TRAFFIC SIGNAL GENERAL NOTES

1. ALL PROPOSED TRAFFIC SIGNAL WORK SHALL CONFORM TO THE VERMONT AGENCY TRANSPORTATION (VTRANS) 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, VAOT STANDARD PLANS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION OR AMENDED ON THESE PLANS OR IN THE CONTRACT SPECIFICATIONS.

2. CONSTRUCTION SEQUENCES

   A. WORK SHALL NOT PROCEED ON THE TRAFFIC SIGNALS UNTIL ALL EQUIPMENT NECESSARY FOR THAT INTERSECTION IS ON PROJECT (EXCEPTION - CONDUIT, PULLBOXES, JUNCTION BOXES AND POLE BASES MAY BE INSTALLED PRIOR TO OTHER SIGNAL WORK).

3. NEW EQUIPMENT

   A. THE INTENT OF THIS ALTERATION IS TO REPLACE ALL SIGNAL HEADS, SPAN WIRES, AND ELECTRICAL CABLES BETWEEN THE STRAIN POLES. THE STRAIN POLES WILL REMAIN IN PLACE.

   B. ALL TRAFFIC SIGNAL HEADS SHALL BE BLACK POLYCARBONATE. THEY SHALL HAVE 5 INCH BLACK BACKPLATES. ALL SIGNAL HEADS SHALL HAVE 12 INCH L.E.D. LENSES.

   C. SIGNAL HEAD (6) ON SIGNAL POLE (5) SHALL BE POST-TOP MOUNTED. ALL OTHER SIGNAL HEADS SHALL BE MOUNTED ON NEW SPAN WIRE.

   D. TRAFFIC SIGNAL CONTROLLERS AND CABINETS

      1. THE CONTROLLERS SHALL BE AT LEAST 9-PHASE PROGRAMMABLE TRAFFIC-ACTUATED SIGNAL CONTROLLERS OF CURRENT NEMA SPECIFICATIONS WITH HARD WIRE INTERCONNECTION FOR COORDINATION AND INTERNAL EMERGENCY VEHICLE PRE-EMPTION. OVERLAPS SHALL BE INTERNALLY GENERATED AS PER NEMA STANDARD TS-1 USING WIRE JUMPERS ON A PRINTED CIRCUIT BOARD. CONTROLLERS SHALL BE FURNISHED IN A BLACK, GROUND MOUNTED P-TYPE CONTROLLER CABINET. CONTROLLERS SHALL BE ECONOLITE OR NAZTEC TECHNOLOGIES BRAND.

      2. THE EXISTING CONTROLLER AND CABINET SHALL BE REMOVED AND HOLES IN THE STRAIN POLE PLUGGED. (EXCEPTION - SEE NOTE G/4).

   E. BATTERY BACKUP OF THE SIGNAL SYSTEM SHALL BE PROVIDED TO ALLOW A MINIMUM OF 30 MIN OF OPERATION DURING POWER OUTAGES. THE SIGNAL SYSTEM SHALL HAVE A CONNECTION SUITABLE FOR THE WEATHERSFIELD FIRE DEPARTMENT TO CONNECT A GENERATOR DURING POWER OUTAGE.

   F. SIGNAL POLE (5) AND PEDESTRIAN POLE (6) SHALL BE NEW. PEDESTRIAN PUSH BUTTONS SHALL MEET THE REQUIREMENTS OF SUBSECTIONS 752.13 & 752.14.

   G. TRAFFIC SIGNAL CONDUIT

      1. ALL TRAFFIC SIGNAL CONDUIT SHALL BE SCHEDULE 80 PVC AND WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.

      2. MINIMUM CONDUIT SIZE SHALL BE 3 INCH.

      3. WHEN CONDUIT IS PLACED BELOW THE ROADWAY OR DRIVEWAYS, IT SHALL BE PLACED IN A PVC ELECTRICAL CONDUIT SLEEVE.

      4. CONDUIT BETWEEN THE NEW CONTROL CABINET AND THE STRAIN POLE SHALL ENTER THE STRAIN POLE THROUGH ONE OF THE EXISTING HOLES LEFT BY THE REMOVAL OF THE EXISTING CONTROL CABINET CONDUIT.

4. SIGNAL OPERATION

   A. SIGNAL TIMING SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING IN THE FIELD BASED ON TRAFFIC OBSERVATION (COST OF ADJUSTMENTS SHALL BE INCIDENTAL TO OTHER ITEMS).

   B. THE TRAFFIC SIGNALS SHALL NOT OPERATE WITHOUT THE PAVEMENT MARKINGS AND SIGNAL RELATED SIGNING IN PLACE.

   C. THE SIGNAL SHALL DWELL ON PHASES 2 & 6.

   D. PHASES 2 & 6 SHALL BE USED FOR THE START-UP PHASE FOLLOWING FLASH OPERATION. ALL PHASES WILL START ON ALL RED INDICATION FOR FIVE SECONDS.

5. VEHICLE DETECTORS

   A. VEHICLE DETECTION SHALL BE BY A SINGLE OMNI-DIRECTIONAL CAMERA MOUNTED ~~ON STRAIN POLE (3)~~ LUMINAIRE ON STRAIN POLE #4

   B. ALL EQUIPMENT IS INCLUDED IN THE UNIT PRICE BID FOR ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.

6. EQUIPMENT MANUALS

   A. COPIES OF ALL EQUIPMENT MANUALS AS WELL AS COMPLETED PROGRAM LISTINGS FOR THE CONTROLLER SHALL BE DISTRIBUTED AS FOLLOWS:

      1. TOWN OF WEATHERSFIELD
      2. CONTROLLER CABINET
      3. VERMONT AGENCY OF TRANSPORTATION DISTRICT TRANSPORTATION ADMINISTRATOR, DISTRICT 2
      4. VERMONT AGENCY OF TRANSPORTATION, TRAFFIC DESIGN

7. STREET LIGHTING - EXISTING LIGHTING ON THE STRAIN POLES SHALL BE MAINTAINED

8. GENERAL

   A. ALL ELECTRICAL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE STATE ELECTRICAL INSPECTOR. ALL WORK MUST MEET THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.

   B. THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A PERMANENT POWER SUPPLY TO THE SIGNAL.

   C. AN ID PLAQUE AS DETAILED ON THIS SHEET SHALL BE AFFIXED TO THE SIDE OF THE CONTROL CABINET.

9. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, WITH CURRENT MODIFICATIONS.

10. OVERHEAD SIGNAL SUPPORTS SHALL CONFORM TO AASHTO'S PUBLICATION ENTITLED "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", DATED 2009 OR ITS LATEST EDITION.

11. EACH OVERHEAD TRAFFIC SIGNAL SHALL BE GROUNDED PER VAOT STANDARD DRAWINGS E-170, E-171A, E-171B, AND E-171C AS APPROPRIATE.

12. THE COST OF SIGNAL SUPPORTS, INCLUDING ALL HARDWARE, SIGN BRACKETS, SPAN WIRE, GUY POLES, AND PEDESTRIAN SIGNALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION. THESE COMPONENTS SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF SECTIONS 678 AND 679.

13. AN EQUIVALENT ALTERNATE DESIGN MAY BE SUBSTITUTED FOR THE DETAILS AND MATERIALS SHOWN.

14. THE TRAFFIC SIGNALS SHALL BE MOUNTED TO THE SPAN WIRE AS SHOWN ON STANDARD E-171A, UNLESS OTHERWISE NOTED ON THE PLANS.

15. EXISTING CONTROLLER AND SIGNALS TO BE SALVAGED TO VTRANS.

16. SEE STANDARD E-171A FOR ADDITIONAL NOTES.

17. EMERGENCY PREEMPTION SHALL OCCUR WITH ASSOCIATED PHASES AS FOLLOWS:
    RECEIVER R1 CALLS PHASES 2 AND 5
    RECEIVER R2 CALLS PHASES 1 AND 6
    RECEIVER R3 CALLS PHASE 8
    RECEIVER R4 CALLS PHASE 4
    PHASES 3 & 7 RESERVED
    RECEIVERS SHALL BE OPICOM TO BE COMPATIBLE WITH CITY OF CLAREMONT, NH. FINAL LOCATIONS OF RECEIVERS SHALL BE CONFIRMED BY THE WEATHERSFIELD FIRE DEPT.

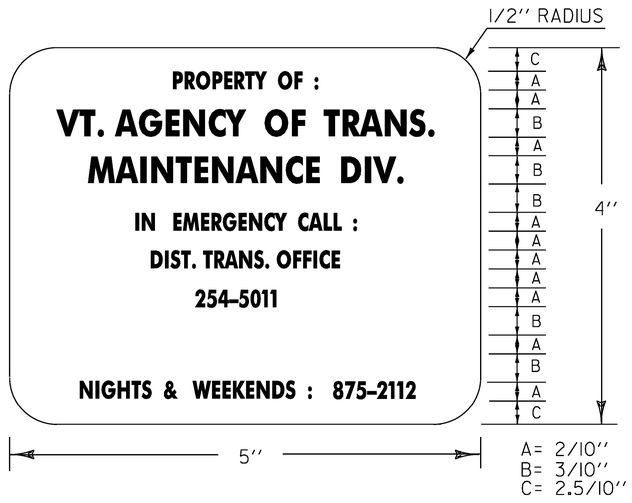
18. GUY WIRES AND ANCHORS SHALL BE CAPABLE OF PROVIDING A MINIMUM OF 8000 POUNDS OF HORIZONTAL FORCE. LOCATION OF GUY ANCHORS ASSUMES A 30°ANGLE BETWEEN GUY WIRE AND POLE.

19. EXISTING PULL BOX (11) TO BE REPLACED WITH A NEW PULL BOX CAPABLE OF WITHSTANDING TRAFFIC LOADS. IT SHALL BE FLUSH WITH PAVEMENT AND WILL BE INCIDENTAL TO ITEM 678.15.

20. EXISTING PULL BOXES (12) AND (13) TO BE REMOVED AND CONDUIT ABANDONED. THE CONDUIT BETWEEN PULL BOXES (8) AND (12) SHALL BE PLUGGED. THIS WILL BE INCIDENTAL TO ITEM 678.15.

21. USING THE 1964 LAYOUT OF THE INTERSECTION, ALL CONSTRUCTION IS WITHIN THE RIGHT OF WAY.

CONTROLLER IDENTIFICATION PLAQUE



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 ½ THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCHES.

TRAFFIC SIGNAL GENERAL NOTES

PROJECT NAME: WEATHERSFIELD

PROJECT NUMBER: NH 2948(1)

FILE NAME: pl2bl26.dgn	PLOT DATE: 2/7/2013
PROJECT LEADER: PTS	DRAWN BY: SNG
DESIGNED BY: RWL	CHECKED BY: PK
IPARM FILE NAME: pl2Bl26_228	SHEET 228 OF 234