

April 18, 2023

Amelia Wehunt, P.E.
Timmons Group
1001 Boulders Parkway, Suite 300
Richmond, VA 23225

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

Dear Ms. Wehunt:

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 March 29, 2023.

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

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

Cover Sheet:

1. Remove the dark shaded background and darken the road name on the vicinity map.
2. Original signature is required on the P.E. Seal on the Cover Sheet. A facsimile of seal, signature and date is acceptable on all other sheets.
3. Update the quantities list.

Existing Conditions Plan C1.00:

4. Show the pipe material of the existing utilities.
5. Review the location of the existing utilities and easements. Many of the utilities are either on the edge or outside of the easement. Provide additional easement as necessary.
6. Show all the existing water appurtenances such as reducer, plug, bend, and valve.
7. Review the location of the existing valve. It should be on one of the three sides of the tee instead of at the center of the tee.
8. Review the bends on the existing 8" water line west of 10561 Telegraph Road building.
9. Show the existing FDC lines for the existing buildings.
10. Show GIS/CSB elevations and ID at the existing manholes.
11. Review the surveyed elevations of the existing manholes. Clarify why it is 2 to 4 feet from GIS elevations.
12. Label the existing private utilities to distinguish it from the public utilities.
13. Identify all the existing clean-outs. How is it tying to the existing utilities?
14. Provide elevation at the existing clean-out near the lateral going to the southern building of 10561 Telegraph Road.
15. Show the existing waterline stub next to the fire hydrant west of 10561 Telegraph Road building.
16. Revise the GPIN number for 10561 Telegraph Road and 10571 Telegraph Road.
17. Provide four NE coordinate at the corners of the property to spread out the area instead of providing all of it on one building.

Existing Property Information Plan C1.10:

18. Revise the GPIN number for 10561 Telegraph Road and 10571 Telegraph Road.

Utility Demo Plan C2.10:

19. Fire protection must be maintained during the removal of fire hydrants. Notify the Fire Marshal prior to removing the existing fire hydrant.
20. Identify to remove the fire hydrant valve in addition to removing the fire hydrant and then plug it at the existing tee.
21. Show the existing waterline stub next to the fire hydrant west of 10561 Telegraph Road building. Label to remove the existing stub and valve and plug it at the tee.
22. Identify to remove the valve when removing the water line. Show the plug at the tee at the two ends.
23. Identify to cut and plug the sanitary sewer just outside of the manhole with the top of 132.20.
24. Many of the existing clean-outs are labels to be removed but it is unclear what they are tie to.
25. 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.
26. Provide a sequence of construction to minimize the disruptions of the water and sanitary sewer services.

Storm Drainage Profiles C5.10-C5.12:

27. Show all the water and sanitary sewer crossings in the storm profiles and resolve any conflict.

Utility Plan C7.00:

28. See comments on existing conditions.
29. Provide a distance from the doghouse manhole to the existing manhole.
30. Proposed sanitary sewer from SS1 to CO1 is too close to the underground storm water detention system, the storm sewer inlets, and the trees.
31. Show the internal angles at all the manholes.
32. Reference the material and size of the proposed sanitary sewer.
33. Label the existing cleanout CO3.
34. Revise CO1 and CO2 to be a proposed manhole instead of clean-out.
35. Proposed sanitary sewer from CO2 to SS1 should be 8" instead of 6".
36. Label the sanitary sewer from CO3 to CO1 to be private.
37. Provide elevation at CO3.
38. Proposed sanitary sewer from CO2 to CO1 should be 10 feet from the existing water line.
39. Label the sanitary sewer from CO4 to the existing manhole to be private.
40. Label the sanitary sewer from CO5 manhole SS2 to be private.
41. Proposed sanitary sewer from CO5 to manhole SS2 is too close to the building. Recommend sanitary sewer to be 10 feet away from the building.
42. Label the sanitary sewer lateral as 8" PVC at minimum slope of 2.08%. No need to include schedule 40 or ASTM D-2665.
43. Label manhole SS2 as manhole with drop connection. Label to install it per detail D-130.
44. Label to convert the existing manhole 2 to a manhole with drop connection.

45. Proposed water line must continue to follow along the eastern entrance and be looped back to the existing 12" water line in Telegraph Road to provide redundancy. You might not have to upgrade the water line from 8" to 12" if you make the connection to the existing 12" water line in Telegraph Road.
46. Proposed water meter, boundary valve, fire hydrant, and fire hydrant valve should not be in the sidewalk. Relocate them to a different location outside of the sidewalk.
47. Reference the size of the proposed boundary valve on the water service line.
48. Boundary valve is normally located at the easement line 10 feet away from the water main.
49. Reference the pipe material from the dual 2" meters to the water main.
50. Label all the proposed valve as gate valve to distinguish from other type of valve such as butterfly valve.
51. Label to install proposed fire hydrant per detail D-495.
52. Proposed fire hydrant is too close to the storm sewer near CO4.
53. It is unlikely that the Fire Department will accept the location of the existing fire hydrant near storm inlet A33.
54. Remove all the trees on the north side of the building that is within 10' of the waterline running parallel to Telegraph Road.
55. Provide an additional 8" gate valve on the south side of the proposed tee at the tie-in point near CO2.
56. Proposed fire hydrant should be no more than 7 feet from the curb in the fire truck travel lane.
57. Clarify what type of firewall within the building? Is there any fire door?
58. Remove the label "By DPU" on the plans as DPU does not install these utilities.
59. Do not label the proposed waterline as "fire service line". Label it as "PROP. 12" DI W/M" would be sufficient.
60. Reference the length of the water line to the face of curb.
61. Fire hydrants need to be 50' minimum from the proposed building or get acceptance by the division of fire for the location of the fire hydrants.
62. Review location of fire hydrants and FDC (siamese connection) with the Division of Fire.
63. It is unlikely that the Division of Fire would accept the proposed hydrant behind a parking space west of 10571 Telegraph Road building.
64. Provide a new siamese connection location for 10571 Telegraph Road building.
65. Label all the proposed utility easement. If the existing easement is not 10 feet on each side of the public water line or sanitary sewer, then provide additional utility easement.
66. Per detail D-470, there is a tapping sleeve and valve on this project. Show the location of this on the utility plan.
67. According to the details, there is a 5/8" or 1" irrigation meter. Show the location of this on the utility plans per D-410 and D-525.
68. Don't you need the booster pump for the sprinkler system too in addition to the domestic booster pump?
69. Add the following note:
 - Electronic markers (ball type) shall be installed on all water mains and sewer gravity mains in accordance with specification 2.2.0SN and 4.2.02E of the 2014 DPU Design and Construction Standards.
70. Are there any monitoring manholes on this project? According to the utility quantities list there are 2. If so, show callout the location.
71. Provide benchmarks consistent with DPU Spec. 5.5 L.
72. Add the CWB/CSB, 588E, to the bottom right corner of the utility plans.

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

73. Remove all details that do not pertain to this project.

74. Delete the redundant material detail notes next to the In-line P trap detail. Form F-9 is fire flow estimate form not material notes. Form F-6 is the water and sewer notes.
75. Add details D-150, D-485, D-700, D-710, and D-730.
76. Clarify how did you calculate the ground floor area in the Fire Flow Estimate Form. Show the ground floor area for each section of the building to demonstrate that this is the biggest area.
77. Revise the total fixture value for the drinking fountain in the meter sizing form. Update the combined fixture value total. Revise the maximum demand and meter size.

Sanitary Sewer Profiles C7.20:

78. Update the sanitary sewer schedule and pipe table per comments in the utility plan and profile.
79. Show the drop connection at manhole SS2, and existing manhole 2. Provide both upper and lower invert elevations for the drop stack. DI pipe and fittings shall be used for drop connection.
80. Revise the upper invert at manhole SS2 and the existing manhole 2. You can not connect into the cone section of the manhole. See detail D-130.
81. Label all proposed sanitary sewer to be private except for the public sanitary sewer from CO1 to SS1.
82. Provide stationing for the proposed sanitary sewer.
83. Revise the minimum slope for all the sanitary sewer laterals to be 2.08% instead of 1.08%.
84. Delete the "SDR 26" label in the pipe material.
85. Label B12 as storm sewer.
86. Proposed sanitary sewer from CO2 to SS1 should be 8" instead of 6".
87. Show the existing 8" water main crossing between CO1 and SS1.
88. The invert in from CO1-SS1 should match crown with the other invert.
89. Reference the type of manhole covers used for the manholes.
90. Revise the slope from CO3 to CO2.
91. Revise elevation at CO2.

Water Profiles C7.30:

92. Show all the storm sewer crossings in the water line profile.
93. Update the size and material of the sanitary sewer crossing.
94. Keep the waterline at 3.5' deep instead of 7' except where you need to lower it to avoid conflict.
95. Use four 45° bends per detail D-485 to adjust the water line under the storm. You only need 18" instead of 3.57 or 4.25 of clearance between the water line and the storm sewer.
96. Keep the waterline at 3.5' and eliminate all vertical offset except at station 11+85.
97. Label the 2" water line as copper instead of DI.
98. Label the size of the water meter.
99. Revise the pipe material of the existing water line at the connection point at station 22+31.96 to be PVC.

Easement Plan C8.00:

100. Be aware that utility easements cannot be vacated until the new line is installed, tested, and inspected.
101. 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.

Landscape Plan L1.00:

102. Darken the existing and proposed utilities.
103. Show the proposed utility easement southeast of the building.
104. Show all the existing and proposed utilities and the easements.

- 105. Add the following note:
- 106. The owner is responsible for replacement of any planting (i.e. shrubs, etc.) within DPU water and sewer easements that is damaged or removed by DPU, or its agent, as required for maintenance of county owned water and/or sewer facilities.
- 107. Tree plantings are required to be outside of the utility easement. No tree should be within 10 feet of the water or sewer line.

Lighting Plan L3.00:

- 108. Refer to previous comments about the proposed utility easement.
- 109. Show all the existing and proposed utility easements.
- 110. Relocate those light poles that are either in the utility easement or within 10 feet of the water or sewer line. Lighting structures are not allowed within or overhead any utility easement or within 10' of the water or sanitary sewer pipe.

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

cc: Vincent Pellerito, Mohawk Investment Partners I
David Hanchrow, Bristol development Group

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

BQD/vr