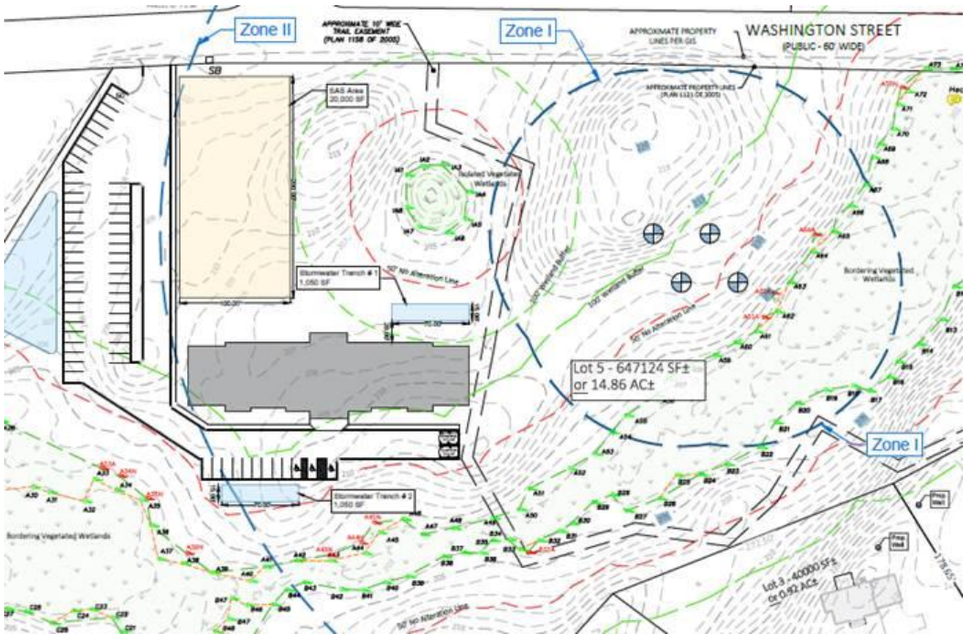
To the Sherborn Select Board:

The Open Space Committee, at our last meeting on December 6th, took under consideration the proposed project "Washington Street Homes". Based on the limited documentation on the development proposal now posted on the Town website, the committee does have concerns regarding how close the project physical elements are sited to the existing 10-ft width Bailey Trail Extension easement.

As seen by a portion of the proposed site plan inserted here, the 3-story building and paved parking area are within a few feet of the trail, and stormwater trench # 1 is also nearby. This trail brings many current residents from the areas of Greenwood St, Russet Hill Road, Washington Street, Woodland Road, and additional neighborhoods through this currently undeveloped forested wetland property. Walkers and bike riders traverse this short trail in order to get to the longer Bailey Trail, which has a trail head at the intersection of Washington St (Rt 16) and Old Orchard Road. The addition of the 40 apartment units (70 bedrooms) will increase trail use considerably.

The siting of the 3-story building and associated construction period disruption in all directions surrounding the building will impact the use and enjoyment of this trail during and after construction. To mitigate these issues can we suggest the developer consider:

Working with the easement title holder, the Conservation Commission, to move the trail easement some distance to the east, away from the proposed building and parking lot. The extensive wetlands on the site may complicate this, but perhaps the small trail bridging across the wetlands can be maintained, and the trail moved eastward after that section.



1. Working with the easement title holder, the Conservation Commission, to move the trail easement some distance to the east, away from the proposed building and parking lot. The extensive wetlands on the site may complicate this, but perhaps the small trail bridging across the wetlands can be maintained, and the trail moved eastward after that section.
2. Install a cross walk with yellow safety lighting across the busy state Route 16, to a safe spot near the main Bailey Trail (Old Orchard Rd trail head) to protect the pedestrians and bikers as they cross this busy road.

The Open Space Committee will continue to discuss this project at future meetings and communicate any additional comments to the Select Board when appropriate.

For the Open Space Committee:

Tom Trainor, Member
Sam Nelson, Chair

SHERBORN CONSERVATION COMMISSION
MEMO

TO: Sherborn Select Board
Jeremy Marsette, Town Administrator

FROM: Michael Lesser, co-chair, on behalf of the Conservation Commission

DATE: December 15, 2022

RE: Comments on Washington Street Sherborn Homes affordable housing project

The Conservation Commission is providing the following comments on the proposed Washington Street Sherborn Homes affordable housing project. These comments apply to the overall process from initial town review to the subsequent permitting stages.

The project site currently has extensive unaltered natural wetland resources and their related buffer zone and is adjacent/connected to a large unaltered natural wetland resource area on a neighboring property. Such conditions are critical to maintain based on the value of such resources for water quality, pollution prevention, protection of private and public water supplies, groundwater protection, stormwater/flooding management, and wildlife habitat.

The project involves significant development of some outer buffer zone area for parking, stormwater management, part of a building and public water supply.

The Commission concerns at this time are:

- Possible adverse wetland impacts from significant reduction in natural buffer zone (though a moderate area given the extent of wetlands and buffer zone on the property).

- Stormwater impacts on wetlands in terms of water quality as significant parts of the proposed stormwater system and impervious areas are in the buffer zone.

- Water quality impacts possibly arising from this large project's concentrated septage outflow that is proximal and upgradient to the on-site wetlands (though the septic field itself is outside of the buffer zone); these wetlands include a certified vernal pool, other potential vernal pools and are connected to an extensive wetland system in the surrounding area.

- Wildlife habitat is one of the major interests of wetland protection and there will be adverse impacts from loss of natural buffer zone as well as beyond as it is well documented that critical wildlife habitat extends well beyond the buffer zone. In addition, outside lighting can also disrupt wildlife and should be moderated in terms of color, operating times, extent and intensity.

- Wetland hydrology impacts related to any possible linkages to the significant water usage for drinking water (that may be balanced quantity wise by the septage outflows with potential water quality problems).

- On-site chemical use for landscaping and de-icing should be minimized and selected for minimum impacts.

December 15, 2022

Sherborn Groundwater Protection Committee - Comments to the Select Board on the proposed Washington Street Homes 40B Development.

Introduction

The site presents major wetland and surface geology concerns.

Bedrock outcrops are visible on the property, as they are on numerous properties nearby and throughout Sherborn. Over most of the property, bedrock is expected to be shallow, with a thin overburden of soil. As discussed below, we have four topics of concerns about whether the local geology and thin overburden soils will support a dense development with 40 new residences, a single septic system and a public water supply well.

1. Septic for 40 Housing Units (70 bedrooms).

We are concerned about the capacity of the soil in the planned septic area to manage all the waste from 40 new residences, which according to Title V, will discharge up to 7,700 gal/day (110 gal/day/bedroom) of septic flow. Concerns include potential migration of septic waste to nearby wetlands, surface water bodies, and the private wells of neighbors. Substantial mounding of the groundwater table could occur within the sewerage infiltration and stormwater management areas, affecting nearby wetlands and water quality at water supply wells on and off the property. Flooding impacts from ever growing future storm events will affect septic systems and water quality. Septic waste management design plans will require rigorous peer review by a professional hired by the Town.

2. Groundwater

We have serious concerns about whether there is sufficient water supply quantity and quality to support this project, and how it will impact the surrounding residences, all of which rely on groundwater as the only water supply. Moreover, increased persistent periods of drought have been occurring, and our area of Massachusetts has been in a level of significant drought frequently over the last several years (2016, 2020, and 2022). This affects groundwater quantity and quality as well.

Please be aware that in the publicly posted MA LIHTC Proposal description for this project it is stated, on page 2, in part:

" … *The property will be serviced by private water and sewer*…" However, at the November 21 site walk, and at various public meetings, the development team has stated that a public water supply well was instead planned. We would strongly recommend that a public water supply well be required for such a sizable resident population.

A public water supply well system is required at 15 or more service connections or regularly serving an average of at least 25 individuals daily as defined in 310 CMR 22.02 (collection, treatment, storage, and distribution defines a system). This proposed project is 40 units in a single building, and yet the initial project summary states that the development will have a

private water supply. Proposing multiple (site plan shows 4 wells) private wells to the apartment building appears to be incompatible with the need for a public water supply as regulated under 310 CMR 22.

A public well per MassDEP design requirements, serving a flow of up to 7,700 gal/day, calls for a protective Zone 1 radius of about 233 ft around the well, along with a Zone 2 region of about a 570 ft radius. Given the areas represented by these protective zones, non-permitted Zone 1 structures like the large septic leach field would be problematic as shown by the initial site plan map.

3. **Stormwater**

The large apartment building and associated parking for 70 bedrooms and access roads represent a significant amount of new impervious surface areas.

The topic of future climate change impacts needs to be taken into serious consideration in the design of this project, given the projected much larger storm events with expected larger rain/snow amounts, and higher annual precipitation levels, now published by the MA RMAT state design team for future project planning. The future higher than historical annual and per storm event precipitation levels now predicted as compared to current design standards need to be considered for all the concerns raised by the GPC here on groundwater/septic/stormwater, and on the existing vernal pool on the property that varies in size and depth based on annual precipitation amounts.

The developer should be required to demonstrate that infiltration trenches have the capacity to manage the runoff and have adequate soil to filter expected contaminants from the roof and parking lot, so that the runoff doesn't go directly into the wetlands or into bedrock fractures that may connect to the nearby onsite and offsite water supply wells. There is a concern for water quality from runoff from areas of pavement carrying oil, salt, and other contaminants going directly into the wetlands and groundwater. The stormwater detention basin and trenches as designed have too much connectivity to the wetlands. The detention basin is very proximal to the wetlands which will likely result in overtop flow from the basin directly adjacent to the larger parking lot directly to the wetlands.

4. **Bedrock Management/Blasting**

Any required blasting of bedrock to install foundations and piping to the septic system and other underground utilities would create new fractures in the bedrock. This may result in preferential flow pathways for untreated stormwater and possibly septic waste to flow into the bedrock impacting groundwater quality. Blasting could also impact the hydrology of the nearby wetlands and vernal pool. If new fractures are created in the bedrock, it could reduce the ability of these surface features to retain water and maintain habitat.

Board of Health

TOWN HALL • 19 WASHINGTON ST. • SHERBORN, MASSACHUSETTS 01770
508-651-7852 • FAX 508-651-7868

December 29, 2022

Rebecca Frawley Wachtel, Director
Low Income Housing Tax Credit Program
Massachusetts Department of Housing and Community Development
100 Cambridge Street, 3rd Floor
Boston, Massachusetts 02114

RE: Chapter 40B Comprehensive Permit for Washington Street Sherborn

Ms. Rebecca Frawley Wachtel:

The Sherborn Board of Health takes seriously its responsibility to provide input to the Department of Housing and Community Development's (DHCD) decision-making process regarding the suitability and viability of the proposed Washington Street project in Sherborn. It is not the role of the Board of Health (BoH) to promote or oppose development but rather to guide each project to be supportive of healthful conditions for future residents of the project and for surrounding residents.

An overarching concern of the Board of Health is that it be permitted to exercise local regulations for this project due to Sherborn's atypical combination of water supply issues, widespread septic system use, shallow unsaturated soils, and extensive wetlands. ***It would not be equitable to reduce public health protections for an affordable housing project.***

Title 1 of the State Environmental Code, 310 CMR 11.02, makes the following declaration about the appropriateness and right of local public health rules and regulations:

> *"Unless otherwise expressly provided in any other title, the legally designated health authority of any city, town, county or other legally constituted governmental unit within the Commonwealth having the usual powers and duties of the board of health may, as it considers necessary to promote and protect the health and wellbeing of the particular locality under its jurisdiction, adopt under its own legal power as exists in the General Laws any rules or regulations containing requirements stricter than those contained in this code. Nor should the existence of this code limit or otherwise affect the power of any health authority with respect to any matter for which this code makes no provision."*

Key BoH interests in the project, followed by background information, are presented in the remainder of this letter.

Summary of Comments

The comments provided herein cover the following topics:

- ***Public Health Focus for Site Eligibility***

  Water supply and wastewater management takes place on each property in Sherborn. Wells draw groundwater for use and wastewaters are discharged back into the ground for some treatment/filtering and eventually replenish groundwater for drinking, cooking, cleaning, and other uses. In contrast, urban and most suburban areas typically have municipal water supplies and sewage facilities that are separated by significant distances.

  As demands for water rise and contamination impacts more and more water resources, Sherborn offers a complementary, sustainable, local approach to the water cycle in the Boston metropolitan area. It does require careful management though, as addressed by extra requirements in Sherborn's septic regulations that build upon the State's minimum requirements of Title 5.

  The BoH wants equity for the future residents of this property. Water quality for affordable housing is expected to be commensurate with that for residents elsewhere in the community. To that end, adherence with local septic regulations should be required.

- ***How DHCD Can Assist with Health Equity for this Affordable Housing Project***

  If DHCD determines that the Washington Street Sherborn application is approvable, the BoH requests support for carrying out its public health responsibilities. In particular, protecting Sherborn's groundwater resources for drinking water is essential to the health of its residents, including the future residents of the proposed project. The BoH governs this resource with a goal of sustainability.[1]

  The project currently proposes to install and operate a small-scale public water supply (PWS). PWSs are regulated by the Massachusetts Department of Environmental Protection (MassDEP) and requirements include routine water quality testing and management by certified water supply professionals. The BoH strongly favors a PWS for this project because, based on other studies of similar volume wastewater discharges, the levels of contaminants resulting from a high volume/concentrated discharge may pose a greater risk to groundwater quality. The routine monitoring required and reviewed by MassDEP for PWSs would offer the opportunity to identify pollution issues before the residents have consumed the water long term.

  This project should not default to compliance only with State-level septic regulations. Local septic regulations appropriately build upon the State's Title 5 regulation to address

[1] Once groundwater is found to be contaminated through well sampling and analyses, it is often too late to remedy and costly treatment systems become the only option.

local needs. Title 5 is designed as the minimum requirements to apply to municipalities that, for example, have only a small percentage residences served by septic systems and have a municipal water supply serving the entire town. Under those circumstances, the risk to drinking water quality is reduced. However, Sherborn's circumstances demand greater precautionary measures. The few more stringent regulations are appropriate and important because the septic systems likely have the greatest impact on groundwater quality.

There is potential for a bedrock disruption permit from the BoH to be applicable to the project. If so, requirements that accompany this local permit would be in the interest of the project's future residents.

At present, other areas of BoH jurisdiction (such as food establishments, camps/daycare, tobacco and nicotine delivery products, massage, body art, etc.) are not foreseen for this project.

- ***Not All Dense or Large Projects Pose Public Health Risks***

  The BoH has been supportive of the much larger pair of mixed affordable and alternative housing projects, Coolidge Crossing (a 40B with 120 rental units) and Meadowbrook Commons (elder and 10% affordable), that are still being pursued by the Town and would meet the affordable housing target while having significantly less impact on environmental resources essential for future residents. The locations of those projects are very close to both Natick and Framingham, thus offering access not only to amenities, public transportation, and employment opportunities, but also to those municipalities' sewer and water utilities, respectively. Such an arrangement relieves the burden otherwise posed by dense development to the quality of Sherborn's limited groundwater resources.

  The BoH is not biased against the size of projects. However, the technical reality is that large discharges of wastewater to the ground, concentrated in one area, may have more significant impacts on drinking water quality and is most likely to be relevant for waters drawn from near the discharge, as will be the case for the water supply to the proposed project. Given the complexity of dynamics behind large projects (e.g., subdivisions, large establishments, etc.) and to meet its duty to public health, the Sherborn BoH has a requirement for such projects to perform an environmental health impact assessment and prepare an Environmental Health Impact Report (EHIR) for BoH review.

Potential Project Site Challenges

To date, the BoH has received a subset of information about the site and limited details about the design, construction activity, and resulting infrastructure for the project. Thus, challenges identified are based on that information plus site visit observations, historic information about the site, and surrounding area information.

There is No Municipal Water Supply or Sewer System

A key starting point for any housing in Massachusetts is the ability to provide adequate water supply and sanitary features (per 105 CMR 410). Sherborn's "infrastructure" for these functions is quite different from that of most municipalities in the Boston metropolitan area; each individual property is both the source of water, via a well, and recipient of wastewaters, via a septic system. This means that the septic system associated with every developed piece of property is discharging wastewaters onto that property, which may become a threat to the groundwater that residents drink if improperly managed.

Integral to Sherborn's development patterns are the hydrogeologic conditions present at each development site and how those conditions interface with surrounding properties. Unlike BoHs in more urban areas, a major function of Sherborn's BoH is the protection of the shared drinking water resource. This is primarily achieved through careful management of wastewater discharges into the ground.

Other Town Characteristics

There are physical reasons why Sherborn (and Dover, Carlisle, etc.) remains relatively rural despite its proximity to Boston and in comparison to surrounding communities. The development patterns reflect the water supply and wastewater management limits of its infrastructure and environmental characteristics. These include:

- reliance on private wells and septic systems that are co-located[2];
- a prevalence of ledge outcroppings and related shallow depth to bedrock;
- shallow depth to groundwater, which is also reflected in the presence of significant wetlands throughout; and
- an absence of substantial overburden aquifers, with nearly all drinking water wells drawing from bedrock fractures (for comparison, most municipal wells draw from overburden aquifers or surface waters due to their yield capacity and predictability; in contrast, yield dynamics of bedrock fractures are extremely difficult to assess beforehand).

Such environmental characteristics have technical bearing on how drinking water and septic wastewaters are managed within the Town. We can see from decades of data that even the modest density of development that currently exists in Sherborn's small and sparse downtown has resulted in concentrations of septic-related contaminants that are higher than elsewhere in Town. The impact of denser development on groundwater explains the rarity of this pairing in denser human environments. Greater dependence on natural processes to decontaminate the wastewater and thereby mitigate risk of groundwater contamination makes prudent management of factors influencing this shared resource critical to safe and sustainable development.

[2] Co-located in the sense that they are on the same property and serving the same structure(s).

Conditions Requested to Accompany a DHCD Project Approval

If DHCD plans to approve the Washington Street Sherborn project, the BoH requests that the approval be conditioned with the following provisions.

- ***Require that an EHIR be performed for the project's septic system***

  Preparation of an Environmental Health Impact Report (EHIR) is a requirement (per BoH regulation III.3.1) that would apply to this project if not for its 40B status and which has been applied to other multi-unit projects in Sherborn. Requirements include the performance of hydrology evaluations of septic effluent influences on groundwater and surface water quality over time.

  Given that the concentrated plume of effluent from the project's proposed septic systems is most likely to affect the wells of Washington Street Sherborn by virtue of proximity, it is in the interest of safe affordable housing that the EHIR is required. Prior modeling of effluent impacts from another project's large septic system revealed that a steady state of contaminants in groundwater could reach 2 to 3 times the drinking water standard. Although the results are situation-specific, it nonetheless highlights the value of such evaluations.

- ***Require that the project's water supply be managed as a MassDEP-regulated public water supply (PWS)***

  The current proposal indicates that a PWS is planned. Establishing the project's water supply as a PWS offers future residents the benefit of having a routine water quality testing program, the results of which are overseen by MassDEP. This is advantageous given the sizeable septic system to be located on the same property with the well or wells.

- ***Require compliance with BoH bedrock disruption regulations***

  If bedrock is encountered during site development work and its disruption/removal is necessary, it is appropriate for drinking water quality protection to require that the proponent complies with BoH regulation III.10.0. This regulation specifies that: a permit be obtained from the BoH; blasting agents that have caused groundwater contamination elsewhere in Massachusetts not be used; and nearby properties be given advance notice of the bedrock disruption activities.

- ***Require evaluation of stormwater dynamics and management***

  Impacts on stormwater flow dynamics both during construction activities and as a result of the surface and subsurface changes from the completed project warrant evaluation. Stormwater issues are typically already addressed for a project by the Planning Board

and/or Conservation Commission prior to reaching BoH review. Thus, the BoH is often able to rely upon the information generated by those authorities' requirements, but does also have stormwater assessment requirements for projects of this size.

A stormwater study is important to perform for this project due to its scale of impervious surfaces, necessary changes to the terrain (with resulting changes to flow dynamics), etc. Impervious surface impacts of relevance to the BoH include (i) reduced opportunity for rainfall to infiltrate the ground and recharge the drinking water supply in a distributed manner and (ii) increased likelihood that rainfall will merely run-off to surface waters and/or create new areas of temporary flooding. Additionally, if stormwater flows are channeled over the septic leaching field, that would be a BoH concern.

- ***Require compliance with these additional Sherborn-specific regulations that impact drinking water quality security***

  Local septic system design standards that are important to maintain for equity of drinking water quality protection (because of Sherborn's pattern of co-located water and wastewater infrastructures) include, but are not limited to, the following BoH regulation sections: percolation rates of I.5.2, soil conditions of I.5.3, and vertical grades and clearances of I.8.0.1 and I.8.0.2.

- ***Require establishment of formal financing mechanisms for shared water and/or wastewater systems***

  A condition of DHCD's approval can be that a financing mechanism for on-going operation and maintenance of shared systems be established prior to occupancy. For reference, MassDEP has formal procedures for establishing financial mechanisms for residential PWSs and wastewater treatment plants that fall under its jurisdiction; their purpose is to avoid delays in or inattention to remedying operation and maintenance needs of these systems in the future. If, for example, a system failure is encountered and interim emergency measures (e.g., trucked-in water, trucked-out wastewaters) plus a pump replacement will cost $50,000, the funds for such need to be established in advance so as to be able to respond immediately. To let system problems linger can lead to negative public health impacts at the project and beyond.

Please do not hesitate to let us know if you would like to discuss or get further information about any of the issues raised herein.

On behalf of the Board of Health,

Daryl Beardsley, Vice-Chair

SUPPLEMENTAL BACKGROUND INFORMATION

Guidelines prepared by the Department of Housing and Community Development for the design review process of Chapter 40B projects specify criteria to be used in project evaluation. Using those criteria, the regulations require findings "that the conceptual project design is generally appropriate for the site on which it is located". Issues of primary importance to public health, which are briefly discussed below, are organized according to a selected subset of design review evaluation criteria. It is likely that we have introduced aspects of these issues that are not confronted by many of the projects that DHCD reviews since most projects are proposed for areas serviced by municipal water and/or sewer. Unlike much of Massachusetts –and especially in eastern Massachusetts— Sherborn faces an uncommon situation for water resources management.[3] Our septic discharges eventually become our drinking water, unlike municipalities served by isolated, remote, or otherwise protected water supplies and/or with sewer systems. Furthermore, Sherborn does not have any substantial aquifer within its borders and thus the vast majority of water is supplied from more limited water in bedrock fractures.

According to a fact sheet about groundwater, developed by the Massachusetts Department of Environmental Protection's (MassDEP) Northeast Regional Office:

> *Groundwater originates with rain or melted snow that soaks into the ground and seeps downward due to gravity. If contaminants have been disposed on the ground or buried, the water may soak through them and carry contamination down into the groundwater.*

Wastewater discharged underground via septic system leaching fields constitutes "buried" contaminants. Even if that wastewater has been pretreated, contaminants still remain and there is reliance on soil filtering action, biodegradation, and other dynamics (including dilution) taking place to render that water drinkable before it reaches a well. The fact sheet goes on to indicate:

> *The more developed and urbanized an area is, the greater the chance that the groundwater is contaminated …*

This refers to limits on the capacity of the environment to handle our wastewaters. Hence, the protection of drinking water is an essential factor for each residential, commercial, and municipal establishment in Sherborn[4]; all have been required to participate in this responsibility. When assessing this project's "integration with adjoining properties", it is fair to hold it to an equivalent level of responsibility, commensurate with its greater degree of potential impact, as was applied to those adjoining properties.

[3] Other eastern Massachusetts towns without municipal water and sewer may include: Berkley, Berlin, Boxborough, Boxford, Carlisle, Dover (approximately one-third with alternative water supply), Lakeville, and Plympton.
[4] Refer to Sherborn's Master Plan for information regarding the overarching importance of water within the Town due to its limited availability, its vulnerability, and our reliance on it.

December 15, 2022

Sherborn Groundwater Protection Committee - Comments to the Select Board on the proposed Washington Street Homes 40B Development.

Introduction

The site presents major wetland and surface geology concerns.

Bedrock outcrops are visible on the property, as they are on numerous properties nearby and throughout Sherborn. Over most of the property, bedrock is expected to be shallow, with a thin overburden of soil. As discussed below, we have four topics of concerns about whether the local geology and thin overburden soils will support a dense development with 40 new residences, a single septic system and a public water supply well.

1. Septic for 40 Housing Units (70 bedrooms).

We are concerned about the capacity of the soil in the planned septic area to manage all the waste from 40 new residences, which according to Title V, will discharge up to 7,700 gal/day (110 gal/day/bedroom) of septic flow. Concerns include potential migration of septic waste to nearby wetlands, surface water bodies, and the private wells of neighbors. Substantial mounding of the groundwater table could occur within the sewerage infiltration and stormwater management areas, affecting nearby wetlands and water quality at water supply wells on and off the property. Flooding impacts from ever growing future storm events will affect septic systems and water quality. Septic waste management design plans will require rigorous peer review by a professional hired by the Town.

2. Groundwater

We have serious concerns about whether there is sufficient water supply quantity and quality to support this project, and how it will impact the surrounding residences, all of which rely on groundwater as the only water supply. Moreover, increased persistent periods of drought have been occurring, and our area of Massachusetts has been in a level of significant drought frequently over the last several years (2016, 2020, and 2022). This affects groundwater quantity and quality as well.

Please be aware that in the publicly posted MA LIHTC Proposal description for this project it is stated, on page 2, in part:

" … *The property will be serviced by private water and sewer*…" However, at the November 21 site walk, and at various public meetings, the development team has stated that a public water supply well was instead planned. We would strongly recommend that a public water supply well be required for such a sizable resident population.

A public water supply well system is required at 15 or more service connections or regularly serving an average of at least 25 individuals daily as defined in 310 CMR 22.02 (collection, treatment, storage, and distribution defines a system). This proposed project is 40 units in a single building, and yet the initial project summary states that the development will have a private water supply. Proposing multiple (site plan shows 4 wells) private wells to the apartment building appears to be incompatible with the need for a public water supply as regulated under 310 CMR 22.

A public well per MassDEP design requirements, serving a flow of up to 7,700 gal/day, calls for a protective Zone 1 radius of about 233 ft around the well, along with a Zone 2 region of about a 570 ft radius. Given the areas represented by these protective zones, non-permitted Zone 1 structures like the large septic leach field would be problematic as shown by the initial site plan map.

3. **Stormwater**

The large apartment building and associated parking for 70 bedrooms and access roads represent a significant amount of new impervious surface areas.
The topic of future climate change impacts needs to be taken into serious consideration in the design of this project, given the projected much larger storm events with expected larger rain/snow amounts, and higher annual precipitation levels, now published by the MA RMAT state design team for future project planning. The future higher than historical annual and per storm event precipitation levels now predicted as compared to current design standards need to be considered for all the concerns raised by the GPC here on groundwater/septic/stormwater, and on the existing vernal pool on the property that varies in size and depth based on annual precipitation amounts.

The developer should be required to demonstrate that infiltration trenches have the capacity to manage the runoff and have adequate soil to filter expected contaminants from the roof and parking lot, so that the runoff doesn't go directly into the wetlands or into bedrock fractures that may connect to the nearby onsite and offsite water supply wells. There is a concern for water quality from runoff from areas of pavement carrying oil, salt, and other contaminants going directly into the wetlands and groundwater. The stormwater detention basin and trenches as designed have too much connectivity to the wetlands. The detention basin is very proximal to the wetlands which will likely result in overtop flow from the basin directly adjacent to the larger parking lot directly to the wetlands.

4. **Bedrock Management/Blasting**

Any required blasting of bedrock to install foundations and piping to the septic system and other underground utilities would create new fractures in the bedrock. This may result in preferential flow pathways for untreated stormwater and possibly septic waste to flow into the bedrock impacting groundwater quality. Blasting could also impact the hydrology of the nearby wetlands and vernal pool. If new fractures are created in the bedrock, it could reduce the ability of these surface features to retain water and maintain habitat.

January 11, 2023

To: Sherborn Select Board

Subject: Water Commission Comments Regarding Washington Street Homes Proposed 40B Development

Sherborn Water Commissioner's held a public meeting on January 9, 2023. During the meeting we discussed the below comments regarding the Washington Street Homes 40B proposed development.

- The available information including the plan titled Conceptual 40B Washington Street Sherborn Homes dated 10/14/22 and Washington Street LIHTC Description do not include a complete water and sewer design. The final design will be submitted at a later stage in the approval process.

- Since we are unable to comment on the water and wastewater system designs, we instead provide the following recommendations:

    - Water: During the 11/21/22 site walk, it was stated that a public water supply well was planned. This differs from the description in the LIHTC proposal posted on the Town website which states that the property will be serviced by private water. We strongly recommend that the property owner consider developing the water supply wells as a public water supply rather than private. A public water system, according to 310 CMR 22.00 The Massachusetts Drinking Water Regulations, is defined as a system for the provision to the public of water for human consumption…if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. This project is proposed to have 40 units and each will have a service connection.

    - Wastewater: We recommend that the property owner consider a wastewater treatment system that requires professional annual maintenance and testing. The testing would include water quality testing of the leachate/wastewater effluent to ensure the quality is within acceptable design parameters.

From: Sherborn Water Commissioners: Roger Demler, Frank Hess, Tara Hourihan

PLANNING BOARD

19 WASHINGTON STREET
SHERBORN, MASSACHUSETTS 01770

January 17, 2023

Mr. Jeff Waldron, Chair
Sherborn Select Board
19 Washington Street
Sherborn, MA 01770

Re: Comments on Washington Homes 40B project

Dear Mr. Waldron,

The Planning Board discussed the proposed Washington Street Homes project at its meeting of January 3, 2023. We have the following comments:

Positive:

- It will increase our SHI from 48 to 88 bringing us above 5%; It will also qualify Sherborn for 2 years of "safe harbor."
- It will provide housing for those with lower incomes (60% of AMI and 30% of AMI rather than the usual 80% for 40B projects);
- It is a good distance away from abutters, with good screening of natural vegetation in between.
- It is on a state-number highway relatively close to another multi-family development;
- It will preserve much of the site. In its natural state;
- It proposes to incorporate energy conservation and renewable energy.

Negative:

- It is not close (walkable) to public transportation or goods and services,
- It is about a mile to mile and a half from the Sherborn Town Campus and small commercial and institutional center, and about 2 miles to a small commercial center in East Holliston,
- Washington Street has no sidewalks in either direction so regardless of distance walking or biking is hazardous; and
- It is not in character with most of Sherborn.

Thank you for the opportunity to comment.

Sincerely,

Chris Owen

SHERBORN ENERGY & SUSTAINABILITY COMMITTEE

MEMO

TO: Sherborn Select Board

FROM: Michael Lesser on behalf of the Sherborn Energy and Sustainability Committee (ESC)

DATE: January 18, 2023

RE: **Comments on Washington Street Sherborn Homes (affordable housing project)**

It should be noted that these sustainability and energy related comments are applicable to all residential projects in town. In the case of affordable housing, many of the build specifications noted should lead to lower ongoing operating and life-cycle costs and therefore result in better affordability. We recognized that only some of these issues might be appropriate for MA state housing entities whereas all will be appropriate for the comprehensive permit process.

First, we welcome the developer's goal of a deeper level of affordability for many of the units and the project's potential contribution to the region's need for such housing.

Overall, to benefit the future project residents, the Energy and Sustainability Committee strongly recommends the following overlapping conditions (and many of these conditions will also benefit their neighbors and the region). We want to acknowledge that the project developers have expressed their interest in many of these conditions.

- Ensure a Passive House building design to (i) ensure long-term lower life-cycle costs and greater affordability, (ii) achieve higher indoor air quality and (iii) ensure compliance with MA climate action targets for reduced carbon emissions as this design will likely be all-electric.

- Maximize water efficiency and conservation given exclusive use of limited local water resources that are shared by neighbors and the Town as a whole.

- Incorporate programs to lessen the contaminant loading for the septic system, given that the system is large and onsite and relatively proximal to the water source for the project and the neighborhood and to extensive protected wetlands.

- Maximize feasible onsite solar electricity production and battery storage to stabilize the project utility/energy costs and to possibly generate project revenue from exporting any surplus and utility backup incentives.

- Ensure significant electric vehicle charging capacity, which initially should include sufficient wiring so that the cost of EV-charging expansion is lessened as EVs become more common.

Some additional information regarding the above conditions is as follows.

Energy conservation/efficiency:

- **Building design**: One of the highest priorities is buildings that minimize energy consumption and eliminate fossil fuel dependency. Most important are designs that lessen all types of energy use. We also recommend that new-construction houses be all-electric or at least all-electric ready in order to meet our MA climate action goals. By the time of construction initiation, a new more efficient building code should be in place that likely will involve Passive House (PH) standards. Such standards will result in lower lifecycle cost, reduced impact on our electric grid, and lower to no fossil fuel emissions that benefit us as well as the entire ecosystem in myriad ways. This should be financially viable based on current building trends that involve significant use of Passive House designs for affordable housing and the significant utility/Mass Save incentives. The PH standard is a well-vetted performance-based standard.
- **Building materials**: We encourage the use of low environmental impact materials, when reasonable. Examples of this may be locally sourced timber and insulation produced via processes that minimize greenhouse gas emissions.
- **Appliances and Lighting**: At a minimum, Energy Star standards should be incorporated.
- **Heating and cooling**: Space conditioning is the largest energy-requiring component of residences in our climate region. It would be important that these systems are the most efficient that are cost effective given their long life and energy use. This overlaps with sustainability in that this equipment should be heat pumps.

Solar Electricity

- As noted by the developer, the project design should factor in maximizing onsite solar PV electricity production, both on the ground (e.g. parking lot canopies) and rooftop, though we would not want this to come at the expense of additional tree removal.
- Maximizing onsite renewable electricity production can be a source of revenue for the project through the sale of surplus electricity to other customers (and the Town of Sherborn could work with the developers to be such a customer).
- Battery backup/storage should be included as utility incentives are making this financially attractive and can help with a more resilient local electrical grid and avoid fossil-fuel generators. These technologies are fast becoming integrated with solar inverters and even electric vehicle charging stations. As such, these technology synergies should be investigated and employed if readily available and at competitive cost when compared with multiple separate pieces of equipment.
- Battery backup, via upfront wiring preparation, can overlap and be integrated with EV charging stations that support vehicle-to-home (V2H) and vehicle-to-grid (V2G) wiring options as noted below.
- Both battery storage and onsite electric vehicle batteries can be a source of revenue for the project and residents through incentives and payments from the grid operator as this stored electricity can be tapped during peak demand periods.

Water conservation and efficiency:

- All appliances should be at least EPA WaterSense in order to conserve water (and in turn energy) as part of minimizing overall water demands.
- Outside landscape should be designed to minimize irrigation needs, and any irrigation systems should be some subsurface as these have been shown to substantially reduce water consumption, relative to aboveground sprinkler systems.

Electric vehicle (EV) charging:

- EV charging infrastructure should be installed at the time of construction and utilize currently available rapid charging stations for residential homes. Any electrical wiring considerations needed to support vehicle-to-home (V2H) and vehicle-to-grid (V2G) applications should be employed so that these bidirectional electric feeds between EVs and other loads are available either at the time of construction or with minimal retrofitting when this technology becomes available at-scale at a later time. As noted above, such technologies not only stabilize the electric grid and provide power in the event of grid outage, but also can provide a source of revenue for the project through sale of electricity back to the grid.