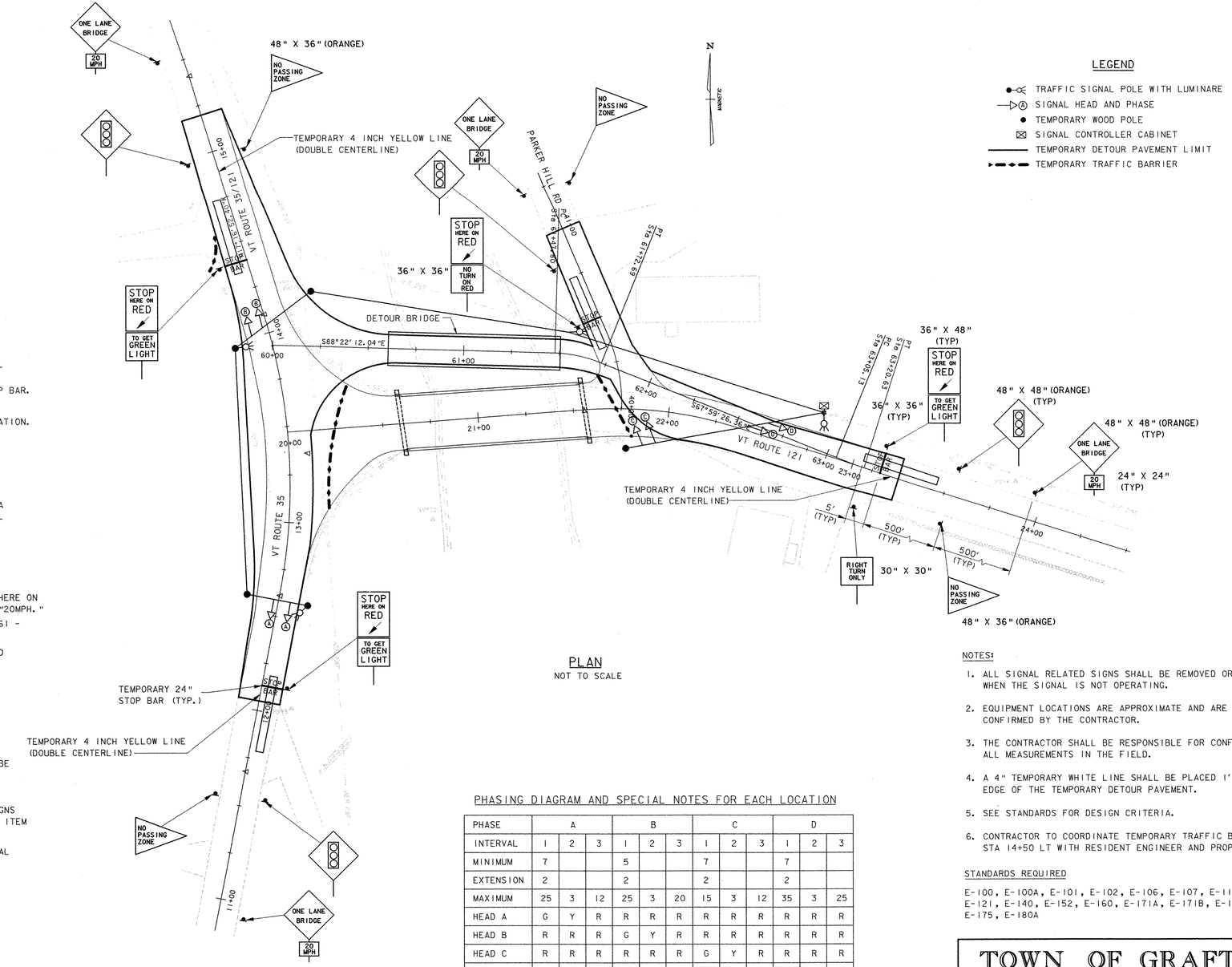
GENERAL
TEMPORARY TRAFFIC SIGNAL NOTES

1. DESIGN OF THE SIGNAL SUPPORT(S) AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE APPROVED BY VTRANS IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 105.03.
2. SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE RESIDENT ENGINEER SHALL BE ACCOMPLISHED WITHIN A 48 HOUR PERIOD AND PAYMENT SHALL BE SUBSIDIARY TO THE TRAFFIC SIGNAL ITEM. THE ALL-RED CLEARANCE INTERVAL IS BASED ON AN ASSUMED SPEED OF 15mph, THE RESIDENT ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.
3. SIGNAL FACES SHALL CONSIST OF 12 INCH LENSES (RED, YELLOW, AND GREEN).
4. 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 ENSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROAD GRADE.
5. SIGNAL FACES FOR ANY ONE APPROACH SHALL NOT BE LESS THAN 8 FEET APART MEASURED HORIZONTALLY BETWEEN CENTER OF FACES.
6. SIGNAL HEADS MAY BE HUNG ON A SPAN WIRE. 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 UPON THE DESCRETION OF THE CONTRACTOR AND APPROVAL BY THE ENGINEER AND 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. FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.
7. 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 VTRANS IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 105.03. IT ALSO INCLUDES PERMITS AND COST ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
8. THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. THE APPROACHES NOTED SHALL HAVE A TEMPORARY VEHICLE 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 NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION STANDARDS.
9. THE NEAR PORTION OF VEHICLE DETECTOR LOOPS FOR PRESENCE DETECTION SHALL BE LOCATED 5 FEET BEYOND THE STOP BAR.
10. INTERVAL TIMING SHOWN IN SECONDS.
11. INTERCONNECT BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION.
12. PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE PRACTICAL.
13. 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.
14. 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 UTILITY POLES, WIRES, ETC.
15. A 250 WATT MER/150 WATT HPS LUMINAIRE AND MAST ARM SHALL BE PROVIDED ON A POLE AT BOTH INTERSECTIONS 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 RESIDENT ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT.
16. UNLESS SPECIFICALLY SHOWN STOP BARS SHALL BE LOCATED A MINIMUM OF 40 FEET AND A MAXIMUM OF 120 FEET FROM THE NEAREST SIGNAL HEAD.
17. PAYMENT FOR THE TEMPORARY DETECTORS SHALL BE FOR EACH UNIT INSTALLED, UNDER ITEM 678.42.
18. SIGNS AND POSTS AS NOTED BELOW ARE SUBSIDIARY TO THE TEMPORARY TRAFFIC SIGNAL SYSTEM ITEM 678.40: "STOP HERE ON RED"; "SIGNAL AHEAD"; "NO TURN ON RED"; "TO GET GREEN LIGHT"; "ONE LANE BRIDGE"; "RIGHT TURN ONLY"; AND "20MPH."
19. THE TEMPORARY PAVEMENT MARKERS SHALL BE PAID UNDER ITEM. 646.60 - TEMPORARY 4 INCH WHITE LINE, ITEM 646.61 - TEMPORARY 4 INCH YELLOW LINE (DOUBLE CENTER LINE), AND ITEM 646.66 - TEMPORARY 24 INCH STOP BAR.
20. A "SIGNAL AHEAD" SIGN SHALL BE PLACED AT LEAST 500 FEET FROM THE SIGNAL OR AT A POSITION TO BE DETERMINED BY THE ENGINEER.
21. ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND STATE INSPECTOR.
22. 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 INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
23. THE "TO GET GREEN LIGHT" SIGN IS TO BE USED ONLY ON APPROACHES WHERE RIGHT TURNS ARE NOT POSSIBLE.
24. IF BRIDGE WORK REQUIRES LANE CLOSURE REFER TO STANDARD E-110 FOR TRAFFIC CONTROL DETAILS. PAYMENT SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
25. PAYMENT FOR TEMPORARY TRAFFIC BARRIER USED SHALL BE MADE UNDER ITEM 621.90.
26. IF TEMPORARY BARRIER BLOCKS THE VISIBILITY OF EXISTING ROUTE MARKER AND DESTINATION SIGNS, THEN THESE SIGNS SHALL BE RELOCATED OR RAISED TO RETAIN VISIBILITY. ALL COSTS FOR RELOCATING SIGNS SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
27. PAYMENT FOR "ONE LANE BRIDGE" (CONSTRUCTION WARNING SIGN) AND "20 MPH" (ADVISORY SIGN) SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.



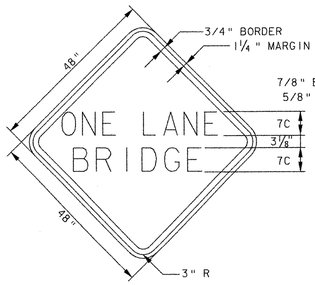
PLAN
NOT TO SCALE

NOTES:

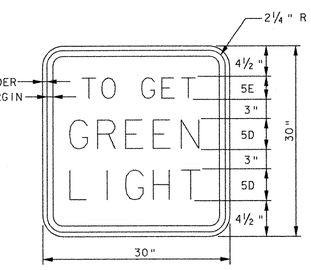
1. ALL SIGNAL RELATED SIGNS SHALL BE REMOVED OR COVERED WHEN THE SIGNAL IS NOT OPERATING.
2. EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE TO BE CONFIRMED BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING ALL MEASUREMENTS IN THE FIELD.
4. A 4" TEMPORARY WHITE LINE SHALL BE PLACED 1' OFF THE EDGE OF THE TEMPORARY DETOUR PAVEMENT.
5. SEE STANDARDS FOR DESIGN CRITERIA.
6. CONTRACTOR TO COORDINATE TEMPORARY TRAFFIC BARRIER AT STA 14+50 LT WITH RESIDENT ENGINEER AND PROPERTY OWNER.

STANDARDS REQUIRED

E-100, E-100A, E-101, E-102, E-106, E-107, E-110, E-121, E-140, E-152, E-160, E-171A, E-171B, E-172, E-175, E-180A



COLORS: BLACK TEXT & BORDER
ORANGE REFL. BACKGROUND
MATERIALS: PER STD. E-102



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WHITE REFL. BACKGROUND
MATERIALS: PER STD. E-142

SPECIAL REQUIREMENTS

APPROACH	TEMPORARY VEHICLE DETECTOR	SIGNS MOUNTED AT STOP LINE		
		STOP HERE ON RED	TO GET GREEN LIGHT	NO TURN ON RED
ROUTE 121 WB	40'	X	X	
ROUTE 35 NB	40'	X	X	
ROUTE 35/121 SB	40'	X	X	
PARKER HILL RD	40'	X		X

PHASING DIAGRAM AND SPECIAL NOTES FOR EACH LOCATION

PHASE	A			B			C			D		
INTERVAL	1	2	3	1	2	3	1	2	3	1	2	3
MINIMUM	7			5			7			7		
EXTENSION	2			2			2			2		
MAXIMUM	25	3	12	25	3	20	15	3	12	35	3	25
HEAD A	G	Y	R	R	R	R	R	R	R	R	R	R
HEAD B	R	R	R	G	Y	R	R	R	R	R	R	R
HEAD C	R	R	R	R	R	R	G	Y	R	R	R	R
HEAD D	R	R	R	R	R	R	R	R	R	G	Y	R
	Ⓐ			Ⓑ			Ⓒ			Ⓓ		
	RECALL OFF			MINIMUM RECALL ON			RECALL OFF			MINIMUM RECALL ON		

1. CONTROLLER SHALL BE PROGRAMMED FOR 4 PHASE SEQUENTIAL OPERATION.
2. PHASE 'B' SHALL BE PROGRAMMED FOR MINIMUM RECALL ON 24 HOURS A DAY / 7 DAYS A WEEK TO MAXIMIZE GREEN TIME ALLOCATION. IF PHASE 'B' IS NOT SET FOR MINIMUM RECALL, PHASE 'A' ALL RED CLEARANCE MUST BE CHANGED FROM 12 SECONDS TO 25 SECONDS AND PHASE 'C' ALL RED CLEARANCE MUST BE CHANGED FROM 12 TO 18 SECONDS.

VHB Vanasse Hangen Brustlin, Inc.

TOWN OF GRAFTON
CAMBRIDGEPORT BRIDGE

Town Of GRAFTON	Bridge No. 16G
Highway No. TH 1	Log Sta. / Surv. Sta.
TH 1 (CAMBRIDGEPORT BRIDGE) OVER THE SAXTONS RIVER	
TRAFFIC CONTROL PLAN	
Designed By C.M. BOBAY	Drawn By B.J. MASSE
Checked By M.A. COLGAN Date 5/05	Bridge Design Supervisor M.A. COLGAN Date 5/05
PROJECT GRAFTON	PROJECT NO. TH2-0104
I.G.C. Info.	
File No. 51335TCP	Sheet 13 of 42

VHB NO. 51335 plot date: 5/27/2005