

Date October 1, 2015
To Stoneham Board of Appeals
From Thomas C. Houston, AICP, PE
Project “The Commons at Weiss Farm Comprehensive Permit 40B Project”
Stoneham, MA
Subject Peer Review

Professional Services Corporation, PC (PSC) reviewed the “The Commons at Weiss Farm Comprehensive Permit 40B Project” on behalf of the Stoneham Board of Appeals.

PROJECT DESCRIPTION

The 25.65 ± acre Project Site is located at 170 Franklin Street near Stoneham High School. Weiss Farm operates as a retail business selling landscape materials including mulch and agricultural products including honey, plants, and hay that began operation prior to World War II.

Weiss Farm Apartments, LLC (c/o John M. Corcoran and Company) has submitted an application for a Comprehensive Permit to authorize construction of 264 new dwelling units of which 66 units are to be “affordable” units. The new dwelling units include 249 apartment style units in three five-story multi-family buildings (containing 64, 64, and 121 units respectively) and 15 townhouse units in five three unit-buildings as well as a community building-swimming pool, a 7 space parking garage, and maintenance building.

The proposed site improvements and all proposed buildings are located in the central portion of the site used for the farm operation and the landscape materials operation (Development Footprint). There is a drainage channel located near the perimeter of the Development Footprint along which was reportedly excavated by the Corps of Engineers in the 1950s (COE Channel). The outlet from the COE Channel is a private stormwater pump station adjacent to Franklin Street which is owned and operated by Weiss Farm (Weiss Farm Stormwater Pump Station). The Weiss Farm Stormwater Pump Station lifts stormwater from the COE Channel to a culvert beneath Franklin Street.

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On-site parking will be provided for 438 vehicles consisting of 395 surface parking spaces (including 10 handicapped spaces), 7 parking spaces (in a free standing garage), 15 parking spaces (in townhouse garages), and 395 surface parking spaces (including 10 handicapped spaces),

Complete utility services will be provided including a water distribution system looping the site providing domestic use and fire protection. A sanitary sewer collection system will convey flows to an on-site pump station that will lift the sewage to the sanitary sewer in Franklin Street. Natural gas and cable utility services will be provided.

Landscaping will be provided in areas of the site impacted by development that will include shade trees, evergreen trees, and ornamental trees, shrubs, and turf areas as well as ornamental walls and fencing.

We find that the site plans are well prepared, comply with standard engineering practice, and bear the signatures and seals of a Massachusetts Professional Land Surveyor and a Professional Engineer. The design shown on the plans has been advanced beyond the preliminary information commonly shown on Comprehensive Permit Plans. We offer the comments hereinafter for consideration.

BASIS OF REVIEW

Our peer review is based on evaluation of the following:

- A. Plans entitled "Conservation Commission Notice of Intent Submission, The Commons at Weiss Farm, Stoneham, Massachusetts, June 25, 2014, Rev. November 12, 2014, Rev. March 4, 2015, Rev. April 30, 2015," prepared By: H. W. Moore Associates Inc.
- B. Plan entitled "The Commons at Weiss Farm, Stoneham, Massachusetts, 'Existing Conditions with Abutters'" dated June 19, 2015 prepared by H. W. Moore Associates Inc.
- C. "The Commons at Weiss Farm Stoneham, MA Updated Recharge Calculations Due to Modified Infiltration Systems, Updated HydroCAD Calculations and Stormwater Summary," dated July 30, 2014 prepared by: H. W. Moore Associates Inc.
- D. "The Commons at Weiss Farms Stoneham, MA Updated HydroCAD Calculations and Stormwater Summary Due to Minor Modifications to Infiltration/Detention System B Updated Mounding Calculations" dated April 27, 2014 prepared by: H. W. Moore Associates Inc.



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- E. “Notice of Intent under the Massachusetts Wetlands Protection Act, The Commons at Weiss Farm, 170 Franklin Street, Stoneham, Massachusetts” dated December 8, 2014 prepared by AECOM.
- F. Boring Logs B-1 (OW) - B-3 (OW) prepared McPhail Associates, LLC
- G. Letter, John M. Corcoran and Company, regarding RE: New England Fund Site Approval Application (Project Eligibility) for The Commons at Weiss dated October 2, 2013.

SECTION II – STATUTORY THRESHOLDS

COMPUTATION OF STATUTORY MINIMA

1. The Department of Housing and Development’s (DHCD) Subsidized Housing Inventory (SHI) shows that as of December 5, 2014 there are 495 SHI units in Stoneham comprising 5.3 percent of the 2010 Census Year Round Housing Units (This data is subject to change with the addition of new SHI units and the expiration of use restrictions). Using the 2014 data, approval of the Application for The Commons at Weiss Farm Comprehensive Permit Project would increase the affordable housing units in Stoneham to 759 or 8.1 percent of the 2010 Census Year Round Housing Units.
2. As of September 8, 2015, Stoneham does not have an approved Housing Production Plan.

SECTION III – CONTENTS OF THE APPLICATION

EVIDENCE OF SITE CONTROL

3. The applicant has provided a copy of an executed Purchase and Sale Agreement dated April 10, 2013. Portions of the Purchase and Sale Agreement are redacted. Documentation that the buyer and seller have fulfilled obligations under said agreement and documentation that said agreement remains in full force and effect was not provided. A deed establishing the seller’s title to the property was not provided.

EXISTING SITE CONDITIONS

4. As set forth in the Department of Housing and Community Development’s Guidelines for Local Review of Comprehensive Permits, the Applicant is required to submit a narrative detailing “alternative site uses under existing zoning.” This information was not provided.



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5. Existing trees over 8-inch caliper particularly near the northwest limit of work should be added to an Existing Site Conditions Plan to facilitate preservation.
6. Information detailing easements and restrictions governing the COE Channel at the east, north, and west edge of the Development Footprint should be added to the Existing Conditions Survey. It is likely that the Corps of Engineers maintained controls over the COE Channel after they constructed it in the 1950s. Rights to construct new point source discharges into the COE Channel should be established.

EXISTING SITE CONDITIONS REPORT

7. Use to capacity ratio should be provided for the existing 10 inch diameter sanitary sewermain in Franklin Street.

PROPOSED SITE DEVELOPMENT PLANS

Site Planning

8. The scale, mass, and height of the proposed buildings are not compatible with the adjacent residential neighborhoods. For the portion of the site near Franklin Street, townhouses are used to create a transition presenting residential scale when viewed from Franklin Street. However, the residences at the end of Beacon Street that are elevated up to 40± ft. above the typical finished grades of the Project Site and the houses on Ellen Road are elevated up to 60± ft. above the typical finished grades of the Project Site will be significantly impacted by Building B and the easterly wing of Building C which are five stories in height along the easterly edge of the Development Footprint given that the intervening land between the residences and these buildings generally slopes continuously downward. This change in grade substantially negates the buffering effect that would otherwise arise from the intervening treed buffer. Greater building height can be considered for Building A and the westerly wing of Building C which are located along the westerly edge of the Development Footprint because they are more remote from neighboring residences. We recommend that two alternatives be developed and evaluated.
 - a. Alternative 1: Reduced Building Height. – Restrict buildings over three stories in height to the westerly edge of Development Footprint. Building B and the westerly wing of Building C should be limited to 2 to 3 stories in height and should be reconfigured to reduce their mass which could be achieved by breaking the building into smaller distinct forms. Building heights can be increased as the distance from the easterly edge of Development Footprint increases.



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- b. Alternative 2: Townhouses – Restrict buildings over three stories in height to the westerly edge of the Development Footprint only. All other building should be townhouses.
9. The Weiss Farm 40B Project proposes extensive alternation of buffer zones and the potential wetland impacts resulting from this alteration. The project has been designed to respect the 25 foot no-touch buffer at the wetland edge. However, the majority of the remaining buffer zone has been altered to accommodate site improvements, primarily parking. We anticipate that the Conservation Commission may not be able to issue an Order of Conditions for this work due to unmitigated wetland impacts. We recommend that the Board of Appeals solicit input from the Conservation Commission regarding the buffer alternation issue. It may prove necessary to modify the plans to obtain Conservation Commission approval.
10. The landscaped courtyard connecting Building A, Building B, and the clubhouse and the courtyard for Building C are key elements of the site design and is a significant site amenity. The function of this space is adversely impacted by the parking bay which bisects this space. The applicant is urged to reevaluate this aspect of the design and remove the east-west oriented parking field.
11. The Weiss Farm 40B Project complies with requirements of the Zoning Bylaw for Residence A District with respect to minimum lot area (10,000 sq.-ft. required, 1,118,363 sq.-ft. provided), minimum frontage (90 ft. required, 249 ft. provided), minimum setbacks (front 20 ft. required, 125 ft. provided – side 10 ft. required, 88 ft. provided – rear 15 ft. required, 66 ft. provided).
12. The Weiss Farm 40B Project does not comply with requirements of the Zoning Bylaw for the Residence A District with respect to use. Apartment or multifamily buildings are not permitted in the Residence A District. The proposed building height of the three 5-story multifamily buildings does not comply with the maximum building height of 30 feet for the Residence A District. The Proposed Project does not comply with the minimum requirement of 2.1 parking spaces per dwelling unit for buildings containing 3 or more units (§6.3.3 1) Additionally, the Proposed Project does not comply with respect to the maximum number of signs (1 permitted, 6 provided) and the maximum size of signs (1 sq.-ft. permitted, 650 sq.-ft. provided). Waivers from the Board of Appeals will be required for multifamily building use and signage.
13. Sight distance information at the site entrance should be added to the plans.
14. Separate playgrounds or other facilities should be provided to accommodate preschool and school age children.



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15. Curb type should be labeled on the plans. Bituminous concrete berm would not be appropriate through much of the site.
16. The crushed stone path through the pedestrian bridge as shown on the Landscape Plan should be paved in order to provide required handicapped access. Because the path provides access to the pedestrian bridge controlled by the Massachusetts Building Code and the bridge must be accessible.
17. Consideration should be given to fencing portions of the site along the edge of the Development Footprint adjacent to the wetland edge to provide protection for residents and to minimize damage to wetland resources from litter and debris and trespass.
18. The Proposed Project is likely to have a common mailbox location. The location for a common mailbox facility should be determined and associated parking should be shown.
19. Written concurrence of the Stoneham Fire Department should be provided with respect to overall access.
20. Written concurrence of the Stoneham Fire Department should be provided with respect to hydrant locations and fire lane designations. Fire lanes should be shown on the plans including pavement markings and signage. Hydrant locations should be adjusted if required.
21. Written determination should be obtained from the Stoneham Fire Department regarding whether the townhouses require fire suppression sprinkler systems.
22. Documentation should be submitted on the ability of Stoneham's current fire apparatus to reach the fifth floor of the proposed buildings.
23. The layout of perpendicular parking spaces between the building face and the access aisles may not be acceptable to the Fire Department because a fire lane cannot be maintained.
24. Written determination should be obtained from the Stoneham Police Department stating that they are satisfied with access and safety issues during construction and during operation of the Proposed Project.
25. Any temporary construction signage should be shown and details provided on the size, illumination, style, and legend.



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26. The “Main Entrance ID Sign” and the “Clubhouse and Leasing Sign” do not comply with the Zoning Bylaw. Signs should be downlit to minimize light pollution with respect to “dark skies.”
27. To account for bumper overhang, sidewalks at the head of perpendicular parking spaces should be widened to 8 ft. wide minimum to maintain an accessible route.
28. Accessible ramps are required wherever *walkway* crosses or joins a driveway or parking lot. Ramps should be provided where the walk meets the access drive at the northwest corner of Building C and the southwest corner of Building A.
29. The plans should note that site should be fenced and secured during construction to the extent required by the Building Inspector.
30. Snow storage areas should be designated throughout the site. At one location on the Preliminary Landscape Plan there is a note with a leader pointing to a turf area which says “Snow Storage Area (Typ).” The intent is unclear. The particular location designated by this note is within the 100 foot wetland buffer along the COE Channel. Snow storage should be specifically precluded in wetland buffers zones.
31. Retaining walls are shown but are not designed. The plans should note requirements for a building permit for certain retaining walls and should state that final plans, sections, and elevations for all walls will be submitted to the Building Inspector prior to construction. All wall designs shall be based on site specific geotechnical investigations and their design cannot be conditioned on determination of soil conditions by others following completion of the design drawings. If unit masonry walls are used, the design shall address horizontal impact loads for guardrail posts.
32. The plans or narrative should describe plans for providing accessible units.
33. The walkway and parking area grades should adhere to all current Architectural Access Board regulations and in particular grades should be provided at accessible parking spaces limiting slopes to 2 percent.

Access, Circulation, and Parking

34. A second site entrance should be provided, either for regular access or for emergency access. If a temporary access is to be provided, it could connect to the on-site access drives in the vicinity of Townhouses 1-3 or Townhouses 4-6.



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35. A parking ratio of 1.66 parking spaces per unit is provided whereas we consider a parking ratio of 1.8+ parking spaces per unit as desirable. Of greater significance the Zoning Bylaw requires 2.1 parking spaces per dwelling unit (§6.3.3 1). Additionally, for “Land Use 221 for suburban Low/Mid Rise Apartment,” ITE shows an average peak period parking demand of 1.23 spaces per dwelling unit and an 85th percentile peak period parking demand of 1.94 vehicles per dwelling unit (Institute of Transportation Engineers (ITE), Parking Generation, 4th Edition). The ITE data also includes a range of unit types from three unit townhouses to large apartment blocks and may not accurately represent this development. Based on the aforesaid, parking demand may exceed the available supply. The applicant should provide an outline of a Parking Plan that can be implemented if demand exceeds supply. The Parking Plan can incorporate measures (such as assigning parking places or restricting the number of cars that each tenant can park on-site).
36. A Fire Truck Turning Access Plan should be provided to evaluate access by depicting vehicle swept paths and vehicle overhangs shown for all maneuvers from the site entrance to all on-site locations. The largest fire vehicle used by the Department should be modeled or an AASHTO S-BUS-40.0, whichever is larger should be modeled.
37. A Single Unit Truck Turning Access Plan should be provided to evaluate access for delivery vehicles, trash trucks, etc. by depicting vehicle swept paths and overhangs shown for all maneuvers from the site entrance to all on-site locations. The modeling should utilize an AASHTO SU-30 single unit truck and the AASHTO SU-40 three axil single unit truck.
38. Bicycle and pedestrian modes should be encouraged and related facilities incorporated into the site plan. Bicycle racks should be placed throughout the site. Secure indoor ground floor storage should be provided for bicycles. The Dept. of Public Works should be consulted with respect to planned or desired bicycle and pedestrian facilities in proximity to the Project Site. A 10 ft. wide mixed use path could be constructed along the Franklin Street frontage for future extension as a public project by the Town.
39. The Preliminary Landscape Plan shows plantings on the island separating inbound and outbound lanes at the site entrance. Occasional access by large trucks may require the wheel path to cross the island. This island should have a reinforced concrete surface which can support a wheel truck loading and sloped granite edging.
40. For retaining walls raised above adjacent areas, vehicular protection in the form of a guardrail or perhaps a barrier curb should be provided. Pedestrian protection is shown on the plans.
41. Documentation from the Stoneham School Department should be provided setting forth requirements for school bus pickup and drop-off. Commonly, school busses do not enter a



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private site. If school bus stop is to be located at the site entrance on Franklin Street, we recommend provision of a bus shelter. Additionally, a vehicle waiting area should be provided allowing parents to wait in their vehicles within sight of the school bus stop.

Grading

42. General information on the structural reuse of onsite soil types should be provided.
43. The proposed site grading will require substantial cuts and grading should be adjusted to the extent practicable to achieve a balanced site. The net volume of cut/fill to be imported or exported should be estimated.
44. The anticipated number of off-site truck trips necessary to import or export the net cut/fill volume should be quantified.
45. The wooded hill in the north portion of the Development Footprint rises 30 feet above the surface of the adjacent site. Subsurface explorations in this area shows the presence of bedrock at shallow depth. For two test pits, bedrock was encountered at depths of 6.5 feet and 1 to 2.5 feet. A significant quantity of bedrock must be removed in order to construct proposed improvements in this location. The volume of rock to be removed and the duration of blasting required to achieve removal of rock should be estimated.
46. A surety should be required to be impartially administered by the Town which can be used to repair any structural damage to abutting properties arising from blasting activities.
47. A condition of approval of any Comprehensive Permit issued, should be prohibition of on-site rock crushing.
48. Walkway and parking area grades for the accessible routes must adhere to all current regulations of the Architectural Access Board (AAB). Spot grades should be provided at accessible parking spaces to verify conformance with maximum permitted grades.

Landscaping

49. The submitted planting plan (Preliminary Landscape Plan) does not show species of trees and shrubs but designates the plantings in broad categories such as shade tree, ornamental tree, evergreen tree, large shrub, etc. The Plan also limits all plant materials to plants native to Massachusetts and precludes plants on the Massachusetts "Prohibited Plant List." With these



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restrictions, we consider this level of detail to be sufficient for a “Preliminary Landscape Plan.” A more detailed Landscape Plan prepared by a Massachusetts Registered Landscape Architect (Final Landscape Plan) should be submitted to the Building Inspector for approval prior to construction.

50. In order to establish the design intent, the caliper or height of trees and shrubs should be added to the Preliminary Landscape Plan.
51. The Preliminary Landscape Plan should be revised to limit turf areas due to water demand and requirements for lawn chemicals and fertilizer.
52. A Turf Management Plan should be provided that adequately protects the adjacent wetland areas from nitrate and phosphate loadings.
53. The Preliminary Landscape Plan shows extensive turf areas including turf proximate to the COE Channel which is a resource area under the WPA. This area should be shown as a meadow or other vegetative cover not requiring lawn chemicals and fertilizer.
54. Symbols for hedges and small shrubs are shown on the Preliminary Landscape Plan and should be added to the legend.
55. The Final Landscape Plan should be prepared by a multidisciplinary team with planting for restoration of buffer zone areas prepared under the supervision of a Professional Wetland Scientist (PWS).
56. The Final Landscape Plan should be fully coordinated with site utilities. For example, tree plantings conflict with the sanitary sewer pump station and forcemain south of Townhouses 10-12 and 13-15. The Final Landscape Plan should be fully coordinated with the layout and materials plan. For example, the recreational path east of the Building C easterly parking area is shown as bituminous concrete on the layout plan and as crushed stone on the Preliminary Landscape Plan.
57. Water from the public water supply should not be used for irrigation. Preferably drought tolerant, indigenous species should be extensively used in the design. Turf areas should be limited. Cistern use is encouraged. A proposed irrigation well can be considered provided that it will not impact wetlands.



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PROJECT IMPACTS

58. The scale, height, and mass of the proposed multifamily buildings is not consistent with the residential character of adjacent neighborhoods.
59. Visual quality impacts are of particular concern for residences along Ellen Road which overlook the site. The houses at the end of Beacon Street are up to 40± ft. above the typical finished grades of the Project Site and the houses on Ellen Road are up to 60± ft. above the typical finished grades of the Project Site.
60. Sections through the site extending through the proposed on-site 5 story buildings and continuing through the nearest houses on Beacon Street should be submitted for review. Additional sections extending through the proposed on-site 5 story buildings and extending through the highest house on Ellen Road should also be submitted.
61. The narrative should include the project's impact to schools with the number of school-aged children expected to reside in the completed project.
62. Impacts to abutters from construction noise, vibration, or required blasting should be identified.
63. A dedicated location should be provided on the site for equipment fueling operations that is sited outside the wetland and buffers and minimizes the potential for contamination from spills. Temporary paving or other containment should be provided.
64. The development team should provide a rough construction schedule with anticipated milestone dates for major components of the project.
65. A Construction Traffic Management Plan should be submitted to the Police Department for approval.
66. The impact analysis should provide a narrative identifying and evaluating soil erosion and sedimentation impacts during construction.
67. Significant quantities of earthwork is required to construct the Proposed Project. Much of the excavated material is likely to be rock. We recommend that on-site rock crushing not be allowed. Accordingly, the site may be a net fill site. Significant numbers of truck trips are likely to be required to export ledge and import fill. The number of truck trips should be identified based on ten wheel dump trucks having a capacity of 12 cu.-yds.



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68. Due to the extent of wetlands lying along three sides of the Development Footprint, sodium chloride should not be used for ice and snow control. The environmental analysis should include evaluation of salt alternatives and commitment to use one or more salt alternative.
69. Substantial quantities of ledge are expected to be removed during construction including substantial ledge believed to be located beneath the wooded hill at the northwest corner of the site. Impacts of blasting should be identified.
70. The impact analysis should quantify the effects of fugitive dust developed from the project.
71. Detail should be added for a stone construction pad at the construction entrance. The pad is shown in plan view, but a detail showing the type and depth of stone should be added.
72. A detail for a truck refueling area should be added that provides temporary pavement or other impervious containment.
73. Groundwater is likely to be encountered during construction. Dewatering details should be added to the Erosion Control Plan.

PRELIMINARY ARCHITECTURAL DESIGN

74. Preliminary architectural plans were not provided for review.

UTILITIES PLAN

75. The Fire Department should confirm that the townhouse units do not require fire suppression sprinklers. If required, fire protection services should be added to the Site Utility Plan.
76. The on-site water distribution system consists of a new three-valve connection to the existing 12 inch diameter cast iron watermain in Franklin Street and an on-site looped watermain configuration around the perimeter of the buildings with domestic services to all buildings and fire protection services to the three 5-story multifamily buildings. Given the number of persons who will occupy the site, we recommend a second independent connection is required. The connection could be made at a separate location to the 12 inch diameter cast iron watermain in Franklin Street. Alternatively or additionally the independent connection could be made to a watermain in Ellen Road or Gerald Road. The point of connection should be determined by the Stoneham Dept. of Public Works based on the layout, pressure, watermain sizes, and condition of the public water distribution system.



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77. In addition to the second connection to the municipal water system, on-site line valves should be provided to allow all buildings to be fed from either direction, i.e. independently from either of the two independent connections to the public water distribution system.
78. Additional hydrants should be added to the plans to provide better coverage, particularly for the 5-story multifamily buildings. The applicant should obtain written approval from the Fire Department for the number and placement of hydrants.
79. The Stoneham Dept. of Public Works should be consulted to determine if a master water meter is required. If a master meter is required, a meter pit should be added to the plan.
80. No details are provided for the sanitary sewer pump station and forcemain located north of Townhouses 10-12 and 13-15. The sanitary sewer pump station should have a wet well separate from the pumps, dual-alternating grinder pumps, emergency power, and odor control filters.
81. The structured parking requires floor drains routed to a gasoline/oil/sand separator and then to a tight tank or a connection to the sanitary sewer. Neither a tight tank nor sewer connection is shown. Additionally there should be provisions for spill control and containment for the parking facility.
82. A detail should be provided for encasement at water-sewer crossings.
83. A photometric plan should be submitted that demonstrates compliance with the 1 foot-candle requirements for all parking facilities and no light trespass across the property line (6.6.2.1).

UTILITIES PLAN – STORMWATER

84. Under Pre Development conditions, the submitted stormwater model routes runoff from the Development Footprint to the COE Channel as a single catchment. For the Post Development condition, the submitted stormwater model routes runoff from the Development Footprint to the Development Footprint at five discharge points. However, the COE Channel acts as a detention basin whose surface elevation will rise with increased runoff. The stormwater calculations show no increase in the peak rate of discharge at the discharge points. However, volumetric increases have not been modeled and will be a key factor in determining the elevation of the COE Channel during storm events. To properly model detention within the COE Channel, inflows from all tributary areas should be quantified. The submitted model only quantifies runoff from the Development Footprint.



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85. The outlet control device for detention in the Development Footprint is a stormwater pump station on the Project Site in close proximity to Franklin Street which is owned, operated, and maintained by Weiss Farm (Weiss Farm Stormwater Pump Station.) To properly quantify detention in the Development Footprint, the design discharge characteristics of the Weiss Farm Stormwater Pump Station needs to be incorporated in the model including the discharge rate, capabilities staged discharge through multiple pumps, and pump on/off elevations.
86. The Stoneham Dept. of Public Works reports that the Weiss Farm Stormwater Pump Station located on the Project Site is owned, maintained, and operated by Weiss Farm. There is no Agreement in place between Weiss Farm and the Town of Stoneham governing operation and maintenance of the stormwater pump station. Proper operation of this stormwater pump station is required to control the surface elevation of ponded water in the COE Channel and to comply with Stormwater Management Standard 2; that the post-development peak discharge rates do not exceed pre-development peak discharge rates. The stormwater management report should be expanded to include evaluation of the age, condition, and operation of the stormwater pump station. Any outmoded or poorly operating equipment should be replaced. Staged discharge may be required for compliance with Stormwater Management Standard 2. Each required pump should have an alternate pump and pumps should operate in alternating mode. The Weiss Farm Stormwater Pump Station should be set as a design point for the overall stormwater analysis with the peak rate post-development peak discharge rate designed to be less than the pre-development peak discharge rate for the 2-year frequency storm event and the 10-year frequency storm event and the peak rate of discharge for the 100-year frequency storm event being set to avoid increased flooding. A natural gas fired generator should be required for standby power.
87. To address mechanical failure or power loss, detention in the Development Footprint should be modeled with no discharge for 48 hours.
88. The geotechnical testing conducted for the Weiss Farm 40B Project does not include all information required to accurately quantify Seasonal High Groundwater. Groundwater was recorded when observed in test pits and soil borings. However, the person logging the test pits data was not a Licensed Soil Evaluator and did not record redoximorphic features such as mottles. Groundwater was monitored from one to three years at test locations; however, mottles which develop over very long time periods should also be used to confirm the elevation of seasonal high groundwater. Two additional test pits should be excavated at each infiltration basin with mottles recorded by a Licensed Soil Evaluator.



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89. Low impact design has not been considered and/or incorporated in the design of the proposed improvements.
90. Stormwater within the interior open space between buildings could be disconnected from the stormdrain system and recharged within the open space area. Porous walkway pavement can be used for walkways within the interior open space area. Raingardens located within the interior open space area could be used for infiltration of some roofwater.
91. At the water quality basin at southwest corner of the Project Site, the logs of Borings 300 and 301 show that there is a fill layer starting at elevation 160 of varying thickness of 3 to 4.3 feet . The bottom of the proposed water quality basin is at elevation 163 ft. The design engineer should review this issue and determine if any special construction measures are required to provide long term stabilization and functioning of the basin.
92. At Infiltration/Detention System B-3 near to proposed Townhouse 13-15, the logs of Borings 302 and 303 show a layer of fill varying in thickness from 3 to 5 feet. The design engineer should review this issue and determine if any special construction measures are required to provide long term stabilization and functioning of the system. We recommend removing fill within 5 feet horizontally and replacement with Title 5 sand.
93. At Infiltration/Detention System C-4 near proposed Building B, the logs of Borings 304, 305, and 306 show a layer of fill varying in thickness from 4 to 5 feet. The fill will be below the bottom of the system. The design engineer should review this issue and determine if any special construction measures are required to provide long term stabilization and functioning of the system. We recommend removing fill within 5 feet horizontally and below the bottom of the system extending from the top of the fill downward to native soil and replacement with Title 5 sand.
94. At Infiltration/Detention System D-3 near proposed Building C, the logs of Borings 307, 308, and 309 show a shallow layer of fill varying in thickness from 1 to 1.5 feet. The fill will be below the bottom of the system. The design engineer should review this issue and determine if any special construction measures are required to provide long term stabilization and functioning of the system. We recommend removing fill within 5 feet horizontally and below the bottom of the system extending from the top of the fill downward to native soil and replacement with Title 5 sand.
95. At Infiltration/Detention System E-3 near proposed Building C, the log of Borings 310 shows a 4.5 ft. thick layer of fill below the bottom of the system. The design engineer should review



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this issue and determine if any special construction measures are required to provide long term stabilization and functioning of the system. We recommend removing fill within 5 feet horizontally and below the bottom of the system extending from the top of the fill downward to native soil and replacement with Title 5 sand.

96. The Operation and Maintenance Plan should be augmented to include provisions for operation and maintenance of the Weiss Farm Stormwater Pump Station.
97. Subject to requirements of the Order of Conditions, the Operation and Maintenance Plan should provide for maintenance of the COE Channel in terms of removal of debris and obstructions that limit flow.

REQUIRED EXEMPTIONS

98. Submit a tabulation of the required exceptions from provisions of the Zoning Bylaws.
99. Although not a subdivision, the Planning Board's Rules & Regulations serve as Town construction standards. Submit a tabulation of required exceptions from provisions of the Rules & Regulations.
100. Identify relief, if any, required from the provisions of the Stoneham Bylaws, Chapter 11, Wetlands Protection Bylaw.
101. Identify relief, if any, required from the provisions of regulations adopted pursuant to the Stoneham Bylaws, Chapter 11A, Stormwater.
102. Identify relief required from the provisions of the Stoneham Bylaws, Chapter 13A, Earth Removal.

FEDERAL AND STATE PERMITS AND MEPA COMPLIANCE

103. If the Proposed Project requires one or more "State Actions" and such as a Superseding Order of Conditions, Weiss Farm would be subject to environmental documentation requirements under provisions of regulations implementing the *Massachusetts Environmental Policy Act* (MEPA). Submission of an Environmental Notification Form (ENF) would be required as the Proposed Project exceeds review thresholds (1,000 or more new ADT and 150 new parking spaces at one location) (300 or more new parking spaces at one location).



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104. An NPDES General Construction Permit is required for sites involving disturbance greater than or equal to 1 acre.
105. The COE Channel which lies along the edge of the Development Footprint was reportedly constructed by the Corps of Engineers in the 1950s. Determine if a Corps of Engineers Permit or other authorizations are required to authorize stormwater discharges into the COE Channel or bridging the COE Channel.