TRAFFIC SIGNAL SYSTEM NOTES

A. NEW SIGNAL EQUIPMENT

1. ALL SIGNAL HEADS SHALL BE 12" POLYCARBONATE. THE SIGNAL HEADS SHALL HAVE FLAT BLACK HOUSINGS AND VISORS.
2. ALL SIGNAL HEADS SHALL HAVE FLAT BLACK LOUVERED BACKPLATES WITH **ANY MUTCD COMPLIANT RETROREFLECTIVE BORDER.** ⚠1
3. THE CONTROLLER SHALL BE AN ECONOLITE ASC/3-2100 (NEMA TS2) IN A NEMA P44 TRAFFIC CONTROL CABINET WITH A 15-INCH BASE EXTENSION INSTALLED AT THE LOCATION SHOWN ON THE PLANS. THE CONCRETE BASE FOR THE CONTROLLER CABINET SHALL HAVE A 18" X 12" OPENING FOR CONDUIT LOCATED IN THE CENTER. THE OPENING SHALL BE FILLED WITH STONE AND UNUSED CONDUIT PLUGGED WITH STEEL WOOL BEFORE PLUG SEAL IS INSTALLED. THE TRAFFIC CONTROL CABINET SHALL BE ORIENTED SUCH THAT THE DOOR DOES NOT FACE THE ROADWAY.
4. ALL SIGNAL HEADS SHALL HAVE RED, YELLOW AND GREEN L.E.D. SIGNALS WITH A VISIBLE BEAM SPREAD OF 80 DEGREES OFF AXIS.
5. ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE PAINTED FLAT BLACK.
6. ALL TRAFFIC SIGNAL EQUIPMENT AND MAST ARM MOUNTED SIGNS SHALL HAVE SAFETY CABLES.
7. A DISCONNECT BREAKER FOR EACH CIRCUIT SHALL BE INSTALLED IN A RAINPROOF (NEMA 3R), LOCKED CABINET ON A STANCHION NEXT TO OR BELOW THE METER SOCKET.

B. SIGNAL OPERATION

1. TURN ON OF THE NEW TRAFFIC SIGNAL SYSTEM SHALL NOT OCCUR DURING PEAK TRAFFIC PERIODS. UNIFORMED TRAFFIC OFFICERS SHALL CONTROL TRAFFIC DURING THE TURN ON.
2. ALL SIGNALS SHALL DWELL ON US ROUTE 7 UNLESS OTHERWISE NOTED.
3. THE US ROUTE 7 THRU PHASE GREEN SHALL BE USED FOR THE START-UP PHASE FOLLOWING FLASHING OPERATION.
4. SIGNAL TIMING SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING IN THE FIELD BASED ON TRAFFIC OBSERVATION AND/OR ADDITIONAL FIELD STUDIES.

C. PULLBOXES

1. PULLBOXES ARE DETAILED ON VTRANS STANDARD E-173.
2. THE LOGO ON PULLBOX COVER SHALL BE "TRAFFIC SIGNAL", "LIGHTING", OR "TRAFFIC SIGNAL AND LIGHTING" AS APPROPRIATE
3. ALL PULLBOXES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 678.

D. TRAFFIC SIGNAL/STREET LIGHTING CONDUIT

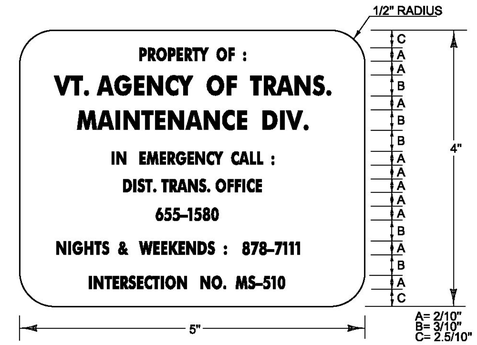
1. ALL TRAFFIC SIGNAL/STREET LIGHTING CONDUIT SHALL BE SCHEDULE 80 PVC.
2. WHEN CONDUIT IS PLACED BELOW THE ROADWAY OR ACROSS SIDE ROADS, IT SHALL BE PLACED IN A STEEL OR HDPE SLEEVE, SIZE AS SHOWN ON THE PLANS. SLEEVES UNDER ROADWAYS SHALL BE INSTALLED BY MEANS OF DIRECTIONAL DRILLING. OPEN CUT WILL NOT BE ALLOWED.
3. ALL UNUSED CONDUIT ENDS SHALL BE FILLED WITH STEEL WOOL PRIOR TO BEING CAPPED.
4. ALL TRAFFIC SIGNAL/STREET LIGHTING CONDUIT WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 678.

E. DETECTION EQUIPMENT

1. STOP BAR AND ADVANCED VEHICLE DETECTOR LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUFACTURER'S GUIDANCE FOR THE TYPE OF DETECTOR SUPPLIED. THE CONTRACTOR SHALL SUBMIT PROPOSED MOUNTING LOCATIONS AND DOCUMENTATION OF CONFORMANCE WITH THE MANUFACTURER'S GUIDANCE TO THE ENGINEER FOR APPROVAL.
2. VEHICLE DETECTORS SHALL BE PLACED SO THAT OCCLUSION IS MINIMIZED AND PHASING IS NOT AFFECTED.
3. VEHICLE STOP BAR DETECTION AREAS SHALL EXTEND FIVE FEET PAST THE STOP BAR.
4. ADVANCED VEHICLE DETECTION AREA SHALL BE A MINIMUM OF 350 TO 400 FEET UPSTREAM OF THE FINAL, PERMANENT STOP BAR.
5. DILEMMA ZONE DETECTION BY THE ADVANCED VEHICLE DETECTION SYSTEM IS REQUIRED ON PHASES 2 & 6. IT SHALL PROVIDE DETECTION OF RANGE, SPEED AND ESTIMATED TIME OF ARRIVAL OF APPROACHING VEHICLES IN A CONTINUOUS RANGE OF 200 TO 600 FEET FROM THE FINAL LOCATION OF THE DETECTOR UNIT. DILEMMA ZONE ACTUATION SHALL EXTEND THE GREEN TIME BY 1-2 SECONDS.
6. VEHICLE DETECTION SYSTEM SHALL BE ECONOLITE ACCUSCAN, WAVETRONIX SMARTSENSOR OR SMARTMICRO TRAFFIC RADAR.
7. THERE SHALL BE NO WIRING SPLICES BETWEEN THE SIGNAL CONTROLLER EQUIPMENT AND THE VEHICLE DETECTORS.

F. GENERAL

1. A UNIFORMED TRAFFIC OFFICER WITH A BLUE LIGHT SHALL BE PRESENT DURING ALL LANE CLOSURES.
2. THE CONTRACTOR SHALL ACQUIRE ALL THE NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A PERMANENT POWER SUPPLY TO THE TRAFFIC SIGNAL EQUIPMENT, IF APPLICABLE. THE ROUTING OF POWER TO THE INTERSECTION SHALL BE SUCH THAT THE STATE HAS FULL RESPONSIBILITY FROM THE TRANSFORMER THROUGH THE SIGNAL SYSTEM. NO INTERVENING OWNERSHIP/RESPONSIBILITY SHALL BE ALLOWED.
3. ALL ELECTRICAL WIRING SHALL BE PERFORMED BY A LICENSED ELECTRICIAN AND OVERSEEN BY A MASTER ELECTRICIAN.



LEGEND: - BLACK (NON-REFL.) - STAMPED PRIOR TO PAINTING
BACKGROUND: NATURAL ALUMINUM OR BRASS SURFACE

NOTES:

1. THE PLAQUE SHALL BE MOUNTED ON THE TRAFFIC SIGNAL CONTROLLER CABINET. IT SHALL BE FASTENED TO THE CONTROLLER CABINET IN SUCH A MANNER AS TO BE NOT EASILY REMOVED, SUCH AS WELDED, RIVETED OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED OR STAMPTED, SUCH STAMPING SHALL PENETRATE AT LEAST ½ THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF 1/10".

CONTROLLER IDENTIFICATION PLAQUE
NOT TO SCALE

⚠1 4/19/2016 - REVISED WORDING TO ALLOW ANY MUTCD-COMPLIANT RETROREFLECTIVE BORDER.

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