CIVIL DESIGN GROUP, LLC
ENGINEERING. LAND USE. PLANNING. PERMITTING.

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April 14, 2021

Mr. Richard S. Novak, Chairman
Sherborn Zoning Board of Appeals
Town Hall
19 Washington Street
Sherborn, MA 01770

Re: Coolidge Crossing
Response to 4/11/2021 Conservation Commission Memorandum

Dear Mr. Novak:

Baystone Sherborn, LLC (applicant) and Civil Design Group, LLC (CDG) are in receipt of the Sherborn Conservation Commission's comment memorandum dated April 11, 2021.

The applicant's 40B application currently before the Sherborn Zoning Board of Appeals (ZBA) seeks a waiver under Section 5.2 of the local wetland bylaw. As referenced in the Conservation Commission's letter to the ZBA, the local wetlands bylaw establishes a "no alteration zone" within 50 feet of a wetland resource area. Under the local wetland bylaw, disturbance within this area is presumed to adversely affect protected wetland interests.

As shown on project plans and described within the submitted waiver list, the applicant has requested a waiver from Section 5.2 and its presumption, to allow site disturbance and construction in upland areas that are within 50 feet of wetlands. It is important to clarify that the proposed disturbance within these upland areas is limited to grading, drainage, and utilities. No buildings or pavement are proposed within 50 feet of wetlands. The waiver request would also apply to and allow for post-construction maintenance of landscaping/lawn areas within some of these upland areas.

The applicant and its team do not agree with the Conservation Commission's underlying presumption that the site plan before the ZBA was developed without regard to buffer zone impacts or sensitivity to wetland areas. In fact, the current design before the ZBA is the result of extensive collaboration between the development team members including Baystone and its civil engineer, landscape architect, and wetland scientist. The project's proximity to wetlands was a significant consideration among the design team and a key element in shaping the development program that is currently before the ZBA. Specific site plan elements that were aimed at mitigating potential wetland impacts and minimizing site disturbance within buffer zone areas include:

- From a fundamental standpoint, the project is a non-sprawling clustered development, which utilizes very little land area per housing unit.
- The project does not propose any wetland alteration. All site disturbance is limited to upland areas only.
- All impervious areas including pavement and building footprints have been held a

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minimum of 50 feet from wetlands.

- The front and rear yards of the buildings were kept very small to keep the limit of disturbance very compact.
- The design provides parking at a ratio of 1.67 spaces per unit, sufficient for residents and guests without being over-parked thereby limiting impervious area and overall site disturbance.
- The project includes garage structures over some of the surface parking spaces, which reduces rainwater contact with paved surfaces thereby reducing potential pollutant loading.
- A highly detailed stormwater design model has been provided and peer reviewed, which reasonably maintains the existing stormwater runoff characteristics of the site.
- The design provides a very high level of stormwater treatment utilizing deep sump hooded catch basins, water quality units designed for a one-inch water quality storm, as well as extensive infiltration practices.

Our responses to the specific comments raised by the Conservation Commission are provided below in **bold** following each of the Commission's comments.

1. Stormwater Management

The proposed stormwater management plan should be evaluated for any options/approaches that will lessen the impact on wetlands, with suggested focus to at least include the following:

a. Options to reduce the amount and area of buffer zone alteration (especially in the NAZ), such as reducing impervious areas through smaller parking areas, use of pervious asphalt, etc. This, in turn, could lead to smaller detention basins (especially the one located in the NAZ).

As per our February 24, 2021 letter to the ZBA, the applicant has no objection to a condition requiring the parking spaces to be reduced to 18 feet in length, which would result in less runoff to the stormwater management areas. In our opinion, pervious asphalt would not be a proper fit for this project as it is more appropriately limited to lower-use applications such as satellite parking lots, is unattractive in a residential setting, and requires extensive and costly maintenance to keep it functioning as designed.

b. Given proximity to wetland resources and the alteration of buffer zones in the project, consideration should be given as to whether standards for keeping the resulting quality of the infiltrating water (e.g., presence of metals, particulates, organics, etc.) from any BMPs should be more stringent in order to lessen the pollution control and water quality burdens on buffer zone and resource areas.

The project has been designed to meet the stormwater standards/Stormwater Handbook, as set forth in the regulations at 310 CMR 10.00. We are not aware of a more stringent standard applicable under the local wetlands bylaw. As discussed in the Chapter 40B regulations, an affordable housing project should not be subject to different standards than would be imposed upon a non-40B residential development.

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That being said, the project design incorporates an extremely high level of stormwater treatment through the use of deep sump hooded catch basins, water quality units designed for a one-inch water quality storm, and extensive infiltration practices. These treatment practices cumulatively target metals, particulates, and organics with very high treatment efficiencies.

c. Given the infiltration of stormwater into the buffer zones and adjacent resource areas, conditions should be crafted to ensure that pre and post development hydrology (total and seasonal volume) is not significantly altered with regard to each of the two different major wetland areas, as alterations can adversely impact wetland functionality.

The project complies with pre-development/post-development discharge and annual recharge requirements of the Stormwater Handbook, as set forth in the regulations at 310 CMR 10.00. A highly detailed stormwater model has been provided and peer reviewed, which reasonably maintains the existing stormwater runoff characteristics in the proposed condition.

d. Consider whether rainwater collection for irrigation to reduce the stormwater system scale in the buffer zone should be required.

Baystone has considered rainwater collection and determined that it is economically infeasible to incorporate into the project design. Furthermore, any such rainwater collection system would provide no benefit to the stormwater design as standard engineering practice assumes these types of systems are already full of water at the commencement of the storm event.

2. Wildlife Habitat Impacts and Mitigation

The buildings and impervious surfaces of the project are sited between the two primary wetland areas on site, creating barriers to smaller wildlife such as amphibians, turtles, insects, etc. With 120 units, one can expect many vehicles driving on the roads daily, which can pose significant hazard and disturbance to small and large wildlife moving between resource areas. Given the overall significant alteration of the buffer zone and the critical role of buffer zones for wildlife habitat, develop potential mitigation options with consideration of:

a. Modify the project to lessen habitat fragmentation. Corridors for wildlife passage or other measures should be considered.

We feel that wildlife will be able to make its way between the two main wetland systems. The applicant would have no objection to a condition requiring wildlife crossing signage to be added to the site driveways to help raise driver awareness.

b. Include conditions in the exterior lighting plan such as dimming and lighting reductions to help minimize adverse impacts on wildlife and wildlife behavior.

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The lighting plan as submitted proposes the minimum lighting necessary for wayfinding and public safety purposes. The applicant would strongly prefer to not have dimmable lighting due to safety concerns.

c. Consider other areas on the project site where wetland resource area or buffer zone restoration and/or enhancement can serve as mitigation for the loss of buffer zone functionality related to wildlife within the limit of work.

Refer to responses below in Section 3.

d. See landscape plan below for more recommendations related to wildlife.

Refer to responses below in Section 3.

3. Landscape Plan for Jurisdictional/Buffer Zone Areas

Given the extensive alterations proposed in the buffer zone, the Commission recommends that the applicant provide a detailed Landscape Plan before the comprehensive permit is granted. With respect to wetland and buffer zone issues, this plan should focus at least on the following:

a. Buffer zone landscaping should maximize protection of wetland functions and values. These include pollution prevention, wildlife habitat, water quality and others. For example, buffer zones serve to filter pollutants. Plantings and proposed maintenance should focus on preserving this and other functions. All four layers of buffer zone vegetation should be considered: herbaceous, shrub, understory and canopy.

The applicant has worked with their landscape architect, Hawk Design Inc., to identify a strip of the inner buffer zone to the north of Building 1 and east of Building 2 most suitable for buffer zone enhancement. The area currently consists of a field and could be enhanced with the addition native vegetation including grasses, herbaceous perennials, shrubs, and small trees. This would provide a mitigation area and additional protection for the adjacent wetland area by enhancing the native buffer that helps to filter runoff and provides animal habitat. The applicant will commit to provide an additional 50 plantings within this area, which will be selected specifically for their buffer enhancement value, on the final landscape plan of record.

Furthermore, within the proposed stormwater management areas, the landscape plan will be updated to utilize native vegetation along the bottom and sides of the management areas where feasible (i.e. access areas would need to be maintained for inspections and maintenance of the basins). The use of native plants in the stormwater management areas would help with the filtration of water, provide additional animal habitat, and provide additional buffer between the built environment and the resource area. This modification will also be incorporated into the final landscape plan of record.

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b. Conditions set forth for buffer zone landscaping to protect wetland functions and values should be particularly stringent in the NAZ.

Refer to the applicant's commitment in above in Section 3a.

c. As stated in the wildlife habitat section above, other areas on the site should be considered for mitigation work at the landscaping level, where improvement to buffer zone should be required where practicable to offset adverse impacts to buffer zones within the limit of work.

Refer to the applicant's commitment in above in Section 3a.

We trust that the responses provided above and the enclosed plans sufficiently address the technical comments expressed by the Conservation Commission. Please feel free to contact our office should you have any questions or required further clarification.

Respectfully Submitted,
CIVIL DESIGN GROUP, LLC

Matthew A. Leidner, P.E.
Principal