

TOWN OF EXETER, NEW HAMPSHIRE

10 FRONT STREET • EXETER, NH • 03833-3792 • (603) 778-0591 •FAX 772-4709 <u>www.exeternh.gov</u>

PUBLIC NOTICE EXETER CONSERVATION COMMISSION

Monthly Meeting

The Exeter Conservation Commission will meet in the Nowak Room, Exeter Town Offices at 10 Front Street, Exeter on Wednesday, February 13th, 2019 at 7:00 P.M.

NOTE DATE CHANGE

Call to Order:

- 1. Introduction of Members Present
- 2. Public Comment

Action Items

- 1. Review of a Wetland Waiver and Shoreland CUP from Palmer & Sicard Inc., for a 26,989 SF Office/Warehouse on Holland Way (Tax Map 66-1, Planning Board Case 18-22) (*Luke Hurley, GES Inc., Christian Smith, Beals Assoc.*)
- 2. Committee Reports
 - a. Planning and Property Management
 - i. Proposed Legislation Overview
 - ii. Mitigation Project Update, Conservation Roundtable 4/23
 - iii. Annual Planning Dashboard
 - iv. Appointment Renewals & Officer Term Reminder
 - b. Trails
 - c. Outreach Events
 - i. Raynes Event Planning, RFSC meeting date, Proposed Expenses (Sally Ward)
 - ii. SST/ECC Partnership: Morrissette Property Earth Day Clean Up (Kristen)
 - iii. PEA Climate Action Day: Henderson Swasey Invasive Plant Removal 4/26 (Bill)
 - iv. Spring Tree 4/30 8:45 10:30, packing 4/27, 4/28, Proposed Expense (Kristen)
- 3. Approval of Minutes: February 13th Meeting
- 4. Correspondence
- 5. Other Business
- 6. Next Meeting: Date Scheduled (4/9/19), Submission Deadline (3/29/19)

Bill Campbell, Chair Exeter Conservation Commission

Posted March 8th, 2019 Exeter Town Office, Exeter Public Library, and Town Departments.

TOWN OF EXETER PLANNING DEPARTMENT MEMORANDUM

Date: March 6, 2019

To: Conservation Commission Board Members
From: Kristen Murphy, Natural Resource Planner
Subject: March 13th Conservation Commission Meeting

PLEASE NOTE THE DATE CHANGE TO AVOID TOWN MEETING DAY-<u>DON'T FORGET TO VOTE</u>

1. Holland Way

Members from the Commission and Planning Board conducted a site walk on March 7th. The Commission reviewed an application for this site in 2013 (Waldron Associates) and issued a letter of no objection to the State for the wetland application. The applicant has received an extension to that permit so you will not see another wetland application for this project. Your electronic packet includes TRC comments and the applicant's responses, as well as the Shoreland CUP and wetland waiver application information.

Suggested Motions for a memo to the Planning Board:

———— We have reviewed this application and have no objection to the issuance of a Shoreland conditional use permit and wetland wavier as proposed.

———— We have reviewed this application and recommend that the Shoreland conditional use permit and wetland wavier be (approved)(denied) as noted below:

2. Proposed Legislation Overview:

The last Conservation Roundtable NHACC provided an overview of relevant proposed legislation. It has been summarized by Jay Diener and included in your packet for review/discussion at the meeting.

3. Mitigation Project Update, Conservation Roundtable 4/23

The mitigation subcommittee met on Friday March 8th and will provide an update on progress. The ARM discussion w/ NHDES at the Conservation Roundtable meeting was tentatively scheduled for 4/23.

4. Annual Planning Dashboard

Revised dashboard including your comments from the last meeting is included. I have also had several people suggest we re-initiate the share calendar of CC related events and potential training opportunities. You can find the calendar <u>HERE</u>.

5. Appointment Renewals & Officer Term Reminder

Just a reminder that terms for Carlos, Drew, and Lindsey expire at the end of April. You should receive a letter or email from Sheri Riffle for renewal. Please contact me if you do not receive this by the end of March. Also the current slate of officers is Chair: Campbell, V. Chair: Guindon, Treasurer: Koff, Clerk: Piskovitz. Bill will officially call for a vote of renewal/replacements in May so it may be a good time to start thinking about whether people wish to continue in their roles, if others are interested in new opportunities, etc.

6. Raynes Event Planning, RFSC meeting date, Proposed Expenses (Sally Ward)

In order to expand the base of use at the Conservation Center at Raynes Farm, a subcommittee has developed a list of events for 2019. It would be great to get support from members for events that are of interest.

7. SST/ECC Partnership: Morrissette Property Earth Day Clean Up (Kristen)

We will be conducting clean-ups with each of the 3 class sessions (7:40-9:08, 9:30-11, 12:15 to 1:50). All are welcome to help.

8. PEA Climate Action Day: Henderson Swasey Invasive Plant Removal 4/26 (Bill)

We will be leading a group of PEA students in invasive pulling at Henderson Swasey. Prior years it ran from about 9:30-11:30 or 12. All are welcome to help.

9. Spring Tree 4/30 8:45 – 10:30, packing 4/27, 4/28, Proposed Expense (Kristen)

Peter Waltz will be leading the spring tree program again. Let me know if you can help and I will pu you all in touch. Expenses for the event are \$220. Suggested Motion:

 	Move to approve	\$220 from t	he CC's Co	ommunity Sei	rvices town bi	ıdget allocation.

70 Portsmouth Avenue Stratham, NH 03885 Phone: 603-583-4860 Fax: 603-583-4863

February 12, 2019

Exeter Planning Dept. Attn. David Sharples, Town Planner 10 Front Street, Exeter, NH 03833

Re: Site Plan Review TRC Comments

PB Case #18-22 Tax Map Parcel #66-1

Dear Mr. Sharples:

We are in receipt of the review comments from Exeter TRC dated 1/30/19 and offer the following in response. For clarity our responses appear in bold font.

TOWN PLANNER COMMENTS

- 1. UEI will conduct a third party review; Response: Received. See response letter attached.
- 2. Show proposed tree line on the Parking/Pavement Plan; Response: The tree line has been added to the sheet as requested.
- 3. Significant trees not identified per 7.4.7; Response: Waiver request submitted.
- 4. High Intensity Soil Survey not provided per 7.4.10; Response: Shown on sheet 1, line types have been edited for clarity.
- 5. Provide LLS stamp per 7.4.12; Response: As mentioned at the TRC hearing, the land surveyor of record is deceased. The original lot line adjustment plan for the property with his seal and RCRD stamp has been included for reference.
- 6. Show "Flood Hazard Zone", referenced in Note 3 on Sheet 1, on Sheet 2; Response: This is shown on the plans (see sheet 1).
- 7. Explain landscaping in Shoreland district; Response: This was from the previous site plan approval and has been removed.
- 8. Since a septic is proposed that is prohibited in this area, provide information that shows that the risk of ground or surface water contamination in this area associated with a septic system is the same or less if the development was tied into the municipal sewer system; Response: Firstly, the treatment provided by the Advanced EnviroSeptic leach system is in the same range of pollutant removal to the aerated pre-treatment systems such as SeptiTech (see testing results attached). In addition, from the perspective of risk, if a leach field fails it simply means the Enviro tubes will be holding water (e.g. upon inspection, the tube will be more than half full of water which will be monitored every other year per the ZBA Variance approval). Water that leaves the tube even though reduced in flow will still

- be receiving treatment. When a sewer line fails (e.g. fracture in the pipe), raw sewage, without even the solids removal from the settling tank, is introduced directly into the ground. Based on this there is much less risk of surface or ground water contamination with the leaching system proposed.
- 9. Include language regarding the annual reporting requirement of stormwater management inspections in the Stormwater Management/BMP Operation & Maintenance Plan submitted as part of the Drainage Analysis. Make sure to include the requirements set forth in Section 9.5.2.2; Response: The plan has been amended as requested.
- 10. Is 54 parking spaces needed for the proposed use? If not maybe the 13 spots and access aisle to the north of the building could be eliminated or shown as potential future parking? Response: Per the site plan regulations the provided parking is required, and the owner feels it is necessary.
- 11. Provide monumentation in accordance with section 9.25; Response: An additional IP to be set has been added to the site plans which will be set by a Licensed Land Surveyor.
- 12. Provide architectural elevations to determine compliance with Section 9.2 Architectural Design; Response: Architectural elevations by others were provided with the initial submittal package.
- 13. Letter from Gove Environmental describes the functions and values but does not compare these qualities to the project; Response: Please see the attached memo from Gove Environmental, Inc.
- 14. Are there any known environmental hazards within the proposed area of disturbance? If so, please explain. Response: None are known, there is no known prior development on this parcel.
- 15. Will the proposed use create any noise, smoke, or odors? If so, please explain. Response: No, aside from vehicular traffic. The shop/warehouse is enclosed and is largely for manufacture and storage of HVAC duct work.
- 16. What will the proposed "Gravel Area" shown behind the loading dock area be used for? It is larger than the "super truck" turning radius so will there be outdoor storage of equipment in this location? If so, what will be stored there? Response: the area will be used for truck turning and backing in to the loading area and is not used for storage. In addition, based on TRC input and the UEI comments, the entire area is now proposed to be paved.
- 17. Explain Town Note 3 on Sheet 2 of 9 regarding "approved storage facilities". Are there any "approved storage facilities" on the site and if so, where are they? Response: The storage (enclosed dumpsters)/Recycling bins were shown on the plan to the rear of the building.

PUBLIC WORKS COMMENTS

The following comments are based on the information provided by the applicant to the Planning Department, received November 6 and November 30, 2018.

- 1. In addition to Digsafe, add DPW (603-773-6157) to be contacted to locate water, sewer, and drainage. Please update all references. **Response: DPW has been added as requested.**
- 2. The O&M plan should be a separate document that addresses the maintenance of the drainage system after construction and should include a plan that labels all of the drainage features and snow storage areas. Response: The plan has been separated from the drainage study and amended as requested.
- 3. ADD NOTE: The contractor must obtain a valid utility pipe installer's license and the job supervisor or foreman must be certified by the town prior to working on any water, sewer, or

drainage pipes that are in a town street or right of way, or that will connect or may be connected to a town water, sewer, or drainage system. A licensed installer must be present at the job site at all times during construction of these utilities. Response: The note has been added to sheet 4.

- 4. Sheet 2 of 9 Parking and Pavement Plan
 - a. A waiver is required for bituminous curb along the driveway. Granite curb is required within the ROW. Response: The curbing has been revised to granite.
 - Show the proposed well and protective radius. Snow storage is not allowed within the
 protective radius. Signage is recommended in this area to prevent snow storage.
 Response: The well has been relocation further away from the building and away from
 any possible snow storage.
- 5. Sheet 3 of 9, Grading & Drainage Plan
 - a. Provide spot grades for the dumpster pad. Response: Spot grades have been added as requested.
 - b. Show the proposed tree limits, propane tanks, and well. Response: All requested items have been added.
 - c. Existing topography is difficult to read. Response: We apologize for the poor print quality and have provided better plan prints.
 - d. The proposed outfall for the gravel wetland should be adjusted to not face the toe of the slope. This can be adjusted when the gravel wetland location is shifted to the east as discussed at the TRC meeting. Response: The outfall has been revised as discussed.
- 6. Sheet 4 of 9, Utility Plan
 - a. Identify if the generator will be diesel or propane. Diesel will require secondary containment. Response: The generator will be fueled by the propane tanks.
 - b. The cistern should be a minimum of 10 feet from any part of the septic system. Response: The cistern is shown approximately 20' from proposed septic system.
 - c. Confirm the propane tanks are the required minimum distance from the building and transformer. Response: The transformer has been relocated and a setback distance added to the plans for the propane tanks.
 - d. A new utility pole may be required outside of the ROW. Coordinate with Unitil for drop pole location. Gas and electric layouts approved by Unitil are required for the final plans. Response: The contractor is required to coordinate with all utility companies prior to construction.
- 7. Sheet 5 of 9, Lighting/Landscape Plan
 - a. The foot candle contours are difficult to read. Response: The plans have been revised for clarity.
 - b. Coordinate the landscape plan with the utility locations to avoid conflicts. Response: The required landscaping has been relocated to avoid conflicts.
- 8. Sheet 6 of 9, Effluent Disposal Plan
 - a. Coordinate the employee and building size with the parking calculations. Response: the septic plan has been revised and now coordinates with the parking calculations (office space was rounded up for the septic loading).
 - b. Provide inspection and maintenance plan as required by the Zoning Board of Appeals as part of the variance from the municipal water and sewer requirement. This should be shown on the plans and included as a separate document to be submitted to the Building Department. Response: As discussed at TRC, the Planner suggested that this be written into the deed for the parcel. This will protect the parcel in perpetuity (the draft deed will be provided upon completion by the owners attorney).

9. Details

- a. Provide granite curb detail. Response: The detail has been added.
- b. Catch basin grate should be NHDOT Type B. Response: The NHDOT label added to the detail.
- Erosion Control notes: change the inspection frequency to every 0.25 inches of rainfall instead of 0.5 inches of rainfall to coincide with the 2017 Construction General Permit.
 Response: The required inspection criteria has been revised.

FIRE DEPARTMENT COMMENTS

Basic requirement of the Exeter Fire Department. This list is not all inclusive and other request may be made during the review process. Unless specifically required by code, some room for compromise is open.

(Rev 5: 9/7/2017) Architectural Review:

- Interior utility room access
- Interior sprinkler room access
- Adequate attic access (sized for FF, if applicable))
- Catwalk access in unfinished areas that have sprinklers (handrails preferred)
- If building has truss roof or floors, must display sign according to ordinance 1301. Knox box required for all buildings with fire alarm or sprinkler systems (ordinance 1803)

 Response: All architectural requirements will be adhered to when final architectural plans are completed for construction.

Civil/Site Review:

Hydrant near site access and towards rear of site (if applicable)
 Response: The hydrant has been slightly relocated & provides access for the EFD.

Sprinkler Review:

- NFPA 13(R,D) sprinkler system where required
 Response: The A note to this effect has been added to the plans.
- FDC: 4-inch storz with at least 18" clearance to ground Response: The A note to this effect has been added to the plans.
- Electric bell (no water motor gong)
 Response: The A note to this effect has been added to the plans.
- Attic protection in 13R systems

Fire Alarm Review:

- Single red beacon or strobe indicator on exterior (not horn-strobe)
- NFPA72 Fire Alarm System where required
- Cat 30 keys for pull stations and FACP
 Response: All fire alarm requirements will be adhered to at the time of construction in coordination with EFD.

Elevators:

- Heat and smoke top and bottom (heats for the shunt trip)
- Dimensions to accommodate a stretcher (usually a 2500 lbs) 3'6" by 7' at a minimum
- Elevator recall to appropriate floor during an activation

- Sprinkler protection top and bottom if ANY combustible material in shaft. (can omit per NFPA 13 guidelines)
- Phone in car needs to be able to dial 911
 Response: All architectural requirements will be adhered to when final architectural plans are completed for construction.

NATURAL RESOURCE PLANNER COMMENTS

Based on application materials provided with the December 14th, 2018 inter-office transmittal I have the following comments with regard to natural resources.

Wetland Report

 Additional information is needed about the relationship between the two east west tributaries referred to in the wetland delineation report. The Gove report indicates it is a continuous system. Please clarify if this is a contiguous wetland per our definition in 9.3.2.B. This is important for determining whether the shoreland district boundary applies to that section of the property or not.

Response: Per EZO section 9.3.2.E. this stream is not depicted on the USGS Quadrangle map & therefore no Shoreland protection setback is necessary. Bear-in-mind, this is an outfall form the NHDOT detention pond adjacent to Route 101. Please see response memo from Gove Environmental, Inc. attached herewith.

2. Please clarify what the 2nd to last sentence of Paragraph 1 on the 2nd page of the wetland delineation report states.

Response: Please see response memo from Gove Environmental, Inc. attached herewith.

3. Wetland delineation report states "would not likely hold water" and concludes they would not be classified as vernal pools. Was this field confirmed by surveying during the breeding season?

Response: Please see response memo from Gove Environmental, Inc. (GES) attached herewith.

Plan Comments

- 1. Elevation lines are not visible on most sheets Response: We apologize for the poor print quality and have provided improved plan prints.
- Note 10 on sheet 1 lists one portion of the requirements of the Shoreland Protection District. Please add impervious cover and surface alteration limits.
 Response: The requested information has been added to the plan.
- 3. Wetland delineation occurred in 2012. Has a more recent re-evaluation of the boundaries been conducted since 2012? Response: GES did reevaluate the wetlands boundaries in late '2018.
- 4. Sheet 5: I did not see photometric info or cone of illumination for lighting. Please add to indicate 0 at property lines. Response: See response no item 1.

CUP Applications

- Shoreland CUP
 - 1. Add Zoning Board variance information.

Response: The ZBA approval information has been added to the plan as requested.

- Sprinkler protection top and bottom if ANY combustible material in shaft. (can omit per NFPA 13 guidelines)
- Phone in car needs to be able to dial 911
 Response: All architectural requirements will be adhered to when final architectural plans are completed for construction.

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CUP Applications

- Shoreland CUP
 - 1. Add Zoning Board variance information.

Response: The ZBA approval information has been added to the plan as requested.

- 2. Condition B would benefit from statements about proper maintenance of septic system. I believe Christian Smith submitted details to the ZBA to this affect. Suggest ensuring proper maintenance of septic system be considered for a condition of approval given the proximity of the site to the Town's drinking water source.
 Response: As discussed at TRC, the Planner suggested that this be written into the deed for the parcel. This will protect the parcel in perpetuity (the draft deed will be provided upon completion by the owners attorney).
- 3. Condition C needs some justification language to explain conclusion.
- 4. Condition D we typically see recommendations to use NE wetland conservation or wildlife seed mix. Curious about reason for semi-shade grass and forb choice. Also a former application received a notice from NHDHR with concerns about the buffer infill plantings. I was not a part of those discussions and do not know if they were resolved but there should be some determination if this would be allowed by NHDHR. Response: The semi-shade grass and forb mix is preferable in buffer areas. This planting/seeding scheme was from the previous site plan approval and has been removed.
- 5. Recommend listing fertilizer restrictions on the plan sheet that will be recorded.

 Response: A fertilizer restriction to 0-P & slow release N has been added to the plan as requested/.
- Recommend installing buffer discs to indicate limit of Shoreland and Wetland buffers to
 ensure they are protected after construction.
 Response: The developer is amenable to this. A note has been added to the plans
 regarding this requirement.

Wetland CUP

- 1. In accordance with Zoning Article 9.1.6.C. this project should follow Site Plan Regulations 9.9 and file for a waiver from Article 9.1.6A CUP process. Therefore the application requires a response to items under 9.9.3 of the Site Plan Review and Subdivision Regulations. Update sheet 1 to add wetland waiver request under the list of Wavier Notes. Note that these requirements differ from the CUP requirements. I recommend staff review of response to waiver conditions prior to PB submission would be beneficial.
 - Response: The waiver has been prepared and is provided with this response. It has also been added the sheet as requested.
- 2. Is it possible to relocated gravel wetland within the front setback (outside of the wetland buffer area)?
 - Response: The drainage pond has been relocated as suggested.
- The wetland report needs to compare the function of the wetland value within the landscape and compare this to the proposed impact. Current report lacks detail on impacts. (SS 9.9.3.1)
 - Response: Please see response memo from Gove Environmental, Inc. (GES) attached herewith.
- 4. Application will require submission of a wetland functions and values study of the wetlands (SS 9.9.3.2).
 - Response: Please see response memo from Gove Environmental, Inc. (GES) attached herewith.

We would like to thank the committee for its professional and thoughtful review of the submittal documents and plans. If there are any questions, please do not hesitate to contact me regarding any of the responses sited above.

Very Truly Yours,

BEALS ASSOCIATES, PLLC

Christian O. Smith, PE

Principal

Town of Exeter



Planning Board Application for <u>Conditional Use Permit</u>: Shoreland Protection District

February 2017



Town of Exeter Planning Board Application

Conditional Use Permit: Shoreland Protection District In accordance with Zoning Ordinance Article: 9.3

SUBMITTAL REQUIREMENTS:

(see Conservation Commission and Planning Board meeting dates and submission deadlines)

- 1. One (1) electronic copy of full application, including plans (color copy if available)
- 2. Fifteen (15) copies of the Application
- 3. Fifteen (15) 11"x17" and three (3) full sized copies of the plan which must include:

Existing Conditions

- a. Property Boundaries
- b. Edge of Shoreland and associated Buffer (Shoreland Protection District SPD)
- c. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements

Proposed Conditions

- a. Edge of Shoreland and Shoreland Buffers and distances to the following:
 - i. Edge of Disturbance
 - ii. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements
- b. Name and phone number of all individuals whose professional seal appears on the plan
- 4. If applicant and/or agent is not the owner, a letter of authorization must accompany this application
- 5. Supporting documents i.e. Letters from the Department of Environmental Services, Standard Dredge and Fill Application and Photos of the property
- 6. A Town of Exeter Assessors list of names and mailing addresses of all abutters

Required Fees:		
Planning Board Fee: \$50.00	Abutter Fee: \$10.00	Recording Fee (if applicable): \$25.00

The Planning Office must receive the completed application, plans and fees on the day indicated on the Planning Board Schedule of Deadlines and Public Hearings.

APPLICANT	Name: Palmer & Sicard			
	Address140 Epping Road, Exeter, NH			
	Email Address: MHodson@PalmerandSicard.com			
	Phone: 603-778-1841			
PROPOSAL	Address: Holland Way, Exeter, NH			
	Tax Map # 66 Lot# 1 Zoning District: CT			
	Owner of Record: Exeter Corporate Park Development, LLC			
Person/Business	Name: Same as Applicant			
performing work	Address:			
outlined in proposal	Phone:			
Professional that	Name: Luke Hurley, CSS, CWS			
delineated wetlands	Address: 8 Continental Dr, Bld 2, Unit H, Exeter, NH			
	Phone: 603-778-0644			

Town of Exeter Planning Board Application Conditional Use Permit: Shoreland Protection District

Detailed Proposal including intent, project description, and use of property: (Use additional sheet as needed)
Palmer & Sicard, Inc. is proposing a 26,989 s.f. office building/warehouse/shop development on approximately
14.74-acres of land located off Holland Way in Exeter, NH

The proposal includes on-site utilities to include, buried propane tanks, underground electric & cable, onsite septic system & well, & an underground fire cistern. All lighting proposed is dark sky compliant with down cast LED luminaires. The project includes paved drive aisles & parking for the tenants, and a minor closed drainage system. The design includes LID stormwater management and treatment including a large gravel wetland pond.

Shoreland Protection District Impact	(in square footage):				
Water Body	Dearborn Brook				
Temporary Impact	300 Foot SPD				
	150 foot SPD				
	SPD Building Setback				
	75 Vegetative Buffer				
Permanent Impact	🕱 300 Foot SPD	13,172 s.f.			
	☐ 150 foot SPD				
	SPD Building Setback				
	75 Vegetative Buffer				
Impervious Lot Coverage	SF of Lot within District	280,254 s.f.			
	SF of Impervious within District	<u>11,153</u> s.f.			
	% of Impervious within District	4.0%			
List any variances/special exceptions grant	ted by Zoning Board of Adjust	ment including dates:			
On January 15, 2019, the Exeter ZBA voted to approve a variance request to Article Section 4.4					
Schedule III: Density and Dimensional Regulations - Non-Residential to permit the proposed					
development to be served by an on-site septic system and water well.					
Describe how your proposal meets the correference):	nditions of Article 9.3.4.G.2 of	the Zoning Ordinance (attached for			
See attached.					

ABUTTERS: PLEASE LIST ALL PERSONS WHOSE PROPERTY IS LOCATED IN NEW HAMPSHIRE AND ADJOINS OR IS DIRECTLY ACROSS THE STREET OR STREAM FROM THE LAND UNDER CONSIDERATION BY THE BOARD. THIS LIST SHALL BE COMPILED FROM THE EXETER TAX ASSESSOR'S RECORDS.

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Conditional Use Permit Criteria Shoreland Protection District

9.3.4 G Conditional Uses:

- 2. The Planning Board may grant a Conditional Use Permit for those uses listed above only after written findings of fact are made which have been reviewed by technical experts from the Rockingham Conservation District, if required by the Planning Board, at the cost of the developer, provided that all of the following are true:
 - a. The proposed use will not detrimentally affect the surface water quality of the adjacent river or tributary, or otherwise result in unhealthful conditions.
 - b. The proposed use will discharge no waste water on site other than that normally discharged by domestic waste water disposal systems and will not involve on-site storage or disposal of hazardous or toxic wastes as herein defined.
 - c. The proposed use will not result in undue damage to spawning grounds and other wildlife habitat.
 - d. The proposed use complies with the use regulations identified in Article 9.3.4 Exeter Shoreland Protection District Ordinance Use Regulations and all other applicable sections of this article.
 - e. The design and construction of the proposed use will be consistent with the intent of the purposes set forth in Article 9.3.1 Exeter Shoreland Protection District Ordinance Authority and Purpose.

Seventy Portsmouth Avenue Stratham, New Hampshire 03885

603 - 583 - 4860 Fax: 583 - 4863

February 21, 2019

Town of Exeter Planning Board 10 Front Street Exeter, NH 03833

RE: Shoreland Protection District Conditional Use Section 9.3.4 - Proposed Site Plan – Holland Way

Dear Members of the Board:

The following addresses the conditions of Article 9.3.4.B of the Exeter Zoning Ordinance.

9.3.4.G.2. Conditions:

- a. The proposed development will not detrimentally affect surface water quality to Dearborn Brook or result in unhealthful conditions due to the proposed storm water management and LID treatment system. In addition, all snow will be plowed away from and stored safely outside the district.
- b. The project will solely discharge domestic wastewater through a NHDES approved septic treatment field outside the district boundary. Underground LP gas tanks to serve the office building will be approved by the NH Water Supply and Pollution Control Commission in compliance with Ws 411. The tanks will be located outside the district.
- c. The proposed development will not result in any damage on spawning grounds or other habitat (see GES memo detailing basis for conclusion.
- d. The layout has been designed to minimize disturbance within the District. Previously disturbed area will have stumps ground & slash removed in the area of clearing, and then be over seeded with NE Semi-shade grass and forb mix (specifically formulated for re-vegetating wetlands/buffer areas). In addition, the buffer areas to Dearborn Brook that were inadvertently cleared during the logging operation have vigorous regrowth of native species. Lot size, maximum coverage, and all other requirements cited within Article 9.3 are complied with under the current proposal outside the area the Conditional Use Permit is requested for.
- e. By virtue of the re-vegetation of the previously logged area, the LID storm water collection and treatment structures, the revised layout to minimize encroachment into the District and maintain infrastructure outside the District, the resultant design and construction of the development is consistent with the intent and purposes cited in Article 9.3.1. Finally, no disturbance is proposed

within the 150' Shoreland Protection District, and the proposed development is completely outside the NHDES Shoreland Protection District.

Thank you for your consideration.

Very truly yours,

BEALS ASSOCIATES, PLLC

Christian O. Smith, P.E.

Principal

GOVE ENVIRONMENTAL SERVICES, INC.



Christian O. Smith, P.E., Principal Beals Associates, PLLC Stratham, NH Office 70 Portsmouth Avenue Stratham, NH 03885

Subject:

Wetland Delineation Report

Palmer and Sicard, Holland Way, Exeter

Dear Mr. Smith:

As requested, I went out to verify the limits of the wetlands on site in November 2018 based on the following standards.

- 1. US Army Corps of Engineers Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Technical Report ERDC/EL TR-12-1 (January 2012).
- Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 7.0.
 United States Department of Agriculture (2010).
- 3. North American Digital Flora: National Wetland Plant List, Version 2.2.1 (2009).
- 4. Classification of Wetlands and Deepwater Habitats of the United States. USFW Manual FWS/OBS-79/31 (1979).

Planner Comment #13.

The extent of wetlands on site has not changed. As noted in the prior wetland report, the upper, isolated wetlands are small and have little to no functions and values. Those wetlands associated with Dearborn Brook have the more significant functions and values on site. Dearborn Brook flows along the southern property line and meets with an unnamed stream system, flowing down the northern side. Any proposed project on the upper, flat area on site will have little to no effect on these isolated wetlands, or those associated with Dearborn Brook and the overall functions and values. Proper stormwater treatment is being proposed for the site. This will eliminate the possibility of any untreated runoff from leaving the site and entering these wetlands. Additionally, the maintaining of the Town's buffer will ensure additional protection of the functions and values.

Natural Resource Planner Comments

1. As Dearborn Brook flows along the southern edge of the property from the east to the west, it connects with the unnamed stream flowing on the north side, also from the east to the west.

These wetlands become one in the rear of the property and continue to the west. This then flows to the Exeter Reservoir.

- 2. At the time of the delineation and follow up in 2018, the additional areas that were showing some ponding of water are not wetlands. They had historical evidence of upland plant species, through remaining trunks and regrowth, as well as somewhat poorly drained soils, which are non-hydric soils. Therefore, these areas are not wetlands and the plans reflect the correct wetland areas.
- 3. Yes a survey was done and no vernal pools were identified.

Article 9.3.4.G.2.c. The proposed development will not result in any damage to spawning grounds or other habitat. As the project is proposed there will be not direct runoff from the site with storm water. All storm water will be treated by an oversized storm water basin. This structure located on the west side of the site will be at its closest, approximately 65' away from the wetland edge associated with the stream from the NH DOT ponds flowing into it. This pond starts on the north east side of Holland way and is the primary stormwater treatment for a significant portion of NH Route 101. The bulk of the development is beyond the 300' setback from Dearborn Brook to the south and east.

9.9.3. Wetland Waiver Guidelines.

1. Based on Data with in the Town of Exeter's Ordinance's, the stream on the west side of the property is not listed as a stream within the shoreland setbacks. This wetland/stream system originating from the NH DOT storm water pond on the east side of Holland Way has a 75' setback. This water course does not show up on USGS or Streamstats and is not listed in the Exeter ordinance for a shoreland buffer. Almost all of this proposed project is beyond that setback. The remaining area within the setback should not be expected to be impacted from the project. All storm water is being treated by an oversized system and no untreated stormwater will flow from the impervious areas to the wetland to the North West.

Additionally the isolated wetlands to the south east of the project, not proposed for filling, is not a vernal pool and has limited functions and values due to its size. With the drainage system located on the north side of the proposed building the stormwater will drain to this side to be treated. The remaining buffer to this wetland will remain intact.

- 2. As explained above the functions and values of these small isolated wetlands are low. They are small isolated, non-vernal pool basins, which hold water for a very limited amount of time in the spring or during heavy rains. They provide no aquatic organism habitat. As the site is significantly flat and undeveloped, they don't provide any sediment or toxicant retention, flood flow attenuation or storage. They have no endangered species habitat and are not unique for a wetland type.
- 3. The current building has been reduced from the original proposal. This has reduced impacts to the buffers and limited further development and impacts to the site.







- 4. The previous development proposal had 1.68 acres sf of total impervious with building, parking and driveway. The current proposal has. 151acres. Approximately 7,650 sf in reduction. By doing this, the project has greatly reduced potential impacts to any of the wetlands on site not being proposed for impacts. As all stormwater will be directed to and treated by an oversized onsite system, this will ensure that no untreated storm water will directly flow into the stream from the DOT pond, or any of the other wetlands on site.
- 5. N/A
- 6. Any comments/recommendations from the Exeter CC will be reviewed and considered.
- 7. The larger, more functionally valuable wetlands are protected with no buffer impacts proposed.

If you have any questions or need anything else, please let me know.

Sincerely,

Luke D. Hurley, CWS, CSS

Vice President

Gove Environmental Services, Inc.

Wetlands Functions and Values Assessment

This wetland functions and values assessment categorizes the wetlands on site into two types; small isolated wetlands and the brooks.

These hold some water in the spring after snow melt and in the fall after periods of significant rain. Overall, because of their small and isolated nature they tend to have low functions and values in general. With the ample vegetation and flat topography, they do not receive runoff from surrounding land uses, which would typically contain pollutants. Additionally, they don't have significant Floodflow attenuation or holding capacity as they are rather small and shallow. Habitat value is also low as it does not provide significant production (food) export for wild life and does not support aquatic organisms.

Short of the small wetland to be impacted, it is not expected that these isolated areas will be degraded from the proposed development. The majority of the site will remain in its current vegetated state, with thick pioneer species and emergent cover. All stormwater from the proposed project will be contained on site and directed to an oversized storm water treatment system and will not drain directly to any wetlands on site.

The stream systems of Dearborn Brook and the DOT stream have been assessed as one system as the DOT stream flows directly into Dearborn Brook.

The stream to the north of the site originates from the NH DOT storm water pond between NH Route 101 and Holland Way. This wetland catches the storm water runoff directly from the highway and drains it into a storm water pond, which is the headwaters for the brook on that side of the site. This stream does not show up on USGS Topo maps, nor does it show up on USGS Streamstats maps. This in an intermittent stream that flows down the north side of the site and drains into Dearborn brook at the rear of the property.

Over all these have high functions and values according to the USACE Highway Methodology assessment, which has been included. While these wetlands do have a watercourse, they also have riparian wetland edge that are seasonally flooded during spring snow melt and rains as well as rain events in the fall. These seasonally saturated edges provide the bulk of the functions and values as they have the vegetation and root mass to control flood events, as well as filter out any pollutants or toxicants flowing through the system. They also have the function of habitat, as it applies to aquatic organisms. Lesser so for the DOT stream as this does dry up in some years, but still has the ability to maintain this function.

With the 300' buffer being held for the majority of Dearborn Brook, no loss in functions or values is expected. That portion of the site will be free from development and no stormwater will be directed to that area from the site.







The DOT stream is closer to the development, but as described above, is not subject to the shoreland buffer. The project is limiting disturbance on that side of the site, as best practicable, while maintain the 300 Dearborn Brook buffer. All storm water will be collected on site and treated on the north side of the project. This water will drain to oversized structures where it will be treated and infiltrated into the ground. There is no expected loss of functions or values to this DOT stream. The area between the development and the stream, will remain in its current state of vegetation cover to the greatest extent practicable beyond the limit of disturbance.

Wetland Function-Value Evaluation Form

Corps manual wetland delineation completed? X Y N Wetland ID: Isolated wetlands Wetland Impact: Yes Evaluation based on: Prepared by: LDH Type PEMIE Latitude Office Wildlife & vegetation diversity/abundance (see attached list) No Distance to nearest roadway or other development: Immediately adjacent to or a 'habitat island'? If not, where does the wetland lie in the drainage basin? These are isolated Contiguous undeveloped buffer zone present Yes Is wetland part of a wildlife corridor? No Principal Rationale Human made? No Occurrence How many tributaries contribute to the wetland? None Adjacent land use Commercial and wooded land Is the wetland a separate hydraulic system? Yes Dominant wetland systems present PEM1E Function/Value Total area of wetland: N/A

Date 2/21/19 Longitude Area Field X

Function/value	Y/N	(Reference #)*	Function/Value(s) Comments	
Groundwater Recharge/Discharge	Z	1,2,3,4	Isolated wetlands are too small to have this function	this function
Floodflow Alteration	Z	2,5,6,8,9	Isolated wetlands are too small to have this function	this function
Fish and Shellfish Habitat	Z			
Sediment/Toxicant Retention	z	1,2,4,	Ample upland undeveloped land surrounding wetland	unding wetland
Nutrient Removal	z		No known sources in proximity to wetlands	lands
Production Export	z		Primarily herbaceous vegetation	
Sediment/Shoreline Stabilization	N/A		Isolated Wetlands	
Wildlife Habitat	Z			
Recreation	z		Small isolated wetlands	
Educational/Scientific Value	Z		Small isolated wetlands	
Uniqueness/Heritage	z		Small isolated wetlands	
Visual Quality/Aesthetics	z		Virtually undetectable in thick shrub tree layers.	ee layers.
Endangered Species Habitat	z			
Other				
Notes:			*Refer to backup list of	*Refer to backup list of numbered considerations.

*Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Wetland ID: Brooks wetlands Wetland Impact: Yes Evaluation based on: Prepared by: LDH Type PEM1E Latitude Office Comments Wildlife & vegetation diversity/abundance (see attached list) Yes Distance to nearest roadway or other development: Immediately adjacent to Is wetland part of a wildlife corridor? Yes or a 'habitat island'? If not, where does the wetland lie in the drainage basin? Low Principal Contiguous undeveloped buffer zone present Yes Rationale Human made? No Occurrence How many tributaries contribute to the wetland? Two Adjacent land use Commercial and wooded land Is the wetland a separate hydraulic system? Yes Dominant wetland systems present PEM1E Function/Value Total area of wetland: N/A

Date 2/21/19 Longitude Area Field X

Corps manual wetland delineation completed? X Y N

	X/X	(Reference #)*	Functio	Function/Value(s) Comments
Groundwater Recharge/Discharge	Z	1,2,3,4,7	<u> </u>	Possible groundwater discharge as brook
Floodflow Alteration	Y	1,2,4,5,6,8,9,11,13,14,		
Fish and Shellfish Habitat	Ā			
Sediment/Toxicant Retention	Y	1,2,3,4,6,7,8,9,10,11,15,		
Nutrient Removal	Z	1,3,4,5,7,8,9,10,11,12,13,		
Production Export	Y	1,2,4,5,6,7,8,10,11,12,		
Sediment/Shoreline Stabilization	Ā	3,5,6,8,9,12,13,14,15		
Wildlife Habitat	Ā			
Recreation	Z		<u>a</u>	Portions of these wetlands are on private land
Educational/Scientific Value	Y		Ь	Portions of these wetlands are on private land
Uniqueness/Heritage	Z		S	Similar to other watercourse throughout the state
Visual Quality/Aesthetics	Y		E: N	Most of this stream system is located within dense woods with little obstruction from surrounding land uses.
Endangered Species Habitat	Z			
Other				

Notes:

*Refer to backup list of numbered considerations.

NHDES-W-06-044

FILE COPY



WETLANDS & SHORELAND REQUEST FOR PERMIT TIME EXTENSION

Services Water Division/ Wetlands Bureau/ Land Resources Management Check the status of your permit: www.des.nh.gov/onestop



R\$A/Rule: RSA 482-A, RSA 483-B

	DECEIVE D	
4	UL AUG 0772018	
*	NHDES LAND RESOURCES MANAGEMENT	
	FAME RESOURCES MANAGEMENT	1

AUG 07 2018

Expression Date OS / 26/202 Expression Date OS / 26/202 Expression Date OS / 26/202 Expression Date OS / 2018

Under Wetlands and Shoreland statutes RSA 482-A;3 XIV-a and RSA 483-B;5-b VI, respectively, an applicant may request a permit time extension if the conditions in Section B are met. This request must be submitted no sooner than 90 days prior to, but before the Wetland or Shoreland permit expires. Once the permit expires, it is no longer eligible for a permit time extension. The blank space at the top of this page is for Registry of Deeds use.

1. PROJECT AND OWNER INFORMATION	MAN LANGE	arming from steer of	and the second of the second o		. e. 131. sa.
PROJECT ADDRESS: Holland Way, Exeter, Ta	x Map 66 Lot 1	1. (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		8 - 3 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 -	, ř
TOWN/CITY: Exeter		STATE: N	IH ZIP C	ODE: 03883	
TAX MAP: 66 LOT NUMBER:			UNIT	region of	ş
PERMIT NUMBER: 2013-01894	PERMIT TYPE	: SHOF	RELAND (⊠ WETLAND	i d
Request must be filed no sooner than 90 days possible PERMIT EXPIRATION DATE; 8/26/18	rior to, but before the permit	explres.	5		
OWNER/AUTHORIZED AGENT: Waldron Engli	eering	,			S = A
ADDRESS: 37 Industrial Drive, Suite G1	TOWN/CITY: E	Exeter S	TATE: NH	ZIP CODE:	03883
EMAIL: bills@saxeInvestments.com PHONE	: 6178775278	FAX:	109	n to a	,

shoreland@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, PO Box 95, Concord, NH 03303-0095
www.des.nh.gov

2. INFC	RMATION REQUIRED FOR RE	QUEST ACCEPTANCE
permit e	en met, your request will be gran expiration date as evidence of you	aterials, initials and signature demonstrating that the following conditions ited, and you will receive this page, signed and annotated with the new or extension. If your request package does not include all the required returned to you with this page annotated with the missing/non-compliant to accept the conditions.
12	RSA 482-A;3, XIV-a, (a), and RSA 488-B;5-b VI, (a)	The permit for which extension is sought has not been revoked or suspended without reinstatement.
	RSA 482-A:3, XIV-a, (b) and RSA 483-B:6-b VI, (b)	Extension would not violate a condition of law or rule.
D	RSA 482-A:3, XIV-a, (o) and RSA 483-B:5-b VI, (c)	The project is proceeding towards completion in accordance with plans and other documentation referenced by the permit.
W	RSA 482-A;3, XIV-a (a) and Env-Wq 1406,19	There are no amendments or changes to the permit description, conditions or approved plans that would require an amendment or a new application.
W N/A	For Wetlands Permits Only: RSA 482-A:3, XIV-a,(d)	The applicant proposes reasonable miligation measures to protect the public waters of the state from deterioration during the period of extension. Check N/A if this is a Shoreland Permit.
⊠ N/A	For Shoreland Permits Only: RSA 483-8:5-b VI, (d)	The applicant proposes reasonable miligation measures to protect the shorelands and public waters of the state from deterioration during the period of extension. Check N/A if this is a Wetlands Permit.
3. REQU	IRED CERTIFICATIONS	
Initial ea	oh box below to accept the cor	nditions.
17 0 1	additional years) and further time e	qualifies as the single alcowable Permit Time Extension (of up to 5 extensions for this permit are not allowed in accordance with RSA 482- nv-Wt 502.01 and Env-Wg 1406.18, as applicable
1601	understand that any Request fo Dwner, Authorized Agent or Applic or rules as may be required.	or Permit Time Extension accepted by NHDES does not relieve the cant from the obligation to comply with other local, state or federal laws
15 11	understand that any Request in ncomplete, or misleading inform enforcement action.	for Permit Time Extension accepted by NHDES, based on false, nation on the application, plans or attachments shall be subject to
	understand that this Request for I neal any rule requirements that ar	Permit Time Extension does not request any redesign of the project to re more stringent than the rules in effect when the permit was issued.
	understand that work must be opproved permit.	completed in accordance with the description and conditions of the
4. REQUI	RED SIGNATURE	Ø OWNER ☐ AUTHORIZED AGENT ☐ APPLICANT
SIGNATU	RE/SAL	PRINT NAME LEGIBLY: William Steinberg DATE: 8-7-18

shoreland@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, PO Box 96, Concord, NH 03303-0095
www.des.nh.gov

70 Portsmouth Avenue Stratham, NH 03885 Phone: 603-583-4860 Fax: 603-583-4863

February 12, 2019

Exeter Planning Dept. Attn. David Sharples, Town Planner 10 Front Street, Exeter, NH 03833

Re:

Site Plan Review TRC Comments

PB Case #18-22 Tax Map Parcel #66-1

Dear Mr. Sharples:

We are in receipt of the review comments from Underwood Engineers dated 2/7/19 and offer the following in response. For clarity our responses appear in bold font.

Cover Sheet

- 1. The location map should be updated with a higher quality graphical map (for example, only route 101 is distinguishable). Response: The Locus map has been revised.
- 2. The following permits listed have reached their expiration dates and need to either be renewed or extended:
 - a. The Alteration of Terrain permit date is listed as 10/17/13. This permit expires 5 years after issuance.
 - b. The Wetland Permit date is listed as 8/28/13 = This permit expires 5 years after issuance.
 - c. The NHDES Water Supply Well Location date is listed as 10/31/13 =This permit expires 4 years from approval date.

Response: All permit data will be updated once received.

Parking/Pavement Plan (Sheet 2 of 9)

3. Lot line setback distances should be labeled on the plan for clarity (i.e. front, rear and side yard setbacks). Response: The front yard setback has been labeled and setback notes added.

- 4. The area of the building used in the parking lot calculations does not match the total area of the building shown on the plans. This should be clarified. Response: The calculations have been updated.
- 5. There is a dark line in the western proposed parking lot between the 3 parking spaces and the truck parking spaces. The intent of this line should be clarified. Response: A label has been added to the retaining wall.
- Snow storage should not be located within the well protective radius. Response: The well
 has been relocation further away from the building and away from any possible snow
 storage.
- 7. It is unclear why the western portion of the parking lot is unpaved. Paving the complete parking lot should be considered to limit potential soil erosion and sediment transport. Response: The gravel portion is now proposed as pavement as suggested.
- 8. Under the Town Notes "Super Trucks" should be added to the list of accommodated vehicles for consistency with the truck shown in plan view. Response: The notes have been revised as suggested.
- 9. It appears that saw cutting of the pavement along Holland Way will be required for the driveway connection. This should be clarified on the plans. If saw cutting is required a pavement sawcut detail should be provided on the construction details. Response: The only saw-cut anticipated would be a simple key cut on the edge of the existing road that is standard for paving companies & an additional detail doesn't seem necessary.
- 10. Granite curbing should be shown in lieu of bituminous curbing, else a waiver will be required to comply with Town Standards. Response: The curbing has been revised to granite.
- 11. The travel lane in the northern corner of the parking lot, adjacent to the 30' radius is approximately 21' wide. It is recommended that this distance is increased for ease of access. Also, the inside of the turn appears too sharp and may need a radius curve. Alternatively, the parking locations could be "flipped" in this parking bay. Response: the parking layout has been revised to remove 1 space and a wider lane (24').

Grading and Drainage Plan (Sheet 3 of 9)

- 12. There appears to be a fence line, or silt fence shown around the site, but the line is not labeled. This should be labeled for clarity. Response: A label has been added to the line type.
- 13. The proposed 46' contour terminates outside the southern portion of the gravel parking area. This should be tied into the existing 46' contour, or additional grading should be shown. Response: The proposed grading is correct which was hard to see on the previous plan prints and has been corrected.

- 14. Elevation spot shots should be shown in parking lot and driveway corners and on the dumpster pad corners to clarify the grading intent. Response: Spot grades are shown on the grading plan.
- 15. Drainage pipe size, material and length should be labeled along the proposed pipe on the plans, in addition to the structure information for clarity. For example, proposed CB 2 lists a 24" invert in, however the upstream structure (DMH 1) specifies a 30" invert out. The intended pipe size is unclear and needs clarification. Response: This has been corrected and the pipe sizes are depicted correctly in the drawing.
- 16. At the southwestern building corner near the garage area, the 46' contour and the 48' contour join. It is unclear if one of these contours is mislabeled. This should be clarified. Response: The proposed contours do not join as they simply terminate at the proposed retaining wall in the same vicinity.
- 17. Existing contours in the site should be shown more clearly and should be coordinated with the proposed contours. It is unclear where proposed contour lines are tying into the existing grade. Response: We apologize for the poor print quality and have provided better plan prints.
- 18. The 54' contour at the driveway entrance should be labeled. Response: The requested label has been added.
- 19. The Applicant should consider shifting the gravel wetland toward the front of the building to limit clearing and impacts in the wetlands buffer areas. Response: The pond has been relocated as suggested.
- 20. An overflow spillway should be added to the gravel wetlands. Response: The spillway has been added as suggested.

Utilities Plan (Sheet 4 of 9)

- 21. The units should be specified for the volume of the underground cistern in the call out note. Typical cistern details should also be provided. Response: The volume unit has been added and a detail provided.
- 22. Waterline size and material should be shown on the Drawings. Response: The waterline has been labeled as requested.
- 23. Sewer size and material should be shown on the Drawings. Response: The sewer line has been labeled as requested.
- 24. Sewer structure elevations should be shown on the Drawings. Response: A note referencing the septic plan has been added.

- 25. A minimum separation of 10 feet from the underground propane tanks to the building should be shown and called out on the Drawings. Response: The setback distance was added to the plans for the propane tanks.
- 26. A detail for the underground cistern should be provided. Response: The detail has been provided on a new sheet as requested.

Lighting/Landscape Plan – L1 (Sheet 5 of 9)

- 27. There is a Red Maple proposed in the same space as the proposed cistern. The Red Maple should be relocated. Response: The required landscaping has been relocated.
- 28. There is a Chanticleer Pear tree located in the same space as the proposed propane tanks. This tree should be relocated. Response: The required landscaping has been relocated.

Effluent Disposal Plan (Sheet 6 of 9)

- 29. There is a sewer manhole shown outside of the building that is not shown on the other plan views. This should be shown on the other plan views for coordination with other utilities. Response: The plans have been updated per the septic design and the outdated septic plan has been replaced with the current design.
- 30. There is a 53.60' contour around the septic system, then there is a label saying HP=52.1'. It is unclear if this is an existing high point or proposed. Response: The HP is the existing ground to establish ESHWT and bed bottom from the test pit log.
- 31. In the Enviro-Septic Design Calculations the building area is listed as 24,869 SF. However, on Sheet 2 of 9 its listed as 29,989 SF. This should be clarified. Response: The plans have been updated per the septic design and the outdated septic plan has been replaced with the current design.
- 32. A profile view and cross sections should be shown from the building to the leach field for the septic system. This should include invert elevations at the building and all structures.

 Response: The plans have been updated per the septic design and the outdated septic plan has been replaced with the current design.
- 33. Details for the two septic tanks and pump chamber should be provided. Response: The plans have been updated per the septic design and the outdated septic plan has been replaced with the current design.
- 34. The existing 52' contour is not visible. The existing contour line type should be modified for clarity. Response: The plans have been updated per the septic design and the outdated septic plan has been replaced with the current design.

35. The designers stamp on the effluent disposal plan should be included. Response: The plan has been stamped.

Construction Details (Sheet 7 of 9)

- 36. The invert elevation, size and material of entry culvert to the gravel wetlands should be shown on the details. Response: A label has been added for the culvert on the detail.
- 37. The 23' stone level spreader is shown on the plans with an elevation of 43.25', however, the detail lists the elevation at 43.0'. This should be clarified. Response: The detail has been corrected.
- 38. The 35' stone level spreader is shown on the plans with an elevation of 44.00', however, the detail lists the elevation at 45.3'. This should be clarified. **Response: The detail has been corrected.**
- 39. The stone level spreader at elevation 43.0' is higher than both inverts of the pipe feeding the forebay. This will cause the pipe to surcharge into CB #2 if the forebay fills. Response: The spreader has been lowered to 42.0' (pipe Crown is at 44.0').
- 40. Additional detail should be provided for the cut off wall shown in the gravel wetland section inset (i.e. materials, shape, size). Response: The additional detail has been added to the GW section as requested.
- 41. The Applicant should confirm that 24" perforated concrete riser pipe is locally available. Response: We have confirmed with Michie Corp. that the riser can be manufactured. We have used these on many occasions in the past.
- 42. The ESHWT elevation should be shown on the gravel wetlands cross section. Response: The ESHWT (41.95') has been added to the GW elevation detail as requested.

Utility/Drainage Details (Sheet 8 of 9)

43. There is a sewer cleanout detail, however, there does not appear to be a sewer cleanout shown on the Drawings. The sewer cleanout should be labeled in plan view. **Response:**The detail is not needed and has been removed.

Drainage Analysis

- 44. In the introduction, the site area and building area (14.74 Acres) do not correspond with what is stated on the plans (14.63 Acres). This should be clarified. Response: The errant reference to the 14.74 acres has been corrected.
- 45. The total lot area used in the drainage calculations (12.925 Acres) does not correspond to the total lot area shown on the plans (14.63 Acres). Response: The long finger of land

extending toward Route 33 was not used in the analysis. This approach provides a more conservative comparison of the pre and post development stormwater flows.

- 46. The proposed routing diagram should be enlarged in the Drainage Report so it can be read. Response: The routing diagram has been printed at a larger scale as requested.
- 47. On Page 9 of the Proposed Drainage Analysis the secondary routing device #3 has 44.00' listed for an elevation and is listed as a 10' long weir. However, the plans show this as a 35' long weir. The elevation is listed as 44' on the plan view and 45.3 on the details. This requires additional coordination. Response: The length has been corrected in the HydroCAD model & the detail has been corrected to 44.0'
- 48. On Page 10 of the Proposed Drainage Analysis device #2 (2' rectangular weir) has an elevation of 43.0' listed, however, the details show an elevation of 43.2'. This should be clarified. Response: The analysis has been corrected to 43.2'
- 49. On Page 10 of the Proposed Drainage Analysis device #5 (24" orifice) has an elevation of 44.0' listed, however, the details show an elevation of 43.7'. This should be clarified. Response: The detail has been corrected to 44'.
- 50. The Applicant is requested to enter project related stormwater tracking information contained in the site plan application documents using the Great Bay Pollution Tracking and Accounting Program (PTAP) database (www.unh.edu/unhsc/ptapp) Response: This is understood and will be completed upon conditional approval of the project.

We would like to thank the UEI for its professional and thoughtful review of the submittal documents and plans. If there are any questions, please do not hesitate to contact me regarding any of the responses sited above.

Very Truly Yours,

BEALS ASSOCIATES, PLLC

Christian O. Smith, PE

Principal

70 Portsmouth Avenue Stratham, New Hampshire 03885

603 - 583 - 4860 Fax: 583 - 4863

February 21, 2019

Chairman Town of Exeter Planning Board 10 Front Street Exeter, NH 03833

RE:

Palmer & Sicard - Proposed Office Building (29,989 SF)

Tax Map 66; Lot # 1

Dear Members of the Board:

This is written to formalize a request for waiver with regard to the referenced Site Plan Review application.

Your petitioner seeks the following relief:

We respectfully request a waiver to Sections 7.4.7 of the Site Plan Review and Subdivision Regulations that requires all significant trees be survey located and depicted on the plans. We feel the waiver is justified as field locating every 16" caliper tree on the property is a vast undertaking on a 14+ acres parcel on which the development area is roughly 2.5 acres, a large portion of the site was clear-cut '2011, and the majority of the area with larger trees remaining is protected by wetlands or Shoreland protection buffers. Finally as we fully anticipate a site walk with both the Conservation Commission and the Planning Board, no additional information of value would be provided from which to evaluate the proposed development by mandating the requirement as stated in the regulations.

Thank you for your consideration.

Very truly yours,

BEALS ASSOCIATES, PLLC

Christian O. Smith, P.E.

Principal

Palmer & Sicard NH-236.5

STORMWATER MANAGEMENT/BMP OPERATION & MAINTENANCE PLAN

Proper construction, inspections, maintenance and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality.

For the purpose of this Stormwater Management Program, a significant rainfall event is considered and event of three (3) inches in a 24-hour period or 0.5 inches in a one-hour period. During construction, inspections should be conducted every two weeks or after a 0.25" rainfall event in a 24-hour period per the EPA NPDES Phase II SWPPP, until the entire disturbed area is fully restabilized. Upon full stabilization of the project and filing of an NOI, inspections need only be conducted after a significant rainfall event as described above or as described in the maintenance guidelines below.

During construction activities Palmer & Sicard of 140 Epping Road, Exeter, NH 03833 with a phone # of (603) 778-1841, or it's heirs and/or assigns, shall be responsible for inspections and maintenance activities. Upon municipal acceptance of the public roadway, the Town of Exeter Department of public works shall be responsible for ongoing inspection and maintenance of BMP drainage structures and treatment areas.

Documentation:

A maintenance log will be kept (i.e. report) summarizing inspections, maintenance, and any corrective actions taken. The log will include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, photographs of each BMP practice, and the name of the inspector or maintenance personnel performing the task (see Stormwater Construction Site Inspection Report attached). If a maintenance task requires the clean-out of any sediments or debris, the location where the sediment and debris was disposed after removal will be indicated.

BMP Maintenance Guidelines

The following provides a list of recommendations and guidelines for managing the Stormwater facilities. The cited areas, facilities, and measures will be inspected and the identified deficiencies will be corrected. Clean-out must include the removal and legal disposal of any accumulated sediments and debris. The numbered drainage features below correspond to the specific numbered drainage feature locations on the attached plan.

1. STABILIZED CONSTRUCTION ENTRANCE

A temporary gravel construction entrance provides an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud and sediment transported onto paved municipal and state roads. The stone size for the pad should be between 1 and 2-inch coarse aggregate, and the pad itself constructed to a minimum length of 50' for the full width of the access road. The aggregate should be placed at least six inches thick. A plan view and profile are shown on Sheet E1 - Sediment and Erosion Control Detail Plan.

1a. ENVIRONMENTAL DUST CONTROL

Dust will be controlled on the site by the use of multiple Best Management Practices. Mulching and temporary seeding will be the first line of protection to be utilized where problems occur. If dust problems are not solved by these applications, the use of water and calcium chloride can be applied. Calcium chloride will be applied at a rate that will keep the surface moist but not cause pollution.

1b. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES

Function – Temporary erosion and sediment control devices are utilized during construction period to divert, store and filter stormwater from non-stabilized surfaces. These devices include, but are not limited to: silt fences, hay bales, filters, sediment traps, stone check dams, mulch and erosion control blankets.

Maintenance – Temporary erosion and sediment control devices shall be inspected and maintained on a weekly basis and following a significant storm event (>0.5-inch rain event) throughout the construction period to ensure that they still have integrity and are not allowing sediment to pass. Sediment build-up in swales will be removed if it is deeper than six inches. Sediment is to be removed from sumps in the catch basin semi-annually. Refer to the Site Plan drawings for the maintenance of temporary erosion and sediment control devices.

2. Catch Basins:

Inspect catch basins 2 times per year (preferably in spring and fall) to ensure that the catch basins are working in their intended fashion and that they are free of debris. Clean structures when sediment depths reach 12" from invert of outlet. If the basin outlet is designed with a hood to trap floatable materials (i.e. Snout), check to ensure watertight seal is working. At a minimum, remove floating debris and hydrocarbons at the time of the inspection.

3. Culverts:

Inspect culverts 2 times per year (preferably in spring and fall) to ensure that the culverts are working in their intended fashion and that they are free of debris. Remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit and to repair any erosion damage at the culvert's inlet and outlet.

4. Constructed Gravel Wetland Maintenance

General inspection of the wetland and any structural components must occur at least annually. The perimeter is mowed at least annually.

- 1. The pre-treatment forebay will need occasional removal of sediment (every 5 years, or when 50% of capacity is lost, whichever occurs first). Inspections should ensure that no sediment is reaching the gravel.
- 2. All structural components, which include, but are not limited to, trash racks, access gates, valves, pipes, weir walls, orifice structures, and spillway structures should be inspected and any deficiencies repaired. This includes a visual inspection of all storm water control structures for damage and/or accumulation of sediment.
- 3. All dead or dying vegetation within the extents of the GW should be removed, as well as all herbaceous vegetation rootstock when overcrowding is observed and any vegetation that has a negative impact on storm water flowage through the facility. Any invasive vegetation

encroaching upon the perimeter of the facility should be pruned or removed. Wetland plantings typically become well established, but occasional replanting to maintain minimum 50% coverage may be needed.

5. Pretreatment Structures

Inspect all upstream pre-treatment measures (fore bays, etc.) for sediment and floatables accumulation. Remove and dispose of sediments or debris as needed. Inspect structure on a semiannual basis by using inspection port and/or access structure. Remove sediment as needed when average depths reach 1".

6. Drainage Swales/Stormwater Conveyances

Drainage swales will be stabilized with vegetation for long term cover as outlined below, and on Sheet E-1 using seed mixture C. As a general rule, velocities in the swale should not exceed 3.0 feet per second for a vegetated swale although velocities as high as 4.5 FPS are allowed under certain soil conditions.

Maintenance

- Inspect annually for erosion, sediment accumulation, vegetation loss and presence of invasive species.
- Perform periodic mowing; frequency depends on location and type of grass.

 Do not cut shorter than Water Quality Flow depth (maximum 4 inches)
- Remove debris and accumulated sediment, based on inspection.
- Repair eroded areas, remove invasive species and dead vegetation, and reseed With applicable grass mix as warranted by inspection.

7. Vegetated Areas:

Inspect slopes and embankments early in the growing season to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows. The facilities will be inspected after major storms and any identified deficiencies will be corrected.

8. Roadways and Parking Surfaces: Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.

9. Invasive Species:

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described on the following pages. They should be controlled as described on the following pages.

Background:

Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm

Uy.

becoming weedy and overgrown;

killing established shade trees;

obstructing pipes and drainage systems; forming dense beds in water; lowering water levels in lakes, streams, and wetlands; destroying natural communities; promoting erosion on stream banks and hillsides; and resisting control except by hazardous chemical.

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Lonicera tatarica

USDA-NRCS PLANTS Database / Britton, N.L., and

A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. Vol. 3: 282.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non- native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine

the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

New Hampshire Regulations

Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your

transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.

Bagging (solarization): Use this technique with softer- tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic

Japanese knotweed

Polygonum cuspidatum USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. Vol. 1: 676.

and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

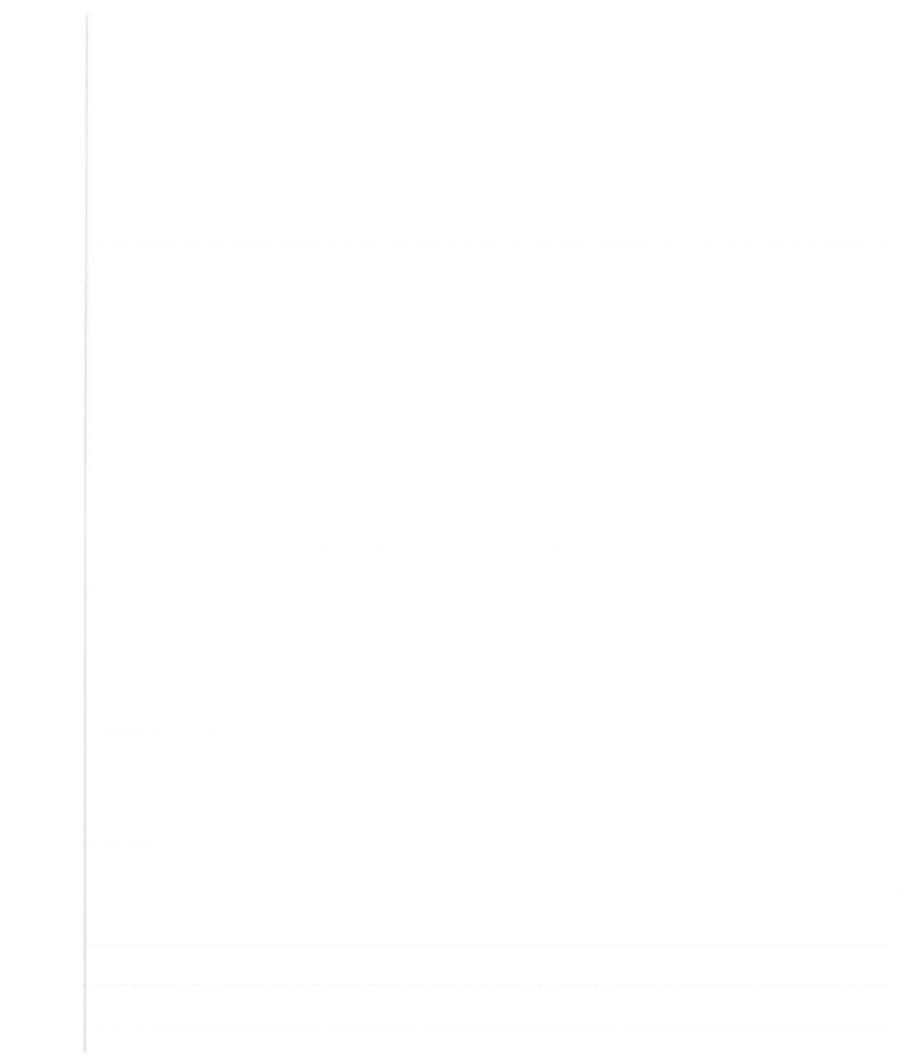
Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for years in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants
This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

Woody Plants	Method of Reproducing	Methods of Disposal
Norway maple (Acer platanoides) European barberry (Berberis vulgaris) Japanese barberry (Berberis thunbergii) autumn olive (Elaeagnus umbellata) burning bush (Euonymus alatus) Morrow's honeysuckle (Lonicera morrowii) Tatarian honeysuckle (Lonicera tatarica) showy bush honeysuckle (Lonicera x bella) common buckthorn (Rhamnus cathartica) glossy buckthorn (Frangula alnus)	Fruit and Seeds	Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Use as firewood. Make a brush pile. Chip. After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip once all fruit has dropped from branches. Leave resulting chips on site and monitor.
oriental bittersweet (Celastrus orbiculatus) multiflora rose (Rosa multiflora)	Fruits, Seeds, Plant Fragments	Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Make a brush pile. Burn. After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip — only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.



	Method of	Methods of Disposal
	Reproducing	1
garlic mustard	Fruits and Seeds	
(Alliaria petiolata)		Prior to flowering
spotted knapweed		Depends on scale of infestation Small
(Centaurea maculosa)		infestation
Sap of related knapweed can		Pull or cut plant and leave on site with roots
cause skin irritation and		exposed.
tumors. Wear gloves when		inposed:
handling.		Large infestation
black swallow-wort		Pull or cut plant and pile. (You can pile onto or
(Cynanchum nigrum)		cover with plastic sheeting).
May cause skin rash. Wear		Monitor. Remove any re-sprouting material.
gloves and long sleeves when		Promitor: Remove any re-sprouting materiar.
handling.		During and Callering G.
pale swallow-wort		During and following flowering
(Cynanchum rossicum)		Do nothing until the following year or remove
giant hogweed		flowering heads and bag and let rot.
(Heracleum		
mantegazzianum)		Small infestation
Can cause major skin rash.		Pull or cut plant and leave on site with roots
Wear gloves and long sleeves	,	exposed.
when handling.		
dame's rocket		Large infestation
(Hesperis matronalis)		Pull or cut plant and pile remaining material.
perennial pepperweed		(You can pile onto plastic or cover with plastic
(Lepidium latifolium)		sheeting).
purple loosestrife		Monitor. Remove any re-sprouting material.
(Lythrum salicaria)		
Japanese stilt grass		
Japanese stift grass	Emita Cooda Dlant	
common reed (Phragmites	Fruits, Seeds, Plant	Small infortation
australis)	Fragments Primary means of spread in	Small infestation
1		Bag all plant material and let rot.
Japanese knotweed	these species is by	Never pile and use resulting material as
(Polygonum cuspidatum)	plant parts. Although	compost.
Bohemian knotweed	all care should be	Burn.
(Polygonum x bohemicum)	given to preventing	T
	the dispersal of seed	Large infestation
	during control	Remove material to unsuitable habitat (dry, hot
	activities, the	and sunny or dry and shaded location) and
	presence of seed	scatter or pile.
	doesn't materially	Monitor and remove any sprouting material.
	influence disposal	Pile, let dry, and burn.
	activities.	

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In the event that invasive species are noticed growing in any of the stormwater management practices, the invasive vegetation shall be removed completely to include root matter and disposed of properly. Prior to disposal, the vegetation shall be placed on and completely cover with a plastic tarp for a period of two – three weeks until plants are completely dead. If necessary or to expedite the process, spray only the invasive vegetation and roots with a systemic nonselective herbicide after placement on the tarp (to prevent chemical migration) and then cover as described above.

Annual Report:

Description: The owner is responsible to keep an **I & M** Activity Log that documents inspection, maintenance and repairs to the storm water management system, and a **Deicing Log** is to be provided by the Exeter DPW to track the amount and type of deicing material applied to the site. The original owner is responsible to ensure that any subsequent owner(s) have copies of the <u>Stormwater System Operation and Maintenance Plan & Inspection and Maintenance Manual</u>, copies of past logs and check lists. The Annual Report will be prepared and submitted to the Exeter Town Engineer at the DPW facility annually on or before January 31st of each year.

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Inspection & Maintenance Manual Checklist

Holland Way Commercial Office Exeter, NH

Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance / Cleanout Threshold	Perfor med by / Date	Satisfact ory or Unsatisf actory	Comment s/ Corrective action
Two Times Per Year	N/A	N/A		s u	
Routinely	Inspect dumpsters, outdoor waste receptacles area, and yard areas.	Parcel will be free of litter/trash.		S U	
N/A	N/A	Use salt as the primary agent for roadway safety during winter.		S U	
nage System:					
1 time per 2 years	Check for sediment accumulation & clogging.	Less than 2" sediment depth		S U	
	Inspection Frequency Two Times Per Year Routinely N/A age System:	Inspection Requirements Two Times Per Year Inspect dumpsters, outdoor waste receptacles area, and yard areas. N/A N/A N/A N/A Check for sediment accumulation &	Inspection Frequency Inspection Requirements / Cleanout Threshold Two Times Per Year N/A Inspect dumpsters, outdoor waste receptacles area, and yard areas. Parcel will be free of litter/trash. Use salt as the primary agent for roadway safety during winter. 1 time per 2 Check for sediment accumulation & Less than 2"	Minimum Inspection Frequency Maintenance Inspection Requirements Maintenance / Cleanout Threshold Date Two Times Per Year N/A N/A Inspect dumpsters, outdoor waste receptacles area, and yard areas. Parcel will be free of litter/trash. Use salt as the primary agent for roadway safety during winter. N/A Less than 2"	Minimum Inspection Frequency Name Name

Beals Project # NH-236.52 Holland Way, Exeter, NH

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				S	U	
Gravel Wetland	Twice Annually After every 2.5" of rain or greater.	72-Hour drawdown time evaluation and vegetation evaluation.	Remove dead & diseased vegetation along with all debris;			
Drainage Swales	2 times per year	Check for sediment and debris accumulation buildup.	Remove sediment & debris when required	S	U	
Riprap Outlet Protection/L evel Spreaders	Annually	Check for sediment buildup and structure damage.	Remove excess sediment and repair damage.	S	U	
Annual Report	1 time per year	Submit Annual Report to Town of Exeter Inspector upon request		S	U	

Inspector:
Inspection Notes:

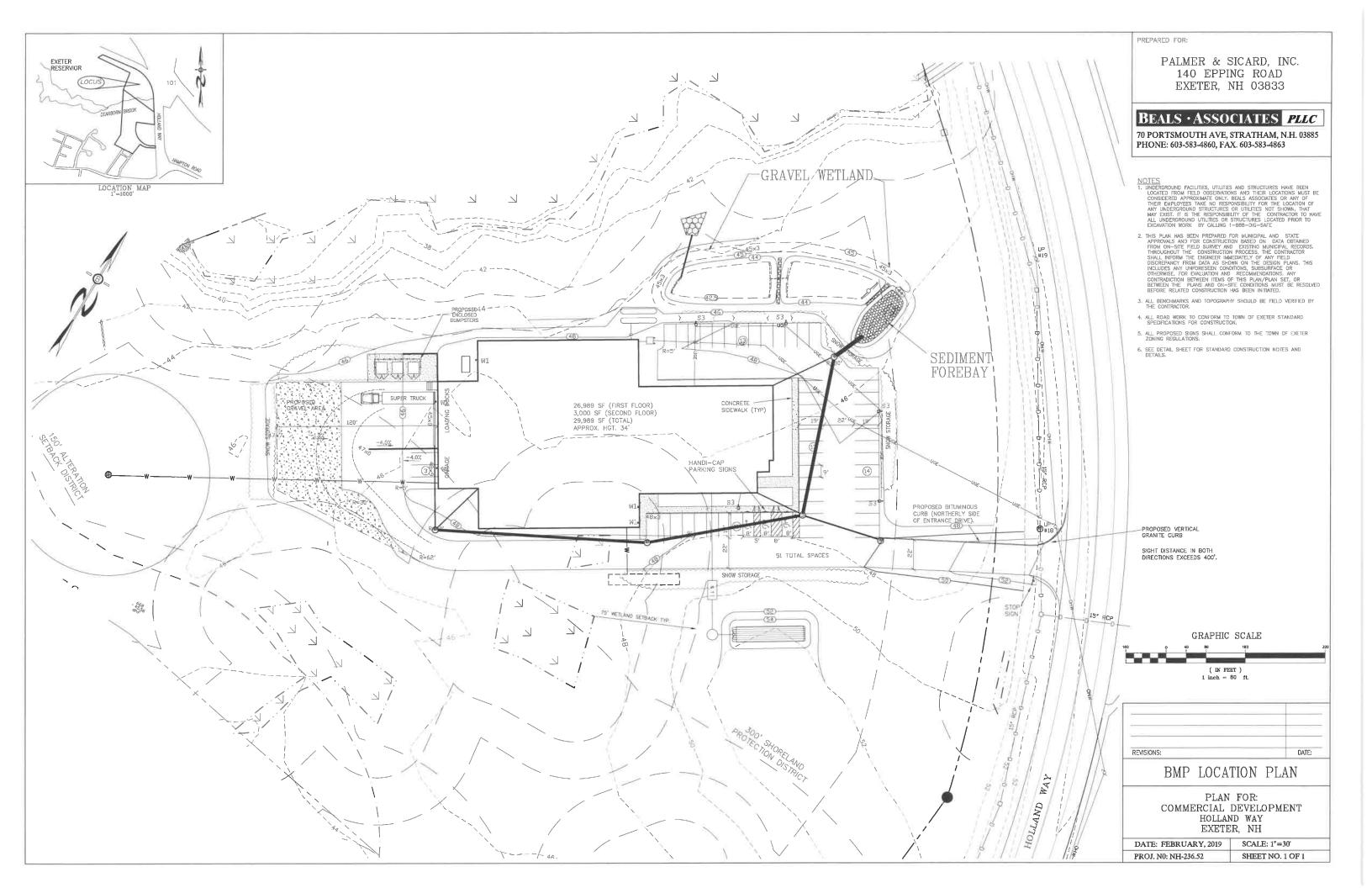


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Holland Way, Exeter, NH
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CHECKLIST FOR INSPEC	TION O	F GRAVEL W	ETLAND
Location: Date: Time: Date Since Last Rain Event:	tions:		
Inspection Items	Satisfacto Unsatisfa		Comments/Corrective Action
1 st Year Post-Construction Monitoring (After every major	storm for t	he first three mo	nths)
Plants are stable, roots not exposed	s	U	
Vegetation is established and thriving	S	U	
No evidence of holes in the wetland soil causing short- circuiting	S	U	
No evidence of erosion at inlet and outlet structures	S	U	
Post-Construction Routine Monitoring (at least every 6 me Requirements. Inspection frequency can be reduced to an sediment accumulation is less than cleaning criteria listed 1. Standing Water	nual follov		
Gravel wetland surface is free of standing water or other			
evidence of clogging, such as discolored or accumulated	S	U	
sediments			
2. Short Circuiting & Erosion	113		
No evidence of animal burrows or other holes	s	U	
No evidence of erosion	S	U	
3. Drought Conditions (As needed)			
Water plants as needed	S	U	
Dead or dying plants	S	U	
4. Sedimentation Chamber or Forebay Inlet Inspection			
No evidence of sediment accumulation, trash, and debris.	S	U	
Good condition, no need for repair	S	U	
5. Vegetation Coverage			
50 % coverage established throughout system by first year	S	U	
Robust coverage by year 2 or later	S	U	7 1
6. Inlet and Outlet Controls	T		
Flow is unobstructed in openings (grates, orifices, etc)	S	U	7
Structures are operational with no evidence of deterioration	S	U	
7. Vegetation removal (once every 3 years)			
Prune dead, diseased, or decaying plants	S	U	

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Corrective Action Needed	Due Date
1.	
2.	
3.	



GOVE ENVIRONMENTAL SERVICES, INC.



November 29, 2012 Robert G. Blair, JR PE Construction Manager Waldron Engineering & Construction, Inc. 37 Industrial Drive, Suite G-1 Exeter, NH 03833

Subject:

Wetland Delineation Report

Holland Way, Exeter

Dear Mr. Blair:

Per your request, this letter is to verify that Gove Environmental Services, Inc., performed a site inspection to identify wetlands at the above referenced property. Wetlands were evaluated utilizing the following standards:

- 1. US Army Corps of Engineers Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: North central and Northeast Region, Technical Report ERDC/EL TR-09-19 (Oct 2009).
- Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 7.0.
 United States Department of Agriculture (2010).
- 3. North American Digital Flora: National Wetland Plant List, Version 2.2.1 (2009).
- 4. Classification of Wetlands and Deepwater Habitats of the United States. USFW Manual FWS/OBS-79/31 (1979).

During the survey, several areas of wetland were identified. The largest of which is a perennial stream system associated with Dearborn Brook. This wetland system is a continuous system that borders the entire site to the north and south through two separate tributaries flowing east to west along the property. They meet at the far western point of the property and continue to flow to the west. This wetland is dominated by red maple and Eastern hemlock in the tree layer, with highbush blueberry, alder, winterberry and dogwood in the shrub layer and cinnamon and sensitive fern and swamp dewberry in the herbaceous layer. This wetland system has significant functions and values in terms of flood flow and storm water transport. There is also the support of wildlife habitat.

There are several small isolated wetland pockets on the site located within the open logged area. These wetlands are typically small and are scattered through out the site. These wetlands are dominated by pioneer species of sedges and rushes and in some areas regenerating red maples sprouts out of the stumps remaining on site. These wetlands are supported by an underlying mineral restrictive layer, which supports the creation of hydric soils by holding the high water

table close to the surface long enough during the seasonal fluctuations in the spring and fall. These wetlands are surrounded by predominantly upland tree species, including, oak, poplar, white pine American beech and Eastern hemlock. A small amount of gray and yellow birch are also evident. While the presence of dominant upland tree species is evident from a historical nature, supported by the dominance of somewhat poorly drained soils (non-hydric). The wetland delineation is based on current conditions.

These isolated wetlands have little to no functions and values based on their small size and location within the open area. Water depths are between 1-1.5 feet and would not likely hold water in the late spring and summer and would not support the breeding of obligate vernal pool species and therefore would not be classified as vernal pools. The open aspect of the surroundings would cause the water to evaporate or become too warm to support ay egg masses.

I have included the data plots conducted across the open logged area to document the lack of hydric soils with this report.

If you have any questions or need anything else, please let me know.

Sincerely,

Luke D. Hurley, CWS, CESSWII

Vice President

Gove Environmental Services, Inc.

Enc.





SITE-SPECIFIC SOIL SURVEY REPORT Waldron, Holland Way 2012114

1. MAPPING STANDARDS

Site-Specific Soil Mapping Standards for New Hampshire and Vermont. SSSNNE Special Publication No. 3, Version 2.0, January, 1999.

2. DATE SOIL MAP PRODUCED

November 28, 2012

GEOGRAPHIC LOCATION AND SIZE OF SITE

Tax Map 66 Lot 1. The large portion of land located between the two tributaries of Dearborn Brook. Approximately 10 acres+/-.

4. PURPOSE OF THE SOIL MAP

Beals Associates, PLLC, requested the preparation of this map. The purpose was to meet the requirements of the NH DES AoT and Town of Exeter, NH Planning Department.

5. SOIL IDENTIFICATION LEGEND

SYMBOL	SOIL TAXONOMIC NAME
33 P	Scitico (Poorly Drained)
934	Shaker Variant (Somewhat Poorly Drained)
238	Elmridge (Moderately Well Drained)
296V/P	Catden Variant (Very Poorly Drained)

SOIL MAP UNIT DESCRIPTIONS

33 P Scitico (Poorly Drained)

The Scitico series consists of very deep, poorly drained soils formed in silty and clayey sediments. They are nearly level to very gently sloping soils in low-lying positions of glaciolacustrine and marine terraces. Slope ranges from 0 to 5 percent. Saturated hydraulic conductivity (Ksat) is low 0.00. Hydrologic group is C.

934 Shaker Variant (Somewhat Poorly Drained)

The Shaker Variant is similar to the series consists of very deep, poorly drained soils formed in loamy over clayey sediments. They are nearly level to gently sloping soils in

low-lying positions on glaciolacustrine and marine terraces. Saturated hydraulic conductivity (Ksat) is low 0.00-0.20. Hydrologic group is C.

296V/P Catden Variant (Very Poorly Drained)

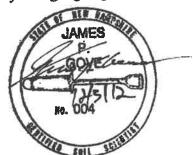
The Catden series consists of very deep, very poorly drained soils formed in woody and herbaceous organic materials in depressions on lake plains, outwash plains, moraines, and flood plains. Saturated hydraulic conductivity is low 0.00. Slope ranges from 0 to 2 percent. Hydrologic Group is D.

238 Elmridge (Moderately Well Drained)

The Elmridge series consists of very deep, moderately well drained soils formed in loamy over clayey sediments. They are nearly level to moderately steep soils on glacial lacustrine and marine terraces, and on lake plains. Slope ranges from 0 to 25 percent. Saturated hydraulic conductivity is high in the upper loamy horizons and low to moderately high in the underlying clayey horizons. Saturated hydraulic conductivity (Ksat) is low 0.00-0.20 in the underlying clayey horizons. Hydrologic group is C.

RESPONSIBLE SOIL SCIENTIST

James P. Gove, C.S.S. Luke D. Hurley, S.S.A.



7. OTHER DISTINGUISHING FEATURES OF SITE

The site is a generally flat site bordered by two streams and is relatively flat to the banks of the streams where it drops steeply..

8. MAXIMUM SIZE OF LIMITING INCLUSIONS

No inclusions were noted

9. SPECIAL FEATURE SYMBOLS

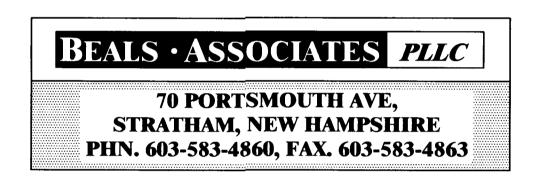
No special feature symbols were used.

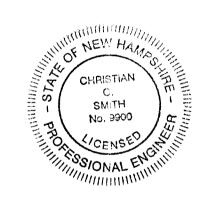


36.5 EXETER, HOLLAND WAY, ISSUED DEC. 2018

PROPOSED SITE PLAN FOR PALMER & SICARD, INC. TAX MAP 66, LOT 1

CIVIL ENGINEERS:





LAND SURVEYOR:

TD BROUILLETTE
81 PARK STREET
EXETER, NH 03833
1-603-772-4394

LANDSCAPE ARCHITECT

LIZ NIEBLING
22 WALNUT STREET
EXETER, NH 03833
(603) 772-0765

WETLAND / SOIL CONSULTANT:

GOVE ENVIRONMENTAL SERVICES INC.
8 CONTINENTAL DRIVE,
BLDG 2 UNIT H
EXETER, NH 03833
1-603-778-0644



5/8" REBAR DRILL HOLE CONC. BOUND UTILITY POLE EXISTING CATCH BASIN PROPOSED CATCH BASIN PINES, ETC. MAPLES, ETC. PROP. SPOT GRADE DOUBLE POST SIGN

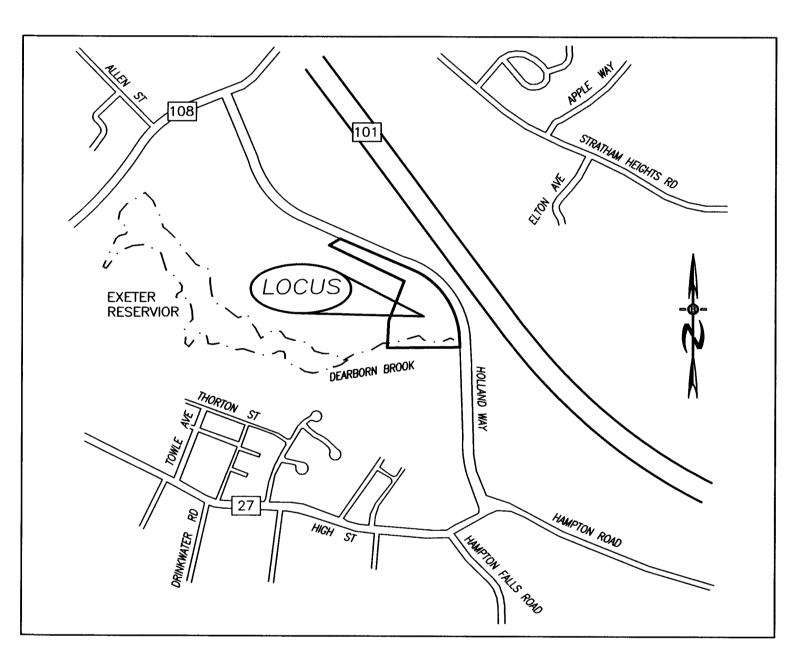
SINGLE POST SIGN

PROPOSED WELL

TEST PIT

PROPOSED LIGHT POLE
PROPOSED WALL LIGHT
PROPOSED PARKING COUNT
OVERHEAD ELEC. LINE
DRAINAGE LINE
STONE WALL
TREE LINE
ABUT. PROPERTY LINES
EXIST. PROPERTY LINES
EXIST. CONTOUR
PROP. CONTOUR
SOIL LINES

PLAN SET LEGEND



LOCATION MAP 1"=1000'

INDEX

TITLE SHEET

- RECORDED LLA\BOUNDARY PLAN
- 1 EXISTING CONDITIONS PLAN
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- 3 GRADING & DRAINAGE PLAN
- 4 UTILITY/ PLAN
- 5 LIGHTING & LANDSCAPE PLAN
- 6-6A EFFLUENT DISPOSAL PLAN
- 7 CONSTRUCTION DETAILS
- 8 UTILITY DETAILS SHEET
- 9 EROSION CONTROL DETAILS 9A FIRE CISTERN DETAILS

RECORD OWNER/APPLICANT:

EXETER CORPORATE PARK DEVELOPMENT, LLC 49 HIGHLAND CIRCLE WAYLAND, MA 01778-1722 1-508-358-7040

REVISIONS:

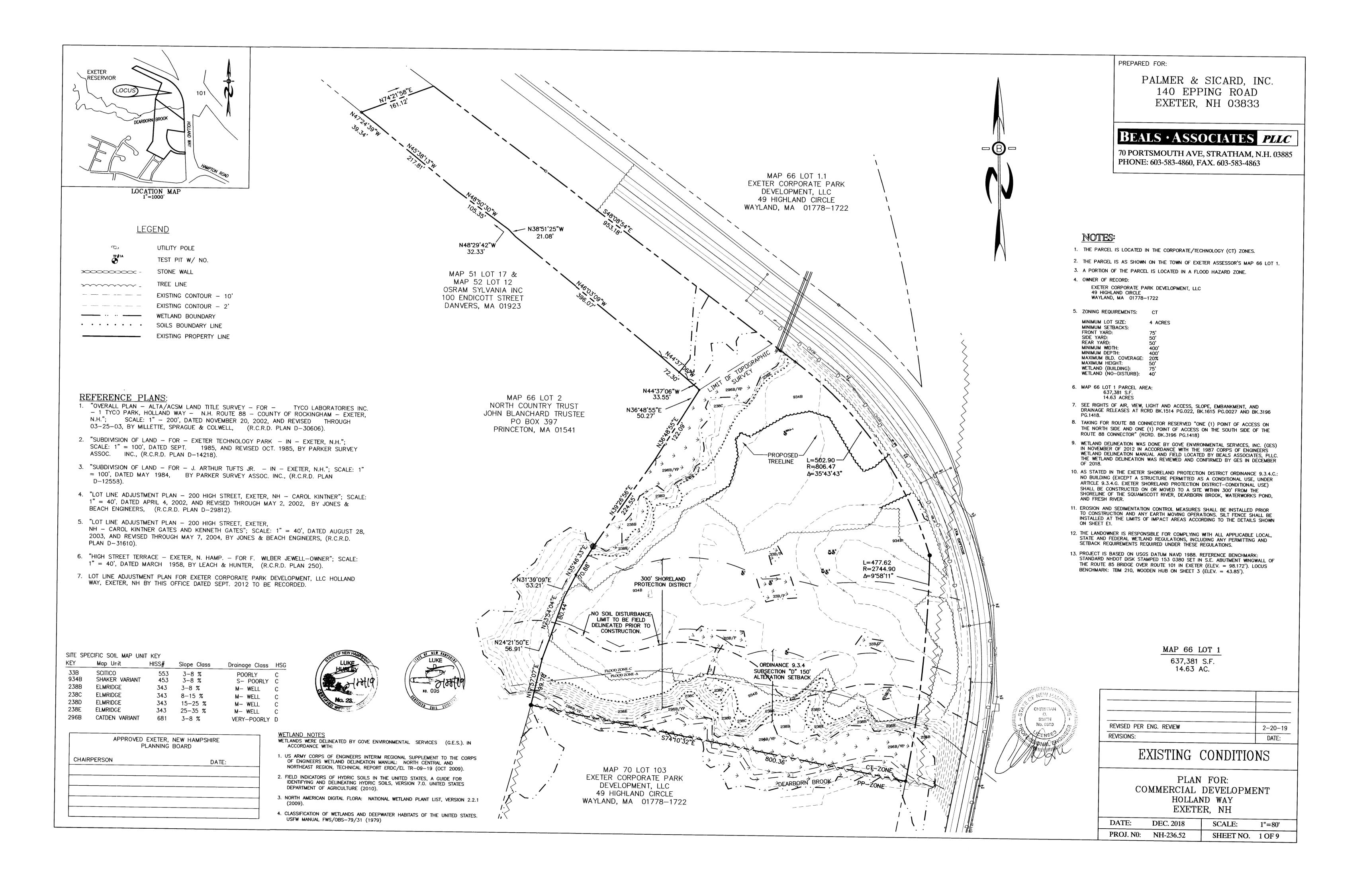
PALMER & SICARD, INC. 140 EPPING ROAD EXETER, NH 03833 1-603-778-1841

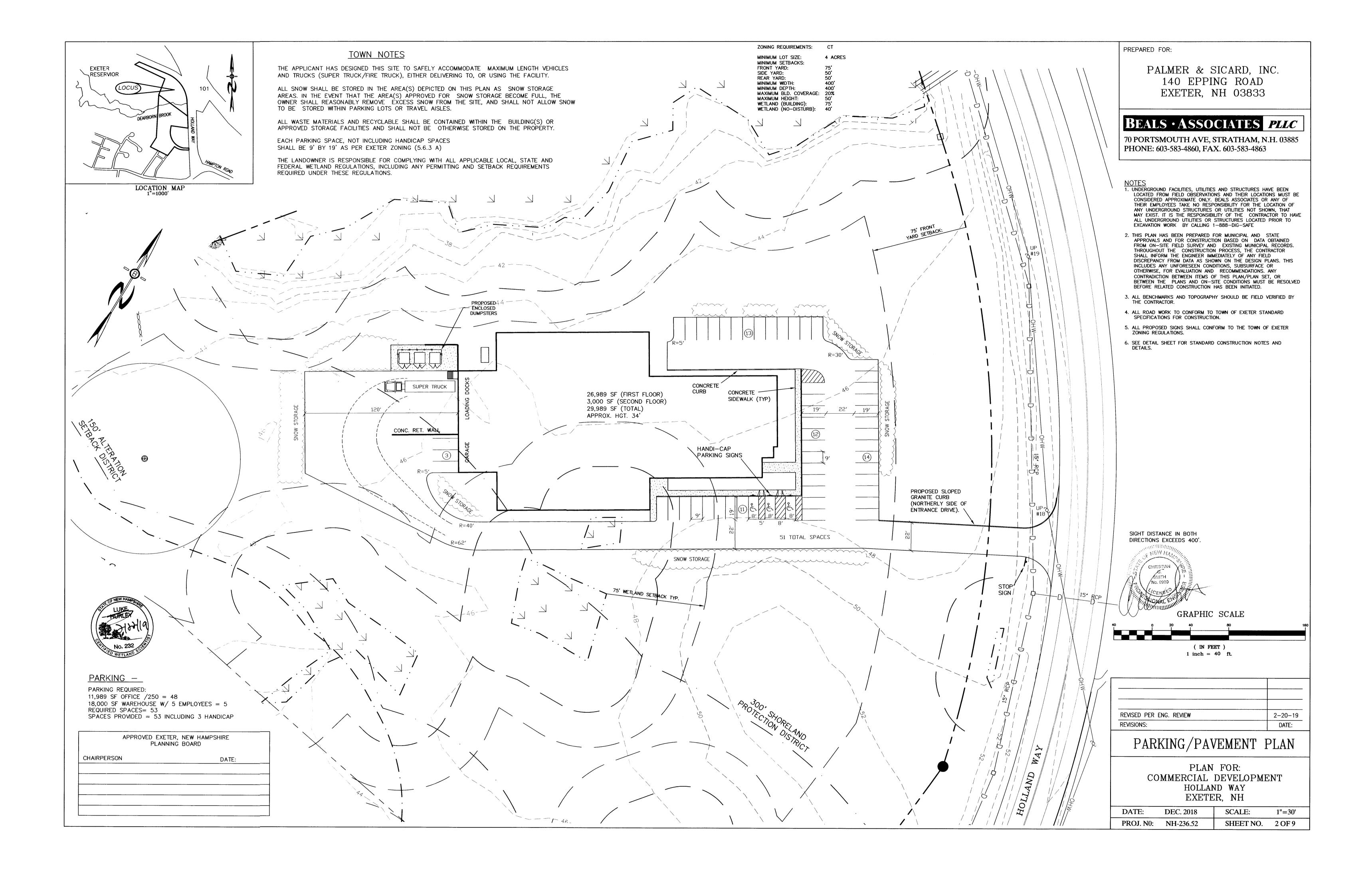
REQUIRED PERMITS

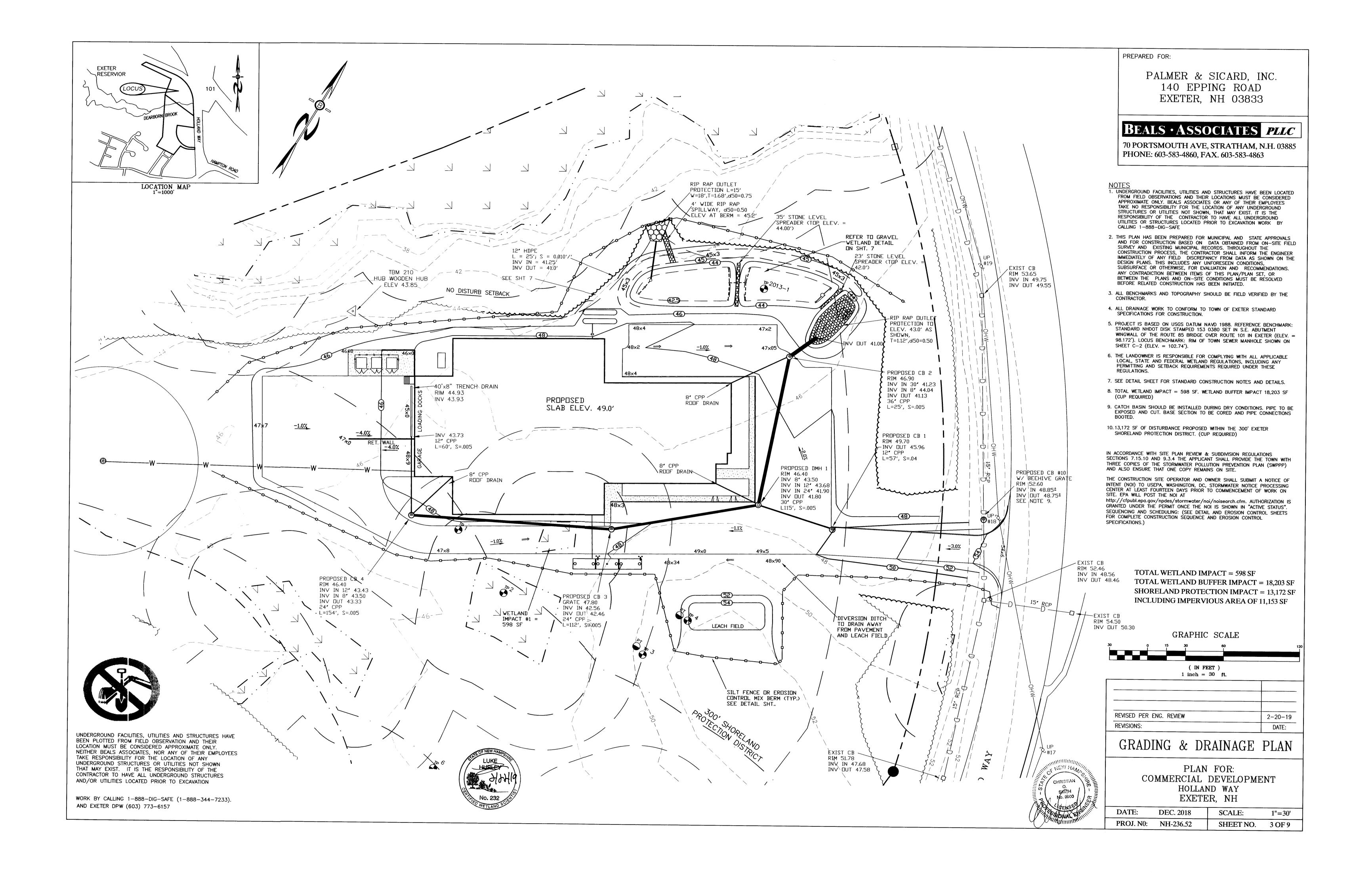
NHDES AoT APPROVAL NUMBER: PENDING
NHDES SEPTIC APPROVAL NUMBER: CA
NHDES WETLANDS PERMIT NUMBER: 2013-01894
(EXTENDED ON 8-26-18)

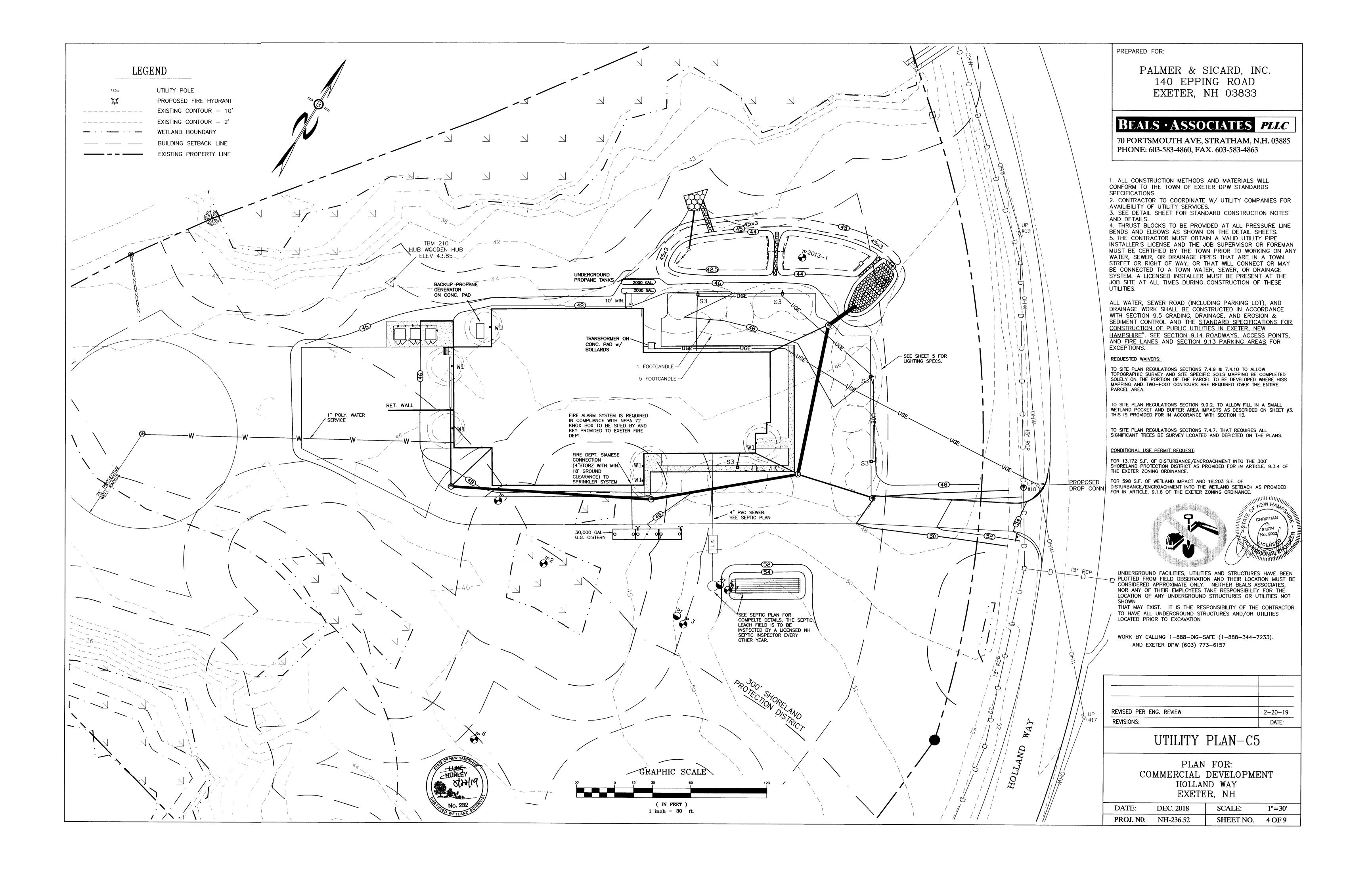
DATE: NHDES WATER SUPPLY WELL LOCATION: PENDING

		CHAIRI	PER	SON					DATE
	ſτ	OWN	OF	EXETER	PLANNING	BOARD	 CASE	NO.	PENDING



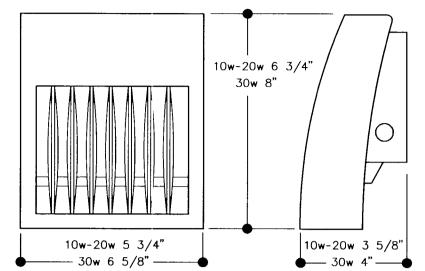




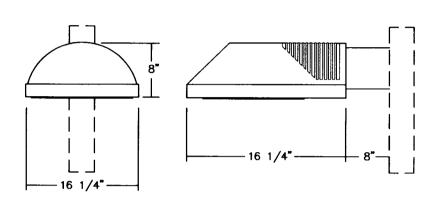




- 1. ALL OUTDOOR LIGHTING SHALL BE SO DIRECTED & SHIELDED THAT NO GLARE WILL SPILL OUT ABUTTING PROPERTIES.
- 2. AFTER 10:00 PM ONLY THAT AMOUNT OF LIGHT NECESSARY FOR THE SECURITY OF THE PREMISES SHALL BE PERMITTED.



WALLPACK DETAIL



POLE LIGHT DETAIL

SEE PARKING LOT LIGHT BASE DETAIL IN STANDARD DETAILS

PLANTING NOTES:

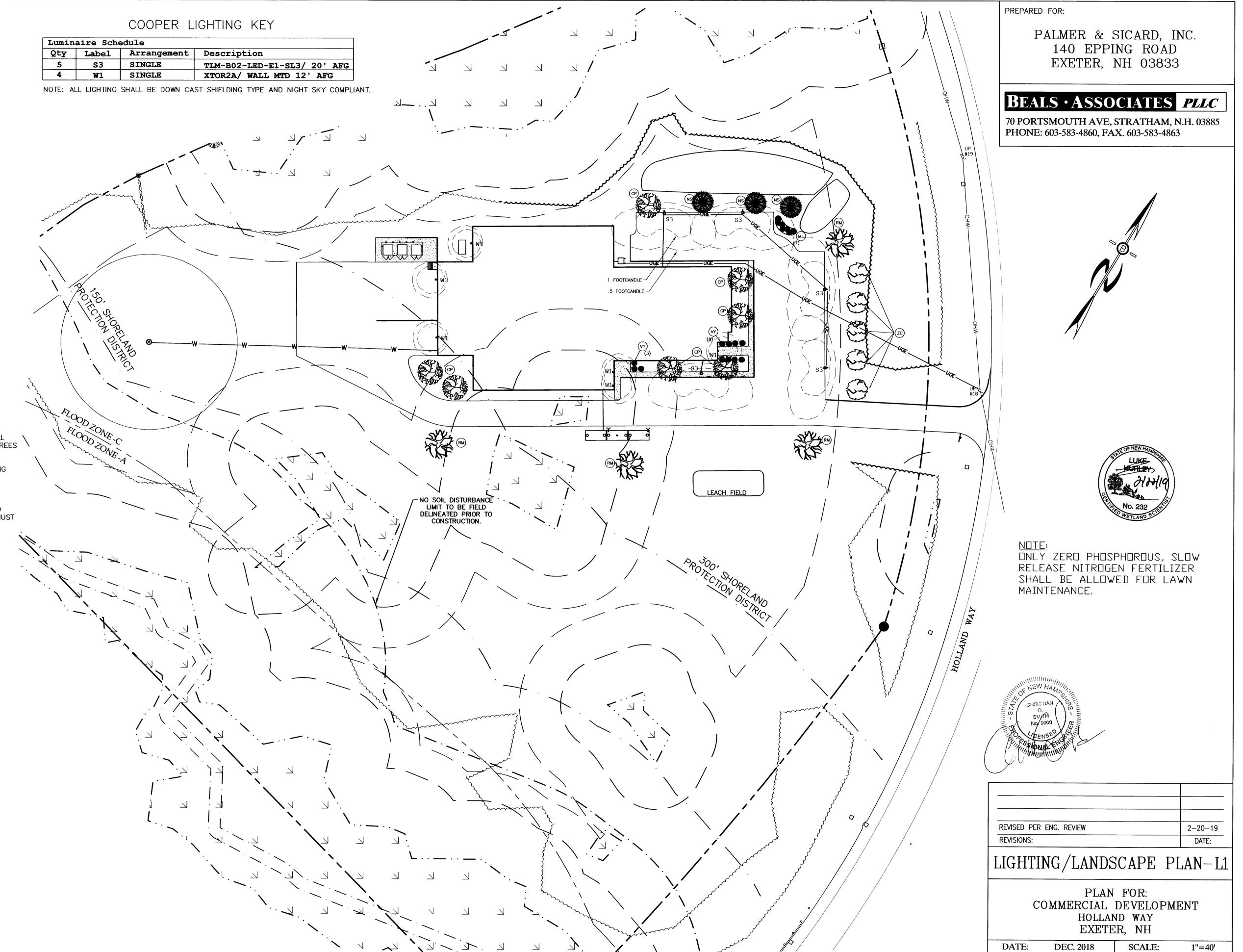
- 1. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- 2. A 4-INCH DEEP SHREDDED PINE BARK SHALL BE INSTALLED UNDER ALL SHRUBS, AND IN ALL PLANTING BEDS, AS DIRECTED BY OWNER. ALL TREES SHALL BE BAILED AND BURLAPPED, UNLESS

 3. OTHERWISE NOTED, OR APPROVED BY THE OWNER.

 4. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE
- DATE OF FINAL ACCEPTANCE.
- 5. LOAM AND SEED ALL AREAS NOT OTHERWISE NOTED.
- 6. DO NOT INSTALL LOAM IN AREAS OF EXISTING TREES TO REMAIN. THE LANDSCAPING OF THE SITE DEPICTED ON THIS PLAN
- 7. IS INTEGRAL TO THE APPROVAL BY THE EXETER PLANNING BOARD AND SHALL BE REASONABLY MAINTAINED AND WHEN DEAD OR REMOVED, MUST BE REASONABLY REPLACED.

PLANT SCHEDULE

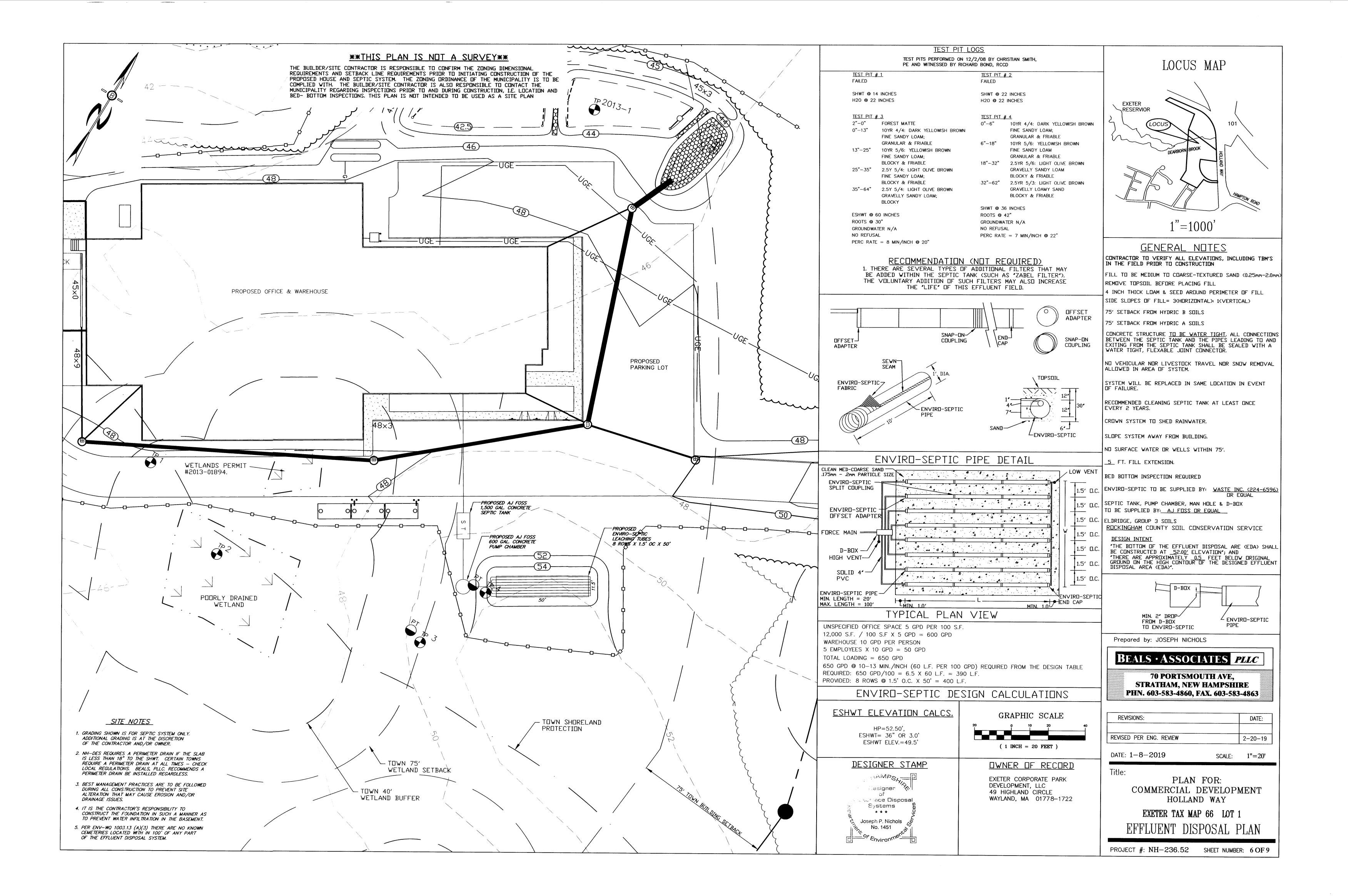
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QTY.	KEY	BOT. NAME	COMMON NAME	SIZE
3	BF	Abies balsamea	Balsam Fir	6'-8'
2	WF	Abies Concolor	White Fir	6'-8'
4	RM	Acer rubrum	Red Maple	3" cal.
4	SB	Amelanchier Canadensis	Service Berry	4'-6'
3	BN	Betula nigra	River Birch	6'-8'
8	ww	Buxus "Winter Gem"	Winter Gem Box Wood	18-24" Clum
3	AH	Carpinus Caroliniana	American Hornbeam	6'-8'
1	KD	Cornus Kousa	Kousa Dogwood	6'-8'
7	RD	Cornus sericea	Red Osier Dogwood	3'-4'
2	vw	Hamameus Vernaus	Vernal Witchhazel	3'-4'
19	W B	llex Verticillata	Winterberry	2 1/2'-3
8	EC	Juniperus Virginiana	Eastern Red Cedar	8'-10'
5	ZC	Malus Zumi	Zumi Crab	2"-2 1/2"
1	τυ	Nyssa Stcuatica	Tupelo	2 1/2"-3"
3	NS	Picea Abies	Norway Spruce	6'-8'
1	ws	Picea glauca	White Spruce	6'-8'
1	BS	Picea G. "Densata"	Black Hill Spruce	6'-8'
7	CP	Pyrus C. "Chanticleer"	Chanticleer Pear	2"-2 1/2"
2	DL	Syringa M. "Palibin"	DWF Korean Lilac	2'-3'
7	ML	Syringa P. "Miss Kim"	Miss Kim Lilac	2'-3'
11	W	Taxus Vermeulen	Vermeulen Yew	3'-4'
12	HB	Vaccinium Corymbosum	Highbush Blueberry	2'-2 1/2'
1	SV	Viburnum P.T. "Shasta"	Shasta Viburnum	3'-4'
5	AC	Viburnum Trilobum	American Cranberry	3'-4'
7	SS	Clethra Alnifolia	Summersweet	2 1/2'-3'
		<u> </u>	I	

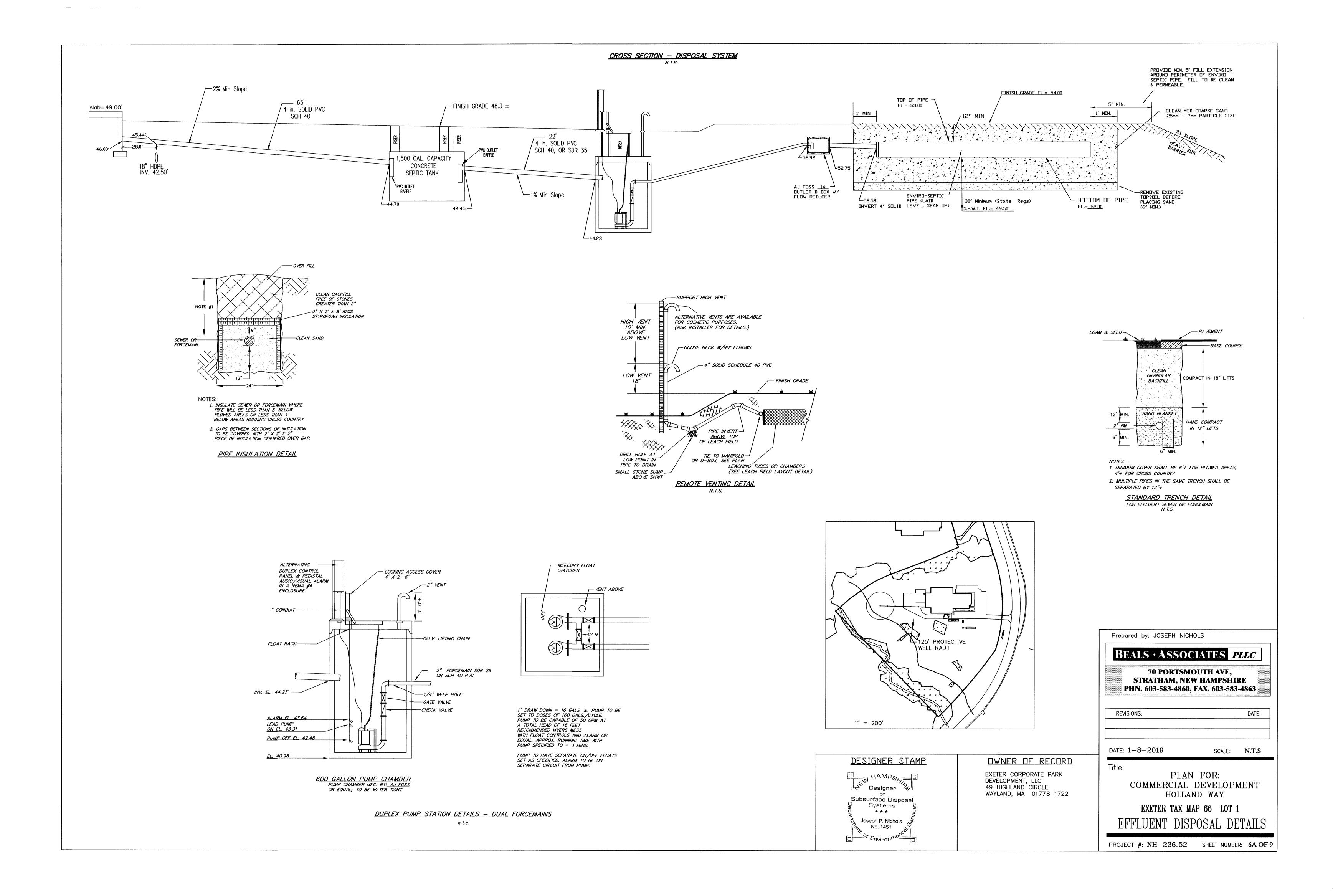


PROJ. N0:

NH-236.52

SHEET NO. 5 OF 9





POND/BERM CONSTRUCTION CRITERIA ROOTS, BRUSH, BOULDERS, SOD AND RUBBISH. FOUNDATION SURFACE TO BE SLOPED NO STEEPER THAN 1:1 AND SCARIFIED BEFORE PLACEMENT OF MATERIAL THE SURFACE SHALL HAVE MOISTURE ADDED OR IT SHALL BE COMPACTED IF NECESSARY SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED

FILL PLACEMENT: FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIA. (EXCEPT ROCK FILLS). AND OTHER OBJECTIONABLE MATERIAL -FILL TO PLACED EQUALLY AROUND STRUCTURE & PIPES TO PREVENT DAMAGE -PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT THE LOWEST

AND BONDED TO THE FOUNDATION.

POINT OF THE FOUNDATION AND BROUGHT UP IN HORIZONTAL LAYERS OF THICKNESS' ALLOWING ADEQUATE COMPACTION. -IN AREAS OF OPENINGS OR SECTIONALIZED FILLS THE BONDING SURFACES SHALL BE NO STEEPER THAN 3:1 AND TREATED THE SAME AS THAT SPECIFIED THE FOUNDATION SO AS TO INSURE A GOOD BOND WITH THE NEW FILL. -DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM SURROUNDING MATERIAL. -MAXIMUM THICKNESS OF GRAVEL LIFTS TO 1 FOOT (12 INCHES)

MOISTURE CONTROL: MOISTURE CONTENT OF THE FILL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. IF THE MATERIAL IS TOO WET IT SHALL BE DRIED TO MEET THIS REQUIREMENT, IF THE MATERIAL IS TOO DRY IT SHALL HAVE WATER ADDED AND MIXED UNTIL REQUIREMENT IS MET.

COMPACTION: CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER THE AREAS OR EACH LAYER OF FILL TO INSURE THAT THE REQUIRED COMPACTION IS -EACH LAYER SHALL BE COMPACTED TO OBTAIN 95% OF THE PROTOR VALUE (ASTM 1557 OR AASHTO T180). -FILL ADJACENT TO STRUCTURES, PIPES AND ANTI SEEP COLLARS SHALL E COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY THE MEANS OF HAND TAMPERING OR MANUALLY DIRECTED POWER TAMPER OR

PROTECTION: A PROTECTIVE COVER OF VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, AND BORROW AREA IF SOIL AND CLIMATIC CONDITIONS PERMIT. IF CONDITIONS PRECLUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATION MEANS, SUCH AS MULCHES OR GRAVEL, MAY BE USED. THE EMBANKMENT AND SPILLWAY SHALL BE FENCED IF NECESSARY TO PROTECT VEGETATION. -SEEDING, FERTILIZING, AND MULCHING SHALL COMPLY WITH THE APPROPRIATE

CONCRETE: THE MIX DESIGN AND TESTING OF CONCRETE SHALL BE CONSISTENT WITH THE STRENGTH REQUIREMENTS NOTED ABOVE. REINFORCING STEEL SHALL BE PLACED AS INDICATED ABOVE AND HELD SECURELY IN PLACE DURING CONCRETE PLACEMENT. FORMS SHALL BE MORTAR TIGHT AND UNYIELDING AS THE CONCRETE IS PLACED.

STEEP SLOPES SHALL BE AVOIDED. RECOMMENDED THAT SIDE SLOPES OF 4:1 (HORIZONTAL TO VERTICAL) OR FLATTER BE USED WHERE TOPOGRAPHY PERMITS. IF TOPOGRAPHY WILL NOT ALLOW SUCH SLOPES THEN THE PERIMETER OF THE BASIN SHOULD BE FENCED. WARNING SIGNS AND LIFESAVING EQUIPMENT SHOULD BE AVAILABLE AT EACH STRUCTURE.

EMBANKMENT- SHOULD BE INSEPCTED ANUALLY TO DETERMINE IF RODENT BURROWS, WET AREAS, OR EROSION OF THE FILL IS TAKING PLACE.

VEGETATION- TO BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH. LIME AND FERTILIZER SHOULD BE APPLIED AS NECESSARY AS DETERMINED BY SOIL TESTS. TREES AND SHRUBS SHOULD BE KEPT OFF THE EMBANKMENT AND EMERGENCY SPILLWAYS.

INLETS- INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEEDIMENT SHOULD BE REMOVED. COATED PIPES SHOOULD INSPECTED AND REPAIRED AS NECESSARY.

OUTLET- INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. CONDITION OF PIPES SHOULD BE NOTED AND REPAIRED AS NEEDED. IF EROSION IS TAKING PLACE THEN MEASURES SHOULD BE TAKEN TO STABILIZE AND PROTECT THE AFFECTED AREA OF THE OUTLET.

SEDIMENT - SHOULD BE CHECKED CONTINUALLY. WHEN SEDIMENT ACCUMULATIONS REACH THE PREDETERMINED DESIGN ELEVATION, THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.

SAFETY INSPECTION- ALL PERMANENT IMPOUNDMENTS SHOULD BE INSPECTED BY A QUALIFIED PROFESSIONAL ENGINEER ON A PERIODIC BASIS. IF THERE IS POTENTIAL FOR SIGNIFICANT DAMAGE OR LOSS OF LIFE DOWNSTREAM. THEN THE INSPECTION SHOULD BE CARRIED OUT ANNUALLY. INSPECTION SHOULD ALSO BE MADE AFTER EVERY MAJOR STORM.

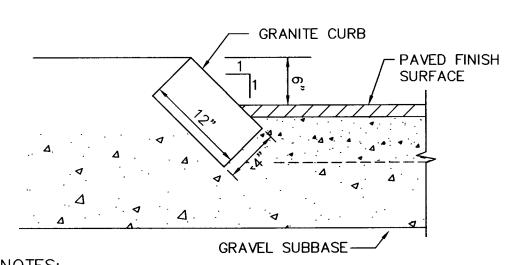
SEED ALL SLOPES

NOTE: CONCRETE CUT-OFF WALL TO BE A MIN.

2" THICK AND CAST IN-PLACE AS SHOWN.

SIGN POST W ACCESSIBILITY SYMBOL & "VAN ACCESSIBLE" SIGN ACCESSIBILITY SYMBOL MOUNTED BELOW. — - FACE OF WALK INTERIOR ___ OR CURB RAMP. SEE DETAIL NATIONAL **STANDARD** ACCESSIBILITY SYMBOL 4" PAINTED STRIPING PAINTED ON 1'-6" O.C. AT 45 PAVEMENT. IN FRONT OF RAMP WHITE FIGURE (YELLOW REFLECTIVE) ON BLUE BACKGROUND PAVEMENT MAXIMUM SLOPE 2% IN ALL DIRECTIONS. 96" MIN. PER 96" MIN. PER PER A.D.A. A.D.A. OR PER A.D.A. OR PER' 96" MIN. LOCAL CODE LOCAL CODE VAN SPACE

PARKING STALL FOR THE PHYSICALLY CHALLENGED DEC. 15, 1991 NOT TO SCALE

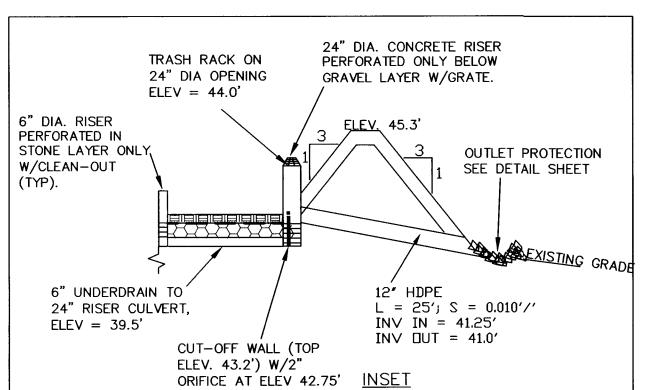


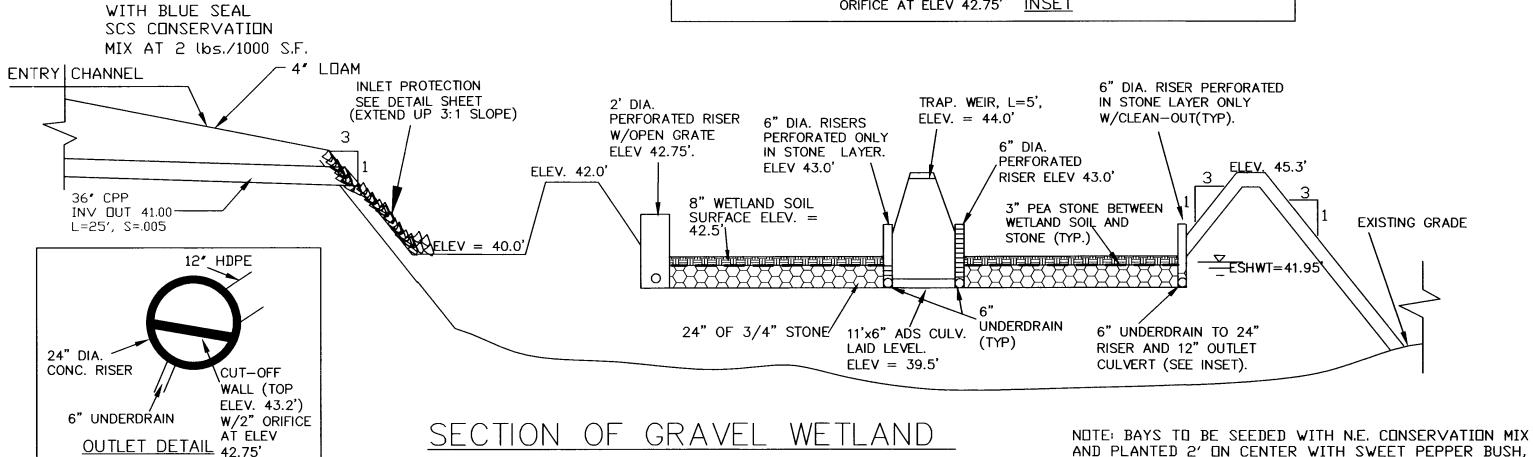
1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE

COURSE. 2. JOINTS BETWEEN STONES SHALL BE MORTARED.

GRANITE SLOPE CURB DETAIL

NOT TO SCALE





NOT TO SCALE

4 LB/FT "U" ROUND TOP OF CONCRETE -CHANNEL 6" STEEL PIPE, 7' LONG (GALVANIZED)-(18.97#/FT., 6.625" OD) FILLED W/ CONCRETE PAINTED W/ PRIMER & HIGHWAY YELLOW PAINT (OFFSET 25' FROM CENTERLINE) PROPOSED SURFACE SEE PLANS EXIST .--PARKING GROUND POST SECTION ONLY NHDOT SIDEWALK CLASS "AA" OR FIN. CONCRETE GRADE -VAN LOCK WASHER CONCRETE ACCESSIBLE 5/16" MACHINE SCREW OR BOLT PARTIAL ELEVATION POST MOUNTING

N.T.S.

AND PLANTED 2' ON CENTER WITH SWEET PEPPER BUSH,

SWAMP AZALIA, HIGH BUSH BLUEBERRY OR SIMILAR.

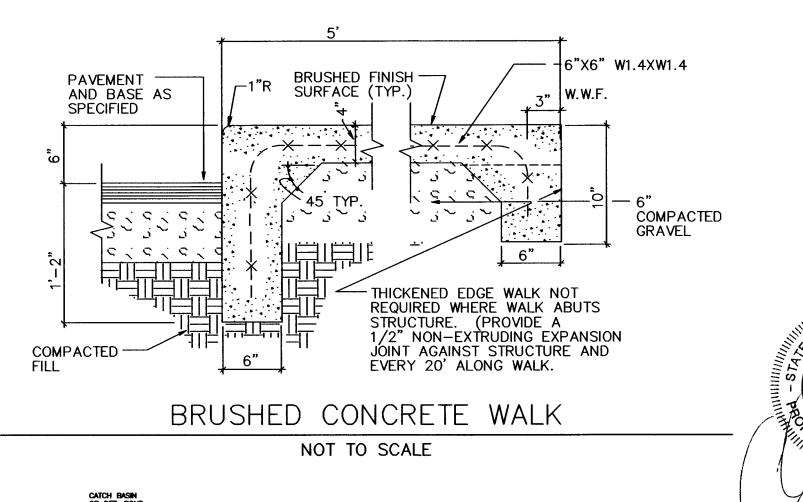
N.T.S. N.T.S. EDGE OF RAMP TO BE FLUSH W/PARKING ELEVATION A LOT SURFACE DETECTABLE WARNINGS OF TRUNCATED CONES AS REQUIRED BY A.D.A. (NOT REQ'D ON FLAIRS)

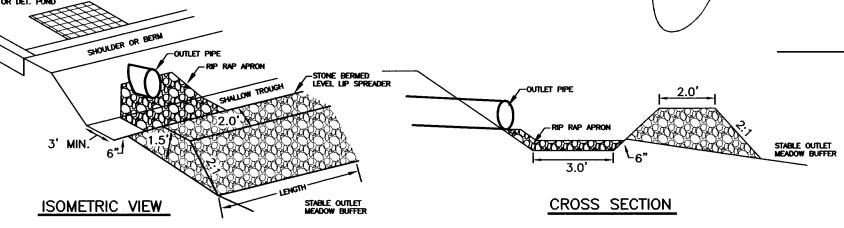
CONCRETE RAMP

NOT TO SCALE

1:10 MAX. SLOPE 36" A.D.A. MIN. 1:10 MAX. SLOPE

(60" RECOMMENDED)





LEVEL SPREADER

CONSTRUCT THE LEVEL SPREADER LIP ON A 0% GRADE TO INSURE UNIFORM SPREADING OF RUNOFF. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING EXCELSIOR ENFORCER MATTING BENEATH THE STONE. EACH STRIP SHALL OVERLAP BY AT LEAST SIX INCHES. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RE-CONCENTRATE IMMEDIATELY BELOW THE SPREADER.

MAINTENANCE: THE LEVEL SPREADER SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE LIP HAS BEEN DAMAGED AND THE DESIGN CONDITIONS HAVE NOT CHANGED. ANY DETRIMENTAL SEDIMENT ACCUMULATION SHOULD BE REMOVED. IF STONE REMOVAL HAS TAKEN PLACE ON THE LIP, THEN THE DAMAGE SHOULD BE REPAIRED.

PREPARED FOR:

BOLLARD DETAIL

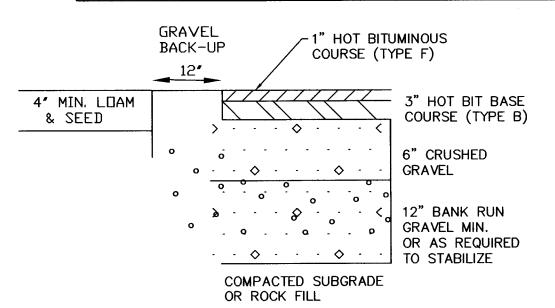
NOT TO SCALE

SMITH

PALMER & SICARD, INC. 140 EPPING ROAD EXETER, NH 03833

BEALS · ASSOCIATES PLLC

70 PORTSMOUTH AVE, STRATHAM, N.H. 03885 PHONE: 603-583-4860, FAX. 603-583-4863

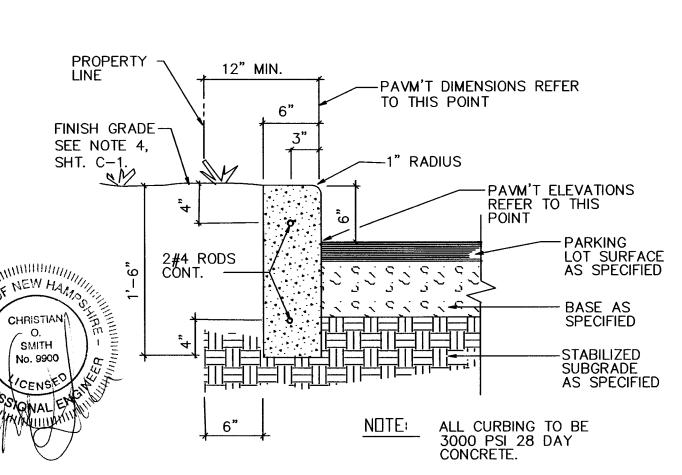


NOTE: IN AREAS OF ROCK EXCAVATION, MINIMUM 9" BANK RUN GRAVEL SHALL BE PLACED

TYPICAL PAVEMENT SECTION NEW ASPHALT - NTS

MINIMUM COMPACTION REQUIREMENTS

COMPACTION SHALL BE PERFORMED TO NOT LESS THAN NINETY-FIVE PERCENT (95%) MAXIMUM DENSITY AS DETERMINED IN A LABORATORY COMPACTION TEST, PERFORMED UNDER THE SPECIFICATIONS OF ASTM D1557-64T, METHOD "A", (BACK FILL MATERIAL OF A STONY NATURE SHALL BE TESTED UNDER METHOD "C" OR "D" OF THE SAME ASTM DESIGNATION) OR OTHER APPROVED ASTM OR AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) SPECIFICATIONS. SUCH TEXT SHALL ALSO BE USED FOR ESTABLISHING THE OPTIMUM MOISTURE CONTENT OF THE MATERIALS. THE IN-PLACE DRY UNIT WEIGHT OF THE COMPACTED MATERIALS SHALL BE DETERMINED BY METHODS SPECIFIED UNDER ASTM "D" 1556-58T OR OTHER APPROVED ASTM OR AASHTO SPECIFICATIONS. THE IN-PLACE COMPACTION TEST TO BE CONSISTENT WITH THE APPROVED LABORATORY COMPACTION TEST.



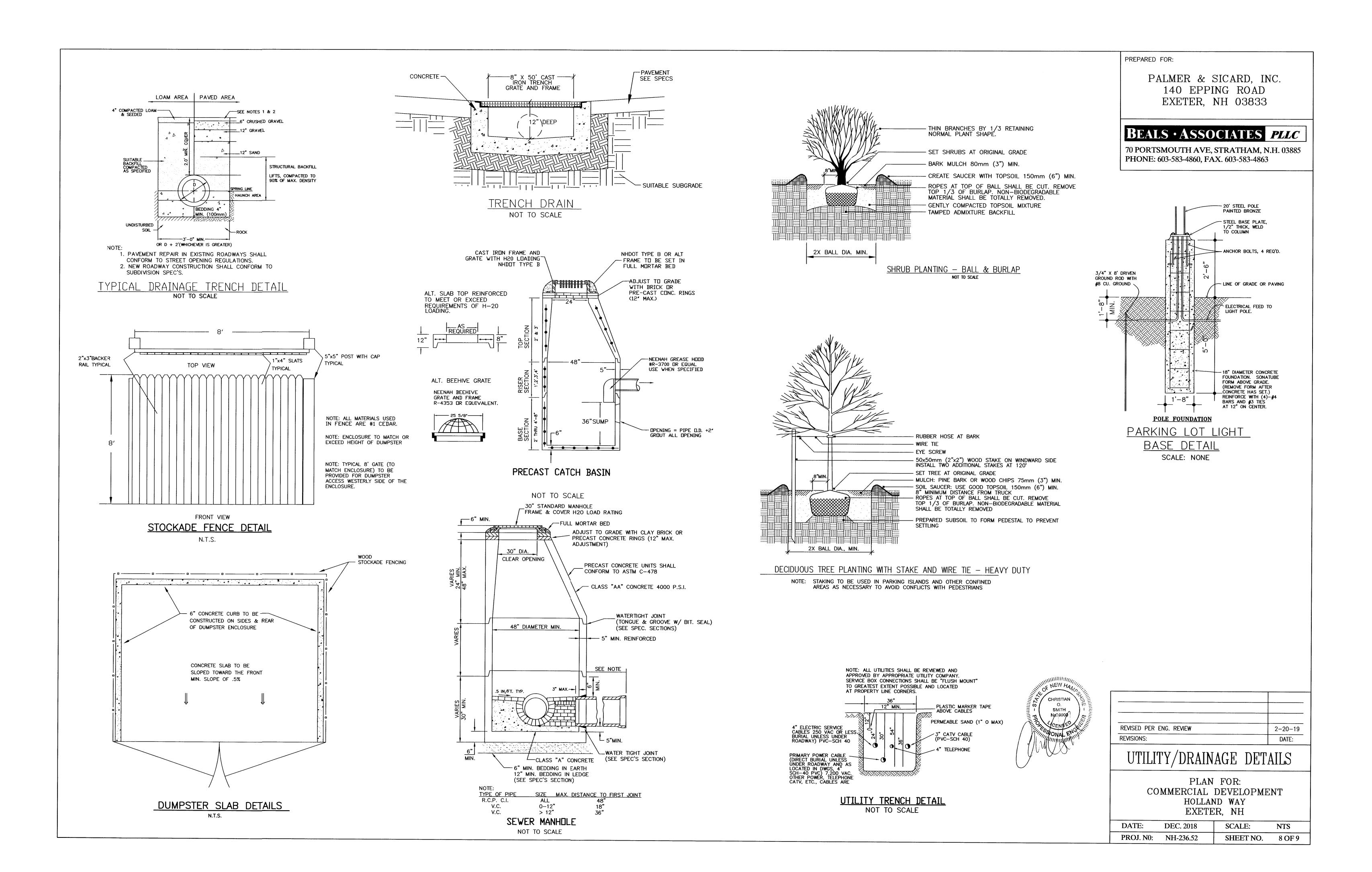
6" CONCRETE CURB

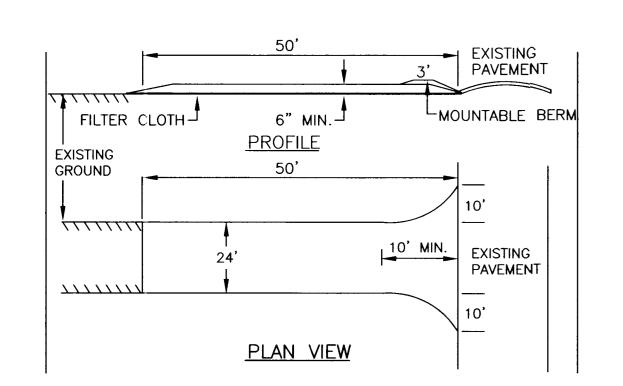
NOT TO SCALE REVISED PER ENG. REVIEW 2-20-19 REVISIONS: DATE:

CONSTRUCTION DETAILS

PLAN FOR: COMMERCIAL DEVELOPMENT HOLLAND WAY EXETER, NH

DATE:	DEC. 2018	SCALE:	NTS
PROJ. N0:	NH-236.52	SHEET NO.	7 OF 9





1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE,

OR RECYCLED CONCRETE EQUIVALENT. 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A

SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY. 3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES. 4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER. 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT

6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE

7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED

STABILIZED CONSTRUCTION ENTRANCE

TEMPORARY EROSION CONTROL MEASURES

1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT NO MORE THAN 5 ACRES OF LAND SHALL BE EXPOSED BEFORE DISTURBED AREAS ARE STABILIZED*.

2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED OR DIRECTED BY THE ENGINEER ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS 3. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN 1.10 POUNDS OF SEED PER 1000 SQUARE FEET OF AREA. (48 POUNDS PER ACRE) SEE SEED SPECIFICATIONS THIS SHEET

4. SILT FENCES AND OTHER EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAIN EVENT GREATER THAN 0.25" DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.

5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.

6. AREAS MUST BE SEEDED AND MULCHED WITHIN 3 DAYS OF FINAL GRADING, PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL * AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED.

- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.

- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.

- A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS RIPRAP HAS BEEN INSTALLED. - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION SPECIFICATIONS

- 1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
- WHEN HAY BALES ARE USED, THE BALES SHALL BE EMBEDDED AT LEAST 4 INCHES INTO THE SOIL. WHEN TIMBER STRUCTURES ARE USED, THE TIMBER SHALL EXTEND AT LEAST 18" INTO THE SOIL.
- 4. HAY OR STRAW BALES SHALL BE ANCHORED INTO THE SOIL USING 2" X 2" STAKES DRIVEN THROUGH THE BALES AND AT LEAST 18 INCHES IN TO THE SOIL.
- 5. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATED VEGETATIVE BMP.
- 6. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.7. THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL TAKE PRECAUTIONS IN ORDER TO PREVENT, ABATE AND CONTROL THE EMISSION OF FUGITIVE DUST INCLUDING BUT NOT LIMITED TO WETTING, COVERING, SHIELDING, OR VACUUMING.
- THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL TAKE PRECAUTIONS IN ORDER TO PREVENT, ABATE AND CONTROL THE EMISSION OF FUGITIVE DUST INCLUDING BUT NOT LIMITED TO
- WETTING, COVERING, SHIELDING, OR VACUUMING. 8. THE NH COMMISSIONER OF AGRICULTURE PROHIBITS THE COLLECTION, POSSESSION, IMPORTATION, TRANSPORTATION, SALE, PROPAGATION, TRANSPLANTATION, OR CULTIVATION OF PLANTS BANNED BY NH LAW RSA 430:53 AND NH CODE ADMINISTRATIVE RULES AGR 3800. THE PROJECT SHALL MEET ALL REQUIREMENTS

CONSTRUCTION SEQUENCE 1. CUT AND REMOVE TREES IN CONSTRUCTION AREAS AS REQUIRED OR DIRECTED.

AND THE INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES

2. CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS REQUIRED. EROSION, SEDIMENT AND DETENTION CONTROL FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO ANY EARTH MOVING OPERATION AND PRIOR TO DIRECTING RUNOFF TO THEM. 3. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. STUMPS AND DEBRIS ARE TO BE REMOVED

FROM SITE AND DISPOSED OF PER STATE AND LOCAL REGULATIONS. 4. EXCAVATE AND STOCKPILE TOPSOIL /LOAM. ALL AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.

5. CONSTRUCT TEMPORARY CULVERTS AS REQUIRED OR DIRECTED.

6. CONSTRUCT THE ROADWAY/DRIVEWAYS AND ITS ASSOCIATED DRAINAGE STRUCTURES. ALL ROADWAYS, PARKING AREAS, AND CUT/FILL SLOPES SHALL BE STABILIZED AND/OR LOAMED AND SEEDED WITHIN 72-HOURS OF ACHIEVING FINISH GRADE AS APPLICABLE.

7. INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING. 8. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS

SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED. 9. DAILY OR AS REQUIRED. CONSTRUCT TEMPORARY BERMS. DRAINAGE CHECK DAMS, DITCHES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS OR PROPERTY.

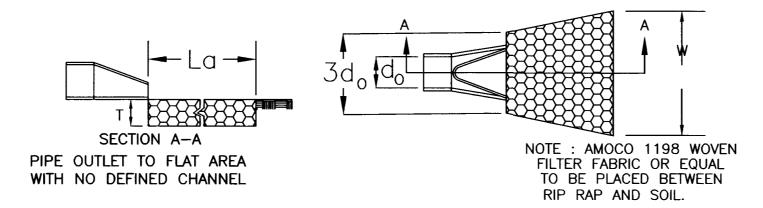
10. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION 11. COMPLETE PERMANENT SEEDING AND LANDSCAPING 12. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND

SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND REVEGETATE ALL DISTURBED AREAS. 13. ALL INFILTRATION BASINS, GRAVEL WETLANDS, SWALES AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED AND FULLY STABILIZED (INCLUDING STABILIZATION OF ALL AREAS CONTRIBUTING STORMWATER TO EACH GIVEN STRUCTURE)

PRIOR TO HAVING RUNOFF DIRECTED TO THEM.

14. FINISH PAVING ALL ROADWAYS/DRIVEWAYS/PARKING AREAS.

15. LOT DISTURBANCE OTHER THAN THAT SHOWN ON THE APPROVED PLANS SHALL NOT COMMENCE UNTIL THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.



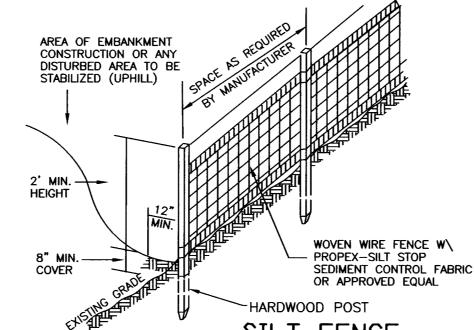
CONSTRUCTION SPECIFICATIONS

- 1. THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- 2. THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- 4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

MAINTENANCE

1. THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION APRON.

PIPE DUTLET PROTECTION



CONSTRUCTION SPECIFICATIONS 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8". 2. THE FENCE

POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 10' APART. AND DRIVEN A

MINIMUM OF 16" INTO THE GROUND. 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF. 5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE. 6. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED

MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE

2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY. 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE

4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

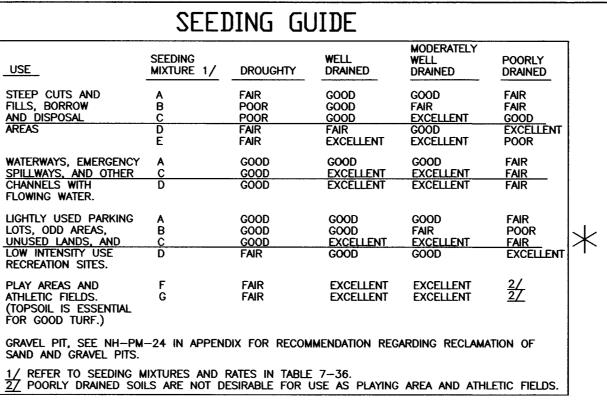
WINTER MAINTENANCE

1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH. SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3-4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3-4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.

2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.

3. PRIOR TO OCT. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15-25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH. ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.

4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWING SEASON. NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEEDED BY THIS DATE. AFTER OCTOBER 15TH. ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3-4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.



NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR DATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCT. 15, IF PERMANENT SEEDING NOT YET COMPLETE.

BAFFLES WITH METAL POST, WOVEN WIRE

SEEDING RATES					
MIXTURE.	POUNDS PER ACRE				
A. TALL FESCUE CREEPING RED FESCUE RED TOP TOTAL	20 20 2 42	0.45 0.45 <u>0.05</u> 0.95			
B. TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR	15 10 15	0.35 0.25 0.35			
FLAT PEA TOTAL	30 40 OR 55	0.75 0.95 OR 1.35			
C. TALL FESCUE CREEPING RED FESCUE BIRDS FOOT TREFOIL TOTAL	20 20 <u>8</u> 48	0.45 0.45 <u>0.20</u> 1.10			
D. TALL FESCUE FLAT PEA TOTAL	20 30 50	0.45 <u>0.75</u> 1.20			
E. CREEPING RED FESCUE 1/ KENTUCKY BLUEGRASS 1/ TOTAL	50 50 100	1.15 1.15 2.30			
F. TALL FESCUE 1	150	3.60			
1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.					

PREPARED FOR:

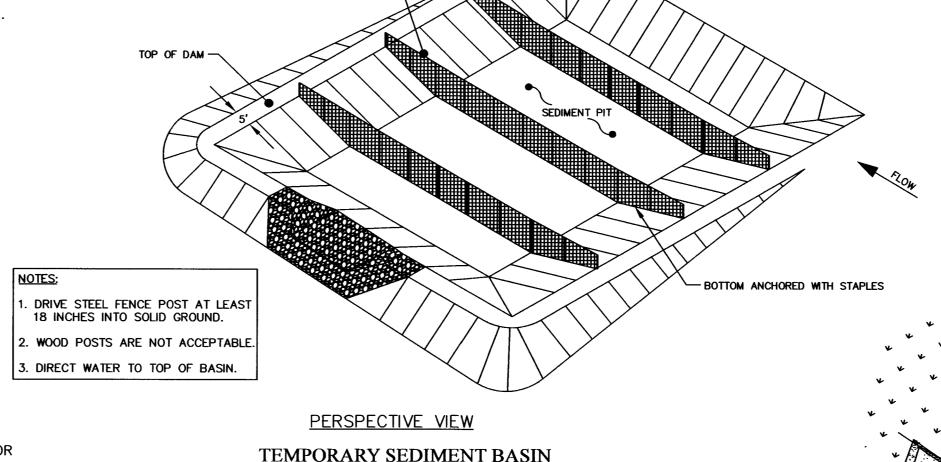
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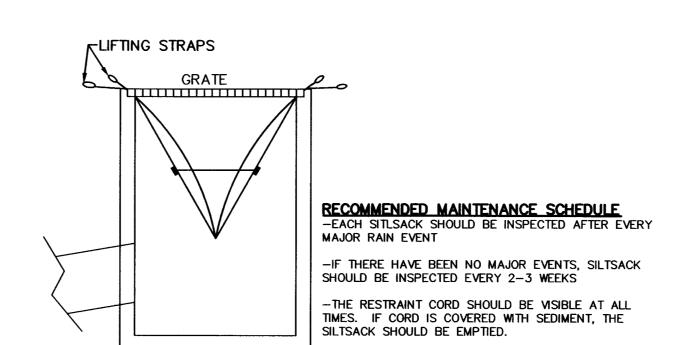
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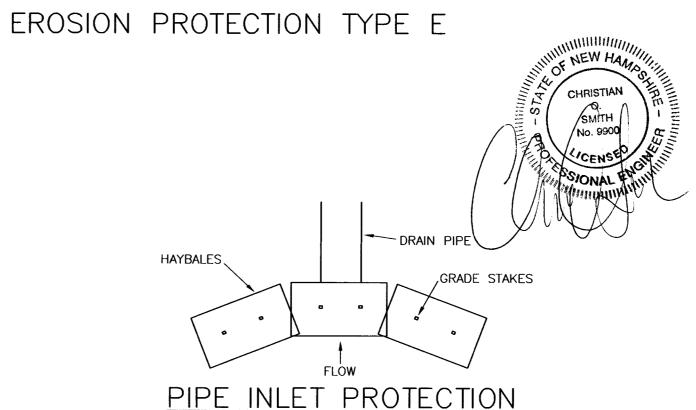
- 1				
	TABLE 7-24-RECOMMENDED	RIP RAP GRA	DATION	RANGES
	THICKNESS OF RIP RAP = 0	.25 FEET		
OF	d50 SIZE= 0.25	FEET	3	INCHES
	% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF FROM	STONE	(INCHES)
	100%	5		6
	85%	4		5
	50%	3		5
	15%	1		2

TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES |d50 SIZE= FEET 6 INCHES % OF WEIGHT SMALLER SIZE OF STONE (INCHES) THAN THE GIVEN d50 SIZE 100% 12 85% 50% 15%





SILTSACK DETAIL NOT TO SCALE



Mix material should consist of 30-50% large (1-3") particles. The organic matter content should be 25%-65%, dry weight basis. The organic matter may originate from a variety of vegetative sources, but needs to be fibrous and elongated. The mix shall be free of silt, clay, fine sand, refuse and contaminants or any material toxic to plant growth. Erosion Control Mix berms are effective filters for overland flow conditions and should not be used to filter concentrated flow such as that found in drainage ditchs, streams, etc.

Erosion Control Mix Berm

Section A - A

Bare or vegetated

— Erosion Control Mix Berm 🎚

Placed perpendicular to slope

slope

REVISED PER ENG. REVIEW	2-20-19
REVISIONS:	DATE:
EDOCION & CEDIMENT	COMPDOI

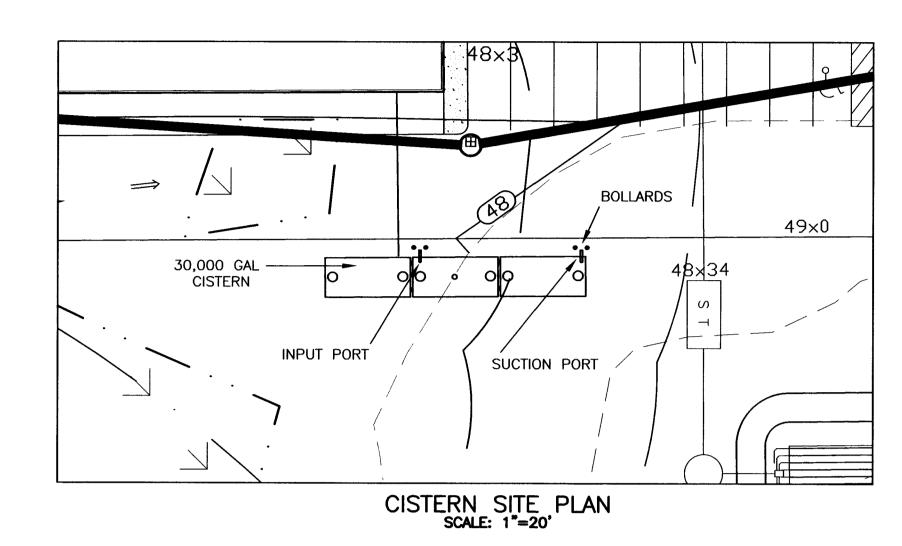
EROSION & SEDIMENT CONTROL DETAILS - E1

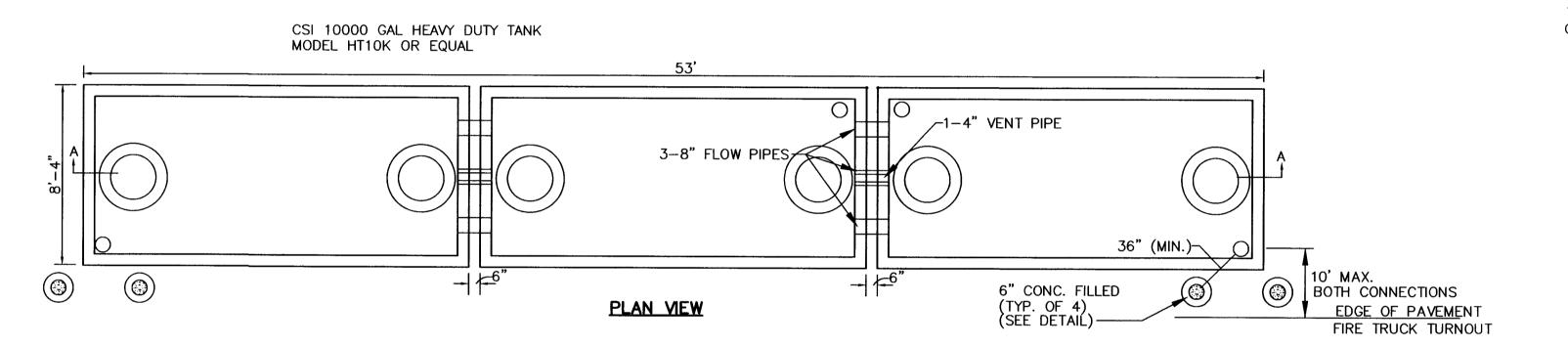
> PLAN FOR: COMMERCIAL DEVELOPMENT HOLLAND WAY EXETER, NH

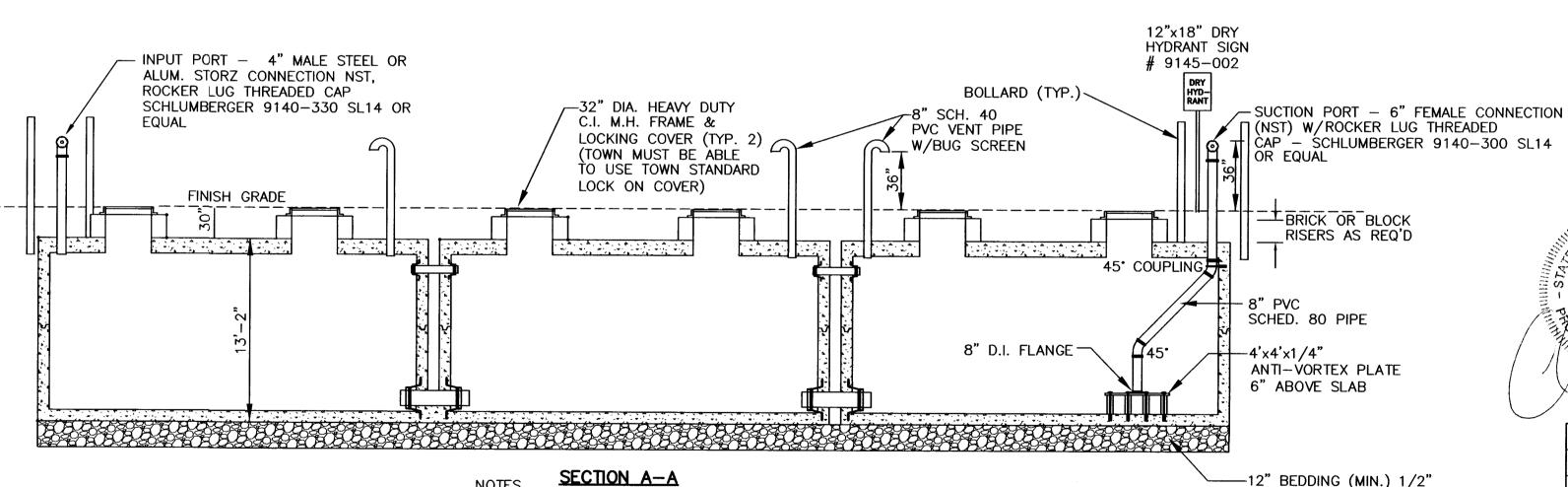
DATE:	DEC. 2018	SCALE:	NTS
PROJ. N0:	NH-236.52	SHEET NO.	9 OF 9

CISTERN SPECIFICATIONS

- 1. THE CISTERN SHALL BE DESIGNED TO BE TROUBLE FREE, AND IT SHALL BE DESIGNED TO LAST 50 YEARS.
- 2. THE MINIMUM CAPACITY SHALL BE 30,000 GALLONS. DEPENDING ON THE DEVELOPMENT LAYOUT/CONFIGURATION, ADDITIONAL GALLON REQUIREMENTS MAY BE IMPOSED AT THE DISCRETION OF THE FIRE CHIEF. ALL EXCEPTIONS, ADDITIONS, OR DELETIONS WILL BE IN
- 3. THE SUCTION CAPACITY SHALL BE CAPABLE OF DELIVERING 1,000 GALLONS PER MINUTE (GPM) FOR THREE-QUATERS OF THE CISTERN CAPACITY.
- 4. THE ENTIRE CISTERN AND APPURTENANCES SHALL BE RATED FOR HS-20 HIGHWAY LOADING. 5. DRAWINGS OF THE DESIGN ARE FOR ESTIMATING GENERAL REQUIREMENT AND DESIGN PURPOSES ONLY AND ARE NOT INTENDED FOR USE AS DESIGN. FINAL MANUFACTURER CUT SHEETS WILL BE REQUIRED TO BE APPROVED BY THE FIRE CHIEF PRIOR TO CISTERN COINSTRUCTION. NO OCCUPANCY PERMITS WILL BE ISSUED UNTIL THE FIRE CISTERN IS
- INSTALLED, INSPECTED AND APPROVED BY THE BRENTWOOD FIRE DEPT. 6. EACH CISTERN SHALL BE DESIGNED, SITED TO THE PARTICULAR LOCATION, STAMPED BY A REGISTERED ENGINEER, AND APPROVED BY THE FIRE CHIEF.
- 7. ALL SUCTION AND FILL PIPING SHALL BE AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM) SCHEDULE 40 OR 80 CPVC (ASTM F437, 438 or 439). ALL VENT PIPING SHALL BE ASTM SCHEDULE 40 IOR 80 CPVC. ALL PIPING LOCATED WITHIN THE TANK SHALL BE ASTM SCHEDULE 40 STEEL WITH WELDED JOINTS. ALL PIPING LEADING FROM THE TANK TO THE HYDRANT SHALL BE ASTM SCHEDULE 40 STEEL.
- 8. THE FINAL SUCTION CONNECTION SHALL BE SIX INCH FEMALE CONNECTION WITH NST THREADS AND CAP. THE SUCTION PIPE SHALL BE BRACED TO ENSURE DURABILITY DURING PUMPING OPERATIONS. THE FIRE CHIEF SHALL APPROVE BRACE CONFIGURATION AND INSTALLATION THE SUCTION PIPE CONNECTION SHALL BE TWENTY-EIGHT INCHES ABOVE THE LEVEL OF THE VEHICLE PAD TO THE CENTER OF THE CONNECTION WHERE VEHICLE WHEELS WILL BE LOCATED WHEN THE CISTERN IS IN USE.
- 9. THE FILLER CONNECTION SHALL BE INTALLED INTO THE EIGHT INCH VENT WITH 4" MALE STEEL OR ALUMINUM STORZ FITTING W/30° DOWN FACING ELBOW. THIS FITTING SHALL BE 24" ABOVE FINISH GRADE AND FACE THE ROAD. A THIRTY-TWO INCH DIAMETER MANHOLE WITH COVER WILL BE LOCATED ON TOP OF THE CISTERN. THE CONFIGURATION OF THIS MANHOLE SHALL ALLOW THE UNIT TO BE SECURED WITH TWO PADLOCKS AND SHALL BE APPROVED BY
- THE FIRE CHIEF. THE PADLOCKS WILL BE SUPPLIED BY THE FIRE DEPARTMENT. 10. THE DISTANCE FROM THE BOTTOM OF THE SUCTION PIPE TO THE PUMPER CONNECTION SHALL NOT EXCEED FOURTEEN FEET VERTICAL
- 11. ALL HORIZONTAL SUCTION PIPING SHALL SLOPE SLIGHTLY UPHILL TOWARD THE PUMPER CONNECTION.
- 12. BEDDING FOR THE CISTERN SHALL CONSIST OF A MINIMUM OF TWELVE INCHES OF 3/4" TO 1 1/2" WASHED PEA STONE, COMPACTED. NO FILL SHALL BE USED UNDER THE STONE. OVER EXCAVATION SHALL BE FILLED WITH THE SAME STONE BEDDING MATERIAL
- 13. ALL BACKFILL MATERIALS SHALL BE SCREENED GRAVEL WITH NO STONES LARGER THAN SIX INCHES AND SHALL BE COMPACTED TO 95 PERCENT OF ITS ORIGINAL VOLUME IN ACCORDANCE WITH ASTM D 1557. 16, THE TOP OF CISTERN SHALL BE INSULATED WITH VERMIN RESISTANT FOAM INSULATION AND TWO FEET OF BACKFILL WITH A MINIMUM WEIGHT OF 120 PCF, COMPACTED. FOAM USED FOR THIS INSTALLATION SHALL BE CLOSED CELL POLYURETHANE FOAM WITH AN INSULATION FACTOR OF R=5 PER INCH. ALL BACKFILL SHALL EXTEND TEN FEET BEYOND THE EDGE OF THE VEHICLE PAD AND THEN HAVE A MAXIMUM OF 3:1 SLOPE, LOAM AND SEEDED.
- 14. BEFORE ANY BACKFILLING IS DONE THE ENTIRE CISTERN SHALL BE COMPLETED AND INSPECTED BY THE FIRE CHIEF.
- 15. AFTER BACKFILLING, BOLLARDS OR LARGE STONES SHALL BE PLACED TO PROTECT. THE TANK AND APPURTENANCES.
- 16. THE PITCH OF THE SHOULDER AND VEHICLE PAD FROM THE EDGE OF THE PAVEMENT TO THE PUMPER SUCTION CONNECTION SHALL BE ONE PERCENT TO THREE PERCENT DOWNGRADE.
- 17. THE SHOULDER AND VEHICLE PAD SHALL BE OF A SUFFICIENT LENGTH TO ALLOW CONVENIENT ACCESS TO THE SUCTION CONNECTION WHEN THE PUMPER IS SET AT 45 DEGREES TO THE ROAD. THE SHOULDER AND VEHICLE PAD SECTION SHALL CONSIST OF 3" BITUMINOUS PAVING, REFER TO SITE PLAN FOR REQUIREMENTS.
- 18. TWO CONCRETE FILLED STEEL BOLLARDS SHALL BE PLACED IN A MANNER TO PROTECT THE HYDRANT. THE BASE OF THESE BOLLARDS SHALL EXTEND BELOW THE FROST LINE. THE UPPER PORTION OF THE BOLLARDS SHALL EXTEND THIRTY SIX INCHES ABOVE THE LEVEL OF
- THE VEHICLE PAD WHERE VEHICLE WHEELS WILL BE LOCATED WHEN THE CISTERN IS IN USE. 19. ALL CONSTRUCTION, BACKFILL, AND GRADING MATERIALS SHALL BE IN ACCORDANCE WITH PROPER CONSTRUCTION PRACTICES AND SHALL BE ACCEPTABLE TO THE FIRE CHIEF.
- 20. THE FIRE CHIEF (OR REPRESENTATIVE) AND THE ENGINEER'S INSPECTOR WILL BE NOTIFIED BY THE CONTRACTOR TO OBSERVE THE FOLLOWING POINTS OF INSTALLATION:
- A. EXCAVATION COMPLETE.
- B. CRUSHED STONE INSTALLED AND COMPACTED
- C. BACKFILLING COMPLETE PRIOR TO PLACEMENT OF INSULATION.
- D. PLACEMENT OF INSULATION.
- E. START AND FINISH OF LEAKAGE TEST.
- F. PIPING MANWAYS AND BOLLARDS IN PLACE AND PAINTED. G. ALL BACKFILLING LOAM, SEED, ETC. COMPLETE WITH TURNOUT GRAVEL IN PLACE AND GRADED.
- H. PAVEMENT COMPLETE, AND ALL OTHER WORK 100% COMPLETE.
- 21. THE FIRE CHIEF SHALL BE NOTIFIED OF THE DATE THAT SITE WORK IS TO BEGIN. 22. ANY EXCEPTION, ADDITIONS, OR DELETIONS ARE DATED AND NOTED BELOW:
- 23. CONCRETE MUST HAVE A MINIMUM OF 150 PCF.
- 24. STONE AND GRAVEL BACKFILL MUST HAVE A MINIMUM OF 120 PCF.







NOTES 1. CONCRETE: 5,000 PSI AFTER 28 DAYS. 2. REINFORCED FOR H-20 LOADING.

3. JOINTS SEALED WATER TIGHT. 4. ALL BELOW GRADE EXTERIOR SURFACES OF THE TANK SHALL BE COATED WITH KOL-TAR'S BLACK SHIELD ASPHALT COATING, OR APPROVED EQUAL

5. CISTERN INSTALLATION MUST CONFORM WITH ALL LOCAL FIRE DEPARTMENT REQUIREMENTS.

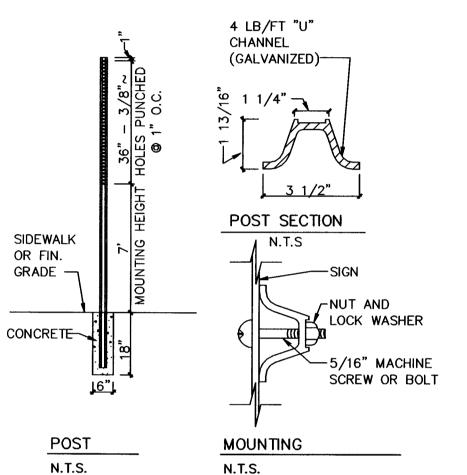
PROPOSED 30,000 GAL. FIRE CISTERN DETAIL NOT TO SCALE

PREPARED FOR:

PALMER & SICARD, INC. 140 EPPING ROAD EXETER, NH 03833

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70 PORTSMOUTH AVE, STRATHAM, N.H. 03885 PHONE: 603-583-4860, FAX. 603-583-4863



STREET SIGN DETAIL

STOP SIGN (R1-1) 30" x 30" SPEED LIMIT SIGN (R2-1) 24" × 30"

CHRISTIAN SMITH No:-6900

TO 3/4" CRUSHED, WASHED

STONE AND COMPACTED

REVISIONS: DATE:

FIRE CISTERN DETAILS

PLAN FOR: COMMERCIAL DEVELOPMENT HOLLAND WAY EXETER, NH

DATE:	FEB. 2019	SCALE:	NTS
PROJ. N0:	NH-236.52	SHEET NO.	9a OF 9



ConCom Roundtable meeting notes - 2.26.19

1 message

Jay Diener <coastwalker1@gmail.com>

Fri, Mar 1, 2019 at 2:49 PM

Hi everyone,

Here are my notes from the Feb. 26 ConCom Roundtable. Please edit as appropriate.

In attendance: Barbara Richter (NHACC) by phone, Lia Durfee (Newington), Susan Shepcaro (Rye), Sally King (Rye), Suzanne McFarland (Rye), Bill Campbell (Exeter), Laura Byergo (Greenland), Joe Fedora (Greenland), Jay Diener (Hampton)

- We started talking about new/proposed legislation in NH, with Barbara leading the discussion. Everyone should take a look at these bills online and please send your thoughts, pro or con, to Barbara at the NHACC. HB682FN addresses proposed wetlands permit and other related application fee increases for NHDES. The fees hadn't been increase in 11 years, so they are trying to get up to date. Last year, the time for DES to review permit applications was reduced, so part of the reason for these fee increases is to enable them to review and respond more quickly. For those reasons, NHACC is supporting this increase. The proposed new fees are still lower than some neighboring states. This bill also gives NHDES the ability to review and increase future fee increases via the rules, rather than only with a legislative update. In the rules process, there are public hearing required, and the rules eventually have to be accepted by the Legislature, so there would still be some oversight. The monies from these higher fees would go into a Water Resources Fund. There are some questions regarding how the monies in this fund would be allocated. This bill was voted 'Ought to Pass' by 10-9 in the House committee. Now it goes to Ways & Means (in the next couple of weeks), which may be challenging. If approved then, it will go to the Senate. The NHACC may propose a phased-in process for the increases. With this, and all the proposed legislation listed below, you are all encouraged to contact Barbara at NHACC with questions, comments, and recommendations pro and con. Also contact your local legislators.
- HB326 has to do with removing the 50 ft. minimum width requirement for any water body that is being proposed for Prime Wetlands designation. So narrower areas (connectors or fingers) would now be eligible for such designation. The thinking is that they are part of the same hydrologic process, so they should be eligible as well.
- **HB543** is similar to a bill that was proposed last year that would establish statewide wetlands buffers. This bill proposes a 100 ft. buffer, but allows local ordinances to be more stringent and still in place, which is a change from past years. However, DES's ability to enforce the new buffer is still in question, as it was in past years. Also in question is whether 100 ft. is the right/best width for a statewide buffer. This is primarily for those communities that do not have local wetlands ordinances.
- **HB281** allows for the installation of beaver deceivers without a permit. It was recommended as 'ought to pass.' There was an amendment, but it only had to do with what the device is called.
- HB442 prohibits coyote hunting during pup rearing season. Fish & Game was opposed. It was determined to be 'inexpedient to legislate,' so it is not moving forward now.
- **SB200** allows the addition of wildlife corridors and habitats as a "pubic good" which might make it easier to include those areas as protected areas and/or use them for a rationale for conservation easements on some parcels. It may enhance the ability to secure grant funding to protect certain areas. There is currently no 'official' process for designating an area as a wildlife corridor. There is a proposed definition of wildlife corridors as part of this bill. This has been recommended as 'ought to pass.'
- **HB542** creates a grant program (\$350,000) in support of municipal efforts to upgrade wetlands regulations. Applications would be through the Office of Strategic Initiatives. This has been narrowly designated as 'ought to pass.'

- Laura asked about protecting wildlife habitat and corridor areas that may cross community borders. What is the best way to start the process of coordinating with adjacent towns to protect common wildlife habitats? The Nature Conservancy, with Fish & Game is looking at major road crossings with an eye to make them safer for wildlife crossings. Perhaps work with TNC or the Rockingham Planning Commission to identify and start the process of protecting cross-border corridors. It would probably also be helpful to talk to the neighboring conservation commissions. NHDES has a good document that references the NH Coastal and Estuarine Land Conservation Plan, and lists other watershed and local plans related to wildlife issues. The Granite Viewer or GIS maps may have layers that could be helpful. TNC also has the Land Conservation Plan for New Hampshire's Watersheds, which is still used, and may also be helpful (also developed in conjunction with some other groups).
- Jay introduced a draft 'coastal hazard' policy statement that the Hampton CC is working on, and wants to distribute to the Selectmen and Planning Board, and have available to anyone who is interested. The statement would clarify additional steps that the commission would endeavor to take when reviewing application for wetlands permits for properties in coastal floodplains where properties are at risk of, or are already experiencing frequent, significant flooding. (The draft is attached for those who were not at the meeting.) A lot of the additional steps are educational in nature, and others would encourage building in more resiliency to projects that are under review. The HCC is looking for your input on the idea and the draft before finalizing this policy statement and presenting it to the town.
- Other towns away from the immediate coast also have flooding issued to deal with from storms, increased rainfall, and river flooding.
- Exeter has held midnight snowshoe events, and weather-related issues have been discussed there.
- Barbara referenced 'Resilient Boston' where they are creating wetlands and beaches in Boston Harbor to help mitigate some of the flooding they are expecting. The costs are about the same as building a wall, but this will be a more 'natural' solution, and can be sued by residents during dry weather.
- There was some discussion about flooding issues, the project that led to the formation of the Coastal Hazard Adaptation Team (CHAT), which includes representatives from most Hampton town boards, and the concepts of voluntary buyouts, raising roads (Rt. 1A), etc.
- Laura referenced Sustainable Exeter, which is an independent organization comprised of members of different town boards. Not being an 'official' town entity gives them a lot more flexibility.
- Liz spoke about the importance of having lists of potential projects in each town, and conservation
 purchase/easement priorities. She also spoke about the importance of mapping, and different sources (GIS,
 Granite View) of mapping to support master plans and other projects.
- Laura also spoke about the importance of monitoring conservation properties, and how they now have Selectmen support for a conservation parcel monitoring internship program.
- Joe asked about what may happen at the town level as flood insurance premiums continue to rise. Will towns have
 to bail out property owners who can no longer afford flood insurance? We spoke about FEMA's Community Rating
 System (CRS) through which a town can help effect flood insurance premium reductions for its residents.

Our next meeting will be on **April 23**, and NHDES is tentatively scheduled to come to speak with us about the ARM Fund.

Thanks,

Jay

Jay Diener Hampton Conservation Commission 603.758.1177 coastwalker1@gmail.com

Activity	Property	Category	Master Plan	Completed By	Notes
	Nowak Rm and				
Cottontail training	Morrissette or HS	Activity		1/26/2019	COMPLETE
					COMPLETE: Dave O'Hearn request. Bonfire at the Irvine Conservation Area,
Snowshoe Event	Exeter Country Club	Activity	Prepare 3a, 3b, 3c	2/16/2019	snowshoe, Sledding, Skiing. Dave and Drew support
					Ben Anderson to host a story hour with Easter Egg Hunt, baby animals etc.
Easter Family Story Hour	Raynes Farm	Activity		4/13/2019	Ginny and Alyson to help.
Woodcock Walk	Morrissette	Activity		4/30/2019	David O'Hearn expressed interest. NEED CC LEAD TO COMPLETE
National Trails Day	UNKN	Activity		6/1/2019	NEED CC LEAD TO COMPLETE
					Raynes, Morrissette, Henderson Swasey, Fresh River. Need new "stamp
					markers" and cemented in posts. Consider partnering with Stillwells as an
Trail Passport Activity	Several Properties	Activity	Steward 3, 8	12/31/2019	icecream award.
					Brought to the Con Com by Don Clement. Suggestion was to organize the event,
					inviting other groups. If we had a booth there, would need some volunteers to
					manage it. With Swasey under construction a potential could be a forum at
				Summer 2019 or	Town Hall highlighting the activities going on in town C-Rise, MS4 Permit, AOC 8
Alewife Festival	Swasey Parkway	Activity	Support 3, 8	summer 2020	N Control Plan, Healthy Lawn Clean Water,
7.1.011.1.0 1 001.1141	on asey i annuay	7.00.11.04	ом ро . с о, о	54	Develop list of potential shovel-ready projects supported by NHDES for future
Mitigation	20 Continental Drive	Land Acquisition	Steward 1a, 1b, 1c	4/30/2019	projects. Trevor Mattera, Lindsey White, Bill and Kristen.
. 0				, ,	Lindsey will rank properties for mitigation potential. Review master plan action
Open Space analysis	Exeter	Land Acquisition	Steward 2	4/30/2019	agenda for additional recommendations.
		·			
	Brentwood Rd, SELT				ID Steps (additional if for mitigation) and who is lead Offer from Peirce family or
Land Acquisitions	Parcels (2), Church	Land Acquisition		4/30/2019	Linden Street to donate land on Exeter River. SUBCOMMITTEE?
					Ginny to explore setting up a table of what can be recycled, how materials must
					be prepared and how this helps Town. Perhaps move table to Town Offices in
Recycling	Exeter	Outreach	Support 7	3/12/2019	Town Clerk area after DS. Perhaps put out at town election
					Orders open late March, early April, check DPW to see if they offer a \$200
Rain barrel Program?		Outreach	Support 7	5/11/2019	discount (\$20 off for first 10 orders). Delivery at DPW on 5/11/19
					Dorthor with Darks and Door Dublic Works, SELT. Cinny is the CC representative
					Partner with Parks and Rec; Public Works; SELT. Ginny is the CC representative along with Greg Bisson, Kristen and Bill. Draft management plan complete, need
Community Garden	Gilman Park	Outreach	Support 3, 8	5/31/2019	to submit for SELT approval, then BOS for permission and funding support.
community darden	Gillian Fark	Odtreach	Заррог 3, 8	3/31/2013	Look at possibilities with Newspaper, Facebook etc. Ideas: New LCHIP sign by
Publicity for CC activities	All	Outreach		Ongoing	Kathy Norton. New trail signs in HS.
ability for the detivities	7.11	Oddieden		Ongoing	inderly Notion. New dail 3,813 iii 113.
					NEED VOL HELP HERE Visits are every other week from June – Sept. I can train
VRAP	9 sites	Outreach		Spring-Summer 2019	to accomplish on weekend if CC interest. Partner w/ River study?
					Object is to get more word out on activities of CC. Ginny to talk to Kathy Corson
Communications with					(New Town Communications Committee). Explore use of emails, newsletter
Public	Exeter	Outreach	Communicate 2	Start 2019 and following	r · · · · · · · · · · · · · · · · · · ·
Master Plan Action				Ì	Kristen & to review master plan action items and develop
Agenda Review	All	Planning		3/31/2019	implementation plan. Due to Dave March.

Activity	Property	Category	Master Plan	Completed By	Notes
CIP and Budget Planning	All	Planning		7/1/2019	July 2019 in prep for Aug submission
List of Grants or Funding		· ·			
Sources	N/A	Planning	Steward 2	12/31/2019	Bill
Disturbances	McDonnell	Property Management		1/25/2019	Kristen and Bill met with the Chief. He was going to contact Dianne; follow up with dispatcher (although he believes person no longer there); Check on patrols. 1/25/19 no contact from police. Dianne feels she has a contact there, if needed.
Raynes Farm LCHIP	Raynes Farm	Property Management		1/28/2019	Met with LCHIP, reviewed application suggestions. Decided to table LCHIP application until next year and boost property use for the current year first. Establish the concept of an Exeter Conservation Center at Raynes
Morrissette Property	Court ST/SST Parking lot Exeter	Property Management	Support 8	4/3/2019	Kristen to contact Anne Demarco or other SST staff to discuss student involved Clean up for parcel. Work with PW to remove material. Settle and mark new trail. Alternate dates April 3, 4, 5 or 10, 11,12
Raynes Farm Outreach	Raynes Farm	Property Management		4/13/2019	Establish a plan for events at Raynes Farm: 4/13 - Ben Anderson - Easter Story Event(Ginny, Alyson) 5/4 - Speaking For Wildlife: NH Bats, and Bat House building event (Kristen); SUMMER - (date TBD) John Porter's barn presentation (Ginny & EHS co-host?)6/29 Window glazing workshop (Kristen & HC co-host?); 7/16 - Earliest date of first cut; Sept/Early Oct - Kite Flying event (WHO?); 10/18, 10/25 Sky Watch Star Gazing (Ginny); 10/26, 10/27 Story Walk (Ginny); Oct - disc golf event (???); November - Scavenger Hunt (Kristen, need ideas); 12/21 Winter Solstice Celebration (need ideas); December Open Barn dates (CC volunteers)
Raynes Farm Stewardship Committee	Raynes Farm	Property Management		4/15/2019	Quarterly Raynes Farm Stewardship Committee meetings (Sally), Awaiting doodle poll for April dates
Invasives	Town Forest/HS	Property Management	Steward 8	4/26/2019	Bill, Carlos, Kristen to lead invasive plant removal at Henderson Swasey for PEA Climate Action Day (Jim Decarlo is point of contact)
Plantings for HS	HSTF	Property Management	Steward 8	4/26/2019	Review plantings at H-S and determine if additional management is needed
Granite HS Sign	HSTF	Property Management		5/31/2019	Sign has been delivered, Jay Perkins will install in Spring
Signs for Pete's Path and McDonnell	Garrison lane and Skate Park	Property Management		5/31/2019	Spring
No Hunting Signs	Swasey, HS	Property Management		9/27/2019	Post perimeter w/ new signs prior to fall 2019 hunting season
Snowhounds	Oaklands	Property Management		11/22/2019	Address beaver dam "maintenance" activity, respond to Thomas. Current agreement expires 2019. Consider annual approval (vs 5 year) to keep more frequent communication.
Smith-Page Property	Drinkwater Road	Property Management	Steward 7	12/31/2019	Repair signage. Re-mark/clear trail. Eliminate poison ivy.

Activity	Property	Category	Master Plan	Completed By	Notes
Property Monitoring - Interns	All	Property Management		Spring, Summer 2019	Address list of areas of concern and plan for fix (Allen St, Cheney, 80 Epping, review reports for others), develop priorities for Interns, advertise/select. Assign parcels to new members of ECC.
Raynes Ag Use	Raynes	Property Management		TBD	Dave Short's ag proposal
Trail Signs	Town Forests	Trails	Steward 7	4/30/2019	Start with list of signs. Need to vote funds to purchase lumber. Jon Thunberg will make signs. Ask members of trails committee to put them out. Kristen to organize the update of maps.
Exploring Exeter	Town lands	Trails	Support 3, 8	5/18/2019	Exploring Exeter Hiking Series with Parks and Rec (Dave Tovey). 5/18/19 (McDonnell), 7/20 (Location TBD), Fall Date (TBD, likely Squamscott kayak tour) Further on, Forest Fridays.
Trail Committee	All	Trails	Steward 7	Quarterly	Get on regular schedule, suggest if quarterly
Forest Fridays	Town Lands	Trails	Support 3, 8	TBD	Active Adult hikes on Fridays through out the year in partnership with Parks and Rec (Melissa Roy). Dates and locations TBD
ADA Trail	McDonnell Easement, Cubie Rd	Trails	Support 4, Connect 2a, Steward 7	TBD	Property owner preferred ADA trail not be at this location. Consider Cubie Rd (Fresh River area)
Bridge Work	Oaklands	Trails	Steward 7	TBD	Repair boardwalk bridging over wetlands

Conservation Center at Raynes Farm Event Schedule

- 4/13 Ben Anderson Easter Story Event: Ginny and Alyson are CC leads
- 5/4 Speaking For Wildlife: NH Bats, and Bat House building event
- SUMMER (date TBD) John Porter's barn presentation (and book selling???). Ginny w/contact Diedre and Anne Schriber with Exeter Historic Society as co-host
- 6/29, 7/27, 8/3, 8/10 Window glazing workshop. All day workshop sponsored by NH Preservation Alliance. Registration for NHPA or CC members \$60, limited to 10 people. Need a port-o-potty. Beverly Thomas will confirm dates if we can cover port-o-potty (\$200). Kristen to look into co-host with Exeter Heritage Commission.
- 7/16 Earliest date of first cut
- Sept/Early Oct Kite Flying event
- 10/18, 10/25 Sky Watch Star Gazing (Ginny to schedule)
- 10/26, 10/27 Story Walk We have supplies
- Oct disc golf event
- November Scavenger Hunt (Kristen to look into details)
- 12/21 Winter Solstice Celebration (open to ideas)
- December Open Barn dates (CC volunteers)

Exeter Conservation Commission February 20th, 2019 Town Offices Nowak Room Draft Minutes

Call To Order

1. Introduction of Members Present

Present at tonight's meeting were Bill Campbell, Ginny Raub, Todd Piskovitz, Lindsey White, Lucretia Ward, Alyson Eberhardt, Dave Short, Andy Weeks, Trevor Mattera, Don Clement, and Kristen Murphy. Sally Ward and Carlos Guindon were not present at the meeting. Mr. Campbell called the meeting to order at 7 PM.

- 2. Public Comment
 - a. There was no public comment.

Action items

1. Review of a NHDES Dredge and Fill Application for 15,425 sq ft. of wetland fill resulting from the construction of a Unitil Distribution & Operations Center at 20 Continental Drive, Tax Map Parcel #46-3 and associated mitigation *Brendan Quigley (GES Inc.)*

Jim Petropulos of Hayner-Swanson spoke about the Unitil project. This is a 10 acre site off of 20 Continental Drive, an L-Shaped lot behind FW Webb in the Garrison Glen Corporate Park. There are 7 usable acres and 4 acres of wetlands. The building's parking and site storage were designed to minimize wetland impacts, but 15,415 square feet of wetlands will be affected. The Conservation Commission had a sitewalk in early December, then heard a presentation at the December 11th meeting, where there was a unanimous vote of no objection for the Conditional Use permit. Now the project is looking for a recommendation to the state of NH on a Dredge and Fill Application.

Mr. Campbell said there are six areas of wetland fill along the edge, plus one in the middle that they're most concerned with. This central area serves to catch the water from the area. Over two acres will be solid/impervious at the site.

Mr. Campbell said he would like to go through the 20 standard questions for a Dredge and Fill permit.

Mr. Quigley addressed each of the questions. 1) The need for the proposed impact: the need for the project has been well established, the location and the use are a good fit. 2) That the alternative proposed by the applicant is the one with the least impact to wetlands: The proposed use requires the large contiguous area. The only way to fit this on the site was to centrally locate. They're not using their frontage on Continental Drive, where there are more wetlands, for the entrance. 3) Type and classification of the wetlands involved: Seasonally saturated forested wetlands, PFO1E, consisting of marginal red Maple forest on dense glacial till soils. Ms. Eberhardt asked whether marginal meant "on the margins of the Little River" or

"low quality". Mr. Quigley responded that marginal is "marginally wet," consisting of poorly drained area with an inch or two of soil.

Mr. Quigley addressed 4) The relationship of the proposed wetlands to be impacted relative to nearby wetlands: This area is ultimately part of the Little River wetland complex but different than the shrub thickets and deep organic soils at the Little River. They're associated but not closely. Mr. Petropulos pointed out that the area is 1,500 feet from Little River.

Mr. Quigley said regarding 5) The rarity of the wetland: The question is asking whether this is a peat bog or salt marsh or some outstanding New Hampshire wetland, but this is quite a common type of wetland. 6) The surface area of the wetlands impacted: 15,425 square feet. 7) The impact on rare, threatened, or endangered species: As part of every project there is a correspondence with the Natural Heritage Bureau and Fish and Game. There is potential for a rare plant or a rare Swamp white oak basin swamp, but neither are present on site. 8) The impact on public commerce, navigation, and recreation: Generally projects of this nature have a positive impact on commerce with the increased tax base and support of local jobs. Supporting the resilience of the power system is critical to public commerce. 9) Extent that the project interferes with the aesthetic interest of the public: This project fits with the rest of the development in this area, which is an industrial park. 10) Interferes with public rights of passage: This is private property in an industrial park. 11) Impact to abutting property owners: they're not impacting any neighbors. Mr. Petropulos presented a letter from FW Webb in support of the project.

Mr. Quigley said regarding 12) Benefit to health, safety, and wellbeing of the general public: Having a facility that is intended to support and restore the electrical grid is a benefit to public safety. 13) The impact of a proposed project on quantity or quality of surface and groundwater: The drainage systems comply with a set of standards for the AOT permit which will ensure that they will not be affecting the amount or quality of runoff. Ms. Eberhardt asked how they know that, and Mr. Quigley said there is extensive research used by AOT. Ms. Murphy said the town requires all applicants to run a stormwater model on pre and post conditions, looking at water quality and volume and how the curve changes over time. The Conservation Commission doesn't review that because it's done by the TRC [Technical Review Committee] and Underwood Engineers. Mr. Clement said under MS4 they have to comply. Ms. Murphy said that they are required as a town to track whether they're causing an increase in nitrogen. Ms. Eberhardt asked about managing the stormwater system to ensure it's functioning properly. Mr. Petropulos said there will be regular inspections and post storm event inspections. Ms. Murphy added that there's an agreement between the town and the landowner to provide reports on complying with the stormwater maintenance procedures.

Mr. Quigley said regarding 14) The potential of a proposed project to cause or increase flooding, erosion, or sedimentation: This is a construction best management question, also reviewed by AOT at the state level for proper erosion control. 15) Redirecting water, current and wave energy: This does not apply. 16) Cumulative impacts: This looks at the size of the wetlands and the result if all abutting owners were to carry out the same impacts. In this case, this is a large wetland system extending beyond Little River and the conservation area, so the relative size of the impacts is small. 17) The impact of the proposed project on the values and function of the total wetland complex: This is about water quality and habitat function, which here is more related to these areas being forested than being wetlands. The more significant

wetland habitats and functions are closer to the river. The habitat is already diminished by proximity to other developments.

Mr. Campbell pointed out that there was a separate Wetlands Function and Value evaluation form filled out by Mr. Quigley. Mr. Quigley added that this is part of a federal method called Highway Methodology, which is required for these applications. It's difficult to apply to small impact areas, since it's designed for the siting of large federal projects such as highways. This evaluation separates out Area G at the center of the site. Mr. Campbell speculated that this central wetland area was actually created by a road or staging area for logging. Mr. Quigley agreed that was possible, and added that the area is dry by early May, which is too short a period to serve as a development area for vernal species.

Mr. Quigley continued with 18) National Register of Historical Landmarks: None; 19) Impact on the value of areas named in acts of Congress or Presidential proclamations: Not applicable; and 20) Redirection of water between watersheds: Nothing of that nature.

Mr. Campbell moved on to the discussion of mitigation, saying that there will be a contribution of \$77,765.81 to the Aquatic Resources Mitigation fund. Mr. Petropulos said there are other mitigation options, such as conservation or preservation, but they're not possible on this site. To create a more meaningful wetland on this site, they'd have to obliterate existing wetlands. They considered local projects, such as grading and engineering improvements to a portion of the golf course. However, they took that idea to the state of NH and they said it was not really appropriate, since it may never be built. Mr. Campbell said there's nothing shovel-ready, but he wondered if they have time to come up with something. Mr. Petropulos said this April is the intended start date, so they would need to react within that time frame.

Mr. Clement asked what triggered mitigation; Mr. Petropulos said any impact over 10,000 square feet. He added that the state builds the Aquatics Resource Mitigation [ARM] fund to find a project hopefully near the area. Ms. Raub pointed out that Exeter received \$150,000 in ARM money when they did the dam removal. Mr. Koff said they should write this check and the state will find a good use for the money. The town can develop an engineering plan for this project for next time. Ms. Murphy said they plan to identify a list of mitigation opportunities and have it vetted by the state so they have something ready the next time.

Mr. Mattera said that ARM does a good job in the region. The money is not just reactive, they could proactively apply for ARM funds if they have projects ready. Ms. Eberhardt said that the grants prioritize a similar type and locality of wetlands as the project the mitigation fee came from. Mr. Mattera said regarding the resiliency project at the golf course, the plans are required to be in place unless you can wrap design into implementation, but Mr. Piskovitz said without design you don't know what it will cost. Mr. Campbell suggested they do the design on their own and apply for funding.

Mr. Campbell said that the options for a motion are to not object to the project as proposed, or to recommend its approval or denial. Ms. White said she would not be voting; Mr. Mattera agreed to vote.

MOTION: Ms. Raub moved that they send a letter to NHDES stating that they do not object to the project as proposed. Mr. Mattera seconded. All were in favor.

2. Annual Planning Dashboard

Mr. Campbell presented a planning dashboard for Conservation Commission projects and asked for comments. Ms. Eberhardt suggested adding a column that connects each item to the Master Plan. Mr. Koff suggested also adding a more intuitive category for each item, such as outreach or trail management.

3. LCHIP Follow Up Meeting

Mr. Campbell said that he, Ms. Murphy, and Ms. Raub talked to Dijit Taylor and George Borne of the LCHIP staff regarding the grant we didn't get, and the staff members were encouraging. He asked if the board wants to apply again this year. Ms. Murphy said they got the feedback that they need to sell the use of the property better. She wondered whether they should resubmit the application this year or build the use track record, for example by following Don Brizledon's suggestion of a Conservation Center at Raynes Farm. Ms. Raub suggested they work up to the deadline and see what happens, but Mr. Campbell said that the deadline is coming up soon and they have to give Ms. Murphy plenty of time to create the application. Ms. Murphy added that activities at Raynes don't occur during the growing season, so there's not much time to refine the use before the application.

Mr. Clement asked if there is a vision on utilization of the barn. Ms. Murphy said that when they updated the Raynes management plan, it was described as an educational center related to agriculture and natural resources, but LCHIP wanted to see evidence of it being used this way, as well as how the public responds. This year, they improved the parking area along the stone wall, so they could show that they made that improvement and made use of it. Mr. Campbell said that the 4th grade talks about NH history, so there could be a field trip there. LCHIP liked the connection with the schools. They wanted more on the history of the area.

Ms. Eberhardt suggested they not reapply this year, but work on increasing the usability of the site. Mr. Koff said there's not a great track record of recent events there. Solving the parking would be a major benefit to the site. He'd like to see other people organizing and getting the word out about events, since the Commission's time is limited. Ms. Murphy said the Raynes Farm Stewardship Committee recently had a brainstorming session for activities. Ms. Eberhardt suggested a public survey about the use of Raynes Farm property; public input would create awareness, broaden ideas, and might look good to LCHIP.

Ms. Raub asked if they have funds for minor repairs. Mr. Campbell said there will be \$1,000 in the building maintenance account if the budget passes. Ms. Murphy said there is a culvert that runs under the stone wall which is a problem spot if used as a parking area, and it should be addressed.

Mr. Campbell asked if they would prefer to wait a year to reapply for the LCHIP grant, and the consensus was to wait.

4. Committee Reports

a. Property Management

Raynes Farm Use agreement & RFSC meeting

Mr. Campbell said that the Conservation Commission approved the application form at the last meeting, but at the RFSC meeting Don Briselden suggested adding a line saying "Any of these regulations can be waived by the Conservation Commission upon written justification" at the end of section B. Mr. Piskovitz said someone should identify which items can be waived,

not say that any can be waived. Mr. Campbell suggested they leave it like it is and revisit it later. Mr. Koff suggested "certain regulations may be waived." Mr. Short said it's a true statement, any of them may be waived, so they should add that.

MOTION: Mr. Short moved to add the suggested line "Any of these regulations can be waived by the Conservation Commission upon written justification" to the application. Ms. Raub seconded. All were in favor.

b. Trails

i. Trail Sign Estimates

Mr. Campbell said the trail signs will be ready soon, and they are renumbering some of the junctions in the woods.

ii. Plantings

Mr. Campbell asked about doing plantings in the Henderson-Swasey Town Forest. Students from the Academy could do planting or other projects. His perception was that red pine and hazelnut did well but the bushes weren't making it, so he's leaning towards planting more trees. Mr. Short was concerned whether the seedlings could get ahead or stay ahead of existing brush; he wants to give it a year to see if they can stay ahead. The consensus was that they hold off on plantings for a year.

c. Outreach Events

i. Feb 16 Snowshoe @ Irvine

Mr. Campbell thanked members of the Commission for their efforts on the successful snowshoe event.

ii. SST Clean Up, Early April

Ms. Murphy said that she had reached out to Anne DeMarco at SST regarding a cleanup of the Morrissette property. Ms. DeMarco said that early April would work, and asked for four dates to choose from. The times also need to be determined. Ms. Murphy got Public Works to agree to pick up and dispose of the trash. Several commission members offered to help with the event.

iii. PEA Kids April 26th Tasks

Mr. Campbell asked for suggestions about what the PEA students could do now that they're not planting, and suggested light trail maintenance like picking up brush. Ms. Eberhardt suggested invasive removal but Mr. Campbell is concerned that Mr. Guindon may not be back in time.

iv. Update on Cottontail Training

Ms. Murphy said that the state had their event for Citizen scientists to look at distribution of the endangered Eastern Cottontail. Several people attended the training, including five people from Exeter.

5. Treasurers Report, Drew Koff

Mr. Campbell presented the Treasurer's Report and said that they didn't spend all of their monies. Mr. Koff added that the remainder is mostly leftover from not having interns. Ms. Murphy said they did a better job of spending the allocated budget than in the past.

MOTION: Mr. Piskovitz moved to accept the Treasurers Report. Ms. Eberhardt seconded. All were in favor.

MOTION: Mr. Koff moved to reimburse himself \$15 in hot chocolate expenses from the Snowshoe Event. Mr. Piskovitz seconded. All were in favor.

6. Approval of Minutes: January 8th meeting

MOTION: Ms. Raub moved to approve the draft minutes for January 8th, 2019 as written. Mr. Short seconded. Mr. Piskovitz abstained and the minutes were approved 6-0-1.

7. Correspondence

- a. A letter from the Exeter Lions Club, regarding a \$100 donation from David Atwood. Mr. Atwood would like it to cover Water and chemical mitigation. Ms. Murphy will follow up with Mr. Atwood and suggest a similar category, such as the water testing program.
- b. A phone call regarding trees down at McDonnell Conservation area. Mr. Piskovitz said he did an inspection in early February and saw extensive beaver activity that he didn't see last year, although no lodge or dam on the river. He didn't see trees across trails. Mr. Short will take a walk out there.
- c. Several notifications of events: a Film Festival at Exeter Inn this weekend. A workshop called Nature Economy, selling the value of conservation lands to the public. A social science workshop on March 14th, "Saving Special Places." A Conservation Roundtable on Feb 26th in Hampton.

8. Other Business

a. There was no other business considered.

Next Meeting

a. Date Scheduled 3/12/19, Submission Deadline 3/1/19

Mr. Campbell said that the next meeting falls on Election Day, where he will be working all day. He asked that they change it to Wednesday March 13th. There were at least five members of the Commission definitely able to attend.

Non-Public Session

Non-public session pursuant to RSA 91-A:3, II(d) for the consideration of the acquisition, sale, or lease of real or personal property.

MOTION: Mr. Short moved to go into non-public session pursuant to RSA 91-A:3, II(d) for the consideration of the acquisition, sale, or lease of real or personal property. Ms. Eberhardt seconded. By a roll call vote, all were in favor.

Public session resumed at 9:36 pm. Andrew Koff made a motion to seal the minutes, seconded by Dave Short. All were in favor.

<u>Adjournment</u>

9:36 pm Bill Campbell made a motion to adjourn the meeting, seconded by Dave Short. All were in favor.

Respectfully Submitted, Joanna Bartell Recording Secretary