

COMMONWEALTH OF VIRGINIA

County of Henrico

November 1, 2022

Gary R. Rouse, P.E. GBC Design, Inc. 565 White Pond Drive Akron, OH 44320

> RE: Chick-fil-A, Nine Mile Road Store #4992 4810 Nine Mile Road POD2022-00499

Dear Mr. Rouse:

The Department of Public Utilities has completed a review of the water and sewer plans that are part of the plan of development submitted to the Planning Department October 13, 2022.

DPU recommends approval of these plans by the Director of Planning.

Please address the following comments before submitting the construction plans for signature.

General:

- 1. An Information Sheet for Preparation of Agreements for Water and/or Sewer Service has not been submitted. Provide a completed F-5 (Information Sheet for Legal Agreement) from Henrico DPU Standards. The Information Sheet allows the Department of Public Utilities to prepare the Water and Sewer Agreements which must then be executed by the Owner and the County prior to approval of building permits or prior to the utility pre-construction meeting and authorization to proceed with utility construction. It is recommended that the Information Sheet be submitted as soon as possible to avoid delays in either of these steps. Preparation of the Agreements may take up to 15 days after receipt of the Information Sheet and execution by the County after execution by the Owner may take up to 10 days. Conflicts between the completed Information Sheet and the plans may generate additional review comments.
- 2. Include Sheet PS-120 in the plan set on next submittal.
- 3. Provide following details and all other related details to this plan:
 - a. D-125 (Monitoring Manhole)
 - b. D-165 (Adjust Existing Manhole Frame & Cover), as needed
 - c. D-400 or D-405 (Backflow Preventer Domestic)
 - d. D-410 or D-415 (Backflow Preventer Irrigation)
 - e. D-520 and D-525 (Water Service and Meter), if 1" meter is sufficient
 - f. D-740, as needed
- 4. Review the following comments from DPU Monitoring and Compliance division pertaining to the utility plan and F-12 (Notice of Intent to Discharge to Sanitary Sewer) form:
 - Plans indicated that the sewer lateral leading from the proposed grease interceptor and building are tying into existing sanitary sewer and manhole in Nine Mile Rd.
 - A D-125 Monitoring Manhole is required by Monitoring & Compliance in order for the building to be properly monitored. This monitoring includes compliance with oil and grease

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- discharge regulations, and samples collected as a part of the Strong Waste Surcharge Program to determine if a high strength waste surcharge is warranted
- The Monitoring Manhole needs to be installed in a location that is downstream of the grease interceptor and the tie-in of the domestic discharge in order for the sample to be well-mixed. The Monitoring Manhole should also be in a location that is safe to be monitored, and accessible at all times. Monitoring & Compliance suggests that the Monitoring Manhole be placed in the median before Nine Mile Rd., and away from the drive-thru.

C-000 (Cover Sheet):

- 1. Provide original signature and date on the engineer seal. A facsimile of seal, signature and date is acceptable on all other sheets.
- 2. Use the standard POD cover sheet that is provided on the Henrico Planning's website.
- 3. Add "Utility Plan" to the plan title on the cover sheet.

C-110 (Demolition Plan):

- 4. DPU does not allow legends to replace direct callouts. Do not identify utility items with numbers and a note table. The lines and appurtenances must be labeled directly on the plan. See the utility plan as well.
- 5. Add a note stating that, "All water and sanitary sewer is to be abandoned consistent with DPU Spec. 1.4.01C. and 10.3.10."
- 6. Provide a note stating, "minimum required cover over the existing utilities will be maintained during the construction."
- 7. Label the existing sanitary sewer manhole inverts and top elevation.

PS-100 (Utility Plan):

- 8. Label the size and material for all existing water and sanitary sewer pipes within the drawing limit. Also, see existing condition and demolition sheets.
- 9. Add a note stating all existing valve boxes will be adjust to the final grade.
- 10. Show and label all existing utility (water and sanitary sewer) easements with their deed book and page numbers. If the existing easements are not recorded, then they must be recorded with this project.
- 11. Be advised, the existing water main along Nine Mile Road is located outside of the right-of-way. Verify to ensure the utility easement around the existing water main has been recorded.
- 12. Provide a 20' utility easement around all public water and sewer mains/utilities (hydrants, meters, etc.)
- 13. The existing fire hdyrant located near Nine Mile Rd is not accessible. Fire hdyrants should be located between 5-7' behind the curb. The fire hdyrant will need to be removed and replaced in an accessible location.
- 14. No structures will be allowed in the public utility easements. Either relocate the water main out of the drive-thru/canopy area or remove the canopy from over top of the utility easement.
- 15. DPU recommend a minimum 10' separation between the structure and private water and sanitary sewer pipes.
- 16. Be advised, the minimum water main pipe size required for fire protection on a commercial project is 8" per DPU Standards. Extend the 12" DI water main located on Parcel 811-724-1927 along the frontage of this property in Nine Mile Rd to connect the onsite water line to the 12" water main. It is DPU's recommendation to extend the water main beyond the Chick-fil-A's driveway to minimize disruption in the future.
- 17. Water meters cannot be installed in the building. Water meters must be located in a grass area for maintenance and accessibility purposes.
- 18. The proposed water line connections for the domestic and fire line may conflict with the existing storm sewer. Review and revise as necessary.
- 19. There should be no bends in the service line before the domestic and irrigation meter. If bends are desired, place the bend on the service line after the meters.

- 20. Verify the condition of the existing manhole to determine if a core drill is possible and provide the information to DPU for review. Be advised, the existing manhole in Nine Mile Rd may need to be replaced with a new manhole.
- 21. Label the type of connection that will be used to install the water service for the domestic, irrigation, and fire line.
- 22. The 6" fire protection line should be referenced as a public water line.
- 23. The fire hydrant at the end of the water main is too close to the electrical line. Relocate the election line 10' form the fire hydrant.
- 24. Specify the horizontal distance between the roof drain and proposed water line.
- 25. The fire hydrant should connect to the water main using a "tee" connection. Also, no bends are allowed in the fire hydrant lead. Fire hydrants should be installed per D-495.
- 26. In the Utility Layout Notes, it specifies the water company make tap. It is the developer responsibility to make the tap to the existing water and sewer mains.
- 27. Relocate the storm manhole 10' form the proposed water line.
- 28. Specify the Water Company as Henrico County Department of Public Utilities in the Utility Layout Notes 1, 1A, 1B, 2, 2A, 3, 3A, 3C, 4, 4A, 7, 10, and 11.
- 29. Remove all Utility Layout Notes that do not pertain to this plan.
- 30. What is the future sanitary sewer and water easement for located along Nine Mile Rd.?
- 31. Add the following note, "Connections to existing manholes without stubs or bricked-up openings shall be the equal of either Kor-N-Seal w/stainless steel expander ring or Press-Seal w/nylon expander sleeve installed by core drilling manhole and in strict accordance with manufacturer's specifications."
- 32. The sanitary sewer service is referenced as 4" and 6" pipes in the "Utility Layout Note". The minimum pipe size for a sanitary sewer service is 6" in accordance with DPU Standards.
- 33. The minimum slope on a sewer lateral for a commercial project is 2.08% from the sewer main connection to the limits of the utility easement or ROW line. Once the lateral extends pass the utility easement or ROW line, it may be reduced per Building Inspection requirements.
- 34. Provide a monitoring manhole per Henrico DPU Standards. This manhole should be located where it can be easily accessible by DPU personnel.
- 35. An existing sanitary sewer structure schedule has ben provided on the plans, but no manhole identification is provided on the schedule or utility plan sheet.
- 36. Provide minimum three (3) northing-easting points.
- 37. Update the utility quantities per the plan comments.

PS-120 (Utility Detail):

- 38. The construction factor (C_i) on the Fire Flow Estimate Form should be 2,000.
- 39. The exposure and communication in the Fire Flow Estimate Form should be 1.
- 40. With 2,000 gpm required fire flow, two (2) fire hydrants will be needed for this project. Update the Fire Flow Estimate Form accordingly.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or John Yi 501-4511.

Sincerely,

Alice Thompson

Alice Thompson

Utilities Engineer