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March 13, 2024

City of Worcester Planning Board
Planning & Regulatory Services
Worcester City Hall Room 404
455 Main Street
Worcester, MA. 01608

RE: Definitive Site Plan
Arboretum Village Subdivision Phase IV
Lots 88 & 89 Snowberry Circle

To The Board:

This office is submitting an amendment to a definitive site plan for the Arboretum Village Subdivision Phase IV Lots 88 - 92 Snowberry Circle. The changes to the originally approved plans include changing the structure that was proposed on lots 88-91 from being a split entry style to a full walkout at the rear and no garage. Although this results in a little bit more impervious area located within the front yard, it greatly reduces the amount of grading required behind the buildings. This results in reducing the amount of retaining walls that were previously proposed as well as the overall disturbance. In addition to the Definitive Site Plan Sheets 1-6 we would like to present a summary of the effects of the additional impervious area associated with Lots 88 and 89 on the existing stormwater system as proposed and described in the "Hydrology & Stormwater Management Report Arboretum Definitive Subdivision Bittersweet Boulevard, Indigo Circle and Snowberry Circle March 23, 2009" prepared by HS & T Group.

Below includes a summary of the stormwater analysis of the additional impervious area associated with Lots 88 & 89 regarding the drain collection system and pre/post development peak discharge rates.

The definitive site plan proposes that two duplexes be constructed. One duplex is proposed on the parcels of land recorded as Lot 89LA & Lot 89LB and one duplex is proposed on the parcels of land recorded as Lot 88LA & Lot 88RA. This proposed site plan will result in an increase of approximately 1,272 square feet of roof and 1,180 square feet of driveway. This is approximately 2,452 square feet of additional impervious area.

This office has utilized information available in the "Hydrology & Stormwater Management Report Arboretum Definitive Subdivision Bittersweet Boulevard, Indigo Circle and Snowberry Circle March 23, 2009" prepared by HS & T Group to complete an analysis of the effects of the additional impervious area on the stormwater system.

The results of our analysis of the additional impervious area are summarized in Table 1 and Table 2 attached to this cover letter. Table 1 shows the effect of the additional impervious

area on the storm drain collection system and Table 2 shows effect of the additional impervious area on the peak discharge runoff rate.

The conclusion of the analysis of the additional impervious area as summarized in Table 1 and Table 2 is that the stormwater system as originally proposed will be adequate to handle the resultant stormwater flows associated with the additional impervious area proposed on Lots 88 & 89. The drainage system is capable of passing the additional runoff due to the 2,452 square feet of additional impervious area. The peak discharge rate post-development including the modifications proposed in the definitive site plan will remain lower than the pre-development peak discharge rates. The stormwater system as proposed and described in the "Hydrology & Stormwater Management Report Arboretum Definitive Subdivision Bittersweet Boulevard, Indigo Circle and Snowberry Circle March 23, 2009" prepared by HS & T Group provides adequate capacity to pass the flows from the additional impervious area proposed in the definitive site plan dated February 24, 2024 as prepared by New England Environmental Design, LLC.

Please do not hesitate to call our office at 508-829-7222 if you have any questions or comments.

Sincerely,
New England Environmental Design, LLC.



Julian P. Votruba
Project Manager