COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
RICHMOND DISTRICT
2430 Pine Forest Drive
COLONIAL HEIGHTS, VA 23834
www.VDOT.Virginia.gov

Stephen C. Brich, P.E.
COMMISSIONER

February 15, 2018

Mr. Mike Kennedy
Department of Planning
Henrico County
P.O. Box 90775
Henrico, VA 23273

Re: 2308 Westwood Avenue, POD2018-00015

Mr. Kennedy,

VDOT Ashland Land Development has reviewed the above referenced plan and offers the following comments:

1. Even with the 30 foot entrance the truck turns are crossing over the adjacent lane. This must be corrected so the design truck will not crossover on the turning movement.
2. If a curb and gutter entrance is wanted, then the curb and gutter should extend east along Westwood Ave until it connects with the existing curb and gutter. This may also require some drop inlets depending on how the hydrology works out.
3. The commercial curb and gutter entrance should be labeled CG-11 not CG-9 (CG-9 is for a private entrance).
4. The fence will not require a permit (as incorrectly stated earlier) and can be constructed with this approved plan. Any future repairs in the right-of-way will be at the owner's expense and require a construction permit.
5. Please address my comments on the floodplain study from my email of February 9, 2018.

    a. Are the model cross-sections shown on the plan the only entered cross-sections? I have a concern that cross-section RS 5305.28, RS5423.01 and RS5523.23 do not capture the detail of the channel with the 90 degree bend. If the channel cross-sections are interpolated from these cross sections, more cross-sections are needed to define the channel geometry correctly.
    b. I am a little confused by RS5431.01 being listed twice as a cross-section (on both sides of RS 5523.23) and somewhat surprised this did not cause the program to crash. Please address this anomaly.
    c. My main concern is that the 90 degree bend downstream of the VDOT culvert

may cause outlet control to dictate the flow in the culvert. I am looking for verification outlet control was analyzed for the double culvert and shown not to be a concern. This is not specifically shown in the model and I am left to assume the modeled used inlet control with ineffective areas. This may be the wrong assumption. Normally this would not be a concern but the 100 year flood plain is only a foot from overtopping the road and the final output is critical to assuring we have not changed the final elevation. Currently the model shows a 6 inch drop which is good, but I am not sure it is taking into consideration the geometry of the channel at the outlet. We need to have the channel geometry modeled itself without it being in an ineffective or interpolated area; if the channel creates turbulence or hydraulic jump we want to see that and the effect on the flow rate.

6. Please remove the last 5 notes from the VDOT General Construction Note; they only apply to the Chesterfield Residency (notes #35 to #39).
7. An access management waiver will be required. The required spacing for a minor arterial at 35mph is 470'. Based on the plan and Google Earth, it looks like the proposed entrance is only 220' from the next existing entrance. Given VDOT's crack down on access waivers on arterial roads (and anything on arterial roads, really), this may be a problem. I can work with the developer on crafting the best possible waiver, but I can't guarantee it will be approved.

VDOT will be happy to meet to discuss comments prior to resubmission. If you have any questions or require any additional information, please do not hesitate to contact me at (804) 585-3586.

Sincerely,

Steve Snell

Steve Snell, P.E.
Engineer Area Land Use-Ashland Residency