



TOWN OF EXETER, NEW HAMPSHIRE

10 FRONT STREET • EXETER, NH • 03833-3792 • (603) 778-0591 • FAX 772-4709

www.exeternh.gov

PUBLIC NOTICE EXETER CONSERVATION COMMISSION

The Exeter Conservation Commission will meet in the Nowak Room
of the Town Office Building, Exeter on **Tuesday, March 1st, 2016 at 7:00 P.M.**

Call to Order:

1. Introduction of Members Present
2. Public Comment

Action Items

1. Minor Impact Dredge and Fill Wetland Application for the Phillips Exeter Academy South Campus Stormwater Outfalls, Tax Map 83, Lot 1 (*Jeffery Clifford*)
2. Committee Reports
 - a. Property Management
 - i. 80 Epping Road Conservation Restriction
 - ii. Timber Harvest Update
 - b. Trails
 - c. Outreach
3. Approval of Minutes: January 12th, February 2nd, 2016
4. Correspondence
5. Other Business
6. Next Meeting
 - a. Date (4/12/16)
 - b. Submission Deadline (4/1/16)
 - c. Agenda Items

Work Session

All Boards Meeting Discussion
2016 Trail Management Planning & Work Plan Development

Jay Gregoire, Chair

Exeter Conservation Commission

February 25th, 2016 Exeter Town Office, Exeter Public Library, and Town Departments.

**TOWN OF EXETER
PLANNING DEPARTMENT MEMORANDUM**

Date: February 19th, 2016
To: Conservation Commission Board Members
From: Kristen Murphy, Natural Resource Planner
Subject: March 1st Conservation Commission Meeting

PEA South Campus Outfall Replacement (Map 83/Lot1)

Received by Town Clerk: 2/7/15

40 Day NHDES Response Deadline: N/A Expedited Request – CC Signature required at meeting

The project involves upgrading of 4 existing drainage outfalls that are undersized and will become hanging culverts with predicted river edge drawdown resulting from the removal of Great Dam. Replacement will occur in the same location as existing outfalls where possible. Replacement will impact 132 linear feet of shoreline and 290 square feet of wetlands . Temporary impacts will not exceed 2,125 square feet.

Wetland Application Review

- Application included items in “[Required Information](#)” check list
- Wetland application appears to be filled out accurately
- NH Heritage Bureau and NHFG had the following comments:
 - Coordinate a site walk in June to review project areas for presence of state-endangered plants within the project area and incorporate measures to minimize/avoid impacts.
 - Inform personnel at worksite of potential to encounter protected turtles, especially during breeding season (May through end of June) and report any nesting turtles in project area to NHFG
 - Avoid the use of welded plastic or “biodegradable” erosion control netting at job site.

Town Application Review

Project is part of the larger south campus improvements and has several applications before the town for improvements.

Points for Consideration:

Replacement will improve existing conditions at outfall sites and ensure hanging culverts do not occur after the dam removal.

Recommendation:

Should you concur with the applicant’s response to Attachment A. 20 Questions, I recommend signing the application for approval of expedited review subject to the following conditions:

- *Applicant shall coordinate a site walk with NHB staff in June and incorporate measures to avoid/minimize impacts of the project to state-endangered plant species into project implementation.*
- *Applicant shall inform workers of potential to encounter turtles and report any nesting individuals to NHFG*
- *Erosion control measures shall not include welded plastic or ‘biodegradable’ netting on the job site. Options for “wildlife friendly” measures include erosion control berms or woven organic materials (e.g. coco matting).*



Civil : 133 Court Street
Site Planning : Portsmouth, NH
Environmental : 03801-4413
Engineering

February 12, 2016

NHDES Wetlands Bureau
Attn: Tom Burack, Commissioner
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

**Re: Minor Impact Wetlands Permit Application
Phillips Exeter Academy
Tax Map 83, Lot 1
Court Street
Exeter, NH
P-4393**

Dear Commissioner:

This cover letter accompanies a Standard Review, Minor Impact Wetlands Permit Application package for the subject property (Map 83, Lot 1). This application is being filed on behalf of Phillips Exeter Academy (PEA) for work associated with the upgrade of four (4) existing drainage outfalls that are significantly undersized and the pending removal of Exeter's Great Dam downstream. However, the applicant requests that this project be considered for an Expedited Review as it is time sensitive due to the upcoming dam removal, and having a contractor under contract and ramped up for construction.

The gates of the Great Dam (located in central Exeter) are scheduled to be opened in June 2016 to facilitate removal of the dam in July. According to studies by the Town's consultant's, during average flow conditions, the water level at the confluence of the Exeter River and the Little River is expected to be approximately 4.5 feet lower than the existing condition. Once the water level is lowered, the existing outfalls will become susceptible to scouring and erosion with no existing outlet protection in place.

The drain outfalls will be upgrade as part of PEA's South Campus Master Plan, a major capital improvement program to upgrade athletic facilities, buildings, and aging infrastructure at PEA's 49-acre parcel situated south of Court Street and bounded to the east by the confluence of the Exeter River and Little River. Design of new outfalls has taken into account the pending lower water level. The new outfalls will be constructed upon the lowering of the water level at the Great Dam.

The South Campus Master Plan consists of three (3) separate, but integrated projects, involving approximately 23-acres of construction activity and restoration, therefore an Alteration of Terrain application will be submitted to NHDES. Upon buildout of the *South Campus Master Plan* projects there is effectively no increase of impervious area. To provide a comprehensive approach for the overall South Campus Master Plan improvements, the stormwater management systems address the buildout of the entire proposed infrastructure including the *Center for Theater and Dance* (CTD), the *New Field House*, the relocated tennis courts, the drop-off area and the new walks. Construction of

multiple stormwater best management practices (BMPs) will provide a significant improvement to the water quality of runoff draining to the river. Each outfall will be constructed with a concrete flared end section with grate and plunge pool. Naturalized riverbank stabilization practices will be utilized at disturbed areas to further protect the river's edge. One new drain line allows for abandonment and plugging of three (3) existing outfalls, thereby reducing the number of outfalls and potential source of erosion.

The installation of the outfall pipes will be installed in the same location of the existing pipe where possible to protect existing vegetation within the protected shoreland zone. Landscape shrubs may be transplanted, removed or replaced as part of the construction. Best management practices will be employed during construction to minimize effects on stormwater runoff and temporary erosion control devices will be installed per the attached plans and details. The South Campus Master Plan project will provide a significant improvement to the water quality of runoff draining to the river with the construction of multiple best management practices (BMPs) to treat runoff of impervious area that is currently untreated.

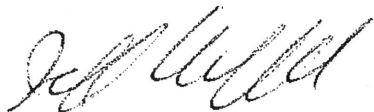
Construction of the new outfalls will impact approximately 132 linear feet of shoreline and 290 square feet of wetlands permanently, based on the lowering of the water level. Temporary impacts will not exceed 2,125 square feet. There will be no work within 20 feet of the property line.

It is our opinion that this project is time sensitive with the lowering of the water level and the need to construct the outfalls at the initial stages of the project to avoid erosion of the river bank. An expedited review will ensure a minimal lag time between lowering water level and the upgrade of the existing outfalls.

If you need any additional information, please feel free to contact me directly.

Sincerely,

ALTUS ENGINEERING, INC.



Jeffery K. Clifford, P.E.
Vice President

RMB/jkc/4747.Wetland.DES.Cov.ltr.a.doc

Enclosures

e-copy: Roger Wakeman, PEA
 Mark Leighton, PEA
 Luke Hurley, Gove Environmental
 Eben Lewis, NHDES

**STANDARD REVIEW - MINOR IMPACT
WETLANDS PERMIT APPLICATION**

for

Phillips Exeter Academy

South Campus Stormwater Outfalls

at

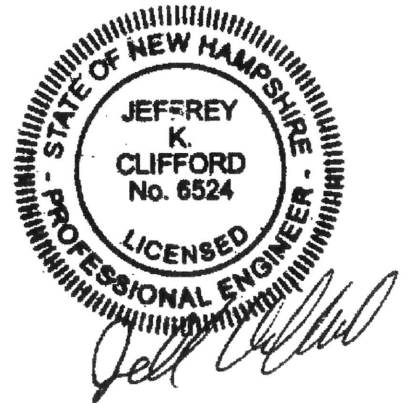
Tax Map 83, Lot 1

**Court Street
Exeter, NH**

February 2016

Prepared For:

**Phillips Exeter Academy
20 Main Street
Exeter, NH 03833**





*Civil
Site Planning
Environmental
Engineering*

133 Court Street
Portsmouth, NH
03801-4413

TABLE OF CONTENTS

NHDES Wetlands Permit Application

Copy of Fee Check

South Campus Master Plan Narrative

Wetlands Permit Application - Attachment A

Wetlands Delineation Report, prepared by Gove Environmental Service, Inc.

Site Photos with Photograph Key

NH Natural Heritage Second Letter, dated February 8, 2016

NH Natural Heritage Letter, dated November 20, 2015

NH Fish and Game email, dated January 29, 2016

NH PGP Appendix B – Corps Secondary Impacts Checklist

2010 Highest Ranking Wildlife Habitat by Ecological Condition

USGS Map

Exeter GIS Map

Abutters List (per Env-Wt 101.03)

Abutters Notification letter, dated July 30, 2015

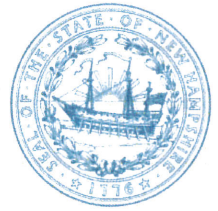


WETLANDS PERMIT APPLICATION

Water Division/ Wetlands Bureau

Land Resources Management

Check the status of your application: www.des.nh.gov/onestop



RSA/Rule: RSA 482-A/ Env-Wt 100-900

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

1. REVIEW TIME:

Indicate your Review Time below. Refer to Guidance Document A for instructions.

Standard Review (Minimum, Minor or Major Impact) *see cover letter* Expedited Review (Minimum Impact only)

2. PROJECT LOCATION:

Separate applications must be filed with each municipality that jurisdictional impacts will occur in.

ADDRESS: **Court Street**

TOWN/CITY:

TAX MAP: **83**

BLOCK:

LOT: **1**

UNIT:

USGS TOPO MAP WATERBODY NAME: **Exeter River and Little River**

NA

STREAM WATERSHED SIZE: **107 sq. mi.**

NA

LOCATION COORDINATES (If known): **42 58' 28" 70 56' 44"**

Latitude/Longitude

UTM

State Plane

3. PROJECT DESCRIPTION:

Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT reply "See Attached" in the space provided below.

This project is part of a major capital improvement program on a 49-acre parcel situated south of Court Street. Four (4) new drain outfalls are being replaced to upgrade existing drain lines that are significantly undersized and will be impacted by the Town's removal of the The Great Dam in central Exeter this summer. Design of the outfall pipes accounts for the anticipated normal water level drop of up to 4.5 feet.

4. SHORELINE FRONTAGE

NA This lot has no shoreline frontage.

SHORELINE FRONTAGE: **2,971 feet**

Shoreline frontage is calculated by determining the average of the distances of the actual natural navigable shoreline frontage and a straight line drawn between the property lines, both of which are measured at the normal high water line.

5. RELATED PERMITS, ENFORCEMENT, EMERGENCY AUTHORIZATION, SHORELAND, ALTERATION OF TERRAIN, ETC...

Alteration of Terrain

6. NATURAL HERITAGE BUREAU & DESIGNATED RIVERS:

See the Instructions & Required Attachments document for instructions to complete a & b below.

a. Natural Heritage Bureau File ID: NHB 15 - 3406

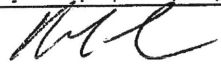
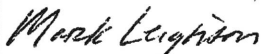
b. Designated River the project is in ¼ miles of: Exeter River; and
date a copy of the application was sent to the Local River Management Advisory Committee: Month: 2 Day: 12 Year: 16

NA

shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

7. APPLICANT INFORMATION (Desired permit holder)			
LAST NAME, FIRST NAME, M.I.: Mark F. Leighton			
TRUST / COMPANY NAME: Phillips Exeter Academy		MAILING ADDRESS: 20 Main Street	
TOWN/CITY: Exeter		STATE: nh	ZIP CODE: 03833
EMAIL or FAX: mleighton@exeter.edu		PHONE: 603-777-4529	
ELECTRONIC COMMUNICATION: By initialing here: MFL , I hereby authorize NHDES to communicate all matters relative to this application electronically			
8. PROPERTY OWNER INFORMATION (If different than applicant)			
LAST NAME, FIRST NAME, M.I.: Mark F. Leighton			
TRUST / COMPANY NAME: Phillips Exeter Academy		MAILING ADDRESS: 20 Main Street	
TOWN/CITY: Exeter		STATE: NH	ZIP CODE: 03833
EMAIL or FAX: mleighton@exeter.edu		PHONE: 603-777-4529	
ELECTRONIC COMMUNICATION: By initialing here: MFL , I hereby authorize NHDES to communicate all matters relative to this application electronically			
9. AUTHORIZED AGENT INFORMATION			
LAST NAME, FIRST NAME, M.I.: Jeffrey K. Clifford		COMPANY NAME: Altus Engineering, Inc.	
MAILING ADDRESS: 133 Court Street			
TOWN/CITY: Portsmouth		STATE: NH	ZIP CODE: 03801
EMAIL or FAX: jclifford@altus-eng.com		PHONE: 603-433-2335	
ELECTRONIC COMMUNICATION: By initialing here: JKC , I hereby authorize NHDES to communicate all matters relative to this application electronically			
10. PROPERTY OWNER SIGNATURE:			
See the Instructions & Required Attachments document for clarification of the below statements			
By signing the application, I am certifying that:			
<ol style="list-style-type: none"> I authorize the applicant and/or agent indicated on this form to act in my behalf in the processing of this application, and to furnish upon request, supplemental information in support of this permit application. I have reviewed and submitted information & attachments outlined in the Instructions and Required Attachment document. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative. Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered grandfathered per Env-Wt 101.47. I have submitted a Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) to the NH State Historic Preservation Officer (SHPO) at the NH Division of Historical Resources to identify the presence of historical/ archeological resources while coordinating with the lead federal agency for NHPA 106 compliance. I authorize NHDES and the municipal conservation commission to inspect the site of the proposed project. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining. The mailing addresses I have provided are up to date and appropriate for receipt of NHDES correspondence. NHDES will not 			
 Property Owner Signature		 Print name legibly	2/12/2016 Date

MUNICIPAL SIGNATURES

11. CONSERVATION COMMISSION SIGNATURE

The signature below certifies that the municipal conservation commission has reviewed this application, and:

1. Waives its right to intervene per RSA 482-A:11;
2. Believes that the application and submitted plans accurately represent the proposed project; and
3. Has no objection to permitting the proposed work.



Print name legibly

Date

DIRECTIONS FOR CONSERVATION COMMISSION

1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
2. Expedited review requires the Conservation Commission signature be obtained **prior** to the submittal of the original application to the Town/City Clerk for signature.
3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will reviewed in the standard review time frame.

12. TOWN / CITY CLERK SIGNATURE

As required by Chapter 482-A:3 (amended 2014), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.



Town/City Clerk Signature

Print name legibly

Town/City

Date

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3,I

1. For applications where "Expedited Review" is checked on page 1, if the Conservation Commission signature is not present, NHDES will accept the permit application, but it will NOT receive the expedited review time.
2. IMMEDIATELY sign the original application form and four copies in the signature space provided above;
3. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
4. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board; and
5. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

1. Submit the single, original permit application form bearing the signature of the Town/ City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery.

13. IMPACT AREA:

For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact

Permanent: impacts that will remain after the project is complete.

Temporary: impacts not intended to remain (and will be restored to pre-construction conditions) after the project is complete.

JURISDICTIONAL AREA	PERMANENT Sq. Ft. / Lin. Ft.	TEMPORARY Sq. Ft. / Lin. Ft.
Forested wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Scrub-shrub wetland	290 <input type="checkbox"/> ATF	2,125 <input type="checkbox"/> ATF
Emergent wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Wet meadow	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Intermittent stream	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Perennial Stream / River	/ 132 <input type="checkbox"/> ATF	/ <input type="checkbox"/> ATF
Lake / Pond	/ <input type="checkbox"/> ATF	/ <input type="checkbox"/> ATF
Bank - Intermittent stream	/ <input type="checkbox"/> ATF	/ <input type="checkbox"/> ATF
Bank - Perennial stream / River	/ <input type="checkbox"/> ATF	/ <input type="checkbox"/> ATF
Bank - Lake / Pond	/ <input type="checkbox"/> ATF	/ <input type="checkbox"/> ATF
Tidal water	/ <input type="checkbox"/> ATF	/ <input type="checkbox"/> ATF
Salt marsh	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Sand dune	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Prime wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Prime wetland buffer	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Undeveloped Tidal Buffer Zone (TBZ)	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Previously-developed upland in TBZ	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Docking - Lake / Pond	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Docking - River	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Docking - Tidal Water	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
TOTAL	290 / 132	2125 /

14. APPLICATION FEE: See the Instructions & Required Attachments document for further instruction

Minimum Impact Fee: Flat fee of \$ 200

Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking) 2125 sq. ft. X \$0.20 = \$ 425

Temporary (seasonal) docking structure: _____ sq. ft. X \$1.00 = \$

Permanent docking structure: _____ sq. ft. X \$2.00 = \$

Projects proposing shoreline structures (including docks) add \$200 = \$

\$ 425

Total = _____

\$ 425

The Application Fee is the above calculated Total or \$200, whichever is greater = _____

shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

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Atlas Engineering, Inc.
130 Court Street
Portsmouth, NH 03801

FIRST COLLETSO & BART
64-1571177

7528

FEB. 12, 2016

PAY TO THE ORDER OF

TREASURER, STATE OF NEW HAMPSHIRE

\$ 425⁰⁰—

FOUR HUNDRED AND TWENTY-FIVE ⁰⁰/₁₀₀

DOLLARS



A TAMPER RESISTANT TONER AREA

ATLAS ENGINEERING, INC.
APPROVED

[Handwritten Signature]

⑆007528⑆ ⑆011201514⑆ 017 553 3⑆

Intuitive CheckLock™ Secure Check Details on Back

Narrative

for

South Campus Stormwater Outfalls

Phillips Exeter Academy

Introduction

Phillips Exeter Academy (PEA) is undertaking a major capital improvement program to upgrade athletic facilities, buildings, and address aging infrastructure at their 49-acre parcel situated south of Court Street and bounded to the east by the confluence of the Exeter River and Little River. PEA's *South Campus Master Plan* consists of three (3) separate, but integrated projects: the *Center for Theater and Dance (CTD)*, the *New Field House*, and relocation of the tennis courts. Associated site improvements include new stormwater best management practices throughout the project. The replacement of four (4) drainage outfalls requires a NHDES Dredge and Fill Permit.

The new CTD building adjacent to Court Street, with its integrated landscaping improvements, will provide the anchor building for PEA's South Campus. At a Special Town Meeting held in 2015, the town voted to discontinue Gilman Street as a public street, relieving the Town of responsibility for maintenance of the street. PEA obtained ownership of the 60-foot wide right-of-way providing an opportunity for enhancing pedestrian safety, and providing flexibility for siting the CTD building and for enhancing the adjacent landscape. The Gilman Street corridor will be converted to a 16-foot wide promenade to safely accommodate pedestrians, as well as emergency vehicles when necessary. The *New Field House* building is being designed to replace the existing Thompson Cage, (a field house built in 1931). The *New Field House* is being constructed with a basement level garage providing 169 parking spaces. Total parking capacity will increase in the South Campus, but the amount of exterior parking and associated pollutant loads will be decreased. The South Campus Master Plan also includes the relocation of tennis facilities. The existing 19 outdoor courts are being replaced by fourteen (14) relocated outdoor courts and four (4) new indoor courts.

Stormwater Management

The three (3) projects involve approximately 23-acres of construction activity and restoration, therefore an Alteration of Terrain application is being submitted to NHDES. To provide a comprehensive approach for the overall South Campus Master Plan improvements, the stormwater management systems address buildout of the CTD, Field House, the relocated tennis courts, the drop-off area, and the new walks. Upon buildout of the *South Campus Master Plan* projects, there is effectively no increase of impervious area. However, since runoff from much of the existing impervious surfaces is not currently treated, construction of multiple stormwater best management practices (BMPs) will provide a significant improvement to the water quality of runoff draining to the river. These BMP's include: a large (>10,000 cubic-foot) rain garden to treat and cool building and promenade runoff; the use of pervious pavers at the drop-off areas and parking areas; two (2) underdrained grassed filters (> 8,700 cubic-foot total) at the second phase of the tennis court relocations; and the recently constructed underdrained grassed filters at the first phase of the tennis court relocations, completed in the summer of 2015. During earlier site improvements, PEA has installed a small rain garden off O'Neil Court; a grassed swale and four (4) water quality inlet structures at the Facilities Management area. The void space within the 3-foot stone layer under the tennis courts along with the rain garden and grassed soil filters will reduce the net post-development runoff from the site.

Replacement Outfalls

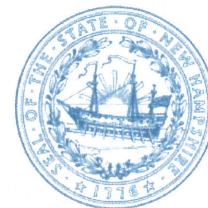
As part of the site improvements, four (4) drain outfalls (#1 through #4) will be replaced to address existing drain lines that are significantly undersized and the pending dam removal downstream. A concrete flared end section with plunge pool and naturalized riverbank stabilization will be installed at each outfall. Installation of Outfall #2 results in the abandonment and plugging of three (3) existing outfalls, thereby reducing the overall number of outfalls.

The gates of the Great Dam (located in central Exeter) are scheduled to be opened in June 2016 to facilitate removal of the dam in July. According to studies by the Town's consultant, the water level at the confluence of the Exeter River and the Little River is expected to be approximately 4.5 feet lower than the existing condition (during average flow conditions). To void "hanging" pipes, high up the river bank, design of the new outfall pipes accounts for the lower water level by lowering the invert to the new normal water level. The new outfall will be constructed upon the lowering of the water level at the Great Dam. Construction of the outfalls will impact approximately 132 linear feet of shoreline and 290 square feet of wetlands permanently. Temporary impacts will not exceed 2,125 square feet. Coir fiber logs with live stakes will be used to stabilize the banking adjacent to the outfalls.

WETLANDS PERMIT APPLICATION – ATTACHMENT A MINOR AND MAJOR - 20 QUESTIONS

Water Division/ Wetlands Bureau/ Land Resources Management

Check the Status of your application: <http://des.nh.gov/onestop>



RSA/ Rule: RSA 482-A, Env-Wt 100-900

Env-Wt 302.04 Requirements for Application Evaluation - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

As part of Phillips Exeter Academy's South Campus Master Plan, four (4) drain outfalls to the Exeter River and Little River will replace existing drain lines that are significantly undersized. Outfall #2 will allow for the abandonment and plugging of three (3) existing outfalls and stabilizing areas of eroded riverbank.

The pending removal of the Great Dam in central Exeter is scheduled for summer 2016. According to studies by the Town's consultant's, during average flow conditions the normal water level at the confluence of the Exeter River and the Little River is expected to be approximately 4.5 feet lower than the existing condition. Design of the four replacement outfall pipes has accounts for the pending lower water level. Construction of the outfalls will not commence until the water level is lowered in June 2016.

Construction of the outfalls will permanently impact and stabilize approximately 132 linear feet of shoreline and 290 square feet of wetlands. Another 2,125 square feet of wetlands will be temporarily disturbed.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

Impacts to wetlands and surface waters have been minimized to the greatest extent possible. The pending lowering of the Exeter River and Little River will result in "hanging" outfalls that would cause erosion of the newly exposed riverbanks. Outfall #1 is a new 24" drain line that replaces an existing 16" AC line. Outfall #2 is a new 36" drain line that replaces an existing 8" line, and eliminates two (2) other outfall lines that would have required remedial work. Therefore, impacts are confined to only one (1) outfall versus the three (3) existing outfalls. To address the Town's drainage standards, Outfall #3 & #4 are new 24" drain lines replacing existing 15" and 18" line, respectively. The outfall pipes will be installed in the current location the existing pipes to protect existing vegetation within the protected shoreland zone. In lieu of riprap, naturalized river bank restoration techniques will be used to the maximum extent possible.

In addition, numerous BMPs are being constructed at the site to treat and cool the sites runoff. Proposed 10,000 cubic foot rain garden, 3,550 and 1,350 cubic foot grassed soil filters, five (5) areas of pervious pavers along with existing rain garden, vegetated swales and water quality units will treat runoff discharging to the river via the new outfall.

shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

3. The type and classification of the wetlands involved.

Scrub/shrub riverine, PSS1E/R4,1,2

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

The drainage & site improvements all occur in previously disturbed wetland & upland buffer zones. Site improvements will positively impact the adjacent wetlands or surface waters by addressing ongoing erosion and additional erosion when the river level is lowered. Each outfall will be constructed with a concrete flared end section, grate and plunge pool to dissipate the runoff energy entering the river.

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

This wetland is not considered rare in NH.

6. The surface area of the wetlands that will be impacted.

Approximately 2,415 square feet will be impacted for the construction of new outfall and riverbank improvements. 290 square feet will be permanent impact associated with the concrete flared end section and plunge pool. Up to 2,125 square feet is temporary impact and will be revegetated.

7. The impact on plants, fish and wildlife including, but not limited to:
- a. Rare, special concern species;
 - b. State and federally listed threatened and endangered species;
 - c. Species at the extremities of their ranges;
 - d. Migratory fish and wildlife;
 - e. Exemplary natural communities identified by the DRED-NHB; and
 - f. Vernal pools.

NH NHB has determined that none of these will be effected.

8. The impact of the proposed project on public commerce, navigation and recreation.

The project will have no impacts on public commerce, navigation and recreation during or after construction.

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The project will positively impact the aesthetic interests of the general project. The project will provide stormwater treatment to a large impervious area that currently is not treated; will consolidate three (3) outfalls to one (1) outfall which will be lowered, eliminating hanging outfalls; and restore areas where riverbank erosion at the existing outfalls.

10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

The new outfall will not interfere with or obstruct public rights of passage or access of Little and Exeter Rivers. An existing gravel parking area immediately adjacent to the Gilman Park footbridge over the Little River will be relocated southerly to provide more buffer to river, yet maintain public parking and access.

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

A flared end section and plunge pool is proposed at the end of the outfall to dissipate the energy and prevent scouring. The water level upstream or downstream will not be impacted by the flared end section or plunge pool.

12. The benefit of a project to the health, safety, and well being of the general public.

The project will have a positive improvement to the stormwater currently flowing to the rivers by decreasing sedimentation and erosion and increasing the water quality of the discharge. Numerous BMPs are proposed to treat and cool the sites runoff. Proposed 10,000 cubic foot rain garden, 3,550 and 1,350 cubic foot grassed soil filters, five (5) areas of pervious pavers along with existing rain garden, vegetated swales and water quality units will treat runoff discharging to the river via the new outfall.

13. The impact of a proposed project on quantity or quality of surface and ground water. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

The site improvements will not increase impervious area. Stormwater quality of runoff to the rivers will be significantly improved by the installation of stormwater best management practices throughout the site.

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

The project will not result in an increase of impervious area. The project will have temporary erosion control measures in effect during construction and until the site is stabilized. Permanent erosion control measures implemented will reduce the potential for erosion & sedimentation. The proposed BMPs will significantly reduce the peak discharge to the rivers thereby reducing any potential for flooding.

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

Specified erosion controls and diligent construction means & methods will minimize any chance of damage or hazard created by the construction.

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

This project's impact is minimal compared to the overall length of shoreline (approx. 3600 feet) owned by the applicant. The lowering of the water level by the removal of the Great Dam may impact other outfalls owned by others along the rivers. The work being undertaken on this property to protect the riverbank from erosion upon lowering the Exeter River and Little River water levels will have a positive impact to the river.

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

There will be a positive impact on the values and functions of the total wetland complex in that the water quality of the discharge will improve and the potential for sedimentation and erosion will be reduced. The site improvements include expansion of the woodland buffer along the Little River.

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

The project will have no impact on such sites.

19. The impact upon the value of areas named in acts of congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

No impact is to occur on any such areas, as none are present in the proposed area of impact.

20. The degree to which a project redirects water from one watershed to another.

The project does not redirect water from one watershed to another.

Additional comments

shoreland@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095
www.des.nh.gov



September 25, 2015

Jeffrey K. Clifford, P.E.
Altus Engineering, Inc.
133 Court Street
Portsmouth, NH 03801

Subject: Wetland Delineation Report
Phillips Exeter Academy South Campus

Dear Mr. Clifford:

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:

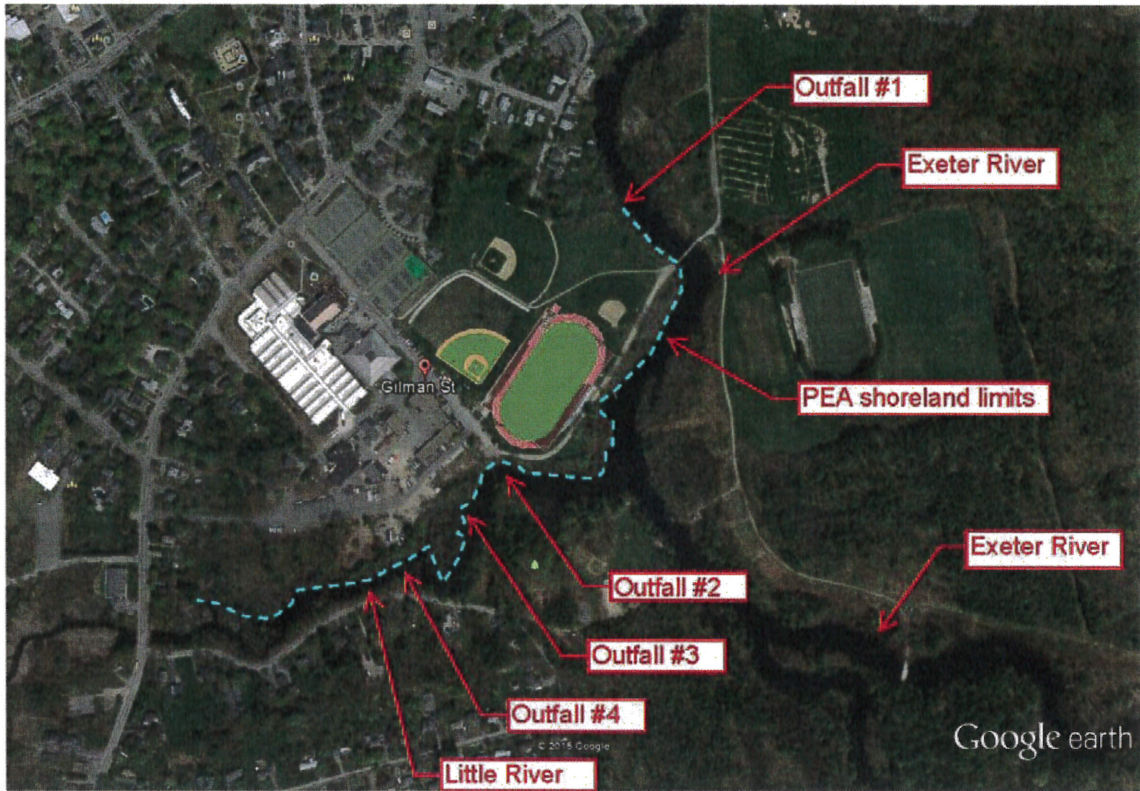
1. US Army Corps of Engineers Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Technical Report ERDC/EL TR-10-12 (Oct 2012).
2. Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 7.0. United States Department of Agriculture (2010).
3. North American Digital Flora: National Wetland Plant List, Version 2.2.1 (2009).
4. USFW Manual FWS/OBS-79/31 (1979).

Wetlands were identified within the area designated for the scope of work. The wetland is delineated along the banks of the Exeter River and is classified as R2UB3,4. The wetland is dominated by red maple and yellow birch in the tree layer, some regenerating saplings of the canopy species in the shrub layer, as well as highbush blueberry, speckled alder and gray dogwood, and cinnamon and sensitive fern in the herbaceous layer.

If I can be of further assistance, please feel free to contact me at (603) 778-0644.

Sincerely,

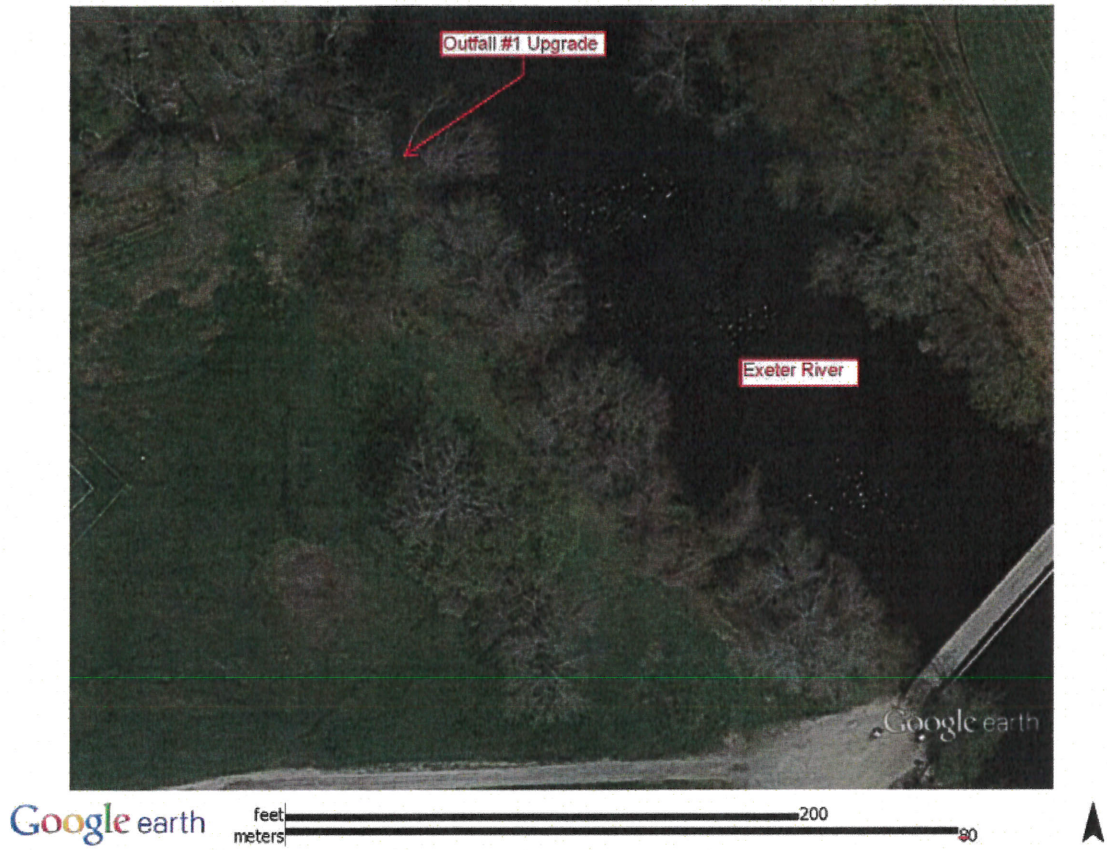
Luke D. Hurley, CWS, SSA, CESSWI
Vice President
Gove Environmental Services, Inc.



Google earth



Aerial Overview of Phillips Exeter Academy's South Campus



Aerial View of Outfall #1



Photo #1a - Looking at the pipe outfall (February 2016).



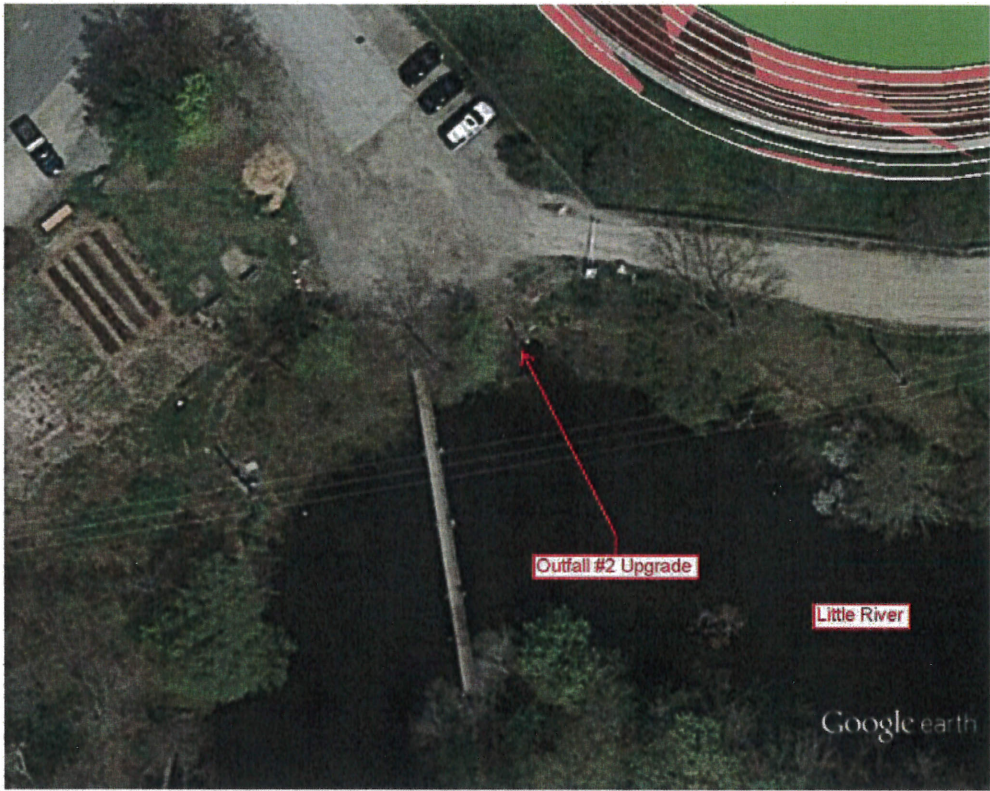
Photo #1 - Looking northeast at outfall route (January 2016).



Photo #2 - Looking northeast at headwall of existing outfall (January 2016).



Photo #3 – At river edge, looking northwest at existing outfall (January 2016).



Aerial View of Outfall #2



Photo #4a - Looking at the pipe outfall (February 2016).



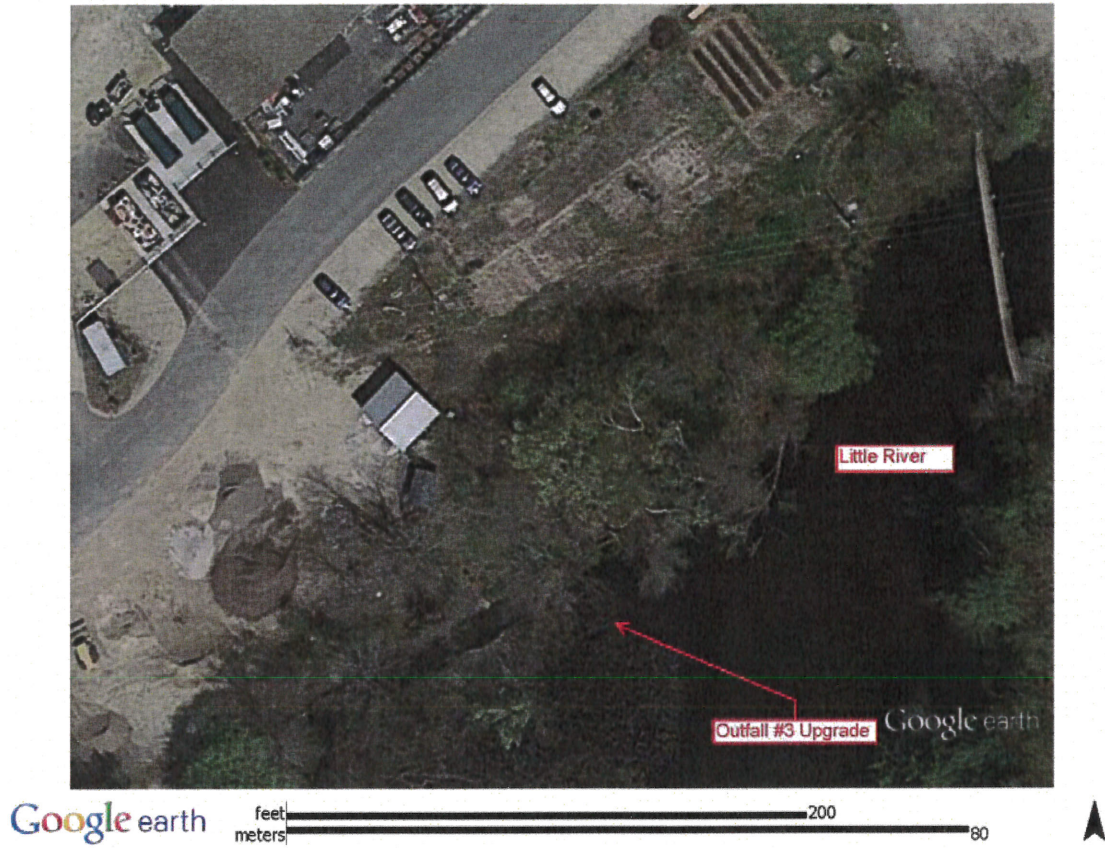
Photo #4 - Looking northwest at existing outfall (November 2015).



Photo #5 – Looking east at existing outfall, showing existing erosion of bank (November 2015).



Photo #6 – Looking southwest at existing outfall (November 2015).



Aerial View of Outfall #3



Photo #7 – At river edge, looking south at headwall of existing outfall (January 2016).



Photo #8 – At river edge, looking northeast at existing outfall (January 2016).



Photo #9 – Looking at existing outfall (January 2016).



Aerial View of Outfall #4



Photo #10 - Looking at the pipe outfall (February 2016).



Photo #11 - Looking east at existing outfall (January 2016).



Photo #12 – At river edge, looking northeast at existing outfall and bank erosion (January 2016).



Photo #13 – At river edge, looking northwest along existing pipe route (January 2016).



NEW HAMPSHIRE NATURAL HERITAGE BUREAU

DRED - DIVISION OF FORESTS & LANDS
172 PEMBROKE ROAD, CONCORD, NH 03301
(603) 271-2214

To: Ronald Beal, PE, Altus Engineering, Inc.

From: Amy Lamb, Ecological Information Specialist, NH Natural Heritage Bureau

Date: February 8, 2016

Subject: Re: NHB15-3406, Second Follow-Up Memo

A request for NH Natural Heritage Bureau (NHB) data was submitted on October 29, 2015 by Altus Engineering, Inc., for review of four projects associated with the school's South Campus Master Plan. This work included replacement of a single culvert and construction of a plunge pool. Natural Heritage Bureau records indicated the presence of three state-endangered plants, one state-endangered animal, and one animal of special concern in the vicinity of the project area. (Note: This memo refers only to impacts to rare plants, as wildlife is not NHB's area of expertise.) All three plants records were associated with the river system, and were thus include in our review (NHB15-3406).

The three plants in the vicinity of the project are:

- Climbing hempvine (*Mikania scandens*) - E
- Spongy-leaved arrowhead (*Sagittaria montevidensis* ssp. *spongiosa*) - E
- Stout dotted smartweed (*Persicaria robustior*) - E

Initially, concerns were dismissed about these three plants based on photographs of the area where the single culvert replacement would occur. However, the project has since expanded to include the replacement of three additional culverts. Based on photos provided by Altus Engineering, Inc., it was determined that appropriate habitat for *Mikania scandens* and *Persicaria robustior* exist within the proposed impact areas. Both species can occur along riverbanks with open/disturbed characteristics; State Botanist Bill Nichols of NHB noted that they can be 'weedy' species and could occur at some of the culvert locations. (*Sagittaria montevidensis* ssp. *spongiosa* is a brackish species and would not be present within the freshwater stretches of the Exeter and Little Rivers, where work will occur.)

The culvert upgrades are planned to occur in June, shortly after water levels are lowered in preparation for the July removal of Great Dam on the Exeter River. NHB requests a site walk in June (as late as possible to increase chances of observing rare plants) to review the project areas and determine if either of the two state-endangered plants noted above exist within the project areas. Depending on the results of the site walk, NHB will provide recommendations for avoiding/minimizing impacts to any rare plants, as needed.



NEW HAMPSHIRE NATURAL HERITAGE BUREAU

DRED - DIVISION OF FORESTS & LANDS
172 PEMBROKE ROAD, CONCORD, NH 03301
(603) 271-2214

To: Ronald Beal, PE, Altus Engineering, Inc.
From: Amy Lamb, Ecological Information Specialist, NH Natural Heritage Bureau
Date: November 20, 2015
Subject: Phillips Exeter Academy Site Improvements, NHB15-3406

A request for NH Natural Heritage Bureau (NHB) data was submitted on October 29, 2015 by Altus Engineering, Inc., for review of four projects associated with the school's South Campus Master Plan. This work included impacts to the Little River, where a replacement culvert and plunge pool were proposed, near the end of the now discontinued Gilman Street. Natural Heritage Bureau records indicated the presence of three state-endangered plants, one state-endangered animal, and one animal of special concern in the vicinity of the project area. (*This memo refers only to impacts to rare plants, as wildlife is not NHB's area of expertise.*) All three plants records were associated with the river system, and were thus include in our review (NHB15-3406).

The three plants in the vicinity of the project were:

- Climbing hempvine (*Mikania scandens*)*
- Spongy-leaved arrowhead (*Sagittaria montevidensis* ssp. *spongiosa*)
- Stout dotted smartweed (*Persicaria robustior*)*

(* indicates a historic record, >20 years old.)

Upon further review, climbing hempvine was determined to be unlikely to occur in the project area, since it was known to occur below Great Dam. The project area is above the dam and it is unlikely that seed from the plant would reach and propagate at the project site. It was also determined that spongy-leaved arrowhead would be unlikely to occur in the project area, since it occurs in the brackish part of the Squamscott River below Great Dam, and Little River is a fresh water river. The last plant, stout dotted smartweed, has been known to occur along the bed and banks of Little River, upstream from the project area. NHB asked for photos of the project area to determine if stout dotted smartweed (*Persicaria robustior*) could potentially occur onsite.

Altus Engineering, Inc. provided photos and a verbal description of the vegetation in the project area. The photos indicated that the vegetation is maintained close to the river's edge, with shrubs (gray dogwood, winterberry, alder, and sweet pepper bush) dominant along the bank, with swamp dewberry, grasses, and other common herbs comprising the dominant herbaceous vegetation. Additionally from the photos it appeared that the site was subject to disturbance and erosion around the culvert.

Based on the nature of the project area, which is dominated by shrubs and is in a partially erosive state, NHB does not expect that stout dotted smartweed (*Persicaria robustior*) is likely to occur onsite. If, during construction, a suspect plant that could be stout dotted smartweed is observed along the banks or muddy riverbed of Little River, please contact NHB for guidance. Thank you for coordinating with us.

From: [Tuttle, Kim](#)
To: [Ron Beal](#)
Subject: RE: 4747 PEA outfall NHB15-3406 Revised
Date: Friday, January 29, 2016 9:22:00 AM

Ron,

The NHFG Nongame and Endangered Species Program has reviewed NHB15-3406 for the proposed four new drain outfalls to the Little River at Phillips Exeter Academy in Exeter. The NHB database check identified the following species in the vicinity of the project:

American Eel (*Anguilla rostrata*) SC --
Blanding's Turtle (*Emydoidea blandingii*) E –
1Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern

We do not expect impacts to American eel based on the revised project plans as long as appropriate measures are taken at each outfall to stabilize the bank to eliminate future erosion. Personnel working at this job site should be made aware of the potential to encounter protected turtles especially during turtle nesting season which extends from late May through the end of June. Nesting turtles may be attracted to the disturbed soils at the job site. If protected turtle species are found laying eggs in a work area, please contact myself or Mike Marchand, Wetlands Systems Biologist at 271-3016 for instructions. A description of Blanding's and other protected turtle and snake species including photos may be found at:

<http://www.wildlife.state.nh.us/nongame/reptiles-amphibians.html>

Avoid the use of welded plastic or 'biodegradable' erosion control netting at this job site. There are numerous documented cases of wildlife being trapped and killed in erosion control netting. Several 'wildlife friendly' options such as erosion control berms or woven organic material (e.g., coco matting) are commercially available. Please feel free to call me if you have any questions about this review.

Sincerely,

Kim Tuttle
Certified Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

Check out reptiles and amphibians of NH!!:

<http://www.wildlife.state.nh.us/nongame/reptiles-amphibians.html>

Report your sightings of reptiles and amphibians in 3 ways:

1) Email details of observation or completed form to RAARP@wildlife.nh.gov or

2) Enter your observation online at <http://nhwildlifesightings.unh.edu>.

3) Mail your reporting slip

<http://www.wildlife.state.nh.us/nongame/documents/raarp-report-form.pdf>

Northeast Partners of Amphibian and Reptile Conservation: <http://www.northeastparc.org/>

From: Ron Beal [mailto:rbeal@altus-eng.com]
Sent: Thursday, January 28, 2016 1:56 PM
To: Lamb, Amy; Tuttle, Kim
Cc: Jeff Clifford
Subject: RE: 4747 PEA outfall NHB review: NHB15-3406

Amy/Kim,

As part of the South Campus Master Plan, Phillips Exeter Academy was initially upgrading only one (1) outfall, but further design review indicated three (3) additional outfalls were also undersized and require upgrading. Attached is photos showing of the outfall locations and surrounding vegetation. The design of outfall pipe will accounted for the pending lower water level with the removal of Great Dam. The water up-gradient of the dam is planned to be lowered mid-July. Soon after, construction of the outfalls will be slated to begin. Based on the lowering of the water level , construction of the outfalls will impact:

	Length of shoreline	wetlands impacts
#1	21 l.f.	640 s.f.
#2	26 l.f.	870 s.f.
#3	24 l.f.	155 s.f.
#4	61 l.f.	750 s.f.

Call if you need additional information or do not receive photos. Thanks.

Ron

From: Lamb, Amy [mailto:Amy.Lamb@dred.nh.gov]
Sent: Friday, November 20, 2015 10:56 AM
To: Ron Beal
Subject: RE: 4747 PEA outfall NHB review: NHB15-3406

Good morning Ron,

Attached please find our formal review letter. Let me know if you have any comments or changes.

Thank you,
Amy

Amy Lamb
Ecological Information Specialist



**US Army Corps
of Engineers**®
New England District

**New Hampshire Programmatic General Permit (PGP)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See PGP, GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	X	
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	X	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, www.nhnaturalheritage.org , specifically the book Natural Community Systems of New Hampshire .		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	N/A	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.) Restoring buffer after outfall installation	X	
2.5 The overall project site is more than 40 acres. Project impact 23-acre; Outfall project less than 2,500 square feet		X
2.6 What is the size of the existing impervious surface area?	770,800 sf	
2.7 What is the size of the proposed impervious surface area?	770,950 sf	
2.8 What is the % of the impervious area (new and existing) to the overall project site?	36.1%/36.1%	
3. Wildlife	Yes	No
3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? NHB15-3406. Do not expect any negative impact by project.	X	
3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: <ul style="list-style-type: none"> • PDF: www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html. 		X

3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development? Project is a partial redevelopment of 49-acres.	X	
3.5 Are stream crossings designed in accordance with the PGP, GC 21?	N/A	
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	X	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	X	*
5. Historic/Archaeological Resources		
For a minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) shall be sent to the NH Division of Historical Resources as required on Page 5 of the PGP**	X	

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law..

* The flood storage loss with by the construction of the tennis courts will be offset be the construction of two (2) grassed soil filters and the installation of 3-foot base layer of open-graded stone under the courts.

Map by NH GRANIT

Legend

- State
- County
- City/Town
- Interstates
- Turnpikes
- US Routes
- State Routes
- Local Roads
- WAP 2015; Highest Ranked Wildlife Habitat
- Not Top Ranked
- Highest Ranked Habitat in NH
- Highest Ranked Habitat in Region
- Supporting Landscape

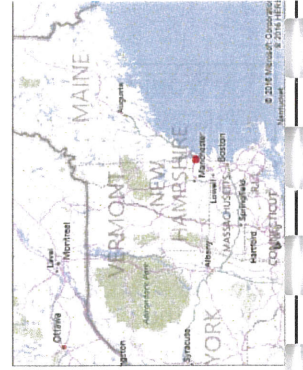
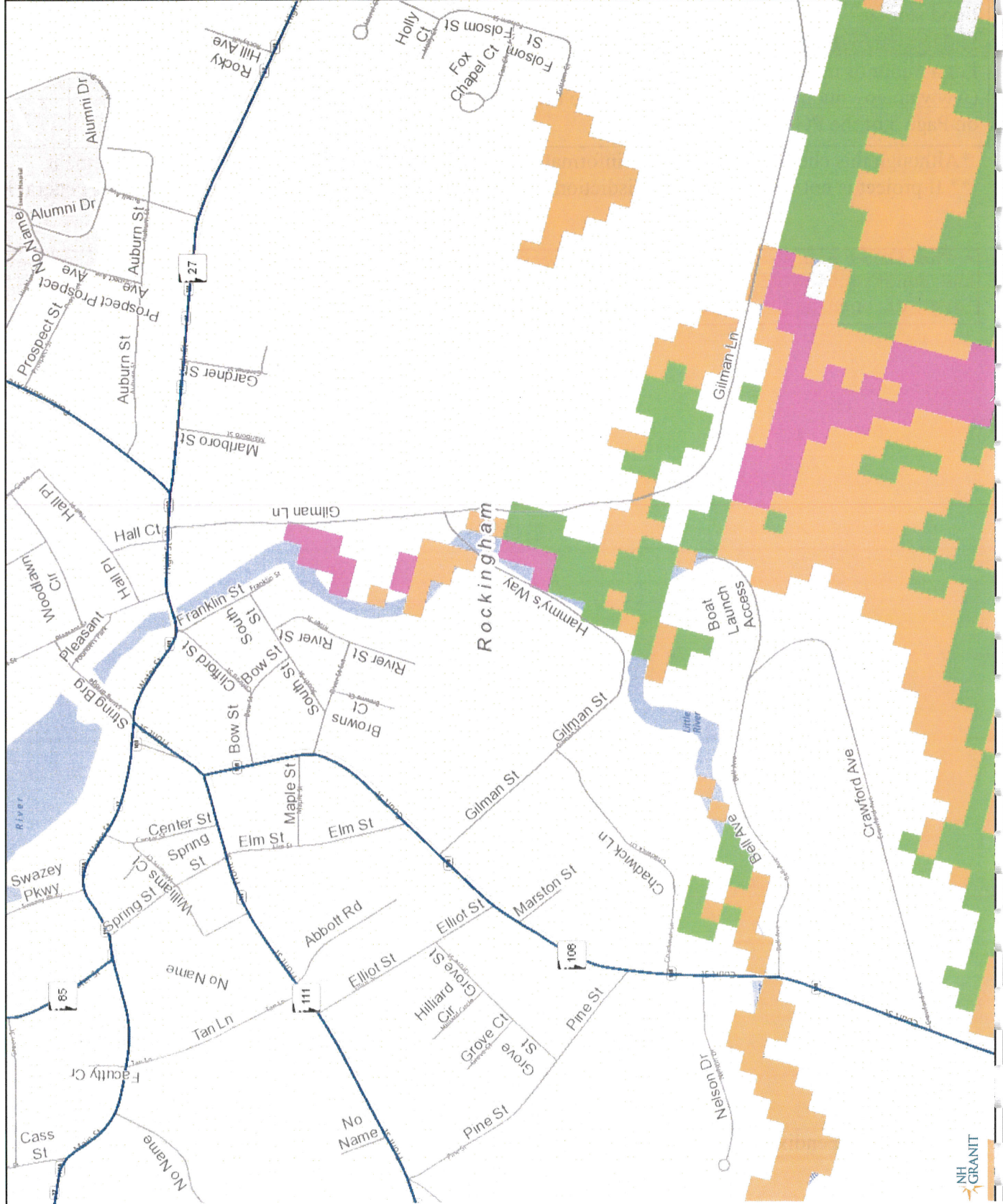
Map Scale

1: 8,201

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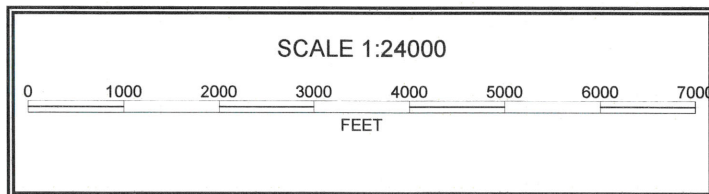
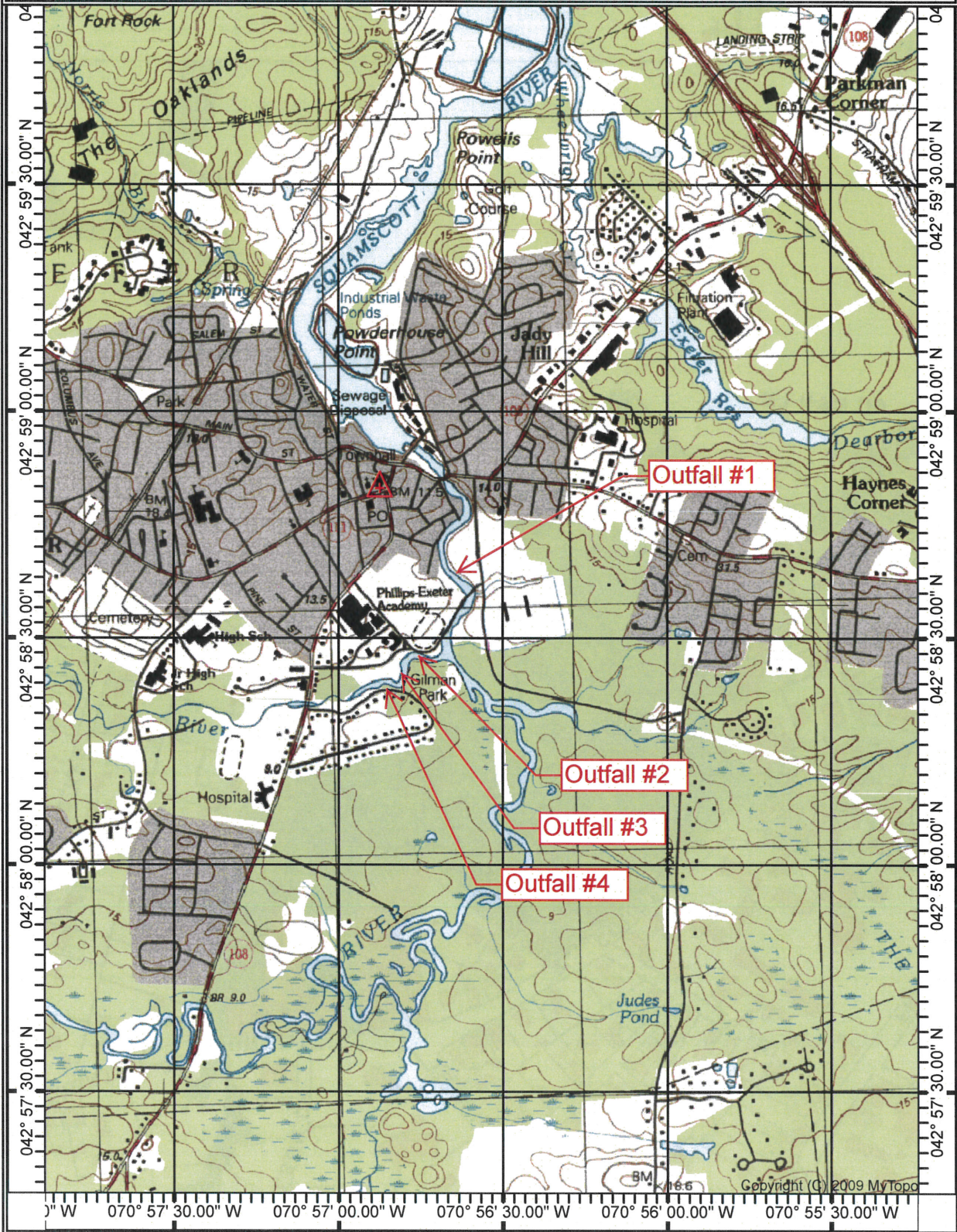
Map Generated: 1/31/2016

Notes



Map Name: EXETER
Scale: 1 inch = 2,000 ft.

Map Center: 042° 58' 37.15" N 070° 56' 33.87" W
Horizontal Datum: NAD27





- Parcels
- NH Highways
- Interstate
- US Highway
- State Highway
- Town Boundary
- Abutting Towns
- Streets
- Misc Streams
- Paved Streams
- Open Water
- Buildings



The data shown on this site are provided for informational and planning purposes only. The town warrants are not responsible for the information or misrepresentation of the data.

**NEW FIELD HOUSE
Phillips Exeter Academy
Tax Map 83 Lot 1
Exeter, NH**

Tax Map 72 Lot 135
Paul Letourneau
8 Tallowood Lane
Amesbury, MA 01913-2193

Tax Map 72 Lot 134
Winged Foot Realty Trust
Wayne Perkins Trustee
46 Yale Street
Winchester, MA 01890

Tax Map 72 Lot 103
Anthony Jackson
761 Washington Avenue
Rye, NH 03870

Tax Map 72 Lot 98
Roger & Robin Wakeman
44 River Street
Exeter, NH 03833

Tax Map 83 Lot 19
Town of Exeter
10 Front Street
Exeter, NH 03833

Tax Map 83 Lot 18
Marcy & Bonnie Linscott
19 Bow Street
Exeter, NH 03833

Tax Map 83 Lot 17
Brian & Paula Fraser
98 Court Street
Exeter, NH 03833

Tax Map 83 Lot 16
David & Angela Lennox
96 Court Street
Exeter, NH 03833

Tax Map 83 Lot 15
Mark & Kathy Difabio
94 Court Street
Exeter, NH 03833

Tax Map 83 Lot 14
Paul & Faye Willett
21 Harding Road
Portsmouth, NH 03801

Tax Map 83 Lot 10
Christopher & Sheryl Dion
86 Court Street
Exeter, NH 03833

Tax Map 83 Lot 9
Jendiss Frizzell
84 Court Street
Exeter, NH 03833

Owner/Applicant:

Tax Map 83 Lots 1, 11, 12, 13
Tax Map 71 Lot 119
Tax Map 72 Lot 99
Phillips Exeter Academy
20 Main Street
Exeter, NH 03833

Prepared By:

February 10, 2016



Civil : 133 Court Street
Site Planning : Portsmouth, NH
Environmental : 03801-4413
Engineering :

February 11, 2016

Re: **South Campus Master Plan**
Tax Map 83, Lot 1
Court Street
Exeter, New Hampshire
P4747

Dear Abutter:

Pursuant to State of New Hampshire *RSA Chapter 482-A*, this letter is to notify you, that Phillips Exeter Academy (PEA) is submitting a Wetlands Permit Application to the NH Department of Environmental Services (DES) Wetland Bureau for work at the property identified on Town of Exeter as Tax Map 83, Lot 1. Your parcel abuts land owned by the Applicant.

As part of the South Campus Master Plan, the applicant proposes to upgrade four (4) drain outfalls to the Exeter and Little Rivers; replacing existing campus drain lines that are significantly undersized. The project will result in the abandonment and plugging of two (2) existing outfalls, and stabilizing existing areas of eroded riverbank. The new outfalls will be located at the west side of the rivers.

The area of wetlands impact is only 2,415 square feet. There will be no construction within 20-feet of your property line and therefore no action is required by you.

Plans are on file for your review at the Town of Exeter Clerk's office or at the NHDES offices by scheduling a file review at (603) 271- 8876. Please feel free to contact us, the Applicant's engineering consultant, at (603) 433-2335 or Mark Leighton, PEA at (603) 777-4529, if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Clifford", is written over a horizontal line.

Jeffrey K. Clifford, P.E.
Vice-President

RMB\jkc\4747.abut.notification.ltr.doc

CERTIFIED MAIL

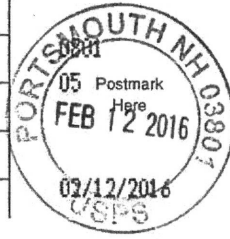
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EXETER NH 03833

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Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



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Street, or PO Box
City, State, ZIP+4®
PS Form 3800, April 2010

Christopher & Sheryl Dion
86 Court Street
Exeter, NH 03833

Instructions

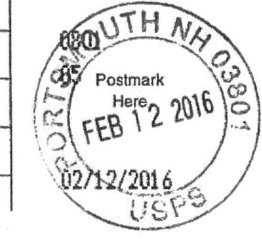
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EXETER NH 03833

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		\$3.94



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PS Form 3800, April 2010

Brian & Paula Fraser
98 Court Street
Exeter, NH 03833

Instructions

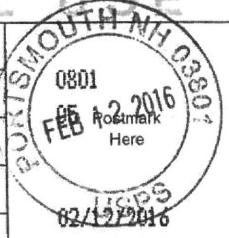
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U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
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For delivery information visit our website at www.usps.com

EXETER NH 03833

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



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Street, or PO Box
City, State, ZIP+4®
PS Form 3800, April 2010

Jendiss Frizzell
84 Court Street
Exeter, NH 03833

Instructions

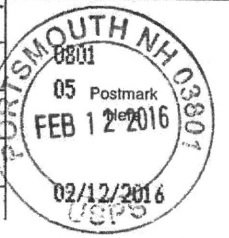
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EXETER NH 03833

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



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PS Form 3800, April 2010

David & Angela Lennox
96 Court Street
Exeter, NH 03833

Instructions

7013 1090 0001 9901 8193

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EXETER NH 03833

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



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Street, or PO Box
City, State, ZIP+4®
PS Form 3800, April 2010

Mark & Kathy Difabio
94 Court Street
Exeter, NH 03833

Instructions

7013 1090 0001 9901 8209

U.S. Postal Service™
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For delivery information visit our website at www.usps.com

PORTSMOUTH NH 03801

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



Sent To
Street, or PO Box
City, State, ZIP+4®
PS Form 3800, April 2010

Paul & Faye Willett
21 Harding Road
Portsmouth, NH 03801

Instructions

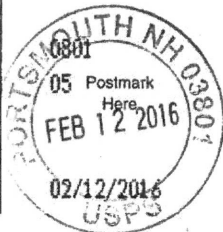
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U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

EXETER NH 03833

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



Sent To

Street, A or PO Box
City, State

PS Form 3800, Instructions

Roger & Robin Wakeman
44 River Street
Exeter, NH 03833

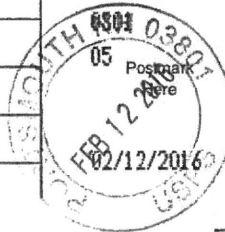
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U.S. Postal Service™
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For delivery information visit our website at www.usps.com

AMESBURY MA 01913

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



Sent To

Street, A or PO Box
City, State

PS Form 3800, Instructions

Paul Letourneau
8 Tallowood Lane
Amesbury, MA 01913-2193

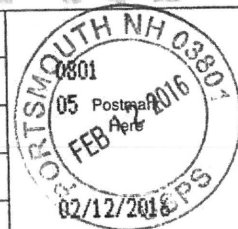
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U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

EXETER NH 03833

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



Sent To

Street, A or PO Box
City, State

PS Form 3800, Instructions

Town of Exeter
10 Front Street
Exeter, NH 03833

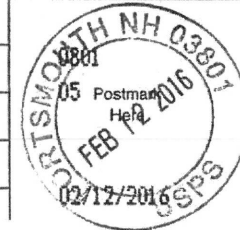
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U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

WINCHESTER MA 01890

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



Sent To

Street, A or PO Box
City, State

PS Form 3800, Instructions

Winged Foot Realty Trust
Wayne Perkins Trustee
46 Yale Street
Winchester, MA 01890

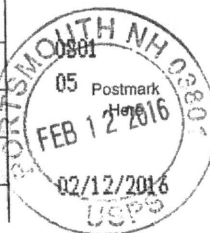
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U.S. Postal Service™
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(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

EXETER NH 03833

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



Sent To

Street, A or PO Box
City, State

PS Form 3800, Instructions

Marci & Bonnie Linscott
19 Bow Street
Exeter, NH 03833

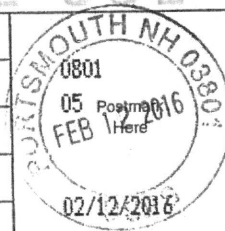
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U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
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For delivery information visit our website at www.usps.com

RYE NH 03870

Postage	\$	\$3.45
Certified Fee		\$0.00
Return Receipt Fee (Endorsement Required)		\$0.00
Restricted Delivery Fee (Endorsement Required)		N/A
Total Postage & Fees	\$	\$0.49
		\$3.94



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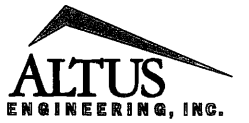
Street, A or PO Box
City, State

PS Form 3800, Instructions

Anthony Jackson
761 Washington Avenue
Rye, NH 03870



PHILLIPS EXETER ACADEMY



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com



ISSUED FOR: PERMITTING SET

ISSUE DATE: FEBRUARY 12, 2016

NO.	DESCRIPTION	BY	DATE
0	NHDES SUBMISSION	JKC	2/12/16

DRAWN BY: RMB
APPROVED BY: JKC
DRAWING FILE: 4747SITE.DWG

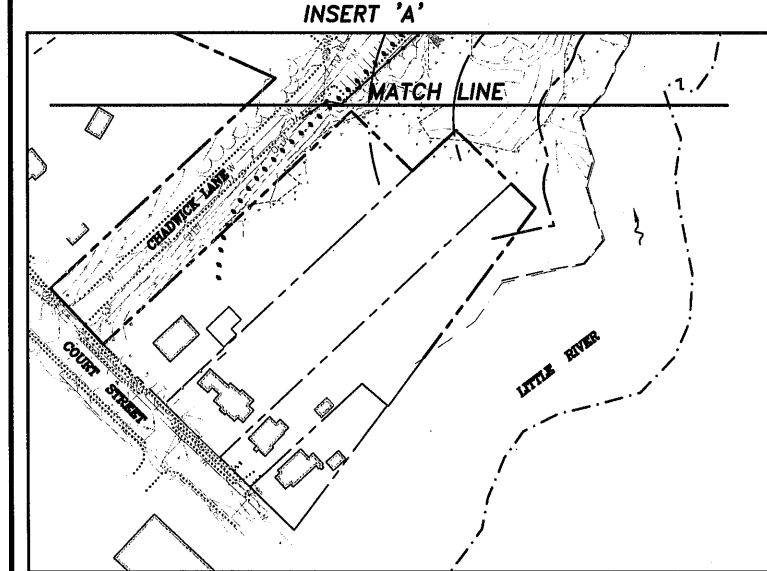
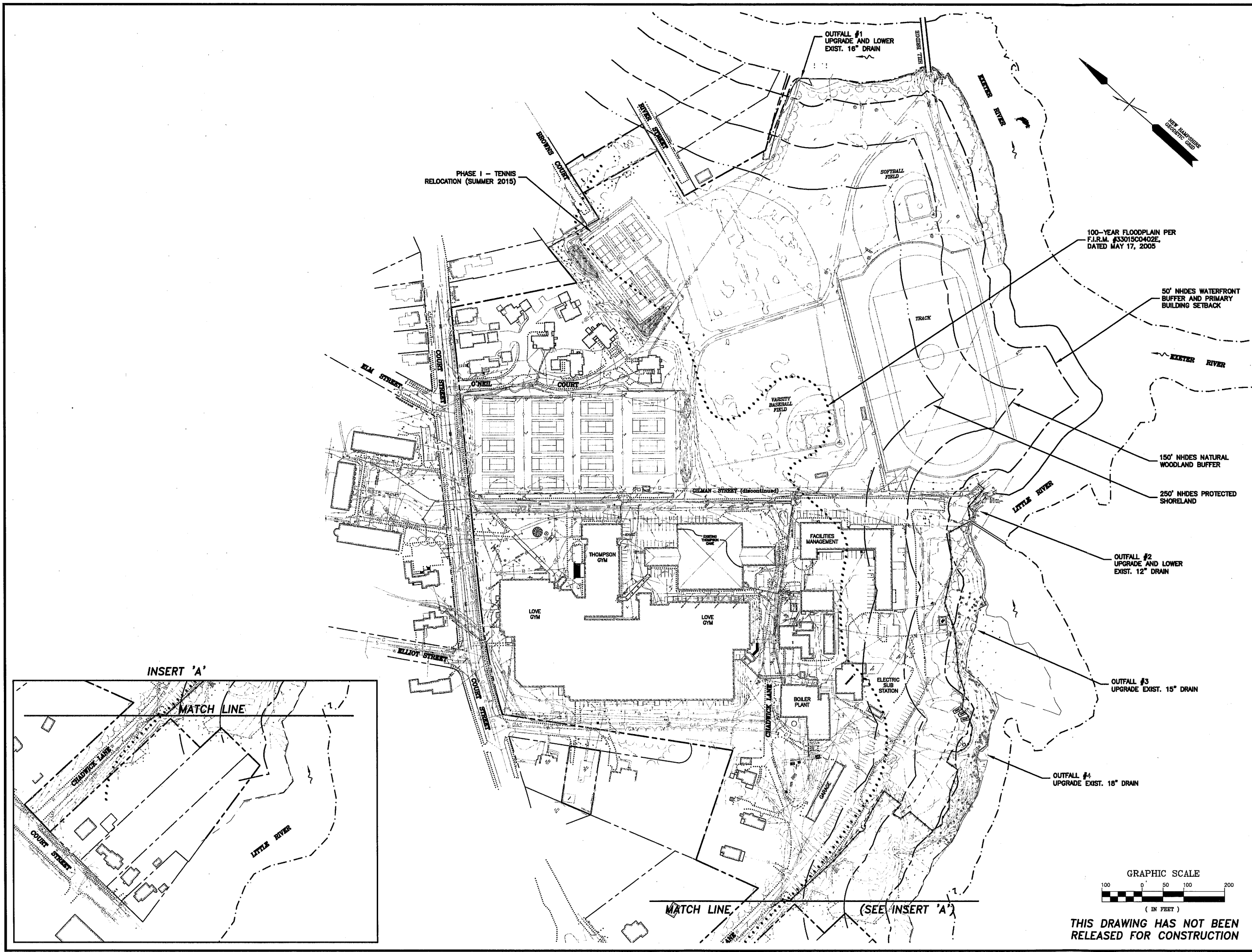
SCALE: 1" = 100'

OWNER:
PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

PROJECT:
PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

TITLE:
EXISTING
CONDITIONS
AREA PLAN

SHEET NUMBER:
C0.01

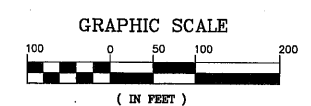
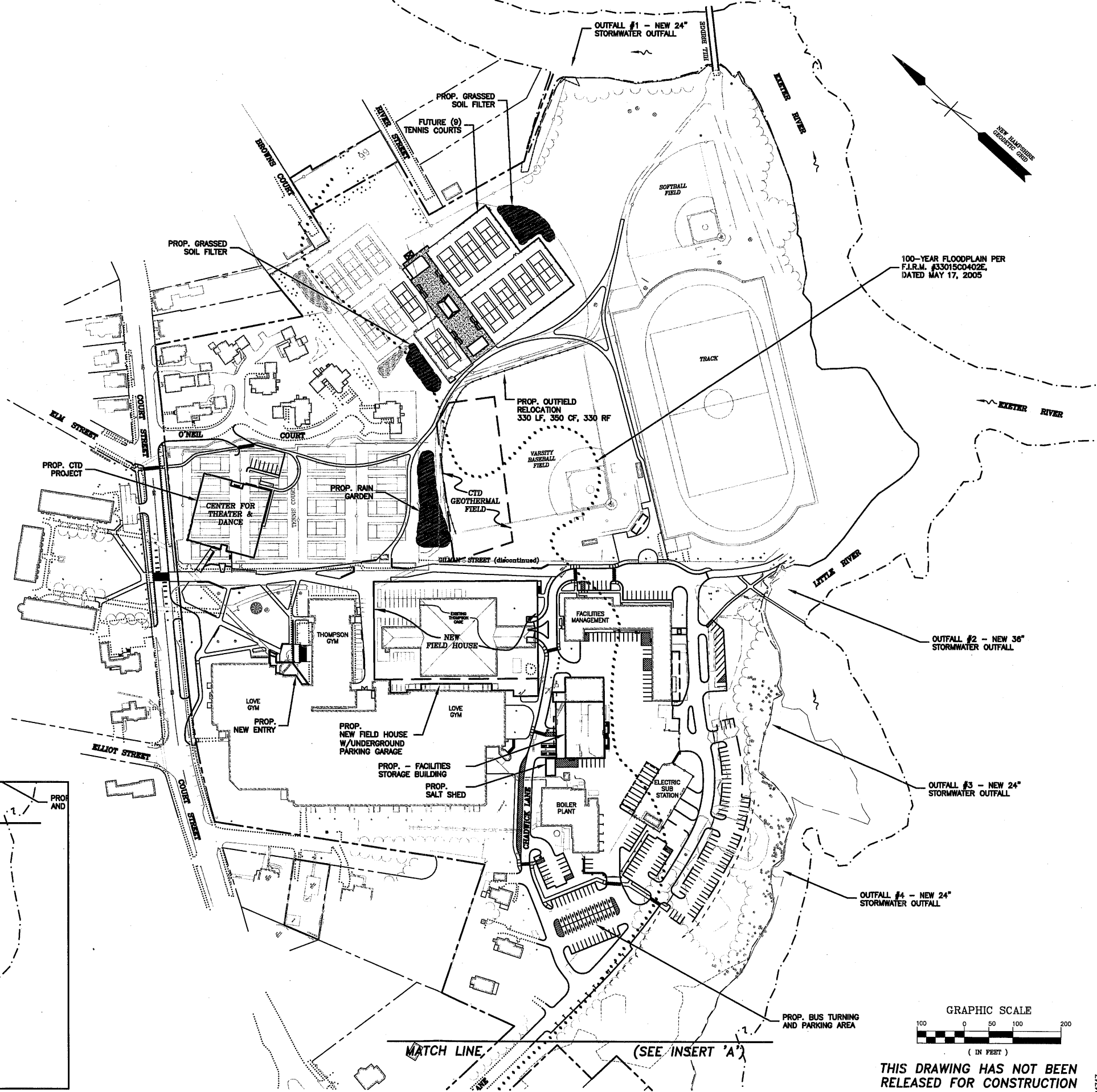
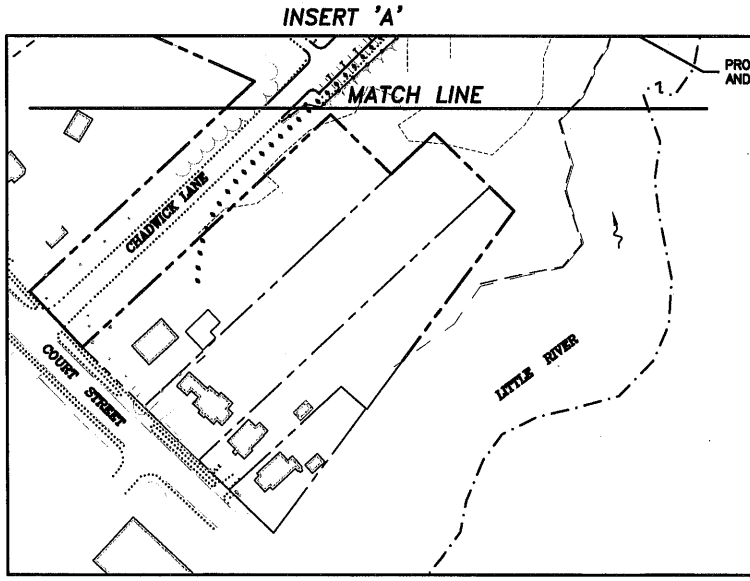


CONSTRUCTION NOTES:

- DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED. THE LANDOWNER AND CONTRACTOR ARE RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL WETLANDS REGULATIONS, INCLUDING ANY PERMITTING AND SETBACKS REQUIRED UNDER THESE REGULATIONS. SEE PROJECT MANUAL APPENDICES FOR COPY OF PERMITS.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AND NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- SITE CONSTRUCTION SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AS PUBLISHED IN THE FEDERAL REGISTER, VOL. 56, NO. 144, DATED JULY 26, 1991.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING STRUCTURES, BITUMINOUS CONCRETE, DEBRIS, AND CONSTRUCTION WASTE PRODUCTS WHICH ARE NOT AUTHORIZED, TO BE USED AS PART OF CONSTRUCTION. DISPOSE OF EXCESS MATERIALS OFF-SITE IN ACCORDANCE WITH NH DEPARTMENT OF ENVIRONMENTAL SERVICES REQUIREMENTS.
- UPON COMPLETION OF CONSTRUCTION, THE DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL.
- IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATION. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- EXCAVATED MATERIAL NOT USED AS FILL MATERIAL ON SITE, SHALL ONLY BE PLACED IN UPLANDS AREA OUTSIDE OF THE 100 YEAR FLOOD ZONE.
- PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION. VOIDS BETWEEN STONES AND CLUMPS OF MATERIAL SHALL BE FILLED WITH FINE MATERIALS.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, MULCH, AND APPROPRIATE SOIL STABILIZATION TECHNIQUES.
- CONTRACTOR TO ESTABLISH AND MAINTAIN TEMPORARY BENCHMARKS (TBMS) AND PERFORM CONSTRUCTION SURVEY LAYOUT.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE ENGINEER, SURVEYOR, OR OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR DAMAGE TO EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES AT NO EXTRA COST TO THE OWNER.
- CONTRACTOR SHALL MAINTAIN AND PROVIDE RECORD DRAWINGS TO PHILLIPS EXETER ACADEMY AND TO THE TOWN OF EXETER.
- CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES AND VEGETATION AND/OR MULCHING STOCKPILES.
- WORK HOURS FOR CONSTRUCTION WILL BE AS APPROVED BY PHILLIPS EXETER ACADEMY AND THE TOWN OF EXETER. STANDARD WORK HOURS SHALL BE 7AM TO 6 PM.

GRADING NOTES:

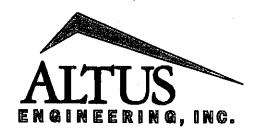
- WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ACCEPTED. ABRUPT RIDGES AT TOPS AND BOTTOM WILL NOT BE ACCEPTED.
- MAXIMUM SLOPE IN DISTURBED AREAS SHALL BE NO STEEPER THAN 3:1 (H:V), UNLESS OTHERWISE NOTED. WHERE SLOPES IN DISTURBED AREAS ARE STEEPER THAN 3:1, CONTRACTOR SHALL PROVIDE CURLEX II EROSION CONTROL BLANKET FROM AMERICAN EXCELSIOR COMPANY (800) 777-7845 OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (CLEANOUTS, UTILITY MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
- ALL UNSUITABLE MATERIALS AND SURPLUS MATERIALS WHICH CAN NOT BE APPROPRIATELY WASTED ON SITE SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
- THE GRADING ON THIS PLAN SHOWS THE GENERAL INTENT AND DIRECTION OF THE STORMWATER FLOW. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY FIELD CONDITIONS THAT WILL IMPACT THE GRADING DESIGN SHOWN ON THIS PLAN FOR RESOLUTION.
- SITE PROTECTION FENCE SHALL BE INSTALLED TO MINIMIZE PEDESTRIAN TRAFFIC OVER RECENTLY SEEDDED LANDSCAPE AREAS.



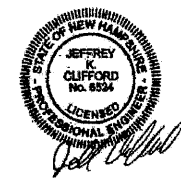
THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION



PHILLIPS EXETER ACADEMY



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com



ISSUED FOR: **PERMITTING SET**
ISSUE DATE: **FEBRUARY 12, 2016**

NO.	DESCRIPTION	BY	DATE
0	RHODES SUBMISSION	JKC	2/12/16

DRAWN BY: RMB
APPROVED BY: JKJ
DRAWING FILE: 4747SITE.DWG

SCALE: **1" = 100'**

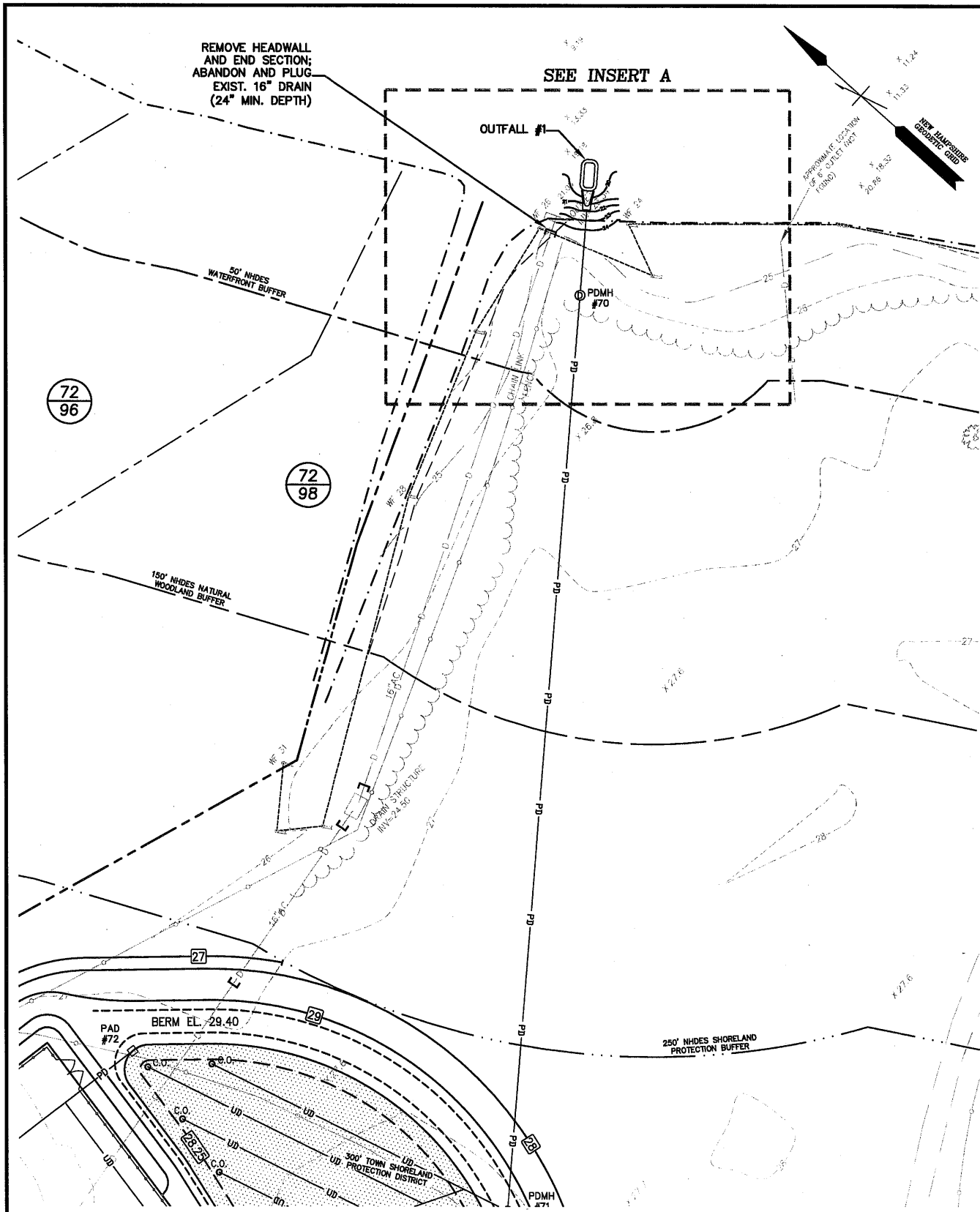
OWNER:
PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

PROJECT:
PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

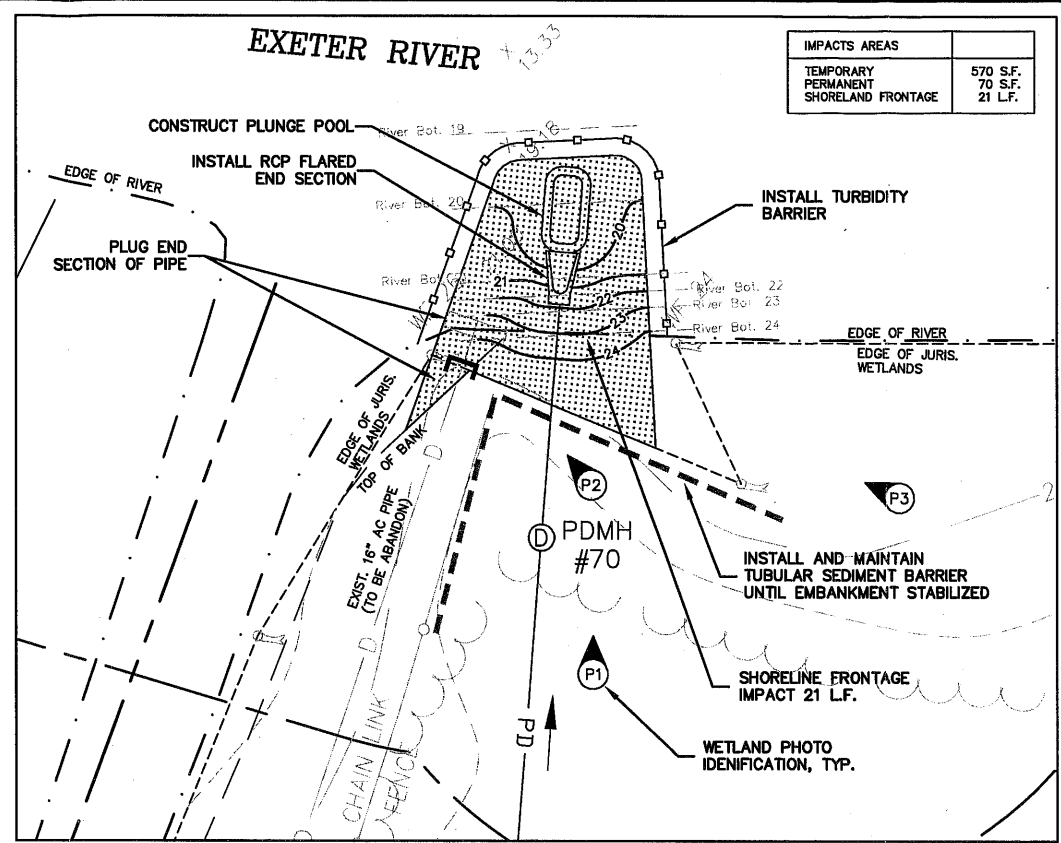
TITLE:
SOUTH CAMPUS
MASTER PLAN

SHEET NUMBER:
C0.02

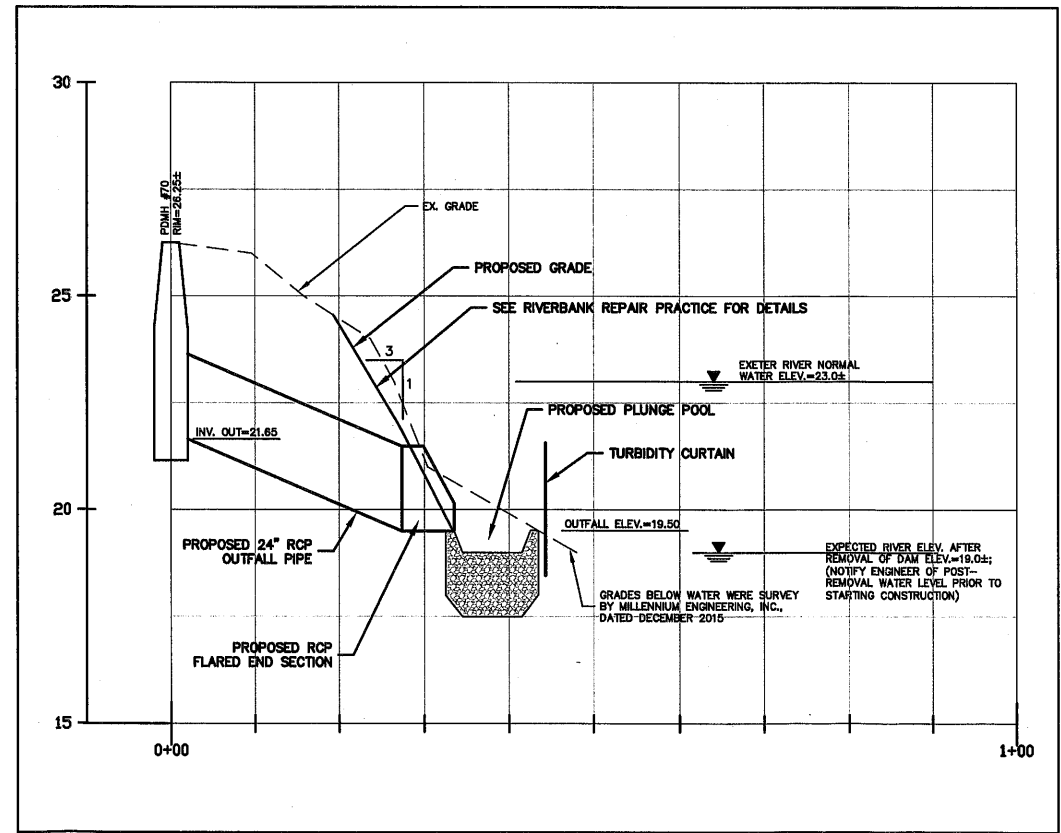
P4747



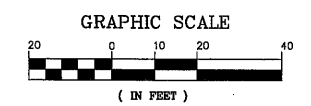
- NOTES:**
1. EXISTING CONDITIONS SURVEY PERFORMED AND PROVIDED BY MILLENNIUM ENGINEERING, INC.
 2. VERTICAL DATUM: NGVD29 (-0.81' TO CONVERT TO NAVD 88)
 3. JURISDICTIONAL WETLANDS SURVEYED BY GOVE ENVIRONMENTAL SERVICE, INC. OCTOBER 2013 AND VERIFIED JULY 2015, IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND SURVEYED BY MILLENNIUM ENGINEERING, INC.
 4. ALL CONSTRUCTION EQUIPMENT WORK SHALL BE DONE FROM TOP OF BANK.
 5. REFER TO CENTER FOR THEATER AND DANCE, NEW FILED HOUSE AND PHASE II TENNIS COURT CONSTRUCTION PROJECTS FOR ADDITIONAL DETAILS.



INSERT A
SCALE 1"=10'



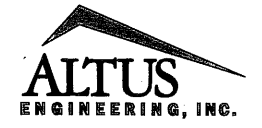
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HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 2'



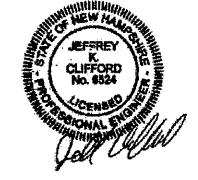
THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION



PHILLIPS EXETER ACADEMY



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com



ISSUED FOR: **PERMITTING SET**
ISSUE DATE: **FEBRUARY 12, 2016**

REVISIONS	NO.	DESCRIPTION	BY	DATE
0	NHDES SUBMISSION		JKC	2/12/16

DRAWN BY: **RMB**
APPROVED BY: **JKC**
DRAWING FILE: **4747SITE.DWG**

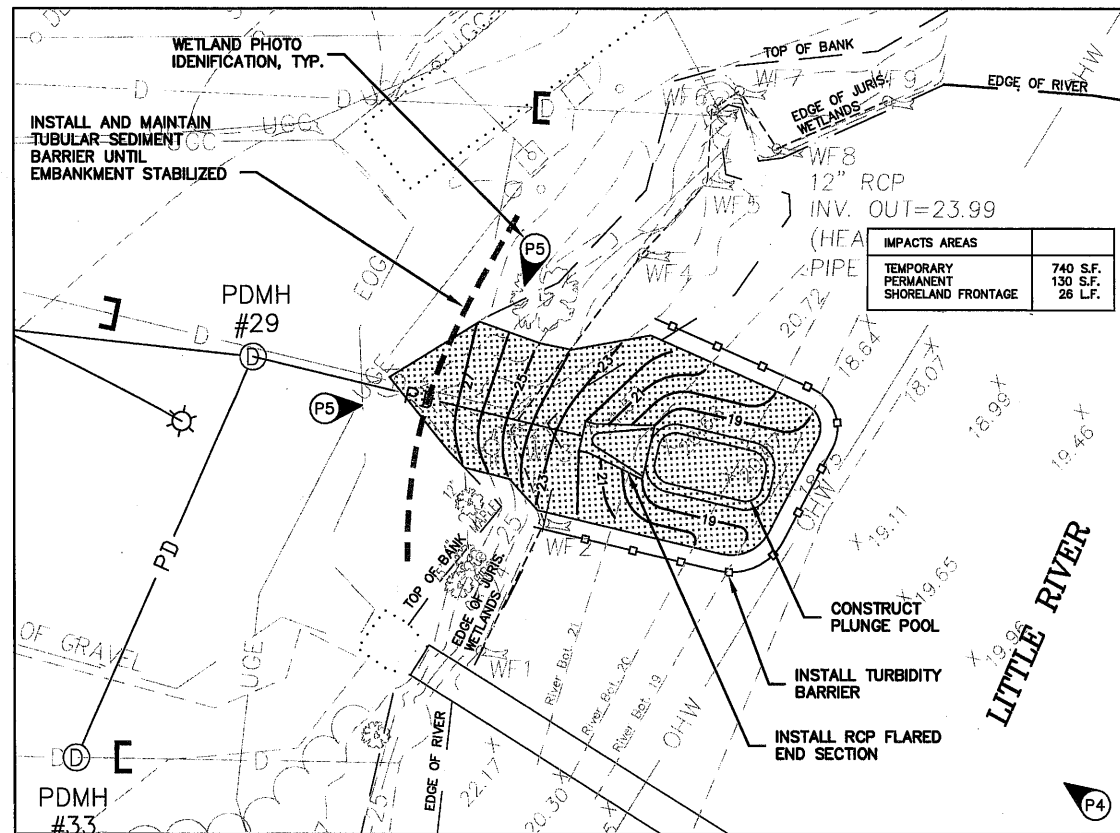
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OWNER:
PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

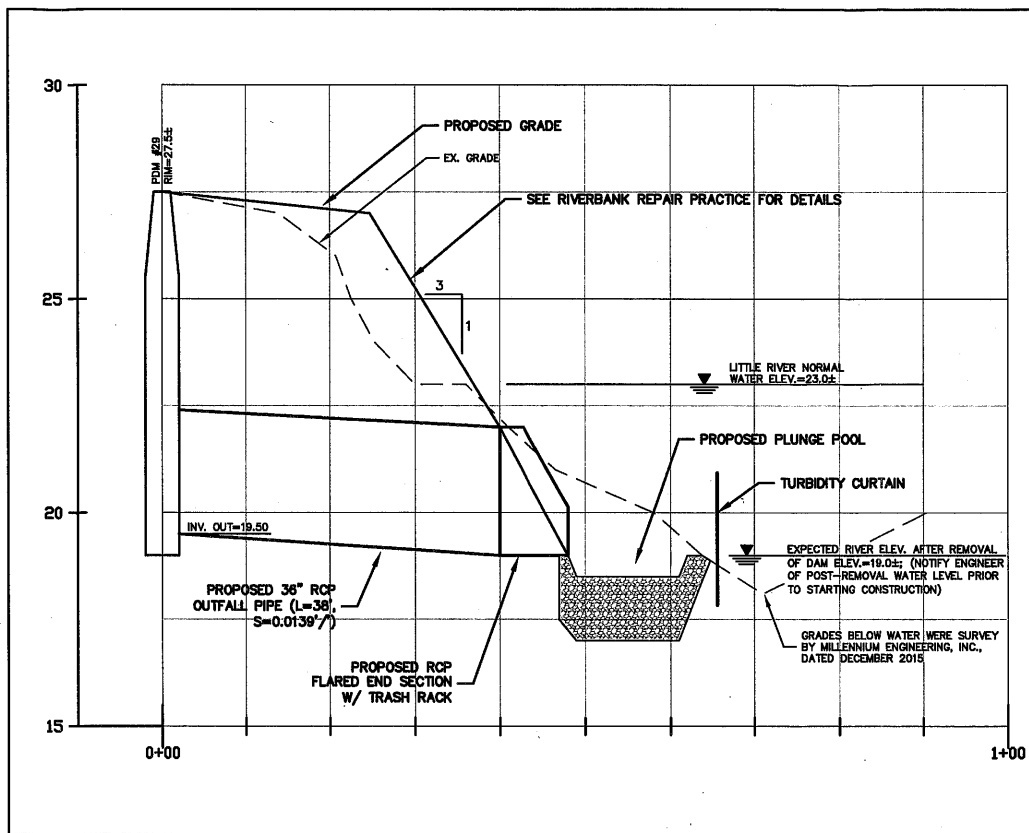
PROJECT:
PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

TITLE:
OUTFALL #1
UPGRADE AND
WETLANDS PLAN

SHEET NUMBER:
C1.00



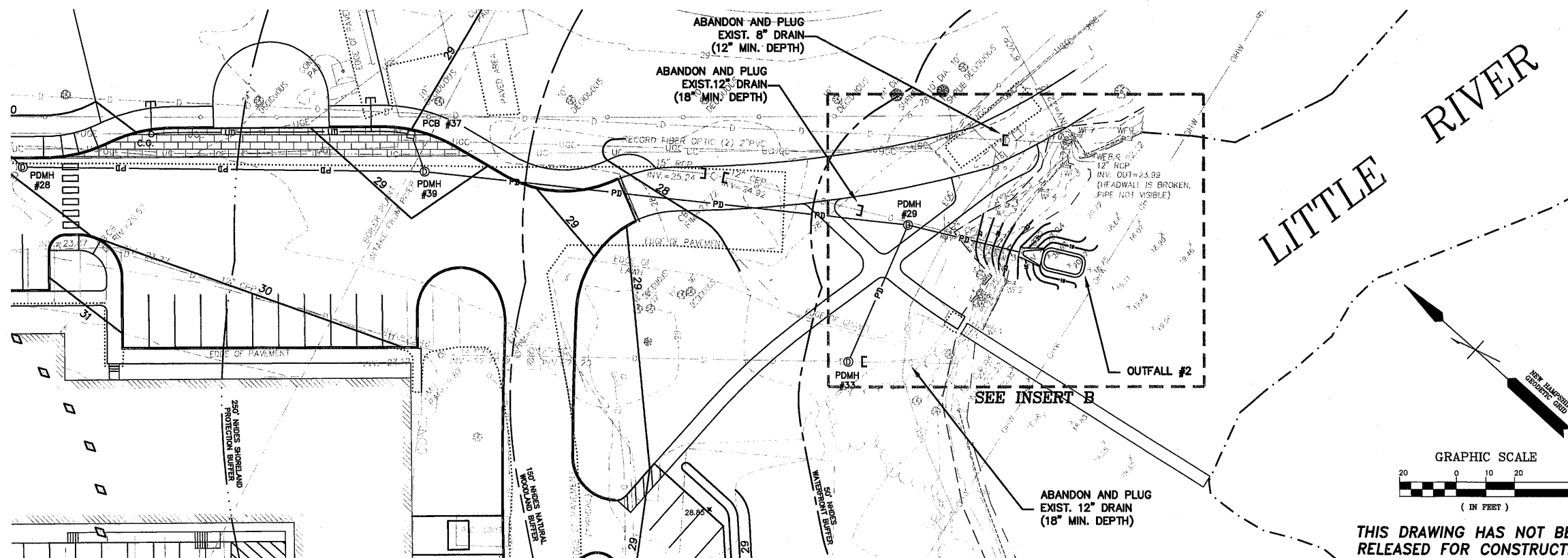
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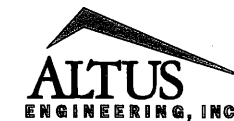
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VERTICAL SCALE: 1" = 2'

NOTES:

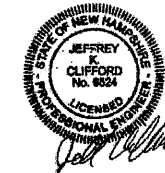
- EXISTING CONDITIONS SURVEY PERFORMED AND PROVIDED BY MILLENNIUM ENGINEERING, INC.
- VERTICAL DATUM: NGVD29 (-0.81' TO CONVERT TO NAVD 88)
- JURISDICTIONAL WETLANDS SURVEYED BY GOVE ENVIRONMENTAL SERVICE, INC. OCTOBER 2013 AND VERIFIED JULY 2015, IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND SURVEYED BY MILLENNIUM ENGINEERING, INC.
- ALL CONSTRUCTION EQUIPMENT WORK SHALL BE DONE FROM TOP OF BANK.
- REFER TO CENTER FOR THEATER AND DANCE, NEW FILED HOUSE AND PHASE II TENNIS COURT CONSTRUCTION PROJECTS FOR ADDITIONAL DETAILS.



PHILLIPS EXETER ACADEMY



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com



ISSUED FOR: **PERMITTING SET**

ISSUE DATE: **FEBRUARY 12, 2016**

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	NHDES SUBMISSION	JKC	2/12/16

DRAWN BY: RMB

APPROVED BY: JKC

DRAWING FILE: 4747SITE.DWG

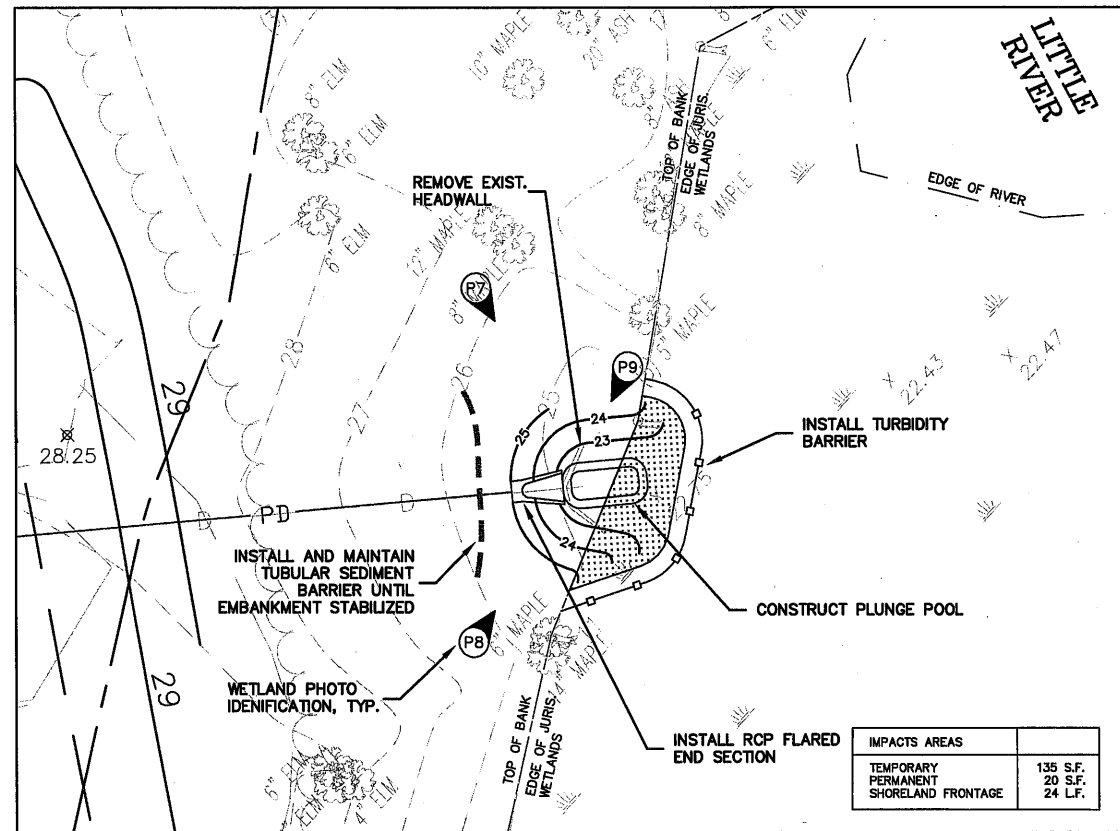
SCALE: **AS SHOWN**

OWNER:
PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

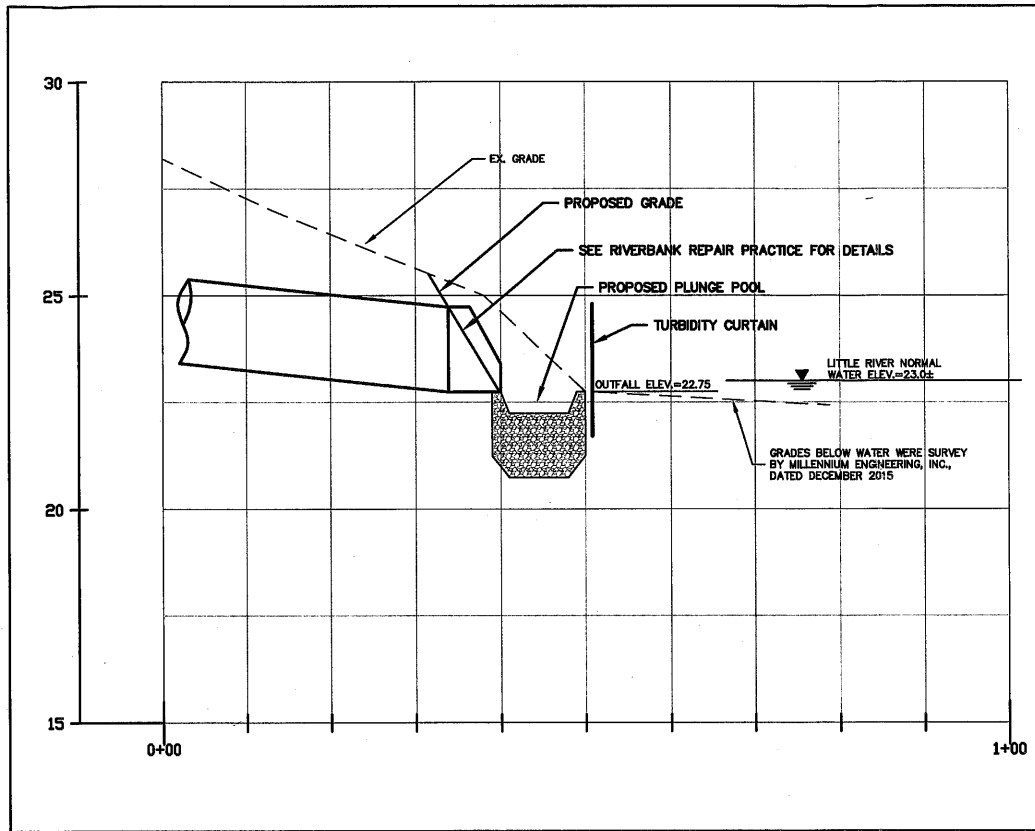
PROJECT:
PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

TITLE:
OUTFALL #2
UPGRADE AND
WETLANDS PLAN

SHEET NUMBER:
C1.01

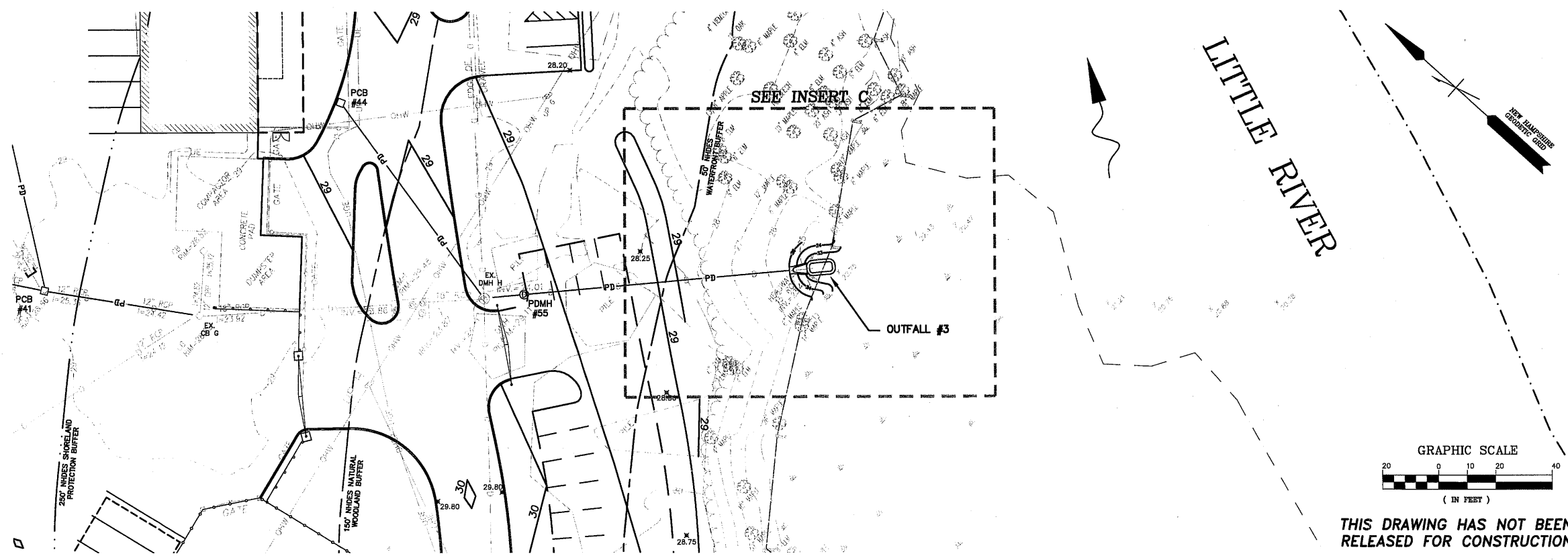


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OUTFALL #3 PROFILE
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 2'

- NOTES:**
1. EXISTING CONDITIONS SURVEY PERFORMED AND PROVIDED BY MILLENNIUM ENGINEERING, INC.
 2. VERTICAL DATUM: NGVD29 (-0.81' TO CONVERT TO NAVD 88)
 3. JURISDICTIONAL WETLANDS SURVEYED BY GOVE ENVIRONMENTAL SERVICE, INC. OCTOBER 2013 AND VERIFIED JULY 2015, IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND SURVEYED BY MILLENNIUM ENGINEERING, INC.
 4. ALL CONSTRUCTION EQUIPMENT WORK SHALL BE DONE FROM TOP OF BANK.
 5. REFER TO CENTER FOR THEATER AND DANCE, NEW FILED HOUSE AND PHASE II TENNIS COURT CONSTRUCTION PROJECTS FOR ADDITIONAL DETAILS.



THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

PHILLIPS EXETER ACADEMY

ALTUS ENGINEERING, INC.

133 COURT STREET PORTSMOUTH, NH 03801
(603) 453-2335 www.ALTUS-ENG.com

JEFFREY K. CLIFFORD
No. 6524
LICENSED PROFESSIONAL ENGINEER

ISSUED FOR: PERMITTING SET

ISSUE DATE: FEBRUARY 12, 2016

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	NHDES SUBMISSION	JKC	2/12/16

DRAWN BY: RMB

APPROVED BY: JKC

DRAWING FILE: 4747SITE.DWG

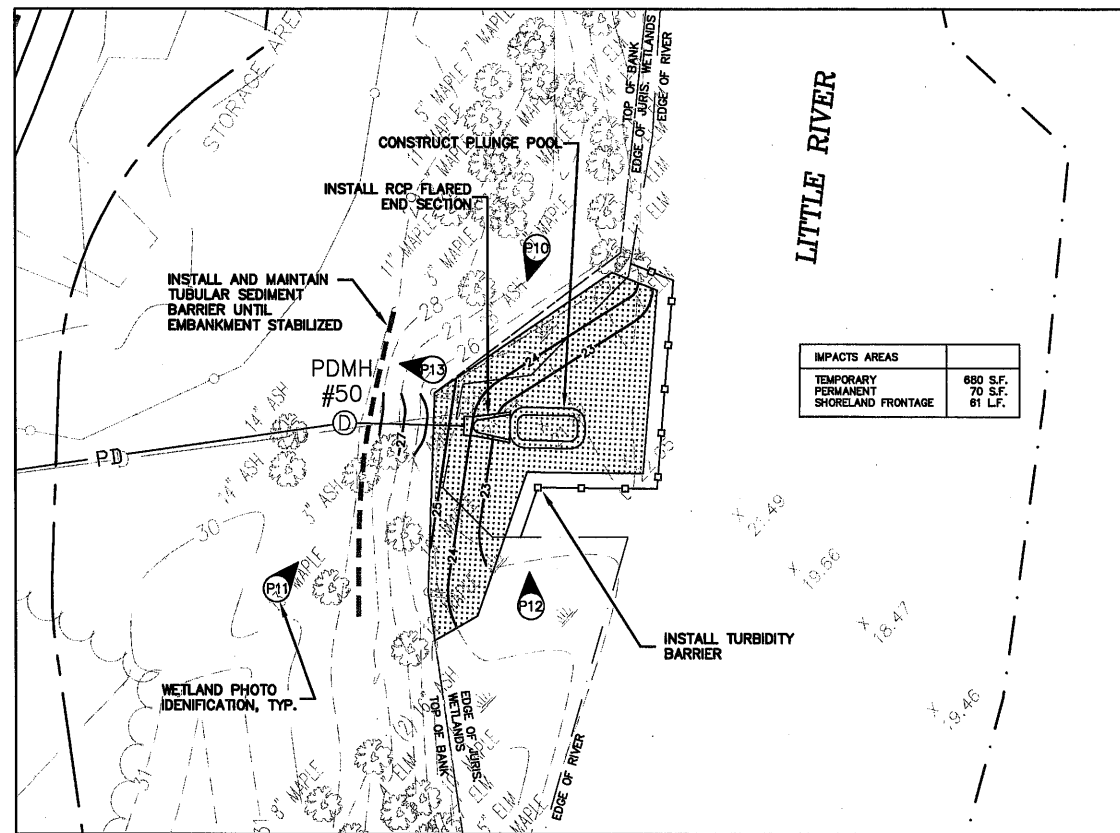
SCALE: AS SHOWN

OWNER: PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

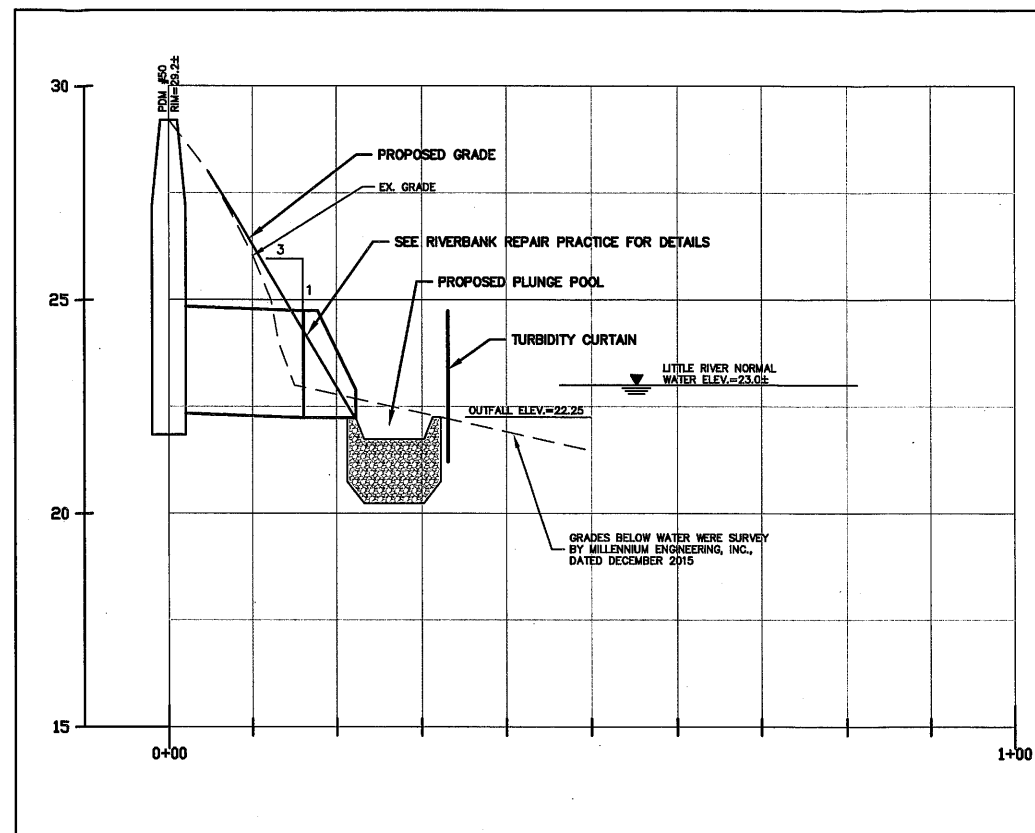
PROJECT: PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

TITLE: OUTFALL #3 UPGRADE AND WETLANDS PLAN

SHEET NUMBER: C1.02



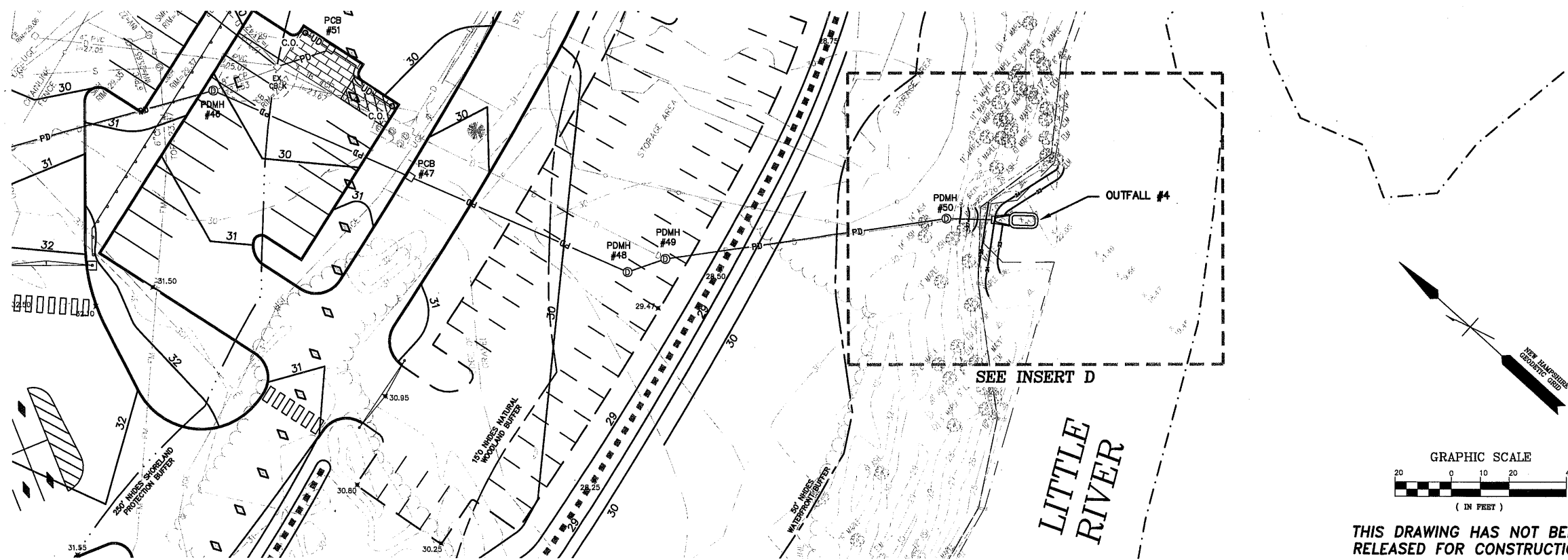
INSERT D
SCALE 1"=10'



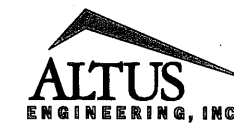
OUTFALL #4 PROFILE
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 2'

NOTES:

- EXISTING CONDITIONS SURVEY PERFORMED AND PROVIDED BY MILLENNIUM ENGINEERING, INC.
- VERTICAL DATUM: NGVD29 (-0.81' TO CONVERT TO NAVD 88)
- JURISDICTIONAL WETLANDS SURVEYED BY GOVE ENVIRONMENTAL SERVICE, INC. OCTOBER 2013 AND VERIFIED JULY 2015, IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND SURVEYED BY MILLENNIUM ENGINEERING, INC.
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PHILLIPS EXETER ACADEMY



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ISSUED FOR:

PERMITTING SET

ISSUE DATE:

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NO.	DESCRIPTION	BY	DATE
0	WIDES SUBMISSION	JKC	2/12/16

DRAWN BY:

RMB

APPROVED BY:

JKC

DRAWING FILE:

4747SITE.DWG

SCALE:

AS SHOWN

OWNER:

PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

PROJECT:

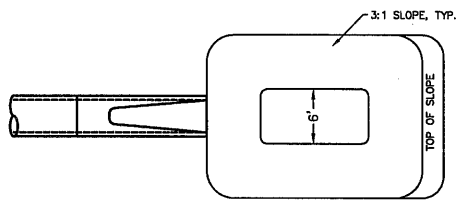
PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

TITLE:

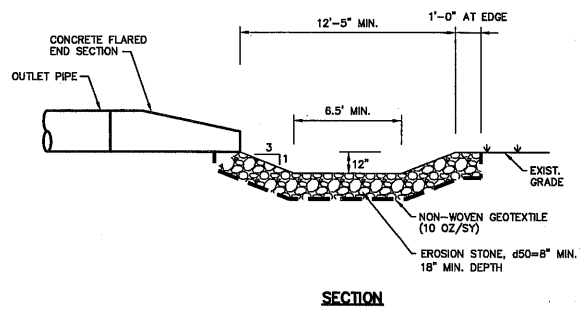
OUTFALL #4
UPGRADE AND
WETLANDS PLAN

SHEET NUMBER:

C1.03



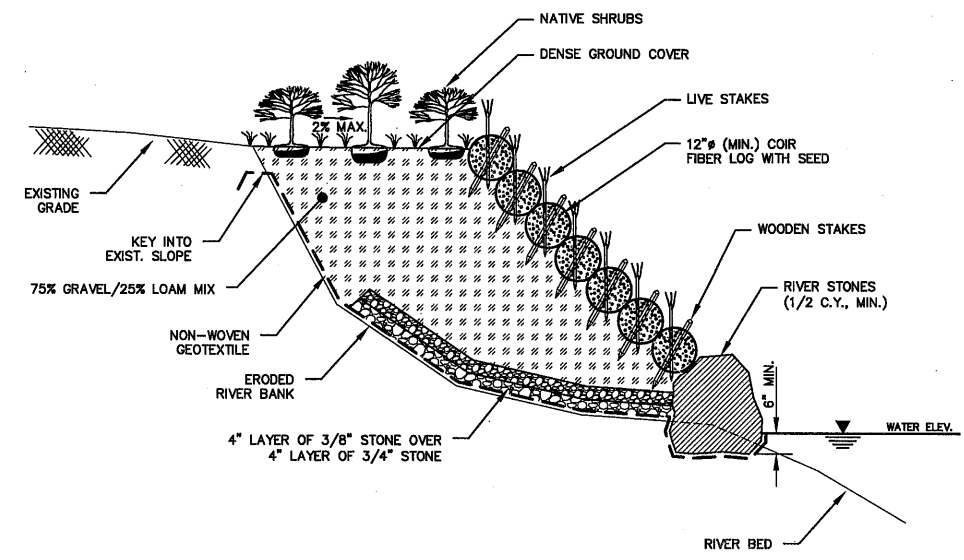
PLAN VIEW



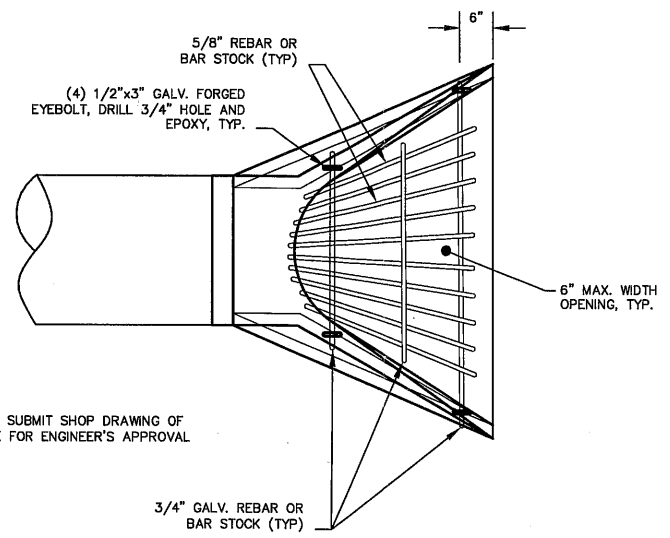
SECTION

1. CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
2. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
3. EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION.
4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. 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 18 INCHES.
5. THE EROSION STONE 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.

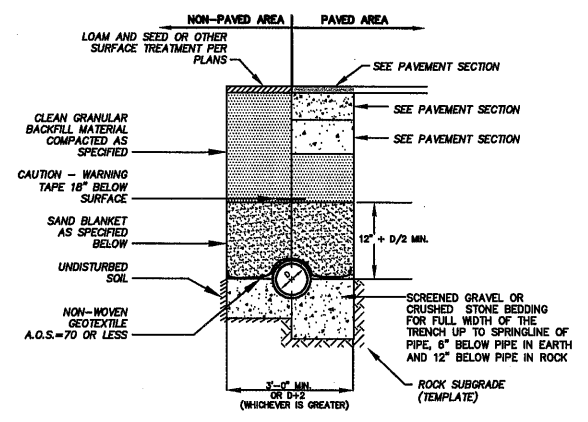
OUTLET PROTECTION
NOT TO SCALE



RIVERBANK REPAIR PRACTICE
NOT TO SCALE



BAR GRATE FOR CONCRETE FLARED END SECTION
NOT TO SCALE



DRAIN TRENCH DETAIL
NOT TO SCALE

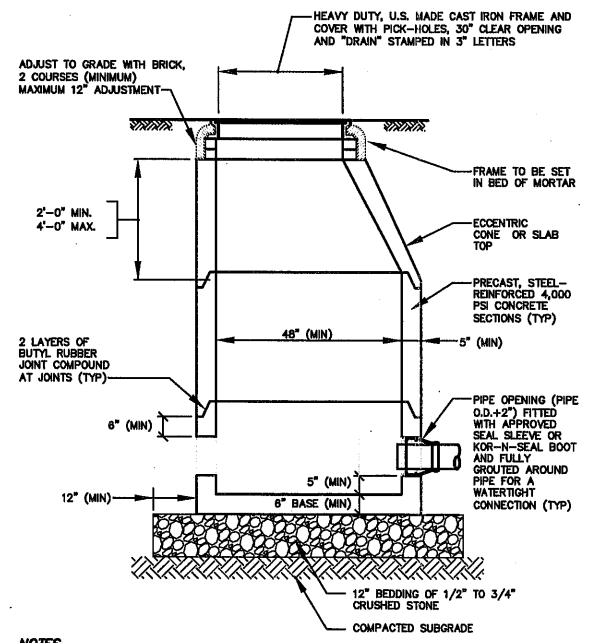
BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 85% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SEIVE SIZE	% FINER BY WEIGHT	SEIVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

* EQUIVALENT TO STANDARD STONE SIZE #87 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

STANDARD TRENCH NOTES:

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWING.
2. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, STONE SIZE NO. 87.
100% PASSING 1 INCH SCREEN
90 - 100% PASSING 3/4 INCH SCREEN
20 - 55% PASSING 3/8 INCH SCREEN
0 - 10% PASSING #4 SIEVE
0 - 5% PASSING #8 SIEVE
WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.
3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90 - 100% PASSES 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEAKY MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER, FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION, WILL BE PRESERVED.
5. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.
6. SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
7. W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.). ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
8. FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
9. CONCRETE FOR ENCASUREMENT SHALL CONFORM TO THE NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:
CEMENT: 8.0 BAGS PER CUBIC YARD
WATER: 5.75 GALLONS PER BAG CEMENT
MAXIMUM SIZE OF AGGREGATE: 1 INCH
CONCRETE ENCASUREMENT IS NOT ALLOWED FOR PVC PIPE.
10. CONCRETE FULL ENCASUREMENT: IF FULL ENCASUREMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 LD. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
11. NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO TOWN'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.



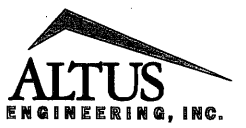
DRAIN MANHOLE DETAIL
NOT TO SCALE

- NOTES
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI).
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 5. ALL MANHOLE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
 6. USE H-20 LOADING SLAB TOP SECTION IN LIEU OF ECCENTRIC TOP WHERE PIPE INVERT IS WITHIN 4 FT OF GRADE.
 7. MANHOLE STEPS ARE NOT PERMITTED.

THIS DRAWING HAS NOT BEEN
RELEASED FOR CONSTRUCTION



PHILLIPS EXETER
ACADEMY



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2336 www.ALTUS-ENG.com



ISSUED FOR: PERMITTING SET

ISSUE DATE: FEBRUARY 12, 2016

REVISIONS
NO. DESCRIPTION BY DATE
0 NHDES SUBMISSION JKC 2/12/16

DRAWN BY: RMB
APPROVED BY: JKC
DRAWING FILE: 4747SITE.DWG

SCALE: NOT TO SCALE

OWNER:
PHILLIPS EXETER ACADEMY
20 MAIN STREET
EXETER, NH

PROJECT:
PHILLIPS EXETER ACADEMY
SOUTH CAMPUS
STORMWATER
OUTFALLS
EXETER, NH 03833

TITLE:
DETAIL SHEET

SHEET NUMBER:
C2.01

These minutes are subject to possible correction/revision at a subsequent Exeter Conservation Commission meeting

Exeter Conservation Commission
DRAFT MINUTES
February 2, 2016

Call to Order

Mr. Gregoire called the meeting to order at 7:04 pm in the Nowak Room of the Exeter Town Offices on the above date.

1. MEMBERS PRESENT: Nancy Belanger (BOS Rep), Alyson Eberhardt, Jay Gregoire (Chair), Ginny Raub, Andrew Koff,

Staff Present: Kristen Murphy (Natural Resource Planner), Sarah McGraw (Recording Secretary)

2. Public Comment: None

Action Items

1. **Request for Conducting Tours/Rentals in Town Forest – Cecil Ables not present**
2. **Event Agreement – Orienteering Program February 13th**

Adam Mangan spoke about the organization that provides volunteers for disaster relief efforts. The event is an orienteering workshop on February 13th at 9:00 am along the Red Loop of the Town Forest. The group is part of a national organization.

BOARD COMMENT:

Mr. Richardson was concerned about the early spring thaw and impacts to the trails. Mr. Mangan said he understood the concern and will keep an eye on the weather. Mr. Gregoire said that the CC will keep an eye on the weather as well.

Mr. Gregoire motioned to allow orienteering event, second by Mr. Richardson.

VOTE: Unanimous

3. **Expedited Minimum Impact Dredge and Fill Application for the Construction of a Concrete Pad and Enclosure for a New Cooling Tower at 10 Chestnut Street, Tax Map 64/ Lot 51**

Mike Wynkoop introduced the project as a concrete pad to replace and secure the current cooling tower for apartment buildings owned by Chinberg Properties. There is 238 square feet of impact. Other locations have been considered but the final

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Conservation Commission meeting**

version was decided on after considering comments by abutting neighbors and Town staff.

BOARD COMMENT

Ms. Eberhardt inquired to how a cooling tower works. Jim Gove of Gove Environmental Services spoke about the mechanics of the cooling tower. The old cooling tower used to pump water from the river to cool the air conditioning system but Town water will be used in the new unit. Some objections to the tower is the possible noise made from the motor running. The Applicant is applying for an expedited application. The coastal tidal area is known to be a disturbed site before construction. Mr. Gove said that an assessment was conducted by the Natural Heritage Bureau in 2012 and no endangered species were found.

Ms. Murphy commented that there is impact to the existing buffer, and the original application did not have permanent impacts. Mr. Gove said that the plan now contains erosion and sediment control.

Mr. Koff asked if the water for the new system will be supplied from the river. Mr. Gove said it would be a closed system.

Discussion ensued about photos of the site. There was discussion about sea level rise and potential future impacts to the pad. Ms. Eberhardt commented about the Climate Adaptation Study and its use for projects such as this. There was some concern about the height of the tower. Mr. Gove said that the tower will not stick above the buildings located behind the towers.

Ms. Murphy explained that because it is an expedited permit the CC needs to sign the Application. Ms. Belanger commented that it is also contingent upon Planning Board approval.

Mr. Gove replied that the application relies on local, state and federal approvals. If the Planning Board disapproves, the application returns to the beginning.

*Ms. Raub motioned to approve the expedited application and send a memo to the Planning Board highlighting concerns, second by Mr. Richardson. **VOTE:**
Unanimous*

Comments for Memo

1. Application did not discuss temporary impacts
2. NHB review is three years old and derived from a different project

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- 3. Suggestions to plan native species
- 4. Height of base and flooding

4. Rehabilitation of the String Bridge on both sides of Kimball Island

Jennifer Mates, Assistant Town Engineer, stated that String Bridge is out of compliance with the New Hampshire Department of Transportation. The bridge can be rehabilitated instead of reconstructed. Work will not be done “in-water” prior to July. The project will take 3 to 4 weeks with a 2-3-month buffer and is due to be completed by August 2016.

BOARD COMMENT:

Ms. Eberhardt asked how the water will be diverted to work in the river. Ms. Mates said that there are large bags blown up to create a small dam.

Mr. Koff asked if the work will be done in conjunction with the Great Dam removal. Ms. Mates said that HTA will be working the dam engineers and coordinating diversions.

Mr. Gregoire motioned to approve the String Bridge Rehabilitation project, second by Mr. Richardson. VOTE: Unanimous

5. Committee Reports

a) Property Management

i) Timber Harvest Update

Ms. Murphy stated that the timber harvest had begun at two sites. Mr. Briselden, Mr. Campbell and Mr. Richardson had volunteered to close trails with signs and ribbons. Ms. Murphy said the loggers had reported rocky terrain making it harder to navigate. A skid road was created as a landing for downed trees. Mr. Briselden had met with the contracted forester, Charlie Moreno, to ensure Fort Rock is retained. Some trail work will have to be done after the logging operation. Ms. Murphy suggested that the Commission consider long term goals for trails. Ms. Murphy said that the logging company is currently holding equipment in the Henderson-Swasey trail parking lot to wait out the warm weather.

Mr. Gregoire had witnessed kids playing on equipment and in closed trails. Ms. Murphy said that the logger is about half way through and is waiting for the ground to harden. The backup plan is to continue logging

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Conservation Commission meeting**

in the dryer summer months. She noted that while observing the process firsthand the equipment and operation is bigger than she had envisioned. Discussion continued about educating citizens on trail safety, forestry and possible harvest tours. Mud season may come early and produce more trail closures. Ms. Murphy read a trail closure notice drafted by Mr. Briselden. Ms. Belanger said she can read the notice at the next BOS meeting. Ms. Murphy suggested posting the notice on Facebook, the Town newsletter, Town Website and Visit NH web page.

ii) Raynes Farm Signage

Ms. Murphy said that there was a concern about people shooting guns around Raynes Farm property. Ms. Murphy said that hunting is permitted during certain seasons. Ms. Murphy said that a sign would state what is permitted, active crop management areas and no driving in the fields.

Ms. Eberhardt motioned to approve an expenditure up to \$ 38 plus shipping and handling for a Raynes Farm sign, second by Mr. Gregoire. VOTE: Unanimous

iii) Trails Sign Estimate

Ms. Murphy said that they have found a person to router a sign as requested by the White Family for the Macdonald Conservation easement. Ms. Murphy met with the family to discuss the language of the sign. Ms. Raub suggested checking with other places for an estimate. Ms. Murphy said that junction signs are also on the list. The Commission decided to table spending funds on signs due to a tight 2016 budget.

b) Outreach

Ms. Eberhardt said that there is a Phillips Exeter Academy Climate Action Day where she has volunteered. The students requested more hands on projects and Ms. Eberhardt suggested including PEA students in Commission projects. Mr. Richardson said that they could find projects for PEA students.

Mr. Richardson suggested creating a timeline of projects 6 months in advance to prepare for the year.

Ms. Murphy said that February 20th is the date of the Raynes Farm Full

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Moon Snowshoe event contingent upon the presence of snow. Ms. Murphy made a list of support tasks. Last year's event brought an abundance of attendees. The Commission decided to keep an eye on the weather and track down Don Briselden and Bill Campbell as they volunteered the past year.

6. Treasurer's Report

Ms. Raub reported the new budget for the year 2016 as \$10,057. At the end of 2015 there was \$650.49 left that was given back to the Town. There is currently 3,012.35 of cash on hand.

Mr. Gregoire motioned to approve the budget, second by Mr. Richardson. VOTE: Unanimous

7. Approval of Minutes: January 12, 2015

Tabled to the next meeting

8. Correspondence

a. Request to Oppose Bobcat Legislation

Ms. Eberhardt explained the letter from the Stoddard Conservation Commission opposing the proposed New Hampshire Fish and Wildlife ruling to allow Bobcat hunting. Ms. Eberhardt said she was willing to support the opposition letter. Ms. Belanger stated that it was allowed in 38 other states by permit.

Mr. Gregoire motioned to approve signing and submitting a letter to NH Fish and Wildlife, opposing the proposed Bobcat Hunting legislation, second by Ms. Eberhardt. VOTE: Unanimous

9. Next Meeting: March 8, 2016

Mr. Gregoire motioned to adjourn, second by Mr. Richardson. VOTE: Unanimous

The meeting was adjourned at 9:00 pm.

The meeting moved into a short work session.

Respectfully Submitted,

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Sarah McGraw

**These minutes are subject to possible correction/revision at a subsequent Exeter
Conservation Commission meeting**

Exeter Conservation Commission
DRAFT MINUTES
January 12, 2016

Call to Order

Ms. Raub, acting chair called the meeting to order at 7:04 pm in the Nowak Room of the Exeter Town Offices on the above date.

1. MEMBERS PRESENT: Don Clement (BOS Rep), Don Briselden, Bill Campbell, Ginny Raub, Pete Richardson, Alyson Eberhardt

Staff Present: Kristen Murphy (Natural Resource Planner), Sarah McGraw (Recording Secretary)

2. Public Comment: None

Action Items

1. Snowshoe Hullabaloo February Snow Shoe Race Even Request February 20 (Ri Fahnstock, Sarah Sallade

Sarah Sallade spoke about the snowshoe Hullabaloo event for February 20, 2016. She said the event will begin at 6 Commerce Way starting at 11:00 am with registration at 9:30 am. She commented that last year's event had been successful. She then outlined the plan for race cancellation. There will be online registration the week before the race. She and Ri will make a decision on race cancellation before February 12th. Ri said he is in charge of logistics and added that there may be issues coordinating the race with tree harvesting activities. The route may have to be re-routed. Ginny asked what they need for snow cover to have a race. Ri said at least 6 inches.

Mr. Richardson moved to approve the application second by Mr. Briselden. VOTE: Unanimous

2. Standard Dredge and Fill Application for a Light Industrial/Distribution Facility at 12 Continental Drive, Tax Map 46, Lot 1 (Jim Petropulos, Brendan Quigley)

James Petropulos, civil engineer with Hayner/Swansen introduced himself and was accompanied by Brendan Quigley representing Gove Environmental Services. Mr. Petropulos said the Applicant was seeking a standard dredge and fill permit approval. The Applicant is also meeting with the Exeter Planning Board for a conditional use permit. The property abuts Continental Drive, FW Webb, and conservation land to the north. Eight lots were created on the property of which four were developed into what is known as a "pork chop lot." Mr. Petropulos said the lot was mostly wooded. The wetlands have been surveyed and poorly drained wooded wetlands were found. Mr. Petropulos explained the facility will consist of offices and an assembly distribution facility. The goal is to retain a New Hampshire business.

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There will be a shared entrance with FW Webb and a 99 space parking lot. The facility will connect with the town water and sewer. Mr. Petropulos explained that there will be 6,178 square feet of wetland impacts and 59,600 square feet of buffer impacts. Storm water treatment will consist of curbing and catch basins as well as planting in wet areas with aquatic plants. The Applicant has filed with the Department of Environmental Services for a dredge and fill permit. Mr. Petropulos explained the Conditional Use Permit from section 9.1.6.A, Wetlands Conservation Overlay District. Mr. Petropulos said that the applicant has tried to minimize affects to nearby wetlands. The Applicant is not proposing industrial discharge and there will not be detrimental affects to public safety.

Mr. Briselden asked about draining and curbing. Mr. Petropulos answered that curbing and catch basins will be used as well as controlling runoff. Driveway runoff will be captured and piped into catch basins as well as runoff from the roof. Mr. Briselden inquired about percolation. Mr. Petropulos said that the soil density was tight with not much recharge. A precast box will slow down the filtering process. Mr. Campbell asked where all the water will run to. Mr. Quigley said that the wetlands are part of Little River and Bloody Brook complex. Mr. Campbell was concerned with drainage into an abutting lot. Mr. Mr. Petropulos said that future developments will sit higher than the wetlands.

Mr. Richardson said the wetlands are lower than the parking lot. Mr. Petropulos said that the land was 7 to 8 feet above the wetland. Mr. Richardson asked if the surveyor has surveyed the property corners. Mr. Petropulos said that at the end of construction there will be monuments set down. Mr. Quigley said that the conservation land has been marked. The property corners are present as well as markers for the conservation corners. Mr. Briselden commented that the Commission spends time searching for monuments in the field.

Ms. Raub asked about the TRC meeting. Mr. Petropulos said that they will be resubmitting changes made from the TRC meeting to the town. One of the buffers was mislabeled and corrected. There were no big storm water changes or land development changes.

Mr. Briselden recognized a discrepancy with the buffer square footage. Mr. Petropulos said this will be corrected. Ms. Eberhardt asked about the seeding plan. Mr. Petropulos said that there will be a better buffer. Trees, shrubs and aquatic plants will also be incorporated.

Mr. Briselden moved the recommendation of concurrence with the application and to send a letter of recommendation to NHDES, second by Mr. Campbell.

Mr. Richardson asked if there were any invasive species that could be spread during construction. Mr. Quigley said after his investigation, the area doesn't seem to be affected by invasive species.

*With no further discussion, **VOTE:** Unanimous*

*Mr. Briselden moved to send a memo recommending the conditional use permit as presented to the Planning Board, second by Mr. Campbell. **VOTE:** Unanimous*

3. Raynes Foundation Repairs Engineering

**These minutes are subject to possible correction/revision at a subsequent Exeter
Conservation Commission meeting**

Mr. Briselden referred to a memo he submitted via email and in the packets about repairing the foundation of the barn. Mr. Briselden recommended an estimate not to exceed \$2,000 for the north east foundation.

Mr. Campbell said that they should do an engineering report and estimate. Mr. Briselden said this would put them in a position for a warrant article for 2017 as the cost of the repairs could exceed \$40,000. For this reason an engineering study and cost estimate would be required.

Mr. Campbell motioned to hire Emanuel Engineering for the study not to exceed \$2,000, second by Ms. Eberhardt.

Mr. Clement asked if the town was considered as an engineering consultant. Mr. Briselden said that he has talked to the town and this type of work is not generally what they do but have been helpful in other aspects of the barn.

Without further discussion, VOTE: Unanimous

Ms. Murphy explained that the proposed budget for 2016 was \$10,058.00. Ms. Murphy handed out the requested budget. Some numbers needed to be moved around based on increased costs which are why there is \$2,000 available in the budget for engineering.

4. All boards meeting – February 10, Exeter Public Library 6 pm

Ms. Raub said that one talking point for the meeting is the MRI report and how the boards can work together. Ms. Raub said that Jay Gregoire met with the Planning Board. Ms. Murphy said that the outcome of the meeting was to communicate more often and if the Commission has a recommendation, to put in memo format.

Mr. Briselden asked if tonight's discussion fit the recommendation. Ms. Murphy said that due to the Planning Board schedule applications will not be able to meet the Commission first.

Ms. Murphy said that she had sent out a copy of the MRI report. Ms. Eberhardt suggested childcare be available at the All Boards Meeting. Ms. Murphy said that a contact from Phillips Exeter Academy community action group offers childcare services. Mr. Clement said he will also bring this up at the BOS meeting.

5. Committee Reports

a) Property Management

i. Timber Harvest Update

Ms. Murphy said there was a Conservation Commission special session in December where Sweets Logging was contracted for timber harvesting services. Charlie Moreno put together a contract which went before legal counsel.

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Ms. Murphy said that legal counsel suggested the town get reimbursed for what the mill paid for the timber and get invoiced for expenses. Language was added about the logging company having responsibility for leaving the site and out into the main road. Ms. Murphy suggested that the Commission authorize the Commission chair to sign the logging contract.

Ms. Raub clarified that changes were presented to the logging company by Charlie Moreno. Ms. Murphy said that the logger is ready to work but it is weather dependent. The logging company is ready to go as soon as contract is signed.

Mr. Briselden said that the Commission needs to decide who will sign the contract. Discussion ensued about how to get the contract to the chair.

Mr. Campbell moved to allow the Chair or appointee to sign the harvesting contract second by Mr. Richardson. VOTE: Unanimous

ii. Chamberlin Easement Paddock Notification

Ms. Murphy said she had met with the new landowners. They discussed the conditions of the easement and siting for four horse paddocks within the twelve acre exclusion area which overlaps 50 feet to the west and 100 feet to the south into the conservation easement. This requires notification to Commission should the landowners want to exercise their reserved rights. Ms. Murphy said after checking, an Alteration of Terrain Permit is not required which is waived for agricultural areas. The reason for the conservation land overlap is that there are soils that the landowners want to avoid.

The owners provided notification to Ms. Murphy and she allowed them to move forward. Ms. Murphy said she believes that they are fit as good stewards of the land.

Mr. Clement said that RCCC could be a good resource for manure management. Ms. Murphy spoke with Glen Greenwood Interim Planner to see if this is considered agricultural. Mr. Greenwood provided a best practices book.

b. Trails

i. Closure Process for Harvest

Ms. Murphy said that trail closure is necessary for public safety. The southern part of the trail network is within harvest area one and two. It is up to the Commission to put up posting on the trails. Someone would have to change the signs as the harvesting operation moves. Ms. Murphy said that the Public Works Department has old barricades not in use.

Mr. Briselden said that he will be available to move signs. It was not certain how long the harvesting would take place in each section. Ms. Murphy said that they could close off the whole southern

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portion to walkers if need be. Ms. Eberhardt said she could be of assistance to post signs along with Mr. Campbell. Mr. Briselden said that flagging and barriers would suffice for notification. Ms. Murphy also suggested sawhorses. Ms. Murphy drafted up a closure sign for the trails and notification on the town website with a map of locations.

ii. Sign estimate

c. Outreach

i. Bobcat Hunting Legislation

Ms. Raub said that they had received a letter from Stoddard Conservation Commission about the proposed bobcat hunting legislation. Mr. Campbell said that he thinks the legislation is premature. Ms. Eberhardt said she had read that there will be an estimated population increase of 70 bobcats. And there is some room to trap.

Mr. Clement asked if there might be a lottery. Ms. Eberhardt said she was not positive. Mr. Briselden said that the action is to support the draft letter from Stoddard. Ms. Eberhardt asked if this was within the Commission purview. Ms. Murphy said that there is precedence for joining with other conservation commissions. Ms. Murphy said the options are to not sign off in opposition, to sign individually or to sign as a Commission.

Mr. Campbell asked if there have been evidence of bobcats in this area. Ms. Murphy said that they put out trap cameras in conjunction with UNH and haven't seen evidence of bobcats. Ms. Murphy said that the legislation going before the State in the coming months. Ms. Raub didn't feel the board has enough information to decide. Ms. Eberhardt suggested letting people make their own decision on signing the petition. Mr. Campbell asked what further information was needed to make a decision. Discussion ensued about what information is available on bobcat population numbers. Ms. Eberhardt said that the anticipated number of additional bobcats is 70. Mr. Briselden said that the letter stated 1,100 bobcats.

Mr. Clement also said he does not know enough about this to sign the petition as a Commission. Ms. Eberhardt suggested for the Commission to not sign if there is no consensus. Mr. Briselden and Ms. Raub agreed. Ms. Raub said seeing no consensus that individuals sign the letter on their own.

ii. Soak NH Spring Rain Garden Installation

Ms. Murphy said that Mr. Richardson, Ms. Raub and Ms. Murphy had met with Soak NH to look at properties for a rain garden installation project. They chose Marshall Farms as a site for a rain

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garden. Ms. Murphy said she did not think that the Commission has enough funds to help finance a rain garden but as a Commission reach out to the West Side Drive neighborhood. Soak NH would help with the installation but they want locals to reach out to homeowners.

Ms. Murphy suggested looking at Cockly road in Portsmouth to see examples of smaller rain gardens that would fit into similar neighborhoods in Exeter. She suggested once they find an interested homeowner to have an event showcasing the rain garden.

6. Treasurer's Report

Ms. Raub reported that the 2015 budget is \$10, 057 dollars. Funds approved for expenditure by November 30, 2015: \$1023,53.

Final Total: \$1,332.00

Cash on hand: \$ 3,012.27

Ms. Raub said she will try and resolve the discrepancy with the finance department.

Mr. Campbell motioned to approve the budget, second by Mr. Campbell. VOTE: Unanimous

7. Minutes from December 8, 2015, Site Walk from December 15, 2015, Minutes from December 15, 2015

Mr. Campbell motioned to accept the site walk minutes, second by Mr. Briselden. VOTE: 5 Yays : 1 Abstention

Mr. Campbell motioned to accept the minutes from December 15, 2015 second by Mr. Briselden. VOTE: Unanimous

Mr. Campbell motioned to accept the minutes from December 8, 2015, second by Ms. Raub. VOTE: Unanimous

8. Other Business

Ms. Raub asked if there will be a snowshoe event at Raynes given the full moon is on February 22. Mr. Campbell suggested Sunday February 21st. Mr. Briselden suggested settling on the 21st and talking about it at the next meeting.

Mr. Briselden commented that they should reach out to the Police Department and Public Works on the logging operation. Ms. Murphy said from the special meeting held, the goal is to do both harvest areas at one time to

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make use of time. They will have to pay out of town funds which are why the budget is so tight.

*Mr. Campbell moved to adjourn second by Mr. Richardson. **VOTE:** Unanimous.*

The meeting was adjourned at 8:50 pm.

Ms. Raub said the chamber will not hold their fall festival. She suggested the Conservation Commission organizing a fall festival in coordination with the Recreation department.

The meeting was adjourned at 8:50 pm.

9. Next meeting: February 9, 2016

Respectfully Submitted,

Sarah McGraw