

-Jan



# Department of Environmental Services

Robert R. Scott, Commissioner



133

August 3, 2023

His Excellency, Governor Christopher T. Sununu  
and The Honorable Council  
State House  
Concord, NH 03301

### REQUESTED ACTION

Approve 227 Market Street, LLC and NH State Port Authority's request to perform the following work on Piscataqua River in Portsmouth pursuant to NH Department of Environmental Services (NHDES) Wetlands Bureau permit #2023-00232, and in accordance with RSA 482-A:3. No comments were submitted by the Portsmouth Conservation Commission regarding the project as proposed.

Impact 1,201 square feet (SF) within the previously developed upland tidal buffer zone to install two replacement bollard moorings and impact 2,428 SF within the previously developed upland tidal buffer zone for site regrading. Temporarily impact 2,206 SF within the previously developed upland tidal buffer to install a subsurface stormwater treatment system, construction access, and erosion and sedimentation controls. Dredge and fill 26 SF within the bank and channel of the Piscataqua River to construct the discharge outfall for the stormwater treatment system and temporarily impact 25 SF within the bank and channel of the Piscataqua River for construction access and erosion and sedimentation controls.

Compensatory mitigation for 26 SF of permanent impacts to tidal waters consists of a one-time payment of \$334.61 into the Aquatic Resource Mitigation (ARM) Fund, within the Salmon Falls - Piscataqua Rivers Watershed account.

NHDES imposed the following conditions as part of this approval:

1. All work shall be done in accordance with the approved plans dated December 29, 2022, and revised through May 5, 2023, by Tighe & Bond, Inc., and received by the NH Department of Environmental Services (NHDES) on May 10, 2023, in accordance with Env-Wt 307.16.
2. In accordance with Env-Wt 314.02(b) and (c), for projects in the coastal area, the permittee shall record any permit issued for shoreline stabilization and any work in the tidal buffer zone and tidal wetlands at the Rockingham County Registry of Deeds. Any limitations or conditions in the permit so recorded shall run with the land beyond the expiration of the permit. The permittee shall provide the department with a copy of the permit stamped by the registry with the book and page and date of receipt.
3. Permit issuance is contingent on submittal of a check in the amount of \$334.61 to the Aquatic Resource Mitigation Fund by the applicant as calculated per Env-Wt 803.07 and RSA 482-A:30.
4. In accordance with Env-Wt 807.01(b), the payment shall be received by NHDES within 120 days from the approval decision or NHDES will deny the application.

[www.des.nh.gov](http://www.des.nh.gov)

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095

NHDES Main Line: (603) 271-3503 • Subsurface Fax: (603) 271-6683 • Wetlands Fax: (603) 271-6588

TDD Access: Relay NH 1 (800) 735-2964

5. All development activities associated with any project shall be conducted in compliance with applicable requirements of RSA 483-B and Env-Wq 1400 during and after construction in accordance with Env-Wt 307.07.
6. All work associated with the construction of the stormwater outfall shall be done at low tide when the work area is fully exposed in accordance with Env-Wt 609.10(b)(4).
7. No activity shall be conducted in such a way as to cause or contribute to any violation of surface water quality standards per Env-Wt 307.03(a).
8. All work including management of soil stockpiles, shall be conducted so as to minimize erosion, minimize sediment transfer to surface waters or wetlands, and minimize turbidity in surface waters and wetlands per Env-Wt 307.03(b).
9. In accordance with Env-Wt 307.03(c)(3), water quality control measures shall be installed prior to start of work and in accordance with the manufacturer's recommended specifications or, if none, the applicable requirements of Env-Wq 1506 or Env-Wq 1508.
10. In accordance with Env-Wt 307.03(c)(1), water quality control measures shall be selected and implemented based on the size and nature of the project and the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to jurisdictional areas.
11. In accordance with Env-Wt 307.03(c)(5), water quality control measures shall be maintained so as to ensure continued effectiveness in minimizing erosion and retaining sediment on-site during and after construction.
12. In accordance with Env-Wt 307.03(c)(6), water quality control measures shall remain in place until all disturbed surfaces are stabilized to a condition in which soils on the site will not experience accelerated or unnatural erosion by achieving and maintaining a minimum of 85% vegetative cover using an erosion control seed mix, whether applied in a blanket or otherwise, that is certified by its manufacturer as not containing any invasive species; or placing and maintaining a minimum of 3 inches of non-erosive material such as stone.
13. In accordance with Env-Wt 307.03(c)(7), temporary water quality control methods shall be removed upon completion of work when compliance with Env-Wt 307.03(c)(6) is achieved.
14. Heavy equipment shall not be operated in any jurisdictional area unless specifically authorized by this permit, in accordance with Env-Wt 307.15(a).
15. In accordance with Env-Wt 307.03(h), equipment shall be staged and refueled outside of jurisdictional areas and in accordance with Env-Wt 307.15.
16. In accordance with Env-Wt 307.03(g)(1), the person in charge of construction equipment shall inspect such equipment for leaking fuel, oil, and hydraulic fluid each day prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands.
17. In accordance with Env-Wt 307.03(g)(2), the person in charge of construction equipment shall repair any leaks prior to using the equipment in an area where such fluids could reach groundwater, surface waters, or wetlands.
18. In accordance with Env-Wt 307.03(g)(3) and (4), the person in charge of construction equipment shall maintain oil spill kits and diesel fuel spill kits, as applicable to the type(s) and amount(s) of oil and diesel fuel used, on site so as to be readily accessible at all times during construction; and train each equipment operator in the use of the spill kits.

19. In accordance with Env-Wt 307.11(b), limits of fill shall be clearly identified prior to commencement of work and controlled in accordance with Env-Wt 307.03 to ensure that fill does not spill over or erode into any area where filling is not authorized.
20. In accordance with Env-Wt 307.11(a), fill shall be clean sand, gravel, rock, or other material that meets the project's specifications for its use; and does not contain any material that could contaminate surface or groundwater or otherwise adversely affect the ecosystem in which it is used.
21. In accordance with Env-Wt 307.12(i), wetland areas where permanent impacts are not authorized shall be restored to their pre-impact conditions and elevation by replacing the removed soil and vegetation in their pre-construction location and elevation such that post-construction soil layering and vegetation schemes are as close as practicable to pre-construction conditions.
22. In accordance with Env-Wt 307.03(e), all exposed soils and other fills shall be permanently stabilized within 3 days following final grading.
23. In accordance with Env-Wt 307.11(c), slopes shall be immediately stabilized by a method specified in Env-Wq 1506 or Env-Wq 1508, as applicable, to prevent erosion into adjacent wetlands or surface waters.

#### EXPLANATION

NHDES approved this project on June 14, 2023. NHDES supported its decision with the following findings:

1. This project is classified as a major project per Rule Env-Wt 610.17(a)(1), for any dredging, filling, or construction activity, or any combination thereof, that is proposed to occur within 100 feet of the Highest Observable Tide Line (HOTL), and that is proposed to alter a tidal shoreline bank and wetlands.
2. On February 1, 2023, the Department received correspondence from the NH Fish and Game Department (NHFG) dated February 28, 2022, stating that "the NHFG Nongame and Endangered Wildlife Program does not expect impacts to [the protected anadromous fish species] as a result of the proposed activities."
3. NHDES finds that the project as approved and conditioned will not have an unreasonable adverse impact on the value of such areas as sources of nutrients for finfish, crustacea, shellfish and wildlife of significant value, nor will it damage or destroy habitats and reproduction areas for plants, fish and wildlife of importance.
4. No comments were received by NHDES from the Portsmouth Conservation Commission about this application.
5. On April 11, 2023, the applicant obtained a statement from the Pease Development Authority; Division of Ports and Harbors regarding the projects impact on navigation and passage stating, "[w]e examined the proposed site and found that the structure will have no negative effect on navigation in the channel," per Rule Env-Wt 603.09.
6. Pursuant to Env-Wt 605.03(a), compensatory mitigation is required as the project impacts tidal wetlands that are intended to remain when the proposed project is completed.
7. NHDES has accepted an in-lieu mitigation payment pursuant to Per Rule Env-Wt 803.10(e), to be deposited in the ARM fund for the Salmon Falls - Piscataqua Rivers watershed per RSA 482-A:29 as mitigation to offset the impacts associated with the approved 26 SF of permanent impacts to tidal waters.
8. NHDES finds that the requirements for a public hearing, as established in RSA 482-A, do not apply as the project will not have a significant environmental impact, as defined in New Hampshire Administrative Rule Env-Wt 104.19, on the resources protected by RSA 482-A, and, is not of substantial public interest, as defined in New Hampshire Administrative Rule Env-Wt 104.32.

His Excellency, Governor Christopher T. Sununu  
and The Honorable Council  
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9. The NHDES finds that the project as proposed and conditioned meets the requirements of RSA 482-A and the Wetlands Program Code of Administrative Rules Chapters Env-Wt 100-1000. No waivers of RSA 482-A or the Wetlands Program Code of Administrative Rules Chapters Env-Wt 100-1000 were requested or approved under this permit action.

NHDES Wetlands Bureau permit #2023-00232 application documents are enclosed for review by the Governor and the Executive Council in consideration of this request and in accordance with RSA 482-A:3, II(a), as it is a major project located in New Hampshire public waters.

We respectfully request your approval of this item.

A handwritten signature in black ink, appearing to read "Robert R. Scott", is written over a horizontal line.

Robert R. Scott  
Commissioner



# STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

Water Division/Land Resources Management  
Wetlands Bureau  
Check the Status of your Application



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

APPLICANT'S NAME: Granite State Minerals

TOWN NAME: Portsmouth

Administrative Use Only 03-11-2023 NHDES LAND RESOURCES MANAGEMENT	Administrative Use Only	Administrative Use Only	File No: <u>2023-0033</u> Check No: <u>022503</u> Amount: <u>2610</u> Initials: <u>MA</u>
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A person may request a waiver to the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III (b). For more information, please consult the request form.

**SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05, RSA 482-A:3, I(d)(2))**  
 Please use the Wetland Permit Planning Tool (WPP), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: priority resource areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&amp;G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.</li> <li>• Protected species or habitat?                         <ul style="list-style-type: none"> <li>○ If yes, species or habitat name(s): <u>Atlantic Sturgeon, Shortnose Sturgeon</u></li> <li>○ NHB Project ID #: <u>22-0347</u></li> </ul> </li> <li>• Bog?</li> <li>• Floodplain wetland contiguous to a tier 3 or higher watercourse?</li> <li>• Designated prime wetland or duly-established 100-foot buffer?</li> <li>• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is the property within a Designated River corridor? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Name of Local River Management Advisory Committee (LAC): <u>                    </u></li> <li>• A copy of the application was sent to the LAC on Month: <u>          </u> Day: <u>          </u> Year: <u>          </u></li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

For dredging projects, is the subject property contaminated? • If yes, list contaminant: [REDACTED]	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For stream crossing projects, provide watershed size (see Wetland Permit Planning Tool or Stream Stats): [REDACTED]	
<b>SECTION 2 - PROJECT DESCRIPTION (Env. W. 311:04(i))</b> Provide a brief description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.	
<p>The proposed project will provide necessary upgrades to the terminal including the replacement of two undersized bollard moorings and the construction of stormwater management upgrades. The stormwater management upgrades are being constructed as part of the facility's stormwater management program under the EPA Multi-Sector General Permit (MSGP). The permit requires regular sampling of stormwater discharges and a stormwater plan to keep levels of certain analytes below benchmark limits established by the permit. The stormwater management system is designed to decrease concentrations of metals and other analytes in stormwater discharges to the river, consistent with MSGP requirements. It will also facilitate capture of cleaner and more accurate stormwater samples by providing an access point to grab samples from within a manhole rather than from the surface of the pavement.</p>	
<b>SECTION 3 - PROJECT LOCATION</b> Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.	
ADDRESS: 227 & 555 Market Street	
TOWN/CITY: Portsmouth NH	
TAX MAP/BLOCK/LOT/UNIT: Map 119 Lots 5 & 6	
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Piscataqua River <input checked="" type="checkbox"/> N/A	
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.08028° North 70.75944° West	

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

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

www.des.nh.gov

**SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))**  
 If the applicant is a trust or a company, then complete with the trust or company information.

NAME: Granite State Minerals

MAILING ADDRESS:

TOWN/CITY: \_\_\_\_\_ STATE: NH ZIP CODE: 03063

EMAIL ADDRESS: jmc@

FAX: \_\_\_\_\_ PHONE: 978-764-2303

ELECTRONIC COMMUNICATION: By initialing here: JM, I hereby authorize NHDES to communicate all matters relative to this application electronically.

**SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))**

N/A

LAST NAME, FIRST NAME, M.I.: Neil A. Hansen

COMPANY NAME: Tighe & Bond, Inc.

MAILING ADDRESS: 177 Corporate Drive

TOWN/CITY: Portsmouth STATE: NH ZIP CODE: 03801

EMAIL ADDRESS: nhansen@tighebond.com

FAX: \_\_\_\_\_ PHONE: 603-294-9213

ELECTRONIC COMMUNICATION: By initialing here NAH, I hereby authorize NHDES to communicate all matters relative to this application electronically.

**SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))**  
 If the owner is a trust or a company, then complete with the trust or company information.

Same as applicant

NAME: SEE ATTACHED LIST OF OWNERS

MAILING ADDRESS: \_\_\_\_\_

TOWN/CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

FAX: \_\_\_\_\_ PHONE: \_\_\_\_\_

ELECTRONIC COMMUNICATION: By initialing here NAH, I hereby authorize NHDES to communicate all matters relative to this application electronically.

**SECTION 7: RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 800 HAVE BEEN MET (Env-Wt 313.01(a)(3))**

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):  
 The proposed project will provide necessary upgrades to the terminal including the replacement of two undersized bollard moorings and the construction of stormwater management upgrades. The proposed project will have no adverse impact on public commerce, navigation or recreation. The proposed project will have a positive effect on stormwater discharge to the Piscataqua River. There will be no impact on abutting owners. This project proposes the minimum area to be impacted. This project has been designed to avoid resource areas and minimize adverse impacts as it is located within an existing paved area and stone revetment. No impacts to wetlands; all impacts occur in previously disturbed tidal buffer.

**SECTION 8: AVOIDANCE AND MINIMIZATION**

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a))\* . Any project with unavoidable jurisdictional impacts must then be minimized as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization and the Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet. For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10))\* .

Please refer to the application checklist to ensure that you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). You can use the Avoidance and Minimization Checklist, the Avoidance and Minimization Narrative, or your own avoidance and minimization narrative.

\*See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.

**SECTION 9: MITIGATION REQUIREMENT (Env-Wt 311.02)**

If unavoidable jurisdictional impacts require mitigation, a mitigation pre-application meeting must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month:  Day:  Year:

N/A - Mitigation is not required

**SECTION 10: THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)**

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable:  I confirm submittal.

N/A - Compensatory mitigation is not required



**SECTION 11 IMPACT AREA (Env-Wt 311.04(g))**

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).  
 For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.  
 For perennial streams/ rivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.  
 Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).  
 Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Scrub-shrub Wetland			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Emergent Wetland			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Wet Meadow			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Vernal Pool			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Designated Prime Wetland			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Duly-established 100-foot Prime Wetland Buffer			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Surface Water	Intermittent / Ephemeral Stream			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Perennial Stream or River			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Lake / Pond			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Docking - Lake / Pond			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Docking - River			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Banks	Bank - Intermittent Stream			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Bank - Perennial Stream / River			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Bank / Shoreline - Lake / Pond			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Tidal	Tidal Waters			<input checked="" type="checkbox"/>	75		<input checked="" type="checkbox"/>
	Tidal Marsh			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Sand Dune			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Undeveloped Tidal Buffer Zone (TBZ)			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Previously-developed TBZ			<input checked="" type="checkbox"/>	5600		<input checked="" type="checkbox"/>
	Docking - Tidal Water			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
<b>TOTAL</b>					<b>5675</b>		

**SECTION 12 APPLICATION FEE (RSA 482-A:3, I)**

**MINIMUM IMPACT FEE:** Flat fee of \$400.

**NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION:** Flat fee of \$400 (refer to RSA 482-A:3, 1(c) for restrictions).

**MINOR OR MAJOR IMPACT FEE:** Calculate using the table below:

Permanent and temporary (non-docking):	5675 SF	× \$0.40 =	\$ 21670
Seasonal docking structure:		× \$2.00 =	\$
Permanent docking structure:		× \$4.00 =	\$
Projects proposing shoreline structures (including docks) add \$400 =			\$
<b>Total =</b>			<b>\$ 21670</b>

The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = **\$ 21670**

**List of Owners**

**227 Market Street**  
Tax Map 119, Lot 6  
Jaqueline Mahoney  
227 Market Street LLC

**315 Market Street**  
Tax Map 119, Lot 5  
Geno Marconi  
NH State Port Authority

**Owner's Letter of Authorization**

This letter is to authorize Granite State Minerals Inc. (Applicant) to represent the interest of 227 Market Street, LLC (owner) in any and all permitting matters involving the City of Portsmouth and/or the State of New Hampshire in connection with (i) the mooring improvement project as shown on the Appledore Marine Engineering, LLC, Mooring Improvements plans dated June 4, 2019, and (ii) the stormwater improvement project as shown on the Tighe & Bond Proposed Stormwater Improvements plans dated March 8, 2022 (the "Projects") at 227 Market Street, LLC's property located at New Hampshire identified as Tax Map 119 Lot 6. This authorization shall relate to those activities that are required for local, state and federal permitting for the above project and include any required signatures for those applications. This authorization will be valid until and terminate on December 31, 2023 and will not be valid in the event of any material change to the projects, which will require further authorization.

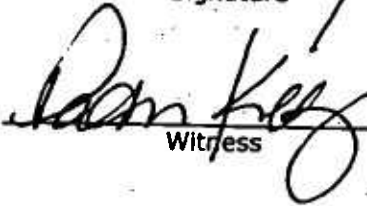
  
\_\_\_\_\_  
Signature

Sean Mahoney, as Power of  
Attorney for Jaqueline Mahoney,  
Manager of 227 Market Street LLC

\_\_\_\_\_  
Print Name

4/27/2022

\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Witness

Patricia Kelly

\_\_\_\_\_  
Print Name

4/27/2022

\_\_\_\_\_  
Date

**Owner's/Agent Letter of Authorization**

This letter is to authorize Tighe & Bond, Inc. (Civil Engineer), to represent and submit on behalf of Granite State Minerals (Applicant), applications and materials in all site design and permitting matters for the proposed project at 227 Market Street in Portsmouth, New Hampshire. These projects include (i) the mooring improvement project as shown on the Appledore Marine Engineering, LLC, Mooring Improvements plans dated June 4, 2019, and (ii) the stormwater improvement project as shown on the Tighe & Bond Proposed Stormwater Improvements plans dated December 29, 2022 (the "Projects") at 227 Market Street, LLC's property located at \_\_\_\_\_, Portsmouth New Hampshire identified as Tax Map 119 Lot 6. This authorization shall relate to those activities that are required for local, state and federal permitting for the above project and include any required signatures for those applications. This authorization will be valid until and terminate on December 31, 2023 and will not be valid in the event of any material change to the projects, which will require further authorization.

Shelagh E. Mahoney  
Signature

Shelagh E. Mahoney  
Print Name

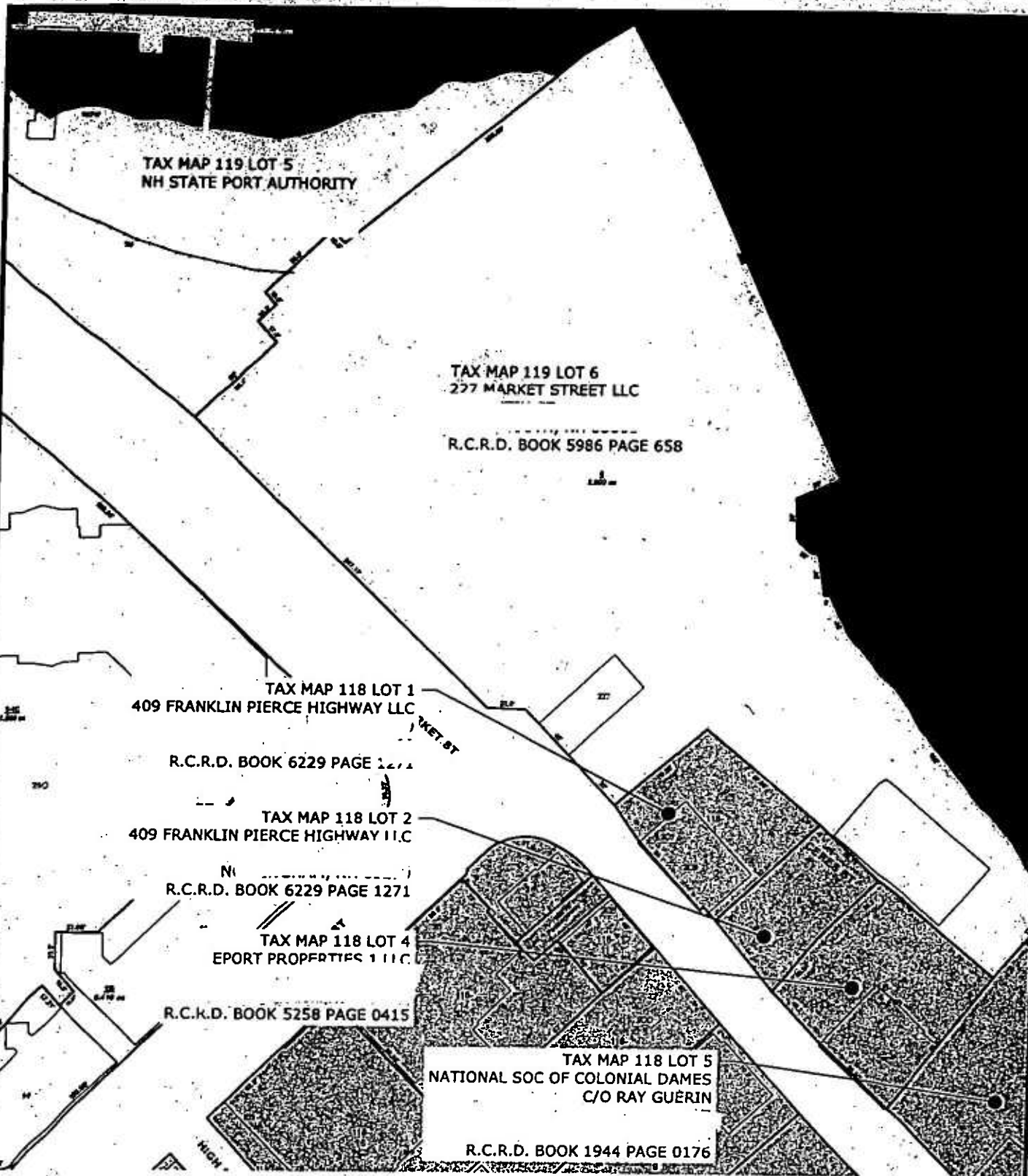
1/12/2023  
Date

Teresa Kelly  
Witness

Teresa Kelly  
Print Name

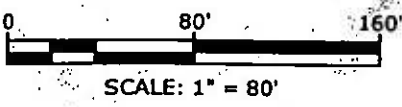
1/12/2023  
Date

Feb 02, 2022 2:04 pm Plotted by: ASellar  
Tighe & Bond, Inc. J:\E5027 Eastern Minerals\001 - Granite State Minerals\Drawings\Figures\AutoCAD\Sheet\E5027-001\_Tax Map Figure.dwg



**NOTE:**

1. TAX MAP UNDERLAY FROM CITY OF PORTSMOUTH 2020 URBAN TAX MAPS.
2. ABUTTER/PROPERTY OWNER INFORMATION REFERENCED FROM CITY OF PORTSMOUTH GIS DYNAMIC MAPPING TOOL.



PROPOSED STORMWATER IMPROVEMENTS PORTSMOUTH, NH	
SITE TAX MAP	
REFERENCE: TAX MAP 119	
DATE: 02/02/2022	<b>Tighe &amp; Bond</b> Engineers   Environmental Specialists
SCALE: AS SHOWN	
FIGURE: 1	



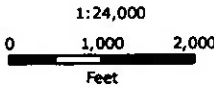
SITE LOCATION

**FIGURE 1  
SITE LOCUS MAP**

Eastern Minerals  
Market Street  
Portsmouth, NH

**Tighe & Bond**  
Engineers | Environmental Specialists

Based on USGS Topographic Map for  
Portsmouth, New Hampshire, Revised 1956.  
Circles indicate 500-foot and half-mile radii



December 2018



The State of New Hampshire  
**Department of Environmental  
Services**

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**Robert R. Scott, Commissioner**

This application contains confidential information from the NH Natural Heritage Bureau (NHB) Datacheck tool provided by the NH Department of Natural and Cultural Resources, NHB. This information is being withheld from disclosure to the public.

Please direct all questions regarding the confidential information to Pamela G. Monroe, Legal Unit Administrator, NH Department of Environmental Services, at: [pamela.g.monroe@des.nh.gov](mailto:pamela.g.monroe@des.nh.gov), or (603) 271-3137.

**Abutters List**  
Proposed Site Improvements  
227 Market Street  
Portsmouth, New Hampshire

**ABUTTERS**

409 Franklin Pierce Highway LLC

**MAP #**

118

118

**LOT #**

1

2

Eport Properties 1 LLC

118

4

National Society of Colonial Dames  
c/o Ray Guerin

118

5

**OWNERS**

NH State Port Authority

119

5

227 Market Street, LLC

119

6

**APPLICANT**

Granite State Minerals  
c/o Joe McNamee

**ENGINEER**

Tighe & Bond, Inc.



# PROPOSED SITE IMPROVEMENTS

227 MARKET STREET  
 PORTSMOUTH, NEW HAMPSHIRE

PROJECT NO: E5027-001

DECEMBER 29, 2022

LAST REVISED: MAY 5, 2023

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	5/5/2023
C-101	EXISTING CONDITIONS AND DEMOLITION PLAN	5/5/2023
C-102	OVERALL SITE PLAN	5/5/2023
C-102.1	SITE, GRADING, DRAINAGE, AND EROSION CONTROL PLAN	5/5/2023
C-103	WETLAND BUFFER IMPACT PLAN	5/5/2023
C-501	EROSION CONTROL NOTES AND DETAILS SHEET	12/29/2022
C-502	DETAILS SHEET	12/29/2022
C-503	DETAILS SHEET	12/29/2022



LOCATION MAP  
 SCALE: 1" = 2,000'

PREPARED BY:

**Tighe & Bond**

177 CORPORATE DRIVE  
 PORTSMOUTH, NEW HAMPSHIRE 03801  
 603-433-8818

OWNERS:

227 MARKET STREET, LLC

APPLICANT:

GRANITE STATE MINERALS  
 227 MARKET STREET  
 PORTSMOUTH, NEW HAMPSHIRE 03801

NH PORT AUTHORITY

555 MARKET STREET  
 PORTSMOUTH, NEW HAMPSHIRE 03801

SURVEY CONSULTANT:

DOUCET SURVEY, INC.

102 KENT PLACE  
 NEWMARKET, NEW HAMPSHIRE 03110  
 603-659-6560



*Neil Ham*



**WETLAND PERMIT APPLICATION  
 COMPLETE SET 8 SHEETS**

Lead Surveyor: 5/7/2023  
 Patrick Conroy, No. 12579  
 State of New Hampshire  
 227 Market Street, Portsmouth, NH 03801



*Neil H. [Signature]* 08/04/2022



**Proposed Site Improvements**

Granite State Minerals

Portsmouth, New Hampshire

DATE	DESCRIPTION
5/5/2023	Wetland Report
12/29/2022	December 29, 2022

PROJECT NO: E-5027-001  
 DATE: December 29, 2022  
 FILE: E-5027-001-C-DSGN.dwg  
 DRAWN BY: APJ/CLK  
 CHECKED BY: [Blank]  
 APPROVED BY: PWC

**EXISTING CONDITIONS & DEMOLITION PLAN**

SCALE: AS SHOWN

C-101

**LEGEND**

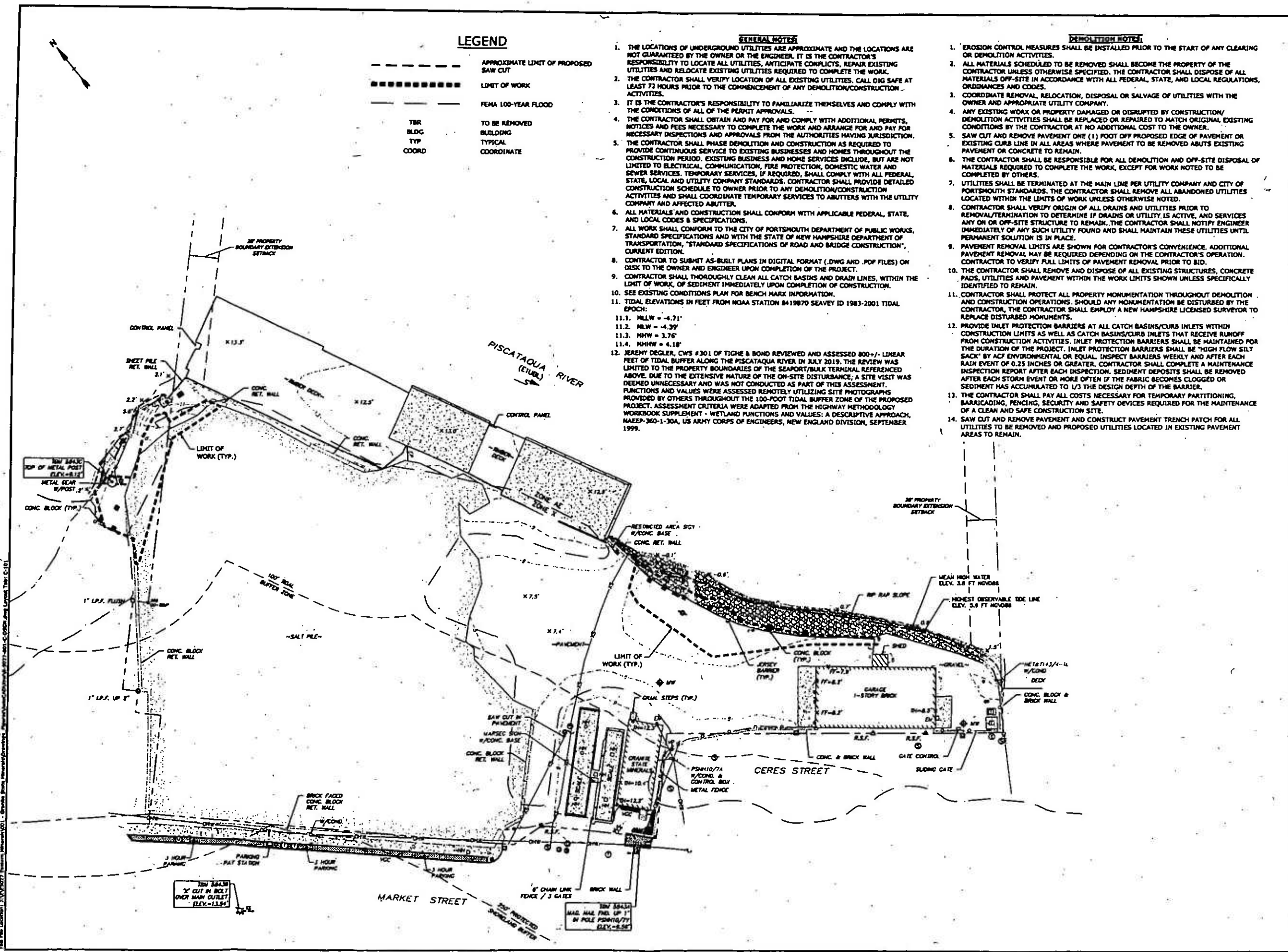
- APPROXIMATE LIMIT OF PROPOSED SAW CUT
- ===== LIMIT OF WORK
- FEMA 100-YEAR FLOOD
- TBR TO BE REMOVED
- BLDG BUILDING
- TYP TYPICAL
- COORD COORDINATE

**GENERAL NOTES**

- THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES AND COMPLY WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR AND COMPLY WITH ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS AND HOME SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES AND SHALL COORDINATE TEMPORARY SERVICES TO ADJUTERS WITH THE UTILITY COMPANY AND AFFECTED ADJUTER.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
- CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT.
- CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
- SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.
- TIDAL ELEVATIONS IN FEET FROM NOAA STATION 8419870 SEAVEY ID 1983-2001 TIDAL EPOCH:
  - 11.1. MLLW = -4.71'
  - 11.2. MLW = -4.39'
  - 11.3. MHW = 3.76'
  - 11.4. MHHW = 4.18'
- JEREMY DECLER, CWS #301 OF TIGHE & BOND REVIEWED AND ASSESSED 800 +/- LINEAR FEET OF TIDAL BUFFER ALONG THE PISCATAQUA RIVER IN JULY 2019. THE REVIEW WAS LIMITED TO THE PROPERTY BOUNDARIES OF THE SEAPORT/BULK TERMINAL REFERENCED ABOVE. DUE TO THE EXTENSIVE NATURE OF THE ON-SITE DISTURBANCE, A SITE VISIT WAS DEEMED UNNECESSARY AND WAS NOT CONDUCTED AS PART OF THIS ASSESSMENT. FUNCTIONS AND VALUES WERE ASSESSED REMOTELY UTILIZING SITE PHOTOGRAPHS PROVIDED BY OTHERS THROUGHOUT THE 100-FOOT TIDAL BUFFER ZONE OF THE PROPOSED PROJECT. ASSESSMENT CRITERIA WERE ADAPTED FROM THE HIGHWAY METHODOLOGY WORKBOOK SUPPLEMENT - WETLAND FUNCTIONS AND VALUES: A DESCRIPTIVE APPROACH, NAEP-360-1-30A, US ARMY CORPS OF ENGINEERS, NEW ENGLAND DIVISION, SEPTEMBER 1999.

**DEMOLITION NOTES**

- EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
- COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ADJUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
- UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND CITY OF PORTSMOUTH STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
- PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN.
- CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
- PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
- THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADEING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
- SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.



Lead Sheet Date: May 3, 2023 10:21 AM Rev: 00000000  
 Plot Date: 12/29/2022 10:21 AM Rev: 00000000  
 Title: E-5027-001-C-DSGN.dwg  
 User: [Blank]  
 Plot Path: [Blank]



*Neil Hanson*  
08/04/2023



**Proposed Site Improvements**

Granite State Minerals

Portsmouth, New Hampshire

NO.	DATE	DESCRIPTION
1	5/3/2023	RHDES Wetland RWF
PROJECT NO: E-5027-001		
DATE: December 29, 2023		
FILE: E-5027-001-C-DSCA.dwg		
DRAWN BY:		AFS/CK
CHECKED:		RAH
APPROVED:		PNC

**OVERALL SITE PLAN**

SCALE: AS SHOWN

C-102



Lead Sheet Date: May 3, 2023 10:21 AM By: MAMANDSON  
 Plot Date: Wednesday, May 03, 2023 10:21 AM By: MAMANDSON  
 TSS File Location: J:\CADD\2023\Portsmouth\001 - Granite State Minerals\001 - Overall Site Plan.dwg



Neil Hamer 02/04/2023



Proposed Site Improvements

Granite State Minerals

Portsmouth, New Hampshire

DATE:	December 29, 2023
FILE:	E-5027-001-C-08CH.dwg
DRAWN BY:	AP/CLK
CHECKED BY:	NAH
APPROVED BY:	PHC

SITE, GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-102.1

LEGEND

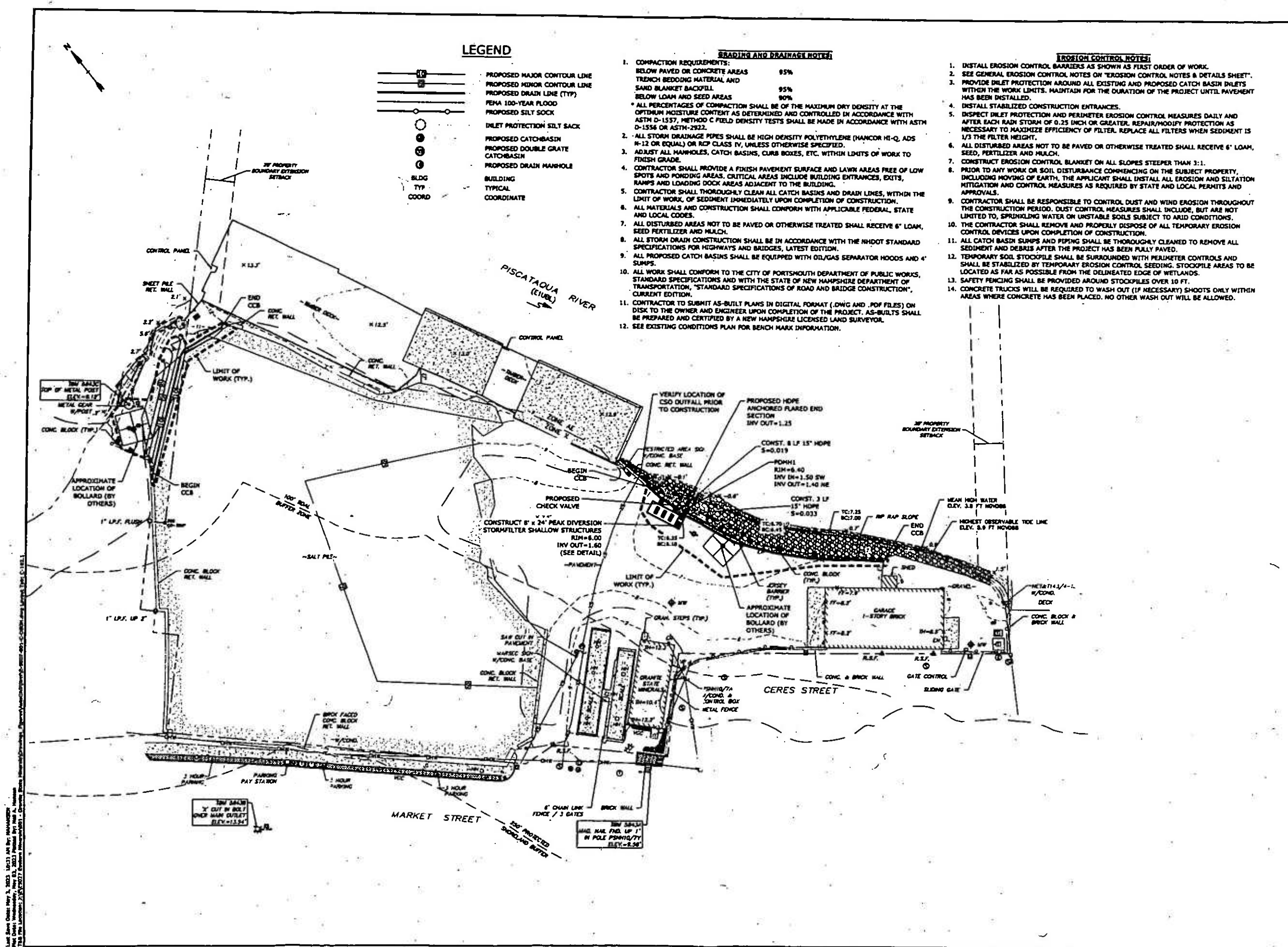
- PROPOSED MAJOR CONTOUR LINE
- PROPOSED MINOR CONTOUR LINE
- PROPOSED DRAIN LINE (TYP)
- FEMA 100-YEAR FLOOD
- PROPOSED SILT SOCK
- DILET PROTECTION SILT SACK
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE
- BLDG TYP
- COORD

READING AND DRAINAGE NOTES

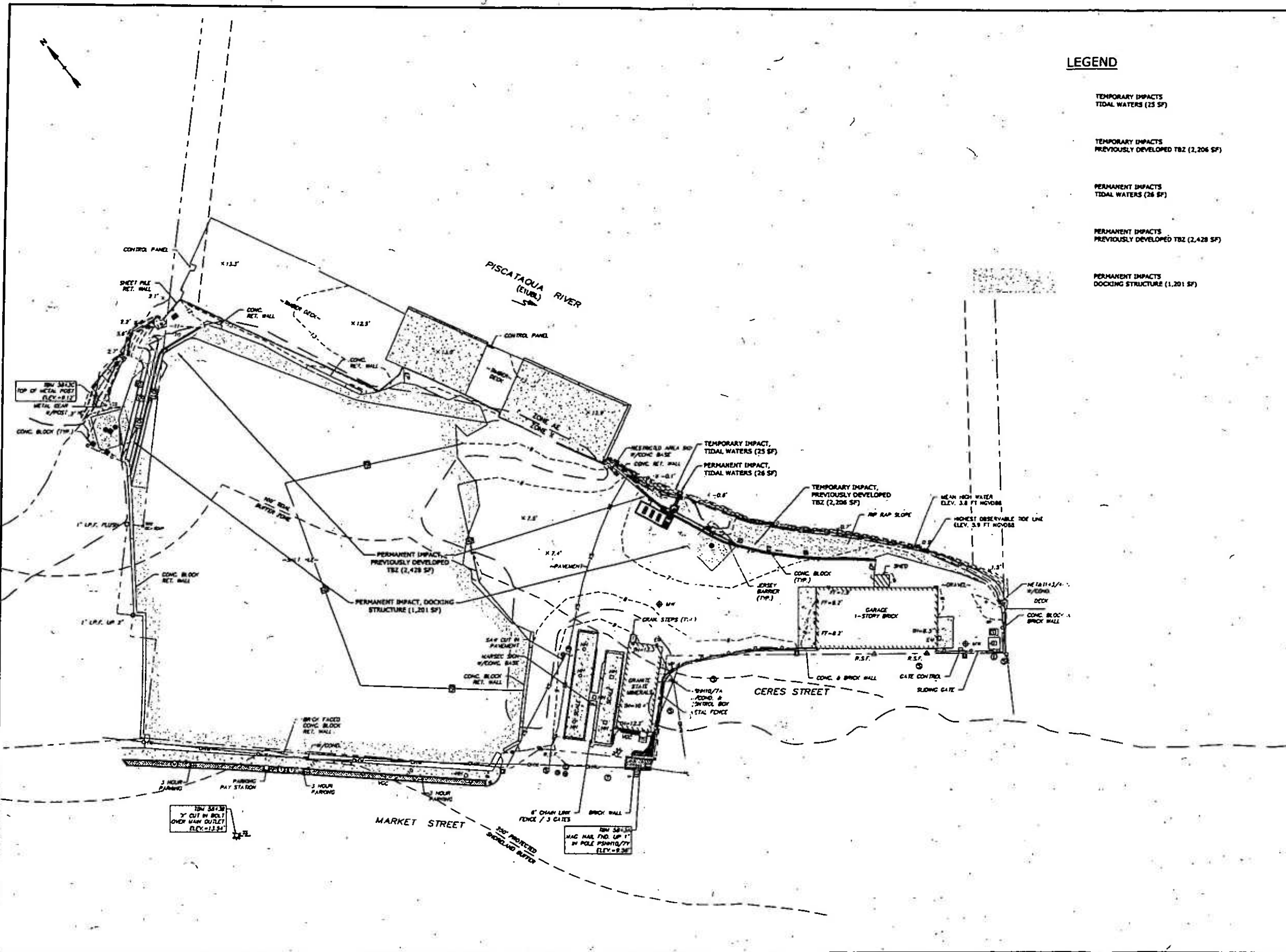
1. COMPACTION REQUIREMENTS:
  - BELOW PAVED OR CONCRETE AREAS 95%
  - TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95%
  - BELOW LOAM AND SEED AREAS 90%
2. ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
3. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS H-12 OR EQUAL) OR RCP CLASS IV, UNLESS OTHERWISE SPECIFIED.
4. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
5. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
6. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
8. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
9. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
10. ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4" SUMPS.
11. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
12. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
13. SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.

EROSION CONTROL NOTES

1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
2. SEE GENERAL EROSION CONTROL NOTES ON "EROSION CONTROL NOTES & DETAILS SHEET".
3. PROVIDE DILET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
5. INSPECT DILET PROTECTION AND PERIMETER EROSION CONTROL MEASURES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
6. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
7. CONSTRUCT EROSION CONTROL BLANKET ON ALL SLOPES STEEPER THAN 3:1.
8. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
10. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
11. ALL CATCH BASIN SLURPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN FULLY PAVED.
12. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED WITH PERIMETER CONTROLS AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLANDS.
13. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.
14. CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) SHOOTS ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASH OUT WILL BE ALLOWED.



LANCE BROWN, CHIEF SURVEYOR, REG. NO. 12345, STATE OF NEW HAMPSHIRE  
 THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM A LICENSED SURVEYOR IN THE STATE OF NEW HAMPSHIRE.  
 DATE OF SURVEY: 02/04/2023



- LEGEND**
- TEMPORARY IMPACTS  
TIDAL WATERS (25 SF)
  - TEMPORARY IMPACTS  
PREVIOUSLY DEVELOPED TBZ (2,206 SF)
  - PERMANENT IMPACTS  
TIDAL WATERS (26 SF)
  - PERMANENT IMPACTS  
PREVIOUSLY DEVELOPED TBZ (2,428 SF)
  - PERMANENT IMPACTS  
DOCKING STRUCTURE (1,201 SF)

**Tight & Bond**



*Neil H. [Signature]*



**Proposed Site Improvements**

Granite State Minerals

Portsmouth, New Hampshire

NO.	DATE	DESCRIPTION
1	5/5/2023	ISSUES TRACKING SHEET
2		
3		
4		
5		
6		
7		
8		
9		
10		

PROJECT NO: E-9027-081  
 DATE: October 29, 2023  
 FILE: E-9027-001-C-0804.dwg  
 DRAWN BY: AP/CKR  
 CHECKED: RWH  
 APPROVED: PHC

WETLAND BUFFER IMPACT PLAN  
 SCALE: AS SHOWN  
**C-103**

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**GENERAL PROJECT INFORMATION**

PROJECT OWNER: 227 MARKET STREET LLC  
27 ALDWIN STREET  
PORTSMOUTH, NH 03801  
PROJECT NAME: PROPOSED STORMWATER IMPROVEMENTS  
PROJECT ADDRESS: 227 MARKET STREET  
PORTSMOUTH, NH 03801  
PROJECT MAP / LOT: MAP 118 / LOT 6  
PROJECT LATITUDE: 43°-04'-49"N  
PROJECT LONGITUDE: 70°-45'-34"W

**PROJECT DESCRIPTION**

THE PROJECT CONSISTS OF CONSTRUCTING STORMWATER IMPROVEMENTS IN ORDER TO COMPLY WITH AN EPA NSCP AND THE REPLACEMENT OF TWO (2) EXISTING BOLLARD MOORINGS. THE WORK IS ANTICIPATED TO START IN FALL 2019, AND BE COMPLETED BY FALL 2020.

**DISTURBED AREA**

THE TOTAL AREA TO BE DISTURBED IS LESS THAN 1 ACRE.

**NAME OF RECEIVING WATERS**

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA A PROPOSED OUTFALL TO THE PISCATAQUA RIVER.

**CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:**

1. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
  - DISPOSAL OF SEDIMENT SPOIL AND OTHER SOLID WASTE
  - FLOOD PLAIN EXCAVATION WORK
  - CONTROL OF DUST
  - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
2. CLEAR AND DISPOSE OF DEBRIS.
3. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
4. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
5. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC.
6. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
7. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
8. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

**SPECIAL CONSTRUCTION NOTES:**

1. THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.
2. 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.

**EROSION CONTROL NOTES:**

1. ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE 'NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION' PREPARED BY THE NHDES.
2. PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
3. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALES, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
4. SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
5. PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
6. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
7. ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
8. INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
9. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

**STABILIZATION:**

1. AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
  - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
  - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED;
  - E. IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.
2. WINTER STABILIZATION PRACTICES:
  - A. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
  - B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT 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;
  - C. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;
3. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
  - A. TEMPORARY SEEDING;
  - B. MULCHING;
4. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
5. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
6. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DICES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

**DUST CONTROL:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.

2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
3. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJACENT AREAS.

**STOCKPILES:**

1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

**OFF SITE VEHICLE TRACKS:**

1. THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

**CONCRETE WASHOUT AREA:**

1. THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
  - A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
  - B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
  - C. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
  - D. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

**ALLOWABLE NON-STORMWATER DISCHARGES:**

1. FIRE-FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHINGS;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
9. UNCONTAMINATED GROUND WATER OR SPRING WATER;
10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
11. UNCONTAMINATED EXCAVATION DEWATERING;
12. LANDSCAPE IRRIGATION.

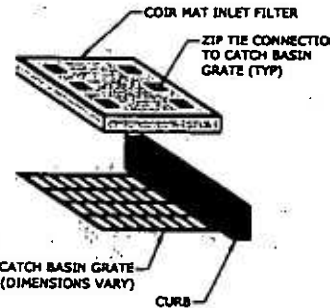
**WASTE DISPOSAL:**

1. WASTE MATERIAL:
  - A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
  - B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
  - C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
2. HAZARDOUS WASTE:
  - A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
  - B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
3. SANITARY WASTE:
  - A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

**SPILL PREVENTION:**

1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
  - A. GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
    - a. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;
    - b. ALL REGULATED MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE, ON AN IMPERVIOUS SURFACE;
    - c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;
    - d. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
    - e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
    - f. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER;
    - g. THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
  - B. HAZARDOUS PRODUCTS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
    - a. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
    - b. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
    - c. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
  - C. PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
    - a. PETROLEUM PRODUCTS:
      - i. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
      - ii. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS;
    - b. SECURE FUEL STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
    - c. INSPECT FUEL STORAGE AREAS WEEKLY;
    - d. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS;
    - e. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
    - f. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
  - D. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
    - (1) EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
    - (2) PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
    - (3) HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
    - (4) USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES;

- (5) PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE
- a. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT SHALL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES THESE REQUIREMENTS ARE SUMMARIZED IN WD-0928-22-4 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT, OR ITS SUCCESSOR DOCUMENT.  
<https://www.des.nh.gov/REGULATION/COOPERATION/FACTSHEETS/WD0928-22-4-PDF>
- b. FERTILIZERS:
  - i. FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
  - ii. ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
  - iii. STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
- c. PAINTS:
  - i. ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
  - ii. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
  - iii. EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
- d. SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
  - a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;
  - b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;
  - c. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
  - d. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
  - e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
  - f. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
- e. VEHICLE FUELING AND MAINTENANCE PRACTICE:
  - a. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
  - b. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
  - c. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
  - d. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
  - e. CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
  - f. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.



- NOTES:**
1. COIR MAT INLET FILTER SHALL BE STORM WATER INLET FILTER BY BLOCKSON & CO. OR APPROVED EQUAL.
  2. INSTALL AND MAINTAIN INLET PROTECTION IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

**INLET PROTECTION**  
NO SCALE

**Tighe & Bond**



**Proposed Site Improvements**

Granite State Minerals

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION

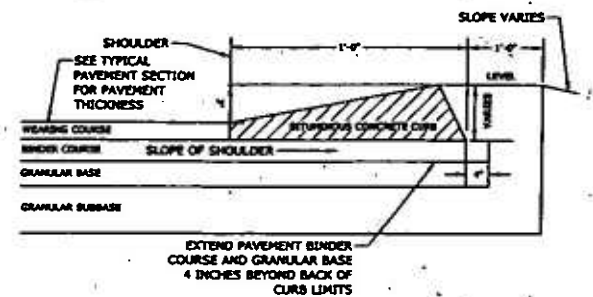
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DATE: December 29, 2022  
FILE: E-5017-001-C-07LS.dwg  
DRAWN BY: APJ/CJK  
CHECKED: NHJ  
APPROVED: PNC

**EROSION CONTROL NOTES & DETAILS SHEET**

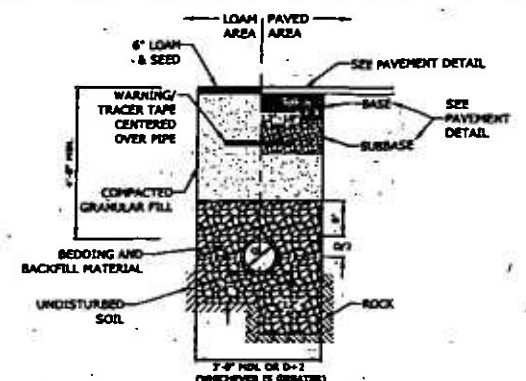
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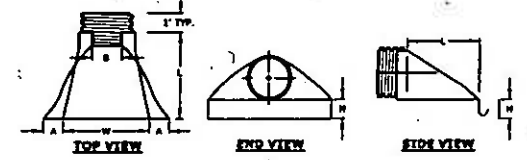
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**CAPE COD BERM**  
NO SCALE



**STORM DRAIN TRENCH**  
NO SCALE

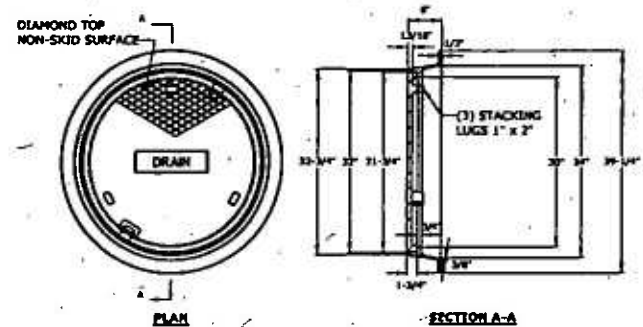


PIPE Ø	PART NO.	DIMENSION (INCHES)			
		A(L1)	B (H1)	C(L1/2)	D(L2)
36"	2418 HP	7.5	18	6.5	36

NOTE:  
1. ANCHOR FLARED END SECTION TO GRADE TO PREVENT FLUTATION.

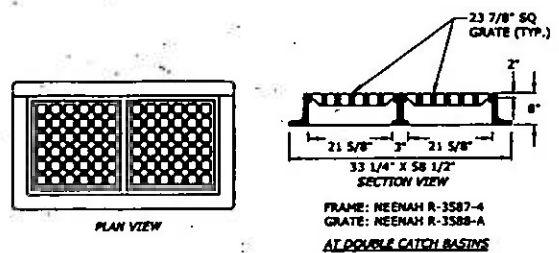
**HDPE END SECTION**  
NO SCALE

- NOTE:
1. CRUSHED STONE BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 6" ABOVE TOP OF PIPE.
  2. ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF PORTSMOUTH.
  3. DRAIN LINE SHALL BE INSULATED WHERE THERE IS LESS THAN 6" OF COVER IN PAVED AREAS AND LESS THAN 4" OF COVER IN NON-PAVED AREAS.



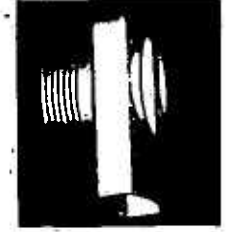
- NOTES:
1. ALL DIMENSIONS ARE NOMINAL.
  2. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
    - A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
    - B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
    - C. ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
  3. LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN THE CENTER OF THE COVER.

**DRAIN MANHOLE FRAME & COVER**  
NO SCALE



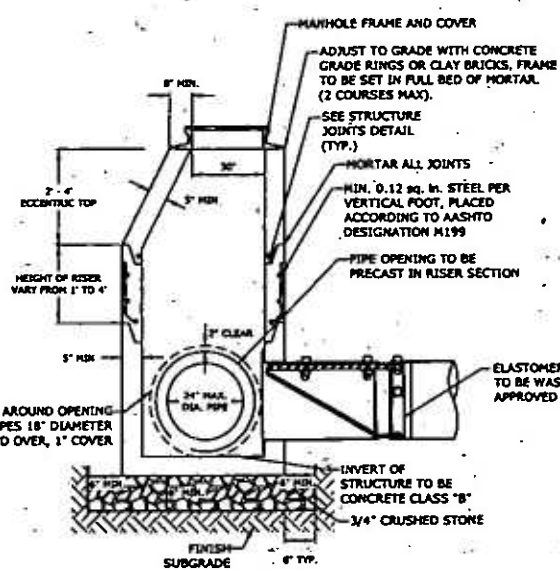
- NOTES:
1. FRAME AND GRATES SHALL BE NEENAH FOUNDRY OR APPROVED EQUAL.
  2. FRAME AND GRATES SHALL BE HEAVY DUTY AND RATED FOR H-20 LOADING.

**DOUBLE CATCHBASIN FRAME & GRATE**  
NO SCALE



- NOTES:
1. ALL CATCH BASIN OUTLETS TO HAVE 'ELIMINATOR' OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (NO EQUAL).
  2. INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
  3. 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP.

**'ELIMINATOR' OIL FLOATING DEBRIS TRAP**  
NO SCALE



**4' DIAMETER DRAIN MANHOLE WITH CHECK VALVE**  
NO SCALE

- NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
  2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
  3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
  4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
  5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (8" MINIMUM THICKNESS).
  6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
  7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
  8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
  9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
  10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4'	8"	6"

**Proposed Site Improvements**

Granite State Minerals

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION

PROJECT NO: E-5027-001  
DATE: December 25, 2022  
FILE: E-5027-001-C-01LS.dwg  
DRAWN BY: APS/CK  
CHECKED: BJR  
APPROVED: PHE

DETAILS SHEET

SCALE: AS SHOWN

C-502

Last Date: December 26, 2023 3:25 PM BY: CDD/OUT  
 Plot Date: Friday, January 26, 2023 10:02 AM BY: Mark Wilson  
 Title: Portsmouth - Granite State Minerals - Drawing: Storm Drain Manhole (11/15/2022) - Drawing: Storm Drain Manhole (11/15/2022) - Drawing: Storm Drain Manhole (11/15/2022)



**STORMFILTER DESIGN NOTES**

- STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD
- A 8' x 24' (2438 x 7315) PEAK DIVERSION STYLE STORMFILTER IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (52) AND IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR A RIGHT INLET CONFIGURATION
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS NOTED OTHERWISE

CARTRIDGE SIZE (in. [mm])	27 [686]		18 [457]		LOW DROP	
RECOMMENDED HYDRAULIC DROP (H) (ft. [mm])	3.05 [930]		2.3 [701]		1.8 [549]	
HEIGHT OF WEIR (W) (ft. [mm])	3.00 [914]		2.25 [686]		1.75 [533]	
SPECIFIC FLOW RATE (gpm/sf [L/s/m <sup>2</sup> ])	2 [1.36]	1.87* [1.13]*	1 [0.68]	2 [1.36]	1.67* [1.13]*	1 [0.68]
CARTRIDGE FLOW RATE (gpm [L/s])	22.5 [1.42]	18.79 [1.19]	11.25 [0.71]	15 [0.95]	12.53 [0.79]	7.5 [0.47]

\* 1.67 gpm/sf [1.13 L/s/m<sup>2</sup>] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	
WATER QUALITY FLOW RATE (cfs [L/s])	
PEAK FLOW RATE (cfs [L/s])	
RETURN PERIOD OF PEAK FLOW (yrs)	
CARTRIDGE FLOW RATE	
CARTRIDGE SIZE (27, 18, LOW DROP (LD))	
MEDIA TYPE (PERLITE, ZPG, PSORB)	
NUMBER OF CARTRIDGES REQUIRED	
FILTER BAY RIM ELEVATION	

PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES/SPECIAL REQUIREMENTS:

**RIM TO SYSTEM INVERT**

CARTRIDGE SIZE	MIN. HEIGHT	MAX. HEIGHT
LOW DROP / 18"	3'-8"	4'-10"
27"	4'-4"	4'-10"

**Proposed Site Improvements**

Granite State Minerals

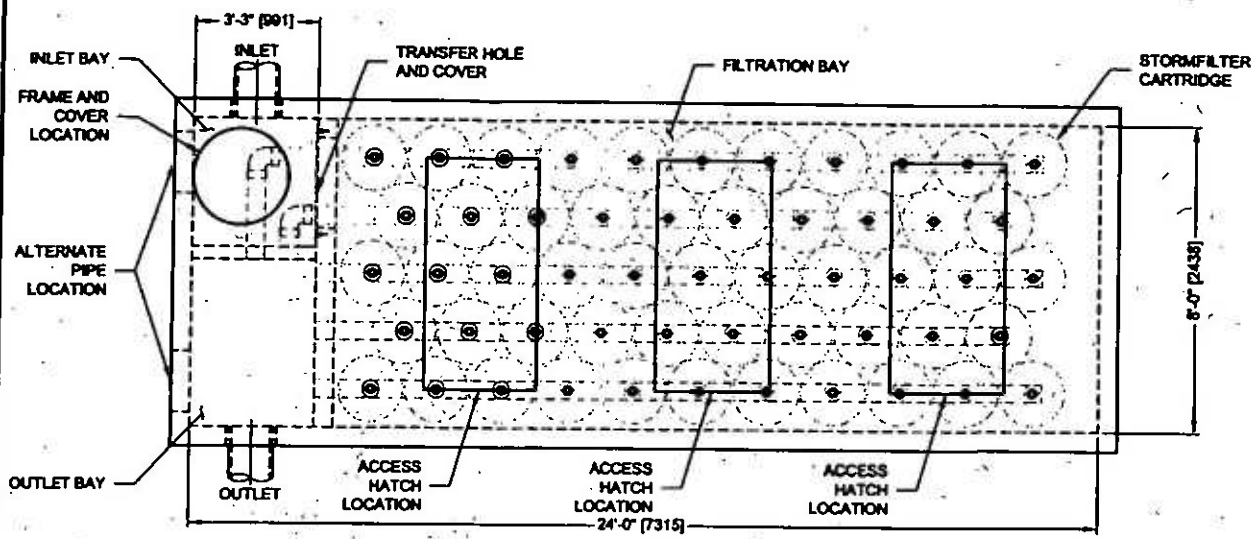
Portsmouth, New Hampshire

NAME	DATE	DESCRIPTION
PROJECT NO:		E-9227-001
DATE:		December 29, 2022
FILE:		E-9227-001-C-07LS.dwg
DRAWN BY:		APL/CK
CHECKED:		BAH
APPROVED:		PMC

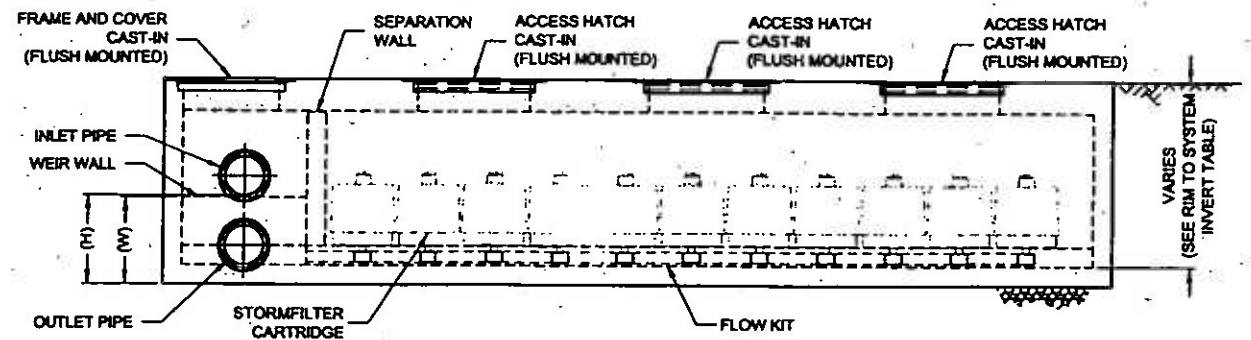
DETAILS SHEET

SCALE: AS SHOWN

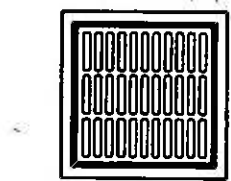
C-503



**PLAN VIEW**



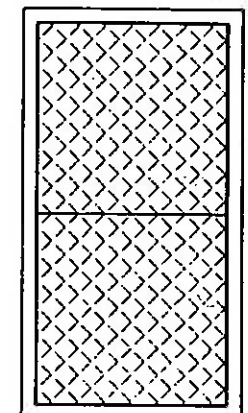
**ELEVATION**



**FRAME AND GRATE**  
(24" SQUARE)  
(NOT TO SCALE)



**FRAME AND COVER**  
(30" ROUND)  
(NOT TO SCALE)



**ACCESS HATCH**  
(36" x 72")  
(NOT TO SCALE)

**PERFORMANCE SPECIFICATION**  
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 30 SECONDS. SPECIFIC FLOW RATE SHALL BE 2 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 9 GPM/CF OF MEDIA (MAXIMUM).

**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. [www.ContechES.com](http://www.ContechES.com)
- STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0'-0", AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M308 AND BE CAST WITH THE CONTECH LOGO.

**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
- CONTRACTOR TO ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
- CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

**CONTECH**  
ENGINEERED SOLUTIONS LLC  
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SFPD0824-S  
8' x 24' PEAK DIVERSION STORMFILTER  
SHALLOW STANDARD DETAIL



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 6,322,892; 6,524,576; 6,797,257; 6,988,157; 6,827,632; 6,848,946. RELATED FOREIGN PATENTS OR OTHER PATENTS PENDING.

1/21/2023 11:25:27 AM  
 User: C:\Users\j...  
 Plot: E-9227-001-C-07LS.dwg  
 Title: Stormwater Management StormFilter  
 Date: 12/29/2022 11:25:27 AM  
 Plot Device: HP DesignJet T1100e  
 Plot Style: HP-GL/2  
 Scale: 1:1  
 Sheet: 1 of 1  
 User: j...