

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

II. NATURE OF THE APPLICATION & GOVERNING LAW

This application has been filed under M.G.L. c.40B, §§20-23 (the "Act") and the regulations promulgated by the Department of Housing and Community Development ("DHCD"), 760 CMR 56.00 (the "regulations"). Sherborn does not presently meet the Statutory Minima as defined by 760 CMR 56.03(3). As a result, the Town's Zoning Bylaw and other bylaws and regulations may be waived upon a showing that they are not "consistent with local needs" within the meaning of the Act.

The question of whether a particular bylaw or regulation is "consistent with local needs" involves a balancing of (1) the Commonwealth's presumed need for Low and Moderate Income Housing in the Sherborn area and (2) "Local Concerns," which is defined as "the need to protect the health or safety of the occupants of a proposed Project or of the residents of the municipality, to protect the natural environment, to promote better site and building design in relation to the surroundings and municipal and regional planning, or to preserve Open Spaces." 760 CMR 56.02.

III. JURISDICTIONAL ELEMENTS

Pursuant to the Act and the Regulations, 760 CMR 56.04(1), an applicant for a comprehensive permit must fulfill, at a minimum, three jurisdictional requirements to be eligible to submit an application to the ZBA. These are:

The Applicant shall be a public agency, a non-profit organization, or a Limited Dividend Organization;

The Project shall be fundable by a Subsidizing Agency under a Low or Moderate Income Housing subsidy program; and

The Applicant shall control the Property.

Pursuant to 760 CMR 56.04(1), compliance with these project eligibility requirements "shall be established by issuance of a written determination of Project Eligibility by the Subsidizing Agency that contains all the findings required under 760 CMR 56.04(4), based upon its initial review of the Project and the Applicant's qualifications in accordance with 760 CMR 56.04."

The Applicant has submitted into the record a Project Eligibility Letter from MassHousing, dated _____, that contains findings pursuant to 760 CMR 56.04(4). The threshold jurisdictional requirements of 760 CMR 56.04(1) are therefore deemed satisfied.

IV. FINDINGS

1. All Town boards, commissions and departments were notified of the application and the public hearing. The ZBA received written comments from the Board

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

of Health and the Conservation Commission. Members of these boards were in attendance throughout the public hearing and participated extensively. The ZBA considered all of the comments and recommendations of the Town boards, commissions and departments in rendering this Decision, and expresses its thanks for their valuable assistance throughout this process.

2. The ZBA Phil Paradis of BETA Group, Inc. for general civil engineering peer review, and Stephen W. Smith, P.E., P.HGW., L.S.P., of GeoHydroCycle, Inc. for hydrogeological peer review. As discussed in more detail below, the ZBA also received hydrogeological evidence and testimony from James H. Vernon, Ph.D, P.G., Senior Hydrogeologist at Nobis Engineering, Inc. The ZBA also received testimony from Scott Horsley, a hydrologist retained by certain neighbors and abutters to the Project.

3. The Project would occupy approximately six acres of a 17.55-acre parcel of land (Assessor Lots 88B and 88C) that is currently undeveloped and contains fields, forest and wetland areas (the "Project Site"). The Project would involve construction activity within the Natural Heritage and Endangered Species Program (NHESP) Priority and Estimated Mapped Habitat, and within the 100-foot buffer zone to Bordering Vegetated Wetlands.

4. The record title owner of the Project Site is The Fields at Sherborn, LLC.

5. The Project Site is located in the _____ Zoning District. The Project Site is located within an existing residential neighborhood, with preexisting single-family residential houses on all sides.

6. The Project consists of thirty-two (32) single-family, attached residences containing a total of 76 bedrooms. The Property is to remain a single lot subject to the provisions of the Massachusetts Condominium Law, M.G.L. c. 183A. The thirty-two residential units will be owned as condominium units.

A. The Project's Impacts on Wetland Resource Areas

7. On November 17, 2015, the Sherborn Conservation Commission issued a Denial Order of Conditions to the Applicant for the Project, which is pending appeal at the Department of Environmental Protection as of the date of this Decision.

8. Among the findings made by the Conservation Commission in its November 17, 2015 Order are the following:

- a. The Project would disturb 84,245 square feet of the 100-foot buffer zone, and remove approximately 110 mature trees, more than half of which would occur within the southern limits of the Project Site and within the 100 foot buffer zone.
- b. The Project borders a wetland system containing one certified vernal pool as well as vernal pool buffer.
- c. The Project Site drains to a Zone II associated with a public drinking water supply well

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

that services the neighboring town of Holliston.

d. The Project limit of work is partially within an area mapped by NHESP as a Biomap2 Core Habitat, which identifies areas “most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems.”

9. The Commission determined that the Applicant had not met the burden of proof to demonstrate compliance with the performance standards for work in the Buffer Zone to Bordering Vegetated Wetlands under the state Wetlands Protection Act (310 CMR 10.53 (1)). Further, the Commission finds that “[t]he applicant has not submitted sufficient evidence proving that the wetland resources will not be impacted during or post-construction. Such evidence is important due to the number and magnitude of proposed alterations of the buffer zone along with their proximity to the resource area. A direct disturbance of the resource area is not required under the WPA Regulations in order for the Commission to determine that there will be a significant adverse impact to the resource.”

10. The Commission specifically cited concerns with the Project’s impact on drinking water supplies, noting that the wetlands and intermittent stream adjacent to the Project’s limit of work “are part of a larger resource area that is inside a Zone II Wellhead Protection Area” for the Town of Holliston. The Commission also noted that “drinking water supply is particularly important in this area as the project itself will have 11 wells, of which 9 are in the buffer zone. Surrounding residents also depend on private wells.”

11. With respect to the Project stormwater management system, the Commission concluded that the system would “not fully prevent adverse impacts to the surrounding resource areas from hydrologic changes, although the system meets the requirements of the Stormwater Management Standards (as prescribed in 310 CMR 10.05 (6) (k)). Adverse impacts may result from changes in the pattern of stormwater runoff (such as less runoff to the western wetlands) and from the 30% increase in groundwater recharge (separate from the impact of the large septic system effluent as in the next point).”

12. The Commission was also concerned with the impact of the Project’s septic system, which would serve 32 single-family attached homes. Specifically, in a letter to DEP dated January 12, 2016, the Commission stated that “initial analysis of the proposed, but not approved, septic system indicates that its effluent will significantly adversely affect the wetland resources adjacent to the project site as the nitrogen levels of effluent reaching wetlands greatly exceeds their carrying capacity and the area of impacted wetland is large...” Specifically, the Commission noted that “the most universally accepted [nitrogen loading] threshold for the type of wetlands adjacent to the [Project] site is, at its maximum, 35 kgN/hectare/year (Bobbink, Ashmore, Braun, Flückiger, & Van den Wyngaert, 2003).” In a report dated March 5, 2016, Dr. James Vernon of Nobis predicted that the load could be as high as 1600 KgN/hectare/year, assuming that the wetland is hydraulically connected to the groundwater plume from the proposed septic system (which is the Applicant’s operating assumption). See, Nobis Report, p. 17.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

13. The Commission accepted this critical finding and advised the DEP in a memorandum dated March 11, 2016 that it deemed the leaching field's 195-foot setback from the edge of the wetland to be insufficient. "[W]ith highly permeable on-site soils and lack of vegetative uptake or other denitrifying attenuation mechanisms (due to building cover and lack of deep-rooted vegetation in the path of the septic plume), the [195' setback] distance is not sufficient for the volume of discharge and concentration of pollutants/contaminants therein (even after recharge dilution), particularly those pollutants dependent on biological attenuation mechanisms such as nitrate." ConCom Memo, p. 6.

14. The Applicant presented a range of estimates for how much nitrogen the wetland can assimilate (absorb) (20-50 grams per square meter/year). See, Wang letter 12.10.15. The Commission took exception to this assumption, noting that it lacks foundation. See, ConCom letter to DEP 1.12.16, pp. 5-6. The Applicant calculated that this range would equate to a capacity of 374 - 936 lbs/year for the 0.64 acre wetland that is downgradient from the septic system. The Commission disputed this calculation. Id., p. 6. Since the septic system is projected to generate 894 pounds of Nitrogen per year, even the Applicant's incorrect conservative assimilative capacity assumption (375 lbs/year) will be exceeded by the Project. Furthermore, even the least conservative incorrect assumption (936 lbs/year) will likely be exceeded when all of the other sources of Nitrogen contributing to the overall Nitrogen load to the wetland are considered, including other septic systems in the area, surface runoff from other properties, and direct precipitation, which recent studies have shown contain measurable concentrations of Nitrogen.

15. The Board finds that the Commission's concerns with the Project's impacts on the wetland resource areas are justified and warrant a denial of the Applicant's requested waivers from the Sherborn Wetland Bylaw and regulations.

B. The Septic System's Impacts on Wells

16. According to Dr. Vernon, the geology of the Project Site and its vicinity is characterized by a sandy "overburden" layer of soils "probably at least 25' deep" from the surface, followed by a bedrock layer consisting of "biotite granite of pre-Cambrian age." Nobis Report, p. 4. Groundwater occurs in both fractured bedrock and in the overburden, but the Project's proposed drinking water wells, and the wells of existing abutters and neighbors, are so-called "bedrock wells," meaning they pull water from the bedrock aquifer, and not from the overburden aquifer.

17. In an attempt to characterize the impacts of the Project's septic system on on-site and off-site drinking water wells, the Applicant created a groundwater contour map of the overburden on the Project Site. Groundwater flows in a direction that is perpendicular to groundwater contours that are plotted on a map. Groundwater contours are lines showing the changes in elevation of the groundwater aquifer, similar to surface topographical contours. Groundwater contours are derived by taking groundwater elevation measurements in test pits or wells.

18. Dr. Vernon noted several problems with the Applicant's groundwater contour mapping, and its resulting "area of impact" ("AOI") that purports to delineate the flow direction of the wastewater plume from the proposed septic system. First and perhaps most fundamentally, the

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

Applicant denied Nobis access to site, requiring Nobis to rely solely on data provided by Applicant. Nobis Report, p. 3. Second, the Applicant changed well locations and groundwater mapping three times since its October, 2015 presentation of data and analyses, requiring re-calculations and repeated revisions to analysis. Nobis Report, p. 3. Third, Dr. Vernon also identified “[s]ignificant lot line discrepancies between various site maps and local tax maps.” Nobis Report, p. 4. Fourth, no construction logs for the monitoring wells were provided by the Applicant; Dr. Vernon noted that since the wells were within test-pit sites, they would not be as reliable as “screened and developed monitoring wells,” and that “well construction affects consistency and accuracy of water level measurements.” Nobis Report, p. 6, 7. Dr. Vernon further noted that monitoring well depths were unknown, and two wells were mislabeled in the field (DHT 2-1, 2-3). Nobis Report, p. 7. Further, groundwater elevations for wells STP-5 and STP-7 were labelled incorrectly until the Applicant’s January submission, and “water levels at some wells, and at locations where there are no wells, were estimated and then treated as data points suitable for contouring... Such estimates are [] vulnerable to manipulation in order to achieve a desired map interpretation.” Nobis Report, p. 8. Given these concerns with the accuracy of groundwater elevation data, Dr. Vernon warned that “extreme caution is needed in evaluating predicted groundwater flow direction” for the Project. Nobis Report, p. 8.

19. Dr. Vernon observed that groundwater contour mapping is somewhat subjective, dependent on interpretations made by hydrogeologists. Nobis Report, p. 7. He also advised that there was insufficient water level data to contour groundwater in all parts of the Project Site, or on abutting properties. Nobis Report, p. 21. Specifically, he noted that the hydrology and hydraulics of the “impacted wetland” BVW area should be studied in order to determine the likely fate of impacted groundwater from the septic system, and that it was unknown whether the “impacted wetland” is perched, or hydraulically connected to the overburden flow. Nobis Report, p. 12. The absence of wells with groundwater level data south of the wetland hindered this evaluation. Nobis Report, p. 19.

20. Scott Horsley, a hydrologist retained by the neighbors, also observed that that Applicant did not have any groundwater elevation data along the Project Site’s western property boundary, adjacent to the combined septic system leaching field serving all 32 units of housing. The closest abutter to the septic system, Eugene Ham, has a drinking water well that is approximately 125 feet from the leaching field. Horsley Letter 2.29.16, p. 2.

21. In the absence of groundwater data in this location, Mr. Horsley considered a groundwater contour map developed by an engineering firm retained by the Town, Woodard and Curran in 2003, as well as groundwater elevation data collected in the location of Mr. Ham’s septic system when it was installed in 1986. Mr. Horsley concluded and opined that wastewater from the septic system would likely flow southerly and southwesterly, not just southerly as predicted by the Applicant, and therefore would threaten Mr. Ham’s well.

22. Mr. Horsley also calculated a predicted Nitrogen concentration at the protective radius (100’) around Mr. Ham’s well, using the “mass balance” analysis methodology proscribed by MassDEP in its *Guidelines for Title 5 Aggregation of Flows and Nitrogen Loading*. Mr. Horsley concluded that the Nitrogen concentration in the overburden in the location of the Ham well protective area would be 31 mg/l, more than three times the maximum concentration for public safety under the state’s drinking water laws.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

23. The AOI analysis performed by the Applicant, even if accurate, has a significant shortcoming in that it only predicts the direction of groundwater flow in the overburden (above the bedrock). Dr. Vernon summarized this problem succinctly in his report, on page 22:

Even if overburden groundwater with elevated nitrates is found not to flow to the locations of existing or proposed wells, the wells still may be impacted by the proposed septic system. This is because the wells obtain their water from bedrock fractures and only indirectly from overburden. If sandy overburden beneath the Site lies directly on fractured bedrock, there is a significant risk that impacted groundwater from the proposed septic disposal systems or the AOI could enter a fracture or fracture zone, and this could result in elevated nitrates and other constituents in the well water. Wells that are located in a direction from the proposed septic disposal systems or AOI that coincides with the most common fracture directions may be at greater risk. Thus, wells located east, west, northeast, southwest, north or south of the proposed septic systems or AOIs may be at greater risk than those located in other directions.

24. Dr. Vernon noted that the presence of glacial till between the overburden and bedrock, which could impede the flow of wastewater from the overburden to the bedrock aquifer, is unknown without further testing and data collection. Nobis Report, pp. 4, 6. In general, the “degree of hydraulic connection between overburden and bedrock at the site is not known.” Nobis Report, p. 6. According to Dr. Vernon, this information is “crucial to determining” whether the septic system’s wastewater will impact bedrock wells. Nobis Report, p. 12-13.

25. As part of his hydrogeologic evaluation, Dr. Vernon studied the potential orientation of groundwater in the bedrock, based on existing fractures that are visible from aerial photography and outcrops. Dr. Vernon observed that the most common existing fractures in outcrop are “east/west striking,” and that as such, “sensitive receptors that occur to the east, west, northeast, and southwest [of the septic systems and their AOI] are more likely to be impacted by the septic system discharges than those that lie in other directions.” Nobis Report, p. 11. The Ham well is situated due west of the septic system. Dr. Vernon also advised that when wells are pumped, the process of impacted groundwater moving from the overburden into the bedrock fractures “is accelerated.” Nobis Report, p. 12.

26. Dr. Vernon also advised that given the Applicant’s proposal to cluster all of the Project’s drinking water wells so close to one another along the eastern property boundary, “it is likely that some interference between proposed wells and/or between proposed wells and existing wells will occur.” Nobis Report, p. 13.

27. The Board finds that the testimony of Dr. Vernon, both in his report and at the Board’s public hearing on March 7, 2016, combined with the absence of critical data and analysis on the connectivity of the overburden and bedrock aquifers, require an extremely conservative approach to the siting of septic systems and wells on the Project Site. To fully understand the impacts from the septic system, the Applicant would have had to provide data, for peer review and analysis, that indicates where and how quickly groundwater moves through the overburden into the bedrock, in what direction groundwater flows through bedrock fractures, and

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

how quickly groundwater moves through bedrock fractures. The information was not presented to the Board and the Applicant demanded that the public hearing be closed without any further extensions or hydrogeological analysis.

28. The Board of Health's "environmental impact statement" regulation, §8.0.2, requires for a project of this size hydrogeological evaluations that "shall include determination of geologic stratigraphy, determination of ground water flow directions, determination of minimum groundwater elevation when relevant, evaluation of water table mounding, and prediction of down-gradient water quality impacts..."

29. Dr. Vernon advised the Board that "if additional information is gathered (e. g. water level measurements from more closely-spaced, screened, and developed monitoring wells), groundwater contours, groundwater flow directions, and whether or not groundwater with high nitrate concentration is likely to discharge to a wetland or proposed well location may be predicted with a greater level of confidence than is now possible."

30. The Applicant refused to provide virus "time-of-travel" calculations to determine the threat of contamination from the septic system to proximate drinking water wells, despite being on notice of this request from the Board's peer reviewer for months.

31. The Board finds the presentation of evidence by the Applicant to be insufficient to justify waivers from the Board of Health and Conservation Commission regulations that would provide greater protection and a greater margin of safety and wetland protection. The Board's finding are supported by the fact that both the Board of Health and the Conservation Commission have denied permits for the Project under state law, which is generally less-protective of environmental concerns than Sherborn's bylaws and regulations.

32. The Applicant proposes that the Project's septic system will have a 110 gallon per day, per bedroom design flow, for a total flow of 8,360 gallons per day (76 bedrooms). The Board of Health's sewage disposal regulations require that "all single family dwellings shall be designed for a minimum of three bedrooms." See, §7.1. If the septic system was designed with the assumption that all 32 units have three bedrooms each, the total number of bedrooms in the Project would be 96, and the total design flow for the septic system would be 10,560.

33. Section 1.4 of the sewage disposal regulations requires that all septic systems comply with Title 5 of the State Environmental Code. Under Title 5, any system that exceeds 10,000 gallons per day is not governed by Title 5 but rather through the Groundwater Discharge Permit Program, 310 CMR 5.00, et seq., requiring enhanced treatment of wastewater before it is released into the ground. See, 310 CMR 15.006.

34. Further, under Title 5, no septic system serving new construction in areas where the use of both on-site septic systems and on-site drinking water wells "shall be designed to receive or shall receive more than 440 gallons per day, per acre, unless (i) an "aggregation plan" is proposed, through which the applicant places development restrictions on other "credit land" outside the project site itself, or (ii) an enhanced nitrogen removal system is proposed. See, 310 CMR 15.214(2).

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

35. The Applicant has acknowledged the applicability of Section 15.214(2) – in its December 11, 2015 “project details update” memorandum, the Applicant contended that with 76 units, its design flow falls just below the 440 gpd/acre limitation. The Applicant’s calculation of the threshold assumes that the development parcel is 764,478 square feet (the equivalent of 19.11 “Title 5 acres”). This area, multiplied by 440, yields a maximum design flow of 8,408.40 gallons per day. If the design flow of the Project is calculated based upon 76 bedrooms, the Project would fall just barely below the 8,408.40 gpd design flow cap under Section 15.214(2). However, when applying Sherborn’s design flow regulation and the number of bedrooms is increased, the design flow is commensurately increased to either 10,899, well over the 8,408.4 gpd cap for the Project Site. The Applicant has not proposed an “aggregation plan” or an enhanced nitrogen removal system.

36. The Board finds that the Board of Health’s enhanced 175-foot setback requirement between septic systems and downgradient wells on property with rapid infiltration rates should be applied to protect abutters’ wells. The Board further finds that for this Project to proceed forward, the Applicant will have to implement Dr. Vernon’s recommendations for further hydrogeologic studies and analyses, to ensure that the septic system will not contaminate the Project’s own wells, and the wells of the neighbors and abutters.

37. The Applicant's plans have consistently shown, and the Applicant has so declared, that a large area in the south and southwestern portion of the Project Site is and shall remain undisturbed as open space. Therefore, the Board finds that all of land delineated by the “activity barrier” boundary on the Project site plans shall remain undisturbed.

C. The Project’s Stormwater Infiltration System’s Impacts on Wells

38. The Applicant’s latest revised plans show that their drinking water wells have been re-positioned directly downgradient of their proposed sub-surface stormwater infiltration system. The Applicant’s Groundwater Contour Plan prepared by Bruce Saluk & Associates (dated January 29, 2016) shows this stormwater system, the water table conditions and groundwater flow directions in the area, and indicates that groundwater mounding is expected in the area of the stormwater infiltration system with radial flow to the southeast, south, and southwest, in the direction of the Project’s wells.

39. Mr. Horsley testified that stormwater runoff from roads and parking areas contains a broad range of pollutants including pathogens (bacteria and viruses), nutrients, metals, and hydrocarbons (petroleum, oils, transmission fluids, and gasoline derivatives). In addition to these pollutants, de-icing chemicals such as road salts pose a serious risk to the drinking water wells.

40. Mr. Horsley cited a scientific journal article, *Groundwater Contamination Potential From Stormwater Infiltration Practices*, UrbanWater 1 (1999) 217-236, that found that sodium concentrations as high as 800 mg/liter can be found in winter and spring runoff due to the use of road salts. The drinking water standard for sodium is 20 mg/liter.

41. The proposed stormwater infiltration system is designed to collect the stormwater runoff from the entire roadway and associated parking and driveways and to dispose of the stormwater using recharge chambers that will be constructed below the organic soil layer where little or no treatment or attenuation of pollutants can be expected. Most of the area within the AOI of the

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

stormwater infiltration system will be covered with impervious surfaces (roofs, driveways, walkways, parking areas and roads) affording little recharge to dilute the stormwater along its short flow path to the proposed drinking water wells directly downgradient.

42. Under Section 6.0(g) of Sherborn's Water Supply Regulations, the minimum offset of 175' between leaching areas and downgradient wells located in areas with soil percolation rates may be increased when "adverse conditions exist." The Board finds Mr. Horsley's testimony credible and requires that the ground surface above the AOI for the Project's stormwater infiltration system be pervious to enable natural recharge of precipitation and dilution of contaminated runoff, and that the infiltration system be set back a minimum of 400 feet from any drinking water well, to afford an added measure of protection given the uncertainties with the hydraulic connectivity of overburden and bedrock aquifers, and the direction and rate of groundwater flow in the bedrock aquifer.

D. Protection of the Project's Wells as a "Public Water System"

43. The DEP defines "public water system" as follows:

a system for the provision to the public of water for human consumption, through pipes or other constructed conveyances, 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 ...The Department may presume that a system is a public water system as defined herein based on the average number of persons using a facility served by the system or on the number of bedrooms in a residential home or facility. The Department reserves the right to evaluate and determine whether two or more wells located on commonly owned property, that individually may serve less than 25 people, but collectively serve more than 25 people for more than 60 days of the year should not be regulated as a public water system, taking into account the risk to public health.

310 CMR 22.02.

44. The designation of the water supply as a public water supply would require the Applicant to undertake the following in order to obtain source approval and to protect the groundwater supply and the quality of the drinking water:

- i. Satisfactorily comply with the DEP Drinking Water Program's "Guidelines and Policies for Public Water Systems," as amended;
- ii. Demonstrate that the source of water supply will achieve all applicable water quality standards set forth in the Massachusetts Drinking Water Regulations, 310 CMR 22.00;
- iii. Own or control the Zone I of the wellhead¹;

^{1/} Zone I means "the protective radius required around a public water supply well or wellfield. For public water

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

- iv. Demonstrate that the current and/or future land uses within the Zone I are limited to those directly related to the provision of public drinking water or will have no significant adverse impact on water quality;
- v. Annually survey the land uses within the Zone I for each well and wellfield under its control;
- vi. Comply with reporting requirements if a use is identified in the Zone I that would adversely impact water quality;
- vii. Follow the Ground Water Rule contained in 310 CMR 22.26 and comply with its treatment, monitoring and reporting requirements; and
- viii. Observe the groundwater monitoring and treatment requirements for water quality contained in 310 CMR 22.00.

310 CMR 22.21(1)(b), (3)(a), (3)(b), and 22.26. In addition, unless a variance is granted, no septic system may be sited within a Zone I of a public water supply well. 310 CMR 15.211(2).

45. Based on the DEP's regulatory definition and the number of individuals expected to reside at the Project, it is presumptively a "public water system." On December 4, 2015, DEP determined that Chapter 40B project in Carlisle involving 20 detached single-family homes proposed to be served by eleven inter-connected water supply wells would be regulated as a "public water system." The Carlisle project is materially and substantially the same as this Project for purposes of public water system regulations.

46. The Applicant has designed the Project with nine (9) shared private drinking water wells intended to serve the 32 condominium units. The minimum Zone I protective radius around a public water system well is 100 feet. All but one of the wells are all located along the eastern property boundary of the Project Site, and consequently the Applicant does not "own or control" the Zone I areas for all but one of the wells.

47. Based on the number and layout of the proposed dwellings, and the limited land area available for development (unrestricted by Mass Wildlife) on the Project Site, the Applicant has left itself no room to provide the "Zone I" required of public water systems. As a result, the Applicant has been pursuing this Project at risk; it cannot be built as designed unless the

system wells with approved yields of 100,000 GPD or greater, the protective radius is 400 feet. Tubular wellfields require a 250-foot protective radius. Protective radii for all other public water system wells are determined by the following equation: Zone I radius in feet = $(150 \times \log \text{ of pumping rate in GPD}) - 350$. This equation is equivalent to the chart in the Guidelines and Policies for Public Water Systems. A default Zone I radius or a Zone I radius otherwise computed and determined by the Department shall be applied to transient non-community (TNC) and non-transient non-community (NTNC) wells when there is no metered rate of withdrawal or no approved pumping rate. In no case shall the Zone I radius be less than 100 feet." 310 CMR 22.02.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

Applicant obtains an exception from DEP that its drinking water system "should not be regulated as a public water system, taking into account the risk to public health." 310 CMR 22.02.

48. In addition, given that the Applicant is proposing to build out the Project to the greatest extent feasible, it is not obvious that there is any space within the Project to relocate a failed well, much less nine failed wells. There is no feasible way to relocate multiple wells within the condominium open space (which includes all of the Project other than the individual unit's footprints) without significantly impacting some of the other unit owners and the Project's infrastructure. It is not realistic to assume that any subset of unit owners could relocate their well within this Project without any veto control by a larger entity such as a condo association.

49. The Board finds that this Project is, by definition, a public water system, that the Applicant should have designed the Project as a public water system from the outset, and that having failed to do so, the Applicant should redesign the Project as a public water system prior to construction and occupancy. Moreover, the Board finds that this is not the kind of project that should be provided an exception under 310 CMR 22.02, given the well-documented uncertainties with the hydraulic connectivity of the overburden and bedrock aquifers, the rate and direction of groundwater flow in the bedrock aquifer, and the unique public health threat posed by the Project's 32-unit septic system and stormwater infiltration system on the Project's wells.

50. Sherborn has no public water supply or municipal sewer system to serve as a backup should the wells on or abutting the Project Site fail or become contaminated. Therefore, the Board finds that the Applicant cannot be allowed to avoid both the regulatory protections that DEP imposes on a public water system, and the local environmental protections that the Town imposes to protect wells from septic systems and from each other. Based on the testimony evidence received, the Board finds that the Applicant's proposed private water supply system and wastewater disposal system together pose a threat to the quantity and quality of the water in the on-site and abutting wells.

51. The Board is mindful of its role as the permit granting authority under Chapter 40B, and has purposely avoided any attempt to "redesign" the Project for the Applicant. However, the Applicant has steadfastly refused to modify its plans so as to avoid the potential and likely impacts identified by the expert hydrologists that have provided competent testimony and evidence during this hearing. As a result, the ZBA finds that the Project may only be approved subject to the local septic, well and wetland regulations that the Applicant had sought waivers from, and subject to certain conditions of approval that are essential to adequately safeguard the public health, safety and environment.

52. In particular, the Board must require compliance with the Sherborn Sewage Disposal Regulations, Section 10.1 mandating a setback of 175 feet between the septic system's leaching field and the well on the property abutting the Project Site to the west (Eugene Ham); Section 7.1 mandating that each residential unit be treated as a three-bedroom unit for septic design flow purposes; and Section 8.0(2) and 8.0(3), mandating a depth of at least five feet or pervious material in natural soil below the bottom of the leaching field and a maximum of two feet of cover above the leaching field. The Project must also comply with the provisions of Sherborn's Water Supply Regulations governing water quality standards and testing protocols,

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

and the Board of Health's recommended conditions set forth in its March 7, 2016 memorandum to the Board.

E. Density

53. Most if not all of the public health, safety and environmental concerns presented by the 32-unit Project could be mitigated by a reduction in the number of residential units. Sherborn two-acre minimum lot size requirement was upheld by the Appeals Court as legitimately necessary to protect the public health. The Board finds that unless the Applicant can prove that the Project's wells and the wells of the neighbors and abutters will not be impacted by the septic system and the stormwater infiltration system, the Applicant must reduce the density of the Project, which will consequently reduce the volume of contaminated wastewater and stormwater that enters the overburden and bedrock aquifers. **The Board finds that giving a partial waiver of Sherborn's minimum lot size requirement, allowing up to one unit per acre rather than one unit per two acres, strikes a reasonable balance between the need to protect the public water supplies and our wetland resource areas, and the need to increase our affordable housing inventory.**

54. The Board finds that the Applicant's proposed setback of 24 feet between buildings and property boundaries are aggressive, insensitive to abutters, and uncharacteristic of the semi-rural nature of Sherborn's neighborhoods. Sherborn has a 40' side yard setback requirement in the underlying zoning district, which only permits single-family homes, not the multi-family dwellings that are proposed here. Given the extreme density proposed here, the Board does not find it unreasonably to enforce the 40' side yard setback requirement for this Project, requiring all buildings (and any projecting decks and patios) to be set back at least 40 feet from the perimeter of the Project Site.

V. CONDITIONS

For the foregoing reasons, the Board grants the Application of Fields at Sherborn, LLC for a comprehensive permit under M.G.L. c.40B, §§20- 23, subject to the following conditions.

The Project:

1. The Project shall be constructed in accordance with the following plans, subject to all revisions specifically provided for in these Conditions of Approval:

[itemize current set of plans, with plan sheets]

(the "Approved Plans").

A. Pre-Construction Submissions:

- A.1 Prior to commencement of any site clearing or construction (whether pursuant to a building permit or otherwise), the Applicant shall submit to the ZBA

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

and the Building Commissioner the following construction-level plans and calculations (the "Proposed Final Plans") for the Project. Said Proposed Final Plans shall include plans for the roadway and related infrastructure, stormwater management facilities, the approved septic systems, the approved water supply wells, and architectural plans, including the final architectural drawings for the units to be constructed that are materially consistent with the conditions of this Decision, providing a scaled depiction of the front, rear and side elevations with accompanying specification sheets for all exterior lighting fixtures, stamped and signed by a Registered Architect or Professional Engineer, as appropriate, licensed in the Commonwealth of Massachusetts.

Said Proposed Final Plans shall be substantially in accordance with the Approved Plans except that they shall be updated in accordance with the requirements of this Decision. Along with this set of Proposed Final Plans, the Applicant shall submit a list, prepared and stamped by the Applicant's Design engineer, of the specific changes made to the Approved Plans to conform to the requirements of this Decision.

The Building Commissioner shall review the Proposed Final Plans and the list of changes to ensure that they are consistent with and in conformity with this Decision. Upon the Building Commissioner's positive finding, the ZBA shall endorse the Proposed Final Approved Plans, which shall thereupon constitute the Final Plans for the Project.

In the event that the Building Commissioner determines that the Applicant's Proposed Final Approved Plans, or its construction drawings submitted with its building permit application(s) materially deviate from the Approved Plans and/or do not conform to the requirements of this Decision, the Building Commissioner shall notify the Applicant of the specific deviation(s) or the manner in which they do not conform, and the Applicant shall thereafter bring the plans into compliance or seek a modification of this Decision in accordance with 760 CMR 56.05(11). In the event of a disagreement between the Building Commissioner and the Applicant with respect thereto, they shall notify the ZBA, which shall thereupon determine whether the Proposed Final Plans and/or building permit construction drawings, do conform to this Decision. Should the ZBA determine that the plans conform, the ZBA shall endorse them; otherwise, the Applicant shall follow the procedures set forth in 760 CMR 56.05(11). If the ZBA determines that Applicant's Proposed Final Approved Plans should be peer reviewed, the cost of said review shall be borne by the Applicant.

A.2 This Decision shall be noted on the Final Plans and both this Decision and the Final Plans shall be recorded at the Middlesex Registry of Deeds. The Applicant shall provide the ZBA with proof of recording prior to issuance of a building permit.

A.3 The Applicant shall maintain a copy of the Final Plans and this Decision

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

at the Property during construction.

A.4 The Building Department shall not issue a building permit until it has been determined that the Final Plans are in compliance with this Decision.

A.5 No construction activity shall occur on the Project, and no building permit shall be issued, until the Applicant shall have:

- a. Obtained Final Approval from its Subsidizing Agency and provided a copy of such approval to the ZBA and to the Building Commissioner. The Applicant shall submit the Final Approval Application to the ZBA for review at the time of submission to the Subsidizing Agency.
- b. Executed and recorded the standard form Regulatory Agreement, and provided evidence of same to the ZBA and the Building Commissioner. The Regulatory Agreement shall be subject to review and approval, as to form and consistency with this Decision, by Town Counsel prior to execution, such approval not to be unreasonably withheld.
- c. Obtained DEP approval of a public water system under 310 CMR 22.02, or obtained an exception from that regulation from DEP, and following all appeals.
- d. Obtained an Order of Conditions from the Sherborn Conservation Commission or DEP permitting the construction of the Project.
- e. Obtained a Disposal Works Construction Permit from the Sherborn Board of Health under Title 5 of the State Environmental Code.
- f. Obtained National Pollutant Discharge Elimination System ("NPDES") storm water permit for the Project, if applicable.
- g. Submitted to the ZBA and the Building Commissioner a Construction Management Plan (CMP), as well as a Construction Management Schedule (CMS), that generally conforms to industry standard practice and addresses all construction-related conditions specifically set forth in this Decision. Additional copies of the proposed CMP shall be provided to the Planning Board, Board of Health, Conservation Commission, DPW, Fire Chief and Police Chief. The CMP shall include:
 - i. Construction phasing plan, which shall include a construction schedule in order to provide guidance and facilitate inspections. Such construction schedule shall, at a minimum, be revised quarterly to reflect work completed and changes in construction timing.
 - ii. Trucking Plan, which shall specify (i) planned truck routes (ii) estimated volumes of any imported and exported materials (iii) estimated truck trips and (iv) construction period mitigation measures consistent with the conditions stated herein, including without limitation details and locations of crushed stone

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

entrance pads, street sweeping protocols and dust control measures to be implemented on the Property.

iii. Construction administration (hours of construction, hours of deliveries, trash and debris removal).

iv. Communication (designated contacts on site).

v. Noise and Dust Control (tree removal, public street cleaning and repair, dust, noise, rock crushing).

vi. Blasting.

vii. Erosion Control (silt sacks, hay bales, silt fences, etc., tree protection plan, drainage infrastructure).

viii. Identification of existing underground utilities.

ix. Construction staging (staging areas, trailer locations, open storage areas, truck holding locations, re-fueling areas).

x. Traffic and parking during construction (on-site locations, snow removal, warning signs, police details).

xi. Fire and Emergency (timing and testing of cistern installation).

The CMP shall be subject to review and approval by the ZBA for consistency with this Decision and generally accepted construction practices.

- h. Properly marked the limits of the area that is to remain undeveloped, as shown on the Approved Plans. No construction or site development activity, including clearing, shall occur within such area. Before initiating site development activities, the Applicant shall obtain the Building Commissioner's confirmation that the flags are properly located.

A.6 The Applicant shall submit a Stormwater Pollution Prevention Plan to the ZBA and the Conservation Commission at least 30 days prior to construction.

B. Site Development Construction Conditions:

B.1 Construction activities on-site shall only occur between 7:00 AM and 5:00 PM Monday through Friday and between 9:00 AM and 3:00 PM on Saturday. For the purposes of this condition, "construction activities" shall be defined to include start-up or operation of equipment or machinery, delivery of building materials and supplies, removal of trees, grubbing, clearing, grading, filing, excavating, import or export of such materials, installation of utilities both on and off the Property, demolition of existing structures, removal of stumps and debris, the erection of new structures, and the

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

installation of new infrastructure including roads.

B.2 The Applicant shall ensure safe and convenient vehicular access to the Property during construction at the Project.

B.3 The Applicant shall ensure that nuisance conditions do not exist at the Property during construction. The Applicant shall at all times use all reasonable means to minimize inconvenience to residents in the general area of the Property.

B.4 The Applicant shall be responsible for mitigating all construction-related impacts, including erosion, siltation and dust control.

B.5 The Applicant shall implement dust control operations as necessary to comply at all times with applicable law, including without limitation DEP's Dust regulations at 310 CMR 7.09, as amended, and all applicable air pollution standards as set forth by Federal and State regulatory agencies. The Applicant shall further implement such dust control measures as directed by the Building Commissioner.

B.6 The Applicant shall regularly remove construction trash and debris from the Property in accordance with good construction practice, and dumpsters shall be emptied when full. Dumpsters shall be located outside of the 100 foot buffer zone and closed at the end of the day and during rain events. No tree stumps, demolition material, trash or debris shall be burned or buried on the Property. Localized burial of stones and/or boulders is prohibited to prevent the creation of voids from soil settlement over time.

B.7 The Construction Trailer and portable toilets shall be located outside of the 100 foot buffer zone.

B.8 All potential safety hazards that may exist on the Property during the period of construction shall be adequately secured prior to the end of each workday.

B.9 Only earth products that are intended for use on the Property shall be delivered to the Property. No earth shall be stripped or excavated and removed from the Property except in connection with road, infrastructure or permitted construction activities. No earth processing operations shall occur on the Property, unless the earth products are to be combined and/or mixed for use on the Property. All piles of stockpiled earth shall be stabilized with adequate dust and erosion controls. All piles of stockpiled earth shall be removed from the Property upon completion of construction of roads and infrastructure. Stockpiling areas shall be located in a safe place as far from Washington Street and neighboring properties as practicable, and visually screened to the extent practicable. Stockpiling of materials within 400' of Washington Street shall be minimized and stockpiling of materials greater than 100 cubic yards within 400' of Washington Street for more than 60 days shall be prohibited.

B.10 A licensed blasting professional shall perform any necessary blasting on the Property after proper pre-blast inspections have been conducted and all required permits have been obtained from the Sherborn Fire Department. Pursuant to M.G.L. c.148, §19, before issuance of a permit to use an explosive in the blasting of rock or any other substance as prescribed by the State Fire Marshall at the Property, the applicant for the permit shall file with the Sherborn Town Clerk a bond running to the Town, with sureties

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

approved by the Treasurer of the Town, in the penal sum as the officer granting the permit shall determine in accordance with M.G.L. c.148, §19 to be necessary in order to cover the risk of damage that might ensue from the blasting or its keeping therefor.

B.11 The Applicant shall implement measures to ensure that noise from project construction activities does not exceed acceptable levels, as set forth by Federal and State regulatory agencies, including without limitation DEP's noise regulations at 310 CMR 7.10, as amended, and DEP's DAQC Noise Policy No. 90-001 (2/1/90), as amended, and shall further implement noise and vibration control measures as directed by the Building Commissioner. The Applicant shall implement necessary controls to ensure that vibration does not create a nuisance or hazard beyond the subject Property. The Applicant shall cease any noise that does not comply with applicable regulations when directed by the Building Commissioner to comply therewith.

B.12 The Applicant is responsible for the sweeping, removal of snow and sanding of the internal roadways and driveways permitting access to residents, emergency vehicles, and others during construction and until the Condominium Association has been legally established and has assumed responsibility for same.

B.13 The Applicant shall maintain all portions of any public road used for construction access free of soil, mud or debris deposited due to use by construction vehicles associated with the Project.

B.14 The Applicant shall repair in a timely manner any damage to public roads adjacent to the Project that results from the construction and/or maintenance of the Project.

B.15 Soil material to be used as backfill for pipes, roads, and/or structures (*i.e.* detention basins) shall be certified by the Design Engineer to the Building Commissioner as meeting design specifications.

B.16 The Applicant shall notify the relevant Town department of installation of utilities and infrastructure for inspections prior to backfilling.

B.17 The Applicant shall comply with any Order of Conditions issued with respect to the Project.

B.18 No disturbed areas shall be left in an open, unstabilized condition longer than 30 days. Temporary stabilization shall be accomplished by loaming and seeding exposed areas in accordance with the landscaping plans.

B.19 All construction vehicles and all vehicles associated with those working on the Property shall be parked entirely within the Property and outside of the 100 foot buffer zone. No construction vehicles and no vehicles associated with those working on the Property shall park on Washington Street, and the Applicant shall not cause congestion on the abutting public ways due to construction activities.

B.20 Upon issuance of this Decision, the Applicant may install and maintain signage at the Project during site preparation and construction. Such signage may include one

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

(1) single-sided, non-illuminated construction sign, the dimensions of which shall be not more than four (4) feet by eight (8) feet each, providing customary notice of Project lenders, sponsors and team. The signs shall be located on the Project, not in the Town's right of way for Washington Street.

B.21 Construction, once commenced, shall progress through to completion as continuously and expeditiously as possible and substantially in accordance with the construction sequence and timetable approved by the ZBA during review of the CMP.

B.22 The Applicant shall submit to the ZBA an updated construction and permitting schedule semi-annually to assist in project status update and review.

B.23 The Building Department, its appointed agents and the Town's permitting boards may conduct periodic inspections during the construction of the Project to ensure compliance with this Decision, the Final Plans, and the State Building Code, and for consistency with generally-accepted construction and engineering practices for the installation of roadways, stormwater management facilities, utilities, and other common development infrastructure.

B.24 The Conservation Commission and Building Commissioner shall have the authority to review and approve all erosion control measures. Additional erosion control material shall be stockpiled on site.

Traffic, Fire, and Public Safety:

C.1 All utilities, including but not limited to electric, cable and telephone shall be located underground.

C.2 Traffic signage shall be consistent with the requirements of the current edition of the Manual for Uniform Traffic Control Devices (MUTCD). In addition, the Applicant shall install traffic signs wherever they are deemed necessary and appropriate by the Department of Public Works and MassHighway, and shall bear the cost of all such signage and installation.

C.3 All roadway design standards and requirements of the Planning Board's Subdivision Rules and Regulations shall be fully complied with, except for those specific waivers granted in this Decision. The Final Plans shall indicate that roadway construction materials and thicknesses conform to the standards set forth in the Subdivision Rules and Regulations.

C.4 There shall be no overnight parking within the private roadway at any time. Such prohibition shall be clearly marked with signs approved by the Police Department. Pursuant to M.G.L. c.90, §18, this Comprehensive Permit authorizes the Town of Sherborn, through its Police Chief, to enforce this condition. This condition shall be incorporated into the condominium documents.

C.5 No vehicles may be parked in any unit driveway so as to encroach on the road. Pursuant to M.G.L. c.90, §18, this Comprehensive Permit authorizes the Town of Sherborn, through its Police Chief, to enforce this condition. This condition shall be

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

incorporated into the condominium documents.

C.6 Guest parking shall be limited to the four (4) parking spaces, in two separate locations (containing one guest space and three guest spaces, respectively), designated on the Approved Plans. Parking by residents in the guest spaces for extended and continuous periods is prohibited.

C.7 A fire cistern sized to provide _____ gallons available for draft and an appropriate paved "bump out" shall be provided at the location shown on the Approved Plans; provided that the paved "bump out" shall be subject to any necessary authorization from the Town, which the Applicant shall pursue in good faith. The Fire Chief shall review and approve the final design and size of the cistern prior to installation. A dedicated well to be used exclusively for the purpose of refilling the cistern shall be provided by the Applicant adjacent to the fire cistern, subject to approval by the Board of Health. A pre-construction meeting with the Fire Department, the Applicant, and the general contractor shall be held before the work begins on installing the cistern. No above-grade construction of residential structures may be initiated or framing lumber brought to the Property until the cistern is installed and operational, as certified by the Sherborn Fire Department. In accordance with the foregoing, the Applicant may obtain foundations permits prior to completion of the fire cistern.

C.8 The Applicant shall convey to the Town of Sherborn an easement providing for access to the fire cistern and dedicated cistern well. Such easement shall be satisfactory in content and in form to Town Counsel and the Fire Chief, and shall be conveyed to the Town before above-grade construction is initiated or framing lumber is brought to the Property.

C.9 The numbering system and the identification of the dwelling units shall be subject to the approval of the Building Commissioner. This system shall include a logical and easily identifiable numbering system that is uniform throughout the Project.

C.10 The Applicant shall obtain approval from the United States Post Office as to the placement of mailboxes for the units.

C.11 No exterior lighting shall be designed or installed so as to spill over onto or into any adjacent property. In addition, all exterior light fixtures specified for the Project shall cast light downward, and no light should be emitted above a horizontal plane running through the lowest part of the fixture to minimize sky glow.

C.12 The use of garbage grinders at the Project is prohibited. The restriction shall be included in the condominium documents, and may be enforced by the Condominium Association.

C.13 There shall be no open burning permitted on the Property. These restrictions shall be incorporated into the condominium documents.

C.14 The Applicant (and subsequently the Condominium Association) shall maintain all landscaped areas of the Property as shown on the Landscape Plan. A bond or surety

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

shall be maintained 1 year after landscaping has been installed for each phase to insure that dead and unhealthy plant materials are replaced. One year after the landscaping has been installed, the Building Commission or its designee shall do a site walk and advise the Condominium Association of plants that need to be replaced. Dead or diseased planting shall be replaced as soon as possible in accordance with growing and weather conditions.

C.15 Irrigation of common area landscaping elements shall be provided exclusively by the irrigation well shown on the Approved Plans. The irrigation well shall be subject to approval by the Board of Health and shall be operated in accordance with the applicable Board of Health regulations and policies. In addition to the foregoing:

- i. The volume that may be withdrawn from the irrigation well shall be subject to approval by the Board of Health.
- j. The Condominium Association shall collect and maintain pumping data from the irrigation well through a flow meter and from an hour meter and submit such data, and a statement as to the effectiveness of the irrigation well, to the Board of Health on a quarterly basis. Such records shall disclose the amount of water pumped from the irrigation well by month, and the pumping rate (e.g., average 15 gallons per minute); and
- k. The Board of Health shall have the authority to declare a local water emergency and may order the irrigation well shut off for such time as it determines to be necessary to protect the potable water supply of the Project and its abutters. The irrigation well shall also be shut off upon a declaration of a drought level of "Watch" or higher by the Mass. Drought Management Task Force and shall remain shut off until the drought level is returned to "Advisory" or "Normal." After commencement of operation of the irrigation well, the Board of Health may order the irrigation well shut off if a Project well or a private well of an abutter to the Project fails to provide water at generally acceptable rates or flow and pressure, and the Board determines that such failure probably would not have occurred but for the operation of the irrigation well. The Board of Health may further order that the irrigation well not be turned back on until the failure has been cured to its satisfaction.

C.16 All snow shall be removed from the road to ensure access by fire trucks and other public safety vehicles.

C.17 Snow shall be stored within the areas of the site shown on the Approved Plans. In the event that snow storage areas designated on the Approved Plans are inadequate for a particular storm or events, the Applicant shall remove the excess snow off-site. Snow shall not be stored in guest parking spaces or in the center of the cul-de-sac.

C.18 The Project's stormwater management infrastructure shall be constructed in accordance with the Approved Plans.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

C.19 The Applicant shall cause the inspection, maintenance and repair the stormwater management infrastructure to be performed in strict accordance with the Operation and Maintenance plan set forth in _____ a copy of which is on file with the Board, and the terms and conditions of which are incorporated herein by reference.

D. Condominium Association-General:

D.1 The Applicant and all of its successors and assigns shall be bound by all conditions and requirements set forth in this Decision. Any sale or transfer of rights or interest in all or any part of the Property shall include a condition that the grantee and its successors and assigns shall be bound by the terms and conditions of this Decision.

D.2 The Applicant shall establish a condominium owners' association (the "Condominium Association") for the Project.

D.3 The Condominium Association shall either self-manage the Project or shall contract with a qualified management entity that shall be subject to the provisions of this Decision.

D.4 The following common facilities and services of the Project shall be maintained in perpetuity by the Applicant and/or the Condominium Association, as applicable, and further shall remain forever private, and the Town shall not have, now or ever, any legal responsibility for operation or maintenance of same:

- l. Stormwater management system, including the maintenance of catch basins and the like;
- m. Drinking water system;
- n. Wastewater System;
- o. All roadways, walkways, driveways and parking areas;
- p. Snow plowing and removal;
- q. Landscaping and landscape maintenance.

The road within the Project shall never be dedicated to or accepted by the Town as a public way.

D.5 In accordance with the foregoing, regardless of whether the Condominium Association self manages or contracts with a management entity, it shall at all times have a qualified contractor under agreement to conduct regular inspections and all necessary maintenance and repair of the Project's stormwater management system, wastewater system and drinking water system, to maintain all common area landscaping, and to perform all street maintenance and snow removal. The Condominium Association shall, on or before January 15 of each year, submit a current list of all such contractors, with contact information for each, to the Building Commissioner to demonstrate ongoing compliance with this condition.

D.6 The Condominium Association shall, on or before January 15 of each year, submit a current list of its Trustees, and shall designate a lead contact responsible for communicating with the Town, its officials and representatives, and a backup contact. Contact information for those designated as lead and backup shall be provided.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

D.7 The condominium documents shall include a realistic condominium fee budget based upon comparable developments that have been occupied for at least two (2) years, and shall include adequate provision for all inspection, maintenance, repair and replacement of the Project's significant infrastructure components, as discussed more specifically below.

D.8 The Affordable Units shall be distributed proportionally among any Condominium sub-associations (discussed below) established for purposes of managing, maintaining, and/or financing the drinking water wells and/or septic systems.

D.9 The condominium documents shall provide for the maintenance and repair of the roadway in a safe and passable condition, including sufficient access for fire, police, and emergency vehicles during all seasons and weather conditions, including the removal of snow and ice and the clearing of brush and foliage.

D.10 The following covenants shall be included in the Master Deed and in the individual unit deeds:

- r. For each individual unit, all structures and impervious surfaces shall be contained within the footprint shown on the Approved Plans. Sheds and other accessory structures associated with the individual units are prohibited.
- s. There shall be no conversion of interior space into additional bedrooms
- t. All yard and landscaping waste shall be disposed of off-site. Under no circumstances shall yard or landscaping waste be disposed of within the wooded portion of the Project.
- u. Resident parking in the guest spaces within the Project for extended and continuous periods shall be prohibited.
- v. Spillage of light onto neighboring properties is prohibited.
- w. The use of garbage grinders is prohibited.
- x. Storage of flammable, combustible or explosive materials, other than lighting and cleaning fluids customary for residential use, within any unit is prohibited.
- y. Irrigation using the potable water supply is prohibited.

D.11 The condominium documents for the Project shall provide that:

- z. There shall be no amendments to provisions regarding or relating to the Affordable Units or conditions set forth in this Decision without ZBA approval.
- aa. The affordable units shall remain affordable in perpetuity.
- bb. The Master Deed shall reference the Deed Rider and the Regulatory Agreement.
- cc. All votes shall be one unit one vote except where the condominium statute requires percentage interest votes.
- dd. To the extent permitted by law, at least 25% of the trustees of the Condominium Association shall be owners of the Affordable Units unless a

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

- ee. sufficient percentage of such Unit Owners are unwilling to be trustees.
The Master Deed shall provide that in the event of condemnation or casualty of any Affordable Unit(s), any insurance proceeds above the resale price of said Affordable Unit(s) as set forth in the Deed Rider shall be given to the Town to be used for affordable housing.

D.12 The condominium documents shall provide that each unit is to be used for residential purposes.

D.13 The condominium documents shall establish procedures for design review by the Condominium Trust or its designee of all alterations, and improvements of individual units. This procedure shall ensure that the architectural integrity of each unit shall not be modified without the approval of the Board of Trustees and that no unit may be altered in any manner that is not consistent with the terms and restrictions set forth in this Decision.

D.14 The condominium documents shall provide that no space within any unit shall be modified or improved so as to serve as an additional bedroom, and the Condominium Association shall require certification of the same as part of its design review process for any proposed modifications and improvements.

D.15 Prior to the issuance of any building permit for the Project, the Applicant shall submit to the ZBA the condominium documents (Master Deed, Declaration of Trust, Bylaws, Rules and Regulations) for review and approval by Town Counsel and for verification that such documents are consistent with this Decision. At the time that the documents are provided to Town Counsel, the Applicant shall certify that such documents are in compliance with M.G.L. c.183A.

D.16 The Condominium Association shall cause the inspection, maintenance and repair of the stormwater management infrastructure to be performed in strict accordance with the Operation and Maintenance plan set forth in _____ a copy of which is on file with the Board, and the terms and conditions of which are incorporated herein by reference. The Master Deed shall specifically reference the O&M Manual, and shall bind the Condominium Association to arrange for regular inspection, maintenance and repair of the stormwater management system by a qualified contractor to ensure its effectiveness for as long as the Project is in existence.

D.17 The Condominium Association shall include in its annual budget adequate funds to conduct all routine repair and maintenance of the stormwater management system in accordance with the O&M Manual, and shall provide for adequate annual funding to create a savings reserve so as to provide for the timely replacement of failed system components.

D.18 The Applicant and the Condominium Association, as may be applicable, shall submit an annual report to the Building Commissioner in which a qualified contractor certifies that it has timely performed all inspection, maintenance and repair called for by the O&M manual. Such report shall be filed no later than January 15 of each year.

D.19 The Condominium Association shall cause the inspection, maintenance and repair

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

of the septic systems to be performed in strict accordance with the manufacturer's operation and maintenance manual. The Condominium Association shall submit an annual report to the Building Commissioner in which a qualified contractor certifies that it has timely performed all inspection, maintenance and repair called for by such manual. Such report shall be filed no later than January 15 of each year.

D.20 [condition for an insurance policy, bond, or other financial instrument to guarantee long term operation and maintenance of the system]

D.21 In the event that the DEP allows this Project to proceed without provision of a public water system, the condominium documents shall provide that each set of unit owners served by a particular drinking water well (hereinafter, a "sub-association") shall have (1) exclusive ownership and control of said well and all associated infrastructure, (2) the legal right to operate, maintain and/or upgrade the well, and (3) permanent easements for all well equipment located outside a given unit's exclusive use area.

D.22 In the event that the DEP allows this Project to proceed without provision of a public water system, the condominium documents shall provide that each sub-association served by a particular well shall, upon the failure of such well, possess the legal right to site a new drinking water well, associated infrastructure and appurtenances in such alternative locations within the Property as may be necessary or required by the Board of Health to provide adequate drinking water to such individual units, and that upon the creation of a new well the relevant units owners will thereafter have (1) exclusive ownership and control of said well and all associated infrastructure, (2) the legal right to operate, maintain and/or upgrade the well, and (3) permanent easements for all well equipment that is located outside a given unit's exclusive use area. Notwithstanding the foregoing, any new well shall be subject to all applicable State and local regulations and permit requirements.

D.23 The condominium documents shall provide that for each sub-association served by a particular drinking water well, there shall be established a (1) an Operations and Maintenance Fund, to be held by the system owner(s) for normal and regularly occurring maintenance, (2) a Working Capital Fund to be held by the sub-association system owner(s) for the current and future treatment, repair and/or replacement expenses of the well, and (3) a Reserve Fund, to be held by the Town, to provide for the replacement of the well at the end of its useful life. Such funds that are held by the Association or sub-association shall be separate and apart from other funds in its custody. Prior to the commencement of operation of the well, and annually thereafter, the Condominium Association shall determine the amount necessary to provide the sums needed to be paid over the next twelve month period to support the maintenance of the well to be deposited in the Operations and Maintenance Fund and these assessments shall be made proportionately to the owner of each unit. The schedule of deposits to the Working Capital Fund and Reserve Fund shall be such that each contains 25% and 75%, respectively, of the replacement value of the well at the end of the anticipated life span. The number and types of such funds, and the schedule of sums to be deposited therein shall be subject to the review and approval of the Board of Health as part of its review of the applications under the Town's Well Regulations.

D.24 The condominium documents shall provide for the maintenance and repair of the irrigation well by the Condominium Association.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

E. Water Quality and Water Quantity Conditions:

E.1 The Applicant shall comply with the Board of Health's Sewage Disposal Regulations except as specifically waived herein. In accordance with the foregoing, the Applicant shall revise the Project to provide the minimum setback of 175' from the septic systems to all proposed and existing wells and to assume that each unit shall have three bedrooms for purposes of design flow calculations. The Applicant shall also demonstrate to the satisfaction of the Board of Health, through analyses prepared by qualified engineering professionals, at such time as it seeks a permit authorizing the proposed septic systems, that there shall be no greater than 10 mg/L concentration of total nitrogen in the bedrock aquifer at the perimeter boundary and at all on-site wells using the DEP "mass balance" methodology, and no measurable concentrations of viruses and other pathogens in the bedrock aquifer at the perimeter boundary and at all on-site wells employing a standard "time of travel" transport analysis. To meet this burden, the Applicant shall allow an independent hydrologist to perform an independent groundwater quality testing protocol that provides a sufficient number of data points to accurately plot groundwater gradients, and provides sufficient data to determine hydraulic connectivity (between the overburden and bedrock aquifer) and time-of-travel between the septic system and downgradient wells.

E.2 The Applicant shall demonstrate to the satisfaction of the Conservation Commission, through analyses prepared by qualified engineering professionals, that there shall be no greater than a 50 KgN/hectare/year Nitrogen load to any wetland resource area on or abutting the Project Site from the Project's septic system.

E.3 As an alternative to Conditions E.1 and E.2, the Applicant can propose a revised plan that limits the number of dwelling units to one for every acre of land comprising the Project Site, which is double the minimum lot size required under the Sherborn Zoning Bylaw (limiting single-family lots to a minimum of two acres). Sherborn's two-acre zoning requirement has been recognized as reasonable to protect the same public health concerns as presented here. See, *Wilson v. Sherborn*, 3 Mass. App. Ct. 237, 240 (1975).

E.4 The ground surface above the AOI for the Project's stormwater infiltration system shall be pervious to enable natural recharge of precipitation and dilution of contaminated runoff, and the infiltration system be set back a minimum of 400 feet from any drinking water well, to afford an added measure of protection given the uncertainties with the hydraulic connectivity of overburden and bedrock aquifers, and the direction and rate of groundwater flow in the bedrock aquifer.

E.5 Pursuant to Section 8.0(2) and 8.0(3) of the Sewage Disposal Regulations, there shall be a depth of at least five feet or pervious material in natural soil below the bottom of the leaching field and a maximum of two feet of cover above the leaching field.

[incorporate BOH/Nobis proposed conditions and well-testing protocols, or import language from Carlisle 40B decision (Lifetime Green Homes, LLC)]

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

F. Occupancy and Surety Requirements:

F.1 As security for the completion of the infrastructure related to the Project as shown on the Approved Plans, no certificate of occupancy shall be issued for any unit in the Project until:

- a. All sewage treatment and disposal facilities serving the Project are the subject of a final approval from the Board of Health, and may begin operation.
- b. The unit has a fully functioning drinking water system that has been lawfully permitted and for which all permits have become final.
- c. The base and binder course for the road, driveways and guest parking areas serving such unit have been installed.
- d. All stormwater management and drainage facilities serving such building or unit as shown on the Approved Plans have been installed.
- e. All utilities serving such unit have been installed.
- f. All required landscaping within the applicable phase of the Project has been installed.
- g. In addition to the foregoing, prior to issuance of an occupancy permit for any unit in the Project, the Applicant shall have provided to the ZBA a performance guaranty to secure the complete construction of the remaining road, stormwater management infrastructure and/or utilities, as shown on the Approved Plans, for the Project. Said performance guaranty shall be secured by one, or in part by one and in part by another, of the methods set forth in clauses (1), (2) and (4) of M.G.L. c.41, §81U, which method or combination of methods may be selected and from time to time varied by the Applicant. The security provided as aforesaid shall be administered in accordance with the provisions of G.L. c.41, §81U, relative to such security; provided; however, that wherever the Planning Board is referred to in M.G.L. c.41, §81U, the ZBA is substituted.

F.2 Notwithstanding the foregoing, in the event that the Building Commissioner determines that seasonal weather have reasonably delayed the installation of plantings to complete the landscaping, the Building Commissioner may, in his discretion, nonetheless issue certificates of occupancy; provided that the Applicant shall complete the final landscaping improvements not later than the conclusion of the next planting season, which for the spring shall be April 30 and for the fall shall be October 15, and the Applicant shall, prior to issuance of any certificate of occupancy pursuant to this condition post sufficient cash surety with the Town Treasurer for completion of said improvements should the Applicant fail to timely do so.

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

F.3 The final coat of pavement shall not be installed until after the base and binder coat has endured a full winter season.

F.4 Before occupancy or use of the final housing unit within the Project, the Applicant shall submit to the ZBA an "As-Built Plan" in both paper and CAD format, showing all pavement, buildings, stormwater management structures and other infrastructure as they exist on the Property, above and below grade, including appropriate grades and elevations. The plans shall include a description of each deviation from the Final Approved Plans. The plans shall be stamped and signed by a registered land surveyor or civil engineer, certifying that the Project as built conforms and complies with the conditions of this Decision. A purpose of this condition is to facilitate the Consulting Engineer's review of the Project for compliance with this Decision before the final certificate of occupancy is issued.

G. General Requirements:

G.1 As this Comprehensive Permit Decision grants permission to build the Project on the Property under the Act, and as the Applicant has gained the benefits of a comprehensive permit including the right to construct and use the Project in a manner that is not in compliance with the Town of Sherborn's regulatory requirements which otherwise would be applicable to the Property and the Project, but for the Comprehensive Permit's override of local regulations to promote affordable housing, no use shall be made of the Property or of any building or unit on the Property except as permitted by this Decision. Without limiting the foregoing, no business or commercial use shall be conducted on the Property or in any building or use on the Property; provided that nothing contained herein shall be construed as prohibiting a resident of any unit carrying on their profession in a manner that does not involve visitors to, or parking at, the Project, or any other externally visible manifestation of such practice.

G.2 If, between the date of the Decision is filed in the office of the Sherborn Town Clerk and the completion of the Project, the Applicant desires to change in a material way and/or to a significant degree the Project as reflected and approved by the Decision, such changes shall be governed by 760 CMR 56.05(11). Without limitation, in the event that any subsequent permitting or regulatory process (such as state wetlands review of the Project by the Conservation Commission or DEP, review of the proposed drinking water system by DEP, or other state or federal approvals) results in a change to the Approved Plans which trigger the need for further waivers from local bylaws, rules or regulations, any such matter shall be treated as a project change and the procedures in 760 CMR 56.05(11) shall be followed.

G.3 Prior to substantial completion of the Project, this comprehensive permit may not be transferred or assigned to any party without the approval of the subsidizing agency and written notice to the ZBA, as required by 760 CMR 56.05(12)(b).

G.4 Pursuant to 760 CMR 56.05(12)(c), if construction authorized by this Decision has not begun within three years of the date on which the permit becomes final except for good cause, the permit shall become void. This time shall be tolled for the time required to pursue or await the determination on any appeal on any other state or federal permit or approval required for the Project. The applicant may seek an extension as allowed in

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

760CMR 56.05(12)(c).

G.5 The Applicant shall comply with all local bylaws, rules and regulations of the Town of Sherborn and its boards and commissions in effect as of the date of the filing of the comprehensive permit application with the Board, unless expressly waived herein.

G.6 The Applicant shall pay all fees of the Town of Sherborn imposed generally for construction projects, including but not limited to building permit fees, and for the purposes of monitoring compliance of the construction and occupancy of the Project in accordance with this Comprehensive Permit unless otherwise expressly waived in this Decision.

G.7 The Applicant shall copy the ZBA on all correspondence between the Applicant and any federal, state or Town official, board or commission that concerns the design and/or conditions set forth in this Decision, including but not limited to all testing results, official filings and other permit applications that concern this Project. In addition, the Applicant shall provide the Building Commissioner, the ZBA and the Board of Health copies of all communications, reports, submissions, or other documents concerning the drinking water system sent by or on behalf of the Applicant or DEP.

G.8 The terms, provisions and conditions of this Decision shall run with the land and shall be binding on the Applicant and all of its successors and assigns, with the same effect as if specifically mentioned in each instance where the Applicant is named or referred to. Any and all references to the "Applicant" herein shall include any authorized successors or assigns of the Applicant including, but not limited to, any Condominium Association created relative to the Project and individual unit owners, as applicable. Any sale or transfer of rights or interest in all or any part of the Property shall include a condition that the grantee and its successors and assigns shall be bound by the terms and conditions of this Decision. This Decision shall be so referenced in the condominium Master Deed for the Project and in each condominium unit deed.

G.9 All outstanding invoices for peer review and consultant costs incurred by the Town prior to the issuance of this Decision shall be paid by the Applicant within thirty (30) days after this Decision is filed with the Town Clerk.

G.10 Upon submission of the Proposed Final Plans, the Applicant shall replenish the project review fee account in the amount of \$20,000 to fund the review of the Proposed Final Plans by the ZBA Consulting Engineer. Any amounts not expended from this account shall be returned to the Applicant.

G.11 Inspection of the roadway construction and stormwater infrastructure shall be performed by a qualified engineer retained by the ZBA at the Applicant's expense.

G.12 The Applicant shall promptly pay the reasonable fees of any consulting engineers or outside inspectors as the ZBA or relevant Town staff determine to be necessary to conduct construction and post-construction inspections of the Project's infrastructure.

G.13 The Applicant shall reimburse the ZBA for its legal expenses in reviewing the

HILL LAW
DRAFT FINDINGS AND CONDITIONS
FIELDS AT SHERBORN 40B
MARCH 22, 2016

Regulatory Agreement, Monitoring Services Agreement, Affordable Housing Restrictions (Deed Rider), Lottery Plan and Condominium Documents, not to exceed \$5,000.

G.14 For all matters relating to enforcement of this Decision by the Town of Sherborn responsibility for the cost and maintenance of the common facilities and infrastructure of the Project shall be joint and several between the Condominium Association and the entity(ies) developing the applicable phase of the Project; and the entity(ies) developing the applicable phase shall be relieved of such responsibility upon issuance of the occupancy permit for all of the units within that phase.

Action on Waiver Requests

1. Board of Health Regulations – Sewage Disposal

Waiver	Requested Action	Explanation
<p>§3.2 – Pre-Construction Requirements. (requires installation of all major plumbing in residential structures prior to construction of septic system)</p>	Denial	<p>The Developer has not justified the need for this waiver on economic grounds. This requirement does not seem to impose any material financial burden on developers. Under Chapter 40B, waivers should not be granted unless the applicant presents evidence that they are necessary to make the project “economic.”</p>
<p>§5.0 – Testing (Developer has not identified what specific subsections of Section 5 it cannot comply with)</p>	Denial	<p>Blanket waiver requests are inappropriate under Chapter 40B; the Board has no way of determining whether the waivers are justified (outweighing the regional need for housing) if they are not identified with particularity. This Section imposes requirements that are stricter than Title 5, presumably to reflect that most properties in Sherborn are served by private wells and therefore are at risk of contamination from septic systems. These provisions, if enforced, would provide more groundwater information that would assist the Board in evaluating impacts from the septic system.</p>
<p>§7.0 - System size and design (Developer has not identified what specific subsections of Section 7 it cannot comply with)</p>	Denial	<p>Blanket waiver requests are inappropriate under Chapter 40B; the Board has no way of determining whether the waivers are justified (outweighing the regional need for housing) if they are not identified with particularity. These requirements provide greater environmental protection than Title 5, and are justified given the size of the Project’s system.</p>

<p>§7.1 – Leaching Area Size</p> <p>(prescribes how design flow must be calculated, including assumptions concerning the number of bedrooms in a residential unit; sets performance standards for leaching rates and trench dimensions)</p>	<p>Denial</p>	<p>These requirements provide greater environmental protection than Title 5, and are justified given the size of the Project’s septic system. The design flow criteria have the effect of reducing the amount of wastewater discharge on a development parcel than what is permitted under Title 5. These enhanced restrictions are necessary given the threat posed to private wells and the adjacent wetland, particularly in light of the uncertainty of the direction and rate of groundwater flow on the Project Site. Please refer to the Hill Law letter dated Jan. 26 and Feb. 2 concerning how design flow should be calculated under the Board’s regulations and applied to this Project.</p>
<p>§7.2.3 – Septic Tank Design</p>	<p>REFER TO BOH RECOMMENDATIONS</p>	
<p>§8.0 - Vertical Grades and Clearances</p>	<p>REFER TO BOH RECOMMENDATIONS</p>	
<p>§10.1 – Well Distance</p> <p>(requires minimum setbacks of 125 feet and 150 feet between septic systems and wells)</p>	<p>Denial</p>	<p>The setbacks provided in the regulation were intended for conventional systems serving single-family homes. The Project’s septic system is concentrated on property line with 257 Washington Street and serves 32 single-family homes. The abutter’s well is approximately 150 feet from the septic system. Evidence presented at the hearing indicates that even the 150-foot setback is insufficient to protect the abutter’s well.</p>
<p>§10.3 – Other Distances</p> <p>(“All distances shall be increased where required by condition peculiar to a location...”)</p>	<p>Denial</p>	<p>Although a waiver was not specifically requested, the Zoning Board should enforce this requirement by increasing the setbacks between septic systems and wells in light of the peculiar factors present here, including the size of the system (32 homes) and the uncertainty of the direction and rate of groundwater flow on the Project Site.</p>

2. Board of Health Regulations – Domestic Water Supply

§1.4 – Permit Release	Defer to BOH	
§6.0 – Well Location (irrigation wells shall not be located within 100 feet of any adjacent wells)	Denial	This provision is presumably intended to protect adjacent wells from drawdown impacts. The Developer has not justified the need for the waiver on economic grounds.
§7.0 – Number of Wells ("There shall be a separate well for each house").	Denial	This regulation recognizes the inherent difficulties when multiple users share a single well. The Developer has not justified the need for the waiver on economic grounds.
§11.0 - Well Specifications (minimum well yield requirements)	Denial	This regulation sets forth minimum performance standards for water supply, including water pressure. Sherborn lacks a municipal water system in this location, and therefore water pressure is important for fire protection purposes. The Developer has not justified the need for the waiver on economic grounds.

3. Board of Health Regulations – Public and Environmental Health Review

§3.1 – Environmental Health Impact Report	Denial	The Developer has not justified the need for relief from providing a complete impact report on economic grounds.
§3.2 – Permit (separate permit required for large-scale projects)	Grant	The permit required under this section should be consolidated into the “comprehensive permit” issued by the Zoning Board of Appeals consistent with Chapter 40B. However, the performance standard under Section 4.0 should still apply.
§4.0 – Performance Standard	Denial	An applicant “shall have the burden of proving by submission of clear and convincing evidence that the proposed work shall not have unacceptable, significant individual or cumulative effect upon the public or environmental health.” Given the unique factors discussed above, the standard should not be waived.
§8.0(2) – Hydrogeological Evaluation	Denial	This provision requires a hydrological evaluation, which is critical to evaluating the impacts of the Project’s septic system (and to a lesser extent its drainage system) on nearby wells, wetlands and other natural resources. The Developer’s failure to undertake this analysis has hindered the Board’s ability to properly weigh these impacts against the regional need for housing.
§12.0 – Drainage	Denial	Blanket waiver requests are inappropriate under Chapter 40B; the Board has no way of determining whether the waivers are justified (outweighing the regional need for housing) if they are not identified with particularity. This Section imposes requirements that are stricter than state law (Wetland Protection Act), and are justified given the

		unique threats to the environmental presented by this application, all as documented by the Conservation Commission in its Negative Order of Conditions.
§13.0 – Earth Removal Standards	Denial	Blanket waiver requests are inappropriate under Chapter 40B; the Board has no way of determining whether the waivers are justified (outweighing the regional need for housing) if they are not identified with particularity. The Developer has not justified the need for the waiver on economic grounds.

4. Sherborn Wetland Regulations

§3.4 – No Alteration Zone §5 – Procedures	Denial	<p>Mr. Horsley opined (1.26.16) that excessive nutrient inputs to wetland systems cause alterations to species composition and abundance and to downgradient waters and ecosystems. Scientific literature suggests that impacts to wetlands occur at rates of 31 pounds/acre or greater (Bobbink, Ashmore, Braun, Fluckiger, and Van den Wyngaert, 2003). Adjusting this for the size of the 0.64-acre wetland in this case this represents a threshold of 20 pounds of Nitrogen/year. The Applicant represented (12.10.15) that 894.2 pounds of nitrogen from the proposed wastewater system will discharge into the wetland annually.</p> <p>The Applicant presented a range of estimates for how much nitrogen the wetland can assimilate (absorb) (20-50 grams per square meter/year). See, Wang letter 12.10.15. The Sherborn Conservation Commission took exception to this assumption, noting that it lacks foundation. See, ConCom letter to DEP 1.12.16, pp.5-6 (copy attached). The Applicant calculated this range would equate to a capacity of 374 - 936 lbs/year for the 0.64 acre wetland that is downgradient from the septic system. The Conservation Commission disputed this calculation. Id., p. 6. Since the</p>
--	--------	---

		<p>septic system is projected to generate 894 pounds of Nitrogen per year, even the Applicant's incorrect conservative assimilative capacity assumption (375 lbs/year) will be exceeded by the Project. Furthermore, even the least conservative incorrect assumption (936 lbs/year) will likely be exceeded when all of the other sources of Nitrogen contributing to the overall Nitrogen load to the wetland are considered, including other septic systems in the area, surface runoff from other properties, and direct precipitation, which recent studies have shown contain measurable concentrations of Nitrogen.</p> <p>Furthermore the Applicant has failed to account for the ecological impacts of Nitrogen loading that may constitute an "alteration" as defined by the local Wetland Bylaw and Regulations.</p> <p>We strongly urge the Zoning Board to consider the Conservation Commission's analysis set forth in its January 12, 2016 to DEP, as well as the forthcoming Nitrogen loading analysis from the independent hydrologist James Vernon, in making its waiver decision. The Project as designed will "alter" a "resource area" as those terms are defined by the Bylaw and the Regulations, through the introduction of exponentially more Nitrogen into the adjacent wetland system. The definition of "alter" is more expansive under the Sherborn Regulations than under the state WPA, including impacts on groundwater. Restricting activity within the No Alteration Zone will have effect of protecting the resource areas from Nitrogen impacts. In addition, the Zoning Board should deny a "local" Order of Conditions for the Project under the Wetland Bylaw and Regulations on the same grounds.</p>
--	--	--

5. Zoning Bylaw

<p>§3.1 – Permitted Use</p>	<p>Grant, with conditions</p>	<p>A waiver is needed to allow multi-family residential structures in a single-family zoning district. This waiver should be conditionally granted. The Applicant shall revised its Project plans so that it can demonstrate, to the satisfaction of the Board of Health, that the Project can meet the 10 mg/l nitrogen loading drinking water standard, and no measurable concentrations of viruses, at all downgradient wells (on-site and off-site). To meet this burden, the Applicant shall be required to allow an independent hydrologist to perform an independent groundwater quality testing protocol that provides a sufficient number of data points to accurately plot groundwater gradients, and provides sufficient data to determine hydraulic connectivity (between the overburden and bedrock aquifer) and time-of-travel between the septic system and downgradient wells.</p> <p>The Applicant must also revise its Project plans to limit the nitrogen loading of the downgradient wetland areas to 31 lbs/yr based on scientific literature. Alternatively, the Applicant can propose a revised plan without the above-referenced hydrological evaluation that limits the number of dwelling units to one for every two acres of land, which is the de facto density restriction in the Sherborn Zoning Bylaw (limiting single-family lots to a minimum of two acres). The Massachusetts Appeals Court has acknowledged the legitimacy of two-acre zoning in Sherborn, justified on the same public health concerns as presented here. See, <i>Wilson v. Sherborn</i>, 3 Mass. App. Ct. 237, 240 (1975).</p> <p>The Applicant must also comply with the water quantity analysis recommended by the Zoning Board’s peer reviewers, including drawdown testing.</p>
-----------------------------	-------------------------------	--

§4.2 – Setbacks	Grant, with conditions	Setbacks of at least 20 feet between structures may be allowed within the Project Site. All structures shall be set back a minimum of 40 feet from the perimeter of the Project Site.
§4.2 – Height	Grant	Waiver granted to allow a height of up to 33 feet from finish grade to the highest point of the ridge of the roof.