



CHERENZIA
& ASSOCIATES, LTD.

Civil Engineers • Land Surveyors
Land Use Planners • Environmental Consultants

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February 2, 2021

Jim Lamphere, Town Planner
Town of Hopkinton
Thayer House
482 Main Street, 2nd Floor
Hopkinton, RI 02833

Subject: Response to Comments
Major Land Development – Master Plan Application for Stone Ridge at Hopkinton
Palmer Circle (Plat 11 Lot 47A)
Hopkinton, Rhode Island

Dear Mr. Lamphere:

Cherenzia & Associates, Ltd. (Cherenzia) has reviewed the above-referenced review comments letter from Crossman Engineering dated December 5, 2020, and offers our responses to these comments below. Revised documents based on these comments are included with this resubmittal and are listed below:

1. Twelve (12) copies of the following:
 - a. 500 Foot Abutter Map
 - b. Fiscal Impact Statement dated January 12, 2021
2. Twelve (12) full size (24"x36") copies and twelve (12) reduced (11"x17") copies of each of the following:
 - a. Master Plan (24"x36") prepared by Cherenzia & Associates, Ltd. titled, "Stone Ridge at Hopkinton" Sheet C-1, revised January 13, 2021 and "Existing Conditions Plan", prepared by Cherenzia & Associates, Ltd., Sheet 1 of 1, revised January 13, 2021.
 - b. Half Mile Vicinity Map (24"x36") prepared by Cherenzia & Associates, Ltd. revised January 13, 2021.
 - c. Landscape Plan (24"x36") prepared by Traverse Landscape Architects. titled, "Stone Ridge Solar Farm" Sheet L0.1 through L12.0, dated January, 2021.

CROSSMAN ENGINEERING REVIEW COMMENTS:

1. ***Checklist Waivers:*** *The Applicant is seeking waivers from the following Master Plan checklist items:*
 - *Construction Schedule*
 - *Proposed Grading*
 - *Stormwater Design (Plans & Computations)*
 - *Soil Testing*
 - *Lighting*
 - *Architectural Schematic Drawings, Floor Plans, Exterior Elevations*

Other items normally provided but not received include noise, wildlife migration & habitat assessments, O&M and decommissioning.

The above items represent significant aspects of the project and based on the waiver list; we need to question if the design has progressed to a level suitable for the Planning Board to render a Master Plan decision.

- *Checklist Item B.58 (solid waste) is stated to be not applicable. If an outside dumpster is planned, it should be shown.*

Response to Comment: A dumpster is not required for the solar facility, but may be required for the warehouse storage building. There is ample room for a dumpster which shall be detailed at Preliminary Plan. Tentative location has been shown.

- *Checklist Item B.59 (hazardous materials) is stated to be not applicable but the fiscal impact statement stated the building will be used for battery storage.*

Response to Comment: The fiscal impact statement has been revised to eliminate reference to battery storage.

- *Checklist Item B.12, the Half Mile Radius Plan, should show all schools, parks, fire stations and other significant public facilities, where applicable. (Minor item: It is recommended to combine the multiple Plan Sheets into one plan set with sequentially numbered sheets.)*

Response to Comment: There are no schools, parks, fire stations or other significant public facilities within half mile radius of the property. All significant public facilities are shown. Canonchet Preserves, Black Farm State Management Area, and South County Movement Center are shown on the plan. We will take recommendation under advisement with the Town Planner and Planning Board for Preliminary Plan.

- *Checklist Item E.19 (Agency Contact) requires the applicant to contact the local agencies to seek written comments on the Master Plan. Agency input was not yet provided.*

Response to Comment: As agreed in discussions between Jim Lamphere and Bill Landry, this Item is, under State law (RI Gen Laws 45-23-40 (a)(3)(iv), the responsibility of the Town.

- *Existing buildings and significant above ground structures are shown on the Plans but it would be beneficial to label the use of those buildings (single family, commercial, etc.).*

Response to Comment: Use of buildings has been added to the Plans.

2. **Stormwater Design:** *Although the designer is requesting a waiver of the drainage design until the Preliminary Stage, we note that the panels are not aligned parallel to the contours, therefore the designer will need to address how runoff will reach the proposed stormwater system in a nonerosive manner.*

Response to Comment: Panel alignment/direction is a function of optimum solar exposure. Stormwater design shall be addressed at Preliminary design development. Comment has been noted.

3. **Zoning Table (Sheet C-1):** *The area of solar panel and impervious coverage should be stated.*

Response to Comment: The area of solar panel and impervious coverage has been added to the Plan.

4. **500' Radius Map:** *We recommend that all lots, the 500-ft radius and the sheet scale be labelled. The lots that don't appear to be labeled include:*

- *Map 8, Lot 36*
- *Map 11, Lot 47B*
- *Map 8, Lot 36*
- *Please label Map 11, Lot 49A*

Typically, road names, schools, parks, fire stations and other significant public facilities (if any) would be pointed out.

Response to Comment: All lots specified have been labeled. A note has been added stating that the drawing is not to scale and there are no schools, parks, fire stations, or other significant public facilities within 500 feet of the property.

5. **Project Narrative:**

- *Under Stormwater Analysis there is a statement "crushed stone drives within the solar array are considered pervious due to their low use." Based on observations at other solar facilities, crushed stone drives tend to become filled with sediment. Therefore, unless a maintenance plan of cleaning the stone layers is planned, we no longer agree with that assumption.*

Response to Comment: The Rhode Island Department of Environmental Management has recognized the above quoted statement on numerous ground mount solar applications. The applicant will consider Operation and Maintenance language to address the concern at Preliminary.

- *Under Stormwater Analysis there is a statement "based on similar projects, capturing 50% of the area developed a solar and providing at least 5,000 cubic feet of storage (including 1 foot of freeboard) per disturbed acre contributing to the design point is sufficient to provide peak flow mitigation of stormwater. The statement will need to be justified with a detailed analysis at each discharge point. The actual system sizing will vary depending upon the outcome of standard hydrograph and flood routing analysis.*

Response to Comment: The calculation provided was a rough, conservative estimate for sizing at Master Plan. A detailed hydrologic analysis shall be performed to support stormwater design at Preliminary.

- *In Appendix E, the NRS Freshwater Wetland Delineation Letter states that "wetland features were GPS located and although this is not considered a survey, it is a reasonable approximation of the resource areas for preliminary planning purposes". For final design, we recommend that the wetland flags be located and certified by a land surveyor.*

Response to Comment: Wetland flags shall be verified by a licensed land surveyor prior to final design and RIDEM permit application.

- *In Appendix E, the NRS Freshwater Wetland Delineation Letter on page 2 states that the intermittent stream (multiple) and River (Canonchet Brook) were not flagged. We recommend that the land surveyor confirm that the edge of all streams and rivers were field surveyed.*

Response to Comment: Streams and rivers shall be verified by a licensed land surveyor prior to final design and RIDEM permit application.

- *In Appendix I, Pre-Development and Post-Development Drainage Watershed Maps are provided. When the actual drainage analysis is prepared, we recommend that the impact to each abutting property be addressed.*

Response to Comment: This comment will be taken under advisement at Preliminary design.

6. **Site Plans:**

- *The Typical Solar Layout Insert shows a 15-foot-wide crushed stone access drive. We understand that access is subject to Fire Marshal review but we recommend a 20-foot access drive to meet a standard fire lane width.*

Response to Comment: This comment will be taken under advisement at Preliminary design, in addition to Fire Marshal comment.

- *Notes stating “no records of well location found” were observed on the plans. We understand that access onto private property is not always available but (if not yet performed), we recommend a search of RIDEM OWTS records for potential well locations.*

Response to Comment: State and Town resources for well documentation, including RIDEM OWTS, have been searched and exhausted. No records have been found. The next step, if/when allowed, would be access to private abutting property to locate wells. However, given the distance between proposed development and the property line, it is not anticipated that a well anywhere on the property would be impacted by the development.

- *The Plan calls out “Approximate Narragansett Trail” on the site and Note 5 states that existing trails are present on the property and shall be located for future permitting. We recommend confirmation of their significance and if others have rights to those trails.*

Response to Comment: Investigation of the Narragansett Trail and others’ rights to it shall be investigated and determined.

- *An existing historical cemetery (HP043) is shown with a note “proposed design shall maintain all required setbacks.” The required setbacks should be shown on the Plan.*

Response to Comment: Setbacks to the historical cemetery have been indicated on the plan.

- *The Limit of Disturbance (LOD) Line is near the edge of the solar panels. We recommend confirmation if the applicant will be seeking to remove shade trees beyond the LOD.*

Response to Comment: There is no intention on removing shade trees beyond the LOD.

- *The total acreage of woodland to be cleared should be listed.*

Response to Comment: Total acreage of woodland to be cleared has been added to the Plan.

Existing Conditions Plan:

- *The submission includes a Class I Limited Perimeter Boundary Survey and a note states the topography compiled from RIGIS LIDAR mapping and referenced to NGVD-88 vertical datum. For final design, we recommend that the accuracy of the Existing Conditions Plan and Topography be certified by a professional land surveyor, especially in areas with the new building, grades changes and new stormwater systems.*

Response to Comment: Existing Conditions Plan and topography shall be certified by a licensed professional land surveyor.

- *Typically, a legend is provided to identify all existing features not labelled on the plans such as tree line, perimeter wetland buffer, surface covers not labelled, etc.*

Response to Comment: Legend has been added for items not labelled.

- *A listing of the FEMA Panel Number is recommended.*

Response to Comment: FEMA Panel Number has been added to the Plan.

7. **Chapter 246 Non-residential Photovoltaic Solar Energy Systems (PSES):** *We recommend that the Ordinance requirements be addressed to allow the Planning Board to assess potential impacts. Evident items not addressed include noise, wildlife migration & habitat, O&M and decommissioning. We recommend that any waivers from this Chapter be identified by the applicant.*

Response to Comment: Noise, wildlife migration & habitat shall be addressed as well as O&M and decommissioning.

8. **Landscape Plans:**

- *The location of the provided existing site photographs would be helpful.*

Response to Comment: Locations of existing site photos have been added to the plans.

- *The limits of clearing and trimming beyond the solar field need to be identified.*

Response to Comment: Clearing and Trimming will not extend beyond the LOD. The LOD has been identified on the plans.

- *Depth of loam on the solar array field should be highlighted and measures to prevent compaction of the underlying soils need to be addressed (to minimize stormwater runoff impacts).*

Response to Comment: Depth of loam shall be 6" and subgrade shall be scarified underneath. Refer to detail sheet L12.0 for more information.

- *Proposed Grading Plans need to be provided to confirm the sections provided.*

Response to Comment: All sections are based off of the existing conditions plans. The intent is for the solar installation to meet and match grades as best as possible within the arrays as well as at the 100' setback line. Full grading plans will not be provided until the preliminary plan submission and the sections will be refined at that point.

- *A single row of evergreens appears minimalistic but without the proposed grading and limit of clearing, the effectiveness is not confirmed.*

Response to Comment: The intent is for the 100' vegetated buffer to be maintained. Currently that buffer is fully wooded and a combination of evergreen and deciduous trees. In critical areas this buffer will be supplemented with the addition of new evergreens along that 100' edge to insure that during winter there is still adequate visual buffering.

- *We recommend that any buffer waivers from the PSES Ordinance be identified by the landscape architect.*

Response to Comment: Buffer Waivers if required they will be identified accordingly.

I trust that these responses adequately address the comments received. Should you have any additional questions or concerns, please do not hesitate to contact me at 401-596-7747.

Sincerely,



Sergio F. Cherenzia, P.E.
President