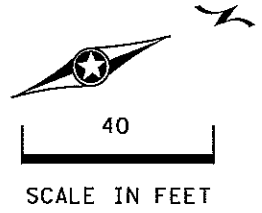
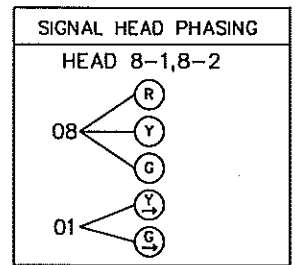


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 IPLOT NAME: T21039R_sgl
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SIGNAL HEAD CHART						
FACE	R	Y	G	Y	G	
1-1, 1-2, 1-3	←	←	←			
2-1, 2-2, 2-3, 2-4	○	○	○			
3-1, 3-2	←	←	←			
4-1, 4-2, 4-3, 4-4	○	○	○			
5-1, 5-2	←	←	←			
6-1, 6-2, 6-3	○	○	○			
7-1, 7-2	←	←	←			
8-3	○	○	○			
8-1, 8-2	○	○	○	→	→	

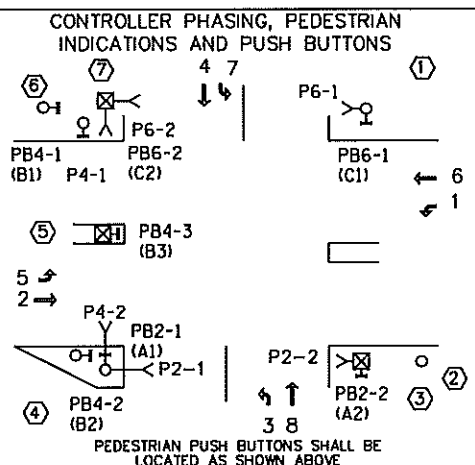
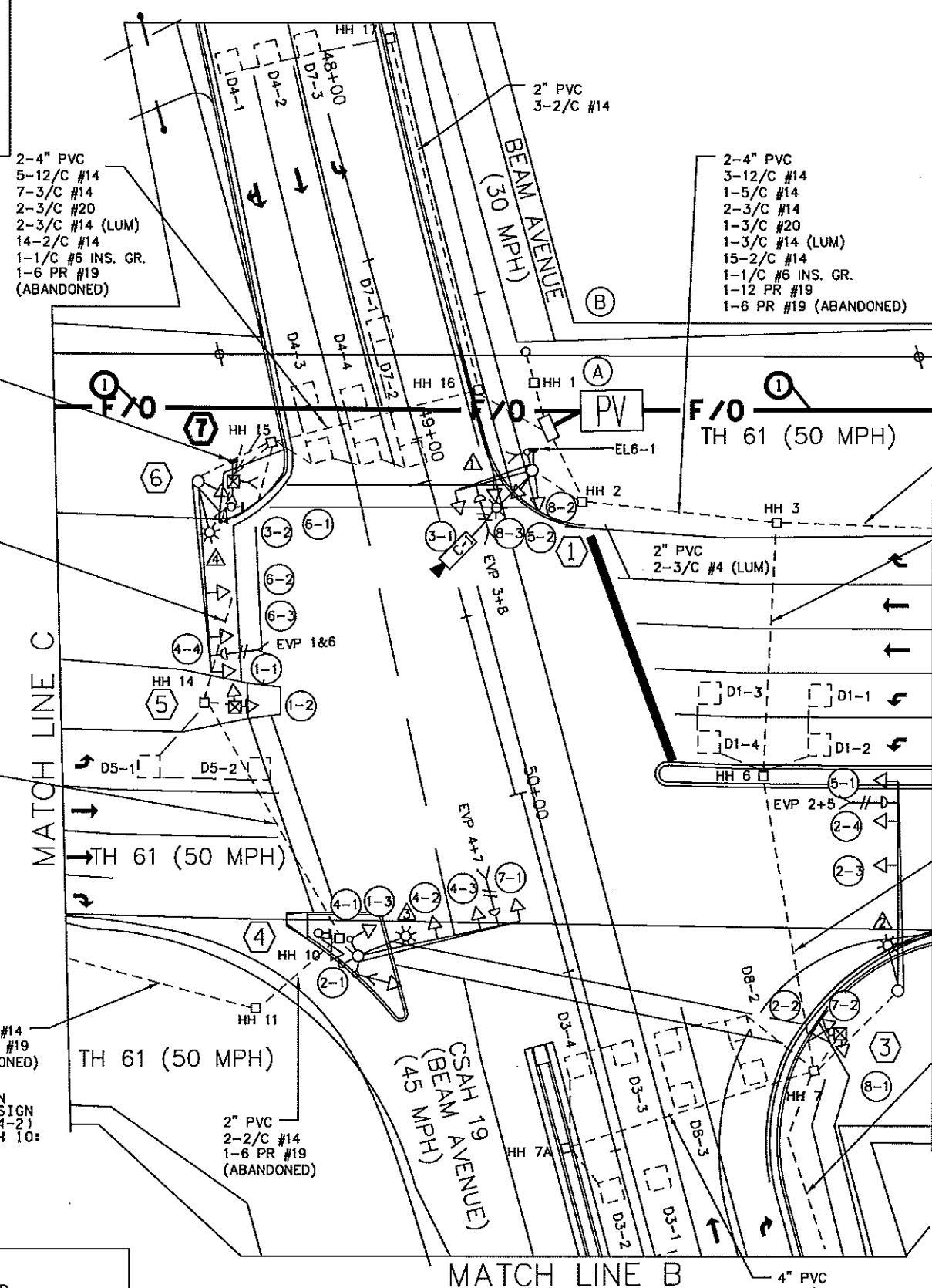
ALL SIGNAL INDICATIONS ARE 12" LEDS
ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD



LOOP DETECTORS			
DESIGNATION	SIZE (FT)	LOCATION	TYPE
D1-1	6X6	40'	PVC
D1-2	6X6	40'	PVC
D1-3	6X6	10'	PVC
D1-4	6X6	10'	PVC
D2-1	6X6	400'	SAWCUT
D2-2	6X6	400'	SAWCUT
D3-1	6X6	40'	PVC
D3-2	6X6	40'	PVC
D3-3	6X6	10'	PVC
D3-4	6X6	10'	PVC
D3-5	2-6X6	290'	PVC
D4-1	6X6	120'	PVC
D4-2	6X6	120'	PVC
D4-3	2-6X6	5' & 20'	PVC
D4-4	2-6X6	5' & 20'	PVC
D5-1	6X6	40'	PVC
D5-2	6X6	10'	PVC
D6-1	6X6	400'	SAWCUT
D6-2	6X6	400'	SAWCUT
D7-1	6X6	40'	PVC
D7-2	6X6	10'	PVC
D8-1	6X6	300'	PVC
D8-2	2-6X6	5' & 20'	PVC
D8-3	2-6X6	5' & 20'	PVC

NOTE: LOCATION=DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB4-1)
EXTEND INTO HH 15:
1 1/4" PVC
1-2/C#14

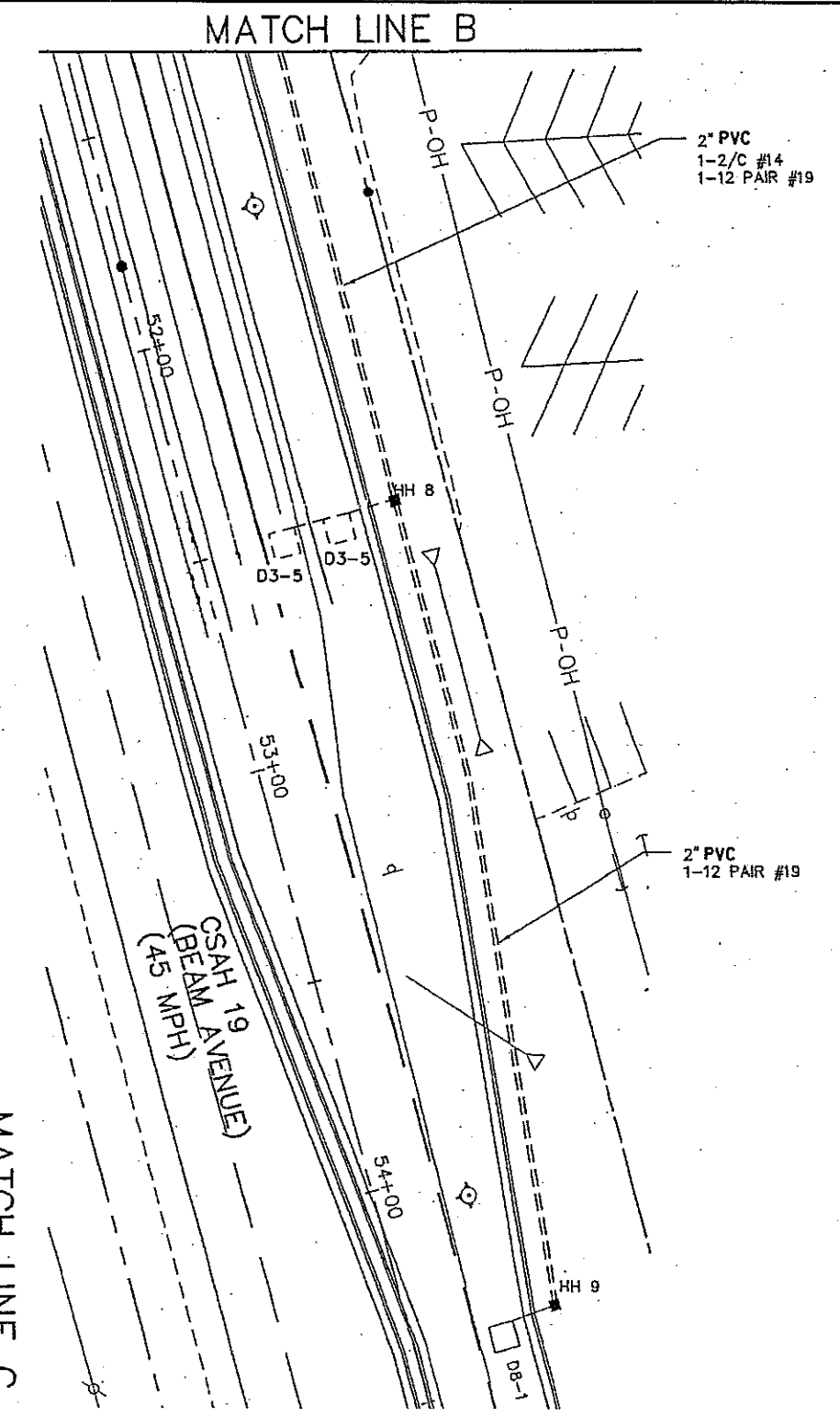
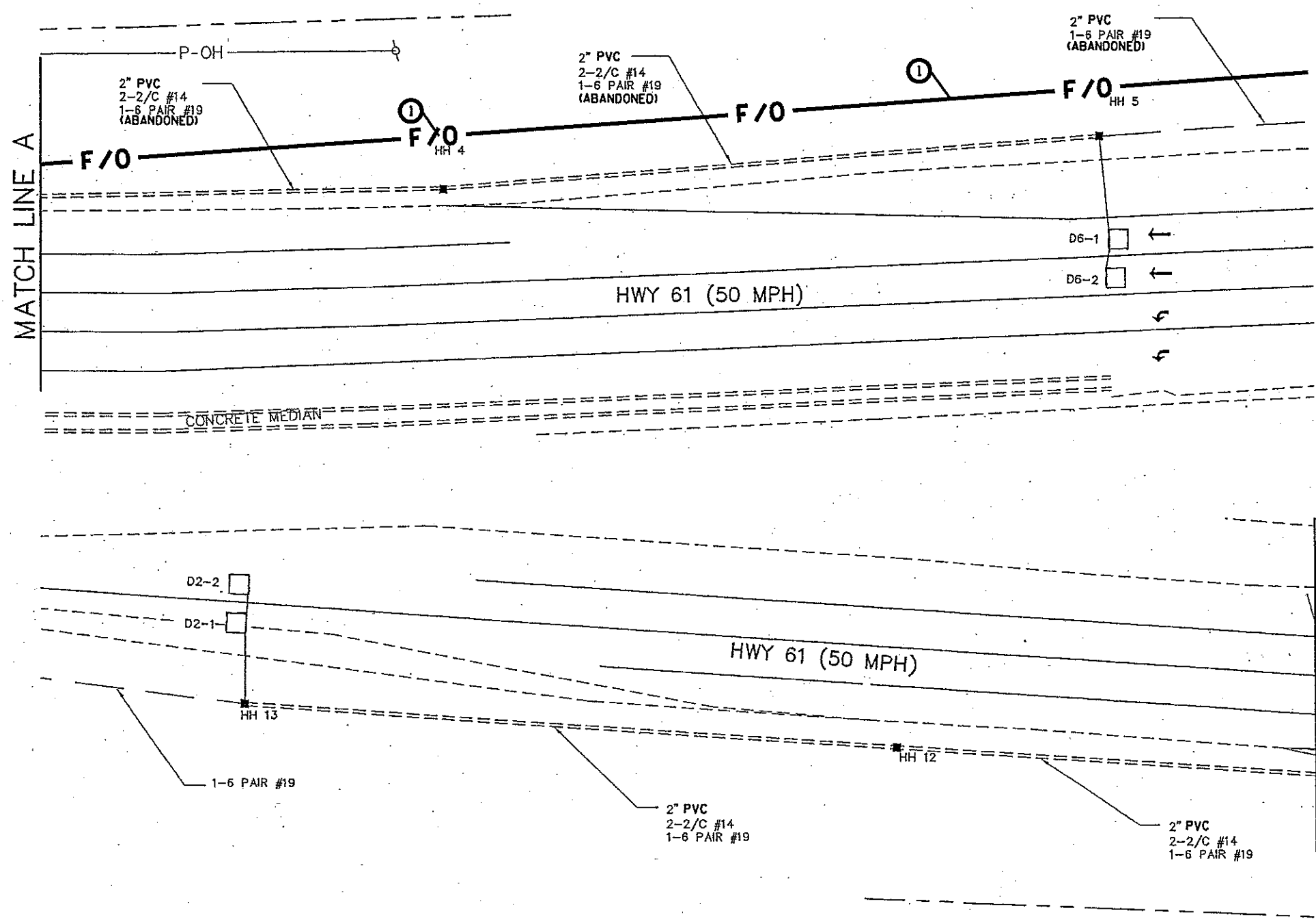
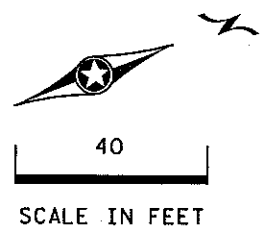


- SIGNAL SYSTEM OPERATIONS
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED. NORMAL OPERATION SHALL BE 8 PHASE, WITH PHASES 1, 3, 5, AND 7 BEING PROTECTED LEFT TURN PHASES.
 - PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL. SIGNAL HEADS 8-1 AND 8-2 SHALL HAVE RIGHT-TURN OVERLAP WITH PHASE 1

① SEE THE TMS PLAN FOR FIBER OPTICS.

BY: EJA	DATE: 10-29-15	REVISIONS: AS-BUILT OF SP 6222-168 FIBER & CAMERA	SYSTEM ID: 21039	T.E.	S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12
SJK	01/2018	ADDED ENFORCEMENT LIGHTS TO INTERSECTION PER TE 3890	METER ADDRESS: 1243 BEAM AVENUE		CERTIFIED BY: _____	LIC. NO. _____	DATE: _____	
			MASTER ID:	T.E.	STATE PROJ. NO. (T.H.61)	SHEET NO. 1 OF 4 SHEETS		

PLOTTED/REVISED: 17-JAN-2018
 I/PLOT NAME: T21039R_sgl
 PATH & FILENAME: Projects\DM_R05\06100007\Traffic\Signals\21039T21039R_sgl.dgn



① SEE THE TMS PLAN FOR FIBER OPTICS.

BY	DATE	REVISIONS	SYSTEM ID: 21039	T.E.	S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12
EJA	10-29-15	AS-BUILT OF SP 6222-168 FIBER & CAMERA	METER ADDRESS: 1243 BEAM AVE		CERTIFIED BY: _____	LIC. NO. _____	DATE: _____	
SJK	01/2018	ADDED ENFORCEMNETS LIGHTS TO INTERSECTION PER TE 3890	MASTER ID: _____	T.E.	STATE PROJ. NO.	(T.H.61)	SHEET NO.	2 OF 4 SHEETS
			MATCH LINES TH 61 AT CSAH 19 (BEAM AVE) MAPLEWOOD, RAMSEY COUNTY					

PLOTTED/REVISED: 17-JAN-2018
 IPLOT NAME: T21039R_sgl
 PATH & FILENAME: Projects\DM_ROS\06\000007Traffic\Signals\21039R\21039R_sgl.dgn

1 EB STA 49+17.28' LT
 PA85 POLE FOUNDATION
 TYPE PA85-A-20-X6-350/CAM 400 (X6 AT 350 DEG)
 LUMINAIRE-250W HPS
 VIDEO CAMERA
 ANGLE MOUNT SIGNAL AT 0'
 STRAIGHT MOUNT SIGNAL AT 11'
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 3+8)
 ENFORCEMENT LIGHT (EL-6-1)
 2-ANGLE MOUNT SIGNALS AT 45 & 225 DEG
 ANGLE MOUNT CD PED HEAD AT 45 DEG
 1-APS PB BUTTON AND SIGN (LT ARROW) (PB6-1)
 R9-3 SIGN (FACING POLE 3)
 TYPE D SIGN
 EXTEND INTO HH 2:
 3" PVC
 2-12/C#14
 2-3/C#14
 1-2/C#14
 1-3/C#20
 1-3/C#14 (LUM)
 2-1/C#6 INS GR
 1-7/16" GROUNDING BRAID TO GROUND ROD IN H.H.2
 1-3/c#14 (CAMERA POWER)
 1-COM CABLE
 1-COAXIAL CABLE

2 EB STA 50+78.85' LT
 PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE 250W HPS
 ANGLE MOUNT SIGNAL AT 0'
 2-STRAIGHT MOUNT SIGNALS AT (11' & 23')
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
 1-TYPE D SIGN
 EXTEND INTO HH 7:
 3" PVC
 1-12/C#14
 1-5/C#14
 1-3/C#14
 1-3/C#20
 1-3/C#14 (LUM)
 2-1/C#6 INS GR

3 EB STA 50+90.67' LT
 PEDESTAL FOUNDATION
 13' SIGNAL PEDESTAL PLUS BASE
 3-STRAIGHT MOUNT SIGNALS
 STRAIGHT MOUNT CD PED HEAD
 1-APS PB BUTTON AND SIGN (LT ARROW) (PB2-2)
 1-R9-3 SIGN (FACING POLE 1)
 EXTEND INTO HH 7:
 2" PVC
 2-12/C#14
 1-3/C#14
 1-2/C#14
 1-1/C#6 INS GR

4 EB STA 50+31.54' RT
 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE 250 WATT HPS
 ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-ANGLE MOUNT SIGNALS AT 11' & 23'
 3-ANGLE MOUNT SIGNALS AT 45, 135, & 225 DEG
 2-STRAIGHT MOUNT CD PED HEADS AT 45 & 225 DEG
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4+7)
 1-APS PB AND SIGN (LT ARROW) (PB2-1)
 1-TYPE D SIGN
 EXTEND INTO HH 10:
 3" PVC
 2-12/C#14
 3-3/C#14
 1-2/C#14
 1-3/C#20
 1-3/C#14 (LUM)
 1-1/C#6 INS GR

5 PEDESTAL FOUNDATION
 13' SIGNAL PEDESTAL PLUS BASE
 2-STRAIGHT MOUNT SIGNALS SIGNALS
 1-APS PB AND SIGN (DBL ARROW) (PB4-2)
 EXTEND INTO HH 14:
 2" PVC
 1-12/C#14
 1-2/C#14
 2-1/C#6 INS GR

6 EB STA 48+99.61' RT
 PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE 250W HPS
 1-ANGLE MOUNT SIGNAL AT 0'
 2-STRAIGHT MOUNT SIGNALS AT 11' & 23'
 2-ANGLE MOUNT SIGNALS AT 45 & 225 DEG
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6)
 1-APS PUSH BUTTON AND SIGN (RT ARROW) (PB6-2)
 1-TYPE D SIGN
 EXTEND INTO HH 15:
 3" PVC
 2-12/C#14
 1-3/C#14
 1-2/C#14
 1-3/C#20
 1-3/C#14 (LUM)
 2-1/C#6 INS GR

7 EB STA 48+99.48' RT
 PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 ENFORCEMENT LIGHT (EL3-1)
 2-STRAIGHT MOUNT CD PED HEADS
 EXTEND INTO HH 15:
 2" PVC
 3-3/C#14
 1-2/C#14
 2-1/C#6 INS GR

B WOOD POLE
 SERVICE EQUIPMENT
 EXTEND INTO HH 1:
 2" PVC
 3-1/C#2

B WOOD POLE
 SERVICE EQUIPMENT
 EXTEND INTO HH 1:
 2" PVC
 3-1/C#2

A CABINET FOUNDATION
 CONTROLLER AND CABINET
 EXTEND INTO HH 16:
 2-4" PVC
 5-12/C#14
 7-3/C#14
 2-3/C#20
 16-2/C#14
 1-1/C#6 INS GR
 1-6PR#19 (ABANDONED)
 1-3/c#14 (CAMERA POWER)
 1-COM CABLE
 1-COAXIAL CABLE

EXTEND INTO HH 2:
 2-4" PVC
 5-12/C#14
 1-5/C#14
 4-3/C#14
 2-3/C#14
 16-2/C#14
 1-12 PR#19
 1-6PR#19 (ABANDONED)
 1-1/C#6 INS GR

BETWEEN SERVICE CABINET AND CONTROLLER CABINET
 2" PVC
 2-1/C#6
 1-1/C#6 INS GR

EXTEND INTO HH 2:
 2" PVC
 4-3/C#14 LUM

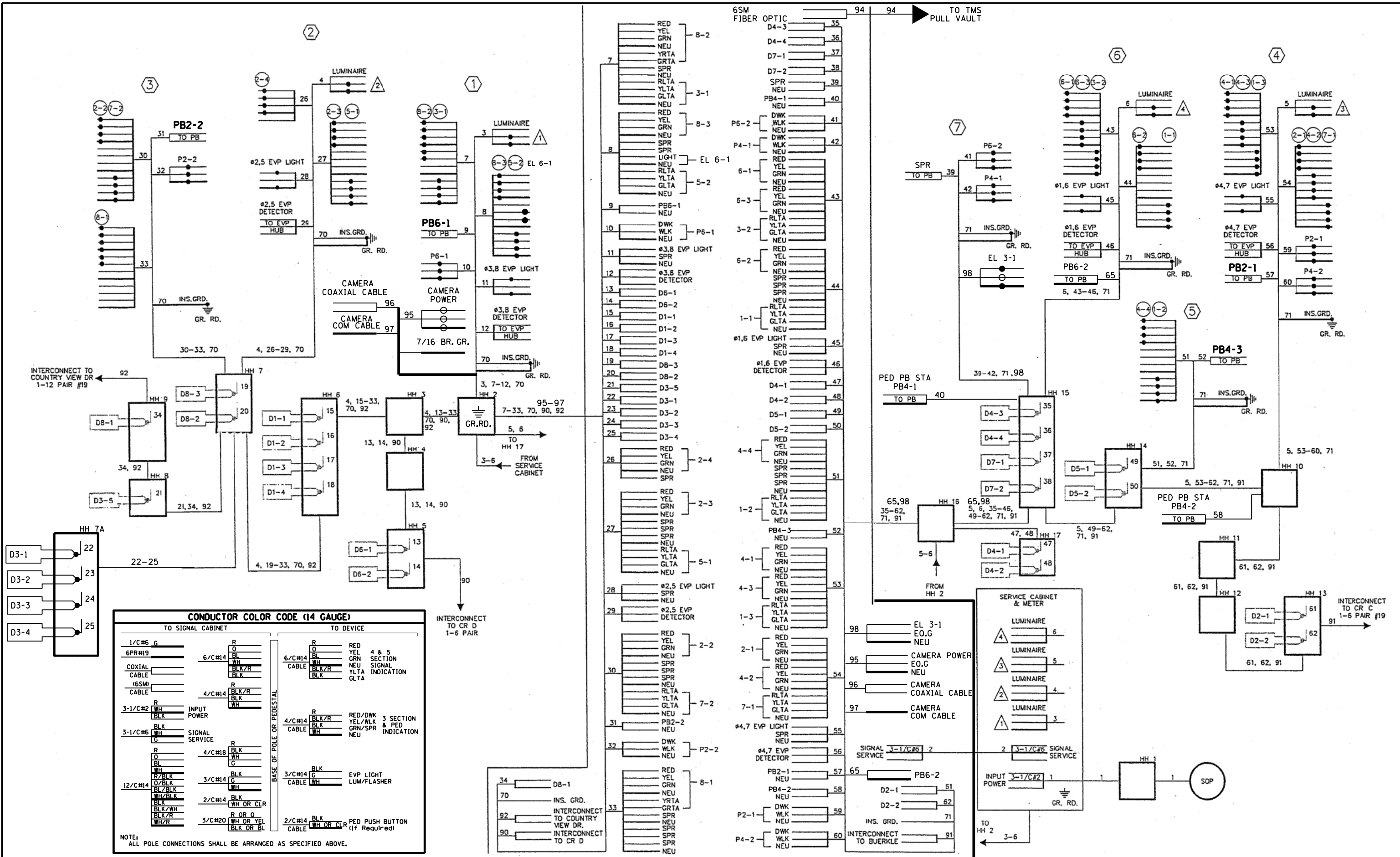
CONTROLLER CABINET TO TMS PULL VAULT
 1 1/2" PVC INSIDE 3" PVC STUBOUT:
 1-6SM FIBER OPTIC

1 SEE THE TMS PLAN FOR FIBER OPTICS.

BY	DATE	REVISIONS	SYSTEM ID: 21039	T.E.	S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12
EJA	10-29-15	AS-BUILT OF SP 6222-168 FIBER & CAMERA	METER ADDRESS: 1243 BEAM AVE		CERTIFIED BY _____ LIC. NO. _____ DATE: _____ LICENSED PROFESSIONAL ENGINEER			
SJK	01/2018	ADDED ENFORCEMENT LIGHTS TO INTERSECTION PER TE 3890	MASTER ID:					
			POLE NOTES TH 61 AT CSAH 19 (BEAM AVE) MAPLEWOOD, RAMSEY COUNTY		STATE PROJ. NO.	(T.H.61)	SHEET NO.	3 OF 4 SHEETS

PLOTTED/REVISED: 18-JAN-2018

IPLOT NAME: T21039R_sgl
PATH & FILENAME: Projects\DM_R05\06\0000\TrafficSignals\21039T21039R_sgl.dgn



BY	DATE	REVISIONS	SYSTEM ID: 21039	T.E.	FIELD WIRING DIAGRAM TH 61 AT CSAH 19 (BEAM AVE) MAPLEWOOD, RAMSEY COUNTY	S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12	
EJA	10-29-15	AS-BUILT OF SP 6222-168 FIBER & CAMERA	METER ADDRESS: 1243 BEAM AVE			CERTIFIED BY _____	LIC. NO. _____	DATE: _____		
SJK	01/2018	ADDED ENFORCEMENT LIGHTS TO INTERSECTION PER TE 3890	MASTER ID:	T.E.		STATE PROJ. NO.	(T.H.61)	SHEET NO.	4 OF	4 SHEETS