SYMBOLS

- Push button
- Light signal head
- Push box
- Junction box
- Non-directional pressure detector
- Non-directional magnetic detector
- Directional pressure detector
- Controller
- Traffic signal, each arrow one-way three color
- Traffic signal one way three-color with backplate
- Traffic signal one way three-color with green arrow (see Type I standard unless otherwise specified) (red and yellow louvered)
- Walk-Don't walk pedestrian signal
- Pedestrian signal, 2-color head
- Mast arm traffic signal (with backplate) (see Type II standard)
- Electrolier, mast arm type (with backplate) (see Type III standard)
- Electrolier, mast arm type (see Type II standard)
- Electrolier, upright type
- Pedestrian push button
- Power pole
- Telephone pole
- Fire hydrant
- Flashing beacon, one-way
- Traffic signal with all colors louvered
- Overhead conductor
- Pull box marker
- Ultra-sonic detector (Side fire type)
- Inductive loop detector

DOUBLE POLE

SIGNBOARDS FOR RELAYS

Section number
Phase
Band

Phase (1 or 2 Bands)
Two coil Markings
Signal phase
Lane or location as shown on plan
Detector Circuit

TYPICAL BANDING OF CONDUCTOR ENDS

NO SCALE

INSTALLATION NOTES

CONDUIT

1. Unless otherwise indicated, signal standards and conduit risers shall be installed in concrete foundations. Conduit risers shall be set in rigid metal forms.
2. Conduit shall be installed to minimize the cut grade in sidewalk areas and 24" minimum below grade of finished surface in all other areas except conduit installed within backfill. Existing strips constructed of existing pavement may be cut and set aside to the pavement.
3. Conduit runs parallel to curbs shall be placed adjacent to back of curb, except where in conflict with existing facilities.
4. Existing underground conduit to be incorporated into new systems shall be cleaned with a mandrel and blown out with compressed air.
5. Conduit terminating in standards and pedestals shall extend 2" max above finished top of foundation and shall slope toward the handhole.
6. Service risers shall be terminated with a service head or shall be sealed to prevent the entrance of water as approved by the serving utility.

PULL BOXES

1. Pull boxes in the vicinity of curbs shall be placed adjacent to back of curb, except when shown otherwise on the plan or when in conflict with existing facilities.
2. Top of pull boxes shall be flush with top of curb or sidewalk grade or 1" above surrounding ground when no finished grade is established.
3. Pull boxes shown adjacent to standards shall be installed against but not on radially side of foundation.

CONDUCTORS AND WIRING

1. Signal result shall be a separate #8 AWG conductor.
2. Conductors between ballasts or transformers and lamps in series shall be #10 AWG for 240 volt.
3. Conductors between series transformers and signals shall be #12 AWG for 120 volt.
4. Number of conductors and color shall be as shown on plans. Conductors 3 and #12 AWG spares.
5. Conductors shall be identified with bands.
6. Underground conductors in signals shall be run without splice, except that splices may be where existing conductors are being reused. Approved conductors may be spliced with splices.
7. Neutral conductors may be spliced in pull boxes.
8. Two feet of slack shall be provided in each conductor in each pull box.
9. A separate conductor from neutral shall be run from each detector or pedestrian push button to controller cabinet.
10. Color coding for wiring to control signals shall be as specified for corresponding vehicular green and red indications.
11. One side of secondary circuit of series to multiple transformers shall be grounded. At structures the grounding electrode shall be the conduit system. On structures, a shall be a #6 AWG ground wire installed through conduit or pull box.

MAST ARMS

1. Arms to be installed to be level or slightly above, unless otherwise noted on plans.
2. Mast arms shall be installed with the slipfitter at least 6" above the top of the pole.
3. Top of foundation shall be flush and true with pavement surface.
4. Detector control unit shall be mounted on front face of cabinet, not less than 48" nor more than 60" above ground.
5. The mounting bracket dimension between the axes of the center of signal head and center of terminal compartment, or slip fitter, shall not be greater than 8", except where shown otherwise on the plans, or as directed by the Engineer.
6. Vehicular and pedestrian signal mountings shall be oriented so as to provide maximum horizontal clearance to adjacent roadway.

STANDARDS AND POSTS

1. Type I standards shall be 14'-0".
2. Guard posts shall be installed a minimum of 2'-0" clear of curb face.
3. Pedestrian push button post installed within the area of curb return shall be set a minimum of 3'-0" clear of curb face.

FOUNDATIONS

1. Unless otherwise shown on the plans the top of foundations for standards shall be level with top of curb in curbed areas or 6 inches above surrounding grade in other areas.
2. Unless otherwise shown on the plans foundations shall be installed with 2 foot clearance to edge of paved shoulder.