QUINN ENGINEERING, INC.

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September 20, 2022

Leicester Planning Board Town of Leicester 3 Washburn Square Leicester, Massachusetts 01524

Re:

Skyview Estates

Major Site Plan Review & Special Permit

To the Board:

We are in receipt of the following in association with the above referenced project:

- Plans entitled "SITE PLANS FOR SKYVIEW ESTATES, MAIN STREET, LEICESTER, MA 01611", 31 sheets, dated 9-1-22 without revision date, by Allen & Major Associates, Inc. of Woburn, Massachusetts.
- Bound document entitled "Drainage Report, Skyview Estates, Leicester, MA" dated 09-01-2022, prepared by Allen & Major Associates, Inc. of Woburn MA.
- Application for Site Plan Review & Special Permit.
- Letter addressed to Alaa M. Abusalah, dated September 1, 2022, providing a project narrative.

Plans identify the following waiver requests, from Leicester Subdivision Regulations. Our comments on requested waivers follow:

1. Waive §V, A, 1, f to permit roadway centerline radius of curvature of 135 feet and 120 feet. Minimum radius of curvature is 200 feet.

On a local development road, curve radii of 120 feet and 135 feet can be negotiated by vehicles, and will not impede public safety vehicles, but may be perceived as inconvenient for some drivers. We do not object to the requested waivers. See note below.

The radius of curvature of Skyview Drive from STA 11+29.41 to STA 11+50.18 is 120 feet. There is room to accommodate an expansion of the radius of curvature in this area. Leicester Planning Board may wish to require the Engineer make reasonable efforts to minimize the relief requested, before considering a waiver.

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2. Waive §V, A, 3, a, to permit a road slope of "less than 12%". Maximum permitted road slope is 10%.

Skyview Drive has a maximum road slope of 11.65%. It is the opinion of this office that this road slope is within the limits of safe roadway design. If Leicester Planning Board grants this waiver, it is recommended that the waiver specify the proposed road slope of 11.65%.

3. Waive §VI, B, 1, a, to permit HDPE drain pipe. Reinforced concrete pipe (RCP) drains are required.

The use of HDPE pipe as drainage culvert has been permitted and even requested by Leicester Highway Department in the past. This product is long-lived and performs well, if correctly installed. We do not object to this requested waiver.

A waiver should specify double wall HDPE pipe, with smooth interior.

4. Waive §VI, C, 4 to permit flow velocities in drains of 11.92 and 14.0 feet per second. Required storm flow velocity is between 2 and 10 feet per second.

The primary concern with high-velocity flow is long-term erosive damage to drainage structures, however, on these plans the likelihood of damage to infrastructure is low. We do not object to this requested waiver.

5. Waive §VI, E, 3, to permit coachlamps at the end of each driveway in lieu of streetlights. §VI, E, 3 specifies streetlights at specific locations.

The proposed coachlamps will provide lighting on both sides of the proposed development roads, at locations as specified under §VI, E, 3. A separate streetlight is proposed at the intersection of Main Street and Skyview Drive. We defer to Leicester Planning Board on this request.

6. Waive §VI, L to permit street trees on one side of the roadway. Street trees are required on both sides of the road.

We defer to Leicester Planning Board on this non-engineering related request. See Comment 13 below.

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7. Waive §VI, G, 1 to permit sidewalks on one side of the roadway. Sidewalks are required on both sides of the roadway.

We defer to Leicester Planning Board on this non-engineering related request.

Pertaining to the submitted plan package, Michael Malynowski, Senior Project Manager for Allen & Major Associates, Inc indicates that the plans as finalized in the previous application process have not been revised. On that basis, we have not re-reviewed the plans. In a letter to Leicester Planning Board dated May 13, 2022, all outstanding comments were identified as either "No Further Comment" or "Resolved". Two additional comments (Comments #42 and #43) were informative in nature, and did not require a response.

It is noted that among the waiver requests, Waiver #5 was addressed as an engineering comment previously, but not as a waiver. We have provided comment on the waiver above.

We remain at the service of Leicester Planning Board on this project, and would be pleased to comment on any changes to the plans which are subsequently made.

Please contact this office should you have questions.

Sincerely,

QUINN ENGINEERING, INC.

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Kevin J. Quinn, P.E.

President