

ALTERATION OF TERRAIN PERMIT AoT-2464 AMENDMENT REQUEST



GRANITE ENGINEERING

civil engineering ● land planning ● municipal services

AMOSKEAG BEVERAGES

Map 88 Lot Block Z Lot 3 (Concord)

Map 16 Block 1 Lot 65 & 67 (Bow)

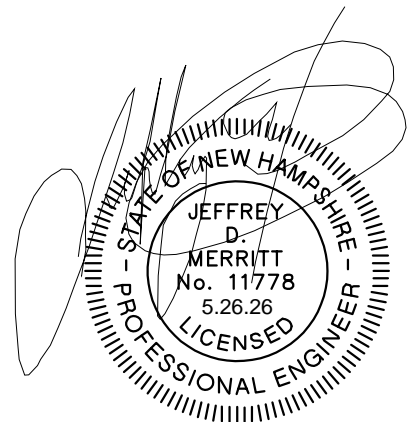
510 Hall Street

Bow, New Hampshire

April 23, 2026

PREPARED FOR:
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304

PREPARED BY:
GRANITE ENGINEERING, LLC
150 DOW ST, TOWER 2, STE 421
MANCHESTER, NH 03101
603.518.8030



GE Project No. 26-0218-5

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1. AOT PERMIT AMENDMENT REQUEST



ALTERATION OF TERRAIN PERMIT AMENDMENT REQUEST

Water Division / Land Resources Management Program /
Alteration of Terrain Bureau



[Check the status of your application.](#)

RSA/Rule: RSA 485-A:17 / Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	Permit Number:
			Check No.
			Amount:
			Initials:

1. TYPE OF AMENDMENT REQUESTED. *Select one or more and applicable fee.*

<input type="checkbox"/> Permit transfer <i>[complete Part A]</i>	<input type="checkbox"/> \$0
<input type="checkbox"/> Time extension <i>[complete Part B]</i>	<input type="checkbox"/> \$0
<input type="checkbox"/> Modify approved project <i>[complete Part C]</i>	<input type="checkbox"/> \$500

2. CURRENT PERMIT INFORMATION. *Please note that expired permits cannot be extended.*

Permit number:	Current expiration date:
Current permit holder name:	Contact name:
Project name:	
Project town or city:	
Name of NHDES signatory:	

3. REQUESTOR'S INFORMATION. *Check box if the requestor is the permittee or the permittee's agent*

Requestor's name and title:	
Name of company, if applicable:	
Requestor's email:	Requestor's daytime phone:

PART A - COMPLETE THIS SECTION TO REQUEST A PERMIT TRANSFER

A1. Transferee information

Name <i>(desired permit holder, which may be an individual or an entity such as a business or trust):</i>	
If the desired permit holder is an entity (such as a business or trust), contact name:	
Mailing address:	
Daytime telephone number:	Email:

aot@des.nh.gov or (603) 271-2147
PO Box 95, Concord, NH 03302-0095
des.nh.gov

Is the applicant also the owner of the property on which the project will occur? Yes No

If the applicant is not also the owner, attach proof that the applicant will have a legal right to undertake the project on the property if a permit is issued to the applicant.

A2. Transferee signature and certification

By signing below, I certify that:

- I have received a copy of the permit and all approved plans and specifications.
- I agree to comply with RSA 485-A:17, Env-Wq 1500, the permit, and all conditions contained in the permit, including the requirement for on-going inspection and maintenance of the stormwater management system(s).
- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief.
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer.

Transferee signature:

Print name legibly:

Date:

A3. Transferor signature and certification

By signing below, I certify that:

- I have provided a copy of the permit and all approved plans and specifications to the transferee.
- I am relinquishing all rights to the permit as originally issued.
- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief.
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer.

Transferor signature:

Print name legibly:

Date:

ATTACHMENT - REMINDER

If the applicant is not also the owner, attach proof that the applicant will have a legal right to undertake the project on the property if a permit is issued to the applicant.

PART B - COMPLETE THIS SECTION TO REQUEST A TIME EXTENSION

B1. Timing of request. *Any request submitted more than 90 days prior to the permit expiration date will be denied.*

Is this request being submitted not more than 90 days prior to the permit expiration date?

Yes No

B2. Activity to date

Has any terrain alteration occurred to date? *If so, attach the inspection report required by Env-Wq 1503.27(a)*

Yes No

B3. Other changes

<p>Have any deviations from the approved project occurred or are any anticipated? If yes, please indicate whether the deviations are “insignificant” per Env-Wq 1503.21(b), “minor” per Env-Wq 1503.21(c), or “significant” per Env-Wq 1503.21(d).</p> <ul style="list-style-type: none"> Insignificant deviations must be identified upon completion of construction. Minor deviations require submission of a permit amendment request (see Part C of this application). Significant deviations require a new permit prior to implementation. 	<input type="checkbox"/> No changes <input type="checkbox"/> Yes, insignificant changes <input type="checkbox"/> Yes, minor changes <input type="checkbox"/> Yes, significant changes
--	--

B4. Basis for request *Why is an extension being requested?*

B5. Permit holder signature

By signing below, I certify that:

- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief; and
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer;

Permit holder Permit holder’s agent

Signature:	Date:
-------------------	--------------

Name (print or type):	Title:
------------------------------	---------------

ATTACHMENT - REMINDER

If any terrain alteration occurred to date, attach the inspection report.

PART C - COMPLETE THIS SECTION TO REQUEST A CHANGE TO THE APPROVED PLAN OR PROJECT

C1. Type and extent of proposed changes

Are the proposed deviations “minor” per Env-Wq 1503.22(c)? If not, the changes do not qualify for an amendment.
 Yes No

Area of disturbance associated with proposed changes, in square feet:

Revised total area of disturbance for the project, in square feet:

Are revised calculations needed? *If so, attach the revised calculations.* Yes No

Is the area proposed to be disturbed outside the area allowed to be disturbed under the original permit? *If so, attach a DataCheck Tool report for the area proposed to be disturbed.* Yes No

C2. Revisions to plan sheets. *Attach the identified revised plan sheets with changes highlighted.*

Identify which plan sheets reflect the proposed changes:

Briefly summarize the plan changes (*do not* attach a separate page):

C3. Submission requirements. (*Attach proof of delivery.*)

Specify the date documents were submitted to the municipality, per Env-Wq 1503.23(a)(3): April 23, 2026

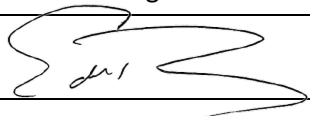
If the project is within one-quarter mile of a designated river corridor, specify the date documents were submitted to the local river management advisory committee (LAC), per Env-Wq 1503.23(a)(2): April 23, 2026

C4. Permit holder signature

By signing below, I certify that:

- The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief.
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer.

Permit holder Permit holder's agent

Signature: 

Date:

Name (print or type):

Title:

ATTACHMENT - REMINDER

- If the revised area of disturbance is outside the area allowed to be disturbed under the original permit, attach a DataCheck Tool report for the area proposed to be disturbed.
- Proof that a copy of the application has been submitted to the municipality.
- If the project is within one-quarter mile of a designated river, attach proof that a copy of the application has been submitted to the LAC.
- Attach revised plans with changes highlighted.
- Attach revised calculations, if applicable.

2. COPY OF PERMIT AMENDMENT REQUEST CHECK

3. MUNICIPAL SUBMISSION PROOF

LETTER OF TRANSMITTAL



GRANITE ENGINEERING, LLC
150 Dow Street
Suite 421
Manchester, NH 03101

Date: April 23, 2026

Subject: 510 Hall Street

To: Town of Bow
10 Grandview Road
Bow, NH 03304

Attention: Planning Board

We are transmitting the following items:

Included:	Quantity:	Description:
<input type="checkbox"/>		Response Letter
<input checked="" type="checkbox"/>		Site Plan Application
<input type="checkbox"/>		Subdivision Application
<input type="checkbox"/>		Final Site Plan
<input type="checkbox"/>		Subdivision Plan
<input type="checkbox"/>		Variance Plans
<input type="checkbox"/>		Special Provisions
<input type="checkbox"/>		Stormwater Report
<input type="checkbox"/>		Red/Yellow Calculations
<input type="checkbox"/>		State Applications: <input type="checkbox"/> AOT <input type="checkbox"/> Wetlands <input type="checkbox"/> Sewer <input type="checkbox"/> Driveway <input type="checkbox"/> Shoreland
<input checked="" type="checkbox"/>		Other: NHDES AoT Permit Amendment

Transmitted as checked below:

- For review For approval For your use As requested
 ZBA Submittal PB Submittal BOA Submittal Conservation Commission

Physical copy of full-size site plan set – application and plans submitted online via CouldPermit

Copy to: _____ Signed: 

LETTER OF TRANSMITTAL



GRANITE ENGINEERING, LLC
150 Dow Street
Suite 421
Manchester, NH 03101

Date: April 23, 2026

Subject: Amoskeag Beverages

To: City of Concord
Planning Board
41 Green Street, 3rd Floor
Concord, New Hampshire 03301

Attention: Chairman Woodfin

We are transmitting the following items:

Included:	Quantity:	Description:
<input type="checkbox"/>		Response Letter
<input type="checkbox"/>		Application
<input type="checkbox"/>		Application Fee
<input type="checkbox"/>		Signed Final Plans
<input type="checkbox"/>		Architectural Plans
<input type="checkbox"/>		Subdivision Application
<input type="checkbox"/>		Conceptual Subdivision Plan
<input type="checkbox"/>		Stormwater Report
<input type="checkbox"/>		Traffic Report
<input type="checkbox"/>		State Applications: <input checked="" type="checkbox"/> AOT <input type="checkbox"/> Wetlands <input type="checkbox"/> Sewer <input type="checkbox"/> Driveway <input type="checkbox"/> Shoreland
<input type="checkbox"/>		CD
<input checked="" type="checkbox"/>	1	Other: NHDES AoT Permit Amendment

Transmitted as checked below:

- For review For approval For your use As requested
 ZBA Submittal PB Submittal BOA Submittal Conservation Commission

Copy to: _____ Signed: 

**4. LOCAL RIVER MANAGEMENT ADVISORY COMMITTEE
(LAC) SUBMISSION PROOF**



GRANITE ENGINEERING, LLC

civil engineering • land planning • municipal services

April 23, 2026

Upper Merrimack River Local Advisory Committee
PO Box 3019
Penacook, NH 03303

RE: UMRAC Transmittal – Amoskeag Beverages
Tax Map 16, Block 1, Lots 65 & 67 (Bow)
Tax Map 88, Block Z, Lot 3 (Concord)
510 Hall Street
Bow, NH 03304
GE Project No. 26-0218-5

Dear Chair Tremblay,

Amoskeag Beverages, Inc. presently holds NHDES AoT Permit No. AoT-2464 for modifications made at its facility located at 510 Hall Street. The applicant now proposes to add a new 2,375-sf covered storage area to its main building located on Tax Map 16 Block 1 Lots 65 & 67 in the Town of Bow. The proposed project is designed to improve needed storage to the business. The applicant is in the process of amending the permit.

A new area drain will be used to collect the drainage from the closed storage area roof and from around the new storage area. This area drain is proposed to be connected into the permitted and recently constructed closed drainage system. The drainage from this area-drain will ultimately drain to the permitted wet stormwater pond for treatment.

This project proposes no work within the 250' protected shoreland buffer to the Merrimack River. The subject property is located on the west side of Hall Street with the river located on the east side. All proposed work will be constructed in accordance with local and state regulations.

We trust you will find the NHDES AoT Permit Amendment Application and its attachments complete and ready for the Commission's consideration. Should you have any questions or require further information, please do not hesitate to contact me directly.

Best Regards,

Jonathan Christie
Project Manager



May 26, 2026

Upper Merrimack River Local Advisory Committee
PO Box 3019
Penacook, NH 03303

RE: UMLAC Transmittal – Amoskeag Beverages
Tax Map 88, Block Z, Lots 3 & 4
510 Hall Street
Bow, NH 03304
GE Project No. 26-0218-5

Dear Chair Tremblay,

In response to the Committee's review letter dated May 18, 2026, we are resubmitting a revised AoT Amendment package addressing the comments on the original submittal. A response to those comments is outlined below:

1. The UMLAC noted that there are no page numbers included with the Section 5. PROJECT NARRATIVE portion of the application package and that complicated the review by individual UMLAC members and hindered the group review at our monthly meeting.

Section 5: PROJECT NARRATIVE has been updated to include references to specific plans/exhibits from Section 9. Additional, a plan number has been added to the top left corner of each sheet in Section 9 to make it easier to identify plans.

2. The UMLAC questions whether the proposed seeds or seed mixes mentioned in the application package will be coated with neonicotinoids. If so, are there other sources of seed mix that would lack that coating and be more appropriate within the designated river corridor?

A specification has been added to the Grading Plan (Sheet 6 of 12 / Page B7 of Section 9) for grass matching the recommendations from the original approved AoT Permit #2464. The plan calls for installation of Pearl's Premium Grass which is organic and does not contain neonicotinoids.

3. Not all pages received in hard copy plan set are found in the PDF. UMLAC reviewers could not refer to pages referenced in the narrative since those pages were not found within the PDF.

Section 9 has been updated to include the entire Site Plan set for the proposed improvements covered by this amendment.

4. The UMLAC noted that "CLF" does not appear in the legend. This would be helpful during review for those familiar with this particular acronym.

The note regarding relocation of "CLF" has been revised to use "chain link fence" on the Removals Plan (Sheet 4 of 12 / Page B5 of Section 9). The legend includes linetypes for "chain link fence" and "items to be removed" that match the plan view.

We trust these responses and plan revisions will satisfactorily address the Committee's comments.. Should you have any questions or require further information, please do not hesitate to contact me directly.

Best Regards,



Jonathan Christie
Project Manager

5. PROJECT NARRATIVE

I. INTRODUCTION

A. Project Description

Amoskeag Beverages, Inc. presently holds NHDES AoT Permit No. AoT2464 for modifications made at its facility located at 510 Hall Street. It currently proposes adding a new covered storage area to its main building located on Tax Map 16 Block 1 Lots 65 & 67 located in the Town of Bow and wishes to amend that permit (see excerpted Plans A1-A5 in Section 9).

The proposed project is designed to improve needed storage to the business. The Applicant proposes the construction of a 2,375-sf covered storage (see Plans B1-B13 in Section 9).

A new area drain will be used to collect the drainage from the closed storage area roof and from around the new storage area. This area drain is proposed to be connected into the permitted and recently constructed closed drainage system. The drainage from this area-drain will drain ultimately to the permitted wet stormwater pond.

In addition to local site plan approval from the Town of Bow, this project requires NHDES approval for an amendment to NHDES Permit Number AoT-2464.

II. STORM DRAINAGE ANALYSIS & DESIGN

A. Pre-Development Drainage Conditions

The Pre-development Drainage Analysis remains the same as was approved under Permit number AoT-2464.

B. Post-Development Drainage Conditions:

The same POA's (A&B) from the Pre-Development scenario were used in the revised Post-Development analysis. Flows to POAA have only changed.

The only modifications made to the Post-Development modeling included the addition of the Covered Storage (increase in imperviousness), three (3) new area-drains (AD#1-1, AD#1-2, and AD#1-3), and a slightly modified OS#1/Outlet Structure for Wet Pond#1. As part of this, a new Subcatchment 6-4S was created, which is merely made up of parts of previously modeled Subcatchments 4S and 6S and the proposed Covered Storage. Subcatchments 4S and 6S were modified accordingly (see Exhibits C1 and D1 in Section 9). This only affected the Wet Stormwater Pond (WP1) Node and

POA A. See attached revised HydroCAD Post-Development HydroCAD Analysis.

As presented below, it has been verified that, with a slightly OS#1/Outlet Structure for Wet Pond#1, the wet pond is still sized/designed properly according to the requirements of Env-Wq 1508.03, including a permanent pool plus extended storage providing a minimum volume of WQV of 37,893 CF. It has also been verified that the sediment forebay for the system (pretreatment) still provides the required amount of volume.

Per Env-Wq 1508.03 wet extended detention ponds shall comply with the following (Note: items that were modified for the proposed Covered Storage addressed only):

- (a) Pretreatment as described in Env-Wq 1508.12 through Env-Wq 1508.16 shall be provided if stormwater, other than roof runoff, will be discharged to the practice;

The same permitted forebay is being utilized for pre-treatment and remains unchanged. The volume of the permitted forebay is large enough to accommodate 10% of the revised WQV. See attached revised Stormwater Pond Design Criteria NHDES Worksheet.

- (b) Stormwater ponds shall have a permanent pool, or combination of permanent pool and extended detention, greater than or equal to the WQV;

The wet (extended detention) pond itself has not been modified. The permanent pool and extended detention provide the required WQV. The OS#1/Outlet Structure for Wet Pond#1 has been slightly modified. The modifications to the OS#1/Outlet Structure include shrinking the extended detention orifice from 3.5-inches to 2-inches to achieve a minimum extended detention draw down time of 24-hours and adding a flow control orifice to maintain the required peak runoff rates at POA A. See attached revised Stormwater Pond Design Criteria NHDES Worksheet.

- (c) If extended detention is provided, then;
 - (1) The extended detention volume shall:
 - a. Not comprise more than 50% of the WQV; and

WQV Required = 37,893 CF
Permanent Pool Volume = 36,399 CF
Extended Detention Volume = 1,494 CF (4% of WQV) ok
See attached revised Stormwater Pond Design Criteria
NHDES Worksheet.

- b. Have a minimum 24-hour drawdown; and

Drawdown time of Extended Detention Volume provided for
WQV = 27.67 hours > 24-hours. See attached revised
Stormwater Pond Design Criteria NHDES Worksheet.

- (2) The outlet shall discharge at a maximum flow rate of twice the
average flow rate, where the average flow rate is calculated as the
extended detention volume divided by 24 hours

$$2Q_{avg} = 0.03 \text{ cfs}$$

$$Q_{max} = 0.03 \text{ cfs} \leq 2Q_{avg} \text{ ok}$$

See attached revised Stormwater Pond Design Criteria NHDES
Worksheet.

In addition, the peak stormwater runoff rate and total storm volume for the
specific storm frequencies are presented the Section II.C below, for point of
analysis A (changed) and B (unchanged) in Table 1 & 2.

C. Summary:

With the proposed new Covered Storage, the subject site complies with the
City of Concord and Town of Bow Stormwater Regulations and NHDES
Regulations Env-Wq 1500 regarding stormwater treatment and groundwater
recharge volume. Proposed stormwater best management practices (BMP)
are designed in accordance with the New Hampshire Stormwater Manual
Volume 2: Post-Construction Best Management
Practices Selection and Design and BMP worksheets provided by the New
Hampshire Department of Environmental Services. The results of the revised
HydroCAD model conclude that the development of this property will not
generate post-development peak rates of stormwater discharge exceeding
pre-development rates.

The updated results are reported below in Table 1 and 2.

CHANNEL PROTECTION REQUIREMENTS (ENV-WQ 1507.05)

Per Env-Wq 1507.05, the Channel Protection Requirements below are met:

The combined flow to a channel, downstream receiving water, or wetland from the project site meets the following criteria (just one required to be met):

- The 2-year, 24-hour post-development peak flow rate generated from the proposed disturbance shall be equal to or less than the 2-year, 24-hour pre-development peak flow rate and the 2 year, 24-hour post-development storm volume, directed to a channel, downstream receiving water, or wetland has not increased over the pre-development volume by more than 0.1 acre-feet

POAA QPRE = 2.67cfs

PAO A QPOST = 1.25cfs OK

POAA VolPRE = 1.512 acre-feet

POAA VolPOST = 0.931 acre-feet OK

- The 2-year, 24-hour post-development peak flow rate shall be less than or equal to 50% of the 2-year, 24-hour pre-development peak flow rate

POAA QPRE = 2.67cfs

POAA 50%QPRE = 1.34 cfs

PAO A QPOST = 1.25cfs < POAA 50%QPRE OK

TABLE 1: PEAK Storm Volumes

Site Pre Development vs. Post Development (Storm Volume in acre-feet)				
Description	2-Year		10-Year	
24-hr Rainfall	2.82"		4.16"	
	Pre	Post	Pre	Post
A	1.512	0.931	2.634	2.071
B	0.107	0.106	0.214	0.213
Total	1.619	1.037	2.848	2.284

TABLE 2: PEAK RUNOFF (ENV-WQ 1507.06)

Site Pre Development vs. Post Development (Peak Discharge Rate in cfs)										
Description	2-Year		10-Year		25-Year		50-Year		100-Year	
24-hr Rainfall	2.82"		4.16"		5.20"		6.15"		7.29"	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
A	2.67	1.25	6.84	6.47	12.96	9.03	23.14	17.54	34.72	34.54
B	1.42	1.42	2.95	2.93	4.24	4.20	5.44	5.38	6.91	6.83

III. MINOR PLAN/DESIGN DEVIATION (Env-Wq 1503.22(c)) VERIFICATION

- (1) The project as modified will comply with Env-Wq 1507.02 relative to permanent methods of protecting water quality;

Required items that were effected in Env-Wq 1507.02(a) are addressed below. Env-Wq 1507.02 (b) through (g) remain unchanged as originally permitted under Permit No. AoT-2464)

- (a) Permanent methods for protecting water quality, including all stormwater management practices, shall be designed to:

- (1) Minimize the discharge of pollutants in accordance with EnvWq 1507.03;

The outlet structure of the Wet Pond was modified slightly to accommodate the added pollutant loading from the addition of the proposed Covered Storage is addressed in Section II.B above.

- (2) Recharge groundwater in accordance with Env-Wq 1507.04;

Groundwater recharge is still satisfied. See attached revised NHDES Groundwater Recharge Volume (GRV) Calculation worksheet.

- (3) Protect channels in accordance with Env-Wq 1507.05;

Channel Protection is still achieved. See Section II.C above for explanation.

- (4) Control peak runoff rates in accordance with Env-Wq 1507.06; and

Control of peak runoff rates is still achieved. See Section II.C above for explanation.

- (5) Implement long term maintenance practices in accordance with Env-Wq 1507.07.

No new maintenance beyond what is already addressed in the Stormwater Management Operation and Maintenance (O&M) Manual as originally permitted under Permit No. AoT-2464.

- (2) The modifications have not and will not result in any changes to wetlands or protected shoreland impacts and will not decrease any buffers required by law or established by a permit or other approval, unless a permit that specifically allows the impacts has been obtained pursuant to RSA 482-A or RSA 483-B, respectively;

Any proposed modifications have not and will not result in any changes to wetlands or protected shoreland impacts and will not decrease any buffers required by law or established by a permit or other approval.

- (3) The proposed disturbance, exclusive of any disturbance associated with (6) through (9), below, is not more than 40,000 square feet outside the area of disturbance originally approved;

There is no proposed disturbance outside the originally approved area of disturbance permitted under NHDES AoT Permit No. AoT-2464.

- (4) The total impervious area has not increased from the project as originally approved by more than the smaller of 10% or 10,000 squarefeet;

Approved total final impervious area per NHDES AoT Permit No. AoT-2464 = 483,037 square feet x 10% = 48,303 square-feet

Proposed new impervious area for Amended Permit Request = 2,375 square-feet < 10,000 square-feet < 48,303 square-feet **OK**

- (5) A change is made to a stormwater management system but:
- a. The change does not add more than one stormwater treatment practice, stormwater conveyance, or groundwater recharge practice; and

No new stormwater treatment practice, stormwater conveyance, or groundwater recharge practice is being added to the site.

- b. The peak inflow rate to any component of the existing stormwater management system has not increased from that as originally approved by more than 1 cubic foot per second during the 2-year 24-hour storm;

The peak inflow rate to any component of the existing stormwater management system has not increased from that as originally approved by more than 1 cubic foot per second during the 2-year 24-hour storm.

- (6) If the roadway centerline has been relocated, it is no more than 100 feet from the center line of the roadway as originally approved;

Not Applicable

- (7) If the center point of a parking area has been relocated, it is no more than 100 feet from the center point of the parking area as originally approved;

Not Applicable

- (8) If the center point of a structure has been relocated, it is no more than 100 feet from the center point of the structure location as originally approved; and

Not Applicable

- (9) For excavation, grading, and reclamation plans, the footprint originally approved is not expanded more than 50 feet in any direction.

Not Applicable

6. REVISED GRV CALCULATION

7. REVISED BMP WORKSHEET



STORMWATER POND DESIGN CRITERIA

Env-Wq 1508.03

Type/Node Name: **Wet Pond #1 - WP**

Enter the type of stormwater pond (e.g., Wet Pond) and the node name in the drainage analysis, if applicable.

14.47	ac	A = Area draining to the practice	
10.80	ac	A _i = Impervious area draining to the practice	
0.75	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.72	unitless	R _v = Runoff coefficient = 0.05 + (0.9 x I)	
10.44	ac-in	WQV = 1" x R _v x A	
37,893	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
3,789	cf	10% x WQV (check calc for sediment forebay and micropool volume)	
18,947	cf	50% x WQV (check calc for extended detention volume)	
7,893	cf	V _{SED} = Sediment forebay volume	≥ 10%WQV
36,399	cf	V _{PP} = Permanent pool volume (volume below the lowest invert of the outlet structure) Attach stage-storage table.	
yes	cf	Extended Detention? ¹	≤ 50% WQV
1,494		V _{ED} = Volume of extended detention (if "yes" is given in box above)	
224.77		E _{ED} = Elevation of WQV if "yes" is given in box above ²	
0.03	cfs	2Q _{avg} = 2 * V _{ED} / 24 hrs * (1hr / 3600 sec) (used to check against Q _{EDmax} below)	
0.03	cfs	Q _{EDmax} = Discharge at the E _{ED} (attach stage-discharge table)	< 2Q _{avg}
27.67	hours	T _{ED} = Drawdown time of extended detention = 2V _{ED} /Q _{EDmax}	≥ 24-hrs
3.00	:1	Pond side slopes	≥ 3:1
225.74	ft	Elevation of seasonal high water table	
224.60	ft	Elevation of lowest pond outlet	
220.74	ft	Max floor = Maximum elevation of pond bottom (ft)	
216.60	ft	Minimum floor (to maintain depth at less than 8')	≤ 8 ft
216.60	ft	Elevation of pond floor ³	≤ Max floor and > Min floor
211.00	ft	Length of the flow path between the inlet and outlet at mid-depth	
69.00	ft	Average width ([average of the top width + average bottom width]/2)	
3.06	:1	Length to average width ratio	≥ 3:1
Yes	Yes/No	Is the perimeter curvilinear.	← Yes
Yes	Yes/No	Are the inlet and outlet located as far apart as possible.	← Yes
No	Yes/No	Is there a manually-controlled drain to dewater the pond over a 24hr period?	
If no state why: Adjacent wetland for discharge is too high for the bottom of the pond to drain. Pump instead.			
Trash Rack	What mechanism is proposed to prevent the outlet structure from clogging (applicable for orifices/weirs with a dimension of <6")?		
229.30	ft	Peak elevation of the 50-year storm event	
230.00	ft	Berm elevation of the pond	
YES	50 peak elevation ≤ the berm elevation?		←yes

1. If the entire WQV is stored in the perm. pool, there is no extended det., and the following five lines do not apply.
2. This is the elevation of WQV if the hydrologic analysis is set up to include the permanent pool storage in the node description.
3. If the pond floor elevation is above the max floor elev., a hydrologic budget must be submitted to demonstrate that a minimum depth of 3 feet can be maintained. (First check whether a revised "lowest pond outlet" elev. will resolve the issue.)

Designer's Notes:

Includes treated stormwater from infiltration practice. We considered the treated stormwater as pervious, not impervious.

Stage-Area-Storage for Pond WP1: PROP. WET POND #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
216.60	1,719	0	217.64	2,304	2,085
216.62	1,729	34	217.66	2,317	2,131
216.64	1,740	69	217.68	2,329	2,177
216.66	1,750	104	217.70	2,341	2,224
216.68	1,761	139	217.72	2,353	2,271
216.70	1,772	175	217.74	2,365	2,318
216.72	1,782	210	217.76	2,377	2,366
216.74	1,793	246	217.78	2,390	2,413
216.76	1,803	282	217.80	2,402	2,461
216.78	1,814	318	217.82	2,414	2,509
216.80	1,825	354	217.84	2,427	2,558
216.82	1,836	391	217.86	2,439	2,606
216.84	1,846	428	217.88	2,452	2,655
216.86	1,857	465	217.90	2,464	2,705
216.88	1,868	502	217.92	2,477	2,754
216.90	1,879	540	217.94	2,489	2,804
216.92	1,890	577	217.96	2,502	2,854
216.94	1,901	615	217.98	2,514	2,904
216.96	1,912	653	218.00	2,527	2,954
216.98	1,923	692	218.02	2,539	3,005
217.00	1,934	730	218.04	2,552	3,056
217.02	1,945	769	218.06	2,564	3,107
217.04	1,956	808	218.08	2,577	3,158
217.06	1,967	847	218.10	2,589	3,210
217.08	1,979	887	218.12	2,602	3,262
217.10	1,990	926	218.14	2,614	3,314
217.12	2,001	966	218.16	2,627	3,366
217.14	2,012	1,006	218.18	2,640	3,419
217.16	2,024	1,047	218.20	2,652	3,472
217.18	2,035	1,087	218.22	2,665	3,525
217.20	2,046	1,128	218.24	2,678	3,579
217.22	2,058	1,169	218.26	2,691	3,632
217.24	2,069	1,210	218.28	2,703	3,686
217.26	2,081	1,252	218.30	2,716	3,740
217.28	2,092	1,294	218.32	2,729	3,795
217.30	2,104	1,336	218.34	2,742	3,850
217.32	2,115	1,378	218.36	2,755	3,905
217.34	2,127	1,420	218.38	2,768	3,960
217.36	2,138	1,463	218.40	2,781	4,015
217.38	2,150	1,506	218.42	2,794	4,071
217.40	2,162	1,549	218.44	2,807	4,127
217.42	2,173	1,592	218.46	2,820	4,183
217.44	2,185	1,636	218.48	2,833	4,240
217.46	2,197	1,680	218.50	2,846	4,297
217.48	2,209	1,724	218.52	2,859	4,354
217.50	2,221	1,768	218.54	2,872	4,411
217.52	2,232	1,813	218.56	2,886	4,469
217.54	2,244	1,857	218.58	2,899	4,526
217.56	2,256	1,902	218.60	2,912	4,584
217.58	2,268	1,948	218.62	2,925	4,643
217.60	2,280	1,993	218.64	2,939	4,701
217.62	2,292	2,039	218.66	2,952	4,760

Stage-Area-Storage for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
218.68	2,966	4,820	219.72	3,704	8,281
218.70	2,979	4,879	219.74	3,719	8,355
218.72	2,992	4,939	219.76	3,734	8,429
218.74	3,006	4,999	219.78	3,749	8,504
218.76	3,019	5,059	219.80	3,764	8,579
218.78	3,033	5,120	219.82	3,779	8,655
218.80	3,047	5,180	219.84	3,795	8,731
218.82	3,060	5,241	219.86	3,810	8,807
218.84	3,074	5,303	219.88	3,825	8,883
218.86	3,088	5,364	219.90	3,840	8,960
218.88	3,101	5,426	219.92	3,856	9,037
218.90	3,115	5,488	219.94	3,871	9,114
218.92	3,129	5,551	219.96	3,886	9,191
218.94	3,143	5,614	219.98	3,902	9,269
218.96	3,156	5,677	220.00	3,917	9,348
218.98	3,170	5,740	220.02	3,932	9,426
219.00	3,184	5,803	220.04	3,947	9,505
219.02	3,198	5,867	220.06	3,963	9,584
219.04	3,212	5,931	220.08	3,978	9,663
219.06	3,226	5,996	220.10	3,993	9,743
219.08	3,240	6,060	220.12	4,008	9,823
219.10	3,254	6,125	220.14	4,024	9,903
219.12	3,268	6,190	220.16	4,039	9,984
219.14	3,282	6,256	220.18	4,054	10,065
219.16	3,296	6,322	220.20	4,070	10,146
219.18	3,310	6,388	220.22	4,085	10,228
219.20	3,325	6,454	220.24	4,101	10,310
219.22	3,339	6,521	220.26	4,116	10,392
219.24	3,353	6,588	220.28	4,132	10,474
219.26	3,367	6,655	220.30	4,147	10,557
219.28	3,382	6,722	220.32	4,163	10,640
219.30	3,396	6,790	220.34	4,179	10,724
219.32	3,410	6,858	220.36	4,194	10,807
219.34	3,425	6,927	220.38	4,210	10,891
219.36	3,439	6,995	220.40	4,226	10,976
219.38	3,454	7,064	220.42	4,241	11,060
219.40	3,468	7,133	220.44	4,257	11,145
219.42	3,483	7,203	220.46	4,273	11,231
219.44	3,497	7,273	220.48	4,289	11,316
219.46	3,512	7,343	220.50	4,305	11,402
219.48	3,526	7,413	220.52	4,320	11,488
219.50	3,541	7,484	220.54	4,336	11,575
219.52	3,556	7,555	220.56	4,352	11,662
219.54	3,570	7,626	220.58	4,368	11,749
219.56	3,585	7,698	220.60	4,384	11,837
219.58	3,600	7,769	220.62	4,400	11,924
219.60	3,615	7,842	220.64	4,416	12,013
219.62	3,630	7,914	220.66	4,432	12,101
219.64	3,644	7,987	220.68	4,449	12,190
219.66	3,659	8,060	220.70	4,465	12,279
219.68	3,674	8,133	220.72	4,481	12,369
219.70	3,689	8,207	220.74	4,497	12,458

POST-DEVELOPMENT REV - 3-26-26 Modified AoT ModType III 24-hr 50-YR Rainfall=6.15"

Prepared by Granite Engineering, LLC

Printed 3/27/2026

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Stage-Area-Storage for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
220.76	4,513	12,548	221.80	5,398	17,695
220.78	4,530	12,639	221.82	5,416	17,803
220.80	4,546	12,730	221.84	5,433	17,912
220.82	4,562	12,821	221.86	5,451	18,021
220.84	4,579	12,912	221.88	5,469	18,130
220.86	4,595	13,004	221.90	5,487	18,240
220.88	4,611	13,096	221.92	5,505	18,350
220.90	4,628	13,188	221.94	5,523	18,460
220.92	4,644	13,281	221.96	5,541	18,570
220.94	4,661	13,374	221.98	5,559	18,681
220.96	4,677	13,467	222.00	5,577	18,793
220.98	4,694	13,561	222.02	5,594	18,904
221.00	4,710	13,655	222.04	5,612	19,017
221.02	4,727	13,750	222.06	5,629	19,129
221.04	4,744	13,844	222.08	5,646	19,242
221.06	4,760	13,939	222.10	5,664	19,355
221.08	4,777	14,035	222.12	5,681	19,468
221.10	4,794	14,130	222.14	5,699	19,582
221.12	4,811	14,226	222.16	5,716	19,696
221.14	4,827	14,323	222.18	5,734	19,811
221.16	4,844	14,419	222.20	5,751	19,926
221.18	4,861	14,517	222.22	5,769	20,041
221.20	4,878	14,614	222.24	5,786	20,156
221.22	4,895	14,712	222.26	5,804	20,272
221.24	4,912	14,810	222.28	5,822	20,388
221.26	4,929	14,908	222.30	5,839	20,505
221.28	4,946	15,007	222.32	5,857	20,622
221.30	4,963	15,106	222.34	5,875	20,739
221.32	4,980	15,205	222.36	5,893	20,857
221.34	4,997	15,305	222.38	5,910	20,975
221.36	5,014	15,405	222.40	5,928	21,093
221.38	5,031	15,506	222.42	5,946	21,212
221.40	5,048	15,607	222.44	5,964	21,331
221.42	5,065	15,708	222.46	5,982	21,451
221.44	5,083	15,809	222.48	6,000	21,571
221.46	5,100	15,911	222.50	6,018	21,691
221.48	5,117	16,013	222.52	6,036	21,811
221.50	5,135	16,116	222.54	6,054	21,932
221.52	5,152	16,219	222.56	6,072	22,053
221.54	5,169	16,322	222.58	6,090	22,175
221.56	5,187	16,425	222.60	6,108	22,297
221.58	5,204	16,529	222.62	6,126	22,419
221.60	5,222	16,633	222.64	6,144	22,542
221.62	5,239	16,738	222.66	6,162	22,665
221.64	5,257	16,843	222.68	6,180	22,789
221.66	5,274	16,948	222.70	6,199	22,912
221.68	5,292	17,054	222.72	6,217	23,036
221.70	5,309	17,160	222.74	6,235	23,161
221.72	5,327	17,266	222.76	6,253	23,286
221.74	5,345	17,373	222.78	6,272	23,411
221.76	5,362	17,480	222.80	6,290	23,537
221.78	5,380	17,588	222.82	6,308	23,663

Stage-Area-Storage for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
222.84	6,327	23,789	223.88	7,321	30,879
222.86	6,345	23,916	223.90	7,340	31,026
222.88	6,364	24,043	223.92	7,360	31,173
222.90	6,382	24,170	223.94	7,380	31,321
222.92	6,401	24,298	223.96	7,400	31,468
222.94	6,419	24,426	223.98	7,420	31,617
222.96	6,438	24,555	224.00	7,440	31,765
222.98	6,456	24,684	224.02	7,459	31,914
223.00	6,475	24,813	224.04	7,477	32,063
223.02	6,494	24,943	224.06	7,496	32,213
223.04	6,512	25,073	224.08	7,515	32,363
223.06	6,531	25,203	224.10	7,533	32,514
223.08	6,550	25,334	224.12	7,552	32,665
223.10	6,568	25,465	224.14	7,571	32,816
223.12	6,587	25,597	224.16	7,590	32,967
223.14	6,606	25,729	224.18	7,608	33,119
223.16	6,625	25,861	224.20	7,627	33,272
223.18	6,644	25,994	224.22	7,646	33,425
223.20	6,663	26,127	224.24	7,665	33,578
223.22	6,682	26,260	224.26	7,684	33,731
223.24	6,700	26,394	224.28	7,703	33,885
223.26	6,719	26,528	224.30	7,722	34,039
223.28	6,738	26,663	224.32	7,741	34,194
223.30	6,757	26,798	224.34	7,760	34,349
223.32	6,777	26,933	224.36	7,779	34,504
223.34	6,796	27,069	224.38	7,798	34,660
223.36	6,815	27,205	224.40	7,817	34,816
223.38	6,834	27,342	224.42	7,836	34,973
223.40	6,853	27,478	224.44	7,855	35,130
223.42	6,872	27,616	224.46	7,874	35,287
223.44	6,891	27,753	224.48	7,894	35,445
223.46	6,911	27,891	224.50	7,913	35,603
223.48	6,930	28,030	224.52	7,932	35,761
223.50	6,949	28,169	224.54	7,951	35,920
223.52	6,968	28,308	224.56	7,970	36,079
223.54	6,988	28,447	224.58	7,990	36,239
223.56	7,007	28,587	224.60	8,009	36,399
223.58	7,027	28,728	224.62	8,233	36,561
223.60	7,046	28,868	224.64	8,460	36,728
223.62	7,065	29,009	224.66	8,690	36,900
223.64	7,085	29,151	224.68	8,923	37,076
223.66	7,104	29,293	224.70	9,159	37,257
223.68	7,124	29,435	224.72	9,398	37,442
223.70	7,143	29,578	224.74	9,641	37,632
223.72	7,163	29,721	224.76	9,886	37,828
223.74	7,183	29,864	224.78	10,135	38,028
223.76	7,202	30,008	224.80	10,386	38,233
223.78	7,222	30,152	224.82	10,641	38,443
223.80	7,242	30,297	224.84	10,899	38,659
223.82	7,261	30,442	224.86	11,160	38,879
223.84	7,281	30,587	224.88	11,424	39,105
223.86	7,301	30,733	224.90	11,691	39,336

Permanent Pool Top
Elevation 224.60

WQV/Extended
Detention Elevation
224.77

Stage-Area-Storage for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
224.92	11,961	39,573	225.96	30,261	60,805
224.94	12,234	39,815	225.98	30,694	61,415
224.96	12,511	40,062	226.00	31,131	62,033
224.98	12,790	40,315	226.02	31,177	62,656
225.00	13,072	40,574	226.04	31,222	63,280
225.02	13,358	40,838	226.06	31,268	63,905
225.04	13,647	41,108	226.08	31,313	64,531
225.06	13,938	41,384	226.10	31,359	65,157
225.08	14,233	41,666	226.12	31,405	65,785
225.10	14,531	41,953	226.14	31,450	66,413
225.12	14,832	42,247	226.16	31,496	67,043
225.14	15,136	42,547	226.18	31,542	67,673
225.16	15,443	42,853	226.20	31,588	68,305
225.18	15,754	43,165	226.22	31,634	68,937
225.20	16,067	43,483	226.24	31,679	69,570
225.22	16,383	43,807	226.26	31,725	70,204
225.24	16,703	44,138	226.28	31,771	70,839
225.26	17,026	44,475	226.30	31,817	71,475
225.28	17,351	44,819	226.32	31,863	72,112
225.30	17,680	45,169	226.34	31,909	72,749
225.32	18,012	45,526	226.36	31,956	73,388
225.34	18,347	45,890	226.38	32,002	74,028
225.36	18,685	46,260	226.40	32,048	74,668
225.38	19,026	46,637	226.42	32,094	75,310
225.40	19,370	47,021	226.44	32,140	75,952
225.42	19,717	47,412	226.46	32,186	76,595
225.44	20,068	47,810	226.48	32,233	77,239
225.46	20,421	48,215	226.50	32,279	77,884
225.48	20,778	48,627	226.52	32,325	78,531
225.50	21,137	49,046	226.54	32,372	79,177
225.52	21,500	49,472	226.56	32,418	79,825
225.54	21,866	49,906	226.58	32,465	80,474
225.56	22,235	50,347	226.60	32,511	81,124
225.58	22,607	50,795	226.62	32,558	81,775
225.60	22,982	51,251	226.64	32,604	82,426
225.62	23,360	51,715	226.66	32,651	83,079
225.64	23,741	52,186	226.68	32,697	83,732
225.66	24,126	52,664	226.70	32,744	84,387
225.68	24,513	53,151	226.72	32,791	85,042
225.70	24,903	53,645	226.74	32,838	85,698
225.72	25,297	54,147	226.76	32,884	86,356
225.74	25,694	54,657	226.78	32,931	87,014
225.76	26,093	55,175	226.80	32,978	87,673
225.78	26,496	55,701	226.82	33,025	88,333
225.80	26,902	56,235	226.84	33,072	88,994
225.82	27,311	56,777	226.86	33,119	89,656
225.84	27,723	57,327	226.88	33,166	90,319
225.86	28,138	57,886	226.90	33,212	90,982
225.88	28,557	58,453	226.92	33,260	91,647
225.90	28,978	59,028	226.94	33,307	92,313
225.92	29,402	59,612	226.96	33,354	92,979
225.94	29,830	60,204	226.98	33,401	93,647

Stage-Area-Storage for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
227.00	33,448	94,315	228.04	35,937	130,392
227.02	33,495	94,985	228.06	35,981	131,111
227.04	33,542	95,655	228.08	36,025	131,831
227.06	33,590	96,326	228.10	36,070	132,552
227.08	33,637	96,999	228.12	36,114	133,274
227.10	33,684	97,672	228.14	36,159	133,997
227.12	33,732	98,346	228.16	36,203	134,720
227.14	33,779	99,021	228.18	36,248	135,445
227.16	33,826	99,697	228.20	36,292	136,170
227.18	33,874	100,374	228.22	36,337	136,897
227.20	33,921	101,052	228.24	36,382	137,624
227.22	33,969	101,731	228.26	36,426	138,352
227.24	34,016	102,411	228.28	36,471	139,081
227.26	34,064	103,092	228.30	36,516	139,811
227.28	34,112	103,774	228.32	36,560	140,542
227.30	34,159	104,456	228.34	36,605	141,273
227.32	34,207	105,140	228.36	36,650	142,006
227.34	34,255	105,825	228.38	36,695	142,739
227.36	34,302	106,510	228.40	36,740	143,474
227.38	34,350	107,197	228.42	36,784	144,209
227.40	34,398	107,884	228.44	36,829	144,945
227.42	34,446	108,573	228.46	36,874	145,682
227.44	34,494	109,262	228.48	36,919	146,420
227.46	34,542	109,952	228.50	36,964	147,159
227.48	34,590	110,644	228.52	37,009	147,898
227.50	34,638	111,336	228.54	37,054	148,639
227.52	34,686	112,029	228.56	37,099	149,381
227.54	34,734	112,723	228.58	37,144	150,123
227.56	34,782	113,418	228.60	37,189	150,866
227.58	34,830	114,115	228.62	37,234	151,611
227.60	34,878	114,812	228.64	37,280	152,356
227.62	34,926	115,510	228.66	37,325	153,102
227.64	34,974	116,209	228.68	37,370	153,849
227.66	35,023	116,909	228.70	37,415	154,597
227.68	35,071	117,610	228.72	37,461	155,345
227.70	35,119	118,311	228.74	37,506	156,095
227.72	35,168	119,014	228.76	37,551	156,846
227.74	35,216	119,718	228.78	37,597	157,597
227.76	35,264	120,423	228.80	37,642	158,349
227.78	35,313	121,129	228.82	37,687	159,103
227.80	35,361	121,836	228.84	37,733	159,857
227.82	35,410	122,543	228.86	37,778	160,612
227.84	35,458	123,252	228.88	37,824	161,368
227.86	35,507	123,962	228.90	37,869	162,125
227.88	35,556	124,672	228.92	37,915	162,883
227.90	35,604	125,384	228.94	37,960	163,642
227.92	35,653	126,096	228.96	38,006	164,401
227.94	35,702	126,810	228.98	38,052	165,162
227.96	35,750	127,524	229.00	38,097	165,923
227.98	35,799	128,240	229.02	38,143	166,686
228.00	35,848	128,956	229.04	38,189	167,449
228.02	35,892	129,674	229.06	38,234	168,213

Stage-Area-Storage for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
229.08	38,280	168,978
229.10	38,326	169,744
229.12	38,372	170,511
229.14	38,418	171,279
229.16	38,464	172,048
229.18	38,509	172,818
229.20	38,555	173,589
229.22	38,601	174,360
229.24	38,647	175,133
229.26	38,693	175,906
229.28	38,739	176,680
229.30	38,785	177,456
229.32	38,832	178,232
229.34	38,878	179,009
229.36	38,924	179,787
229.38	38,970	180,566
229.40	39,016	181,346
229.42	39,062	182,126
229.44	39,109	182,908
229.46	39,155	183,691
229.48	39,201	184,474
229.50	39,248	185,259
229.52	39,294	186,044
229.54	39,340	186,831
229.56	39,387	187,618
229.58	39,433	188,406
229.60	39,480	189,195
229.62	39,526	189,985
229.64	39,573	190,776
229.66	39,619	191,568
229.68	39,666	192,361
229.70	39,712	193,155
229.72	39,759	193,950
229.74	39,806	194,745
229.76	39,853	195,542
229.78	39,899	196,339
229.80	39,946	197,138
229.82	39,993	197,937
229.84	40,040	198,737
229.86	40,086	199,539
229.88	40,133	200,341
229.90	40,180	201,144
229.92	40,227	201,948
229.94	40,274	202,753
229.96	40,321	203,559
229.98	40,368	204,366
230.00	40,415	205,174

Stage-Discharge for Pond WP1: PROP. WET POND #1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
216.60	0.00	0.00	0.00	217.64	0.00	0.00	0.00
216.62	0.00	0.00	0.00	217.66	0.00	0.00	0.00
216.64	0.00	0.00	0.00	217.68	0.00	0.00	0.00
216.66	0.00	0.00	0.00	217.70	0.00	0.00	0.00
216.68	0.00	0.00	0.00	217.72	0.00	0.00	0.00
216.70	0.00	0.00	0.00	217.74	0.00	0.00	0.00
216.72	0.00	0.00	0.00	217.76	0.00	0.00	0.00
216.74	0.00	0.00	0.00	217.78	0.00	0.00	0.00
216.76	0.00	0.00	0.00	217.80	0.00	0.00	0.00
216.78	0.00	0.00	0.00	217.82	0.00	0.00	0.00
216.80	0.00	0.00	0.00	217.84	0.00	0.00	0.00
216.82	0.00	0.00	0.00	217.86	0.00	0.00	0.00
216.84	0.00	0.00	0.00	217.88	0.00	0.00	0.00
216.86	0.00	0.00	0.00	217.90	0.00	0.00	0.00
216.88	0.00	0.00	0.00	217.92	0.00	0.00	0.00
216.90	0.00	0.00	0.00	217.94	0.00	0.00	0.00
216.92	0.00	0.00	0.00	217.96	0.00	0.00	0.00
216.94	0.00	0.00	0.00	217.98	0.00	0.00	0.00
216.96	0.00	0.00	0.00	218.00	0.00	0.00	0.00
216.98	0.00	0.00	0.00	218.02	0.00	0.00	0.00
217.00	0.00	0.00	0.00	218.04	0.00	0.00	0.00
217.02	0.00	0.00	0.00	218.06	0.00	0.00	0.00
217.04	0.00	0.00	0.00	218.08	0.00	0.00	0.00
217.06	0.00	0.00	0.00	218.10	0.00	0.00	0.00
217.08	0.00	0.00	0.00	218.12	0.00	0.00	0.00
217.10	0.00	0.00	0.00	218.14	0.00	0.00	0.00
217.12	0.00	0.00	0.00	218.16	0.00	0.00	0.00
217.14	0.00	0.00	0.00	218.18	0.00	0.00	0.00
217.16	0.00	0.00	0.00	218.20	0.00	0.00	0.00
217.18	0.00	0.00	0.00	218.22	0.00	0.00	0.00
217.20	0.00	0.00	0.00	218.24	0.00	0.00	0.00
217.22	0.00	0.00	0.00	218.26	0.00	0.00	0.00
217.24	0.00	0.00	0.00	218.28	0.00	0.00	0.00
217.26	0.00	0.00	0.00	218.30	0.00	0.00	0.00
217.28	0.00	0.00	0.00	218.32	0.00	0.00	0.00
217.30	0.00	0.00	0.00	218.34	0.00	0.00	0.00
217.32	0.00	0.00	0.00	218.36	0.00	0.00	0.00
217.34	0.00	0.00	0.00	218.38	0.00	0.00	0.00
217.36	0.00	0.00	0.00	218.40	0.00	0.00	0.00
217.38	0.00	0.00	0.00	218.42	0.00	0.00	0.00
217.40	0.00	0.00	0.00	218.44	0.00	0.00	0.00
217.42	0.00	0.00	0.00	218.46	0.00	0.00	0.00
217.44	0.00	0.00	0.00	218.48	0.00	0.00	0.00
217.46	0.00	0.00	0.00	218.50	0.00	0.00	0.00
217.48	0.00	0.00	0.00	218.52	0.00	0.00	0.00
217.50	0.00	0.00	0.00	218.54	0.00	0.00	0.00
217.52	0.00	0.00	0.00	218.56	0.00	0.00	0.00
217.54	0.00	0.00	0.00	218.58	0.00	0.00	0.00
217.56	0.00	0.00	0.00	218.60	0.00	0.00	0.00
217.58	0.00	0.00	0.00	218.62	0.00	0.00	0.00
217.60	0.00	0.00	0.00	218.64	0.00	0.00	0.00
217.62	0.00	0.00	0.00	218.66	0.00	0.00	0.00

Stage-Discharge for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
218.68	0.00	0.00	0.00	219.72	0.00	0.00	0.00
218.70	0.00	0.00	0.00	219.74	0.00	0.00	0.00
218.72	0.00	0.00	0.00	219.76	0.00	0.00	0.00
218.74	0.00	0.00	0.00	219.78	0.00	0.00	0.00
218.76	0.00	0.00	0.00	219.80	0.00	0.00	0.00
218.78	0.00	0.00	0.00	219.82	0.00	0.00	0.00
218.80	0.00	0.00	0.00	219.84	0.00	0.00	0.00
218.82	0.00	0.00	0.00	219.86	0.00	0.00	0.00
218.84	0.00	0.00	0.00	219.88	0.00	0.00	0.00
218.86	0.00	0.00	0.00	219.90	0.00	0.00	0.00
218.88	0.00	0.00	0.00	219.92	0.00	0.00	0.00
218.90	0.00	0.00	0.00	219.94	0.00	0.00	0.00
218.92	0.00	0.00	0.00	219.96	0.00	0.00	0.00
218.94	0.00	0.00	0.00	219.98	0.00	0.00	0.00
218.96	0.00	0.00	0.00	220.00	0.00	0.00	0.00
218.98	0.00	0.00	0.00	220.02	0.00	0.00	0.00
219.00	0.00	0.00	0.00	220.04	0.00	0.00	0.00
219.02	0.00	0.00	0.00	220.06	0.00	0.00	0.00
219.04	0.00	0.00	0.00	220.08	0.00	0.00	0.00
219.06	0.00	0.00	0.00	220.10	0.00	0.00	0.00
219.08	0.00	0.00	0.00	220.12	0.00	0.00	0.00
219.10	0.00	0.00	0.00	220.14	0.00	0.00	0.00
219.12	0.00	0.00	0.00	220.16	0.00	0.00	0.00
219.14	0.00	0.00	0.00	220.18	0.00	0.00	0.00
219.16	0.00	0.00	0.00	220.20	0.00	0.00	0.00
219.18	0.00	0.00	0.00	220.22	0.00	0.00	0.00
219.20	0.00	0.00	0.00	220.24	0.00	0.00	0.00
219.22	0.00	0.00	0.00	220.26	0.00	0.00	0.00
219.24	0.00	0.00	0.00	220.28	0.00	0.00	0.00
219.26	0.00	0.00	0.00	220.30	0.00	0.00	0.00
219.28	0.00	0.00	0.00	220.32	0.00	0.00	0.00
219.30	0.00	0.00	0.00	220.34	0.00	0.00	0.00
219.32	0.00	0.00	0.00	220.36	0.00	0.00	0.00
219.34	0.00	0.00	0.00	220.38	0.00	0.00	0.00
219.36	0.00	0.00	0.00	220.40	0.00	0.00	0.00
219.38	0.00	0.00	0.00	220.42	0.00	0.00	0.00
219.40	0.00	0.00	0.00	220.44	0.00	0.00	0.00
219.42	0.00	0.00	0.00	220.46	0.00	0.00	0.00
219.44	0.00	0.00	0.00	220.48	0.00	0.00	0.00
219.46	0.00	0.00	0.00	220.50	0.00	0.00	0.00
219.48	0.00	0.00	0.00	220.52	0.00	0.00	0.00
219.50	0.00	0.00	0.00	220.54	0.00	0.00	0.00
219.52	0.00	0.00	0.00	220.56	0.00	0.00	0.00
219.54	0.00	0.00	0.00	220.58	0.00	0.00	0.00
219.56	0.00	0.00	0.00	220.60	0.00	0.00	0.00
219.58	0.00	0.00	0.00	220.62	0.00	0.00	0.00
219.60	0.00	0.00	0.00	220.64	0.00	0.00	0.00
219.62	0.00	0.00	0.00	220.66	0.00	0.00	0.00
219.64	0.00	0.00	0.00	220.68	0.00	0.00	0.00
219.66	0.00	0.00	0.00	220.70	0.00	0.00	0.00
219.68	0.00	0.00	0.00	220.72	0.00	0.00	0.00
219.70	0.00	0.00	0.00	220.74	0.00	0.00	0.00

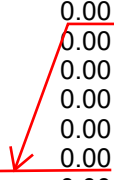
Stage-Discharge for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
220.76	0.00	0.00	0.00	221.80	0.00	0.00	0.00
220.78	0.00	0.00	0.00	221.82	0.00	0.00	0.00
220.80	0.00	0.00	0.00	221.84	0.00	0.00	0.00
220.82	0.00	0.00	0.00	221.86	0.00	0.00	0.00
220.84	0.00	0.00	0.00	221.88	0.00	0.00	0.00
220.86	0.00	0.00	0.00	221.90	0.00	0.00	0.00
220.88	0.00	0.00	0.00	221.92	0.00	0.00	0.00
220.90	0.00	0.00	0.00	221.94	0.00	0.00	0.00
220.92	0.00	0.00	0.00	221.96	0.00	0.00	0.00
220.94	0.00	0.00	0.00	221.98	0.00	0.00	0.00
220.96	0.00	0.00	0.00	222.00	0.00	0.00	0.00
220.98	0.00	0.00	0.00	222.02	0.00	0.00	0.00
221.00	0.00	0.00	0.00	222.04	0.00	0.00	0.00
221.02	0.00	0.00	0.00	222.06	0.00	0.00	0.00
221.04	0.00	0.00	0.00	222.08	0.00	0.00	0.00
221.06	0.00	0.00	0.00	222.10	0.00	0.00	0.00
221.08	0.00	0.00	0.00	222.12	0.00	0.00	0.00
221.10	0.00	0.00	0.00	222.14	0.00	0.00	0.00
221.12	0.00	0.00	0.00	222.16	0.00	0.00	0.00
221.14	0.00	0.00	0.00	222.18	0.00	0.00	0.00
221.16	0.00	0.00	0.00	222.20	0.00	0.00	0.00
221.18	0.00	0.00	0.00	222.22	0.00	0.00	0.00
221.20	0.00	0.00	0.00	222.24	0.00	0.00	0.00
221.22	0.00	0.00	0.00	222.26	0.00	0.00	0.00
221.24	0.00	0.00	0.00	222.28	0.00	0.00	0.00
221.26	0.00	0.00	0.00	222.30	0.00	0.00	0.00
221.28	0.00	0.00	0.00	222.32	0.00	0.00	0.00
221.30	0.00	0.00	0.00	222.34	0.00	0.00	0.00
221.32	0.00	0.00	0.00	222.36	0.00	0.00	0.00
221.34	0.00	0.00	0.00	222.38	0.00	0.00	0.00
221.36	0.00	0.00	0.00	222.40	0.00	0.00	0.00
221.38	0.00	0.00	0.00	222.42	0.00	0.00	0.00
221.40	0.00	0.00	0.00	222.44	0.00	0.00	0.00
221.42	0.00	0.00	0.00	222.46	0.00	0.00	0.00
221.44	0.00	0.00	0.00	222.48	0.00	0.00	0.00
221.46	0.00	0.00	0.00	222.50	0.00	0.00	0.00
221.48	0.00	0.00	0.00	222.52	0.00	0.00	0.00
221.50	0.00	0.00	0.00	222.54	0.00	0.00	0.00
221.52	0.00	0.00	0.00	222.56	0.00	0.00	0.00
221.54	0.00	0.00	0.00	222.58	0.00	0.00	0.00
221.56	0.00	0.00	0.00	222.60	0.00	0.00	0.00
221.58	0.00	0.00	0.00	222.62	0.00	0.00	0.00
221.60	0.00	0.00	0.00	222.64	0.00	0.00	0.00
221.62	0.00	0.00	0.00	222.66	0.00	0.00	0.00
221.64	0.00	0.00	0.00	222.68	0.00	0.00	0.00
221.66	0.00	0.00	0.00	222.70	0.00	0.00	0.00
221.68	0.00	0.00	0.00	222.72	0.00	0.00	0.00
221.70	0.00	0.00	0.00	222.74	0.00	0.00	0.00
221.72	0.00	0.00	0.00	222.76	0.00	0.00	0.00
221.74	0.00	0.00	0.00	222.78	0.00	0.00	0.00
221.76	0.00	0.00	0.00	222.80	0.00	0.00	0.00
221.78	0.00	0.00	0.00	222.82	0.00	0.00	0.00

Stage-Discharge for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
222.84	0.00	0.00	0.00	223.88	0.00	0.00	0.00
222.86	0.00	0.00	0.00	223.90	0.00	0.00	0.00
222.88	0.00	0.00	0.00	223.92	0.00	0.00	0.00
222.90	0.00	0.00	0.00	223.94	0.00	0.00	0.00
222.92	0.00	0.00	0.00	223.96	0.00	0.00	0.00
222.94	0.00	0.00	0.00	223.98	0.00	0.00	0.00
222.96	0.00	0.00	0.00	224.00	0.00	0.00	0.00
222.98	0.00	0.00	0.00	224.02	0.00	0.00	0.00
223.00	0.00	0.00	0.00	224.04	0.00	0.00	0.00
223.02	0.00	0.00	0.00	224.06	0.00	0.00	0.00
223.04	0.00	0.00	0.00	224.08	0.00	0.00	0.00
223.06	0.00	0.00	0.00	224.10	0.00	0.00	0.00
223.08	0.00	0.00	0.00	224.12	0.00	0.00	0.00
223.10	0.00	0.00	0.00	224.14	0.00	0.00	0.00
223.12	0.00	0.00	0.00	224.16	0.00	0.00	0.00
223.14	0.00	0.00	0.00	224.18	0.00	0.00	0.00
223.16	0.00	0.00	0.00	224.20	0.00	0.00	0.00
223.18	0.00	0.00	0.00	224.22	0.00	0.00	0.00
223.20	0.00	0.00	0.00	224.24	0.00	0.00	0.00
223.22	0.00	0.00	0.00	224.26	0.00	0.00	0.00
223.24	0.00	0.00	0.00	224.28	0.00	0.00	0.00
223.26	0.00	0.00	0.00	224.30	0.00	0.00	0.00
223.28	0.00	0.00	0.00	224.32	0.00	0.00	0.00
223.30	0.00	0.00	0.00	224.34	0.00	0.00	0.00
223.32	0.00	0.00	0.00	224.36	0.00	0.00	0.00
223.34	0.00	0.00	0.00	224.38	0.00	0.00	0.00
223.36	0.00	0.00	0.00	224.40	0.00	0.00	0.00
223.38	0.00	0.00	0.00	224.42	0.00	0.00	0.00
223.40	0.00	0.00	0.00	224.44	0.00	0.00	0.00
223.42	0.00	0.00	0.00	224.46	0.00	0.00	0.00
223.44	0.00	0.00	0.00	224.48	0.00	0.00	0.00
223.46	0.00	0.00	0.00	224.50	0.00	0.00	0.00
223.48	0.00	0.00	0.00	224.52	0.00	0.00	0.00
223.50	0.00	0.00	0.00	224.54	0.00	0.00	0.00
223.52	0.00	0.00	0.00	224.56	0.00	0.00	0.00
223.54	0.00	0.00	0.00	224.58	0.00	0.00	0.00
223.56	0.00	0.00	0.00	224.60	0.00	0.00	0.00
223.58	0.00	0.00	0.00	224.62	0.00	0.00	0.00
223.60	0.00	0.00	0.00	224.64	0.00	0.00	0.00
223.62	0.00	0.00	0.00	224.66	0.01	0.01	0.00
223.64	0.00	0.00	0.00	224.68	0.01	0.01	0.00
223.66	0.00	0.00	0.00	224.70	0.01	0.01	0.00
223.68	0.00	0.00	0.00	224.72	0.02	0.02	0.00
223.70	0.00	0.00	0.00	224.74	0.02	0.02	0.00
223.72	0.00	0.00	0.00	224.76	0.03	0.03	0.00
223.74	0.00	0.00	0.00	224.78	0.03	0.03	0.00
223.76	0.00	0.00	0.00	224.80	0.04	0.04	0.00
223.78	0.00	0.00	0.00	224.82	0.04	0.04	0.00
223.80	0.00	0.00	0.00	224.84	0.04	0.04	0.00
223.82	0.00	0.00	0.00	224.86	0.04	0.04	0.00
223.84	0.00	0.00	0.00	224.88	0.05	0.05	0.00
223.86	0.00	0.00	0.00	224.90	0.05	0.05	0.00

WQV/Extended
 Detention Elevation
 224.77, Q=0.03cfs



Stage-Discharge for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
224.92	0.05	0.05	0.00	225.96	0.34	0.34	0.00
224.94	0.05	0.05	0.00	225.98	0.35	0.35	0.00
224.96	0.06	0.06	0.00	226.00	0.37	0.37	0.00
224.98	0.06	0.06	0.00	226.02	0.38	0.38	0.00
225.00	0.06	0.06	0.00	226.04	0.39	0.39	0.00
225.02	0.06	0.06	0.00	226.06	0.40	0.40	0.00
225.04	0.06	0.06	0.00	226.08	0.41	0.41	0.00
225.06	0.06	0.06	0.00	226.10	0.42	0.42	0.00
225.08	0.07	0.07	0.00	226.12	0.43	0.43	0.00
225.10	0.07	0.07	0.00	226.14	0.44	0.44	0.00
225.12	0.07	0.07	0.00	226.16	0.45	0.45	0.00
225.14	0.07	0.07	0.00	226.18	0.46	0.46	0.00
225.16	0.07	0.07	0.00	226.20	0.47	0.47	0.00
225.18	0.07	0.07	0.00	226.22	0.48	0.48	0.00
225.20	0.08	0.08	0.00	226.24	0.49	0.49	0.00
225.22	0.08	0.08	0.00	226.26	0.50	0.50	0.00
225.24	0.08	0.08	0.00	226.28	0.51	0.51	0.00
225.26	0.08	0.08	0.00	226.30	0.51	0.51	0.00
225.28	0.08	0.08	0.00	226.32	0.52	0.52	0.00
225.30	0.08	0.08	0.00	226.34	0.53	0.53	0.00
225.32	0.08	0.08	0.00	226.36	0.54	0.54	0.00
225.34	0.09	0.09	0.00	226.38	0.55	0.55	0.00
225.36	0.09	0.09	0.00	226.40	0.55	0.55	0.00
225.38	0.09	0.09	0.00	226.42	0.56	0.56	0.00
225.40	0.09	0.09	0.00	226.44	0.57	0.57	0.00
225.42	0.09	0.09	0.00	226.46	0.58	0.58	0.00
225.44	0.09	0.09	0.00	226.48	0.58	0.58	0.00
225.46	0.09	0.09	0.00	226.50	0.59	0.59	0.00
225.48	0.09	0.09	0.00	226.52	0.60	0.60	0.00
225.50	0.09	0.09	0.00	226.54	0.60	0.60	0.00
225.52	0.10	0.10	0.00	226.56	0.61	0.61	0.00
225.54	0.10	0.10	0.00	226.58	0.62	0.62	0.00
225.56	0.10	0.10	0.00	226.60	0.62	0.62	0.00
225.58	0.10	0.10	0.00	226.62	0.63	0.63	0.00
225.60	0.10	0.10	0.00	226.64	0.64	0.64	0.00
225.62	0.10	0.10	0.00	226.66	0.64	0.64	0.00
225.64	0.11	0.11	0.00	226.68	0.65	0.65	0.00
225.66	0.11	0.11	0.00	226.70	0.66	0.66	0.00
225.68	0.12	0.12	0.00	226.72	0.66	0.66	0.00
225.70	0.13	0.13	0.00	226.74	0.67	0.67	0.00
225.72	0.14	0.14	0.00	226.76	0.68	0.68	0.00
225.74	0.16	0.16	0.00	226.78	0.68	0.68	0.00
225.76	0.17	0.17	0.00	226.80	0.69	0.69	0.00
225.78	0.19	0.19	0.00	226.82	0.69	0.69	0.00
225.80	0.20	0.20	0.00	226.84	0.70	0.70	0.00
225.82	0.22	0.22	0.00	226.86	0.71	0.71	0.00
225.84	0.24	0.24	0.00	226.88	0.71	0.71	0.00
225.86	0.26	0.26	0.00	226.90	0.72	0.72	0.00
225.88	0.27	0.27	0.00	226.92	0.72	0.72	0.00
225.90	0.29	0.29	0.00	226.94	0.73	0.73	0.00
225.92	0.31	0.31	0.00	226.96	0.73	0.73	0.00
225.94	0.33	0.33	0.00	226.98	0.74	0.74	0.00

Stage-Discharge for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
227.00	0.75	0.75	0.00	228.04	5.61	5.61	0.00
227.02	0.75	0.75	0.00	228.06	5.63	5.63	0.00
227.04	0.76	0.76	0.00	228.08	5.65	5.65	0.00
227.06	0.76	0.76	0.00	228.10	5.67	5.67	0.00
227.08	0.77	0.77	0.00	228.12	5.69	5.69	0.00
227.10	0.77	0.77	0.00	228.14	5.71	5.71	0.00
227.12	0.78	0.78	0.00	228.16	5.73	5.73	0.00
227.14	0.78	0.78	0.00	228.18	5.75	5.75	0.00
227.16	0.79	0.79	0.00	228.20	5.77	5.77	0.00
227.18	0.79	0.79	0.00	228.22	5.79	5.79	0.00
227.20	0.80	0.80	0.00	228.24	5.81	5.81	0.00
227.22	0.80	0.80	0.00	228.26	5.83	5.83	0.00
227.24	0.81	0.81	0.00	228.28	5.85	5.85	0.00
227.26	0.81	0.81	0.00	228.30	5.87	5.87	0.00
227.28	0.82	0.82	0.00	228.32	5.89	5.89	0.00
227.30	0.82	0.82	0.00	228.34	5.91	5.91	0.00
227.32	0.83	0.83	0.00	228.36	5.93	5.93	0.00
227.34	0.83	0.83	0.00	228.38	5.95	5.95	0.00
227.36	0.84	0.84	0.00	228.40	5.97	5.97	0.00
227.38	0.84	0.84	0.00	228.42	5.99	5.99	0.00
227.40	0.85	0.85	0.00	228.44	6.01	6.01	0.00
227.42	0.85	0.85	0.00	228.46	6.03	6.03	0.00
227.44	0.86	0.86	0.00	228.48	6.05	6.05	0.00
227.46	0.86	0.86	0.00	228.50	6.07	6.07	0.00
227.48	0.87	0.87	0.00	228.52	6.09	6.09	0.00
227.50	0.87	0.87	0.00	228.54	6.11	6.11	0.00
227.52	0.88	0.88	0.00	228.56	6.13	6.13	0.00
227.54	0.88	0.88	0.00	228.58	6.15	6.15	0.00
227.56	0.89	0.89	0.00	228.60	6.17	6.17	0.00
227.58	0.89	0.89	0.00	228.62	6.19	6.19	0.00
227.60	0.90	0.90	0.00	228.64	6.21	6.21	0.00
227.62	0.90	0.90	0.00	228.66	6.22	6.22	0.00
227.64	0.90	0.90	0.00	228.68	6.24	6.24	0.00
227.66	0.91	0.91	0.00	228.70	6.26	6.26	0.00
227.68	0.91	0.91	0.00	228.72	6.28	6.28	0.00
227.70	0.92	0.92	0.00	228.74	6.30	6.30	0.00
227.72	0.92	0.92	0.00	228.76	6.32	6.32	0.00
227.74	0.93	0.93	0.00	228.78	6.34	6.34	0.00
227.76	0.93	0.93	0.00	228.80	6.35	6.35	0.00
227.78	0.94	0.94	0.00	228.82	6.37	6.37	0.00
227.80	0.94	0.94	0.00	228.84	6.39	6.39	0.00
227.82	1.09	1.09	0.00	228.86	6.41	6.41	0.00
227.84	1.37	1.37	0.00	228.88	6.43	6.43	0.00
227.86	1.72	1.72	0.00	228.90	6.45	6.45	0.00
227.88	2.14	2.14	0.00	228.92	6.54	6.46	0.07
227.90	2.62	2.62	0.00	228.94	6.68	6.48	0.20
227.92	3.14	3.14	0.00	228.96	6.87	6.50	0.37
227.94	3.71	3.71	0.00	228.98	7.08	6.52	0.56
227.96	4.32	4.32	0.00	229.00	7.32	6.54	0.79
227.98	4.97	4.97	0.00	229.02	7.59	6.55	1.04
228.00	5.57	5.57	0.00	229.04	7.88	6.57	1.30
228.02	5.59	5.59	0.00	229.06	8.18	6.59	1.59

Stage-Discharge for Pond WP1: PROP. WET POND #1 (continued)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
229.08	8.51	6.61	1.90
229.10	8.85	6.63	2.23
229.12	9.22	6.64	2.58
229.14	9.61	6.66	2.94
229.16	10.01	6.68	3.33
229.18	10.43	6.70	3.73
229.20	10.86	6.71	4.15
229.22	11.32	6.73	4.58
229.24	11.78	6.75	5.03
229.26	12.27	6.77	5.50
229.28	12.76	6.78	5.98
229.30	13.28	6.80	6.48
229.32	13.82	6.82	7.01
229.34	14.39	6.84	7.55
229.36	14.97	6.85	8.12
229.38	15.57	6.87	8.70
229.40	16.19	6.89	9.30
229.42	16.82	6.90	9.91
229.44	17.47	6.92	10.55
229.46	18.14	6.94	11.20
229.48	18.82	6.95	11.86
229.50	19.52	6.97	12.55
229.52	20.16	6.99	13.18
229.54	20.82	7.01	13.81
229.56	21.48	7.02	14.46
229.58	22.16	7.04	15.12
229.60	22.84	7.06	15.78
229.62	23.53	7.07	16.46
229.64	24.23	7.09	17.14
229.66	24.94	7.10	17.84
229.68	25.66	7.12	18.54
229.70	26.39	7.14	19.25
229.72	27.12	7.15	19.97
229.74	27.86	7.17	20.69
229.76	28.62	7.19	21.43
229.78	29.38	7.20	22.17
229.80	30.14	7.22	22.92
229.82	30.92	7.24	23.68
229.84	31.70	7.25	24.45
229.86	32.50	7.27	25.23
229.88	33.29	7.28	26.01
229.90	34.10	7.30	26.80
229.92	34.93	7.32	27.62
229.94	35.78	7.33	28.45
229.96	36.63	7.35	29.28
229.98	37.49	7.36	30.12
230.00	38.36	7.38	30.98

Summary for Pond WP1: PROP. WET POND #1

[80] Warning: Exceeded Pond 105 by 2.83' @ 20.60 hrs (25.15 cfs 3.567 af)

Inflow Area = 14.471 ac, 74.60% Impervious, Inflow Depth > 4.76" for 50-YR event
 Inflow = 65.38 cfs @ 12.11 hrs, Volume= 5.744 af
 Outflow = 11.78 cfs @ 12.62 hrs, Volume= 3.798 af, Atten= 82%, Lag= 30.5 min
 Primary = 5.29 cfs @ 12.81 hrs, Volume= 3.295 af
 Routed to Pond EX : PROP. DMH
 Secondary = 6.53 cfs @ 12.61 hrs, Volume= 0.503 af
 Routed to Link A : POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2 WQV/Extended Detention Max Water Elevation = 229.30
~~Starting Elev= 224.60' Surf.Area= 8,009 sf Storage= 36,399 cf~~
Peak Elev= 229.30' @ 12.61 hrs Surf.Area= 38,790 sf Storage= 177,535 cf (141,136 cf above start)
 Flood Elev= 230.00' Surf.Area= 40,415 sf Storage= 205,174 cf (168,775 cf above start)

Plug-Flow detention time= 337.8 min calculated for 2.956 af (51% of inflow)
 Center-of-Mass det. time= 158.8 min (931.7 - 772.9)

Volume	Invert	Avail.Storage	Storage Description
#1	216.60'	205,174 cf	Wet Pond (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
216.60	1,719	168.0	0	0	1,719
218.00	2,527	200.0	2,954	2,954	2,691
220.00	3,917	246.0	6,393	9,348	4,383
222.00	5,577	291.7	9,445	18,793	6,411
224.00	7,440	329.4	12,972	31,765	8,375
224.60	8,009	340.0	4,634	36,399	8,975
226.00	31,131	738.0	25,634	62,033	43,125
228.00	35,848	751.0	66,924	128,956	45,268
230.00	40,415	788.0	76,217	205,174	50,053

Device	Routing	Invert	Outlet Devices
#1	Primary	224.60'	12.0" Round Culvert L= 60.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 224.60' / 224.36' S= 0.0040 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	224.60'	2.0" Vert. Extended Detention Drain Orifice C= 0.600 Limited to weir flow at low heads
#3	Device 1	225.60'	4.5" Vert. Flow Control Orifice C= 0.600 Limited to weir flow at low heads
#4	Device 1	227.80'	48.0" x 48.0" Horiz. Riser Top Opening C= 0.600 Limited to weir flow at low heads
#5	Secondary	228.90'	10.0' long x 10.0' breadth Overflow Emergency Spillway Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

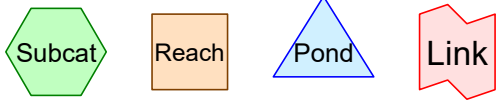
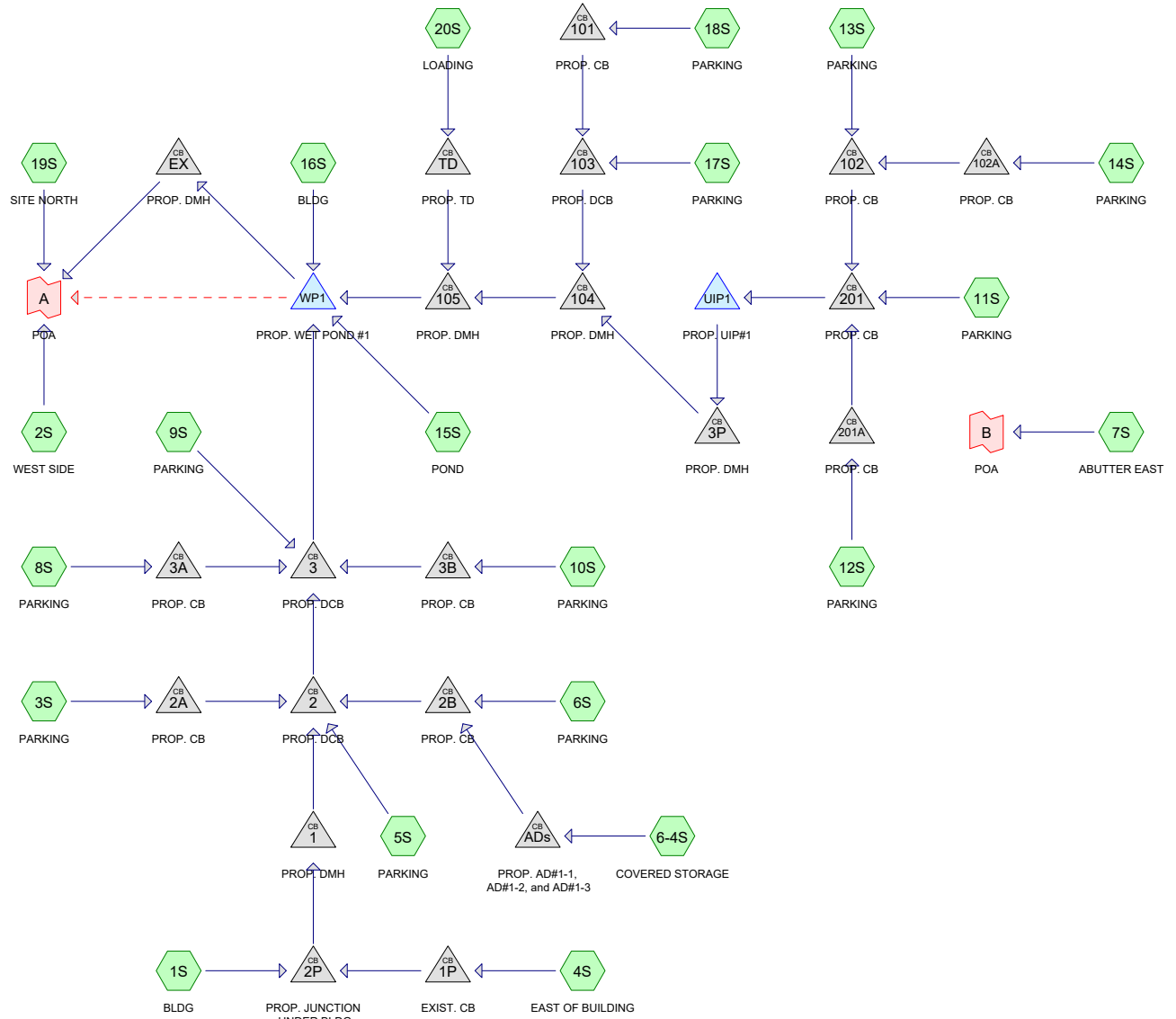
Primary OutFlow Max=5.30 cfs @ 12.81 hrs HW=229.27' TW=226.88' (Dynamic Tailwater)

- ↑ 1=Culvert (Outlet Controls 5.30 cfs @ 6.74 fps)
- ↑ 2=Extended Detention Drain Orifice (Passes < 0.16 cfs potential flow)
- ↑ 3=Flow Control Orifice (Passes < 0.82 cfs potential flow)
- ↑ 4=Riser Top Opening (Passes < 92.90 cfs potential flow)

Secondary OutFlow Max=6.50 cfs @ 12.61 hrs HW=229.30' TW=0.00' (Dynamic Tailwater)

- ↑ 5=Overflow Emergency Spillway Weir (Weir Controls 6.50 cfs @ 1.62 fps)

8. REVISED POST-DEVELOPMENT HYDROCAD DRAINAGE ANALYSIS



Routing Diagram for 26-04-17 POST-DEVELOPMENT REV - Permit Amendment AoT Model
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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-YR	Type III 24-hr		Default	24.00	1	2.82	2
2	10-YR	Type III 24-hr		Default	24.00	1	4.16	2
3	25-YR	Type III 24-hr		Default	24.00	1	5.20	2
4	50-YR	Type III 24-hr		Default	24.00	1	6.15	2
5	100-YR	Type III 24-hr		Default	24.00	1	7.29	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.739	39	>75% Grass cover, Good, HSG A (6-4S, 6S, 7S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 17S, 18S)
5.115	61	>75% Grass cover, Good, HSG B (2S, 3S, 5S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 15S, 17S, 18S, 19S)
1.844	74	>75% Grass cover, Good, HSG C (4S, 6-4S, 6S, 7S, 12S, 19S)
11.144	98	Paved parking and roofs (1S, 3S, 4S, 5S, 6-4S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 16S, 17S, 18S, 20S)
0.184	98	Water Surface, 0% imp, HSG B (15S)
0.007	98	Water Surface, HSG A (2S)
0.304	30	Woods, Good, HSG A (6S, 7S, 10S, 12S, 14S)
1.023	55	Woods, Good, HSG B (2S, 19S)
0.484	70	Woods, Good, HSG C (4S, 7S, 12S, 19S)
20.843	81	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.049	HSG A	2S, 6-4S, 6S, 7S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 17S, 18S
6.322	HSG B	2S, 3S, 5S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 15S, 17S, 18S, 19S
2.328	HSG C	4S, 6-4S, 6S, 7S, 12S, 19S
0.000	HSG D	
11.144	Other	1S, 3S, 4S, 5S, 6-4S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 16S, 17S, 18S, 20S
20.843		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.739	5.115	1.844	0.000	0.000	7.697	>75% Grass cover, Good	2S, 3S, 4S, 5S, 6-4S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 17S, 18S, 19S
0.000	0.000	0.000	0.000	11.144	11.144	Paved parking and roofs	1S, 3S, 4S, 5S, 6-4S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 16S, 17S, 18S, 20S
0.007	0.000	0.000	0.000	0.000	0.007	Water Surface	2S
0.000	0.184	0.000	0.000	0.000	0.184	Water Surface, 0% imp	15S
0.304	1.023	0.484	0.000	0.000	1.811	Woods, Good	2S, 4S, 6S, 7S, 10S, 12S, 14S, 19S
1.049	6.322	2.328	0.000	11.144	20.843	TOTAL AREA	

26-04-17 POST-DEVELOPMENT REV - Permit Amendment Type III 24-hr 2-YR Rainfall=2.82"

Prepared by Granite Engineering, LLC

Printed 4/17/2026

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: BLDG	Runoff Area=228,051 sf 100.00% Impervious Runoff Depth>2.59" Tc=10.0 min CN=98 Runoff=12.36 cfs 1.128 af
Subcatchment2S: WEST SIDE	Runoff Area=21,186 sf 1.45% Impervious Runoff Depth>0.27" Tc=6.0 min CN=60 Runoff=0.06 cfs 0.011 af
Subcatchment3S: PARKING	Runoff Area=22,821 sf 87.27% Impervious Runoff Depth>2.11" Tc=6.0 min CN=93 Runoff=1.23 cfs 0.092 af
Subcatchment4S: EAST OF BUILDING	Runoff Area=31,416 sf 11.24% Impervious Runoff Depth>0.90" Tc=6.0 min CN=76 Runoff=0.71 cfs 0.054 af
Subcatchment5S: PARKING	Runoff Area=41,525 sf 95.47% Impervious Runoff Depth>2.41" Tc=6.0 min CN=96 Runoff=2.45 cfs 0.191 af
Subcatchment6-4S: COVERED STORAGE	Runoff Area=12,257 sf 19.38% Impervious Runoff Depth>0.75" Tc=6.0 min CN=73 Runoff=0.22 cfs 0.017 af
Subcatchment6S: PARKING	Runoff Area=36,983 sf 50.15% Impervious Runoff Depth>0.98" Tc=6.0 min CN=78 Runoff=0.93 cfs 0.070 af
Subcatchment7S: ABUTTEREAST	Runoff Area=54,828 sf 27.72% Impervious Runoff Depth>1.01" Tc=6.0 min CN=78 Runoff=1.42 cfs 0.106 af
Subcatchment8S: PARKING	Runoff Area=19,107 sf 96.62% Impervious Runoff Depth>2.45" Tc=6.0 min CN=97 Runoff=1.14 cfs 0.090 af
Subcatchment9S: PARKING	Runoff Area=39,033 sf 89.01% Impervious Runoff Depth>2.13" Tc=6.0 min CN=94 Runoff=2.12 cfs 0.159 af
Subcatchment10S: PARKING	Runoff Area=29,571 sf 75.03% Impervious Runoff Depth>1.36" Tc=6.0 min CN=84 Runoff=1.06 cfs 0.077 af
Subcatchment11S: PARKING	Runoff Area=7,440 sf 90.98% Impervious Runoff Depth>2.19" Tc=6.0 min CN=94 Runoff=0.41 cfs 0.031 af
Subcatchment12S: PARKING	Runoff Area=18,717 sf 40.47% Impervious Runoff Depth>0.42" Tc=6.0 min CN=65 Runoff=0.14 cfs 0.015 af
Subcatchment13S: PARKING	Runoff Area=7,102 sf 92.37% Impervious Runoff Depth>2.15" Tc=6.0 min CN=94 Runoff=0.39 cfs 0.029 af
Subcatchment14S: PARKING	Runoff Area=15,428 sf 45.12% Impervious Runoff Depth>0.38" Tc=6.0 min CN=64 Runoff=0.09 cfs 0.011 af
Subcatchment15S: POND	Runoff Area=51,091 sf 0.00% Impervious Runoff Depth>0.46" Tc=6.0 min CN=66 Runoff=0.44 cfs 0.045 af

Subcatchment16S: BLDG	Runoff Area=5,001 sf 100.00% Impervious Runoff Depth>2.59" Tc=6.0 min CN=98 Runoff=0.31 cfs 0.025 af
Subcatchment17S: PARKING	Runoff Area=40,036 sf 77.04% Impervious Runoff Depth>1.63" Tc=6.0 min CN=88 Runoff=1.73 cfs 0.125 af
Subcatchment18S: PARKING	Runoff Area=24,120 sf 76.35% Impervious Runoff Depth>1.55" Tc=6.0 min CN=87 Runoff=0.99 cfs 0.071 af
Subcatchment19S: SITE NORTH	Runoff Area=201,577 sf 0.00% Impervious Runoff Depth>0.29" Flow Length=703' Tc=30.7 min CN=61 Runoff=0.50 cfs 0.111 af
Subcatchment20S: LOADING	Runoff Area=648 sf 100.00% Impervious Runoff Depth>2.59" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af
Pond 1: PROP. DMH	Peak Elev=228.71' Inflow=12.99 cfs 1.182 af 36.0" Round Culvert n=0.013 L=139.2' S=0.0040 '/ Outflow=12.99 cfs 1.182 af
Pond 1P: EXIST. CB	Peak Elev=234.11' Inflow=0.71 cfs 0.054 af 18.0" Round Culvert n=0.025 L=225.0' S=0.0070 '/ Outflow=0.71 cfs 0.054 af
Pond 2: PROP. DCB	Peak Elev=228.14' Inflow=17.52 cfs 1.552 af 42.0" Round Culvert n=0.013 L=237.4' S=0.0040 '/ Outflow=17.52 cfs 1.552 af
Pond 2A: PROP. CB	Peak Elev=228.73' Inflow=1.23 cfs 0.092 af 18.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/ Outflow=1.23 cfs 0.092 af
Pond 2B: PROP. CB	Peak Elev=228.63' Inflow=1.14 cfs 0.087 af 18.0" Round Culvert n=0.013 L=178.0' S=0.0054 '/ Outflow=1.14 cfs 0.087 af
Pond 2P: PROP. JUNCTION UNDER BLDG	Peak Elev=229.26' Inflow=12.99 cfs 1.182 af 36.0" Round Culvert n=0.013 L=46.6' S=0.0099 '/ Outflow=12.99 cfs 1.182 af
Pond 3: PROP. DCB	Peak Elev=227.28' Inflow=21.70 cfs 1.878 af 42.0" Round Culvert n=0.013 L=133.8' S=0.0040 '/ Outflow=21.70 cfs 1.878 af
Pond 3A: PROP. CB	Peak Elev=228.14' Inflow=1.14 cfs 0.090 af 15.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/ Outflow=1.14 cfs 0.090 af
Pond 3B: PROP. CB	Peak Elev=228.35' Inflow=1.06 cfs 0.077 af 15.0" Round Culvert n=0.013 L=163.0' S=0.0100 '/ Outflow=1.06 cfs 0.077 af
Pond 3P: PROP. DMH	Peak Elev=227.31' Inflow=0.00 cfs 0.000 af 15.0" Round Culvert n=0.013 L=73.4' S=0.0099 '/ Outflow=0.00 cfs 0.000 af
Pond 101: PROP. CB	Peak Elev=227.88' Inflow=0.99 cfs 0.071 af 15.0" Round Culvert n=0.013 L=141.6' S=0.0050 '/ Outflow=0.99 cfs 0.071 af
Pond 102: PROP. CB	Peak Elev=229.53' Inflow=0.48 cfs 0.041 af 15.0" Round Culvert n=0.013 L=129.6' S=0.0040 '/ Outflow=0.48 cfs 0.041 af

Pond 102A: PROP. CB	Peak Elev=229.74'	Inflow=0.09 cfs	0.011 af
12.0" Round Culvert n=0.013 L=39.9' S=0.0050 '/'	Outflow=0.09 cfs	0.011 af	
Pond 103: PROP. DCB	Peak Elev=227.28'	Inflow=2.71 cfs	0.197 af
24.0" Round Culvert n=0.013 L=150.0' S=0.0050 '/'	Outflow=2.71 cfs	0.197 af	
Pond 104: PROP. DMH	Peak Elev=227.28'	Inflow=2.71 cfs	0.197 af
30.0" Round Culvert n=0.013 L=56.0' S=0.0041 '/'	Outflow=2.71 cfs	0.196 af	
Pond 105: PROP. DMH	Peak Elev=227.28'	Inflow=2.75 cfs	0.199 af
30.0" Round Culvert n=0.013 L=103.0' S=0.0040 '/'	Outflow=2.75 cfs	0.199 af	
Pond 201: PROP. CB	Peak Elev=229.12'	Inflow=1.03 cfs	0.087 af
15.0" Round Culvert n=0.013 L=37.0' S=0.0041 '/'	Outflow=1.03 cfs	0.087 af	
Pond 201A: PROP. CB	Peak Elev=230.00'	Inflow=0.14 cfs	0.015 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0310 '/'	Outflow=0.14 cfs	0.015 af	
Pond ADs: PROP. AD#1-1, AD#1-2, and AD#1-3	Peak Elev=230.18'	Inflow=0.22 cfs	0.017 af
8.0" Round Culvert n=0.013 L=39.0' S=0.0285 '/'	Outflow=0.22 cfs	0.017 af	
Pond EX: PROP. DMH	Peak Elev=224.93'	Inflow=0.81 cfs	0.809 af
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/'	Outflow=0.81 cfs	0.809 af	
Pond TD: PROP. TD	Peak Elev=230.13'	Inflow=0.04 cfs	0.003 af
6.0" Round Culvert n=0.013 L=58.0' S=0.0086 '/'	Outflow=0.04 cfs	0.003 af	
Pond UIP1: PROP. UIP#1	Peak Elev=229.12'	Storage=2,777 cf	Inflow=1.03 cfs
Discarded=0.02 cfs	0.023 af	Primary=0.00 cfs	0.000 af
	Outflow=0.02 cfs	0.023 af	
Pond WP1: PROP. WET POND #1	Peak Elev=227.28'	Storage=103,618 cf	Inflow=25.14 cfs
	Primary=0.81 cfs	0.809 af	Secondary=0.00 cfs
		0.000 af	Outflow=0.81 cfs
			0.809 af
Link A: POA		Inflow=1.25 cfs	0.931 af
		Primary=1.25 cfs	0.931 af
Link B: POA		Inflow=1.42 cfs	0.106 af
		Primary=1.42 cfs	0.106 af

Total Runoff Area = 20.843 ac Runoff Volume = 2.463 af Average Runoff Depth = 1.42"
46.50% Pervious = 9.692 ac 53.50% Impervious = 11.151 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: BLDG	Runoff Area=228,051 sf 100.00% Impervious Runoff Depth>3.92" Tc=10.0 min CN=98 Runoff=18.39 cfs 1.710 af
Subcatchment2S: WEST SIDE	Runoff Area=21,186 sf 1.45% Impervious Runoff Depth>0.83" Tc=6.0 min CN=60 Runoff=0.38 cfs 0.034 af
Subcatchment3S: PARKING	Runoff Area=22,821 sf 87.27% Impervious Runoff Depth>3.40" Tc=6.0 min CN=93 Runoff=1.94 cfs 0.149 af
Subcatchment4S: EAST OF BUILDING	Runoff Area=31,416 sf 11.24% Impervious Runoff Depth>1.86" Tc=6.0 min CN=76 Runoff=1.54 cfs 0.112 af
Subcatchment5S: PARKING	Runoff Area=41,525 sf 95.47% Impervious Runoff Depth>3.73" Tc=6.0 min CN=96 Runoff=3.71 cfs 0.296 af
Subcatchment6-4S: COVERED STORAGE	Runoff Area=12,257 sf 19.38% Impervious Runoff Depth>1.64" Tc=6.0 min CN=73 Runoff=0.52 cfs 0.038 af
Subcatchment6S: PARKING	Runoff Area=36,983 sf 50.15% Impervious Runoff Depth>1.99" Tc=6.0 min CN=78 Runoff=1.94 cfs 0.141 af
Subcatchment7S: ABUTTEREAST	Runoff Area=54,828 sf 27.72% Impervious Runoff Depth>2.03" Tc=6.0 min CN=78 Runoff=2.93 cfs 0.213 af
Subcatchment8S: PARKING	Runoff Area=19,107 sf 96.62% Impervious Runoff Depth>3.78" Tc=6.0 min CN=97 Runoff=1.72 cfs 0.138 af
Subcatchment9S: PARKING	Runoff Area=39,033 sf 89.01% Impervious Runoff Depth>3.43" Tc=6.0 min CN=94 Runoff=3.33 cfs 0.256 af
Subcatchment10S: PARKING	Runoff Area=29,571 sf 75.03% Impervious Runoff Depth>2.50" Tc=6.0 min CN=84 Runoff=1.95 cfs 0.141 af
Subcatchment11S: PARKING	Runoff Area=7,440 sf 90.98% Impervious Runoff Depth>3.50" Tc=6.0 min CN=94 Runoff=0.64 cfs 0.050 af
Subcatchment12S: PARKING	Runoff Area=18,717 sf 40.47% Impervious Runoff Depth>1.12" Tc=6.0 min CN=65 Runoff=0.50 cfs 0.040 af
Subcatchment13S: PARKING	Runoff Area=7,102 sf 92.37% Impervious Runoff Depth>3.46" Tc=6.0 min CN=94 Runoff=0.61 cfs 0.047 af
Subcatchment14S: PARKING	Runoff Area=15,428 sf 45.12% Impervious Runoff Depth>1.04" Tc=6.0 min CN=64 Runoff=0.38 cfs 0.031 af
Subcatchment15S: POND	Runoff Area=51,091 sf 0.00% Impervious Runoff Depth>1.17" Tc=6.0 min CN=66 Runoff=1.46 cfs 0.115 af

Subcatchment16S: BLDG	Runoff Area=5,001 sf 100.00% Impervious Runoff Depth>3.92" Tc=6.0 min CN=98 Runoff=0.46 cfs 0.038 af
Subcatchment17S: PARKING	Runoff Area=40,036 sf 77.04% Impervious Runoff Depth>2.85" Tc=6.0 min CN=88 Runoff=2.97 cfs 0.218 af
Subcatchment18S: PARKING	Runoff Area=24,120 sf 76.35% Impervious Runoff Depth>2.74" Tc=6.0 min CN=87 Runoff=1.73 cfs 0.127 af
Subcatchment19S: SITE NORTH	Runoff Area=201,577 sf 0.00% Impervious Runoff Depth>0.87" Flow Length=703' Tc=30.7 min CN=61 Runoff=2.24 cfs 0.337 af
Subcatchment20S: LOADING	Runoff Area=648 sf 100.00% Impervious Runoff Depth>3.92" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 1: PROP. DMH	Peak Elev=229.43' Inflow=19.75 cfs 1.822 af 36.0" Round Culvert n=0.013 L=139.2' S=0.0040 '/ Outflow=19.75 cfs 1.822 af
Pond 1P: EXIST. CB	Peak Elev=234.37' Inflow=1.54 cfs 0.112 af 18.0" Round Culvert n=0.025 L=225.0' S=0.0070 '/ Outflow=1.54 cfs 0.112 af
Pond 2: PROP. DCB	Peak Elev=228.87' Inflow=27.41 cfs 2.447 af 42.0" Round Culvert n=0.013 L=237.4' S=0.0040 '/ Outflow=27.41 cfs 2.447 af
Pond 2A: PROP. CB	Peak Elev=229.11' Inflow=1.94 cfs 0.149 af 18.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/ Outflow=1.94 cfs 0.149 af
Pond 2B: PROP. CB	Peak Elev=229.15' Inflow=2.46 cfs 0.179 af 18.0" Round Culvert n=0.013 L=178.0' S=0.0054 '/ Outflow=2.46 cfs 0.179 af
Pond 2P: PROP. JUNCTION UNDER BLDG	Peak Elev=229.94' Inflow=19.75 cfs 1.822 af 36.0" Round Culvert n=0.013 L=46.6' S=0.0099 '/ Outflow=19.75 cfs 1.822 af
Pond 3: PROP. DCB	Peak Elev=228.04' Inflow=34.19 cfs 2.982 af 42.0" Round Culvert n=0.013 L=133.8' S=0.0040 '/ Outflow=34.19 cfs 2.982 af
Pond 3A: PROP. CB	Peak Elev=228.44' Inflow=1.72 cfs 0.138 af 15.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/ Outflow=1.72 cfs 0.138 af
Pond 3B: PROP. CB	Peak Elev=228.67' Inflow=1.95 cfs 0.141 af 15.0" Round Culvert n=0.013 L=163.0' S=0.0100 '/ Outflow=1.95 cfs 0.141 af
Pond 3P: PROP. DMH	Peak Elev=228.00' Inflow=0.20 cfs 0.052 af 15.0" Round Culvert n=0.013 L=73.4' S=0.0099 '/ Outflow=0.20 cfs 0.052 af
Pond 101: PROP. CB	Peak Elev=228.13' Inflow=1.73 cfs 0.127 af 15.0" Round Culvert n=0.013 L=141.6' S=0.0050 '/ Outflow=1.73 cfs 0.127 af
Pond 102: PROP. CB	Peak Elev=229.83' Inflow=0.99 cfs 0.078 af 15.0" Round Culvert n=0.013 L=129.6' S=0.0040 '/ Outflow=0.99 cfs 0.078 af

Pond 102A: PROP. CB	Peak Elev=229.96'	Inflow=0.38 cfs	0.031 af
12.0" Round Culvert n=0.013 L=39.9' S=0.0050 '/'	Outflow=0.38 cfs	0.031 af	
Pond 103: PROP. DCB	Peak Elev=227.99'	Inflow=4.70 cfs	0.345 af
24.0" Round Culvert n=0.013 L=150.0' S=0.0050 '/'	Outflow=4.70 cfs	0.344 af	
Pond 104: PROP. DMH	Peak Elev=227.99'	Inflow=4.70 cfs	0.397 af
30.0" Round Culvert n=0.013 L=56.0' S=0.0041 '/'	Outflow=4.70 cfs	0.396 af	
Pond 105: PROP. DMH	Peak Elev=227.99'	Inflow=4.76 cfs	0.401 af
30.0" Round Culvert n=0.013 L=103.0' S=0.0040 '/'	Outflow=4.76 cfs	0.400 af	
Pond 201: PROP. CB	Peak Elev=229.83'	Inflow=2.13 cfs	0.168 af
15.0" Round Culvert n=0.013 L=37.0' S=0.0041 '/'	Outflow=2.13 cfs	0.168 af	
Pond 201A: PROP. CB	Peak Elev=230.16'	Inflow=0.50 cfs	0.040 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0310 '/'	Outflow=0.50 cfs	0.040 af	
Pond ADs: PROP. AD#1-1,AD#1-2, and AD#1-3	Peak Elev=230.34'	Inflow=0.52 cfs	0.038 af
8.0" Round Culvert n=0.013 L=39.0' S=0.0285 '/'	Outflow=0.52 cfs	0.038 af	
Pond EX: PROP. DMH	Peak Elev=226.30'	Inflow=4.44 cfs	1.700 af
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/'	Outflow=4.44 cfs	1.700 af	
Pond TD: PROP. TD	Peak Elev=230.15'	Inflow=0.06 cfs	0.005 af
6.0" Round Culvert n=0.013 L=58.0' S=0.0086 '/'	Outflow=0.06 cfs	0.005 af	
Pond UIP1: PROP. UIP#1	Peak Elev=229.83'	Storage=3,977 cf	Inflow=2.13 cfs 0.168 af
Discarded=0.02 cfs 0.026 af	Primary=0.20 cfs 0.052 af	Outflow=0.21 cfs 0.078 af	
Pond WP1: PROP. WET POND #1	Peak Elev=227.99'	Storage=128,582 cf	Inflow=40.78 cfs 3.534 af
Primary=4.44 cfs 1.700 af	Secondary=0.00 cfs 0.000 af	Outflow=4.44 cfs 1.700 af	
Link A: POA		Inflow=6.47 cfs 2.071 af	
		Primary=6.47 cfs 2.071 af	
Link B: POA		Inflow=2.93 cfs 0.213 af	
		Primary=2.93 cfs 0.213 af	

Total Runoff Area = 20.843 ac Runoff Volume = 4.235 af Average Runoff Depth = 2.44"
46.50% Pervious = 9.692 ac 53.50% Impervious = 11.151 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: BLDG	Runoff Area=228,051 sf 100.00% Impervious Runoff Depth>4.96" Tc=10.0 min CN=98 Runoff=23.06 cfs 2.163 af
Subcatchment2S: WEST SIDE	Runoff Area=21,186 sf 1.45% Impervious Runoff Depth>1.41" Tc=6.0 min CN=60 Runoff=0.72 cfs 0.057 af
Subcatchment3S: PARKING	Runoff Area=22,821 sf 87.27% Impervious Runoff Depth>4.42" Tc=6.0 min CN=93 Runoff=2.48 cfs 0.193 af
Subcatchment4S: EAST OF BUILDING	Runoff Area=31,416 sf 11.24% Impervious Runoff Depth>2.70" Tc=6.0 min CN=76 Runoff=2.24 cfs 0.163 af
Subcatchment5S: PARKING	Runoff Area=41,525 sf 95.47% Impervious Runoff Depth>4.77" Tc=6.0 min CN=96 Runoff=4.68 cfs 0.379 af
Subcatchment6-4S: COVERED STORAGE	Runoff Area=12,257 sf 19.38% Impervious Runoff Depth>2.43" Tc=6.0 min CN=73 Runoff=0.78 cfs 0.057 af
Subcatchment6S: PARKING	Runoff Area=36,983 sf 50.15% Impervious Runoff Depth>2.85" Tc=6.0 min CN=78 Runoff=2.78 cfs 0.202 af
Subcatchment7S: ABUTTEREAST	Runoff Area=54,828 sf 27.72% Impervious Runoff Depth>2.90" Tc=6.0 min CN=78 Runoff=4.20 cfs 0.304 af
Subcatchment8S: PARKING	Runoff Area=19,107 sf 96.62% Impervious Runoff Depth>4.81" Tc=6.0 min CN=97 Runoff=2.16 cfs 0.176 af
Subcatchment9S: PARKING	Runoff Area=39,033 sf 89.01% Impervious Runoff Depth>4.45" Tc=6.0 min CN=94 Runoff=4.26 cfs 0.332 af
Subcatchment10S: PARKING	Runoff Area=29,571 sf 75.03% Impervious Runoff Depth>3.44" Tc=6.0 min CN=84 Runoff=2.66 cfs 0.195 af
Subcatchment11S: PARKING	Runoff Area=7,440 sf 90.98% Impervious Runoff Depth>4.52" Tc=6.0 min CN=94 Runoff=0.82 cfs 0.064 af
Subcatchment12S: PARKING	Runoff Area=18,717 sf 40.47% Impervious Runoff Depth>1.78" Tc=6.0 min CN=65 Runoff=0.85 cfs 0.064 af
Subcatchment13S: PARKING	Runoff Area=7,102 sf 92.37% Impervious Runoff Depth>4.48" Tc=6.0 min CN=94 Runoff=0.78 cfs 0.061 af
Subcatchment14S: PARKING	Runoff Area=15,428 sf 45.12% Impervious Runoff Depth>1.69" Tc=6.0 min CN=64 Runoff=0.65 cfs 0.050 af
Subcatchment15S: POND	Runoff Area=51,091 sf 0.00% Impervious Runoff Depth>1.85" Tc=6.0 min CN=66 Runoff=2.42 cfs 0.181 af

Subcatchment16S: BLDG	Runoff Area=5,001 sf 100.00% Impervious Runoff Depth>4.96" Tc=6.0 min CN=98 Runoff=0.57 cfs 0.047 af
Subcatchment17S: PARKING	Runoff Area=40,036 sf 77.04% Impervious Runoff Depth>3.82" Tc=6.0 min CN=88 Runoff=3.94 cfs 0.293 af
Subcatchment18S: PARKING	Runoff Area=24,120 sf 76.35% Impervious Runoff Depth>3.71" Tc=6.0 min CN=87 Runoff=2.31 cfs 0.171 af
Subcatchment19S: SITE NORTH	Runoff Area=201,577 sf 0.00% Impervious Runoff Depth>1.46" Flow Length=703' Tc=30.7 min CN=61 Runoff=4.10 cfs 0.563 af
Subcatchment20S: LOADING	Runoff Area=648 sf 100.00% Impervious Runoff Depth>4.96" Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af
Pond 1: PROP. DMH	Peak Elev=230.03' Inflow=25.03 cfs 2.325 af 36.0" Round Culvert n=0.013 L=139.2' S=0.0040 '/ Outflow=25.03 cfs 2.325 af
Pond 1P: EXIST. CB	Peak Elev=234.55' Inflow=2.24 cfs 0.163 af 18.0" Round Culvert n=0.025 L=225.0' S=0.0070 '/ Outflow=2.24 cfs 0.163 af
Pond 2: PROP. DCB	Peak Elev=229.45' Inflow=35.19 cfs 3.156 af 42.0" Round Culvert n=0.013 L=237.4' S=0.0040 '/ Outflow=35.19 cfs 3.156 af
Pond 2A: PROP. CB	Peak Elev=229.58' Inflow=2.48 cfs 0.193 af 18.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/ Outflow=2.48 cfs 0.193 af
Pond 2B: PROP. CB	Peak Elev=229.67' Inflow=3.57 cfs 0.259 af 18.0" Round Culvert n=0.013 L=178.0' S=0.0054 '/ Outflow=3.57 cfs 0.259 af
Pond 2P: PROP. JUNCTION UNDER BLDG	Peak Elev=230.53' Inflow=25.03 cfs 2.325 af 36.0" Round Culvert n=0.013 L=46.6' S=0.0099 '/ Outflow=25.03 cfs 2.325 af
Pond 3: PROP. DCB	Peak Elev=228.79' Inflow=44.02 cfs 3.858 af 42.0" Round Culvert n=0.013 L=133.8' S=0.0040 '/ Outflow=44.02 cfs 3.858 af
Pond 3A: PROP. CB	Peak Elev=228.81' Inflow=2.16 cfs 0.176 af 15.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/ Outflow=2.16 cfs 0.176 af
Pond 3B: PROP. CB	Peak Elev=229.02' Inflow=2.66 cfs 0.195 af 15.0" Round Culvert n=0.013 L=163.0' S=0.0100 '/ Outflow=2.66 cfs 0.195 af
Pond 3P: PROP. DMH	Peak Elev=228.78' Inflow=1.41 cfs 0.122 af 15.0" Round Culvert n=0.013 L=73.4' S=0.0099 '/ Outflow=1.41 cfs 0.122 af
Pond 101: PROP. CB	Peak Elev=228.78' Inflow=2.31 cfs 0.171 af 15.0" Round Culvert n=0.013 L=141.6' S=0.0050 '/ Outflow=2.31 cfs 0.171 af
Pond 102: PROP. CB	Peak Elev=230.04' Inflow=1.43 cfs 0.111 af 15.0" Round Culvert n=0.013 L=129.6' S=0.0040 '/ Outflow=1.43 cfs 0.111 af

Pond 102A: PROP. CB	Peak Elev=230.13'	Inflow=0.65 cfs	0.050 af
12.0" Round Culvert n=0.013 L=39.9' S=0.0050 '/'	Outflow=0.65 cfs	0.050 af	
Pond 103: PROP. DCB	Peak Elev=228.78'	Inflow=6.25 cfs	0.464 af
24.0" Round Culvert n=0.013 L=150.0' S=0.0050 '/'	Outflow=6.25 cfs	0.464 af	
Pond 104: PROP. DMH	Peak Elev=228.78'	Inflow=6.25 cfs	0.586 af
30.0" Round Culvert n=0.013 L=56.0' S=0.0041 '/'	Outflow=6.25 cfs	0.586 af	
Pond 105: PROP. DMH	Peak Elev=228.78'	Inflow=6.33 cfs	0.592 af
30.0" Round Culvert n=0.013 L=103.0' S=0.0040 '/'	Outflow=6.33 cfs	0.592 af	
Pond 201: PROP. CB	Peak Elev=230.01'	Inflow=3.09 cfs	0.239 af
15.0" Round Culvert n=0.013 L=37.0' S=0.0041 '/'	Outflow=3.09 cfs	0.239 af	
Pond 201A: PROP. CB	Peak Elev=230.26'	Inflow=0.85 cfs	0.064 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0310 '/'	Outflow=0.85 cfs	0.064 af	
Pond ADs: PROP. AD#1-1,AD#1-2, and AD#1-3	Peak Elev=230.47'	Inflow=0.78 cfs	0.057 af
8.0" Round Culvert n=0.013 L=39.0' S=0.0285 '/'	Outflow=0.78 cfs	0.057 af	
Pond EX: PROP. DMH	Peak Elev=226.66'	Inflow=4.99 cfs	2.771 af
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/'	Outflow=4.99 cfs	2.771 af	
Pond TD: PROP. TD	Peak Elev=230.17'	Inflow=0.07 cfs	0.006 af
6.0" Round Culvert n=0.013 L=58.0' S=0.0086 '/'	Outflow=0.07 cfs	0.006 af	
Pond UIP1: PROP. UIP#1	Peak Elev=229.95'	Storage=4,170 cf	Inflow=3.09 cfs 0.239 af
Discarded=0.02 cfs 0.027 af	Primary=1.41 cfs 0.122 af	Outflow=1.43 cfs 0.149 af	
Pond WP1: PROP. WET POND #1	Peak Elev=228.78'	Storage=157,561 cf	Inflow=53.22 cfs 4.679 af
Primary=4.99 cfs 2.771 af	Secondary=0.00 cfs 0.000 af	Outflow=4.99 cfs 2.771 af	
Link A: POA	Inflow=9.03 cfs	3.391 af	
	Primary=9.03 cfs	3.391 af	
Link B: POA	Inflow=4.20 cfs	0.304 af	
	Primary=4.20 cfs	0.304 af	

Total Runoff Area = 20.843 ac Runoff Volume = 5.721 af Average Runoff Depth = 3.29"
46.50% Pervious = 9.692 ac 53.50% Impervious = 11.151 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: BLDG	Runoff Area=228,051 sf 100.00% Impervious Runoff Depth>5.90" Tc=10.0 min CN=98 Runoff=27.32 cfs 2.576 af
Subcatchment2S: WEST SIDE	Runoff Area=21,186 sf 1.45% Impervious Runoff Depth>2.01" Tc=6.0 min CN=60 Runoff=1.07 cfs 0.081 af
Subcatchment3S: PARKING	Runoff Area=22,821 sf 87.27% Impervious Runoff Depth>5.36" Tc=6.0 min CN=93 Runoff=2.97 cfs 0.234 af
Subcatchment4S: EAST OF BUILDING	Runoff Area=31,416 sf 11.24% Impervious Runoff Depth>3.51" Tc=6.0 min CN=76 Runoff=2.91 cfs 0.211 af
Subcatchment5S: PARKING	Runoff Area=41,525 sf 95.47% Impervious Runoff Depth>5.71" Tc=6.0 min CN=96 Runoff=5.56 cfs 0.454 af
Subcatchment6-4S: COVERED STORAGE	Runoff Area=12,257 sf 19.38% Impervious Runoff Depth>3.21" Tc=6.0 min CN=73 Runoff=1.04 cfs 0.075 af
Subcatchment6S: PARKING	Runoff Area=36,983 sf 50.15% Impervious Runoff Depth>3.68" Tc=6.0 min CN=78 Runoff=3.58 cfs 0.260 af
Subcatchment7S: ABUTTEREAST	Runoff Area=54,828 sf 27.72% Impervious Runoff Depth>3.73" Tc=6.0 min CN=78 Runoff=5.38 cfs 0.391 af
Subcatchment8S: PARKING	Runoff Area=19,107 sf 96.62% Impervious Runoff Depth>5.76" Tc=6.0 min CN=97 Runoff=2.57 cfs 0.211 af
Subcatchment9S: PARKING	Runoff Area=39,033 sf 89.01% Impervious Runoff Depth>5.39" Tc=6.0 min CN=94 Runoff=5.10 cfs 0.402 af
Subcatchment10S: PARKING	Runoff Area=29,571 sf 75.03% Impervious Runoff Depth>4.32" Tc=6.0 min CN=84 Runoff=3.31 cfs 0.244 af
Subcatchment11S: PARKING	Runoff Area=7,440 sf 90.98% Impervious Runoff Depth>5.46" Tc=6.0 min CN=94 Runoff=0.98 cfs 0.078 af
Subcatchment12S: PARKING	Runoff Area=18,717 sf 40.47% Impervious Runoff Depth>2.46" Tc=6.0 min CN=65 Runoff=1.19 cfs 0.088 af
Subcatchment13S: PARKING	Runoff Area=7,102 sf 92.37% Impervious Runoff Depth>5.42" Tc=6.0 min CN=94 Runoff=0.93 cfs 0.074 af
Subcatchment14S: PARKING	Runoff Area=15,428 sf 45.12% Impervious Runoff Depth>2.34" Tc=6.0 min CN=64 Runoff=0.93 cfs 0.069 af
Subcatchment15S: POND	Runoff Area=51,091 sf 0.00% Impervious Runoff Depth>2.54" Tc=6.0 min CN=66 Runoff=3.38 cfs 0.248 af

Subcatchment16S: BLDG	Runoff Area=5,001 sf 100.00% Impervious Runoff Depth>5.91" Tc=6.0 min CN=98 Runoff=0.68 cfs 0.057 af
Subcatchment17S: PARKING	Runoff Area=40,036 sf 77.04% Impervious Runoff Depth>4.73" Tc=6.0 min CN=88 Runoff=4.82 cfs 0.363 af
Subcatchment18S: PARKING	Runoff Area=24,120 sf 76.35% Impervious Runoff Depth>4.61" Tc=6.0 min CN=87 Runoff=2.85 cfs 0.213 af
Subcatchment19S: SITE NORTH	Runoff Area=201,577 sf 0.00% Impervious Runoff Depth>2.07" Flow Length=703' Tc=30.7 min CN=61 Runoff=6.03 cfs 0.798 af
Subcatchment20S: LOADING	Runoff Area=648 sf 100.00% Impervious Runoff Depth>5.91" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 1: PROP. DMH	Peak Elev=230.91' Inflow=29.86 cfs 2.787 af 36.0" Round Culvert n=0.013 L=139.2' S=0.0040 '/' Outflow=29.86 cfs 2.787 af
Pond 1P: EXIST. CB	Peak Elev=234.72' Inflow=2.91 cfs 0.211 af 18.0" Round Culvert n=0.025 L=225.0' S=0.0070 '/' Outflow=2.91 cfs 0.211 af
Pond 2: PROP. DCB	Peak Elev=230.08' Inflow=42.35 cfs 3.810 af 42.0" Round Culvert n=0.013 L=237.4' S=0.0040 '/' Outflow=42.35 cfs 3.810 af
Pond 2A: PROP. CB	Peak Elev=230.29' Inflow=2.97 cfs 0.234 af 18.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/' Outflow=2.97 cfs 0.234 af
Pond 2B: PROP. CB	Peak Elev=230.50' Inflow=4.62 cfs 0.335 af 18.0" Round Culvert n=0.013 L=178.0' S=0.0054 '/' Outflow=4.62 cfs 0.335 af
Pond 2P: PROP. JUNCTION UNDER BLDG	Peak Elev=231.52' Inflow=29.86 cfs 2.787 af 36.0" Round Culvert n=0.013 L=46.6' S=0.0099 '/' Outflow=29.86 cfs 2.787 af
Pond 3: PROP. DCB	Peak Elev=229.44' Inflow=53.03 cfs 4.668 af 42.0" Round Culvert n=0.013 L=133.8' S=0.0040 '/' Outflow=53.03 cfs 4.668 af
Pond 3A: PROP. CB	Peak Elev=229.46' Inflow=2.57 cfs 0.211 af 15.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/' Outflow=2.57 cfs 0.211 af
Pond 3B: PROP. CB	Peak Elev=229.67' Inflow=3.31 cfs 0.244 af 15.0" Round Culvert n=0.013 L=163.0' S=0.0100 '/' Outflow=3.31 cfs 0.244 af
Pond 3P: PROP. DMH	Peak Elev=229.33' Inflow=3.46 cfs 0.190 af 15.0" Round Culvert n=0.013 L=73.4' S=0.0099 '/' Outflow=3.46 cfs 0.190 af
Pond 101: PROP. CB	Peak Elev=229.32' Inflow=2.85 cfs 0.213 af 15.0" Round Culvert n=0.013 L=141.6' S=0.0050 '/' Outflow=2.85 cfs 0.213 af
Pond 102: PROP. CB	Peak Elev=230.34' Inflow=1.86 cfs 0.143 af 15.0" Round Culvert n=0.013 L=129.6' S=0.0040 '/' Outflow=1.86 cfs 0.143 af

26-04-17 POST-DEVELOPMENT REV - Permit Amendment Type III 24-hr 50-YR Rainfall=6.15"

Prepared by Granite Engineering, LLC

Printed 4/17/2026

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Pond 102A: PROP. CB Peak Elev=230.53' Inflow=0.93 cfs 0.069 af
12.0" Round Culvert n=0.013 L=39.9' S=0.0050 '/ Outflow=0.93 cfs 0.069 af

Pond 103: PROP. DCB Peak Elev=229.32' Inflow=7.67 cfs 0.575 af
24.0" Round Culvert n=0.013 L=150.0' S=0.0050 '/ Outflow=7.67 cfs 0.575 af

Pond 104: PROP. DMH Peak Elev=229.31' Inflow=9.31 cfs 0.766 af
30.0" Round Culvert n=0.013 L=56.0' S=0.0041 '/ Outflow=9.31 cfs 0.765 af

Pond 105: PROP. DMH Peak Elev=229.31' Inflow=9.38 cfs 0.773 af
30.0" Round Culvert n=0.013 L=103.0' S=0.0040 '/ Outflow=9.38 cfs 0.772 af

Pond 201: PROP. CB Peak Elev=230.39' Inflow=4.03 cfs 0.308 af
15.0" Round Culvert n=0.013 L=37.0' S=0.0041 '/ Outflow=4.03 cfs 0.308 af

Pond 201A: PROP. CB Peak Elev=230.43' Inflow=1.19 cfs 0.088 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0310 '/ Outflow=1.19 cfs 0.088 af

Pond ADs: PROP. AD#1-1,AD#1-2, and AD#1-3 Peak Elev=230.69' Inflow=1.04 cfs 0.075 af
8.0" Round Culvert n=0.013 L=39.0' S=0.0285 '/ Outflow=1.04 cfs 0.075 af

Pond EX: PROP. DMH Peak Elev=226.88' Inflow=5.29 cfs 3.295 af
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/ Outflow=5.29 cfs 3.295 af

Pond TD: PROP. TD Peak Elev=230.19' Inflow=0.09 cfs 0.007 af
6.0" Round Culvert n=0.013 L=58.0' S=0.0086 '/ Outflow=0.09 cfs 0.007 af

Pond UIP1: PROP. UIP#1 Peak Elev=230.10' Storage=4,377 cf Inflow=4.03 cfs 0.308 af
Discarded=0.02 cfs 0.028 af Primary=3.46 cfs 0.190 af Outflow=3.48 cfs 0.218 af

Pond WP1: PROP. WET POND #1 Peak Elev=229.30' Storage=177,535 cf Inflow=65.38 cfs 5.744 af
Primary=5.29 cfs 3.295 af Secondary=6.53 cfs 0.503 af Outflow=11.78 cfs 3.798 af

Link A: POA Inflow=17.54 cfs 4.677 af
Primary=17.54 cfs 4.677 af

Link B: POA Inflow=5.38 cfs 0.391 af
Primary=5.38 cfs 0.391 af

Total Runoff Area = 20.843 ac Runoff Volume = 7.134 af Average Runoff Depth = 4.11"
46.50% Pervious = 9.692 ac 53.50% Impervious = 11.151 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: BLDG	Runoff Area=228,051 sf 100.00% Impervious Runoff Depth>7.04" Tc=10.0 min CN=98 Runoff=32.42 cfs 3.073 af
Subcatchment2S: WEST SIDE	Runoff Area=21,186 sf 1.45% Impervious Runoff Depth>2.80" Tc=6.0 min CN=60 Runoff=1.53 cfs 0.113 af
Subcatchment3S: PARKING	Runoff Area=22,821 sf 87.27% Impervious Runoff Depth>6.49" Tc=6.0 min CN=93 Runoff=3.56 cfs 0.283 af
Subcatchment4S: EAST OF BUILDING	Runoff Area=31,416 sf 11.24% Impervious Runoff Depth>4.52" Tc=6.0 min CN=76 Runoff=3.73 cfs 0.272 af
Subcatchment5S: PARKING	Runoff Area=41,525 sf 95.47% Impervious Runoff Depth>6.85" Tc=6.0 min CN=96 Runoff=6.62 cfs 0.544 af
Subcatchment6-4S: COVERED STORAGE	Runoff Area=12,257 sf 19.38% Impervious Runoff Depth>4.18" Tc=6.0 min CN=73 Runoff=1.35 cfs 0.098 af
Subcatchment6S: PARKING	Runoff Area=36,983 sf 50.15% Impervious Runoff Depth>4.70" Tc=6.0 min CN=78 Runoff=4.56 cfs 0.332 af
Subcatchment7S: ABUTTEREAST	Runoff Area=54,828 sf 27.72% Impervious Runoff Depth>4.76" Tc=6.0 min CN=78 Runoff=6.83 cfs 0.499 af
Subcatchment8S: PARKING	Runoff Area=19,107 sf 96.62% Impervious Runoff Depth>6.90" Tc=6.0 min CN=97 Runoff=3.05 cfs 0.252 af
Subcatchment9S: PARKING	Runoff Area=39,033 sf 89.01% Impervious Runoff Depth>6.52" Tc=6.0 min CN=94 Runoff=6.10 cfs 0.487 af
Subcatchment10S: PARKING	Runoff Area=29,571 sf 75.03% Impervious Runoff Depth>5.40" Tc=6.0 min CN=84 Runoff=4.10 cfs 0.305 af
Subcatchment11S: PARKING	Runoff Area=7,440 sf 90.98% Impervious Runoff Depth>6.60" Tc=6.0 min CN=94 Runoff=1.17 cfs 0.094 af
Subcatchment12S: PARKING	Runoff Area=18,717 sf 40.47% Impervious Runoff Depth>3.32" Tc=6.0 min CN=65 Runoff=1.63 cfs 0.119 af
Subcatchment13S: PARKING	Runoff Area=7,102 sf 92.37% Impervious Runoff Depth>6.55" Tc=6.0 min CN=94 Runoff=1.11 cfs 0.089 af
Subcatchment14S: PARKING	Runoff Area=15,428 sf 45.12% Impervious Runoff Depth>3.19" Tc=6.0 min CN=64 Runoff=1.29 cfs 0.094 af
Subcatchment15S: POND	Runoff Area=51,091 sf 0.00% Impervious Runoff Depth>3.42" Tc=6.0 min CN=66 Runoff=4.59 cfs 0.334 af

Subcatchment16S: BLDG	Runoff Area=5,001 sf 100.00% Impervious Runoff Depth>7.05" Tc=6.0 min CN=98 Runoff=0.80 cfs 0.067 af
Subcatchment17S: PARKING	Runoff Area=40,036 sf 77.04% Impervious Runoff Depth>5.84" Tc=6.0 min CN=88 Runoff=5.88 cfs 0.447 af
Subcatchment18S: PARKING	Runoff Area=24,120 sf 76.35% Impervious Runoff Depth>5.71" Tc=6.0 min CN=87 Runoff=3.49 cfs 0.263 af
Subcatchment19S: SITE NORTH	Runoff Area=201,577 sf 0.00% Impervious Runoff Depth>2.87" Flow Length=703' Tc=30.7 min CN=61 Runoff=8.55 cfs 1.106 af
Subcatchment20S: LOADING	Runoff Area=648 sf 100.00% Impervious Runoff Depth>7.05" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.009 af
Pond 1: PROP. DMH	Peak Elev=232.73' Inflow=35.67 cfs 3.344 af 36.0" Round Culvert n=0.013 L=139.2' S=0.0040 '/' Outflow=35.67 cfs 3.344 af
Pond 1P: EXIST. CB	Peak Elev=234.91' Inflow=3.73 cfs 0.272 af 18.0" Round Culvert n=0.025 L=225.0' S=0.0070 '/' Outflow=3.73 cfs 0.272 af
Pond 2: PROP. DCB	Peak Elev=231.55' Inflow=50.97 cfs 4.602 af 42.0" Round Culvert n=0.013 L=237.4' S=0.0040 '/' Outflow=50.97 cfs 4.602 af
Pond 2A: PROP. CB	Peak Elev=231.85' Inflow=3.56 cfs 0.283 af 18.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/' Outflow=3.56 cfs 0.283 af
Pond 2B: PROP. CB	Peak Elev=232.20' Inflow=5.91 cfs 0.430 af 18.0" Round Culvert n=0.013 L=178.0' S=0.0054 '/' Outflow=5.91 cfs 0.430 af
Pond 2P: PROP. JUNCTION UNDER BLDG	Peak Elev=233.60' Inflow=35.67 cfs 3.344 af 36.0" Round Culvert n=0.013 L=46.6' S=0.0099 '/' Outflow=35.67 cfs 3.344 af
Pond 3: PROP. DCB	Peak Elev=230.61' Inflow=63.87 cfs 5.646 af 42.0" Round Culvert n=0.013 L=133.8' S=0.0040 '/' Outflow=63.87 cfs 5.646 af
Pond 3A: PROP. CB	Peak Elev=230.77' Inflow=3.05 cfs 0.252 af 15.0" Round Culvert n=0.013 L=171.0' S=0.0099 '/' Outflow=3.05 cfs 0.252 af
Pond 3B: PROP. CB	Peak Elev=231.14' Inflow=4.10 cfs 0.305 af 15.0" Round Culvert n=0.013 L=163.0' S=0.0100 '/' Outflow=4.10 cfs 0.305 af
Pond 3P: PROP. DMH	Peak Elev=229.96' Inflow=5.17 cfs 0.277 af 15.0" Round Culvert n=0.013 L=73.4' S=0.0099 '/' Outflow=5.17 cfs 0.277 af
Pond 101: PROP. CB	Peak Elev=229.82' Inflow=3.49 cfs 0.263 af 15.0" Round Culvert n=0.013 L=141.6' S=0.0050 '/' Outflow=3.49 cfs 0.263 af
Pond 102: PROP. CB	Peak Elev=231.13' Inflow=2.40 cfs 0.183 af 15.0" Round Culvert n=0.013 L=129.6' S=0.0040 '/' Outflow=2.40 cfs 0.183 af

Pond 102A: PROP. CB	Peak Elev=231.23' Inflow=1.29 cfs 0.094 af 12.0" Round Culvert n=0.013 L=39.9' S=0.0050 '/ Outflow=1.29 cfs 0.094 af
Pond 103: PROP. DCB	Peak Elev=229.81' Inflow=9.36 cfs 0.710 af 24.0" Round Culvert n=0.013 L=150.0' S=0.0050 '/ Outflow=9.36 cfs 0.710 af
Pond 104: PROP. DMH	Peak Elev=229.77' Inflow=14.36 cfs 0.987 af 30.0" Round Culvert n=0.013 L=56.0' S=0.0041 '/ Outflow=14.36 cfs 0.987 af
Pond 105: PROP. DMH	Peak Elev=229.75' Inflow=14.46 cfs 0.996 af 30.0" Round Culvert n=0.013 L=103.0' S=0.0040 '/ Outflow=14.46 cfs 0.996 af
Pond 201: PROP. CB	Peak Elev=230.96' Inflow=5.20 cfs 0.396 af 15.0" Round Culvert n=0.013 L=37.0' S=0.0041 '/ Outflow=5.20 cfs 0.396 af
Pond 201A: PROP. CB	Peak Elev=230.97' Inflow=1.63 cfs 0.119 af 15.0" Round Culvert n=0.013 L=40.0' S=0.0310 '/ Outflow=1.63 cfs 0.119 af
Pond ADs: PROP. AD#1-1,AD#1-2, and AD#1-3	Peak Elev=232.52' Inflow=1.35 cfs 0.098 af 8.0" Round Culvert n=0.013 L=39.0' S=0.0285 '/ Outflow=1.35 cfs 0.098 af
Pond EX: PROP. DMH	Peak Elev=227.05' Inflow=5.51 cfs 3.653 af 12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/ Outflow=5.51 cfs 3.653 af
Pond TD: PROP. TD	Peak Elev=230.21' Inflow=0.10 cfs 0.009 af 6.0" Round Culvert n=0.013 L=58.0' S=0.0086 '/ Outflow=0.10 cfs 0.009 af
Pond UIP1: PROP. UIP#1	Peak Elev=230.20' Storage=4,496 cf Inflow=5.20 cfs 0.396 af Discarded=0.02 cfs 0.029 af Primary=5.17 cfs 0.277 af Outflow=5.19 cfs 0.306 af
Pond WP1: PROP. WET POND #1	Peak Elev=229.72' Storage=194,045 cf Inflow=83.66 cfs 7.043 af Primary=5.51 cfs 3.653 af Secondary=20.05 cfs 1.423 af Outflow=25.51 cfs 5.075 af
Link A: POA	Inflow=34.54 cfs 6.294 af Primary=34.54 cfs 6.294 af
Link B: POA	Inflow=6.83 cfs 0.499 af Primary=6.83 cfs 0.499 af

Total Runoff Area = 20.843 ac Runoff Volume = 8.880 af Average Runoff Depth = 5.11"
46.50% Pervious = 9.692 ac 53.50% Impervious = 11.151 ac

Summary for Subcatchment 1S: BLDG

Runoff = 18.39 cfs @ 12.14 hrs, Volume= 1.710 af, Depth> 3.92"
 Routed to Pond 2P : PROP. JUNCTION UNDER BLDG

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 228,051	98	Paved parking and roofs
228,051		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Summary for Subcatchment 2S: WEST SIDE

Runoff = 0.38 cfs @ 12.11 hrs, Volume= 0.034 af, Depth> 0.83"
 Routed to Link A : POA

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
15,016	61	>75% Grass cover, Good, HSG B
5,862	55	Woods, Good, HSG B
308	98	Water Surface, HSG A
21,186	60	Weighted Average
20,878		98.55% Pervious Area
308		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 3S: PARKING

Runoff = 1.94 cfs @ 12.09 hrs, Volume= 0.149 af, Depth> 3.40"
 Routed to Pond 2A : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 19,916	98	Paved parking and roofs
2,905	61	>75% Grass cover, Good, HSG B
22,821	93	Weighted Average
2,905		12.73% Pervious Area
19,916		87.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 4S: EAST OF BUILDING

Runoff = 1.54 cfs @ 12.10 hrs, Volume= 0.112 af, Depth> 1.86"
 Routed to Pond 1P : EXIST. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
22,923	74	>75% Grass cover, Good, HSG C
4,963	70	Woods, Good, HSG C
* 3,530	98	Paved parking and roofs
31,416	76	Weighted Average
27,886		88.76% Pervious Area
3,530		11.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 5S: PARKING

Runoff = 3.71 cfs @ 12.09 hrs, Volume= 0.296 af, Depth> 3.73"
 Routed to Pond 2 : PROP. DCB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 39,645	98	Paved parking and roofs
1,880	61	>75% Grass cover, Good, HSG B
41,525	96	Weighted Average
1,880		4.53% Pervious Area
39,645		95.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 6-4S: COVERED STORAGE

Runoff = 0.52 cfs @ 12.10 hrs, Volume= 0.038 af, Depth> 1.64"
 Routed to Pond ADs : PROP. AD#1-1, AD#1-2, and AD#1-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

	Area (sf)	CN	Description
*	2,375	98	Paved parking and roofs
	7,884	74	>75% Grass cover, Good, HSG C
	1,998	39	>75% Grass cover, Good, HSG A
	12,257	73	Weighted Average
	9,882		80.62% Pervious Area
	2,375		19.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 6S: PARKING

Runoff = 1.94 cfs @ 12.09 hrs, Volume= 0.141 af, Depth> 1.99"
 Routed to Pond 2B : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

	Area (sf)	CN	Description
*	18,546	98	Paved parking and roofs
	827	30	Woods, Good, HSG A
	7,793	39	>75% Grass cover, Good, HSG A
	9,817	74	>75% Grass cover, Good, HSG C
	36,983	78	Weighted Average
	18,437		49.85% Pervious Area
	18,546		50.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 7S: ABUTTER EAST

Runoff = 2.93 cfs @ 12.09 hrs, Volume= 0.213 af, Depth> 2.03"
 Routed to Link B : POA

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
1,259	39	>75% Grass cover, Good, HSG A
748	61	>75% Grass cover, Good, HSG B
30,115	74	>75% Grass cover, Good, HSG C
1,264	30	Woods, Good, HSG A
6,244	70	Woods, Good, HSG C
* 15,198	98	Paved parking and roofs
54,828	78	Weighted Average
39,630		72.28% Pervious Area
15,198		27.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 8S: PARKING

Runoff = 1.72 cfs @ 12.09 hrs, Volume= 0.138 af, Depth> 3.78"
 Routed to Pond 3A : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 18,462	98	Paved parking and roofs
645	61	>75% Grass cover, Good, HSG B
19,107	97	Weighted Average
645		3.38% Pervious Area
18,462		96.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 9S: PARKING

Runoff = 3.33 cfs @ 12.09 hrs, Volume= 0.256 af, Depth> 3.43"
 Routed to Pond 3 : PROP. DCB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 34,745	98	Paved parking and roofs
736	39	>75% Grass cover, Good, HSG A
3,552	61	>75% Grass cover, Good, HSG B
39,033	94	Weighted Average
4,288		10.99% Pervious Area
34,745		89.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 10S: PARKING

Runoff = 1.95 cfs @ 12.09 hrs, Volume= 0.141 af, Depth> 2.50"
 Routed to Pond 3B : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 22,186	98	Paved parking and roofs
1,797	61	>75% Grass cover, Good, HSG B
3,220	39	>75% Grass cover, Good, HSG A
2,368	30	Woods, Good, HSG A
29,571	84	Weighted Average
7,385		24.97% Pervious Area
22,186		75.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 11S: PARKING

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.050 af, Depth> 3.50"
 Routed to Pond 201 : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 6,769	98	Paved parking and roofs
514	61	>75% Grass cover, Good, HSG B
157	39	>75% Grass cover, Good, HSG A
7,440	94	Weighted Average
671		9.02% Pervious Area
6,769		90.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 12S: PARKING

Runoff = 0.50 cfs @ 12.10 hrs, Volume= 0.040 af, Depth> 1.12"
 Routed to Pond 201A : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 7,575	98	Paved parking and roofs
3,000	39	>75% Grass cover, Good, HSG A
5,474	30	Woods, Good, HSG A
303	61	>75% Grass cover, Good, HSG B
2,146	74	>75% Grass cover, Good, HSG C
219	70	Woods, Good, HSG C
18,717	65	Weighted Average
11,142		59.53% Pervious Area
7,575		40.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 13S: PARKING

Runoff = 0.61 cfs @ 12.09 hrs, Volume= 0.047 af, Depth> 3.46"
 Routed to Pond 102 : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 6,560	98	Paved parking and roofs
95	61	>75% Grass cover, Good, HSG B
0	30	Woods, Good, HSG A
447	39	>75% Grass cover, Good, HSG A
7,102	94	Weighted Average
542		7.63% Pervious Area
6,560		92.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 14S: PARKING

Runoff = 0.38 cfs @ 12.10 hrs, Volume= 0.031 af, Depth> 1.04"
 Routed to Pond 102A : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 6,961	98	Paved parking and roofs
5,177	39	>75% Grass cover, Good, HSG A
3,290	30	Woods, Good, HSG A
15,428	64	Weighted Average
8,467		54.88% Pervious Area
6,961		45.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 15S: POND

Runoff = 1.46 cfs @ 12.10 hrs, Volume= 0.115 af, Depth> 1.17"
 Routed to Pond WP1 : PROP. WET POND #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
40,922	61	>75% Grass cover, Good, HSG B
2,160	39	>75% Grass cover, Good, HSG A
0	55	Woods, Good, HSG B
0	70	Woods, Good, HSG C
8,009	98	Water Surface, 0% imp, HSG B
51,091	66	Weighted Average
51,091		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 16S: BLDG

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 0.038 af, Depth> 3.92"
 Routed to Pond WP1 : PROP. WET POND #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 5,001	98	Paved parking and roofs
5,001		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 17S: PARKING

Runoff = 2.97 cfs @ 12.09 hrs, Volume= 0.218 af, Depth> 2.85"
 Routed to Pond 103 : PROP. DCB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 30,842	98	Paved parking and roofs
5,900	61	>75% Grass cover, Good, HSG B
3,294	39	>75% Grass cover, Good, HSG A
40,036	88	Weighted Average
9,194		22.96% Pervious Area
30,842		77.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 18S: PARKING

Runoff = 1.73 cfs @ 12.09 hrs, Volume= 0.127 af, Depth> 2.74"
 Routed to Pond 101 : PROP. CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 18,415	98	Paved parking and roofs
2,765	61	>75% Grass cover, Good, HSG B
2,940	39	>75% Grass cover, Good, HSG A
24,120	87	Weighted Average
5,705		23.65% Pervious Area
18,415		76.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 19S: SITE NORTH

Runoff = 2.24 cfs @ 12.51 hrs, Volume= 0.337 af, Depth> 0.87"
 Routed to Link A : POA

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
145,762	61	>75% Grass cover, Good, HSG B
7,420	74	>75% Grass cover, Good, HSG C
9,674	70	Woods, Good, HSG C
38,721	55	Woods, Good, HSG B
201,577	61	Weighted Average
201,577		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	50	0.0080	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 2.82"
6.1	182	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
3.7	146	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
12.2	325	0.0040	0.44		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
30.7	703	Total			

Summary for Subcatchment 20S: LOADING

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 3.92"
 Routed to Pond TD : PROP. TD

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.16"

Area (sf)	CN	Description
* 648	98	Paved parking and roofs
0	39	>75% Grass cover, Good, HSG A
648	98	Weighted Average
648		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Pond 1: PROP. DMH

Inflow Area = 5.957 ac, 89.25% Impervious, Inflow Depth > 3.67" for 10-YR event
 Inflow = 19.75 cfs @ 12.13 hrs, Volume= 1.822 af
 Outflow = 19.75 cfs @ 12.13 hrs, Volume= 1.822 af, Atten= 0%, Lag= 0.0 min
 Primary = 19.75 cfs @ 12.13 hrs, Volume= 1.822 af
 Routed to Pond 2 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.43' @ 12.14 hrs
 Flood Elev= 233.51'

Device	Routing	Invert	Outlet Devices
#1	Primary	226.79'	36.0" Round Culvert L= 139.2' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 226.79' / 226.23' S= 0.0040 '/ Cc= 0.900 n= 0.013, Flow Area= 7.07 sf

Primary OutFlow Max=19.32 cfs @ 12.13 hrs HW=229.39' TW=228.82' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 19.32 cfs @ 3.97 fps)

Summary for Pond 1P: EXIST. CB

Inflow Area = 0.721 ac, 11.24% Impervious, Inflow Depth > 1.86" for 10-YR event
 Inflow = 1.54 cfs @ 12.10 hrs, Volume= 0.112 af
 Outflow = 1.54 cfs @ 12.10 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.54 cfs @ 12.10 hrs, Volume= 0.112 af
 Routed to Pond 2P : PROP. JUNCTION UNDER BLDG

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 234.37' @ 12.10 hrs
 Flood Elev= 236.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	233.58'	18.0" Round Culvert L= 225.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 233.58' / 232.00' S= 0.0070 '/ Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 1.77 sf

Primary OutFlow Max=1.52 cfs @ 12.10 hrs HW=234.36' TW=229.76' (Dynamic Tailwater)
 ↑**1=Culvert** (Barrel Controls 1.52 cfs @ 2.36 fps)

Summary for Pond 2: PROP. DCB

Inflow Area = 8.564 ac, 83.65% Impervious, Inflow Depth > 3.43" for 10-YR event
 Inflow = 27.41 cfs @ 12.12 hrs, Volume= 2.447 af
 Outflow = 27.41 cfs @ 12.12 hrs, Volume= 2.447 af, Atten= 0%, Lag= 0.0 min
 Primary = 27.41 cfs @ 12.12 hrs, Volume= 2.447 af
 Routed to Pond 3 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 228.87' @ 12.12 hrs
 Flood Elev= 231.52'

Device	Routing	Invert	Outlet Devices
#1	Primary	226.13'	42.0" Round Culvert L= 237.4' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 226.13' / 225.18' S= 0.0040 '/ Cc= 0.900 n= 0.013, Flow Area= 9.62 sf

Primary OutFlow Max=25.22 cfs @ 12.12 hrs HW=228.83' TW=228.01' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 25.22 cfs @ 4.37 fps)

Summary for Pond 2A: PROP. CB

Inflow Area = 0.524 ac, 87.27% Impervious, Inflow Depth > 3.40" for 10-YR event
 Inflow = 1.94 cfs @ 12.09 hrs, Volume= 0.149 af
 Outflow = 1.94 cfs @ 12.09 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.94 cfs @ 12.09 hrs, Volume= 0.149 af
 Routed to Pond 2 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.11' @ 12.12 hrs
 Flood Elev= 231.69'

Device	Routing	Invert	Outlet Devices
#1	Primary	228.10'	18.0" Round Culvert L= 171.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 228.10' / 226.40' S= 0.0099 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.66 cfs @ 12.09 hrs HW=229.06' TW=228.77' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 1.66 cfs @ 1.99 fps)

Summary for Pond 2B: PROP. CB

Inflow Area = 1.130 ac, 42.49% Impervious, Inflow Depth > 1.90" for 10-YR event
 Inflow = 2.46 cfs @ 12.10 hrs, Volume= 0.179 af
 Outflow = 2.46 cfs @ 12.10 hrs, Volume= 0.179 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.46 cfs @ 12.10 hrs, Volume= 0.179 af
 Routed to Pond 2 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.15' @ 12.12 hrs
 Flood Elev= 231.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	227.98'	18.0" Round Culvert L= 178.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.98' / 227.02' S= 0.0054 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.14 cfs @ 12.10 hrs HW=229.11' TW=228.81' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 2.14 cfs @ 2.08 fps)

Summary for Pond 2P: PROP. JUNCTION UNDER BLDG

Inflow Area = 5.957 ac, 89.25% Impervious, Inflow Depth > 3.67" for 10-YR event
 Inflow = 19.75 cfs @ 12.13 hrs, Volume= 1.822 af
 Outflow = 19.75 cfs @ 12.13 hrs, Volume= 1.822 af, Atten= 0%, Lag= 0.0 min
 Primary = 19.75 cfs @ 12.13 hrs, Volume= 1.822 af
 Routed to Pond 1 : PROP. DMH

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.94' @ 12.15 hrs
 Flood Elev= 237.61'

Device	Routing	Invert	Outlet Devices
#1	Primary	227.50'	36.0" Round Culvert L= 46.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.50' / 227.04' S= 0.0099' /' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf

Primary OutFlow Max=18.45 cfs @ 12.13 hrs HW=229.88' TW=229.39' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 18.45 cfs @ 4.20 fps)

Summary for Pond 3: PROP. DCB

Inflow Area = 10.578 ac, 84.09% Impervious, Inflow Depth > 3.38" for 10-YR event
 Inflow = 34.19 cfs @ 12.11 hrs, Volume= 2.982 af
 Outflow = 34.19 cfs @ 12.11 hrs, Volume= 2.982 af, Atten= 0%, Lag= 0.0 min
 Primary = 34.19 cfs @ 12.11 hrs, Volume= 2.982 af
 Routed to Pond WP1 : PROP. WET POND #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 228.04' @ 12.14 hrs
 Flood Elev= 231.66'

Device	Routing	Invert	Outlet Devices
#1	Primary	225.14'	42.0" Round Culvert L= 133.8' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 225.14' / 224.60' S= 0.0040' /' Cc= 0.900 n= 0.013, Flow Area= 9.62 sf

Primary OutFlow Max=33.66 cfs @ 12.11 hrs HW=228.01' TW=227.01' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 33.66 cfs @ 5.43 fps)

Summary for Pond 3A: PROP. CB

Inflow Area = 0.439 ac, 96.62% Impervious, Inflow Depth > 3.78" for 10-YR event
 Inflow = 1.72 cfs @ 12.09 hrs, Volume= 0.138 af
 Outflow = 1.72 cfs @ 12.09 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.72 cfs @ 12.09 hrs, Volume= 0.138 af
 Routed to Pond 3 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 228.44' @ 12.10 hrs
 Flood Elev= 231.79'

Device	Routing	Invert	Outlet Devices
#1	Primary	227.55'	15.0" Round Culvert L= 171.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.55' / 225.85' S= 0.0099' /' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.54 cfs @ 12.09 hrs HW=228.41' TW=227.93' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 1.54 cfs @ 2.40 fps)

Summary for Pond 3B: PROP. CB

Inflow Area = 0.679 ac, 75.03% Impervious, Inflow Depth > 2.50" for 10-YR event
 Inflow = 1.95 cfs @ 12.09 hrs, Volume= 0.141 af
 Outflow = 1.95 cfs @ 12.09 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.95 cfs @ 12.09 hrs, Volume= 0.141 af
 Routed to Pond 3 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 228.67' @ 12.10 hrs
 Flood Elev= 232.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	227.82'	15.0" Round Culvert L= 163.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.82' / 226.19' S= 0.0100' /' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.79 cfs @ 12.09 hrs HW=228.66' TW=227.96' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 1.79 cfs @ 2.91 fps)

Summary for Pond 3P: PROP. DMH

Inflow Area = 1.118 ac, 57.23% Impervious, Inflow Depth > 0.56" for 10-YR event
 Inflow = 0.20 cfs @ 13.12 hrs, Volume= 0.052 af
 Outflow = 0.20 cfs @ 13.12 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.20 cfs @ 13.12 hrs, Volume= 0.052 af
 Routed to Pond 104 : PROP. DMH

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 228.00' @ 13.06 hrs
 Flood Elev= 232.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	227.31'	15.0" Round Culvert L= 73.4' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.31' / 226.58' S= 0.0099 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=0.19 cfs @ 13.12 hrs HW=228.00' TW=227.99' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 0.19 cfs @ 0.41 fps)

Summary for Pond 101: PROP. CB

Inflow Area = 0.554 ac, 76.35% Impervious, Inflow Depth > 2.74" for 10-YR event
 Inflow = 1.73 cfs @ 12.09 hrs, Volume= 0.127 af
 Outflow = 1.73 cfs @ 12.09 hrs, Volume= 0.127 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.73 cfs @ 12.09 hrs, Volume= 0.127 af
 Routed to Pond 103 : PROP. DCB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 228.13' @ 12.10 hrs
 Flood Elev= 230.92'

Device	Routing	Invert	Outlet Devices
#1	Primary	227.34'	15.0" Round Culvert L= 141.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.34' / 226.63' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.62 cfs @ 12.09 hrs HW=228.12' TW=227.46' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 1.62 cfs @ 2.90 fps)

Summary for Pond 102: PROP. CB

Inflow Area = 0.517 ac, 60.01% Impervious, Inflow Depth > 1.81" for 10-YR event
 Inflow = 0.99 cfs @ 12.09 hrs, Volume= 0.078 af
 Outflow = 0.99 cfs @ 12.09 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.99 cfs @ 12.09 hrs, Volume= 0.078 af
 Routed to Pond 201 : PROP. CB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.83' @ 13.16 hrs
 Flood Elev= 232.76'

Device	Routing	Invert	Outlet Devices
#1	Primary	229.11'	15.0" Round Culvert L= 129.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 229.11' / 228.59' S= 0.0040 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=0.97 cfs @ 12.09 hrs HW=229.76' TW=229.37' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 0.97 cfs @ 2.19 fps)

Summary for Pond 102A: PROP. CB

Inflow Area = 0.354 ac, 45.12% Impervious, Inflow Depth > 1.04" for 10-YR event
 Inflow = 0.38 cfs @ 12.10 hrs, Volume= 0.031 af
 Outflow = 0.38 cfs @ 12.10 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.38 cfs @ 12.10 hrs, Volume= 0.031 af
 Routed to Pond 102 : PROP. CB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.96' @ 12.11 hrs
 Flood Elev= 232.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	229.56'	12.0" Round Culvert L= 39.9' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 229.56' / 229.36' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.36 cfs @ 12.10 hrs HW=229.95' TW=229.76' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 0.36 cfs @ 1.86 fps)

Summary for Pond 103: PROP. DCB

[80] Warning: Exceeded Pond 101 by 0.06' @ 21.35 hrs (0.16 cfs 0.016 af)

Inflow Area = 1.473 ac, 76.78% Impervious, Inflow Depth > 2.81" for 10-YR event
 Inflow = 4.70 cfs @ 12.09 hrs, Volume= 0.345 af
 Outflow = 4.70 cfs @ 12.09 hrs, Volume= 0.344 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.70 cfs @ 12.09 hrs, Volume= 0.344 af
 Routed to Pond 104 : PROP. DMH

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 227.99' @ 13.01 hrs
 Flood Elev= 232.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	226.18'	24.0" Round Culvert L= 150.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 226.18' / 225.43' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=4.51 cfs @ 12.09 hrs HW=227.46' TW=226.96' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 4.51 cfs @ 3.04 fps)

Summary for Pond 104: PROP. DMH

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=56)
 [80] Warning: Exceeded Pond 3P by 0.40' @ 19.75 hrs (0.70 cfs 0.044 af)
 [80] Warning: Exceeded Pond 103 by 1.48' @ 19.75 hrs (9.67 cfs 0.385 af)

Inflow Area = 2.591 ac, 68.34% Impervious, Inflow Depth > 1.84" for 10-YR event
 Inflow = 4.70 cfs @ 12.09 hrs, Volume= 0.397 af
 Outflow = 4.70 cfs @ 12.09 hrs, Volume= 0.396 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.70 cfs @ 12.09 hrs, Volume= 0.396 af
 Routed to Pond 105 : PROP. DMH

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 227.99' @ 13.02 hrs
 Flood Elev= 234.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	225.33'	30.0" Round Culvert L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 225.33' / 225.10' S= 0.0041 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=226.96' TW=227.02' (Dynamic Tailwater)
 ↑1=Culvert (Controls 0.00 cfs)

Summary for Pond 105: PROP. DMH

[80] Warning: Exceeded Pond 104 by 0.14' @ 12.20 hrs (6.77 cfs 1.164 af)

Inflow Area = 2.605 ac, 68.53% Impervious, Inflow Depth > 1.84" for 10-YR event
 Inflow = 4.76 cfs @ 12.09 hrs, Volume= 0.401 af
 Outflow = 4.76 cfs @ 12.09 hrs, Volume= 0.400 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.76 cfs @ 12.09 hrs, Volume= 0.400 af
 Routed to Pond WP1 : PROP. WET POND #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 227.99' @ 12.97 hrs
 Flood Elev= 235.37'

Device	Routing	Invert	Outlet Devices
#1	Primary	225.00'	30.0" Round Culvert L= 103.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 225.00' / 224.59' S= 0.0040 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf

Primary OutFlow Max=4.66 cfs @ 12.09 hrs HW=227.02' TW=226.94' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 4.66 cfs @ 1.50 fps)

Summary for Pond 201: PROP. CB

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=5)

[80] Warning: Exceeded Pond 102 by 0.02' @ 12.85 hrs (0.24 cfs 0.007 af)

Inflow Area = 1.118 ac, 57.23% Impervious, Inflow Depth > 1.80" for 10-YR event
 Inflow = 2.13 cfs @ 12.09 hrs, Volume= 0.168 af
 Outflow = 2.13 cfs @ 12.09 hrs, Volume= 0.168 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.13 cfs @ 12.09 hrs, Volume= 0.168 af
 Routed to Pond UIP1 : PROP. UIP#1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.83' @ 13.11 hrs
 Flood Elev= 233.17'

Device	Routing	Invert	Outlet Devices
#1	Primary	228.49'	15.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 228.49' / 228.34' S= 0.0041 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.10 cfs @ 12.09 hrs HW=229.37' TW=228.64' (Dynamic Tailwater)
 ↑1=Culvert (Barrel Controls 2.10 cfs @ 3.20 fps)

Summary for Pond 201A: PROP. CB

Inflow Area = 0.430 ac, 40.47% Impervious, Inflow Depth > 1.12" for 10-YR event
 Inflow = 0.50 cfs @ 12.10 hrs, Volume= 0.040 af
 Outflow = 0.50 cfs @ 12.10 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.50 cfs @ 12.10 hrs, Volume= 0.040 af
 Routed to Pond 201 : PROP. CB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 230.16' @ 12.10 hrs
 Flood Elev= 233.39'

Device	Routing	Invert	Outlet Devices
#1	Primary	229.83'	15.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 229.83' / 228.59' S= 0.0310 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=0.50 cfs @ 12.10 hrs HW=230.16' TW=229.37' (Dynamic Tailwater)
 ↑1=Culvert (Inlet Controls 0.50 cfs @ 1.95 fps)

Summary for Pond ADs: PROP. AD#1-1, AD#1-2, and AD#1-3

Inflow Area = 0.281 ac, 19.38% Impervious, Inflow Depth > 1.64" for 10-YR event
 Inflow = 0.52 cfs @ 12.10 hrs, Volume= 0.038 af
 Outflow = 0.52 cfs @ 12.10 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.52 cfs @ 12.10 hrs, Volume= 0.038 af
 Routed to Pond 2B : PROP. CB

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 230.34' @ 12.10 hrs
 Flood Elev= 231.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	229.92'	8.0" Round Culvert L= 39.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 229.92' / 228.81' S= 0.0285' / Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.52 cfs @ 12.10 hrs HW=230.34' TW=229.12' (Dynamic Tailwater)
 ↑**1=Culvert** (Inlet Controls 0.52 cfs @ 2.21 fps)

Summary for Pond EX: PROP. DMH

Inflow Area = 14.471 ac, 74.60% Impervious, Inflow Depth > 1.41" for 10-YR event
 Inflow = 4.44 cfs @ 13.11 hrs, Volume= 1.700 af
 Outflow = 4.44 cfs @ 13.11 hrs, Volume= 1.700 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.44 cfs @ 13.11 hrs, Volume= 1.700 af
 Routed to Link A : POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 226.30' @ 13.11 hrs
 Flood Elev= 231.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	224.42'	12.0" Round Culvert L= 14.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 224.42' / 224.28' S= 0.0100' / Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf

Primary OutFlow Max=4.44 cfs @ 13.11 hrs HW=226.30' TW=0.00' (Dynamic Tailwater)
 ↑**1=Culvert** (Inlet Controls 4.44 cfs @ 5.66 fps)

Summary for Pond TD: PROP. TD

Inflow Area = 0.015 ac, 100.00% Impervious, Inflow Depth > 3.92" for 10-YR event
 Inflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af
 Outflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af
 Routed to Pond 105 : PROP. DMH

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 230.15' @ 12.09 hrs
 Flood Elev= 232.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	230.00'	6.0" Round Culvert L= 58.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 230.00' / 229.50' S= 0.0086 '/ Cc= 0.900 n= 0.013, Flow Area= 0.20 sf

Primary OutFlow Max=0.06 cfs @ 12.09 hrs HW=230.15' TW=227.00' (Dynamic Tailwater)
 ←1=Culvert (Barrel Controls 0.06 cfs @ 1.71 fps)

Summary for Pond UIP1: PROP. UIP#1

Inflow Area = 1.118 ac, 57.23% Impervious, Inflow Depth > 1.80" for 10-YR event
 Inflow = 2.13 cfs @ 12.09 hrs, Volume= 0.168 af
 Outflow = 0.21 cfs @ 13.12 hrs, Volume= 0.078 af, Atten= 90%, Lag= 61.4 min
 Discarded = 0.02 cfs @ 8.80 hrs, Volume= 0.026 af
 Primary = 0.20 cfs @ 13.12 hrs, Volume= 0.052 af
 Routed to Pond 3P : PROP. DMH

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 229.83' @ 13.12 hrs Surf.Area= 2,458 sf Storage= 3,977 cf
 Flood Elev= 231.00' Surf.Area= 2,458 sf Storage= 5,261 cf

Plug-Flow detention time= 252.5 min calculated for 0.078 af (46% of inflow)
 Center-of-Mass det. time= 120.8 min (939.8 - 819.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	227.45'	2,229 cf	30.00'W x 81.94'L x 3.50'H Field A 8,603 cf Overall - 3,032 cf Embedded = 5,571 cf x 40.0% Voids
#2A	227.95'	3,032 cf	ADS_StormTech SC-740 +Cap x 66 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 66 Chambers in 6 Rows
		5,261 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	227.68'	15.0" Round Culvert L= 27.4' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 227.68' / 227.41' S= 0.0099 '/ Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	229.78'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Discarded	227.45'	0.300 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.02 cfs @ 8.80 hrs HW=227.49' (Free Discharge)
 ↳ **3=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.19 cfs @ 13.12 hrs HW=229.83' TW=228.00' (Dynamic Tailwater)
 ↳ **1=Culvert** (Passes 0.19 cfs of 7.27 cfs potential flow)
 ↳ **2=Sharp-Crested Rectangular Weir** (Weir Controls 0.19 cfs @ 0.70 fps)

Summary for Pond WP1: PROP. WET POND #1

[80] Warning: Exceeded Pond 105 by 2.79' @ 19.70 hrs (24.78 cfs 1.249 af)

Inflow Area = 14.471 ac, 74.60% Impervious, Inflow Depth > 2.93" for 10-YR event
 Inflow = 40.78 cfs @ 12.11 hrs, Volume= 3.534 af
 Outflow = 4.44 cfs @ 13.11 hrs, Volume= 1.700 af, Atten= 89%, Lag= 60.4 min
 Primary = 4.44 cfs @ 13.11 hrs, Volume= 1.700 af
 Routed to Pond EX : PROP. DMH
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link A : POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Starting Elev= 224.60' Surf.Area= 8,009 sf Storage= 36,399 cf
 Peak Elev= 227.99' @ 12.97 hrs Surf.Area= 35,822 sf Storage= 128,582 cf (92,183 cf above start)
 Flood Elev= 230.00' Surf.Area= 40,415 sf Storage= 205,174 cf (168,775 cf above start)

Plug-Flow detention time= 543.2 min calculated for 0.863 af (24% of inflow)
 Center-of-Mass det. time= 182.2 min (961.8 - 779.6)

Volume	Invert	Avail.Storage	Storage Description
#1	216.60'	205,174 cf	Wet Pond (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
216.60	1,719	168.0	0	0	1,719
218.00	2,527	200.0	2,954	2,954	2,691
220.00	3,917	246.0	6,393	9,348	4,383
222.00	5,577	291.7	9,445	18,793	6,411
224.00	7,440	329.4	12,972	31,765	8,375
224.60	8,009	340.0	4,634	36,399	8,975
226.00	31,131	738.0	25,634	62,033	43,125
228.00	35,848	751.0	66,924	128,956	45,268
230.00	40,415	788.0	76,217	205,174	50,053

Device	Routing	Invert	Outlet Devices
#1	Primary	224.60'	12.0" Round Culvert L= 60.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 224.60' / 224.36' S= 0.0040 '/' Cc= 0.900
#2	Device 1	224.60'	2.0" Vert. Extended Detention Drain Orifice C= 0.600 Limited to weir flow at low heads
#3	Device 1	225.60'	4.5" Vert. Flow Control Orifice C= 0.600

#4	Device 1	227.80'	Limited to weir flow at low heads 48.0" x 48.0" Horiz. Riser Top Opening C= 0.600
#5	Secondary	228.90'	Limited to weir flow at low heads 10.0' long x 10.0' breadth Overflow Emergency Spillway Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.45 cfs @ 13.11 hrs HW=227.99' TW=226.30' (Dynamic Tailwater)

- ↑ 1=Culvert (Outlet Controls 4.45 cfs @ 5.66 fps)
- ↑ 2=Extended Detention Drain Orifice (Passes < 0.14 cfs potential flow)
- ↑ 3=Flow Control Orifice (Passes < 0.69 cfs potential flow)
- ↑ 4=Riser Top Opening (Passes < 4.18 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=224.60' TW=0.00' (Dynamic Tailwater)

- ↑ 5=Overflow Emergency Spillway Weir (Controls 0.00 cfs)

Summary for Link A: POA

Inflow Area = 19.585 ac, 55.16% Impervious, Inflow Depth > 1.27" for 10-YR event
 Inflow = 6.47 cfs @ 12.66 hrs, Volume= 2.071 af
 Primary = 6.47 cfs @ 12.66 hrs, Volume= 2.071 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

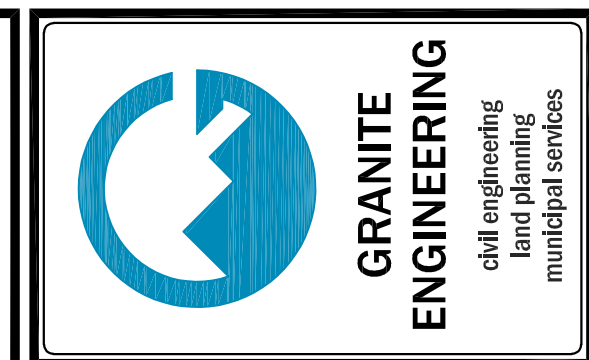
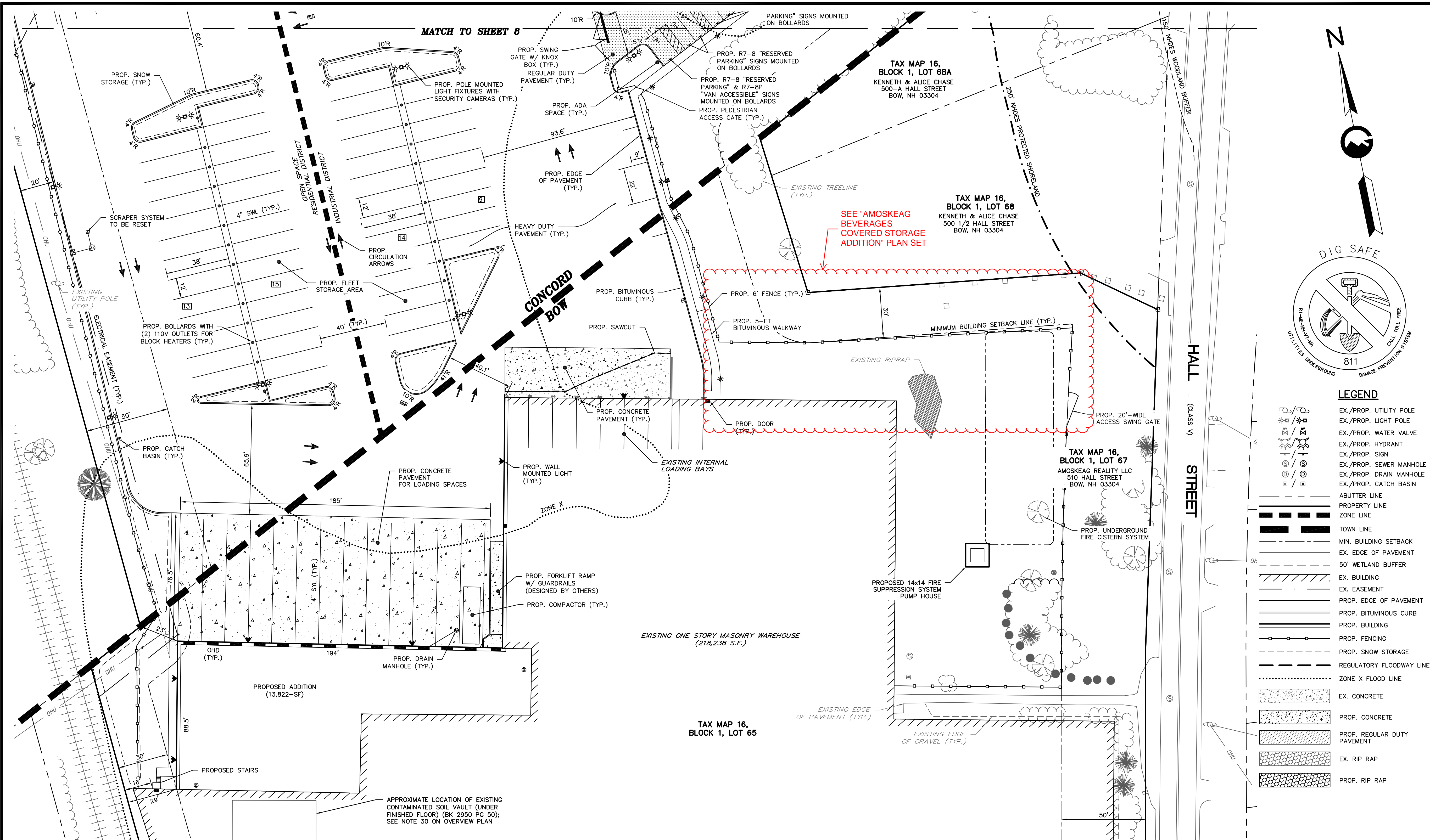
Summary for Link B: POA

Inflow Area = 1.259 ac, 27.72% Impervious, Inflow Depth > 2.03" for 10-YR event
 Inflow = 2.93 cfs @ 12.09 hrs, Volume= 0.213 af
 Primary = 2.93 cfs @ 12.09 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

9. PLANS

- A. BUBBLED APPROVED AOT SITE PLAN SHEETS (22" X 34")
 - B. COVERED STORAGE SITE PLAN SHEETS (22" X 34")
 - C. REVISED POST-DEVELOPMENT DRAINAGE AREAS PLAN (22" X 34")
 - D. REVISED POST-DEVELOPMENT DRAINAGE AREAS PLAN (22" X 34" – COLOR)
-



NO.	DATE	REVISIONS
1	07/18/2023	PROJECT SUBMITTAL
2	02/27/2023	REVISED PER CITY COMMENTS
3	04/11/2023	REVISED PER P&E COMMENTS
4	07/24/2023	REVISED PER CONDITIONS OF APPROVAL

OWNER OF LOT 4 & APPLICANT:
 AMOSKEAG BEVERAGES, LLC
 510 HALL STREET
 BOW, NH 03304

OWNER OF LOTS 3, 65 & 67:
 AMOSKEAG REALTY, LLC
 510 HALL STREET
 BOW, NH 03304

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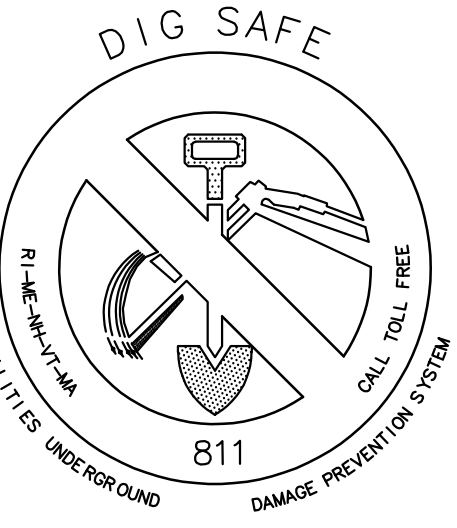
STAMP:
 PROFESSIONAL ENGINEER
 MERRITT
 No. 11778
 07/24/2023

LOCATION:
 TAX MAP 16 BLOCK 1 LOT 65 & 67 (BOW)
 TAX MAP 88Z LOTS 3 & 4
 (CONCORD)
 510 HALL STREET
 BOW & CONCORD, NEW HAMPSHIRE
 MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES

TITLE:
SITE PLAN

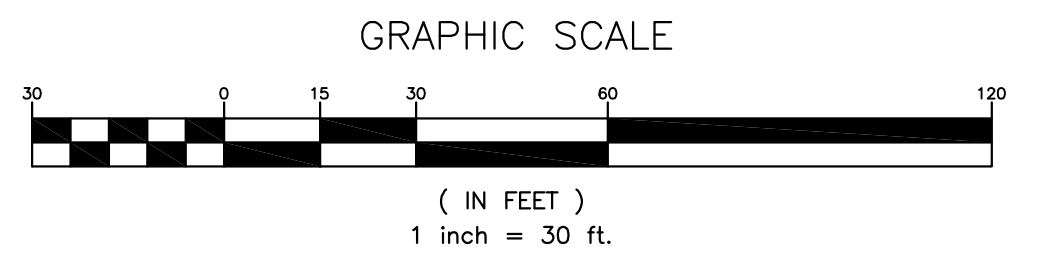
PROJECT NO. DATE: 13-1202-2 MARCH 24, 2022
 SHEET: 7 OF 29
 SCALE: HORIZ. 1" = 30'



LEGEND

- EX./PROP. UTILITY POLE
- EX./PROP. LIGHT POLE
- EX./PROP. WATER VALVE
- EX./PROP. HYDRANT
- EX./PROP. SIGN
- EX./PROP. SEWER MANHOLE
- EX./PROP. DRAIN MANHOLE
- EX./PROP. CATCH BASIN
- ABUTTER LINE
- PROPERTY LINE
- ZONE LINE
- TOWN LINE
- MIN. BUILDING SETBACK
- EX. EDGE OF PAVEMENT
- 50' WETLAND BUFFER
- EX. BUILDING
- EX. EASEMENT
- PROP. EDGE OF PAVEMENT
- PROP. BITUMINOUS CURB
- PROP. BUILDING
- PROP. FENCING
- PROP. SNOW STORAGE
- REGULATORY FLOODWAY LINE
- ZONE X FLOOD LINE
- EX. CONCRETE
- PROP. CONCRETE
- PROP. REGULAR DUTY PAVEMENT
- EX. RIP RAP
- PROP. RIP RAP

SEE SHEET 1 FOR REFERENCE PLANS AND NOTES



NEW HAMPSHIRE FISH AND GAME AOT PERMIT CONDITIONS:

- BLANDINGS TURTLE (STATE ENDANGERED) AND SPOTTED TURTLE (STATE THREATENED) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHALL BE MADE AWARE OF THE POTENTIAL PRESENCE OF THESE SPECIES AND SHALL BE PROVIDED FLYERS THAT HELP TO IDENTIFY THESE SPECIES, ALONG WITH NHFG CONTACT INFORMATION.
- RARE SPECIES INFORMATION (E.G. IDENTIFICATION, OBSERVATION AND REPORTING OF OBSERVATIONS, WHEN TO CONTACT NHFG IMMEDIATELY AND NHFG CONTACT INFORMATION) SHALL BE COMMUNICATED DURING MORNING TAILGATE MEETINGS PRIOR TO WORK COMMENCEMENT DURING THE CONSTRUCTION PHASE OF THE PROJECT. SEE PLAN SHEET 29.
- A PAYMENT OF NO LESS THAN \$96,357.56 SHALL BE MADE TO THE AQUATIC RESOURCES MITIGATION (ARM) FUND.
- TURTLES AND SNAKES MAY BE ATTRACTED TO DISTURBED GROUND DURING NESTING SEASON. TURTLE NESTING SEASON OCCURS APPROXIMATELY MAY 15TH - JUNE 30TH. ALL TURTLE SPECIES NESTS AND NORTHERN BLACK RACER NESTS ARE PROTECTED BY NH LAWS. IF A NEST IS OBSERVED OR SUSPECTED, OPERATORS SHALL CONTACT MELISSA WINTERS (603-479-1129) AND JOSH MEGYESY (978-578-0802) AT NHFG IMMEDIATELY FOR FURTHER CONSULTATION. THE NEST OR SUSPECTED NEST SHALL BE MARKED (SURROUNDING ROPED OFF OR CONE BUFFER DEPLOYED) AND AVOIDED; THIS SHALL BE COMMUNICATED TO ALL PERSONNEL ON-SITE. SITE ACTIVITIES SHALL NOT OCCUR IN THE AREA SURROUNDING THE NEST OR SUSPECTED NEST UNTIL FURTHER GUIDANCE IS PROVIDED BY NHFG.
- CATCH BASINS SHALL HAVE GRATES WITH OPENINGS NO LARGER THAN 2.25" X 2.25". SEE PLAN SHEET 25.
- OUTLET CONTROL STRUCTURES SHALL NOT CONTAIN SLUMPS, SHALL RISE AT LEAST 12" ABOVE GRADE, AND BE SET BACK AT LEAST 3' FROM ADJACENT SLOPES. SEE PLAN SHEET 24.

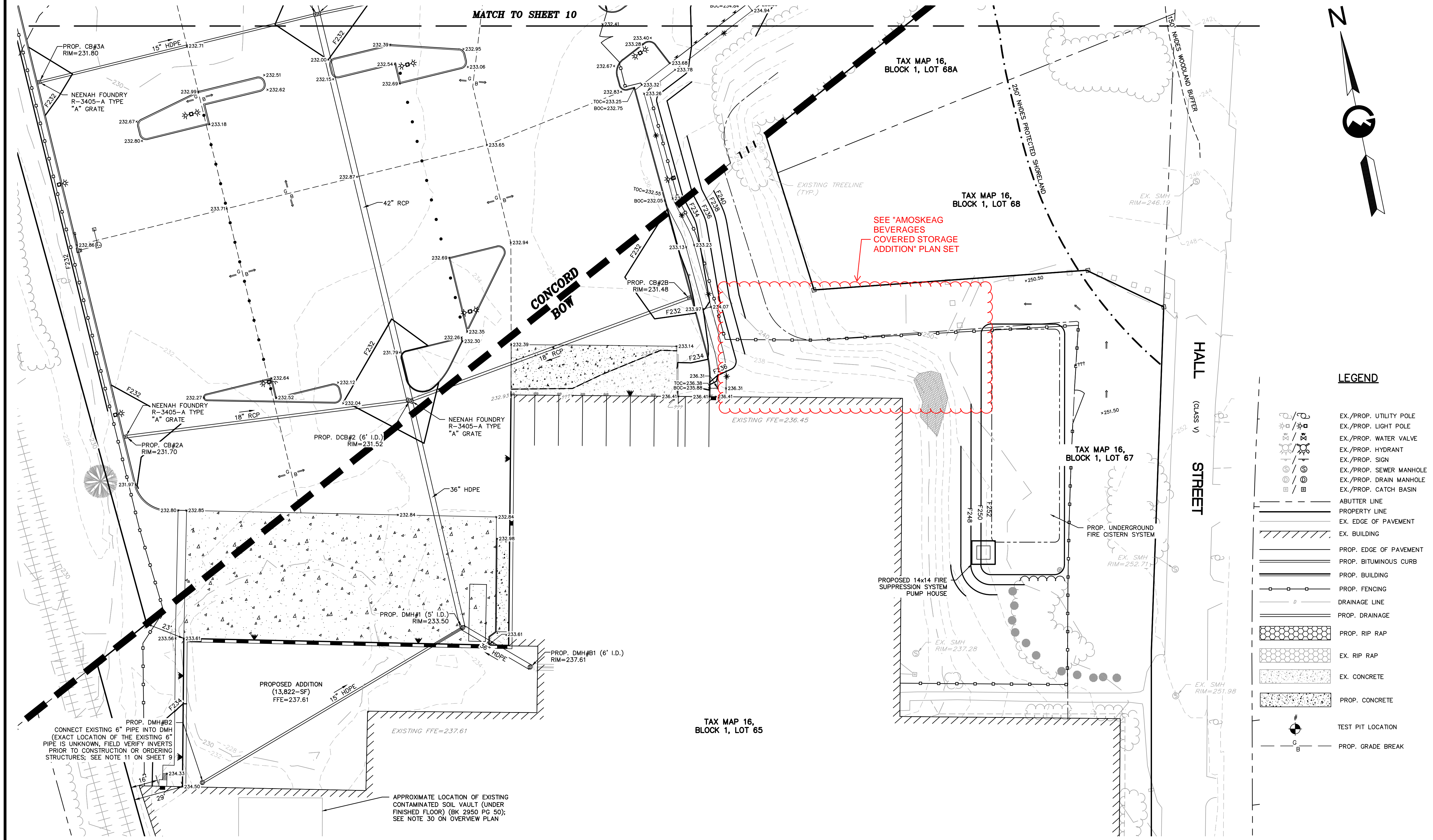
- FIRE POND DEWATERING/FILLING:
 - FIRE POND DRAWDOWN SHALL OCCUR BETWEEN MAY 1ST AND OCTOBER 1ST.
 - DRAWDOWN SHALL OCCUR GRADUALLY AND NO MORE THAN SIX INCHES PER DAY.
 - NHFG SHALL BE INFORMED NO LESS THAN 2 WEEKS IN ADVANCE OF THE DATE OF WHEN FIRE POND DEWATERING AND FILLING WILL OCCUR AND SHALL BE INFORMED WHEN ACTIVITIES ARE COMPLETED.
 - THE FIRE POND SHALL BE DRAINED USING A PUMP WITH A FULLY SCREENED INTAKE CAGE AT THE END OF THE HOSE. THE INTAKE SCREEN SHALL BE MONITORED AT ALL TIMES FOR OBSTRUCTIONS. DRAWDOWN RATE SHALL CONSIDER EFFORT REQUIRED TO PROPERLY IDENTIFY AND RELOCATE WILDLIFE (E.G. RATE OF DRAWDOWN RESULTS IN TURBIDITY THAT PREVENTS PROPER IDENTIFICATION OF WILDLIFE SPECIES OR MAY RESULT IN HARM TO WILDLIFE SPECIES).
 - JIM FOUGERE OF PONDVIEW WETLAND CONSULTANTS, LLC (603) 269-4264 SHALL BE THE ON-SITE ENVIRONMENTAL MONITOR TO HELP FACILITATE THE PROPER REMOVAL AND DOCUMENTATION OF WILDLIFE (INCLUDING ANY FISH) WITHIN THE POND.
 - UPON COMPLETION OF THESE ACTIVITIES, A FIRE POND WILDLIFE OBSERVATION REPORT SHALL BE PROVIDED TO NHFG BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM FIRE POND WILDLIFE OBSERVATION REPORT. THE REPORT SHALL INCLUDE REPRESENTATIVE PHOTOGRAPHS 11.
- DEWATERING ACTIVITIES/PROGRESSION, ALL NATIVE WILDLIFE SPECIES ENCOUNTERED (DATE/TIME/NUMBER OF INDIVIDUALS AND RELOCATION SITE, REPRESENTATIVE PHOTOGRAPHS OF NATIVE WILDLIFE SPECIES ENCOUNTERED AND RELOCATED SHALL BE PROVIDED. PHOTOGRAPHS SHALL BE INCLUDED OF ALL STATE-LISTED SPECIES ENCOUNTERED.
- NATIVE WILDLIFE SPECIES ENCOUNTERED DURING THESE ACTIVITIES, TO THE EXTENT PRACTICABLE AND UNDER THE DIRECT SUPERVISION OF THE ON-SITE

- ENVIRONMENTAL MONITOR, SHALL BE RELOCATED TO THE FUNCTIONAL WETLANDS IN THE IMMEDIATE AREA THAT OFFER SUITABLE HABITAT.
- IF SPOTTED TURTLES OR BLANDINGS TURTLES ARE ENCOUNTERED DURING THESE ACTIVITIES, SITE OPERATORS SHALL CONTACT MELISSA WINTERS (603-479-1129) AND JOSH MEGYESY (603) 271-1125 IMMEDIATELY. PHOTOGRAPHS OF THE INDIVIDUALS AND LAT/LONG OF THEIR RELEASE LOCATION SHALL BE PROVIDED.
- ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, WITH THE EXCEPTION OF TURF REINFORCEMENT MATS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES.
- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHFG NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV, WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM WILDLIFE SPECIES OBSERVATION.
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHFG IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
- IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG. O SITE OPERATORS SHALL BE ALLOWED TO RELOCATE WILDLIFE ENCOUNTERED IF DISCOVERED WITHIN THE ACTIVE WORK
- SITE OPERATORS SHALL BE ALLOWED TO RELOCATE WILDLIFE ENCOUNTERED IF DISCOVERED WITHIN THE ACTIVE WORK ZONE IF IN DIRECT HARM FROM PROJECT

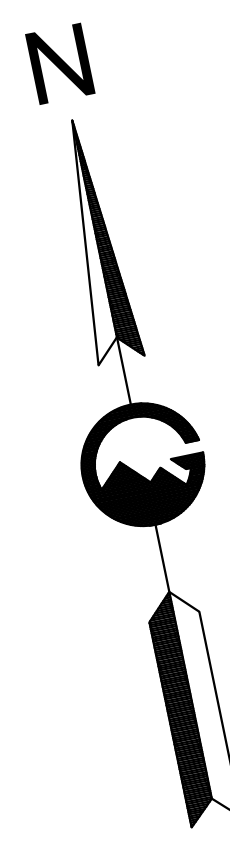
- ACTIVITIES. WILDLIFE SHALL BE RELOCATED IN CLOSE PROXIMITY TO THE CAPTURE LOCATION BUT OUTSIDE OF THE WORK ZONE AND IN THE DIRECTION THE INDIVIDUAL WAS HEADING. NHFG SHALL BE CONTACTED IMMEDIATELY IF THIS ACTION OCCURS.
- THE NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
- WOOD TURTLE (STATE SPECIES OF SPECIAL CONCERN) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHALL BE MADE AWARE OF THE POTENTIAL PRESENCE OF THESE SPECIES AND SHALL BE PROVIDED FLYERS THAT HELP TO IDENTIFY THESE SPECIES, ALONG WITH NHFG CONTACT INFORMATION.

APPROVED
 UNDER THE PROVISIONS OF R.S.A. 674:35 & R.S.A. 674:36
CITY PLANNING BOARD
 CITY OF CONCORD, NEW HAMPSHIRE
 In accordance with vote of the board dated: _____
 Approval of this plan is limited to the lots as shown
 Chair _____ Clerk _____

MATCH TO SHEET 10



SEE "AMOSKEAG BEVERAGES COVERED STORAGE ADDITION" PLAN SET

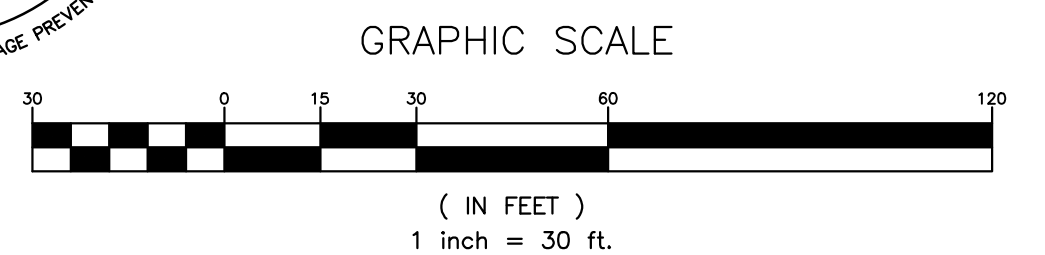


LEGEND

- EX./PROP. UTILITY POLE
- EX./PROP. LIGHT POLE
- EX./PROP. WATER VALVE
- EX./PROP. HYDRANT
- EX./PROP. SIGN
- EX./PROP. SEWER MANHOLE
- EX./PROP. DRAIN MANHOLE
- EX./PROP. CATCH BASIN
- ABUTTER LINE
- PROPERTY LINE
- EX. EDGE OF PAVEMENT
- EX. BUILDING
- PROP. EDGE OF PAVEMENT
- PROP. BITUMINOUS CURB
- PROP. BUILDING
- PROP. FENCING
- DRAINAGE LINE
- PROP. DRAINAGE
- PROP. RIP RAP
- EX. RIP RAP
- EX. CONCRETE
- PROP. CONCRETE
- TEST PIT LOCATION
- PROP. GRADE BREAK



LOAM & SEED ALL DISTURBED AREAS



CONSTRUCTION NOTES:

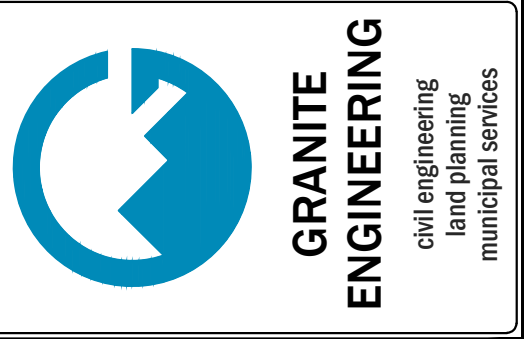
1. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED GRADING AND DRAINAGE SYSTEMS FOR THIS PROJECT.
2. ALL WORK ON THE SUBJECT PROPERTY AND WITHIN THE CITY OF CONCORD RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF CONCORD'S CONSTRUCTION STANDARDS AND DETAILS, LATEST EDITION. IN THE ABSENCE OF A SPECIFIC TOWN SPECIFICATION, CONTRACTOR SHALL FOLLOW THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2020.
3. ALL MANHOLES SHALL BE 4' DIAMETER CONCRETE STRUCTURES, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
5. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. ALL DISTURBED AREAS ARE TO BE LOAMED AND SEEDED.
7. SEE THE EROSION CONTROL PLAN FOR THE LOCATION OF THE TEMPORARY EROSION CONTROL DEVICES.
8. SEE DETAILS FOR DRAINAGE SPECIFICATIONS.
9. MATERIAL STOCKPILES SHALL BE ON LEVEL SITES WITH SILT FENCE INSTALLED AROUND THE PILE. STOCKPILES MUST BE SEEDED AND MULCHED IF STORED MORE THAN 14 DAYS.
10. THIS PROJECT DISTURBS MORE THAN 1-ACRE OF LAND, THEREFORE, IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA).

11. THE EXACT LOCATION OF THE EXISTING 6" ROOF DRAIN AT THE BUILDING IS UNKNOWN. AS SUCH, PRIOR TO CONSTRUCTION AND PRIOR TO ORDERING THE DRAINAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE THE EXACT ELEVATION OF THE ROOF DRAIN TO VERIFY COMPATIBILITY WITH THE PROPOSED DESIGN. THE INVERT ELEVATION SHALL BE REPORTED TO THE DESIGN ENGINEER. PROPER TECHNIQUES SHOULD BE TAKEN TO ENSURE THE BUILDING FOUNDATION IS NOT UNDERMINED IN ANY WAY. THE ENVIRONMENTAL REPRESENTATIVE ON-SITE HAS THE RIGHT TO HALT CONSTRUCTION IF THEY FEEL THE INTEGRITY OF THE BUILDING'S FOOTING IS IN JEOPARDY.
12. ALL STORMWATER IMPROVEMENTS WILL BE MAINTAINED BY THE PROPERTY OWNER IN PERPETUITY IN ACCORDANCE WITH:
 - LOCAL, STATE, AND FEDERAL REGULATIONS
 - NHDES STORMWATER MANUAL RECOMMENDATIONS
 - STORMWATER MAINTENANCE AND OPERATION PLANS
 - ANY MANUFACTURER SPECIFICATIONS

CITY OF CONCORD SUBSEQUENT CONDITIONS:

1. THE AMOUNT AND FORM OF FINANCIAL GUARANTEE SHALL BE PROPOSED BY THE APPLICANT AND APPROVED BY THE CLERK OF THE BOARD AND CITY ENGINEER. THE GUARANTEE SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
2. PRIOR TO ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY OR FINAL CONSTRUCTION SIGN-OFF, AS-BUILT DRAWINGS SHALL BE PROVIDED TO THE CITY ENGINEER IN ACCORDANCE WITH SECTION 12.09 OF THE SITE PLAN REGULATIONS. THE AS-BUILT DRAWINGS SHALL BE SURVEYED ON NH STATE PLANE COORDINATES AND NAVD 88 DATUM.
3. THE APPLICANT OR THEIR SUCCESSORS SHALL BE RESPONSIBLE FOR THE REGULAR MAINTENANCE OF ALL PLANTINGS AND OTHER LANDSCAPE FEATURES. PLANT MATERIALS SHALL BE MAINTAINED ALIVE, HEALTHY AND FREE FROM PESTS AND DISEASE.

APPROXIMATE LOCATION OF EXISTING CONTAMINATED SOIL VAULT (UNDER FINISHED FLOOR) (EX. 2950 PG. 50); SEE NOTE 30 ON OVERVIEW PLAN



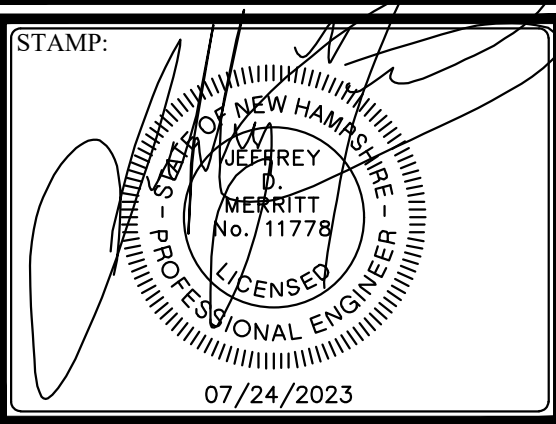
NO.	DATE	REVISIONS
1	07/18/2023	PROJECT SUBMITTAL
2	02/27/2023	REVISED PER CITY COMMENTS
3	04/17/2023	REVISED PER P&E COMMENTS
4	07/24/2023	REVISED PER CONDITIONS OF APPROVAL

OWNER OF LOT 4 & APPLICANT:
AMOSKEAG BEVERAGES, LLC
510 HALL STREET
BOW, NH 03304

OWNER OF LOTS 3, 65 & 67:
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304

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LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67 (BOW)
TAX MAP 88Z LOTS 3 & 4 (CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES

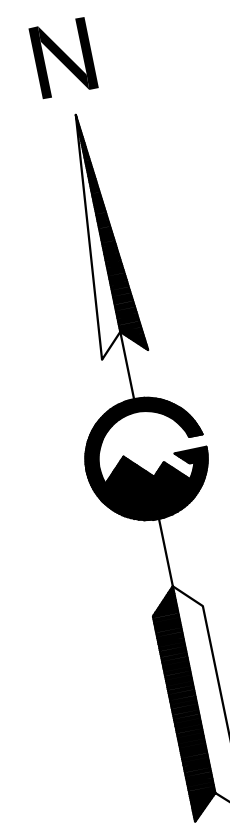
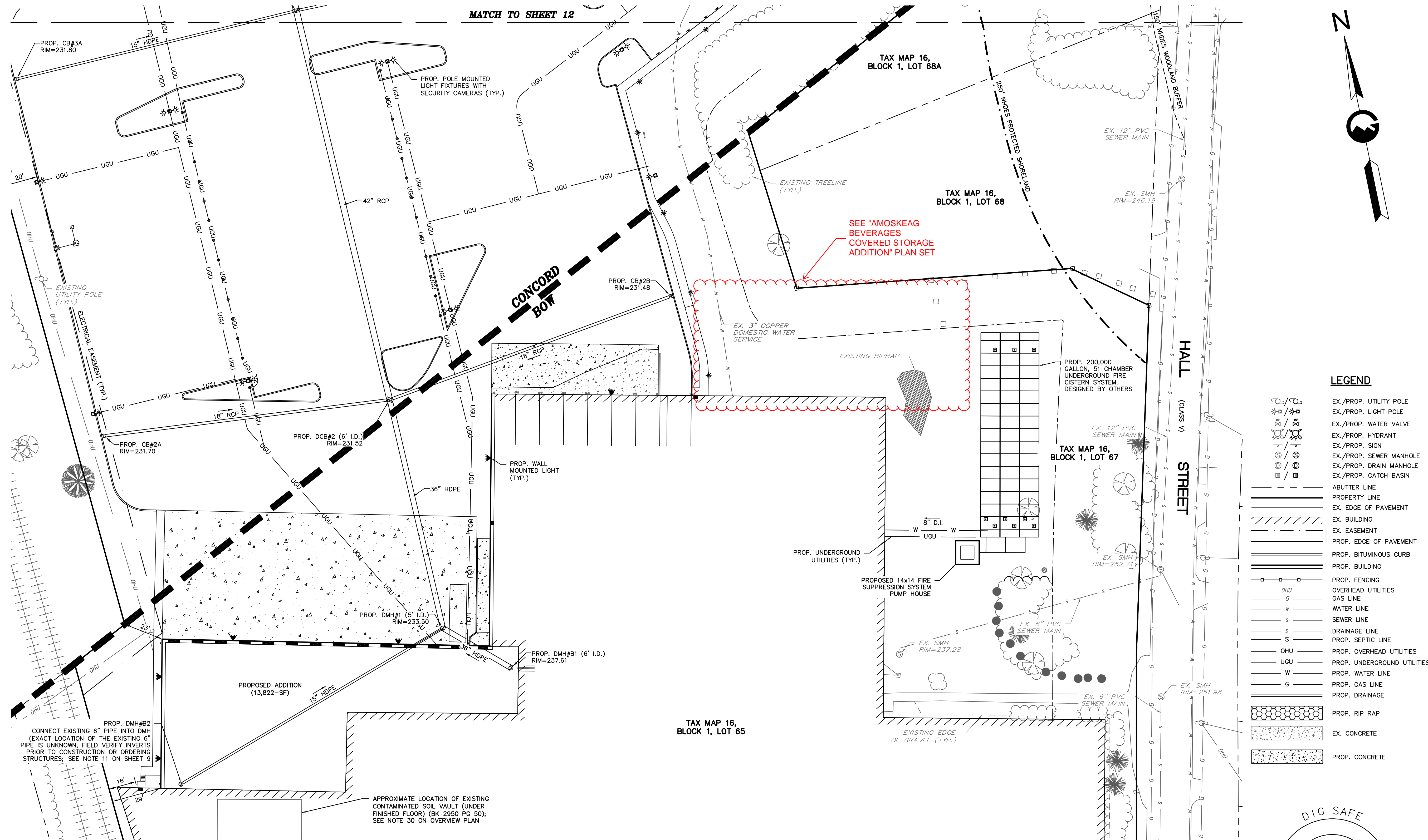
TITLE:
GRADING AND DRAINAGE PLAN

PROJECT No. / DATE:
13-1202-2 / MARCH 24, 2022

SHEET:
9 OF 29

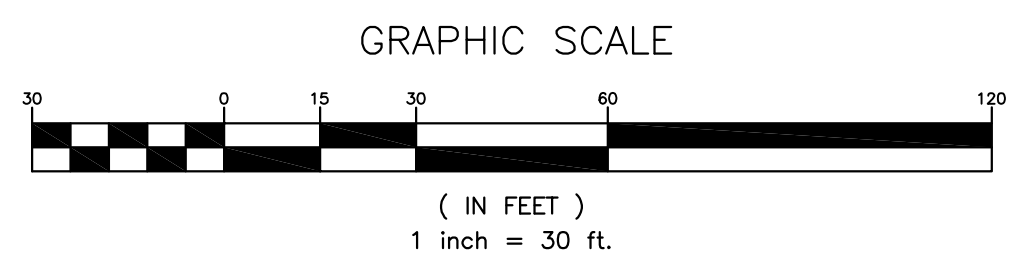
SCALE:
HORIZ. 1" = 30'

MATCH TO SHEET 12



LEGEND

	EX./PROP. UTILITY POLE
	EX./PROP. LIGHT POLE
	EX./PROP. WATER VALVE
	EX./PROP. HYDRANT
	EX./PROP. SIGN
	EX./PROP. SEWER MANHOLE
	EX./PROP. DRAIN MANHOLE
	EX./PROP. CATCH BASIN
	ABUTTER LINE
	PROPERTY LINE
	EX. EDGE OF PAVEMENT
	EX. BUILDING
	EX. EASEMENT
	PROP. EDGE OF PAVEMENT
	PROP. BITUMINOUS CURB
	PROP. BUILDING
	PROP. FENCING
	OVERHEAD UTILITIES
	GAS LINE
	WATER LINE
	SEWER LINE
	DRAINAGE LINE
	PROP. SEPTIC LINE
	PROP. OVERHEAD UTILITIES
	PROP. UNDERGROUND UTILITIES
	PROP. WATER LINE
	PROP. GAS LINE
	PROP. DRAINAGE
	PROP. RIP RAP
	EX. CONCRETE
	PROP. CONCRETE



CONSTRUCTION NOTES:

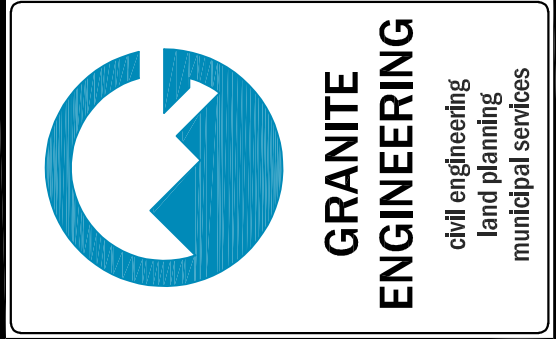
- THIS PLAN ILLUSTRATES THE CONSTRUCTION OF AN UNDERGROUND WATER CISTERN FOR FIRE PROTECTION. THIS SYSTEM SHALL BE FILLED BY TANKER TRUCKS UTILIZING WATER SOURCED OFF SITE.
- ALL WORK SHALL CONFORM TO THE CITY OF CONCORD STANDARD SPECIFICATIONS FOR ROAD, DRAIN & SEWER CONSTRUCTION, APPROVED AND ADOPTED JANUARY 2019. IN THE ABSENCE OF A SPECIFIC CITY SPECIFICATION, CONTRACTOR SHALL FOLLOW THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
- ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE WATER LINES SHALL CONFORM TO ALL THE LOCAL PRECINCT'S STANDARDS, SPECIFICATIONS, RULES, AND REGULATIONS.
- ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE ELECTRIC AND TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE LOCAL PROVIDER.
- CONTRACTOR SHALL COORDINATE WITH LOCAL PROVIDER RELATIVE TO FINAL LAYOUT OF UNDERGROUND UTILITIES.
- ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- CONTRACTOR TO VERIFY SIZE OF WATER SERVICE LINES WITH ARCHITECT PRIOR TO THE START OF CONSTRUCTION.
- FINAL LAYOUT OF UNDERGROUND UTILITIES TO BE APPROVED BY LOCAL PROVIDER PRIOR TO CONSTRUCTION.
- ALL UTILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 25.02(1) OF THE CITY OF CONCORD SITE PLAN REGULATIONS.

WATER CONSTRUCTION NOTES:

- ALL DISTRIBUTION MATERIALS, INCLUDING MAINS, FITTINGS AND VALVES, TO MEET APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) AND NEW HAMPSHIRE DES-DRINKING WATER GROUNDWATER BUREAU STANDARDS, AS APPLICABLE.
- ALL INSTALLATION AND TESTING OF MATERIALS TO CONFORM TO AWWA STANDARDS FOR POTABLE WATER SYSTEMS.

CITY OF CONCORD CONSTRUCTION REQUIREMENTS:

- SHOP DRAWINGS/SUBMITTALS SHALL BE SUBMITTED TO ENGINEERING FOR THE PROPOSED WATER, SEWER, AND DRAINAGE IMPROVEMENTS, AS APPLICABLE.
- PER SITE PLAN REGULATION 12.09, PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO), THE CONTRACTOR SHALL SUBMIT DIGITAL AS-BUILT DRAWINGS THAT ARE TO THE SATISFACTION OF ENGINEERING AND CONFORMING TO THE ENGINEERING AS-BUILT CHECKLIST. A COPY OF THE AS-BUILT DRAWING REQUIREMENTS IS AVAILABLE ON THE ENGINEERING SERVICES DIVISION SECTION OF THE CITY OF CONCORD WEBSITE.
- RETAINING WALL DESIGN DRAWINGS (STAMPED STRUCTURAL ENGINEER LICENSED IN THE STATE OF NH) SHALL BE SUBMITTED TO ENGINEERING FOR PROPOSED RETAINING WALLS THAT ARE GREATER THAN 4 FEET HIGH. IN ADDITION, WALLS GREATER THAN 48 INCHES REQUIRE A BUILDING PERMIT FROM THE CODE ADMINISTRATIONS OFFICE.



No.	DATE	COMMENTS
1	07/18/2023	PROJECT SUBMITTAL
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3	04/11/2023	REVISED PER P&E COMMENTS
4	07/24/2023	REVISED PER CONDITIONS OF APPROVAL

OWNER OF LOT 4 & APPLICANT:
AMOSKEAG BEVERAGES, LLC
 510 HALL STREET
 BOW, NH 03304

OWNER OF LOTS 3, 65 & 67:
AMOSKEAG REALTY, LLC
 510 HALL STREET
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 Manchester, New Hampshire 03101
 603.518.8030
 www.GraniteEng.com

STAMP: [Professional Engineer Seal for Merritt No. 11778, dated 07/24/2023]

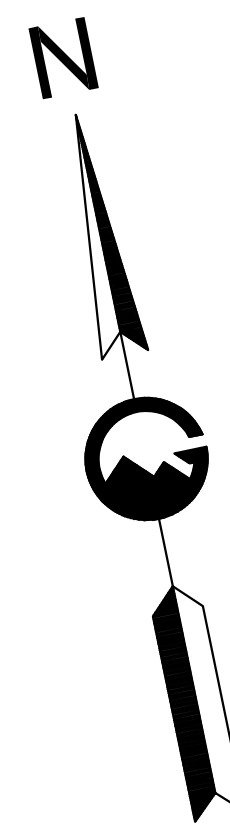
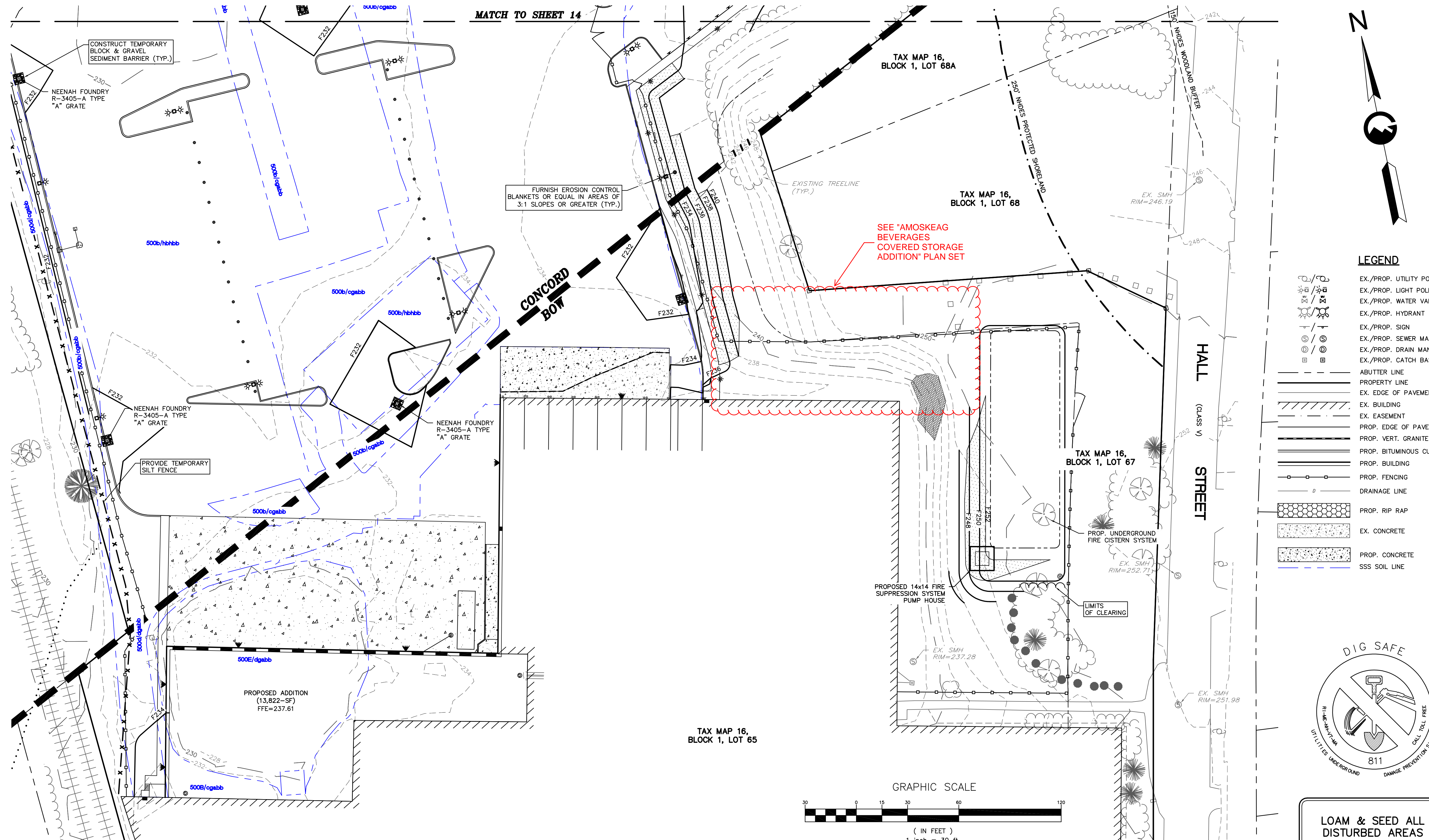
LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
TAX MAP 88Z LOTS 3 & 4
(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES

TITLE:
UTILITY PLAN

PROJECT No. DATE: 13-1202-2 MARCH 24, 2022
 SHEET: 11 OF 29
 SCALE: HORIZ. 1"=30'

MATCH TO SHEET 14



LEGEND

- EX./PROP. UTILITY POLE
- EX./PROP. LIGHT POLE
- EX./PROP. WATER VALVE
- EX./PROP. HYDRANT
- EX./PROP. SIGN
- EX./PROP. SEWER MANHOLE
- EX./PROP. DRAIN MANHOLE
- EX./PROP. CATCH BASIN
- ABUTTER LINE
- PROPERTY LINE
- EX. EDGE OF PAVEMENT
- EX. BUILDING
- EX. EASEMENT
- PROP. EDGE OF PAVEMENT
- PROP. VERT. GRANITE CURB
- PROP. BITUMINOUS CURB
- PROP. BUILDING
- PROP. FENCING
- DRAINAGE LINE
- PROP. RIP RAP
- EX. CONCRETE
- PROP. CONCRETE
- SSS SOIL LINE

REVISIONS

No.	DATE	COMMENTS
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 Manchester, New Hampshire 03101
 603.518.8030

www.GraniteEng.com

STAMP: [Professional Engineer Seal for Thomas E. Souza, License No. 11778, State of New Hampshire, dated 07/24/2023]

LOCATION:
 TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
 TAX MAP 88Z LOTS 3 & 4
 (CONCORD)
 510 HALL STREET
 BOW & CONCORD, NEW HAMPSHIRE
 MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES

TITLE:
EROSION CONTROL PLAN

PROJECT No. / DATE: 13-1202-2 / MARCH 24, 2022
 SHEET: 13 OF 29
 SCALE: HORIZ. 1"=30'

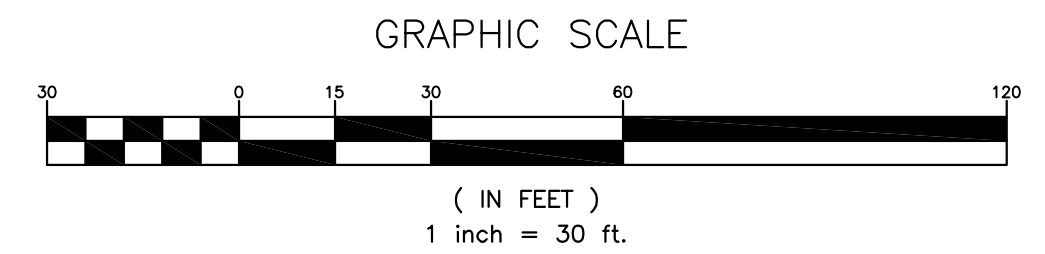
- EROSION CONTROL NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES.
 - ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" AS PUBLISHED AND AMENDED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
 - WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 - APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
 - THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 - MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED PROMPTLY AFTER FINAL SITE STABILIZATION OR OTHERWISE NO LONGER REQUIRED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 - THE CITY OF CONCORD SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 - THE RESPONSIBLE PARTY SHALL INSTALL, INSPECT, REPORT, OPERATE, AND MAINTAIN ALL STORMWATER MANAGEMENT AND EROSION CONTROL MEASURES REQUIRED BY THESE PLANS.
 - TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT.
 - ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
 - IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
 - DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENV-A 1000.
 - IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
 - GRADED AREAS SHALL BE VEGETATED TO INSURE EROSION CONTROL BY SEEDING, MULCHING, AND FERTILIZING. DISTURBED AREAS SHALL BE PLANTED WITH SUITABLE PLANT MATERIALS.
 - GRADING SHALL NOT EXCEED A RATIO OF 3 HORIZONTAL TO 1 VERTICAL WITHOUT SPECIAL EROSION CONTROL MEASURES. NETTING OR SIMILAR MATERIAL SHALL BE PROVIDED ON SLOPES WITH A RATION GREATER THAN 3:1 WHILE GROUND COVER IS BEING ESTABLISHED.
 - USE NONWOVEN COIR FABRIC WHEN A SURFACE FABRIC TREATMENT IS REQUIRED FOR EROSION CONTROL AND STABILIZATION, SUCH AS 100% BIODEGRADABLE COCONUT FIBER MAT OR EQUAL AS REVIEWED AND APPROVED BY THE PROJECT DESIGN ENGINEER.
 - USE WOVEN COIR FABRIC WHEN SITE CONDITIONS WARRANT. THE OUTER LAYER OF WOVEN COIR FABRIC SHOULD BE A HIGH STRENGTH, CONTINUOUSLY WOVEN MAT (I.E., WITHOUT SEAMS) AND MADE OF 100% COCONUT FIBER.
 - THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE GREATER THAN 1/8" MATERIAL UTILIZED (N/A TO TURF REINFORCEMENT MATS).
 - TURF REINFORCEMENT MATS SHALL BE COVERED WITH SOIL TO PREVENT EXPOSURE OF THE MATS TO THE SURFACE.

TAX MAP 16, BLOCK 1, LOT 65

TAX MAP 16, BLOCK 1, LOT 68A

TAX MAP 16, BLOCK 1, LOT 68

TAX MAP 16, BLOCK 1, LOT 67



EROSION & SEDIMENT CONTROL LEGEND

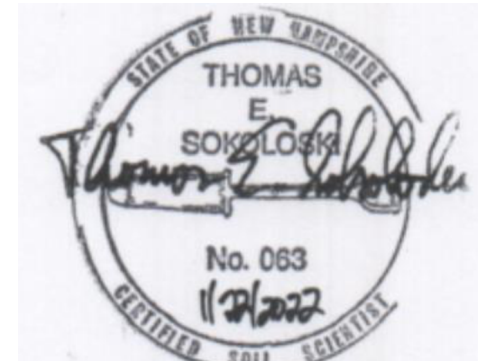
- TEMPORARY DANDY BAGS
- TEMPORARY BLOCK & GRAVEL SEDIMENT BARRIER
- TEMPORARY STONE CHECK DAM
- SILT FENCE
- STABILIZED CONSTRUCTION EXIT
- EROSION BLANKET
- OUTLET PROTECTION
- LIMITS OF CLEARING

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
5B	RIPPOMAW FINE SANDY LOAM	0-8%	POORLY
400B/abaaa	UDORTHENTS, SAND	0-8%	EXCESSIVELY
400C/abaaa	UDORTHENTS, SAND	8-15%	EXCESSIVELY
400D/abaaa	UDORTHENTS, SAND	15-25%	EXCESSIVELY
500B/cgabb	UDORTHENTS, SAND	0-8%	WELL
500D/cgabb	UDORTHENTS, SAND	15-25%	WELL
500B/dgabb	UDORTHENTS, SAND	0-8%	MODERATELY WELL
500D/dgabb	UDORTHENTS, SAND	15-25%	MODERATELY WELL
500B/hbhhh	UDORTHENTS, SAND	0-8%	UNDETERMINABLE*

*ASSUMED TO BE WELL DRAINED BASE ON ADJACENT SOILS

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.



LOAM & SEED ALL DISTURBED AREAS

TRENCH CONSTRUCTION NOTES:

- PIPE TRENCH BEDDING MATERIAL FOR EXCAVATION BELOW GRADE SHALL BE SCREENED GRAVEL OR CRUSHED STONE MEETING THE ASTM C33/C33M STONE SIZE NO. 67 STANDARD IN EFFECT WHEN THE STONE IS USED.
- SUBJECT TO (2.1), BELOW THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSES A 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE.
- IN LIEU OF THE SAND BLANKET SPECIFIED IN (2), ABOVE, A STONE ENVELOPE 6 INCHES THICK COMPLETELY AROUND THE PIPE USING 3/4-INCH STONE MAY BE USED.
- PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6 INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE.
- PIPE SAND BLANKET MATERIAL SHALL COVER THE PIPE A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE OUTSIDE SURFACE.
- COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.
- BACKFILL MATERIAL SHALL BE COMPACTED TO NO MORE THAN 3-FOOT THICK LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION WHERE THE FINAL 3 FEET SHALL BE COMPACTED IN NO MORE THAN 12-INCH THICK LAYERS TO THE ROAD BASE SURFACE.
- TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING: DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; WET OR SOFT MUCK; PEAT OR CLAY; EXCAVATED LEDGE MATERIAL; ROCKS OVER 6 INCHES IN THE LARGEST DIMENSION; AND ANY MATERIAL NOT APPROVED BY THE ENGINEER.
- TRENCH BACKFILL AT CROSS-COUNTRY LOCATIONS SHALL BE AS DESCRIBED IN (7), ABOVE, EXCEPT THAT TOP SOIL, LOAM, MUCK OR PEAT MAY BE USED PROVIDED THE COMPLETED CONSTRUCTION WILL BE STABLE, AND PROVIDED THAT ACCESS TO THE SEWER FOR MAINTENANCE AND RECONSTRUCTION IS PRESERVED.
- BACKFILL SHALL BE MOUNDING 6 INCHES ABOVE ORIGINAL GROUND AT CROSS COUNTRY LOCATIONS.
- BASE COURSE FOR TRENCH REPAIR SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISHED GRADE.
- TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT, TRENCHES FOR SEWER PIPES BELOW SEASONAL HIGH GROUND WATER LEVEL, AND TRENCHES FOR SEWER PIPES DOWNSTREAM OF AND WITHIN THE HYDRAULIC INFLUENCE OF WATERWAYS OR WETLANDS SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.
- PRECAUTIONS SHALL BE TAKEN TO AVOID GROUNDWATER POOLING AT THE SURFACE BY PROVIDING DRAINAGE TO A SUITABLE OUTLET AT CATCH BASINS OR RUN-OFF SWALES.
- FOR TRENCHES FOR SEWER PIPES IN LEDGE, EXCAVATION SHALL EXTEND TO AT LEAST 12 INCHES BELOW THE BOTTOM OF THE SEWER PIPE.
- ALL SEWERS SHALL BE MARKED USING METAL-IMPREGNATED MARKING TAPE OR TRACER WIRE THAT CAN BE LOCATED USING METAL DETECTION EQUIPMENT.

SEWER TRENCH NOTES

NOT TO SCALE

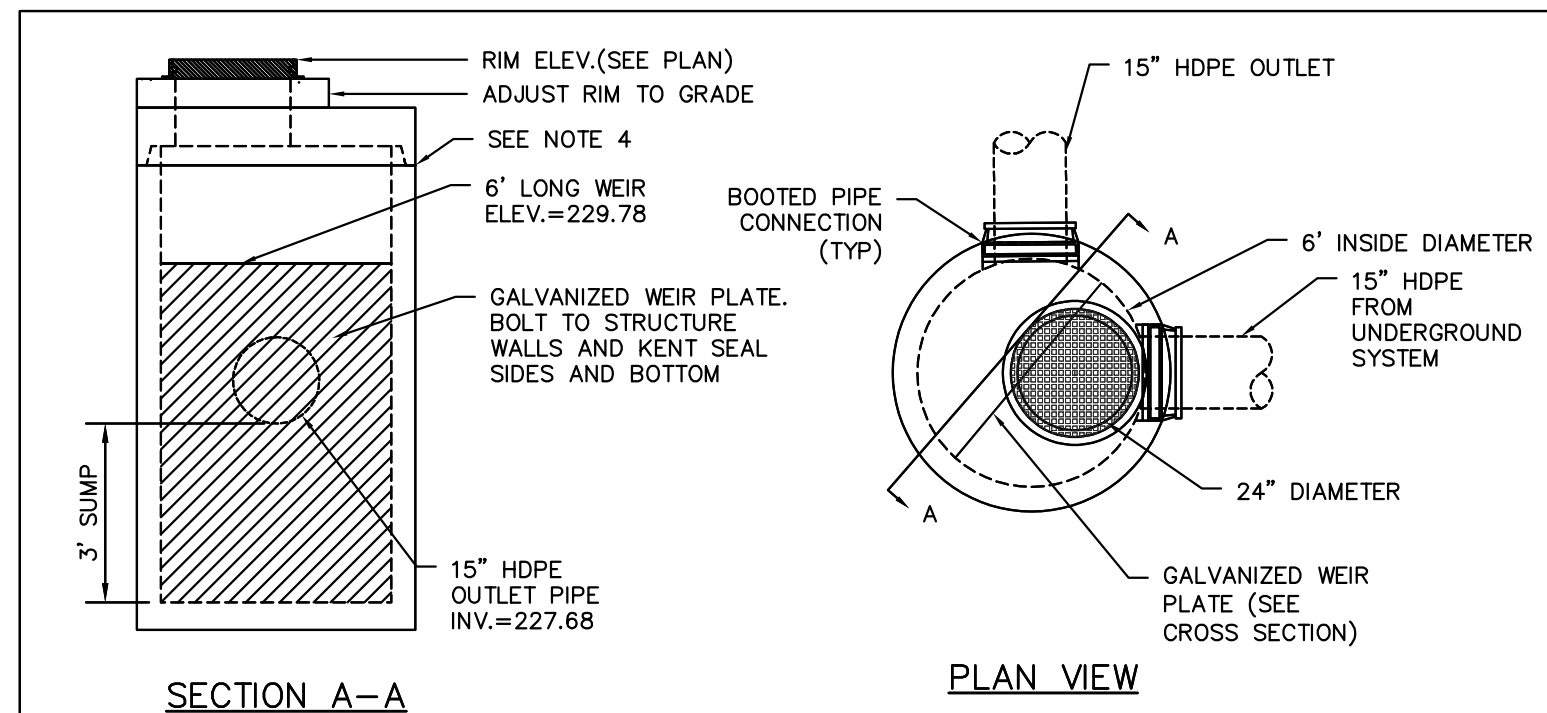
GRAVITY SEWER CONSTRUCTION MATERIAL NOTES:

- THE APPROVED GRAVITY SEWER PIPE AND MATERIALS TO BE USED ON THE PROJECT ARE AS FOLLOWS:
 - DUCTILE IRON PIPE AND FITTINGS SHALL BE CERTIFIED BY THE MANUFACTURER(S) AS CONFORMING TO THE FOLLOWING STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA) IN EFFECT AT THE TIME THAT THE PIPES OR FITTINGS ARE MANUFACTURED:
 - AWWA C151/A21.51 FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL- OR SAND-LINED MOLDS, FOR WATER, WASTEWATER, AND RECLAIMED WATER SYSTEMS; AND
 - AWWA C150/A21.50 FOR THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A536 FOR DUCTILE IRON CASTINGS;
 - JOINTS SHALL BE MECHANICAL TYPE, PUSH-ON TYPE, OR BALL-AND-SOCKET TYPE AS APPROPRIATE FOR THE SPECIFIC APPLICATION.
 - PLASTIC GRAVITY SEWER PIPE AND FITTINGS SHALL BE CERTIFIED BY THE MANUFACTURER AS COMPLYING WITH THE STANDARDS LISTED IN THE TABLE BELOW, AS IN EFFECT WHEN THE PIPES WERE MANUFACTURED:

ASTM STANDARD	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034	POLYVINYL CHLORIDE (PVC), SOLID WALL	8-INCH THROUGH 15-INCH (SDR 35)
F679	PVC, SOLID WALL	18-INCH THROUGH 60-INCH (T-1 & T-2)
F794	PVC, PROFILE, DUAL-WALLED CORRUGATED	4-INCH THROUGH 48-INCH
F1760	PVC, RECYCLED, NON-PRESSURE	ALL DIAMETERS
- PLASTIC SEWER PIPE SHALL HAVE A PIPE STIFFNESS RATING OF AT LEAST 46 POUNDS PER SQUARE INCH AT 5 PERCENT PIPE DIAMETER DEFLECTION, AS MEASURED BY THE MANUFACTURER IN ACCORDANCE WITH THE ASTM D2412 STANDARD IN EFFECT WHEN PIPE WAS MANUFACTURED.
- JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL AND CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE ASTM D3212 STANDARD IN EFFECT WHEN THE JOINT SEALS WERE MANUFACTURED, AND SHALL BE PUSH-ON, BELL-AND-SPIGOT TYPE.
- CONCRETE PIPE SHALL BE CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE AWWA C302 STANDARD IN EFFECT WHEN THE PIPE WAS MANUFACTURED.
- PRE-STRESSED CONCRETE CYLINDER PIPE AND FITTINGS SHALL BE CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE AWWA C301 STANDARD IN EFFECT WHEN PIPE WAS MANUFACTURED; AND
- JOINTS FOR CONCRETE CYLINDER PIPE SHALL BE MADE OF OIL RESISTANT ELASTOMERIC MATERIAL AND CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE AWWA C301 STANDARD IN EFFECT WHEN PIPE WAS MANUFACTURED.

GRAVITY SEWER CONSTRUCTION NOTES

NOT TO SCALE



NOTES:

- CONCRETE: $f_c=4,000$ PSI @ 28 DAYS MINIMUM, TYPE III CEMENT.
- REINFORCING STEEL: ASTM-A615 GRADE #60, ASTM A-185 WWF.
- DESIGN LOADING: AASHTO-HS20-44, ASTM C-478 PRECAST REINFORCED CONCRETE MANHOLE SECTIONS
- BUTYL RUBBER JOINT SEALANT CONFORMS TO LATEST ASTM C-990 SPECS
- WEIR PLAN FASTENED WITH SS HARDWARE.
- WEIR SHALL BE 3/8" GALVANIZED STEEL, KENT SEAL SIDES AND BOTTOM OF WEIR PLATE TO STRUCTURE.
- ONE POUR MONOLITHIC BASE SECTION.

OS#203/OUTLET STRUCTURE DETAIL FOR UIP#1

NOT TO SCALE

SEWER MANHOLE TESTING NOTES:

- MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STANDARD IN EFFECT WHEN THE TESTING IS PERFORMED. A MANHOLE MAY BE BACKFILLED PRIOR TO PERFORMING A VACUUM TEST, BUT IF THE MANHOLE FAILS THE VACUUM TEST, BACKFILL SHALL BE REMOVED SO REPAIRS TO THE MANHOLE CAN BE MADE FROM THE OUTSIDE OF THE MANHOLE PRIOR TO RETESTING.
- THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 - THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES HG; AND
 - THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH HG PRESSURE DROP TO 9 INCHES HG SHALL BE:
 - NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
 - NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND
 - NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
- THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (2), ABOVE.
- INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED.
- IMMEDIATELY FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN, OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.

GRAVITY SEWER PIPE TESTING NOTES:

- ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTS.
 - LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH THE FOLLOWING TESTING STANDARDS IN EFFECT AT THE TIME THE TEST IS CONDUCTED:
 - ASTM F1417 STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR, AVAILABLE AS NOTED IN APPENDIX D; OR
 - UNI-BELL PVC PIPE ASSOCIATION UNI-B-6, 'LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE'.
 - ALL NEW GRAVITY SEWERS SHALL BE:
 - CLEANED AND VISUALLY INSPECTED USING A LAMP TEST AND BY INTRODUCING WATER TO DETERMINE THAT THERE IS NO STANDING WATER IN THE SEWER; AND
 - TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE.
 - ALL PLASTIC SEWER PIPE SHALL BE VISUALLY INSPECTED AND DEFLECTION TESTED NOT LESS THAN 30 DAYS NOR MORE THAN 90 DAYS FOLLOWING INSTALLATION.
 - THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANOREL WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.

SEWER TESTING NOTES

NOT TO SCALE

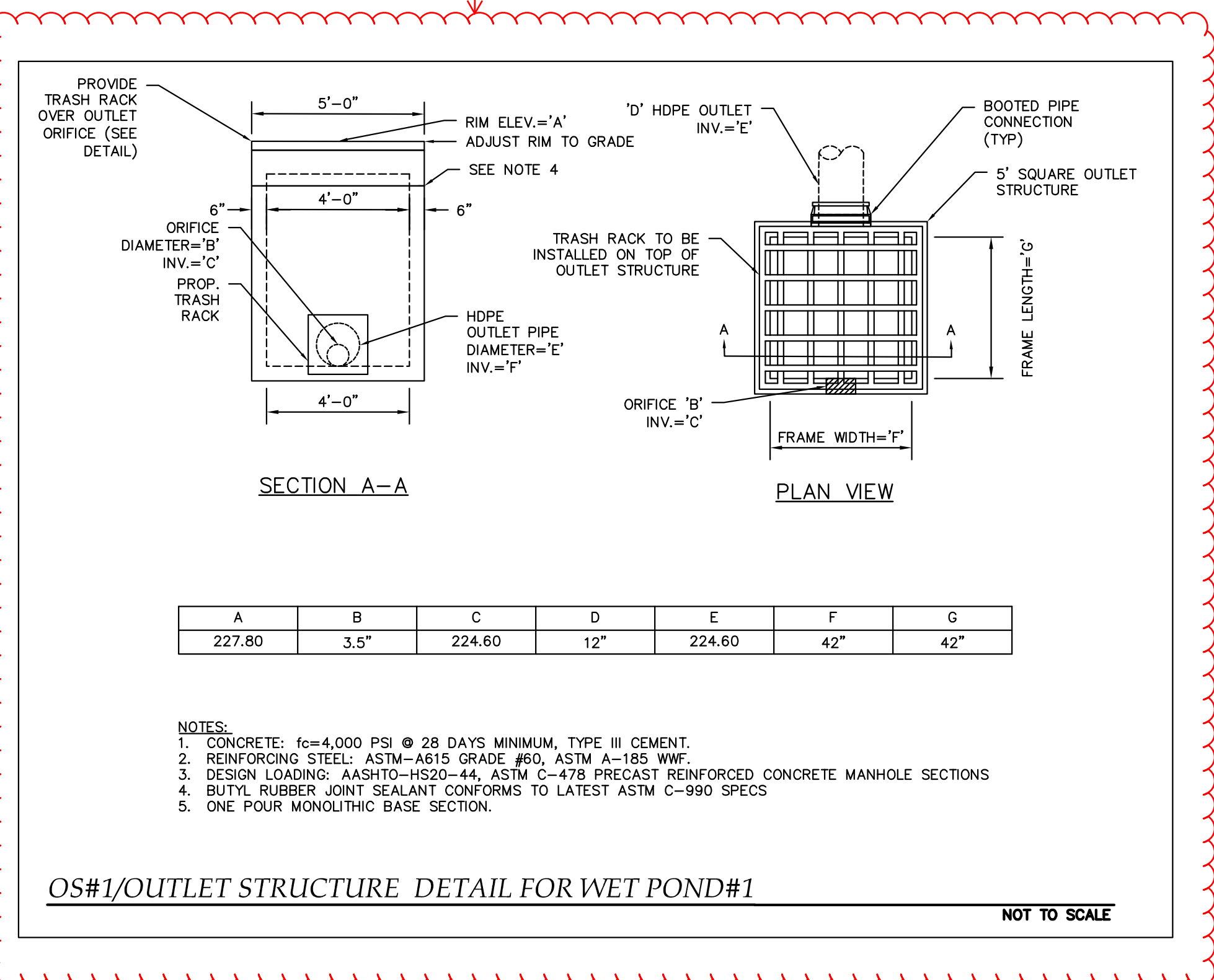
PROTECTION OF WATER SUPPLY NOTES:

- THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND ANY SEWERAGE SUCH THAT SEWAGE OR POLLUTED WATER COULD PASS INTO THE POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF ANY SEWER OR SEWER MANHOLE.
- NO SEWER SHALL BE LOCATED WITHIN THE APPLICABLE WELL PROTECTIVE RADIUS ESTABLISHED IN ENV-DW 300 FOR ANY PUBLIC WATER SUPPLY WELL OR WITHIN 75 FEET OF ANY PRIVATE WATER SUPPLY WELL.
- SEWERS SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
- A DEVIATION FROM THE SEPARATION REQUIREMENTS OF (2) OR (3), ABOVE, SHALL BE ALLOWED WHERE NECESSARY TO AVOID CONFLICT WITH SUBSURFACE STRUCTURES, UTILITY CHAMBERS, AND BUILDING FOUNDATIONS, PROVIDED THAT THE SEWER IS CONSTRUCTED WITH FORCE MAIN CONSTRUCTION MATERIALS THAT MEET THE REQUIREMENTS IN ENV-WQ 704.08.
- WHENEVER SEWERS MUST CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
 - VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL BE NOT LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND
 - SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

PROTECTION OF WATER SUPPLY NOTES

NOT TO SCALE

RISER MODIFIED. "AMOSKEAG BEVERAGES COVERED STORAGE ADDITION" PLAN SET FOR UPDATED DESIGN



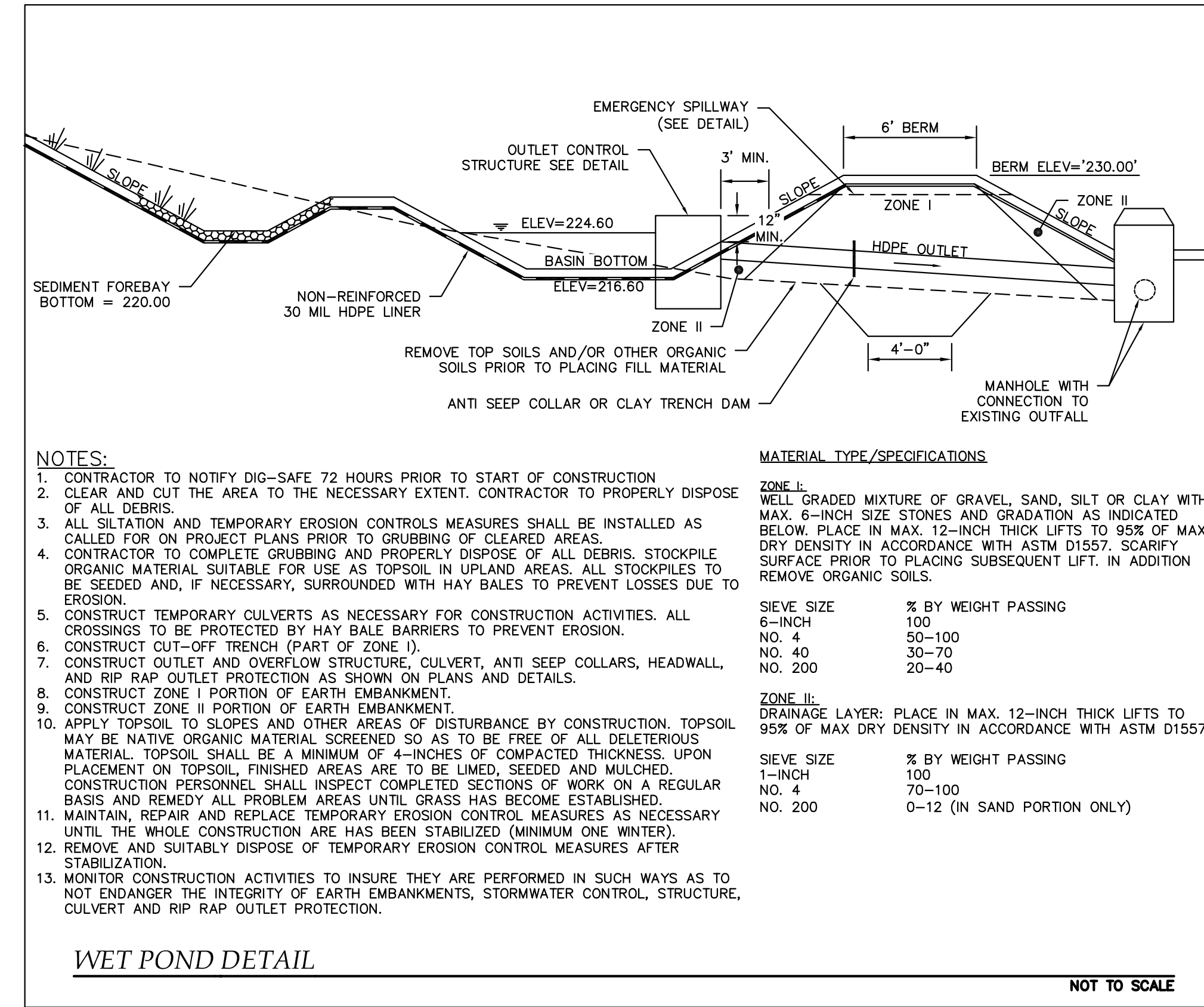
A	B	C	D	E	F	G
227.80	3.5"	224.60	12"	224.60	42"	42"

NOTES:

- CONCRETE: $f_c=4,000$ PSI @ 28 DAYS MINIMUM, TYPE III CEMENT.
- REINFORCING STEEL: ASTM-A615 GRADE #60, ASTM A-185 WWF.
- DESIGN LOADING: AASHTO-HS20-44, ASTM C-478 PRECAST REINFORCED CONCRETE MANHOLE SECTIONS
- BUTYL RUBBER JOINT SEALANT CONFORMS TO LATEST ASTM C-990 SPECS
- ONE POUR MONOLITHIC BASE SECTION.

OS#1/OUTLET STRUCTURE DETAIL FOR WET POND#1

NOT TO SCALE

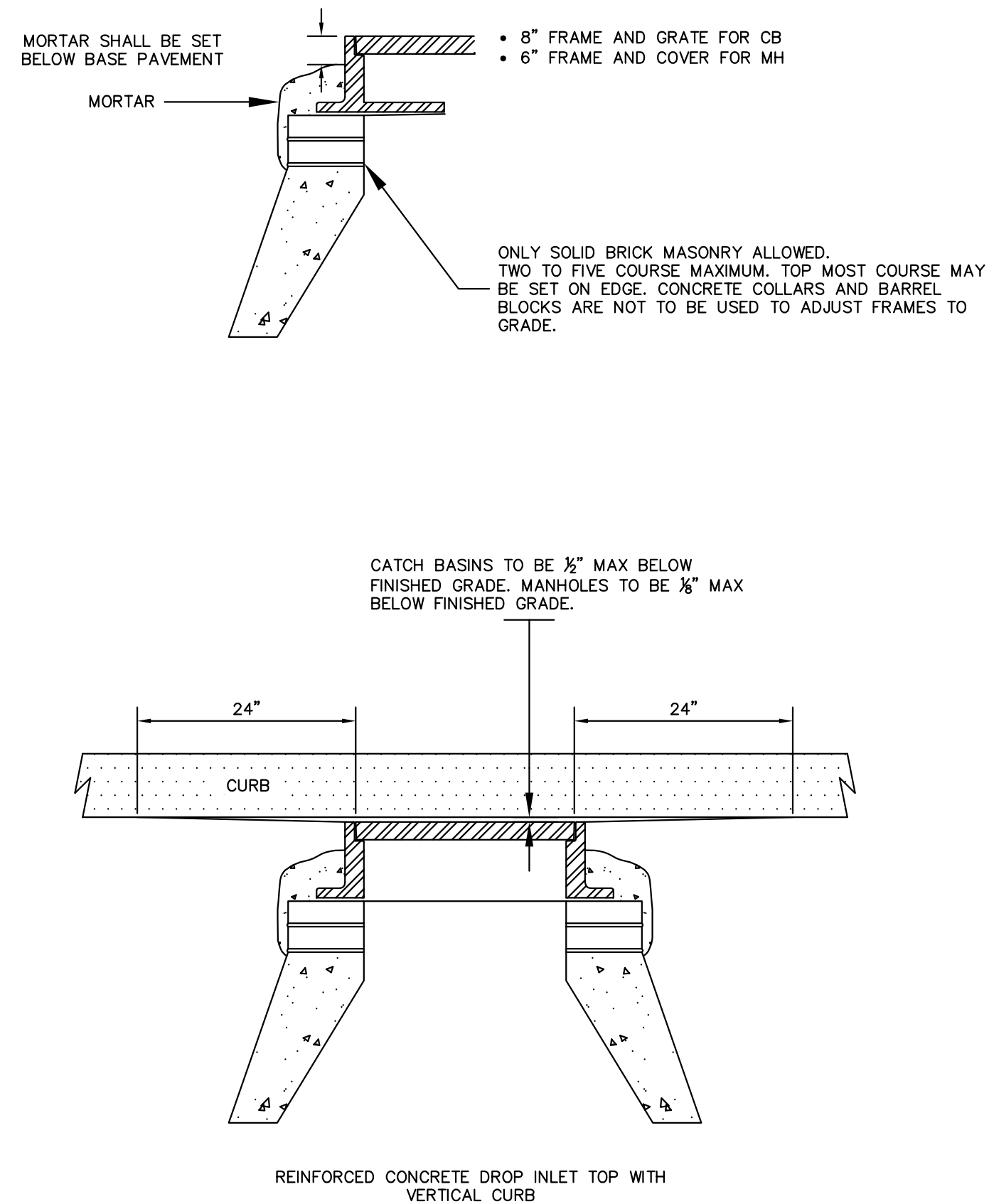


NOTES:

- CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO START OF CONSTRUCTION
- CLEAR AND CUT THE AREA TO THE NECESSARY EXTENT. CONTRACTOR TO PROPERLY DISPOSE OF ALL DEBRIS.
- ALL SILTATION AND TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS PRIOR TO GRUBBING OF CLEARED AREAS.
- CONTRACTOR TO COMPLETE GRUBBING AND PROPERLY DISPOSE OF ALL DEBRIS. STOCKPILE ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL IN UPLAND AREAS. ALL STOCKPILES TO BE SEED AND, IF NECESSARY, SURROUNDED WITH HAY BALES TO PREVENT LOSSES DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY FOR CONSTRUCTION ACTIVITIES. ALL CROSSINGS TO BE PROTECTED BY HAY BALE BARRIERS TO PREVENT EROSION.
- CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I).
- CONSTRUCT OUTLET AND OVERFLOW STRUCTURE, CULVERT, ANTI SEEP COLLARS, HEADWALL, AND RIP RAP OUTLET PROTECTION AS SHOWN ON PLANS AND DETAILS.
- CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.
- CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
- APPLY TOPSOIL TO SLOPES AND OTHER AREAS OF DISTURBANCE BY CONSTRUCTION. TOPSOIL MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ALL DELETERIOUS MATERIAL. TOPSOIL SHALL BE A MINIMUM OF 4-INCHES OF COMPACTED THICKNESS. UPON PLACEMENT ON TOPSOIL, FINISHED AREAS ARE TO BE LIMED, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ALL PROBLEM AREAS UNTIL GRASS HAS BECOME ESTABLISHED.
- MAINTAIN, REPAIR AND REPLACE TEMPORARY EROSION CONTROL MEASURES AS NECESSARY UNTIL THE WHOLE CONSTRUCTION ARE HAS BEEN STABILIZED (MINIMUM ONE WINTER).
- REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES AFTER STABILIZATION.
- MONITOR CONSTRUCTION ACTIVITIES TO INSURE THEY ARE PERFORMED IN SUCH WAYS AS TO NOT ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL, STRUCTURE, CULVERT AND RIP RAP OUTLET PROTECTION.

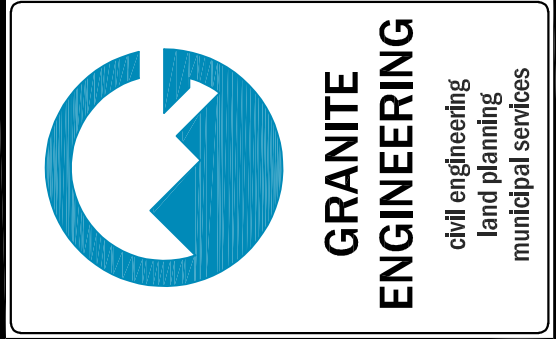
WET POND DETAIL

NOT TO SCALE



STORM DRAIN/SEWER ADJUSTING FRAMES TO GRADE DETAILS- CONCORD

NOT TO SCALE



NO.	DATE	REVISIONS
1	07/18/2023	PROJECT SUBMITTAL
2	02/27/2023	REVISED PER C16 COMMENTS
3	04/11/2023	REVISED PER P&E COMMENTS
4	07/24/2023	REVISED PER CONDITIONS OF APPROVAL

OWNER OF LOT 4 & APPLICANT:
AMOSKEAG BEVERAGES, LLC
510 HALL STREET
BOW, NH 03304

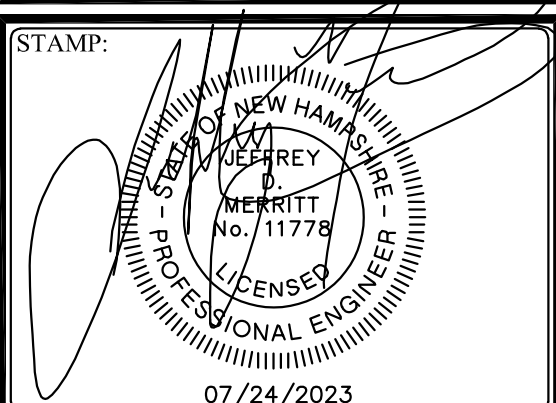
OWNER OF LOTS 3, 65 & 67:
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304

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150 Dow Street, Tower 2, Suite 421
Manchester, New Hampshire 03101

603.518.8030

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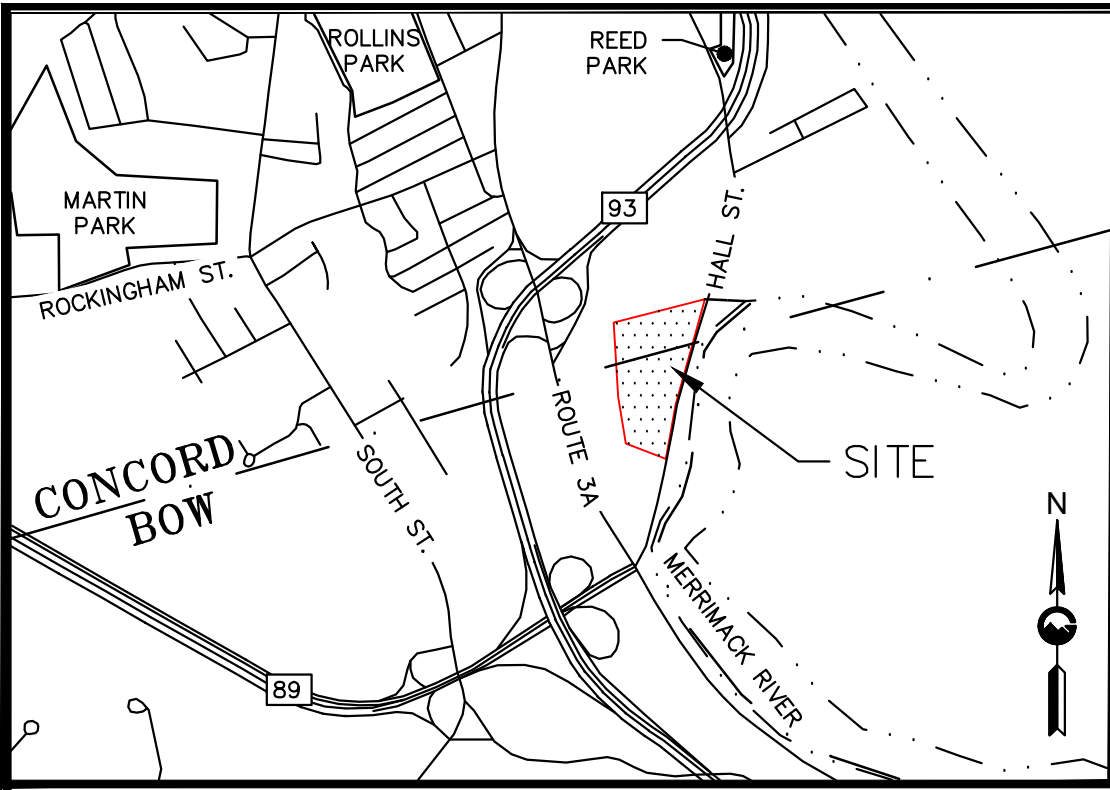


LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
TAX MAP 88Z LOTS 3 & 4
(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES

TITLE:
DETAILS

PROJECT No. DATE: 13-1202-2 MARCH 24, 2022 SCALE: AS SHOWN
SHEET: 24 OF 29



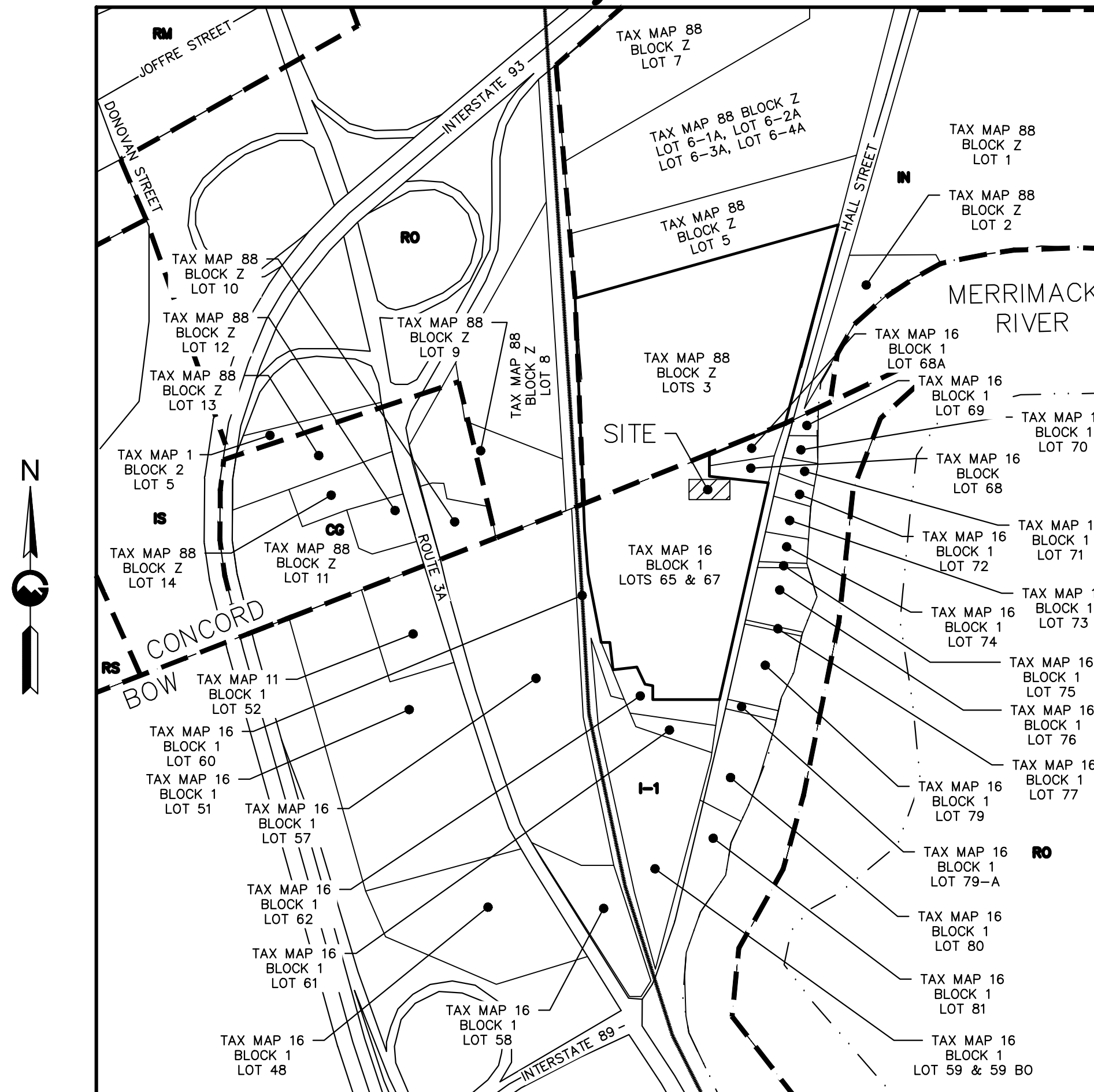
VICINITY PLAN
1"=2000'

NON-RESIDENTIAL SITE PLAN AMOSKEAG BEVERAGES COVERED STORAGE ADDITION

TAX MAP 16, BLOCK 1, LOTS 65 & 67
TAX MAP 88, BLOCK Z, LOT 3 (CONCORD)

510 HALL STREET

BOW & CONCORD, NEW HAMPSHIRE



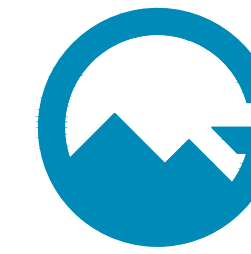
LOCATION PLAN
SCALE: 1"=400'

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New Hampshire 03101
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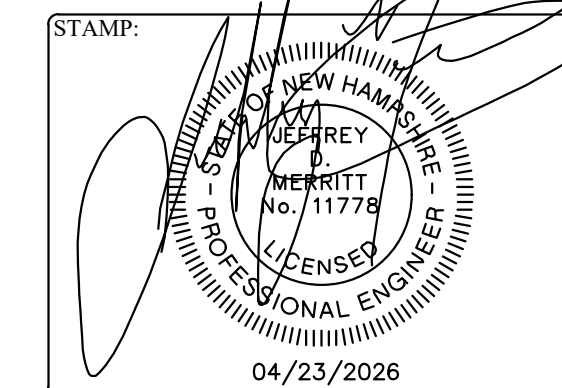


OWNER & APPLICANT:
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304
(800) 639-9033

CIVIL ENGINEER:
GRANITE ENGINEERING, LLC
150 DOW STREET, TOWER 2, STE 421
MANCHESTER, NH 03101
(603) 518-8030

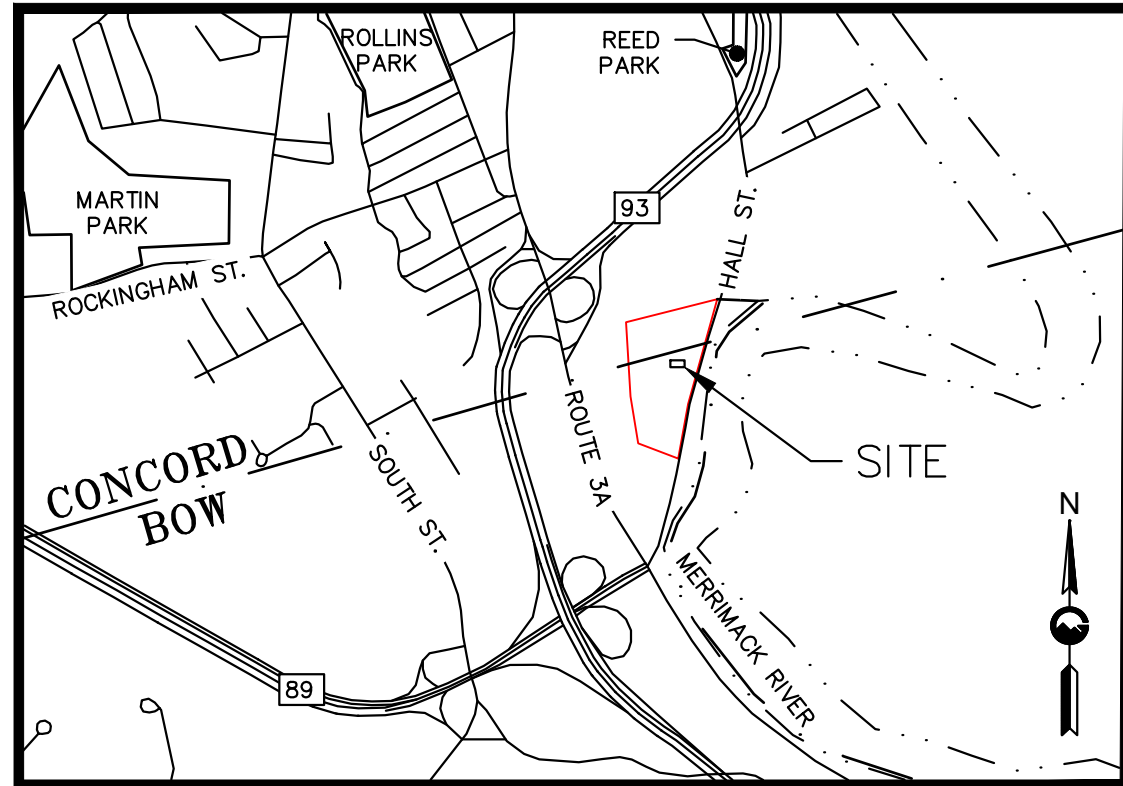
SURVEYOR & WETLAND SCIENTIST:
KEACH-NORDSTROM ASSOCIATES, INC
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NH 03110
(603) 627-2881

STRUCTURAL ENGINEER:
McBRIE, LLC
160 SYLVAN STREET 2nd FLOOR
DANVERS, MA 01923
(978) 646-0097

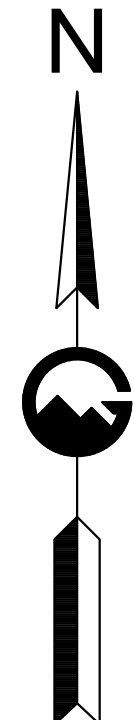


SHEET NO.	INDEX OF PLANS
1	OVERVIEW PLAN
2-3	EXISTING CONDITIONS PLAN & AS BUILT PLAN
4	REMOVALS PLAN
5	SITE PLAN
6	GRADING, DRAINAGE & UTILITIES PLAN
7	EROSION CONTROL PLAN
8-11	DETAILS
S4	FOUNDATION/FRAMING PLAN & FOUNDATION/ROOF DETAILS

REVISIONS			
No.	DATE	COMMENTS	BY
1	04/23/26	PROJECT SUBMITTAL	JDM



VICINITY PLAN



LEGEND

- Denotes parking amount, abutter line, property line, lot line to be extinguished, etc.

BUILDING INSPECTOR'S CERTIFICATION

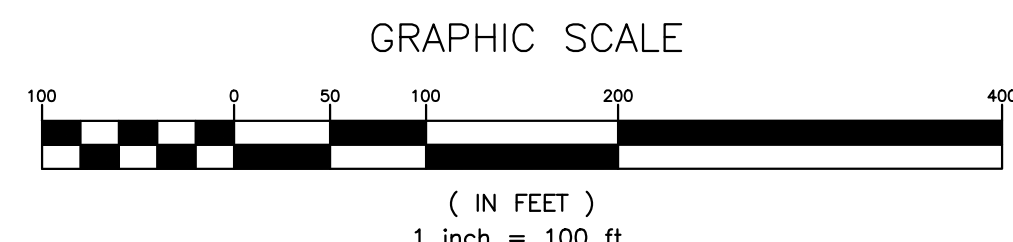
I HAVE CAREFULLY EXAMINED THIS MAP AND FIND IT CONFORMS WITH THE LAWS AND REQUIREMENTS APPLICABLE THERETO.

PLANNING BOARD APPROVAL

THIS SITE PLAN WAS APPROVED BY THE BOW PLANNING BOARD AT AN OFFICIAL MEETING HELD ON AND SHALL BE KEPT ON FILE AT THE BOW COMMUNITY DEVELOPMENT OFFICE.

OWNER'S SIGNATURE

IT IS HEREBY CERTIFIED THAT THE LANDS DEVELOPED ON THIS MAP ARE OWNED BY TITLE OF RECORD AND THAT CONSENT TO THE APPROVAL OF SAID MAP IS GIVEN.



MAP 743Z LOT 10 NORTHERN RAILROAD C/O PAN AM RAILWAYS INC. 1700 IRON HORSE PARK NORTH BILLERICA, MA 01862-1681

MAP 88Z LOT 8 STATE OF NEW HAMPSHIRE c/o SECRETARY OF STATE 107 N. MAIN STREET CONCORD, NH 03301 BK. 1687 PG. 108

MAP 88Z LOT 9 UNILIT ENERGY SYSTEMS, INC. 6 LIBERTY LANE W HAMPTON, N.H. 03642 BK. 792 PG. 90

MAP 16-1 LOT 57 HLF CORPORATION P.O. BOX 1200 CONCORD, N.H. 03302-1200 BK. 1854 PG. 1052

MAP 16-1 LOT 60 B&M CORPORATION c/o PAN AM SYSTEMS, INC. 1700 IRON HORSE PARK N. BILLERICA, MA 01862

MAP 88Z LOT 5 CONCORD CENTER LLC 888 WORCESTER ST STE 13C WELLESLEY, MA 02482-3744

MAP 88Z LOT 1 CITY OF CONCORD SEWAGE TREATMENT PLANT 125 HALL ST CONCORD, NH 03301-4255

MAP 88Z LOT 1A CITY OF CONCORD ATTN. GEN SERV CHIP CHESLEY 311 N STATE ST CONCORD, NH 03301-3228

MAP 88Z LOT 1B CONSOLIDATED COMMUNICATIONS OF NORTHERN NEW ENGLAND CO LLC FKA NORTHERN NEW ENGLAND TELEPHONE OPERATIONS LLC 2116 SOUTH 17TH ST MATTOON, IL 61938-5973

MAP 88Z LOT 3 318,321 S.F. 7.31 ACRES

MAP 88Z LOT 2 ERIC GUAY 9 MERRILL CORNER ROAD BOSCAWEN, N.H. 03303 BK. 3563 PG. 695

MAP 16-1 LOT 68A KENNETH W. & ALICE L. CHASE, TRUSTEES CHASE FAMILY REVOCABLE TRUST 500-A HALL STREET BOW, N.H. 03304 BK. 3552 PG. 2831

MAP 16-1 LOT 69 ROBERT A. & DAPHNE W. FLEURY, TRUSTEES THE RDF FAMILY TRUST 93 BASSETT MILL ROAD HOPKINTON, NH 03304 BK. 3568 PG. 327

MAP 16-1 LOT 70 KELLY JO BOURRIE 503 HALL STREET BOW, N.H. 03304 BK. 3380 PG. 1571

MAP 16-1 LOT 71 ERIC C WICKS 505 HALL STREET BOW, N.H. 03304 BK. 3637 PG. 106

MAP 16-1 LOT 72 TANYA PELLETTIER 507 HALL STREET BOW, N.H. 03304 BK. 3422 PG. 1419

MAP 16-1 LOT 73 ASHLEY M COVER 509 HALL STREET BOW, N.H. 03304 BK. 2815 PG. 0692

MAP 16-1 LOT 74 ALEC FOLEY 511 HALL STREET BOW, N.H. 03304 BK. 2004 PG. 200

MAP 16-1 LOT 75 LEANNE J. QUARTOCHI 513 HALL STREET BOW, N.H. 03304 BK. 3264 PG. 178

MAP 16-1 LOT 76 AMOSKEAG REALTY, LLC 510 HALL STREET BOW, N.H. 03304 BK. 3456, PG. 945

MAP 16-1 LOT 77 AMOSKEAG REALTY, LLC 510 HALL STREET BOW, N.H. 03304 BK. 3334 PG. 1454

MAP 16-1 LOT 79 AMOSKEAG REALTY, LLC 510 HALL STREET CONCORD, N.H. 03301 BK. 3334 PG. 1454

MAP 16-1 LOT 79A AMOSKEAG REALTY, LLC 510 HALL STREET CONCORD, N.H. 03301 BK. 3334 PG. 1454

MAP 16-1 LOT 80 AMOSKEAG REALTY, LLC 510 HALL STREET CONCORD, N.H. 03301 BK. 3334 PG. 1454

PLANS OF REFERENCE:

- 1. NON-RESIDENTIAL SITE PLAN FOR AMOSKEAG BEVERAGES, LLC. HALL STREET BOW AND CONCORD, NH SCALE: 1"=20', DATED: 1-18-23, WITH REVISIONS THROUGH 9-27-23, PREPARED BY GRANITE ENGINEERING, INC. NOT RECORDED.

NOTES:

- 1. THE INTENT OF THIS PLAN IS TO ILLUSTRATE AN EXPANSION OF THE AMOSKEAG BEVERAGES FACILITY. THE PROPOSED EXPANSION CONSISTS OF THE FOLLOWING: 1.1. CONSTRUCTION OF A 2,375 SF ADDITION TO EXISTING WAREHOUSE FOR COVERED STORAGE. 2. REFERENCE THIS PARCEL AS CITY OF CONCORD TAX MAP 88Z, LOT 3 AND TOWN OF BOW TAX MAP 16, BLOCK 1, LOTS 65 & 67. SEE MERRIMACK COUNTY REGISTRY OF DEEDS BOOK 3290 PAGE 1551. 3. THE TOTAL AREA OF THE PARCELS: MAP 16, BLOCK 1, LOT 65 = 368,357-SF OR 8.456 AC (BOW) MAP 16, BLOCK 1, LOT 67 = 39,060-SF OR 0.896 AC (BOW) MAP 88, BLOCK Z, LOT 3 = 531,384-SF OR 12.201 AC (CONCORD) 4. OWNER OF LOT 3, 4, 65 & 67: AMOSKEAG REALTY, LLC 510 HALL STREET BOW, NH 03304 BK. 3334, PG. 1454-1455 5. TOWN OF BOW TAX MAP 16, BLOCK 1, LOTS 65 & 67 ARE LOCATED WITHIN THE LIMITED INDUSTRIAL (I-1) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REGULATIONS:

TABLE OF ZONING REQUIREMENTS with columns for DESCRIPTION, REQUIRED PER DISTRICT, EXISTING LOT 3 (CONCORD), LOT 65, LOT 67, and PROPOSED LOT 67.

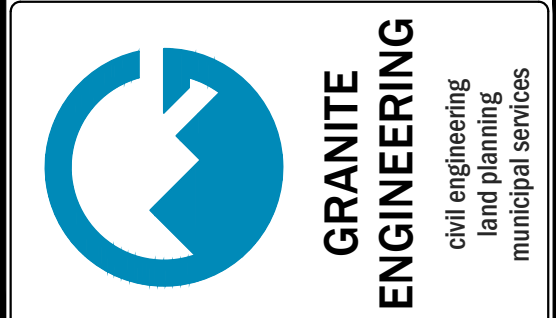
*BUILDING SETBACK DISTANCES ARE RELATIVE TO LAND LOCATED WITHIN BOW **BUILDABLE LAND EXCLUDES WETLANDS

- 6. THIS LOT IS SERVED BY MUNICIPAL WATER FOR DOMESTIC USE AND SEWER FROM CITY OF CONCORD. 7. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE CITY OF CONCORD, NEW HAMPSHIRE, MERRIMACK COUNTY, MAP NUMBER 33013C0542F, EFFECTIVE DATE 01/23/2026 INDICATES THAT THE SUBJECT PARCEL IS LOCATED IN ZONE X, "AREAS OF 0.2% ANNUAL CHANCE OF FLOOD". 8. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF BOW'S CONSTRUCTION STANDARDS AND DETAILS, LATEST EDITION. 9. BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED ON A FIELD SURVEY PERFORMED BY KEACH-NORDSTROM ASSOCIATES INC. IN SEPTEMBER & OCTOBER 2014, SEPTEMBER 2017, DECEMBER 2019, AND JANUARY TO MARCH 2026. 10. HORIZONTAL DATUM IS NAD 83. VERTICAL DATUM IS NGVD 29. 11. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. GRANITE ENGINEERING, LLC MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811. 12. SITE CALCULATIONS: GROSS ACREAGE (WAREHOUSING/DISTRIBUTION) = 938,961 SF (21.56 AC) GROUND COVERAGE OF BUILDINGS/STRUCTURES = 236,503 SF (25% OF SITE) GROUND COVERAGE FOR PARKING AND LOADING (INCLUDING LANDSCAPING) = 281,240 SF (30.0% OF SITE) INTERNAL PARKING LOT LANDSCAPING = 37,550 SF (13.4% OF GROUND COVERAGE FOR PARKING/LOADING) IMPERVIOUS SURFACE COVERAGE = 492,945 SF (52.4% OF SITE) 13. PARKING CALCULATIONS: REQUIRED: EXIST. WAREHOUSE: 227,985 SF @ 1 SPACE/1000 SF = 227.98 SPACES PROPOSED WAREHOUSE ADDITION: 2,375 SF @ 1 SPACE/1000 SF = 2.38 SPACES EXIST. P.O.S. WAREHOUSE: 6,391 SF @ 1 SPACE/1000 SF = 6.39 SPACES TOTAL REQUIRED PARKING: = 237 SPACES

- 16. LOADING SPACES: REQUIRED: 4 SPACE FOR 101,001-150,000 SF GFA 4 SPACE PER ADDITIONAL 150,000 SF GFA OR FRACTION THEREOF 231,494 SF - 150,000 SF = 4 SPACES 81,494 SF/150,000 SF = 0.54 = 1 SPACE TOTAL REQUIRED LOADING SPACES = 5 SPACES EXISTING = 21 LOADING SPACES 17. UPON PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWING SURVEYED ON NH STATE PLANE GRID COORDINATES AND N.A.V.D. 88 DATUM AND SUBMIT TO THE ENGINEERING SERVICES DIVISION IN ELECTRONIC FORMAT FOR INCLUSION IN THE TOWN GIS DATABASE. 18. SHOULD THE VOLUME OF ACCUMULATED SNOW EXCEED THE CAPACITY OF THE ONSITE STORAGE AS SHOWN ON THIS PLAN, THE EXCESS SNOW SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS. 19. THE FOLLOWING WAIVERS HAVE BEEN REQUESTED. CITY/TOWN SECTION DESCRIPTION DATE GRANTED BOW A.02D PARKING REQUIREMENTS TBD 20. THE PROJECT REQUIRES THE FOLLOWING STATE, FEDERAL, AND LOCAL PERMITS:

Table with columns: DESCRIPTION, STATUS, PERMIT No. Rows include BOW SITE PLAN APPROVAL (PENDING) and NHDES ALTERATION OF TERRAIN PERMIT AMENDMENT (PENDING).

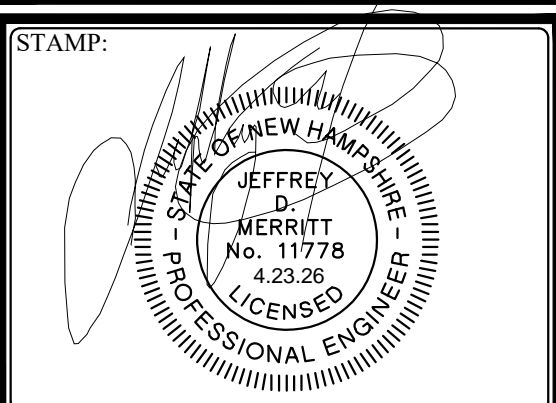
- 21. A PRE-CONSTRUCTION MEETING SHALL BE REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES ONSITE. THE APPLICANT SHALL PICK UP ONE (1) SET OF SIGNED PLANS AT THE PLANNING OFFICE TO MAKE COPIES FOR THE PRE-CONSTRUCTION MEETING. 22. PRIOR TO ANY SITE CLEARING: 23. LIMITS OF CLEARING MUST BE APPROVED BY PLANNING AND ENGINEERING; 24. SITE STABILIZATION PROVIDED; AND 25. EROSION CONTROLS INSTALLED. 26. IF THE PLANNING BOARD DEEMS A SITE WALK NECESSARY, PROPOSED STREET CENTERLINES, BUILDING LOCATIONS, AND REQUIRED BUFFERS SHALL BE ADEQUATELY FLAGGED ON THE GROUND AT THE SITE TO ALLOW ON-SITE EVALUATION OF THE PROPOSED DEVELOPMENT BY THE BOARD, TOWN STAFF, AND ENGINEER.



REVISIONS table with columns: No., DATE, COMMENTS, PROJECT SUBMITTAL.

APPLICANT: AMOSKEAG REALTY, LLC 510 HALL STREET BOW, NH 03304

GRANITE ENGINEERING logo and address: 150 Dow Street, Tower 2, Suite 421 Manchester, New Hampshire 03101 603.518.8030 www.GraniteEng.com



LOCATION: TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW) TAX MAP 88Z LOT 3 (CONCORD) 510 HALL STREET BOW & CONCORD, NEW HAMPSHIRE MERRIMACK COUNTY

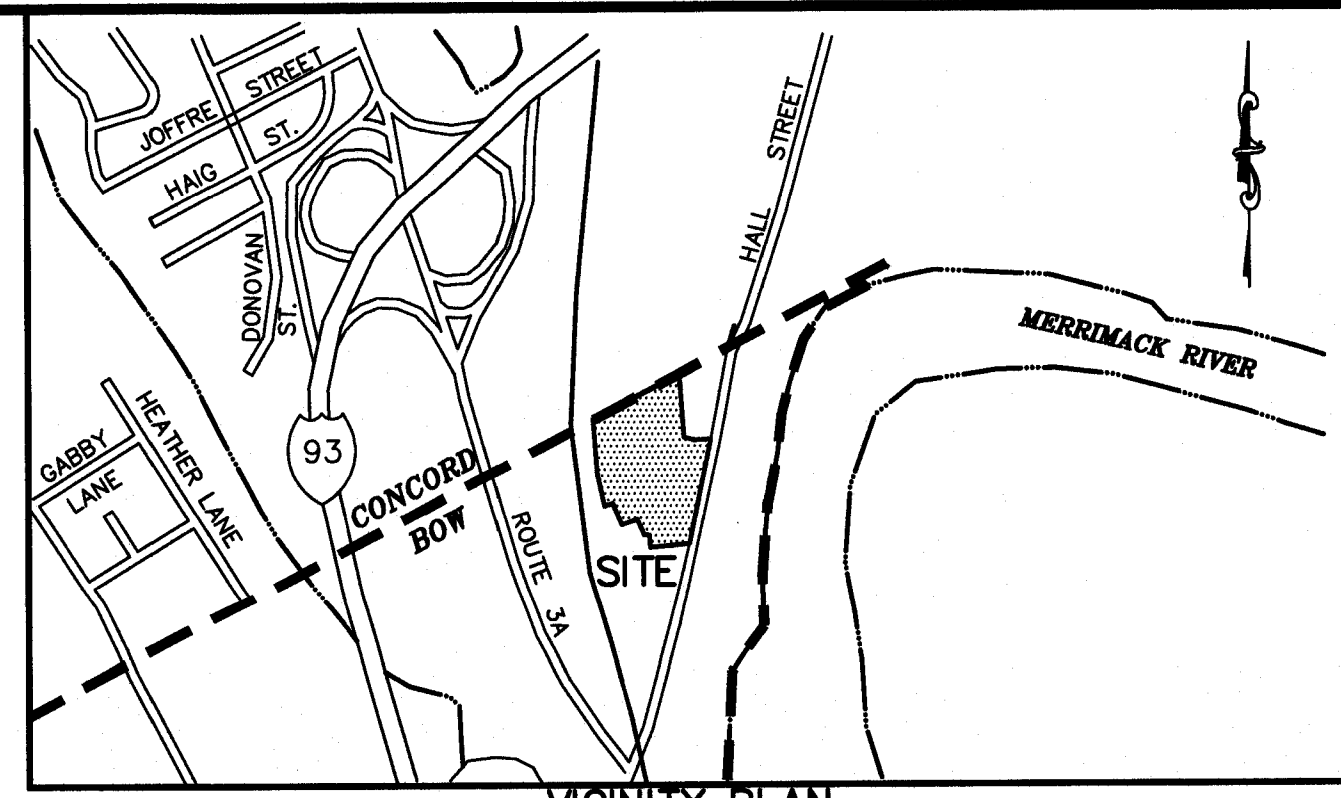
PROJECT: AMOSKEAG BEVERAGES COVERED STORAGE ADDITION

TITLE: OVERVIEW PLAN

PROJECT No./DATE: 28-0218-5 APRIL 23, 2026 SHEET: 1 OF 12 SCALE: HORIZ. 1"=100'

REFERENCE PLANS:

1. "NON-RESIDENTIAL SITE PLAN FOR, AMOSKEAG BEVERAGES, LLC, 510 HALL STREET BOW AND CONCORD, NH," SCALE: 1"=20', DATED: 01-18-23, WITH REVISIONS THROUGH 9-27-23, PREPARED BY: GRANITE ENGINEERING, INC. NOT RECORDED.



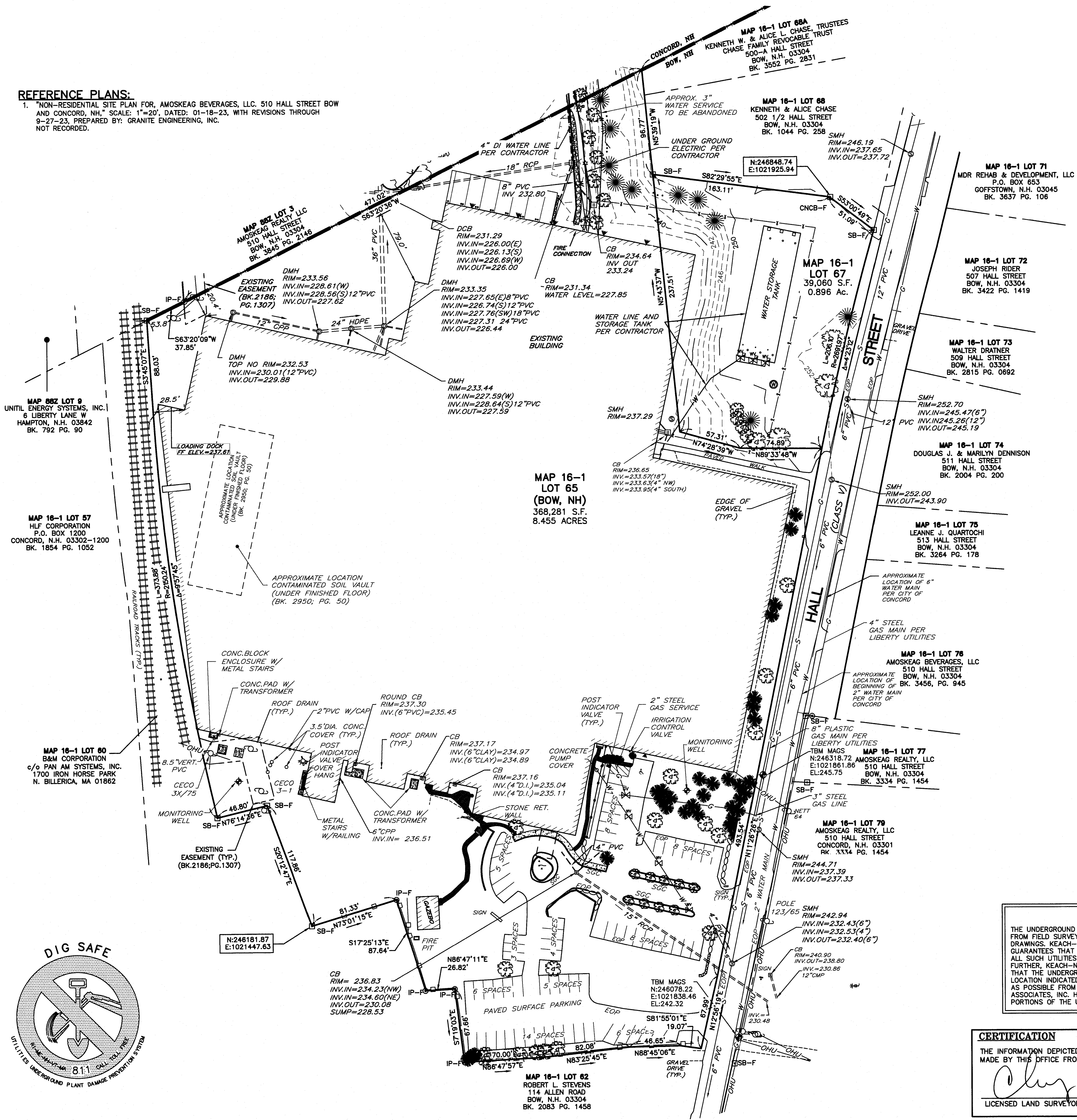
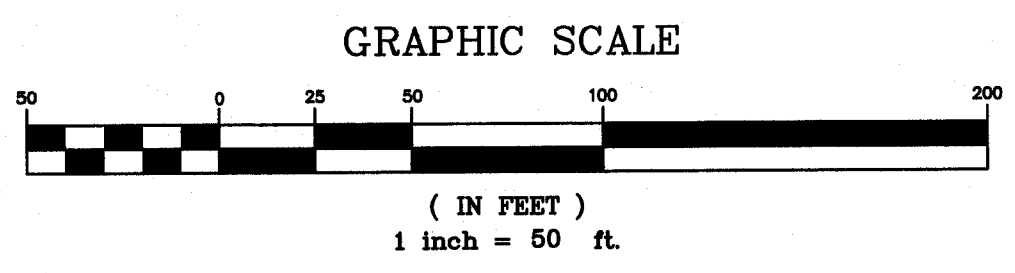
VICINITY PLAN
1" = 1000'

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS ON MAP 16-1 LOTS 65 & 67 LOCATED AT 510 HALL STREET, BOW, NEW HAMPSHIRE.
2. THE INFORMATION SHOWN HEREON FOR THE AREAS OF HALL STREET AND ALONG THE SOUTHERLY SIDE OF THE EXISTING BUILDING ARE BASED UPON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN 2020. THE INFORMATION ON THE NORTHERLY SIDE OF THE BUILDING IS BASED UPON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE DECEMBER OF 2024 THROUGH JANUARY OF 2025 AND THE INFORMATION SHOWN ON THE NORTHEAST SIDE OF THE BUILDING IS BASED UPON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN MARCH OF 2026.
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON PROVIDED BY THE CONTRACTOR AND HAS NOT BEEN VERIFIED BY THIS OFFICE.

LEGEND

- SB-F STONE BOUND FOUND
- CNCB-F CONCRETE BOUND FOUND
- IP-F IRON PIPE FOUND
- Light Pole
- Utility Pole
- Light
- Water Valve
- Hydrant
- Water Shut Off
- Catch Basin
- Double Catch Basin
- Sewer Manhole
- Drainage Manhole
- Abutter Line
- Property Line
- Overhead Utilities
- Drainage Line
- Treeline
- Edge of Pavement
- Sloped Granite Curb
- 10' Contour
- 2' Contour
- Setback
- Sign
- Wetland
- Retaining Wall
- Water Line
- Under Ground Electric
- Evergreen Tree
- Hardwood Tree



UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND/OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

CERTIFICATION

THE INFORMATION DEPICTED ON THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE FROM JANUARY OF 2020 THROUGH MARCH OF 2026.

Christopher J. Mokey
LICENSED LAND SURVEYOR

4/13/26
DATE



EXISTING CONDITIONS
AMOSKEAG REALTY, LLC
MAP 16-1 LOT 65 & 67 (BOW, NH)
510 HALL STREET
BOW, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER: LOTS 16-1-65 & 67
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304
M.C.R.D. BK. 3334; PG. 1454/1565

KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS		
No.	DATE	DESCRIPTION

DATE: APRIL 2, 2026
PROJECT NO: 13-1202-2

SCALE: 1" = 50'
SHEET 1 OF 1

LEGEND

- FSB-F FIELDSTONE BOUND FOUND
- Light Pole
- UTILITY POLE
- LIGHT
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- CATCH BASIN
- DOUBLE CATCH BASIN
- SEWER MANHOLE
- DRAINAGE MANHOLE
- ABUTTER LINE
- PROPERTY LINE
- OVERHEAD UTILITIES
- DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- EOP CAPE COD BERM
- CCB VERTICAL GRANITE CURB
- VGC 10' CONTOUR
- 2' CONTOUR
- SETBACK
- SIGN
- WETLAND
- RETAINING WALL
- WATER LINE
- SEWER LINE
- UNDER GROUND ELECTRIC
- EVERGREEN TREE
- HARDWOOD TREE
- SHRUBS



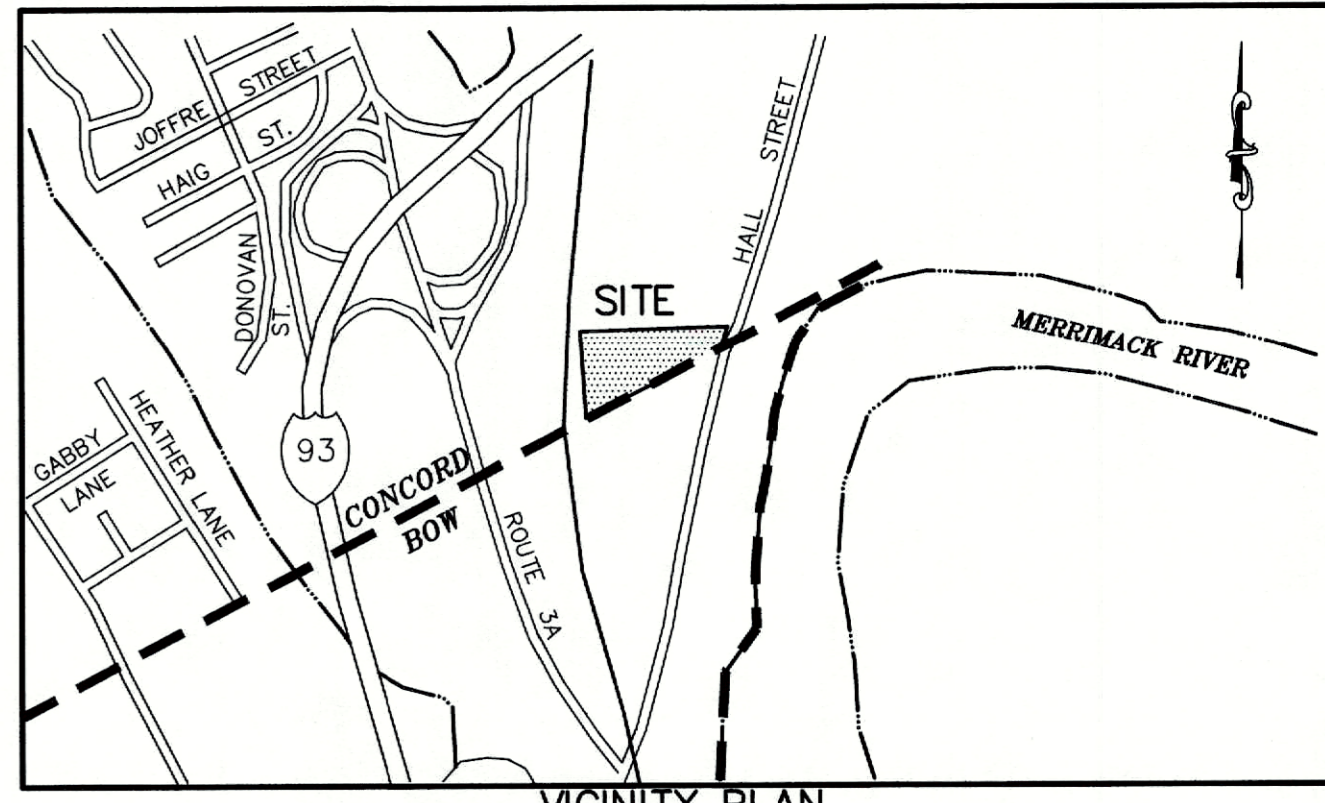
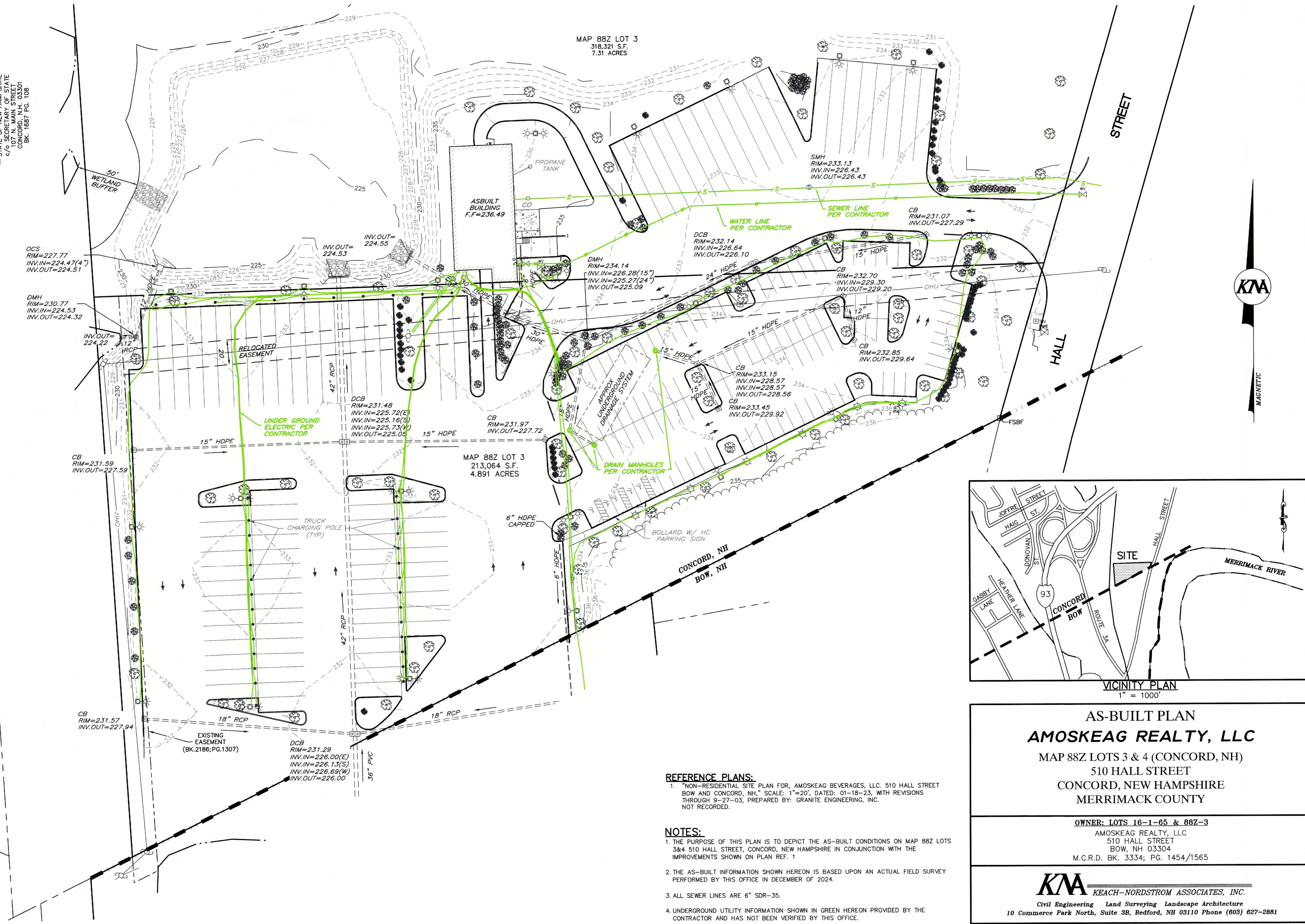
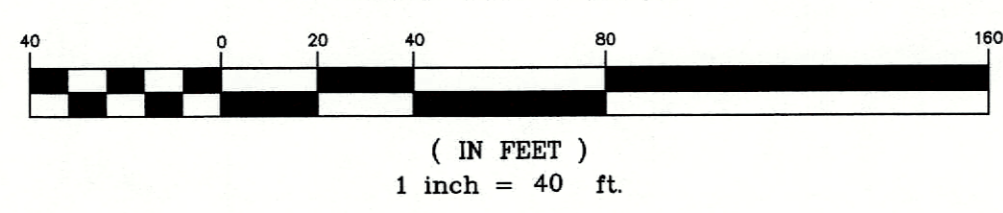
STATE OF NEW HAMPSHIRE
c/o SECRETARY OF STATE
CONCORD, N.H. 03301
BK. 1887 PG. 108

UTILITY ENERGY
6 LIBERTY LANE W
HAMPTON, N.H. 03842
BK. 792 PG. 90

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

GRAPHIC SCALE



REFERENCE PLANS:

1. "NON-RESIDENTIAL SITE PLAN FOR, AMOSKEAG BEVERAGES, LLC. 510 HALL STREET BOW AND CONCORD, NH." SCALE: 1"=20', DATED: 01-18-23, WITH REVISIONS THROUGH 9-27-03, PREPARED BY: GRANITE ENGINEERING, INC. NOT RECORDED.

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE AS-BUILT CONDITIONS ON MAP 88Z LOTS 3&4 510 HALL STREET, CONCORD, NEW HAMPSHIRE IN CONJUNCTION WITH THE IMPROVEMENTS SHOWN ON PLAN REF. 1
2. THE AS-BUILT INFORMATION SHOWN HEREON IS BASED UPON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN DECEMBER OF 2024.
3. ALL SEWER LINES ARE 6" SDR-35.
4. UNDERGROUND UTILITY INFORMATION SHOWN IN GREEN HEREON PROVIDED BY THE CONTRACTOR AND HAS NOT BEEN VERIFIED BY THIS OFFICE.

CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE AS-BUILT INFORMATION DEPICTED ON THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE IN DECEMBER OF 2024.

Christopher J. Mackey
LICENSED LAND SURVEYOR

1/14/25
DATE

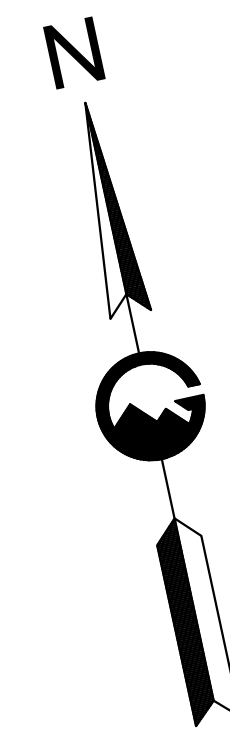
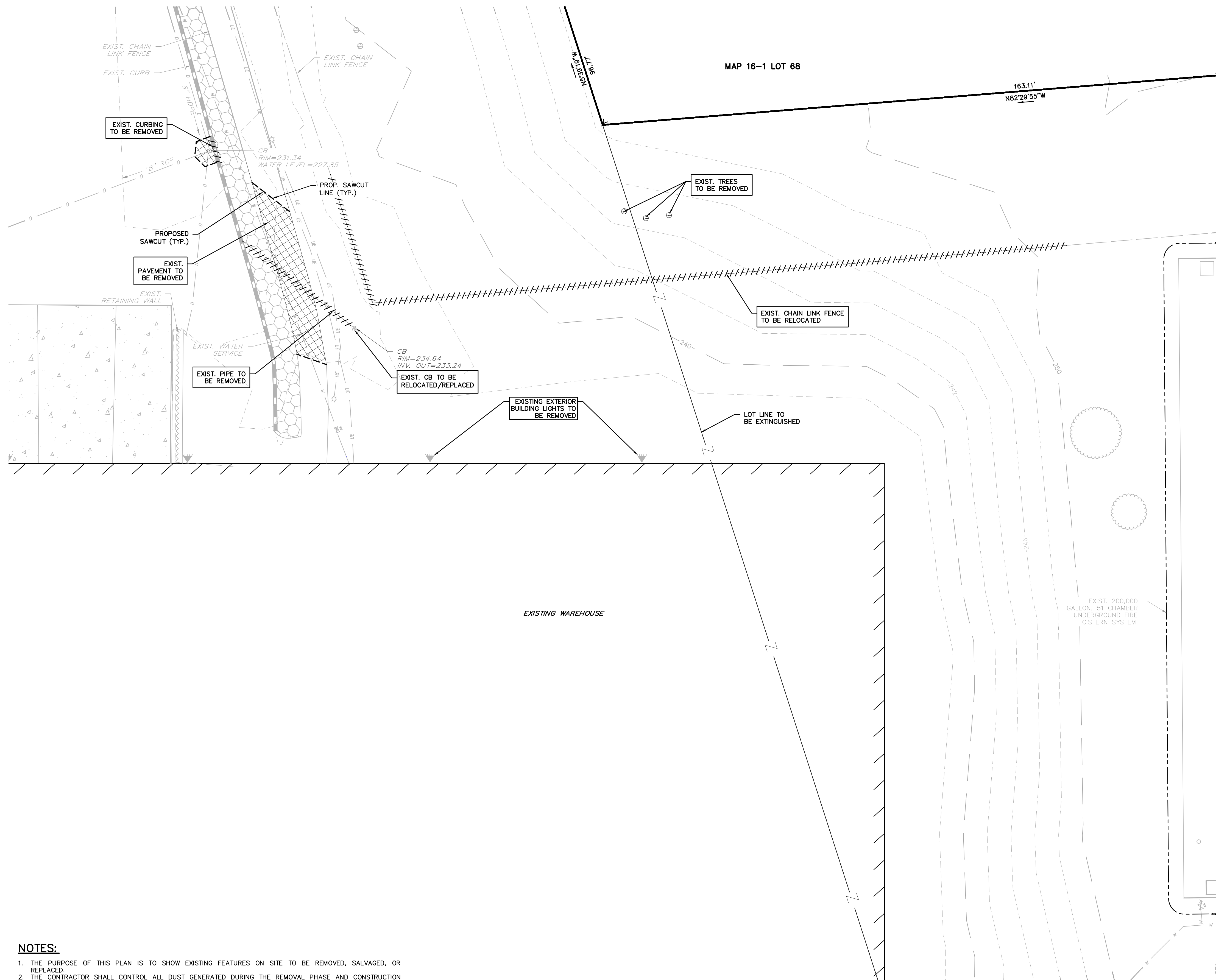
AS-BUILT PLAN
AMOSKEAG REALTY, LLC
MAP 88Z LOTS 3 & 4 (CONCORD, NH)
510 HALL STREET
CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER: LOTS 16-1-65 & 88Z-3
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304
M.C.R.D. BK. 3334; PG. 1454/1565

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 14, 2025 SCALE: 1" = 40'
PROJECT NO: 13-1202-2 SHEET 1 OF 1



LEGEND

	WATER VALVE
	UTILITY POLE
	LIGHT POLE
	EX. BUILDING LIGHT
	SEWER MANHOLE
	DRAIN MANHOLE
	EX. CATCH BASIN
	POST
	EX. BUILDING
	EX. PROPERTY LINE
	EX. EDGE OF PAVEMENT
	EX. BITUMINOUS CURB
	RETAINING WALL
	EX. CHAINLINK FENCE
	EX. CONCRETE
	EX. WATER LINE
	EX. OVERHEAD UTILITIES
	EX. UNDERGROUND UTILITIES
	EX. DRAINAGE LINE
	EX. TREE
	PAVEMENT/TRAIL TO BE REMOVED
	ITEMS TO BE REMOVED
	PROP. SAWCUT
	PROPERTY LINE TO BE EXTINGUISHED
	EX. MAJOR CONTOURS
	EX. MINOR CONTOURS

- NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING FEATURES ON SITE TO BE REMOVED, SALVAGED, OR REPLACED.
 2. THE CONTRACTOR SHALL CONTROL ALL DUST GENERATED DURING THE REMOVAL PHASE AND CONSTRUCTION PHASE SO THAT NO DUST LEAVES THE SITE.
 3. ANY MONUMENTS DISTURBED DURING CONSTRUCTION, WHICH AREN'T CALLED OUT FOR REMOVAL, SHALL BE RESET BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AT THE SITE CONTRACTORS EXPENSE.
 4. THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. GRANITE ENGINEERING, LLC MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ONSITE THE CONTRACTOR SHALL CONTACT DIGSAFE AT 811.
 5. ALL STUMPS, ROOTS, BRANCHES, BRUSH, WOODS, AND OTHER PERISHABLE MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF BY AN APPROVED METHOD. IF POSSIBLE, WOODY MATERIAL MAY BE RE-USED AS A WOOD/BRUSH EROSION CONTROL BMP INSTEAD OF SILT FENCING.
 6. STRIP, STOCKPILE, AND REUSE ONSITE GRAVEL AND FILL AREAS WHERE APPROPRIATE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE DESIGN ENGINEER.
 7. DEBRIS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 8. SITE CONTRACTOR SHALL ESTABLISH TEMPORARY PERIMETER CONTROLS PRIOR TO THE START OF SITE EXCAVATION.

DIG SAFE

811

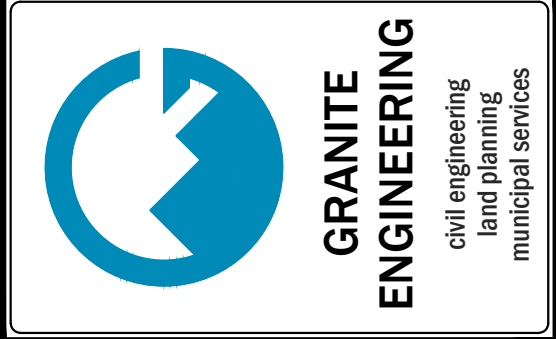
CALL TOLL FREE

UTILITIES UNDERGROUND

DAMAGE PREVENTION SYSTEM

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.



NO.	DATE	COMMENTS
1	04/23/26	PROJECT SUBMITTAL
2	05/26/26	UMRLAC/ANDES RESUBMITTAL

APPLICANT:
AMOSKEAG REALTY, LLC
510 HALL STREET,
BOW, NH 03304

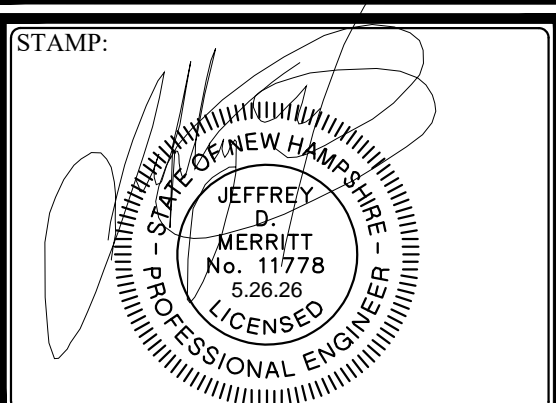
GRANITE ENGINEERING

civil engineering • land planning • municipal services

150 Dow Street, Tower 2, Suite 421
Manchester,
New Hampshire 03101

603.518.8030

www.GraniteEng.com

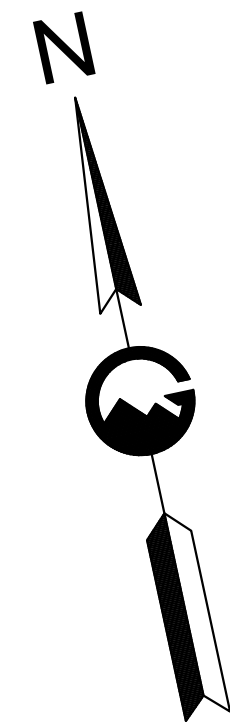
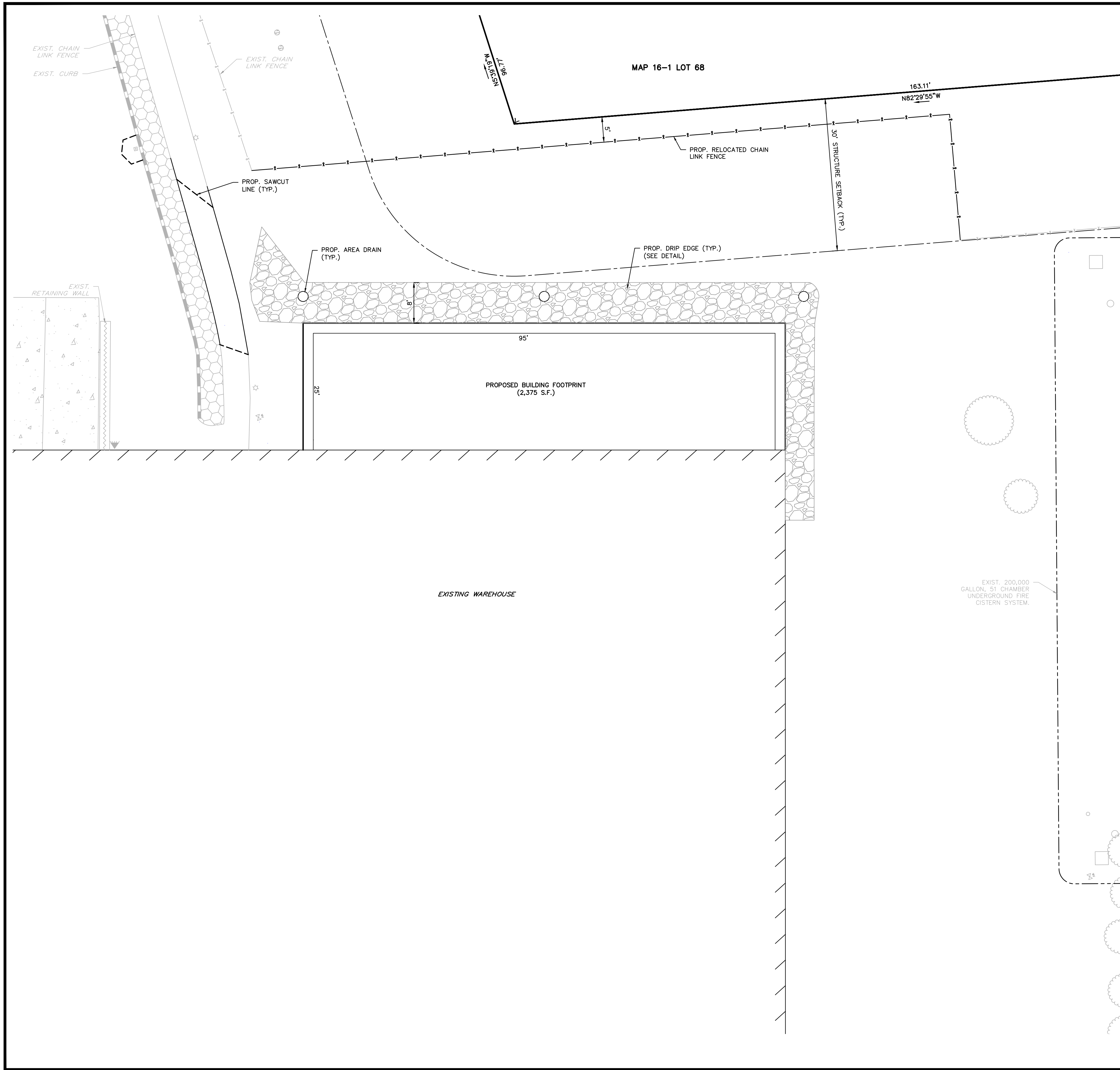


LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
TAX MAP 88Z LOT 3
(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
**AMOSKEAG BEVERAGES
COVERED STORAGE
ADDITION**

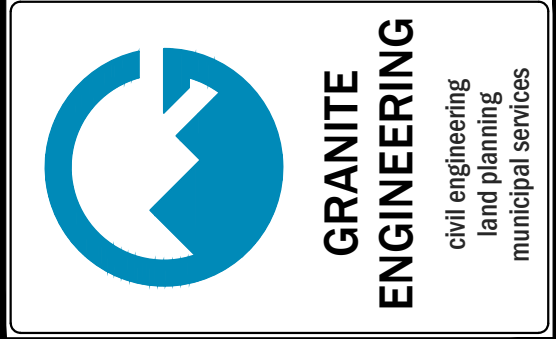
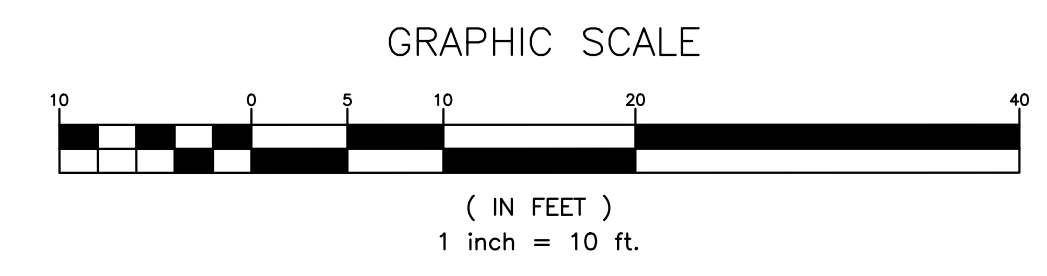
TITLE:
REMOVALS PLAN

PROJECT No. DATE: 26-0218-5 APRIL 23, 2026 SCALE: 1"=10'
SHEET: 4 OF 12



SEE SHEET 1 FOR REFERENCE PLANS AND NOTES

- LEGEND**
- WATER VALVE
 - UTILITY POLE
 - LIGHT POLE
 - EX. BUILDING LIGHT
 - SEWER MANHOLE
 - DRAIN MANHOLE
 - EX. CATCH BASIN
 - PROP. AREA DRAIN
 - EX. BUILDING
 - PROP. BUILDING
 - EX. PROPERTY LINE
 - BUILDING SETBACK
 - EX./PROP. EDGE OF PAVEMENT
 - EX./PROP. BITUMINOUS CURB
 - EX./PROP. CHAINLINK FENCE
 - EX./PROP. RETAINING WALL
 - EX./PROP. CONCRETE
 - EX./PROP. RIP RAP
 - PROP. DRIP EDGE
 - PROP. SAWCUT
 - EX. TREE



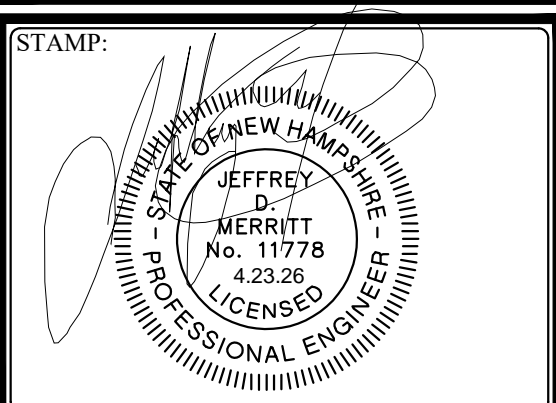
NO.	DATE	COMMENTS
1	04/23/26	PROJECT SUBMITTAL

APPLICANT:
 AMOSKEAG REALTY, LLC
 510 HALL STREET,
 BOW, NH 03304

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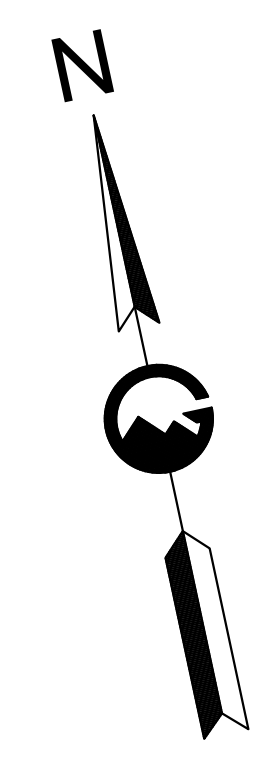
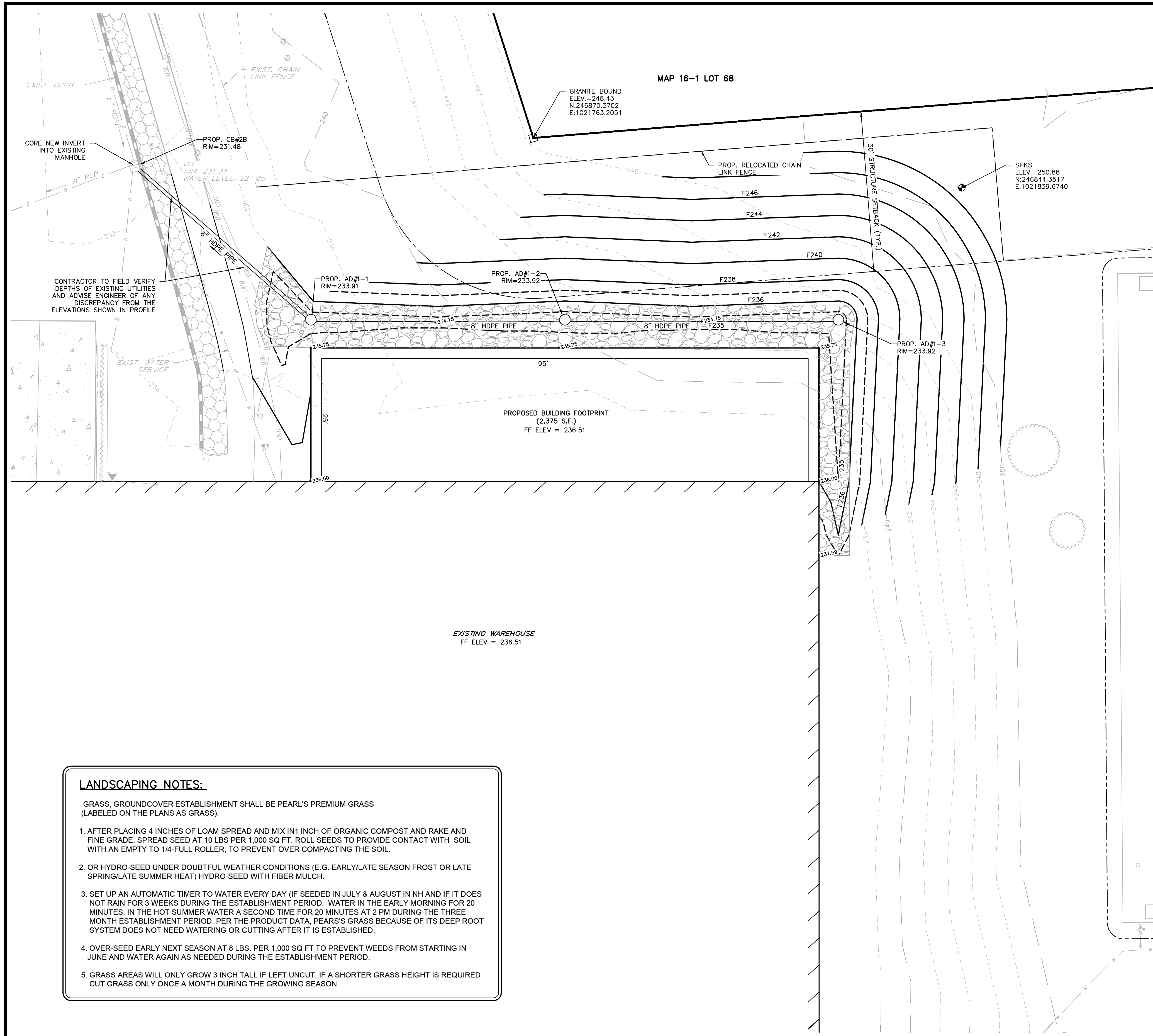


LOCATION:
 TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
 TAX MAP 88Z LOT 3
 (CONCORD)
 510 HALL STREET
 BOW & CONCORD, NEW HAMPSHIRE
 MERRIMACK COUNTY

PROJECT:
**AMOSKEAG BEVERAGES
 COVERED STORAGE
 ADDITION**

TITLE:
SITE PLAN

PROJECT No. DATE: SCALE:
 26-0218-5 APRIL 23, 2026 HORIZ.
 SHEET: 5 OF 12 1"=10'



- CONSTRUCTION NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED GRADING AND DRAINAGE SYSTEMS FOR THIS PROJECT.
 - THIS PROJECT REQUIRES A MODIFICATION OF THE OUTLET WEIR ON THE EXISTING WET POND OUTLET STRUCTURE. A DETAIL OF THE MODIFICATION WEIR IS INCLUDED IN THIS PLAN SET AND MUST BE INSTALLED AS PART OF THIS PROJECT.
 - ALL AREA DRAINS SHALL BE 24" NYLOPLAST OR CONCRETE WITH DOME GRATE, UNLESS NOTED OTHERWISE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - ALL DISTURBED AREAS ARE TO BE LOAMED AND SEEDED.
 - SEE THE EROSION CONTROL PLAN FOR THE LOCATION OF THE TEMPORARY EROSION CONTROL DEVICES.
 - SEE DETAILS FOR DRAINAGE SPECIFICATIONS.
 - MATERIAL STOCKPILES SHALL BE ON LEVEL SITES WITH SILT FENCE INSTALLED AROUND THE PILE. STOCKPILES MUST BE SEEDED AND MULCHED IF STORED MORE THAN 14 DAYS.
 - THIS PROJECT DOES NOT DISTURB MORE THAN 1-ACRE OF LAND, THEREFORE, IT WILL BE NOT BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA).
 - ALL STORMWATER IMPROVEMENTS WILL BE MAINTAINED BY THE PROPERTY OWNER IN PERPETUITY IN ACCORDANCE WITH:
 - LOCAL, STATE, AND FEDERAL REGULATIONS
 - NHDES STORMWATER MANUAL RECOMMENDATIONS
 - STORMWATER MAINTENANCE AND OPERATION PLANS
 - ANY MANUFACTURER SPECIFICATIONS

LEGEND

	WATER VALVE
	UTILITY POLE
	LIGHT POLE
	EX. BUILDING LIGHT
	SEWER MANHOLE
	DRAIN MANHOLE
	EX. CATCH BASIN
	PROP. AREA DRAIN
	EX. BUILDING
	PROP. BUILDING
	EX. PROPERTY LINE
	BUILDING SETBACK
	EX./PROP. EDGE OF PAVEMENT
	EX./PROP. BITUMINOUS CURB
	EX./PROP. CHAINLINK FENCE
	EX./PROP. RETAINING WALL
	EX./PROP. CONCRETE
	EX./PROP. RIP RAP
	PROP. DRIP EDGE
	PROP. SAWCUT
	EX. TREE
	EX. MAJOR CONTOURS
	EX. MINOR CONTOURS
	PROP. 1 FOOT CONTOURS

LANDSCAPING NOTES:

GRASS, GROUND COVER ESTABLISHMENT SHALL BE PEARL'S PREMIUM GRASS (LABELED ON THE PLANS AS GRASS).

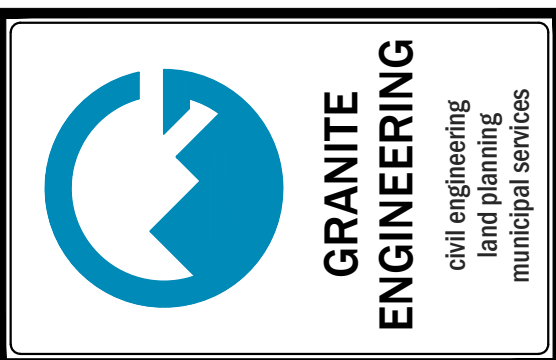
- AFTER PLACING 4 INCHES OF LOAM SPREAD AND MIX IN 1 INCH OF ORGANIC COMPOST AND RAKE AND FINE GRADE. SPREAD SEED AT 10 LBS PER 1,000 SQ FT. ROLL SEEDS TO PROVIDE CONTACT WITH SOIL WITH AN EMPTY TO 1/4-FULL ROLLER, TO PREVENT OVER COMPACTING THE SOIL.
- OR HYDRO-SEED UNDER DOUBTFUL WEATHER CONDITIONS (E.G. EARLY/LATE SEASON FROST OR LATE SPRING/LATE SUMMER HEAT) HYDRO-SEED WITH FIBER MULCH.
- SET UP AN AUTOMATIC TIMER TO WATER EVERY DAY (IF SEEDED IN JULY & AUGUST IN NH AND IF IT DOES NOT RAIN FOR 3 WEEKS DURING THE ESTABLISHMENT PERIOD. WATER IN THE EARLY MORNING FOR 20 MINUTES. IN THE HOT SUMMER WATER A SECOND TIME FOR 20 MINUTES AT 2 PM DURING THE THREE MONTH ESTABLISHMENT PERIOD. PER THE PRODUCT DATA, PEARL'S GRASS BECAUSE OF ITS DEEP ROOT SYSTEM DOES NOT NEED WATERING OR CUTTING AFTER IT IS ESTABLISHED.
- OVER-SEED EARLY NEXT SEASON AT 8 LBS. PER 1,000 SQ FT TO PREVENT WEEDS FROM STARTING IN JUNE AND WATER AGAIN AS NEEDED DURING THE ESTABLISHMENT PERIOD.
- GRASS AREAS WILL ONLY GROW 3 INCH TALL IF LEFT UNCUT. IF A SHORTER GRASS HEIGHT IS REQUIRED CUT GRASS ONLY ONCE A MONTH DURING THE GROWING SEASON

DIG SAFE

811
CALL TOLL FREE
DAMAGE PREVENTION SYSTEM

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.



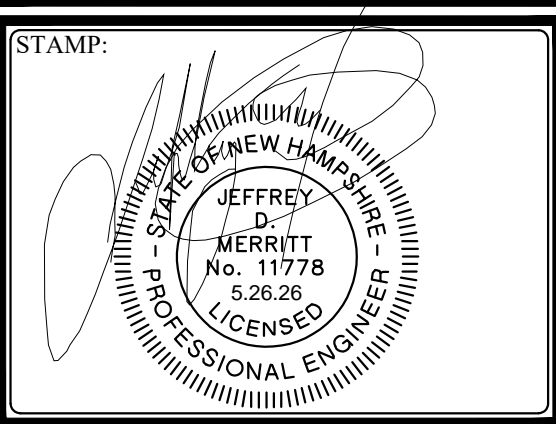
NO.	DATE	COMMENTS
1	04/23/26	PROJECT SUBMITTAL
2	05/26/26	UMRLAC/ANDES RESUBMITTAL

APPLICANT:
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510 HALL STREET,
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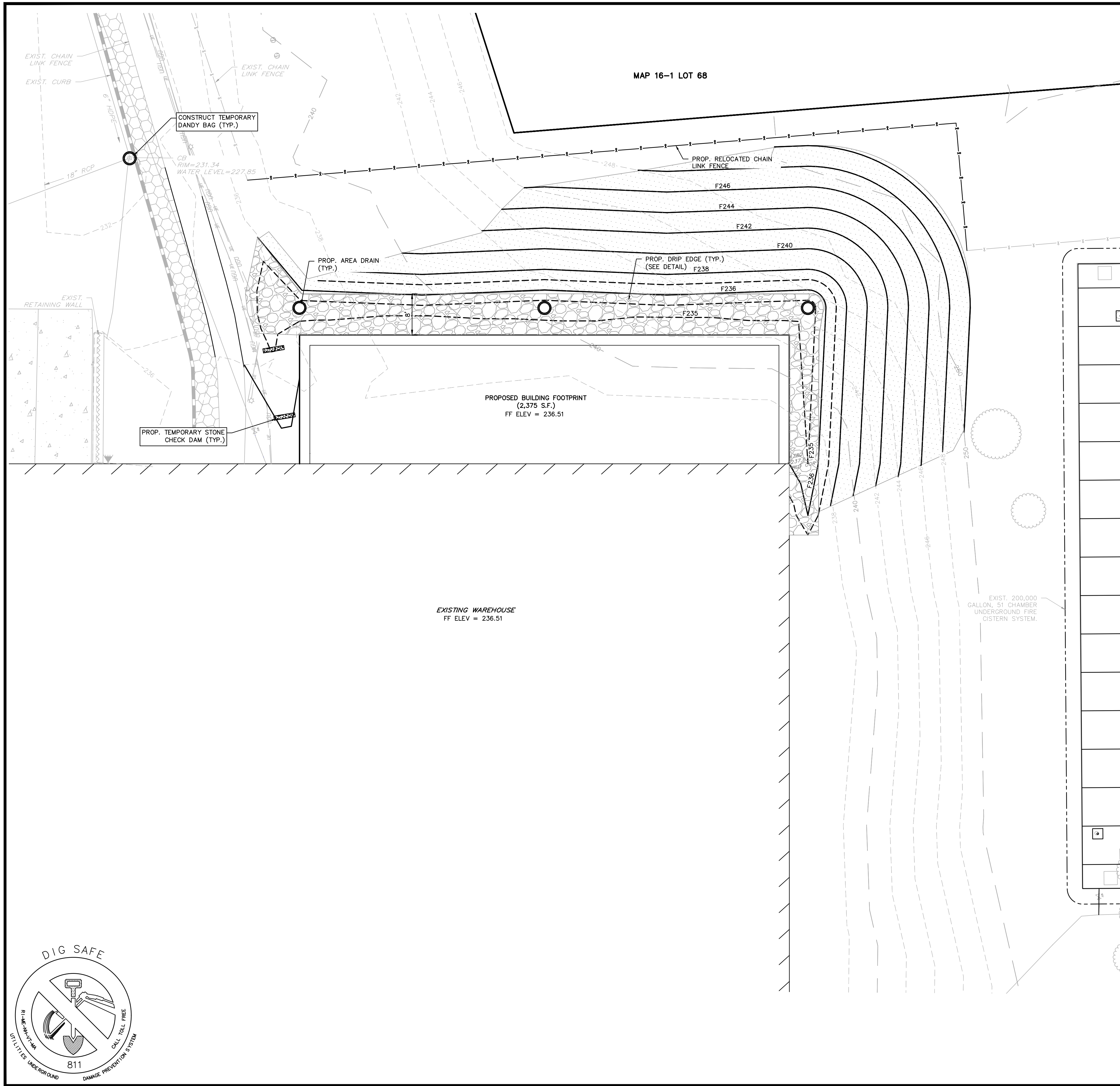


LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67 (BOW)
TAX MAP 88Z LOT 3
(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
**AMOSKEAG BEVERAGES
COVERED STORAGE
ADDITION**

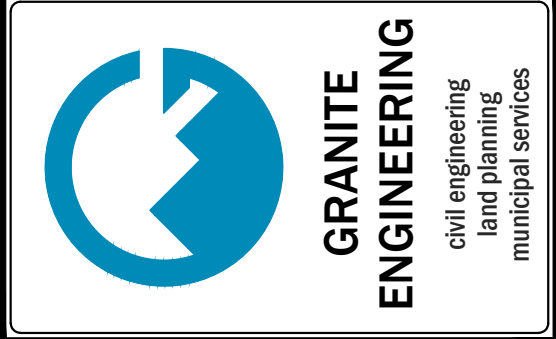
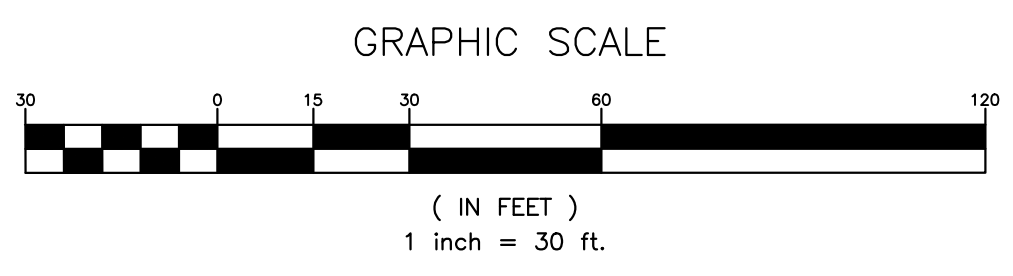
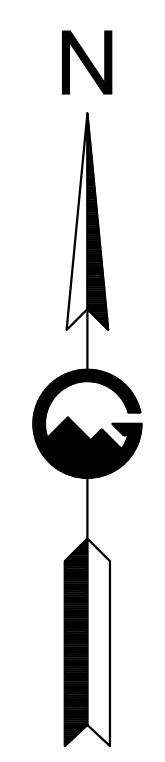
TITLE:
**GRADING,
DRAINAGE AND
UTILITY PLAN**

PROJECT No. DATE: 26-0218-5 APRIL 23, 2026
SHEET: 6 OF 12
SCALE: HORIZ. 1"=10'



EROSION & SEDIMENT CONTROL LEGEND

- TEMPORARY DANDY BAGS
- TEMPORARY STONE CHECK DAM
- EROSION BLANKET



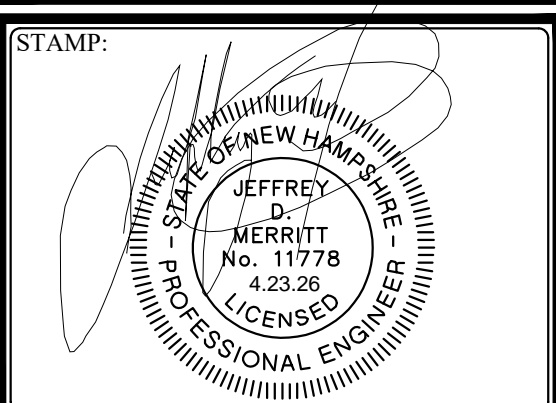
NO.	DATE	COMMENTS	BY
1	04/23/26	PROJECT SUBMITTAL	JDM

APPLICANT:
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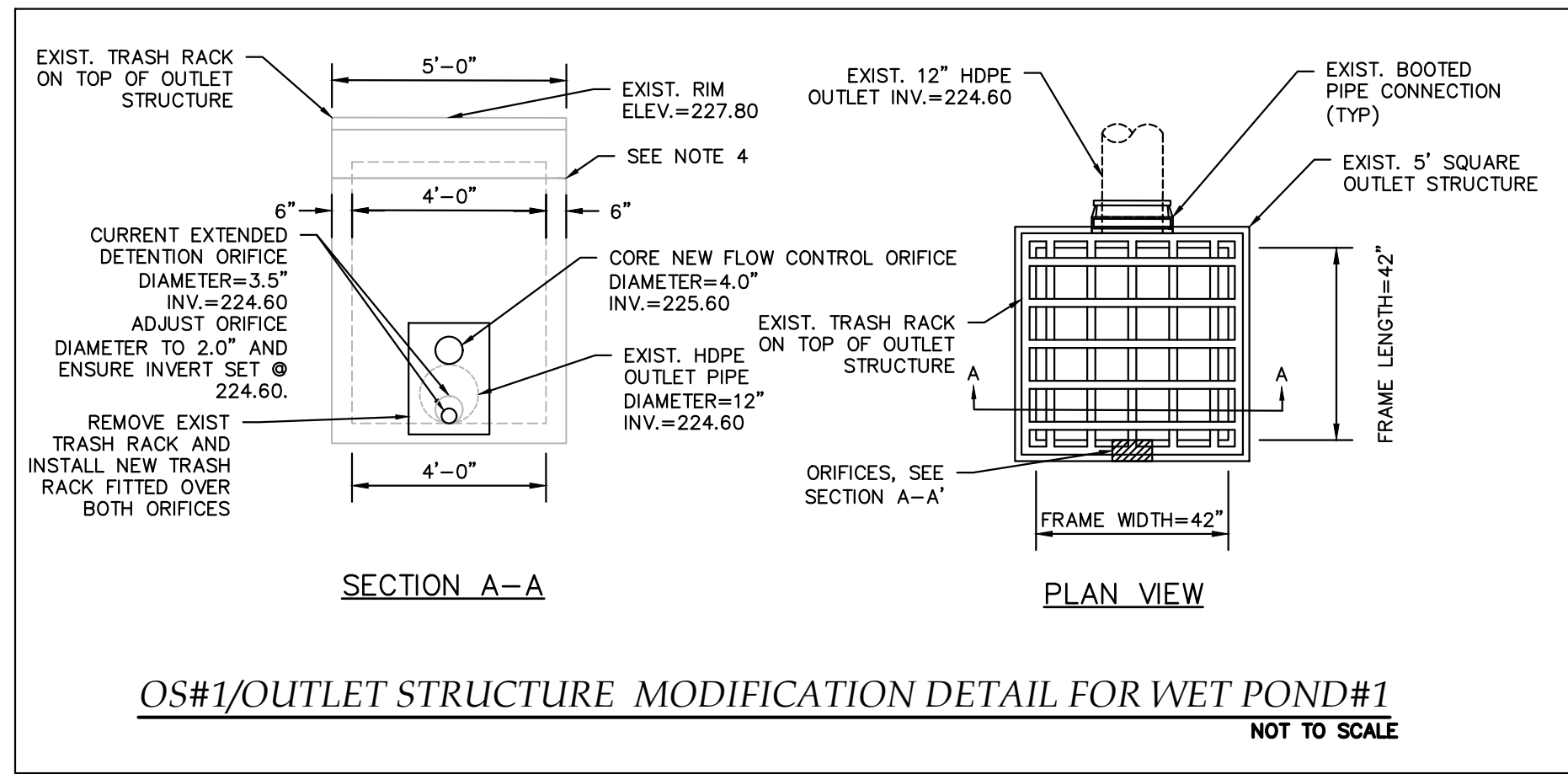
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 MERRIMACK COUNTY

PROJECT:
**AMOSKEAG BEVERAGES
 COVERED STORAGE
 ADDITION**

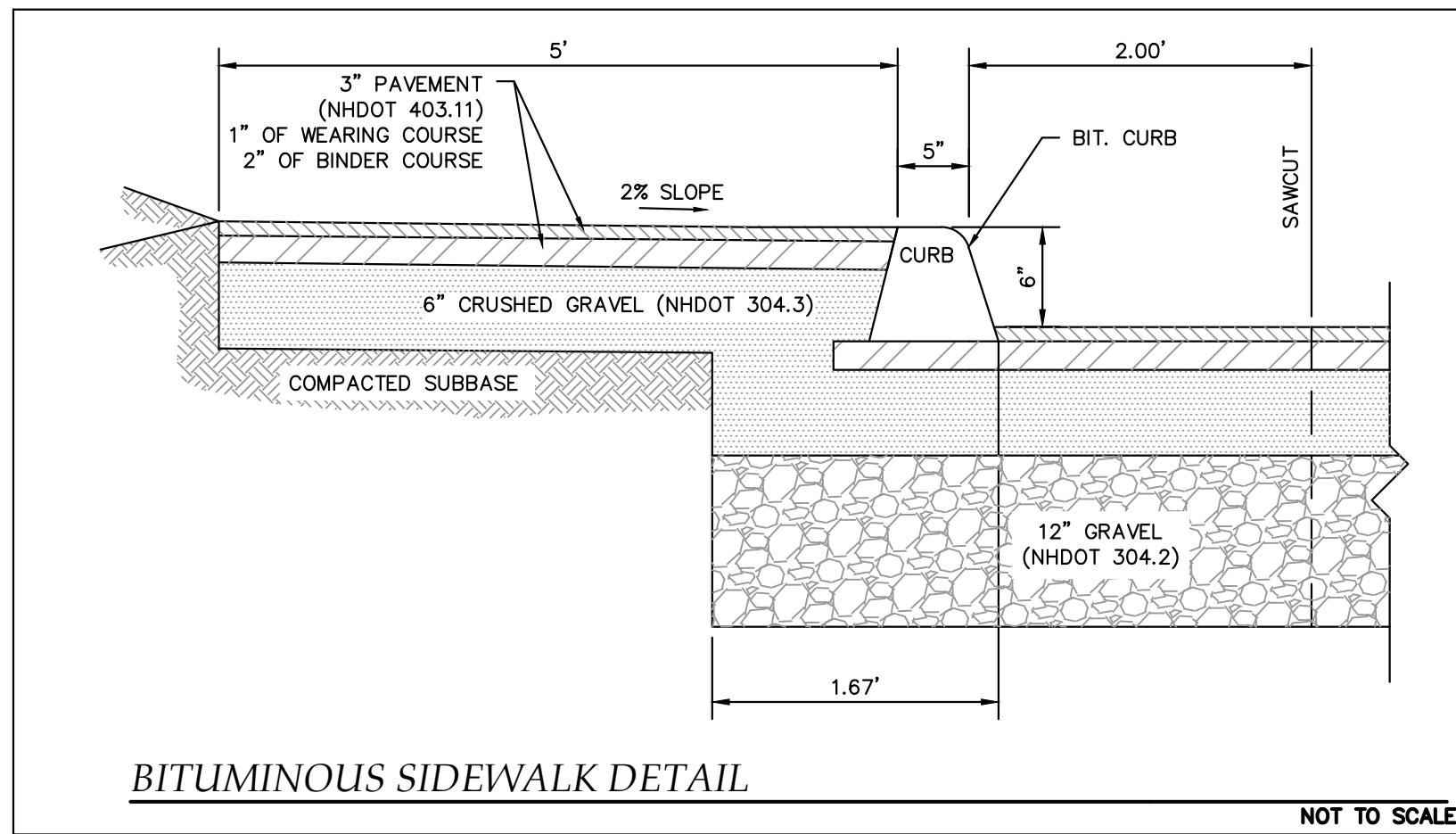
TITLE:
**EROSION CONTROL
 PLAN**

PROJECT No. DATE: 26-0218-5 APRIL 23, 2026
 SHEET: 7 OF 12
 SCALE: HORIZ. 1"=30'

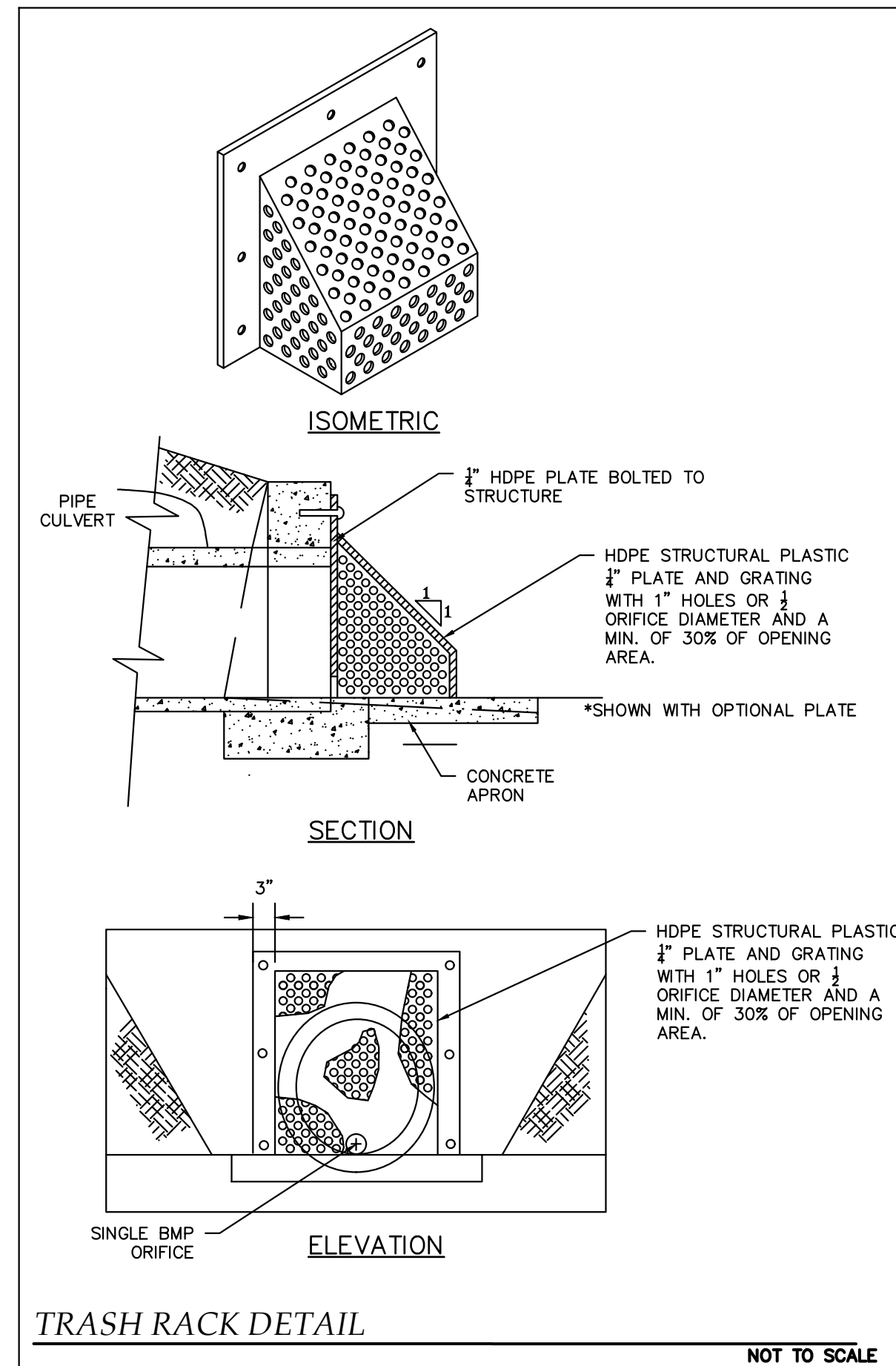




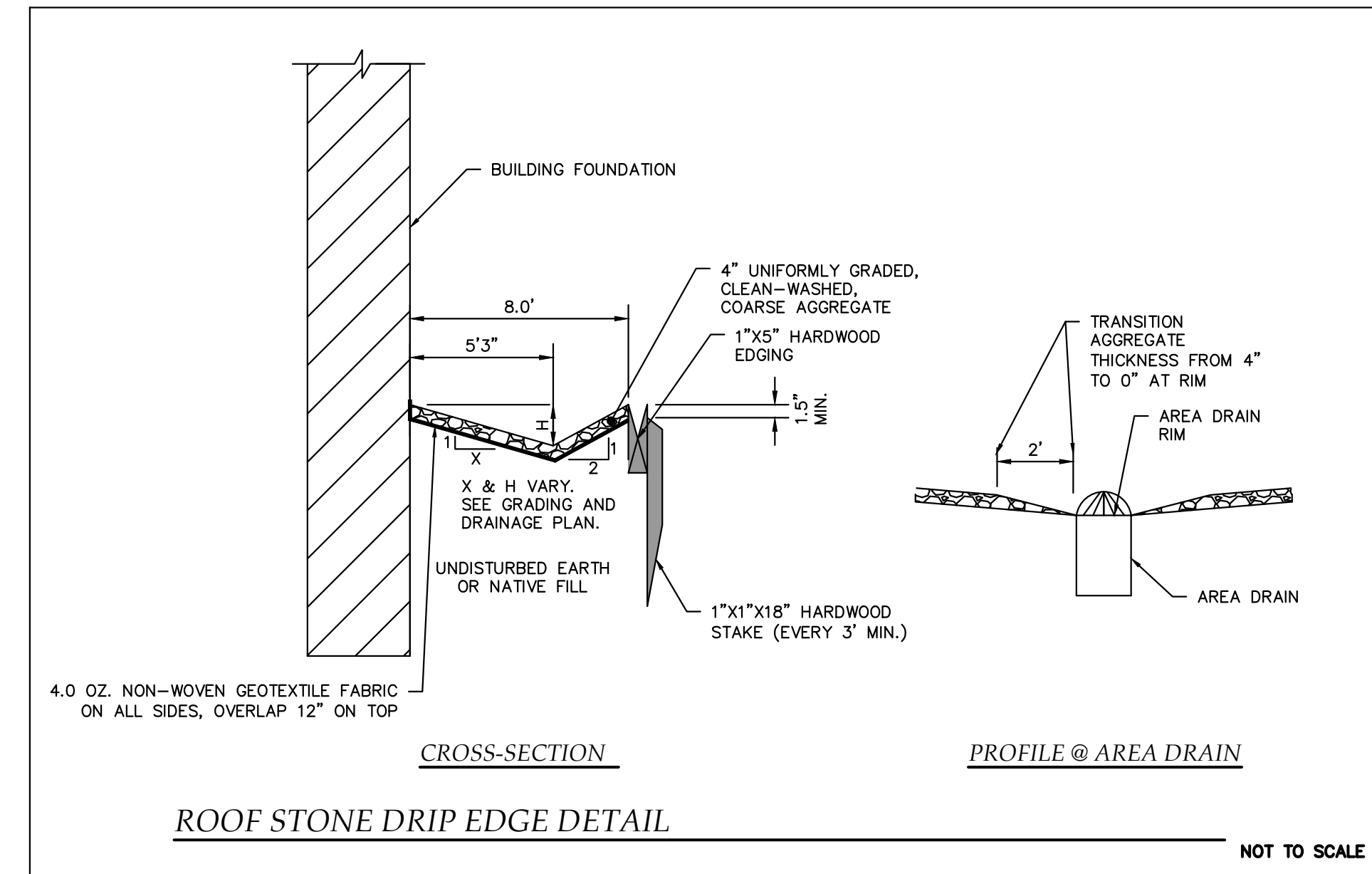
OS#1/OUTLET STRUCTURE MODIFICATION DETAIL FOR WET POND#1
NOT TO SCALE



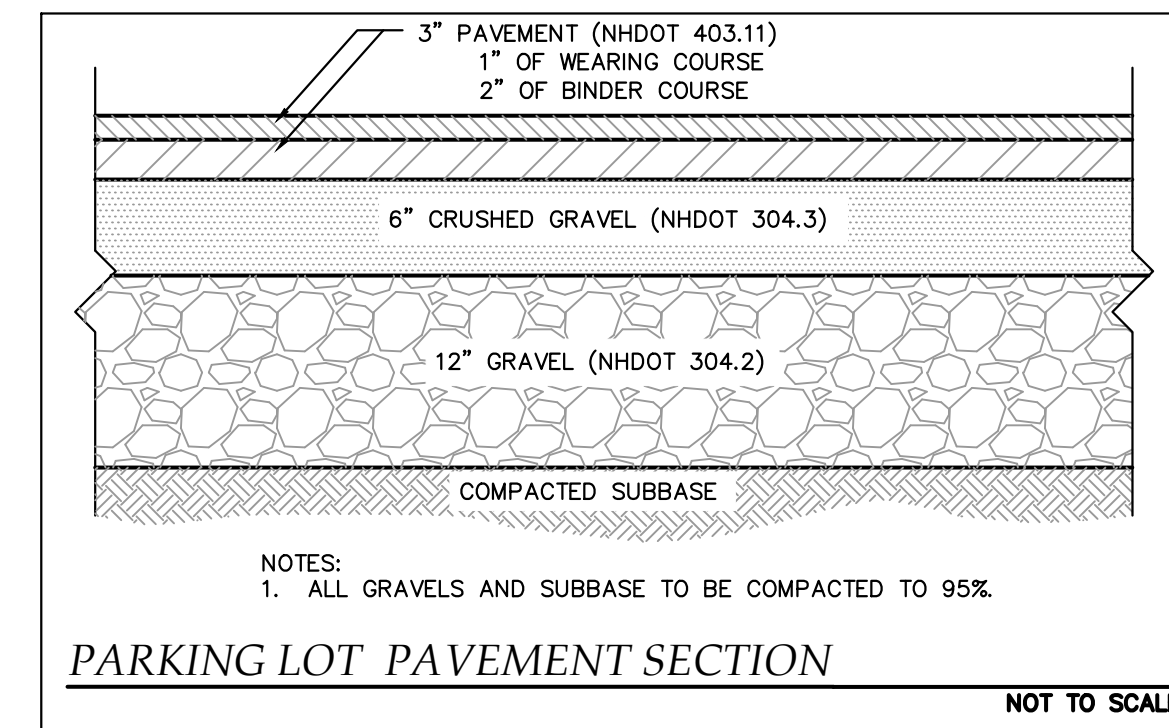
BITUMINOUS SIDEWALK DETAIL
NOT TO SCALE



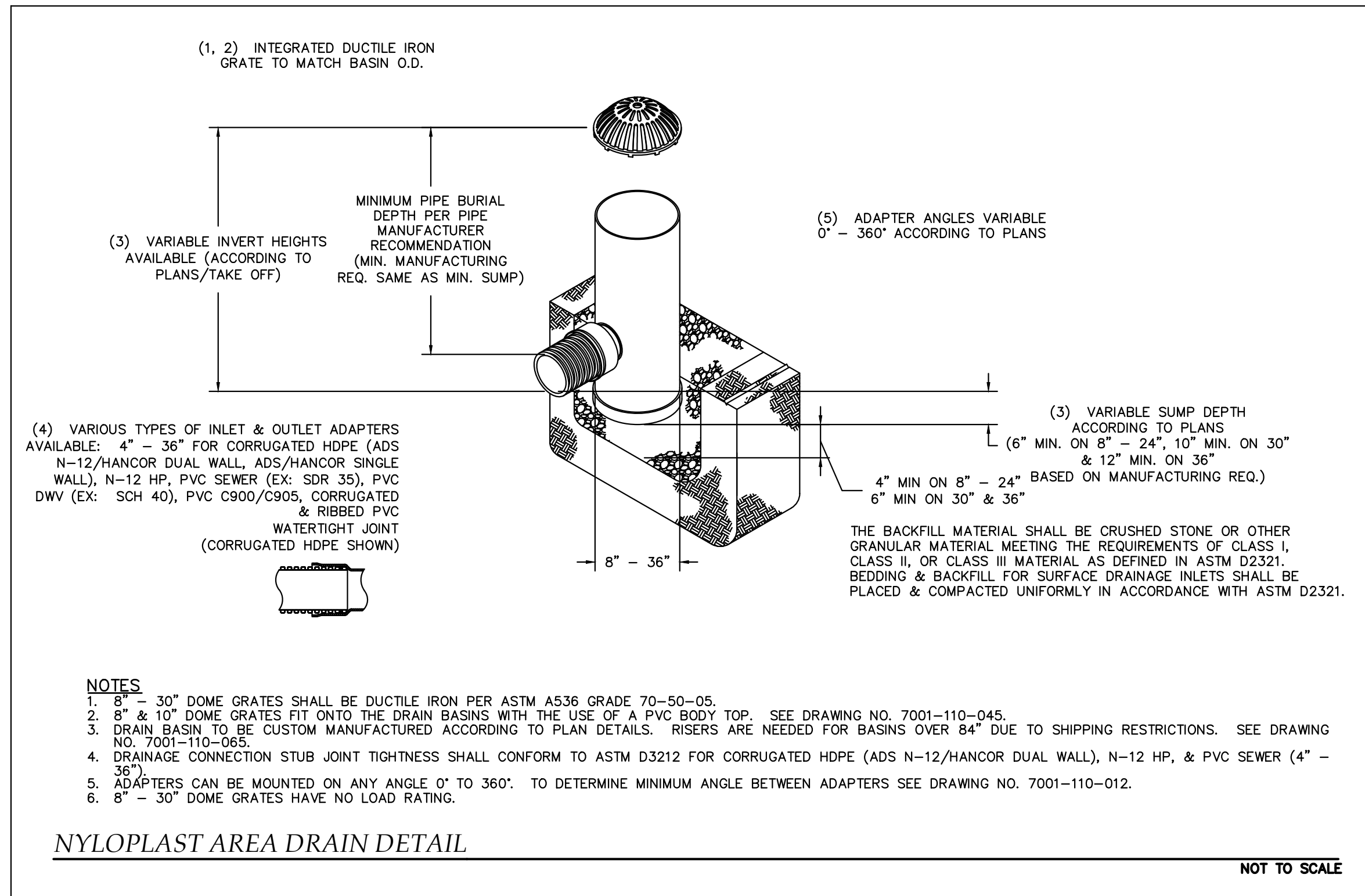
TRASH RACK DETAIL
NOT TO SCALE



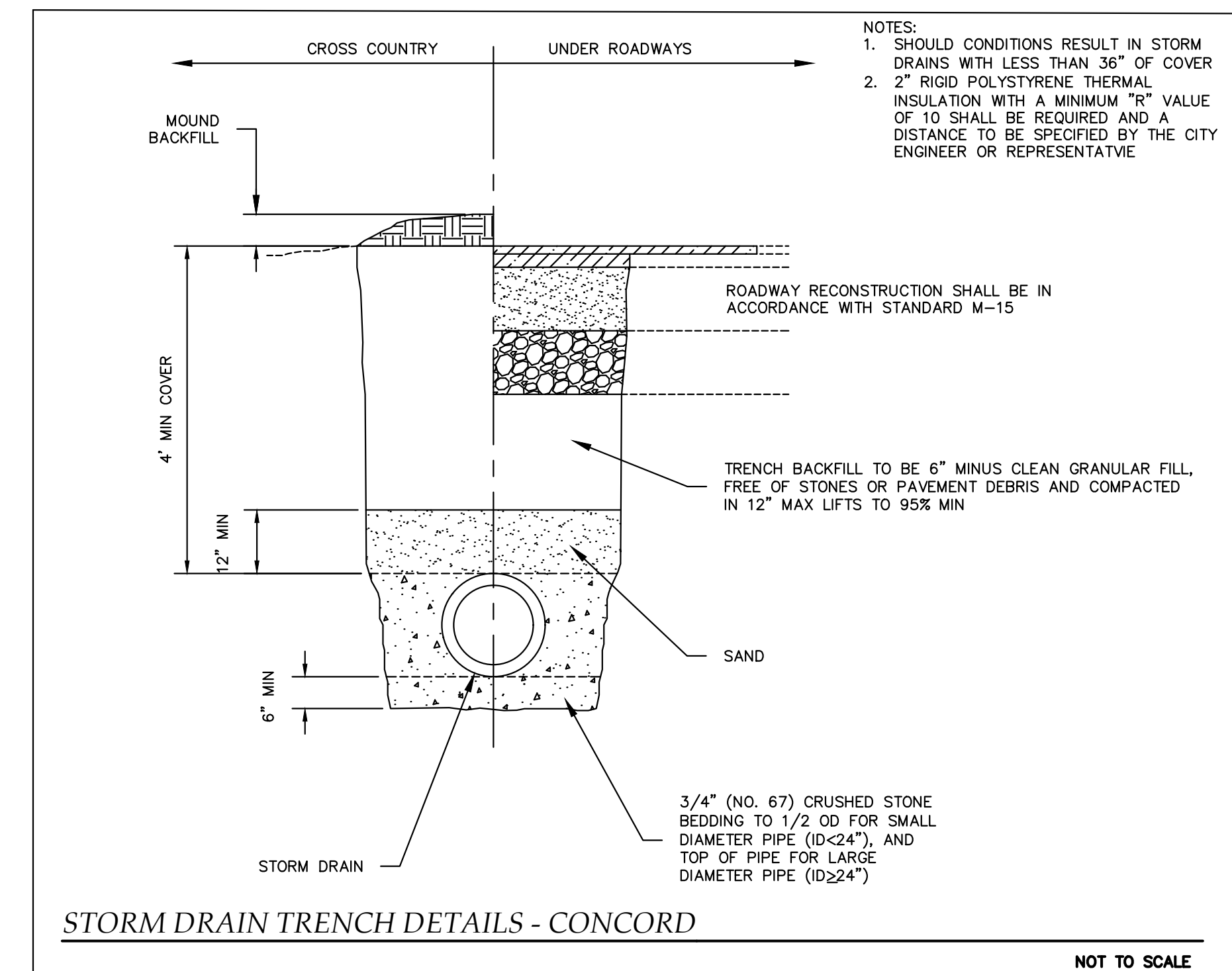
ROOF STONE DRIP EDGE DETAIL
NOT TO SCALE



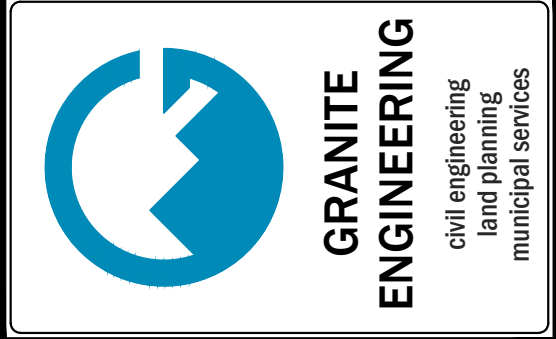
PARKING LOT PAVEMENT SECTION
NOT TO SCALE



NYLOPLAST AREA DRAIN DETAIL
NOT TO SCALE



STORM DRAIN TRENCH DETAILS - CONCORD
NOT TO SCALE

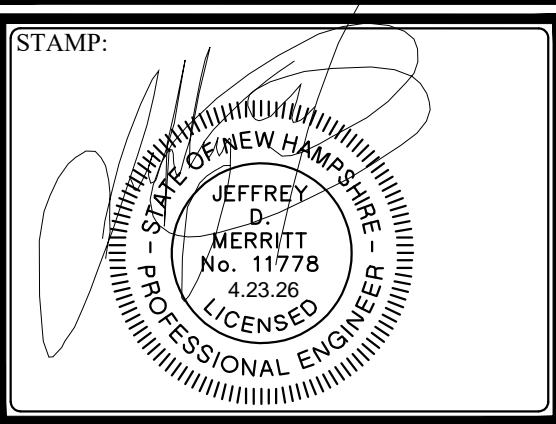


NO.	DATE	REVISIONS
0	04/23/26	PROJECT SUBMITTAL

APPLICANT:
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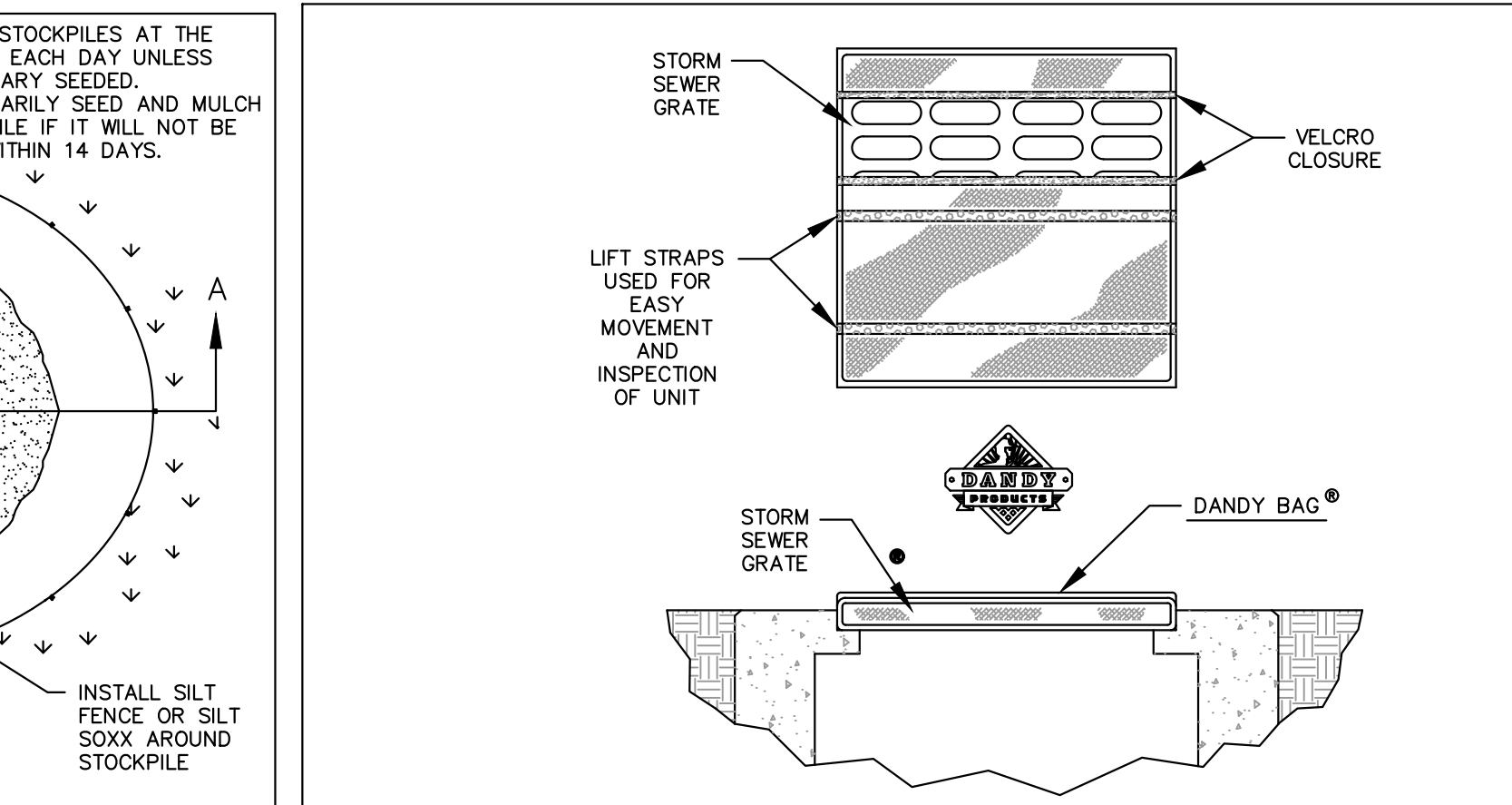
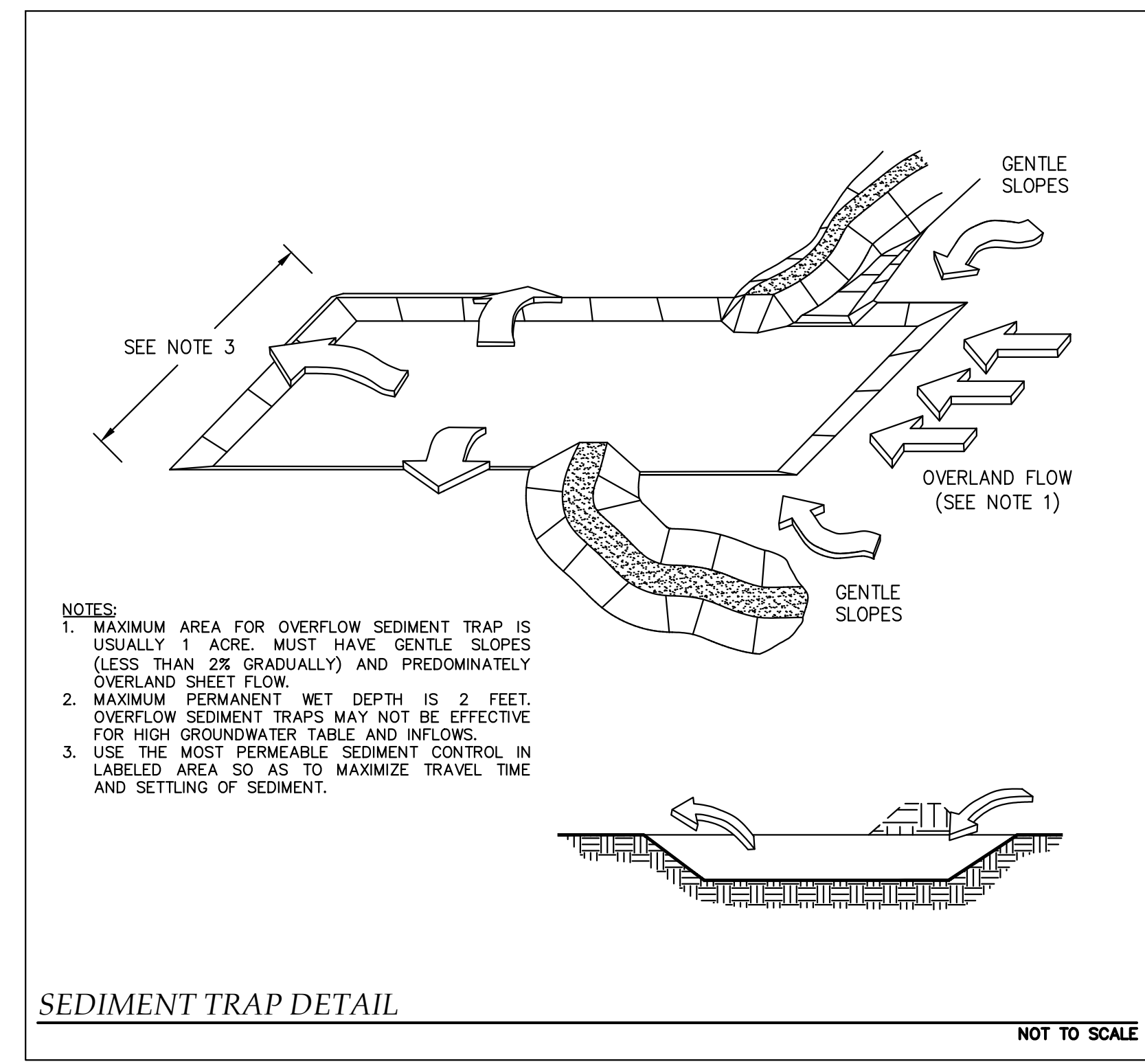
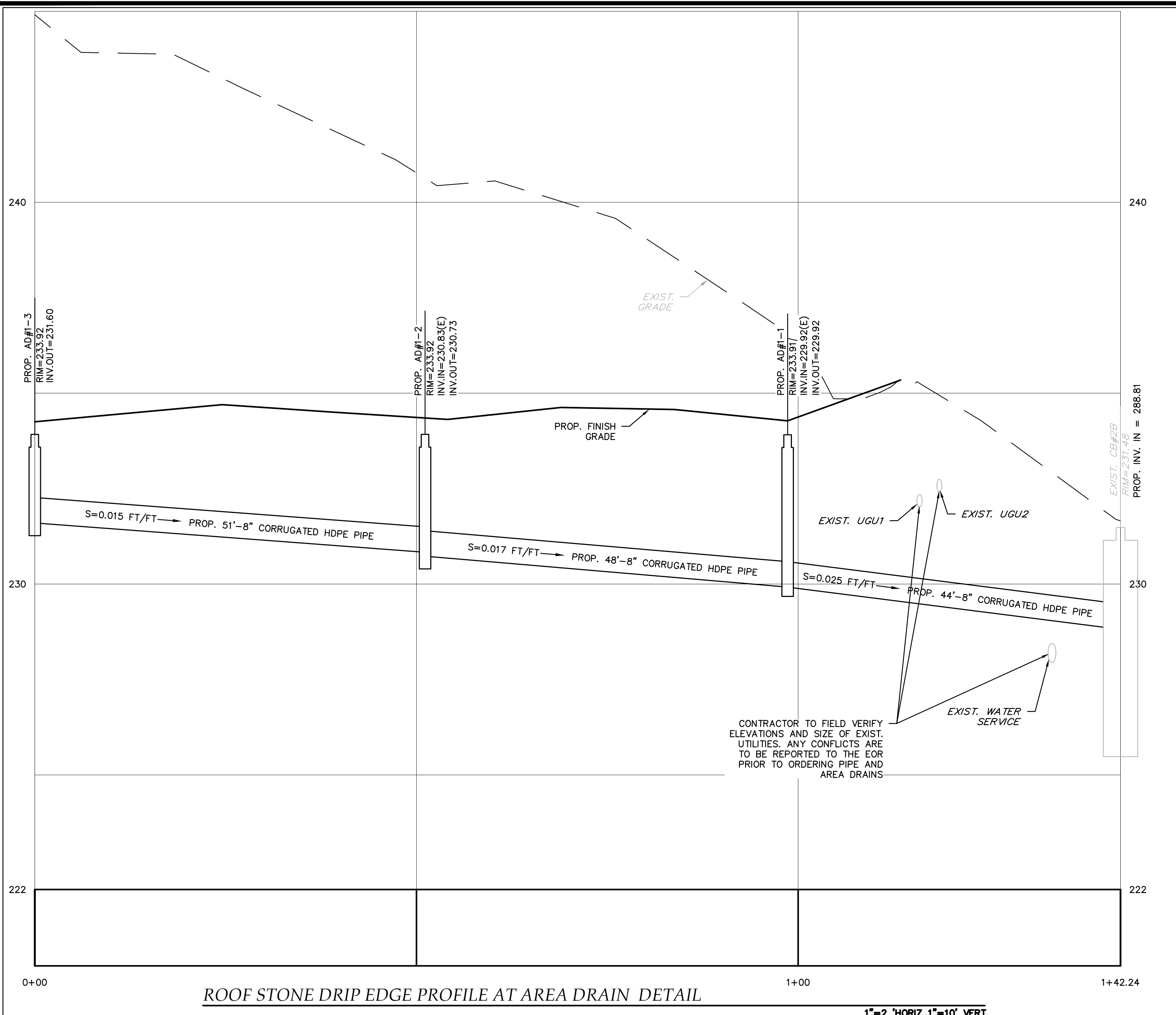


LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
TAX MAP 88Z LOT 3
(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
**AMOSKEAG BEVERAGES
COVERED STORAGE
ADDITION**

TITLE:
DETAILS

PROJECT No:	DATE:	SCALE:
26-0218-5	APRIL 23, 2026	AS SHOWN
SHEET:	8 OF 12	



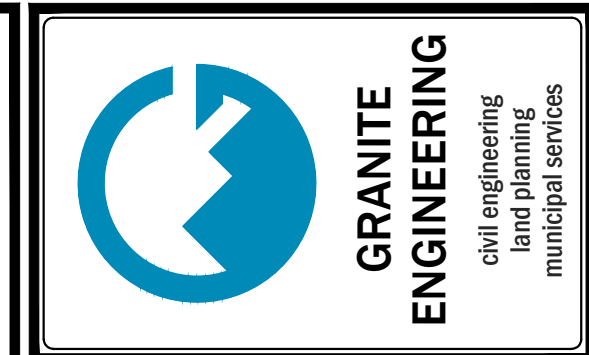
HI-FLOW DANDY BAG® (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m ² (gal/min/ft ²)	5907 (145)
Permittivity	ASTM D 4491	Sec ⁻¹	2.1

*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows



NOT TO SCALE



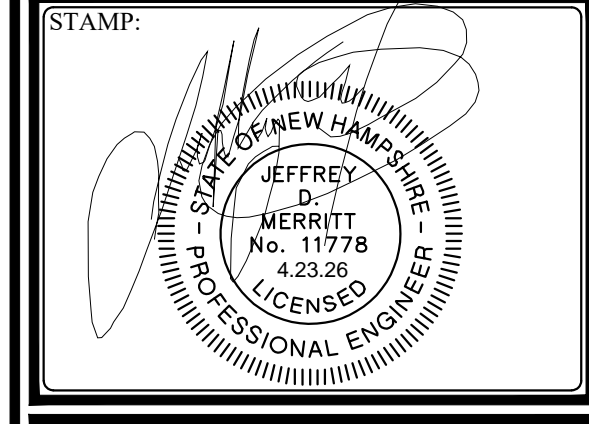
NO.	DATE	COMMENTS
1	04/23/26	PROJECT SUBMITTAL

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**AMOSKEAG BEVERAGES
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TITLE:
DETAILS

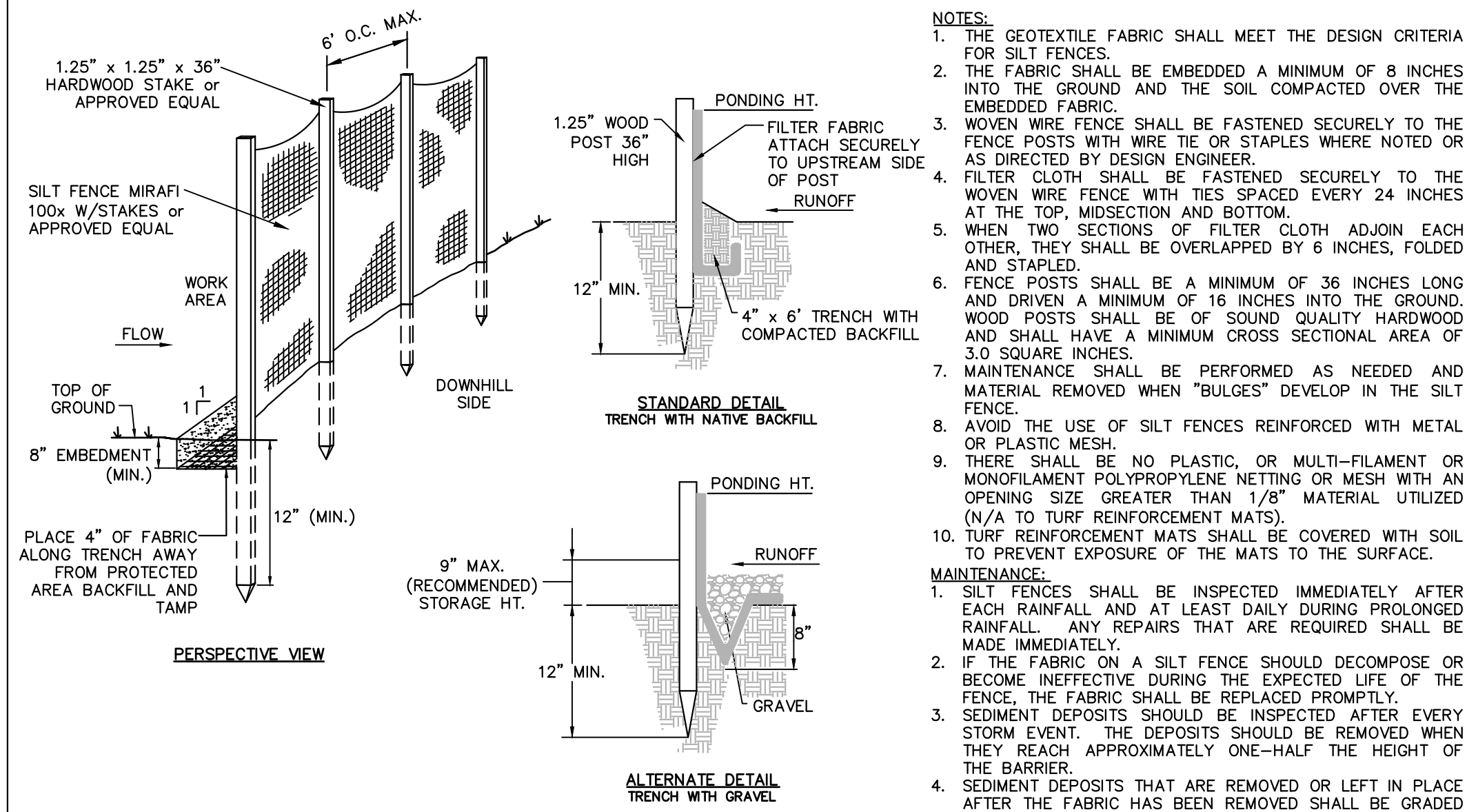
PROJECT No. / DATE:
26-0218-5 / APRIL 23, 2026

SHEET:
9 OF 12

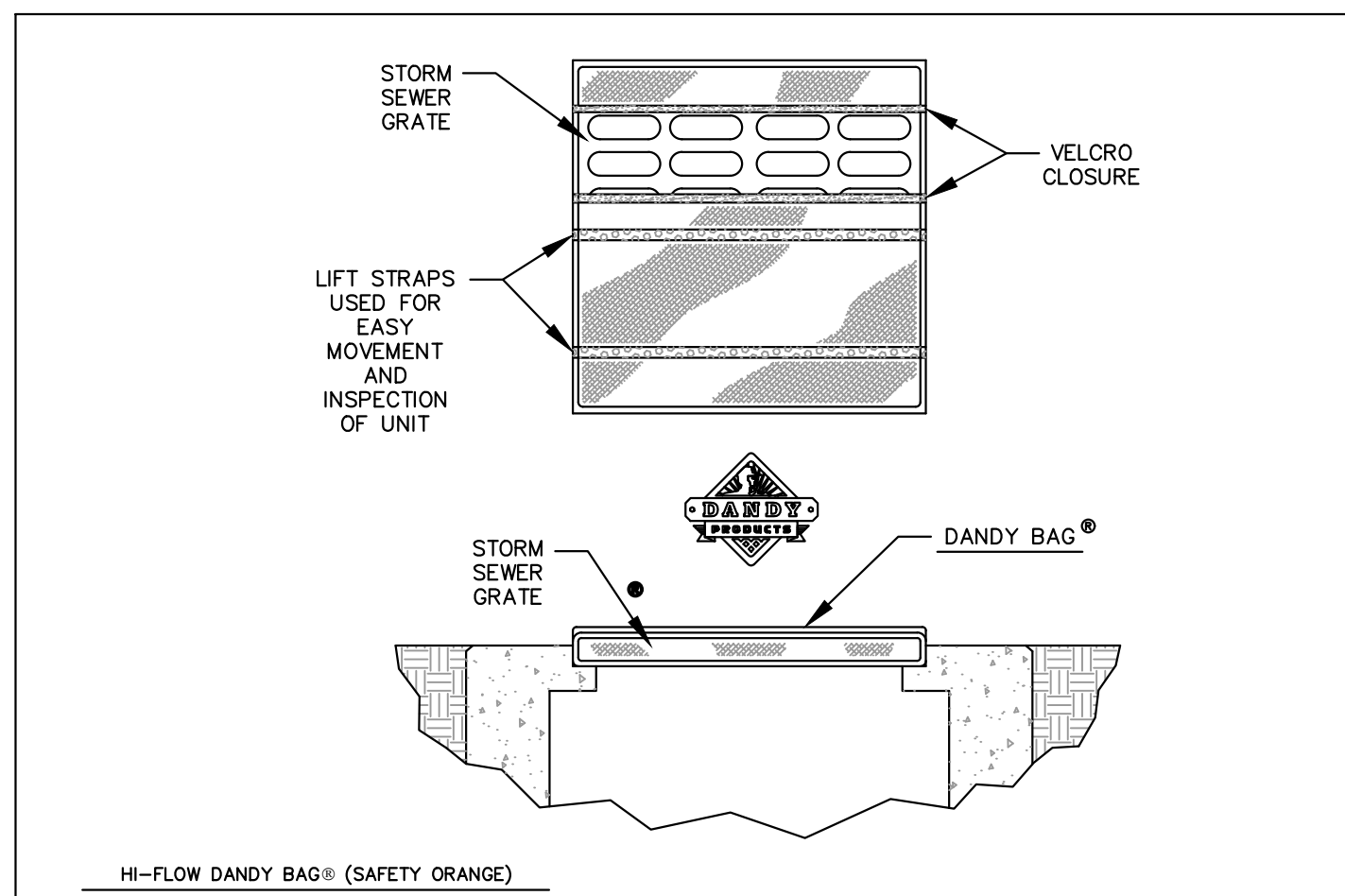
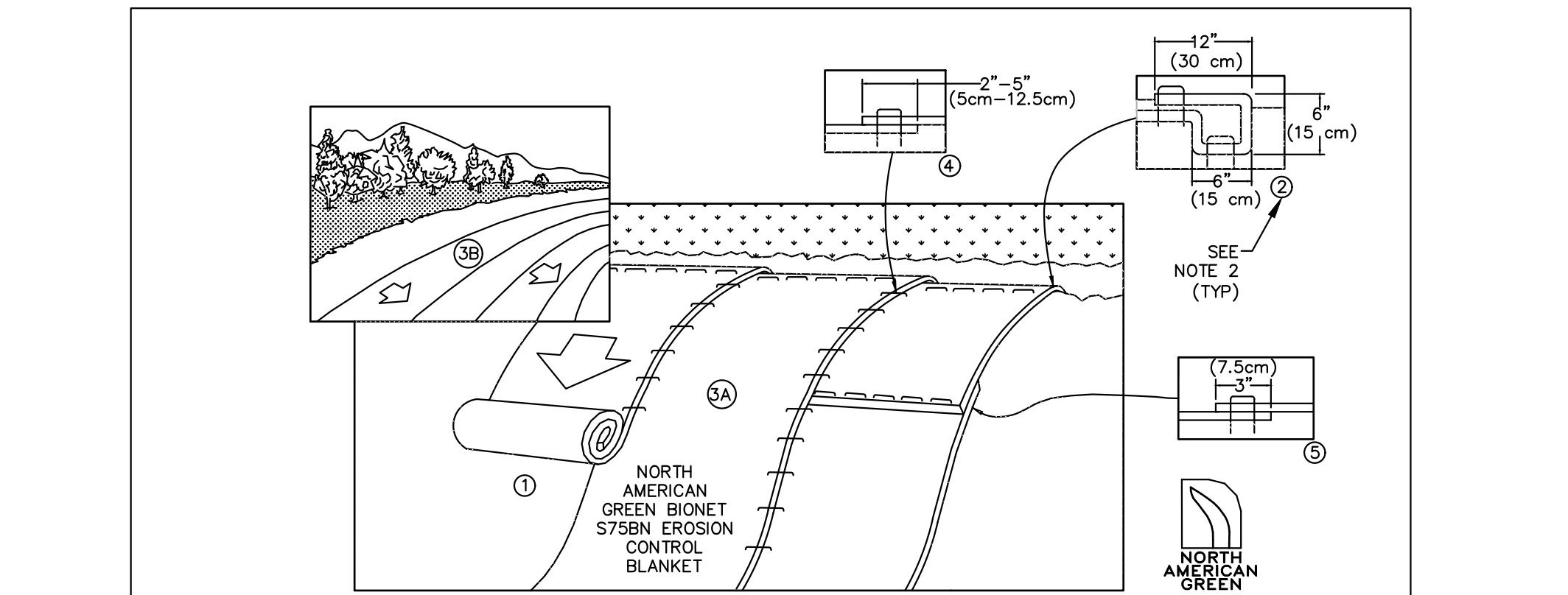
SCALE:
AS SHOWN

- CONTACT DIG SAFE AT LEAST 72 HOURS BEFORE ANY EXCAVATION WORK.
- CUT AND CLEAR TREES AND BRUSH WITHIN LIMITS OF CLEARING SHOWN ON PLAN.
- INSTALL ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS. THE STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.
- REMOVE STUMPS FROM THE SITE FOR SITE GRADING TO COMMENCE. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR UNLESS A STUMP DUMP IS NOTED ON THE PLAN. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED BY PERIMETER CONTROLS TO PREVENT EROSION.
- COMMENCE EARTHWORK OPERATIONS. ALL PERMANENT EROSION CONTROL MEASURES AND DETENTION FACILITIES SHOULD BE INSTALLED PRIOR TO GRADING FOR PROJECT.
- ALL DRAINAGE SYSTEMS AND OTHER UTILITIES SHOULD BE CONSTRUCTED FROM LOW GRADE TO HIGH GRADE. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF PERIMETER CONTROLS UNTIL THE SITE HAS BECOME FULLY STABILIZED.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY DEVICES OR CONSULT WITH THE ENGINEER.
- ALL STORMWATER FLOWS SHALL NOT BE DIRECTED TO THE STORMWATER MEASURES UNTIL ALL CONTRIBUTING AREA HAVE BEEN DEEMED STABLE.
- BEGIN THE CONSTRUCTION OF GRAVEL AND CRUSHED GRAVEL COURSES OVER PROPOSED DRIVEWAY, WALKS, AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS AND COMPACTION RATES.
- COMPLETE GRADING ACTIVITIES AND WHEN COMPLETE, BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE THE SPECIFIED THICKNESS.
- FINE GRADE ALL TURF AREAS AND COMPLETE PERMANENT SEEDING AND LANDSCAPING BY HYDROSEEDING WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
- INSTALL THE FINAL BINDER COURSE OF PAVEMENT.
- INSTALL THE FINAL WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
- COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE, AND OTHER SITE AMENITIES.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE ESTABLISHED THEMSELVES.

CONSTRUCTION SEQUENCE

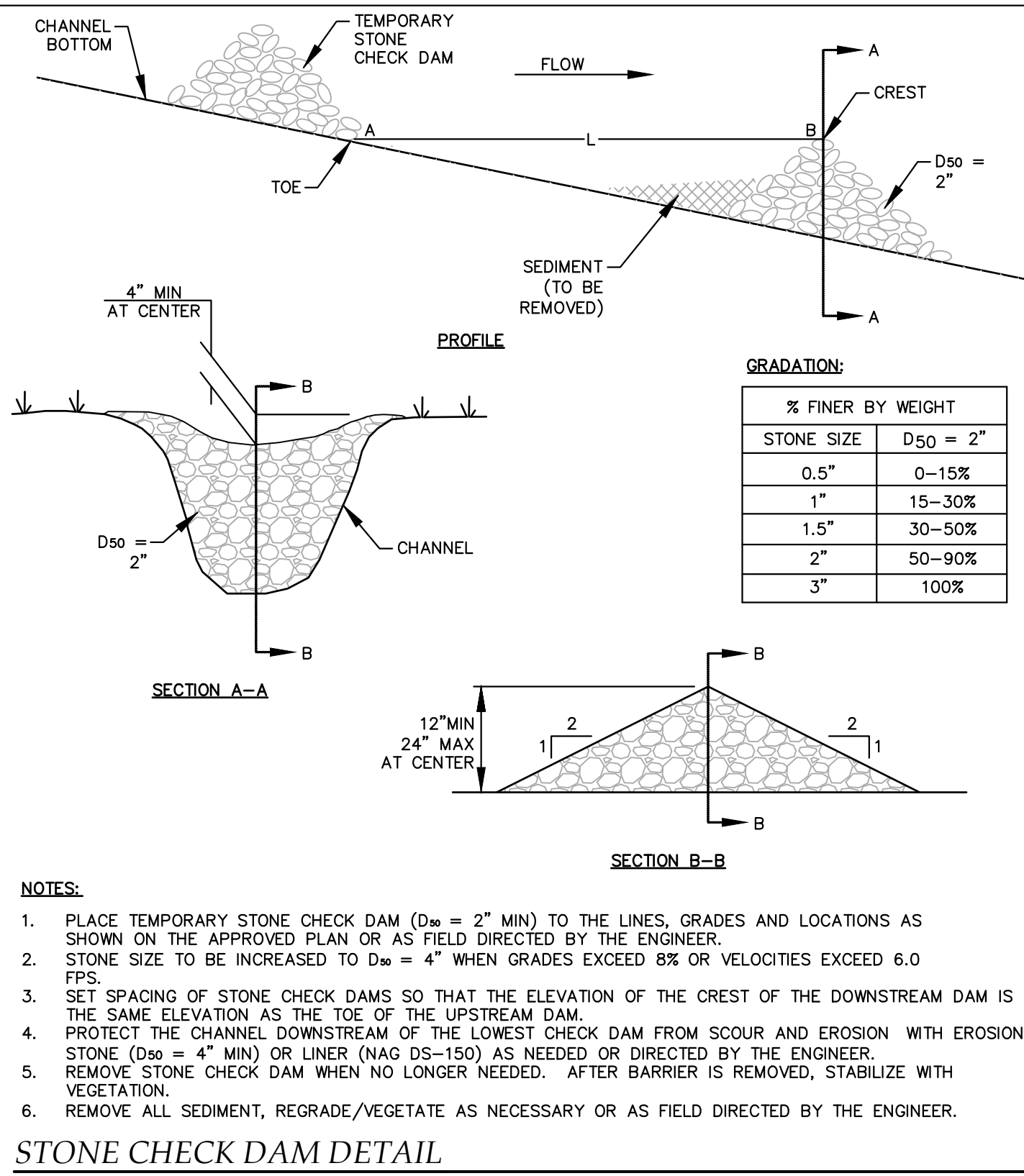


SILT FENCE DETAIL



DANDY BAG DETAIL

NOT TO SCALE



- THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES CONTROL.
- EARTHWORK SHALL BE LIMITED TO THE AREAS WITHIN THE LIMITS OF CLEARING AS SHOWN ON THE PLAN. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING THIRTY (30) CALENDAR DAYS.
- THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
- EROSION CONTROL MEASURES USED SHALL BE INSPECTED AT LEAST WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. ALL DEFICIENCIES SHALL BE FIXED IN ORDER TO KEEP OPERATION EFFECTIVE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- TEMPORARY WATER DIVERSIONS (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL AREAS ARE STABILIZED.
- PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING THE SITE).
- ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTION RUNOFF TO THEM.
- PERIODIC INSPECTION AND MAINTENANCE TO MAINTAIN DESIGN INTENT IS REQUIRED.
- ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE THE REQUIRED AMOUNT OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
- IF DURING CONSTRUCTION A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- ALL DUST SHALL BE CONTROLLED BY THE USE OF WATER IN ACCORDANCE WITH ENV-A 1000.
- DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY DEVICES OR CONSULT WITH THE ENGINEER.
- JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" ON ALL 3:1 SLOPES OR GREATER.
- ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS.
- ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS.
- THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE GREATER THAN 1/8" MATERIAL UTILIZED (N/A TO TURF REINFORCEMENT MATS).
- TURF REINFORCEMENT MATS SHALL BE COVERED WITH SOIL TO PREVENT EXPOSURE OF THE MATS TO THE SURFACE.

EROSION CONTROL NOTES

- ALL AREAS TO BE SEEDED SHALL BE PREPARED TO PROVIDE A REASONABLY FIRM BUT FRIABLE SEED BED.
- SLOPED AREAS SHALL NOT BE LEFT TOO SMOOTH; THE SURFACE SHALL BE LEFT IN A RUFFLED CONDITION SUCH AS MAY BE PRODUCED BY THE USE OF TRACKED VEHICLES RUN UP AND DOWN THE SLOPES. SMOOTH, COMPACTED SLOPES SUCH AS FROM BLADING, WHICH MIGHT ALLOW THE FREE FLOW OF WATER DOWN THEM SHALL BE DISKED, HARROWED, DRAGGED WITH A CHAIN MAT MACHINE-RAKED, OR HAND-WORKED TO THE EFFECT OF MINIATURE TERRACES, PARTICULARLY IN SILTY OR CLAYEY SOILS. THE SLOPES SHALL BE LEFT SMOOTH ENOUGH TO ENABLE MOWING.
- LAWN AREAS, SUCH AS WHERE LOAM HAS BEEN SPREAD, SHALL BE PREPARED FOR SEEDING. THE LOAM SHALL BE FROZEN UPON TO THE DEPTH OF 1-1/2" UNLESS OTHERWISE SPECIFIED AND SHALL BE RAKED CAREFULLY TO REMOVE ALL OBJECTIONABLE MATERIALS. LOAM SHALL BE SPREAD IN SUCH A MANNER AS TO ESTABLISH A LOOSE, FRIABLE SEEDBED. IN ORDER TO MAINTAIN A CONSISTENT GRADE, LOAM PLACED ADJACENT TO LAWNS OR WHERE DIRECTED SHALL BE COMPACTED WITH A ROLLER WEIGHING APPROXIMATELY 100 POUNDS PER FOOT OF ROLLER WIDTH. ALL DEPRESSIONS EXPOSED DURING THE ROLLING PROCEDURE SHALL BE FILLED WITH ADDITIONAL LOAM, AND ROLLED.
- LOAM SHALL CONSIST OF LOOSE FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE OF VIABLE PARTS OF PROHIBITED INVASIVE PLANTS LISTED IN TABLE 3800.1 OF PART AGR 3800. LOAM SHALL BE GENERALLY FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN 2" IN GREATEST DIAMETER, SUBSOIL, ROOTS, AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.6. LOAM SHALL CONTAIN A MINIMUM OF 3 PERCENT AND A MAXIMUM OF 10 PERCENT OF ORGANIC MATTER AS DETERMINED BY LOSS BY IGNITION. NOT MORE THAN 65 PERCENT SHALL PASS A NO. 200 SIEVE AS DETERMINED BY THE WASH TEST IN ACCORDANCE WITH ASTM D 1140. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE NO. 4 SIEVE CONSIST OF CLAY SIZE PARTICLES.
- ALL AREAS TO BE SEEDED SHALL MEET THE SPECIFIED GRADES AND SHALL BE FREE OF GROWTH AND DEBRIS. CARE SHALL BE TAKEN TO PREVENT THE FORMATION OF LOW PLACES AND POCKETS WHERE WATER WILL STAND.
- WHERE RYEGRASS HAS BEEN PLANTED FOR TEMPORARY EROSION CONTROL AND HAS NOT BEEN ELIMINATED PRIOR TO THE COMPLETION OF THE WORK, SUCH AREAS SHALL BE DISC-HARROWED AT LEAST 3" DEEP AND SEEDED WITH PERMANENT GRASSES TO PREVENT THE RYEGRASS FROM RESEEDING AND BECOMING COMPETITIVE WITH AND RETARDING DEVELOPMENT OF THE PERMANENT COVER.
- SEEDING AND INITIAL FERTILIZING SHALL BE DONE BETWEEN APRIL 1 AND JUNE 1, BETWEEN AUGUST 15 AND OCTOBER 14, OR AS PERMITTED. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN, EXCESSIVELY WET, OR OTHERWISE UNLITABLE. IF SEEDING IS DONE DURING JULY OR AUGUST, ADDITIONAL MULCH MATERIAL MAY BE REQUIRED BY THE ENGINEER.
- FERTILIZER SHALL BE UNIFORMLY APPLIED. THE RATE OF APPLICATION SHALL BE A RATE OF 2.0 POUNDS OF NITROGEN PER 1,000 SQUARE FEET. NOT LESS THAN THREE MONTHS SHALL ELAPSE BETWEEN THE INITIAL FERTILIZATION AND THE REFERTILIZATION. NO REFERTILIZATION WILL BE ALLOWED BETWEEN NOVEMBER 1, OR WHEN THE GROUND HAS FROZEN, AND THE FOLLOWING APRIL 1, OR BETWEEN JUNE 1 AND THE FOLLOWING SEPTEMBER 1. REFERTILIZATION WILL BE ALLOWED BETWEEN AUGUST 15 AND 31 ONLY WHEN IT IS DETERMINED THAT THE PERMANENT GRASSES HAVE DEVELOPED WELL AND FEW WEEDS HAVE APPEARED, AND SUCH REFERTILIZATION WILL NOT TEND TO PROMOTE THE GROWTH OF NOXIOUS WEEDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND CARING FOR SEEDED AREAS UNTIL ACCEPTANCE OF THE WORK. CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY DAMAGE TO SEEDED AREAS CAUSED BY PEDESTRIAN OR VEHICULAR TRAFFIC OR OTHER CAUSES.
- THE SEEDED AREAS SHALL BE CAREFULLY AND SUITABLY WATERED AS NECESSARY TO PRODUCE A SATISFACTORY GROWTH.
- AREAS SEEDED WITH PARK SEED SHALL BE MOWED WHENEVER NECESSARY TO KEEP THE GROWTH BETWEEN 3 AND 6" IN ORDER TO ALLOW LIGHT TO PENETRATE TO THE SHORTER, SLOWER GROWING SPECIES IN THE MIXTURE.
- AREAS SEEDED WITH SLOPE SEED MAY BE ORDERED MOWED WHENEVER THE CONTRACT EXTENDS INTO A CONSECUTIVE GROWING SEASON. WEEDS GROWING IN AREAS SEEDED WITH THE SLOPE SEED SHALL BE CUT BACK TO PREVENT THEM FROM DOMINATING THE DESIRED GRASS PLANTS.
- ACCEPTABLE SEED MIXTURES ARE AS FOLLOWS:

TYPICAL LAWN MIX			
	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	POUNDS/ACRE (TOTAL 120 LBS)
CREeping RED FESCUE	96	85	40
PERENNIAL RYEGRASS	98	90	50
KENTUCKY BLUEGRASS	97	85	25
	95	80	5

WILDFLOWER SLOPE SEED (3:1 OR GREATER WILDFLOWER SEED MIX)	
KIND OF SEED	POUNDS/ACRE
NORTHEAST WILDFLOWER SEED MIX	17.85

TYPICAL SLOPE SEED (3:1 OR GREATER NHDOT TYPE 44)			
	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	POUNDS/ACRE (TOTAL 80 LBS)
CREeping RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
	95	80	5
	97	90	5
BIRDSFOOT TREFLOIL	98	80	5

TURF ESTABLISHMENT SPECIFICATIONS

- TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE ADDITIONAL STABILIZATION TECHNIQUES SPECIFIED IN THIS SECTION SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1.
- IF DURING CONSTRUCTION A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
 - AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO ONE ACRE AND PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED BELOW PRIOR TO ANY THAW OR SPRING MELT EVENT.
 - THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN IS DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL AS A REQUEST TO WAIVE THE ONE-ACRE LIMIT.
 - ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH AT LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(b).
 - ANCHORED HAY MULCH OR EROSION CONTROL MIX THAT MEETS THE CRITERIA OF ENV-WQ 1506.05(b) SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH.
 - THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
 - ALL PROPOSED STABILIZATION IN ACCORDANCE WITH (D) OR (E), ABOVE, SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
 - ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
 - AFTER OCTOBER 15, INCOMPLETE PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER SHALL BE PROTECTED WITH A MINIMUM 3-INCH LATER OF BASE COURSE GRAVELS (NHDOT ITEM 304.1, 304.2, OR 304.3).

WINTER CONSTRUCTION NOTES

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NO.	DATE	REVISIONS	COMMENTS
1	04/23/26		PROJECT SUBMITTAL

APPLICANT:
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304

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150 Dow Street, Tower 2, Suite 421
Manchester, New Hampshire 03101
603.518.8030
www.GraniteEng.com

STAMP:

LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
TAX MAP 88Z LOT 3
(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES COVERED STORAGE ADDITION

TITLE:
DETAILS

PROJECT No. DATE:
26-0218-5 APRIL 23, 2026
SCALE:
AS SHOWN
SHEET: 10 OF 12



PLEASE REPORT OBSERVATIONS OF RARE TURTLES

The NH Fish & Game Department is requesting observations of the following turtle species

Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th)

Turtles are most active from April 15th - October 15th



Blanding's turtle
(State Endangered)

Large, dark/black domed shell with lighter speckles.

Distinct yellow throat/chin.

Aquatic but often moves on land.



Spotted turtle
(State Threatened)

Small, mostly aquatic with black or dark brown with yellow spots.

Fairly flat shell compared to Blanding's turtle.

Spots vary in color and number.

Fis 1401.03 (a) No person shall take or possess a spotted turtle (*Clemmys guttata*)...Blanding's turtle (*Emydoidea blandingii*)...or any egg or part thereof.

Report sightings immediately to NHFG Wildlife Division at 603-271-2461 (M-F 8-4) or to NHFG Wildlife Biologist Melissa Winters 603-479-1129 (cell) anytime.

Please report promptly, noting specific location and date – Photographs strongly encouraged



Wood Turtle

(New Hampshire Species of Special Concern)

Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th)

Turtles are most active from April 15th - October 15th



Identifying traits

- Neck and forelimbs are orange.
- Characterized by its highly sculpted shell with each large scute taking on an irregular pyramidal shape.
- Adults can be 5-8 inches long.

Habitat Use

- wooded areas near streams
- uplands surrounding streams



NOTE: It is illegal to remove a wood turtle from the wild.

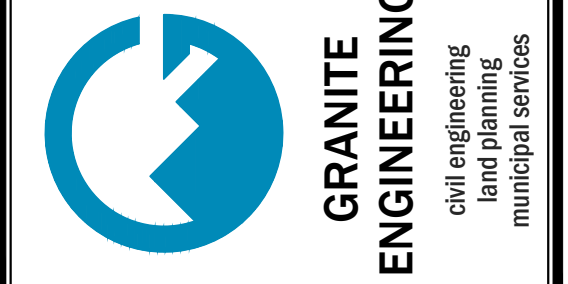
Observations shall be reported to NH Fish & Game at NHFGReview@wildlife.nh.gov or at 603-271-2461
Photo documentation, location and date/time of observation is helpful.



State laws pertaining to this species RSA 207:1, FIS 804.02, Fis 1401.03 (a)

1. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHFG NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV, WITH THE EMAIL SUBJECT LINE "NHB24-2444, WELLINGTON HILL ROAD, WILDLIFE SPECIES OBSERVATION".
2. PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHFG IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
3. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04; AND
4. THE NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

WILDLIFE PROTECTION NOTES



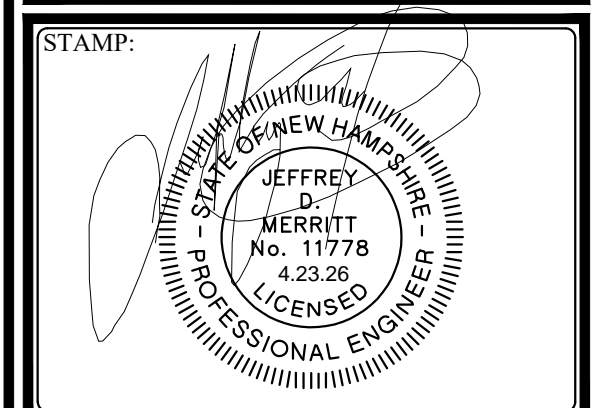
No.	DATE	BY	REVISIONS	
			COMMENTS	PROJECT SUBMITTAL
1	04/23/26	JDM		

APPLICANT:
AMOSKEAG REALTY, LLC
510 HALL STREET,
BOW, NH 03304

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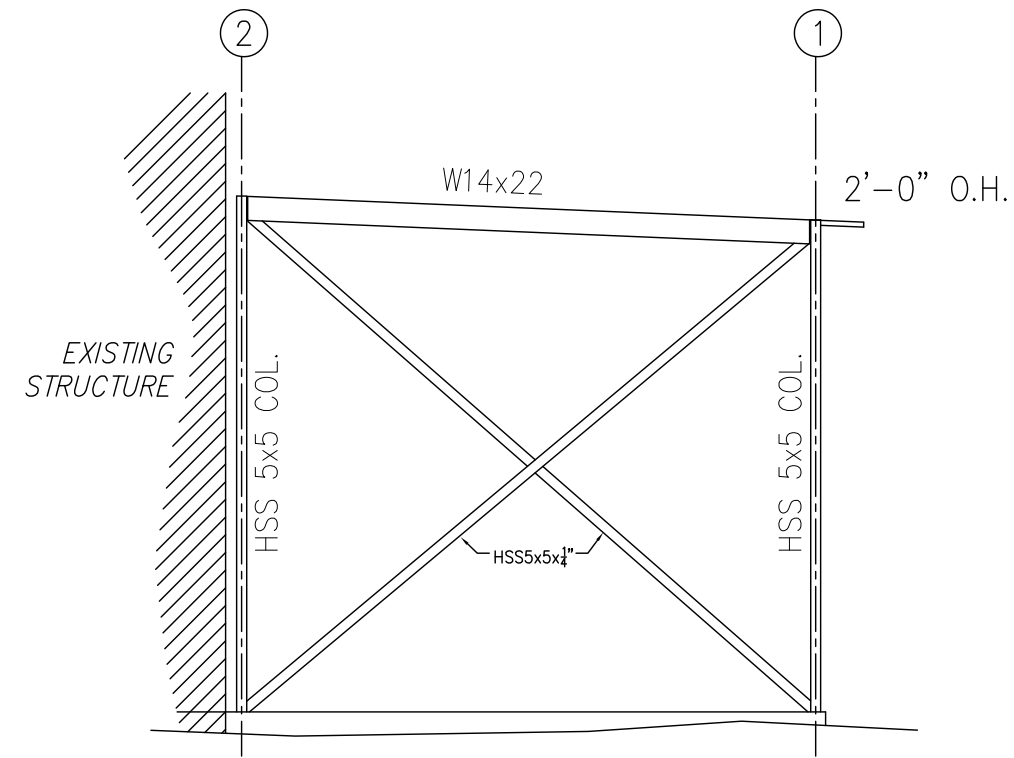


LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67(BOW)
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(CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

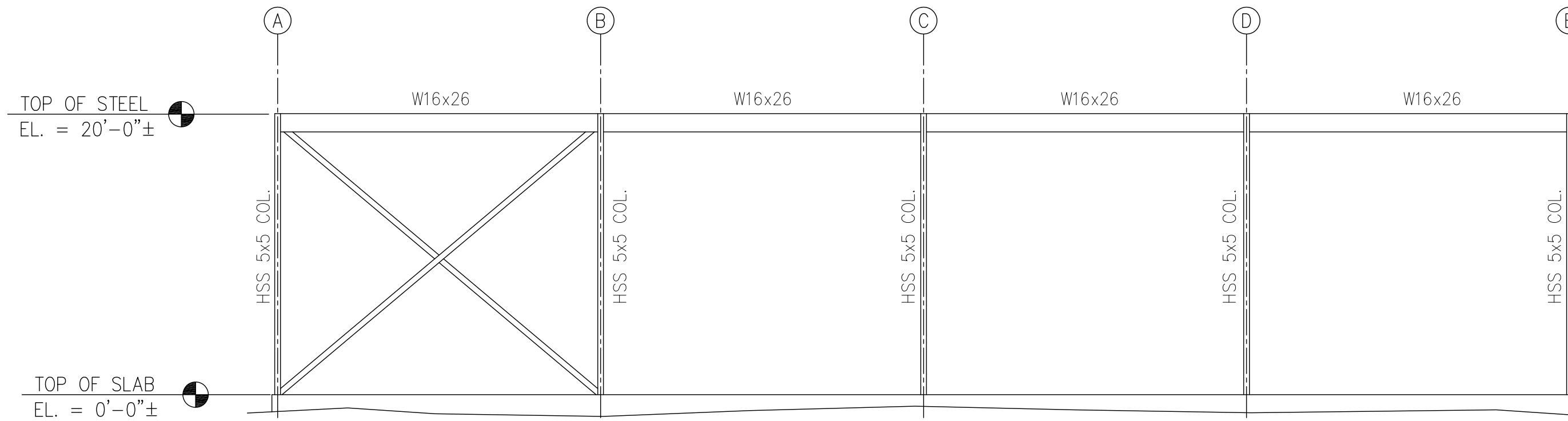
PROJECT:
AMOSKEAG BEVERAGES COVERED STORAGE ADDITION

TITLE:
DETAILS

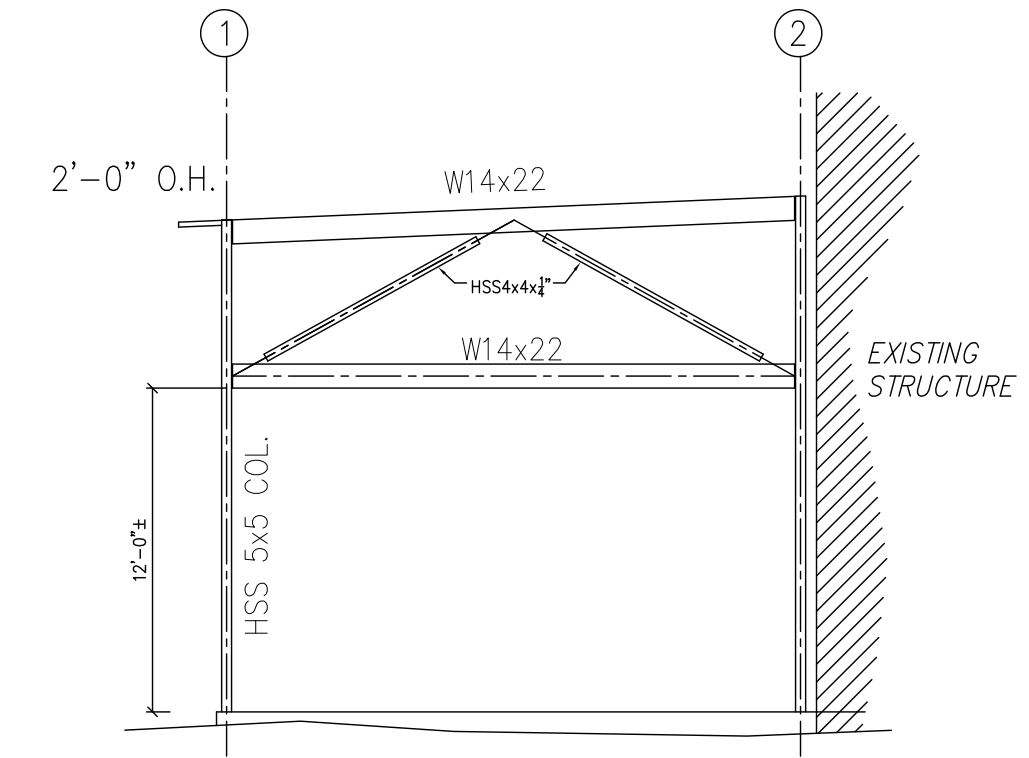
PROJECT No. DATE: 26-0218-5 APRIL 23, 2026
SHEET: 11 OF 12
SCALE: AS SHOWN



LEFT SIDE STEEL ELEVATION
SCALE: 1/8" = 1'-0"



FRONT STEEL ELEVATION
SCALE: 1/8" = 1'-0"



RIGHT SIDE STEEL ELEVATION
SCALE: 1/8" = 1'-0"

PROGRESS SET
FOR COORDINATION ONLY
04/23/26

NO.	DATE	REVISIONS

PREPARED FOR:
LANGLEY CONSTRUCTION

AMOSKEAG BEVERAGES
510 HALL STREET
BOW, NH
McBrie, LLC JOB 25-000

DRWN BY: DH
CHK'D BY: BJK
DATE: 12/1/25

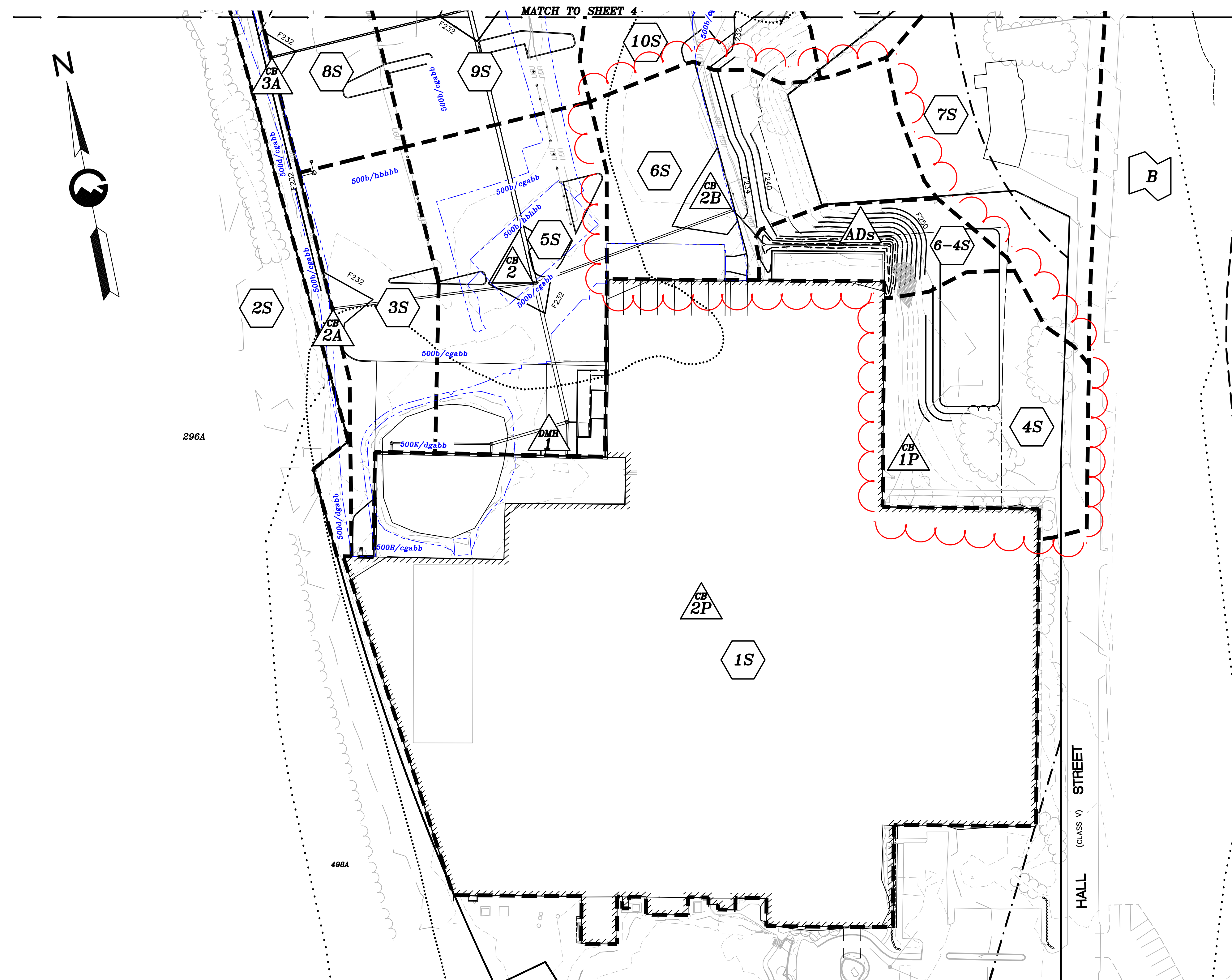
McBrie, LLC
Structural Design & Sales
180 SYLVAN STREET
DANVERS, MA 01923
TEL: 978-646-0097
FAX: 978-646-0087
WWW.MCBRIE.COM

SEAL

STEEL ELEVATIONS
SCALE: AS NOTED

S4

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NOTES:
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE VARIOUS STORMWATER SUBCATCHMENT AREAS, CORRESPONDING TIMES OF CONCENTRATION, PONDS, AND REACHES ASSOCIATED WITH THE SUBJECT PARCEL AFTER DEVELOPMENT.

DRAINAGE LEGEND:

THE LEGEND BELOW REFLECTS THE HYDROCAD MODEL USED FOR DRAINAGE CALCULATIONS.

- SCS SOIL LINES
- SITE-SPECIFIC SOIL LINE
- 140B** DENOTES SOIL TYPE (FROM SSSS)
- 140B** DENOTES SOIL TYPE (FROM NRCS)
- P** DENOTES POND
- S** DENOTES SUBCATCHMENT AREA
- R** DENOTES REACH
- L** DENOTES POINT OF INTEREST
- LIMIT OF SUBCATCHMENT AREA
- - - - - TIME OF CONCENTRATION
- REACH PATH

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
5B	RIPPOWAM FINE SANDY LOAM	0-8%	POORLY
400B/abaaa	UDORTHENTS, SAND	0-8%	EXCESSIVELY
400C/abaaa	UDORTHENTS, SAND	8-15%	EXCESSIVELY
400D/abaaa	UDORTHENTS, SAND	15-25%	EXCESSIVELY
500B/cgabb	UDORTHENTS, SAND	0-8%	WELL
500D/cgabb	UDORTHENTS, SAND	15-25%	WELL
500B/dgabb	UDORTHENTS, SAND	0-8%	MODERATELY WELL
500D/dgabb	UDORTHENTS, SAND	15-25%	MODERATELY WELL
500B/hbbbbb	UDORTHENTS, SAND	0-8%	UNDETERMINABLE*

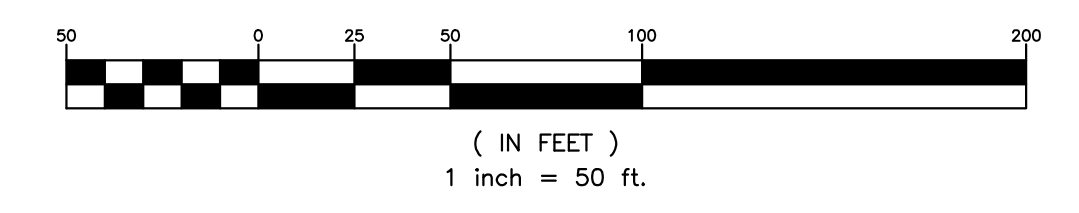
*ASSUMED TO BE WELL DRAINED BASE ON ADJACENT SOILS

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

SCS LEGEND

- 296A** FREETOWN MUCKY PEAT, 0-2% SLOPES
- 498A** URBAN-LAND POOTATUCK COMPLEX, 0-3% SLOPES

GRAPHIC SCALE



NO.	DATE	REVISIONS	COMMENTS	BY	JDM
1	04/17/26		ADDED NEW COVERED STORAGE & ADS		

OWNER OF LOT 4 & APPLICANT:
AMOSKEAG BEVERAGES, LLC
510 HALL STREET
BOW, NH 03304

OWNER OF LOTS 3, 65 & 67:
AMOSKEAG REALTY, LLC
510 HALL STREET
BOW, NH 03304

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STAMP:

LOCATION:
TAX MAP 16 BLOCK 1 LOT 65 & 67 (BOW)
TAX MAP 88Z LOTS 3 & 4 (CONCORD)
510 HALL STREET
BOW & CONCORD, NEW HAMPSHIRE
MERRIMACK COUNTY

PROJECT:
AMOSKEAG BEVERAGES

TITLE:
POST-DRAINAGE AREA PLAN

PROJECT No. DATE: SCALE:
13-1202-2 NOVEMBER 18, 2025 HORIZ. 1"=50'
SHEET: 5 OF 6

NOTES:
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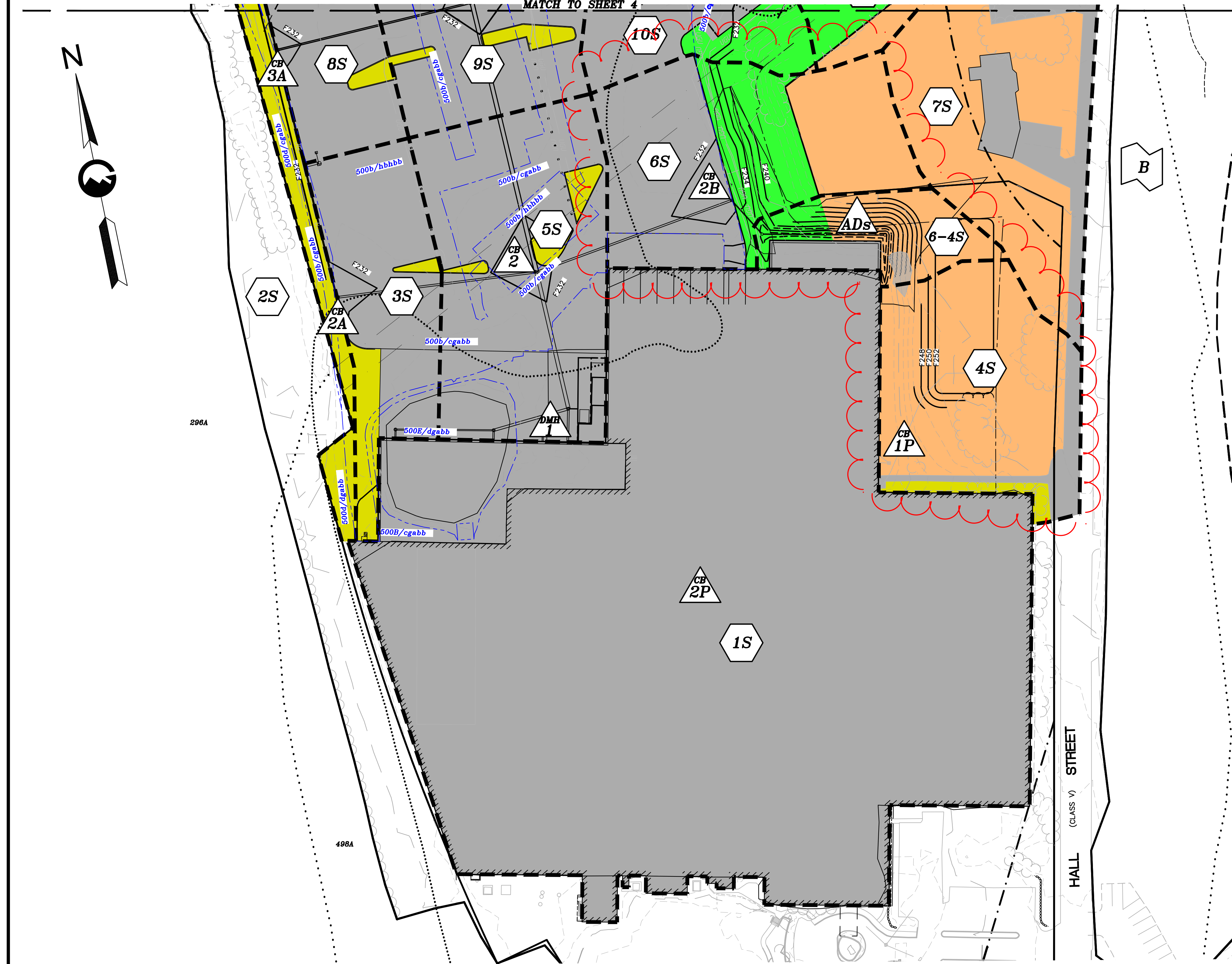
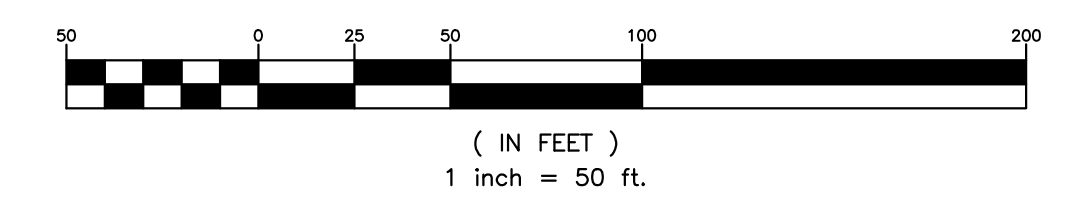
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- 498A URBAN-LAND POOTATUCK COMPLEX, 0-3% SLOPES

COLOR LEGEND:

- A SOILS
- B SOILS
- C SOILS
- D SOILS
- IMPERVIOUS AREA
- OPEN WATER

GRAPHIC SCALE



NO.	DATE	BY	COMMENTS
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SHEET: 5 OF 6 1"=50'