

July 3, 2023

Amelia Wehunt, PE
Timmons Group
1001 Boulders Parkway, Suite 300
Richmond, VA 23225

**RE: Telegraph Road Apartments
10551 Telegraph Road
POD NO.: 2023-00115**

Dear Ms. Wehunt:

We have reviewed the construction plans submitted to the Planning Department on June 8, 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.

Cover Sheet:

1. Remove the dark shaded background and darken the road name on the vicinity map.
2. Update the quantities list.

Existing Conditions Plan C1.00:

3. Show the existing plug at the end of the water line near the southwest corner of 10551 Telegraph Road building.
4. Show the 90° bend near the northeast corner of 10551 Telegraph Road building.

Utility Demo Plan C2.10:

5. Provide a table to address the raising and lowering of existing manholes to finished grade. This table should include:
 - 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.
6. The sequence of construction is unclear about which valve to shut off to remove existing water line. Revise the sequence of construction to make it clear or eliminate it and leave it up to the contractor to coordinate with the inspector and adjacent property owner. Add a note for contractor to coordinate shutting off the waterline with DPU inspector adjacent property owner.

Storm Drainage Profiles C5.10-C5.12:

7. Label the water line crossing under storm pipe A92 as proposed water line instead of existing. The water line should only be 18" under the storm instead of 2.26 feet.

Utility Plan C7.00:

8. See comments on existing conditions.
9. Provide a distance from the doghouse manhole SS1 to the existing manhole.
10. Proposed sewer lateral to the building can be 6" instead of 8". The minimum slope for sewer lateral should be 2.08%. No need to include schedule 40 or ASTM D-2665 in the label of the sewer lateral.
11. Remove the sanitary sewer system table. Move the pipe table from sheet C7.20 to the utility plan sheet C7.00. Add pipe material to the pipe table.
12. The Maximum Fixture Unit Load table is not readable.
13. Move the sanitary sewer schedule from sheet C7.20 to the utility plan sheet C7.00. SIP D-185 should not be used for this project. SIP is only for single family home. Label to use clean-out.
14. Provide north arrow on the utility plan.
15. Relocate CO1 southward so the angle at the existing manhole 2 is 45° instead of 60°. Can you use the existing sanitary sewer that is already there instead of core in another hole at the existing manhole? Is the elevation low enough to serve the building?
16. Recommend showing the MFF elevation of the building in the utility plan.
17. Add the following note, "The Engineer shall certify that all proposed sites will be served by gravity with sewer service connections installed at a slope of 1/4 inch per 1 foot except where shown otherwise on the plans. The depth of service connections shall be in accordance with Paragraph 13.3.7D."
18. Clearly label the private sanitary sewer lateral in the utility plan.
19. Proposed manhole SS3 appear to be in the curb and gutter. Recommend extend the proposed sewer approximately 19 feet southward and set a manhole there. Extend the sewer eastward from there and set the manhole south of the existing CO3 and tie into it.
20. Provide 30 feet utility easement in the area south of 10561 Telegraph Road building to extend future utilities to parcel 787-769-0591.
21. Provide an architect plan. Are the fire door Class B?
22. Do not label the proposed waterline as (8"F). Label it as "PROP. 8" DI W/M" would be sufficient.
23. Reference the length of the water line to the face of curb on each run on each side of the building.
24. Relocate the proposed 8" waterline a few feet northward so that there will 10 feet from the property line to the proposed watermain.
25. Label the number of 8" valve at the proposed 8"x8" tee. You only need 2 instead of 3 valves at that tee. Eliminate the valve on the south side.
26. Label to remove the existing 8" water plug near storm sewer A90 and extend the proposed 8" waterline southward.
27. Label the proposed water line near storm sewer A90 to be 8" DI.
28. Remove the gray shading and cross hatch. Some of labels are not readable.
29. The 6" DI pipe to the meter is not private. Remove the word "private".
30. Label to use 8"x6" tapping sleeve valve to connect the dedicated fire hydrant to the existing 8" water main.
31. Label the pipe between the 6" gate valve and the 6" boundary valve to be 6" DI.
32. Review the location of the dedicated fire hydrant and existing FDC for 10571 Telegraph Road with the Fire Department. The existing private FDC is under a tree and not on the same side of the dedicated fire hydrant.
33. Recommend relocating the label for the dedicated hydrant near manhole SS2 to a different location so it will not block the location of the existing valves.
34. Label to remove the 90° bend and install a 8"x8" tee with two 8" gate valve instead of tapping sleeve valve. It is impossible to install tapping sleeve valve at the bend.
35. Label the proposed 8" waterline in the inset to be DI.

36. Why is the irrigation line going into the building? It should be going toward the irrigation system outside.
37. The 1" backflow preventer for the irrigation system should also be outside instead of being inside the building. Label to install the backflow preventer for the irrigation system per detail D-410.
38. Label to connect the irrigation line to the existing 8" water line by 1" corporation stop instead of 8"x1" tapping sleeve and valve. Label to install 1" copper service pipe from the corporation stop to the irrigation meter. Label to install the water service and irrigation meter per detail D-520&D-525.
39. Label the demand for the irrigation meter. The maximum demand for the 5/8" meter is only 16gpm.
40. See comments on easement sheet and landscape plan.
41. Provide benchmarks consistent with DPU Spec. 5.5 L. There are benchmark C and D shown on the left side of the sheet. Are there benchmark A and B on the plan? Is there any benchmark on the right side of the sheet near the proposed sanitary sewer?

Utility Notes and Details C7.10- C7.12:

42. Replace detail D-185 with detail D-520.
43. Add detail D-730.
44. Revise the meter size to be dual 2" instead 3" to match with the utility plan.

Sanitary Sewer Profiles C7.20:

45. Move the sanitary sewer schedule from sheet C7.20 to the utility plan sheet C7.00. SIP D-185 should not be used for this project. SIP is only for single family home. Label to use clean-out.
46. Move the pipe table from sheet C7.20 to the utility plan sheet C7.00. Add pipe material to the pipe table.
47. For all sanitary sewer profiles, provide separate sewer stationing starting at the most downstream connection and proceeding upgradient with equalities at each junction manhole. Minimize stationing changes by using the longest chain of sewer line runs in the same stationing sequence.
48. Update the sanitary sewer schedule and pipe table per comments in the utility plan and profile.
49. Provide both upper and lower invert elevations for the drop stack. See detail D-130. DI pipe and fittings shall be used for drop connection.
50. Proposed water main crossing near manhole SS4 should go above the sanitary sewer. Proposed waterline should be 3.5 feet below the proposed grade. The sanitary sewer should be 18" below the water line at the crossing.
51. Sewer lateral can be 6" instead of 8". The minimum slope for sewer lateral is 2.08% according to DPU Standards.
52. The proposed invert at the existing manhole 2 should be invert in instead of invert out. There can only one invert out.
53. Proposed sanitary sewer lateral coming out from building should connected to the bottom of clean-out.
54. Proposed invert in at manhole SS1 from SS2 should match crown. Proposed pipe is 8" coming into existing 10" pipe.
55. Proposed SS3 to SS1 must be lower in order to serve parcel 787-769-0591. The invert out of manhole SS3 should be around 124 in order to serve parcel 787-769-0591. It should be 1 foot under the roof drain crossing.
56. Eliminate the drop connection at manhole SS2.

Water Profiles C7.30:

57. Keep the waterline 3.5' deep.
58. Proposed water line only needed to be 18" instead of 2.24' at station 10+85.

59. Proposed water line at station 10+45 should be above the proposed sanitary sewer lateral. Maintain 3.5' of cover over the waterline and lower the sanitary sewer.
60. Maintain 3.5' of cover over the proposed water line from station 14+25 to station 18+57. Eliminate the 45° vertical offset.
61. Maintain 3.5'- 4.5' of cover over the water line from station 40+13 to 41+80. Provide a foot of clearance between the proposed water line and the underground fiber and CATV.
62. Show all the storm sewer crossings in the water line profile. Show the storm crossing in the water main extension from Telegraph Road profile.
63. Update the size and material of the sanitary sewer crossing.

Easement Plan C8.00:

64. Existing and proposed water line or sewer line must have 10 feet of easement on each side of it for a total of 20 feet of utility easement. Provide additional easement as needed where the existing utilities have less than 10 feet of easement on each side.
65. It is not acceptable for water line to have only 5 feet of easement on one side of the waterline at the entrance and 7 feet near manhole SS2. Provide 10' on each side of the waterline.
66. The trees can be in the easement in the area near CO1 where Planning Department required the trees to be there but the easement should still be 10 feet on each side. The owner must provide a hold harmless agreement to allow DPU to maintain the waterline in this area without responsible for the tree. Owner will be responsible to replace any tree that is dead or damage as a result from DPU doing maintain to the water main. The other option is to relocate the waterline.

Landscape Plan L1.00:

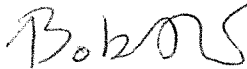
67. The trees in the area near CO1 where Planning Department required the trees to be there must be small trees like crepe myrtle not Betula Nigra or Carpinus Caroliniana.
68. Update the utilities on the landscaping and lighting plan per comments made on the utility plan.

General:

69. 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 for review.
70. Update the Engineer Report. Sewer design form was not required and was not submitted. Check "no" on this item. Update the lowest pressure at peak flow with the new water alignment.
71. Update the Project Summary Report. Revise the average day and maximum demand. Update the pipe quantities. Answer "yes" instead of 5 on question about fire hydrant on 6-inch or larger diameter pipe. Revise the maximum day plus fire flow minimum pressure. Answer the question about fire flow acceptable to Fire Official.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4601 or Nolan Ekers at 501-4992.

Sincerely



Bob Dao
Utilities Engineer

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Telegraph Road Apartments

cc: Vincent Pellerito, Mohawk Investment Partners I, LLC & International Financial Realty-Richmond LLC
David Hanchrow, Bristol Development Group

bc: Ralph Claytor
Marchelle Sossong
Mike Aust, DPW
Daniel Ivy
Aimee Crady, Planning

BQD/vr