PED. POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACUUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL. POLES GREATER THAN 21 FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDE A HAND HOLE WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

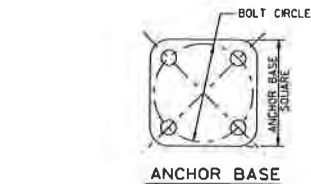
6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

MAST ARM CENTERLINE ANGLE AT ATTACHMENT POINT WITH POLE SHALL MAINTAIN NOT LESS THAN 0.5 DEGREES OR MORE THAN 4 DEGREES POSITIVE SLOPE WITH A LINE PERPENDICULAR TO THE POLE CENTERLINE. THE MAST ARM SHALL MAINTAIN A POSITIVE SLOPE AFTER IT IS PLACED UNDER LOAD.

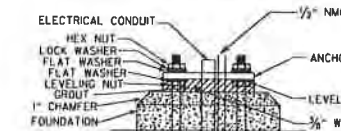
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



TYPICAL ARM ATTACHMENT



ANCHOR BASE



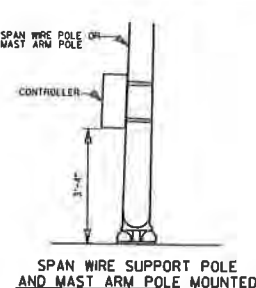
THE SWEEPING "L" IN THE FOUNDATION SHALL BE THE SAME SIZE AS THE CONDUIT FROM THE FOUNDATION TO THE PULL BOX AS SHOWN ON THE PLANS.

THE GROUND ROD SHALL BE FUSION WELDED TO A 1/2" X 8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE GROUND ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX.

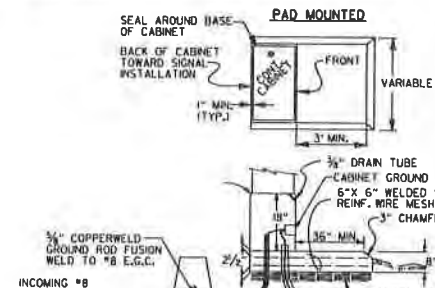
TYPICAL FOUNDATION DETAILS

POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FOUNDATION DIAMETER	DEPTH "L"*	STEEL		
			VERTICAL	HORIZONTAL	O.C.
PED	30"	7'-0"	12-#7 (6'-6")	10-#4	8.44"
2' TO 12'	30"	10'-6"	12-#7 (10'-0")	15-#4	8.42"
OVER 12' TO 20'	30"	11'-6"	12-#7 (11'-0")	16-#4	8.66"
OVER 20' TO 35'	36"	12'-6"	13-#8 (12'-0")	17-#4	8.88"
OVER 35' TO 50'	36"	13'-6"	13-#8 (13'-0")	19-#4	8.56"
OVER 50' TO 72'	42"	14'-6"	18-#8 (14'-0")	20-#4	8.74"
TWINS TO 20'	30"	16'-0"	12-#6 (15'-6")	22-#4	8.76"
TWINS OVER 20' TO 44'	36"	16'-0"	13-#8 (15'-6")	22-#4	8.76"
TWINS OVER 44' TO 50'	42"	16'-0"	18-#8 (15'-6")	22-#4	8.76"
TWINS OVER 50' TO 72'	42"	16'-6"	18-#8 (16'-0")	23-#4	8.64"



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED



PAD MOUNTED

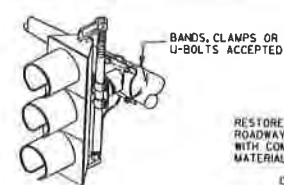
CONTROLLER CABINET MOUNTING DETAILS

NOTE:
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

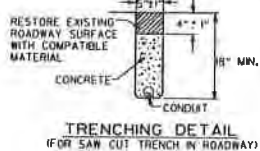
8. GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPARATELY.

9. POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUDED WITH A 1/4" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

10. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.



NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.

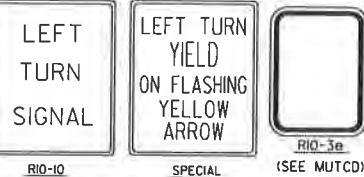
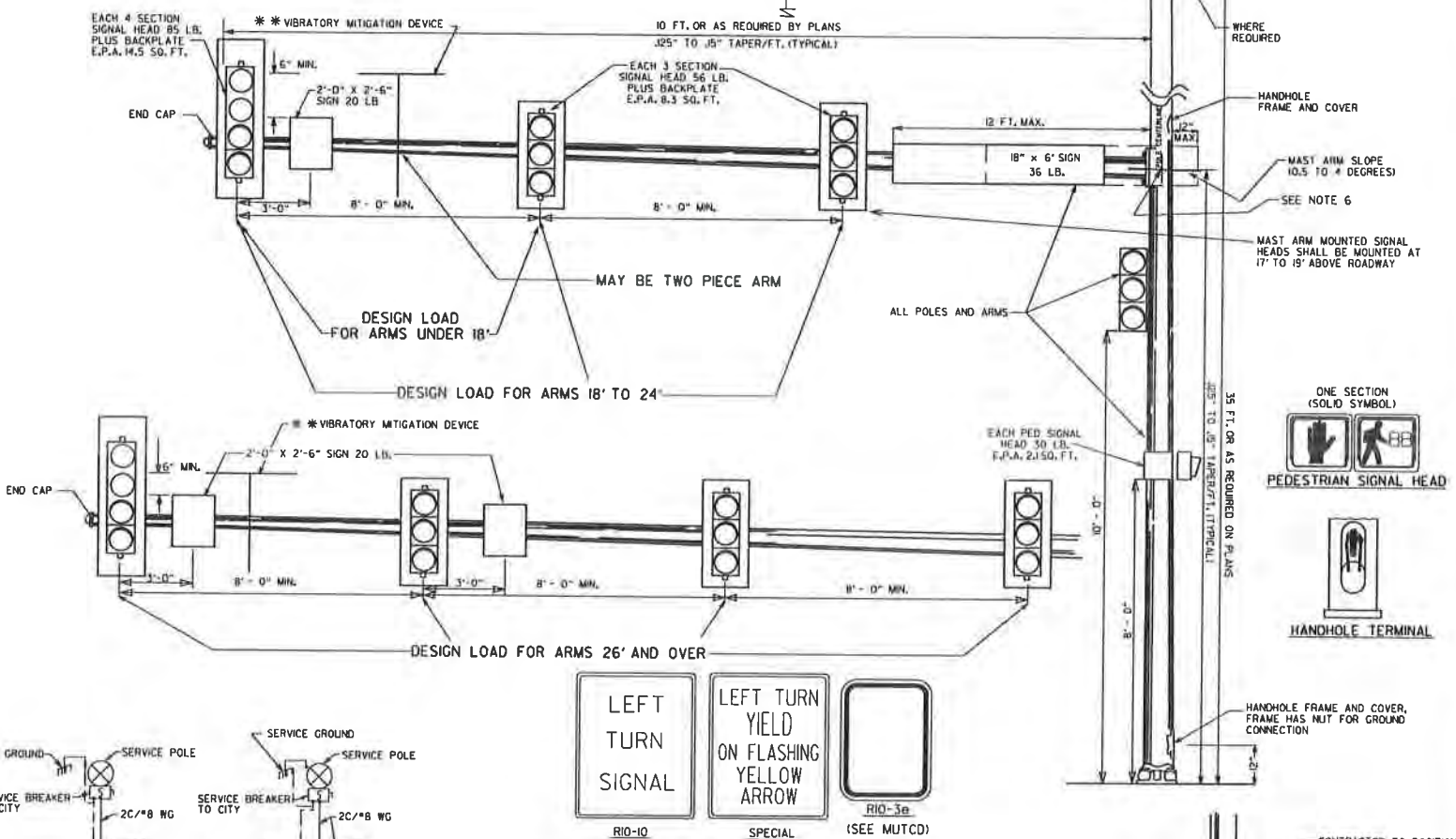


TRENCHING DETAIL (FOR SAW CUT TRENCH IN ROADWAY)

* WHEN THE GROUND ELEVATION AT THE POLE IS LOWER THAN THE ROADWAY ELEVATION, THE LENGTH OF FOUNDATION ABOVE THE GROUND MAY BE INCREASED TO PROVIDE THE REQUIRED SIGNAL HEAD CLEARANCE ABOVE THE ROADWAY. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 18" OR LESS, NO INCREASE IN DEPTH "L" WILL BE REQUIRED. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 5'-6" OR LESS, INCREASE DEPTH "L" BY 1'-0". FOR LENGTHS GREATER THAN 5'-6", DEPTH "L" SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING, AS SHOWN IN THE TABLE, SHALL BE PROVIDED FOR THE LENGTH OF THE EXTENDED SHAFT AND #4 TIES SHALL BE PROVIDED AT A SPACING NOT TO EXCEED 9" ON CENTERS. PAYMENT WILL BE IN ACCORDANCE WITH SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS.

** IN LIEU OF DESIGNING THE STRUCTURE TO RESIST PERIODIC GALLOPING, A VIBRATORY MITIGATION DEVICE MAY BE PROVIDED BY THE POLE MANUFACTURER. THE VIBRATORY MITIGATION DEVICE SHALL BE AN ANTI-GALLOPING PANEL CONSISTING OF A 60" X 16" X 0.125" SIGN BLANK MOUNTED NEAR THE END OF THE MAST ARM NOT TO EXCEED ONE QUARTER OF THE LENGTH OF THE MAST ARM FROM THE END OF THE MAST ARM WITH THE LONG AXIS OF THE PANEL. THE PANEL SHOULD BE MOUNTED AT SUCH THE HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OF SIGN PANEL LOCATED ON THE MAST ARM WITHIN THE LENGTH OF THE ANTI-GALLOPING PANEL.

TRUCK-INDUCED GUST LOADS SHALL BE EXCLUDED FOR FATIGUE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.



DATE	REVISION	FILED
11-16-17	REVISED NOTES, ADDED PEDESTRIAN SIGNAL HEAD DETAIL, ADDED HANDHOLE TERMINAL DETAIL, ADDED TRENCHING DETAIL	
02-27-14	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
12-08-16	REVISED NOTES	
02-27-14	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED VMD, SIGNAL HEADS	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
04-25-08	ADDED VIBRATORY MITIGATION DEVICE & NOTES	
04-18-08	REVISED AASHTO NOTES	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REVISED CABINET ORIENTATION	
06-23-04	REVISED	
05-11-04	REV. NOTE 3/AASHTO REQUIREMENTS	
06-11-01	REV. NOTES & POLE MAST ARM SLOPE	
04-11-01	REVISED POLE TAPERS	
04-25-00	REV. NOTES & SIGNAL HEAD PLACEMENT	
11-22-99	REVISED FOUNDATION DETAILS	
11-17-98	REVISED DETAILS AND NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

STEEL POLE WITH MAST ARM

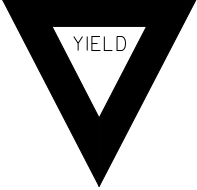
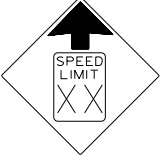
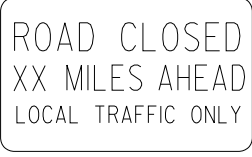
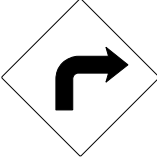
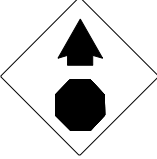
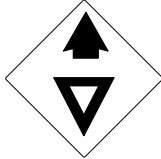
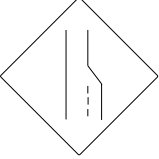
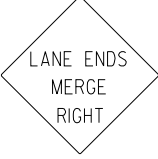
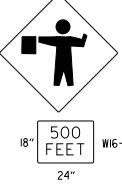
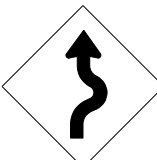
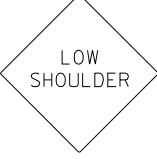
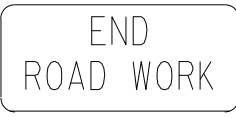
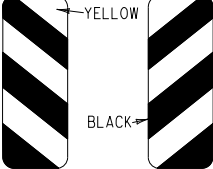
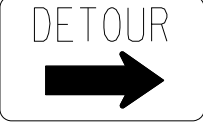
STANDARD DRAWING SD-II

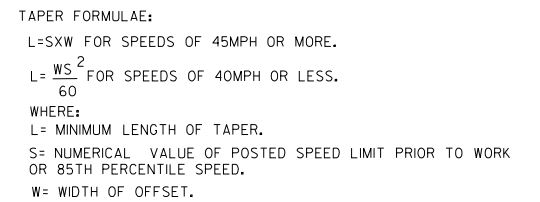
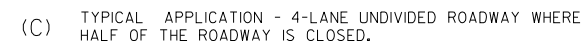
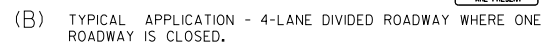
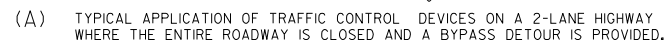
SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS OR AS DIRECTED BY THE ENGINEER. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD, AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATION IN FLASH SEQUENCE.

SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.

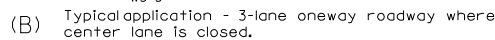
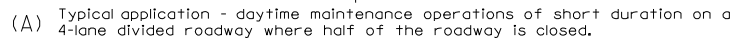
RI-1  STANDARD 30"X30" EXPRESSWAY 36"X36" SPECIAL 48"X48"	RI-2  STD. 36"X36"X36" EXPWY. 48"X48"X48" FWY. 60"X60"X60"	R2-1  STD. 24"X30" EXPWY. 36"X48" FWY. 48"X60"	W3-5  STD. 36"X36" EXPWY. 48"X48" FWY. 48"X48"	W3-5a  STD. 36"X36" EXPWY. 48"X48" FWY. 48"X48"	R4-1  STD. 24"X30" EXPWY. 36"X48" FWY. 48"X60"	R4-2  STD. 24"X30" EXPWY. 36"X48" FWY. 48"X60"	ADVANCE DISTANCES (XXXX) 500 FT 1/2 MILE 1000 FT 3/4 MILE 1500 FT 1 MILE AHEAD GENERAL NOTES: 1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION. 2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER. 3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED. 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE. 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3. 6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE. 7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS. 8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS. 9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT. 10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN. • NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.
R5-1  STD. 30"X30" EXPWY. 36"X36" SPECIAL 48"X48"	R11-2  48"X30"	R11-3A  60"X30"	R11-4  60"X30"	W21-5a  STD. 36"X36" FWY. 48"X48"	W1-1  STD. 36"X36" FWY. 48"X48"	W1-2  STD. 36"X36" FWY. 48"X48"	
W1-3  STD. 48"X48"	W1-4  STD. 48"X48"	W1-6  STD. 48"X24" SPECIAL 60"X30"	W1-8  STD. 18"X24" SPECIAL 24"X30" EXPWY. 30"X36" FWY. 36"X48"	W3-1  STD. 36"X36" SPECIAL 48"X48"	W3-2  STD. 36"X36" SPECIAL 48"X48"	W4-2  STD. 36"X36" FWY. 48"X48"	
W5-1  STD. 36"X36" SPECIAL 48"X48"	W6-3  EXPWY. 36"X36" SPECIAL 48"X48"	W8-7  EXPWY. 36"X36" FWY. 48"X48"	W9-2  STD. 36"X36" FWY. 48"X48"	W13-1  STD. 24"X24"	W20-1  STD. 48"X48"	W20-2  STD. 48"X48"	W20-3  STD. 48"X48"
W20-4  STD. 48"X48"	W20-5  STD. 48"X48"	W20-7a  STD. 36"X36" FWY. 48"X48"	W21-2  STD. 30"X30" SPECIAL 36"X36"	W21-5  STD. 30"X30" SPECIAL 36"X36"	W24-1  STD. 36"X36"	W1-4b  STD. 48"X48"	R56-1  STD. 18"X18"
W8-11  STD. 36"X36" FWY. 48"X48"	W8-9  STD. 36"X36" FWY. 48"X48"	G20-1  60"X24"	G20-2  48"X24"	OM-3L OM-3R  12"X36"	M4-9  STD. 30"X24" SPECIAL 48"X36" SPECIAL 60"X48"	M4-10  48"X18"	R55-1 FINES DOUBLE IN WORK ZONES * WHEN WORKERS ARE PRESENT ** 36"X60" * USE 6" C LETTERS ** USE 4" D LETTERS



- GENERAL NOTES:
 1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(I)55 SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS.
AT THE END OF THE WORK AREA (R2-(I)XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(I)45 SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(I)XX SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
 5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER, WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
 8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

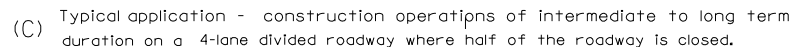


9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

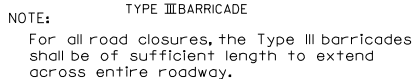


- Arrow Panel (If Required)
- Channelizing Device
- Traffic drum

1. A speed limit reduction may be implemented when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-(I55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-145mph speed limit signs shall be installed at a maximum of 1/4 mile intervals. At the end of the work area a R2-(IXX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-(I45) shall be omitted. Additional R2-155mph speed limit signs shall be installed at a maximum of 1/4 mile intervals. At the end of the work area a R2-(IXX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 1/2 mile in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual for Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.



* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.



36" MIN

ROADWAY SURFACE

Drop off > 3"

Spacing = 2 x Posted Speed Limit
Or As Noted On Plans

<u>VERTICAL DIFFERENTIAL</u>	<u>LOCATIONS</u>	<u>TRAFFIC CONTROL</u>
1" to 3"	Centerline, lane lines	W8-II
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required

Greater than 3"	Edge of traveled lane	*RSP-land vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

- When shown on the plans concrete barrier will be used.

When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



The diagram illustrates a double-sided advance stop sign assembly. It consists of two octagonal signs mounted on a single post, one facing forward and one facing backward. The front sign is labeled "STOP" and the back sign is labeled "SLOW".

Dimensions:

- The octagonal signs have a diameter of 6 inches.
- The "STOP" sign has a "6" SERIES LEGEND" (the word "STOP") and a "C" (center) dimension.
- The "SLOW" sign has a "6" dimension for the legend area.
- The distance between the signs is 5 feet.

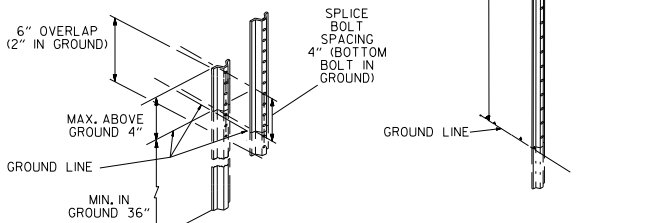
Colors:

- Front Sign:**
 - LEGEND—WHITE (REFL)
 - BACKGROUND—RED (REFL)
- Back Sign:**
 - LEGEND—BLACK
 - BACKGROUND—ORANGE (REFL)
 - AREA OUTSIDE DIAMOND—BLACK

NOTES: USE SPLICES ONLY WHEN NECESSARY
FOR INSTALLATION. TYPICAL INSTALLATION
SHOULD HAVE NO SPLICES (SEE STD. DRAWING
NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE
1/4" DIA. BOLTS TO MOUNT SIGNS TO POST
AND 5/16" DIA. BOLTS TO ASSEMBLE THE
VARIOUS POST SUPPORTS. EACH OF THESE
BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN;
SIGNS SHALL NOT BE PAINTED,
AND ALL SIGN POSTS SHALL BE PLUMB.



9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILE MFD

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-3