

**MT VERNON STREET AND
DRAINAGE IMPROVEMENTS
FROM GREENWAY TO BROADWAY**

**MT VERNON
AND BROADWAY
WIRING PLAN**
SHEET TITLE 472-84289
448-90385
468-84514
PROJECT NUMBER

JRA
DESIGN QUANTITY UNIT
DRAWN BY JSB
CHECKED BY JRA

ISSUED
May 27, 2008
REVISED

BILL OF MATERIALS (For Information Only)		
ITEM	QUANTITY	UNIT
Traffic Signal Pole Steel w/Mastarm (Std.)	4	Each
Concrete Controller Pad	1	Each
Concrete Footing - Pole	4	Each
Service Box - 36" Dia.	4	Each
Ground Rod and Clamp	6	Each
Conduit Clamp	As Needed	Each
Pedestrian Signal Lamp L.E.D. (12" Combination)	8	Each
L.E.D. Unit	40	Each
Back Plate for Signal Head (Type A)	6	Each
Back Plate for Signal Head (Type I)	2	Each
Entrance Head	1	Each
Circuit Breaker and Box	1	Each
Traffic Signal Head - 12" (Type A) w/Mounting Bracket	10	Each
Traffic Signal Head - 12" (Type I) w/Mounting Bracket	2	Each
Pedestrian Signal - 12" (Type K) w/Mounting Bracket	8	Each
Pedestrian Pushbutton w/Sign	8	Each
Pad Mounted Cabinet and Controller System - Type 2070 (See Note)	1	Each
Lead-In Wire No. 6 Awg 1/c (Type THHN)	217	L.F.
Multi-Conductor Cable No. 14 Awg 2/c	29	L.F.
Multi-Conductor Cable No. 14 Awg 5/c	415	L.F.
Multi-Conductor Cable No. 14 Awg 7/c	907	L.F.
Stranded No. 8 Awg 1/c (Type THHN)(Ground)	691	L.F.
Conduit 1" (RG)	114	L.F.
Conduit 2" (RG)	31	L.F.
Conduit 3" (RG)	317	L.F.
Video Detection Camera and Mounting Hardware (Riser Bracket)	1	Each
Video Detection Processor Unit (Iteris Vantage or Apr'vd Equal)	1	Each
Video Power Cable No. 16 Awg 3/c	399	L.F.
Video Cable 75 ohm Coaxial (Beldon #8281)	399	L.F.
TV Monitor	1	Each
Video System Programming Unit	1	Each
Street Name Signs	4	Each
Left Turn Yield On Green (R10-12) w/Mounting Hardware	2	Each

- EQUIPMENT SPECIFICATIONS 2070 CONTROLLER**
- A. Controller Units: The 2070L controllers supplied shall meet the requirements outlined in CalTrans TEES 2002 (latest revision), and the following requirements:
- The 2070L controllers shall have a 19" EIA rack mountable chassis (mated to the 170 cabinet). Controllers shall be EAGLE or ECONOLITE.
 - 2070-1B CPU module with RJ-45 Ethernet port.
 - 2070-2A C1 field I/O module for compatibility with CalTrans style C1 connector.
 - 2070-3B 8X40 front panel with LCD display.
 - 2070-4A 10 amp power supply.
 - 2070-7A asynchronous serial communications module (RS-232).
 - Any unused slot position shall have a cover plate.
- B. Conflict monitors:
The Conflict Monitors supplied shall be 2010 ECL conflict monitors.
- C. 1-Loop-back cable for 2070-2A Field I/O (Type 170, 104 pin and 37 pin connector).
- D. 1-Loop-back cable for 2070-7A port.

Note: The contractor shall supply and install all necessary material and equipment for the complete installation and operation of the Traffic Signal whether specifically mentioned or not.

TRAFFIC SIGNAL POLE SUMMARY								
POLE NO.	STATION	TYPE	ARM LENGTH	SIGNALS ON ARM	X1	X2	OTHER EQUIP. ON ARM	SIGNALS ON POLE
1	46+08.1, Lt.	B	31'	2-E	11'	-	1-D, 1-G, 1-H, 1-I	1-E, 2-F
2	46+12.3, Rt.	B	36'	2-E	11'	-	1-G, 1-H, 1-I	1-E, 2-F
3	46+85.7, Lt.	B	30'	2-E	11'	-	1-G, 1-H, 1-I	1-E, 2-F
4	46+87.8, Rt.	B	36'	2-E	11'	-	1-D, 1-G, 1-H, 1-I	1-E, 2-F

- A Joint Use Steel Pole With Mast Arm
B Standard Steel Pole With Mast Arm
C Pedestal Pole (10' Aluminum)
D Left Turn Sign (R10-12)
E Traffic Signal
F Pedestrian Signal With Push Button
G Street Name Sign
H Video Detection Camera
I Wind Damper

STREET NAME SIGN SUMMARY	
LEGEND	QUANTITY
Mt Vernon	2
Broadway	2
TOTAL	4

Letters shall be series "E Modified".

LEGEND

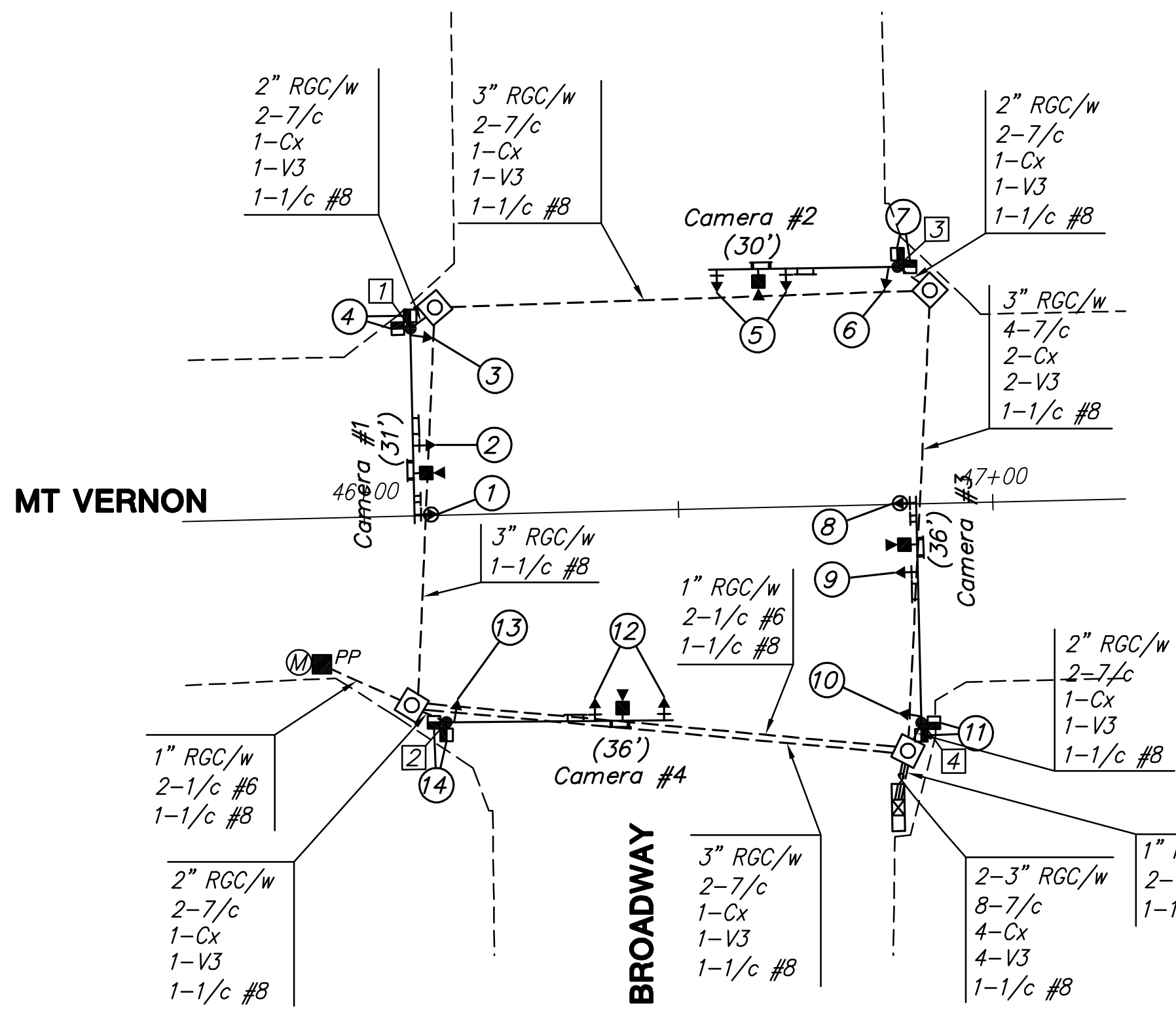
- Steel Traffic Signal Pole (Joint use)
- Steel Traffic Signal Pole (Std. Pole)
- ➔ Traffic Signal Indication (Type A) w/Backplate
- ➔ Traffic Signal Indication (Type I) w/Backplate
- ➔ Mast Arm Suspended Traffic Signal
- ➔ Video Detection Camera
- Ⓜ Meter Box & Power Disconnect
- ☐ Service Box
- ☒ Controller
- ☑ Pedestrian Indication
- Ⓜ Pole Number
- Ⓜ Pedestrian Signal Number
- Rigid Galvanized Conduit (RGC)
- ⊥ Overhead Street Name Sign
- ⊥ Overhead Sign R10-12 (Lt. Turn Yield on Green)
- ⊥ Wind Damper
- CX Video Coax Cable (75 OHM)
- V3 Video Power Cable (#16 AWG 3/c)
- PP Existing Power Pole

L.E.D. Signal Heads: All lenses in each signal head shall be a self-contained, sealed unit designed to fit a regular 12-inch traffic signal housing. It shall incorporate a minimum of 186 high reliability, high intensity LED indicators. The lens shall provide a light beam spread of 30 degrees on all sides of its center axis which shall be designed to provide a 5 to 7 degree downward angle.

The lens shall be made of UV stabilized plastic. The rear cover shall be of non-flammable material and the entire unit shall be totally sealed to preclude the entrance of water, dust or other contaminants.

The self-contained, regulated power supply shall allow the unit to operate over an input voltage range between 89 and 135 volts A.C. and shall be configured in at least 3 parallel circuits for reliability. Light output shall be comparable to that provided by a standard, 12 inch traffic signal lens illuminated by a 150 watt incandescent lamp. The red wave length shall be 630 to 660 nm.

The manufacturer shall warrant the unit against defects in workmanship and materials for a period of at least five years after date of shipment. This warranty shall be assigned to the maintenance agency.

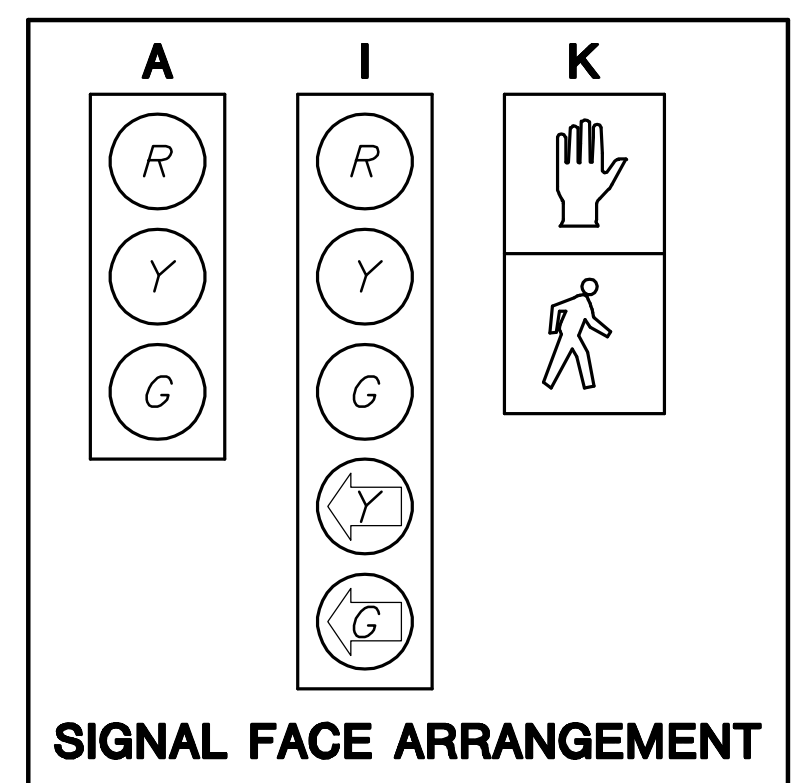


RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
TRAFFIC SIGNAL INSTALLATION (MT VERNON AND BROADWAY)	QUANTITY	UNIT
TRAFFIC SIGNAL INSTALLATION (MT VERNON AND BROADWAY)	1	L.S.

*ALL POLES, MASTARMS AND CABINET SHALL BE POWDER COATED BLACK

TRAFFIC SIGNAL HEAD SUMMARY				
SIGNAL NO.	TYPE	SIZE	MOUNTING BRACKET	QUANTITY
1,8	I	5-12"	TYPE I	2
2,5,9,12	A	3-12"	TYPE I	6
3,6,10,13	A	3-12"	TYPE III	4
4,7,11,14	K	2-12"	TYPE II	8

ALL SIGNAL HEADS TO BE L.E.D.



All lenses in each head shall be L.E.D. unit per note.

