

SECTION 641

CONCRETE STRAIN POLES

The requirements of Section 641 are expanded by the following:

The Cable entrance hole shall be located approximately 12 inches below the messenger wire and placement shall not be less than 45 degrees to the face of the pole.

All poles shall be set with pole faces to the applied load and in cases when eccentricity placed reinforcing strand is used, the pole shall be oriented with the marked pole face toward and perpendicular to the load.

The Contractor shall be responsible for establishing the correct amount of rake to be used on poles at the time of installation so the side of the pole shall be plumb at the base of the pole after the application of the load.

Messenger cable eyebolt holes may be field drilled 13/16-inches diameter to conform to the requirements at each intersection and shall be located so as to provide a horizontal alignment of the messenger cable within plus or minus 6-inches after installation of the poles. The poles may be drilled after installation at the option of the installer. Drilling of these holes with no appreciable chipping of the hole edges on either side of the pole.

Hole edge chips which are small enough to be covered by the standard eye bolt washer and which do not in total, on any hole, reduce the bearing area of the washer by more than 15% will be accepted. Axis of the bolt hole shall not deviate more than five (5) degrees from perpendicularity with the axis of the pole and no more than 1/2-inch from the center of the pole faces on either side.

The cables shall be attached to the stabilizer wire with Ethylene - Vinyl Alcohol (E.V.A.) coated 316 stainless steel multi-lock cable ties, 0.276 inches wide, as manufactured by Band-It, Inc., of Roswell, Georgia or approved equivalent or 2 inch (min.) (Galvanized) cable rings of, or lashing rods (Galvanized). The cable ties or cable rings shall be attached a maximum of 12-inches on center. Color coding of wire, as established by the City of Tallahassee, Public Works Department, Traffic Engineering Division, shall be observed.

A drip loop shall be provided at each signal as shown in the "Signals Standards" of the Plans. The drip loop shall be a minimum of 3 inches below the disconnect hanger entrance fitting and contain a minimum of two (2) loops. Supply of all connectors, fasteners, hardware, conduit, cable, wire, etc. shall be the responsibility of the Contractor.

TABLE 641-1

COLOR CODE FOR TRAFFIC SIGNAL CABLE

TEN (10) CONDUCTOR CABLE

<u>WIRE #</u>	<u>COLOR</u>	<u>ASSIGNMENT</u>
1	Green	Main Street Green or Main Street Walk
2	Yellow	Main Street Yellow or Side Street Don't Walk
3	Red	Main Street Red or Main Street Don't Walk
4	Green / Black Tracer	Side Street Green
5	Yellow / Black Tracer	Side Street Yellow
6	Red / Black Tracer	Side Street Red
7	Blue	Main or Side Street Green Arrow or Side Street Walk
8	Black	Main or Side Street Yellow Arrow or Side Street Pedestrian Detector
9	White / Black Tracer	Neutral
10	White	Neutral

TABLE 641-2

COLOR CODE FOR TRAFFIC SIGNAL CABLE

TWELVE (12) CONDUCTOR CABLE

<u>WIRE #</u>	<u>COLOR</u>	<u>ASSIGNMENT</u>
1	Green	Main Street Green or Main Street Walk
2	Yellow	Main Street Yellow or Side Street Don't Walk
3	Red	Main Street Red or Main Street Don't Walk
4	Green / Black Tracer	Side Street Green
5	Yellow / Black Tracer	Side Street Yellow
6	Red / Black Tracer	Side Street Red
7	Blue	Main Street Green Arrow or Side Street Walk
8	Blue / Black Tracer	Main Street Yellow Arrow
9	Black	Side Street Green Arrow or Main Street Pedestrian Detector
10	Black / White Tracer	Street Yellow Arrow or Side Street Pedestrian Detector
11	White / Black Tracer	Neutral or Pedestrian Detector Return
12	White	Neutral

TABLE 641-3

COLOR CODE FOR TRAFFIC SIGNAL CABLE

TWENTY (20) CONDUCTOR CABLE

<u>WIRE #</u>	<u>COLOR</u>	<u>ASSIGNMENT</u>
1	Green	Main Street Green
2	Yellow	Main Street Yellow
3	Red	Main Street Red
4	Green / Black Tracer	Side Street Green
5	Yellow / Black Tracer	Side Street Yellow
6	Red / Black Tracer	Side Street Red
7	Blue	Main Street Green Arrow
8	Blue / Black Tracer	Main Street Yellow Arrow
9	Black	Side Street Green Arrow
10	Black / White Tracer	Street Yellow Arrow
11	White / Black Tracer	Neutral
12	White	Neutral
13	Green / White Tracer	Main Street Walk
14	Red / White Tracer	Main Street Don't Walk
15	Blue / White Tracer	Side Street Walk
16	Yellow / Red Tracer	Side Street Don't Walk
17	White / Red Tracer	Neutral for Pedestrian Signals
18	Blue / Red Tracer	Main Street Pedestrian Push Button(s)
19	Black / Red Tracer	Side Street Pedestrian Push Button(s)
20	Red / Green Tracer	Neutral for Pedestrian Push Buttons

Traffic Signal Heads shall be wired as per a Signal Operating Plan (SOP) 10. All movements including pedestrian movements **shall be wired separately**. All cables shall be terminated in the controller cabinet base and the Contractor shall then wire the intersection as per the SOP shown on the Plan for that intersection. The Contractor shall install the signal cable between the signals, and between the signals and the terminal boards in the controller cabinet.