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JOSEPH MARCH, P.E., P.L.S.
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May 12, 2020

Town of Concord
Planning Board
141 Keyes Road
Concord, MA

Dear Ms. Elizabeth Hughes,

In response to the Department of Planning & Land Management Report dated April 24, 2020, comments received from various Town Boards, and from abutters at Riverwalk, the following revisions have been made to the plan set:

In response to Riverwalk abutter concerns:

1. The common entrance to Riverwalk and Waterside Commons has been shifted approximately 15' to the west. This will prevent car headlights entering the two developments from shining into one of the first units on the lower court of Riverwalk. A 3' grass strip and 5' sidewalk is proposed along this new entrance drive to provide pedestrian access from Main Street. This access road is proposed to be crowned to allow half the stormwater runoff from it to enter Waterside Way and the other half to Riverwalk's existing drainage controls. Less impervious runoff enters Riverwalk's existing drainage controls compared to current conditions.
2. Parking is no longer proposed along the access drive, so additional spaces are shown within Waterside. Four (4) parallel parking spaces are also proposed along Main Street where an extension of pavement exists now. A sidewalk alongside these parallel parking spaces is also proposed.
3. The proposed water main serving Waterside will now be looped into the Riverwalk development in lieu of Westvale Meadows.

In response to Planning & Land Management Report dated April 24, 2020:

II. Staff Comments

A. Police Department

No response required.

B. Fire Department (also referencing letter from David Nichols, Fire Prevention Inspector, dated March 24, 2020)

1. The name of the development is now "Waterside Commons."
2. A new, more legible development directory sign will be placed at the common entrance to the two developments, clearly marking Riverwalk with their Main Street addresses, and the Waterside Commons units, which will have Waterside Way addresses, also shown on this new, larger entrance sign. The applicant is open to having all Waterside Commons units having Waterside Way addresses, but if allowed by the department, would like to have Unit 1, 6A/6B, and 7A/7B to have Main Street addresses. This development entrance sign design can be coordinated with the Concord Fire Department. A "Waterside Way" street sign is proposed where the entrance drive branches off into Waterside Commons.

3. As stated above, a new, more legible development directory sign will be placed at the common entrance into the two developments. The current Riverwalk residents are not in favor of changing their current addresses.
 4. The Waterside Commons dwelling units are now proposed to have approved fire sprinkler systems in all newly constructed buildings. The existing emergency access is entirely on Riverwalk property and not the subject of this permit. The small curb at the boundary between the emergency access lane and entrance road is required to direct stormwater runoff to the swale and should be easily mounted with an emergency vehicle. The addition of Waterside Way provides a tee turnaround for a Concord ladder truck, which is an improvement to current conditions. If there is an emergency event in one development, an emergency vehicle could enter the common drive, turn into the development that is not having an emergency, and allow additional vehicles access to the incident. See attached turning template with the Concord ladder truck.
 5. The emergency vehicular access connection to Westvale is no longer proposed. The change in grade between the Westvale parking and the end of Waterside Way is too large to have a slope less than 12%. As stated above, all newly constructed buildings will have approved fire sprinkler systems to compensate.
 6. See attached plan showing adequate turnaround access with the Ladder 1 vehicle.
 7. All newly constructed buildings will have approved fire sprinkler systems.
 8. See 7 above.
 9. Approved monitored fire alarm systems will be proposed in newly constructed residential units.
 10. A 241 Construction Fire Safety Plan will be submitted prior to approval of any site work.
 11. Stamped plans depicting all fire protection systems will be provided.
 12. The Fire Department will be requested for scheduling of rough inspections prior to finish construction.
 13. Fire protection system affidavits will be provided prior to finish construction.
 14. The Fire Department will be requested for scheduling of final inspection of all fire protection systems prior to occupancy.
- C. CPW- Engineering Division (also referencing letter from Justin Richardson, PE, Assistant Town Engineer dated April 8, 2020)**
1. A SWPPP will be submitted for review prior to obtaining a building permit.
 2. Note 2 on Sheet 2 of 8 has been revised to include the Deed Book and Page number.
 3. The existing septic tank shall be pumped dry, bottom ruptured, and backfilled with clean sand in accordance with Title 5, Section 15.354 "Abandonment of Systems" or disposed offsite. If the existing leach field is encountered, soil spoils may be placed as general fill with one foot of cover. The remainder of the leach field may be abandoned in place. A note to this effect will be on the Sewage Disposal Plan.
 4. Now that the access drive to both Waterside and Riverwalk is proposed along the property line between the two developments, easements are proposed allowing access for either party on either property.
 5. With the entrance drive now proposed to be shifted west, the improvements include a 3' grass shoulder and 5' sidewalk. A new directory sign and a Waterside Way street sign are also proposed for clarity.
 6. To keep access to an existing garage along the entrance drive, the slope of the road will have to be the same as existing, 10%. This slope decreases as you enter Waterside Way.
 7. The emergency access to Westvale is no longer proposed because the change in grade between the developments is too large, and dwelling units are now proposed to have approved fire sprinkler systems in all newly constructed buildings. A maintenance plan for the lower court green where a path and grasspavers provide a 10' path for emergency vehicles will be provided.

8. The emergency access to Westvale is no longer proposed.
9. Site lighting is now shown on Sheet 4. Cutsheets of the lighting is attached.
10. Soil testing was performed on the property for both the septic system and drainage system. A Board of Health representative was present for the septic soil testing but not for the nearby test pits with the “U” prefix, we will schedule testing to be witnessed if required.
11. Volume 2, Chapter 2 of the Massachusetts Stormwater Handbook, under the “Bioretention Areas & Rain Gardens” section reads “To receive 90% TSS removal credit, adequate pretreatment must be provided....These options include: A grass and gravel combination. This should consist of at least 8 inches of gravel followed by 3 to 5 feet of sod.” The stone treatment trench is proposed as 3’ wide by 2’ deep, and followed by >10’ of grass before entering Sediment Forebay #1. Nevertheless, all road runoff enters two (2) sediment forebays prior to Infiltration Basin #1, which by themselves would provide the 44% TSS removal. The TSS Removal Spreadsheet has been revised to include just the two Sediment Forebays.
12. The Infiltration Basin detail have been updated with the new design.
13. The Sediment Forebay details on Sheet 7 of 8 now show a material for the bottom of the forebays. Sediment Forebay #1 will have 6” loam and seed to further facilitate TSS removal while Sediment Forebay #2 will have the same gravel bottom as Infiltration Basin #1.
14. The bottom of basin elevation is set at 2’ above seasonal high groundwater. See table below for test pit information. The subsoils of sand result in a relatively flat level of Estimated Seasonal High Ground Water.

Test Pit	Test Pit Surface Elevation	Depth to Estimated Seasonal High Ground Water	Estimated Seasonal High Groundwater Elevation
TP U-1	128.5	36”	125.50
TP U-2	129.1	44”	125.43
TP U-5	129.0	42”	125.50

The Groundwater Mounding Analysis was performed when the basin is filled with the Required Recharge Volume, which has been updated with the revised design.

15. The emergency spillway of the revised Infiltration Basin is now set at the 100-year storm elevation and the berm is set 1’ higher to get the required freeboard.
16. The definition of ‘compact till’ in the Infiltration Basin detail has been updated to say no stones >3” in the compact berm.
17. Access to the basins is provided along the central green of the lower court. 4’ of pavement alongside 6’ of grass pavers, shown all the way to the Infiltration Basin, will allow access for maintenance.
18. The Hydrology Studio software program used in generating the hydrographs does not allow plot points to graph when they have passed the peak and are below 0.01 cfs, but the peaks of the hydrographs are shown. Where the graph does not clearly show the peak, a table of values showing all 24 hours is now provided.
19. A note has been added to the Infiltration Basin detail that top and subsoils shall be removed, leaving the parent material of sand. The bottom of the basin is 6” double washed ¾”- 1½” crushed stone underlain by 6” title 5 sand.
20. An additional chamber is required for each of the two drywells in the area of Test Pit U-3 to account for the fine sandy loam. Updated hydrographs, recharge volume, and groundwater mounding calculations are provided with the appropriate exfiltration rates.
21. Sewage Disposal Plans will be generated and reviewed by the Concord Board of Health.
22. Snow storage areas are shown on Sheet 5 of 8.
23. No response required.

D. CPW- Water & Sewer Division (also referencing letter from Valerie Doerrer, Public Works Engineer- Water Systems dated April 6, 2020)

1. The project is proposing to connect 18 bedrooms from 9 dwelling units to the Town Sewer. Because Main Street is several feet higher in elevation than the area of development, the sewer will have to be pumped. A series of E-one grinder pumps are now shown from the units proposed to be on sewer that will pump the effluent to the existing sewer manhole on Main Street.
2. The applicant will request a hearing before the Public Works Commission to request a waiver to allow a single service connection dedicated to more than one building (9 units from 7 buildings).
3. An appeal to the Public Works Commission will be requested seeking relief for an increase in flow over 1,000 gallons per day. A Title 5 Building Review Form will also be submitted to the Concord Board of Health to determine the Sewer Improvement Fee.
4. The proposed common water main is no longer proposed to connect to Westvale Meadow, but now instead back into the Riverwalk development. A draft agreement will be provided for the interdependent water supply.
5. As noted above, the sewer connection to Main Street will have to be pumped because of the change in elevation. We now show E-one grinder pumps at each of the units proposed to be on Town sewer, which connect to a 2" pressure sewer line which will send the effluent to the existing sewer manhole on Main Street. A more detailed Sewer Connection Plan will be provided when the project is before the Public Works Commission.

E. Concord Municipal Light Plant (also referencing letter from Jeffrey Cosgrove, CMLP LE Engineer, dated April 13, 2020)

1. The existing underground electric and communication facilities at the Concord Riverwalk development have been added to the plans. A new, common recycling and trash area for both Waterside Commons and Riverwalk is now proposed, as the existing area is in conflict with the access road.
2. A potential electric/communication equipment area is now proposed on the eastern front edge of Unit 8 along the access drive. The applicant is open to moving the location of this equipment at the request of CMLP.
3. Electric charger locations are now shown on the plan. One is proposed in each car pavilion, the garages on Units 1 and 8, and one in the open visitor parking space area. The EV charging station in the attached garages (Unit 1 and 8) will be tied into the home's meter. The EV charging stations in the car pavilions will be tied into a house/common meter that will also include garage door operators, convenience outlets, lighting in the garages, site lighting, and the common area building.

F. Building Inspections Division (also referencing letter from Ray Matte, Building Commissioner, dated April 3, 2020)

1. See attached spreadsheet which shows compliance with the building height requirements.
2. Cut sheets of the proposed exterior lighting are attached.
3. The newly proposed sidewalk along the shifted entrance drive meets the 521 CMR 22.3.1 Architectural Access Board's regulations for public walkways. This new sidewalk will connect to the open space access easement on Riverwalk.
4. The lots will be combined into 1 lot on an ANR plan.

G. Health Division (also referencing letter from Susan Rask, Public Health Director, dated April 13, 2020)

1. Sheet 4 of 8 references the bedroom and sewage flow in the bottom of the “PRD Zoning Compliance Table.” There are 12 buildings in total: 7 buildings on town sewer with 18 bedrooms and 5 buildings on septic with 12 bedrooms.
2. Adhering to the goal of a PRD, Waterside Commons maximizes open space by proposing denser development. An area is shown for both a primary and reserve conventional septic system. More than 75% of the proposed primary system, an Advanced Enviro-Septic Treatment System by Presby, is outside of the access driveway.
3. A more detailed, separate Sewage Disposal Plan will be submitted to the Board of Health for review and approval under Title 5 and the Concord Board of Health regulations.

H. Natural Resources Division (also referencing letter from Delia Kaye, Natural Resources Director, dated April 20, 2020)

1. No response required.
2. Turf lawn is now only proposed outside the Resource Areas while native grasses are proposed within.
3. The restriction on the Open Space will include the ability to connect to trails on adjacent parcels, and permanent boundary markers are now proposed at all corners and changes in direction of the boundaries of the Open Space Area A.

I. Planning Division

1. The Site Development Sheet 5 has been revised to grey-out the existing conditions for ease of reading.
2. The Residence C setbacks and existing trees are now shown on the Existing Conditions Sheet 3. A spreadsheet is also attached listing all trees, with their diameters, to be removed within these setbacks, as well as mitigation trees.
3. The roof drywells, shown as dashed rectangles, are now labeled more frequently.
4. The sewage flow mentioned is correct, 30 bedrooms total, with 18 bedrooms going to town sewer (1,980 gallons per day) and 12 bedrooms going to an on-site septic system (1,320 gallons per day). This is noted on the bottom of the “PRD Zoning Compliance Table” on Sheet 4. The total count of 30 bedrooms will be deed restricted based on designation of each unit type and location. The response above in G. Health Division should clarify bedroom and building count.
5. The plans now show a centralized mailbox area on Sheet 4.
6. The plans now show a fence around the centralized trash collection area. Plantings as shown on the Landscape Plan will also screen this area.

Respectfully,

Stamski and McNary, Inc.



Daniel Carr, P.E.



George Dimakarakos, P.E.