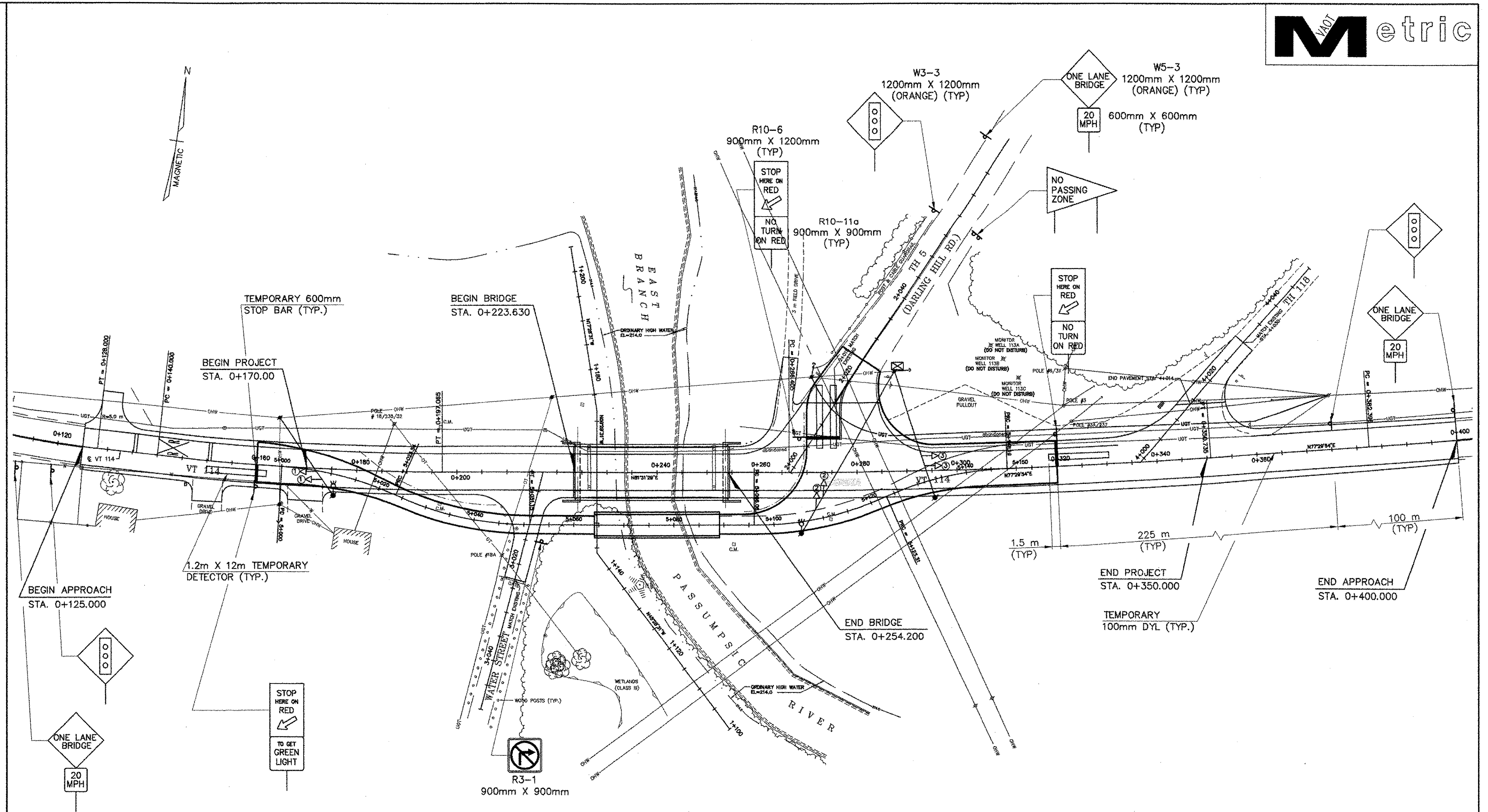


**GENERAL
TEMPORARY TRAFFIC SIGNAL NOTES**

- DESIGN OF THE SIGNAL SUPPORT(S) AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE APPROVED BY VAOT IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 105.03.
- SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE RESIDENT 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 15-30km/h, THE RESIDENT ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.
- SIGNAL FACES SHALL CONSIST OF 300 mm LENSES. (RED, YELLOW, AND GREEN)
- THE BOTTOM OF THE HOUSING OF A SIGNAL FACE SUSPENDED OVER A ROADWAY SHALL NOT BE LESS THAN 5.0 m NOR MORE THAN 5.8 m 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 2.4 m NOR MORE THAN 4.6 m ABOVE THE GROUND. CAUTION SHOULD BE USED TO ENSURE 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 2.4 m APART MEASURED HORIZONTALLY BETWEEN CENTER OF 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 4.4 m FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 12 m FROM THE SIGNAL HEAD. CONSULT THE M.U.T.C.D. 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, LUMINAIRES, FLASHING BEACONS, AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN AND SHALL BE APPROVED BY VAOT IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 105.03. IT ALSO INCLUDES PERMITS AND COST ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
- THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. THE APPROACHES NOTED SHALL HAVE A TEMPORARY VEHICLE DETECTOR. THE TYPE OF DETECTOR 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, VEHICLE DETECTOR LOOPS SHALL BE 1.2 m X 12 m FOR PRESENCE DETECTION AT THE STOP BAR WITH THE NEAR PORTION LOCATED 1.5 m BEYOND THE STOP BAR.
- ON A SEMI-ACTUATED SIGNAL, PARTICULARLY WITH LONG BRIDGES, THE CONTROLLER SHOULD BE LOCATED ON THE SAME SIDE OF THE BRIDGE AS THE DETECTOR.
- INTERVAL TIMING SHOWN IN SECONDS.
- INTERCONNECT BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION.
- PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE PRACTICAL.
- 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, ETC., SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS 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 9 m ABOVE ROADWAY CENTERLINE. THE INTENT IS TO LIGHT UP THE AREA AROUND THE SIGNAL HEADS AND STOP BAR FOR INCREASED VISIBILITY. THE RESIDENT ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT.
- STOP BARS SHALL BE LOCATED A MINIMUM OF 12 m AND A MAXIMUM OF 36 m FROM THE NEAREST SIGNAL HEAD.
- PAYMENT FOR THE VEHICLE DETECTORS SHALL BE FOR EACH UNIT INSTALLED.
- SIGNS AND 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", AND "TO GET GREEN LIGHT" ETC.) THE TEMPORARY STOP BARS SHOULD BE PAID UNDER THE TEMPORARY 600 mm STOP BAR ITEM.
- SEE STD. E-140 FOR "STOP HERE ON RED" SIGN DETAIL AND E-101 FOR "SIGNAL AHEAD" SYMBOL SIGN. SEE STANDARD E-121 FOR SIGN PLACEMENT. SEE STANDARD E-171A AND E-172 FOR ADDITIONAL INFORMATION ON SIGNALS AND DETECTORS.
- A "SIGNAL AHEAD" SIGN SHALL BE PLACED AT LEAST 225 m FROM THE SIGNAL OR AT A POSITION TO BE DETERMINED BY THE ENGINEER.
- THE "NO PASSING" SIGN SHALL BE USED TO PREVENT PASSING FOR 225 m IN ADVANCE OF THE STOP BAR. THE SIGN SHALL BE PER STANDARD E-102.
- ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND STATE INSPECTOR.
- APPROACH WIDTHS SHALL BE AS DETAILED IN SECTION 528.04 TO MINIMIZE VEHICLE DELAY.
- TRAFFIC CONTROL WARNING SIGNS SHALL BE PROVIDED ON EACH APPROACH PER STANDARD E-107. ADDITIONAL PROJECT CONSTRUCTION SIGNS SHALL BE INSTALLED AS REQUIRED BY THE RESIDENT ENGINEER PER STANDARD E-100, E-101, E-102 & E-102A. PAYMENT FOR THESE SIGNS, THE REFLECTORIZED PLASTIC DRUMS, ETC, SHALL BE PAID AS A PART OF THE "TRAFFIC CONTROL" ITEM.
- IN SITUATIONS WHERE EXISTING PASSING ZONES EXTEND THROUGH THE AREA BETWEEN THE STOP BAR AND THE "NO PASSING ZONE" SIGN, THEN TEMPORARY DOUBLE YELLOW LINES SHALL BE INSTALLED FROM THE STOP BAR TO THE "NO PASSING ZONE" SIGN. THESE MARKINGS SHALL BE PAID UNDER ITEM 641.10.
- TEMPORARY TRAFFIC BARRIER SHOULD BE SUBSTITUTED FOR THE CHANNELIZING DEVICES SHOWN WHEN ANY OF THE FOLLOWING ARE MET:
A.) THE BRIDGE DECK IS REMOVED
B.) THE BRIDGE RAIL IS REMOVED, OR
C.) IN THE JUDGEMENT OF THE RESIDENT ENGINEER TEMPORARY BARRIER IS NEEDED.
- WHEN TEMPORARY BARRIER IS USED, BARRIER ENDS FACING ONCOMING TRAFFIC SHALL BE TAPERED BEYOND THE CLEAR ZONE, OR PROTECTED WITH AN APPROVED END TREATMENT DESIGNED FOR THE 85TH PERCENTILE SPEED OR THE POSTED SPEED LIMIT OF THE ROADWAY.
- PAYMENT FOR TEMPORARY BARRIER USED SHALL BE MADE UNDER THE APPROPRIATE ITEM.
- CONTROLLER SHALL BE PROGRAMMED FOR 3 PHASE SEQUENTIAL OPERATION.
- PHASE 3 SHALL BE PROGRAMMED FOR MINIMUM RECALL 24 HOURS A DAY AND 7 DAYS A WEEK TO MAXIMIZE GREEN TIME ALLOCATION. IF PHASE 3 IS NOT SET FOR MINIMUM RECALL. PHASE 2 ALL RED CLEARANCE MUST BE CHANGED FROM 5 SECONDS TO 16 SECONDS.



PLAN
1:500

NOTES:

- ALL SIGNAL RELATED SIGNS SHALL BE REMOVED OR COVERED WHEN THE SIGNAL IS NOT OPERATING.
- ITEM LOCATIONS ARE APPROXIMATE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM ANY MEASUREMENTS IN THE FIELD.
- SEE SHEETS 18 AND 19 FOR DETOUR PLAN AND PROFILE.
- SIGNAL PHASING TO BE ADJUSTED AS NECESSARY IN THE FIELD. SEE TEMPORARY TRAFFIC SIGNAL NOTE 2.
- THE "ONE LANE BRIDGE" AND "ROAD WORK AHEAD" SIGNS SHALL BE EQUIPPED WITH FLASHING WARNING LIGHTS. ALL COSTS FOR FLASHING WARNING LIGHTS SHALL BE INCIDENTAL TO ITEM 678.40, TEMPORARY TRAFFIC SIGNAL SYSTEM.
- THE CONTRACTOR SHALL MODIFY THE TRAFFIC CONTROL PLAN AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION.
- THE NEED FOR ENERGY ABSORPTION ATTENUATORS IS NOT ANTICIPATED. IF THE CONTRACTOR PROPOSES AN ALTERNATE DETOUR PLAN REQUIRING THEIR USE, THE COSTS WILL BE CONSIDERED INCIDENTAL TO ALL OTHER CONTRACT ITEMS.

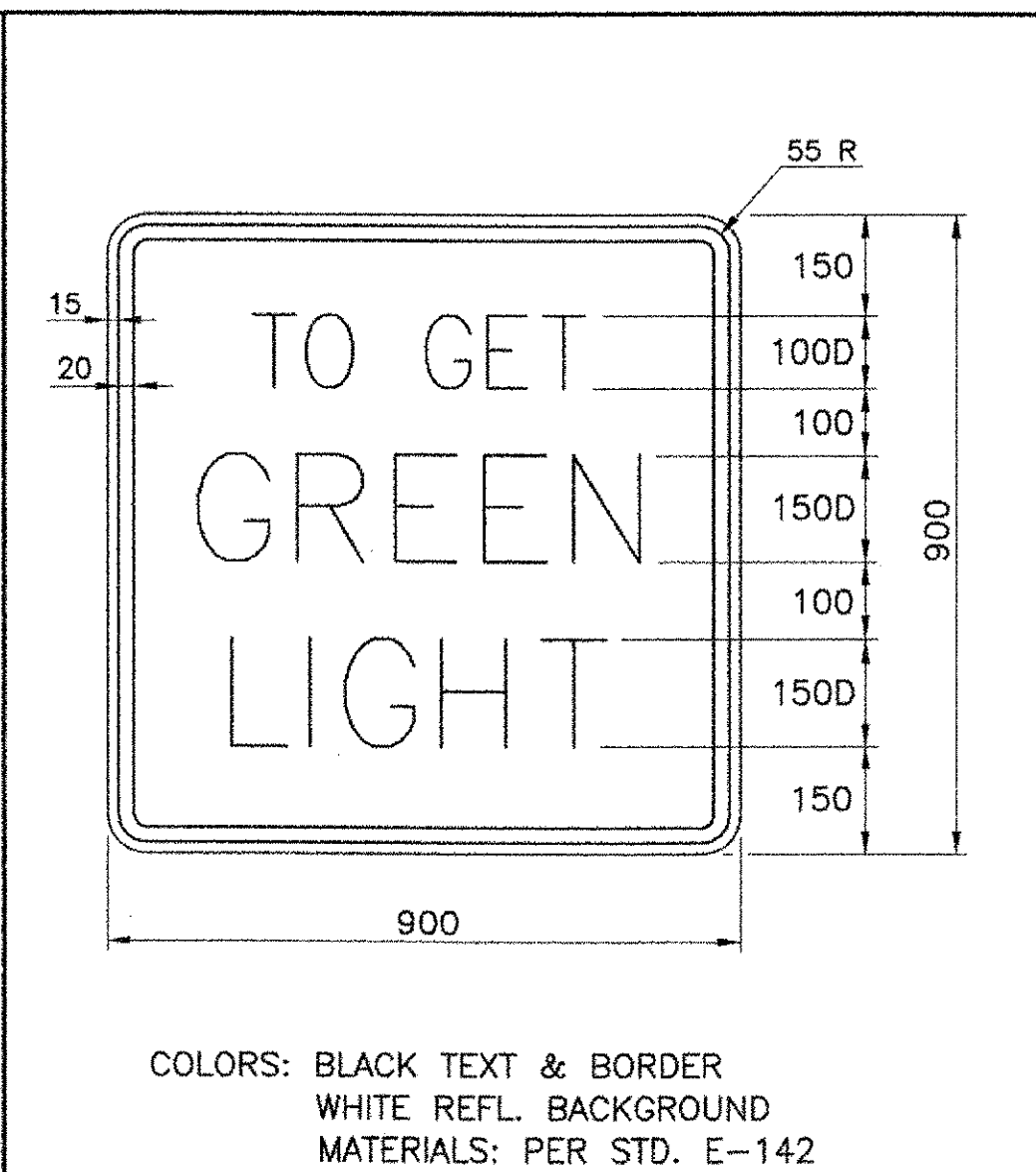
SEE TEMPORARY TRAFFIC SIGNAL NOTE 10, 31 AND 32
**PHASING DIAGRAM AND SPECIAL NOTES
FOR EACH LOCATION**

PHASE	1	2	3
MINIMUM	5	5	5
EXTENSION	2	2	2
MAXIMUM	20 3 16 15 3 5 20 3 16		
HEAD 1	G Y R R R R R R R R		
HEAD 2	R R R G Y R R R R R		
HEAD 3	R R R R R R G Y R		
	← ①	② →	③ ←
	RECALL OFF	RECALL OFF	MINIMUM RECALL ON

SPECIAL REQUIREMENTS

APPROACH	TEMPORARY VEHICLE DETECTOR	SIGNS MOUNTED AT STOP BAR
		STOP HERE ON RED TO GET GREEN LIGHT NO TURN ON RED
1	✓	✓
2	✓	✓
3	✓	✓

ENTER CHECK MARK IN APPROPRIATE BOX WHEN REQUIRED ON THIS PROJECT



STANDARDS REQUIRED:
E-100, E-101, E-102, E-102A, E-106, E-107, E-107A, E-110, E-121, E-140, E-142, E-170, E-171A, E-171B, E-171C, E-172, E-175

LEGEND

- ☒ TEMPORARY TRAFFIC SIGNAL CONTROLLER CABINET
- TRAFFIC SIGNAL POLE WITH LUMINAIRE
- ② SIGNAL HEAD AND PHASE
- REFLECTORIZED PLASTIC DRUM (SEE STD. E-106) DRUM SPACING (IN METERS) IS EQUAL TO DETOUR SPEED DIVIDED BY 5.33 (IN km/h)
- ☐ TYPE III BARRICADES (SEE STD. E-107A)
- ☒ TYPE III BARRICADES (MOD.) (SEE STD. E-107A)
- +++ PAVEMENT MARKING REMOVAL
- ⊗ FLASHING BEACON
- TEMPORARY CONCRETE TRAFFIC BARRIER

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	LYNDON	Bridge No.	2
Highway No.	VT 114	Log Sta.	
		Surv. Sta.	
VT 114 OVER PASSUMPSIC RIVER			
TRAFFIC CONTROL PLAN			
Designed By	C.M. BOBAY	Drawn By	J.A. ROBERT
Checked By	Date	Bridge Design Supervisor	
C.M. BOBAY	3/06	M.A. COLGAN Date 3/06	
PROJECT	LYNDON	PROJECT NO.	BRF 0269(10)
I.G.C. Info.			