

February 28, 2022

Stuart Groseclose, PE
McKinney and Company
100 South Railroad Ave.
Ashland, VA 23005

RE: I-895 Logistics Center-Ashley Capital
LOCATION: S. Laburnum Ave and Michael
Robinson Way
FILE NO. 5563; POD NO. 2022-00048

Dear Mr. Groseclose:

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 on February 4, 2022 and received by DPU on February 10, 2022.

□ DPU recommends approval of these plans by the Planning Commission.

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

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 not been submitted for review. If the Information Sheet is incomplete when submitted, we will send you comments for correction and resubmittal. If the required Information Sheet is complete when submitted, an Agreement will be forwarded to the Owner for signature within 21 days.

Water system model

2. The following comments pertain to the water system hydraulic model:
 - It appears that the elevations used in the model are somewhat less than what is shown on the grading plan. System shall be designed to maintain a minimum pressure of 20 psi at ground level elevation at all points in distribution system with peak flow (domestic + fire flow) conditions.
 - There were a few nodes for peak hour or max day plus fire flow that show pressures less than 20 psi.
 - Please note that the suction side of the fire pumps shall have to be equipped with a low-pressure cutoff at 20 psi.
 - Has the friction loss from the 10" RPZ been considered in these model runs?
 - A little clarity is needed on the pipe nodal map as there are several overlapping labels bunched together in places. It would be helpful to have an enlarged representation of the nodes and pipes in these areas.

C-301(Utility Plan)

3. Show road grade versus existing manhole rim elevation within the entrance road and provide the following manhole top information for the adjustment if needed:
 - a. Existing top elevation.

- b. Proposed top elevation.
- c. Amount of modification required, i.e., vertical feet of raising or lowering.
- d. Proposed method of adjusting each manhole.
- e. Phase of construction each manhole modification is to be done.
- 4. Add the following note, "A maximum of 12" adjustment may be done utilizing pre-cast riser rings to raise frame and cover. For additional height adjustment, pre-cast manhole sections must be installed. Decreasing manhole depth must be done by removal/replacement of pre-cast manhole sections."
- 5. Include the standard VDOT encasement pipe detail without the leak detector.
- 6. Provide a fire hydrant between the water service 16" x 4" tee and the boundary valve for flushing the dead end 16" waterline. Provide a distance of at least 5 feet separation between the water service tee and the hydrant tee.
- 7. Provide GIS ID for manhole where tie-in occurs and for the manhole within the entrance road.
- 8. Provide GIS ID for fire hydrant where tie-in will occur.
- 9. Provide a monitoring manhole at manhole 1 location per D-125 and include detail in the plans.
- 10. Provide benchmarks consistent with DPU Spec. 5.5 L. (Add note for contractor reestablishing benchmarks if temporary and can be disturbed).
- 11. Reference county water book (CWB) and sewer book (CSB) sheet numbers on this sheet in the lower right corner.
- 12. The sanitary sewer structure and piping schedules shall be placed on all three utility plan sheets for reference.
- 13. Dimension typical distance from waterline to curb face.
- 14. Provide internal angles of pipe direction at each manhole.
- 15. Reference county monumentation on S. Laburnum that was used for the site survey.
- 16. Verify and provide adequate separation from other utilities, where making waterline tie-in within South Laburnum Avenue. See fiber optic and underground telephone lines.

C-302(utility plan)

- 17. The following pertain to the 1" exclusion(irrigation) meter:
 - Provide peak irrigation demand to justify meter size.
 - The service connection shall be made to the 4" private domestic service line and not the 16" fire line.
- 18. Specify size of interior RPZ device on domestic service.
- 19. Add a note on plan for all pumps to have low pressure cutoff mechanisms in place on suction lines and set at a minimum pressure of 20 psi.
- 20. Adjust hydrant near manhole 6 to be at least 50 feet from the building.
- 21. 8" valves are strongly recommended at each 10 x 8 tee to isolate each sprinkler run-in line so that the remainder of the system can still remain in service.

C-305(utility profile)

- 22. DPU will not accept the waterline installation underneath the twin 10' x 6' culverts. Install waterline so that it is going around the culverts at a distance of 8 feet from the wing walls and coming straight across other side of South Laburnum. A reverse tap is to be used at the connection point for the bore unless DPW will allow an open cut installation. The waterline is to cross between the top of the sanitary sewer and the stream bed with at least 1 foot of cover above the casing pipe used to cross the stream.
- 23. Install 16" waterline at a minimum cover depth of 4 feet to allow for valve stem operator depth.

C-308 to C-310(utility details)

- 24. Include details for thrust blocking(D-700) and monitoring manhole(D-125).
- 25. Revise water and sewer material quantities in accordance with all comments.

C-401(Phase 1 E & S)

- 26. Either relocate construction entrance gravel rip-rap away from existing manhole or provide adequate protection for the existing manhole at this location.

ES-100 to ES-104(Photometric Light Plan)

- 27. Light poles shall be located outside of all public utility easements and 10 feet away from public utilities. See entrance road light poles.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501.

Sincerely,

John L. Clark

John L. Clark, PE
Utilities Engineer

cc: Harrison Steele, Ashley Capital

bc: Ralph Claytor
Marchelle Sossong
Megan Gallagher, Daniel Ivy
Ireini Botros
Tony Greulich, Planning

JLC/vr