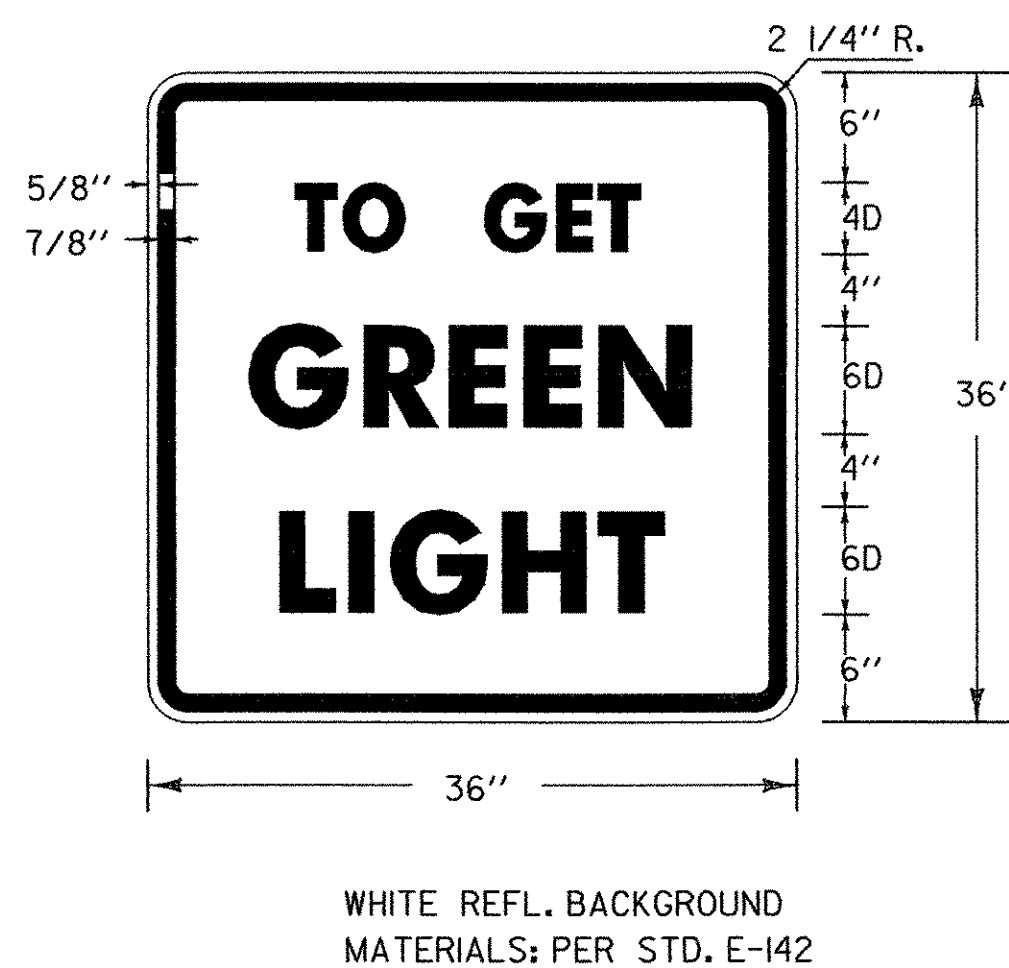
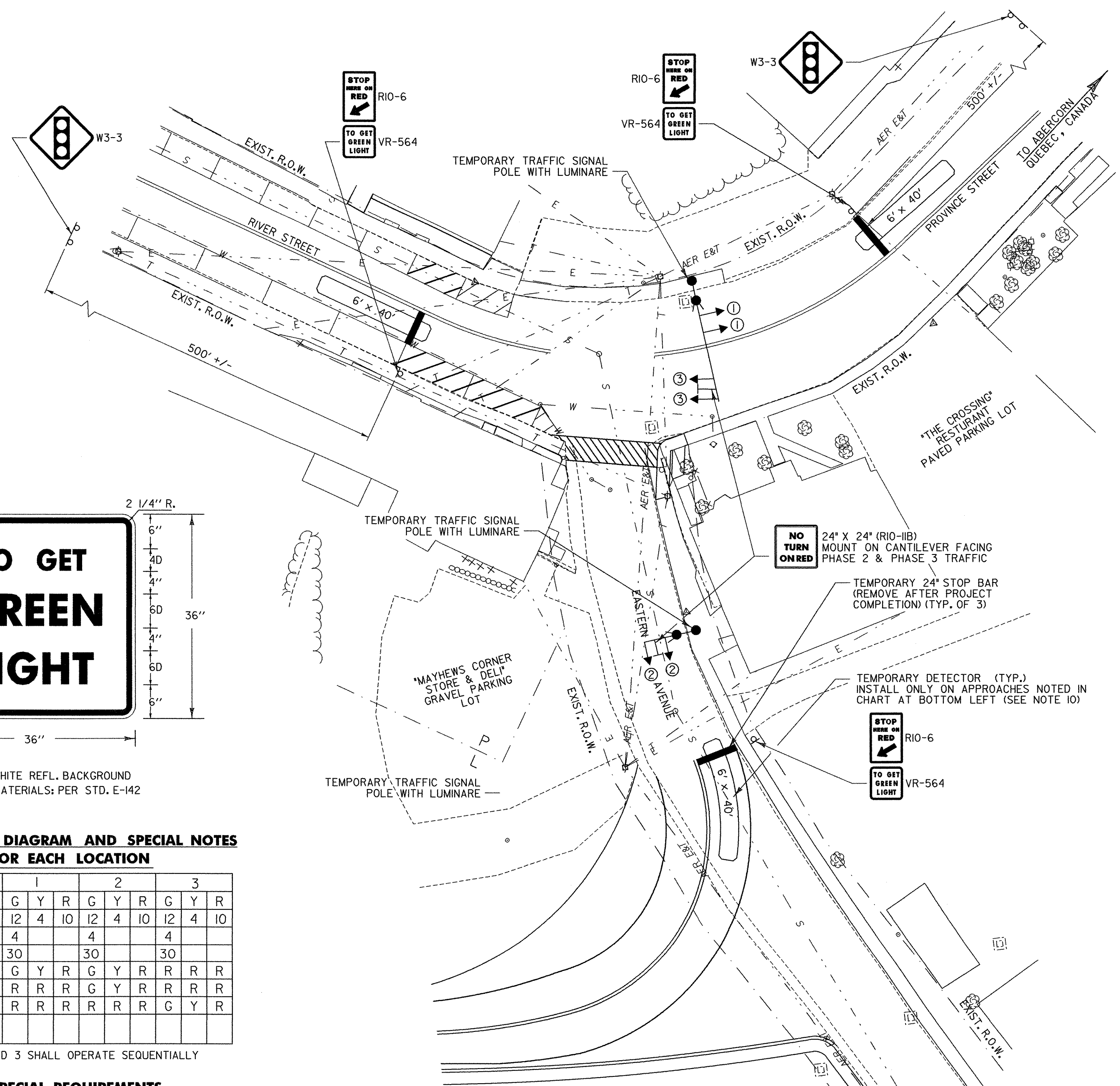


GENERAL TEMPORARY TRAFFIC SIGNAL NOTES

- DESIGN OF THE SIGNAL SUPPORT(S) AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE ENGINEER SHALL BE ACCOMPLISHED WITHIN A 48 HOUR PERIOD AND PAYMENT SHALL BE INCIDENTAL TO THE TRAFFIC SIGNAL ITEM. THE ALL-RED CLEARANCE INTERVAL IS BASED ON AN ASSUMED SPEED OF 10-20 MPH, THE ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.
- THE SIGNAL SYSTEM SHALL INCLUDE "HARD WIRED" PREEMPTION. A MANUALLY OPERATED BUTTON LOCATED AS INDICATED ON THE PLANS (SEE SHEET 16) SHALL ACTIVATE THE SYSTEM. THE CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER, TOWN FIRE, AMBULANCE, POLICE AND ANY OTHER APPROPRIATE DEPARTMENTS TO DETERMINE THE PROPER TIMING REQUIRED FOR EMERGENCY VEHICLES TO CLEAR THE PROJECT AREA ONCE PREEMPTION IS ACTIVATED. SEVERAL TRIAL RUNS SHALL BE MADE. PAYMENT SHALL BE INCIDENTAL TO ITEM 678.40, TEMPORARY TRAFFIC SIGNAL SYSTEM.
- SIGNAL FACES SHALL CONSIST OF 12" LENSES. (RED, YELLOW, AND GREEN)
- THE BOTTOM OF THE HOUSING OF A SIGNAL FACE SUSPENDED OVER A ROADWAY SHALL NOT BE LESS THAN 16.5 FEET NOR MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY. THE BOTTOM OF A SIGNAL FACE NOT MOUNTED OVER A ROADWAY, SHALL NOT BE LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE GROUND. CAUTION SHOULD BE USED TO INSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROAD GRADE.
- SIGNAL FACES FOR ANY ONE APPROACH SHALL NOT BE LESS THAN 8 FEET APART MEASURED HORIZONTALLY BETWEEN CENTER FACES.
- SIGNAL HEADS MAY BE HUNG ON A SPAN WIRE OR ON A CANTILEVER MAST ARM. AT LEAST ONE SIGNAL HEAD SHALL BE UNMISTAKABLY IN LINE WITH THE CENTER OF APPROACHING TRAFFIC AT ALL TIMES. THE SECOND SIGNAL HEAD MAY BE POST MOUNTED, LOCATED AT A DISTANCE NO GREATER THAN 14.5 FEET FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 40 FEET FROM THE SIGNAL HEAD. CONSULT THE M.U.T.C.D. 2003 EDITION FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.
- SIGNAL HEAD PLACEMENT IS CRITICAL. HEADS SHALL BE ADJUSTED TO REFLECT LANE LOCATION CHANGES.
- THE SIGNAL SYSTEM SHALL CONSIST OF POLES, SIGNS AND POSTS, WARNING SIGN, LUMINARIES, SIGNAL EQUIPMENT, CONTROLLER AND CABINET AND WIRING TO DETECTORS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. IT ALSO INCLUDES PERMITS AND COSTS ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
- THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. THE APPROACHES NOTED SHALL HAVE A TEMPORARY DETECTOR. THE TYPE OF DETECTION SHALL BE AT THE OPTION OF THE CONTRACTOR. LOOPS ARE SHOWN FOR PLACEMENT PURPOSES ONLY. THE CONTROLLER, DETECTOR AND ALL OTHER SIGNAL EQUIPMENT SHALL MEET OR EXCEED ALL NEMA STANDARDS.
- WHEN USED, TEMPORARY DETECTOR SHALL BE 6' X 40' FOR PRESENCE DETECTION AT THE STOP BAR WITH THE NEAR PORTION LOCATED 5 FEET BEYOND THE STOP BAR.
- INTERVAL TIMING SHOWN IN SECONDS.
- INSTALL WIRING BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION. ATTACHMENT TO UTILITY POLES TO BE COORDINATED BY THE CONTRACTOR WITH UTILITY COMPANY.
- PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE POSSIBLE.
- POLES SUPPORTING SPAN WIRES AND/OR MAST ARMS SHALL BE ADEQUATELY BRACED OR GUYED AND SHALL NOT BE PLACED SO AS TO CREATE A HAZARD TO THE TRAVELLING PUBLIC.
- ALL TEMPORARY SIGNAL EQUIPMENT, SIGNS, TYPE III BARRICADES, ETC., SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR REMOVAL, INCLUDING ANY TEMPORARY PAVEMENT MARKINGS, UTILITY POLES, WIRES, ETC.
- A 250 WATT MER/150 WATT HPS LUMINAIRE AND MAST ARM SHALL BE PROVIDED ON A POLE ON EACH APPROACH AT A MOUNTING HEIGHT OF 30 FEET ABOVE ROADWAY CENTERLINE. THE INTENT IS TO LIGHT UP THE AREA AROUND THE SIGNAL HEADS AND STOP BAR FOR INCREASED VISIBILITY. THE ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT.
- SIGNAL HEAD SHALL BE LOCATED A MINIMUM OF 40' AND A MAXIMUM OF 120' FROM THE NEAREST STOP BAR.
- PAYMENT FOR THE TEMPORARY DETECTORS SHALL BE FOR EACH UNIT INSTALLED.
- POSTS AS SHOWN ON THIS SHEET AND NOTED BELOW ARE INCIDENTAL TO THE TRAFFIC CONTROL SIGNAL ITEMS ("STOP HERE ON RED", "SIGNAL AHEAD", "NO PASSING ZONE", "NO TURN ON RED", AND "TO GET GREEN LIGHT", ETC.) THE TEMPORARY STOP BARS WILL BE PAID FOR UNDER THE TEMPORARY 24" STOP BAR ITEM.
- SEE STD. E-140 FOR "STOP HERE ON RED" AND "NO TURN ON RED" SIGN DETAIL. E-101 FOR "SIGNAL AHEAD" SYMBOL SIGN AND CHEVRON SYMBOL SIGN. SEE STANDARD E-102A FOR "ROAD CLOSED" SIGN. SEE STANDARD E-121 FOR SIGN PLACEMENT. SEE STANDARD E-171A AND E-172 FOR ADDITIONAL INFORMATION ON SIGNALS AND DETECTORS.
- ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND STATE INSPECTOR.
- ALL STOP SIGNS AND ANY TRAFFIC SIGNS MADE IRRELEVANT DUE TO THE TEMPORARY SIGNAL SHALL BE COVERED WITH A NON TRANSLUCENT WEATHER RESISTANT MATERIAL. THESE SIGNS SHOULD ONLY BE COVERED DURING THE OPERATION OF THE TEMPORARY SIGNAL OR AT THE DISCRETION OF THE ENGINEER. THE COSTS OF COVERING AND UNCOVERING THESE SIGNS SHALL BE INCLUDED IN THE PAYMENT FOR CONTRACT ITEM 678.40.
- CONSTRUCTION APPROACH SIGNS SHALL BE PROVIDED ON EACH APPROACH PER STANDARD E-100. ADDITIONAL CONSTRUCTION APPROACH SIGNS SHALL BE INSTALLED AS REQUIRED BY THE ENGINEER PER STANDARD E-100A, E-101, E-102 AND E-102A. PAYMENT FOR THESE SIGNS, THE REFLECTORIZED PLASTIC DRUMS, ETC., SHALL BE PAID AS A PART OF CONTRACT ITEM 641.10.



PHASING DIAGRAM AND SPECIAL NOTES FOR EACH LOCATION

PHASE	1			2			3		
	G	Y	R	G	Y	R	G	Y	R
MINIMUM	12	4	10	12	4	10	12	4	10
EXTENSION	4			4			4		
MAXIMUM	30			30			30		
HEAD 1	G	Y	R	G	Y	R	R	R	R
HEAD 2	R	R	R	G	Y	R	R	R	R
HEAD 3	R	R	R	R	R	R	G	Y	R

PHASES 1, 2 AND 3 SHALL OPERATE SEQUENTIALLY

SPECIAL REQUIREMENTS

APPROACH	TEMPORARY DETECTOR	FLASHING BEACON ON ADVANCED WARNING SIGN
1	✓	
2	✓	
3	✓	

ENTER CHECK MARK IN APPROPRIATE BOX WHEN REQUIRED ON THIS PROJECT

LEGEND

- — TRAFFIC SIGNAL POLE WITH LUMINAIRE
- ⊲ — SIGNAL HEAD AND PHASE
- ⊗ — FLASHING BEACON



STANDARDS REQUIRED: E-100, E-100A, E-101, E-102, E-102A, E-106, E-107, E-107A, E-121, E-140, E-142, E-170, E-171A, E-171B, E-171C, E-172, E-175

PROJECT NAME: RICHFORD
PROJECT NUMBER: BHF 0302 (3) S

FILE NAME: ...Design\rich-signal.dgn PLOT DATE: 12/18/2007
PROJECT LEADER: MJC DRAWN BY: JTS
DESIGNED BY: SEB CHECKED BY: MJC
TEMPORARY TRAFFIC SIGNAL PLAN SHEET 19 OF 41