

August 28, 2020

Mr. Richard Gosselin, Chairman
Millbury Planning Board
127 Elm Street
Millbury, MA 01527

Re: Peer Review Comment Responses
“Clearview Open Space Community” – 66 Park Hill Avenue, Millbury, MA
TPE Project No.: 1014

Dear Mr. Gosselin and Members of the Board:

Turning Point Engineering (“TPE”) is in receipt of review comments furnished to the Planning Board by Stantec Consulting Services, Inc. (“Stantec”), dated May 11, 2020 and by Laurie Connors, Town Planner, dated April 17, 2020, from their review of the above referenced project. Stantec’s and Ms. Connors’ review comments are shown in *italic* font and TPE’s response to each review comment is provided in **bold** font below. Their comment sequencing has been maintained.

Stantec Review Comments & Responses:

DEFINITIVE SUBDIVISION PLAN

We recommend the applicant provide a statement to the Board relative to the wetland delineation as shown on the Definitive Subdivision Plan and whether the delineation has been accepted by the Millbury Conservation Commission.

A notation has been added to Sheet C-1.0 stating that the wetland delineation was performed by Brian Waterman of WDA Design Group on December 5-7, 2018 and located by instrument survey by Turning Point Engineering. A Notice of Intent application shall be submitted to the Millbury Conservation Commission and the Massachusetts Department of Environmental Protection (MassDEP).

The Definitive Plan consists of an Open Space development on one (1) parcel, which is identified as Lot 1 on sheet C-11.1, all situated within the Suburban (S-IV) Zoning District, as shown on sheet C-2.0 of the definitive plan. We recommend the total number of dwelling units and offset requirements be included on sheet C-2.0.

The total number of units and offset requirements have been added to Sheet C-2.1 in the revised plan set.

Section 5 – Procedures for the Submission and Approval of Subdivision Plans

Subsection 5.3.1 and 5.3.2 – Definitive Plan submission requirements and contents, requires specific information be shown on the Definitive Plan. In general, the OSC Definitive Plan appears to conform to the Board's Rules and Regulations Governing the Subdivision of Land, with the following exceptions.

The following list refers to the Millbury Planning Board Submission of Definitive Plan Requirements:

Subsection 5.3.3 – Street Plans and Profiles

- *Bearings and distances of roadway centerline be identified on the Layout & Materials Plan.*
- *Horizontal geometry illustrating points of tangency, curvature and radii be added to the Layout & Materials Plan.*

Bearings and distances of roadway centerline, and horizontal geometry illustrating points of tangency, curvature, and radii have been added to sheets C-4.1 – C-4.4 in the revised plan set.

Subsection 5.3.4 – Environmental Analysis:

An Environmental Analysis was provided as Landscape Plans sheets L1.1 & L-1.2. Test pit logs were provided and shown on the Existing Conditions plan. The landscaping plans or existing conditions plans should be updated to reflect the test pit information specifically the U.S.D.A soil types, approximate groundwater levels and provide locations of the test pits performed.

The Existing Conditions plan sheets have been revised to provide soil test pit information and observed groundwater levels in the locations in which they were performed. USDA soil types have been illustrated on the Pre-Development Watershed Maps and Appendix C within the revised Stormwater Management Report enclosed herewith.

The applicant should provide additional information in the Design Impact Statement relative to the Environmental Analysis.

Additional information relative to the Environmental Analysis has been provided in the revised Design Impact Statement enclosed herewith.

Subsection 5.3.5 – Construction Plan:

The construction Plan set (57 sheets) was provided. For comments on the aspects of the Construction plan see section 6. Design Standards in the subsequent section of this letter report.

No response required.

Subsection 5.3.6 – Erosion and Sediment Control Plan:

Erosion and Sedimentation Control plans have been provided, see Sheet C-8.1-C-8.6. Further discussion is requested define the limits of erosion control matting as required on steeper slopes. The applicant has indicated locations however hatching specific limits would confirm locations during field implementation.



Revised plan sheets C-8.1 – C-8.6 illustrate hatching in locations of proposed erosion control matting on slopes greater than 3:1.

On Sheet C-8.3 notes indicated a progression of work and a maximum amount of disturbed areas not to exceed 5 acres. Stantec recommends the applicant submit an Erosion Control Plan and Narrative to include a construction sequence, maintenance, and inspection program during construction. Proposed location of where earth and construction materials will be stockpiled on-site should be identified on the plan.

Updated erosion control plans (Sheets C-8.1 – C-8.6) include construction sequencing, maintenance, inspections, equipment staging, and material stockpiling information. In addition, project phasing has been illustrated on Sheets C-13.1 & C-13.2.

We recommend construction phasing of the roadway, utility, dwelling units and offsite roadway improvements on Park Hill Avenue and submission of the Stormwater Pollution Prevention Plan, as required by the NPDES General Permit, be submitted to the Board prior to the start of any construction activities.

Prior to the start of construction, a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and a NPDES Notice of Intent shall be file with the U.S. EPA.

Section 6 – Design Standards

Subsection 6.2 – Open Space:

We recommend the requirements of Open Space requirements with specific areas be illustrated to show compliance on the plans. This was previously submitted, see Sheet S1 of the Sketch Plans.

A table illustrating the Open Space computations has been added to revised plan sheet C-2.1.

Section 6.5.2.a – Trees and Landscaping, street trees:

The applicant is required to plan street trees along the roadways within the right-of-way. We note street trees are shown on the definitive plan. In accordance with note “f” we recommend the applicant provide a note on the landscaping plans indicating “To limit the spread of pests and disease, no more than twenty (20) trees of the same species may be planted contiguously and may not be planted again unless separated by a minimum distance of five hundred feet (500’).”

The revised Landscaping Plan Sheet L-1.1 includes the suggested note.

We recommend further discussion between the Board and the Applicant regarding proposed restoration/landscaping resulting from the Proposed Park Hill Improvements.

No response required.



Subsection 6.7.4.c – Streets and Ways, Location and Alignment:

The applicant has provided this information as part of the approved Open Space Preliminary Plans. The Park Hill Improvement plans indicate increasing the roadway width to 24FT. We recommend the applicant provide a proposed typical cross section of the roadway illustrating the limits of milling/ paving/ full depth construction and utility improvements within the roadway right of way. We also recommend the applicant provide documentation of approval from the Millbury DPW.

Sheet C-10.1 of the revised plan set illustrates a typical cross section for the road improvements to Park Hill Avenue. Copies of the revised plan shall be furnished to the Millbury DPW for review and approval.

Subsection 6.8 – Street Signs:

We recommend monuments and boundary markers be provided on as PROPOSED on Sheet C11.1.

Proposed boundary markers have been added to revised Sheet C-11.1.

Subsection 6.10 – Curbing:

The applicant has been granted a waiver from this requirement along roadway segments within the proposed development. We note the applicant should clarify if curbing is proposed as part of the Park Hill Improvement Plans.

No curbing is proposed as part of the improvements to Park Hill Avenue.

Subsection 6.13 – Sidewalks and Bicycle Paths:

As noted above, the applicant has been granted a waiver from providing sidewalks on both sides of the street. The applicant has provided sidewalks and a walking path with layout and details. We recommend location of MAAB Compliance Ramps be identified on the plans.

MAAB-compliant curb ramps have been identified on the revised plans.

Subsection 6.14 – Utilities:

It appears that there are several proposed utility poles on the Park Hill Improvement plans. We recommend location of the proposed utility poles be added to the plan.

Revised plans illustrate all proposed/relocated utility poles along Park Hill Avenue.

It is unclear of the manhole size for DMH14RA. This DMH is a junction of a 15", 24" and 27" pipe. The applicant should review to confirm size of manhole diameter.

DMH14RA shall be a 5' diameter manhole to accommodate the size pipes connected to it. A note stating that diameters of all precast structures shall be verified prior to ordering.



The Pipe from DMH26RDA to DMH25RDA should be reviewed. The upstream pipe is proposed as a 15". DMH15RA label on sheet C-9.2 does not appear in the profile view.

The pipe from DMH26RDA to DMH25RDA has been verified and correctly labeled as a 15" diameter on the revised plans.

In general, the spacing of catch basins and providing a maximum interval of two hundred fifty feet (250') should be reviewed by the applicant. We question if additional catch basins are required uphill of the Logan's Run and Clearview Terrace intersection. There is no proposed CB for approximately 300 feet allowing water to flow through this intersection prior to being captured by CB 5&6.

The catch basin spacing has been reviewed and no changes are proposed. The tributary areas for CB5 and CB6 are 0.49 acres and 0.27 acres, respectively, which are small and therefore the runoff flowing to each is not a concern.

CB44 is a double catch basin collecting runoff from the cul-de-sac at Horizon Drive. The location of this CB should be reviewed to ensure it is at the low point. It appears the driveway entrance to unit #135.

The location of CB44 has been revised to be in the low point of Horizon Drive.

CB45 is a double catch basin collecting runoff from the cul-de-sac at Pinnacle Place. The location of this CB should be reviewed. It appears to be located within the driveway opening of unit#107, which is not the preferential spot for the cul-de-sac low point.

The location of CB45 has been relocated away from the driveway and in a better location for the low point in the cul-de-sac.

In general, we recommend future maintenance and access to proposed cross-country utilities be further addressed by the applicant. We note at several locations the proposed utilities (i.e. drainage, sewer) are located on 2:1 side slope.

The locations of proposed utilities have been reviewed and no changes are proposed. The utilities will be privately maintained and in the unlikely event that repairs are needed, equipment needed to access these utilities can be provided and access can be gained from multiple locations.

Subsection 6.15 – Water System:

The proposed water mains indicate a depth of 5Ft. below grade. Water pipes should be placed with cover not less than six (6) feet. In locations where the proposed watermain is not looped a hydrant with a blow off should be provided. See proposed hydrant at the intersection of "Clearview Terrace" and Park Hill Ave.

The revised plans illustrate the water main with six (6) feet of cover.



We noted that a proposed water booster it stated on the Park Hill Improvement Plans. Stantec did not receive plans for this feature and did not perform a review of the proposed booster station. We recommend the applicant provide documentation of approval from Aquarian Water Company and Millbury Fire Department.

The applicant has submitted an application package to Aquarion Water Company for review.

Subsection 6.16 – Sewer System:

We note there are several drop manholes for the proposed sewer approximately 5 feet. The applicant should indicate the greatest drop elevation proposed for this project.

Revised plans illustrate that the greatest drop elevation of any sewer manhole is 5 feet.

SMH-XC3 is a proposed sewer manhole with a drop over 14 feet. The applicant should review if alternatives, (i.e. providing multiple smaller drops or additional structures, is feasible).

SMH-XC3B has been added to the sewer main run to reduce the amount of drop in elevation in each structure.

The applicant should review the location of the pipe between SMH16 and SMHXC4. For maintenance, this length of pipe should be centered between units #52 and #53. Please confirm that the sewer line in this location will be approximately 10 feet below the proposed footing of unit #52.

The pipe between SMH16 and SMHXC4 has been eliminated and sewer flow is redirected to SMH 5.

The proposed sewer connection from SMH-XC1 to the existing stub on Park Hill Ave is 8 inches. We question is the intent on connecting to this stub or coring a new connection at this invert.

The proposed sewer connection to the existing manhole in Park Hill Avenue will not utilize the existing stub. The sewer manhole will be cored to accommodate the new sewer connection.

We also recommend the applicant provide documentation of approval from the Millbury DPW.

The revised plans shall be furnished to the Millbury DPW for their review.

STORMWATER MANAGEMENT PLAN

The submitted Definitive Plan provides a layout of the proposed drainage system facilities, including Best Management Practices (BMPs) such as drainage swales and infiltrations basins. In general, stormwater runoff from the roadway/house lot areas will flow into the aforementioned BMPs prior to discharging. The submitted Stormwater Management Report included calculations that provide an analysis of the site hydrology for existing and proposed conditions during the 2-, 10-, 25- and 100-year storm events.



The report includes a narrative with attachments which addresses the Town's General Bylaw for Stormwater Management. The Bylaw include addressing the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards. Stantec offers the following comments for the Board's consideration.

MassDEP Stormwater Standards

1. *Standard 1 - No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*

Standard addressed based on calculations and documentation provided in the Stormwater Management Report.

No response required.

2. *Standard 2 - Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04*

As noted in the Drainage Analysis, proposed infiltration basins are designed for the 2 through 100-year storm events. It appears modifications to the storm drainage system may be required to ensure during the 25 through 100-year storm events, the estimated drainage areas as identified in the analysis are tributary to each of the proposed infiltration basins. We recommend the design engineer provide additional hydraulic calculations identifying the proposed closed drainage system and drainage channel capacities for storm events greater than the 25-year event.

Double inlet catch basins have replaced single inlet catch basins for CB11, CB12, CB22B, and CB23 to help ensure that runoff is collected and conveyed to the correct stormwater basin.

3. *Standard 3 - Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.*

The Stormwater Management Report provided groundwater recharge volume and 72-hour drawdown calculations. We note the Soil Rawls Rate used in the calculations is not in agreement with the soil logs. Please revise as required.

The revised Stormwater Management Report utilizes corrected Rawls Rates consistent with soil logs.

4. *Standard 4 - Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS).*



Standard addressed based on calculations and documentation provided in the Stormwater Management Report.

No response required.

5. *Standard 5 - For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.*

This standard is not applicable.

No response required.

6. *Standard 6 - Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.*

This standard is not applicable.

No response required.

7. *Standard 7 - A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.*

This standard is not applicable.

No response required.



8. *Standard 8 - A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.*

Stantec recommends the applicant submit an Erosion Control Plan and Narrative to include a construction sequence, maintenance, and inspection program during construction. Proposed location of where earth and construction materials will be stockpiled on-site should be identified on the plan.

We recommend construction phasing of the roadway, utility, dwelling units and offsite roadway improvements on Park Hill Avenue and submission of the Stormwater Pollution Prevention Plan, as required by the NPDES General Permit, be submitted to the Board prior to the start of any construction activities.

Updated erosion control plans (Sheets C-8.1 – C-8.6) include construction sequencing, maintenance, inspections, equipment staging, and material stockpiling information. In addition, project phasing has been illustrated on Sheets C-13.1 & C-13.2.

9. *Standard 9 - A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed. The Stormwater Management Report provided a long-term operation and maintenance plan. As previously noted, we recommend future maintenance and access to proposed cross-country drainage system including the stormwater basins be further addressed by the applicant. We note at several locations the proposed drainage system is located on 2:1 side slope.*

The locations of proposed drainage system have been reviewed and no changes are proposed. The utilities will be privately maintained and in the unlikely event that repairs are needed, equipment needed to access these utilities can be provided and access can be gained from multiple locations.

10. *Standard 10 - All illicit discharges to the stormwater management system are prohibited.*

Standard addressed. An illicit discharge signed statement has been provided in the Stormwater Management Report.

No response required.

11. *MassDEP Checklist for Stormwater Report*

Standard 4 has the box checked for rapidly infiltrating soils (>2.4 inches per hour) which is not in agreement with the soil logs.

The MassDEP Checklist within the revised Stormwater Management Report has been corrected to not check the box for rapid infiltrating soils.



Chapter 16 – Water, Sewer, and Sewage Disposal, Section 16-3 – Post-construction Stormwater Management of New Developments and Redevelopments, Subsection 7 – Stormwater Management Plan of the Town’s General Bylaws identifies information required for the Board to evaluate the environmental impact, effectiveness, and acceptability of the proposed measures, as well as meet the Massachusetts Stormwater Management Standards as set by the Department of Environmental Protection (DEP). The Project Definitive Plan appears to conform to the Town’s Stormwater Management Plan requirements, with the following exceptions.

The following list refers to the Millbury Plan Board Submission of Stormwater Plan Review Checklist. Our review has only included “design” related items as part of the checklist.

- l) The estimated seasonal high groundwater elevation near the proposed infiltration basins are shown on the plans and the prepared boring logs are provided in the Stormwater Management Report.*
- m) The existing and proposed ground cover and runoff coefficients have been provided in the Stormwater Management report. The watershed maps are missing the Tc and CN values.*
- n) Drainage area maps showing pre-and post-construction watershed boundaries, drainage area and stormwater flow paths has been provided. The provided maps do not agree between the HydroCAD model and the listed values.*

Laurie Connors Review Comments & Responses:

- 1. Currently there exists a Definitive Plan for the property approved by the Planning Board in 2005. The property is also under covenant. The definitive plan must be rescinded and the covenant released PRIOR to Planning Board issuance of definitive plan approval of this project. A public hearing must be held to consider the rescission and mortgage holders (if any) must be identified and consent to the rescission in writing. I strongly recommend that the Applicant submit application to rescind the subdivision and release the covenant with the definitive plan submittal. The current deed and list of mortgage holders (if any) should be submitted at that time.*

The applicant will submit an application to rescind the prior subdivision approval and release the covenant prior to the Planning Board issuance of definitive approval of the project.

- 2. Please submit the required application forms with the definitive plan submission (Form C, Checklist, Designers Certificate, Abutters Request Form), two copies of surveyor’s certificate that the center-line stationing stakes of all roadways have been set and marked, and language of any easements or deed restrictions.*

A complete application package with all required forms has been provided as part of this submittal package.



3. *In accordance with Subdivision Regulations, Section 5.3(1)(n), please submit test pit results for every 100' along proposed roadways. Test pits shall be witnessed by Stantec, the Planning Board's consulting engineer.*

Soil testing was performed in all proposed basins and probing was performed throughout the proposed development area within the site. The locations and results of the testing/probing has been added to Sheets C

4. *Please identify the certified wetlands scientist who flagged the wetlands on Sheet C1.0 of the plan set.*

A notation has been added to Sheet C-1.0 stating that the wetland delineation was performed by Brian Waterman of WDA Design Group on December 5-7, 2018 and located by instrument survey by Turning Point Engineering.

5. *In accordance with Subdivision Regulations, Section 5.3(2)(r), at least three boundary marker locations, remotely separated, shall be indicated with Massachusetts Grid Plane Coordinates. Please modify Sheet C-11.1 accordingly and show locations of monuments and boundary markers on Sheet C-11.1 in compliance with Section 6.9.*

Proposed boundary markers have been added to revised Sheet C-11.1.

6. *In accordance with Subdivision Regulations, Section 5.3(2), Sheet C-11.1 shall be stamped by a registered land surveyor, contain datum references, notation that Planning Board approval is required, contain a Certificate of No Appeal block for Town Clerk's signature, and legal references for abutters including those on the opposite side of the street. The purpose of easements and zoning information shall be indicated on the plan and the New England Power Company easement off of Park Hill Avenue shall be fixed.*

The No appeal block for the town clerk has been added to Sheets C-11.1 and C-11.2.

7. *Submit a signed statement on the Plan stating that the relative error of closure shall exceed CMR 250.6 in accordance with Subdivision Regulations, Section 5.3(2)(s).*

This note has been added to Sheets C-11.1 and C-11.2.

8. *In accordance with Subdivision Regulations, Section 5.3(2)(h), include a note on Sheet C-11.1 stating that "Street numbers are assigned by the Millbury Police Department, for further information call (508) 865-3521.*

This note has been added to Sheets C-11.1 and C-11.2.

9. *The Planning Board indicated preliminary support for the following waivers during site plan review. The Applicant should confirm whether they still wish to seek Planning Board approval for these waivers by resubmitting them with the Definitive Plan application. That will enable the Planning Board to formerly weigh in on the waiver requests.*
 - a. *Waiver of lot lines;*



- b. *Millbury Subdivision Regulations, Section 6.7(5): Reducing the outside roadway diameter of a cul-de-sac to 120' and the placement of a circular landscaped island with a 20' diameter;*
- c. *Millbury Subdivision Regulations, Section 6.7(6): Reducing roadway widths to 24' (Road A) and 20' (Roads B, C, and D) provided that Road B shall be one-way;*
- d. *Millbury Subdivision Regulations, Section 6.10: In lieu of vertical granite curb, installation of cape cod berm;*
- e. *Millbury Subdivision Regulations, Section 6.13: A single sidewalk on one side of sub-collector streets (Road A);*
- f. *Millbury Subdivision Regulations, Section 6.20: reducing the maximum 500' distance between hydrants and dwellings provided that hydrants are installed at intersections and along the water main extension on Park Hill Avenue. The hydrant layout will be further defined during the Definitive Plan permitting process in consultation with the Fire Chief.*

A list of requested waivers has been included with this submittal package.

- 10. *Subdivision Regulations, Section 5.3(5)(b) requires existing and proposed topography to be shown at 1' contour intervals. The plan depicts existing and proposed topography at 2' contour intervals. Please modify the Plan to comply with this requirement or submit a written waiver request for Planning Board consideration.*

A request for this waiver has been included on the updated waiver request list enclosed herewith.

- 11. *Please specify the total number of proposed structures and dwelling units within the Zoning Dimensional Zoning Requirements Table on Sheet C-2.0.*

The total number of units has been added as part of the table provided on Sheet C-2.1, which indicate 142 units total.

- 12. *The proposed 2-acre playing field has been eliminated from the project, therefore the total number of dwelling units should be reduced by 1 unit or, alternatively, the Applicant can identify an alternative means for earning back that density bonus unit. Zoning Bylaws, Section 44.7 specifies how density bonus units may be earned.*

The proposed playfield has been removed from the project and the applicant is proposing a monetary contribution to be used for needed improvements to existing park facilities in order to earn the one density bonus unit.

- 13. *Please modify Sheet C-2.0 so that it includes the information from Sheet S1 of the approved Open Space Community Site Plan dated May 16, 2019, last revised August 26, 2019. In accordance with Zoning Bylaws, Section 44.10(4), surface stormwater management systems shall not count towards the minimum required common open space or density bonus. Note that the dimensions of the facilities shown on Sheets C-2.0 and C-4.1 – C-4.4 do not accurately reflect the size of the basins as shown on Sheets C-5.1- C-5.4. Basins include all associated grading and outfalls necessary to make them function, not just the basin bottom. The Zoning Dimensional Zoning Requirements chart on Sheet C2.0 should be updated to include surface stormwater facilities within the "Land designated for roads, driveway, sidewalks, buildings, and surface stormwater*



facilities” calculation and removed from the “open space provided calculation”. The dimensions of the surface stormwater facilities shown on Sheets C-2.0, C-4.1-C-4.4, and C-5.1- C-5.4 should match.

The information that was shown on Sheet S1 has been added to Sheet C2.1 of the revised plan set. Stormwater basin dimensions have been updated and are accounted for in the computations shown in the table.

14. *In accordance with Subdivision Regulations, Section 5.3(6), include a limit of disturbance and phasing plan for the project, which I understand from the Development Impact Statement will be built over 5 years.*

Updated erosion control plans (Sheets C-8.1 – C-8.6) include construction sequencing, maintenance, inspections, equipment staging, and material stockpiling information. In addition, project phasing has been illustrated on Sheets C-13.1 & C-13.2.

15. *Subdivision Regulations, Section 6.13 requires sidewalks along one side of all roadways at a minimum. Please extend the sidewalk along one side of unnamed roadway off of Park Hill Avenue (egress closest to intersection with Martin Road) to terminate at the roadway’s intersection with Park Hill Avenue. Please identify a name for this roadway and location of street sign.*

The proposed sidewalk has been revised to extend to Park Hill Avenue. There are no units that will be directly accessed from this road, so this section of road is also proposed to be named Clearview Terrace. Proposed street signs have been added to the revised plans.

16. *Please provide AAB-compliant ramps at the following locations:*
- *Crossing at intersection of Clearview Terrace and Logan’s Run (in front of unit 75);*
 - *Parking lot on Clearview Terrace (across from units 15 & 16).*

MAAB-compliant ramps have been added to the revised plans.

17. *The plan shows sidewalks terminating before the cul-de-sacs of Horizon Drive and Pinnacle Place. In conformance with Subdivision Regulations, Section 6.13, sidewalks should extend all the way around the bulb of the cul-de-sacs and terminate with a set of AAB-compliant ramps.*

Due to the number of driveways around the cul-de-sac, the sidewalk was terminated at the location shown. The updated waiver request list includes a waiver for this condition.

18. *Subdivision Regulations, Section 6.19 requires street lights to be placed at all street intersections, in the area of fire hydrants, and a maximum of 300’ apart. There are locations where street light placement is greater than 300’ apart. Please reevaluate street light intervals, add lights where intervals are greater than 300’ and also add lights at proposed parking lots and at the intersection of unnamed street (ends across from units 69 and 70) and Park Hill Avenue.*

Locations of proposed street lights and details have been added to the revised plans.

19. *Please add a detail of proposed street lights and provide associated cut sheets. LED street lights should be residential in character and no greater than 20’ in height.*



A detail for an ornamental street light has been added to Sheet C-7.6 of the revised plan set.

20. *In accordance with Subdivision Regulations, Section 6.14, please denote the location of underground utilities (electric, telephone, cable) on the utilities plan sheets C-6.1-C-6.4 and on the construction details sheet C-7.1.*

The locations of proposed underground utilities have been added to the revised plans.

21. *Please modify the Loam & Seed Detail on Sheet C-7.1 to identify 6" compacted depth of screened loam.*

The detail has been revised to specify a 6" depth of loam.

22. *Please denote the location of street name signs on Sheets C-4.1-C-4.4.*

Locations of proposed street name signs have been added to the revised plans.

23. *The accessible curb ramp details on Sheet C-7.2 depict sidewalk abutting vertical granite curb. This project proposes a 3' grass strip between concrete sidewalk and modified cape cod berm. Please modify the details to reflect the configuration proposed and include detectable warning strips. The notes on the Accessible Curb Ramps should specify the need to comply with MA Architectural Access Board requirements.*

Accessible curb ramp details have been revised to reflect the proposed grass strip.

24. *Clearly identify the location of basin access drives and drainage easements on the grading & drainage plan. Stormwater facilities, drainage access roads, and sewer lines located within open space areas to be conveyed to another party (i.e. the Conservation Commission) should be included within easements to be retained by the homeowner's association. Drainage easements are depicted on Sheet C-11.1, but the dimensions of those easements should be included on the drainage & grading plan sheets so that one can clearly discern that the easements are large enough to encompass the totality of these features. The homeowner's association shall be forever responsible for the maintenance of these facilities.*

Basin access drives have been highlighted with hatching and dimensions have been added to the Grading & Drainage plan sheets.

25. *The Applicant should satisfy the following Conditions of Approval as identified in Condition f of the "Notice of Decision for Site Plan Approval Open Space Community Clear View", which was approved by the Planning Board on September 9, 2019 and filed with the Town Clerk on September 12, 2019:*

- *Provide elevation drawings for the proposed duplexes and club house.*

Elevation drawings for the proposed duplexes and club house are enclosed with this submittal package.



- *Provide landscape plan for stormwater management facilities showing how plantings will enhance these facilities.*

Revised landscaping plans (L-1.1 – L-1.2) illustrate proposed plantings at the stormwater basin areas.

- *Provide information about the ownership of Open Space A and Open Space B as well as how these properties and the recreation facilities on them will be maintained.*

Open Space A will be offered to the Town of Millbury, through their Conservation Commission. Open Space B will be owned and maintained by the Homeowner's Association to be created for the project.

- *Submit supplemental study of existing and future (build) traffic conditions and levels of service of roads, ways and intersections that are north of the proposed development and within 1000 feet. Include the intersection of SW Cutoff (Route 20)/Granite Street/Park Hill Avenue in this study. Evaluate the impact of new traffic generated by the project on these roads, ways and intersections. Describe efforts to minimize traffic and safety impacts.*

The supplemental traffic study is enclosed with this submittal package.

- *Submit details of measures that will minimize traffic and safety impacts at the Martin Street/Main Street intersection. Work shall be performed within the limits of the road ROW and without cost to the Town of Millbury.*

Sheet C-10.4 of the revised plan set illustrates proposed improvements to the Martin Street & Park Hill Avenue intersection.

- *Provide information about the proposed booster station, including its specific location, and confirm that the water main extension on Park Hill Avenue includes ties for abutters interested in tying in. The Development Impact Statement states that the booster station will be built upon the property N/F owned by Alfred Boden (22 Park Hill Avenue). Please provide written confirmation that the owner of 22 Park Hill Avenue is aware of the proposal and is willing to provide the easement.*

Sheet C-10.5 of the revised plan set illustrates details regarding the proposed booster station to be located at 22 Park Hill Avenue. Included herewith is a copy of the easement obtained for the booster station.

26. *In conformance with Condition g of the "Notice of Decision for Site Plan Approval Open Space Community Clear View", which was approved by the Planning Board on September 9, 2019 and filed with the Town Clerk on September 12, 2019:*

- *The Applicant shall deed ownership of a 50' x 50' area on the higher elevation of Open Space A, specific location to be determined by the Applicant, Fire Department and Police Department with approval of the Planning Board, for a possible public safety repeater site.*



A 50' x 50' area has been identified on Sheet C-11.1 of the revised plan set.

- *The Applicant shall donate and install a “DCR style” information kiosk at the trailhead of the gravel parking lot that alerts potential users to the trail network, depicts a trail map, identifies the property owner, and lists permitted uses within the open space. Kiosk wording, final design and location are subject to Planning Board approval.*

The applicant agrees to this condition.

- *To the maximum extent feasible, mature trees, stone walls and fencing within required buffer areas shall not be disturbed or removed except where the Tree Warden determines that damage, disease or death are present. I do, however, recommend removing brush and limbs that interfere with sight distance along Park Hill Avenue.*

The applicant agrees to this condition.

- *Language to this effect shall be included on the definitive plan.*

A note has been added to the revised plans.

- *Sheet C-10.1 depicts a basin installed on the property N/F owned by Ashley Fisher. Please provide written proof that the property owner knows of this proposal and has agreed to it.*

This proposed stormwater basin has been removed since post-development peak flows and volumes tributary to Park Hill Avenue are reduced as a result of the project and detention along Park Hill Avenue is not necessary.

- *Please provide a cross section of Park Hill Avenue where it will be improved.*

A proposed cross section of Park Hill Avenue has been added to Sheet C10.1.

- *The Development Impact Statement specifies that construction will take place from 7 am to 5 pm Monday through Friday and from 7 am to 1 pm on Saturdays. As part of all definitive plan decisions, the Planning Board typically issues a standard Condition of Approval specifying that work cannot begin prior to 8 am on Saturdays.*

The Development Impact Statement has been revised to reflect a Saturday work start time of 8am.



We hope this serves your needs at this time. Should you have any questions or require additional information, please contact us.

Sincerely,

TURNING POINT ENGINEERING



Stephen J. O'Connell
Project Engineer

Enclosure(s)

C: Ms. Laurie Connors
Chad Boardman – Eastland Partners, Inc.

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