REGULAR MEETING
CONSERVATION COMMISSION

1 JUNKINS AVENUE
PORTSMOUTH, NEW HAMPSHIRE
EILEEN DONDERO FOLEY COUNCIL CHAMBERS

3:30 P.M. **April 12, 2023**

AGENDA

I. APPROVAL OF MINUTES

1. March 08, 2023

II. CONDITIONAL USE PERMIT APPLICATIONS (NEW BUSINESS)

1. 50 Andrew Jarvis Drive
   City of Portsmouth, Owner
   Assessor Map 229, Lot 33

2. 89 Sparhawk Street
   Jonathan and Lisa Morse, Owners
   Assessor Map 159, Lot 2

3. 253 Odiorne Point Drive
   RTM Trust, Ryan & Heidi Mullen Trustees, Owners
   Assessor Map 224, Lot 10-19

4. 500 Market Street
   Nobles Island Condominium Association, Owner
   Assessor Map 120, Lot 2

III. STATE WETLANDS BUREAU APPLICATIONS (NEW BUSINESS)

1. Standard Dredge and Fill
   105 Bartlett Street
   Clipper Traders, LLC, Portsmouth Lumber & Hardware, LLC, Iron Horse Properties, LLC, Owners
   Assessor Map 157, Lots 1 and 2, Map 164, Lots 1, 2, and 4-2

2. Minimum Impact
   89 Sparhawk Street
   Jonathan and Lisa Morse, Owners
   Assessor Map 159, Lot 2

IV. OTHER BUSINESS

1. Earth Day Discussion

V. ADJOURNMENT

**Members of the public also have the option to join this meeting over Zoom, a unique meeting ID and password will be provided once you register. To register, click on the link below or copy and paste this into your web browser:*
https://us06web.zoom.us/webinar/register/WN_OSEpQZRlSW67gB-pEZOyzw

MINUTES
CONSERVATION COMMISSION

1 JUNKINS AVENUE
PORTSMOUTH, NEW HAMPSHIRE
EILEEN DONDERO FOLEY COUNCIL CHAMBERS

3:30 P.M. **March 08, 2023**

MEMBERS PRESENT: Chair Barbara McMillan; Vice Chair Samantha Collins; Members; Allison Tanner, Jessica Blasko, Thaddeus Jankowski, Lynn Vaccaro (virtual), Stewart Sheppard and Alternate; Brian Gibb

MEMBERS ABSENT: Abigail Gindele, Alternate

ALSO PRESENT: Peter Britz, Environmental Planner/Sustainability Coordinator; Kate Homet, Associate Environmental Planner

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*Items in brackets [] denote timestamp of recording

[5:31] The meeting began at 3:31 pm.

Chair Collins announced that one member would be joining via zoom and would be doing a roll call for votes.

I. APPROVAL OF MINUTES

1. February 01, 2023

[6:06] Ms. Tanner made a motion to approve the minutes as presented. Mr. Jankowski seconded the motion. The motion passed unanimously.

II. CONDITIONAL USE PERMIT APPLICATIONS (NEW BUSINESS)

1. 96 Buckminster Way
   Crystal & Aaron Nersesian, Owners
   Map 282, Lot 6-7

[8:54] Aaron Nersesian, the property owner, came to present his application for a shed within the wetland buffer. He noted that the proposed location is usually grass or mud year-round and is located at the end of his driveway. The shed will be on concrete blocks and would be in an area where stormwater tends to flow from and into the wetlands. The applicant will be supplementing the area with native plantings to help with infiltration as well as a crushed stone base under the shed.

[11:43] Vice Chair McMillan asked for clarification on whether there would be cinder blocks or a foundation. Mr. Nersesian noted that it would be on concrete blocks on top of the gravel.

Mr. Gibb also brought this up, noting that in the manufacturer's specifications, there was a plan for a poured concrete foundation. Mr. Nersesian clarified that it will only be blocks.

[13:22] Mr. Jankowski noted the rather large size for a shed. Mr. Nersesian responded that his family is running out of storage space in the garage and needs a larger indoor storage area.

[14:12] Chair Collins asked where snow removal would occur. Mr. Nersesian responded that it would be in the same location at the bottom of the driveway where it currently sits, the area around the shed would be cleared so that the roof could drip.

[14:36] Mr. Britz asked if the applicant could remove the foundation page from the shed specifications in his application so that it does not confuse the Planning Board going board.

[15:48] Ms. Blasko made a motion to recommend approval of the conditional use permit with the following conditions:

1.There are native plantings to be planted to help with stormwater flow - this will consist of at least five shrubs that are four feet on center.
2. The foundation of the shed will be crushed stone base and concrete blocks - not a poured foundation. Please remove the section of application that misrepresents the foundation.
3. NOFA standards are used in landscaping and lawn care.
4. Wetland boundary markers be placed along or near the buffer.

Mr. Sheppard seconded the motion. The motion passed unanimously.

2. 86 New Castle Avenue
Jacob Sullivan & Margaret Goodlander, Owners
Map 207, Lot 70

[20:48] Mark West from West Environmental came to present this application. This project was previously approved in 2019 and expired. The applicant is proposing the exact same application as what was approved in 2019. He went on to explain in detail the lot and associated wetlands, buffers, and stormwater pathways along with the existing buildings and proposed addition. The applicant is proposing a 405 s.f addition to the main house, new pervious pathways and a pervious patio along with new plantings and replanting of shrubs to be disturbed during the construction. Many of the impacts will be temporary. They are proposing a new foundation under the proposed addition.

[22:47] Ms. Tanner noted her concern over the drainage with the new design.

[25:14] Mr. West noted that there is an existing trench infiltration system in front of the house and any addition/expansion to the system to accommodate more stormwater could be part of the design going forward. A conversation ensued on how roof drainage could be changed around to

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accommodate the new roof and a condition could be made going forward to address it within the plans.

[28:06] Mr. Sheppard asked how much of the current landscaping is proposed to be removed and how much would be replanted.

Mr. West stated that the plan is to salvage as many plantings as possible and to have a similar landscaping plan as it exists today.

[29:32] Ms. Tanner brought up that the commission likes to remove lawn area in favor of plantings whenever possible.

[29:51] Ms. McMillan noted that they would like to see a planting plan. Mr. West noted that had not yet been finished but they could provide a list of species to be planted and in what area along with what will be salvaged.

[32:28] Vice Chair McMillan asked if there would be any maintenance plans included with the pervious pavers proposed. Mr. West responded that there were instructions included in the details sheet of the submission which included regular power washing. He noted that if the details were missing anything for maintenance details that he could add them in there.

[34:39] Vice Chair McMillan requested that the current and future homeowners be able to access the maintenance details in something other than the site plans. Mr. West ensured that they will provide something for this.

[35:06] Mr. Jankowski noted that he would like to see the applicant follow the NOFA standards for organic lawn care.

[36:15] Vice Chair Collins reminded Mr. West that wetland boundary markers would be required. Mr. West offered up some potential locations such as on trees, on posts, or other locations low to the ground.

[37:13] Ms. Blasko made a motion to recommend approval of the wetland conditional use permit for the purposes of discussion with the following stipulations:

1. Applicant provide a plan in the their Planning Board submission that addresses roof drainage and how stormwater will be infiltrated with the new addition before it reaches the wetland.
2. Applicant post wetland boundary marker signs.
3. Follow NOFA standards.
4. The applicant will include a planting plan that includes native plantings in their submission to the Planning Board that is of equal or greater area than what currently exists for plantings. This plan should be submitted to the Planning & Sustainability Director prior to submission to the Planning Board.
5. The owners be given a maintenance guide for the pervious paver materials.
6. The existing area of meadow remain undisturbed and will continue to be meadow.

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The motion was seconded by Vice Chair McMillan.

[42:43] The vote was unanimous.

II. COMMITTEE AND PROJECT UPDATES

[43:58] Chair Collins discussed the upcoming Earth Day events and specifically, a stewardship event that was being planning for invasive removals.

[44:22] Mr. Britz asked Ms. Tanner to clarify what the event will look like and the overall plan. Ms. Tanner noted that a few sites for invasive removal could include the Little Harbour loop trail or the trails behind the high school. A local nursery has donated 100 seed packets to be handed out to volunteers as a thank you.

[46:48] Mr. Britz brought up the Great Bog trails that have become overgrown with invasives which could also be a good contender. This trail is usually used by hunters, but it would be great if it could be cleared and then used for hiking and recreation.

[48:30] Vice Chair McMillan mentioned that they would be looking for volunteers from the Commission for both events, the tabling event on the day before Earth Day and for the invasive removal on Earth Day. She noted that the volunteer invasive workshop would be a great opportunity for educating the public on invasive species and how to recognize them in your own yard.

[51:34] Ms. Blasko asked if there could be a list made for all the native and invasive species commonly seen so that it could be passed out to people during the tabling event on Friday for more education.

[52:12] Ms. Tanner mentioned that instead of handing out paper copies, it may be more beneficial to have that type of material online and just have QR codes posted for directing people to the handouts online.

[54:08] Chair Collins brought up the ordinance review. Ms. Tanner, Vice Chair McMillan, and herself will be meeting to discuss amendments on April 10th and will bring those results to a Commission workshop after that meeting which will get the ball rolling on amendments to the environmental section of the Zoning Ordinance.

[56:32] Vice Chair McMillan brought up that she recently attended a Governance Committee meeting where the City's undeveloped lands were discussed for potential recreation opportunities. She mentioned the Commission's conservation goals and open space plan and noted that much of what they were discussing would be in the Commission's purview.

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[59:02] Ms. Tanner mentioned her concern for the conservation lands and the stipulations that are attached to them. Her worry is that some people do not realize those stipulations and the constraints involved with those parcels.

III. OTHER BUSINESS

[1:01:34] Ms. Vaccaro noted that the two Earth Day events would be a great opportunity to raise more awareness of the City's conservation land with maps or some sort of interactive display that points out what parcels the City owns and is preserving as open space.

[1:04:43] Ms. Vaccaro also noted that the Piscataqua Regions Estuary Partnership (PREP) recently released a grant program that they may be able to utilize for land use ordinance updates.

[1:05:35] Mr. Britz noted that he could look into the PREP grant but that it may be challenging if there are deadlines for getting amendments accepted by.

[1:06:42] Mr. Britz also reminded everyone that the conservation funding money is in the CIP which was passed and could be adopted for the summer in the budget. Ms. Tanner noted the need to move ahead on conservation acquisition before certain properties made it to the market.

V. ADJOURNMENT

The meeting adjourned at 4:33 p.m.

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Memo

TO: Conservation Commission Members
FROM: Peter Britz, Environmental Planner
Kate Homet, Associate Environmental Planner
DATE: April 5, 2023
SUBJ: April 12, 2023 Conservation Commission Meeting

Site Address
500 Market Street
Nobles Island Condos
Assessor Map 120, Lot 2
(LU-23-34)

Description:

This project proposes replacement of existing decks on three buildings on Nobles Island. The decking is at the rear of each building overlooking but not over the water. The proposed deck replacement will maintain the existing footprint but includes new concrete footings to support the decks. This project had previously been approved for a city wetland conditional use permit and a state wetland permit in 2021. The city permit has expired for this project but the state permit is still valid. So this application is a resubmittal of the previously approved wetland permit application for this property.

According to Article 10 Section 10.1017.50 the applicant must satisfy the following conditions for approval of this project.

1. The land is reasonably suited to the use activity or alteration.

Given that the current decks are in need of repair and the applicant is not proposing to expand the footprint the land is suited to the activity. The only change to the design is the addition of concrete piers under the replacement deck in an unvegetated area.

2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.

There is no location outside of the buffer that is reasonable given this is a replacement of the existing decks that are failing in place.

3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.

As long as erosion control measures are put in place to protect the tidal areas, as described in the submitted plans, the proposed project will not create any new impacts to the wetland or wetland buffer as described by the applicant.

4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.

The proposed project may have a temporary impact on the small lawn area at the top of the bank but will largely disturb only the area underneath the existing decking.

5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.

The proposal is replacing an existing condition with a structurally improved condition. Given the work is proposed in a largely unvegetated portion of the buffer with no change in footprint this is the least adverse impact possible for the proposed work.

6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.

The area of lawn at the top of the bank should be revegetated where impacted by construction. Given the narrow width there is not much opportunity to plant shrubs or larger vegetation and allow access behind the buildings.

Recommendation: Staff recommends approval of this application as presented.

Site Address
50 Andrew Jarvis Drive
City of Portsmouth, Owners
Assessor Map 229, Lot 3
(LU-23-32)

Description:

Applicant is proposing a renovation of the existing tennis courts on municipal land. Currently four courts exist and the applicant is proposing a reconstruction of the existing four along with construction of an additional two, totaling six courts. This plan will include regrading, the installation of new fencing, the replacement of light poles, installation of stone along the perimeter, installation of bleachers, handicap-accessible parking and ramps along with new landscaping.

According to Article 10 Section 10.1017.50 the applicant must satisfy the following conditions for approval of this project.

1. *The land is reasonably suited to the use activity or alteration.*

   The proposal would expand on the space that is already utilized for tennis courts and extend further into both the wetland buffer.

2. *There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*

The four tennis courts that already exist in this location cannot currently be utilized as they do not meet NHA competition standards which require six courts. The alternative would be placing new courts farther away from the existing courts which is not desirable.

3. *There will be no adverse impact on the wetland functional values of the site or surrounding properties.*

   The proposed project represents an expansion of impervious surface within the buffer. The applicant is proposing to direct stormwater off the courts through stone and is also planning for additional landscaping.

4. *Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*

   The proposed impact to the vegetative area will only occur in the areas required to meet construction goals. The applicant is planning to install landscaping around the new courts to help offset the loss of vegetation.

5. *The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*

   Overall, the applicant has provided an alternative with a small impact to the wetland buffer and associated landscaping and stormwater control.

6. *Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*

   Applicant should provide a planting plan to display areas to be landscaped and replace any impacted vegetation.

Recommendation: Staff recommends approval of this application with two stipulations:

1. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall install permanent wetland boundary markers during project construction. These can be purchased through the City of Portsmouth Planning and Sustainability Department.

2. Applicant will provide a landscaping plan that specifies the number of plantings and their exact locations to the Planning and Sustainability Department for review prior to submitting to the Planning Board.

Site Address
253 Odiorne Point Road
RTM Trust, Owner
Assessor Map 224, Lot 10-19
(LU-23-36)

Description:

Applicant is proposing to extend two sections of existing rock wall to help divert stormwater from the foundation of the house and into the wetland. The applicant is also proposing granite steps to connect these areas to existing grading. A portion of the existing patio which has been damaged by water has been removed and 12-18” of clay soil is proposed to be dug up and replaced with a 12” of permeable crushed stone base and permeable pavers which sit over two existing French drains, allowing for better stormwater infiltration. The existing clay soil will be placed behind the extended 25’ long rock wall along the southeast side of the

property. A fire pit with a diameter of five feet will be placed in the center of the patio and a 10 x 10' concrete slab will be poured underneath the deck to support a hot tub. A French drain with a crushed stone lining will be installed where a natural culvert currently exists but is not effective. The existing back deck will have new support piers reinstalled and the deck will expand which will include a repositioning of the stairs.

According to Article 10 Section 10.1017.50 the applicant must satisfy the following conditions for approval of this project.

1. The land is reasonably suited to the use activity or alteration.

This location is currently inundated during precipitation events and the principal structure along with the surrounding yard suffers from ponding damage and lack of infiltration. The proposed permeable pavers, replacement of clay soil, renovation of existing rock walls and installation of a new French drain should help to divert and better infiltrate stormwater into the wetland behind this home.

2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.

The entire backyard of this property is within the buffer and retains water during rain events. This area requires better stormwater mitigation and redirection in order to prevent further damage to the existing home.

3.There will be no adverse impact on the wetland functional values of the site or surrounding properties.

The proposed project will be redirecting stormwater into the wetland and allowing for better infiltration with the loss of the clay soils. Additionally, the applicant is proposing to remove invasive Phragmites from the wetland and will install native wetland plantings which should help with the overall health of the wetland.

4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.

The proposed new areas of impact will only occur over existing lawn. Applicant is proposing to remove invasives within the immediate wetland but will be replacing with native plantings.

5.The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.

Overall, the applicant has provided an alternative with a small impact to the wetland buffer and will be improving the health of the wetland through invasive removal and native plantings. The redirection of stormwater flow should help to infiltrate and slow stormwater as it reaches the wetland.

6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.

Applicant is proposing to plant winterberry along the wetland edge where invasives currently exist. Additional buffer plantings could be useful surrounding the proposed patio area and along the extended walls to help slow stormwater.

Recommendation: Staff recommends approval of this application with the following stipulations:

1. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall install permanent wetland boundary markers during project construction. These can be purchased through the City of Portsmouth Planning and Sustainability Department.

2. Please confirm that all construction materials and debris will be disposed of off-site.

3. Applicant will provide a landscaping plan that specifies the number of plantings and their exact locations to the Planning and Sustainability Department for review prior to submitting to the Planning Board.

4. Ensure that the invasives to be removed will be properly disposed of.

5. Please include a detailed spec for the proposed French drain.

Site Address
89 Sparhawk Street
Lisa & Jonathan Morse, Owners
Assessor Map 159, Lot 2
(LU-22-234)

Description:

* Please note that this applicant has also applied for an NHDES Minimum Impact Wetland Permit application which if signed by the Commission would be an expedited application.

Applicant is requesting 2,685 s.f. of disturbance within the wetland buffer for the construction of a building addition which includes a two-car garage and living space above. Applicant is also proposing to remove an existing impervious patio and replace with a larger pervious patio, construct a new pervious driveway, installation of stone drip aprons, construction or pervious and impervious walkways and stairs, construction of retaining walls and new landscaping.

According to Article 10 Section 10.1017.50 the applicant must satisfy the following conditions for approval of this project.

1. The land is reasonably suited to the use activity or alteration.

Applicant is proposing a large impervious addition which will require fill and regrading within the tidal, shoreland, and wetland buffers. Additionally, patios, stairs and retaining walls are proposed which will increase the impact in the buffer. Significant offset of impervious impacts is needed to restore and protect buffer areas.

2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.

According to the applicant the addition of the garage is not feasible on the other side of the principal structure. The associated back patio and rear stairs could be relocated to the other side of the proposed addition to be outside the buffer.

3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.

The proposed landscaping provides a good start to protecting the wetland and shoreland through slowing and infiltrating stormwater. Applicant should reconsider the proposed roof drainage that is shown outfalling on the slope of the wetland and could cause erosion.

4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.

Applicant is proposing minimal impact to the natural vegetative state, with removal of an existing apple tree and multiple proposed new plantings surrounding many of the new hardscaped areas. Applicant could increase plantings on top of and along the slope of the wetland edge to minimize erosion.

5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.

The applicant is proposing a large impervious addition to the buffer which will have significant stormwater and open space impacts. The applicant is proposing native buffer landscaping and pervious hardscaping which can help offset impacts but the additional patio spaces, walkways and stairs are all direct buffer impacts.

6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.

The proposal indicates that the 25' vegetated buffer strip will largely remain the same as the existing condition. Applicant should make an effort to bolster buffer plantings in this area to help with stormwater infiltration and the reduction of erosion.

Recommendation: Staff recommends approval of this application with the following stipulations:

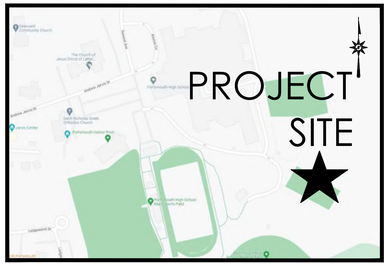
1. Applicant shall specify amount of fill being placed in the wetland and/or wetland buffer and should count any areas of fill/grading as impact in the total calculations.

2. Staff recommends that the proposed roof drain be amended to a dry well or French drain closer to the house to prevent erosion of the bank.

3. Please include all new proposed pervious impacts in the impact calculations.

4. Staff recommends the rear patio and stairs at the back of the garage be relocated to the southeast side of the garage, outside of the 100' wetland buffer.

5. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall install permanent wetland boundary markers during project construction. These can be purchased through the City of Portsmouth Planning and Sustainability Department.

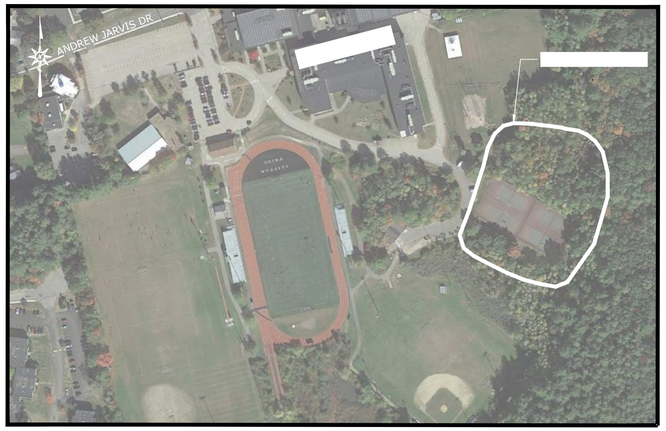


LOCATION MAP
NOT TO SCALE

PLANS FOR THE CONSTRUCTION

FOR

PORTSMOUTH HIGH SCHOOL TENNIS COURTS



VICINITY MAP
SCALE: 1"=200'

CITY OF
Portsmouth, NH

PREPARED FOR:

CITY OF PORTSMOUTH
SCHOOL DEPARTMENT
50 Andrew Jarvis Drive
Portsmouth, New Hampshire 03801

PREPARED BY:

BL Companies

ARCHITECTURE ENGINEERING ENVIRONMENTAL LAND SURVEYNG

2346 POST ROAD, SUITE 100
WARWICK, RI 02886
(401) 400-4492

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DM-01	SITE PREPARATION PLAN
EL-01	SITE LIGHTING PLAN
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LICENSED LANDSCAPE ARCHITECT

PER _____
DOMINICK CELTRUDA, R.L.A.
NH LICENSED LANDSCAPE ARCHITECT NO 00190

DATE _____

DATES

ISSUE DATE: 01/03/2023
REVISION: TBD

CAD FILE: CV210192001

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES

GENERAL NOTES:

1. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME AND COORDINATE WITH THE ENGINEER AND OWNER AS REQUIRED.
2. CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR JOB SITE SAFETY ALL CONSTRUCTION MEANS AND METHODS.
3. LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING AND/OR AS INDICATED ON THE PLANS.
4. PORTIONS OF THE PARK, WALK AND ADJACENT PROJECT AREA DISTURBED BY THE CONTRACTORS OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE.
5. CONTRACTOR TO VERIFY UTILITY CONNECTION LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
6. ANY ALTERATIONS TO THE PLAN SET MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.
7. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
8. EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
9. FOR DRAWING LEGIBILITY, ALL TOPOGRAPHIC FEATURES, EXISTING UTILITIES, PROPERTY BOUNDARIES, EASEMENTS, ETC. MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO ALL REFERENCED DRAWINGS AND OTHER DRAWINGS IN THIS SET FOR ADDITIONAL INFORMATION.
10. THE CONTRACTOR SHALL IDENTIFY, LOCATE, AND PROTECT ALL EXISTING BOUNDS, MONUMENTS, AND BENCHMARKS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE ANY DISTURBANCE OR RELOCATION.
11. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
12. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN CLEAR ACCESSIBLE PATHS NO LESS THAN 4' WIDE FOR ALL PEDESTRIANS.
13. THE CONTRACTOR SHALL NOT BE ALLOWED TO STORE ANY EXCESS MATERIAL WITHIN THE PROJECT LIMITS.
14. AT NO TIME SHALL THE CONTRACTOR BE ALLOWED TO STORE ANY EQUIPMENT, TOOLS, OR MATERIALS OUTSIDE OF THE EXISTING PROJECT AREA OR DESIGNATED AREAS. THE CONTRACTOR SHALL ENSURE PROPER SIGHT DISTANCE IS MAINTAINED AT ALL INTERSECTIONS AND DRIVEWAYS AT ALL TIMES.
15. AT THE END OF EACH WORK DAY, ANY EQUIPMENT, TOOLS, AND MATERIALS, INCLUDING SURPLUS FROM EXCAVATIONS, THAT ARE NOT TO BE RE-USED WITHIN 24 HOURS SHALL BE REMOVED FROM THE SITE UNLESS PREVIOUSLY APPROVED BY THE ENGINEER.
16. CONTRACTOR SHALL TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
17. EXISTING SIGNS IMPACTED BY THE PROJECT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED AS DIRECTED BY INSPECTION PERSONNEL OR BY THE ENGINEER.
18. FINAL GRADE FOR WALKWAYS TO MATCH EXISTING WHERE POSSIBLE AND AT ALL EXISTING MANHOLE RIMS AND/OR CATCH BASIN FRAMES, WHEN RESET NOT SPECIFIED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
19. ALL ACCESSIBLE PARKING SPACES AND WALKWAYS MUST BE CONSTRUCTED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.
20. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
21. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY SUCH CONFLICT BETWEEN THE GEOTECHNICAL REPORT AND THE PLANS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
22. THESE PLANS ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH OTHER SITE FEATURES.
23. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE ENGINEER IF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES EXISTING PRIOR TO PROCEEDING WITH THE WORK. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE/REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THE PLAN SET PRIOR TO CONTRACTOR GIVING ENGINEER NOTICE.
24. DEBRIS MUST NOT BE BURIED ON THE SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT.
25. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT. UTILITIES, BUILDINGS AND INFRASTRUCTURE WHICH ARE TO REMAIN AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED IN THE PROJECT.
26. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
27. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
28. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
29. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME THE ENGINEER AND ITS SUBCONTRACTORS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH THE ENGINEER WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER, OWNER AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
30. NEITHER THE PROFESSION ACTIVITIES OF THE ENGINEER, NOR THE PRESENCE OF THE ENGINEER AND/OR SUBCONSULTANTS AT A PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND COMPLIANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY.
31. IF THE CONTRACTOR DEVIATES FROM THE CONTRACT DOCUMENTS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING FROM THE DEVIATIONS.
32. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.
33. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
34. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS.
35. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES.
36. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
37. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
38. CONTRACTOR MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS.
39. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.

DEMOLITION & SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL INCLUDE THE BID COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
2. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE IN ACCORDANCE WITH THE STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN.
3. UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.
4. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
5. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
6. IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING BITUMINOUS CONCRETE PAVEMENT BASE COURSE AND/ OR SUB BASE GRAVEL MATERIALS IF IT MEETS THE REQUIREMENT OF THE SPECIFICATIONS FOR DENSE GRADED CRUSHED STONE.
7. STRIP AND STOCKPILE EXISTING TOPSOIL FOR LATER REUSE AS REQUIRED. STOCKPILE SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL CONFIRM THAT THE TOPSOIL IS SUITABLE FOR REUSE AND IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR TOPSOIL LOAM BORROW.
8. CLEAR AND GRUB VEGETATION SHALL INCLUDE REMOVAL OF ALL GRASS/LAWN, SHRUBS, UNDERBRUSH, REMOVAL OF ROOTS.
9. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN (SEE DETAIL). THE CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIERS AFTER CLEARING TURF AND UNDERBRUSH BY HAND AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
10. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL TREES TO REMAIN SHALL BE PRUNED BY LICENSED ARBORIST. CONTRACTOR MUST CONSULT WITH THE TOWN OF ENFIELD'S TREE WARDEN PRIOR TO ANY PRUNING WORK.
12. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
13. THE ENGINEER AND OWNER HAVE NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.
14. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THE CONSTRUCTION DOCUMENTS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH THE ENGINEER, IN WRITING, AND RESPONDED TO BY THE ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES,REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
15. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR: 1) OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THEM ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK; 2) NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND OWNER, 72 HOURS PRIOR TO THE START OF WORK; 3) INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE. 4) IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARKOUT, IN ADVANCE OF ANY EXCAVATION; 5) LOCATING AND PROTECTING ALL UTILITIES AND SERVICES WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.; 6) PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.; 7) ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS. THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.; 8) COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE "OFF-PEAK" IS TO BE DONE AT NO ADDITIONAL COST TO THE OWNER.; AND 9) IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.
16. THE ENGINEER IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
17. THE CONTRACTOR MUST PROVIDE ALL 'MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN.
18. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIR MUST INCLUDE THE RESTORATION OF ANY ITEMS REPAIRED TO THE PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR SHALL PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
19. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
20. CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND MUST BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE.
21. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS MUST BE IN PLACE PRIOR TO CONTRACTOR STARTING AN EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
22. CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY.
23. CONTRACTOR MUST CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
24. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
25. THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
26. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
27. CONTRACTOR IS RESPONSIBLE FOR SITE JOB SAFETY, WHICH MUST INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
28. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
29. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR MUST MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
30. CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.

LAYOUT NOTES:

1. COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING, AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
2. ALL WORK SHALL BE PERFORMED BY CONTRACTOR UNLESS SPECIFICALLY INDICATED THAT THE WORK WILL BE PERFORMED "BY OWNER"
3. THE LAYOUT OF SITE AMENITIES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
4. ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.
5. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AT POINT OF CONNECTION. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPENCIES IMMEDIATELY TO THE OWNER.

GRADING & UTILITIES NOTES:

1. ALL WORK RELATING TO INSTALLATION, RENOVATION, OR MODIFICATION OF DRAINAGE SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF PORTSMOUTH AND ITS DEPARTMENT OF PUBLIC WORKS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES, AND INVERT ELEVATIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER AND OWNER'S REPRESENTATIVE.
3. ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS: WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF PERCENT MAXIMUM AND THE RUNNING SLOPE (PARALLEL TO DIRECTION OF TRAVEL) OF 4.5% MAXIMUM.
4. MINIMUM SLOPE ON ALL WALKWAYS WILL BE 1:100 OR 1% TO PROVIDE POSITIVE DRAINAGE. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
5. ALL UTILITY GRATES, COVERS, OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES REGARDLESS OF WHETHER THEY ARE INDICATED AS ADJUSTED (ADJ.) ON PLANS
6. THE CONTRACTOR SHALL SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES, MATERIALS, AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS, PUBLIC/ PRIVATE STREETS AND WORK AREAS. CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.
7. CONTRACTOR SHALL ENSURE ALL AREAS ARE PROPERLY PITCHED TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING
8. EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
9. WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
10. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
11. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED UNLESS OTHERWISE NOTED.
12. WHERE NEW IMPROVEMENTS MEET EXISTING CONDITIONS, MEET LINE AND GRADE OF EXISTING ADJACENT PAVEMENTS, TYPICAL.
13. ROADWAY CROSS SLOPES MAY VARY BUT SHALL NOT EXCEED 3% CONTRACTOR SHALL NOTIVY THE TOWNS REPRESENTATIVE IF ANY DISCREPANCIES OCCUR.
14. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES WITHIN THE LIMITS OF DISTURBANCE OR THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE ENGINEER, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
16. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
17. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
18. THE CONTRACTOR MUST INSTALL ALL STORM SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
19. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
20. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER, OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
21. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
22. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
23. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE 'MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
24. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
25. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
26. DURING THE INSTALLATION OF ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.
27. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 1% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK.
28. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 1% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
29. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
30. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.
31. REINFORCED CONCRETE (RCP) STORM DRAINAGE PIPE MUST BE CLASS III WITH SILT TIGHT JOINTS. HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED MUST CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT TIGHT JOINT.
32. STORM PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.
33. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER, WATER AND STORM SYSTEMS, MUST BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.

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REVISIONS
No. Date Desc.

Surveyed
Drawn JW
Reviewed JW
Scale
Project No. 2101920
Date 01/03/2023

CAD File:

Title
GENERAL SITE CONSTRUCTION NOTES

Sheet No.
GN-01

Xref (s): ; BD2100875 ; XC210192001 ; XZ210192001

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Layout: GN-01 GENERAL NOTES

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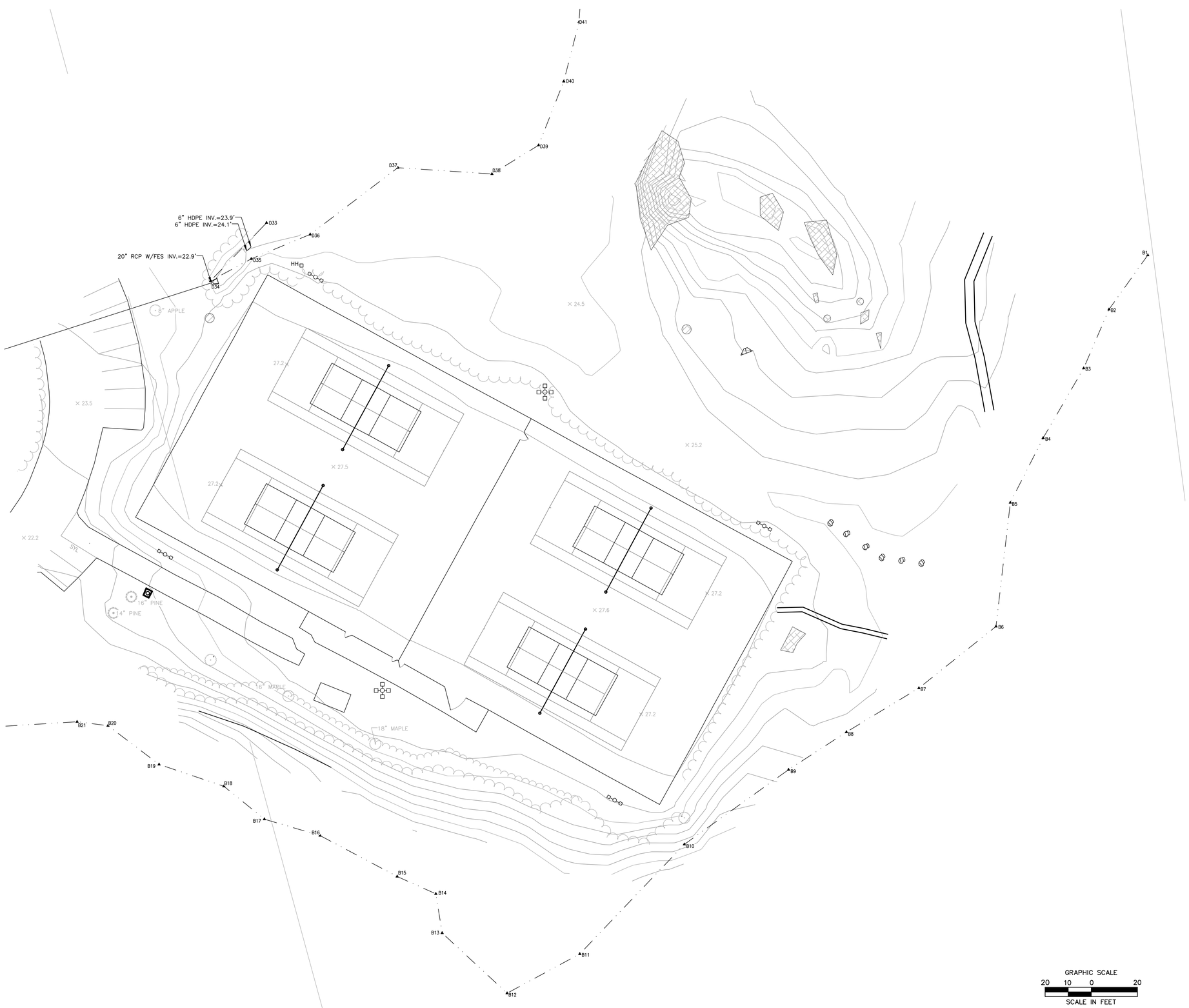

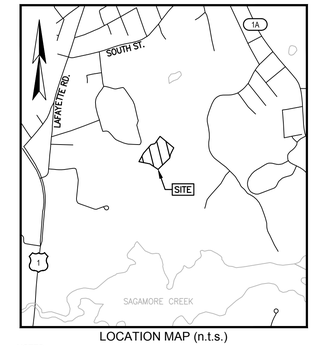

LOCATION MAP (n.t.s.)

NOTES:

1. REFERENCE: PORTSMOUTH HIGH SCHOOL TENNIS COURTS
   PORTSMOUTH, NH
   D.S. PROJECT NO. 7155

2. FIELD SURVEY PERFORMED BY L.P.S. & D.D.L. DURING NOVEMBER 2021 USING A TRIMBLE S7 TOTAL STATION AND A TRIMBLE R10 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DINI DIGITAL AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.

3. HORIZONTAL DATUM BASED ON NAD83(2011) NEW HAMPSHIRE STATE PLANE COORDINATE ZONE (2800) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.

4. VERTICAL DATUM IS BASED ON APPROXIMATE NAVD88(GEOID12A) (±.2') DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.

5. JURISDICTIONAL WETLANDS DELINEATED BY JOSEPH W. NOEL DURING MAY/JUNE 2021 IN ACCORDING TO THE:
   - US ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JANUARY, 1987).
   - REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (2012).
   - NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). U.S. FISH AND WILDLIFE SERVICE (2013).
   - CODE OF ADMINISTRATIVE RULES. WETLANDS BOARD, STATE OF NEW HAMPSHIRE (CURRENT).
   - FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.0, 2016 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEHSTC (MAY 2017).

6. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WIL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.

7. ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL, WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

LEGEND

	MAJOR CONTOUR LINE
	MINOR CONTOUR LINE
	APPROXIMATE LOT LINE (PER GIS)
	TREE LINE
	SHRUB LINE
	CHAIN LINK FENCE
	TENNIS NET
	EDGE OF DELINEATED WETLAND
▲A-1	WETLAND FLAG
	WETLAND AREA
FES	FLARED END SECTION
	DRAIN LINE
	ROCK/BOULDER
	LEDGE OUTCROP
×100.0	SPOT GRADE
	LIGHT POLE (MULTI-ARMS)
HH	HAND HOLE
	DECIDUOUS TREE
	CONIFEROUS TREE
	TYPICAL
EP	EDGE OF PAVEMENT
SWL	SINGLE WHITE LINE
SKL	SINGLE BLACK LINE
SBL	SINGLE BLUE LINE
SYL	SINGLE YELLOW LINE

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	DC
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title

EXISTING CONDITIONS PLAN

Sheet No.

EX-01

Xref (s): : B02100875 ; XZ210192001

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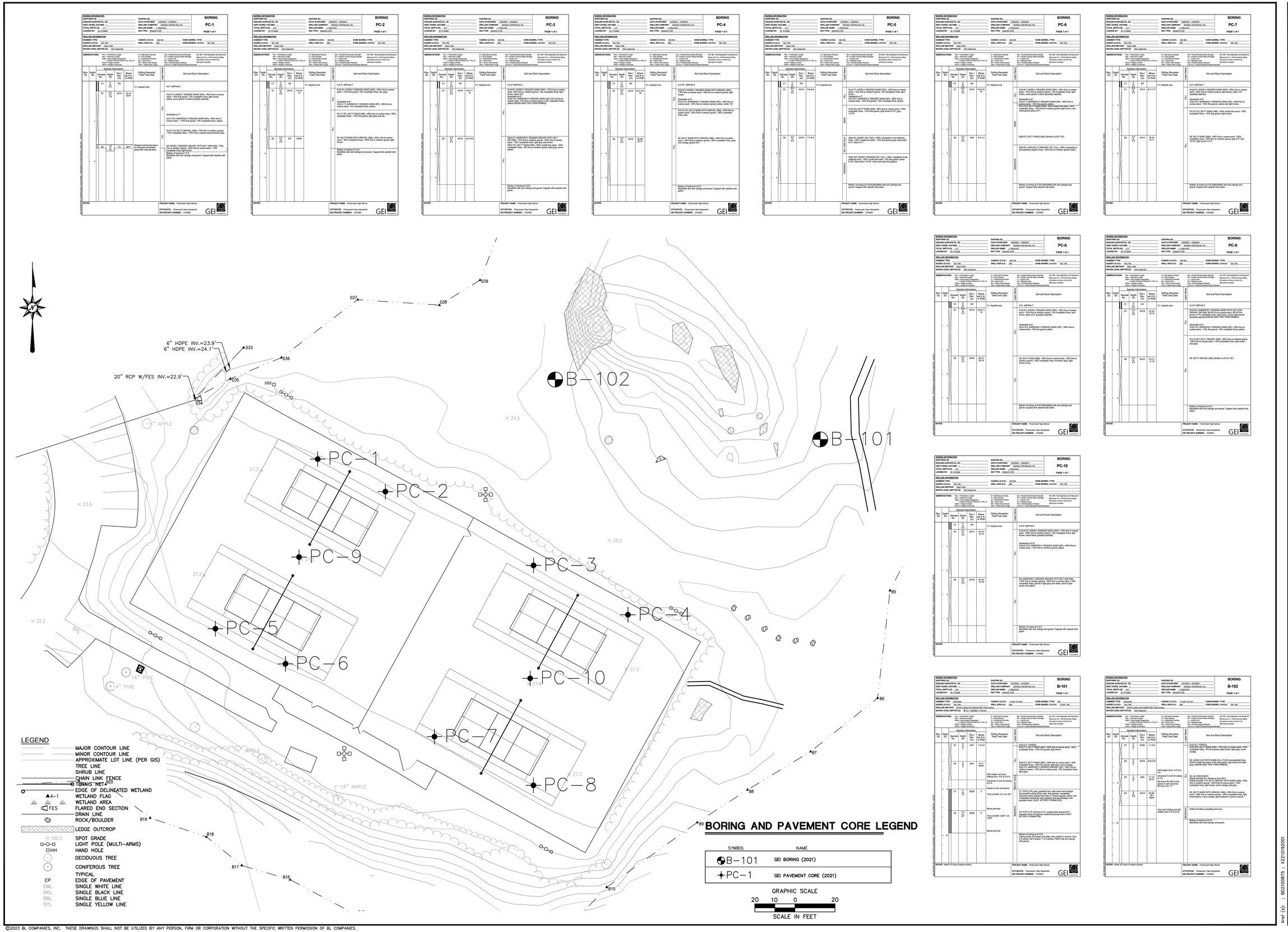

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Layout: BP-01

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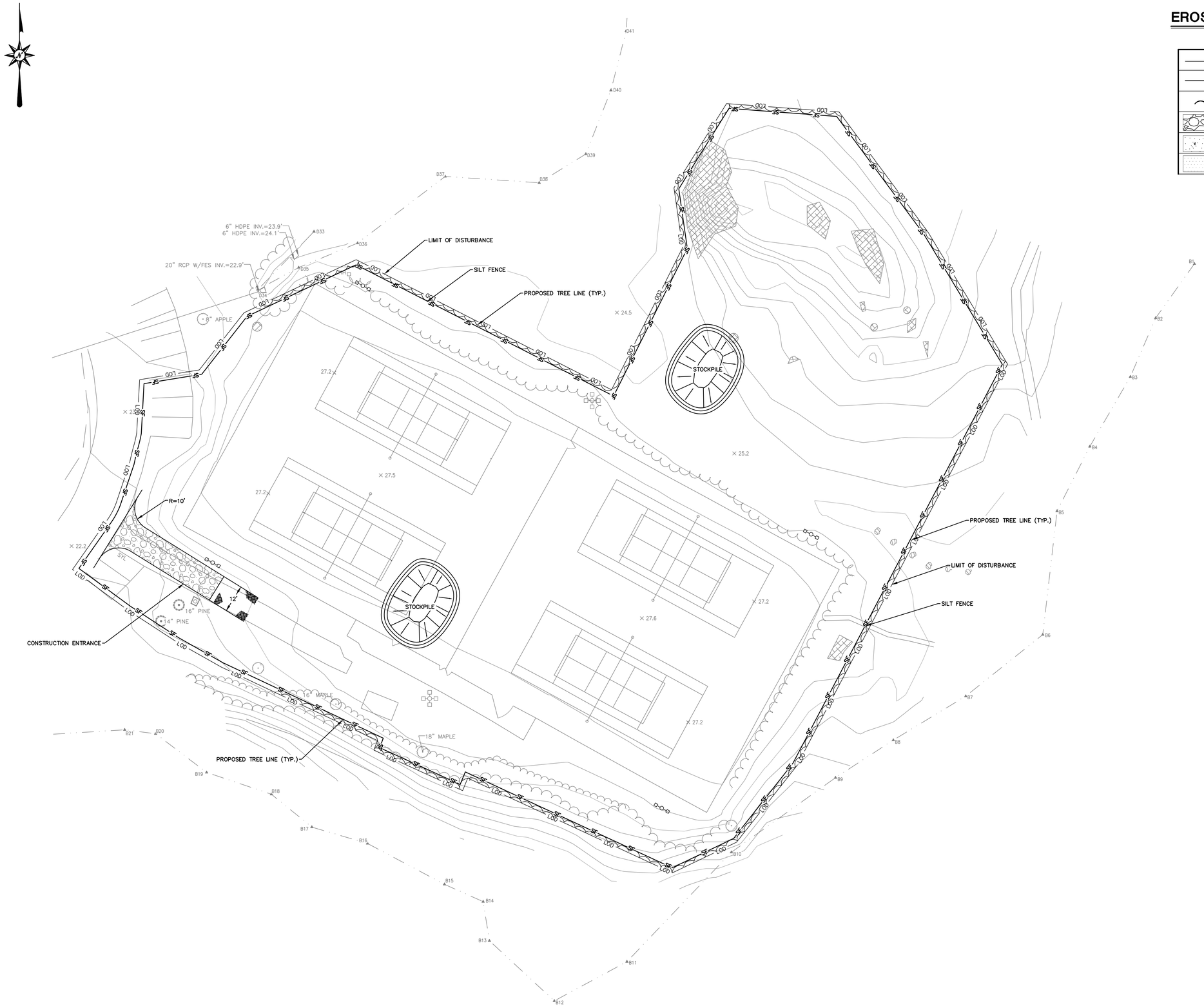
Drawn JW
Reviewed JW
Scale 1"=20'-0"
Project No. 2101920
Date 01/03/2023

CAD File:

Title
BORING & PAVEMENT CORE PLAN

Sheet No.
BP-01

Xref (s): : B02100875 : XZ2101920001



EROSION ? SED. CONTROL LEGEND

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
SF	SILT FENCE
	PROPOSED TREELINE
	5' WIDE CRUSHED STONE PERIMETER
	CONCRETE PAD
	BITUMINOUS PAVEMENT

GRAPHIC SCALE
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SCALE IN FEET

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No. Date Desc.

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Drawn	R.B.
Reviewed	M.M.
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title
SEDIMENTATION AND EROSION CONTROL PLAN

Sheet No.
EC-01

Xref (s): : BD2100875 : XZ210192001 : XD210192001 : XC210192001-WALL

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Layout: EC-01

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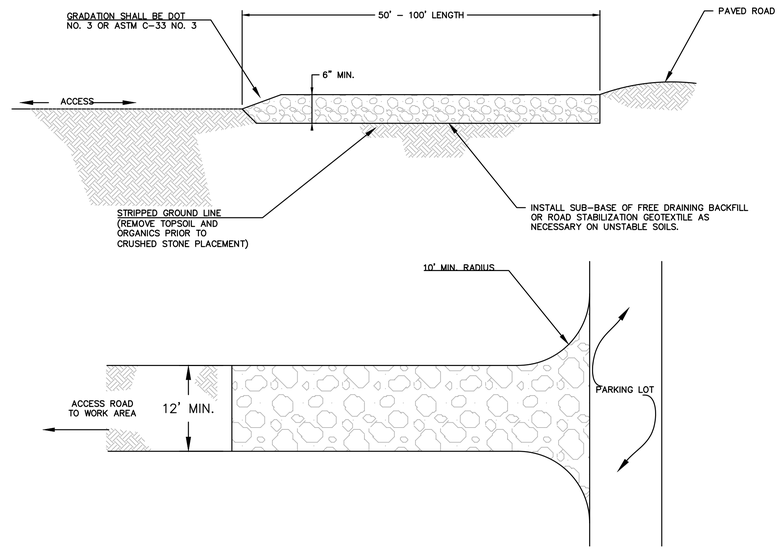
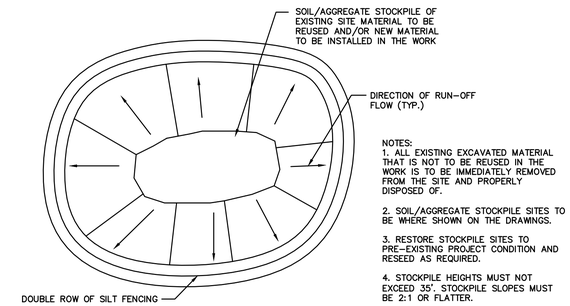
EROSION & SEDIMENT CONTROL NOTES:

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO PLANS FOR APPROXIMATE LOCATION OF EROSION AND SEDIMENT CONTROL. REFER TO SPECIFICATION AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL MEET ALL THE STATE OF NEW HAMPSHIRE AND THE CITY OF PORTSMOUTH WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
5. ALL CATCH BASINS AND DRAIN GRATES WITHIN THE LIMIT OF WORK SHALL BE PROTECTED WITH SILT SACKS DURING THE ENTIRE DURATION OF CONSTRUCTION
6. EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE GRADING AND DRAINAGE PLANS, NOTES, DETAILS, AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY THE OWNER'S REPRESENTATIVE AND NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SCIENCES REQUIREMENTS.
8. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO PUBLIC/ PRIVATE ROADS.
9. ALL MATERIAL HAULING VEHICLES SHALL BE COMPLETELY COVERED PRIOR TO LEAVING THE SITE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR WHEEL CLEANING OF ALL CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE. CONTRACTOR SHALL ENSURE THAT MATERIAL HAULING VEHICLES REMAIN ON PAVED SURFACES AS MUCH AS POSSIBLE.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SCIENCES AND THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
12. ANY EROSION AND SEDIMENT CONTROL MEASURES FOR THE STABILIZATION OF SLOPES ARE TEMPORARY FOR CONSTRUCTION PHASES ONLY. SEE GRADING PLAN FOR FINAL STABILIZATION OF SLOPES.
13. SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF AND DURING ALL PHASES OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO AND IMMEDIATELY AFTER ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
14. DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE THAT THE INTENDED PURPOSES IS ACCOMPLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE LIMIT OF WORK. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
15. ALL SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAINAGE SYSTEM.
16. ALL DRAINAGE SWALES AND GROUND SURFACES WITHIN THE LIMIT OF WORK SHALL BE PROTECTED.
17. AFTER SIGNIFICANT RAINFALL SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
18. ALL STOCKPILES SHALL BE PROTECTED. STOCKPILES SHALL BE PROTECTED FROM CONTACT WITH ONSITE STORMWATER RUNOFF USING TEMPORARY PERIMETER SEDIMENT BARRIERS. A COVER (TARP) OR APPROPRIATE TEMPORARY STABILIZATION WILL BE PROVIDED TO MINIMIZE SEDIMENT DISCHARGE.
19. STABILIZED PORTIONS OF A SITE SHALL BE INSPECTED AT LEAST ONCE PER MONTH.
20. ANY SEDIMENT TRACKED ONTO PAVED AREAS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.
21. ALL TOPSOIL ENCOUNTERED WITHIN THE WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. TOPSOIL NOT NEEDED AFTER COMPLETION OF ALL FINAL TOPSOIL SPREADING AND GRASSING SHALL BE REMOVED FROM THE SITE AND LEGALLY RECYCLED OR DISPOSED OF. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.
22. TEMPORARY DIVERSION DITCHES, PERMANENT DITCHES, CHANNELS, EMBANKMENTS AND ANY DENUDED SURFACE WHICH WILL BE EXPOSED FOR A PERIOD OF 14 CALENDAR DAYS OR MORE SHALL BE CONSIDERED CRITICAL VEGETATION AREAS. THESE AREAS SHALL BE MULCHED WITH STRAW. MULCH SHALL BE SPREAD UNIFORMLY IN A CONTINUOUS BLANKET OF SUFFICENT THICKNESS TO COMPLETELY HIDE THE SOIL FROM VIEW.
23. AN EROSION CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF PROJECT PRIOR TO COMMENCEMENT OF DEMOLITION OR CONSTRUCTION ACTIVITIES.
24. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EROSION AND SEDIMENT CONTROLS AT THE COMPLETION OF SITE CONSTRUCTION.
25. MEANS OF EROSION AND SEDIMENT PROTECTION AS NOTED ON THE DRAWINGS INDICATE THE MINIMUM PROVISIONS NECESSARY. ADDITIONAL MEANS OF PROTECTION SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED FOR CONTINUED OR UNFORSEEN EROSION PROBLEMS, AT NO ADDITIONAL EXPENSE TO THE OWNER.
26. THE CONTRACTOR SHALL USE TEMPORARY SEEDING, MULCHING OR OTHER APPROVED STABILIZATION MEASURES TO PROTECT EXPOSED AREAS DURING PROLONGED CONSTRUCTION OR OTHER LAND DISTURBANCES.
27. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED PRIOR TO THE BEGINNING OF CONSTRUCTION CONSISTENT WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH CONDITIONS OF THE SWPPP THROUGHOUT CONSTRUCTION.



CONSTRUCTION ENTRANCE

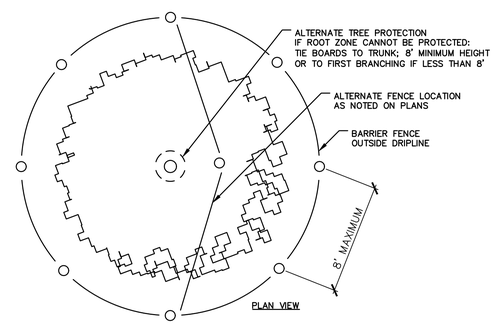
N.T.S.

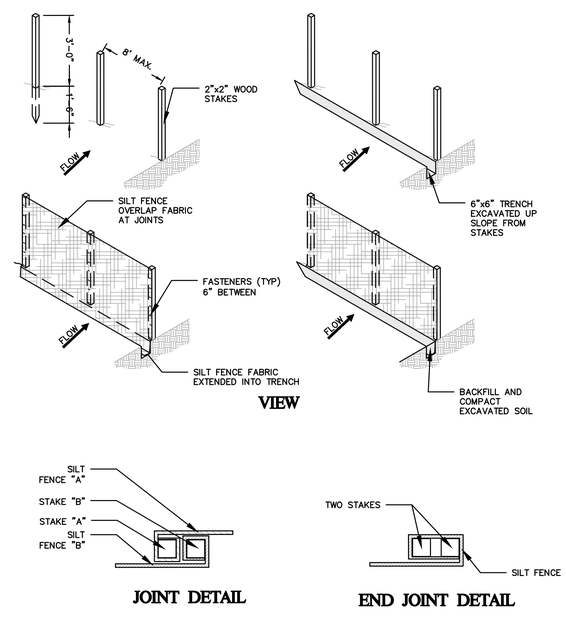


NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.
3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.
4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

MATERIALS STOCKPILE DETAIL

N.T.S.



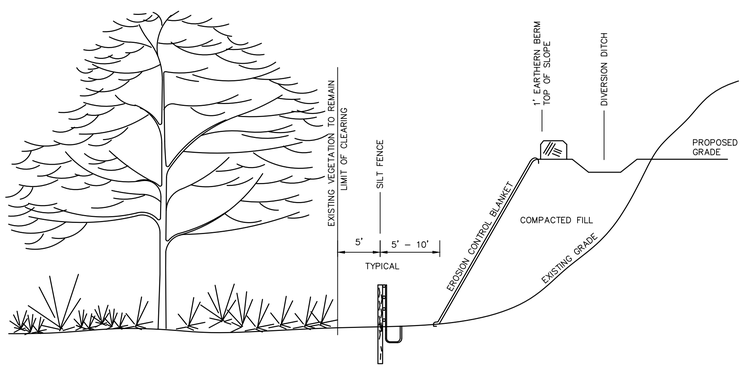


INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY AND PER SEDIMENTATION AND EROSION CONTROL NOTES. SILT FENCE SHALL BE REPLACED EVERY 6 MONTHS AND STACKS SHALL BE INSPECTED TO ENSURE STRUCTURAL INTEGRITY. SILT FENCE SHALL BE INSPECTED WEEKLY AND ALL MAINTENANCE ISSUES SHALL BE CORRECTED AT THAT TIME.

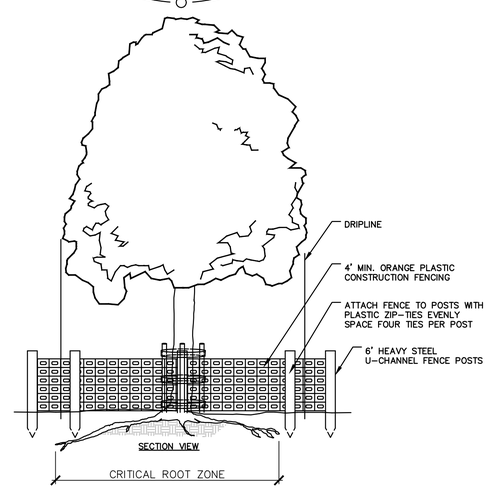
SILT FENCE

N.T.S.



TYPICAL EROSION CONTROL ON SLOPES

N.T.S. BLEC-011



TREE PROTECTION

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Jan 11, 2023, 2:05pm JWheeler G:\JOBS2\118\2101920\DWG\EC2101920.dwg
Layout: EC-02

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(203) 630-2615 Fax

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PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS

No.	Date	Desc.

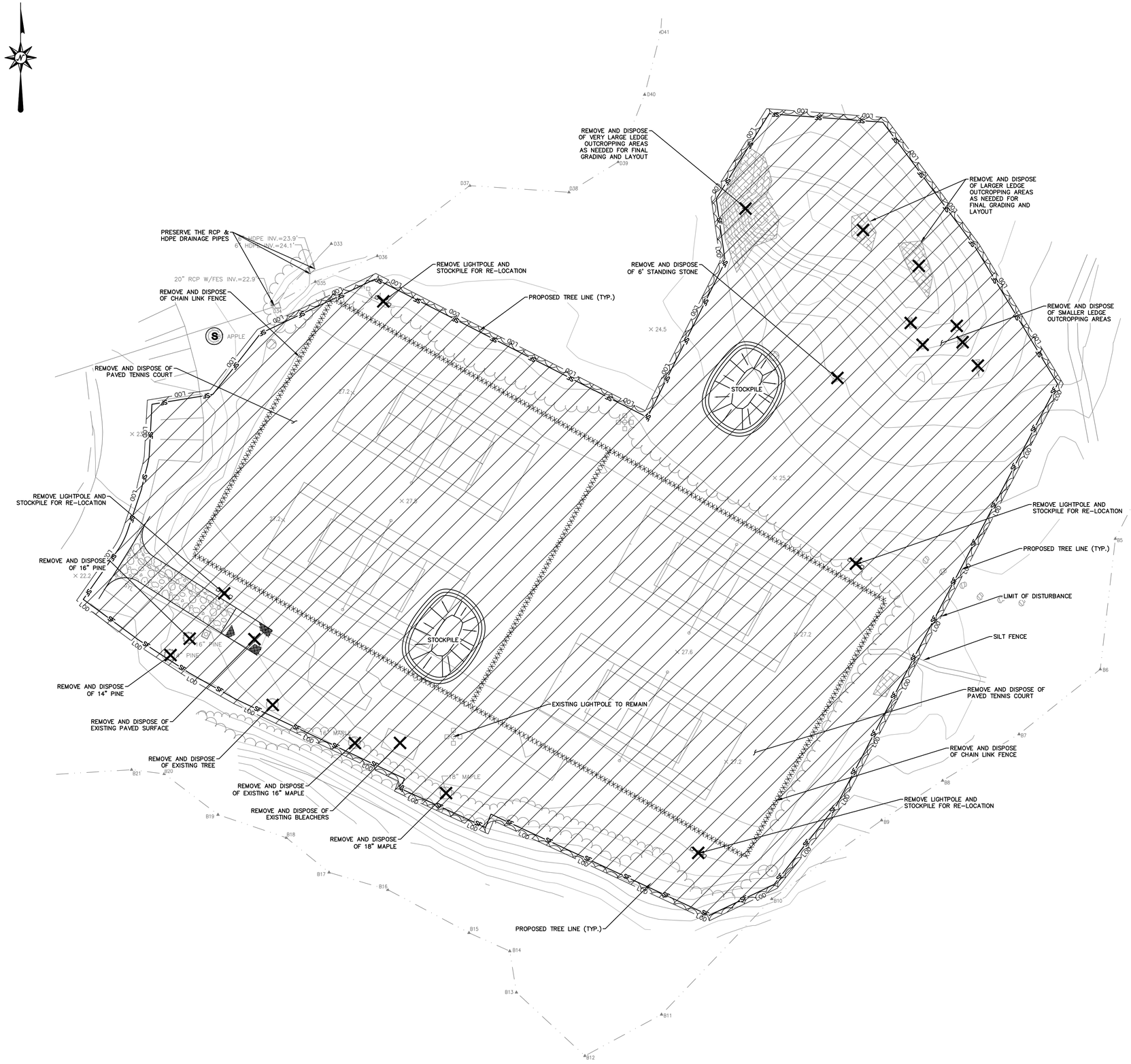
Surveyed	
Drawn	JW
Reviewed	JW
Scale	
Project No.	2101920
Date	01/03/2023

CAD File:

Title
SEDIMENTATION & EROSION CONTROL NOTES & DETAILS

Sheet No.
EC-02

Xref (s): : B21010875 : XC210192001 : XZ210192001



SITE PREPARATION LEGEND

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
SF	SILT FENCE
XXXXXXXXXXXXXXXX	REMOVE AND DISPOSE EXISTING FENCE
	REMOVE AND DISPOSE EXISTING LANDSCAPE
×	REMOVE AND DISPOSE OF EXISTING STRUCTURE/FURNISHING/LANDSCAPE ITEM
S	PROTECT EXISTING TREE TO REMAIN (SYMBOL NOT TO SCALE)
	PROPOSED TREELINE

REMOVAL AND DISPOSAL OF STRUCTURES AND FURNISHINGS SHALL INCLUDE FOUNDATION UNLESS OTHERWISE NOTED

GRUBBING NOTE
GRUBBING ACTIVITIES TO OCCUR IN STAGES AND ONLY WHERE EXCAVATION AND SUBSEQUENT STABILIZATION MEASURES ARE TO IMMEDIATELY FOLLOW.

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	DC
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title
SITE PREPARATION PLAN

Sheet No.
DM-01

Xref (s): : B22100875 : XZ210192001 : XO210192001

Jan 11, 2023 2:05pm JWheeler G:\JOBS21\18\2101920\DWG\DM2101920001.dwg
Layout: DM-01

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DRAWING KEY NOTES:

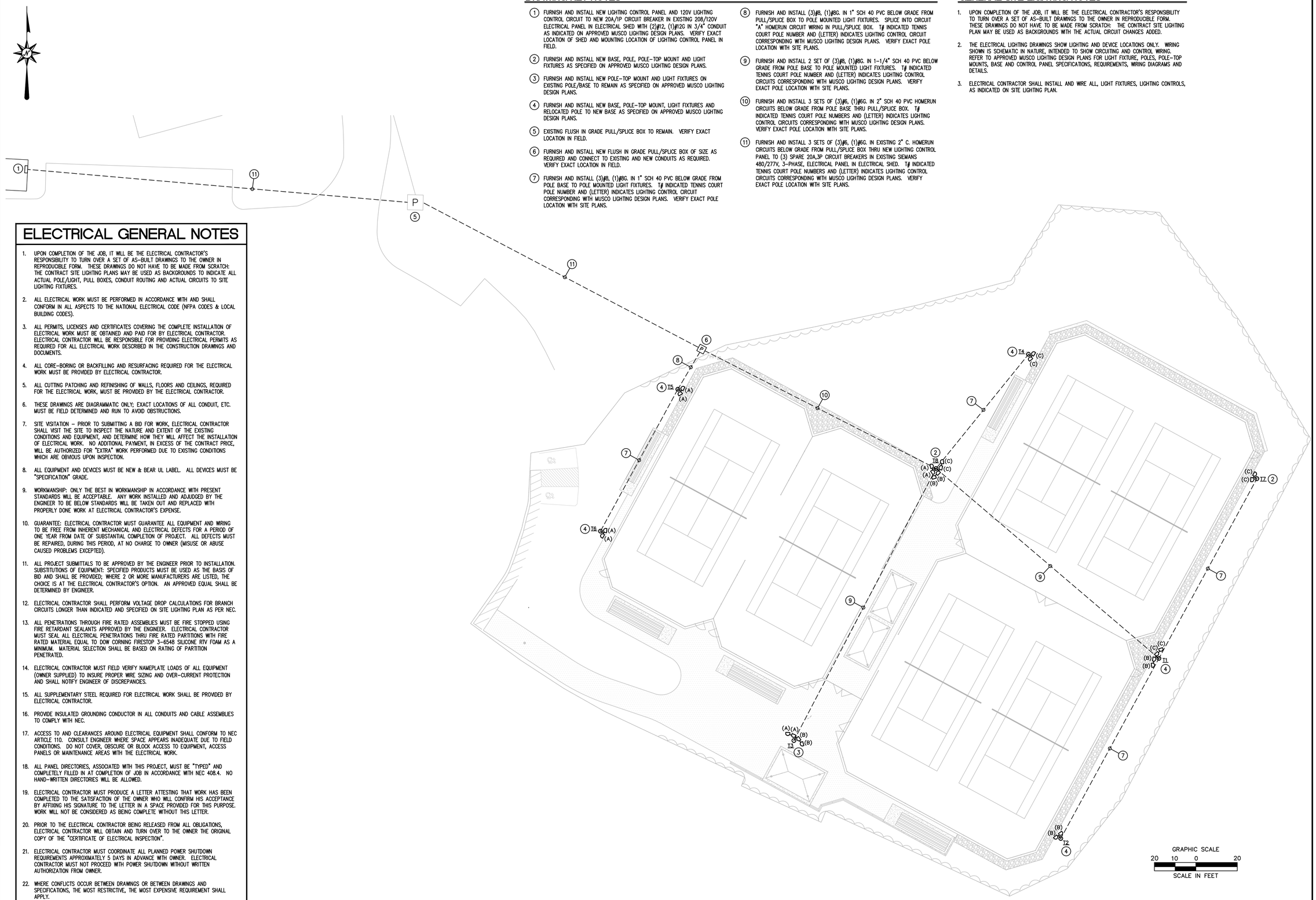
1. FURNISH AND INSTALL NEW LIGHTING CONTROL PANEL AND 120V LIGHTING CONTROL CIRCUIT TO NEW 20A/1P CIRCUIT BREAKER IN EXISTING 208/120V ELECTRICAL PANEL IN ELECTRICAL SHED WITH (2)#12, (1)#12G IN 3/4" CONDUIT AS INDICATED ON APPROVED MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT LOCATION OF SHED AND MOUNTING LOCATION OF LIGHTING CONTROL PANEL IN FIELD.
2. FURNISH AND INSTALL NEW BASE, POLE, POLE-TOP MOUNT AND LIGHT FIXTURES AS SPECIFIED ON APPROVED MUSCO LIGHTING DESIGN PLANS.
3. FURNISH AND INSTALL NEW POLE-TOP MOUNT AND LIGHT FIXTURES ON EXISTING POLE/BASE TO REMAIN AS SPECIFIED ON APPROVED MUSCO LIGHTING DESIGN PLANS.
4. FURNISH AND INSTALL NEW BASE, POLE-TOP MOUNT, LIGHT FIXTURES AND RELOCATED POLE TO NEW BASE AS SPECIFIED ON APPROVED MUSCO LIGHTING DESIGN PLANS.
5. EXISTING FLUSH IN GRADE PULL/SPLICE BOX TO REMAIN. VERIFY EXACT LOCATION IN FIELD.
6. FURNISH AND INSTALL NEW FLUSH IN GRADE PULL/SPLICE BOX OF SIZE AS REQUIRED AND CONNECT TO EXISTING AND NEW CONDUITS AS REQUIRED. VERIFY EXACT LOCATION IN FIELD.
7. FURNISH AND INSTALL (3)#8, (1)#8G. IN 1" SCH 40 PVC BELOW GRADE FROM POLE BASE TO POLE MOUNTED LIGHT FIXTURES. T# INDICATED TENNIS COURT POLE NUMBER AND (LETTER) INDICATES LIGHTING CONTROL CIRCUIT CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.
8. FURNISH AND INSTALL (3)#8, (1)#8G. IN 1" SCH 40 PVC BELOW GRADE FROM PULL/SPLICE BOX TO POLE MOUNTED LIGHT FIXTURES. SPLICE INTO CIRCUIT "A" HOMERUN CIRCUIT WIRING IN PULL/SPLICE BOX. T# INDICATED TENNIS COURT POLE NUMBER AND (LETTER) INDICATES LIGHTING CONTROL CIRCUIT CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.
9. FURNISH AND INSTALL 2 SET OF (3)#8, (1)#8G. IN 1-1/4" SCH 40 PVC BELOW GRADE FROM POLE BASE TO POLE MOUNTED LIGHT FIXTURES. T# INDICATED TENNIS COURT POLE NUMBER AND (LETTER) INDICATES LIGHTING CONTROL CIRCUITS CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.
10. FURNISH AND INSTALL 3 SETS OF (3)#6, (1)#6G. IN 2" SCH 40 PVC HOMERUN CIRCUITS BELOW GRADE FROM POLE BASE THRU PULL/SPLICE BOX. T# INDICATED TENNIS COURT POLE NUMBERS AND (LETTER) INDICATES LIGHTING CONTROL CIRCUITS CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.
11. FURNISH AND INSTALL 3 SETS OF (3)#6, (1)#6G. IN EXISTING 2" C. HOMERUN CIRCUITS BELOW GRADE FROM PULL/SPLICE BOX THRU NEW LIGHTING CONTROL PANEL TO (3) SPARE 20A,3P CIRCUIT BREAKERS IN EXISTING SIEMANS 480/277V, 3-PHASE, ELECTRICAL PANEL IN ELECTRICAL SHED. T# INDICATED TENNIS COURT POLE NUMBERS AND (LETTER) INDICATES LIGHTING CONTROL CIRCUITS CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.

GENERAL SITE LIGHTING NOTES:

1. UPON COMPLETION OF THE JOB, IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO TURN OVER A SET OF AS-BUILT DRAWINGS TO THE OWNER IN REPRODUCIBLE FORM. THESE DRAWINGS DO NOT HAVE TO BE MADE FROM SCRATCH: THE CONTRACT SITE LIGHTING PLAN MAY BE USED AS BACKGROUNDS WITH THE ACTUAL CIRCUIT CHANGES ADDED.
2. THE ELECTRICAL LIGHTING DRAWINGS SHOW LIGHTING AND DEVICE LOCATIONS ONLY. WIRING SHOWN IS SCHEMATIC IN NATURE, INTENDED TO SHOW CIRCUITING AND CONTROL WIRING. REFER TO APPROVED MUSCO LIGHTING DESIGN PLANS FOR LIGHT FIXTURE, POLES, POLE-TOP MOUNTS, BASE AND CONTROL PANEL SPECIFICATIONS, REQUIREMENTS, WIRING DIAGRAMS AND DETAILS.
3. ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE ALL, LIGHT FIXTURES, LIGHTING CONTROLS, AS INDICATED ON SITE LIGHTING PLAN.

ELECTRICAL GENERAL NOTES

1. UPON COMPLETION OF THE JOB, IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO TURN OVER A SET OF AS-BUILT DRAWINGS TO THE OWNER IN REPRODUCIBLE FORM. THESE DRAWINGS DO NOT HAVE TO BE MADE FROM SCRATCH: THE CONTRACT SITE LIGHTING PLANS MAY BE USED AS BACKGROUNDS TO INDICATE ALL ACTUAL POLE/LIGHT, PULL BOXES, CONDUIT ROUTING AND ACTUAL CIRCUITS TO SITE LIGHTING FIXTURES.
2. ALL ELECTRICAL WORK MUST BE PERFORMED IN ACCORDANCE WITH AND SHALL CONFORM IN ALL ASPECTS TO THE NATIONAL ELECTRICAL CODE (NFPA CODES & LOCAL BUILDING CODES).
3. ALL PERMITS, LICENSES AND CERTIFICATES COVERING THE COMPLETE INSTALLATION OF ELECTRICAL WORK MUST BE OBTAINED AND PAID FOR BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ELECTRICAL PERMITS AS REQUIRED FOR ALL ELECTRICAL WORK DESCRIBED IN THE CONSTRUCTION DRAWINGS AND DOCUMENTS.
4. ALL CORE-BORING OR BACKFILLING AND RESURFACING REQUIRED FOR THE ELECTRICAL WORK MUST BE PROVIDED BY ELECTRICAL CONTRACTOR.
5. ALL CUTTING PATCHING AND REFINISHING OF WALLS, FLOORS AND CEILINGS, REQUIRED FOR THE ELECTRICAL WORK, MUST BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
6. THESE DRAWINGS ARE DIAGRAMMATIC ONLY; EXACT LOCATIONS OF ALL CONDUIT, ETC. MUST BE FIELD DETERMINED AND RUN TO AVOID OBSTRUCTIONS.
7. SITE VISITATION – PRIOR TO SUBMITTING A BID FOR WORK, ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO INSPECT THE NATURE AND EXTENT OF THE EXISTING CONDITIONS AND EQUIPMENT, AND DETERMINE HOW THEY WILL AFFECT THE INSTALLATION OF ELECTRICAL WORK. NO ADDITIONAL PAYMENT, IN EXCESS OF THE CONTRACT PRICE, WILL BE AUTHORIZED FOR "EXTRA" WORK PERFORMED DUE TO EXISTING CONDITIONS WHICH ARE OBVIOUS UPON INSPECTION.
8. ALL EQUIPMENT AND DEVICES MUST BE NEW & BEAR UL LABEL. ALL DEVICES MUST BE "SPECIFICATION" GRADE.
9. WORKMANSHIP: ONLY THE BEST IN WORKMANSHIP IN ACCORDANCE WITH PRESENT STANDARDS WILL BE ACCEPTABLE. ANY WORK INSTALLED AND ADJUDGED BY THE ENGINEER TO BE BELOW STANDARDS WILL BE TAKEN OUT AND REPLACED WITH PROPERLY DONE WORK AT ELECTRICAL CONTRACTOR'S EXPENSE.
10. GUARANTEE: ELECTRICAL CONTRACTOR MUST GUARANTEE ALL EQUIPMENT AND WIRING TO BE FREE FROM INHERENT MECHANICAL AND ELECTRICAL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION OF PROJECT. ALL DEFECTS MUST BE REPAIRED, DURING THIS PERIOD, AT NO CHARGE TO OWNER (MISUSE OR ABUSE CAUSED PROBLEMS EXCEPTED).
11. ALL PROJECT SUBMITTALS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. SUBSTITUTIONS OF EQUIPMENT: SPECIFIED PRODUCTS MUST BE USED AS THE BASIS OF BID AND SHALL BE PROVIDED; WHERE 2 OR MORE MANUFACTURERS ARE LISTED, THE CHOICE IS AT THE ELECTRICAL CONTRACTOR'S OPTION. AN APPROVED EQUAL SHALL BE DETERMINED BY ENGINEER.
12. ELECTRICAL CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS FOR BRANCH CIRCUITS LONGER THAN INDICATED AND SPECIFIED ON SITE LIGHTING PLAN AS PER NEC.
13. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES MUST BE FIRE STOPPED USING FIRE RETARDANT SEALANTS APPROVED BY THE ENGINEER. ELECTRICAL CONTRACTOR MUST SEAL ALL ELECTRICAL PENETRATIONS THRU FIRE RATED PARTITIONS WITH FIRE RATED MATERIAL EQUAL TO DOW CORNING FIRESTOP 3-6548 SILICONE RTV FOAM AS A MINIMUM. MATERIAL SELECTION SHALL BE BASED ON RATING OF PARTITION PENETRATED.
14. ELECTRICAL CONTRACTOR MUST FIELD VERIFY NAMEPLATE LOADS OF ALL EQUIPMENT (OWNER SUPPLIED) TO INSURE PROPER WIRE SIZING AND OVER-CURRENT PROTECTION AND SHALL NOTIFY ENGINEER OF DISCREPANCIES.
15. ALL SUPPLEMENTARY STEEL REQUIRED FOR ELECTRICAL WORK SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
16. PROVIDE INSULATED GROUNDING CONDUCTOR IN ALL CONDUITS AND CABLE ASSEMBLIES TO COMPLY WITH NEC.
17. ACCESS TO AND CLEARANCES AROUND ELECTRICAL EQUIPMENT SHALL CONFORM TO NEC ARTICLE 110. CONSULT ENGINEER WHERE SPACE APPEARS INADEQUATE DUE TO FIELD CONDITIONS. DO NOT COVER, OBSCURE OR BLOCK ACCESS TO EQUIPMENT, ACCESS PANELS OR MAINTENANCE AREAS WITH THE ELECTRICAL WORK.
18. ALL PANEL DIRECTORIES, ASSOCIATED WITH THIS PROJECT, MUST BE "TYPED" AND COMPLETELY FILLED IN AT COMPLETION OF JOB IN ACCORDANCE WITH NEC 408.4. NO HAND-WRITTEN DIRECTORIES WILL BE ALLOWED.
19. ELECTRICAL CONTRACTOR MUST PRODUCE A LETTER ATTESTING THAT WORK HAS BEEN COMPLETED TO THE SATISFACTION OF THE OWNER WHO WILL CONFIRM HIS ACCEPTANCE BY AFFIXING HIS SIGNATURE TO THE LETTER IN A SPACE PROVIDED FOR THIS PURPOSE. WORK WILL NOT BE CONSIDERED AS BEING COMPLETE WITHOUT THIS LETTER.
20. PRIOR TO THE ELECTRICAL CONTRACTOR BEING RELEASED FROM ALL OBLIGATIONS, ELECTRICAL CONTRACTOR WILL OBTAIN AND TURN OVER TO THE OWNER THE ORIGINAL COPY OF THE "CERTIFICATE OF ELECTRICAL INSPECTION".
21. ELECTRICAL CONTRACTOR MUST COORDINATE ALL PLANNED POWER SHUTDOWN REQUIREMENTS APPROXIMATELY 5 DAYS IN ADVANCE WITH OWNER. ELECTRICAL CONTRACTOR MUST NOT PROCEED WITH POWER SHUTDOWN WITHOUT WRITTEN AUTHORIZATION FROM OWNER.
22. WHERE CONFLICTS OCCUR BETWEEN DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATIONS, THE MOST RESTRICTIVE, THE MOST EXPENSIVE REQUIREMENT SHALL APPLY.



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No.	Date	Desc.

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Drawn	DT
Reviewed	MWB
Scale	1"=20'-0"
Project No.	2101920
Date	10/12/2022
CAD File:	EL2101901

Title

SITE LIGHTING PLAN

Sheet No.

EL-01

Xref (s): ; BR2100875 ; XC2101920I ; XC2101920Z ; XZ2101920I ; XZ2101920Z ; XEL2101920-01

Jan 11, 2023 2:05pm JWheeler G:\JOBS21\18\2101920\DWG\ELD\2101920I.dwg
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26-0500 (16050) – ELECTRICAL GENERAL PROVISIONS

A. CODES, REGULATIONS, AND STANDARDS

REGULATORY REQUIREMENTS: ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. WHERE APPROVAL STANDARDS HAVE BEEN ESTABLISHED BY OSHA, UL, ASME, AGA, AMCA, ANSI, ARI, NFPA, THE STATE FIRE INSURANCE REGULATORY BODY, AND FM, FOLLOW THESE STANDARDS WHETHER INDICATED ON THE DRAWINGS AND SPECIFICATIONS. INCLUDE COST OF WORK REQUIRED TO COMPLY WITH REQUIREMENTS OF THESE AUTHORITIES IN THE ORIGINAL PROPOSAL. COMPLY WITH IEEE C2 WHERE APPLICABLE.

ALL ELECTRICAL SYSTEMS WILL BE DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE STATE BUILDING CODE INCLUDING ANY SUPPLEMENT(S) AND/OR AMENDMENT(S).

FURTHER, ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING APPROVED CODES AND STANDARDS:

1. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70 – NATIONAL ELECTRICAL CODE (NEC).
2. INTERNATIONAL BUILDING CODE (IBC).
3. INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
4. NFPA 72 – NATIONAL FIRE ALARM AND SIGNALING CODE.
5. NFPA 101 – LIFE SAFETY CODE.
6. UNDERWRITER'S LABORATORY (UL) 924 – STANDARD FOR SAFETY OF EMERGENCY LIGHTING AND POWER EQUIPMENT.
7. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
8. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
9. ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA).
10. AMERICANS WITH DISABILITIES ACT (ADA).
11. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
12. INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS (IEEE).
13. ELECTRICAL TESTING LABORATORIES (ETL).
14. AMERICAN SOCIETY OF HEATING AND AIR-CONDITIONING ENGINEERS (ASHRAE) 90.1 – ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS.

B. DEFINITIONS

1. "FURNISH": SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
2. "INSTALL": UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT PROJECT SITE.
3. "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
4. "PROJECT SITE": SPACE AVAILABLE FOR PERFORMING CONSTRUCTION ACTIVITIES. THE EXTENT OF PROJECT SITE IS SHOWN ON DRAWINGS AND MAY OR MAY NOT BE IDENTICAL WITH THE DESCRIPTION OF THE LAND ON WHICH PROJECT IS TO BE BUILT.
5. "NEW": MANUFACTURED WITHIN THE LAST TWO-YEARS AND NEVER USED.
6. "EQUAL", "ACCEPTABLE", "EQUIVALENT": ACCEPTABLE FOR USE ON THE PROJECT, AS DETERMINED BY THE ENGINEER, BASED UPON DOCUMENTS PRESENTED FOR SUCH DETERMINATION.
7. "INDICATED": REQUIREMENTS EXPRESSED BY GRAPHIC REPRESENTATIONS OR IN WRITTEN FORM ON DRAWINGS, IN SPECIFICATIONS, AND IN OTHER CONTRACT DOCUMENTS. OTHER TERMS INCLUDING "SHOWN," "NOTED," "SCHEDULED," AND "SPECIFIED" HAVE THE SAME MEANING AS "INDICATED."

C. SCOPE

WORK UNDER THE ELECTRICAL CONTRACT SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

D. GENERAL REQUIREMENTS

AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, EACH BIDDER SHALL VISIT THE SITE TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED; NO EXTRA COMPENSATION WILL BE AWARDED IF THE CONTRACTOR FAILS TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT HE MAY HAVE NOTICED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS OF HIS OWN, OR OTHERS, AT THE SITE, AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME AS RELATED TO HIS WORK.

OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRE STOPPED USING APPROVED METHODS. SEALANT SHALL BE RATED FOR 3-HOURS.

SLEEVE-SEAL SYSTEMS SHALL BE MODULAR SEALING DEVICE TYPE, DESIGNED FOR FIELD ASSEMBLY TO FILL ANNULAR SPACE BETWEEN SLEEVE AND RACEWAY OR CABLE. SEALING ELEMENTS SHALL BE EPDM RUBBER INTERLOCKING LINKS SHAPED TO FIT THE SURFACE AND PIPE. INCLUDE TYPE AND NUMBER REQUIRED FOR PIPE MATERIAL AND SIZE OF PIPE. PRESSURE PLATES SHALL BE STAINLESS STEEL WITH CONNECTING BOLTS/NUTS OF STAINLESS STEEL, LENGTH AS REQUIRED TO SECURE PRESSURE PLATES TO SEALING ELEMENTS.

PROVIDE DANGER LABELING AT ALL EQUIPMENT AND JUNCTION/PULL BOXES PER CODE.

ALL PANELBOARD COVERS SHALL BE REPLACED AT THE COMPLETION OF EACH DAY'S WORK. MAINTAIN GROUND CONTINUITY THROUGHOUT ALL SYSTEMS.

PRIOR TO ANY CHIPPING, CHASING, OR CHOPPING BEING PERFORMED, THE CONTRACTOR SHALL FIELD INVESTIGATE CONDITIONS AND COORDINATE WITH ALL APPROPRIATE TRADES TO ENSURE THAT WORK WILL BE IN HARMONY WITH OTHER WORK AND NOT AFFECT ANY EXISTING BUILDING SYSTEMS.

CLEANING

REMOVE CONSTRUCTION DEBRIS RESULTING FROM THIS WORK. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE DETAILED PROCEDURES SPECIFIED HEREIN, OR AS DICTATED BY OWNER AT SITE.

EXCESS ELECTRICAL MATERIALS AND WASTE SHALL BE REMOVED FROM THE SITE DURING REGULAR BUSINESS HOURS AND SHALL BE TAKEN OFF-SITE NO LATER THAN THE START OF THE NEXT BUSINESS DAY. NO DEBRIS SHALL BE ALLOWED TO ACCUMULATE ON THE SITE. THE CONSTRUCTION SITE SHALL BE SWEPT CLEAN EACH DAY AND NO DUST OR DEBRIS SHALL BE PERMITTED TO ENTER THE AREA DRAINS.

ALL EXCESS ELECTRICAL MATERIALS AND WASTE SHALL BE TAKEN FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS. IF ANY EQUIPMENT IS REQUIRED TO BE TURNED OVER TO THE OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION (COORDINATE LOCATION AND EQUIPMENT WITH OWNER).

E. PERMITS, FEES AND INSPECTIONS

THE ELECTRICAL CONTRACTOR SHALL:

1. GIVE ALL NECESSARY NOTICES.
2. ARRANGE WITH LOCAL AND STATE AUTHORITIES AND UTILITY COMPANIES FOR PERMITS AND SERVICE CONNECTIONS, VERIFYING LOCATIONS AND ARRANGEMENT.
3. SHALL INCLUDE IN HIS BID THE COST OF REQUIRED GOVERNMENT AND STATE SALES TAXES AND ALL APPLICABLE FEES INCLUDING INSPECTIONS.
4. THE CONTRACTOR SHALL FILE ALL DRAWINGS, COMPLETE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS FROM THE PROPER AUTHORITY OR AGENCY HAVING JURISDICTION.
5. SEE THAT ALL REQUIRED INSPECTIONS AND TESTS ARE MADE, AND OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION COVERING HIS WORK.

F. SUBMITTALS

SHOP DRAWINGS SUBMITTALS SHALL CONSIST OF ELECTRONIC FILES IN PDF FORMAT, OR AS SPECIFIED ELSEWHERE WITH IN THESE DOCUMENTS. SUBMIT SHOP DRAWINGS OF, BUT NOT LIMITED TO, THE FOLLOWING:

1. CONDUIT AND CONDUCTORS
2. SAFETY SWITCHES, DISCONNECTS, AND FUSES
3. CIRCUIT BREAKERS AND ENCLOSURES
4. LIGHTING FIXTURES AND LAMPS

J. MAINTENANCE OF EXISTING FACILITIES AND CONDUCT OF WORK

THIS FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PROGRESS OF THE WORK; WHEN NECESSARY TO TEMPORARILY HALT BUILDING EGRESS OR FLOW OF PERSONNEL TRAFFIC, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON; IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED ROUTINE OF THE OCCUPANTS.

THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ALL COORDINATION OF HIS WORK WITH OTHER TRADES IN ORDER THAT ALL WORK MAY PROCEED WITH A MINIMUM OF DELAY AND INTERFERENCE. THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES; WHERE SUCH WORK IS NECESSARY, THE WORK SHALL BE PATCHED AND/OR REPAIRED IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER.

NO WORK SHALL BE LEFT INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS; AT NO TIME SHALL THE WORK INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.

WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUIT SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A MUTUALLY AGREED UPON TIME.

MAINTAIN EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATIONS DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED.

K. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY

PROVIDE LABOR, MATERIALS, APPARATUS, AND APPLIANCES ESSENTIAL TO THE COMPLETE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHETHER MENTIONED IN THE CONTRACT DOCUMENTS OR NOT. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED FOR THE DESCRIBED APPLICATION.

WORK SHALL BE FIRST-CLASS IN EVERY RESPECT AND SHALL BE NEATLY PERFORMED IN A PRACTICAL AND WORKMANLIKE MANNER BY PROFICIENT ELECTRICIANS SKILLED IN THE WORK THEY ARE TO DO, USING THE BEST PRACTICES OF THEIR TRADE, AND UNDER CONTINUOUS AND COMPETENT SUPERVISION.

THE WORK SHALL BE WELL ORGANIZED IN OPERATION, AND CARRIED OUT EFFICIENTLY WITHOUT DELAYS WHICH MAY IMPEDE PROGRESS OR THE QUALITY OF THE WORK OF OTHER TRADES AND THE JOB AS A WHOLE.

MATERIAL AND EQUIPMENT PROVIDED SHALL BE NEW AND APPROVED FOR THE APPLICATION AND SHALL CONFORM WITH THE SPECIFIED CODES AND STANDARDS; DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED IN A MANNER SATISFACTORY TO THE OWNER.

ELECTRICAL MATERIAL AND METHODS SHALL BE UL OR ETL LISTED AND FM APPROVED FOR THEIR INTENDED USE.

L. TESTS, INSPECTION AND APPROVAL

INSPECT EQUIPMENT, COMPONENTS AND MATERIALS INSTALLED OR CONNECTED UNDER THIS CONTRACT TO ENSURE:

1. PROPER CONDITIONS
2. COMPONENTS ARE IN PLACE ALIGNED AND SECURE
3. PROPER INTERNAL CONNECTIONS

BEFORE ENERGIZING ANY FACTORY FABRICATED EQUIPMENT, INSPECT EACH UNIT IN DETAIL; BOLTS AND CONNECTIONS SHALL BE TIGHT (TORQUE/TIGHTEN WHERE REQUIRED), COMPONENTS SHALL BE ALIGNED, AND THE EQUIPMENT SHALL BE IN SAFE, OPERATIONAL CONDITION.

THE COMPLETE ELECTRICAL SYSTEM SHALL BE FREE OF GROUNDS AND SHORT CIRCUITS AND SHALL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

N. SERVICE MANUALS

UPON COMPLETION OF THE WORK, FULLY INSTRUCT THE OWNER AS TO THE OPERATION AND MAINTENANCE OF MATERIAL, EQUIPMENT, AND SYSTEMS. PROVIDE (3) COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING SYSTEMS AND EQUIPMENT.

O. RECORD DRAWINGS

MAINTAIN, AT THE JOB SITE, A SET OF ELECTRICAL DRAWINGS INDICATING ALL CHANGES IN LOCATION OF EQUIPMENT, PANELS, DEVICES AND CIRCUIT NUMBERS FROM THE ORIGINAL LAYOUT. PLAINLY MARK IN RED, ALL CHANGES ON THE DRAWINGS. AT THE COMPLETION OF THE PROJECT, PROVIDE A COMPLETE SET OF AS-BUILT REPRODUCIBLE DRAWINGS SHOWING ALL CHANGES AND TURN OVER TO THE OWNER.

P. GUARANTEE

FURNISH, IN WRITING, A COMPLETE GUARANTEE AGAINST DEFECTIVE MATERIALS AND IMPROPER WORKMANSHIP, SATISFACTORY TO OWNER, FOR PARTS, COMPONENTS, AND OPERATION FOR A PERIOD OF (1) YEAR FROM THE DATE OF ACCEPTANCE, BY THE OWNER, OF THE COMPLETE INSTALLATION.

GUARANTEE SHALL INCLUDE COMPLETE MAINTENANCE OF SYSTEMS, INCLUDING REPLACEMENT PARTS, LABOR AND MATERIALS TO MAINTAIN THE SYSTEMS IN PROPER OPERATING CONDITION FOR THE GUARANTEE PERIOD.

Q. CUTTING AND PATCHING

ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED FOR THE WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

CUTTING OF BEAMS, FLOORS OR WALLS FOR PIPING OR CONDUIT, SHALL BE DONE ONLY AS APPROVED BY THE OWNER.

PROVIDE DRILLING AND PATCHING FOR EXPANSION BOLTS, HANGERS, AND OTHER SUPPORTS FOR PROPER AND SAFE INSTALLATION OF THE WORK.

PROVIDE UL LISTED ASSEMBLIES FOR FIRE STOPPING AND SEALING AROUND PENETRATIONS THROUGH RATED ASSEMBLIES; REFER TO ARCHITECTURAL SPECIFICATIONS.

PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.

26-0519 (16120) – LOW VOLTAGE POWER CONDUCTORS AND CABLES

A. BUILDING WIRE

HOMERUNS, FEEDERS AND BRANCH CIRCUITS NO. 8 AWG AND LARGER: COPPER, STRANDED CONDUCTOR, 600 VOLT INSULATION, XHHW-2, IN ACCORDANCE WITH NEMA WC5 AND NEMA WC3.

HOMERUNS, FEEDERS AND BRANCH CIRCUITS NO. 10 AWG AND SMALLER: COPPER CONDUCTOR, 600 VOLT INSULATION, XHHW-2; SOLID CONDUCTOR IN ACCORDANCE WITH NEMA WC5.

CONTROL WIRING SHALL BE COPPER, STRANDED CONDUCTOR 600 VOLT INSULATION, THHN/THWN-2, IN SINGLE CONDUCTORS OR PREFERABLY MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES SHALL BE PROVIDED WITH AN OVERALL FLAME-RETARDANT EXTRUDED JACKET, RATED FOR PLENUM USE.

B. WIRING CONNECTIONS AND SPLICES

CONDUCTORS NO. 8 AWG AND SMALLER SHALL BE TWISTED AND MADE MECHANICALLY TIGHT, THEN SECURED WITH PIGTAIL CONNECTORS – SELF-INSULATING, WIRE NUT CONNECTORS. CRIMP TYPE CONNECTORS SHALL NOT BE USED. UTILIZE UL LISTED "SILICON FILLED" PIGTAIL CONNECTORS WHERE LOCATED IN WET ENVIRONMENTS, OUTDOORS, OR IN DATA PROCESSING/COMMUNICATION ROOM RAISED FLOOR CAVITIES.

SPLICE OR TAP STRANDED COPPER CONDUCTORS (NO. 6 AWG AND LARGER) WITH PRESSURE INDENT, HIGH CONDUCTIVITY, WROUGHT COPPER, COLOR-KEYED COMPRESSION TYPE CONNECTORS – BURNDY, NEPCO, T&B, OR O.Z. GEDNEY WITH COMPOSITION INSULATING COVERS.

C. GENERAL WIRING METHODS

PROVIDE CONDUCTORS OF CONTINUOUS LENGTH WITHOUT JOINT OR SPLICE.

NEATLY TRAIN AND LACE WIRING INSIDE BOXES AND POLES.

USE NO WIRE SMALLER THAN NO. 10 AWG FOR POWER AND LIGHTING CIRCUITS, AND NO SMALLER THAN NO. 12 AWG FOR CONTROL WIRING.

PROVIDE NEUTRAL CONDUCTOR OF THE SAME SIZE AS THE PHASE CONDUCTORS IT IS ASSOCIATED WITH. COMMON NEUTRALS SHALL NOT BE USED FOR BRANCH CIRCUITS.

HOMERUNS AND BRANCH CIRCUIT CONDUCTOR SIZE SHALL BE AS INDICATED ON PLANS.

PROVIDE APPROPRIATELY SIZED LUGS AND TERMINATIONS AT ALL EQUIPMENT. DO NOT REDUCE WIRE SIZE AT EQUIPMENT LUGS.

D. WIRING INSTALLATIONS IN RACEWAY

PULL ALL CONDUCTORS INTO A RACEWAY AT THE SAME TIME. USE UL LISTED WIRE PULLING LUBRICANT. DO NOT EXCEED MANUFACTURER'S RECOMMENDED TENSION.

COMPLETELY AND THOROUGHLY SWAB RACEWAY SYSTEM BEFORE INSTALLING CONDUCTORS.

DO NOT INSTALL CONDUCTORS WHICH HAVE BEEN REMOVED FROM A RACEWAY. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND SHALL NOT BE RE-PULLED.

INSTALL XHHW-2 CONDUCTORS IN RACEWAY FOR SERVICE ENTRANCE CONDUCTORS, AND UNDERGROUND FEEDERS AND BRANCH CIRCUITS.

INSTALL THHN/THWN-2 CONDUCTORS IN RACEWAYS FOR ABOVE-GRADE FEEDERS AND BRANCH CIRCUITS.

PROVIDE HOMERUN AND FEEDER CONDUCTORS OF CONTINUOUS LENGTH WITHOUT JOINT OR SPLICE FROM OVERCURRENT DEVICE TO FIRST LIGHT POLE.

26-0526 (16060) – GROUNDING AND BONDING

PROVIDE GROUNDING SYSTEMS, INCLUDING POWER SYSTEM GROUNDING, ELECTRICAL EQUIPMENT AND RACEWAY GROUNDING AND BONDING, STRUCTURAL STEEL GROUNDING, AND MISCELLANEOUS SYSTEM GROUNDING.

BUILDING EQUIPMENT GROUND:

1. PROVIDE A SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUITS. TERMINATE EACH END ON A GROUNDING LUG, BUS, OR BUSHING. DO NOT USE CONDUIT AS GROUNDING CONDUCTOR.
2. PROVIDE OZ GEDNEY TYPE 'BJ' BONDING JUMPER AT ALL EXPANSION JOINTS, POINTS OF ELECTRICAL DISCONTINUITY OR CONNECTIONS IN CONDUIT WHERE FIRM MECHANICAL BOND IS NOT POSSIBLE, SUCH AS FLEXIBLE CONNECTIONS, INSULATION COUPLINGS, ETC.
3. BOND EVERY ITEM OF EQUIPMENT SERVED BY THE ELECTRICAL SYSTEM TO THE BUILDING EQUIPMENT GROUND SYSTEM. THIS INCLUDES NEW SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, RECEPTACLES, CONTROLS, FANS, AIR HANDLING UNITS, PUMPS AND FLEXIBLE DUCT CONNECTIONS.

PROVIDE SUPPLEMENTARY GROUND BONDING WHERE METALLIC CONDUITS TERMINATE AT METAL CLAD EQUIPMENT (OR AT THE METAL PULL BOX OF EQUIPMENT) FOR WHICH A GROUND BUS IS SPECIFIED. ACCOMPLISH THIS BY EQUIPPING THE CONDUITS WITH A BUSHING OF THE GROUNDING TYPE CONNECTED INDIVIDUALLY TO GROUND BUS.

ALL GROUND WIRES SHALL BE SUITABLY PROTECTED FROM MECHANICAL INJURY.

BARE COPPER CONDUCTORS:

1. SOLID CONDUCTOR: ASTM B 3.
2. STRANDED CONDUCTORS: ASTM B 8.
3. TINNED CONDUCTORS: ASTM B 33.
4. BONDING CABLE: 28 KCMIL, 14 STRANDS OF NO. 17 AWG CONDUCTOR, 1/4 INCH (6 MM) IN DIAMETER.
5. BONDING CONDUCTOR: NO. 4 OR NO. 6 AWG, STRANDED CONDUCTOR.
6. BONDING JUMPER AND TINNED BONDING JUMPER: COPPER TAPE AND TINNED-COPPER TAPE, BRAIDED CONDUCTORS TERMINATED WITH COPPER FERRULES; 1-5/8 INCHES (41 MM) WIDE AND 1/16 INCH (1.6 MM) THICK.

GROUNDING BUS SHALL BE PRE-DRILLED RECTANGULAR BARS ON ANNEALED COPPER, 1/4 BY 8 INCHES (6.3 BY 200MM) IN CROSS SECTION MINIMUM, WITH 9/32 INCH (7.14MM) HOLES SPACED 1-1/8 INCHES (28MM) APART. STAND-OFF INSULATORS FOR MOUNTING SHALL COMPLY WITH UL 891 FOR USE IN SWITCHBOARDS, 600V AND SHALL BE LEXAN OR PVC. INSTALL IN ELECTRICAL EQUIPMENT ROOMS, ROOMS HOUSING SERVICE ENTRANCE EQUIPMENT, AND ELSEWHERE AS INDICATED.

CONNECTORS SHALL BE LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS IN WHICH USED AND FOR SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS CONNECTED.

WELDED CONNECTORS: EXOTHERMIC-WELDING KITS OF TYPES RECOMMENDED BY KIT MANUFACTURER FOR MATERIALS BEING JOINED AND INSTALLATION CONDITIONS.

GROUND RODS: COPPER-CLAD STEEL; 3/4 INCH BY 10 FEET (19 MM BY 3 M).

26-0533 (16130/16132) – RACEWAY AND BOXES

A. PULL AND JUNCTION BOXES

PROVIDE GALVANIZED SHEET METAL BOXES SHALL BE 4-11/16 INCH SQUARE OR LARGER CONFORMING TO NEMA OS 1.

PULL BOXES AND JUNCTION BOXES SHALL BE SIZED SO THAT THE MINIMUM BENDING RADIUS CRITERIA SPECIFIED FOR THE WIRES AND CABLE ARE MAINTAINED.

INCLUDE ALL REQUIRED JUNCTION/PULL BOXES REGARDLESS OF INDICATIONS ON THE DRAWINGS (WHICH DUE TO SYMBOLIC METHODS OF NOTATION, MAY NOT SHOW ALL THAT ARE REQUIRED.)

PROVIDE PULL OR JUNCTION BOXES IN ACCESSIBLE LOCATIONS WHERE SHOWN, AT LEAST EVERY 150-FEET IN STRAIGHT RUNS, AS REQUIRED BY CODE, OR AS NEEDED FOR PROPER INSTALLATION OF WIRING AND JUNCTIONS.

SET BOXES INSTALLED IN CONCEALED LOCATIONS FLUSH WITH THE FINISH SURFACES, AND PROVIDE WITH THE PROPER TYPE EXTENSION RINGS AND/OR COVERS WHERE REQUIRED.

ALL EQUIPMENT, DEVICE BOXES, JUNCTION BOXES, PULL BOXES AND OUTLET BOXES SHALL BE INSTALLED TO ALLOW ACCESS TO THE BOX.

IDENTIFY ALL JUNCTION BOXES BY PANEL AND CIRCUIT NUMBERS ON COVER WITH LEGIBLE PERMANENT INK MARKER.

BOXES AND ENCLOSURES INSTALLED ON CONCRETE SURFACES SHALL BE PROVIDED WITH 1/4 INCH AIR GAP MINIMUM.

B. CONDUIT MATERIALS

PROVIDE RIGID GALVANIZED STEEL CONDUIT (RGS) AND FITTINGS IN ACCORDANCE WITH ANSI C80.1; HOT DIP GALVANIZED UNLESS OTHERWISE SPECIFIED.

PROVIDE ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS IN ACCORDANCE WITH ANSI C80. 3; HOT-DIPPED GALVANIZED TUBING UNLESS OTHERWISE SPECIFIED.

RIGID NON-METALLIC CONDUIT (RNC) SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40, UNLESS OTHERWISE NOTED.

THREADED FITTINGS SHALL BE USED WITH RGS CONDUIT. STEEL SET SCREW OR STEEL COMPRESSION FITTINGS SHALL BE USED WITH EMT.

C. CONDUIT SIZING, ARRANGEMENT AND SUPPORT

MINIMUM SIZE OF CONDUIT SHALL BE 3/4-INCH.

CONDUIT SIZES INDICATED ON THE DRAWINGS ARE MINIMUM BASED ON XHHW-2, COPPER WIRE AND LARGER SIZES MAY BE USED FOR CONVENIENCE OF WIRE PULLING.

CONCEAL CONDUIT IN CEILING AND WALLS IN ALL FINISHED AREAS OF THE BUILDING. IN UNFINISHED AREAS WITHOUT CEILINGS, CONDUIT MAY BE RUN EXPOSED OVERHEAD.

INSTALL ALL CONDUIT, INCLUDING CONDUIT ABOVE ACCESSIBLE CEILING, PARALLEL OR PERPENDICULAR TO WALLS AND ADJACENT PIPING.

MAINTAIN MINIMUM 6-INCH CLEARANCE BETWEEN CONDUIT AND PIPING. MAINTAIN 12-INCH CLEARANCE BETWEEN CONDUIT AND HEAT SOURCES SUCH AS FLUES, STEAM PIPES, HOT WATER PIPES, AND HEATING APPLIANCES. WHERE CROSSINGS ARE UNAVOIDABLE, CONDUIT SHALL BE KEPT AT LEAST 1-INCH FROM THE INSULATED COVERING OF THE PIPE AND CROSS PERPENDICULAR.

ROUTE CONDUIT TO ALLOW FOR EQUIPMENT ACCESS AND MAINTENANCE.

ARRANGE CONDUIT SUPPORTS TO PREVENT DISTORTION OF ALIGNMENT BY WIRE PULLING OPERATIONS. FASTEN CONDUIT SECURELY TO BUILDING STRUCTURE USING CLAMPS, HANGERS AND THREADED ROD.

THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC; BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCE.

FOR ALL SIZES OF CONDUIT LARGER THEN 1-1/2 INCHES, USE STANDARD MANUFACTURED ELBOWS. IN SMALLER SIZES, FIELD BENDS WILL BE PERMITTED INSTEAD OF USING MANUFACTURED ELBOWS BUT CARE MUST BE TAKEN NOT TO DAMAGE THE CONDUIT. THE RADIUS OF THE INNER CURVE OF ANY BEND SHALL NOT BE ANY LESS THAN THAT PERMITTED BY CODE.

CONDUIT SHALL BE SECURELY FASTENED IN PLACE. HANGERS, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW AND AT EACH END OF STRAIGHT CONDUIT RUN TERMINATED AT A BOX OR CABINET. WHERE RISER CONDUITS PIERCE FLOOR SLABS, THEY SHALL REST ON EACH FLOOR WITH APPROVED BEAM CLAMPS, PIPE STRAPS OR HEAVY IRON TIES WIRED TO THE STRUCTURAL MEMBERS SUPPORTING EQUIPMENT. SIZE AND TYPE OF ANCHOR SHALL BE BASED ON THE COMBINED WEIGHTS OF CONDUIT, HANGER AND CABLES. ALL HANGERS AND RODS SHALL BE PAINTED WITH ONE COAT OF ENAMEL.

INSTALL CONDUIT EXPANSION FITTINGS IN EACH CONDUIT RUN WHEREVER IT CROSSES AN EXPANSION JOINT AND WHEREVER THE CONDUIT LENGTH EXCEEDS 200-FEET.

D. CONDUIT/BOX APPLICATION INDOORS

1. EXPOSED AREAS NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
2. EXPOSED AREAS SUBJECT TO PHYSICAL DAMAGE: RGS BELOW 48 INCHES AND EMT 48 INCHES ABOVE FINISHED FLOOR. AREAS SUBJECT TO PHYSICAL DAMAGE INCLUDE, BUT ARE NOT LIMITED TO MECHANICAL AND ELECTRICAL ROOMS, RECEIVING AREA, MAINTENANCE SHOP, BOILER ROOM, SPRINKLER ROOM, AND LIKE UTILITY ROOMS, ETC.
3. AREAS SUBJECT TO MOISTURE, CORROSIVE AGENTS, PHYSICAL ABUSE, IN UNCONDITIONED SPACES, OR CONDUIT SIZES GREATER THAN 4 INCH: RGS.
4. DO NOT USE ELECTRICAL METALLIC TUBING IN AREAS SUBJECT TO MOISTURE, CORROSIVE AGENTS, OR PHYSICAL ABUSE.
5. CONCEALED IN CEILINGS AND WALLS: EMT.
6. CAST IN CONCRETE OR BELOW CONCRETE SLABS: RNC – SCHEDULE 40 PVC. EXCEPTION, EXPOSED CONDUIT ENTERING/EXITING THE CONCRETE SHALL BE RGS.
7. CONNECTION TO VIBRATING EQUIPMENT: IN AREAS SUBJECT TO MOISTURE, HIGH HUMIDITY, OR CORROSIVE AGENTS, USE LIQUID-TIGHT FLEXIBLE METAL STEEL CONDUIT (LFMC).
8. PLENUM SPACES: WIRING METHODS IN PLENUM SPACES SHALL CONFORM TO THE REQUIREMENTS OF NEC SECTION 300-22. ALL CONDUITS SHALL BE METAL.

26-0553 (16075) – IDENTIFICATION

PROVIDE WIRE AND CABLE MARKERS (SPLIT SLEEVE OR TUBING TYPE) ON ALL CONDUCTORS. PROVIDE WIRE MARKERS ON EACH CONDUCTOR IN SPLICE BOXES, PULL BOXES, AND AT FIRST LOAD CONNECTION ON HOMERUN. IDENTIFY WITH BRANCH CIRCUIT OR FEEDER NUMBER FOR POWER AND LIGHTING CIRCUITS, AND WITH CONTROL WIRE NUMBER AS INDICATED ON EQUIPMENT MANUFACTURERS SHOP DRAWING FOR CONTROL WIRING.

UNDERGROUND-LINE WARNING TAPE: DETECTABLE THREE-LAYER LAMINATE, CONSISTING OF A PRINTED PIGMENTED POLYOLEFIN FILM, A SOLID ALUMINUM-FOIL CORE, AND A CLEAR PROTECTIVE FILM THAT ALLOWS INSPECTION OF THE CONTINUITY OF THE CONDUCTIVE CORE, BRIGHT COLORED, CONTINUOUS PRINTED ON ONE SIDE WITH THE INSCRIPTION OF THE UTILITY, COMPOUNDED FOR DIRECT BURIAL SERVICE. WIDTH SHALL BE 3 INCHES (75 MM), OVERALL THICKNESS SHALL BE 5 MILS (0.125 MM), FOIL CORE THICKNESS SHALL BE 0.35 MILS (0.00889 MM), WEIGHT SHALL BE 28 LB/1000 SQ. FT. (13.7 KG/100 SQ. M), AND TENSILE SHALL BE ACCORDING TO ASTM D 882: 70 LBF (311.3 N) AND 4600 PSI (31.7 MPA). PRINTING ON TAPE SHALL BE PERMANENT AND SHALL NOT BE DAMAGED BY BURIL OPERATIONS. TAPE MATERIAL AND INK SHALL BE CHEMICALLY INERT AND NOT SUBJECT TO DEGRADATION WHEN EXPOSED TO ACIDS, ALKALIS, AND OTHER DESTRUCTIVE SUBSTANCES COMMONLY FOUND IN SOILS. PROVIDE RED-COLORED TAPE FOR ELECTRIC LINES.

COLOR CODING SHALL BE BUILDING STANDARD. WHERE NO BUILDING STANDARD EXIST IS, FACTORY COLOR CODING SHALL BE AS FOLLOWS:

208Y/120V, 3 PH	PHASE 'A':	BLACK
	PHASE 'B':	RED
	PHASE 'C':	BLUE
480Y/277V, 3 PH	PHASE 'A':	BROWN
	PHASE 'B':	ORANGE
	PHASE 'C':	YELLOW
ALL SYSTEMS	NEUTRAL:	WHITE
	EQUIPMENT GROUND:	GREEN
	ISOLATED GROUND:	GREEN/YELLOW STRIPE

BL Companies
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR.,PORTSMOUTH, NH 03801

REVISIONS
No. Date Desc.

Xref (s): ; BD2100875 ; XC2101920001 ; XC2101920002 ; XZ2101920001 ; XZ2101920002 ; XEL2101920-01

Surveyed	
Drawn	DT
Reviewed	MWB
Scale	1"=20'-0"
Project No.	2101920
Date	10/12/2022
CAD File:	EL2101902

Title
SITE LIGHTING SPECS

Sheet No.
EL-02

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Layout: EL-02

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Portsmouth High School Tennis Courts

Portsmouth, NH

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
T1	40'	40'	2	TLC-LED-600	1.16 kW	C
		40'	2	TLC-LED-600	1.16 kW	B
T2	40'	40'	2	TLC-LED-600	1.16 kW	B
T3	50'	50'	2	TLC-LED-600	1.16 kW	B
		50'	2	TLC-LED-600	1.16 kW	A
T4, T7	50'	50'	2	TLC-LED-600	1.16 kW	C
T5-T6	40'	40'	2	TLC-LED-600	1.16 kW	A
T8	50'	50'	2	TLC-LED-600	1.16 kW	A
		50'	2	TLC-LED-600	1.16 kW	B
		50'	2	TLC-LED-600	1.16 kW	C
8			***24***		***13.92 kW***	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Tennis 1-2	4.64 kW	8
B	Tennis 3-4	4.64 kW	8
C	Tennis 5-6	4.64 kW	8

Fixture Type Summary

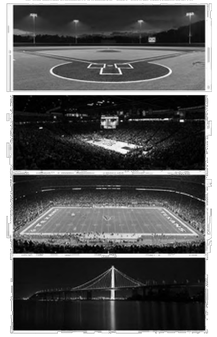
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	24

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Tennis 1-2	Horizontal Illuminance	34.4	27	47	1.75	1.28	A	8
Tennis 3-4	Horizontal Illuminance	35	27	48	1.75	1.29	B	8
Tennis 5-6	Horizontal Illuminance	35.7	27	45	1.67	1.32	C	8

From Hometown to Professional



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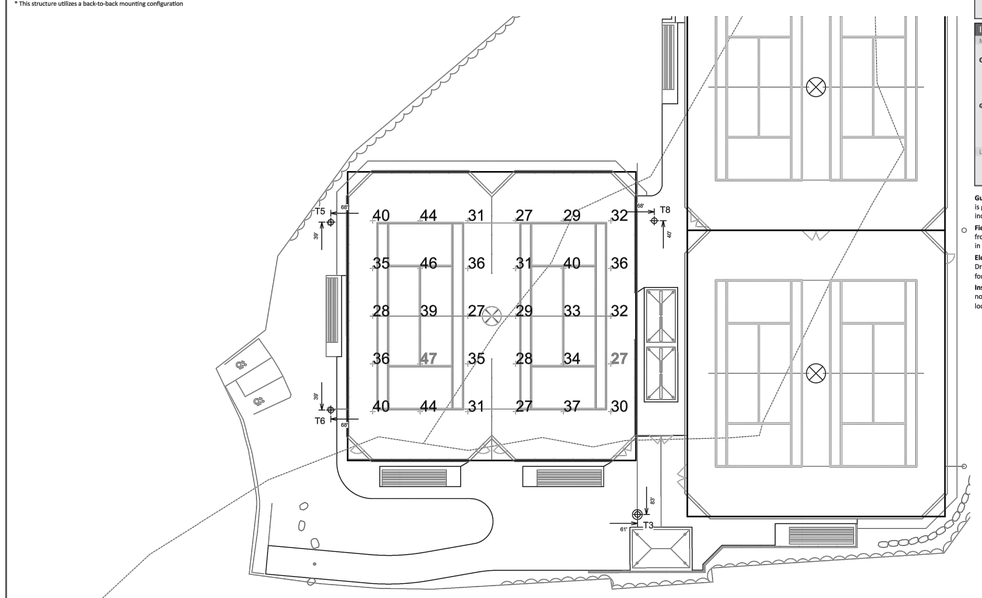
ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

PROJECT SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	T3	50'	-	50'	TLC-LED-600	4	2	2
2	T5-T6	40'	-	40'	TLC-LED-600	2	2	0
1	T8	50'	-	50'	TLC-LED-600	2/4*	2	4
4	TOTALS					14	8	6

* This structure utilizes a back-to-back mounting configuration



Pole location(s) ✚ dimensions are relative to 0,0 reference point(s) ⊗

Portsmouth High School Tennis Courts
Portsmouth, NH

GRID SUMMARY

Name:	**Tennis 1-2**
Size:	2 Court - 24' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	**30**
Scan Average:	34.43
Maximum:	47
Minimum:	27
Avg. / Min:	1.29
Guaranteed Max / Min:	**3.5**
Max / Min:	1.75
UG (adjacent pts):	0.00
CU:	0.79
No. of Points:	30
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	**8**
Total Load:	4.64 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

ILLUMINATION SUMMARY

BL Companies
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	DT
Reviewed	MWB
Scale	1"=20'-0"
Project No.	2101920
Date	10/12/2022
CAD File:	EL2101902

Title
MUSCO LIGHTING LAYOUT 1

Sheet No.
EL-03

Xref (s): : BR2100875 : XC210192001 : XZ210192002 : XZ210192001 : XZ210192002 : XEL2101920-01

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Layout: EL-03

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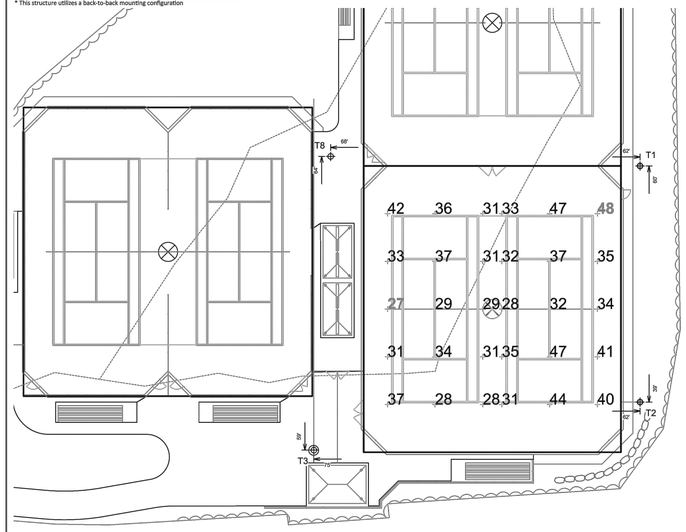
EQUIPMENT LIST FOR AREAS SHOWN

Pole					Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	T1	40'	-	40'	TLC-LED-600	4	2	2
1	T2	40'	-	40'	TLC-LED-600	2	2	0
1	T3	50'	-	50'	TLC-LED-600	4	2	2
1	T8	50'	-	50'	TLC-LED-600	2/4*	2	4
4	TOTALS					16	8	8

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 30
0' 30' 60'

ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

Pole location(s) dimensions are relative to 0,0 reference point(s)

Portsmouth High School Tennis Courts
Portsmouth, NH

GRID SUMMARY

Name:	**Tennis 3-4**
Size:	2 Court - 12' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	**30**
Scan Average:	34.95
Maximum:	48
Minimum:	27
Avg / Min:	1.28
Guaranteed Max / Min:	**3:1**
Max / Min:	1.75
UG (adjacent pts):	0.00
CU:	0.80
No. of Points:	30
LUMINAIRE INFORMATION	
Applied Circuits:	B
No. of Luminaires:	8
Total Load:	4.64 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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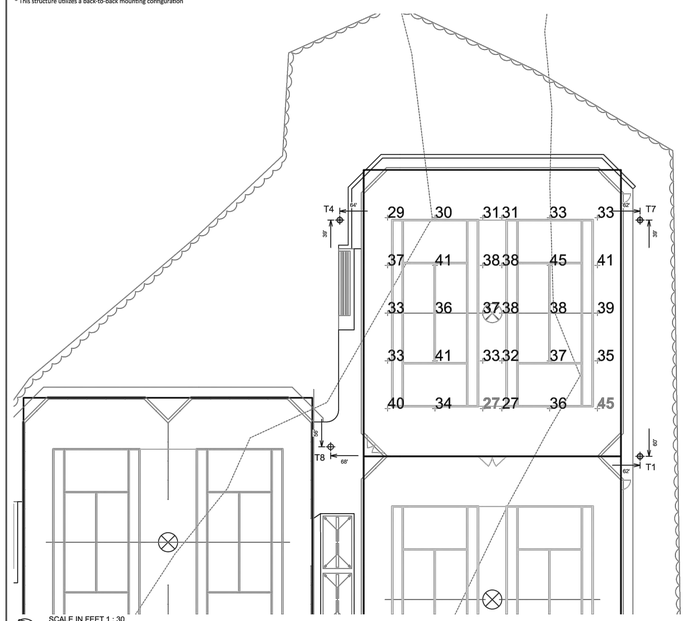
ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole					Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	T1	40'	0'	40'	TLC-LED-600	4	2	2
2	T4, T7	50'	-	50'	TLC-LED-600	2	2	0
1	T8	50'	0'	50'	TLC-LED-600	2/4*	2	4
4	TOTALS					14	8	6

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 30
0' 30' 60'

ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

Pole location(s) dimensions are relative to 0,0 reference point(s)

Portsmouth High School Tennis Courts
Portsmouth, NH

GRID SUMMARY

Name:	**Tennis 5-6**
Size:	2 Court - 12' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	**30**
Scan Average:	35.65
Maximum:	45
Minimum:	27
Avg / Min:	1.32
Guaranteed Max / Min:	**3:1**
Max / Min:	1.67
UG (adjacent pts):	0.00
CU:	0.83
No. of Points:	30
LUMINAIRE INFORMATION	
Applied Circuits:	C
No. of Luminaires:	8
Total Load:	4.64 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

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LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	DT
Reviewed	MWB
Scale	1"=20'-0"
Project No.	2101920
Date	10/12/2022
CAD File:	EL2101902

Title
MUSCO LIGHTING LAYOUT 2

Sheet No.
EL-04

Xref (s): : BR2100875 : XC210192001 : XZ210192002 : XZ210192001 : XEL2101920-01

Jan 11, 2023 2:05pm JWheeler G:\JOBS21\18\2101920\DWG\EL2101920l.dwg
Layout: EL-04

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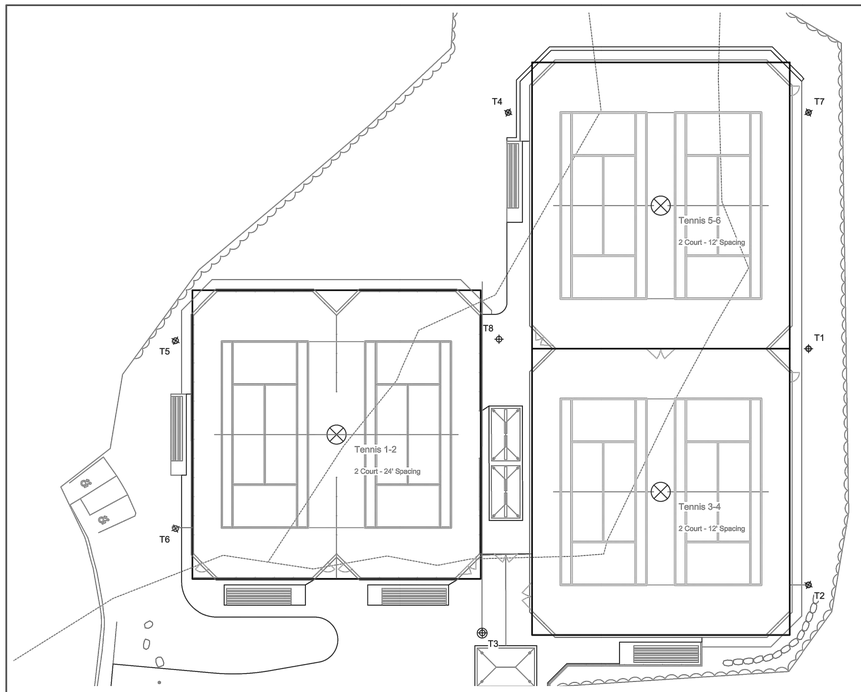

ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

Pole location(s) ✦ dimensions are relative to 0,0 reference point(s) ⊗

Portsmouth High School Tennis Courts
Portsmouth, NH

EQUIPMENT LAYOUT

INCLUDES:
- Tennis 1-2
- Tennis 3-4
- Tennis 5-6

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "**Musco Control System Summary**" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
1	T1	40'	-	40'	TLC-LED-600	4
2	T2, T6	40'	-	40'	TLC-LED-600	2
1	T3	50'	-	50'	TLC-LED-600	4
2	T4, T7	50'	-	50'	TLC-LED-600	2
1	T5	40'	0'	40'	TLC-LED-600	2
1	T8	50'	-	50'	TLC-LED-600	2/4*
8			TOTALS			24

* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.98 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (VA)	220 (VA)	240 (VA)	277 (VA)	347 (VA)	380 (VA)	480 (VA)
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9	1.5

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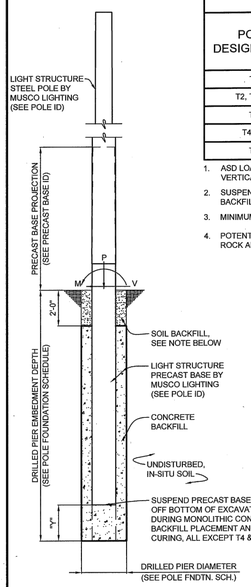
EQUIPMENT LAYOUT



POLE FOUNDATION ELEV.

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE:
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1806.2) OR BETTER. COMPACTION, 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

POLE FOUNDATION SCHEDULE

POLE DESIGNATION	FORCES (1.)			DRILLED PIER			
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH (4.)	SUSPENSION "Y" (2.)	CONCRETE BACKFILL YD³ (3.)
T1	20,622	752	611	36	10'-0"	2'-0"	2.0
T2, T5, T6	14,469	591	481	36	10'-0"	2'-0"	2.0
T3	33,942	1,071	905	EXISTING FOUNDATION			
T4, T7	23,300	762	545	36	8'-0"	NA	1.5
T8	42,974	1,257	1,026	36	12'-0"	2'-0"	2.6

1. ASD LOAD COMBINATION D + 0.6W.
   VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT)
2. SUSPEND PRECAST BASE "Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE, SUSPENSION NOT REQUIRED.
3. MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.
4. POTENTIAL FOR ENCOUNTERING ROCK BEFORE REACHING EMBEDMENT DEPTH. ROCK AUGERING EQUIPMENT MAY BE REQUIRED.

PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
1B	920 LBS	15'-2"	7'-2"	8'-0"	9.56"
2B	1,690 LBS	17'-3"	7'-3"	10'-0"	12.00"

POLE IDENTIFICATION

POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FIX. PER XARM)	FIXTURE AND ACCESSORIES EPA (FT²)
T1	LSS40A	1B	4 (4)	7.7
T2, T5, T6	LSS40A	1B	2 (2)	4.2
T3	LSS50AB	2B	4 (4)	8.5
T4, T7	LSS50A	1B	2 (2)	4.4
T8	LSS50AB	2B	6 (2) / (4)	12.7

DESIGN NOTES

DESIGN PARAMETERS:
WIND: V_{ult} = 130 MPH, V_{asd} = 101 MPH (EXPOSURE C, RISK CATEGORY II) PER INTERNATIONAL BUILDING CODE, 2015 EDITION (ASCE 7-10). DESIGN WIND PARAMETERS ARE AS NOTED, ACTUAL EXPOSURE MUST BE VERIFIED FOR THE SITE BY THE PROPER GOVERNING OFFICIAL.

GEOTECHNICAL PARAMETERS:
ALLOWABLE END BEARING SOIL PRESSURE: 4,000 PSF
LATERAL SOIL RESISTANCE PARAMETERS:
AS PROVIDED IN WESTON & SAMPSON REPORT, PAGE 4
IN ACCORDANCE WITH THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE GEOTECHNICAL ENGINEERING REPORT (11/17/2015), PROJECT NO. 2140758.K, BY WESTON & SAMPSON; AND BORING LOGS B-101/B-102 (12/7/2021), PROJECT NO. 2104563, BY GEI CONSULTANTS.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN THE FREE DROP EXCEEDS 6'-0".

CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

CONCRETE:
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION, ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,000 PSI. ALL PIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3H : 1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.

STATE OF NEW HAMPSHIRE · KYLE G. LACINA No. 13331 · LICENSED · PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW HAMPSHIRE.

12-23-2022

KYLE G. LACINA - NO. 13831 DATE:
SEPC OF IOWA - 1427

LICENSE RENEWAL DATE: NOVEMBER 30, 2023
DRAWING NO. COVERED BY THIS SEAL: C1

PORTSMOUTH HS
TENNIS COURTS
ATHLETIC LIGHTING
PORTSMOUTH, NH

musco Lighting
CORPORATE: 100 1st AVE. WEST
OSKALOOSA, IA 52577
(800) 825-8202

SEPC OF IOWA
114 NICHOLAS DRIVE
MARSHALLTOWN, IOWA 50158
PHONE NUMBER: 641-752-6354
EMAIL: MSL.INFO@SEPC.BIZ

DRAWING TITLE:
POLE AND FOUNDATION
SCALE: SEE PLAN
NOTES:
SCAN #211130E

PROJECT NUMBER
211130

DATE
23 DECEMBER 2022

DRAWING NUMBER
C1

OF ONE

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ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

No.	Date	Desc.

REVISIONS

Surveyed	
Drawn	DT
Reviewed	MWB
Scale	1"=20'-0"
Project No.	2101920
Date	10/12/2022
CAD File:	EL2101902

Title
MUSCO LIGHTING LAYOUT 3

Sheet No.
EL-05

Xref (s): : BI2100875 : XC210192001 : XC210192002 : XZ210192001 : XZ210192002 : XEL2101920-01

Jan 11, 2023 2:05pm JWheeler G:\JOBS21\18\2101920\DWG\EL2101920I.dwg
Layout: EL-05

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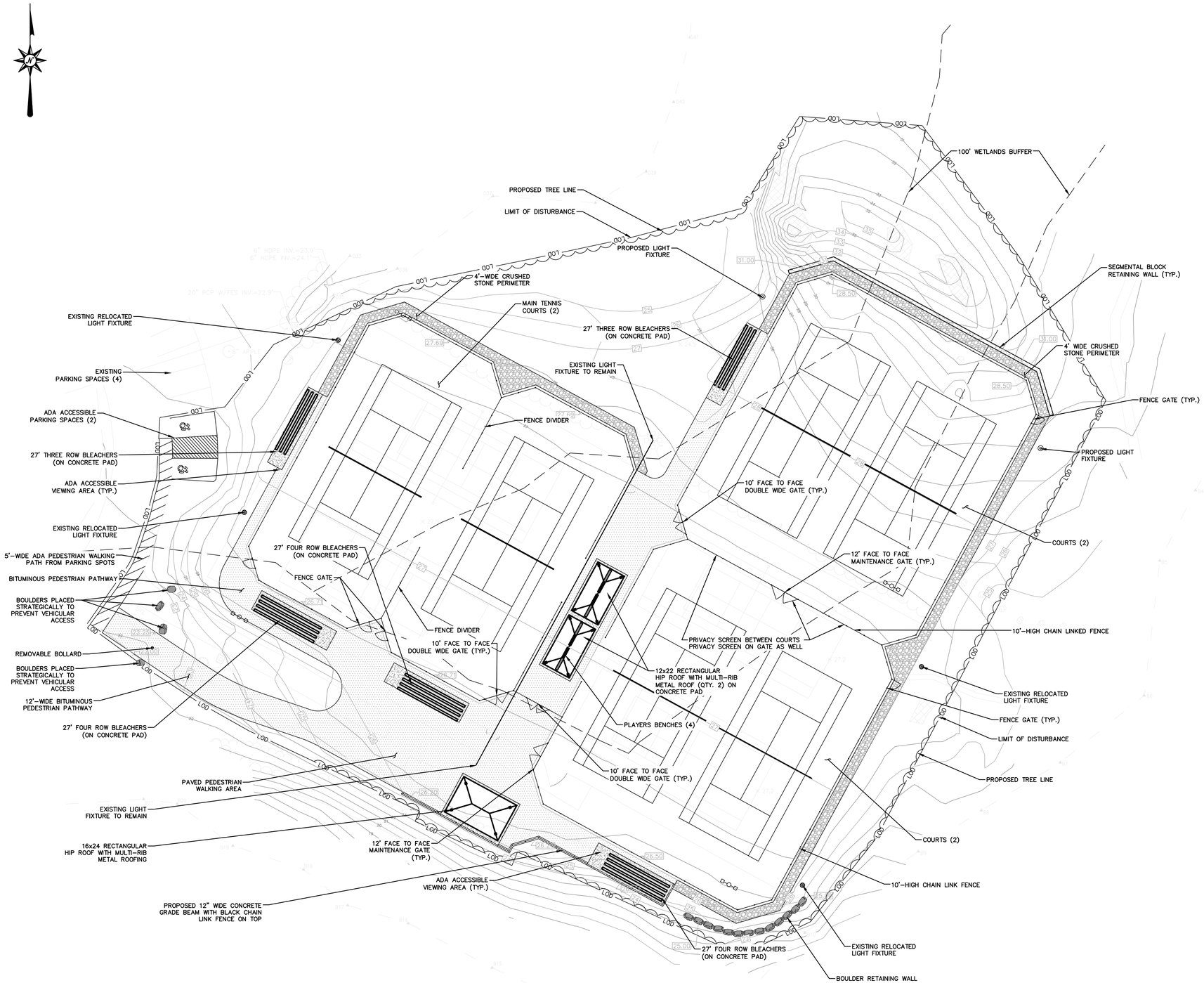

MATERIALS PLAN LEGEND

SYMBOL	NAME
	CHAIN LINK FENCE
LOD	LIMIT OF DISTURBANCE
	5' WIDE CRUSHED STONE PERIMETER
	CONCRETE PAD
	BITUMINOUS PAVEMENT
	DOUBLE FENCE GATE
	SINGLE FENCE GATE
	21' THREE ROW BLEACHERS
	EXISTING RELOCATED LIGHT FIXTURE
	PROPOSED LIGHT FIXTURE
	EXISTING LIGHT FIXTURE TO REMAIN
	PROPOSED TREE LINE
	ADA HANDICAP PARKING SPACE AISLE

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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Meriden, CT 06450
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PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR.,PORTSMOUTH, NH 03801

REVISIONS
No. Date Desc.

Surveyed
Drawn K.K.
Reviewed
Scale 1"=20'-0"
Project No. 2101920
Date 01/03/2023

CAD File:

Title
SITE MATERIALS PLAN

Sheet No.
SM-01

Xref (s): : BD2100875 ; XZ210192001 ; XC210192001 ; XC210192002

Jan 11, 2023 2:05pm JWheeler G:\JOBS21\18\2101920\DWG\MAT210192001.dwg
Layout: SM-01

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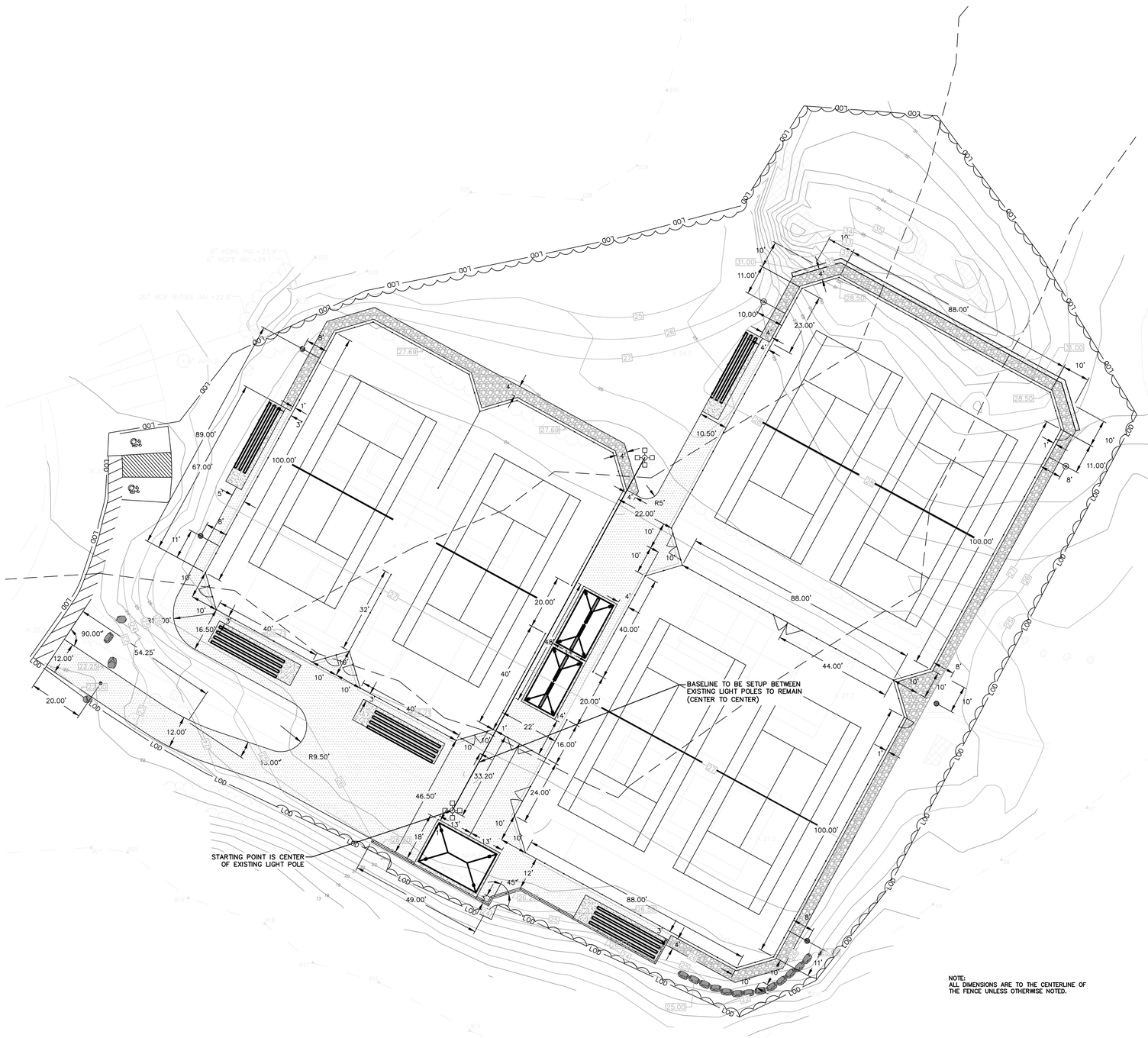

NOTE:
ALL DIMENSIONS ARE TO THE CENTERLINE OF THE FENCE UNLESS OTHERWISE NOTED.

MATERIALS PLAN LEGEND

SYMBOL	NAME
	CHAIN LINK FENCE
LOD	LIMIT OF DISTURBANCE
	5' WIDE CRUSHED STONE PERIMETER
	CONCRETE PAD
	BITUMINOUS PAVEMENT
	DOUBLE FENCE GATE
	SINGLE FENCE GATE
	21' THREE ROW BLEACHERS
	EXISTING RELOCATED LIGHT FIXTURE
	PROPOSED LIGHT FIXTURE
	EXISTING LIGHT FIXTURE TO REMAIN
	PROPOSED TREE LINE
	ADA HANDICAP PARKING SPACE AISLE

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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LAND SURVEYING

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PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	JW
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title

SITE LAYOUT PLAN

Sheet No.

SL-01

Xref (s): : B02100875 ; XZ210192001 ; XC210192002

Jan 11, 2023, 2:06pm, JWheeler G:\JOBS21\18\2101920\DWG\MAT210192001.dwg
Layout: SL-01

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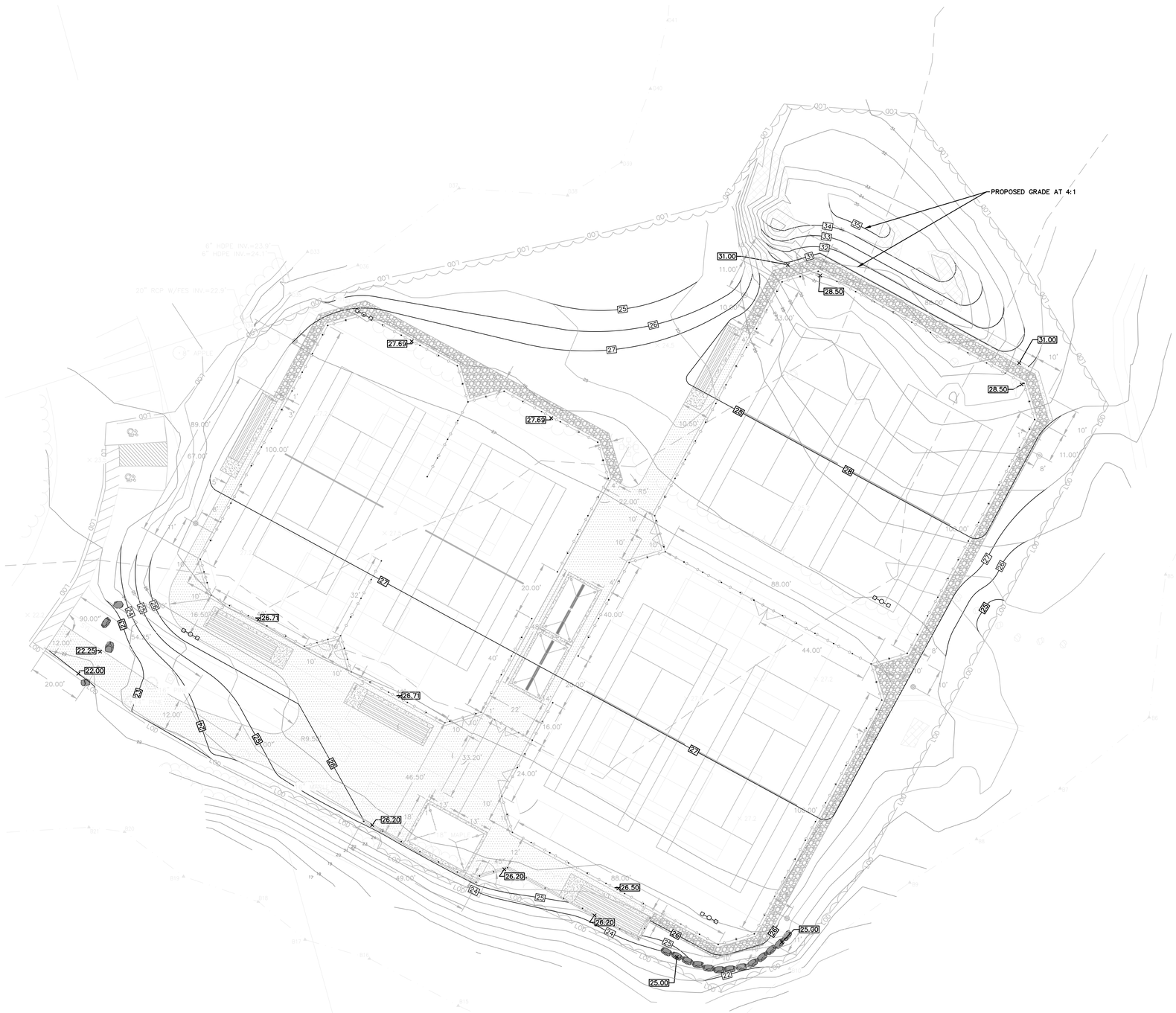

GRADING LEGEND:

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
100	PROPOSED CONTOUR LINES (1 FT INTERVALS)
×90.85	PROPOSED SPOT GRADES

GRAPHIC SCALE

20 10 0 20

SCALE IN FEET

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Meriden, CT 06450
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50 ANDREW JARVIS DR.,PORTSMOUTH, NH 03801

REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	DC
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title

SITE GRADING PLAN

Sheet No.

GD-01

Xref (s): ; BD2100875 ; XC210192001 ; XC210192002 ; XZ210192001

Jan 11, 2023, 2:06pm, JWheeler G:\JOBS21\18\2101920\DWG\GD210192001.dwg
Layout: GD-01

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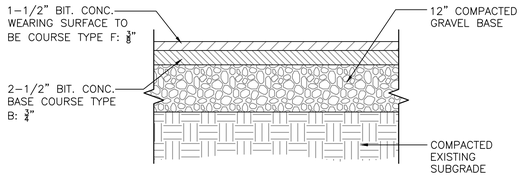
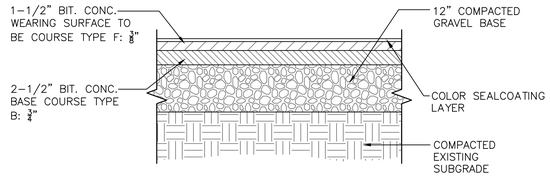


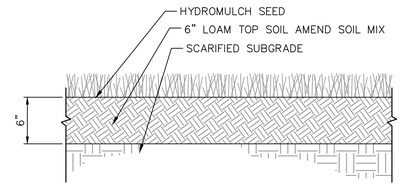
BITUMINOUS CONCRETE PAVEMENT

SCALE: N.T.S.



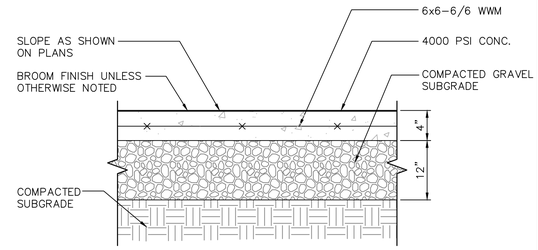
BITUMINOUS CONCRETE PAVEMENT FOR TENNIS COURTS

SCALE: N.T.S.



LOAM AND SEED, TYP.

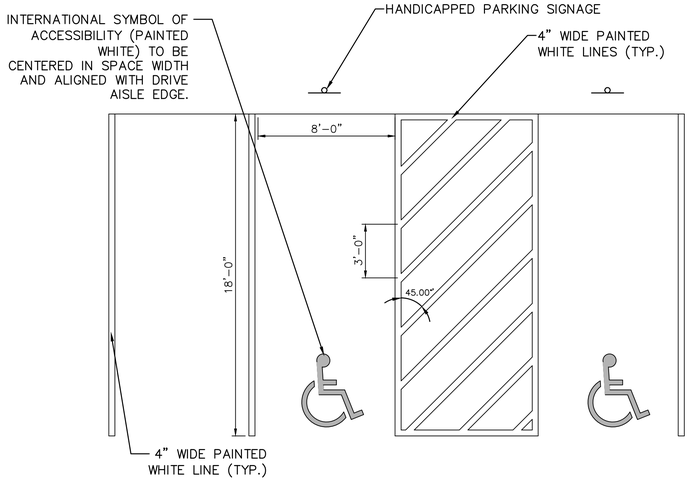
SCALE N.T.S.



NOTE:
SEE DETAIL SHEETS FOR CONTROL JOINT DETAIL AND EXPANSION JOINT DETAIL.

CONCRETE PAD

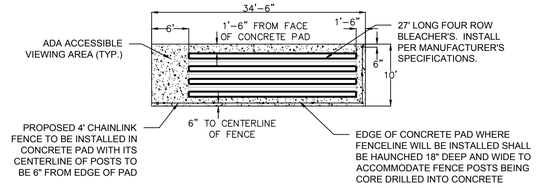
SCALE: NTS



NOTE:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F, PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND THE STATE OF NEW HAMPSHIRE BUILDING CODE.
3. THE MINIMUM DIMENSIONS ARE SHOWN. STATE REGULATORS MAY REQUIRE LARGER DIMENSIONS.
4. APPLY 2 COATS OF TRAFFIC PAINT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.

RESERVED HANDICAPPED PARKING STALL STRIPING

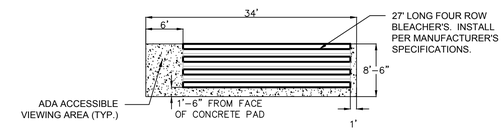
SCALE: N.T.S



NOTES:
1. ORIENTATION OF BLEACHERS ARE TO FACE TOWARDS TENNIS COURTS.
2. INSTALL BLEACHERS TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS.
3. SEE PLAN FOR LOCATION OF ADA VIEWING AREA, MAY CHANGE SIDES BASED ON LOCATION OF BLEACHERS.

27' FOUR ROW BLEACHER ON CONCRETE PAD WITH FENCING

SCALE: NTS



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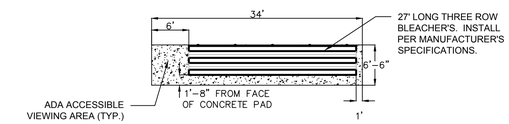
27' FOUR ROW BLEACHER ON CONCRETE PAD

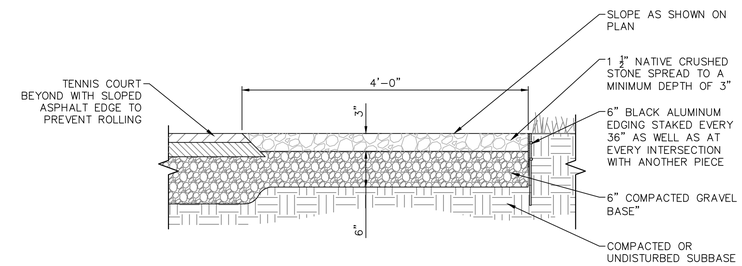
SCALE: NTS



NOTES:
1. ORIENTATION OF BLEACHERS ARE TO FACE TOWARDS TENNIS COURTS.
2. INSTALL BLEACHERS TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS.
3. SEE PLAN FOR LOCATION OF ADA VIEWING AREA, MAY CHANGE SIDES BASED ON LOCATION OF BLEACHERS.

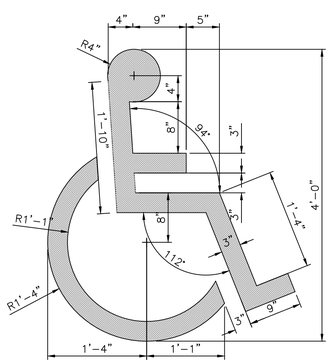
27' THREE ROW BLEACHER ON CONCRETE PAD

SCALE: NTS



CRUSHED STONE PERIMETER

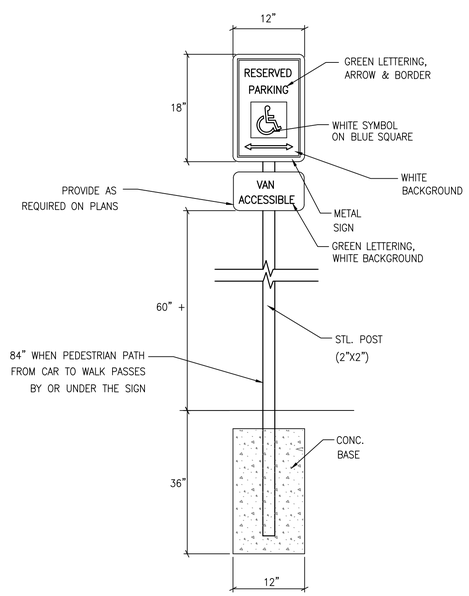
SCALE: NTS



NOTE:
USE TWO COATS OF WHITE EPOXY RESIN PAINT, (TYP.).

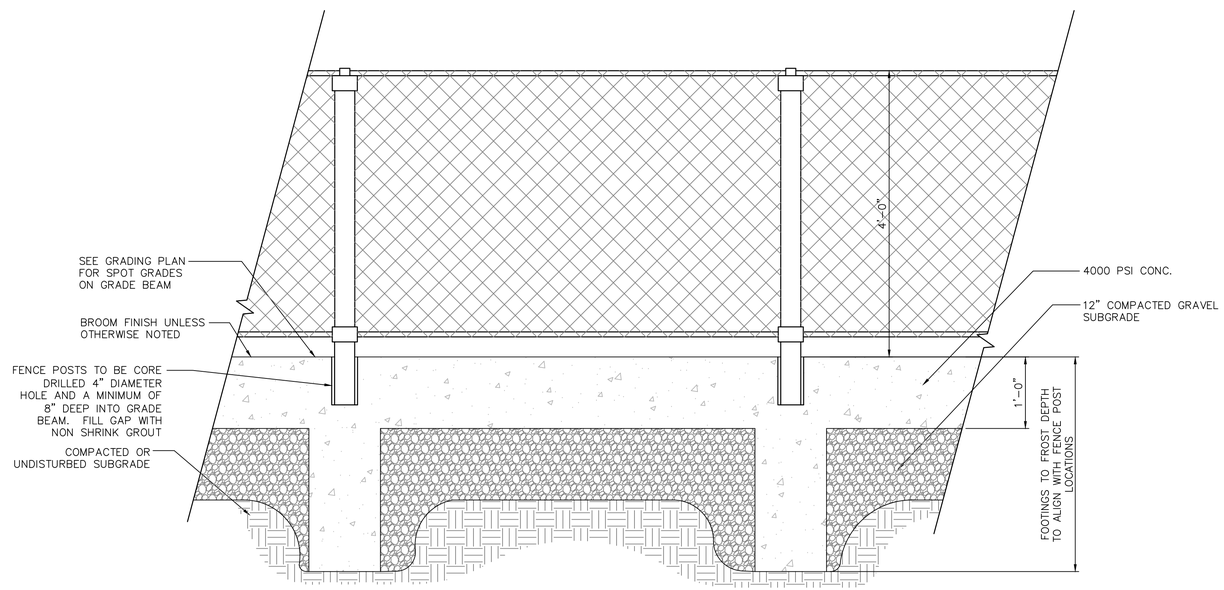
HANDICAP LOGO PAVING MARKER DETAIL

SCALE: NTS



HANDICAP PARKING SIGN DETAIL

SCALE: NTS



CONCRETE GRADE BEAM

SCALE: NTS

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Jan 11, 2023, 2:05pm JWheeler G:\JOBS2\18\2101920\DWG\DN2101920I.dwg
Layout: DN-01

Xref (s): ; B21010875 ; XC210192001 ; XZ210192001

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TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS

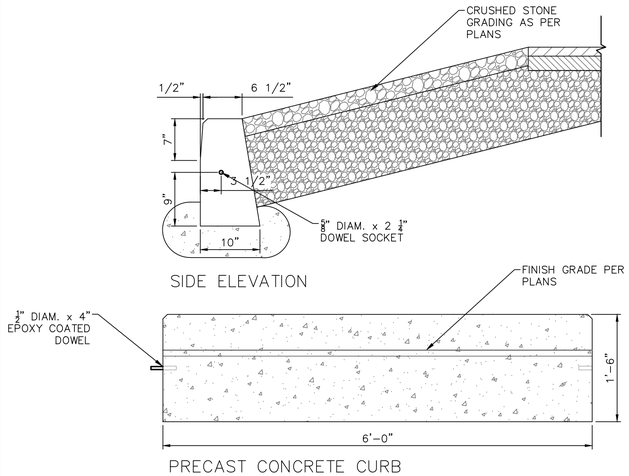
No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	JW
Scale	
Project No.	2101920
Date	01/03/2023

CAD File:

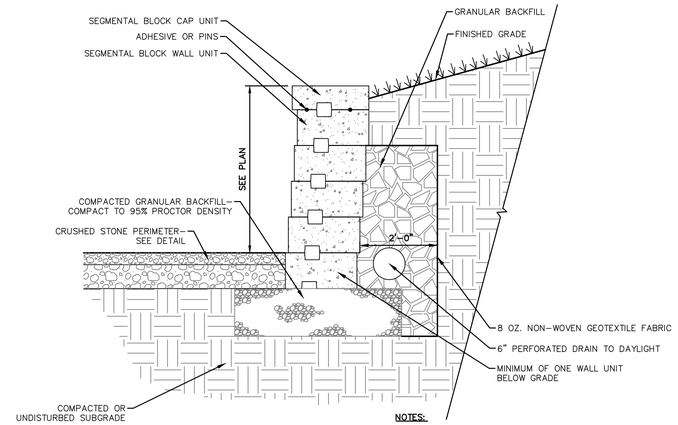
Title
SITE DETAILS 1

Sheet No.
DN-01



PRECAST CONCRETE CURB

SCALE: NTS

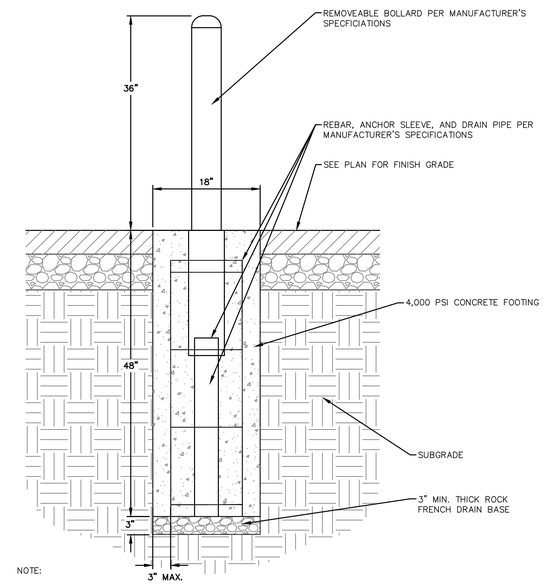


NOTES:

1. INSTALL WALL PER MANUFACTURERS SPECIFICATIONS.
2. COLOR TO BE APPROVED BY LANDSCAPE OWNER/LANDSCAPE ARCHITECT

SEGMENTAL BLOCK RETAINING WALL

SCALE: NTS



NOTE:

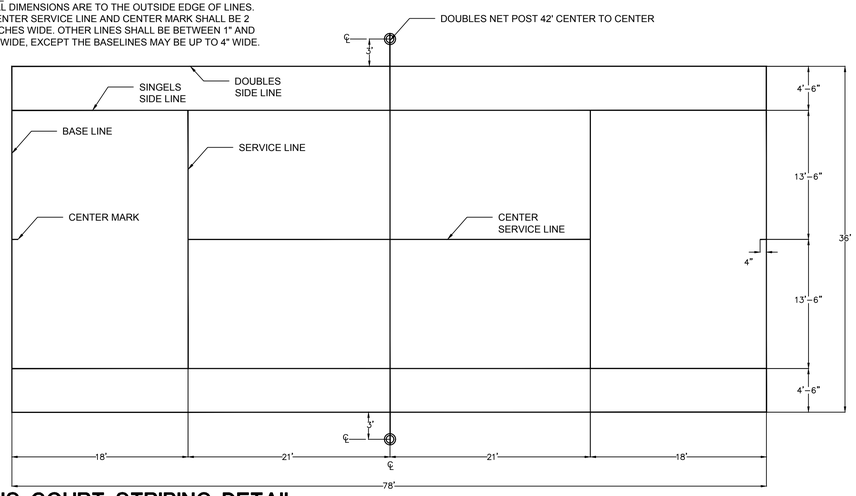
1. REMOVEABLE BOLLARD SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

REMOVEABLE BOLLARD DETAIL

SCALE: NTS

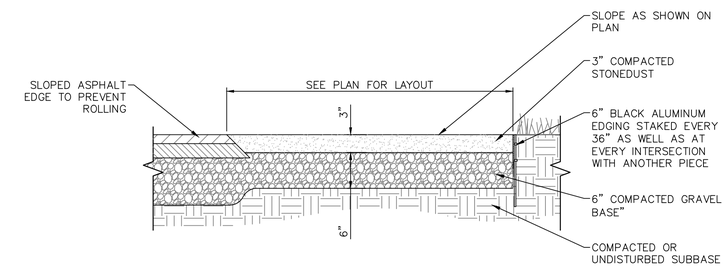
NOTES:

1. ALL DIMENSIONS ARE TO THE OUTSIDE EDGE OF LINES.
2. CENTER SERVICE LINE AND CENTER MARK SHALL BE 2 INCHES WIDE. OTHER LINES SHALL BE BETWEEN 1" AND 2" WIDE, EXCEPT THE BASELINES MAY BE UP TO 4" WIDE.



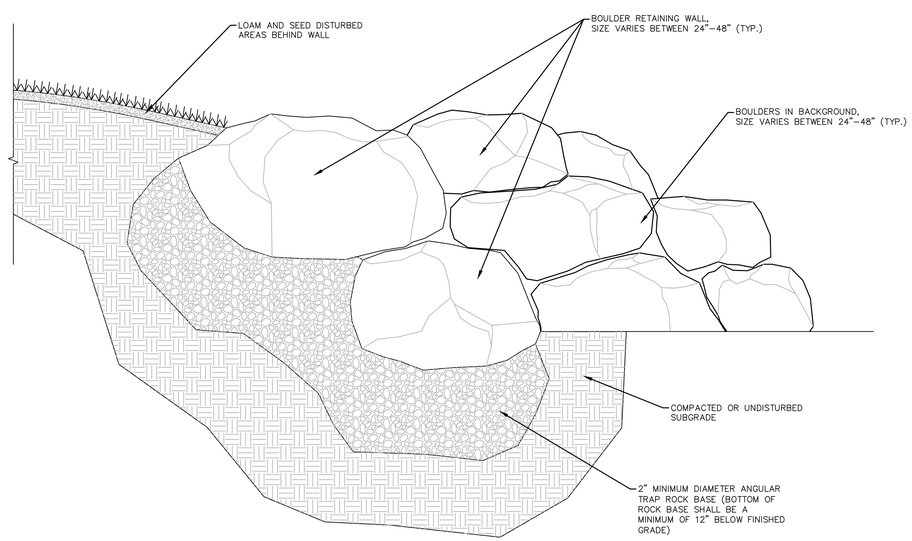
TENNIS COURT STRIPING DETAIL

SCALE: NTS



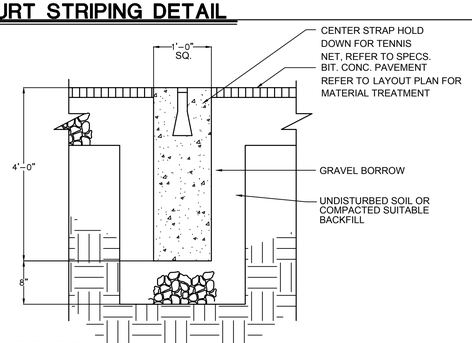
STONEDUST PAVING AT FOUNTAIN

SCALE: NTS



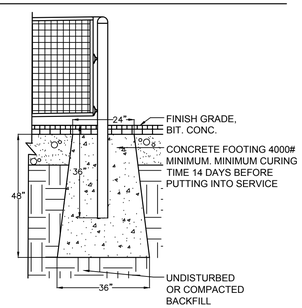
BOULDER WALL DETAIL

SCALE: NTS



TENNIS NET TIE DOWN

SCALE: NTS



TENNIS NET POST FOOTING

SCALE: NTS

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REVISIONS

No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	JW
Scale	
Project No.	2101920
Date	01/03/2023

CAD File:

Title: SITE DETAILS 2

Sheet No. DN-02

Xref (s): : B02100875 ; : X21019200 1 : X21019200 1

Jan 11, 2023, 2:05pm, JWheeler G:\JOBS21\18\2101920\DWG\DN2101920 01.dwg
Layout: DN-02

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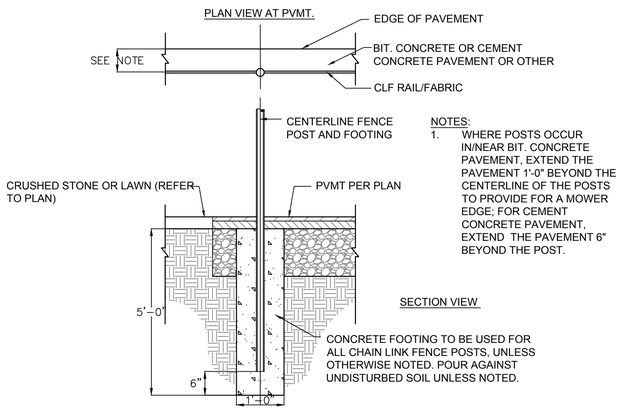
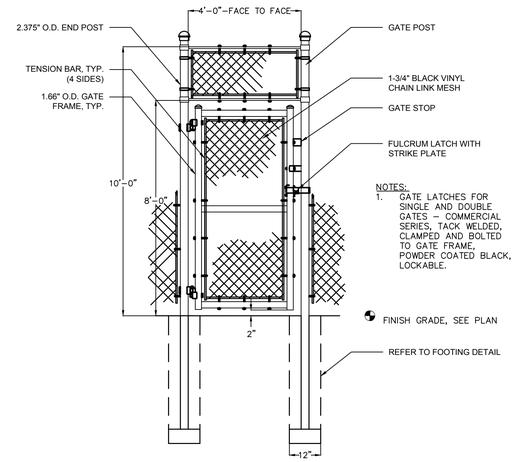


NOTES:
1. WHERE POSTS OCCUR IN/NEAR BIT. CONCRETE PAVEMENT, EXTEND THE PAVEMENT 1'-0" BEYOND THE CENTERLINE OF THE POSTS TO PROVIDE FOR A MOWER EDGE; FOR CEMENT CONCRETE PAVEMENT, EXTEND THE PAVEMENT 6" BEYOND THE POST.

TYPICAL FENCE POST FOOTING

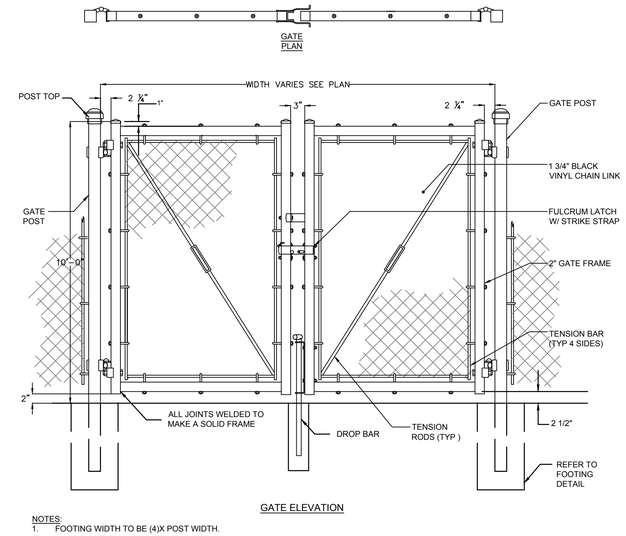
SCALE: NTS



NOTES:
1. GATE LATCHES FOR SINGLE AND DOUBLE GATES – COMMERCIAL SERIES, TACK WELDED, CLAMPED AND BOLTED TO GATE FRAME, POWDER COATED BLACK, LOCKABLE.

BLACK VINYL CHAIN LINK FENCE SINGLE GATE

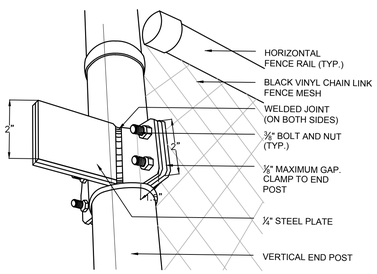
SCALE: NTS



NOTES:
1. FOOTING WIDTH TO BE (4)X POST WIDTH.

BLACK VINYL CHAIN LINK FENCE DOUBLE SWING GATE

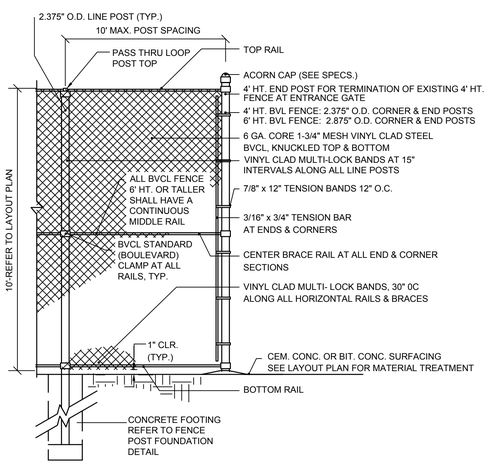
SCALE: NTS



NOTES:
1. PROVIDE GATE STOP AT ALL FENCE GATES.

GATE STOP

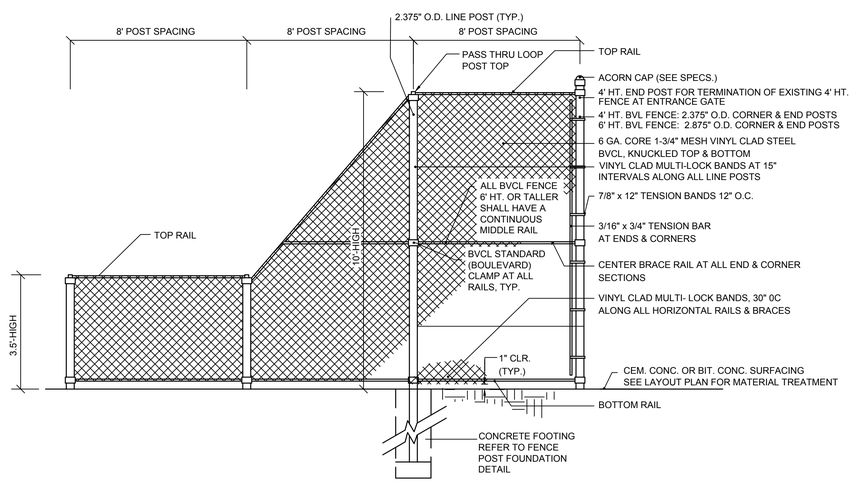
SCALE: NTS



NOTES:
1. 1 3/4" MESH VINYL-CLAD STEEL CHAIN LINK FABRIC, KNUCKLED TOP AND BOTTOM.
2. ALL FENCE PIPE SHALL BE SCH. 40, VINYL CLAD HOT DIP GALV. STEEL PIPE.
3. ALL LINE POSTS SHALL BE INSTALLED EQUALLY SPACED BETWEEN END & CORNER POSTS.
4. ALL RAILS SHALL BE 1.66" O.D. PIPE
5. ALL CLAMPS, TIES, POST TOPS, BANDS, POSTS, ETC. SHALL BE VINYL CLAD TO MATCH FABRIC.
6. REFER TO EL SERIES DRAWINGS FOR BONDING AND GROUNDING REQUIREMENTS
7. REFER TO SPECS. FOR GATE REQUIREMENTS.

BLACK VINYL CHAIN LINK FENCE - TENNIS COURT

SCALE: NTS



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6. REFER TO EL SERIES DRAWINGS FOR BONDING AND GROUNDING REQUIREMENTS
7. REFER TO SPECS. FOR GATE REQUIREMENTS.

BLACK CHAIN LINK FENCE VARYING HEIGHT DIVIDER

SCALE: NTS

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Jan 11, 2023, 2:06pm JWheeler G:\JOBS2\18\2101920\DWG\DN2101920001.dwg
Layout: DN-03

Xref (s): : B02100875 : XC210192001 : XZ210192001

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REVISIONS
No. Date Desc.

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Drawn	JW
Reviewed	JW
Scale	
Project No.	2101920
Date	01/03/2023

CAD File:

Title
SITE DETAILS 3

Sheet No.
DN-03

29 March 2022

Rick Chellman, Chair
City of Portsmouth Planning Board
1 Junkins Avenue
Portsmouth, NH 03801

Re: City of Portsmouth Wetland Conditional Use Permit Request
Tax Map 159, Lot 2
89 Sparhawk Street
Portsmouth, New Hampshire

Dear Mr. Chellman:

This letter transmits a City of Portsmouth Wetland Conditional Use Permit Amendment request for 2,685 square feet of disturbance within the 100' City of Portsmouth Wetland Buffer for the construction of a proposed building addition which consists of two garage bays at existing grade with living space located above. The project also includes other site improvements include the removal of an existing patio, construction of a new pervious patio, construction of a pervious driveway, installation of a stone drip aprons, addition of steps, walkways, retaining walls and associated landscaping (see attached plan set).

The property currently contains a single-family residential structure, a wooden deck, a patio, a gravel driveway, and associated landscaping.

The proposed pervious technologies being used for the construction of the driveway, walkways, and patio combined with the proposed stone drip aprons will allow for collection and infiltration of the stormwater from the proposed building addition, providing a stormwater treatment component that does not exist under existing conditions.

Per the City of Portsmouth Zoning Ordinance, *Article 10.1017.22 (3),* approximately 22% (2,867 sq. ft.) of the wetland buffer area that occurs on the subject lot (12,992 sq. ft.) is vegetated and occurs in a natural state. Approximately 6% or 783 sq. ft. of the wetland buffer area that occurs on the lot consists of structure, patio, deck, walkway and steps (developed area). The remaining wetland buffer area on the lot would be characterized as maintained lawn, which would total approximately 72% or 9,342 sq. ft.

Also, per the City of Portsmouth Zoning Ordinance, *Article 10.1017.24 the application shall include removal of* ***impervious surfaces*** *at least equal in area to the area of* ***impervious surface*** *impact.* The proposed project does propose a minor increase (40 sq. ft.) of impervious surface within the City wetland buffer and therefore this proposal includes a wetland buffer enhancement (see Landscape Plan L1 prepare by Woodburn & Company Landscape Architecture).

200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

Under the City of Portsmouth Zoning Ordinance, *Article 10.1017.25 (1) the* ***wetland buffer*** *enhancement plan shall include a combination of new plantings, invasive species removal, habitat creation areas, improved site hydrology, or protected easements provided offsite.* The attached Landscape Plan provides for the installation of 30 shrubs and 101 perennials/groundcovers in the city wetland buffer, in addition to 160 plants being installed on the lot outside of the wetland buffer which will also serve to improve stormwater quality on the subject lot. We believe that the robust Landscape Plan more than exceeds the offset required under the ordinance for the additional 40 sq. ft. of impervious surface proposed in the wetland buffer however the plantings will also serve to enhance the visual quality and aesthetics on the lot, provide micro habitats for urban wildlife species, promote pollinators and other valuable insect life and provide a landscape improvement from what currently exists.

Per the City of Portsmouth Zoning Ordinance, *Article 10.1017.25 (2), where the vegetated buffer strip contains grass or non-native plantings, or is otherwise not intact, the first priority of the* ***wetland buffer*** *enhancement plan shall be to include revegetation of the vegetated buffer strip with native, low-maintenance shrubs and other woody vegetation.* A great majority of the existing vegetated buffer strip currently exists in a natural vegetated state (see attached photo log). The attached Planting Plan proposes 10 (ten) highbush blueberry shrubs in an area that is currently maintained lawn, directly adjacent to some previously planted highbush blueberry shrubs as described below. In addition, prior to application for this project, the property owners voluntarily enhanced the wetland buffer (and vegetated buffer strip) with the planting of approximately 34 shrubs consisting of arborvitae (*Thuja spp.*), forsythia (*Forsythia spp.*), boxwood (*buxus spp.)* and highbush blueberry (*Vaccinium corymbosum*). These plantings are well established and will remain after the proposed project is constructed.

According to the City of Portsmouth Zoning Ordinance, *Article 10.1017.50 Criteria for Approval*, the proposal shall comply with the following criteria:

1. **The land is reasonably suited to the use, activity or alteration.**

The proposal is to construct a building addition onto the existing single-family residential structure. Other site improvements include the removal of an existing patio, construction of a new pervious patio, construction of a pervious driveway, installation of a stone drip aprons, addition of steps, walkways, retaining walls and associated landscaping. Only a portion of the proposed structures and landscape components are located within the 100' City of Portsmouth Wetland Buffer. Given that the proposed project includes expansion of an existing footprint on a previously developed lot, removal and re-configuration of driveway and patio surfaces, the proposed disturbance is not located in the Flood Hazard Zone, the land is reasonably suited to the use, activity, or alteration.

2. **There is no alternative location outside of the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.**

Due to the configuration of the lot, the location of nearby wetlands, there does not exist an area to propose the building addition and achieve a reasonable use while avoiding the 100' City of Portsmouth Wetland Buffer. There is an area located directly to the northwest of the existing home where an addition could be built and provide greater avoidance of the wetland buffer however an addition in this location would eliminate four (4) second story windows appurtenant to the two (2) upstairs bedrooms in which they serve to provide a means of egress in case of an emergency. These windows in the existing structure are also considerably lower than standard (with sill at 12" above the finished floor and a header at 4'3") resulting in a proposed mudroom below would not have sufficient clearance and negatively affect the bedrooms. As a result, an addition in this location would require an entire re-configuration of the second story of the

existing home, specifically re-location of bedrooms to provide required life safety measures. The interior of the existing first floor would be greatly impacted as the existing home is laid out with entry programming on the southeastern side leading to the location of the proposed addition being tied into the existing structure architecturally in regards to entrance into the home via the proposed garage parking.

Additionally, a curb cut for a new driveway location on the northwestern side of the existing home would likely create a blind drive condition and create a danger to vehicles backing into Sparhawk Street.

3. **There will be no adverse impact on the wetland functional values of the site or surrounding properties.**

The proposal will not significantly impact the existing wetland resource located adjacent to the site and its current functions and values. The proposed project relocates a patio further from the wetland resource, provides pervious technologies for patio and driveway surfaces and stone drip aprons which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel. Lastly, the project also provides a robust planting plan which enhances areas inside and outside the wetland buffer on the lot that will provide additional protections that do not currently exist on the site. With the above measures being taken, it is my belief that the above project will improve water quality entering the nearby wetland resource, and therefore have no adverse impact on the wetland functional values and the surrounding properties.

4. **Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.**

The proposed project includes alteration of a very small (~150 sq. ft.) naturally vegetated area to accommodate the relocation/installation of a roof drain as far from the wetland resource as possible while still maintaining gravitational flow. This disturbance is temporary and the area will be restored to original grade and surface configuration after the proposed work is completed.

5. **The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Section.**

The project represents the alternative with the least adverse impacts to areas and environments while allowing reasonable use of the property. The proposal avoids the wetland buffer to the greatest extent practicable while providing a reasonable use for the property owner. The project also provides the use of pervious technology, stone drip aprons and a robust planting plan which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel.

6. **Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.**

There are no areas within the vegetated buffer strip that will be impacted or altered by this project.

Please contact me if you have any questions or concerns regarding this application.

Respectfully submitted,

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

Cc: Jonathan M. & Lisa B. Morse-Owners/Applicant
Jen Ramsey-Somma Studios
Robbi Woodburn-Woodburn & Company Landscape Architecture

23 November, 2022

To Whom It May Concern

RE: City of Portsmouth and New Hampshire Department of Environmental Services applications for <u>Residential Site Improvements</u> for Jonathan & Lisa Morse, 89 Sparhawk Street, Portsmouth, NH.

This letter is to inform the City of Portsmouth and the New Hampshire Department of Environmental Services, in accordance with State Law, that Ambit Engineering, Somma Studios, and Woodburn and Company are all authorized to obtain approvals in regard to the above referenced property, and to sign any applications required on our behalf.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

Lisa Morse
978-853-3492

SITE PHOTOGRAPHS

Portsmouth, NH

Site Photograph #1 March 2023

Site Photograph #2 March 2023

Site Photograph #3 March 2023

Site Photograph #4 March 2023

Site Photograph #5 March 2023

Site Photograph #6 March 2023

Site Photograph #7 March 2023

Site Photograph #8 March 2023

Site Photograph #9 March 2023

Site Photograph #10 March 2023

STORMWATER MANAGEMENT
INSPECTION & MAINTENANCE PLAN
FOR
Jonathan M. & Lisa B. Morse
PROPERTY LOCATED AT
89 Sparhawk Street, Portsmouth, NH
March 29, 2023

Introduction

The intent of this plan is to provide Jonathan M. & Lisa B. Morse, owners of property located at 89 Sparhawk Street, Portsmouth, NH, with a list of procedures that cover the inspection and maintenance requirements of the stormwater management components for the proposed construction at the site.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly. These measures will also help minimize potential environmental impacts. By following the enclosed procedures, Jonathan M. & Lisa B. Morse will be able to maintain the functional design of the stormwater management components and maximize their ability to remove sediment and other contaminants from site generated stormwater runoff.

Stormwater Management System Components

The Stormwater Management System design components are Stone Drip Aprons, Pervious Pavement, Pervious Paver Patio/Walkways and Buffer Planting Areas.

The proposed construction includes the construction of a proposed building addition which consists of two garage bays at existing grade with living space located above. The project also includes other site improvements include the removal of an existing patio, construction of a new pervious patio, construction of a pervious driveway, installation of a stone drip aprons, addition of steps, walkways, retaining walls and associated landscaping. Since a portion of the construction is within the City of Portsmouth's 100 foot wetland buffer, the proposed stormwater structures will provide treatment for the proposed improvements under this application.

The Stone Drip Aprons will capture runoff from the proposed building addition as well as a portion

of the existing home. The Pervious Pavement Driveway will capture runoff and provide percolation into the soil, and the Buffer Planting Areas will serve as a natural vegetative filtration component that will improve stormwater quality leaving the site and entering the adjacent wetland resource.

Inspection & Maintenance Checklist/Log

The following pages contain maintenance specifications, a Stormwater Management System Inspection & Maintenance Checklist, and a blank copy of the Stormwater Management System Inspection & Maintenance Log. The forms are provided to Jonathan M. & Lisa B. Morse and should be transferred to future homeowners and will serve as a guideline for performing the inspection and maintenance of the Stormwater Management System. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

Stone Drip Apron Design

The intent of the stone drip edge is to provide for storage and percolation of roof runoff from the proposed garage and breezeway. Stone Drip Aprons are meant to provide a porous medium (stone, 6” depth) that can withstand water velocity from the roof above, eliminating erosion at the point of contact. The base (24”-36” depth) of the drip edge is backfilled with coarse sand or gravel which allows the stormwater to quickly infiltrate into the ground where it is stored and slowly percolated into the surrounding subsoil. Stone Drip Aprons typically extend 2 feet from the edge of the building foundation to effectively capture runoff from the roof edge above.

Stone Drip Apron Maintenance

In order to keep the Stone Drip Aprons functioning properly, it is important to keep the filter surface porous and unplugged by debris.

Remove any debris that may clog the stone surface.

After leaf fall (i.e. in November), remove large accumulations of leaves. It is not necessary to remove every leaf but at the same time it is not desirable to have the stone surface completely covered with leaves to the point of plugging the stone surface.

Replace the stone surface with new stone as needed. Ponding of water on the surface of the drip apron would indicate that the stone needs to be replaced.

Porous Pavement Design

The intent of the porous pavement is to provide for storage and percolation of the stormwater that falls upon the driveway surface. The base (filter course, 15” depth) allows the stormwater to move through the pavement section where it is stored as it percolates into the surrounding subsoil.

Porous Pavement Maintenance

In order to keep the pervious pavers functioning properly, it is important to keep the surface porous and unplugged by debris. After installation of the pervious pavement surface, perform the following inspections on a semi-annual basis:

Monitor for excessive or concentrated accumulations of debris, or excessive erosion. Remove debris as required.

Vacuum the surface twice annually. This will remove organic buildup within the void space and restore/maintain permeability.

Do not use any de-icing chemicals on the pavement surface.

Repair any damages to original condition.

Pervious Paver/Walkway Maintenance

In order to keep the pervious paver surfaces functioning properly, it is important to keep the surface porous and unplugged by debris. After installation of the pervious pavers, perform the following inspections on a semi-annual basis:

Monitor for excessive or concentrated accumulations of debris, or excessive erosion. Remove debris as required.

Remove debris from the paver void space twice annually. This will remove organic buildup within the void space and restore/maintain permeability. Replace void space aggregate as needed.

Buffer Planting Area Design

The intent of the buffer planting area is to provide a vegetative matrix that will aid in the filtering of nutrients, sediments, and toxicants before they enter an adjacent wetland resource. Root structures of the native plants not only provide excellent stabilization for the surrounding soils, but also provide a natural filtration mechanism for stormwater as it passes through the buffer planting area. The buffer planting area will be planted with native shrubs, perennials and groundcovers.

Buffer Planting Area Maintenance

All planting and landscaping shall be monitored bi-monthly during the first year to insure viability and vigorous growth. Replace dead or dying vegetation with new stock and make adjustments to the conditions that caused the dead or dying vegetation. Make the necessary adjustments to ensure long-term health of the vegetated covers, i.e. provide more permanent mulch or compost or other means of protection. Also monitor the planting areas for signs of invasive species growth. If caught early enough, their eradication is much easier. The most likely places where invasions start are in wetter, disturbed soils. Species such as phragmites and purple loose-strife are common invaders in the wetter areas. Young shoots of invasive species can physically be pulled by hand as a method of control. The planting areas should be inspected monthly during the growing season for the presence of invasive species. The planting areas should not be mowed and allowed to grow naturally, increasing their function.

Stormwater Management System
Jonathan M. & Lisa B. Morse

Inspection & Maintenance Checklist

BMP/System Component	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance/Cleanout Threshold
Stone Drip Aprons	Twice Yearly	Remove leaves / debris from surface	Clean and/or replace stone as needed
Planting Areas	Bi-Monthly during first growing season (Apr-Oct). Routinely after heavy rain	Inspect for damage and erosion. Inspect for viability and growth. Inspect for invasive species, pull young shoots by hand and dispose in household trash bags.	Replace top soil and mulch as needed. Replace dead or dying plants with new stock. Make adjustments to conditions to promote plant growth.
Porous Pavement	Semi-Annual	Inspect for debris or sediment accumulation and inspect for damage to original condition.	Vacuum twice per year Repair surface as needed.
Pervious Paver Patio/Walkways	Twice annually	Monitor for excessive accumulation of debris and remove as needed.	Replace void space aggregate as needed.

Stormwater Management System
Jonathan M. & Lisa B. Morse

BMP/System Component	**Date Inspected**	**Inspector**	**Cleaning/Repair Needed** ***(List Items/Comments)***	**Date of Cleaning/Repair**	**Performed By**

BUILDING ADDITION

MORSE RESIDENCE

89 SPARHAWK STREET, PORTSMOUTH, NEW HAMPSHIRE

PERMIT PLANS

OWNER & APPLICANT:
JOHATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
(603) 969-6656

CIVIL ENGINEER & LAND SURVEYOR:
AMBIT ENGINEERING, INC.
200 GRIFFIN ROAD, UNIT 3
PORTSMOUTH, N.H. 03801
TEL. (603) 430-9282
FAX (603) 436-2315

LANDSCAPE ARCHITECT:
WOODBURN & COMPANY LANDSCAPE ARCHITECTURE, LLC
103 KENT PLACE
NEWMARKET, N.H. 03857
TEL. (603) 659-5949
FAX (603) 659-5939

ARCHITECT:
SOMMA STUDIOS
30 MAPLEWOOD AVENUE
PORTSMOUTH NH 03801
TEL. (617) 766-3760
FAX (617) 766-3761

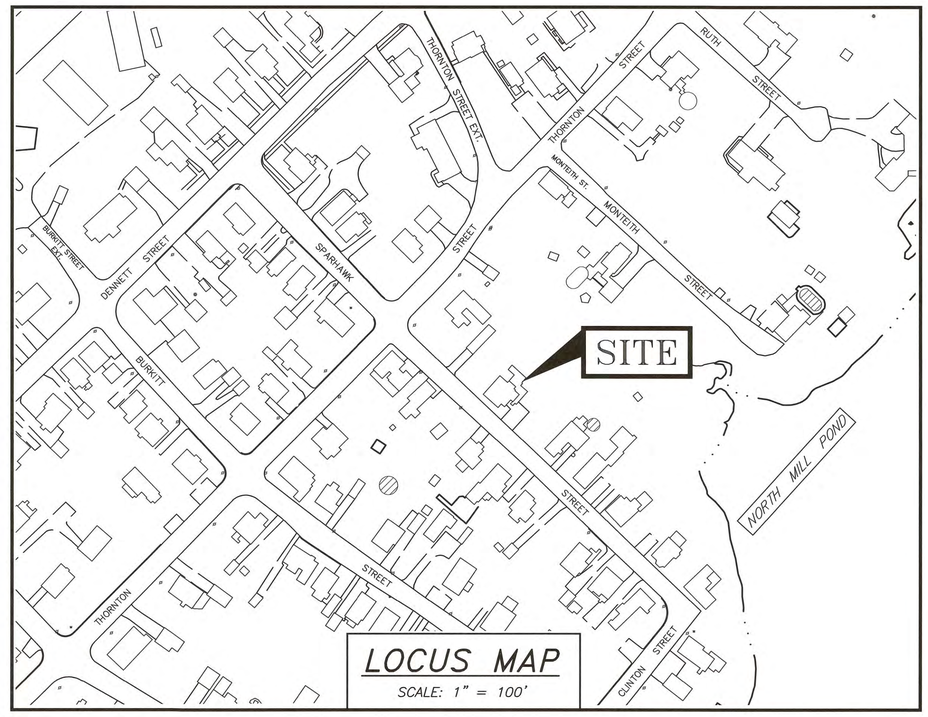
PERMIT LIST:
PORTSMOUTH DRIVEWAY PERMIT: PENDING
PORTSMOUTH TREES AND GREENERY: PENDING
PORTSMOUTH CONDITIONAL USE PERMIT (WETLANDS): PENDING
NHDES WETLAND BUREAU: PENDING
NHDES SHORELAND PERMIT: PENDING

Legend

Character Districts
Character-Based Zoning Area
(Refer to Zoning Map Sheet 2 of 2 Character Districts Regulating Plan)

Residential Districts

R	Rural
SRA	Single Residence A
SRB	Single Residence B
GRA	General Residence A
GRB	General Residence B
GRC	General Residence C
GA/MH	Garden Apartment/Mobile Home Park



LOCUS MAP
SCALE: 1" = 100'

LEGEND:

EXISTING	PROPOSED	
		PROPERTY LINE
		SETBACK
S	S	SEWER PIPE
SL	SL	SEWER LATERAL
G	G	GAS LINE
D	D	STORM DRAIN
W	W	WATER LINE
WS	WS	WATER SERVICE
UGE	UGE	UNDERGROUND ELECTRIC
OHW	OHW	OVERHEAD ELECTRIC/WIRES
	UD	FOUNDATION DRAIN
		EDGE OF PAVEMENT (EP)
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
		UTILITY POLE
		WALL MOUNTED EXTERIOR LIGHTS
		TRANSFORMER ON CONCRETE PAD
		ELECTRIC HANDHOLD
		SHUT OFFS (WATER/GAS)
	GV	GATE VALVE
	HYD	HYDRANT
CB	CB	CATCH BASIN
S	SMH	SEWER MANHOLE
D	DMH	DRAIN MANHOLE
T	TMH	TELEPHONE MANHOLE
14	14	PARKING SPACE COUNT
PM		PARKING METER
LSA		LANDSCAPED AREA
TBD	TBD	TO BE DETERMINED
CI	CI	CAST IRON PIPE
COP	COP	COPPER PIPE
DI	DI	DUCTILE IRON PIPE
PVC	PVC	POLYVINYL CHLORIDE PIPE
RCP	RCP	REINFORCED CONCRETE PIPE
AC	–	ASBESTOS CEMENT PIPE
VC	VC	VITRIFIED CLAY PIPE
EP	EP	EDGE OF PAVEMENT
EL.	EL.	ELEVATION
FF	FF	FINISHED FLOOR
INV	INV	INVERT
S =	S =	SLOPE FT/FT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL

DIG SAFE
MA – ME – NH – RI – VT
1-888-344-7233
CALL TOLL FREE

INDEX OF SHEETS

DWG No.	
–	STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY
C1	DEMO PLAN
C2	CITY OF PORTSMOUTH PERMIT PLAN
C3	NHDES PERMIT PLAN
L1	LANDSCAPE PLAN
–	PROPOSED ELEVATIONS
–	PROPOSED FLOOR PLANS
C4	DRAINAGE & GRADING PLAN
D1	DETAILS

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708, Ext. 555.5678
ATTN: MICHAEL BUSBY, P.E. (MANAGER)

NATURAL GAS:
UNITIL
325 WEST ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 294-5144
ATTN: DAVE BEAULIEU

CABLE:
COMCAST
155 COMMERCE WAY
PORTSMOUTH, N.H. 03801
Tel. (603) 679-5695 (X1037)
ATTN: MIKE COLLINS

SEWER & WATER:
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 427-1530
ATTN: JIM TOW

COMMUNICATIONS:
FAIRPOINT COMMUNICATIONS
JOE CONSIDINE
1575 GREENLAND ROAD
GREENLAND, N.H. 03840
Tel. (603) 427-5525

PORTSMOUTH APPROVAL CONDITIONS NOTE:
ALL CONDITIONS ON THIS PLAN SET SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE CITY OF PORTSMOUTH SITE PLAN REVIEW REGULATIONS.

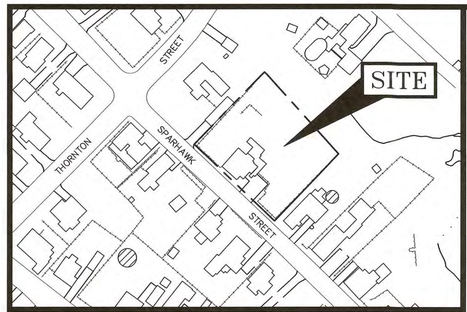
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

BUILDING ADDITION
MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

PLAN SET SUBMITTAL DATE: 29 MARCH 2023



LOCATION MAP

SCALE: 1" = 100'

PLAN REFERENCES:

1) CONDOMINIUM SITE PLAN FOR "THORNTON STEET CONDOMINIUMS" TAX MAP 159, LOT 1 PORTSMOUTH, NH. PREPARED BY: ROSS ENGINEERING, LLC. DWG. NO. 1 OF 4. DATED 3/2/2020 FOR RECORDING. SCALE: 1"=10'. RCRD D-42038.

2) PLAN OF TRACT OF LAND IN THE TOWN OF PORTSMOUTH BELONGING TO MR. JOHN MILLER, SCALE: 100 FEET PER INCH, DATED 1812, PREPARED BY BEN AKERMAN, RCRD 206/131

3) SKETCH SHOWING WEST LINE OF DELIA W. CARR LOT WITH REFERENCE TO SPARHAWK ST. PORTSMOUTH, N.H. BASED ON SUB-DIVISION PLAN BY BENJ. AKERMAN DATED 1812 AND RECORDED ROCKINGHAM RECORDS 206/131, DATED MARCH 1944, PREPARED BY JOHN W DURGIN CIVIL ENGINEER, NOT RECORDED

4) TAX MAP 143 LOT 22, SKETCH PLAN DUDAS RESIDENCE, 32 MONTEITH STREET PORTSMOUTH, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM, OWNER CHARLES & ALLISON DUDAS, SCALE: 1" = 20', DATED JANUARY 28, 2020, PREPARED BY MCS, A DIVISION OF TF MORAN, INC., NOT RECORDED

LEGEND

N/F	NOW OR FORMERLY
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
	BOUNDARY
	SETBACK
RR SPK FND	RAILROAD SPIKE FOUND
IR/IP FND	IRON ROD/IRON PIPE FOUND
DH FND	DRILL HOLE FOUND
BND w/DH	BOUND w/ DRILL HOLE
S	SEWER LINE
G	GAS LINE
D	STORM DRAIN
W	WATER LINE
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
	EDGE OF PAVEMENT (EP)
	WOODS / TREE LINE
	UTILITY POLE (W/ GUY)
	GAS SHUT OFF
	WATER SHUT OFF/CURB STOP
GV	GATE VALVE
HYD	HYDRANT
G W E	METER (GAS, WATER, ELECTRIC)
	CATCH BASIN
S	SEWER MANHOLE
D	DRAIN MANHOLE
AC	AIR CONDITIONER UNIT
	SIGNS
A-1	EDGE OF WETLAND FLAGGING
	SWAMP / MARSH
EL.	ELEVATION
F.F.	FINISHED FLOOR
INV.	INVERT
TBM	TEMPORARY BENCHMARK
TYP.	TYPICAL
LSA	LANDSCAPED AREA

TEST PIT 1

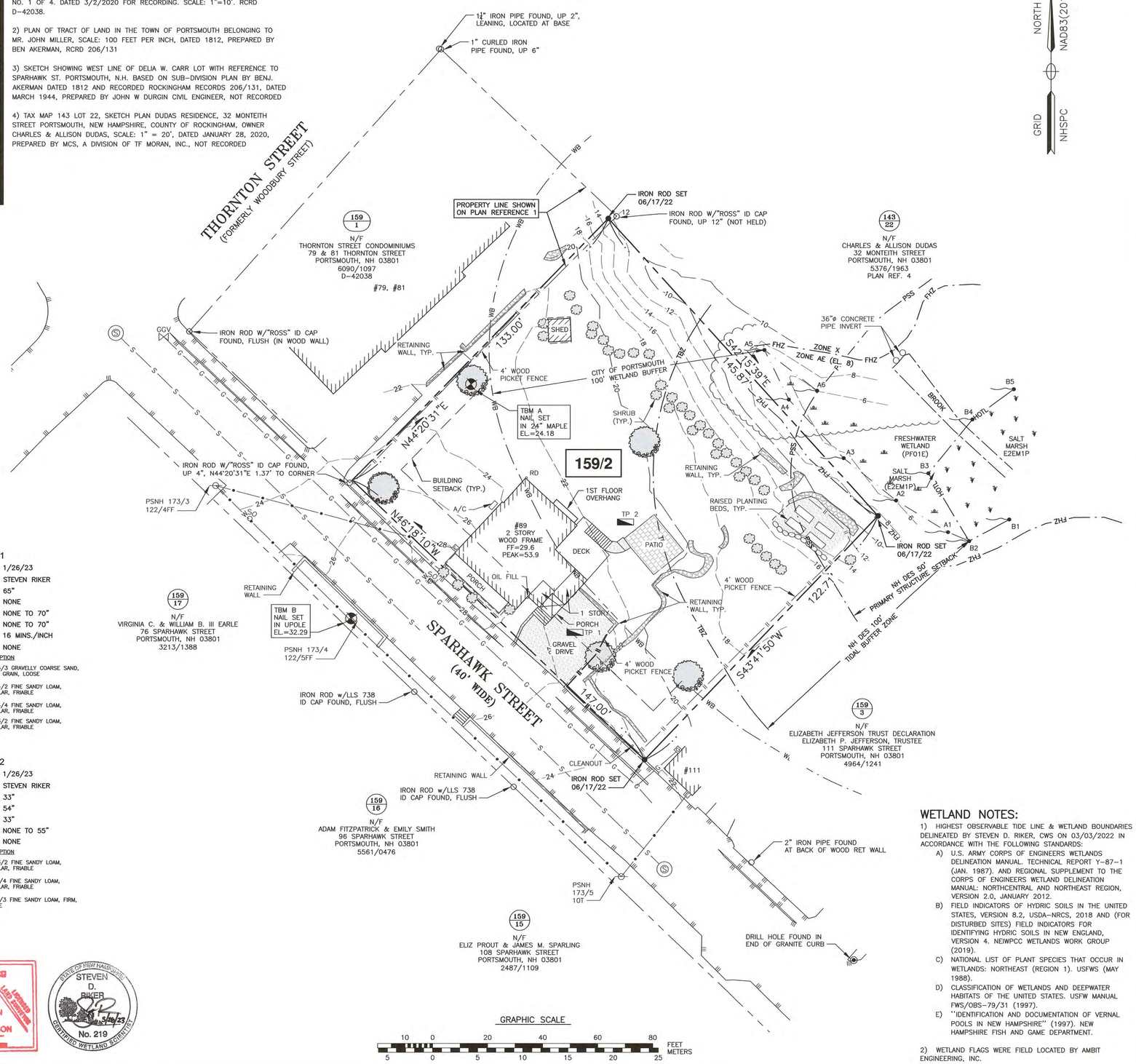
Date:	1/26/23
Logged by:	STEVEN RIKER
ESHWT:	65"
Observed Water:	NONE
Restrictive layer:	NONE TO 70"
REFUSAL:	NONE TO 70"
Percolation rate:	16 MINS./INCH
Roots:	NONE

DEPTH	DESCRIPTION
0" – 21"	10YR 4/3 GRAVELLY COARSE SAND, SINGLE GRAIN, LOOSE
21" – 37"	10YR 4/2 FINE SANDY LOAM, GRANULAR, FRIABLE
37" – 65"	10YR 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE
65' – 70"	10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE

TEST PIT 2

Date:	1/26/23
Logged by:	STEVEN RIKER
ESHWT:	33"
Observed Water:	54"
Restrictive layer:	33"
REFUSAL:	NONE TO 55"
Roots:	NONE

DEPTH	DESCRIPTION
0" – 13"	10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE
13" – 33"	2.5Y 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE
37" – 65"	2.5Y 4/3 FINE SANDY LOAM, FIRM, MASSIVE



WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE & WETLAND BOUNDARIES DELINEATED BY STEVEN D. RIKER, CWS ON 03/03/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).

C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).

E) "'IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) WETLAND FLAGS WERE FIELD LOCATED BY AMBIT ENGINEERING, INC.

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

3.23.23

JOHN R. CHAGNON, LLS — DATE

STATE OF NEW HAMPSHIRE — LICENSED LAND SURVEYOR — No. 738 — JOHN R. CHAGNON

STATE OF NEW HAMPSHIRE — STEVEN D. RIKER — 5/9/23 — No. 219 — CERTIFIED WETLAND SCIENTIST

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 159 AS LOT 2.

2) OWNER OF RECORD:
JONATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
5855/0015

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA (ZONE AE EL. 8) AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
18,702 S.F.
0.4293 ACRES

5) PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

LOT AREA:		7,500 S.F.
FRONTAGE:		100 FEET
DEPTH:		70 FEET
SETBACKS:	FRONT	15 FEET
	SIDE	10 FEET
	REAR	20 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		25%
MINIMUM OPEN SPACE:		30%

8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

9) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

NO.	DESCRIPTION	DATE
1	MONUMENTS SET	6/17/22
0	ISSUED FOR COMMENT	5/27/22

REVISIONS

STANDARD BOUNDARY & TOPOGRAPHIC SURVEY TAX MAP 159 – LOT 2

FOR

JONATHAN M. MORSE & LISA B. MORSE

89 SPARHAWK STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=20' — APRIL 2022

FB 288 PG 54 — 3432

N:\NH\5015\152-Lisa Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/27/2023 4:47:43 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

DEMOLITION NOTES

A) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE DESIGNER. IT IS THE CONTRACTORS' RESPONSIBILITY TO LOCATE UTILITIES AND ANTICIPATE CONFLICTS. CONTRACTOR SHALL REPAIR EXISTING UTILITIES DAMAGED BY THEIR WORK AND RELOCATE EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED PRIOR TO COMMENCING ANY WORK IN THE IMPACTED AREA OF THE PROJECT.

B) ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTORS UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES. THE CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, DISPOSAL, OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.

C) ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

D) THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.

E) SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT TRENCH IN AREAS WHERE PAVEMENT IS TO BE REMOVED.

F) IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL THE PERMIT APPROVALS.

G) THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL CONSTRUCTION PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR ANY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK.

H) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE, UTILITIES, VEGETATION, PAVEMENT, AND CONTAMINATED SOIL WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ANY EXISTING DOMESTIC / IRRIGATION SERVICE WELLS IN THE PROJECT AREA IDENTIFIED DURING THE CONSTRUCTION AND NOT CALLED OUT ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER FOR PROPER CAPPING / RE-USE.

I) ALL WORK WITHIN THE CITY OF PORTSMOUTH RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS (DPW).

J) REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

K) CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED, THE CONTRACTOR SHALL EMPLOY A NH LICENSED LAND SURVEYOR TO REPLACE THEM.

L) PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE HIGH FLOW SILT SACK BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN 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 WARRANTED OR FABRIC BECOMES CLOGGED. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.

M) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFELY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.

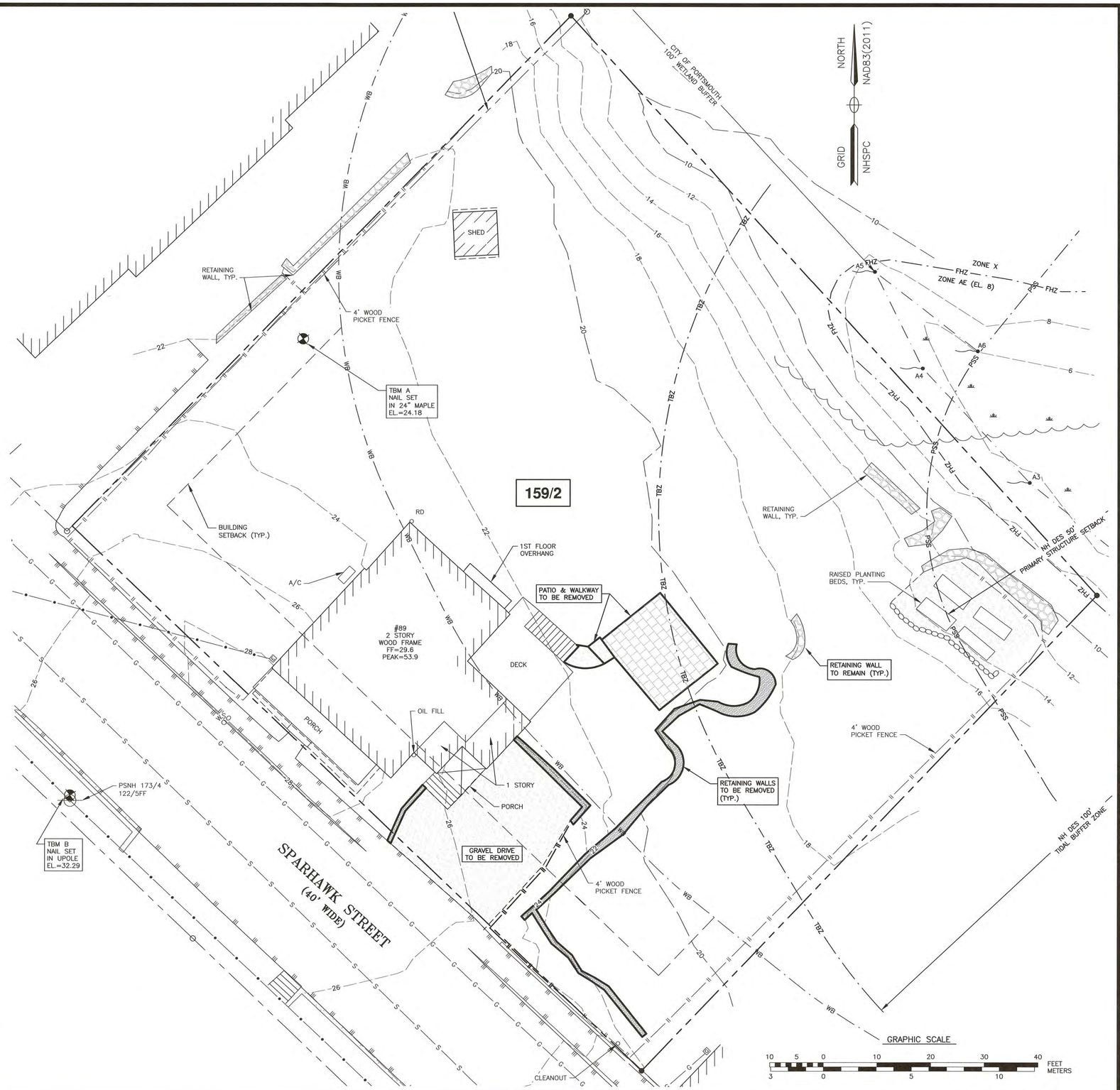
N) ANY CONTAMINATED MATERIAL REMOVED DURING THE COURSE OF THE WORK WILL REQUIRE HANDLING IN ACCORDANCE WITH NHDES REGULATIONS. CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN IN PLACE, AND COMPLY WITH ALL APPLICABLE PERMITS, APPROVALS, AUTHORIZATIONS, AND REGULATIONS.

O) DURING CONSTRUCTION ACCESS WILL BE PROVIDED TO ALL EXISTING PROPERTIES LOCATED ON BIRCH ST.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE JOHN CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE STEVEN D. RIKER 3/29/23 No. 219 CERTIFIED WETLAND SCIENTIST

SCALE: 1" = 10' NOVEMBER 2022

DEMOLITION PLAN

C1

FB 288 PG 54

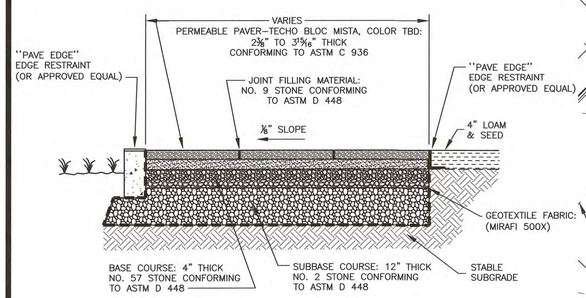
3432

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	1,280	2,154
PORCH/DECK	343	343
STAIRS/LANDINGS	111	250
RETAINING WALLS	328	219
DRIVEWAY	631	0
SHED	67	67
AC PAD	4	4
WALKWAYS	30	0
PATIO	239	101
TOTAL	3,033	3,138
LOT SIZE	18,702	18,702
% LOT COVERAGE	16.2%	16.8%

CITY OF PORTSMOUTH BUFFER IMPACT

TOTAL DISTURBANCE: 2,685 S.F.



NOTES:
1) TECHO–BLOC (OR APPROVED EQUAL).
2) INSTALLED PER MANUFACTURERS INSTRUCTIONS.
3) PEDESTRIAN TRAFFIC ONLY.

MAINTENANCE OF POROUS PAVER SURFACE:
1) MONITOR FOR EXCESSIVE ACCUMULATION OF DEBRIS, PARTICULARY IN VOID SPACE.

2) REMOVE DEBRIS FROM VOID SPACE TWICE ANNUALLY BY MANUAL MEANS OR BY VACUUM.

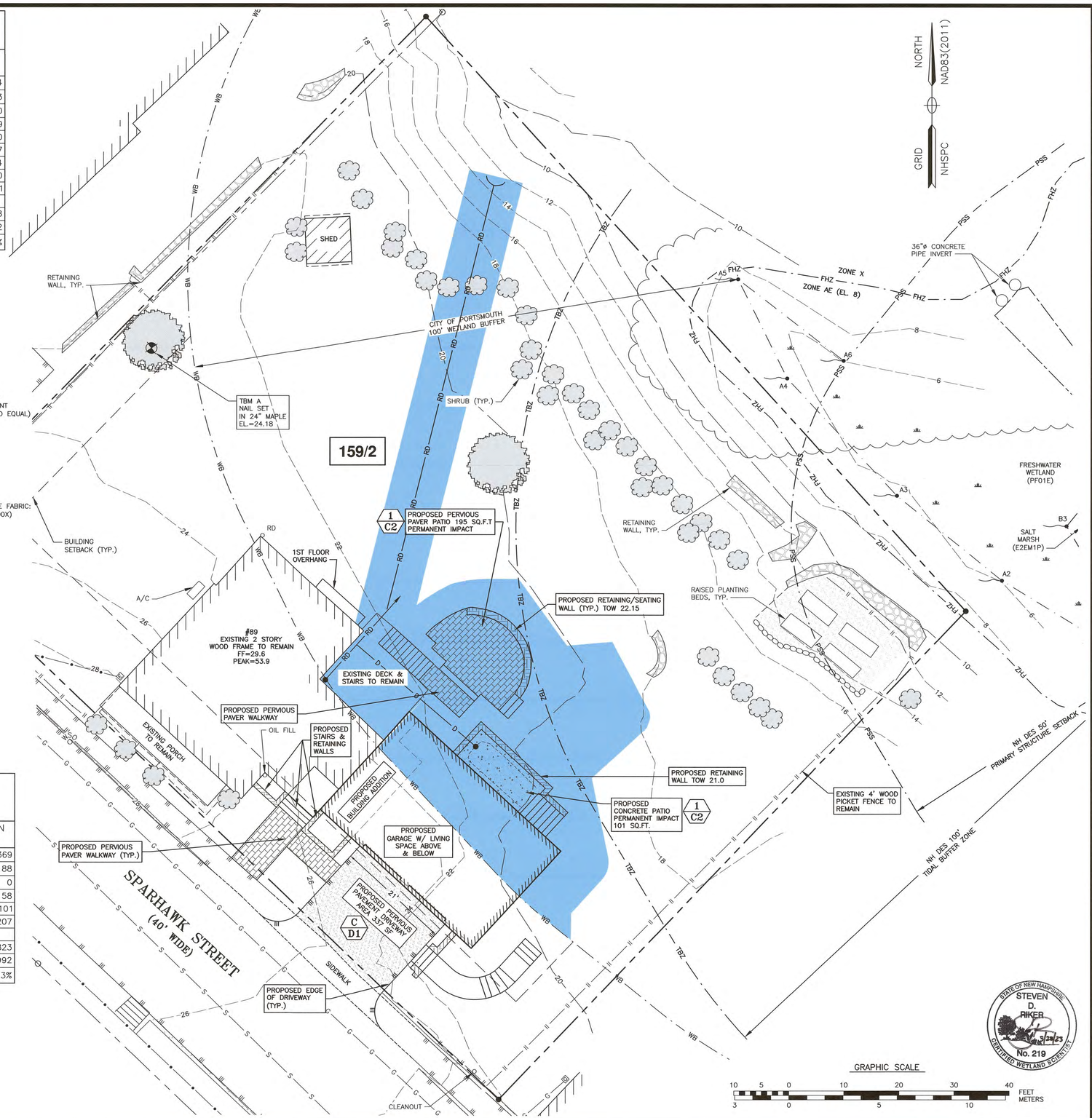
1/C2 TECHO–BLOC® POROUS PATIO/WALKWAYS
(OR APPROVED EQUAL) NTS

CITY OF PORTSMOUTH WETLAND BUFFER IMPERVIOUS SURFACE AREAS

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	175	369
STEPS	39	88
WALKWAY	29	0
RETAINING WALLS	95	58
PATIO	238	101
DECK	207	207
TOTAL	783	823
AREA OF BUFFER ON LOT	12,992	12,992
% COVERAGE IN BUFFER	6.0%	6.3%

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 159 AS LOT 2.

2) OWNER OF RECORD:
JONATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
5855/0015

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA (ZONE AE EL. 8) AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
18,702 S.F.
0.4293 ACRES

5) PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

LOT AREA:		7,500 S.F.
FRONTAGE:		100 FEET
DEPTH:		70 FEET
SETBACKS:	FRONT	15 FEET
	SIDE	10 FEET
	REAR	20 FEET

MAXIMUM STRUCTURE HEIGHT:	35 FEET
MAXIMUM BUILDING COVERAGE:	25%
MINIMUM OPEN SPACE:	30%

8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

9) THE PURPOSE OF THIS PLAN IS TO SHOW THE STRUCTURE ADDITION & SITE IMPROVEMENTS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	3/22/23
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON 7851 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE No. 738 JOHN F. CHAGNON LICENSED LAND SURVEYOR

SCALE: 1" = 10' MARCH 2023

CITY OF PORTSMOUTH PERMIT PLAN

C2

FB 288 PG 54

3432

P:\NH\5010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/27/2023 4:21:29 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

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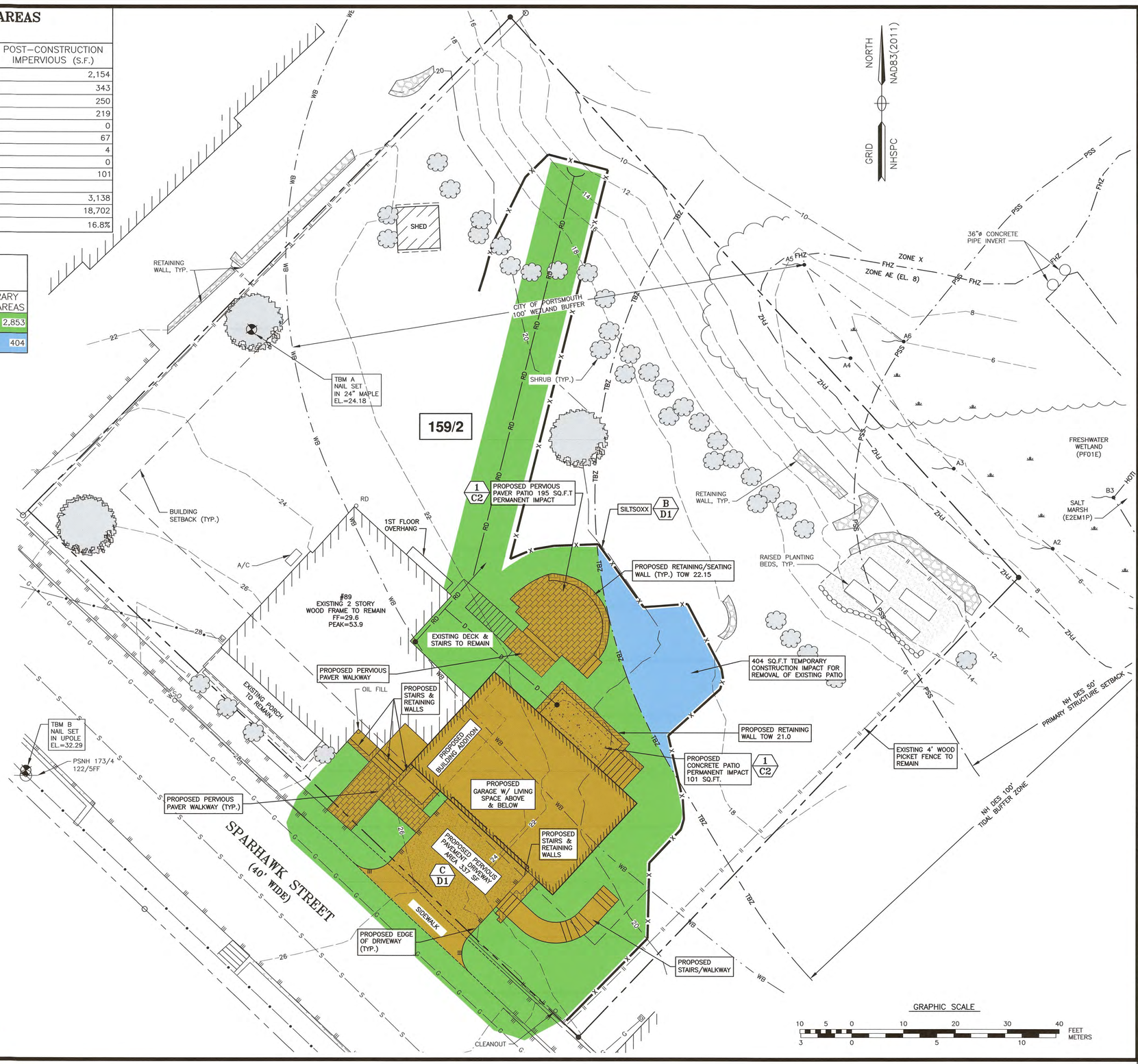
NHDES IMPACT AREAS
IN S.F.

	PERMANENT IMPACT AREAS	TEMPORARY IMPACT AREAS
250' PROTECTED SHORELAND	2,154	2,853
TIDAL BUFFER ZONE	0	404



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9) THE PURPOSE OF THIS PLAN IS TO SHOW THE STRUCTURE ADDITION & SITE IMPROVEMENTS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

10) PER CITY OF PORTSMOUTH ZONING ORDINANCE, ARTICLE 10.1018.24 FERTILIZERS: THE USE OF ANY FERTILIZER IS PROHIBITED IN A WETLAND, VEGETATED BUFFER STRIP OR LIMITED CUT AREA; AND THE USE OF FERTILIZERS OTHER THAN LOW PHOSPHATE AND SLOW RELEASE NITROGEN FERTILIZERS IS PROHIBITED IN ANY PART OF A WETLAND BUFFER.

11) THE ENTIRE LOT IS LOCATED WITHIN THE 250' PROTECTED SHORELAND.

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	3/22/23

REVISIONS

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE STEVEN D. RIKER No. 219 CERTIFIED WETLAND SCIENTIST 3/22/23

STATE OF NEW HAMPSHIRE No. 738 JOHN R. CHAGNON LICENSED LAND SURVEYOR

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS — DATE 3.22.23

SCALE: 1" = 10' — FEBRUARY 2023

NH DES PERMIT PLAN

C3

FB 288 PG 54 — 3432

P:\NHS010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey (2022.dwg, 3/27/2023 4:41:31 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

Landscape General Notes

1. Design is base on drawings by Ambit Engineering dated 03/20/2023 and Somma Studios dated 2/14/2023. Drawings may require adjustment due to actual field conditions.

2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.

3. Erosion Control shall be in place prior to construction.

4. Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.

5. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.

6. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.

7. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.

8. This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.

9. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.

10. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.

11. The Contractor shall procure any required permits prior to construction.

12. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.

13. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a Contractor is aware of a potential issue and does not bring it to the attention of the Landscape Architect or Owner's Representative immediately, they may be responsible for the labor and materials associated with correcting the problem.

14. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.

15. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

16. All plants shall be legibly tagged with proper botanical name.

17. The Contractor shall guarantee all plants including seeding, for not less than one year from time of acceptance.

18. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.

19. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.

20. All landscaping shall be provided with the following:

a. Outside hose attachments spaced a maximum of 150 feet apart, and

b. An underground irrigation system, or

c. A temporary irrigation system designed for a two-year period of plant establishment.

21. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.

22. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, watering of plants, including seeding and weeding. Plants shall be appropriately watered prior to, during, and after planting. It is the Contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.

23. Contractor shall provide an alternate price for irrigating all newly landscaped areas and resetting of any existing irrigation that will be disturbed during planting. Contractor shall provide irrigation design for review by Landscape Architect or Owner's Representative when awarded the project.

24. All disturbed areas will be dressed with 6" of loam and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.

25. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.

26. Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.

27. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.

28. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.

29. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.

30. Landscape Architect is not responsible for the means and methods of the Contractor.

Plant List

TREES

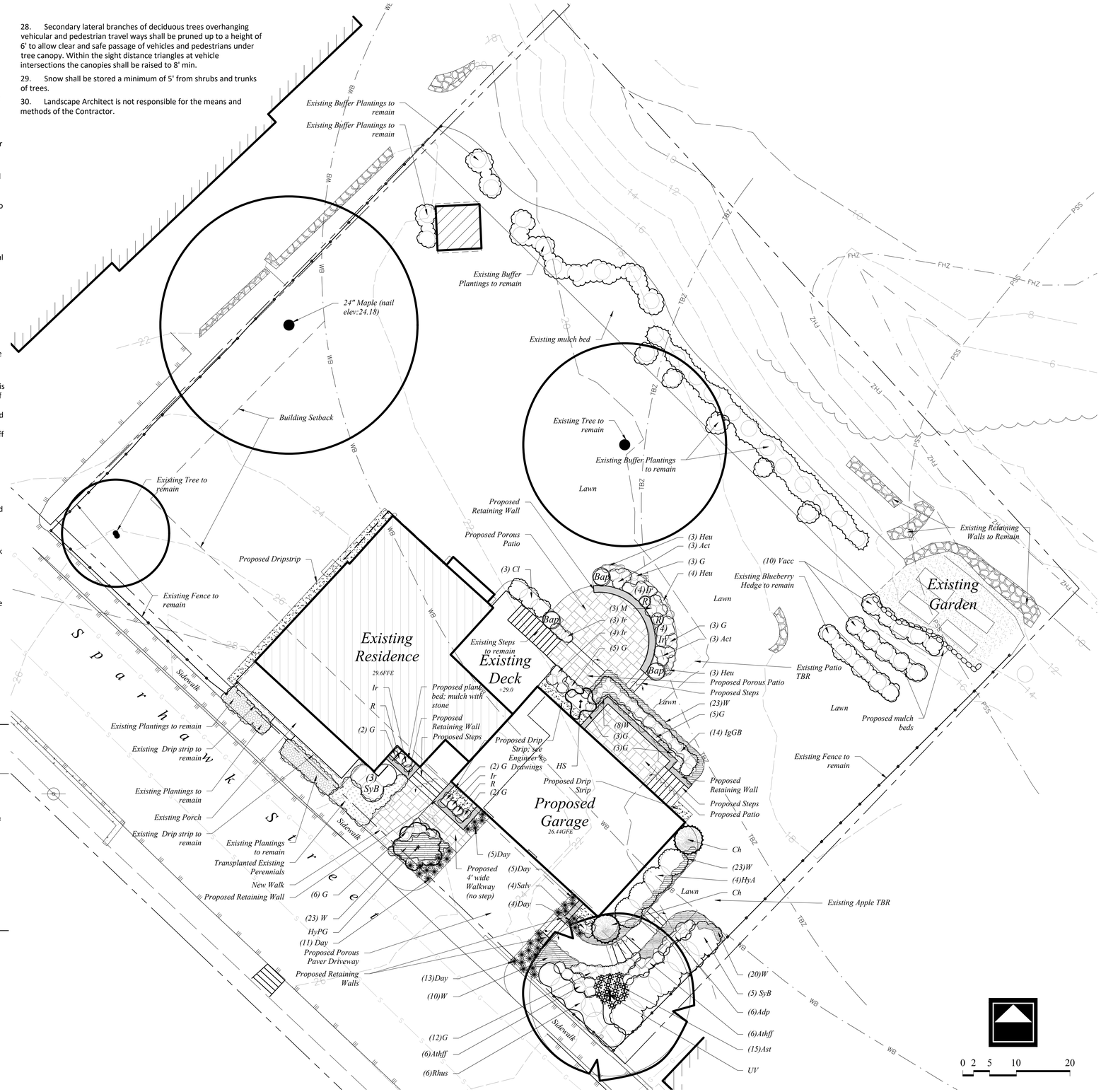
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
UV	*Ulmus americana 'Valley Forge'*	Valley Forge American Elm	1	3-3.5" cal	

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Cl	*Clethra alnifolia 'Hummingbird'*	Hummingbird Compact Summersweet	3	2'-2.5' BB	
Ch	*Chamaecyparis obtusa 'Nana Gracilis'*	Dwarf Hinoki Falsecypress	2	3-4' BB	
HS	*Hibiscus syriacus 'Raspberry Smoothie'*	Raspberry Smoothie Rose-of-Sharon	1	5-6'BB	treeform
HyA	*Hydrangea arborescens 'Annabelle'*	Annabelle Hydrangea	4	3 gal	
HyPG	*Hydrangea paniculata 'Fire and Ice'*	Fire and Ice P.G. Hydrangea	1	10 gal	specimen, treeform
IgGB	*Ilex glabra 'Gem Box'*	Gem Box Dwarf Inkberry	14	3 gal	
Rhus	*Rhus aromatica 'Grow-Low'*	Grow Low Sumac	6	2'-2.5' BB	
SyB	*Syringa 'Bloomerang'*	Bloomerang Lilac	8	2'-2.5' BB	
Vacc	*Bluberry Mix:*	Highbush Blueberry			
	Vaccinium corymbosum	Northern Highbush Blueberry 'Patriot'	3	3 gal	
	Vaccinium corymbosum	Northern Highbush Blueberry 'Bluehaven'	3	3 gal	
	Vaccinium corymbosum	Northern Highbush Blueberry 'Jersey'	4	3 gal	

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Act	*Actaea racemosa*	Bugbane	6	1 gal	
Adp	*Adiantum pedatum*	Maidenhair Fern	6	1 gal	
Ast	*Astilbe Ostrich Plume*	Pink Astilbe	15	1 gal	
Athff	*Athyrium filix-femina*	Lady Fern	12	1 gal	
Bap	*Baptisia australis*	False Blue Indigo	3	1 gal	
Day	*Daylily Mix:*				
	Hemerocallis 'Joan Senior'	Joan Senior Daylily (early-mid)	12	1 gal	
	Hemerocallis 'Catherine Woodbury'	Catherine Woodbury Daylily	13	1 gal	
	Hemerocallis 'Mary Todd'	Mary Todd Daylily	13	1 gal	
G	*Geranium maculatum*	Spotted Cranesbill	46	1 gal	
Heu	*Heuchera villosa 'Autumn Bride'*	Autumn Bride Heuchera	10	1 gal	
IR	*Iris versicolor*	Blue Flag Iris	17	1 gal	
M	*Monarda 'Raspberry Wine'*	Wine Red Beebalm	3	1 gal	
R	*Rudbeckia fulgida 'Goldsturm'*	Black-Eyed Susan	4	1 gal	
Salv	*Salvia nemorosa 'Blue Hill'*	Dark Blue Salvia	4	1 gal	
W	*Waldsteinia fragarioides*	Barren Strawberry	86	1 gal	plant 18" o.c.



woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

Morse Residence

LANDSCAPE PLAN

89 Sparhawk Street Portsmouth, New Hampshire

Drawn By:	WSA
Checked By:	RW
Scale:	1"-10'-0"
Date:	2023-03-28
Revisions:	FOR SUBMISSION

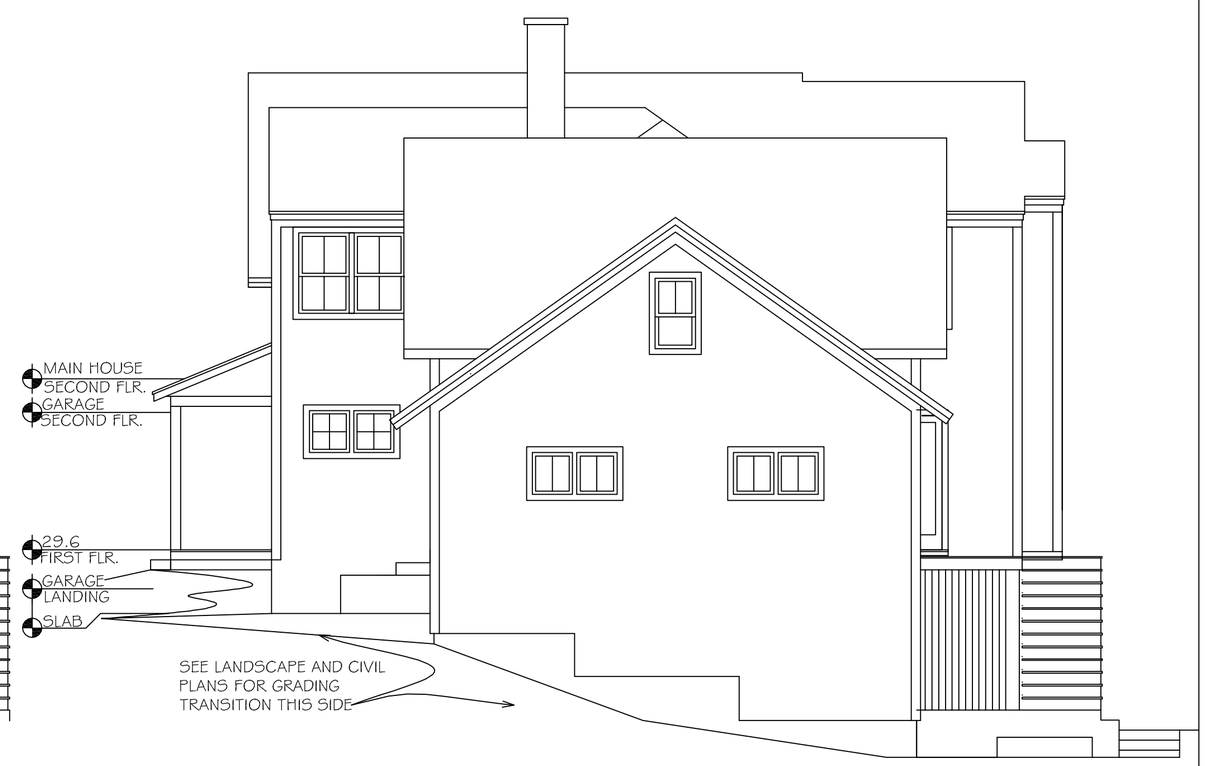
L-1

Sheet x of X

© 2023 Woodburn & Company Landscape Architecture, LLC

EXISTING/PROPOSED SPARHAWK ELEVATION

EXISTING SIDE ELEVATION



PROPOSED SIDE ELEVATION

EXISTING/PROPOSED BACK ELEVATION

MORSE RESIDENCE

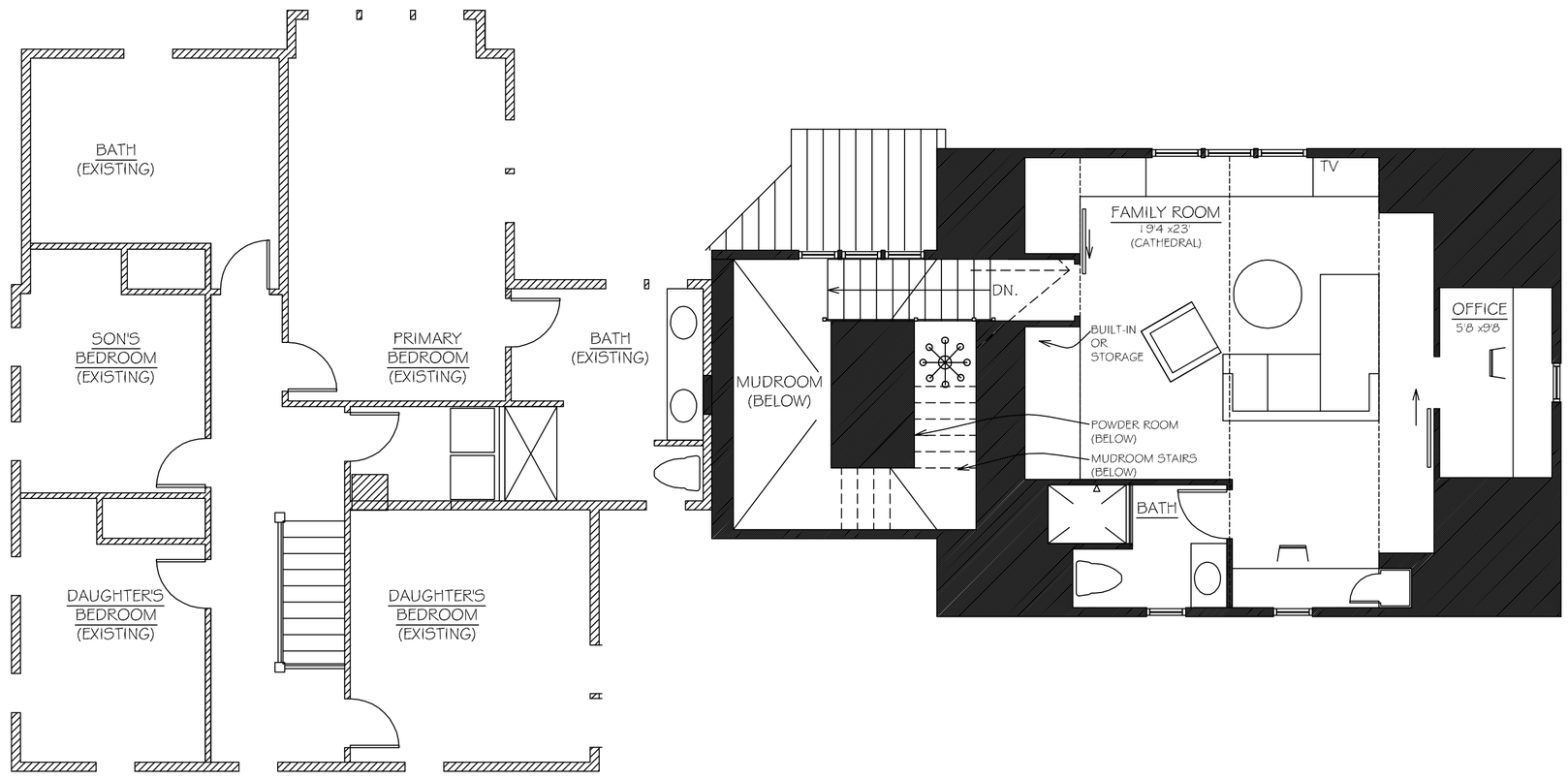
EXISTING/PROPOSED ELEVATIONS

MAR 29, 2023

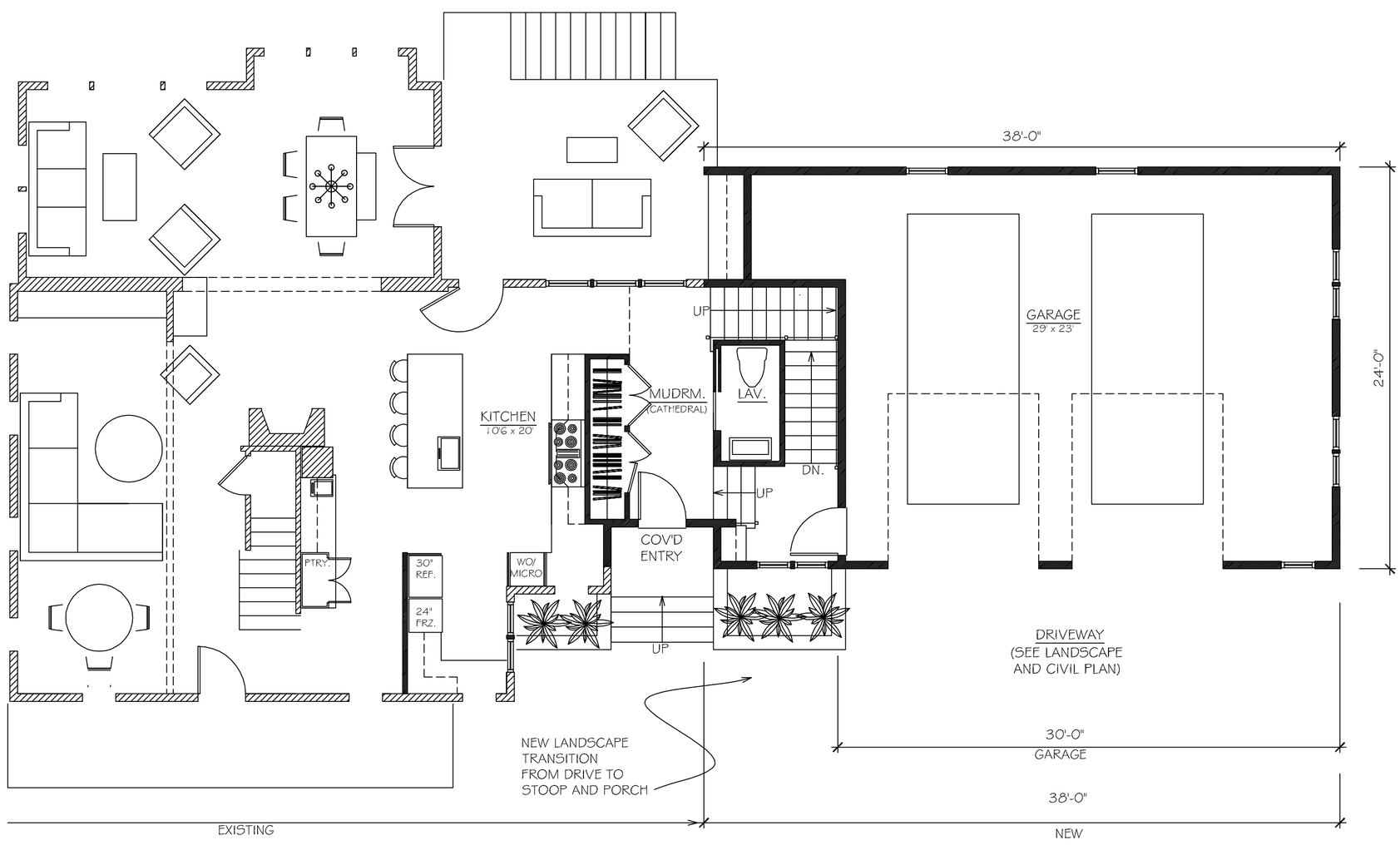
89 SPARHAWK ST., PORTSMOUTH, NH

$\frac{3}{16}" = 1'-0"$

SOMMA STUDIOS



EXISTING/PROPOSED SECOND FLOOR

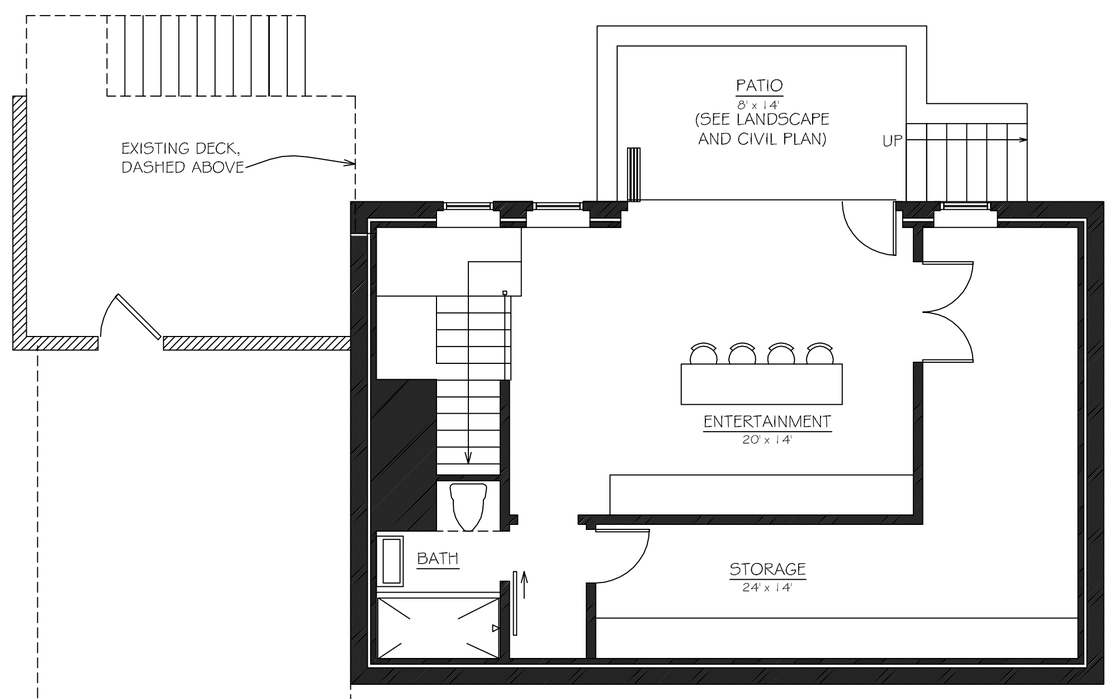


EXISTING/PROPOSED FIRST FLOOR

KEY

EXISTING WALLS

NEW WALLS



PROPOSED LOWER LEVEL

MORSE RESIDENCE

EXISTING/PROPOSD PLANS

MAR 29, 2023

89 SPARHAWK ST., PORTSMOUTH, NH

$\frac{3}{16}$" = 1'-0"

SOMMA STUDIOS

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(TO PROPERTY LINE)

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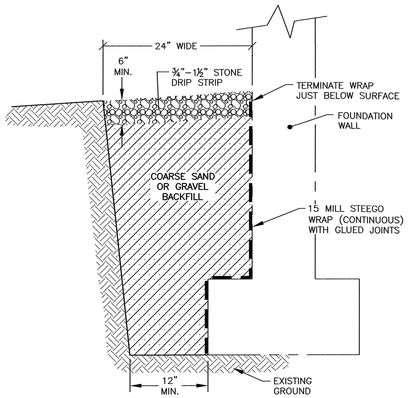
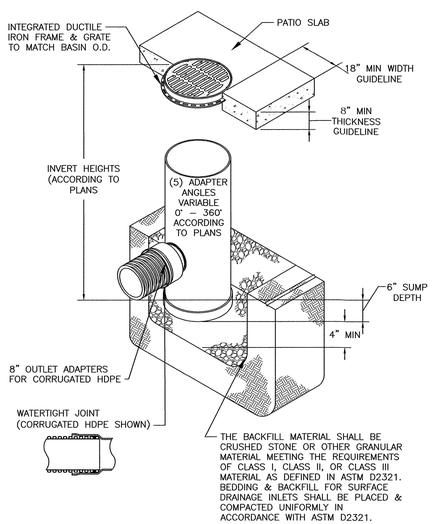


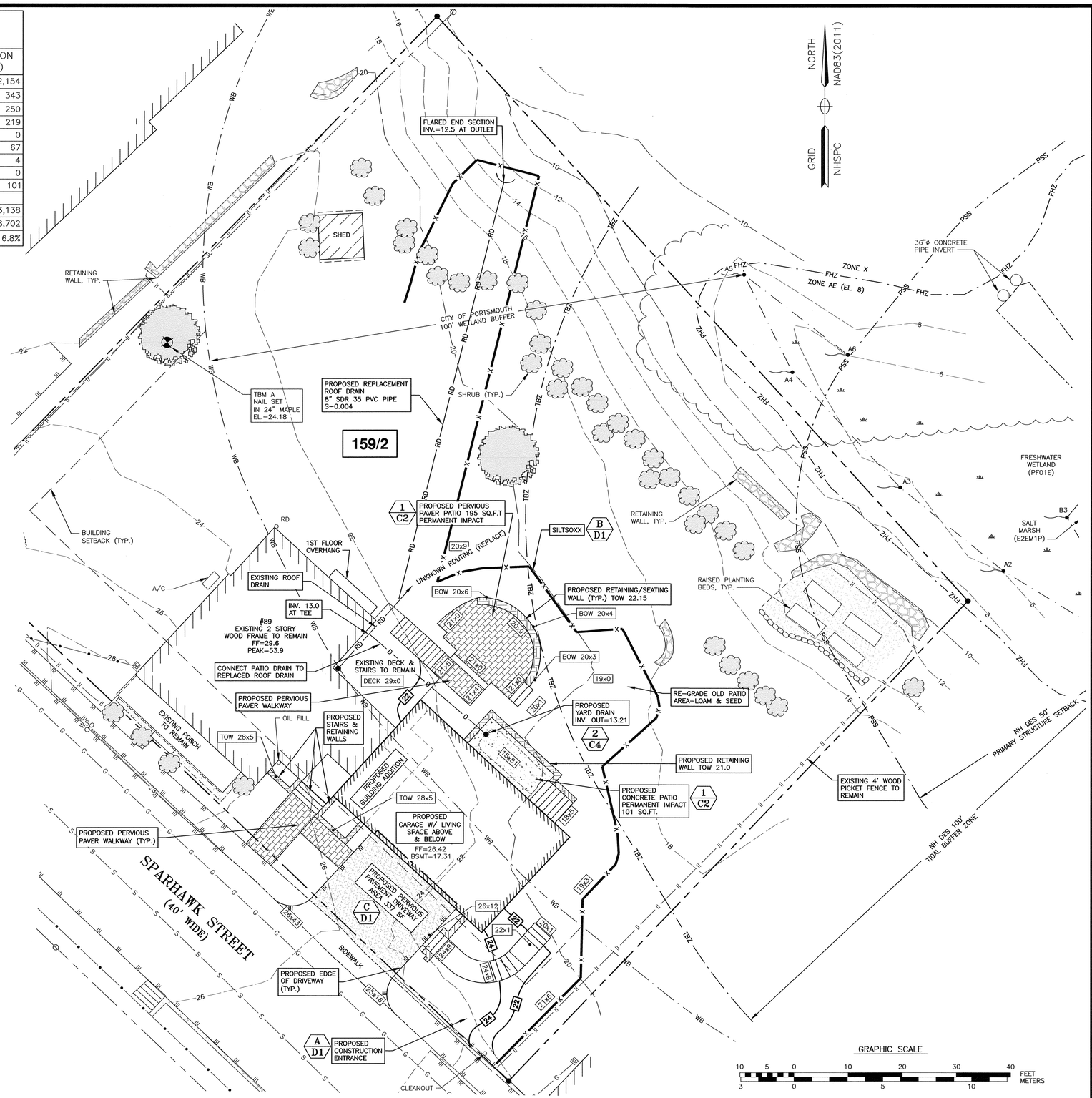
1/C4 STONE DRIP APRON
(UNDER BUILDING DRIP LINE) NTS
SEE LANDSCAPE PLAN FOR LOCATIONS



2/C4 YARD DRAIN
NYLOPLAST 24" DRAIN BASIN NTS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE



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Civil Engineers & Land Surveyors
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Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	REVISED PROPOSED BUILDING	3/22/23
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE STEVEN D. RIKER No. 219 CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE JOHN A. CHAGNON No. 7951 LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 10' NOVEMBER 2022

EROSION CONTROL & GRADING PLAN

C4

FB 288 PG 54

3432

P:\NH\5010162-Lisa Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg 3/27/2023 4:19:51 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

INSTALL INLET PROTECTION AND PERIMETER CONTROLS, i.e., SILT FENCING OR SILTSOXX AROUND THE LIMITS OF DISTURBANCE AND CATCH BASIN FILTER BEFORE ANY EARTH MOVING OPERATIONS.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED.

REMOVE EXISTING RETAINING WALLS & OTHER SITE FEATURES TO BE REMOVED.

CONSTRUCT SITE IMPROVEMENTS.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF A BUILDING ADDITION WITH ASSOCIATED UTILITIES, GRADING, AND SITE IMPROVEMENTS.

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 4,700 S.F.

BASED ON SITE OBSERVATIONS AND TEST PITS THE SOILS ON SITE CONSIST OF URBAN LAND–CANTON COMPLEX, 3 TO 15% SLOPE WHICH ARE WELL DRAINED SOILS WITH A HYDROLOGIC SOIL GROUP RATING OF A.

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED TO PROPERTY WHICH ULTIMATELY FLOWS TO THE NORTH MILL POND THEN TO THE PISCATAQUA RIVER.

GENERAL CONSTRUCTION NOTES

THE EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NHDOT, AND "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE". 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.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR MORE THAN 45 DAYS.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

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.

DUST CONTROL: DUST CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.
IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILTSOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

ALL NON–STRUCTURAL, SITE–FILL SHALL BE PLACED AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY IN LAYERS NOT EXCEEDING 18 INCHES IN THICKNESS UNLESS OTHERWISE NOTED.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIAL, TRASH, WOODY DEBRIS, LEAVES, BRUSH OR ANY DELETERIOUS MATTER SHALL NOT BE INCORPORATED INTO FILLS.

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

DURING CONSTRUCTION AND UNTIL ALL DEVELOPED AREAS ARE FULLY STABILIZED, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH ONE HALF INCH OF RAINFALL.

THE CONTRACTOR SHALL MODIFY OR ADD EROSION CONTROL MEASURES AS NECESSARY TO ACCOMMODATE PROJECT CONSTRUCTION.

ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED ON AREAS TO BE PAVED
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3 INCHES OF NON–EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
- EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
- 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.

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:
- TEMPORARY SEEDING;
- MULCHING.

1. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
2. 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 THESE AREAS, SILTSOXX, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
3. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILTSOXX, 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.

MAINTENANCE AND PROTECTION

THE SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

SILTSOXX SHALL BE REMOVED ONCE SITE IS STABILIZED, AND DISTURBED AREAS RESULTING FROM SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.

THE CATCH BASIN INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.
SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

WINTER NOTES

ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED 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.

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;

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;

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.

CONCRETE WASHOUT AREA

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

ALLOWABLE NON–STORMWATER DISCHARGES

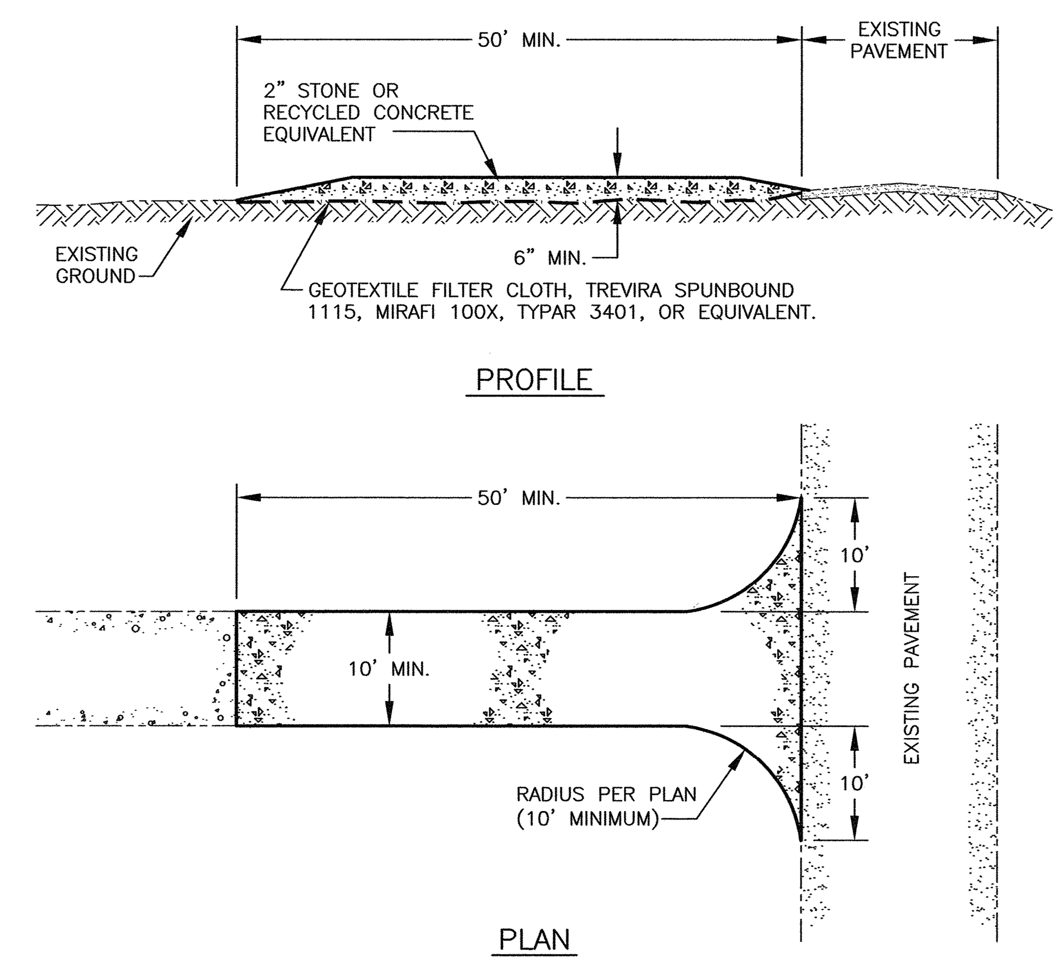
1. FIRE–FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHING;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS 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

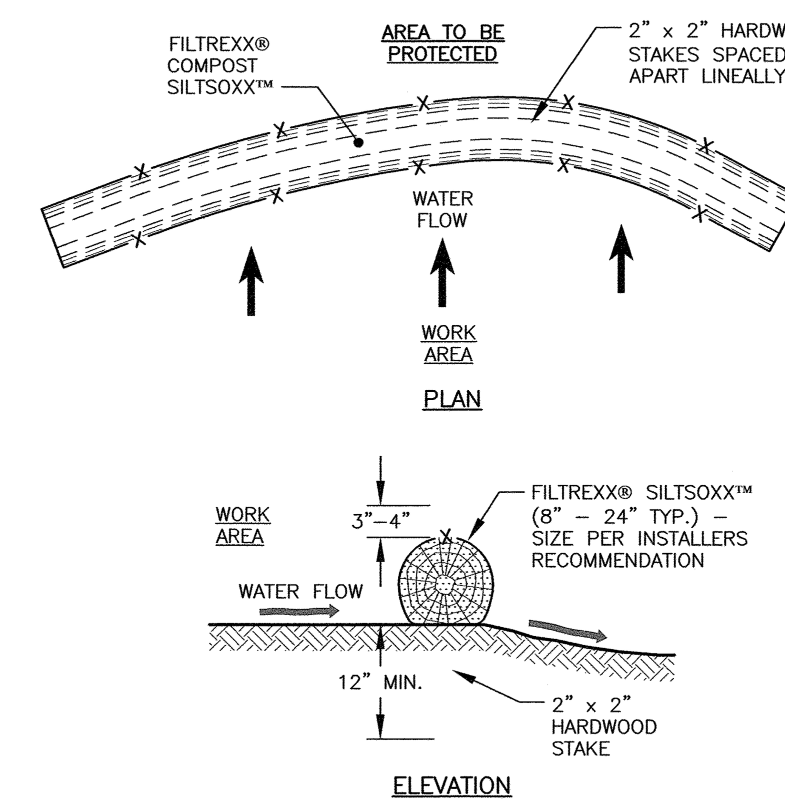
1. WASTE MATERIAL
   - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
   - NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
   - ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE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

BLASTING NOTES

1. CONTRACTOR SHALL CONTACT THE NHDES AND/OR LOCAL JURISDICTION PRIOR TO COMMENCING ANY BLASTING ACTIVITIES.
2. FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT SHALL SUBMIT A BLASTING PLAN THAT IDENTIFIES:
   - WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
   - THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND
   - SITE–SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.



A / C4 — STABILIZED CONSTRUCTION ENTRANCE
SUBSTITUTE FODS IF DESIRED — NTS



NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILLTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

B / C4 — FILTREXX® SILTSOXX™ FILTRATION SYSTEM — NTS

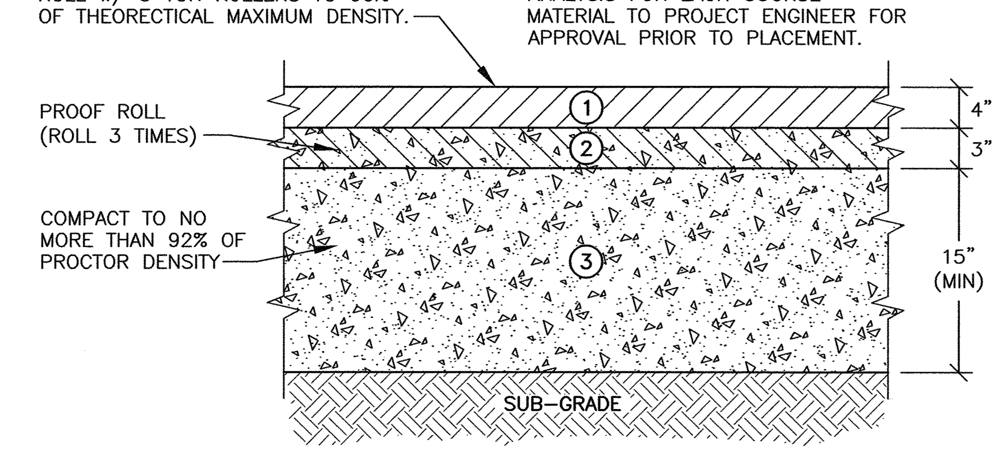
POROUS PAVEMENT SPECIFICAITONS

①		②		③	
POROUS PAVEMENT w/ THE FOLLOWING GRADATIONS*		CHOKER/RESERVOIR COURSE w/ THE FOLLOWING GRADATIONS**		FILTER COURSE (Item 304.3, Processed Gravel)	
SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)
3/4" (19mm)	100	1" (25mm)	100	3" (75mm)	100
1/2" (12.5mm)	85–100	3/4" (19mm)	45–55	2.0" (63mm)	95–100
3/8" (9.5mm)	55–75	1/2" (12.5mm)	40–50	1" (25mm)	55–85
No. 4 (4.75mm)	10–25	3/8" (9.5mm)	35–45	No. 4 (4.75mm)	27–52
No. 8 (2.36mm)	5–10	No. 4 (4.75mm)	---	---	---
No. 200 (0.075mm)	2–4	No. 8 (2.36mm)	0–5	No, 200 (0.075 mm)	0–12 (in sand portion)

* WITH 6% PERFORMANCE GRADED ASPHALT BINDER CONTENT BY VOLUME. AIR VOIDS TO BE 20%

** CRUSHED QUARRY STONE SHALL CONTAIN AT LEAST 2 FRACTURED FACES, & SHALL BE WASHED WITH LESS THAN 1% BY WEIGHT PASSING No. 200 SIEVE.

NOTE:
CONTRACTOR SHALL SUBMIT SIEVE ANALYSIS FOR EACH COURSE MATERIAL TO PROJECT ENGINEER FOR APPROVAL PRIOR TO PLACEMENT.

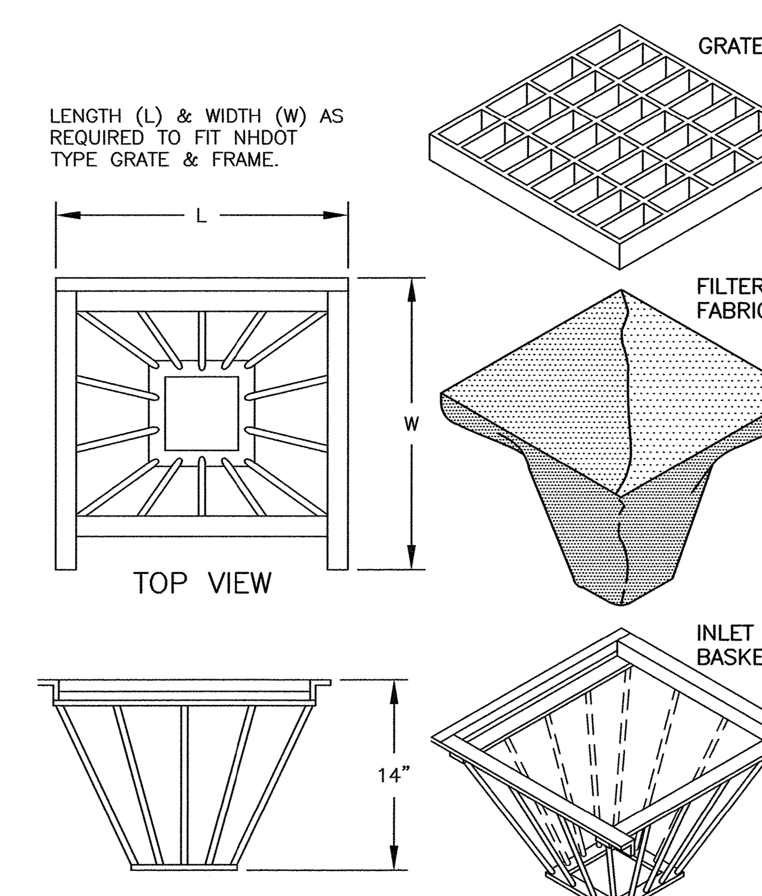


PAVEMENT SECTION
NTS

C / C2 — POROUS PAVING — NTS

POROUS PAVEMENT MAINTENANCE PROCEDURES:
A) NO DE–ICING CHEMICALS SHALL BE APPLIED TO THE POROUS PAVEMENT SURFACE

B) THE POROUS PAVEMENT SURFACE SHALL BE VACUUMED TWICE PER YEAR.



1) INLET BASKETS SHALL BE INSTALLED IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION IS COMPLETE AND SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.

2) FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET OF FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND, SHALL EXTEND AT LEAST 6" PAST THE FRAME. THE INLET GRATE SHALL BE PLACED OVER THE BASKET/FRAME AND WILL SERVE AS THE FABRIC ANCHOR.

3) THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:
–RAB STRENGTH: 45 LB. MIN. IN ANY PRINCIPAL DIRECTION (ASTM D1682)
–MULLEN BURST STRENGTH: MIN. 60 psi (ASTM D774)

4) THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 gpm/s.f. (MULTIPLY THE PERMITTIVITY IN SEC.–1 FROM ASTM 54491–85 CONSTANT HEAD TEST USING THE CONVERSION FACTOR OF 74.)

5) THE INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.

6) SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

D / C4 — CATCH BASIN INLET BASKET
AS NEEDED — NTS

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1–888–DIG–SAFE (1–888–344–7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

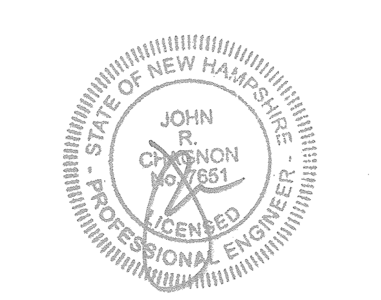
2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	3/22/23

REVISIONS



SCALE: AS SHOWN FEBRUARY 2023

EROSION CONTROL NOTES AND DETAILS

D1

FB 288 PG 54

3432

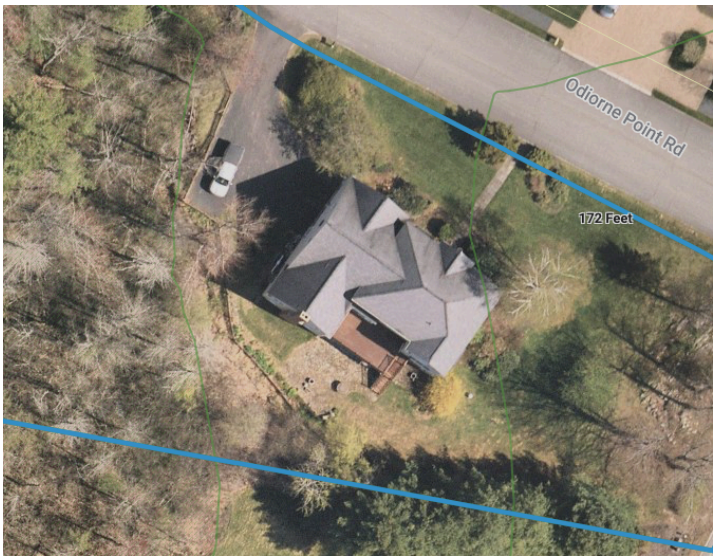
P:\NH\5010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-JRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/28/2023 8:34:49 AM, Portsmouth Plotter Canon TX3000 (temporary).pc3

City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

PROJECT NARRATIVE:

Introduction: The residential property and single-family structure located at 253 Odiorne Point Road in Portsmouth, New Hampshire was constructed in the year 2000 and most recently purchased in November of 2022. Per the City of Portsmouth's MapGeo mapping program view (see Exhibit #1 below), approximately ninety-five percent (95%) of the existing structure, the entire existing patio, the entire existing deck, and the entire existing deck stairway are within the one hundred (100) foot wetland buffer, which is the area located between the light green lines in Exhibit #1 below. Unfortunately, the unique location and positioning of the structure, the lack of effective drainage infrastructure, and the improper grading around the structure subjected the property to significant natural environmental stress in the form of excessive rainwater collection, which resulted in damage to the existing flagstone patio on grade, damage to the adjacent existing siding of the home, and damage to the piers of the existing deck and the existing deck stairway.

Exhibit #1, City of Portsmouth MapGeo Satellite View of 253 Odiorne Point Road



Objective & Requested Approvals: With the general objective of protecting the existing structure and property from additional rainwater damage; the property owner respectfully requests the following two (2) approvals prior to initiating alterations in the form of repairs and improvements to the hardscape, the landscape, and the structure.

1. A Wetland Conditional Use Permit from the Planning Board to satisfy the City of Portsmouth Zoning Ordinance Section 10.241.22, which requires conditional use approval to complete alterations in a wetland or wetland buffer (Article 10, Section 10.1010 – Wetlands Protection).

2. A setback variance from the Zoning Board of Adjustment to allow for the following:

    1. The ninety (90) degree movement of the existing deck stairway that is currently located approximately thirty (30) feet from the property line and within the forty (40) foot setback, but which terminates in the patio area that is prone to rain water collection and situated adjacent to the wetland. The proposed deck stairway will be removed from the patio area and re-directed toward a side yard and away from wetland where it will terminate approximately thirty (30) feet from the property line.

    2. An approximate eighty-eight (88) square foot extension of the existing deck to support the ninety (90) degree movement of the existing deck stairway. The deck extension will be directed away from the wetland and it will terminate approximately thirty-five (35) feet from the property line, but within the forty (40) foot setback.

City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Exhibit #2
Photographs of Rainwater Collection

Rainwater Collection Areas

Rainwater Damaged Siding at Grade

Rainwater Damaged Patio/Deck/Stairway

Photographs of Same Area From Opposite Direction

Snow Melt Water Collection
After 03/14/2023 Snow Storm

City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Proposed Hardscape Alterations:

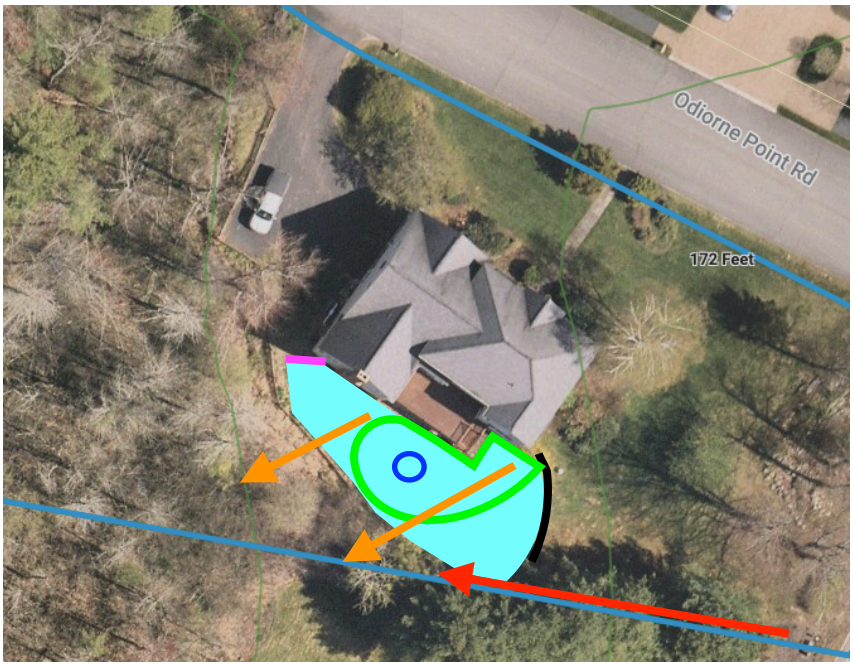
1. Extend an existing ten (10) foot long and four (4) foot high rock wall, which starts on the southeast corner of the residence to approximate twenty-five (25) feet in length and sloping downward to grade with the objective of diverting rainwater away from the residence and toward the wetland to avoid additional water damage to the structure and the hardscape. Construct granite steps in the extended rock wall to allow for pedestrian access between the lawn and patio areas. See the black line in Exhibit #3 below for the location of the proposed extended rock wall with integrated granite steps.

2. Extend an existing four (4) foot long rock wall on the southwest corner of the residence to approximately ten (10) feet in length with the objective of diverting the rainwater away from the residence and toward the wetland to avoid additional damage to the structure and to the hardscape. Construct granite steps in the rock wall to allow for pedestrian access between the driveway and the patio areas. See the pink line in Exhibit #3 below for the location of the proposed extended rock wall with integrated granite steps.

3. Remove the water damaged flagstone patio (see the green line in Exhibit #3) and twelve (12) to eighteen (18) inches of clay infused soil from the area under and surrounding the patio (see the light blue shaded area in Exhibit #3) and place the clay infused soil to the southeast side of the property and behind the extended twenty-five (25) foot long rock wall described above and identified below in Exhibit #3 as a black line. To ensure the existing French drains (identified by the orange lines below) are operable, the clay infused soil in the light blue shaded area will be replaced with a permeable crushed gravel base and permeable interlocking concrete patio pavers will be installed within the confines of the existing patio area, which is identified in green in Exhibit #3 below. A gas fire pit will be constructed and centered within the existing existing patio area. The fire pit will be approximately five (5) feet in diameter and will be constructed of blocks that match the pavers. A concrete slab will be poured under the deck to support a freestanding spa/hot tub. The concrete slab will not be noticeable, it will be surrounded by pavers, and it will measure approximately ten (10) feet by ten (10) feet.

4. Install a French drain gravel lined culvert along the southeast edge of the property where a natural culvert currently exists, but which does not effectively manage rainwater runoff. The objective of installing the French drain gravel lined culvert will be to effectively collect rainwater and divert that rainwater away from the residence and toward the wetland on the southwest portion of the property. An additional photograph of the location of natural culvert is included in the proposed landscape alterations section as Exhibit #6.

Exhibit #3, Proposed Hardscape Alterations



Fire pit

Existing French Drains

Proposed Extension to Existing Rock Wall With Granite Steps

Proposed Culvert w/ French Drain

Proposed Extension to Existing Rock Wall With Granite Steps

Removal of Soil and Replacement of Crushed Gravel

Existing Patio Area

City of Portsmouth Land Use Application

253 Odiorne Point Road, Portsmouth, N.H.

Proposed Structure Alterations:

1. **Replace the existing deck support piers:** The existing deck support piers were undersized and damaged by rainwater. It's proposed the deck support piers be correctly sized and replaced.

2. **Move the existing deck stairway ninety (90) degrees:** The existing deck stairway currently terminates in the patio area that is adjacent to the wetland and prone to rainwater collection, which resulted in damage to the existing deck stairway. Additionally, the existing deck stairway terminates approximately thirty (30) feet from the property line and within the forty (40) foot setback. It's proposed the existing deck stairway be moved ninety (90) degrees away from the patio area and adjacent wetland and be positioned to terminate in the side yard approximately thirty (30) from the property line, but within the forty (40) foot setback. Please refer to Exhibit #4 for the locations of the existing and proposed deck stairway.

3. **Extend the existing deck to accommodate the movement of the existing deck stairway:** To accommodate the ninety (90) degree movement of the existing stairway and to prevent the obstruction of the walkout basement doorway (see Exhibit #5), it's proposed the the existing deck be extended along the southeast side of the structure by approximately eighty-eight (88) feet. The deck extension will be directed away from the wetland and it will terminate approximately thirty-five (35) feet from the property line, but within the forty (40) foot setback. Please refer to Exhibit #4 for the locations of the existing deck and proposed deck extension.

Exhibit #4, Proposed Structure Alterations

Exhibit #5, Walkout Basement Doorway

City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Proposed Landscaping Alterations

1. Install permeable landscape fabric over the permeable crushed gravel base (described in item #3 of the proposed proposed hardscape alterations) within the light blue shaded area of Exhibit #3. Install topsoil over the landscape fabric, and then install sod to match the surrounding areas of grass.

2. Spread and sculpt the relocated clay infused soil (identified below in Exhibit #6 with the blue lines and described in item #3 of the proposed proposed hardscape alterations) away from the residence and toward the proposed French drain gravel lined culvert identified below in Exhibit #6 with a red line and as described in item #4 of the proposed proposed hardscape alterations.

Exhibit #6

3. Remove the invasive species of phragmites reeds identified by the yellow ovals in Exhibits #7 and #8 and located on the southwest side of the the residence by hand as suggested by the City of Portsmouth Planning Department. Replace the invasive species of phragmites reeds with winterberry, a species of red colored holly native to eastern North America and suggested by the City of Portsmouth Planning Department.

Exhibit #7

Exhibit #8

City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Evaluation of Five (5) "Analysis Criteria"

1. 10.233.21: Approval of a wetland conditional use permit and a setback variance will not be contrary to the public interest
   - Justification: The property owner believes an approved wetland conditional use permit and setback variance would allow the property owner to complete alterations in the form of improvements to the hardscape, the landscape, and the structure with the general objective of protecting the existing structure and property from additional rainwater collection and damage. The proposed alterations will not be contrary to the public interest because the location of the proposed improvements are in the backyard of the residence, which is not easily visible from publicly accessible locations or the surrounding properties due to the topography of the property and the location of the structure. Furthermore, the proposed alterations will occur in the wetland buffer (not the wetland) and those proposed alterations will actually improve rainwater management as the rainwater travels from the side yards, through wetland buffer zone, and to the wetland without being diverted to public land, the surrounding properties, or collecting in the patio area of the residence and causing unsightly damage to the structure. Additionally, the property owner proposes removing an invasive species of phragmites reeds and replacing those phragmites reeds with winterberry, a species of red colored holly native to eastern North America, which will be inline with the public interest.

2. 10.233.22: The spirit of the Ordinance will be observed
   - Justification: An approved conditional use permit and setback variance would satisfy a reasonable social and moral consensus the property owner is respecting the both the importance of setbacks and the protection of wetland because the property owner is not proposing a decrease in the setback that currently exists, the property owner is simply proposing moving structures away from the wetland, and the property owner is not changing how the space in the wetland buffer will be utilized.

3. 10.233.23: Substantial justice will be done
   - Justification: An approved conditional use permit and setback variance would will allow the property owner to protect the existing structure and property from additional rainwater damage, while protecting the wetland and enjoying full use of the property thereby satisfying a standard of fairness and allowing for a substantial justice to be done.

4. 10.233.24: The values of surrounding properties will not be diminished
   - Justification: An approved conditional use permit and setback variance will not diminish the values of the surrounding properties because the proposed alterations will allow the property owner to repair the damaged exterior desk and stairway, replace a damaged patio area, improve rainwater management, and remove an invasive species of phragmites reeds and replace those phragmites reeds with winterberry, a species of red colored holly native to eastern North America. The property owner believes the proposed alterations will improve the values of surrounding properties.

5. 10.233.25: Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship.
   - Justification: If the provisions of the Zoning Ordinance were literally enforced, the property owner would be unable repair, improve, and protect the existing structure and property from additional rainwater damage. Consequently, the property owner would be unable to enjoy full use of the property and structure, and the property owner would be routinely burdened with expensive rainwater damage repairs which would result in unnecessary physical and financial hardship.

City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Specific Information Requested for Conditional Use Permit

1. Description of site and proposed construction:
   - Description of Site: The residential property and single-family structure located at 253 Odiorne Point Road in Portsmouth, New Hampshire was constructed in the year 2000 and most recently purchased in November of 2022. Per the City of Portsmouth's MapGeo mapping program view (see Exhibit #1), approximately ninety-five percent (95%) of the existing structure, the entire existing patio, the entire existing deck, and the entire existing deck stairway are within the one hundred (100) foot wetland buffer, which is the area located between the light green lines in Exhibit #1. Unfortunately, the unique location and positioning of the structure, the lack of effective drainage infrastructure, and the improper grading around the structure subjected the property to natural environmental stress that caused significant rainwater collection and which resulted in damage to the existing flagstone patio on grade, damage to the adjacent existing siding of the home, and damage to the piers of the existing deck and the existing deck stairway.

   - Proposed Construction: With the general objective of protecting the existing structure and property from additional rainwater damage; the property owner respectfully requests approval to improve the hardscape by extending two (2) existing rock walls, replacing the current damaged patio, and improving a stormwater drainage culvert. Additionally, the property owner proposes structural repairs and an extension to an existing exterior deck and a re-direction of the deck stairway. Lastly, the property owner proposes landscape improvements to improve rainwater drainage management and to remove an invasive species of phragmites reeds located in the wetland buffer and replacing those phragmites reeds with winterberry, a species of red colored holly native to eastern North America.

2. Total area of inland wetland or vernal pool (both on and off the parcel):
   - On Parcel Inland Wetland Area: Approximately one (1) acre
   - Off Parcel Inland Wetland Area: Unknown

3. Impacted Jurisdictional Area:
   - Inland Wetland Buffer

4. Distance of proposed structure or activity to the edge of wetland:
   - Minimum Distance: Approximately 20 feet
   - Maximum Distance: Approximately 155 feet

5. Total wetland area and/or wetland buffer area on the lot:
   - Wetland Area: Approximately one (1) acre
   - Wetland Buffer: Approximately 31,556 square feet

6. Total wetland area and/or wetland buffer area to be disturbed on the lot:
   - Wetland Area: No wetland areas will be disturbed
   - Wetland Buffer: Approximately 2,500 square feet will be disturbed

7. Project Representative: Ryan T. Mullen, (619) 865-3660 - rtmullen75@gmail.com

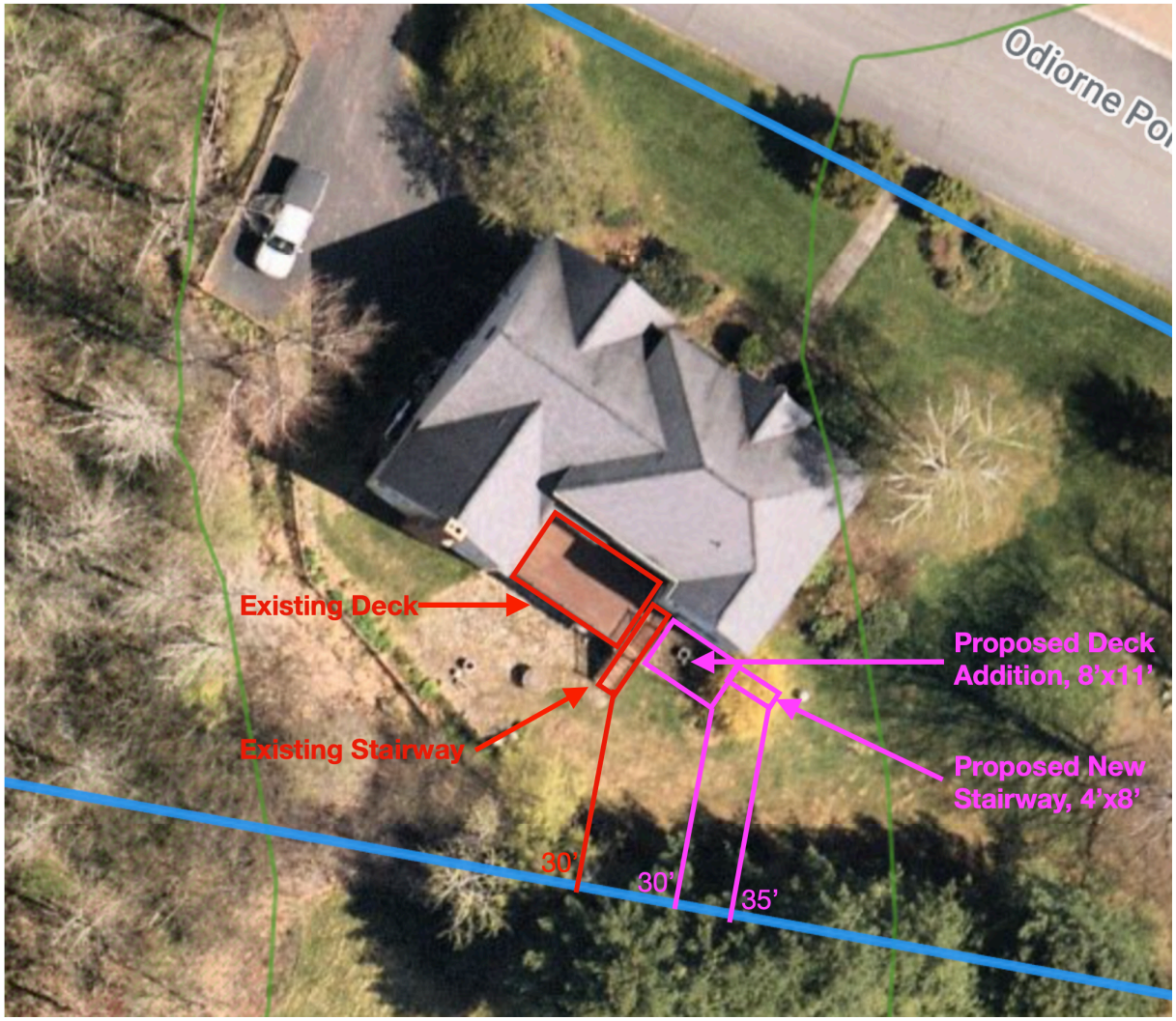
City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Structure - Visual Aid and Measurements Attachment

Proposed Structure Details

1. **Move the existing deck stairway ninety (90) degrees:** The existing deck stairway currently terminates in the patio area that is adjacent to the wetland and prone to rainwater collection, which resulted in damage to the existing deck stairway. Additionally, the existing deck stairway terminates approximately thirty (30) feet from the property line and within the forty (40) foot setback. It's proposed the existing deck stairway be moved ninety (90) degrees away from the patio area and adjacent wetland and be positioned to terminate in the side yard approximately thirty (30) from the property line, but within the forty (40) foot setback.

2. **Extend the existing deck to accommodate the movement of the existing deck stairway:** To accommodate the ninety (90) degree movement of the existing stairway and to prevent the obstruction of the walkout basement doorway, it's proposed the the existing deck be extended along the southeast side of the structure by approximately eighty-eight (88) feet. The deck extension will be directed away from the wetland and it will terminate approximately thirty-five (35) feet from the property line, but within the forty (40) foot setback.



City of Portsmouth Land Use Application
253 Odiorne Point Road, Portsmouth, N.H.

Proposed Hardscape Alterations - Distance to Wetlands Attachment

All of the proposed hardscape alterations are located within the wetland buffer. The proposed hardscape alterations are detailed below and their respective approximate. distances from the wetland are identified.

Proposed Extension to Existing Rock Wall With Granite Steps
Distance to Wetland: 16'

Removal of Soil and Replacement of Crushed Gravel
Distance to Wetland: 16'

Existing Patio Area
Distance tio Wetland: 30'

Fire pit
Distance to Wetland: 40'

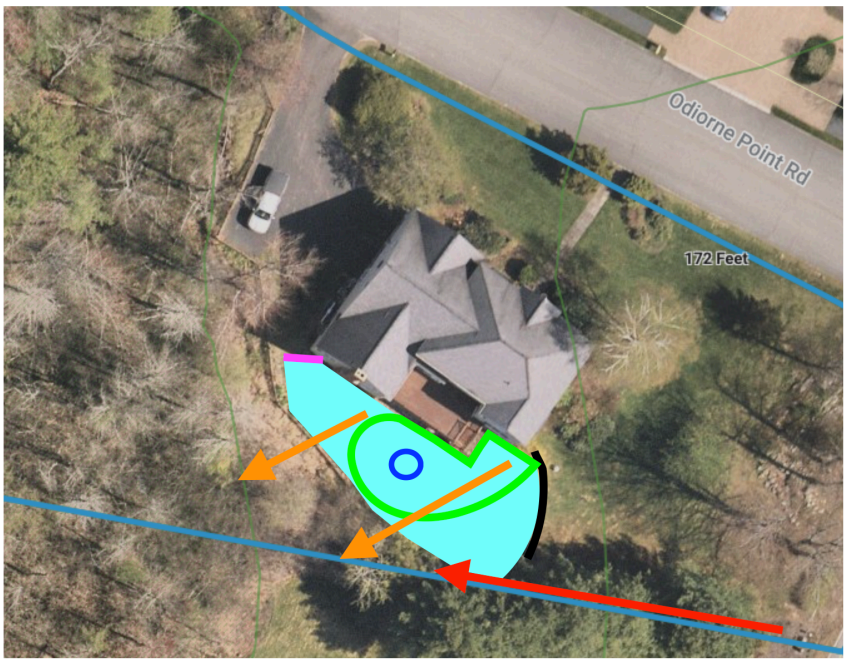
Proposed Extension to Existing Rock Wall With Granite Steps
Distance to Wetland: 80'

Proposed Culvert w/ French Drain
Distance to Wetland: 60'

Proposed Extension to Existing Rock Wall With Granite Steps

Removal of Soil and Replacement of Crushed Gravel

Existing Patio Area



Fire pit

Existing French Drains

Proposed Extension to Existing Rock Wall With Granite Steps

Proposed Culvert w/ French Drain

Noble's Island Condominiums Deck Replacement Existing Application LU-20-236

TO: Portsmouth Planning Department

FROM: Leonard Lord

COPY: Michael Street

DATE: April 27, 2021

Tighe & Bond, representing Noble Island Condominiums, is pleased to present the following information for review and approval by the conservation commission and planning board. Noble's Island Condominiums is proposing to replace its degraded cantilevered ground floor decks with new decks within the same footprint and with no expansion of use.

Project Description

The proposed project is located on Noble's Island at 500 Market Street in a highly developed area near the Portsmouth working waterfront. The project area has a long history of residential and commercial use, but was redeveloped for the current uses in the early 1980's. The Noble's Island Condominiums consist of three buildings that sit above the Piscataqua River. Four additional commercial buildings with parking lots are also located on the parcel. The intensive development has resulted in nearly 83% impervious surfaces and an extensively armored riprap perimeter. A wetland impact permit was obtained for the site in 1997 to restabilize the riprap and reduce the slope from 1:1 to 1.25:1 (NHDES #1997-00089).

The proposed project is needed to address the safety of the residents of the Noble's Island Condominiums. Each building includes 12-foot wide decks off the ground floor that extend toward the Piscataqua River. The decks are currently cantilevered and supported by rusting steel beams. The proposed deck replacements will be confined to the same footprint as the existing decks but, unlike the existing design, will incorporate concrete piers as supports.

Inland Wetlands

There are no inland wetlands on the parcel.

Impacted Jurisdictional Areas

Replacement of the decks will involve 27+/- square feet (sf) of permanent impacts at grade and within the existing deck footprint for the concrete piers. Temporary impacts associated with excavation and placement of the piers are estimated to result in up to 1,240 sf of soil disturbance. All work will be completed within the 100-foot tidal buffer zone, with no direct wetland impacts.

Distance to the Wetland

At the closest point, the deck repairs will be approximately five feet horizontally of the Highest Observable Tide Line (Building A) but will also be four feet above it vertically. Proper erosion and sediment controls will be in place (silt socks) and no work will be completed past the upper edge of the riprap slope. See attached figures.

Total Buffer Area on the Lot

Total buffer area on the lot is approximately 70,000 square feet.

Project Representatives

Agent/Wetland Scientists

Leonard Lord, Tighe & Bond, LLord@TigheBond.com,
Jeremy Degler, Tighe & Bond, JDegler@TigheBond.com
177 Corporate Avenue, Portsmouth, NH 03801.

Owner

Noble's Island Condominium Association, David Porter, President
c/o Michael Street, CP Management, MichaelS@CPManagement.com
11 Court Street, Exeter, NH 03833

Project Plans

Plans meeting the requirements Section 10.1017.20 of the Portsmouth Zoning Ordinance are attached in the NHDES permit application.

Functional Assessment

A functional assessment was not required as part of NHDES permitting, so a separate assessment is attached to this memo.

ASSESSMENT FOR PORTSMOUTH CONDITIONAL USE APPLICATION

WETLANDS FUNCTIONAL ASSESSMENT WORKSHEET

Water Division/Land Resource Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A / Env-Wt 311.03(b)(10); Env-Wt 311.10

APPLICANT LAST NAME, FIRST NAME, M.I.: Noble's Island Condominiums

As required by Env-Wt 311.03(b)(10), an application for a standard permit for minor and major projects must include a functional assessment of all wetlands on the project site as specified in Env-Wt 311.10. This worksheet will help you compile data for the functional assessment needed to meet federal (US Army Corps of Engineers (USACE); if applicable) and NHDES requirements. Additional requirements are needed for projects in tidal area; please refer to the Coastal Area Worksheet (NHDES-W-06-079) for more information.

Both a desktop review and a field examination are needed to accurately determine surrounding land use, hydrology, hydroperiod, hydric soils, vegetation, structural complexity of wetland classes, hydrologic connections between wetlands or stream systems or wetland complex, position in the landscape, and physical characteristics of wetlands and associated surface waters. The results of the evaluation are to be used to select the location of the proposed project having the least impact to wetland functions and values (Env-Wt 311.10). This worksheet can be used in conjunction with the Avoidance and Minimization Written Narrative (NHDES-W-06-089) and the Avoidance and Minimization Checklist (NHDES-W-06-050) to address Env-Wt 313.03 (Avoidance and Minimization). If more than one wetland/ stream resource is identified, multiple worksheets can be attached to the application. All wetland, vernal pools, and stream identification (ID) numbers are to be displayed and located on the wetlands delineation of the subject property.

SECTION 1 - LOCATION (USACE HIGHWAY METHODOLOGY)	
ADJACENT LAND USE: Condominiums with lawns and parking lots	
CONTIGUOUS UNDEVELOPED BUFFER ZONE PRESENT? ☐ Yes ☒ No	
DISTANCE TO NEAREST ROADWAY OR OTHER DEVELOPMENT (in feet): <10 ft	
SECTION 2 - DELINEATION (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
CERTIFIED WETLAND SCIENTIST (if in a non-tidal area) or QUALIFIED COASTAL PROFESSIONAL (if in a tidal area) who prepared this assessment: Leonard Lord, PhD, CWS	
DATE(S) OF SITE VISIT(S): March 15, 2021	DELINEATION PER ENV-WT 406 COMPLETED? ☒ Yes ☐ No
CONFIRM THAT THE EVALUATION IS BASED ON: ☒ Office and ☒ Field examination.	
METHOD USED FOR FUNCTIONAL ASSESSMENT (check one and fill in blank if "other"): ☒ USACE Highway Methodology. ☒ Other scientifically supported method (enter name/ title): NH Method, 2015("NHM" for Ecological Integrity Eval)	

SECTION 3 - WETLAND RESOURCE SUMMARY (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
WETLAND ID:	LOCATION: (LAT/ LONG) /
WETLAND AREA: N/A	DOMINANT WETLAND SYSTEMS PRESENT: Mudflats
HOW MANY TRIBUTARIES CONTRIBUTE TO THE WETLAND? 0	COWARDIN CLASS: E2US3N
IS THE WETLAND A SEPARATE HYDRAULIC SYSTEM? ☐ Yes ☒ No if not, where does the wetland lie in the drainage basin?	IS THE WETLAND PART OF: ☐ A wildlife corridor or ☐ A habitat island? IS THE WETLAND HUMAN-MADE? ☐ Yes ☒ No
IS THE WETLAND IN A 100-YEAR FLOODPLAIN? ☒ Yes ☐ No	ARE VERNAL POOLS PRESENT? ☐ Yes ☒ No (If yes, complete the Vernal Pool Table)
ARE ANY WETLANDS PART OF A STREAM OR OPEN-WATER SYSTEM? ☒ Yes ☐ No	ARE ANY PUBLIC OR PRIVATE WELLS DOWNSTREAM/ DOWNGRADIENT? ☐ Yes ☒ No
PROPOSED WETLAND IMPACT TYPE: Buffer only	PROPOSED WETLAND IMPACT AREA: N/A

SECTION 4 - WETLANDS FUNCTIONS AND VALUES (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)

The following table can be used to compile data on wetlands functions and values. The reference numbers indicated in the "Functions/ Values" column refer to the following functions and values:

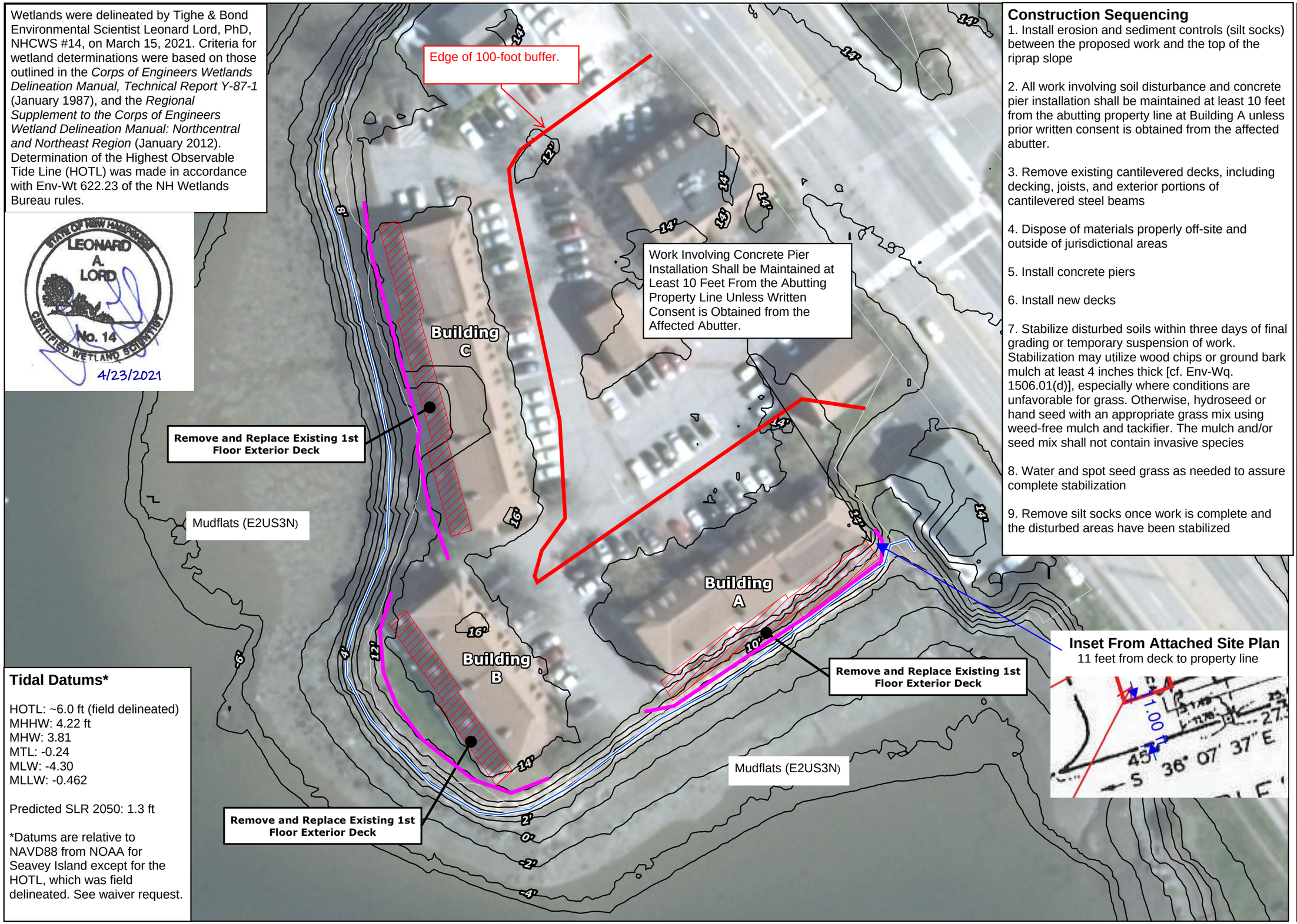
1. Ecological Integrity (from RSA 482-A:2, XI)
2. Educational Potential (from USACE Highway Methodology: Educational/Scientific Value)
3. Fish & Aquatic Life Habitat (from USACE Highway Methodology: Fish & Shellfish Habitat)
4. Flood Storage (from USACE Highway Methodology: Floodflow Alteration)
5. Groundwater Recharge (from USACE Highway Methodology: Groundwater Recharge/Discharge)
6. Noteworthiness (from USACE Highway Methodology: Threatened or Endangered Species Habitat)
7. Nutrient Trapping/Retention & Transformation (from USACE Highway Methodology: Nutrient Removal)
8. Production Export (Nutrient) (from USACE Highway Methodology)
9. Scenic Quality (from USACE Highway Methodology: Visual Quality/Aesthetics)
10. Sediment Trapping (from USACE Highway Methodology: Sediment /Toxicant Retention)
11. Shoreline Anchoring (from USACE Highway Methodology: Sediment/Shoreline Stabilization)
12. Uniqueness/Heritage (from USACE Highway Methodology)
13. Wetland-based Recreation (from USACE Highway Methodology: Recreation)
14. Wetland-dependent Wildlife Habitat (from USACE Highway Methodology: Wildlife Habitat)

First, determine if a wetland is suitable for a particular function and value ("Suitability" column) and indicate the rationale behind your determination ("Rationale" column). Please use the rationale reference numbers listed in Appendix A of USACE *The Highway Methodology Workbook Supplement*. Second, indicate which functions and values are principal ("Principal Function/value?" column). As described in *The Highway Methodology Workbook Supplement*, "functions and values can be principal if they are an important physical component of a wetland ecosystem (function only) and/or are considered of special value to society, from a local, regional, and/or national perspective". "Important Notes" are to include characteristics the evaluator used to determine the principal function and value of the wetland.

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE (Reference #)	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☒ Yes ☐ No	Ecological Integrity (from NHM): 3,4,5,6	☐ Yes ☒ No	Highly developed buffer, filling, impaired water quality
2	☐ Yes ☒ No	Education Potential: N/A	☐ Yes ☒ No	No access
3	☒ Yes ☐ No	Fish & Aquatic Life: 1, 4	☐ Yes ☒ No	Mudflat supports fish, shellfish, waterfowl. Impaired water quality and no shellfish harvesting
4	☐ Yes ☒ No	Flood Storage: N/A	☐ Yes ☒ No	
5	☐ Yes ☒ No	Groundwater Recharge (only): N/A	☐ Yes ☒ No	
6	☐ Yes ☒ No	Noteworthiness (RTE):	☐ Yes ☒ No	No rare species per NHB DataCheck
7	☐ Yes ☒ No	Nutrient Trapping/Retention: N/A	☐ Yes ☒ No	
8	☒ Yes ☐ No	Production Export: 1,4,5,6,10	☐ Yes ☒ No	Export of nutirents as food and in sediments but low ecological integrity
9	☒ Yes ☐ No	Scenic Quality:2,6,8,	☐ Yes ☒ No	Scenic vistas surrounded by highly developed areas.
10	☐ Yes ☒ No	Sediment Trapping: N/A	☐ Yes ☒ No	
11	☐ Yes ☒ No	Shoreline Anchoring: N/A	☐ Yes ☒ No	Riprap at project site
12	☒ Yes ☐ No	Uniqueness/Heritage: 1,314,17,19,22, 27	☐ Yes ☒ No	Contributes to the character of the area. Scienic views in urban setting. Low ecological integrity.
13	☒ Yes ☐ No	Wetland Based Recreation: 2,5,7,8,9,10,	☐ Yes ☒ No	Provides boating and fishing opportunities. Somewhat offset by low ecological integrity.
14	☒ Yes ☐ No	Water Dependent Wildlife: 8,12,18,21,	☐ Yes ☒ No	Mudflats are important for wildlife habitat. Somewhat offset by low ecological integrity

Wetlands were delineated by Tighe & Bond Environmental Scientist Leonard Lord, PhD, NHCWS #14, on March 15, 2021. Criteria for wetland determinations were based on those outlined in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). Determination of the Highest Observable Tide Line (HOTL) was made in accordance with Env-Wt 622.23 of the NH Wetlands Bureau rules.

STATE OF NEW HAMPSHIRE
LEONARD A. LORD
No. 14
CERTIFIED WETLAND SCIENTIST
4/23/2021



Tidal Datums*

HOTL: ~6.0 ft (field delineated)
MHHW: 4.22 ft
MHW: 3.81
MTL: -0.24
MLW: -4.30
MLLW: -0.462

Predicted SLR 2050: 1.3 ft

*Datums are relative to NAVD88 from NOAA for Seavey Island except for the HOTL, which was field delineated. See waiver request.

Construction Sequencing

1. Install erosion and sediment controls (silt socks) between the proposed work and the top of the riprap slope

2. All work involving soil disturbance and concrete pier installation shall be maintained at least 10 feet from the abutting property line at Building A unless prior written consent is obtained from the affected abutter.

3. Remove existing cantilevered decks, including decking, joists, and exterior portions of cantilevered steel beams

4. Dispose of materials properly off-site and outside of jurisdictional areas

5. Install concrete piers

6. Install new decks

7. Stabilize disturbed soils within three days of final grading or temporary suspension of work. Stabilization may utilize wood chips or ground bark mulch at least 4 inches thick [cf. Env-Wq. 1506.01(d)], especially where conditions are unfavorable for grass. Otherwise, hydroseed or hand seed with an appropriate grass mix using weed-free mulch and tackifier. The mulch and/or seed mix shall not contain invasive species

8. Water and spot seed grass as needed to assure complete stabilization

9. Remove silt socks once work is complete and the disturbed areas have been stabilized

FIGURE 2
EXISTING CONDITIONS

LEGEND

- Highest Observable Tide Line
- 2-foot Contour
- Deck
- Approximate Parcel Boundary
- Silt Sock Erosion Control

LOCUS MAP

N

0 25 50
Feet
1 in = 50 ft

NOTES

1. Orthophotography courtesy of NH GRANIT (2015).
2. 2-foot contours generated from 2014 coastal bare earth LiDAR DEM. DEM downloaded from NH GRANIT.

Noble Island Condominium Association Deck Replacement Project
500 Market Street
Portsmouth, New Hampshire

March 2021

Tighe&Bond

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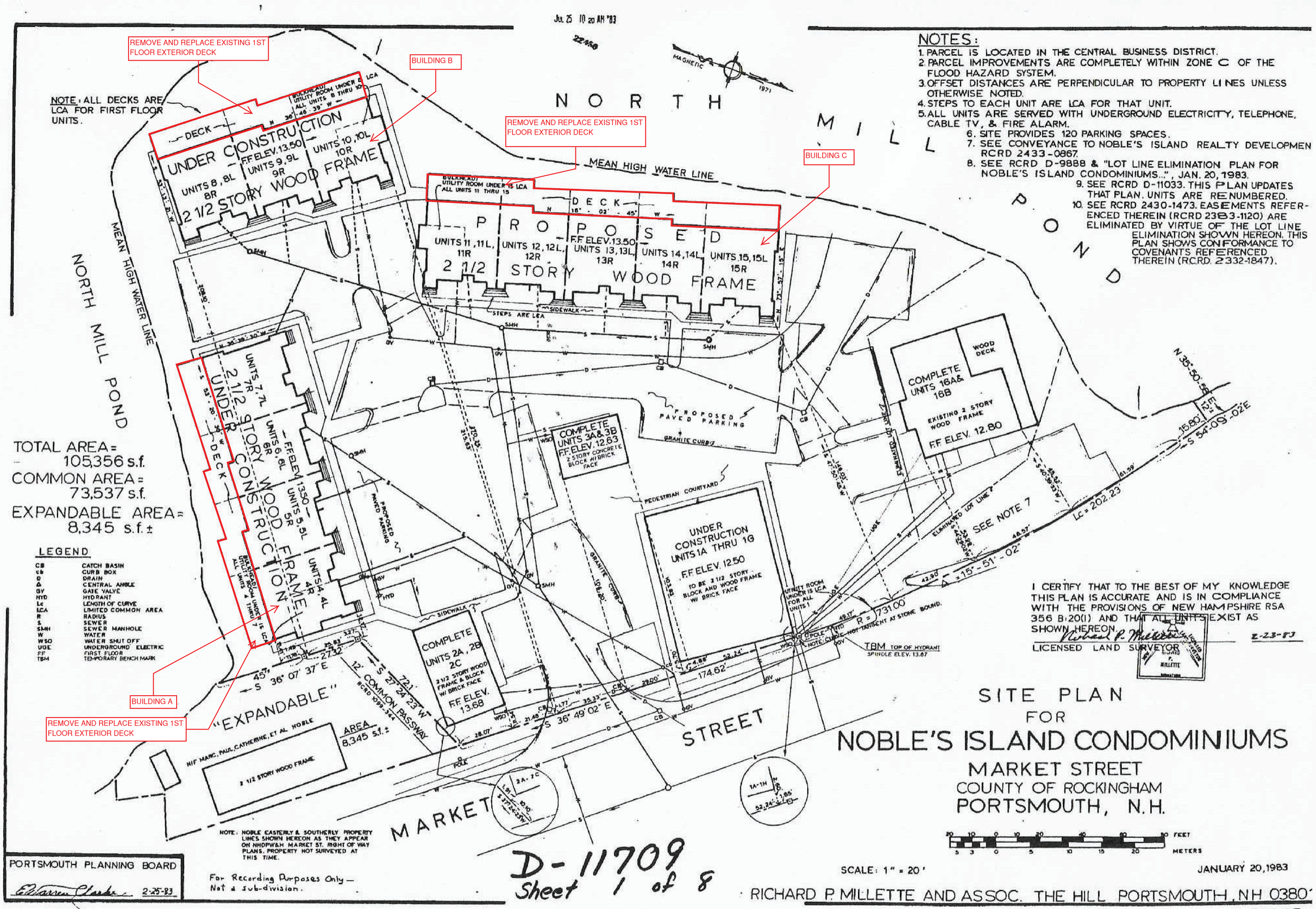
N-5037



TOTAL AREA = 105,356 s.f.
COMMON AREA = 73,537 s.f.
EXPANDABLE AREA = 8,345 s.f. ±

LEGEND

CB	CATCH BASIN
cb	CURB BOX
D	DRAIN
Δ	CENTRAL ANGLE
GV	GATE VALVE
HYD	HYDRANT
Lc	LENGTH OF CURVE
LCA	LIMITED COMMON AREA
R	RADIUS
S	SEWER
SMH	SEWER MANHOLE
W	WATER
WSO	WATER SHUT OFF
UGE	UNDERGROUND ELECTRIC
FF	FIRST FLOOR
TBM	TEMPORARY BENCH MARK

NOTES:

1. PARCEL IS LOCATED IN THE CENTRAL BUSINESS DISTRICT.
2. PARCEL IMPROVEMENTS ARE COMPLETELY WITHIN ZONE C OF THE FLOOD HAZARD SYSTEM.
3. OFFSET DISTANCES ARE PERPENDICULAR TO PROPERTY LINES UNLESS OTHERWISE NOTED.
4. STEPS TO EACH UNIT ARE LCA FOR THAT UNIT.
5. ALL UNITS ARE SERVED WITH UNDERGROUND ELECTRICITY, TELEPHONE, CABLE TV, & FIRE ALARM.
6. SITE PROVIDES 120 PARKING SPACES.
7. SEE CONVEYANCE TO NOBLE'S ISLAND REALTY DEVELOPMEN RCRD 2433-0867.
8. SEE RCRD D-9888 & "LOT LINE ELIMINATION PLAN FOR NOBLE'S ISLAND CONDOMINIUMS...", JAN. 20, 1983.
9. SEE RCRD D-11033. THIS PLAN UPDATES THAT PLAN. UNITS ARE RENUMBERED.
10. SEE RCRD 2430-1473. EASEMENTS REFERENCED THEREIN (RCRD 2383-1120) ARE ELIMINATED BY VIRTUE OF THE LOT LINE ELIMINATION SHOWN HEREON. THIS PLAN SHOWS CONFORMANCE TO COVENANTS REFERENCED THEREIN (RCRD. 2332-1847).

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS PLAN IS ACCURATE AND IS IN COMPLIANCE WITH THE PROVISIONS OF NEW HAMPSHIRE RSA 356 B:20(I) AND THAT ALL UNITS EXIST AS SHOWN HEREON.

Richard P. Millette 2-23-83
LICENSED LAND SURVEYOR

SITE PLAN FOR NOBLE'S ISLAND CONDOMINIUMS

MARKET STREET
COUNTY OF ROCKINGHAM
PORTSMOUTH, N.H.

SCALE: 1" = 20'

JANUARY 20, 1983

NOTE: NOBLE EASTERLY & SOUTHERLY PROPERTY LINES SHOWN HEREON AS THEY APPEAR ON NHDPW&H MARKET ST. RIGHT OF WAY PLANS. PROPERTY NOT SURVEYED AT THIS TIME.

PORTSMOUTH PLANNING BOARD
E. Warren Clarke 2-25-83

For Recording Purposes Only — Not a sub-division.

D-11709
Sheet 1 of 8

RICHARD P. MILLETTE AND ASSOC. THE HILL PORTSMOUTH, NH 03801

-81147-

20089 500 Market St / Portsmouth, NH
Photographs taken by Aaron Wilson, P.E.

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DSC00545 3/26/2020 9:03:42 AM

DSC00551 3/26/2020 9:05:16 AM

DSC00552 3/26/2020 9:05:24 AM

DSC00553 3/26/2020 9:05:32 AM

DSC00558 3/26/2020 9:08:02 AM

ASSOCIATED DESIGN PARTNERS, INC.

20089 500 Market St / Portsmouth, NH
Photographs taken by Aaron Wilson, P.E.

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DSC00560 3/26/2020 9:08:22 AM

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20089 20 9/17/2020 2:26:14 PM

ASSOCIATED DESIGN PARTNERS, INC.

Noble's Island Condominiums Deck Replacements
500 Market Street, Portsmouth

EXPEDITED MINIMUM IMPACT PERMIT APPLICATION

Noble's Island Condominiums

April 2021

Tighe&Bond

100% Recyclable

Tighe&Bond

N5079-001
April 27, 2021

NHDES Wetlands Bureau
Attn: Stefanie Giallongo
29 Hazen Dr, PO Box 95
Concord, NH 03302-0095

Re: **Minimum Impact Expedited Wetland Impact Application**
Noble's Island Condominiums Deck Replacements
Tax Map 120, Lot 2, 500 Market Street, Portsmouth, NH

Dear Ms. Giallongo:

Tighe & Bond is pleased to submit this Expedited Minimum Impact permit application on behalf of the Noble's Island Condominium residents for impacts within the previously developed tidal buffer associated with the replacement of degraded decks of three condominium buildings.

Project Description

The proposed project is located on Noble's Island at 500 Market Street in a highly developed area near the Portsmouth working waterfront. The project area has a long history of residential and commercial use, but was redeveloped for the current uses in the early 1980's. The Noble's Island Condominiums consist of three buildings that sit above the Piscataqua River. Four additional commercial buildings with parking lots are also located on the parcel. The intensive development has resulted in nearly 83% impervious surfaces and an extensively armored riprap perimeter. A wetland impact permit was obtained for the site in 1997 to restabilize the riprap and reduce the slope from 1:1 to 1.25:1 (NHDES #1997-00089).

The proposed project is needed to address the safety of the residents of the Noble's Island Condominiums. Each building includes 12-foot wide decks off the ground floor that extend toward the Piscataqua River. The decks are currently cantilevered and supported by rusting steel beams. The proposed deck replacements will be confined to the same footprint as the existing decks but, unlike the existing design, will incorporate concrete piers as supports. Replacement of the decks will involve 27+/- square feet (sf) of permanent impacts at grade and within the existing deck footprint for the concrete piers. Temporary impacts associated with excavation and placement of the piers are estimated to result in up to 1,240 sf of soil disturbance. All work will be completed within the previously developed tidal buffer zone, with no direct wetland impacts.

Jurisdictional Wetlands

The parcel was reviewed for jurisdictional wetlands by Tighe & Bond environmental scientist Leonard Lord, PhD, NHCWS #14, on March 15, 2021. There was no snow on the ground at the time of the investigation. Criteria for wetland determinations were based on those outlined in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). Determination of the Highest Observable Tide Line (HOTL) was made in accordance with Env-Wt 622.23 of the NH Wetlands Bureau rules. The HOTL was delineated and located using a GPS unit with sub-meter accuracy. No freshwater wetlands were found on the site.

The mudflats at the toe of the riprap slope were classified under the Cowardin system as estuarine, unconsolidated shore, mud substrate, and regularly flooded (E2US3N). Tidal flows to Noble's Island were noted to be somewhat restricted by a railroad bridge and a bridge over Market Street before reaching the project area.

Waiver Request

The attached permit application includes a request for a waiver from Env-Wt 603.08(a) and (b), which require location and documentation of three tidal events by a licensed land surveyor. This level of study and expense is excessive for a simple deck repair done for the safety of the condominium residents with no increase in the project footprint and no direct wetland impacts.

The NOAA predicted tidal datums from nearby Seavey Island have been presented and utilized in the Coastal Vulnerability Analysis as conservative estimates of tidal heights. These heights are conservative because tides flow through two moderate restrictions between Seavey Island and the project site, which should dampen tidal extremes. From this analysis, the deck replacement project was determined to have a high risk tolerance and is not at risk of flooding under a predicted sea level rise (SLR) of 1.3 feet by 2050.

Summary of Agency Coordination

- An informal email request was submitted to Eben Lewis of NHDES regarding the calculation of impacts for the project on February 19, 2021 and was responded to by Stefanie Giallongo as the project reviewer on February 22, 2021.
- A DataCheck request was completed through the NH Natural Heritage Bureau April 1, 2021 with a finding of no recorded occurrences for sensitive species near the project area.
- A U.S. Army Corps of Engineers Appendix B Checklist, associated US Fish and Wildlife IPaC review, and associated Section 106 Historic/Archaeological review were not filed as part of this wetland impact permit because the upland tidal buffer does not fall under Army Corps of Engineers jurisdiction.
- All of the proposed work is within the 100-foot tidal buffer; therefore, no NHDES shoreland permitting is required.
- This project will be presented to the Portsmouth Conservation Commission on May 12, 2021. The Conservation Commission signature for the attached application will be sent to NHDES shortly after.

Appendices

The following supporting documents are included as part of this submittal:

- Appendix A – Forms
    - Expedited Minimum Impact Application
    - Copy of the Fee Payment
    - Wetlands Rule Waiver Request
    - Coastal Resources Worksheet, Design Narrative, NOAA Tidal Datums
- Appendix B – Photographs
- Appendix C – Tax Maps, Abutter Information, Certified Postal Receipts

Tighe&Bond

APPENDIX A

- Appendix D – Natural Heritage Bureau DataCheck Results
- Appendix E – Figures
    - Figure 1 - USGS Locus Map
    - Figure 2 - Existing Conditions Plan
    - Figure 3 – Elevation Profile Plan
    - Figure 4 - Surveyed Site Plan (1983)
    - Figure 5 – Wetland Permit Planning Tool Results
    - Figure 6 – FEMA Flood Map
    - Figure 7 – Impervious Surfaces Map
- Appendix F – Engineering Plans

Should you have any questions or require any additional information, please contact me at 603-433-8818 or Llord@TigheBond.com.

Very truly yours,

TIGHE & BOND, INC.

Leonard A Lord, PhD, NHCWS, NHCSS
Sr. Environmental Scientist

Enclosures

Copy: Portsmouth City Clerk
Portsmouth Conservation Commission
Portsmouth Planning Board
Portsmouth Board of Selectmen
Noble's Island Condominiums c/o Michael Street

J:\N\N5079 Noble Island Condo Association\001 Deck Expansion Wetland Permitting - CP Management\Reports_Evaluation\NHDES Permit Appl\2 Cover Letter 2021.04.27.docx

INSERT COPY OF CHECK HERE WITH ACCOUNT NUMBER BLACKED OUT

Env-Wt 310.01
EXPEDITED MINIMUM IMPACT (EXP) 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: **Noble's Island Condominiums** **TOWN NAME:** **Portsmouth**

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; Env-Wt 603.03; Env-Wt 603.05)

Please use the Wetland Permit Planning Tool (WPPT), 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.

Does the property contain a PRA? If yes, provide the following information:	☐ Yes ☒ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&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).	☐ Yes ☐ No
• Protected species or habitat? ○ If yes, species or habitat name(s): ○ NHB Project ID #:	☐ Yes ☐ No
• Bog?	☐ Yes ☐ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☐ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☐ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☐ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year:	☐ Yes ☒ No
For dredging projects, is the subject property contaminated? • If yes, list contaminant(s):	☐ Yes ☐ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see Wetland Permit Planning Tool or Stream Stats):	

SECTION 2 - ELIGIBILITY (Env-Wt 306.03; Env-Wt 310.01; Env-Wt 310.03)

You must confirm that your project meets **ALL** of the following statements to qualify for the EXP process:

- The project qualifies as minimum impact project (Env-Wt 306.03).
- The project does not include activities that are prohibited under RSA 482-A (Env-Wt 306.03(a)).
- The project does not include any work in a jurisdictional area that was started without first obtaining the applicable approval (Env-Wt 306.03(b)).
- No work has been done on the subject property pursuant to another EXP or a Statutory Permit-by-Notification (SPN) within 12 months of the date this EXP will be issued. Alternatively, if any work has been done on the subject property pursuant to another EXP or a SPN within 12 months of the date this EXP will be issued, then you are submitting information, including a plan, with this application demonstrating that:
    - The work proposed in this EXP application is wholly unrelated to and separate from the work already done under the EXP or SPN; and
    - The work proposed in this EXP application, when combined with work that has been done under previously issued EXPs or SPNs within the last 12 months, does not constitute a project for which a Standard Permit is required (Env-Wt 310.03(a)).
- If the project is located in a PRA, it also qualifies for an impact classification adjustment under Env-Wt 407.02 or a project-type exception (PTE) under Env-Wt 407.04 (Env-Wt 310.01(d)(6)).

☒ My project meets all statements above. Proceed to Section 3.

☐ My project does not meet all of the statements above. **Your project does not qualify for the EXP process. Your project either is not permittable or requires a Standard Permit.**

SECTION 3 - INFORMATION ON THE PROPOSED PROJECT (Env-Wt 310.01(c))

Identify the rule(s)/provision(s) which make the project a minimum impact project. Refer to the project list below and the Expedited Minimum Impact (EXP) Project Classification Guidance Document.

☐ Aquatic Vegetation Control Projects (Env-Wt 510.08(a))
☐ Water Access Structure Construction Projects (Env-Wt 511.06(a))
☐ Beach Replenishment Projects (Env-Wt 511.07(a))
☐ Deck or Patio Repair Projects (Env-Wt 511.08(a)) N/A Coastal Projects not applicable to Env-Wt 500
☐ Breakwater Maintenance and Repair Projects (Env-Wt 512.07(b))
☐ Docking and Accessory Docking Structure Construction, Repair, and Replacement Projects (Env-Wt 513.24(a))
☐ Docking Structure Modification Projects (Env-Wt 513.25(a))
☐ Accessory Docking Structure Installation, Construction, Modification, Repair, and Replacement Projects (Env-Wt 513.26(a))
☐ Canopy Projects (Env-Wt 513.27(a))
☐ Bank/Shoreline Stabilization Construction Projects (Env-Wt 514.07(a))
☐ Dug-in Basins and Boathouse Construction or Modification Projects (Env-Wt 515.06(a), (b))
☐ Dug-in Basins and Boathouse Maintenance and Repair Projects (Env-Wt 515.07(a))
☐ Intake and Outflow Structure Construction, Maintenance and Repair Projects (Env-Wt 516.05; Env-Wt 516.06(b))
☐ Trail or Pathway Projects (Env-Wt 517.06(a); Env-Wt 517.06(d))
☐ Boardwalk Projects (Env-Wt 517.07(a); (Env-Wt 517.09)
☐ Dry Hydrants and Other Non-Docking Structure Projects (Env-Wt 518.07(a)(1), (b))
☐ Pond Construction, Maintenance, and Repair Projects (Env-Wt 519.08(a), (b); Env-Wt 519.09(a))
☐ Residential Utility Installation Projects (Env-Wt 521.06(a)(7))

- ☐ Non-tidal Dredging Projects (Env-Wt 523.04(a))
- ☐ Residential, Commercial, and Industrial Development Projects (Env-Wt 524.06(b))
- ☐ Restoration/Enhancement Projects (Env-Wt 525.05)
- ☐ Dam Construction, Reconstruction, or Replacement Projects (Env-Wt 526.06(a))
- ☐ Dam Modification, Repair, or Maintenance Projects (Env-Wt 526.07(a))
- ☐ Pubic Highway Projects (Env-Wt 527.06; Env-Wt 527.07)
- ☒ Coastal Projects (Env-Wt 600)
- ☐ Stream Crossing Projects (Env-Wt 903.01(e))
- ☐ All Other Projects (Env-Wt 407.03)

Provide the project-specific information required by the rule(s)/provision(s). Refer to Chapters Env-Wt 400, Env-Wt 500, Env-Wt 600, and/or Env-Wt 900, as applicable, for project-specific application and design requirements.

Coastal Resource Worksheet is attached.

Please see applicable Standard Project Specific Worksheets for guidance.

For projects located on waterbodies, provide the linear feet of shoreline frontage on the property: 880 linear feet

(☐ Not applicable)

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".

Replace degraded existing cantilevered ground floor decks but add concrete supportting piers within the footprint of the existing decks. Permanent impacts include the addition of supporting concrete piers beneath and within the footprint of the existing decks. Temporary impacts are required to install the bottoms of the piers four feet below existing grade.

Identify the type of jurisdictional resources to be impacted and the area of impact in square feet and/or linear feet:
All impacts will be within uplands of the previously developed tidal buffer.

Permanent impacts of 62 concrete piers, each with a 1.77 sf (16 in. x 16 in.) base placed 4 ft below grade with approximately 0.44 sf (8 in. x 8 in.) of permanent impact at grade= 110 sf below grade and 27 sf of permanent impacts at grade and within the footprint of the existing decks.

Temporary impacts associated with excavaton and placement of the piers @ 20 sf/pier = 1,240 sf

The decks are 4,632 sf

(☐ Not applicable)

SECTION 4 - PROJECT LOCATION (Env-Wt 310.01(b))

ADDRESS: 500 Market Street

TOWN/CITY: Portsmouth

TAX MAP/LOT NUMBER: 120/2

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Piscataqua River
☐ N/A

LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.08179° North
-70.76292° West

SECTION 5 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 310.01(a))

If the applicant is a trust or a company, then the name of the trust or company should be written as the applicant's name.

NAME: Noble's Island Condominiums

MAILING ADDRESS: c/o Michael Street, CP Management, 11 Court Street

TOWN/CITY: Exeter | STATE: NH | ZIP CODE: 03833

PHONE: 603-778-6300 | EMAIL ADDRESS (OPTIONAL): MichaelS@CPManagement.com

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

SECTION 6 - AUTHORIZED AGENT INFORMATION (Env-Wt 310.01(a))

If the agent is a company, then the name of the company should be written as the agent's name.

NAME: Tighe & Bond

MAILING ADDRESS: Attn: Leonard Lord, 177 Corporate Drive

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

PHONE: 603-433-8818 | EMAIL ADDRESS (OPTIONAL): LLord@TigheBond.com

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

SECTION 7 - PROPERTY OWNER INFORMATION, IF DIFFERENT FROM APPLICANT (Env-Wt 310.01(a)) If the owner is a trust or a company, then the name of the trust or company should be written as the owner's name.		
NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
PHONE:	EMAIL ADDRESS (OPTIONAL):	
ELECTRONIC COMMUNICATION: By initialing here: , I hereby authorize NHDES to communicate all matters relative to this application electronically.		

SECTION 8 - APPLICATION FEE (RSA 482-A:3, I)
☒ $400 for minimum impact projects. Please make your check or money order payable to: "Treasurer - State of NH".

SECTION 9 - REQUIRED CERTIFICATIONS (Env-Wt 310.01(d))	
Initial each box below to certify:	
Initials: LL	The proposed project meets the conditions and limits of the applicable minimum impact project rule.
Initials: LL	All abutters have been notified.
Initials:	If the project is to repair or replace a docking structure, the docking structure is an existing legal structure. (☒ N/A)
Initials: LL	The proposal is the alternative with the least adverse impact to jurisdictional areas, as required by Env-Wt 310.01(d)(4).
Initials: LL	The project is not an after-the-fact application.
Initials: LL	The project is: • Not located in a PRA, or • Is located in a PRA but is subject to a classification adjustment under Env-Wt 407.02 or a project-type exception under Env-Wt 407.04.
Initials: LL	The applicant is aware of the limits of the EXP and understands and will comply with all conditions in the EXP and all applicable conditions in Env-Wt 307.

Initials: LL	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: LL	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: LL	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: N/A	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 10 - REQUIRED SIGNATURES (Env-Wt 310.01(d))

SIGNATURE (OWNER)*:	PRINT NAME LEGIBLY:	DATE:
NICA	NICA BOARD DAVID PORTER PRESIDENT	4/23/21

*Note: If the applicant is not the owner of the property, each property owner also shall sign and date the application provided that property owner signatures shall not be required for transportation projects adjacent to existing rights-of-way where an easement will be obtained prior to the start of construction (Env-Wt 311.11(d)). Check the following box if your project meets this exception: ☐.

SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY: Leonard Lord	DATE: 4/23/2021

SECTION 11 - CONSERVATION COMMISSION SIGNATURE (Env-Wt 310.01(h))**

The signed statement from the Conservation Commission may be submitted electronically.

The signature below certifies that the municipal Conservation Commission or, if there is no conservation commission, the local governing body, has reviewed this application and the municipality waives its right to intervene on the project, per RSA 482-A:11.

AUTHORIZED COMMISSION SIGNATURE:	PRINT NAME LEGIBLY:	DATE:

Signature to be provided to NHDES following the 5/12/21 Conservation Commission meeting.

SECTION 12 - LOCAL RIVER MANAGEMENT ADVISORY COMMITTEE SIGNATURE (Env-Wt 310.01(i))**		
The signature below certifies that the LAC waives its right to intervene per RSA 482-A:11: (☒ N/A This project is **not** within a Designated River Corridor)		
AUTHORIZED LAC REPRESENTATIVE SIGNATURE:	PRINT NAME LEGIBLY:	DATE:

**Note: If the application is administratively complete, except for the signed statement from the Conservation Commission and/or LAC, the application will be processed under the application processing times established in RSA 482-A:3, XIV (Env-Wt 310.02(h)). The applicant may also indicate that they are applying for a minimum impact application under standard processing timelines.

SECTION 14 - TOWN / CITY CLERK SIGNATURE (Env-Wt 310.01(f))	
As required by RSA 482-A:3, I(a)(1), I hereby certify that the municipality has received four copies of the application, including all attachments.	
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
TOWN/CITY:	DATE:

DIRECTIONS FOR TOWN/CITY CLERK:
Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:
Submit the single, original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page.

Keep this checklist for your reference; do not submit with your application.

APPLICATION CHECKLIST

Required for all applications:

- ☒ The completed, dated, signed and certified application (Env-Wt 310.01).
- ☒ Application fee of $400, as determined in RSA 482-A:3, I (Env-Wt 310.01(e)). Make check or money order payable to "Treasurer – State of NH".
- ☐ US Army Corps of Engineers (ACE) "Appendix B, New Hampshire General Permits (GPs), Required Information and Corps Secondary Impacts Checklist" and its required attachments (Env-Wt 307.02). This includes the US Fish and Wildlife Service IPAC review and Section 106 Historic/Archaeological Resource review. N/A
- ☒ A copy of the town tax map(s) showing the location of the proposed project in relation to abutters (Env-Wt 310.01(b)(2)).
- ☒ A list of abutters' names and mailing addresses to cross-reference with the tax map (Env-Wt 310.01(b)(3)).
- ☒ A copy of the appropriate US Geological Survey map with the property and project clearly marked (Env-Wt 310.01(b)(4)).
- ☒ Photos that meet all of the following criteria:
  - ☒ Clearly show the area to be impacted,
  - ☒ Are mounted or printed no more than two per sheet on 8.5-inch x 11-inch paper, and
  - ☒ Are annotated to explain impact (Env-Wt 310.01(b)(6)).
- ☒ The results and identification number of the NHB DataCheck (Env-Wt 310.01(b)(8)). See Wetlands Permitting: Protected Species and Habitat Fact Sheet.
- ☒ An accurate drawing showing the precise location, with detailed dimensions clearly annotated to document existing site conditions and to show the proposed impacts to the jurisdictional areas (Env-Wt 310.01(c)(4)).
- ☒ An accurate drawing to show the impact of the proposed activity on jurisdictional areas, including the following (Env-Wt 310.01(c)(5)):
  - ☒ An overview of the property and proposed impact areas in relation to property lines,
  - ☒ The scale, if any, used on the drawing,
  - ☒ If the drawing is not to scale, the dimensions of all existing and proposed structures and all other relevant features necessary to clearly define the project,
  - ☒ A labeled north-pointing arrow to indicate orientation,
  - ☒ A legend that clearly indicates all symbols, line types, and shading used on the plan,
  - ☒ The location of the jurisdictional areas delineated in accordance with Env-Wt 400,
  - ☒ Proposed sequence of construction including pre-construction through post-construction activities and the relative timing and progression of all work,
  - ☒ The location and type of siltation and turbidity controls indicated graphically and labeled or annotated as necessary,
  - ☐ For any project using a temporary coffer dam and for any repair of a tier 3 stream crossing, the date, signature, and seal of the licensed professional engineer who prepared or had responsibility for the plan(s),
  - ☐ For restoration/enhancement projects, the information required to be shown on a map by Env-Wt 525,
  - ☒ For tidal minimum impact projects, the information required to be shown on a map by Env-Wt 600, and
  - ☐ For minimum impact stream crossing projects, the information required to be shown on a map by Env-Wt 900.
- ☒ The linear distance of the project from abutting property boundaries (Env-Wt 310.01(c)(7)).

Required for certain project type, as applicable:

- ☐ The type of dock construction (Env-Wt 310.01(c)(8)).
- ☐ The diameter of culvert(s) to be used for road or driveway crossings (Env-Wt 310.01(c)(8)).
- ☐ The additional information specified in Env-Wt 522 for minimum impact agricultural applications (Env-Wt 310.01(c)(8)).
- ☐ Plans for maintenance of retaining walls, as specified in Env-Wt 514 (if applicable; Env-Wt 310.01(c)(8)).
- ☐ Specifications and plans for maintenance of rip-rap, as required by Env-Wt 514 (Env-Wt 310.01(c)(8)).
- ☐ Any other project-specific plan or information required under Env-Wt 500 and as described in the project-specific worksheet (Env-Wt 310.01(c)(8)).
- ☒ Information required on the Coastal Resource Worksheet for coastal projects under Env-Wt 600.
- ☐ Prime Wetlands information required under Env-Wt 700.
- ☐ Information requested on the Stream Crossing Worksheet required by Env-Wt 900.

EXPEDITED (EXP) MINIMUM IMPACT WETLANDS PERMIT APPLICATION REVIEW PROCESS

Water Division/Land Resources Management
Wetlands Bureau

(Keep this sheet for your reference; do not submit it with your application)

In accordance with Env-Wt 310.02, the department must review an application for an expedited permit (EXP) for administrative completeness and compliance with applicable department rules within 30 calendar days of receipt if the application has been signed by:

- The municipal conservation commission or, if there is no conservation commission, the local governing body, certifying that the municipality waives its right to intervene on the project, which may be submtted electronically; and
- The LAC, if the project is within LAC jurisdiction, certifying that the LAC waives its right to intervene on the project. "LAC jurisdiction" means the authority conferred by RSA 483:8-a, III upon a local river management advisory committee relative to activities within a designated river or river corridor, provided that for the purpose of routine roadway maintenance activities conducted under an EXP, LAC jurisdiction is limited to activities in or within 250 feet of a tier 2 or tier 3 designated river that have a direct surface water connection to the designated river (Env-Wt 103.27).

Administrative Completeness Review:

If the application is administratively complete, complies with applicable requirements, and has the signature(s) mentioned above, the department will issue an EXP and post the information on OneStop within one business day of determining that the application was complete and in compliance with all applicable requirements.

If the application is lacking anything other than the signatures mentioned above and the project qualifies for an EXP, the department will send a written notice to the applicant that:

- Identifies each item that is missing; and
- Informs the applicant that in order to proceed under the EXP, the applicant must submit all necessary information within 20 days of the date of the notice or the application will be denied.

If the application was administratively complete except for one or both of the signatures required above, the department will send a written notice to the applicant that the application will be processed under the application processing times established in RSA 482-A:3, XIV.

If the applicant receives the above-mentioned notice and wishes to proceed under an EXP, the applicant must submit a revised application for an EXP that provides all of the required information within 20 days of the date of the notice. If the applicant does not submit all necessary information to the department within 20 days, the department will deny the EXP.

Technical Review:

If the information submitted as part of the application is not sufficient for the department to determine that the project meets the criteria for an EXP, the department shall send a request for more information, together with any written technical comments the department deems necessary, within 30 calendar days of receipt of the application. Such request and technical comments shall be sent by electronic means if the applicant or applicant's agent has indicted that doing so is acceptable.

If the project proposed in the EXP application does not comply with applicable requirements, the department will deny the application and notify the applicant in writing of the reason(s) for the denial.

WETLANDS RULE WAIVER OR DWELLING OVER WATER WAIVER REQUEST FORM

WATER DIVISION/LAND RESOURCES MANAGEMENT WETLANDS BUREAU

RSA/Rule: RSA 482-A/ Env-Wt 204

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

A person may request a waiver to requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interests of the public or the environment. A person may also request a waiver of standard for existing dwellings over water pursuant to RSA 482-A:26, III (b).

SECTION 1 - PROJECT LOCATION INFORMATION (Env-Wt 204.03(c))			
ADDRESS: 500 Market Street	TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
TAX MAP/LOT NUMBER: 120/2			
SECTION 2 - WAIVER REQUESTOR INFORMATION (Env-Wt 204.03(a))			
LAST NAME, FIRST NAME, M.I.: Tighe & Bond			
MAILING ADDRESS: Attn: Leonard Lord, 177 Corporate Drive			
TOWN/CITY: Portsmouth		STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS (if available): LLord@TigheBond.com or if not FAX NUMBER:	DAYTIME TELEPHONE NUMBER: 603-433-8818		
SECTION 3 - APPLICANT INFORMATION (Env-Wt 204.03(b)) If request is being made on behalf of someone else, include the following information regarding the person being represented. If requestor is the applicant, check the following box and proceed to Section 4. ☐ Requestor is the applicant.			
LAST NAME, FIRST NAME, M.I.: Noble's Island Condominiums			
MAILING ADDRESS: c/o Michael Street, CP Management, 11 Court St.			
TOWN/CITY: Exeter		STATE: NH	ZIP CODE: 03833
EMAIL ADDRESS (if available): MichaelS@CPManagement.com or if not FAX NUMBER:	DAYTIME PHONE NUMBER: 603-778-6300		

SECTION 4 - WAIVER INFORMATION

SECTION 4A - WAIVER TO RULE Env-Wt 100-900

☐ N/A - If you are not requesting a rule waiver, check this box and proceed to Section 4b

Provide the number of the specific section of each rule for which a waiver is sought (Env-Wt 204.03(d)):
Env-Wt 603.08 (a) & (b)

Provide a complete explanation of why a waiver is being requested, including an explanation of the operational and economic consequences of complying with the requirement and, if the requested waiver would extend the duration of a permit, the reason(s) why the permit holder was not able to complete the project within the specified time (Env-Wt 204.03(f)(1)):

A waiver is sought to omit the required surveyed field observations of three tide events. This level of study and expense is excessive for a simple deck repair/replacement within the previously developed tidal buffer with no increase in the project footprint. The project has a high risk tolerance and is not at a risk of flooding under a predicted sea level rise of 1.3 feet by 2050. This estimate is based on the use of conservative existing tidal heights. Furthermore, the project is needed for the safety of the residents.

If applicable, provide a complete explanation of the alternative that is proposed to be substituted for the requirement in Env-Wt, including written documentation or data, or both, to support the alternative (Env-Wt 204.03(g)):

NOAA predicted tide heights for the project were used from Seavey Island, which is only 4,000 +/- feet away. Use of tidal heights from Seavy Island is likely to be conservative because there are moderate tidal restrictions under a railroad bridge and under Market Street between Seavey Island and the project area. The restrictions are likely to have a dampening effect on tidal extremes, making the tidal heights used in the attached permit application conservative.

SECTION 4B – DWELLING OVER WATERS WAIVER UNDER RSA 482-A:26, III(b).

☐ N/A - If you are not requesting a standard waiver, check this box and proceed to Section 5)

Identify the specific standard to which a waiver is being requested (Env-Wt 204.03(e)):
RSA 482-A:

Provide a complete explanation of why a waiver is being requested, including a complete explanation of how the statutory criteria of RSA 482-A:26, III(b) will be met (Env-Wt 204.03(f)(2)):

SECTION 5 - ADDITIONAL WAIVER INFORMATION (Env-Wt 204.03(h); Env-Wt 204.03(i))

(applicable to Waivers of Rules *and* Standards under RSA 482-A:26, III(b))

Indicate whether the waiver is needed for a limited duration and, if so, an estimate of when the waiver will no longer be needed (Env-Wt 204.03(h)):

The waiver is only needed for the application approval.

Provide a complete explanation of why the applicant believes that having the waiver granted will meet the criteria in Env-Wt 204.05 or 204.06, as applicable (Env-Wt 204.03(i)):

Env-Wt 204.06

(a1)The waiver will not result in an adverse impact to the environment or public safety. (a2)It will not interfere with public waters. (a3) It will not result in an adverse impact on abutting properties. NH RSA 482-A:26 (Dwellings Over Water) is not applicable.

SECTION 6 - REQUIRED CERTIFICATIONS (Env-Wt 204.04)

Initial each box and sign below to certify:

Initials: LL	The information provided is true, complete, and not misleading to the knowledge and belief of the signer.
Initials: LL	The signer understands that: • Any waiver granted based on false, incomplete, or misleading information shall be subject to revocation; and • He or she is subject to the penalties for falsification in official matters, currently established in RSA 641.

SECTION 7 - REQUESTOR SIGNATURE (Env-Wt 204.04)

SIGNATURE (APPLICANT): *	PRINT NAME LEGIBLY:	DATE:
	NICA DAVID PORTER, PRESIDENT of NICA BOARD	4/23/21
SIGNATURE (REQUESTOR):	PRINT NAME LEGIBLY:	DATE:
	Leonard Lord	4/23/2021

*In lieu of an applicant signature, you may include a separate signed and dated authorization for the requestor to act on the person's behalf in connection with the request.

WETLANDS RULE WAIVER OR DWELLING OVER WATER WAIVER REQUEST FORM CRITERIA/DECISION

WATER DIVISION/LAND RESOURCES MANAGEMENT WETLANDS BUREAU

(Keep this sheet for your reference; do not submit it with your application)

RSA/Rule: RSA 482-A/ Env-Wt 204

SECTION 1 - WAIVER CRITERIA
SECTION 1A - CRITERIA FOR WAIVERS TO RULES (Env-Wt 204.05)

(a) The Department shall grant a waiver to a requirement established in subtitle Env-Wt that will not extend the duration of a wetlands permit only if:
- (1) Granting a waiver will not result in:
  - a. An avoidable adverse impact on:
    - 1. The environment or natural resources of the state, including but not limited to jurisdictional areas and protected species or habitat; or
    - 2. Public health or public safety;
  - b. An impact on abutting properties that is more significant than that which would result from complying with the rule; or
  - c. A statutory requirement being waived; and
- (2) Any benefit to the public or the environment from complying with the rule is outweighed by the operational or economic costs to the applicant.

(b) The Department shall grant a waiver that has the effect of extending the duration of a wetlands permit that does not qualify for the statutory extension under RSA 482-A:3, XIV-a only if:
- (1) The permit holder:
  - a. Was precluded from proceeding under the permit due to actions taken by persons opposed to the project; or
  - b. Rationally refrained from proceeding under the permit due to reasonable uncertainties surrounding the project's legal viability, which shall not include uncertainties regarding the project's financial viability;
- (2) If other permits are required for the project, at least one other permit already has a duration that extends beyond the expiration of the wetlands permit or, if the other permit expires concurrently or prior to the wetlands permit, the permit holder reasonably anticipates that an extension will be obtained; and
- (3) Extending the permit will not result in:
  - a. Adverse impacts on public health or safety, or the environment or natural resources of the state, that would be greater than those accounted for in the permit that was issued; or
  - b. Adverse impacts on abutting properties that is more significant than that which would have resulted if the project had been initiated in time to be completed during the permit term.

SECTION 1B - CRITERIA FOR WAIVERS UNDER RSA 482-A:26, III(b) (Env-Wt 204.06)

The Department shall grant a waiver under RSA 482-A:26, III(b) if:

(a) The waiver will not result in:
  (1) An avoidable adverse impact on the environment or natural resources of the state, public health or public safety;
  (2) Any interference with the public trust in waters held by the state; or
  (3) An adverse impact on abutting properties that is more significant than that which would result from complying with the rule; and

(b) The following criteria from RSA 482-A:26, III(b) are met:
  (1) The effect of the requested repair or reconstruction represents greater protection of public water or the environment;
  (2) Such repair or reconstruction does not change a recreational, water-based activity to a land-based, residential or commercial activity;
  (3) There will be no expansion of the existing footprint, outside dimensions, or square footage of floor space; and
  (4) There will be a net reduction in the total square footage of kitchen, bathroom, shower, and toilet facilities.

SECTION 2 – DECISION (Env-Wt 204.07)

(a) The Department shall notify the requestor of the decision in writing. If the request is denied, the Department shall identify the specific reason(s) for the denial.

(b) If a waiver is granted, the Department shall impose such conditions, including time limitations, as the Department deems necessary to ensure that the activities conducted pursuant to the waiver will be consistent with the applicable criteria.

COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: Noble's Island Condominiums

This worksheet may be used to present the information required for projects in coastal areas, in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)

The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose consisting of a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

The purpose of the project is to replace exist ing degraded decks on the ground floor of the three buildings that make up Noble Island Condominiums. The existing decks are cantilevered and supported by rusting steel beams. The decks will be replaced within the same footprint but will have concrete piers as supports instead of the cantilevered beams. The concrete piers will be within the footprint of the existing decks.

Work will be conducted entirely within disturbed areas of the Previously Developed Tidal Buffer Zone.

Impacts from the project have been avoided and minimized by maintaining the necessary repair work to within the existing footprint of the degraded decks. Future work will be avoided by changing the construction from cantilevered beams to more durable concrete pier supports.

For standard permit projects, provide:

☐ A Coastal Functional Assessment (CFA) report in accordance with Env-Wt 603.04 (refer to Section 3). N/A

☒ A vulnerability assessment in accordance with Env-Wt 603.05 (refer to Section 4). Required for all permit types

Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 311.07, Env-Wt 313, and Env-Wt 603.04.

Impacts from the project have been avoided and minimized by maintaining the necessary repair work to within the existing footprint of the degraded decks. Wetland functions and values will not be impacted by the project. Erosion and sediment control Best Management Practices will be utilized to protect from siltation.

Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01.

Surface waters will not be impacted by the project. All work will be conducted within uplands and will employ proper erosion and sediment control Best Management Practices, including stabilization of disturbed soils following construction. No equipment will be used within surface waters or wetlands and no invasive species will be used to stabilize the site. The NH Natural Heritage Bureau DataCheck has determined that no rare species or critical habitats will be impacted. All work on this project is within previously developed and landscaped areas and will be consistent with the Shoreland Water Quality Protection Act. No work will be adjacent to designated prime wetlands. The project does not involve dredging or filling of wetlands. Areas of temporary soil disturbance will be stabilized within three days of final grading as described in the construction sequencing. No work is being done within 10 feet of a property line without an abutter's prior written consent.

Provide a project design narrative that includes the following:

☒ A discussion of how the proposed project:

- Uses best management practices and standard conditions in Env-Wt 307;
- Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- Meets approval criteria in Env-Wt 313.01;
- Meets evaluation criteria in Env-Wt 313.01(c);
- Meets CFA requirements in Env-Wt 603.04; and
- Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;

☒ A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and

☒ A discussion of how the completed project will be maintained and managed.

A project design narrative is attached.

☒ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);

☒ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and

☐ For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors (DP&H) chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

N/A

SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05)

Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of:

☒ Existing salt marsh and salt marsh migration pathways;

☒ Eelgrass beds;

☒ Documented shellfish sites;

☒ Projected sea-level rise; and

☒ 100-year floodplain.

Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links:

☐ National Oceanic and Atmospheric Administration (NOAA) Tides & Currents; and N/A: Work restricted to uplands

☐ NOAA Essential Fish Habitat Mapper. N/A: Work restricted to uplands

☒ Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03)

Projects in coastal areas shall:

☒ Not impair the navigation, recreation, or commerce of the general public; and

☒ Minimize alterations in prevailing currents.

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

☒ Adverse impacts to beach or tidal flat sediment replenishment;

☒ Adverse impacts to the movement of sediments along a shore;

☒ Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and

☒ Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

☐ Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be: N/A: Minimum Impact Permit

- Performed by a qualified coastal professional; and
- Completed using one of the following methods:

  a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or

  b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

For any project that would impact tidal wetlands, tidal waters, or associated sand dunes, the applicant shall: N/A

- ☐ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters, or associated sand dunes;
- ☐ Design the proposed project to have the least impact to tidal wetlands, tidal waters, or associated sand dunes;
- ☐ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and
- ☐ Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

- ☐ Minimize adverse impacts to finfish, shellfish, crustacean, and wildlife;
- ☐ Minimize disturbances to groundwater and surface water flow;
- ☐ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and
- ☐ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

Determine the time period over which the project is designed to serve.

25 years

Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas.

NH Coastal Flood Risk Summary Part II, Step 2 Table: High Risk Tolerance

Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss.

NH Coastal Flood Risk Summary Part II, Step 3 Table A: High Risk Tolerance, SLR 2050 = 1.3 feet

Identify areas of the proposed project site subject to flooding from SLR.

None

Identify areas currently located within the 100-year floodplain and subject to coastal flood risk.

100 year floodplain (Zone AE) base flood elevation is 8 feet. The existing grade at the project is at elevation 10-15 feet on the downslope side where the concrete piers will be, but the decking will be at 12 feet or higher.

Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans.

The project is not vulnerable based on SLR. The base flood elevation for a 1% chance flood event is 8 feet with a predicted SLR of 1.3 feet by 2050, which would bring the base flood elevation to 9.3 feet. The concrete piers, which are resistant to flooding, will be at elevation 10 feet or above at grade and the decking will be at 12 feet or above.

Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a applicatio meeting with the de partment to evaluate design alternatives, engineering approaches, and use of the best available science.

☐ Pre-application meeting date held: **N/A**

SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements.

The plan view shall depict the following:

☒ The engineering scale used, which shall be no larger than one inch equals 50 feet;

☒ The location of tidal datum lines depicted as lines with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.

☐ An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions; N/A: No work in wetlands or water bodies

☒ The location of all special aquatic sites at or within 100 feet of the subject property;

☒ Existing bank contours;

☒ The name and license number, if applicable, of each individual responsible for the plan, including:

a. The agent for tidal docking structures who determined elevations represented on plans; and

b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan;

☒ The location and dimensions of all existing and proposed structures and landscape features on the property;

☒ Tidal datum(s) with associated elevations noted, based on NAVD 88; and

☒ Location of all special aquatic sites within 100-feet of the property.

The elevation view shall depict the following:

☒ The nature and slope of the shoreline;

☒ The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and

☒ Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.

See specific design and plan requirements for certain types of coastal projects:

- Overwater structures (Env-Wt 606).
- Dredging activities (Env-Wt 607).
- Tidal beach maintenance (Env-Wt 608).
- Tidal shoreline stabilization (Env-Wt 609).
- Protected tidal zone (Env-Wt 610).
- Sand Dunes (Env-Wt 611).

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least three tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:

- ☒ Mean lower low water;
- ☒ Mean low water;
- ☒ Mean high water;
- ☒ Mean tide level;
- ☒ Mean higher high water;
- ☒ Highest observable tide line; and
- ☒ Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

The following data shall be presented in the application project narrative to support how water depths were determined: NOAA tidal datums were used from nearby Seavey Island. See waiver request.

- ☐ The date, time of day, and weather conditions when water depths were recorded; and
- ☐ The name and license number of the licensed land surveyor who conducted the field measurements.

For tidal stream crossing projects, provide:

- ☐ Water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d).

For repair, rehabilitation or replacement of tier 4 stream crossings:

- ☐ Demonstrate how the requirements of Env-Wt 904.09 are met.

SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01)

Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on: N/A

- ☐ The standard conditions in Env-Wt 307;
- ☐ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- ☐ The approval criteria in Env-Wt 313.01;
- ☐ The evaluation criteria in Env-Wt 313.05;
- ☐ The project specific criteria in Env-Wt 600;
- ☐ The CFA required by Env-Wt 603.04; and
- ☐ The vulnerability assessment required by Env-Wt 603.05.

New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or habitat shall not be allowed except:

- ☐ To protect public safety; and
- ☐ Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

Projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

- ☐ Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and
- ☐ Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

SECTION 8 - GENERAL CRITERIA FOR TIDAL BUFFER ZONES (Env-Wt 604.02)

The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally. Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:

- ☒ The standard conditions in Env-Wt 307;
- ☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- ☒ The approval criteria in Env-Wt 313.01;
- ☒ The evaluation criteria in Env-Wt 313.05;
- ☒ The project specific criteria in Env-Wt 600;
- ☐ The CFA required by Env-Wt 603.04; and
- ☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to:

- ☒ Provide habitat values;
- ☒ Protect tidal environments from potential sources of pollution;
- ☒ Provide stability of the coastal shoreline; and
- ☒ Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

SECTION 9 - GENERAL CRITERIA FOR TIDAL WATERS/WETLANDS (Env-Wt 604.03)

Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security. Evaluation of impacts to tidal wetlands and tidal waters shall be based on:

N/A: No impacts to tidal wetlands or waters

- ☐ The standard conditions in Env-Wt 307;
- ☐ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- ☐ The approval criteria in Env-Wt 313.01;
- ☐ The evaluation criteria in Env-Wt 313.05;
- ☐ The project specific criteria in Env-Wt 600;
- ☐ The CFA required by Env-Wt 603.04; and
- ☐ The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

- ☐ Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;
- ☐ Be designed with a preference for living shorelines over hardened stabilization practices; and
- ☐ Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

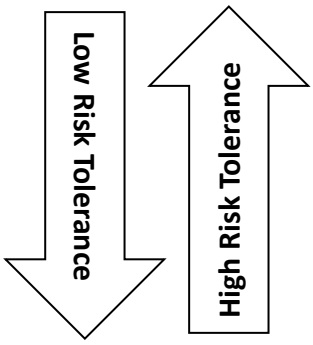
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission's Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design, and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project's willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.

Project Design Narrative

Project Discussion

Env-Wt 307. Surface waters will not be impacted by the project. All work will be conducted within uplands and will employ proper erosion and sediment control BMPs. No equipment will be used within surface waters or wetlands and no invasive species will be used to stabilize the site. The NH Natural Heritage Bureau DataCheck has determined that no rare species or critical habitats will be impacted. All work on this project is within previously developed and landscaped areas and will be consistent with the Shoreland Water Quality Protection Act. No work will be adjacent to designated prime wetlands. The project does not involve dredging or filling of wetlands. Areas of temporary soil disturbance will be stabilized within three days of final grading as described in the construction sequencing below. The project is 11 feet from the closest point to the property line. No work is being done within 10 feet of a property line without an abutter's prior written consent.

Env-Wt 311.07 & 313.03. Impacts from the project have been avoided and minimized by maintaining the necessary repair work to within the existing footprint of the degraded decks. All work is being done within the previously developed tidal buffer. No wetlands will be directly impacted.

Env-Wt 313.01. As described throughout this application, the project will meet all permit approval criteria.

Env-Wt 313.01(c). Impacts from the project have been avoided and minimized by maintaining the necessary repair work to within the existing footprint of the degraded decks. All work is being done within the previously developed tidal buffer. No wetlands will be directly impacted.

Env-Wt 603.04. N/A (Expedited Minimum Permit Application)

Env-Wt 603.05. A Vulnerability Assessment is included on the Coastal Worksheet and includes consideration of sea level rise and flooding. Design plans are attached that include water depth information. The project has a high risk tolerance and is not at a risk of flooding under a predicted sea level rise (SLR) of 1.3 feet by 2050.

Construction Sequencing

1. Install erosion and sediment controls (silt socks) between the proposed work and the top of the riprap slope.

2. All work involving soil disturbance and concrete pier installation shall be maintained at least 10 feet from the abutting property line at Building A unless prior written consent is obtained from the affected abutter.

3. Remove existing cantilevered decks, including decking, joists, and exterior portions of cantilevered steel beams.

4. Dispose of materials properly off-site and outside of jurisdictional areas.

5. Install concrete piers.

6. Install new decks.

7. Stabilize disturbed soils within three days of final grading or temporary suspension of work. Stabilization may utilize wood chips or ground bark mulch at least 4 inches thick [cf. Env-Wq. 1506.01(d)], especially where conditions are unfavorable for grass.

Otherwise, hydroseed or hand seed with an appropriate grass mix using weed-free mulch and tackifier. The mulch and/or seed mix shall not contain invasive species.

8. Water and spot seed grass as needed to assure complete stabilization.

9. Remove silt socks once work is complete and the disturbed areas have been stabilized.

Project Maintenance and Management

The replaced decks will be inspected regularly. They will either be constructed of long-lasting synthetic materials or regularly maintained through painting or staining. Replacement of the cantilevered steel beams with concrete piers should also increase the life of the project as the concrete is more resistant to the elements.

Areas disturbed during the project will be reviewed during deck inspections to assure ongoing soil stabilization. Spot seeding and/or mulching will be used as needed to assure ongoing soil stabilization.

Datums for 8419870, Seavey Island ME

NOTICE: All data values are relative to the NAVD88.

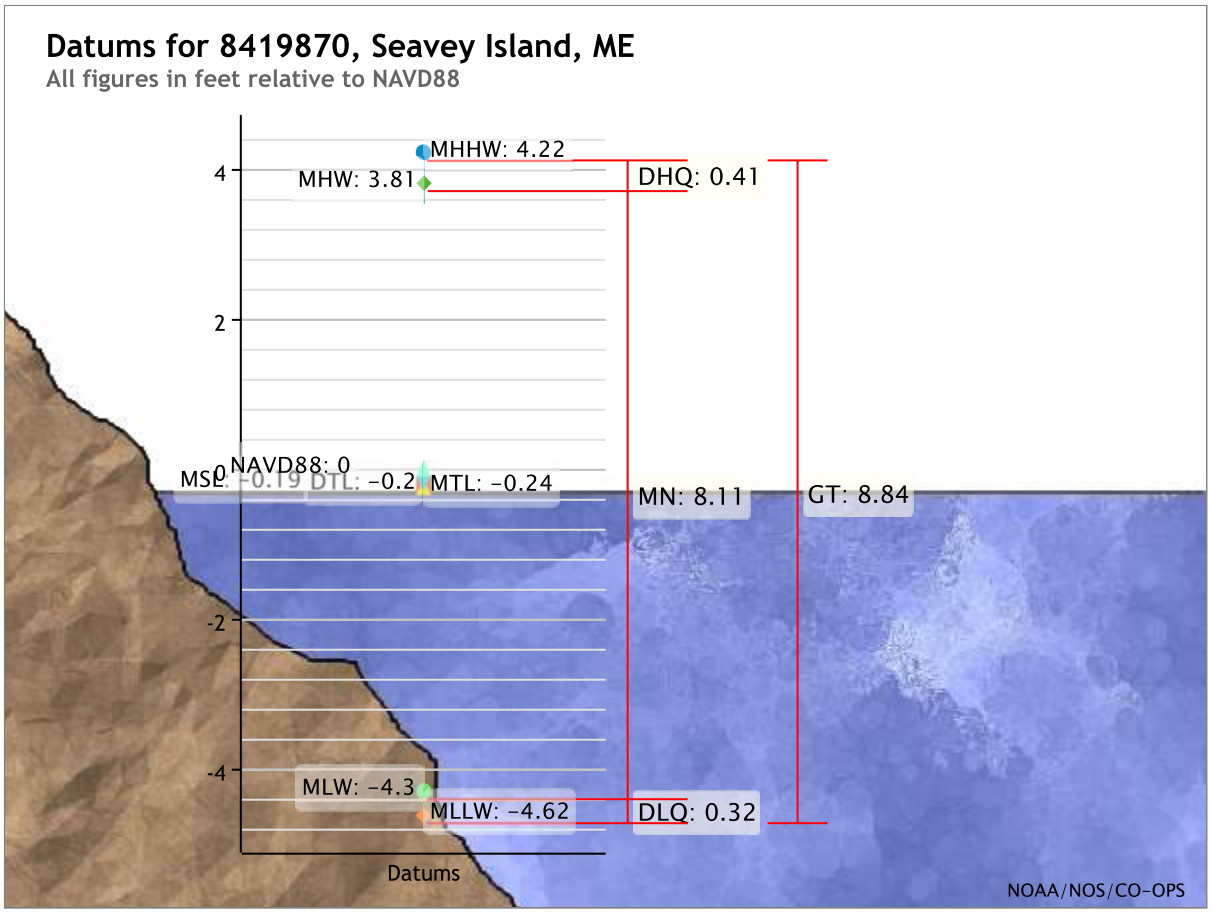
Elevations on NAVD88

Station: 8419870, Seavey Island, ME
Status: Accepted (Aug 8 2016)
Units: Feet
Control Station: 8418150 Portland, ME
T.M.: 0
Epoch: (/datum_options.html#NTDE) 1983-2001
Datum: NAVD88

Datum	Value	Description
MHHW (/datum_options.html#MHHW)	4.22	Mean Higher-High Water
MHW (/datum_options.html#MHW)	3.81	Mean High Water
MTL (/datum_options.html#MTL)	-0.24	Mean Tide Level
MSL (/datum_options.html#MSL)	-0.19	Mean Sea Level
DTL (/datum_options.html#DTL)	-0.20	Mean Diurnal Tide Level
MLW (/datum_options.html#MLW)	-4.30	Mean Low Water
MLLW (/datum_options.html#MLLW)	-4.62	Mean Lower-Low Water
NAVD88 (/datum_options.html)	0.00	North American Vertical Datum of 1988
STND (/datum_options.html#STND)	-6.97	Station Datum
GT (/datum_options.html#GT)	8.84	Great Diurnal Range
MN (/datum_options.html#MN)	8.11	Mean Range of Tide

Datum	Value	Description
DHQ (/datum_options.html#DHQ)	0.41	Mean Diurnal High Water Inequality
DLQ (/datum_options.html#DLQ)	0.32	Mean Diurnal Low Water Inequality
HWI (/datum_options.html#HWI)	3.92	Greenwich High Water Interval (in hours)
LWI (/datum_options.html#LWI)	10.04	Greenwich Low Water Interval (in hours)
Max Tide (/datum_options.html#MAXTIDE)	7.90	Highest Observed Tide
Max Tide Date & Time (/datum_options.html#MAXTIDEDT)	02/07/1978 10:42	Highest Observed Tide Date & Time
Min Tide (/datum_options.html#MINTIDE)	-7.97	Lowest Observed Tide
Min Tide Date & Time (/datum_options.html#MINTIDEDT)	11/30/1955 00:00	Lowest Observed Tide Date & Time
HAT (/datum_options.html#HAT)	5.90	Highest Astronomical Tide
HAT Date & Time	06/15/1995 05:12	HAT Date and Time
LAT (/datum_options.html#LAT)	-6.29	Lowest Astronomical Tide
LAT Date & Time	01/21/1996 22:54	LAT Date and Time

Tidal Datum Analysis Periods
11/01/2000 - 10/31/2001



Showing datums for

8419870 Seavey Island, ME

Datum

NAVD88

Data Units
- (●) Feet
- ( ) Meters

Epoch
- (●) Present (1983-2001)
- ( ) Superseded (1960-1978)

Submit

Show nearby stations

Tighe&Bond

APPENDIX B

Photographic Log

Client: Noble's Island Condominiums
Job Number: N5079-001
Site: 500 Market Street, Portsmouth, NH

Photograph No.: 1	**Date:** 3/15/2021	**Direction Taken:** Northeast
Description: Building A deck in the left foreground with exposed mudflats at the toe of the riprap slope (E2US3N). Mid-background is the abutting property at 450 Market Street.		

Photograph No.: 2	**Date:** 3/15/2021	**Direction Taken:** North
Description: The north end of the deck on Building B is in the foreground and Building C is in the background.		

Photographic Log

Client: Noble's Island Condominiums
Job Number: N5079-001
Site: 500 Market Street, Portsmouth, NH

Photograph No.: 3	**Date:** 3/15/2021	**Direction Taken:** South
Description: View of the north end of the Building B deck, facing south.		

Photograph No.: 4	**Date:** 3/15/2021	**Direction Taken:** North
Description: Building C deck with a view of the air conditioner pens for each unit.		

Photographic Log

Client: Noble's Island Condominiums
Job Number: N5079-001
Site: 500 Market Street, Portsmouth, NH

Photograph No.: 5	**Date:** 3/15/2021	**Direction Taken:** South
Description: View of the north end of the Building C deck.		

Photograph No.: 6	**Date:** 3/15/2021	**Direction Taken:** East
Description: Rusting supports under the decks will be removed and supplanted by concrete piers.		

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APPENDIX C

Nobles Island Abutters

Property Information

Property ID	0120-0002-0000
Location	500 MARKET ST
Owner	NOBLES ISLAND CONDOS MASTER CARD

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 4/1/2019
Data updated 7/17/2019

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Noble's Island Condominium Abutters

Property ID	Site Address	Account	Owner Name	Owner Name 2	Owner Address	City	State	Zip
0120-0001-0002	448 MARKET ST #2	33583	STEWART MAX M		448 MARKET ST	PORTSMOUTH	NH	03801
0120-0001-0003	450 MARKET ST #3	33584	DAVIDSON-TISE REVOCABLE TRUST	DAVIDSON BRUCE R & TISE REBECCA J TTEES	1465 WOODBURY AVE PMB 217	PORTSMOUTH	NH	03801
0120-0001-0004	452 MARKET ST #4	33585	PAPPAS BRYAN C LIVING TRUST	PAPPAS BRYAN C TRUSTEE	2 BRACKETT LN	PORTSMOUTH	NH	03801
0120-0002-010L	500 MARKET ST #10L	33586	LASALA BARBARA D TRUST	LASALA JOSEPH I TRUST	500 MARKET ST #10L	PORTSMOUTH	NH	03801
0120-0002-010R	500 MARKET ST #10R	33587	PORTER DAVID S	PORTER CAROL A	500 MARKET ST 10R	PORTSMOUTH	NH	03801
0120-0002-011L	500 MARKET ST #11L	33588	AVA TRUST 6/5/07	JONES SANDRA B LANCIANI ROBERT J CO TRUS	1200 SALEM ST UNIT 129	LYNNFIELD	MA	01940
0120-0002-011R	500 MARKET ST #11R	33589	KUDRICK SCOTT P	KUDRICK AMY E	500 MARKET ST #11R	PORTSMOUTH	NH	03801
0120-0002-012L	500 MARKET ST #12L	33590	DEEGAN ALEXANDRA L		500 MARKET ST 12L	PORTSMOUTH	NH	03801
0120-0002-012R	500 MARKET ST #12R	33591	NEW ENGLAND ALL STAR CONSULT LLC		253 MAIN ST	NASHUA	NH	03060
0120-0002-013L	500 MARKET ST #13L	33592	SCHWANBECK MARC A		500 MARKET ST UNIT 13L	PORTSMOUTH	NH	03801-3494
0120-0002-013R	500 MARKET ST #13R	33593	PEIRCE TRACY B REVOCABLE TRUST OF 2007	PEIRCE TRACY B TRUSTEE	500 MARKET ST UNIT 13R	PORTSMOUTH	NH	03801
0120-0002-014L	500 MARKET ST #14L	33594	MCKENNA JAMES T JR REVOCABLE TRUST	MCKENNA JAMES T JR TRUSTEE	500 MARKET ST UNIT 14L	PORTSMOUTH	NH	03801
0120-0002-014R	500 MARKET ST #14R	33595	GOEPFERT CHRISTOPHER		500 MARKET ST #14R	PORTSMOUTH	NH	03801
0120-0002-015L	500 MARKET ST #15L	33596	RUSSELL PETER H REVOC LIV TRUST	RUSSELL PETER H TRUSTEE	500 MARKET ST 15L	PORTSMOUTH	NH	03801
0120-0002-015R	500 MARKET ST #15R	33597	RODRIGUEZ GIULLIANO		500 MARKET ST #15R	PORTSMOUTH	NH	03801
0120-0002-004L	500 MARKET ST #4L	33598	SHOALS REALTY LLC (50% INT)		81 CABLE RD	RYE	NH	03870
0120-0002-004R	500 MARKET ST #4R	33599	KORKOLIS IOANNIS	OTSUBO MASAMI	1295 EDGEHILL RD SUITE 36	COLUMBUS	OH	43212
0120-0002-005L	500 MARKET ST #5L	33600	JONES BRUCE M		635 SCRUTON POND RD	BARRINGTON	NH	03825
0120-0002-005R	500 MARKET ST #5R	33601	CHASE PATRICIA F		500 MARKET ST 5R	PORTSMOUTH	NH	03801
0120-0002-006L	500 MARKET ST #6L	33602	VALENTINE TRUST	VALENTINE THOMAS J AND BETTY TRUSTEES	500 MARKET ST 6L	PORTSMOUTH	NH	03801
0120-0002-006R	500 MARKET ST #6R	33603	LORD FRANCES A REVOC TRUST	LORD FRANCES A TRUSTEE	PO BOX 6699	PORTSMOUTH	NH	03802-6699
0120-0002-007L	500 MARKET ST #7L	33604	MONAHAN TIMOTHY T	MONAHAN PAULINE B	500 MARKET ST 7L	PORTSMOUTH	NH	03801
0120-0002-007R	500 MARKET ST #7R	33605	CHAMPAGNE ROBERT R REVOCABLE TRUST	CHAMPAGNE ROBERT R TRUSTEE	120 SAGAMORE RD	RYE	NH	03870
0120-0002-008L	500 MARKET ST #8L	33606	SNOWBOUND TRUST 1998	LUISI WILLIAM D TRUSTEE	500 MARKET ST UNIT 8L	PORTSMOUTH	NH	03801
0120-0002-008R	500 MARKET ST #8R	33607	ONWARD AND UPWARD REVOC TRUST	JANIGAN JANET CAROL TRUSTEE	PO BOX 754	RYE	NH	03870
0120-0002-009L	500 MARKET ST #9L	33608	BUCKLEY WILLIAM R JR REVOC TRUST	GOULD REBECCA 1996 REVOC TRUST	500 MARKET ST UNIT 9L	PORTSMOUTH	NH	03801
0120-0002-009R	500 MARKET ST #9R	33609	BUCKLEY WILLIAM R JR REVOC TRUST	GOULD REBECCA 1996 REVOC TRUST	500 MARKET ST UNIT 9L	PORTSMOUTH	NH	03801
0120-0002-001C	500 MARKET ST #1C	37429	STANHOPE PETER E REVOC TRUST	STANHOPE PETER E TRUSTEE	500 MARKET ST #1C	PORTSMOUTH	NH	03801
0120-0002-001E	500 MARKET ST #1E	37430	NOBLE 1E LLC		500 MARKET ST UNIT 1E	PORTSMOUTH	NH	03801
0120-0002-001A	500 MARKET ST #1A	37431	WILSON HOLDINGS LLC		C/O 47 WEBSTER RD	OXFORD	MA	01540
0120-0002-001B	500 MARKET ST #1B	37432	RS EXETER HOLDINGS LLC		19 EXETER FALLS DR	EXETER	NH	03833
0120-0002-003B	500 MARKET ST #3B	37433	ME NH VT LABORERS DISTRT COUNC	ATTN: CHRIS PITULA	7 LABORERS WAY	HOPKINTON	MA	01748
0120-0002-003A	500 MARKET ST #3A	37434	ME NH VT LABORERS DISTRT COUNC	ATTN: CHRIS PITULA	7 LABORERS WAY	HOPKINTON	MA	01748
0120-0002-002C	500 MARKET ST #2C	37435	PMC REALTY TRUST	CARROLL JANETTE M TRUSTEE	500 MARKET ST STE 2C	PORTSMOUTH	NH	03801
0120-0002-002A	500 MARKET ST #2A	37437	PMC REALTY TRUST	CARROLL JANETTE M TRUSTEE	500 MARKET ST STE 2C	PORTSMOUTH	NH	03801
0120-0002-016B	500 MARKET ST #16B	37438	GREATER PORTS CHAMBER COMMERCE		500 MARKET ST 16A	PORTSMOUTH	NH	03801
0120-0002-0015	500 MARKET ST #15	37440	REID AND COMPANY EXECUTIVE	SEARCH LLC	500 MARKET ST #15	PORTSMOUTH	NH	03801

Noble's Island Condominium Abutters

0120-0002-0014	500 MARKET ST #14	37441	PHF REALTY COMPANY LLC		500 MARKET ST #14	PORTSMOUTH	NH	03801
0120-0002-0013	500 MARKET ST #13	37442	PHF REALTY COMPANY LLC		500 MARKET ST #14	PORTSMOUTH	NH	03801
0120-0002-0012	500 MARKET ST #12	37443	PHF REALTY COMPANY LLC		500 MARKET ST #14	PORTSMOUTH	NH	03801
0120-0002-0011	500 MARKET ST #11	37444	BUTLER WELD R REVOCABLE TRUST	BUTLER WELD R TRUSTEE	11 KINGS HIGHWAY SOUTH	ELIOT	ME	03903-2111
0120-0002-0010	500 MARKET ST #10	37445	NOBLE PORTSMOUTH RLTY TRUST		PO BOX 159	HAMPTON FALLS	NH	03844
0120-0002-0009	500 MARKET ST #9	37446	FROZEN POND REALTY LLC		175 CANAL ST., STE-401	MANCHESTER	NH	03101
0120-0002-0008	500 MARKET ST #8	37447	NOUCAS JAMES G JR	NOUCAS MARY P	64 THAXTER RD	PORTSMOUTH	NH	03801
0120-0002-0007	500 MARKET ST #7	37448	EW 500 MARKET LLC		520 SOUTH ST	PORTSMOUTH	NH	03801
0120-0002-0006	500 MARKET ST #6	37449	BIGELOW REALTY LLC	C/O BIGELOW & CO CPA	500 N COMMERCIAL ST	MANCHESTER	NH	03101-1106
0120-0002-0004	500 MARKET ST #4	37451	NI REALTY CO	C/O BIGELOW & CO CPA PC	500 N COMMERCIAL ST	MANCHESTER	NH	03101-1106
0120-0002-0005	500 MARKET ST #5	37454	NI REALTY CO	C/O BIGELOW & CO CPA PC	500 N COMMERCIAL ST	MANCHESTER	NH	03101-1106
0120-0002-001D	500 MARKET ST #1D	37455	CHAMPERNOWNE REAL ESTATE LLC	C/O ESSENTIAL PLANNING	500 MARKET ST #1D	PORTSMOUTH	NH	03801
0120-0002-001F	500 MARKET ST #1F	37456	WILSON HOLDINGS LLC		C/O 47 WEBSTER RD	OXFORD	MA	01540
0120-0002-001G	500 MARKET ST #1G	37457	ALTMAN AND WAGNER REAL EST LLC		500 1G MARKET ST	PORTSMOUTH	NH	03801
0120-0002-002B	500 MARKET ST #2B	37458	PMC REALTY TRUST	CARROLL JANETTE M TRUSTEE	500 MARKET ST STE 2C	PORTSMOUTH	NH	03801
0120-0002-016A	500 MARKET ST #16A	37459	GREATER PORTS CHAMBER COMMERCE		500 MARKET ST 16A	PORTSMOUTH	NH	03801
0120-0001-0001	446 MARKET ST #1	37746	GREATER PISCATAQUA COMMUNITY	NEW HAMPSHIRE CHARITABLE FOUNDATION	37 PLEASANT STREET	CONCORD	NH	03301

INSERT COPIES OF ABUTTER CERTIFIED MAIL RECEIPTS HERE

Tighe&Bond

APPENDIX D

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Leonard Lord
177 Corporate Dr
Portsmouth, NH 03042

From: NH Natural Heritage Bureau

Date: 4/1/2021 (This letter is valid through 4/1/2022)

Re: Review by NH Natural Heritage Bureau of request dated 4/1/2021

Permit Types: Wetland Standard Dredge & Fill - Minimum
Portsmouth

NHB ID: NHB21-1083

Applicant: Leonard Lord

Location: Portsmouth
Tax Map: 120, Tax Lot: 2
Address: 500 Market St

Proj. Description: Work within the Previously Developed Tidal Buffer Zone (upland). Replace degraded existing cantilevered ground floor condominium decks but add concrete supporting piers, all within the footprint of the existing decks. No expansion of existing impacts.

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

MAP OF PROJECT BOUNDARIES FOR: NHB21-1083

Tighe&Bond

APPENDIX E

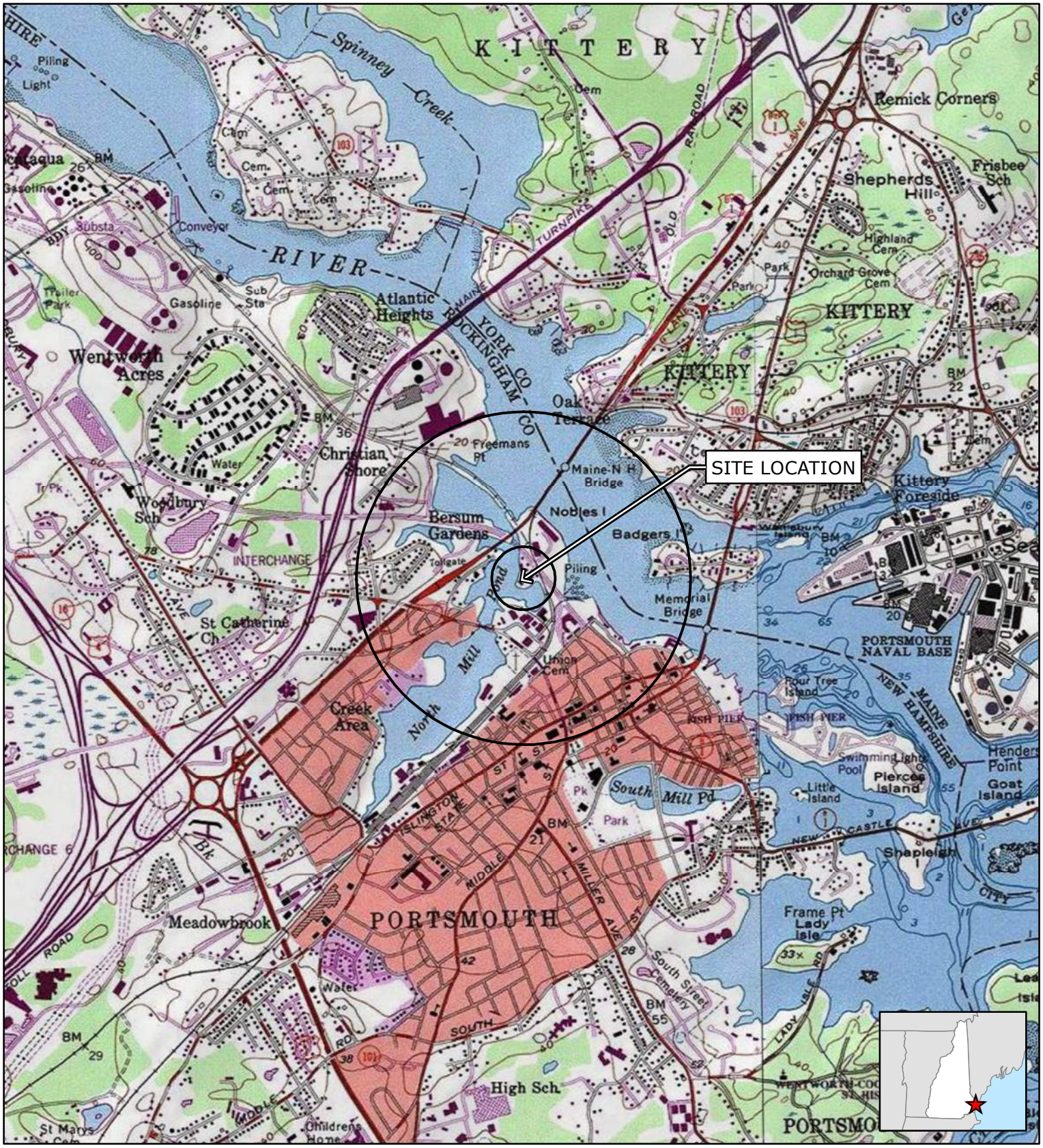

FIGURE 1
SITE LOCUS MAP

Noble Island
Condominium Association
Deck Replacement Project
500 Market Street
Portsmouth, New Hampshire

March 2021

Tighe&Bond

Based on USGS Topographic Map for
Portsmouth [Site Quad] and Kittery, New Hampshire
Circles indicate 500-foot and half-mile radii

1:24,000

0 1,000 2,000
Feet

N

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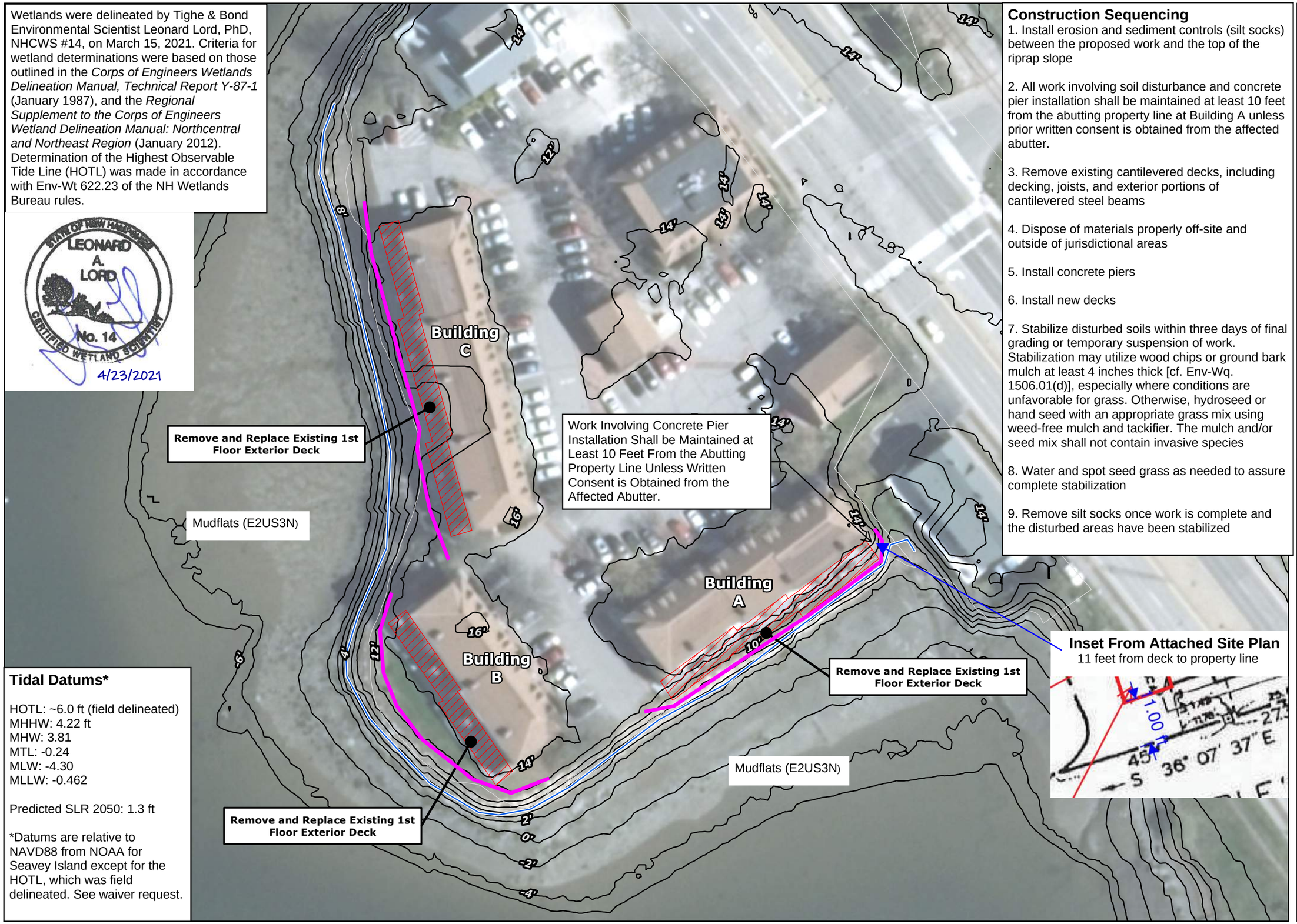
N-5037

Wetlands were delineated by Tighe & Bond Environmental Scientist Leonard Lord, PhD, NHCWS #14, on March 15, 2021. Criteria for wetland determinations were based on those outlined in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). Determination of the Highest Observable Tide Line (HOTL) was made in accordance with Env-Wt 622.23 of the NH Wetlands Bureau rules.

STATE OF NEW HAMPSHIRE
LEONARD A. LORD
No. 14
CERTIFIED WETLAND SCIENTIST
4/23/2021



Tidal Datums*

HOTL: ~6.0 ft (field delineated)
MHHW: 4.22 ft
MHW: 3.81
MTL: -0.24
MLW: -4.30
MLLW: -0.462

Predicted SLR 2050: 1.3 ft

*Datums are relative to NAVD88 from NOAA for Seavey Island except for the HOTL, which was field delineated. See waiver request.

Construction Sequencing

1. Install erosion and sediment controls (silt socks) between the proposed work and the top of the riprap slope

2. All work involving soil disturbance and concrete pier installation shall be maintained at least 10 feet from the abutting property line at Building A unless prior written consent is obtained from the affected abutter.

3. Remove existing cantilevered decks, including decking, joists, and exterior portions of cantilevered steel beams

4. Dispose of materials properly off-site and outside of jurisdictional areas

5. Install concrete piers

6. Install new decks

7. Stabilize disturbed soils within three days of final grading or temporary suspension of work. Stabilization may utilize wood chips or ground bark mulch at least 4 inches thick [cf. Env-Wq. 1506.01(d)], especially where conditions are unfavorable for grass. Otherwise, hydroseed or hand seed with an appropriate grass mix using weed-free mulch and tackifier. The mulch and/or seed mix shall not contain invasive species

8. Water and spot seed grass as needed to assure complete stabilization

9. Remove silt socks once work is complete and the disturbed areas have been stabilized

FIGURE 2
EXISTING CONDITIONS

LEGEND

- Highest Observable Tide Line
- 2-foot Contour
- Deck
- Approximate Parcel Boundary
- Silt Sock Erosion Control

LOCUS MAP

N

0 25 50
Feet
1 in = 50 ft

NOTES

1. Orthophotography courtesy of NH GRANIT (2015).
2. 2-foot contours generated from 2014 coastal bare earth LiDAR DEM. DEM downloaded from NH GRANIT.

Noble Island Condominium Association
Deck Replacement Project
500 Market Street
Portsmouth, New Hampshire

March 2021

Tighe&Bond

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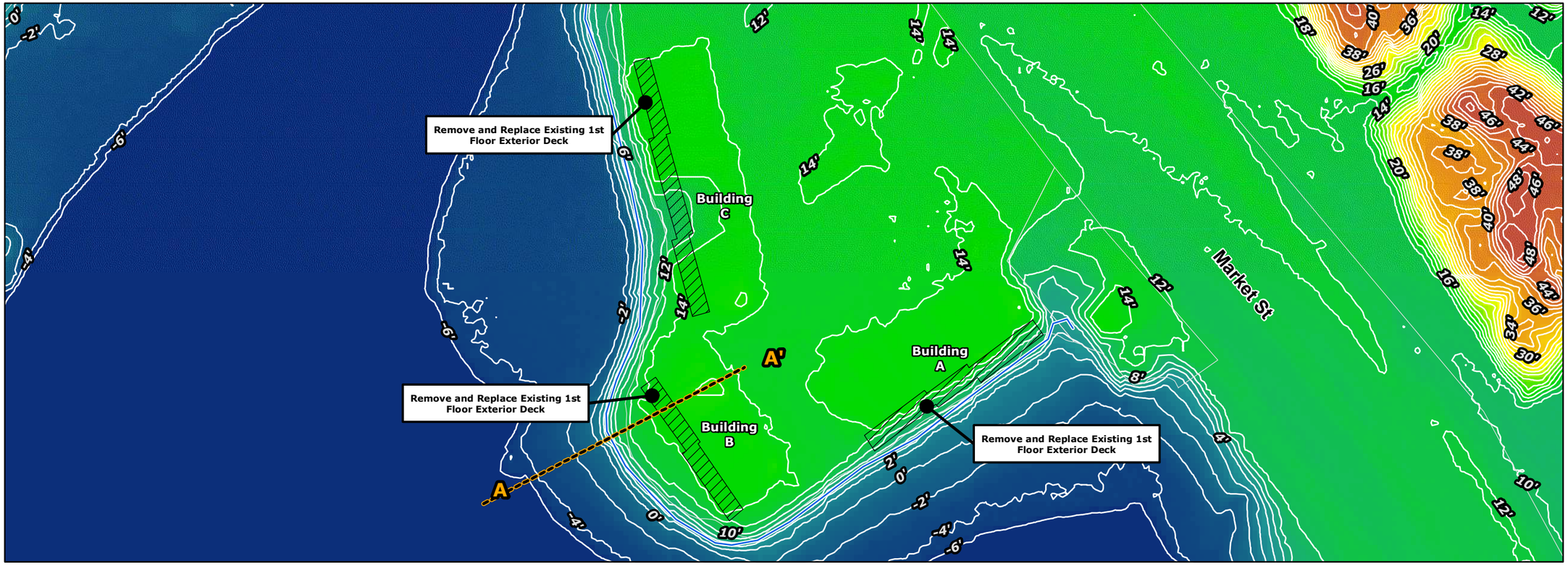
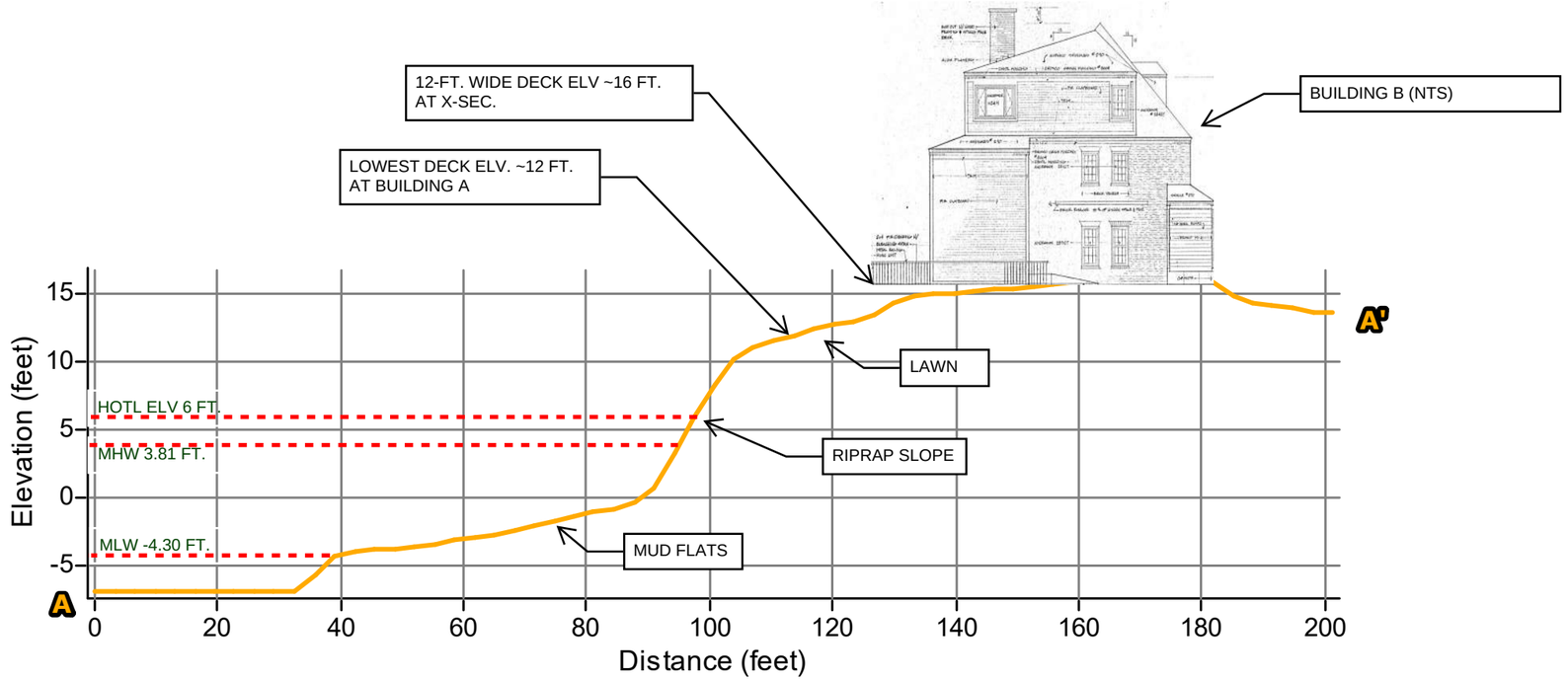
N-5037

FIGURE 3
ELEVATION





Building B Elevation Profile

NAVD88 MHW AND MLW TIDAL DATUMS FROM NOAA.GOV FOR SEAVEY ISLAND, ME

LEGEND

- Elevation Profile Cross Section
- Highest Observable Tide Line
- 2-foot Contour
- Deck
- Approximate Parcel Boundary

Value

High : 50.9186

Low : -6.88976

LOCUS MAP

N

0 75

Feet

1 in = 75 ft

NOTES

1. Orthophotography courtesy of Esri.
2. 2-foot contours generated from 2014 coastal bare earth LiDAR DEM. DEM downloaded from NH GRANIT.

Noble Island Condominium Association Deck Replacement Project 500 Market Street Portsmouth, New Hampshire

April 2021

Tighe&Bond

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N-5037

Jul 25 10 20 AM '83

REMOVE AND REPLACE EXISTING 1ST FLOOR EXTERIOR DECK

BUILDING B

REMOVE AND REPLACE EXISTING 1ST FLOOR EXTERIOR DECK

BUILDING C

BUILDING A

REMOVE AND REPLACE EXISTING 1ST FLOOR EXTERIOR DECK

NOTE: ALL DECKS ARE LCA FOR FIRST FLOOR UNITS.

NORTH MILL POND

MEAN HIGH WATER LINE

MAGNETIC 1971

UNDER CONSTRUCTION
UNITS 8, 8L 8R
F.F. ELEV. 13.50
UNITS 9, 9L 9R
UNITS 10, 10L 10R
2 1/2 STORY WOOD FRAME
DECK
BULKHEAD UTILITY ROOM UNDER IS LCA ALL UNITS 8 THRU 10

PROPOSED
UNITS 11, 11L, 11R
UNITS 12, 12L, 12R
F.F. ELEV. 13.50
UNITS 13, 13L, 13R
UNITS 14, 14L, 14R
UNITS 15, 15L, 15R
2 1/2 STORY WOOD FRAME
DECK
BULKHEAD UTILITY ROOM UNDER IS LCA ALL UNITS 11 THRU 15
STEPS ARE LCA
SIDEWALK

UNDER CONSTRUCTION
UNITS 7, 7L 7R
UNITS 6, 6L 6R
UNITS 5, 5L 5R
UNITS 4, 4L 4R
F.F. ELEV. 13.50
2 1/2 STORY WOOD FRAME
DECK
BULKHEAD UTILITY ROOM UNDER IS LCA ALL UNITS 4 THRU 7

COMPLETE
UNITS 3A & 3B
F.F. ELEV. 12.63
2 STORY CONCRETE BLOCK W/BRICK FACE

PROPOSED PAVED PARKING
GRANITE CURB

PEDESTRIAN COURTYARD

UNDER CONSTRUCTION
UNITS 1A THRU 1G
F.F. ELEV. 12.50
TO BE 2 1/2 STORY BLOCK AND WOOD FRAME W/ BRICK FACE

COMPLETE
UNITS 2A, 2B 2C
2 1/2 STORY WOOD FRAME & BLOCK W/ BRICK FACE
F.F. ELEV. 13.68

COMPLETE
UNITS 16A & 16B
WOOD DECK
EXISTING 2 STORY WOOD FRAME
F.F. ELEV. 12.80

ELIMINATED LOT LINE
SEE NOTE 7

UTILITY ROOM UNDER IS LCA FOR ALL UNITS 1

TBM TOP OF HYDRANT SPINDLE ELEV. 13.67

NOTE: CURBS NOT TANGENT AT STONE BOUND.

12. COMMON PASSWAY RCRD 2099-344

"EXPANDABLE" AREA 8,345 s.f. ±

HIF MARC, PAUL, CATHERINE, ET AL NOBLE

2 1/2 STORY WOOD FRAME

MARKET STREET

NOTE: NOBLE EASTERLY & SOUTHERLY PROPERTY LINES SHOWN HEREON AS THEY APPEAR ON NHDPW&H MARKET ST. RIGHT OF WAY PLANS. PROPERTY NOT SURVEYED AT THIS TIME.

TOTAL AREA = 105,356 s.f.
COMMON AREA = 73,537 s.f.
EXPANDABLE AREA = 8,345 s.f. ±

LEGEND

CB	CATCH BASIN
cb	CURB BOX
D	DRAIN
Δ	CENTRAL ANGLE
GV	GATE VALVE
HYD	HYDRANT
Lc	LENGTH OF CURVE
LCA	LIMITED COMMON AREA
R	RADIUS
S	SEWER
SMH	SEWER MANHOLE
W	WATER
WSO	WATER SHUT OFF
UGE	UNDERGROUND ELECTRIC
FF	FIRST FLOOR
TBM	TEMPORARY BENCH MARK

NOTES:

1. PARCEL IS LOCATED IN THE CENTRAL BUSINESS DISTRICT.
2. PARCEL IMPROVEMENTS ARE COMPLETELY WITHIN ZONE C OF THE FLOOD HAZARD SYSTEM.
3. OFFSET DISTANCES ARE PERPENDICULAR TO PROPERTY LINES UNLESS OTHERWISE NOTED.
4. STEPS TO EACH UNIT ARE LCA FOR THAT UNIT.
5. ALL UNITS ARE SERVED WITH UNDERGROUND ELECTRICITY, TELEPHONE, CABLE TV, & FIRE ALARM.
6. SITE PROVIDES 120 PARKING SPACES.
7. SEE CONVEYANCE TO NOBLE'S ISLAND REALTY DEVELOPMEN RCRD 2433-0867.
8. SEE RCRD D-9888 & "LOT LINE ELIMINATION PLAN FOR NOBLE'S ISLAND CONDOMINIUMS...", JAN. 20, 1983.
9. SEE RCRD D-11033. THIS PLAN UPDATES THAT PLAN. UNITS ARE RENUMBERED.
10. SEE RCRD 2430-1473. EASEMENTS REFERENCED THEREIN (RCRD 2383-1120) ARE ELIMINATED BY VIRTUE OF THE LOT LINE ELIMINATION SHOWN HEREON. THIS PLAN SHOWS CONFORMANCE TO COVENANTS REFERENCED THEREIN (RCRD. 2332-1847).

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS PLAN IS ACCURATE AND IS IN COMPLIANCE WITH THE PROVISIONS OF NEW HAMPSHIRE RSA 356 B:20(I) AND THAT ALL UNITS EXIST AS SHOWN HEREON.

Richard P. Millette 2-23-83
LICENSED LAND SURVEYOR

SITE PLAN FOR NOBLE'S ISLAND CONDOMINIUMS

MARKET STREET
COUNTY OF ROCKINGHAM
PORTSMOUTH, N.H.

SCALE: 1" = 20'

JANUARY 20, 1983

RICHARD P. MILLETTE AND ASSOC. THE HILL PORTSMOUTH, NH 0380

PORTSMOUTH PLANNING BOARD
E. Warren Clarke 2-25-83

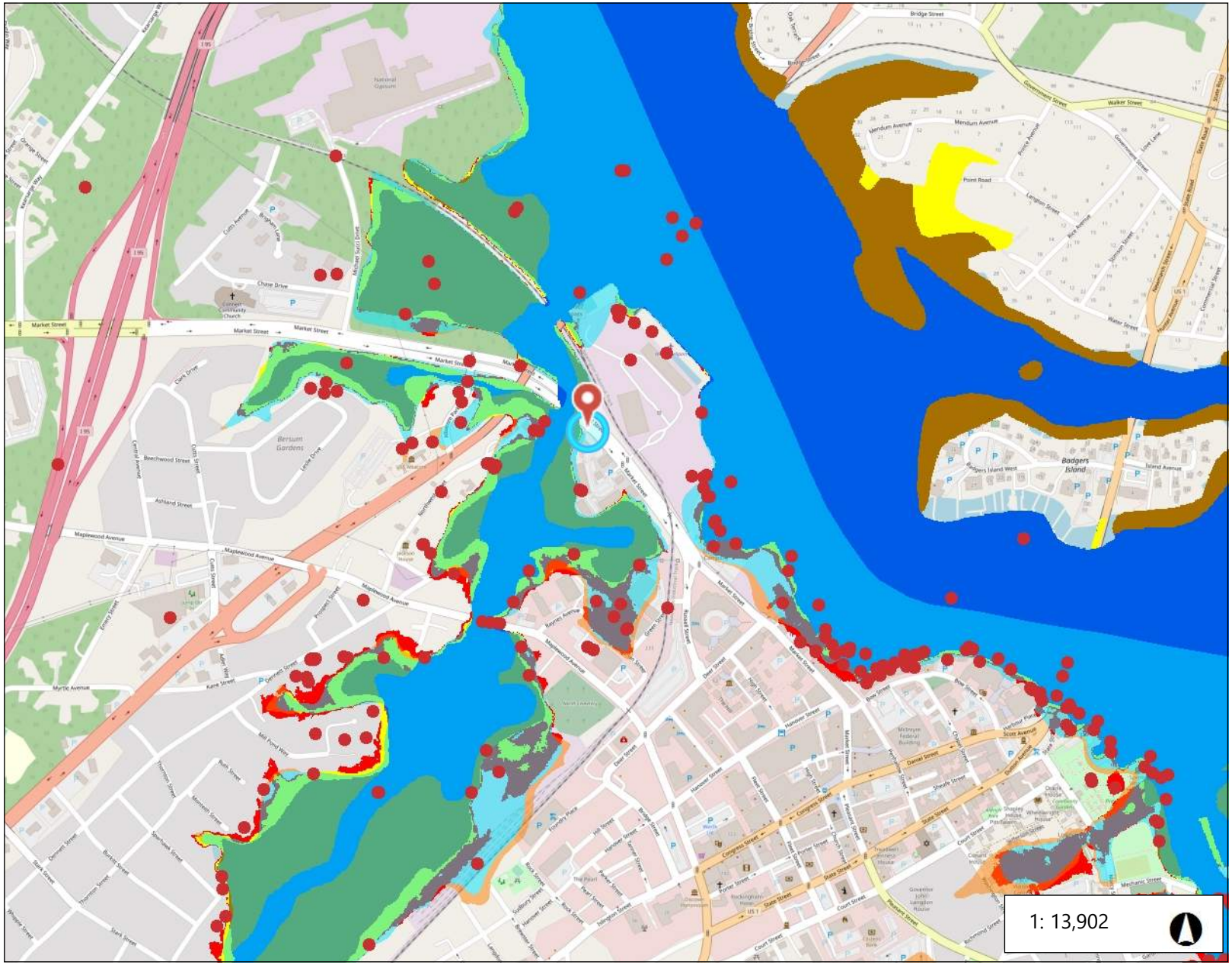
For Recording Purposes Only — Not a sub-division.

D-11709
Sheet 1 of 8

-81147-

Your Organization | Noble Island Condominiums

Figure 5
Wetlands Permit Planning Tool Results



Legend

- Oyster Restoration Sites
- Aquaculture Sites - 2015
- NHDES Wetland and Shorelan
- Prime Wetlands with 100 ft Buf
- Prime Wetlands
- Peatlands

Designated Rivers

- Subject to SWQPA
- Not Subject to SWQPA

FEMA Floodplains

- 1 pct. Annual Chance Flood Hazarc
- Floodway
- 0.2 pct. Annual Chance Flood Haza
- Area of Undetermined Flood Hazar
- Area Protected by Levee

Sand Dunes

- backdune
- foredune
- interdune
- other

Predicted Marsh Migration 205

- Freshwater wetland
- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat

Notes

Salt marsh and migration pathways
Eeelgrass beds
Shellfish Sites
Projected sea-level rise
100 yr FEMA floodplain

0.4 0 0.22 0.4 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

National Flood Hazard Layer FIRMette

FEMA

70°46'6"W 43°5'11"N

70°45'28"W 43°4'45"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

Figure 6

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- B 20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/3/2021 at 6:12 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

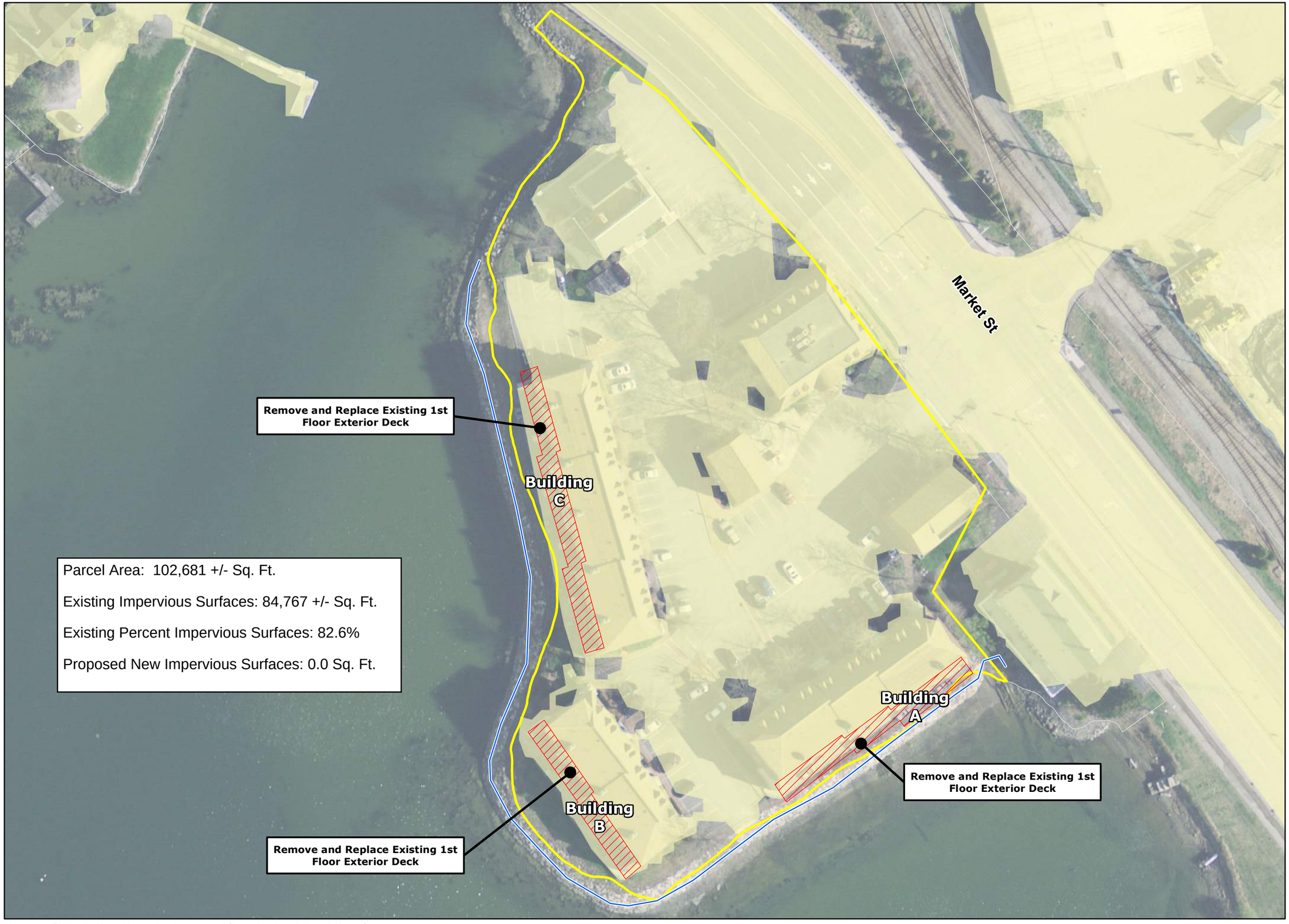


FIGURE 7
IMPERVIOUS AREA

LEGEND

- Highest Observable Tide Line
- Impervious Surface (2015)
- Deck
- Site Parcel
- Approximate Parcel Boundary

LOCUS MAP

N

0 55
Feet
1 in = 55 ft

NOTES

1. Orthophotography courtesy of Esri.
2. Impervious surface downloaded from NH GRANIT.

Noble Island Condominium Association Deck Replacement Project 500 Market Street Portsmouth, New Hampshire

April 2021

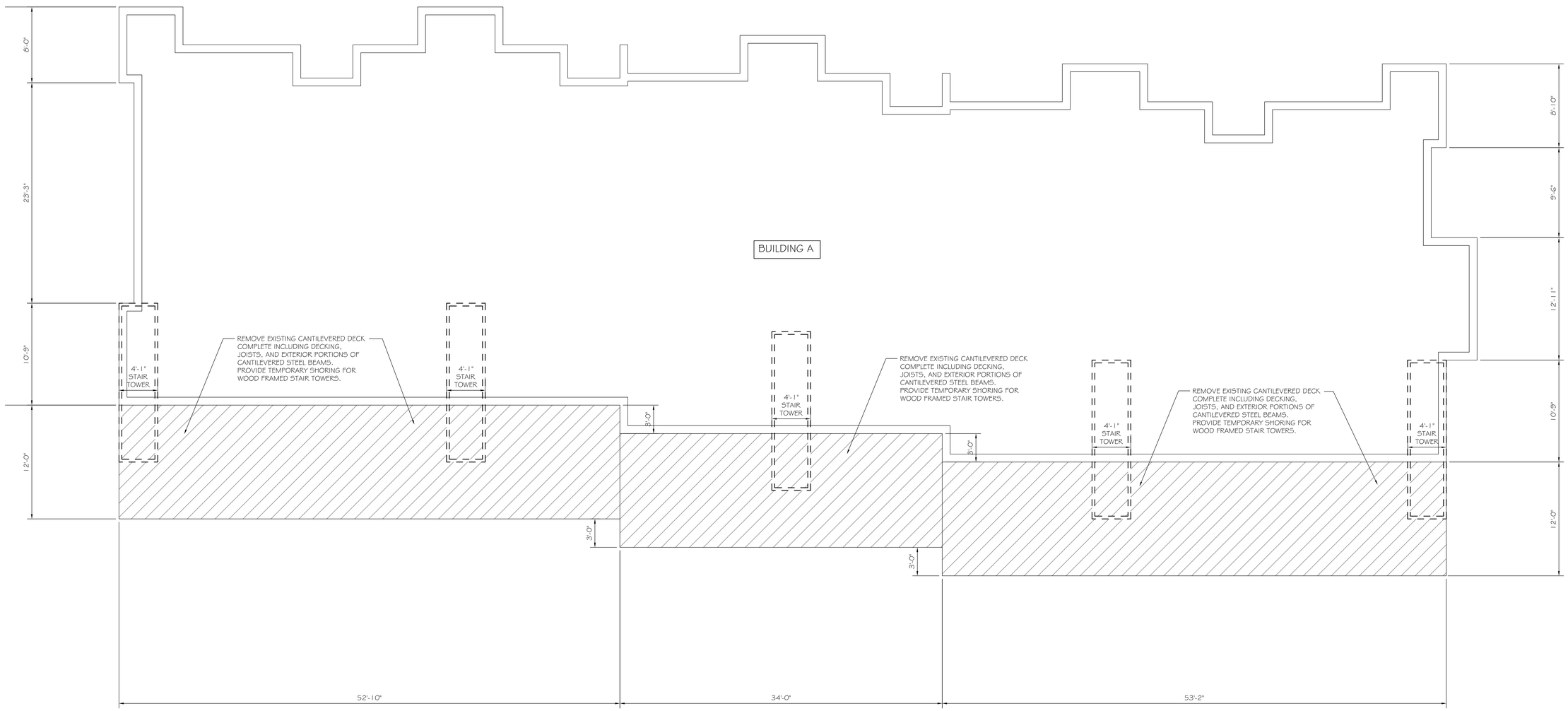
Tighe&Bond

V:\Projects\N\N5079\MXD\NobleIslandCondoDeckNH_Impervious.mxd, [Exported By: kjw, 4/9/2021, 12:36:40 PM]

N-5037

Tighe&Bond

APPENDIX F



ASSOCIATED DESIGN PARTNERS INC.

80 Leighton Road
Falmouth, Maine 04105

Office: (207) 878-1751
Fax: (207) 878-1788
E-Mail: adp@adpengineering.com

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PROJECT: 500 MARKET ST
PORTSMOUTH, NH

FOR:

SHEET TITLE: DEMOLITION PLAN - BUILDING A
CONCEPTUAL - NOT FOR CONSTRUCTION

REVISIONS		
No.	BY	DESCRIPTION	DATE
1			
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8			

DATE : 2/12/21
SCALE : 3/16" = 1'-0"
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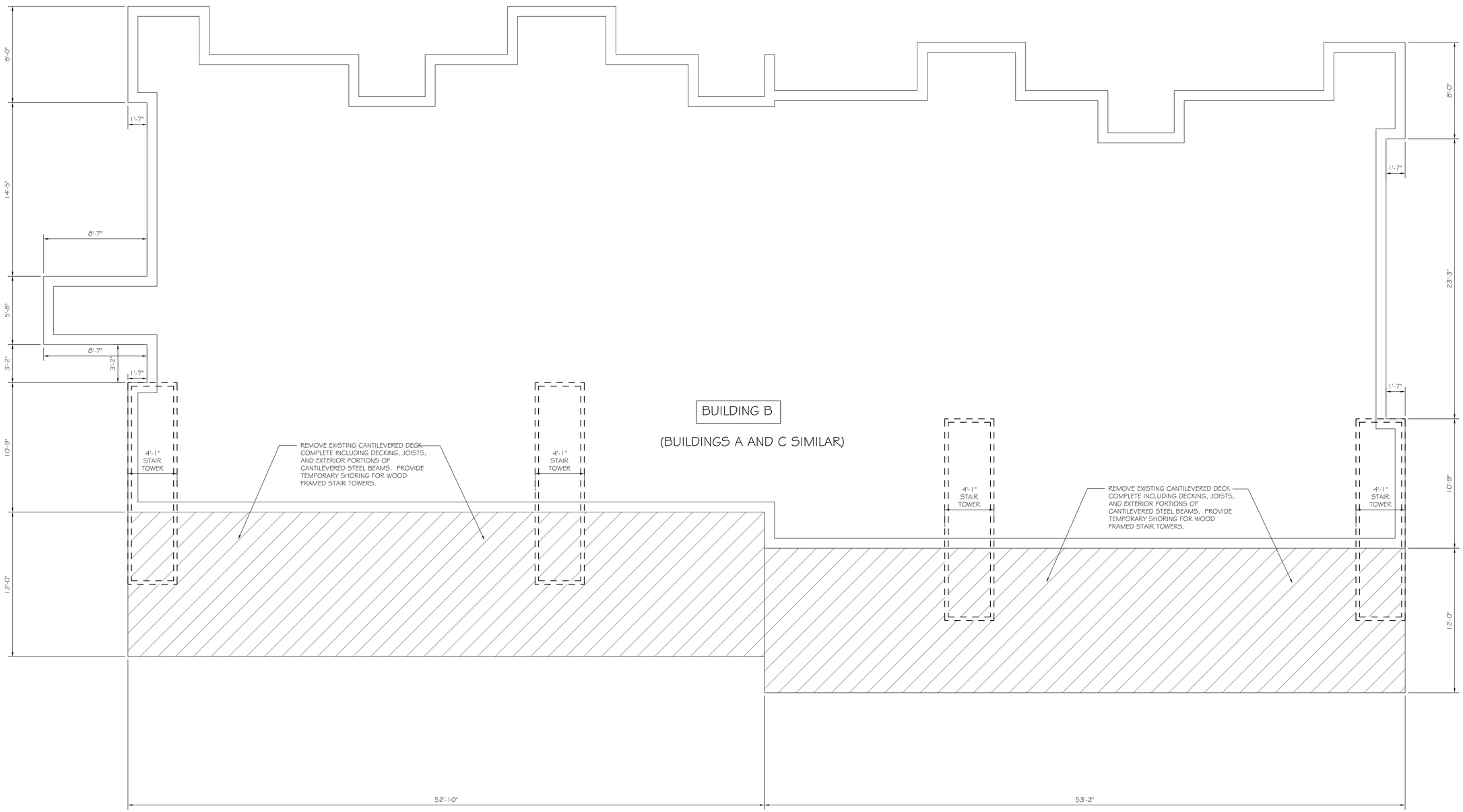
DRAWN BY: ASW
FILE #:
PROJECT NUMBER: 20089
SHEET NO: SO-A



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SHEET TITLE: DEMOLITION PLAN - BUILDING B
CONCEPTUAL - NOT FOR CONSTRUCTION

REVISIONS

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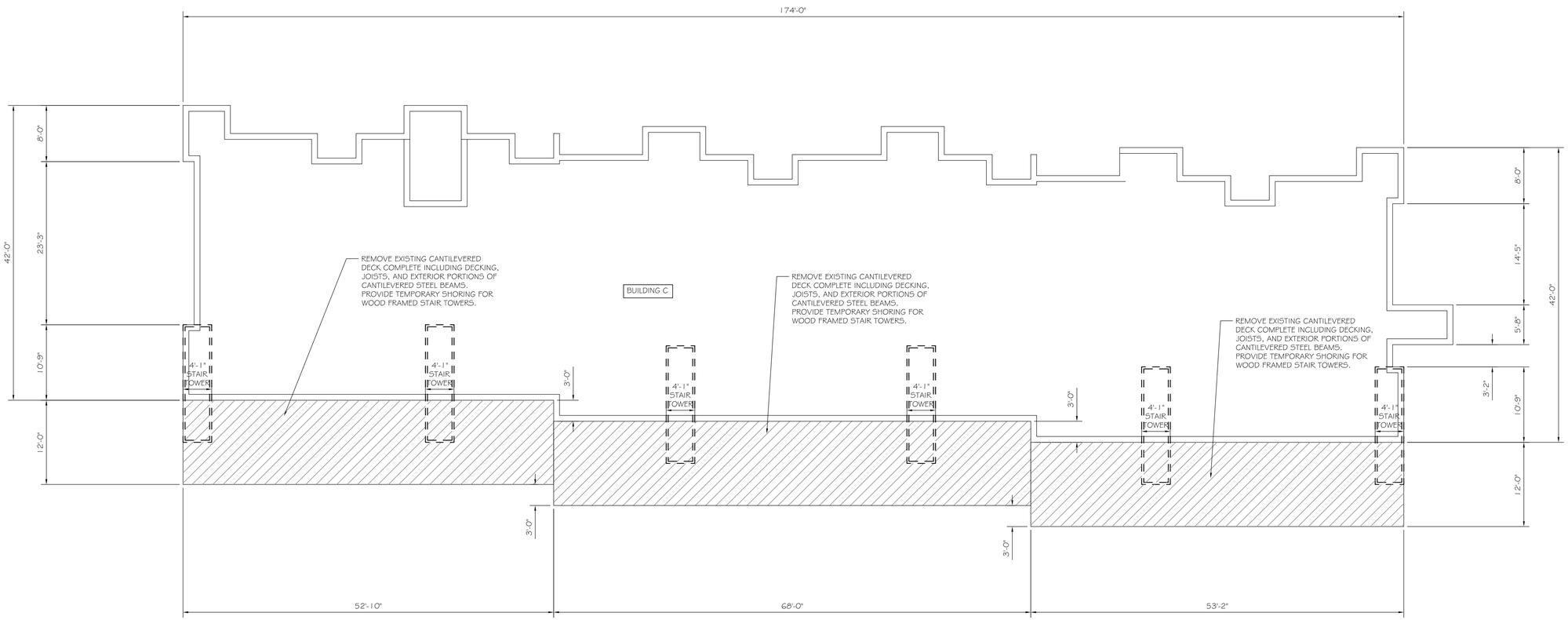
PROJECT NUMBER: 20089
SHEET NO: SO-B



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FOR:

SHEET TITLE: DEMOLITION PLAN - BUILDING C
CONCEPTUAL - NOT FOR CONSTRUCTION

REVISIONS			
No.	BY	DESCRIPTION	DATE

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PROJECT NUMBER: 20089
SHEET NO: S0-C

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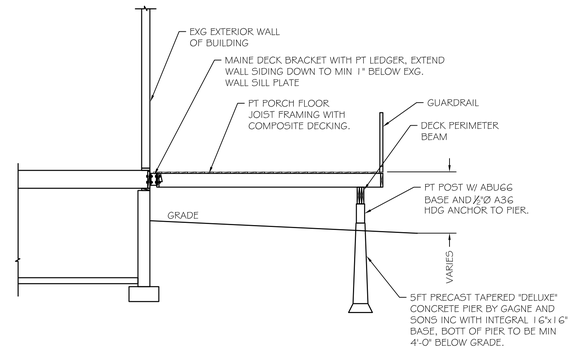
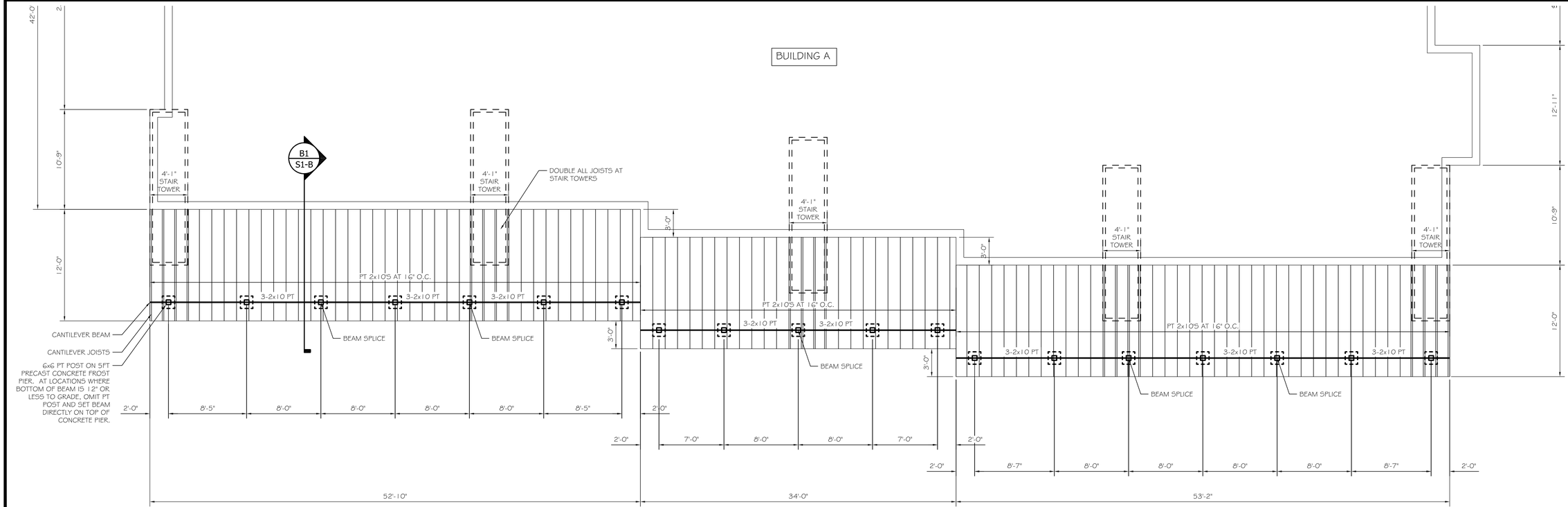


B2 PIER DETAIL
SCALE:NTS

B1 DECK SECTION
SCALE: ¼"= 1'-0"



A4 1ST FLOOR DECK FRAMING PLAN
SCALE: 3/16"= 1'-0"

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Falmouth, Maine 04105
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PORTSMOUTH, NH
FOR:
SHEET TITLE: DECK FRAMING PLAN - BUILDING A
CONCEPTUAL - NOT FOR CONSTRUCTION

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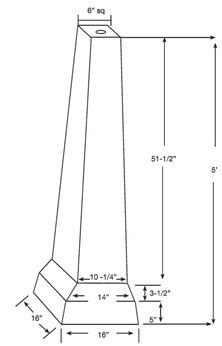
DATE : 2/12/21
SCALE : 1/4" = 1'-0"
DESIGN BY: ASW
DRAWN BY: ASW
FILE #:
PROJECT NUMBER: 20089
SHEET NO: S1-A

GAGNE & SONS CONCRETE PRODUCTS

Precast Concrete Deluxe Pier

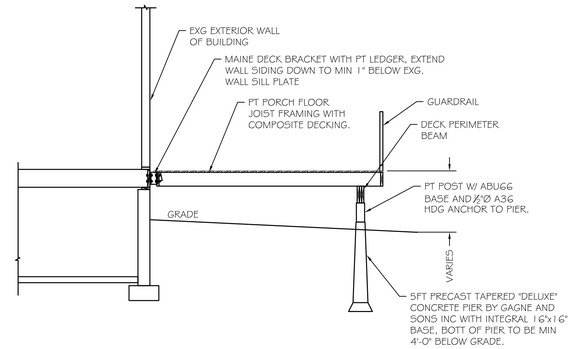


Design Notes:
1. Concrete Mix Desin is 5,000 PSI standard at 28 days, Type 3 Cement.
2. Reinforced Steel ASTM A 615, Grade 60.
3. Smooth Finish on all exposed surfaces.

Main Office	270 Riverside Dr	70 Warren Ave	15 Route 236	195 North St	96 Roosevelt Tri	293 Lewiston Rd	252 Main Rd
28 Old Route 27 Rd	Auburn, ME	Westbrook, ME	Kittery, ME	Saco, ME	Naples, ME	Topsham, ME	Holden, ME
Belgrade, ME 04917	(800) 339-1332	(800) 339-9184	(800) 439-9504	(800) 244-2742	(207) 693-5355	(800) 227-0776	(800) 990-5660
(800) 339-3313							

B2 PIER DETAIL

SCALE:NTS



B1 DECK SECTION

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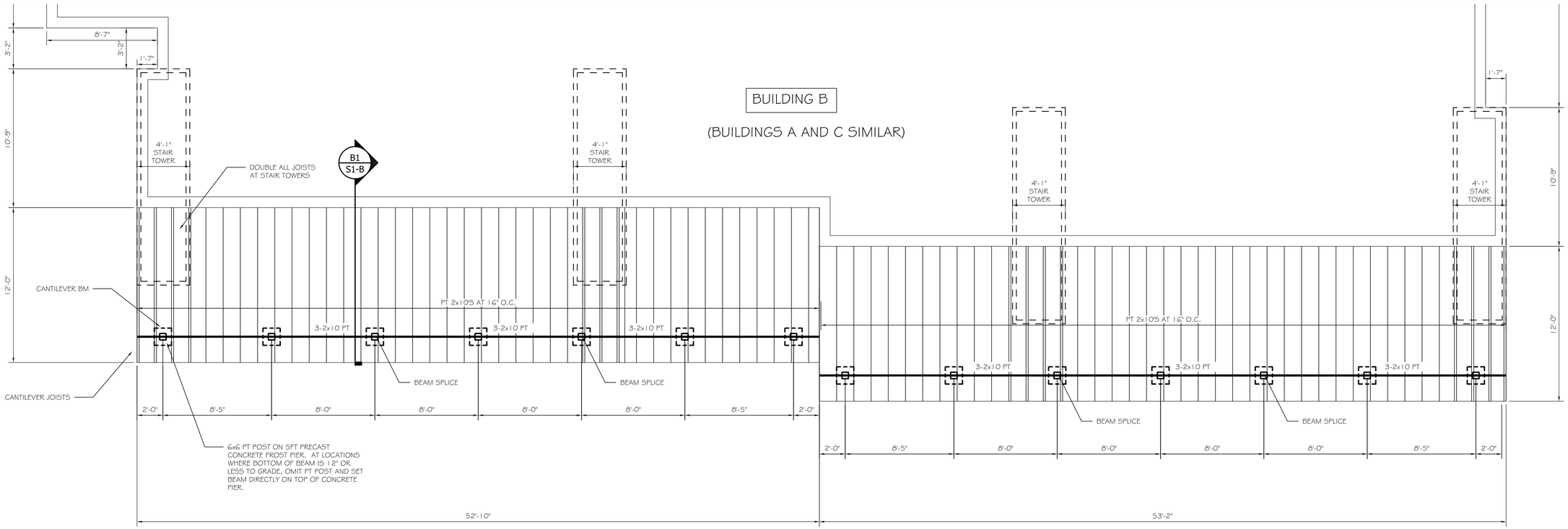

A4 1ST FLOOR DECK FRAMING PLAN

SCALE: ¼"= 1'-0"

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PROJECT: 500 MARKET ST
PORTSMOUTH, NH
FOR:

SHEET TITLE: DECK FRAMING PLAN - BUILDING B
CONCEPTUAL - NOT FOR CONSTRUCTION

REVISIONS

No.	BY	DESCRIPTION	DATE
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SCALE : 1/4" = 1'-0"
DESIGN BY: ASW
DRAWN BY: ASW
FILE #:
PROJECT NUMBER: 20089
SHEET NO: S1-B

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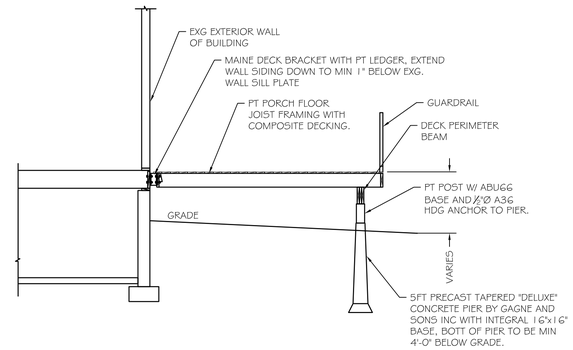
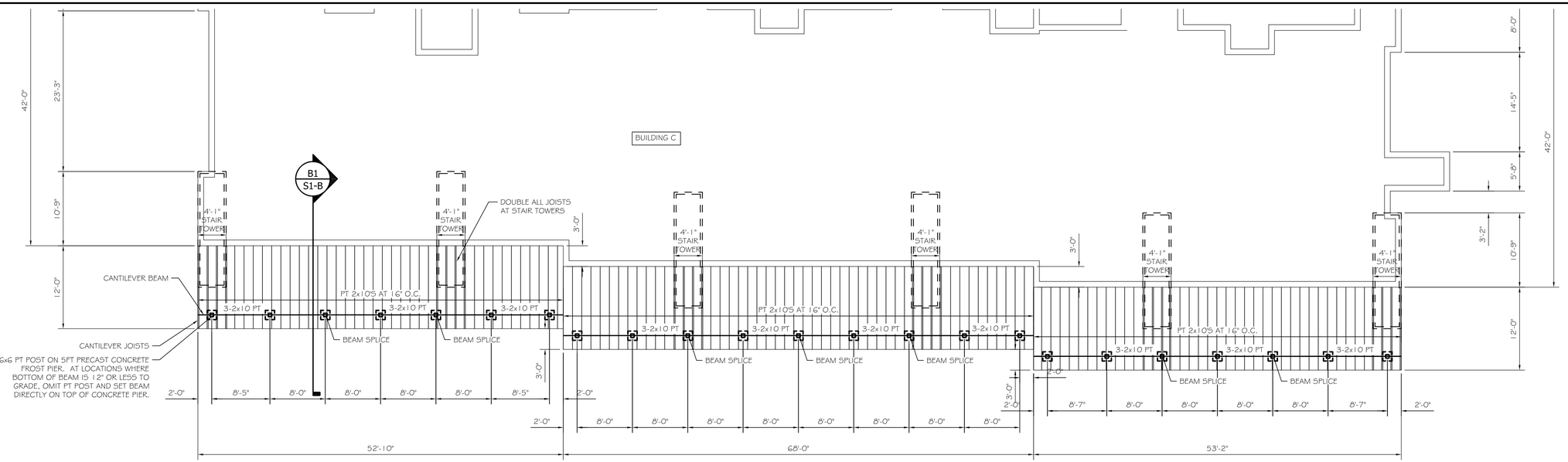


B2 PIER DETAIL
SCALE:NTS

B1 DECK SECTION
SCALE: ¼"= 1'-0"



A4 1ST FLOOR DECK FRAMING PLAN
SCALE: ⅛"= 1'-0"

ASSOCIATED DESIGN PARTNERS INC.
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PROJECT: 500 MARKET ST
PORTSMOUTH, NH
FOR:

SHEET TITLE: DECK FRAMING PLAN - BUILDING C
CONCEPTUAL - NOT FOR CONSTRUCTION

REVISIONS			
No.	BY	DESCRIPTION	DATE
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DATE : 2/12/21
SCALE : 1/4" = 1'-0"
DESIGN BY: ASW
DRAWN BY: ASW
FILE #:
PROJECT NUMBER: 20089
SHEET NO: S1-C

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AMENDMENT REQUEST FORM
FOR A WETLANDS APPLICATION OR PERMIT
Water Division/Land Resources Management
Wetlands Bureau

RSA/Rule: RSA 482-A:3, XIV(e)/ Env-Wt 311.13; Env-Wt 314.07

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

Any request for an amendment to a wetlands application or permit must be submitted to the Department on this form. An applicant may request an amendment to a pending permit application or an existing permit, provided the proposed change does not constitute a "**significant amendment**." A "**significant amendment**" means an amendment which changes the proposed or previously approved acreage of the permitted fill or dredge area by 20 percent or more, includes a prime wetland, or elevates the project's impact classification. This meaning of "significant amendment" shall not apply to an application amendment that is in response to a request from the Department (RSA 482-A:3, XIV(e)).

SECTION 1 - REQUESTED AMENDMENT TYPE AND AMENDMENT CRITERIA

Does the proposed change constitute a "significant amendment" as provided in RSA 482-A:3, XIV(e) and described above? ☐ Yes ☒ No

If you answered "yes" to the previous question, then you cannot request an amendment using this form and must file a new permit application.

☒ AMENDMENT TO PENDING PERMIT APPLICATION, NHDES FILE NUMBER: 2023-00122 (proceed to Section 2)

☐ AMENDMENT TO EXISTING PERMIT NUMBER: (proceed to Section 3)

SECTION 2 - AMENDMENT TO A PENDING PERMIT APPLICATION

☐ Not applicable

To request an amendment to a pending permit application, the applicant must:

- Submit the information required by Env-Wt 311.03, showing the changes prior to the Department's issuance of a final decision on the application, including but not limited to, a revised set of plans and revised application fees for any additional square footage of impacts calculated pursuant to RSA 482-A:3, I(b) or (c) as applicable, and
- Provide notice to each person to whom notice of the original application was sent prior to filing the amended application with the Department (Env-Wt 311.13).

☒ By checking this box, you confirm that you have provided all information required pursuant to Env-Wt 311.03 to the Department and provided the required notice(s) as described above.

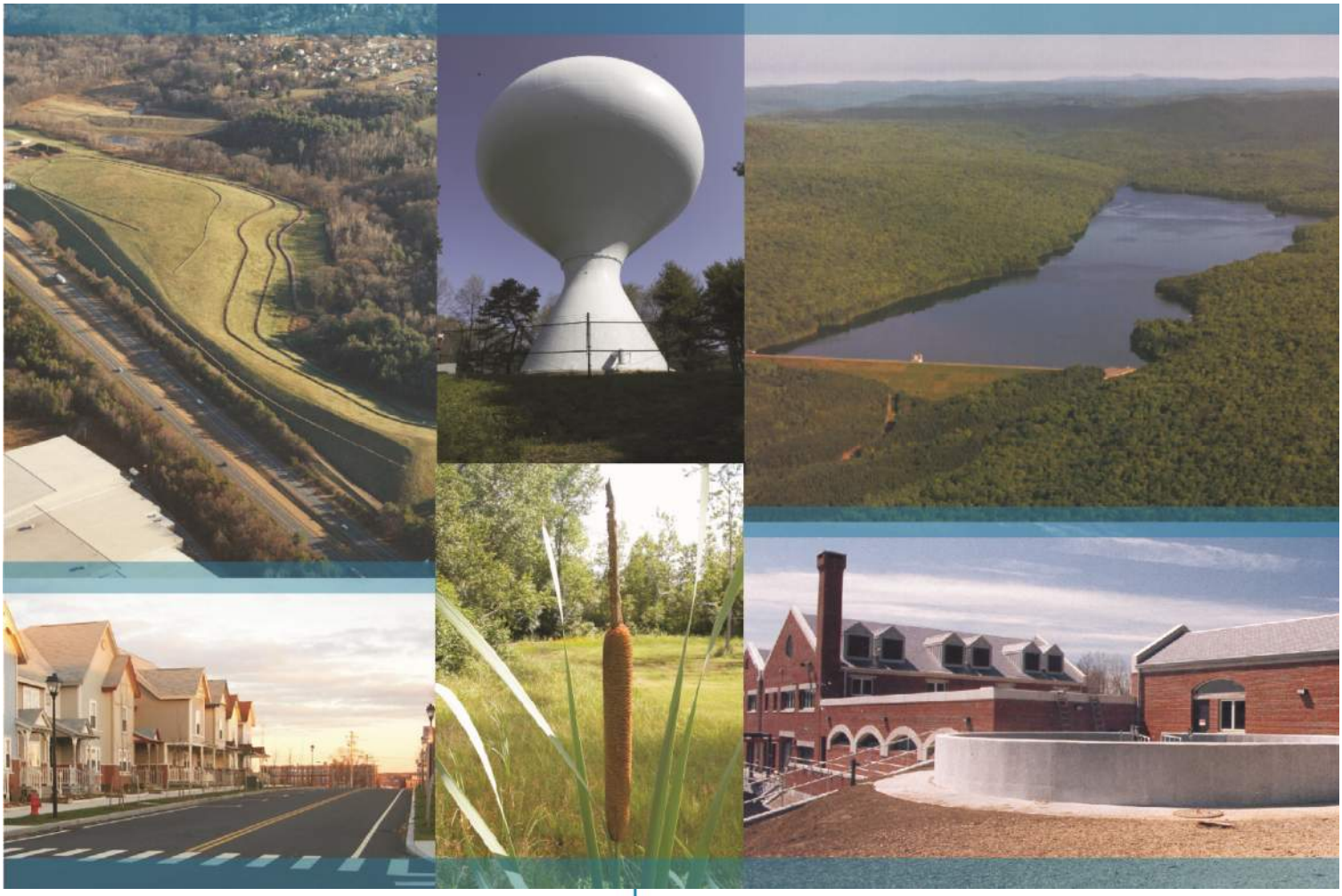
SECTION 3 - AMENDMENT TO AN EXISTING PERMIT

☒ Not applicable

To request an amendment to an existing permit, the permittee must:

- Submit the information required and filed with the original permit application, including but not limited to a revised set of plans, and revised application fees for any additional square footage of impacts calculated pursuant to RSA 482-A:3, I(b) or (c) as applicable, and
- Provide notice to all who received notice of the original application prior to filing the amended application with the Department (Env-Wt 314.07).

☐ By checking this box, you confirm that you have provided all necessary information to the Department and provided the required notice(s) as described above.



STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED
PROFESSIONAL ENGINEER
3/29/23

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED
PROFESSIONAL ENGINEER
3/29/23

Tighe&Bond

Iron Horse Properties, LLC
105 Bartlett Street
Portsmouth, New Hampshire

Standard Dredge and Fill Wetlands Permit Application

Prepared For:
Iron Horse Properties, LLC

January 10, 2023
Last Revised March 29, 2023

C0960-006
March 29, 2023

NHDES Wetlands Bureau
Attn: Kristin Duclos
29 Hazen Dr, PO Box 95
Concord, NH 03302-0095

Re: **Wetland Application – Standard Major Impact**
Iron Horse Properties, LLC, Portsmouth, NH
105 Bartlett Street
NHDES File Number 2023-00122

Dear Ms. Duclos:

Tighe & Bond is pleased to submit this amendment to a pending permit application on behalf of Iron Horse Properties, LLC (owner/applicant) for impacts associated with the redevelopment of a commercial parcel in the previously developed upland buffer at 105 Bartlett Street in Portsmouth.

Changes to the plans from the original submission include adjusting the locations of Headwall #2 and Headwall #3 to the locations they were approved by the local Planning Board. There are no changes in proposed wetland or wetland buffer impacts from the originally submitted plans.

Project Description

The proposed project is located at 105 Bartlett Street and is comprised of a five (5) parcels that are bounded by Bartlett Street to the west and south, North Mill Pond to the north, and the Boston and Maine (B&M) railroad to the east. The existing parcels are listed below.

Tax Map/Lot No.	Area (ac)
157 / 1	1.42
157 / 2	2.34
164 / 1	1.19
164 / 4-2	5.73
R.O.W.	1.60

Lot 157-1 is currently occupied by a 20,000-square-foot, 2-story, concrete block/steel frame building and associated parking lot. Lot 157-2 contains another 20,000-square foot wood frame structure with a variety of outbuildings, such as sheds, to support an impervious lumber yard. Lot 164-1 also contains an approximately 20,000-square foot wood frame structure that hosts a variety of smaller businesses and associated parking. Lot 164-4-2 is currently occupied by a former B&M railroad turntable, a dilapidated former brick roundhouse, and an approximately 3,600-square-foot machine shop. Several shipping containers are also present throughout the lot. The northern end of the lot is comprised

mostly of abandoned rail lines that run down the shoreline between North Mill Pond and the active railroad past the northern limits of the project site

The proposed project will include demolition of the existing building on lot 157-1 and the existing buildings on Lot 164-4-2, These buildings will be replaced with three (3) multi-family apartment buildings depicted as Building A, B and C on the Site Plan. The three (3) buildings will include a total of 152 dwelling units with parking below Buildings A and B. The project includes associated site improvements that consist of the private road cul-de-sac adjacent to Building C, surface parking, pedestrian access, utilities, dark-sky friendly lighting, landscaping and stormwater management systems that provide treatment for runoff.

Jurisdictional Wetlands

On October 29 and December 2, 2019, Tighe & Bond reviewed and assessed 2,000+/- linear feet of tidal wetlands and buffers along the North Mill Pond. The review was limited to the vicinity of a proposed multi-family development, extending from Bartlett Street to an area opposite Cornwall Street, which runs roughly perpendicular to the parcel.

The wetland delineation review was based on criteria specified in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). The Highest Observable Tide Line was reviewed based on the definition found in NH Department of Environmental Services Wetland Rules, Env-Wt 101.49/Env-Wt 602.23. Wetlands were classified based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979).

The Highest Observable Tide Line (HOTL) had been previously delineated by another consulting firm in 2017. This line was reviewed by exporting the 2017 surveyed line into ArcGIS to overlay on an aerial photographic base map. This base map was then uploaded to an iPad and paired with a Trimble R1 submeter GPS for in-field verification. Using the iPad and GPS as a guide, the line was then evaluated in the field. The HOTL was deemed accurate and the previous 2017 delineation was accepted by Tighe & Bond. A previously unidentified freshwater wetland was also found within a six-foot +/- deep abandoned railroad turntable. Tighe & Bond delineated this area with sequentially numbered flagging and located the wetland boundary using the GPS technology described above.

Functions and values were assessed in the vicinity of the proposed project. Assessment methodologies were adapted from the *Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes* (Bryan et al., 1997) and *The Highway Methodology Workbook Supplement—Wetland Functions and Values: A Descriptive Approach*, NAEEP-360-1-30a, US Army Corps of Engineers, New England Division, September 1999.

Tidal Buffer

The North Mill Pond 100-foot tidal buffer can be divided into three zones within the project area: 1) a commercial area, including the Ricci Supply and Ace Hardware complex, the Great Rhythm Brewery building, a former railroad machine shop, and all the paved and unpaved impervious surfaces associated with those buildings; 2) the disturbed forest directly northeast and northwest of Great Rhythm Brewery, including the area around the old railroad turntable and roundhouse remains; and 3) the shrub thicket extending along the narrow portion of the parcel to the northeast. These areas all include historic filling 2-16 feet deep associated with railroad activities. The fill includes coal, coal ash, and possible slag.

Waiver Request

The attached permit application includes a request for a waiver from Env-Wt 603.08(a) and (b), which require location and documentation of three tidal events by a licensed land surveyor. We have proposed, instead, to use the NOAA predicted tidal datums from nearby Seavey Island as conservative estimates of tidal heights. These heights are conservative because tides flow through two moderate restrictions between Seavey Island and the project site, which should dampen tidal extremes. From this analysis, the proposed project was determined to have a medium risk tolerance and is not at risk of flooding under a predicted sea level rise (SLR) of 5.0 feet by 2122.

Summary of Agency Coordination

- A wetland preapplication teleconference was held with NHDES staff on April 15, 2020 and February 23, 2021.
- A mitigation preapplication teleconference was held with NHDES staff on March 18, 2021.
- A mitigation preapplication teleconference was held with NHDES staff on March 22, 2022.
- A DataCheck request was completed through the NH Natural Heritage Bureau February 22, 2021 & April 11, 2022 with a finding of no recorded occurrences for sensitive species near the project area.
- A NHDES Alteration of Terrain Permit was issued for this project on September 29, 2021. Permit: AoT-2026.
- This project has received comments from Portsmouth Conservation Commission. These comments were incorporated into plans that have received local approvals, including a Wetland Conditional Use Permit, Shared Parking Conditional Use Permit, Lot line Relocation, and Site Plan Review approved April 20, 2021.

Appendices

The following supporting documents are included as part of this submittal:

- Appendix A – Forms
  - Standard Major Impact Application
    - Owners List
  - Attachment A
  - Avoidance & Minimization Checklist
  - Copy of the Fee Payment
  - Wetlands Rule Waiver Request
  - Coastal Resource Worksheet and Attachments
    - Project Narrative with Construction Sequencing and Project Monitoring
    - Sea Level Rise Table
    - NOAA Tidal Datums
- Appendix B – Federal and State Coordination
  - US Army Corps of Engineers Appendix B Checklist

- IPAC Review Species List
- Section 106 NH Department of Historical Resources Response Letter

- Appendix C – Maps & Other Attachments
  - Tax Map
  - Abutters List
  - Abutters Notification
  - Abutters Certified Mailing List
  - Photograph Log
  - Site Location Map
  - Recorded Deed
  - Owner's Letter of Authorization
  - Agent Letter of Authorization
  - Natural Heritage Bureau Results Letter
  - NHFG Correspondence Email
- Appendix D – Functional Assessment
- Appendix E – Figures
  - Figure 1 – Predicted Salt Marsh Migration
  - Figure 2 – Eelgrass Beds and Documented Shellfish Sites
  - Figure 3 – Projected Sea Level Rise
  - Figure 4 – Elevation View
  - Figure 5 - Priority Resource Map
  - Figure 6 – Essential Fish Habitat Map Results
  - Figure 7 – FEMA Flood Map
- Appendix F – Compensatory Mitigation Proposal & In-Lieu Fee
- Appendix G – Engineering Plans

Should you have any questions or require any additional information, please contact me at 603-294-9213 or NAHansen@TigheBond.com.

Sincerely,

TIGHE & BOND, INC.

Neil A. Hansen, PE
Project Manager

Patrick M. Crimmins, PE
Vice President

Enclosures

Copy: Portsmouth City Clerk
Portsmouth Conservation Commission
Portsmouth Planning Board
Portsmouth City Council
Iron Horse Properties, LLC, c/o Rob Simmons

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: Iron Horse Properties, LLC, Rob Simmons **TOWN NAME:** Portsmouth, NH

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

A person may request a waiver of 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 but is still in compliance with RSA 482-A. 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 Waiver 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 (WPPT), 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?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&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.	☐ Yes ☒ No

• Protected species or habitat?
  ○ If yes, species or habitat name(s):
  ○ NHB Project ID #: NHB22-1202
	☐ Yes ☒ No

• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☒ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☒ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year:	☐ Yes ☒ No

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☐ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats):	

SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

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.

The proposed project consists of constructing two (2) multi-family apartment buildings with basement level parking, one (1) mixed used building with first floor office and amenity space, and upper story apartments. The project will include a total of 152 dwelling units. The project will include associated site improvements that consist of a private road with cul-de-sac, parking, utilities, stormwater management, landscaping and lighting. The project will also include community space along the North Mill Pond. The land from North Mill Pond's mean high water (MHW) line to the 50ft wetland buffer will be designated as community space for the City's North Mill Pond Trail project which will be permitted separately as part of a future projet. The proposed wetland impacts from this project will be permanent impacts.

SECTION 3 - PROJECT LOCATION

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS: 105 Bartlett Street

TOWN/CITY: Portsmouth

TAX MAP/BLOCK/LOT/UNIT: Map 157 Lot 1, 2 & Map 164 Lot 1, 4-2

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: North Mill Pond
☐ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.07201° North
70.75781° West

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: Iron Horse Properties, LLC, Rob Simmons		
MAILING ADDRESS: 6 Liberty Square, PMB 90767		
TOWN/CITY: Boston	STATE: MA	ZIP CODE: 02109
EMAIL ADDRESS: robs@cathartes.com		
FAX:	PHONE: 617-893-9354	
ELECTRONIC COMMUNICATION: By initialing here: JJ, 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.: Hansen, Neil A		
COMPANY NAME: Tighe & Bond, Inc.		
MAILING ADDRESS: 177 Corporate Drive		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS: NAHansen@tighebond.com		
FAX:	PHONE: 603-433-8818	
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 LIST OF OWNERS INCLUDED		
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 900 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):
Env-Wt 400: The jurisdictional wetland and 100-foot tidal buffer were reviewed and accepted by Tighe & Bond on October 29 and December 2, 2019. The proposed project preserves the existing wetland resource while reducing permanent buffer impacts.

Env-Wt 500: Not applicable, does not apply to coastal project, per Env-Wt 509.02(b).

Env-Wt 600: This project is classified as a Major Impact project because it will result in greater than 10,000 sf of temporary and permanent impacts within the tidal buffer zone. The eixsting 100-foot tidal buffer is highly developed and consists primarily of commercial buildings, paved parking lots, and adandonded buildings. There are patches of vegetation and trees near the central portion of the project's wetland delineation. The vegetated permeable surfaces within the buffer does little to enhance and protect the downgradient tidal wetland. The proposed project will involve regrading of the wooded vegetation and include the addition of native planting and grasses to enhance the buffer area from the existing condition. The project will include permanent stormwater treatment BMPs that will protect the downgradient waters. A Coastal Resource worksheet is attached. Wetlands on this site are classified as Estuarine, Unconsolidated Shore, Mud, and regularly flooded (E2US3N). Wetland functions in this portion of North Mill Pond include ecological integridy, W F & S habitat, recreational and commercial potential, aesthtic quality, educational potential, and noteworthnes, which will be enhanced with the proposed project.

Env-Wt 700: Not applicable, no prime wetland impacts.

Env-Wt 900: Not applicable, no stream crossings proposed.

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 you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). 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: 3 Day: 22 Year: 2022

(☐ 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	1,528		☐			☐
	Scrub-shrub Wetland			☐			☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh	209		☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ	34,639		☐	10,182		☐
	Docking - Tidal Water			☐			☐
TOTAL		36,376			**10,182**		

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):	46,558	SF	× $0.40 =	$ 18,623.2
Seasonal docking structure:		SF	× $2.00 =	$
Permanent docking structure:		SF	× $4.00 =	$
Projects proposing shoreline structures (including docks) add $400 =				$

Total =	$ 18,623.2
The application fee for minor or major impact is the above calculated total or $400, whichever is greater =	$ 18,623.2

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)

Indicate the project classification.

☐ Minimum Impact Project	☐ Minor Project	☒ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)

Initial each box below to certify:

Initials: NAH	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: NAH	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: NAH	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: NAH	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)

SIGNATURE (OWNER): See Owner's/Agent Letter of Authorization	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY: Neil Hansen	DATE: 3/29/23

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.	
TOWN/CITY CLERK SIGNATURE: Kelli L Barnaby	PRINT NAME LEGIBLY: Kelli L. Barnaby
TOWN/CITY: Portsmouth	DATE: March 29, 2023

DIRECTIONS FOR TOWN/CITY CLERK:
Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:
Submit the original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page. Make check or money order payable to "Treasurer – State of NH".

Owners List
Proposed Multi-Family Development
105 Bartlett Street
Portsmouth, New Hampshire

OWNERS	MAP #	LOT #
Clipper Traders LLC 105 Bartlett Street Portsmouth, NH 03801	157	1
Portsmouth Hardware & Lumber LLC 105 Bartlett Street Portsmouth, NH 03801	157 164	2 1
Iron Horse Properties LLC 105 Bartlett Street Portsmouth, NH 03801	164	4-2

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS

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

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT'S NAME: Iron Horse Properties, LLC, c/o Rob Simmons **TOWN NAME:** Portsmouth

Attachment A is required for *all minor and major projects*, and must be completed *in addition* to the Avoidance and Minimization Narrative or Checklist that is required by Env-Wt 307.11.

For projects involving construction or modification of non-tidal shoreline structures over areas of surface waters having an absence of wetland vegetation, only Sections I.X through I.XV are required to be completed.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

ALTHOUGH THE PROPOSED PROJECT IMPACTS JURISDICTIONAL WETLANDS, THE PROPOSED IMPACTS ARE LIMITED TO SMALL AREAS IN THE TIDAL WETLAND FOR DISHARGE OF TREATED STORMWATER. THE PROJECT PROPOSES ENHANCED STORMWATER TREATMENT, DECREASED IMPERVIOUS SURFACES, AND INCREASED RECREATION USE OF THE BUFFER AREA IN COORDINATION WITH THE CITY. IMPACTS FROM THE PROJECT HAVE BEEN AVOIDED AND MINIMIZED BY PULLING THE NEW BUILDINGS AND PARKING LOT FURTHER BACK FROM THE COASTAL WETLAND AND UTILIZING UNDERGROUND PARKING, THUS FREEING UP SIGNIFICANT AREAS OF IMPERVIOUS SURFACES TO BE RESTORED (SEE APPENDIX F FOR THE MITIGATION PROPOSAL AND WETLAND IMPACT PLAN). ALL WORK IS BEING DONE WITHIN THE PREVIOUSLY DEVELOPED TIDAL BUFFER.

SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacean, shellfish, and wildlife of significant value.

No marshes are located within the project limits.

SECTION I.III - HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed project does not change existing hydrologic connections.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

Impacts from the project have been avoided and minimized by pulling portions of the new buildings and parking lot further back from the coastal wetland and utilizing underground parking, thus freeing up significant areas of impervious surfaces to be restored (see Appendix F for the mitigation proposal and wetland impact plan). All work is being done within the previously developed tidal buffer. The proposed project results in 209 SF of permanent impacts to the tidal wetland to construct two of the three stormwater outfall plunge pools. The proposed project also results in 1,528 SF of permanent impacts to a small forested wetland located inside the abandoned railroad turntable.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The proposed project increases public recreation and does not affect commerce or navigation.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The proposed project has been designed to maintain the existing flood storage capacity within the floodplain.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB – MARSH COMPLEXES (Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

The project does not impact these systems.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The proposed project enhances stormwater runoff treatment from the existing condition which will improve the surrounding water conditions. Furthermore, this is an urban area adjacent to brackish waters with no potential to supply public drinking water.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

N/A - no stream channels.

SECTION I.X - SHORELINE STRUCTURES - CONSTRUCTION SURFACE AREA (Env-Wt 313.03(c)(1))

Describe how the project has been designed to use the minimum construction surface area over surface waters necessary to meet the stated purpose of the structures.

N/A - no shoreline structures proposed.

SECTION I.XI - SHORELINE STRUCTURES - LEAST INTRUSIVE UPON PUBLIC TRUST (Env-Wt 313.03(c)(2))

Describe how the type of construction proposed is the least intrusive upon the public trust that will ensure safe docking on the frontage.

N/A - no shoreline structures proposed.

SECTION I.XII - SHORELINE STRUCTURES – ABUTTING PROPERTIES (Env-Wt 313.03(c)(3)) Describe how the structures have been designed to avoid and minimize impacts on ability of abutting owners to use and enjoy their properties.
N/A - no shoreline structures proposed.

SECTION I.XIII - SHORELINE STRUCTURES – COMMERCE AND RECREATION (Env-Wt 313.03(c)(4)) Describe how the structures have been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.
N/A - no shoreline structures proposed.

SECTION I.XIV - SHORELINE STRUCTURES – WATER QUALITY, AQUATIC VEGETATION, WILDLIFE AND FINFISH HABITAT (Env-Wt 313.03(c)(5))

Describe how the structures have been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.

N/A - no shoreline structures proposed.

SECTION I.XV - SHORELINE STRUCTURES – VEGETATION REMOVAL, ACCESS POINTS, AND SHORELINE STABILITY (Env-Wt 313.03(c)(6))

Describe how the structures have been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.

N/A - no shoreline structures proposed.

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: The assessment was based on the Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes (Maine Audubon, 1997); Method for Inventorying and Evaluating Wetlands In New Hampshire, University of New Hampshire Cooperative Extension, 2015; and The Highway Methodology Workbook Supplement—Wetland Functions and Values: A Descriptive Approach, NAEEP-360-1-30a, US Army Corps of Engineers, New England Division, (September 1999).
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: LEONARD A LORD, PHD, NHCWS#14
DATE OF ASSESSMENT: OCT. 29 AND DEC. 2, 2019
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☐ Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

AVOIDANCE AND MINIMIZATION CHECKLIST

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 311.07(c)

This checklist can be used in lieu of the written narrative required by Env-Wt 311.07(a) to demonstrate compliance with requirements for Avoidance and Minimization (A/M), pursuant to RSA 482-A:1 and Env-Wt 311.07(c).

For the construction or modification of non-tidal shoreline structures over areas of surface waters without wetland vegetation, complete only Sections 1, 2, and 4 (or the applicable sections in Attachment A: Minor and Major Projects (NHDES-W-06-013).

The following definitions and abbreviations apply to this worksheet:

- "A/M BMPs" stands for Wetlands Best Management Practice Techniques for Avoidance and Minimization dated 2019, published by the New England Interstate Water Pollution Control Commission (Env-Wt 102.18).
- "Practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (Env-Wt 103.62).

SECTION 1 - CONTACT/LOCATION INFORMATION	
APPLICANT LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC, c/o Rob Simmons	
PROJECT STREET ADDRESS: 105 Bartlett Street	PROJECT TOWN: Portsmouth
TAX MAP/LOT NUMBER: Map 157 Lot 1, 2 & Map 164 Lot 1, 4-2	

SECTION 2 - PRIMARY PURPOSE OF THE PROJECT		
Env-Wt 311.07(b)(1)	Indicate whether the primary purpose of the project is to construct a water-access structure or requires access through wetlands to reach a buildable lot or the buildable portion thereof.	☐ Yes ☒ No

If you answered "no" to this question, describe the purpose of the "non-access" project type you have proposed:

The purpose of the project is to redevelop a parcel adjacent to a tidal wetland. The proposed project will include demolition of the existing building on lot 157-1 and the existing buildings on Lot 164-4-2, These buildings will be replaced with three (3) multi-family apartment buildings depicted as Building A, B and C on the Site Plan. The three (3) buildings will include a total of 152 dwelling units with parking below Buildings A and B. The project includes associated site improvements that consist of the private road cul-de-sac adjacent to Building C, surface parking, pedestrian access, utilities, dark-sky friendly lighting, landscaping and stormwater management systems that provide treatment for runoff. The project will include temporary and permanent impacts within the Tidal Buffer Zone. The project will result in a net reduction of impervious surface within the Tidal Buffer Zone. This project will also include the construction of a portion of the City of Portsmouth's North Mill Pond Greenway project. This is a 10 ft wide porous asphalt pathway within the 50 ft buffer of North Mill Pond for public recreational use. These improvements will be both temporary and permanent.

SECTION 3 - A/M PROJECT DESIGN TECHNIQUES Check the appropriate boxes below in order to demonstrate that these items have been considered in the planning of the project. Use N/A (not applicable) for each technique that is not applicable to your project.		
Env-Wt 311.07(b)(2)	For any project that proposes new permanent impacts of more than one acre or that proposes new permanent impacts to a Priority Resource Area (PRA), or both, whether any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs.	☐ Check ☒ N/A
Env-Wt 311.07(b)(3)	Whether alternative designs or techniques, such as different layouts, construction sequencing, or alternative technologies could be used to avoid impacts to jurisdictional areas or their functions and values.	☒ Check ☐ N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(1) Env-Wt 311.10(c)(2)	The results of the functional assessment required by Env-Wt 311.03(b)(10) were used to select the location and design for the proposed project that has the least impact to wetland functions.	☒ Check ☐ N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(3)	Where impacts to wetland functions are unavoidable, the proposed impacts are limited to the wetlands with the least valuable functions on the site while avoiding and minimizing impacts to the wetlands with the highest and most valuable functions.	☒ Check ☐ N/A
Env-Wt 313.01(c)(1) Env-Wt 313.01(c)(2) Env-Wt 313.03(b)(1)	No practicable alternative would reduce adverse impact on the area and environments under the department's jurisdiction and the project will not cause random or unnecessary destruction of wetlands.	☒ Check ☐ N/A
Env-Wt 313.01(c)(3)	The project would not cause or contribute to the significant degradation of waters of the state or the loss of any PRAs.	☒ Check ☐ N/A
Env-Wt 313.03(b)(3) Env-Wt 904.07(c)(8)	The project maintains hydrologic connectivity between adjacent wetlands or stream systems.	☐ Check ☒ N/A
Env-Wt 311.10 A/M BMPs	Buildings and/or access are positioned away from high function wetlands or surface waters to avoid impact.	☒ Check ☐ N/A
Env-Wt 311.10 A/M BMPs	The project clusters structures to avoid wetland impacts.	☐ Check ☒ N/A
Env-Wt 311.10 A/M BMPs	The placement of roads and utility corridors avoids wetlands and their associated streams.	☒ Check ☐ N/A
A/M BMPs	The width of access roads or driveways is reduced to avoid and minimize impacts. Pullouts are incorporated in the design as needed.	☒ Check ☐ N/A
A/M BMPs	The project proposes bridges or spans instead of roads/driveways/trails with culverts.	☐ Check ☒ N/A

A/M BMPs	The project is designed to minimize the number and size of crossings, and crossings cross wetlands and/or streams at the narrowest point.	☐ Check ☒ N/A
Env-Wt 500 Env-Wt 600 Env-Wt 900	Wetland and stream crossings include features that accommodate aquatic organism and wildlife passage.	☐ Check ☒ N/A
Env-Wt 900	Stream crossings are sized to address hydraulic capacity and geomorphic compatibility.	☐ Check ☒ N/A
A/M BMPs	Disturbed areas are used for crossings wherever practicable, including existing roadways, paths, or trails upgraded with new culverts or bridges.	☐ Check ☒ N/A
SECTION 4 - NON-TIDAL SHORELINE STRUCTURES		
Env-Wt 313.03(c)(1)	The non-tidal shoreline structure has been designed to use the minimum construction surface area over surfaces waters necessary to meet the stated purpose of the structure.	☐ Check ☒ N/A
Env-Wt 313.03(c)(2)	The type of construction proposed for the non-tidal shoreline structure is the least intrusive upon the public trust that will ensure safe navigation and docking on the frontage.	☐ Check ☒ N/A
Env-Wt 313.03(c)(3)	The non-tidal shoreline structure has been designed to avoid and minimize impacts on the ability of abutting owners to use and enjoy their properties.	☐ Check ☒ N/A
Env-Wt 313.03(c)(4)	The non-tidal shoreline structure has been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.	☐ Check ☒ N/A
Env-Wt 313.03(c)(5)	The non-tidal shoreline structure has been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.	☐ Check ☒ N/A
Env-Wt 313.03(c)(6)	The non-tidal shoreline structure has been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.	☐ Check ☒ N/A

WETLANDS RULE WAIVER OR DWELLING OVER WATER WAIVER REQUEST FORM

WATER DIVISION/LAND RESOURCES MANAGEMENT WETLANDS BUREAU

RSA/Rule: RSA 482-A/ Env-Wt 204

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

A person may request a waiver to requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interests of the public or the environment. A person may also request a waiver of standard for existing dwellings over water pursuant to RSA 482-A:26, III (b).

SECTION 1 - PROJECT LOCATION INFORMATION (Env-Wt 204.03(c))			
ADDRESS: 105 Bartlett Street	TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
TAX MAP/LOT NUMBER: Map 157 Lot 1, 2 & Map 164 Lot 1, 4-2 2			
SECTION 2 - WAIVER REQUESTOR INFORMATION (Env-Wt 204.03(a))			
LAST NAME, FIRST NAME, M.I.: Hansen, Neil A.			
MAILING ADDRESS: 177 Corporate Drive			
TOWN/CITY: Portsmouth		STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS (if available): nhansen@tighebond.com or if not FAX NUMBER:	DAYTIME TELEPHONE NUMBER: (603) 433-8818		
SECTION 3 - APPLICANT INFORMATION (Env-Wt 204.03(b)) If request is being made on behalf of someone else, include the following information regarding the person being represented. If requestor is the applicant, check the following box and proceed to Section 4. ☐ Requestor is the applicant.			
LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC, Rob Simmons			
MAILING ADDRESS: 6 Liberty Square, PMB 90767			
TOWN/CITY: Boston		STATE: MA	ZIP CODE: 02110
EMAIL ADDRESS (if available): robs@cathartes.com or if not FAX NUMBER:	DAYTIME PHONE NUMBER: 617-893-9354		

SECTION 4 - WAIVER INFORMATION

SECTION 4A - WAIVER TO RULE Env-Wt 100-900

☐ N/A - If you are not requesting a rule waiver, check this box and proceed to Section 4b

Provide the number of the specific section of each rule for which a waiver is sought (Env-Wt 204.03(d)):
Env-Wt 603.08(a)&(b)

Provide a complete explanation of why a waiver is being requested, including an explanation of the operational and economic consequences of complying with the requirement and, if the requested waiver would extend the duration of a permit, the reason(s) why the permit holder was not able to complete the project within the specified time (Env-Wt 204.03(f)(1)):

The provisions referenced in the rule section referenced above state that field observations of at least 3 tide events to be conducted by a licensed land surveyor. A waiver is being requested because the project location is within 1.5 miles of a NOAA Tide and Current station at Seavey Island which provides data that can conservatively used for this project location. This data is conservative because tides flow through two moderate restrictions between Seavey Island and the project site, which should dampen tidal extremes. The expense incurred to have a licensed professional is excessive for redundant information which is readily available from the Seavey Island station.

If applicable, provide a complete explanation of the alternative that is proposed to be substituted for the requirement in Env-Wt, including written documentation or data, or both, to support the alternative (Env-Wt 204.03(g)):

As previously stated, the project's design has incorporated the tide and current information provided by the Seavey Island tide and current station. This information has been provided as an attachment to the Coastal Resources Worksheet within this applicaton package.

SECTION 4B – DWELLING OVER WATERS WAIVER UNDER RSA 482-A:26, III(b).

☒ N/A - If you are not requesting a standard waiver, check this box and proceed to Section 5)

Identify the specific standard to which a waiver is being requested (Env-Wt 204.03(e)):
RSA 482-A:

Provide a complete explanation of why a waiver is being requested, including a complete explanation of how the statutory criteria of RSA 482-A:26, III(b) will be met (Env-Wt 204.03(f)(2)):

SECTION 5 - ADDITIONAL WAIVER INFORMATION (Env-Wt 204.03(h); Env-Wt 204.03(i))

(applicable to Waivers of Rules *and* Standards under RSA 482-A:26, III(b))

Indicate whether the waiver is needed for a limited duration and, if so, an estimate of when the waiver will no longer be needed (Env-Wt 204.03(h)):

The waiver is needed for permit approval only.

Provide a complete explanation of why the applicant believes that having the waiver granted will meet the criteria in Env-Wt 204.05 or 204.06, as applicable (Env-Wt 204.03(i)):

Env-Wt 204.05

(a1) The waiver will not result in an adverse impact to the environment or public safety. (a2) It will not interfere with public waters. (a3) It will not result in an advance impact on abutting properties. NH RSA 482-A:26 (Dwellings Over Water) is not applicable.

SECTION 6 - REQUIRED CERTIFICATIONS (Env-Wt 204.04)

Initial each box and sign below to certify:

Initials: NAH	The information provided is true, complete, and not misleading to the knowledge and belief of the signer.
Initials: NAH	The signer understands that: • Any waiver granted based on false, incomplete, or misleading information shall be subject to revocation; and

	• He or she is subject to the penalties for falsification in official matters, currently established in RSA 641.

SECTION 7 - REQUESTOR SIGNATURE (Env-Wt 204.04)		
SIGNATURE (APPLICANT): *	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (REQUESTOR):	PRINT NAME LEGIBLY: Tighe & Bond, Inc., c/o Neil Hansen	DATE: 3/29/23

*In lieu of an applicant signature, you may include a separate signed and dated authorization for the requestor to act on the person's behalf in connection with the request.

WETLANDS RULE WAIVER OR DWELLING OVER WATER WAIVER REQUEST FORM CRITERIA/DECISION

WATER DIVISION/LAND RESOURCES MANAGEMENT WETLANDS BUREAU

(Keep this sheet for your reference; do not submit it with your application)

RSA/Rule: RSA 482-A/ Env-Wt 204

SECTION 1 - WAIVER CRITERIA
SECTION 1A - CRITERIA FOR WAIVERS TO RULES (Env-Wt 204.05)

(a) The Department shall grant a waiver to a requirement established in subtitle Env-Wt that will not extend the duration of a wetlands permit only if:
- (1) Granting a waiver will not result in:
  - a. An avoidable adverse impact on:
    - 1. The environment or natural resources of the state, including but not limited to jurisdictional areas and protected species or habitat; or
    - 2. Public health or public safety;
  - b. An impact on abutting properties that is more significant than that which would result from complying with the rule; or
  - c. A statutory requirement being waived; and
- (2) Any benefit to the public or the environment from complying with the rule is outweighed by the operational or economic costs to the applicant.

(b) The Department shall grant a waiver that has the effect of extending the duration of a wetlands permit that does not qualify for the statutory extension under RSA 482-A:3, XIV-a only if:
- (1) The permit holder:
  - a. Was precluded from proceeding under the permit due to actions taken by persons opposed to the project; or
  - b. Rationally refrained from proceeding under the permit due to reasonable uncertainties surrounding the project's legal viability, which shall not include uncertainties regarding the project's financial viability;
- (2) If other permits are required for the project, at least one other permit already has a duration that extends beyond the expiration of the wetlands permit or, if the other permit expires concurrently or prior to the wetlands permit, the permit holder reasonably anticipates that an extension will be obtained; and
- (3) Extending the permit will not result in:
  - a. Adverse impacts on public health or safety, or the environment or natural resources of the state, that would be greater than those accounted for in the permit that was issued; or
  - b. Adverse impacts on abutting properties that is more significant than that which would have resulted if the project had been initiated in time to be completed during the permit term.

SECTION 1B - CRITERIA FOR WAIVERS UNDER RSA 482-A:26, III(b) (Env-Wt 204.06)

The Department shall grant a waiver under RSA 482-A:26, III(b) if:

(a) The waiver will not result in:
  (1) An avoidable adverse impact on the environment or natural resources of the state, public health or public safety;
  (2) Any interference with the public trust in waters held by the state; or
  (3) An adverse impact on abutting properties that is more significant than that which would result from complying with the rule; and

(b) The following criteria from RSA 482-A:26, III(b) are met:
  (1) The effect of the requested repair or reconstruction represents greater protection of public water or the environment;
  (2) Such repair or reconstruction does not change a recreational, water-based activity to a land-based, residential or commercial activity;
  (3) There will be no expansion of the existing footprint, outside dimensions, or square footage of floor space; and
  (4) There will be a net reduction in the total square footage of kitchen, bathroom, shower, and toilet facilities.

SECTION 2 – DECISION (Env-Wt 204.07)

(a) The Department shall notify the requestor of the decision in writing. If the request is denied, the Department shall identify the specific reason(s) for the denial.

(b) If a waiver is granted, the Department shall impose such conditions, including time limitations, as the Department deems necessary to ensure that the activities conducted pursuant to the waiver will be consistent with the applicable criteria.

COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC, Rob Simmons

This worksheet may be used to present the information required for projects in coastal areas, in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)

The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose consisting of a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

The proposed project will include demolition of the existing building on lot 157-1 and the existing buildings on Lot 164-4-2 The proposed project consists of constructing two (2) multi-family apartment buildings with basement level parking, one (1) mixed used building with first floor office and amenity space, and upper story apartments. The project will include a total of 152 dwelling units. The project will include associated site improvements that consist of a private road with cul-de-sac, parking, utilities, stormwater management, landscaping and lighting. The project will include permanent impacts, though will result in a net reduction of impervious surface within the Tidal Buffer Zone. This project will also include the construction of a portion of the City of Portsmouth's North Mill Pond Greenway project. This is a 10 ft wide porous asphalt pathway within the 50 ft buffer of North Mill Pond for public recreational use.

For standard permit projects, provide:

☒ A Coastal Functional Assessment (CFA) report in accordance with Env-Wt 603.04 (refer to Section 3).

☒ A vulnerability assessment in accordance with Env-Wt 603.05 (refer to Section 4).

Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 311.07, Env-Wt 313, and Env-Wt 603.04.

The North Mill Pond 100-foot tidal buffer can be divided into three zones within the project area: 1) a commercial area and all the paved and unpaved impervious surfaces associated with the buildings; 2) the disturbed forest aera around the old railroad turntable,; and 3) the shrub ticket extending along the narrow portion of the parcel.

The proposed project will result in a net reduction in impervious surfaces. Restoring impervious surfaces restores vegetation, reduces runoff to the tidal wetland, provides improved water quality treatment of runoff, allows for increased wetland screening for wildlife, and restores available wildlife habitat. Installation of the North Mill Pond trail and greenway would result in improved functions and values of the wetland and buffer including: Ecological Integrity, Recreation Potential, Aesthetic Quality, and possibly Educational Potential. Existing impacts to the 100-foot buffer will also be reduced from the trail and greenway improvements through the removal and restoration of impervious surfaces.

The result of the proposed mitigation will be 22,384 SF of restored previously disturbed tidal buffer area and 47,189 SF of previously disturbed tidal buffer enhancement area.

The 100-foot tidal buffer impact limits will be marked and erosion controls in place prior to project construction and monitoring will occur during and following construction to assure impacts are minimized and proposed restoration activites are properly carried out.

Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01.

Surface waters will not be impacted by the project. All work will employ proper erosion and sediment control BMPs. No equipment will be used within surface waters or wetlands and no invasive species will be used to stabilize the site. The NH Natural Heritage Bureau DataCheck has determined that no rare species or critical habitats will be impacted. All work on this project is within previously developed and landscaped areas and will be consistent with the Shoreland Water Quality Protection Act. No work will be adjacent to designated prime wetlands. The project does not involve dredging or filling of wetlands. Areas of temporary soil disturbance will be stabilized within three days of final grading as described in the construction sequencing below. No work will be done within 10 feet of a property line without an abutter's prior written consent.

Provide a project design narrative that includes the following:

☒ A discussion of how the proposed project:

- Uses best management practices and standard conditions in Env-Wt 307;
- Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- Meets approval criteria in Env-Wt 313.01;
- Meets evaluation criteria in Env-Wt 313.01(c);
- Meets CFA requirements in Env-Wt 603.04; and
- Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;

☒ A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and

☒ A discussion of how the completed project will be maintained and managed.

A project design narrative, including monitoring, is attached.

☒ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);

☒ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and

☐ For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors (DP&H) chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

N/A

SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05)

Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of:

☒ Existing salt marsh and salt marsh migration pathways;

☒ Eelgrass beds;

☒ Documented shellfish sites;

☒ Projected sea-level rise; and

☒ 100-year floodplain.

Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links:

☒ National Oceanic and Atmospheric Administration (NOAA) Tides & Currents; and

☒ NOAA Essential Fish Habitat Mapper.

☒ Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03)

Projects in coastal areas shall:

☒ Not impair the navigation, recreation, or commerce of the general public; and

☒ Minimize alterations in prevailing currents.

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

☒ Adverse impacts to beach or tidal flat sediment replenishment;

☒ Adverse impacts to the movement of sediments along a shore;

☒ Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and

☒ Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

☒ Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be:

- Performed by a qualified coastal professional; and
- Completed using one of the following methods:

  a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or

  b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

For any project that would impact tidal wetlands, tidal waters, or associated sand dunes, the applicant shall:

☒ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters, or associated sand dunes;

☒ Design the proposed project to have the least impact to tidal wetlands, tidal waters, or associated sand dunes;

☒ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and

☒ Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

☒ Minimize adverse impacts to finfish, shellfish, crustacean, and wildlife;

☒ Minimize disturbances to groundwater and surface water flow;

☒ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and

☒ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

Determine the time period over which the project is designed to serve.

The project useful life is expected to be 100 years. There are expected to be significant upgrades over that time period, which will include technologies to deal with rising sea levels as needed.

Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas.

NH Coastal Flood Risk Summary Part II, Step 2 Table: Medium Risk Tolerance

Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss.

NH Coastal Flood Risk Summary Part II, Step 3 Table A: Sea level rise for Medium Risk Tolerance is 5.0 feet (13.00 feet NGVD88) by 2122.

Identify areas of the proposed project site subject to flooding from SLR.

The current 100 -year floodplain (Zone AE) base flood elevation is 8.0 feet NAVD88. The threshold for the parking garage is elevation 7.00 feet and the finished floor elevation of the first floor is 17.50 feet NGVD88. The below grade parking elevation is 7.00 feet. The 100-year floodplain is expected to be above the parking garage threshold within 36 years with a 2.0 foot sea level rise (elevation 10.76 feet) by 2058.

Identify areas currently located within the 100-year floodplain and subject to coastal flood risk.

Portions of the existing lawn on the northwest side of the property are currently within the 100-year floodplain.

Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans.

The proposed project consists of a 5-story residential use building with one level of below grade parking and one level of parking at grade and beneath the building. The threshold for the parking garage door is 10.75 feet and the finished floor elevation of the first floor is 14.75 feet NGVD29, nearly one foot above the predicted 2122 100-year floodplain .

Two forms of waterproofing are being employed to protect the basement parking garage from water seepage. The slab will be protected with a blind-side waterproofing membrane. The foundation walls will be protected by a water-proofing sheet membrane. These two membranes will connect below the footings along the building perimeter.

Flood proofing technologies will be deployed to relieve potential flooding in the parking garage by 2058, when the 100-year floodplain is expected to exceed the garage threshold.

Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science.

☐ Pre-application meeting date held: **Waived by S. Giallongo via email to N Hansen July 19, 2021**

SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements.

The plan view shall depict the following:

☒ The engineering scale used, which shall be no larger than one inch equals 50 feet;

☒ The location of tidal datum lines depicted as lines with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.

☐ An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;

☒ The location of all special aquatic sites at or within 100 feet of the subject property;

☒ Existing bank contours;

☒ The name and license number, if applicable, of each individual responsible for the plan, including:

a. The agent for tidal docking structures who determined elevations represented on plans; and

b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan;

☒ The location and dimensions of all existing and proposed structures and landscape features on the property;

☒ Tidal datum(s) with associated elevations noted, based on NAVD 88; and

☒ Location of all special aquatic sites within 100-feet of the property.

The elevation view shall depict the following:

☒ The nature and slope of the shoreline;

☒ The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and

☒ Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.

See specific design and plan requirements for certain types of coastal projects:

- Overwater structures (Env-Wt 606).
- Dredging activities (Env-Wt 607).
- Tidal shoreline stabilization (Env-Wt 609).
- Protected tidal zone (Env-Wt 610).

- Tidal beach maintenance (Env-Wt 608).
- Sand Dunes (Env-Wt 611).

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least three tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:

☐ Mean lower low water;
☐ Mean low water;
☐ Mean high water;
☐ Mean tide level;
☐ Mean higher high water;
☐ Highest observable tide line; and
☐ Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

The following data shall be presented in the application project narrative to support how water depths were determined:

☐ The date, time of day, and weather conditions when water depths were recorded; and
☐ The name and license number of the licensed land surveyor who conducted the field measurements.

For tidal stream crossing projects, provide:

☐ Water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d).

For repair, rehabilitation or replacement of tier 4 stream crossings:

☐ Demonstrate how the requirements of Env-Wt 904.09 are met.

SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01)

Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on:

☐ The standard conditions in Env-Wt 307;
☐ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
☐ The approval criteria in Env-Wt 313.01;
☐ The evaluation criteria in Env-Wt 313.05;
☐ The project specific criteria in Env-Wt 600;
☐ The CFA required by Env-Wt 603.04; and
☐ The vulnerability assessment required by Env-Wt 603.05.

New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or habitat shall not be allowed except:

☐ To protect public safety; and
☐ Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

Projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

☐ Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and

☐ Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

SECTION 8 - GENERAL CRITERIA FOR TIDAL BUFFER ZONES (Env-Wt 604.02)

The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally. Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to:

☒ Provide habitat values;

☒ Protect tidal environments from potential sources of pollution;

☒ Provide stability of the coastal shoreline; and

☒ Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

SECTION 9 - GENERAL CRITERIA FOR TIDAL WATERS/WETLANDS (Env-Wt 604.03)

Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security. Evaluation of impacts to tidal wetlands and tidal waters shall be based on:

☐ The standard conditions in Env-Wt 307;

☐ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☐ The approval criteria in Env-Wt 313.01;

☐ The evaluation criteria in Env-Wt 313.05;

☐ The project specific criteria in Env-Wt 600;

☐ The CFA required by Env-Wt 603.04; and

☐ The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

☐ Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;

☐ Be designed with a preference for living shorelines over hardened stabilization practices; and

☐ Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

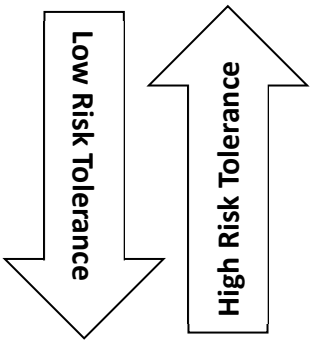
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission's Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design, and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project's willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.

Project Design Narrative

Project Discussion

Env-Wt 307. Surface waters will not be impacted by the project. All work will employ proper erosion and sediment control BMPs. No equipment will be used within surface waters or wetlands and no invasive species will be used to stabilize the site. The NH Natural Heritage Bureau DataCheck has determined that no rare species or critical habitats will be impacted. All work on this project is within previously developed and landscaped areas and will be consistent with the Shoreland Water Quality Protection Act. No work will be adjacent to designated prime wetlands. The project does not involve dredging or filling of wetlands. Areas of temporary soil disturbance will be stabilized within three days of final grading as described in the construction sequencing below. No work will be done within 10 feet of a property line without an abutter's prior written consent.

Env-Wt 311.07 & 313.03. Impacts from the project have been avoided and minimized by pulling portions of the new buildings and parking lot further back from the coastal wetland and utilizing underground parking, thus freeing up significant areas of impervious surfaces to be restored (see Appendix F for the mitigation proposal and wetland impact plan). All work is being done within the previously developed tidal buffer. The only direct wetland impact from the project is for the construction of three outfall pipe plunge pools.

Env-Wt 313.01. As described throughout this application, the project will meet all permit approval criteria.

Env-Wt 313.01(c). Impacts from the project have been avoided and minimized by pulling portions of the new buildings and parking lot further back from the coastal wetland and utilizing underground parking, thus freeing up significant areas of impervious surfaces to be restored (see Appendix F for the mitigation proposal and wetland impact plan). All work is being done within the previously developed tidal buffer. The only direct wetland impact from the project is for the construction of three outfall pipe plunge pools.

Env-Wt 603.04. A Coastal Functional Assessment is provided in Appendix D

Env-Wt 603.05. A Vulnerability Assessment is included on the Coastal Worksheet and includes consideration of sea level rise and flooding. Design plans are attached that include water depth information. The project has a medium risk tolerance. The threshold of the underground parking will be below the elevation of the predicted 100 year floodplain by 2058, however, flood proofing technologies will be installed to relieve flooding in that area before that time. The first floor finish elevation will be approximately one foot above the predicted 100-year floodplain in 2122.

Construction Sequencing

1. Prior written consent will be obtained from abutters prior to any soil disturbance less than 10 feet from property lines.
2. Cut and clear trees as required.
3. Construct temporary and permanent sediment, erosion and detention control facilities. Erosion, sediment, and detention measures shall be installed prior to any earth moving operations.
4. Establish a properly constructed dewatering area as needed. Wherever possible, the discharge from the dewatering structure shall drain to a well-vegetated buffer by sheet

flow while maximizing the distance to the nearest water resource and minimizing the slope of the buffer area.

5. All permanent ditches, swales, detention, retention, and sedimentation basins to be stabilized using the vegetative and non-structural BMPs prior to directing runoff to them.
6. Clear and dispose of debris.
7. Construct temporary culverts and diversion channels as required.
8. Grade and gravel roadways and parking areas – all roads and parking areas shall be stabilized within 72 hours of achieving finishing grade.
9. Begin permanent and temporary seeding and mulching. All cut and fill slopes shall be seeded and mulched within 72 hours of achieving finished grade daily, or as required.
10. Finish paving all roadways and parking lots.
11. Inspect and maintain all erosion and sediment control measures.
12. Complete permanent seeding and landscaping.
13. Remove trapped sediments from collector devices as appropriate and then remove temporary erosion control measures.

Project Monitoring, Maintenance, and Management

The project will be monitored during and following construction by a NH Certified Wetland Scientist or other qualified professional to be sure the site is stabilized, and all components have been properly installed. The restoration areas will be followed up with annual monitoring by a NH Certified Wetland Scientist or other qualified professional. Monitoring will continue until the site is fully stabilized and there is at least 75% survivorship of restoration plantings.

The public greenway trail that runs through the area is expected to be monitored by the conservation commission or other City entity.

The project building and grounds will be maintained by the owners as needed. The grounds will be maintained by contracted landscapers.

STEP 3 TABLE A. RECOMMENDED DECADAL RSLR ESTIMATES (IN FEET ABOVE 2000 LEVELS) BASED ON RCP 4.5, PROJECT TIMEFRAME, AND TOLERANCE FOR FLOOD RISK.

TIMEFRAME	HIGH TOLERANCE FOR FLOOD RISK	MEDIUM TOLERANCE FOR FLOOD RISK	LOW TOLERANCE FOR FLOOD RISK	VERY LOW TOLERANCE FOR FLOOD RISK
	Plan for the following RSLR estimate (ft)* *compared to sea level in the year 2000*			
	Lower magnitude, Higher probability	←	→	Higher magnitude, Lower probability
2030	0.7	0.9	1.0	1.1
2040	1.0	1.2	1.5	1.6
2050	1.3	1.6	2.0	2.3
2060	1.6	2.1	2.6	3.0
2070	2.0	2.5	3.3	3.7
2080	2.3	3.0	3.9	4.5
2090	2.6	3.4	4.6	5.3
2100	2.9	3.8	5.3	6.2
2110	3.3	4.4	6.1	7.3
2120	3.6	4.9	7.0	8.3
2130	3.9	5.4	7.9	9.3
2140	4.3	5.9	8.9	10.5
2150	4.6	6.4	9.9	11.7

2058 (36 yr) = 2.0 ft

2122 (100 yr) = 5.0 ft

*The colors (blue, red, purple, green) in Step 3 Table A correspond with the colors of the graph depicted in Figure 2 (see also Figure 4.5 in *Part I: Science*[17]). The RSLR estimates for High tolerance for flood risk projects correspond with K14, upper end of "likely" estimates for RCP4.5 (83% chance RSLR will not exceed this value). The RSLR estimates for Medium tolerance for flood risk projects correspond with K14, 1-in-20 chance estimates for RCP 4.5. The RSLR estimates for Low tolerance for flood risk projects correspond with K14, 1-in-100 chance estimates for RCP 4.5. The RSLR estimates for Very Low tolerance for flood risk projects correspond with K14, 1-in-200 chance estimates for RCP4.5. For K14, 1-in-1000 chance estimates, see Table 4.2 in *Part I: Science*.[17] Note that while the Bayesian probabilities associated with RSLR projections are useful, they have some limitations as described in Box 4.3 in *Part I: Science*.[17]

Datums for 8419870, Seavey Island ME

NOTICE: All data values are relative to the NAVD88.

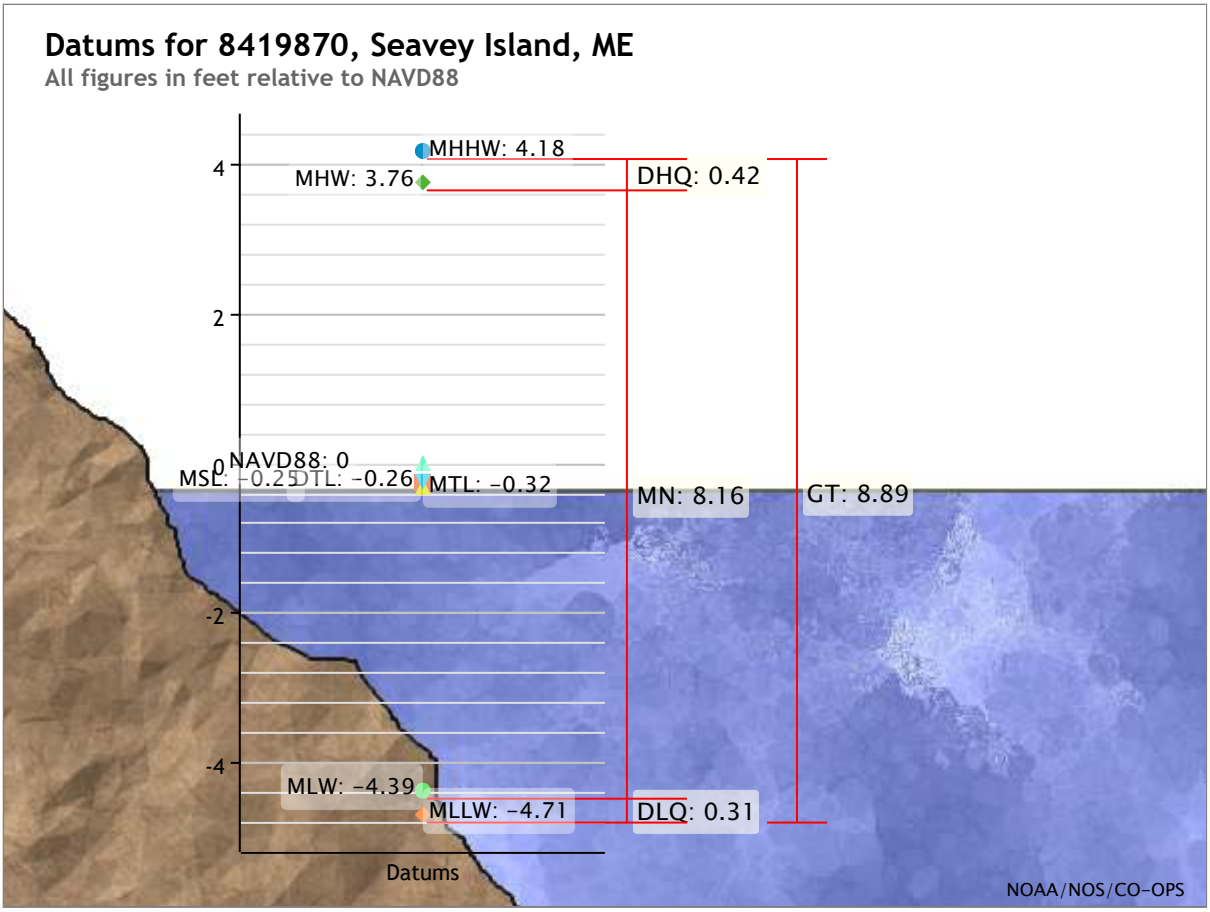
Elevations on NAVD88

Station: 8419870, Seavey Island, ME
Status: Accepted (Dec 6 2021)
Units: Feet
Control Station: 8418150 Portland, ME
T.M.: 0
Epoch: (/datum_options.html#NTDE) 1983-2001
Datum: NAVD88

Datum	Value	Description
MHHW (/datum_options.html#MHHW)	4.18	Mean Higher-High Water
MHW (/datum_options.html#MHW)	3.76	Mean High Water
MTL (/datum_options.html#MTL)	-0.32	Mean Tide Level
MSL (/datum_options.html#MSL)	-0.25	Mean Sea Level
DTL (/datum_options.html#DTL)	-0.26	Mean Diurnal Tide Level
MLW (/datum_options.html#MLW)	-4.39	Mean Low Water
MLLW (/datum_options.html#MLLW)	-4.71	Mean Lower-Low Water
NAVD88 (/datum_options.html)	0.00	North American Vertical Datum of 1988
STND (/datum_options.html#STND)	-6.98	Station Datum
GT (/datum_options.html#GT)	8.89	Great Diurnal Range
MN (/datum_options.html#MN)	8.16	Mean Range of Tide

Datum	Value	Description
DHQ (/datum_options.html#DHQ)	0.42	Mean Diurnal High Water Inequality
DLQ (/datum_options.html#DLQ)	0.31	Mean Diurnal Low Water Inequality
HWI (/datum_options.html#HWI)	3.92	Greenwich High Water Interval (in hours)
LWI (/datum_options.html#LWI)	10.04	Greenwich Low Water Interval (in hours)
Max Tide (/datum_options.html#MAXTIDE)	7.89	Highest Observed Tide
Max Tide Date & Time (/datum_options.html#MAXTIDEDT)	02/07/1978 10:42	Highest Observed Tide Date & Time
Min Tide (/datum_options.html#MINTIDE)	-7.98	Lowest Observed Tide
Min Tide Date & Time (/datum_options.html#MINTIDEDT)	11/30/1955 00:00	Lowest Observed Tide Date & Time
HAT (/datum_options.html#HAT)	5.87	Highest Astronomical Tide
HAT Date & Time	11/15/2016 16:18	HAT Date and Time
LAT (/datum_options.html#LAT)	-6.51	Lowest Astronomical Tide
LAT Date & Time	01/14/2036 23:00	LAT Date and Time

Tidal Datum Analysis Periods
07/01/2020 - 06/30/2021



Showing datums for

8419870 Seavey Island, ME

Datum

NAVD88

Data Units
- (●) Feet
- ( ) Meters

Epoch
- (●) Present (1983-2001)
- ( ) Superseded (1960-1978)

Submit

Show nearby stations

Products available at 8419870 Seavey Island, ME

TIDES/WATER LEVELS

Water Levels (/waterlevels.html?id=8419870)

NOAA Tide Predictions (/noaatidepredictions.html?id=8419870)

Harmonic Constituents (/harcon.html?id=8419870)

Sea Level Trends (/sltrends/sltrends_station.shtml?id=8419870)

Datums (/datums.html?id=8419870)

Bench Mark Sheets (/benchmarks.html?id=8419870)

Extreme Water Levels (/est/est_station.shtml?stnid=8419870)

Reports (/reports.html?id=8419870)

METEOROLOGICAL/OTHER

Meteorological Observations (/met.html?id=8419870)

Water Temp/Conductivity

PORTS®

Portsmouth PORTS® (/ports/index.html?port=pm)

PORTS® product page for Seavey Island (/ports/ports.html?id=8419870)

OPERATIONAL FORECAST SYSTEMS

Gulf of Maine (/ofs/gomofs/gomofs.html)

OFS product page for Seavey Island

INFORMATION

Station Home Page (/stationhome.html?id=8419870)

Data Inventory (/inventory.html?id=8419870)

Measurement Specifications (/measure.html)

Website Owner: Center for Operational Oceanographic Products and Services

National Oceanic and Atmospheric Administration (http://www.noaa.gov)
National Ocean Service (http://oceanservice.noaa.gov)
Privacy Policy (/privacy.html)
Disclaimer (/disclaimers.html)
Take Our Survey (/survey.html)
Freedom of Information Act (https://www.noaa.gov/foia-freedom-of-information-act)
Contact Us (/contact.html)

US Army Corps of Engineers®
New England District

Appendix B

New Hampshire General Permits (GPs)
Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to https://www.nae.usace.army.mil/Missions/Regulatory/ "Useful Documents, Forms and Publications" and then "Corps Application Form and Guidance." Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

- New Hampshire Department of Environmental Services (DES) Wetlands Permit Application.
- Request for Project Review Form by the New Hampshire Division of Historical Resources (DHR) https://www.nh.gov/nhdhr/review/rpr.htm.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible plans no larger than 11"x17" with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
    - Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
    - Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
    - Project limits with existing and proposed conditions.
    - Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
    - Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the OHW in inland waters and below the HTL in coastal waters.
    - Delineation of all waterways and wetlands on the project site,:
- Use Federal delineation methods and include Corps wetland delineation data sheets (GC 2).
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.

US Army Corps of Engineers®
New England District

New Hampshire General Permits (GPs)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)

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

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	X	
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		X
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New Hampshire also contains specific information about the natural communities found in NH.		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	N/A	N/A
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	N/A	
2.7 What is the area of the proposed fill in wetlands?		
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	N/A	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index		X

3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		X
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?	X	
3.5 Are stream crossings designed in accordance with the GC 21?	N/A	N/A
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	X	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		X
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**	INCLUDED	

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.
** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: February 16, 2022
Project Code: 2022-0008667
Project Name: 105 Bartlett Street - Proposed Multi-Family Development

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Project Code: 2022-0008667
Event Code: None
Project Name: 105 Bartlett Street - Proposed Multi-Family Development
Project Type: Commercial Development
Project Description: Construction of two (2) multi-family buildings and one (1) mixed-used building including 152 residential units, commercial space, and garage parking.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.07287705,-70.77045978831826,14z

Counties: Rockingham County, New Hampshire

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: February 16, 2022
Project code: 2022-0008667
Project Name: 105 Bartlett Street - Proposed Multi-Family Development

Subject: Consistency letter for the '105 Bartlett Street - Proposed Multi-Family Development' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Colter Krzcuik:

The U.S. Fish and Wildlife Service (Service) received on February 16, 2022 your effects determination for the '105 Bartlett Street - Proposed Multi-Family Development' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

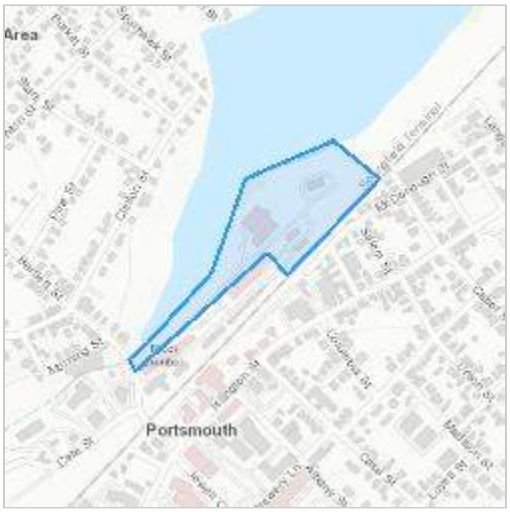
105 Bartlett Street - Proposed Multi-Family Development

2. Description

The following description was provided for the project '105 Bartlett Street - Proposed Multi-Family Development':

> Construction of two (2) multi-family buildings and one (1) mixed-used building including 152 residential units, commercial space, and garage parking.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.07287705,-70.77045978831826,14z



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

6. Will the action involve Tree Removal?

   Yes

7. Will the action only remove hazardous trees for the protection of human life or property?

   No

8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

0

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES
State of New Hampshire, Department of Natural and Cultural Resources 603-271-3483
19 Pillsbury Street, Concord, NH 03301-3570 603-271-3558
TDD Access Relay NH 1-800-735-2964 FAX 603-271-3433
www.nh.gov/nhdhr preservation@dncr.nh.gov

January 11, 2019

Steven D. Riker
Ambit Engineering, Inc.
200 Griffin Road, Unit 3
Portsmouth, NH 03801

Re: 105 Bartlett Street Site Improvements, Portsmouth, NH (RPR #10228)
EPA

Dear Mr. Riker:

In accordance with Section 106 of the National Historic Preservation Act (16 U.S. C. 470), and with federal Advisory Council on Historic Preservation regulations, *Protection of Historic Properties* (36 CFR Part 800), the New Hampshire Division of Historical Resources/State Historic Preservation Office has reviewed the EPA undertaking referenced above, with respect to potential effects on properties listed, or potentially eligible for listing, in the National Register of Historic Places. The project includes infrastructure improvements and demolition of remnants of the National Register eligible Eastern Railroad Linear District (including turntable and roundhouse ruins).

David Trubey, New Hampshire Division of Historical Resources Historical Archaeologist and Review and Compliance Coordinator, has reviewed the materials submitted and made observations at a site visit of January 4, 2019. The DHR has determined that the project impact area lacks archaeological sensitivity through previous construction activities and no further archaeological studies are required.

For purposes of compliance with the federal Advisory Council on Historic Preservation regulations, *Protection of Historic Properties* (36 CFR Part 800), implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470), this determination may be construed as a finding of "***No Historic Properties Affected*" *if the work is done as described in the following stipulations:***

Stipulations: (1) All storm water features must be located outside the area in which the turntable and roundhouse ruins are located; (2) A written history to include narrative, historic photographs, and photographs taken after site clearing but before demolition of the turntable and roundhouse will be prepared by an Architectural Historian qualified under 36 CFR 61 and submitted for review to the New Hampshire Division of Historical Resources (DHR). Document will be utilized by the City of Portsmouth for future interpretive signage at the site if a walking trail is constructed. The Applicant will provide final copies (digital and archival hard copy) to the DHR, Portsmouth Public Library, and Portsmouth Athenaeum within 9 months of receipt of this correspondence.

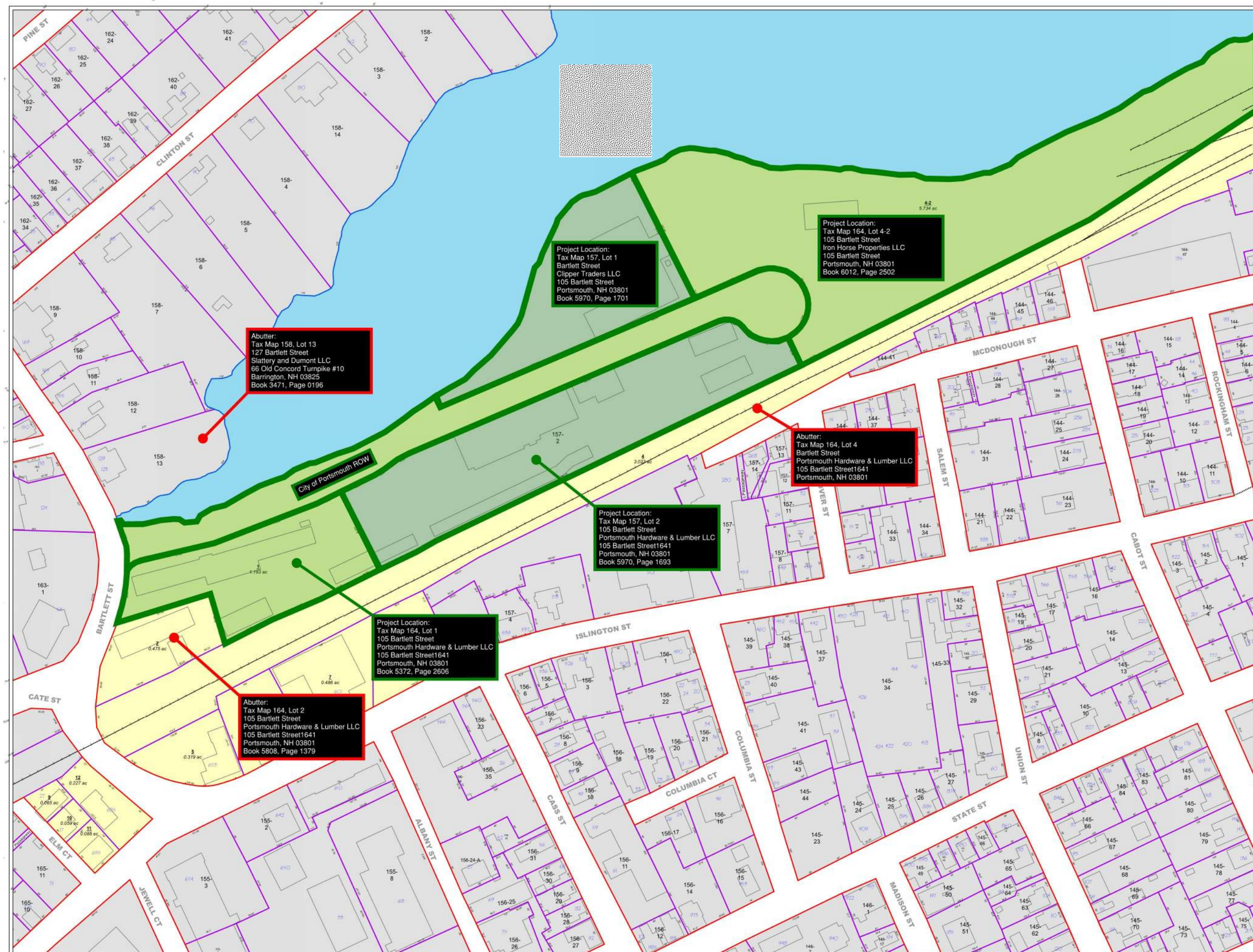
This fulfills the project sponsor's duties for "Section 106" historic preservation review under EPA's Construction General Permit, unless any additional impacts are identified or if follow-up actions as noted above should be necessary. As the federal regulatory agency for this project, the EPA is responsible for completion of any "Section 106" historic preservation review procedures which pertain to its involvement.

Sincerely,

Nadine Miller

Nadine Miller
Deputy State Historic Preservation Officer

cc: EPA
City of Portsmouth



Partial Legend

See the cover sheet for the complete legend.

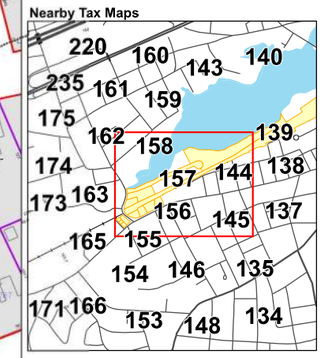
7-5A	Lot or lot-unit number
2.56 ac	Parcel area in acres (ac) or square feet (sf)
25	Address number
233-137	Parcel number from a neighboring map
66'	Parcel line dimension
SIMS AVE	Street name
	Parcel/Parcel boundary
	Parcel/ROW boundary
	Water boundary
	Structure (1994 data)
	Parcel covered by this map
	Parcel from a neighboring map (see other map for current status)

0 50 100 200 Feet

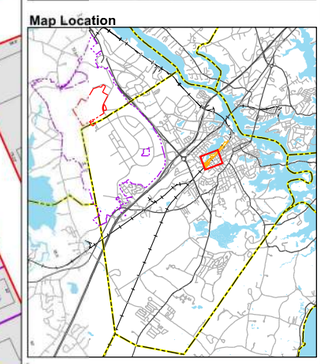
0 20 40 Meters

This map is for assessment purposes only. It is not intended for legal description or conveyance. Parcels are mapped as of April 1. Building footprints are 2006 data and may not represent current structures. Streets appearing on this map may be paper (unbuilt) streets. Lot numbers take precedence over address numbers. Address numbers shown on this map may not represent posted or legal addresses.

Nearby Tax Maps

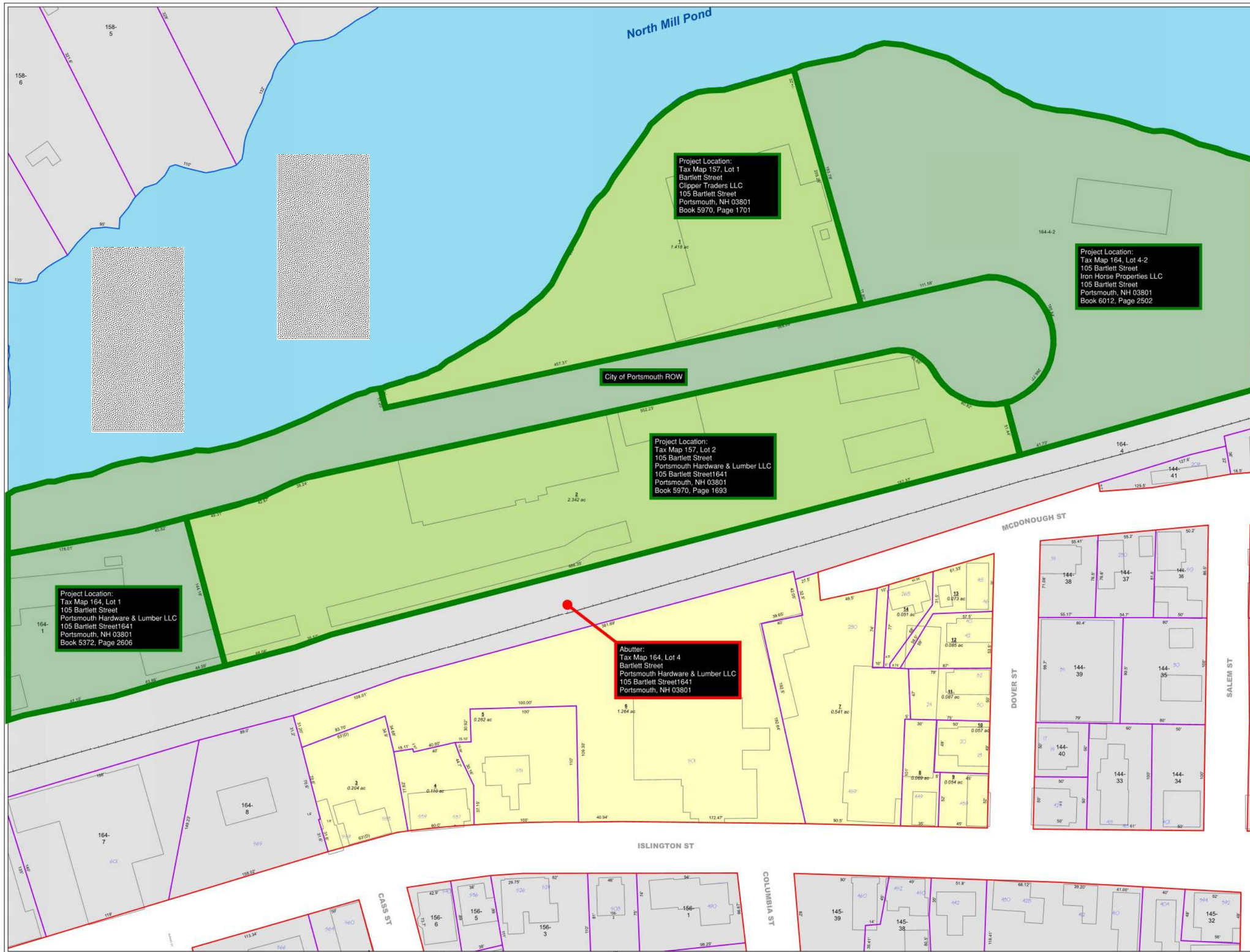


Map Location



Portsmouth, New Hampshire
2020

Tax Map 164



Partial Legend

See the cover sheet for the complete legend.

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2.56 ac	Parcel area in acres (ac) or square feet (sf)
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233-137	Parcel number from a neighboring map
66'	Parcel line dimension
SIMS AVE	Street name
	Parcel/Parcel boundary
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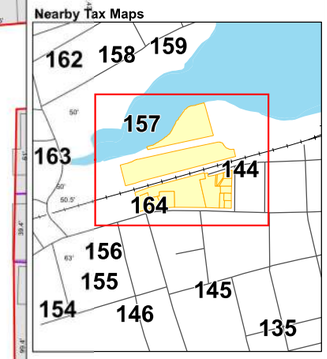
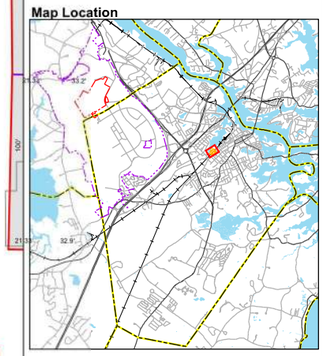
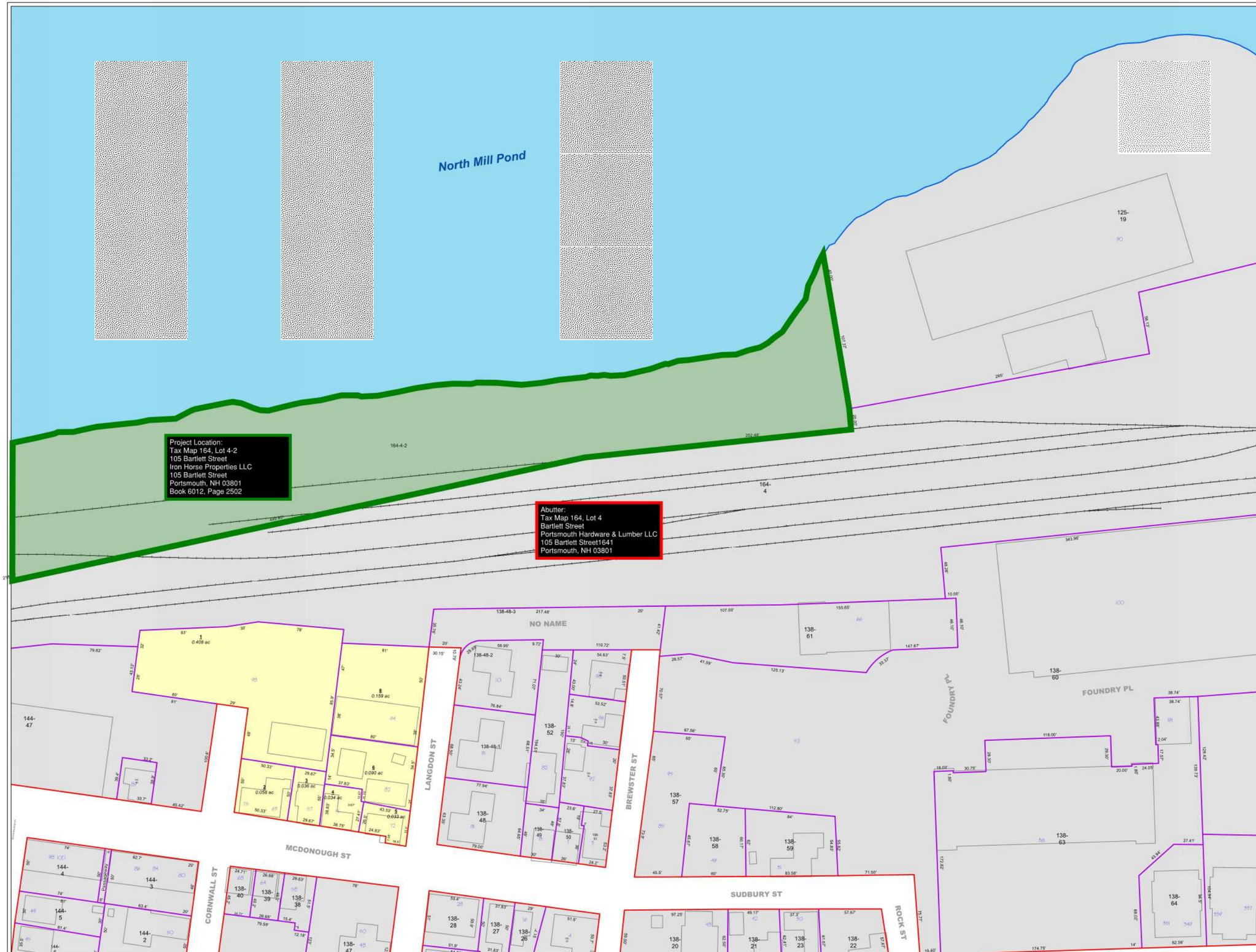


Map Location



Portsmouth, New Hampshire
2020

Tax Map 157



Partial Legend

See the cover sheet for the complete legend.

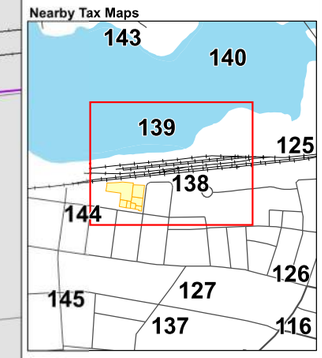
7-5A	Lot or lot-unit number
2.56 ac	Parcel area in acres (ac) or square feet (sf)
25	Address number
233-137	Parcel number from a neighboring map
66'	Parcel line dimension
SIMS AVE	Street name

Parcel/Parcel boundary
Parcel/ROW boundary
Water boundary
Structure (1994 data)
Parcel covered by this map
Parcel from a neighboring map (see other map for current status)

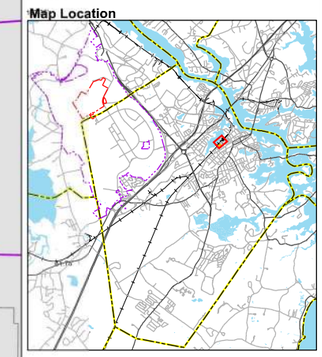
0 50 100 Feet
0 20 40 Meters

This map is for assessment purposes only. It is not intended for legal description or conveyance.
Parcels are mapped as of April 1.
Building footprints are 2006 data and may not represent current structures.
Streets appearing on this map may be paper (unbuilt) streets.
Lot numbers take precedence over address numbers. Address numbers shown on this map may not represent posted or legal addresses.

Nearby Tax Maps



Map Location



Portsmouth, New Hampshire
2020

Tax Map 139

Abutters List
Proposed Multi-Family Development
105 Bartlett Street
Portsmouth, New Hampshire

ABUTTERS	**MAP #**	**LOT #**
Slattery and Dumont LLC 66 Old Concord Turnpike #10 Barrington, NH 03825	158	13
Portsmouth Hardware & Lumber LLC 105 Bartlett Street Portsmouth, NH 03801	164 164	2 4

*Since this abutter is one of the property owners, notification has been deemed unncessary.

OWNERS

Clipper Traders LLC 105 Bartlett Street Portsmouth, NH 03801	157	1
Portsmouth Hardware & Lumber LLC 105 Bartlett Street Portsmouth, NH 03801	157 164	2 1
Iron Horse Properties LLC 105 Bartlett Street Portsmouth, NH 03801	164	4-2

APPLICANTS
Iron Horse Properties LLC
105 Bartlett Street
Portsmouth, NH 03801

MUNICIPALITY
City of Portsmouth
Planning Department
1 Junkins Ave
Portsmouth, NH 03801

ENGINEER
Tighe & Bond, Inc.
177 Corporate Drive
Portsmouth, NH 03801

PUBLIC NOTICE

NOTICE OF INTENT TO FILE

Please take notice that Iron Horse Properties, LLC, applicant, is intending to file an Amendment to a Pending Wetland Permit Application (NHDES File No. 2023-00122) with the New Hampshire Department of Environmental Services for proposed site improvements at 105 Bartlett Street in Portsmouth, New Hampshire.

The proposed development consists of three (3) multi-family apartment buildings including a total of 152 dwelling units. The project includes associated site improvements that consist of the private road cul-de-sac, surface parking, pedestrian access, utilities, lighting, landscaping and stormwater management systems. An Alteration of Terrain Permit (AoT-2026) was issued by NHDES on September 29, 2021.

The proposed project will result in 1,528 SF of permanent impacts to a small forested wetland, 209 SF of permanent impacts to the tidal wetland, and 34,639 SF of permanent impacts to the previously developed tidal buffer zone. Additionally, the project will result in 10,182 SF of temporary impacts to the previously developed tidal buffer zone.

Plans and details of this application are on file, for your review, at the City of Portsmouth Clerk's Office, 1 Junkins Avenue, Portsmouth, New Hampshire (8:00am - 4:30pm) or at the NHDES Wetlands Bureau, 29 Hazen Drive, Concord, New Hampshire (8:00am - 4:00pm).

(C-0960-006_Abutters notice.docx)

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	☐ Adult Signature Restricted Delivery	☐ Registered Mail
	☐ Certified Mail	☐ Return Receipt for Merchandise
	☐ Certified Mail Restricted Delivery	☐ Signature Confirmation
	☐ Collect on Delivery (COD)	☐ Signature Confirmation Restricted Delivery
	☐ Insured Mail	
	☐ Priority Mail	

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USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee
1.	158-13 Slattery and Dumont LLC 66 Old Concord Turnpike #10 Barrington, NH 03825													
2.					C-0960-006 E. OMMUNDSEN ON BEHALF OF C. KRZCUIK									
3.														
4.					1 TOTAL 1 x $0.60 = $0.60 1 x $1.85 = $1.85									
5.					TOTAL: $2.45									
6.														
7.														
8.														

Handling Charge - if Registered and over $50,000 in value

Adult Signature Required

Adult Signature Restricted Delivery

Restricted Delivery

Return Receipt

Signature Confirmation

Signature Confirmation Restricted Delivery

Special Handling

Total Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster, Per *(Name of receiving employee)*

PS Form **3877**, January 2017 *(Page 1 of 2)*
PSN 7530-02-000-9098

Complete in Ink

Privacy Notice: For more information on USPS privacy policies, visit *usps.com/privacypolicy.*

Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 1	**Date:** 3/25/2022	**Direction Taken:** South
Description: Entrance to the site along Bartlett Street.		

Photograph No.: 2	**Date:** 3/25/2022	**Direction Taken:** Northeast
Description: Paved buffer and eroding banks along North Mill Pond at low tide along the commercial area in southwest portion of the site.		

Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 3	**Date:** 3/25/2022	**Direction Taken:** Southeast
Description: Lumber yard between Design Center and Ricci Lumber.		

Photograph No.: 4	**Date:** 3/25/2022	**Direction Taken:** Northeast
Description: Paved buffer along North Mill Pond along the commercial area in southwest portion of the site.		

Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 5	**Date:** 3/25/2022	**Direction Taken:** Northeast
Description: Paved parking area in wetland buffer at Great Rhythm Brewing Company.		

Photograph No.: 6	**Date:** 3/25/2022	**Direction Taken:** East
Description: Remains of the railroad roundhouse and disturbed forest buffer northeast of the Great Rhythm Brewing Company.		

Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 7	**Date:** 3/25/2022	**Direction Taken:** East
Description: Wetland dominated by Norway maple and red osier dogwood within the old railroad turntable approximately six feet below grade.		

Photograph No.: 8	**Date:** 3/25/2022	**Direction Taken:** South
Description: Inside the remains of the railroad turntable.		

Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 9	**Date:** 3/25/2022	**Direction Taken:** West
Description: Outside wall and foundations of remains of railroad roundhouse.		

Photograph No.: 10	**Date:** 3/25/2022	**Direction Taken:** North
Description: Inside the remains of the railroad roundhouse.		

Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 11	**Date:** 3/25/2022	**Direction Taken:** Northeast
Description: Compacted gravel are around the rear of existing 2 story brick building.		

Photograph No.: 12	**Date:** 3/25/2022	**Direction Taken:** Southwest
Description: Compacted gravel area around the rear of the existing 2 story brick building.		

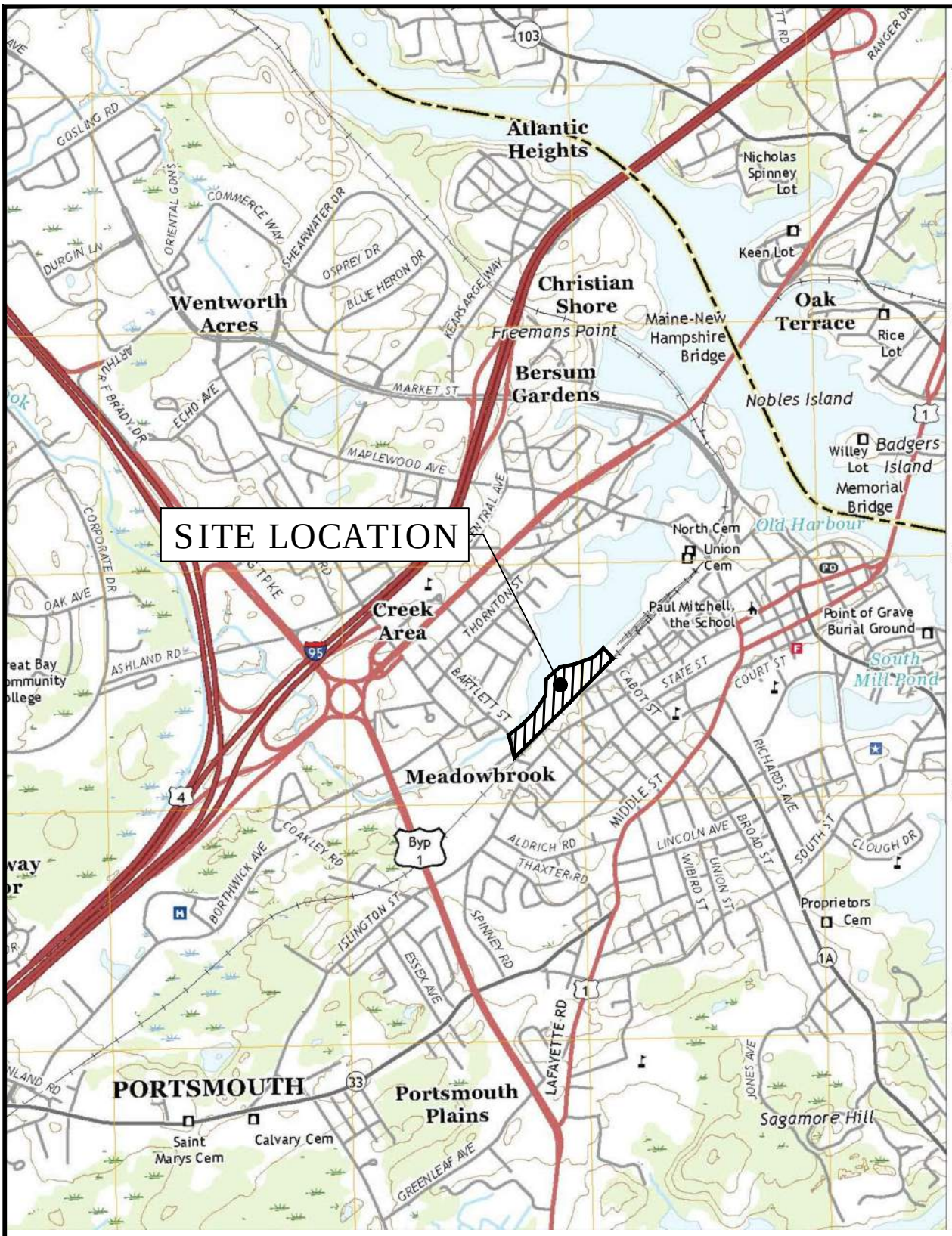
Photographic Log

Client: Iron Horse Properties, LLC **Job Number:** C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 13	**Date:** 3/25/2022	**Direction Taken:** South
Description: Compacted gravel area around the side of the existing 2 story brick building.		

Photograph No.: 14	**Date:** 3/25/2022	**Direction Taken:** Southwest
Description: Compacted gravel area in front of existing 2 story brick building, former contractor storage yard.		



NOTE:

1. BASED ON USGS TOPOGRAPHIC MAP FOR PORTSMOUTH, NH, ME (2018).

N

PROPOSED MULTI-FAMILY DEVELOPMENT
PORTSMOUTH, NH

105 BARTLETT STREET

USGS LOCUS MAP

DATE: 12/05/2019	Tighe&Bond Engineers | Environmental Specialists
SCALE: 1" = 2000'	
FIGURE: 1	

Dec 11, 2019-8:36am Plotted By: BCurcio
Tighe & Bond, Inc. J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-CS.dwg

(M) Hoffle Phoenix Gormley + Roberts

18051906 12/21/2018 02:19:25 PM
Book 5970 Page 1701 Page 1 of 7
Register of Deeds, Rockingham County
Cathy Ann Stacey

LCHIP	ROA434150	25.00
TRANSFER TAX	RO085122	576.00
RECORDING		34.00
SURCHARGE		2.00

Tx:40148057
8 0 1 7 0 5 0 6

RELEASE DEED

The **BOSTON AND MAINE CORPORATION**, a corporation duly organized and existing under the laws of the State of Delaware, with offices at Iron Horse Park, North Billerica, Middlesex County, Massachusetts (the "Grantor") in consideration of Thirty-Eight Thousand Three Hundred Eighty-One and 00/100 Dollars ($38,381.00) paid to it by **CLIPPER TRADERS, LLC,** with a mailing address of 105 Bartlett Street, Portsmouth, New Hampshire 03801 (the "Grantee") hereby grants to the Grantee all the Grantor's right, title and interest, without any warranties or covenants of title whatsoever, in a certain parcel of land, and the buildings, bridges, structures, crossings, fixtures and improvements thereon, if any, situated in Portsmouth, County of Rockingham, State of New Hampshire (the "Premises") described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND
MADE A PART HEREOF BY THIS REFERENCE.

This conveyance is subject to the following reservations, conditions, covenants and agreements:

1. This conveyance is made without granting any right of way, either by necessity or otherwise, over any remaining land or location of the Grantor.

2. ~~The Grantor hereby reserves a permanent, exclusive right of way and easement in, on, over, under, across and through the Premises for the purpose of accessing, constructing, installing, operating, maintaining, modifying, repairing, replacing, relocating and removing a telecommunications system or other system for transmission of intelligence or information by any means, whether now existing or hereafter devised, including such poles, pipes, wires, fibers, fiber optic cables, repeater stations, attachments, appurtenances, structures or other equipment and property of any description necessary or useful for the same~~

~~(the "Telecommunications Easement"). The Grantor further reserves the right to freely lease, license, mortgage, assign, pledge and otherwise alienate the Telecommunications Easement. The Grantee hereby covenants with the Grantor to recognize the Telecommunications Easement and, without the payment of any further consideration, to execute, acknowledge and deliver such instruments suitable for recording with the registry of deeds as the Grantor may reasonably require to acknowledge title to the Telecommunications Easement in the Grantor. The Grantor covenants to reasonably repair and restore the surface of the easement area after any work.~~

3. ~~The Grantor excepts from this conveyance any and all railroad tracks, railroad track materials (including, but not limited to, ties, connections, switches and ballast) and/or related equipment of any description located in whole or in part within the Premises (the "Trackage") and this conveyance is subject to the right of the Grantor to enter the Premises from time to time and at any and all times within the ninety (90) day period commencing with and subsequent to the date of delivery of this deed, with such men, equipment and materials as, in the reasonable opinion of the Principal Engineering Officer of the Grantor, are necessary for the removal of the Trackage. Days during the months of December, January, February and March shall not be included in the aforesaid ninety (90) day period. If the Trackage is not removed from the Premises by the expiration of said ninety (90) day period, the Trackage shall be deemed abandoned by the Grantor and shall then become the property of the Grantee.~~

4. ~~The Grantor excepts from this conveyance any and all advertising signs and/or billboards located upon the Premises which are not owned by the Grantor. Furthermore, this conveyance is subject to the right of the owners of said signs and/or billboards to go upon the Premises and remove them within ninety (90) days from the date of delivery of this deed.~~

5. By the acceptance of this deed and as part consideration therefor, the Grantee hereby assumes any and all agreements, covenants, obligations and liabilities of the Grantor in respect to any underground facilities, drainage culverts, walls, crossings and/or other structures of any nature and description located in whole or in part within the Premises.

6. By the acceptance of this deed and as part consideration therefor, the Grantee agrees to irrevocably waives, gives up and renounces any and all claims or causes of action against the Grantor in respect of claims, suits and/or enforcement actions (including any administrative or judicial proceedings and any remedial, removal or response actions) ever asserted, threatened, instituted or requested by any person and/or governmental

agency on account of: (a) any release of oil or hazardous materials or substances of any description on, upon or into the Premises in contravention of any ordinance, law or statute (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601, et seq., as amended); and (b) any and all damage to real or personal property, natural resources and/or harm or injury to persons alleged to have resulted from such release of oil or hazardous materials or substances.

7. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to build and forever maintain fences (together with any necessary gates), suitable to the Principal Engineering Officer of the Grantor, along the boundaries of the Premises which are common to remaining land or location of the Grantor (the "Fences"), if Fences are ever required in the sole and reasonable opinion of said Principal Engineering Officer; provided, however, that such requirement shall be subject to Grantee's receipt of all necessary, final and unappealable, municipal permits and approvals to erect such fence on or immediately adjacent (within 2 feet) to the common property boundary.

8. This conveyance is subject to the following restriction for the benefit of other land or location of the Grantor, to wit: that from the date of delivery of this deed, the Grantor shall not be liable to the Grantee or any lessee or user of the Premises (or any part thereof) for any damage to any buildings or property upon them caused by fire, whether communicated directly or indirectly by or from locomotive engines of any description upon the railroad operated by the Grantor, or otherwise.

9. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to make no use of the Premises which, in the sole and reasonable opinion of the Principal Engineering Officer of the Grantor, adversely affects, increases or decreases drainage to, from, upon or in any remaining land or location of the Grantor. The Grantee agrees to indemnify and save the Grantor harmless from and against any and all loss, cost, damage or expense including, but not limited to, the cost of defending all claims and/or suits for property damage, personal injury or death arising out of or in any way attributable to any breach of the foregoing covenant

10. ~~The Grantor excepts from this conveyance any and all overhead, surface or underground signal and communication line facilities of the Grantor located within the limits of the Premises and this conveyance is subject to the Grantor's use of any such facilities in their present locations and entry upon the Premises from time to time to maintain, repair, replace, renew, relay or remove such facilities.~~

11. Whenever used in this deed, the term "Grantor" shall not only refer to the **BOSTON AND MAINE CORPORATION**, but also its successors, assigns and affiliates and the term "Grantee" shall not only refer to the above-named Grantee, but also the Grantee's successors, assigns and grantees, as the case maybe.

12. The several exceptions, reservations, conditions, covenants and agreements contained in this deed shall be deemed to run with the land and be binding upon the Grantee forever. In addition to the acceptance and recording of this deed, the Grantee hereby signifies assent to the said several exceptions, reservations, conditions, covenants and agreements, by joining in its execution.

IN WITNESS WHEREOF, the said **BOSTON AND MAINE CORPORATION** has caused this release deed to be executed in its name and its corporate seal to be hereto affixed by David A. Fink, its President, thereunto duly authorized this 17th day of December, 2018.

GRANTOR:
BOSTON AND MAINE CORPORATION

Witness

By: David A. Fink, President

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss. Dec. 17, 2018

On this 17TH day of December, 2018, before me, the undersigned notary public, personally appeared David A. Fink, President as aforesaid, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

ROBERT B. BURNS
MY COMMISSION EXPIRES AUG. 10, 2022
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Notary Public
My Commission Expires:

GRANTEE:
CLIPPER TRADERS, LLC

Witness

By: _____
Edward R. Hayes, Manager

STATE OF NEW HAMPSHIRE

Rockingham,ss. December 21 ,2018

The foregoing instrument was acknowledged before me on this 21st day of December, 2018, by Edward R. Hayes, as Manager of Clipper Traders, LLC, duly authorized.

Justice of the ~~Peace~~/Notary Public
My Commission Expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

EXHIBIT "A"

To be transferred from Boston and Maine Corporation to
Clipper Traders, LLC
Portsmouth, NH

Beginning at a spike at the base of a bent iron pipe at the northeasterly corner of land now or formerly of Clipper Traders, LLC; thence running across land now or formerly of the Boston and Maine Corporation the following five (5) courses: S 46°54'17" E a distance of 11.80 feet to a point; thence S 46°49'03" W a distance of 457.31 feet; thence N 46°49'43" W a distance of 11.20 feet; thence continuing on the last bearing 12 feet, more or less, to the mean high water line of North Mill Pond, so called, thence turning and running in a northeasterly direction along the mean high water line said North Mill Pond 41 feet more or less to land now or formerly of Clipper Traders, LLC; thence turning and running along land of Clipper traders a distance of 74 feet, more or less, to an iron rod; thence continuing along the land now or formerly of said Clipper Traders, LLC the following two (2) courses, N 52°50'28" E a distance of 170.00 feet to an iron rod; thence N 43°16'48" E a distance of 175.00 feet to a spike at the base of a bent iron pipe and the point of beginning. The above described parcel of land containing 5,483 square feet, more or less, is shown on a plan prepared by Ambit Engineering, Inc., dated December 2018, recorded with the Rockingham County Registry of Deeds in ~~Plan Book~~ _____ Plan D41242.

(M) HOEFLE PHOENIX GORMLEY + ROBERTS.

18051905 12/21/2018 02:19:24 PM
Book 5970 Page 1693 Page 1 of 8
Register of Deeds, Rockingham County

Cathy Ann Stacey

LCHIP	ROA434149	25.00
TRANSFER TAX	RO085121	11,600.00
RECORDING		38.00
SURCHARGE		2.00

Tx:40148057

RELEASE DEED

The **BOSTON AND MAINE CORPORATION**, a corporation duly organized and existing under the laws of the State of Delaware, with offices at Iron Horse Park, North Billerica, Middlesex County, Massachusetts (the "Grantor") in consideration of Seven Hundred Seventy-Three Thousand Three Hundred Thirty-Nine and 00/100 Dollars ($773,339.00) paid to it by **PORTSMOUTH LUMBER & HARDWARE, LLC,** with a mailing address of 105 Bartlett Street, Portsmouth, New Hampshire 03801 (the "Grantee") hereby grants to the Grantee all the Grantor's right, title and interest, without any warranties or covenants of title whatsoever, in a certain parcel of land, and the buildings, bridges, structures, crossings, fixtures and improvements thereon, if any, situated in Portsmouth, County of Rockingham, State of New Hampshire (the "Premises") described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND
MADE A PART HEREOF BY THIS REFERENCE.

This conveyance is subject to the following reservations, conditions, covenants and agreements:

1. This conveyance is made without granting any right of way, either by necessity or otherwise, over any remaining land or location of the Grantor.

2. ~~The Grantor hereby reserves a permanent, exclusive right of way and easement in, on, over, under, across and through the Premises for the purpose of accessing, constructing, installing, operating, maintaining, modifying, repairing, replacing, relocating and removing a telecommunications system or other system for transmission of intelligence or information by any means, whether now existing or hereafter devised, including such poles, pipes, wires, fibers, fiber optic cables, repeater stations, attachments, appurtenances, structures or other~~

~~equipment and property of any description necessary or useful for the same (the "Telecommunications Easement"). The Grantor further reserves the right to freely lease, license, mortgage, assign, pledge and otherwise alienate the Telecommunications Easement. The Grantee hereby covenants with the Grantor to recognize the Telecommunications Easement and, without the payment of any further consideration, to execute, acknowledge and deliver such instruments suitable for recording with the registry of deeds as the Grantor may reasonably require to acknowledge title to the Telecommunications Easement in the Grantor. The Grantor covenants to reasonably repair and restore the surface of the easement area after any work.~~

3. ~~The Grantor excepts from this conveyance any and all railroad tracks, railroad track materials (including, but not limited to, ties, connections, switches and ballast) and/or related equipment of any description located in whole or in part within the Premises (the "Trackage") and this conveyance is subject to the right of the Grantor to enter the Premises from time to time and at any and all times within the ninety (90) day period commencing with and subsequent to the date of delivery of this deed, with such men, equipment and materials as, in the reasonable opinion of the Principal Engineering Officer of the Grantor, are necessary for the removal of the Trackage. Days during the months of December, January, February and March shall not be included in the aforesaid ninety (90) day period. If the Trackage is not removed from the Premises by the expiration of said ninety (90) day period, the Trackage shall be deemed abandoned by the Grantor and shall then become the property of the Grantee.~~

4. ~~The Grantor excepts from this conveyance any and all advertising signs and/or billboards located upon the Premises which are not owned by the Grantor. Furthermore, this conveyance is subject to the right of the owners of said signs and/or billboards to go upon the Premises and remove them within ninety (90) days from the date of delivery of this deed.~~

5. By the acceptance of this deed and as part consideration therefor, the Grantee hereby assumes any and all agreements, covenants, obligations and liabilities of the Grantor in respect to any underground facilities, drainage culverts, walls, crossings and/or other structures of any nature and description located in whole or in part within the Premises.

6. By the acceptance of this deed and as part consideration therefor, the Grantee agrees to irrevocably waives, gives up and renounces any and all claims or causes of action against the Grantor in respect of claims, suits and/or enforcement actions (including any administrative or judicial proceedings and any remedial, removal or response actions) ever asserted,

threatened, instituted or requested by any person and/or governmental agency on account of: (a) any release of oil or hazardous materials or substances of any description on, upon or into the Premises in contravention of any ordinance, law or statute (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601, et seq., as amended); and (b) any and all damage to real or personal property, natural resources and/or harm or injury to persons alleged to have resulted from such release of oil or hazardous materials or substances.

7. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to build and forever maintain fences (together with any necessary gates), suitable to the Principal Engineering Officer of the Grantor, along the boundaries of the Premises which are common to remaining land or location of the Grantor (the "Fences"), if Fences are ever required in the sole and reasonable opinion of said Principal Engineering Officer; provided, however, that such requirement shall be subject to Grantee's receipt of all necessary, final and unappealable, municipal permits and approvals to erect such fence on or immediately adjacent (within 2 feet) to the common property boundary.

8. This conveyance is subject to the following restriction for the benefit of other land or location of the Grantor, to wit: that from the date of delivery of this deed, the Grantor shall not be liable to the Grantee or any lessee or user of the Premises (or any part thereof) for any damage to any buildings or property upon them caused by fire, whether communicated directly or indirectly by or from locomotive engines of any description upon the railroad operated by the Grantor, or otherwise.

9. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to make no use of the Premises which, in the sole and reasonable opinion of the Principal Engineering Officer of the Grantor, adversely affects, increases or decreases drainage to, from, upon or in any remaining land or location of the Grantor. The Grantee agrees to indemnify and save the Grantor harmless from and against any and all loss, cost, damage or expense including, but not limited to, the cost of defending all claims and/or suits for property damage, personal injury or death arising out of or in any way attributable to any breach of the foregoing covenant

10. ~~The Grantor excepts from this conveyance any and all overhead, surface or underground signal and communication line facilities of the Grantor located within the limits of the Premises and this conveyance is subject to the Grantor's use of any such facilities in their present locations~~

~~and entry upon the Premises from time to time to maintain, repair, replace, renew, relay or remove such facilities.~~

11. Whenever used in this deed, the term "Grantor" shall not only refer to the **BOSTON AND MAINE CORPORATION**, but also its successors, assigns and affiliates and the term "Grantee" shall not only refer to the above-named Grantee, but also the Grantee's successors, assigns and grantees, as the case maybe.

12. The several exceptions, reservations, conditions, covenants and agreements contained in this deed shall be deemed to run with the land and be binding upon the Grantee forever. In addition to the acceptance and recording of this deed, the Grantee hereby signifies assent to the said several exceptions, reservations, conditions, covenants and agreements, by joining in its execution.

IN WITNESS WHEREOF, the said **BOSTON AND MAINE CORPORATION** has caused this release deed to be executed in its name and its corporate seal to be hereto affixed by David A. Fink, its President, thereunto duly authorized this 17th day of December, 2018.

GRANTOR:
BOSTON AND MAINE CORPORATION

Witness

By: _____
David A. Fink, President

BOSTON AND MAINE CORPORATION 1968 DELAWARE

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss. Dec. 17, 2018

On this 17TH day of December, 2018, before me, the undersigned notary public, personally appeared David A. Fink, President as aforesaid, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

ROBERT B. BURNS MY COMMISSION EXPIRES AUG. 14, 2020 NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS

Notary Public
My Commission Expires:

GRANTEES:
PORTSMOUTH LUMBER & HARDWARE, LLC

Witness

By: _____
Edward R. Hayes, Manager

STATE OF NEW HAMPSHIRE

Rockingham,ss. December 21 ,2018

The foregoing instrument was acknowledged before me on this 21st day of December, 2018, by Edward R. Hayes, as Manager of Portsmouth Lumber & Hardware, LLC, duly authorized.

_____
Justice of the Peace/Notary Public
My Commission Expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

EXHIBIT "A"

To be transferred from Boston and Maine Corporation to
Portsmouth Lumber and Hardware, LLC
Portsmouth, NH

Beginning at a point on the northeasterly side of Bartlett Street, so called, said point being located 39.83 feet left of Station 2970+18.15 on the Boston and Maine Corporation Centerline of Location; thence running along the northeasterly side of said Bartlett Street N 13°40'31" W a distance of 66.68 feet to a point; thence turning and running along land now or formerly of Portsmouth Lumber and Hardware, LLC the following ten (12) courses, on a curve turning to the left with an arc length of 111.58 feet, with a radius of 993.54 feet, said curve having a chord bearing of N 46°41'16" E, with a chord length of 111.52 feet; thence on a curve turning to the left with an arc length of 40.77 feet, with a radius of 993.54 feet, said curve having a chord bearing of N 42°17'42" E, with a chord length of 40.77 feet; thence on a curve turning to the left with an arc length of 47.40 feet, with a radius of 1101.05 feet, said curve having a chord bearing of N 39°52'54" E, with a chord length of 47.40 feet; thence on a curve turning to the right with an arc length of 12.23 feet, with a radius of 1370.56 feet, said curve having a chord bearing of N 38°54'14" E, with a chord length of 12.23 feet; thence on a curve turning to the right with an arc length of 56.34 feet, with a radius of 1370.56 feet, said curve having a chord bearing of N 40°20'14" E, with a chord length of 56.34 feet; thence N 41°30'53" E a distance of 170.76 feet; thence N 48°29'11" W a distance of 42.16 feet; S 53°33'53" W a distance of 121.62 feet; N 38°21'53" W a distance of 11.17 feet; thence on a curve turning to the right with an arc length of 42.05 feet, with a radius of 816.13 feet, said curve having a chord bearing of S 62°52'35" W, with a chord length of 42.04 feet; thence turning and running over and across land now or formerly of said Boston and Maine Corporation the following eighteen (18) courses, N 48°38'22" E a distance of 160.53 feet; thence N 44°10'56" E a distance of 45.82 feet; thence N 44°29'34" E a distance of 49.31 feet; thence on a curve turning to the left with an arc length of 42.87 feet, with a radius of 200.00 feet, said curve having a chord bearing of N 38°21'07" E, with a chord length of 42.79 feet; thence on a curve turning to the right with an arc length of 38.24 feet, with a radius of 150.00 feet, said curve having a chord bearing of N 39°30'52" E, with a chord length of 38.14 feet; thence N 46°49'03" E a distance of 552.23 feet; thence on a curve turning to the right with an arc length of 45.66 feet, with a radius of 35.00 feet, said curve having a chord bearing of N 84°11'20" E, with a chord length of 42.49 feet; thence on a curve turning to the left with an arc length of 80.92 feet, with a radius of 60.00 feet, said curve having a chord bearing of N 82°55'23" E, with a chord length of 74.93feet; thence S 45°30'58" E a distance of 51.44 feet; thence S 44°29'02" W a distance of 182.37 feet; thence S 44°19'01" W a distance of 486.35 feet; thence S 40°03'53" W a distance of 35.57 feet; thence S 44°17'25" W a distance of 112.65 feet (being 68.06 feet and 44.59 feet); thence S 43°15'05" W a distance of 63.86 feet; thence S 46°55'09" W a distance of 87.10 feet; thence S 43°22'17" W a distance of 147.08 feet (being 86.86 feet and 60.22 feet); thence S 39°31'55" W a distance of 38.45 feet; thence S 45°20'50" W a distance of 138.59 feet to the northeasterly side of said Bartlett Street and the point of beginning. The

above described parcel of land containing 110,477 square feet, more or less, is shown on a plan prepared by Ambit Engineering, Inc., dated DECEMBER 2018, recorded with the Rockingham County Registry of Deeds in ~~Plan Book~~ _____ Plan D-41242 and excludes any property previously conveyed to the Grantee by deed from Ricci Supply Company, Inc. dated October 30, 2012 and recorded in the Rockingham County Registry of Deeds at Book 5372, Page 2606, being Parcels 2 and 3 of said deed.

Return to:

After recording return to:
Bosen & Associates, PLLC
96 Chestnut Street
Portsmouth, NH 03801

STATE OF NEW HAMPSHIRE
DEPARTMENT OF REVENUE ADMINISTRATION
REAL ESTATE TRANSFER TAX
***19 Thousand 3 Hundred 80 Dollars
DATE 10/31/2012 RO024608 AMOUNT $ ***19380.00

C/H
L-CHIP
ROA179366

WARRANTY DEED

055827

2012 OCT 31 PM 2:09

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

KNOW ALL MEN BY THESE PRESENTS: That, **Ricci Supply Company, Inc.,** a New Hampshire corporation of 105 Bartlett Street, Portsmouth, NH 03801, for consideration paid grant(s) to **Portsmouth Lumber & Hardware, LLC**, a New Hampshire limited liability Company, of with an address of c/o Bosen & Associates, PLLC 96 Chestnut Street, Portsmouth, NH 03801, with **WARRANTY COVENANTS**:

Parcel 1:

A certain piece or parcel of land situated in Portsmouth, County of Rockingham and State of New Hampshire located on the Easterly side of Bartlett Street, so called, in Portsmouth, and being 3 parcels of land as shown on a plan entitled "Subdivision of Land, Portsmouth, New Hampshire, for George and Pauline J. Frisbee" dated December, 1976, John W. Durgin, Civil Engineers, said plan being recorded in the Rockingham County Registry of Deeds as Plan #C-6587, and said parcels being bounded and described as follows:

Beginning in the Northwesterly corner of said parcel at land now or formerly of the Boston & Maine Railroad; thence running North 53° 52' 15" East, 55.91 feet to a point; thence running by a curve to the right having a radius of 448.97 feet a distance of 94.55 feet, more or less, to a point; thence running by a curve to the left having a radius of 816.11 feet a distance of 58.22 feet, more or less to a set iron pin; thence turning and running South 35° 58' 45" East a distance of 13.19 feet to a set iron pin; thence turning and running North 54° 01' 15" East a distance of 121.62 feet, more or less, to land of the Boston & Maine Railroad; thence turning and running South 48° 01' 45" East a distance of 42.16 feet to a set iron pin at land of the Boston & Maine Railroad; thence turning and running South 41° 58' 15" West, by and along land of the Boston & Maine Railroad a distance of 132 feet, more or less, to a set iron pin; thence continuing South 41° 58' 15" West a distance of 38.76 feet to a point; thence turning and running by a curve to the left having a radius of 1,370.60 feet a distance of 56.34 feet to a set iron pin at land now or formerly of Ricci Construction Company a distance of 27 feet to a set drill hole; thence turning and running South 45° 56' 05" West a distance of 102.50 feet to a point ; thence turning and running North 41° 10' 40" West a distance of 10 feet to a point; thence turning and running South 49° 15' 25" West by and along said land of Frisbee a distance of 65.69 feet to a point on the Southerly sideline of Bartlett Street; thence turning and running by a curve to the left having a radius of 288.61 feet by and along the Easterly sideline of Bartlett Street a distance of 116.21 feet to a set iron pin.

This deed is given subject to and together with the right to use in common with others the 15 foot right of way as shown on said plan.

Meaning and intending to describe and convey all of the premises described in Deed from George E. Frisbee dated November 15, 1984 and recorded in the Rockingham County Registry of Deeds in Book 2520, Page 1564.

The above description is a re-draft of the same description set forth in the deed recorded at Book 2520, Page 1564. That description inadvertently included Parcel #2 on the aforesaid plan which parcel had previously been conveyed to Arthur W. and Carol J. Frisbee, by deed dated January 21, 1977 and recorded in the Rockingham County Registry of Deeds at Book 2274, Page 1241.

Parcel 2:

A certain piece or parcel of land situated in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at remaining land of the Boston and Maine Railroad at a point 124.02 feet North 43° 03' 05" West from Station 2975 + 36.23 on the center line of location of the main line "East Route", so called, of the Portland Division of said railroad; thence running by said remaining land of said Railroad on six (6) courses as follows: North 43° 03' 05" West 52.60 feet, North 46° 56' 55" East 308.00 feet, South 43° 03' 05" East 65.02 feet, South 43° 30' 15" West 40.29 feet, Southwesterly on a curve to the right having a radius of 383.07 feet, 99.58 feet and South 58° 23' 55" West 70.28 feet to the point of beginning, be all of said measurement more or less, said parcel containing about 20,949 square feet and being shown upon plan marked "Land in Portsmouth, NH Boston and Maine Railroad-to-Erminio A. Ricci J. F. Kerwin Eng'r. of Design May, 1957", recorded in the Rockingham County Registry of Deeds.

Together with a right of way to Bartlett Street as set forth in deeds recorded at Book 1435, Page 485 and Book 1436, Page 371.

And this conveyance is made subject to such other restrictions, conditions and covenants as described in Deed of Boston and Maine Railroad to Erminio A. Ricci dated June 21, 1957 and recorded in the Rockingham County Registry of Deeds at Book 1435, Page 485.

Meaning and intending to describe and convey the same premises from Erminio A. Ricci dated June 28, 1957 and recorded in the Rockingham County Registry of Deeds at Book1436, Page 371.

Parcel 3:

A certain piece or parcel of land located off Bartlett Street, Portsmouth, County of Rockingham and State of New Hampshire, and being further bounded and described as follows:

Beginning at land of the Boston and Maine Railroad at a point 43° 03' 05" West, ninety three and six hundredths (93.06) feet from Station 2978 plus 44.79 on the center line of location of Portland Main Line (East) Boston Division of said Railroad; thence running North 43° 03' 05" West by land of Erminio A. Ricci, sixty five and two hundredths (65.02) feet to a point eight

(8.00) feet Southeasterly from the Easterly track of a side trick of said Railroad; thence turning and running North 46° 56' 55" East one hundred and thirty two (132.00) feet to a point; thence turning and running South 43° 03' 05" East forty-nine (49.00) feet to a point; thence turning and running South 40° 01' 49" West one hundred thirty- two and ninety-six hundredths (132.96) feet to the point of beginning, the last three (3) courses all being by remaining land of said Railroad, be all of said measurements more or less, and containing about seven thousand five hundred and twenty five (7525) square feet of land as shown on a plan entitled A Land of Portsmouth, NH Boston and Maine Railroad – to – Erminio A. Ricci, J.F. Kewin Asst. Chief Engineer, Apr. 1960", which has been recorded in the Rockingham County Registry of Deeds at Plan #02612.

Subject to the conditions and exceptions as set forth in the deed from Boston and Maine Railroad to Erminio A. Ricci dated June 30, 1961 and recorded in the Rockingham County Registry of Deeds at Book1595, Page 87.

Meaning and intending to describe and convey the same premises conveyed to the Grantor herein by Deed from Joanne Grasso, Robert A. Ricci, Sr., Alice E. Hayes and Margaret Gagne dated February 12, 1999 and recorded in the Rockingham County Registry of Deeds in Book 3368, Page 2165.

Reference is made to a Deed from Henry M. Tidgwell and Lynn B. Tidgwell dated May 15, 2012 and recorded in the Cumberland County Registry of Deeds in Book 25942, Page 298.

Executed this 30 day of October, 2012.

Ricci Supply Company, Inc.

E.R. Hayes, President

By: Edward R. Hayes, President

STATE of NEW HAMPSHIRE
COUNTY of ROCKINGHAM

The foregoing instrument was acknowledged before me this 30 day of October, 2012 by Edward R. Hayes, President of Ricci Supply Company, Inc. a New Hampshire corporation on behalf of the corporation.

~~Notary Public~~/Justice of the Peace
Commission expiration:

CHRISTOPHER P. MULLIGAN
Justice of the Peace - New Hampshire
My Commission Expires January 30, 2013

19023885 06/28/2019 01:40:28 PM
Book 6012 Page 2502 Page 1 of 7
Register of Deeds, Rockingham County

Cathy Ann Stacey

LCHIP	RO A452140	25.00
TRANSFER TAX	RO089141	5,969.00
RECORDING		34.00
SURCHARGE		2.00

8025938 7
Tx:40225124

(M)
Hoefle Phoenix Gormley + Roberts
PO Box 4480
Portsmouth NH 03802-04480

RELEASE DEED

The **BOSTON AND MAINE CORPORATION**, a corporation duly organized and existing under the laws of the State of Delaware, with offices at Iron Horse Park, North Billerica, Middlesex County, Massachusetts (the "Grantor") in consideration of Three Hundred Ninety-Seven Thousand Eight Hundred Fifty-Three and 50/100 Dollars ($397,853.50) paid to it by **IRON HORSE PROPERTIES, LLC** with a mailing address of 105 Bartlett Street, Portsmouth, New Hampshire 03801, (the "Grantee") hereby grants to the Grantee all the Grantor's right, title and interest, without any warranties or covenants of title whatsoever, in a certain parcel of land, and the buildings, bridges, structures, crossings, fixtures and improvements thereon, if any, situated in Portsmouth, County Rockingham, State of New Hampshire (the "Premises") described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND
MADE A PART HEREOF BY THIS REFERENCE.

This conveyance is subject to the following reservations, conditions, covenants and agreements:

1. This conveyance is made without granting any right of way, either by necessity or otherwise, over any remaining land or location of the Grantor.

2. ~~The Grantor hereby reserves a permanent, exclusive right of way and easement in, on, over, under, across and through the Premises for the purpose of accessing, constructing, installing, operating, maintaining, modifying, repairing, replacing, relocating and removing a telecommunications system or other system for transmission of intelligence or information by any means, whether now existing or hereafter devised, including such poles, pipes, wires, fibers, fiber optic cables, repeater stations, attachments, appurtenances, structures or other equipment and property of any description necessary or useful for the same~~

~~(the "Telecommunications Easement"). The Grantor further reserves the right to freely lease, license, mortgage, assign, pledge and otherwise alienate the Telecommunications Easement. The Grantee hereby covenants with the Grantor to recognize the Telecommunications Easement and, without the payment of any further consideration, to execute, acknowledge and deliver such instruments suitable for recording with the registry of deeds as the Grantor may reasonably require to acknowledge title to the Telecommunications Easement in the Grantor. The Grantor covenants to reasonably repair and restore the surface of the easement area after any work.~~

3. The Grantor excepts from this conveyance any and all railroad tracks, railroad track materials (including, but not limited to, ties, connections, switches and ballast) and/or related equipment of any description located in whole or in part within the Premises (the "Trackage") and this conveyance is subject to the right of the Grantor to enter the Premises from time to time and at any and all times within the ninety (90) day period commencing with and subsequent to the date of delivery of this deed, with such men, equipment and materials as, in the reasonable opinion of the Principal Engineering Officer of the Grantor, are necessary for the removal of the Trackage. Days during the months of December, January, February and March shall not be included in the aforesaid ninety (90) day period. If the Trackage is not removed from the Premises by the expiration of said ninety (90) day period, the Trackage shall be deemed abandoned by the Grantor and shall then become the property of the Grantee.

4. ~~The Grantor excepts from this conveyance any and all advertising signs and/or billboards located upon the Premises which are not owned by the Grantor. Furthermore, this conveyance is subject to the right of the owners of said signs and/or billboards to go upon the Premises and remove them within ninety (90) days from the date of delivery of this deed.~~

5. By the acceptance of this deed and as part consideration therefor, the Grantee hereby assumes any and all agreements, covenants, obligations and liabilities of the Grantor in respect to any underground facilities, drainage culverts, walls, crossings and/or other structures of any nature and description located in whole or in part within the Premises.

6. By the acceptance of this deed and as part consideration therefor, the Grantee agrees to irrevocably waives, gives up and renounces any and all claims or causes of action against the Grantor in respect of claims, suits and/or enforcement actions (including any administrative or judicial proceedings and any remedial, removal or response actions) ever asserted, threatened, instituted or requested by any person and/or governmental

agency on account of: (a) any release of oil or hazardous materials or substances of any description on, upon or into the Premises in contravention of any ordinance, law or statute (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601, et seq., as amended); and (b) any and all damage to real or personal property, natural resources and/or harm or injury to persons alleged to have resulted from such release of oil or hazardous materials or substances.

7. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to build and forever maintain fences (together with any necessary gates), suitable to the Principal Engineering Officer of the Grantor, along the boundaries of the Premises which are common to remaining land or location of the Grantor (the "Fences"), if Fences are ever required in the sole and reasonable opinion of said Principal Engineering Officer; provided, however, that such requirement shall be subject to Grantee's receipt of all necessary, final and unappealable, municipal permits and approvals to erect such fence on or immediately adjacent (within 2 feet) to the common property boundary.

8. This conveyance is subject to the following restriction for the benefit of other land or location of the Grantor, to wit: that from the date of delivery of this deed, the Grantor shall not be liable to the Grantee or any lessee or user of the Premises (or any part thereof) for any damage to any buildings or property upon them caused by fire, whether communicated directly or indirectly by or from locomotive engines of any description upon the railroad operated by the Grantor, or otherwise.

9. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to make no use of the Premises which, in the sole and reasonable opinion of the Principal Engineering Officer of the Grantor, adversely affects, increases or decreases drainage to, from, upon or in any remaining land or location of the Grantor. The Grantee agrees to indemnify and save the Grantor harmless from and against any and all loss, cost, damage or expense including, but not limited to, the cost of defending all claims and/or suits for property damage, personal injury or death arising out of or in any way attributable to any breach of the foregoing covenant.

10. ~~The Grantor excepts from this conveyance any and all overhead, surface or underground signal and communication line facilities of the Grantor located within the limits of the Premises and this conveyance is subject to the Grantor's use of any such facilities in their present locations and entry upon the Premises from time to time to maintain, repair, replace, renew, relay or remove such facilities.~~

11. Whenever used in this deed, the term "Grantor" shall not only refer to the **BOSTON AND MAINE CORPORATION**, but also its successors, assigns and affiliates and the term "Grantee" shall not only refer to the above-named Grantee, but also the Grantee's successors, assigns and grantees, as the case maybe.

12. The several exceptions, reservations, conditions, covenants and agreements contained in this deed shall be deemed to run with the land and be binding upon the Grantee forever. In addition to the acceptance and recording of this deed, the Grantee hereby signifies assent to the said several exceptions, reservations, conditions, covenants and agreements, by joining in its execution.

IN WITNESS WHEREOF, the said **BOSTON AND MAINE CORPORATION** has caused this release deed to be executed in its name and its corporate seal to be hereto affixed by David A. Fink, its President, thereunto duly authorized this 25TH day of June, 2019.

GRANTOR:
BOSTON AND MAINE CORPORATION

Witness

By: David A. Fink, President

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss. 6/25, 2019

On this 25TH day of JUNE, 2019, before me, the undersigned notary public, personally appeared David A. Fink, President as aforesaid, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

ROBERT B. BURNS
MY COMMISSION EXPIRES AUG. 10, 2023
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Notary Public
My Commission Expires: 8-10-23

GRANTEE:
IRON HORSE PROPERTIES, LLC

Witness

By: E.R. Hayes

STATE OF NEW HAMPSHIRE

Rockingham ,ss. June 28 ,2019

On this 28th day of June , 2019, before me, the undersigned notary public, personally appeared Edward R. Hayes , Manager as aforesaid, proved to me through satisfactory evidence of identification, which was a New Hampshire driver's license, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Notary Public
My Commission Expires:

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

EXHIBIT "A"

Boston and Maine Corporation
to
Iron Horse Properties, LLC

Conveyance of Land
in
Portsmouth, NH

Beginning at a point located 84.90 feet left of Station 2997+56.71 on the Boston and Maine Corporation Centerline of Location; thence turning and running over and across land now or formerly of said Boston and Maine Corporation the following three (2) courses, S 43°02'53" W a distance of 252.48 feet to a point; thence S 36°51'07" W a distance of 449.80 feet to a point at land of Iron Horse Properties, LLC, said point being 36.35 feet left of Station 2990+57.06 on the Boston and Maine Corporation Centerline of Location; thence turning and running along land of Iron Horse Properties, LLC N 48°48'48" W a distance of 105.59 feet to an iron rod, and continuing along the same course 34 feet +/- to the mean high water line of the North Mill Pond; thence turning and running 787 feet more or less along the mean high water line of said North Mill Pond to a point at land of the David F. Mahoney Marital QTIP Trust of 1999 at the mean high water line; thence turning and running along land of the Mahoney Trust S 50°34'45" E a distance of 40 feet more or less to an iron rod set; thence continuing along land of the Mahoney Trust S 50°34'45" E a distance of 107.37 feet to a point at land of the Boston and Maine Corporation; thence running across land of the Boston and Maine Corporation S 46°57'07" E a distance of 20.00 feet to the point of beginning. The above described parcel of land having an area of 72,337 square feet, more or less, as shown on plan entitled "Lot Line Relocation Plan Tax Map 164 – Lots 4 & 4-2" dated April 2019, prepared by Ambit Engineering, Inc. and recorded with Rockingham County Registry of Deeds as plan number D-41570.

Owner's Letter of Authorization

This letter is to authorize Iron Horse Properties, LLC (Applicant/Owner) to represent the interest of Clipper Traders, LLC (owner) in all site design and permitting matters for the proposed development project located at 105 Bartlett Street in Portsmouth, New Hampshire on parcels of land identified as Tax Map 157 Lot 1. This authorization shall include any required signatures for local, state and federal permit applications.

E.R. Hayes	Edward Hayes, member C.T.	15 Apr 20
Signature	Print Name	Date
	Ian Lichtenstein	4/15/20
Witness	Print Name	Date

(Clipper Owner Authorization Form.docx)

Owner's Letter of Authorization

This letter is to authorize Iron Horse Properties, LLC (Applicant/Owner) to represent the interest of Portsmouth Lumber & Hardware, LLC (owner) in all site design and permitting matters for the proposed development project located at 105 Bartlett Street in Portsmouth, New Hampshire on parcels of land identified as Tax Map 164 Lot 1 and Tax Map 157 Lot 2. This authorization shall include any required signatures for local, state and federal permit applications.

E.R. Hayes	Edward Hayes, Mgr. P.L.H.	15 APR 20
Signature	Print Name	Date
	Ian Lichtenstein	4/15/20
Witness	Print Name	Date

(Ports Lumber Owner Authorization Form.docx)

Agent Letter of Authorization

I, Edward Hayes, Member, of Iron Horse Properties, LLC (Applicant/Owner) hereby give Tighe & Bond (site/civil Engineer) permission to be my agent in all site design and permitting matters for the proposed development project located at 105 Bartlett Street in Portsmouth, New Hampshire on parcels of land identified as Tax Map 164 Lot 1 & Lot 4-2 and Tax Map 157 Lot 1 & Lot 2. This authorization shall include any required signatures for local, state and federal permit applications.

E.R. Hayes	Edward Hayes, member I.H.P.	15 APR 20
Signature	Print Name	Date
	Ian Lichtenstein	15 April 20
Witness	Print Name	Date

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Colter Krzcuik, Tighe and Bond
177 Corporate Drive

Portsmouth, NH 03801

From: NH Natural Heritage Bureau
Date: 4/11/2022 (valid until 4/11/2023)
Re: Review by NH Natural Heritage Bureau of request submitted 3/29/2022
Permits: NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill - Major

NHB ID: **NHB22-1202** **Applicant:** Iron Horse Properties, LLC, Rob Simmons

Location: Portsmouth
105 Bartlett Street

Project Description: The re-development of an existing property into a multi-use and multi-family residential complex.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 2022-03-29 10:56:56 AM, and cannot be used for any other project.

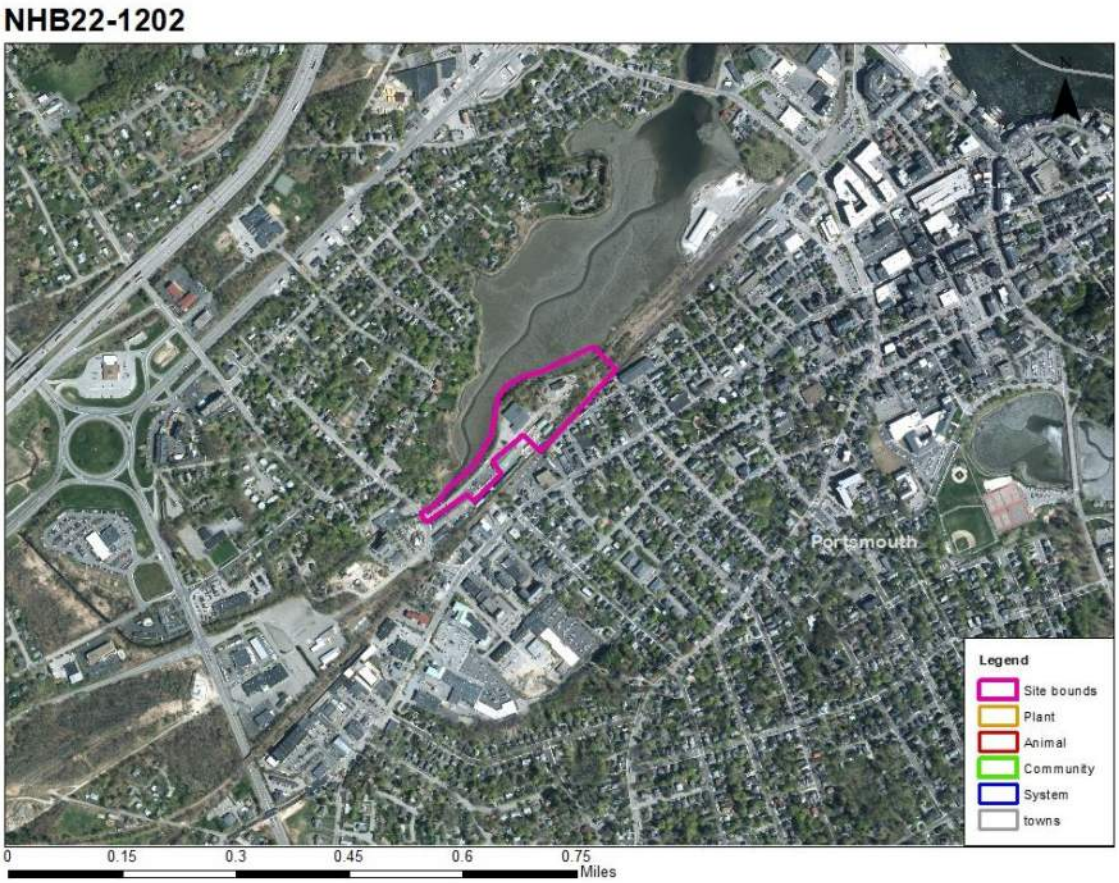
Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB22-1202**



Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Neil A. Hansen

From: Jeremy Degler
Sent: Tuesday, June 1, 2021 12:42 PM
To: Neil A. Hansen; Patrick M. Crimmins
Cc: Leonard Lord
Subject: FW: NHFG TEWHA Review: NHB21-0540_Multi-Family Dev Portsmouth_AoT 210405-047

Good afternoon –

Please see below for the Fish & Game comments for the project at 105 Bartlett Street. They've requested that their conditions be incorporated into the sheet plans and provided for final review.

Let me know if you have any questions,

Jeremy Degler, PWS, CWS | Project Environmental Scientist

Tighe & Bond | 177 Corporate Drive | Portsmouth, NH 03801
Direct: 603.294.9211 | Cell: 603.732.7906
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

Tighe&Bond

From: Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Sent: Monday, May 31, 2021 9:44 PM
To: Jeremy Degler <JDegler@TigheBond.com>
Cc: McCarthy, Bethann <Bethann.M.McCarthy@des.nh.gov>; Price, David <DAVID.A.PRICE@des.nh.gov>; Giallongo, Stefanie <Stefanie.M.Giallongo@des.nh.gov>
Subject: NHFG TEWHA Review: NHB21-0540_Multi-Family Dev Portsmouth_AoT 210405-047

[Caution - External Sender]

Jeremy,
The New Hampshire Fish and Game has completed our review of the threatened and endangered wildlife and habitat assessment (TEWHA) report dated March 2021 and prepared by Tighe & Bond, for the removal of all existing structures and the subsequent development of two (2) multi-family apartment buildings with basement level parking and one (1) mixed-use building with first floor office and amenity space and upper story apartments on +/- 12 acres located at 105 Bartlett Street on five properties identified on tax maps as Map 157, Lots 1 and 2 (1.42 and 2.34 acres, respectively), Map 164, Lots 1 and 4-2 (1.19 and 5.73 acres, respectively), and a private roadway lot (1.60 acres) in Portsmouth, New Hampshire (Site).

<u>NHFG provided comments on the wetlands application for this proposed project that included the applicant's proposed conservation measures below</u>:
Due to the presence of shrub thicket habitat and food sources, sweeps for protected species should be conducted prior to work commencement if conducted during the nesting periods for the species identified as potentially utilizing the site for feeding or breeding. If any erosion control blankets are used, they should be made of biodegradable, wildlife friendly netting to help avoid wildlife from becoming entangled in the materials. There should be no sumps in detention basin outlets and catch basins adjacent to wetlands and tidal areas to avoid entrapment and mortality to wildlife. The use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting should be avoided, if needed. The use of erosion control berm, white

Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available.

NHFG commented in addition to the above on the following (email comm. 04/01/2021):
Kim Tuttle, NHFG Biologist:

- Where sumps have been removed from detention basin outlets and catch basins adjacent to wetlands and tidal areas, they should be immediately daylighted to enable entrapped wildlife to escape.
- Because of the high density development, a natural slow release fertilizer such as Pro Gro 5-3-4 or similar should be specified in the plans to protect water quality where fertilizer is needed. Please confirm that this has been included in the plans. Natural fertilizers should be specified for the long- term lawn care program for the development and the use of chemical pesticides, fungicides, and herbicides should be prohibited to reduce indirect impacts to tidal waters.

Based on the NHB datacheck results letter and the information provided in the assessment and associated plans, NHFG agrees with the TEWHA that if all conservation measures are incorporated as described, the project design will not jeopardize the continued existence of state or federally threatened and endangered. **We request the following recommended permit conditions be incorporated into the sheet plans as requested and provided to NHDES cc NHFG for final review. Please update highlighted text below.**

New Hampshire Fish and Game AoT Permit Conditions Related to Threatened and Endangered Species:

- The shrub thicket habitat shall be surveyed for protected species prior to work commencement by an experienced wildlife biologist if conducted during the nesting periods for the species identified as potentially utilizing the site for feeding or breeding.
- No sumps shall be included in catch basins for the protection of wildlife.
- Due to the proximity of the site to North Mill Pond, the use of fertilizers shall be avoided to extent possible. If fertilizer is necessary, a natural slow release nitrogen fertilizer shall be used.
- All manufactured erosion and sediment control products, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, perimeter control, and inlet protection, check dams, sediment traps, and silt fence installed in accordance with Env-Wq 1506.04, shall not contain welded plastic, plastic, or multi-filament or monofilament polypropylene netting or mesh.
- All observations of threatened or endangered species shall be reported immediately to the New Hampshire Fish and Game Department Nongame and Endangered Wildlife Environmental Review Program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov. Email subject line: NHBXX-XXXX, PROJECT NAME, Wildlife Species Observation. Photographs shall be provided for verification as feasible; and
- The New Hampshire Fish and Game Department shall have access to the property during the term of the permit.

NHFG has completed its project review consistent with the requirements of RSA 212-A and Env-Wq 1503.19(h). No further coordination with NHFG is requested if the above recommended permit conditions are incorporated into the project plan set/project design, and there are no additional plan/design modifications.

Please let me know if you have any questions.

Thank you,
Melissa

Melissa Doperalski
Certified Wildlife Biologist®
Nongame and Endangered Wildlife Program
New Hampshire Fish and Game Department
11 Hazen Drive
Concord, New Hampshire 03301

Melissa.doperalski@wildlife.nh.gov
Phone: 603-271-1738

http://www.wildlife.state.nh.us/nongame/index.html

Check out reptiles and amphibians of NH!
http://www.wildlife.state.nh.us/nongame/reptiles-amphibians.html

Report your sightings of reptiles and amphibians in 3 ways:
1) Email details of observation or completed form to RAARP@wildlife.nh.gov
2) Enter your observation online at http://nhwildlifesightings.unh.edu.
3) Mail your reporting slip http://www.wildlife.state.nh.us/nongame/documents/raarp-report-form.pdf

WETLANDS FUNCTIONAL ASSESSMENT WORKSHEET

Water Division/Land Resource Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A / Env-Wt 311.03(b)(10); Env-Wt 311.10

APPLICANT LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC

As required by Env-Wt 311.03(b)(10), an application for a standard permit for minor and major projects must include a functional assessment of all wetlands on the project site as specified in Env-Wt 311.10. This worksheet will help you compile data for the functional assessment needed to meet federal (US Army Corps of Engineers (USACE); if applicable) and NHDES requirements. Additional requirements are needed for projects in tidal area; please refer to the Coastal Area Worksheet (NHDES-W-06-079) for more information.

Both a desktop review and a field examination are needed to accurately determine surrounding land use, hydrology, hydroperiod, hydric soils, vegetation, structural complexity of wetland classes, hydrologic connections between wetlands or stream systems or wetland complex, position in the landscape, and physical characteristics of wetlands and associated surface waters. The results of the evaluation are to be used to select the location of the proposed project having the least impact to wetland functions and values (Env-Wt 311.10). This worksheet can be used in conjunction with the Avoidance and Minimization Written Narrative (NHDES-W-06-089) and the Avoidance and Minimization Checklist (NHDES-W-06-050) to address Env-Wt 313.03 (Avoidance and Minimization). If more than one wetland/ stream resource is identified, multiple worksheets can be attached to the application. All wetland, vernal pools, and stream identification (ID) numbers are to be displayed and located on the wetlands delineation of the subject property.

SECTION 1 - LOCATION (USACE HIGHWAY METHODOLOGY)	
ADJACENT LAND USE: Roads, commercial buildings with lawns and parking lots, abandoned buildings, railroad	
CONTIGUOUS UNDEVELOPED BUFFER ZONE PRESENT? ☐ Yes ☒ No	
DISTANCE TO NEAREST ROADWAY OR OTHER DEVELOPMENT (in feet): 0 ft	
SECTION 2 - DELINEATION (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
CERTIFIED WETLAND SCIENTIST (if in a non-tidal area) or QUALIFIED COASTAL PROFESSIONAL (if in a tidal area) who prepared this assessment: Leonard Lord, PhD, CWS	
DATE(S) OF SITE VISIT(S): 10/29/19, 12/2/2019	DELINEATION PER ENV-WT 406 COMPLETED? ☒ Yes ☐ No
CONFIRM THAT THE EVALUATION IS BASED ON: ☒ Office and ☒ Field examination.	
METHOD USED FOR FUNCTIONAL ASSESSMENT (check one and fill in blank if "other"): ☒ USACE Highway Methodology. ☒ Other scientifically supported method (enter name/ title): Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes (Bryan et al., 1997)	

SECTION 3 - WETLAND RESOURCE SUMMARY (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
WETLAND ID:	LOCATION: (LAT/ LONG) 43°04'23.7"N / 70°46'13.6"W
WETLAND AREA: N/A	DOMINANT WETLAND SYSTEMS PRESENT: Mudflats, Rocky Shore,High Salt Marsh along the site
HOW MANY TRIBUTARIES CONTRIBUTE TO THE WETLAND? N/A	COWARDIN CLASS: E2US3N, E2RS2N, EEM1N
IS THE WETLAND A SEPARATE HYDRAULIC SYSTEM? ☐ Yes ☒ No if not, where does the wetland lie in the drainage basin? Bottom	IS THE WETLAND PART OF: ☐ A wildlife corridor or ☐ A habitat island? IS THE WETLAND HUMAN-MADE? ☐ Yes ☒ No
IS THE WETLAND IN A 100-YEAR FLOODPLAIN? ☒ Yes ☐ No	ARE VERNAL POOLS PRESENT? ☐ Yes ☒ No (If yes, complete the Vernal Pool Table)
ARE ANY WETLANDS PART OF A STREAM OR OPEN-WATER SYSTEM? ☒ Yes ☐ No	ARE ANY PUBLIC OR PRIVATE WELLS DOWNSTREAM/ DOWNGRADIENT? ☐ Yes ☒ No
PROPOSED WETLAND IMPACT TYPE: Redevelopment of upland buffer	PROPOSED WETLAND IMPACT AREA: 245 sf

SECTION 4 - WETLANDS FUNCTIONS AND VALUES (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)

The following table can be used to compile data on wetlands functions and values. The reference numbers indicated in the "Functions/ Values" column refer to the following functions and values:

1. Ecological Integrity (from RSA 482-A:2, XI)
2. Educational Potential (from USACE Highway Methodology: Educational/Scientific Value)
3. Fish & Aquatic Life Habitat (from USACE Highway Methodology: Fish & Shellfish Habitat)
4. Flood Storage (from USACE Highway Methodology: Floodflow Alteration)
5. Groundwater Recharge (from USACE Highway Methodology: Groundwater Recharge/Discharge)
6. Noteworthiness (from USACE Highway Methodology: Threatened or Endangered Species Habitat)
7. Nutrient Trapping/Retention & Transformation (from USACE Highway Methodology: Nutrient Removal)
8. Production Export (Nutrient) (from USACE Highway Methodology)
9. Scenic Quality (from USACE Highway Methodology: Visual Quality/Aesthetics)
10. Sediment Trapping (from USACE Highway Methodology: Sediment /Toxicant Retention)
11. Shoreline Anchoring (from USACE Highway Methodology: Sediment/Shoreline Stabilization)
12. Uniqueness/Heritage (from USACE Highway Methodology)
13. Wetland-based Recreation (from USACE Highway Methodology: Recreation)
14. Wetland-dependent Wildlife Habitat (from USACE Highway Methodology: Wildlife Habitat)

First, determine if a wetland is suitable for a particular function and value ("Suitability" column) and indicate the rationale behind your determination ("Rationale" column). Please use the rationale reference numbers listed in Appendix A of USACE *The Highway Methodology Workbook Supplement*. Second, indicate which functions and values are principal ("Principal Function/value?" column). As described in *The Highway Methodology Workbook Supplement*, "functions and values can be principal if they are an important physical component of a wetland ecosystem (function only) and/or are considered of special value to society, from a local, regional, and/or national perspective".

"Important Notes" are to include characteristics the evaluator used to determine the principal function and value of the wetland.

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE (Reference #)	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☒ Yes ☒ No	Ecological Integrity: Rationale not included in Highway Methodology	☐ Yes ☒ No	Highly developed buffer, filling, impaired water quality
2	☐ Yes ☒ No	Education Potential: N/A	☐ Yes ☒ No	No access
3	☒ Yes ☐ No	Fish & Aquatic Life: 1, 4	☐ Yes ☒ No	Mudflat supports fish, shellfish, waterfowl but impaired water quality and no shellfish harvesting
4	☐ Yes ☒ No	Flood Storage: N/A	☐ Yes ☒ No	
5	☐ Yes ☒ No	Groundwater Recharge (only): N/A	☐ Yes ☒ No	
6	☐ Yes ☒ No	Noteworthiness (RTE):	☐ Yes ☒ No	No rare species at site
7	☐ Yes ☒ No	Nutrient Trapping/Retention: N/A	☐ Yes ☒ No	
8	☒ Yes ☐ No	Production Export: 1,4,5,6,10	☐ Yes ☒ No	Export of nutirents as food and in sediments but low ecological integrity
9	☒ Yes ☐ No	Scenic Quality:2,6,8,	☐ Yes ☒ No	Scenic vistas surrounded by highly developed areas.
10	☐ Yes ☒ No	Sediment Trapping: N/A	☐ Yes ☒ No	
11	☐ Yes ☒ No	Shoreline Anchoring: 2,3,10,12	☐ Yes ☒ No	Shoreline is fill with bricks and rocks that provide anchoring
12	☒ Yes ☐ No	Uniqueness/Heritage: 1,314,17,19,22, 27	☐ Yes ☒ No	Contributes to the character of the area. Scienic views in urban setting. Low ecological integrity.
13	☒ Yes ☐ No	Wetland Based Recreation: 2,5,7,8,9,10,	☐ Yes ☒ No	Provides boating and fishing opportunities. Somewhat offset by low ecological integrity.

14	☒ Yes ☐ No	Water Dependent Wildlife: 8,12,18,21,	☐ Yes ☒ No	Mudflats are important for wildlife habitat. Somewhat offset by low ecological integrity

SECTION 5 - VERNAL POOL SUMMARY (Env-Wt 311.10)

Delineations of vernal pools shall be based on the characteristics listed in the definition of "vernal pool" in Env-Wt 104.44. To assist in the delineation, individuals may use either of the following references:

- *Identifying and Documenting Vernal Pools in New Hampshire 3rd Ed.*, 2016, published by the New Hampshire Fish and Game Department; or
- The USACE *Vernal Pool Assessment* draft guidance dated 9-10-2013 and form dated 9-6-2016, Appendix L of the USACE New England District *Compensatory Mitigation Guidance*.

All vernal pool ID numbers are to be displayed and located on the wetland delineation of the subject property.

"Important Notes" are to include documented reproductive and wildlife values, landscape context, and relationship to other vernal pools/wetlands.

Note: For projects seeking federal approval from the USACE, please attach a completed copy of The USACE "Vernal Pool Assessment" form dated 9-6-2016, Appendix L of the USACE New England District *Compensatory Mitigation Guidance*.

VERNAL POOL ID NUMBER	DATE(S) OBSERVED	PRIMARY INDICATORS PRESENT (LIST)	SECONDARY INDICATORS PRESENT (LIST)	LENGTH OF HYDROPERIOD	IMPORTANT NOTES
1					
2					
3					
4					
5					

SECTION 6 - STREAM RESOURCES SUMMARY

DESCRIPTION OF STREAM:	STREAM TYPE (ROSGEN):
HAVE FISHERIES BEEN DOCUMENTED? ☐ Yes ☐ No	DOES THE STREAM SYSTEM APPEAR STABLE? ☐ Yes ☐ No
OTHER KEY ON-SITE FUNCTIONS OF NOTE:	

The following table can be used to compile data on stream resources. "Important Notes" are to include characteristics the evaluator used to determine principal function and value of each stream. The functions and values reference number are defined in Section 4.

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☐ Yes ☐ No		☐ Yes ☐ No	
2	☐ Yes ☐ No		☐ Yes ☐ No	
3	☐ Yes ☐ No		☐ Yes ☐ No	
4	☐ Yes ☐ No		☐ Yes ☐ No	
5	☐ Yes ☐ No		☐ Yes ☐ No	
6	☐ Yes ☐ No		☐ Yes ☐ No	
7	☐ Yes ☐ No		☐ Yes ☐ No	
8	☐ Yes ☐ No		☐ Yes ☐ No	
9	☐ Yes ☐ No		☐ Yes ☐ No	
10	☐ Yes ☐ No		☐ Yes ☐ No	
11	☐ Yes ☐ No		☐ Yes ☐ No	
12	☐ Yes ☐ No		☐ Yes ☐ No	
13	☐ Yes ☐ No		☐ Yes ☐ No	
14	☐ Yes ☐ No		☐ Yes ☐ No	

SECTION 7 - ATTACHMENTS (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)

☒ Wildlife and vegetation diversity/abundance list.

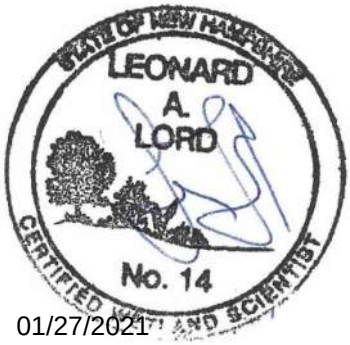
☒ Photograph of wetland.

☒ Wetland delineation plans showing wetlands, vernal pools, and streams in relation to the impact area and surrounding landscape. Wetland IDs, vernal pool IDs, and stream IDs must be indicated on the plans.

☐ For projects in tidal areas only: additional information required by Env-Wt 603.03/603.04. Please refer to the Coastal Area Worksheet (NHDES-W-06-079) for more information.

Cathartes
105 Bartlett Street Project
Portsmouth, NH

WETLAND DELINEATION AND ASSESSMENT OF FUNCTIONS AND VALUES



01/27/2021

April 2020
Last Revised: January 2021

Tighe&Bond
Engineers | Environmental Specialists

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Tighe&Bond

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1.0 Introduction

The purpose of this report is to characterize wetlands and buffers in the vicinity of a proposed multi-family development at 105 Bartlett Street in Portsmouth, NH. The site is long and narrow and is located between an active railroad and North Mill Pond. It includes commercial buildings with paved and gravel parking areas, abandoned railroad structures, disturbed forest, and a dense shrub thicket. The area is highly disturbed, being originally filled by the railroad in the late 1800s.

2.0 Methods

On October 29 and December 2, 2019, Tighe & Bond reviewed and assessed 2,000+/- linear feet of tidal wetlands and buffers along the North Mill Pond. The review was limited to the vicinity of a proposed multi-family development, extending from Bartlett Street to an area opposite Cornwall Street, which runs roughly perpendicular to the parcel.

The wetland delineation review was based on criteria specified in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). The Highest Observable Tide Line was reviewed based on the definition found in NH Department of Environmental Services Wetland Rules, Env-Wt 101.49/Env-Wt 602.23. Wetlands were classified based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979).

The Highest Observable Tide Line (HOTL) had been previously delineated by another consulting firm in 2017. This line was reviewed by exporting the 2017 surveyed line into ArcGIS to overlay on an aerial photographic base map. This base map was then uploaded to an iPad and paired with a Trimble R1 submeter GPS for in-field verification. Using the iPad and GPS as a guide, the line was then evaluated in the field. The HOTL was deemed accurate and the previous 2017 delineation was accepted by Tighe & Bond. A previously unidentified freshwater wetland was also found within a six-foot +/- deep abandoned railroad turntable. Tighe & Bond delineated this area with sequentially numbered flagging and located the wetland boundary using the GPS technology described above.

Functions and values were assessed in the vicinity of the proposed project. Assessment methodologies were adapted from the *Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes* (Bryan et al., 1997) and *The Highway Methodology Workbook Supplement—Wetland Functions and Values: A Descriptive Approach*, NAEEP-360-1-30a, US Army Corps of Engineers, New England Division, September 1999.

Photographs of the wetlands and buffers are provided in Appendix A.

3.0 North Mill Pond

North Mill Pond is a 79+/- acre tidal pond at the outlet of Hodgson Brook. It receives tidal flows under Maplewood Avenue at the northeast end of the pond. The pond consists predominantly of exposed mudflats at low tide, and is classified as Estuarine, Intertidal, Unconsolidated Shore, Mud, Regularly Flooded (E2US3N). A narrow band of salt marsh reaching up to 35+/- feet wide was identified between the mudflats and upland (Photo 1). The marsh is dominated by smooth cordgrass (*Spartina alterniflora*), with species such as

saltmeadow cordgrass (*Spartina patens*), sea lavender (*Limonium carolinianum*), and seaside goldenrod (*Solidago sempervirens*) more dominant toward the upland edge. This marsh area was classified as Estuarine, Intertidal, Emergent, Persistent, Regularly Flooded (E2EM1N).

North Mill Pond provides several important wetland functions and values, though many have been degraded by development and human activity. The following functions and values were assessed for the wetland in the vicinity of the proposed project.

3.1 Ecological Integrity

Ecological Integrity relates to how much the wetland has retained its native biotic and abiotic features and how these may have been degraded by human influences.

The Ecological Integrity of North Mill Pond has been compromised due to the presence of a tidal restriction, development of the upland buffer, water quality degradation, and filling along the project site. Efforts have been made in recent years to improve water quality entering the pond, improve tidal flushing, and restore some of the salt marshes. The peripheral salt marsh appears to be healthy and is comprised of native species along the project area.

3.2 Wildlife, Finfish, and Shellfish Habitat

The Wildlife, Finfish, and Shellfish Habitat function is the suitability of the habitat to support wildlife.

North Mill Pond contains extensive mudflats and a healthy but narrow peripheral salt marsh that contribute to wildlife habitat value. However, this value has been compromised by all the factors affecting Ecological Integrity described above. The area is likely to support a variety of wildlife, including migratory birds, finfish, and shellfish. Wildlife Action Plan mapping (Appendix B) depicts several small areas of the highest ranked wildlife value habitat around the pond. These high value habitats include two salt marsh areas in the vicinity of the proposed project; one directly across from the project and another just to the northeast of it.

3.3 Recreational and Commercial Potential

Recreational and Commercial Potential is the suitability of the wetland to support activities such as hiking, boating, hunting, bird watching, and shellfish harvesting.

North Mill Pond has the potential for use by small boats during high tide, though access appears to be limited to a boat launch on Marsh Lane, north of Maplewood Avenue. Shellfish harvesting is not allowed within the mudflats. Bird watching is a potential activity but public access is limited. There is an informal trail that runs through the proposed project area between Bartlett Street and Maplewood Avenue across private property that could be used for bird watching, but public access is not currently guaranteed. There is no visitor center, formally maintained trails, or access for disabled persons that would make this a more valuable area for recreation.

3.4 Aesthetic Quality

Aesthetic Quality refers to the ability of the wetland to provide interesting views and natural vistas.

The areas surrounding North Mill Pond are highly developed commercial and residential areas. There are few public viewing areas, but in locations where the pond can be seen it generally offers wide vistas and aesthetically pleasing views.

3.5 Educational Potential

Educational Potential consists of the ability of the wetland to serve as an outdoor classroom.

There is no safe public access to North Mill Pond near the project site. In addition to being private property, the project site has dangerous construction debris and steep banks to the pond, further diminishing the educational potential of this wetland.

3.6 Noteworthiness

Noteworthiness includes important qualities of the wetland not identified in previous functions, such as historic sites or unique natural features.

This area of North Mill Pond is noteworthy as it contains a salt marsh in a developed setting, which adds to its importance aesthetically and as part of the character of the area. In addition, the adjacent uplands have been proposed as part of the North Mill Pond Greenways project, which was presented to stakeholders in January 2019. (https://www.cityofportsmouth.com/planportsmouth/north-mill-pond-trail-and-greenway).

The wetland itself is not known for having any important historical features in the vicinity of the project area, though there have been historic structures and activities along its banks. The project area has some significance as the site of an old railroad yard with a turntable and roundhouse.

4.0 North Mill Pond Tidal Buffer

The North Mill Pond 100-foot tidal buffer can be divided into three zones within the project area: 1) a commercial area, including the Ricci Supply and Ace Hardware complex, the Great Rhythm Brewery building, a former railroad machine shop, and all the paved and unpaved impervious surfaces associated with those buildings; 2) the disturbed forest directly northeast and northwest of Great Rhythm Brewery, including the area around the old railroad turntable and roundhouse remains; and 3) the shrub thicket extending along the narrow portion of the parcel to the northeast. These areas all include historic filling 2-16 feet deep associated with railroad activities. The fill includes coal, coal ash, and possible slag.

4.1 Commercial Area Buffer

The commercial area (Photos 1-3) is comprised almost completely of impervious surfaces. These include buildings, paved and compact gravel parking lots, and a narrow strip of vegetation 10-20 feet wide extending down a steep bank to the tidal wetland. The vegetation includes lawn and species associated with disturbed sites such as staghorn sumac (*Rhus typhina*), autumn olive (*Elaeagnus umbellata*), black cherry (*Prunus serotina*), and Asiatic bittersweet (*Celastrus orbiculatus*). This area has little to offer in the way of functions and values other than contributing to stabilization of steep eroding

banks along the wetland. Runoff from this area likely contributes to the degraded water quality in North Mill Pond.

4.2 Disturbed Forest Buffer

The disturbed forested area northeast and southwest of Great Rhythm Brewery (Photos 4-6) is dominated by Norway Maple (*Acer platanoides*), black cherry, and staghorn sumac. The area includes significant rubble and debris as well as the railroad turntable and roundhouse remains. This area provides some screening for wildlife using the North Mill Pond and provides cover and food for small mammals and birds. However, it is dominated by invasive vegetation, and is highly disturbed by human activity.

4.3 Shrub Thicket Buffer

The shrub thicket northeast of the commercial area (Photos 7-8) is dominated by autumn olive with lesser amounts of staghorn sumac and other shrub species. This area provides wildlife habitat for small mammals and birds as well as screening for wildlife using North Mill Pond. Though invasive, the autumn olive provides prolific fruits utilized by birds and other frugivores. Bedding, clothing, campfire remains, trash, and other evidence suggests that this densely vegetated area has been used as camp sites by homeless individuals.

4.4 Buffer Impacts and Mitigation

The proposed project will not include any work within the 25-foot buffer to North Mill Pond. In addition, a 50-foot easement from the mean high water will be granted to the City of Portsmouth by the developer to build the North Mill Pond Trail and Greenway, which will provide improvements to the buffer, including invasive species management and revegetation with native species. Installation of the trail and greenway would result in improved functions and values of the wetland and buffer including: Ecological Integrity, Recreation Potential, Aesthetic Quality, and possibly Educational Potential. Existing impacts to the 100-foot buffer will be reduced from the trail and greenway improvements through the removal and restoration of impervious surfaces.

Table 4.1
105 Bartlett Street Multi-Family Development Buffer Impact Reductions

Overall Buffer Impact Area		
Wetland Buffer Setback	**Existing Impact**	**Proposed Impact**
0 - 25 FT	12,788 SF	6,788 SF
25 - 50 FT	30,479 SF	22,089 SF
50 - 100 FT	66,844 SF	52,443 SF
Total Impact	**110,111 SF**	**81,320 SF**
NET BUFFER IMPROVEMENT		**28,792 SF**

5.0 Excavated Palustrine Forested Wetland

A small wetland was delineated by Tighe & Bond within the base of the six-foot +/- deep, concrete walled railroad roundtable (Photos 9-10) within the disturbed forested area. The soils in this wetland are poorly drained marine silts and clays. The vegetation is dominated

by Norway maple and red osier dogwood (*Cornus sericea*). Nearby test pits identified approximately two to four feet of fill in the vicinity of the structure. Therefore, it is likely this wetland was at least partly excavated into native marine sediments during construction of the turntable. It is unclear if this area was originally a wetland or if the wetland was created by the excavation. This wetland was classified as Palustrine, Forested, Deciduous, Saturated (PFO1B). The small size of the wetland and its location within a man-made structure in a highly disturbed landscape has resulted in this system providing negligible wetland functions and values.

6.0 Summary

Two wetlands were delineated and evaluated on the site:

North Mill Pond is a 79+/- acre tidal wetland with expansive mud flats (E2US3N) and a narrow fringe of salt marsh (E2EM1N). Wetland functions and values are primarily Wildlife, Finfish, and Shellfish Habitat, as well as Aesthetic Quality and Noteworthiness. It is noteworthy as an important aesthetic component of the area and as an important potential site for a greenways trail project. It also has compromised but improving Ecological Integrity and some Recreation Potential. Upland buffers to the wetland have been compromised by development and invasive species, but limited vegetation does provide some screening for wildlife in the wetland.

A small excavated forested wetland (PFO1B) was identified within the old railroad turntable, approximately six feet below existing grade within a concrete wall. The small size of the wetland and its location within a man-made structure in a highly disturbed landscape has resulted in this system providing negligible wetland functions and values.

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APPENDIX A

Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 1	**Date:** 10/29/19	**Direction Taken:** Northeast
Description: Salt marsh fringe along North Mill Pond at low tide opposite a commercial area in southwest portion of the site.		

Photograph No.: 2	**Date:** 10/29/19	**Direction Taken:** Northeast
Description: Paved buffer and eroding banks along North Mill Pond at low tide along the commercial area in southwest portion of the site.		

Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 3	**Date:** 10/29/19	**Direction Taken:** Northeast
Description: Compact gravel drive and old railroad repair shop at the northern end of the commercial area with impervious surfaces.		

Photograph No.: 4	**Date:** 10/29/19	**Direction Taken:** Northeast
Description: Buffer fill slope with rubble adjacent to a narrow salt marsh along the disturbed forest just northwest of the Great Rhythm Brewing Company.		

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 5	**Date:** 10/29/19	**Direction Taken:** Southwest
Description: Lawn and disturbed forest buffer northwest of the Great Rhythm Brewing Company.		

Photograph No.: 6	**Date:** 10/29/19	**Direction Taken:** East
Description: Remains of the railroad roundhouse and disturbed forest buffer northeast of the Great Rhythm Brewing Company.		

Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 7	**Date:** 10/29/19	**Direction Taken:** Northeast
Description: Shrub thicket and existing informal trail at the northeast end of the proposed project area.		

Photograph No.: 8	**Date:** 10/29/19	**Direction Taken:** Northeast
Description: Evidence of use as camp sites by homeless individuals within the shrub thicket at the northeast end of the project area.		

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 9	**Date:** 12/2/19	**Direction Taken:** South
Description: Wetland dominated by Norway maple and red osier dogwood within the old railroad turntable approximately six feet below grade.		

Photograph No.: 10	**Date:** 12/2/19	**Direction Taken:** n/a
Description: Poorly drained marine silts and clays observed in the bottom of the old railroad turntable.		

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APPENDIX B

2015 HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITION

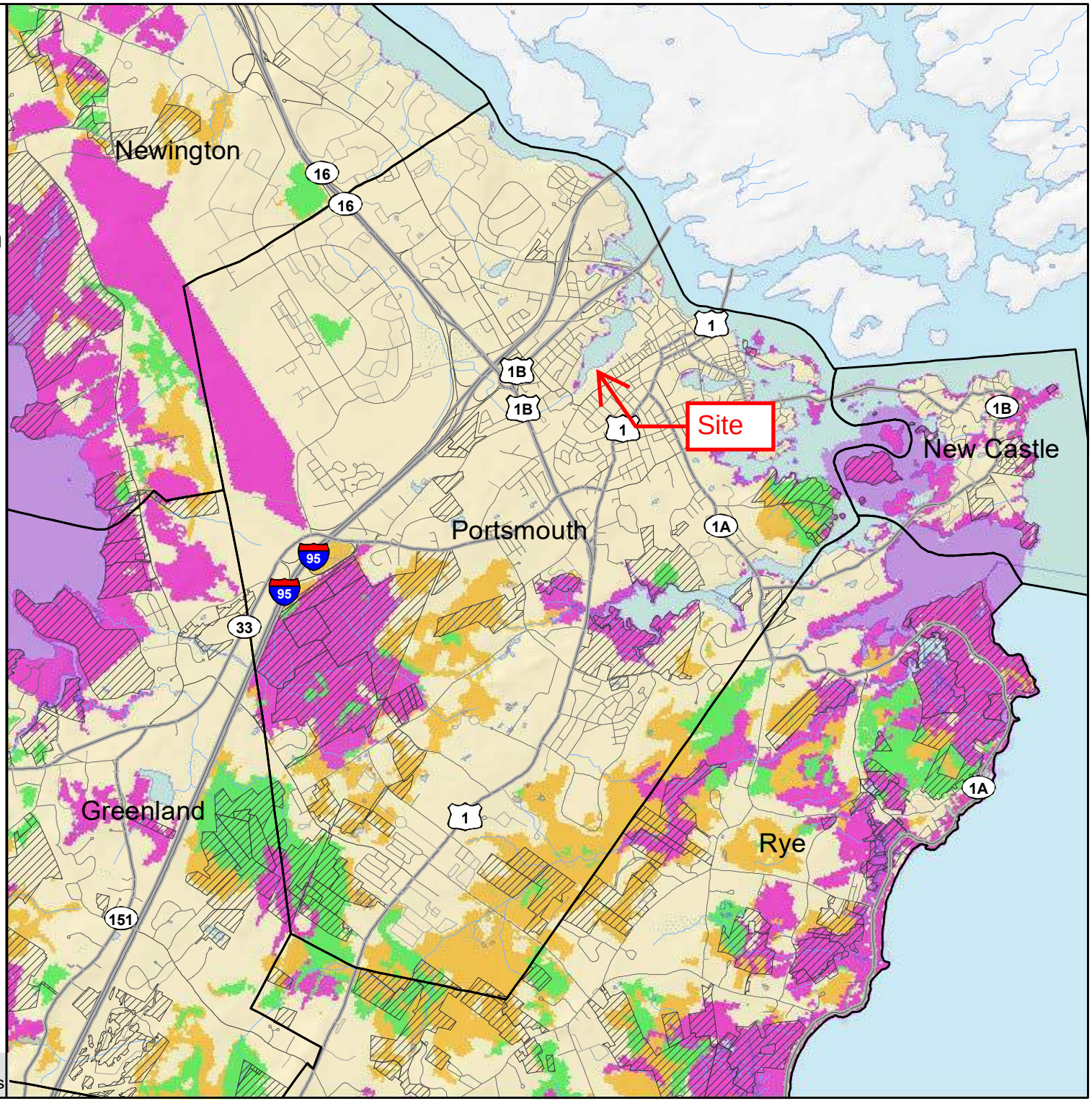
Highest Ranked Habitat in New Hampshire

Highest Ranked Habitat in the Biological Region

Biological region = TNC ecoregional subsection for terrestrial habitats or Aquatic Resource Mitigation region for wetlands and floodplain forest.

Supporting Landscapes

Conservation or public



Base map data provided by NH GRANIT at UNH September 2019. Intended for planning use only.

NEW HAMPSHIRE Wildlife Action Plan

September 2015

0 1 2 Kilometers

0 1 2 Miles

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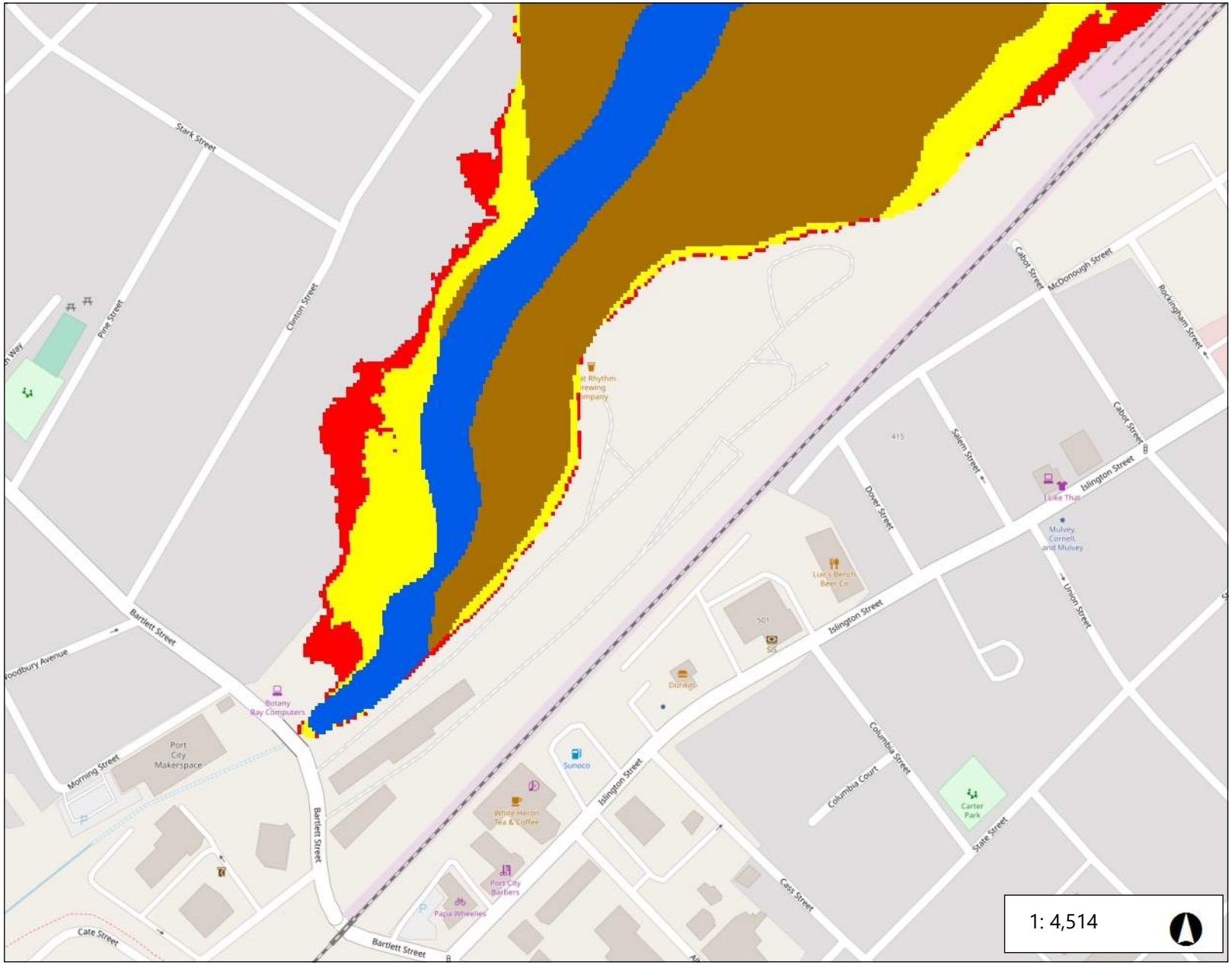
Your Organization | 105 Bartlett Street - Predicted Salt Marsh Migration 2050



Legend

Predicted Marsh Migration 205

- Freshwater wetland
- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat
- Inland open water
- Tidal water

Notes

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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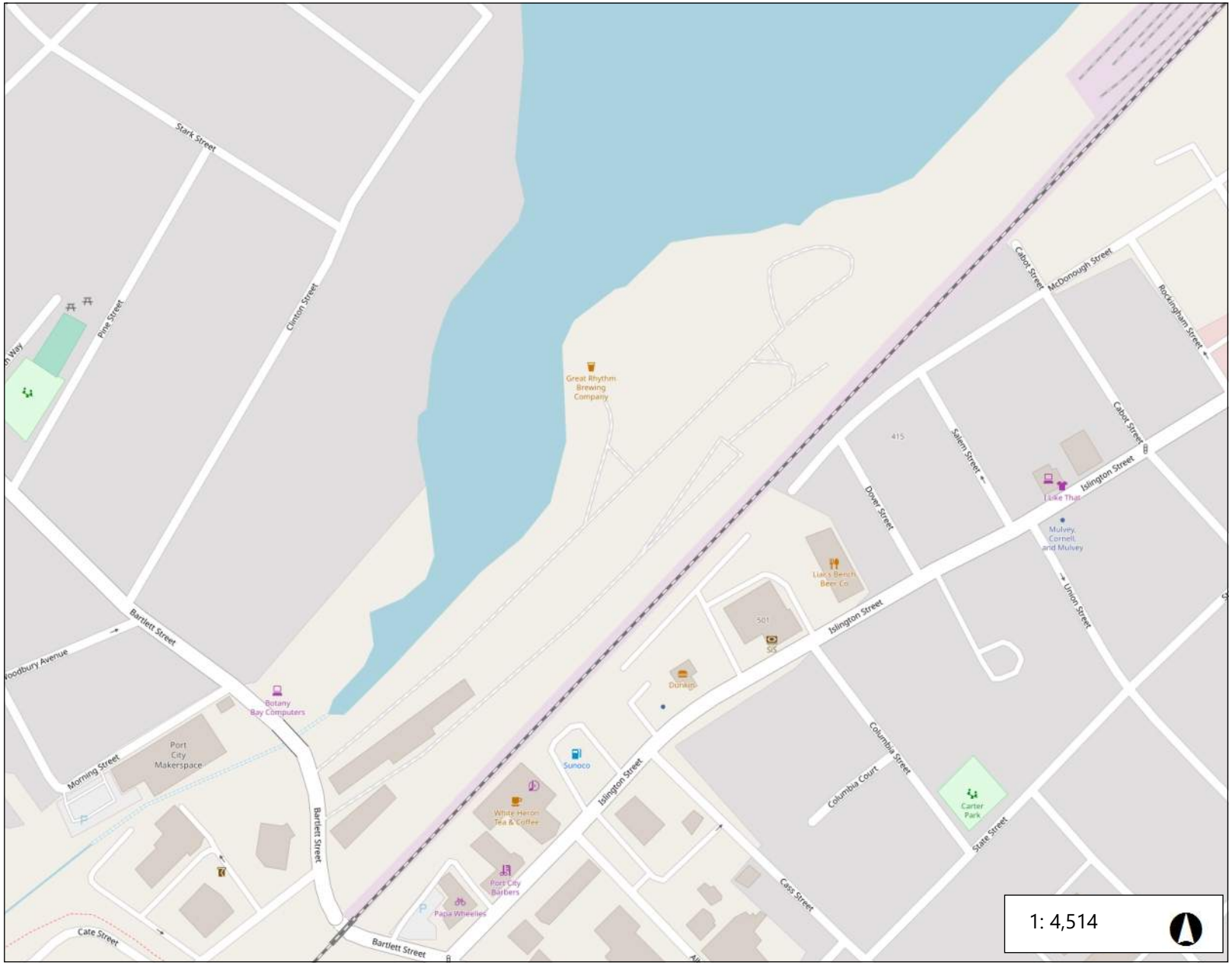
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Your Organization | Eelgrass Beds and Documented Shellfish Sites



Legend

- Oyster Restoration Sites
- Aquaculture Sites - 2015
- Eelgrass 2017
- Eelgrass 2016
- Eelgrass 2006
- Eelgrass 1996
- Eelgrass 1986

Notes

0.1 0 0.07 0.1 Miles

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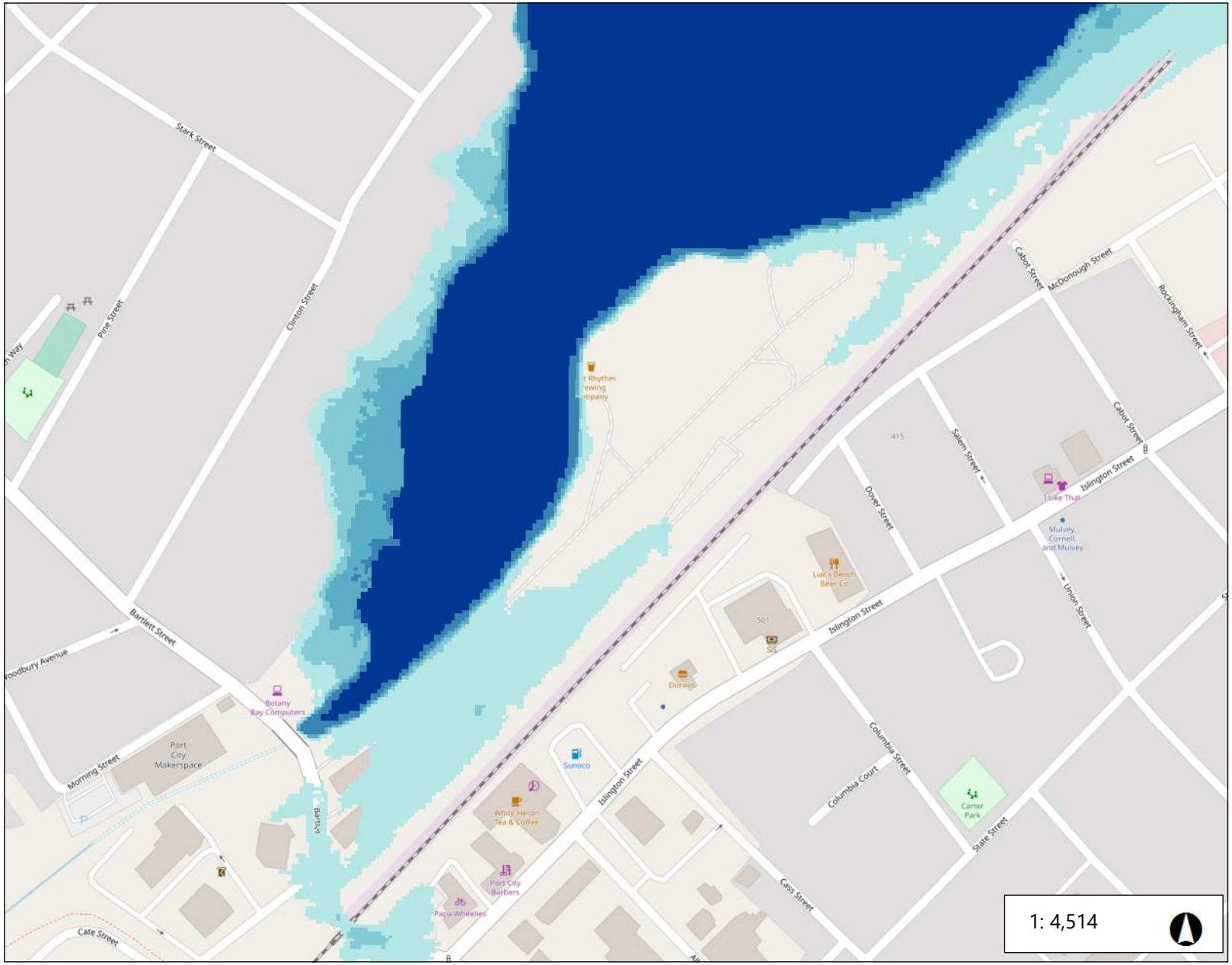
Your Organization | 105 Bartlett Street - Sea Level Rise



Legend

MHHW + 6-ft SLR

- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 +

Notes

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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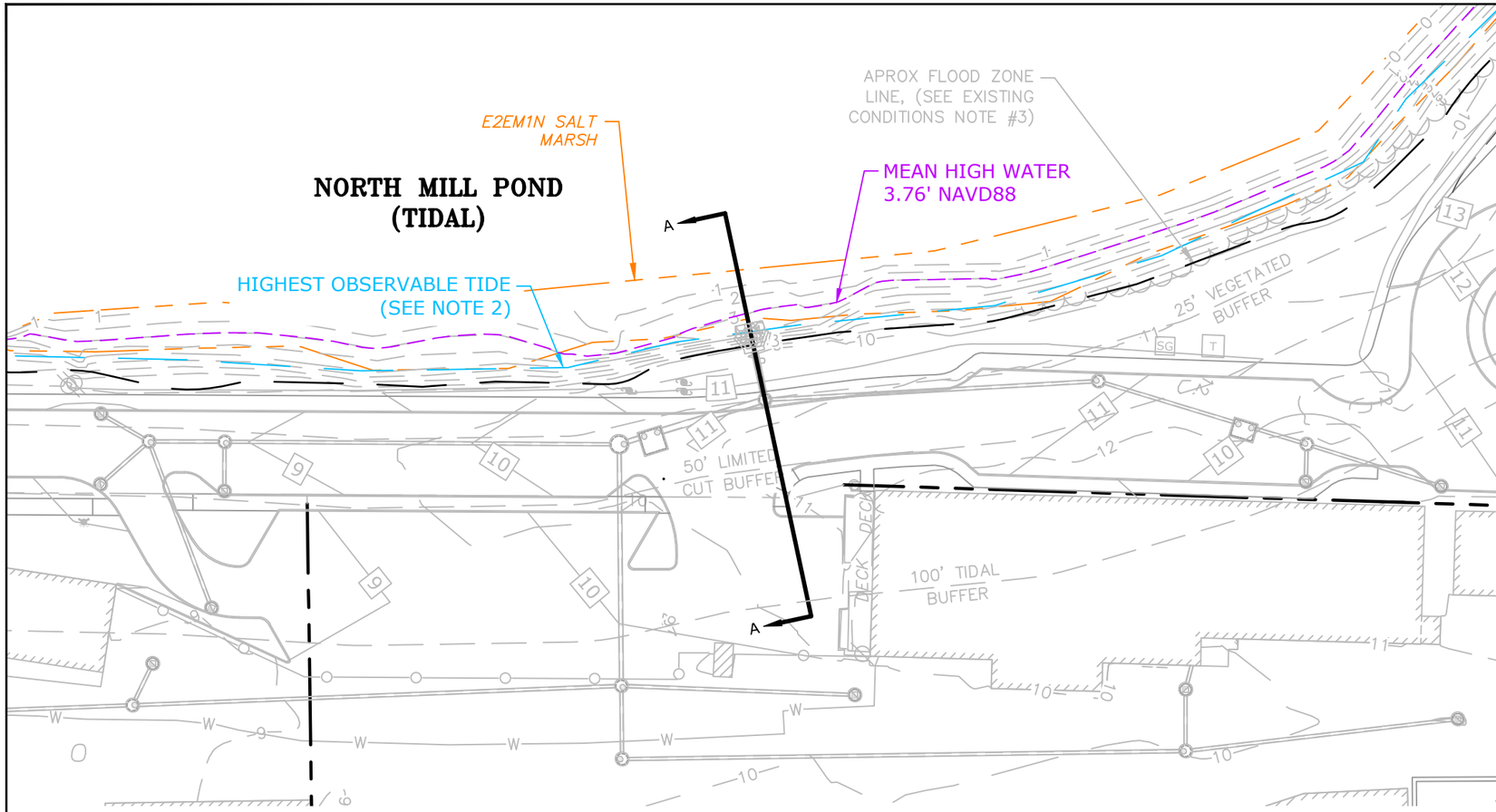
PROPOSED MULTI-FAMILY DEVELOPMENT
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE

OUTFALL 1 - ELEVATION VIEW



PLAN VIEW
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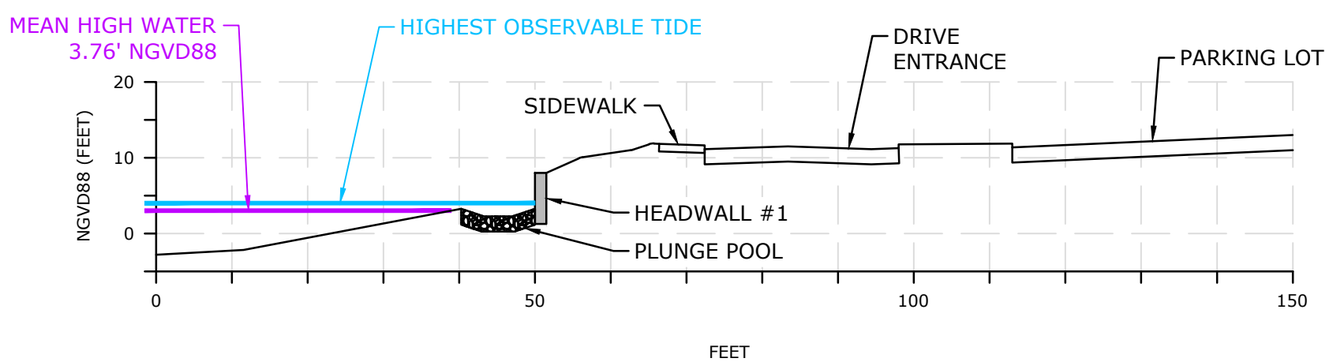
GRAPHIC SCALE



SECTION A-A
20 SCALE

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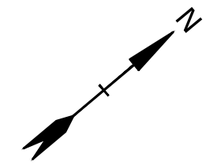
GRAPHIC SCALE



TIDAL DATUMS (FEET)

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MHHW:	4.18
MHW:	3.76
MTL:	-0.32
MLW:	-4.39
MLLW:	-4.71

PREDICTED SLR 2122: 5.0 FT

NOTES:
1. UNLESS OTHERWISE NOTED, DATUMS ARE FROM NOAA FOR SEAVEY ISLAND
2. HIGHEST OBSERVABLE TIDE LINE WAS FIELD DELINEATED AND IS APPROXIMATE.

Tighe&Bond

March 29, 2023
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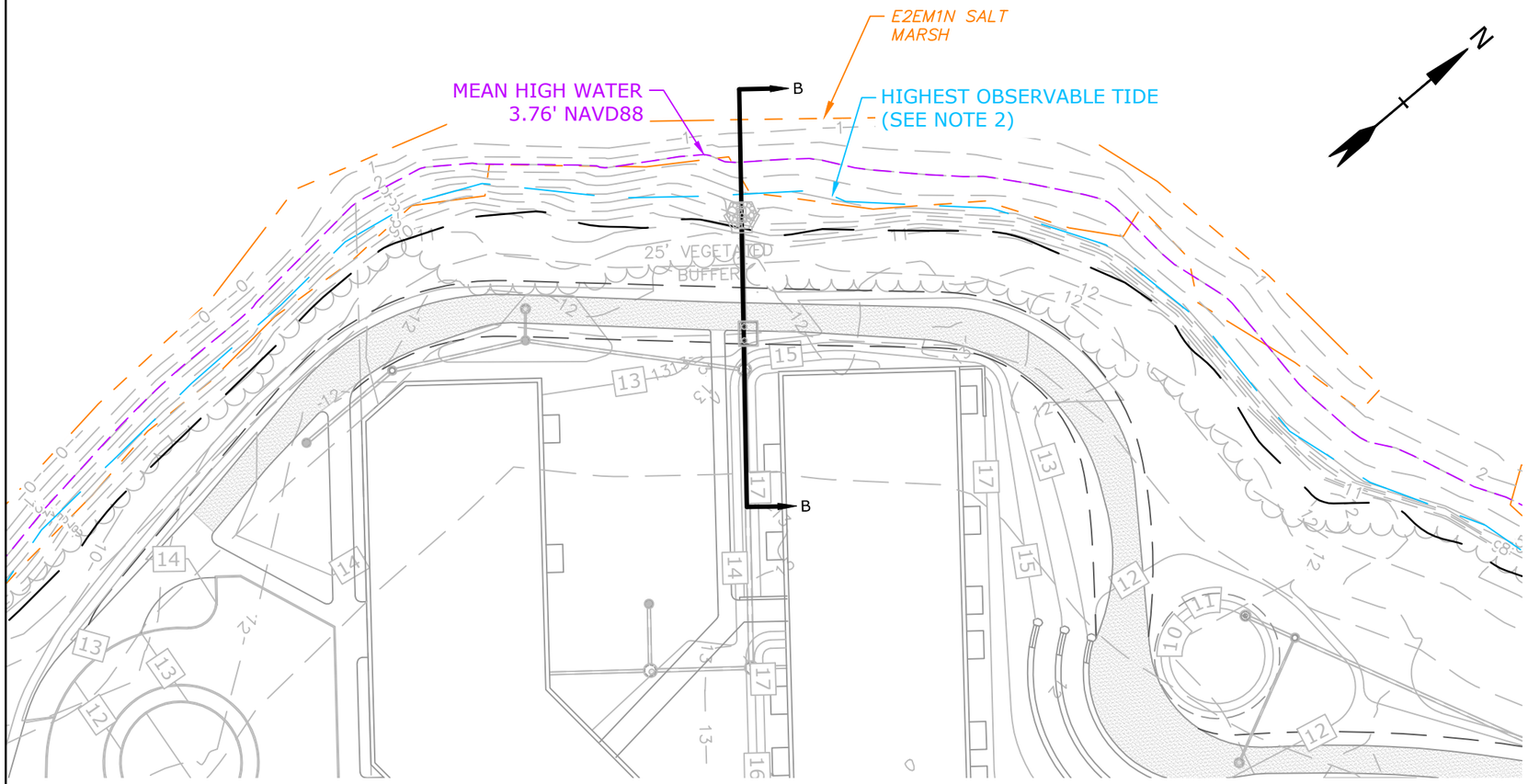
PROPOSED MULTI-FAMILY DEVELOPMENT
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE

OUTFALL 2 - ELEVATION VIEW



PLAN VIEW
50 SCALE

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GRAPHIC SCALE

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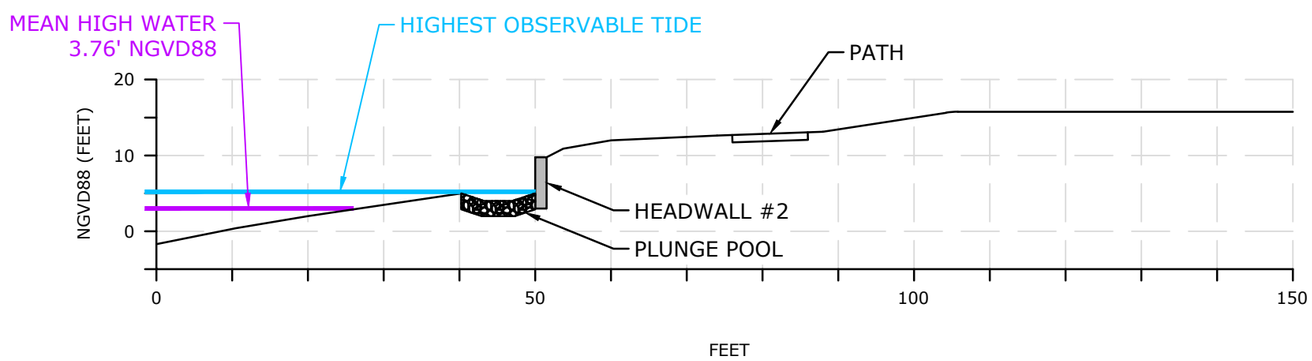

SECTION B-B
20 SCALE

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GRAPHIC SCALE

Tighe&Bond

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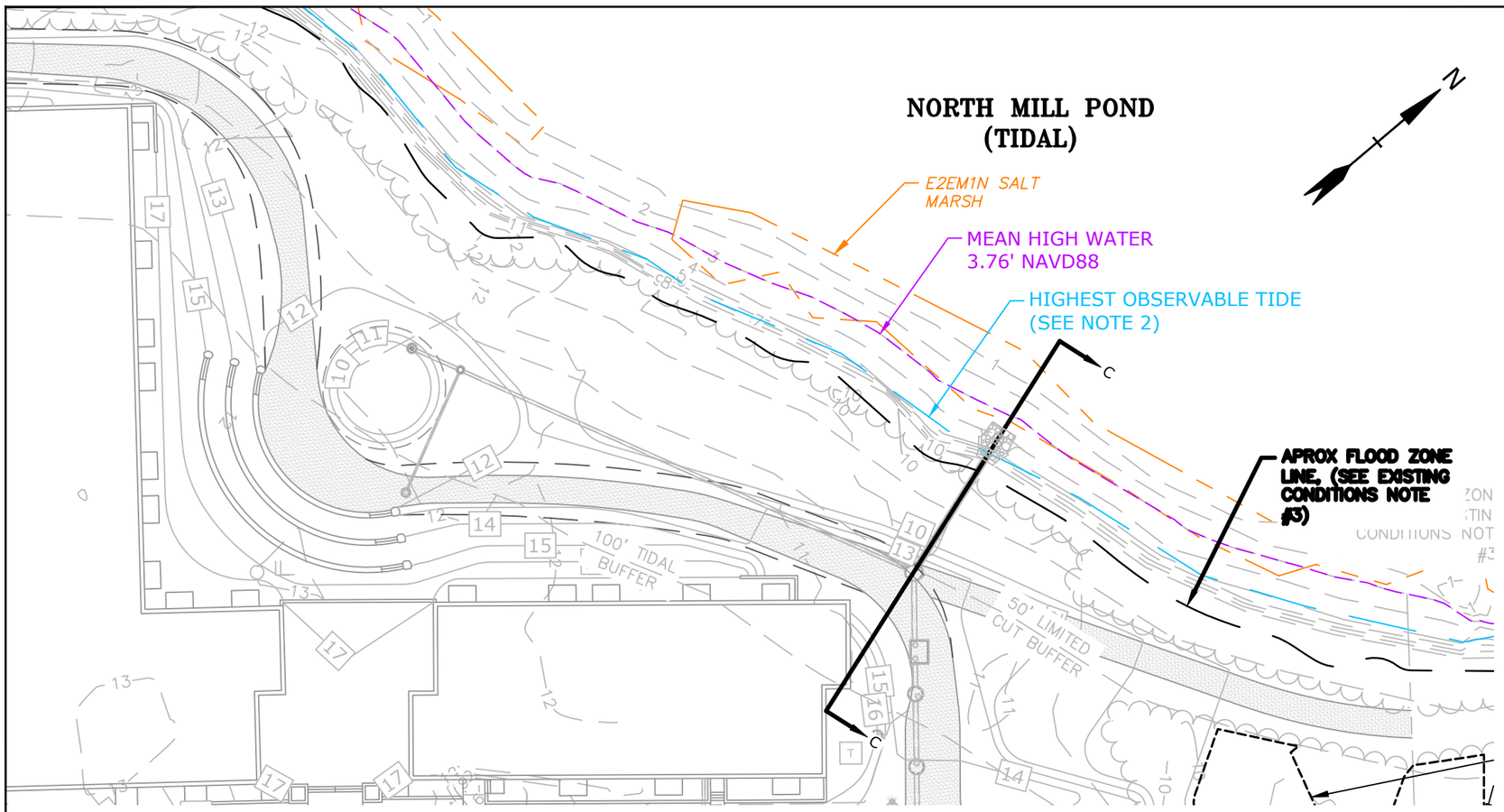
PROPOSED MULTI-FAMILY DEVELOPMENT
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE

OUTFALL 3 - ELEVATION VIEW



PLAN VIEW
50 SCALE

0 50' 100'
GRAPHIC SCALE

TIDAL DATUMS (FEET)

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MHW:	3.76
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MLW:	-4.39
MLLW:	-4.71

PREDICTED SLR 2122: 5.0 FT

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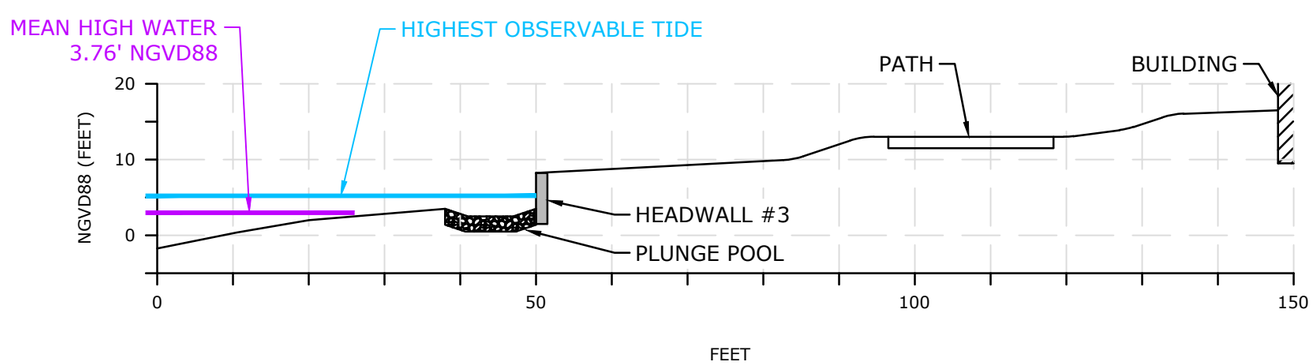

SECTION C-C
20 SCALE

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GRAPHIC SCALE

Tighe&Bond

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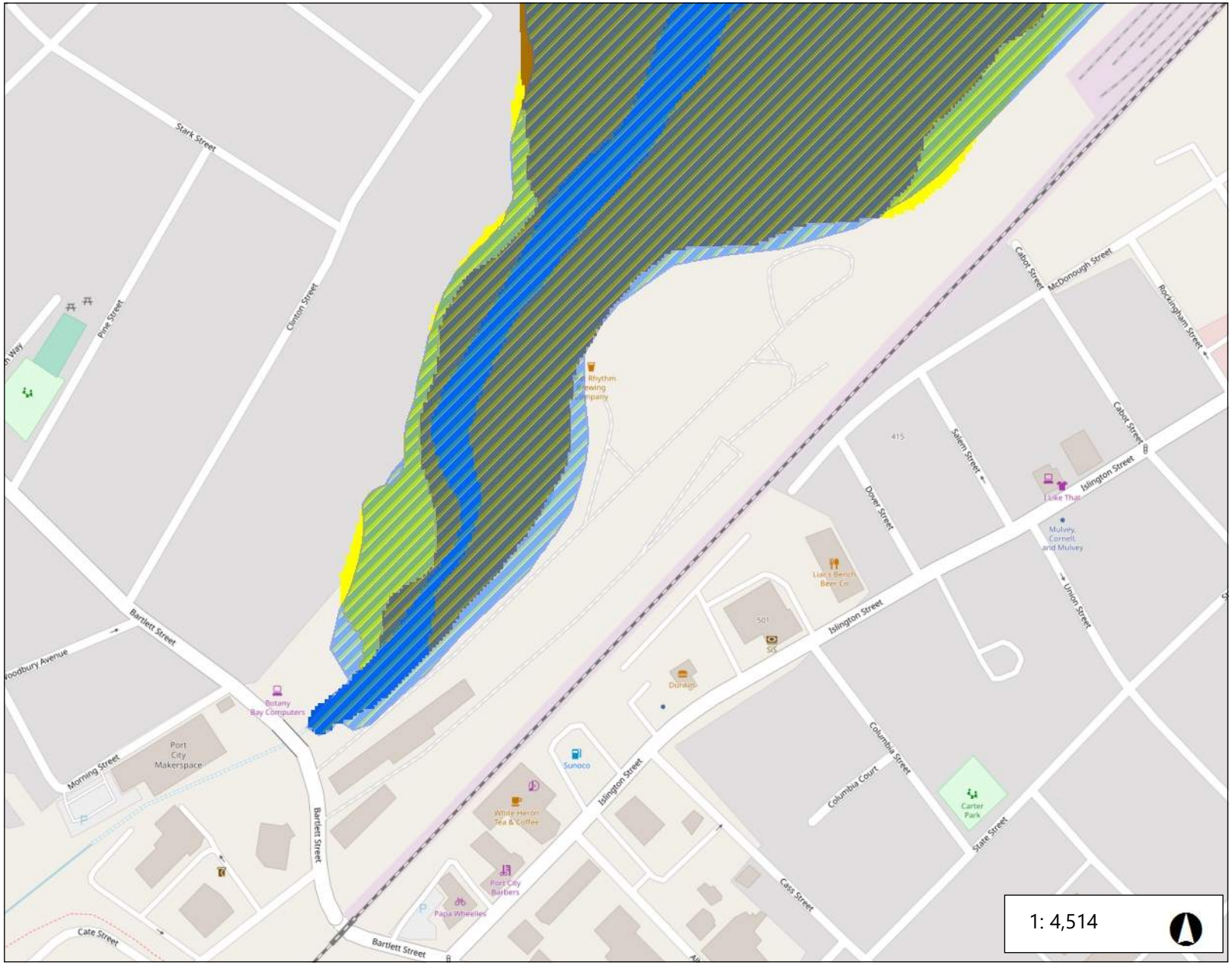
Your Organization | Wetland Permitting Tool PRA Identification



Legend

- Flood Plain Wetlands Adjacent
- Prime Wetlands with 100 ft Buf
- Prime Wetlands

Sand Dunes

- backdune
- foredune
- interdune
- other

Tidal Waters / Tidal Wetlands

- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat
- Tidal water

Notes

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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THIS MAP IS NOT TO BE USED FOR NAVIGATION

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

Greater Atlantic Regional Office
Atlantic Highly Migratory Species Management Division

Query Results

Degrees, Minutes, Seconds: Latitude = 43º 4' 25" N, Longitude = 71º 13' 48" W
Decimal Degrees: Latitude = 43.074, Longitude = -70.770

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

***** W A R N I N G *****

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Sea Scallop	ALL	New England	Amendment 14 to the Atlantic Sea Scallop FMP
		Atlantic Wolffish	ALL	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Flounder	Eggs Juvenile Larvae/Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Little Skate	Juvenile Adult	New England	Amendment 2 to the Northeast Skate Complex FMP
		Atlantic Herring	Juvenile Adult Larvae	New England	Amendment 3 to the Atlantic Herring FMP
		Atlantic Cod	Larvae Adult Eggs	New England	Amendment 14 to the Northeast Multispecies FMP

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Pollock	Juvenile Eggs Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Red Hake	Adult Eggs/Larvae/Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Windowpane Flounder	Adult Larvae Eggs Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Smooth Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		White Hake	Adult Eggs Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Thorny Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Atlantic Mackerel	Eggs Larvae Juvenile	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Bluefish	Adult Juvenile	Mid-Atlantic	Bluefish
		Atlantic Butterfish	Adult	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11

Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

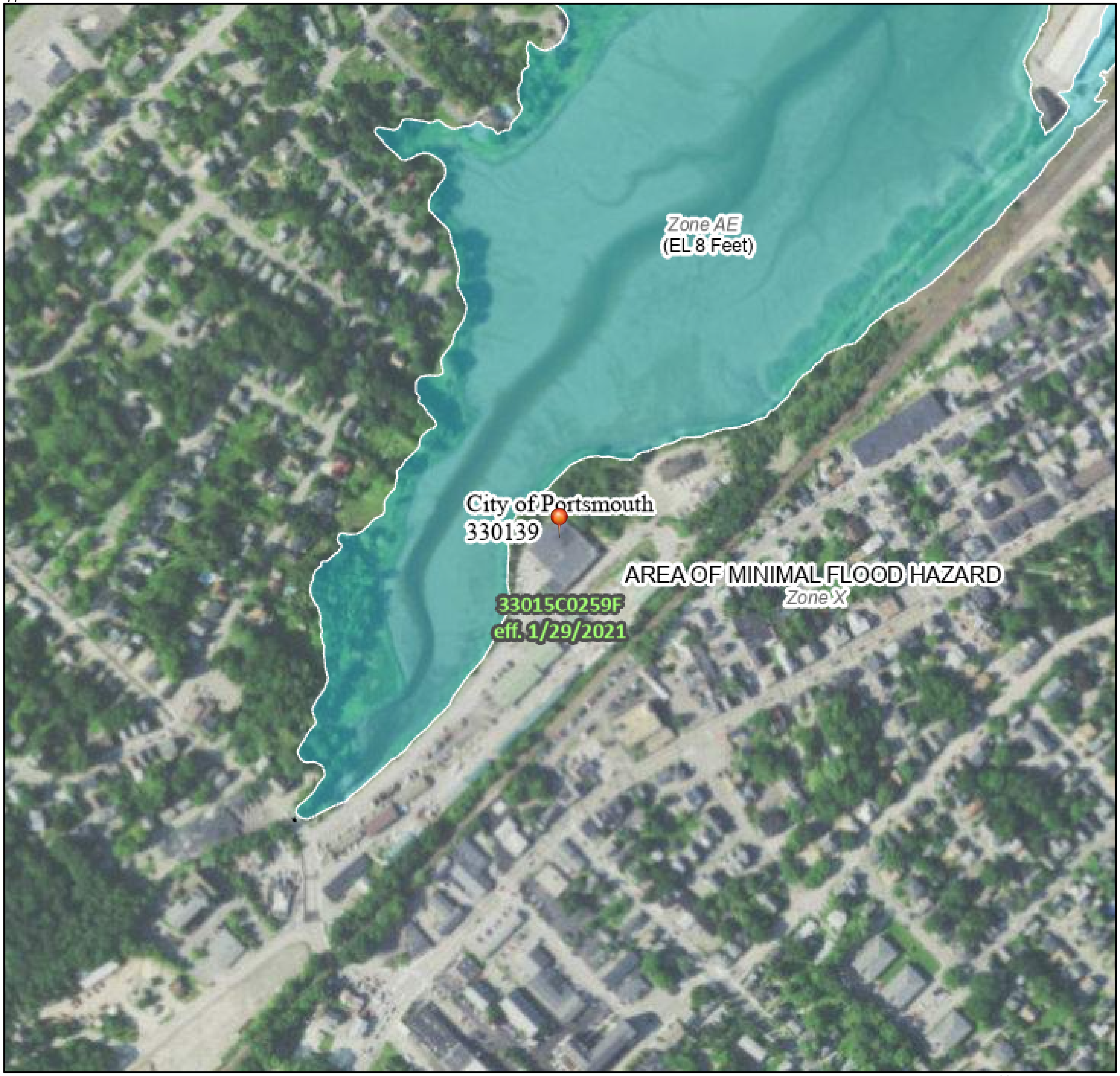
Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.
****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data. ****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**
All spatial data is currently available for the Mid-Atlantic and New England councils, **Secretarial EFH**, Bigeye Sand Tiger Shark, Bigeye Sixgill Shark, Caribbean Sharpnose Shark, Galapagos Shark, Narrowtooth Shark, Sevengill Shark, Sixgill Shark, Smooth Hammerhead Shark, Smalltail Shark

1DWLRQDO)ORRG +D]DUG /D\HU)50(WWH

FEMA

/HJHQG



)HHW

Tighe&Bond

C-0960-006
March 29, 2023

Ms. Lori Sommer, Wetland Mitigation Coordinator
New Hampshire DES Wetlands Bureau
29 Hazen Drive
PO Box 95
Concord, New Hampshire 03302

Re: **NHDES Wetland Impact Permit – Preliminary Mitigation Proposal**
Iron Horse Properties, LLC, 105 Bartlett Street Portsmouth, NH

Dear Ms. Sommer:

On behalf of Iron Horse Properties, LLC, we are pleased to provide the following information relative to a Mitigation Proposal associated with the Wetland Impact Permit Application for the above reference project:

- Summary of Wetland and Buffer Functions and Mitigation Memo, dated March 30, 2021;
- Wetland Buffer Impact and Mitigation Plan, dated March 29, 2023;
- ARM Fund Calculator Form;

As per our pre-application meetings on March 18, 2021, and March 22, 2022, the proposed Multi-Family Development project at 105 Bartlett Street in Portsmouth will require a Wetland Impact Permit. The project is proposing to impact 209 SF of tidal wetland, 34,639 SF of tidal buffer, and 1,528 SF of forested wetland which will require mitigation for a total mitigation area of 36,376 SF. As described in the Wetland Permit Application, the 100-foot tidal buffer on these parcels can be divided into three zones within the project area: 1) a commercial area, including the Ricci Supply and Ace Hardware complex, the Great Rhythm Brewery building, a former railroad machine shop, and all the paved and unpaved impervious surfaces associated with those buildings; 2) the disturbed forest directly northeast and northwest of Great Rhythm Brewery, including the area around the old railroad turntable and roundhouse remains; and 3) the shrub thicket extending along the narrow portion of the parcel to the northeast. These areas all include historic filling 2-16 feet deep associated with railroad activities.

The proposed project will provide improvements to the buffer, including invasive species management and revegetation with native species. Installation of the North Mill Pond trail and greenway would result in improved functions and values of the wetland and buffer including: Ecological Integrity, Recreation Potential, Aesthetic Quality, and possibly Educational Potential. Existing impacts to the 100-foot buffer will be reduced by the trail and greenway improvements through the removal and restoration of impervious surfaces. A detailed description of the proposed restoration and enhancement of the buffer and be found in the enclosed Summary of Wetland and Buffer Functions and Mitigation Memo.

The result of the proposed mitigation will be 22,384 SF of restored previously disturbed tidal buffer area and 47,157 SF of previously disturbed tidal buffer enhancement area. The previously disturbed tidal buffer enhancement area will count towards mitigation at a 10:1 ratio. As such, the applicant respectfully proposes the following mitigation for the 36,376 SF of impact:

- 22,384 SF of restored previously disturbed tidal buffer area be counted toward the mitigation of the wetland buffer impact counted at a 1:1 ratio.
- 47,157 SF of previously disturbed tidal buffer enhancement area be counted towards mitigation at a 10:1 ratio, for an effective mitigation area of 4,716 SF.
- The balance of the previously disturbed tidal buffer and forested impacts, 9,276 SF, will be mitigated through a contribution to the ARM fund in the amount of $59,688.93.

We look forward to working with you on this Mitigation Proposal. If you have any questions or need any additional information, please contact Neil Hansen by phone at (603) 294-9213 or by email at nahansen@tighebond.com.

Sincerely,
TIGHE & BOND, INC.

Patrick M. Crimmins, PE
Vice President

Neil A. Hansen, PE
Project Manager

Enclosures
Cc: Iron Horse Properties, LLC (via e-mail)

J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Report_Evaluation\Applications\NHDES\Wetlands\Mitigation\C-0960-006 Mitigation Proposal.docx

105 Bartlett Street, Portsmouth – Summary of Wetland and Buffer Functions and Mitigation

TO: Lori Sommer, NHDES
Stefanie Giallongo, NHDES
David Price, NHDES

FROM: Leonard A. Lord, PhD, CSS, CWS

DATE: March 30, 2021

North Mill Pond is a 79+/- acre tidal wetland that includes expansive mud flats (E2US3N) with a narrow fringe of salt marsh (E2EM1N) along the project area. The upland buffer to this wetland has been highly degraded by development, impervious areas, trash, and rundown buildings. Below is a summary of the wetland and buffer functions and impact mitigation. Evaluation of these functions was primarily based on criteria adapted from the *Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes* (Bryan et al., 1997).

For more information and photographs, please refer to the Tighe & Bond Wetland Delineation and Assessment of Functions and Values report included with the Wetland Impact Permit Application packet. For quantification of wetland and buffer impacts as well as quantification of proposed mitigation, please refer to the Wetland Buffer Impact Plan.

Ecological Integrity

- Existing Function at North Mill Pond: Compromised due to tidal restriction, development of the upland buffer, water quality degradation, and filling.
- Existing Function at Project Upland Buffer: Compromised due to development, rundown buildings, compaction and impervious surfaces, trash, invasive species, and filling/grading.
- Proposed Function Enhancement: The upland buffer will be enhanced by removing rundown buildings, upgrading the development, removal of trash, and removal of invasive species. Native plantings will be installed as part of the landscape plan and much of the area within 50 feet of the mean high water line will be seeded with a conservation/wildlife seed mix, with mowing occurring annually to discourage reestablishment of invasive species.
- Proposed Function Restoration: The project will result in a net reduction in impervious surfaces. Restoring impervious surfaces restores vegetation, reduces runoff to the tidal wetland, provides improved water quality treatment of runoff, allows for increased wetland screening for wildlife, and restores available wildlife habitat.

Wildlife, Finfish, and Shellfish Habitat

- Existing Function at North Mill Pond: Despite having compromised Ecological Integrity, North Mill Pond likely supports a variety of wildlife, including migratory birds, finfish, and shellfish. Salt marshes are among the Wildlife Action Plan highest ranked wildlife value habitats. There is a narrow band of salt marsh along the project area and larger salt marsh areas to the northeast and across the pond.
- Existing Function at Project Upland Buffer: The upland buffer in the project area has highly degraded Ecological Integrity. The vegetated portions of the buffer currently help support the wildlife habitat functions at North Mill Pond by providing screening and providing some water quality renovation of runoff. In addition, the pockets of

dense forest and shrubland vegetation are likely to provide habitat for small mammals and songbirds. Though limited in area and compromised by invasive species, the site does include a variety (four) of identified vegetation types, which would increase the potential to support a diversity of species. The vegetation types include a narrow Mixed Sapling/Shrub Thicket, a Norway Maple Grove, a Quaking Aspen Gray Birch Grove, and an Autumn Olive Thicket.

- Proposed Function Enhancement: Enhancement of Wildlife, Finfish, and Shellfish Habitat will be achieved through the methods and reasons described for enhancing Ecological Integrity.
- Proposed Function Restoration: Restoration of Wildlife, Finfish, and Shellfish Habitat associated with the upland buffer will be achieved through the methods and reasons described for restoring Ecological Integrity. This involves the restoration and revegetation of impermeable surfaces.

Recreational and Commercial Potential

- Existing Function at North Mill Pond: North Mill Pond has potential for use by small boats during high tides, is not suitable for shellfish harvesting, and is not suitable for hunting. There is potential for birdwatching, but there is currently no public access at the project site except in the commercial parking lot at the southwest end of the project. However, views of North Mill Pond and potential bird habitat from the parking lot are very limited and compromised by vehicular traffic, noise, and activity as compared to the northeastern end of the site.
- Existing Function at Project Upland Buffer: There is no Recreational or Commercial Potential associated with the upland buffer other than an informal walking trail used by local residents.
- Proposed Function Enhancement: Since there will be no attempt to enhance the existing bird watching or other recreational activities from the commercial parking lot, there will be no enhancement of this function.
- Proposed Function Restoration: The project will create and restore recreational opportunities by providing a public greenway trail that will allow for birdwatching and recreational enjoyment of the North Mill Pond and upland buffer. Expansive views of the North Mill Pond and associated bird habitat from the northern portion of the site will be made open to the public.

Aesthetic Quality

- Existing Function at North Mill Pond: The areas surrounding North Mill Pond are highly developed commercial and residential areas. There are few public viewing areas, but in locations where the pond can be seen it generally offers wide vistas and aesthetically pleasing views. There are no public viewing areas at the project site other than at the commercial parking lot at the southwest end of the project. However, views of North Mill Pond from the parking lot are very limited and compromised by vehicular traffic, noise, and human activity as compared to the northeastern end of the site.
- Existing Function at Project Upland Buffer: The upland buffer is highly degraded aesthetically. It is full of trash and rundown buildings at its northern end and is a highly developed commercial area at its southern end. There is essentially no aesthetic quality to the buffer.
- Proposed Function Enhancement: Since there will be no attempt to enhance existing aesthetics associated the public viewing or North Mill Pond from the commercial parking lot, there will be no enhancement of this function for the pond.

- Proposed Function Restoration: The project will create and restore aesthetic enjoyment of North Mill Pond through all the ways the Ecological Integrity will be restored and enhanced. The upland buffer will be cleaned up, rundown buildings will be removed, and a public greenway trail will be created that will allow for strolling and multiple viewing opportunities along the North Mill Pond and upland buffer. Expansive views of the North Mill Pond visible from the northern portion of the site that are not currently available will be made open to the public.

Educational Potential

- Existing Function at North Mill Pond: There is no safe public access to North Mill Pond near the project site. In addition to being private property, the southern portion of the site is a commercial parking lot, and the northern portion of the project site has dangerous trash and building debris. Access to the North Mill Pond is also limited by steep banks, further diminishing the educational potential of this wetland.
- Existing Function at Project Upland Buffer: Same as for North Mill Pond.
- Proposed Function Enhancement: Since there is currently no access for Educational Potential, this function does not exist and cannot be enhanced.
- Proposed Function Restoration: By restoring the upland buffer and providing access along a greenway trail, some educational potential will be achieved. Although there will be no direct access to the North Mill Pond provided from the trail, there will be multiple viewing points, including views of the pond, salt marsh, and mudflats from the project site. The trail will also connect to other nearby habitats including more extensive salt marsh, shrublands, and native grassland (little bluestem, *Schizachyrium scoparium*).

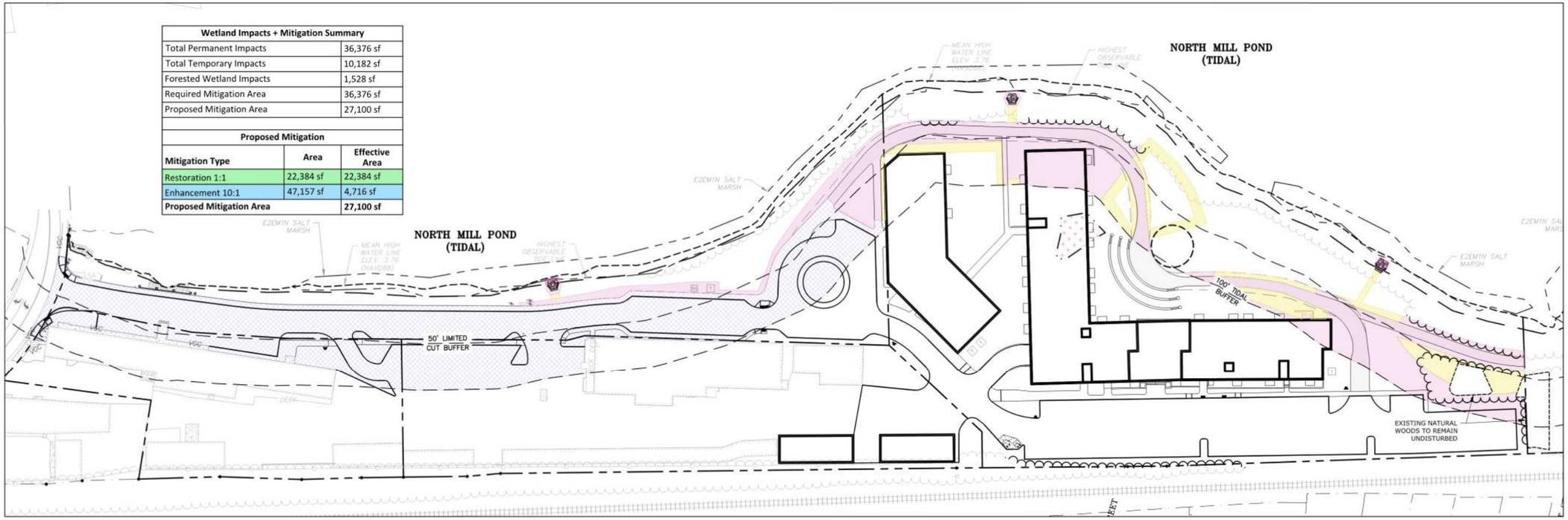
Noteworthiness

- Existing Function at North Mill Pond: This area of North Mill Pond does not include any rare species, though the larger salt marsh to the northeast and across the pond are considered as highly ranked wildlife habitat, which is noteworthy. In addition, the pond provides for some open vistas in a developed setting, which adds to its importance aesthetically and as part of the character of the area.
- Existing Function at Project Upland Buffer: The upland buffer is somewhat noteworthy as an old railroad yard, but it has been so degraded that this diminishes its noteworthiness.
- Proposed Function Enhancement: Restoring and enhancing the upland buffer while providing a greenway trail will enhance the character of the area and provide recreational, educational, and aesthetic opportunities to the public that would not otherwise be readily available.
- Proposed Function Restoration: Since noteworthiness is an existing function, it will be enhanced by the project, rather than restored.

PROPOSED IMPACT TO PREVIOUSLY DISTURBED TIDAL BUFFER, EXISTING CONDITIONS

Wetland Impacts + Mitigation Summary	
Total Permanent Impacts	36,376 sf
Total Temporary Impacts	10,182 sf
Forested Wetland Impacts	1,528 sf
Required Mitigation Area	36,376 sf
Proposed Mitigation Area	27,100 sf

Proposed Mitigation		
Mitigation Type	**Area**	**Effective Area**
Restoration 1:1	22,384 sf	22,384 sf
Enhancement 10:1	47,157 sf	4,716 sf
Proposed Mitigation Area		**27,100 sf**



PROPOSED IMPACT TO PREVIOUSLY DISTURBED TIDAL BUFFER, PROPOSED CONDITIONS

Tighe&Bond

0 60' 120'
GRAPHIC SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

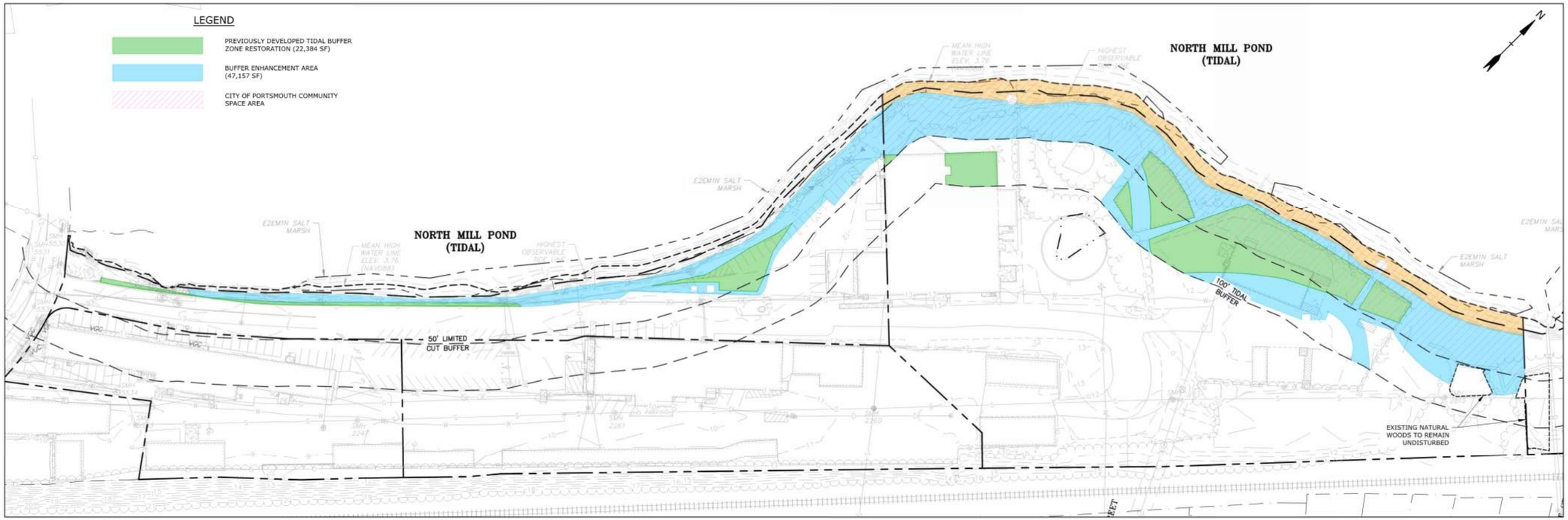
MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

WETLANDS BUFFER IMPACT PLAN

SCALE: AS SHOWN

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:31am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg



PROPOSED MITIGATION OF PREVIOUSLY DISTURBED TIDAL BUFFER, EXISTING CONDITIONS

Wetland Impacts + Mitigation Summary	
Total Permanent Impacts	36,376 sf
Total Temporary Impacts	10,182 sf
Forested Wetland Impacts	1,528 sf
Required Mitigation Area	36,376 sf
Proposed Mitigation Area	27,100 sf

Proposed Mitigation		
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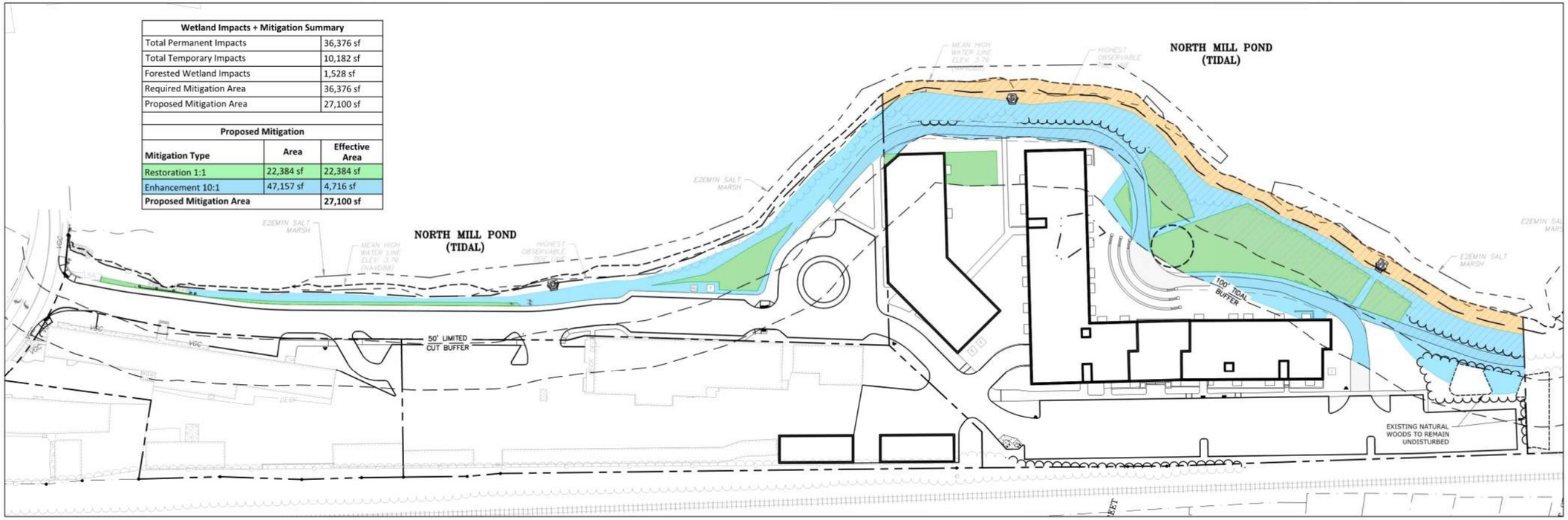

PROPOSED MITIGATION OF PREVIOUSLY DISTURBED TIDAL BUFFER, PROPOSED CONDITIONS

Tighe&Bond

0 60' 120'
GRAPHIC SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

WETLANDS BUFFER MITIGATION PLAN

SCALE: AS SHOWN

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:30am By: CKrzcuik
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2022 VALUES

TOWN	LAND VALUE
Plainfield	3154
Plaistow	53267
Plymouth	7923
Portsmouth	53267
Randolph	954
Raymond	23309
Richmond	1456
Rindge	10261
Rochester	29642
Rollinsford	32458
Roxbury	761
Rumney	4204
Rye	53267
Salem	53267
Salisbury	2413
Sanbornton	11075
Sandown	37557
Sandwich	5002
Sargent's Purchase	494
Seabrook	53267
Second College Grant	494
Sharon	1729
Shelburne	583
Somersworth	43798
South Hampton	15895
Springfield	3452
Stark	789
Stewartstown	1242
Stoddard	4934
Strafford	8396
Stratford	494
Stratham	53267
Success	494
Sugar Hill	8401
Sullivan	1665
Sunapee	53267
Surry	3226
Sutton	7136
Swanzey	8224
Tamworth	4771
Temple	4371
Thompson & Meserve's Purchase	494
Thornton	5115
Tilton	35234
Troy	3430
Tuftonboro	30222
Unity	3136
Wakefield	27165
Walpole	8528
Warner	3312
Warren	852
Washington	5420
Waterville Valley	1737
Weare	11359
Webster	6440
Wentworth	1477
Wentworth's Location	494
Westmoreland	2753
Whitefield	2975
Wilmot	4608
Wilton	11438
Winchester	3171
Windham	53267
Windsor	2522
Wolfeboro	41723
Woodstock	2321

NHDES AQUATIC RESOURCE MITIGATION FUND
WETLAND PAYMENT CALCULATION
*****INSERT AMOUNTS IN YELLOW CELLS*****

INSERT SQ FT OF IMPACT

INSERT LAND VALUE FROM TABLE WHICH APPEARS TO THE LEFT. (Insert the amount do not copy and paste.)

1	**Convert square feet of impact to acres:**		
	Square feet of impact	9276.00	
		43560.00	
	Acres of impact =	0.2129	
2	**Determine acreage of wetland construction:**		
	Forested wetlands:	0.3194	
	Tidal wetlands:	0.6388	
	All other areas:	0.3194	
3	**Wetland construction cost:**		
	Forested wetlands:	$32,726.15	
	Tidal Wetlands:	$65,452.30	
	All other areas:	$32,726.15	
4	**Land acquisition cost (See land value table):**		
	Town land value:	53267	
	Forested wetlands:	$17,014.62	
	Tidal wetlands:	$34,029.25	
	All other areas:	$17,014.62	
5	**Construction + land costs:**		
	Forested wetland:	$49,740.77	
	Tidal wetlands:	$99,481.55	
	All other areas:	$49,740.77	
6	**NHDES Administrative cost:**		
	Forested wetlands:	$9,948.15	
	Tidal wetlands:	$19,896.31	
	All other areas:	$9,948.15	
************	**TOTAL ARM PAYMENT**************		
	Forested wetlands:	$59,688.93	
	Tidal wetlands:	$119,377.86	
	All other areas:	$59,688.93	

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

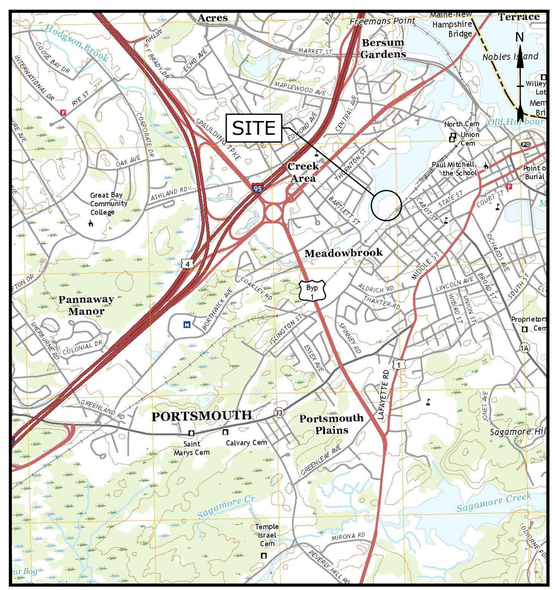
PROPOSED MULTI-FAMILY DEVELOPMENT

105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE

JANUARY 2, 2020

LAST REVISED: MARCH 29, 2023

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	3/29/2023
1 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
2 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
3 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
4 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
5 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
C-101	OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN	12/28/2022
C-101.1	EXISTING CONDITIONS AND DEMOLITION PLAN	12/28/2022
C-101.2	EXISTING CONDITIONS AND DEMOLITION PLAN	12/28/2022
C-102	OVERALL SITE PLAN	3/29/2023
C-102.1	SITE PLAN	3/29/2023
C-102.2	SITE PLAN	3/29/2023
C-102.3	BASEMENT LEVEL SITE PLAN	12/28/2022
C-103.1	GRADING, DRAINAGE, AND EROSION CONTROL PLAN	3/29/2023
C-103.2	GRADING, DRAINAGE, AND EROSION CONTROL PLAN	3/29/2023
C-104.1	UTILITIES PLAN	3/29/2023
C-104.2	UTILITIES PLAN	3/29/2023
C-501	EROSION CONTROL NOTES AND DETAILS SHEET	12/28/2022
C-502	DETAILS SHEET	12/28/2022
C-503	DETAILS SHEET	12/28/2022
C-504	DETAILS SHEET	12/28/2022
C-505	DETAILS SHEET	12/28/2022
C-506	DETAILS SHEET	12/28/2022
C-507	DETAILS SHEET	12/28/2022
C-508	DETAILS SHEET	12/28/2022
C-509	DETAILS SHEET	12/28/2022
L-1	SITE LANDSCAPE PLAN	3/28/2023
L-2	FOUNDATION PLANTING PLAN	3/28/2023



LOCATION MAP
SCALE: 1" = 2000'

PREPARED BY:

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

APPLICANT:

IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

OWNERS:

TAX MAP 157, LOT 1
CLIPPER TRADERS, LLC
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

TAX MAP 164, LOT 4-2
IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801

TAX MAP 157 LOT 2
TAX MAP 164, LOT 1
PORTSMOUTH HARDWARE & LUMBER, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801

SURVEYOR:

AMBIT ENGINEERING, INC.
200 GRIFFIN ROAD - UNIT 3
PORTSMOUTH, NEW HAMPSHIRE 03801

LIST OF PERMITS		
LOCAL	STATUS	DATE
SITE PLAN REVIEW PERMIT	APPROVED	4/15/2021
LOT LINE REVISION PERMIT	APPROVED	4/15/2021
CONDITIONAL USE PERMIT - SHARED PARKING	APPROVED	4/15/2021
CONDITIONAL USE PERMIT - WETLAND BUFFER	APPROVED	4/15/2021
STATE		
NHDES - ALTERATION OF TERRAIN PERMIT	APPROVED	9/29/2021
NHDES - WETLAND PERMIT	PENDING	
NHDES - SHORELAND PERMIT	PENDING	
NHDES - SEWER CONNECTION PERMIT	PENDING	
FEDERAL		
EPA - NPDES CGP	PENDING	

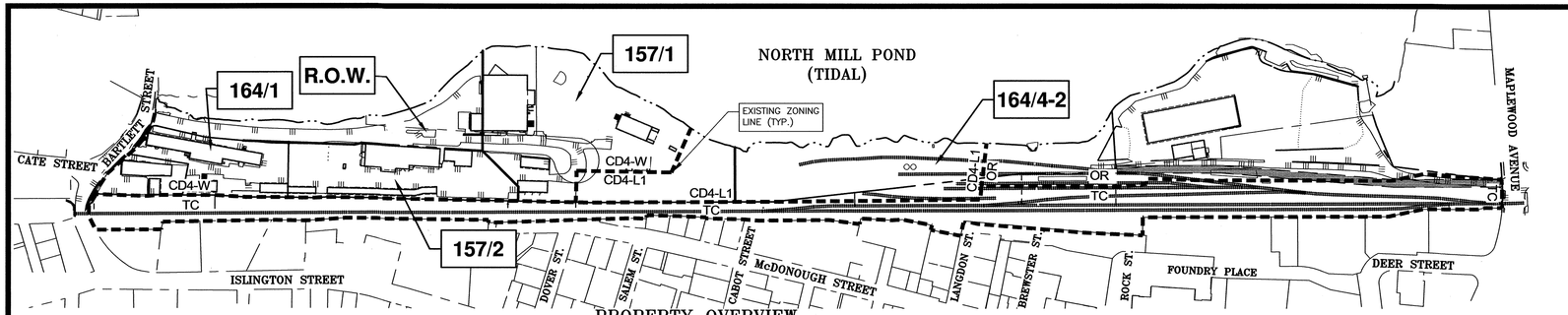
STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 3/29/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 3/29/23

NHDES WETLAND & SHORELAND UPDATED SUBMISSION COMPLETE SET 28 SHEETS

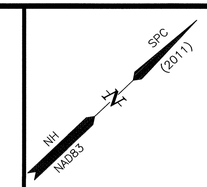
T&B PROJECT NO: C0960-006

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:57am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Catharies\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006 C-CS.dwg



PROPERTY OVERVIEW

SCALE 1"=200'



EXISTING & PROPOSED LOT AREAS:

MAP 157 LOT 1

EXISTING	PROPOSED
61,781± S.F.	205,804± S.F.
1.4183± ACRES	4.7246± ACRES

MAP 157 LOT 2

EXISTING	PROPOSED
102,003 S.F.	81,645 S.F.
2.3417 ACRES	1.8743 ACRES

MAP 164 LOT 1

EXISTING	PROPOSED
51,952 S.F.	52,289 S.F.
1.1927 ACRES	1.2004 ACRES

MAP 164 LOT 4–2

EXISTING	PROPOSED
249,771± S.F.	119,519± S.F.
5.7340± ACRES	2.7454± ACRES

RIGHT–OF–WAY

EXISTING	PROPOSED
69,624± S.F.	75,792± S.F.
1.5980± ACRES	1.1.7399± ACRES

PLAN REFERENCES:

1) LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO ERMINIO A.RICCI, SCALE : 1" = 40', APRIL 1960 RCRD 1595/091.

2) LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO ERMINIO A.RICCI, SCALE : 1" = 40', MAY 1957 RCRD 02612.

3) EASEMENT OF LAND IN PORTSMOUTH, N.N. BOSTON AND MAINE RAILROAD TO UNITED STATES OF AMERICA, SCALE 1" = 20', MAY 1957, RCRD 02633.

4) LAND IN PORTSMOUTH, N.H. VITO P. MASSARO TO PORT CITY BEVERAGE CO, SCALE 1" = 40', APRIL 1949, RCRD 01448.

5) LAND IN PORTSMOUTH, N.H. MARY E. MORAN TO BOSTON AND MAINE RAILROAD, SCALE 1" = 40', MARCH 1920, RCRD 00540.

6) PLAN OF LAND OF MARY E. MORAN ON BARTLETT AND ISLINGTON STREETS PORTSMOUTH, N.H., PREPARED BY JOHN W. DURGIN, SCALE 1" = 20', MAY 1920, RCRD 08.

7) DRAINAGE EASEMENT GEORGE E. FRISBEE TO THE CITY OF PORTSMOUTH, N.H., PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, SCALE : 1" = 20', JUNE 1981, RCRD B–10456.

8) LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO PORTSMOUTH FACTORY BUILDING ASSOCIATION, SCALE 1" = 20' OCTOBER 1923, RCRD 00356.

9) NH ELECTRIC CO. PLAN SHOWING AREA RESERVED FOR TRANSFORMER SUBSTATION ON PROPERTY OF CONTINENTAL SHOE CORP. PORTSMOUTH, N.H., SCALE 1" = 30', 11–27–53, RCRD 1303/378.

10) BOSTON AND MAINE RAILROAD PLAN TO ACCOMPANY AGREEMENT BETWEEN BOSTON AND MAINE RAILROAD AND CONCORD AND PORTSMOUTH RAILROAD COVERING RELOCATION OF TRACKS OF CONCORD AND PORTSMOUTH RAILROAD IN PORTSMOUTH, N.H. OCCASIONED BY CONSTRUCTION OF NEW HIGHWAY AND BRIDGE BY MAINE – NEW HAMPSHIRE INTERSTATE BRIDGE AUTHORITY, SCALE 1" = 500', DECEMBER 1936, RCRD 0934.

11) LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO CITY CONCRETE CO.,INC., SCALE 1" = 80', JANUARY 1955, RCRD 02897.

12) LAND IN PORTSMOUTH, N.H. BOSTON AND MAIN RAILROAD TO ALL STATE REALTY CORPORATION, SCALE 1" = 50", FEBRUARY 1961, RCRD 160.

13) LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILRAOD TO VITO P. MASSARO, SCALE 1" = 40', APRIL 1949, RCRD 01450.

14) DRAINAGE EASEMENT STUART AND PAULA BOXER AND ARANOSIAN OIL COMPANY TO THE CITY OF PORTSMOUTH, N.H., PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, SCALE: 1" = 20', JUNE 1981, RCRD B–10455.

15) CONDOMINIUM PLAN ISLINGTON PLACE PREPARED FOR ANCHOR BUILDING ASSOCIATES, PREPARED BY KIMBALL CHASE COMPANY, INC., SCALE 1" = 20', 12–10–86, RCRD D–15826.

16) PLAN OF LOT 565–581 ISLINGTON STREET PORTSMOUTH, N.H., PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS, SCALE 1" = 10', DECEMBER 1949 REVISED JANUARY 1963, RCRD B28.

17) SUBDIVISION OF LAND PORTSMOUTH, N.H. FOR GEORGE AND PAULINE J. FRISBEE, PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS PROFESSIONAL ASSOCIATION, SCALE" 1" = 30', DECEMBER 1976, RCRD C–6587.

18) RIGHT OF WAY AND TRACK MAP BOSTON AND MAINE R.R. OPERATED BY THE BOSTON AND MAINE R.R.STATION 2966+20 TO STATION 3019+0, SCALE 1" = 100', JUNE 30, 1914, VAL V3NH 55.

19) PLAN OF LAND FOR DEER STREET ASSOCIATES DEER AND BRIDGE STREETS AND MAPLEWOOD AVENUE PORTSMOUTH, N.H. COUNTY OF ROCKINGHAM, PREPARED BY AMBIT SURVEY, SCALE: 1" = 30', SEPTEMBER 1993.

20) PROPOSED EASEMENTS– BARTLETT STREET BARTLETT SEWER SEPERATION PROJECT OVER LAND OF PAN AM RAILWAYS PORTSMOUTH, NEW HAMPSHIRE FOR CITY OF PORTSMOUTH, PREPARED BY JAMES VERRA AND ASSOCIATES, INC., SCALE : 1" = 20', DATED 10–01–2007 RCRD D–35477.

21) SEWER AND STORM DRAIN EASEMENT PLAN 105 BARTLETT STREET PORTSMOUOTH, NEW HAMPSHIRE ASSESSOR'S PARCEL 164–001 & 164–003 EASEMENT OWNER CITY OF PORTSMOUTH, PREPARED BY JAMES VERRA AND ASSOCIATES, INC., SCALE 1" = 20', DATED 01/05/2012, RCRD D–37763.

22) EASEMENT PLAN TAX MAP 164 – LOT 4 BOSTON & MAINE CORPORATION TO THE CITY OF PORTSMOUTH OFF BREWSTER STREET CITY OF PORTSMOUTH COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE, PREPARED BY AMBIT ENGINEERING, INC. SCALE: 1" = 30', DATED SEPTEMBER 2012, RCRD D–37720.

23) STANDARD BOUNDARY SURVEY TAX MAP 157 – LOTS 7,8,10,11,12,13,14,AND 15 WASHBURN REALTY, INC. AND WASHBURN PLUMBING AND HEATING SUPPLY COMPANY, INC. FOR JAY McSHARRY 449 & 459 ISLINGTON STREET AND 18, 30, 40, & 46 DOVER STREET AND 268 & 280 MCDONOUGH STREET CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE, PREPARED BY AMBIT ENGINEERING, INC., SCALE 1" = 20', DATED JANUARY 2012, NOT RECORDED.

24) SITE REDEVELOPMENT NED & BILL PROPERTIES 621–627 ISLINGTON STREET PORTSMOUTH, N.H., PREPARED BY AMBIT ENGINEERING, INC., SCALE 1" = 10', DATED MARCH 2006, NOT RECORDED.

25) PLAN OF LAND FOR SAGAMORE ENTERPRISES 653 ISLINGTON STREET COUNTY OF ROCKINGHAM PORTSMOUTH N.H., PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, SCALE 1" = 10', DATED SEPTEMBER 21, 1988, RCRD D–18742.

26) STATION MAP – LANDS BOSTON AND MAINE R.R. OPERATED BY THE BOSTON AND MAINE R.R. STATION 2966+20 TO STATION 3019+0, OFFICE OF VALUATION ENGINEER. BOSTON, MASS, SCALE 1" = 100", JUNE 30, 1914 VAL V3NH SL55.

27) STATION MAP – LANDS CONCORD AND PORTSMOUTH R,R, OPERATED BY THE BOSTON AND MAINE R.R. STATION 0+0 TO STATION 33+0, OFFICE OF VALUATION ENGINEER. BOSTON, MASS, SCALE 1" = 100', JUNE 30, 1914 VAL V3NH SL55A.

28) SUBDIVISION PLAN TAX MAP 157 – LOTS 1 & 2 TAX MAP 164 – LOTS 1, 2, 3, & 4 OWNER OF RECORD TAX MAP 157, LOT 2 & TAX MAP 164, LOTS 1, 2, & 3: PORTSMOUTH LUMBER AND HARDWARE, LLC OWNER OF RECORD TAX MAP 157, LOT 1: CLIPPER TRADERS, LLC OWNER OF RECORD TAX MAP 164, LOT 4: BOSTON AND MAINE CORPORATION PROPERTY LOCATED AT: 105 BARTLETT STREET, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED FEBRUARY 2018, FINAL REVISION DATE DECEMBER 14, 2018. R.C.R.D. PLAN D–41241.

29) LAND TRANSFER PLAN TAX MAP 164 – LOT 4 LAND OF: BOSTON AND MAINE CORPORATION TO BE CONVEYED TO: PORTSMOUTH LUMBER AND HARDWARE, LLC & CLIPPER TRADERS, LLC PROPERTY LOCATED AT 105 BARTLETT STREET, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED DECEMBER 2018, FINAL REVISION DATE DECEMBER 13, 2018. R.C.R.D. PLAN D–41242.

30) WATERLINE EASEMENT PLAN OVER TAX MAP 164 – LOT 4 LAND OF BOSTON AND MAINE CORPORATION FOR BENEFIT OF PORTSMOUTH LUMBER AND HARDWARE, LLC & CLIPPER TRADERS, LLC. OFF McDONOUGH STREET, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED DECEMBER 2018, FINAL REVISION DATE DECEMBER 19, 2018. R.C.R.D. PLAN B–41243.

31) LOT LINE RELOCATION PLAN TAX MAP 164 – LOTS 4 & 4–2 OWNERS OF RECORD TAX MAP 164 LOT 4: BOSTON AND MAINE CORPORATION, OWNER OF RECORD TAX MAP 164 LOT 4–2: IRON HORSE PROPERTIES, LLC, PROPERTY LOCATED BETWEEN BARTLETT STREET & MAPLEWOOD AVENUE, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED APRIL 2019, FINAL REVISION DATE MAY 30, 2019. R.C.R.D. PLAN D–41570.

32) PROPOSED EASEMENT PLAN TAX MAP 164 – LOT 4 OWNER OF RECORD BOSTON AND MAINE CORPORATION TO BENEFIT IRON HORSE PROPERTIES, LLC, PROPERTY LOCATED BETWEEN BARTLETT STREET & MAPLEWOOD AVENUE, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED JUNE 2019, FINAL REVISION DATE JUNE 27, 2019. R.C.R.D. PLAN D–41578.

ZONING DISTRICT DIMENSIONAL REQUIREMENTS:

OFFICE RESEARCH (OR)*:
*PARCELS ARE SUBJECT TO EXCEPTIONS TO DIMENSIONAL STANDARDS AS OUTLINED IN CITY OF PORTSMOUTH ZONING ORDINANCE SECTION 10.532.10 & 10.532.20, MODIFIED DIMENSIONS LISTED BELOW

MIN. LOT AREA:	2 ACRES	
FRONTAGE:	200 FEET	
SETBACKS:	FRONT	70 FEET
	SIDE	50 FEET
	REAR	50 FEET
MAXIMUM STRUCTURE HEIGHT:	70 FEET (45 FEET WITHIN 200 FEET OF NORTH MILL POND)	
MAXIMUM STRUCTURE COVERAGE:		50%
MINIMUM OPEN SPACE:		20%

CHARACTER DISTRICT CD4–L1:

MIN. LOT AREA:	3,000 S.F.	
FRONTAGE:	NO REQUIREMENT	
SETBACKS:		
FRONT (MAX.)	15 FEET (PRIMARY)	
FRONT (MAX.)	12 FEET (SECONDARY)	
SIDE	5–20 FEET	
REAR	5 FEET	
MAXIMUM STRUCTURE HEIGHT:	20–30 FEET	
MAXIMUM STRUCTURE COVERAGE:		60%
MAXIMUM BUILDING FOOTPRINT:		2,500–3,500 S.F.
MINIMUM OPEN SPACE:		25%
MAXIMUM BLOCK LENGTH:	80–100 FEET	
BUILDING SEPARATION:	15–30 FEET	
VIEW CORRIDORS:	SEE ZONING ORDINANCE	

CHARACTER DISTRICT CD4–W:

MIN. LOT AREA:	5,000 S.F.	
FRONTAGE:	NO REQUIREMENT	
SETBACKS:		
FRONT (MAX.)	10 FEET (PRIMARY)	
FRONT (MAX.)	15 FEET (SECONDARY)	
SIDE	NO REQUIREMENT	
REAR	5 FEET	
MAXIMUM STRUCTURE HEIGHT:	45 FEET	
MAXIMUM STRUCTURE COVERAGE:		60%
MAXIMUM BUILDING FOOTPRINT:		15,000–20,000 S.F.
MINIMUM OPEN SPACE:		15%
MINIMUM FRONT LOT LINE BUILDOUT:		50%

TRANSPORTATION CORRIDOR (TC):
NO DIMENSIONAL OR USE REQUIREMENTS DEFINED IN ORDINANCE

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 1000 PAUL A. DOBBERSTEIN SIGNATURE

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

1/20/2021

PAUL A DOBBERSTEIN, LLS DATE

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 157 LOTS 1 & 2, MAP 164 AS LOTS 1 & 4–2, AND A RIGHT–OF–WAY WITH NO ASSESSOR'S MAP DESIGNATION.

2) OWNERS OF RECORD:
MAP 157 LOT 1
CLIPPER TRADERS, LLC
105 BARTLETT STRET
PORTSMOUTH, NH 03801
5598/2725 & 5970/1701

MAP 157 LOT 2 & MAP 164 LOT 1
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5372/2606, 5808/1379, 5540/2567, & 5970/1693

MAP 164 LOT 4–2
IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5970/1686 & 6012/2502

RIGHT–OF WAY
CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
5970/1708

3) PORTIONS OF THE SUBJECT PARCELS ARE IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.9) AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE MAY 17, 2005.

4) PARCELS ARE LOCATED IN CHARACTER DISTRICT 4W (CD4–W), CHARACTER DISTRICT 4–L1 (CD4–L1), AND OFFICE RESEARCH (OR) ZONING DISTRICTS.

5) THE PURPOSE OF THIS PLAN IS TO SHOW A LOT LINE RELOCATION BETWEEN THE SUBJECT PARCELS IN THE CITY OF PORTSMOUTH.

6) VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS (±0.3').

7) HORIZONTAL DATUM AND BASIS OF BEARINGS IS THE NH STATE PLANE COORDINATE SYSTEM NAD 83 (2011). BASIS OF HORIZONTAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS.

NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

REVISIONS

LOT LINE RELOCATION PLAN
TAX MAP 157 – LOTS 1 & 2
TAX MAP 164 – LOTS 1 & 4–2

TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
OWNER OF RECORD

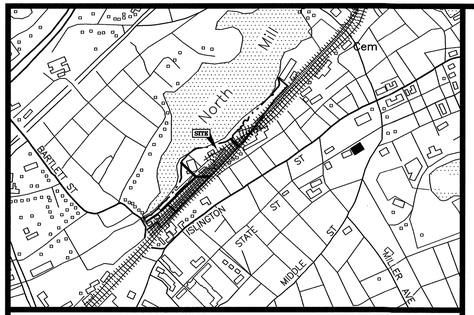
TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
OWNER OF RECORD

TAX MAP 164 LOT 4–2:
IRON HORSE PROPERTIES, LLC
OWNER OF RECORD

RIGHT–OF–WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & CLIPPER TRADERS, LLC
PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE AS NOTED *SHEET 1 OF 5* *JUNE 2020*

FB 243 PG 22 2429



LOCATION MAP SCALE 1"=1,000'

LENGTH TABLE

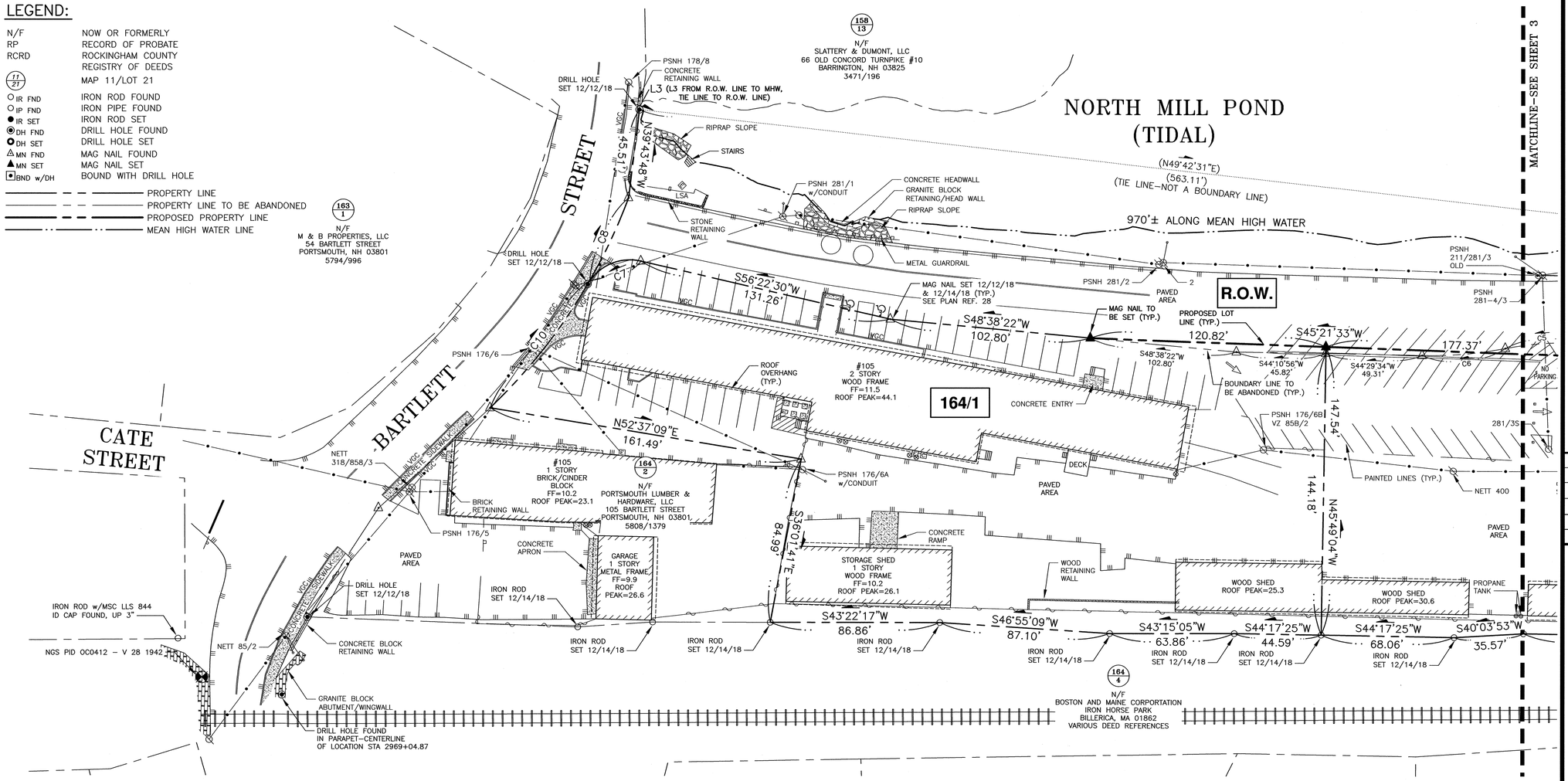
LINE	BEARING	DISTANCE
L3	N59°39'51"E	2'±

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C5	150.00'	38.24'	38.14'	S39°30'52"W	14°36'24"
C6	200.00'	42.87'	42.79'	S38°21'07"W	12°16'55"
C7	25.00'	31.80'	29.70'	S19°56'09"W	72°52'42"
C8	288.61'	48.94'	48.88'	N21°21'40"W	9°42'56"
C10	288.61'	80.91'	80.65'	N08°28'19"W	16°03'46"

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11/LOT 21
IR FND	IRON ROD FOUND
IP FND	IRON PIPE FOUND
IR SET	IRON ROD SET
DH FND	DRILL HOLE FOUND
DH SET	DRILL HOLE SET
MN FND	MAG NAIL FOUND
MN SET	MAG NAIL SET
BND w/DH	BOUND WITH DRILL HOLE
	PROPERTY LINE
	PROPERTY LINE TO BE ABANDONED
	PROPOSED PROPERTY LINE
	MEAN HIGH WATER LINE



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

GRAPHIC SCALE

30 0 50 100 120 FEET

10 5 0 10 20 30 METERS

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 1000 PAUL A. DOBBERSTEIN SIGNATURE

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

PAUL A DOBBERSTEIN, LLS 1/20/2021 DATE

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 157 LOTS 1 & 2, MAP 164 AS LOTS 1 & 4–2, AND A RIGHT–OF–WAY WITH NO ASSESSOR'S MAP DESIGNATION.

2) OWNERS OF RECORD:

MAP 157 LOT 1
CLIPPER TRADERS, LLC
105 BARTLETT STRET
PORTSMOUTH, NH 03801
5598/2725 & 5970/1701

MAP 157 LOT 2 & MAP 164 LOT 1
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5372/2606, 5808/1379, 5540/2567, & 5970/1693

MAP 164 LOT 4–2
IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5970/1686 & 6012/2502

RIGHT–OF WAY
CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
5970/1708

3) PORTIONS OF THE SUBJECT PARCELS ARE IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.9) AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE MAY 17, 2005.

4) PARCELS ARE LOCATED IN CHARACTER DISTRICT 4W (CD4–W), CHARACTER DISTRICT 4–L1 (CD4–L1), AND OFFICE RESEARCH (OR) ZONING DISTRICTS.

5) THE PURPOSE OF THIS PLAN IS TO SHOW A LOT LINE RELOCATION BETWEEN THE SUBJECT PARCELS IN THE CITY OF PORTSMOUTH.

6) VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS (±0.3').

7) HORIZONTAL DATUM AND BASIS OF BEARINGS IS THE NH STATE PLANE COORDINATE SYSTEM NAD 83 (2011). BASIS OF HORIZONTAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS.

8) SEE SHEET 1 OF 5 FOR OVERALL PROPERTY VIEW, EXISTING AND PROPOSED LOT AREAS, PLAN REFERENCES, AND DIMENSIONAL REQUIREMENTS.

NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

REVISIONS

LOT LINE RELOCATION PLAN
TAX MAP 157 – LOTS 1 & 2
TAX MAP 164 – LOTS 1 & 4–2

TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
OWNER OF RECORD

TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
OWNER OF RECORD

TAX MAP 164 LOT 4–2:
IRON HORSE PROPERTIES, LLC
OWNER OF RECORD

RIGHT–OF–WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & CLIPPER TRADERS, LLC

PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

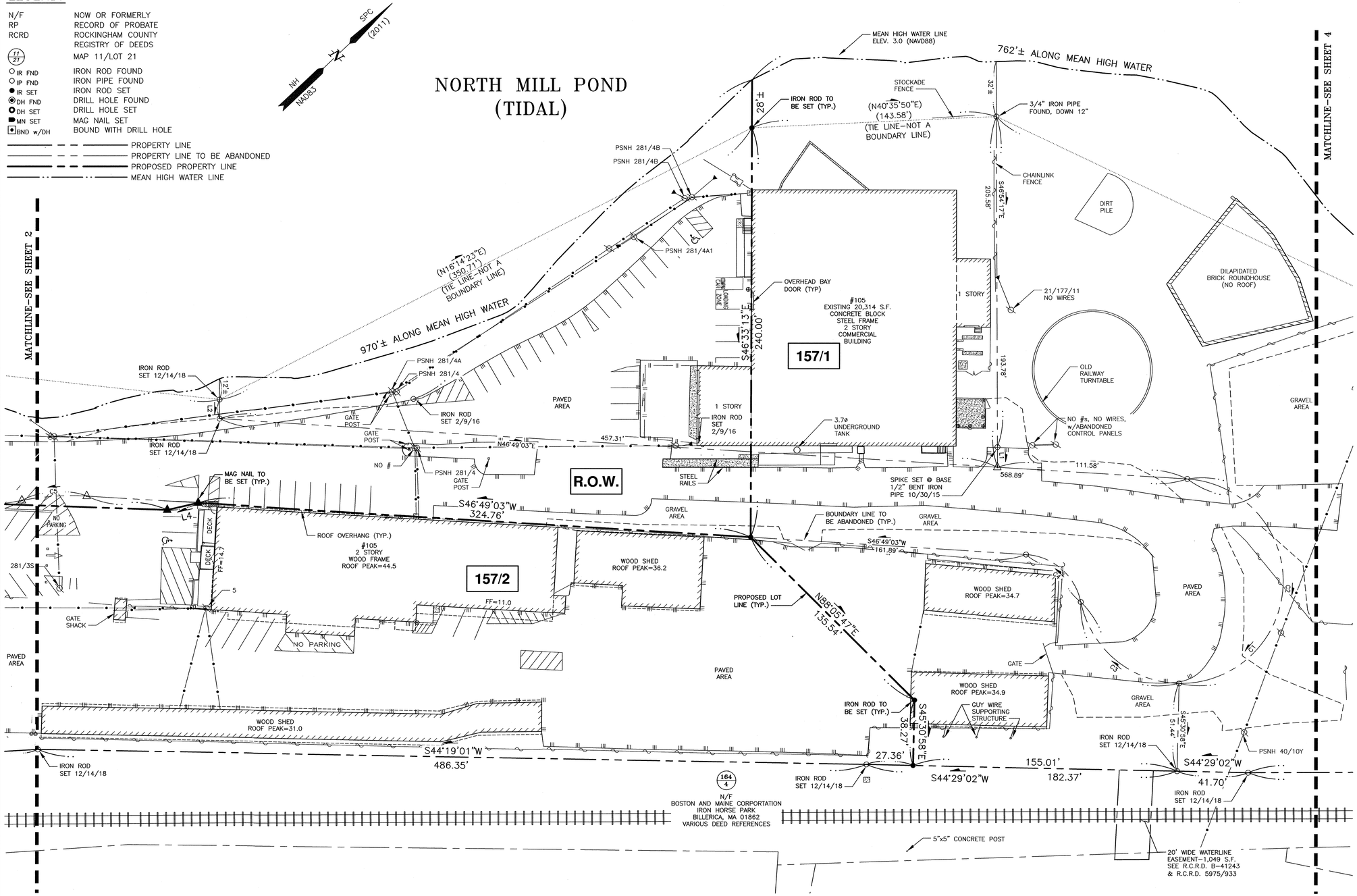
SCALE 1"=30' SHEET 2 OF 5 JUNE 2020

FB 243 PG 22 2429

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11/LOT 21
IR FND	IRON ROD FOUND
IP FND	IRON PIPE FOUND
IR SET	IRON ROD SET
DH FND	DRILL HOLE FOUND
DH SET	DRILL HOLE SET
MN SET	MAG NAIL SET
BND w/DH	BOUND WITH DRILL HOLE

PROPERTY LINE
PROPERTY LINE TO BE ABANDONED
PROPOSED PROPERTY LINE
MEAN HIGH WATER LINE



LENGTH TABLE

LINE	BEARING	DISTANCE
L1	S46°54'17"E	11.80'
L2	S46°49'43"E	11.20'
L3	N59°39'51"E	2'±
L4	S30°20'37"W	18.60'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	60.00'	266.77'	95.37'	S05°48'40"E	254°44'33"
C2	60.00'	185.84'	119.97'	S44°26'53"E	177°28'07"
C3	60.00'	80.92'	74.93'	S82°55'23"W	77°16'26"

GRAPHIC SCALE

30 0 50 100 120 FEET
10 5 0 10 20 30 METERS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

STATE OF NEW HAMPSHIRE No. 1000 PAUL A. DOBBERSTEIN LICENSED LAND SURVEYOR SIGNATURE

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

PAUL A DOBBERSTEIN, LLS 1/20/2021 DATE

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Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 157 LOTS 1 & 2, MAP 164 AS LOTS 1 & 4-2, AND A RIGHT-OF-WAY WITH NO ASSESSOR'S MAP DESIGNATION.

2) OWNERS OF RECORD:
MAP 157 LOT 1
CLIPPER TRADERS, LLC
105 BARTLETT STRET
PORTSMOUTH, NH 03801
5598/2725 & 5970/1701

MAP 157 LOT 2 & MAP 164 LOT 1
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5372/2606, 5808/1379, 5540/2567, & 5970/1693

MAP 164 LOT 4-2
IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5970/1686 & 6012/2502

RIGHT-OF WAY
CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
5970/1708

3) PORTIONS OF THE SUBJECT PARCELS ARE IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.9) AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE MAY 17, 2005.

4) PARCELS ARE LOCATED IN CHARACTER DISTRICT 4W (CD4-W), CHARACTER DISTRICT 4-L1 (CD4-L1), AND OFFICE RESEARCH (OR) ZONING DISTRICTS.

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6) VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS (±0.3').

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8) SEE SHEET 1 OF 5 FOR OVERALL PROPERTY VIEW, EXISTING AND PROPOSED LOT AREAS, PLAN REFERENCES, AND DIMENSIONAL REQUIREMENTS.

NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

REVISIONS

LOT LINE RELOCATION PLAN
TAX MAP 157 - LOTS 1 & 2
TAX MAP 164 - LOTS 1 & 4-2

TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
OWNER OF RECORD

TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
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TAX MAP 164 LOT 4-2:
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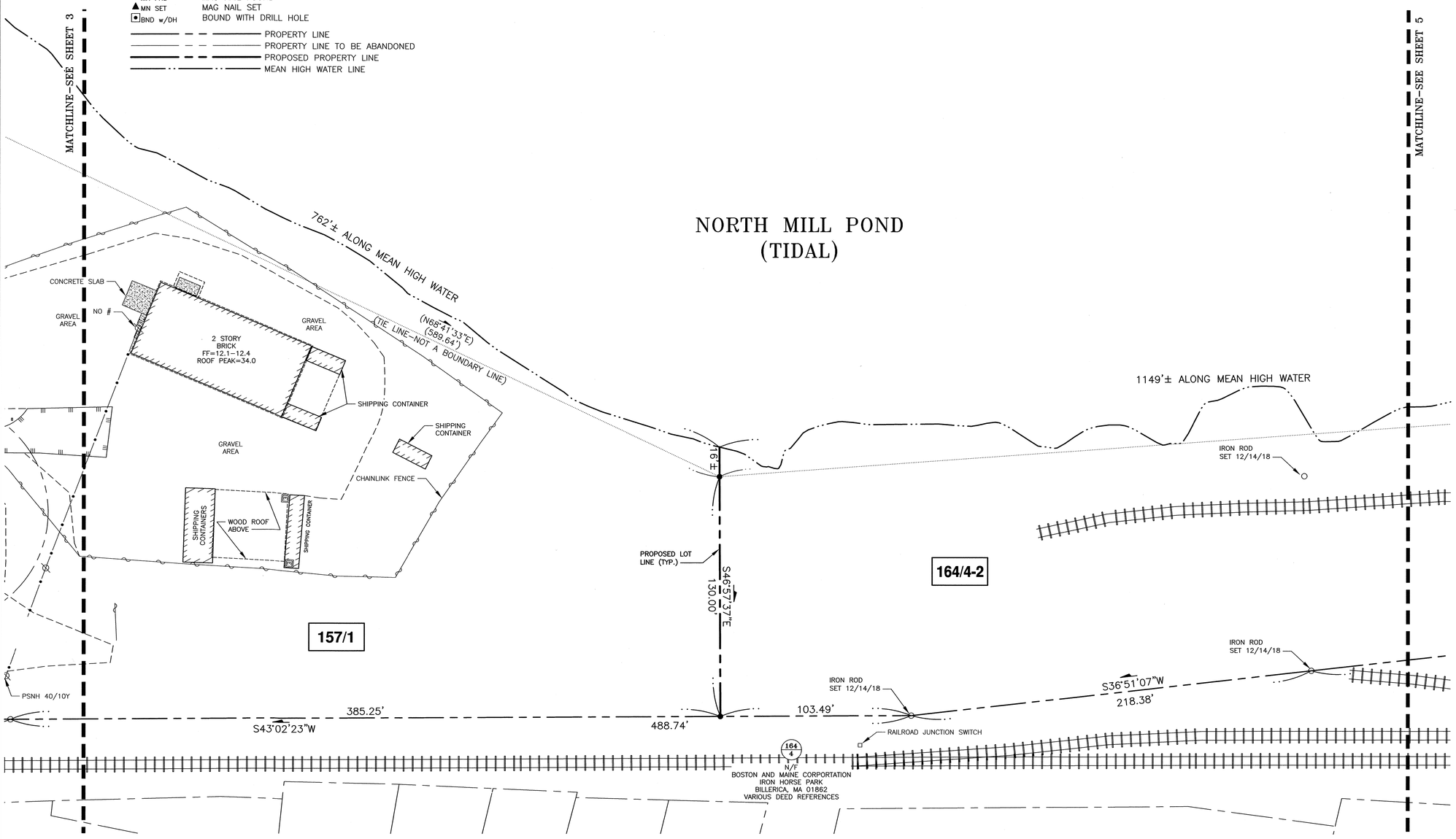
RIGHT-OF-WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & CLIPPER TRADERS, LLC
PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE 1"=30' SHEET 3 OF 5 JUNE 2020

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11/LOT 21
IR FND	IRON ROD FOUND
IP FND	IRON PIPE FOUND
IR SET	IRON ROD SET
DH FND	DRILL HOLE FOUND
DH SET	DRILL HOLE SET
MN FND	MAG NAIL FOUND
MN SET	MAG NAIL SET
BND w/DH	BOUND WITH DRILL HOLE
	PROPERTY LINE
	PROPERTY LINE TO BE ABANDONED
	PROPOSED PROPERTY LINE
	MEAN HIGH WATER LINE



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

GRAPHIC SCALE

30 0 50 100 120 FEET

10 5 0 10 20 30 METERS

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

STATE OF NEW HAMPSHIRE No. 1000 PAUL A. DOBBERSTEIN LICENSED LAND SURVEYOR

SIGNATURE

PAUL A DOBBERSTEIN, LLS

1/20/2021

DATE

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

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CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE 1"=30' SHEET 4 OF 5 JUNE 2020

FB 243 PG 22

2429

LEGEND:

N/F	NOW OR FORMERLY	PROPERTY LINE
RP	RECORD OF PROBATE	PROPERTY LINE TO BE ABANDONED
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS	PROPOSED PROPERTY LINE
		MEAN HIGH WATER LINE
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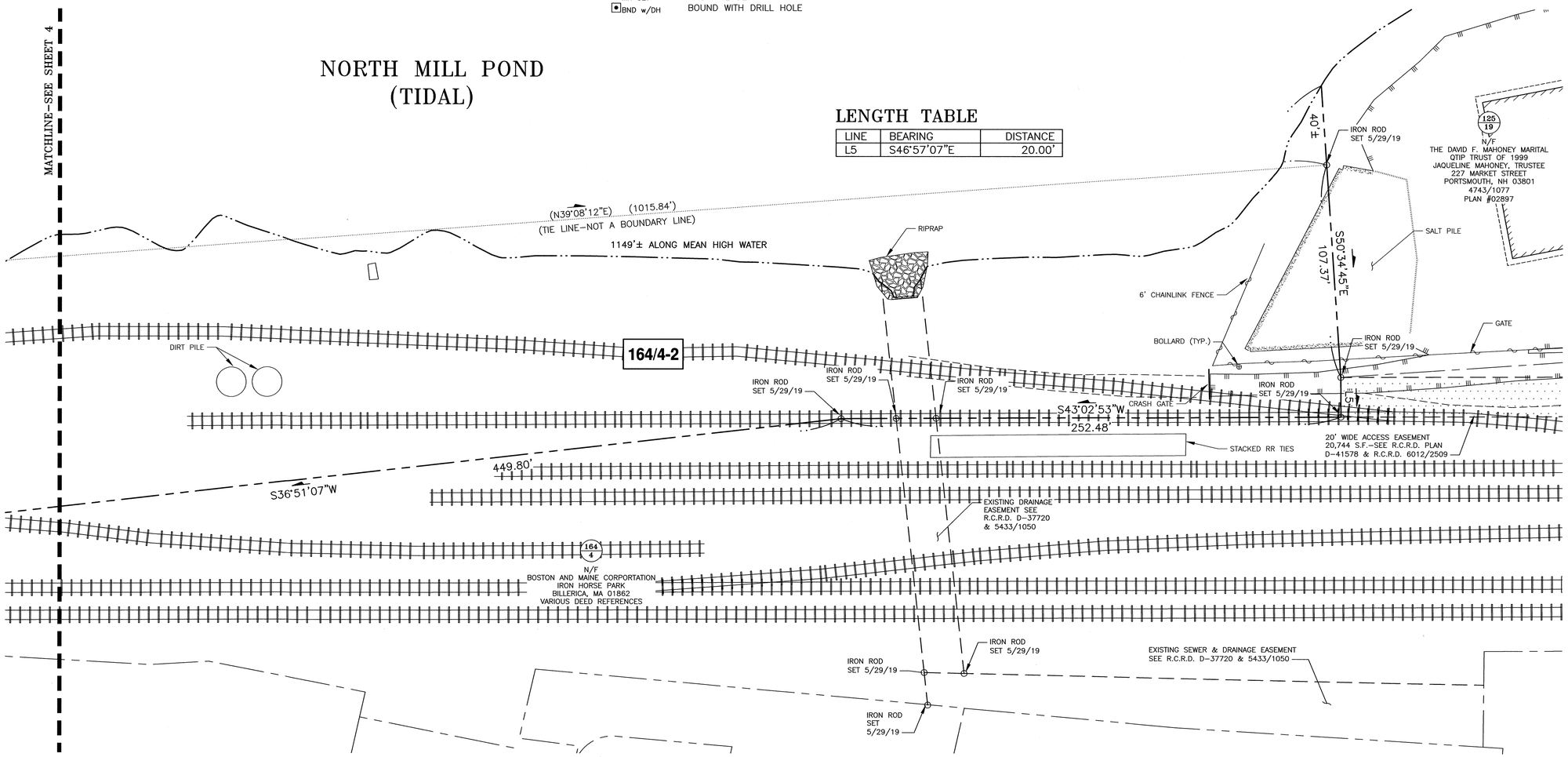
DH SET	DRILL HOLE SET	
MN FND	MAG NAIL FOUND	
MN SET	MAG NAIL SET	
BND w/DH	BOUND WITH DRILL HOLE	

SPC (2011) NH NAD83



LENGTH TABLE

LINE	BEARING	DISTANCE
L5	S46°57'07"E	20.00'

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

GRAPHIC SCALE

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STATE OF NEW HAMPSHIRE No. 1000 PAUL A. DOBBERSTEIN LICENSED PROFESSIONAL LAND SURVEYOR SIGNATURE

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CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE 1"=30' SHEET 5 OF 5 JUNE 2020

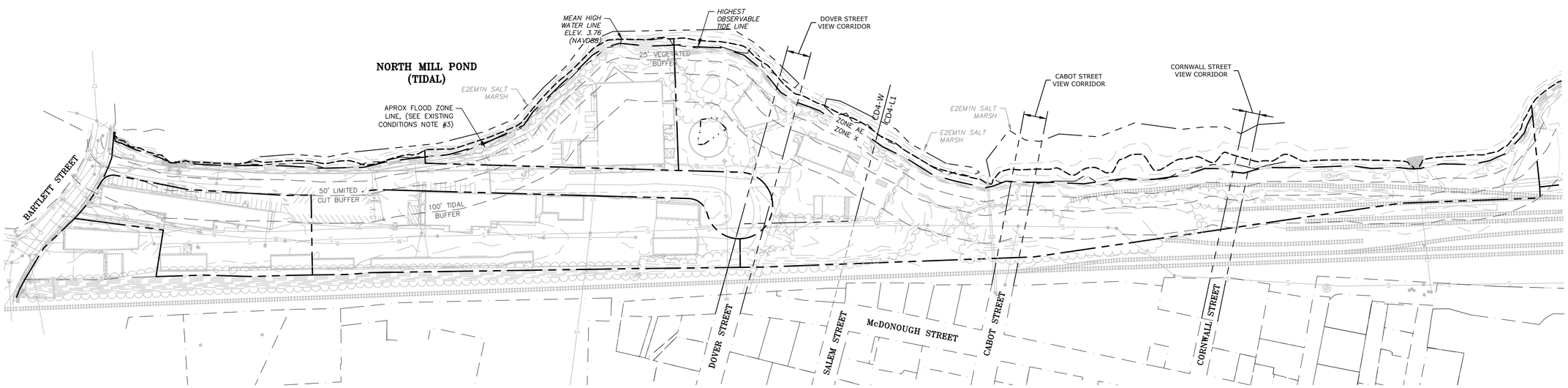
FB 243 PG 22 2429

LEGEND

- BUILDING
- BUILDING OVERHANG
- BUILDING NO. 50 — BUILDING HATCH/TEXT
- CURB
- EDGE OF PAVEMENT
- RETAINING WALL
- STONE WALL
- CHAIN LINK FENCE
- FENCE LINE
- TREELINE
- PAVEMENT MARKING
- TRAFFIC SIGN
- 200 — MAJOR CONTOURS
- MINOR CONTOURS
- D — STORM DRAIN LINE
- S — SANITARY SEWER LINE
- W — WATER LINE
- E — UNDERGROUND ELECTRIC LINE
- OE — OVERHEAD ELECTRIC LINE
- G — UNDERGROUND GAS LINE
- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- HYDRANT
- WGV — WATER GATE VALVE
- UTILITY POLE
- TELEPHONE STRUCTURE
- GGV — GAS GATE VALVE
- BOLLARD
- GAS SHUTOFF
- WATER SHUTOFF

EXISTING CONDITIONS PLAN NOTES:

1. EXISTING CONDITIONS ARE BASED ON A FIELD SURVEY BY AMBIT ENGINEERING, INC., DATED 3/5/2018.
2. HIGHEST OBSERVABLE TIDE LINE (HOTL) DELINEATION ORIGINALLY PREFORMED BY STEVEN D. RIKER, CWS, ON 8/8/2017, AND FIELD LOCATED BY AMBIT ENGINEERING, INC. ON 8/9/2017. ON OCTOBER 29 AND DECEMBER 2, 2019, LEONARD LORD, PhD, CSS, CWS OF TIGHE & BOND REVIEWED AND ASSESSED 2,000+/- LINEAR FEET OF TIDAL WETLANDS AND BUFFERS ALONG THE NORTH MILL POND. THE WETLAND DELINEATION REVIEW WAS BASED ON CRITERIA SPECIFIED IN THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JANUARY 1987), AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (JANUARY 2012). THE HIGHEST OBSERVABLE TIDE LINE WAS REVIEWED BASED ON THE DEFINITION FOUND IN NH DEPARTMENT OF ENVIRONMENTAL SERVICES WETLAND RULES, ENV-WT 101.49/ENV-WT 602.23. THE HOTL WAS DEEMED ACCURATE AND THE PREVIOUS 2017 DELINEATION WAS ACCEPTED BY TIGHE & BOND. WETLANDS WERE CLASSIFIED BASED ON CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES (COWARDIN ET AL., 1979).
3. FLOOD HAZARD ZONES: "AE ELEV. 9" (SPECIAL FLOOD HAZARD AREA) AND "X" (NOT A SPECIAL FLOOD HAZARD AREA), PER FIRM MAP #33015C0259E, DATED 5/17/05.



Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 1/10/23

0 100' 200'
GRAPHIC SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

OVERALL EXISTING CONDITIONS PLAN

SCALE: AS SHOWN

C-101

Last Saved: 12/23/2022
Plotted On:Dec 23, 2022-11:23am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Catharies\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

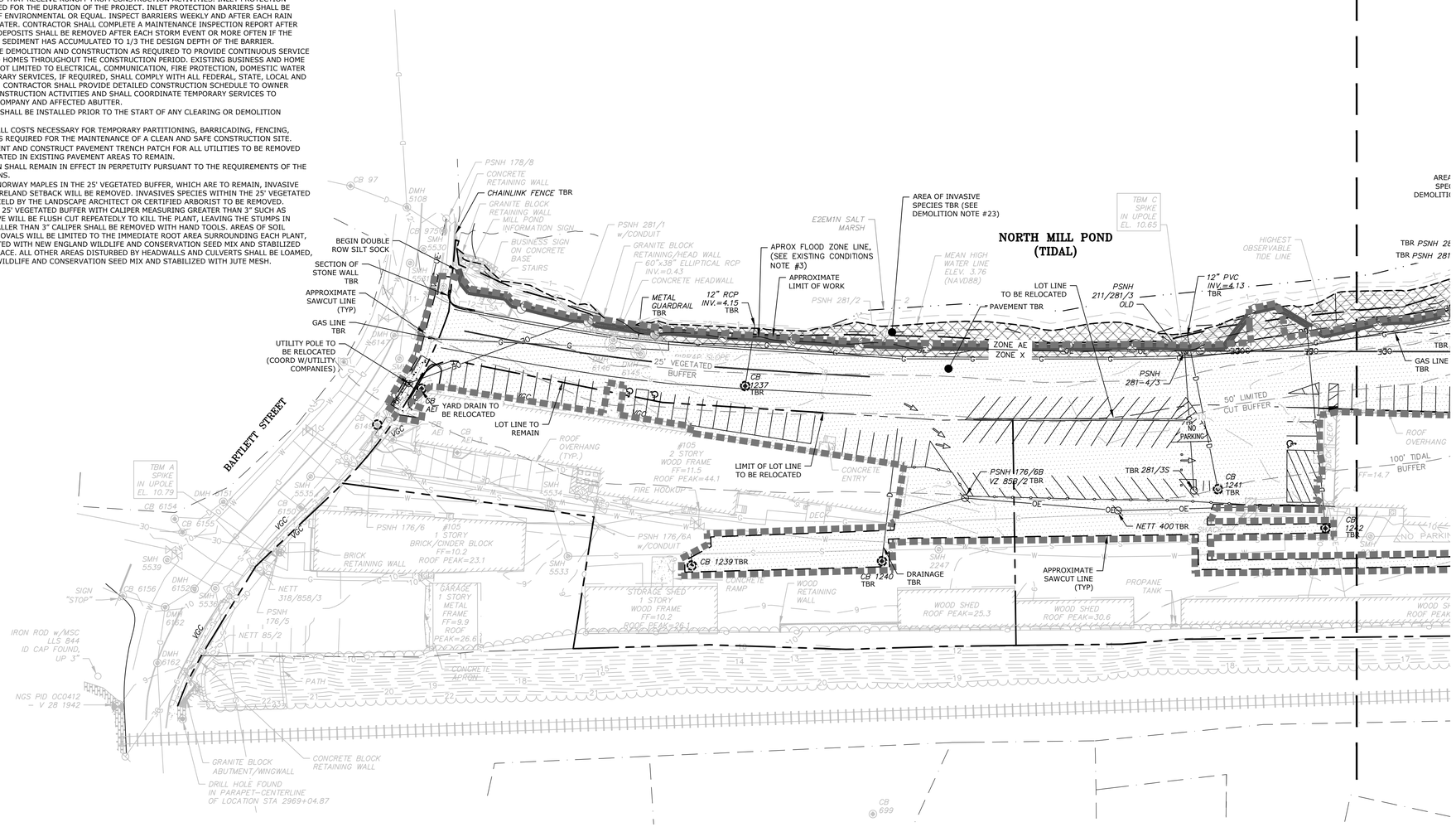
DEMOLITION NOTES:

1. 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.
2. 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.
3. 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.
4. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
5. 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.
6. 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 ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
8. THE CONTRACTOR SHALL OBTAIN AND PAY FOR 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.
9. 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.
10. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK.
11. 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.
12. 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.
13. ALL ITEMS WITHIN THE LIMIT OF WORK ARE TO REMAIN UNLESS SPECIFICALLY IDENTIFIED TO BE REMOVED OR OTHERWISE ALTERED BY THE CONTRACTOR. ITEMS TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, MANHOLES, CATCH BASINS, UNDERGROUND PIPING & UTILITIES, POLES, STAIRS, STRUCTURES, FENCES, RAMPS, BUILDING FOUNDATIONS, TREES, AND LANDSCAPING. THE CONTRACTOR SHALL CONFIRM WITH THE ENGINEER IF THE TREATMENT OF CERTAIN ITEMS IS UNCLEAR.
14. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
15. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
16. 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.
17. 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.
18. 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 ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
19. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
20. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
21. 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.
22. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
23. WITH THE EXCEPTION OF THE NORWAY MAPLES IN THE 25' VEGETATED BUFFER, WHICH ARE TO REMAIN, INVASIVE SPECIES WITHIN THE 100' SHORELAND SETBACK WILL BE REMOVED. INVASIVES SPECIES WITHIN THE 25' VEGETATED BUFFER WILL BE FLAGGED IN FIELD BY THE LANDSCAPE ARCHITECT OR CERTIFIED ARBORIST TO BE REMOVED. INVASIVE SHRUBS WITHIN THE 25' VEGETATED BUFFER WITH CALIPER MEASURING GREATER THAN 3" SUCH AS BUCKTHORN AND AUTUMN OLIVE WILL BE FLUSH CUT REPEATEDLY TO KILL THE PLANT, LEAVING THE STUMPS IN PLACE. WOODY INVASIVES SMALLER THAN 3" CALIPER SHALL BE REMOVED WITH HAND TOOLS. AREAS OF SOIL DISTURBANCE FROM SUCH REMOVALS WILL BE LIMITED TO THE IMMEDIATE ROOT AREA SURROUNDING EACH PLANT, DRESSED WITH LOAM, REPLANTED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH STAKED IN PLACE. ALL OTHER AREAS DISTURBED BY HEADWALLS AND CULVERTS SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.

LEGEND

- APPROXIMATE LIMIT OF PROPOSED SAW CUT
- LIMIT OF WORK
- PROPOSED SILT SOCK
- APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
- AREA OF INVASIVE SPECIES TO BE REMOVED
- PROPOSED CONSTRUCTION EXIT
- BUILDING / FOUNDATION TO BE REMOVED
- LOCATION OF PROPOSED BUILDING
- INLET PROTECTION SILT SACK

TBR	TO BE REMOVED
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE



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A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: AS SHOWN

C-101.1

Last Saved: 12/23/2022
Plotted On:Dec 29, 2022-11:23am By: CKrzcuik
Tighe & Bond:J:\C\0960 Catharies\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

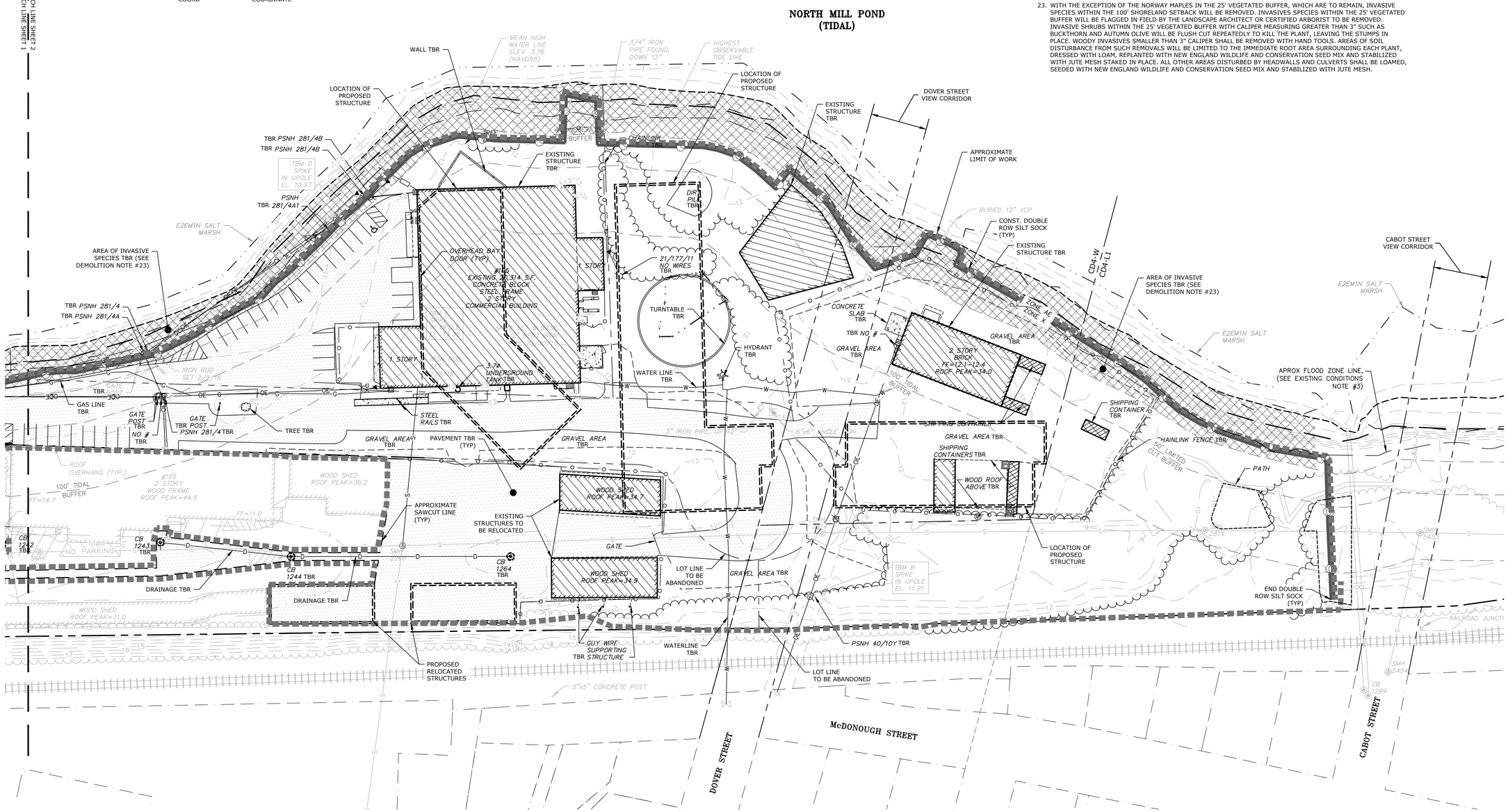
LEGEND

- APPROXIMATE LIMIT OF PROPOSED SAW CUT
- LIMIT OF WORK
- PROPOSED SILT SOCK
- APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
- AREA OF INVASIVE SPECIES TO BE REMOVED
- PROPOSED CONSTRUCTION EXIT
- BUILDING / FOUNDATION TO BE REMOVED
- LOCATION OF PROPOSED BUILDING
- INLET PROTECTION SILT SACK

TBR	TO BE REMOVED
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE

DEMOLITION NOTES:

1. 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.
2. 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.
3. 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.
4. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
5. 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.
6. 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 ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
8. THE CONTRACTOR SHALL OBTAIN AND PAY FOR 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.
9. 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.
10. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK.
11. 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.
12. 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.
13. ALL ITEMS WITHIN THE LIMIT OF WORK ARE TO REMAIN UNLESS SPECIFICALLY IDENTIFIED TO BE REMOVED OR OTHERWISE ALTERED BY THE CONTRACTOR. ITEMS TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, MANHOLES, CATCH BASINS, UNDERGROUND PIPING & UTILITIES, POLES, STAIRS, STRUCTURES, FENCES, RAMPS, BUILDING FOUNDATIONS, TREES, AND LANDSCAPING. THE CONTRACTOR SHALL CONFIRM WITH THE ENGINEER IF THE TREATMENT OF CERTAIN ITEMS IS UNCLEAR.
14. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
15. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
16. 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.
17. 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.
18. 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 ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
19. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
20. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
21. 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.
22. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
23. WITH THE EXCEPTION OF THE NORWAY MAPLES IN THE 25' VEGETATED BUFFER, WHICH ARE TO REMAIN, INVASIVE SPECIES WITHIN THE 100' SHORELAND SETBACK WILL BE REMOVED. INVASIVES SPECIES WITHIN THE 25' VEGETATED BUFFER WILL BE FLAGGED IN FIELD BY THE LANDSCAPE ARCHITECT OR CERTIFIED ARBORIST TO BE REMOVED. INVASIVE SHRUBS WITHIN THE 25' VEGETATED BUFFER WITH CALIPER MEASURING GREATER THAN 3" SUCH AS BUCKTHORN AND AUTUMN OLIVE WILL BE FLUSH CUT REPEATEDLY TO KILL THE PLANT, LEAVING THE STUMPS IN PLACE. WOODY INVASIVES SMALLER THAN 3" CALIPER SHALL BE REMOVED WITH HAND TOOLS. AREAS OF SOIL DISTURBANCE FROM SUCH REMOVALS WILL BE LIMITED TO THE IMMEDIATE ROOT AREA SURROUNDING EACH PLANT, DRESSED WITH LOAM, REPLANTED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH STAKED IN PLACE. ALL OTHER AREAS DISTURBED BY HEADWALLS AND CULVERTS SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.



Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 1/10/23

0 40' 80'
GRAPHIC SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
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SCALE: AS SHOWN

C-101.2

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SITE DATA:

PROJECT LOCATION: TAX MAP 157, LOT 1
TAX MAP 157, LOT 2
TAX MAP 164, LOT 1
TAX MAP 164, LOT 4-2

105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE

SITE ZONING DISTRICT: CHARACTER DISTRICT 4 (CD4-W)
CHARACTER DISTRICT 4 (CD4-L1)
WEST END INCENTIVE OVERLAY DISTRICT

ALLOWED USE ON SITE: PROFESSIONAL OFFICE, BUSINESS OFFICE, MULTIFAMILY DWELLING

PROPOSED GROUND FLOOR USES:
BUILDING A & B: RESIDENTIAL
BUILDING C: RESIDENTIAL & AMENITY SPACE

DEVELOPMENT STANDARDS

BUILDING PLACEMENT (PRINCIPAL BUILDING):	REQUIRED (CD4-W)	PROPOSED (CD4-W)
MAX PRINCIPAL FRONT YARD:	10 FT	0 FT
MINIMUM SIDE YARD:	15 FT(1)	<6 FT(2)
MINIMUM REAR YARD:	5 FT	214.54 FT
FRONT LOT LINE BUILDOUT:	50% MIN	54%

BUILDING AND LOT OCCUPATION:	REQUIRED (CD4-W)	PROPOSED (CD4-W)
MAXIMUM BUILDING BLOCK LENGTH:	200 FT	185 FT
MAXIMUM FAÇADE MODULATION LENGTH:	80 FT	<80 FT
MAXIMUM ENTRANCE SPACING:	50 FT	<50 FT
MAXIMUM BUILDING COVERAGE:	80%(3)	±20.9%
MAXIMUM BUILDING FOOTPRINT:	20,000 SF(4)	19,214 SF
MINIMUM LOT AREA:	5,000 SF	205,804 SF
MINIMUM LOT AREA PER DWELLING UNIT:	NR(5)	
MINIMUM OPEN SPACE:	15%	58.1%
MAXIMUM GROUND FLOOR GFA PER USE:	15,000 SF	14,300 SF

(1) - PER 10.516.20, MINIMUM SIDE YARD SETBACK ADJOINING A RAILROAD RIGHT OF WAY SHALL BE 15FT
(2) - VARIANCE GRANTED BY ZONING BOARD OF ADJUSTMENT ON JANUARY 22, 2020
(3) - MAXIMUM BUILDING COVERAGE ALLOWED IN THE WEST END INCENTIVE OVERLAY DISTRICT FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
(4) - ADDITIONAL 5,000 SF OF GFA (INCREASED FROM 15,000 SF) ALLOWED FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
(5) - NO MINIMUM LOT AREA PER DWELLING UNIT REQUIRED IN THE WEST END INCENTIVE OVERLAY DISTRICT FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.

BUILDING FORM (PRINCIPAL BUILDING):	REQUIRED (CD4-W)	PROPOSED (CD4-W)
BUILDING HEIGHT:	4 STORIES (1) 50' MAX (2)	4 STORIES, 49'-2"
MAXIMUM FINISHED FLOOR SURFACE OF GROUND FLOOR ABOVE SIDEWALK GRADE:	36 IN	<36 IN
MINIMUM GROUND STORY HEIGHT:	9 FT(3)	12 FT
MINIMUM SECOND STORY HEIGHT:	N/A	
FAÇADE GLAZING:		
SHOPFRONT FAÇADE:	70% MIN	>70%
OTHER FAÇADE TYPES:	20% TO 50%	
ALLOWED ROOF TYPES:	FLAT, GABLE, HIP, GAMBREL, OR MANSARD	FLAT
ROOF PITCH, IF ANY:		
GABLE	6:12 - 12:12	
HIP	3:12 MIN	
MANSARD/GAMBREL	6:12 - 30:12	
ALLOWED BUILDING TYPES:	APARTMENT BUILDING	APARTMENT BUILDING

(1) - ADDITIONAL 1 STORY (INCREASED FROM 1 AND 3 RESPECTIVELY) ALLOWED FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
(2) - ADDITIONAL 10' OF BUILDING HEIGHT (INCREASED FROM 20' AND 40' RESPECTIVELY) ALLOWED FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
(3) - MINIMUM GROUND STORY HEIGHT ALLOWED IN WEST END INCENTIVE OVERLAY DISTRICT FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.

COMMUNITY SPACE:		
	44,154 SF	47,703 SF
	20%	23%

OFF-STREET PARKING REQUIREMENTS:

PARKING SPACES REQUIRED:

DWELLING UNITS:		
500 SF TO 750 SF 1.0 SPACES PER UNIT	BUILDING A, 16 UNITS	16 SPACES
	BUILDING B, 31 UNITS	31 SPACES
	BUILDING C, 17 UNITS	17 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED =		64 SPACES
OVER 750 SF 1.3 SPACES PER UNIT	BUILDING A, 20 UNITS	26.0 SPACES
	BUILDING B, 39 UNITS	50.7 SPACES
	BUILDING C, 29 UNITS	37.7 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED =		114.4 SPACES
VISITORS:		
1 SPACE FOR EVERY 5 DWELLING UNITS	152 UNITS	31 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED =		210 SPACES

TOTAL PARKING SPACES PROVIDED:

TOTAL PARKING SPACES PROVIDED =	95 SPACES (SURFACE PARKING)
	53 SPACES (BUILDING A, UNDERGROUND)
	42 SPACES (BUILDING B, UNDERGROUND)
	20 SPACES (PRIVATE ROADWAY)(1)
	210 SPACES
ADA SPACES REQUIRED=	9 SPACES
ADA SPACES PROVIDED=	9 SPACES (4 SPACES INCLUDED IN SURFACE PARKING COUNT OF 95, 4 SPACES INCLUDED IN BASEMENT PARKING COUNT OF 95 1 SPACE INCLUDED IN PRIVATE ROADWAY COUNT OF 20)

(1) - CONDITIONAL USE PERMIT REQUIRED FOR SHARED PARKING ON SEPARATE LOT

	REQUIRED	PROPOSED
PARKING STALL LAYOUT:	8.5' X 19'	8.5' X 19'
DRIVE AISLE WIDTH:	24 FT	24 FT
BIKE SPACES REQUIRED:		
1 BIKE SPACE / 5 DWELLING UNITS, MAXIMUM OF 30 SPACES	30 SPACES	30 SPACES*

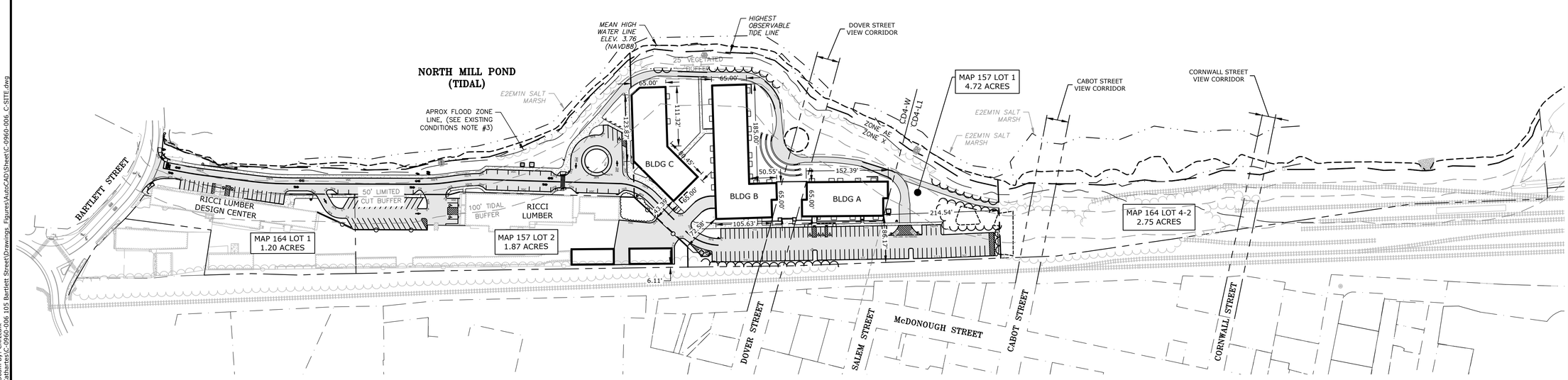
*INDOOR BIKE STORAGE WILL BE PROVIDED THAT MEETS OR EXCEEDS THE REQUIREMENT.

LEGEND

	PROPERTY LINE
	PROPOSED PROPERTY LINE
	PROPOSED EDGE OF PAVEMENT
	PROPOSED CURB
	PROPOSED BUILDING
	PROPOSED PAVEMENT SECTION
	PROPOSED POROUS PAVEMENT SECTION
	PROPOSED CONCRETE SIDEWALK
•	PROPOSED BOLLARD
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
30'R	PROPOSED CURB RADIUS
VGC	PROPOSED VERTICAL GRANITE CURB
SGC	PROPOSED SLOPED GRANITE CURB
MVGC	PROPOSED MOUNTABLE VERTICAL GRANITE CURB

ZONING VARIANCES:

REQUIREMENT:	SECTION:	GRANTED:
(1) - MINIMUM SIDE YARD SETBACK FROM RAILROAD:	10.516.20	1/22/2020



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0 100' 200'
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OVERALL SITE PLAN

SCALE: AS SHOWN

C-102

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:50am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Catharies\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

SITE NOTES:

1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES SHALL BE THERMOPLASTIC MATERIAL. THERMOPLASTIC MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO AASHTO M249. (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE CITY OF PORTSMOUTH.
10. 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.
11. SEE BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS.
13. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
14. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
15. THE PROPERTY MANAGER WILL BE RESPONSIBLE FOR TIMELY SNOW REMOVAL FROM ALL PRIVATE SIDEWALKS, DRIVEWAYS, AND PARKING AREAS. SNOW REMOVAL WILL BE HAULED OFF-SITE AND LEGALLY DISPOSED OF WHEN SNOW BANKS EXCEED 3 FEET IN HEIGHT.
16. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
17. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
18. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
19. THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES THAT IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.
20. ALL TREES TO BE PLANTED ARE TO BE INSTALLED UNDER THE SUPERVISION OF THE CITY OF PORTSMOUTH DPW USING STANDARD INSTALLATION METHODS.
21. THE APPLICATION SHALL PREPARE A CONSTRUCTION MITIGATION AND MANAGEMENT PLAN (CMMP) FOR REVIEW AND APPROVAL BY THE CITY'S LEGAL AND PLANNING DEPARTMENTS.

LEGEND

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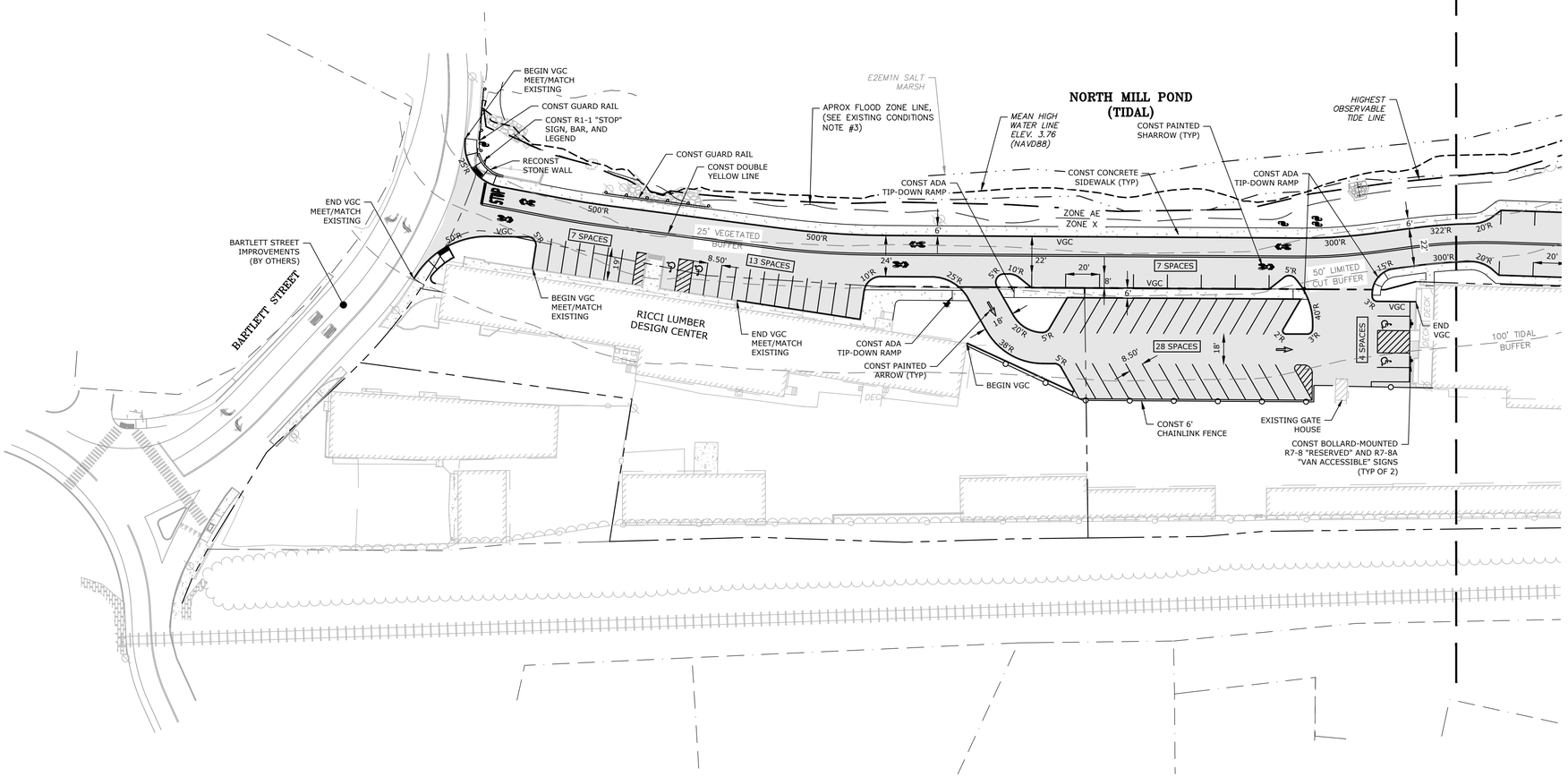
MATCH LINE SHEET 2
MATCH LINE SHEET 1



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C-102.1

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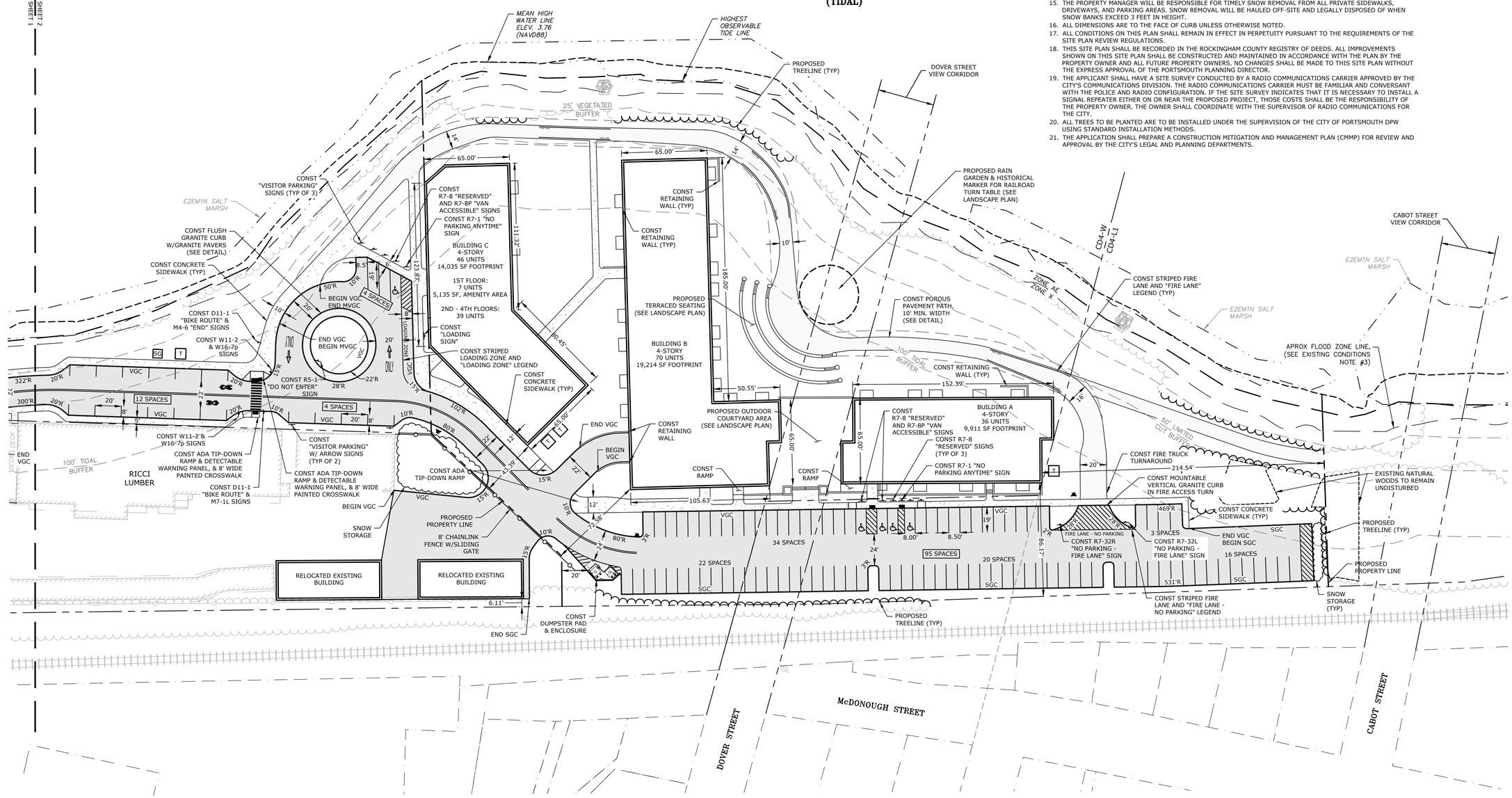
MVGC	PROPOSED MOUNTABLE VERTICAL GRANITE CURB

SITE NOTES:

1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES SHALL BE THERMOPLASTIC MATERIAL. THERMOPLASTIC MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO AASHTO M249. (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE CITY OF PORTSMOUTH.
10. 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.
11. SEE BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS.
13. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
14. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
15. THE PROPERTY MANAGER WILL BE RESPONSIBLE FOR TIMELY SNOW REMOVAL FROM ALL PRIVATE SIDEWALKS, DRIVEWAYS, AND PARKING AREAS. SNOW REMOVAL WILL BE HAULED OFF-SITE AND LEGALLY DISPOSED OF WHEN SNOW BANKS EXCEED 3 FEET IN HEIGHT.
16. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
17. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
18. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
19. THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES THAT IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.
20. ALL TREES TO BE PLANTED ARE TO BE INSTALLED UNDER THE SUPERVISION OF THE CITY OF PORTSMOUTH DPW USING STANDARD INSTALLATION METHODS.
21. THE APPLICATION SHALL PREPARE A CONSTRUCTION MITIGATION AND MANAGEMENT PLAN (CMMP) FOR REVIEW AND APPROVAL BY THE CITY'S LEGAL AND PLANNING DEPARTMENTS.



Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 3/29/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 3/29/23

0 40' 80'
GRAPHIC SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
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F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

SITE PLAN

SCALE: AS SHOWN

C-102.2

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:51am By: CKrzcuik
Tighe & Bond: J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

LEGEND

	PROPERTY LINE
	PROPOSED PROPERTY LINE
	PROPOSED EDGE OF PAVEMENT
	PROPOSED CURB
	PROPOSED BUILDING
	PROPOSED PAVEMENT SECTION
	PROPOSED POROUS PAVEMENT SECTION
	PROPOSED CONCRETE SIDEWALK
•	PROPOSED BOLLARD
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
30'R	PROPOSED CURB RADIUS
VGC	PROPOSED VERTICAL GRANITE CURB
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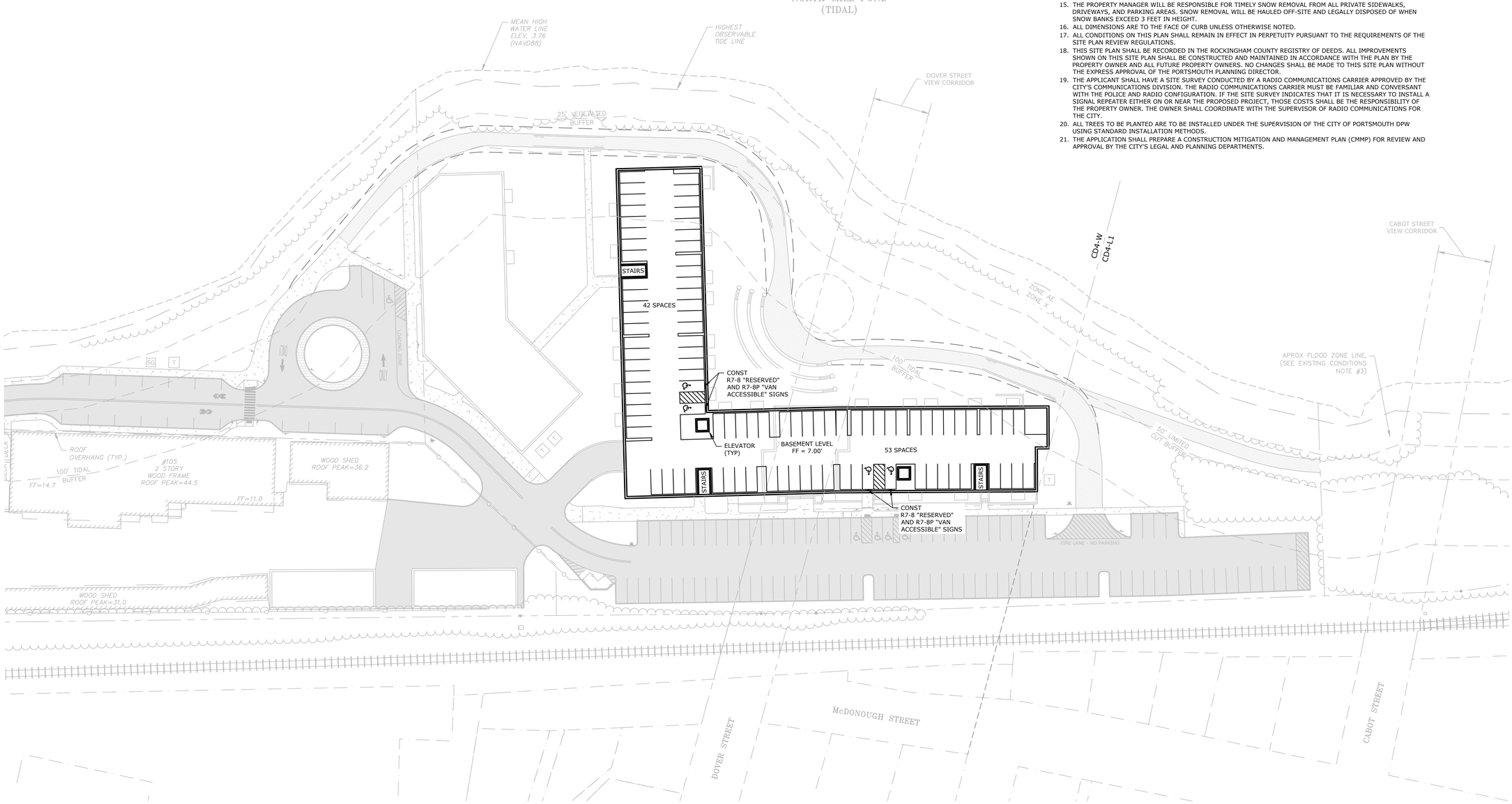

Tighe&Bond

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0 40' 80'
GRAPHIC SCALE

Proposed Multi-Family Development

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105 Bartlett Street
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D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

BASEMENT LEVEL SITE PLAN

SCALE: AS SHOWN

C-102.3

Last Saved: 12/23/2022
Plotted On:Dec 28, 2022-11:25am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

GRADING 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%

* 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.

2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL), UNLESS OTHERWISE SPECIFIED.
3. SEE UTILITY PLAN FOR ALL SITE UTILITY INFORMATION.
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.
14. AREAS DISTURBED WITHIN THE 25' VEGETATED BUFFER BY HEADWALLS AND CULVERT CONSTRUCTION SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.

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 INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. MAINTAIN FOR THE DURATION OF THE PROJECT.
4. INSTALL STABILIZED CONSTRUCTION EXIT(S).
5. INSPECT INLET 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 SUMPS 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.
15. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

LEGEND

	PROPOSED MAJOR CONTOUR LINE
	PROPOSED MINOR CONTOUR LINE
	PROPOSED DRAIN LINE (TYP)
PUD	PROPOSED UNDERDRAIN
	PROPOSED SILT SOCK
	INLET PROTECTION SILT SACK
	PROPOSED CATCHBASIN
	PROPOSED DOUBLE GRATE CATCHBASIN
	PROPOSED DRAIN MANHOLE
	PROPOSED YARD DRAIN
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
TC	TOP OF CURB
BC	BOTTOM OF CURB
HW	HEADWALL

DRAINAGE STRUCTURE TABLE

CB1242
RIM=9.30
INV.OUT=5.80 SW

CB1243
RIM=9.55
INV.IN=6.65 NW
INV.OUT=6.55 SE

CB1244
RIM=10.00
INV.OUT=6.85 SW

CB1264
RIM=9.50
INV.OUT=6.50 NE

CDS1
RIM=10.65
INV.IN=4.30 SE
INV.IN=4.30 SW
INV.OUT=4.20 NE

CDS2
RIM=9.85
INV.IN=6.00 NE
INV.IN=6.00 SE
INV.OUT=5.90 SW

CDS3
RIM=13.75
INV.IN=4.50 SE
INV.OUT=4.50 NW

PCB1
RIM=8.50
INV.OUT=5.30 E

PCB2
RIM=8.45
INV.OUT=5.30 N

PCB3
RIM=8.40
INV.OUT=5.50 NW

PCB4
RIM=8.55
INV.OUT=5.10 NW

PCB5
RIM=9.60
INV.OUT=6.10 NW

PCB6
RIM=9.80
INV.OUT=6.30 SW

PCB7
RIM=10.00
INV.OUT=7.00 NE

PCB8
RIM=10.75
INV.OUT=7.50 NW

PCB9
RIM=12.65
INV.OUT=8.65 NW

PCB10
RIM=12.15
INV.OUT=8.60 NW

PCB11
RIM=8.60
INV.OUT=5.80 NE

PCB12
RIM=8.60
INV.OUT=5.45 S

PDMH1
RIM=8.75
INV.IN=5.20 W
INV.IN=5.20 S
INV.IN=5.20 SE
INV.OUT=5.10 NE

PDMH2
RIM=8.90
INV.IN=5.00 SW
INV.IN=5.00 SE
INV.OUT=4.90 NE

PDMH4
RIM=11.70
INV.IN=3.45 SW
INV.IN=4.30 NE
INV.OUT=3.35 NW

PDMH5
RIM=11.30
INV.IN=5.05 NE
INV.OUT=4.95 SW

PDMH7
RIM=11.95
INV.IN=6.60 NW
INV.IN=6.60 SW
INV.IN=6.60 W
INV.OUT=6.50 SE

PDMH8
RIM=11.35
INV.IN=6.25 NW
INV.IN=6.25 SE
INV.IN=6.10 SW
INV.OUT=6.00 NE

PDMH9
RIM=14.05
INV.IN=4.60 SE
INV.OUT=4.60 NW

PDMH10
RIM=13.35
INV.IN=6.10 E
INV.IN=5.00 W
INV.IN=3.80 SE
INV.OUT=3.70 N

PDMH12
RIM=8.75
INV.IN=5.35 SW
INV.IN=5.35 N
INV.OUT=5.35 NE

PDMH13
RIM=9.60
INV.IN=5.40 SE
INV.IN=5.40 NE
INV.IN=4.70 SW
INV.OUT=4.65 NW

PDMH14
RIM=10.00
INV.IN=6.45 NE
INV.IN=6.45 NW
INV.OUT=6.35 SW

PDMH15
RIM=13.50
INV.IN=10.50 SW
INV.IN=10.50 NW
INV.OUT=10.40 NE

PDMH16
RIM=9.70
INV.IN=5.60 NE
INV.OUT=5.50 NW

PDMH17
RIM=15.50
INV.IN=10.10 SW
INV.IN=11.50 NE
INV.OUT=10.00 NW

PDMH18
RIM=16.30
INV.IN=9.00 SE
INV.IN=6.00 SW
INV.OUT=5.80 NW

PDMH19
RIM=11.80
INV.OUT=8.88 SE

PDMH20
RIM=11.90
INV.OUT=8.88 N

POS1
RIM=10.50
INV.OUT=7.15 E

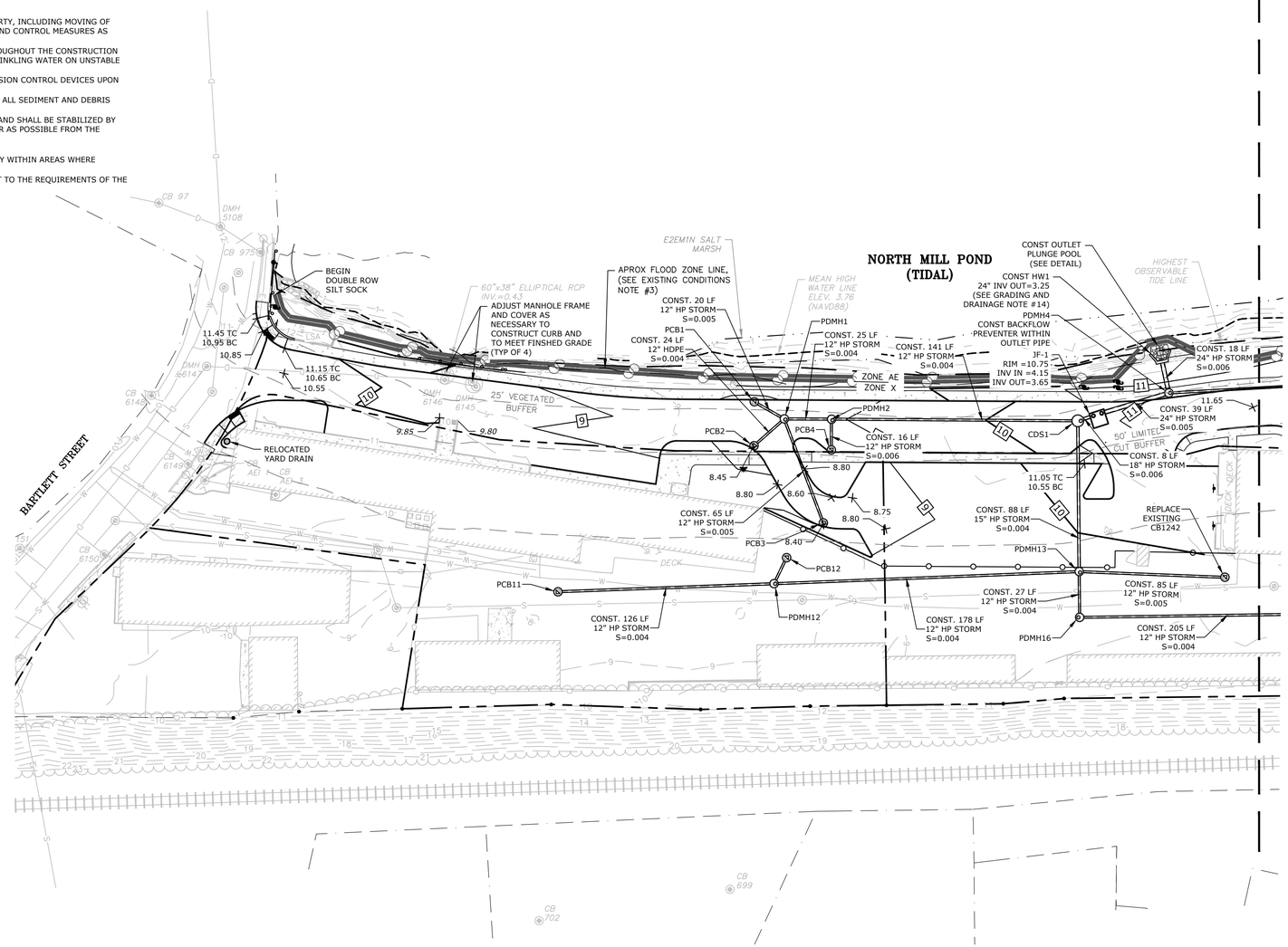
PYD1
RIM=12.50
INV.OUT=7.70 N

PYD2
RIM=12.30
INV.IN=7.50 S
INV.OUT=7.40 NE

PYD3
RIM=11.00
INV.IN=7.10 SW
INV.IN=8.00 NW
INV.OUT=7.00 NE

PYD4
RIM=13.00
INV.OUT=10.70 SE

PYD5
RIM=11.50
INV.IN=7.00 W
INV.IN=7.15 S
INV.OUT=7.05 E



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GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.1

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Tighe & Bond:J:\C\C0960 Catharines\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

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HW	HEADWALL

DRAINAGE STRUCTURE TABLE

CB1242 RIM=9.30 INV.OUT=5.80 SW	CDS3 RIM=13.75 INV.IN=4.50 SE INV.OUT=4.50 NW	PCB6 RIM=9.80 INV.OUT=6.30 SW	PCB12 RIM=8.60 INV.OUT=5.45 S	PDMH8 RIM=11.35 INV.IN=6.25 NW INV.IN=6.25 SE INV.IN=6.10 SW INV.OUT=6.00 NE	PDMH15 RIM=13.50 INV.IN=10.50 SW INV.IN=10.50 NW INV.OUT=10.40 NE	POS1 RIM=10.50 INV.OUT=7.15 E
CB1243 RIM=9.55 INV.IN=6.65 NW INV.OUT=6.55 SE	PCB1 RIM=8.50 INV.OUT=5.30 E	PCB7 RIM=10.00 INV.OUT=7.00 NE	PDMH1 RIM=8.75 INV.IN=5.20 W INV.IN=5.20 S INV.IN=5.20 SE INV.OUT=5.10 NE	PDMH9 RIM=14.05 INV.IN=4.60 SE INV.OUT=4.60 NW	PDMH16 RIM=9.70 INV.IN=5.60 NE INV.OUT=5.50 NW	PYD1 RIM=12.50 INV.OUT=7.70 N
CB1244 RIM=10.00 INV.OUT=6.85 SW	PCB2 RIM=8.45 INV.OUT=5.30 N	PCB8 RIM=10.75 INV.OUT=7.50 NW	PDMH2 RIM=8.90 INV.IN=5.00 SW INV.IN=5.00 SE INV.OUT=4.90 NE	PDMH10 RIM=13.35 INV.IN=6.10 E INV.IN=5.00 W INV.IN=3.80 SE INV.OUT=3.70 N	PDMH17 RIM=15.50 INV.IN=10.10 SW INV.IN=11.50 NE INV.OUT=10.00 NW	PYD2 RIM=12.30 INV.IN=7.50 S INV.OUT=7.40 NE
CB1264 RIM=9.50 INV.OUT=6.50 NE	PCB3 RIM=8.40 INV.OUT=5.50 NW	PCB9 RIM=12.65 INV.OUT=8.65 NW	PDMH4 RIM=11.70 INV.IN=3.45 SW INV.IN=4.30 NE INV.OUT=3.35 NW	PDMH12 RIM=8.75 INV.IN=5.35 SW INV.IN=5.35 N INV.OUT=5.35 NE	PDMH18 RIM=16.30 INV.IN=9.00 SE INV.IN=6.00 SW INV.OUT=5.80 NW	PYD3 RIM=11.00 INV.IN=7.10 SW INV.IN=8.00 NW INV.OUT=7.00 NE
CDS1 RIM=10.65 INV.IN=4.30 SE INV.IN=4.30 SW INV.OUT=4.20 NE	PCB4 RIM=8.55 INV.OUT=5.10 NW	PCB10 RIM=12.15 INV.OUT=8.60 NW	PDMH5 RIM=11.30 INV.IN=5.05 NE INV.OUT=4.95 SW	PDMH13 RIM=9.60 INV.IN=5.40 SE INV.IN=5.40 NE INV.IN=4.70 SW INV.OUT=4.65 NW	PDMH19 RIM=11.80 INV.OUT=8.88 SE	PYD4 RIM=13.00 INV.OUT=10.70 SE
CDS2 RIM=9.85 INV.IN=6.00 NE INV.IN=6.00 SE INV.OUT=5.90 SW	PCB5 RIM=9.60 INV.OUT=6.10 NW	PCB11 RIM=8.60 INV.OUT=5.80 NE	PDMH7 RIM=11.95 INV.IN=6.60 NW INV.IN=6.60 SW INV.IN=6.60 W INV.OUT=6.50 SE	PDMH14 RIM=10.00 INV.IN=6.45 NE INV.IN=6.45 NW INV.OUT=6.35 SW	PDMH20 RIM=11.90 INV.OUT=8.88 N	PYD5 RIM=11.50 INV.IN=7.00 W INV.IN=7.15 S INV.OUT=7.05 E

GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:

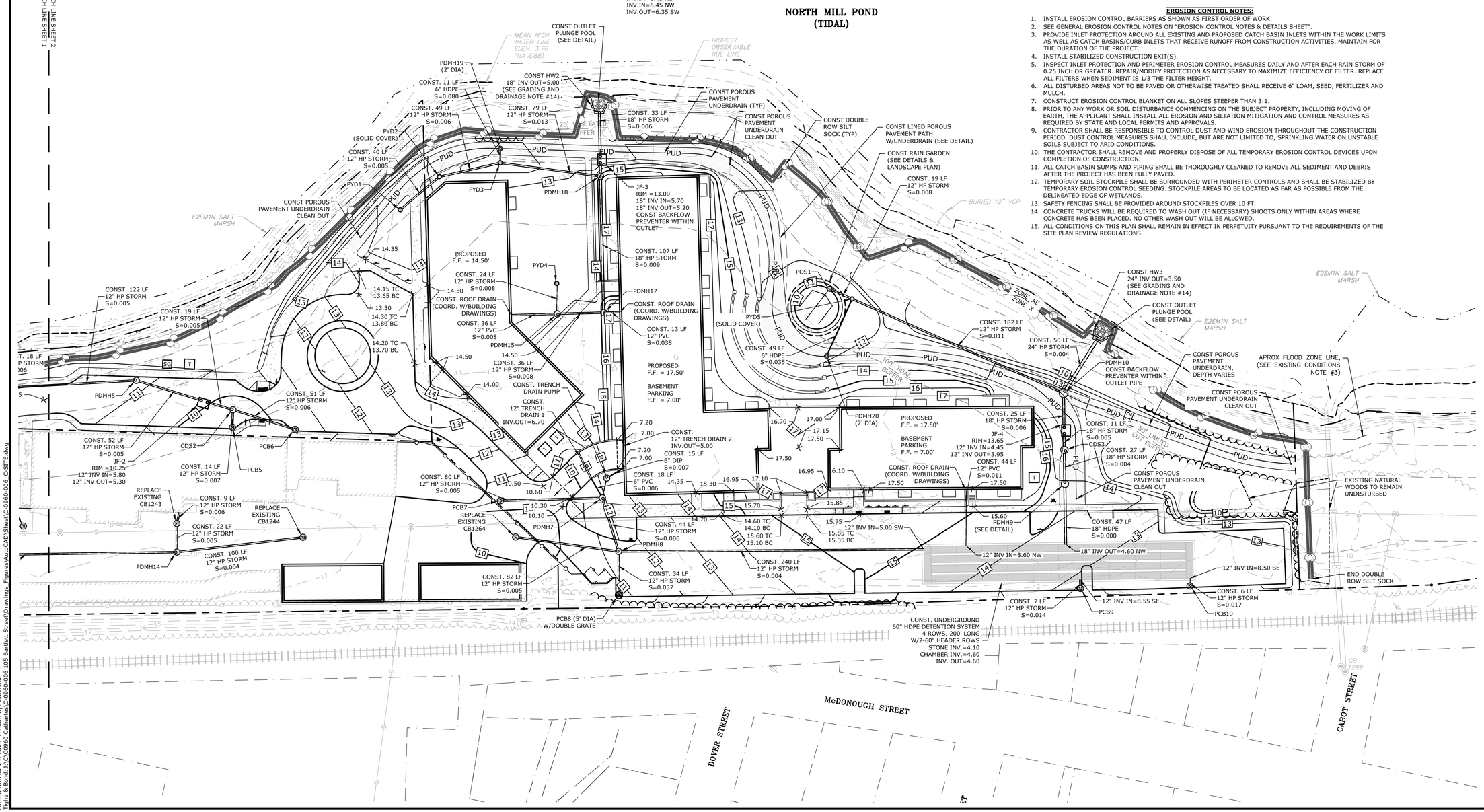
BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%

* 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.

2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL), UNLESS OTHERWISE SPECIFIED.
3. SEE UTILITY PLAN FOR ALL SITE UTILITY INFORMATION.
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.
14. AREAS DISTURBED WITHIN THE 25' VEGETATED BUFFER BY HEADWALLS AND CULVERT CONSTRUCTION SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.

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 INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. MAINTAIN FOR THE DURATION OF THE PROJECT.
4. INSTALL STABILIZED CONSTRUCTION EXIT(S).
5. INSPECT INLET 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 SUMPS 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.
15. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.



0 40' 80'
GRAPHIC SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 3/29/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 3/29/23

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.2

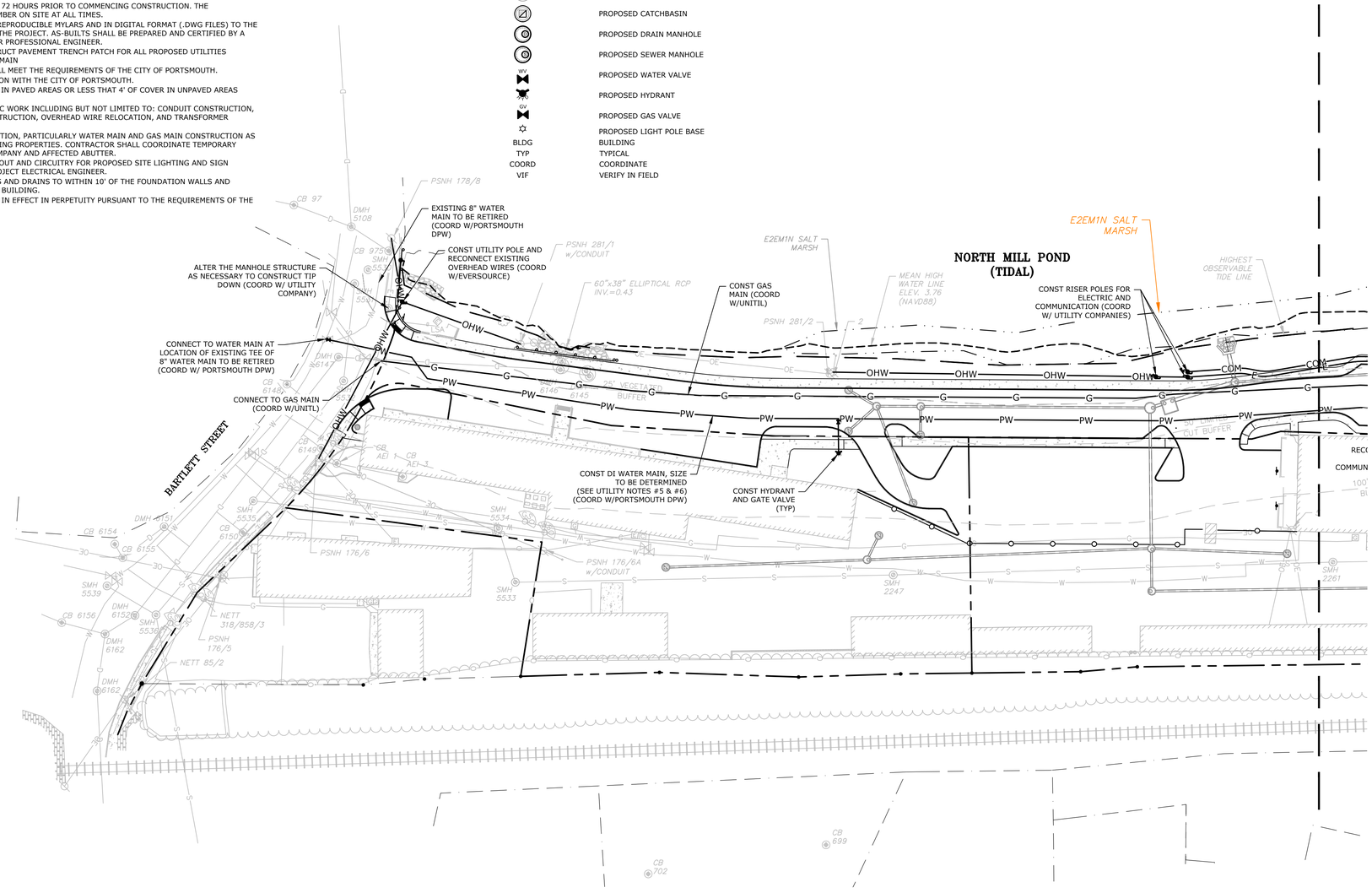
Last Saved: 3/29/2023
Plotted On:Mar 29,2023-9:52am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Catharines\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

UTILITY NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR 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 AT NO ADDITIONAL COST TO THE OWNER.
2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
   - NATURAL GAS - UNITIL
   - WATER/SEWER - CITY OF PORTSMOUTH
   - ELECTRIC - EVERSOURCE
   - COMMUNICATIONS - CONSOLIDATED COMMUNICATIONS & COMCAST
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
5. THE APPLICANT SHALL COORDINATE WITH THE CITY'S CONSULTANT TO COMPLETE A WATER CAPACITY ANALYSIS USING THE CITY'S CAPACITY MODELING AND SHALL MODIFY THE WATER SERVICE DESIGN AS REQUIRED. THE PRIVATE WATER LINE THAT CURRENTLY FEEDS THE DEVELOPMENT LOT SHALL BE EITHER REPLACED OR ABANDONED DEPENDING ON THE OUTCOME OF THE STUDY. ALL MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE DPW AND THE FIRE DEPARTMENT.
6. PROPOSED WATER MAIN WILL REMAIN PRIVATE AND A PRIVATE WATER MAIN MAINTENANCE AGREEMENT WITH THE CITY IS REQUIRED.
7. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
8. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
9. ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
10. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
11. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
12. CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
13. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
14. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
15. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
16. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
17. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
18. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
19. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
20. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
21. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
22. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
23. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
24. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
25. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
26. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
27. ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAT 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
28. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
29. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
30. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
31. CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
32. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

LEGEND

D	EXISTING STORM DRAIN
S	EXISTING SANITARY SEWER
W	EXISTING WATER
G	EXISTING GAS
E	EXISTING UNDERGROUND ELECTRIC
OE	EXISTING OVERHEAD UTILITY
	PROPOSED STORM DRAIN
SS	PROPOSED SANITARY SEWER
PW	PROPOSED WATER
G	PROPOSED GAS
E	PROPOSED UNDERGROUND ELECTRIC
COM	PROPOSED UNDERGROUND TELECOMMUNICATION
	EXISTING CATCHBASIN
	EXISTING DRAIN MANHOLE
	EXISTING SEWER MANHOLE
	EXISTING HYDRANT
WV	EXISTING WATER VALVE
	EXISTING WATER SHUT OFF
GV	EXISTING GAS VALVE
	EXISTING GAS SHUT OFF
	EXISTING UTILITY POLE
	EXISTING ELECTRIC MANHOLE
	EXISTING TELEPHONE MANHOLE
	PROPOSED CATCHBASIN
	PROPOSED DRAIN MANHOLE
	PROPOSED SEWER MANHOLE
WV	PROPOSED WATER VALVE
	PROPOSED HYDRANT
GV	PROPOSED GAS VALVE
	PROPOSED LIGHT POLE BASE
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
VIF	VERIFY IN FIELD



Tighe&Bond

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0 40' 80'
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Proposed Multi-Family Development

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FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

UTILITIES PLAN

SCALE: AS SHOWN

C-104.1

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:54am By: CKrzcuik
Tighe & Bond: J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

LEGEND

D	EXISTING STORM DRAIN
S	EXISTING SANITARY SEWER
W	EXISTING WATER
G	EXISTING GAS
E	EXISTING UNDERGROUND ELECTRIC
OE	EXISTING OVERHEAD UTILITY
	PROPOSED STORM DRAIN
SS	PROPOSED SANITARY SEWER
PW	PROPOSED WATER
G	PROPOSED GAS
E	PROPOSED UNDERGROUND ELECTRIC
COM	PROPOSED UNDERGROUND TELECOMMUNICATION
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	EXISTING DRAIN MANHOLE
	EXISTING SEWER MANHOLE
	EXISTING HYDRANT
WV	EXISTING WATER VALVE
	EXISTING WATER SHUT OFF
GV	EXISTING GAS VALVE
	EXISTING GAS SHUT OFF
	EXISTING UTILITY POLE
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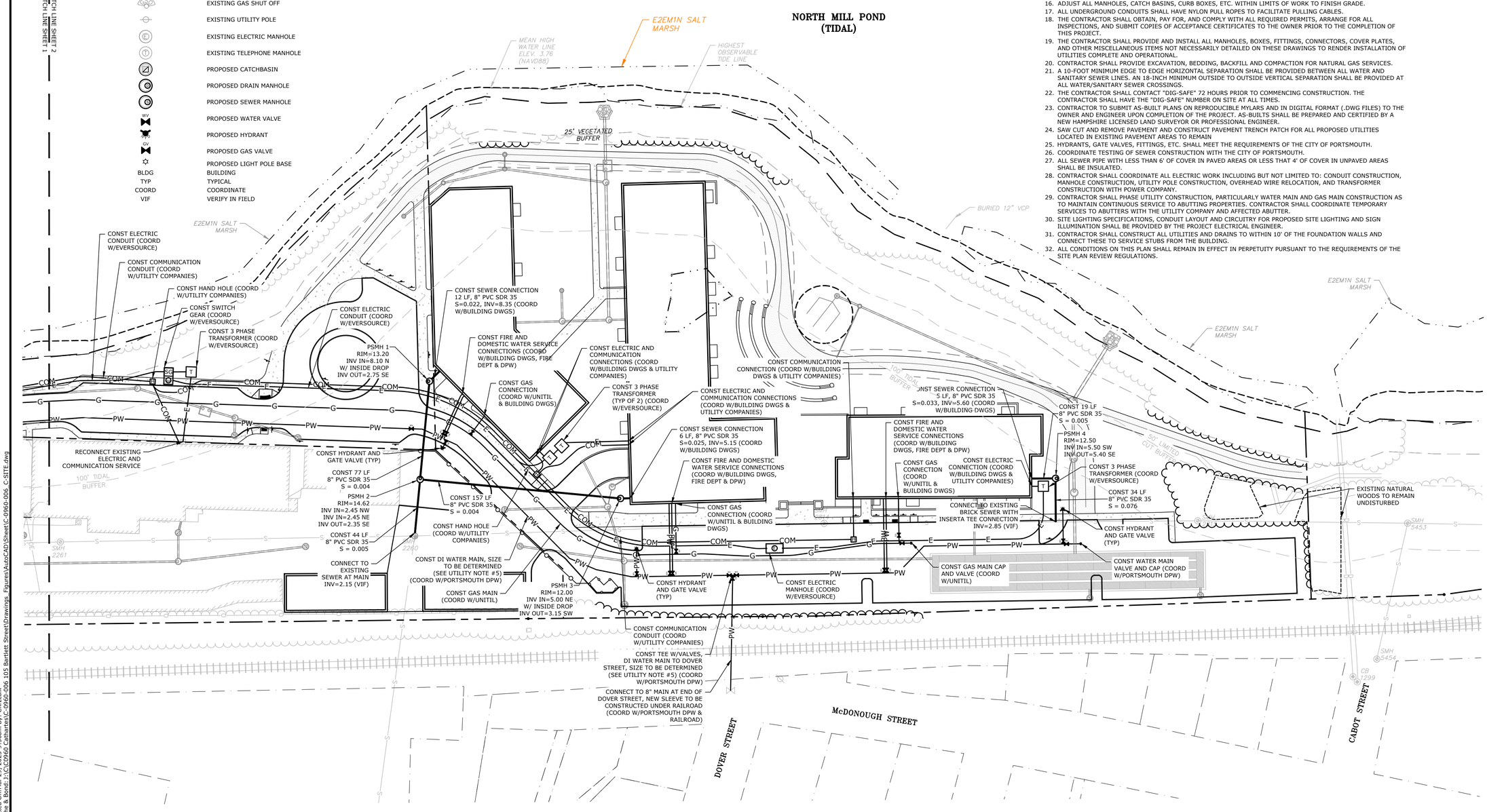

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18. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
19. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
20. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
21. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
22. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
23. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
24. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
25. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
26. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
27. ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAT 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
28. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
29. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
30. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
31. CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
32. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 3/29/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 3/29/23

0 40' 80'
GRAPHIC SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

UTILITIES PLAN

SCALE: AS SHOWN

C-104.2

Last Saved: 3/29/2023
Plotted On:Mar 29, 2023-9:56am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Gatharies\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

GENERAL PROJECT INFORMATION

PROJECT APPLICANT: IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
PROJECT NAME: PROPOSED MULTI-FAMILY DEVELOPMENT
PROJECT ADDRESS: 105 BARTLETT STREET
PORTSMOUTH, NH 03801
PROJECT LATITUDE/LONGITUDE: 43°-04'-20" N / 70°-46'-15" W

PROJECT MAP/LOT:
MAP 157 / LOT 1
MAP 157 / LOT 2
MAP 164 / LOT 1
MAP 164 / LOT 4-2

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF CONSTRUCTING THREE (3) MULTI-FAMILY APARTMENT BUILDINGS WITH TWO (2) OF THE BUILDINGS CONTAINING BASEMENT LEVEL PARKING.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 6.5 ACRES.

SOIL CHARACTERISTICS

BASED ON THE SITE SPECIFIC SOIL SURVEY CONDUCTED BY LEONARD LORD, PHD, CSS, CSW ON OCTOBER 29 AND DECEMBER 2, 2019, THE SOILS ON SITE CONSIST OF URBAN FILLS WITH A HYDROLOGIC SOIL GROUP RATING OF A TO D.

NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA SUBSURFACE DRAINAGE WHICH ULTIMATELY FLOWS TO NORTH MILL POND.

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:

1. CUT AND CLEAR TREES.
2. 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:
   - NEW CONSTRUCTION
   - CONTROL OF DUST
   - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
   - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
3. ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPS PRIOR TO DIRECTING RUNOFF TO THEM.
4. CLEAR AND DISPOSE OF DEBRIS.
5. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
6. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
7. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
8. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
9. SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
10. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
11. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13. 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 DIKES, 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 ABUTTING 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 TRACKING:

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

VEGETATION:

1. TEMPORARY GRASS COVER:
   A. SEEDBED PREPARATION:
      a. SEE LANDSCAPE PLAN FOR SEEDBED PREPARATION REQUIREMENTS;
   B. SEEDING:
      a. SEE LANDSCAPE PLAN FOR SEEDING REQUIREMENTS;
   C. MAINTENANCE:
      a. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
2. VEGETATIVE PRACTICE:
   A. SEE LANDSCAPE PLAN FOR PERMANENT MEASURES AND PLANTINGS:
      a. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
      b. IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.
3. DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
   A. FOLLOW PERMANENT MEASURES REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

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 FLUSHING;
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:

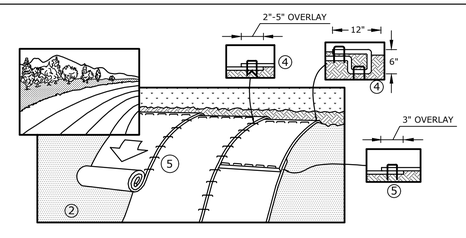
1. WASTE MATERIAL:
   A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
   B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
   C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING 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.
      iii. SECURE FUEL STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
      iv. INSPECT FUEL STORAGE AREAS WEEKLY;
      v. 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;
      vi. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
      vii. 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.
      viii. 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.
      ix. 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-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT, OR ITS SUCCESSOR DOCUMENT.
      HTTPS://WWW.DES.NH.GOV/ORGANIZATION/COMMISSIONER/PIP/FACTSHEETS/DWGB/DOCUMENTS/DWGB-22-6.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.

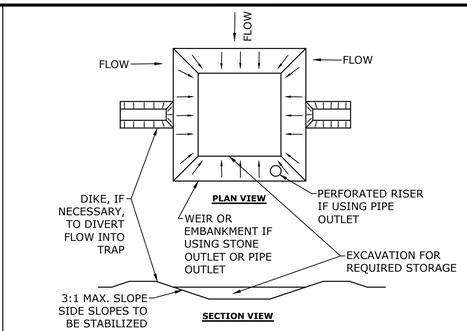
EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

1. THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.
2. THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:
   A. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
   B. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
   C. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
   D. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.



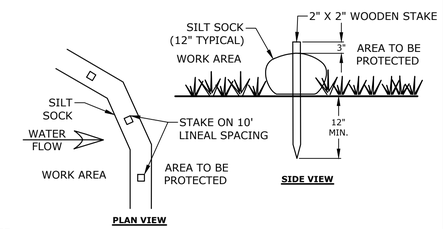
NOTES:
1. EROSION CONTROL BLANKET SHALL BE AN ALL NATURAL PRODUCT WITH NO PHOTO DEGRADABLE COMPONENTS, NORTH AMERICAN GREEN SC150BN OR APPROVED EQUAL.
2. STAKES SHALL BE BIODEGRADABLE BIOSTAKES OR ALL NATURAL WOOD ECOSTAKES OR APPROVED EQUAL. THE LENGTH OF STAKES SHALL BE BASED OFF OF THE MANUFACTURERS RECOMMENDATION.
3. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, COMPOST AND SEED.
4. BEGIN AT THE TOP OF THE SLOPE, 36" OVER THE GRADE BREAK, BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAKES IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAKING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAKES ACROSS THE WIDTH OF THE BLANKET.
5. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAKES IN APPROPRIATE LOCATIONS AS SHOWN ON THE MANUFACTURERS PATTERN GUIDE.

EROSION CONTROL BLANKET
NO SCALE



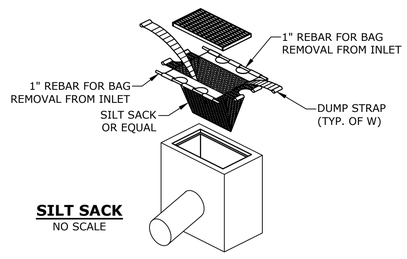
NOTES:
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING AREA TO A SINGLE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. TRAP OUTLET SHALL BE MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP.
5. TRAP SHALL DISCHARGE TO A STABILIZED AREA.
6. TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
8. SEDIMENT TRAPS MUST BE USED AS NEEDED TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.

SEDIMENT TRAP
NO SCALE

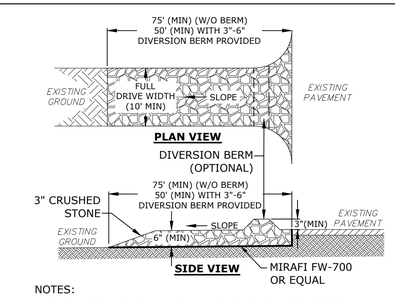


NOTES:
1. SILT SOCK SHALL BE SILT SOXX BY FILTREXX OR APPROVED EQUAL
2. INSTALL SILT SOCK IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

SILT SOCK
NO SCALE



SILT SACK
NO SCALE



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS

STABILIZED CONSTRUCTION EXIT
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED
PROFESSIONAL ENGINEER
1/10/23

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED
PROFESSIONAL ENGINEER
1/10/23

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Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
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CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-501

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Plotted On:Dec 23, 2022-11:04am By: CKrzcuik
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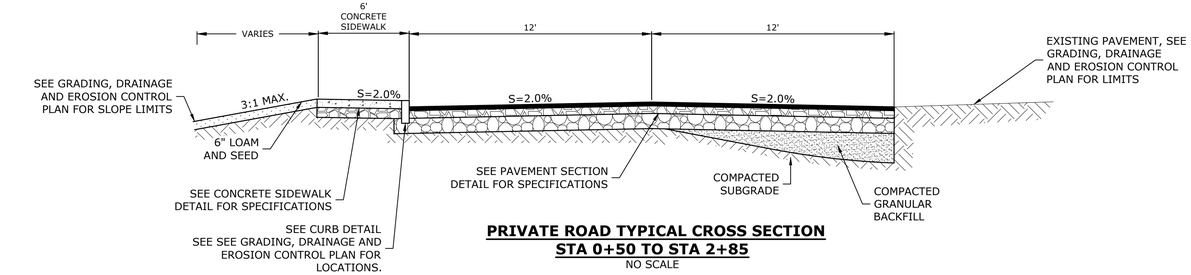
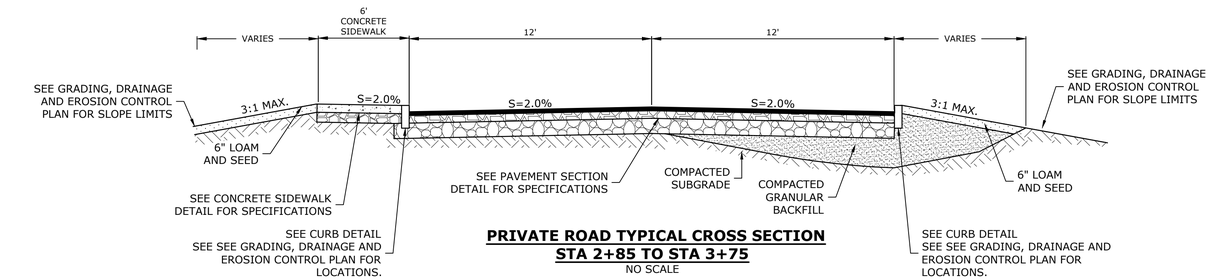
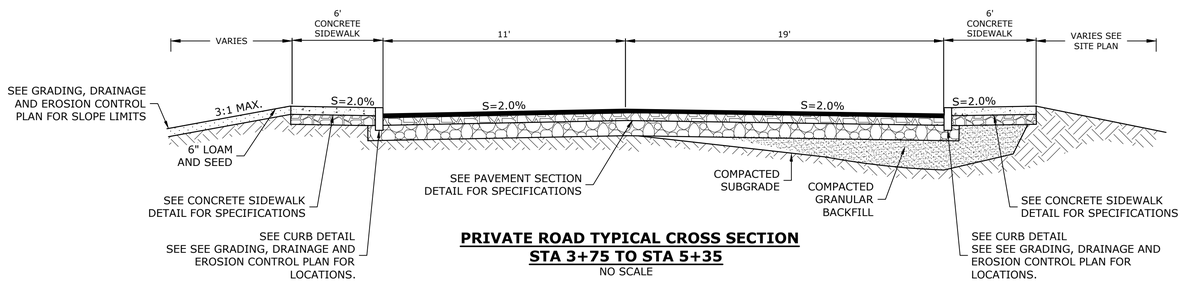


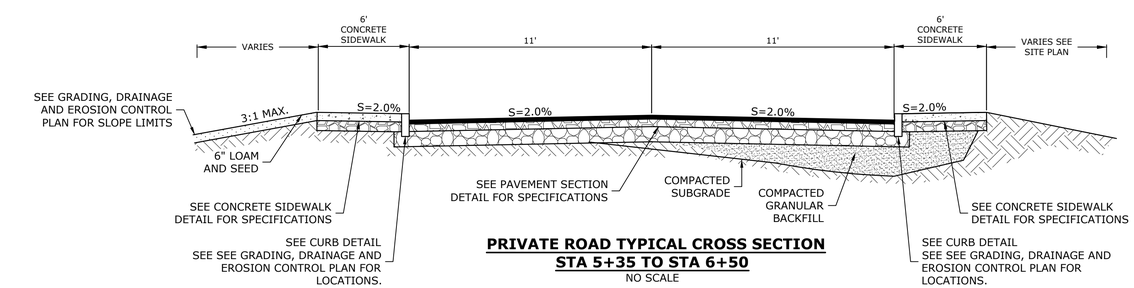
PRIVATE ROAD TYPICAL CROSS SECTION
STA 0+50 TO STA 2+85
NO SCALE



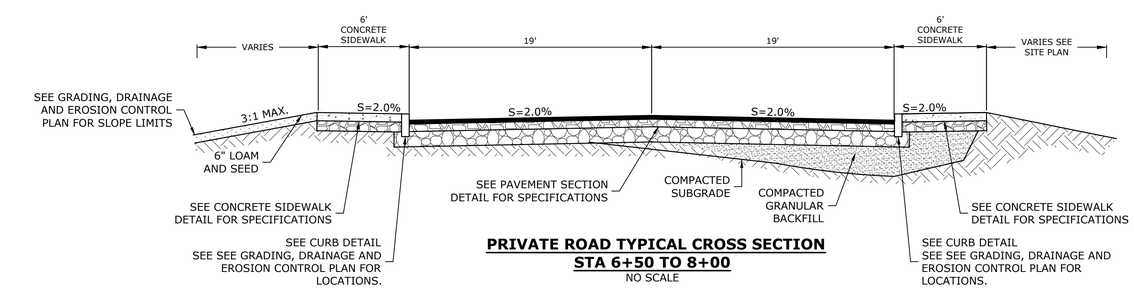
PRIVATE ROAD TYPICAL CROSS SECTION
STA 2+85 TO STA 3+75
NO SCALE



PRIVATE ROAD TYPICAL CROSS SECTION
STA 3+75 TO STA 5+35
NO SCALE



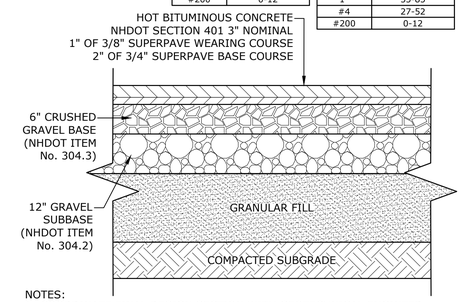
PRIVATE ROAD TYPICAL CROSS SECTION
STA 5+35 TO STA 6+50
NO SCALE



PRIVATE ROAD TYPICAL CROSS SECTION
STA 6+50 TO 8+00
NO SCALE

NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



NOTES:
1. COORDINATE FINAL DESIGN SECTION WITH GEOTECHNICAL ENGINEER.
2. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
3. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
4. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
5. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.

PARKING LOT PAVEMENT SECTION
NO SCALE

NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
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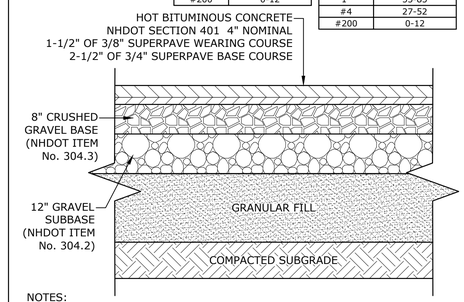
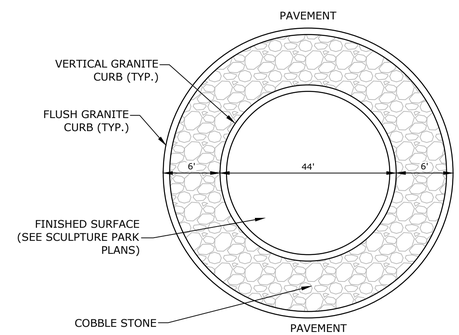
2"	95-100
1"	55-85
#4	27-52
#200	0-12

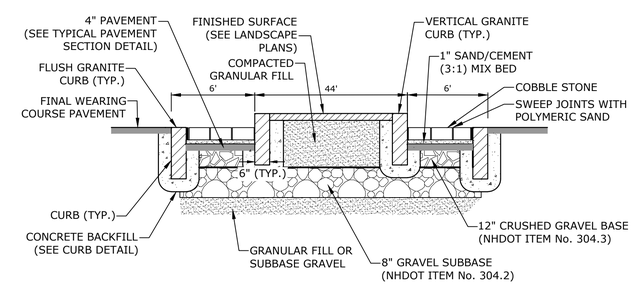


NOTES:
1. COORDINATE FINAL DESIGN SECTION WITH GEOTECHNICAL ENGINEER.
2. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
3. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
4. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
5. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.

ROADWAY PAVEMENT SECTION
NO SCALE



ROUNDABOUT CENTER PLAN VIEW



ROUNDABOUT CENTER SECTION

NOTES:
1. BEDDING MATERIAL SHALL BE A SAND/CEMENT MIX THAT IS 3 PARTS SAND AND 1 PART CEMENT. SAND SHALL CONFORM WITH ASTM C33 AND CEMENT SHALL BE PORTLAND CEMENT TYPE I/TYPE II.

ROUNDABOUT CENTER
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
1/10/23

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Iron Horse Properties, LLC

105 Bartlett Street
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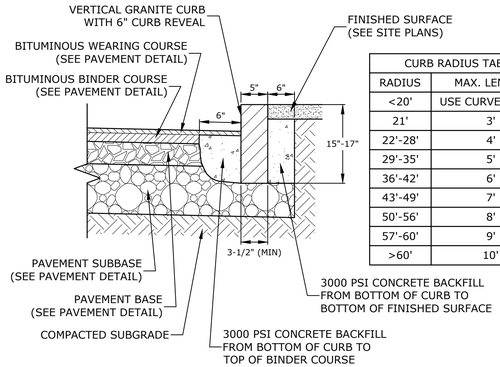
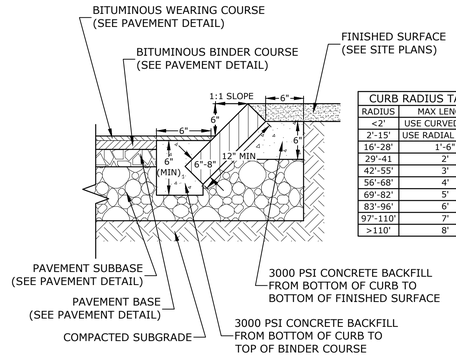


CURB RADIUS TABLE	
RADIUS	MAX. LENGTH
<20'	USE CURVED CURB
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
>60'	10'

NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

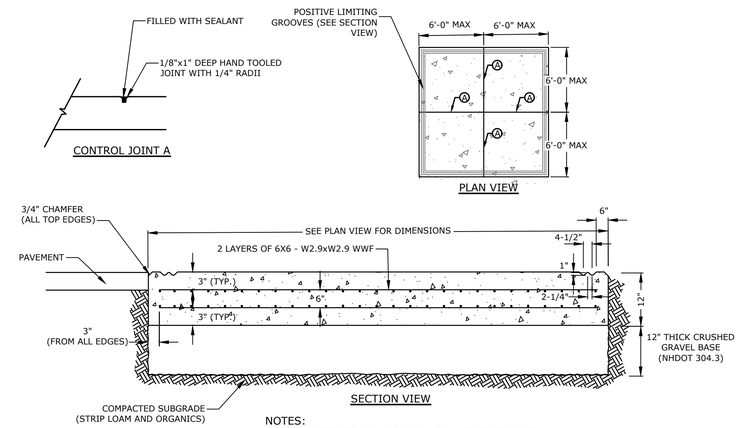
VERTICAL GRANITE CURB
NO SCALE



CURB RADIUS TABLE	
RADIUS	MAX LENGTH
<2'	USE CURVED CURB
2'-15'	USE RADIAL JOINTS
16'-28'	1'-6"
29'-41	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
>110'	8'

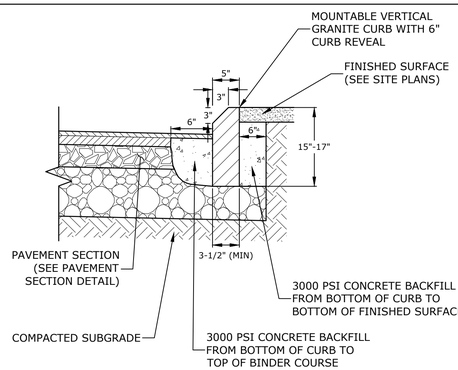
NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF SLOPED GRANITE CURB (SGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

SLOPED GRANITE CURB
NO SCALE



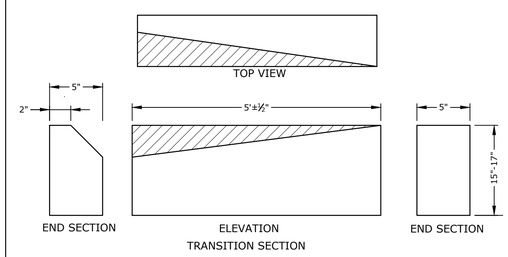
NOTES:
1. CONCRETE TO BE 4500 PSI, 7% AIR ENTRAINED
2. STANDARD BROOM FINISH.

DUMPSTER PAD
NO SCALE



NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF MOUNTABLE VERTICAL GRANITE CURB (MVGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

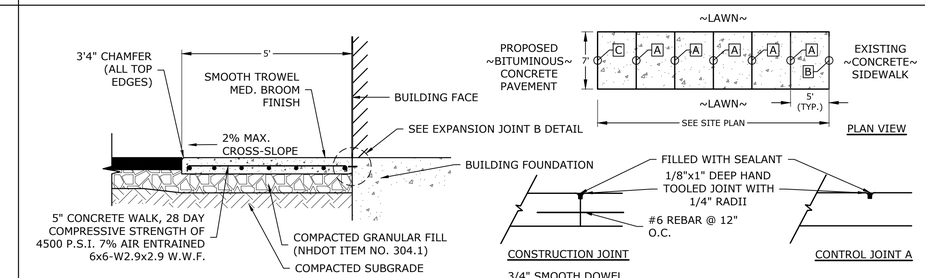
MOUNTABLE VERTICAL GRANITE CURB
NO SCALE

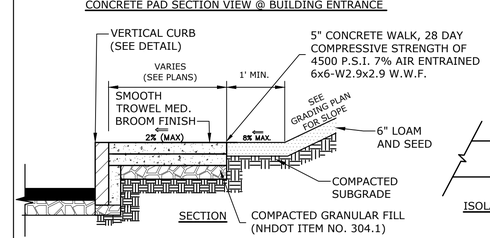


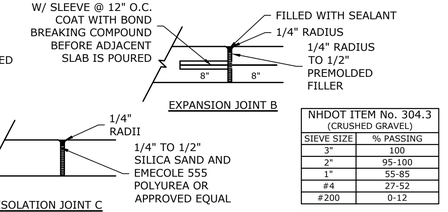
MOUNTABLE VERTICAL GRANITE CURB TO VERTICAL GRANITE CURB

NOTES:
1. THE INTENT OF THIS ITEM IS TO PROVIDE A SMOOTH TRANSITION BETWEEN VERTICAL GRANITE CURB AND MOUNTABLE VERTICAL GRANITE CURB WITHOUT REQUIRING FIELD CHIPPING DURING INSTALLATION. THE MOUNTABLE VERTICAL GRANITE CURB MAY REQUIRE ADJUSTMENTS TO MEET THE TRANSITION PIECE HEIGHT. TRANSITION SLOPE CURB TO STANDARD REVEAL AS QUICKLY AS POSSIBLE TO PROVIDE FOR THIS SMOOTH TRANSITION.

CURB TRANSITION
NO SCALE







NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12

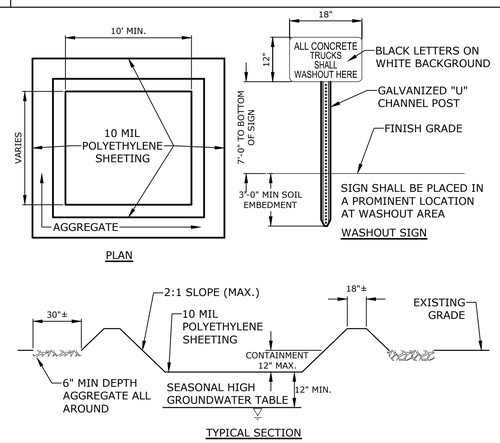
NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

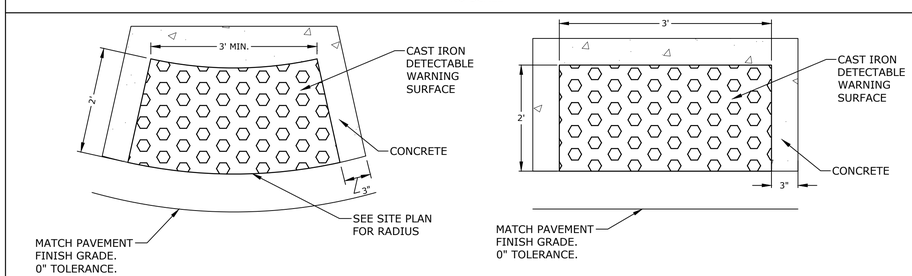
NOTES:
1. SEE SITE PLAN FOR SIDEWALK WIDTH AND LOCATIONS.
2. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR WALK AND SIDE SLOPE GRADES.

CONCRETE SIDEWALK
NO SCALE

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA
NO SCALE





NOTES:
1. DETECTABLE WARNING SURFACE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

RADIUS TYPE CAST IRON DETECTABLE WARNING SURFACE
NO SCALE

Tighe&Bond

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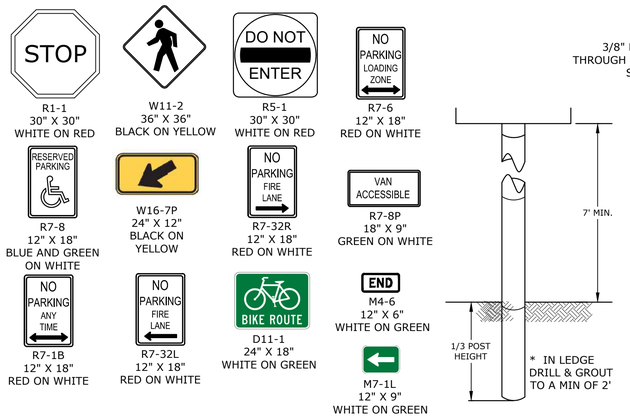
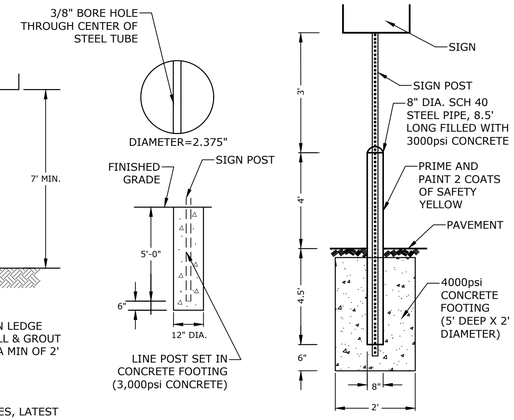


NOTES:
ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
POST: SCHEDULE 40 GALVANIZED STEEL PIPE (OUTSIDE DIA. = 2.375").
FINISH: POST TO BE POWDER COATED GLOSS BLACK
LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER (AS REQUIRED)
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080)

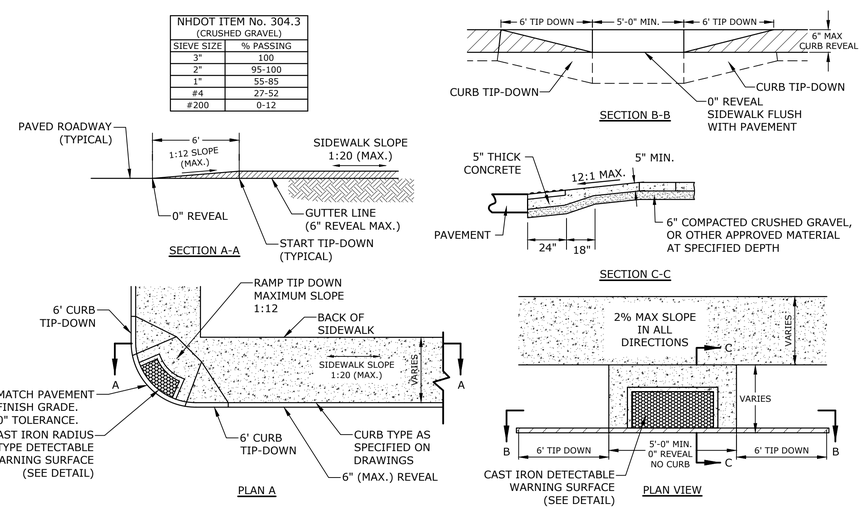
SIGN LEGEND & SIGN POST
NO SCALE



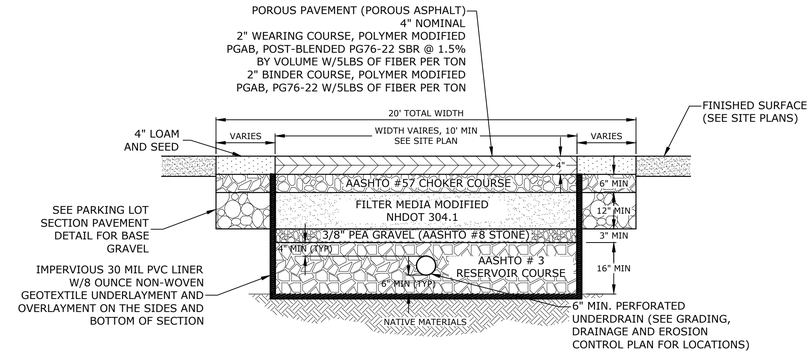
BOLLARD MOUNTED SIGN DETAIL
NO SCALE

NOTES:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
2. A 6" COMPACTED CRUSHED GRAVEL BASE (NHDOT ITEM No. 304.3) SHALL BE PROVIDED BENEATH RAMPS.
3. DETECTABLE WARNING PANEL SHALL BE CAST IRON SET IN CONCRETE (SEE DETAIL.)
4. PROVIDE DETECTABLE WARNING SURFACES ANYTIME THAT A CURB RAMP, BLENDED TRANSITION, OR LANDING CONNECTS TO A STREET.
5. LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB ALONG THE EDGE OF THE LANDING.
6. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 12:1, THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
7. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FT. FROM THE ROADWAY CURBLINE.
8. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS.
9. DETECTABLE WARNING PANELS SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION, OR LANDING AND THE STREET.
10. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST VISUALLY WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT).

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



CONCRETE WHEELCHAIR ACCESSIBLE RAMP
NO SCALE



AASHTO #57 STONE (CHOKER COURSE)	
	% PASSING
1-½"	100
1"	95-100
½"	25-60
#4	0-10
#8	0-5

MODIFIED NHDOT 304.1	
	% PASSING
6"	100
#4	70-100
#200	0-6*

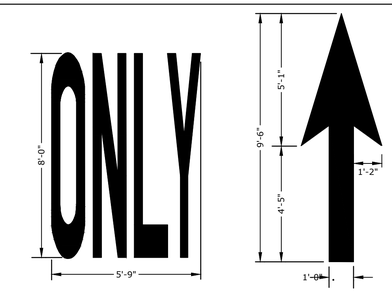
*PREFERABLY <4%

AASHTO #8 STONE (PEA GRAVEL)	
	% PASSING
½"	100
⅜"	85-100
#4	10-30
#8	0-10
#16	0-5

AASHTO #3 STONE (RESERVOIR COURSE)	
	% PASSING
2-½"	100
2"	90-100
1-½"	35-70
1"	0-15
½"	0-5

NOTES:
1. SEE GRADING, DRAINAGE, UTILITIES AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
2. POROUS ASPHALT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS FROM THE UNH STORMWATER CENTER FOR POROUS ASPHALT.
3. POROUS ASPHALT MIX SPECIFIED IS RECOMMENDED BY THE UNH STORMWATER CENTER FOR SITES ANTICIPATING H-20 LOADING.
4. FILTER COURSE TO BE INCREASED AS NECESSARY TO MEET PROPOSED GRADES.
5. INSTALL FILTER COURSE AGGREGATE IN 8-INCH MAXIMUM LIFTS TO A MAXIMUM OF 95% STANDARD PROCTOR COMPACTION (ASTM D698 / AASHTO T99). INSTALL AGGREGATE TO GRADES INDICATED ON THE DRAWINGS.
6. INSTALL CHOKER, GRAVEL, AND STONE BASE COURSE AGGREGATE TO A MAXIMUM OF 95% COMPACTION STANDARD PROCTOR (ASTM D698 / AASHTO T99). CHOKER SHOULD BE PLACED EVENLY OVER SURFACE OF FILTER COURSE BED, SUFFICIENT TO ALLOW PLACEMENT OF PAVEMENT, AND NOTIFY ENGINEER FOR APPROVAL. CHOKER BASE COURSE THICKNESS SHALL BE SUFFICIENT TO ALLOW FOR EVEN PLACEMENT OF THE POROUS ASPHALT BUT NO LESS THAN 6-INCHES IN DEPTH.
7. THE DENSITY OF SUBBASE COURSES SHALL BE DETERMINED BY AASHTO T 191 (SAND-CONE METHOD), AASHTO T 204 (DRIVE CYLINDER METHOD), OR AASHTO T 238 (NUCLEAR METHODS), OR OTHER APPROVED METHODS AT THE DISCRETION OF THE SUPERVISING ENGINEER.

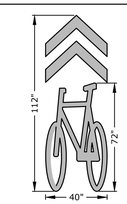
POROUS ASPHALT SECTION
NO SCALE



ONLY LEGEND THROUGH (STRAIGHT) ARROW

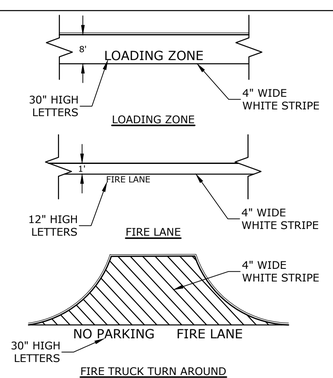
NOTES:
1. ALL WORDS AND SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE LATEST VERSION OF THE MUTCD.
2. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.

DIRECTIONAL PAVEMENT MARKING DETAILS
NO SCALE



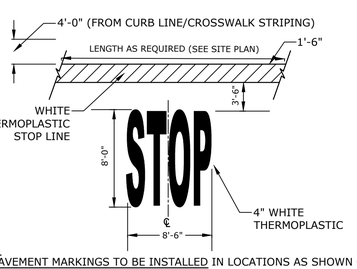
NOTES:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
2. MARKINGS SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

"SHARROW" SHARED LANE MARKING
NO SCALE



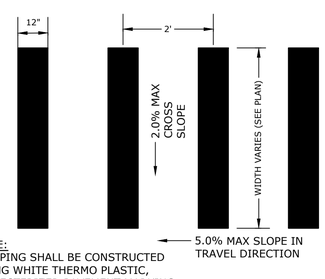
NOTES:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.

PAVEMENT MARKING DETAILS
NO SCALE



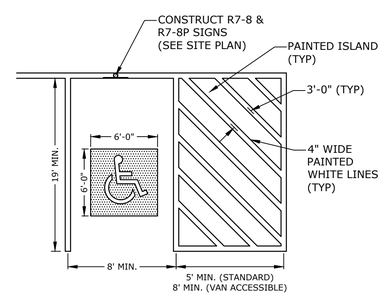
NOTE:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
2. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

STOP BAR AND LEGEND
NO SCALE



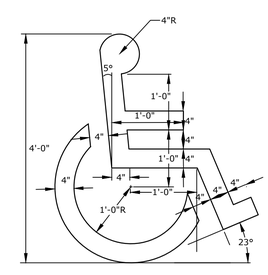
NOTE:
STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

CROSSWALK STRIPING
NO SCALE



NOTES:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN W/DISABILITIES ACT.

ACCESSIBLE PARKING STALL
NO SCALE



NOTES:
1. SYMBOL SHALL BE CONSTRUCTED IN ALL ACCESSIBLE SPACES USING WHITE THERMOPLASTIC, REFLECTORIZED PAVEMENT PARKING MATERAL MEETING THE REQUIREMENTS OF ASTM D 4505.
2. SYMBOL SHALL BE CONSTRUCTED TO THE LATEST ADA, STATE AND LOCAL REQUIREMENTS.

ACCESSIBLE SYMBOL
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 1/10/23

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

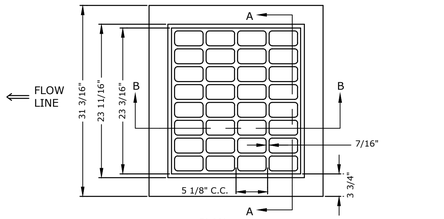
PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

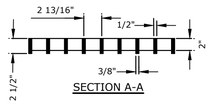
C-504

Last Saved: 12/23/2022
Plotted On:Dec 29, 2022-11:06am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-DTLS.dwg

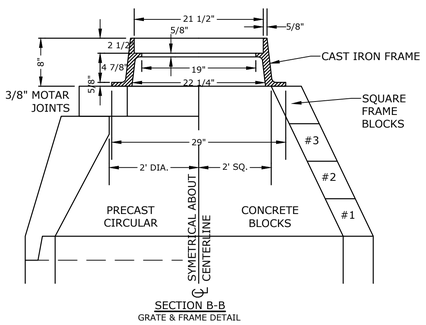


PLAN

NOTE:
1. GRATE TO BE CAST IRON (NHDOT TYPE B)
2. FRAME AND GRATE TO BE MANUFACTURED IN THE USA

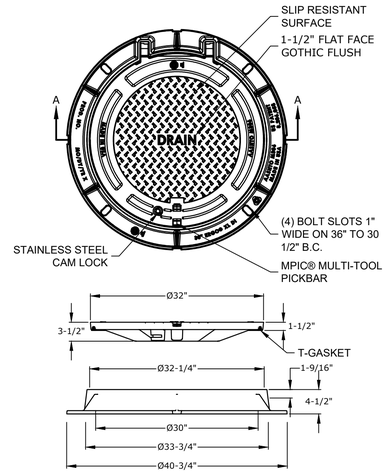


SECTION A-A



SECTION B-B
GRATE & FRAME DETAIL

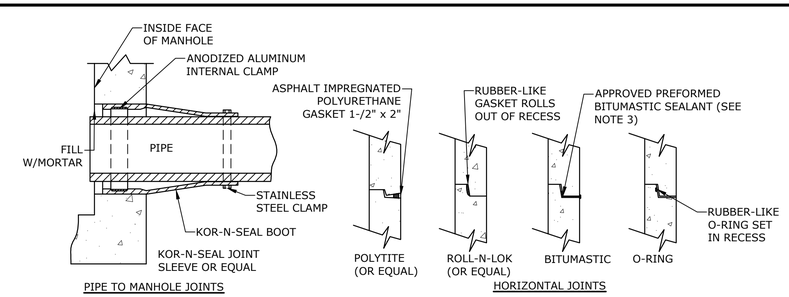
CATCH BASIN FRAME & GRATE
NO SCALE



SECTION A-A

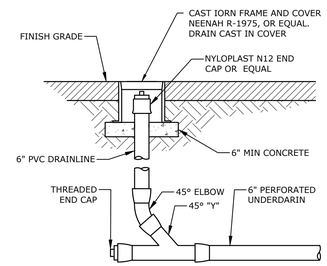
NOTES:
1. MANHOLE FRAME AND COVER SHALL BE 32" HINGED ERGO XL BY EJ CO.
2. ALL DIMENSIONS ARE NOMINAL.
3. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
   A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
   B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN 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.
4. LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN HE CENTER OF THE COVER.

DRAIN MANHOLE FRAME & COVER
NO SCALE



NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

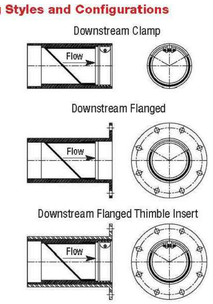
MANHOLE JOINTS
NO SCALE



DRAIN CLEAN-OUT
NO SCALE

NOMINAL PIPE SIZE I.D.*		OVERALL LENGTH**		NUMBER OF CLAMPS	CUFF DEPTH		BACK PRESSURE RATING	
Inches	Millimeters	Inches	Millimeters		Inches	Millimeters	Feet	Meters
12	300	23	584	1	2	51	40	12
18	450	31	787	1	4	102	20	6
24	600	47.5	1207	2	8	203	20	6

Mounting Styles and Configurations



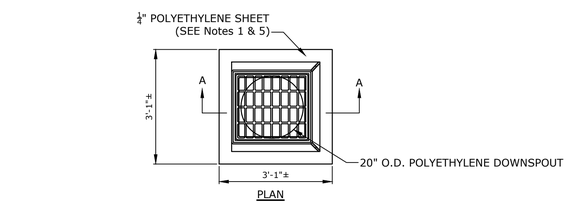
Flange shape and bolt pattern can be customized.
Flangeless thimble inserts are available.

TYPICAL BACK FLOW PREVENTER
NO SCALE

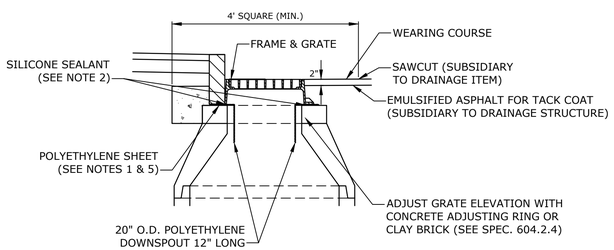
Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
1/10/23



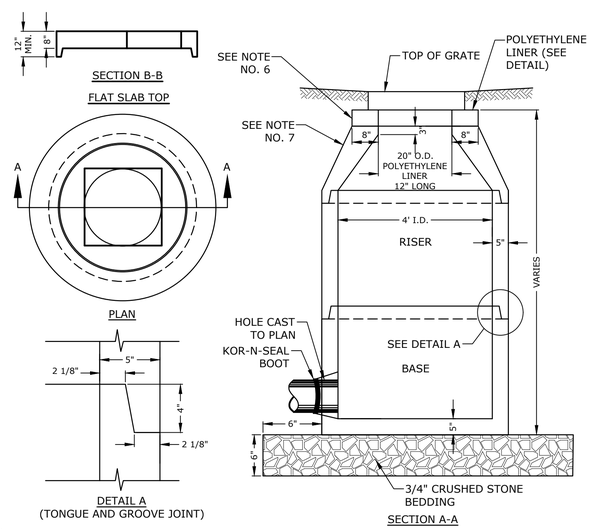
PLAN



SECTION A-A

NOTES:
1. POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
3. PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF THE GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
4. USE ON DRAINAGE STRUCTURES 4' MIN. DIAMETER ONLY.
5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).
6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
7. PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
8. SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS", FOR ADDITIONAL INFORMATION.
9. CATCHBASINS WITHIN CITY RIGHT OF WAY SHALL HAVE A POLYETHYLENE LINER

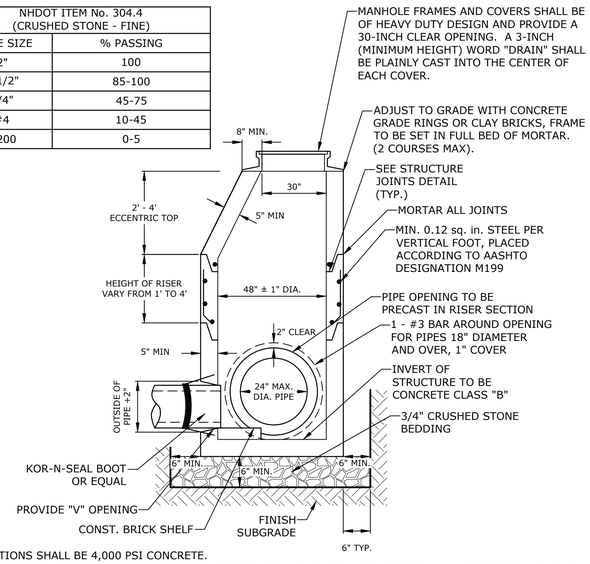
POLYETHYLENE LINER
NO SCALE



NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 psi).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
5. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
6. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
7. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
8. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
9. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
10. 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.
11. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.

4' DIAMETER CATCHBASIN
NO SCALE

NHDOT ITEM No. 304.4 (CRUSHED STONE - FINE)	
SIEVE SIZE	% PASSING
2"	100
1-1/2"	85-100
3/4"	45-75
#4	10-45
#200	0-5



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 (6" 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 HORIZNTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

4' DIAMETER DRAIN MANHOLE
NO SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-505

Last Saved: 12/23/2022
Plotted On:Dec 23, 2022-11:07am By: CKrzcuik
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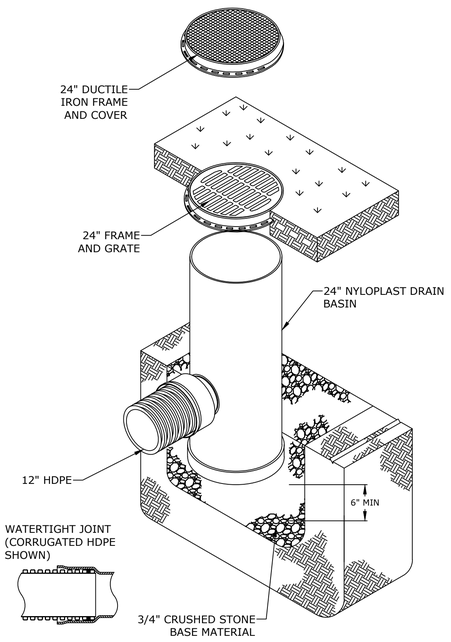
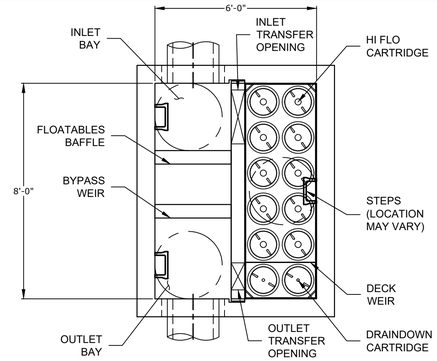
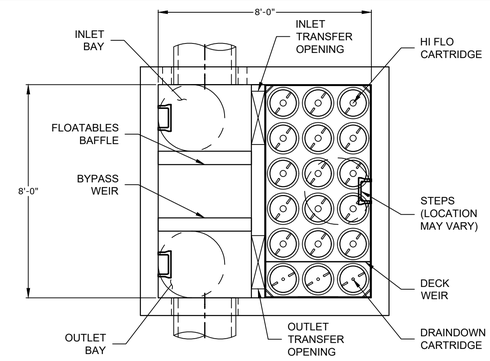


NOTES:
1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. SEE GRADING, DRAINAGE, AND EROSION CONTROL PLAN FOR LOCATIONS.

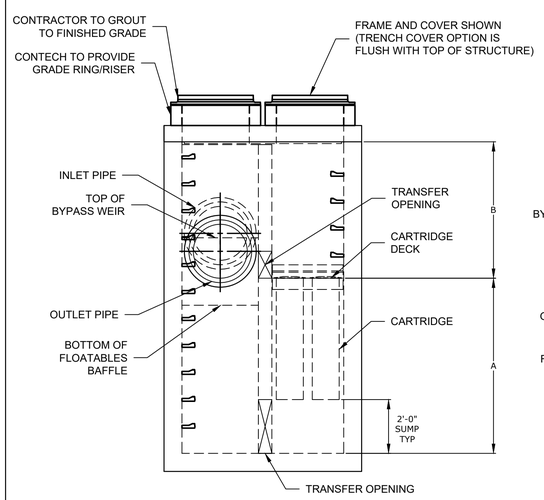
YARD DRAIN
NO SCALE



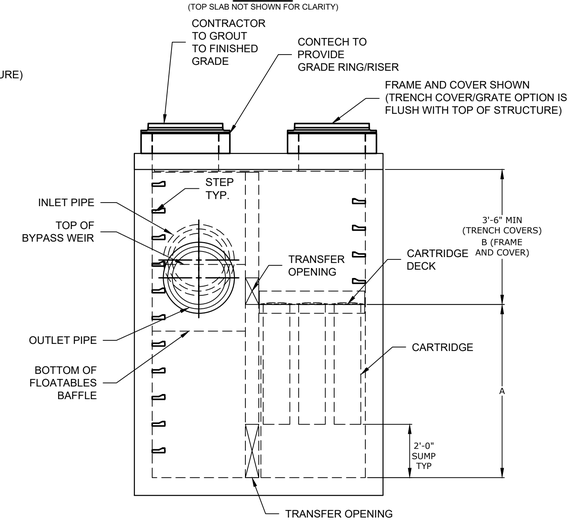
PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



ELEVATION VIEW
JELLYFISH JFPD0806



ELEVATION VIEW
JELLYFISH JFPD0808

CONTECH JELLYFISH STORMWATER FILTER
NO SCALE

JELLYFISH JFPD0808 - DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD

CARTRIDGE SELECTION

CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	2.94	2.21	1.47	0.81
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

JELLYFISH JFPD0806 - DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD

CARTRIDGE SELECTION

CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	1.96	1.47	0.98	0.54
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

SITE SPECIFIC DATA REQUIREMENTS

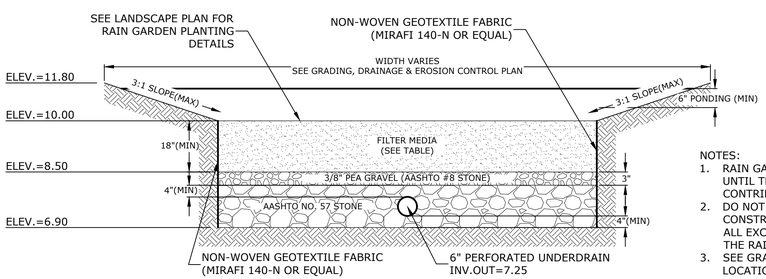
STRUCTURE ID	JF-1	JF-2	JF-3	JF-4
MODEL SIZE	JFPD0808	JFPD0806	JFPD0806	JFPD0806
WATER QUALITY FLOW RATE (cfs)	2.85	0.63	0.89	1.48
PEAK FLOW RATE (cfs)	26.54	5.13	7.62	8.19
RETURN PERIOD OF PEAK FLOW (yrs)	25	25	25	25
# OF CARTRIDGES REQUIRED (HF / DD)	15/3	5/1	5/1	8/2
CARTRIDGE SIZE	54"	40"	54"	54"

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH 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.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 3', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED)
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
D. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
E. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (866) 740-3318.

Jellyfish Filter
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING: U.S. PATENT NO. 8,287,726; 8,221,618 & US 8,123,935; OTHER INTERNATIONAL PATENTS PENDING

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX



SECTION VIEW

FILTER MEDIA COMPOSITION:

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL SIEVE NO.	PERCENT PASSING
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE #5	
LOAMY SAND TOPSOIL	20-30	200	15-25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX

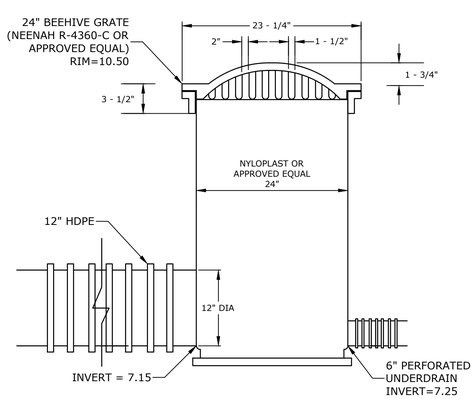
AASHTO #8 STONE (#8 to 3/8")	
SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

AASHTO #57 STONE (#4 to 1")	
SIEVE SIZE	% PASSING
1-1/2"	100
1"	95-100
1/2"	25-60
#4	0-10
#8	0-5

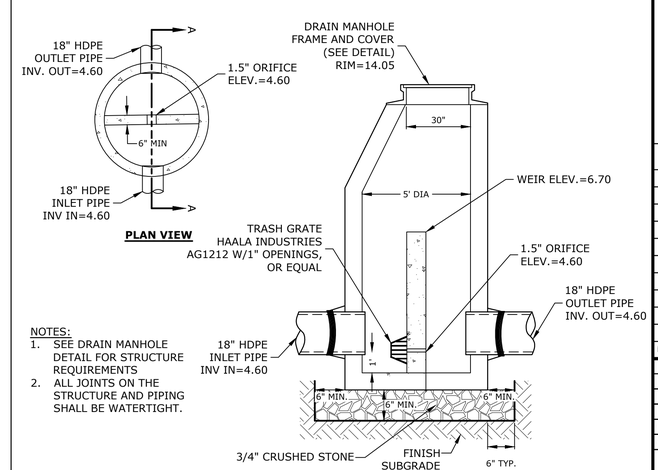
NOTES:
1. RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
2. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
3. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
4. THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	5-30
#100	0-10

RAIN GARDEN
NO SCALE



OUTLET STRUCTURE (POS1) DETAIL
NO SCALE



NOTES:
1. SEE DRAIN MANHOLE DETAIL FOR STRUCTURE REQUIREMENTS
2. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

PDMH9 (5' DIA)
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
1/10/23

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

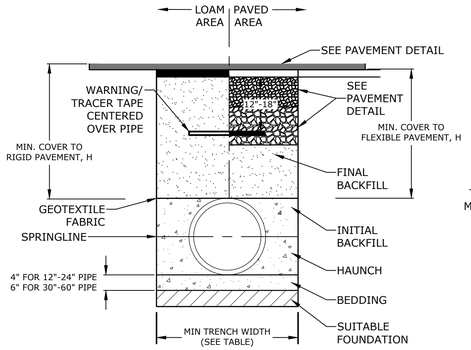
PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-506

Last Saved: 12/23/2022
Plotted On:Dec 28, 2022-11:07am By: CKrzcuik
Tighe & Bond:J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Drawings_Figures\AutoCAD\Sheet\C-0960-006_C-DTLS.dwg



PIPE DIAM.	MIN. TRENCH WIDTH
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"

TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

	SURFACE LIVE LOADING CONDITION	
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
60"	24"	60"

TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITION
* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

	CLASS I	CLASS II		CLASS III		CLASS IV
PIPE DIA.	COMPACTED	95%	90%	85%	90%	95%
12"	41'	28'	21'	16'	20'	16'	16'
15"	42'	29'	21'	16'	21'	16'	16'
18"	44'	30'	21'	16'	22'	17'	16'
24"	37'	26'	18'	14'	19'	14'	14'

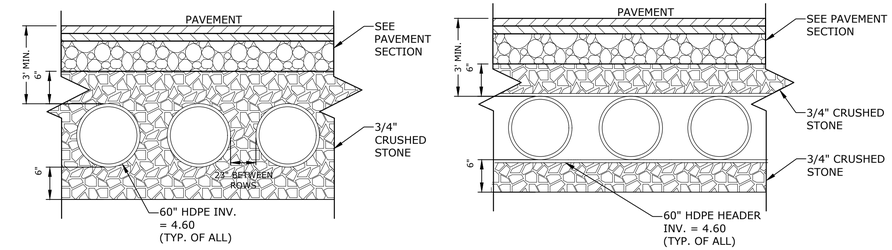
TABLE 3, MAXIMUM COVER FOR ADS HP STORM PIPE
FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12,
LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH
THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE
UNIT WEIGHT OF SOIL (γs) = 120 PCF

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321. CLASS IVB MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE AS JUDGED BY THE ENGINEER, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL. REFER TO SPECIFICATION 310000 EARTHWORK - SITE.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm) DIAMETER PIPE; 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
6. MINIMUM COVER: FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
7. FOR ADDITIONAL INFORMATION SEE TECHNICAL NOTE 2.04.

HP STORM TRENCH INSTALLATION DETAIL

NO SCALE



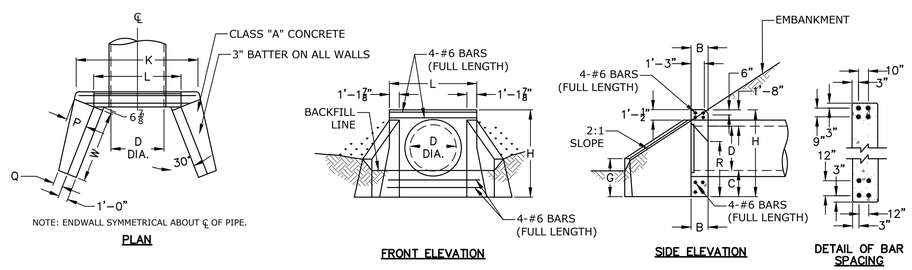
UNDERGROUND DETENTION AREA **HEADER ROW**

NOTES:

1. UNDERGROUND DETENTION SYSTEM TO BE 60" HDPE PIPE DESIGNED FOR H-20 LOADING. CONTRACTOR TO SUBMIT PIPE SPECIFICATIONS AND FINAL MANUFACTURES DESIGN TO ENGINEER FOR APPROVAL.
2. MANUFACTURER TO SUBMIT PLANS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
3. THE DESIGN ENGINEER SHALL PROVIDE SUFFICIENT INSPECTION TO CERTIFY THAT THE SYSTEM HAS BEEN INSTALLED PER THE APPROVED DESIGN PLAN.
4. REFER TO STANDARD DUTY PAVEMENT SECTION DETAIL FOR PAVEMENT SECTION.

UNDERGROUND DETENTION SYSYTEM DETAIL

NO SCALE



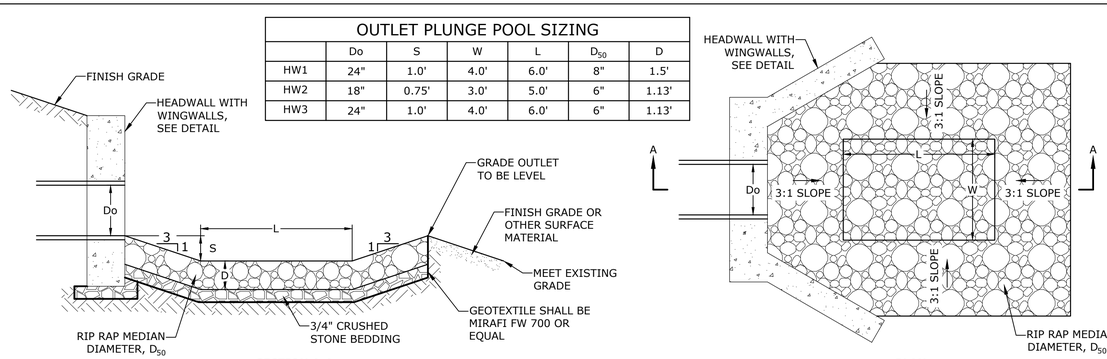
DIMENSIONS AND QUANTITIES FOR ONE WING TYPE ENDWALL												
D	B	C	G	H	K	L	P	Q	R	W	VOL.
IN.*	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	CY
24	1'-6"	2'-0"	3'-3"	6'-9"	9'-1 1/2"	7'-3 3/4"	1'-4 5/8"	0'-9 3/4"	3'-4 5/8"	5'-5 3/4"	5.87
36	1'-6"	2'-0"	3'-3"	6'-8"	9'-1 1/2"	7'-3 3/4"	1'-4 5/8"	0'-9 3/4"	3'-4 5/8"	5'-5 3/4"	5.87
42	1'-6"	2'-0"	3'-3"	7'-2"	9'-10 1/4"	7'-9 3/4"	1'-6 3/8"	0'-9 3/4"	3'-10 1/4"	6'-2 3/4"	6.67

* FOR D<36" USE DIMENSIONS LISTED FOR D=36"

HEADWALL WITH WINGWALLS

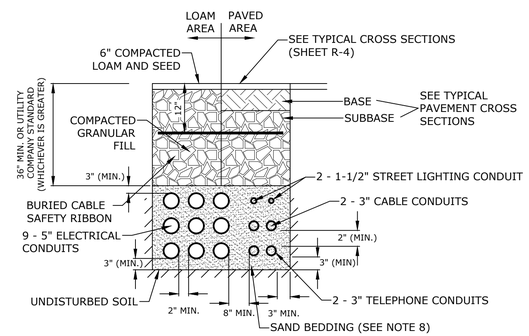
NO SCALE

OUTLET PLUNGE POOL SIZING						
	Do	S	W	L	D_{50}	D
HW1	24"	1.0'	4.0'	6.0'	8"	1.5'
HW2	18"	0.75'	3.0'	5.0'	6"	1.13'
HW3	24"	1.0'	4.0'	6.0'	6"	1.13'



OUTLET PLUNGE POOL

NO SCALE

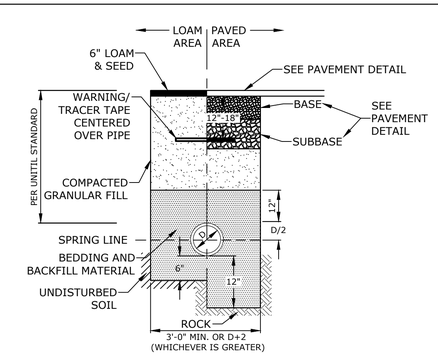


NOTES:

1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY OR AS SHOWN ON ELECTRICAL DRAWINGS. CONTRACTOR TO PROVIDE ONE SPARE CONDUIT FOR EACH UTILITY TO BUILDING.
2. DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
3. NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 36 TO 48 INCH RADIUS.
8. SAND BEDDING TO BE REPLACED WITH CONCRETE ENCASEMENT WHERE COVER IS LESS THAN 3 FEET, WHEN LOCATED BELOW PAVEMENT, OR WHERE SHOWN ON THE UTILITIES PLAN.

ELECTRICAL AND COMMUNICATION CONDUIT

NO SCALE

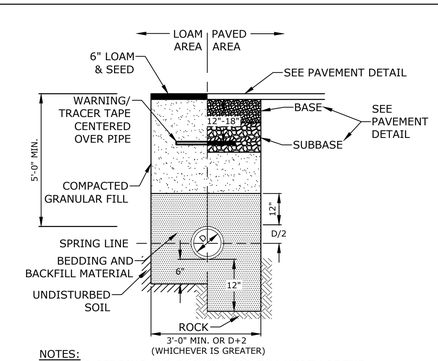


NOTE:

1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. GAS SHALL BE INSTALLED PER UNITIL STANDARDS. COORDINATE ALL INSTALLATIONS WITH UNITIL AND THE CITY OF PORTSMOUTH.

GAS TRENCH

NO SCALE



NOTES:

1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. WATER MAIN SHALL BE INSTALLED PER CITY OF PORTSMOUTH STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.
3. WATER MAIN TO BE PLACED IN A PROTECTIVE POLYWRAP AND INSTALLED WITH 3 CONTINUITY WEDGES PER JOINT.

WATER TRENCH

NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED
PROFESSIONAL ENGINEER
1/10/23

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED
PROFESSIONAL ENGINEER
1/10/23

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
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F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
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DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-507

Last Saved: 12/23/2022
Plotted On:Dec 23, 2022-11:07am By: CKrzcuik
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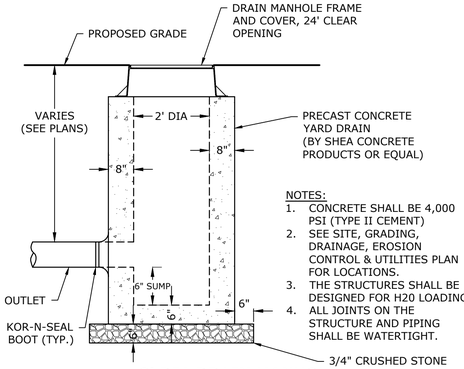
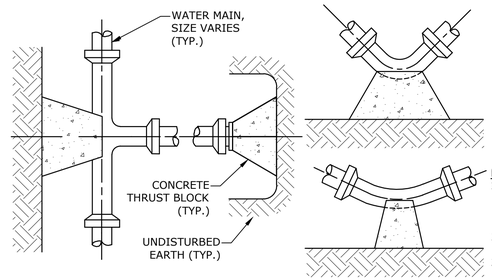


NOTES:
1. CONCRETE SHALL BE 4,000 PSI (TYPE II CEMENT)
2. SEE SITE, GRADING, DRAINAGE, EROSION CONTROL & UTILITIES PLAN FOR LOCATIONS.
3. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
4. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

2' DIA DRAIN MANHOLE
NO SCALE

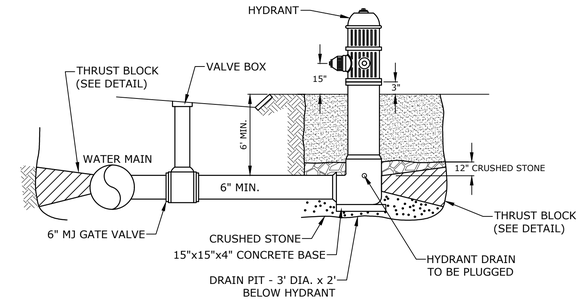


TEST PRESSURE = 200psi

REACTION TYPE	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL — PIPE SIZE 4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24
B 180°	0.65	1.55	2.78	8.38	12.00
C 45°	0.48	1.19	2.12	6.02	9.32
D 22-1/2°	0.25	0.60	1.06	3.08	4.74
E 11-1/4°	0.13	0.30	0.54	1.54	2.38

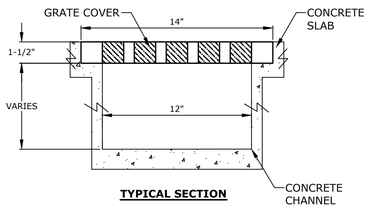
NOTES:
1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.

THRUST BLOCKING DETAIL
NO SCALE

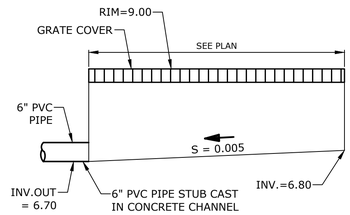


NOTE:
1. HYDRANT TO BE KENNEDY TYPE K-81, RIGHT OPEN (NO EQUAL). COORDINATE WITH CITY OF PORTSMOUTH WATER DEPARTMENT AND CITY OF PORTSMOUTH FIRE DEPARTMENT.
2. PAINT HYDRANT IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AFTER INSTALLATION AND TESTING.

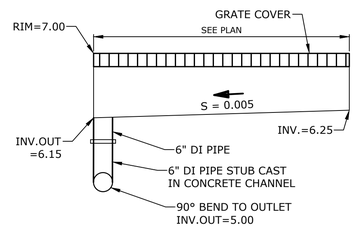
FIRE HYDRANT
NO SCALE



TYPICAL SECTION



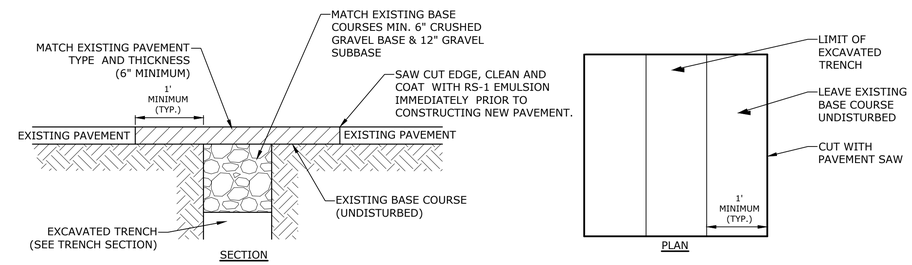
TRENCH DRAIN #1 PROFILE



TRENCH DRAIN #2 PROFILE

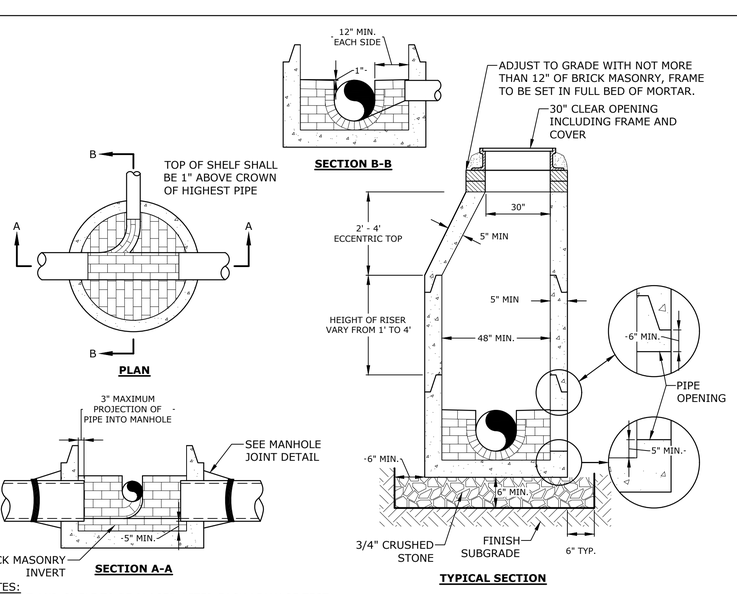
NOTES:
1. TRENCH DRAIN FRAME AND GRATE SHALL BE MULTIDRAIN ECONODRAIN SERIES #12 OR EQUAL.

TRENCH DRAIN DETAIL
NO SCALE



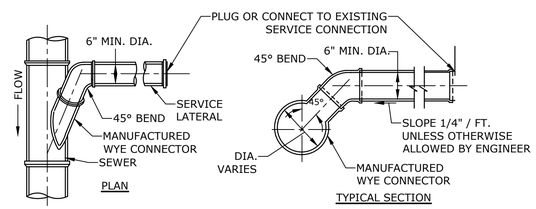
NOTE:
COORDINATE AND OBTAIN APPROVAL FOR ALL TRENCHING AND PATCHING WITHIN CITY RIGHT OF WAY WITH CITY OF PORTSMOUTH DPW PRIOR TO COMMENCING WORK.

ROADWAY TRENCH PATCH
NO SCALE

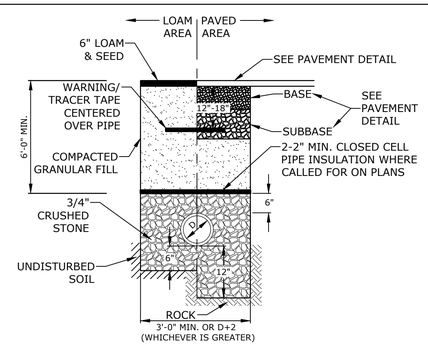


NOTES:
1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
3. INVERT BRICKS SHALL BE LAID ON EDGE.
4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
5. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY EJ. FRAMES AND COVERS WILL BE PURCHASED FROM THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS. ALL OTHER MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.

SEWER MANHOLE
NO SCALE

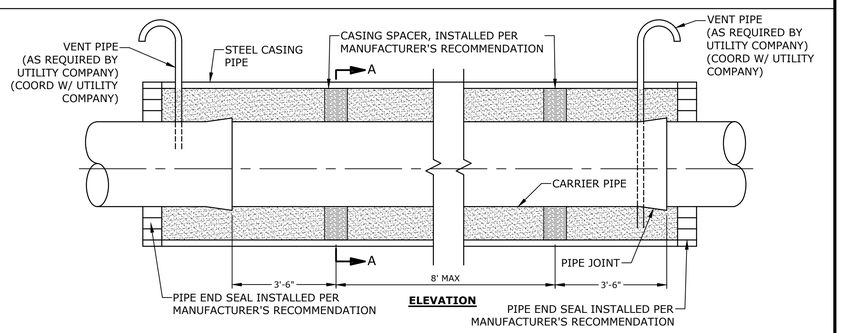


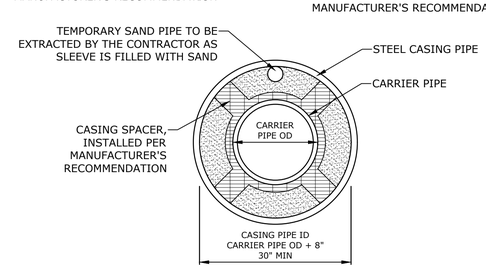
STANDARD SERVICE LATERAL CONNECTION
NO SCALE



NOTE:
1. CRUSHED STONE BEDDING FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK. CRUSHED STONE SHALL ALSO COMPLETELY ENCASE THE PIPE AND COVER THE PIPE TO A GRADE 6" OVER THE TOP OF THE PIPE FOR THE ENTIRE WIDTH OF THE TRENCH.
2. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

SEWER SERVICE TRENCH
NO SCALE





NOTES:
1. SEAL ENDS OF SLEEVE TO PREVENT MIGRATION OF MATERIAL AND WATER THROUGH ANNULAR SPACE BETWEEN CASING PIPE AND CARRIER PIPE
2. STEEL CASING PIPE SHALL MEET COOPERS E-80 RAILROAD LOADING WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI AND SHALL CONFORM TO THE LATEST REVISIONS OF THE REQUIREMENTS OF A.W.A. STANDARDS FOR FABRICATING ELECTRICALLY WELDED STEEL WATER PIPES OR ITS EQUIVALENT.
3. STEEL CASING PIPE JOINTS SHALL BE FULLY WELDED AROUND THE COMPLETE CIRCUMFERENCE OF THE PIPE.
4. CONTRACTOR SHALL COORDINATE ALL UTILITY AND CARRIER PIPE WORK WITHIN THE RAIL ROAD RIGHT OF WAY WITH PAN-AM & THE CITY PORTSMOUTH DPW PRIOR TO CONSTRUCTION.

WATER PIPELINE SLEEVE DETAIL (CARRIER PIPE)
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 1/10/23

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
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H	1/20/2021	TAC Resubmission
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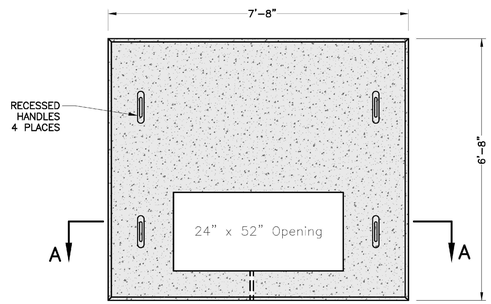
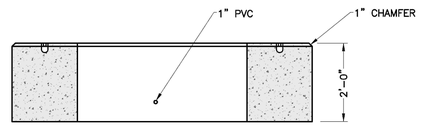


PLAN

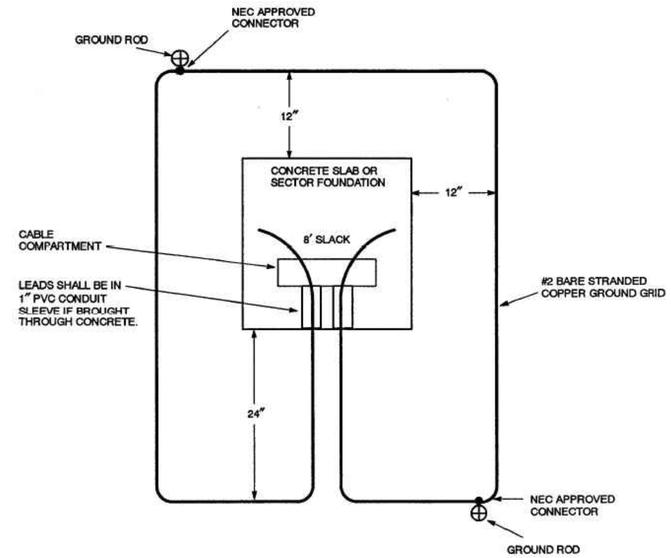


SECTION A–A

3-PHASE TRANSFORMER PAD

NO SCALE

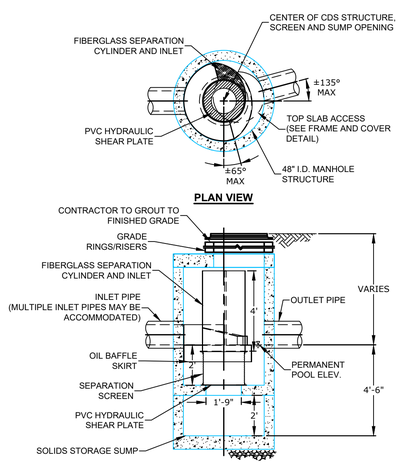
NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION
2. CONCRETE MINIMUM STRENGTH - 4,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. PAD MEETS OR EXCEEDS EVERSOURCE SPECIFICATIONS



NOTES:
THE GROUND GRID SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AND IS TO BE BURIED AT LEAST 12 INCHES BELOW GRADE. EIGHT FEET OF EXTRA WIRE FOR EACH GROUND GRID LEG SHALL BE LEFT EXPOSED IN THE CABLE COMPARTMENT TO ALLOW FOR THE CONNECTION TO THE TRANSFORMER. THE TWO 8-FOOT GROUND RODS MAY BE EITHER GALVANIZED STEEL OR COPPERWELD AND THEY SHALL BE CONNECTED TO THE GRID WITH NEC APPROVED CONNECTORS.

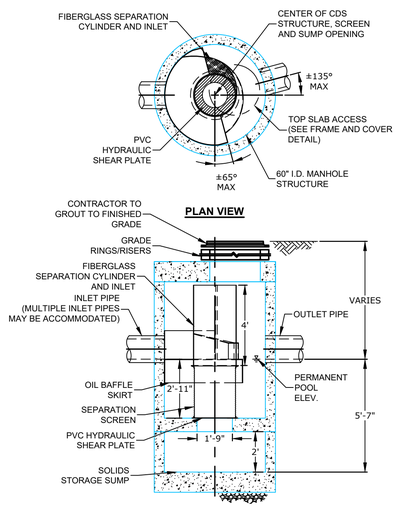
PAD-MOUNTED EQUIPMENT GROUNDING GRID DETAIL

NO SCALE



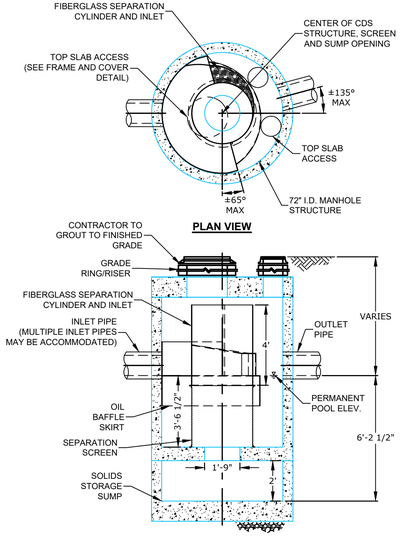
ELEVATION VIEW

INLINE CDS2015-4



ELEVATION VIEW

INLINE CDS2025-5



ELEVATION VIEW

INLINE CDS3030-6

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID	CDS-1	CDS-2	CDS-3
MODEL SIZE	CDS3030-6	CDS2015-4	CDS2025-5
WATER QUALITY FLOW RATE (cfs)	2.85	0.63	1.48
PEAK FLOW RATE (cfs)	26.54	5.13	8.19
RETURN PERIOD OF PEAK FLOW (yrs)	25	25	25

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH CDS PRETRATMENT UNITS

NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER 1/10/23

STATE OF NEW HAMPSHIRE NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER 1/10/23

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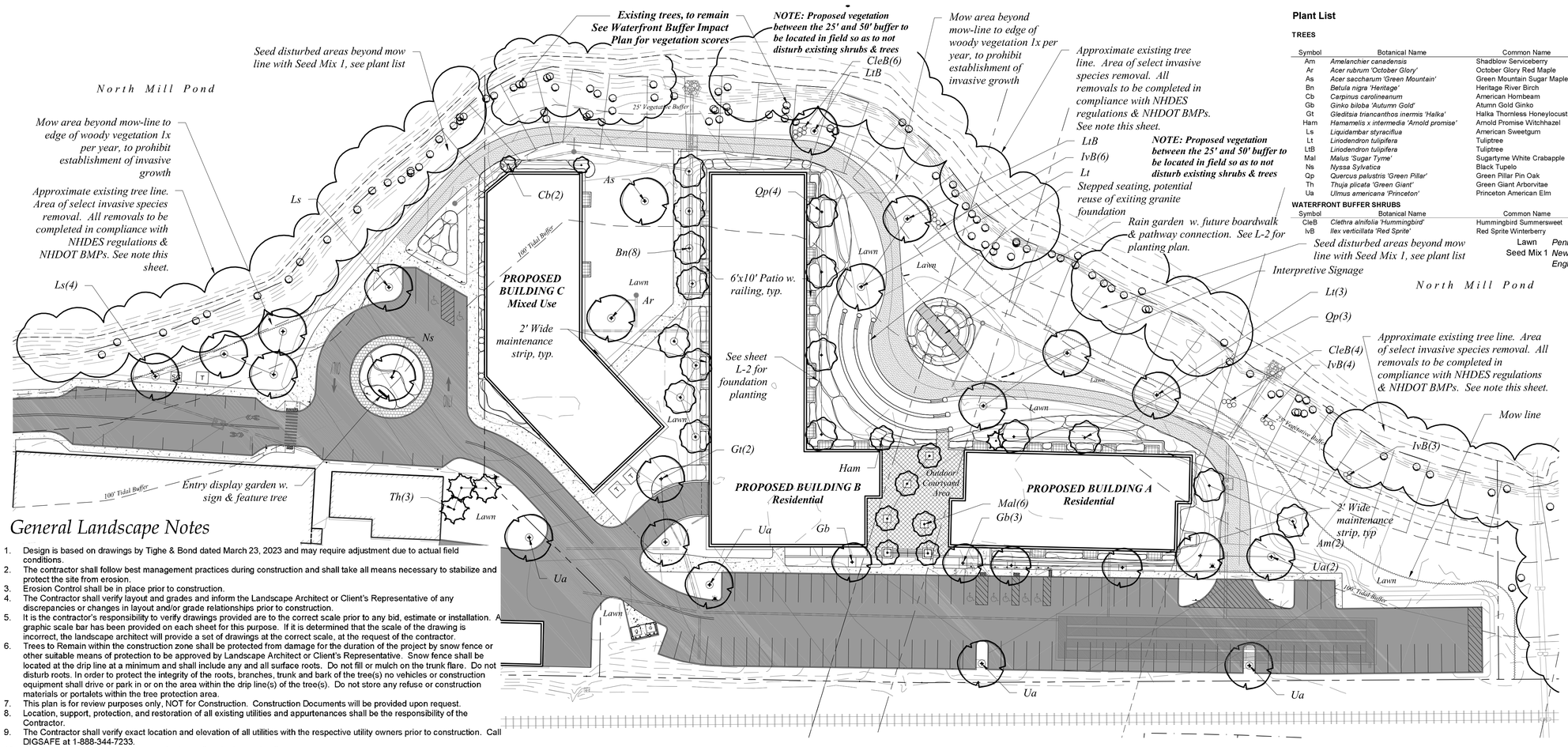


Plant List

TREES

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Am	*Amelanchier canadensis*	Shadblow Serviceberry	2	2.5-3" Cal	B&B
Ar	*Acer rubrum 'October Glory'*	October Glory Red Maple	1	2.5-3" Cal	B&B
As	*Acer saccharum 'Green Mountain'*	Green Mountain Sugar Maple	1	2.5-3" Cal	B&B
Bn	*Betula nigra 'Heritage'*	Heritage River Birch	8	8-10' Ht	Multi-stem, B&B
Cb	*Carpinus carolineanum*	American Hornbeam	2	2.5-3" Cal	B&B
Gb	*Ginko biloba 'Autumn Gold'*	Atumn Gold Ginko	4	2.5-3" Cal	B&B
Gt	*Gleditsia triancanthos inermis 'Halka'*	Halka Thornless Honeylocust	2	2.5-3" Cal	B&B
Ham	*Hamamelis x intermedia 'Arnold promise'*	Arnold Promise Witchhazel	1	8-10' Ht	Multi-stem, B&B
Ls	*Liquidambar styraciflua*	American Sweetgum	5	2.5-3" Cal	B&B
Lt	*Liriodendron tulipifera*	Tulipitree	5	2.5-3" Cal	B&B
LtB	*Liriodendron tulipifera*	Tulipitree	1	3.5" Cal	B&B (5 pts)
Mal	*Malus 'Sugar Tyme'*	Sugartyme White Crabapple	6	1.5-2" Cal	B&B
Ns	*Nyssa Sylvatica*	Black Tupelo	1	4" Cal	B&B
Qp	*Quercus palustris 'Green Pillar'*	Green Pillar Pin Oak	7	2.5-3" Cal	B&B
Th	*Thuja plicata 'Green Giant'*	Green Giant Arborvitae	3	2.5-3" Cal	B&B
Ua	*Ulmus americana 'Princeton'*	Princeton American Elm	6	2.5-3" Cal	B&B

WATERFRONT BUFFER SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
CleB	*Clethra alnifolia 'Hummingbird'*	Hummingbird Summersweet	10	10 gal	(1.75 pts)
IvB	*Ilex verticillata 'Red Sprite'*	Red Sprite Winterberry	13	3-4'	B&B (1.75 pts)

Lawn — *Penninton Smartseed Tall Fescue Blend*

Seed Mix 1 — *New England Wetland Plants, Inc. New England Conservation/Wildlife Mix*

General Landscape Notes

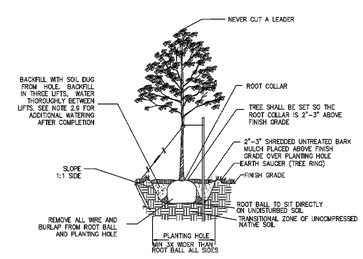
1. Design is based on drawings by Tighe & Bond dated March 23, 2023 and may require adjustment due to actual field conditions.
2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
3. Erosion Control shall be in place prior to construction.
4. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
5. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
6. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
7. This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
8. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
9. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.
10. The Contractor shall procure any required permits prior to construction.
11. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
12. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
13. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
14. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
15. All plants shall be legibly tagged with proper botanical name.
16. The Contractor shall guarantee all plants for not less than one year from time of acceptance.
17. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
18. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
19. All landscaping shall be provided with the following:
    a. Outside hose attachments spaced a maximum of 150 feet apart, and
    b. An underground irrigation system, or
    c. A temporary irrigation system designed for a two-year period of plant establishment.
20. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
21. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
22. All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
23. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
24. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
25. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.
26. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
27. Landscape Architect is not responsible for the means and methods of the contractor.

City of Portsmouth Landscape Notes

1. The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials.
2. All required plant materials shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. All required fences and walls shall be maintained in good repair.
3. The property owner shall be responsible to remove and replace dead or diseased plant materials immediately with the same type, size and quantity of plant materials as originally installed, unless alternative plantings are requested, justified and approved by the Planning Board or Planning Director.

INVASIVES REMOVAL AND DISTURBANCES WITHIN THE BUFFER ZONE

With the exception of the Norway Maples in the 25' vegetated buffer, which are to remain, invasive species within the 100' shoreland setback will be removed. Invasives species within the 25' vegetated buffer will be flagged in field by the landscape architect or certified arborist to be removed. Invasive shrubs within the 25' vegetated buffer with caliper measuring greater than 3" such as Buckthorn and Autumn Olive will be flush cut repeatedly to kill the plant, leaving the stumps in place. Woody invasives smaller than 3" caliper shall be removed with hand tools. Areas of soil disturbance from such removals will be limited to the immediate root area surrounding each plant, dressed with loam, replanted with New England Wildlife and Conservation Seed Mix and stabilized with jute mesh staked in place. All other areas disturbed by headwalls and culverts shall be loamed, seeded with New England Wildlife and Conservation Seed Mix and stabilized with jute mesh.



TREE PLANTING DETAIL
N.T.S.

City of Portsmouth Tree Planting Detail

PART 1 – GENERAL:

1.1 THE BASE OF THE CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS IS THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPLANTING. ANSI A300 PART 6 LAYS OUT TERMS AND BASIC STANDARDS AS SET FORTH BY INDUSTRY BUT IT IS NOT THE "END ALL" FOR THE CITY OF PORTSMOUTH. THE FOLLOWING ARE THE CITY OF PORTSMOUTH, NH TREE PLANTING REQUIREMENTS THAT ARE IN ADDITION TO OR THAT GO BEYOND THE ANSI A300 PART 6.

PART 2 – EXECUTION:

2.1 ALL PLANTING HOLES SHALL BE DUG BY HAND – NO MACHINES. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE NEW PLANTING PITS, PLANTING BEDS WITH GRANITE CURBING, AND PLANTING SITES WITH SILVA CELLS ARE BEING CREATED. IF A MACHINE IS USED TO DIG IN ANY OF THOSE SITUATIONS AND PLANTING DEPTH NEEDS TO BE RAISED THE MATERIAL IN THE BOTTOM OF THE PLANTING HOLE MUST BE FIRMED WITH MACHINE TO PREVENT SINKING OF THE ROOT BALL.

2.2 ALL WIRE AND BURLAP SHALL BE REMOVED FROM THE ROOT BALL AND PLANTING HOLE.

2.3 THE ROOT BALL OF THE TREE SHALL BE WORKED SO THAT THE ROOT COLLAR OF THE TREE IS VISIBLE AND NO GIRDLING ROOTS ARE PRESENT.

2.4 THE ROOT COLLAR OF THE TREE SHALL BE 2"-3" ABOVE GRADE OF PLANTING HOLE FOR FINISHING DEPTH.

2.5 ALL PLANTINGS SHALL BE BACKFILLED WITH SOIL FROM THE SITE AND AMENDED NO MORE THAN 20% WITH ORGANIC COMPOST. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE ENGINEERED SOIL IS BEING USED IN CONJUNCTION WITH SILVA CELLS AND WHERE NEW PLANTING BEDS ARE BEING CREATED.

2.6 ALL PLANTINGS SHALL BE BACKFILLED IN THREE LIFTS AND ALL LIFTS SHALL BE WATERED SO THE PLANTING WILL BE SET AND FREE OF AIR POCKETS – NO EXCEPTIONS.

2.7 AN EARTH BERM SHALL BE PLACED AROUND THE PERIMETER OF THE PLANTING HOLE EXCEPT WHERE CURBED PLANTING BEDS OR PITS ARE BEING USED.

2.8 2"-3" OF MULCH SHALL BE PLACED OVER THE PLANTING AREA.

2.9 AT THE TIME OF PLANTING IS COMPLETE THE PLANTING SHALL RECEIVE ADDITIONAL WATER TO ENSURE COMPLETE HYDRATION OF THE ROOTS, BACKFILL MATERIAL AND MULCH LAYER.

2.10 STAKES AND GUYS SHALL BE USED WHERE APPROPRIATE AND/OR NECESSARY. GUY MATERIAL SHALL BE NON-DAMAGING TO THE TREE.

2.11 ALL PLANTING STOCK SHALL BE SPECIMEN QUALITY, FREE OF DEFECTS, AND DISEASE OR INJURY. THE CITY OF PORTSMOUTH, NH RESERVES THE RIGHT TO REFUSE/REJECT ANY PLANT MATERIAL OR PLANTING ACTION THAT FAILS TO MEET THE STANDARDS SET FORTH IN THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPORTATION AND/OR THE CITY OF PORTSMOUTH, NH PLANTING REQUIREMENTS.

0 10 20 40 80

woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

Proposed Multi-Family Development

SITE LANDSCAPE PLAN

105 Bartlett Street Portsmouth, New Hampshire

Drawn By:	VM
Checked By:	RW
Scale:	1" = 40' - 0"
Date:	May 20, 2020
Revisions:	October 28, 2020 November 18, 2020 January 20, 2021 January 9, 2023 NHDES Wetland & Shoreland Submission March 28, 2023

L-1

Sheet 1 of 2

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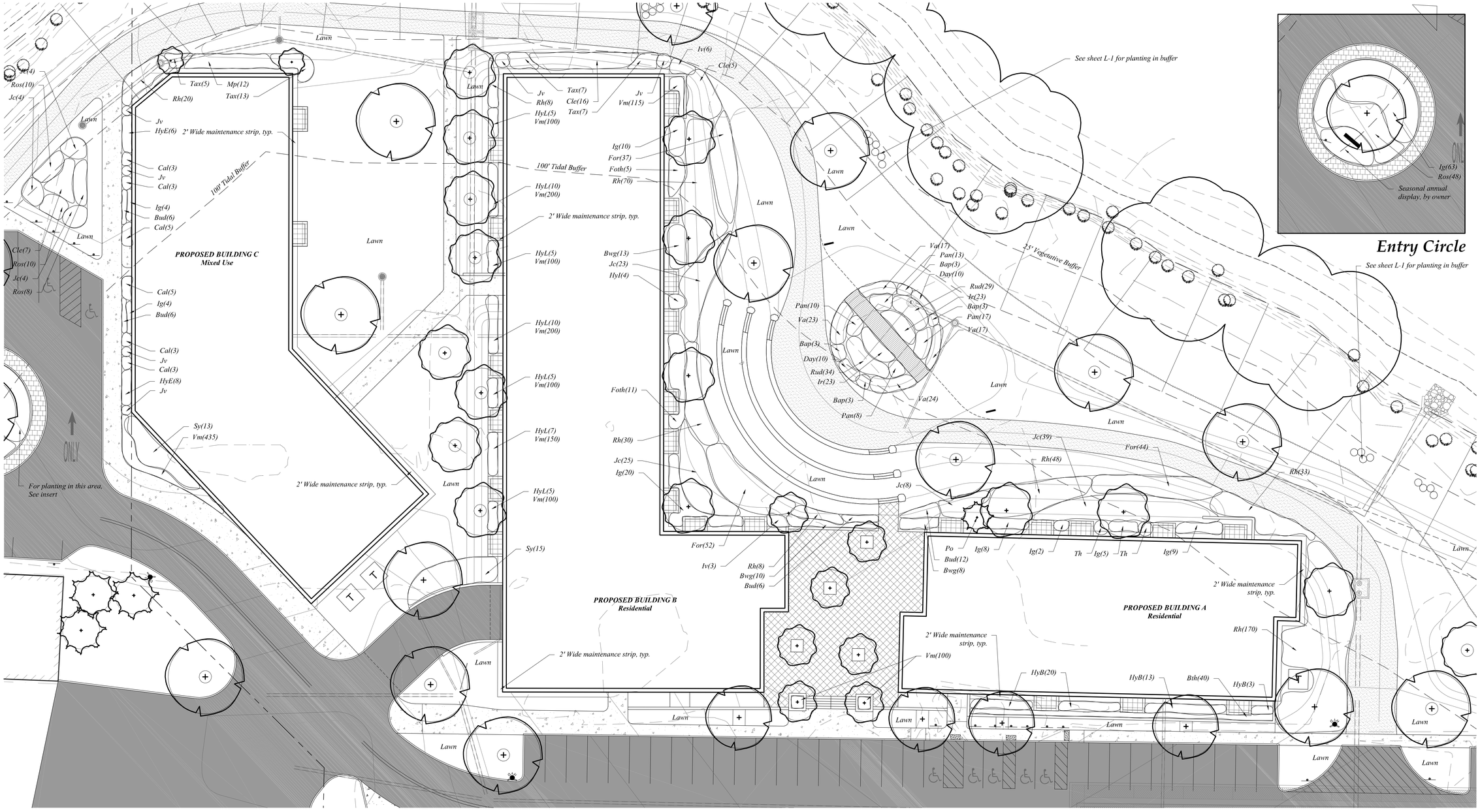

NOTE: For tree planting plan, see L-1

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Bth	*Buxus 'Tide Hill'*	Tide Hill Boxwood	40	2' Ht	B&B
Bud	*Buddleia 'Lo and Behold'*	Lo and Behold Butterflybush	30	3 gal	
Bwg	*Buxus 'Winter Gem'*	Winter Gem Boxwood	31	2' Ht	B&B
Cle	*Clethra alnifolia 'Hummingbird'*	Hummingbird Summersweet	28	5 gal	
CleB	*Clethra alnifolia 'Hummingbird'*	Hummingbird Summersweet	9	10 gal	(1.75 pts)
For	*Forsythia 'Gold Tide'*	Gold Tide Forsythia	177	3 gal	
Foth	*Fothergilla gardenii*	Dwarf Fothergilla	16	5 gal	
HyB	*Hydrangea paniculata 'Bobo'*	Bobo Hydrangea	36	3 gal	
HyE	*Hydrangea macrophylla 'Endless Summer'*	Endless Summer Hydrangea	14	5 gal	
HyI	*Hydrangea arborescens 'Incrediball'*	Incrediball Hydrangea	4	5 gal	
HyL	*Hydrangea paniculata 'Little Lime'*	Little Lime Hydrangea	47	3 gal	
Ig	*Ilex glabra 'Shamrock'*	Shamrock Inkberry	125	5 gal	full to ground
Iv	*Ilex verticillata 'Red Sprite'*	Red Sprite Winterberry	9	3 gal	
IvB	*Ilex verticillata 'Red Sprite'*	Red Sprite Winterberry	9	3-4'	B&B (1.75 pts)
Jc	*Juniperus chinensis 'Sargenti'*	Sargent Juniper	107	5 gal	
Jv	*Juniperus virginiana 'Emerald Sentinel'*	Emerald Sentinel Red Cedar	6	7-8' Ht	B&B
Mp	*Myrica pensylvanica*	Northern Bayberry	12	5 gal	
Po	*Picea orientalis 'Gowdy'*	Gowdy Oriental Spruce	1	8-10' Ht	B&B
Rh	*Rhus aromatica 'Grow-Low'*	Grow Low Sumac	387	3 gal	
Ros	*Rosa 'Blush Knockout'*	Blush Knockout Rose	76	3 gal	
Sy	*Syringa meyeri 'Palibin'*	Dwarf Korean Lilac	28	3-4' Ht	B&B
Tax	*Taxus media 'Ever-Low'*	Ever-Low Yew	32	3 gal	
Th	*Thuja occidentalis 'Smaragd'*	Emerald Green Arborvitae	2	7-8' Ht	B&B

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Bap	*Baptisia australis*	False Blue Indigo	12	1 gal	
Cal	*Calamagrostis acutifolia 'Karl Foerster'*	Feather Reed Grass	22	1 gal	
Day	*Hemerocallis 'Big Time Happy'*	Big Time Happy Daylily	20	1 gal	
Ir	*Iris versicolor*	Blue Flag Iris	46	1 gal	
Pan	*Panicum virgatum 'Heavy Metal'*	Heavy Metal Switch Grass	48	1 gal	
Rud	*Rudbeckia fulgida 'Goldsturm'*	Black-Eyed Susan	63	1 gal	
Vm	*Vinca minor 'Bowles'*	Bowles Periwinkle	1600	2.5" pots	

0 5 10 20 40

woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

Proposed Multi-Family Development

FOUNDATION PLANTING PLAN

105 Bartlett Street Portsmouth, New Hampshire

Drawn By: VM
Checked By: RW
Scale: 1" = 20' - 0"
Date: November 4, 2020
Revisions:
November 18, 2020
January 20, 2021
January 9, 2023
NHDES Wetland & Shoreland Submission
March 28, 2023

L-2

Sheet 2 of 2

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29 March 2022

Wetland Inspector
New Hampshire Department of Environmental Services
Wetlands Bureau
29 Hazen Drive / P.O. Box 95
Concord, New Hampshire 03302

Re: NHDES Minor Impact Wetland Permit Application
Tax Map 159 Lot 2
89 Sparhawk Street
Portsmouth, New Hampshire

Dear Wetland Inspector:

This letter transmits a New Hampshire Department of Environmental Services (NHDES) Minimum Impact Wetland Permit Application request to permit 404 sq. ft. of temporary construction impact to the previously developed 100' Tidal Buffer Zone for the removal of an existing patio.

Attached to this application you will find a "NH DES Permit Plan-C3" which depicts the existing lot, jurisdictional areas, abutting parcels, existing structures, proposed work, temporary and permanent impact areas.

Per Env-Wt 306.05, Certified Wetland Scientist Steve Riker from Ambit Engineering, Inc. classified all jurisdictional areas and identified the predominant functions of all relevant resources. The Highest Observable Tide Line marks the reference line for the 100' TBZ, as well as the beginning of Tidal Wetland on the attached plan set.

The construction sequence for the proposed project is as follows:

- Mobilization of equipment to the site via Sparhawk Street.
- Installation of erosion and sediment control devices.
- Remove existing patio.
- Backfill area of disturbance and return area to original grade. Loam and seed area.
- Remove sediment and erosion controls once disturbed area is stabilized.

200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

The project does not propose the removal of any vegetation within the 50' Waterfront Buffer to achieve construction goals. Under existing conditions the property does not contain any unaltered areas between the 50' Waterfront Buffer and the 150' Natural Woodland.

Per Env-Wt 603.02(b), attached to this application you will find a plan set which depicts the existing lot, jurisdictional areas, all natural resources in the area, abutting parcels, existing structures and temporary impact areas. Also included in this application are maps created in accordance with Env-Wt 603.03 and Env-Wt 603.05.

In order to complete the application package for this project, the DES Wetlands Bureau rules in Chapter Env-Wt 306.05 (a)(2) has been evaluated and addressed below.

(2) a. Contains any documented occurrences of protected species or habitat for such species, using the NHB DataCheck tool;

Attached to this application are the results of the NHB review and it was determined that there are currently have no recorded occurrences for sensitive species near this project area.

(2) b. Is a bog;

Utilizing the NH DES WPPT, the subject property is not a bog, nor does it contain any portion of a bog.

(2) c. Is a floodplain wetland contiguous to a tier 3 or higher watercourse;

Utilizing the NH DES WPPT, the subject property does contain a floodplain wetland contiguous to a tier 3 or higher watercourse.

(2) d. Does the property contain a designated prime wetlands or a duly established 100-foot buffer; or

The property does not contain a prime wetland or duly established 100 foot buffer.

(2) e. Does the property contain a sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone;

The property does not contain a sand dune or undeveloped tidal buffer zone. The abutting property does contain a tidal wetland and tidal waters.

The DES Wetlands Bureau rules in Chapter Env-Wt 306.05 (a)(4) and (a)(7) has been evaluated and addressed below.

(4) a. Is the subject property within LAC jurisdiction;

The property does not fall within an area of LAC jurisdiction.

(4) b. Does the subject property fall within or contain any areas that are subject to time of year restrictions under Env-Wt 307;

The property does not fall within or contain any areas that are subject to time of year restrictions.

(7) Does the project have potential to impact impaired waters, class A waters, or outstanding resource waters;

I do not believe the nature of the proposed project has the potential to impact an impaired water.

The DES Wetlands Bureau rules in Chapter Env-Wt 603.02 (e) & (f) have been evaluated and addressed below.

(e)(1) The project meets the standard conditions in Env-Wt 307;

The project meets the standard conditions in Env-Wt 307 as the proposed project meets the standards of Env-Wq 1000, RSA 483-B and Env-Wq 1400. Sediment and erosion controls will also be used and maintained during the proposed construction ensuring protection of water quality on the site. Under Env-Wt 306.05 (a)(2)a. a NHB review has been performed to ensure there are no impacts to protected species or habitats of such species. The protection of Prime Wetlands or Duly-Established 100 foot buffers does not apply as none exist on or adjacent to the subject lot.

(e)(2) The project meets the approval criteria in Env-Wt 313.01;

The project meets the approval criteria in Env-Wt 313.01 as the project meets the avoidance and minimization requirements specified in Env-Wt 313.03, does not require compensatory mitigation, meets applicable conditions specified in Env-Wt 307 (above), meets project specific criteria listed in Env-Wt 600 (above), and the project is located entirely within the boundary of the applicants property.

(f)(1) The project design narrative as described in Env-Wt 603.06;

The project design narrative is provided above.

(f)(2) Design plans that meet the requirements of Env-Wt 603.07;

The design plans meet the above standard.

(f)(3) The water depth supporting information required by Env-Wt 603.08;

The design plans do not provide water depth information as it is non-applicable to the proposed project.

(f)(4) A statement regarding impact on navigation and passage required by Env-Wt 603.09.

Navigation and passage is not applicable to the proposed project.

Please contact me if you have any questions or concerns regarding this application.

Respectfully submitted,

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

23 November, 2022

To Whom It May Concern

RE: City of Portsmouth and New Hampshire Department of Environmental Services applications for <u>Residential Site Improvements</u> for Jonathan & Lisa Morse, 89 Sparhawk Street, Portsmouth, NH.

This letter is to inform the City of Portsmouth and the New Hampshire Department of Environmental Services, in accordance with State Law, that Ambit Engineering, Somma Studios, and Woodburn and Company are all authorized to obtain approvals in regard to the above referenced property, and to sign any applications required on our behalf.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

Lisa Morse
978-853-3492

Env-Wt 310.01
EXPEDITED MINIMUM IMPACT (EXP) 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: Jonathan M. & Lisa B. Morse **TOWN NAME: Portsmouth**

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; Env-Wt 603.03; Env-Wt 603.05)

Please use the Wetland Permit Planning Tool (WPPT), 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.

Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&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).	☐ Yes ☒ No
• Protected species or habitat? o If yes, species or habitat name(s): o NHB Project ID #: 23-0667	☐ Yes ☒ No
• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☒ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☐ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☒ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year:	☐ Yes ☒ No
For dredging projects, is the subject property contaminated? • If yes, list contaminant(s):	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see Wetland Permit Planning Tool or Stream Stats): N/A	

SECTION 2 - ELIGIBILITY (Env-Wt 306.03; Env-Wt 310.01; Env-Wt 310.03)

You must confirm that your project meets **ALL** of the following statements to qualify for the EXP process:

- The project qualifies as minimum impact project (Env-Wt 306.03).
- The project does not include activities that are prohibited under RSA 482-A (Env-Wt 306.03(a)).
- The project does not include any work in a jurisdictional area that was started without first obtaining the applicable approval (Env-Wt 306.03(b)).
- No work has been done on the subject property pursuant to another EXP or a Statutory Permit-by-Notification (SPN) within 12 months of the date this EXP will be issued. Alternatively, if any work has been done on the subject property pursuant to another EXP or a SPN within 12 months of the date this EXP will be issued, then you are submitting information, including a plan, with this application demonstrating that:
    - The work proposed in this EXP application is wholly unrelated to and separate from the work already done under the EXP or SPN; and
    - The work proposed in this EXP application, when combined with work that has been done under previously issued EXPs or SPNs within the last 12 months, does not constitute a project for which a Standard Permit is required (Env-Wt 310.03(a)).
- If the project is located in a PRA, it also qualifies for an impact classification adjustment under Env-Wt 407.02 or a project-type exception (PTE) under Env-Wt 407.04 (Env-Wt 310.01(d)(6)).

☒ My project meets all statements above. Proceed to Section 3.

☐ My project does not meet all of the statements above. **Your project does not qualify for the EXP process. Your project either is not permittable or requires a Standard Permit.**

SECTION 3 - INFORMATION ON THE PROPOSED PROJECT (Env-Wt 310.01(c))

Identify the rule(s)/provision(s) which make the project a minimum impact project. Refer to the project list below and the Expedited Minimum Impact (EXP) Project Classification Guidance Document.

☐ Aquatic Vegetation Control Projects (Env-Wt 510.08(a))
☐ Water Access Structure Construction Projects (Env-Wt 511.06(a))
☐ Beach Replenishment Projects (Env-Wt 511.07(a))
☐ Deck or Patio Repair Projects (Env-Wt 511.08(a))
☐ Breakwater Maintenance and Repair Projects (Env-Wt 512.07(b))
☐ Docking and Accessory Docking Structure Construction, Repair, and Replacement Projects (Env-Wt 513.24(a))
☐ Docking Structure Modification Projects (Env-Wt 513.25(a))
☐ Accessory Docking Structure Installation, Construction, Modification, Repair, and Replacement Projects (Env-Wt 513.26(a))
☐ Canopy Projects (Env-Wt 513.27(a))
☐ Bank/Shoreline Stabilization Construction Projects (Env-Wt 514.07(a))
☐ Dug-in Basins and Boathouse Construction or Modification Projects (Env-Wt 515.06(a), (b))
☐ Dug-in Basins and Boathouse Maintenance and Repair Projects (Env-Wt 515.07(a))
☐ Intake and Outflow Structure Construction, Maintenance and Repair Projects (Env-Wt 516.05; Env-Wt 516.06(b))
☐ Trail or Pathway Projects (Env-Wt 517.06(a); Env-Wt 517.06(d))
☐ Boardwalk Projects (Env-Wt 517.07(a); (Env-Wt 517.09)
☐ Dry Hydrants and Other Non-Docking Structure Projects (Env-Wt 518.07(a)(1), (b))
☐ Pond Construction, Maintenance, and Repair Projects (Env-Wt 519.08(a), (b); Env-Wt 519.09(a))
☐ Residential Utility Installation Projects (Env-Wt 521.06(a)(7))

☐ Non-tidal Dredging Projects (Env-Wt 523.04(a))
☐ Residential, Commercial, and Industrial Development Projects (Env-Wt 524.06(b))
☐ Restoration/Enhancement Projects (Env-Wt 525.05)
☐ Dam Construction, Reconstruction, or Replacement Projects (Env-Wt 526.06(a))
☐ Dam Modification, Repair, or Maintenance Projects (Env-Wt 526.07(a))
☐ Pubic Highway Projects (Env-Wt 527.06; Env-Wt 527.07)
☒ Coastal Projects (Env-Wt 600)
☐ Stream Crossing Projects (Env-Wt 903.01(e))
☐ All Other Projects (Env-Wt 407.03)

Provide the project-specific information required by the rule(s)/provision(s). Refer to Chapters Env-Wt 400, Env-Wt 500, Env-Wt 600, and/or Env-Wt 900, as applicable, for project-specific application and design requirements.
Please see attached narrative. **Please see applicable Standard Project Specific Worksheets for guidance**.

For projects located on waterbodies, provide the linear feet of shoreline frontage on the property: linear feet

(☒ Not applicable)

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".
The project proposes 404 sq. ft. of temporary construction impact to the previously developed 100’ Tidal Buffer Zone for the removal of an existing patio.

Identify the type of jurisdictional resources to be impacted and the area of impact in square feet and/or linear feet: The project proposes 404 sq. ft. of temporary construction impact to the previously developed 100' Tidal Buffer Zone. (☐ Not applicable)
SECTION 4 - PROJECT LOCATION (Env-Wt 310.01(b))
ADDRESS: 89 Sparhawk Street
TOWN/CITY: Portsmouth
TAX MAP/LOT NUMBER: Map 159, Lot 2
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: North Mill Pond ☐ N/A
LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 1,223,310.8017° North 211,243.5392° West
SECTION 5 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 310.01(a)) If the applicant is a trust or a company, then the name of the trust or company should be written as the applicant's name.
NAME: Jonathan M. & Lisa B. Morse
MAILING ADDRESS: 89 Sparhawk Street
TOWN/CITY: Portsmouth STATE: NH ZIP CODE: 03801
PHONE: 978-853-3492 EMAIL ADDRESS (OPTIONAL): lisabmorse5@gmail.com
ELECTRONIC COMMUNICATION: By initialing here: _____, I hereby authorize NHDES to communicate all matters relative to this application electronically.
SECTION 6 - AUTHORIZED AGENT INFORMATION (Env-Wt 310.01(a)) If the agent is a company, then the name of the company should be written as the agent's name.
NAME: Steven D. Riker Ambit Engineering, Inc.
MAILING ADDRESS: 200 Griffin Road, Unit 3
TOWN/CITY: Portsmouth STATE: NH ZIP CODE: 03801
PHONE: 603-430-9282 EMAIL ADDRESS (OPTIONAL): sriker@haleyward.com
ELECTRONIC COMMUNICATION: By initialing here: SR, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 7 - PROPERTY OWNER INFORMATION, IF DIFFERENT FROM APPLICANT (Env-Wt 310.01(a)) If the owner is a trust or a company, then the name of the trust or company should be written as the owner's name.		
NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
PHONE:	EMAIL ADDRESS (OPTIONAL):	
ELECTRONIC COMMUNICATION: By initialing here: , I hereby authorize NHDES to communicate all matters relative to this application electronically.		

SECTION 8 - APPLICATION FEE (RSA 482-A:3, I)
☒ $400 for minimum impact projects. Please make your check or money order payable to: "Treasurer - State of NH".

SECTION 9 - REQUIRED CERTIFICATIONS (Env-Wt 310.01(d))	
Initial each box below to certify:	
Initials: SR	The proposed project meets the conditions and limits of the applicable minimum impact project rule.
Initials: SR	All abutters have been notified.
Initials: SR	If the project is to repair or replace a docking structure, the docking structure is an existing legal structure. (☒ N/A)
Initials: SR	The proposal is the alternative with the least adverse impact to jurisdictional areas, as required by Env-Wt 310.01(d)(4).
Initials: SR	The project is not an after-the-fact application.
Initials: SR	The project is: • Not located in a PRA, or • Is located in a PRA but is subject to a classification adjustment under Env-Wt 407.02 or a project-type exception under Env-Wt 407.04.
Initials: SR	The applicant is aware of the limits of the EXP and understands and will comply with all conditions in the EXP and all applicable conditions in Env-Wt 307.

Initials: SR	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: SR	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: SR	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: SR	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 10 - REQUIRED SIGNATURES (Env-Wt 310.01(d))

SIGNATURE (OWNER)*:	PRINT NAME LEGIBLY:	DATE:

*Note: If the applicant is not the owner of the property, each property owner also shall sign and date the application provided that property owner signatures shall not be required for transportation projects adjacent to existing rights-of-way where an easement will be obtained prior to the start of construction (Env-Wt 311.11(d)). Check the following box if your project meets this exception: ☐.

SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE): Steven D. Riker	PRINT NAME LEGIBLY: Steven D. Riker	DATE: 3/29/23

SECTION 11 - CONSERVATION COMMISSION SIGNATURE (Env-Wt 310.01(h))**
The signed statement from the Conservation Commission may be submitted electronically.

The signature below certifies that the municipal Conservation Commission or, if there is no conservation commission, the local governing body, has reviewed this application and the municipality waives its right to intervene on the project, per RSA 482-A:11.

AUTHORIZED COMMISSION SIGNATURE:	PRINT NAME LEGIBLY:	DATE:

SECTION 12 - LOCAL RIVER MANAGEMENT ADVISORY COMMITTEE SIGNATURE (Env-Wt 310.01(i))**		
The signature below certifies that the LAC waives its right to intervene per RSA 482-A:11: (☐ N/A This project is **not** within a Designated River Corridor)		
AUTHORIZED LAC REPRESENTATIVE SIGNATURE:	PRINT NAME LEGIBLY:	DATE:

**Note: If the application is administratively complete, except for the signed statement from the Conservation Commission and/or LAC, the application will be processed under the application processing times established in RSA 482-A:3, XIV (Env-Wt 310.02(h)). The applicant may also indicate that they are applying for a minimum impact application under standard processing timelines.

SECTION 14 - TOWN / CITY CLERK SIGNATURE (Env-Wt 310.01(f))	
As required by RSA 482-A:3, I(a)(1), I hereby certify that the municipality has received four copies of the application, including all attachments.	
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
TOWN/CITY:	DATE:

DIRECTIONS FOR TOWN/CITY CLERK:
Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:
Submit the single, original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page.

COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: **Morse, Jonathan M. & Lisa B.**

Applicability: This worksheet may be used to present the information required for projects in coastal areas in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)
The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose including a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

The project proposes the removal of an existing patio located within the 100' previously developed Tidal Buffer Zone on the subject parcel. The area will be backfilled to the original grade then loamed and seeded.

For standard permit projects, provide:

☐ A Coastal Functional Assessment (CFA) report (refer to Section 3); and

☒ A vulnerability assessment (refer to Section 4).

Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 603.04, Env-Wt 311.07, and Env-Wt 313.

A Coastal Vulnerability Assessment is attached to this application per Env-Wt 603.04 and Env-Wt 603.05. An Avoidance & Minimization Form is attached to this application, and also described in the attached narrative letter per Env-Wt 311.07 and Env-Wt 313.

Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01.

The project plan set, specifically the Details-Sheet D1 includes all notes demonstrating compliance with Env-Wt 307 and Env-Wt 313.01.

Provide a project design narrative that includes the following:

☒ A discussion of how the proposed project:

- Uses best management practices and standard conditions in Env-Wt 307;
- Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- Meets approval criteria in Env-Wt 313.01;
- Meets evaluation criteria in Env-Wt 313.01(c);
- Meets CFA requirements in Env-Wt 603.04; and
- Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;

☒ A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and

☒ A discussion of how the completed project will be maintained and managed.

The completed project will result in a maintained lawn surface.

☒ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);

☐ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and

☐ For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05)

Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of:

☒ Existing salt marsh and salt marsh migration pathways;

☒ Eelgrass beds;

☒ Documented shellfish sites;

☒ Projected sea-level rise; and

☒ 100-year floodplain.

Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links:

☐ National Oceanic and Atmospheric Administration (NOAA) Tides & Currents; and

☐ NOAA Essential Fish Habitat Mapper.

☐ Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03)

Projects in coastal areas shall:

☒ Not impair the navigation, recreation, or commerce of the general public; and

☒ Minimize alterations in prevailing currents.

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

☒ Adverse impacts to beach or tidal flat sediment replenishment;

☒ Adverse impacts to the movement of sediments along a shore;

☒ Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and

☒ Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

☒ Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be:

- ☒ Performed by a qualified coastal professional; and
- ☒ Completed using one of the following methods:

  a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or

  b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

For any project that would impact tidal wetlands or tidal waters or associated sand dunes, the applicant shall:

- ☐ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters or associated sand dunes;
- ☐ Design the proposed project to have the least impact to tidal wetlands, tidal waters or associated sand dunes;
- ☐ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and
- ☐ Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

- ☐ Minimize adverse impacts to finfish, shellfish, crustacea, and wildlife;
- ☐ Minimize disturbances to groundwater and surface water flow;
- ☐ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and
- ☐ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

a. Determine the time period over which the project is designed to serve;

A Coastal Vulnerability Assessment is attached to this appication.

b. Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas;

See attached CVA

c. Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss;

See attached CVA

d. Identify areas of the proposed project site subject to flooding from SLR;

See attached CVA

e. Identify areas currently located within the 100-year floodplain and subject to coastal flood risk;

See attached CVA

f. Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans;
See attached CVA

g. Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science.

☐ Pre-application meeting date held: **N/A**

SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements:

☒ The plan view shall depict the following:

- ☒ The engineering scale used, which shall be no larger than one inch equals 50 feet;
- ☒ The location of tidal datum lines depicted as a line with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.
- ☒ An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;
- ☒ The location of all special aquatic sites at or within 100 feet of the subject property;
- ☒ Existing bank contours;
- ☒ The name and license number, if applicable, of each individual responsible for the plan, including:
  - a. The agent for tidal docking structures who determined elevations represented on plans; and
  - b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan; and
- ☒ The location and dimensions of all existing and proposed structures and landscape features on the property;
- ☒ Tidal datum(s) with associated elevations noted, based on NAVD 88; and
- ☒ Location of all special aquatic sites within 100-feet of the property.

☒ The elevation view shall depict the following:

- ☒ The nature and slope of the shoreline;
- ☒ The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and
- ☒ Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.

☒ See specific design and plan requirements for certain types of coastal projects:

- Overwater structures (Env-Wt 606);
- Dredging activities (Env-Wt 607);
- Tidal beach maintenance (Env-Wt 608);
- Tidal shoreline stabilization (Env-Wt 609);
- Protected tidal zone (Env-Wt 610);
- Sand Dunes (Env-Wt 611).

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least 3 tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:

☒ Mean lower low water;

☒ Mean low water;

☒ Mean high water;

☒ Mean tide level;

☒ Mean higher high water;

☒ Highest observable tide line; and

☒ Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

The following data shall be presented in the application project narrative to support how water depths were determined:

☒ The date, time of day, and weather conditions when water depths were recorded; and

☒ The name and license number of the licensed land surveyor who conducted the field measurements.

☐ For tidal stream crossing projects, provide water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d), and for repair, rehabilitation or replacement of tier 4 stream crossings, demonstrate how the requirements of Env-Wt 904.09 are met.

SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01)

Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or habitat shall not be allowed except:

☐ To protect public safety; and

☐ Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

Projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

☒ Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and

☒ Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

SECTION 8 - GENERAL CRITERIA FOR TIDAL BUFFER ZONES (Env-Wt 604.02)

The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally. Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to:

☒ Provide habitat values;

☒ Protect tidal environments from potential sources of pollution;

☒ Provide stability of the coastal shoreline; and

☒ Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

SECTION 9 - GENERAL CRITERIA FOR TIDAL WATERS/WETLANDS (Env-Wt 604.03)

Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security. Evaluation of impacts to tidal wetlands and tidal waters shall be based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

☒ Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;

☒ Be designed with a preference for living shorelines over hardened stabilization practices; and

☒ Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

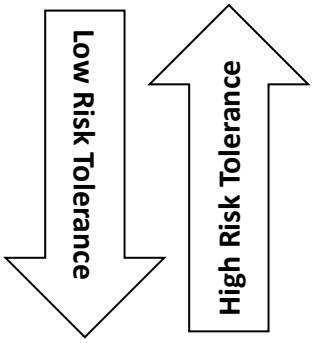
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission's Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project's willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical Infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS

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

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT LAST NAME, FIRST NAME, M.I.: **Morse, Jonathan M. & Lisa B.**

Attachment A can be used to satisfy some of the additional requirements for minor and major projects regarding avoidance and minimization, as well as functional assessment.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

THE PROJECT PROPOSES THE REMOVAL OF AN EXISTING PATIO LOCATED WITHIN THE PREVIOUSLY DEVELOPED 100' TIDAL BUFFER ZONE ON THE SUBJECT PARCEL.

SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacea, shellfish and wildlife of significant value.

The proposed project does not impact any salt marshes.

SECTION I.III – HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed project does not impact any wetlands and/or streams. The project impacts the previously developed 100' Tidal Buffer Zone.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

The project proposes temporary construction impacts to the previously developed 100' Tidal Buffer Zone and does not propose any impacts to exemplary natural communities or vernal pools. Per the NHB Review, there were no records of sensitive species located near the project location.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The proposed project does not impede recreation, public commerce, or navigation as it is located entirely on provate property.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The project does not propose any impacts to floodplain wetlands as it is located entirely within uplands providing no decrease in flood storage potential.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB –MARSH COMPLEXES (Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

The project does not propose impacts to riverine forested wetland systems and scrub shrub marsh complexes.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The wetland resources associated with the project site are not hydrologically connected to a groundwater aquifer or drinking water supply.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

The project does not propose any impacts to stream channels.

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: A wetland functional assessment is not required for minimum impact projects (only requred for minor or major impact applications) as outlined in Env-Wt 603.04 (a).
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT:
DATE OF ASSESSMENT:
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☐
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☐ Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

AVOIDANCE AND MINIMIZATION WRITTEN NARRATIVE

Water Division/Land Resources Management Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.04(j); Env-Wt 311.07; Env-Wt 313.01(a)(1),b; Env-Wt 313.01(c)

APPLICANT LAST NAME, FIRST NAME, M.I.: **Morse, Jonathan M. & Lisa B.**

An applicant for a standard permit shall submit with the permit application a written narrative that explains how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable. This attachment can be used to guide this narrative (attach additional pages if needed). Alternatively, the applicant may attach a completed Avoidance and Minimization Checklist (NHDES-W-06-050) to the permit application.

SECTION 1 - WATER ACCESS STRUCTURES (Env-Wt 311.07(b)(1)) Is the primary purpose of the proposed project to construct a water access structure?
No, the project does not propose a water access structure.
SECTION 2 - BUILDABLE LOT (Env-Wt 311.07(b)(1)) Does the proposed project require access through wetlands to reach a buildable lot or portion thereof?
No. This is not applicable.
SECTION 3 - AVAILABLE PROPERTY (Env-Wt 311.07(b)(2)) For any project that proposes permanent impacts of more than one acre or that proposes permanent impacts to a PRA, or both, are any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, that could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs?
Since the proposal includes improvements to an existing developed lot, this is not applicable.

SECTION 4 - ALTERNATIVES (Env-Wt 311.07(b)(3))

Could alternative designs or techniques, such as different layouts, different construction sequencing, or alternative technologies be used to avoid impacts to jurisdictional areas or their functions and values on the subject property or on other property that is reasonably available to the applicant as described in the *Wetlands Best Management Practice Techniques for Avoidance and Minimization*?

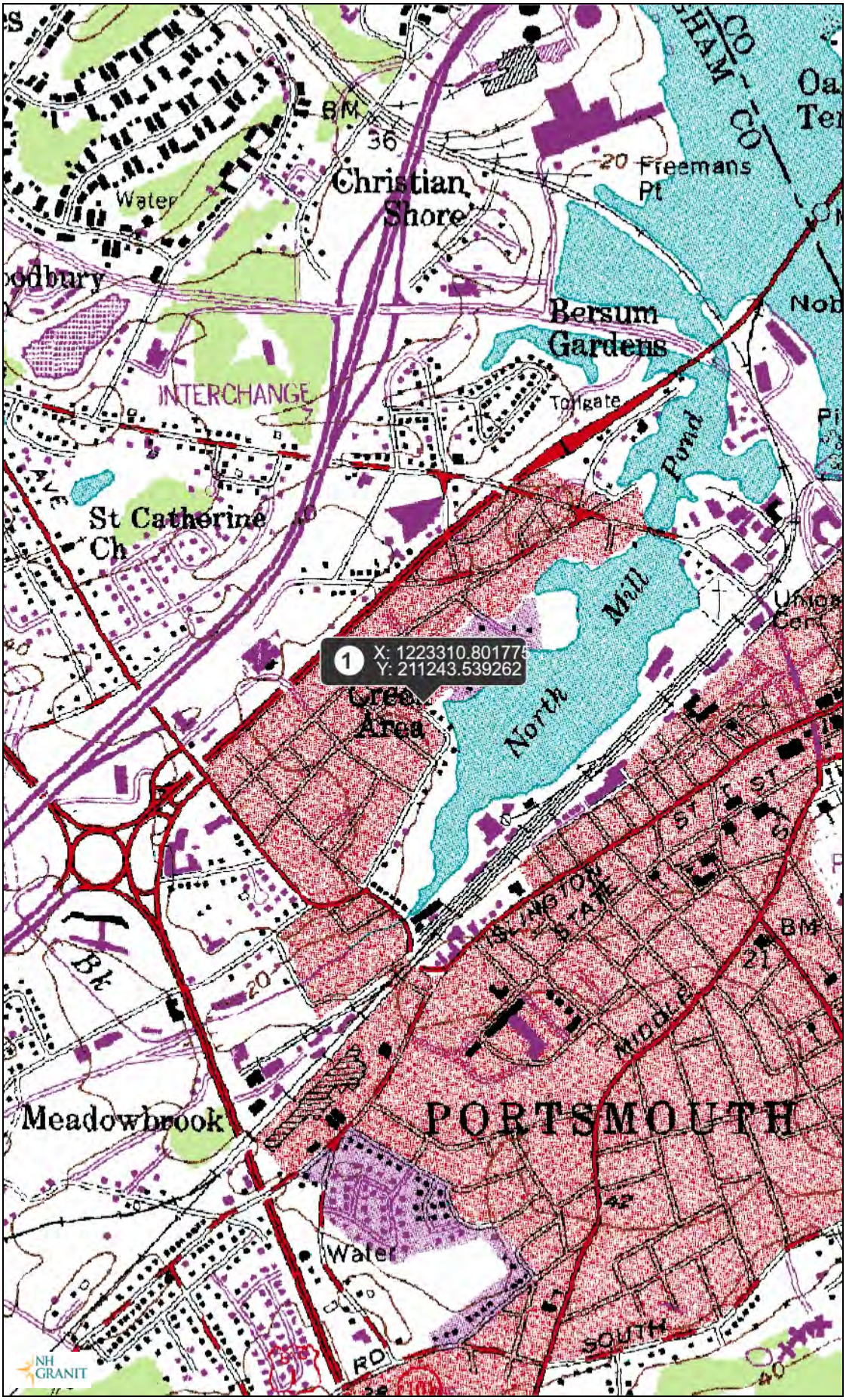
The project proposes the removal of an existing patio located within the 100' previously developed Tidal Buffer Zone on the subject parcel.

SECTION 5 - CONFORMANCE WITH Env-Wt 311.10(c) (Env-Wt 311.07(b)(4))

How does the project conform to Env-Wt 311.10(c)? Please note that for a minimum impact project, the applicant may replace this explanation with a certification signed by a certified wetland scientist that the project is located and designed to minimize impacts to wetlands functions and values.

The proposed patio removal located within the previously developed 100' Tidal Bufer Zone will not impact the nearby tidal resources ability to maintain its current functions and values. The improvements will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. As a result, The project will have no impact on the functions and values of the adjacent tidal wetland.

Map by NH GRANIT



Legend

Map Scale

1: 12,988

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Map Generated: 3/29/2023

Notes

Property Information

Property ID	0159-0002-0000
Location	89 SPARHAWK ST
Owner	MORSE JONATHAN M

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 09/21/2022
Data updated 3/9/2022

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Ambit Engineering Abutter List

Jonathan M. & Lisa B. Morse

89 Sparhawk Street

Portsmouth, NH

Job # 3432

Applicant/Owner(s)

Map	Lot	Deed	Owner (s) First/Trust	Owner(s) Last, Trustee	Mailing Address	City	State	Zip
159	2	5855/0015	Jonathan M. & Lisa B	Morse	89 Sparhawk Street	Portsmouth	NH	03801

Engineer	**Ambit Engineering Civil Engineers & Land Surveyors**		**200 Griffin Road, Unit #3**	**Portsmouth**	**NH**	**03801**

Other Consultants						
Other Consultants						
Other Consultants						

Job #	**3432**		**Abutters**					
Map	**Lot**	**Deed**	**Owner(s) First/Trust**	**Owner(s) Last /Trustee**	**Mailing Address**	**City**	**State**	**Zip**
159	1-1	6143/1660	Jeffrey & Lacy	Blake	79 Thornton Street #1	Portsmouth	NH	03801
159	1-2	6168/2777	Joseph M. & Margaret E.	Leahy	81 Thornton Street #2	Portsmouth	NH	03801
159	1	5985/0605	Mark	McNally	79 Thornton Street	Portsmouth	NH	03801
143	22	5376/1963	Charles & Allison	Dudas	32 Monteith Street	Portsmouth	NH	03801
159	3	4964/1241	Elizabeth Jefferson Trust Declaration	Elizabeth P. Jefferson, Trustee	111 Sparhawk Street	Portsmouth	NH	03801

AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

29 March, 2023

Jeffrey & Lacey Blake
79 Thornton Street #1
Portsmouth, NH 03801

RE: New Hampshire Wetland Application for building addition for Jonathan M. & Lisa B. Morse, 89 Sparhawk Street, Portsmouth, NH.

Dear Property Owner,
Under NH RSA 482-A and RSA 483-B this letter is to inform you in accordance with State Law that a NH DES Wetlands Permit and a NH DES Shoreland Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact the 100' Tidal Buffer Zone and the 250' Protected Shoreland,** on behalf of your abutter, **Jonathan M. & Lisa B. Morse.**
This letter is sent to inform you as an abutter to the above-referenced property (according to local Municipal records) that **Jonathan M. & Lisa B. Morse** proposes a project that requires construction in the 100' previously developed tidal buffer zone and the 250' Protected Shoreland.

Plans are on file at this office, and once the application is filed, plans that show the proposed project and wetland and other jurisdictional impacts will be available for viewing during normal business hours at the office of the **Portsmouth** clerk, **Portsmouth city offices**, or once received by DES, at the offices of the DES Wetlands Bureau, (8 a.m. to 4 p.m.) (603) 271-2147. It is suggested that you call ahead to the appropriate office to ensure the application is available for review.

Please feel free to call if you have any questions or comments.

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

CERTIFIED MAIL/Return Receipt Requested

200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

29 March, 2023

Charles & Allison Dudas
32 Monteith Street
Portsmouth, NH 03801

RE: New Hampshire Wetland Application for building addition for Jonathan M. & Lisa B. Morse, 89 Sparhawk Street, Portsmouth, NH.

Dear Property Owner,
Under NH RSA 482-A and RSA 483-B this letter is to inform you in accordance with State Law that a NH DES Wetlands Permit and a NH DES Shoreland Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact the 100' Tidal Buffer Zone and the 250' Protected Shoreland,** on behalf of your abutter, **Jonathan M. & Lisa B. Morse.**
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AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

29 March, 2023

Elizabeth Jefferson Trust Declaration
Elizabeth P. Jefferson, Trustee
111 Sparhawk Street
Portsmouth, NH 03801

RE: New Hampshire Wetland Application for building addition for Jonathan M. & Lisa B. Morse, 89 Sparhawk Street, Portsmouth, NH.

Dear Property Owner,
Under NH RSA 482-A and RSA 483-B this letter is to inform you in accordance with State Law that a NH DES Wetlands Permit and a NH DES Shoreland Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact the 100' Tidal Buffer Zone and the 250' Protected Shoreland,** on behalf of your abutter, **Jonathan M. & Lisa B. Morse.**
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Please feel free to call if you have any questions or comments.

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

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200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

29 March, 2023

Joseph M. & Margaret E. Leahy
81 Thornton Street #2
Portsmouth, NH 03801

RE: New Hampshire Wetland Application for building addition for Jonathan M. & Lisa B. Morse, 89 Sparhawk Street, Portsmouth, NH.

Dear Property Owner,
Under NH RSA 482-A and RSA 483-B this letter is to inform you in accordance with State Law that a NH DES Wetlands Permit and a NH DES Shoreland Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact the 100' Tidal Buffer Zone and the 250' Protected Shoreland,** on behalf of your abutter, **Jonathan M. & Lisa B. Morse.**
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Please feel free to call if you have any questions or comments.

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

CERTIFIED MAIL/Return Receipt Requested

200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

29 March, 2023

Mark McNally
1395 Elwyn Road
Portsmouth, NH 03801

RE: New Hampshire Wetland Application for building addition for Jonathan M. & Lisa B. Morse, 89 Sparhawk Street, Portsmouth, NH.

Dear Property Owner,
Under NH RSA 482-A and RSA 483-B this letter is to inform you in accordance with State Law that a NH DES Wetlands Permit and a NH DES Shoreland Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact the 100' Tidal Buffer Zone and the 250' Protected Shoreland,** on behalf of your abutter, **Jonathan M. & Lisa B. Morse.**
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Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

CERTIFIED MAIL/Return Receipt Requested

200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

SITE PHOTOGRAPHS

Portsmouth, NH

Site Photograph #1 March 2023

Site Photograph #2 March 2023

Site Photograph #3 March 2023

Site Photograph #4 March 2023

Site Photograph #5 March 2023

Site Photograph #6 March 2023

Site Photograph #7 March 2023

Site Photograph #8 March 2023

Site Photograph #9 March 2023

Site Photograph #10 March 2023

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Steve Riker
200 Griffin Road, Unit 3
Portsmouth, NH 03801

From: NH Natural Heritage Bureau

Date: 2/27/2023 (This letter is valid through 2/27/2024)

Re: Review by NH Natural Heritage Bureau of request dated 2/27/2023

Permit Type: Wetland Standard Dredge & Fill - Minimum

NHB ID: NHB23-0667

Applicant: Steve Riker

Location: Portsmouth
Tax Map: 159, Tax Lot: 2
Address: 89 Sparhawk Street

Proj. Description: The project proposes a garage addition onto the single family residential structure, a proposed patio, walkway, stairs and a re-configured driveway constructed utilizing pervious technology.

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord NH 03301

MAP OF NOTIFICATION POINTS FOR: NHB23-0667

BK 5855 PG 0015

Return TO
Jonathan M. Morse and Lisa B. Morse
89 Sparhawk St.
Portsmouth, NH 03801

DEPARTMENT OF REVENUE ADMINISTRATION — REAL ESTATE TRANSFER TAX
*****9 Thousand 7 Hundred 50 Dollars
DATE 09/19/2017 RO073482 AMOUNT $ *****9750.00

C/H
L-CHIP
ROA383356

040902

2017 SEP 19 PM 12:44

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS: That **Christopher W. Serlin**, single, of 89 Sparhawk Street, Portsmouth, Rockingham County, New Hampshire 03801, for consideration paid grant(s) to **Jonathan M. Morse** and **Lisa B. Morse**, husband and wife, of 6 Ashwood Street, Acton, Massachusetts 01720, **as joint tenants**, with **WARRANTY COVENANTS**, the following:

A certain lot or parcel of land with the buildings thereon situate on Sparhawk Street in Portsmouth, Rockingham County, State of New Hampshire, and bounded and described as follows:

Beginning at Sparhawk Street at land of John and Helen Watts; thence easterly by land of said John and Helen Watts, one hundred twenty-two and one-half (122 1/2) feet, to a stone wall by the Creek; thence northerly by said Creek and land now or formerly of Robert Mercer, one hundred forty-five (145) feet and six (6) inches, more or less, to land of James and Frances Sawyer; thence westerly by land of said Sawyers, one hundred thirty-seven (137) feet, more or less, to said Sparhawk Street; thence southerly by said Street, one hundred forty-seven (147) feet, more or less, to place of beginning.

Meaning and intending to describe and convey the same premises conveyed to Christopher W. Serlin by virtue of a deed of Stephen A. Dudley dated November 30, 2000 and recorded in the Rockingham County Registry of Deeds at Book 3523, Page 678.

Executed this 15 day of September, 2017.

Christopher W. Serlin

State of New Hampshire
County of Rockingham

September 15, 2017

Then personally appeared before me the said Christopher W. Serlin and acknowledged the foregoing to be his voluntary act and deed.

JENNIFER A COPP
Commission Expires
NOTARY PUBLIC
08-23-2022
NEW HAMPSHIRE

Notary Public/Justice of the Peace
Commission expiration: 8/23/22

RE: 2017-13364

BUILDING ADDITION

MORSE RESIDENCE

89 SPARHAWK STREET, PORTSMOUTH, NEW HAMPSHIRE

PERMIT PLANS

OWNER & APPLICANT:
JOHATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
(603) 969-6656

CIVIL ENGINEER & LAND SURVEYOR:
AMBIT ENGINEERING, INC.
200 GRIFFIN ROAD, UNIT 3
PORTSMOUTH, N.H. 03801
TEL. (603) 430-9282
FAX (603) 436-2315

LANDSCAPE ARCHITECT:
WOODBURN & COMPANY LANDSCAPE ARCHITECTURE, LLC
103 KENT PLACE
NEWMARKET, N.H. 03857
TEL. (603) 659-5949
FAX (603) 659-5939

ARCHITECT:
SOMMA STUDIOS
30 MAPLEWOOD AVENUE
PORTSMOUTH NH 03801
TEL. (617) 766-3760
FAX (617) 766-3761

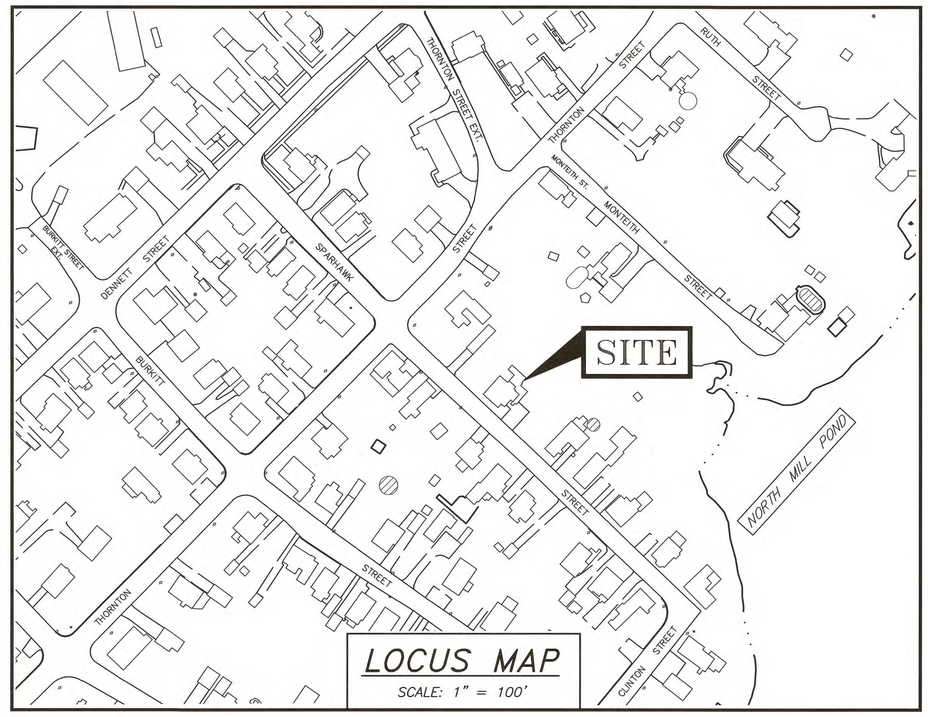
PERMIT LIST:
PORTSMOUTH DRIVEWAY PERMIT: PENDING
PORTSMOUTH TREES AND GREENERY: PENDING
PORTSMOUTH CONDITIONAL USE PERMIT (WETLANDS): PENDING
NHDES WETLAND BUREAU: PENDING
NHDES SHORELAND PERMIT: PENDING

Legend

Character Districts
Character-Based Zoning Area
(Refer to Zoning Map Sheet 2 of 2 Character Districts Regulating Plan)

Residential Districts

R	Rural
SRA	Single Residence A
SRB	Single Residence B
GRA	General Residence A
GRB	General Residence B
GRC	General Residence C
GA/MH	Garden Apartment/Mobile Home Park



LOCUS MAP
SCALE: 1" = 100'

LEGEND:

EXISTING	PROPOSED	
		PROPERTY LINE
		SETBACK
S	S	SEWER PIPE
SL	SL	SEWER LATERAL
G	G	GAS LINE
D	D	STORM DRAIN
W	W	WATER LINE
WS	WS	WATER SERVICE
UGE	UGE	UNDERGROUND ELECTRIC
OHW	OHW	OVERHEAD ELECTRIC/WIRES
	UD	FOUNDATION DRAIN
		EDGE OF PAVEMENT (EP)
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
		UTILITY POLE
		WALL MOUNTED EXTERIOR LIGHTS
		TRANSFORMER ON CONCRETE PAD
		ELECTRIC HANDHOLD
		SHUT OFFS (WATER/GAS)
	GV	GATE VALVE
	HYD	HYDRANT
CB	CB	CATCH BASIN
S	SMH	SEWER MANHOLE
D	DMH	DRAIN MANHOLE
T	TMH	TELEPHONE MANHOLE
14	14	PARKING SPACE COUNT
PM		PARKING METER
LSA		LANDSCAPED AREA
TBD	TBD	TO BE DETERMINED
CI	CI	CAST IRON PIPE
COP	COP	COPPER PIPE
DI	DI	DUCTILE IRON PIPE
PVC	PVC	POLYVINYL CHLORIDE PIPE
RCP	RCP	REINFORCED CONCRETE PIPE
AC	–	ASBESTOS CEMENT PIPE
VC	VC	VITRIFIED CLAY PIPE
EP	EP	EDGE OF PAVEMENT
EL.	EL.	ELEVATION
FF	FF	FINISHED FLOOR
INV	INV	INVERT
S =	S =	SLOPE FT/FT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL

DIG SAFE
MA – ME – NH – RI – VT
1-888-344-7233
CALL TOLL FREE

INDEX OF SHEETS

DWG No.	
–	STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY
C1	DEMO PLAN
C2	CITY OF PORTSMOUTH PERMIT PLAN
C3	NHDES PERMIT PLAN
L1	LANDSCAPE PLAN
–	PROPOSED ELEVATIONS
–	PROPOSED FLOOR PLANS
C4	DRAINAGE & GRADING PLAN
D1	DETAILS

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708, Ext. 555.5678
ATTN: MICHAEL BUSBY, P.E. (MANAGER)

NATURAL GAS:
UNITIL
325 WEST ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 294-5144
ATTN: DAVE BEAULIEU

CABLE:
COMCAST
155 COMMERCE WAY
PORTSMOUTH, N.H. 03801
Tel. (603) 679-5695 (X1037)
ATTN: MIKE COLLINS

SEWER & WATER:
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 427-1530
ATTN: JIM TOW

COMMUNICATIONS:
FAIRPOINT COMMUNICATIONS
JOE CONSIDINE
1575 GREENLAND ROAD
GREENLAND, N.H. 03840
Tel. (603) 427-5525

PORTSMOUTH APPROVAL CONDITIONS NOTE:
ALL CONDITIONS ON THIS PLAN SET SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE CITY OF PORTSMOUTH SITE PLAN REVIEW REGULATIONS.

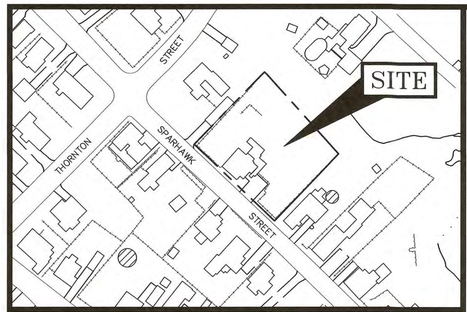
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

BUILDING ADDITION
MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

PLAN SET SUBMITTAL DATE: 29 MARCH 2023



LOCATION MAP

SCALE: 1" = 100'

PLAN REFERENCES:

1) CONDOMINIUM SITE PLAN FOR "THORNTON STEET CONDOMINIUMS" TAX MAP 159, LOT 1 PORTSMOUTH, NH. PREPARED BY: ROSS ENGINEERING, LLC. DWG. NO. 1 OF 4. DATED 3/2/2020 FOR RECORDING. SCALE: 1"=10'. RCRD D-42038.

2) PLAN OF TRACT OF LAND IN THE TOWN OF PORTSMOUTH BELONGING TO MR. JOHN MILLER, SCALE: 100 FEET PER INCH, DATED 1812, PREPARED BY BEN AKERMAN, RCRD 206/131

3) SKETCH SHOWING WEST LINE OF DELIA W. CARR LOT WITH REFERENCE TO SPARHAWK ST. PORTSMOUTH, N.H. BASED ON SUB-DIVISION PLAN BY BENJ. AKERMAN DATED 1812 AND RECORDED ROCKINGHAM RECORDS 206/131, DATED MARCH 1944, PREPARED BY JOHN W DURGIN CIVIL ENGINEER, NOT RECORDED

4) TAX MAP 143 LOT 22, SKETCH PLAN DUDAS RESIDENCE, 32 MONTEITH STREET PORTSMOUTH, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM, OWNER CHARLES & ALLISON DUDAS, SCALE: 1" = 20', DATED JANUARY 28, 2020, PREPARED BY MCS, A DIVISION OF TF MORAN, INC., NOT RECORDED

LEGEND

N/F	NOW OR FORMERLY
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
	BOUNDARY
	SETBACK
RR SPK FND	RAILROAD SPIKE FOUND
IR/IP FND	IRON ROD/IRON PIPE FOUND
DH FND	DRILL HOLE FOUND
BND w/DH	BOUND w/ DRILL HOLE
S	SEWER LINE
G	GAS LINE
D	STORM DRAIN
W	WATER LINE
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
	EDGE OF PAVEMENT (EP)
	WOODS / TREE LINE
	UTILITY POLE (W/ GUY)
	GAS SHUT OFF
	WATER SHUT OFF/CURB STOP
GV	GATE VALVE
HYD	HYDRANT
G W E	METER (GAS, WATER, ELECTRIC)
	CATCH BASIN
S	SEWER MANHOLE
D	DRAIN MANHOLE
AC	AIR CONDITIONER UNIT
	SIGNS
A-1	EDGE OF WETLAND FLAGGING
	SWAMP / MARSH
EL.	ELEVATION
F.F.	FINISHED FLOOR
INV.	INVERT
TBM	TEMPORARY BENCHMARK
TYP.	TYPICAL
LSA	LANDSCAPED AREA

TEST PIT 1

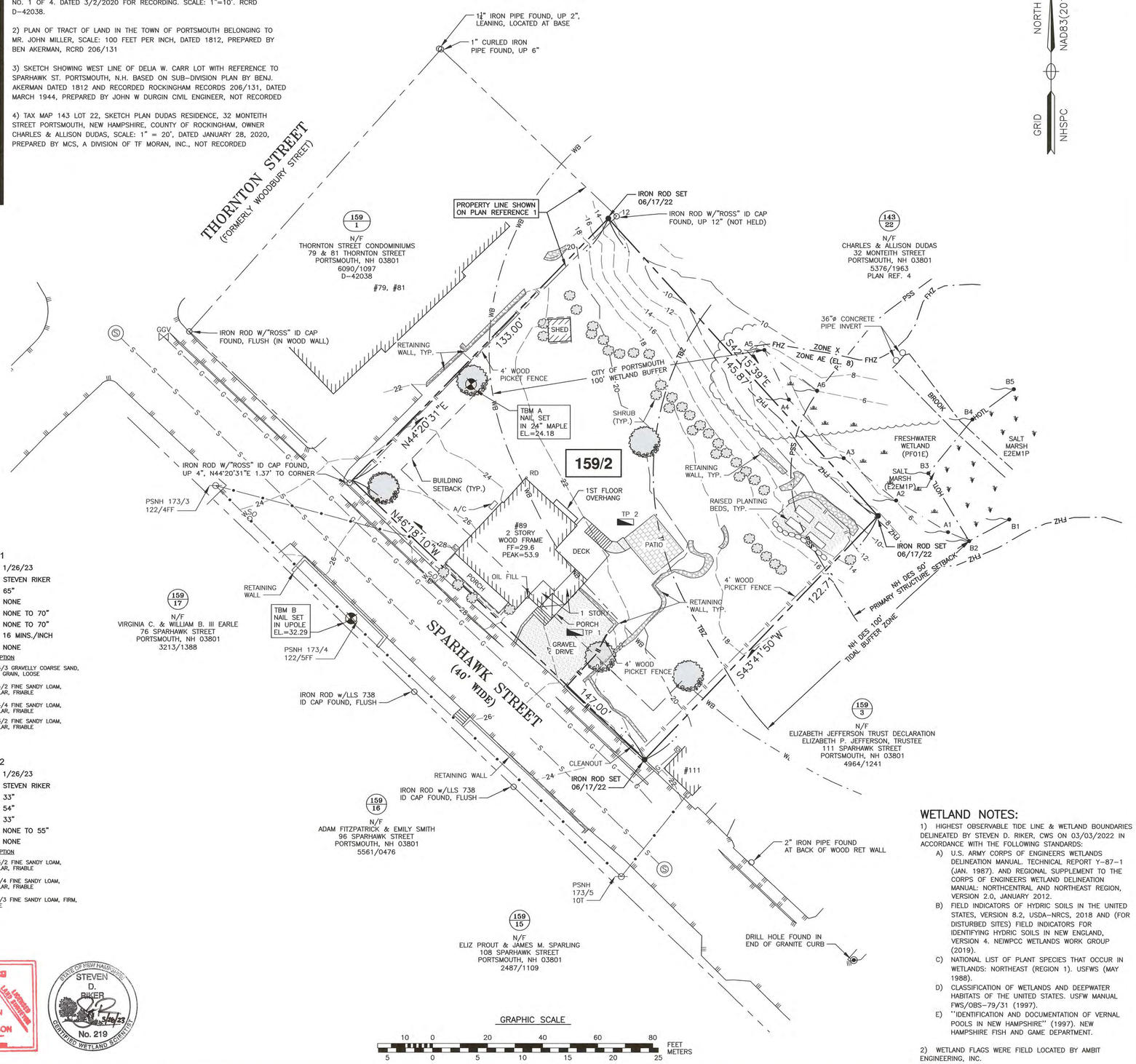
Date:	1/26/23
Logged by:	STEVEN RIKER
ESHWT:	65"
Observed Water:	NONE
Restrictive layer:	NONE TO 70"
REFUSAL:	NONE TO 70"
Percolation rate:	16 MINS./INCH
Roots:	NONE

DEPTH	DESCRIPTION
0" – 21"	10YR 4/3 GRAVELLY COARSE SAND, SINGLE GRAIN, LOOSE
21" – 37"	10YR 4/2 FINE SANDY LOAM, GRANULAR, FRIABLE
37" – 65"	10YR 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE
65' – 70"	10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE

TEST PIT 2

Date:	1/26/23
Logged by:	STEVEN RIKER
ESHWT:	33"
Observed Water:	54"
Restrictive layer:	33"
REFUSAL:	NONE TO 55"
Roots:	NONE

DEPTH	DESCRIPTION
0" – 13"	10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE
13" – 33"	2.5Y 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE
37" – 65"	2.5Y 4/3 FINE SANDY LOAM, FIRM, MASSIVE



WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE & WETLAND BOUNDARIES DELINEATED BY STEVEN D. RIKER, CWS ON 03/03/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).

C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).

E) "'IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) WETLAND FLAGS WERE FIELD LOCATED BY AMBIT ENGINEERING, INC.

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

3.23.23

JOHN R. CHAGNON, LLS — DATE

STATE OF NEW HAMPSHIRE — LICENSED LAND SURVEYOR — No. 738 — JOHN R. CHAGNON

STATE OF NEW HAMPSHIRE — STEVEN D. RIKER — 5/9/23 — No. 219 — CERTIFIED WETLAND SCIENTIST

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 159 AS LOT 2.

2) OWNER OF RECORD:
JONATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
5855/0015

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA (ZONE AE EL. 8) AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
18,702 S.F.
0.4293 ACRES

5) PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

LOT AREA:		7,500 S.F.
FRONTAGE:		100 FEET
DEPTH:		70 FEET
SETBACKS:	FRONT	15 FEET
	SIDE	10 FEET
	REAR	20 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		25%
MINIMUM OPEN SPACE:		30%

8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

9) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

NO.	DESCRIPTION	DATE
1	MONUMENTS SET	6/17/22
0	ISSUED FOR COMMENT	5/27/22

REVISIONS

STANDARD BOUNDARY & TOPOGRAPHIC SURVEY TAX MAP 159 – LOT 2

FOR

JONATHAN M. MORSE & LISA B. MORSE

89 SPARHAWK STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=20' — APRIL 2022

FB 288 PG 54 — 3432

N:\NH\5015\152-Lisa Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/27/2023 4:47:43 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

DEMOLITION NOTES

A) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE DESIGNER. IT IS THE CONTRACTORS' RESPONSIBILITY TO LOCATE UTILITIES AND ANTICIPATE CONFLICTS. CONTRACTOR SHALL REPAIR EXISTING UTILITIES DAMAGED BY THEIR WORK AND RELOCATE EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED PRIOR TO COMMENCING ANY WORK IN THE IMPACTED AREA OF THE PROJECT.

B) ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTORS UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES. THE CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, DISPOSAL, OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.

C) ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

D) THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.

E) SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT TRENCH IN AREAS WHERE PAVEMENT IS TO BE REMOVED.

F) IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL THE PERMIT APPROVALS.

G) THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL CONSTRUCTION PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR ANY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK.

H) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE, UTILITIES, VEGETATION, PAVEMENT, AND CONTAMINATED SOIL WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ANY EXISTING DOMESTIC / IRRIGATION SERVICE WELLS IN THE PROJECT AREA IDENTIFIED DURING THE CONSTRUCTION AND NOT CALLED OUT ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER FOR PROPER CAPPING / RE-USE.

I) ALL WORK WITHIN THE CITY OF PORTSMOUTH RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS (DPW).

J) REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

K) CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED, THE CONTRACTOR SHALL EMPLOY A NH LICENSED LAND SURVEYOR TO REPLACE THEM.

L) PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE HIGH FLOW SILT SACK BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN 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 WARRANTED OR FABRIC BECOMES CLOGGED. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.

M) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFELY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.

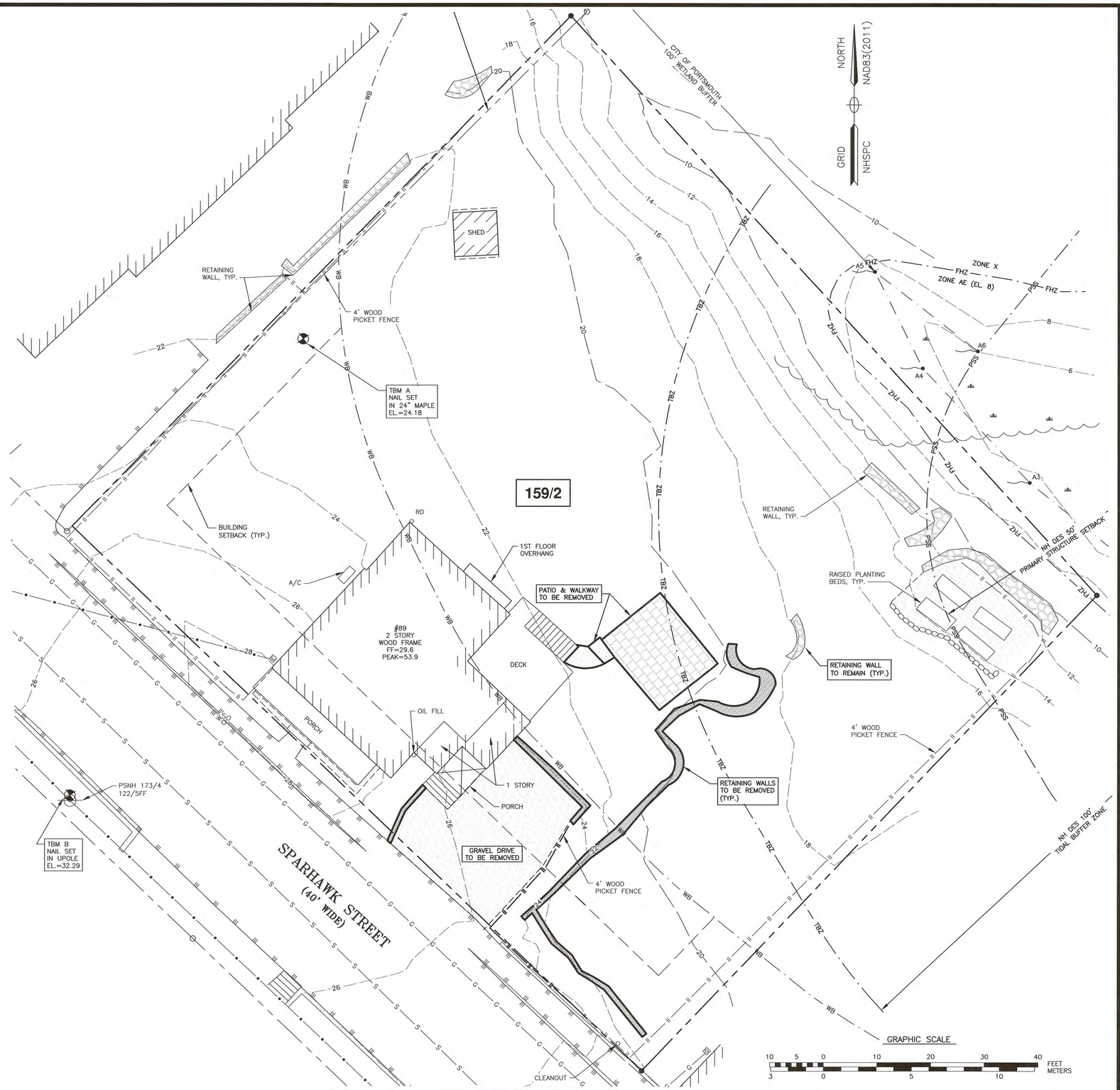
N) ANY CONTAMINATED MATERIAL REMOVED DURING THE COURSE OF THE WORK WILL REQUIRE HANDLING IN ACCORDANCE WITH NHDES REGULATIONS. CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN IN PLACE, AND COMPLY WITH ALL APPLICABLE PERMITS, APPROVALS, AUTHORIZATIONS, AND REGULATIONS.

O) DURING CONSTRUCTION ACCESS WILL BE PROVIDED TO ALL EXISTING PROPERTIES LOCATED ON BIRCH ST.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE JOHN CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE STEVEN D. RIKER 3/29/23 No. 219 CERTIFIED WETLAND SCIENTIST

SCALE: 1" = 10' NOVEMBER 2022

DEMOLITION PLAN

C1

FB 288 PG 54

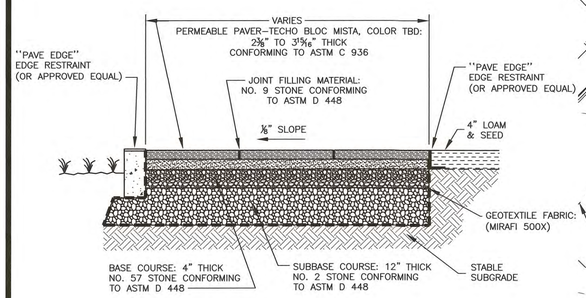
3432

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	1,280	2,154
PORCH/DECK	343	343
STAIRS/LANDINGS	111	250
RETAINING WALLS	328	219
DRIVEWAY	631	0
SHED	67	67
AC PAD	4	4
WALKWAYS	30	0
PATIO	239	101
TOTAL	3,033	3,138
LOT SIZE	18,702	18,702
% LOT COVERAGE	16.2%	16.8%

CITY OF PORTSMOUTH BUFFER IMPACT

TOTAL DISTURBANCE: 2,685 S.F.



NOTES:
1) TECHO–BLOC (OR APPROVED EQUAL).
2) INSTALLED PER MANUFACTURERS INSTRUCTIONS.
3) PEDESTRIAN TRAFFIC ONLY.

MAINTENANCE OF POROUS PAVER SURFACE:
1) MONITOR FOR EXCESSIVE ACCUMULATION OF DEBRIS, PARTICULARY IN VOID SPACE.

2) REMOVE DEBRIS FROM VOID SPACE TWICE ANNUALLY BY MANUAL MEANS OR BY VACUUM.

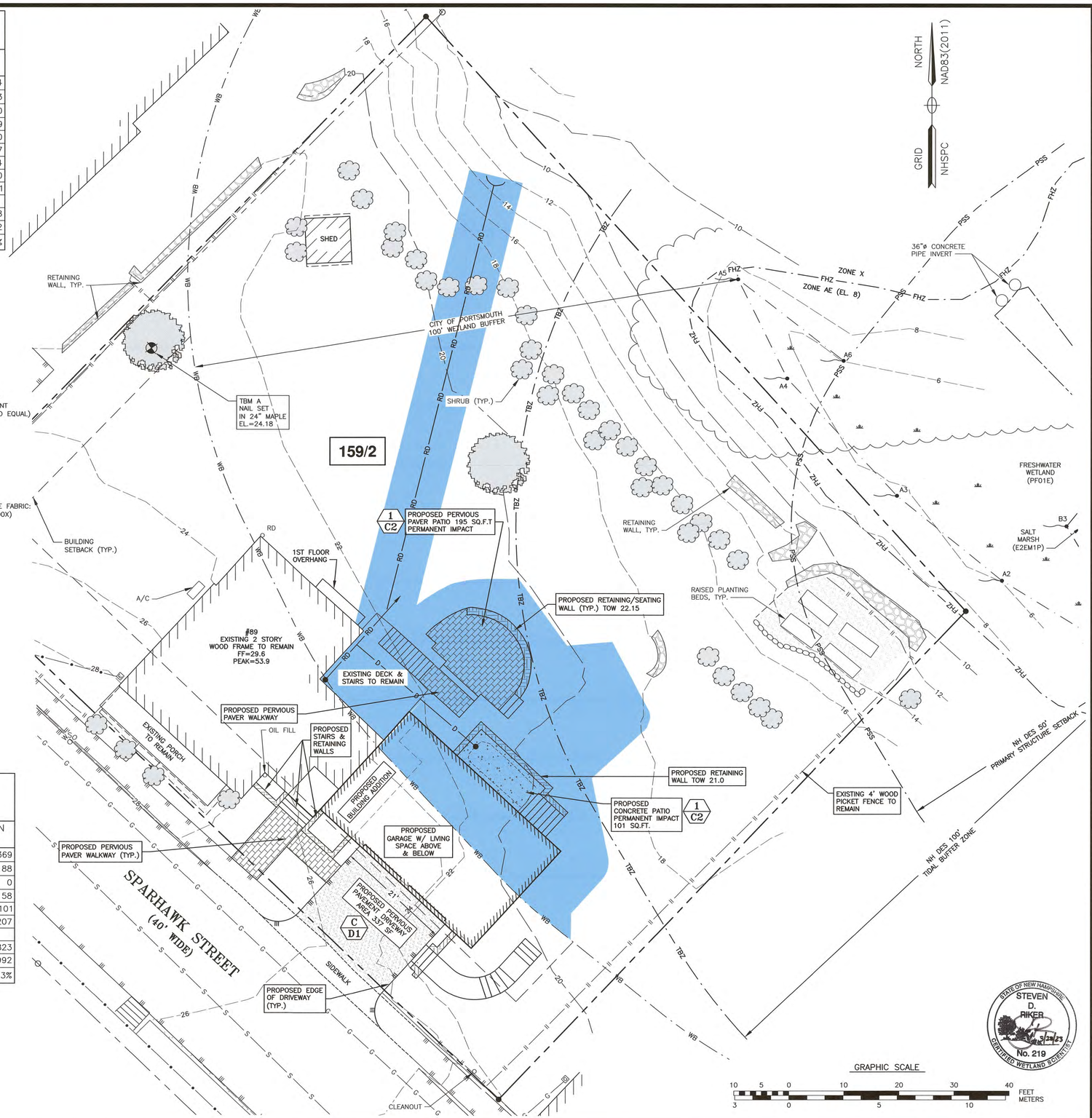
1/C2 TECHO–BLOC® POROUS PATIO/WALKWAYS
(OR APPROVED EQUAL) NTS

CITY OF PORTSMOUTH WETLAND BUFFER IMPERVIOUS SURFACE AREAS

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	175	369
STEPS	39	88
WALKWAY	29	0
RETAINING WALLS	95	58
PATIO	238	101
DECK	207	207
TOTAL	783	823
AREA OF BUFFER ON LOT	12,992	12,992
% COVERAGE IN BUFFER	6.0%	6.3%

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 159 AS LOT 2.

2) OWNER OF RECORD:
JONATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
5855/0015

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA (ZONE AE EL. 8) AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
18,702 S.F.
0.4293 ACRES

5) PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

LOT AREA:		7,500 S.F.
FRONTAGE:		100 FEET
DEPTH:		70 FEET
SETBACKS:	FRONT	15 FEET
	SIDE	10 FEET
	REAR	20 FEET

MAXIMUM STRUCTURE HEIGHT:	35 FEET
MAXIMUM BUILDING COVERAGE:	25%
MINIMUM OPEN SPACE:	30%

8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

9) THE PURPOSE OF THIS PLAN IS TO SHOW THE STRUCTURE ADDITION & SITE IMPROVEMENTS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	3/22/23
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON 7851 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE No. 738 JOHN F. CHAGNON LICENSED LAND SURVEYOR

SCALE: 1" = 10' MARCH 2023

CITY OF PORTSMOUTH PERMIT PLAN

C2

FB 288 PG 54

3432

P:\NH\5010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/27/2023 4:21:29 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
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WALKWAYS	30	0
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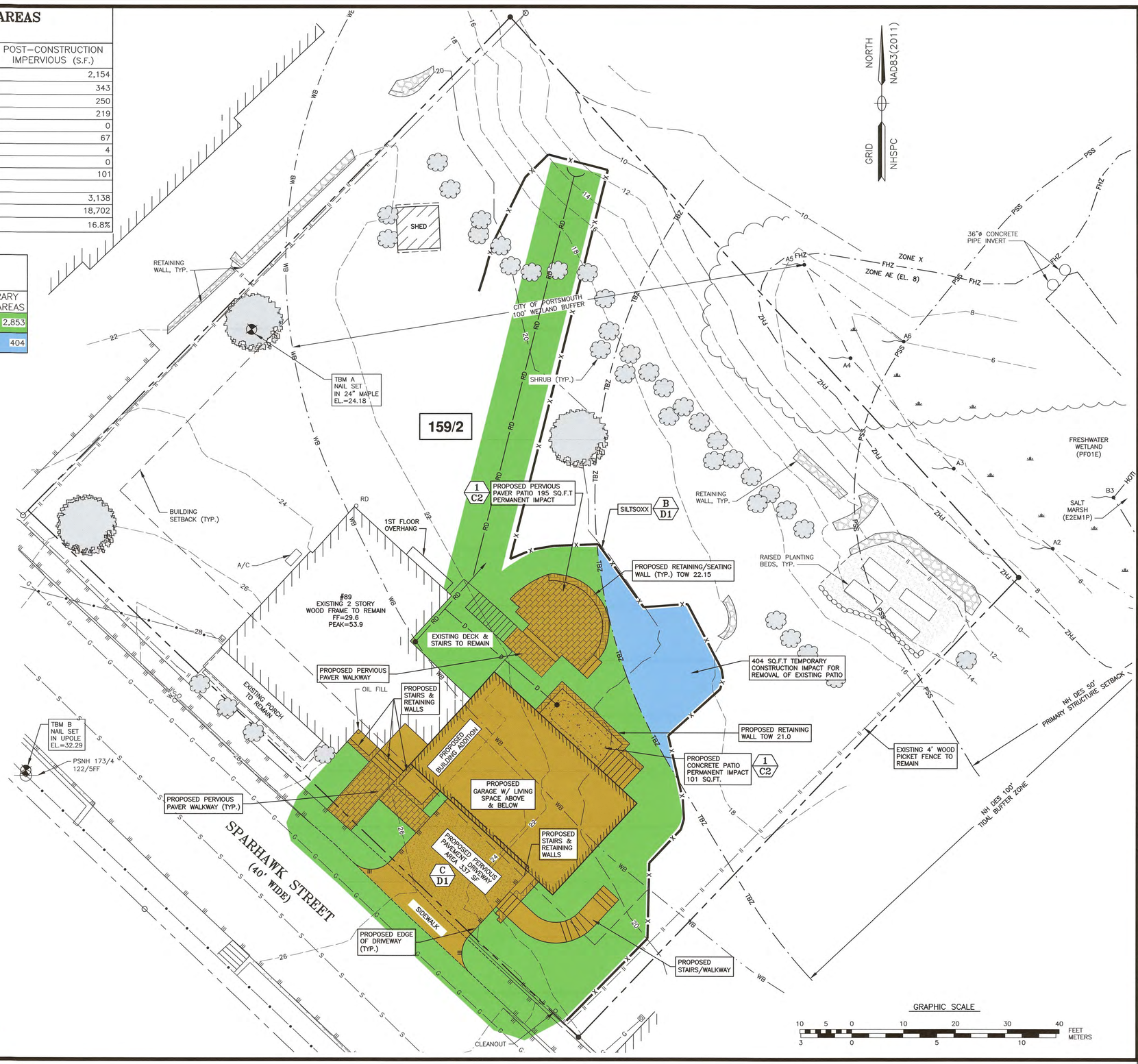
TOTAL	3,033	3,138
LOT SIZE	18,702	18,702
% LOT COVERAGE	16.2%	16.8%

NHDES IMPACT AREAS
IN S.F.

	PERMANENT IMPACT AREAS	TEMPORARY IMPACT AREAS
250' PROTECTED SHORELAND	2,154	2,853
TIDAL BUFFER ZONE	0	404



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9) THE PURPOSE OF THIS PLAN IS TO SHOW THE STRUCTURE ADDITION & SITE IMPROVEMENTS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

10) PER CITY OF PORTSMOUTH ZONING ORDINANCE, ARTICLE 10.1018.24 FERTILIZERS: THE USE OF ANY FERTILIZER IS PROHIBITED IN A WETLAND, VEGETATED BUFFER STRIP OR LIMITED CUT AREA; AND THE USE OF FERTILIZERS OTHER THAN LOW PHOSPHATE AND SLOW RELEASE NITROGEN FERTILIZERS IS PROHIBITED IN ANY PART OF A WETLAND BUFFER.

11) THE ENTIRE LOT IS LOCATED WITHIN THE 250' PROTECTED SHORELAND.

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	3/22/23

REVISIONS

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE STEVEN D. RIKER No. 219 CERTIFIED WETLAND SCIENTIST 3/22/23

STATE OF NEW HAMPSHIRE No. 738 JOHN R. CHAGNON LICENSED LAND SURVEYOR

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS — DATE 3.22.23

SCALE: 1" = 10' — FEBRUARY 2023

NH DES PERMIT PLAN

C3

FB 288 PG 54 — 3432

P:\NHS010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey (2022.dwg, 3/27/2023 4:41:31 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

Landscape General Notes

1. Design is base on drawings by Ambit Engineering dated 03/20/2023 and Somma Studios dated 2/14/2023. Drawings may require adjustment due to actual field conditions.

2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.

3. Erosion Control shall be in place prior to construction.

4. Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.

5. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.

6. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.

7. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.

8. This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.

9. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.

10. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.

11. The Contractor shall procure any required permits prior to construction.

12. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.

13. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a Contractor is aware of a potential issue and does not bring it to the attention of the Landscape Architect or Owner's Representative immediately, they may be responsible for the labor and materials associated with correcting the problem.

14. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.

15. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

16. All plants shall be legibly tagged with proper botanical name.

17. The Contractor shall guarantee all plants including seeding, for not less than one year from time of acceptance.

18. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.

19. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.

20. All landscaping shall be provided with the following:

a. Outside hose attachments spaced a maximum of 150 feet apart, and

b. An underground irrigation system, or

c. A temporary irrigation system designed for a two-year period of plant establishment.

21. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.

22. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, watering of plants, including seeding and weeding. Plants shall be appropriately watered prior to, during, and after planting. It is the Contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.

23. Contractor shall provide an alternate price for irrigating all newly landscaped areas and resetting of any existing irrigation that will be disturbed during planting. Contractor shall provide irrigation design for review by Landscape Architect or Owner's Representative when awarded the project.

24. All disturbed areas will be dressed with 6" of loam and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.

25. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.

26. Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.

27. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.

28. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.

29. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.

30. Landscape Architect is not responsible for the means and methods of the Contractor.

Plant List

TREES

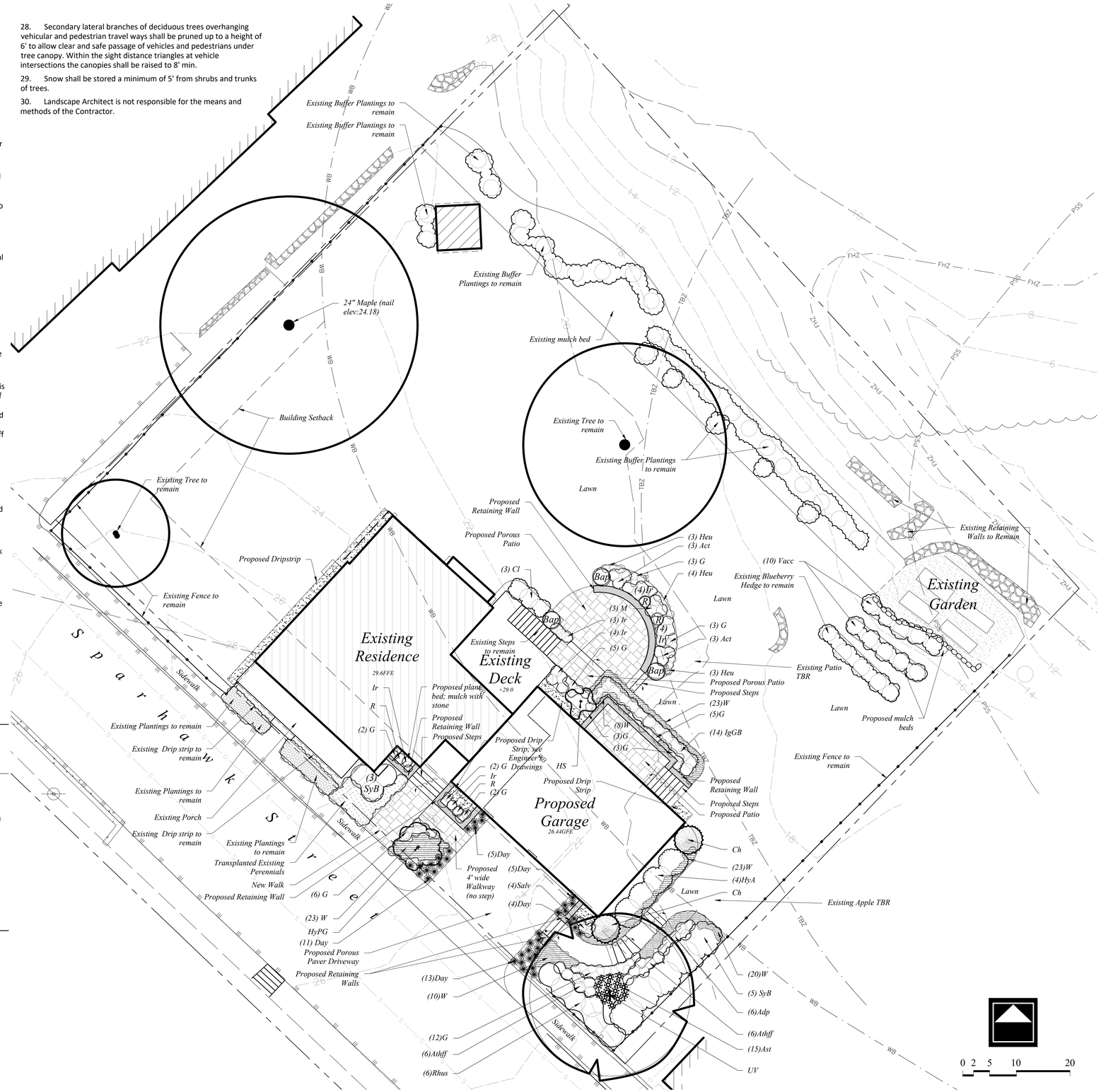
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
UV	*Ulmus americana 'Valley Forge'*	Valley Forge American Elm	1	3-3.5" cal	

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Cl	*Clethra alnifolia 'Hummingbird'*	Hummingbird Compact Summersweet	3	2'-2.5' BB	
Ch	*Chamaecyparis obtusa 'Nana Gracilis'*	Dwarf Hinoki Falsecypress	2	3-4' BB	
HS	*Hibiscus syriacus 'Raspberry Smoothie'*	Raspberry Smoothie Rose-of-Sharon	1	5-6'BB	treeform
HyA	*Hydrangea arborescens 'Annabelle'*	Annabelle Hydrangea	4	3 gal	
HyPG	*Hydrangea paniculata 'Fire and Ice'*	Fire and Ice P.G. Hydrangea	1	10 gal	specimen, treeform
IgGB	*Ilex glabra 'Gem Box'*	Gem Box Dwarf Inkberry	14	3 gal	
Rhus	*Rhus aromatica 'Grow-Low'*	Grow Low Sumac	6	2'-2.5' BB	
SyB	*Syringa 'Bloomerang'*	Bloomerang Lilac	8	2'-2.5' BB	
Vacc	*Bluberry Mix:*	Highbush Blueberry			
	Vaccinium corymbosum	Northern Highbush Blueberry 'Patriot'	3	3 gal	
	Vaccinium corymbosum	Northern Highbush Blueberry 'Bluehaven'	3	3 gal	
	Vaccinium corymbosum	Northern Highbush Blueberry 'Jersey'	4	3 gal	

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Act	*Actaea racemosa*	Bugbane	6	1 gal	
Adp	*Adiantum pedatum*	Maidenhair Fern	6	1 gal	
Ast	*Astilbe Ostrich Plume*	Pink Astilbe	15	1 gal	
Athff	*Athyrium filix-femina*	Lady Fern	12	1 gal	
Bap	*Baptisia australis*	False Blue Indigo	3	1 gal	
Day	*Daylily Mix:*				
	Hemerocallis 'Joan Senior'	Joan Senior Daylily (early-mid)	12	1 gal	
	Hemerocallis 'Catherine Woodbury'	Catherine Woodbury Daylily	13	1 gal	
	Hemerocallis 'Mary Todd'	Mary Todd Daylily	13	1 gal	
G	*Geranium maculatum*	Spotted Cranesbill	46	1 gal	
Heu	*Heuchera villosa 'Autumn Bride'*	Autumn Bride Heuchera	10	1 gal	
IR	*Iris versicolor*	Blue Flag Iris	17	1 gal	
M	*Monarda 'Raspberry Wine'*	Wine Red Beebalm	3	1 gal	
R	*Rudbeckia fulgida 'Goldsturm'*	Black-Eyed Susan	4	1 gal	
Salv	*Salvia nemorosa 'Blue Hill'*	Dark Blue Salvia	4	1 gal	
W	*Waldsteinia fragarioides*	Barren Strawberry	86	1 gal	plant 18" o.c.



woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

Morse Residence

LANDSCAPE PLAN

89 Sparhawk Street Portsmouth, New Hampshire

Drawn By:	WSA
Checked By:	RW
Scale:	1"-10'-0"
Date:	2023-03-28
Revisions:	FOR SUBMISSION

L-1

Sheet x of X

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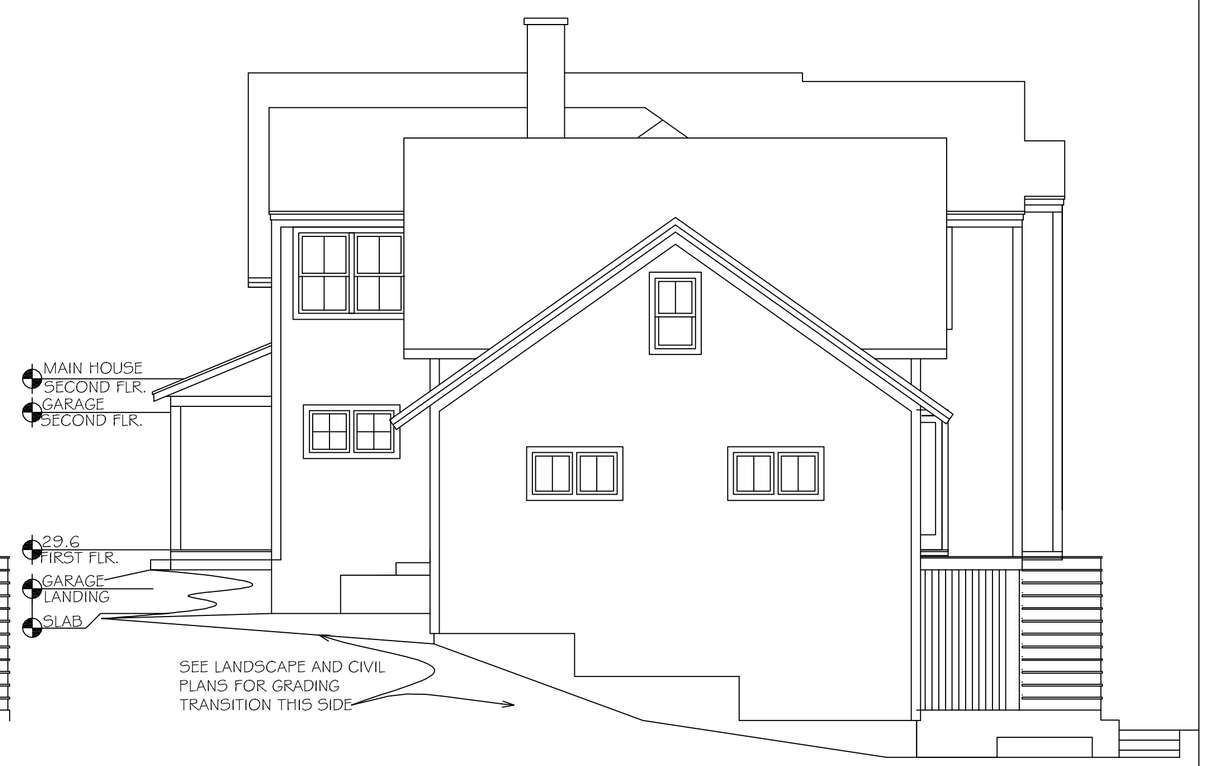
EXISTING/PROPOSED SPARHAWK ELEVATION

EXISTING SIDE ELEVATION



PROPOSED SIDE ELEVATION

EXISTING/PROPOSED BACK ELEVATION

MORSE RESIDENCE

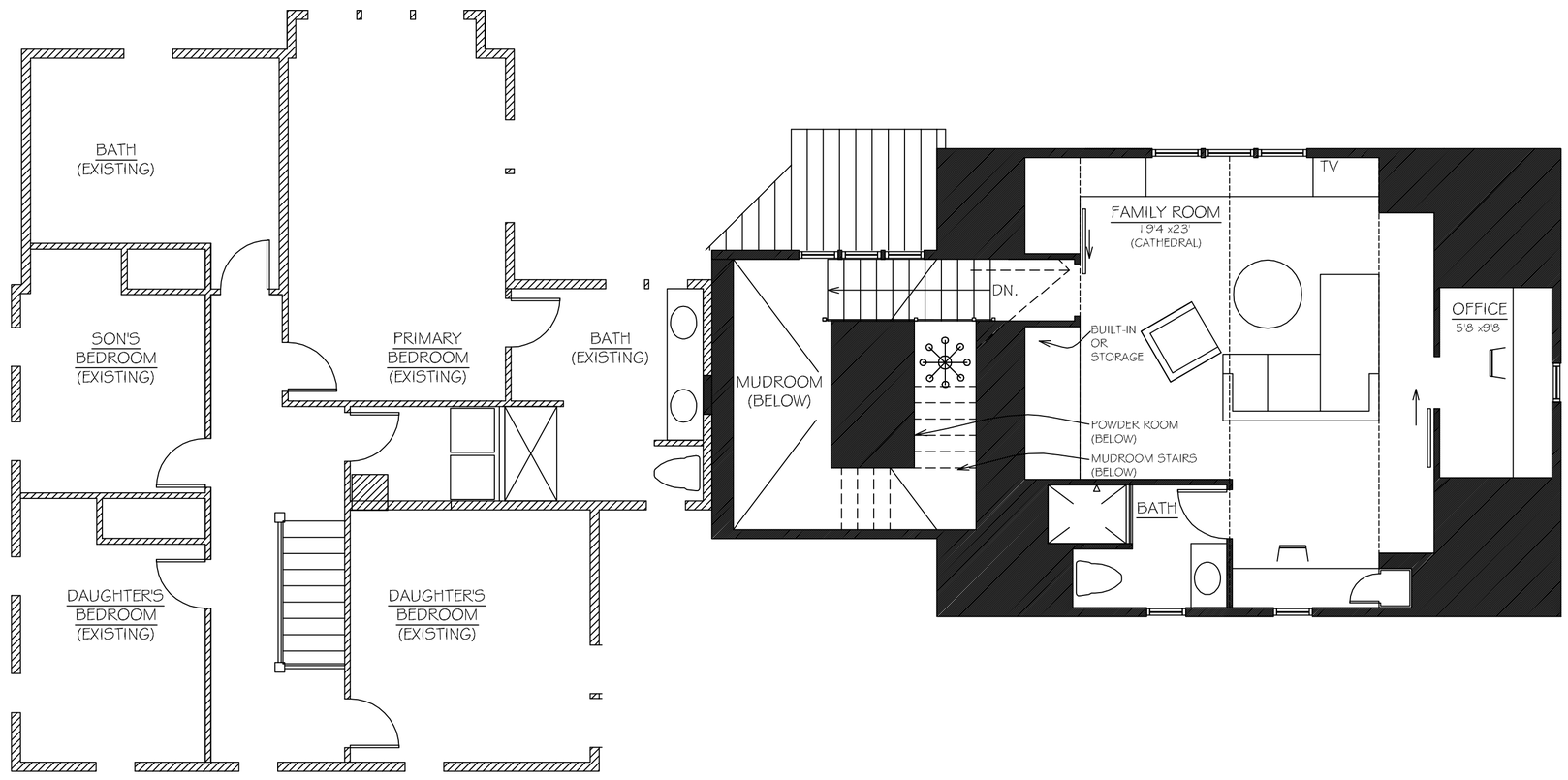
EXISTING/PROPOSED ELEVATIONS

MAR 29, 2023

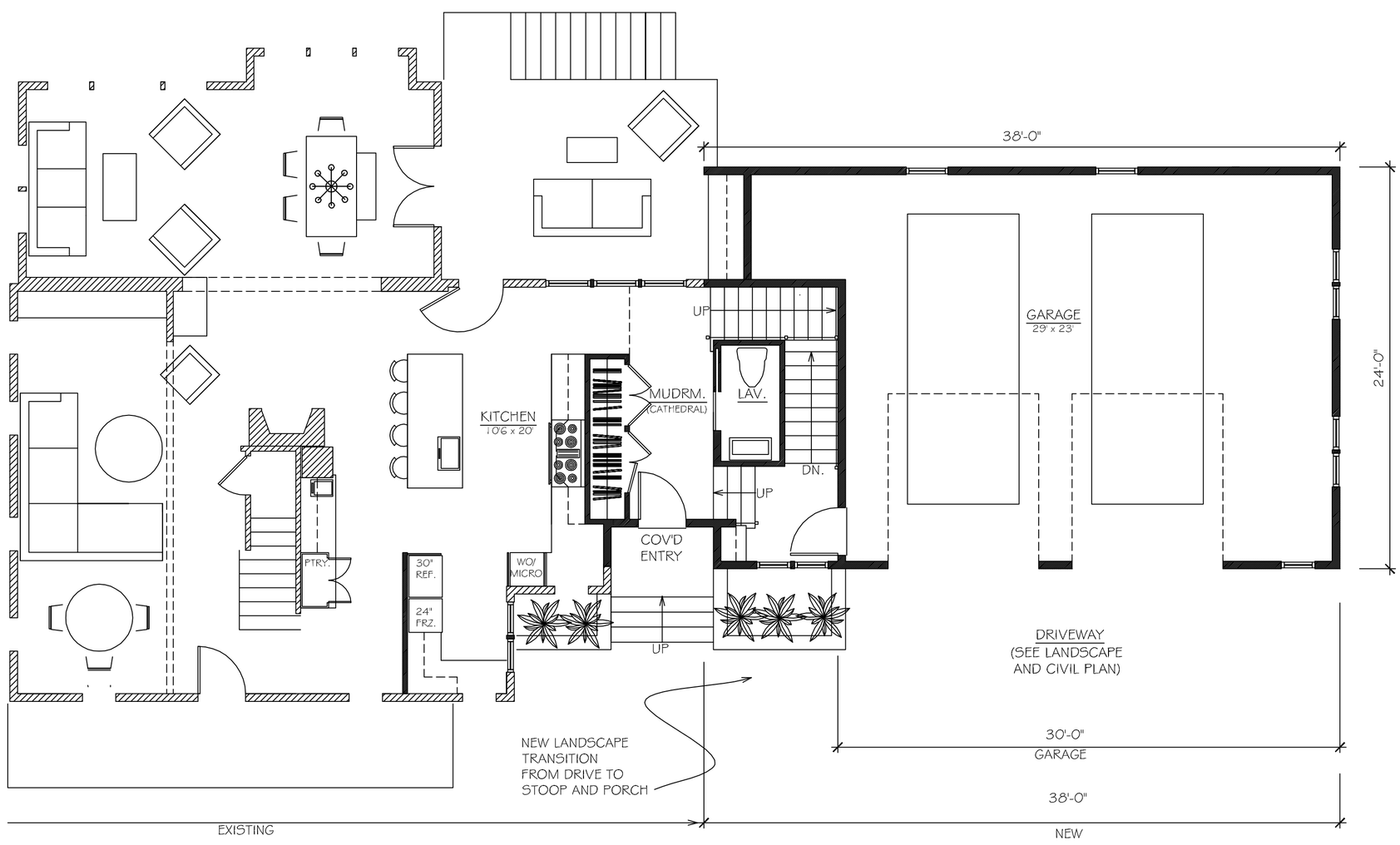
89 SPARHAWK ST., PORTSMOUTH, NH

$\frac{3}{16}" = 1'-0"$

SOMMA STUDIOS



EXISTING/PROPOSED SECOND FLOOR

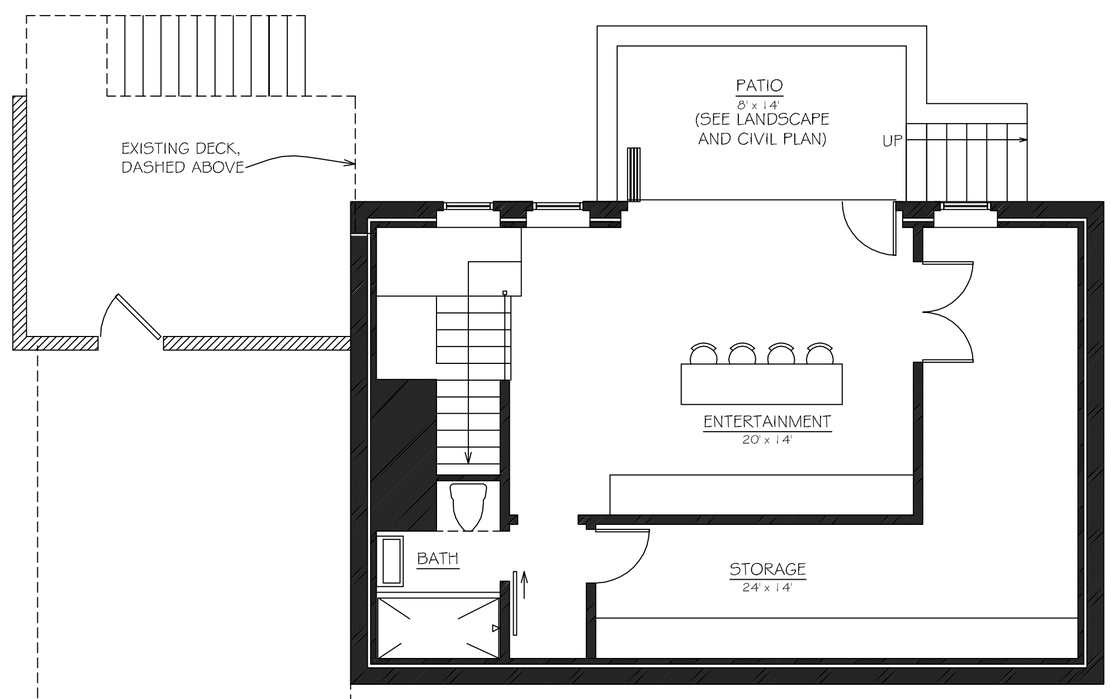


EXISTING/PROPOSED FIRST FLOOR

KEY

EXISTING WALLS

NEW WALLS



PROPOSED LOWER LEVEL

MORSE RESIDENCE

EXISTING/PROPOSD PLANS

MAR 29, 2023

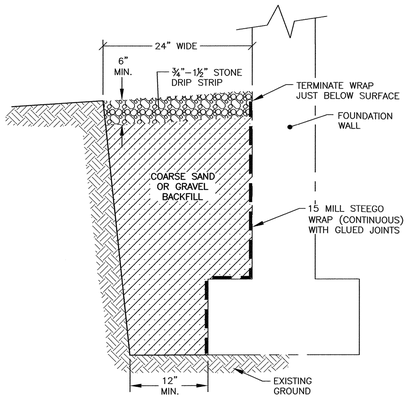
89 SPARHAWK ST., PORTSMOUTH, NH

$\frac{3}{16}$" = 1'-0"

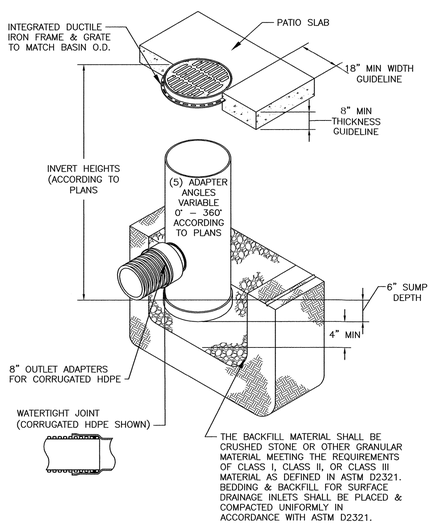
SOMMA STUDIOS

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

STRUCTURE	PRE-CONSTRUCTION IMPERVIOUS (S.F.)	POST-CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	1,280	2,154
PORCH/DECK	343	343
STAIRS/LANDINGS	111	250
RETAINING WALLS	328	219
DRIVEWAY	631	0
SHED	67	67
AC PAD	4	4
WALKWAYS	30	0
PATIO	239	101
TOTAL	3,033	3,138
LOT SIZE	18,702	18,702
% LOT COVERAGE	16.2%	16.8%



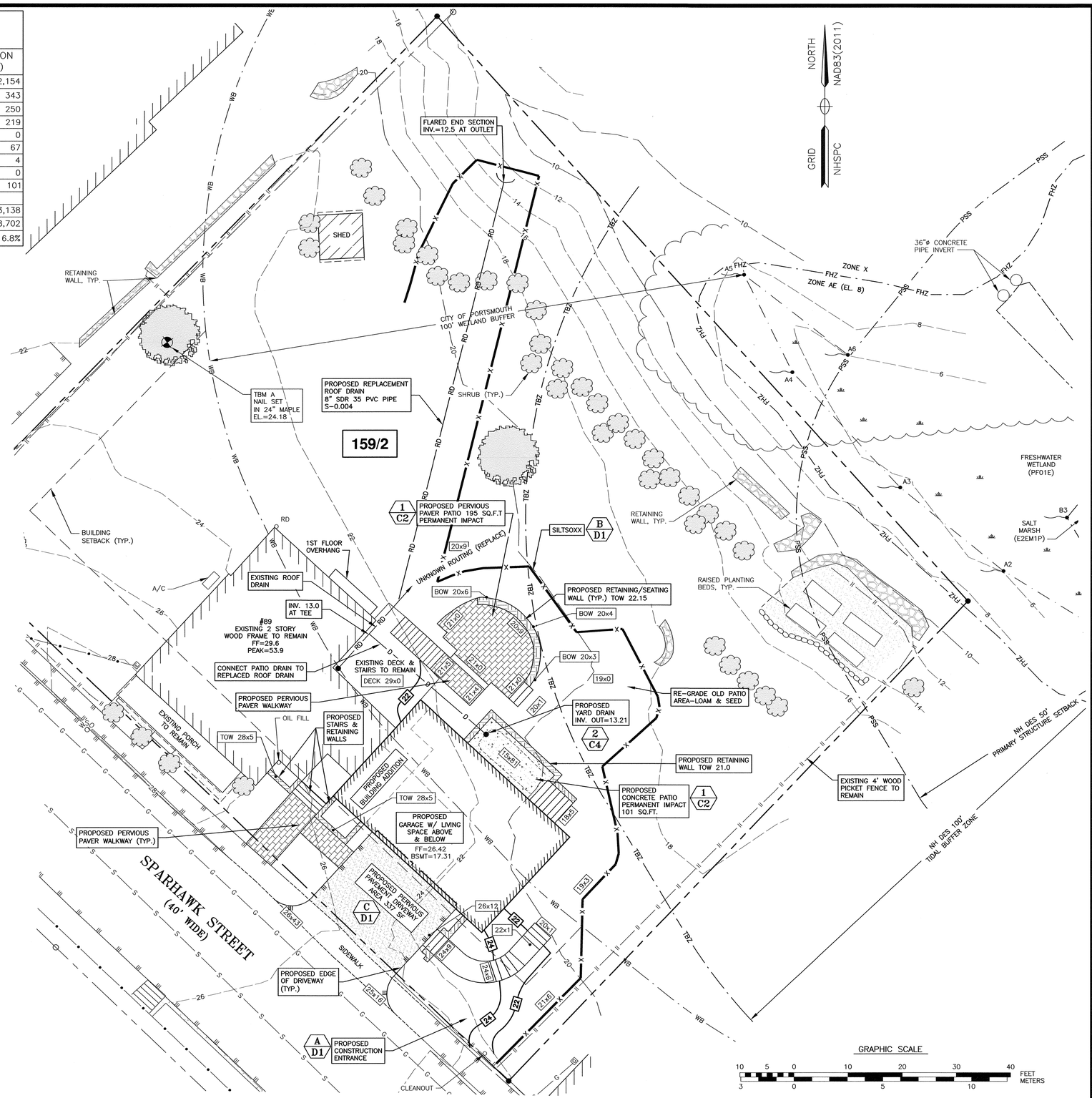
1/C4 STONE DRIP APRON
(UNDER BUILDING DRIP LINE) NTS
SEE LANDSCAPE PLAN FOR LOCATIONS



2/C4 YARD DRAIN
NYLOPLAST 24" DRAIN BASIN NTS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

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MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	REVISED PROPOSED BUILDING	3/22/23
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE STEVEN D. RIKER No. 219 CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE JOHN A. CHAGNON No. 7951 LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 10' NOVEMBER 2022

EROSION CONTROL & GRADING PLAN

C4

FB 288 PG 54

3432

P:\NH\5010162-Lisa Morse\3432-Sparhawk St, Portsmouth-IRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg 3/27/2023 4:19:51 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

INSTALL INLET PROTECTION AND PERIMETER CONTROLS, i.e., SILT FENCING OR SILTSOXX AROUND THE LIMITS OF DISTURBANCE AND CATCH BASIN FILTER BEFORE ANY EARTH MOVING OPERATIONS.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED.

REMOVE EXISTING RETAINING WALLS & OTHER SITE FEATURES TO BE REMOVED.

CONSTRUCT SITE IMPROVEMENTS.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF A BUILDING ADDITION WITH ASSOCIATED UTILITIES, GRADING, AND SITE IMPROVEMENTS.

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 4,700 S.F.

BASED ON SITE OBSERVATIONS AND TEST PITS THE SOILS ON SITE CONSIST OF URBAN LAND–CANTON COMPLEX, 3 TO 15% SLOPE WHICH ARE WELL DRAINED SOILS WITH A HYDROLOGIC SOIL GROUP RATING OF A.

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED TO PROPERTY WHICH ULTIMATELY FLOWS TO THE NORTH MILL POND THEN TO THE PISCATAQUA RIVER.

GENERAL CONSTRUCTION NOTES

THE EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NHDOT, AND "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE". 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.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR MORE THAN 45 DAYS.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

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.

DUST CONTROL: DUST CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.
IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILTSOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

ALL NON–STRUCTURAL, SITE–FILL SHALL BE PLACED AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY IN LAYERS NOT EXCEEDING 18 INCHES IN THICKNESS UNLESS OTHERWISE NOTED.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIAL, TRASH, WOODY DEBRIS, LEAVES, BRUSH OR ANY DELETERIOUS MATTER SHALL NOT BE INCORPORATED INTO FILLS.

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

DURING CONSTRUCTION AND UNTIL ALL DEVELOPED AREAS ARE FULLY STABILIZED, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH ONE HALF INCH OF RAINFALL.

THE CONTRACTOR SHALL MODIFY OR ADD EROSION CONTROL MEASURES AS NECESSARY TO ACCOMMODATE PROJECT CONSTRUCTION.

ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED ON AREAS TO BE PAVED
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3 INCHES OF NON–EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
- EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
- 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.

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:
- TEMPORARY SEEDING;
- MULCHING.

1. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
2. 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 THESE AREAS, SILTSOXX, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
3. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILTSOXX, 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.

MAINTENANCE AND PROTECTION

THE SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

SILTSOXX SHALL BE REMOVED ONCE SITE IS STABILIZED, AND DISTURBED AREAS RESULTING FROM SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.

THE CATCH BASIN INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.
SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

WINTER NOTES

ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED 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.

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;

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;

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.

CONCRETE WASHOUT AREA

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

ALLOWABLE NON–STORMWATER DISCHARGES

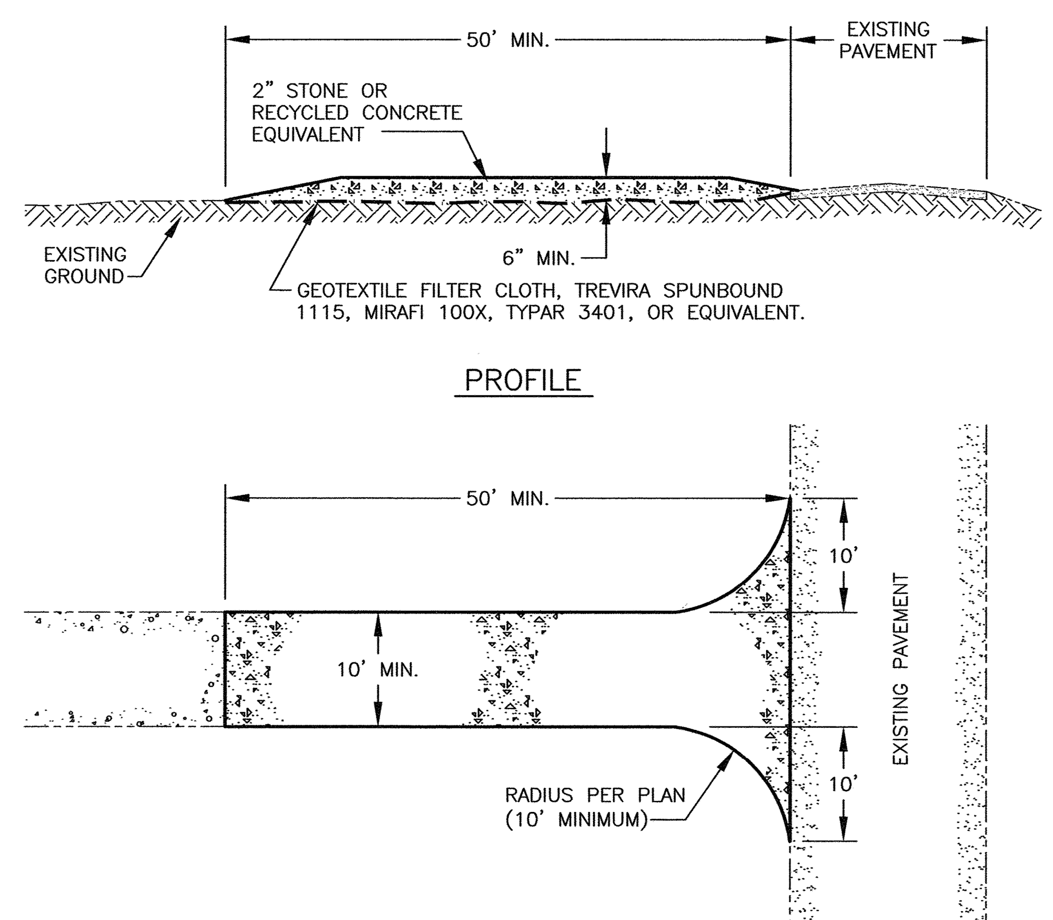
1. FIRE–FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHING;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS 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

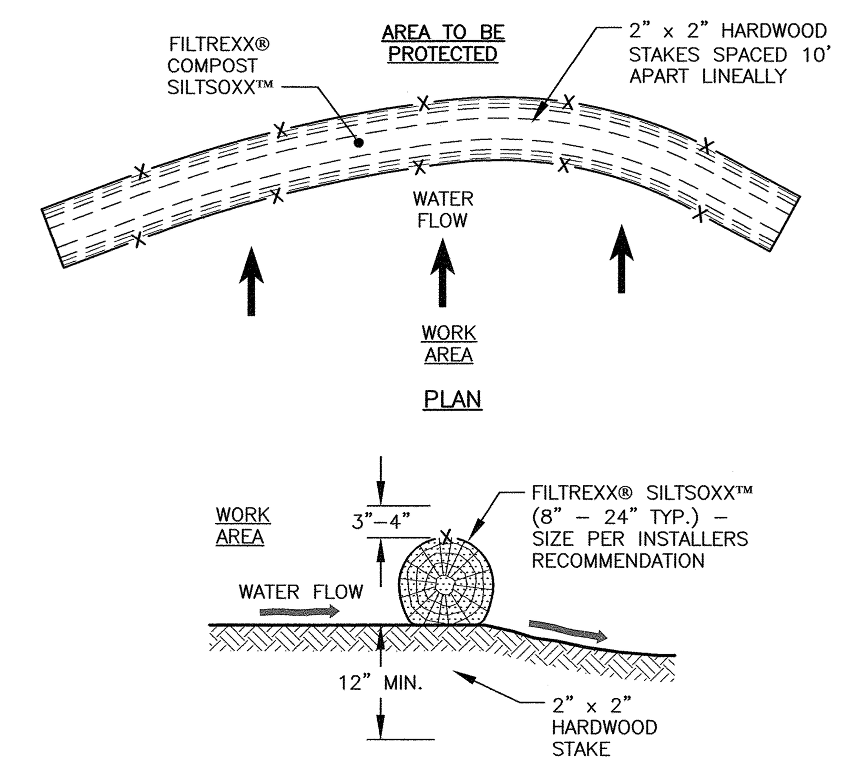
1. WASTE MATERIAL
   - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
   - NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
   - ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE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

BLASTING NOTES

1. CONTRACTOR SHALL CONTACT THE NHDES AND/OR LOCAL JURISDICTION PRIOR TO COMMENCING ANY BLASTING ACTIVITIES.
2. FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT SHALL SUBMIT A BLASTING PLAN THAT IDENTIFIES:
   - WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
   - THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND
   - SITE–SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.



A / C4 STABILIZED CONSTRUCTION ENTRANCE
SUBSTITUTE FODS IF DESIRED — NTS



NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILLTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

B / C4 FILTREXX® SILTSOXX™ FILTRATION SYSTEM — NTS

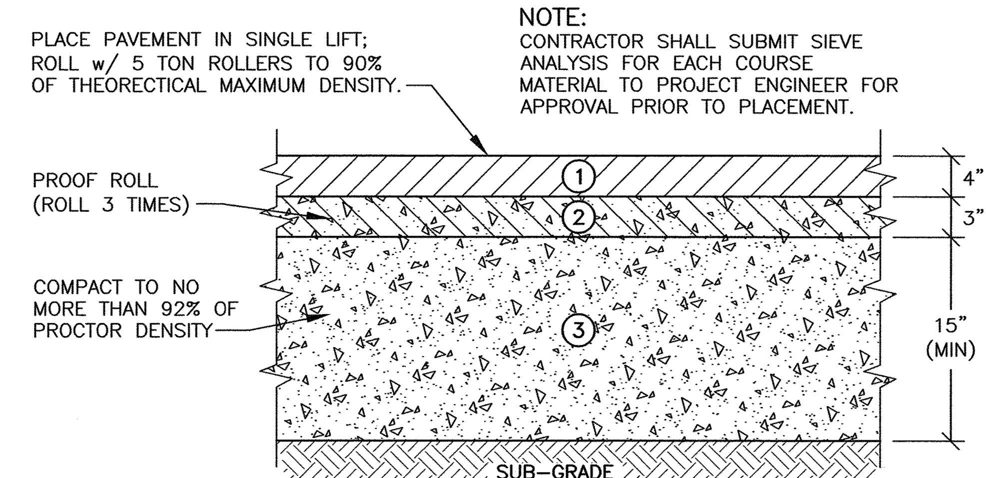
POROUS PAVEMENT SPECIFICAITONS

(1)		(2)		(3)	
POROUS PAVEMENT w/ THE FOLLOWING GRADATIONS*		CHOKER/RESERVOIR COURSE w/ THE FOLLOWING GRADATIONS**		FILTER COURSE (Item 304.3, Processed Gravel)	
SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)
3/4" (19mm)	100	1" (25mm)	100	3" (75mm)	100
1/2" (12.5mm)	85–100	3/4" (19mm)	45–55	2.0" (63mm)	95–100
3/8" (9.5mm)	55–75	1/2" (12.5mm)	40–50	1" (25mm)	55–85
No. 4 (4.75mm)	10–25	3/8" (9.5mm)	35–45	No. 4 (4.75mm)	27–52
No. 8 (2.36mm)	5–10	No. 4 (4.75mm)	---	---	---
No. 200 (0.075mm)	2–4	No. 8 (2.36mm)	0–5	No, 200 (0.075 mm)	0–12 (in sand portion)

* WITH 6% PERFORMANCE GRADED ASPHALT BINDER CONTENT BY VOLUME. AIR VOIDS TO BE 20%

** CRUSHED QUARRY STONE SHALL CONTAIN AT LEAST 2 FRACTURED FACES, & SHALL BE WASHED WITH LESS THAN 1% BY WEIGHT PASSING No. 200 SIEVE.

NOTE:
CONTRACTOR SHALL SUBMIT SIEVE ANALYSIS FOR EACH COURSE MATERIAL TO PROJECT ENGINEER FOR APPROVAL PRIOR TO PLACEMENT.

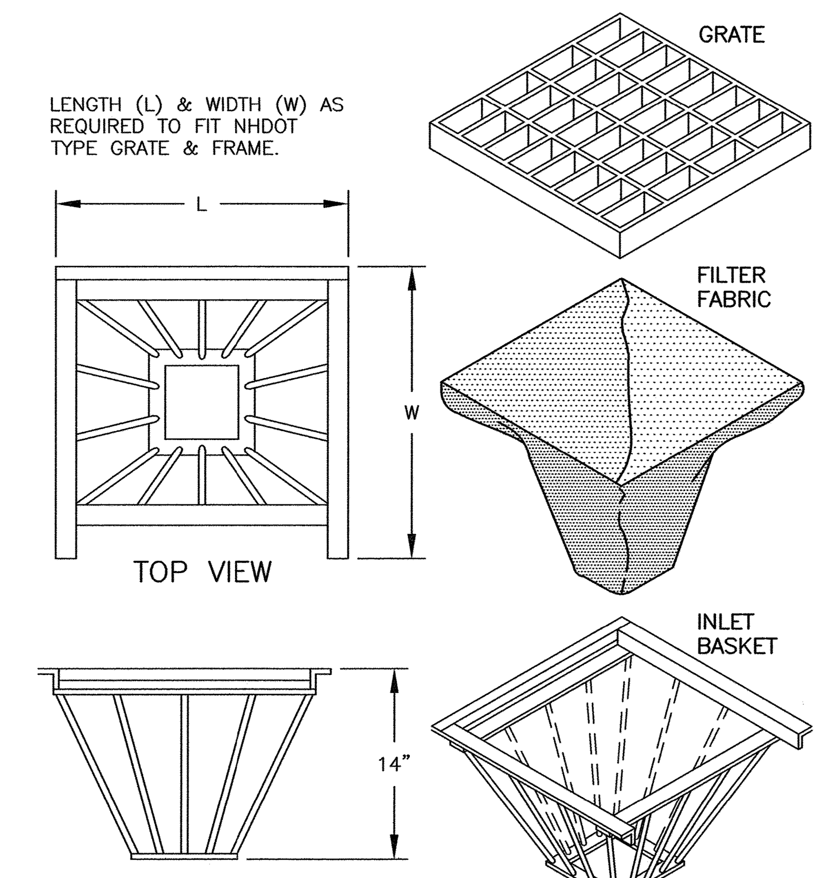


PAVEMENT SECTION
NTS

C / C2 POROUS PAVING — NTS

POROUS PAVEMENT MAINTENANCE PROCEDURES:
A) NO DE–ICING CHEMICALS SHALL BE APPLIED TO THE POROUS PAVEMENT SURFACE

B) THE POROUS PAVEMENT SURFACE SHALL BE VACUUMED TWICE PER YEAR.



1) INLET BASKETS SHALL BE INSTALLED IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION IS COMPLETE AND SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.

2) FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET OF FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND, SHALL EXTEND AT LEAST 6" PAST THE FRAME. THE INLET GRATE SHALL BE PLACED OVER THE BASKET/FRAME AND WILL SERVE AS THE FABRIC ANCHOR.

3) THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:
–RAB STRENGTH: 45 LB. MIN. IN ANY PRINCIPAL DIRECTION (ASTM D1682)
–MULLEN BURST STRENGTH: MIN. 60 psi (ASTM D774)

4) THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 gpm/s.f. (MULTIPLY THE PERMITTIVITY IN SEC.–1 FROM ASTM 54491–85 CONSTANT HEAD TEST USING THE CONVERSION FACTOR OF 74.)

5) THE INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.

6) SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

D / C4 CATCH BASIN INLET BASKET
AS NEEDED — NTS

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

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MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	3/22/23

REVISIONS

STATE OF NEW HAMPSHIRE – JOHN R. CHAGNON No. 7651 – LICENSED PROFESSIONAL ENGINEER

SCALE: AS SHOWN — FEBRUARY 2023

EROSION CONTROL NOTES AND DETAILS

D1

FB 288 PG 54

3432

P:\NH\5010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-JRC\3432\2022 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/28/2023 8:34:49 AM, Portsmouth Plotter Canon TX3000 (temporary).pc3

Conservation Commission

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

March 29, 2023

RECEIVED
APR 04 2023
By

PEASE DEVELOPMENT AUTHORITY DIVISION OF PORTS AND HARBORS
GENO MARCONI
555 MARKET ST
PORTSMOUTH NH 03801

227 MARKET STREET LLC
JAQUELINE MAHONEY
27 AUSTIN ST
PORTSMOUTH NH 03801

Re: Request for More Information – Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2023-00232
Subject Property: 227 & 555 Market St, Portsmouth, Tax Map #119, Lot #5 & 6

Dear Applicant:

On March 29, 2023, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau reviewed the above-referenced Standard Dredge and Fill Wetlands Permit Application (Application). Pursuant to RSA 482-A:3, XIV(a)(2) and Rules Env-Wt 100 through 900, NHDES Wetlands Bureau determined the following additional information is required to complete its evaluation of the Application:

1. As the proposed bollards are considered a permanent tidal docking structure, the filing fee submitted with the application is insufficient to meet the full amount required for the requested impact area included in this application. In accordance with Env-Wt 311.03(b)(2), please submit a check for the revised application fee determined as specified in RSA 482-A:3, I, (b). As of the date of this letter, NHDES has received $2,670.00 for the originally requested 6,675 square feet of impact to the tidal buffer zone and tidal waters.
2. The impacts related to the installation of the new bollards, the new stormwater outfall, and the regrading of the site within the 100-foot upland tidal buffer zone meet the definition of a permanent impact as defined by Env-Wt 103.55. In accordance with Env-Wt 311.04(g) and Env-Wt 311.05(a)(18), please revise the plans and impact calculations on the application form to include the additional square footage of permanent impact for all locations where new structures will be installed and where the original grades of the site shall be altered as a result of this project. Additionally, please revise the plans to provide lightly shaded or stippled areas showing the updated limits of all temporary and permanent impacts in jurisdictional areas that have been labeled with the square footage of impact in accordance with Env-Wt 311.05(a)(18) and Env-Wt 311.04(g)(7).
3. The permanent impacts below the highest observable tide line (HOTL) related to the installation of the proposed stormwater outfall is considered permanent impact to a priority resource area (PRA) in accordance with Env-Wt 103.66 and Env-Wt 306.05(a)(2)e. Compensatory mitigation is required for this impact in accordance with Env-Wt 311.01(c)(2), Env-Wt 313.04(a)(1), and Env-Wt 605.03(a). Please provide all information required pursuant to Env-Wt 311.08 and Env-Wt 605.04, including the type of mitigation proposed by the applicant and a complete compensatory mitigation proposal that includes all information required in accordance with Env-Wt 312.04.

Additionally, please note that since impacts related to this project will take place below the mean high water tide line, then this project will require approval by the governor and executive council in accordance with Env-Wt 313.02(b) and pursuant to RSA 482-A:3, II(a).

4. Applicants must attend a pre-application meeting with the department to discuss the proposed project and all applicable requirements and to coordinate the review of the compensatory mitigation proposal at least 30 days but not more than 90 days before submitting the application schedule in accordance with Env-Wt 311.02(d). Please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516 to schedule a Mitigation Pre-application meeting for this project.
5. Please provide a statement from the Pease Development Authority Division of Ports and Harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation in accordance with Env-Wt 603.09(a).
6. Please revise the plans to provide an overview of the subject property and proposed impact areas in relation to property lines in accordance with Env-Wt 311.05(a)(6).
7. Please revise the plans to show the imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions as required in accordance with Env-Wt 603.07(b)(3).
8. Please revise the plans to identify the wetland classifications of each wetland resource as required in accordance with Env-Wt 406.06(b).
9. In accordance with Env-Wt 311.05(a)(14), please revise the plan sheets to provide the name and professional license number of the certified wetland scientist or qualified coastal professional who completed the coastal functional assessment (CFA) report and located the identified resources on the plans, including but not limited to tidal waters, wetlands, streams, and vernal pools on the property, as required in accordance with Env-Wt 311.05(a)(5) and Env-Wt 603.07(b)(6)b.
10. If the plans were prepared by the certified wetland scientist (CWS) responsible for the delineation, then revise the plans to include their CWS stamp as required in accordance with Env-Wt 311.05(b)(2). However, if the plans were not prepared by a certified wetland scientist, then the application must be accompanied by a report that includes an existing conditions plan that has been prepared and stamped by a certified wetland scientist in accordance with Env-Wt 311.05(b)(3). Please provide this information as a part of the response to this letter.
11. Please revise the plans to provide the location of the 100-year flood boundary zone and water elevation as shown on the applicable FEMA Flood Insurance Rate Map in accordance with Env-Wt 311.05(a)(16) and Env-Wt 610.04(b).

Please submit the required information as soon as practicable. Pursuant to RSA 482-A:3, XIV(a)(2), **the required information must be received by NHDES Wetlands Bureau within 60 days of the date of this request (no later than May 28, 2023), or the Application will be denied**. Should additional time be necessary to submit the required information, an extension of the 60-day time period may be requested. Requests for additional time must be received prior to the deadline in order to be approved. In accordance with applicable statutes and regulations, the applicant is also expected to provide copies of the required information to the municipal clerk and all other interested parties.

Based on NHDES review your project has impacts to tidal wetlands. To ensure that you obtain permitting under the Clean Water Act, please contact the U.S. Army Corps of Engineers (USACE) at 1-978-318-8832, 1-978-318-8295, or by email at cenae-r-nh@usace.army.mil to see if additional mitigation may be required from the USACE.

Pursuant to RSA 482-A:3, XIV(a)(3), NHDES Wetlands Bureau will approve or deny the Application within 30 days of receipt of all required information, or schedule a public hearing, if required by RSA 482-A or associated rules.

If you have any questions, please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516.

Sincerely,

Kristin L. Duclos
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

cc: Portsmouth Municipal Clerk/Conservation Commission
Tighe & Bond Inc, c/o Neil A Hansen
Granite State Minerals
ec: NHDES Mitigation Program, c/o Emily Nichols
US Army Corps of Engineers, c/o Lindsey Lefebvre

The State of New Hampshire

Department of Environmental Services

Robert R. Scott, Commissioner

March 07, 2023

RECEIVED
MAR 15 2023
By

KATARA LLC
274 MILLER AVE
PORTSMOUTH NH 03801

Re: Approved Standard Dredge and Fill Wetlands Permit Application – Impacts within Prime Wetlands and/or Duly-Established 100-foot Buffer (RSA 482-A)
NHDES File Number: 2022-01875
Subject Property: 70 Pleasant Point Dr, Portsmouth, Tax Map #207, Lot #15

Dear Applicant:

On March 07, 2023, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau approved the above-referenced Standard Dredge and Fill Wetlands Permit Application to impact 10,630 square feet (SF) of previously developed upland tidal buffer zone to remove an existing residential dwelling and replace with a new dwelling, install a pervious driveway, construct steps and stone retaining walls, install three pervious patios, install a rain garden, regrade the site, and install native plantings. Impact 479 SF within the duly designated 100-foot prime wetland buffer of Portsmouth Prime Wetland 061B in order to install an outlet pipe with riprap outlet protection. Temporarily impact a total of 3,591 SF of previously developed upland tidal buffer zone and the 100-foot prime wetland buffer of Prime Wetland 061B for construction access and installation of native vegetation. Impacts within the protected shoreland permitted under separate cover.

Pursuant to RSA 482-A:11, IV(a) and Env-Wt 705.01, a 20-day waiting period is required to allow all interested parties the opportunity to submit a request for reconsideration to the NHDES Wetlands Bureau, prior to issuance of the permit. If no requests for reconsideration are received by the NHDES Wetlands Bureau within 20 days, the permit will be issued. The department shall not wait the full 20 days to issue the permit if it receives written notice sooner from each person required to be notified pursuant to Env-Wt 705.01 (a) and (b), that each person has no objection to the permit being issued. Please note, this letter is **not** a permit or authorization to begin work.

This approval is based on the following findings:

1. This project is classified as a major project per Rule Env-Wt 610.17(a)(2), based on an aggregation of projects under Env-Wt 400, and per Rule Env-Wt 407.03(a), as impacts to jurisdictional areas are equal to or greater than 10,000 square feet (SF).
2. The impacts within the protected shoreland associated with this project are approved under NHDES Shoreland Permit #2022-02337.
3. Portsmouth Prime Wetland 061B was designated with primary functions of containing rare species habitat, critical fisheries habitat, and is one of only two salt marsh complexes in the City of Portsmouth.
4. No direct impacts are proposed to Portsmouth Prime Wetland 061B as a result of this project.
5. The applicant has minimized impacts to the prime wetland buffer of Portsmouth Prime Wetland 061B by proposing installation of native vegetation within existing lawn areas, the development will result in no net increase in impervious surface, stormwater management technologies are proposed to reduce the volume of stormwater directed toward the tidal resource, and the salt marsh complex and its functions will not be impacted as a result of this project.

6. NHDES finds that there is clear and convincing evidence this proposal will have no significant loss of values to the prime wetlands as set forth in RSA 482-A:1 or the functions and values identified by the City of Portsmouth at the time of designation, and the project therefore meets the criteria set forth in Rule Env-Wt 704.02, Criteria for Approval.
7. On March 6, 2023, NHDES received a request to waive Rule Env-Wt 605.03(b)(6), to relieve the applicant from the requirement to provide mitigation for permanent impacts within the previously developed 100-foot tidal buffer zone consisting of greater than 10,000 square feet (SF) of impact.
8. The department finds that the documentation provided by the applicant provides clear and convincing evidence that granting the waiver will not result in either an avoidable adverse impact on the environment or natural resources of the state; an avoidable adverse impact on public health or public safety; nor any impact on abutting properties that is more significant than that which would result from complying with the rule; and any benefit to the public or the environment from complying with the rule is outweighed by the operational or economic costs to the applicant.
9. The department finds that granting the waiver will not result in either an avoidable adverse impact on the environment or natural resources of the state, including but not limited to jurisdictional areas and protected species or habitat; an avoidable adverse impact on public health or public safety; any impact on abutting properties that is more significant than that which would result from complying with the rule; or a statutory requirement being waived; and any benefit to the public or the environment from complying with the rule is outweighed by the operational or economic costs to the applicant for the above stated reasons, and thus, that the requirements of Env-Wt 204.05 have been met.
10. Per Rule Env-Wt 204.05(a), the department has granted the requested waiver of Env-Wt 605.03(b)(6).
11. Per Rule Env-Wt 202.01(b) in accordance with RSA 482-A:8, NHDES finds that the requirements for a public hearing do not apply as the project will not have a significant environmental impact, as defined in Env-Wt 104.19, or adversely affect the values of the resources protected by RSA 482-A, or, is not of substantial public interest, as defined in Env-Wt 104.32.
12. The Department 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.

In accordance with RSA 482-A:10, RSA 21-O:14, and Rules Env-Wtc 100-200, **any person aggrieved by this decision may file a Notice of Appeal directly with the NH Wetlands Council (Council) within 30 days of the decision date, March 07, 2023**. Every ground claiming the decision is unlawful or unreasonable must be fully set forth in the Notice of Appeal. Only the grounds set forth in the Notice of Appeal are considered by the Council. Information about the Council, including Council Rules, is available at https://nhec.nh.gov/wetlands/index.htm. For appeal-related issues, contact the Council Appeals Clerk at (603) 271-6072.

If you have any questions, please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516.

Sincerely,

Kristin L. Duclos
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

cc: Portsmouth Municipal Clerk/Conservation Commission
TF Moran, Inc., c/o Jason R. Aube
ec: Hoefle, Phoenix, Gormley, & Roberts, PLLC, c/o R. Timothy Phoenix

The State of New Hampshire

Department of Environmental Services

Robert R. Scott, Commissioner

WETLANDS AND NON-SITE SPECIFIC PERMIT 2022-01875

NOTE CONDITIONS

PERMITTEE: KATARA LLC
274 MILLER AVE
PORTSMOUTH NH 03801

PROJECT LOCATION: 70 PLEASANT POINT DR, PORTSMOUTH
TAX MAP #207, LOT #15

WATERBODY: PISCATAQUA RIVER

APPROVAL DATE: MARCH 07, 2023 **EXPIRATION DATE:** MARCH 07, 2028

Based upon review of permit application 2022-01875 in accordance with RSA 482-A and RSA 485-A:17, the New Hampshire Department of Environmental Services (NHDES) hereby issues this Wetlands and Non-Site Specific Permit. To validate this Permit, signatures of the Permittee and the Principal Contractor are required.

PERMIT DESCRIPTION:
Impact 10,630 square feet (SF) of previously developed upland tidal buffer zone to remove an existing residential dwelling and replace with a new dwelling, install a pervious driveway, construct steps and stone retaining walls, install three pervious patios, install a rain garden, regrade the site, and install native plantings. Impact 479 SF within the duly designated 100-foot prime wetland buffer of Portsmouth Prime Wetland 061B in order to install an outlet pipe with riprap outlet protection. Temporarily impact a total of 3,591 SF of previously developed upland tidal buffer zone and the 100-foot prime wetland buffer of Prime Wetland 061B for construction access and installation of native vegetation. Impacts within the protected shoreland permitted under separate cover.

THIS PERMIT IS SUBJECT TO THE FOLLOWING PROJECT-SPECIFIC CONDITIONS:

1. All work shall be done in accordance with the approved plans dated June 27, 2022, and revised through January 4, 2023, by TFMoran, Inc., and received by the NH Department of Environmental Services (NHDES) on January 11, 2022, 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 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. In accordance with Env-Wt 307.07, 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.
4. 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).
5. 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).
6. 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.

7. 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.
8. In accordance with Env-Wt 307.03(c)(2), water quality control measures shall be comprised of wildlife-friendly erosion control materials if erosion control blankets are utilized.
9. 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.
10. 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.
11. 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.
12. In accordance with Env-Wt 307.05(e), to prevent the use of soil or seed stock containing nuisance or invasive species, the contractor responsible for work shall follow Best Management Practices for the Control of Invasive and Noxious Plant Species (Invasive Plant BMPs).
13. 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.
14. 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.
15. In accordance with Env-Wt 307.11(e), fill shall be not placed so as to direct flows onto adjacent or down-current property.
16. In accordance with Env-Wt 307.12(i), 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.
17. In accordance with Env-Wt 307.12(f), if any impact areas that are stabilized with seeding or plantings does not have at least 75% successful establishment of wetlands vegetation after 2 growing seasons, the area shall be replanted or reseeded, as applicable.
18. In accordance with Env-Wt 307.03(e), all exposed soils and other fills shall be permanently stabilized within 3 days following final grading.
19. 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.
20. 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.
21. 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.
22. In accordance with Env-Wt 307.03(h), equipment shall be staged and refueled outside of jurisdictional areas (unless allowed) and in accordance with Env-Wt 307.15.
23. In accordance with Env-Wt 307.18(c), a report that describes the monitoring conducted and date(s) of inspections, and includes photos showing the extent of jurisdictional impacts, areas of restoration, and progress of any plantings shall be submitted to the department within 60 days of the completion of construction.

THIS PERMIT IS SUBJECT TO THE FOLLOWING GENERAL CONDITIONS:

1. Pursuant to RSA 482-A:12, a copy of this permit shall be posted in a secure manner in a prominent place at the site of the approved project.
2. In accordance with Env-Wt 313.01(a)(5), and as required by RSA 482-A:11, II, work shall not infringe on the property rights or unreasonably affect the value or enjoyment of property of abutting owners.
3. In accordance with Env-Wt 314.01, a standard permit shall be signed by the permittee, and the principal contractor who will build or install the project prior to start of construction, and will not be valid until signed.
4. In accordance with Env-Wt 314.03(a), the permittee shall notify the department in writing at least one week prior to commencing any work under this permit.
5. In accordance with Env-Wt 314.08(a), the permittee shall file a completed notice of completion of work and certificate of compliance with the department within 10 working days of completing the work authorized by this permit.
6. In accordance with Env-Wt 314.06, transfer of this permit to a new owner shall require notification to, and approval of, the NHDES.
7. The permit holder shall ensure that work is done in a way that protects water quality per Env-Wt 307.03; protects fisheries and breeding areas per Env-Wt 307.04; protects against invasive species per Env-Wt 307.05; meets dredging activity conditions in Env-Wt 307.10; and meets filling activity conditions in Env-Wt 307.11.
8. This project has been screened for potential impact to known occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or only cursory surveys have been performed, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species. This permit does not authorize in any way the take of threatened or endangered species, as defined by RSA 212-A:2, or of any protected species or exemplary natural communities, as defined in RSA 217-A:3.
9. In accordance with Env-Wt 307.06(a) through (c), no activity shall jeopardize the continued existence of a threatened or endangered species, a species proposed for listing as threatened or endangered, or a designated or proposed critical habitat under the Federal Endangered Species Act, 16 U.S.C. §1531 et seq.; State Endangered Species Conservation Act, RSA 212-A; or New Hampshire Native Plant Protection Act, RSA 217-A.
10. In accordance with Env-Wt 307.02, and in accordance with federal requirements, all work in areas under the jurisdiction of the U.S. Army Corps of Engineers (USACE) shall comply with all conditions of the applicable state general permit.

APPROVED:

Kristin L. Duclos
Wetland Specialist, Wetlands Bureau
Land Resources Management, Water Division

THE SIGNATURES BELOW ARE REQUIRED TO VALIDATE THIS PERMIT (Env-Wt 314.01).

PERMITTEE SIGNATURE (required)

PRINCIPAL CONTRACTOR SIGNATURE (required)

The State of New Hampshire

Department of Environmental Services

Robert R. Scott, Commissioner

March 08, 2023

RECEIVED
MAR 13 2023
By

KATARA LLC
C/O REBECCA ROWE
274 MILLER AVE
PORTSMOUTH NH 03801

Re: Wetlands Bureau, NHDES File Number: 2022-01875
Subject Property: 70 Pleasant Point Dr, Portsmouth, Tax Map #207, Lot #15

Dear Ms. Rowe:

The New Hampshire Department of Environmental Services (NHDES) received a prime wetland waiver request as part of the Wetlands Permit Application for proposed work at the above-referenced property. The project demonstrated no net loss to the prime wetland functions and values as identified by the municipality. As a result, the prime wetland waiver was not necessary for this project and the check is being returned to you.

If you have any questions, please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516.

Sincerely,

Kristin L. Duclos
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

cc: Municipal Clerk/Conservation Commission
TF Moran, Inc.
Hoefle, Phoenix, Gormley, & Roberts, PLLC

The State of New Hampshire

Department of Environmental Services

Robert R. Scott, Commissioner

RECEIVED
MAR 13 2023
By

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SHORELAND IMPACT PERMIT 2017-02665

NOTE CONDITIONS

PERMITTEE: **STEPHEN H. ROBERTS, ESQ., TRUSTEE OF THE ADL 325 LITTLE HARBOR ROAD TRUST**
127 PARROTT AVE
PORTSMOUTH NH 03801

PROJECT LOCATION: **325 LITTLE HARBOR ROAD, PORTSMOUTH**
TAX MAP #205, LOT #2

WATERBODY: **PISCATAQUA RIVER**

AMENDEMENT DATE: **MARCH 07, 2023**

ORIGINAL APPROVAL DATE: **FEBRUARY 26, 2018** **EXPIRATION DATE:** **FEBRUARY 26, 2028**

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Based upon review of the above referenced application, in accordance with RSA 483-B, a Shoreland Impact Permit was issued by the New Hampshire Department of Environmental Services (NHDES). This permit shall not be considered valid unless signed as specified below.

PERMIT DESCRIPTION: Impact 71,671 square feet of protected shoreland outside the tidal buffer zone to replace the existing residential structure, construct a permeable paver drive, grading, utilities, and reconfigure and construct outbuildings.

THIS APPROVAL IS SUBJECT TO THE FOLLOWING PROJECT SPECIFIC CONDITIONS:

1. AMENDED: All work shall be in accordance with plans by TF Moran and MSC a division of TF Moran dated September 29, 2021, and revised through September 23, 2022 as received by the NH Department of Environmental Services (NHDES) on February 21, 2023.
2. The proposed structures shall not be constructed until any approval as may be required under RSA 485-A and Rules Env-Wq 1000 is obtained from NHDES Subsurface Systems Bureau.
3. Orange construction fencing shall be installed at the limits of the temporary impact area as shown on the approved plans prior to the start of work and shall be maintained throughout the project in order to prevent accidental encroachment into areas in which impacts have not been approved.
4. No more than 6.8% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from NHDES.
5. Native vegetation within an area of at least 64,773 sq. ft. within the Natural Woodland Buffer located between 50 and 150 ft. landward of the reference line shall be retained in an unaltered state in order to comply with RSA 483-B:9, V, (b), (2).
6. Erosion and siltation control measures shall be installed prior to the start of work, be maintained throughout the project, and remain in place until all disturbed surfaces are stabilized.
7. Erosion and siltation controls shall be appropriate to the size and nature of the project and to the physical

characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters.

8. No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Wq 1700.
9. Any fill used shall be clean sand, gravel, rock, or other suitable material.
10. Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tack or netting and pinning on slopes steeper than 3:1.
11. The individual responsible for completion of the work shall utilize techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
12. This permit shall not be interpreted as acceptance or approval of any impact that will occur within wetlands jurisdiction regulated under RSA 482-A including all wetlands, surface waters and their banks, the tidal-buffer zone, and sand dunes. The owner is responsible for maintaining compliance with RSA 482-A and Administrative Rules Env-Wt 100 - 900 and obtaining any Wetland Impact Permit that may be required prior to construction, excavation or fill that will occur within Wetlands jurisdiction.
13. This permit shall not preclude NHDES from taking any enforcement or revocation action if NHDES later determines that any of the structures depicted as "existing" on the plans submitted by the applicant were not previously permitted or grandfathered.

GENERAL CONDITIONS THAT APPLY TO ALL NHDES SHORELAND IMPACT PERMITS:

1. A copy of this permit shall be posted on site during construction in a prominent location visible to inspecting personnel;
2. This permit does not convey a property right, nor authorize any injury to property of others, nor invasion of rights of others;
3. The NHDES Wetlands Bureau shall be notified upon completion of work;
4. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits, and/or consult with other agencies as may be required (including US EPA, US Army Corps of Engineers, NH Department of Transportation, NH Division of Historical Resources (NH Department of Cultural Resources), NHDES Alteration of Terrain, etc.);
5. Transfer of this permit to a new owner shall require notification to and approval by NHDES;
6. This permit shall not be extended beyond the current expiration date;
7. This project has been screened for potential impacts to **known** occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have only received cursory inventories, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species.

APPROVED:

David Price

David Price
Shoreland Program
Land Resources Management

==========

BY SIGNING BELOW I HEREBY CERTIFY THAT I HAVE FULLY READ THIS PERMIT AND AGREE TO ABIDE BY ALL PERMIT CONDITIONS.

OWNER'S SIGNATURE (required)

CONTRACTOR'S SIGNATURE (required)

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

March 01, 2023

RECEIVED
MAR 07 2023
By

PORTSMOUTH MUNICIPAL CLERK/CONSERVATION COMMISSION
1 JUNKINS AVE
PORTSMOUTH NH 03801

Re: Received Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2023-00463
Subject Property: 43 Holmes Court, Portsmouth, Tax Map #101, Lot #14

Dear Sir or Madam:

On February 28, 2023, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau received the above-referenced Standard Dredge and Fill Wetlands Permit Application (Application). On March 1, 2023, NHDES determined the Application was administratively complete in accordance with RSA 482-A:3, XIV. *Please note this letter is **not** a permit or authorization to begin work.*

Pursuant to RSA 482-A:11, III, if notification by a local conservation commission, local river management advisory committee, or the New Hampshire Rivers Council pursuant to this paragraph is not received by the department within 14 days (**March 9, 2023**) following the date the notice is filed with the municipal clerk, the department shall not suspend its normal action, but shall proceed as if no notification has been made. Please include the NHDES file number on the written notification.

Please provide a copy of this letter to all local level departments, boards, and commissions. Pursuant to current state laws and regulations, NHDES is not authorized to consider local zoning and regulatory issues pertaining to a project. These issues must be addressed at the local level.

If you have any questions, please contact the Wetlands Bureau at (603) 271-2147.

Sincerely,

Rumi Shrestha
Application Receipt Center, Wetlands Bureau
Land Resources Management, Water Division

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

February 28, 2023

RECEIVED
MAR 07 2023
By

KATHRYN L/ STEPHEN A SINGLAR
21 ELIOT ST
EXETER NH 03833

Re: Administratively Incomplete Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2023-00463
Subject Property: 43 Holmes Court, Portsmouth, Tax Map #101, Lot #14

Dear Applicant:

On February 28, 2023, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau received the above-referenced Standard Dredge and Fill Wetlands Permit Application (Application). On February 28, 2023, the NHDES Wetlands Bureau determined the Application was administratively incomplete, as it did not include the minimum information required under Env-Wt 312.02 for technical review. The following information was missing:

- The completed, dated, signed, and certified Standard Dredge and Fill Wetlands Permit Application Form (NHDES-W-06-012; Env-Wt 311.03(b)(1)):
  - Section 15 – Required Signature(s) (Env-Wt 311.11):
    - Property owner
    - Agent

Please submit all required information to the NHDES Wetlands Bureau within 60 days of the date of this notice to file an administratively complete Application. In accordance with applicable statutes and regulations, a copy of the required information or modified elements of the Application must be provided to the municipal clerk and all other interested parties. If the required information is not received by April 28, 2023, the Application will be denied in accordance with RSA 482-A:3, XIV(a)(1). Please include NHDES Wetlands Bureau file number 2023-00463 with your submission.

If you have any questions, please contact the Wetlands Bureau at (603) 271-2147.

Sincerely,

Brandy Holmes

Brandy Holmes
Application Receipt Center, Wetlands Bureau
Land Resources Management, Water Division

cc: Eric Saari, Altus Engineering, Inc.
Municipal Clerk/Conservation Commission