

SIGNALIZATION

1. COMPLY WITH THE SUNSHINE 811 RELATED FLORIDA STATUTES. UNDERGROUND CABLE SITES MUST BE LOCATED AND IDENTIFIED BY PROPER AUTHORITIES AT TIME OF CONSTRUCTION.
2. CONTACT TECO FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES.
3. RAKE CONCRETE STRAIN AND STEEL STRAIN SIGNAL POLES WITH RESPECT TO LOADING. OBTAIN RAKING INFORMATION FROM THE POLE MANUFACTURER.
4. ALL SAW CUTS FOR LOOPS SHOULD BE INSTALLED PRIOR TO FINAL ASPHALT SURFACING WHERE APPLICABLE.
5. CONTACT HILLSBOROUGH COUNTY TRAFFIC TO DETERMINE WHICH EXISTING EQUIPMENT MUST BE DELIVERED TO THE HILLSBOROUGH COUNTY TRAFFIC OPERATIONS SECTION, (813) 612-7900.
6. HILLSBOROUGH COUNTY TRAFFIC OPERATIONS SECTION AT (813) 612-7900 MUST BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF LOOP CUTTING. HILLSBOROUGH COUNTY TRAFFIC OPERATIONS AND ENGINEERING SECTIONS ((813) 307-1798) MUST BE NOTIFIED AT LEAST TWO WEEKS IN ADVANCE OF ACTIVATING OF NEW TRAFFIC CONTROLLER TO PROVIDE SUFFICIENT TIME TO ESTABLISH SIGNAL TIMINGS.
7. ANY EXISTING SIGNAL INSTALLATION MUST REMAIN IN OPERATION UNTIL THE NEW SIGNAL INSTALLATION HAS PASSED CONDITIONAL ACCEPTANCE INSPECTION.
8. TRAFFIC MUST BE MAINTAINED DURING ANY SPLICING ACTIVITY BY THE USE OF OFF-DUTY POLICE OFFICERS, TEMPORARY SIGNALS, OR BY OTHER MEANS APPROVED BY THE HILLSBOROUGH COUNTY TRAFFIC OPERATIONS SECTION.
9. THE CONTRACTOR MUST HAVE A STATE OF FLORIDA ELECTRICAL CONTRACTOR'S LICENSE.
10. TREE TRIMMING AND REMOVAL MAY BE REQUIRED TO PROVIDE ADEQUATE SIGHT DISTANCE OR AS ORDERED BY THE ENGINEER. ALL EXPENSES INCURRED FOR THIS WORK MUST BE DIVIDED AMONG THE ITEM NUMBERS FOR SIGNALIZATION.
11. THREE SECTION HEADS OVER LEFT TURN LANES MUST BE CABLED TO SUPPORT FUTURE 4 OR 5 SECTION HEADS.
12. THE LENGTH OF THE MAST ARM MUST EXTEND TO THE INSIDE EDGE OF THE LEFT TURN LANE CLOSEST TO THE MEDIAN.
13. APPROVAL MUST BE OBTAINED FROM THE ENGINEER OF RECORD IF THE POLE FOUNDATION IS NOT INSTALLED PER PLANS.
14. INTERNALLY ILLUMINATED SIGNS MUST BE DUAL FACED UNLESS MOUNTED ON THE MAST ARM AND SHALL OPEN TOWARD THE INTERSECTION (FRONT SIDE).
15. ALL SIGNAL INDICATIONS AND PEDESTRIAN INDICATIONS MUST BE LED AND MEET THE ITE LED STANDARD. THE LED SIGNAL INDICATIONS MUST PROVIDE AN INCANDESCENT LOOK. THE PEDESTRIAN INDICATIONS MUST BE COUNTDOWN TYPE WITH HAND/MAN OVERLAY.
16. POWER SERVICE FROM THE UTILITY COMPANY SHOULD BE UNDERGROUND.

CONTROLLER

1. THE CONTROLLER CABINET BASE SHALL BE AT LEAST AS HIGH AS THE CROWN OF THE ROAD.

SIGNALIZATION CONDUIT / PULL BOXES

1. NOTE THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY BORING OR TRENCHING.
2. A MINIMUM OF FIVE CONDUITS MUST BE PROVIDED BETWEEN THE CORNERS OF EACH LEG OF THE INTERSECTION.
3. ALL CONDUIT MUST BE 2 INCH MINIMUM UNLESS OTHERWISE SPECIFIED IN PLANS.
4. ALL CONDUIT MUST BE INSTALLED PRIOR TO ROADWAY BASE OR SIDEWALK CONSTRUCTION.
5. EACH MAST ARM OR STEEL STRAIN POLE FOUNDATION SHALL HAVE AT A MINIMUM OF 4-2", + 1-1" CONDUITS CONNECTED TO NEAREST PULLBOXES.

INTERCONNECT CONDUIT TRUNK

1. ITS /COMMUNICATION CONDUITS WILL BE MINIMUM 2-2" CONDUITS BETWEEN PULLBOXES, BETWEEN PULLBOXES AND SPLICE VAULTS, AND BETWEEN PULLBOXES OR SPLICE VAULT AND CABINET FOUNDATION.

GENERAL NOTES

SIGNING AND PAVEMENT MARKINGS

1. ALL EXISTING TRAFFIC SIGNS MUST BE MAINTAINED DURING CONSTRUCTION.
2. ALL TRAFFIC SIGN POSTS MUST BE COMPATIBLE (MAKE, DESIGN) WITH POSTS NOW IN USE BY THE HILLSBOROUGH COUNTY PUBLIC WORKS TRAFFIC OPERATIONS.
3. CAUTION MUST BE EXERCISED WHILE RELOCATING EXISTING SIGNS TO PREVENT UNNECESSARY DAMAGE TO THE SIGNS. DAMAGED SIGNS MUST BE REPLACED.
4. SIGN LOCATIONS SHOWN ARE APPROXIMATE. ANY FIELD ADJUSTMENT MUST BE AT THE DIRECTION OF THE CONSTRUCTION PROJECT MANAGER AND/OR THE ENGINEER OF RECORD.

PAY ITEM NOTES

1. 632-7-1: WIRE EACH PHASE/MOVEMENT AS A SEPARATE PHASE/MOVEMENT.
2. 633-2-ABC: ALL PATCH PANELS, PRE-TERMINATED PATCH PANELS, AND CONNECTOR PANELS FOLLOW THE FDOT CURRENT STANDARD WITH THE EXCEPTION OF THE CONNECTOR TYPE. HILLSBOROUGH COUNTY MAINTAINED EQUIPMENT/COMPONENTS WILL BE SC TYPE CONNECTORS
3. 635-2-11: MUST BE 17"x30"x18" UNLESS DESIGNATED FOR LIGHTING AND ELECTRIC SERVICE. THE PULLBOX COVER/LID MUST BE HEAVY DUTY AND HAVE A MINIMUM DESIGN/TEST LOAD OF 15,000 (DESIGN)/22,500 (TEST) LBS. THE PULLBOX MUST HAVE A MINIMUM DESIGN/TEST LOAD OF 22,500 (DESIGN)/33,750 (FEET) LBS.
4. 646-1-11: MUST INCLUDE BREAKAWAY SUPPORT (TRANSFORMER TYPE BASE).
5. 649-2A-BCD: MUST INCLUDE 7" MIN. - 8 1/2" MAX. BY 2" MIN. - 2'-6" MAX. TERMINAL COMPARTMENT HAND HOLE FOR ALL MAST ARMS.
6. 660-4-11 AND 660-4-12: MUST INCLUDE LABOR AND MATERIALS TO FURNISH AND INSTALL A CONVENTIONAL VIDEO DETECTION SYSTEM INCLUDING VIDEO CAMERAS, VIDEO PROCESSORS, INTERFACE UNITS, CABLING, BRACKETS, HANGERS, AND ANY ADDITIONAL EQUIPMENT NECESSARY TO MAKE A COMPLETE AND ACCEPTABLE SYSTEM. THE CABLE FROM THE CONTROLLER CABINET TO THE CAMERA MUST HAVE NO SPLICES. VIDEO DETECTION SYSTEM MUST BE COMPATIBLE WITH THE CURRENT HILLSBOROUGH COUNTY CONTROLLER EQUIPMENT, CABINET, AND TRAFFIC SIGNAL CENTRAL SYSTEM. COORDINATE WITH HILLSBOROUGH COUNTY TRAFFIC OPERATIONS SIGNAL SHOP FOR SPECIFIC UNIT ACCEPTANCE. THE UNIT MUST BE LISTED ON THE FDOT APPROVED PRODUCT LIST.
7. 660-4-11 AND 660-4-12: MUST INCLUDE ALL LABOR AND MATERIALS TO FURNISH AND INSTALL A WIDE ANGLE SINGLE-CAMERA VIDEO DETECTION SYSTEM THAT UTILIZES SINGLE ULTRA-WIDE ANGLE LENS CAMERA. EQUIPMENT WILL INCLUDE THE WIDE ANGLE CAMERA, VIDEO PROCESSORS, INTERFACE UNITS, CABLING, BRACKETS, HANGERS, AND ANY ADDITIONAL EQUIPMENT NECESSARY TO MAKE A COMPLETE AND ACCEPTABLE SYSTEM. THE CABLE FROM THE CONTROLLER CABINET TO THE CAMERA MUST HAVE NO SPLICES. THE VIDEO DETECTION SYSTEM MUST BE COMPATIBLE WITH THE CURRENT HILLSBOROUGH COUNTY CONTROLLER EQUIPMENT, CABINET, AND TRAFFIC SIGNAL CENTRAL SYSTEM. COORDINATE WITH HILLSBOROUGH COUNTY TRAFFIC FOR SPECIFIC UNIT ACCEPTANCE. THE ENGINEER OF RECORD WILL DETERMINE USE OF THIS TYPE EQUIPMENT AFTER CONFERRING WITH HILLSBOROUGH COUNTY TRAFFIC OPERATIONS SIGNAL SHOP AND THE MANUFACTURER DURING DESIGN TO DETERMINE OPTIMAL MOUNTING LOCATIONS FOR THE ABOVE GROUND DETECTION DEVICES.
8. 660-3-11 AND 660-3-12: MUST INCLUDE ALL LABOR AND MATERIALS TO FURNISH AND INSTALL A MICROWAVE (RADAR) VEHICLE DETECTION SYSTEM THAT UTILIZES RESOLUTION BANDWIDTH OF 245MHZ, A MULTI-BEAM RADAR CAPABLE OF COVERING UP TO 10 LANES AND A RADAR CAPABLE OF DETECTING PRESENCE IN DIFFERENT LANES AT A DISTANCE UP TO 140 FEET, IN CURVED LANES, AND IN AREAS WITH ISLANDS AND MEDIANS. THE DETECTION SYSTEM WILL INCLUDE MICROWAVE (RADAR) DETECTION DEVICES, PROCESSORS, INTERFACE UNITS, CABLE PLANTS, MOUNTING BRACKETS, AND ANY ADDITIONAL EQUIPMENT REQUIRED TO MAKE A COMPLETE AND ACCEPTABLE SYSTEM. THE MICROWAVE (RADAR) SYSTEM MUST BE COMPATIBLE WITH HILLSBOROUGH COUNTY'S EQUIPMENT, CABINET, AND TRAFFIC SIGNAL COMPUTER SYSTEM. THE ENGINEER OF RECORD MUST COORDINATE WITH THE MANUFACTURER DURING DESIGN TO DETERMINE OPTIMAL MOUNTING LOCATIONS FOR THE ABOVE GROUND DETECTION DEVICES. COORDINATE WITH HILLSBOROUGH COUNTY TRAFFIC FOR UNIT ACCEPTANCE.
9. 665-1-11: ADA PIEZO PUSHBUTTONS WITH RAISED ARROW AND AUDIBLE INDICATION MUST BE USED.
10. 665-1-12: MUST INSTALL THE POLAR NAVIGATOR ACCESSIBLE PEDESTRIAN SIGNAL AND POLARA OPTION C - COUNTDOWN SIGN, #800-84, WITH PROPERLY SIZED PUSHBUTTON FRAME. THE NEED FOR POLAR NAVIGATOR PUSHBUTTONS MUST BE SPECIFICALLY INDICATED BY THE ENGINEER OF RECORD.
11. 670-5-ABC: ACTUATED SOLID STATE CONTROLLER ASSEMBLY: THE CONTROLLER MUST BE COMPATIBLE WITH THE HILLSBOROUGH COUNTY CENTRAL COMPUTER SYSTEM. THE CONTROLLER CABINET MUST MEET THE SPECIFICATIONS DOCUMENTED IN THE HILLSBOROUGH COUNTY PUBLIC WORKS STANDARD SPECIFICATION FOR CONSTRUCTION. THE CONTROLLER CABINET MUST BE PROVIDED WITH AN ATC CONTROLLER. ADDITIONAL INTERFACE EQUIPMENT OR MODULES WITHIN THE CABINET WILL BE BASED ON THE PLAN DESIGN OF THE INTERSECTION. THE DESIGNER, CONTRACTOR AND CABINET VENDOR MUST ENSURE THE CONTROLLER CABINET WILL FULLY FUNCTION AND PROVIDE NECESSARY CONTROLS BASED ON THE DESIGN OF THE SIGNALIZED INTERSECTION. THE CONTROLLER AND CONTROLLER CABINET MUST BE LISTED ON THE FDOT APPROVED PRODUCT LIST.

12. 682-1-143: ITS CCTV CAMERA EXTERNAL POSITIONER PTZ-NON-PRESSURIZED IP HIGH DEFINITION 20X30 OPTICAL ZOOM LENS, HYDROPHILIC SELF CLEANING GLASS WINDOW. WIDE DYNAMIC RANGE AND DEFOG MODES. ENG PAN/TILT MOTION. CONTINUOUS 360 PAN AND TILT ROTATION. SINGLE CAT5E/CAT6 WITH POE++ WITH 20 FOOT PIG TAIL
13. 682-1-113: ITS CCTV CAMERA DOME PTZ ENCLOSURE-PRESSURIZED IP HIGH DEFINITION. SINGLE CAT5E/CAT6 CABLE WITH POE++ WITH 20 FOOT PIGTAIL. ONVIF PROFILE S COMPLIANT. ELECTRONIC IMAGE STABILIZATION, DARK SCENE ENHANCED INTENSITY, BUILT IN ELECTRICAL TRANSIENT/SURGE PROTECTION TO CISPR 24 LEVEL. PRESSURIZED IP68 INGRESS PROTECTION.
14. 684-1-1: FOLLOW THE CURRENT FDOT STANDARD FURNISH AND INSTALL A HARDENED, DEVICE-LEVEL MANAGED FIELD ETHERNET SWITCH (MFES) WITH POWER SUPPLY/POWER CORD.
15. 685-1-AB: THE UNINTERRUPTED POWER SUPPLY (UPS) UNIT MUST BE HOUSED IN A SEPARATE ENCLOSED CABINET OR IN A TRAFFIC SIGNAL CABINET WHICH IS DESIGNED TO HOUSE THE UPS ASSEMBLY IN ADDITION TO THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT. THE TRAFFIC SIGNAL CONCRETE BASE MUST BE LARGE ENOUGH TO PROVIDE A FOOT PRINT FOR THE UPS CABINET TO BE BOLTED DIRECTLY TO THE CONCRETE FOUNDATION PAYMENT FOR THE ADDITIONAL CONCRETE FOUNDATION MATERIAL AND LABOR MUST BE INCLUDED IN THE TRAFFIC CONTROLLER ASSEMBLY PAY ITEM. THE UPS ASSEMBLY MUST BE LISTED ON THE FDOT APPROVED PRODUCT LIST. THE CONTRACTOR MUST ENSURE THE MAKE AND MODEL IS CONSISTENT WITH THE CURRENT MAKE, MODEL AND PROVIDE A SERIAL DATA CONNECTION PORT AND OR ETHERNET PORT (RJ45) FOR LOCAL CONTROL VIA A LAPTOP OR REMOTE NETWORK CONNECTION USED BY HILLSBOROUGH COUNTY TRAFFIC OPERATIONS
16. 715-1-12: ALL LIGHTING CONDUCTORS SHALL BE A MINIMUM NO. 6 AWG UNLESS SPECIFICALLY DETERMINED TO BE A SMALLER GAUGE BY THE DESIGN ENGINEER.
17. 715-7-11: INSTALL A LOAD CENTER CAPABLE OF CONTROLLING UP TO EIGHT STREET LIGHTS WHEN THE CONTROLLER CABINET IS NOT EQUIPPED TO CONTROL THE INTERSECTION LIGHTING. THE LOAD CENTER MUST HAVE A PHOTO EYE CONTROL, A CONTACTOR CONTROL OR EQUIVALENT, AND SUFFICIENT TERMINATIONS FOR EIGHT STREETLIGHTS. THIS LOAD CENTER WILL BE MOUNTED ON THE ELECTRICAL SERVICE POLE NEAREST THE INTERSECTION AND INSTALLED WITHIN A NEMA WATERPROOF CABINET. THIS LOAD CENTER MAY BE INCORPORATED IN THE CONTROLLER CABINET IF DESIGNED AND INSTALLED BY THE CONTROLLER CABINET MANUFACTURER.

GENERAL

1. F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION DIVISION II AND III WITH ALL APPLICABLE ADDENDUMS/CHANGES, FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL DEVICES, HILLSBOROUGH COUNTY UTILITY ACCOMMODATION GUIDE, HILLSBOROUGH COUNTY TRANSPORTATION TECHNICAL MANUAL, HILLSBOROUGH COUNTY PUBLIC WORKS STANDARD SPECIFICATIONS FOR CONSTRUCTION, FDOT TRAFFIC ENGINEERING MANUAL, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, NATIONAL ELECTRIC CODE AND NATIONAL ELECTRICAL SAFETY CODE WILL APPLY TO ALL WORK HEREIN. THE PLAN SHEETS MUST BE SIGNED AND SEALED.
2. CONTACT INFORMATION: TRAFFIC OPERATIONS, GEORGE AUBEL, SIGNAL SUPERVISOR AT (813) 612-9109, RICK BROWN, SIGN SHOP SUPERVISOR, AT (813) 612-7900 AND TRAFFIC ENGINEERING, BRIAN GENTRY, AT (813) 307-1798.
3. REPLACE ALL NON-APPLICABLE NOTES WITH "NOTE OMMITTED".

INSTRUCTIONS FOR TRAF. GEN. NOTES SHEET

- Engineers of Record (EORs) MUST review these notes and include only those notes applicable to the project.

- Replace all non-applicable notes with "NOTE OMMITTED"

REVISIONS				LUCAS SKYWALKER, P.E. P.E. LICENSE NUMBER 00001 L. SKYWALKER COMPANY 601 E. KENNEDY BOULEVARD TAMPA, FL 33602	 PUBLIC WORKS ADMINISTRATION 601 E. KENNEDY BLVD. TAMPA, FLORIDA 33602	PROJECT NAME	CIP NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TRAFFIC GENERAL NOTES	12345678	1234