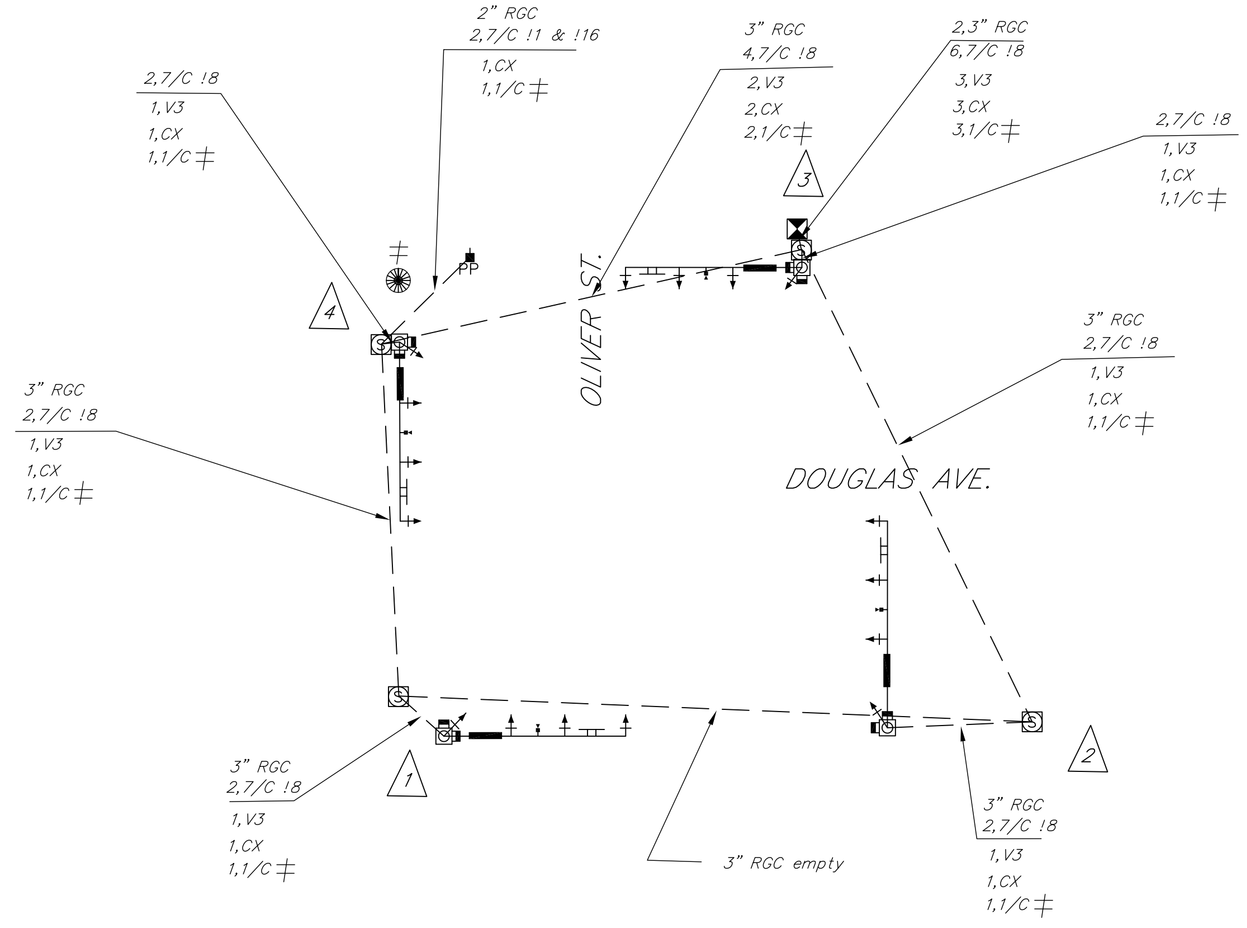
| CHART A SIGNAL INVENTORY | | | | |
|---|---|---|---|---|
| NO. WAYS | NO. SECTIONS (per faces) | SIGNAL FACE ARRANGEMENT | MOUNTING TYPE | QTY. |
| 1 | 3 | A | MAST ARM | 8 |
| 1 | 5 | I | MAST ARM | 4 |
| 1 | 3 | A | SIDE OF POLE | 4 |
| 1 | 1 | K | SIDE OF POLE | 8 |
| | | | | |

| CHART B TRAFFIC SIGNAL POLES | | | | | | |
|---|---|---|---|---|---|---|
| STATION | DIST | SIDE | ARM LENGTH | NO OF SIGNAL ON ARM | SIGNAL SPACING | TYPE |
| 19+66.0 | 40 | Rt | 33.8 | 3 | 12.8'–10.0'–11.0' | STD |
| 20+48.93 | 38.44 | Rt | 38.5 | 3 | 16.5'–11.0'–11.0' | STD |
| 20+33.0 | 47.0 | Lt | 32.8 | 3 | 12.8'–10.0'–10.0' | STD |
| 19+66.0 | 33.0 | Lt | 33.4 | 3 | 11.4'–11.0'–11.0' | STD |
| | | | | | | |

| CHART C– CONDUIT | | |
|---|---|---|
| SIZE | TRENCHED | PUSHED |
| 3" RGC | 425.3' | – |
| | | |

| CHART D STREET NAME SIGN SUMMARY | | | | |
|---|---|---|---|---|
| LEGEND | TYPE | QTY. | UNITS | SIZE |
| DOUGLAS AVE | D–3 | 2 | EA | 2.5'X5.0' |
| OLIVER ST. | D–3 | 2 | EA | 2.5'X5.0' |

| TRAFFIC MANHOLE SUMMARRY | | |
|---|---|---|
| STATION | DIST | SIDE |
| 19+58.0 | 36.0' | Rt |
| 20+75.91 | 37.0' | Rt |
| 20+33.0 | 42.0' | Lt |
| 19+55.0 | 33.0' | Lt |




WIRING DIAGRAM

## BILL OF MATERIALS

| ITEM | UNIT | QUANT. |
|---|---|---|
| | | |
| | | |
| PAD MOUNTED CONTROLLER & CABINET | EACH | 1 |
| TRAFFIC SIGNAL HEAD (SEE CHART A) W/ MOUNTING HARDWARE | EACH | 16 |
| TRAFFIC SIGNAL POLE (SEE CHART B) STEEL | EACH | 4 |
| PEDETRIAN SIGNAL HEAD (12" COMBO) W/ MOUNTING HARDWARE | EACH | 8 |
| | | |
| | | |
| | | |
| CONCRETE CONTROLLER PAD | EACH | 1 |
| TRAFFIC MANHOLE | EACH | 4 |
| CONCRETE FOOTING – POLE | EACH | 4 |
| CONDUIT ELBOW 90 | EACH | AS REQD |
| CONDUIT ELBOW 90 3" | EACH | AS REQD |
| BACK PLATE 5" 3 SECTION | EACH | 8 |
| BACK PLATE 5" 4 SECTION | EACH | 4 |
| BACK PLATE 5" 5 SECTION | EACH | 4 |
| TERMINAL BLOCK | EACH | 1 |
| SERVICE BOX | EACH | 1 |
| JUNCTION BOX | EACH | 1 |
| GROUND ROD & CLAMP | EACH | 8 |
| CONDUIT CLAMP | EACH | AS REQD |
| TRAFFIC SIGNAL LAMP RED LED KIT | EACH | 16 |
| TRAFFIC SIGNAL LAMP YELLOW LED KIT | EACH | 16 |
| TRAFFIC SIGNAL LAMP GREEN LED KIT | EACH | 16 |
| TRAFFIC SIGNAL LAMP GREEN ARROW LED KIT | EACH | 4 |
| TRAFFIC SIGNAL LAMP YELLOW ARROW LED KIT | EACH | 4 |
| TRAFFIC SIGNAL LAMP LED (2" COMBINATION) | EACH | 8 |
| | | |
| ENTRANCE HEAD | EACH | 1 |
| CIRCUIT BREAKER & BOX AMP | EACH | 1 |
| GUY WIRE GUARD | EACH | AS REQD |
| GUY WIRE CLAMP | EACH | AS REQD |
| THIMBLE EYE ANCHOR ROD | EACH | AS REQD |
| PEDESTRIAN PUSHBUTTON W/SIGN | EACH | 8 |
| MULTI–CONDUCTOR CABLE NO. 14 A.W.G. 7/c | LIN. FT. | 810.1' |
| VIDEO CABLE 75 OHM COAXIAL(BELDON 8281) CX | LIN. FT. | 395.3' |
| MULTI–CONDUCTOR CABLE NO. 16 A.W.G. V3 | LIN. FT. | 373.1' |
| CONDUIT 3" RGC SEE CHART C | LIN. FT. | 425.3' |
| STANDARD IC #8 (GROUND) | LIN. FT. | 395.3' |
| VIDEO DETECTION CAMERA & MOUNTING HARDWARE (RISER BRACKET) | EACH | 1 |
| VIDEO DETECTION PRECESSING UNIT | EACH | 1 |
| VIDEO MONITOR | EACH | 1 |
| | | |
| TETHER WIRE 1/4" ASTM A475 Siemens–Martin Grade Min. | LIN. FT. | AS REQD |
| REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT ** | L. S. | 1 |
| STREET NAME SIGNS – SEE CHART D | EACH | 4 |
| LEFT TURN YIELD ON GREEN W/ MOUNTING HARDWARE (R10–12) | EACH | 4 |
| | | |

## EQUIPMENT SPECIFICATION 2070 CONTROLLER

A. Controller Units: The 2070L controllers supplied shall meet the requirements outlined in CalTrans 2002 (latest revision), and the following requirements.

1. The 2070L controller shall have a 19"–EIA rack mountable chassis(mated to the 170 cabinet)
2. 2070–1B CPU module with RJ–45 Ethernet port
3. 2070–2A C1 filed I/O module for compatibility with CalTrans style C1 connector.
4. 2070–3B 8X40 front panel with LCD display.
5. 2070–4A 10amp power supply
6. 2070–7A ansynchronous serial communication module (RS –232)
7. Any unused slot position shall have cover plate.

B. Conflict monitors: The Conflict Monitors supplied shall be Model 2010 ECL conflict monitors.
C. 1–loop–back cable for 2070–2A Field I/O 9type 170, 104 pin and 37 pin connector.
D. 1–loop–back cable for 2070–7A port.

## GENERAL NOTES

1. The Contractor shall be reponsible to furnishing and installing the controller cabinet, concrete base, and for all equipment necessary for the complete and satisfactory operation of the traffic signal.

2. Lengths given are to the centerline of the pole/box and do not include lengths for elbows and risers

3. Signal heads, pedestrain signals, traffic signs, etc. shall include all brackets, hardware, and other incidentals necessary for installation.

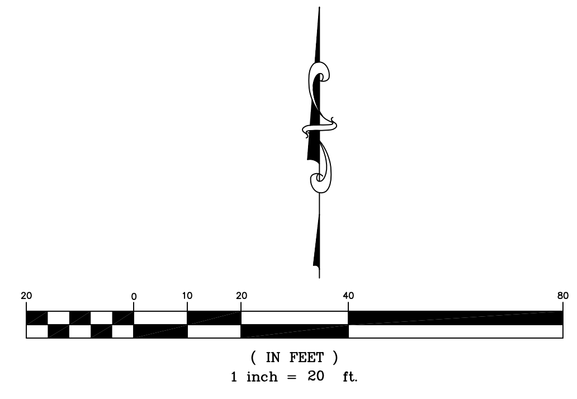
4. Quantities are for information Only.

5. All the poles and equipment need to be black.

## LEGEND:

| | |
|---|---|
| ≠ | Ground Wire No 8 AWG, 1/C |
| | Power Supply 2 No 6 AWG 1/C |
| V3 | Video Power Cable No 16 AWG 3/C |
| CX | 75 ohm Coax Video Cable |
| 1 | Signal Pole Reference Number |
| PP | Power Pole |

Note: All splices to be in pole base, no splices permitted within service box




Intersection Improvement for Douglas & Oliver

# Wiring Diagram

City of Wichita

kemiller engineering
516 S. Market,
Wichita, KS 67202
316/264–0242

| PROJECT NUMBER 472-83755 | | | |
|---|---|---|---|
| KEM NO. 03033 | FILE signal 1 | DATE 7/2005 | SHEET 27 |
| DESIGN PB | DRAWN PB | REVISED 2/15/08 | OF 49 |