TOWN OF JAFFREY, NH
PLANNING BOARD
Meeting Minutes
February 19, 2019

Present: Chairman Gordon, Members, Despres, Farmer, McKenzie, Merrell, Meyers, Sherman, Selectmen's Representatives Weimann and Sterling

Staff: JoAnne Carr, Director of Planning and Economic Development
Rob Deschenes, Code Enforcement Officer

PRELIMINARY CONCEPTUAL - No Action

CALL TO ORDER - Chairman Gordon called the public hearing to order at 6:00 pm.

MEETING MINUTES APPROVAL

On a motion by Weimann seconded by Merrell the minutes of the **January 8, 2019** meeting were approved as submitted (7-0-0)

On a motion by Weimann seconded by Merrell the minutes of the **January 15, 2019** meeting were approved as submitted. (7-0-0)

PUBLIC HEARING – ACCEPTANCE

PUBLIC HEARING – NEW

PUBLIC HEARING – CONT.

1. PB18-06, Belletete's, Inc., 51 Peterborough St., Map 238 Lot 284.1, Map 238 Lot 244, Map 245 Lots 94 & 95 Zone: General Business (with town water & sewer)

   Site Plan – The applicant proposes the expansion of the Belletete's facilities, to include a garage on Lot 238/244 and a retail inventory building on lot 245/94 as well as associated paved yards and drainage improvements.

Chairman Gordon continued the public hearing
Member Weimann recused himself, Frank Sterling assumed the role as Selectman's Representative

Jeff Kevan, TFMoran
Mr. Kevan gave a summary of information previously presented on the site plan.

Based on feedback from an abutter, the materials inventory building on Rte. 202 has been reoriented so there is no traffic circulation around the building and the yard moved to the front. The large pine trees will stay. Mr. Kevan highlighted the landscaping in this area. They will try to save root systems of existing trees.

6,000 sq. ft. of pavement will be removed to create a gravel wetland to treat water instead of just detain it. Chairman Gordon asked does that treat all the water on the site including what comes off the street. Mr. Kevan responded, no. The area of the existing main store building is not treated. In all, 68% of the site will be treated.

Some of the landscaping has been modified to add deciduous, evergreen and other plantings that provide more color and variety.

To intercept the runoff from the roof of the materials inventory building, a stone dripedge and perforated pipe will be used to bring it into the system. This change will be added to the plans.

Chairman Gordon asked if these were the same plans that were submitted Feb. 1st. Mr. Kevan responded no, minor changes have been made based on AoT comments.

Mr. Kevan stated that they will be decreasing flow and volume to at or below 2001 rates to the area of Mr. Aho's property. The soil conditions at this site are not adequate for infiltration.

Planner Carr stated we have not received 3rd party review of the plans since the redesign of the site which may be an issue as the StormTech system is located in the area of wetland fill.

Member McKenzie asked if the outfall of the Rte. 202 drainage is shown on plans. Mr. Kevan responded yes.

Mr. Kevan will verify that the Monitoring wells are labeled. Three wells are in the existing pavement, they will remain the same. Well #18, at the rear of the property near Nutting Rd. will be tested. If possible, once test results are back, it would be moved back 10ft. This well is located in what will be the slope of the detention pond. Member McKenzie asked how this will remain accessible.

The Lighting Plan has been submitted, the changes to lighting and landscaping plan reflect recent requests from Mr. Aho. Mr. Kevan noted three building-mounted fixtures that face Rte. 202. Lights will be downcast and put on timers or photocells to shut off at 7:00 pm.

Planner Carr noted that the EPA General Construction Permit should be updated to reference the most recent plan set.

Member Farmer asked if there will be a gate out to Sunset Lane. Mike Shea responded no, there will not be a gate to Sunset Lane.

Mr. Kevan asked if the board could vote on a conditional approval. Planner Carr noted we have not received 3rd party review on the final plan set. Changes were made including the orientation of the storage building, design and location of StormTech system and design of the gravel wetland. She believes that the results of the review should be available in a weeks' time.

Member McKenzie asked about the waiver for Town's infiltration requirements, AoT has granted their permission. Mr. Kevan stated the reason for this requested is due to the soil conditions at the site that do not allow adequate infiltration.

On a **motion** by Sterling seconded by Despres to accept the Stormwater Management waiver. (7-0-0)

Planner Carr asked for clarification of infiltration and the seasonal high water table with respect to the gravel wetland. Mr. Kevan explained the wetland located 10-15 ft away from gravel wetland that discharges into the stream is the same elevation as the bottom of the pond. They will dig a test pit when construction is started to verify the water table. If water table is found to be lower than anticipated a sand filtered system would be used instead.

Chairman Gordon feels that it would be wise to wait for the results of the 3rd party review before making a decision.

Mr. Kevan addressed the question of the wells. The shallower wells are below the threshold of being considered contaminated. The deep wells are contaminated.

Member McKenzie asked if Belletetes is responsible for the water quality issue. Planner Carr responded not if it remains undisturbed.

Mike Shea noted it has been 10 years since the agreement was made with the town to install the monitoring wells. He asked how many times they have been sampled during that time. Planner Carr stated some wells are tested twice a year. The purpose of the wells is to determine the outer perimeter of contamination. Over time there has been a decrease in contamination. On renewal of the GMZ permit, parcels may be removed based on water quality improvements.

Jack Belletete stated no major changes have been made to the plans. The changes made included moving the building and StormTech system to accommodate the neighbor's request. Well #18 is on the edge of the detention area, 12 ft. from Nutting Rd.

On a **motion** by McKenzie, seconded by Sterling that we accept the site plan, with a revision date of February 12, 2019, as presented and as per testimony given subject to the following conditions: (6-1-0)

Conditions Precedent:

1. Submission of Alteration of Terrain permit with the final set of plans
2. Completion of 3rd party review
3. A compliance hearing to be held in Nov. 2019

Mr. Sterling exited the meeting, Member Weimann resumed his seat.

OTHER BUSINESS

Age-Focused Planning – Jo Anne Carr shared a survey SWRPC is conducted on aging in NH.

Sustainability Committee – Chairman Gordon would like to put together a subcommittee addressing issues of sustainability and climate change. There is a group organizing in the area to discuss these issues. The Board will invite them to give a presentation.

ZBA Decisions – No meeting was held in February.

Board Vacancies - Patty Farmer is running for School Board. If elected she will be leaving the PB in March. This will leave two vacancies on the Board.

Complete Streets – A warrant article is be presented for funding the Complete Streets program. The Board should support it.

ADJOURNMENT
The meeting adjourned at 7:23 pm

Submitted:

Rebecca Newton
Recording Secretary

Attest:

Tim Gordon
Chairman, Jaffrey Planning Board

March 13, 2019

Jo Anne Carr, D.L.P.
Director of Planning and Economic Development
Town of Jaffrey
10 Goodnow Street
Jaffrey, NH 03452

RE: CONSULTING REVIEW SERVICES
PROPOSED DEVELOPMENT STORMWATER AND DRAINAGE REVIEW
BELLETETE'S ROUTE 202 IMPROVEMENTS

Dear: Ms. Carr

As requested by the Town of Jaffrey, CEI has completed a technical review of the materials and information listed below for the proposed Belletete's Improvements. Our review focuses on design elements of the proposed project that pertain to the stormwater management design.

1. Drawings entitled "Belletete's Route 202," revised date March 3, 2019, prepared by TFMoran Inc.

2. A report entitled "Stormwater Management Report, Proposed Belletete's Improvements" revised date March 7, 2018, prepared by TFMoran Inc.

CEI offers the following comments relative to the proposed Belletete's Improvements development:

1. Stock pile and staging locations should be shown on the Site Preparation Plan with adequate erosion and sediment control measures to prevent potential runoff impacts during the construction period.

   Comment addressed

2. Snow storage locations during the construction period should be shown on the Site Preparation Plan.

   Comment addressed

3. The existing groundwater level at Stormwater System #1 indicates dewatering activities would be required during construction. The Applicant should provide information regarding the proposed method for dewatering activities during the construction period. Locations of proposed dewatering equipment/facilities should be included on the Site Preparation Plan with an associated detail.

Comment addressed

The Applicant should require the Contractor to use a silt bag to collect all discharge from dewatering activities during the construction period. An additional row of silt sock should be provided to surround the silt bag while in use.

4. Locations for stormwater inlet protection is not labelled on the design plans. Silt sacks or Dansy Bags should be installed in all catch basins located on-site and along Route 202, adjacent to the Site. Note that hay bales must be embedded 4 inches into the ground, they may not be used on hard surfaces such as pavement.

   Comment addressed

5. The Winter Construction notes indicate a double row of sediment barrier shall be installed within 100 feet of Protected Natural Resource. A label should be included on the Site Preparation Plan to bring attention to this requirement.

   Comment addressed

   All sediment control labels have been revised to require the installation of a silt fence and sock to provide protection to resource areas. The additional protection provides a double barrier to help prevent sediment from washing off-site.

6. Additional sediment controls should be placed across the inlet end of the culvert crossing Nutting Road. This will provide added downstream protection if a breach were to occur in the upstream sediment controls.

   Comment addressed

7. Sediment controls should be extended along the proposed drain pipe trench between Stormtech System #1 and DMH-4.

   Comment addressed

8. The construction entrance for the proposed Materials Inventory Building (Lot 245-94) is located adjacent to the existing wetland and on top of the proposed Stormtech System #1. CEI recommends relocating the entrance to provide better buffer/protection to the wetland and prevent compaction of soils where the Stormtech System is proposed.

   Comment addressed

9. Flow direction of existing and proposed drainage pipes should be included on the design plans.

Comment addressed

10. A detail of the proposed catch basins should be included on the plans. All proposed catch basing should include hooded outlets to trap floatables (e.g. oil, grease and trash).

Comment addressed

11. A detail of the proposed drainage manholes should be included on the plans.

Comment addressed

12. The Town of Jaffrey Land Use Codes requires stormwater management systems to be sized to treat and store the 2 year storm and infiltrate the 1-inch storm.

    a. The HydroCAD model shows the proposed Stormtech systems provide sufficient volume to store the 2-year storm.
    b. Since Stormtech System #1 does not include an infiltration component in its design, Stormtech System #2 and the two proposed drainage basins would need to be sized to infiltrate the 1-inch storm for the proposed Site conditions. Calculations should be provided to demonstrate there is sufficient storage capacity in the proposed drainage design to infiltrate a 1-inch storm.

Comment addressed

The Applicant has received approval for the waiver request from the groundwater recharge requirement.

13. The Town of Jaffrey Land Use Codes requires stormwater management system designs shall follow the New Hampshire Stormwater Manual "Stormwater Manual".

    a. Backup calculations should be provided to demonstrate the proposed drainage design meets Water quality Volume (WQV) and

Comment addressed

b. Backup calculations should be provided to demonstrate the proposed drainage design meets required Groundwater Recharge Volume (GRV).

   i. The total effective area of impervious surfaces (A_I) calculation should reflect the comparison of 2001 existing conditions and the current proposed conditions for the entire Site.
   ii. A site plan or sketch should be provided that shows the proposed A_I being compared to 2001 existing conditions.

Comment addressed

The Applicant has received approval for the waiver request from the groundwater recharge requirement.

c. Backup calculations should be provided to demonstrate the proposed drainage design meets the Channel Protection (CP) design criteria.

Comment Addressed

Flow rates under proposed conditions are reduced from existing conditions.

d. Backup calculations and documentation should be provided to demonstrate the proposed project design meets all Peek Runoff Control criteria.

Comment Addressed

14. The plans do not show outlet protection at all drainage outlets (e.g. crushed stone or rip rap apron). Outlet protection should be proposed at all drainage outlets and indicated on the design plans.

a. Calculations should be provided that show the proposed outlet protection will maintain stability and is designed to meet design criteria for Outlet Protection outlined in the Stormwater Manual.

b. Scour protection calculations should be provided for each outlet pipe.

c. A detail of the proposed outlet protection should be added to the Detail Sheet and should include a table to provide dimensions and thickness for each of the proposed aprons.

Comments Addressed

15. A detail for Blanket Slope Protection is included on the Detail Sheet but is not clear where the blankets are being proposed on the plans. The areas where blankets are proposed should be labelled on the plans and shown with a shaded or hatched area.

    Comment Addressed

16. A sediment forebay should be included at the proposed drainage basin, closest to Stormtech System #1. Multiple existing drainage structures would discharge to the basin and it is not clear if adequate pretreatment would be provided to runoff prior to entering the basin. Design criteria outlined in the Stormwater Manual should be used for sizing the sediment forebay.

    Comment Addressed

    Two 8-foot diameter catch basins with 4' deep sumps are proposed upstream up the Gravel Wetland to collect sediment. The revised Inspection and Maintenance Manual includes procedures to monitor sediment deposits in the gravel wetland. Accumulated sediment must be removed from the gravel bed and vegetation may require periodic replacement depending on the sediment accumulation.

17. The proposed drainage basins should each include an emergency spillway in the event the outlet structure becomes clogged. Design criteria outlined in the Stormwater Manual should be used for designing the spillways Design criteria outlined in the Stormwater Manual should be used for designing the drainage basins embankments and emergency spillways.

    Comment Addressed

18. The proposed drainage basins include outlet structures which show rim/grate elevation but do not indicate a low flow orifice is included.

    a. If low flow orifices are being proposed, the plans should indicate the diameter and elevation.

    b. If low flow orifices are not being proposed, the HydroCAD model will need to be revised to match the design shown on the plans.

    c. A detail for each outlet structure should include elevations for rim and outlet pipe invert.

    d. The outlet control structure details should show the low flow orifice if being proposed.

Comments Addressed

19. If a low flow orifice is not being proposed for the drainage basin outlet (closest to Stormtech System #1), the pond would need to dewater through infiltration between storm events. The seasonal high groundwater elevation would need to be confirmed at the basin location in order to determine if conditions would be appropriate for infiltration.

Comment Addressed

The drainage basin has been revised to a gravel wetland with 6" underdrain pipes. The outlet structure includes a low-flow orifice that will control the flow rate from the gravel wetland and allow standing water to drain out of the system between storm events.

20. The HydroCAD model for Pond 2 (the drainage basin located closest to Stormtech System #1) includes a primary outlet at elevation at 992.00 that represents the 9" HDPE (outlet pipe of the outlet structure) but does not include a secondary device to represent the horizontal grate. The model should be updated to include the grate.

Comment Addressed

21. The HydroCad model for ST2 (Stormtech System #2) includes a 6" pipe at elevation 987.82". This would locate the pipe below the proposed filter course material, which would act as an underdrain for the system.

    a. System 2 Cross Section Detail does not show the 6" pipe.

    b. The outlet pipe size and inverts for Stormtech System #2 should be labelled on the design plans.

    c. If the 6" underdrain is being proposed, it would prohibit the system's ability to provide the required Groundwater Recharge Volume (GRV). The underdrain would convey stormwater from the Stormtech system to the drainage basin and prevent recharge to underlying soils.

Comments Addressed

22. The Drainage Plan (Sheet 6) shows the proposed surface elevation in the vicinity of Stormtech System #1 as 1001.00', however the Cross Section Detail on Sheet 12 shows it as 1000.00'. This elevation should be confirmed as it is relevant to the additional comments below.

Comment Addressed

23. The seasonal high groundwater elevation observed in the test pit conducted at the proposed Stormtech System #1 location, is 997.33'and the bottom elevation of the chamber/stone is 995.8'. As a result, groundwater would partially displace the storage volume of the proposed system. The design includes proposed 6" perforated underdrain pipes to essentially dewater the system and lower the groundwater level in this area. However, the seasonal high groundwater is 3.28 feet above the proposed perforated underdrain pipes, which is a significant volume of groundwater in which the proposed design relies on the underdrain pipes to dewater and convey to a downstream drainage manhole.

    The concern is whether the underdrains will provide sufficient flow to keep up with groundwater inflow to the area, especially in the Spring and Fall seasons when groundwater is typically highest (i.e. seasonal high groundwater) and storm events occur more frequently. If the underdrains fail to provide adequate flow, the designed storage capacity in the Stormtech system will not be available to attenuate peak flows and will result in higher runoff rates.

    a. The Applicants Engineer should provide backup information to demonstrate the proposed 6" perforated underdrain pipes have the capacity to provide the required flow to maintain a groundwater level below the crushed stone bed for the Stormtech chambers while accounting for groundwater inflow.

    b. How will the designed flow rate of the perforated pipes be maintained with age? Will the flow rates through the perforations begin to decrease over time as sediment and fines migrate through the proposed filter/choker course and crushed stone bed?

Comments Addressed

The design for System #1 has been revised to a closed pipe storage system, which does not require an underdrain to dewater the system. The revised storage design does not introduce groundwater into the drainage system.

Note:
Details such as the profile of the pipe system (with inverts), outlet control structure, cleanouts and catch basins (showing deep sumps) that are directly connected to the pipe system, will need to be included on the final design plans and submitted for approval.

24. The drainage plan shows drainage manhole (DMH-3) downstream of Stormtech System #1, in which the 6" underdrain pipes discharge. The outlet pipe invert elevation for DMH-3 is 993.17'. This outlet elevation is higher than the inlet elevation of the 6" underdrain pipe and would control the flow from the Stormtech System #1. Having the outlet elevation of DMH-3 higher than the inlet elevation causes the underdrain pipes to surcharge and does not allow them to drain at the designed invert (992.8'). As a result, the depth between the underdrain and bottom of the proposed filter course material does not meet the required 1 foot minimum separation as outlined in the Env-Wq 1508.07 Stormwater Treatment Practices. However, if the actual surface elevation of the proposed system is 1001.00' (see Comment #14 above), this concern may be resolved.

Comments Addressed

25. Stormtech System #1 Cross Section Detail should include the 15" HDPE overflow pipe.

Comments Addressed

26. A manhole is needed to access the upstream end of the 15" HDPE overflow pipe between Stormtech System #1 and DMH-3.

    a. The upstream and downstream inverts for the proposed 15" HDPE should be labelled on the plans

Comment Addressed

The revised storage system includes an outlet structure with invert information.

27. The HydroCAD model for the proposed Stormtech System #1 includes the storage volume of 33 Stormtech chambers. This includes 11 chambers that are designated as the Isolator Row, which is designed is a sediment forebay for pretreatment. Per the NHDES Stormwater Manual design criteria, the Isolator Row capacity should not be included in the System's storage volume.

Comment Addressed

The design for System #1 has been revised to a closed pipe storage system. All catch basins discharging to this system will include deep sumps for collecting sediment.

28. The HydroCAD model for the proposed Stormtech System #2 includes the storage volume of 200 Stormtech chambers. This includes 23 chambers that are designated as the Isolator Row, which is designed is a sediment forebay for pretreatment. Per the NHDES Stormwater Manual design criteria, the Isolator Row capacity should not be included in the System's storage volume.

Comment Addressed

The isolator row will properly function as a sediment forebay as long as proper maintenance is performed as required in the Inspection & Maintenance Manual. If maintenance requirements are not performed, the system will fill with sediment and fail to provide adequate storage volume to attenuate peak runoff during storm events. Maintenance records for all maintenance performed on the proposed drainage should be recorded and kept on-site. Records should also be submitted to the Town and/or NHDES if required.

29. The overflow grate elevation shown on the design plans for the proposed drainage basin, downstream of Stormtech System #2, does not match the elevation in the HydroCAD model. The rim elevation shown of the plans should match the drainage model.

Comment Addressed

30. A standalone Construction Period Pollution Prevention Plan should be provided by the Applicant which outlines the inspection and maintenance procedures for the site during the construction phase of the project. Procedures should include such items as: stormwater management and sediment control inspections, non-stormwater discharges, dust control, waste disposal, off-site vehicle tracking and spill prevention.

Comment Addressed

31. Construction Sequence Notes (Sheet 10) should instruct contractor to install sediment and erosion control materials prior to any site work or land disturbing activities are performed, including tree clearing.

Comment Addressed

32. Erosion Control Notes (Sheet 9) should include the following notes:

    - All erosion control measures shall be inspected once per week and following any storm event of 0.5 inches or greater.

- Sediment shall be removed from the erosion controls when it has accumulated to a depth of approximately 6 inches.
- Should dewatering activities be required, pumped groundwater shall be directed to a dewatering sump prior to discharge to any wetland resource area or stormwater management area.
- Any catch basins located immediately downstream from the construction site shall be inspected once per week and following any storm event of 0.5 inches or greater. Any significant sediment accumulation within these catch basins shall be removed within 24 hours of observation.
- The Contractor shall direct surface runoff to unpaved, pervious areas on the site to the maximum extent possible, utilizing temporary sediment filtermitt as required preventing erosion and sedimentation of offsite areas.
- During construction and installation of the Stormwater Management BMPs, care should be taken to minimize any sediment intrusion into these systems. Any significant sediment accumulation within these systems shall be removed within 24 hours of observation.
- The Contractor shall make every effort to minimize the amount of impervious pavement area tributary to the drainage system and Stormwater Management BMPs until the site has been stabilized. The Contractor shall continue to direct surface runoff to unpaved areas as noted above.

Comments Addressed

33. Inspection and Maintenance guidelines should include a section for snow removal procedures, including a site plan showing snow storage locations.

Comments Addressed

If you have any questions or comments regarding this report please contact me at 603-424-8444.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC

Nick Cristofori, P.E.
Principal Engineer

prior to

- at final plan set stamped

subsequent

~~final plans~~

submit as builts of system maintained on site