Cecil McNair, Jr. PE Ratchet Designs LLC 7119 Stafford Park Drive Moseley, VA 23120

> RE: Quality Inn Building Renovations LOCATION: 8008 W. Broad St. FILE NO: POD2023-00077

Dear Mr. McNair:

We have reviewed the construction plans submitted to the Planning Department on May 15, 2023.

Please address the following comments and **resubmit revised construction plans** for review. Water and Sewer Agreements that must be executed by the Owner and the County for water and sewer improvements **have not** been executed.

General:

1. Agreements have not been executed at this time. Agreements must be executed prior to the authorization to begin utility construction or approval of building permits. An Information Sheet for the Preparation of Utility Agreements has been submitted and is being reviewed. If the Information Sheet is incomplete, we will send you comments for correction and resubmittal. If the Information Sheet is complete, an Agreement will be forwarded to the Owner for signature within 21 days.

C1.2 Utility Notes

- 2. As previously commented, show dual 1.5" meters on the domestic sizing form.
- 3. Please note that at least two (2) fire hydrants for fire fighting are required with respect to ISO fire flow calculations since the 1500 gpm flow exceeds the 1000 gpm maximum allowable for just one (1) hydrant. The number of hydrants required to meet hose lay is a separate determination from the ISO calculations with the higher number of either assessment determining the final number of hydrants needed. If you have any further questions, please feel free to call to discuss.

C3.0 Existing Conditions, Demolition, and Phase I E/S Plan

- 4. Show the register number (47978099) for the water meter being removed.
- 5. Show the GIS ID number(260SE016H) of the fire hydrant being removed.

C4.0 Proposed Site Layout

- 6. Show utility easements for all county owned water and sewer facilities and label recordation information where previously recorded. Easements will be required where existing recorded easements are not sufficiently in place.
- 7. Show the 8" lateral being abandoned to be plugged at manhole 199NE006 consistent with DPU D-170.
- 8. The location for the monitoring manhole is not acceptable in that all wastewaters should combine/mix at least 5' prior to entering a monitoring manhole. Provide a monitoring manhole further downstream on the remaining lateral while remaining at least 4' off the curb. MH3 will then need to be labeled as a standard manhole.
- 9. Provide slopes of existing laterals that are being connected to with the new sewer. Show invert elevation leaving the building for the southern most lateral. Confirm that there is an available grade between the two laterals where connections occur so that the indicated minimum slope of 0.40% can be met.
- 10. A horizontal separation distance of 10 feet between the proposed sewer and the building overhang is strongly recommended to provide adequate space for sewer maintenance or repair/replacement of the line.
- 11. As previously commented, show the size of the reduced pressure detector assembly for the fire line.
- 12. As previously commented, specify the volume of the grease interceptor on the plan view and include a call out to reference the detail on sheet C4.1.
- 13. Label the relocated hydrant as per D-495 and specify the connection to the existing main as either 8"x6" tapping sleeve and valve or cutting in a tee with separate valve.

Cecil McNair, Jr. PE June 1, 2023 Page 2

- 14. Regarding the inset:
 - Revise to call out a 90° bend before the water meter vault and omit the other bend angles that are mistakenly labeled.
 - Show a plug to the left after the 8"x4" tee where existing meter vault and detector check vault are being removed.
- 15. We acknowledge receipt of the separate information for the fire pump equipment. Please provide the following information on the utility plans:
 - Page 1 of the submittal which shows an itemized equipment list for the purchase order. You can note that this is for information only and is being provided by the fire system contractor.
 - A clear statement requiring that a 20-psi cut off switch shall be installed on the fire pump suction line by the fire system contractor.

C4.1 Utility Profiles

- 16. Design invert elevations to allow for a 0.1-foot drop minimum across manholes.
- 17. Show pipe entry within both manholes from upstream/downstream pipes.
- 18. Coordinate sewer manhole labels with plan view. MH2 should be MH3 per C4.0.
- 19. Include all fixtures within the virtual meter sizing form that are outside of the standard hotel room fixtures provided. These same fixtures in the virtual meter sizing form are to be also included in the meter sizing form on sheet C1.2 for purposes of sizing the main meters.

C9.0 & C10.0 Lighting Plan & Landscaping Plan

- 20. Show all utilities and easements to match C4.0.
- 21. Trees and light poles shall be located outside of easements and at least 10 feet away from DPU owned utilities. Shrubs and bushes must have adequate separation so as to not hinder operational access or obscure visibility of any utility appurtenances at or above grade.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501 or Kiara Korkuc at 501-4993 for any necessary clarifications.

Sincerely,

John L. Clark

John Clark PE Utilities Engineer

cc: Mayush Mehta – Diamond Hotel LLC

bc: Marchelle Sossong

Daniel Ivy Kiara Korkuc

Kristin Smith, Planning

JLC/vr