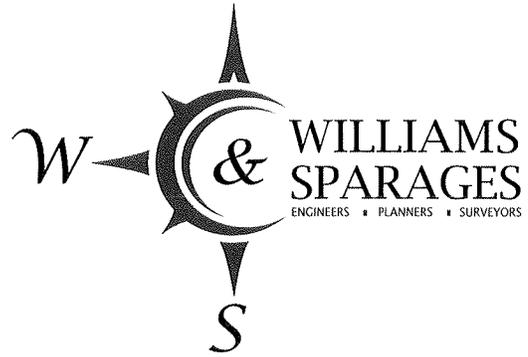


Project File: CONC-0020



July 16, 2019

Elizabeth Hughes
Town of Concord
Town Planner
141 Keyes Road
Concord, MA 01742

Re: Definitive PRD Plan Set – Revised June 14, 2019
Center & Main – a Planned Residential Development
1440, 1450, 146B Main Street & 10B Highland Street

Dear Elizabeth:

Enclosed please find the referenced Definitive Plan, prepared by our office, which is based upon the positive results and feedback received from the Planning Board during its April 2, 2019 meeting to discuss the Conceptual PRD Layout Plan dated revised March 12, 2019.

This definitive plan reflects the updated architectural designs and footprints prepared by Elise Braceras Stone. Kim Ahern Landscape Architects has also updated the Landscape Plan based upon this preferred layout. A Stormwater Report dated July 11, 2019 has also been prepared by our office. Listed below is a summary of the updates and general information provided for each plan sheet prepared by our office to assist in review of definitive plans as follows:

Architectural Plans –

- Floor Area Calculations – Square Footage Tables for each unit Style have been added to each First Floor Plan.
- Floor Plans - Dimension Labels for each dwelling have been provided. Building Footprints within plan set have been updated based upon this detailed information.
- Elevations – The Front, Side and rear Elevations have been updated accordingly to provide additional detail and to also reflect proposed site grading discussed with the Board during the meeting on April 2nd.

Landscape Plan -

- Design – Plan and Planting List updated to reflect current layout.

Definitive PRD Plan Updates:

PRD Location Plan - Sheet 1:

- PRD Zoning Compliance Table - Updated to reflect the preferred Common Open Space layout which includes Daniel Hayes Park.
- Locus Plan – Proposed sidewalk network added.
- Sheet Index - Definitive Plan Sheets
- Plan Notes - Updated accordingly to reflect definitive plan.

Existing Condition Plan - Sheet 2:

- Test Pits - Additional deep observation holes (TP 19-1 thru 19-13) and percolation tests for soil absorption system, witnessed by the Concord Board of Health on April 16, 2019 have been shown. Additional deep observation holes (TP D60 thru TP D66) associated with the proposed subsurface stormwater system conducted by or office on April 17, 2019.
- Mature Trees - Additional detail along Main Street has been shown.

Layout Plan - Sheet 3:

- Areas - The Total Parcel Area of the PRD is defined as 389,201 square feet with 458.31 linear feet of frontage along Main Street, with an additional 153.80 linear feet of frontage along Highland Street. The ANR Lot is 10,722 sf; Frontage = 85' on Highland Street.
- Common Open Space – Consists of 131,830 square feet. Location connects with town land, abutting open space of Junction Square; open space of Center Village while also providing requested separation and harmony with abutting structures.

Topographic Plan - Sheet 4:

- Dwellings - There is no change in the location, orientation or distribution of the dwelling styles and one-car garage locations from the Conceptual Plan.
- Access driveways - There is no change in the location or width of the proposed private access driveway. Twenty-four feet main loop; twenty-feet for access driveways.
- Sidewalks – No change to main loop or park, however the layout within Highland Street has been simplified to one access location, with the path connection within common open space.
- Path - The path location from Highland down to lower loop driveway has been adjusted.
- Surface runoff - Fifteen catch basins (CB-1 thru CB-15) will collect surface runoff from access driveways, open space and common area. Runoff will be directed to subsurface stormwater chamber areas for treatment and full recharge (SWMA-1P thru SWMA-9P). In addition, lawn area drains (AD-1 thru AD-3) along commuter rail will collect and direct minor runoff increases from lawns of Units 14 thru 17 to drywells (RD14 & RD15+).
- Roof Runoff - All residential buildings will be provided with gutters and downspouts to direct roof runoff into various independent roof drywells or common stormwater area.
- Stormwater Infiltration Chambers – Per local requirements, systems have been connected to one another with emergency overflow culverts. Five areas (SWMA-1P thru SWMA-5P), are provided for the westerly side of the access near Center Village, while four areas (SWMA-6P thru SWMA-9P), are provided for the easterly side near Junction Square. Each SWMA is

sized to treat, recharge and contain the volume resulting from a 100-year storm. Required overflow outlet #1 and outlet #2 are provided near Units 17 & 18 and Units 24&25.

- Roof Drywells - Individual drywells along Main, common drywells along rear of site.
- Proposed Contours – Minor centerline grade adjustments (STA 1+50 to 6+50); respective foundation heights have been adjusted lower accordingly. Net benefit is a reduced height of about one-foot for select dwelling units within northeast of site.
- Isolated Vegetated Wetland – The outline of proposed 4,900 square feet filling of isolated wetland (5,000 sf max) has been reallocated along slope near Units 17 thru 25.
- Existing Town Sewer Service Connection – Continued use shown for Unit 1, 2 & 4.

Utility Plan - Sheet 5:

- Existing and proposed Utility locations: - Park area contains existing underground town services. Future locations of underground public utilities will also be partially located within similar areas of common open space. This is specific and unique to this neighborhood. The continued or selected use of limited common open space land along sidewalks, paths and lawn areas for underground utilities is acceptable since it will be for the benefit of the public.
- Town Water Main - An 8-inch diameter water main is shown from Main Street down westerly side of access drive around common area and then up path beginning near STA 3+75, to existing water main within Highland Street to complete loop connection.
- Fire Hydrants - Four hydrants are currently shown for review, along back of sidewalk at STA 3+65, 6+30, 8+75 and STA 12+50.
- Town Water Service Connections- Each dwelling unit will have its own separate service connection and meter. Continued use of existing water service for Unit 3 to be evaluated.
- Town Sewer Service Connections - Three separate building sewer service connections shown for Unit 1, Unit 2, & Unit 4. The ANR Lot (10B Highland Street) will be the fourth.
- Private Sewer Service Connections (Title 5) – Remaining buildings (Unit 3 + Units 5-36) to be served by a 90-bedroom private on-site subsurface sewage disposal system, per Title 5 and local BOH regulations. A Condominium Association will be the form of ownership.
- Title 5 System - The system will consist of individual gravity sewer lines, a gravity sewer main, two septic tanks, one pump chamber, two force mains and a soil absorption system. The Proposed Soil Absorption System design flow criteria is provided in Table on Sheet.
- Stormwater Pretreatment Structures – Deep Sump hooded catch basins, Oil Grit Separators with by-pass line & an Isolator Row of Chambers will be provided for 44% TSS removal.
- Stormwater Infiltration Chamber Criteria – The Chamber Size (3500 or 4500), number of rows (1R= one row; 2R= two rows) and chambers (1C=1 Chamber; 8C= 8 chambers per row) have been selected and labeled to achieve 80% TSS removal.
- Underground Electric Service – CMLP: - Existing from Highland Utility Pole #2 will be removed. CMLP has requested use of Utility Pole #135 instead, Service will proceed underground within grass strip along frontage in Highland Street. The connection to the loop access driveway is provided along the path, separate from water main and gas main.
- Gas Main – Location is subject to review and design of utility company. Location shown will replace current gas service from Highland Street and follow path to access driveway. Location of gas main could also include Main Street.

Plan & Profile - Sheet 6:

- Plan View – Illustrates stormwater chambers with pretreatment and overflow provisions; Drain line layout along and near required utility connections from Main and Highland; closure of driveway aprons; sidewalk connections; and path connections.
- Profile Centerline Grade – Maintains low point near Main Street (STA 0+25); Finish Grade of -4.6% (<-5% Max) from high point at STA (1+25) down to STA (6+00).
- Profile Cut & Fill Stations – Cut Depth minor STA (0+00 to 0+75); at which point Cut depth increases to -5'; Cut Depth of (-12' to -22') between STA (1+50 to 3+75) tapering back down to -5' near STA (4+00); Transition to Fill Depth at STA (4+10); Fill Depth within (+5' to +10') from STA (4+25 to 5+50);

Plan & Profile - Sheet 7:

- Plan View – Illustrates stormwater chambers; pretreatment features and overflow provisions and how they relate with layout of Title 5 sewer and town water main.
- Profile Centerline Grade -Leveling area within intersection <+/-3% grade; Vehicular and pedestrian travel down to rear of site at <-5% grade and then travel back up from rear of site to entrance at <+5% grade in accordance with handicap accessible provisions. Low point at STA (7+00) with septic tanks situated nearby to accept gravity sewer lines.
- Profile Cut & Fill Stations – Fill Depth continues within (+5' to +7') through low point at STA (7+00) up to STA (8+50); Transition back to Cut Depth at STA (8+75) of (-8' to -14') to STA (11+25) at which time Cut Depth increases to (-8' to -18') to STA (11+87).

Construction Details - Sheet 8:

- Drainage - Standard Town of Concord Details for catch basins, drain manholes, curbing and pavement are provided.
- Water Main & Water Services – Details provided for water main and water service, including same water service notes as previous submittal.
- General Notes – Same notes as previous submittal.

Construction Details - Sheet 9:

- Sidewalks and Handicap Ramps - Standard Town of Concord Details for sidewalks, asphalt berm, handicap ramps and detectable warnings panels.
- Drainage Pretreatment - Detail for Oil Grit Separator and Pipe End Detail for required overflow outlets.
- Sewer – Typical details provided for sewer manholes, trenching and connections.

Construction Details - Sheet 10:

- Stormtech MC-4500 Stormwater Chamber Systems – Typical Manufacturer Details provide necessary information to construct the Stormwater management areas and roof drywell systems. Details include, Chamber System Cross-Section; Isolator Row; End Cap showing top connection for manifold inlet and overflow culvert; Inserta-Tee for roof leader connections and Inspection Ports for all subsurface areas.

- Roof Drywells – Detail for typical Inspection Port, typical downspout overflow pipe; cleanout detail and Typical Drain Manhole Frame and Cover.
- Typical Driveway Detail – Detail for accessible path construction across each driveway.
- Utility Support Detail – To be followed when installing stormwater, water, sewer and electrical services within proximity of each other within cluster layout and street.

Stormwater Prevention Pollution Plan - Sheet 11:

- Existing Tree Protection – Trees to be saved within Park have been designated and will be protected per Tree Protection Detail provided by Kim Ahern, Landscape Architect.
- Erosion & Sedimentation Notes – Town of Concord Standard Notes added in addition to Site notes; to be utilized for work within public ways.
- Temporary Construction Entrance – Located at access along Main Street.
- Sediment Basins – Located across site at locations outside of proposed recharge areas.
- Soil Stockpile Areas – Designated at approximate locations outside of recharge areas.
- Limit of Work – Location shown to be staked in field; delineated with silt fence or equal.
- Erosion Control Matting – To be provided along cut & fill slopes.
- Siltation Controls – Shown along downgradient limit of work line; along top of slopes; at dewatering basins and at velocity check dams along driveways under construction.

Stormwater Pollution Prevention Plan - Sheet 12:

- Details - Standard Town of Concord Details provided for Siltation Fence; Haybales and Silt Fence; Onsite Dewatering Basin; Erosion Control Matting with Notes; Fiber Roll; Temporary Construction Entrance; Erosion Control Silt Sack; Check Dam Detail and Loam & Seed Detail.
- Center & Main; Erosion & Sedimentation Control Notes: - No Change to these notes from previous submittal.
- Pollution Prevention Standards Notes: - No Change to these notes from previous submittal.

Thank you for your attention to this matter, please do not hesitate to contact our office with any questions prior to the meeting with the Planning Board.

Respectfully,
For: Williams & Sparages



Richard J. Harrington, P.E.