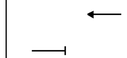
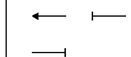
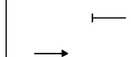
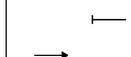
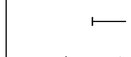
COLORS: BLACK TEXT & BORDER
WHITE REFL. BACKGROUND
MATERIALS: PER STD. E-142

SEE TRAFFIC CONTROL PLAN FOR PHASED CONSTRUCTION PLANS.

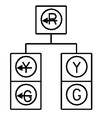
CHART SEQUENCE (TYPICAL) FOR VT 105 @ VT 118

												CONFLICT
MINIMUM EXTENSION MAXIMUM	9	3	16	3	1	22	3	1	5 29	3	20	
6	R	R	R	R	R	G	G	R	G	Y	R	FLASH RED
1	R	R	R	R	R	G	Y	R	G	Y	R	FLASH RED
2	R	R	R	R	R	G	Y	R	R	R	R	FLASH RED
4	G	Y	R	R	R	R	R	R	R	R	R	FLASH RED
4A	G	G	G	Y	R	R	R	R	R	R	R	FLASH RED
8	R	R	R	R	R	G	G	R	G	Y	R	FLASH RED
MOVEMENT DIAGRAM STEP	A		B			C			D		E	

MOVEMENT DIAGRAM VT 105 @ VT 118

STEP	VT 105 @ VT 118	VT 118 EAST APPROACH	TIME FOR STEP IN SEC.
A			12
B			20
C			26
D			12
E			20

SIGNAL FACE ARRANGEMENT
(12" LENSES)



FACE 1

FACE 2,
4, 4A, 6, 8

NOTE:
RED BALL AND RED ARROW INDICATIONS REQUIRE LED LAMPS
WITH A VISIBLE BEAM SPREAD OF 80 DEGREES OFF AXIS

1. DESIGN OF THE SIGNAL SUPPORT(S) AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK SHALL BE COMPLETED WITHIN THE EXISTING ROW.
2. SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE RESIDENT ENGINEER SHALL BE ACCOMPLISHED AS DIRECTED BY THE ENGINEER 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 RESIDENT ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL (ALSO SEE NOTE 27).
3. SIGNAL FACES SHALL CONSIST OF 12" 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 1/2 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.
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 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 1/2 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. SIGNAL HEAD PLACEMENT IS CRITICAL. HEADS SHALL BE ADJUSTED TO REFLECT LANE LOCATION CHANGES.
8. THE SIGNAL SYSTEM SHALL CONSIST OF POLES, SIGNS AND POSTS, WARNING SIGN, LUMINAIRES, IF USED, PAY UNDER ITEM 678.41 AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN. IT ALSO INCLUDES PERMITS AND COST ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
9. THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. THE APPROACHES NOTED SHALL HAVE A TEMPORARY VEHICLE DETECTOR (VIA MICROWAVE EQUIPMENT). LOOPS ARE SHOWN FOR PLACEMENT PURPOSES ONLY. THE CONTROLLER, DETECTOR AND ALL OTHER SIGNAL EQUIPMENT SHALL MEET OR EXCEED ALL NEMA STANDARDS.
10. WHEN USED, VEHICLE DETECTOR VIA MICROWAVE DETECTION, SHALL BE 4' X 40' FOR PRESENCE DETECTION AT THE STOP BAR WITH THE NEAR PORTION LOCATED 5 FEET BEYOND THE STOP BAR.
11. INTERVAL TIMING SHOWN IN SECONDS.
12. INTERCONNECT BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION.
13. PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE POSSIBLE.
14. 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.
15. 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.
16. 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' 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.
17. STOP BARS SHALL BE LOCATED A MINIMUM OF 40' AND A MAXIMUM OF 120' FROM THE NEAREST SIGNAL HEAD.
18. PAYMENT FOR THE VEHICLE DETECTORS SHALL BE FOR EACH UNIT INSTALLED.
19. SIGNS, POSTS AND TEMPORARY PAVEMENT MARKINGS RELATED TO THE TEMPORARY TRAFFIC SIGNAL SYSTEM INSTALLATION AS SHOWN ON THE TRAFFIC CONTROL PLAN ("STOP HERE ON RED", "SIGNAL AHEAD", "NO PASSING ZONE", AND "TO GET GREEN LIGHT" ETC.) ARE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 678.40.
20. SEE STANDARDS E-171A, E171B, AND E-171C FOR ADDITIONAL INFORMATION ON SIGNALS AND DETECTORS.
21. A "SIGNAL AHEAD" SIGN SHALL BE PLACED AT LEAST 500' FROM THE SIGNAL OR AT A POSITION TO BE DETERMINED BY THE ENGINEER.
22. ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND STATE INSPECTOR.
23. 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 STANDARDS E-100, E-100A, E-101, E-102 & E-102A. PAYMENT FOR THESE SIGNS, THE REFLECTORIZED PLASTIC DRUMS, ETC, SHALL BE PAID AS A PART OF ITEM 641.10.
24. THE "TO GET GREEN LIGHT" SIGN IS TO BE USED ONLY ON APPROACHES WITH VEHICLE DETECTORS.
25. 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 ROAD WAY.
26. PAYMENT FOR TEMPORARY BARRIER USED SHALL BE MADE UNDER THE APPROPRIATE ITEM.
27. THE CONTRACTOR SHALL NOTIFY VTRANS TRAFFIC DESIGN DIVISION PRIOR TO ACTIVATING THE TRAFFIC SIGNALS SUCH THAT THEY CAN FIELD REVIEW CONDITIONS.
28. THE RESIDENT ENGINEER SHALL COORDINATE TRAFFIC ACCESS RESTRICTIONS WITH PROPERTY OWNER OF DRIVEWAY OPPOSITE VT-118.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	BERKSHIRE	Bridge No.	30
Highway No.	VT 118	Log Sta.	
		Surv. Sta.	
VT 118 OVER MISSISSQUOI RIVER			
TRAFFIC CONTROL NOTES			
Designed By	D Bryant	Drawn By	R Holman
Checked By	Date	Bridge Design Supervisor	
J Andrews	4/2/09		Date
PROJECT	BERKSHIRE	PROJECT NO.	BHF 0283(9)S
I.G.C. Info.			ZC304TMI.DGN
Bridge Sheet No.		Sheet 11 of 41	