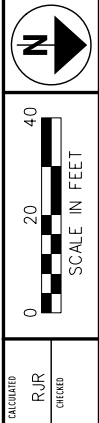


**TYPICAL SIGNAL HEADS**  
 YELLOW POLYCARBONATE W/ 12" LED LAMPS



**TRAFFIC SIGNAL DETAILS**  
**SR 3 & SR 162 / COBBLESTONE PK DR**

**MED-3-8.42**  
**MED-162-16.44**

- (A) EXIST 3" CONDUIT: 2-7/C & 4-2/C  
 INSTALL 1-7/C FOR NEW SIGNAL HEADS 7 & 8.  
 REMOVE 4-2/C LEAD-IN CABLES.
- (B) EXIST 3" UNDER PVMT: 1-7/C TO REMAIN  
 REMOVE 1-2/C LEAD-IN FOR ABANDONED LOOP L-1
- (C) PB-7, EXIST 24", STA 452+36, 52' RT
- (D) EXIST 3" CONDUIT: 1-7/C & 3-2/C  
 INSTALL 1-7/C FOR NEW SIGNAL HEADS 7 & 8.  
 REMOVE 3-2/C LEAD-IN CABLES.

**\*\* COST OF REROUTING CABLE SHALL BE CONSIDERED INCIDENTAL TO ALL THE OTHER TRAFFIC SIGNAL PAY ITEMS IN THIS PLAN.**

SP-4, TC-81.21 DESIGN 12  
 SIGNAL SUPPORT W/ 48'  
 ARM, STA 452+56.77, 45' LT

SP-1, TC-81.21 DESIGN 13  
 SIGNAL SUPPORT W/ 52' ARM,  
 POWER SERVICE & WORK PAD  
 STA 452+42.8, 53' RT  
 RELOCATE SIGNAL HEADS 1 & 2 TO BE  
 DIRECTLY OVER EDGES OF THRU LANE.  
 SHORTEN MAST ARM 8'.

EXIST 2" CONDUIT: 1-7/C  
 EXIST 2" CONDUIT (725.04): 1-2/C POWER  
 EXIST CONTROLLER, GROUND MOUNTED  
 W/ INTERNAL UPS & CONCRETE WORK PAD  
 STA 452+42.8, 59' RT  
 REMOVE LOOP DETECTOR UNITS. INSTALL STOP  
 BAR DETECTION SYSTEM, MODIFY ADVANCE DILEMMA  
 ZONE DETECTION SYSTEM, AND MODIFY TIMING.

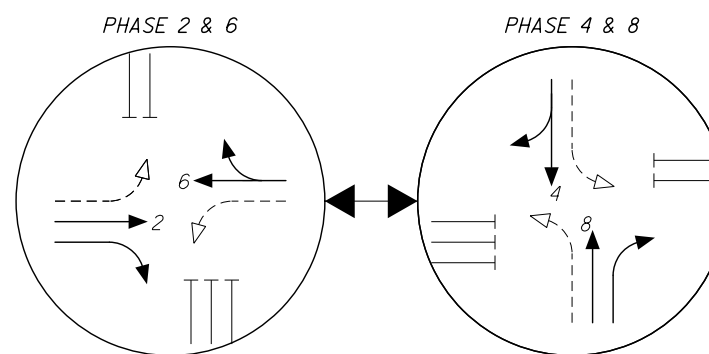
### DETECTOR CHART

LOOP OR DETECTION ZONE	DIRECTION	LENGTH (FT.)	MODE	DELAY (SEC.)	CONNECT DETECTOR UNIT NO.	ASSOCIATED CONTROLLER PHASE	COMMENTS
L-1	PRESENCE	-	PRESENCE		1	2	ABANDON LOOP AND REMOVE LOOP DETECTOR UNIT
L-2	PULSE	-	PULSE	2*	1	4	ABANDON LOOP AND REMOVE LOOP DETECTOR UNIT
L-3	PULSE	-	PULSE	2*	2	4	ABANDON LOOP AND REMOVE LOOP DETECTOR UNIT
L-4	PRESENCE	-	PRESENCE	10*	3	4	ABANDON LOOP AND REMOVE LOOP DETECTOR UNIT
L-5	PRESENCE	-	PRESENCE		4	4	ABANDON LOOP AND REMOVE LOOP DETECTOR UNIT
L-6	PRESENCE	-	PRESENCE		4	4	ABANDON LOOP AND REMOVE LOOP DETECTOR UNIT
DZ-1	NB	257	PRESENCE		-	2	ADVANCE DILEMMA ZONE DETECTION
DZ-1A	NB	130	PRESENCE		-	2	QUEUE DETECTION ZONE
DZ-2	NB	80	PRESENCE	5*	-	2	STOP BAR DETECTION ZONE
DZ-3	SB	80	PRESENCE	5*	-	6	STOP BAR DETECTION ZONE
DZ-4	SB	269	PRESENCE		-	6	ADVANCE DILEMMA ZONE DETECTION
DZ-4A	SB	130	PRESENCE		-	6	QUEUE DETECTION ZONE
DZ-5	EB	270	PRESENCE	**	-	4	ADVANCE DILEMMA ZONE DETECTION
DZ-6	EB	92	PRESENCE	10*	-	4	STOP BAR DETECTION ZONE
DZ-7	EB	65	PRESENCE	5*	-	4	STOP BAR DETECTION ZONE
DZ-8	WB	65	PRESENCE	2*	-	8	STOP BAR DETECTION ZONE
DZ-9	WB	65	PRESENCE	2*	-	8	STOP BAR DETECTION ZONE
DZ-10	WB	74	PRESENCE	10*	-	8	STOP BAR DETECTION ZONE

\* INHIBIT DELAY DURING ASSOCIATED PHASE GREEN INTERVAL  
 \*\* NO DETECTION DURING ASSOCIATED PHASE RED INTERVAL

NOTE: FOR DILEMMA ZONE, INCLUDE CALLS FOR SPEEDS 35 MPH OR HIGHER.  
 FOR QUEUE DETECTION, DETECT VEHICLES TRAVELLING 1-25 MPH.

### PHASING DIAGRAM



### SIGNAL TIMING CHART

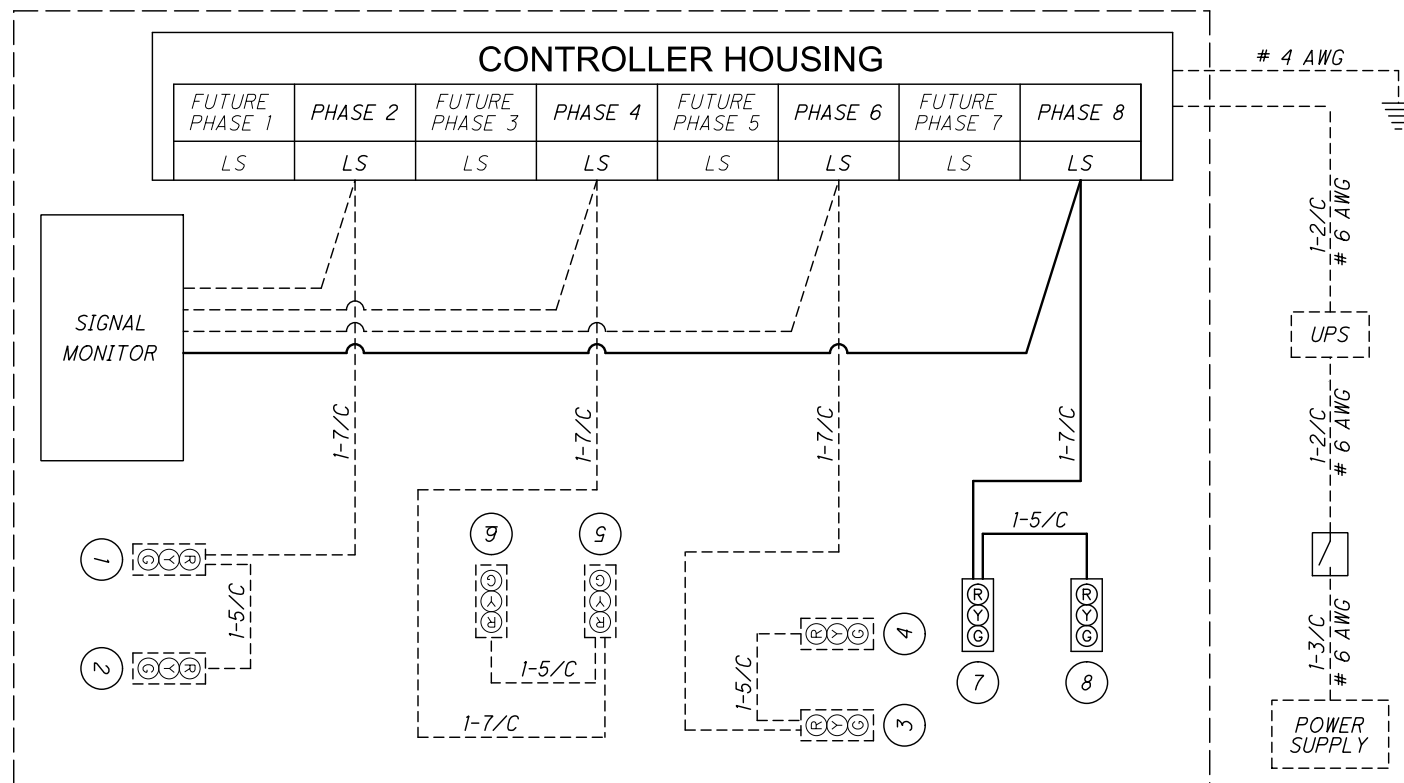
INTERVAL	PHASE							
	1 FUTURE USE	2 SR 3 NB	3 FUTURE USE	4 SR 162 EB	5 FUTURE USE	6 SR 3 SB	7 FUTURE USE	8 COBBLE. WB
MINIMUM GREEN		24		10		24		10
PASSAGE		1.0		3.0		1.0		3.0
YELLOW		5.0		4.3		5.0		4.3
ALL RED		1.6		3.0		1.6		3.0
MAXIMUM GREEN		50		35		50		35
WALK								
PED CLEAR								
MIN. RECALL		YES		NO		YES		NO
DET. NON-LOCK		NO		YES		NO		YES
INITIALIZATION		GRN		RED		GRN		RED

### SIGNAL INDICATION CHART

PHASE	SIGNAL HEAD							
	SR 3				COBBLESTONE AND SR 162W			
	NB		SB		EB		WB	
	1	2	3	4	5	6	7	8
2 & 6	G	G	G	G	R	R	R	R
	Y	Y	Y	Y	R	R	R	R
	R	R	R	R	R	R	R	R
4 & 8	R	R	R	R	G	G	G	G
	R	R	R	R	Y	Y	Y	Y
	R	R	R	R	R	R	R	R
FLASH	Y	Y	Y	Y	R	R	R	R

### TRAFFIC SIGNAL GENERAL SUMMARY

ITEM	EXT.	QTY.	UNITS	DESCRIPTION	SHT. REF.
614	11110	8	HR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	30-31
625	25500	46	FT	CONDUIT, 3", 725.04	
625	25903	82	FT	CONDUIT, JACKED OR DRILLED, 725.04, AS PER PLAN, 3"	25
625	29001	46	FT	TRENCH AS PER PLAN	25
625	31600	2	EACH	PULL BOX, MISC.: ADJUST TO GRADE	25
625	31600	1	EACH	PULL BOX, MISC.: REMOVE AND REINSTALL	26
625	31511	5	EACH	PULL BOX REMOVED, AS PER PLAN	26
625	32000	1	EACH	GROUND ROD	
632	05005	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	26
632	25001	2	EACH	COVERING OF VEHICULAR SIGNAL HEADS, AS PER PLAN	26
632	40500	22	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
632	40700	305	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
632	64011	1	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	26-27
632	80603	1	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 12, AS PER PLAN	27
632	80700	2	EACH	SIGNAL SUPPORT, MISC.: SHORTEN MAST ARM	27
632	90300	1	LUMP	SIGNALIZATION, MISC.: REMOVAL OF CABLE	27
632	90400	2	EACH	SIGNALIZATION, MISC.: REMOVE AND REINSTALL SIGNAL HEAD	27
633	99000	1	EACH	CONTROLLER ITEM, MISC.: MODIFY ADVANCE/DILEMMA ZONE DETECTION SYSTEM	27-28
633	99000	1	EACH	CONTROLLER ITEM, MISC.: MODIFY CONTROLLER	28
633	99000	1	EACH	CONTROLLER ITEM, MISC.: STOP BAR DETECTION RADAR	28-29

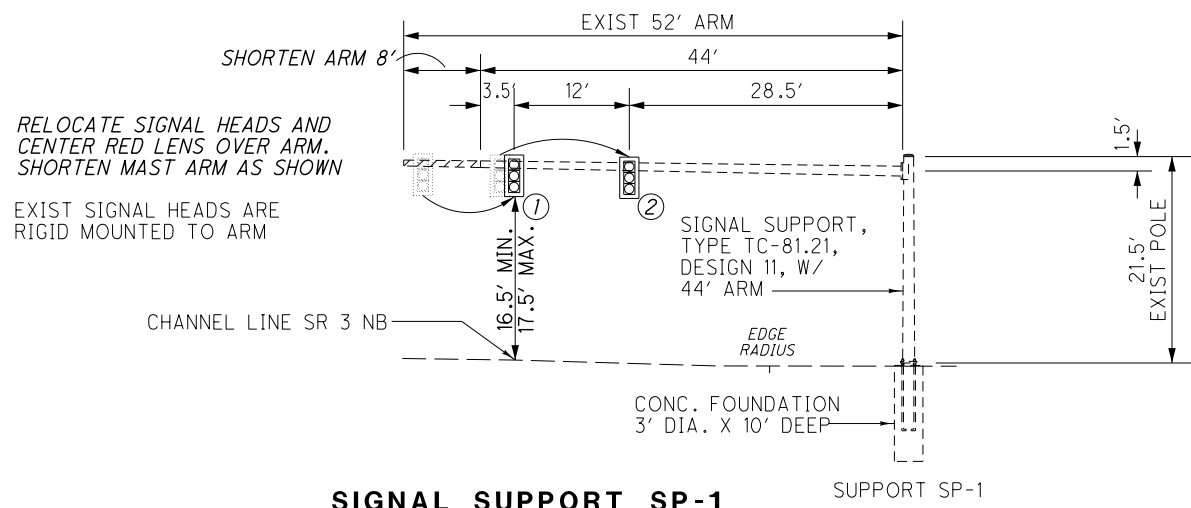


### APPROACH MONITORING HOOK-UP DIAGRAM

### LEGEND

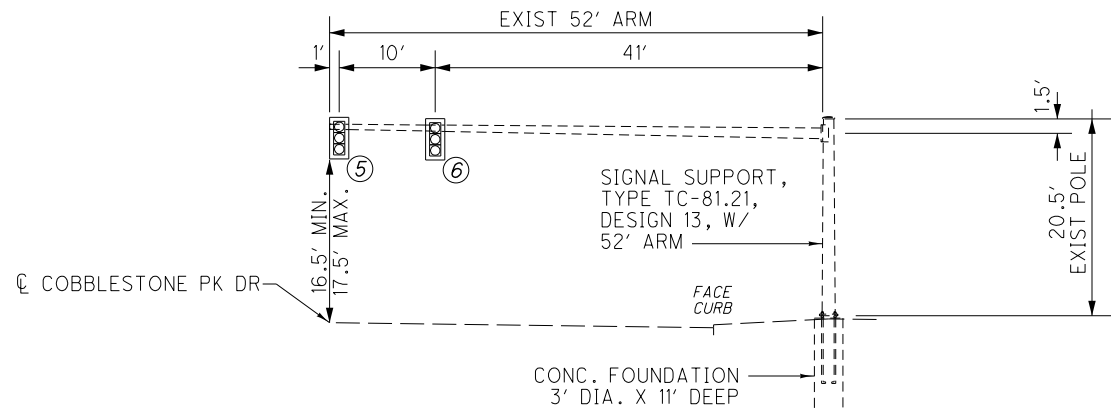
	NEW VEHICULAR SIGNAL HEAD
	EXISTING VEHICULAR SIGNAL HEAD
	NEW CABLE
	EXISTING CABLE

NOTE: ALL CABLE NO. 14 AWG UNLESS NOTED OTHERWISE



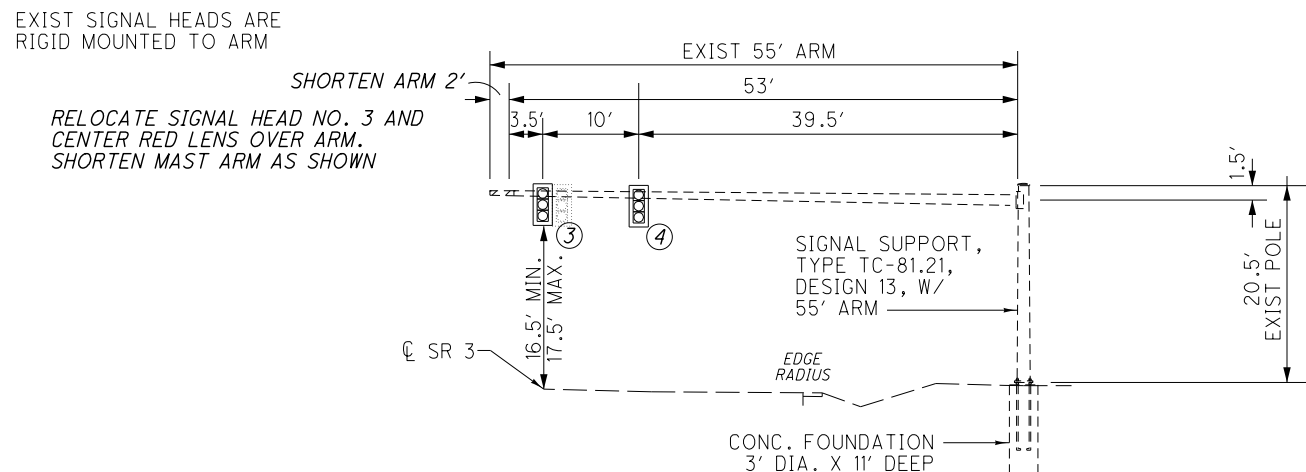
**SIGNAL SUPPORT SP-1  
ELEVATION VIEW**

STA 452+42.8, 53' RT  
LOOKING NORTH



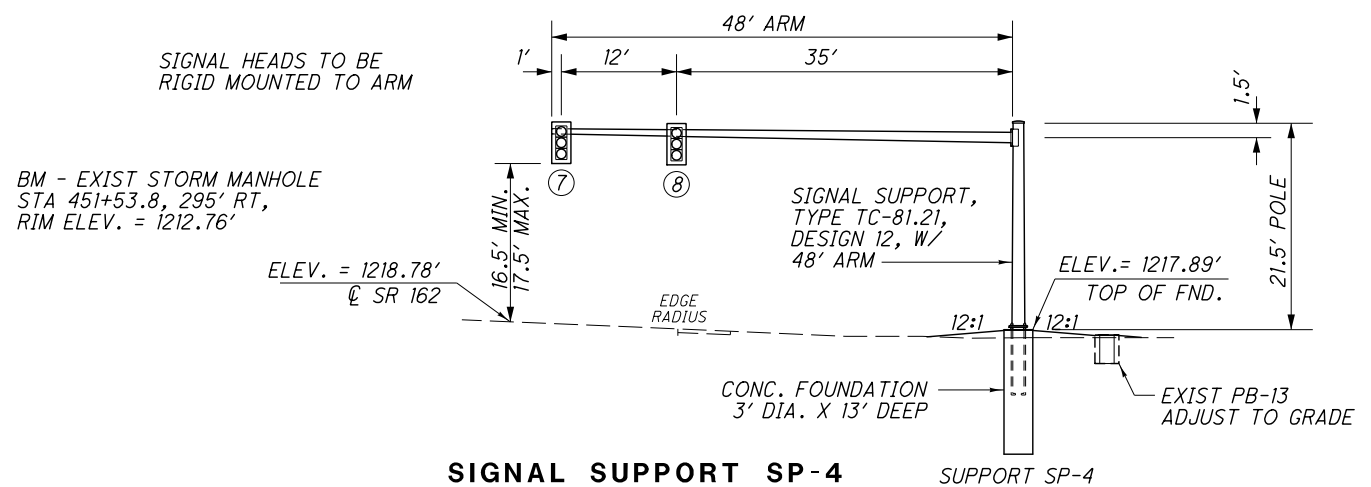
**SIGNAL SUPPORT SP-2  
ELEVATION VIEW**

STA 451+43.8, 53' RT  
LOOKING EAST



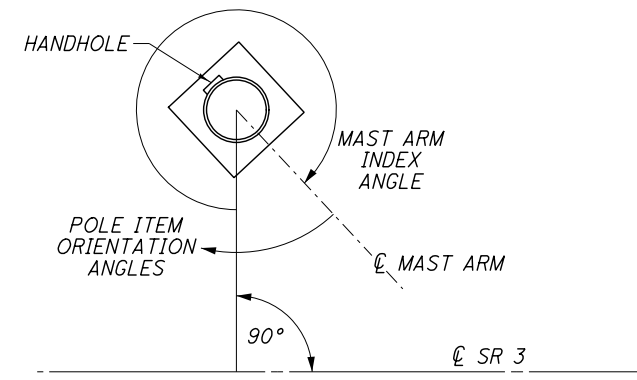
**SIGNAL SUPPORT SP-3  
ELEVATION VIEW**

STA 451+59.8, 50' LT  
LOOKING SOUTH

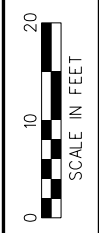


**SIGNAL SUPPORT SP-4  
ELEVATION VIEW**

STA 452+56.77, 45' LT  
LOOKING WEST



SUPPORT NO.	MAST ARM INDEX ANGLE	ORIENTATION ANGLES (DEG.) FROM MAST ARM					
		POWER SERVICE	CONTROLLER	HANDHOLE	3" CONDUIT	2" CONDUIT	2" CAPPED CONDUIT
SP-4	90°			180°	180°	90°	



TRAFFIC SIGNAL DETAILS  
SR 3 & SR 162 / COBBLESTONE PK DR

MED-3-8.42  
MED-162-16.44

DESIGN FILE: I:\FIELD\ELECTRICAL\SIGNAL\DCN\M3&162 Signal Plans.dgn  
WORKSTATION: sockunzz DATE: 2/7/2018