



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

87 Deacon Road
Fredericksburg, VA 22405

GREGORY A. WHIRLEY
COMMISSIONER

October 28, 2013

The Brothers Signal Company
39550 Lime Kiln Road
Leesburg, VA 20175
Attn: David L. Bowers

Re: Dominion Raceway
Traffic Signal Plan – I95 NB Ramp & Mudd Tavern Road (Rt. 606)
Spotsylvania County

Dear Mr. Bowers:

As requested, VDOT has reviewed the above-mentioned signal plan and offers the following comments:

1. General Notes 3, 6, and 7 have misspelled words in them and word spacing issues. Scan all notes on this plan to ensure errors are corrected, and verify the meaning of each note is conveyed in the manner in which the designer intended.
2. General note 6 – remove CF-1 reference, Central Region Operations requires the use of CF-4 foundations. As such, the entire last sentence of this note should be deleted.
3. Controller and Foundations Note 1 – update note to the following “Controller cabinet foundation shall be Standard CF-4 and include the conduits shown on the plan and the required spare conduits shown on the CF-4 detail, all spare conduits shall tie into the adjacent JB-S3 for future use.”
4. Signal Head Note 2 – use aluminum back plates and remove the work polycarbonate.
5. Signal Head Note 5 – update to “12 Inch LED”
6. Detector Note 1 – use 6’ x 50’ loops placed 2 feet in front of stop bar.
7. Detector Note 4 – remove second half of sentence; note should state “Loop detector amplifiers shall be one for each loop.”
8. Conduit, Conductor notes – Note 6, create a Junction box legend and specify symbolically all JB-S1 and JB-S3 boxes on the plan; relocate Note 6 to this legend.
9. Remove the Clearance chart from plan.
10. Remove the initial timing chart from the plan.
11. Show the ROW information on the plan. If ROW limits are off the sheet, note the distance from the edge of pavement to the ROW limit.
12. Remove “Review of Working Drawings” box from the title block, VDOT has its own review/drawing stamp process.
13. VDOT signal plans shall be 25 scale drawings; correct scale.
14. Specify the state route number for Mudd Tavern Road in the title block.
15. Specify the roadway names and route numbers on the plan view [Rte 606 (Mudd Tavern Rd), I-95N Off ramp, I-95N On Ramp]
16. Conduits E, F, & H – switch the 4” conduit to 2-3” conduits under paved roadways.

17. Conduit G – switch the (2) 4” conduits to (3) 3” conduits.
18. Legend – update loop detector, remove the ‘m’ and ‘s’ symbol for the SE-5 as these items are shown in the Standard drawing, just show proposed pole location.
19. Remove sign S-4 as this sign is not necessary for a signal lane approach.
20. Label all signal poles with triangle call outs and pole numbers.
21. Relocate single mast arm pole adjacent to the NB off ramp to be located 20 ft right of the ramp EOP and 15 ft right of Rte 606 EOP. Update arm length to 40 foot.
22. Relocate double mast arm pole adjacent to the NB on-ramp to be located 24 ft to the right of Rte 606 EOP and 26 ft to the Left of the on-ramp EOP. This places the pole outside the clear zone and outside the influence of the existing signs and results in shorter mast arm length. Update mast arms to use 60 ft in combination with a 40 ft arm. Adjust controller and SE-5 location accordingly.
23. With drawing re-scaled at 25 and extra charts removed, show additional survey for ramp and Rte 606 mainline, for better alignment of signal heads and to depict locations of advanced loop detection.
24. Place advanced loop detection on all approaches at 400’ in advance of the intersection, show necessary conduit and JB’s on plan
25. Phase 4 signals – remove 3rd phase 4 signal head as it is not needed. Replace the left-most phase 4 signal head with a 4-section (R, Y, G, Green-arrow) head and label as signal head 7. Update color sequence chart accordingly.
26. Realign the phase 4 and phase 7 signal heads such that they angle with the alignment of the ramp at its midpoint, not at the stop bar. The phase 7 head should be placed horizontally in-line with the left painted edge line of the ramp and the phase 4 signal should be offset 12 feet to the right of that point.
27. Replace the ‘A’ with ‘Y’ under Flash on the color sequence chart, also signal 5 under combo phase 2-6 should have a G indication.
28. Fully design and detail the overhead street name signs (details should include dimensions, margin spacing, arrow and text sizes, sign and text colors, and font type Clearview 5W)
29. Place a 30”x30” R3-2 (No Left Turn) sign to the left of the left most phase 6 signal head.

Additional general comments:

1. VDOT is in the process of coordinating with FHWA. Any further comments on the project will be forwarded upon receipt.
2. Once all comments on all aspects of the project have been addressed, it will be sent to Central Office for final VDOT review and approval.

Once the above comments have been addressed by the engineer, the revised plan (five (5) copies preferred), with appropriate responses from all concerned parties, must be re-submitted to this office for further review. You may contact Ken Martin at (540) 374-3343 if additional assistance is required.

Sincerely,



Angela N. Foroughi, PE
Transportation and Land Use Director
Fredericksburg District

Cc: Dominion Raceway Holdings, LLC
Bowman Consulting Group
Spotsylvania County – Attn: Leon Hughes