

# TRAFFIC SIGNAL NOTES

## A. NEW SIGNAL EQUIPMENT

1. ALL SIGNAL HEADS SHALL BE 12" POLYCARBONATE. THE SIGNAL HEADS SHALL HAVE FLAT BLACK HOUSINGS AND VISORS.
2. THE TRAFFIC SIGNAL CONTROLLER AND RELATED EQUIPMENT SHALL BE AN ECONOLITE COBALT (NEMA TS2) IN A NEMA P44 TRAFFIC CONTROL CABINET WITH 15" BASE EXTENSION INSTALLED AT THE LOCATION SHOWN ON PLANS. THE TRAFFIC CONTROL CABINET SHALL BE ORIENTED SO THAT THE DOOR DOES NOT FACE THE ROADWAY.
3. ALL SIGNAL HEADS SHALL HAVE RED, YELLOW AND GREEN L.E.D. SIGNALS WITH A VISIBLE BEAM SPREAD OF 80 DEGREES OFF AXIS.
4. ALL SIGNAL EQUIPMENT SHALL BE PAINTED FLAT BLACK.
5. ALL SIGNAL EQUIPMENT AND MAST ARM SIGNS SHALL HAVE SAFETY CABLES.
6. 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.
7. ALL TRAFFIC SIGNAL HEADS SHALL HAVE LOUVERED BACK PLATES WITH A 2" RETRO-REFLECTIVE TAPE BORDER.
8. THE FINAL LOCATION OF ALL NEW TRAFFIC SIGNAL EQUIPMENT SHALL BE APPROVED BY THE ENGINEER.

## B. SIGNAL OPERATION

1. SWITCH-OVER TO NEW SIGNAL SYSTEM SHALL NOT OCCUR DURING PEAK OPERATING PERIODS. UNIFORMED TRAFFIC OFFICERS SHALL CONTROL TRAFFIC DURING SWITCH-OVER.
2. ALL SIGNALS SHALL DWELL ON THE US ROUTE 7 THRU MOVEMENT.
3. THE US ROUTE 7 THRU PHASE 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.
5. THE EXISTING TRAFFIC SIGNAL SYSTEM SHALL REMAIN OPERATIONAL UNTIL THE NEW TRAFFIC SIGNAL SYSTEM BECOMES FULLY OPERATIONAL.
6. REMOVAL OF THE EXISTING SIGNAL SYSTEM WILL BE PAID FOR UNDER ITEM NUMBER 678.45, REMOVAL OF EXISTING TRAFFIC CONTROL SIGNAL SYSTEM.

## C. JUNCTION BOXES

1. JUNCTION BOXES ARE DETAILED ON SHEET 13.
2. THE LOGO ON JUNCTION BOXES SHALL BE "TRAFFIC SIGNAL."
3. ALL JUNCTION BOXES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 678.

## D. TRAFFIC SIGNAL CONDUIT

1. ALL TRAFFIC SIGNAL WIRED 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.
3. ALL UNUSED CONDUIT ENDS SHALL BE FILLED WITH STEEL WOOL PRIOR TO BEING CAPPED.
4. ALL TRAFFIC SIGNAL CONDUIT WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 678.

## E. VEHICLE DETECTION

1. STOP BAR AND ADVANCE 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 DOCUMENTATIONS OF CONFORMANCE WITH THE MANUFACTURER'S GUIDANCE TO THE ENGINEER FOR APPROVAL.
2. ALL VEHICLE DETECTORS SHALL BE PLACED SUCH THAT OCCLUSION IS MINIMIZED AND PHASING IS NOT AFFECTED.
3. STOP BAR VEHICLE DETECTION AREAS SHALL EXTEND 5 FEET PAST THE STOP BAR.
4. ADVANCE VEHICLE DETECTION AREAS SHALL BE A MINIMUM OF 400 FEET UPSTREAM OF THE STOP BAR ON PHASES 2 AND 6.

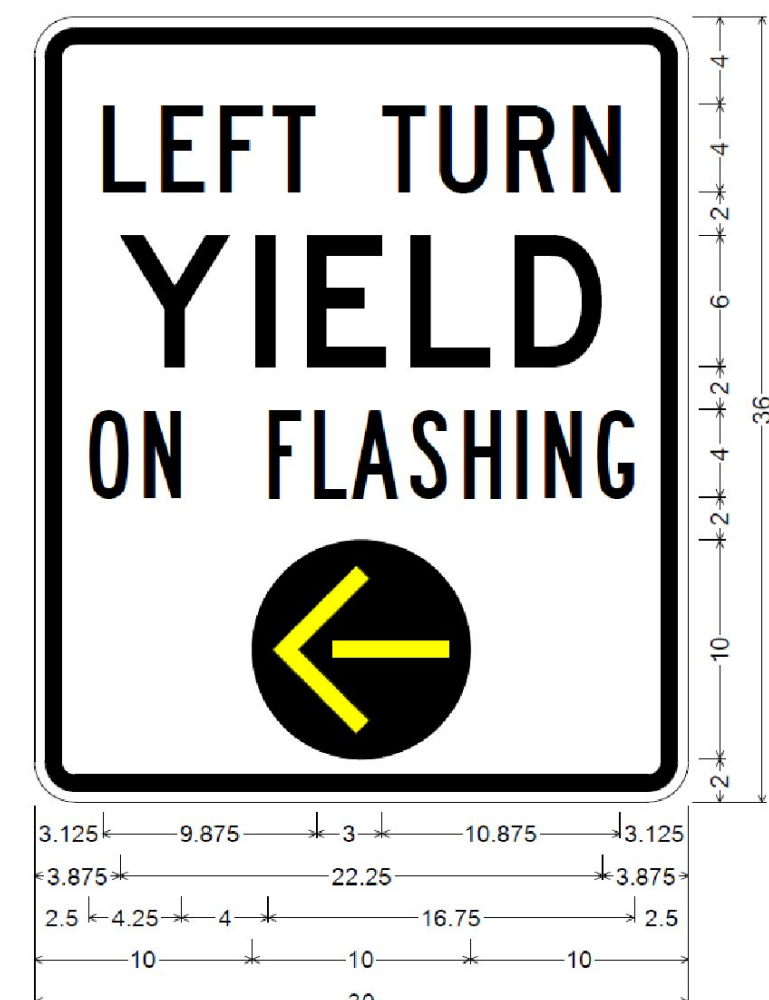
5. STOP BAR DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX.
6. ADVANCE VEHICLE DETECTION SHALL BE WAVETRONIX SMARTSENSOR ADVANCE.
7. THERE SHALL BE NO WIRING SPLICES BETWEEN THE SIGNAL CONTROLLER EQUIPMENT AND THE VEHICLE DETECTORS.
8. ADVANCE DETECTION SHALL INCORPORATE ALL LANES FOR PHASES 2 AND 6.
9. SEE THE PLANS OR THE SPECIAL PROVISIONS FOR A DETAILED LIST OF MAJOR EQUIPMENT

## F. GENERAL

1. A UNIFORMED TRAFFIC OFFICER WITH A BLUE LIGHT SHALL BE PRESENT DURING ALL LANE CLOSURES.
2. UNIFORMED TRAFFIC OFFICERS MUST CONTROL THE INTERSECTION IF NECESSARY. FLAGGERS SHALL NOT BE USED TO CONTROL THE INTERSECTION.
3. 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.
4. ALL ELECTRICAL WIRING SHALL BE DONE BY A LICENSED ELECTRICIAN AND OVERSEEN BY A MASTER ELECTRICIAN.

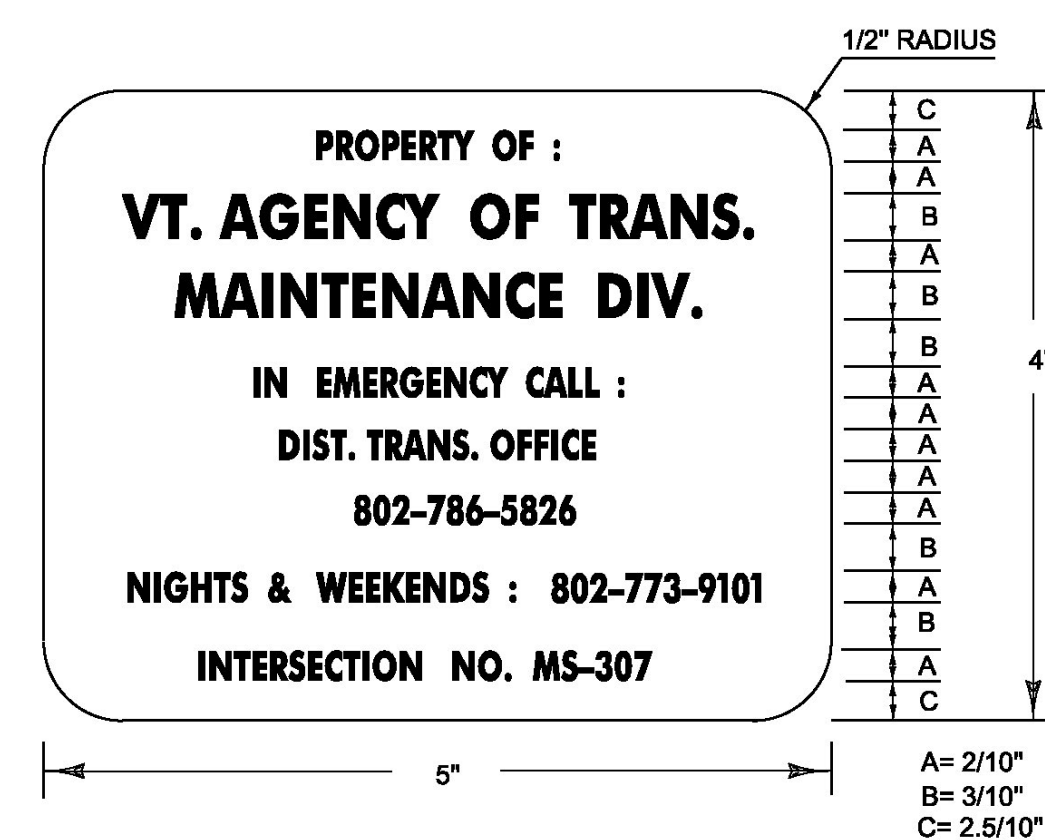
## G. COORDINATION

1. TELEMETRY SHALL BE ESTABLISHED USING THE EXISTING FORM OF INTERCONNECTION; HARDWIRE TO THE MASTER CONTROLLER.
2. CONTACT THE RUTLAND CITY DEPARTMENT OF PUBLIC WORKS AT (802)773-1813 FOR COORDINATION OF INTERCONNECTION. CURRENTLY INTERCONNECTED WITH CITY OWNED SIGNALS TO THE NORTH OF THE PROJECT.



**SIGN DETAIL**  
NOT TO SCALE

MAST ARM MOUNTING BRACKET HARDWARE WILL BE CONSIDERED INCIDENTAL TO ITEM 675.20 TRAFFIC SIGNS, TYPE A FOR THIS OVERHEAD ASSEMBLY.



**CONTROLLER PLAQUE DETAIL**  
NOT TO SCALE

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

## NOTES:

- 1.) THE PLAQUE SHALL BE MOUNTED ON ALL TRAFFIC SIGNAL CONTROLLER CABINETS. 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 STAMPED, SUCH STAMPING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
- 3.) THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCHES.

PROJECT NAME: RUTLAND TOWN  
PROJECT NUMBER: NHC 019-3(60)

FILE NAME: 114190frm.dgn PLOT DATE: 2/1/2017  
PROJECT LEADER: P. COBURN DRAWN BY: M. BOGACZYK  
DESIGNED BY: M. BOGACZYK CHECKED BY: P. COBURN  
TRAFFIC SIGNAL NOTES SHEET II OF 17